

Final

REMOVAL ACTION REPORT

**Argonaut Mine Headframe Area
Jackson, Amador County, California**



Prepared for:
U.S. Environmental Protection Agency
Region 9, Emergency Response Section
EPA Contract Number: 68HE0919D0002
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Prepared by:





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LIST OF ABBREVIATIONS AND ACRONYMS

≤	less than or equal to
%	percent
μm	micrometer
ACM	asbestos-containing material
APN	assessor's parcel number
ASC	Anthropological Studies Center
bgs	below ground surface
BMP	best management practice
CFR	Code of Federal Regulations
COPC	contaminants of potential concern
CY	cubic yard
DMP	data management plan
DQI	data quality indicator
DQO	data quality objective
DTSC	Department of Toxic Substances Control
DU	decision unit
E&E	Ecology & Environment, Inc.
EPA	U.S. Environmental Protection Agency
ERRS	Emergency and Rapid Response Services
ERS	Emergency Response Section
Eurofins	Eurofins TestAmerica Laboratories, Inc.
FOSC	Federal On-Scene Coordinator
ft	feet
Geosyntec	Geosyntec Consultants
GPS	global positioning system
ICP-MS	inductively coupled plasma-mass spectrometry
IDW	investigation-derived waste
Kettleman	Waste Management – Kettleman Hills Hazardous Waste Facility
kg	kilogram
LCS	laboratory control sample
LCSD	laboratory control sample duplicate

LIST OF ACRONYMS AND ABBREVIATIONS (Continued)

MCE	mixed cellulose ester
mg/kg	milligrams per kilogram
mg/m ³	milligrams per cubic meter
mm	millimeter
MS/MSD	matrix spike/matrix spike duplicate
N/A	Not applicable
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PEL	permissible exposure limit
PPE	personal protective equipment
QA	quality assurance
QC	quality control
RCRA	Resource Conservation and Recovery Act
RL	reporting limit
RML	Removal Management Level
RPD	relative percent difference
RSL	Regional Screening Level
SAP	Sampling and Analysis Plan
SRM	standard reference material
START	Superfund Technical Assessment and Response Team
TAL	target analyte metals
TCLP	Toxicity Characteristic Leaching Procedure
TPH	total petroleum hydrocarbons
TPH-d	total petroleum hydrocarbons as diesel
TPH-g	total petroleum hydrocarbons as gasoline
TPH-o	total petroleum hydrocarbons as motor oil
TSI [®]	TSI Incorporated
TWA	time-weighted average
URS	URS Corporation
VOC	volatile organic compound

LIST OF ACRONYMS AND ABBREVIATIONS (Continued)

WESTON®	Weston Solutions, Inc.
XRF	X-ray fluorescence

Executive Summary

The U.S. Environmental Protection Agency (EPA) Region 9 Federal On-Scene Coordinator (FOSC), Jeremy Johnstone, tasked Weston Solutions, Inc (WESTON®), under Superfund Technical Assessment and Response Team (START) Contract number 68HE0919D0002 and Task Order 68HE0920F0073, to support the removal action at the Argonaut Mine Headframe Area Site (hereinafter referred to as the Site) located in Jackson, Amador County, California. The Argonaut Mine Headframe Area is part of the larger Argonaut Mine Superfund Site. A Site location map is provided on Figure ES-1 and the site layout is shown on ES-2.

In 2014, EPA assessed contamination in surface and shallow subsurface soil from 18 locations in the western and eastern portions of the Mill Area at the Site. Arsenic, lead, and mercury were found in concentrations significantly exceeding their respective action levels. Samples collected in the western Mill Area, near the mill buildings and mine shaft, had arsenic concentrations ranging from 154 milligrams per kilogram (mg/kg) to 743 mg/kg; lead concentrations ranging from 8.2 mg/kg to 47,200 mg/kg; and mercury concentrations ranging from 0.24 mg/kg to 348 mg/kg. Samples collected near the former 40-stamp mill and possible tailings area in the eastern portion of the Mill Area had lead concentrations ranging from 41 mg/kg to 2,920 mg/kg and mercury concentrations ranging from 4.3 mg/kg to 111 mg/kg. Many of the results greatly exceeded EPA's Regional Screening Level (RSL) for arsenic, lead, and mercury. It was determined that areas surrounding the significant exceedances needed to be further assessed for arsenic, lead, and mercury contamination for a potential removal action.

In February 2020 and July 2020, START performed a Removal Assessment at the Site, collecting 249 discrete soil samples and 28 duplicates. Eleven of the soil samples were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) metals. Three samples of other material (brick, ceramic, and metal) were collected. All samples were analyzed for Target Analyte List (TAL) metals by EPA Method 6010B and for mercury by EPA Method 7471A. Five additional samples of building material were submitted for asbestos analysis. Lead exceeded the EPA non-carcinogenic residential Removal Management Level (RML) and Regional Screening Level (RSL) of 400 mg/kg in 37 samples and exceeded 10,000 mg/kg in five samples. Arsenic exceeded the Argonaut site-specific screening level of 100 mg/kg in 108 samples, with detected

concentrations ranging from 3.3 mg/kg to 1,600 mg/kg. Mercury exceeded the EPA RSL of 12 mg/kg in eight samples, with detected concentrations ranging from 0.12 mg/kg to 260 mg/kg. A ceramic crucible was sampled and was found to contain lead at a concentration of 67,000 mg/kg. Two of the samples of building materials collected were positive for asbestos at 35 percent (%) chrysotile. Assessment results are presented on Figure ES-3 and Figure ES-4.

After reviewing the various assessments, EPA determined current concentrations of arsenic, lead, and mercury were extremely elevated in the shallow surface soils of the Argonaut Mine Headframe Area, and that the Site warranted a removal action to protect human health and the environment. EPA's overall removal action objective at the Site was to significantly reduce or eliminate exposure to arsenic, lead, and mercury contamination that may pose an imminent and substantial endangerment to human health and/or the environment.

Between June 1, 2021 and July 13, 2021, the EPA Region 9 Emergency Response Section (ERS), START, and Emergency and Rapid Response Services (ERRS) contractors completed contaminated soil removal and Site restoration at the Argonaut Mine Headframe Area. Thirty-three discrete surface soil samples were collected and field-analyzed via SW-846 Method 6200 using an Olympus Delta X-ray fluorescence (XRF) spectrometer to fill in data gaps and help guide excavation operations. Samples were submitted to Eurofins TestAmerica Laboratories, Inc. (Eurofins) in Phoenix, Arizona, for definitive analysis at a rate of 10% to support field data. Generally, areas were excavated to 12 inches below ground surface (bgs) with a few areas of higher concentrations being excavated to 18 inches bgs. Five-point composite confirmation soil samples were collected at excavation limits from an area no greater than 2,500 square feet and were field-analyzed via SW-846 Method 6200 using an XRF spectrometer to document concentrations of arsenic, lead, and mercury left in place. Excavation limit confirmation samples were also submitted to Eurofins for definitive analysis at a rate of 10% to support field data. Twenty-nine excavation limit confirmation soil samples were collected during the removal action. Construction fencing was laid at excavation limits prior to backfilling when field-analyzed data exceeded lead in soil concentration of 400 mg/kg. Investigative soil sampling results from 2020 and 2021 events are presented on Figure ES-5 and Figure ES-6.

Excavated soil was removed from the Site and transported to its final disposal repository based on its hazardous or nonhazardous waste designation, and the Project area was backfilled and compacted. Historical field screening and laboratory-analyzed soil sample results, including TCLP analysis, were used to arrange for proper disposal of contaminated soil excavated from the Site by ERRS.

Prior to delivery to the Site, a composite sample was collected from approximately 500 cubic yards (CY) of backfill material. Composite samples were comprised of five discrete soil aliquots located with a bias to equal distribution within each sampling decision unit (DU). Approximately 2 ounces of soil was collected using a clean, stainless steel hand auger or trowel from each soil aliquot location and was placed into a plastic, sealable sampling bag and homogenized in the field. Increments were selected from five randomly selected locations within the 500 CY of backfill material for sampling and analysis. The sample was observed for non-parent material (i.e., debris) and field-screened for metals using a handheld Olympus Delta Professional XRF spectrometer in accordance with the manufacturer's guidance. Four samples, two from each backfill source, were field analyzed for arsenic, lead, and mercury. One sample was shipped to Eurofins under chain-of-custody for definitive analysis to validate field screening data. Results were less than EPA RSLs for unrestricted use and were within the normal background range for regional soils.

Throughout the removal action, EPA ensured that workers and community members were protected from exposure to arsenic, lead, and mercury contamination. Construction best management practices (BMPs) were implemented to minimize exposure to particulate matter and run-off from precipitation events. Water was applied to newly excavated areas to keep them moist and to prevent particulates from becoming airborne. During intrusive operations, perimeter air monitoring and air sampling were conducted using a series of air monitoring/sampling stations positioned around the area to be excavated. Perimeter air monitoring/sampling stations consisted of a TSI[®] Incorporated (TSI) DustTrak[™] aerosol monitor and a Gilian GilAir-5 sampling pump.

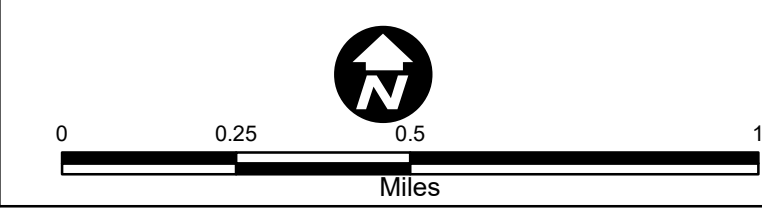
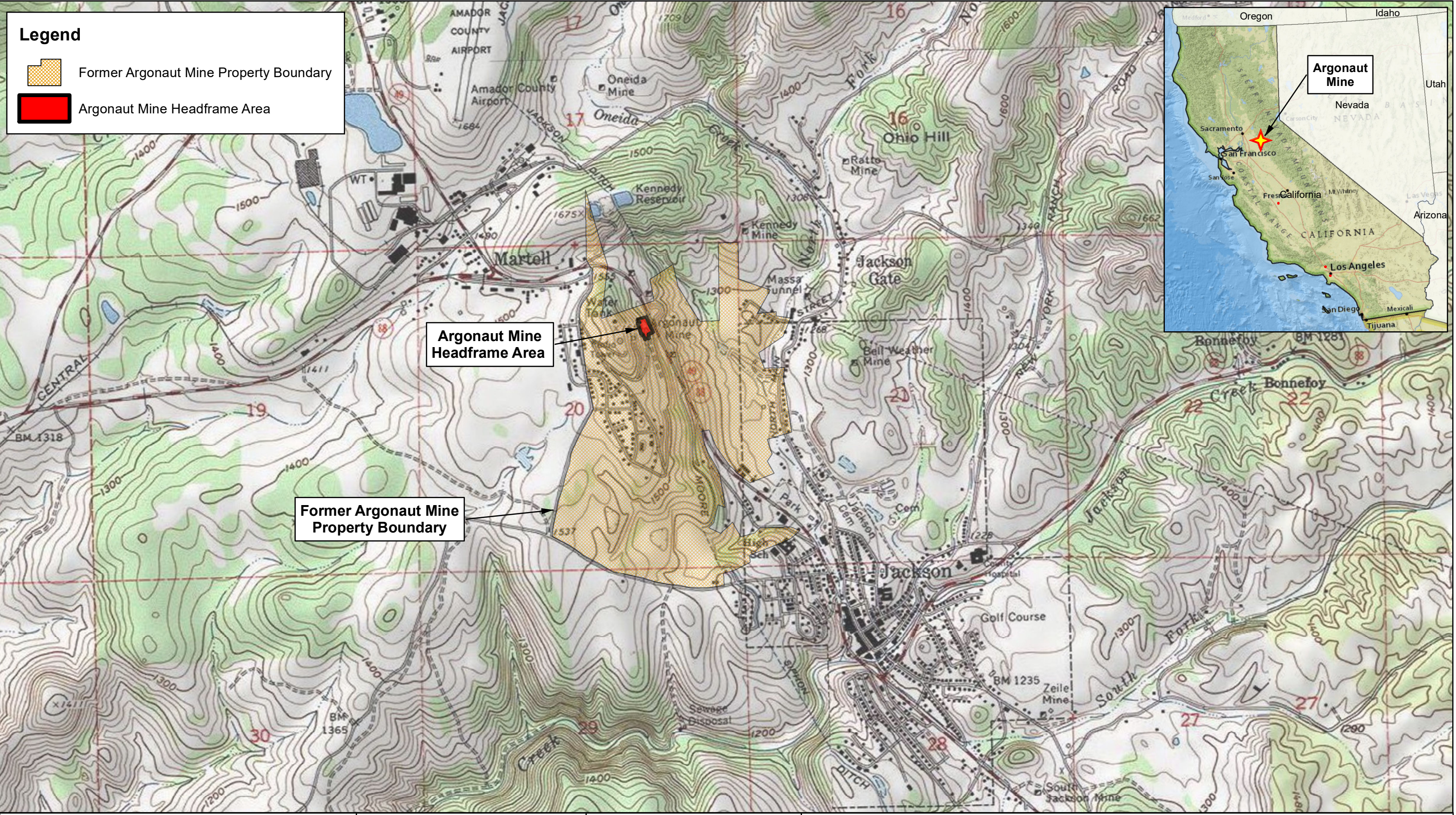
Air samples collected during intrusive operations were submitted to Eurofins for definitive analysis for arsenic and lead via National Institute for Occupational Safety and Health (NIOSH)

Method 7300, and mercury via Occupational Safety and Health Administration (OSHA) Method 145. Laboratory definitive analyses were used to draw correlations between particulate air monitoring data and arsenic, lead, and mercury in air sampling data, in order to verify that real-time air monitoring was protective of the community and worker health and safety. After analyzing data from intrusive field operations, EPA determined that real-time air monitoring results were adequate to determine the effectiveness of Site engineering controls and to ensure the protection of workers and the community from airborne contaminants. No project-related particulate screening level or arsenic, lead, or mercury action level exceedances occurred during intrusive operations. Site-specific particulate screening levels were calculated using maximum arsenic, lead, and mercury concentrations from previous investigations at the Site. The highest total particulate time-weighted average (TWA) observed during the removal action was 0.053 milligrams per cubic meter (mg/m^3), which was well below the site-specific screening level established for the project as $0.316 \text{ mg}/\text{m}^3$.

Air samples were collected to support air monitoring data to ensure that construction BMPs were protective of workers and the community. A total of 102 air samples were laboratory-analyzed, producing definitive results for arsenic, lead, and mercury in air. Sample results were compared to the 8-hour TWA OSHA permissible exposure limit (PEL) of $0.05 \text{ mg}/\text{m}^3$ for lead and $0.01 \text{ mg}/\text{m}^3$ for arsenic and mercury. The laboratory-analyzed sample with the highest concentration of arsenic had a value of $0.00113 \text{ mg}/\text{m}^3$, the highest concentration of lead had a value of $0.000793 \text{ mg}/\text{m}^3$, and the highest concentration of mercury had a value of $0.00011 \text{ mg}/\text{m}^3$. Generally speaking, results from total particulate monitoring data and laboratory-analyzed arsenic, lead, and mercury in air were orders of magnitude lower than regulatory standards. Safety measures established for the project were more than adequate to protect both workers and the community.

Presently, human health exposure risk was vastly reduced at the Site because remaining arsenic, lead, and mercury contamination left in place is buried beneath at least 1 foot (ft) of restoration materials. A risk to utility workers who may have to excavate to more than 1-ft bgs does still exist; however, safety measures are in place for their protection. Construction fencing has been laid to demarcate the excavation limit and warn future utility workers that lead-contaminated soil may be found beneath the visual barrier where concentrations of lead in soil at the excavation

limit exceeded 400 mg/kg. Although the current risk of exposure has been vastly reduced, future maintenance of the Site may be needed if erosion is significant.



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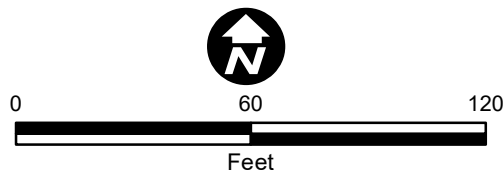
FIGURE ES-1
SITE LOCATION MAP
Argonaut Mine Headframe Area Removal
Jackson, Amador County, California

Legend

- Argonaut Mine Headframe Area
- Building Footprints
- Site Features
- Caltrans Right-of-Way (Approximate)
- Concrete Foundation Areas
- Excavation and Site Restoration Boundary



NOTE:
Concrete foundation areas not excavated.



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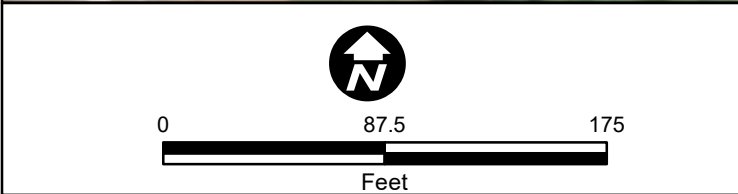
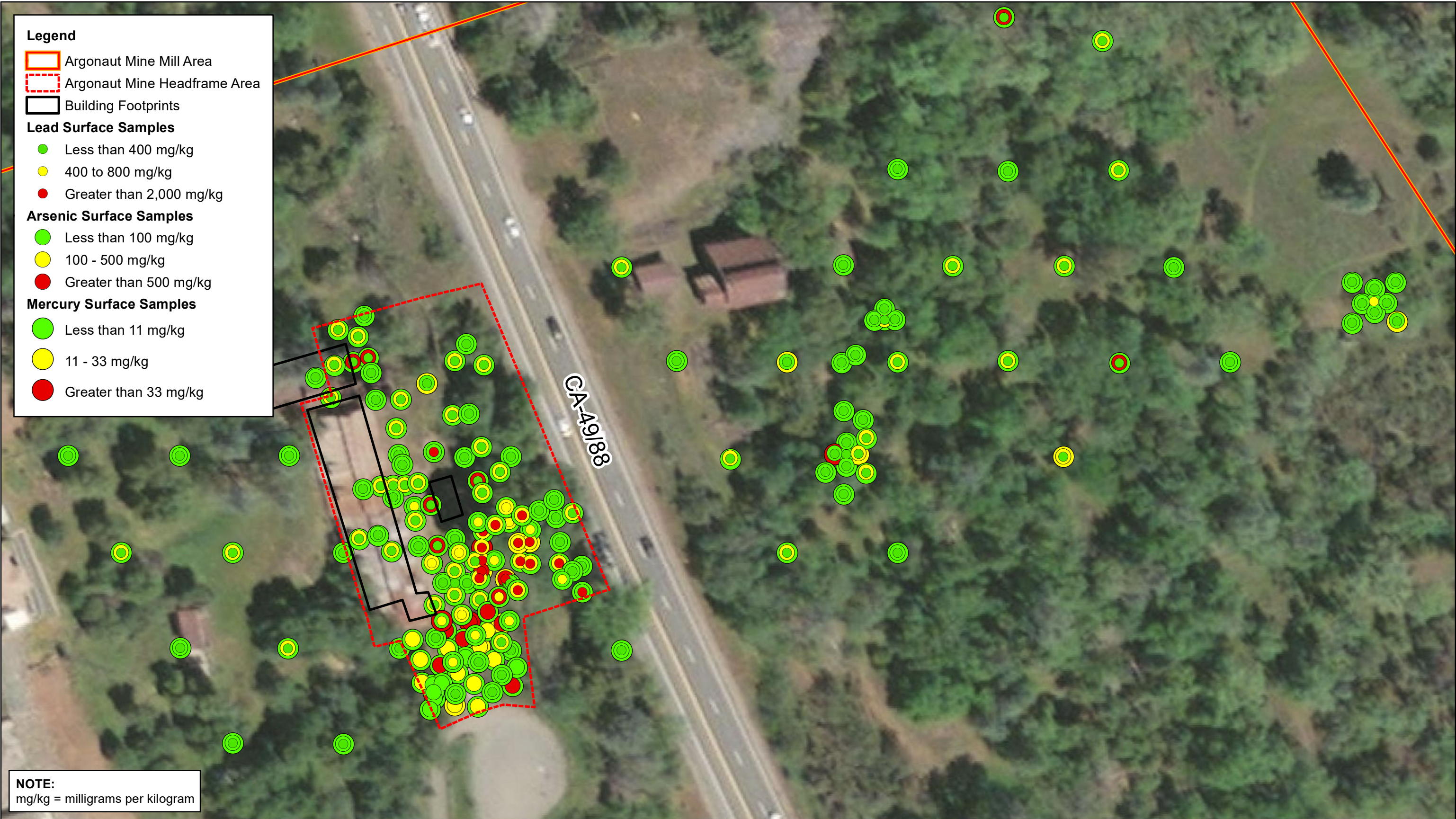


FIGURE ES-2
SITE LAYOUT MAP
Argonaut Mine Headframe Area Removal
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FIGURE ES-3
2020/2021 SITE ASSESSMENT SURFACE SOIL SAMPLING RESULTS
Argonaut Mine Headframe Area Removal
Jackson, Amador County, California




Legend

 Argonaut Mine Mill Area
 Argonaut Mine Headframe Area
 Building Footprints




Lead Subsurface Samples

-  Less than 400 mg/kg
-  400 - 2000 mg/kg
-  Greater than 2000 mg/kg

Arsenic Subsurface Samples

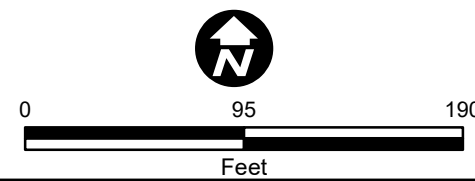
-  Less than 100 mg/kg
-  100 - 500 mg/kg
-  Greater than 500 mg/kg

Mercury Subsurface Samples

-  Less than 11 mg/kg
-  11 - 33 mg/kg
-  Greater than 33 mg/kg



NOTE:
mg/kg = milligrams per kilogram



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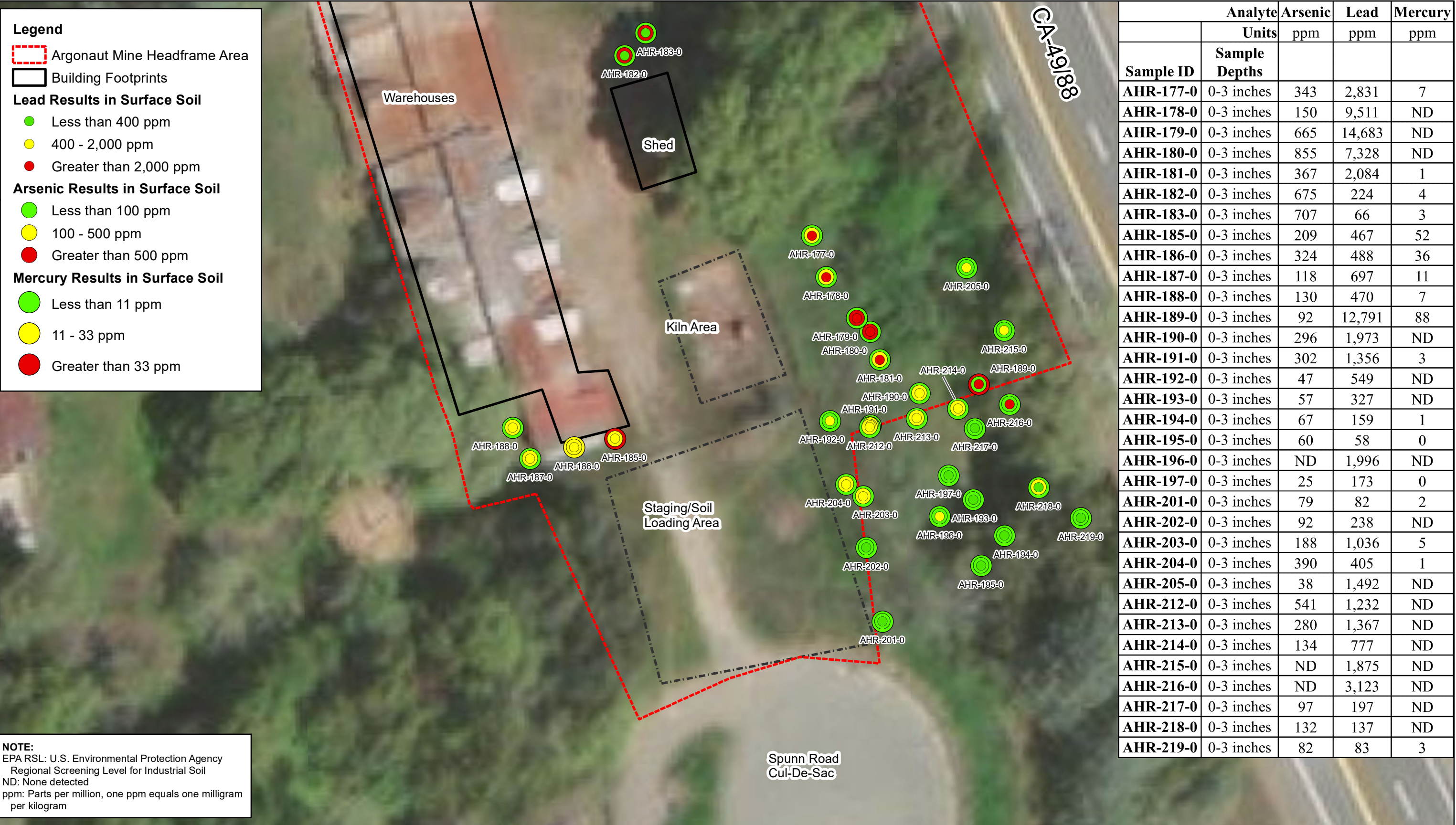


FIGURE ES-4
2020/2021 SITE ASSESSMENT SUBSURFACE SOIL SAMPLING RESULTS
Argonaut Mine Headframe Area Removal
Jackson, Amador County, California



1. INTRODUCTION

The U.S. Environmental Protection Agency (EPA) Region 9 Federal On-Scene Coordinator (FOSC), Jeremy Johnstone, tasked Weston Solutions, Inc. (WESTON®), under Superfund Technical Assessment and Response Team (START V) Contract number 68HE0919D0002 and Task Order number 68HE0920F0073, to support the removal action at the Argonaut Mine Headframe Area (hereinafter referred to as the Site) located in Jackson, Amador County, California (Figure 1). The geographic coordinates for the centroid of the Site are 38°21'46.69"N and 120°47'8.31"W. EPA is concerned about arsenic, lead, and mercury concentrations in soil at the Headframe Area based on the Argonaut Mine Headframe Area Removal Assessment Report (WESTON, 2020). The Site layout is shown on Figure 2 with the estimated removal area highlighted.

In July 2014 and August 2014, EPA collected surface and shallow subsurface soil samples from 18 locations in the western and eastern portions of the Mill Area at the Site (Figure 3) during an assessment. Six samples significantly exceeded the respective action levels for arsenic, lead, and/or mercury. Samples collected in the western Mill Area, near the mill buildings and mine shaft, had arsenic concentrations ranging from 154 milligrams per kilogram (mg/kg) to 743 mg/kg, lead concentrations ranging from 8.2 mg/kg to 47,200 mg/kg, and mercury concentrations ranging from 0.24 mg/kg to 348 mg/kg. Samples collected near the former 40-stamp mill and possible tailings area in the eastern portion of the Mill Area had lead concentrations ranging from 41 mg/kg to 2,920 mg/kg and mercury concentrations ranging from 4.3 mg/kg to 111 mg/kg. No arsenic concentration was above the EPA site-specific screening level of 100 mg/kg in these samples. The site-specific screening level for arsenic was determined to be appropriate by EPA after conducting an in vitro bio-accessibility assay of soil and tailings samples collected from the Site and surrounding areas. The site-specific screening level for arsenic used a 20 percent (%) bioavailability factor and an estimated excess cancer risk of 10⁻⁴ for a residential scenario (WESTON, 2015). It was determined during the assessment that areas surrounding the significant exceedances needed to be further assessed for mercury, lead, and arsenic contamination for a potential removal action.

In February 2020 and July 2020, START performed a Removal Assessment at the Site. START collected 249 discrete soil samples and 28 duplicates from the Site. Eleven of the soil samples were

analyzed for Toxicity Characteristic Leaching Procedure (TCLP) metals. Three samples of other material (brick, ceramic, and metal) were collected. Samples were analyzed for Target Analyte List (TAL) metals by EPA Method 6010B and mercury by EPA Method 7471A. Five additional samples of building material were submitted for asbestos analysis. Lead exceeded the EPA non-carcinogenic residential soil Removal Management Level (RML) and Regional Screening Level (RSL) of 400 mg/kg in 37 samples and exceeded 10,000 mg/kg in five samples. Arsenic exceeded the Argonaut site-specific screening level of 100 mg/kg for soil in 108 samples, with detected concentrations ranging from 3.3 mg/kg to 1,600 mg/kg. Mercury exceeded the EPA RSL of 12 mg/kg in eight soil samples, with detected concentrations ranging from 0.12 mg/kg to 260 mg/kg. A ceramic crucible was sampled and was found to contain lead at a concentration of 67,000 mg/kg. Two of the samples of building materials collected were positive for asbestos at 35% chrysotile.

After reviewing the various assessments, EPA determined current concentrations of arsenic, lead, and mercury were extremely elevated in the shallow surface soils of the Site, and that the Site warranted a removal action to protect human health and the environment. EPA's overall removal action objective at the Site was to significantly reduce or eliminate exposure to arsenic, lead, and mercury contamination that may pose an imminent and substantial endangerment to human health and/or the environment.

Between June 1, 2021, and July 13, 2021, the EPA Region 9 Emergency Response Section (ERS), START, and Emergency and Rapid Response Services (ERRS) contractors completed contaminated soil removal and Site restoration at the Site. Excavated soil was removed from the Site and transported to its final disposal repository based on its hazardous or nonhazardous waste designation, and the Project area was backfilled and compacted. This report documents the 2021 removal action, removal sampling and analysis, and restoration activities at the Site. Technical support was performed by START in accordance with the Site-Specific Sampling and Analysis Plan (SAP), Data Management Plan (DMP), and Data Quality Objectives (DQOs), documented under the cover SAP, Argonaut Mine Headframe Area Removal, Jackson, Amador County, California, April 2021 (WESTON, 2021).

2. SITE DESCRIPTION AND HISTORY

2.1 SITE LOCATION

The Site is located in the City of Jackson, Amador County, California (Figure 1). The Argonaut Mine is one of many gold mines belonging to the Mother Lode Gold Mining District (District) along the foothills of the Sierra Nevada Mountains. The Argonaut Mine, together with the Kennedy Mine, constitutes California Historical Landmark #786. The Argonaut Mining Company historically owned approximately 330 acres of land northwest of downtown Jackson. The property was sold after the mine closed, and approximately 90 acres of the former property have been developed as residential neighborhoods (Argonaut, 1907; Anthropological Studies Center [ASC], 2014).

The Headframe Area occupies approximately 2 acres of land and has shafts and buildings on the west side of Highway 49. The Headframe Area is bordered to the north by a residential building and two businesses; to the west by residential buildings; to the south by residential buildings; and to the east by Highway 49. The elevation of the Headframe Area is approximately 1,525 feet (ft) above mean sea level. The Headframe Area layout is shown in Figure 2.

The Headframe Area (above and west of Highway 49) is located on Amador County Assessor's parcel number (APN) 44-360-018 on an eastward, steeply sloped hillside with a terraced area constructed of waste rock from the former mine. The terraced area is developed with large, galvanized metal buildings and a steel hoist tower over the main mine shaft. A 1930 Sanborn Map shows the buildings were used as a hoist house, ore bin, compressor house, machine shop, steel shop, and storage area. A concrete foundation on the southern portion of the parcel appears to be the remains of an assay building that had a small furnace and a crucible dump on the slope between the building and Highway 49. The mine buildings are secured with a chain-link fence and a gated entrance from Spunn Road. A former 60-stamp mill was located uphill of the mine shaft and has been subdivided by the Argonaut Heights II residential development into more than 50 residential parcels (ASC, 2014).

2.2 SITE GEOLOGY

Gold deposits are in a north and northwest trending mile-wide belt of gray to black slate of the Mariposa Formation (Upper Jurassic age), with some interbedded coarse and locally sheared

conglomerate and minor sandy layers. Massive greenstone of the Logtown Ridge Formation (Upper Jurassic) lies west of the belt of Mariposa Formation slate. Metasedimentary rocks, chiefly graphitic schist, metachert, and amphibolites of the Calveras Formation (Carboniferous to Permian) are to the east. Several deposits of Tertiary auriferous (gold-bearing) channel gravels are exposed south of Jackson. Alluvial soils, such as Pardee cobbly loam, are found throughout the ground surface in the Jackson area. The ore deposits contain disseminated fine free gold, arsenopyrite (arsenic sulfide), and minor amounts of other sulfide minerals (URS Corporation [URS], 2009; Ecology and Environmental, Inc. [E&E], 2013).

2.3 SITE HISTORY

The Former Argonaut Mine operated as a gold mine from the 1850s until 1942. The raw ore was processed using stamp mills formerly located at the Argonaut Mine Mill Area. After 1917, the mill tailings were transported by gravity through a flume to the Argonaut Mine Tailings Area located approximately 0.5 mile south of the mill. The tailings were further treated using cyanide to extract gold, and the processed material was placed in impoundments (ASC, 2014).

Previous investigations at the Site have indicated that arsenic, lead, and mercury are present in on-site soil and tailings at concentrations exceeding EPA RSLs for Residential and Industrial soil. More than 100 residential properties have been developed on tailings or within 200 feet of tailings. Surface water from the Site drains to Jackson Creek, and wetlands are located in the tailing impoundments. In 2016 the Former Argonaut Mine was added to the National Priorities List.

The Site history and EPA assessment results from 1993 to 2013 are documented in the Argonaut Mine Tailings Pile Removal Assessment Report prepared by Ecology & Environment, Inc. (E&E) in December 2013. In July 2013, E&E assessed the Site in general accordance with the EPA-approved SAP dated July 2013. Ninety-five soil and sediment samples (including field duplicate and preparation duplicate samples) were collected and analyzed for metals using X-ray fluorescence (XRF) techniques and laboratory analyses by EPA Method 6010B. The assessment documented elevated concentrations of arsenic, lead, and mercury in semi-processed ore, tailings, and drainages at the Site.

WESTON was tasked by EPA to perform a Site Inspection to evaluate the Site using the EPA Hazard Ranking System more completely. From July 28, 2014, through August 1, 2014, WESTON collected soil, sediment, and surface water samples at the Site (Figure 3). Ninety soil samples (including nine duplicate soil samples) were collected from the surface (0- 6 inches below ground surface [bgs]) and shallow subsurface (up to 2-ft bgs) at 47 sampling locations at the Site. Soil samples were collected from nine locations at the Mill Area on the west side of Highway 49; nine locations at the Mill Area on the west side of Highway 49; five soil locations at the Tailings Area; 19 locations at residential properties; and three locations at Jackson Junior High School. Background soil samples were collected from two locations west and north of the Tailings Area. Arsenic concentrations in the samples ranged from 13.4 mg/kg to 743 mg/kg, lead concentrations in the samples ranged from 3.6 to 47,200 mg/kg, and mercury concentrations in the samples ranged from <0.1 mg/kg (non-detect) to 348 mg/kg.

2.4 PREVIOUS INVESTIGATIONS AND REMOVAL ACTIONS

Environmental sampling has been conducted at the Site by regulatory agencies since 1987. The majority of the previous investigations at the Former Argonaut Mine were focused on the Tailings Area. Conversely, the Mill Area has had minimal environmental sampling conducted by property developers at the location of the former 60-stamp mill and the property south of the former 40-stamp mill. The following is a description of the sampling events conducted at the Mill Area and brief summaries of the results:

- In 2004, a Phase I/II Environmental Site Assessment was conducted for a planned Home Depot development at the eastern portion of the Mill Area. In 2005 and 2006, additional Phase II investigations were conducted for the development project. Arsenic concentrations were documented at concentrations up to 79.9 mg/kg in surface soil samples and up to 150 mg/kg in subsurface samples. Sediment and surface water samples were collected from the Site; however, the data was not available. The reports indicate that a sediment sample collected from Jackson Creek had an arsenic concentration of 14 mg/kg, and surface water samples did not contain detectable concentrations of dissolved arsenic (Geosyntec Consultants [Geosyntec], 2006).
- In 2006, the California Department of Toxic Substances Control (DTSC) collected soil samples for analysis using XRF techniques. The XRF data indicated that arsenic contamination remained at the Site in concentrations up to 7,227 mg/kg (URS, 2009).

- In 2014, EPA collected 14 surface soil samples and eight subsurface soil samples at the location of a probable mercury amalgamation building and 17 surface soil/sediment samples and 11 subsurface soil/sediment samples collected from below the concrete Eastwood Multiple Arch Dam. The samples were analyzed for metals using XRF techniques. Arsenic concentrations ranged from 134 mg/kg to 8,557 mg/kg, and mercury was detected at concentrations up to 179 mg/kg in the soil samples collected from the probable amalgamation building. Arsenic concentrations ranged from 15 mg/kg to 2,313 mg/kg in the soil/sediment samples collected below the concrete dam (WESTON, 2015).
- In 2020, WESTON START performed a Removal Assessment in February and July. START collected 249 discrete soil samples and 28 duplicates from the Site. Eleven of the soil samples were also analyzed for TCLP metals. Three samples of other material (brick, ceramic, and metal) were collected. All samples were analyzed for TAL metals by EPA Method 6010B and mercury by EPA Method 7471A. Five additional samples of building material were submitted for asbestos analysis. Lead concentrations ranged from 1.9 mg/kg to 71,000 mg/kg, exceeding the residential RSL for soil of 400 mg/kg in 37 samples. Arsenic concentrations in soil ranged from 3.3 mg/kg to 1,600 mg/kg, exceeding the site-specific screening level of 100 in 108 samples. Mercury concentrations in soil ranged from 0.12 mg/kg to 260 mg/kg, exceeding the residential RSL of 12 mg/kg in eight samples (WESTON, 2020). Two building material samples were found to be positive for asbestos at 35% chrysotile. Figure 4 and Figure 5 show the results from the recent sampling.

3. FIELD ACTIVITIES

EPA and the ERRS and START contractors mobilized to the Site on June 1, 2021, to set up, collect background air samples, and begin the removal action. Removal of contaminated soil and the restoration of the Site were completed on July 13, 2021. A photograph log detailing field activities is presented as Appendix A.

Locations for contaminated soil excavation for the removal action were based upon historical field screening and sampling results. During the removal action, at the direction of the FOSC, further delineation of surface soil was conducted in areas where data gaps existed to help guide excavation activities. Areas with lead in soil with concentrations exceeding 2,000 mg/kg were assumed to be hazardous based on TCLP sampling previously conducted at the Site. Hazardous soil excavated from the Site was directly loaded into roll-off bins. Excavated non-hazardous soil was stockpiled on Site and was periodically loaded and removed from the Site via excavator and dump truck. Most areas were excavated to a depth of 12 inches bgs with a few areas of high concentration being excavated to 18 inches bgs. Confirmation soil sampling was performed at the excavation limit to document concentrations of arsenic, lead, and mercury left in place, prior to backfilling the excavation with clean material (soil and gravel) documented to be below established EPA RSLs for residential use. Confirmation soil samples consisted of a five-point composite sample being collected from an area no greater than 2,500 square feet. Confirmation soil samples were field analyzed using an Olympus Delta Professional XRF spectrometer via SW-846 Method 6200 with 10% of samples being sent to a laboratory for definitive analysis via SW-846 Method 6010B/7471A. Construction fencing was used to demarcate excavation limits when confirmation soil samples exceeded concentrations of 400 mg/kg lead. Excavated soil was transported to appropriate disposal facilities based on historical field screening and laboratory results for metals in soil and TCLP analysis, and in accordance with the off-site rule (40 Code of Federal Regulations [CFR] §300.440).

Background air samples were collected at the Site prior to the initiation of ground disturbing activities to obtain baseline concentrations. A series of air monitoring and air sampling stations were positioned around work areas daily to provide data on airborne particulates and arsenic, lead, and mercury in air concentrations generated during intrusive operations. Airborne particulate monitoring data and laboratory definitive results for collected air samples were used

to ensure protection of Site workers and the community at large. An archaeological monitor was present during intrusive operations in the event that cultural artifacts were unearthed during the removal action.

START documented field activities in field logbooks and field data collection devices (tablets) to manually, and electronically, document where, when, how, and from whom any vital project information was obtained. Logbook and tablet entries are complete and accurate enough to permit reconstruction of field activities. Sampling results and sample location coordinates have been uploaded to Scribe through Survey123 and Collector.

During the removal action, ERRS also conducted hazard categorization and bulking of containers/receptacles containing unknown contents left behind in buildings. The container inventory is presented in Appendix B. A pile of building materials containing less than a cubic yard of asbestos-containing material (ACM) was also removed from the Site. These materials were properly packaged and transported for disposal at appropriate waste disposal facilities.

This section summarizes community outreach, sampling, and monitoring activities, excavation operations, and subsequent restoration completed at the Site during the 2021 removal action.

3.1 SITE LAY-DOWN AREA

A lay-down area was established for the project south of the Site fence line that consisted of office trailers and roll-off bins. Hazardous waste soil was loaded directly into roll-off bins and staged on-site until full and could be transported to the appropriate waste facility for final disposition. Office trailers were used to coordinate logistics of field activities and store equipment, and to establish a location where soil samples could be field analyzed by SW-846 Method 6200 using an XRF spectrometer. The lay-down yard was inspected prior to mobilization and upon completion of Site work. No damage was observed, and the lay-down area was determined to be left in good condition.

3.2 WASTE CHARACTERIZATION

Historical field screening and laboratory-analyzed soil sample results, including TCLP analysis, were used to arrange for proper disposal of contaminated soil excavated from the Site by ERRS. Resource Conservation and Recovery Act (RCRA) soil excavated from the Site was shipped to

US Ecology, Highway 95, Beatty, Nevada and to Waste Management - Kettleman Hills Hazardous Waste Facility, 35251 Old Skyline Road, Kettleman City, California, 93239 (Kettleman). Non-RCRA California Hazardous (CALHAZ) soil excavated from the Site was also transported to Kettleman for final disposition.

3.3 SOIL SAMPLING

Backfill material samples, surface soil samples, and excavation limit confirmation soil samples were collected at the Site during the removal action. Samples were field analyzed using an Olympus Delta XRF spectrometer via SW-846 Method 6200 with 10% of the samples sent to for definitive analysis. Laboratory results were compared with field data for correlation and validation purposes. Sixty-six samples were collected from the Site during the removal action and were field analyzed using the XRF. Thirty-three samples were collected from surface soil and were used to fill in existing data gaps and aid with identifying excavation locations. Twenty-nine samples were collected from excavation limits to document arsenic, lead, and mercury concentrations left in place. Four samples were collected from backfill materials to ensure that materials used for restoration did not contain concentrations exceeding the EPA RSLs for residential soils or are equivalent to previously identified regional background soil metal concentrations. Nine soil samples, including one backfill sample, were laboratory-analyzed for TAL metals.

All sample locations were recorded in the logbook and tablet device as sampling was completed. The field sampling team documented each individual sampling location in the logbook and field tablet, including the address, the area the sample was collected with a representative sketch, Global Positioning System (GPS) coordinates of the sample, a photograph, the date and time, and names of sampling team members.

3.3.1 Sampling Procedure

Before operation of the XRF each day, the unit was allowed the manufacturer-recommended warm-up time of 25 to 30 minutes. At the beginning of the project and prior to analysis of samples each day, START performed quality control (QC) checks, including energy calibration, resolution check, background check, precision sample analysis, continuing calibration verification, and an instrument blank analysis. Initial and continuing calibration verifications

were completed using standards at and below the Site action level. To determine whether the XRF spectrometer was within resolution and stability tolerances, an energy calibration check was run with a check standard at the beginning of the day as the first XRF analysis, and at any time when the instrument detected the characteristic X-ray lines were shifting. To check the accuracy of the instrument and to assess the stability and consistency of analyses, standard reference material (SRM) samples (National Institute of Standards and Technology 2710A and 2711A) were analyzed each day the XRF unit was utilized. The measured values for each SRM sample run during field XRF analysis for the project were within $\pm 20\%$ standard deviation of the true value and were considered acceptable. Details were recorded in the field logbook. All XRF analyses were completed in accordance with the manufacturer's guidance and the *Office of Solid Waste Method 6200, Field Portable X-Ray Fluorescence Spectrometry for the Determination of Elemental Concentrations in Soil and Sediment* (EPA 2007). Once calibrated and at the end of each set of 20 samples, a source check standard and blank were analyzed to determine instrument performance. One out of every 10 samples were selected for a 50/50 split duplicate. One out of every 20 samples were selected for an analysis duplicate.

Samples were delivered to the field laboratory in heavy-duty sealable plastic bags. Upon receipt, samples were logged into the analytical logbook. Twigs, other organic matter, and rocks or pebbles were removed from the samples. Samples were homogenized while in the sample bag by kneading, crushing, and shaking the sample until mixing of the soil was complete. In the event the sample was wet, the sample was placed on new, clean aluminum foil to air dry. Once the aliquot was dried, all samples were passed through a size 250-micron sieve (#60) to remove large particles considered less respirable as airborne particulate. The remaining 250 micron-sieved aliquot was transferred to a pre-labeled polyethylene cup, covered with Mylar film, and analyzed by XRF.

After XRF field analysis had been completed, samples selected for laboratory confirmation analyses were processed for shipment to the laboratory. These samples were submitted to the laboratory in the same pre-labeled polyethylene cup with Mylar film, to be analyzed by XRF. At least 10% of all soil and backfill material samples were submitted for arsenic, lead, and mercury analysis by SW-846 Methods 6010B and 7471A. Soil sampling and analysis quality assurance (QA)/QC procedures are provided in the Removal Action SAP for the Site (WESTON, 2021).

Laboratory-analyzed soil samples collected during the removal assessment and removal action were compared against their XRF field-analyzed counterpart. Laboratory-analyzed and field-analyzed results were plotted on a graph to obtain a correlation curve, and based on the correlation curve, a correlation coefficient was calculated and applied to field-analyzed results to obtain an adjusted value. The correlation curve and associated correlation coefficient for arsenic, lead and mercury are presented in Figures 6A through 6F.

3.3.2 Backfill Sampling

Backfill for the Site was procured from two separate locations and vendors. Clean fill soil and $\frac{3}{4}$ crushed material were delivered to the Site by Hasties and sourced from the Granite Company Quarry (Broadstone) located in Sacramento, California. The 3-6 and 12 inch minus Rip-Rap material was delivered by Gold and Son and sourced from the Reed and Graham Quarry in Ione, California. Sampling and analysis of backfill materials imported and utilized by EPA during this removal action was performed prior to use as backfill material in removal excavation or in-place capping locations to confirm that RCRA 8 metal concentrations do not exceed the EPA RSLs for residential soils or are equivalent to previously identified regional background soil metal concentrations. The EPA RSLs for residential soils and regional background soil concentrations utilized as screening levels for identification of RCRA 8 metals in backfill and capping materials are provided in Table 3-1.

Upon delivery to the Site, composite samples were collected from approximately 500 CY of backfill material. Approximately 2 ounces of soil were collected using a clean, stainless steel hand auger or trowel from each soil aliquot location and placed into a plastic, sealable sampling bag and homogenized in the field. Increments were selected from five locations within the 500 CY of backfill material selected at random for sampling and analysis. The sample was observed for non-parent material (i.e., debris) and field screened for metals using a handheld Olympus Delta Professional XRF spectrometer operated in accordance with the manufacturer's guidance. Four samples, two samples from each backfill source, were field analyzed using the Olympus Delta XRF spectrometer for arsenic, lead, and mercury. One sample was shipped to Eurofins under chain-of-custody for definitive analysis to validate field screening data. Additional volume was collected in sufficient quantities for the laboratory to conduct matrix spike/matrix spike duplicate (MS/MSD) analysis. The sample was analyzed for TAL metals via SW-846 Methods

6010B and 7471A, Hexavalent chromium via SW-846 Method 7196A, volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH) as Gasoline Range Organics (TPH-g) via EPA Method 8260B, TPH as diesel (TPH-d) and motor oil (TPH-o) via SW-846 Method 8015B, Organophosphorus Pesticides via SW-846 Method 8141A, and chlorinated herbicides via SW-846 Method 8151A. The purpose of this sampling effort was to ensure that backfill materials used on-site would not present a risk to human health or the environment due to elevated concentrations of contaminants of concern.

3.3.3 Surface Sampling

Thirty-three grab samples were collected from surface soil at the Site at the direction of the FOSC to fill in data gaps where the Site needed further delineation. Discrete point judgmental soil sampling was used at specific areas of concern. Approximately 2 ounces of soil were collected using a clean, stainless steel hand auger or trowel and placed into a plastic, sealable sampling bag and homogenized. Samples were delivered to the field laboratory and field-analyzed using the Olympus Delta XRF spectrometer for arsenic, lead, and mercury via SW-846 Method 6200. Two surface soil samples were sent to Eurofins for arsenic, lead, and mercury analysis via SW-846 Methods 6010B and 7471A. Results were used to help guide excavation operations and are presented on Figure 7.

3.3.4 Excavation Limit Sampling

EPA conducted soil sampling at the limit of excavation for each excavation area prior to backfilling to document arsenic, lead, and mercury concentrations left in place. A five-point composite sample was collected from an area no greater than 2,500 square feet at the excavation limit for field analysis via SW-846 Method 6200 using an Olympus Delta Professional XRF spectrometer. Increment sample locations were selected at random and spaced equidistantly apart to provide a representative sample. Care was taken to ensure equivalent amounts of soil were collected from each increment using decontaminated hand trowels.

Twenty-nine five-point composite samples were analyzed in the field for arsenic, lead, and mercury via SW-846 Method 6200 using an XRF spectrometer. Six samples were sent to the laboratory under chain of custody for definitive confirmation analysis via SW-846 Methods 6010B and 7471A to support field XRF data for arsenic, lead, and mercury concentrations left in

place. Site documentation was performed in accordance with the Removal Action SAP (WESTON, 2021). XRF field-analyzed and laboratory-analyzed excavation limit soil sample concentrations are presented and discussed in Section 4.3 - Excavation Limit Soil Sampling Results and are illustrated on Figure 8.

3.4 EXCAVATION AND BACKFILLING OPERATIONS

On June 5, 2021, EPA began excavation of contaminated soil at the Site based on historical field analysis and soil sampling results from previous investigations. Where data gaps existed, soil samples were collected and field-analyzed to assist with excavation operations. Soil was excavated to a depth of at least 12 inches bgs and in some cases to a depth of 18 inches bgs at the discretion of the FOSC when lead in soil concentrations were deemed to be high. Excavators were used to remove soil that was placed either directly into roll-off containers or was stockpiled at the Site based on hazard designation/classification. Site soils with concentrations of lead in excess of 2,000 mg/kg were deemed hazardous based on past TCLP analysis and were loaded directly into roll-off containers. Soils with concentrations of lead less than 2,000 mg/kg were deemed non-hazardous and were stockpiled at the Site until loaded into dump trucks to be transported off-site under bill of lading for final disposition. Once roll-off containers were full, hazardous waste soil was transported from the Site under waste manifests to an appropriate waste disposal facility with RCRA Waste Code D008 designation. RCRA waste soil was disposed of at US Ecology in Beatty, Nevada, and at Kettleman. Non-RCRA CALHAZ waste soil was disposed of at Kettleman.

Once excavation was completed to final depth, confirmation soil samples were collected from excavation limits and field-analyzed using an Olympus Delta XRF spectrometer. Samples were field analyzed for total arsenic, lead, and mercury. When results for lead in soil concentrations exceeded 400 mg/kg, construction fencing was laid across the excavation to demarcate the excavation limit. The construction fencing serves as a visual barrier to warn future receptors of the potential for contaminated soil beyond the fencing. The excavation was then backfilled with clean fill material and compacted to complete restoration. Figure 8 illustrates areas of excavation and restoration at the Site.

3.5 AIR MONITORING AND SAMPLING

START conducted air monitoring and air sampling during Site excavation operations to document the concentrations of particulates being produced or migrating from work zones. Air monitoring data and air sampling results were used to confirm that engineering controls were effective in protecting workers and the community from airborne particulates and from airborne arsenic, lead, and mercury during removal operations.

Real-time particulate monitoring data was evaluated continuously to determine whether dust-suppression efforts were effective so that dust was not being produced or migrating from work zones during dust-generating activities (i.e., excavation or transportation). Airborne particulate screening levels are provided in Table 3-2 and were derived from worst-case scenario soil concentrations of arsenic, lead, and mercury at the Site based on the proportions anticipated to be in total particulates and in comparison, to the action levels for arsenic, lead, and mercury in air.

OSHA PEL of 0.01 milligrams per cubic meter (mg/m^3) for arsenic and mercury compounds and 0.05 mg/m^3 for lead compounds was utilized as the action levels for airborne particulates to prevent potential human-health exposure risks from contaminated dust. Screening action levels for arsenic, lead, and mercury in particulate samples are provided in Table 3-3.

Air sampling followed the EPA guidance document *Superfund Program Representative Sampling Guidance Volume 2: Air (Short-Term Monitoring)*, EPA 540/R-95/140 (EPA 1995). Sampling for contaminants of potential concern (COPCs) in ambient air was performed prior to (e.g., background sampling) and during all dust-generating activities to document whether airborne arsenic, lead, and mercury contaminants were produced or were migrating from work zones at concentrations above the OSHA PELs.

3.5.1 Background Air Sampling

Prior to initiation of work at the Site and any dust-generating activity, two air sampling stations were established at the Site on Tuesday, June 1, 2021, to collect background air samples. Two air sampling pumps were set up and run for 4 hours at a flow rate of 2 liters per minute collecting 480 liters of air each. Sampling pumps were set up at a known work zone and represented the standard “background” work zone conditions. Background air samples were submitted to the contract laboratory under chain-of-custody control and were used to establish the concentrations

of arsenic and lead that are naturally occurring in the air and unrelated to remedial actions at the Site.

3.5.2 Removal Action Air Monitoring and Sampling

Real-time air monitoring for particulates was conducted with DustTrak aerosol monitors. During excavation work at the Site, co-located particulate monitoring and air sampling stations were arranged to determine airborne particulate and arsenic, lead, and mercury concentrations. Data collected from both air monitoring and sampling instruments were used to determine what concentration of airborne particulates and airborne arsenic, lead, and mercury in particulates may be migrating off-site; examine exposure of on-site personnel; support personal protective equipment (PPE) decisions; and determine the effectiveness of engineering controls. Overall, Site air monitoring and air sampling ensured the health and safety of the workers and the community from potential airborne contaminants.

During each day of dust-generating excavation activities at the Site, airborne particulates were monitored, and air samples were collected at a minimum of three to four locations stationed around the perimeter of the work zone and periodically within the work zone. Co-located perimeter monitoring/sampling locations consisted of a TSI DustTrak aerosol monitor and a Gilian GilAir-5 air sampling pump.

At the beginning of each day, four TSI DustTrak aerosol monitors were positioned around the work zone where intrusive excavation activities would take place. DustTrak instruments were connected to VIPER, a network-based communication system designed to enable real-time transmission of data from field sensors to a remote computer. Air intakes and sensor probes were established at a height typical of the breathing zone and instruments were zero air calibrated prior to beginning a run. Runs were started only after ensuring that data logging was enabled on the instrument and that the instrument was successfully connected to VIPER. When an aerosol monitor was moved during the workday from one work zone to another, the time of the move and the dust reading were recorded in the logbook. The aerosol monitor and air sampler were kept together through the workday. At the end of each workday, START recorded the final time-weighted average (TWA) and downloaded data files from the aerosol monitors.

Gilian GilAir-5 air sampling pumps equipped with a 37-millimeter (mm) three-piece cassette mixed cellulose ester (MCE) 0.8 micrometer (μm) filter were evaluated at the beginning of each day and calibrated to approximately 2 liters per minute using a calibrated flow meter prior to being deployed alongside air monitoring instruments. Air sampling pumps were set up between 4 to 6 feet aboveground surface, at an adult's breathing zone height. Initial and final flow rates and elapsed time of sampling were recorded in field logbooks and on field air monitoring/sampling data sheets to calculate the total flow volume of the sample. A minimum of three air samples were collected each day of intrusive excavation operations.

At the end of each day, air filters were removed from the sampling pump, capped, and placed in a clean pre-labeled plastic bag for holding and shipment to the analytical laboratory. Air samples were shipped to the contract laboratory under chain-of-custody for arsenic, lead, and mercury analysis via SW-846 Methods 6010B/7471A. Definitive laboratory-analyzed results were used to support air monitoring data and to establish a correlation between air monitoring particulate results and air sampling arsenic, lead, and mercury results. Particulate monitoring and air sampling results are discussed in detail in Section 4-4.

3.6 INVESTIGATION-DERIVED WASTE

In the process of collecting environmental samples at the Site, several different types of potentially contaminated investigation-derived wastes (IDW) were generated, including PPE and disposable sampling equipment. The EPA's National Contingency Plan requires that management of IDW generated at sites comply with all relevant or appropriate requirements to the extent practicable. This project followed the *Management of Investigation-Derived Wastes During Site Inspections, Office of Emergency and Remedial Response Directive 9345.3-02* (EPA, 1991), which provides guidance for the management of IDW. Used PPE and disposable equipment are not considered hazardous and were double-bagged and placed in a municipal refuse dumpster. Any used PPE and disposable equipment that could possibly be reused were rendered inoperable before disposal in the refuse dumpster.

3.7 CULTURAL RESOURCES MONITORING

To avoid adverse effects to the historic property, a permitted archaeological monitor was present during new surface and ground disturbing activities. The monitor's role was to ensure avoidance

of the eligible and contributing components of the District and to identify and evaluate any subsurface features discovered during project implementation.

The monitoring effort resulted in the identification of 36 subsurface features and five artifact concentrations. Features and concentrations were recorded and photographed in situ and, in most cases, were reburied with clean soil and rock. Any potential impacts to the features and concentrations were discussed with the FOSC and measures were taken to ensure that there were no adverse effects to the historic property resulting from necessary remediation tasks. No artifacts were removed from the Site during monitoring. The Former Argonaut Mine is privately owned, and all artifacts remain the property of the owner. Unique and diagnostic artifacts that were recovered during excavation were documented by the archaeological monitor and housed on-site until the conclusion of fieldwork. The artifacts documented by the monitor were placed in a secure location on July 5, 2021, and the owner was notified. Detailed descriptions, photographs, and evaluations of new features and concentrations are presented in the Archaeological Monitoring Report in Appendix C.

3.8 UNDERGROUND UTILITIES COORDINATION

EPA coordinated with appropriate utility providers to collect as much information as possible about underground utilities prior to Site mobilization and the commencement of intrusive operations. Advance notice was provided to 811 Utilities Call Center USA North. As recommended, the Utility Call Center was contacted no less than 5 working days and no more than 28 calendar days prior to scheduled field work in order to identify and locate utilities on and near the Site. The City of Jackson conveyed their concerns regarding shallow water and sewer utilities along Spunn Road. In response to these concerns, ERRS used a camera system to snake and video utilities on Spunn Road. Metal plates were positioned over sewer lines and laterals. Utilities were documented before and after the removal action. Extreme caution was taken by crews during excavation to prevent damage to underground utilities.

3.9 SITE ACCESS, TRAFFIC CONTROL, AND COMMUNITY OUTREACH

Highway 49 was the route used by trucks to access the Site. EPA conducted community outreach asking residents to not park on half of Spunn Road for the duration of the project to allow truck

access to the Site. Community members were cooperative and respectful of EPA instruction and no traffic incidents occurred during the removal action.

3.10 EXCAVATION AND RECONSTRUCTION VOLUMES

EPA generally removed contaminated soil to 12-18 inches bgs. Contaminated soil was replaced with clean material (soil and $\frac{3}{4}$ crush) sourced from the Granite Company Pit (Broadstone) in Sacramento, California. Larger fill material (3-6 inches and 12 inches minus Rip-Rap) was sourced from the Reed and Graham Pit located in Ione, California, for use on slopes and in areas where erosion was more of a concern.

A total of 950.92 tons of waste soil was removed from the Site. A total of 303.57 tons of RCRA soil was removed from the Site, with 240.47 tons being transported to US Ecology and 63.1 tons being transported to Kettleman for final disposition. Both facilities have an RCRA Waste Code D008 designation. Another 647.35 tons of non-RCRA CALHAZ waste soil was transported to Kettleman for final disposition.

A total of 1,283.88 tons of backfill material was used to prevent future exposure to arsenic, lead, and mercury contamination at the Site. Backfill material included: 561.14 tons of clean fill; 255.33 tons of $\frac{3}{4}$ crushed; 329.27 tons of 3-6 inches; and 138.14 tons of 12 inches minus Rip-Rap.

Table 3-1
DQI Goals for Soil by Field XRF SW-846 Method 6200 and
Laboratory SW-846 Method 6010B/7471A

Contaminant of Concern	EPA RSL for Residential Soils (mg/kg)	^{1,2} 95/95 UTL Site Background Concentrations (mg/kg)	³ XRF Method Detection Limit for SW-846 6200 (mg/kg)	Reporting Limit for SW-846 6010B/7471A (mg/kg)	Accuracy (% Recovery of Check Standards)	Precision (RPD from duplicates)	% Completeness
Arsenic	100	112	10	2	75-135%	≤ 35%	≥ 90%
Lead	400	34.8	10	3	75-135%	≤ 35%	≥ 90%
Chromium	12,000	145	150	1	75-135%	≤ 35%	≥ 90%
Cadmium	7	0.824	100	0.5	75-135%	≤ 35%	≥ 90%
Barium	1,500	271	20	5	75-135%	≤ 35%	≥ 90%
Selenium	39	4.4	40	2	75-135%	≤ 35%	≥ 90%
Silver	39	N/A	70	1	75-135%	≤ 35%	≥ 90%
Mercury	23	0.0795	30	0.025	75-135%	≤ 35%	≥ 90%

Notes:

≥ = greater than or equal to ≤ = less than or equal to % = percent

95/95 UTL = 95th upper tolerance limits for shallow soil

DQI = data quality indicator

EPA = U.S. Environmental Protection Agency

mg/kg = milligrams per kilogram

N/A = not available

RPD = relative percent difference

RSL = Regional Screening Level

XRF = X-ray fluorescence

1 = Data source for arsenic, copper, lead, and zinc: Soil Background Study Report (CH2M, 2015)

2 = Data source for other parameters: Calculations performed by CH2M, dated November 6, 2015

3 = Interference free method detection limit cited in SW-846 Method 6200

Table 3-2
DQI Goals for Particulate Monitoring in Ambient Air

Contaminant of Concern	OSHA PEL (mg/m ³)	Maximum Soil Value Used for Screening Level Calculations (mg/kg)	Sample Analysis Action Limit Based on TWA for Work Period (mg/m ³)	Reporting Limit for DustTrak Aerosol Monitor (mg/m ³)
Total Particulates	5.0	71,000 Lead	0.316	0.001
		1,600 Arsenic		
		260 Mercury		

Notes:

DQI = data quality indicator

mg/m³ = milligrams per cubic meter

mg/kg = milligrams per kilogram

OSHA = Occupational Safety and Health Administration

PEL = Permissible Exposure Limit

TWA = time-weighted average

Table 3-3
DQI Goals for Particulate Sampling in Ambient Air by SW-846 Method 6010B / 7471A

Contaminant of Concern	OSHA PEL (mg/m ³)	Reporting Limit for SW-846 6010B / 7471A (mg/m ³)	Precision (RPD from duplicates)	Percent Completeness
Arsenic	0.01	0.0025	≤ 35%	≥ 90%
Mercury	0.1	0.0015	≤ 35%	≥ 90%
Lead	0.05	0.005	≤ 35%	≥ 90%

Notes:

≥ = greater than or equal to

≤ = less than or equal to

% = percent

mg/m³ = milligrams per cubic meter

OSHA = Occupational Safety and Health

Administration

PEL = Permissible Exposure Limit

RPD = relative percent difference

4. ANALYTICAL RESULTS AND DISCUSSION

START performed multimedia sampling and analysis to support EPA's decision-making process during Site work, as described in Section 3. The following sections summarize analytical results collected at the Site during the removal action.

4.1 BACKFILL MATERIAL RESULTS

Prior to Site mobilization, sources for appropriate backfill materials were identified. Upon delivery to the Site, START collected and field-screened stockpiled backfill materials for arsenic, lead, and mercury using an Olympus Delta XRF spectrometer and submitted a single sample for laboratory analysis to validate field-screened data. Sample collection is described in Section 3.3.2.

On June 10, 2021, four five-point composite samples were collected. Three backfill samples were field screened on June 11, 2021, and one backfill sample was field screened on June 14, 2021. A single sample was submitted to Eurofins for TAL metals via SW-846 Methods 6010B and 7471A, hexavalent chromium via SW-846 Method 7196A, volatile organic compounds (VOCs) and TPH-g via EPA Method 8260B, TPH-d and TPH-o via SW-846 Method 8015B, organophosphorus pesticides via SW-846 Method 8141A, and chlorinated herbicides via SW-846 Method 8151A. Field-analyzed and laboratory-definitive results collected from stockpiled backfill were typical of soil metal concentrations found in the area.

A summary of backfill material field analysis and sampling results are presented in Table 4-1. Backfill material results were compared to EPA RSLs for residential use with target hazard quotients of 1.0 (EPA 2021) prior to use on-site. Both analysis using the Olympus Delta Professional XRF spectrometer and laboratory-definitive results for arsenic, lead, and mercury confirmed that backfill material met Site standards. Field-analyzed concentrations of arsenic ranged from 8.2 to 14.8 mg/kg with the laboratory result having a concentration of 5.2 mg/kg. The field-analyzed concentration for the laboratory-analyzed sample was 11.1 mg/kg. Field-analyzed concentrations for lead ranged from 4.2 mg/kg to 11.2 mg/kg with the laboratory result having a concentration of 12 mg/kg. The field-analyzed concentration for the laboratory sample was 11.2 mg/kg. Field-analyzed concentrations of mercury ranged from non-detect to 6.6 mg/kg with the laboratory result having a concentration of 0.0086 mg/kg. The field-analyzed

concentration for the laboratory sample was non-detect. XRF spectrometer instruments are not a great indicator of mercury concentrations and, as such, these results were evaluated against laboratory-definitive results for the samples.

4.2 SURFACE SOIL SAMPLES

Thirty-three soil samples were collected from surface soil to fill in data gaps and aid in guiding excavation operations. Surface soil samples were field-analyzed using an Olympus Delta XRF spectrometer via SW-846 Method 6200 to document concentrations of arsenic, lead, and mercury. Surface soil sampling procedures are discussed in Section 3.3.3 and further detail can be found in the SAP (WESTON, 2021). Two surface soil samples were submitted to Eurofins for analysis via SW-846 Methods 6010B and 7471A.

Field-analyzed surface soil samples had arsenic concentrations ranging from non-detect to 855 mg/kg. The two laboratory-analyzed surface soil samples (AHR-196-0 and AHR-204-0) had arsenic concentrations of 67 mg/kg and 450 mg/kg. Their XRF field-analyzed counterparts had arsenic concentrations that were non-detect and 390 mg/kg, respectively. Arsenic concentrations in 19 field-analyzed surface soil samples exceeded the site-specific screening level established as 100 mg/kg.

XRF field-analyzed surface soil samples had lead concentrations ranging from 58 mg/kg to 14,683 mg/kg. The two laboratory-analyzed surface soil samples (AHR-196-0 and AHR-204-0) had lead concentrations of 1,800 mg/kg and 400 mg/kg. Their field-analyzed counterparts had lead concentrations of 1,996 mg/kg and 405 mg/kg, respectively. Lead concentrations in 15 field-analyzed surface soil samples exceeded the EPA RSL for commercial/industrial use established as 800 mg/kg (EPA, 2021).

Field-analyzed surface soil samples had mercury concentrations ranging from non-detect to 88 mg/kg. The two laboratory-analyzed surface soil samples (AHR-196-0 and AHR-204-0) had mercury concentrations of 0.84 mg/kg and 0.57 mg/kg. Their field-analyzed counterparts had mercury concentrations that were non-detect and 1 mg/kg, respectively. Mercury concentrations in two field analyzed surface soil samples (AHR-185-0 and AHR-189-0) exceeded the EPA RSL for commercial/industrial use established as 46 mg/kg (EPA, 2021). Surface soil sample results are presented on Table 4-2 and illustrated on Figure 7.

4.3 EXCAVATION LIMIT SOIL SAMPLING RESULTS

Twenty-nine soil samples were collected from the limits of the excavation and field analyzed using an Olympus Delta XRF spectrometer via SW-846 Method 6200 to document the concentrations of arsenic, lead, and mercury left in place. Excavation limit soil sampling procedures were discussed in Section 3.3.4 and further detail can be found in the SAP (WESTON, 2021). Six excavation limit confirmation soil samples were submitted to Eurofins for analysis via SW-846 Methods 6010B and 7471A.

Field-analyzed excavation limit confirmation samples had arsenic concentrations ranging from non-detect to 1,580 mg/kg. Six laboratory-analyzed excavation limit confirmation soil samples had arsenic concentrations ranging from 49 mg/kg to 450 mg/kg. Laboratory-analyzed sample results coupled with their field-analyzed counterparts are presented as follows: AHR-210-1 had a laboratory result of 280 mg/kg and a field-analyzed result of 289 mg/kg; AHR-211-1 had a laboratory result of 450 mg/kg and a field-analyzed result of 475 mg/kg; AHR-231-1 had a laboratory result of 220 and a field-analyzed result of 268 mg/kg; AHR-232-1 had a laboratory result of 49 mg/kg and a field-analyzed result of 74 mg/kg; AHR-234-1 had a laboratory result of 200 mg/kg and a field-analyzed result of 160 mg/kg; and AHR-237-1 had a laboratory result of 210 mg/kg and a field-analyzed result of 180 mg/kg. Arsenic concentrations in 22 field-analyzed excavation limit confirmation samples exceeded the site-specific screening level established as 100 mg/kg.

Field-analyzed excavation limit confirmation samples had lead concentrations ranging from 20 mg/kg to 7,583 mg/kg. Six laboratory-analyzed excavation limit confirmation soil samples had lead concentrations ranging from 190 mg/kg to 3,400 mg/kg. Laboratory-analyzed sample results coupled with their field-analyzed counterparts are presented as follows: AHR-210-1 had a laboratory result of 790 mg/kg and a field-analyzed result of 797 mg/kg; AHR-211-1 had a laboratory result of 260 mg/kg and a field-analyzed result of 264 mg/kg; AHR-231-1 had a laboratory result of 660 and a field-analyzed result of 640 mg/kg; AHR-232-1 had a laboratory result of 190 mg/kg and a field-analyzed result of 169 mg/kg; AHR-234-1 had a laboratory result of 2,300 mg/kg and a field-analyzed result of 2,174 mg/kg; and AHR-237-1 had a laboratory result of 3,400 mg/kg and a field-analyzed result of 3,410 mg/kg.

Lead concentrations in 10 field-analyzed excavation limit confirmation samples exceeded the EPA RSL for soils in commercial/industrial use established as 800 mg/kg (EPA, 2021). Fourteen field-analyzed excavation limit confirmation soil samples had lead concentrations exceeding the EPA RSL for residential soil established as 400 mg/kg and, as such, construction fencing was laid to demarcate the limit of excavation prior to backfilling at these locations. These locations are as follows: AHR-198-1; AHR-199-1; AHR-209-1; AHR-210-1; AHR-221-1.5; AHR-229-1.5; AHR-230-1; AHR-231-1; AHR-233-1; AHR-234-1; AHR-235-1; AHR-236-1; AHR-237-1; and AHR-238-1.

Field-analyzed excavation limit confirmation samples had mercury concentrations ranging from non-detect to 19 mg/kg. Six laboratory-analyzed excavation limit confirmation soil samples had mercury concentrations ranging from 0.55 mg/kg to 14 mg/kg. Laboratory-analyzed sample results coupled with their field-analyzed counterparts are presented as follows: AHR-210-1 had a laboratory result of 4.7 mg/kg and a field-analyzed result of 19 mg/kg; AHR-211-1 had a laboratory result of 1.4 mg/kg and a field-analyzed result of 1 mg/kg; AHR-231-1 had a laboratory result of 1.4 and a field-analyzed result of 11 mg/kg; AHR-232-1 had a laboratory result of 0.55 mg/kg and a field-analyzed result of 1 mg/kg; AHR-234-1 had a laboratory result of 14 mg/kg and a field-analyzed result of 7 mg/kg; and AHR-237-1 had a laboratory result of 5.2 mg/kg and a field-analyzed result of 3 mg/kg. No mercury concentrations in excavation limit confirmation soil samples exceeded the EPA RSL for soils in commercial/industrial use established as 46 mg/kg (EPA, 2021).

Excavation limit confirmation soil samples are presented on Table 4-3 and illustrated on Figure 8.

4.4 PARTICULATE MONITORING AND AIR SAMPLING RESULTS

START personnel conducted airborne particulate monitoring and air sampling during excavation in accordance with the SAP (WESTON, 2021) and the procedures discussed in Section 3.5. Particulate monitoring and air sampling were performed to ensure the health and safety of workers and the community during the excavation of contaminated soil.

OSHA has established a PEL of 0.05 mg/m³ for lead in air and a PEL of 0.01 mg/m³ for arsenic and mercury based on an 8-hour TWA (OSHA, 2017). Since airborne arsenic, lead, and mercury

concentrations can only be determined by laboratory analysis, EPA used air monitoring as a real-time proxy to ensure that airborne arsenic, lead, and mercury was not impacting workers or the community. EPA used the worst-case scenario arsenic, lead, and mercury in soil concentrations at the identified properties based on the proportions anticipated to be in total particulates and in comparison, to the action levels for lead and arsenic in air. Screening levels are presented in Table 3-2 and Table 3-3.

Real-time air monitoring also ensures that particulate concentrations are below relevant standards, as particulates themselves have the capability of impacting human health. The OSHA PEL for particulate respirable fraction is 5 mg/m³ based on an 8-hour TWA. Daily particulate monitoring consisted of positioning TSI DustTrak aerosol monitors on each side of the work zone, effectively establishing a perimeter. The particulate monitors measured total particulate matter on a real-time basis and were set to alarm when particulate concentrations exceeded screening levels. This allowed work personnel to institute the established engineering controls, including work stoppage and water application for dust suppression. During the removal action, the 8-hour TWA for particulate monitoring did not ever exceed site-specific screening levels. Air monitoring results are shown in Table 4-4. The highest TWA value for particulates observed during the removal action was 0.053 mg/m³.

Daily air sampling was co-located with air monitoring locations. Air sampling was used to verify that workers and the community were not exposed to elevated levels of airborne arsenic, lead, and mercury during excavation work, and to confirm that air monitoring could be used as a real-time proxy to ensure Site engineering controls were protective. All air samples were submitted to Eurofins for arsenic and lead analysis by NIOSH Method 7300, inductively coupled plasma-mass spectrometry (ICP-MS), and mercury by OSHA Method 145. Sample results were compared to the 8-hour TWA OSHA PEL of 0.05 mg/m³ for lead and 0.01 mg/m³ for arsenic and mercury. The laboratory-analyzed sample with the highest concentration of arsenic had a value of 0.00113 mg/m³, the highest concentration of lead had a value of .000793 mg/m³, and the highest concentration of mercury had a value of 0.00011 mg/m³. Laboratory-analyzed air samples were generally orders of magnitude below the regulatory standards. One-hundred-and-two air samples were collected and submitted for laboratory analysis for arsenic, lead, and mercury in air concentrations over the duration of the removal action.

Laboratory-analyzed air samples and air monitoring data collected during the removal action confirmed that excavation operations performed at the Site were protective of health for both workers and the community. Generally, particulate monitoring data and laboratory-analyzed air results were orders of magnitude lower than regulatory standards. A summary of air monitoring results is provided in Table 4-4 and air sampling results are provided in Table 4-5 through Table 4-7. Laboratory data packages and validation reports for air samples are provided in Appendix D.

4.5 FIELD SAMPLING AND ANALYTICAL QA/QC

Analytical QA/QC was performed in accordance with the Site SAP (WESTON, 2021) to ensure that data collected during Site operations was of sufficient quality to meet DQOs for the removal action.

For accuracy, the laboratory control sample (LCS) and matrix spike/matrix spike duplicate (MS/MSD) recoveries were evaluated. For Precision, the RPD for LCS and laboratory control sample duplicate (LCSD) pairs, MS/MSD pairs, and field duplicate pairs, were evaluated. Completeness is a measure of whether all samples that were intended to be collected were collected and laboratory analyzed. Completeness for the removal action is 100%, as all intended samples were collected and analyzed by the laboratory as requested.

4.5.1 Duplicate Samples

The recommended frequency for collection of duplicate samples is one for every 10 field samples.

4.5.1.1 Soil Sampling

No duplicate soil samples were collected during the removal action.

4.5.1.2 Air Sampling Duplicates

No duplicate air samples were collected during the removal action.

4.5.2 Laboratory Control Samples

4.5.2.1 Soil Sampling

An LCS/LCSD was analyzed with the Cemex-Backfill 2 sample to verify the accuracy of laboratory instruments. Known spikes were added and compared with analyte recoveries. One metals LCS and one mercury LCS/LCSD pair were analyzed via SW-846 Methods 6010B and

7471A with the sample set. The recoveries and the RPD were within QC limits of 80-120% and $\leq 20\%$, respectively, for all analytes. One LCS (utilizing TPH-d) was analyzed via SW-846 Method 8015B with the sample set and the recovery was within QC limits of 70-130%. One LCS/LCSD pair was analyzed via SW-846 Method 8260B with the sample set and the recoveries and RPD were within QC limits of 70-130% and $\leq 20\%$, respectively. One LCS was analyzed via SW-846 Method 8141A with the sample set and the recoveries were within QC limits of 70-130% for all analytes, with the exception of the following: chlorpyrifos (67%); total demeton (65%); dimethoate (67%); disulfoton (59%); EPN (68%); fensulfothion (69%); methyl parathion (67%); merphos (44%); fenthion (65%); phorate (64%); tokuthion (69%); trichloronate (67%); and ethoprop (67%). Results for the compounds were qualified as estimated (UJ). One LCS/LCSD pair was analyzed via SW-846 Method 8151A with the sample set and the recoveries and RPDs within QC limits of 70%-130% and $\leq 20\%$, respectively, for all tested analytes, with the exception of the following: Silvex (2,4,5-TP) (68%); 2,4,5-T (63%); 2,4-D (69%); 2,4-DB (43% and 48%); Dalapon (41% and 57%; RPD 33%); Dicamba (65%); Dichlorprop (67%); MCPA (66%); and Picloram (45% and 51%). Results for these compounds were qualified as estimated (UJ). One LCS/LCSD pair and one additional LCS (identified as LCS1) were analyzed via SW-846 Method 7196A with the sample set. The recoveries and RPD were within QC limits of 70-130% and $\leq 20\%$, respectively.

Two metals LCS and two mercury LCS/LCSD pairs were analyzed with the soils sample set. The recoveries and the RPD were within QC limits of 80-120% and $\leq 20\%$, respectively, for all analytes.

4.5.2.2 Air Sampling

Twenty-three LCS/LCSD pairs were analyzed with the sample sets for air, at the correct frequency, and all recoveries and RPDs were within QC limits of 80-120% and $\leq 20\%$ established by the laboratory for arsenic and lead via NIOSH 7300. One (1) LCS/LCSD pair of the twenty-three (23) LCS/LCSD pairs analyzed via OSHA Method 145 for mercury was outside QC limits. The recoveries were both 121%, outside the QC limits of 80-120%; the RPD was within the QC limits of $\leq 20\%$. No qualification of data was needed, as recoveries were above the QC limits and mercury was not detected in any sample.

4.5.3 Matrix Spike and Matrix Spike Duplicate Results

4.5.3.1 Soil Samples

Sample AHR-231-1 was used for MS/MSD analyses for metals other than mercury. Recoveries and RPDs were within QC limits of 75-125% and $\leq 20\%$ for all analytes, except for antimony (16 and 17%), chromium (126%; MSD), and vanadium (136% and 146%). The results for antimony, chromium, and vanadium were qualified as estimated (J for detects and UJ for non-detects) in sample AHR-231-1. The MSD recoveries were also outside QC criteria for lead and zinc, but the concentrations of the analytes in the unspiked sample were greater than four times the amounts of the spiked concentrations, so no action was required. No MS/MSD analyses were conducted for mercury.

A sample outside the sample set was used for MS/MSD analyses. Sample Cemex-Backfill 2 was used for MS/MSD analyses. Due to sample dilution, the spike amount was below the RL for all analytes; therefore MS/MSD recovery and RPD could not be evaluated for organophosphorus pesticides via SW-846 Method 8141A. The laboratory noted that insufficient sample volume was provided to perform MS/MSD analyses with the sample set for TPH-g via SW-846 Method 8260B and for herbicides via SW-846 Method 8151A. No MS/MSD analyses were conducted for TPH-d via SW-846 Method 8015B or for metals via SW-846 Methods 6010B/7471A. Sample Cemex-Backfill 2 was used for MS/MSD analyses for hexavalent chromium via SW-846 Method 7196A. A second set of MS analysis (called MSI) was run for the sample, utilizing a spike $\sim 70\times$ the spike amount in the MS/MSD analyses. Recoveries and the RPD were within QC limits of 75-125% and $\leq 20\%$ for all analyses.

4.5.3.2 Air Samples

MS/MSD analysis was not required as it is not possible to spike air samples.

4.5.3.3 Summary

Analytical QA/QC performed at the Site confirmed that the quality of data collected was sufficient to support the conclusions discussed in this Report. All data were qualified in accordance with the Site SAP or more stringent laboratory QC requirements, and the implications of qualifications are described above.

5. CONCLUSION

EPA determined that a removal action was appropriate for the Site due to elevated concentrations of arsenic, lead, and mercury in the top 12 inches of soil at the Site. The Headframe Area is privately owned and occupies approximately 2 acres of land on the west side of Highway 49. The Headframe Area is bordered to the north by a residential home and two businesses; to the west by residential homes; to the south by residential homes; and to the east by Highway 49. EPA's removal action objective was to significantly reduce or eliminate exposure to arsenic, lead, and mercury contamination, which may pose an imminent and substantial endangerment to human health and/or the environment, by removing soil in the top 12 inches of the Site and restoring the Site using clean backfill materials.

Between June 1, 2021, and July 13, 2021, EPA, ERRS, and START completed soil removal and restoration actions within the Project area. The top 12 inches of soil contained the highest concentrations of arsenic, lead, and mercury and were removed from the Site with a few areas being excavated to 18 inches bgs. Restoration of the Site included backfilling excavations with clean material and compacting newly backfilled excavation areas.

A total of 647.35 tons of non-RCRA CALHAZ waste soil and 303.57 tons of RCRA waste soil were removed and disposed of at appropriate facilities. A total of 1,283.88 tons of clean backfill material was used to prevent future exposure to arsenic, lead, and mercury contamination. Base course was documented to have metal concentrations less than EPA RSLs for residential use prior to use at the Site. Base course materials used to backfill excavations were compacted to complete Site restoration. Larger fill material such as 3-6 inches and 12 inches minus Rip-Rap was used in conjunction with fill and $\frac{3}{4}$ crush on slopes in areas where erosion may be higher.

Soil samples collected from the limit of excavation revealed that soil left in place in these areas exceed EPA RSLs for arsenic and lead for commercial/industrial use. Concentrations of arsenic and lead in soil left in place in these areas were higher than anticipated. Removal action objectives for the Project area were still met as the exposure pathway between the contamination source and potential receptors has been disrupted. This has significantly reduced exposure to arsenic, lead, and mercury contamination that may pose an imminent and substantial endangerment to human health and/or the environment. EPA is confident that workers and the

community were protected during the removal action. Air particulate monitoring and airborne arsenic, lead, and mercury sampling results never exceeded regulatory standards and were generally orders of magnitude below OSHA-required levels.

Restoration work at the Site is protective and currently prevents exposure to arsenic, lead, and mercury. Contamination left in place at removal action areas is buried beneath at least 1 ft of restoration materials. Potential exposure for future utility or construction workers that will excavate to more than 1-ft bgs still exists; however, safety measures are in place for their protection. Construction fencing was laid throughout the Site at the limit of excavation, in areas where concentrations of lead in soil exceeded EPA RSLs for residential use, to serve as a visual cue or warning to future utility workers that lead-contaminated soil may be present beneath the fencing.

While restoration work was thorough and the public are not presently being exposed to elevated concentrations of arsenic, lead, and mercury in soil, inspections should be conducted at the Site to ensure maintenance of the cap. Erosion would need to be quite significant to expose the community to contaminated soil (over 1 ft deep), but it could be possible if the cap is not maintained over a long period of time.

In addition to the removal of contaminated soil from the Site, building materials containing asbestos was appropriately bagged and disposed of during the removal action. Receptacles containing unknown chemicals left behind in Site buildings were categorized by hazard type, were bulked, and were appropriately disposed of.

Photographic documentation of the removal action is provided as Appendix A. A container inventory is provided as Appendix B. The Archaeological Monitoring Report is presented in Appendix C. Finally, Laboratory Data Packages and Data Validation Reports are presented in Appendix D.

6. REFERENCES

- Argonaut. 1907. Plan of Property of the Argonaut Mining Co. and Hoffman Farms Extension, Jackson, Amador County. April.
- Anthropological Studies Center (ASC). 2014. Sonoma State University, A Cultural Resource Inventory and Evaluation for the Argonaut Mine Cyanide Plant and Tailings Site, Jackson, Amador County, California. April 29.
- Ecology and Environmental, Inc. (E&E). 2013. Sampling and Analysis Plan, Argonaut Mine Tailings Pile. July.
- Geosyntec Consultants (Geosyntec). 2006. Additional Soil Investigation, Proposed Home Depot – Jackson, California, Parcels 020-120-024, 020-070-025, 020-070-027, and 044-010-031. July 18.
- Occupational Safety and Health Administration (OSHA). 2017. *Air Contaminants. 29 CFR 1910.1000 [82 FR 2735, January 9, 2017]*. Web site accessed on August 16, 2020. Available at <https://www.osha.gov/dsg/annotated-pels/tablez-3.html#z-3>
- U.S. Environmental Protection Agency (EPA). 1991. *Management of Investigation-Derived Wastes During Site Inspections*, Office of Emergency and Remedial Response, OERR Directive 9345.3-02, May.
- EPA. 1995. *Superfund Program Representative Sampling Guidance Volume 2: Air (Short-Term Monitoring)*, EPA 540/R.-95/140. Accessed on September 6, 2021. Available at <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockkey=P1000X9S.txt>.
- EPA. 2007. *Office of Solid Waste Method 6200, Field Portable X-Ray Fluorescence Spectrometry for the Determination of Elemental Concentrations in Soil and Sediment*. Accessed on September 6, 2021. Available at <https://www.epa.gov/sites/default/files/2015-12/documents/6200.pdf>.

EPA. 2021. *Regional Screening Levels (RSLs) – Generic Tables*. May. Accessed on September 6, 2021. Available at <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>.

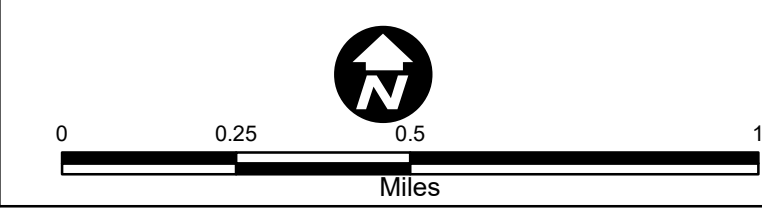
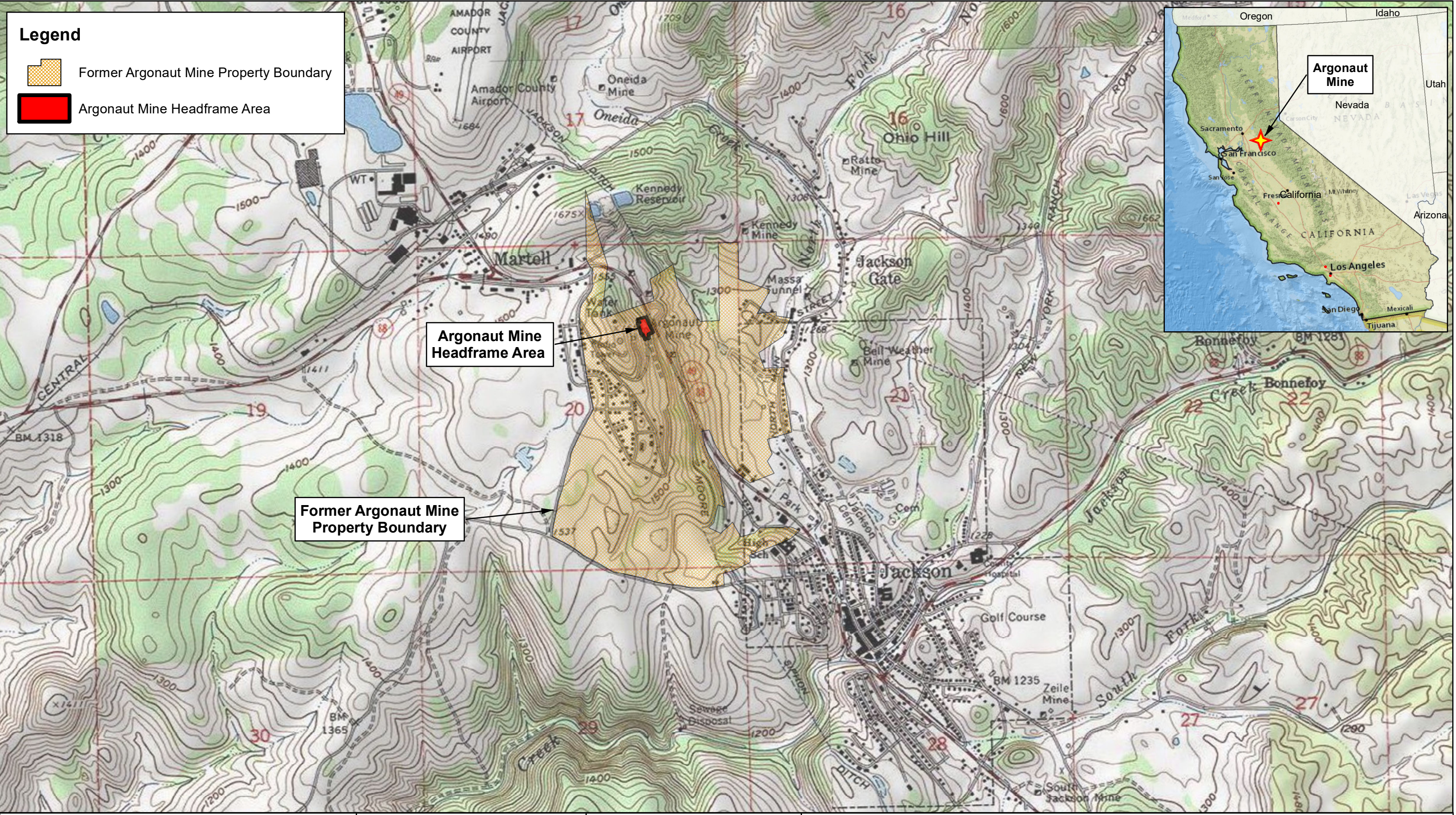
URS Corporation (URS). 2009. Site Investigation Report, Argonaut Mine Tailings Site. March.

Weston Solutions, Inc. (WESTON). 2015. Site Inspection Report Argonaut Mine, Jackson, Amador County, California. July.

WESTON. 2020. Argonaut Mine Headframe Area Removal Assessment, Jackson, Amador County, California. February.

WESTON. 2021. Argonaut Mine Headframe Area Removal Sampling and Analysis Plan. Amador County, California. April.

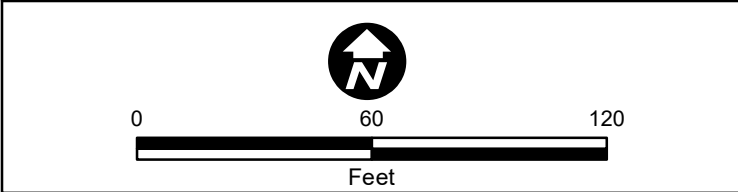
FIGURES



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FIGURE 1
SITE LOCATION MAP
Argonaut Mine Headframe Area Removal
Jackson, Amador County, California



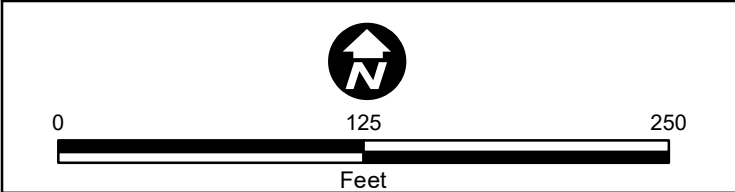
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FIGURE 2
SITE LAYOUT MAP
Argonaut Mine Headframe Area Removal
Jackson, Amador County, California

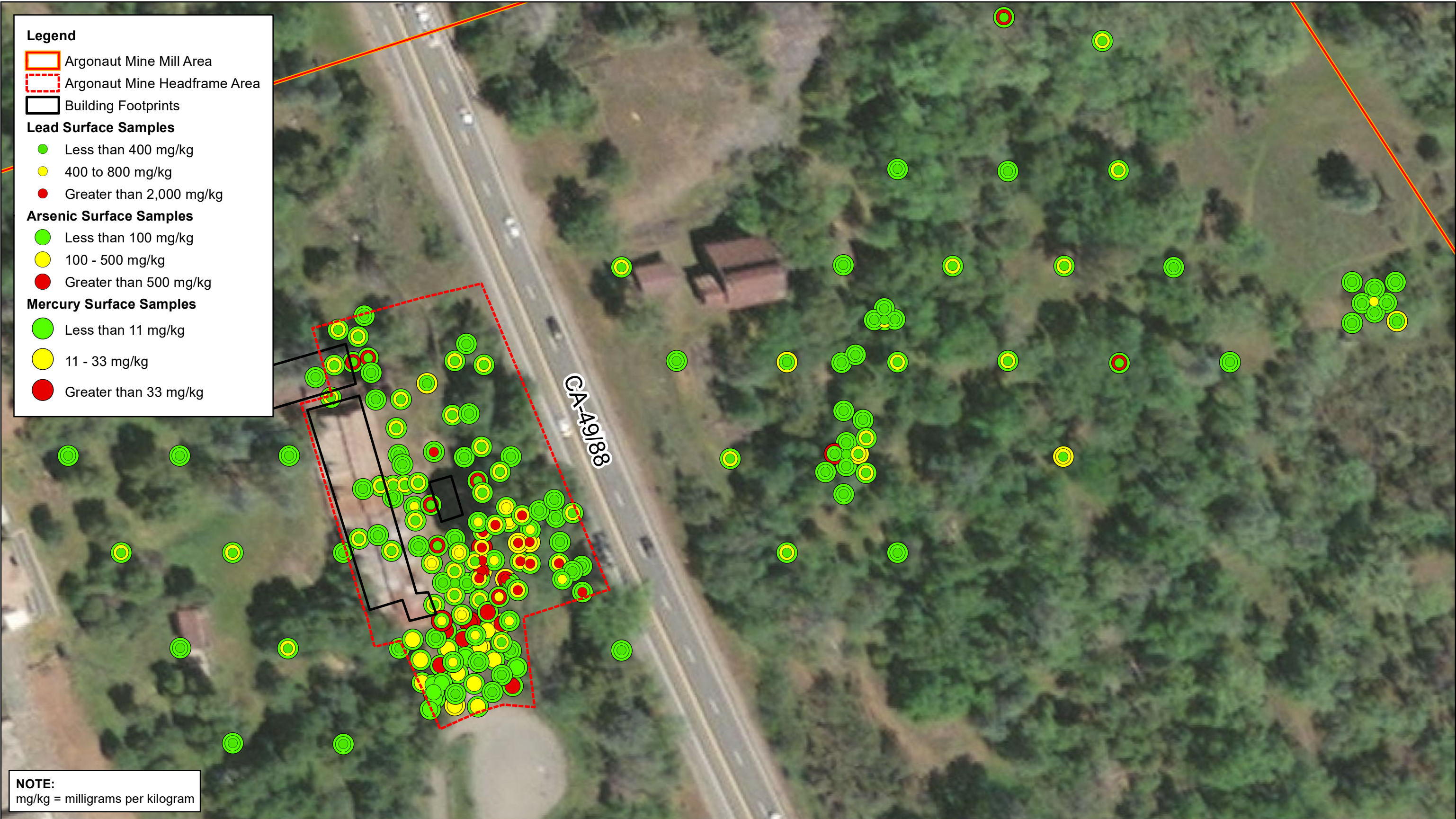


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FIGURE 3
SUMMARY OF 2014 SITE ASSESSMENT RESULTS
Argonaut Mine Headframe Area Removal
Jackson, Amador County, California






Legend

 Argonaut Mine Mill Area
 Argonaut Mine Headframe Area
 Building Footprints




Lead Subsurface Samples

-  Less than 400 mg/kg
-  400 - 2000 mg/kg
-  Greater than 2000 mg/kg

Arsenic Subsurface Samples

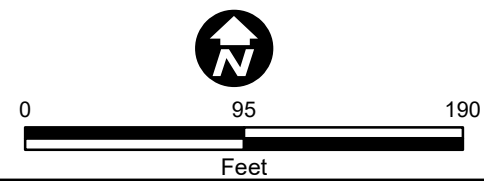
-  Less than 100 mg/kg
-  100 - 500 mg/kg
-  Greater than 500 mg/kg

Mercury Subsurface Samples

-  Less than 11 mg/kg
-  11 - 33 mg/kg
-  Greater than 33 mg/kg



NOTE:
mg/kg = milligrams per kilogram



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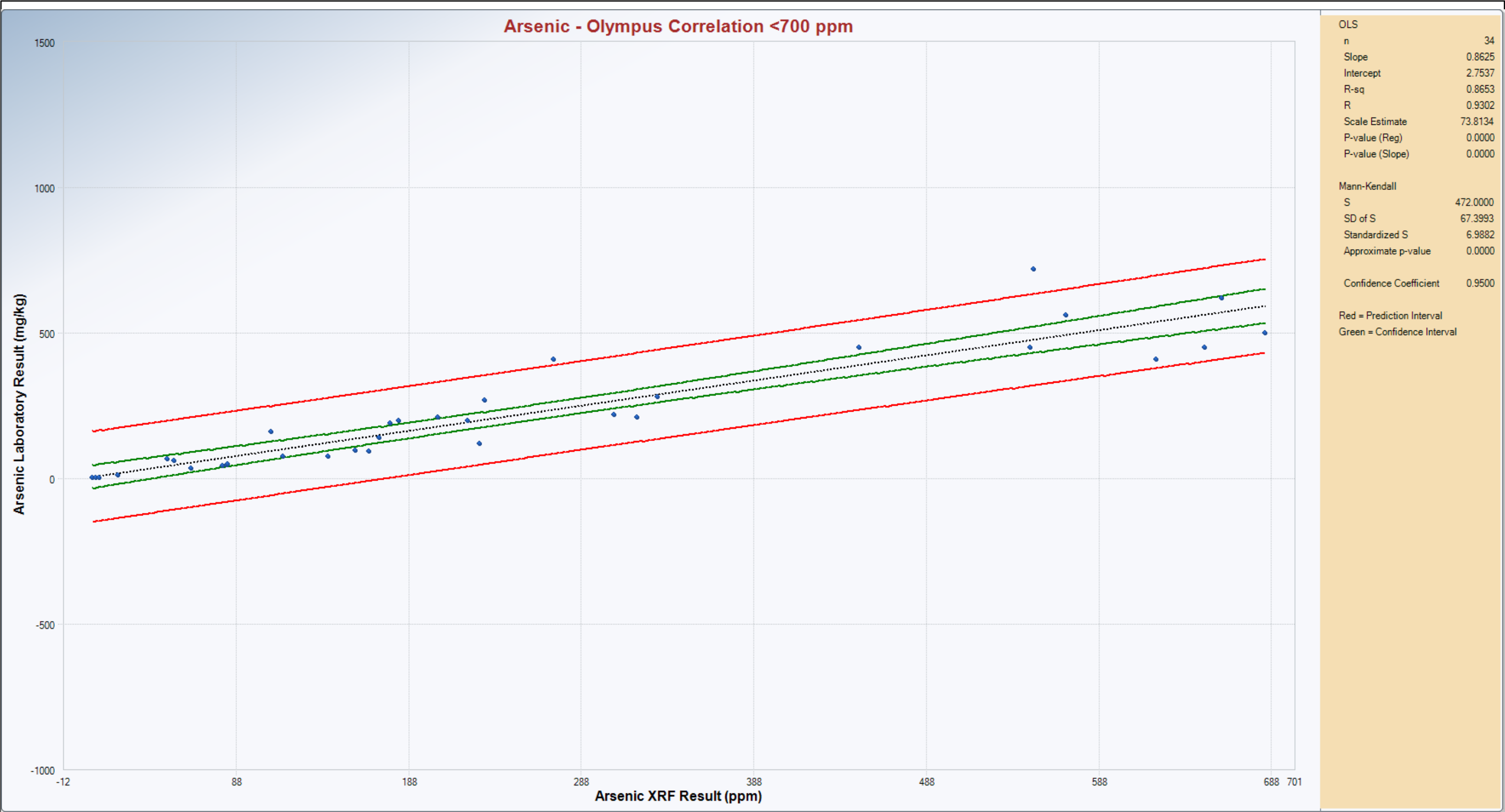
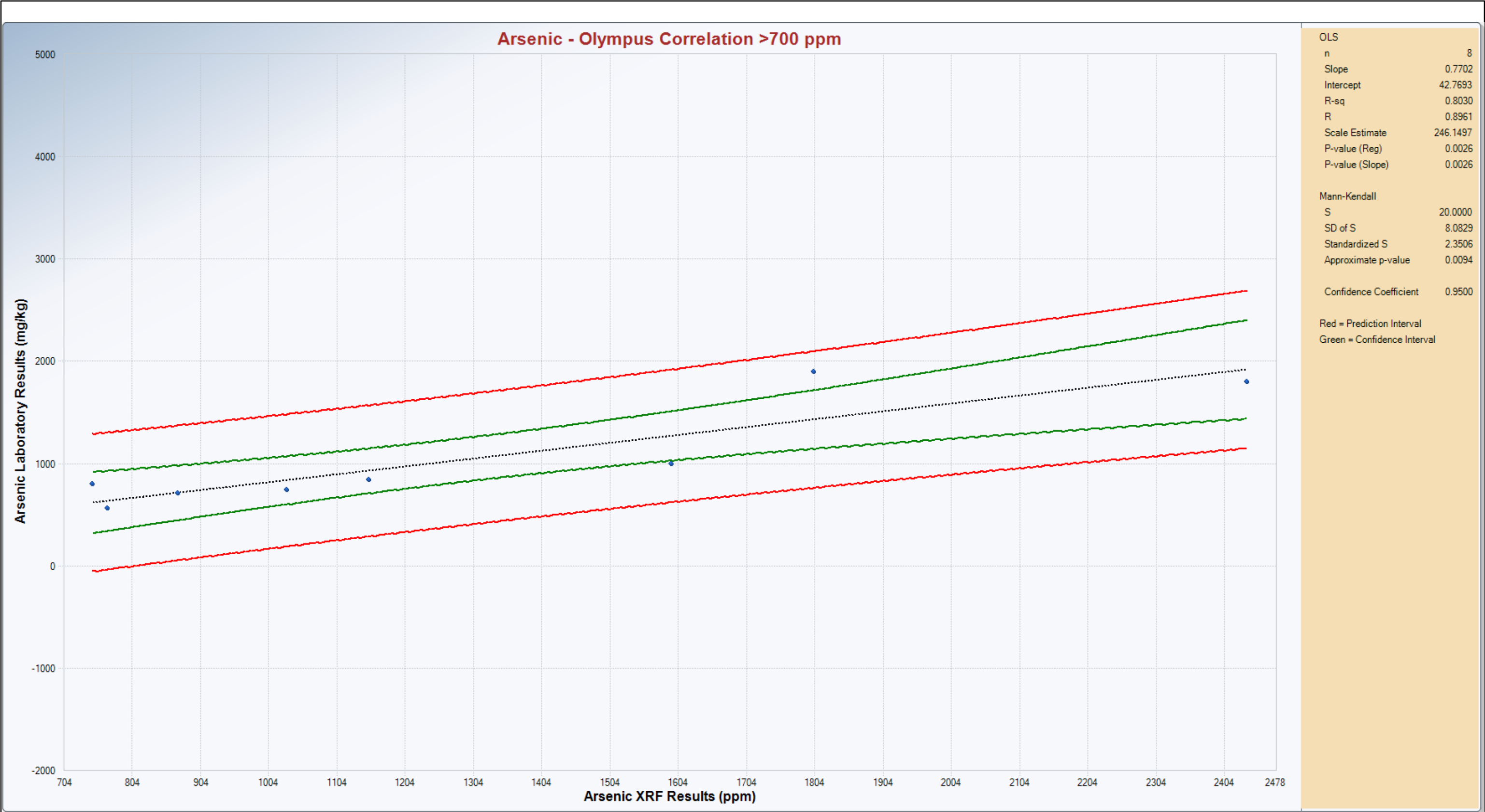
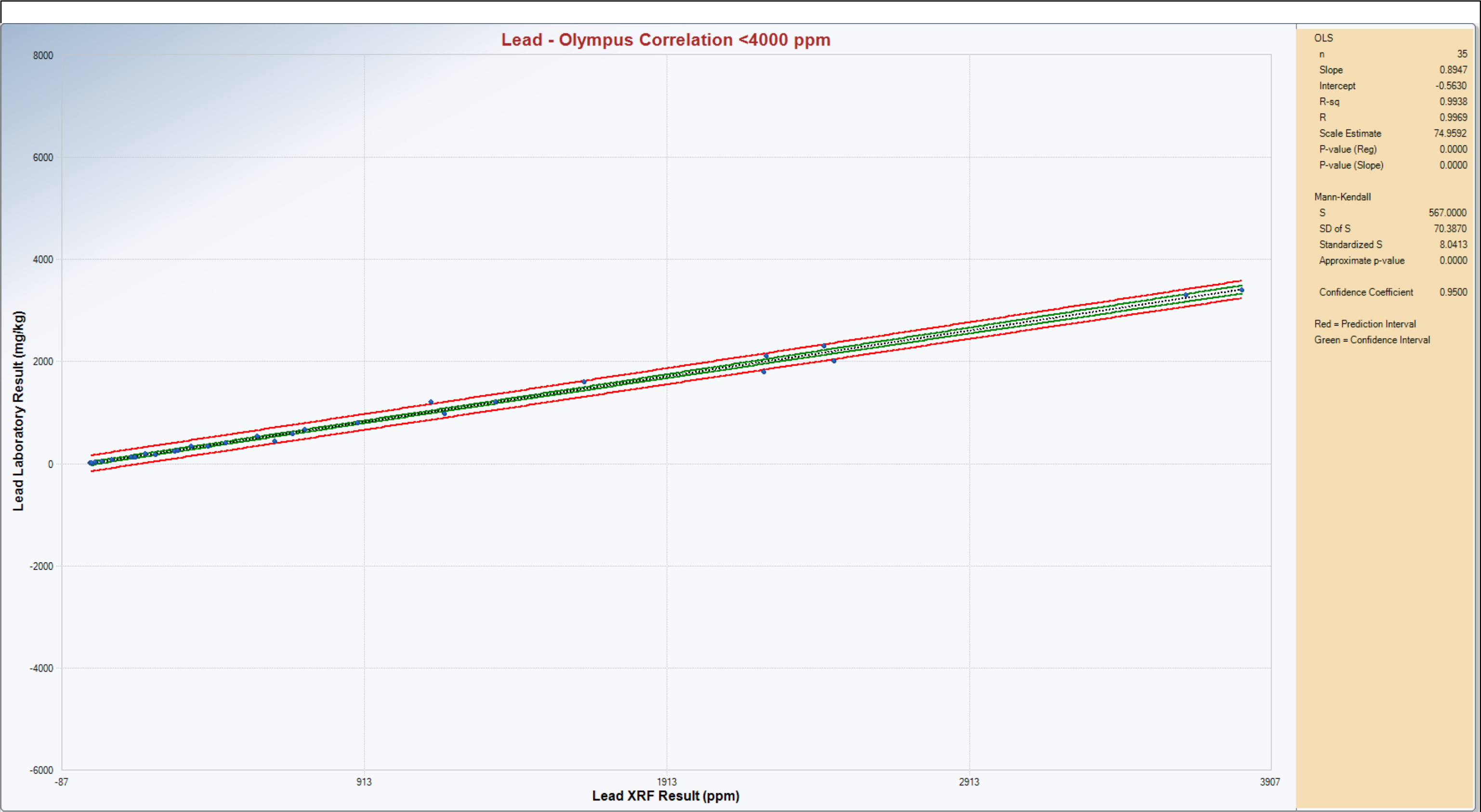


FIGURE 5
2020/2021 SITE ASSESSMENT SUBSURFACE SOIL SAMPLING RESULTS
Argonaut Mine Headframe Area Removal
Jackson, Amador County, California







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FIGURE 6C
XRF CORRELATION, LEAD < 4000 PPM
Argonaut Mine Headframe Area Removal
Jackson, Amador County, California



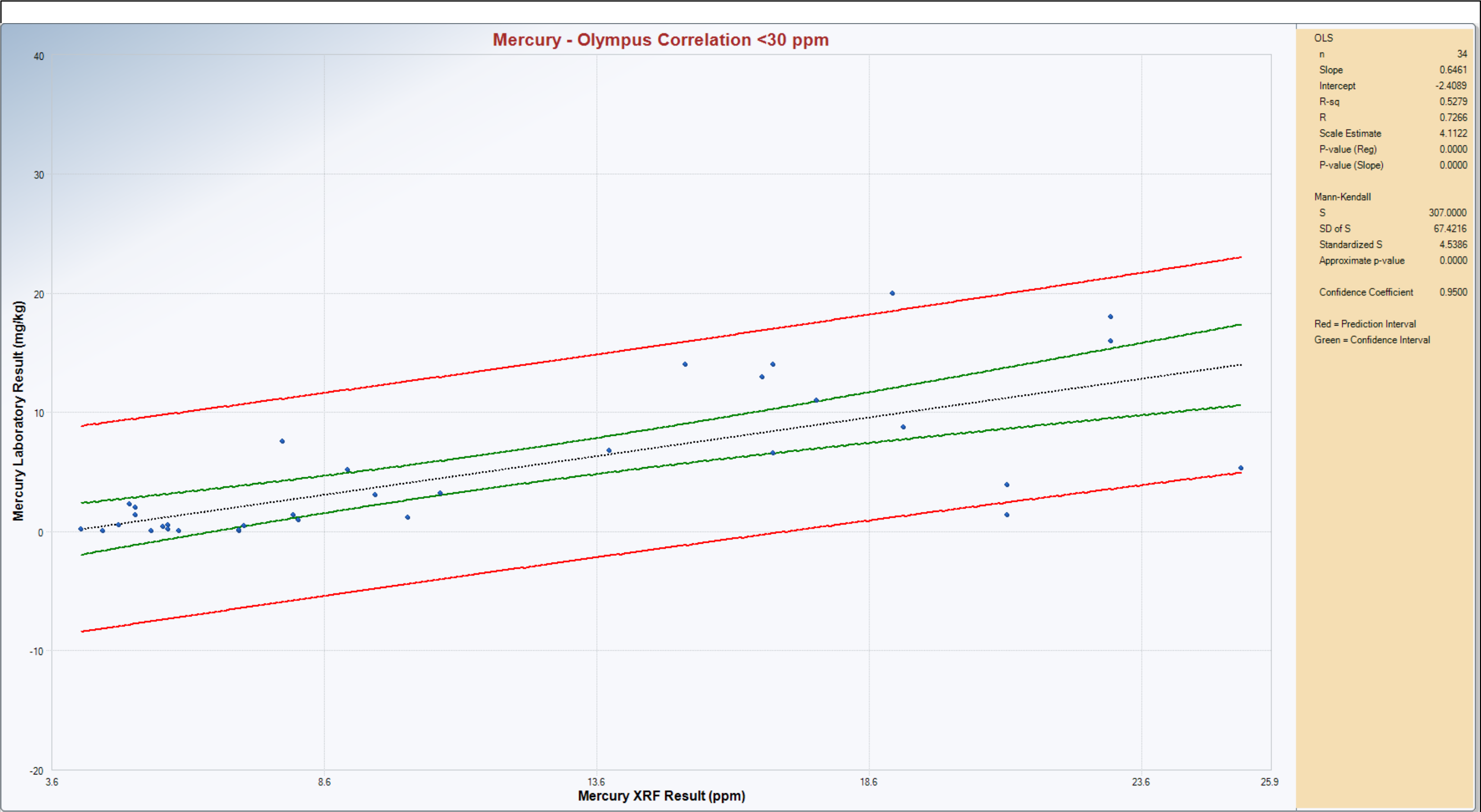
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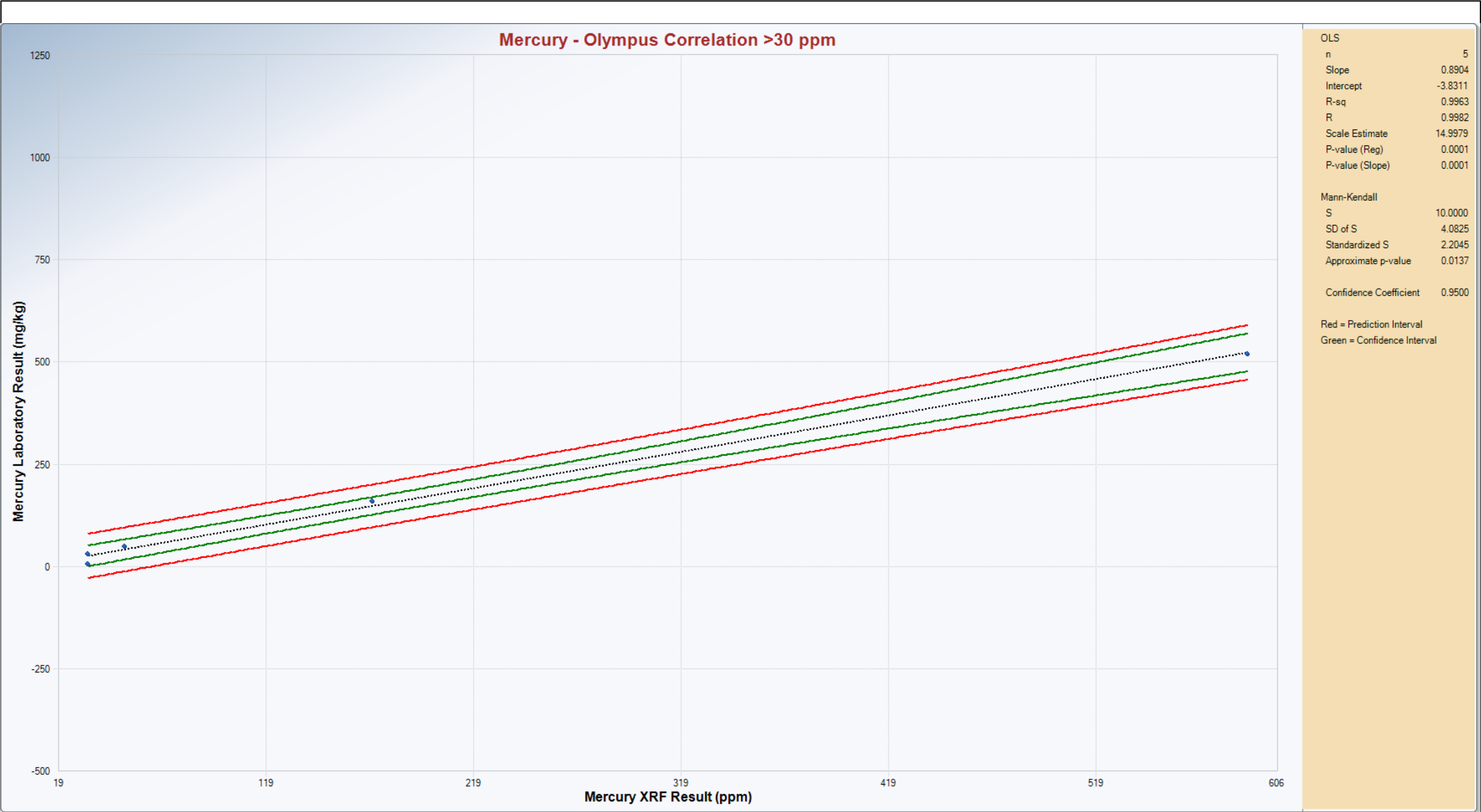


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FIGURE 6D
XRF CORRELATION, LEAD > 4000 PPM
Argonaut Mine Headframe Area Removal
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FIGURE 6F
XRF CORRELATION, MERCURY > 30 PPM
Argonaut Mine Headframe Area Removal
Jackson, Amador County, California

Legend

Argonaut Mine Headframe Area

Building Footprints

Lead Results in Surface Soil

- Less than 400 ppm
- 400 - 2,000 ppm
- Greater than 2,000 ppm

Arsenic Results in Surface Soil

- Less than 100 ppm
- 100 - 500 ppm
- Greater than 500 ppm

Mercury Results in Surface Soil

- Less than 11 ppm
- 11 - 33 ppm
- Greater than 33 ppm

NOTE:
EPA RSL: U.S. Environmental Protection Agency
Regional Screening Level for Industrial Soil
ND: None detected
ppm: Parts per million, one ppm equals one milligram
per kilogram

Warehouses

AHR-182-0
AHR-183-0

Shed

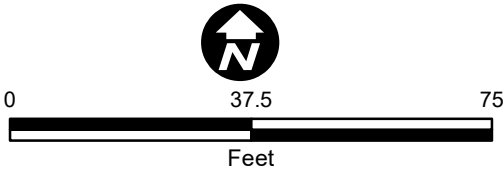
Kiln Area

Staging/Soil
Loading Area

Spunn Road
Cul-De-Sac

CA-49188

Analyte		Arsenic	Lead	Mercury
Units		ppm	ppm	ppm
Sample ID	Sample Depths			
AHR-177-0	0-3 inches	343	2,831	7
AHR-178-0	0-3 inches	150	9,511	ND
AHR-179-0	0-3 inches	665	14,683	ND
AHR-180-0	0-3 inches	855	7,328	ND
AHR-181-0	0-3 inches	367	2,084	1
AHR-182-0	0-3 inches	675	224	4
AHR-183-0	0-3 inches	707	66	3
AHR-185-0	0-3 inches	209	467	52
AHR-186-0	0-3 inches	324	488	36
AHR-187-0	0-3 inches	118	697	11
AHR-188-0	0-3 inches	130	470	7
AHR-189-0	0-3 inches	92	12,791	88
AHR-190-0	0-3 inches	296	1,973	ND
AHR-191-0	0-3 inches	302	1,356	3
AHR-192-0	0-3 inches	47	549	ND
AHR-193-0	0-3 inches	57	327	ND
AHR-194-0	0-3 inches	67	159	1
AHR-195-0	0-3 inches	60	58	0
AHR-196-0	0-3 inches	ND	1,996	ND
AHR-197-0	0-3 inches	25	173	0
AHR-201-0	0-3 inches	79	82	2
AHR-202-0	0-3 inches	92	238	ND
AHR-203-0	0-3 inches	188	1,036	5
AHR-204-0	0-3 inches	390	405	1
AHR-205-0	0-3 inches	38	1,492	ND
AHR-212-0	0-3 inches	541	1,232	ND
AHR-213-0	0-3 inches	280	1,367	ND
AHR-214-0	0-3 inches	134	777	ND
AHR-215-0	0-3 inches	ND	1,875	ND
AHR-216-0	0-3 inches	ND	3,123	ND
AHR-217-0	0-3 inches	97	197	ND
AHR-218-0	0-3 inches	132	137	ND
AHR-219-0	0-3 inches	82	83	3



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Region 9, START
Weston Solutions
Concord, CA 94520
NOVEMBER 2021



PREPARED FOR:
EPA Region 9
Emergency
Response
Section



FIGURE 7
2021 REMOVAL ACTION SURFACE SOIL SAMPLING RESULTS
Argonaut Mine Headframe Area Removal
Jackson, Amador County, California

Legend

Excavation Limit Soil Sampling Results for Lead

Less than 400 ppm

400 - 2000 ppm

Greater than 2000 ppm

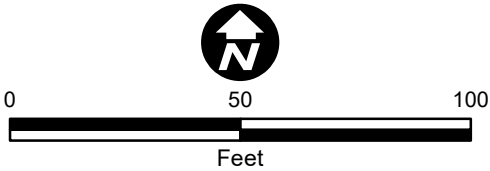
Argonaut Mine Headframe Area



NOTE:
EPA RSL: U.S. Environmental Protection Agency
Regional Screening Level for Industrial Soil
ND: None detected
ppm: Parts per million, one ppm equals one milligram per kilogram

Analyte		Arsenic	Lead	Mercury
Units		ppm	ppm	ppm
Sample ID	Sample Depths			
AHR-184-1	12-15 inches	426	179	12
AHR-198-1	12-15 inches	36	2,086	3
AHR-199-1	12-15 inches	281	648	9
AHR-200-1	12-15 inches	838	295	5
AHR-206-1	12-15 inches	134	76	1
AHR-207-1	12-15 inches	261	145	1
AHR-208-1	12-15 inches	65	137	2
AHR-209-1	12-15 inches	661	650	4
AHR-210-1	12-15 inches	289	797	19
AHR-211-1	12-15 inches	475	264	1
AHR-220-1	12-15 inches	1,580	148	2
AHR-221-1.5	18-21 inches	ND	6,209	5
AHR-222-1.5	18-21 inches	330	140	1
AHR-223-1	12-15 inches	180	67	1
AHR-224-1	12-15 inches	400	319	7
AHR-225-1	12-15 inches	62	20	2
AHR-226-1	12-15 inches	1,373	24	3
AHR-227-1	12-15 inches	295	69	2
AHR-228-1	12-15 inches	464	65	ND
AHR-229-1.5	18-21 inches	ND	6,494	ND
AHR-230-1	12-15 inches	246	1,039	9
AHR-231-1	12-15 inches	268	640	11
AHR-232-1	12-15 inches	74	169	1
AHR-233-1	12-15 inches	246	7,583	ND
AHR-234-1	12-15 inches	160	2,174	7
AHR-235-1	12-15 inches	506	7,051	ND
AHR-236-1	12-15 inches	164	3,059	ND
AHR-237-1	12-15 inches	180	3,410	3
AHR-238-1	12-15 inches	92	2,773	ND

Note:
Final excavation limit sampling results are shown in this figure. The map does not include the following sample areas, which were re-sampled after additional excavation was completed: AHR-184-1, AHR-198-1, AHR-225-1.



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Region 9, START
Weston Solutions
Concord, CA 94520
NOVEMBER 2021



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EPA Region 9
Emergency Response Section



FIGURE 8
2021 REMOVAL ACTION EXCAVATION LIMIT SOIL SAMPLING RESULTS
Argonaut Mine Headframe Removal
Jackson, Amador County, California

TABLES

Table 4-1
Summary of 2021 Removal Action Backfill Material Field Screening and Sampling Results
Argonaut Mine Headframe Removal

Sample ID				Cemex-Backfill 2	Cemex-BXF	Granite-BXF1	Granite-BXF2
Date				6/11/2021	6/11/2021	6/11/2021	6/11/2021
Type				Grab	Grab	Grab	Grab
Analyte	EPA RSL	Site PCL	Units	Metals by 6010B and 7470A			
Antimony	470		mg/kg	ND (<0.93)	--	--	--
Arsenic	100*	500	mg/kg	5.1	--	--	--
Barium	220000		mg/kg	150	--	--	--
Beryllium	2300		mg/kg	ND (<0.03)	--	--	--
Cadmium	980		mg/kg	ND (<0.03)	--	--	--
Chromium			mg/kg	40	--	--	--
Cobalt	350		mg/kg	12	--	--	--
Copper	47000		mg/kg	26	--	--	--
Lead	800	1600	mg/kg	12	--	--	--
Mercury	46	140	mg/kg	ND (<0.0086)	--	--	--
Molybdenum	5800		mg/kg	ND (<0.74)	--	--	--
Nickel	22000		mg/kg	43	--	--	--
Selenium	5800		mg/kg	ND (<1.4)	--	--	--
Silver	5800		mg/kg	ND (<0.089)	--	--	--
Thallium	12		mg/kg	ND (<0.83)	--	--	--
Vanadium	5800		mg/kg	54	--	--	--
Zinc	350000		mg/kg	47	--	--	--
Analyte	EPA RSL	Site PCL	Units	Metals by Field XRF			
Arsenic	100*	500	ppm	12.3	14.7	9.8	15.5
Lead	800	1600	ppm	9.5	3.8	4.4	3.2
Mercury	46	140	ppm	ND	0.8	1.9	0.1
Analyte	EPA RSL	Site PCL	Units	TPH by 8015B and 8260B/CA LUFTMS			
Diesel Range Organics			mg/kg	17	--	--	--
Gasoline Range Organics			mg/kg	ND (<0.045)	--	--	--
Motor Oil Range Organics			mg/kg	100	--	--	--
Analyte	EPA RSL	Site PCL	Units	Hexavalent Chromium by 7196A			
Chromium, hexavalent	6.3		mg/kg	ND (<0.47)	--	--	--
Analyte	EPA RSL	Site PCL	Units	Chlorinated Herbicides by 8151A			
2,4,5-T	8200		mg/kg	ND (<0.011)	--	--	--
2,4-D	9600		mg/kg	ND (<0.069)	--	--	--
2,4-DB	25000		mg/kg	ND (<0.037)	--	--	--
Dalapon	25000		mg/kg	ND (<0.016)	--	--	--
Dicamba	25000		mg/kg	ND (<0.0069)	--	--	--
Dichlorprop			mg/kg	ND (<0.016)	--	--	--
MCPA	410		mg/kg	ND (<9.8)	--	--	--
MCPP	820		mg/kg	ND (<9.8)	--	--	--
Picloram			mg/kg	ND (<0.028)	--	--	--
Silvex (2,4,5-TP)	6600		mg/kg	ND (<0.0069)	--	--	--

Table 4-1
Summary of 2021 Removal Action Backfill Material Field Screening and Sampling Results
Argonaut Mine Headframe Removal

Sample ID				Cemex-Backfill 2	Cemex-BXF	Granite-BXF1	Granite-BXF2
Date				6/10/2021	6/10/2021	6/10/2021	6/10/2021
Type				Grab	Grab	Grab	Grab
Analyte	EPA RSL	Site PCL	Units	Organophosphorus Pesticides by 8141A			
Atrazine	10		mg/kg	ND (<0.22)	--	--	--
Azinphos-methyl	2500		mg/kg	ND (<0.41)	--	--	--
Bolstar			mg/kg	ND (<0.2)	--	--	--
Chlorpyrifos	820		mg/kg	ND (<0.31)	--	--	--
Coumaphos			mg/kg	ND (<0.13)	--	--	--
Demeton, Total	33		mg/kg	ND (<0.36)	--	--	--
Demeton-O			mg/kg	ND (<0.55)	--	--	--
Demeton-S			mg/kg	ND (<0.23)	--	--	--
Diazinon	570		mg/kg	ND (<0.13)	--	--	--
Dichlorvos	7.9		mg/kg	ND (<0.21)	--	--	--
Dimethoate	1800		mg/kg	ND (<0.34)	--	--	--
Disulfoton	33		mg/kg	ND (<0.37)	--	--	--
EPN	8.2		mg/kg	ND (<0.17)	--	--	--
Ethoprop			mg/kg	ND (<0.23)	--	--	--
Ethyl Parathion	4900		mg/kg	ND (<0.25)	--	--	--
Famphur			mg/kg	ND (<0.15)	--	--	--
Fensulfothion			mg/kg	ND (<0.14)	--	--	--
Fenthion			mg/kg	ND (<0.12)	--	--	--
Malathion	16000		mg/kg	ND (<0.22)	--	--	--
Merphos	35		mg/kg	ND (<0.4)	--	--	--
Methyl parathion	210		mg/kg	ND (<0.3)	--	--	--
Mevinphos			mg/kg	ND (<0.22)	--	--	--
Naled	2300		mg/kg	ND (<0.43)	--	--	--
Phorate	160		mg/kg	ND (<0.27)	--	--	--
Propazine	16000		mg/kg	ND (<0.41)	--	--	--
Ronnel	58000		mg/kg	ND (<0.14)	--	--	--
Simazine	19		mg/kg	ND (<0.26)	--	--	--
Sulfotepp	410		mg/kg	ND (<0.3)	--	--	--
Thionazin			mg/kg	ND (<0.11)	--	--	--
Tokuthion			mg/kg	ND (<0.19)	--	--	--
Trichloronate			mg/kg	ND (<0.13)	--	--	--

Notes:

* = site specific screening level

-- = Not applicable

Bold = Analytical result detected above reporting limit

Bold, Underlined and Highlighted = Analytical result exceeds screening levels

J = The concentration is an approximate value because the analyte concentration is below the reporting limit and above the method detection limit

mg/kg = milligrams per kilogram

ND = not detected above reporting limit (<RL)

ppm = parts per million

PCL = site screening level

Table 4-2
Summary of 2021 Removal Action Surface Soil Sampling Results
Argonaut Mine Headframe Removal
Jackson, California

Sample ID				AHR-177-0	AHR-178-0	AHR-179-0	AHR-180-0	AHR-181-0	AHR-182-0	AHR-183-0	AHR-185-0	AHR-186-0
Sample Depths				0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches
Date				6/3/2021	6/3/2021	6/3/2021	6/3/2021	6/3/2021	6/5/2021	6/5/2021	6/5/2021	6/5/2021
Type				Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Analyte	EPA RSL	Site PCL	Units	Metals by 6010B & 7471A								
Antimony	470		mg/kg	--	--	--	--	--	--	--	--	--
Arsenic	100*	500	mg/kg	--	--	--	--	--	--	--	--	--
Barium	220000		mg/kg	--	--	--	--	--	--	--	--	--
Beryllium	2300		mg/kg	--	--	--	--	--	--	--	--	--
Cadmium	980		mg/kg	--	--	--	--	--	--	--	--	--
Chromium			mg/kg	--	--	--	--	--	--	--	--	--
Cobalt	350		mg/kg	--	--	--	--	--	--	--	--	--
Copper	47000		mg/kg	--	--	--	--	--	--	--	--	--
Lead	800	1600	mg/kg	--	--	--	--	--	--	--	--	--
Mercury	46	140	mg/kg	--	--	--	--	--	--	--	--	--
Molybdenum	5800		mg/kg	--	--	--	--	--	--	--	--	--
Nickel	22000		mg/kg	--	--	--	--	--	--	--	--	--
Selenium	5800		mg/kg	--	--	--	--	--	--	--	--	--
Silver	5800		mg/kg	--	--	--	--	--	--	--	--	--
Thallium	12		mg/kg	--	--	--	--	--	--	--	--	--
Vanadium	5800		mg/kg	--	--	--	--	--	--	--	--	--
Zinc	350000		mg/kg	--	--	--	--	--	--	--	--	--
Analyte	EPA RSL	Site PCL	Units	Field XRF Results								
Arsenic	100	500	mg/kg	343	150	<u>665</u>	<u>855</u>	367	<u>675</u>	<u>707</u>	209	324
Lead	800	1600	mg/kg	<u>2831</u>	<u>9511</u>	<u>14683</u>	<u>7328</u>	<u>2084</u>	224	66	467	488
Mercury	46	140	mg/kg	7	ND	ND	ND	1	4	3	52	36

Notes:

* = site specific screening level

-- = Not applicable

Bold = Analytical result detected above reporting limit

Bold, Underlined and Highlighted = Analytical result exceeds screening levels

J = The concentration is an approximate value because the analyte concentration is below the reporting limit and above the method detection limit

mg/kg = milligrams per kilogram

ND = not detected above reporting limit (<RL)

PCL = site screening level

Table 4-2
Summary of 2021 Removal Action Surface Soil Sampling Results
Argonaut Mine Headframe Removal
Jackson, California

Sample ID				AHR-187-0	AHR-188-0	AHR-189-0	AHR-190-0	AHR-191-0	AHR-192-0	AHR-193-0	AHR-194-0	AHR-195-0
Sample Depths				0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches
Date				6/5/2021	6/5/2021	6/7/2021	6/7/2021	6/7/2021	6/8/2017	6/8/2018	6/8/2019	6/8/2020
Type				Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Analyte	EPA RSL	Site PCL	Units	Metals by 6010B & 7471A								
Antimony	470		mg/kg	--	--	--	--	--	--	--	--	--
Arsenic	100*	500	mg/kg	--	--	--	--	--	--	--	--	--
Barium	220000		mg/kg	--	--	--	--	--	--	--	--	--
Beryllium	2300		mg/kg	--	--	--	--	--	--	--	--	--
Cadmium	980		mg/kg	--	--	--	--	--	--	--	--	--
Chromium			mg/kg	--	--	--	--	--	--	--	--	--
Cobalt	350		mg/kg	--	--	--	--	--	--	--	--	--
Copper	47000		mg/kg	--	--	--	--	--	--	--	--	--
Lead	800	1600	mg/kg	--	--	--	--	--	--	--	--	--
Mercury	46	140	mg/kg	--	--	--	--	--	--	--	--	--
Molybdenum	5800		mg/kg	--	--	--	--	--	--	--	--	--
Nickel	22000		mg/kg	--	--	--	--	--	--	--	--	--
Selenium	5800		mg/kg	--	--	--	--	--	--	--	--	--
Silver	5800		mg/kg	--	--	--	--	--	--	--	--	--
Thallium	12		mg/kg	--	--	--	--	--	--	--	--	--
Vanadium	5800		mg/kg	--	--	--	--	--	--	--	--	--
Zinc	350000		mg/kg	--	--	--	--	--	--	--	--	--
Analyte	EPA RSL	Site PCL	Units	Field XRF Results								
Arsenic	100	500	mg/kg	118	130	92	296	302	47	57	67	60
Lead	800	1600	mg/kg	697	470	<u>12791</u>	<u>1973</u>	1356	549	327	159	58
Mercury	46	140	mg/kg	11	7	88	ND	3	ND	ND	1	0

Notes:

* = site specific screening level

-- = Not applicable

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Bold, Underlined and Highlighted = Analytical result exceeds screening levels

J = The concentration is an approximate value because the analyte concentration is below the reporting limit and above the method detection limit

mg/kg = milligrams per kilogram

ND = not detected above reporting limit (<RL)

PCL = site screening level

Table 4-2
Summary of 2021 Removal Action Surface Soil Sampling Results
Argonaut Mine Headframe Removal
Jackson, California

Sample ID				AHR-196-0	AHR-197-0	AHR-201-0	AHR-202-0	AHR-203-0	AHR-204-0	AHR-205-0	AHR-212-0	AHR-213-0
Sample Depths				0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches
Date				6/8/2021	6/8/2021	6/9/2021	6/9/2021	6/9/2021	6/9/2021	6/10/2021	6/14/2021	6/14/2021
Type				Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Analyte	EPA RSL	Site PCL	Units	Metals by 6010B & 7471A								
Antimony	470		mg/kg	--	--	--	--	--	--	--	--	--
Arsenic	100*	500	mg/kg	67	--	--	--	--	450	--	--	--
Barium	220000		mg/kg	--	--	--	--	--	--	--	--	--
Beryllium	2300		mg/kg	--	--	--	--	--	--	--	--	--
Cadmium	980		mg/kg	--	--	--	--	--	--	--	--	--
Chromium			mg/kg	--	--	--	--	--	--	--	--	--
Cobalt	350		mg/kg	--	--	--	--	--	--	--	--	--
Copper	47000		mg/kg	--	--	--	--	--	--	--	--	--
Lead	800	1600	mg/kg	<u>1800</u>	--	--	--	--	400	--	--	--
Mercury	46	140	mg/kg	0.84	--	--	--	--	0.57	--	--	--
Molybdenum	5800		mg/kg	--	--	--	--	--	--	--	--	--
Nickel	22000		mg/kg	--	--	--	--	--	--	--	--	--
Selenium	5800		mg/kg	--	--	--	--	--	--	--	--	--
Silver	5800		mg/kg	--	--	--	--	--	--	--	--	--
Thallium	12		mg/kg	--	--	--	--	--	--	--	--	--
Vanadium	5800		mg/kg	--	--	--	--	--	--	--	--	--
Zinc	350000		mg/kg	--	--	--	--	--	--	--	--	--
Analyte	EPA RSL	Site PCL	Units	Field XRF Results								
Arsenic	100	500	mg/kg	ND	25	79	92	188	390	38	<u>541</u>	280
Lead	800	1600	mg/kg	<u>1996</u>	173	82	238	1036	405	1492	1232	1367
Mercury	46	140	mg/kg	ND	0	2	ND	5	1	ND	ND	ND

Notes:

* = site specific screening level

-- = Not applicable

Bold = Analytical result detected above reporting limit

Bold, Underlined and Highlighted = Analytical result exceeds screening levels

J = The concentration is an approximate value because the analyte concentration is below the reporting limit and above the method detection limit

mg/kg = milligrams per kilogram

ND = not detected above reporting limit (<RL)

PCL = site screening level

Table 4-2
Summary of 2021 Removal Action Surface Soil Sampling Results
Argonaut Mine Headframe Removal
Jackson, California

Sample ID				AHR-214-0	AHR-215-0	AHR-216-0	AHR-217-0	AHR-218-0	AHR-219-0
Sample Depths				0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches	0-3 inches
Date				6/14/2021	6/14/2021	6/14/2021	6/14/2021	6/14/2021	6/14/2021
Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	EPA RSL	Site PCL	Units	Metals by 6010B & 7471A					
Antimony	470		mg/kg	--	--	--	--	--	--
Arsenic	100*	500	mg/kg	--	--	--	--	--	--
Barium	220000		mg/kg	--	--	--	--	--	--
Beryllium	2300		mg/kg	--	--	--	--	--	--
Cadmium	980		mg/kg	--	--	--	--	--	--
Chromium			mg/kg	--	--	--	--	--	--
Cobalt	350		mg/kg	--	--	--	--	--	--
Copper	47000		mg/kg	--	--	--	--	--	--
Lead	800	1600	mg/kg	--	--	--	--	--	--
Mercury	46	140	mg/kg	--	--	--	--	--	--
Molybdenum	5800		mg/kg	--	--	--	--	--	--
Nickel	22000		mg/kg	--	--	--	--	--	--
Selenium	5800		mg/kg	--	--	--	--	--	--
Silver	5800		mg/kg	--	--	--	--	--	--
Thallium	12		mg/kg	--	--	--	--	--	--
Vanadium	5800		mg/kg	--	--	--	--	--	--
Zinc	350000		mg/kg	--	--	--	--	--	--
Analyte	EPA RSL	Site PCL	Units	Field XRF Results					
Arsenic	100	500	mg/kg	134	ND	ND	97	132	82
Lead	800	1600	mg/kg	777	<u>1875</u>	<u>3123</u>	197	137	83
Mercury	46	140	mg/kg	ND	ND	ND	ND	ND	3

Notes:

* = site specific screening level

-- = Not applicable

Bold = Analytical result detected above reporting limit

Bold, Underlined and Highlighted = Analytical result exceeds screening levels

J = The concentration is an approximate value because the analyte concentration is below the reporting limit and above the method detection limit

mg/kg = milligrams per kilogram

ND = not detected above reporting limit (<RL)

PCL = site screening level

Table 4-3
Summary of 2021 Removal Action Excavation Limit Soil Sampling Results
Argonaut Mine Headframe Removal
Jackson, California

Sample ID				AHR-184-1	AHR-198-1	AHR-199-1	AHR-200-1	AHR-206-1	AHR-207-1	AHR-208-1	AHR-209-1
Sample Depths				12-15 inches	12-15 inches	12-15 inches	12-15 inches	12-15 inches	12-15 inches	12-15 inches	12-15 inches
Date				6/5/2021	6/8/2021	6/9/2021	6/9/2021	6/10/2021	6/10/2021	6/10/2021	6/11/2021
Type				Composite	Composite	Composite	Composite	Composite	Composite	Composite	Composite
Analyte	EPA RSL	Site PCL	Units	Metals by 6010B & 7471A							
Antimony	470		mg/kg	--	--	--	--	--	--	--	--
Arsenic	100	500	mg/kg	--	--	--	--	--	--	--	--
Barium	220000		mg/kg	--	--	--	--	--	--	--	--
Beryllium	2300		mg/kg	--	--	--	--	--	--	--	--
Cadmium	980		mg/kg	--	--	--	--	--	--	--	--
Chromium			mg/kg	--	--	--	--	--	--	--	--
Cobalt	350		mg/kg	--	--	--	--	--	--	--	--
Copper	47000		mg/kg	--	--	--	--	--	--	--	--
Lead	800	1600	mg/kg	--	--	--	--	--	--	--	--
Mercury	46	140	mg/kg	--	--	--	--	--	--	--	--
Molybdenum	5800		mg/kg	--	--	--	--	--	--	--	--
Nickel	22000		mg/kg	--	--	--	--	--	--	--	--
Selenium	5800		mg/kg	--	--	--	--	--	--	--	--
Silver	5800		mg/kg	--	--	--	--	--	--	--	--
Thallium	12		mg/kg	--	--	--	--	--	--	--	--
Vanadium	5800		mg/kg	--	--	--	--	--	--	--	--
Zinc	350000		mg/kg	--	--	--	--	--	--	--	--
Analyte	EPA RSL	Site PCL	Units	Field XRF Results							
Arsenic	100	500	mg/kg	426	36	281	838	134	261	65	661
Lead	800	1600	mg/kg	179	2086	648	295	76	145	137	650
Mercury	46	140	mg/kg	12	3	9	5	1	1	2	4

Notes:

-- = Not applicable

Bold = Analytical result detected above reporting limit

Bold, Underlined and Highlighted = Analytical result exceeds screening levels

J = The concentration is an approximate value because the analyte concentration is below the reporting limit and above the method detection limit

mg/kg = milligrams per kilogram

ND = not detected above reporting limit (<RL)

PCL = site screening level

Table 4-3
Summary of 2021 Removal Action Excavation Limit Soil Sampling Results
Argonaut Mine Headframe Removal
Jackson, California

Sample ID				AHR-210-1	AHR-211-1	AHR-220-1	AHR-221-1.5	AHR-222-1.5	AHR-223-1	AHR-224-1	AHR-225-1
Sample Depths				12-15 inches	12-15 inches	12-15 inches	18-21 inches	18-21 inches	12-15 inches	12-15 inches	12-15 inches
Date				6/11/2021	6/11/2021	6/14/2021	6/16/2021	6/16/2021	6/16/2021	6/16/2021	6/16/2021
Type				Composite	Composite	Composite	Composite	Composite	Composite	Composite	Composite
Analyte	EPA RSL	Site PCL	Units	Metals by 6010B & 7471A							
Antimony	470		mg/kg	--	--	--	--	--	--	--	--
Arsenic	100	500	mg/kg	280	450	--	--	--	--	--	--
Barium	220000		mg/kg	--	--	--	--	--	--	--	--
Beryllium	2300		mg/kg	--	--	--	--	--	--	--	--
Cadmium	980		mg/kg	--	--	--	--	--	--	--	--
Chromium			mg/kg	--	--	--	--	--	--	--	--
Cobalt	350		mg/kg	--	--	--	--	--	--	--	--
Copper	47000		mg/kg	--	--	--	--	--	--	--	--
Lead	800	1600	mg/kg	790	260	--	--	--	--	--	--
Mercury	46	140	mg/kg	4.7	1.4	--	--	--	--	--	--
Molybdenum	5800		mg/kg	--	--	--	--	--	--	--	--
Nickel	22000		mg/kg	--	--	--	--	--	--	--	--
Selenium	5800		mg/kg	--	--	--	--	--	--	--	--
Silver	5800		mg/kg	--	--	--	--	--	--	--	--
Thallium	12		mg/kg	--	--	--	--	--	--	--	--
Vanadium	5800		mg/kg	--	--	--	--	--	--	--	--
Zinc	350000		mg/kg	--	--	--	--	--	--	--	--
Analyte	EPA RSL	Site PCL	Units	Field XRF Results							
Arsenic	100	500	mg/kg	289	475	<u>1580</u>	ND	330	180	400	62
Lead	800	1600	mg/kg	797	264	<u>148</u>	<u>6209</u>	140	67	319	20
Mercury	46	140	mg/kg	19	1	2	5	1	1	7	2

Notes:

-- = Not applicable

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Bold, Underlined and Highlighted = Analytical result exceeds screening levels

J = The concentration is an approximate value because the analyte concentration is below the reporting limit and above the method detection limit

mg/kg = milligrams per kilogram

ND = not detected above reporting limit (<RL)

PCL = site screening level

Table 4-3
Summary of 2021 Removal Action Excavation Limit Soil Sampling Results
Argonaut Mine Headframe Removal
Jackson, California

Sample ID				AHR-226-1	AHR-227-1	AHR-228-1	AHR-229-1.5	AHR-230-1	AHR-231-1	AHR-232-1	AHR-233-1
Sample Depths				12-15 inches	12-15 inches	12-15 inches	18-21 inches	12-15 inches	12-15 inches	12-15 inches	12-15 inches
Date				6/16/2021	6/21/2021	6/21/2021	6/25/2021	6/30/2021	6/30/2021	6/30/2021	7/5/2021
Type				Composite	Composite	Composite	Composite	Composite	Composite	Composite	Composite
Analyte	EPA RSL	Site PCL	Units	Metals by 6010B & 7471A							
Antimony	470		mg/kg	--	--	--	--	--	ND (<4.5)	ND (<4.6)	--
Arsenic	100	500	mg/kg	--	--	--	--	--	220	49	--
Barium	220000		mg/kg	--	--	--	--	--	130	140	--
Beryllium	2300		mg/kg	--	--	--	--	--	ND (<0.14)	ND (<0.15)	--
Cadmium	980		mg/kg	--	--	--	--	--	1.4	0.74	--
Chromium			mg/kg	--	--	--	--	--	46 F1	74	--
Cobalt	350		mg/kg	--	--	--	--	--	27	28	--
Copper	47000		mg/kg	--	--	--	--	--	230	140	--
Lead	800	1600	mg/kg	--	--	--	--	--	660	190	--
Mercury	46	140	mg/kg	--	--	--	--	--	1.4	0.55	--
Molybdenum	5800		mg/kg	--	--	--	--	--	ND (<0.72)	ND (<0.73)	--
Nickel	22000		mg/kg	--	--	--	--	--	59	42	--
Selenium	5800		mg/kg	--	--	--	--	--	1.9	ND (<1.4)	--
Silver	5800		mg/kg	--	--	--	--	--	ND (<0.43)	ND (<0.44)	--
Thallium	12		mg/kg	--	--	--	--	--	ND (<4)	ND (<4.1)	--
Vanadium	5800		mg/kg	--	--	--	--	--	98 F1	150	--
Zinc	350000		mg/kg	--	--	--	--	--	410^2	330^2	--
Analyte	EPA RSL	Site PCL	Units	Field XRF Results							
Arsenic	100	500	mg/kg	<u>1373</u>	295	464	ND	246	268	74	246
Lead	800	1600	mg/kg	24	69	65	<u>6494</u>	1039	640	169	<u>7583</u>
Mercury	46	140	mg/kg	3	2	ND	ND	9	11	1	ND

Notes:

-- = Not applicable

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Bold, Underlined and Highlighted = Analytical result exceeds screening levels

J = The concentration is an approximate value because the analyte concentration is below the reporting limit and above the method detection limit

mg/kg = milligrams per kilogram

ND = not detected above reporting limit (<RL)

PCL = site screening level

Table 4-3
Summary of 2021 Removal Action Excavation Limit Soil Sampling Results
Argonaut Mine Headframe Removal
Jackson, California

Sample ID				AHR-234-1	AHR-235-1	AHR-236-1	AHR-237-1	AHR-238-1
Sample Depths				12-15 inches	12-15 inches	12-15 inches	12-15 inches	12-15 inches
Date				7/5/2021	7/5/2021	7/5/2021	7/5/2021	7/5/2021
Type				Composite	Composite	Composite	Composite	Composite
Analyte	EPA RSL	Site PCL	Units	Metals by 6010B & 7471A				
Antimony	470		mg/kg	4.3	--	--	ND (<4.7)	--
Arsenic	100	500	mg/kg	200	--	--	210	--
Barium	220000		mg/kg	270	--	--	260	--
Beryllium	2300		mg/kg	ND (<0.029)	--	--	ND (<0.15)	--
Cadmium	980		mg/kg	1.8	--	--	2.4	--
Chromium			mg/kg	61	--	--	77	--
Cobalt	350		mg/kg	22	--	--	31	--
Copper	47000		mg/kg	180	--	--	310	--
Lead	800	1600	mg/kg	2300	--	--	3400	--
Mercury	46	140	mg/kg	14	--	--	5.2	--
Molybdenum	5800		mg/kg	ND (<0.71)	--	--	2.4	--
Nickel	22000		mg/kg	78	--	--	93	--
Selenium	5800		mg/kg	ND (<1.3)	--	--	ND (<7)	--
Silver	5800		mg/kg	13	--	--	11	--
Thallium	12		mg/kg	ND (<0.8)	--	--	ND (<4.2)	--
Vanadium	5800		mg/kg	84	--	--	110	--
Zinc	350000		mg/kg	710^2	--	--	1100	--
Analyte	EPA RSL	Site PCL	Units	Field XRF Results				
Arsenic	100	500	mg/kg	160	<u>506</u>	164	180	92
Lead	800	1600	mg/kg	<u>2174</u>	<u>7051</u>	<u>3059</u>	<u>3410</u>	<u>2773</u>
Mercury	46	140	mg/kg	7	ND	ND	3	ND

Notes:

-- = Not applicable

Bold = Analytical result detected above reporting limit

Bold, Underlined and Highlighted = Analytical result exceeds screening levels

J = The concentration is an approximate value because the analyte concentration is below the reporting limit and above the method detection limit

mg/kg = milligrams per kilogram

ND = not detected above reporting limit (<RL)

PCL = site screening level

Table 4-4
2021 Removal Action Air Monitoring Total Particulate Data
Argonaut Mine Headframe Removal
Jackson, California

Instrument Make/Model	Serial Number	Station Number	Date	Location/Orientation	Start Time	Flow Rate	End Time	Total Run Time (min)	Total Volume (L)	Total Particulate TWA (mg/m ³)	Total Particulate Maximum Concentration (mg/m ³)	Time Maximum Concentration Observed	Comments
DustTrak DRX	8533182909	AHR-AM-01	6/2/2021	South gate of Headframe Fenced Area	8:49	2 L/min	15:49	7:00	840	0.013	0.151	9:57	South of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/2/2021	North, Near Headframe Structure	8:49	2 L/min	16:22	7:33	906	0.009	0.115	12:33	North of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/2/2021	East of Headframe Fenced Area, Down Slope	8:48	2 L/min	12:53	4:05	490	0.005	0.044	8:52	East of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/3/2021	South gate of Headframe Fenced Area	7:35	2 L/min	16:59	9:24	1128	0.016	0.096	14:44	South of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/3/2021	North, Near Headframe Structure	7:53	2 L/min	16:35	8:42	1044	0.016	0.106	9:55	North of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/3/2021	East of Headframe Fenced Area, Down Slope	7:25	2 L/min	16:27	9:02	1084	0.005	0.185	13:24	East of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/4/2021	South gate of Headframe Fenced Area	7:29	2 L/min	15:36	8:07	974	0.013	0.074	15:12	South of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/4/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	7:42	2 L/min	15:29	7:47	934	0.004	0.404	13:34	West of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/4/2021	North, Near Headframe Structure	7:34	2 L/min	15:25	7:51	942	0.012	0.025	7:44	North of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/4/2021	East of Headframe Fenced Area, Down Slope	8:23	2 L/min	12:28	4:05	490	0.004	0.046	8:28	East of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/5/2021	South gate of Headframe Fenced Area	7:18	2 L/min	16:57	9:39	1158	0.009	0.153	9:32	South of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/5/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	7:30	2 L/min	16:53	9:23	1126	0.052	1.46	11:42	West of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/5/2021	North, Near Headframe Structure	7:25	2 L/min	16:53	9:28	1136	0.014	0.112	8:33	North of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/5/2021	East of Headframe Fenced Area, Down Slope	7:34	2 L/min	11:39	4:05	490	0.001	0.017	7:35	East of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/7/2021	South gate of Headframe Fenced Area	7:25	2 L/min	16:53	9:28	1136	0.015	0.213	7:52	South of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/7/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	7:35	2 L/min	16:56	9:21	1122	0.017	0.485	8:07	West of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/7/2021	North, Near Headframe Structure	7:39	2 L/min	17:01	9:22	1124	0.013	0.079	13:58	North of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/7/2021	East of Headframe Fenced Area, Down Slope	8:01	2 L/min	12:06	4:05	490	0.003	0.023	8:02	East of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/8/2021	South gate of Headframe Fenced Area	7:12	2 L/min	16:26	9:14	1108	0.000	0.15	7:15	South of Work Area

Table 4-4
2021 Removal Action Air Monitoring Total Particulate Data
Argonaut Mine Headframe Removal
Jackson, California

Instrument Make/Model	Serial Number	Station Number	Date	Location/Orientation	Start Time	Flow Rate	End Time	Total Run Time (min)	Total Volume (L)	Total Particulate TWA (mg/m ³)	Total Particulate Maximum Concentration (mg/m ³)	Time Maximum Concentration Observed	Comments
DustTrak DRX	8533142804	AHR-AM-02	6/8/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	7:18	2 L/min	16:48	9:30	1140	0.010	0.159	8:57	West of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/8/2021	North, Near Headframe Structure	7:23	2 L/min	16:52	9:29	1138	0.005	0.023	8:36	North of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/8/2021	East of Headframe Fenced Area, Down Slope	7:37	2 L/min	11:42	4:05	490	0.001	0.052	7:38	East of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/9/2021	South gate of Headframe Fenced Area	7:20	2 L/min	16:28	9:08	1096	0.008	0.177	7:21	South of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/9/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	7:33	2 L/min	16:26	8:53	1066	0.005	0.165	7:34	West of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/9/2021	North, Near Headframe Structure	7:36	2 L/min	8:35	0:59	118	0.000	0.092	7:37	North of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/9/2021	East of Headframe Fenced Area, Down Slope	7:43	2 L/min	11:48	4:05	490	0.002	0.054	8:36	East of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/10/2021	South gate of Headframe Fenced Area	7:25	2 L/min	17:10	9:45	1170	0.009	0.131	7:26	Northeast of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/10/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	7:52	2 L/min	17:12	9:20	1120	0.009	0.397	15:36	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/10/2021	Base of Fire Road near Loading Trucks	7:34	2 L/min	17:08	9:34	1148	0.003	0.1	7:35	Southwest of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/10/2021	At the end of Spunn Road Cul-de-sac	7:29	2 L/min	17:05	9:36	1152	0.002	0.04	10:16	Southeast of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/11/2021	South gate of Headframe Fenced Area	7:19	2 L/min	15:15	7:56	952	0.010	0.207	7:20	Northeast of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/11/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	8:47	2 L/min	15:12	6:25	770	0.022	1.32	10:42	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/11/2021	Base of Fire Road near Loading Trucks	7:27	2 L/min	15:22	7:55	950	0.012	0.108	11:13	Southwest of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/11/2021	At the end of Spunn Road Cul-de-sac	7:22	2 L/min	15:18	7:56	952	0.002	0.013	9:31	Southeast of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/14/2021	South gate of Headframe Fenced Area	7:21	2 L/min	17:05	9:44	1168	0.000	0.208	11:22	Northeast of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/14/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	7:40	2 L/min	16:15	8:35	1030	0.036	1.57	8:53	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/14/2021	Base of Fire Road near Loading Trucks	7:25	2 L/min	16:16	8:51	1062	0.017	0.297	9:04	Southwest of Work Area

Table 4-4
2021 Removal Action Air Monitoring Total Particulate Data
Argonaut Mine Headframe Removal
Jackson, California

Instrument Make/Model	Serial Number	Station Number	Date	Location/Orientation	Start Time	Flow Rate	End Time	Total Run Time (min)	Total Volume (L)	Total Particulate TWA (mg/m ³)	Total Particulate Maximum Concentration (mg/m ³)	Time Maximum Concentration Observed	Comments
DustTrak DRX	8533182905	AHR-AM-04	6/14/2021	At the end of Spunn Road Cul-de-sac	7:30	2 L/min	16:19	8:49	1058	0.002	0.028	14:56	Southeast of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/15/2021	South gate of Headframe Fenced Area	7:21	2 L/min	16:33	9:12	1104	0.017	0.739	13:37	Northeast of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/15/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	7:30	2 L/min	16:28	8:58	1076	0.028	1.9	7:31	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/15/2021	Base of Fire Road near Loading Trucks	7:36	2 L/min	16:42	9:06	1092	0.015	0.337	12:13	Southwest of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/15/2021	At the end of Spunn Road Cul-de-sac	7:41	2 L/min	16:39	8:58	1076	0.003	0.124	10:37	Southeast of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/16/2021	South gate of Headframe Fenced Area	7:21	2 L/min	16:01	8:40	1040	0.026	0.434	14:29	Northeast of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/16/2021	Base of Fire Road near Loading Trucks	7:27	2 L/min	16:08	8:41	1042	0.018	1.07	7:28	Southwest of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/16/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	7:39	2 L/min	15:48	8:09	978	0.043	0.817	9:51	North of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/16/2021	At the end of Spunn Road Cul-de-sac	7:33	2 L/min	15:59	8:26	1012	0.003	0.205	15:59	Southeast of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/17/2021	South gate of Headframe Fenced Area	7:14	2 L/min	15:07	7:53	946	0.024	0.449	7:15	Northeast of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/17/2021	Base of Fire Road near Loading Trucks	7:21	2 L/min	15:03	7:42	924	0.038	2.350	9:49	Southwest of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/17/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	7:11	2 L/min	15:08	7:57	954	0.027	0.532	7:12	North of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/17/2021	At the end of Spunn Road Cul-de-sac	7:27	2 L/min	15:12	7:45	930	0.008	0.058	9:28	Southeast of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/18/2021	South gate of Headframe Fenced Area	7:08	2 L/min	15:20	8:12	984	0.036	0.457	13:57	Northeast of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/18/2021	Base of Fire Road near Loading Trucks	7:14	2 L/min	15:16	8:02	964	0.028	0.798	13:36	Southwest of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/18/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	7:20	2 L/min	15:19	7:59	958	0.053	10.6	15:19	North of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/18/2021	At the end of Spunn Road Cul-de-sac	7:25	2 L/min	15:18	7:53	946	0.007	0.047	10:44	Southeast of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/19/2021	South gate of Headframe Fenced Area	7:13	2 L/min	11:52	4:39	558	0.035	1.150	7:14	South of Work Area

Table 4-4
2021 Removal Action Air Monitoring Total Particulate Data
Argonaut Mine Headframe Removal
Jackson, California

Instrument Make/Model	Serial Number	Station Number	Date	Location/Orientation	Start Time	Flow Rate	End Time	Total Run Time (min)	Total Volume (L)	Total Particulate TWA (mg/m ³)	Total Particulate Maximum Concentration (mg/m ³)	Time Maximum Concentration Observed	Comments
DustTrak DRX	8533142804	AHR-AM-02	6/19/2021	Next to Kiln, East Side of Headframe Fenced Area	7:17	2 L/min	11:49	4:32	544	0.032	2.72	11:44	East of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/19/2021	At the end of Spunn Road Cul-de-sac	7:28	2 L/min	11:53	4:25	530	0.029	3.04	11:53	South of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/19/2021	North, Near Headframe Structure	7:21	2 L/min	11:50	4:29	538	0.006	0.192	8:03	North of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/21/2021	South gate of Headframe Fenced Area	7:13	2 L/min	15:13	8:00	960	0.018	0.594	14:01	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/21/2021	East of Staging Area, Top of Slope	7:33	2 L/min	15:17	7:44	928	0.013	2.68	7:34	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/21/2021	North of Spunn Road Cul-de-sac	7:18	2 L/min	15:15	7:57	954	0.029	0.646	7:19	East of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/21/2021	South Side of Spunn Road Cul-de-sac	7:25	2 L/min	15:19	7:54	948	0.005	0.062	7:26	South of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/22/2021	South Gate of Headframe Fenced Area	7:16	2 L/min	15:03	7:47	934	0.011	0.076	7:17	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/22/2021	East of Staging Area, Top of Slope	7:13	2 L/min	15:11	7:58	956	0.010	0.703	7:14	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/22/2021	North of Spunn Road Cul-de-sac	7:21	2 L/min	15:06	7:45	930	0.019	1.38	7:22	East of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/22/2021	South Side of Spunn Road Cul-de-sac	7:27	2 L/min	8:42	1:15	150	0.001	0.029	8:22	South of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/23/2021	South Gate of Headframe Fenced Area	9:27	2 L/min	11:19	1:52	224	0.004	0.776	9:28	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/23/2021	East of Staging Area, Top of Slope	7:27	2 L/min	11:22	3:55	470	0.004	0.344	7:28	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/23/2021	North of Spunn Road Cul-de-sac	7:20	2 L/min	11:24	4:04	488	0.011	1.12	7:21	East of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/23/2021	South Side of Spunn Road Cul-de-sac	7:26	2 L/min	11:27	4:01	482	0.002	0.057	7:27	South of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/24/2021	South Gate of Headframe Fenced Area	7:30	2 L/min	11:57	4:27	534	0.006	0.166	7:31	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/24/2021	East of Staging Area, Top of Slope	7:34	2 L/min	11:59	4:25	530	0.005	0.114	11:38	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/24/2021	North of Spunn Road Cul-de-sac	7:40	2 L/min	12:01	4:21	522	0.010	1.1	7:41	East of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/24/2021	South Side of Spunn Road Cul-de-sac	7:42	2 L/min	12:03	4:21	522	0.003	0.116	9:29	South of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/25/2021	South Gate of Headframe Fenced Area	7:26	2 L/min	11:14	3:48	456	0.005	0.423	7:27	West of Work Area

Table 4-4
2021 Removal Action Air Monitoring Total Particulate Data
Argonaut Mine Headframe Removal
Jackson, California

Instrument Make/Model	Serial Number	Station Number	Date	Location/Orientation	Start Time	Flow Rate	End Time	Total Run Time (min)	Total Volume (L)	Total Particulate TWA (mg/m ³)	Total Particulate Maximum Concentration (mg/m ³)	Time Maximum Concentration Observed	Comments
DustTrak DRX	8533142804	AHR-AM-02	6/25/2021	East of Staging Area, Top of Slope	7:30	2 L/min	11:18	3:48	456	0.003	0.118	9:07	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/25/2021	North of Spunn Road Cul-de-sac	7:34	2 L/min	11:10	3:36	432	0.011	0.537	7:35	East of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/25/2021	South Side of Spunn Road Cul-de-sac	7:37	2 L/min	11:06	3:29	418	0.002	0.051	11:03	South of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/28/2021	South Gate of Headframe Fenced Area	7:38	2 L/min	10:58	3:20	400	0.005	0.194	7:39	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/28/2021	East of Staging Area, Top of Slope	7:26	2 L/min	11:04	3:38	436	0.005	0.192	7:57	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/28/2021	North of Spunn Road Cul-de-sac	7:23	2 L/min	11:15	3:52	464	0.010	1.35	7:24	East of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/28/2021	South Side of Spunn Road Cul-de-sac	7:31	2 L/min	11:19	3:48	456	0.003	0.028	7:32	South of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/29/2021	South Gate of Headframe Fenced Area	7:09	2 L/min	8:41	1:32	184	0.002	0.402	7:10	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/29/2021	East of Staging Area, Top of Slope	7:15	2 L/min	8:46	1:31	182	0.002	0.269	7:16	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/29/2021	North of Spunn Road Cul-de-sac	7:04	2 L/min	8:43	1:39	198	0.005	0.653	7:21	East of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/29/2021	South Side of Spunn Road Cul-de-sac	7:01	2 L/min	8:47	1:46	212	0.001	0.101	8:44	South of Work Area
DustTrak DRX	8533182909	AHR-AM-01	6/30/2021	South Gate of Headframe Fenced Area	7:29	2 L/min	17:29	10:00	1200	0.036	1.93	13:27	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	6/30/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	7:44	2 L/min	17:47	10:03	1206	0.020	0.793	17:01	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	6/30/2021	North Side of Spunn Road Cul-de-sac	8:12	2 L/min	17:54	9:42	1164	0.017	0.532	17:52	South of Work Area
DustTrak DRX	8533182905	AHR-AM-04	6/30/2021	East of Headframe Fenced Area, Down Slope	8:01	2 L/min	16:18	8:17	994	0.013	0.166	10:06	East of Work Area
DustTrak DRX	8533182909	AHR-AM-01	7/1/2021	South Gate of Headframe Fenced Area	7:23	2 L/min	16:47	9:24	1128	0.047	0.946	10:21	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	7/1/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	7:30	2 L/min	16:49	9:19	1118	0.000	3.62	14:54	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	7/1/2021	North Side of Spunn Road Cul-de-sac	7:45	2 L/min	16:41	8:56	1072	0.019	0.62	15:45	South of Work Area
DustTrak DRX	8533182905	AHR-AM-04	7/1/2021	East of Headframe Fenced Area, Down Slope	7:51	2 L/min	16:54	9:03	1086	0.013	0.179	9:53	East of Work Area

Table 4-4
2021 Removal Action Air Monitoring Total Particulate Data
Argonaut Mine Headframe Removal
Jackson, California

Instrument Make/Model	Serial Number	Station Number	Date	Location/Orientation	Start Time	Flow Rate	End Time	Total Run Time (min)	Total Volume (L)	Total Particulate TWA (mg/m ³)	Total Particulate Maximum Concentration (mg/m ³)	Time Maximum Concentration Observed	Comments
DustTrak DRX	8533182909	AHR-AM-01	7/2/2021	South Gate of Headframe Fenced Area	7:32	2 L/min	15:39	8:07	974	0.022	0.295	9:48	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	7/2/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	7:37	2 L/min	16:52	9:15	1110	0.017	0.191	7:38	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	7/2/2021	North Side of Spunn Road Cul-de-sac	7:53	2 L/min	7:22	23:29	2818	0.000	0.056	17:08	South of Work Area
DustTrak DRX	8533182905	AHR-AM-04	7/2/2021	East of Headframe Fenced Area, Down Slope	7:44	2 L/min	17:53	10:09	1218	0.000	0.075	7:46	East of Work Area
DustTrak DRX	8533182909	AHR-AM-01	7/3/2021	South Gate of Headframe Fenced Area	8:08	2 L/min	14:54	6:46	812	0.017	0.576	8:09	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	7/3/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	7:38	2 L/min	14:57	7:19	878	0.017	0.758	7:39	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	7/3/2021	North Side of Spunn Road Cul-de-sac	7:25	2 L/min	14:56	7:31	902	0.007	0.125	9:11	South of Work Area
DustTrak DRX	8533182905	AHR-AM-04	7/3/2021	East of Headframe Fenced Area, Down Slope	7:56	2 L/min	14:46	6:50	820	0.019	0.898	8:44	East of Work Area
DustTrak DRX	8533182909	AHR-AM-01	7/5/2021	South Gate of Headframe Fenced Area	7:35	2 L/min	11:56	4:21	522	0.013	0.558	9:12	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	7/5/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	7:40	2 L/min	11:59	4:19	518	0.010	0.368	9:12	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	7/5/2021	North Side of Spunn Road Cul-de-sac	7:49	2 L/min	12:02	4:13	506	0.007	0.06	9:13	South of Work Area
DustTrak DRX	8533182905	AHR-AM-04	7/5/2021	East of Headframe Fenced Area, Down Slope	8:00	2 L/min	12:06	4:06	492	0.004	0.042	8:01	East of Work Area
DustTrak DRX	8533182909	AHR-AM-01	7/6/2021	South Gate of Headframe Fenced Area	10:29	2 L/min	16:59	6:30	780	0.027	0.922	11:14	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	7/6/2021	West Side of Headframe Fenced Area, Between Two Warehouse Buildings	10:39	2 L/min	17:04	6:25	770	0.035	0.836	12:24	North of Work Area
DustTrak DRX	8533123101	AHR-AM-03	7/6/2021	North Side of Spunn Road Cul-de-sac	10:49	2 L/min	19:40	8:51	1062	0.026	0.272	17:14	South of Work Area
DustTrak DRX	8533182905	AHR-AM-04	7/6/2021	East of Headframe Fenced Area, Down Slope	10:36	2 L/min	17:07	6:31	782	0.008	0.046	14:27	East of Work Area
DustTrak DRX	8533182909	AHR-AM-01	7/7/2021	South Gate of Headframe Fenced Area	7:29	2 L/min	17:16	9:47	1174	0.040	1.42	10:37	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	7/7/2021	North Side of Spunn Road Cul-de-sac	7:35	2 L/min	14:55	7:20	880	0.008	1.77	7:36	Southeast of Work Area

Table 4-4
2021 Removal Action Air Monitoring Total Particulate Data
Argonaut Mine Headframe Removal
Jackson, California

Instrument Make/Model	Serial Number	Station Number	Date	Location/Orientation	Start Time	Flow Rate	End Time	Total Run Time (min)	Total Volume (L)	Total Particulate TWA (mg/m ³)	Total Particulate Maximum Concentration (mg/m ³)	Time Maximum Concentration Observed	Comments
DustTrak DRX	8533182905	AHR-AM-04	7/7/2021	East of Headframe Fenced Area, Down Slope	7:42	2 L/min	17:24	9:42	1164	0.010	0.11	7:43	Northeast of Work Area
DustTrak DRX	8533182909	AHR-AM-01	7/8/2021	South Gate of Headframe Fenced Area	7:57	2 L/min	16:40	8:43	1046	0.020	0.496	14:18	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	7/8/2021	North Side of Spunn Road Cul-de-sac	7:49	2 L/min	16:41	8:52	1064	0.006	1.03	13:07	Southeast of Work Area
DustTrak DRX	8533182905	AHR-AM-04	7/8/2021	East of Headframe Fenced Area, Down Slope	8:17	2 L/min	16:51	8:34	1028	0.008	0.061	8:18	Northeast of Work Area
DustTrak DRX	8533182909	AHR-AM-01	7/9/2021	South Gate of Headframe Fenced Area	7:27	2 L/min	17:02	9:35	1150	0.031	0.329	15:04	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	7/9/2021	North Side of Spunn Road Cul-de-sac	7:48	2 L/min	7:23	23:35	2830	0.000	0.266	17:11	Southeast of Work Area
DustTrak DRX	8533182905	AHR-AM-04	7/9/2021	East of Headframe Fenced Area, Down Slope	7:33	2 L/min	17:04	9:31	1142	0.006	0.053	11:51	Northeast of Work Area
DustTrak DRX	8533182909	AHR-AM-01	7/10/2021	South Gate of Headframe Fenced Area	7:16	2 L/min	15:24	8:08	976	0.027	0.412	11:31	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	7/10/2021	North Side of Spunn Road Cul-de-sac	7:27	2 L/min	15:38	8:11	982	0.012	0.541	7:28	Southeast of Work Area
DustTrak DRX	8533182905	AHR-AM-04	7/10/2021	East of Headframe Fenced Area, Down Slope	7:32	2 L/min	15:32	8:00	960	0.012	0.311	7:33	Northeast of Work Area
DustTrak DRX	8533182909	AHR-AM-01	7/12/2021	South Gate of Headframe Fenced Area	7:26	2 L/min	17:02	9:36	1152	0.051	1.54	8:10	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	7/12/2021	North Side of Spunn Road Cul-de-sac	7:31	2 L/min	17:03	9:32	1144	0.012	0.155	9:30	Southeast of Work Area
DustTrak DRX	8533182905	AHR-AM-04	7/12/2021	East of Headframe Fenced Area, Down Slope	7:37	2 L/min	17:08	9:31	1142	0.014	0.185	13:44	Northeast of Work Area
DustTrak DRX	8533182909	AHR-AM-01	7/13/2021	South Gate of Headframe Fenced Area	7:09	2 L/min	16:58	9:49	1178	0.047	2.58	7:10	West of Work Area
DustTrak DRX	8533142804	AHR-AM-02	7/13/2021	North Side of Spunn Road Cul-de-sac	7:24	2 L/min	16:51	9:27	1134	0.018	0.059	7:25	Southeast of Work Area
DustTrak DRX	8533182905	AHR-AM-04	7/13/2021	East of Headframe Fenced Area, Down Slope	7:13	2 L/min	17:02	9:49	1178	0.018	0.23	7:14	Northeast of Work Area

Notes:

hr = hour

L = liters

mg/m³ = milligrams per meter cubed

min = minute

STEL = short term exposure limit measured over a 15 minute time period

TWA = time weighted average

Total Particulates measures mass concentration of all sizes of particulate matter suspended in air. Data was also collected on PM1, PM2.5, PM4, and PM10 particle sizes.

Table 4-5
2021 Removal Action Arsenic in Air Sampling Data
Argonaut Mine Headframe Removal
Jackson, California

Sample ID	Date	Start Time	End Time	Run Time	Volume (L)	Result (µg/sample)	Result (mg/m ³)	Action Level (mg/m ³)	Initial Flow Rate	Final Flow Rate	Sampling Location
AHR-AM01-060521-m	6/5/2021	7:54	16:51	8 hours 57 minutes	1105.41	ND (<0.5)	ND (<0.000452)	0.01	2064	2053	South gate of Headframe Fenced Area
AHR-AM02-060521-m	6/5/2021	7:55	16:52	8 hours 57 minutes	1137.1	ND (<0.5)	ND (<0.00044)	0.01	2122	2113	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-060521-m	6/5/2021	7:56	16:54	8 hours 58 minutes	1141.1	ND (<0.5)	ND (<0.000438)	0.01	2130	2112	North, Near Headframe Structure
AHR-AM04-060521-m	6/5/2021	7:58	17:00	9 hours 2 minutes	1126.01	ND (<0.5)	ND (<0.000444)	0.01	2101	2054	East of Headframe Fenced Area, Down Slope
AHR-AM01-060721-m	6/7/2021	7:28	17:11	9 hours 43 minutes	1207.1	ND (<0.5)	ND (<0.000414)	0.01	2075	2066	South gate of Headframe Fenced Area
AHR-AM02-060721-m	6/7/2021	7:29	17:13	9 hours 44 minutes	1283.05	ND (<0.5)	ND (<0.00039)	0.01	2196	2198	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-060721-m	6/7/2021	7:30	17:14	9 hours 44 minutes	1228.15	ND (<0.5)	ND (<0.000407)	0.01	2094	2112	North, Near Headframe Structure
AHR-AM04-060721-m	6/7/2021	7:31	17:15	9 hours 44 minutes	1188.44	ND (<0.5)	ND (<0.000421)	0.01	2066	2004	East of Headframe Fenced Area, Down Slope
AHR-AM01-060821-m	6/8/2021	7:25	17:00	9 hours 35 minutes	1188.24	ND (<0.5)	ND (<0.000424)	0.01	2003	2063	South gate of Headframe Fenced Area
AHR-AM02-060821-m	6/8/2021	7:31	17:00	9 hours 29 minutes	1137.72	ND (<0.5)	ND (<0.000424)	0.01	2008	2100	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-060821-m	6/8/2021	7:34	17:02	9 hours 28 minutes	1141.4	ND (<0.5)	ND (<0.000427)	0.01	2014	2083	North, Near Headframe Structure
AHR-AM04-060821-m	6/8/2021	7:28	17:04	9 hours 36 minutes	1087.2	ND (<0.5)	ND (<0.000443)	0.01	1877	2020	East of Headframe Fenced Area, Down Slope
AHR-AM01-060921-m	6/9/2021	7:21	16:41	9 hours 20 minutes	1113	ND (<0.5)	ND (<0.000252)	0.01	1914	2061	South gate of Headframe Fenced Area
AHR-AM02-060921-m	6/9/2021	7:24	16:42	9 hours 18 minutes	1147.53	ND (<0.5)	ND (<0.000243)	0.01	1973	2140	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-060921-m	6/9/2021	7:26	16:43	9 hours 17 minutes	1163.85	ND (<0.5)	ND (<0.000239)	0.01	2039	2140	North, Near Headframe Structure
AHR-AM04-060921-m	6/9/2021	7:29	16:44	9 hours 15 minutes	1089.74	ND (<0.5)	ND (<0.000255)	0.01	1894	2033	East of Headframe Fenced Area, Down Slope
AHR-AM01-061021-m	6/10/2021	7:25	17:14	9 hours 49 minutes	1191.84	ND (<0.5)	ND (<0.000247)	0.01	1944	2103	South gate of Headframe Fenced Area
AHR-AM02-061021-m	6/10/2021	7:30	17:15	9 hours 45 minutes	1182.58	ND (<0.5)	ND (<0.000247)	0.01	1963	2080	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-061021-m	6/10/2021	7:34	17:16	9 hours 42 minutes	1202.41	ND (<0.5)	ND (<0.000242)	0.01	2052	2080	Base of Fire Road near Loading Trucks
AHR-AM04-061021-m	6/10/2021	7:37	17:17	9 hours 40 minutes	1096.2	ND (<0.5)	ND (<0.000265)	0.01	1919	1861	At the end of Spunn Road Cul-de-sac
AHR-AM01-061121-m	6/11/2021	7:24	15:36	8 hours 12 minutes	967.27	ND (<0.5)	ND (<0.000517)	0.01	1879	2053	South gate of Headframe Fenced Area
AHR-AM02-061121-m	6/11/2021	7:25	15:37	8 hours 12 minutes	966.78	ND (<0.5)	ND (<0.000517)	0.01	1915	2015	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-061121-m	6/11/2021	7:26	15:38	8 hours 12 minutes	1030.99	ND (<0.5)	ND (<0.000485)	0.01	2029	2162	Base of Fire Road near Loading Trucks
AHR-AM04-061121-m	6/11/2021	7:27	15:39	8 hours 12 minutes	969.49	ND (<0.5)	ND (<0.000516)	0.01	1933	2008	At the end of Spunn Road Cul-de-sac
AHR-AM01-061421-m	6/14/2021	7:31	16:23	8 hours 52 minutes	1092.73	ND (<0.5)	ND (<0.000458)	0.01	2058	2050	South gate of Headframe Fenced Area
AHR-AM02-061421-m	6/14/2021	7:35	16:24	8 hours 49 minutes	1085.24	ND (<0.5)	ND (<0.000461)	0.01	2050	2053	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-061421-m	6/14/2021	7:37	16:25	8 hours 48 minutes	1109.06	ND (<0.5)	ND (<0.000451)	0.01	2062	2139	Base of Fire Road near Loading Trucks
AHR-AM04-061421-m	6/14/2021	7:40	16:26	8 hours 46 minutes	1064.36	ND (<0.5)	ND (<0.00047)	0.01	2021	2026	At the end of Spunn Road Cul-de-sac
AHR-AM01-061521-m	6/15/2021	7:30	16:28	8 hours 58 minutes	1101.82	ND (<0.5)	ND (<0.000428)	0.01	2013	2083	South gate of Headframe Fenced Area
AHR-AM02-061521-m	6/15/2021	7:31	16:29	8 hours 58 minutes	1167.73	ND (<0.5)	ND (<0.000445)	0.01	2077	2264	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-061521-m	6/15/2021	7:32	16:30	8 hours 58 minutes	1123.61	ND (<0.5)	ND (<0.000446)	0.01	2024	2153	Base of Fire Road near Loading Trucks
AHR-AM04-061521-m	6/15/2021	7:33	16:31	8 hours 58 minutes	1121.73	ND (<0.5)	ND (<0.000454)	0.01	2021	2149	At the end of Spunn Road Cul-de-sac
AHR-AM01-061621-m	6/16/2021	7:47	15:11	7 hours 24 minutes	909.76	ND (<0.5)	ND (<0.00055)	0.01	2047	2051	South gate of Headframe Fenced Area
AHR-AM02-061621-m	6/16/2021	7:48	15:12	7 hours 24 minutes	984.35	ND (<0.5)	ND (<0.000535)	0.01	2229	2205	Base of Fire Road near Loading Trucks
AHR-AM03-061621-m	6/16/2021	7:49	15:13	7 hours 24 minutes	935.06	ND (<0.5)	ND (<0.000538)	0.01	2108	2104	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM04-061621-m	6/16/2021	7:50	15:14	7 hours 24 minutes	946.39	ND (<0.5)	ND (<0.000539)	0.01	2126	2137	At the end of Spunn Road Cul-de-sac
AHR-AM01-062121-m	6/21/2021	8:08	15:26	7 hours 18 minutes	900.09	ND (<0.5)	ND (<0.000556)	0.01	2087	2023	South gate of Headframe Fenced Area
AHR-AM02-062121-m	6/21/2021	8:14	15:28	7 hours 14 minutes	948.29	ND (<0.5)	ND (<0.000534)	0.01	2290	2080	East of Staging Area, Top of Slope

Table 4-5
2021 Removal Action Arsenic in Air Sampling Data
Argonaut Mine Headframe Removal
Jackson, California

Sample ID	Date	Start Time	End Time	Run Time	Volume (L)	Result (µg/sample)	Result (mg/m ³)	Action Level (mg/m ³)	Initial Flow Rate	Final Flow Rate	Sampling Location
AHR-AM03-062121-m	6/21/2021	8:19	15:30	7 hours 11 minutes	936.13	ND (<0.5)	ND (<0.000544)	0.01	2186	2158	North of Spunn Road Cul-de-sac
AHR-AM04-062121-m	6/21/2021	8:24	15:32	7 hours 8 minutes	949.95	ND (<0.5)	ND (<0.00055)	0.01	2274	2165	South Side of Spunn Road Cul-de-sac
AHR-AM01-062221-m	6/22/2021	7:40	15:24	7 hours 44 minutes	938.9	ND (<0.5)	ND (<0.000533)	0.01	2016	2031	South Gate of Headframe Fenced Area
AHR-AM02-062221-m	6/22/2021	7:43	15:22	7 hours 39 minutes	977.44	ND (<0.5)	ND (<0.000531)	0.01	2120	2139	East of Staging Area, Top of Slope
AHR-AM03-062221-m	6/22/2021	7:53	15:23	7 hours 30 minutes	941.85	ND (<0.5)	ND (<0.000521)	0.01	2067	2119	North of Spunn Road Cul-de-sac
AHR-AM04-062221-m	6/22/2021	7:55	15:19	7 hours 24 minutes	953.93	ND (<0.5)	ND (<0.000535)	0.01	2154	2143	South Side of Spunn Road Cul-de-sac
AHR-AM01-062321-m	6/23/2021	7:38	11:35	3 hours 57 minutes	467.25	ND (<0.5)	ND (<0.00107)	0.01	1945	1998	South Gate of Headframe Fenced Area
AHR-AM02-062321-m	6/23/2021	7:42	11:37	3 hours 55 minutes	504.66	ND (<0.5)	ND (<0.00105)	0.01	2111	2184	East of Staging Area, Top of Slope
AHR-AM03-062321-m	6/23/2021	7:46	11:38	3 hours 52 minutes	477.69	ND (<0.5)	ND (<0.00104)	0.01	2056	2062	North of Spunn Road Cul-de-sac
AHR-AM04-062321-m	6/23/2021	7:50	11:33	3 hours 43 minutes	479.56	ND (<0.5)	ND (<0.00105)	0.01	2165	2136	South Side of Spunn Road Cul-de-sac
AHR-AM01-062421-m	6/24/2021	7:50	12:12	4 hours 22 minutes	523.21	ND (<0.5)	ND (<0.000956)	0.01	2019	1975	South Gate of Headframe Fenced Area
AHR-AM02-062421-m	6/24/2021	7:53	12:15	4 hours 22 minutes	559.11	ND (<0.5)	ND (<0.000936)	0.01	2133	2135	East of Staging Area, Top of Slope
AHR-AM03-062421-m	6/24/2021	7:55	12:13	4 hours 18 minutes	533.93	ND (<0.5)	ND (<0.000926)	0.01	2070	2069	North of Spunn Road Cul-de-sac
AHR-AM04-062421-m	6/24/2021	7:59	12:19	4 hours 20 minutes	564.72	ND (<0.5)	ND (<0.000945)	0.01	2168	2176	South Side of Spunn Road Cul-de-sac
AHR-AM01-062521-m	6/25/2021	7:45	11:40	3 hours 55 minutes	466.12	ND (<0.5)	ND (<0.00107)	0.01	2039	1928	South Gate of Headframe Fenced Area
AHR-AM02-062521-m	6/25/2021	7:47	11:38	3 hours 53 minutes	500.79	ND (<0.5)	ND (<0.00108)	0.01	2089	2155	East of Staging Area, Top of Slope
AHR-AM03-062521-m	6/25/2021	7:51	11:35	3 hours 44 minutes	461.44	ND (<0.5)	ND (<0.00103)	0.01	2059	2061	North of Spunn Road Cul-de-sac
AHR-AM04-062521-m	6/25/2021	7:52	11:33	3 hours 41 minutes	471.95	ND (<0.5)	ND (<0.00111)	0.01	2171	2100	South Side of Spunn Road Cul-de-sac
AHR-AM01-062821-m	6/28/2021	8:03	11:46	3 hours 43 minutes	455.25	ND (<0.5)	ND (<0.0011)	0.01	2088	1995	South Gate of Headframe Fenced Area
AHR-AM02-062821-m	6/28/2021	8:06	11:43	3 hours 37 minutes	460.91	ND (<0.5)	ND (<0.0011)	0.01	2207	2041	East of Staging Area, Top of Slope
AHR-AM03-062821-m	6/28/2021	8:09	11:47	3 hours 38 minutes	455.29	ND (<0.5)	ND (<0.0011)	0.01	2123	2054	North of Spunn Road Cul-de-sac
AHR-AM04-062821-m	6/28/2021	8:11	11:48	3 hours 37 minutes	471.98	ND (<0.5)	ND (<0.00113)	0.01	2215	2135	South Side of Spunn Road Cul-de-sac
AHR-AM01-063021-m	6/30/2021	8:10	17:47	9 hours 37 minutes	1193.81	ND (<0.5)	ND (<0.000419)	0.01	2074	2064	South Gate of Headframe Fenced Area
AHR-AM02-063021-m	6/30/2021	8:11	17:52	9 hours 41 minutes	1255.54	ND (<0.5)	ND (<0.000398)	0.01	2101	2221	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-063021-m	6/30/2021	8:14	17:56	9 hours 42 minutes	1221.62	ND (<0.5)	ND (<0.000409)	0.01	2074	2124	North Side of Spunn Road Cul-de-sac
AHR-AM04-063021-m	6/30/2021	8:05	18:02	9 hours 57 minutes	1309.52	ND (<0.5)	ND (<0.000382)	0.01	2166	2221	East of Headframe Fenced Area, Down Slope
AHR-AM01-070121-m	7/1/2021	8:25	16:46	8 hours 21 minutes	994.23	ND (<0.5)	ND (<0.0005)	0.01	2043	1926	South Gate of Headframe Fenced Area
AHR-AM02-070121-m	7/1/2021	8:31	16:50	8 hours 19 minutes	1063.37	ND (<0.5)	ND (<0.000503)	0.01	2138	2124	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-070121-m	7/1/2021	8:46	16:42	7 hours 56 minutes	1000.31	ND (<0.5)	ND (<0.00047)	0.01	2075	2128	North Side of Spunn Road Cul-de-sac
AHR-AM04-070121-m	7/1/2021	8:53	16:55	8 hours 2 minutes	1029.79	ND (<0.5)	ND (<0.000486)	0.01	2135	2138	East of Headframe Fenced Area, Down Slope
AHR-AM01-070221-m	7/2/2021	7:34	16:56	9 hours 22 minutes	1200.71	ND (<0.5)	ND (<0.000416)	0.01	2106	2167	South Gate of Headframe Fenced Area
AHR-AM02-070221-m	7/2/2021	7:39	16:54	9 hours 15 minutes	1201.02	ND (<0.5)	ND (<0.000416)	0.01	2129	2199	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-070221-m	7/2/2021	7:56	17:07	9 hours 11 minutes	1169.77	ND (<0.5)	ND (<0.000422)	0.01	2178	2068	North Side of Spunn Road Cul-de-sac
AHR-AM04-070221-m	7/2/2021	7:47	17:03	9 hours 16 minutes	1185.95	ND (<0.5)	ND (<0.000427)	0.01	2164	2102	East of Headframe Fenced Area, Down Slope
AHR-AM01-070321-m	7/3/2021	8:06	14:54	6 hours 48 minutes	863.12	ND (<0.5)	ND (<0.000579)	0.01	2079	2152	South Gate of Headframe Fenced Area
AHR-AM02-070321-m	7/3/2021	7:40	14:57	7 hours 17 minutes	938.68	ND (<0.5)	ND (<0.000533)	0.01	2093	2203	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-070321-m	7/3/2021	7:27	15:01	7 hours 34 minutes	934.79	ND (<0.5)	ND (<0.000535)	0.01	2040	2078	North Side of Spunn Road Cul-de-sac
AHR-AM04-070321-m	7/3/2021	7:58	14:48	6 hours 50 minutes	889.7	ND (<0.5)	ND (<0.000562)	0.01	2118	2222	East of Headframe Fenced Area, Down Slope
AHR-AM01-070521-m	7/5/2021	7:36	11:55	4 hours 19 minutes	570.58	ND (<0.5)	ND (<0.000876)	0.01	2170	2236	South Gate of Headframe Fenced Area
AHR-AM02-070521-m	7/5/2021	7:42	12:00	4 hours 18 minutes	567.08	ND (<0.5)	ND (<0.000882)	0.01	2208	2188	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-070521-m	7/5/2021	7:51	12:03	4 hours 12 minutes	523.78	ND (<0.5)	ND (<0.000955)	0.01	2060	2097	North Side of Spunn Road Cul-de-sac

Table 4-5
2021 Removal Action Arsenic in Air Sampling Data
Argonaut Mine Headframe Removal
Jackson, California

Sample ID	Date	Start Time	End Time	Run Time	Volume (L)	Result (µg/sample)	Result (mg/m ³)	Action Level (mg/m ³)	Initial Flow Rate	Final Flow Rate	Sampling Location
AHR-AM04-070521-mi	7/5/2021	8:01	12:07	4 hours 6 minutes	543.41	ND (<0.5)	ND (<0.00092)	0.01	2186	2232	East of Headframe Fenced Area, Down Slope
AHR-AM01-070621-m	7/6/2021	10:30	17:00	6 hours 30 minutes	834.6	ND (<0.5)	ND (<0.000599)	0.01	2095	2185	South Gate of Headframe Fenced Area
AHR-AM02-070621-m	7/6/2021	10:40	17:04	6 hours 24 minutes	821.95	ND (<0.5)	ND (<0.000608)	0.01	2103	2178	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-070621-m	7/6/2021	10:50	17:10	6 hours 20 minutes	784.13	ND (<0.5)	ND (<0.000638)	0.01	2067	2060	North Side of Spunn Road Cul-de-sac
AHR-AM04-070621-m	7/6/2021	10:37	17:15	6 hours 38 minutes	865.65	ND (<0.5)	ND (<0.000578)	0.01	2177	2173	East of Headframe Fenced Area, Down Slope
AHR-AM01-070721-m	7/7/2021	7:30	17:17	9 hours 47 minutes	1239.74	ND (<0.5)	ND (<0.000403)	0.01	2087	2137	South Gate of Headframe Fenced Area
AHR-AM02-070721-m	7/7/2021	7:36	17:22	9 hours 46 minutes	1246.42	ND (<0.5)	ND (<0.000401)	0.01	2116	2138	North Side of Spunn Road Cul-de-sac
AHR-AM04-070721-m	7/7/2021	7:44	17:28	9 hours 44 minutes	1262.9	ND (<0.5)	ND (<0.000396)	0.01	2119	2206	East of Headframe Fenced Area, Down Slope
AHR-AM01-070821-m	7/8/2021	8:07	16:48	8 hours 41 minutes	1135	ND (<0.5)	ND (<0.000441)	0.01	2172	2185	South Gate of Headframe Fenced Area
AHR-AM02-070821-m	7/8/2021	8:12	16:45	8 hours 33 minutes	1108.59	ND (<0.5)	ND (<0.000451)	0.01	2177	2145	North Side of Spunn Road Cul-de-sac
AHR-AM04-070821-m	7/8/2021	8:19	16:52	8 hours 33 minutes	1129.63	ND (<0.5)	ND (<0.000443)	0.01	2236	2168	East of Headframe Fenced Area, Down Slope
AHR-AM01-070921-m	7/9/2021	7:28	17:02	9 hours 34 minutes	1257.06	ND (<0.5)	ND (<0.000398)	0.01	2197	2183	South Gate of Headframe Fenced Area
AHR-AM02-070921-m	7/9/2021	7:50	17:11	9 hours 21 minutes	1203.63	ND (<0.5)	ND (<0.000415)	0.01	2119	2172	North Side of Spunn Road Cul-de-sac
AHR-AM04-070921-m	7/9/2021	7:36	17:06	9 hours 30 minutes	1247.16	ND (<0.5)	ND (<0.000401)	0.01	2195	2181	East of Headframe Fenced Area, Down Slope
AHR-AM01-071021-m	7/10/2021	7:20	15:25	8 hours 5 minutes	1031.6	ND (<0.5)	ND (<0.000485)	0.01	2184	2070	South Gate of Headframe Fenced Area
AHR-AM02-071021-m	7/10/2021	7:29	15:40	8 hours 11 minutes	1071.36	ND (<0.5)	ND (<0.000467)	0.01	2179	2185	North Side of Spunn Road Cul-de-sac
AHR-AM04-071021-m	7/10/2021	7:35	15:35	8 hours	984.24	ND (<0.5)	ND (<0.000508)	0.01	2085	2016	East of Headframe Fenced Area, Down Slope
AHR-AM01-071221-m	7/12/2021	7:28	17:03	9 hours 35 minutes	1271.33	ND (<0.5)	ND (<0.000393)	0.01	2238	2184	South Gate of Headframe Fenced Area
AHR-AM02-071221-m	7/12/2021	7:34	17:07	9 hours 33 minutes	1319.33	ND (<0.5)	ND (<0.000379)	0.01	2401	2204	North Side of Spunn Road Cul-de-sac
AHR-AM04-071221-m	7/12/2021	7:40	17:10	9 hours 30 minutes	1287.35	ND (<0.5)	ND (<0.000388)	0.01	2311	2206	East of Headframe Fenced Area, Down Slope
AHR-AM01-071321-m	7/13/2021	7:10	17:00	9 hours 50 minutes	1298	ND (<0.5)	ND (<0.000385)	0.01	2199	2201	South Gate of Headframe Fenced Area
AHR-AM02-071321-m	7/13/2021	7:25	16:55	9 hours 30 minutes	1235.48	ND (<0.5)	ND (<0.000405)	0.01	2154	2181	North Side of Spunn Road Cul-de-sac
AHR-AM04-071321-m	7/13/2021	7:16	17:04	9 hours 48 minutes	1292.13	ND (<0.5)	ND (<0.000387)	0.01	2180	2215	East of Headframe Fenced Area, Down Slope

Notes:
mg/m³ = miligram per meter cubed
ug = microgram
ND = not detected above reporting limit (<RL)
mL = milliliter
min = minute
L = liter

Table 4-6
2021 Removal Action Lead in Air Sampling Data
Argonaut Mine Headframe Removal
Jackson, California

Sample ID	Date	Start Time	End Time	Run Time	Volume (L)	Result (µg/sample)	Result (mg/m ³)	Qualifier	Action Level (mg/m ³)	Initial Flow Rate (ml/min)	Final Flow Rate (ml/min)	Sampling Location
AHR-AM01-060521-Hg	6/5/2021	7:54	16:51	8 hours 57 minutes	1136.02	ND (<0.05)	ND (<0.000044)		0.1	2113	2118	South gate of Headframe Fenced Area
AHR-AM02-060521-Hg	6/5/2021	7:55	16:52	8 hours 57 minutes	1132.8	ND (<0.05)	ND (<0.0000441)		0.1	2118	2101	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-060521-Hg	6/5/2021	7:56	16:54	8 hours 58 minutes	1107.74	ND (<0.05)	ND (<0.0000451)		0.1	2025	2093	North, Near Headframe Structure
AHR-AM04-060521-Hg	6/5/2021	7:58	17:00	9 hours 2 minutes	1100.26	ND (<0.05)	ND (<0.0000454)		0.1	2025	2035	East of Headframe Fenced Area, Down Slope
AHR-AM01-060721-Hg	6/7/2021	7:32	17:16	9 hours 44 minutes	1253.85	ND (<0.05)	ND (<0.0000399)		0.1	2156	2138	South gate of Headframe Fenced Area
AHR-AM02-060721-Hg	6/7/2021	7:34	17:17	9 hours 43 minutes	1224.01	ND (<0.05)	ND (<0.0000408)		0.1	2100	2099	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-060721-Hg	6/7/2021	7:34	17:18	9 hours 44 minutes	1194.57	ND (<0.05)	ND (<0.0000419)		0.1	2039	2052	North, Near Headframe Structure
AHR-AM04-060721-Hg	6/7/2021	7:35	17:18	9 hours 44 minutes	1131.89	ND (<0.05)	ND (<0.0000442)		0.1	1946	1937	East of Headframe Fenced Area, Down Slope
AHR-AM01-060821-Hg	6/8/2021	7:25	17:05	9 hours 40 minutes	1179.14	0.0537	0.0000452		0.1	2019	2114	South gate of Headframe Fenced Area
AHR-AM02-060821-Hg	6/8/2021	7:31	17:05	9 hours 34 minutes	1179	ND (<0.05)	ND (<0.0000439)		0.1	1963	2036	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-060821-Hg	6/8/2021	7:34	17:06	9 hours 32 minutes	1171.74	ND (<0.05)	ND (<0.0000438)		0.1	1980	2039	North, Near Headframe Structure
AHR-AM04-060821-Hg	6/8/2021	7:28	17:07	9 hours 39 minutes	1128.18	ND (<0.05)	ND (<0.000046)		0.1	1877	1898	East of Headframe Fenced Area, Down Slope
AHR-AM01-060921-Hg	6/9/2021	7:21	16:41	9 hours 20 minutes	1156.12	ND (<0.05)	ND (<0.0000242)		0.1	2024	2105	South gate of Headframe Fenced Area
AHR-AM02-060921-Hg	6/9/2021	7:24	16:42	9 hours 18 minutes	1100.1	ND (<0.05)	ND (<0.0000254)		0.1	1936	2007	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-060921-Hg	6/9/2021	7:26	16:43	9 hours 17 minutes	1129.32	ND (<0.05)	ND (<0.0000247)		0.1	1972	2083	North, Near Headframe Structure
AHR-AM04-060921-Hg	6/9/2021	7:29	16:44	9 hours 15 minutes	1053.67	ND (<0.05)	ND (<0.0000263)		0.1	1877	1920	East of Headframe Fenced Area, Down Slope
AHR-AM01-061021-Hg	6/10/2021	7:25	17:14	9 hours 49 minutes	1180.65	ND (<0.05)	ND (<0.0000249)		0.1	1961	2048	South gate of Headframe Fenced Area
AHR-AM02-061021-Hg	6/10/2021	7:30	17:15	9 hours 45 minutes	1132.85	ND (<0.05)	ND (<0.0000258)		0.1	1926	1947	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-061021-Hg	6/10/2021	7:34	17:16	9 hours 42 minutes	1170.4	ND (<0.05)	ND (<0.0000249)		0.1	1975	2047	Base of Fire Road near Loading Trucks
AHR-AM04-061021-Hg	6/10/2021	7:37	17:17	9 hours 40 minutes	1119.11	ND (<0.05)	ND (<0.0000545)		0.1	1872	1987	At the end of Spunn Road Cul-de-sac
AHR-AM01-061121-Hg	6/11/2021	7:24	15:36	8 hours 12 minutes	1000.73	0.0693	0.0000692		0.1	2024	2044	South gate of Headframe Fenced Area
AHR-AM02-061121-Hg	6/11/2021	7:25	15:37	8 hours 12 minutes	967.76	ND (<0.05)	ND (<0.0000517)		0.1	1931	2003	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-061121-Hg	6/11/2021	7:26	15:38	8 hours 12 minutes	994.09	ND (<0.05)	ND (<0.0000503)		0.1	1985	2056	Base of Fire Road near Loading Trucks
AHR-AM04-061121-Hg	6/11/2021	7:27	15:39	8 hours 12 minutes	917.33	ND (<0.05)	ND (<0.0000531)		0.1	1874	1855	At the end of Spunn Road Cul-de-sac
AHR-AM01-061421-Hg	6/14/2021	7:24	16:23	8 hours 59 minutes	1110.07	ND (<0.05)	ND (<0.000045)		0.1	2039	2080	South gate of Headframe Fenced Area
AHR-AM02-061421-Hg	6/14/2021	7:25	16:24	8 hours 59 minutes	1066.41	ND (<0.05)	ND (<0.0000469)		0.1	1984	1973	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-061421-Hg	6/14/2021	7:26	16:25	8 hours 59 minutes	1103.87	ND (<0.05)	ND (<0.0000453)		0.1	2030	2066	Base of Fire Road near Loading Trucks
AHR-AM04-061421-Hg	6/14/2021	7:27	16:26	8 hours 59 minutes	1018.71	ND (<0.05)	ND (<0.0000491)		0.1	1886	1894	At the end of Spunn Road Cul-de-sac
AHR-AM01-061521-Hg	6/15/2021	7:30	16:28	8 hours 58 minutes	1124.15	ND (<0.05)	ND (<0.0000445)		0.1	2028	2151	South gate of Headframe Fenced Area
AHR-AM02-061521-Hg	6/15/2021	7:31	16:29	8 hours 58 minutes	1165.58	ND (<0.05)	ND (<0.0000429)		0.1	2087	2246	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-061521-Hg	6/15/2021	7:32	16:30	8 hours 58 minutes	1121.19	ND (<0.05)	ND (<0.0000446)		0.1	2017	2151	Base of Fire Road near Loading Trucks
AHR-AM04-061521-Hg	6/15/2021	7:33	16:31	8 hours 58 minutes	1124.15	ND (<0.05)	ND (<0.0000445)		0.1	2034	2145	At the end of Spunn Road Cul-de-sac
AHR-AM01-061621-Hg	6/16/2021	7:47	15:11	7 hours 24 minutes	929.74	ND (<0.05)	ND (<0.0000508)		0.1	2098	2090	South gate of Headframe Fenced Area
AHR-AM02-061621-Hg	6/16/2021	7:48	15:12	7 hours 24 minutes	990.12	ND (<0.05)	ND (<0.0000528)		0.1	2155	2305	Base of Fire Road near Loading Trucks
AHR-AM03-061621-Hg	6/16/2021	7:49	15:13	7 hours 24 minutes	928.4	ND (<0.05)	ND (<0.0000505)		0.1	2073	2109	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM04-061621-Hg	6/16/2021	7:50	15:14	7 hours 24 minutes	941.72	ND (<0.05)	ND (<0.0000531)		0.1	2160	2082	At the end of Spunn Road Cul-de-sac
AHR-AM01-062121-Hg	6/21/2021	8:08	15:26	7 hours 18 minutes	919.8	ND (<0.05)	ND (<0.0000527)		0.1	2161	2039	South gate of Headframe Fenced Area

Table 4-6
2021 Removal Action Lead in Air Sampling Data
Argonaut Mine Headframe Removal
Jackson, California

Sample ID	Date	Start Time	End Time	Run Time	Volume (L)	Result (µg/sample)	Result (mg/m ³)	Qualifier	Action Level (mg/m ³)	Initial Flow Rate (ml/min)	Final Flow Rate (ml/min)	Sampling Location
AHR-AM02-062121-Hg	6/21/2021	8:14	15:28	7 hours 14 minutes	940.7	ND (<0.05)	ND (<0.0000526)		0.1	2174	2161	East of Staging Area, Top of Slope
AHR-AM03-062121-Hg	6/21/2021	8:19	15:30	7 hours 11 minutes	909.19	ND (<0.05)	ND (<0.0000532)		0.1	2123	2096	North of Spunn Road Cul-de-sac
AHR-AM04-062121-Hg	6/21/2021	8:24	15:32	7 hours 8 minutes	924.48	ND (<0.05)	ND (<0.0000531)		0.1	2210	2110	South Side of Spunn Road Cul-de-sac
AHR-AM01-062221-Hg	6/22/2021	7:38	15:24	7 hours 46 minutes	963.69	ND (<0.05)	ND (<0.0000512)		0.1	2062	2074	South Gate of Headframe Fenced Area
AHR-AM02-062221-Hg	6/22/2021	7:42	15:22	7 hours 40 minutes	1002.34	ND (<0.05)	ND (<0.0000524)		0.1	2183	2175	East of Staging Area, Top of Slope
AHR-AM03-062221-Hg	6/22/2021	7:56	15:23	7 hours 27 minutes	927.97	ND (<0.05)	ND (<0.00005)		0.1	2062	2090	North of Spunn Road Cul-de-sac
AHR-AM04-062221-Hg	6/22/2021	7:50	15:19	7 hours 29 minutes	933.02	ND (<0.05)	ND (<0.0000542)		0.1	2067	2089	South Side of Spunn Road Cul-de-sac
AHR-AM01-062321-Hg	6/23/2021	7:38	11:35	3 hours 57 minutes	478.5	ND (<0.05)	ND (<0.0000991)		0.1	2003	2035	South Gate of Headframe Fenced Area
AHR-AM02-062321-Hg	6/23/2021	7:42	11:37	3 hours 55 minutes	505.37	ND (<0.05)	ND (<0.000104)		0.1	2144	2157	East of Staging Area, Top of Slope
AHR-AM03-062321-Hg	6/23/2021	7:46	11:38	3 hours 52 minutes	475.6	ND (<0.05)	ND (<0.0000989)		0.1	2037	2063	North of Spunn Road Cul-de-sac
AHR-AM04-062321-Hg	6/23/2021	7:50	11:33	3 hours 43 minutes	459.49	ND (<0.05)	ND (<0.000109)		0.1	2088	2033	South Side of Spunn Road Cul-de-sac
AHR-AM01-062421-Hg	6/24/2021	7:50	12:13	4 hours 23 minutes	540.07	ND (<0.05)	ND (<0.0000894)		0.1	2056	2051	South Gate of Headframe Fenced Area
AHR-AM02-062421-Hg	6/24/2021	7:53	12:15	4 hours 22 minutes	559.63	ND (<0.05)	ND (<0.0000885)		0.1	2109	2163	East of Staging Area, Top of Slope
AHR-AM03-062421-Hg	6/24/2021	7:55	12:13	4 hours 18 minutes	529.29	ND (<0.05)	ND (<0.0000893)		0.1	2044	2059	North of Spunn Road Cul-de-sac
AHR-AM04-062421-Hg	6/24/2021	7:59	12:19	4 hours 20 minutes	541.32	ND (<0.05)	ND (<0.0000924)		0.1	2090	2074	South Side of Spunn Road Cul-de-sac
AHR-AM01-062521-Hg	6/25/2021	7:45	11:40	3 hours 55 minutes	484.69	ND (<0.05)	ND (<0.0000998)		0.1	2092	2033	South Gate of Headframe Fenced Area
AHR-AM02-062521-Hg	6/25/2021	7:47	11:38	3 hours 53 minutes	499.65	ND (<0.05)	ND (<0.000106)		0.1	2146	2180	East of Staging Area, Top of Slope
AHR-AM03-062521-Hg	6/25/2021	7:51	11:35	3 hours 44 minutes	450.91	ND (<0.05)	ND (<0.0001)		0.1	2036	1990	North of Spunn Road Cul-de-sac
AHR-AM04-062521-Hg	6/25/2021	7:52	11:33	3 hours 41 minutes	454.16	ND (<0.05)	ND (<0.00011)		0.1	2052	2058	South Side of Spunn Road Cul-de-sac
AHR-AM01-062821-Hg	6/28/2021	8:03	11:46	3 hours 43 minutes	454.36	ND (<0.05)	ND (<0.000108)		0.1	2054	2021	South Gate of Headframe Fenced Area
AHR-AM02-062821-Hg	6/28/2021	8:06	11:43	3 hours 37 minutes	466.77	ND (<0.05)	ND (<0.000106)		0.1	2179	2123	East of Staging Area, Top of Slope
AHR-AM03-062821-Hg	6/28/2021	8:09	11:47	3 hours 38 minutes	444.18	ND (<0.05)	ND (<0.000107)		0.1	2040	2035	North of Spunn Road Cul-de-sac
AHR-AM04-062821-Hg	6/28/2021	8:11	11:48	3 hours 37 minutes	452.01	ND (<0.05)	ND (<0.000111)		0.1	2061	2105	South Side of Spunn Road Cul-de-sac
AHR-AM03-063021-Hg	6/30/2021	8:14	17:56	9 hours 42 minutes	1191.06	ND (<0.05)	ND (<0.000042)		0.1	2024	2069	North Side of Spunn Road Cul-de-sac
AHR-AM04-063021-Hg	6/30/2021	8:05	18:02	9 hours 57 minutes	1264.45	ND (<0.05)	ND (<0.0000395)		0.1	2058	2178	East of Headframe Fenced Area, Down Slope
AHR-AM01-070121-Hg	7/1/2021	8:25	16:46	8 hours 21 minutes	1070.14	ND (<0.05)	ND (<0.000053)		0.1	2151	2121	South Gate of Headframe Fenced Area
AHR-AM02-070121-Hg	7/1/2021	8:31	16:50	8 hours 19 minutes	1069.36	ND (<0.05)	ND (<0.0000467)		0.1	2109	2177	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-070121-Hg	7/1/2021	8:46	16:42	7 hours 56 minutes	944.15	ND (<0.05)	ND (<0.0000468)		0.1	2030	1937	North Side of Spunn Road Cul-de-sac
AHR-AM04-070121-Hg	7/1/2021	8:53	16:55	8 hours 2 minutes	981.59	ND (<0.05)	ND (<0.0000509)		0.1	2010	2063	East of Headframe Fenced Area, Down Slope
AHR-AM01-070221-Hg	7/2/2021	7:34	16:56	9 hours 22 minutes	1202.12	ND (<0.05)	ND (<0.0000413)		0.1	2119	2159	South Gate of Headframe Fenced Area
AHR-AM02-070221-Hg	7/2/2021	7:39	16:54	9 hours 15 minutes	1209.9	ND (<0.05)	ND (<0.0000416)		0.1	2144	2216	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-070221-Hg	7/2/2021	7:56	17:07	9 hours 11 minutes	1121.01	ND (<0.05)	ND (<0.0000419)		0.1	2040	2029	North Side of Spunn Road Cul-de-sac
AHR-AM04-070221-Hg	7/2/2021	7:47	17:03	9 hours 16 minutes	1194.29	ND (<0.05)	ND (<0.0000446)		0.1	2106	2190	East of Headframe Fenced Area, Down Slope
AHR-AM01-070321-Hg	7/3/2021	8:06	14:54	6 hours 48 minutes	865.98	ND (<0.05)	ND (<0.0000577)		0.1	2121	2124	South Gate of Headframe Fenced Area
AHR-AM02-070321-Hg	7/3/2021	7:40	14:57	7 hours 17 minutes	945.45	ND (<0.05)	ND (<0.0000529)		0.1	2125	2202	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-070321-Hg	7/3/2021	7:27	15:01	7 hours 34 minutes	925.25	ND (<0.05)	ND (<0.000054)		0.1	2034	2042	North Side of Spunn Road Cul-de-sac
AHR-AM04-070321-Hg	7/3/2021	7:58	14:48	6 hours 50 minutes	865.92	ND (<0.05)	ND (<0.0000577)		0.1	2082	2142	East of Headframe Fenced Area, Down Slope
AHR-AM01-070521-Hg	7/5/2021	7:36	11:55	4 hours 19 minutes	550.89	ND (<0.05)	ND (<0.0000908)		0.1	2102	2152	South Gate of Headframe Fenced Area
AHR-AM02-070521-Hg	7/5/2021	7:42	12:00	4 hours 18 minutes	561.67	ND (<0.05)	ND (<0.000089)		0.1	2246	2108	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-070521-Hg	7/5/2021	7:51	12:03	4 hours 12 minutes	519.37	ND (<0.05)	ND (<0.0000963)		0.1	2118	2004	North Side of Spunn Road Cul-de-sac

Table 4-6
2021 Removal Action Lead in Air Sampling Data
Argonaut Mine Headframe Removal
Jackson, California

Sample ID	Date	Start Time	End Time	Run Time	Volume (L)	Result (µg/sample)	Result (mg/m ³)	Qualifier	Action Level (mg/m ³)	Initial Flow Rate (ml/min)	Final Flow Rate (ml/min)	Sampling Location
AHR-AM04-070521-Hg	7/5/2021	8:01	12:07	4 hours 6 minutes	536.16	ND (<0.05)	ND (<0.0000933)		0.1	2126	2233	East of Headframe Fenced Area, Down Slope
AHR-AM01-070621-Hg	7/6/2021	10:30	17:00	6 hours 30 minutes	831.09	ND (<0.05)	ND (<0.0000602)		0.1	2099	2163	South Gate of Headframe Fenced Area
AHR-AM02-070621-Hg	7/6/2021	10:40	17:04	6 hours 24 minutes	830.59	ND (<0.05)	ND (<0.0000602)		0.1	2144	2182	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-070621-Hg	7/6/2021	10:50	17:10	6 hours 20 minutes	757.34	ND (<0.05)	ND (<0.000066)		0.1	1966	2020	North Side of Spunn Road Cul-de-sac
AHR-AM04-070621-Hg	7/6/2021	10:37	17:15	6 hours 38 minutes	823.66	ND (<0.05)	ND (<0.0000607)		0.1	2025	2114	East of Headframe Fenced Area, Down Slope
AHR-AM01-070721-Hg	7/7/2021	7:30	17:17	9 hours 47 minutes	1262.34	ND (<0.05)	ND (<0.0000396)		0.1	2110	2191	South Gate of Headframe Fenced Area
AHR-AM02-070721-Hg	7/7/2021	7:36	17:22	9 hours 46 minutes	1294.77	ND (<0.05)	ND (<0.0000386)		0.1	2241	2178	North Side of Spunn Road Cul-de-sac
AHR-AM04-070721-Hg	7/7/2021	7:44	17:28	9 hours 44 minutes	1231.66	ND (<0.05)	ND (<0.0000406)		0.1	2050	2168	East of Headframe Fenced Area, Down Slope
AHR-AM01-070821-Hg	7/8/2021	8:07	16:48	8 hours 41 minutes	1136.56	ND (<0.05)	ND (<0.000044)		0.1	2185	2178	South Gate of Headframe Fenced Area
AHR-AM02-070821-Hg	7/8/2021	8:12	16:45	8 hours 33 minutes	1148.09	ND (<0.05)	ND (<0.0000436)		0.1	2268	2208	North Side of Spunn Road Cul-de-sac
AHR-AM04-070821-Hg	7/8/2021	8:19	16:52	8 hours 33 minutes	1116.54	ND (<0.05)	ND (<0.0000448)		0.1	2178	2175	East of Headframe Fenced Area, Down Slope
AHR-AM01-070921-Hg	7/9/2021	7:28	17:02	9 hours 34 minutes	1247.3	ND (<0.05)	ND (<0.0000401)		0.1	2160	2186	South Gate of Headframe Fenced Area
AHR-AM02-070921-Hg	7/9/2021	7:50	17:11	9 hours 21 minutes	1217.09	ND (<0.05)	ND (<0.0000411)		0.1	2186	2153	North Side of Spunn Road Cul-de-sac
AHR-AM04-070921-Hg	7/9/2021	7:36	17:06	9 hours 30 minutes	1251.72	ND (<0.05)	ND (<0.0000399)		0.1	2152	2240	East of Headframe Fenced Area, Down Slope
AHR-AM01-071021-Hg	7/10/2021	7:20	15:25	8 hours 5 minutes	1031.6	ND (<0.05)	ND (<0.0000484)		0.1	2152	2111	South Gate of Headframe Fenced Area
AHR-AM02-071021-Hg	7/10/2021	7:29	15:40	8 hours 11 minutes	1069.15	ND (<0.05)	ND (<0.0000468)		0.1	2199	2156	North Side of Spunn Road Cul-de-sac
AHR-AM04-071021-Hg	7/10/2021	7:35	15:35	8 hours	986.88	ND (<0.05)	ND (<0.0000507)		0.1	2066	2046	East of Headframe Fenced Area, Down Slope
AHR-AM01-071221-Hg	7/12/2021	7:28	17:03	9 hours 35 minutes	1278.23	ND (<0.05)	ND (<0.0000391)		0.1	2366	2080	South Gate of Headframe Fenced Area
AHR-AM02-071221-Hg	7/12/2021	7:34	17:07	9 hours 33 minutes	1321.05	ND (<0.05)	ND (<0.0000378)		0.1	2379	2232	North Side of Spunn Road Cul-de-sac
AHR-AM04-071221-Hg	7/12/2021	7:40	17:10	9 hours 30 minutes	1315.56	ND (<0.05)	ND (<0.000038)		0.1	2386	2230	East of Headframe Fenced Area, Down Slope
AHR-AM01-071321-Hg	7/13/2021	7:10	17:00	9 hours 50 minutes	1249.92	ND (<0.05)	ND (<0.00004)		0.1	2056	2181	South Gate of Headframe Fenced Area
AHR-AM02-071321-Hg	7/13/2021	7:25	16:55	9 hours 30 minutes	1263.41	ND (<0.05)	ND (<0.0000396)		0.1	2199	2234	North Side of Spunn Road Cul-de-sac
AHR-AM04-071321-Hg	7/13/2021	7:16	17:04	9 hours 48 minutes	1327.7	ND (<0.05)	ND (<0.0000377)		0.1	2247	2269	East of Headframe Fenced Area, Down Slope

Notes:
mg/m³ = miligram per meter cubed
ug = microgram
ND = not detected above reporting limit (<RL)
mL = milliliter
min = minute
L = liter

Table 4-7
2021 Removal Action Mercury in Air Sampling Data
Argonaut Mine Headframe Removal
Jackson, California

Sample ID	Date	Start Time	End Time	Run Time	Volume (L)	Result (µg/sample)	Result (mg/m ³)	Action Level (mg/m ³)	Initial Flow Rate (ml/min)	Final Flow Rate (ml/min)	Sampling Location
AHR-AM01-060521-m	6/5/2021	7:54	16:51	8 hours 57 minutes	1105.41	ND (<0.25)	ND (<0.000226)	0.05	2064	2053	South gate of Headframe Fenced Area
AHR-AM02-060521-m	6/5/2021	7:55	16:52	8 hours 57 minutes	1137.1	ND (<0.25)	ND (<0.00022)	0.05	2122	2113	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-060521-m	6/5/2021	7:56	16:54	8 hours 58 minutes	1141.1	ND (<0.25)	ND (<0.000219)	0.05	2130	2112	North, Near Headframe Structure
AHR-AM04-060521-m	6/5/2021	7:58	17:00	9 hours 2 minutes	1126.01	ND (<0.25)	ND (<0.000222)	0.05	2101	2054	East of Headframe Fenced Area, Down Slope
AHR-AM01-060721-m	6/7/2021	7:28	17:11	9 hours 43 minutes	1207.1	0.678	0.000561	0.05	2075	2066	South gate of Headframe Fenced Area
AHR-AM02-060721-m	6/7/2021	7:29	17:13	9 hours 44 minutes	1283.05	ND (<0.25)	ND (<0.000195)	0.05	2196	2198	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-060721-m	6/7/2021	7:30	17:14	9 hours 44 minutes	1228.15	ND (<0.25)	ND (<0.000204)	0.05	2094	2112	North, Near Headframe Structure
AHR-AM04-060721-m	6/7/2021	7:31	17:15	9 hours 44 minutes	1188.44	ND (<0.25)	ND (<0.00021)	0.05	2066	2004	East of Headframe Fenced Area, Down Slope
AHR-AM01-060821-m	6/8/2021	7:25	17:00	9 hours 35 minutes	1188.24	0.935	0.000793	0.05	2003	2063	South gate of Headframe Fenced Area
AHR-AM02-060821-m	6/8/2021	7:31	17:00	9 hours 29 minutes	1137.72	ND (<0.25)	ND (<0.000212)	0.05	2008	2100	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-060821-m	6/8/2021	7:34	17:02	9 hours 28 minutes	1141.4	ND (<0.25)	ND (<0.000213)	0.05	2014	2083	North, Near Headframe Structure
AHR-AM04-060821-m	6/8/2021	7:28	17:04	9 hours 36 minutes	1087.2	ND (<0.25)	ND (<0.000222)	0.05	1877	2020	East of Headframe Fenced Area, Down Slope
AHR-AM01-060921-m	6/9/2021	7:21	16:41	9 hours 20 minutes	1113	ND (<0.25)	ND (<0.000126)	0.05	1914	2061	South gate of Headframe Fenced Area
AHR-AM02-060921-m	6/9/2021	7:24	16:42	9 hours 18 minutes	1147.53	ND (<0.25)	ND (<0.000122)	0.05	1973	2140	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-060921-m	6/9/2021	7:26	16:43	9 hours 17 minutes	1163.85	ND (<0.25)	ND (<0.00012)	0.05	2039	2140	North, Near Headframe Structure
AHR-AM04-060921-m	6/9/2021	7:29	16:44	9 hours 15 minutes	1089.74	ND (<0.25)	ND (<0.000127)	0.05	1894	2033	East of Headframe Fenced Area, Down Slope
AHR-AM01-061021-m	6/10/2021	7:25	17:14	9 hours 49 minutes	1191.84	ND (<0.25)	ND (<0.000124)	0.05	1944	2103	South gate of Headframe Fenced Area
AHR-AM02-061021-m	6/10/2021	7:30	17:15	9 hours 45 minutes	1182.58	ND (<0.25)	ND (<0.000124)	0.05	1963	2080	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-061021-m	6/10/2021	7:34	17:16	9 hours 42 minutes	1202.41	ND (<0.25)	ND (<0.000121)	0.05	2052	2080	Base of Fire Road near Loading Trucks
AHR-AM04-061021-m	6/10/2021	7:37	17:17	9 hours 40 minutes	1096.2	ND (<0.25)	ND (<0.000132)	0.05	1919	1861	At the end of Spunn Road Cul-de-sac
AHR-AM01-061121-m	6/11/2021	7:24	15:36	8 hours 12 minutes	967.27	ND (<0.25)	ND (<0.000258)	0.05	1879	2053	South gate of Headframe Fenced Area
AHR-AM02-061121-m	6/11/2021	7:25	15:37	8 hours 12 minutes	966.78	ND (<0.25)	ND (<0.000259)	0.05	1915	2015	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-061121-m	6/11/2021	7:26	15:38	8 hours 12 minutes	1030.99	ND (<0.25)	ND (<0.000242)	0.05	2029	2162	Base of Fire Road near Loading Trucks
AHR-AM04-061121-m	6/11/2021	7:27	15:39	8 hours 12 minutes	969.49	ND (<0.25)	ND (<0.000258)	0.05	1933	2008	At the end of Spunn Road Cul-de-sac
AHR-AM01-061421-m	6/14/2021	7:31	16:23	8 hours 52 minutes	1092.73	ND (<0.25)	ND (<0.000229)	0.05	2058	2050	South gate of Headframe Fenced Area
AHR-AM02-061421-m	6/14/2021	7:35	16:24	8 hours 49 minutes	1085.24	ND (<0.25)	ND (<0.00023)	0.05	2050	2053	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-061421-m	6/14/2021	7:37	16:25	8 hours 48 minutes	1109.06	ND (<0.25)	ND (<0.000225)	0.05	2062	2139	Base of Fire Road near Loading Trucks
AHR-AM04-061421-m	6/14/2021	7:40	16:26	8 hours 46 minutes	1064.36	ND (<0.25)	ND (<0.000235)	0.05	2021	2026	At the end of Spunn Road Cul-de-sac
AHR-AM01-061521-m	6/15/2021	7:30	16:28	8 hours 58 minutes	1101.82	ND (<0.25)	ND (<0.000214)	0.05	2013	2083	South gate of Headframe Fenced Area
AHR-AM02-061521-m	6/15/2021	7:31	16:29	8 hours 58 minutes	1167.73	ND (<0.25)	ND (<0.000222)	0.05	2077	2264	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-061521-m	6/15/2021	7:32	16:30	8 hours 58 minutes	1123.61	ND (<0.25)	ND (<0.000223)	0.05	2024	2153	Base of Fire Road near Loading Trucks
AHR-AM04-061521-m	6/15/2021	7:33	16:31	8 hours 58 minutes	1121.73	ND (<0.25)	ND (<0.000227)	0.05	2021	2149	At the end of Spunn Road Cul-de-sac
AHR-AM01-061621-m	6/16/2021	7:47	15:11	7 hours 24 minutes	909.76	ND (<0.25)	ND (<0.000275)	0.05	2047	2051	South gate of Headframe Fenced Area
AHR-AM02-061621-m	6/16/2021	7:48	15:12	7 hours 24 minutes	984.35	ND (<0.25)	ND (<0.000267)	0.05	2229	2205	Base of Fire Road near Loading Trucks
AHR-AM03-061621-m	6/16/2021	7:49	15:13	7 hours 24 minutes	935.06	ND (<0.25)	ND (<0.000269)	0.05	2108	2104	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM04-061621-m	6/16/2021	7:50	15:14	7 hours 24 minutes	946.39	ND (<0.25)	ND (<0.000269)	0.05	2126	2137	At the end of Spunn Road Cul-de-sac
AHR-AM01-062121-m	6/21/2021	8:08	15:26	7 hours 18 minutes	900.09	ND (<0.25)	ND (<0.000278)	0.05	2087	2023	South gate of Headframe Fenced Area
AHR-AM02-062121-m	6/21/2021	8:14	15:28	7 hours 14 minutes	948.29	ND (<0.25)	ND (<0.000267)	0.05	2290	2080	East of Staging Area, Top of Slope

Table 4-7
2021 Removal Action Mercury in Air Sampling Data
Argonaut Mine Headframe Removal
Jackson, California

Sample ID	Date	Start Time	End Time	Run Time	Volume (L)	Result (µg/sample)	Result (mg/m ³)	Action Level (mg/m ³)	Initial Flow Rate (ml/min)	Final Flow Rate (ml/min)	Sampling Location
AHR-AM03-062121-m	6/21/2021	8:19	15:30	7 hours 11 minutes	936.13	ND (<0.25)	ND (<0.000272)	0.05	2186	2158	North of Spunn Road Cul-de-sac
AHR-AM04-062121-m	6/21/2021	8:24	15:32	7 hours 8 minutes	949.95	ND (<0.25)	ND (<0.000275)	0.05	2274	2165	South Side of Spunn Road Cul-de-sac
AHR-AM01-062221-m	6/22/2021	7:40	15:24	7 hours 44 minutes	938.9	ND (<0.25)	ND (<0.000266)	0.05	2016	2031	South Gate of Headframe Fenced Area
AHR-AM02-062221-m	6/22/2021	7:43	15:22	7 hours 39 minutes	977.44	ND (<0.25)	ND (<0.000265)	0.05	2120	2139	East of Staging Area, Top of Slope
AHR-AM03-062221-m	6/22/2021	7:53	15:23	7 hours 30 minutes	941.85	ND (<0.25)	ND (<0.000261)	0.05	2067	2119	North of Spunn Road Cul-de-sac
AHR-AM04-062221-m	6/22/2021	7:55	15:19	7 hours 24 minutes	953.93	ND (<0.25)	ND (<0.000268)	0.05	2154	2143	South Side of Spunn Road Cul-de-sac
AHR-AM01-062321-m	6/23/2021	7:38	11:35	3 hours 57 minutes	467.25	ND (<0.25)	ND (<0.000535)	0.05	1945	1998	South Gate of Headframe Fenced Area
AHR-AM02-062321-m	6/23/2021	7:42	11:37	3 hours 55 minutes	504.66	ND (<0.25)	ND (<0.000523)	0.05	2111	2184	East of Staging Area, Top of Slope
AHR-AM03-062321-m	6/23/2021	7:46	11:38	3 hours 52 minutes	477.69	ND (<0.25)	ND (<0.000522)	0.05	2056	2062	North of Spunn Road Cul-de-sac
AHR-AM04-062321-m	6/23/2021	7:50	11:33	3 hours 43 minutes	479.56	ND (<0.25)	ND (<0.000526)	0.05	2165	2136	South Side of Spunn Road Cul-de-sac
AHR-AM01-062421-m	6/24/2021	7:50	12:12	4 hours 22 minutes	523.21	ND (<0.25)	ND (<0.000478)	0.05	2019	1975	South Gate of Headframe Fenced Area
AHR-AM02-062421-m	6/24/2021	7:53	12:15	4 hours 22 minutes	559.11	ND (<0.25)	ND (<0.000468)	0.05	2133	2135	East of Staging Area, Top of Slope
AHR-AM03-062421-m	6/24/2021	7:55	12:13	4 hours 18 minutes	533.93	ND (<0.25)	ND (<0.000463)	0.05	2070	2069	North of Spunn Road Cul-de-sac
AHR-AM04-062421-m	6/24/2021	7:59	12:19	4 hours 20 minutes	564.72	ND (<0.25)	ND (<0.000472)	0.05	2168	2176	South Side of Spunn Road Cul-de-sac
AHR-AM01-062521-m	6/25/2021	7:45	11:40	3 hours 55 minutes	466.12	ND (<0.25)	ND (<0.000536)	0.05	2039	1928	South Gate of Headframe Fenced Area
AHR-AM02-062521-m	6/25/2021	7:47	11:38	3 hours 53 minutes	500.79	ND (<0.25)	ND (<0.000542)	0.05	2089	2155	East of Staging Area, Top of Slope
AHR-AM03-062521-m	6/25/2021	7:51	11:35	3 hours 44 minutes	461.44	ND (<0.25)	ND (<0.000516)	0.05	2059	2061	North of Spunn Road Cul-de-sac
AHR-AM04-062521-m	6/25/2021	7:52	11:33	3 hours 41 minutes	471.95	ND (<0.25)	ND (<0.000554)	0.05	2171	2100	South Side of Spunn Road Cul-de-sac
AHR-AM01-062821-m	6/28/2021	8:03	11:46	3 hours 43 minutes	455.25	ND (<0.25)	ND (<0.000549)	0.05	2088	1995	South Gate of Headframe Fenced Area
AHR-AM02-062821-m	6/28/2021	8:06	11:43	3 hours 37 minutes	460.91	ND (<0.25)	ND (<0.000549)	0.05	2207	2041	East of Staging Area, Top of Slope
AHR-AM03-062821-m	6/28/2021	8:09	11:47	3 hours 38 minutes	455.29	ND (<0.25)	ND (<0.000555)	0.05	2123	2054	North of Spunn Road Cul-de-sac
AHR-AM04-062821-m	6/28/2021	8:11	11:48	3 hours 37 minutes	471.98	ND (<0.25)	ND (<0.000563)	0.05	2215	2135	South Side of Spunn Road Cul-de-sac
AHR-AM01-063021-m	6/30/2021	8:10	17:47	9 hours 37 minutes	1193.81	0.292	0.000244	0.05	2074	2064	South Gate of Headframe Fenced Area
AHR-AM02-063021-m	6/30/2021	8:11	17:52	9 hours 41 minutes	1255.54	ND (<0.25)	ND (<0.000199)	0.05	2101	2221	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-063021-m	6/30/2021	8:14	17:56	9 hours 42 minutes	1221.62	ND (<0.25)	ND (<0.000205)	0.05	2074	2124	North Side of Spunn Road Cul-de-sac
AHR-AM04-063021-m	6/30/2021	8:05	18:02	9 hours 57 minutes	1309.52	ND (<0.25)	ND (<0.000191)	0.05	2166	2221	East of Headframe Fenced Area, Down Slope
AHR-AM01-070121-m	7/1/2021	8:25	16:46	8 hours 21 minutes	994.23	ND (<0.25)	ND (<0.00025)	0.05	2043	1926	South Gate of Headframe Fenced Area
AHR-AM02-070121-m	7/1/2021	8:31	16:50	8 hours 19 minutes	1063.37	ND (<0.25)	ND (<0.000251)	0.05	2138	2124	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-070121-m	7/1/2021	8:46	16:42	7 hours 56 minutes	1000.31	ND (<0.25)	ND (<0.000235)	0.05	2075	2128	North Side of Spunn Road Cul-de-sac
AHR-AM04-070121-m	7/1/2021	8:53	16:55	8 hours 2 minutes	1029.79	ND (<0.25)	ND (<0.000243)	0.05	2135	2138	East of Headframe Fenced Area, Down Slope
AHR-AM01-070221-m	7/2/2021	7:34	16:56	9 hours 22 minutes	1200.71	ND (<0.25)	ND (<0.000208)	0.05	2106	2167	South Gate of Headframe Fenced Area
AHR-AM02-070221-m	7/2/2021	7:39	16:54	9 hours 15 minutes	1201.02	ND (<0.25)	ND (<0.000208)	0.05	2129	2199	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-070221-m	7/2/2021	7:56	17:07	9 hours 11 minutes	1169.77	ND (<0.25)	ND (<0.000211)	0.05	2178	2068	North Side of Spunn Road Cul-de-sac
AHR-AM04-070221-m	7/2/2021	7:47	17:03	9 hours 16 minutes	1185.95	ND (<0.25)	ND (<0.000214)	0.05	2164	2102	East of Headframe Fenced Area, Down Slope
AHR-AM01-070321-m	7/3/2021	8:06	14:54	6 hours 48 minutes	863.12	ND (<0.25)	ND (<0.00029)	0.05	2079	2152	South Gate of Headframe Fenced Area
AHR-AM02-070321-m	7/3/2021	7:40	14:57	7 hours 17 minutes	938.68	ND (<0.25)	ND (<0.000266)	0.05	2093	2203	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-070321-m	7/3/2021	7:27	15:01	7 hours 34 minutes	934.79	ND (<0.25)	ND (<0.000267)	0.05	2040	2078	North Side of Spunn Road Cul-de-sac
AHR-AM04-070321-m	7/3/2021	7:58	14:48	6 hours 50 minutes	889.7	ND (<0.25)	ND (<0.000281)	0.05	2118	2222	East of Headframe Fenced Area, Down Slope
AHR-AM01-070521-m	7/5/2021	7:36	11:55	4 hours 19 minutes	570.58	ND (<0.25)	ND (<0.000438)	0.05	2170	2236	South Gate of Headframe Fenced Area
AHR-AM02-070521-m	7/5/2021	7:42	12:00	4 hours 18 minutes	567.08	ND (<0.25)	ND (<0.000441)	0.05	2208	2188	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-070521-m	7/5/2021	7:51	12:03	4 hours 12 minutes	523.78	ND (<0.25)	ND (<0.000477)	0.05	2060	2097	North Side of Spunn Road Cul-de-sac

Table 4-7
2021 Removal Action Mercury in Air Sampling Data
Argonaut Mine Headframe Removal
Jackson, California

Sample ID	Date	Start Time	End Time	Run Time	Volume (L)	Result (µg/sample)	Result (mg/m ³)	Action Level (mg/m ³)	Initial Flow Rate (ml/min)	Final Flow Rate (ml/min)	Sampling Location
AHR-AM04-070521-mi	7/5/2021	8:01	12:07	4 hours 6 minutes	543.41	ND (<0.25)	ND (<0.00046)	0.05	2186	2232	East of Headframe Fenced Area, Down Slope
AHR-AM01-070621-m	7/6/2021	10:30	17:00	6 hours 30 minutes	834.6	ND (<0.25)	ND (<0.0003)	0.05	2095	2185	South Gate of Headframe Fenced Area
AHR-AM02-070621-m	7/6/2021	10:40	17:04	6 hours 24 minutes	821.95	ND (<0.25)	ND (<0.000304)	0.05	2103	2178	West Side of Headframe Fenced Area, Between Two Warehouse Buildings
AHR-AM03-070621-m	7/6/2021	10:50	17:10	6 hours 20 minutes	784.13	ND (<0.25)	ND (<0.000319)	0.05	2067	2060	North Side of Spunn Road Cul-de-sac
AHR-AM04-070621-m	7/6/2021	10:37	17:15	6 hours 38 minutes	865.65	ND (<0.25)	ND (<0.000289)	0.05	2177	2173	East of Headframe Fenced Area, Down Slope
AHR-AM01-070721-m	7/7/2021	7:30	17:17	9 hours 47 minutes	1239.74	ND (<0.25)	ND (<0.000202)	0.05	2087	2137	South Gate of Headframe Fenced Area
AHR-AM02-070721-m	7/7/2021	7:36	17:22	9 hours 46 minutes	1246.42	ND (<0.25)	ND (<0.000201)	0.05	2116	2138	North Side of Spunn Road Cul-de-sac
AHR-AM04-070721-m	7/7/2021	7:44	17:28	9 hours 44 minutes	1262.9	ND (<0.25)	ND (<0.000198)	0.05	2119	2206	East of Headframe Fenced Area, Down Slope
AHR-AM01-070821-m	7/8/2021	8:07	16:48	8 hours 41 minutes	1135	ND (<0.25)	ND (<0.00022)	0.05	2172	2185	South Gate of Headframe Fenced Area
AHR-AM02-070821-m	7/8/2021	8:12	16:45	8 hours 33 minutes	1108.59	ND (<0.25)	ND (<0.000226)	0.05	2177	2145	North Side of Spunn Road Cul-de-sac
AHR-AM04-070821-m	7/8/2021	8:19	16:52	8 hours 33 minutes	1129.63	ND (<0.25)	ND (<0.000221)	0.05	2236	2168	East of Headframe Fenced Area, Down Slope
AHR-AM01-070921-m	7/9/2021	7:28	17:02	9 hours 34 minutes	1257.06	0.386	0.000307	0.05	2197	2183	South Gate of Headframe Fenced Area
AHR-AM02-070921-m	7/9/2021	7:50	17:11	9 hours 21 minutes	1203.63	ND (<0.25)	ND (<0.000208)	0.05	2119	2172	North Side of Spunn Road Cul-de-sac
AHR-AM04-070921-m	7/9/2021	7:36	17:06	9 hours 30 minutes	1247.16	ND (<0.25)	ND (<0.0002)	0.05	2195	2181	East of Headframe Fenced Area, Down Slope
AHR-AM01-071021-m	7/10/2021	7:20	15:25	8 hours 5 minutes	1031.6	ND (<0.25)	ND (<0.000242)	0.05	2184	2070	South Gate of Headframe Fenced Area
AHR-AM02-071021-m	7/10/2021	7:29	15:40	8 hours 11 minutes	1071.36	ND (<0.25)	ND (<0.000233)	0.05	2179	2185	North Side of Spunn Road Cul-de-sac
AHR-AM04-071021-m	7/10/2021	7:35	15:35	8 hours	984.24	ND (<0.25)	ND (<0.000254)	0.05	2085	2016	East of Headframe Fenced Area, Down Slope
AHR-AM01-071221-m	7/12/2021	7:28	17:03	9 hours 35 minutes	1271.33	ND (<0.25)	ND (<0.000197)	0.05	2238	2184	South Gate of Headframe Fenced Area
AHR-AM02-071221-m	7/12/2021	7:34	17:07	9 hours 33 minutes	1319.33	ND (<0.25)	ND (<0.000189)	0.05	2401	2204	North Side of Spunn Road Cul-de-sac
AHR-AM04-071221-m	7/12/2021	7:40	17:10	9 hours 30 minutes	1287.35	ND (<0.25)	ND (<0.000194)	0.05	2311	2206	East of Headframe Fenced Area, Down Slope
AHR-AM01-071321-m	7/13/2021	7:10	17:00	9 hours 50 minutes	1298	ND (<0.25)	ND (<0.000193)	0.05	2199	2201	South Gate of Headframe Fenced Area
AHR-AM02-071321-m	7/13/2021	7:25	16:55	9 hours 30 minutes	1235.48	ND (<0.25)	ND (<0.000202)	0.05	2154	2181	North Side of Spunn Road Cul-de-sac
AHR-AM04-071321-m	7/13/2021	7:16	17:04	9 hours 48 minutes	1292.13	ND (<0.25)	ND (<0.000193)	0.05	2180	2215	East of Headframe Fenced Area, Down Slope

Notes:

mg/m³ = miligram per meter cubed

ug = microgram

ND = not detected above reporting limit (<RL)

mL = milliliter

min = minute

L = liter

APPENDIX A
PHOTOGRAPH LOG

Project Name: Argonaut Mine		Site Location: Jackson, California	DCN:0081-08-AARH
Photo No. 1	Date: 6/5/2021		
Description: Process of removing surface soil from close to headframe structure. Photograph collected facing north.			

Photo No. 2	Date: 6/5/2021	
Description: Kiln area in headframe area. Kiln was situated on a concrete slab. Photograph collected facing east.		

Project Name: Argonaut Mine		Site Location: Jackson, California	DCN:0081-08-AARH
Photo No. 3	Date: 6/30/2021		
<p>Description: In areas where excavation was necessary on slopes, straw bales and silt fencing were implemented before excavation. Concrete barriers were installed along the roadway before commencing excavation of slope areas.</p>			

Photo No. 4	Date: 6/30/2021	
Description: View of the slope excavation process. Dust suppression was implemented during excavation activities. The on-site archaeologist monitored the excavation activities for historical artifacts. Photograph collected facing southeast.		


Project Name: Argonaut Mine		Site Location: Jackson, California	DCN:0081-08-AARH
Photo No. 5	Date: 7/1/2021		
Description: View of dust monitoring and air sampling set-up consisting of a DustTrak DRX and two air sampling pumps with particulate air sampling cassettes. As shown in background of photo, excavated areas were backfilled with clean soil and surfaced with gravel.			

Photo No. 6	Date: 7/2/2021		
Description: View of slope excavation activities. Photograph was collected facing southeast.			

Project Name: Argonaut Mine		Site Location: Jackson, California	DCN:0081-08-AARH
Photo No. 7	Date: 7/5/2021		
Description: View of slope excavation from the lower part of the excavation. A path of deeper excavation was cut into the slope face to allow for excavator access. Photograph was collected facing northwest.			

Photo No. 8	Date: 7/7/2021		
Description: View of staging area during waste pick-up. Excavated waste was deposited in 20-cubic-yard roll-off bins and transported to Beatty, Nevada for disposal.			

Project Name: Argonaut Mine		Site Location: Jackson, California	DCN:0081-08-AARH
Photo No. 9	Date: 7/7/2021		
Description: After excavation of slope, site restoration measure included implementation of geotextile erosion control fabric and the placement of rip-rap on the slope. Photograph collected facing north.			

Photo No. 10	Date: 7/8/2021		
Description: View of site restoration in progress on slope. Photograph collected facing south.			


Project Name: Argonaut Mine		Site Location: Jackson, California	DCN:0081-08-AARH
Photo No. 11	Date: 7/14/2021		
Description: View of completed restoration of slope area. Photograph was collected facing north.			

Photo No. 12	Date: 7/14/2021	
Description: View of the restored slope area from below. Photograph was collected facing west.		


Project Name: Argonaut Mine		Site Location: Jackson, California	DCN:0081-08-AARH
Photo No. 13	Date: 7/14/2021		
Description: View of slope below excavation area. Photograph was collected facing south.			

Photo No. 14	Date: 7/14/2021	
Description: View of northern area of excavation after site restoration. Photograph was collected facing north.		


Project Name: Argonaut Mine		Site Location: Jackson, California	DCN:0081-08-AARH
Photo No. 15	Date: 7/22/2021		
Description: View of excavation area after site restoration. Photograph was collected facing south.			

Photo No. 16	Date: 9/7/2021	
Description: View of southern part of excavation area after site restoration. Photograph was collected facing north.		

APPENDIX B
CONTAINER INVENTORY

Appendix B
Container Inventory - Hazard Catorization Results
Argonaut Mine Headframe Area Mill Area Removal Assessment
Jackson, Amador County, California

Container Number	Volume of Container	Units	Material	Open or Closed	Percentage Full	Description/label	Description of contents	pH	General reactivity	Shock sensitivity	Flammability	Cyanide	Water reactivity	Halogens	Headspace VOC Reading (parts per million)
Building A															
A-01	5	gallon	metal	closed	100%	rusted container	grease								
A-02	5	gallon	metal	closed	100%	rusted container	grease								
A-03	5	gallon	metal	closed	20%	rusted container with oil staining around lid									
A-04	2	gallon	metal	open	70%	cylinder of corrugated metal, bent and open on top.	grey powder								
A-05	15-20	gallon	metal	open	80%	Large open cylinder marked "aero brand cyanide, american cyanamid company, made in Canada"	Dark grey fine powder.	3	N	N	N	N	N	N	0
Building B															
B-01	1	gallon	metal	open	33%	labeled "thinner, G.E. Glyptal Materials" with 1" open nozzle	Reddish clear fluid, non-viscous. VOC in headspace: 0. Non-flammable.				N				0
B-02	1	quart	metal	open	10%	research fluid belt dressing									
B-03	5	gallon	metal	closed	0%	severely degraded, holes evident. Labels illegible.									
B-04	0.5	gallon	metal	closed	10%	Deodozone Crystals, moth prevention compound.	Clear crystalline solid.								
B-05	5	gallon	metal	closed	33%	lo fuel oil, sample 2-24-78, Kaiser Refractories									
B-06	5	gallon	metal	closed	50%	carbonoyl company	Syrupy dark brown fluid	7	N	N	N	N		N	
B-07	5	gallon	plastic	closed	50%	carbonoyl company, white plastic container	Transparant yellow-amber fluid inside. Solvent class: saturated hydrocarbon	6	N	N	N			N	
B-08	1	gallon	plastic	closed	75%	88% light #6 __ oil, 12 % H2O. Date ____, '77, __ulin corporation									
B-09	1	gallon	metal	closed	50%	#6 oil, Reiss oil Co.	Dark viscous fluid. VOC in headspace: 0. Non-flammable.				N				0
B-10	1	gallon	metal	closed	75%	unlabeled but looks similar to B-09 and found close together.	Reddish clear fluid, non-viscous. VOC in headspace: 0. Non-flammable.				N				0
B-11	1	gallon	metal	closed	MT	Goodyear 1803-c thinner									
B-12	1	gallon	metal	closed	75%	Goodyear 1801-c top coat base cement									
B-13	1	quart	metal	closed	30%	chevron RPM Delo 200 Motor oil									
B-14	1	quart	metal	closed	MT	Torco high performance motor oil									
B-15	15	gallon	metal	closed	10%	Hazardous waste label reads "non-RCRA hazardous waste" and "used oil".									
B-16	1	gallon	metal	closed	75%	unlabeled									
B-17	5	gallon	metal	closed	20%	Grease #2 standard oil company									
B-18	5	gallon	metal	closed	100%	ARCO save a line flume coating	Positive on oxidizer	7	Oxidizer		N				
B-19	5	gallon	metal	closed	75%	CALOL W.R.C. lubricant. Likely a wire rope lubricating compound.									
B-20	5	gallon	metal	closed	100%	ARCO, same as B-18									
B-21	1	gallon	metal	closed	50%	illegible/unlabeled.									
B-22	15	gallon	metal	open	80%	unlabeled. Appears to have corroded part of the metal container.	White/grey clumpy powder	11	N	N	N	N	N	N	
B-23	5	gallon	plastic	closed	90%	carbonoyl company, identical to container B-07									
B-24	1	gallon	metal	closed	70%	unlabeled									
B-25	1	gallon	metal	closed	70%	unlabeled	Dark, viscous liquid		N		N			N	10
B-26	1	gallon	metal	closed	70%	unlabeled									
B-27	1	gallon	metal	closed	70%	unlabeled									
B-28	3	gallon	metal	closed	100%	unlabeled									
B-29	1	gallon	metal	closed	50%	white oil #2, 1976									
B-30	1	gallon	metal	closed	70%	unlabeled	Black granules	7	N		N				
B-31	1	gallon	metal	closed	30%	unlabeled									
B-32	5	gallon	metal	closed	N/A	methyl alcohol anhydrous. Appears to have leaked, and is stuck to the floor by an oil-black tar-like material									
B-33	3	gallon	metal	closed	N/A	unlabeled, possible leak. Stuck to bucket beneath.									
B-34	5	gallon	metal	closed	50%	flex cure seal, contains xylol									
B-35	3	gallon	metal	closed	N/A	unlabeled, possible leak.									
B-36	5	gallon	metal	closed	N/A	unlabeled									
B-37	1	gallon	glass	closed	MT	unlabeled									
B-38	1	gallon	glass	closed	MT	unlabeled									
B-39	1	quart	glass	closed	20%	pure white shellac.	brown-black viscous material								

Appendix B
Container Inventory - Hazard Catorization Results
Argonaut Mine Headframe Area Mill Area Removal Assessment
Jackson, Amador County, California

Building C															
C-01	1	gallon	metal	closed	25%	thinner	red-tinted fluid, viscous.				N				0.3
C-02	1	gallon	metal	closed	50%	enamel									
C-03	2	gallon	plastic	closed	30%	roundup with spray attachment.									
C-04	1	gallon	plastic	closed	10%	clorox bottle, has oil stains	dark fluid, suspected used motor oil				N				2
C-05	1	pt	plastic	closed	MT	HDSAE 30 motor oil									
C-06	1	pt	metal	closed	30%	thread cutting oil, sulfur and chlorine base									
C-07	1	gallon	metal	closed	MT	Rust-soly- rust solvent									
C-08	1	gallon	plastic	closed	50%	Chevron Delo 400 motor oil									
C-09	1	pt	metal	closed	20%	touch-up enamel									
C-10	1	gallon	plastic	closed	50%	unlabeled deteriorated milk jug with holes.	dark fluid, suspected used motor oil								
C-11	1	gallon	plastic	closed	MT	unlabeled									
C-12	1	gallon	metal	closed	MT	unlabeled									
C-13	2.5	gallon	plastic	closed	10%	gasoline can labeled "diesel"	smells like old gasoline				N				
C-14	1	gallon	metal	closed	100%	machinery enamel									
C-15	5	gallon	metal	closed	80%	open cylinder	grey powder								
C-16	0.5	gallon	plastic	closed	1%	antifreeze									
C-17	--	--	metal	--	--	metal canister, gage reads 0 pressure									
C-18	1	gallon	glass	closed	25%	unlabeled, clear glass bottle	clear liquid	7			Y				2
Various Paint cans	--	gallon	metal	closed	Various	labeled as paints or paint related materials	various colored liquids, many separated with hardened cakes beneath surface. Some cans were empty, some were over half full. Gallon or half-gallson containers.				N				20 - 300


Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 1	Date: 7/21/2020		
Description: A-01			

Photo No. 2	Date: 7/21/2020	
Description: A-02		

Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 3	Date: 7/21/2020		
Description: A-03			

Photo No. 4	Date: 7/21/2020	
Description: A-04		


Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 5	Date: 7/21/2020		
Description: A-05			

Photo No. 6	Date: 7/21/2020	
Description: B-01		


Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 7	Date: 7/21/2020		
Description: B-02			

Photo No. 8	Date: 7/21/2020	
Description: B-03		



Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 9	Date: 7/21/2020		
Description: B-04			

Photo No. 10	Date: 7/21/2020	
Description: B-05		


Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 11	Date: 7/21/2020		
Description: B-06			

Photo No. 12	Date: 7/21/2020	
Description: B-07		


Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 13	Date: 7/21/2020		
Description: B-08			

Photo No. 14	Date: 7/21/2020	
Description: B-09		


Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 15	Date: 7/21/2020		
Description: B-10			

Photo No. 16	Date: 7/21/2020	
Description: B-11		


Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 17	Date: 7/21/2020		
Description: B-12			

Photo No. 18	Date: 7/21/2020	
Description: B-13		


Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 19	Date: 7/21/2020		
Description: B-14			

Photo No. 20	Date: 7/21/2020	
Description: B-15		


Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 21	Date: 7/21/2020		
Description: B-16			

Photo No. 22	Date: 7/21/2020	
Description: B-17		


Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 23	Date: 7/21/2020		
Description: B-18			

Photo No. 24	Date: 7/21/2020	
Description: B-19		


Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 25	Date: 7/21/2020		
Description: B-20			

Photo No. 26	Date: 7/21/2020	
Description: B-21		


Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 27	Date: 7/21/2020		
Description: B-32			

Photo No. 28	Date: 7/21/2020	
Description: B-33		



Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 29	Date: 7/21/2020		
Description: B-34			

Photo No. 30	Date: 7/21/2020	
Description: B-35		


Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 31	Date: 7/21/2020		
Description: B-36			

Photo No. 32	Date: 7/21/2020	
Description: B-37 and B-38		

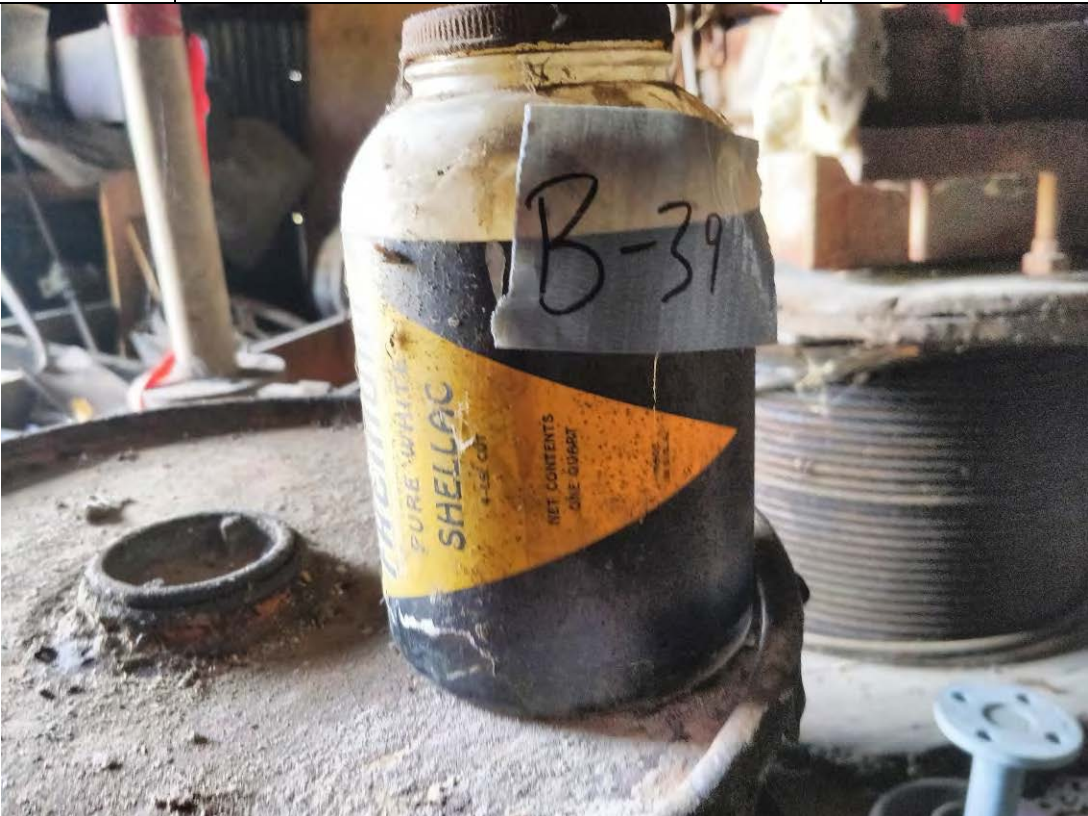
Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 33	Date: 7/21/2020		
Description: B-39			

Photo No. 34	Date: 7/21/2020	
Description: C-01		


Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 35	Date: 7/21/2020		
Description: C-02			

Photo No. 36	Date: 7/21/2020	
Description: C-03		


Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California		DCN: 0023-08-AAFX
Photo No. 37	Date: 7/21/2020			
Description: C-04				

Photo No. 38	Date: 7/21/2020			
Description: C-05				


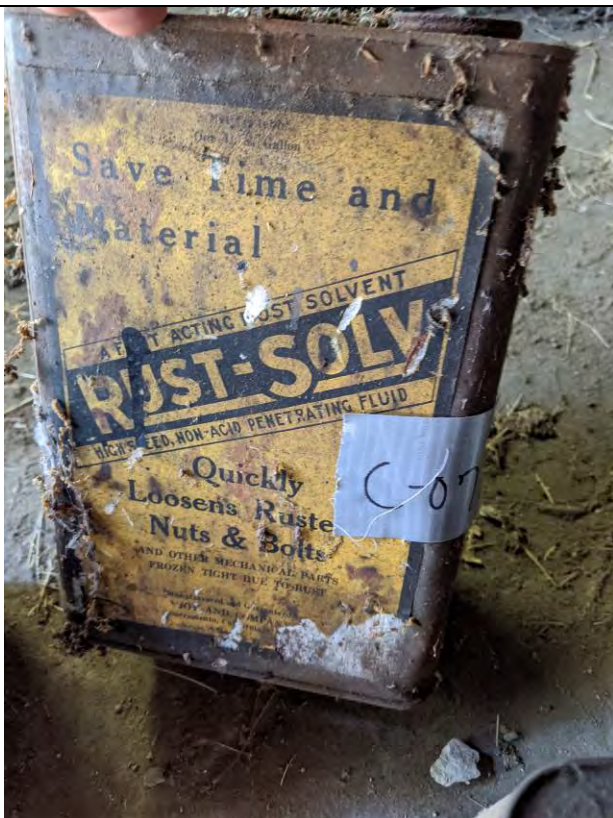
Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 39	Date: 7/21/2020		
Description: C-06			

Photo No. 40	Date: 7/21/2020		
Description: C-07			

Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 41	Date: 7/21/2020		
Description: C-08			

Photo No. 42	Date: 7/21/2020	
Description: C-09		

Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 43	Date: 7/21/2020		
Description: C-10			

Photo No. 44	Date: 7/21/2020	
Description: C-11		


Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 45	Date: 7/21/2020		
Description: C-12			

Photo No. 46	Date: 7/21/2020	
Description: C-13		



Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 47	Date: 7/21/2020		
Description: C-14			

Photo No. 48	Date: 7/21/2020	
Description: C-16		

Project Name: Argonaut Mine Headframe Area		Site Location: Jackson, California	DCN: 0023-08-AAFX
Photo No. 49	Date: 7/21/2020		
Description: C-17			

Photo No. 50	Date: 7/21/2020	
Description: C-18		

APPENDIX C
ARCHAEOLOGICAL MONITORING REPORT

**FINAL - A Cultural Resources Inventory and Evaluation for the
Argonaut Mine Remediation Project**

Prepared by
Broadbent & Associates, Inc.

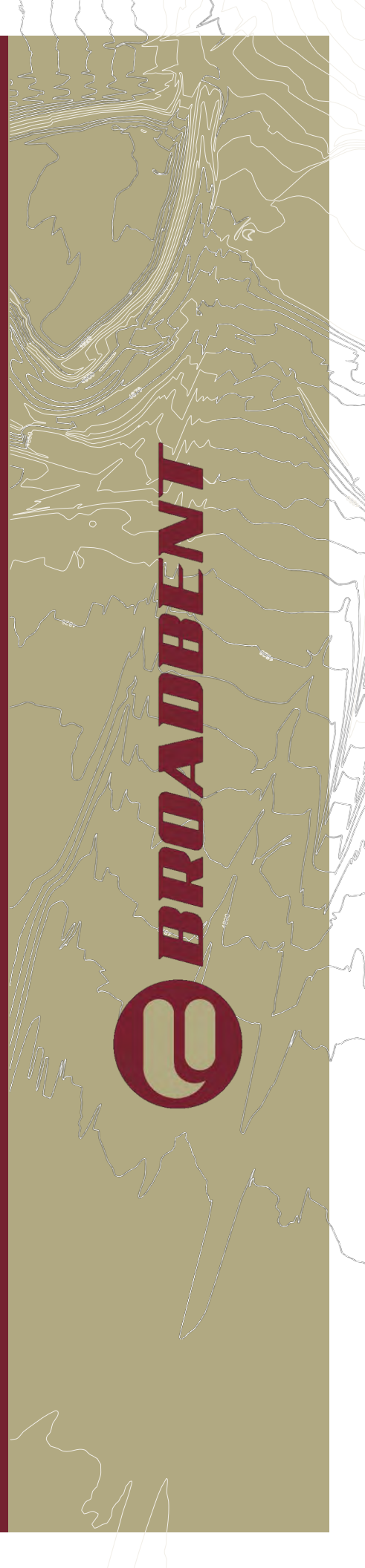
For
Weston Solutions, Inc

Submitted to
Environmental Protection
Agency, Region IX

September 2020
Revised
January 2022



Creating Solutions. Building Trust



FINAL – A Cultural Resources Inventory and Evaluation for the Argonaut Mine Remediation Project

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September 2020

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1.0 MANAGEMENT SUMMARY

In June 2020, Broadbent & Associates, Inc. (Broadbent) was contracted by Weston Solutions, Inc. (Weston) to complete cultural resources services in advance of proposed environmental remediation activities at the Argonaut Mine Site in Jackson, CA. This project falls under Weston's Superfund Technical Assessment and Response Team (START) contract for the Environmental Protection Agency (EPA); as a federal undertaking, the project requires compliance with Section 106 of the National Historic Preservation Act (NHPA) and other relevant state and local laws. The Argonaut Mine Site, CA-AMA-208H, is a historic property. It shares the designation of California Historical Landmark No. 786 with the adjacent Kennedy Mine Site. The Kennedy Mine site was listed on the National Register of Historic Places (NRHP) in 2009. Portions of the Argonaut Mine have been recommended eligible for listing on the NRHP, however it is not currently listed in its own right on the State or National Registers.

The EPA has identified Areas of Concern (AoC) for environmental hazards within the former Argonaut Mine Property in which the agency intends to conduct removal actions. The AoC for this project encompasses 52.6 acres on the on the east and west sides of California State Route (SR) 88/SR 49, between the city limits of Jackson and Martell, CA. The EPA has designated this 52.6-acre as the study area for the cultural resource identification effort; it is referred to in this report and on project maps as the "Project Area." The Project Area encompasses, but is distinct from, the direct Area of Potential Effects (APE) for the current planned time-critical removal action. This inventory presents a comprehensive overview of the Argonaut Mine to aid in ongoing management of this resource.

Broadbent conducted an existing records search and pedestrian survey of the Project to update the existing records for CA-AMA-208H, evaluate the resource and its constituents for eligibility to the NRHP, and identify additional cultural resources. Fieldwork was completed between July 21-23, 2020.

The inventory resulted in the identification of seven standing buildings, two standing structures, four objects, 23 historic features, and one artifact concentration. The majority of the identified resources were related to the function of the mine and were located in an 8.4-acre area identified in EPA project figures as the "Industrial Area." The mine's components have therefore been collectively recorded as "The Argonaut Mine Industrial District." The proposed district is an update and expansion of the Argonaut Mine Site (P-03-243, CA-AMA-208H). No other cultural resources were identified in the Project Area.

Broadbent recommends the Argonaut Mine Industrial District as eligible for listing on the NRHP under Criteria A, C, and D. The District contains intact components of the mine and mill workings that can be associated with its development and operations from 1893 to the mine's closure in 1942. The District includes seven buildings, two structures, four architectural objects, one linear feature, 23 archaeological features, and one artifact concentration. Of these, two resources are recommended individually eligible for inclusion in the NRHP, 20 resources are recommended as contributing elements of the District, and 18 resources are recommended as non-contributing elements of the District.

The first phase of the remediation effort involves the removal of lead-contaminated soils from a slope in the western part of the District. It is recommended that this action does not have the potential to adversely impact the historic integrity of eligible or contributing resources within the Argonaut Mine Industrial District. However, because the extent of subsurface cultural deposition is unknown, it is

recommended that an archaeological monitor be present during surface and ground disturbing remediation actions.

2.0 INTRODUCTION

This inventory and evaluation of the proposed Argonaut Mine Industrial District was performed in advance of a time-critical removal action within the former Argonaut Mine property. Environmental work for this project is managed by Weston, under the EPA Region 9 START contract. As a federal undertaking, this project requires compliance with relevant federal laws, including Section 106 of the NHPA. Broadbent was contracted by Weston to perform cultural resources services to fulfill Section 106 requirements.



Figure 2.1: Project Area Overview, west area

2.1 PROJECT AREA AND APE

The former Argonaut Mine property occupied 333.2 acres in and around the City of Jackson, Amador County, CA. Large parts of the former mine property have been developed for commercial and residential use. The EPA has identified 52.6 acres in the north-central part of the former mine property as the AoC for remediation and the cultural resources inventory area (Project Area) for this undertaking. It includes portions of APN 044-010-029, 044-010-031, and 044-360-018, located in Section 20 of T6N R11E, USGS 7.5' Quadrangle *Jackson, CA* (2012). See Appendix A, Map 1.

The APE for the planned removal action is contained entirely within the Project Area. It consists of 1.37 acres on the west side of CA-49/CA-88 in APN 044-360-018, in the SW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 20 of T6N R11E, USGS 7.5' Quadrangle *Jackson, CA* (2012). It is located at the northern end of Spunn Road in Jackson. Most of the area is enclosed by a barbed wire fence with signage, however the APE extends beyond the fenced enclosure to the east as far as the shoulder of CA-49/CA-88 and to the south as far as the paved parking area at the end of Spunn Road. This APE includes the buildings in the fenced enclosure. See Appendix A, Map 5.

2.2 EFFECTS OF THE UNDERTAKING

Environmental remediation activities are expected to include removal of contaminated soils, removal and testing of containers of hazardous materials from industrial contexts, and capping with clean soil. Associated activities include equipment and vehicle traffic, materials staging, and ongoing soils testing. These efforts will include multiple phases of work, the first of which is the removal of lead-contaminated soils from a concentration of artifacts located on a steep east-trending hill slope on the west side of CA-49/CA-88. This action will remove contaminated materials, including historic assay crucibles, from the site. The artifact concentration is downslope of most of the mine buildings on this side of the road, and it is obscured by heavy tree cover.

While the specific removal action described above is limited in scope, Broadbent conducted an inventory and evaluation of the entire 52.6-acre Project Area. This strategy was used to streamline the compliance and review process and to provide the EPA with a full assessment and recommendations to aid in the future management of this resource. The following report details the current extent and condition of the proposed Argonaut Mine Industrial District and identifies elements that are contributing or non-contributing to the historic significance of the resource.



Figure 2.2: Project Area Overview, east area

3.0 PROJECT SETTING

3.1 ENVIRONMENTAL SETTING

The Argonaut Mine is located in the western foothills of the Sierra Nevada Mountains in Amador County, approximately one mile northwest of the town of Jackson. It is situated on the Melones fault zone at altitudes ranging from 1170.6 to 1550.0 feet above sea level. The mine straddles present day CA-49/CA-88, which follows the approximate route of the historic Jackson-Sutter Creek Road. The Moore Ditch extends along a north-south channel through the eastern portion of the mine property, terminating to the north at the Kennedy Reservoir. The North Fork of Jackson Creek, a tributary of the Mokelumne River, extends for 26 miles south of Jackson.

The annual precipitation in the vicinity of Jackson is 26.9 inches, mostly between November and April (Western Regional Climate Center 2019). Summers are hot and dry, with moderate winters. Soils in the valley have been known to be excellent for growing grapes since the 1850s. This activity has proliferated since that time (Amador County 2016). Soils consist of Permian and Carboniferous metamorphic rocks and limestone (Sketchley 1965). Vegetation consists of mostly valley oak and inland live (Munz and Keck 1959), with buckeye in the surrounding grasslands and Gray Pine in the foothills.

The environmental conditions for which the region surrounding the Argonaut Mine are most known for, however, are those related to the lode gold deposits for which the famous Mother Lode was named. Mineralization at the Argonaut Mine consists of a quartz vein deposit that is hosted in slate, greenstone, and schist. At the Argonaut Mine, gold deposits were composed of free-milling ribboned structures of quartz, crushed slate, free gold, and sulfides. These deposits proved among the most productive in the Mother Lode belt, producing \$25.2 million of the \$180 million yielded by the entire belt (Downey and Higgins 2006).

3.2 PREHISTORY OF THE WESTERN SIERRA FOOTHILLS

The project area lies in the foothills of the western-central Sierra Nevada range in what is now Amador County, CA. This area has been investigated by archaeologists since the 1940s and 1950s, initially by the Smithsonian Institute's River Basin Surveys and later by the University of California, Berkeley (Moratto 1984:294). Reconstruction of human lifeways, subsistence strategies, and material culture prior to the historic period and the incursions of non-Native settlers relies on a variety of tools. These include material sourcing studies (e.g. volcanic toolstone), absolute dating of carbon-based materials, excavations of stratified deposits, and extrapolations of previous lifeways based on ethnographic accounts of Native culture at the time of contact (Cleland 1988; Miksicek et al. 1996; Estes 2016; Wohlgemuth 2005).

Several sites with evidence of long and intensive human use are in the vicinity of the project area. The Applegate site (CA-AMA-56), located south of Jackson Creek, and sites along the Mokelumne River near the Camache Reservoir have yielded materials indicating that they were occupied by the Early Holocene, up to 10,000 years B.P. (Estes 2016; Walker et al. 2014). Archaeological investigations during the New Melones Reservoir Project, spanning 20 years and 25,000 acres, have resulted in the creation of a proposed cultural sequence for the western Sierras from 10,000 years BP to the Contact Period. See Miksicek et al 1996, Meyer and Stewart 2006, Peak and Crew 1990, and Johnson 1967 for detailed discussions on prehistoric chronology.

Broadly, the prehistoric period from the Late Pleistocene/Early Holocene transition in the western Sierras was characterized by a pattern of increasing human population and decreasing residential mobility, as people became more tied to specific places on the landscape (Levy 1978). Evidence from the Applegate Site indicates that this trend was interrupted by the advent of the Medieval Climactic Anomaly (the MCA), c. 1050 BP. The MCA was a general warming pattern that caused widespread drought throughout the region. This resulted in a decline in water and food resources that placed considerable stress on the human population. The number and size of settlements indicate a lower overall population compared to earlier periods, and skeletal evidence from burial sites indicates a pattern of declining health and increased inter-group or intra-group violence (Wohlgemuth 2005).

At the end of the drought period, c. 600 BP, the archaeological record indicates a significant increase in settlements and activity in the western Sierras, as more and varied resources once again became available to the population. Moratto (1984) has referred to this as the period of “Miwok expansion.” Ethnographic accounts and culturally-specific archaeological markers indicate that the territories of the various cultural and linguistic groups living in the area were established by around 500 BP and remained consistent until the historic period (Walker et. al. 2014, Miksicek et al 1996).

3.3 ETHNOGRAPHIC CONTEXT: NORTHERN SIERRA ME-WUK

The project area lies within the traditional territory of the Northern Sierra branch of the Eastern Me-wuk, which encompasses the foothills and mountains of the Mokelumne and Calaveras river drainages (Kroeber 1976; Levy 1978). This group is referred to in most published literature as “Miwok,” however contemporary Native American groups prefer the spelling “Me-wuk” (Miksicek et al 1996). Native Californian cultural groups and their movements over time are often identified by differences in their languages. Eastern Me-wuk is one of the two major branches of the Me-wukan subgroup of the Utian language family. Linguistic evidence indicates that this branch has been separated from the other major branch, Western Me-wuk, for roughly 2,500 years, suggesting that the ancestors of the Northern Sierra Miwok have lived in the western Sierra foothills for several millennia (Levy 1978:398; Miksicek et al. 1996:30).

Prior to non-Native contact, the Me-wuk practiced seasonal rounds to gather resources, usually in an east-west pattern and usually within a specific territory centered around a permanent or semi-permanent village. A typical Eastern Me-wuk dwelling consisted of conical bark house made by overlapping sheets of bark, with some more substantial examples including a central pole. Their subsistence base included many plant and animal resources: acorns from the abundant oak groves provided a steady food source, as well as buckeye. Pine nuts, deer, elk, and small game rounded out the typical diet. Me-wuk material culture related to the processing of food and game include flaked stone tools, including highly-valued obsidian artifacts, bedrock mortars, hand-held grinding stones, clubs, and arrow straighteners. Additionally, the Me-wuk manufactured pipes, woven tule clothing, and both twined and coiled basketry made from tule and willow (Miksicek et al 1996:30-32).

Kroeber (1955) used the term ‘tribelet’ to describe the social and political organization of the Me-wuk, which he defined as a “sovereign though miniature political unit which is land-owning and maintained its frontiers,” that was in fact better understood as a “nation” than a “tribe.” In these cases, the basic social and political unit was an extended kin group that was represented by a senior “head” member in inter-group settings. A ‘tribelet’ could incorporate from 100 to 600 individuals (Kroeber 1955).

The first contact between non-Natives and the Eastern Me-wuk occurred in the latter part of the eighteenth century, with the incursion of Spanish-Mexican explorers into the Sacramento-San Joaquin Valley (Levy 1978:400). The initial interest in the Native population was from Spanish missionaries who sought to remove the Me-wuk to coastal missions. In the early 1800s, the Me-wuk adopted Spanish techniques of warfare to avoid and escape missionaries and resist military colonial expeditions. The shared external antagonist led to increased cohesion and cooperation between Me-wuk tribelets that had previously been separate (Levy 1978:400).

The discovery of gold in the 1840s led to a new period of cultural upheaval for the Eastern Me-wuk. In addition to the introduction of new and virulent diseases, there was increasing conflict between Natives and settlers of land use and rights. This was exacerbated by the annexation of California as a state, which began policy of seizing Native-held lands. Some Eastern Me-wuk groups signed treaties with local governments, but none of these were ratified by the U.S. Senate. At the same time, some Me-wuk integrated themselves into the developing Euro-American economy as agricultural workers, and many became heavily involved in gold mining (Levy 1978:401).

During this time, Native land use and settlement patterns were dramatically altered by the new economy and cultural landscape. Contact-period Me-wuk settlements were pushed out of formerly desirable locations next to resources and water sources and relocated to the periphery of Euro-American activities (Levy 1978:401). Many Native encampments have been found near industrial resources or mining camps; this is likely due both to the possibility of employment and the exclusion of Native Americans from Non-Native residential areas (Miksicek et al 1996:32).

At the turn of the century, the Bureau of Indian Affairs (BIA) and the Northern California Indian Association initiated the “Rancheria” system. This was a program to acquire “isolated small acreage for Indians” who were displaced by Euro-American development. The Rancherias, which were composed of lands acquired piecemeal by the BIA and the Tribes, provided a base for Native communities despite frequent conflicts with the US Federal government over questions of leadership, health care, education integration, and religious expression (Theodoratus 1974).

The Jackson Rancheria Band of Miwuk Indians was recognized by the federal government in 1898. The Tribe created an established formal government and began developing gaming interests in the 1970s and 1980s under the leadership of Tribal Chairperson Margaret Hughes-Dalton and has since gained economic self-sufficiency. The Tribe operates the Jackson Rancheria Casino in the City of Jackson and supports numerous community events and betterment activities (Jackson Rancheria Band of Miwuk Indians 2020).

In addition, the Chaw’sse Indian Grinding Rock State Park and Traditional Cultural Property (TCP) is located 11 miles from the project area. This sacred site (CA-AMA-14) was used by the Eastern Me-wuk since the prehistoric period; it includes an extensive array of bedrock mortars and petroglyphs on a large limestone outcrop. Today, the park contains a reconstructed roundhouse, individual houses, and recreational fields. It continues to be used by the Me-wuk community for traditional sporting events, ceremonies, and public education and outreach.

3.4 HISTORIC CONTEXT

The following is an overview of the post-Contact history and development of the Jackson area and the Argonaut Mine. It is not meant to be an exhaustive history of Amador County or Central California;

instead, it focuses on the themes of mining technology and economy which are central to understanding the built environment of the Argonaut Mine and its historic significance.

3.4.1 CITY OF JACKSON

The City of Jackson was founded in 1848, in the early days of the California Gold Rush. The settlement was centered on Jackson Creek, which initially served as a stopping point and water source along the route between Sacramento and the mines south of the Mokelumne (Thompson & West 1881:66). It was originally known as “Botellas,” or “Bottleas,” possibly owing to the accumulation of discarded bottles in the creek (Cenotto 1983:4). At its formal founding it was named after one Colonel Alden Appola Moore Jackson. While Jackson’s title is clearly given as “Colonel” in historic documents, Amador County Historian Larry Cenotto contends that Jackson was not in the military, nor was he a long-term resident of the area (Cenotto 1983:4). Rather, he attributes the founding of Jackson to Louis Tellier, a French immigrant and trader.

With the discovery of gold-bearing quartz veins of the Mother Lode along Jackson Creek, mining became the primary economic and industrial driver of the community. Due to the high productivity of Jackson’s mines, including the Argonaut and the Kennedy Mines, it enjoyed general prosperity through the nineteenth and early twentieth centuries, though the region followed the boom and bust cycles typical of Western mining economies. Jackson was the county seat of Calaveras County between 1851 and 1852; when Amador County was formed in 1854, Jackson won election as the seat of the new county (Cenotto 1983:7). Today, Jackson remains the county seat and primary center of commerce and industry for Amador County. Detailed histories of the early development of Amador County and the City of Jackson can be found in Marvin 2014; McCabe and Clay 2016; Cenotto 1983, 1988, 1999, 2003; and Thompson & West 1881.

3.4.2 MINING THE MOTHER LODGE

Jackson is in the Mother Lode Mining District, named after the ‘Mother Lode’ vein discovered in 1848. The Mother Lode vein was about 150 miles long, distributed in a north-northwest trajectory along the western Sierran foothills (Editors of Encyclopaedia Britannica 2014). The deposit contained many subsidiary offshoot veins (hence the name “mother” lode). The vein passed through portions of portions of Tuolumne, Calaveras, Amador, El Dorado, Placer, and Nevada counties, and was a central feature of the California Gold Rush. The term “mother lode” has distilled into popular culture and common parlance as synonymous with a major discovery or any rich source of materials, ideas, or potential.

Initially, the gold deposits discovered in Jackson Creek were exploited via surface placer mining techniques. However, when veins originating at the Mother Lode were identified, the scale of production and operations expanded rapidly. Hard rock mining techniques were in use in Amador County mines by the 1850s, though it did not reach an industrial scale until the 1880s and 1890s.

Mining was the primary industry in Jackson from its founding in 1848 to the mid-twentieth century. Other industries, e.g. agriculture, logging, transportation, and various forms of commerce were all linked with or subsidiary to the mining industry (Marvin 2014:16). Industrial scale mining requires significant investment of capital, infrastructure, and a large, dedicated workforce. Workers supporting this industry included a diverse mix of people of Native Californian, Mexican, Chilean, Italian, Serbian, African, and Chinese descent.

Jackson was the primary urban center for the two largest mines on the Mother Lode: The Kennedy and Argonaut Mines.

3.4.3 THE ARGONAUT MINE

The Argonaut Mine was the second largest gold mine on the Mother Lode vein, surpassed only by the Kennedy Mine. Its history and development have been the subject of extensive previous research. The following discussion is summarized primarily from the history of the Argonaut Mine prepared by historian Judith Marvin (Marvin 2014, as presented in Walker et.al., 2014) and the National Register Nomination for the Kennedy Mine Historic District (Kennedy Mine Foundation 2009). The history of the Argonaut Mine is closely intertwined with that of the Kennedy Mine, and they share many significant aspects.

Discovery and Early Exploration: 1850-1893

The origins of the claim that would become the Argonaut Mine was significant in two ways. In the first place, it may have been one of the earliest hard rock gold mines to be attempted in Amador County. While records indicate that it was first worked in 1850, the first discoveries of gold-bearing quartz veins were not confirmed in the county until 1851, and most claims date to the mid-1850s (Marvin 2014:19). Additionally, the claim was one of the first and only on the Mother Lode to be discovered and worked by black miners. James Hagar and William Tudor, respectively of Missouri and Tennessee, identified the claim when they were both in their 30s and held it for about 15 years. While they were in ownership, the claim was referred to as the “Negro Claim.” Correspondingly, the hill on which it was located, currently “Argonaut Hill,” was originally known as “Negro Hill” (Marvin 2014:19-20).

The early workings on the “Negro Claim” were minimal, consisting mainly of surface exploration and tunneling. It is probable that given the social climate of the 1800s, the owners struggled to gain access to capital. The US Census taken in 1860 lists William Tudor and James Hagar as miners, living in a household (possibly a boarding house) with several Chinese miners (family name listed as “Ah”). In 1865 or 1866, Tudor and Hagar presumably sold the claim to the newly formed Pioneer Gold and Silver Mining Company. It was re-named the “Pioneer Quartz Mining Company Claim,” and became known as the “Pioneer Mine.” The first major tunnel was sunk into the deposit in the mid-1860s, shortly after the company acquired the claim (Marvin 2014:20).

Argonaut Mining Company Expansion: 1893-1919

The Argonaut Mining Company was incorporated under William Detert in 1893. Hard rock mining efforts at the Pioneer Claim through the 1880s had indicated the great potential of the deposits, drawing the attention of both local investors and investment capital from San Francisco. The newly minted Argonaut Company purchased the Pioneer claim and began major developments in early 1894 (Marvin 2014:20).

The mine straddled both sides of the Jackson-Sutter Creek Road, a former toll road. Modern CA-49/CA-88 follows the same approximate corridor, bisecting the Industrial Area of the mine. The initial shaft for the Argonaut Mine was initiated in 1894 on the west side of the road on the slope of Argonaut Hill. It was an inclined three-compartment shaft with a wooden headframe installed to the west of the cut. The hoisting works for the shaft was located east and downslope, on the east side of the road. The hoisting house is shown on the 1895 Sanborn Fire Insurance Map (Sanborn Map) of the Argonaut Mine as a wood-frame building with corrugated metal siding and roofing.

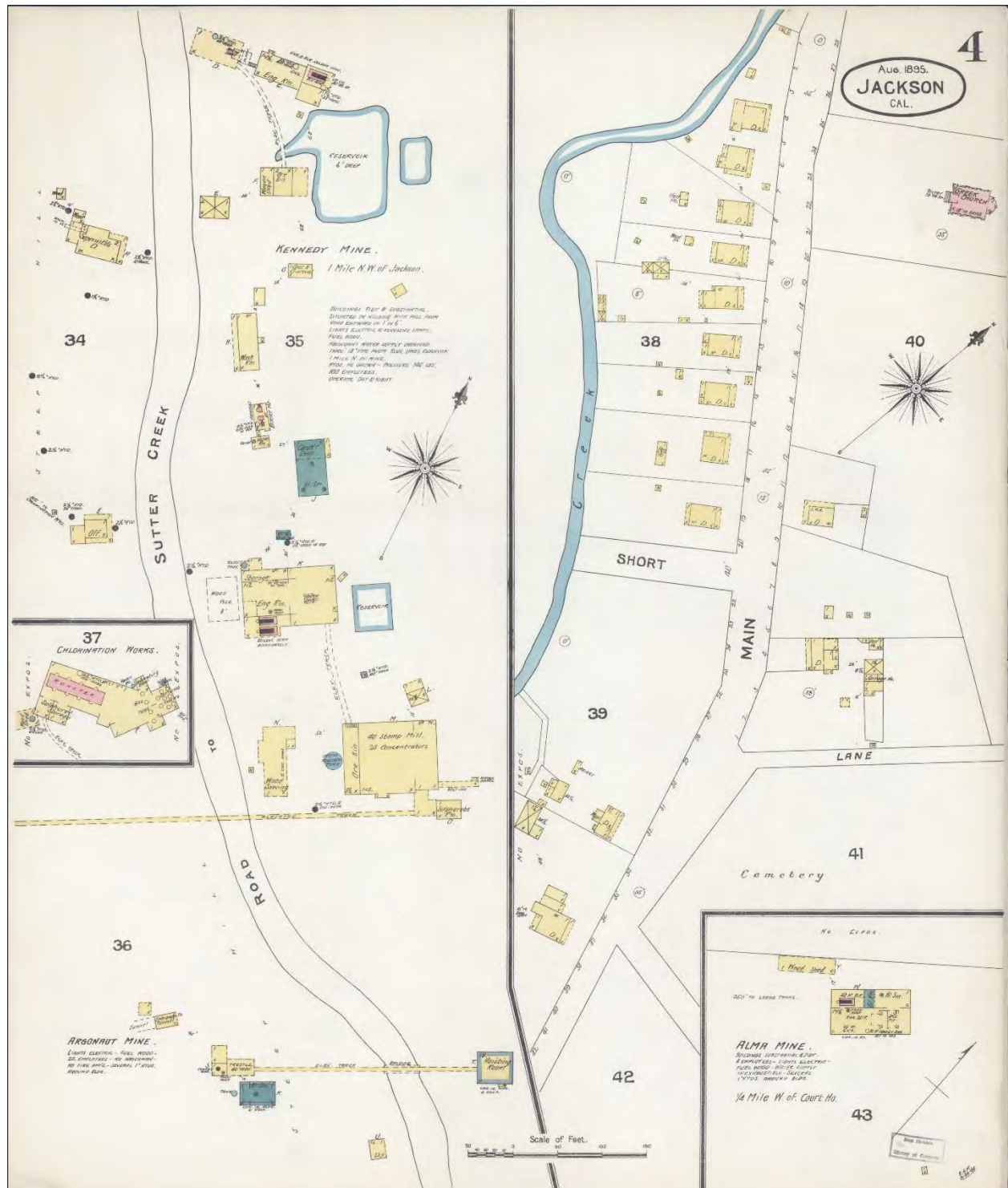


Figure 3.1: 1895 Sanborn Map, showing extensive Kennedy Mine works in top right, with early Argonaut Mine works shown in bottom left

The shaft was powered by a donkey engine (a small steam engine) attached to a 40-foot high elevated trestle. About 2,000 feet of track connected the headframe to the hoisting room, extending over the

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road. The hoisting works was powered by a hydroelectric system that used water from the nearby “Moore Ditch,” which ran along the base of the slope below the hoisting house (Marvin 2014:20). These two installations, the shaft/headframe and the hoisting house, formed the original core of the mine’s operations.

In addition to these elements, the 1895 Sanborn Map also shows a blacksmith shop and water tower south of the headframe. The map indicates that the blacksmith shop was a concrete and corrugated metal building, oriented roughly east-west. To the southeast of the shaft and the blacksmith shop, there is a wood-frame building identified as a single-story frame dwelling with a terra cotta chimney.

Between 1895 and 1900, the mine continued to develop at a steady rate. The shaft was sunk to deeper levels, and the mine employed an increasing number of workers. In 1897, construction began on a 40-stamp mill on the east side of the mine complex, south of the hoisting works. Prior to this, the ores from the Argonaut Mine were being processed at the Zeile Mill, south of Jackson (Marvin 2014:20-22).

The 1898 Sanborn Map (Figure 3.2) shows considerable expansion on both the east and west sides of the mine. The stamp mill, operational by this point, is shown as a wood-frame building with corrugated metal siding and roofing. The stamp mill includes a small extension on its south side, identified as a cleaning room. A retort house containing a brick furnace is shown to the southeast of the cleaning room. To the northeast of the stamp mill, an air compressor house, also a wood frame building with corrugated metal siding, has been constructed adjacent to the ditch. Both the air compressor house and the hoist house are connected to a set of water wheels set across the ditch to the north of the buildings. On the opposite (east) side of the ditch, a wood-frame building identified as the sulphurets house is shown. Archival newspaper articles support the presence of a sulphurets house at the Anaconda Mine by 1900, at which point sulphurets were re-cleaned by a concentrator onsite at the mill (likely in the cleaning room). The sulphuret house likely stored the material before it was transferred elsewhere (Anonymous 1900, 1922).

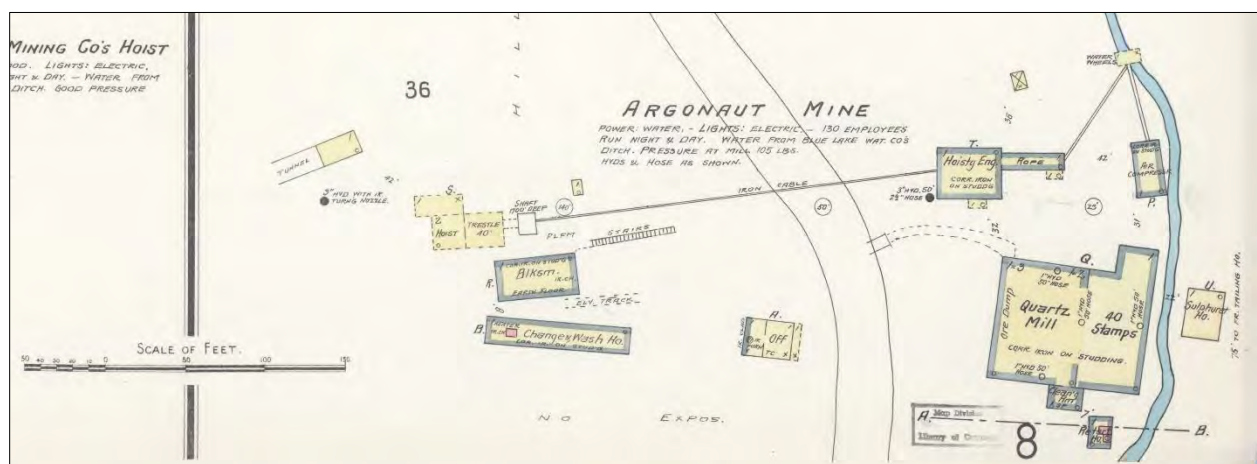


Figure 3.2: Detail of 1898 Sanborn Map, showing expansion of Argonaut Mine

On the west side of the road, the 1898 Sanborn map shows that the single-story frame dwelling has been either replaced or expanded, as there is a one-story frame office with two rooms in roughly the same location but oriented slightly differently. The east room of this building is an office with a terra cotta chimney and the west room has an iron furnace with an iron clad west wall. The west wall of the

office is iron clad and there is an open frame porch on the east elevation of the building. The blacksmith shop has also been expanded. A 'changing and wash house,' also constructed with wood frame and corrugated metal siding, has been installed south of the blacksmith shop. It is a long, narrow building, oriented roughly east-west. At this time, the mine employed 130 workers.

By 1902, the 40-stamp mill at the Argonaut Mine was processing not only its own ores, but ores from the Hoffman Ground, operated by German immigrant Frank Hoffman. The Argonaut Mine had an option on the Hoffman Ground, and the two mines cooperated throughout the early 1900s. In 1907, there was even discussion of the potential for reprocessing of Argonaut's tailings using an experimental processing plant designed by Charles E. Hassner. It is unclear whether Argonaut's tailings were ever reprocessed on the Hoffman Ground or whether the plant was constructed by Hoffman at that early date. Reprocessing of tailings was a technological process that became common at gold mines at this time; it was implemented at the Argonaut Mine in 1916 and continued until the mine's closure in 1942 (Marvin 2014:21; Anonymous 1918).

The Argonaut Mine operations continued to expand over the first decade of the twentieth century. By 1912, a timber and sawmill were constructed on the west side of the road, north of the headframe and shaft. The facility is shown on the 1912 Sanborn Map as a large rectangular building, oriented roughly northwest-southeast, with wood frame and corrugated metal siding on its east elevation (Figure 3.3). A trestle is shown between this building to a dump on the opposite (east) side of the road. The blacksmith shop has once again been expanded, and now includes a brick foundation along its interior western wall. The office building present in 1898 maintains the same configuration but the western room that houses an iron furnace is now classified as an Assay Office. On the east side of the mine complex, a small transformer building has been constructed next to the sulphuret house.

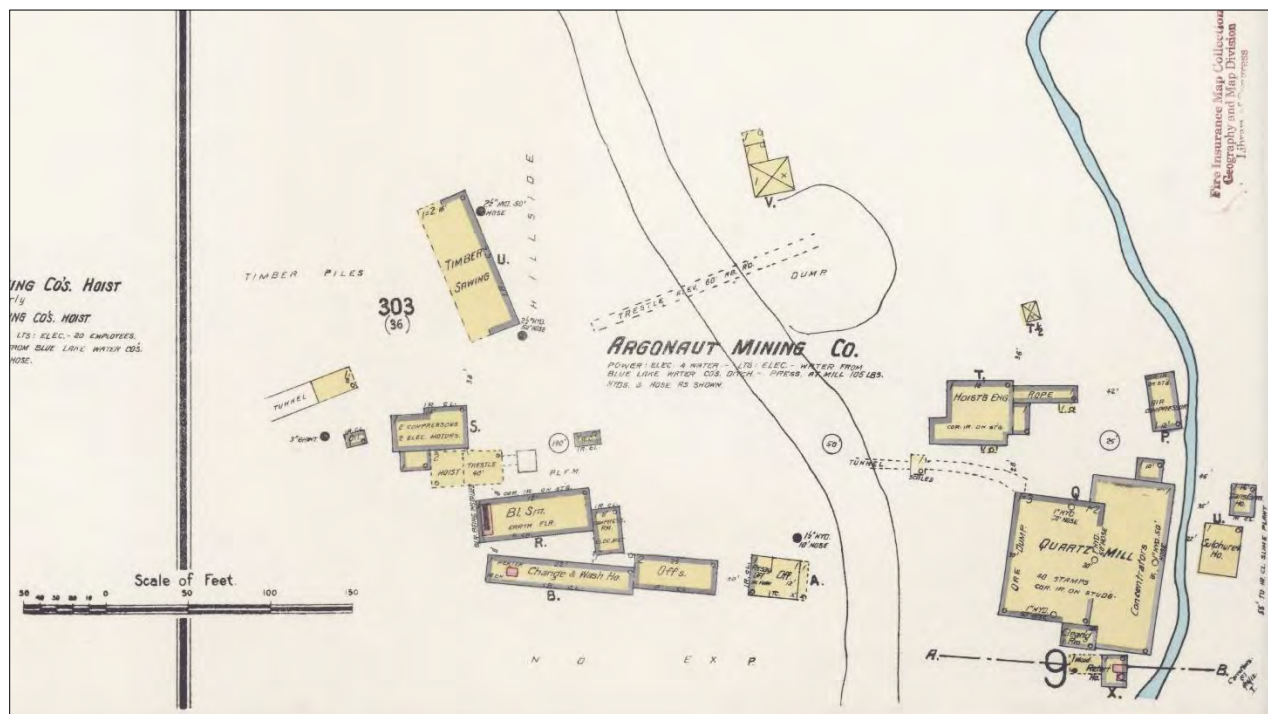


Figure 3.3: Detail of 1912 Sanborn Map, showing further expansion of Argonaut Mine

Major changes to the mine and its facilities were initiated between 1913 and 1914, after the passage of a 1912 law that required mines to impound their tailings. Before this time, the Argonaut Mine had deposited mine waste into nearby Jackson Creek. In 1913, the mine began construction of a tailings treatment plant and a new stamp mill, both on the west side of the road (Marvin 2014:23). The new mill was a larger, 60-stamp mill, constructed upslope of the main shaft and headframe near the top of the hill. A two-track tramway was built to transport the ore upslope from the shaft to the new mill. The 40-stamp frame on the east side of the road remained in use until 1916 but began to be phased out as the new mill was completed. At the same time, the wooden headframe at the main shaft was replaced with a 55-foot high steel gallows-style headframe; this is the headframe that stands on the mine site today (Marvin 2014:23-25). These changes to the facilities can be seen in historic photographs of the mine from the 1910s through the 1920s.



Figure 3.4: Overview of Argonaut Mine in 1911, showing original wooden headframe and hoist house, photo courtesy of California State Library.

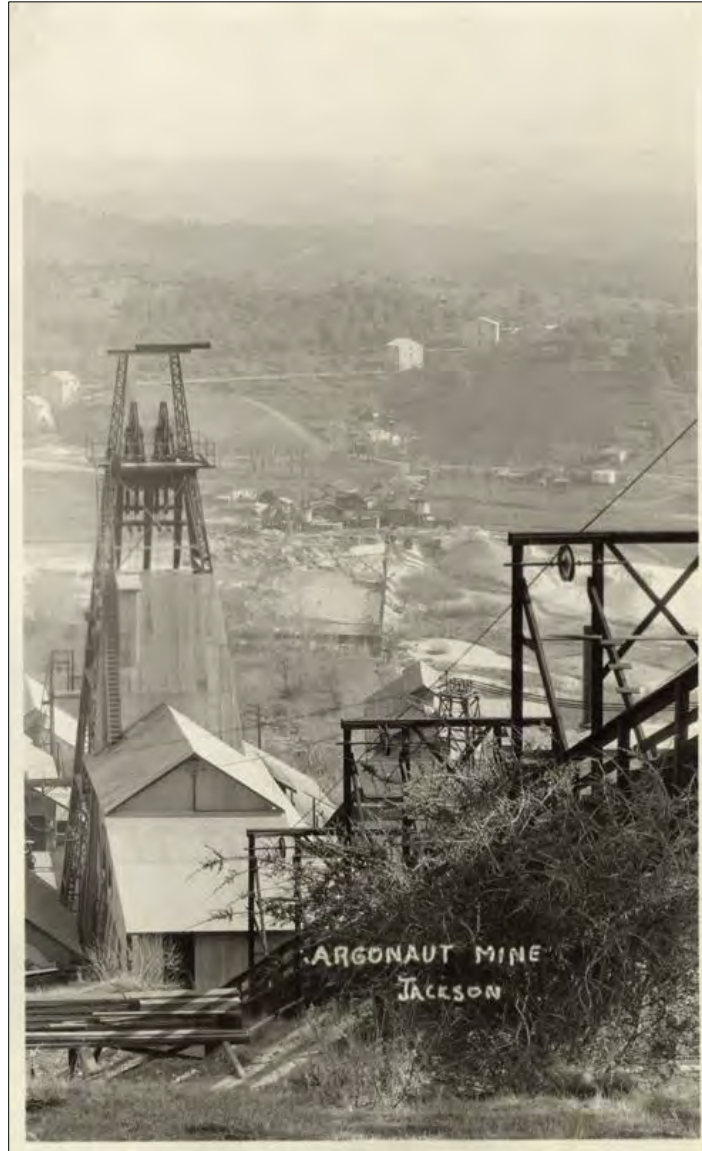


Figure 3.5: Overview of steel headframe c. 1918, photo courtesy of Amador County Archives

As part of the directive to control mine tailings, the mine also began construction on an Eastwood-style multiple-arch tailings dam, named after its designer, John Eastwood. It is referred to in the literature and in previous archaeological records as the “Eastwood Dam.” The dam is still standing on the northwest side of the town of Jackson (Marvin 2014:25).

The mine underwent rapid development after 1913, expanding both its workforce and the complexity of its operations (see Walker et al. 2014 for a detailed discussion of the mine’s output). In addition to the new facilities described above, historic photographs indicate that the mine’s surface buildings were remodeled into their current form sometime between 1913 and 1920. The 1912 Sanborn Map shows the Blacksmith’s Shop, the Changing House, and the Office next to the changing house, as large rectangular buildings with their long axes oriented roughly east-west at two slightly different angles. Overview photos of the west side of the mine taken around 1920, however, show two standardized corrugated metal sided buildings set on a north-south alignment, immediately south of the 55-foot

gallows headframe. These buildings remain standing on the site today. It is likely that during the remodeling that followed the passage of the 1912 legislation, the Blacksmith Shop, Changing House, and the Office building were rebuilt or reconstructed to a more streamlined form.



Figure 3.6: Overview of Argonaut Mine c. 1920, photo courtesy of Amador County Archives

Argonaut Mining Company vs. Kennedy Mining and Milling Company

The Argonaut Mine and the Kennedy Mine, its neighbor to the east, spent the last decade of the nineteenth century and the first years of the twentieth century embroiled in a legal battle that remains relevant in mining law to the present day. In 1894, the Argonaut Mine filed suit against the Kennedy Mining and Milling Company for trespass, contending that the Kennedy had mined over 3,000 tons of ore that, while physically located underneath the Kennedy's surface claim, were from a vein that had its origin, or apex, within the Argonaut claim (Marvin 2014:21; Kennedy Mine Foundation 2009:46). The key issue was that of "extra-lateral rights," or the right of a miner to follow an ore deposit from its apex near the surface along its entire extent, regardless of whether it passed under another surface claim. This right was codified, in various terms, in the Mining Acts of Congress of 1866 and 1872.

The Argonaut Mine re-filed for additional damages in 1897, and the case was brought to court in 1898 (Allen 2009:48). While the judge found in favor of the Argonaut Mine in 1899, the Kennedy Mine appealed the decision repeatedly, taking the argument to the California Supreme Court in 1900 and the US Supreme Court in 1902. Owing to the ongoing litigation, the Argonaut Mine was temporarily shut down in 1900 and again in 1901, though a small workforce continued to mine the main shaft (Marvin 2014:21). The Supreme Court ultimately upheld the decision in favor of the Argonaut Mine in a landmark ruling that continues to define the interpretation of extra-lateral rights (Kennedy Mine Foundation 2009:47–48).

The relationship between the two mines continued to be litigious throughout the early twentieth century; in 1909 there was another lawsuit between the Argonaut Mine and the Kennedy Extension Mining Company, again over the issue of trespass. This lawsuit was not concluded until 1914, though once again the courts found in favor of the Argonaut Mine (Marvin 2014:21).

Fires of 1919-1922

In the spring of 1919, a fire broke out at the 4,400-foot level of the Argonaut Mine. It was put under control by flooding the mine, however parts of it continued to smolder underground, eventually starting a fire in the Kennedy Mine's underground workings in the same year. Both mines were temporarily shut down while the workings were flooded to control the blaze. The Kennedy Mine quickly filed suit against the Argonaut Mine for the resulting damages (Marvin 2014:25-26).

Work resumed at the Argonaut Mine in 1921, however less than a year later, in August 1922, another fire broke out in what became known as the Argonaut Mine Disaster. The fire began at the 3,300-foot level of the mine, trapping the miners working in the lower levels. Despite 22 days of work by rescuers, the incident resulted in 47 casualties, making it deadliest mining tragedy in the history of California (Mitchell 2017; Rasmussen 2006). The disaster drew nation-wide interest and sympathy, with over \$45,000 raised for the miners' families in various charitable events in Los Angeles and across the country (Rasmussen 2006).



Figure 3.7: American Red Cross and foreman B. Sangunietti at Argonaut Mine Shaft, 8/27/1922. Image Courtesy of Library of Congress

Despite this, the Argonaut Mine Disaster did not initially make a significant impact on mining safety regulations. While an investigative team ruled that the mine had violated safety regulations, no charges or fines were brought against the company's owners. At the time, the US Bureau of Mines had very limited authority to enforce safety codes, especially in the West. The investigation made several recommendations for future fire safety; however these were not codified into law by the California legislature (Rasmussen 2006). A detailed popular recounting of the fire and its outcome was published in 2004 by O. Henry Mace (Mace 2004).

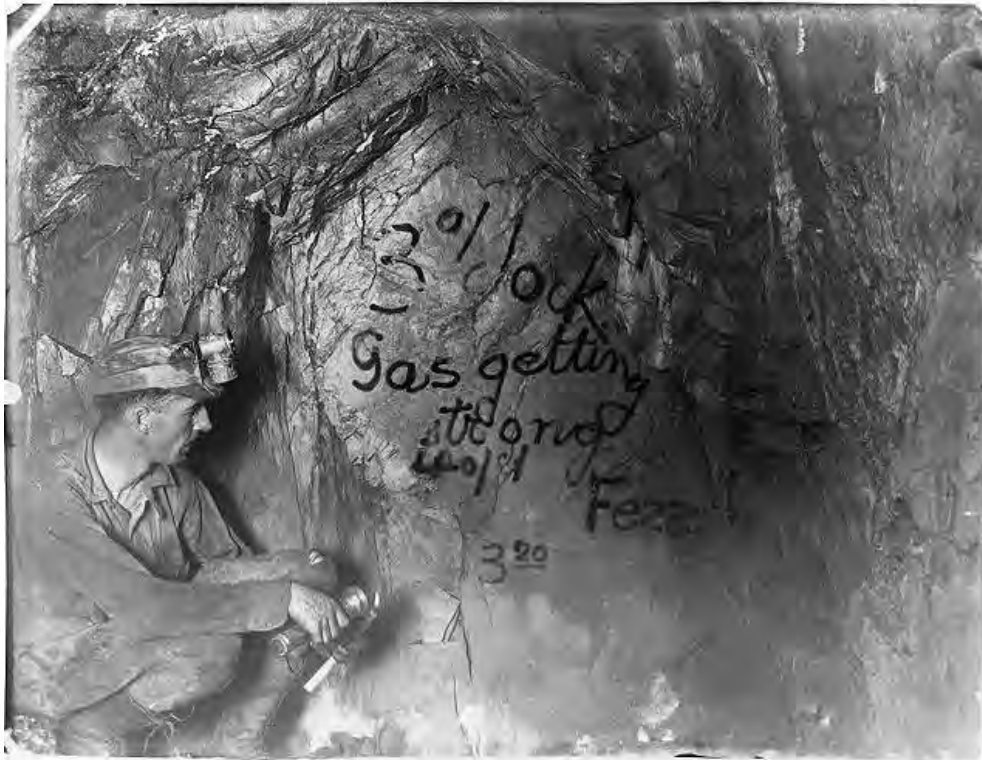


Figure 3.8: Last message left by miners written with carbide lamps on face of the 4350 foot drift. Image Courtesy of Library of Congress

The Argonaut Mine did not reopen until 1923, and it was 1925 before production recovered to the point where it was able to pay dividends (Marvin 2014:26).

Reopening and Later Operations: 1923-1930

By the 1930s, the Argonaut Mine was again operating at full capacity. Its operations had been restored and expanded in the depth, workforce, and surface workings (Marvin 2014:26-27). The majority of the work was now concentrated on the west side of the road: the 1930 Sanborn omits the original 40-stamp mill, showing only the Hoisting House, Sulphurets House, and Air Compressor House on the east side of the road, as well as a few small wood-frame buildings. The water wheels shown in 1912 are also absent by 1930 (Figure 3.9).

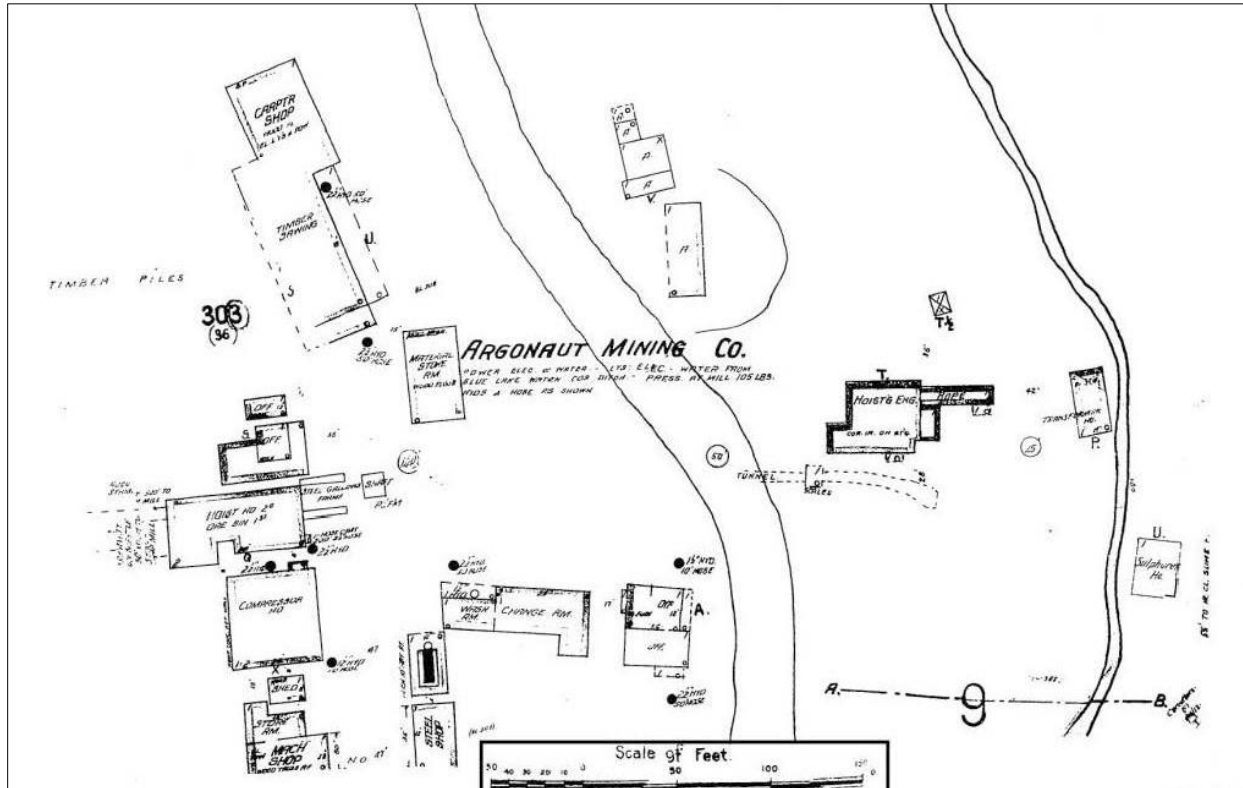


Figure 3.9: Detail of 1930 Sanborn Map, reproduced from Walker et.al. 2014.

On the west side of the road, several buildings surround the gallows headframe and second hoist, including the Timber Mill, Offices, Changing Rooms, and work buildings. To the south of the headframe, a Compressor House and a Machine Shop are shown in a roughly north-south alignment. These are likely the two large buildings that stand adjacent to the headframe today and that are shown in the 1920s images of the mine. Opposite these are a Steel Shop and a foundation for a steam boiler, located north of the Assay Office.

Labor Unions and Miners' Rights

Industrial gold mining in California in the early twentieth century sharply contrasted with the image of the individual, independent gold miner of the 1840s that remains popular in the media and public imagination. Mining on a large scale required significant capital, infrastructure, and a large skilled labor force to be productive. The social and economic divide between the owners and capitalists associated with mines and their workers created pressure for organized labor and collective bargaining. However, as illustrated by the fallout of the Argonaut Mine Disaster in 1922, miner's rights, wages, and safety standards were slower to be realized in the West than in the Midwest and on the East Coast.

The first attempt to organize labor on the Mother Lode claims was in 1871, when the Amador County Laborer's Association was established to protest the hiring policies of local mine owners (Kennedy Mine Foundation 2009:42). Their basic goal was to promote and protect white laborers over all others, a policy that would have excluded a substantial portion of the available workforce. .

The United Mine Workers of American (UMWA), founded in 1890 in Ohio, was a major force for the promotion of miner's interests in the early twentieth century, but its influence was not immediately felt

in the West. Owing to the ideal, if not the actual existence, of independence in mining, union activity in California was scattered and fragmented. Collective bargaining, the eight-hour workday, retirement benefits, and basic health and safety measures were either non-existent or were applied inconsistently between mines. The mine officials at both the Argonaut and Kennedy mines strongly opposed unionizing, and organizers had very little traction in the 1800s (Kennedy Mine Foundation 2009:43–44).

In 1903, the Western Federation of Miners (WFM) made a push for organizing labor in the Amador County area. The union representatives successfully recruited many workers, but the mine owners retaliated with a mass-firing of known union members. This caused a backlash in the community that led to a strike at several mines, including the Kennedy Mine, in 1903. The Argonaut Mine did not participate, as it was still shut down due to the litigation with the Kennedy. The strike was eventually resolved with a compromise that 1) shortened the miner's workday from 10 hours to nine (not to eight, as they originally demanded), 2) prohibited discrimination against union members, 3) allowed discharged union members to be reinstated not universally (as demanded), but at the discretion of mine managers, and 4) did not require mine owners and managers to recognize the union. One of these issues was resolved in the miner's favor in 1909, when the California State legislature signed the eight-hour workday for miners into law (Kennedy Mine Foundation 2009:45–46).

Union activity increased across America in the 1920s and 1930s, as workers across industries continued to demand better rights, wages, and standards of living. Some of this was felt at the Argonaut Mine, whose workers were part of Mother Lode Local No. 48 of the International Union of Mine, Mill, and Smelter Workers (formerly the WFM). In the early 1930s, the unionized workers at the Argonaut, Kennedy, and the nearby Central Eureka and Original Amador Mines voted to strike for recognition of the union, collective bargaining rights, and a sliding scale of wages based on the price of gold. These efforts met strong resistance from mine managers, who were particularly opposed to the latter demand. Despite months of picketing, the strike was ultimately unsuccessful. Amador County mines continued to operate without union contracts or union recognition until 1942 (Kennedy Mine Foundation 2009:46).

3.4.4 CLOSURE AND DISMANTLING

In 1942, Executive Order L-208 placed wartime restrictions on gold mining across the country. The Argonaut Mine and Mill ceased operations in March of that year (Marvin 2014:27). The Argonaut Mining Company kept the mine dewatered and in good order for the duration of World War II, in the hopes of eventually reopening. This did not occur and the company was dissolved in 1948.

The mine property was purchased in 1949 by Bernard Monte Verde and E.C. Taylor. The new owners planned to install new machinery and reopen the mine, but this was ultimately not realized. Monte Verde and Taylor began dismantling the surface facilities for salvage in 1952. The tailings area, located to the southwest of the Industrial Area, was purchased by Morse Van Horn in 1979 (Marvin 2014:27).

In the mid-2000s, the foundation of the 1916 60-stamp tailings mill and other structures in the western extent of the Industrial Area were removed to make way for a housing development. The Argonaut Heights II Project constructed several blocks of single-family residences in 2005 (Amador County Assessor's Office).



Figure 3.10: Overview of Argonaut Mine c. 1947, image courtesy of Amador County Archives

4.0 RESEARCH DESIGN

4.1 THE NATIONAL REGISTER CRITERIA FOR EVALUATION

A cultural resource's National Register eligibility is a function of its integrity and its applicability to one or more of the four federally recognized Criteria of Significance (36 CFR § 60.4). These Criteria are defined as follows (McClelland 1997):

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association, and:

A) that are associated with events that have made a significant contribution to the broad patterns of our history; or

B) that are associated with the lives of persons significant in our past; or

C) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D) that have yielded, or may be likely to yield, information important in prehistory or history.

The seven aspects of integrity, listed in the above quotation, are specifically defined as:

Location: Location is the place where the historic property was constructed or the place where the historic event occurred. The relationship between the property and its location is often important to understanding why the property was created or why something happened.

Design: Design is the combination of elements that create the form, plan, space, structure, and style of a property. Design is the result of conscious decisions made during the original conception and planning of a property.

Setting: Setting is the physical environment of a historic property and refers to the character of the place in which the property played its historical role.

Materials: Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. In this case, choice and combination of materials reveal the preferences of the property's creators, as well as the availability of materials and technologies.

Workmanship: Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in prehistory or history. Workmanship can apply to the property as a whole, or to its individual components.

Feeling: Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. It results from the presence of physical features that, taken together, convey the property's historic character.

Association: Association is the direct link between an important historic event or person and a historic property. A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer.

4.2 THE ARGONAUT MINE INDUSTRIAL DISTRICT

The Argonaut Mine Site, CA-AMA-208H, was recorded in 1983 by L. Cenetto as part of the Jackson Historic Sites Survey Project (Cenetto 1983). It had been listed as a California Historical Landmark collectively with the Kennedy Mine in 1968 as a single historic mining district (CHL-786). When it was formally recorded in 1983, the researchers recommended the Hoist House on the east side of the highway and its associated resources for listing on the National Register, however the nomination was not finalized. The mine was evaluated by Caltrans collectively with the Kennedy Mine in 2004 as a single historic mining district, which was recommended eligible to the NRHP (Supernowicz et al. 2006). In 2009, the Kennedy Mine (solely) was listed on National Register for its statewide level of significance under Criteria A and C. In 2014, the Argonaut Cyanide Plant and Tailings Site, located southwest of the Industrial Area, was recommended eligible to the NRHP under Criteria A, C, and D. Drawing upon earlier listings and recommendations, the following research design was applied to the Argonaut Mine Industrial District. Individual elements of the District were evaluated for their potential to contribute the significance of the resource a whole.

Resources that are eligible or contributing under Criterion A are associated with major events that shaped the development of the study area. In the case of the Argonaut Mine Industrial District, these events include its founding by two black miners, the subsequent development of the mine and its contribution to the local and state-wide gold mining economy, the mine's landmark litigation with the Kennedy Mine, mine worker's involvement in local and nation-wide union activity, and the Argonaut Mine Disaster, the most deadly mining safety incident in the history of the state.

Resources eligible or contributing under Criterion B are associated with individuals who made a substantial contribution to the historic development of a region. To be considered, the resource must demonstrate a clear connection between the property and the life or career of the individual. In the case of the mine properties such as the Argonaut Mine, this may include designers and operators. Financial contributions to major projects (i.e. the development of a mine or railroad) by prominent figures in history would not necessarily constitute eligibility under Criterion B.

Resources that are eligible or contributing under Criterion C must demonstrate the distinctive characteristics of a type, period, or method of construction. In terms of mining, the application of Criterion C is dependent on the resource's ability to convey the extraction, benefaction, or refinement technologies used by the mining operation in one or more periods of time.

For a resource to be eligible or contributing under Criterion D, it must have the potential to provide additional significant information about our history. To evaluate the significance of a resource under this Criterion, a series of research questions are formulated based on specific themes relevant to the project area and the current state of the research. If a resource does not have the potential to contain data that may be used to address these questions, then it is not considered eligible for the NRHP. The Argonaut Mine Industrial District and its components were evaluated based on research questions related the historic theme of *Mining*.

4.2.1 HISTORIC RESEARCH QUESTIONS: MINING

The research domain of Mining concerns the development of the industry and economy in the Mother Lode Mining District and the surrounding area. The discovery of gold in the mid-1800s rapidly altered the landscape and economy of California and contributed to its annexation as a state. Exploitation of the Mother Lode, one of the largest veins discovered in the California Gold Rush, required the development of new mining and milling technologies on an unprecedented industrial scale. The trajectory of mining in the western Sierras rapidly escalated from small-scale individual efforts to massive corporate undertakings such as the Argonaut and Kennedy Mines. The development of these mines and others like them defined the economy, the physical landscape, and the social history of the region.

The study of mine and mill sites is best accomplished by understanding the mine, mill, or mine/mill as a system. The material remains of mines and mills reveal what systems were employed by the people and companies operating the mines/mills. The following mining research design follow models presented in Hardesty 2010.

Social and Economic Systems

The influence of mining on the economic and social systems is an important area of inquiry, particularly in terms of status, class, gender, and ethnicity. This includes the incorporation of immigrants and marginalized groups (e.g. Black and Native Americans) into the workforce and the influence of labor unions. When possible, identifying these social groups within the community has the potential to create a more nuanced and more complete picture of human behavior within the mining/industrial complex.

Data from household, community, or industrial refuse dumps are important for addressing these questions. Those dumps need to be clearly associated with either a specific household or representative of a substantial portion of the community (i.e. the official town dump), or with a specific functional area within a mine complex. Architecturally, an increase or decrease in the construction of homes, businesses, government buildings in the surrounding communities or evidence of houses and businesses in nearby communities being remodeled, improved, or abandoned can be tied to the fluctuations of the mining economy.

Standing buildings and structures are not necessarily required to address these questions. The material remains of buildings, structures, and features such as foundations, concrete pads, platforms, depressions, retaining walls, platforms, and structural debris is enough to address many questions. Most artifacts directly associated with mine and mill sites are likely to be industrial in nature. Domestic artifacts may be present, but in limited quantities, for that reason household questions are often best addressed by sites outside of the active mining/milling area.

Intact or ruined buildings, structures, and work areas used by management and those used by laborers may be useful for addressing questions regarding differences in status, class, ethnicity, and gender. Also, because unions often had important impacts on safety and working conditions at mines buildings, machines, and mining structures with evidence of added safety measures such as guardrails, signage, and ventilation may be an important data requirement.

Research Questions

- Can this resource be confidently associated with a specific period, and if so, how does it illustrate the living/working conditions of the that period?
- How does the material record present at the site pertain to the living and working conditions of the miners? Do those conditions change over time, and if so, can those changes be correlated with changes in the management of the mine or mill?
- How does the material record reflect the presence of different social groups? Does it demonstrate differences in class, gender, status, ethnicity, occupation, or working/living conditions?
- How did the mine manage safety, health, and precautionary practices in its formative years? How did the Argonaut Mine Disaster of 1922 impact the enforcement of these practices in later years?

Data Requirements

- Discrete deposits of historic refuse with temporally diagnostic artifacts that can be linked to a household, industry, or a substantial portion of the community
- Intact or ruined buildings and structures with material remains or historical data identifying their age and function

Technology

Mining technology may be divided into three stages of mineral processing: extraction, beneficiation, and refining (Noble and Spude 1992:12). Extraction involves the processes by which ores are accessed and removed from their original veins. Beneficiation concerns how the ores are processed and rendered into upgraded materials ready for shipping to a refinery or smelter. Refining is the stage where the upgraded ore is finally converted into useable materials. The three stages of the mining process may be found in one complex or in multiple locations depending on an array of environmental, geographic, economic, or regulatory restrictions. Mines necessarily exploit mineral deposits, which dictates where mines are located, while mills and smelters are preferentially located near major transportation corridors to facilitate distribution of the processed ores. Mines, mills, and smelters when not located in a single complex are linked by road or rail line networks many of which are specifically constructed for the purpose.

To address questions about technology there must be material evidence of the various landscape features, buildings, and structures that made up the mining or milling complex. At twentieth century mine/mill sites features may include open pits, waste rock dumps, tailings, evaporation ponds, dams, and heap leach pads. Other structures and buildings might include administrative buildings, processing plants, tramways, mine shafts, adits, shops, sheds, ore bins, water tanks, utility lines, sub-stations, railways, and haul roads.

Standing buildings and structures are not necessarily required to address these questions. The material remains of buildings, structures, and features such as foundations, concrete pads, platforms, depressions, retaining walls, platforms, and structural debris is enough to address many questions. Most artifacts directly associated with mine and mill sites are likely to be industrial in nature (e.g. chemical drums, hand tools, tires, machinery, machine parts, pipe, wire, cable). Domestic or personal artifacts may be present, but in limited quantities (e.g. tobacco tins, beverage cans, alcohol bottles, buttons).

Research Questions

- How does this resource demonstrate the changes in the development of the gold mining technologies over time? How do those changes correspond to the periods of significance? How do they correspond with national or global trends in gold mining?
- How does this resource demonstrate major innovations in mining design and engineering? When did this mine or mill incorporate significant technological improvements, e.g. cyanidation or re-processing of tailings?
- How does the design/layout of the mine, mill, or mine complex compare to other gold mines, mills, or complexes of the same period, in particular the neighboring Kennedy Mine? What do the similarities and differences between the Argonaut and Kennedy Mines indicate about their relationship and economic impact through time?
- Because mines are dynamic historic resources the elements of the mine that endure through multiple periods of management and economic shifts tend to be the most central to the mining operation overall. Does the mine retain features, structures, and buildings that have endured through multiple management and economic episodes? How do those enduring elements interact with the other elements of the mine that have modified or added later?

Data Requirements

- Material evidence of the landscape features, buildings, and structures on the mine
- Material evidence of change over time on the mine
- Intact or ruined buildings and structures with material remains or historical data identifying their age and function

5.0 INVENTORY METHODS

5.1 PREVIOUS INVESTIGATIONS

To contextualize the Argonaut Mine and its surroundings, Broadbent staff completed a review of previously completed archaeological, architectural, and historical studies. Records were obtained through the California Historic Resources Information System (CHRIS) database at the North-Central Information Center (California State University, Sacramento). Records within the Project Area and within a one-half mile buffer around the Project Area were investigated. Other sources consulted included historic maps of Amador County, historic Sanborn Fire Insurance Maps, aerial photographs, General Land Office (GLO), Amador County Assessor's records, and historical context information provided by the EPA.

The records search yielded 20 previous studies conducted in the half-mile buffer. Two of these included portions of the current Project Area. The Hoisting House and Air Compressor House on the east side of the highway were recorded in 1980 in advance of a proposed development project in the old mill area (Rondeau 1980). This survey did not produce a site record for the resources. The headframe area and Hoisting House area were recorded as CA-AMA-208H in 1983 as part of Historic Site Survey of Jackson, sponsored by the Amador County Museum (Cenetto 1983).

One other site associated with the Argonaut Mine, the Argonaut Cyanide Plant and Tailings Site (CA-AMA-747H; Walker et. al. 2014) was identified within the one-half mile buffer. Sixteen other previously recorded archaeological and architectural resources were located within the one-half-mile buffer. These include components of the Kennedy Mine Site, historic ditches and roads, railroad resources, historic buildings, and the Jackson Gate Chinese Cemetery site. Previously conducted inventories and resource records are summarized in Tables 5.1 and 5.2, below.

Table 5.1: Previous Inventories and Studies within One-Half Mile of the APE

Report No.	Title	Author, Date	Publisher	In APE?
010287	Historic Site Survey of Jackson	Cenotto 1983	Amador County Museum	Yes
000012	An Archeological Survey of Proposed Modifications to the City of Jackson Sewerage System.	Soule 1976	Archaeology Study Center, California State University Sacramento	No
000013	Archeological Reconnaissance of 10-Ama-49 5.9/11.8 Route 88 at Martell to 0.3 Miles South of Rancheria Creek 10203-049981	Johnson 1975	California State University Sacramento	No
000165	An Archeological Reconnaissance of the proposed Sewer Collection System for the Martell Area and Outfall Project into Henderson Reservoir in Amador County, California	Johnson 1975	N/A	No
000402	A Cultural Resource Assessment of the Proposed Old Mill at the Argonaut Mine Development Project, Amador County, California.	Rondeau 1980	N/A	No
003287	Historic Property Finding of Effect Kennedy Tailing Wheel #4 Restoration, City of Jackson, Amador County, California	Davis-King 1999	N/A	No
003309	A Cultural Resource Reconnaissance of The Jackson Wastewater Treatment Plant and Export Line Amador County, California	Lindstrom 1981	Consulting Archaeologist	No
005886	Section 106 Review, Jackson Relo-41824	Villacorta 2001	GeoTek Insite, Inc.	No
005908	Cultural Resource Assessment for the Hwy 49/Jackson Project, Cingular CC-123-03, Amador County	St. Clair 2004	Pacific Legacy, Inc.	No
005909	Cingular Wireless Site No. CC-103-02 "Argonaut Heights"	Losee 2003	Archeological Resources Technology	No
005910	Cultural Resources Records Search and Survey for the Highway 88/Sunset Drive Project.	St. Clair 2004	N/A	No
008100	Archeology Survey: Ione Martell Gas Line, GM 168959 Stockton Div.	Johnson 1968	UC Davis Archaeological Field School	No
010003	HABS and HAER Documentation for Amador Central Railroad, Martell Terminal and Grade	Historic Resources Association	Historic Resources Association	No
010364	Cultural Resources Investigations for the Stutler Development, Jackson, California (APN's 020-020-034 and 035)	Marvin and Thorpe 2009	Foothill Resources, Ltd.	No
011068	Historic Properties Survey Report, Archaeological Survey Letter Report, and Finding of No Adverse Effect Report for the Preservation and Accessibility of	Davis-King 2012	Davis-King & Associates	No

Report No.	Title	Author, Date	Publisher	In APE?
	Kennedy Tailing Wheel #4 Project City of Jackson, Amador County, California			
011581	Jackson Gas Project #2, Jackson, Amador County	Hammerle 2014	Garcia and Associates (GANDA)	No
011614	Collocation ("CO") Submission Packet; FCC Form 621. UC Berkeley 1 (Project Number: CNU4815).	Losee 2005	Archaeological Resources Technology	No
011829	A Cultural Resources Inventory and Evaluation of the Argonaut Mine Cyanide Plant and Tailings Site, Jackson, Amador County, California	Walker et al. 2014	Sonoma State University; Foothill Resources, Ltd	No
013001	Historic Property and Archaeological Survey Report for Director's Orders Hazard Tree Removal Project, District 10, Amador, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus, and Tuolumne Counties, California, State Routes 4, 5, 12, 26, 49, 88, 108, 120, and 140	Waechter et al 2019	Far Western Anthropological Research Group, Inc.	No
013057	Draft Cultural Resources Study and Evaluations for the Jackson Gate Plaza North Project, Amador County, California	Patrick et al 2017	Patrick GIS Group, Inc.	No

Table 5.2: Previously Recorded Resources within One Half-Mile of the APE

Primary Resource No.	Trinomial	Age	Resource Name/Description	Other IDs	In APE?
P-03-000243	CA-AMA-208H	Historic	Argonaut Mine	Hoist House; Pioneer Mine; Argonaut Mine Site and Dam; CHL - 786; 05-03-51-096	Yes
P-03-000573	CA-AMA-448H	Historic	Kirkpatrick's Farm	Froelich Brothers Winery; Caltrans' temporary #380001-12;	No
P-03-000704	N/A	Historic	Monterichard Ditch	MP-2	No
P-03-000716	N/A	Historic	Old Highway 32	461300-RS7	No
P-03-000718	N/A	Prehistoric	N/A	Prehistoric Site	No
P-03-001196	CA-AMA-795H	Historic	Kennedy Flat Site	Caltrans temp #461300-12a	No
P-03-001479	N/A	Historic	Chichizola Family Store Complex	HABS 3-JAKGA-1; HABS CA-1513; CIHR 8; NRHP Chichizola Family Store Complex; NRHP 7	No
P-03-001484	N/A	Historic	Kennedy Tailings Wheel	Kennedy Mine Tailing Wheels;	No

Primary Resource No.	Trinomial	Age	Resource Name/Description	Other IDs	In APE?
				Kennedy Wheels and Impoundment Dam; PHI #003; CIHR 25; NRHP 9	
P-03-001487	N/A	Historic	St. Sava Serbian Orthodox Church	NRHP St. Sava Serbian Orthodox Church; NRHP 12	No
P-03-001510	N/A	Historic	Argonaut and Kennedy Mines	CHL - 786	No
P-03-001576	N/A	Historic	Kennedy Mine Historic District	CHL - 786; NRHP Kennedy Mine Historic District	No
P-03-001577	N/A	Historic	Jackson Gate Chinese Cemetery Site	N/A	No
P-03-001737	N/A	Historic	Foundations	ST-1	No
P-03-001743	N/A	Historic	Martell Terminal	Ione & Eastern/Amador Foothills RR Terminal; Amador Central RR (Martell Terminal); Amador Central RR	No
P-03-001744	N/A	Historic	Depot and Freight Shed	Ione & Eastern/Amador Foothills RR Terminal; Amador Central RR (Depot and Freight Shed); Amador Central RR	No
P-03-001895	CA-AMA-747H	Historic	Argonaut Cyanide Plant and Tailings Site	N/A	No
P-03-002016	N/A	Historic	Kennedy Tailing Wheels	National Register - 81000146; Kennedy Mine Tailing Wheels	No
P-03-002049	N/A	Historic	Amadeo and Rosa/Angelo Casazza Residence	APN 044-030-026	No

5.2 FIELD METHODS

Fieldwork for the project was completed between July 21 and 23, 2020 by Alain Pollock and Kaitlyn Mansfield. Pedestrian survey was conducted to Bureau of Land Management (BLM) Class III standards. Cultural resources were recorded on appropriate California Department of Parks and Recreation resource recording forms (DPR forms), photographed, and mapped using a sub-meter GPS unit. Locational data was collected using ArcPAD by ESRI. No cultural materials were collected.

Standing buildings, structures, and archaeological features were recorded according to California Office of Historic Preservation (OHP) protocols. Access to the interiors of certain buildings in the western half of the Industrial Area was provided by the EPA (Buildings 02, 03, 04, and 05). The interiors were photographed and described in the field notes alongside the exterior descriptions, however a full inventory of the contents of the buildings, which includes several thousand tools, pieces of machinery, and industrial refuse, is beyond the scope of the present study.

Outside of the developed parts of the Industrial Area, the Project Area was surveyed using parallel transects spaced no more than 15 meters apart. While the Project Area is 52.6 acres in total, intensive pedestrian survey was limited to 24.3 acres. Approximately 8.6 acres in the eastern part of the study area is overgrown with extremely dense vegetation that is impassable without mechanical clearing. The vegetation includes hazardous plants such as poison oak, poison ivy, Chinese sumac (tree of heaven), and California blackberry bushes. Additionally, 9.1 acres in northeastern extent of the study area could not be accessed without passing through private property, which was not possible at the time of fieldwork. Finally, 10.6 acres on the western side of the study area were developed as a residential neighborhood between 2002 and 2004 (Amador County 2020). See Appendix A, Map 2 for surveyed and unsurveyable areas.



Figure 5.1: Survey area, showing dense vegetation (Photo: P7210196.jpg, 7/21/2020)

6.0 FINDINGS: THE ARGONAUT MINE INDUSTRIAL DISTRICT

The Argonaut Mine Industrial District encompasses the extant architectural and archaeological core of the mine/mill system for the Argonaut Mine. The Argonaut Mine was one of the largest and most productive mines in the Mother Lode Mining District in the late nineteenth century through first half of the twentieth century. Its main shaft reached a depth of 5,850 feet and it produced 2.75 million tons of ore (Muratore 2013). In terms of depth it was surpassed only by its neighbor, the Kennedy Mine, whose East Shaft reached 5,912 feet (Kennedy Mine Foundation 2009:14).

The Argonaut Mine Industrial District is situated in the northern portion of the historic Argonaut Mine property. While the original mine property encompassed 333.2 acres in total, the Argonaut Mine Industrial District covers a total of 21.6 acres. The Argonaut Mine Industrial District is defined by the location of the resources described herein. All areas of the District as currently defined have been surveyed. The district is shown in the Appendix A, Map 3-4, and in the attached DPR records (Appendix B).

The architectural component of the Argonaut Mine Industrial District is comprised of seven buildings, two structures, four architectural objects, and one linear feature that were associated with the milling and mining operations of the Argonaut Mine. The archaeological components of the Argonaut Mine Industrial District are comprised of 23 features and one artifact concentration. All resources documented within the boundaries of the district are considered elements of the district, as they are associated with the extraction, beneficiation, and refining activities that occurred at the Argonaut Mine.

The *period of significance* for the District is from the discovery of the mine in 1850 to its closure by executive order in 1942. This period can be subdivided based on the ownership of the mine over time: its Initial Operations Period, 1850-1865; the Pioneer Mine Period, 1865-1893; and the Argonaut Mining Company Period 1893-1942. The extant buildings, structures, and most of the archaeological features date to the Argonaut Mine Period, 1893-1942. The mine underwent a significant remodeling period in 1913 and 1914; several of the resources appear to have been rebuilt and reconstructed to their current form by 1920.

The District is bisected by CA-49/CA-88. On the west side of the highway, the District encompasses one structure, five buildings, one artifact concentration, and 16 archaeological features. The gallows headframe (Structure 01) is in this part of the District. It is a 55-foot tall steel frame on a concrete foundation, constructed in 1914 to replace the wooden headframe built in 1894 (Marvin 2014:23). A concrete and wood frame building of unknown function (Building 01) is in the western extent of the District, southwest and upslope of the headframe. This building appears in historic photographs by 1920. It may have been associated with the 60-stamp mill that operated from 1916 to 1942. Three closely-placed buildings, an Office (Building 02), a Machine Shop (Building 03) and a Compressor Room (Building 04) are aligned to the south of the headframe. These buildings can be seen in their current configuration in 1920. The 1912 Sanborn Map, created shortly before the remodeling and expansion of the mine, shows buildings with the same ascribed functions oriented roughly east-west, indicating that Buildings 02-04, as they currently stand, were re-constructed from earlier iterations between 1913 and 1920. A Steel Shop (Building 05) is located opposite Building 04, separated by a level work area. This building can be seen in 1920 photographs of the mine, but does not appear in earlier Sanborn Maps.

The 16 archaeological features in the western part of the District include foundations for the mine Assay Office (Feature 08), a foundation for a Steam Boiler (Feature 09), a series of footings associated with the

Timber and Sawmill constructed north of the headframe in 1912 (Features 12-16), as well as utility poles, pipelines, and smaller elements of the mine. One concentration of historic and modern debris (Concentration 01) is located on a steep slope trending from the work area to the highway. The scatter contains more than 20 assay crucibles that are associated with the Assay Office, upslope.

On the east side of CA-49/CA-88, the District includes two buildings, one structure, and 12 archaeological features. A Hoist Frame (Structure 02) and a small shed are located on the eastern shoulder of the highway, in line with the main gallows headframe.

Structure 02 and the associated shed are located west of the Hoist House (Building 08). The Hoist House is part of the original industrial core of the mine, c. 1894, though it has been modified and expanded over time. East and downslope of the Hoist House, there is an Air Compressor House (Building 09) that appears on Sanborn Maps as early as 1912. This building was associated with the hydroelectric power system for the mine.

Archaeological features on the east side of the highway include the foundations for the original 40-stamp mill, constructed in 1897 and abandoned in 1916 when the new 60-stamp mill was completed (Feature 21). It also encompasses an extant portion of the Moore Ditch (Feature 17), adjacent to the Air Compressor House, a large tailings platform with footings for a trestle (Feature 18), an earthen platform for the Sulphuret House foundations (Feature 27), and several smaller earthworks and infrastructure components.

6.1 NATIONAL REGISTER CONSIDERATIONS FOR THE ARGONAUT MINE INDUSTRIAL DISTRICT

Statement of Integrity

The Argonaut Mine Industrial District does not currently function as a mine. It has been out of use since the mine's closure in 1942 and has experienced the expected impacts to its condition associated with disuse along with some alterations because of various stages of environmental remediation. As a result, the historical integrity displayed by individual features varies widely.

The district remains in its original location in the Sierra Nevada Foothills, south of the Kennedy Mine site (listed to the NHRP) and north of the city of Jackson. It therefore retains its integrity of *location*. Although CA-49/CA-88 bisects the Argonaut Mine Industrial District so that resources are situated on both the east and west side of the highway, this road follows the same approximate corridor of Jackson-Sutter Creek Road and therefore does not detract from the historic configuration of the district. Several key historic features related to the early phases of the mine's development are absent, including the 60-stamp mill (1916) and its associated two-track tramway (1917), a water tank that once loomed over the mine, as well as a variety of other buildings and structures that have come and gone over the mine's evolution. This type of site formation is commonly associated with mining landscapes, which must accommodate changing technologies and economic conditions. While some major design changes occurred during the period of significance for the district, these reflect historic adaptations of the original property and as a result, the district retains integrity of *design*. The cohesion of the district is bolstered by the wall and roof treatments on extant buildings; all extant buildings are wood constructed and sheathed in corrugated metal. This was typical of mining landscapes, as historian Richard Francaviglia notes, "if one were to choose a building material that personifies mining landscapes, it would be corrugated metal" (Francaviglia 1991:125).

Changes to individual buildings, such as adaptations to roof and wall materials, the covering of window and door openings, and significant loss of window glazing result in a loss of integrity of *materials* and *workmanship*. Finally, the district remains surrounded by remnants of the mining activity with which it was associated. While the continual development of the surrounding area has compromised the integrity of *setting*, *feeling*, and *association*, the district retains these qualities to a degree sufficient to convey its historic character.

National Register Justification

The Argonaut Mine was a key producer of ore in the Mother Lode Gold Belt of California. The architectural and archaeological resources that comprise the Argonaut Mine Industrial District represents the mineral extraction and processing activities that took place during the operation of the Argonaut Mine between 1893 and 1942. The District is recommended significant both locally and nationally.

The district is comprised of historically and functionally related resources that express its significance as a collection of large scale, deep shaft mining operations that occurred in the Mother Lode region from the early years of the California gold rush through the federal Gold Mining Closing Order (L-208) in 1942. As one of the largest mines in the Mother Lode District, it was a central driver of the Jackson and Amador County economies and part of the events that shaped the early history of the State of California. The Mother Lode and the Gold Rush also drew a diverse mix of prospectors and investors into the area, including the original owners of the mine.

In addition to its economic significance, the landmark lawsuit between the Argonaut Mine and its neighbor, the Kennedy Mine, had a lasting impact on the legal interpretation of extra-lateral rights in mining claims. The decision continues to define the understanding of the Mining Acts of Congress of 1866 and 1872 to this day.

While that Argonaut Mine was not involved in nineteenth century efforts to organize labor, it formed a part of local labor unions by the 1930s. At this time, when union activity was escalating in the United States, improvements to worker's rights, wages, and mining safety in the West came more slowly than in Midwest and Eastern Mines. The attempts made by workers at the Argonaut Mine and other local mines were part of the struggle by western miners to gain collective rights.

The Argonaut Mine Disaster of 1922 that resulted in 47 fatalities is known as the deadliest mining accident in California history. While the impact of this tragedy on the mine's management and worker's safety was not immediately realized, it was a pivotal event for the community and western mining practices.

We recommend that the Argonaut Mine Industrial District is eligible to the NRHP under *Criterion A* for its socio-economic impact in California and Amador County (Commerce/Industry); its founding by black miners in the 1850s (Social/Community); its role in the defining Extra-Lateral Rights in federal mining law (Law); the union activity of its employees (Labor); and for the Argonaut Mining Disaster (Mining Safety), all of which constitute events significant in our history.

The district is not associated with any person of significance at the local, state, or national levels and is therefore recommended not eligible to the NHRP under *Criterion B*.

The district displays distinctive characteristics of a deep shaft, hard rock mining system that includes resources related to the extraction, beneficiation, and refining of gold-bearing ore. The mine retains its core elements, particularly the Headframe and Hoist House, as well as several intact buildings and features that exemplify the core system of hard-rock gold mining operations from the 1920s and earlier. It is therefore recommended eligible for listing under *Criterion C* under the theme of Engineering/Industry.

Finally, the district is recommended eligible for listing in the NRHP under *Criterion D* for its potential to yield information about the mine/mill as a system, particularly as it relates to social and economic systems and technology. The mine buildings contain intact constructed elements and artifact deposits that may be analyzed to address the questions of social organization, implementation of safety controls, and technological innovation over time.

The District and its components are summarized in Table 6.1, below

Table 6.1: Summary of the Argonaut Mine Industrial District

Resource #	Description	Year Built	Individual NRHP	Contributing to District?
N/A	Argonaut Mine Industrial District	1895-1942	Y	N/A
Building 1	Unknown Building	c.1912-1920	N	Y
Building 2	Office	c.1912-1920	N	Y
Building 3	Machine Shop	c.1912-1920	N	Y
Building 4	Compressor House	c.1930-1942	N	Y
Building 5	Steel Shop	c.1930-1942	N	Y
Building 6	Number Omitted			
Building 7	Number Omitted			
Building 8	Hoist House	c.1895-1895	Y	Y
Building 9	Air Compressor House	1898	N	Y
Structure 1	Headframe	1895	Y	Y
Structure 2	Hoist Frame with associated shed	c.1912-1920	N	Y
Feature 1	Wooden Post	Unknown	N/A	N
Feature 2	Metal Bin	Unknown	N/A	N
Feature 3	Metal Pipe	Unknown	N/A	N
Feature 4	Pit or Post Hole	Unknown	N/A	N
Feature 5	Fence	Unknown	N/A	N
Feature 6	Ditch	Unknown	N/A	N
Feature 7	Utility Pole	1912-1920	N/A	Y
Feature 8	Foundation: Assay Office	c. 1895	N/A	Y
Feature 9	Concrete Pad for Steam Boiler	c.1930	N/A	N
Feature 10	Retaining Wall	Unknown	N/A	Y
Feature 11	Metal Pipe	Unknown	N/A	Y
Feature 12	Concrete footing north of headframe (Timber Mill)	c.1912	N/A	N

Resource #	Description	Year Built	Individual NRHP	Contributing to District?
Feature 13	Concrete Footing (Timber Mill)	c.1912	N/A	N
Feature 14	Concrete Footing (Timber Mill)	c.1912	N/A	N
Feature 15	Concrete Footings (Timber Mill)	c.1912	N/A	N
Feature 16	Concrete Block Footing (Timber Mill)	c.1930	N/A	N
Feature 17	Moore Ditch	1898	N/A	Y
Feature 18	Large Tailings Platform	c.1894	N/A	Y
Feature 19	Large Metal Pipe	Unknown	N/A	Y
Feature 20	Collapsed Wood-Framed Structure	by 1912	N/A	N
Feature 21	Stamp Mill Foundations	c.1898	N/A	Y
Feature 22	Utility Pole	c.1912	N/A	Y
Feature 23	Utility Pole	c.1912	N/A	Y
Feature 24	Utility Pole	c. 1912	N/A	Y
Feature 25	Number omitted; combined with Feature 17			
Feature 26	Wood Water Tank	Unknown	N/A	N
Feature 27	Terrace: Sulphuret House	c.1898	N/A	N
Feature 28	Pit	Unknown	N/A	N
Feature 29	Pit	Unknown	N/A	N
Concentration 1	Crucible Dump	Unknown	N/A	N
Totals			Individually Eligible: 2	Contributing: 20
				Non Contributing: 18

7.0 FINDINGS: COMPONENT RESOURCES

The Argonaut Mine Industrial District contains seven buildings, four architectural objects, one linear feature, two standing structures, 23 archaeological resources, and one artifact concentration. These resources were evaluated in terms of their individual eligibility, as appropriate, and as contributing or non-contributing elements of the Argonaut Mine Industrial District. The following sections contain detailed descriptions of the resources and their significance.

7.1 BUILDINGS

7.1.1 BUILDING 01: UNKNOWN BUILDING

Building 1 sits at the western boundary of the Argonaut Mine Industrial District, on the west side of CA-49/CA-88. The building was likely constructed after 1912 and it appears in historic photographs of the Argonaut Mine in 1920. Its function is unknown as the building was not built in 1912 nor was it documented on the Sanborn map of Argonaut Mine dating to 1930. It has been out of use since the closure of the Argonaut Mine in 1942.



Figure 7.1: Building 01, Unknown Building (Photo: P7200020.jpg, 7/20/2020)

Building 01 is a wood-framed building with a rectangular plan that is oriented at 340 degrees and set into a 45-degree slope in the western extent of the Industrial Area of the Argonaut Mine Site. Building 01 has two features associated with it: Feature 07, a standing utility pole and Feature 05, a partially collapsed chain-link fence located at the northwest corner of the building. The building's overall dimensions are 29 feet wide by 17 feet 4 inches. The building exhibits a moderately pitched gable roof whose eaves extend slightly over the walls. The exterior walls and the roof of Building 1 are clad in

corrugated metal of various sizes, affixed with nails. The size, condition, and placement of the metal siding suggest multiple episodes of application. A metal rain gutter extends along the west eave of the roof.

A concrete foundation extends into the downslope while the wood-framed building extends above the ground level. An exposed concrete slab that mimics the foundation of the building sits adjacent to the south, enclosed in the chain-link fence (Feature 05), this was added between 1920 and 1942. The slab measures 17 feet four inches wide and approximately 30 feet long. It is surrounded by Feature 05, which exhibits one broken gate. Vertically oriented concrete slabs with a thickness of approximately eleven inches support the foundation and the adjacent concrete slab, dividing the space underneath into eight bays. The bays vary in width from approximately four feet six inches to eight feet 5 inches. These bays are open on the east elevation, with a height of approximately 20 feet, while the bays on the west open into the hillside. Wood boards set horizontally across the width of the west bays appear to have the historic function of retaining sediment. Several of these retaining boards have collapsed.

The primary (west) elevation exhibits minimal fenestration, with a single door placed slightly off-center to the south and a window opening to the south of the door. Both the door and the window are covered with plywood; the visible wood window surround suggests it housed two lights. A piece of lumber is affixed horizontally below the window. At the northwest corner of the west elevation, about fifteen feet above the ground, two wood beams extend outward from the wall. Two horizontally placed wood beams are bolted to the protruding beams. The upper of the two horizontal beams has three wood pin mounts affixed to their underside and the lower has three eyebolts affixed to the west side. Three holes have been cut into the siding just below this arrangement. The holes and bolts likely accommodated electrical wiring for the building. A small elbow pipe fitting extends from a hole cut from the north end of the wall near the ground level and has been detached from the pipe that extends below the foundation. A water spigot extends from the ground, centered in front of this elevation.

The south elevation of Building 01 has one door near the southwest corner that fronts onto the concrete patio. An opening that is the size of a single door abuts this door, set slightly above it and a vent is situated at the top of the gable. All of these openings are wood-framed. A small, horizontally oriented, unframed opening is located on the top west side of the wall and a vertically oriented piece of dimensional lumber is affixed on its west edge. Rafters on the east slope of the roof over the south elevation are visible, indicating the absence of some portions of the roof sheathing.

The east elevation of Building 01 has minimal fenestration, with three wood-framed window openings set just under the eave of the roof. These window openings each feature a small sill. The central opening has been partially covered with wood, while the other two are vacant. Evidence of a vertical frame exists as ghosting below the north window. Wood beams extend from the wall on this elevation at the same level as those on the west elevation. The configuration on the east elevation features one horizontally placed beam atop the two protruding beams, affixed with steel bolts. Three holes, identical to those on the west elevation, have also been cut out of the siding on this elevation. Three pin-type ceramic insulators are affixed to the horizontal beam, one in front of each of the three windows.

The north elevation of Building 01 has a similar mount for electrical wiring near the top west corner, at the same level as the one on the east and west elevations. Three circular holes have also been cut out of this wall and a window opening housing a vent is located in the gable. A large wood-framed window opening is located below this mount. Hinges affixed to the west side of this opening suggest that it once

housed a swinging screen or other similar door fixture. To the west of this opening, two eyebolts are set into the wall about eight feet above the foundation; both have ceramic stay insulators hanging from wires. These were likely attached to guy wires that have since been removed.

Statement of Integrity

Building 1 was constructed between 1915 and 1920 (Sanborn Map Company 1912, 1930; California State Library 1920a; McCurry Foto Co. 1915). Per a historic photograph of the mine, the expansion of concrete pad and chutes constructed on the south side of the building occurred between 1920 and the mine's closure in 1942 (California State Library 1920a).

Building 01 remains in its original position and does not appear to have been moved; the building therefore retains its integrity of location. A photograph of the mine dating to 1920 shows Building 01 with two associated buildings to the north which are no longer present (California State Library 1920). It is unclear whether the associated buildings were removed during the mine's period of significance. The same photograph indicates that, at least on the south and east elevations, the arrangement of fenestration has not been altered. All door and window openings have been covered and it is assumed that no glazing or muntin are present. As a result, the building's integrity of design, materials, and workmanship is diminished. The building maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised the integrity of setting, feeling, and association, the building retains levels of these qualities to a degree sufficient to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Building 01 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the building cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Building 01 is tied to the system of which it is a part. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

7.1.2 BUILDING 02: OFFICE

Building 02 is located in the southern portion of the Argonaut Mine Industrial District. It abuts Building 03 to the north and sits to the southwest of Building 05. A building with a similar footprint is represented on a Sanborn Fire Insurance map dating to 1912 in this location but a photo dating to 1920

shows a building with a different roof orientation. This building therefore was likely constructed between 1920 and 1942 (California State Library 1920a; Sanborn Map Company 1912). It was likely used as an office and has been out of use since the closure of the Argonaut Mine in 1942.



Figure 7.2: Building 02, Office (Photo: P7200058.jpg, 7/20/2020)

Building 02 is a wood-framed building set atop a concrete foundation with a rectangular plan measuring 22 feet five inches by 19 feet five inches. The building is oriented at 250 degrees and its north wall abuts the southeast corner of Building 03. Building 02 exhibits a saltbox roof with exposed rafters and eaves extending over the east and west walls. The exterior walls and the roof of Building 02 are clad in corrugated metal that has been painted brick red. The building has two points of entry, both at the north. An exterior entrance is accessible via a concrete porch at the north elevation, set just east of Building 03. The porch is eight feet long and includes two steps up to the exterior door. The exterior door is the only fenestration on this small north elevation. Building 02 also has interior entrance on its north wall that provides access to Building 03.

The east elevation of Building 02 features the entryway described above, which extends from the main massing. The exterior door is set on the north elevation of this protrusion. The area encompassing the concrete porch and steps associated with the exterior door is covered by a flat awning constructed of wood beams and covered with corrugated metal. The east elevation of the entryway exhibits a window opening in the approximate center of the wall. Although the opening has been covered with plywood, interior survey of the building revealed a metal framed casement window of nine lights. A second piece of plywood has been affixed to the wall below the window and interior survey revealed a vent here.

The south elevation features a prominent awning that is covered with green corrugated plastic and is held aloft with four wood brackets that are painted white. The awning stretches over two window

openings that have been covered with plywood. Interior survey revealed two nine-lite metal casement windows beneath the plywood. A metal pole at the southeast corner extends from the ground above the roofline and exhibits a sign plate adorned with a sticker that reads “10415.” A thin (1/4-in) pipe is bracketed horizontally onto south walls at about two feet above the ground and wraps around the west wall.

The west elevation of the building lacks fenestration. Two segments of corrugated metal have been affixed to the wall and they were initially presumed to cover window openings. The interior framing of Building 2 has been sheathed in drywall, so this assumption cannot be verified.

The interior of the building consists of one large room with fluorescent light fixtures affixed to the ceiling. As mentioned above, the interior walls have been sheathed in drywall. At the time of survey, this room contained desks, chairs, and various debris. It is connected to Building 03 by a narrow hallway with a bathroom on the east side and a closet on the west.

Statement of Integrity

Building 02 was constructed before 1930 (Sanborn Map Company 1930), potentially after 1920. It is unknown if alterations were made to the building between 1920 and the mine’s closure in 1942. The 1912 Sanborn Map (Sanborn Map Company 1912) shows an office building abutting an earlier iteration of Building 03, Machine Shop; both are shown oriented roughly east-west rather than north-south, as they currently stand. Building 03 can be seen in its current orientation in an overview photograph from 1920 (California State Library 1920a). It is possible that Buildings 02 and 03 were reconstructed in their current form between 1912 and 1920.

Building 02 appears to be in its current form and location since at least 1930 and therefore maintains its integrity of location and design (Sanborn Map Company 1930). All door and window openings have been covered and it is assumed that no glazing or muntin are present. As a result, the building’s integrity of materials and workmanship is diminished. The building maintains integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised the integrity of setting, feeling, and association, the building retains levels of these qualities to a degree sufficient to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Building 02 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the building cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Building 02 is tied to the system of which it is a part. The building contains artifact deposits and documents that may contribute to a general reconstruction of the mine's management and operations. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

7.1.3 BUILDING 03: MACHINE SHOP

Building 03 is located in the southern part of the Industrial Area of the Argonaut Mine Industrial District immediately north of, and abutting, Building 02. Building 03 is situated just south of Building 04, separated only by a narrow space measuring roughly five feet. Building 5 is located to the east of Building 03. Building 03 was likely constructed sometime between 1912 and 1920 and functioned as a Machine Shop. A Sanborn Fire Insurance Map dating to 1930 indicates a small L-shaped storage room on the north side of the building (Sanborn Map Company 1912, 1930; California State Library 1920a). This structure has since been removed. It has been out of use since the closure of the Argonaut Mine in 1942. A similar building identified as a "Changing House" is depicted on the 1912 Sanborn Map, oriented roughly east-west as opposed to north-south, as the building currently stands. It is therefore likely that the building was reconstructed from an earlier structure between 1912 and 1920, when it can be seen in its current orientation in historic images (California State Library 1920a).



Figure 7.3: Building 03, Machine Shop (Photo: P7210096.jpg, 7/21/2020)

Building 03 is a large building with a rectangular plan measuring 79 feet two inches by 39 feet one inch with its long axis oriented at 340 degrees. The building exhibits a moderately-pitched gable roof with exposed rafters and eaves extending slightly over the east and west walls. Rain gutters are affixed to these eaves. Three gabled dormers whose window openings have been covered with corrugated metal

feature prominently along both slopes and a monitor roughly three feet in height extends along the entire ridge of the roof. Interior survey revealed metal trusses supporting the roof. The building is wood-framed and set atop a concrete foundation. The exterior walls and roof are clad in corrugated metal. The corrugated metal siding on the monitor and dormers has been painted brick red while other elevations are white or unfinished.

The primary (east) elevation is characterized by a large expanse of empty wall, punctuated only by a central, wood-framed doorway. A modern light fixture has been installed over the door.

The south elevation of the building directly abuts Building 02, with which it shares an interior door (see above). The south wall has a pair of double doors, located adjacent to the west wall of Building 02. A window opening is located in the top portion of the east side of the wall and has been covered with plywood. Modern security cameras are also affixed to this elevation.

The west elevation of the building fronts directly onto the hillside. Due to the steep slope and the presence of an exclusions fence, the western elevation could not be directly accessed.

The north elevation houses a secondary entrance consisting of one single-panel door. Small metal tubes extend from the north elevation of Building 03 to the south elevation of Building 04.

The interior of Building 03 was briefly accessed and photographed during the survey. The interior walls have not been covered and the wood-framed of the building is exposed on all elevations. The floor consists of the exposed concrete foundation. A pair of wood doors are located at the center of the south elevation, providing access to Building 02. Two wood platforms are suspended from the metal trusses and can be raised and lowered from the floor to just below the trusses. These appear to have been used for storage purposes. A long metal chain with a hook and pulley assemblage is affixed to a central truss. A set of narrow-gauge rails, which were potentially used to transport equipment into a service area, are set in the concrete floor from the door to the rear of the building and a workbench occupies the interior southeast wall, south of the entrance. The building is filled with industrial debris, tools, and derelict machinery. Most of this appears to date from the mid-twentieth century to the present. During the survey, drums of hazardous materials were removed from the building by Weston and the EPA. Otherwise, the contents of the building were not disturbed.

Statement of Integrity

Building 03 appears to be in its current location since 1920 (California State Library 1920a). Between 1930 and 1942 when the mine closed, a north section of Building 3 that was used for storage was removed and the building was expanded to its current dimensions (Sanborn Map Company 1930). Building 03 appears to have maintained the same form since this alteration, which occurred during its period of significance and therefore, the building maintains its integrity of location and design. Historic photographs indicate that the east elevation was largely comprised of window openings housing a single light. Dormer windows also exhibited openings that have since been covered with corrugated metal (California State Library 1920). The building's corrugated metal siding has also been painted. While the covering of the window openings is reversible, as a result of these alterations, the building's integrity of materials and workmanship is diminished. The building maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the building retains these qualities to a degree sufficient to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Building 03 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the building cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Building 03 is tied to the system of which it is a part. It contains several thousand artifacts as well as internal constructed elements and modifications that have the potential to contribute to our understanding of the mine's operations and modifications over time. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

7.1.4 BUILDING 04: COMPRESSOR HOUSE

Building 04 is located in the Industrial Area of the Argonaut Mine Site immediately north of Building 03. Building 05 is located to the east of Building 04 while Structure 01, the main gallows headframe is adjacent to the north. The building was likely constructed between 1912 and 1920 (Sanborn Map Company 1912, 1930; California State Library 1920a) and functioned as a Compressor House. The interior of the building appears to have been restructured from what the Sanborn Fire Insurance Map indicates. This suggests that the building's function likely shifted to a shop, similar to Building 03. It has been out of use since the closure of the mine in 1942.



Figure 7.4: Building 04, Compressor House (Photo: P7210100.jpg, 7/21/2020)

The overall massing, shape, and roof of Building 04 is nearly identical to Building 03, with its long axis oriented at 340 degrees. Building 04 exhibits a rectangular plan and measures 79 feet nine inches by 46 feet. One beveled corner extends from the southeast end of the building and appears to have once housed a door. The building exhibits a moderately-pitched gable roof with exposed rafters and eaves extending slightly over the east and west walls. Rain gutters are affixed to these eaves. Two gabled dormers feature prominently along the east slope and a monitor roughly three feet in height extends along the entire ridge of the roof. The building is wood-framed and set atop a concrete foundation. The exterior walls and roof are clad in corrugated metal. The siding on the monitor and dormers has been painted brick red while other elevations are white or unfinished. The west wall, which is set into a slope, is reinforced from the interior of the building with a poured concrete buttressed wall.

The primary (east) elevation houses the primary entrance to the building, a set of sliding doors constructed in corrugated metal, on the south end of the wall. A modern light fixture has been installed above the door and a metal rain gutter is affixed to the wall just south of this door. A second entrance, an overhead rolling door, is located on this elevation at the northeast corner and has been covered with corrugated metal lain horizontally.

On the north elevation of the building, a small protrusion constructed of wood extends from the northeast corner. The extension consists of a wood-framed structure, measuring seven feet seven inches by 10 feet, with a shed roof covered with corrugated metal. The exterior walls of this extension are covered with wood siding lain horizontally, which shows signs of deterioration and damage. The bottom portion of these walls have been covered with plywood and the original placement of the entrance is unclear. There is no ingress between this structure and the interior of Building 04, suggesting that it served as an exterior shed. At the northwest corner of the building, a set of poured concrete

steps leads to a concrete platform and a metal door affixed to the north elevation. The platform abuts the western concrete wall of Building 04 and is surrounded to the north by a metal railing. Metal pipes, some of which are partially disconnected, are set into the slope to the west and above the platform. These are oriented towards a large pipe fixture set into the ground on the east side of the platform, adjacent to the stairs. Electrical housing runs along this elevation. The poured concrete wall that forms the lower part of the western wall of this building extends along the slope, and accommodates the foundation of Building 06, the headframe, to the north. At least one of the concrete buttresses (adjacent to the small door) exhibits signs of scaling.

The west elevation of the building could not be accessed due to the degree of the slope and the presence of an exclusions fence. The south elevation of Building 04 is separated from Building 03 by a narrow alley and exhibits no fenestration. Small metal pipes extend from the south elevation of Building 04 to the north elevation of Building 03.

The interior of the building was briefly accessed during the survey. The concrete wall and buttresses that form the bottom portion of the west wall are exposed on the interior. A concrete stairway leads to a large concrete platform that abuts the west wall. This may have supported machinery or boilers that have since been removed. The platform stands about six feet tall and occupies most of the western part of the building. On the southwest side of the platform, a wood cabinet is set into the concrete. The metal door at the northwest corner of the building opens onto the platform. Like Building 03, this warehouse is filled with industrial debris, tools, hardware, and discarded building materials that appear to have accumulated from the mid-twentieth century to the present. During the inventory, drums of hazardous materials were removed from the building by Weston and the EPA. Otherwise, the contents of the building were not disturbed.

Statement of Integrity

Building 04 was constructed between 1912 and 1920 (Sanborn Map Company 1912, 1930; California State Library 1920a). Sometime between 1930 and 1942 when the mine closed, the building may have been expanded south to its current dimensions (Sanborn Map Company 1930). The 1912 Sanborn Map shows another large building identified as a “Blacksmith Shop” in this approximate area, oriented roughly east-west. The current building can be seen in its present configuration in 1920, suggesting that it was reconstructed between 1912 and 1920. The 1930 Sanborn Map indicates that it was repurposed as a “Compressor House.”

Building 04 appears to be in its current location since 1920 (California State Library 1920) and therefore maintains its integrity of location. Between 1930 and 1942 when the mine closed, the building was expanded to the south to its current dimensions (Sanborn Map Company 1930). Building 04 appears to have maintained the same form since this alteration, which occurred during its period of significance. Therefore, the building maintains its integrity of design. Distinct segments of corrugated metal are evidenced along the east elevation of the Building 04 suggesting that window and door openings have been covered. The historic photographs documenting similar openings in Building 03 suggest that the historic fenestration of Building 04 was likely covered as well. The single door in the east elevation appears to be an alteration as well, with evidence of two larger openings reaching nearly to the top of the east wall. These alterations are mostly reversible and while the integrity of materials and workmanship is somewhat diminished, the building retains sufficient levels of these qualities to convey its historical character. The building maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has

compromised its integrity of setting, feeling, and association, the building retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Building 04 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the building cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Building 04 is tied to the system of which it is a part. Like Building 03, the Compressor House contains numerous historic artifacts and internal structural features that may contribute to our understanding of the mine's operations, management, and technological changes over time. As a component of the mining and milling system, it is therefore recommended as a contributing element of the Argonaut Mine Industrial District.

7.1.5 BUILDING 05: STEEL SHOP

Building 05 is located in the eastern part of the Industrial Area of the Argonaut Mine Site, east of Building 04 and north of the former Assay Office (Feature 08). The building was constructed between 1912 and 1920 and functioned as a Steel Shop (Sanborn Map Company 1912, 1930; California State Library 1920a). It has been out of use since the closure of the mine in 1942.



Figure 7.5: Building 05, Steel Shop (Photo: P7210103.jpg, 7/21/2020)

Building 05 is a wood-framed building with a rectangular plan measuring 32 feet four inches by 21 feet 10 inches with the long axis oriented at 350 degrees. The building is set into a downslope to the east, with the concrete foundation extending into the downslope. Feature 09, a concrete retaining wall extends from the north elevation of Building 5 and an associated concrete pylon is situated just west of this wall. Building 05 exhibits a moderately pitched gable roof with a monitor extending from the central portion of the roof. Unframed openings are visible on the west elevation of the monitor. The building is sheathed in corrugated metal.

The south elevation appears to be the primary elevation, with a single door framed in wood and covered in corrugated metal set on the east side of the wall. A large sash window of 12 lights and adorned with a metal grille occupies the western part of the south elevation. Rafters extend from below the gable end and several circular holes have been cut out of the corrugated metal siding along the bottom of the wall. The frame for a chain-link fence is affixed to the east edge of this elevation and fencing extends to the south.

The west elevation exhibits minimal fenestration. A piece of plywood is affixed to the north portion of the wall, suggesting a door opening has been covered.

The north elevation of the building houses one wood-framed door that is covered in corrugated metal. Interior survey indicates that the door opens onto Feature 09, a poured concrete foundation with footings. The foundation includes a deteriorated concrete-lined pit located immediately southwest of the door on the northern elevation. Per the 1930 Sanborn Map of the Argonaut Mine, Feature 09 originally supported a steam boiler. Two pieces of lumber are affixed with nails, presumably to bar entry. Two narrow metal pipes approximately ¼-inch in diameter extend from the wall on the eastern

portion of the north elevation, their elbow joints oriented toward the downward slope on the west side of the building. Several pieces of the corrugated metal siding have deteriorated, leaving gaps in the exterior wall.

The east elevation houses three large windows adorned with metal grilles. At the northeast corner, two pipe fittings measuring 12 inches in diameter are set into the building's concrete foundation. One of these is oriented towards the concrete-lined pit within Feature 9, suggesting that it served to connect Building 5 with the boiler apparatus.

An interior survey of the building revealed an assortment of tools, structural debris, 55-gallon drums, and hardware. The building appears to have been used for general storage of items accumulated from the 1930s until the closure of the mine. The contents of the building were not disturbed during the survey.

Statement of Integrity

Building 05 appears in its current location and form since 1920 (California State Library 1920) and therefore maintains its integrity of location and design. Although wood framed openings that are visible on a photograph dating to 1920 have been covered with corrugated metal, these alterations are reversible, and the building retains sufficient integrity of materials and workmanship to convey its historic character. The building maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the building retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Building 05 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the building cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Building 05 is tied to the system of which it is a part. The building demonstrates structural components that are related to the pipe system and infrastructure of the mine, as well as historic artifacts that may yield additional data about the operations and use of the mine over time. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

7.1.6 BUILDING 08: HOIST HOUSE

Building 08 is located in the Argonaut Mine Site, to the east of CA-49/CA-88. Building 08 is the hoist house for the Argonaut Mine, which is adjacent to the west. The original Hoist House was constructed c. 1893-1894 (Sanborn Map Company 1895). According to Sanborn Fire Insurance maps (1895, 1898, 1912) this building underwent multiple alterations and expansions as the mine grew during its period of operations. Between 1895 and 1898, a wood/steel wing was added to the north corner of the eastern wall. This wing supported a rope that was connected to the water wheel located northeast of the mining complex, part of the mine's hydroelectric system (Sanborn Map Company 1895, 1898). Between 1898 and 1912, two wood/steel wings were added to the southern half of the western wall and the southern half of the eastern wall, respectively. The western wall addition expanded the overall length and width of the original building's dimensions (Sanborn Map Company 1898, 1912). Between 1912 and 1920, both additions to the eastern wall of the building were removed, reverting back to the original extent of the eastern wall (Sanborn Map Company 1912; California State Library 1920a). This configuration remained until the closure of the mine in 1942 and remains intact to the present day.



Figure 7.6: Building 08, main Hoist House (Photo: P7220224.jpg, 7/22/2020)

Building 08 is a large multi-story building built into a steep (~40 degree) east-trending slope. The building exhibits a roughly square footprint measuring approximately 45 feet by 43 feet, with its long axis oriented at 340 degrees. A small gabled wing extends from the southwest corner of the building. Building 08 is wood-framed, set atop a concrete foundation and sheathed in corrugated metal. It has a moderately pitched front gabled roof with a monitor that spans the length of the building. The roof is covered in corrugated metal and openings are visible in the wall under the roof line of the monitor. The shallow eave of the roof reveals exposed wood rafters. Due to the degree of the slope to the east, the building is one story high at the west and three stories high at the east. Although the interior of the

building was not accessed, the number of stories was estimated based on the number of windows on the eastern elevation.

The primary (west) elevation houses a single wood-framed door opening on the north that has been covered with corrugated metal and secured shut with a piece of nominal lumber. To the south of this is a much larger bay door opening that has been mostly covered with corrugated metal. This door opening is aligned with the accessory shed associated with Structure 02, a secondary hoist frame, to the west. The small west wing extends from the west elevation at the south end of the wall. The wing exhibits a roughly square footprint with a gabled roof covered with corrugated metal. The metal siding is of various sizes, indicating multiple phases of application. The north ridge of the roof is damaged. The wing lacks fenestration except for a wood-framed door opening on the south elevation. A metal gutter adorns the north roof edge and a pipe is affixed along the west elevation.

A balcony extends from the west side the south elevation (where it is at the ground level) across the entire exterior wall. At its eastern extent, the balcony is over 30 feet above ground level. The balcony consists of a wood walkway supported by steel brackets that are anchored in the concrete foundation. A shed awning constructed of corrugated metal and held aloft with smaller steel brackets is affixed above the balcony. The awning is partially collapsed at the west end and appears to be causing some siding to detach from the frame of the building. The balcony is constructed of nominal lumber and a simple wood balustrade wraps around it. Two door openings are located on the south elevation. On the west end of the wall, a single panel of corrugated metal covers a wood-framed door opening at the ground level. A double door is located near the east end of the wall and is wood-framed and comprised of corrugated metal. It is secured with a lock. Four wood-framed window openings are situated on the south elevation, the western three of which are covered with corrugated metal and plywood. The eastern window has a sash mechanism with no glass present.

Six vertically oriented concrete bays covered with corrugated metal comprise the foundation that is visible on the south elevation. A small retaining wall constructed of stacked rocks is located at the southwest corner of the building, along the slope. A metal pipe measuring four inches in diameter runs parallel to the south side of the building, along the slope.

The east elevation of Building 08 is the tallest, dropping into the downward slope. This elevation is occupied by three rows of window openings. The upper row consists of four vertically oriented, rectangular windows with wood surrounds and no glass. The second row, which may represent a second or middle story, consists of five smaller, square windows with wood surrounds that are also absent glass. These upper two rows exhibit wood sills. The bottom row of fenestration, set approximately two feet above the ground, is comprised of four vertically oriented openings with wood surrounds and are covered with plywood and corrugated metal. One metal sash and mullion are present in the window opening on the north end of the wall. The size and shape of the openings on the south end of the wall suggest they operated as doors. A series of disturbed, partially buried pipes between Building 8 and Building 9 may represent the remains of the historic water system. One concrete block footing and a row of tie bolts are present on the slope between Building 08 and Building 09.

The north elevation of Building 08 extends into the downward slope at the east. The concrete foundation is not visible here, as it has been covered with corrugated metal. This elevation is adorned with one wood-framed door that has been covered with corrugated metal. To the east of the door are three vertically oriented rectangular window openings with wood surrounds. They are absent glass and

the westernmost opening has been partially covered with corrugated metal. A pipe extends from this elevation extending from an elbow joint downward from the northeast corner.

Statement of Integrity

According to Sanborn Fire Insurance maps (1895, 1898, 1912) Building 08 underwent multiple alterations and expansions as the mine grew during its period of operation. The various additions and modifications were completed during the period of significance and were part of the evolving operational design of the mine. Therefore, the building retains integrity of design and location. Photographs dating to 1920 indicate that fenestration, at least on the south and east elevations, remains unchanged (California State Library 1920). These photographs also indicate that the materials comprising roof and wall coverings as well as window surrounds have remained unchanged, or have been replaced with in-kind materials. The building therefore retains integrity of workmanship and materials. The building maintains integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the building retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example of hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Building 08 was constructed within this period and functioned during this time as a component of the mine system. This building can be directly associated with the original development of the Argonaut Mine in 1893. The Hoist House and the original headframe are shown as the core industrial components of the mine on the 1894 Sanborn Map. While this building has been modified over time, it remains an intact example of a hoist house associated with a deep shaft, hard rock mining system in the Mother Lode region of California, including internal hoisting systems. In 1983, an application for inclusion in the NRHP was started, but not completed, for the Hoisting Works and an 'auxiliary building' (Building 09, Air Compressor House; Cenotto 1983).

Building 08 is recommended individually eligible for listing in the NRHP under Criterion A and C for its significance to the earliest iteration of the Argonaut Mine, one of the most productive mines in the Mother Lode region. As the original hoist house for the Argonaut Mine, Building 08 was influential in the success and significance of the mine's extraction processes. Its modification over time demonstrates the changing technologies in use at the mine, and in hard rock mining technology in general.

Furthermore, Building 08, as a component of the mining system, is recommended eligible as a contributing resource to the Argonaut Mine Industrial District for its potential to inform an understanding of the mine/mill as a system.

7.1.7 BUILDING 09: AIR COMPRESSOR HOUSE

Building 09 is located in the Industrial Area of the Argonaut Mine Site downslope of Building 08. This building is surrounded by features related to the hydroelectric system. Its eastern side abuts a sluice ditch (Feature 17), and there are two utility poles adjacent to its south elevation (Features 23 and 24). Building 09 was constructed in between 1895 and 1898 (Sanborn Map Company 1895, 1898). In both the 1898 and 1912 Sanborn Fire Insurance maps, the building is listed as a compressor house, pulling electricity from a water wheel in 1898, then being decommissioned by 1912 (Sanborn Map Company 1898, 1912). It is likely that this building fell out of use as preparations were being made to construct a new mill west of Structure 01, the main headframe (Muratore 2013). There do not appear to have been any major alterations to the building since its creation.



Figure 7.7: Building 09, Air Compressor/Power House (Photo: P7220248.jpg, 7/22/2020)

Building 09 has a rectangular plan measuring 28 feet three inches by 16 feet, with its long axis oriented at 340 degrees. The wood-frame of Building 09 is sheathed in corrugated metal and it sits atop a concrete foundation. Building 09 exhibits a moderately pitched front-gabled roof with a tall monitor that extends from the center of the ridge. A mount for electrical insulators is affixed to the east elevation of the monitor, comprised of three wood beams that extend from the wall and support one wood beam oriented perpendicularly. A similar fixture extends from the monitor's west elevation. No siding is present on the monitor's walls above these fixtures. A gabled dormer extends from the west ridge over the west wall of the building.

The south elevation is presumed to be the primary elevation and is occupied only by one single wood-framed door at the west corner. The door is constructed of corrugated metal and has been partially covered with plywood, which bars entrance.

The west elevation exhibits minimal fenestration, occupied only by one central window framed with wood and covered from the interior with corrugated metal.

The north elevation exhibits minimal fenestration, occupied only by one set of double doors constructed of corrugated metal and affixed with simple hinges. The structure of the building is mostly visible on this elevation, as corrugated metal has been affixed from the interior.

The east elevation, like the west elevation, has one wood-framed window in the center of the wall.

Statement of Integrity

The building was constructed between 1895 and 1898 and remained in use until the mine's closure until 1942, with few major alterations. It has therefore maintained integrity of location and design (Sanborn Map Company 1895, 1898). The exterior walls of the building have been painted and some window and door openings have been covered. Despite these alterations, the building's exterior retains sufficient integrity of materials and workmanship to convey its historic character. The interior of the building has been cleared out, and was reportedly in use as a horse stable in 1980 (Rondeau 1980). The building maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the building retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Building 09 was constructed within this period and functioned during this time as a component of the mine system. While it represents one of the earliest buildings constructed on the site and was originally part of the hydroelectric system that powered the mine, the mechanical components of the building have been removed, as have its accessory resources, e.g. the water wheel pictured in 1898. As an individual resource, therefore, the building does not convey its connection to significant historic events, i.e. the development of the mine, except in association with Building 08 and the mine system as a whole. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. Unlike Building 08, which contains many of its original components, Building 9 has been stripped and repurposed since it was abandoned. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

Building 09 retains historic significance as a component of the mining and milling system at the Argonaut Mine. Taken as a part of the District and in conjunction with Building 08 and Feature 17 (the Moore Ditch), it is a part of the early infrastructure at the mine. It is therefore recommended as a contributing element of the Argonaut Mine Industrial District.

7.2 ARCHITECTURAL STRUCTURES AND FEATURES

7.2.1 STRUCTURE 01: GALLOWS HEADFRAME

This is the headframe for the Argonaut Mine. It is a gallows-style frame measuring approximately 55 feet in height, consisting of a steel and wood superstructure on a poured concrete foundation. It is set into the west-facing hill slope, north of Building 4. The foundations on the north and south sides are pylons spaced six to nine feet apart, joined by solid concrete walls. The concrete foundations are straddled by steel girders set into concrete footings at ground level on either side of the shaft. The hoistroom/winch house underneath the headframe is not secured, and it is possible to access the shaft. The headframe and hoist supports are also constructed with steel I-beams and the upper portions of the superstructures are enclosed with corrugated metal siding. On the south side of the frame, there is a narrow wing that extends out from the primary wall about 40 feet above the ground level, in line with the top of the concrete foundation. This extension is framed with corrugated metal siding and roofing with windows set along its length. It may have been accessed from upslope and used to access the hoist mechanism. The ore bin and tipple, both wood-framed, are set on the eastern elevation of the structure. The remaining rails from the tipple extend over a large pit located to the west of the frame that is currently enclosed by a chain-link fence. The downslope side of the pit is reinforced by Feature 10, a large concrete retaining wall.



Figure 7.8: Structure 01, Headframe (Photo: P7210141.jpg, 7/21/2020)

The headframe is set into a steep west-trending slope and is oriented across the valley at 65 degrees, towards the secondary hoist frame and hoist engine house on the opposite (east) side of CA-49/CA-88 (Building 7).

The original mine headframe was made of wood (Sanborn Map Company 1895). According to Sanborn Fire Insurance maps (1895, 1898, 1912, 1930) the original structure underwent multiple alterations and

expansions as the mine grew during its period of operation. Between 1895 to 1898, a wooden frame wing was added to the northern half of the western wall of the hoist creating a Z-shape rather than an L-shape (Sanborn Map Company 1895, 1898). Between 1898 to 1912, a wood and steel frame building was added on to the north and west walls of the hoist to house the compressors and electric motors for the hoist (Sanborn Map Company 1898, 1912).

Statement of Integrity

Structure 1 was constructed over the Argonaut Mine shaft, on the site of the first head frame associated with the mine. This gallows-style steel headframe was constructed c.1914 (Walker et al. 2014:23-24) and remains in its original place, thereby retaining its integrity of location. Historic images indicate that the original 1914 design of the headframe, consisting of concrete foundation footings supporting a 55-foot tall steel frame, remains intact. Structural trusses and cage rails are still visible on the structure and although the structure appears to be reinforced with wood-constructed elements affixed around portions of the frame. It retains sufficient integrity of design and materials to convey its historical character. The structure maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the structure retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. It is significant for these reasons as well as for its potential to yield information about the mine/mill as a system, particularly as it relates to social and economic systems and technology. The District is recommended eligible for listing in the NRHP under Criteria A, C, and D.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Structure 1 was constructed within this period and functioned during this time as an extraction component of the mine system. Structure 1 is representative of an extraction property type and stands as a well-preserved example of a gallows headframe on one of the most productive mines in the Mother Lode region. As a result, Structure 1 is recommended individually eligible for listing in the NRHP under Criterion A as it is directly associated with and demonstrates a connection to the development and working of the Argonaut Mine, a significant event in local, regional, and national history, and under Criterion C as an intact example of hoisting technology used in deep shaft mining beginning in the mid-19th century. Further, as a component of the mining/milling system that was used as a core part of the Argonaut Mine from 1914 on, it is recommended eligible as a contributing resource to the Argonaut Mine Industrial District.

7.2.1 STRUCTURE 02: HOIST FRAME

Structure 02 is located in the east portion of the Industrial Area of the Argonaut Mine Site, to the east of CA-49/CA-88, on the east shoulder of the highway. It is comprised of the secondary hoist cable tower and an accessory resource (adjacent building). It has been out of use since the closure of the mine in 1942. Structure 2 is to the east of and aligned with Structure 01, the main gallows headframe. It is situated downslope from the main gallows headframe. Structure 02 is located directly east of Building 8, the hoist house.

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Structure 2 is comprised of a steel I-beam superstructure set atop poured concrete footings. The hoist cable tower frame stands approximately 30 feet above the ground surface and contains the remains of one pulley-wheel system with some cable still in situ.



Figure 7.9: Structure 02, Hoist Frame, with associated shed (Photo: P7220215.jpg, 7/22/2020)

The east concrete footing of the hoist frame is set against the west elevation of a rectangular wood-framed building whose function cannot be confirmed, but potentially served as a utility or storage building. The building footprint is 25 feet nine inches by 19 feet eight inches, with the long axis oriented at 240 degrees. Due to the degree of the adjacent slope, the building is supported on its east (downslope) side by pylons constructed of 12x12 inch milled lumber posts. These posts are set into poured concrete footings on the downslope side; the building itself has a wood foundation. The walls are constructed of corrugated metal, as is the gabled roof.

The west elevation is occupied by two doors at the north and south edges of the wall, immediately adjacent to the concrete foundation that supports the hoist frame. A large standing water spigot is set into the ground roughly four and a half feet from the southwestern corner of the building.

The only fenestration on the north elevation is one single door that may have been the primary point of entry. The door has been dented inward at the bottom to expose interior wood flooring. An adjacent portion of the metal siding is also damaged.

The east elevation is occupied by two large wood-framed door openings; the south opening has been covered with plywood while the north opening has been covered with corrugated metal. A wood-framed window opening sits between these two door frames and has been covered from the inside with

plywood. Floor rafters are exposed on this elevation. Due to the slope, the east elevation stands roughly four feet above the natural ground surface.

The south elevation is occupied by a large door constructed of corrugated metal and affixed to the wall with hinges on the east side. An opening has been cut out of the metal siding on the top east corner of this elevation.

Statement of Integrity

Structure 02 was likely constructed before 1920. It does not appear on the 1912 Sanborn Map of the Argonaut Mine (Sanborn Map Company 1912), though it is visible in a 1920 photograph of the mine (California State Library 1920b). There are no known alterations made to the structure, as the accessory resource was merely constructed directly adjacent.

The accessory resource was constructed after 1920 as it does not appear in the 1920 photograph described above. A 1980 study identified the accessory resource building as a “shed,” indicating that it was planned for removal during an upcoming development project. These plans did not materialize, and the building is currently in the same condition as shown in 1980 photographs (Rondeau 1980).

Structure 02 appears in its current location and form since at least 1920 (California State Library 1920), as a secondary hoist engine house between the hoist house (Building 08) and the trestle for the headframe (Structure 1). It therefore maintains its integrity of location and design. The structure does not appear to have been modified and therefore maintains integrity of materials and workmanship. The structure maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the building retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C, and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Structure 02 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the structure cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the structure is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Structure is tied to the system of which it is a part. It forms part of the conveyance system between the headframe and the hoist house, both of which represent the original core of the mine since 1893/1894. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

7.2.2 FEATURE 17: MOORE DITCH (LINEAR)

This linear feature is a sluice ditch, located at the southern extent of the project area on the eastern side of CA-49/CA-88. It was historically known as the Moore Ditch, and it functioned as part of the hydroelectric system between from 1898 (Sanborn Map Company 1898). Two segments were recorded during the survey.



Figure 7.10: Feature 17, Moore Ditch (Photo: P7220285.jpg, 7/22/2020)

The ditch was identified at the base of the CA-49/CA-88 grade; from the highway it follows the grade of the slope north towards Building 09, the Air Compressor House. The ditch is exposed from the base of CA-49/CA-88 for about 250 feet, at which point it continues underground via two perpendicular concrete culverts. The eastern culvert is oriented into the valley, while the northern culvert is oriented towards Building 09 and the rest of the feature. The feature continues underground for about 200 feet to another concrete culvert. It continues as an open ditch for about 350 feet, where it reaches Building 09. Along this length, the ditch passes through two culverts under two-track roads. A modern corrugated metal pipe, 18-in diameter, crosses the ditch near a culvert. The pipe is oriented perpendicular to the ditch, and originates under the highway grade. At the northeast corner of Building 09, the ditch again enters a culvert that directs it into the canyon north of the buildings.

Statement of Integrity

The feature possesses integrity of location, setting, and association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The feature contains intact culverts that are indicative of the period of significance, however because the

ditch is dry and its other components (i.e. the 1898 water wheel) have been removed, its integrity of design, materials, and workmanship have been compromised.

National Register Considerations

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. While its individual integrity has been impacted by abandonment and modern activity, as a component of the larger system of the Argonaut Mine, it can be associated with parts of the original hydroelectrical infrastructure. As such, the ditch is recommended as a contributing element within the Argonaut Mine Industrial District.

7.2.3 FEATURE 07: UTILITY POLE (OBJECT)

This utility pole stands downslope of Building 01 and north of the modern utility line. One pin-type ceramic insulator is in place on a wooden pin along the crossbeam of the pole. It was likely connected to the electrical fixtures on the east elevation of Building 01.



Figure 7.11: Feature 07, Utility Pole (Photo: P7200057.jpg, 7/20/2020)

This object was constructed between 1912 and 1920 (Sanborn Map Company 1912; California State Library 1920a). It's construction coincides with the mine's expanding development in the 1920s (Muratore 2013). There do not appear to have been any alterations made to the object.

Statement of Integrity

This utility pole is visible in its current location and current form in photographs of the Argonaut Mine dating to 1920 (California State Library 1920). It therefore maintains its integrity of design and location.

The object does not appear to have any modern alterations to its materials or composition, except for the lack of utility cables; therefore, it maintains its integrity of materials and workmanship. The object maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the object retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Feature 07 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the object cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Feature 07 is tied to the system of which it is a part. Further investigations into this object and historic records of the electrical and utility systems at the mine may yield additional information about communications technology and infrastructure at the Argonaut Mine. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

7.2.4 FEATURE 22: UTILITY POLE (OBJECT)

This is a standing utility pole, located at the southeast corner of the upper platform of Feature 21. One bolt remains at the top of the pole, and a cross beam with pin-fittings for insulators lies on the platform nearby.

This object was constructed between 1898 and 1912 (Sanborn Map Company 1898, 1912). Its construction coincides with the mine's expanding development of the quartz stamp mill. The compressor house and multiple utility poles were constructed to transfer power across the mine. When the compressor house was abandoned between 1912 and 1914, these utility poles were also abandoned (Muratore 2013).

Statement of Integrity

Archival research indicated this utility pole has been in the same location and same form since at least 1912, thereby retaining integrity of design and location. The object does not appear to have any modern alterations to its materials or composition except for the removal of utility cables and the loss of several bolts; therefore, it maintains its integrity of design. The object maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the

surrounding area has compromised its integrity of setting, feeling, and association, the object retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C, and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Feature 22 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the object cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Feature 22 is tied to the system of which it is a part. Further investigations into this object and historic records of the electrical and utility systems at the mine may yield additional information about communications technology and infrastructure at the Argonaut Mine, particularly during the transition between the use of the 40-stamp mill on the east side of the mine property and the 60-stamp mill on the west side of the property. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

7.2.5 FEATURE 23: UTILITY POLE (OBJECT)

This is a utility pole, cut off at approximately four feet above the surface. It is located on the east bank of Feature 17, sluice ditch, in line with the southeast corner of Building 09, Compressor House. A threaded galvanized metal bolt is driven through the base.

This object was constructed between 1898 and 1912 (Sanborn Map Company 1898, 1912). Its construction coincides with the mine's expanding development of the hydroelectric system and the quartz stamp mill. The compressor house (Building 09) and multiple utility poles were constructed to transfer power across the mine. When the compressor house was abandoned between 1912 and 1914, these utility poles were also abandoned (Muratore 2013). This pole was cut down at an unknown time after 1914.

Statement of Integrity

Archival research indicated this utility pole has been in the same place since at least 1912, thereby retaining integrity of location. Only the bottom lower four feet of this utility pole remains; therefore, it does not demonstrate integrity of design, materials, or workmanship. The object maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the object retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Feature 23 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the object cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Feature 23 is tied to the system of which it is a part. Further investigations into this object and historic records of the electrical and utility systems at the mine may yield additional information about communications technology and infrastructure at the Argonaut Mine. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

7.2.6 FEATURE 24: UTILITY POLE (OBJECT)

This is a standing utility pole, located south of Building 09, Compressor House, on the east side of Feature 17, sluice ditch. It is connected to Building 09 via a metal wire attached to the southeast corner of the building. It retains cross beams with wooden pin mounts for insulators.

This object was constructed between 1898 and 1912 (Sanborn Map Company 1898, 1912). Its construction coincides with the mine's expanding development of the quartz stamp mill. The compressor house and multiple utility poles were constructed to transfer power across the mine. When the compressor house was abandoned between 1912 and 1914, these utility poles were also abandoned (Muratore 2013).

Statement of Integrity

Archival research indicated this utility pole has been in the same location and same form since at least 1912, thereby retaining integrity of design and location. The object does not appear to have any modern alterations to its materials or composition, except for the lack of utility cables; therefore, it maintains its integrity of materials and workmanship. The object maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the object retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example

hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Feature 24 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the object cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Feature 24 is tied to the system of which it is a part. Further investigations into this object and historic records of the electrical and utility systems at the mine may yield additional information about communications technology and infrastructure at the Argonaut Mine. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

7.3 CA-AMA-208H: ARCHAEOLOGY

The archaeological site boundary is coterminous with the boundary of the Argonaut Mine Industrial District. It includes 23 extant features related to the core mining and milling operations of the Argonaut Mine, 1850-1942. The archaeological component of the Argonaut Mine Industrial District retains integrity of location, setting, and association with the operations of the Argonaut Mine during its period of significance. The individual components demonstrate varying degrees of integrity of design, materials, and workmanship. Some features, such as the original 40-stamp mill, continue to convey the feeling of an industrial hard-rock gold mining complex. Considered as a whole, the archaeological component of the Argonaut Mine demonstrates historic integrity and is recommended as a contributing element of the Argonaut Mine Industrial District. Feature photographs are included with this report as Appendix C.

7.3.1 ARCHAEOLOGICAL FEATURES

Feature 01: Cut-off wooden post. It is embedded in the east-trending hillslope south of Building 01. It consists of a rectangular milled lumber post, original dimensions roughly seven inches by seven inches, cut or broken into a tapered shape. It currently stands three feet tall. There is a bolt with nuts and washers on both sides driven horizontally through the base, and three wire nails driven into one side. It may represent the remains of a fencepost.

The feature possesses integrity of location and setting. The feature possesses integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The alteration of the post means the feature does not demonstrate integrity of design, materials, workmanship, or feeling. As the original function of the post is not apparent, the feature is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 02: Metal bin, possibly a disused ore bin. Set into a terrace along the east-trending slope, south of Building 01. It is constructed with galvanized metal sheets across a steel frame. Three bolts are set across the top of the bin, width-wise; these are driven directly through the sides. There are two metal

clamps on either side of the bin. The bin measures 94 inches by 46 inches and is 36 inches deep. The bolts across the top are spaced at 22 inch intervals. The northeast corner of the bin is resting on a piece of milled lumber. Modern graffiti has been applied to the east-facing side.

The feature possesses integrity of setting, materials, design, and workmanship. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The bin is in a location that is removed from the general ore-processing area and lacks integrity of location and feeling. As the ore bin has been relocated and repurposed from its original place and function, the feature is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 03: Length of 4-inch diameter metal pipe with one clamp fitting. Partially buried along a break in the east-trending slope south of Building 01, west of Feature 02. The pipe is intact for a length of approximately 100 feet. At its southern extent, the pipe end appears to have been broken off and removed. At its northern extent, the pipe is cut off at a modern utility line corridor underneath an overhead power line.

The feature possesses integrity of setting and location within the Argonaut Mine. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. Alterations and partial dismantling of the pipe have impacted its integrity of design, materials, workmanship, and feeling. The feature is associated with important events; the construction and operation of the Argonaut Mine, which contributed significantly to the broad patterns of history. As the pipe has been disconnected to the overall system, the feature is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 04: Vertical pit, approximately two feet in diameter. It is at least three feet deep; total depth not determined due to instability of the surrounding ground. It may represent an abandoned post-hole.

The feature possesses integrity of location. It possesses integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. Since the original function of the pit is not clear, it does not demonstrate integrity of setting, materials, design, workmanship, and feeling. As the origins of the feature are unknown, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 05: Partially collapsed fence, age unknown. It includes two large (12x12-inch) end posts with various types of barbed wire along the length. Portions have been reinforced with modern metal T-posts. This may be a historic fence line that has been modified over time. The fence originates near the northeast corner of Building 01. It extends west for approximately 30 feet, where it joins one of the large end posts and turns north along the contour of the slope. It is intact (parts collapsed) for about 80 feet, and terminates near Feature 06, a ditch.

The feature possesses integrity of location and setting within the Argonaut Mine. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. Since alterations have occurred to the feature, it lacks integrity of design, materials, workmanship, and feeling. The feature is associated with important events; the construction and operation of the Argonaut Mine, which contributed significantly to the broad patterns

of history. As the fence has been altered and its original extent and function is not apparent, the feature is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 06: Shallow ditch located north of Building 1. It is approximately 12 feet wide and two to three feet deep, oriented down the slope at 50 degrees. It initiates on the west (upslope) side below the terrace that corresponds to the upper story of Building 01 and continues to the slope break above Building 04, Compressor House, to the east, where it encounters a modern footpath. It is approximately 110 feet long.

The feature possesses integrity of location and setting within the Argonaut Mine. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. As an eroded earthen feature without constructed elements, the ditch does not convey integrity of materials, design, workmanship, or feeling.

The feature is associated with important events; the construction and operation of the Argonaut Mine, which contributed significantly to the broad patterns of history. Since the ditch does not convey its original function or role within the system, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 08: Foundation of the former Assay Office. It is a poured concrete foundation for a four to five-room building. The footprint measures 18 feet six inches by 36 feet, with the long axis oriented at 340 degrees. It is located opposite Buildings 02 and 03 (Office and Machine Shop) on the east side of the Industrial Area. The floorplan of the building includes one small room (seven feet three inches by six feet six inches) at the northwest corner and a narrow room (12 feet, three inches by seven feet, eight inches) immediately west of it. To the south of these two rooms, the building contains several partial foundations that could have been divided into two or three rooms. The point of entry appears to have been on the west side of the building. The foundation is scattered with fragments of machinery, pipes, corrugated sheet metal, electrical insulators, and a large deposit of asbestos in the northwestern room. The space immediately south of the northwest room contains a deposit of charcoal. Within the main room, an intact cast-iron assay furnace (Artifact 01) stands near the southeast corner. The Assay Office and Furnace are identified here on the Sanborn Fire Insurance Maps of the Argonaut Mine in 1898, though a building is shown at this location as early as 1895.

The feature possesses integrity of location and setting. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The feature possesses integrity of feeling since it maintains distinctive components, including the furnace (Artifact 01). The original structure has been decommissioned which involved stripping it down to its internal concrete structural elements. Therefore, it does not possess integrity of design, materials, or workmanship.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. Prior to demolition, this building may have been recommended eligible for listing on the National Register; the remaining foundations do not retain original integrity, and they are not recommended as eligible for listing on the NRHP. However, as a component of the Industrial Area, the surviving foundations of the building are recommended as a contributing element of the Argonaut Mine Industrial District.

Feature 09: Poured concrete foundation with catchment area, located immediately north of Building 05, Steel Shop, in the Industrial Area. It overhangs a steep slope, which is reinforced with a concrete retaining wall on the downslope (east) side. The foundation consists of a rectangular pad, approximately 21 feet by 45 feet, with the long axis oriented at 350 degrees. One standing concrete pylon is located in the northern part of the foundation. The pylon lacks mounts or attachments. It has a tapered shape, measuring 30 inches long at the base and 18 long at the top. It is 12 inches wide and stand two feet, six inches high. At the southwest corner of the platform there is a recessed catchment area that has partially collapsed and been infilled with debris. It was originally an outlet for several pipes of varying sizes that remain embedded in the concrete and at the base of Building 05. The catchment area measures nine feet by nine feet. The 1930 Sanborn Fire Insurance Map of the Argonaut Mine shows a foundation of a steam boiler at this location. The pipes in this feature and attached to Building 05 were likely attached to the steam system.

The feature possesses integrity of location. The feature possesses integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The original structure has been decommissioned which involved stripping it down to its internal concrete structural elements. Therefore, it does not possess integrity of setting, design, materials, or workmanship.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. Prior to demolition, this building may have been recommended eligible for listing on the National Register; the remaining foundations do not retain original integrity, and they are not recommended as eligible for listing on the NRHP. In their current condition, the foundations do not convey the original function of this feature or its historic form. As such, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 10: This is a retaining wall located on the downslope side of a large pit at the base of the gallows headframe (Structure 01). The wall is set into the east-trending slope and is approximately 15 feet tall at its highest point. Large metal pipes are set into the slope on either side of the wall, oriented towards the valley. On the south side of the wall, steel cross-beam supports in the concrete have been exposed. A series of poured concrete footings with threaded metal bolts are set along the base of the wall. Feature 10A is at the southwest corner of the wall. It measures 28 inches by 36 inches and stands up to 27 inches above the ground surface. It has threaded bolts at each corner. Feature 10B is a long rectangular footing, oriented parallel to the wall. It measures 65 inches by 28 inches and stands 13 inches above the ground. Feature 10C is a rectangular footing that contains the remains of an embedded metal pipe (12-inch diameter). It measures four feet by 3 feet six inches and includes a two by two foot square recessed area at the top. Additionally, a poured concrete catchment area was observed at the northwest corner of the wall. This could not be fully recorded due to the presence of a modern encampment.

The feature possesses integrity of location, setting, design, materials, feeling, and workmanship. The feature possesses integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. The feature still demonstrates its original function as a part of the headframe support system. As such, the retaining wall is recommended as a contributing element within the Argonaut Mine Industrial District.

Feature 11: Metal pipe, located along the slope north of the gallows headframe (Structure 01). It is 12 inches in diameter. The eastern extent is embedded in the slope northwest of the headframe and it emits into the valley north of Feature 10, the retaining wall. This pipe may have been related to dewatering efforts in the mine workings. It is aligned with Feature 19, another pipe located on the opposite side of the highway (CA-49/CA-88). The exposed part of Feature 11 was mapped and photographed. It appears to continue underground and/or under dense vegetation to the west, towards the modern housing development located west and upslope of the site.

The feature possesses integrity of location, design, materials, and workmanship. The feature possesses integrity of setting because it appears to start close to where the main shaft of the Mine was located and extends throughout the project area. The feature possesses integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. The feature's function is still apparent as a part of the de-watering system for the shaft, which was important to the fire control and fire recovery systems at the mine. As such, the pipe is recommended as a contributing element within the Argonaut Mine Industrial District.

Feature 12: Poured concrete footing with threaded metal bolts. It is located in the northern part of the Industrial Area, overlooking CA-49/CA-88. It includes four threaded bolts, 12 inches tall, embedded in each of its corners. It measures 42 inches by 20 inches and is 24 inches high. This footing is likely part of the foundations or workings of the Carpenter and Timbering shop identified on the 1930s Sanborn Fire Insurance Map of the Argonaut Mine.

The feature possesses integrity of location. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The original building, the lumber mill, has been decommissioned which involved stripping it down to its internal concrete structural elements. Therefore, it does not demonstrate integrity of setting, feeling, design, materials, or workmanship.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. Prior to demolition, the building may have been recommended eligible for listing on the National Register; the remaining footing does not retain original integrity, and is not recommended as eligible for listing on the NRHP. In addition, the feature does not convey its original function in its current state. As such, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 13: Poured concrete footing located roughly 25 feet southwest of Feature 12. It is partially obscured by a fallen tree. It consists of one solid block measuring 28 inches wide by five feet long, which is overlain with smaller rectangular blocks set parallel to each other. Short threaded metal bolts are embedded at each corner. This footing is likely part of the foundations or workings of the Carpenter and Timbering shop identified on the 1930s Sanborn Fire Insurance Map of the Argonaut Mine.

The feature possesses integrity of location. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales.

The original building, the lumber mill, has been decommissioned which involved stripping it down to its internal concrete structural elements. Therefore, it does not demonstrate integrity of setting, feeling, design, materials, or workmanship.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. Prior to demolition, the building may have been recommended eligible for listing on the National Register; the remaining footing does not retain original integrity, and is not recommended as eligible for listing on the NRHP. In addition, the feature does not convey its original function in its current state. As such, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 14: Poured concrete footing located adjacent to Feature 13. It measures 29 inches by 29 inches and stands 25 inches high. It includes three threaded metal bolts set in a triangular configuration. Each bolt is placed in the center of an embedded metal ring. This footing is likely part of the foundations or workings of the Carpenter and Timbering shop identified on the 1930s Sanborn Fire Insurance Map of the Argonaut Mine.

The feature possesses integrity of location. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The original building, the lumber mill, has been decommissioned which involved stripping it down to its internal concrete structural elements. Therefore, it does not demonstrate integrity of setting, feeling, design, materials, or workmanship.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. Prior to demolition, the building may have been recommended eligible for listing on the National Register; the remaining footing does not retain original integrity, and is not recommended as eligible for listing on the NRHP. In addition, the feature does not convey its original function in its current state. As such, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 15: Poured concrete trough consisting of two parallel footings set 38 inches apart. The footings are over 50 feet long, oriented southeast toward the gallows headframe (Structure 01). The area between them is infilled with gray, friable material, and duff. This feature was also likely a part of the Carpenter and Timbering shop identified on the 1930s Sanborn Fire Insurance Map of the Argonaut Mine; it may have served as a conveyance or support for a rail system within the plant.

The feature possesses integrity of location. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The original building, the lumber mill, has been decommissioned which involved stripping it down to its internal concrete structural elements. Therefore, it does not demonstrate integrity of setting, feeling, design, materials, or workmanship.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. Prior to demolition, the building may have been recommended eligible for listing on the National Register; the remaining footing does not retain original integrity, and is not recommended as eligible for listing on the NRHP. In addition, the feature

does not convey its original function in its current state. As such, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 16: Poured concrete footing, L-shaped, located 15 feet southeast of the southern end of Feature 15. It is partially obscured by vegetation. The exposed portion has three stepped tiers with threaded metal bolts. At its base, it measures 13 feet by at least 9 feet, and it stands up to 15 inches high. This footing is likely part of the foundations or workings of the Carpenter and Timbering shop identified on the 1930s Sanborn Fire Insurance Map of the Argonaut Mine.

The feature possesses integrity of location. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The original building, the lumber mill, has been decommissioned which involved stripping it down to its internal concrete structural elements. Therefore, it does not demonstrate integrity of setting, feeling, design, materials, or workmanship.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. Prior to demolition, the building may have been recommended eligible for listing on the National Register; the remaining footing does not retain original integrity, and is not recommended as eligible for listing on the NRHP. In addition, the feature does not convey its original function in its current state. As such, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 18: Large waste rock platform with concrete mounts. It is located on the east side of CA-49/CA-88, north of Buildings 07 and 08 (Hoist Engine Room and Hoist House) and downslope of the gallows headframe (Structure 01). This is the remains of the waste material from the main shaft, originally conveyed across the valley via carts along a tramway. The three concrete foundations, which include embedded metal supports (Features 18A, 18B, and 18C), are part of the former tramway supports. Currently, the waste rock platform can be accessed directly from the highway via two asphalt aprons. It stands over 50 feet tall on the downslope side and the leveled portion at the top of the pile measures roughly 108 feet by 104 feet.

The feature possesses integrity of location and setting. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. As the trestle has been removed from the waste rock platform and it is overgrown with foliage, the feature lacks constructed elements with the potential to convey integrity of design, materials, workmanship, and feeling.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. The feature is associated with the original workings of the mine and mill, and is a distinctive feature of the mining landscape. As such, the waste rock platform is recommended as a contributing element within the Argonaut Mine Industrial District.

Feature 19: Metal pipe, 12-inch diameter, located on the eastern side of CA-49/CA-88, on the slope north of Building 8. It runs at 75 degrees from under the current grade of CA-49/CA-88 to the ravine northeast of Building 09. The exposed portion is about 200 feet long. The pipe roughly aligns with Feature 11 on the west side of the road, and may represent part of the same drainage/dewatering system.

The feature possesses integrity of location, design, materials, and workmanship. It retains integrity of setting within the Argonaut Mine. The feature possesses integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. The feature's function is still apparent as a part of the de-watering system for the shaft, which was an important part of the fire suppression and fire recovery system at the mine. As such, the pipe is recommended as a contributing element within the Argonaut Mine Historic District.

Feature 20: Collapsed wood-frame structure with corrugated metal roofing. It is associated with two tie-bolts embedded in the slope between it and Building 08; these may have served to stabilize the structure. In addition to building materials, the feature includes fragments of a white porcelain fixture, a three-and-a-half inch standing pipe (sheared off), and miscellaneous metal fragments distributed over a 15 square foot area on the slope between Buildings 08 and 09. A length of partially exposed pipe between Building 08 and Feature 20 was recorded as Feature 20B. This feature may represent the remains of an outhouse or shed that was recorded in 1980 as part of the *Cultural Resources Assessment of the Proposed Old Mill at the Argonaut Mine Development Project* (Rondeau 1980). The survey identified a standing wood frame building with a metal roof that was characterized as a possible privy. The records do not include a map, however the photographs suggest that it stood near Feature 20.

The feature possesses integrity of location and setting. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The feature has deteriorated and collapsed, and therefore lacks integrity of materials, design, workmanship, and feeling. The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. The feature's function is no longer conveyed in its current state. As such, the feature is recommended as a non-contributing element within the Argonaut Mine Historic District.

Feature 21: This is the remaining concrete foundation and mounts for the original 40-stamp mill for the Argonaut Mine, in use between December 1897 and 1916. It currently consists of two tiers, cut into the steep east-facing slope. The tiers are supported on the downslope sides by poured concrete retaining walls. The eastern side of the lower tier borders Feature 17, the sluice ditch. It is separated from the ditch by the retaining wall, however there are multiple outlets to the ditch along the length of the wall.

The lower tier of the foundation measures 100 feet by 40 feet, with the long axis oriented at 350 degrees. The surface is composed of cracked and overgrown poured concrete slabs with a series of channels set between them. A large channel, about 15 inches wide, runs east-west across the platform in the northern half of the foundation. Two narrow channels (10 inches wide) intersect it at right angles. One of these runs along the western edge of the foundation, the other runs along the eastern edge. To the south of the large channel, there are three parallel rows of low machine mounts, oriented north-south. The easternmost row contains two pairs of low square mounts with threaded metal bolts. The bolts are set in triangular configurations with the left mount mirroring the arrangement on the right mount. The central row contains another two pairs of mounts of the same type, as well as one single mount at the northern end of the row. The westernmost row contains one single mount and one pair of

mounts, which align with the northernmost mounts in the central row. The sets of mounts are set between 64 and 75 inches apart.

A pair of large, tapered footings are set in the northern extent of the lower platform. The footings measure four feet three inches by two feet at the base and two feet by 13 inches at the top. They stand four feet six inches high and are one foot seven inches apart. Four threaded metal bolts are embedded in the tops of each footing. A large metal drum and a raised platform are located immediately west of these footings, however these could not be examined during survey as they contained a modern encampment.

The upper tier stands roughly 10 feet above the level of the lower tier. Its eastern side is supported by a large poured concrete wall. The surface of the upper tier is heavily overgrown. It contains four rows of mounts of slightly varying types, none of which have embedded metal bolt fittings. The upper tier measures 80 feet by 40 feet, oriented at 350 degrees. The eastern most row of mounts contains six block footings measuring 23 inches by 20 inches, spaced 125 inches apart. They stand less than 12 inches above the current surface. The second row contains 10 blocks, measuring 20 inches by 23 inches and spaced 53 inches apart. The second row is 76 inches west of the easternmost row. The third row contains tapered footings measuring 11 by 23 inches, set 61 inches apart. These stand up to 18 inches above the current ground surface. This row is set 82 inches west of the second row. The fourth and westernmost row contains nine block footings measuring 19 by 23 inches, set 51 inches apart. The upper tier backs onto a retaining wall, approximately 10 feet high, built into the slope.

Two additional platforms were identified on the slope south of the retaining walls, between the level of the two main tiers. The lower of the two southern platforms consists of a poured concrete foundation scattered with brick fragments. It is shored on the upslope side by a stacked rock retaining wall composed of local cobbles. There is a gap approximately two feet wide between the base of the retaining wall and the edge of the concrete pad. The pad measures 35 feet by 12 feet, oriented at 350 degrees. It is approximately five feet above the level of the lower platform.

The upper of the two southern platforms is set on the level of the retaining wall that shores the eastern side of the lower platform. It does not include a foundation; it consists of a leveled area measuring about 35 feet in diameter. It is currently scattered with modern refuse and has been recently used for camping.

The 1912 Sanborn Fire Insurance Map for the Argonaut Mine shows a “Cleaning Room” appended to the southern wall of the stamp mill, and a wood and brick “Retort House” slightly southeast, adjacent to the eastern half of the mill. The upper of the two southern platforms likely corresponds to the “Cleaning Room.” The alignment and the presence of brick debris suggest that the lower of the southern platforms represents the foundation of the “Retort House.”

The feature possesses integrity of location and setting. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The feature retains integrity of feeling because the foundations are a distinctive feature of the industrial gold-mining landscape and they continue to demonstrate the scale and complexity of the mine’s early workings. The original building has been decommissioned which involved stripping it down to its internal concrete structural elements. Therefore, it does not possess integrity of

design, materials, or workmanship, though some of the core design elements are conveyed by the remaining foundations.

Prior to demolition, the building may have been recommended eligible for listing on the National Register; the remaining foundation does not retain original integrity and is not recommended as eligible for listing on the NRHP. The feature does not convey the original function in its current state, but still maintains distinctive components that make it recognizable and distinctive as part of the historic mining landscape. As such, it is recommended as a contributing element of the Argonaut Mine Industrial District.

Feature 26: Wooden water tank, located in a drainage on the east shoulder of a two-track road (Road 03). It consists of a wood paneled tank, about six feet in diameter, secured with metal ring-straps. It is currently covered by a piece of black and green tar paper. A length of displaced 12-inch diameter pipe lies in the channel next to it. The tank is unstable and is tipping into the drainage. It was likely part of the water storage system for the hydroelectric system at the Argonaut Mine; it currently lies about 40 feet downslope of Feature 17, sluice ditch.

The feature possesses integrity of setting within the Argonaut Mine, however it may be displaced from its original location. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The tank is deteriorating, impacting its integrity of design, materials, workmanship, and feeling. In its current state, the water tank does not convey its original function within the larger hydroelectric system in use at the mine. As such, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 27: Level Terrace located east and downslope of Feature 21, stamp mill. It is bordered on the upslope side by the grade for a two-track road (Road 03). The level area measures approximately 90 feet by 20 feet, with the long axis oriented at 13 degrees. It does not currently contain any historic artifact, foundations, or building materials, however it aligns roughly with a “Sulphuret House” pictured on the 1912 Sanborn Fire Insurance Map of the Argonaut Mine.

The feature possesses integrity of location and setting. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The original building has been decommissioned which involved removing all structural elements. Therefore, it does not possess integrity of design, materials, workmanship, or feeling.

Prior to demolition, the building may have been recommended eligible for listing on the National Register; the remaining terrace does not retain original integrity and is not recommended as eligible for listing on the NRHP. The feature lacks structural elements and does not convey its original function in its current state. As such, it is recommended as a non-contributing element of the Argonaut Mine Historic District.

Feature 28: Pit, possibly representing a test pit or dugout. It is located on the western side of a two-track road, cut into the slope at 300 degrees. It measures approximately 15 by 20 feet and reaches a maximum depth of four feet below grade.

The feature possesses integrity of location and setting within the Argonaut Mine. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. As an eroding earthen feature with no constructed elements, the pit does not demonstrate integrity of materials, design, workmanship, or feeling.

The feature is associated with important events; the construction and operation of the Argonaut Mine, which contributed significantly to the broad patterns of history. It does not convey its original function or role within the larger system. The feature lacks temporal markers that might associate it with a specific period of exploration during the period of significance, 1850-1942. It is therefore recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 29: Semi-circular depression, located east of Building 09 in a clearing that has been disturbed by several two-track roads. It measures about 20 feet in diameter and is approximately three feet deep. Environmental studies report that it contains high mercury levels. Several large, displaced pipes lie to the north of the pit, and one 12-inch diameter pipe lies partially buried to the west of the pit; this appears to be angled into the features. It may have served as a water catchment or drainage area.

The feature possesses integrity of location. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. As an eroding earthen feature with no constructed elements, the pit does not demonstrate integrity of materials, design, workmanship, or feeling

The feature is associated with important events; the construction and operation of the Argonaut Mine, which contributed significantly to the broad patterns of history. As it does not clearly convey its original function or role within the larger system, it is recommended as a non-contributing element of the Argonaut Mine Historic District.

7.3.2 OTHER CULTURAL CONSTITUENTS

The site surface is characterized by a general scatter of historic and modern debris, associated with the operations of the mine, its abandonment, and subsequent modern uses, e.g. camping. In general, individual artifacts were not recorded during the survey. The general scatter included food-related cans and bottles, structural refuse (corrugated metal), tools, and machinery. Four buildings on the west side of the site (Buildings 02-05) contain extensive deposits of historic artifacts (see attached forms for general characterization). Within the general site, two distinctive artifacts and one artifact concentration were recorded.

Concentration 01: Diffuse deposit of approximately 20 clay crucibles and mixed historic and modern refuse. It is located on a steep (42 degree) slope overlooking CA-49/CA-88, downslope of Feature 8, the Assay Office foundations. The scatter measures roughly 65 feet north-south by 50 feet east-west. Most of the crucibles are concentrated in the southern part of the scatter, under a large tree. Artifact 02 was recorded as an example of the crucibles, which were consistent in form and size. Other artifacts present within the scatter include five fragments of fire brick, a paint can with the remnants of blue paint, a bulk-size sanitary can, pieces of corrugated sheet metal, and machinery parts. Overall, approximately 50 artifacts are present with an average density of two artifacts per square meter. The scatter is in secondary context; while the crucibles were likely discarded from the assay office, the other materials have accumulated over time from multiple contexts. The area has also been disturbed by modern litter and the installation of a safety fence along the slope.



Figure 7.12: Concentration 01, Artifact Scatter (Photo: P7210171.jpg, 7/21/2020)

The concentration demonstrates integrity of location, as the materials likely remain in the context in which they were initially deposited. The artifacts retain integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The scatter lacks intentional design and does not demonstrate internal patterning, and therefore does not convey integrity of design, materials, or workmanship. While the concentration contains assay crucibles, a distinctive artifact related to the function of the mine, the integrity of feeling has been impacted by the accumulation of unrelated modern refuse, vegetation growth, and the construction of a safety fence along the slope.

The concentration is in poor condition, having been previously impacted by modern activity. Due to the degree of the slope, sub-surface accumulation of cultural materials is unlikely. The surficial scatter contains approximately 20 assay crucibles of standard manufacture that, while characteristic of assaying activities in general, lack individual distinction. The artifacts have no identifying marks indicating their place of manufacture, exact age, or duration of use. The additional materials are in poor condition and do not represent a specific activity within the mine system. For these reasons, the scatter lacks the potential to yield additional information about the mining and milling systems in use at the Argonaut Mine. It is recommended a non-contributing element of the Argonaut Mine Industrial District.

Artifact 01: Free-standing steel assay furnace, located in the southeast corner of Feature 08. It includes two semi-circular clay-lined chambers, with an intact metal shelf beneath them. Two flues at the rear of the furnace align with a standing set of narrow gas pipes embedded in the concrete foundation of the building. The furnace is embossed “CASE OIL FURNACE DENVER COLO USA/ PAT SEPT 5 1905” over both chambers. The chamber doors are embossed “S1730.”



Figure 7.13: Artifact 01, Assay Furnace (Photo: P7210133.jpg, 7/21/2020)

Artifact 02: Example of a crucible present in Concentration 01. It is a clay graphite A-shape crucible in good condition. This crucible form remains in use in foundries today, and this example likely dates to the later phases of operation at the mine in the 1930s and early 1940s.

8.0 MANAGEMENT CONSIDERATIONS

The Project Area is located on Argonaut Hill near Jackson, CA in the previously identified Argonaut Mine Site (P-03-243, CA-AMA-208H). Portions of the mine property have been previously surveyed in 1983, 2004, and 2014. The Argonaut Mine, collectively with the Kennedy Mine, is designated as California Historic Landmark 786. During the 2020 survey, Broadbent identified seven standing buildings, two standing structures, four architectural objects, one linear feature, 23 archaeological features, and one artifact concentration. The majority of the identified resources were related to the function of the mine and were located in an 8.4-acre area identified in EPA project figures as the “Industrial Area.” The mine’s components have therefore been collectively recorded as “The Argonaut Mine Industrial District.” The proposed district is an update and expansion of the Argonaut Mine Site (P-03-243, CA-AMA-208H). No other cultural resources were identified in the Project Area.

The APE for the current planned removal action includes 1.37 acres within the Argonaut Mine Industrial District. Architectural resources and archaeological features contained within the APE include: Structure 01, Buildings 02-05, Features 8-10, and Concentration 01.

Broadbent recommends the Argonaut Mine Industrial District as eligible for listing on the NRHP under Criteria A, C, and D. The District contains intact components of the mine and mill workings that can be associated with its development and operations from 1893 to the mine’s closure in 1942. The District includes seven buildings, two structures, four architectural objects, one linear feature, 23 archaeological features, and one artifact concentration. Of these, two resources are recommended individually eligible for inclusion in the NRHP, 20 resources are recommended as contributing elements of the District, and 18 resources are recommended as non-contributing elements of the District.

The EPA proposes to conduct remediation actions within the Argonaut Mine, including removal of contaminated soils, removal and testing of containers of hazardous materials from industrial contexts, and capping with clean soil. Individually eligible components of the Argonaut Mine Industrial District and contributing resources should be avoided during surface and subsurface disturbing activities associated with this undertaking. If avoidance is not possible, it is recommended that adverse effects to this District be mitigated according to an approved Historic Properties Treatment Plan (HPTP). Non-contributing elements of the District should not require additional treatment.

The current undertaking includes the removal of lead-contaminated soils from the vicinity of Concentration 01, a scatter of assay crucibles and various modern and historic refuse. The concentration is recommended as a non-contributing element of the District, as it does not have the potential to address the research priorities identified in this report. It is therefore recommended that removal of the surface materials from Concentration 01 does not constitute an adverse effect to historic properties.

The undertaking also includes the removal of hazardous materials from the buildings in the APE. While Buildings 02-05 are recommended as contributing elements of the District, the removal of these materials will not significantly impact the integrity of the buildings or the qualities that contribute to the significance of the District. It is therefore recommended that removal of hazardous materials from Buildings 02-05 does not constitute an adverse effect to historic properties.

Broadbent recommends that a permitted archaeological monitor be present during surface and ground disturbing activity to ensure avoidance of the eligible and contributing components of the District. The monitor may be required to identify and evaluate previously unknown subsurface components that may

be discovered during project implementation. Broadbent recommends avoidance of the eligible and contributing elements of the Argonaut Mine Industrial District for a finding of no adverse effects. If avoidance is not possible then the adverse effects to the District should be mitigated according to an approved Historic Properties Treatment Plan.

9.0 REFERENCES CITED

Amador County

2016 *Amador County General Plan*. Plymouth, CA.

2020 Assessor Parcel Maps. *Amador County, California: Assessor*.
<https://www.amadorgov.org/assessor-parcel-maps>, accessed September 1, 2020.

Anonymous

1900 A Broken Arm. *Amador Ledger*, March 1900.

1918 Argonaut Tailings Will Yield Fortune. *The Sacramento Bee*, December 1918.

1922 Big Truck Turns a Somersault; Driver Unhurt. *Stockton Daily Evening Record*, January 1922.

California State Library

1920a Argonaut Mine facing Northwest. California State Library, Sacramento, CA.

1920b Argonaut Mine and Mill. California State Library, Sacramento, CA.

Cenotto, Larry

1983 *Historical Site Survey of Jackson, Amador County*. Jackson, CA.

1988 *Logan's Alley, Amador County Yesterdays in Picture and Prose, Volume I*. Cenotto Publications, Jackson, CA.

1999 *Logan's Alley, Amador County Yesterdays in Picture and Prose, Volume III*. Cenotto Publications, Jackson, CA.

2003 *Logan's Alley, Amador County Yesterdays in Picture and Prose, Volume IV*. Cenotto Publications, Jackson, CA.

Cleland, James H

1988 A Tentative Culture-Historical Sequence for the Mokelumne River Canyon. *Proceedings of the Society for California Archaeology*:217–223.

Downey, Cameron, and Chris T. Higgins

2006 Argonaut Mine: Geologic Information. Edited by Paul G. Schruben. *USGS Mineral Resource Data System*. https://mrdata.usgs.gov/mrds/show-mrds.php?dep_id=10310585, accessed August 20, 2020.

Editors of Encyclopaedia Britannica

2014 Mother Lode County. *Encyclopædia Britannica*. Encyclopædia Britannica, Inc.

Estes, Mark B.

2016 *Archaeological Survey Report for Volcano Communications SR 88 Proposed Aerial to Underground Telephone Cable Project, Near Jackson, Amador County, California*. Reno, NV.

Francaviglia, Richard V.

1991 *Hard Places: Reading the Landscape of America's Historic Mining Districts*. University of Iowa Press, Iowa City, IA.

Hardesty, Donald

2010 *Mining Archaeology in the American West: A View from the Silver State*. University of Nebraska Press, Lincoln, NE.

Jackson Rancheria Band of Miwuk Indians

2020 History of Jackson Rancheria Band of Miwuk Indians. *Jackson Rancheria Casino Resort: Tribal History*. <https://www.jacksoncasino.com/tribal/history>, accessed August 27, 2020.

Johnson, Jerald J.

1967 The Archaeology of the Comanche River Locality, California. In *Sacramento Anthropological Society, Paper 6*. Sacramento, CA.

Kennedy Mine Foundation

2009 National Register of Historic Places Form: Kennedy Mine Historic District. United States Department of Interior, National Parks Service, Washington, D.C.

Kroeber, Alfred

1955 Nature of the Landholding Group. *Ethnohistory* 2(4).

1976 *Handbook of the Indians of California*. Reprinted. Dover Publications, New York, NY.

Levy, Richard

1978 Eastern Miwok. In *Handbook of North American Indians, Volume 8: California*, edited by William C. Sturtevant, pp. 398–413. Smithsonian Institution Press, Washington, D.C.

Mace, O. Henry

2004 *47 Down: The 1922 Argonaut Gold Mine Disaster*. J. Wiley, Hoboken, NJ.

Marvin, Judith

2014 The Argonaut Mine. *A Cultural Resources Inventory and Evaluation of the Argonaut Mine Cyanide Plant and Tailings Site, Jackson, Amador County, California*. Anthropological Studies Center, Rohnert Park, CA.

McCabe, Allen M, and Vickie Clay

2016 Volume I : Report and Appendix A A Class III Cultural Resources Inventory of NV Energy ' s Mason and Smith Valleys Transmission Project , Lyon County , Nevada Volume I : Report and Appendix A A Class III Cultural Resources Inventory of NV Energy ' s Mason.

McClelland, Linda F.

1997 National Register Bulletin 16A: How to Complete the National Register Registration Form. *National Register Bulletin* 16A:132.

McCurry Foto Co.

1915 Argonaut Mine: Hoisting Works. California State Library, Sacramento, CA.

Meyer, Michael D., and Suzanne Stewart

2006 *Extended Phase I and Phase II Investigations of the Applegate Site (CA-AMA-56) Redeposit, Ste Route 88, Amador County, California.* Rohnert Park, CA.

Miksicek, Charles, Kristina Roper, Dwight Simons, Jennifer Farquhar, Karen Loeffler, Jeffrey Hall, Thomas L. Jackson, and Robert J. Jackson

1996 *Overview of the Prehistory of the Stanislaus National Forest.* Santa Cruz, CA.

Mitchell, Jack

2017 A Look Back: 95th Anniversary of Argonaut Mining Disaster. *Ledger Dispatch*, August 31, 2017.

Moratto, M.J.

1984 *California Archaeology.* Academic Press, New York, NY.

Munz, Philip, and David Keck

1959 *A California Flora.* University of California Press, Berkeley, CA.

Muratore, Kim

2013 *Releasable Chronology of the Argonaut Mine Site Ownership & Operation.* United States Environmental Protection Agency, Region IX, San Francisco, CA.

Noble, Bruce J., and Robert Spude

1992 *Guidelines for Identifying, Evaluating, and Registering Historic Properties. National Register Bulletin 42 (Revised 1997).*

Peak, Anne S., and Harvey Crew

1990 *Cultural Resource Studies, North Fork Stanislaus River Hydroelectric Development Project, Volume II: An Archaeological Data Recovery Project at CA-CAL-S-342, Clarks Flat, Calaveras County, California.* Sacramento, CA.

Rasmussen, Cecilia

2006 1922 Gold Mine Disaster was State's Deadliest. *Los Angeles Times*, January 15, 2006.

Rondeau, Michael F.

1980 *A Cultural Resource Assessment of the Proposed Old Mill at the Argonaut Mine Development Project, Amador County, California*. Sacramento, CA.

Sanborn Map Company

1895 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

1898 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

1912 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

1930 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

Sketchley, H.R.

1965 *Soil Survey of the Amador Area, California. Series 1961, No. 26.*

Supernowicz, Dana, Julia Huddleson, and Kimberly Wooten

2006 *Historic Resource Evaluation Report for the Proposed Widening and Rehabilitation Project, State Route 49/88 in Jackson and Martell, Amador County, California*. Fresno, CA.

Theodoratus, Dorothea J.

1974 Cultural and Social Change among the Coast Central Pomo. *Journal of California Anthropology* 1(2).

Thompson & West

1881 *History of Amador County*. Thompson & West, Oakland, CA.

Walker, Mark K., Dana Ogo Shew, and Adrian Praetzellis

2014 *A Cultural Resource Inventory and Evaluation of the Argonaut Mine Cyanide Plant and Tailings Site, Jackson, Amador County, California*. Rohnert Park, CA.

Western Regional Climate Center

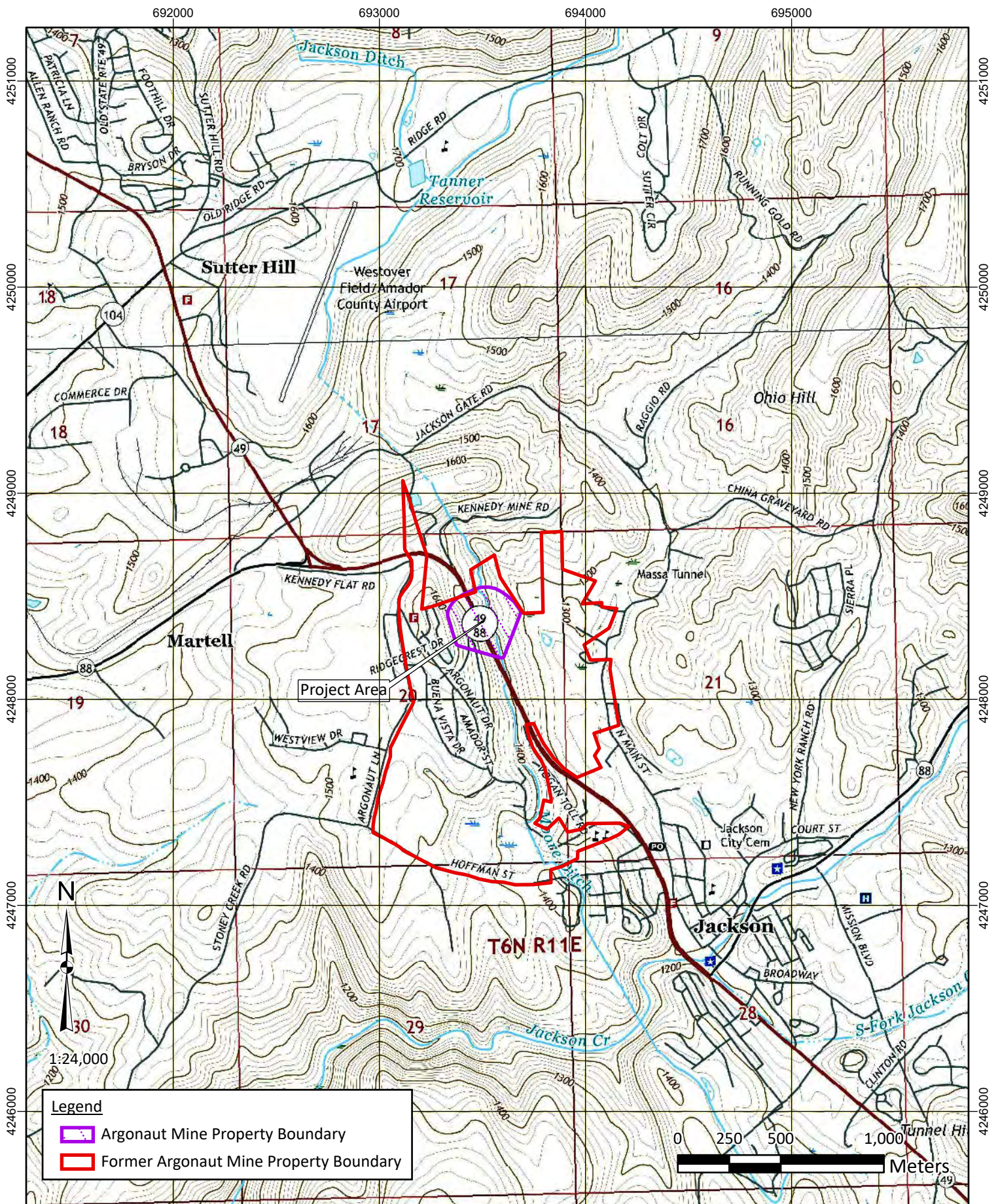
2019 Plymouth, California (047000): Period of Record Monthly Climate Summary. *Western Regional Climate Center*. <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7000>, accessed August 30, 2020.

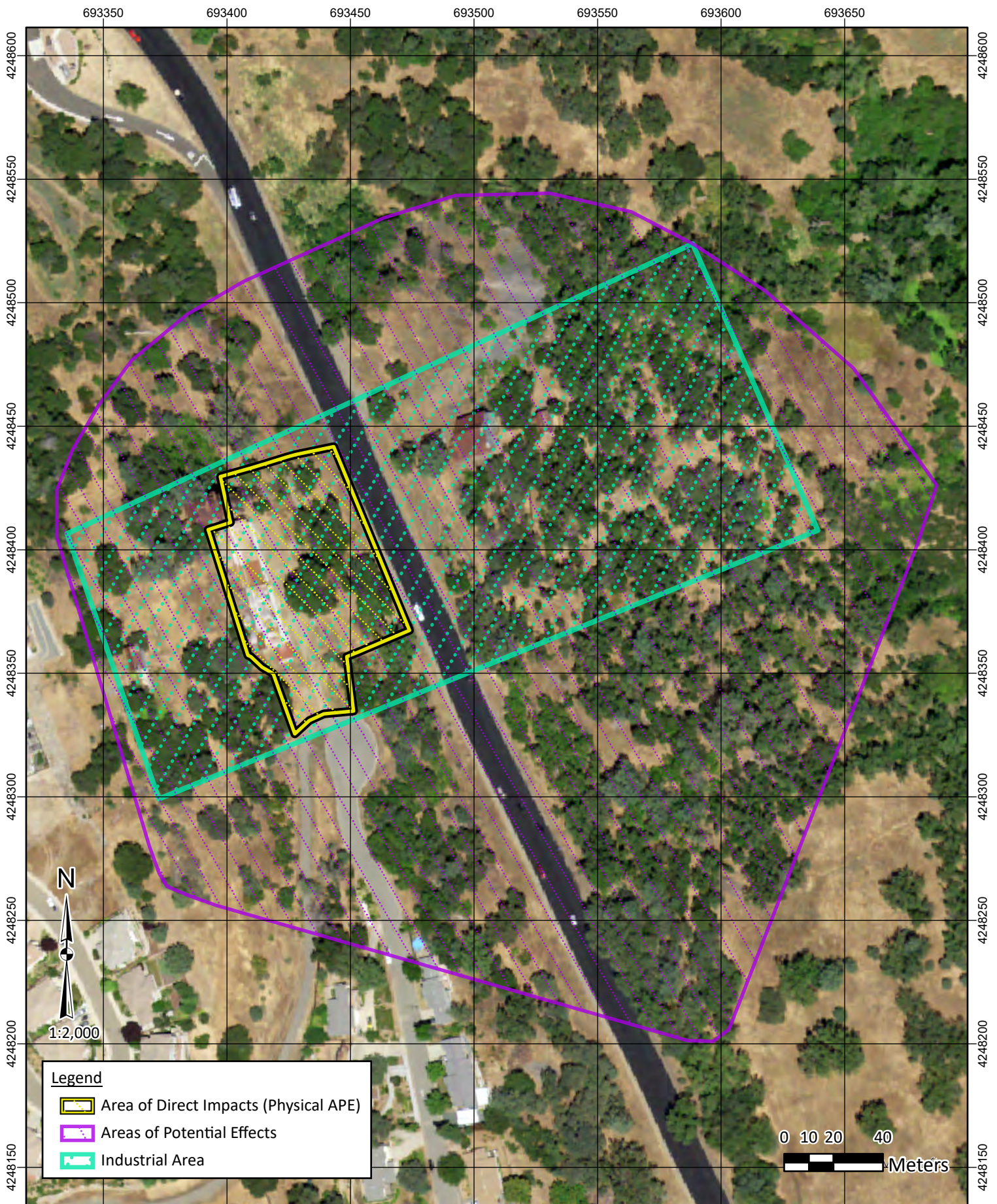
Wohlgemuth, Eric

2005 The Medieval Climatic Anomaly in Central Sierran Foothill Prehistory. *Proceedings of the Society for California Archaeology* 18:307–311.

APPENDIX A

Project Maps



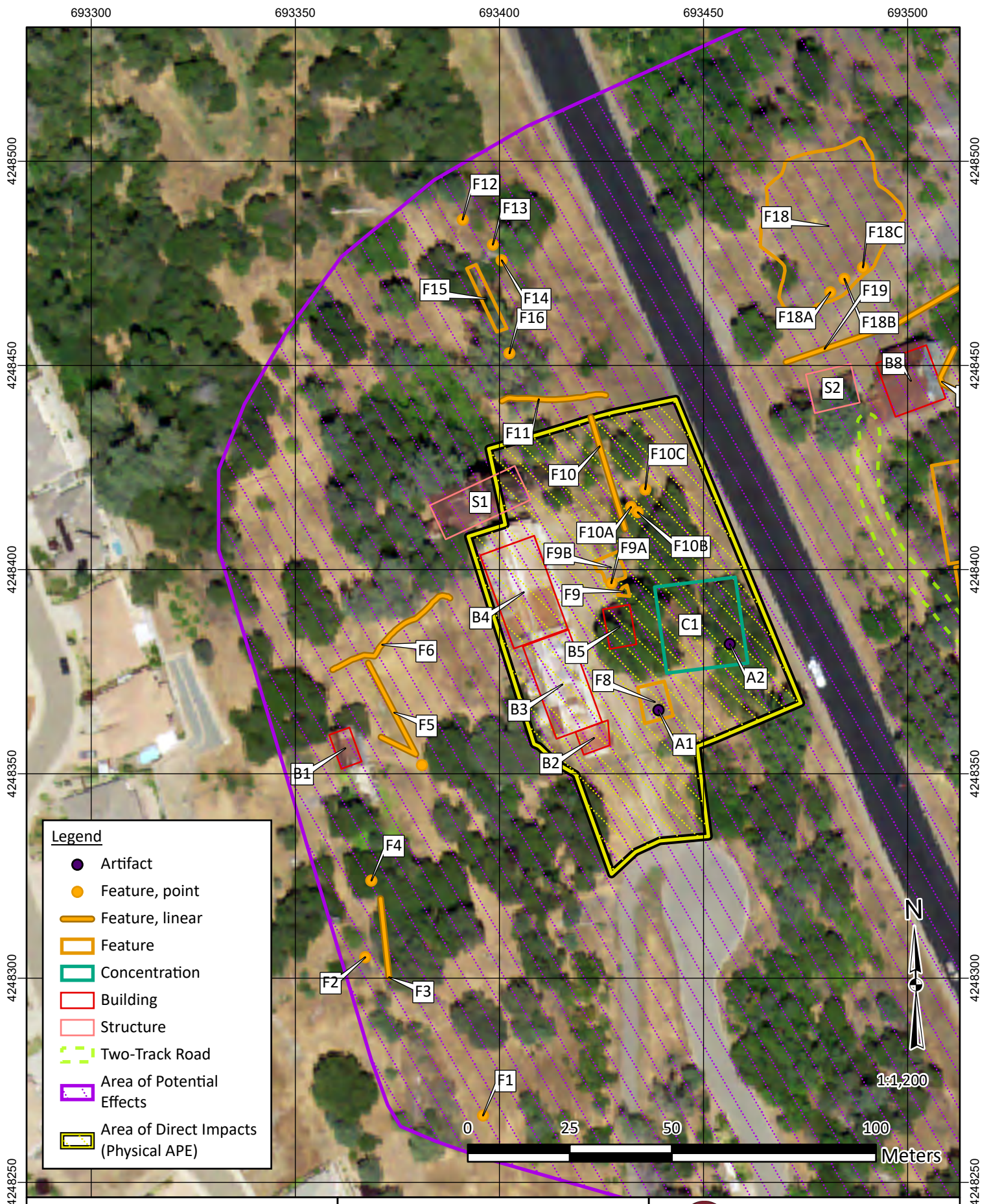


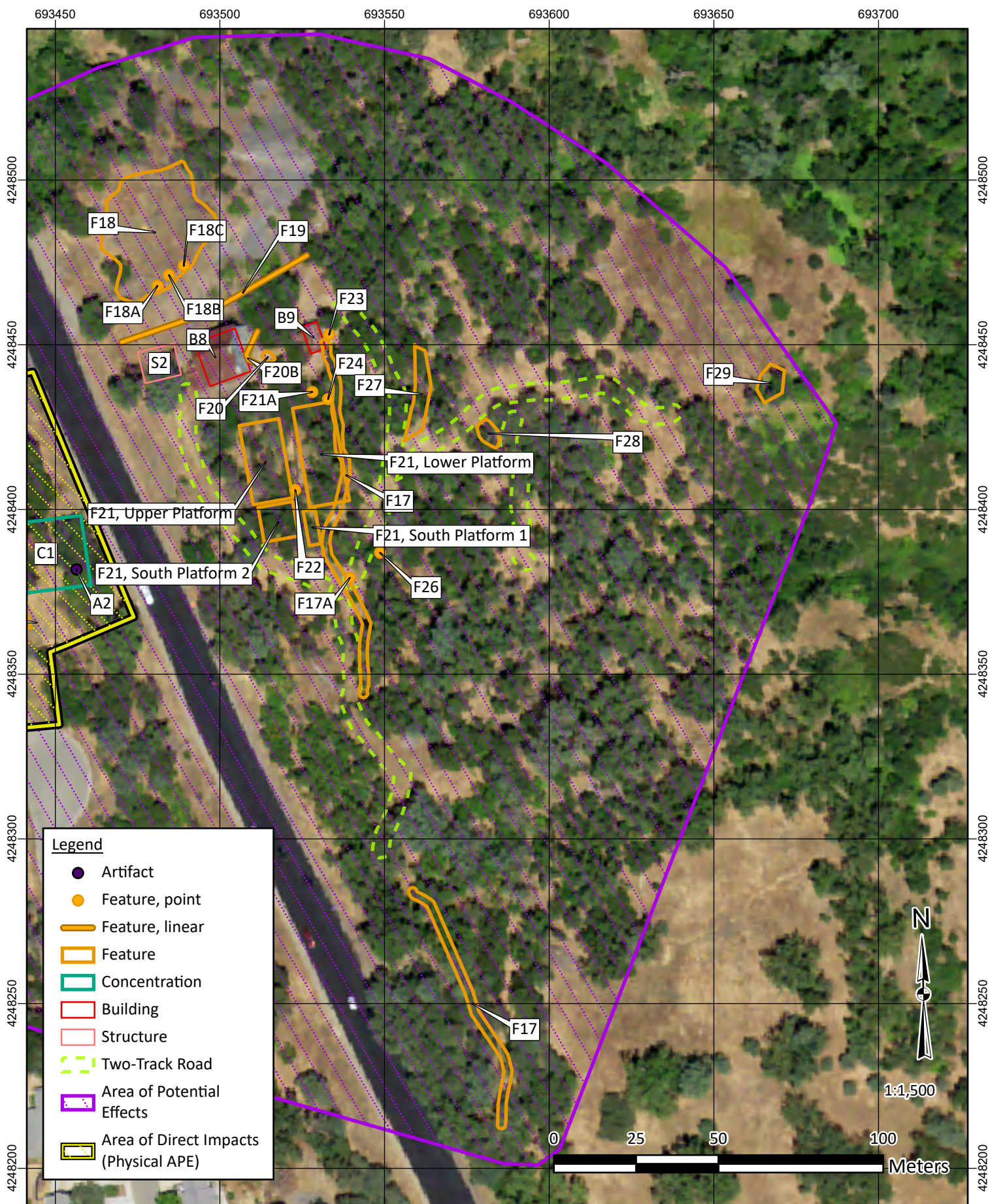
Map 2: Area of Potential Effects

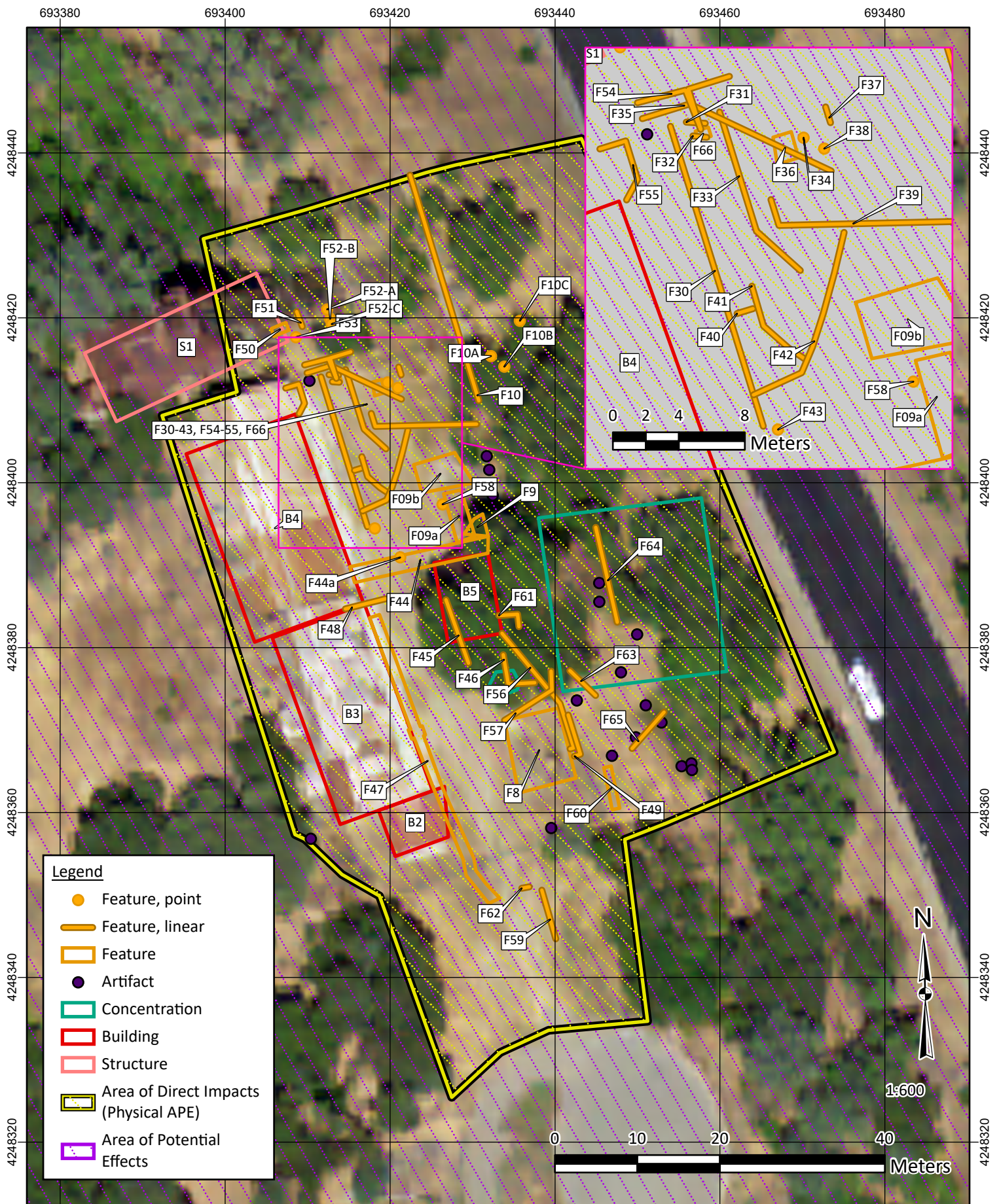
Cultural Resources Monitoring for
the Argonaut Mine Removal Action

BROADBENT
Date: 8/17/2021
Project #: 14-02-136/4102

Datum: NAD 1983 UTM Zone 10N Basemap: USGS - USDA National Agriculture Imagery Program (NAIP), 6/20/2016





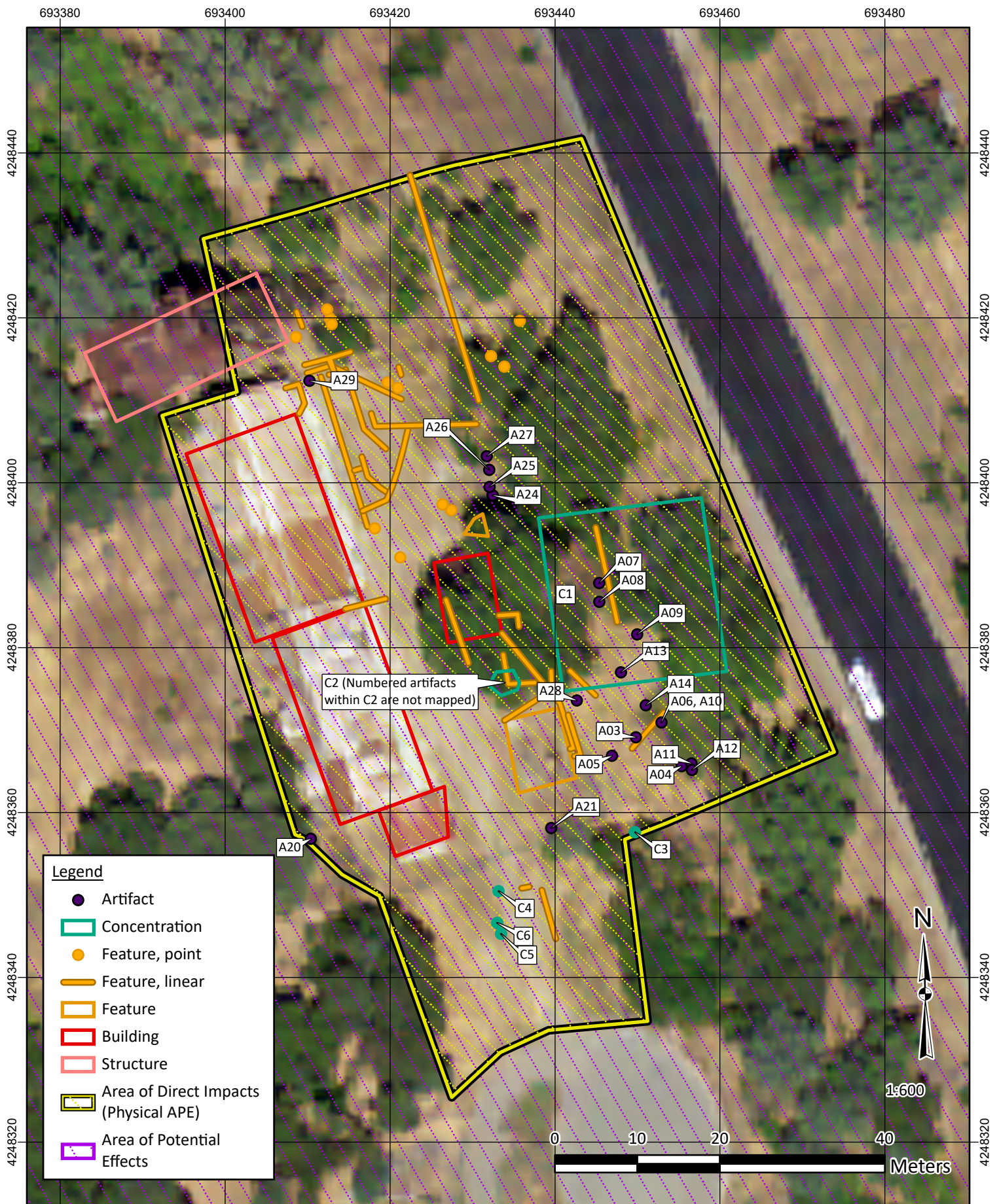


Map 5: Resource Location Map
(Physical APE
Features, Buildings, and Structures)

Cultural Resources Monitoring for
the Argonaut Mine Removal Action

BROADBENT
Date: 8/17/2021
Project #: 14-02-136/4102

Datum: Basemap: USGS - USDA National Agriculture Imagery Program (NAIP), 6/20/2016



Map 6: Resource Location Map
(Physical APE
Artifacts and Concentrations)

Cultural Resources Monitoring for
the Argonaut Mine Removal Action

BROADBENT
Date: 8/17/2021
Project #: 14-02-136/4102

Datum: NAD 1983 UTM Zone 10N Basemap: USGS - USDA National Agriculture Imagery Program (NAIP), 6/20/2016

APPENDIX B

Supplemental

DPR Record for

CA-AMA-208H

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Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

*Recorded by: Broadbent & Associates, Inc.

*Date 06/01/2021 – 07/05/2021

☐ Continuation ☒ Update

This is an update to the archaeological site record for CA-AMA-208/H, the Argonaut Mine Industrial District (District).

Between June 1 and July 5, 2021, the EPA conducted a time-sensitive removal action (short term cleanup) of lead and arsenic contaminated sediment at the Argonaut Mine. To ensure that this action did not result in adverse effects to the historic property, a Broadbent archaeological monitor was present during new surface and ground disturbing activities. The monitor's role was to ensure avoidance of the eligible and contributing components of the District and to identify and assess subsurface features discovered during sediment removal.

The Area of Potential Effects for direct physical effects (physical APE) for the removal action was 1.37 acres in the Industrial Area of the mine, on the west side of CA-49/88 (see supplemental Site Location Map, page 21). The APE for non-physical and cumulative effects was the 21.6-acre District.

Multiple surface resources are within the physical APE for the 2021 removal action: Building 02 (Mine office); Building 03 (Machine Shop); Building 04 (Compressor House); Building 05 (Steel Shop); Structure 01 (Headframe); Feature 08 (Assay Office Foundation); Feature 09 (Steam Boiler Pad); Feature 10 (Retaining Wall); and Concentration 01 (Crucible Deposit).

Activities within the physical APE included the excavation of at least one vertical foot of surface sediment, capping with clean sediment and/or gravel, and removal of modern hazardous materials from standing buildings and structures. Hazardous materials were removed from Building 04 (Compressor House), Structure 01 (Headframe), and Feature 08 (Assay Office Foundation). The EPA determined that because the materials post-dated the operations of the mine, their removal was not an adverse effect to the District.

Eighteen vertical inches of lead-contaminated sediment and crucible fragments were removed from the surface of Concentration 01; the remaining portion was capped with clean gravel.

The project removed at least one vertical foot of sediment from the surface of the physical APE. In some cases, such as on the slope overlooking CA-49/88, the depth of excavation was up to four feet below surface. The excavation resulted in the identification of 37 subsurface features, five subsurface artifact concentrations, and over 100 historic artifacts. Of these, 28 were individually recorded as unique or diagnostic examples of their type. No artifacts were collected.

Subsurface features, concentration, and artifacts are part of the archaeological component of the District, which is a contributing element of the historic property. The subsurface components are described in the following continuation sheets, and are shown in the supplemental Site Sketch Maps (pages 22-24).

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☐ Continuation ☒ Update

Subsurface Features

During the removal action, 37 subsurface features and five subsurface artifact concentrations were identified. These features are summarized in Table 01 below; detailed descriptions follow.

Table 01: Summary of Subsurface Features

Feature #	Description	Year Constructed	Depth below Surface
Feature 30	Four-inch diameter metal pipe	1912-1942	12 in.
Feature 31	Wooden plank	Unknown	12 in.
Feature 32	Wooden plank	Unknown	12 in.
Feature 33	Pair of one-inch diameter metal pipes	1930-1942	12 in.
Feature 34	Two-inch diameter metal pipe	Post-1898	12 in.
Feature 35	Two-inch diameter metal pipe	1930-1942	12 in.
Feature 36	Concrete footing	Unknown	12 in.
Feature 37	Two-inch diameter metal pipe	Post-1898	12 in.
Feature 38	One-inch diameter metal pipe	Post-1898	12 in.
Feature 39	One-inch diameter metal pipe	1930-1942	12 in.
Feature 40	Concrete foundation or footing	Unknown	12 in.
Feature 41	Three-inch diameter metal pipe	1930-1942	12 in.
Feature 42	Six-inch diameter metal pipe	1912-1942	6 in.
Feature 43	Spigot head and pipe	Post-1898	10 in.
Feature 44	Concrete drain or channel	1912-1920	2 in.
Feature 45	Three-inch diameter metal pipe	Post-1898	12 in.
Feature 46	Pair of one-inch diameter metal pipes	1912-1942	12 in.
Feature 47	Narrow gauge rail track	1894-1930	12 in.
Feature 48	12-inch diameter metal pipe	1912-1942	6 in.
Feature 49	Two-inch diameter metal pipe	Post-1898	8 in.
Feature 50	Steel metal plate covering with wooden board covering	Post-1914	12 in.
Feature 51	One-inch metal pipe	Post-1914	12 in.
Feature 52 (a, b, c)	Three concrete footings	Pre-1914	6 in.
Feature 53	Metal Fixture	Post-1914	12 in.
Feature 54	Two-inch diameter metal pipe	Post-1914	12 in.
Feature 55	Four-inch diameter metal pipe	Post-1914	6 in.
Feature 56	Pair of one-inch diameter metal pipes	Post-1898	18 in.

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Feature #	Description	Year Constructed	Depth below Surface
Feature 57	Set of four metal pipes	Post-1898	18 in.
Feature 58	Small concrete footing	Post-1898	6 in.
Feature 59	Three-inch diameter metal pipe	Post-1898	12-in
Feature 60	Large concrete footing	Unknown	4 in.
Feature 61	Four-inch diameter metal pipe	1912-1942	4 in.
Feature 62	Two and one half-inch diameter metal pipe	Post-1898	2 in.
Feature 63	Two-inch diameter metal pipe	Post-1898	2 ft.
Feature 64	Stacked rock retaining wall	Post-1898	Surface
Feature 65	Two-inch diameter metal pipe	Post-1898	8 in.
Feature 66	Concrete and metal vault box	Post-1914	1 in.

Feature 30: This is a four-inch diameter metal pipe. This pipe is one foot below surface, one foot east of Building 04 (Compressor House). It parallels the eastern wall of the building for at least 118 feet; its total extent is not known. An elbow joint connects the pipe to a spigot that is built into the wall of Building 04. The pipe was reburied in place.

The pipe is an intact part of the infrastructure of the Industrial Area of the Argonaut Mine. It is directly connected to Building 04. Building 04 was constructed between 1912 and 1920 (Sanborn Map Company 1912, 1930; California State Library 1920) and expanded to its current extent between 1930 and 1942 (Sanborn Map Company 1930). It is likely that this pipe was laid between when the building was constructed (between 1912 and 1920) and when the mine ceased operations in 1942.

Feature 31: This is a deteriorated wooden plank. It is one foot below surface, five feet east of Building 04 (Compressor House). Fragments of the plank are scattered in a rectangular impression that is six inches wide and three feet long. It is two feet north of Feature 32, another deteriorated wooden plank. Both planks are oriented east-west, parallel to each other and perpendicular to Building 04. The plank was reburied in place.

The plank is not directly associated with any specific buildings or surficial features. It is in poor condition, and its original function cannot be determined. It may be contemporaneous with Feature 32, however its age and association with the historic operations of the Argonaut Mine are unknown.

Feature 32: This is a deteriorated wooden plank, similar to Feature 31. It is one foot below surface, five feet east of Building 04 (Compressor House). Fragments of the plank are scattered in a rectangular impression that is six inches wide and three feet long. It is two feet south of Feature 31. The plank was reburied in place.

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The plank is not directly associated with any specific buildings or surficial features. It is in poor condition, and its original function cannot be determined. It may be contemporaneous with Feature 31, however its age and association with the historic operations of the Argonaut Mine are unknown.

Feature 33: This feature is a pair of parallel one-inch diameter metal pipes. The pipes are one foot below surface, six and a half feet east of Building 04 (Compressor House). The pipes have north-south and east-west oriented segments linked by elbow joints. The north-south segments are parallel to the eastern wall of Building 04, and the east-west segments are between Building 04 and Feature 09 (Steam Boiler Pad). The pipe continues underground, and its total length is unknown.

The pipes are intact parts of the infrastructure of the Industrial Area of the Argonaut Mine. While their age is not known, it is probable that they post-date the industrial expansion of the mine that began in 1898, and it is likely that they are functionally related to Feature 09, a boiler pad that was constructed by 1930 and in use through 1942.

Feature 34: This is a two-inch diameter metal pipe segment with a threaded fitting. It is vertically embedded in the ground, nine inches below surface, 52 feet east of Building 04 (Compressor House). It was exposed down to one foot below surface; its total depth is not known. The top of the fitting is sheared off. The pipe was reburied in place.

The pipe is an intact part of the infrastructure of the Industrial Area of the Argonaut Mine. It is not directly associated with any specific buildings or surface features. The pipe was sheared off prior to the removal action, and its original function is not known. It is probable that it post-dates the industrial expansion of the mine that began in 1898.

Feature 35: This is a two-inch diameter metal pipe. It is one foot below surface, 10 feet south of Structure 01 (Headframe). It is aligned north-south between Structure 01 and the northern wall of Building 04 (Compressor House). The pipe includes an elbow joint that allows it to angle southeast towards Feature 09 (Steam Boiler Pad). About 30 feet of the pipe was exposed; its full extent is not known. Its southeastern alignment intersects Feature 36, a concrete pad. The pipe was reburied in place.

The pipe is an intact part of the infrastructure of the Industrial Area of the Argonaut Mine. Its orientation suggests that it is related Feature 09, a steam boiler pad that was constructed by 1930 and in use through 1942.

Feature 36: This feature is a concrete footing. It is one foot below surface, about 20 feet east of Building 04 (Compressor House). The footing originally consisted of two poured concrete blocks separated by a two-inch gap. The blocks were each six inches long and about two feet wide.

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Threaded metal bolts are vertically embedded in both blocks. The blocks are broken in half diagonally; Feature 35 (pipe) is between the two halves. The footing was reburied in place.

The ages of Features 35 and 36 are not known, though it is probable that the pipe was laid after the footing was abandoned. It is not clear if the footing was broken before or during the placement of the pipe. The threaded bolts indicate that the footing originally supported a structure or piece of machinery that has been removed. The footing is not directly associated with any specific buildings or standing features, and its original function is unknown.

Feature 37: This is a two-inch diameter metal pipe. It is one foot below surface, about 40 feet east of Building 04 (Compressor House). The pipe is oriented north-south, parallel to the eastern wall of Building 04 and to three other pipes (Features 30, 33, 38). It is at least two feet long; its southern end is broken, and its northern end continues underground. It was reburied in place.

The pipe is a part of the infrastructure of the Industrial Area of the Argonaut Mine. It is parallel to other pipes and may be part of a related system. While its age is unknown, it is probable that it post-dates the industrial expansion of the mine that occurred after 1898.

Feature 38: This is a one-inch diameter metal pipe. It is one foot below surface, about 40 feet east of Building 04 (Compressor House). The pipe is aligned north-south, parallel to the eastern wall of Building 04 and to three other pipes (Features 30, 33, 37). Feature 38 is corroded and in poor condition. It is intact for at least one foot and continues underground. Its full extent is not known. The pipe was reburied in place.

The pipe is a part of the infrastructure of the Industrial Area of the Argonaut Mine. It is parallel to other pipes and may be part of a related system. While its age is unknown, it is probable that it post-dates the industrial expansion of the mine that occurred after 1898.

Feature 39: This is a one-inch diameter metal pipe. It is one foot below surface, about 11 feet east of Building 04 (Compressor House). It includes two segments, one aligned north-south and one aligned southeast, connected by an angled elbow joint. The north-south segment parallels the eastern wall of Building 04 for about five feet. The southeastern segment is about 26 feet long. It terminates in a spigot that is embedded in Feature 09 (Steam Boiler Pad). The pipe was reburied in place.

This pipe is directly connected to Feature 09 via a spigot. It may have been part of the water conveyance system for the boiler or a related piece of equipment. This pipe was laid between when Feature 09 was constructed around 1930 and the closure of mine in 1942.

Feature 40: This is a concrete footing, six inches wide by five feet long, oriented east-west. It is one foot below surface, about five feet east of Building 04 (Compressor House). The eastern edge of the foundation is broken, and Feature 41 (pipe) lies six inches to the east of the break. The western

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edge is intact. The feature has no embedded bolts, though fragments of wood were observed on it during excavation. The feature was reburied in place.

The original function of this feature is not known; it is not directly related to any standing buildings or surficial features, and it has no superstructure. While it is likely part of the historic mining operations, its age and purpose within the mine system cannot be determined.

Feature 41: This is a three-inch diameter metal pipe. It is one foot below surface, about 13 feet east of Building 04 (Compressor House), six inches east of Feature 40 (concrete footing). The pipe includes a north-south oriented segment and a southeast oriented segment, connected by an angled elbow joint. The north-south segment parallels Building 04 for about five feet. The southeast segment is angled towards Feature 09 (Steam Boiler Pad). The pipe continues underground and its full extent is not known. The pipe was reburied in place.

The pipe is an intact part of the infrastructure of the Industrial Area of the Argonaut Mine. While its age is not known, the pipe likely post-dates the expansion of the mine that began in 1898. The pipe very likely is related to Feature 09, which was constructed by 1930 and in use through 1942.

Feature 42: This is a six-inch diameter metal pipe. It is six inches below surface, oriented east-west, perpendicular to the southeast corner of Building 04 (Compressor House). The pipe extends two feet from the building, where it has been cut. A modern PVC pipe, oriented north-south, is six inches from the cut end of the metal pipe. The PVC pipe was removed during the remediation, and the metal pipe was reburied in place.

The pipe is a part of the infrastructure of the Industrial Area of the Argonaut Mine, connected to Building 04. It is contemporaneous with the building, which was constructed between 1912 and 1920, and remained in use through 1942. The pipe has been cut, possibly to accommodate the modern PVC pipe. Its original extent and function cannot be determined.

Feature 43: This is a one-inch-diameter metal pipe and spigot head, vertically embedded in the ground. The top of the spigot is 10 inches below surface, and it was exposed to a depth of one foot. The spigot is about 12 feet east of Building 04 (Compressor House). The vertical segment of the pipe joins an elbow joint that connects it to a horizontal segment that is oriented towards Building 04. The horizontal segment is six inches long and terminates in a rough break. The feature was reburied in place.

The feature is a part of the infrastructure of the Industrial Area of the Argonaut Mine. It is oriented towards, but not directly connected to, Building 04. While its age is not known, it is likely that it was laid after the industrial expansion of the mine that began in 1898.

Feature 44: This is an enclosed rectangular concrete channel. It is oriented east-west, between Building 04 (Compressor House) and Feature 09 (Steam Boiler Pad). The top of the feature was exposed two inches below the ground surface. When initially exposed, the feature appeared to be

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a rectangular concrete pad set at ground level, however a metal drain cover (Feature 44a) located along the southern margin exposed a hollow subterranean interior. The channel is set perpendicular to the southeastern corner of Building 04. From the building, it continues east, where it joins a recessed rectangular catchment area between Building 05 (Steel Shop) and Feature 09. The portal was blocked by debris. The exposed top of the feature is eight feet wide and 80 feet long. A full investigation of this feature was beyond the scope of the current undertaking. It was reburied in place with clean gravel.

This feature likely functioned as a drain or underground pipeline channel between the Compressor House and the Steel Shop. The original function of the recessed area between Feature 09 and Building 05 is not known, however there are large pipes set in the foundation of Building 05 that are oriented towards this area. It may have contained a piece of machinery that was connected to either or both buildings via the underground channel.

Alternately, the channel could have functioned as a drain to the slope east of the main Industrial Area. Sanborn maps of the Argonaut Mine show a "Change and Wash House" in the western part of the Industrial Area in 1912; by 1930 the "Wash Room and Change Room" have been moved to the eastern part of the complex (Sanborn Map Company 1912, 1930). While the location of this feature with respect to the mapped buildings in 1912 and 1930 can only be approximated, it is possible that the channel was used as a drain for these facilities.

Today, the channel is known locally as "the tunnel." Residents and property owners reported that the tunnel was closed off with rock and debris to prevent trespassers from accessing Building 04; this demonstrates that the channel is large enough for a person to crawl through and that it opens into the building. The age of the channel is not known, however it was likely constructed between 1912 and 1920, at the same time as Buildings 04 and 05.

Feature 45: This is a three-inch diameter metal pipe with associated fill material. The fill material is sandy and darker in color than surrounding sediment. It was exposed one foot below surface, about four feet west of Building 05 (Steel Shop). The fill material is oriented north-south; it parallels the west wall of the building for 35 feet. A trowel probe confirmed that a three-inch diameter metal pipe was buried under the fill material, about 13 inches below surface. At its northern extent, the feature terminates at Feature 44 (concrete channel). Its southern extent is not known. The feature was reburied in place.

The pipe is an intact part of the infrastructure of the Industrial Area of the Argonaut Mine. It parallels Building 05, however its function is unknown. It likely post-dates the industrial expansion of the mine that began in 1898.

Feature 46: This feature is a pair of one-inch diameter metal pipes. They are one foot below surface, oriented north-south between Building 05 (Steel Shop) and Feature 08 (Assay Office Foundation). The pipes parallel each other for ten feet south of Building 05. The easternmost of the two has an elbow joint that allows the pipe to continue to the east, towards the slope that

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overlooks CA-49/88. The westernmost pipe continues south towards Feature 08. The eastern segment was in poor condition. A two-foot portion of this segment was removed during excavation for safety reasons; the rest was reburied in place.

This set of pipes appears related to Building 05 and/or Feature 08, though their specific function cannot be determined. The pipes are likely contemporaneous with Building 05, which was constructed between 1912 and 1920 and remained in use through 1942. While a portion of the pipe was removed, the majority of the feature is intact and its original alignment was maintained. For this reason, the EPA determined that the removal was not an adverse effect to the Argonaut Mine Industrial District.

Feature 47: This feature represents the remains of a narrow-gauge rail track through the Industrial Area. It was identified one foot below surface, east of Building 03 (Machine Shop). It consists of remnant cross-tie impressions, wood fragments, displaced narrow gauge rails, and a possible remnant turntable. The individual cross-tie impressions are roughly one foot wide by five feet long, spaced at four-foot intervals. They are in two alignments: a longer north-south alignment of 24 cross-tie impressions that parallels the row of buildings, and a short east-west alignment of two cross-ties that provides direct access to a set of intact narrow-gauge rails set into the concrete floor of Building 03 (Machine Shop).

Within Building 03, the narrow-gauge rails are set in the concrete floor from the main door to the rear of the building. Outside the door, one foot below surface, there are two cross-tie impressions that would have supported track between the door and the north-south track alignment. At the juncture between the two alignments, there is a shallow circular depression. The depression is about five feet in diameter and filled with disturbed, mixed sediment and structural debris. A small semi-circular steel plate fragment is included in the fill. This depression may represent a small turntable that would have allowed carts to rotate between the two tracks.

The north-south alignment of the tram tracks was exposed between the southern edge of Feature 44 (concrete channel) to the edge of the excavated area, about 20 feet north of the cul-de-sac at the north end of Spunn Road. The impressions have varying levels of preservation; some contain intact wooden boards while others are evident only by color changes in the sediment. Three concentrations of displaced brick fragments (Concentrations 04-06) were recorded along the length of the track, between sets of cross-tie impressions. Three displaced narrow gauge steel rails were located about six inches below surface on the western side of the track, near Building 02. The feature and its associated artifacts were reburied in place.

While this set of tracks is not documented on Sanborn Fire Insurance Maps, it can be identified in historic photographs. A photo taken between 1900 and 1914 shows multiple sets of tracks passing the east side of the original wooden headframe and continuing south into the site (McCurry Foto Co. 1915). Another image taken in 1930 shows a set of narrow-gauge rails extending from the Industrial Area (which includes Building 03) towards the Carpenter and Timbering Shop north of the gallows headframe (California State Library 1930).

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Because neither photo shows the relationship between the track and Building 03, it is not possible to determine whether Feature 47 represents a track built in the early 1900s or a later construction. It is also not clear whether the 1900s photograph and the 1930s photographs show the same track or different tracks in use through time. Based on the evidence available, we estimate that this track was laid between 1894, when the original wooden headframe was constructed, and 1930.

Feature 48: This is a 12-inch diameter metal pipe. It is between six inches and one foot below surface and is oriented east-west. The pipe extends east from the alley between Buildings 03 and 04 (Machine Shop and Compressor House) towards Building 05 (Steel Shop). It was exposed for 15 feet, continuing underground to the east. The feature was reburied in place.

The pipe is an intact part of the infrastructure of the Industrial Area of the Argonaut Mine, located between Buildings 03 and 04. While no direct connection between the pipe and the buildings was exposed during the excavation, it is probable that it was related to one or both of them. It is likely contemporaneous with the buildings, which were constructed between 1912 and 1920 and remained in use until 1942.

Feature 49: This is a two-inch diameter metal pipe. It is eight inches below surface, about five feet east of Feature 08 (Assay Office Foundation). The pipe is oriented north-south, parallel to the outer eastern edge of the foundation. It is at least 10 feet long, continuing underground to the north towards Building 05 (Steel Shop). Its southern end was broken. Excavators lifted the pipe to remove contaminated sediment underneath it and then replaced and reburied it.

The pipe is a part of the infrastructure of the Industrial Area of the Argonaut Mine, likely related to Feature 08 and/or Building 05. Its age is unknown, however it is probable that it was laid after the industrial expansion of the mine that occurred in 1898.

Feature 50: This feature is a metal plate with wooden boards, at the base of Structure 01 (Headframe). The plate has a two-inch vertical lip that separates it into an upper and lower portion. Both portions are 3-x-3-feet. The upper portion is 10 inches below surface, while the lower portion is one foot below surface. Three remnant wooden boards were set across the lower portion of the plate. The plate was not removed, and the feature was reburied in place.

Light impacts to the upper portion of the plate produced an echo that suggest a hollow area is beneath it. However, because the plate was not removed, its function and what lies beneath it is unknown. The purpose of the wooden boards on the lower portion of the plate is also unknown, as the boards are in poor condition and do not retain their original configuration. The feature is likely related to Structure 01, and post-dates the construction of the gallows headframe in 1914.

Feature 51: This is a one-inch diameter metal pipe. It is one foot below surface, underneath Structure 01 (Headframe). The pipe extends south from the headframe for six feet, terminating in a break. The pipe was corroded and in poor condition. It was reburied in place.

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The pipe is a part of the infrastructure of the Industrial Area of the Argonaut Mine. It is likely associated with the headframe, though its specific function is unknown. It is probable that the pipe was laid after the headframe was constructed in 1914.

Feature 52: This feature is a row of three concrete footings (Features 52a, b, and c), located six inches below surface, underneath Structure 01 (Headframe). The footings are square, eight inches to a side, and are set at four-foot intervals. Their full height and depth are not known; they were exposed down to one foot below surface. Each footing has a circular metal fitting set into the top. The southernmost of the three (Feature 52c) also has an intact threaded metal bolt set in place in the fitting. The bolts have been removed from the other two. The footings were re-buried in clean gravel.

Given that these footings are aligned with the base of the gallows headframe, it is possible that they represent a component of the original wooden headframe that was replaced in 1914. Historic photos do not show the base of the original headframe in sufficient detail to confirm this, however it is probable that these footings pre-date the construction of Structure 01 in 1914.

Feature 53: This feature is a diamond-shaped metal plate embedded in the ground. It is one foot below surface, four inches south Structure 01 (Headframe). A single threaded metal bolt is set vertically in the center of the plate. The plate is located directly below a displaced set of wires and ceramic electrical insulators, attached to the base of Structure 01. The plate is not directly connected to the wiring system. The feature was reburied in place.

The original function of this feature is not known, though given its proximity to the headframe and the exposed wiring, it is possible that it was part of a tie bolt or grounding rod. It is probable that the feature is functionally related to the gallows headframe, and that it was placed after the headframe was constructed in 1914.

Feature 54: This is a two-inch diameter metal pipe. It is one foot below surface, 10 feet south of Structure 01 (Headframe). A 10-foot segment of the pipe extends east from the base of the headframe. The end of this segment has a T-shaped elbow joint that allows one segment to continue east and underground, while another segment extends to the south. The southern segment is attached to Feature 66 (concrete valve box). Feature 35 (pipe) overlies Feature 54. The features were reburied in place.

The pipe is an intact part of the infrastructure of the Industrial Area of the Argonaut Mine. It is functionally related to Feature 66 and Structure 01 and may have been a component of the watering/dewatering systems that served the mine. It is likely that it was laid after the gallows headframe, which was built in 1914.

Feature 55: This is a four-inch diameter metal pipe. It is six inches below surface, between Structure 01 (Headframe) and Building 04 (Compressor House). A five-inch segment of the pipe is

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oriented east-west in the alley between Structure 01 and Building 04; it continues west and underground towards the building. The pipe has two elbow joints that allow it to continue north and then west towards the base of Structure 01. The pipe was reburied in place.

The pipe is an intact part of the infrastructure of the Industrial Area of the Argonaut Mine. It is set between Building 04 and Structure 01 and appears to continue under Structure 01. While its function is not known, it is likely that it is related to Structure 01 and/or Building 04. It is probable that the pipe was laid after the gallows headframe was constructed in 1914.

Feature 56: This feature is a pair of one-inch diameter metal pipes. They are 18 inches below surface, immediately south of Building 05 (Steel Shop). The pipes are parallel to each other, oriented north-south. They extend south from the building for 27 feet, along the outer edge of Feature 08 (Assay Office Foundation). They join a set of fittings that attach to pipes connected to Artifact 01, the standing assay furnace bolted to the foundation. The pipes were reburied in place.

The pipes are an intact part of the infrastructure of the Industrial Area of the Argonaut Mine, related to Feature 08 and Building 05. The assay office is identified on Sanborn Fire Insurance Maps of the Argonaut Mine in 1898, though a building is shown here as early as 1895 (Sanborn Map Company 1895, 1898). This set of pipes was likely laid after 1898, when the building was established as an assay office.

Feature 57: This feature is a set of four metal pipes. It is 18 inches below surface, north of Feature 08 (Assay Office Foundation). The pipes are oriented at a 210-degree angle between the northeastern corner of Feature 08 and the southern wall of Building 05 (Steel Shop). The pipes have angled elbow joints that allow them to continue north underneath the building. The set includes a pair of two-inch diameter pipes and a pair of one-inch diameter pipes. The smaller pair is between the larger pair. The pipes were exposed for eight feet; their full extent is unknown. They were reburied in place.

The pipes are an intact part of the infrastructure of the Industrial Area of the Argonaut Mine. The pipes are set between Feature 08 and Building 05, though their function is not known. The pipes likely post-date the industrial expansion of the mine that occurred after 1898.

Feature 58: This is a concrete footing. It is six inches below surface, about four feet west of Feature 09 (Steam Boiler Pad). The footing is rectangular, six inches wide and 12 inches long. It was exposed down to one foot below surface; its total depth is not known. The footing does not have attached fixtures or bolts. It was reburied in place.

The function of this footing is not known. It is located near Feature 09, but there is no clear functional relationship. While it is likely associated with the operations of the mine post-dating 1898, its age is unknown.

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Feature 59: This is a two-inch diameter metal pipe. It is one foot below surface, about 15 feet north of the cul-de-sac at the end of Spunn Road. It is outside the modern exclusion fence that surrounds the mine buildings. The pipe is oriented north-south; it was exposed for eight feet and continues underground in both directions. It was reburied in place.

The pipe is an intact part of the infrastructure of the Industrial Area of the Argonaut Mine. It is not directly connected to any specific standing buildings or features. While its age is not known, it is probable that it post-dates the industrial expansion of the mine that occurred in 1898.

Feature 60: This is a poured concrete footing that was removed during the remediation. It was between four and 16 inches below surface, about six feet east of Feature 08 (Assay Office Foundation) on the edge of the slope overlooking CA-49/88. The footing is eight feet long, three feet wide, and one foot tall. The top of the footing has three rectangular surfaces, separated by rectangular gaps that are six inches wide and five inches deep. On the sides of the footing, there are two square holes, four inches wide and four inches deep. The gaps and holes have wood fragments and wire nails associated, suggesting that they accommodated wooden boards or posts. The footing has no remaining superstructure.

The footing is not associated with any specific standing buildings or structures, and its original function is not known. The feature was removed during the remediation to allow the excavator to construct an access road on the slope. Because the feature did not convey its original function within the Argonaut Mine system, the EPA determined that its removal was not an adverse effect to the Argonaut Mine Industrial District. The footing was documented in place by the archaeological monitor prior to removal.

Feature 61: This is a four-inch diameter metal pipe. It is four inches below surface, east of Building 05 (Steel Shop). The pipe extends east from the building for six feet. A 90-degree elbow fitting allows the pipe to continue to the south for an additional four feet. Its southern end is broken.

A two-inch portion of the pipe was removed to allow the excavator to construct an access road down the slope towards CA-49/88. Because the majority of the pipe remained intact and its original configuration was maintained, the EPA determined that this was not an adverse effect to the Argonaut Mine Industrial District.

The pipe is a part of the infrastructure of the Industrial Area of the Argonaut Mine that appears to be associated with Building 05. Its age and specific function are not known, but it likely post-dates Building 05, which was constructed between 1912 and 1920 and remained in use through 1942.

Feature 62: This is a two and one half-inch diameter metal pipe. It is two inches below surface, about 15 feet north of the cul-de-sac at the end of Spunn Road. It is outside the exclusion fence that surrounds the mine buildings. The pipe is oriented east-west. It was exposed for about five feet; the western end terminates in an elbow joint, and the eastern portion continues underground. The pipe was reburied in place.

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The pipe is a part of the infrastructure of the Industrial Area of the Argonaut Mine. It is not directly associated with any specific standing buildings or structures. While its age and function are not known, it likely post-dates the industrial expansion of the mine that occurred after 1898.

Feature 63: This is a two-inch diameter metal pipe. It is two feet below surface, east of the southeast corner of Building 05 (Steel Shop), on the slope overlooking CA-49/88. The pipe extends east from the building for about four feet. It is bent and in poor condition.

A one-foot portion of the pipe was removed to allow the excavator to construct an access road down the slope towards CA-49/88. Because the majority of the pipe remained intact and its original configuration was maintained, the EPA determined that this was not an adverse effect to the Argonaut Mine Industrial District.

The pipe is a part of the infrastructure of the Industrial Area of the Argonaut Mine that appears to be associated with Building 05. Its age and specific function are not known, but it is likely contemporaneous with Building 05, which was constructed between 1912 and 1920 and remained in use through 1942.

Feature 64: This is a stacked rock retaining wall, located on the slope overlooking CA-49/88. It is made of local cobbles, stacked in six to seven courses, approximately five feet high. It is at least 12 feet long, oriented north-south. Its full extent is obscured by dense vegetation.

The wall was identified during the cut-and-fill construction of an access road down the slope. It was partially buried and otherwise avoided. The wall is similar to Feature 10, a stacked rock retaining wall located east and downslope of Structure 01 (Headframe). The age of these walls is not known, however it is likely that they post-date the industrial expansion of the mine that occurred after 1898.

Feature 65: This is a two-inch diameter metal pipe. It is eight inches below surface, about ten feet east of Feature 08 (Assay Office Foundation), on the slope overlooking CA-49/88. The pipe is oriented east-west and is at least six feet long. It continues underground to the west. The eastern end is broken.

A two-foot portion of the pipe was removed to allow the excavator to construct an access road down the slope towards CA-49/88. Because the majority of the pipe remained intact and its original configuration was maintained, the EPA determined that this was not an adverse effect to the Argonaut Mine Industrial District.

The pipe is a part of the infrastructure of the Industrial Area of the Argonaut Mine. It may be related to Feature 08, however it is not directly connected to any standing buildings or features. Its age and function are not known, though it is probable that it post-dates the industrial expansion of the mine that occurred after 1898.

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Feature 66: This feature is a poured concrete vault box with a metal lid. The top of the box is on the surface. It was exposed to one foot below surface; its full depth is not known. The box is rectangular, four feet long and three feet wide, oriented north-south. The metal lid is three feet long and two feet wide. Feature 54, a pipe, is attached to north side of the vault box, 12 inches below the top. The box was reburied in place.

This box is connected to one intact pipe, which is oriented towards Structure 01 (Headframe). It is possible that the box was connected to the watering/dewatering system for the mine. Its age is not known, but it is likely that it post-dates the construction of the gallows headframe in 1914.

Subsurface Artifacts

The 2021 removal action exposed small concentrations of historic and modern debris associated with the operation of the mine, its abandonment, and subsequent modern uses, e.g., camping. Unique and diagnostic artifacts were recorded; no materials were collected.

Five subsurface concentrations (Concentrations 02-06) were located, and twenty-eight unique and diagnostic artifacts (Artifacts 02-30) were recorded.

Concentration 02: This 9-x-12-foot concentration is a deposit of approximately 40 artifacts, including complete glass bottles and jars, broken colorless glass fragments, pipe fragments, large battery cores, and miscellaneous scrap metal. It is one foot below surface, located between Building 05 (Steel Shop) and Feature 08 (Assay Office Foundation). Artifacts 15-19, 22-23 were within this concentration. The artifacts date from the late 1800s through the 1920s.

Concentration 03: This 3-x-3-foot concentration is a deposit of approximately 10 ceramic crucibles. It is located one foot below surface, about one foot south of the southeast corner of Feature 08 (Assay Office Foundation) and approximately three and half feet east of Artifact 01, the standing assay furnace on the foundation. No other artifacts were observed in the concentration. The artifacts were likely encountered in or near the place they were discarded from Feature 08.

Concentration 04: This 3-x-3-foot concentration is a deposit of approximately 20 brick fragments. It is one foot below surface, located within Feature 47 (narrow-gauge rail track). The bricks are between two cross-ties for the track. They are fragmentary and lack internal organization.

This concentration of brick fragments may have been used as fill material along the track, or it may have been deposited after the track was abandoned. Its age is unknown. This Concentration is similar to and possibly contemporaneous with Concentrations 05 and 06. This is the northernmost of the three deposits.

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Concentration 05: This 3-x-3-foot concentration is a deposit of approximately 12 brick fragments. It is one foot below surface, located within Feature 47 (narrow-gauge rail track). The bricks are between two cross-ties for the track. They are fragmentary and lack internal organization.

This concentration of brick fragments may have been used as fill material along the track, or it may have been deposited after the track was abandoned. Its age is unknown. This Concentration is similar to and possibly contemporaneous with Concentrations 04 and 06.

Concentration 06: This 3-x-3-foot concentration is a deposit of approximately 12 brick fragments. It is one foot below surface, located within Feature 47 (narrow-gauge rail track). The bricks are between two cross-ties for the track. They are fragmentary and lack internal organization.

This concentration of brick fragments may have been used as fill material along the tram track, or it may have been deposited after the track was abandoned. Its age is unknown. This Concentration is similar to and possibly contemporaneous with Concentrations 04 and 05. This is the southernmost of the three deposits.

Artifact 03: Complete automatic bottle machine-made (ABM) brown glass bottle with crown cap finish. The body and base are stippled with embossing on both the shoulder and base. The base is embossed "20 Diamond-OI 49/ 1C ./ Duraglas [script]/ I-WAY/ 11GB". The shoulder is embossed "NOT TO BE REFILLED//NO DEPOSIT [STAR] NO RETURN." The "49" date code indicates that the bottle was produced in 1949 (Lockhart and Hoenig 2018:300), after the official closure of the mine.

Artifact 04: Complete ABM brown glass bottle with continuous threaded finish and tapered neck. The neck is embossed with the Anheuser-Busch Eagle [x4] and the heel is embossed "Circle-BB 07 PLEASE DON'T LITTER" [x2]. The base is stippled and embossed "2". This bottle style was introduced by Anheuser-Busch in 1964 (Schulz et al. 2019:25) and embossing mentioning littering was first introduced by the Northwestern Glass Co. in 1970. This bottle likely dates between 1973 and the early 1980s (Schulz et al. 2019).

Artifact 05: Complete ABM colorless glass medicine bottle with prescription finish. The shoulder is embossed with a "2", and the base is embossed with a crescent moon shape. Its manufacture date is unknown.

Artifact 06: Complete ABM colorless glass medicine bottle with prescription finish. The base is embossed "6 [Square-O] 5" and the shoulders are embossed with dram and CC measurements. This bottle was produced by the Owens Bottle Company between 1920 and 1929 (Briggs 2010:202).

Artifact 07: Complete ABM colorless glass condiment bottle with fluted body and cap finish. The base is embossed "H-257/ H-over-A [monogram]". This bottle was produced by the Hazel-Atlas Glass Company between 1923 and 1982 (Lockhart et al. 2015).

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Artifact 08: Almost complete ABM colorless glass medicine bottle. The finish is broken. The base is embossed "OWENS/ Diamond-OI / 4" and the shoulder is embossed with dram and CC measurements. This bottle was produced by the Owens-Illinois Glass Company likely after the merger of the Owens Bottle Company and the Illinois Glass Company in 1929, when old molds continued to be used (Lockhart and Hoenig 2018). By the end of 1949, "OWENS" was removed from the base of bottles (Lockhart and Hoenig 2018).

Artifact 09: Complete ABM "Coca-Cola" green glass bottle with a hobble-skirt shape and a crown cap finish. The base is embossed "JACKSON/ CALIF." The body is embossed "COCA-COLA [script]/ TRADEMARK REGISTERED/ BOTTLE PAT'D DEC. 25 1923// COCA-COLA [script] TRADEMARK REGISTERED/ MIN CONTENTS 6-FL. OZS". This "Christmas Coke," bottle dates between 1923 when the patent was first issued and 1937 when the company renewed the patent (The Coca-Cola Company 2021).

Artifact 10: Complete colorless glass bottle with capseat finish. The base is stippled and embossed "7 Diamond-O-I 2/ 6". The date code "2" indicates that the bottle was produced in 1932, 1942, or 1952 (Lockhart and Hoenig 2018).

Artifact 11: Complete mold-made colorless glass bottle with applied finish. It has a ¾-inch diameter mouth. A salt-like accretion was observed inside the bottle. The base is embossed "W.T.CO." This is an acid bottle produced by Whitall Tatum Company. This bottle style was primarily produced in the late nineteenth century (Lockhart et al. 2020:151).

Artifact 12: Complete ABM brown glass bottle with continuous threaded finish and stippling on base, shoulders, and heel. The neck is embossed "PLEASE DON'T LITTER" [x2] and the shoulder is embossed with four Anheuser Busch Eagles. The base is embossed "23/ Circle-I/ KU11/ 72" and the heel is embossed "NO DEPOSIT [star] NO RETURN" [x2]. This bottle style was introduced by Anheuser-Busch in 1964 (Schulz et al. 2019) and was produced by Owens-Illinois Glass Company (Lockhart et al. 2018:300). The embossing mentioning littering came into use in the 1970s and the NO DEPOSIT NO RETURN moved to the heels of bottles in 1972 (Schulz et al. 2019). This bottle was produced between 1972 and the early 1980s.

Artifact 13: Complete ABM colorless glass jar with a continuous threaded finish. A partial metal screw cap is still attached. The base has a suction scar and is embossed "5 [dot] 8 1/ 4 Diamond-OI". This jar was produced by the Owens-Illinois Glass Company between 1929 and 1954 (Lockhart and Hoenig 2018).

Artifact 14: Complete ABM colorless glass jar with discontinuous threaded finish. The base has a suction scar and is embossed "Triangle-IPG [monogram]/ 4". This jar was produced by the Illinois-Pacific Glass Corporation; this mark was used between 1925 and 1931 (Lockhart, Schulz, et al. 2016:451).

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Artifact 15: Almost complete aqua glass insulator. The skirt is embossed "N.E.G.M.CO./ PAT JUNE 17 1890." This insulator was produced by the New England Glass Manufacturing Company between 1898 and 1900 (Whitten 2021).

Artifact 16: Partially complete aqua glass insulator. The skirt is embossed "H.G.CO./ PAT JUNE 17 1893." This insulator was produced by the Hemingray Glass Company. This mark was used on glass insulators by the company between 1874 and 1910 (Lockhart, Schriever, et al. 2016:135)).

Artifact 17: Partially complete aqua glass insulator. The skirt is embossed "[HEMING]RAY...". This insulator was produced by the Hemingray Glass Company. This mark was used on glass insulators between 1870 and 1932 (Lockhart, Schriever, et al. 2016).

Artifact 18: Complete ABM brown glass jar with continuous threaded finish and metal lid. The body is squared and the base is embossed "209/ Circle-33 [monogram]/ 3." Its date of manufacture is unknown.

Artifact 19: Complete ABM colorless glass jar with discontinuous threaded finish. The base has stippling and is embossed "6716/ H-over-A [monogram]/ 3". This jar was produced by the Hazel-Atlas Glass Company between 1923 and 1982 (Lockhart et al. 2015).

Artifact 20: Complete ABM colorless glass bottle with crown cap finish. The body is embossed "JACKSON BOTTLING/ P & G [monogram]/ WORKS". Its date of manufacture is unknown.

Artifact 21: Large steel gear or machine part.

Artifact 22: Complete ABM colorless glass bottle with partially intact paper label and crown cap finish. The paper label reads "...R T [monogram]...PA[K]/ Ro...Be...[cursive]" printed. The shoulder is embossed "NO DEPOSIT NO RETURNS/ TWELVE FULL OUNCES" [x2]. The base has stippling and is embossed "20 Circle-I 6/ 80/ 1687-GK." This bottle was produced by the Royal Crown Bottling Company's (formerly Nehi Bottling Company) in their line of "Par-T-Pak" sodas (Lockhart 2010:398–400, 408). This bottle was manufactured by the Owens-Illinois Glass Company in either 1956 or 1966 (Lockhart and Hoenig 2018).

Artifact 23: Complete ABM colorless liquor bottle with continuous threaded finish and metal cap. The heel is embossed "4/5 QUART" [x4] and the base is embossed "20 Diamond-OI 47/ 2-D/ 5762 H." The date code of "47" indicates that the bottle was produced in 1947 (Lockhart and Hoenig 2018).

Artifact 24: White improved earthenware (WIE) plate fragment with maker's mark. The plate fragment has a white paste and colorless glaze and no distinctive decorations or patterns. "AS.EDWARDS &.../ DALLENHALL" is stamped on the base. The entire plate fragment is fire crazed. The mark could not be identified.

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Artifact 25: Metal vehicle part, possibly a light fixture.

Artifact 26: 20-watt glass light bulb.

Artifact 27: Brick stamped "IONE/ PAT APP..." on one side. There are charred marks on all sides of the brick. This fire brick was produced by the lone Fire Brick Company, owned by the Newman Clay Company in Ione, CA. The Newman Clay Company was producing brick and distributing other clay products by 1913-1914 (Tucker 1916:7–8). In 1927, the company was producing bricks explicitly for locomotive fire-boxes (Root 1927:141).

Artifact 28: Complete green "7-Up" bottle with crown cap finish. The neck has two small white applied color labels (ACL) showing the "7-Up" logo. An ACL on the body shows the "7-Up" logo on one side and "Fresh Up! [script]" on the other. The base is embossed "23 Circle-I 6/ 4-L/ 94-G". This bottle was manufactured by the Owens-Illinois Glass Company in either 1956 or 1966 (Lockhart and Hoenig 2018).

Artifact 29: Complete two-inch diameter metal blasting cap can lid with "BLASTING/ CAPS/ DANGEROUS" embossed across the top. Its date of manufacture is unknown.

Artifact 30: Complete machine-made brown glass prescription bottle with beaded finish. The heel is embossed "I.P.G.Co.". This bottle was produced by the Illinois-Pacific Glass Company and the mark on the heel was used from 1911 to 1924 (Lockhart, Schulz, et al. 2016).

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References Cited

Briggs, Nate

2010 The Owens Bottle Co . Part 2 – Dating Logos and Codes. In *Encyclopedia of Manufacturers Marks on Glass Containers*, edited by Bill Lockhart, pp. 199–248. Historic Glass Bottle Identification & Information Website.

California State Library

1920 Argonaut Mine facing Northwest. California State Library, Sacramento, CA.

Lockhart, Bill

2010 Bottles on the Boarder: The History and Bottles of the Soft Drink Industry in El Paso, Texas, 1881-2000. In , pp. Chapter 7b.

Lockhart, Bill, Beau Schriever, Bill Lindsey, Carol Serr, Bob Stahr, and David Whitten

2016 The Hemingray Glass Firms. In *Encyclopedia of Manufacturer's Marks on Glass Containers*, pp. 127–160. Historic Glass Bottle Identification & Information Website.

Lockhart, Bill, Beau Schriever, Carol Serr, and Bill Lindsey

2015 Hazel-Atlas Glass Co. *Historic Glass Bottle Identification & Information Website*.

Lockhart, Bill, Pete Schulz, Bill Lindsey, Carol Serr, Beau Schriever, Michael R. Miller, and David Whitten

2016 Illinois-Pacific – a West Coast Phenomenon, Part II -- Illinois Pacific Glass Corp. (1926-1930). In *Encyclopedia of Manufacturer's Marks on Glass Containers*, pp. 449–462. Historic Glass Bottle Identification & Information Website.

Lockhart, Bill, Pete Schulz, Beau Schriever, Carol Serr, Bill Lindsey, and Bob Brown

2020 Whitall Tatum – Part II – Whitall Tatum Co . In *Encyclopedia of Manufacturers Marks on Glass Containers*, pp. 139–166. Historic Glass Bottle Identification & Information Website.

Lockhart, William, and Russ Hoenig

2018 *Owens-Illinois Glass Co. -- Part 2: The Bewildering Array of Owens-Illinois Glass Co. Logos and Codes. Encyclopedia of Manufacturers Marks on Glass Containers.* Historic Glass Bottle Identification & Information Website.

Root, Lloyd L.

1927 Chapter of Report XXIII of the State Mineralogist covering Mining in California and the Activities of the State Mining Bureau: Amador County. *Mining in California* 23(2):138–141.

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Sanborn Map Company

- 1895 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.
- 1898 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.
- 1912 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.
- 1930 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

Schulz, Peter, Bill Lockhart, Carol Serr, Bill Lindsey, and Beau Schriever

- 2019 A History of Non-Returnable Beer Bottles. *Historic Glass Bottle Identification & Information Website*:1–51.

The Coca-Cola Company

- 2021 The History of the Coca-Cola Contour Bottle: The Creation of a Cultural Icon.

Tucker, W. B.

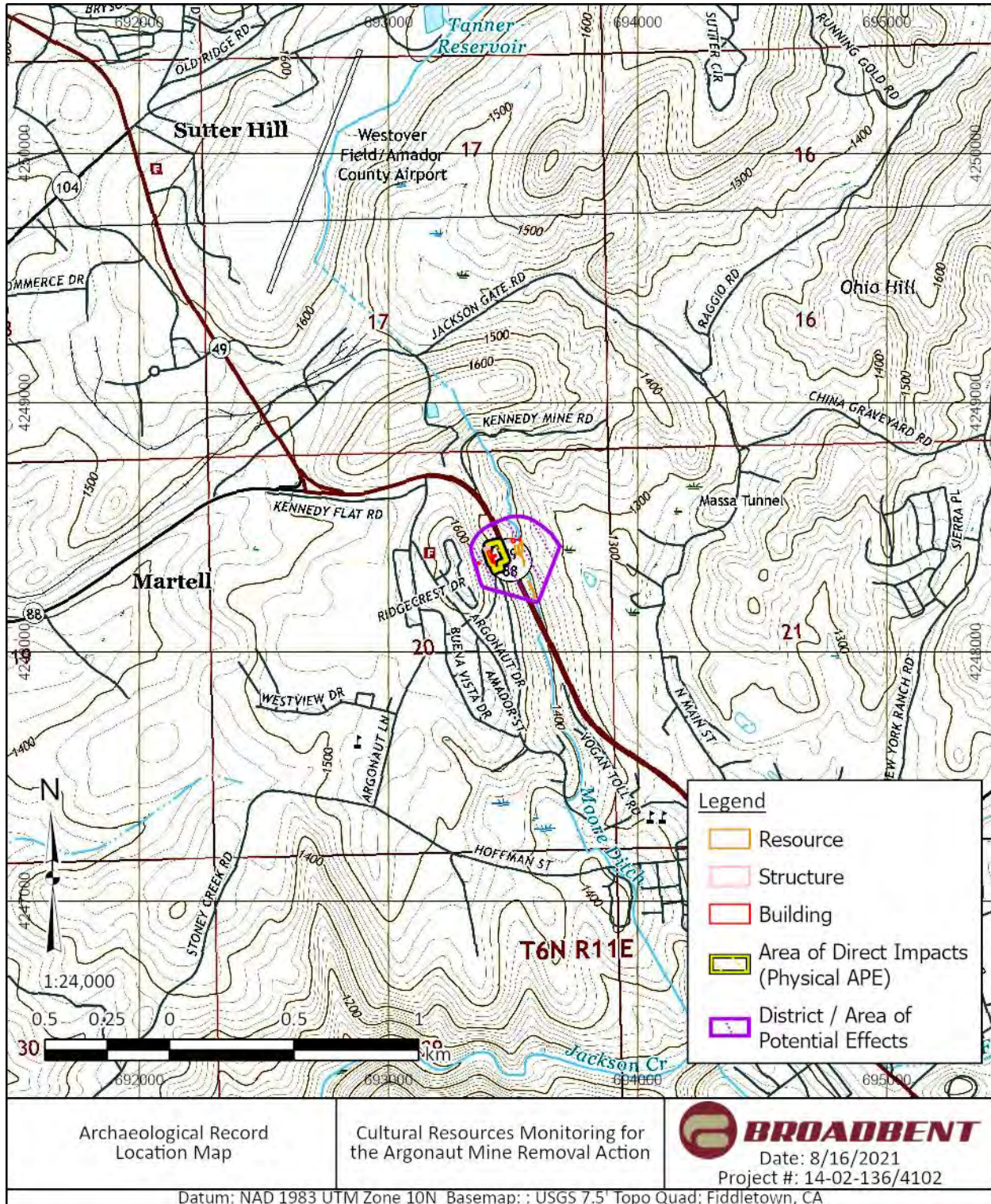
- 1916 Part I.: The Counties of Amador County, Calaveras County, and Tuolumne County. In *Report of the State Minerologist: Mines and Minerals Resources of Portions of California, Chapters of State Mineralogist's Report Biennial Period 1913-1914*, pp. 7–8. California State Printing Office, Sacramento, CA.

Whitten, David

- 2021 Glass Bottle Marks ~ Page Four. *Glass Bottle Marks*.

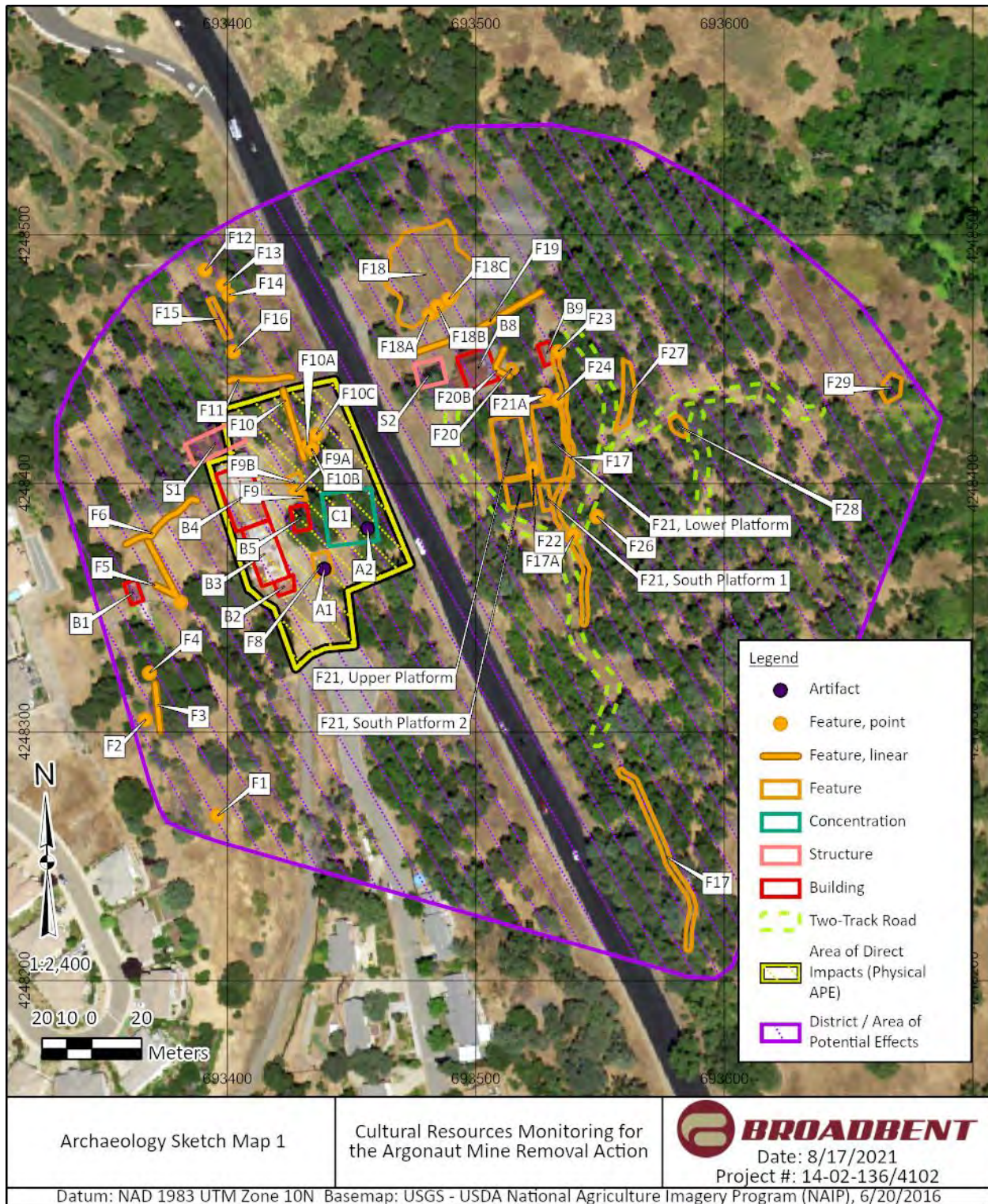
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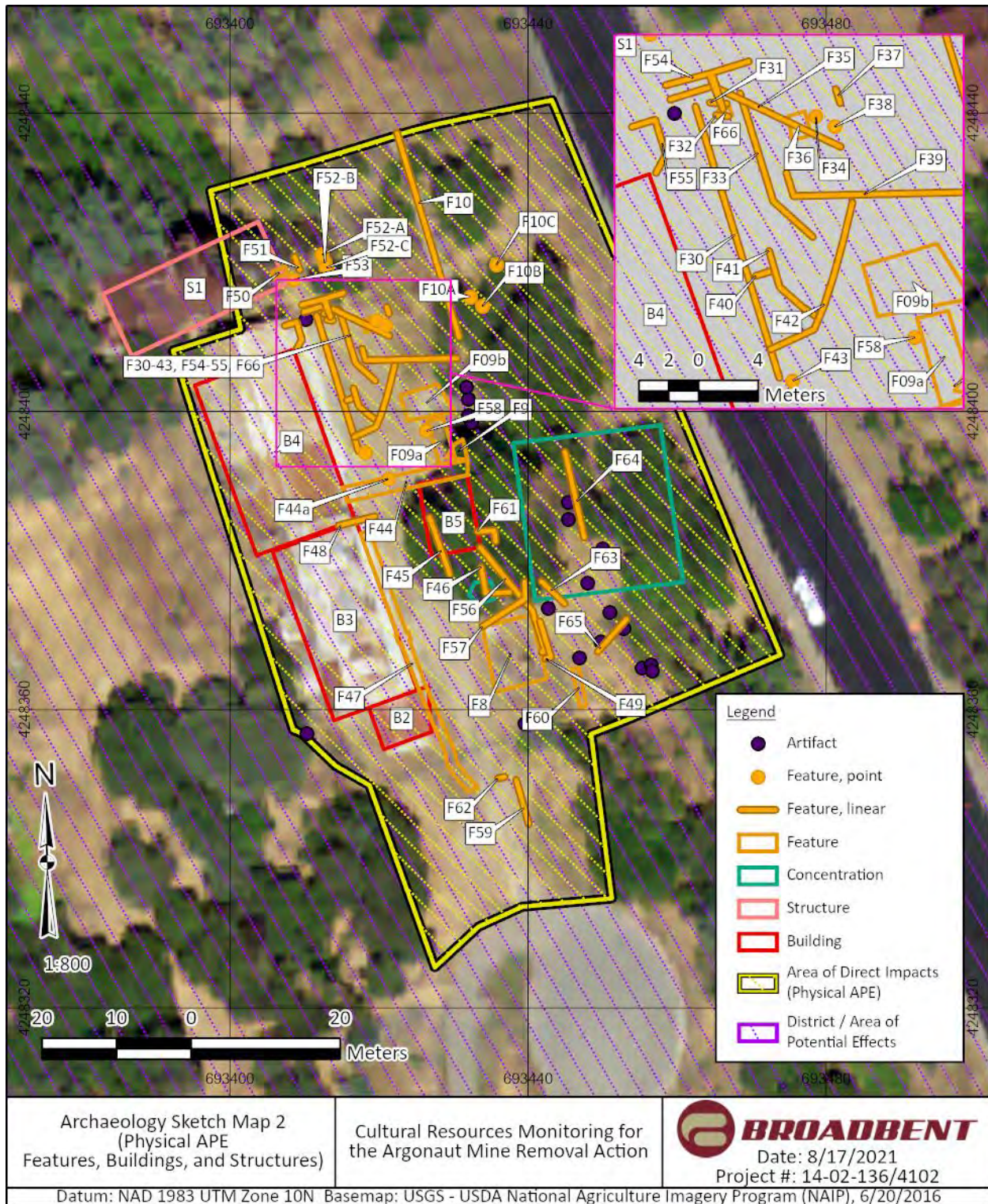
CONTINUATION SHEET - SKETCH MAP

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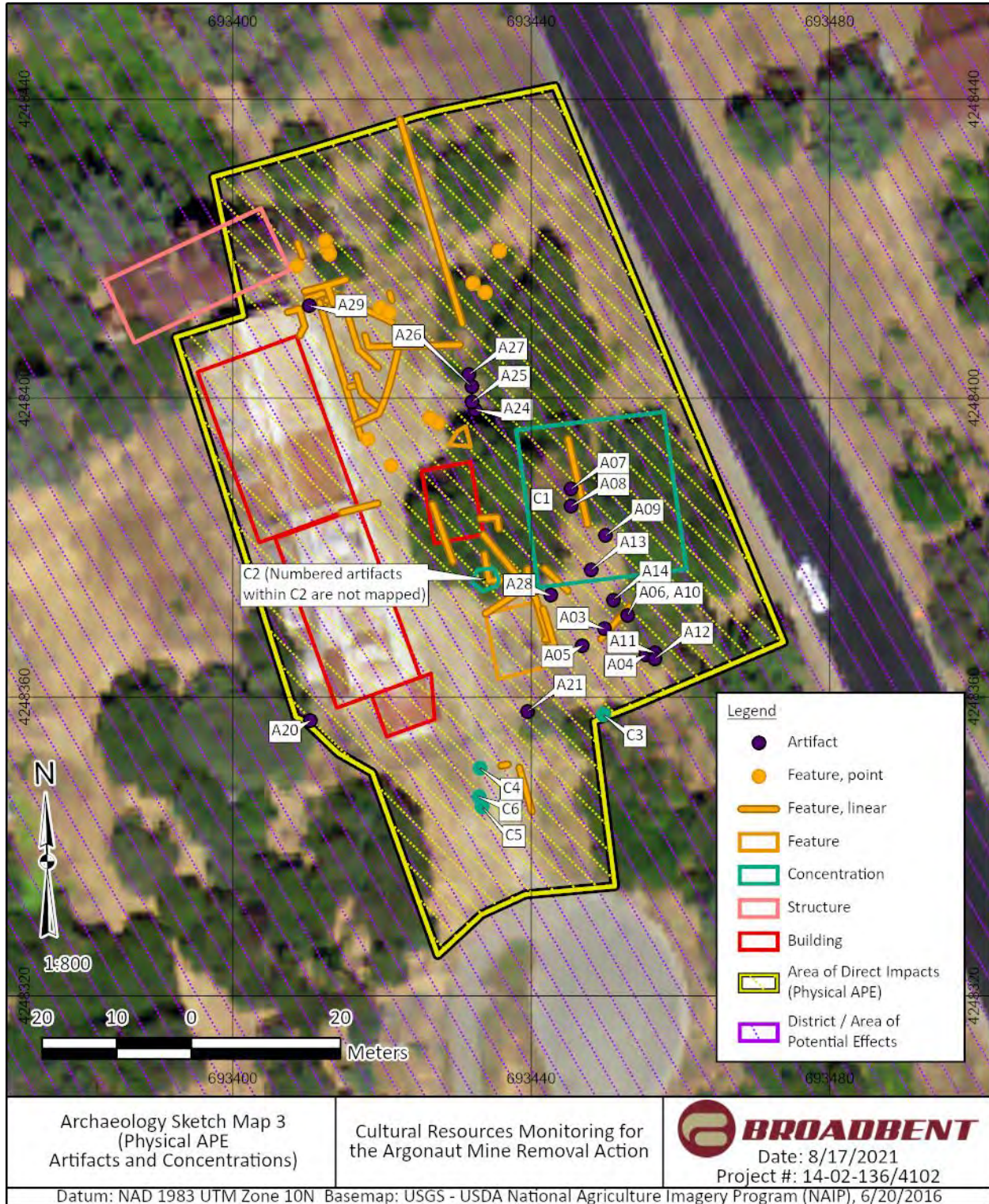
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CONTINUATION SHEET - SKETCH MAP

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CONTINUATION SHEET - ARTIFACT RECORD

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Resource Name or #: Argonaut Mine Industrial District

Location Where Collected Specimens are Curated: No artifacts were collected.

Artifact #	Type	Condition	Description (form, material, etc.)	Locational Data (distance/bearing to datum)	Sketch/ Photo	Collected ?
03	B	C	Complete automatic bottle machine-made (ABM) brown glass bottle with crown cap finish. The body and base are stippled with embossing on both the shoulder and base. The base is embossed "20 Diamond-OI 49/ 1C / Duraglas [script]/ I-WAY/ 11GB". The shoulder is embossed "NOT TO BE REFILLED//NO DEPOSIT [STAR] NO RETURN". Date Range: 1949 (Lockhart and Hoenig 2018:300).	10S 693449 mE/ 4248369 mN	P7020051- 52	N
04	B	C	Complete ABM brown glass bottle with continuous threaded finish and tapered neck. The neck, shoulder, and base have embossing. The neck is embossed with the Anheuser-Busch Eagle [x4] and the heel is embossed "Circle-BB 07 PLEASE DON'T LITTER" [x2]. The base is stippled and embossed "2". Date Range: 1973 – early 1980s (Schulz et al. 2019:28).	10S 693455 mE/ 4248365 mN	P7020057- 61	N
05	B	C	Complete ABM colorless glass medicine bottle with prescription finish. The shoulder is embossed with a "2", and the base is embossed with a crescent moon shape.	10S 693446 mE/ 4248366 mN	P7020067- 69	N
06	B	C	Complete ABM colorless glass medicine bottle with dram and CC measurements and a prescription finish. The base is embossed "6 Square-O 5" and the shoulders are embossed with dram and CC measurements. Date Range: 1920-1929 (Briggs 2010:202).	10S 693452 mE/ 4248370*	P7020062- 66	N
07	B	C	Complete ABM colorless glass condiment bottle with fluted body and cap finish. The base is embossed "H-257/ H-over-A [monogram]". Date Range: 1923 – ca. 1982 (Lockhart, Schriver, et al. 2016:84).	10S 693445 mE / 4248387 mN	P7010024- 25	N
08	B	P	Almost complete ABM colorless glass medicine bottle with dram and CC measurements. The finish is broken. The base is embossed "OWENS/ Diamond-OI / 4" and the shoulder is embossed with dram and CC measurements. Date Range: 1929-1949 (Lockhart and Hoenig 2018:299, 315)	10S 693445 mE/ 4248385 mN	P7010026- 31	N
09	B	C	Complete ABM "Coca-Cola" green glass bottle with a hobble-skirt design and a crown cap finish. The base is embossed "JACKSON/ CALIF.". The body is embossed "COCA-COLA [scrip]/ TRADEMARK REGISTERED/ BOTTLE PAT'D DEC. 25 1923// COCA-COLA [script] TRADEMARK REGISTERED/ MIN CONTENTS 6-FL. OZS". Date Range: 1923-1937 (The Coca-Cola Company 2021).	10S 693449 mE/ 4248381 mN	P7010032- 37	N
10	B	C	Complete colorless glass bottle with capseat finish. The base is stippled and embossed "7 Diamond-O-I 2/ 6". Date Range: 1932, 1942, or 1952 (Lockhart and Hoenig 2018:300, 316).	10S 693452 mE/ 4248371 mN*	P7020070- 71	N

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Resource Name or #: Argonaut Mine Industrial District

Location Where Collected Specimens are Curated: No artifacts were collected.

Artifact #	Type	Condition	Description (form, material, etc.)	Locational Data (distance/bearing to datum)	Sketch/ Photo	Collected ?
11	B	C	Complete mold-made colorless glass bottle with applied finish. It has a ¾-inch diameter mouth. A salt-like accretion was observed inside the bottle. The base is embossed "W.T.CO.". Date Range: Late nineteenth century (Lockhart et al. 2020:151).	10S 693456 mE/ 4248365 mN	P7020040- 42	N
12	B	C	Complete ABM brown glass bottle with continuous threaded finish and stippling on base, shoulders, and heel. The neck is embossed "PLEASE DON'T LITTER" [x2] and the shoulder is embossed with four Anheuser Busch Eagles. The base is embossed "23/ Circle-I/ KU11/ 72" and the heel is embossed "NO DEPOSIT [star] NO RETURN" [x2]. Date Range: 1972- early 1980s (Schulz et al. 2019:25, 29).	10S 693456 mE/ 4248365 mN	P7020043- 46	N
13	J	C	Complete ABM colorless glass jar with a continuous threaded finish. A partial metal screw cap is still attached. The base has a suction scar and is embossed "5 [dot] 8 1/ 4 Diamond-OI". Date Range: 1929-1954 (Lockhart and Hoenig 2018:299-300).	10S 633448 mE/ 4248377 mN*	P7020082- 83	N
14	J	C	Complete ABM colorless glass jar with discontinuous threaded finish. The base has a suction scar and is embossed "Triangle-IPG [monogram]/ 4". Date Range: 1925-1931 (Lockhart, Schulz, et al. 2016:451).	10S 693451 mE/ 4248373 mN*	P7020085- 88	N
15	I	P	Partially complete aqua glass insulator. The skirt is embossed "H.G.CO./ PAT JUNE 17 1893". Date Range: 1898-c.1900 (Whitten 2021).	Concentration 02	P6090180- 184	N
16	I	P	Partially complete aqua glass insulator found in Concentration 02. The skirt is embossed "H.G.CO./ PAT JUNE 17 1893". Date Range: ca. 1874-1910 (Lockhart, Schriever, et al. 2016:135).	Concentration 02	P6090185	N
17	I	P	Partially complete aqua glass insulator found in Concentration 02. The skirt is embossed "[HEMING]RAY...". Date Range: 1870-1932 (Lockhart, Schriever, et al. 2016:137)	Concentration 02	P6090186	N
18	J	C	Complete ABM brown glass jar with continuous threaded finish with metal screw lid attached. The body is squared and the base is embossed "209/ Circle-33 [monogram]/ 3".	Concentration 02	P6090187- 190	N
19	J	C	Complete ABM colorless glass jar with discontinuous threaded finish. The base has stippling and is embossed "6716/ H-over-A [monogram]/ 3". Date Range: 1923-ca. 1982 (Lockhart, Schriever, et al. 2016:84).	Concentration 02	P6090191- 194	N
20	B	C	Complete ABM colorless beverage bottle with crown cap finish. The body is embossed "JACKSON BOTTLING/ P & G [monogram]/ WORKS".	10S 693410 mE/ 4248357 mN*	P6090195- 202	N
21	G	C	Large, steel gear or machine part.	10S 693439 mE/ 4248358 mN*	P6090203- 204	N

CONTINUATION SHEET - ARTIFACT RECORD

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Resource Name or #: Argonaut Mine Industrial District

Location Where Collected Specimens are Curated: No artifacts were collected.

Artifact #	Type	Condition	Description (form, material, etc.)	Locational Data (distance/bearing to datum)	Sketch/ Photo	Collected ?
22	B	C	Complete ABM colorless soda bottle with partially intact paper label and crown cap finish. The body is partially covered in a paper label with "...R T [monogram]...PA[K]/Ro...Be...[cursive]" printed. The shoulder is embossed "NO DEPOSIT NO RETURNS/ TWELVE FULL OUNCES" [x2]. The base has stippling and is embossed "20 Circle-I 6/ 80/ 1687-GK". Date Range: 1956-1966 (Lockhart and Hoenig 2018:299-300).	Concentration 02	P6150251-295	N
23	B	C	Complete ABM colorless liquor bottle with continuous threaded finish and metal screw cap attached. The heel is embossed "4/5 QUART" [x4] and the base is embossed "20 Diamond-OI 47/ 2-D/ 5762 H". Date Range: 1947 (Lockhart and Hoenig 2018:300, 316).	Concentration 02	P6150260-268	N
24	P	F	White improved earthenware (WIE) plate fragment with maker's mark stamped. The plate fragment has a white paste and colorless glaze and no distinctive decorations or patterns. "AS.EDWARDS &.../ DALLENHALL" is stamped on the base. The entire plate fragment is fire crazed.	10S 693432 mE/ 4248398 mN*	P6160273	N
25	CP	C	Car light part.	10S 693432 mE/ 4248399 mN*	P6160274-276	N
26	L	C	20-watt glass light bulb that has been burned.	10S 693432 mE/ 4248401 mN*	P6160277	N
27	BR	C	Light brown colored brick stamped with "IONE/ PAT APP..." on one side. There are charred marks on all sides of the brick. Date Range: ca. 1913-unknown (Tucker 1916:7-8).	10S 693431 mE/ 4248403 mN*	P6160278-279	N
28	B	C	Complete green "7-Up" soda bottle with crown cap finish. The neck has two small white applied color labels (ACL) showing the "7-Up" logo. An ACL on the body shows the "7-Up" logo on one side and "Fresh Up! [script]" on the other. The base is embossed "23 Circle-I 6/ 4-L/ 94-G". Date Range: 1956 or 1966 (Lockhart and Hoenig 2018:299-300).	10S 693442 mE/ 4248373 mN*	IMG-4653 - IMG-4666	N
29	BC	C	Complete 2-in metal blasing cap with "BLASTING/CAPS/DANGEROUS" embossed across the top.	10S 693410 mE/ 4248412 mN*	P6070111-113	N
30	B	C	Complete machine-made brown glass prescription bottle with beaded finish. The heel is embossed "I.P.G.Co.". Date Range: 1911-1924 (Lockhart, Schulz, et al. 2016:425).	Concentration 02	P6070136-141	N

Type Key: (list abbreviations used)	Condition Key:
B: Bottle BC: Blasing cap BR: Brick CP: Car part G: Gear I: Insulator J: Jar L: Light bulb P: Plate	F Fragmentary C Complete P Partial Other:

*Locational Data Approximated

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Subsurface Features



Feature 30: Four-inch metal pipe; facing 230 degrees (Photo No. P6050075; 06/05/2021)



Feature 31: Deteriorated wooden plank; facing 138 degrees (Photo No. P6050070; 06/05/2021)

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Subsurface Features



Feature 32: Wooden plank; facing 138 degrees (Photo No. P6050071; 06/05/2021)



Feature 33: Pair of one-inch pipes; facing 140 degrees (Photo No. P6050078; 06/05/2021)

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Subsurface Features



Feature 34: Vertically embedded two-inch metal pipe; detail (Photo No. P6140233; 06/14/2021)



Features 35 and 36: A two-inch metal pipe (Feature 35) and concrete footing (Feature 36); facing 130 degrees (Photo No. P6140232; 06/14/2021)

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Subsurface Features



Feature 37: Two-inch metal pipe; facing 140 degrees (Photo No. P6050084; 06/05/2021)



Feature 38: One-inch metal pipe; facing 340 degrees (Photo No. P6140235; 06/14/2021)

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Subsurface Features



Feature 39: One-inch metal pipe; facing 120 degrees (Photo No. P6140249; 06/14/2021)



Feature 40: Narrow concrete footing; facing 326 degrees (Photo No. P6140237; 06/14/2021)

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Subsurface Features



Features 41 and 42: Three-inch metal pipe (Feature 41) and six-inch metal pipe (Feature 42); facing 72 degrees (Photo No. P6070106; 06/07/2021)



Features 41 and 42: Detail showing Feature 41 (three-inch metal pipe) under Feature 42 (six-inch metal pipe); facing 72 degrees (Photo No. P6070108; 06/07/2021)

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Subsurface Features



Feature 44: Top of concrete channel, east of Building 04; facing 212 degrees (Photo No. P6160289; 06/16/2021)



Feature 44: Top of concrete channel, east of Building 04; facing 60 degrees (Photo No. P6160290; 06/16/2021)

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Subsurface Features



Feature 45: Discolored sediment overlying buried pipe; facing 320 degrees (Photo No. P6070120; 06/07/2021)



Feature 46: One-inch metal pipe between Building 05 and Feature 08; facing 140 degrees (Photo No. P6070143; 06/07/2021)

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Subsurface Features



Feature 47: Remnant light rail track; facing 310 degrees (Photo No. P6080157; 06/08/2021)



Feature 47: Remnant light rail track; facing 310 degrees (Photo No. P6080158; 06/08/2021)

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Subsurface Features



Feature 48: 12-inch pipe; facing 230 degrees (Photo No. P6080154; 06/08/2021)



Feature 49: Two-inch metal pipe; facing 94 degrees (Photo No. P6070147; 06/07/2021)

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Subsurface Features



Feature 50: Metal plate and wooden boards; facing 298 degrees (Photo No. P6140216; 06/14/2021)



Feature 50: Metal plate and wooden boards; facing 40 degrees (Photo No. P6140218; 06/14/2021)

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Subsurface Features



Feature 51: One-inch metal pipe under Structure 01; facing 126 degrees (Photo No. P6140223; 06/14/2021)



Feature 52: Concrete footings; facing 126 degrees (Photo No. P6140224; 06/14/2021)

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Subsurface Features



Feature 53: Metal fixture under Structure 01; facing 210 degrees (Photo No. P6140226; 06/14/2021)



Feature 54: Two-inch metal pipe south of Structure 01; facing 210 degrees (Photo No. P6140227; 06/14/2021)

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Subsurface Features



Features 54 and 55: Two-inch metal pipe (Feature 54) and four-inch metal pipe south of Structure 01; Facing 280 degrees (Photo No. P6140231; 06/14/2021)



Feature 57: Set of two two-inch metal pipes and two one-inch metal pipes; facing 154 degrees (Photo No. P6140243; 06/14/2021)

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Subsurface Features



Feature 58: Concrete footing; detail (Photo No. P6160280; 06/16/2021)



Feature 59: Two-inch metal pipe; facing 314 degrees (Photo No. IMG_4594; 06/16/2021)

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Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Subsurface Features



Feature 60: Top of concrete footing exposed at ground level; facing 326 degrees (Photo No. IMG_4622; 06/22/21)



Feature 60: Concrete footing exposed; facing 360 degrees (Photo No. IMG_4634; 06/23/21)

CONTINUATION SHEET - PHOTOGRAPHS

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Subsurface Features



Feature 61: Four-inch metal pipe; facing 330 degrees (Photo No. IMG_4631; 06/23/2021)



Feature 61: Four-inch metal pipe; facing 320 degrees (Photo No. IMG_4629; 06/22/2021)

CONTINUATION SHEET - PHOTOGRAPHS

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

*Recorded by: Broadbent & Associates, Inc.

*Date 06/01/2021 – 07/05/2021

☐ Continuation ☒ Update

Subsurface Features



Feature 62: Two and one-half-inch metal pipe; detail (Photo No. P6280008; 06/28/2021)



Feature 63: Two-inch metal pipe; facing 135 degrees (Photo No. P6300016; 06/30/2021)

CONTINUATION SHEET - PHOTOGRAPHS

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

*Recorded by: Broadbent & Associates, Inc.

*Date 06/01/2021 – 07/05/2021

☐ Continuation ☒ Update

Subsurface Features



Feature 64: Stacked rock retaining wall; facing 260 degrees (Photo No. P7010021; 07/01/2021)



Feature 64: Stacked rock retaining wall; facing 200 degrees (Photo No. P7010022; 07/01/2021)

CONTINUATION SHEET - PHOTOGRAPHS

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

*Recorded by: Broadbent & Associates, Inc.

*Date 06/01/2021 – 07/05/2021

☐ Continuation ☒ Update

Subsurface Features



Feature 65: Two-inch metal pipe; facing 85 degrees (Photo No. P7020075; 07/02/2021)



Features 35, 54, and 66: Feature 35 (foreground) overlies Feature 54 (center). Feature 66 is a concrete vault box (right). Facing 80 degrees (Photo No. P6140229; 6/14/2021)

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Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

*Recorded by: Broadbent & Associates, Inc.

*Date 06/01/2021 – 07/05/2021

☐ Continuation ☒ Update

Subsurface Features



Concentration 02: Artifact Concentration; facing 184 degrees (Photo No. P6080162; 06/08/2021)



Concentration 03: Crucible Concentration; facing 180 degrees (Photo No. P6080168; 06/08/2021)

CONTINUATION SHEET - PHOTOGRAPHS

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

*Recorded by: Broadbent & Associates, Inc.

*Date 06/01/2021 – 07/05/2021

☐ Continuation ☒ Update

Subsurface Features



Concentration 04: Brick Concentration; detail (Photo No. IMG_4608; 06/21/2021)



Concentration 05: Brick Concentration; detail (Photo No. IMG_4609; 06/21/2021)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

*Recorded by: Broadbent & Associates, Inc.

*Date 06/01/2021 – 07/05/2021

☐ Continuation ☒ Update

Subsurface Features



Concentration 06: Brick Concentration; detail (Photo No. IMG-4610; 06/21/2021)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

*Recorded by: Broadbent & Associates, Inc.

*Date 06/01/2021 – 07/05/2021

☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 03: Complete brown glass bottle with crown cap finish (Photo No. P7020051; 07/02/2021)



Artifact 03: Base Detail (Photo No. P7020052; 07/02/2021)

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Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

*Recorded by: Broadbent & Associates, Inc.

*Date 06/01/2021 – 07/05/2021

☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 04: Complete brown glass bottle with continuous threaded finish. (Photo No. P7020057; 07/02/2021)



Artifact 04: Detail of Anheuser-Busch Eagle (Photo No. P7020058; 07/02/2021)

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Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

*Recorded by: Broadbent & Associates, Inc.

*Date 06/01/2021 – 07/05/2021

☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 05: Complete colorless glass medicine bottle with prescription finish. (Photo No. P7020067; 07/02/2021)



Artifact 05: Crescent embossing on base (Photo No. P7020068; 07/02/2021)

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Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

*Recorded by: Broadbent & Associates, Inc.

*Date 06/01/2021 – 07/05/2021

☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 06: Complete colorless glass medicine bottle with dram and CC measurements (Photo No. P7020062; 07/02/2021)



Artifact 06: Base detail (Photo No. P7020063; 07/02/2021)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

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*Date 06/01/2021 – 07/05/2021

☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 07: Complete colorless glass condiment bottle (Photo No. P7010024; 07/01/2021)



Artifact 07: Base detail (Photo No. P7010025; 07/01/2021)

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*Recorded by: Broadbent & Associates, Inc.

*Date 06/01/2021 – 07/05/2021

☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 08: Colorless glass medicine bottle (Photo No. P7010026; 07/01/2021)



Artifact 08: Base detail (Photo No. P7010027; 07/01/2021)

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Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 09: Complete "Coca-Cola" bottle, hobble skirt design (Photo No. P7010032; 07/01/2021)



Artifact 09: "Coca-Cola" bottle base, embossed "JACKSON/ CALIF." (Photo No. P7010033; 07/01/2021)

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☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 10: Colorless glass bottle (Photo No. P7020070; 07/02/2021)



Artifact 10: Base detail (Photo No. P7020071; 07/02/2021)

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☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 11: Complete colorless glass bottle (Photo No. P7020040; 07/02/2021)



Artifact 11: Base detail (Photo No. P7020041; 07/02/2021)

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☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 12: Complete brown glass bottle (Photo No. P7020043; 07/02/2021)



Artifact 12: Base detail (Photo No. P7020044; 07/02/2021)

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*Recorded by: Broadbent & Associates, Inc.

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☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 13: Complete colorless glass jar (Photo No. P7020082; 07/02/2021)



Artifact 13: Base detail (Photo No. P7020083; 07/02/2021)

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☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 14: Complete colorless glass jar (Photo No. P7020085; 07/02/2021)



Artifact 14: Base detail (Photo No. P7020086; 07/02/2021)

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☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 15: Aqua glass insulator (Photo No. P6090180; 06/09/2021)



Artifact 16: Aqua glass insulator (Photo No. P6090185; 06/09/2021)

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☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 17: Aqua glass insulator (Photo No. P6090186; 06/09/2021)



Artifact 18: Brown glass jar with metal lid (Photo No. P6090187; 06/09/2021)

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☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 18: Base detail (Photo No. P6090190; 06/09/2021)



Artifact 19: Complete colorless glass jar (Photo No. P6090191; 06/09/2021)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

*Recorded by: Broadbent & Associates, Inc.

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☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 19: Base detail (Photo No. P6090192; 06/09/2021)



Artifact 20: Colorless bottle (Photo No. P6090195; 06/09/2021)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

*Recorded by: Broadbent & Associates, Inc.

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☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 20: Body detail (Photo No. P6090198; 06/09/2021)



Artifact 21: Large metal gear (Photo No. P6090203; 06/09/2021)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

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☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 22: Colorless bottle with paper label (Photo No. P6150251; 06/15/2021)



Artifact 22: Base detail (Photo No. P6150258; 06/15/2021)

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*Recorded by: Broadbent & Associates, Inc.

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Subsurface Artifacts



Artifact 23: Colorless liquor bottle (Photo No. P6150260; 06/15/2021)



Artifact 23: Base detail (Photo No. P6150264; 06/15/2021)

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Subsurface Artifacts



Artifact 24: White Improved Earthenware (WIE) plate (Photo No. P6160273; 06/16/2021)



Artifact 25: Light fixture (Photo No. P6160274; 06/16/2021)

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*Recorded by: Broadbent & Associates, Inc.

*Date 06/01/2021 – 07/05/2021

☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 26: Light bulb (Photo No. P6160277; 06/16/2021)



Artifact 27: Brick with "IONE/PAT APP..." stamped on one side (Photo No. P6160278; 06/16/2021)

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Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Date 06/01/2021 – 07/05/2021

☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 28: Complete Green "7-Up" bottle with applied color label (ACL) (Photo No. IMG_4653; 06/24/2021)



Artifact 28: Base detail (Photo No. IMG_4665; 06/24/2021)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

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☐ Continuation ☒ Update

Subsurface Artifacts



Artifact 29: Blasting cap can lid (Photo No. P6070111; 06/07/2021)



Artifact 30: Brown glass medicine bottle (Photo No. P6070136; 06/07/2021)

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Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

*Recorded by: Broadbent & Associates, Inc.

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Subsurface Artifacts



Artifact 30: Heel detail (Photo No. P6070137; 06/07/2021)

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Camera Format: Digital Lens Size: 8mm Film Type: N/A Negatives Kept at: Broadbent & Associates, Inc. Reno, NV 89511

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
Week 01						
06	01	12:54p	P6010001	Overview of staging area prior to grubbing and excavation	348	N/A
06	01	12:54p	P6010002	Overview of staging area prior to grubbing and excavation	292	N/A
06	02	10:45a	P6020003	Overview of watering down and prepping of area that will be grubbed	290	N/A
06	02	11:02a	P6020004	Overview of asphalt that is outside of the fenced area and about 10 meters south from Building 02 and 2.5 meters west from access	330	N/A
06	02	11:02a	P6020005	Overview of asphalt that is outside of the fenced area and about 10-m south from Building 02 and 2.5 meters west from access	330	N/A
06	02	11:10a	P6020006	Overview of planned soil removal area with asphalt pad	264	N/A
06	02	11:10a	P6020007	Overview of planned soil removal area with asphalt pad	220	N/A
06	02	11:12a	P6020008	Overview of planned soil removal area	32	N/A
06	02	11:12a	P6020009	Overview of planned soil removal area	100	N/A
06	02	10:00a	P6020010	Detail of drain cover for Feature 44	150	N/A
06	02	1:36p	P6020011	ERROR	--	N/A
06	03	7:37a	P6030012	Overview of boulder pile	52	N/A
06	03	7:40a	P6030013	Overview of boulder pile	142	N/A
06	03	8:10a	P6030014	Overview of hand excavation between CA-49/88 and mine	305	N/A
06	03	8:18a	P6030015	Overview of rock retaining wall	192	N/A
06	03	8:18a	P6030016	Overview of rock retaining wall	192	N/A
06	03	8:33a	P6030017	Overview of hand excavation area	320	N/A
06	03	9:14a	P6030018	Overview of hand excavation area	240	N/A
06	03	9:27a	P6030019	Overview of completed hand excavation of trench along eastern fence line	140	N/A
06	03	9:28a	P6030020	Overview of completed hand excavation of trench along eastern fence line	330	N/A
06	03	11:40a	P6030021	Overview of displaced asbestos material	78	N/A

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Project Name: Argonaut Mine Cultural Resources Monitoring Year 2021

Camera Format: Digital Lens Size: 8mm Film Type: N/A Negatives Kept at: Broadbent & Associates, Inc. Reno, NV 89511

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
				being removed from Feature 08		
06	03	12:02p	P6030022	Overview of displaced asbestos material being removed from Feature 08	10	N/A
06	03	12:06p	P6030023	Overview of corrugated metal door cover on Building 04	230	N/A
06	03	12:06p	P6030024	Overview of corrugated metal door cover on Building 04	230	N/A
06	03	12:17p	P6030025	Overview of completed trench on eastern side of fence line	310	N/A
06	03	12:24p	P6030026	Detail of small (1-x-2-ft) soil removal area where oil leaked into the ground	190	N/A
06	03	12:24p	P6030027	Detail of small (1-x-2-ft) soil removal area where oil leaked into the ground	140	N/A
06	03	2:39p	P6030028	Overview of removal of vegetation	46	N/A
06	03	3:12p	P6030029	Overview of small trench (20 cm wide and 10 cm deep)	70	N/A
06	03	3:12p	P6030030	Overview of small trench (20 cm wide and 10 cm deep)	70	N/A
06	03	3:17p	P6030031	Overview of small trench facing west	330	N/A
06	03	3:25p	P6030032	Detail of concrete block that is about 6-x-24-in (Block 01)	140	N/A
06	03	3:28p	P6030033	Detail of Block 02 that is about 12-x-18-in and beveled on one end	118	N/A
06	03	3:30p	P6030034	Detail of Block 03 with possible post impression on one side (18-x-12-in)	146	N/A
06	03	3:33p	P6030035	Buried braided cable	232	N/A
06	03	3:33p	P6030036	Buried braided cable	232	N/A
06	03	3:36p	P6030037	Overview of sheet metal removed from door on Building 04	230	N/A
06	03	3:57p	P6030038	Overview of door open on Building 04 with door cover placed off to the side	320	N/A
06	03	3:57p	P6030039	Overview of door cover to Building 04	260	N/A
06	04	9:12a	P6040040	Overview of interior of Building 03 showing hazardous materials to be removed	320	N/A
06	04	9:13a	P6040041	Overview of interior of Building 03 showing hazardous materials to be removed	220	N/A

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Project Name: Argonaut Mine Cultural Resources Monitoring Year 2021

Camera Format: Digital Lens Size: 8mm Film Type: N/A Negatives Kept at: Broadbent & Associates, Inc. Reno, NV 89511

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
06	04	9:15a	P6040042	Overview of interior of Building 04 showing hazardous materials to be removed	320	N/A
06	04	9:15a	P6040043	Overview of interior of Building showing hazardous materials to be removed	220	N/A
06	04	9:15a	P6040044	Overview of interior of Building 04 showing hazardous materials to be removed	220	N/A
06	04	10:14a	P6040045	Overview of Feature 08 after removal of asbestos material	80	N/A
06	04	10:15a	P6040046	Overview of Feature 08 after removal of asbestos material	80	N/A
06	04	10:25a	P6040047	Overview of lead contaminated soils to be removed under Structure 01	320	N/A
06	04	10:25a	P6040048	Overview of chute in Structure 01 with asbestos content	220	N/A
06	04	10:26a	P6040049	Overview of chute in Structure 01 with asbestos content	220	N/A
06	04	1:21p	P6040050	Overview of start of cleanup of empty paint cans and oil drums deposited downslope of Feature 09 and Building 05	342	N/A
06	04	1:21p	P6040051	Overview of start of cleanup of empty paint cans and oil drums deposited downslope of Feature 09 and Building 05	342	N/A
06	04	1:21p	P6040052	Overview of start of cleanup of empty paint cans and oil drums deposited downslope of Feature 09 and Building 05	60	N/A
06	04	1:21p	P6040053	Overview of start of cleanup of empty paint cans and oil drums deposited downslope of Feature 09 and Building 05	60	N/A
06	04	1:26p	P6040054	Overview of start of cleanup of empty paint cans and oil drums deposited downslope of Feature 09 and Building 05	80	N/A
06	04	1:26p	P6040055	Overview of start of cleanup of empty paint cans and oil drums deposited downslope of Feature 09 and Building 05	20	N/A
06	04	1:26p	P6040056	Overview of start of cleanup of empty paint cans and oil drums deposited downslope of Feature 09 and Building 05	60	N/A
06	05	7:17a	P6050057	Overview of northern part of APE prior to removal activities	304	N/A

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Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
06	05	7:55a	P6050058	Overview of soil removal work	200	N/A
06	05	7:57a	P6050059	Overview of modern plastic pipe approximately one foot from the east side of Building 04	200	N/A
06	05	7:58a	P6050060	Overview of modern plastic pipe approximately one foot from the east side of Building 04	200	N/A
06	05	7:58a	P6050061	Overview of modern plastic pipe approximately one foot from the east side of Building 04	200	N/A
06	05	8:00a	P6050062	Overview of soil color change from very dark brown/black to brown/light brown	142	N/A
06	05	8:01a	P6050063	Overview of soil color change from very dark brown/black to brown/light brown	142	N/A
06	05	8:07a	P6050064	Overview of soil color change from very dark brown/black to brown/light brown	142	N/A
06	05	8:34a	P6050065	Overview of excavation progress heading south	86	N/A
06	05	8:50a	P6050066	Moving pile rocks (various material types) from one place to another	66	N/A
06	05	9:31a	P6050067	Overview of gray limestone material	66	N/A
06	05	9:45a	P6050068	Overview of limestone color change in comparison to natural soil color	180	N/A
06	05	9:46a	P6050069	Overview of limestone color change in comparison to natural soil color	120	N/A
06	05	9:51a	P6050070	Overview of exposed wooden plank at one foot below surface (Feature 31)	138	N/A
06	05	9:52a	P6050071	Detail of exposed wooden plank at one foot below surface (Feature 32)	138	N/A
06	05	9:57a	P6050072	Overview of fragmented sheet metal in mine waste material	210	N/A
06	05	9:57a	P6050073	Detail of fragmented sheet metal in mine waste material	210	N/A
06	05	9:58a	P6050074	Overview of area where Features 31 and 32 were exposed	230	N/A
06	05	10:02a	P6050075	Overview of four-inch metal pipe (Feature 30) exposed at one foot depth that extends along the east side of Building 04	230	N/A

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Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
06	05	10:02a	P6050076	Detail of Feature 30 exposed at one foot depth	108	N/A
06	05	10:05a	P6050077	Overview of two one-inch pipes (Feature 33) exposed at one foot depth east of Features 30-32	140	N/A
06	05	10:05a	P6050078	Overview of two one-inch metal pipes (Feature 33) exposed at one foot depth east of Features 30-32	140	N/A
06	05	10:19a	P6050079	Overview of area with Features 30 through 33 exposed	196	N/A
06	05	10:26a	P6050080	Overview of two-inch metal pipe (Feature 35) and concrete footing (Feature 36)	140	N/A
06	05	10:31a	P6050081	Overview of two-inch metal pipe (Feature 35) and concrete footing (Feature 36)	140	N/A
06	05	10:31a	P6050082	Overview of Feature 35 and Feature 36	140	N/A
06	05	10:51a	P6050083	Overview of eastern area of APE being excavated	64	N/A
06	05	10:57a	P6050084	Overview of broken two-inch metal pipe (Feature 37) exposed at one foot depth	140	N/A
06	05	11:07a	P6050085	Overview of eastern area of APE being excavated	78	N/A
06	05	11:10a	P6050086	Overview of eastern area of APE being excavated	234	N/A
06	05	12:43p	P6050087	Overview of progress of excavation	218	N/A
06	05	12:59p	P6050088	Overview of exposed wood plank fragment (not a Feature)	140	N/A
06	05	12:59p	P6050089	Overview of exposed wood plank fragment (not a Feature)	140	N/A
06	05	1:13p	P6050090	Overview of possible structure footprint	140	N/A
06	05	3:50p	P6050091	Overview of exposed brick within natural soil	135	N/A
06	05	4:25p	P6050092	Detail of brick fragment <i>insitu</i> with "PLU..." stamped on one side	135	N/A
06	05	4:25p	P6050093	Detail of brick fragment <i>insitu</i> with "PLU..." stamped on one side	Detail	N/A
Week 02						
06	07	7:28a	P6070094	Overview of project area	10	N/A

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Project Name: Argonaut Mine Cultural Resources Monitoring Year 2021

Camera Format: Digital Lens Size: 8mm Film Type: N/A Negatives Kept at: Broadbent & Associates, Inc. Reno, NV 89511

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
06	07	7:31a	P6070095	Overview of project area	100	N/A
06	07	7:33a	P6070096	Overview of project area	174	N/A
06	07	7:34a	P6070098	Overview of project area	174	N/A
06	07	7:42a	P6070099	Overview of exposed Features 30-33 and 40	284	N/A
06	07	7:45a	P6070100	Overview of exposed Features 35 and 36	108	N/A
06	07	7:45a	P6070101	Overview of exposed Features 35 and 36	108	N/A
06	07	7:47a	P6070102	Overview of exposed pipe (Feature 37)	174	N/A
06	07	7:48a	P6070103	Overview of exposed pipe (Feature 37)	174	N/A
06	07	8:24a	P6070104	Overview of excavation	140	N/A
06	07	8:27a	P6070105	Overview of EQM contractor watering down inside of Structure 01 to prep for removal of asbestos	240	N/A
06	07	8:48a	P6070106	Overview of three-inch metal pipe (Feature 41) going under six-inch metal pipe (Feature 42)	72	N/A
06	07	8:48a	P6070107	Overview of Feature 41 going under Feature 42	72	N/A
06	07	8:48a	P6070108	Overview of Feature 41 going under Feature 42	72	N/A
06	07	8:51a	P6070109	Overview of asbestos material being removed from interior of Structure 01	270	N/A
06	07	8:51a	P6070110	Overview of asbestos material being removed from interior of Structure 01	270	N/A
06	07	9:30a	P6070111	Artifact 29: Detail of metal blasting cap can with "BLASTING/CAPS/DANGEROUS" embossed across the top	Detail	N/A
06	07	9:31a	P6070112	Artifact 29: Metal blasting cap can with "BLASTING/CAPS/DANGEROUS" embossing detail	Detail	N/A
06	07	9:31a	P6070113	Artifact 29: Metal blasting cap can with "BLASTING/CAPS/DANGEROUS" embossing detail	Detail	N/A
06	07	9:35a	P6070114	Overview of pipe (Feature 42) entering Building 04	100	N/A
06	07	9:43a	P6070115	Overview of excavation	86	N/A
06	07	9:45a	P6070116	Overview of soil color change at 10 cm	50	N/A

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Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
				depth from very dark brown to light brown with angular gravels		
06	07	10:10a	P6070117	Overview of red brick fragment embedded in natural soil	330	N/A
06	07	10:14a	P6070118	Overview of charred remnants of wooden beam	320	N/A
06	07	10:14a	P6070119	Overview of charred remnants of wooden beam	320	N/A
06	07	10:34a	P6070120	Overview of partially buried pipe (Feature 45) parallel to the west side of Building 05	320	N/A
06	07	10:57a	P6070121	Overview of setup of removal of asbestos from Structure 01	250	N/A
06	07	12:59p	P6070122	Overview of excavation on the east side of Feature 09	350	N/A
06	07	1:08p	P6070123	Overview of asbestos removal from chute area within Structure 01	380	N/A
06	07	1:10p	P6070124	Overview of asbestos removal from chute area within Structure 01	380	N/A
06	07	1:31p	P6070125	Overview of iron support beam on the north side of Feature 08	20	N/A
06	07	1:33p	P6070126	Overview of iron support beam on the north side of Feature 08	20	N/A
06	07	1:33p	P6070127	Overview of iron support beam on the north side of Feature 08	30	N/A
06	07	1:37p	P6070128	Overview of iron support beam on the north side of the Feature 08	0	N/A
06	07	1:39p	P6070129	Collection of wooden beams and other debris removed from the east side of Feature 08	260	N/A
06	07	1:41p	P6070130	Collection of wooden beams and other debris removed from the east side of Feature 08	180	N/A
06	07	1:58p	P6070131	Overview of small iron support beam (fragment) and one piece of metal scrap, 40 cm deep	100	N/A
06	07	2:04p	P6070132	Overview of pipe buried 20 cm deep west of fence line	100	N/A
06	07	2:04p	P6070133	Overview of brick fragments and broken segment of pipe in back dirt.	160	N/A

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Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
06	07	2:05p	P6070134	Overview of brick fragments and broken segment of pipe in back dirt.	160	N/A
06	07	2:19p	P6070135	Overview of one-inch metal pipe (Feature 46) exposed between Building 05 and Feature 08		
06	07	2:40p	P6070136	Artifact 30: Brown glass medicine bottle with "I.P.G.Co." embossed on the heel	Detail	N/A
06	07	2:41p	P6070137	Artifact 30: Brown glass medicine bottle embossing detail on heel	Detail	N/A
06	07	2:41p	P6070138	Artifact 30: Brown glass medicine bottle base detail	Detail	N/A
06	07	2:41p	P6070139	Artifact 30: Brown glass medicine bottle profile detail	Detail	N/A
06	07	2:42p	P6070140	Artifact 30: Brown glass medicine bottle body and heel detail	Detail	N/A
06	07	2:42p	P6070141	Artifact 30: Brown glass medicine bottle finish and seam detail	Detail	N/A
06	07	2:46p	P6070142	Handwork removing contaminated sediment near Feature 08	150	N/A
06	07	3:31p	P6070143	Overview of exposed one-inch metal pipe (Feature 46) extending from Building 05 to Feature 08	140	N/A
06	07	3:31p	P6070144	Overview of exposed one-inch metal pipe (Feature 46) extending from Building 05 to Feature 08	140	N/A
06	07	3:58p	P6070145	Overview of broken two-inch metal pipe segment (broken prior to excavation)	110	N/A
06	07	4:02p	P6070146	Overview of broken two-inch metal pipe segment that extends north/south approximately 2.5 m east of Feature 08	94	N/A
06	07	4:02p	P6070147	Overview of broken two-inch metal pipe segment (Feature 49) that extends north/south approximately 2.5 meters east of Feature 08	94	N/A
06	07	4:32p	P6070148	Overview of broken two-inch metal pipe segment (Feature 49) that extends north/south approximately 2.5 meters east of Feature 08	128	N/A
06	08	8:12a	P6080149	Overview of project area	176	N/A

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Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
06	08	8:15a	P6080150	Overview of top of concrete channel (Feature 44) directly east of Building 04 entrance	156	N/A
06	08	8:16a	P6080151	Overview of top of concrete channel (Feature 44) directly east of Building 04 entrance	156	N/A
06	08	8:26a	P6080152	Overview of top of concrete channel (Feature 44) directly east of Building 04 entrance	144	N/A
06	08	9:28a	P6080153	Overview of plastic pipe and exposed 12-inch metal pipe (Feature 48).	168	N/A
06	08	9:54a	P6080154	Overview of 12-inch metal pipe (Feature 48) coming out of alley between Building 03 and Building 04 heading towards Building 05	230	N/A
06	08	11:06a	P6080155	Overview of excavation between Feature 08 and Building 05	320	N/A
06	08	11:08a	P6080156	Overview of excavation between Feature 08 and Building 05	130	N/A
06	08	11:10a	P6080157	Overview of narrow-gauge rail track (Feature 47) along the east side of Buildings 03 and 04 facing north	310	N/A
06	08	11:11a	P6080158	Overview of narrow-gauge rail track (Feature 47) along the east side of Buildings 03 and 04 facing north	310	N/A
06	08	11:13a	P6080159	Overview of narrow-gauge rail track (Feature 47) along the east side of Buildings 03 and 04 facing south	144	N/A
06	08	11:14a	P6080160	Overview of narrow-gauge rail track (Feature 47) along the east side of Buildings 03 and 04	144	N/A
06	08	11:34a	P6080161	Overview of Concentration 02	290	N/A
06	08	12:38p	P6080162	Overview of Concentration 02	184	N/A
06	08	10:24a	IMG-4673	Overview of narrow-gauge rail track (Feature 47) facing north	340	N/A
06	08	10:24a	IMG-4674	Overview of narrow-gauge rail track (Feature 47) facing south	190	N/A
06	08	12:46p	P6080163	Overview of narrow-gauge rail track	130	N/A
06	08	12:57p	P6080164	Overview of narrow-gauge rail track	130	N/A

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Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
06	08	1:08p	P6080165	Various types, colors, and sizes of bricks and metal debris, possibly associated with Feature 47	140	N/A
06	08	1:08p	P6080166	Various types, colors, and sizes of bricks and metal debris, possibly associated with Feature 47	140	N/A
06	08	3:09p	P6080167	Overview of Concentration 03; crucible scatter on the east side of Feature 08	180	N/A
06	08	3:10p	P6080168	Overview of Concentration 03; crucible scatter on the east side of Feature 08	180	N/A
06	08	3:44p	P6080169	Overview of soil on south side of Feature 08	184	N/A
06	08	4:01p	P6080170	Overview of start of soil removal on west side of Building 02 and south of Building 03	246	N/A
06	08	4:07p	P6080171	Overview of excavation progress	40	N/A
06	08	4:19p	P6080172	Overview of excavation progress	352	N/A
06	08	4:21p	P6080173	Overview of excavation progress showing Feature 47	102	N/A
06	08	4:23p	P6080174	Overview of excavation progress showing Feature 47	102	N/A
06	08	4:24p	P6080175	Overview of excavation progress	102	N/A
06	09	8:12a	P6090176	Overview of excavation from south side of Building 02	90	N/A
06	09	8:15a	P6090177	Overview of excavation from south side of Building 02	90	N/A
06	09	1:14p	P6090178	Overview of soil color variation	74	N/A
06	09	1:22p	P6090179	Overview of soil removal	296	N/A
06	09	3:42p	P6090180	Artifact 15: Aqua insulator 01 with "N.E.G.M.CO//PAT JUNE 17 1890" embossed on skirt	Detail	N/A
06	09	3:42p	P6090181	Artifact 15: Aqua insulator 01 skirt embossing detail	Detail	N/A
06	09	3:42p	P6090182	Artifact 15: Aqua insulator 01 skirt embossing detail	Detail	N/A
06	09	3:42p	P6090183	Artifact 15: Aqua insulator 01 skirt embossing detail	Detail	N/A
06	09	3:43p	P6090184	Artifact 15: Aqua insulator 01 skirt embossing detail	Detail	N/A

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Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
06	09	3:43p	P6090185	Artifact 16: Aqua insulator 02 with "H.G.CO./...NT MAY 2 1893" embossed on skirt	Detail	N/A
06	09	3:44p	P6090186	Artifact 17: Aqua insulator 03 with "...RAY" embossed on skirt	Detail	N/A
06	09	3:44p	P6090187	Artifact 18: Brown glass jar with continuous thread finish (with metal lid) with "209/33 [monogram inside circle]/3" embossed on the base	Detail	N/A
06	09	3:44p	P6090188	Artifact 18: Brown glass jar base detail	Detail	N/A
06	09	3:45p	P6090189	Artifact 18: Brown glass jar base detail	Detail	N/A
06	09	3:45p	P6090190	Artifact 18: Brown glass jar base detail	Detail	N/A
06	09	3:45p	P6090191	Artifact 19: Complete colorless glass jar with discontinuous continuous thread finish, stippling on the base. Base embossed "6716/HA [monogram]/0 45"	Detail	N/A
06	09	3:45p	P6090192	Artifact 19: Colorless glass jar base detail	Detail	N/A
06	09	3:46p	P6090193	Artifact 19: Colorless glass jar base detail	Detail	N/A
06	09	3:46p	P6090194	Artifact 19: Colorless glass jar base detail	Detail	N/A
06	09	3:47p	P6090195	Artifact 20: Colorless bottle with crown top finish, (cup bottom mold seam) and "JACKSON BOTTLING/P&G [monogram]/WORKS" embossed on base	Detail	N/A
06	09	3:47p	P6090196	Artifact 20: Colorless glass bottle body embossing detail	Detail	N/A
06	09	3:47p	P6090197	Artifact 20: Colorless glass bottle body embossing detail	Detail	N/A
06	09	3:48p	P6090198	Artifact 20: Colorless glass bottle body embossing detail	Detail	N/A
06	09	3:48p	P6090199	Artifact 20: Colorless glass bottle body embossing detail	Detail	N/A
06	09	3:48p	P6090200	Artifact 20: Colorless glass bottle body embossing detail	Detail	N/A
06	09	3:48p	P6090201	Artifact 20: Colorless glass bottle seam detail on base, heel, and body	Detail	N/A
06	09	3:48p	P6090202	Artifact 20: Colorless glass bottle seam detail on finish and lip	Detail	N/A
06	09	3:50p	P6090203	Artifact 21: Large steel gear	Detail	N/A

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Camera Format: Digital Lens Size: 8mm Film Type: N/A Negatives Kept at: Broadbent & Associates, Inc. Reno, NV 89511

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
06	09	3:50p	P6090204	Artifact 21: Large steel gear	Detail	N/A
06	10	7:05a	P6090205	Overview of excavation progress	124	N/A
06	10	1:09p	P6090206	Overview of start of excavation for the day	0	N/A
06	10	1:41p	P6100207	Overview of continuing removal of asbestos material from chute of Structure 01	238	N/A
06	10	3:18p	P6100208	Overview of Feature 47	324	N/A
06	11	7:21a	P6100209	Overview of excavation progress	294	N/A
06	11	9:22a	P6100210	Overview of work on removal material from small section of Feature 08	234	N/A
06	11	9:29a	P6100211	Overview of handwork being done in lower depths	270	N/A
06	11	9:35a	P6100212	Overview of small section of Feature 08 excavated	234	N/A
06	11	10:16a	P6100213	Overview of valve	222	N/A
06	11	10:25a	P6100214	Overview of start of excavation under headframe	350	N/A
Week 03						
06	14	7:23a	P6140215	Overview of excavated area under and south of Structure 01 showing Features 35-36 and 50-55	294	N/A
06	14	7:34a	P6140216	Overview of metal plate and wooden boards (Feature 50)	298	N/A
06	14	7:34a	P6140217	Overview of metal plate and wooden boards (Feature 50)	298	N/A
06	14	7:37a	P6140218	Overview of Feature 50	200	N/A
06	14	7:37a	P6140219	Overview of Feature 50	200	N/A
06	14	7:39a	P6140220	Detail of wooden boards (Feature 50)	40	N/A
06	14	7:39a	P6140221	Detail of wooden boards (Feature 50)	40	N/A
06	14	7:41a	P6140222	Overview of excavation progress with Features 35-36 and 54-55	126	N/A
06	14	7:44a	P6140223	Overview of one-inch metal pipe (Feature 51) under Structure 01	126	N/A
06	14	7:45a	P6140224	Overview concrete footings (Feature 52)	126	N/A
06	14	7:47a	P6140225	Detail of Feature 52c	126	N/A

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Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
06	14	7:50a	P6140226	Detail of possible brass grounding rod (Feature 53) under Structure 01	210	N/A
06	14	7:53a	P6140227	Overview of two-in pipe (Feature 54) south of Structure 01	210	N/A
06	14	7:56a	P6140228	Features 35, 54, and 66: Feature 35 (foreground) overlies Feature 54 (center). Feature 66 is a concrete vault box (right)	50	N/A
06	14	8:01a	P6140229	Features 35, 54, and 66: Feature 35 (foreground) overlies Feature 54 (center). Feature 66 is a concrete vault box (right)	80	N/A
06	14	8:03a	P6140230	Overview of Feature 33	210	N/A
06	14	8:07a	P6140231	Overview of four-inch metal pipe (Feature 55) south of Structure 01	280	N/A
06	14	8:09a	P6140232	Overview of Features 35 and 36	130	N/A
06	14	8:11a	P6140233	Overview of two-inch metal pipe segment (Feature 34)	Detail	N/A
06	14	8:16a	P6140234	Overview of two-inch metal. pipe (Feature 37)	340	N/A
06	14	8:17a	P6140235	Overview of one-inch metal pipe (Feature 38) segment	340	N/A
06	14	8:20a	P6140236	Overview of six-inch metal. pipe (Feature 42) segment that extends into the southeast corner of Building 04	150	N/A
06	14	8:24a	P6140237	Overview of narrow concrete footing (Feature 40)	326	N/A
06	14	8:26a	P6140238	Overview of three-inch metal pipe (Feature 41) located east of Building 04 near Feature 40.	282	N/A
06	14	8:28a	P6140239	Overview of six-inch metal pipe (Feature 42) that extends over Feature 41 and connects to the southeast corner of Building 04	214	N/A
06	14	11:22a	P6140240	Overview of broken one-inch metal pipes	344	N/A
06	14	11:32a	P6140241	Overview of excavation progress	244	N/A
06	14	11:33a	P6140242	Overview of a set of two two-inch metal pipes and two one-inch metal pipes (Feature 57) that run at 210° towards the southern end of Building 03	210	N/A
06	14	2:00p	P6140243	Overview of a set of two two-inch metal	154	N/A

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Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
				pipes and two one-inch metal pipes (Feature 57) that run at 210° towards the southern end of Building 03		
06	14	3:35p	P6140244	Overview of backfill progress	10	N/A
06	15	10:16a	P6150245	Overview of backfill progress	306	N/A
06	15	10:16a	P6150246	Overview of backfill progress	214	N/A
06	15	10:23a	P6150247	Overview of backfill progress with orange fencing overlaid on remaining hazardous soils	316	N/A
06	15	12:41p	P6150248	Overview of excavation continuing south	42	N/A
06	15	12:52p	P6150249	Overview of one-inch metal pipe (Feature 39) connecting into Feature 09	120	N/A
06	15	1:13p	P6150250	Continuation of Feature 44 (concrete slab) heading east towards Feature 09	110	N/A
06	15	2:18p	P6150251	Artifact 22: Colorless glass bottle with paper label with "...R T[monogram]...PA[K?]/Ro...Be...[cursive]", and embossed on the shoulder with "NO DEPOSIT NO RETURN/TWELVE FULL OUNCES" and "20/O-I[monogram]6/80/1687-GK" embossed on base, crown finish, automatic machine made.	Detail	N/A
06	15	2:19p	P6150252	Artifact 22: Colorless glass bottle shoulder embossing detail	Detail	N/A
06	15	2:19p	P6150253	Artifact 22: Colorless glass bottle shoulder embossing detail	Detail	N/A
06	15	2:19p	P6150254	Artifact 22: Colorless glass bottle paper label detail	Detail	N/A
06	15	2:19p	P6150255	Artifact 22: Colorless glass bottle paper label detail	Detail	N/A
06	15	2:19p	P6150256	Artifact 22: Colorless glass bottle paper label detail	Detail	N/A
06	15	2:19p	P6150257	Artifact 22: Colorless glass bottle base embossing detail	Detail	N/A
06	15	2:20p	P6150258	Artifact 22: Colorless glass bottle base embossing detail	Detail	N/A
06	15	2:20p	P6150259	Artifact 22: Colorless glass bottle base embossing detail	Detail	N/A
06	15	2:21p	P6150260	Artifact 23: Colorless glass liquor bottle with	Detail	N/A

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Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
				"4/5 QUART" embossed four times on heel and "20 Diamond O-I [monogram] 47/2-D/5762 H" embossed on base with continuous threaded finish with metal screw cap, automatic machine made		
06	15	2:21p	P6150261	Artifact 23 Colorless glass liquor bottle with "4/5 QUART" embossed four times on heel and "20 Diamond O-I [monogram] 47/2-D/5762 H" embossed on base with continuous threaded finish with metal screw cap, automatic machine made	Detail	N/A
06	15	2:21p	P6150262	Artifact 23: Colorless glass liquor bottle heel embossing detail	Detail	N/A
06	15	2:21p	P6150263	Artifact 23: Colorless glass liquor bottle heel embossing detail	Detail	N/A
06	15	2:21p	P6150264	Artifact 23: Colorless glass liquor bottle base embossing detail	Detail	N/A
06	15	2:22p	P6150265	Artifact 23: Colorless glass liquor bottle base embossing detail	Detail	N/A
06	15	2:22p	P6150266	Artifact 23: Colorless glass liquor bottle base embossing detail	Detail	N/A
06	15	2:22p	P6150267	Artifact 23: Colorless glass liquor bottle base embossing detail	Detail	N/A
06	15	2:22p	P6150268	Artifact 23: Colorless glass liquor bottle base embossing detail	Detail	N/A
06	15	2:56p	P6150269	Overview of sediment-filled gap between the retaining wall and the foundation of Feature 09	100	N/A
06	16	7:28a	P6160270	Overview of Feature 09 exposed during excavation	110	N/A
06	16	7:31a	P6160271	Overview of Feature 09 exposed during excavation	130	N/A
06	16	7:33a	P6160272	Overview of Feature 09 exposed during excavation	130	N/A
06	16	8:06a	P6160273	Artifact 24: White Improved Earthenware (WIE) plate with makers mark "AS.EDWARDS &.../DALLENHALL" stamped on base and fire-crazed	Detail	N/A
06	16	8:07a	P6160274	Artifact 25: Light fixture, side 01	Detail	N/A
06	16	8:07a	P6160275	Artifact 25: Light fixture, side 01	Detail	N/A

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Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
06	16	8:07a	P6160276	Artifact 25: Light fixture, side 02	Detail	N/A
06	16	8:07a	P6160277	Artifact 26: 20-watt light bulb	Detail	N/A
06	16	4:02p	P6160278	Artifact 27: Brick with "IONE/PAT APP..." stamped on one side	Detail	N/A
06	16	4:02p	P6160279	Artifact 27: Brick with "IONE/PAT APP..." stamped on one side	Detail	N/A
06	16	8:17a	P6160280	Detail of small concrete footing (Feature 58) west of Feature 09	40	N/A
06	16	8:20a	P6160281	Overview of continuation of Feature 33 west of Feature 09	110	N/A
06	16	8:20a	P6160282	Detail of continuation of Feature 33 west of Feature 09	110	N/A
06	16	8:52a	P6160283	Overview of rock removal	138	N/A
06	16	9:53a	P6160284	Overview of sediment color change	146	N/A
06	16	9:54a	P6160285	Overview of sediment color change	146	N/A
06	16	11:05a	P6160286	Artifact 24: WIE plate trademark stamp detail	Detail	N/A
06	16	11:05a	P6160287	Artifact 24: WIE plate trademark stamp detail	Detail	N/A
06	16	12:06p	P6160288	Overview of continuation of Feature 44	60	N/A
06	16	12:09p	P6160289	Overview of continuation of Feature 44	212	N/A
06	16	12:11p	P6160290	Overview of continuation of Feature 44	60	N/A
06	16	12:12p	P6160291	Detail of vent plate of Feature 44	Detail	N/A
06	16	12:54p	P6160292	Overview of area to be excavated	110	N/A
06	16	12:56p	P6160293	Overview of exposed sediment	70	N/A
06	16	1:12p	P6160294	Overview of exposed sediment	70	N/A
06	16	1:34p	P6160295	Overview of exposed sediment showing color change	120	N/A
06	16	3:55p	IMG_4594	Overview of two-inch metal pipe (Feature 59) that extends generally north and south	314	N/A
06	16	3:59p	IMG_4595	Overview of excavation progress	216	N/A
Week 04						
06	21	8:26a	IMG-4597	Overview of excavation at beginning of day	336	N/A

CONTINUATION SHEET - PHOTOGRAPH RECORD

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Project Name: Argonaut Mine Cultural Resources Monitoring Year 2021

Camera Format: Digital Lens Size: 8mm Film Type: N/A Negatives Kept at: Broadbent & Associates, Inc. Reno, NV 89511

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
06	21	10:41a	IMG-4598	Overview of exposed railroad tie likely associated with Feature 47 (narrow-gauge rail track)	0	N/A
06	21	10:42a	IMG-4599	Overview of railroad tie likely associated with Feature 47 (narrow-gauge rail track)	0	N/A
06	21	11:06a	IMG-4600	Overview of exposed one-inch plastic pipe at one foot depth	182	N/A
06	21	11:12a	IMG-4601	Overview of broken pipe	140	N/A
06	21	11:27a	IMG-4602	Overview of fill material with bricks near Feature 47	120	N/A
06	21	11:33a	IMG-4603	Overview of fill material with bricks near Feature 47	120	N/A
06	21	12:33p	IMG-4604	Overview of Feature 47 continuation with brick concentrations	150	N/A
06	21	1:50p	IMG-4605	Overview of Feature 47 partially intact wooden railroad tie	Detail	N/A
06	21	1:50p	IMG-4606	Overview of Feature 47 partially intact wooden rail tie	Detail	N/A
06	21	1:51p	IMG-4607	Overview of Feature 47 partially intact wooden railroad tie	Detail	N/A
06	21	1:51p	IMG-4608	Overview of concentration of brick fragments (Concentration 04)	Detail	N/A
06	21	1:52p	IMG-4609	Overview of concentration of brick fragments (Concentration 05)	Detail	N/A
06	21	1:52p	IMG-4610	Overview of concentration of brick fragments (Concentration 06)	Detail	N/A
06	21	1:59p	IMG-4611	Overview of Feature 47 continuation with brick concentrations	150	N/A
06	21	3:27p	IMG-4612	Overview of cut pipe segment	62	N/A
06	22	9:40a	IMG-4613	Overview of EA03 bench	324	N/A
06	22	9:45a	IMG-4614	Overview of backfill progress	300	N/A
06	22	9:48a	IMG-4615	Overview of backfill progress	70	N/A
06	22	10:00a	IMG-4616	Overview of Feature 09 after backfill	6	N/A
06	22	10:05a	IMG-4617	Overview of EA03 bench	324	N/A
06	22	10:08a	IMG-4618	Exposure of large concrete footing (Feature 31)	80	N/A

CONTINUATION SHEET - PHOTOGRAPH RECORD

Page 92 of 99 Project Name: Argonaut Mine Cultural Resources Monitoring Year 2021
Camera Format: Digital Lens Size: 8mm Film Type: N/A Negatives Kept at: Broadbent & Associates, Inc. Reno, NV 89511

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
06	22	10:36a	IMG-4619	Overview of start of excavation east of Building 05	4	N/A
06	22	10:36a	IMG-4620	Overview of start of excavation east of Building 05	4	N/A
06	22	2:40p	IMG-4621	Overview of Feature 60, concrete footing	286	N/A
06	22	2:40p	IMG-4622	Overview of Feature 60, concrete footing	326	N/A
06	22	2:42p	IMG-4623	Detail of Feature 60, concrete footing	326	N/A
06	22	2:48p	IMG-4624	Overview of Feature 57 continuation extending north and south	326	N/A
06	22	2:48p	IMG-4625	Overview of Feature 57 continuation extending north and south	326	N/A
06	22	2:49p	IMG-4626	Overview of Feature 57 continuation extending north and south	326	N/A
06	22	2:55p	IMG-4627	Overview of 4 in. pipe (Feature 61) extending out of Building 05	320	N/A
06	22	2:55p	IMG-4628	Overview of 4 in. pipe (Feature 61) extending out of Building 05	320	N/A
06	22	2:56p	IMG-4629	Detail of Feature 61 extending out of Building 05	320	N/A
06	22	2:57p	IMG-4630	Detail of Feature 61 extending out of Building 05	320	N/A
06	23	8:25a	IMG-4631	Detail of Feature 61 exposed	330	N/A
06	23	8:25a	IMG-4632	Detail of Feature 61 exposed	330	N/A
06	23	8:26a	IMG-4633	Detail of Feature 61 exposed	330	N/A
06	23	12:28p	IMG-4634	Overview of concrete footing (Feature 60) with east side exposed	0	N/A
06	23	8:58a	IMG-4635	Overview of complete concrete footing	30	N/A
06	23	9:20a	IMG-4636	Details of concrete footing (Feature 60)	Detail	N/A
06	23	9:20a	IMG-4638	Details of concrete footing (Feature 60)	Detail	N/A
06	23	9:20a	IMG-4639	Details of concrete footing (Feature 60)	Detail	N/A
06	23	9:21a	IMG-4640	Details of concrete footing (Feature 60)	Detail	N/A
06	23	9:21a	IMG-4641	Details of concrete footing (Feature 60)	Detail	N/A
06	23	9:22a	IMG-4642	Details of concrete footing (Feature 60)	Detail	N/A
06	23	9:22a	IMG-4643	Details of concrete footing (Feature 60)	Detail	N/A

CONTINUATION SHEET - PHOTOGRAPH RECORD

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Project Name: Argonaut Mine Cultural Resources Monitoring Year 2021

Camera Format: Digital Lens Size: 8mm Film Type: N/A Negatives Kept at: Broadbent & Associates, Inc. Reno, NV 89511

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
06	23	9:22a	IMG-4644	Details of concrete footing (Feature 60)	Detail	N/A
06	23	9:11a	GYWQ3490	Details of concrete footing (Feature 60)	Detail	N/A
06	24	8:28a	IMG-4649	Overview of removal of Feature 60 to develop road and access slope	10	N/A
06	24	8:28a	IMG-4650	Overview of removal of Feature 60 to develop road and access slope	10	N/A
06	24	8:31a	IMG-4651	Overview of Feature 60 after being removed	208	N/A
06	24	8:31a	IMG-4652	Overview of Feature 60 after being removed	208	N/A
06	24	10:15a	IMG-4653	Artifact 28: Complete Green "7-Up" bottle with applied color label (ACL) and crown finish; ACL is only partially visible. Body has faded ACL with two small white "7-UP" labels on the neck and one partially worn red "7-UP" label on one side of the body and faded ACL label with ".../...Fresh Up!/..."; base embossed with "23 O-I [monogram] 6/4-L/94-G"	Detail	N/A
06	24	10:16a	IMG-4654	Artifact 28: Complete Green "7-Up" soda bottle, side 2 overview	Detail	N/A
06	24	10:16a	IMG-4655	Artifact 28: Complete Green "7-Up" soda bottle, side 2 detail	Detail	N/A
06	24	10:16a	IMG-4656	Artifact 28: Complete Green "7-Up" soda bottle, side 2 detail	Detail	N/A
06	24	10:16a	IMG-4657	Artifact 28: Complete Green "7-Up" soda bottle, side 2 detail	Detail	N/A
06	24	10:16a	IMG-4658	Artifact 28: Complete Green "7-Up" soda bottle, side 2 detail	Detail	N/A
06	24	10:16a	IMG-4659	Artifact 28: Complete Green "7-Up" soda bottle, side 2 detail	Detail	N/A
06	24	10:16a	IMG-4660	Artifact 28: Complete Green "7-Up" soda bottle, side 2 detail	Detail	N/A
06	24	10:18a	IMG-4661	Artifact 28: Complete Green "7-Up" soda bottle, base detail	Detail	N/A
06	24	10:18a	IMG-4662	Artifact 28: Complete Green "7-Up" soda bottle, base detail	Detail	N/A
06	24	10:18a	IMG-4663	Artifact 28: Complete Green "7-Up" soda bottle, base detail	Detail	N/A
06	24	10:19a	IMG-4664	Artifact 28: Complete Green "7-Up" soda	Detail	N/A

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Project Name: Argonaut Mine Cultural Resources Monitoring Year 2021

Camera Format: Digital Lens Size: 8mm Film Type: N/A Negatives Kept at: Broadbent & Associates, Inc. Reno, NV 89511

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
				bottle, base detail		
06	24	10:19a	IMG-4665	Artifact 28: Complete Green "7-Up" soda bottle, base detail	Detail	N/A
06	24	10:19a	IMG-4666	Artifact 28: Complete Green "7-Up" soda bottle, base detail	Detail	N/A
06	25	8:27a	IMG-4667	Overview of large piece of metal sheeting	8	N/A
06	25	8:27a	IMG-4668	Overview of large piece of metal sheeting	8	N/A
06	25	8:27a	IMG-4669	Overview of large piece of metal sheeting	8	N/A
06	25	8:46a	IMG-4670	Overview of crushed metal drum and large (one-in diameter) braided cable wire	340	N/A
06	25	8:46a	IMG-4671	Overview of crushed metal drum and large (one-in diameter) braided cable wire	340	N/A
06	25	8:46a	IMG-4672	Overview of crushed metal drum and large (1 in. diameter) braided cable wire	340	N/A
Week 05						
06	28	7:02a	P6280001	Overview of work area with braided wire cable	350	N/A
06	28	7:03a	P6280002	Overview of work area	80	N/A
06	28	8:34a	P6280003	Overview of excavation progress	75	N/A
06	28	8:53a	P6280004	Overview of exposed 2 ½ in. pipe (Feature 62)	75	N/A
06	28	8:54a	P6280005	Detail of Feature 62 facing north	Detail	N/A
06	28	8:54a	P6280006	Detail of Feature 62 facing north	Detail	N/A
06	28	8:54a	P6280007	Detail of Feature 62 facing east	Detail	N/A
06	28	8:58a	P6280008	Detail of Feature 62 facing north	Detail	N/A
06	30	7:10a	P6300009	Overview of excavation at start of day	70	N/A
06	30	7:21a	P6300010	Overview of slope work area from top of hill	115	N/A
06	30	8:04a	P6300011	Overview of collection of crucibles from Concentration 01	Detail	N/A
06	30	8:46a	P6300012	Overview of work progress on backfilling	210	N/A
06	30	11:15a	P6300013	Cut stone blocks not fully embedded in slopes	140	N/A
06	30	1:24p	P6300014	Overview of work progress on slope with crucibles in background	115	N/A

CONTINUATION SHEET - PHOTOGRAPH RECORD

Page 95 of 99 Project Name: Argonaut Mine Cultural Resources Monitoring Year 2021
Camera Format: Digital Lens Size: 8mm Film Type: N/A Negatives Kept at: Broadbent & Associates, Inc. Reno, NV 89511

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
06	30	2:47p	P6300015	Large wheel/gear found on hill	Detail	N/A
06	30	3:54p	P6300016	2 in. pipe (Feature 63) exposed at two feet below grade at the southeast corner of Building 05; it appears bent prior to excavation	135	N/A
06	30	4:52p	P6300017	Development of new road allowing access downslope	360	N/A
07	01	7:51a	P7010018	Overview of lower slope work area	80	N/A
07	01	9:03a	P7010019	Continued development of new road allowing access downslope	20	N/A
07	01	10:13a	P7010020	Drill bits exposed in road cut	320	N/A
07	01	11:21a	P7010021	Stacked rock wall (Feature 64) that is east downslope of Building 05	260	N/A
07	01	11:22a	P7010022	Stacked rock wall (Feature 64) that is east downslope of Building 05	200	N/A
07	01	11:22a	P7010023	Stacked rock wall (Feature 64) facing Building 05	260	N/A
07	01	12:38p	P7010024	Artifact 07: Complete colorless glass condiment bottle with fluted body and cap (?) finish with base embossed "H-257/HA(monogram)"	Detail	N/A
07	01	12:39p	P7010025	Artifact 07: Complete colorless glass condiment bottle base detail	Detail	N/A
07	01	12:41p	P7010026	Artifact 08: Almost complete colorless glass medicine bottle with dram and CC measurements. Prescription finish is broken with base embossed "OWENS / Diamond-OI 4" Shoulder embossed "(Dram symbol) I V"; sides embossed with dram and CC measurements.	Detail	N/A
07	01	12:41p	P7010027	Artifact 08: Medicine bottle base, shade	Detail	N/A
07	01	12:42p	P7010028	Artifact 08: Medicine bottle measurements, side 01	Detail	N/A
07	01	12:42p	P7010029	Artifact 08: Medicine bottle measurements, side 02	Detail	N/A
07	01	12:42p	P7010030	Artifact 08: Medicine bottle shoulder embossing	Detail	N/A
07	01	12:42p	P7010031	Artifact 08: Medicine bottle base, sun	Detail	N/A

CONTINUATION SHEET - PHOTOGRAPH RECORD

Page 96 of 99 Project Name: Argonaut Mine Cultural Resources Monitoring Year 2021
Camera Format: Digital Lens Size: 8mm Film Type: N/A Negatives Kept at: Broadbent & Associates, Inc. Reno, NV 89511

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
07	01	2:20p	P7010032	Artifact 09: Complete Coke Green glass bottle, hobble skirt design. Crown cap finish with base embossed "JACKSON/ CALIF." Body embossed "COCA-COLA (script)/ TRADEMARK REGISTERED/ BOTTLE PAT'D DEC. 25 1923" // COCA-COLA (script) TRADEMARK REGISTERED/ MIN CONTENTS 6 - FL. OZS"	Detail	N/A
07	01	2:21p	P7010033	Artifact 09: Complete "Coca-Cola" bottle, base	Detail	N/A
07	01	2:21p	P7010034	Artifact 09: Complete "Coca-Cola" bottle embossing detail	Detail	N/A
07	01	2:21p	P7010035	Artifact 09: Complete "Coca-Cola" bottle embossing detail	Detail	N/A
07	01	2:21p	P7010036	Artifact 09: Complete "Coca-Cola" bottle embossing detail	Detail	N/A
07	01	2:21p	P7010037	Artifact 09: Complete "Coca-Cola" bottle embossing detail	Detail	N/A
07	01	3:40p	P7020038	Work on in-progress road down slope	150	N/A
07	02	8:04a	P7020039	Work in progress on slope	120	N/A
07	02	8:13a	P7020040	Artifact 11: Complete colorless glass bottle with applied finish. 3/4-in diameter mouth. Has a salt-like accretion on the inside. Base embossed with "W.T.CO."	Detail	N/A
07	02	8:14a	P7020041	Artifact 11: Colorless glass bottle base detail	Detail	N/A
07	02	8:14a	P7020042	Artifact 11: Colorless glass bottle contents detail	Detail	N/A
07	02	8:16a	P7020043	Artifact 12: Complete brown glass bottle with continuous threaded finish and stippling on base, shoulder, and heel. Base embossed: " 23/ Circle-I/ KU11/ 72." Shoulder embossed with Anheuser Busch Eagle x4, neck embossed "PLEASE DON'T LITTER " x2, Heel embossed "NO DEPOSIT (star) NO RETURN" x2	Detail	N/A
07	02	8:16a	P7020044	Artifact 12: Beer bottle Anheuser-Busch Eagle detail	Detail	N/A
07	02	8:16a	P7020045	Artifact 12: Beer bottle heel embossing	Detail	N/A
07	02	8:16a	P7020046	Artifact 12: Beer bottle base embossing	Detail	N/A
07	02	8:32a	P7020047	Overview of work-in progress on slope	Detail	N/A

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Project Name: Argonaut Mine Cultural Resources Monitoring Year 2021

Camera Format: Digital Lens Size: 8mm Film Type: N/A Negatives Kept at: Broadbent & Associates, Inc. Reno, NV 89511

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
07	02	8:32a	P7020048	Overview of work-in progress of excavation on slope	Detail	N/A
07	02	8:45a	P7020049	Overview of work in progress	Detail	N/A
07	02	9:01a	P7020050	Overview of pit on slope	155	N/A
07	02	9:20a	P7020051	Artifact 03: Complete brown glass bottle with crown cap finish. Body and base are stippled. Base embossed "20 Diamond-OI 49/ 1C . / Duraglas (script)/ I-WAY/ 11GB." Shoulder embossed "NOT TO BE REFILLED// NO DESPOSIT (STAR) NO RETURN."	Detail	N/A
07	02	9:21a	P7020052	Artifact 03: Complete brown glass bottle base	Detail	N/A
07	02	9:21a	P7020053	Artifact 03: Complete brown glass bottle shoulder embossing	Detail	N/A
07	02	9:21a	P7020054	Artifact 03: Complete brown glass bottle shoulder embossing	Detail	N/A
07	02	9:21a	P7020055	Artifact 03: Complete brown glass bottle shoulder embossing	Detail	N/A
07	02	9:21a	P7020056	Artifact 03: Complete brown glass bottle shoulder embossing	Detail	N/A
07	02	9:22a	P7020057	Artifact 04: Complete brown glass bottle with continuous threaded finish. Tapered neck. Neck embossed with Anheuser-Busch Eagle x4. Heel embossed "Circle-BB 07 PLEASE DON'T LITTER (x2). Base is stippled, embossed "2."	Detail	N/A
07	02	9:22a	P7020058	Artifact 04: Beer bottle Anheuser-Busch Eagle detail	Detail	N/A
07	02	9:22a	P7020059	Artifact 04: Beer bottle heel detail	Detail	N/A
07	02	9:23a	P7020060	Artifact 04: Beer bottle heel detail	Detail	N/A
07	02	9:23a	P7020061	Artifact 04: Beer bottle base detail	Detail	N/A
07	02	9:23a	P7020062	Artifact 06: Complete colorless glass medicine bottle with dram and CC measurements. Prescription finish. Base embossed "6 Square-O 5" Shoulder embossed "(Dram symbol) V I"; sides embossed with dram and CC measurements.	Detail	N/A
07	02	9:24a	P7020063	Artifact 06: Colorless medicine bottle base	Detail	N/A

CONTINUATION SHEET - PHOTOGRAPH RECORD

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Project Name: Argonaut Mine Cultural Resources Monitoring Year 2021

Camera Format: Digital Lens Size: 8mm Film Type: N/A Negatives Kept at: Broadbent & Associates, Inc. Reno, NV 89511

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
				detail		
07	02	9:24a	P7020064	Artifact 06: Colorless medicine bottle shoulder detail	Detail	N/A
07	02	9:24a	P7020065	Artifact 06: Colorless medicine bottle measurements, side 01	Detail	N/A
07	02	9:25a	P7020066	Artifact 06: Colorless medicine bottle measurements, side 02	Detail	N/A
07	02	9:31a	P7020067	Artifact 05: Complete colorless glass medicine bottle with prescription finish. Shoulder embossed "2," base embossed with crescent moon shape.	Detail	N/A
07	02	9:31a	P7020068	Artifact 05: Colorless glass medicine bottle base—crescent	Detail	N/A
07	02	9:31a	P7020069	Artifact 05: Colorless glass medicine bottle, shoulder - "2"	Detail	N/A
07	02	9:32a	P7020070	Artifact 10: Colorless glass bottle with capseat finish, base stippled. Base embossed "7 Diamond-OI 2/ 6"	Detail	N/A
07	02	9:33a	P7020071	Artifact 10: Colorless bottle with capseat finish—base	Detail	N/A
07	02	10:15a	P7020072	2 in. pipe (Feature 65) exposed about eight inches below grade on slope, east and downslope of Feature 08	170	N/A
07	02	10:16a	P7020073	Feature 65 detail	140	N/A
07	02	10:17a	P7020074	Wide shot of Feature 65	140	N/A
07	02	10:17a	P7020075	Overview of Feature 65 from above on slope	85	N/A
07	02	10:59a	P7020076	Overview of work in progress on slope	140	N/A
07	02	11:44a	P7020077	Overview of Feature 65 looking upslope	245	N/A
07	02	11:47a	P7020078	Overview of road construction progress along slope	320	N/A
07	02	2:43p	P7020079	Overview of work in progress	135	N/A
07	02	2:56p	P7020080	Sediment profile of bench on slope	190	N/A
07	02	3:14p	P7020081	Overview of Concentration 01 (crucible deposit) exposed	195	N/A
07	02	3:35p	P7020082	Artifact 13: Complete colorless glass jar with suction scar, continuous threaded finish. Partial metal screw cap included. Base	Detail	N/A

CONTINUATION SHEET - PHOTOGRAPH RECORD

Page 99 of 99 Project Name: Argonaut Mine Cultural Resources Monitoring Year 2021
Camera Format: Digital Lens Size: 8mm Film Type: N/A Negatives Kept at: Broadbent & Associates, Inc. Reno, NV 89511

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (Degrees)	Accession #
				embossed "5 (dot) 8 1/4 Diamond-OI"		
07	02	3:36p	P7020083	Artifact 13: Colorless glass jar base detail, "8 1/4"	Detail	N/A
07	02	3:55p	P7020084	Removal of metal debris from slope	120	N/A
07	02	4:01p	P7020085	Artifact 14: Complete colorless glass jar with discontinuous threaded finish and suction scar on base. Base embossed "Triangle-IPG/4"	Detail	N/A
07	02	4:02p	P7020086	Artifact 14: Colorless glass jar base detail	Detail	N/A
07	02	4:02p	P7020087	Artifact 14: Colorless glass jar base detail	Detail	N/A
07	03	7:57a	P7030088	Artifact 14: Overview of cut along slope	265	N/A
07	03	9:50a	P7030089	Overview of bench along slope that has been excavated	175	N/A
Week 06						
07	05	7:17a	P7050090	Overview of work area at the start of the day	360	N/A
07	05	7:25a	P7050091	Overview of work in progress	340	N/A
07	05	9:51a	P7050092	Overview of backfill progress	340	N/A
07	05	9:52a	P7050093	Overview of backfill progress	130	N/A
07	05	9:53a	P7050094	Overview of backfill progress showing Feature 08 and Building 05	20	N/A
07	05	9:54a	P7050095	Overview of material stockpiles south of main mine complex	335	N/A
07	05	9:55a	P7050096	Overview of EA03 and constructed road for access to slope	340	N/A
07	05	9:56a	P7050097	Overview of access road along slope	145	N/A
07	05	9:57a	P7050098	Overview of excavated slope east of Feature 08	185	N/A
07	05	9:58a	P7050099	Overview of hand excavation area along slope	115	N/A
07	05	9:58a	P7050100	Overview of lower portion of access road along slope	310	N/A

DPR Record for

CA-AMA-208H

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-03-000243

HRI #

Trinomial CA-AMA-208H

NRHP Status Code: 3B

Other Listings: P-03-0001510; CHL-786

Review Code

Reviewer

Date

Page 1 of 141 *Resource Name or #: (Assigned by recorder) Argonaut Mine Industrial District

P1. Other Identifier: Argonaut and Kennedy Mines; Argonaut Mine Site

*P2. Location: ☒ Not for Publication ☐ Unrestricted

*a. County Amador (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Jackson, CA Date 2012 T 6N; R 11N; NE ¼ of NE ¼ of Sec 20; B.M. Mount Diablo

c. Address SR 49 & 88 City Jackson, CA Zip 95642

d. UTM: (Give more than one for large and/or linear resources) Zone 10, 693425 mE/ 4248357 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

The Argonaut Mine Industrial District is located on the west and east sides of State Route 49/88, 1.4 miles north of the intersection of SR 88 and SR 49 in Jackson, CA.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This record is an update and expansion of the Argonaut Mine Site, P-03-000243/CA-AMA-208H, originally recorded in 1983 (Cenotto 1983). The original site boundary encompassed 4.2 acres on the east side of CA-49/88. The site was revisited by Broadbent & Associates, Inc. in July 2020. Resources related to the operations of the mine site were recorded on both sides of the highway. The proposed Argonaut Mine Industrial District boundary encompasses 21.6 acres, eight buildings, one structure, four architectural objects, one linear resource, 23 archaeological features, and one artifact concentration. The Argonaut Mine is listed collectively with the Kennedy Mine as CA Historical Landmark No. 786.

*P3b. Resource Attributes: (List attributes and codes) HP43, Mine Structure/Building; AH2, Foundations; AH4: Trash Scatter; AH6: Water Conveyance, AH9: Mine Tailings; AH10: Machinery; AH 11: Walls, Fences



*P4. Resources Present:

☒ Building ☒ Structure ☒ Object
☒ Site

☒ District ☐ Element of District ☐
Other (Isolates, etc.)

P5b. Description of Photo: (view, date, accession #) Overview of west side of District, facing N. 7/21/2020

*P6. Date Constructed/Age and

Source: ☒ Historic ☐ Prehistoric

☐ Both

1850-1942

*P7. Owner and Address:

Private

*P8. Recorded by: (Name, affiliation, and address) A. Pollock and K. Mansfield, Broadbent & Associates, Inc. 5450 Louie Ln., #101, Reno, NV 89511

*P9. Date Recorded: July 21-23, 2020

*P10. Survey Type: (Describe):
☐ Intensive ☐ Pedestrian ☐ Survey;
☒ Architectural Survey

*P11. Report Citation: (Cite survey report and other sources, or enter "none.")

Pollock, A., K. Mansfield, and L. Culleton (2020) Cultural Resources Assessment for the Argonaut Mine Remediation Project. Prepared by Broadbent & Associates, Inc. for the Environmental Protection Agency, Region 9.

Cenotto, L. (1983) Historic Site Survey of Jackson, Amador County Museum

*Attachments: ☐ NONE ☒ Location Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record

☒ Archaeological Record ☒ District Record ☒ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record

☒ Artifact Record ☒ Photograph Record ☒ Other (List): Photograph pages

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*NRHP Status Code 3B

*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

D1. Historic Name: Argonaut Mine

D2. Common Name: Argonaut Mine Industrial District

***D3. Detailed Description** (Discuss overall coherence of the district, its setting, visual characteristics, and minor features. List all elements of district.):

The Argonaut Mine Industrial District encompasses the extant architectural and archaeological core of the mine/mill system for the Argonaut Mine. The claim was originally discovered and worked in 1850, one of the earliest hard rock mines in the region and one of the few to be owned and operated by black miners. The claim was sold to the Pioneer Mining Company in 1865, and reached its full industrial scale after being acquired by the Argonaut Mining Company in 1893. The Argonaut Mine was one of the largest and most productive mines in the Mother Lode Mining District in the late nineteenth century through first half of the twentieth century. Its main shaft reached a depth of 5850 feet and it produced 2.75 million tons of ore (Muratore 2013). In terms of depth it was surpassed only by its neighbor, the Kennedy Mine, whose East Shaft reached 5,912 feet (Allen 2009:14).

The Argonaut Mine Industrial District is situated in the northern portion of the historic Argonaut Mine property. While the original mine property encompassed 333.2 acres in total, the Argonaut Mine Industrial District covers a total of 21.6 acres. The Argonaut Mine Industrial District is defined by the location of the resources described herein. All areas of the District as currently defined have been surveyed. The district is shown in the attached DPR Location Sketch Maps.

The architectural component of the Argonaut Mine Industrial District is comprised of seven buildings, four architectural objects, one linear feature, and two structures that were associated with the milling and mining operations of the Argonaut Mine. The archaeological components of the Argonaut Mine Industrial District are comprised of 23 features and one artifact concentration. All resources documented within the boundaries of the district are considered elements of the district, as they are associated with the extraction, beneficiation, and refining activities that occurred at the Argonaut Mine.

The District is bisected by CA-49/CA-88. On the west side of the highway, the District encompasses one structure, five buildings, one artifact concentration, and 16 archaeological features. The gallows headframe (Structure 1) is located in this part of the District. It is a 55-foot tall steel frame on a concrete foundation, constructed in 1914 to replace the wooden headframe built in 1894. A concrete and wood frame building of unknown function (Building 1) is located in the western extent of the District, southwest and upslope of the headframe. This building appears in historic photographs by 1920. It may have been associated with the 60-stamp mill that operated from 1916 to 1942. Three closely-placed buildings, an Office (Building 2), a Machine Shop (Building 3), and a Compressor Room (Building 4) are aligned to the south of the headframe. These buildings can be seen in their current configuration in 1920. The 1912 Sanborn Map, created shortly before the remodeling and expansion of the mine, shows buildings with the same ascribed functions oriented roughly east-west, indicating that Buildings 2-4, as they currently stand, were re-constructed from earlier iterations between 1913 and 1920. A Steel Shop (Building 5) is located opposite Building 4, separated by a level work area. This building can be seen in 1920 photographs of the mine, but does not appear in earlier Sanborn Maps.

The 16 archaeological features in the western part of the District include foundations for the mine Assay Office (Feature 8), a foundation for a Steam Boiler (Feature 9), a series of footings associated with the Timber and Sawmill constructed north of the headframe in 1912 (Features 12-16), as well as

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

utility poles, pipelines, and smaller elements of the mine. One concentration of historic and modern debris (Concentration 1) is located on a steep slope trending from the work area to the highway. The scatter contains more than 20 assay crucibles that are associated with the Assay Office, upslope.

On the east side of CA-49/CA-88, the District includes two buildings, one structure, and 12 archaeological features. A Hoist Frame (Structure 02) and a small shed are located on the eastern shoulder of the highway, in line with the main gallows headframe.

Structure 02 and the associated shed are located west of the Hoist House (Building 08). The Hoist House is part of the original industrial core of the mine, c. 1894, though it has been modified and expanded over time. East and downslope of the Hoist House, there is an Air Compressor House (Building 09) that appears on Sanborn Maps as early as 1912. This building was associated with the hydroelectric power system for the mine.

Archaeological features on the east side of the highway include the foundations for the original 40-stamp mill, constructed in 1897 and abandoned in 1916 when the new 60-stamp mill was completed (Feature 21). It also encompasses an extant portion of the Moore Ditch (Feature 17), adjacent to the Air Compressor House, a large tailings platform with footings for a trestle (Feature 18), an earthen platform for the Sulphuret House foundations (Feature 27), and several smaller earthworks and infrastructure components. The components of the District are listed in the Table of Resources below.

TABLE OF RESOURCES

Resource #	Description	Year Built	Individual NRHP	Contributing to District?
N/A	Argonaut Mine Industrial District	1895-1942	Y	N/A
Building 1	Unknown Building	c.1912-1920	N	Y
Building 2	Office	c.1912-1920	N	Y
Building 3	Machine Shop	c.1912-1920	N	Y
Building 4	Compressor House	c.1930-1942	N	Y
Building 5	Steel Shop	c.1930-1942	N	Y
Building 6	Number Omitted			
Building 7	Number Omitted			
Building 8	Hoist House	c.1895-1895	Y	Y
Building 9	Air Compressor House	1898	N	Y
Structure 1	Headframe	1895	Y	Y
Structure 2	Hoist Frame with associated shed	c.1912-1920	N	Y
Feature 1	Wooden Post	Unknown	N/A	N
Feature 2	Metal Bin	Unknown	N/A	N
Feature 3	Metal Pipe	Unknown	N/A	N
Feature 4	Pit or Post Hole	Unknown	N/A	N
Feature 5	Fence	Unknown	N/A	N
Feature 6	Ditch	Unknown	N/A	N

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

Resource #	Description	Year Built	Individual NRHP	Contributing to District?
Feature 7	Utility Pole	1912-1920	N/A	Y
Feature 8	Foundation: Assay Office	c. 1895	N/A	Y
Feature 9	Concrete Pad for Steam Boiler	c.1930	N/A	N
Feature 10	Retaining Wall	Unknown	N/A	Y
Feature 11	Metal Pipe	Unknown	N/A	Y
Feature 12	Concrete footing north of headframe (Timber Mill)	c.1912	N/A	N
Feature 13	Concrete Footing (Timber Mill)	c.1912	N/A	N
Feature 14	Concrete Footing (Timber Mill)	c.1912	N/A	N
Feature 15	Concrete Footings (Timber Mill)	c.1912	N/A	N
Feature 16	Concrete Block Footing (Timber Mill)	c.1930	N/A	N
Feature 17	Moore Ditch	1898	N/A	Y
Feature 18	Large Tailings Platform	c.1894	N/A	Y
Feature 19	Large Metal Pipe	Unknown	N/A	Y
Feature 20	Collapsed Wood-Framed Structure	by 1912	N/A	N
Feature 21	Stamp Mill Foundations	c.1898	N/A	Y
Feature 22	Utility Pole	c.1912	N/A	Y
Feature 23	Utility Pole	c.1912	N/A	Y
Feature 24	Utility Pole	c. 1912	N/A	Y
Feature 25	Number omitted; combined with Feature 17			
Feature 26	Wood Water Tank	Unknown	N/A	N
Feature 27	Terrace: Sulphuret House	c.1898	N/A	N
Feature 28	Pit	Unknown	N/A	N
Feature 29	Pit	Unknown	N/A	N
Concentration 1	Crucible Dump	Unknown	N/A	N
Totals			Individually Eligible: 2	Contributing: 20
				Non Contributing: 18

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

***D4. Boundary Description** (Describe limits of district and attach map showing boundary and district elements.):

The Argonaut Mine Industrial District covers a total of 21.6 acres. All areas of the historic district as currently defined have been surveyed. See attached District Location Map.

***D5. Boundary Justification:**

The Argonaut Mine Industrial District is defined by the location of the resources described above, which form the extant architectural and archaeological core of the mine/mill system for the Argonaut Mine. The Industrial District boundary does not include the Argonaut Cyanide Plant and Tailings Site (CA-AMA-747H).

D6. Significance: Theme Mining **Area** Jackson, CA
Period of Significance 1850-1942
Applicable Criteria A, C, D

(Discuss district's importance in terms of its historical context as defined by theme, period of significance, and geographic scope. Also address the integrity of the district as a whole.)

The *period of significance* for the District is from the discovery of the mine in 1850 to its closure by executive order (L-208) in 1942. This period can be subdivided based on the ownership of the mine over time: its Initial Operations Period, 1850-1865; the Pioneer Mine Period, 1865-1893; and the Argonaut Mining Company Period 1893-1942. The extant buildings and structures; and most of the archaeological features date to the Argonaut Mine Period, 1893-1942. The mine underwent a significant remodeling period in 1913 and 1914; several of the resources appear to have been rebuilt and reconstructed to their current form by 1920.

Statement of Integrity

The Argonaut Mine Industrial District does not currently function as a mine. It has been out of use since the mine's closure in 1942 and has experienced expected effects to its condition associated with disuse along with some alterations because of various stages of environmental remediation. As a result, the historical integrity displayed by individual features varies widely.

The district remains in its original location in the Sierra Nevada Foothills, south of the Kennedy Mine site (listed to the NHRP) and north of the city of Jackson. It therefore retains its integrity of location. Although CA-88 bisects the Argonaut Mine Industrial District so that resources are situated on both the east and west side of the highway, this road follows the same approximate corridor of Jackson-Sutter Creek Road and therefore does not detract from the historic configuration of the district. Several key historic features related to the early phases of the mine's development are absent, including the 60-stamp mill (1916) and its associated two-track tramway (1917), a water tank that once loomed over the mine, as well as a variety of other buildings and structures that have come and gone over the mine's evolution. This type of site formation is commonly associated with mining landscapes, which must accommodate changing technologies and economic conditions. While some major design changes occurred during the period of significance for the district, these reflect historic adaptations of the original property and as a result, the district retains a sufficient level of design integrity. The cohesion of the district is

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bolstered by the wall and roof treatments on extant buildings; all extant buildings are wood constructed and sheathed in corrugated metal. This was typical of mining landscapes, as historian Richard Francaviglia notes, “if one were to choose a building material that personifies mining landscapes, it would be corrugated metal” (Francaviglia 1991, 125).

Changes to individual buildings, such as adaptations to roof and wall materials, the covering of window and door openings, and significant loss of window glazing result in a loss of integrity of materials and workmanship. Finally, the district remains surrounded by remnants of the mining activity with which it was associated. While the continual development of the surrounding area has compromised the integrity of setting, feeling, and association, the district retains sufficient levels of these qualities.

National Register Considerations

The Argonaut Mine was a key producer of ore in the Mother Lode Gold Belt of California. The architectural and archaeological resources that comprise the Argonaut Mine Industrial District represents the mineral extraction and processing activities that took place during the operation of the Argonaut Mine between 1893 and 1942. We recommend that the District is significant both locally and nationally.

The district is comprised of historically and functionally related resources that express its significance as a collection of large scale, deep shaft mining operations that occurred in the Mother Lode region from the early years of the California gold rush through the federal Gold Mining Closing Order (L-208) in 1942. As one of the largest mines in the Mother Lode District, it was a central driver of the Jackson and Amador County economies and part of the events that shaped the early history of the State of California. The Mother Lode and the Gold Rush also drew a diverse mix of prospectors and investors into the area, including the original owners of the mine.

In addition to its economic significance, the landmark lawsuit between the Argonaut Mine and its neighbor, the Kennedy Mine, had a lasting impact on the legal interpretation of extra-lateral rights in mining claims. The decision continues to define the understanding of the Mining Acts of Congress of 1866 and 1872 to this day.

While that Argonaut Mine was not involved in nineteenth century efforts to organize labor, it formed a part of local labor unions by the 1930s. At this time, when union activity was escalating in the United States, improvements to worker’s rights, wages, and mining safety in the West came more slowly than in Midwest and Eastern Mines. The attempts made by workers at the Argonaut Mine and other local mines were part of the struggle by western miners to gain collective rights.

The Argonaut Mine Disaster of 1922 that resulted in 47 fatalities is known as the deadliest mining accident in California history. While the impact of this tragedy on the mine’s management and worker’s safety was not immediately realized, it was a pivotal event for the community and western mining practices.

We recommend that the Argonaut Mine Industrial District is eligible to the NRHP under *Criterion A* for its socio-economic impact in California and Amador County (Commerce/Industry); its founding by black miners in the 1850s (Social/Community); its role in the defining Extra-Lateral Rights in federal mining law (Law); the union activity of its employees (Labor); and for the Argonaut Mining Disaster

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(Mining Safety), all of which constitute events significant in our history.

The district is not associated with any person of significance at the local, state, or national levels and is therefore recommended not eligible to the NHRP under Criterion B.

The district displays distinctive characteristics of a deep shaft, hard rock mining system that includes resources related to the extraction, beneficiation, and refining of gold-bearing ore. The mine retains its core elements, particularly the Headframe and Hoist House, as well as several intact buildings and features that exemplify the core system of hard-rock gold mining operations from the 1920s and earlier. It is therefore recommended eligible for listing under *Criterion C* under the theme of Engineering/Industry.

Finally, the district is recommended eligible for listing in the NRHP under *Criterion D* for its potential to yield information about the mine/mill as a system, particularly as it relates to social and economic systems and technology. The mine buildings contain intact constructed elements and artifact deposits that may be analyzed to address the questions of social organization, implementation of safety controls, and technological innovation over time.

***D7. References** (Give full citations including the names and addresses of any informants, where possible.):

Francaviglia, Richard V.

1991 *Hard Places: Reading the Landscape of America's Historic Mining Districts*, University of Iowa Press, Iowa City.

Sanborn Company

1930 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

***D8. Evaluator:** L. Culleton, A. Pollock, M. Memmott **Date:** 09/01/2020

Affiliation and Address: Broadbent & Associates, Inc. 5450 Louie Ln. #101, Reno, NV 89511

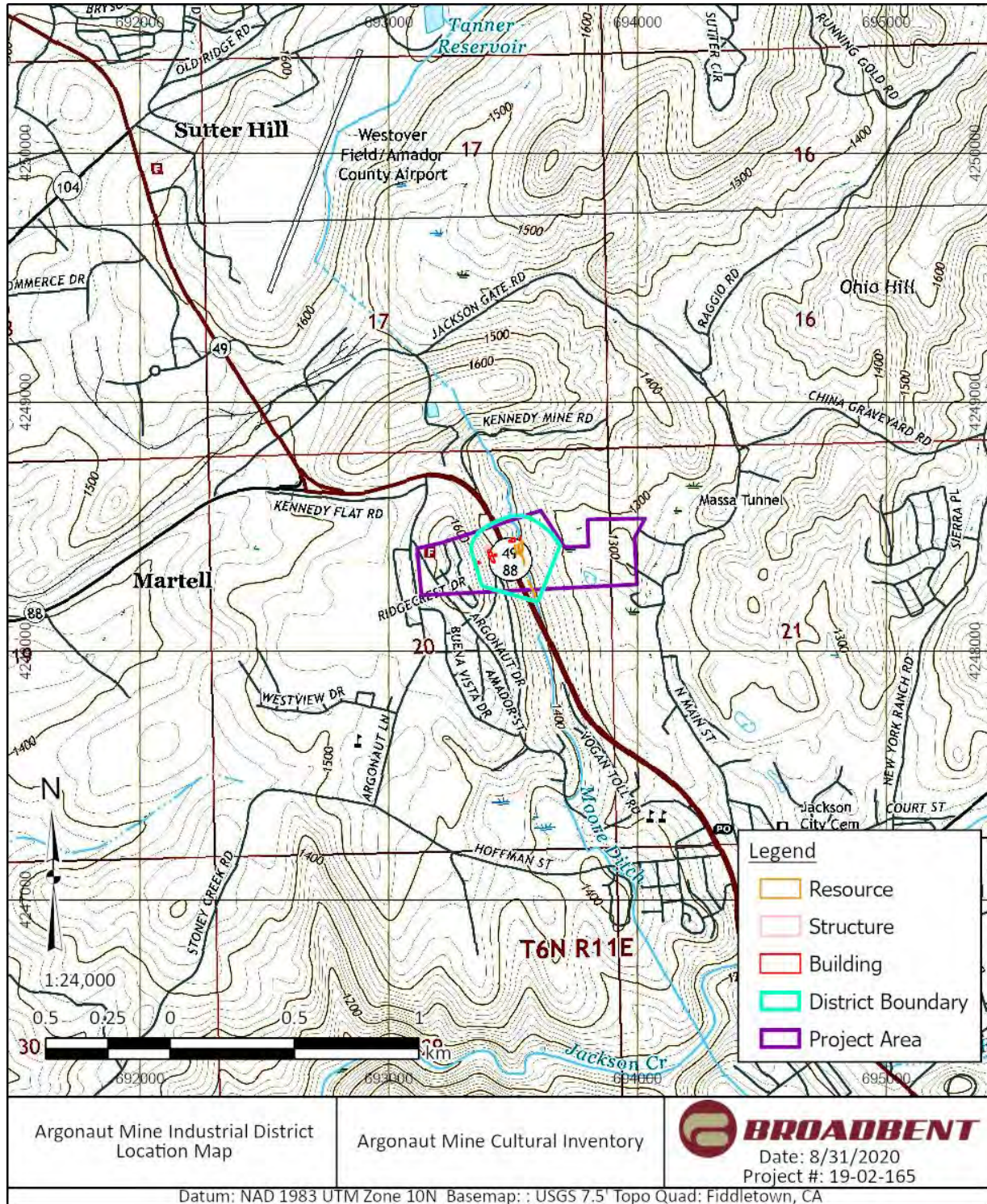
State of California—Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # P-03-000243

HRI#

Trinomial CA-AMA-208/H

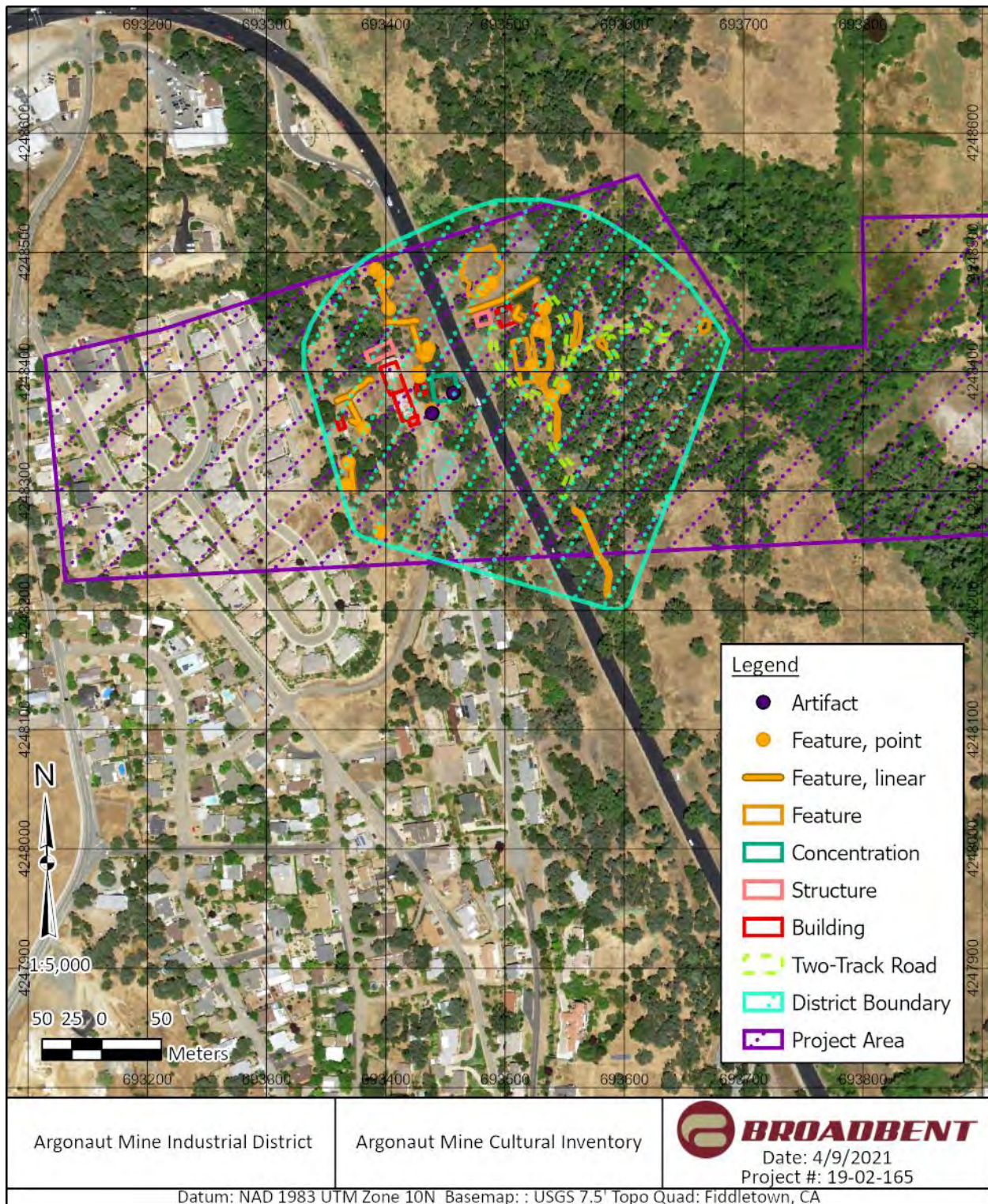
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State of California - Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION
SKETCH MAP

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DISTRICT CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District

*Recorded by: K. Mansfield and A. Pollock *Date 07/20/2020 - 07/22/2020

☒ Continuation ☐ Update



Overview of the district facing northeast; facing 50 degrees; (Frame P7200051
07/20/2020)



Overview of the district (west) facing north; facing 320 degrees; (Frame
P7210129 07/21/2020)

DISTRICT CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine)

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Overview of district (west) facing south; facing 160 degrees; Frame P7210154;
07/21/2020)



Overview of district (east) facing southeast; facing 90 degrees; Frame
P7210191; 07/21/2020)

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 01 *NRHP Status Code 3D
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B1. Historic Name: N/A
B2. Common Name: Unknown Building
B3. Original Use: NA B4. Present Use: Abandoned
*B5. Architectural Style: Industrial
*B6. Construction History: (Construction date, alterations, and date of alterations)

Constructed between 1915 and 1920 (Sanborn Map Company 1912, 1930; California State Library 1920; McCurry Foto Co. 1915). Expansion of concrete pad and chutes constructed on the south side of the building between 1920 and the mine's closure in 1942 (California State Library 1920).

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: Original Location:
*B8. Related Features:
Feature 5, fence line

B9a. Architect: Unknown b. Builder: Unknown
*B10. Significance: Theme Mining Area Jackson, CA
Period of Significance 1850-1942; Sub-period: Argonaut Mine Expansion 1893-1942
Property Type Unknown Applicable Criteria A, C, D (Contributing)
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Statement of Integrity

Building 1 remains in its original position and does not appear to have been moved; the building therefore retains its integrity of location. A photograph of the mine dating to 1920 shows Building 1 with two associated buildings to the north which are no longer present (California State Library 1920). It unclear whether the associated buildings were removed during the mine's period of significance. The same photograph indicates that, at least on the south and east elevations, the arrangement of fenestration has not been altered. All door and window openings have been covered and it is assumed that no glazing or muntin are present. As a result, the building's integrity of design, materials, and workmanship is diminished. The building maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised the integrity of setting, feeling, and association, the building retains levels of these qualities to a degree sufficient to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Building 1 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the building cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Building 1 is tied to the system of which it is a part. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 01

*NRHP Status Code 3D

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B11. Additional Resource Attributes: (List attributes and codes) HP43-Mine, HP1-Unknown

***B12. References:**

California State Library

1920 Argonaut Mine facing Northwest. California State Library, Sacramento, CA.

McCurry Foto Co.

1915 Argonaut Mine: Hoisting Works. California State Library, Sacramento, CA.

Sanborn Map Company

1912 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

1930 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

B13. Remarks:

***B14. Evaluator:** L. Culleton, A. Pollock, and M. Memmott, Broadbent & Associates, Inc.

***Date of Evaluation:** 7/22/2020

Description

Building 1 sits at the western boundary of the Argonaut Mine Industrial District, on the west side of SR-88. The building was likely constructed after 1912 and it appears in historic photographs of the Argonaut Mine in 1920. Its function is unknown as the building was not built in 1912 nor was it documented on the Sanborn map of Argonaut Mine dating to 1930. It has been out of use since the closure of the Argonaut Mine in 1942.

Building 1 is a wood-framed building with a rectangular plan that is oriented at 340 degrees and set into a 45-degree slope in the western extent of the Industrial Area of the Argonaut Mine Site. Building 1 has two features associated with it: Feature 7, a standing utility pole and Feature 5, a partially collapsed chain-link fence located at the northwest corner of the building. The building's overall dimensions are 29 feet wide by 17 feet 4 inches. The building exhibits a moderately pitched gable roof whose eaves extend slightly over the walls. The exterior walls and the roof of Building 1 are clad in corrugated metal of various sizes, affixed with nails. The size, condition, and placement of the metal siding suggest multiple episodes of application. A metal rain gutter extends along the west eave of the roof.

A concrete foundation extends into the downslope while the wood-framed building extends above the ground level. An exposed concrete slab that mimics the foundation of the building sits adjacent to the south, enclosed in the chain-link fence (Feature 5), this was added between 1920 and 1942. The slab measures 17 feet four inches wide and approximately 30 feet long. It is surrounded by Feature 5, which exhibits one broken gate. Vertically oriented concrete slabs with a thickness of approximately eleven inches support the foundation and the adjacent concrete slab, dividing the space underneath into eight bays. The bays vary in width from approximately four feet six inches to eight feet 5 inches. These bays are open on the east elevation, with a height of approximately 20 feet, while the bays on the west open into the hillside. Wood boards set horizontally across the width of the west bays appear to have the historic function of retaining sediment. Several of these retaining boards have collapsed.

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 01

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The primary (west) elevation exhibits minimal fenestration, with a single door placed slightly off-center to the south and a window opening to the south of the door. Both the door and the window are covered with plywood; the visible wood window surround suggests it housed two lights. A piece of lumber is affixed horizontally below the window. At the northwest corner of the west elevation, about fifteen feet above the ground, two wood beams extend outward from the wall. Two horizontally placed wood beams are bolted to the protruding beams. The upper of the two horizontal beams has three wood pin mounts affixed to their underside and the lower has three eyebolts affixed to the west side. Three holes have been cut into the siding just below this arrangement. The holes and bolts likely accommodated electrical wiring for the building. A small elbow pipe fitting extends from a hole cut from the north end of the wall near the ground level and has been detached from the pipe that extends below the foundation. A water spigot extends from the ground, centered in front of this elevation.

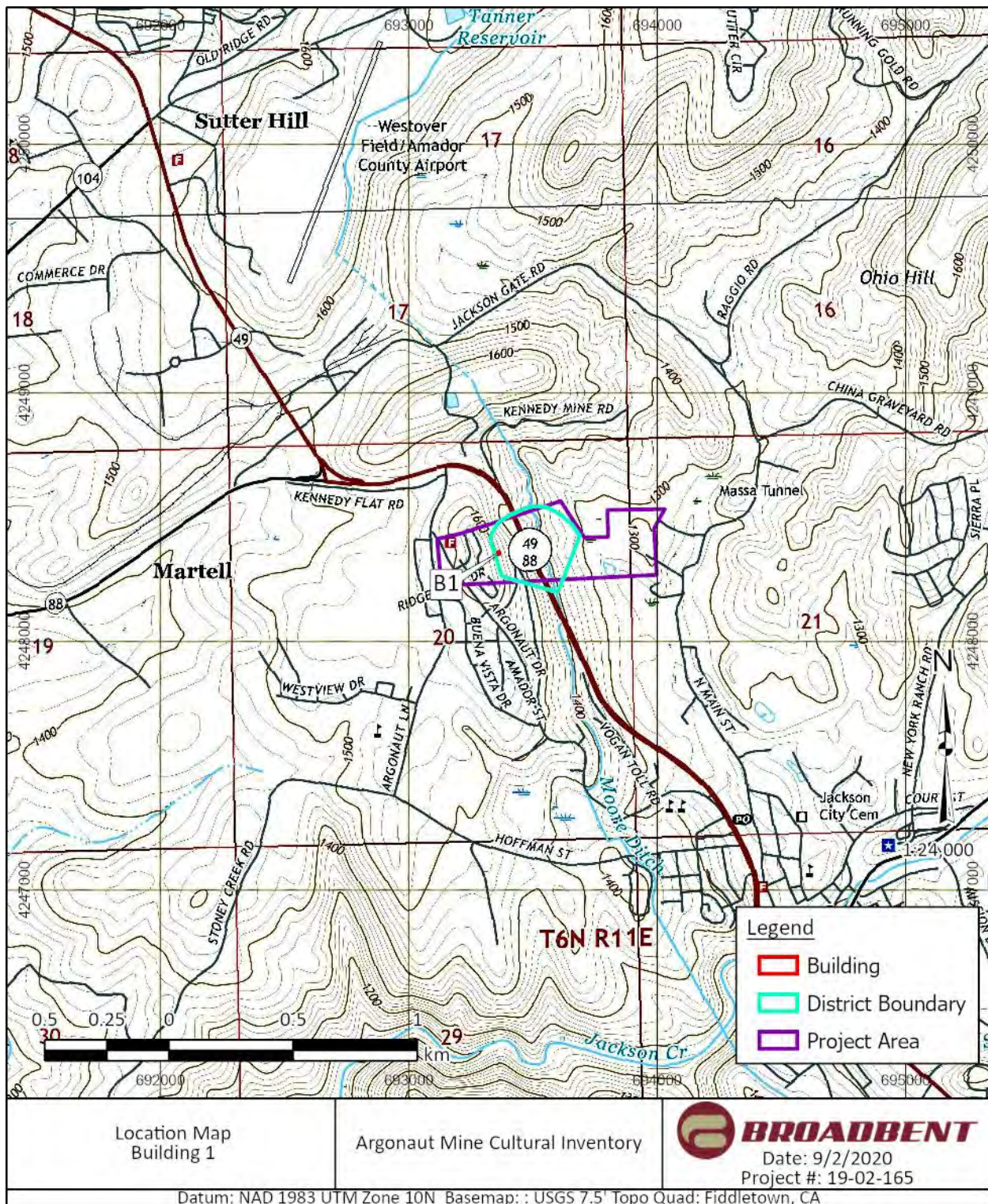
The south elevation of Building 1 has one door near the southwest corner that fronts onto the concrete patio. An opening that is the size of a single door abuts this door, set slightly above it and a vent is situated at the top of the gable. All of these openings are wood-framed. A small, horizontally oriented, unframed opening is located on the top west side of the wall and a vertically oriented piece of dimensional lumber is affixed on its west edge. Rafters on the east slope of the roof over the south elevation are visible, indicating the absence of some portions of the roof sheathing.

The east elevation of Building 1 has minimal fenestration, with three wood-framed window openings set just under the eave of the roof. These window openings each feature a small sill. The central opening has been partially covered with wood, while the other two are vacant. Evidence of a vertical frame exists as ghosting below the north window. Wood beams extend from the wall on this elevation at the same level as those on the west elevation. The configuration on the east elevation features one horizontally placed beam atop the two protruding beams, affixed with steel bolts. Three holes, identical to those on the west elevation, have also been cut out of the siding on this elevation. Three pin-type ceramic insulators are affixed to the horizontal beam, one in front of each of the three windows.

The north elevation of Building 1 has a similar mount for electrical wiring near the top west corner, at the same level as the one on the east and west elevations. Three circular holes have also been cut out of this wall and a window opening housing a vent is located in the gable. A large wood-framed window opening is located below this mount. Hinges affixed to the west side of this opening suggest that it once housed a swinging screen or other similar door fixture. To the west of this opening, two eyebolts are set into the wall about eight feet above the foundation; both have ceramic stay insulators hanging from wires. These were likely attached to guy wires that have since been removed.

See Attached

(This space reserved for official comments.)





CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine)

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*Resource Name or # (Assigned by recorder) Building 01
*Recorded by: K. Mansfield and A. Pollock *Date 07/20/2020
☒ Continuation ☐ Update



East elevation of Building 01 with patio; facing 244 degrees (Frame P7200020;
07/20/2020)



West elevation of Building 01; facing 70 degrees; (Frame P7200016;
07/20/2020)

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 02 *NRHP Status Code 3D
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B1. Historic Name: Unknown
B2. Common Name: Office
B3. Original Use: Office B4. Present Use: Abandoned
*B5. Architectural Style: Industrial
*B6. Construction History: (Construction date, alterations, and date of alterations)

Constructed before 1930 (Sanborn Map Company 1930), potentially between 1912 and 1920. It is unknown if alterations were made to the building between 1920 and the mine's closure in 1942. The 1912 Sanborn Map (Sanborn Map Company 1912) shows an office building abutting an earlier iteration of Building 3, Machine Shop; both are shown oriented roughly east-west rather than north-south, as they currently stand. Building 3 can be seen in its current orientation in an overview photograph from 1920 (California State Library 1920). It is possible that Buildings 2 and 3 were reconstructed in their current form between 1912 and 1920.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: Original Location:
*B8. Related Features:
Abuts Building 3, Machine Shop

B9a. Architect: Unknown b. Builder: Unknown
*B10. Significance: Theme Mining Area Jackson, CA
Period of Significance 1850-1942; Sub-period: Argonaut Mine Expansion 1893-1942
Property Type Office building Applicable Criteria A, C, D (Contributing)
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Statement of Integrity

Building 2 appears to be in its current form and location since 1930 and therefore maintains its integrity of location and design (Sanborn 1930). All door and window openings have been covered and it is assumed that no glazing or muntin are present. As a result, the building's integrity of materials and workmanship is diminished. The building maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised the integrity of setting, feeling, and association, the building retains sufficient levels of these qualities.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Building 2 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the building cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 02 *NRHP Status Code 3D
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The historic significance of Building 2 is tied to the system of which it is a part. The building contains artifact deposits and documents that may contribute to a general reconstruction of the mine's management and operations. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

B11. Additional Resource Attributes: (List attributes and codes) HP43-Mine, HP39-Other

***B12. References:**

California State Library

1920 Argonaut Mine facing Northwest. California State Library, Sacramento, CA.

Sanborn Map Company

1912 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

1930 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

B13. Remarks:

*B14. Evaluator: L. Culleton, A. Pollock, and M. Memmott, Broadbent & Associates, Inc.

*Date of Evaluation: 07/22/2020

Description

Building 2 is located in the southern portion of the Argonaut Mine Industrial District. It abuts Building 3 to the north and sits to the southwest of Building 5. The building was likely constructed sometime after 1920, as does not appear in historic photographs of the Argonaut Mine in dating to that time. A building with a similar footprint is represented on a Sanborn Fire Insurance map dating to 1912 in this location but a photo dating to 1920 shows a building with a different roof orientation. This building therefore was likely constructed between 1920 and 1942 (California State Library 1920; Sanborn 1912). It was likely used as an office and has been out of use since the closure of the Argonaut Mine in 1942.

Building 2 is a wood-framed building set atop a concrete foundation with a rectangular plan measuring 22 feet five inches by 19 feet five inches. The building is oriented at 250 degrees and its north wall abuts the southeast corner of Building 3. Building 2 exhibits a saltbox roof with exposed rafters and eaves extending over the east and west walls. The exterior walls and the roof of Building 2 are clad in corrugated metal that has been painted brick red. The building has two points of entry, both at the north. An exterior entrance is accessible via a concrete porch at the north elevation, set just east of Building 3. The porch is eight feet long and includes two steps up to the exterior door. The exterior door is the only fenestration on this small north elevation. Building 2 also has interior entrance on its north wall that provides access to Building 3.

The east elevation of Building 2 features the entryway described above, which extends from the main massing. The exterior door is set on the north elevation of this protrusion. The area encompassing the concrete porch and steps associated with the exterior door is covered by a flat awning constructed of wood beams and covered with corrugated metal. The east elevation of the entryway exhibits a window opening in the approximate center of the wall. Although the opening has been covered with plywood, interior survey of the building revealed a metal framed casement window of nine lights. A second piece of plywood has been

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 02 *NRHP Status Code 3D
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affixed to the wall below the window and interior survey revealed a vent here.

The south elevation features a prominent awning that is covered with green corrugated plastic and is held aloft with four wood brackets that are painted white. The awning stretches over two window openings that have been covered with plywood. Interior survey revealed two nine-lite metal casement windows beneath the plywood. A metal pole at the southeast corner extends from the ground above the roofline and exhibits a sign plate adorned with a sticker that reads "10415." A thin (1/4-in) pipe is bracketed horizontally onto south walls at about two feet above the ground and wraps around the west wall.

The west elevation of the building lacks fenestration. Two segments of corrugated metal have been affixed to the wall and they were initially presumed to cover window openings. The interior framing of Building 2 has been sheathed in drywall, so this assumption cannot be verified.

The interior of the building consists of one large room with fluorescent light fixtures affixed to the ceiling. As mentioned above, the interior walls have been sheathed in drywall. At the time of survey, this room contained desks, chairs, and various debris. It is connected to Building 3 by a narrow hallway with a bathroom on the east side and a closet on the west.

See Attached

(This space reserved for official comments.)

State of California—Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

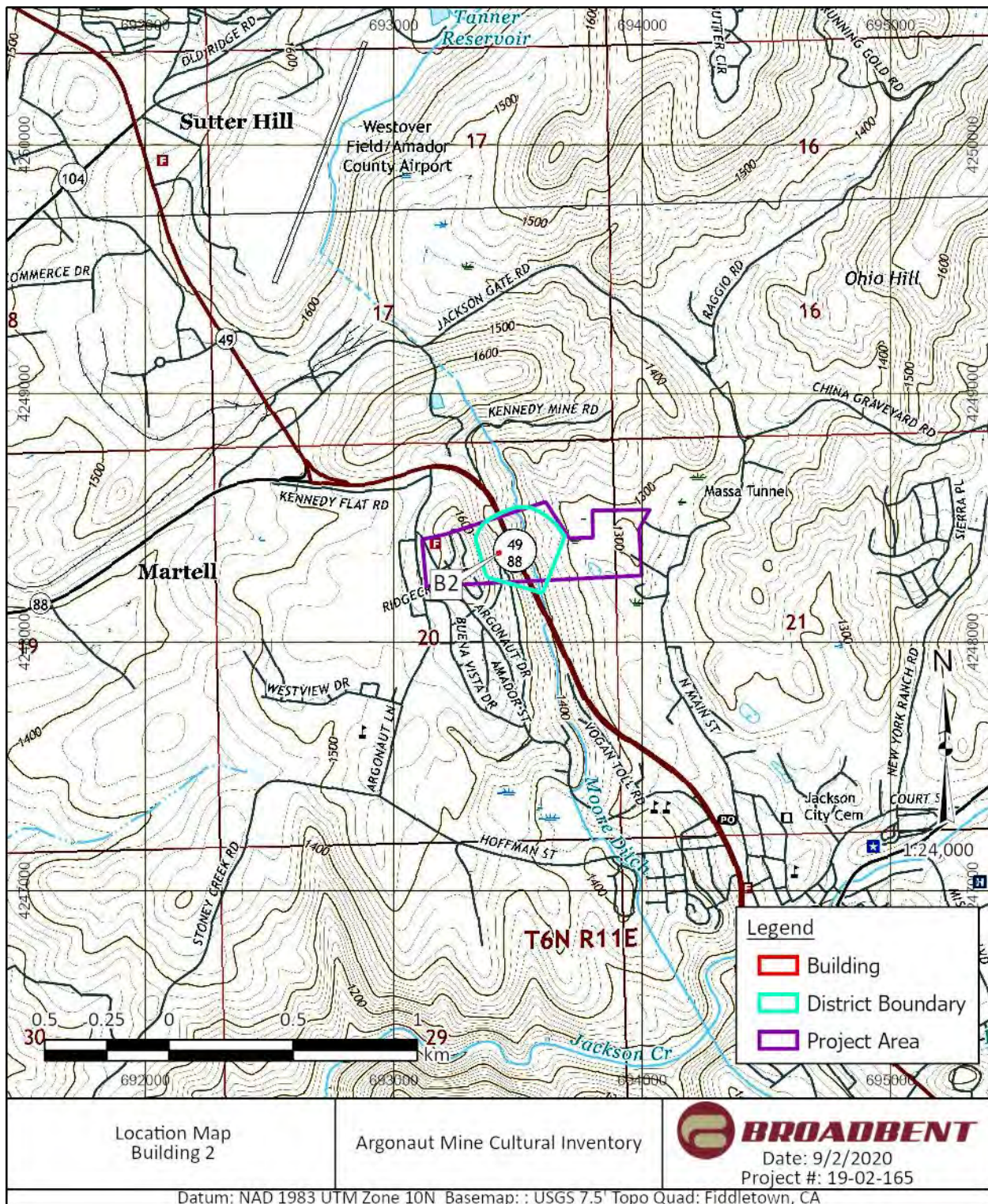
Primary # P-03-000243

HRI#

Trinomial CA-AMA-208/H

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*Resource Name or # (Assigned by recorder) Building 02



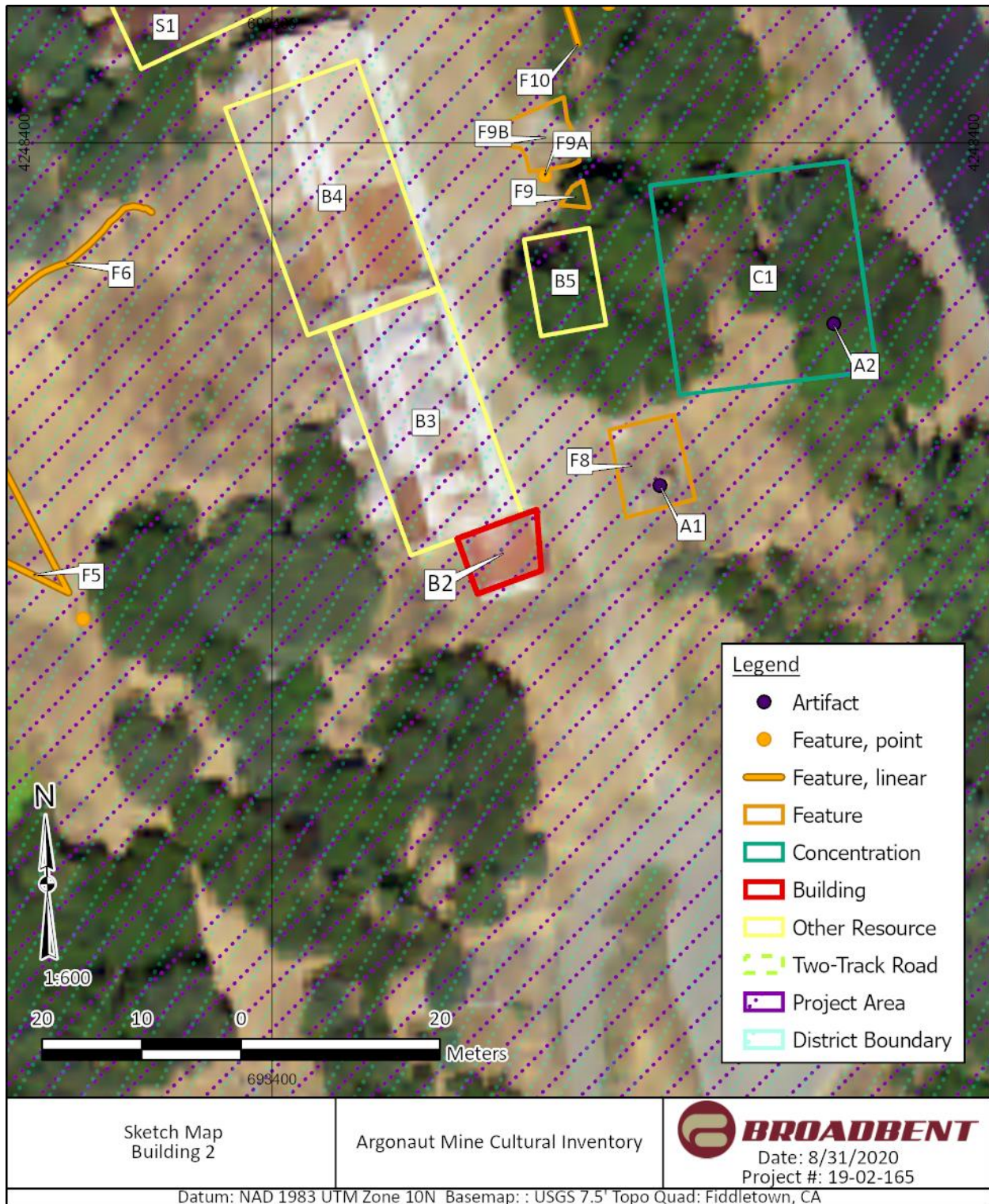
State of California - Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION
SKETCH MAP

Primary # P-03-000243/H

HRI#

Trinomial CA-AMA-208/H

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CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine)
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*Resource Name or # (Assigned by recorder) Building 02
*Recorded by: K. Mansfield and A. Pollock *Date 07/20/2020
☒ Continuation ☐ Update



Southeast oblique elevation of Building 02; facing 310 degrees (Frame P7200059; 07/20/2020)



Southwest oblique elevation of Building 02; facing 20 degrees; (Frame P7200061; 07/20/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine)
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East elevation of Building 02; facing 246 degrees (Frame P7200063;
07/20/2020)



Building 02 Interior: Southwest corner of office; facing SW (Frame P7210105;
07/21/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine)
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Building 02 Interior: Eastern half of office; facing E (Frame P7210106;
07/21/2020)



Building 02 Interior: Northwest corner of office; facing NW (Frame P7210107;
07/21/2020)

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 03 *NRHP Status Code 3D
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B1. Historic Name: Machine shop
B2. Common Name: Warehouse 01
B3. Original Use: Machine shop/storage B4. Present Use: Abandoned
*B5. Architectural Style: Industrial
*B6. Construction History: (Construction date, alterations, and date of alterations)

Constructed between 1912 and 1920 (Sanborn Map Company 1912, 1930; California State Library 1920). Between 1930 and 1942 when the mine closed, a north section used for storage (Sanborn Map Company 1930) was removed and the building was expanded to its current dimensions. It is identified on the 1930 Sanborn Map as the Machine Shop. A similar building identified as a "Changing House" is depicted on the 1912 Sanborn Map, oriented roughly east-west as opposed to north-south, as the building currently stands. It is therefore likely that the building was reconstructed from an earlier structure between 1912 and 1920, when it can be seen in its current orientation in historic images.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
*B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
*B10. Significance: Theme Mining Area Jackson, CA
Period of Significance 1850-1942; Sub-period: Argonaut Mine Expansion 1893-1942
Property Type Machine shop Applicable Criteria A, C, D (Contributing)
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Statement of Integrity

Building 3 appears to be in its current location since 1920 (California State Library 1920). Between 1930 and 1942 when the mine closed, a north section of Building 3 that was used for storage was removed and the building was expanded to its current dimensions (Sanborn 1930). Building 3 appears to have maintained the same form since this alteration, which occurred during its period of significance and therefore, the building maintains its integrity of location and design. Historic photographs indicate that the east elevation was largely comprised of window openings housing a single light. Dormer windows also exhibited openings that have since been covered with corrugated metal (California State Library 1920). The building's corrugated metal siding has also been painted. While the covering of the window openings is reversible, as a result of these alterations, the building's integrity of materials and workmanship is diminished. The building maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the building retains these qualities to a degree sufficient to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Building 3 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the building cannot be directly associated with a specific event or person of significance at the local,

State of California - The Resources Agency DEPARTMENT OF PARKS AND RECREATION	Primary # <u>P-03-000243</u> Trinomial# <u>CA-AMA-208/H</u>
BUILDING, STRUCTURE, AND OBJECT RECORD	

*Resource Name or # (Assigned by recorder) Building 03 *NRHP Status Code 3D
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state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Building 3 is tied to the system of which it is a part. It contains several thousand artifacts as well as internal constructed elements and modifications that have the potential to contribute to our understanding of the mine's operations and modifications over time. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

B11. Additional Resource Attributes: (List attributes and codes) HP43-Mine, HP8-Industrial Building

***B12. References:**

California State Library

1920 Argonaut Mine facing Northwest. California State Library, Sacramento, CA.

Sanborn Map Company

1912 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

1930 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

B13. Remarks:

***B14. Evaluator:** L. Culleton, A. Pollock, and M. Memmott, Broadbent & Associates, Inc.

***Date of Evaluation:** 07/22/20

Description:

Building 3 is located in the southern portion of the Argonaut Mine Industrial District immediately north of, and abutting, Building 2. Building 3 is situated just south of Building 4, separated only by a narrow space measuring roughly five feet. Building 5 is located to the east of Building 3. Building 3 was likely constructed sometime between 1912 and 1920 and functioned as a machine shop. A Sanborn Fire Insurance Map dating to 1930 indicates a small L-shaped storage room on the north side of the building (Sanborn 1912, 1930; California State Library 1920). This structure has since been removed. It has been out of use since the closure of the Argonaut Mine in 1942.

Building 3 is a large building with a rectangular plan measuring 79 feet two inches by 39 feet one inch with its long axis oriented at 340 degrees. The building exhibits a moderately-pitched gable roof with exposed rafters and eaves extending slightly over the east and west walls. Rain gutters are affixed to these eaves. Three gabled dormers whose window openings have been covered with corrugated metal feature prominently along both slopes and a monitor roughly three feet in height extends along the entire ridge of the roof. Interior survey revealed metal trusses supporting the roof. The building is wood-framed and set atop a concrete foundation. The exterior walls and roof are clad in corrugated metal. The corrugated metal siding on the monitor and dormers has been painted brick red while other elevations are white or unfinished.

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 03 *NRHP Status Code 3D
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The primary (east) elevation is characterized by a large expanse of empty wall, punctuated only by a central, wood-framed doorway. A modern light fixture has been installed over the door.

The south elevation of the building directly abuts Building 2, with which it shares an interior door (see above). The south wall has a pair of double doors, located adjacent to the west wall of Building 2. A window opening is located in the top portion of the east side of the wall and has been covered with plywood. Modern security cameras are also affixed to this elevation.

The west elevation of the building fronts directly onto the hillside. Due to the steep slope and the presence of an exclusions fence, the western elevation could not be directly accessed.

The north elevation houses a secondary entrance consisting of one single-panel door. Small metal tubes extend from the north elevation of Building 3 to the south elevation of Building 4.

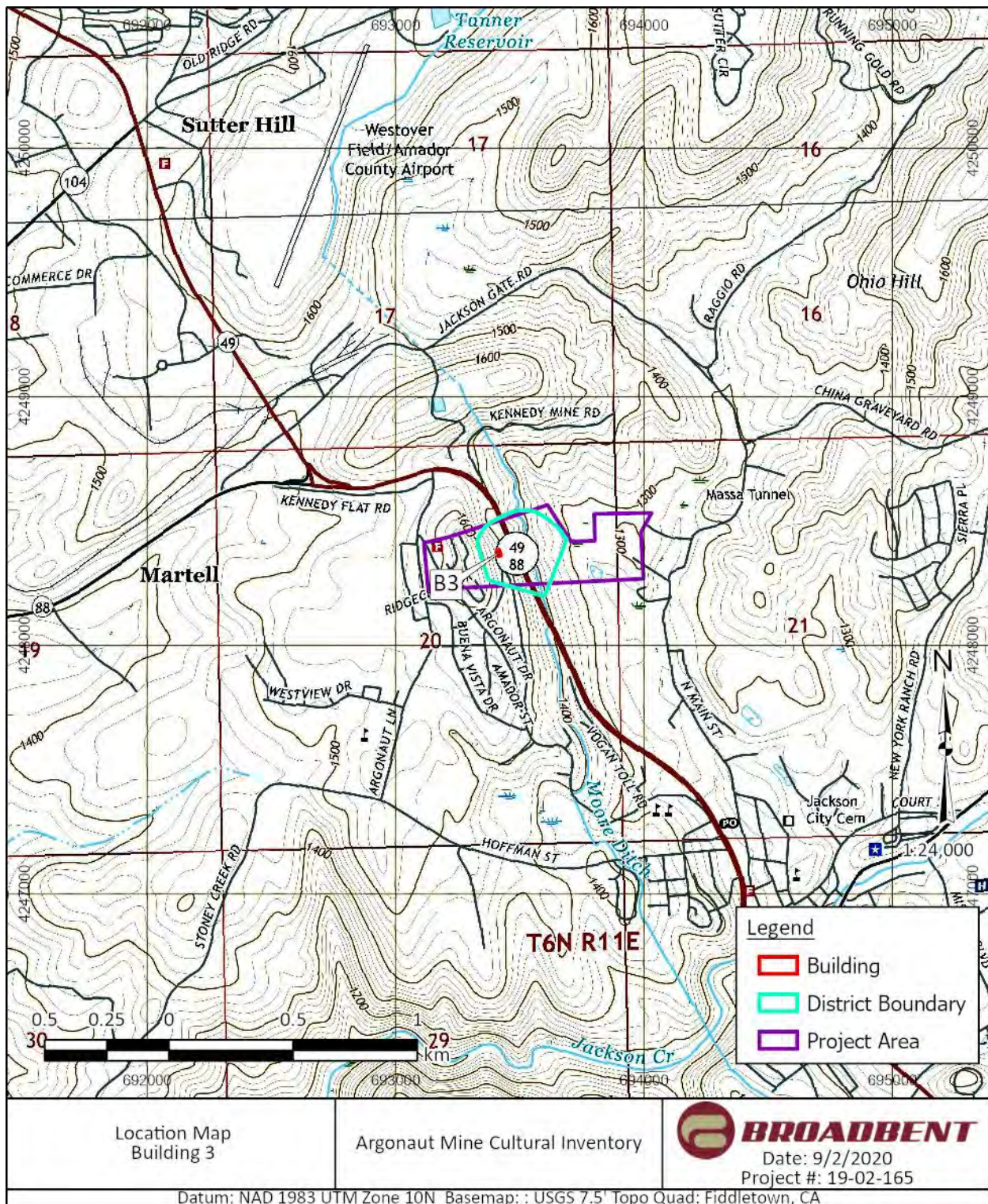
The interior of Building 3 was briefly accessed and photographed during the survey. The interior walls have not been covered and the wood-framed of the building is exposed on all elevations. The floor consists of the exposed concrete foundation. A pair of wood doors are located at the center of the south elevation, providing access to Building 2. Two wood platforms are suspended from the metal trusses and can be raised and lowered from the floor to just below the trusses. These appear to have been used for storage purposes. A long metal chain with a hook and pulley assemblage is affixed to a central truss. A set of narrow-gauge rails, which were potentially used to transport equipment into a service area, are set in the concrete floor from the door to the rear of the building and a workbench occupies the interior southeast wall, south of the entrance. The building is filled with industrial debris, tools, and derelict machinery. Most of this appears to date from the mid-twentieth century to the present. During the survey, drums of hazardous materials were removed from the building by Weston and the EPA. Otherwise, the contents of the building were not disturbed.

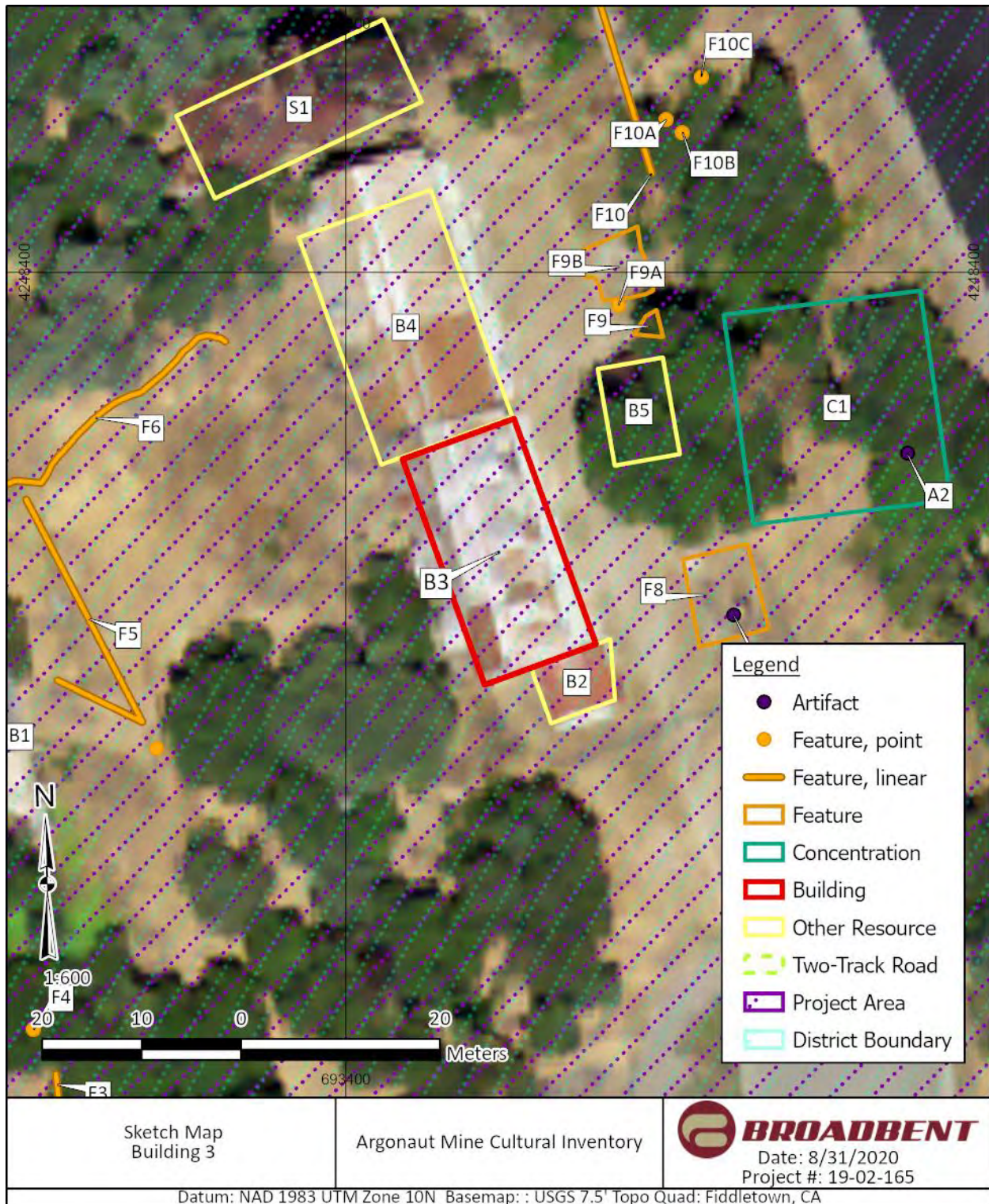
See Attached

(This space reserved for official comments.)

LOCATION MAP

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CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine)

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*Resource Name or # (Assigned by recorder) Building 03
*Recorded by: K. Mansfield and A. Pollock *Date 07/21/2020
☒ Continuation ☐ Update



East elevation of Building 03; facing 250 degrees (Frame P7210096;
07/21/2020)



Building 03 Interior: Southeast corner of workshop; facing SE; (Frame
P7210087; 07/21/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine)
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Building 03 Interior: Southwest corner of workshop; facing SW (Frame P7210088; 07/21/2020)



Building 03 Interior: Northwest corner of workshop; facing NW (Frame P7210089; 07/21/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine)

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Building 03 Interior: Northeast corner of workshop; facing NE (Frame P7210090; 07/21/2020)



Building 03 Interior: Rafters along the northern half of workshop; facing N (Frame P7210091; 07/21/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine)

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Building 03 Interior: Elevated area in the southern half of workshop; facing S (Frame P7210092; 07/21/2020)

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 04 *NRHP Status Code 3D
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B1. Historic Name: Compressor House
B2. Common Name: Warehouse 02
B3. Original Use: Compressor house B4. Present Use: Abandoned
*B5. Architectural Style: Industrial
*B6. Construction History: (Construction date, alterations, and date of alterations)

Constructed between 1912 and 1920 (Sanborn Map Company 1912, 1930; California State Library 1920). Sometime between 1930 and 1942 when the mine closed, the building may have been expanded south to its current dimensions (Sanborn Map Company 1930). The 1912 Sanborn Map shows another large building identified as a "Blacksmith Shop" in this approximate area, oriented roughly east-west. The current building can be seen in its present configuration in 1920, suggesting that it was reconstructed between 1912 and 1920. The 1930 Sanborn Map indicates that it was repurposed as a "Compressor House."

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: Original Location:
*B8. Related Features:
N/A

B9a. Architect: Unknown b. Builder: Unknown
*B10. Significance: Theme Mining Area Jackson, CA
Period of Significance 1850-1942; Sub-period: Argonaut Mine Expansion 1893-1942
Property Type Industrial shop Applicable Criteria A, C, D (Contributing)
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Statement of Integrity

Building 4 appears to be in its current location since 1920 (California State Library 1920) and therefore maintains its integrity of location. Between 1930 and 1942 when the mine closed, the building was expanded to the south to its current dimensions (Sanborn 1930). Building 4 appears to have maintained the same form since this alteration, which occurred during its period of significance. Therefore, the building maintains its integrity of design. Distinct segments of corrugated metal are evidenced along the east elevation of the Building 4 suggesting that window and door openings have been covered. The historic photographs documenting similar openings in Building 3 suggest that the historic fenestration of Building 4 was likely covered as well. The single door in the east elevation appears to be an alteration as well, with evidence of two larger openings reaching nearly to the top of the east wall. These alterations are mostly reversible and while the integrity of materials and workmanship is somewhat diminished, the building retains sufficient levels of these qualities to convey its historical character. The building maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the building retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Building 4 was constructed within this period and functioned during this time as a component of the mine system. As an individual

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 04 *NRHP Status Code 3D
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resource, the building cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Building 4 is tied to the system of which it is a part. Like Building 3, the Compressor House contains numerous historic artifacts and internal structural features that may contribute to our understanding of the mine's operations, management, and technological changes over time. As a component of the mining and milling system, it is therefore recommended as a contributing element of the Argonaut Mine Industrial District.

B11. Additional Resource Attributes: (List attributes and codes) HP43-Mine, HP8-Industrial Building

***B12. References:**

California State Library

1920 Argonaut Mine facing Northwest. California State Library, Sacramento, CA.

Sanborn Map Company

1912 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

1930 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

B13. Remarks:

***B14. Evaluator:** L. Culleton, A. Pollock, and M. Memmott, Broadbent & Associates, Inc.

***Date of Evaluation:** 07/22/2020

Description:

Building 4 is located in the Industrial Area of the Argonaut Mine Site immediately north of Building 3. Building 5 is located to the east of Building 4 while Structure 1, the main gallows headframe is adjacent to the north. The building was likely constructed between 1912 and 1920 (Sanborn Map Company 1912, 1930; California State Library 1920) and functioned as a Compressor House. The interior of the building appears to have been restructured from what the Sanborn Fire Insurance Map indicates. This suggests that the building's function likely shifted to a shop, similar to Building 3. It has been out of use since the closure of the mine in 1942.

The overall massing, shape, and roof of Building 4 is nearly identical to Building 3, with its long axis oriented at 340 degrees. Building 4 exhibits a rectangular plan and measures 79 feet nine inches by 46 feet. One beveled corner extends from the southeast end of the building and appears to have once housed a door. The building exhibits a moderately-pitched gable roof with exposed rafters and eaves extending slightly over the east and west walls. Rain gutters are affixed to these eaves. Two gabled dormers feature prominently along the east slope and a monitor roughly three feet in height extends along the entire ridge of the roof. The building is wood-framed and set atop a concrete foundation. The exterior walls and roof are clad in corrugated metal. The siding on the monitor and dormers has been painted brick red while other elevations are white or unfinished. The west wall, which is set into a slope, is reinforced from the interior of the building with a poured concrete buttressed wall.

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 04 *NRHP Status Code 3D
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The primary (east) elevation houses the primary entrance to the building, a set of sliding doors constructed in corrugated metal, on the south end of the wall. A modern light fixture has been installed above the door and a metal rain gutter is affixed to the wall just south of this door. A second entrance, an overhead rolling door, is located on this elevation at the northeast corner and has been covered with corrugated metal lain horizontally.

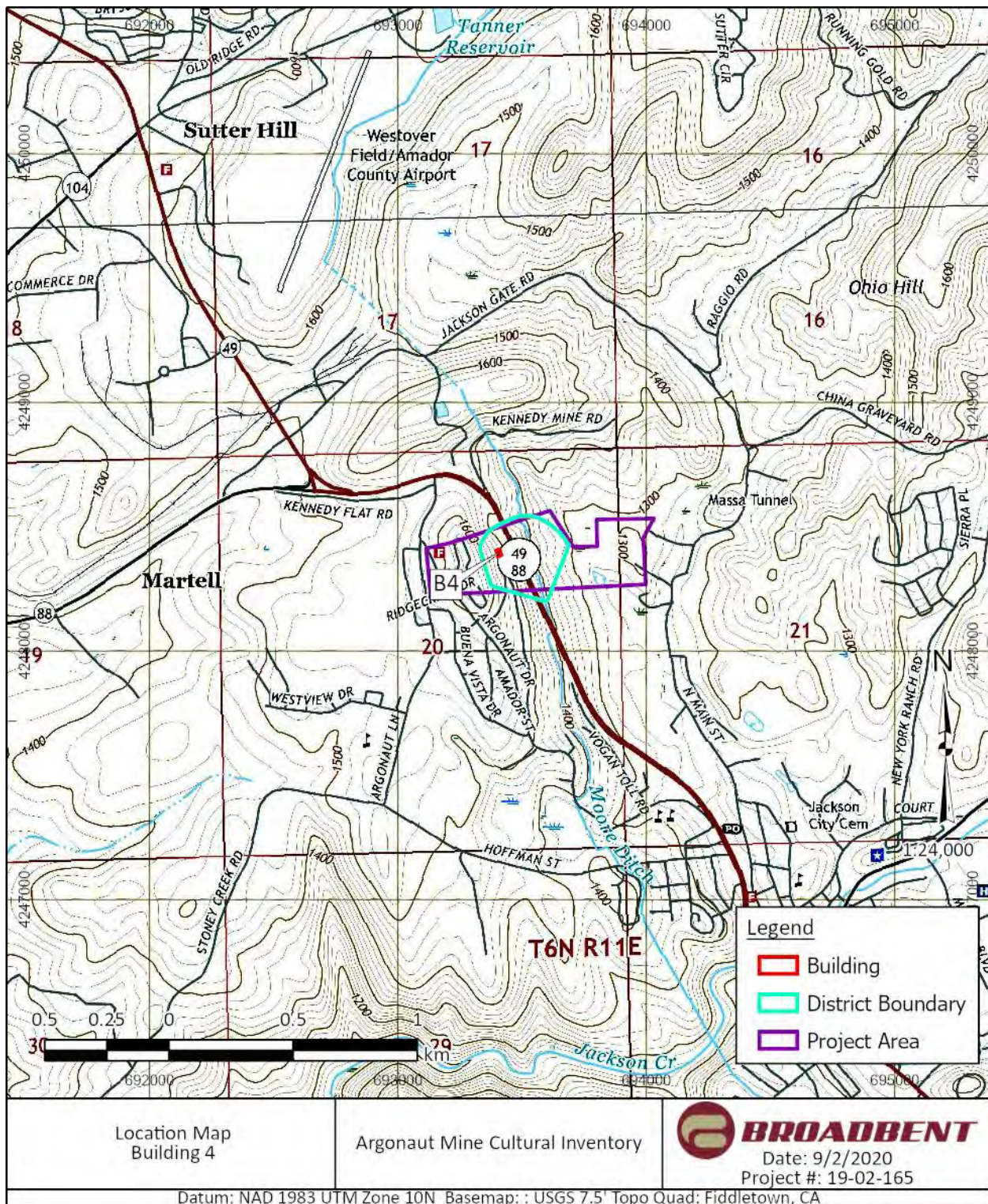
On the north elevation of the building, a small protrusion constructed of wood extends from the northeast corner. The extension consists of a wood-framed structure, measuring seven feet seven inches by 10 feet, with a shed roof covered with corrugated metal. The exterior walls of this extension are covered with wood siding lain horizontally, which shows signs of deterioration and damage. The bottom portion of these walls have been covered with plywood and the original placement of the entrance is unclear. There is no ingress between this structure and the interior of Building 4, suggesting that it served as an exterior shed. At the northwest corner of the building, a set of poured concrete steps leads to a concrete platform and a metal door affixed to the north elevation. The platform abuts the western concrete wall of Building 4 and is surrounded to the north by a metal railing. Metal pipes, some of which are partially disconnected, are set into the slope to the west and above the platform. These are oriented towards a large pipe fixture set into the ground on the east side of the platform, adjacent to the stairs. Electrical housing runs along this elevation. The poured concrete wall that forms the lower part of the western wall of this building extends along the slope, and accommodates the foundation of Building 6, the headframe, to the north. At least one of the concrete buttresses (adjacent to the small door) exhibits signs of scaling.

The west elevation of the building could not be accessed due to the degree of the slope and the presence of an exclusions fence. The south elevation of Building 4 is separated from Building 3 by a narrow alley and exhibits no fenestration. Small metal pipes extend from the south elevation of Building 4 to the north elevation of Building 3.

The interior of the building was briefly accessed during the survey. The concrete wall and buttresses that form the bottom portion of the west wall are exposed on the interior. A concrete stairway leads to a large concrete platform that abuts the west wall. This may have supported machinery or boilers that have since been removed. The platform stands about six feet tall and occupies most of the western part of the building. On the southwest side of the platform, a wood cabinet is set into the concrete. The metal door at the northwest corner of the building opens onto the platform. Like Building 3, this warehouse is filled with industrial debris, tools, hardware, and discarded building materials that appear to have accumulated from the mid-twentieth century to the present. During the inventory, drums of hazardous materials were removed from the building by Weston and the EPA. Otherwise, the contents of the building were not disturbed.

See Attached

(This space reserved for official comments.)





CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Building 04

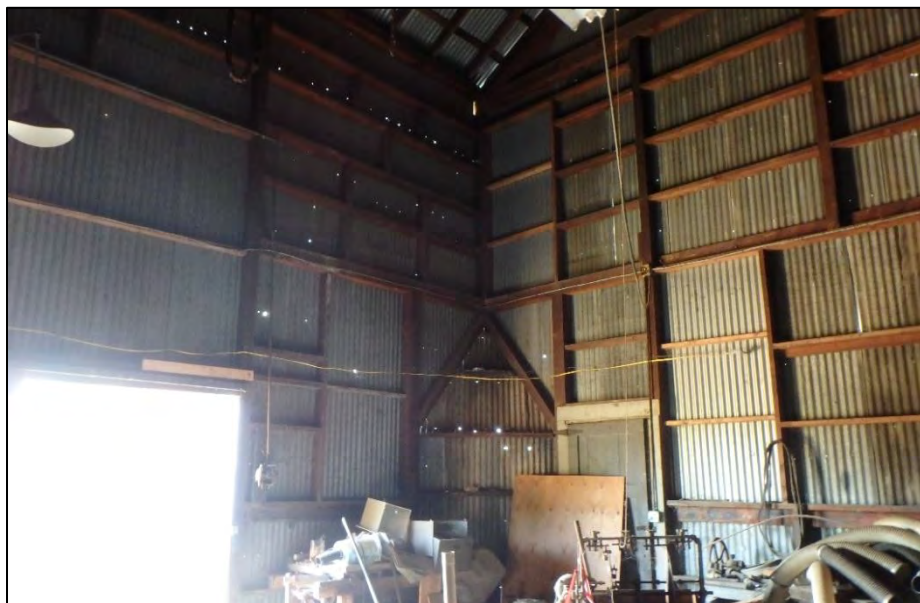
*Recorded by: K. Mansfield and A. Pollock

*Date 07/21/2020

☒ Continuation ☐ Update



East elevation of Building 04; facing 250 degrees (Frame P7210100;
07/21/2020)



Building 04 Interior: Southeast corner of workshop; facing SE; (Frame
P7210113; 07/21/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Building 04 Interior: Southwest corner of workshop; facing SW (Frame P7210112; 07/21/2020)



Building 04 Interior: Northwest corner of workshop with raised concrete platform/work area; facing NW (Frame P7210115; 07/21/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Building 04 Interior: Northeast corner of workshop; facing NE (Frame P7210120; 07/21/2020)

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 05 *NRHP Status Code 3D
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B1. Historic Name: Steel shop
B2. Common Name: Machine shop
B3. Original Use: Steel shop B4. Present Use: Abandoned
*B5. Architectural Style: Industrial
*B6. Construction History: (Construction date, alterations, and date of alterations)

Constructed between 1912 and 1920 (Sanborn Map Company 1912, 1930; California State Library 1920). There does not appear to have been any alterations to the building since its creation.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: Original Location:
*B8. Related Features:
N/A

B9a. Architect: Unknown b. Builder: Unknown
*B10. Significance: Theme Mining Area Jackson, CA
Period of Significance 1850-1942; Sub-period: Argonaut Mine Expansion 1893-1942
Property Type Industrial shop Applicable Criteria A, C, D (Contributing)
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Statement of Integrity

Building 5 appears in its current location and form since 1920 (California State Library 1920) and therefore maintains its integrity of location and design. Although wood framed openings that are visible on a photograph dating to 1920 have been covered with corrugated metal, these alterations are reversible, and the building retains sufficient integrity of materials and workmanship to convey its historic character. The building maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the building retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Building 5 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the building cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Building 5 is tied to the system of which it is a part. The building demonstrates structural components that are related to the pipe system and infrastructure of the mine, as well as historic artifacts that may yield additional data about the operations and use of the mine over time. As a component of

State of California - The Resources Agency DEPARTMENT OF PARKS AND RECREATION	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Primary #</td> <td>P-03-000243</td> </tr> <tr> <td>Trinomial#</td> <td>CA-AMA-208/H</td> </tr> </table>	Primary #	P-03-000243	Trinomial#	CA-AMA-208/H
Primary #	P-03-000243				
Trinomial#	CA-AMA-208/H				
BUILDING, STRUCTURE, AND OBJECT RECORD					

*Resource Name or # (Assigned by recorder) Building 05 *NRHP Status Code 3D
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the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

B11. Additional Resource Attributes: (List attributes and codes) HP43-Mine, HP8-Industrial Building

***B12. References:**

California State Library

1920 Argonaut Mine facing Northwest. California State Library, Sacramento, CA.

Sanborn Map Company

1912 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

1930 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

B13. Remarks:

*B14. Evaluator: A. Pollock and M. Memmott, Broadbent & Associates, Inc.

*Date of Evaluation: 07/22/20

Description:

Building 5 is located in the eastern part of the Industrial Area of the Argonaut Mine Site, east of Building 4 and north of the former Assay Office (Feature 8). The building was constructed between 1912 and 1920 and functioned as a Steel Shop (Sanborn Map Company 1912, 1930; California State Library 1920). It has been out of use since the closure of the mine in 1942.

Building 5 is a wood-framed building with a rectangular plan measuring 32 feet four inches by 21 feet 10 inches with the long axis oriented at 350 degrees. The building is set into a downslope to the east, with the concrete foundation extending into the downslope. Feature 9, a concrete retaining wall extends from the north elevation of Building 5 and an associated concrete pylon is situated just west of this wall. Building 5 exhibits a moderately pitched gable roof with a monitor extending from the central portion of the roof. Unframed openings are visible on the west elevation of the monitor. The building is sheathed in corrugated metal.

The south elevation appears to be the primary elevation, with a single door framed in wood and covered in corrugated metal set on the east side of the wall. A large sash window of 12 lights and adorned with a metal grille occupies the western part of the south elevation. Rafters extend from below the gable end and several circular holes have been cut out of the corrugated metal siding along the bottom of the wall. The frame for a chain-link fence is affixed to the east edge of this elevation and fencing extends to the south.

The west elevation exhibits minimal fenestration. A piece of plywood is affixed to the north portion of the wall, suggesting a door opening has been covered.

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 05 *NRHP Status Code 3D
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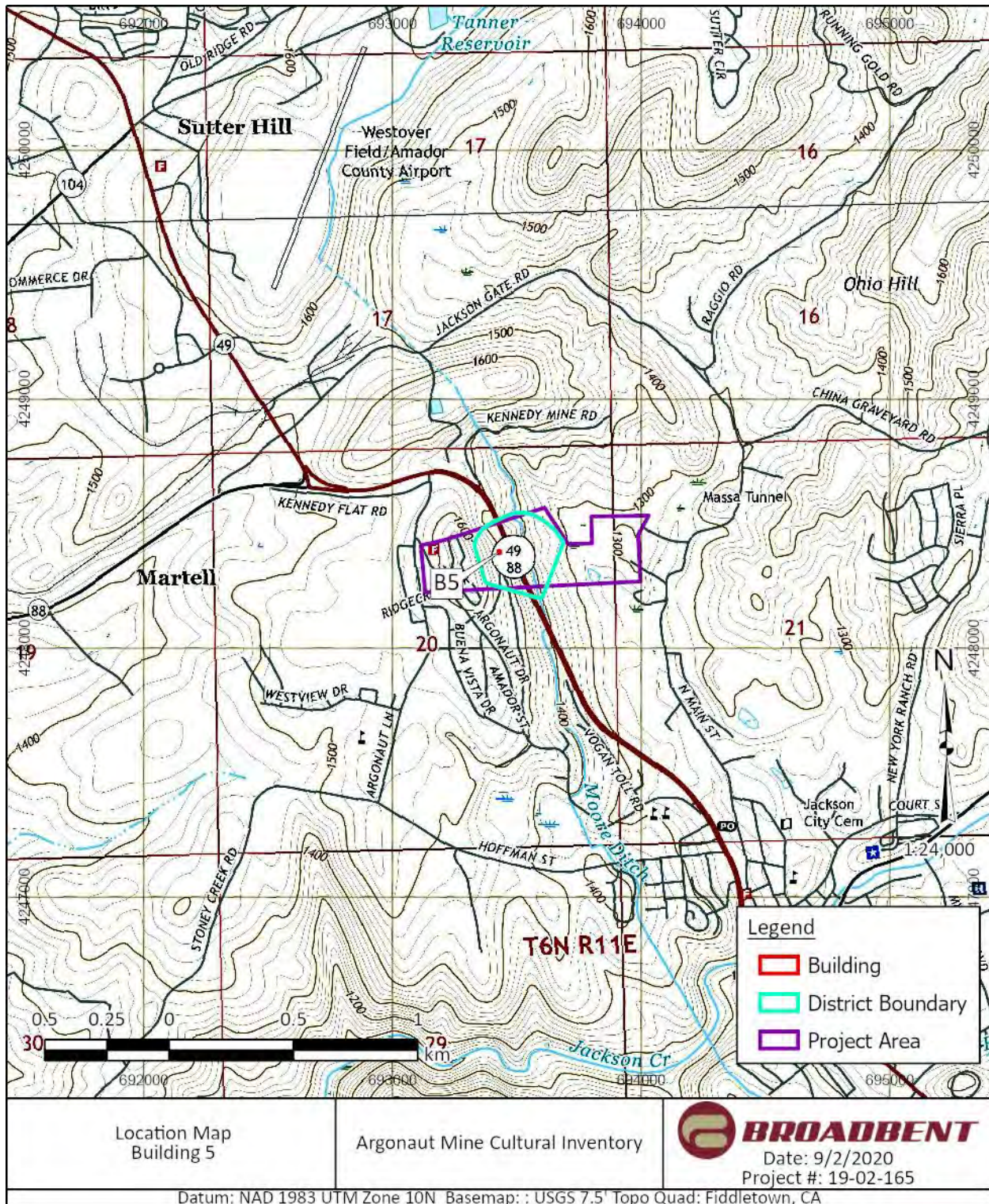
The north elevation of the building houses one wood-framed door that is covered in corrugated metal. Interior survey indicates that the door opens onto Feature 9, a poured concrete foundation with footings. The foundation includes a deteriorated concrete-lined pit located immediately southwest of the door on the northern elevation. Per the 1930 Sanborn Map of the Argonaut Mine, Feature 9 originally supported a steam boiler. Two pieces of lumber are affixed with nails, presumably to bar entry. Two narrow metal pipes approximately 1/4-inch in diameter extend from the wall on the eastern portion of the north elevation, their elbow joints oriented toward the downward slope on the west side of the building. Several pieces of the corrugated metal siding have deteriorated, leaving gaps in the exterior wall.

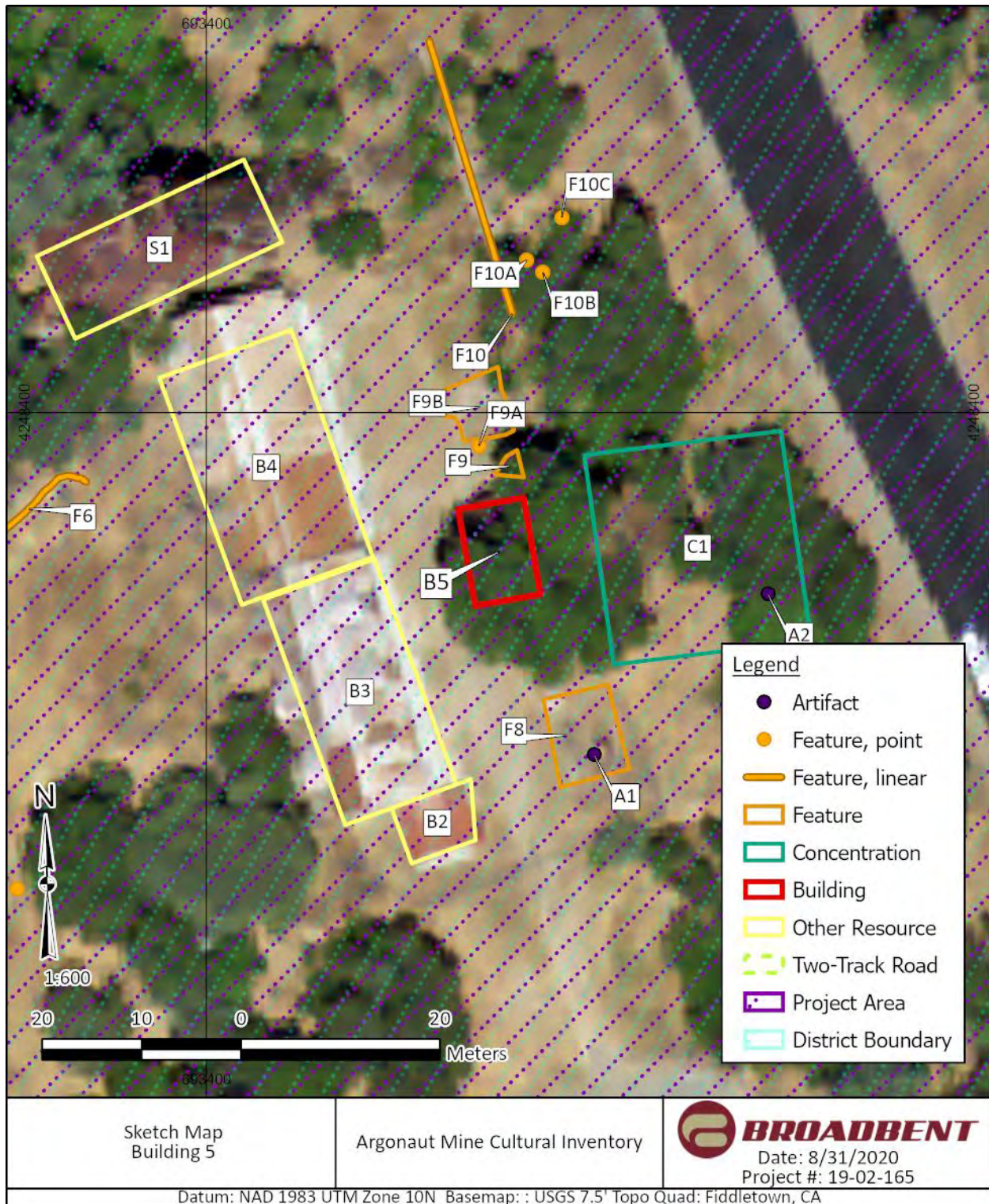
The east elevation houses three large windows adorned with metal grilles. At the northeast corner, two pipe fittings measuring 12 inches in diameter are set into the building's concrete foundation. One of these is oriented towards the concrete-lined pit within Feature 9, suggesting that it served to connect Building 5 with the boiler apparatus.

An interior survey of the building revealed an assortment of tools, structural debris, 55-gallon drums, and hardware. The building appears to have been used for general storage of items accumulated from the 1930s until the closure of the mine. The contents of the building were not disturbed during the survey.

See Attached

(This space reserved for official comments.)





CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine)

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*Resource Name or # (Assigned by recorder) Building 05

*Recorded by: K. Mansfield and A. Pollock

*Date 07/21/2020

☒ Continuation ☐ Update



Southwest oblique elevation of Building 05; facing 30 degrees (Frame P7210103; 07/21/2020)



Northwest oblique elevation of Building 05; facing 120 degrees; (Frame P7200083; 07/20/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine)

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Building 05 Interior: Northeast corner of workshop; facing NE (Frame P7210126; 07/21/2020)



Building 05 Interior: Northwest corner of workshop; facing NW (Frame P7210125; 07/21/2020)

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 08 *NRHP Status Code 3B
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B1. Historic Name: Hoisting Room
B2. Common Name: Hoist House
B3. Original Use: Hoisting engine room B4. Present Use: Abandoned
*B5. Architectural Style: Industrial
*B6. Construction History: (Construction date, alterations, and date of alterations)

The original Hoist House was constructed c. 1893-1894 (Sanborn Map Company 1895). According to Sanborn Fire Insurance maps (1895, 1898, 1912) this building underwent multiple alterations and expansions as the mine grew during its period of operations. Between 1895 and 1898, a wood/steel wing was added to the north corner of the eastern wall. This wing supported a rope that was connected to the water wheel located northeast of the mining complex, part of the mine's hydroelectric system (Sanborn Map Company 1895, 1898). Between 1898 and 1912, two wood/steel wings were added to the southern half of the western wall and the southern half of the eastern wall, respectively. The western wall addition expanded the overall length and width of the original building's dimensions (Sanborn Map Company 1898, 1912). Between 1912 and 1920, both additions to the eastern wall of the building were removed, reverting back to the original extent of the eastern wall (Sanborn Map Company 1912; California State Library 1920). This configuration remained until the closure of the mine in 1942 and remains intact to the present day.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: Original Location:
*B8. Related Features:
N/A

B9a. Architect: Unknown b. Builder: Unknown
*B10. Significance: Theme Mining Area Jackson, CA

Period of Significance 1850-1942; Sub-period: Argonaut Mine Expansion 1893-1942
Property Type Hoisting Works Applicable Criteria A, C, (D, Contributing)
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Statement of Integrity

According to Sanborn Fire Insurance maps (1895, 1898, 1912) Building 8 underwent multiple alterations and expansions as the mine grew during its period of operation. The various additions and modifications were completed during the period of significance and were part of the evolving operational design of the mine. Therefore, the building retains integrity of design and location. Photographs dating to 1920 indicate that fenestration, at least on the south and east elevations, remains unchanged (California State Library 1920). These photographs also indicate that the materials comprising roof and wall coverings as well as window surrounds have remained unchanged, or have been replaced with in-kind materials. The building therefore retains integrity of workmanship and materials. The building maintains integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the building retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 08 *NRHP Status Code 3B
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The period of significance for the Argonaut Mine Industrial District is 1850-1942; Building 8 was constructed within this period and functioned during this time as a component of the mine system. This building can be directly associated with the original development of the Argonaut Mine in 1893. The Hoist House and the original headframe are shown as the core industrial components of the mine on the 1894 Sanborn Map. While this building has been modified over time, it remains an intact example of a hoist house associated with a deep shaft, hard rock mining system in the Mother Lode region of California, including internal hoisting systems. In 1983, an application for inclusion in the NRHP was started, but not completed, for the Hoisting Works and an 'auxiliary building' (Building 9, Air Compressor House) (Cenotto 1983).

Building 8 is recommended individually eligible for listing in the NRHP under Criterion A and C for its significance to the earliest iteration of the Argonaut Mine, one of the most productive mines in the Mother Lode region. As the original hoist house for the Argonaut Mine, Building 8 was influential in the success and significance of the mine's extraction processes. Its modification over time demonstrates the changing technologies in use at the mine, and in hard rock mining technology in general.

Furthermore, Building 8, as a component of the mining system, is recommended eligible as a contributing resource to the Argonaut Mine Industrial District for its potential to inform an understanding of the mine/mill as a system.

B11. Additional Resource Attributes: (List attributes and codes) HP43-Mine, HP8-Industrial Building

***B12. References:**

California State Library

1920 Argonaut Mine facing Northwest. California State Library, Sacramento, CA.

Cenotto, Larry

1983 *Historical Site Survey of Jackson, Amador County*. Jackson, CA.

Sanborn Map Company

1895 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

1898 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

1912 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

B13. Remarks:

*B14. Evaluator: A. Pollock and M. Memmott, Broadbent & Associates, Inc.

*Date of Evaluation: 07/22/2020

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 08 *NRHP Status Code 3B
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Description:

Building 8 is located in the Argonaut Mine Site, to the east of CA-88. Building 8 is the hoist house for the the Argonaut Mine.

Building 8 is a large multi-story building built into a steep (~40 degree) east-trending slope. The building exhibits a roughly square footprint measuring approximately 45 feet by 43 feet, with its long axis oriented at 340 degrees. A small gabled wing extends from the southwest corner of the building. Building 8 is wood-framed, set atop a concrete foundation and sheathed in corrugated metal. It has a moderately pitched front gabled roof with a monitor that spans the length of the building. The roof is covered in corrugated metal and openings are visible in the wall under the roof line of the monitor. The shallow eave of the roof reveals exposed wood rafters. Due to the degree of the slope to the east, the building is one story high at the west and three stories high at the east. Although the interior of the building was not accessed, the number of stories was estimated based on the number of windows on the eastern elevation.

The primary (west) elevation houses a single wood-framed door opening on the north that has been covered with corrugated metal and secured shut with a piece of nominal lumber. To the south of this is a much larger bay door opening that has been mostly covered with corrugated metal. This door opening is aligned with the shed associated with the Hoist Frame (Structure 2) to the west. The small west wing extends from the west elevation at the south end of the wall. The wing exhibits a roughly square footprint with a gabled roof covered with corrugated metal. The metal siding is of various sizes, indicating multiple phases of application. The north ridge of the roof is damaged. The wing lacks fenestration except for a wood-framed door opening on the south elevation. A metal gutter adorns the north roof edge and a pipe is affixed along the west elevation.

A balcony extends from the west side the south elevation (where it is at the ground level) across the entire exterior wall. At its eastern extent, the balcony is over 30 feet above ground level. The balcony consists of a wood walkway supported by steel brackets that are anchored in the concrete foundation. A shed awning constructed of corrugated metal and held aloft with smaller steel brackets is affixed above the balcony. The awning is partially collapsed at the west end and appears to be causing some siding to detach from the frame of the building. The balcony is constructed of nominal lumber and a simple wood balustrade wraps around it. Two door openings are located on the south elevation. On the west end of the wall, a single panel of corrugated metal covers a wood-framed door opening at the ground level. A double door is located near the east end of the wall and is wood-framed and comprised of corrugated metal. It is secured with a lock. Four wood-framed window openings are situated on the south elevation, the western three of which are covered with corrugated metal and plywood. The eastern window has a sash mechanism with no glass present.

Six vertically oriented concrete bays covered with corrugated metal comprise the foundation that is visible on the south elevation. A small retaining wall constructed of stacked rocks is located at the southwest corner of the building, along the slope. A metal pipe measuring four inches in diameter runs parallel to the south side of the building, along the slope.

The east elevation of Building 8 is the tallest, dropping into the downward slope. This elevation is occupied by three rows of window openings. The upper row consists of four vertically oriented, rectangular widows with wood surrounds and no glass. The second row, which may represent a second or middle story, consists of five smaller, square windows with wood surrounds that are also absent glass. These upper two rows exhibit wood sills. The bottom row of fenestration, set approximately two feet above the ground, is comprised of four vertically oriented openings with wood surrounds and are covered with plywood and corrugated metal. One metal sash and mullion are present in the window opening on the north end of the wall. The size and shape of the openings on the south end of the wall suggest they operated as doors. A series of disturbed, partially buried pipes between Building 8 and Building 9 may represent the remains of the historic water system. One

BUILDING, STRUCTURE, AND OBJECT RECORD

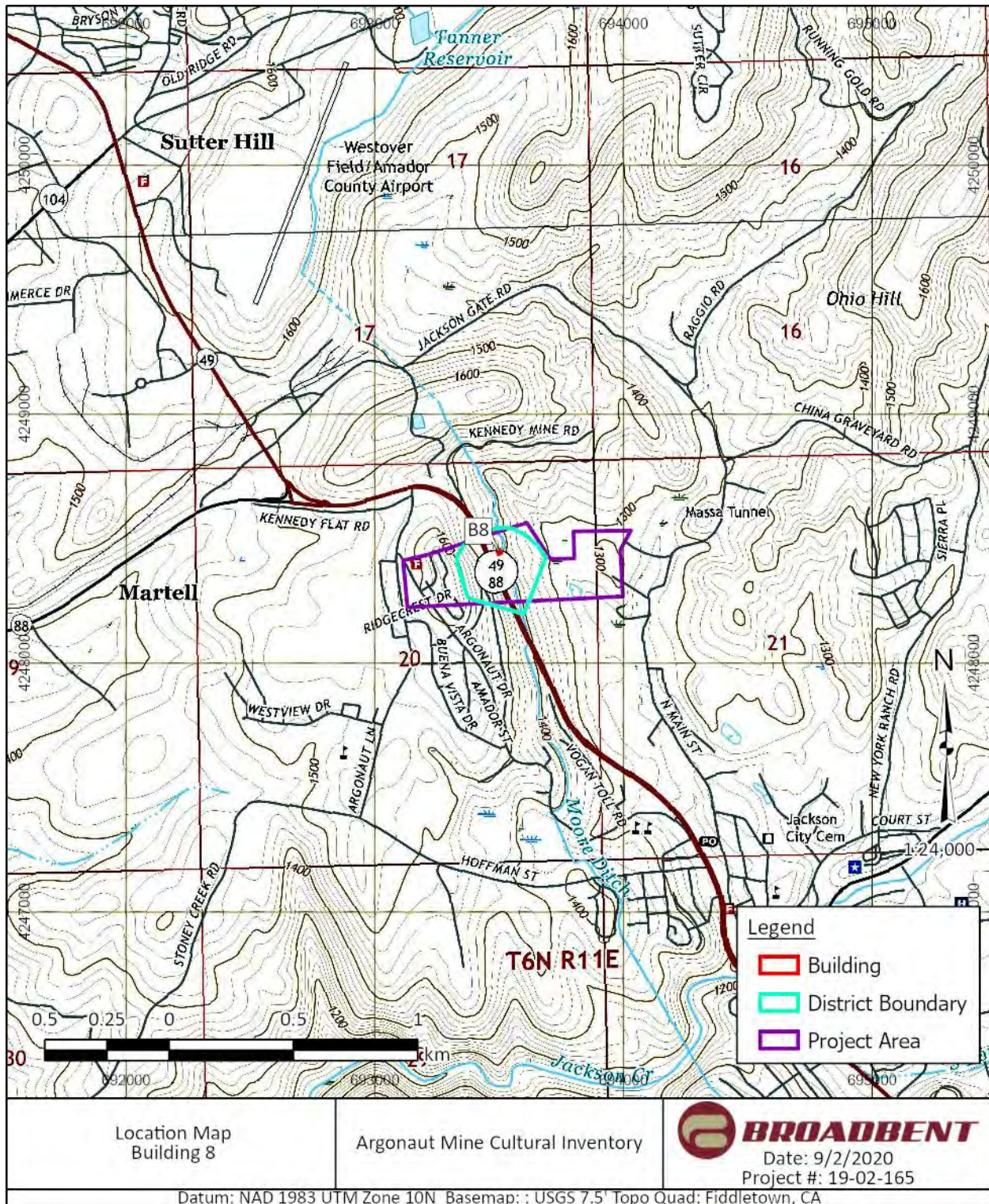
*Resource Name or # (Assigned by recorder) Building 08 *NRHP Status Code 3B
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concrete block footing and a row of tie bolts are present on the slope between Building 8 and Building 9.

The north elevation of Building 8 extends into the downward slope at the east. The concrete foundation is not visible here, as it has been covered with corrugated metal. This elevation is adorned with one wood-framed door that has been covered with corrugated metal. To the east of the door are three vertically oriented rectangular window openings with wood surrounds. They are absent glass and the westernmost opening has been partially covered with corrugated metal. A pipe extends from this elevation extending from an elbow joint downward from the northeast corner.

See Attached

(This space reserved for official comments.)





CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Building 08

*Recorded by: K. Mansfield and A. Pollock

*Date 07/22/2020

☒ Continuation ☐ Update



Northwest oblique elevation 1 of Building 08; facing 130 degrees (Frame P7220224; 07/22/2020)



South elevation of Building 08; facing 20 degrees; (Frame P7220234; 07/22/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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East elevation of Building 08; facing 260 degrees (Frame P7220237;
07/22/2020)

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 09 *NRHP Status Code 3D
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B1. Historic Name: Air Compressor House
B2. Common Name: Electrical House
B3. Original Use: House for air compressor B4. Present Use: Abandoned
*B5. Architectural Style: Industrial
*B6. Construction History: (Construction date, alterations, and date of alterations)

Constructed between 1895 and 1898 (Sanborn Map Company 1895, 1898). There do not appear to have been any alterations to the building since its creation.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: Original Location:
*B8. Related Features:
Moore Ditch (F25)

B9a. Architect: Unknown b. Builder: Unknown
*B10. Significance: Theme Mining Area Jackson, CA

Period of Significance 1850-1942; Sub-period: Argonaut Mine Expansion 1893-1942
Property Type Electrical/Compressor house Applicable Criteria A, C, D (Contributing)
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Statement of Integrity

The building was constructed between 1895 and 1898 and remained in use until the mine's closure until 1942, with few major alterations. It has therefore maintained integrity of location and design (Sanborn Map Company 1895, 1898). The exterior walls of the building have been painted and some window and door openings have been covered. Despite these alterations, the building's exterior retains sufficient integrity of materials and workmanship to convey its historic character. The interior of the building has been cleared out, and was reportedly in use as a horse stable in 1980 (Rondeau 1980). The building maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the building retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Building 9 was constructed within this period and functioned during this time as a component of the mine system. While it represents one of the earliest buildings constructed on the site and was originally part of the hydroelectric system that powered the mine, the mechanical components of the building have been removed, as have its accessory resources, e.g. the water wheel pictured in 1898. As an individual resource, therefore, the building does not convey its connection to significant historic events, i.e. the development of the mine, except in association with Building 8 and the mine system as a whole. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or

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prehistory. Unlike Building 8, which contains many of its original components, Building 9 has been stripped and repurposed since it was abandoned. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

Building 9 retains historic significance as a component of the mining and milling system at the Argonaut Mine. Taken as a part of the District and in conjunction with Building 8 and Feature 17 (the Moore Ditch), it is a part of the early infrastructure at the mine. It is therefore recommended as a contributing element of the Argonaut Mine Industrial District.

B11. Additional Resource Attributes: (List attributes and codes) HP43-Mine, HP39-Other

***B12. References:**

Muratore, Kim

2013 Releasable Chronology of the Argonaut Mine Site Ownership & Operation. United States Environmental Protection Agency, Region IX, San Francisco, CA.

Rondeau, Michael F.

1980 *A Cultural Resource Assessment of the Proposed Old Mill at the Argonaut Mine Development Project, Amador County, California*. Sacramento, CA.

Sanborn Map Company

1895 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

1898 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

1912 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

B13. Remarks:

***B14. Evaluator:** L. Culleton, A. Pollock, and M. Memmott, Broadbent & Associates, Inc.

***Date of Evaluation:** 07/22/2020

Description:

Building 9 is located in the Industrial Area of the Argonaut Mine Site downslope of Building 8. This building is surrounded by features related to the hydroelectric system. Its eastern side abuts a sluice ditch (Feature 17), and there are two utility poles adjacent to its south elevation (Features 23 and 24). Building 9 was constructed in between 1895 and 1898 (Sanborn Map Company 1895, 1898). In both the 1898 and 1912 Sanborn Fire Insurance maps, the building is listed as a compressor house, pulling electricity from a water wheel in 1898, then being decommissioned by 1912 (Sanborn Map Company 1898, 1912). It is likely that this building fell out of use as preparations were being made to construct a new mill west of Structure 1, the main headframe (Muratore 2013).

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Building 09 *NRHP Status Code 3D
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Building 9 has a rectangular plan measuring 28 feet three inches by 16 feet, with its long axis oriented at 340 degrees. The wood-frame of Building 9 is sheathed in corrugated metal and it sits atop a concrete foundation. Building 9 exhibits a moderately pitched front-gabled roof with a tall monitor that extends from the center of the ridge. A mount for electrical insulators is affixed to the east elevation of the monitor, comprised of three wood beams that extend from the wall and support one wood beam oriented perpendicularly. A similar fixture extends from the monitor's west elevation. No siding is present on the monitor's walls above these fixtures. A gabled dormer extends from the west ridge over the west wall of the building.

The south elevation is presumed to be the primary elevation and is occupied only by one single wood-framed door at the west corner. The door is constructed of corrugated metal and has been partially covered with plywood, which bars entrance.

The west elevation exhibits minimal fenestration, occupied only by one central window framed with wood and covered from the interior with corrugated metal.

The north elevation exhibits minimal fenestration, occupied only by one set of double doors constructed of corrugated metal and affixed with simple hinges. The structure of the building is mostly visible on this elevation, as corrugated metal has been affixed from the interior.

The east elevation, like the west elevation, has one wood-framed window in the center of the wall.

(Sketch Map with north arrow required.)

(This space reserved for official comments.)

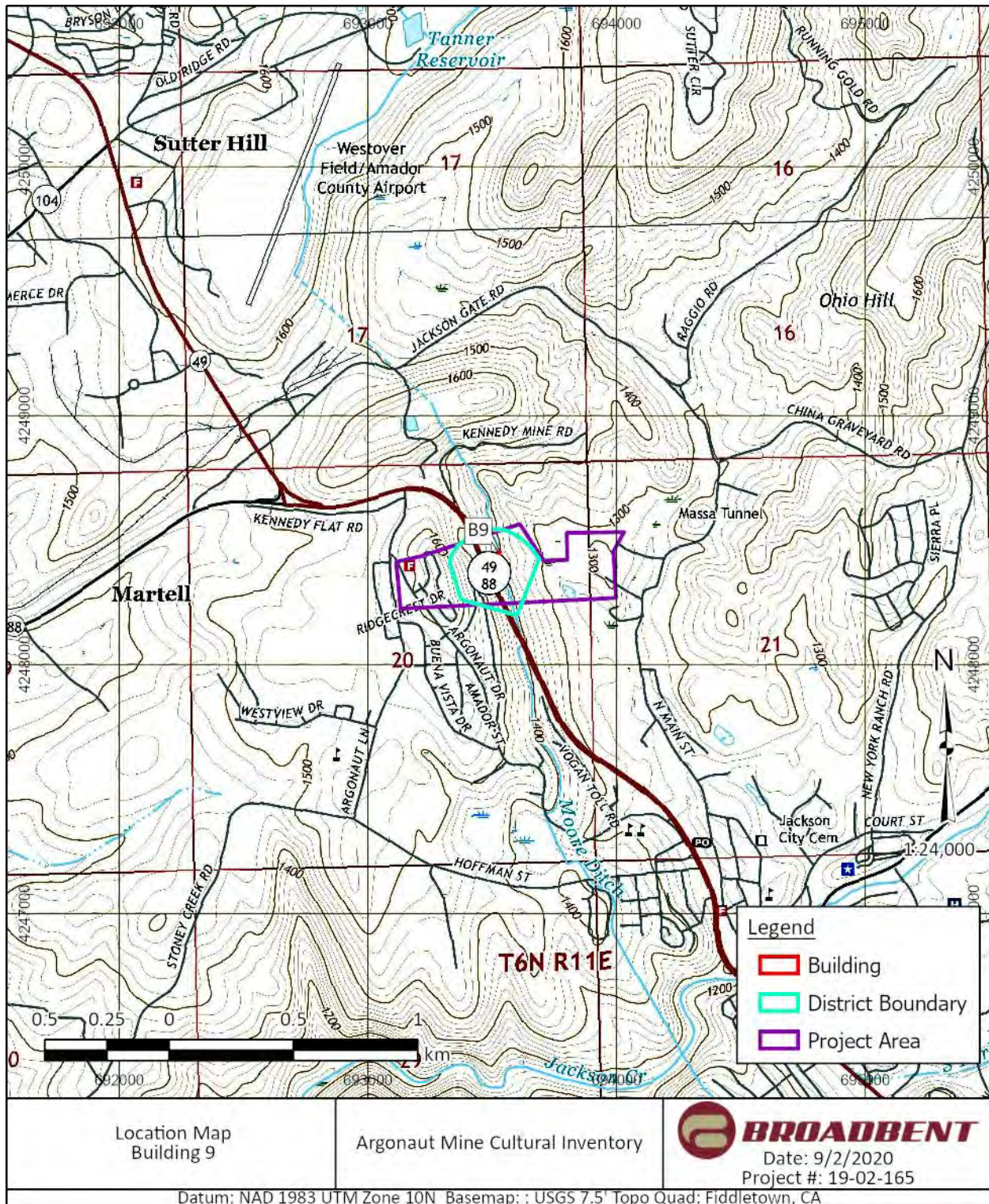
State of California—Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

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HRI#

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Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Building 09

*Recorded by: K. Mansfield and A. Pollock

*Date 07/22/2020

☒ Continuation ☐ Update



Northeast oblique elevation of Building 09; facing 220 degrees (Frame P7220248; 07/22/2020)



Southeast elevation of Building 09; facing 300 degrees; (Frame P7220245; 07/22/2020)

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*Resource Name or # (Assigned by recorder) Structure 01 *NRHP Status Code 3B
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B1. Historic Name: Gallows Frame
 B2. Common Name: Headframe
 B3. Original Use: Hoist B4. Present Use: Abandoned
 *B5. Architectural Style: Industrial
 *B6. Construction History: (Construction date, alterations, and date of alterations)

This gallows-style steel headframe was constructed over the Argonaut Mine shaft, on the site of the mine's original shaft c.1914 (Walker et al. 2014). It replaced the original wooden headframe, constructed in 1893/1894. Between 1913 and 1930, the mine operators removed a compressor and motor house from the headframe and added on an additional building to the west wall of the hoist to store an ore bin (Sanborn Map Company 1912, 1930). This configuration remained in use until the closure of the mine in 1942 and is the current configuration for the structure.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
 *B8. Related Features:

N/A

B9a. Architect: Unknown b. Builder: Unknown
 *B10. Significance: Theme Mining Area Jackson, CA

Period of Significance 1850-1942; Sub-period: 1893-1942
 Property Type Headframe Applicable Criteria A, C (D, Contributing)
 (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Statement of Integrity

Structure 1 was constructed over the Argonaut Mine shaft, on the site of the first head frame associated with the mine. This gallows-style steel headframe was constructed c.1914 (Walker et al. 2014:23-24) and remains in its original place, thereby retaining its integrity of location. Historic images indicate that the original 1914 design of the headframe, consisting of concrete foundation footings supporting a 55-foot tall steel frame, remains intact. Structural trusses and cage rails are still visible on the structure and although the structure appears to be reinforced with wood-constructed elements affixed around portions of the frame. It retains sufficient integrity of design and materials to convey its historical character. The structure maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the structure retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. It is significant for these reasons as well as for its potential to yield information about the mine/mill as a system, particularly as it relates to social and economic systems and technology. The District is recommended eligible for listing in the NRHP under Criteria A, C, and D.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Structure 1 was constructed within this period and functioned during this time as an extraction component of the mine system. Structure 1 is representative of an extraction property type and stands as a well-preserved example of a gallows headframe on one of the most productive mines in the Mother Lode region. As a result, Structure 1 is recommended individually eligible for listing in the NRHP under Criterion A as it is directly associated with and demonstrates a

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Structure 01 *NRHP Status Code 3B
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connection to the development and working of the Argonaut Mine, a significant event in local, regional, and national history, and under Criterion C as an intact example of hoisting technology used in deep shaft mining beginning in the mid-19th century. Further, as a component of the mining/milling system that was used as a core part of the Argonaut Mine from 1914 on, it is recommended eligible as a contributing resource to the Argonaut Mine Industrial District.

B11. Additional Resource Attributes: (List attributes and codes) HP43

***B12. References:**

Sanborn Map Company

- 1895 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.
- 1898 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.
- 1912 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.
- 1930 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

Walker, Mark K., Dana Ogo Shew, and Adrian Praetzelis

- 2014 *A Cultural Resource Inventory and Evaluation of the Argonaut Mine Cyanide Plant and Tailings Site, Jackson, Amador County, California.* Rohnert Park, CA.

B13. Remarks:

The original mine headframe was made of wood (Sanborn Map Company 1895). According to Sanborn Fire Insurance maps (1895, 1898, 1912, 1930) the original structure underwent multiple alterations and expansions as the mine grew during its period of operation. Between 1895 to 1898, a wooden frame wing was added to the northern half of the western wall of the hoist creating a Z-shape rather than an L-shape (Sanborn Map Company 1895, 1898). Between 1898 to 1912, a wood and steel frame building was added on to the north and west walls of the hoist to house the compressors and electric motors for the hoist (Sanborn Map Company 1898, 1912).

*B14. Evaluator: A. Pollock and M. Memmott, Broadbent & Associates, Inc.

*Date of Evaluation: 07/22/2020

Description:

This is the headframe for the Argonaut Mine. It is a gallows-style frame measuring approximately 55 feet in height, consisting of a steel and wood superstructure on a poured concrete foundation. It is set into the west-facing hill slope, north of Building 4. The foundations on the north and south sides are pylons spaced six to nine feet apart, joined by solid concrete walls. The concrete foundations are straddled by steel girders set into concrete footings at ground level on either side of the shaft. The hoistroom/winch house underneath the headframe is not secured, and it is possible to access the shaft. The headframe and hoist supports are also constructed with steel I-beams and the upper portions of the superstructures are enclosed with corrugated metal siding. On the south side of the frame, there is a narrow wing that extends out from the primary wall about 40 feet above the ground level, in line with the top of the concrete foundation. This extension is framed with corrugated metal siding and roofing with windows set along its length. It may have been accessed from upslope and used to access the hoist mechanism. The ore bin and tippie, both wood-framed, are set on the eastern elevation of the structure. The remaining rails from the tippie extend over a large pit located to the

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Structure 01 *NRHP Status Code 3B
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west of the frame that is currently enclosed by a chain-link fence. The downslope side of the pit is reinforced by Feature 10, a large concrete retaining wall.

The headframe is set into a steep west-trending slope and is oriented across the valley at 65 degrees, towards the secondary hoist frame and hoist engine house on the opposite (east) side of SR-88 (Building 7).

(This space reserved for official comments.)

(Sketch Map with north arrow required.)



CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Structure 01

*Recorded by: K. Mansfield and A. Pollock

*Date 07/21/2020

☒ Continuation ☐ Update



Overview of Structure 01: Headframe; facing 190 degrees (Frame P7210159;
07/21/2020)



Overview of Structure 01: Headframe; facing 320 degrees; (Frame P7210141;
07/21/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Structure 01: Overview of trellis; facing 280 degrees (Frame P7210143;
07/21/2020)



Structure 01: Wood frame contained within steel frame; facing 40 degrees;
(Frame P7210149; 07/21/2020)

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Structure 02 *NRHP Status Code 3D
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B1. Historic Name: Unknown
B2. Common Name: Secondary Hoist and associated shed
B3. Original Use: Unknown B4. Present Use: Abandoned
*B5. Architectural Style: Industrial

*B6. Construction History: (Construction date, alterations, and date of alterations)
Structure 2 was likely constructed before 1920. It does not appear on the 1912 Sanborn Map of the Argonaut Mine (Sanborn Map Company 1912), though it is visible in a 1920 photograph of the mine (California State Library 1920b). There are no known alterations made to the structure, as the accessory resource was merely constructed directly adjacent.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: Original Location:

*B8. Related Features:
Accessory shed. A 1980 study identified this building as a "shed," indicating that it was planned for removal during an upcoming development project. These plans did not materialize, and the building is currently in the same condition as shown in 1980 photographs (Rondeau 1980).

B9a. Architect: Unknown b. Builder: Unknown
*B10. Significance: Theme Mining Area Jackson, CA

Period of Significance 1850-1942; Sub-period: Argonaut Mine Expansion 1893-1942

Property Type Hoist Engine room Applicable Criteria A, C, D (Contributing)
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Statement of Integrity

Structure 2 appears in its current location and form since at least 1920 (California State Library 1920), as a secondary hoist engine house between the hoist house (Building 8) and the trestle for the headframe (Structure 1). It therefore maintains its integrity of location and design. The structure does not appear to have been modified and therefore maintains integrity of materials and workmanship. The structure maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the building retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C, and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Structure 2 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the structure cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the structure is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Structure 02 *NRHP Status Code 3D
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The historic significance of Structure is tied to the system of which it is a part. It forms part of the conveyance system between the headframe and the hoist house, both of which represent the original core of the mine since 1893/1894. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

B11. Additional Resource Attributes: (List attributes and codes) HP43-Mine, HP8-Industrial Building

***B12. References:**

California State Library

1920 Argonaut Mine and Mill. California State Library, Sacramento, CA.

Rondeau, Michael F.

1980 *A Cultural Resource Assessment of the Proposed Old Mill at the Argonaut Mine Development Project, Amador County, California.* Sacramento, CA.

Sanborn Map Company

1912 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

B13. Remarks:

*B14. Evaluator: A. Pollock and M. Memmott, Broadbent & Associates, Inc.

*Date of Evaluation: 07/22/2020

Description:

Structure 2 is located in the east portion of the Industrial Area of the Argonaut Mine Site, to the east of CA-49/CA-88, on the east shoulder of the highway. It is comprised of the secondary hoist cable tower and an accessory resource (adjacent building). It has been out of use since the closure of the mine in 1942. Structure 2 is to the east of and aligned with Structure 1, the main gallows headframe. It is situated downslope from the main gallows headframe. Structure 2 is located directly east of Building 8, the hoist house.

Structure 2 is comprised of a steel I-beam superstructure set atop poured concrete footings. The hoist cable tower frame stands approximately 30 feet above the ground surface and contains the remains of one pulley-wheel system with some cable still in situ.

The east concrete footing of the hoist frame is set against the west elevation of a rectangular wood-framed building whose function cannot be confirmed, but potentially served as a utility or storage building. The building footprint is 25 feet nine inches by 19 feet eight inches, with the long axis oriented at 240 degrees. Due to the degree of the adjacent slope, the building is supported on its east (downslope) side by pylons constructed of 12x12 inch milled lumber posts. These posts are set into poured concrete footings on the downslope side; the building itself has a wood foundation. The walls are constructed of corrugated metal, as is the gabled roof.

The west elevation is occupied by two doors at the north and south edges of the wall, immediately adjacent to the concrete foundation that supports the hoist frame. A large standing water spigot is set into the ground roughly four and a half feet from the southwestern corner of the building.

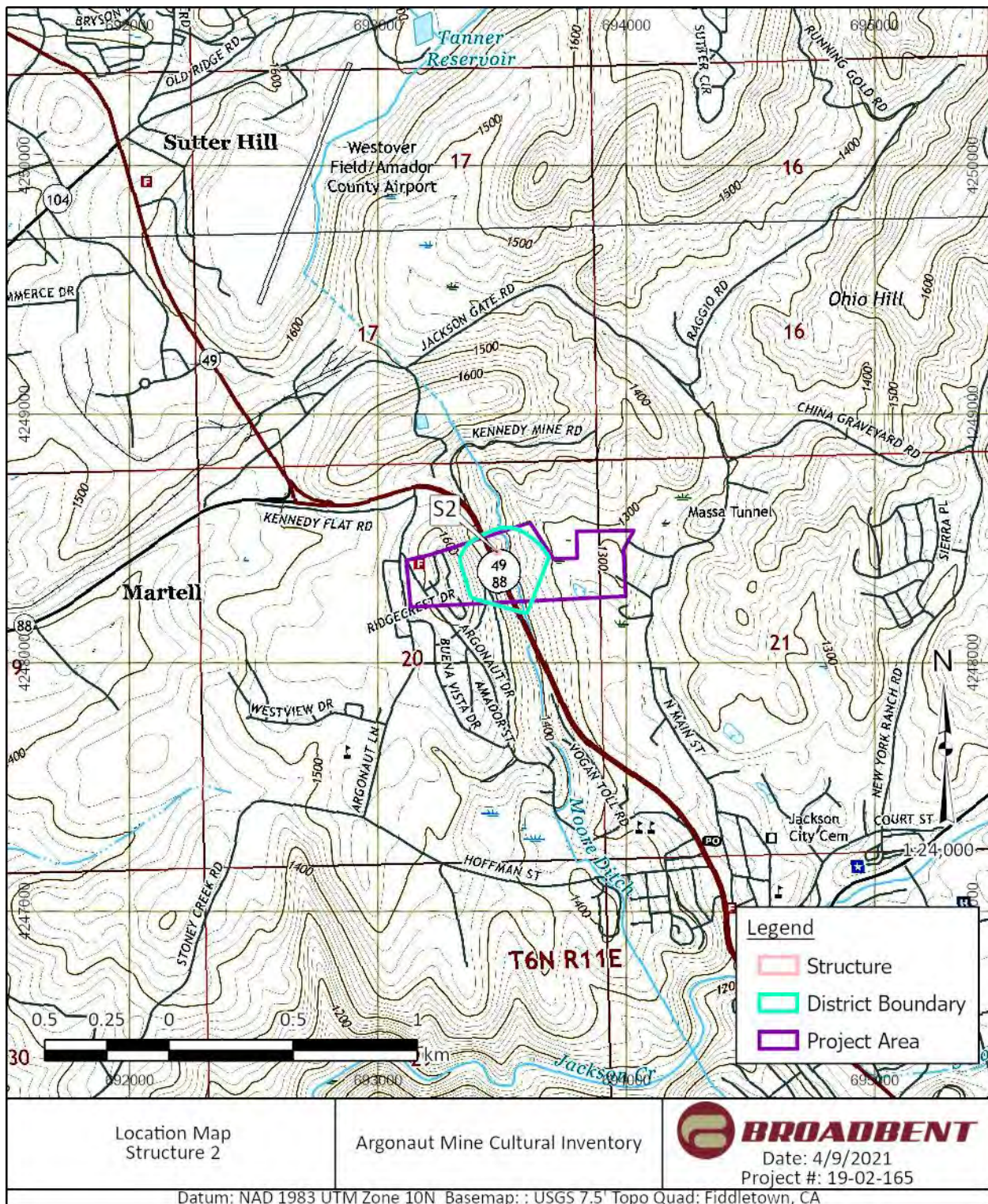
BUILDING, STRUCTURE, AND OBJECT RECORD

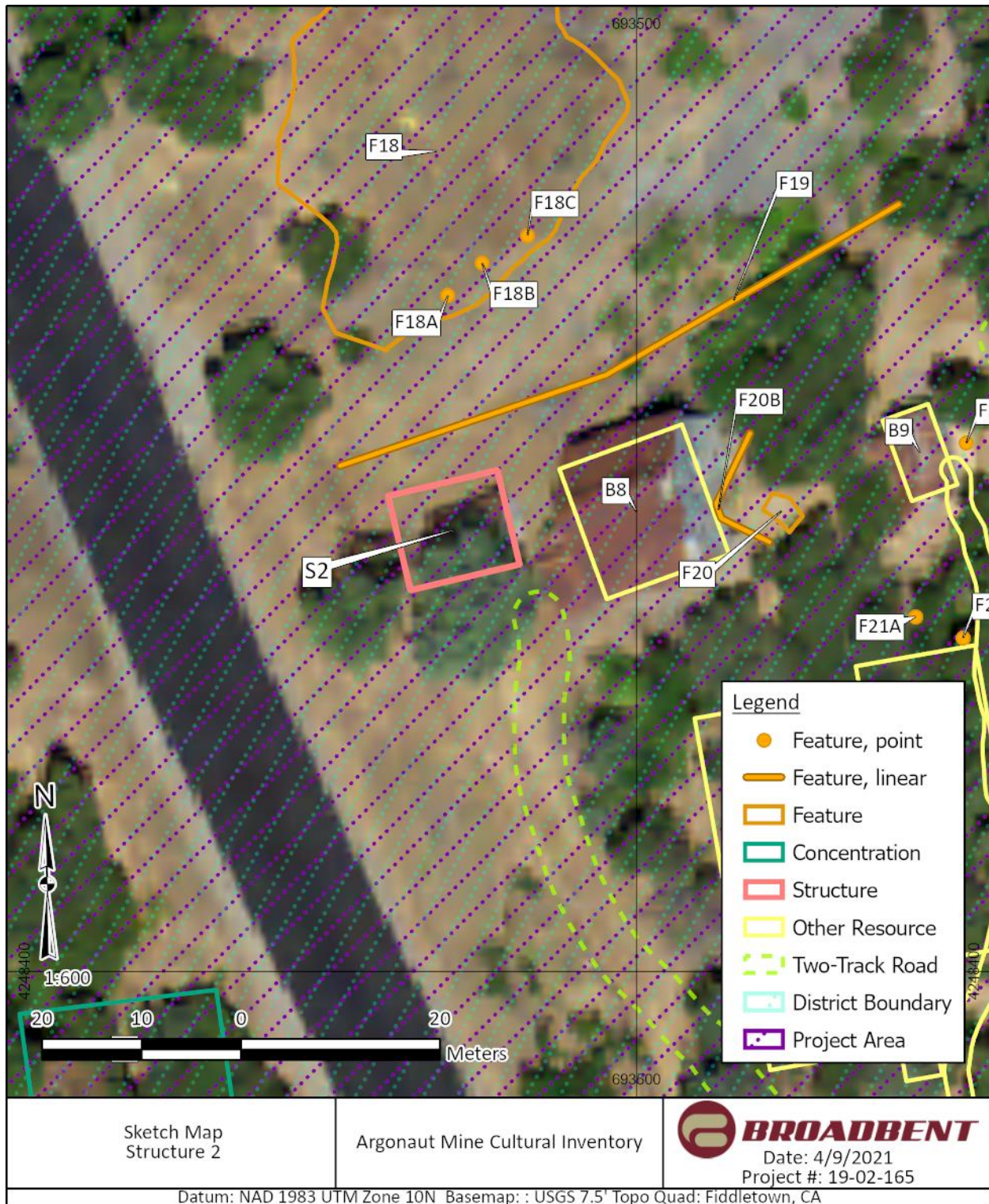
*Resource Name or # (Assigned by recorder) Structure 02 *NRHP Status Code 3D
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The only fenestration on the north elevation is one single door that may have been the primary point of entry. The door has been dented inward at the bottom to expose interior wood flooring. An adjacent portion of the metal siding is also damaged.

The east elevation is occupied by two large wood-framed door openings; the south opening has been covered with plywood while the north opening has been covered with corrugated metal. A wood-framed window opening sits between these two door frames and has been covered from the inside with plywood. Floor rafters are exposed on this elevation. Due to the slope, the east elevation stands roughly four feet above the natural ground surface.

The south elevation is occupied by a large door constructed of corrugated metal and affixed to the wall with hinges on the east side. An opening has been cut out of the metal siding on the top east corner of this elevation.





CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Structure 02

*Recorded by: K. Mansfield and A. Pollock

*Date 07/22/2020

☒ Continuation ☐ Update



South elevation of Structure 02, facing 158 degrees (Frame P7210209;
07/21/2020)



South elevation of Structure 02 and associated shed; facing 158 degrees
(Frame P7210192; 07/21/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)
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Southeast oblique elevation of associated shed; facing 282 degrees; (Frame P7220214; 07/22/2020)



Footings of Structure 02 and southwest oblique elevation of associated shed; facing 2 degrees (Frame P7220217; 07/22/2020)

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Resource Name or #: (Assigned by recorder): Feature 17

L1. Historic and/or Common Name: Moore Ditch/ Ditch

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:** Contributing

b. Location of point or segment: (Provide UTM coordinates, decimal degrees, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.)

Two segments of the Moore Ditch were recorded during survey. The first segment, Feature 17, was recorded between 693530 mE/ 4248345 mN and 393541 mE/ 4248345 mN. The second segment, originally Feature 25, was recorded between 693584 mE/ 4248214 mN and 693556 mE/ 4248285. Both segments are located in the NE ¼ of Section 20, T6N R11E.

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

Sluice ditch, located at the southern extent of the project area on the eastern side of SR 88. The ditch was identified at the base of the SR 88 grade; from the highway it follows the grade of the slope north towards Building 09, the Compressor House. The ditch is exposed from the base of SR 88 for about 250 feet, at which point it continues underground via two perpendicular concrete culverts. The eastern culvert is oriented into the valley, while the northern culvert is oriented towards Building 09 and the rest of the feature. The feature continues underground for about 200 feet to another concrete culvert. It continues as an open ditch for about 350 feet, where it reaches Building 09. Along this length, the ditch passes through two culverts under two-track roads. A modern corrugated metal pipe, 18-in diameter, crosses the ditch near a culvert. The pipe is oriented perpendicular to the ditch, and originates under the highway grade. At the northeast corner of Building 09, the ditch again enters a culvert that directs it into the canyon north of the buildings.

This feature was part of the hydroelectric system used at the Argonaut Mine since 1898.

L4. Dimensions: (In feet for historic features and meters for prehistoric features)

- a. **Top Width** – 8 feet
- b. **Bottom Width** – 6 feet
- c. **Height or Depth** – 5 feet
- d. **Length of Segment** – 250 feet, 350 feet

L5. Associated Resources:

Building 09: Compressor House

L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.):

The Moore Ditch is located directly east of Building 09 and runs perpendicular to the natural slope of the hillside. The feature is currently overgrown with grass and is flanked by oak grove on both sides. It follows the contour of the slope from the eastern shoulder of SR-88, passes alongside and under two-track roads (age unknown) the Feature 21, the 40-stamp mill foundation.

L7. Integrity Considerations:

The feature possesses integrity of location, setting, and association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The feature contains intact culverts that are indicative of the period of significance, however

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Resource Name or #: (Assigned by recorder): Feature 17

because the ditch is dry and its other components (i.e. the 1898 water wheel) have been removed, its integrity of design, materials, and workmanship have been compromised.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. While its individual integrity has been impacted by abandonment and modern activity, as a component of the larger system of the Argonaut Mine, it can be associated with parts of the original hydroelectrical infrastructure. As such, the ditch is recommended as a contributing element within the Argonaut Mine Industrial District.

L8b. Description of Photo, Map, or Drawing (View, scale, etc.) Overview of Moore Ditch facing Southeast

L8a. Photograph, Map or Drawing



L9. Remarks:

This is a photo demonstrating the integration of the ditch to the overall Argonaut Mine complex. The building seen to the right was the Mine's Air Compressor House (Building 09) that used the ditch as part of the hydroelectric system between its creation (post 1895 to 1898) to its abandonment. Water can be seen flowing in the ditch in the early 1980s (Cenotto 1983), however it was dry at the time of the 2020 survey.

L10. Form Prepared by: (Name, affiliation, and address)

A. Pollock and K. Mansfield
Broadbent & Associates, Inc.
5450 Louie Ln., Suite #101
Reno, NV 89511

L11. Date: 08/27/2020

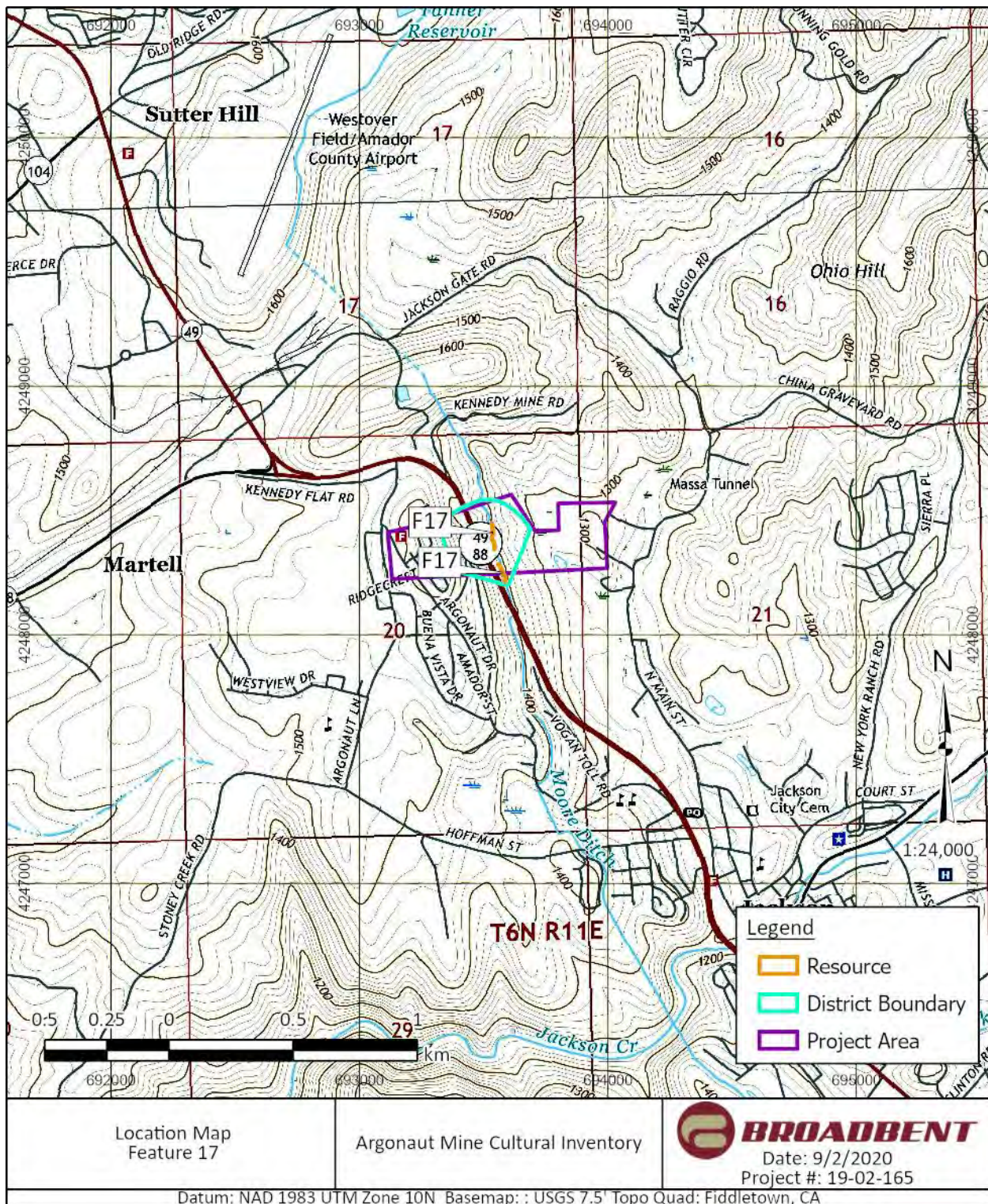
State of California—Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

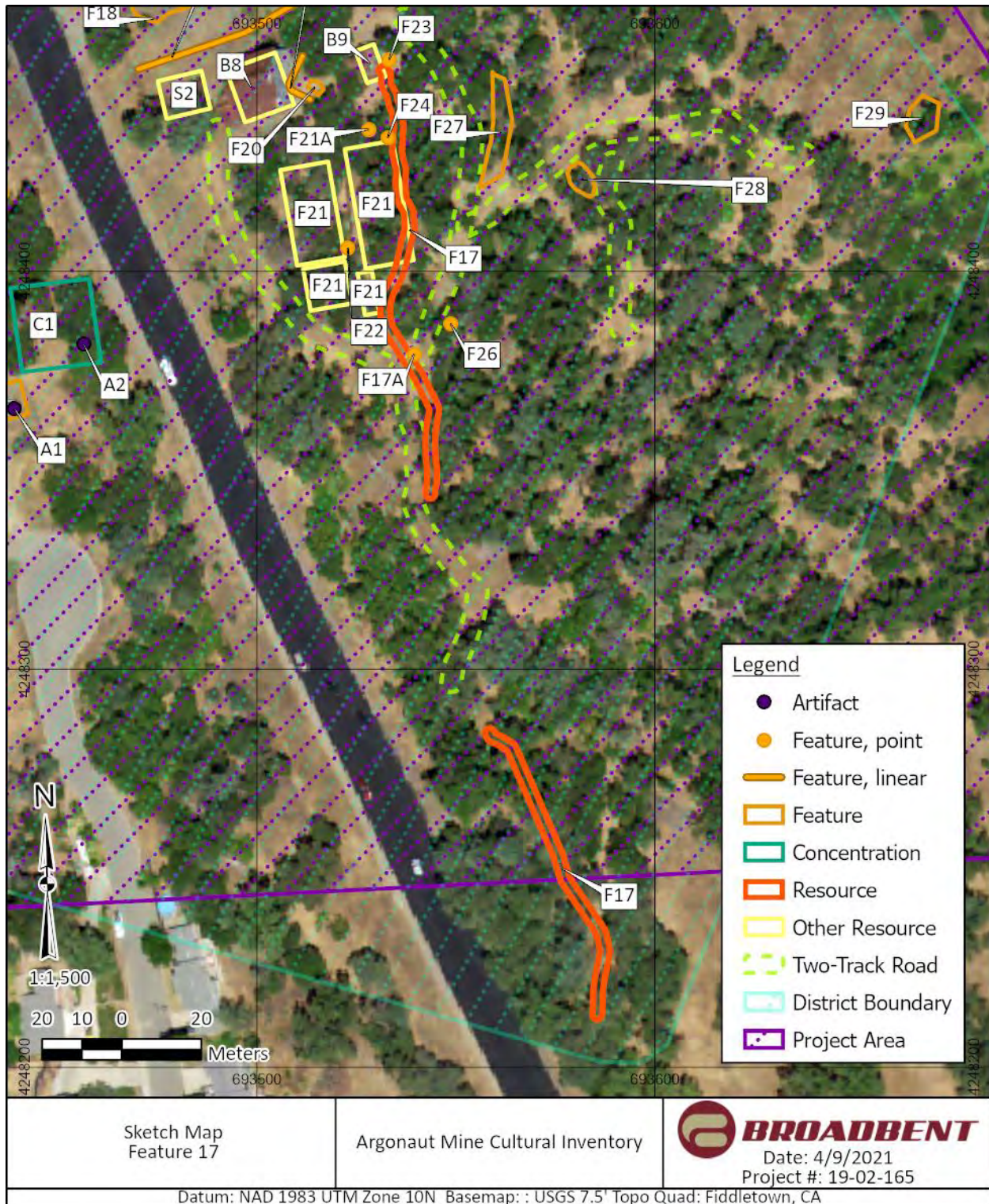
Primary # P-03-000243

HRI#

Trinomial CA-AMA-208/H

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CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)
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*Resource Name or # (Assigned by recorder) Feature 17
*Recorded by: K. Mansfield and A. Pollock *Date 07/21/2020
☒ Continuation ☐ Update



Overview of Feature 17: Moore Ditch; facing 150 degrees (Frame P7210198;
07/21/2020)



Overview of Feature 17: Blue Lake Water Co. Ditch; facing 350 degrees (Frame
P7220284; 07/22/2020)

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Feature 07 *NRHP Status Code 3D
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B1. Historic Name: Unknown
B2. Common Name: Utility pole
B3. Original Use: Electricity B4. Present Use: Abandoned
*B5. Architectural Style: Utility pole
*B6. Construction History: (Construction date, alterations, and date of alterations)

Constructed between 1912 and 1920 (Sanborn Map Company 1912; California State Library 1920). There do not appear to have been any major alterations made to the object since its installation.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: Original Location:

*B8. Related Features:
Building 1

B9a. Architect: Unknown b. Builder: Unknown

*B10. Significance: Theme Mining/Infrastructure Area Jackson, CA

Period of Significance Argonaut Mine Expansion 1893-1942

Property Type Utility pole Applicable Criteria A, C, D (Contributing)

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Statement of Integrity

This utility pole is visible in its current location and current form in photographs of the Argonaut Mine dating to 1920 (California State Library 1920). It therefore maintains its integrity of design and location. The object does not appear to have any modern alterations to its materials or composition, except for the lack of utility cables; therefore, it maintains its integrity of materials and workmanship. The object maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the object retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Feature 07 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the object cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Feature 07 is tied to the system of which it is a part. Further investigations into this object and historic records of the electrical and utility systems at the mine may yield additional information about communications technology and infrastructure at the Argonaut Mine. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Feature 07 *NRHP Status Code 3D
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B11. Additional Resource Attributes: (List attributes and codes) HP43-Mine, HP39-Other

***B12. References:**

California State Library

1920 Argonaut Mine facing Northwest. California State Library, Sacramento, CA.

Muratore, Kim

2013 Releasable Chronology of the Argonaut Mine Site Ownership & Operation. United States
Environmental Protection Agency, Region IX, San Francisco, CA.

Sanborn Map Company

1912 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography
and Map Division, Washington, D.C.

B13. Remarks:

*B14. Evaluator: A. Pollock and M. Memmott, Broadbent & Associates, Inc.
*Date of Evaluation: 07/22/2020

Description:

This utility pole stands downslope of Building 1 and north of the modern utility line. One pin-type ceramic insulator is in place on a wooden pin along the crossbeam of the pole. It was likely connected to the electrical fixtures on the east elevation of Building 1.

This object was constructed between 1912 and 1920 (Sanborn Map Company 1912; California State Library 1920). It's construction coincides with the mine's expanding development in the 1920s (Muratore 2013). There do not appear to have been any alterations made to the object.

(See District Record)

(This space reserved for official comments.)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Feature 07

*Recorded by: K. Mansfield and A. Pollock

*Date 07/20/2020

☒ Continuation ☐ Update



Overview of Feature 07: Historical Utility Pole; facing 130 degrees (Frame P7200057; 07/20/2020)

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Feature 22 *NRHP Status Code 3D
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B1. Historic Name: Unknown
B2. Common Name: Utility pole
B3. Original Use: Electricity B4. Present Use: Abandoned
*B5. Architectural Style: Utility pole
*B6. Construction History: (Construction date, alterations, and date of alterations)

Constructed between 1898 and 1912 (Sanborn Map Company 1898, 1912). It is located in the upper platform the stamp mill foundations, and may have been part of the electrical the 40-stamp mill before it was decommissioned. There do not appear to have been any major alterations made to the object, apart from the deconstruction of the mill that surrounded it.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: Original Location:
*B8. Related Features:
Feature 21, Stamp Mill Foundations

B9a. Architect: Unknown b. Builder: Unknown
*B10. Significance: Theme Mining Area Jackson, CA

Period of Significance 1850-1942; Sub-period: Argonaut Mine Expansion 1893-1942
Property Type Utility pole Applicable Criteria A, C, D (Contributing)
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Statement of Integrity

Archival research indicated this utility pole has been in the same location and same form since at least 1912, thereby retaining integrity of design and location. The object does not appear to have any modern alterations to its materials or composition except for the removal of utility cables and the loss of several bolts; therefore, it maintains its integrity of design. The object maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the object retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C, and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Feature 22 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the object cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

State of California - The Resources Agency DEPARTMENT OF PARKS AND RECREATION	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Primary #</td> <td>P-03-000243</td> </tr> <tr> <td>Trinomial#</td> <td>CA-AMA-208/H</td> </tr> </table>	Primary #	P-03-000243	Trinomial#	CA-AMA-208/H
Primary #	P-03-000243				
Trinomial#	CA-AMA-208/H				
BUILDING, STRUCTURE, AND OBJECT RECORD					

*Resource Name or # (Assigned by recorder)	Feature 22	*NRHP Status Code	3D
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The historic significance of Feature 22 is tied to the system of which it is a part. Further investigations into this object and historic records of the electrical and utility systems at the mine may yield additional information about communications technology and infrastructure at the Argonaut Mine, particularly during the transition between the use of the 40-stamp mill on the east side of the mine property and the 60-stamp mill on the west side of the property. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

B11. Additional Resource Attributes: (List attributes and codes) HP43-Mine, HP39-Other

***B12. References:**

- Muratore, Kim
 2013 Releasable Chronology of the Argonaut Mine Site Ownership & Operation. United States Environmental Projection Agency, Region IX, San Francisco, CA.
- Sanborn Map Company
 1898 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.
 1912 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

B13. Remarks:

*B14. Evaluator: A. Pollock and M. Memmott, Broadbent & Associates, Inc
 *Date of Evaluation: 07/22/20

Description:

Standing utility pole, located at the southeast corner of the upper platform of Feature 21. One bolt remains at the top of the pole, and a cross beam with pin-fittings for insulators lies on the platform nearby.

This object was constructed between 1898 and 1912 (Sanborn Map Company 1898, 1912). Its construction coincides with the mine's expanding development of the quartz stamp mill. The compressor house and multiple utility poles were constructed to transfer power across the mine. When the compressor house was abandoned between 1912 and 1914, these utility poles were also abandoned (Muratore 2013).

See Attached District Form

(This space reserved for official comments.)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Feature 22

*Recorded by: K. Mansfield and A. Pollock

*Date 07/22/2020

☒ Continuation ☐ Update



Overview of Feature 22: Historical utility pole; facing 170 degrees (Frame P720273; 07/22/2020)

State of California - The Resources Agency DEPARTMENT OF PARKS AND RECREATION	Primary # <u>P-03-000243</u> Trinomial# <u>CA-AMA-208/H</u>
BUILDING, STRUCTURE, AND OBJECT RECORD	

*Resource Name or # (Assigned by recorder) Feature 23 *NRHP Status Code 3D
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B1. Historic Name: Unknown
 B2. Common Name: Cut utility pole
 B3. Original Use: Electricity B4. Present Use: Abandoned
 *B5. Architectural Style: Utility pole
 *B6. Construction History: (Construction date, alterations, and date of alterations)

Constructed between 1898 and 1912 (Sanborn Map Company 1898, 1912). The pole was cut down at an unknown date.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
 *B8. Related Features:
 Air Compressor house and a complete utility pole

B9a. Architect: Unknown b. Builder: Unknown
 *B10. Significance: Theme Mining Area Jackson, CA

Period of Significance 1850-1942; Sub-period: Argonaut Mine Expansion 1893-1942
 Property Type Utility pole Applicable Criteria A, C, D (Contributing)
 (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Statement of Integrity

Archival research indicated this utility pole has been in the place since at least 1912, thereby retaining integrity of location. Only the bottom lower four feet of this utility pole remains; therefore, it does not demonstrate integrity of design, materials, or workmanship. The object maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the object retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Feature 23 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the object cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Feature 23 is tied to the system of which it is a part. Further investigations into this

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Feature 23 *NRHP Status Code 3D
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object and historic records of the electrical and utility systems at the mine may yield additional information about communications technology and infrastructure at the Argonaut Mine. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

B11. Additional Resource Attributes: (List attributes and codes) HP43-Mine, HP39-Other

***B12. References:**

Sanborn Map Company

1898 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

1912 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

Muratore, Kim

2013 Releasable Chronology of the Argonaut Mine Site Ownership & Operation. United States Environmental Protection Agency, Region IX, San Francisco, CA.

B13. Remarks:

*B14. Evaluator: A. Pollock and M. Memmott, Broadbent & Associates, Inc.
*Date of Evaluation: 07/22/2020

Description:

Utility pole, cut off at approximately four feet above the surface. It is located on the east bank of Feature 17, sluice ditch, in line with the southeast corner of Building 9, Compressor House. A threaded galvanized metal bolt is driven through the base.

This object was constructed between 1898 and 1912 (Sanborn Map Company 1898, 1912). Its construction coincides with the mine's expanding development of the hydroelectric system and the quartz stamp mill. The compressor house and multiple utility poles were constructed to transfer power across the mine. When the compressor house was abandoned between 1912 and 1914, these utility poles were also abandoned (Muratore 2013). This pole was cut down at an unknown time after 1914.

(See Attached District Map)

(This space reserved for official comments.)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Feature 23

*Recorded by: K. Mansfield and A. Pollock

*Date 07/22/2020

☒ Continuation ☐ Update



Overview of Feature 23: Historical cut utility pole; facing 270 degrees
(Frame P720278; 07/22/2020)

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Feature 24 *NRHP Status Code 3D
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B1. Historic Name: Unknown
B2. Common Name: Utility pole
B3. Original Use: Electricity B4. Present Use: Abandoned
*B5. Architectural Style: Utility pole
*B6. Construction History: (Construction date, alterations, and date of alterations)

Constructed between 1898 and 1912 (Sanborn Map Company 1898, 1912). There do not appear to have been any major alterations made to the object.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: Original Location:

*B8. Related Features:
Air Compressor house and two utility poles (one cut, one complete)

B9a. Architect: Unknown b. Builder: Unknown
*B10. Significance: Theme Mining Area Jackson, CA

Period of Significance 1850-1942; Sub-period: Argonaut Mine Expansion 1893-1942
Property Type Utility pole Applicable Criteria A, C, D (Contributing)
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Statement of Integrity

Archival research indicated this utility pole has been in the same location and same form since at least 1912, thereby retaining integrity of design and location. The object does not appear to have any modern alterations to its materials or composition, except for the lack of utility cables; therefore, it maintains its integrity of materials and workmanship. The object maintains its integrity of association as it is still situated among resources related to the Argonaut Mine. While the continual development of the surrounding area has compromised its integrity of setting, feeling, and association, the object retains sufficient levels of these qualities to convey its historic character.

National Register Considerations

The Argonaut Mine Industrial District is historically linked to the Mother Lode vein and associated hard rock mining technologies; labor disputes; federal mining law; and mining safety. The District is recommended eligible under Criteria A, C and D for its association with these events, as an example hard-rock gold mining technologies, and for its potential to inform an understanding of the mine/mill as a system, particularly as it relates to social and economic systems and technology.

The period of significance for the Argonaut Mine Industrial District is 1850-1942; Feature 24 was constructed within this period and functioned during this time as a component of the mine system. As an individual resource, the object cannot be directly associated with a specific event or person of significance at the local, state, or national level. It does not, in itself, embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a master or high artistic character. Finally, it does not contain independent data potential likely to yield information important to history or prehistory. For these reasons, the building is recommended not eligible to the NRHP under any of the four Criteria as an individual resource.

The historic significance of Feature 24 is tied to the system of which it is a part. Further investigations into this

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Feature 24 *NRHP Status Code 3D
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object and historic records of the electrical and utility systems at the mine may yield additional information about communications technology and infrastructure at the Argonaut Mine. As a component of the mining and milling system, it is recommended as a contributing element of the Argonaut Mine Industrial District.

B11. Additional Resource Attributes: (List attributes and codes) HP43-Mine, HP39-Other

***B12. References:**

Muratore, Kim

2013 Releasable Chronology of the Argonaut Mine Site Ownership & Operation. United States
Environmental Protection Agency, Region IX, San Francisco, CA.

Sanborn Map Company

1898 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

1912 Sanborn Fire Insurance Map from Jackson, Amador County, California. Library of Congress Geography and Map Division, Washington, D.C.

B13. Remarks:

*B14. Evaluator: A. Pollock and M. Memmott, Broadbent & Associates, Inc.

*Date of Evaluation: 07/22/2020

Description:

Standing utility pole, located south of Building 9, Compressor House, on the east side of Feature 17, sluice ditch. It is connected to Building 9 via a metal wire attached to the southeast corner of the building. It retains cross beams with wooden pin mounts for insulators.

This object was constructed between 1898 and 1912 (Sanborn Map Company 1898, 1912). Its construction coincides with the mine's expanding development of the quartz stamp mill. The compressor house and multiple utility poles were constructed to transfer power across the mine. When the compressor house was abandoned between 1912 and 1914, these utility poles were also abandoned (Muratore 2013).

(See attached District Form)

(This space reserved for official comments.)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Feature 24

*Recorded by: K. Mansfield and A. Pollock *Date 07/22/2020

☒ Continuation ☐ Update



Overview of Feature 24: Historical utility pole; facing 100 degrees (Frame P720282; 07/22/2020)

ARCHAEOLOGICAL SITE RECORD

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*Resource Name or #: Argonaut Mine Industrial District (Argonaut Mine Site, CHL-786)

*A1. Dimensions: a. Length: 342 m. (N/S) × b. Width: 356 m. (E/W) (21.6 acres)

Method of Measurement: ☐ Paced ☐ Taped ☐ Visual estimate ☒ Other: GIS

Method of Determination (Check any that apply.): ☐ Artifacts ☒ Features ☐ Soil ☐ Vegetation ☐ Topography
☐ Cut bank ☐ Animal burrow ☐ Excavation ☒ Property boundary ☐ Other (Explain):

Reliability of Determination: ☒ High ☐ Medium ☐ Low Explain:

The archaeological site boundary is coterminous with the boundary of the Argonaut Mine Industrial District. It includes extant resources related to the core mining and milling operations of the Argonaut Mine, 1850-1942. Large portions of the original mine property boundary (333.2 acres) have been developed for commercial and residential use.

Limitations (Check any that apply): ☒ Restricted access ☐ Paved/built over ☐ Site limits incompletely defined
☒ Disturbances ☒ Vegetation ☐ Other (Explain):

A2. Depth: ☐ None ☒ Unknown

Method of Determination:

No subsurface investigations were conducted during the inventory. The main shaft of the Argonaut Mine reached the 5850-foot level, however most extant archaeological features are surficial. The site may contain shallowly buried historic deposits. It is unlikely to contain intact prehistoric deposits, owing to the extent of the historic and modern use of the area.

*A3. Human Remains: ☐ Present ☐ Absent ☐ Possible ☒ Unknown (Explain):

While the Argonaut Mine was the site of a deadly mining disaster in 1922, it is unlikely that historic human remains are still present within the site. It is unlikely that the site contains prehistoric burials, however no subsurface investigation was conducted during the inventory.

*A4. Features (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.):
The archaeological component of the Argonaut Mine Industrial District contains 23 features. These are distributed throughout the site, alongside seven Buildings, two Structures, one Linear Feature, and four Architectural Objects. Most of the features are located in the 8.4-acre "Industrial Area" identified by the EPA (see attached). The archaeological resources are summarized in table below; detailed descriptions follow.

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*Resource Name or #: Argonaut Mine Industrial District (Argonaut Mine Site, CHL-786)

Table 1: Summary of Features

Feature #	Description	Year Built	Contributing to District?
Feature 1	Wooden Post	Unknown	N
Feature 2	Metal Bin	Unknown	N
Feature 3	Metal Pipe	Unknown	N
Feature 4	Pit or Post Hole	Unknown	N
Feature 5	Fence	Unknown	N
Feature 6	Ditch	Unknown	N
Feature 7	Utility Pole	1912-1920	Y
Feature 8	Foundation: Assay Office	c. 1895	Y
Feature 9	Concrete Pad: Building 5	c.1930	N
Feature 10	Retaining Wall	Unknown	Y
Feature 11	Metal Pipe	Unknown	Y
Feature 12	Concrete footing north of headframe	c.1912	N
Feature 13	Concrete Footing	c.1912	N
Feature 14	Concrete Footing	c.1912	N
Feature 15	Concrete Footings	c.1912	N
Feature 16	Concrete Block Footing	c.1930	N
Feature 17	Ditch	1898	Y
Feature 18	Large Waste Rock Platform	c.1894	Y
Feature 19	Large Metal Pipe	Unknown	Y
Feature 20	Collapsed Wood-Framed Structure	by 1912	N
Feature 21	Stamp Mill Foundations	c.1898	Y
Feature 22	Utility Pole	c.1912	Y
Feature 23	Utility Pole	c.1912	Y
Feature 24	Utility Pole	c. 1912	Y
Feature 25	Number omitted; combined with Feature 17	--	--
Feature 26	Wood Water Tank	Unknown	N
Feature 27	Terrace: Sulphuret House	c.1898	N
Feature 28	Pit	Unknown	N
Feature 29	Pit	Unknown	N

Feature 01: Cut-off wooden post. It is embedded in the east-trending hillslope south of Building 01. It consists of a rectangular milled lumber post, original dimensions roughly seven inches by seven inches, cut or broken into a tapered shape. It currently stands three feet tall. There is a bolt with nuts and washers on both sides driven horizontally through the base, and three wire nails driven into one side. It may represent the remains of a fencepost.

The feature possesses integrity of location and setting. The feature possesses integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The alteration of the post means the feature does not demonstrate integrity of design, materials, workmanship, or feeling. As the original function of the post is not apparent, the feature is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 02: Metal bin, possibly a disused ore bin. Set into a terrace along the east-trending slope, south of Building 01. It is constructed with galvanized metal sheets across a steel frame. Three bolts are set across the top of the bin, width-wise; these are driven directly through the sides. There are two metal clamps on either side of the bin. The bin measures 94 inches by 46 inches and is 36 inches deep. The bolts across the top are spaced at 22 inch intervals. The northeast corner of the bin is resting on a piece of milled lumber. Modern graffiti has been applied to the east-facing side.

The feature possesses integrity of setting, materials, design, and workmanship. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The bin is in a location that is removed from the general ore-processing area and lacks integrity of location and feeling. As the ore bin has been relocated and repurposed from its original place and function, the feature is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 03: Length of 4-inch diameter metal pipe with one clamp fitting. Partially buried along a break in the east-trending slope south of Building 01, west of Feature 02. The pipe is intact for a length of approximately 100 feet. At its southern extent, the pipe end appears to have been broken off and removed. At its northern extent, the pipe is cut off at a modern utility line corridor underneath an overhead power line.

The feature possesses integrity of setting and location within the Argonaut Mine. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. Alterations and partial dismantling of the pipe have impacted its integrity of design, materials, workmanship, and feeling. The feature is associated with important events; the construction and operation of the Argonaut Mine, which contributed significantly to the broad patterns of history. As the pipe has been disconnected to the overall system, the feature is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 04: Vertical pit, approximately two feet in diameter. It is at least three feet deep; total depth not determined due to instability of the surrounding ground. It may represent an abandoned post-hole.

The feature possesses integrity of location. It possesses integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. Since the original function of the pit is not clear, it does not demonstrate integrity of setting, materials, design, workmanship, and feeling. As the origins of the feature are unknown, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 05: Partially collapsed fence, age unknown. It includes two large (12x12-inch) end posts with various types of barbed wire along the length. Portions have been reinforced with modern metal T-posts. This may be a historic fence line that has been modified over time. The fence originates near the northeast corner of Building 01. It extends west for approximately 30 feet, where it joins one of the large end posts and turns north along the contour of the slope. It is intact (parts collapsed) for about 80 feet, and terminates near Feature 06, a ditch.

The feature possesses integrity of location and setting within the Argonaut Mine. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. Since alterations have occurred to the feature, it lacks integrity of design, materials, workmanship, and feeling. The feature is associated with important events; the construction and operation of the Argonaut Mine, which contributed significantly to the broad patterns of history. As the fence has been altered and its original extent and function is not apparent, the feature is recommended as a non-contributing element of the Argonaut Mine Industrial District.

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*Resource Name or #: Argonaut Mine Industrial District (Argonaut Mine Site, CHL-786)

Feature 06: Shallow ditch located north of Building 1. It is approximately 12 feet wide and two to three feet deep, oriented down the slope at 50 degrees. It initiates on the west (upslope) side below the terrace that corresponds to the upper story of Building 01 and continues to the slope break above Building 04, Compressor House, to the east, where it encounters a modern footpath. It is approximately 110 feet long.

The feature possesses integrity of location and setting within the Argonaut Mine. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. As an eroded earthen feature without constructed elements, the ditch does not convey integrity of materials, design, workmanship, or feeling.

The feature is associated with important events; the construction and operation of the Argonaut Mine, which contributed significantly to the broad patterns of history. Since the ditch does not convey original function or role within the system, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 07: Utility Pole; See Building, Structure, and Object Record

Feature 08: Foundation of the former Assay Office. It is a poured concrete foundation for a four to five-room building. The footprint measures 18 feet six inches by 36 feet, with the long axis oriented at 340 degrees. It is located opposite Buildings 02 and 03 (Office and Machine Shop) on the east side of the Industrial Area. The floorplan of the building includes one small room (seven feet three inches by six feet six inches) at the northwest corner and a narrow room (12 feet, three inches by seven feet, eight inches) immediately west of it. To the south of these two rooms, the building contains several partial foundations that could have been divided into two or three rooms. The point of entry appears to have been on the west side of the building. The foundation is scattered with fragments of machinery, pipes, corrugated sheet metal, electrical insulators, and a large deposit of asbestos in the northwestern room. The space immediately south of the northwest room contains a deposit of charcoal. Within the main room, an intact cast-iron assay furnace (Artifact 01) stands near the southeast corner. The Assay Office and Furnace are identified here on the Sanborn Fire Insurance Maps of the Argonaut Mine in 1898, though a building is shown at this location as early as 1895.

The feature possesses integrity of location and setting. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The feature possesses integrity of feeling since it maintains distinctive components, including the furnace (Artifact 01). The original structure has been decommissioned which involved stripping it down to its internal concrete structural elements. Therefore, it does not possess integrity of design, materials, or workmanship.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. Prior to demolition, this building may have been recommended eligible for listing on the National Register; the remaining foundations do not retain original integrity, and they are not recommended as eligible for listing on the NRHP. However, as a component of the Industrial Area, the surviving foundations of the building are recommended as a contributing element of the Argonaut Mine Industrial District.

Feature 09: Poured concrete foundation with catchment area, located immediately north of Building 05, Steel Shop, in the Industrial Area. It overhangs a steep slope, which is reinforced with a concrete retaining wall on the downslope (east) side. The foundation consists of a rectangular pad, approximately 21 feet by 45 feet, with the long axis oriented at 350 degrees. One standing concrete pylon is located in the northern part of the foundation. The pylon lacks mounts or attachments. It has a tapered shape, measuring 30 inches long at the base and 18 long at the top. It is 12 inches wide and stand two feet, six inches high. At the southwest corner of the platform there is a recessed catchment area that has partially collapsed and been infilled with debris. It was originally an outlet for several pipes of varying sizes that remain embedded in the concrete and at the base of Building 05. The catchment area measures nine feet by nine feet. The 1930 Sanborn Fire Insurance

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*Resource Name or #: Argonaut Mine Industrial District (Argonaut Mine Site, CHL-786)

Map of the Argonaut Mine shows a foundation of a steam boiler at this location. The pipes in this feature and attached to Building 05 were likely attached to the steam system.

The feature possesses integrity of location. The feature possesses integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The original structure has been decommissioned which involved stripping it down to its internal concrete structural elements. Therefore, it does not possess integrity of setting, design, materials, or workmanship.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. Prior to demolition, this building may have been recommended eligible for listing on the National Register; the remaining foundations do not retain original integrity, and they are not recommended as eligible for listing on the NRHP. In their current condition, the foundations do not convey the original function of this feature or its historic form. As such, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 10: This is a retaining wall located on the downslope side of a large pit at the base of the gallows headframe (Structure 01). The wall is set into the east-trending slope and is approximately 15 feet tall at its highest point. Large metal pipes are set into the slope on either side of the wall, oriented towards the valley. On the south side of the wall, steel cross-beam supports in the concrete have been exposed. A series of poured concrete footings with threaded metal bolts are set along the base of the wall. Feature 10A is at the southwest corner of the wall. It measures 28 inches by 36 inches and stands up to 27 inches above the ground surface. It has threaded bolts at each corner. Feature 10B is a long rectangular footing, oriented parallel to the wall. It measures 65 inches by 28 inches and stands 13 inches above the ground. Feature 10C is a rectangular footing that contains the remains of an embedded metal pipe (12-inch diameter). It measures four feet by 3 feet six inches and includes a two by two foot square recessed area at the top. Additionally, a poured concrete catchment area was observed at the northwest corner of the wall. This could not be fully recorded due to the presence of a modern encampment.

The feature possesses integrity of location, setting, design, materials, feeling, and workmanship. The feature possesses integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. The feature still demonstrates its original function as a part of the headframe support system. As such, the retaining wall is recommended as a contributing element within the Argonaut Mine Industrial District.

Feature 11: Metal pipe, located along the slope north of the gallows headframe (Structure 01). It is 12 inches in diameter. The eastern extent is embedded in the slope northwest of the headframe and it extends into the valley north of Feature 10, the retaining wall. This pipe may have been related to dewatering efforts in the mine workings. It is aligned with Feature 19, another pipe located on the opposite side of the highway (CA-49/CA-88). The exposed part of Feature 11 was mapped and photographed. It appears to continue underground and/or under dense vegetation to the west, towards the modern housing development located west and upslope of the site.

The feature possesses integrity of location, design, materials, and workmanship. The feature possesses integrity of setting because it appears to start close to where the main shaft of the Mine was located and extends throughout the project area. The feature possesses integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. The feature's function is still apparent as a part of the dewatering system for the shaft, which was important to the fire control and fire recovery systems at the mine. As such, the pipe is recommended as a contributing element within the Argonaut Mine Industrial District.

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*Resource Name or #: Argonaut Mine Industrial District (Argonaut Mine Site, CHL-786)

Feature 12: Poured concrete footing with threaded metal bolts. It is located in the northern part of the Industrial Area, overlooking SR 88. It includes four threaded bolts, 12 inches tall, embedded in each of its corners. It measures 42 inches by 20 inches and is 24 inches high. This footing is likely part of the foundations or workings of the Carpenter and Timbering shop identified on the 1930s Sanborn Fire Insurance Map of the Argonaut Mine.

The feature possesses integrity of location. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The original building, the lumber mill, has been decommissioned which involved stripping it down to its internal concrete structural elements. Therefore, it does not demonstrate integrity of setting, feeling, design, materials, or workmanship.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. Prior to demolition, the building may have been recommended eligible for listing on the National Register; the remaining footing does not retain original integrity, and is not recommended as eligible for listing on the NRHP. In addition, the feature does not convey its original function in its current state. As such, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 13: Poured concrete footing located roughly 25 feet southwest of Feature 12. It is partially obscured by a fallen tree. It consists of one solid block measuring 28 inches wide by five feet long, which is overlain with smaller rectangular blocks set parallel to each other. Short threaded metal bolts are embedded at each corner. This footing is likely part of the foundations or workings of the Carpenter and Timbering shop identified on the 1930s Sanborn Fire Insurance Map of the Argonaut Mine.

The feature possesses integrity of location. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The original building, the lumber mill, has been decommissioned which involved stripping it down to its internal concrete structural elements. Therefore, it does not demonstrate integrity of setting, feeling, design, materials, or workmanship.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. Prior to demolition, the building may have been recommended eligible for listing on the National Register; the remaining footing does not retain original integrity, and is not recommended as eligible for listing on the NRHP. In addition, the feature does not convey its original function in its current state. As such, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 14: Poured concrete footing located adjacent to Feature 13. It measures 29 inches by 29 inches and stands 25 inches high. It includes three threaded metal bolts set in a triangular configuration. Each bolt is placed in the center of an embedded metal ring. This footing is likely part of the foundations or workings of the Carpenter and Timbering shop identified on the 1930s Sanborn Fire Insurance Map of the Argonaut Mine.

The feature possesses integrity of location. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The original building, the lumber mill, has been decommissioned which involved stripping it down to its internal concrete structural elements. Therefore, it does not demonstrate integrity of setting, feeling, design, materials, or workmanship.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. Prior to demolition, the building may have been recommended eligible for listing on the National Register; the remaining footing does not retain original integrity, and is not

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recommended as eligible for listing on the NRHP. In addition, the feature does not convey its original function in its current state. As such, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 15: Poured concrete trough consisting of two parallel footings set 38 inches apart. The footings are over 50 feet long, oriented southeast toward the gallows headframe (Structure 01). The area between them is infilled with gray, friable material, and duff. This feature was also likely a part of the Carpenter and Timbering shop identified on the 1930s Sanborn Fire Insurance Map of the Argonaut Mine; it may have served as a conveyance or support for a rail system within the plant.

The feature possesses integrity of location. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The original building, the lumber mill, has been decommissioned which involved stripping it down to its internal concrete structural elements. Therefore, it does not demonstrate integrity of setting, feeling, design, materials, or workmanship.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. Prior to demolition, the building may have been recommended eligible for listing on the National Register; the remaining footing does not retain original integrity, and is not recommended as eligible for listing on the NRHP. In addition, the feature does not convey its original function in its current state. As such, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 16: Poured concrete footing, L-shaped, located 15 feet southeast of the southern end of Feature 15. It is partially obscured by vegetation. The exposed portion has three stepped tiers with threaded metal bolts. At its base, it measures 13 feet by at least 9 feet, and it stands up to 15 inches high. This footing is likely part of the foundations or workings of the Carpenter and Timbering shop identified on the 1930s Sanborn Fire Insurance Map of the Argonaut Mine.

The feature possesses integrity of location. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The original building, the lumber mill, has been decommissioned which involved stripping it down to its internal concrete structural elements. Therefore, it does not demonstrate integrity of setting, feeling, design, materials, or workmanship.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. Prior to demolition, the building may have been recommended eligible for listing on the National Register; the remaining footing does not retain original integrity, and is not recommended as eligible for listing on the NRHP. In addition, the feature does not convey its original function in its current state. As such, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 17: Moore Ditch; See Linear Feature Record

Feature 18: Large waste rock platform with concrete mounts. It is located on the east side of SR 88, north of Buildings 07 and 08 (Hoist Engine Room and Hoist House) and downslope of the gallows headframe (Structure 01). This is the remains of the waste material from the main shaft, originally conveyed across the valley via carts along a tramway. The three concrete foundations, which include embedded metal supports (Features 18A, 18B, and 18C), are part of the former tramway supports. Currently, the waste rock platform can be accessed directly from the highway via two asphalt aprons. It stands over 50 feet tall on the downslope side and the leveled portion at the top of the pile measures roughly 108 feet by 104 feet.

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*Resource Name or #: Argonaut Mine Industrial District (Argonaut Mine Site, CHL-786)

The feature possesses integrity of location and setting. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. As the trestle has been removed from the waste rock platform and it is overgrown with foliage, the feature lacks constructed elements with the potential to convey integrity of design, materials, workmanship, and feeling.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. The feature is associated with the original workings of the mine and mill, and is a distinctive feature of the mining landscape. As such, the waste rock platform is recommended as a contributing element within the Argonaut Mine Industrial District.

Feature 19: Metal pipe, 12-inch diameter, located on the eastern side of SR 88, on the slope north of Building 8. It runs at 75 degrees from under the current grade of SR 88 to the ravine northeast of Building 09. The exposed portion is about 200 feet long. The pipe roughly aligns with Feature 11 on the west side of the road, and may represent part of the same drainage/dewatering system.

The feature possesses integrity of location, design, materials, and workmanship. It retains integrity of setting within the Argonaut Mine. The feature possesses integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales.

The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. The feature's function is still apparent as a part of the de-watering system for the shaft, which was an important part of the fire suppression and fire recovery system at the mine. As such, the pipe is recommended as a contributing element within the Argonaut Mine Historic District.

Feature 20: Collapsed wood-frame structure with corrugated metal roofing. It is associated with two tie-bolts embedded in the slope between it and Building 08; these may have served to stabilize the structure. In addition to building materials, the feature includes fragments of a white porcelain fixture, a three-and-a-half inch standing pipe (sheared off), and miscellaneous metal fragments distributed over a 15 square foot area on the slope between Buildings 08 and 09. A length of partially exposed pipe between Building 08 and Feature 20 was recorded as Feature 20B. This feature may represent the remains of an outhouse or shed that was recorded in 1980 as part of the *Cultural Resources Assessment of the Proposed Old Mill at the Argonaut Mine Development Project* (Rondeau 1980). The survey identified a standing wood frame building with a metal roof that was characterized as a possible privy. The records do not include a map, however the photographs suggest that it stood near Feature 20.

The feature possesses integrity of location and setting. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The feature has deteriorated and collapsed, and therefore lacks integrity of materials, design, workmanship, and feeling. The feature is associated with important events; the construction of the Argonaut Mine, which contributed significantly to the broad patterns of history. The feature's function is no longer conveyed in its current state. As such, the feature is recommended as a non-contributing element within the Argonaut Mine Historic District.

Feature 21: This is the remaining concrete foundation and mounts for the original 40-stamp mill for the Argonaut Mine, in use between December 1897 and 1916. It currently consists of two tiers, cut into the steep east-facing slope. The tiers are supported on the downslope sides by poured concrete retaining walls. The eastern side of the lower tier borders Feature 17, the sluice ditch. It is separated from the ditch by the retaining wall, however there are multiple outlets to the ditch along the length of the wall.

The lower tier of the foundation measures 100 feet by 40 feet, with the long axis oriented at 350 degrees. The surface is composed of cracked and overgrown poured concrete slabs with a series of channels set between
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them. A large channel, about 15 inches wide, runs east-west across the platform in the northern half of the foundation. Two narrow channels (10 inches wide) intersect it at right angles. One of these runs along the western edge of the foundation, the other runs along the eastern edge. To the south of the large channel, there are three parallel rows of low machine mounts, oriented north-south. The easternmost row contains two pairs of low square mounts with threaded metal bolts. The bolts are set in triangular configurations with the left mount mirroring the arrangement on the right mount. The central row contains another two pairs of mounts of the same type, as well as one single mount at the northern end of the row. The westernmost row contains one single mount and one pair of mounts, which align with the northernmost mounts in the central row. The sets of mounts are set between 64 and 75 inches apart.

A pair of large, tapered footings are set in the northern extent of the lower platform. The footings measure four feet three inches by two feet at the base and two feet by 13 inches at the top. They stand four feet six inches high and are one foot seven inches apart. Four threaded metal bolts are embedded in the tops of each footing. A large metal drum and a raised platform are located immediately west of these footings, however these could not be examined during survey as they contained a modern encampment.

The upper tier stands roughly 10 feet above the level of the lower tier. Its eastern side is supported by a large poured concrete wall. The surface of the upper tier is heavily overgrown. It contains four rows of mounts of slightly varying types, none of which have embedded metal bolt fittings. The upper tier measures 80 feet by 40 feet, oriented at 350 degrees. The eastern most row of mounts contains six block footings measuring 23 inches by 20 inches, spaced 125 inches apart. They stand less than 12 inches above the current surface. The second row contains 10 blocks, measuring 20 inches by 23 inches and spaced 53 inches apart. The second row is 76 inches west of the easternmost row. The third row contains tapered footings measuring 11 by 23 inches, set 61 inches apart. These stand up to 18 inches above the current ground surface. This row is set 82 inches west of the second row. The fourth and westernmost row contains nine block footings measuring 19 by 23 inches, set 51 inches apart. The upper tier backs onto a retaining wall, approximately 10 feet high, built into the slope.

Two additional platforms were identified on the slope south of the retaining walls, between the level of the two main tiers. The lower of the two southern platforms consists of a poured concrete foundation scattered with brick fragments. It is shored on the upslope side by a stacked rock retaining wall composed of local cobbles. There is a gap approximately two feet wide between the base of the retaining wall and the edge of the concrete pad. The pad measures 35 feet by 12 feet, oriented at 350 degrees. It is approximately five feet above the level of the lower platform.

The upper of the two southern platforms is set on the level of the retaining wall that shores the eastern side of the lower platform. It does not include a foundation; it consists of a leveled area measuring about 35 feet in diameter. It is currently scattered with modern refuse and has been recently used for camping.

The 1912 Sanborn Fire Insurance Map for the Argonaut Mine shows a "Cleaning Room" appended to the southern wall of the stamp mill, and a wood and brick "Retort House" slightly southeast, adjacent to the eastern half of the mill. The upper of the two southern platforms likely corresponds to the "Cleaning Room." The alignment and the presence of brick debris suggest that the lower of the southern platforms represents the foundation of the "Retort House."

The feature possesses integrity of location and setting. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The feature retains integrity of feeling because the foundations are a distinctive feature of the industrial gold-mining landscape and they continue to demonstrate the scale and complexity of the mine's early workings. The original building has been decommissioned which involved stripping it down to its internal concrete structural elements. Therefore, it does not possess integrity of design, materials, or workmanship, though some of the core design elements are conveyed by the remaining foundations.

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*Resource Name or #: Argonaut Mine Industrial District (Argonaut Mine Site, CHL-786)

Prior to demolition, the building may have been recommended eligible for listing on the National Register; the remaining foundation does not retain original integrity and is not recommended as eligible for listing on the NRHP. The feature does not convey the original function in its current state, but still maintains distinctive components that make it recognizable and distinctive as part of the historic mining landscape. As such, it is recommended as a contributing element of the Argonaut Mine Industrial District.

Feature 22: Utility Pole; See Building, Structure, and Object Record

Feature 23: Utility Pole; See Building, Structure, and Object Record

Feature 24: Utility Pole; See Building, Structure, and Object Record

Feature 25: Segment of the Moore Ditch, combined with Feature 17

Feature 26: Wooden water tank, located in a drainage on the east shoulder of a two-track road (Road 03). It consists of a wood paneled tank, about six feet in diameter, secured with metal ring-straps. It is currently covered by a piece of black and green tar paper. A length of displaced 12-inch diameter pipe lies in the channel next to it. The tank is unstable and is tipping into the drainage. It was likely part of the water storage system for the hydroelectric system at the Argonaut Mine; it currently lies about 40 feet downslope of Feature 17, sluice ditch.

The feature possesses integrity of setting within the Argonaut Mine, however it may be displaced from its original location. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The tank is deteriorating, impacting its integrity of design, materials, workmanship, and feeling. In its current state, the water tank does not convey its original function within the larger hydroelectric system in use at the mine. As such, it is recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 27: Level Terrace located east and downslope of Feature 21, stamp mill. It is bordered on the upslope side by the grade for a two-track road (Road 03). The level area measures approximately 90 feet by 20 feet, with the long axis oriented at 13 degrees. It does not currently contain any historic artifact, foundations, or building materials, however it aligns roughly with a "Sulphuret House" pictured on the 1912 Sanborn Fire Insurance Map of the Argonaut Mine.

The feature possesses integrity of location and setting. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The original building has been decommissioned which involved removing all structural elements. Therefore, it does not possess integrity of design, materials, workmanship, or feeling.

Prior to demolition, the building may have been recommended eligible for listing on the National Register; the remaining terrace does not retain original integrity and is not recommended as eligible for listing on the NRHP. The feature lacks structural elements and does not convey its original function in its current state. As such, it is recommended as a non-contributing element of the Argonaut Mine Historic District.

Feature 28: Pit, possibly representing a test pit or dugout. It is located on the western side of a two-track road, cut into the slope at 300 degrees. It measures approximately 15 by 20 feet and reaches a maximum depth of four feet below grade.

The feature possesses integrity of location and setting within the Argonaut Mine. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the

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*Resource Name or #: Argonaut Mine Industrial District (Argonaut Mine Site, CHL-786)

local, regional, and national scales. As an eroding earthen feature with no constructed elements, the pit does not demonstrate integrity of materials, design, workmanship, or feeling.

The feature is associated with important events; the construction and operation of the Argonaut Mine, which contributed significantly to the broad patterns of history. It does not convey its original function or role within the larger system. The feature lacks temporal markers that might associate it with a specific period of exploration during the period of significance, 1850-1942. It is therefore recommended as a non-contributing element of the Argonaut Mine Industrial District.

Feature 29: Semi-circular depression, located east of Building 09 in a clearing that has been disturbed by several two-track roads. It measures about 20 feet in diameter and is approximately three feet deep. Environmental studies report that it contains high mercury levels. Several large, displaced pipes lie to the north of the pit, and one 12-inch diameter pipe lies partially buried to the west of the pit; this appears to be angled into the features. It may have served as a water catchment or drainage area.

The feature possesses integrity of location. It retains integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. As an eroding earthen feature with no constructed elements, the pit does not demonstrate integrity of materials, design, workmanship, or feeling.

The feature is associated with important events; the construction and operation of the Argonaut Mine, which contributed significantly to the broad patterns of history. As it does not clearly convey its original function or role within the larger system, it is recommended as a non-contributing element of the Argonaut Mine Historic District.

***A5. Cultural Constituents** (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.):

The site surface is characterized by a general scatter of historic and modern debris, associated with the operations of the mine, its abandonment, and subsequent modern uses, e.g. camping. In general, individual artifacts were not recorded during the survey. The general scatter included food-related cans and bottles, structural refuse (corrugated metal), tools, and machinery. Four buildings on the west side of the site (Buildings 02-05) contain extensive deposits of historic artifacts (see attached forms for general characterization). Within the general site, two distinctive artifacts and one artifact concentration were recorded.

Concentration 01: Diffuse deposit of approximately 20 clay crucibles and mixed historic and modern refuse. It is located on a steep (42 degree) slope overlooking SR 88, downslope of Feature 8, the Assay Office foundations. The scatter measures roughly 65 feet north-south by 50 feet east-west. Most of the crucibles are concentrated in the southern part of the scatter, under a large tree. Artifact 02 was recorded as an example of the crucibles, which were consistent in form and size. Other artifacts present within the scatter include five fragments of fire brick, a paint can with the remnants of blue paint, a bulk-size sanitary can, pieces of corrugated sheet metal, and machinery parts. Overall, approximately 50 artifacts are present with an average density of two artifacts per square meter. The scatter is in secondary context; while the crucibles were likely discarded from the assay office, the other materials have accumulated over time from multiple contexts. The area has also been disturbed by modern litter and the installation of a safety fence along the slope.

The concentration demonstrates integrity of location, as the materials likely remain in the context in which they were initially deposited. The artifacts retain integrity of association with the development and operation of the Argonaut Mine, events which were important at the local, regional, and national scales. The scatter lacks intentional design and does not demonstrate internal patterning, and therefore does not convey integrity of design, materials, or workmanship. While the concentration contains assay crucibles, a distinctive artifact

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*Resource Name or #: Argonaut Mine Industrial District (Argonaut Mine Site, CHL-786)
related to the function of the mine, the integrity of feeling has been impacted by the accumulation of
unrelated modern refuse, vegetation growth, and the construction of a safety fence along the slope.

The concentration is in poor condition, having been previously impacted by modern activity. Due to the degree of the slope, sub-surface accumulation of cultural materials is unlikely. The surficial scatter contains approximately 20 assay crucibles of standard manufacture that, while characteristic of assaying activities in general, lack individual distinction. The artifacts have no identifying marks indicating their place of manufacture, exact age, or duration of use. The additional materials are in poor condition and do not represent a specific activity within the mine system. For these reasons, the scatter lacks the potential to yield additional information about the mining and milling systems in use at the Argonaut Mine. It is recommended a non-contributing element of the Argonaut Mine Industrial District.

Artifact 01: Free-standing steel assay furnace, located in the southeast corner of Feature 08. It includes two semi-circular clay-lined chambers, with an intact metal shelf beneath them. Two flues at the rear of the furnace align with a standing set of narrow gas pipes embedded in the concrete foundation of the building. The furnace is embossed "CASE OIL FURNACE DENVER COLO USA/ PAT SEPT 5 1905" over both chambers. The chamber doors are embossed "S1730."

Artifact 02: Example of a crucible present in Concentration 01. It is a clay graphite A-shape crucible in good condition. This crucible form remains in use in foundries today, and this example likely dates to the later phases of operation at the mine in the 1930s and early 1940s.

*A6. Were Specimens Collected? ☒ No ☐ Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)

*A7. Site Condition: ☐ Good ☒ Fair ☐ Poor (Describe disturbances.): Within the 21.6-acre Argonaut Mine Industrial District, the cultural constituents have been subject to deterioration, occasional vandalism, and modern use as campgrounds. However, the core elements of the mine, e.g. the gallows headframe, hoist house, and surrounding buildings, remain generally intact.

*A8. Nearest Water (Type, distance, and direction.): Stream, 1,541 m, Southwest

*A9. Elevation: 420 feet above sea level

A10. Environmental Setting (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.):

The Argonaut Mine is located in the western foothills of the Sierra Nevada Mountains in Amador County, approximately one mile northwest of the town of Jackson. It is situated on the Melones fault zone at an altitude of approximately 420 feet above sea level. The mine straddles present day CA-88, which follows the approximate route of the historic Jackson-Sutter Creek Road. The Moore Ditch extends along a north-south channel through the eastern portion of the mine property, terminating to the north at the Kennedy Reservoir. The North Fork of Jackson Creek, a tributary of the Mokelumne River, extends for 26 miles south of Jackson.

The annual precipitation in the vicinity of Jackson is 26.9 inches, mostly between November and April (Western Regional Climate Center). Summers are hot and dry, with moderate winters. Soils in the valley have been known to be excellent for growing grapes since the 1850s. This activity has proliferated since that time (Downey and Higgins 2006). Soils consist of Permian and Carboniferous metamorphic rocks and limestone (Sketchley 1965). Vegetation consists of mostly valley oak and inland live oak (Munz and Keck 1959), with buckeye in the surrounding grasslands and Gray Pine in the foothills.

The environmental conditions for which the region surrounding the Argonaut Mine are most known for, however, are those related to the lode gold deposits for which the famous Mother Lode was named. Mineralization at the Argonaut Mine consists of a quartz vein deposit that is hosted in slate, greenstone, and schist. At the Argonaut Mine, gold deposits were composed of free-milling ribboned structures of quartz, crushed slate, free gold, and sulfides. These deposits proved among the most productive in the Mother Lode belt, producing \$25.2 million of the \$180 million yielded by the entire belt (Downey and Higgins 2006).

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*Resource Name or #: Argonaut Mine Industrial District (Argonaut Mine Site, CHL-786)

A11. Historical Information:

The Argonaut Mine Industrial District encompasses the extant architectural and archaeological core of the mine/mill system for the Argonaut Mine. The Argonaut Mine was one of the largest and most productive mines in the Mother Lode Mining District in the late nineteenth century through first half of the twentieth century. Its main shaft reached a depth of 5,850 feet and it produced 2.75 million tons of ore (Muratore 2013). In terms of depth it was surpassed only by its neighbor, the Kennedy Mine, whose East Shaft reached 5,912 feet (Allen 2009:14).

*A12. Age: ☐ Prehistoric ☐ Protohistoric ☐ 1542-1769 ☐ 1769-1848 ☒ 1848-1880 ☒ 1880-1914 ☒ 1914-1945
☐ Post 1945 ☐ Undetermined Describe position in regional prehistoric chronology or factual historic dates if known:

The Argonaut Mine was originally discovered in 1850. The period of significance for the Argonaut Mine Industrial District is from the discovery of the mine in 1850 to its closure by executive order in 1942. This period can be subdivided based on the ownership of the mine over time: its Initial Operations Period, 1850-1865; the Pioneer Mine Period, 1865-1893; and the Argonaut Mining Company Period 1893-1942. The extant buildings, structure, and most of the archaeological features date to the Argonaut Mine Period, 1893-1942. The mine underwent a significant remodeling period in 1913 and 1914; several of the resources appear to have been rebuilt and reconstructed to their current form by 1920.

See Table 1, above, for summary of specific feature construction dates.

A13. Interpretations (Discuss data potential, function[s], ethnic affiliation, and other interpretations):

The archaeological component of the Argonaut Mine Industrial District retains integrity of location, setting, and association with the operations of the Argonaut Mine during its period of significance. The individual components demonstrate varying degrees of integrity of design, materials, and workmanship. Some features, such as the original 40-stamp mill, continue to convey the feeling of an industrial hard-rock gold mining complex. Considered as a whole, the archaeological component of the Argonaut Mine demonstrates historic integrity and is recommended as a contributing element of the Argonaut Mine Industrial District.

A14. Remarks:

The Argonaut Mine was designated, in conjunction with the nearby Kennedy Mine, as California Historical Landmark #786 in 1963. Numerous historical inventories and evaluations have been conducted within the mine property, most of which have addressed in piecemeal fashion, the archaeology and architectural history of the site. The current documentation seeks to address all extant architectural and archaeological components of the Argonaut Mine Industrial District.

A15. References (Documents, informants, maps, and other references):

Allen, Katherine Lynn

2009 National Register of Historic Places Form: Kennedy Mine Historic District. United States Department of Interior, National Parks Service, Washington, D.C.

Downey, Cameron, and Chris T. Higgins

2006 Argonaut Mine: Geologic Information. Edited by Paul G. Schruben. *USGS Mineral Resource Data System*. https://mrdata.usgs.gov/mrds/show-mrds.php?dep_id=10310585, accessed August 20, 2020.

Munz, Philip, and David Keck

1959 *A California Flora*. University of California Press, Berkeley, CA.

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*Resource Name or #: Argonaut Mine Industrial District (Argonaut Mine Site, CHL-786)

Muratore, Kim

2013 Releasable Chronology of the Argonaut Mine Site Ownership & Operation. United States Environmental Protection Agency, Region IX, San Francisco, CA.

Rondeau, Michael F.

1980 *A Cultural Resource Assessment of the Proposed Old Mill at the Argonaut Mine Development Project, Amador County, California.* Sacramento, CA.

Sketchley, H.R.

1965 *Soil Survey of the Amador Area, California. Series 1961, No. 26.*

Western Regional Climate Center

2019 Plymouth, California (047000): Period of Record Monthly Climate Summary. *Western Regional Climate Center.* <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7000>, accessed August 30, 2020.

A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record.):

See photograph continuation sheet, p. 112-128

Original Media/Negatives Kept at: Broadbent & Associates, Inc. 5450 Louie Ln. #101 Reno, NV 89511

*A17. Form Prepared by: K. Mansfield, A. Pollock

Date: 8/31/2020

Affiliation and Address:

Broadbent & Associates, Inc., 5450 Louie Ln, Suite #101, Reno, NV 89511

*Required information

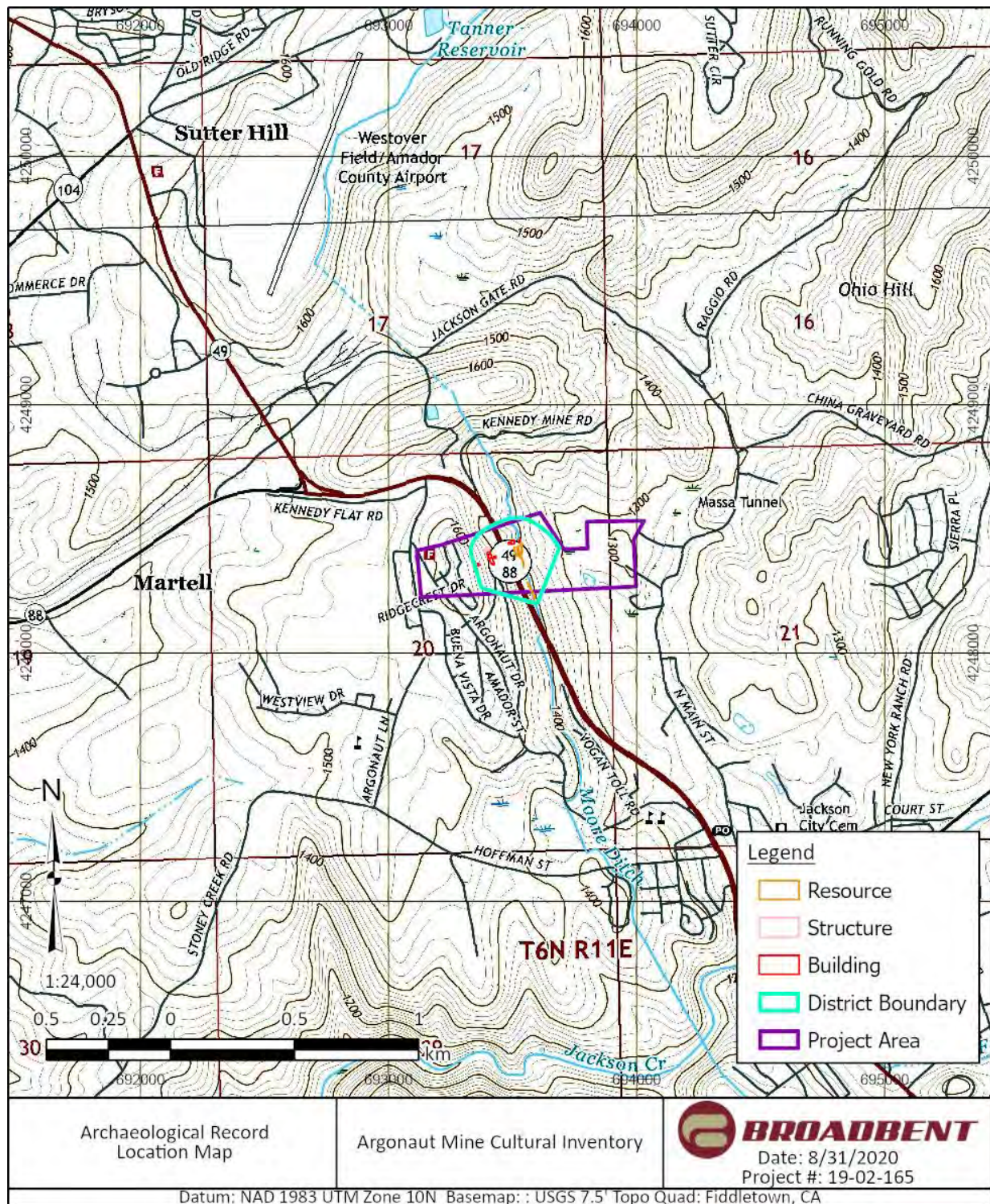
State of California—Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

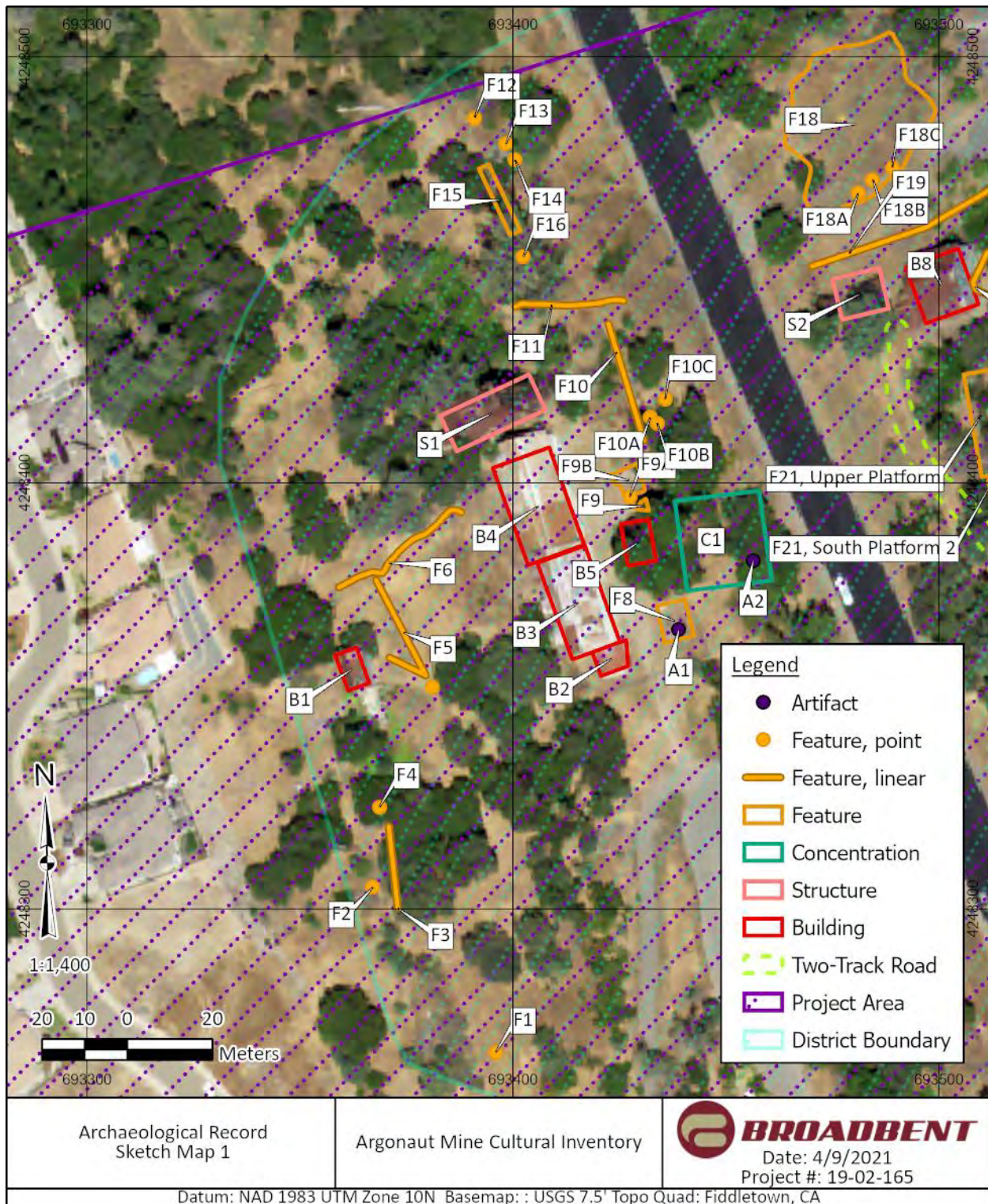
Primary # P-03-000243

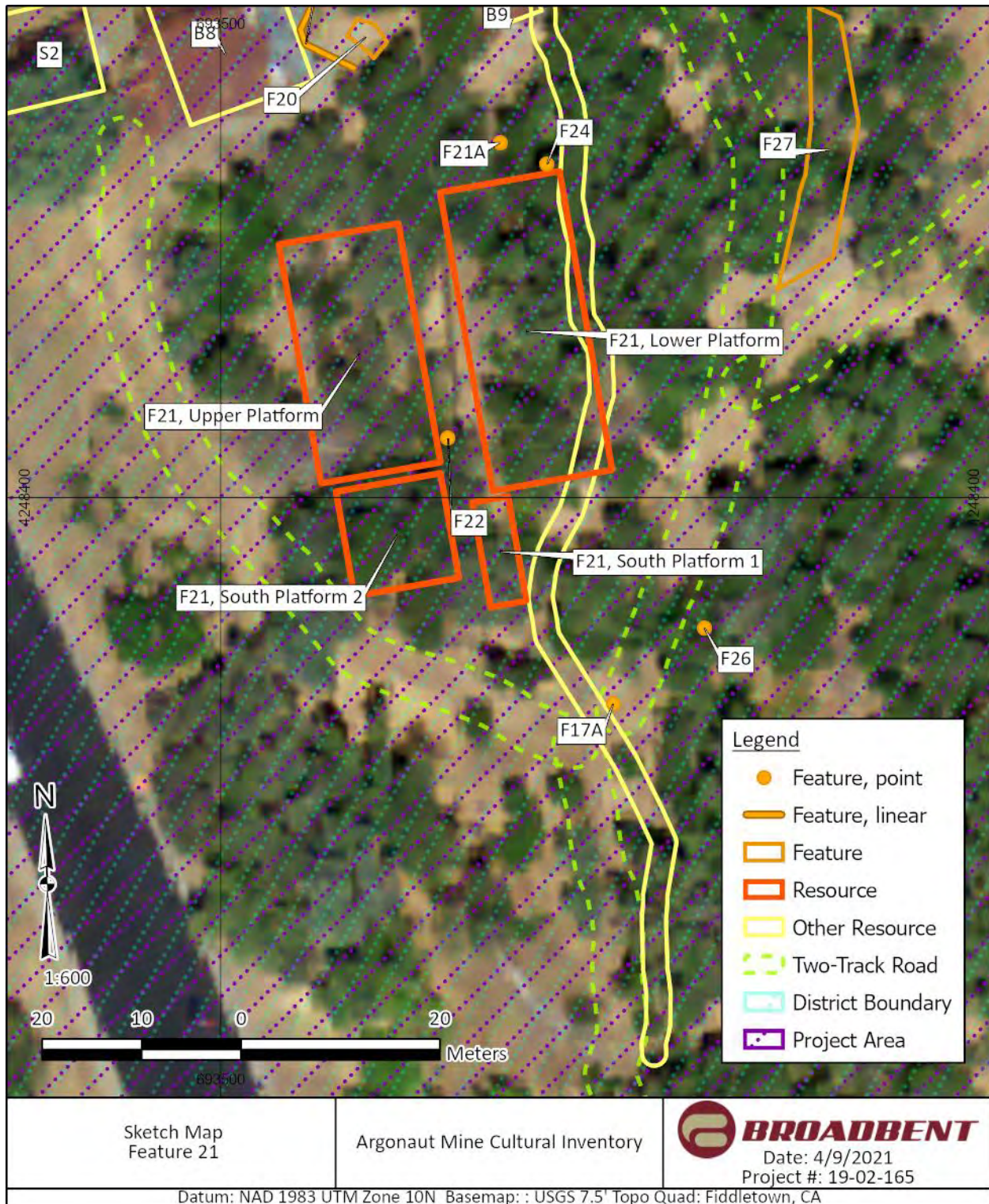
HRI#

Trinomial CA-AMA-208/H

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CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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*Resource Name or # (Assigned by recorder) Argonaut Mine Industrial District Site

*Recorded by: K. Mansfield and A. Pollock *Date 07/20/2020 - 07/22/2020

☒ Continuation ☐ Update



Overview of Feature 01: Wooden Post; facing 50 degrees; (Frame P7200001;
07/20/2020)



Overview of Feature 02: Metal bin; facing 260 degrees; (Frame P7200004;
07/20/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Overview of Feature 02: Metal bin interior; facing 150 degrees; (Frame P7200007; 07/20/2020)



Overview of Feature 03: Northern extent of pipeline; facing 152 degrees; (Frame P7200011; 07/20/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Overview of Feature 04: Small pit; facing 284 degrees; (Frame P7200013; 07/20/2020)



Overview of Feature 05: Partially collapsed fence line; facing 170 degrees; (Frame P7200053; 07/20/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Overview of Feature 06: Ditch; facing 220 degrees; (Frame P7200054;
07/20/2020)



Overview of Feature 08: Assay Office Foundation; facing 160 degrees; (Frame
P7210127; 07/21/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Overview of Feature 09: Foundation/patio; facing 160 degrees; (Frame P7210154;
07/21/2020)



Overview of Feature 10: Retaining wall at base of headframe; facing 320
degrees; (Frame P7210156; 07/21/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Overview of Feature 11: Pipe system; facing 250 degrees; (Frame P7210154;
07/21/2020)



Overview of Feature 12: Concrete footing; facing 36 degrees; (Frame P7210184;
07/21/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Overview of Feature 13: Concrete footing; facing 130 degrees; (Frame P7210180;
07/21/2020)



Overview of Feature 14: Concrete footing; facing 120 degrees; (Frame P7210181;
07/21/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Overview of Feature 15: Concrete trough footing; facing 140 degrees; (Frame P7210182; 07/21/2020)



Overview of Feature 16: Partially buried concrete block footing; facing 140 degrees; (Frame P7210189; 07/21/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Overview of Feature 18: Large waste rock platform; facing 98 degrees; (Frame P7220201; 07/22/2020)



Overview of Feature 18: Pylon on top of waste rock platform (1 of 3); facing 36 degrees; (Frame P7220203; 07/22/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Overview of Feature 19: Pipe oriented north; facing 248 degrees; (Frame P7220221; 07/22/2020)



Overview of Feature 19: Pipe oriented west; facing 60 degrees; (Frame P7220222; 07/22/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Overview of Feature 20: Collapsed wooden structure (possible outhouse);
facing 336 degrees;(Frame P7220238; 07/22/2020)



Overview of Feature 21: Lower stamp mill foundation; facing 204
degrees;(Frame P7220260; 07/22/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Overview of Feature 21: Lower platform stamp mill foundation sluice canal;
facing 80 degrees; (Frame P7220258; 07/22/2020)



Overview of Feature 21: South platform 01 with retaining wall; facing 180
degrees; (Frame P7220266; 07/22/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Overview of Feature 21: South platform 02; facing 130 degrees; (Frame P7220268; 07/22/2020)



Overview of Feature 21: Upper stamp mill foundation ; facing 170 degrees; (Frame P7220275; 07/22/2020)

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Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Overview of Feature 26: Wooden water tank; facing 98 degrees; (Frame P7220290; 07/22/2020)



Overview of Feature 27: Terrace, possible building platform; facing 340 degrees; (Frame P7220292; 07/22/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Overview of Feature 28: Pit, possible prospect or dugout; facing 306 degrees; (Frame P7220294; 07/22/2020)



Overview of Feature 29: Pit with metal pipe; facing 90 degrees; (Frame P7220295; 07/22/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Detail of Concentration 01: Crucible deposit; facing 290 degrees; (Frame P7210176; 07/21/2020)



Detail of Artifact 02: Crucible. (Frame P7210175; 07/21/2020)

CONTINUATION SHEET

Property Name: Argonaut Mine Industrial District (Argonaut Mine Site)

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Detail of Artifact 01: Assay Furnace (Frame P7210133; 07/21/2020)



Detail of Artifact 01: Assay Furnace (Frame P7210135; 07/21/2020)

ARTIFACT RECORD

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Resource Name or #: Argonaut Mine Industrial District

Location Where Collected Specimens are Curated: Artifacts not collected.

[illegible]

Type Key: (list abbreviations used)

AF: Assay Furnace
C: Crucible

Condition Key:

F Fragmentary

C Complete

Other:

State of California - Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PHOTOGRAPH RECORD

Primary#:P-03-000243
HRI#
Trinomial CA-AMA-208/H

Page 131 **of** 141 **Project Name:** 14-02-136 Ph.4102 Argonaut Mine **Year** 2020
Camera Format: Digital **Lens Size:** 8mm
Film Type and Speed: N/A **Negatives Kept at:** 200720, 200721, 200722

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (°)	Accession #
07	20	11:47a	P7200001	Overview of Feature 1: Wooden post	50	N/A
07	20	11:50a	P7200002	Overview of Feature 1: Wooden post	150	N/A
07	20	11:51a	P7200003	Detail of bolts and nails on Feature 1	150	N/A
07	20	11:57a	P7200004	Overview of Feature 2: Metal bin	260	N/A
07	20	11:59a	P7200005	Overview of Feature 2: Metal bin	150	N/A
07	20	12:02p	P7200006	Overview of Feature 2 interior	150	N/A
07	20	12:03p	P7200007	Overview of Feature 2 interior	150	N/A
07	20	12:06p	P7200008	Detail of wooden plank with bracket	Detail	N/A
07	20	12:07p	P7200009	Placement of plank in relation to Feature 2	Detail	N/A
07	20	12:22p	P7200010	Overview of southern extent of Feature 3: Pipeline	336	N/A
07	20	12:24p	P7200011	Overview of northern extent of Feature 3: Pipeline	152	N/A
07	20	12:24p	P7200012	Overview of northern extent of Feature 3: Pipeline	152	N/A
07	20	12:28p	P7200013	Close-up of Feature 4: Small pit	284	N/A
07	20	12:30p	P7200014	Overview of Feature 4: Small pit	284	N/A
07	20	12:39p	P7200015	Southwest oblique elevation of Building 1	26	N/A
07	20	12:41p	P7200016	West elevation of Building 1 with patio	70	N/A
07	20	12:44p	P7200017	Northwest oblique elevation of Building 1	126	N/A
07	20	12:47p	P7200018	North elevation of Building 1	168	N/A
07	20	12:49p	P7200019	Northeast oblique elevation of Building 1	192	N/A
07	20	12:51p	P7200020	East elevation of Building 1 with patio	244	N/A
07	20	12:53p	P7200021	East elevation detail of windows and electrical fixture	244	N/A
07	20	12:53p	P7200022	East elevation detail of concrete support structures	244	N/A
07	20	12:55p	P7200023	Southeast oblique elevation of Building 1 with patio	314	N/A
07	20	12:57p	P7200024	South elevation detail of door, vent, and window	314	N/A
07	20	12:59p	P7200025	South elevation of Building 1 with patio	318	N/A

State of California - Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PHOTOGRAPH RECORD

Primary#:P-03-000243
HRI#
Trinomial CA-AMA-208/H

Page 132 **of** 141 **Project Name:** 14-02-136 Ph.4102 Argonaut Mine **Year** 2020

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (°)	Accession #
07	20	1:03p	P7200026	South elevation detail of doors	Detail	N/A
07	20	1:03p	P7200027	South elevation detail of vent window	Detail	N/A
07	20	1:03p	P7200028	South elevation detail of hole in wall	Detail	N/A
07	20	1:07p	P7200029	East elevation detail of window	Detail	N/A
07	20	1:07p	P7200030	East elevation detail of window	Detail	N/A
07	20	1:08p	P7200031	East elevation detail of door	Detail	N/A
07	20	1:09p	P7200032	East elevation detail of sign on door	Detail	N/A
07	20	1:12p	P7200033	East elevation detail of wooden beam	Detail	N/A
07	20	1:12p	P7200034	East elevation detail of wooden beam	Detail	N/A
07	20	1:12p	P7200035	East elevation detail of wooden beam	Detail	N/A
07	20	1:13p	P7200036	East elevation detail of rain gutter	Detail	N/A
07	20	1:14p	P7200037	Detail of water spigot near the east elevation of Building 1	Detail	N/A
07	20	1:16p	P7200038	East elevation detail of electrical fixture	Detail	N/A
07	20	1:18p	P7200039	East elevation detail of pipeline	Detail	N/A
07	20	1:18p	P7200040	North elevation detail of eye bolt	Detail	N/A
07	20	1:19p	P7200041	Detail of metal barrel near the east elevation of Building 1	Detail	N/A
07	20	1:20p	P7200042	North elevation detail of electrical fixture	Detail	N/A
07	20	1:21p	P7200043	North elevation detail of cable with ceramics	Detail	N/A
07	20	1:21p	P7200044	North elevation detail of cable with ceramics	Detail	N/A
07	20	1:22p	P7200045	North elevation detail of two lite window	Detail	N/A
07	20	1:23p	P7200046	North elevation detail of holes (possible pipe entrances)	Detail	N/A
07	20	1:23p	P7200047	North elevation detail of holes (possible pipe entrances)	Detail	N/A
07	20	1:24p	P7200048	North elevation detail of fence attachment	Detail	N/A
07	20	1:25p	P7200049	North elevation detail of vent window	Detail	N/A
07	20	1:26p	P7200050	Detail of Building 1 roof construction	Detail	N/A
07	20	1:28p	P7200051	Overview of site area facing northeast	50	N/A
07	20	1:31p	P7200052	East elevation detail of concrete chute under Building 1	Detail	N/A
07	20	1:35p	P7200053	Overview of Feature 5: fence line	170	N/A

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07	20	2:03p	P7200054	Overview of Feature 6: ditch	220	N/A
07	20	2:06p	P7200055	Overview of possible foot path	180	N/A
07	20	2:07p	P7200056	Overview of the back of the headframe (Building 6)	30	N/A
07	20	2:10p	P7200057	Overview of Feature 7: Historic electrical pole	130	N/A
07	20	3:41p	P7200058	Southeast oblique elevation of Building 2	310	N/A
07	20	3:44p	P7200059	Southeast oblique elevation of Building 2	310	N/A
07	20	3:47p	P7200060	South elevation of Building 2	330	N/A
07	20	3:49p	P7200061	Southwest oblique elevation of Building 2	20	N/A
07	20	3:51p	P7200062	West elevation of Building 2	74	N/A
07	20	3:53p	P7200063	East elevation of Building 2	246	N/A
07	20	3:56p	P7200064	Northeast oblique elevation of Building 2	214	N/A
07	20	3:58p	P7200065	Southeast oblique elevation of Building 3	282	N/A
07	20	4:01p	P7200066	East elevation of Building 3	256	N/A
07	20	4:05p	P7200067	Northeast oblique elevation of Building 3	210	N/A
07	20	4:06p	P7200068	Southeast oblique elevation of Building 4	270	N/A
07	20	4:08p	P7200069	East elevation of Building 4	250	N/A
07	20	4:11p	P7200070	Northeast oblique elevation of Building 4	196	N/A
07	20	4:13p	P7200071	North elevation of Building 4	180	N/A
07	20	4:14p	P7200072	Northeast oblique elevation of Building 4 shed	196	N/A
07	20	4:16p	P7200073	North elevation of Building 4 shed	180	N/A
07	20	4:17p	P7200074	Northwest oblique elevation of Building 4 shed	110	N/A
07	20	4:19p	P7200075	North elevation of Building 4	200	N/A
07	20	4:21p	P7200076	West elevation of Building 4 shed	60	N/A
07	20	4:22p	P7200077	North elevation detail of door	Detail	N/A
07	20	4:22p	P7200078	North elevation detail of door	Detail	N/A
07	20	4:24p	P7200079	Detail of mounted pipes near the north elevation of Building 4	242	N/A
07	20	4:25p	P7200080	Detail of pipes near the north elevation of Building 4	242	N/A
07	20	4:26p	P7200081	Overview of pipes near the north elevation of	146	N/A

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				Building 4		
07	20	4:28p	P7200082	West elevation detail of water spigot	Detail	N/A
07	20	4:30p	P7200083	Northeast oblique elevation of Building 5	120	N/A
07	20	4:31p	P7200084	North elevation of Building 5	150	N/A
07	20	4:32p	P7200085	West elevation of Building 5	70	N/A
07	21	7:53a	P7210086	ERROR	NA	N/A
07	21	7:53a	P7210087	Building 3 Interior: Southeast corner of workshop	SE	N/A
07	21	7:53a	P7100088	Building 3 Interior: Southwest corner of workshop	SW	N/A
07	21	7:54a	P7210089	Building 3 Interior: Northwest corner of workshop	NW	N/A
07	21	7:54a	P7210090	Building 3 Interior: Northeast corner of workshop	NE	N/A
07	21	7:54a	P7210091	Building 3 Interior: Rafters along the northern half of workshop	N	N/A
07	21	7:54a	P7210092	Building 3 Interior: Elevated area in the southern half of workshop	S	N/A
07	21	7:56a	P7210093	Building 3 Interior: Rails	W	N/A
07	21	7:56a	P7210094	Building 3 Interior: Work bench area	SE	N/A
07	21	7:57a	P7210095	Building 3 Interior: Large tanks	NW	N/A
07	21	7:59a	P7210096	East elevation of Building 3	250	N/A
07	21	7:59a	P7210097	Northeast oblique elevation of Building 3	240	N/A
07	21	8:01a	P7210098	Southwest oblique elevation of Building 4	270	N/A
07	21	8:02a	P7210099	Southeast oblique elevation of Building 4	290	N/A
07	21	8:03a	P7210100	East elevation of Building 4	250	N/A
07	21	8:04a	P7210101	Northeast elevation of Building 4	195	N/A
07	21	8:05a	P7210102	West elevation of Building 5	55	N/A
07	21	8:05a	P7210103	Southwest oblique elevation of Building 5	30	N/A
07	21	8:06a	P7210104	South elevation of Building 5	350	N/A
07	21	8:10a	P7210105	Building 2 Interior: Southwest corner of office	SW	N/A
07	21	8:10a	P7210106	Building 2 Interior: Eastern half of the office	SE	N/A
07	21	8:11a	P7210107	Building 2 Interior: Northwest corner of office	NW	N/A
07	21	8:11a	P7210108	Building 2 Interior: Office bathroom	E	N/A

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07	21	8:12a	P7210109	Building 2 Interior: Office closet	W	N/A
07	21	8:12a	P7210110	Building 2 Interior: Entrance from Building 3	S	N/A
07	21	8:15a	P7210111	Building 4 Interior: Hazardous materials collect by Weston and EPA	W	N/A
07	21	8:16a	P7210112	Building 4 Interior: Southwest corner of workshop	SW	N/A
07	21	8:16a	P7210113	Building 4 Interior: Southeast corner of workshop	SE	N/A
07	21	8:16a	P7210114	Building 4 Interior: Rafters	S	N/A
07	21	8:17a	P7210115	Building 4 Interior: Northwest corner of workshop with raised concrete platform/work area	NW	N/A
07	21	8:17a	P7210116	Building 4 Interior: Raised concrete platform/work area	N	N/A
07	21	8:17a	P7210117	Building 4 Interior: Raised concrete platform/work area	N	N/A
07	21	8:20a	P7210118	Building 4 Interior: Steps to concrete platform/work area	WNW	N/A
07	21	8:20a	P7210119	Building 4 Interior: Northwest corner of workshop	NW	N/A
07	21	8:21a	P7210120	Building 4 Interior: Northeast corner of workshop	NE	N/A
07	21	8:21a	P7210121	Building 4 Interior: Rafter across the northern half of the workshop	N	N/A
07	21	8:21a	P7210122	Building 4 Interior: Top of concrete platform/work area	SW	N/A
07	21	8:22a	P7210123	Building 4 Interior: Top of concrete platform/work area	SW	N/A
07	21	8:22a	P7210124	Building 4 Interior: Top of concrete platform/work area	NW	N/A
07	21	8:24a	P7210125	Building 5 Interior: Northeast corner of workshop	NE	N/A
07	21	8:24a	P7210126	Building 5 Interior: Northwest corner of workshop	NW	N/A
07	21	9:54a	P7210127	Overview of Feature 8: Building Foundations	160	N/A
07	21	9:56a	P7210128	Overview of Feature 8: Building Foundations	68	N/A
07	21	9:56a	P7210129	Overview of Feature 8: Building Foundations	320	N/A

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07	21	9:59a	P7210130	Feature 8: Detail of north 1/3 of building	160	N/A
07	21	10:00a	P7210131	Feature 8: Detail of central 1/3 of building	160	N/A
07	21	10:02a	P7210132	Feature 8: Detail of south 1/3 of building	160	N/A
07	21	10:05a	P7210133	Feature 8, Artifact 1: Furnace, side 1	160	N/A
07	21	10:06a	P7210134	Feature 8, Artifact 1: Furnace, side 2	150	N/A
07	21	10:07a	P7210135	Feature 8, Artifact 1: Furnace, side 3	340	N/A
07	21	10:08a	P7210136	Feature 8, Artifact 1: Furnace, side 4	250	N/A
07	21	10:09a	P7210137	Feature 8, Artifact 1: Furnace, detail	Detail	N/A
07	21	10:09a	P7210138	Feature 8, Artifact 1: Furnace, detail	Detail	N/A
07	21	10:10a	P7210139	Feature 8, Artifact 1: Furnace, detail	Detail	N/A
07	21	10:10a	P7210140	Feature 8, Artifact 1: Furnace, detail	Detail	N/A
07	21	10:14a	P7210141	Overview of Building 6: Headframe	320	N/A
07	21	10:19a	P7210142	Alley between Building 4 and Building 6	240	N/A
07	21	10:21a	P7210143	Building 6: South trellis	280	N/A
07	21	10:22a	P7210144	Building 6: Wood frame within steel frame	280	N/A
07	21	10:24a	P7210145	Building 6: Operating room	280	N/A
07	21	10:25a	P7210146	Building 6: lower A-frame	320	N/A
07	21	10:26a	P7210147	Building 6: West trellis	40	N/A
07	21	10:27a	P7210148	Building 6: Wood frame with steel frame	40	N/A
07	21	10:27a	P7210149	Building 6: Wood frame with steel frame	40	N/A
07	21	10:27a	P7210150	Building 6: Top of headframe with platform	40	N/A
07	21	10:39a	P7210151	Building 6: Top of headframe with platform	300	N/A
07	21	10:56a	P7210152	Overview of Feature 9: Catchment area	80	N/A
07	21	10:57a	P7210153	Overview of Feature 9: Pylon	356	N/A
07	21	10:59a	P7210154	Overview of Feature 9: Platform	160	N/A
07	21	11:08a	P7210155	Overview of Feature 10: Retaining wall	300	N/A
07	21	11:11a	P7210156	Overview of Feature 10: Retaining wall	320	N/A
07	21	11:13a	P7210157	Overview of Feature 10: Footings 2 & 3	340	N/A
07	21	11:15a	P7210158	Overview of Feature 10: Footing 1	218	N/A
07	21	11:19a	P7210159	Overview of Building 6: Headframe	190	N/A
07	21	11:21a	P7210160	Building 6: A-frame	170	N/A

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07	21	11:21a	P7210161	Building 6: Middle portion of headframe	170	N/A
07	21	11:21a	P7210162	Building 6: Back/side of headframe	240	N/A
07	21	11:21a	P7210163	Building 6: West trellis	150	N/A
07	21	11:22a	P7210164	Building 6: Headframe footing and shaft	120	N/A
07	21	11:22a	P7210165	Building 6: Pipe system exiting headframe	150	N/A
07	21	11:29a	P7210166	Overview of Feature 11: Pipe system	250	N/A
07	21	11:31a	P7210167	Overview of Feature 11: Pipe system	80	N/A
07	21	11:32a	P7210168	Feature 10: Retaining wall with pipe	150	N/A
07	21	11:36a	P7210169	Feature 9: Retaining wall	160	N/A
07	21	11:37a	P7210170	Feature 9: Retaining wall	180	N/A
07	21	11:50a	P7210171	Overview of Concentration 1 facing SW	208	N/A
07	21	11:50a	P7210172	Overview of Concentration 1 facing S	180	N/A
07	21	11:50a	P7210173	Overview of Concentration 1 facing NW	290	N/A
07	21	11:54a	P7210174	Concentration 1, Artifact 2: Crucible	Detail	N/A
07	21	11:56a	P7210175	Concentration 1, Artifact 2: Crucible	Detail	N/A
07	21	12:00p	P7210176	Overview of Concentration 1: Crucible deposit	290	N/A
07	21	12:09a	P7210177	Northwest oblique elevation of Building 5	162	N/A
07	21	12:12p	P7210178	Overview of Feature 9: Catchment area	246	N/A
07	21	12:15p	P7210179	Southwest oblique elevation of Building 5	320	N/A
07	21	1:52p	P7210180	Overview of Feature 13: Concrete footing	130	N/A
07	21	1:54p	P7210181	Overview of Feature 14: Concrete footing	120	N/A
07	21	1:56p	P7210182	Overview of Feature 15: Concrete trough footing	140	N/A
07	21	2:01p	P7210183	Overview of Feature 12: Concrete footing	36	N/A
07	21	2:02p	P7210184	Overview of Feature 12: Concrete footing	36	N/A
07	21	2:07p	P7210185	Overview of Features 12-15 facing NW	40	N/A
07	21	2:10p	P7210186	Overview of Feature 15: Concrete trough footing	310	N/A
07	21	2:14p	P7210187	Overview of Feature 16: Concrete footing	140	N/A
07	21	2:16p	P7210188	Feature 16: Detail of cut shape	Detail	N/A
07	21	2:25p	P7210189	Overview of Feature 16: Concrete footing	140	N/A

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07	21	2:25p	P7210190	Overview of Feature 16: Concrete footing	140	N/A
07	21	3:17p	P7210191	Overview of the hoistworks/house (Buildings 7 & 8)	90	N/A
07	21	3:17p	P7210192	Overview of the hoistworks (Building 7)	158	N/A
07	21	3:58p	P7210193	Overview of eastern survey area demonstrating overgrowth	50	N/A
07	21	3:58p	P7210194	Overview of eastern survey area demonstrating overgrowth	324	N/A
07	21	4:07p	P7210195	Overview towards project area	40	N/A
07	21	4:08p	P7210196	Overview towards project area	344	N/A
07	21	4:24p	P7210197	Overview of Feature 17: Ditch	150	N/A
07	21	4:28p	P7210198	Overview of Feature 17: Culvert	15	N/A
07	21	4:29p	P7210199	Overview of Feature 17: Culvert	50	N/A
07	22	8:12a	P7220200	Overview of Feature 18a: Waste rock platform	9	N/A
07	22	8:14a	P7220201	Overview of Feature 18a: Waste rock platform	98	N/A
07	22	8:16a	P7220202	Overview of Feature 18a: Waste rock platform	260	N/A
07	22	8:18a	P7220203	Overview of Feature 18d: Pylon	36	N/A
07	22	8:19a	P7220204	Overview of Feature 18c: Pylon	322	N/A
07	22	8:20a	P7220205	Overview of Feature 18b: Pylon	60	N/A
07	22	8:23a	P7220206	Overview of eastern survey area	108	N/A
07	22	8:23a	P7220207	Overview of eastern survey area	70	N/A
07	22	8:27a	P7220208	Overview of hoistworks and house	120	N/A
07	22	8:28a	P7220209	Overview of Building 7: Hoist frame	150	N/A
07	22	8:29a	P7220210	Northwest oblique elevation of Structure 2	110	N/A
07	22	8:31a	P7220211	North elevation of Structure 2	160	N/A
07	22	8:32a	P7220212	Northeast oblique elevation of Structure 2	210	N/A
07	22	8:33a	P7220213	East elevation of Structure 2	246	N/A
07	22	8:34a	P7220214	Southeast oblique elevation of Structure 2	282	N/A
07	22	8:35a	P7220215	South elevation of Structure 2	330	N/A
07	22	8:35a	P7220216	South elevation of Structure 2	300	N/A

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07	22	8:37a	P7220217	Southwest oblique elevation of Structure 2	2	N/A
07	22	8:39a	P7220218	West elevation of Structure 2	76	N/A
07	22	8:40a	P7220219	Structure 2: Water spigot detail	150	N/A
07	22	8:41a	P7220220	Structure 2: Hoist detail	244	N/A
07	22	8:44a	P7220221	Overview of Feature 19b: Pipe oriented north	248	N/A
07	22	8:46a	P7220222	Overview of Feature 19a: Pipe oriented west	60	N/A
07	22	8:46a	P7220223	Overview of Feature 19a: Pipe oriented west	60	N/A
07	22	9:02a	P7220224	Northwest oblique elevation 1 of Building 8	130	N/A
07	22	9:17a	P7220225	North elevation 1 of Building 8	142	N/A
07	22	9:18a	P7220226	North elevation 1 of Building 8	168	N/A
07	22	9:20a	P7220227	West elevation 1 of Building 8	50	N/A
07	22	9:21a	P7220228	Northwest oblique elevation 2 of Building 8	138	N/A
07	22	9:23a	P7220229	North elevation 2 of Building 8	168	N/A
07	22	9:23a	P7220230	Northwest oblique elevation 3 of Building 8	138	N/A
07	22	9:24a	P7220231	West elevation 2 of Building 8	76	N/A
07	22	9:25a	P7220232	West elevation 2 of Building 8	76	N/A
07	22	9:27a	P7220233	Southwest oblique elevation of Building 8	30	N/A
07	22	9:29a	P7220234	South elevation of Building 8	20	N/A
07	22	9:51a	P7220235	South elevation of Building 8	350	N/A
07	22	9:55a	P7220236	Southeast oblique elevation of Building 8	290	N/A
07	22	9:57a	P7220237	East elevation of Building 8	260	N/A
07	22	9:58a	P7220238	Overview of Feature 20: Possible outhouse	336	N/A
07	22	10:01a	P7220239	Overview of Feature 20: Possible outhouse	336	N/A
07	22	10:07a	P7220240	Feature 20: Broken ceramic (toilet bowl)	Detail	N/A
07	22	10:08a	P7220241	Overview of Feature 20: Possible outhouse	80	N/A
07	22	10:15a	P7220242	West elevation of Building 9	60	N/A
07	22	10:17a	P7220243	Southwest oblique elevation of Building 9	24	N/A
07	22	10:19a	P7220244	South elevation of Building 9	342	N/A
07	22	10:20a	P7220245	Southeast oblique elevation of Building 9	300	N/A
07	22	10:22a	P7220246	East elevation of Building 9	250	N/A
07	22	10:22a	P7220247	East elevation of Building 9	250	N/A

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07	22	10:24a	P7220248	Northeast oblique elevation of Building 9	220	N/A
07	22	10:25a	P7220249	North elevation of Building 9	154	N/A
07	22	10:25a	P7220250	North elevation of Building 9	154	N/A
07	22	10:27a	P7220251	Northwest oblique elevation of Building 9	120	N/A
07	22	11:41p	P7220252	Overview of Feature 21: Stamp mill foundation lower platform	310	N/A
07	22	11:42a	P7220253	Overview of Feature 21: Stamp mill foundation lower platform	0	N/A
07	22	11:45a	P7220254	Overview of Feature 21: Sluice gate	260	N/A
07	22	11:49a	P7220255	Overview of Feature 21: Set of mounts	Detail	N/A
07	22	11:49a	P7220256	Overview of Feature 21: Set of mounts	Detail	N/A
07	22	11:50a	P7220257	Overview of Feature 21: Mount detail	Detail	N/A
07	22	11:52a	P7220258	Overview of Feature 21: Sluice canal	80	N/A
07	22	11:55a	P7220259	Overview of Feature 21: Sluice canal	162	N/A
07	22	11:57a	P7220260	Overview of Feature 21: Stamp mill foundation lower platform	204	N/A
07	22	11:57a	P7220261	Overview of Feature 21: Stamp mill foundation upper platform	204	N/A
07	22	12:01p	P7220262	Overview of Feature 21: Ancillary footing	136	N/A
07	22	12:02p	P7220263	Overview of Feature 21: Ancillary footing	70	N/A
07	22	12:06p	P7220264	Overview of Feature 21: Stamp mill foundation lower platform	282	N/A
07	22	12:11p	P7220265	Overview of Feature 21: Stamp mill foundation lower platform	26	N/A
07	22	12:16p	P7220266	Overview of Feature 21: South platform with retaining wall	180	N/A
07	22	12:18p	P7220267	Overview of Feature 21: South platform with retaining wall	130	N/A
07	22	12:20p	P7220268	Overview of Feature 21: South platform 2	130	N/A
07	22	12:22p	P7220269	Overview of Feature 21: South platform 2	320	N/A
07	22	12:25p	P7220270	Overview of Feature 21: Stamp mill foundation upper platform	320	N/A
07	22	12:28p	P7220271	Overview of Feature 21: Stamp mill foundation upper platform	20	N/A
07	22	12:54p	P7220272	Overview of Feature 22: Historic electric pole	170	N/A

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Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward (°)	Accession #
07	22	12:54p	P7220273	Overview of Feature 22: Historic electric pole	170	N/A
07	22	1:07p	P7220274	Overview of Feature 21: Stamp mill foundation upper platform	196	N/A
07	22	1:09p	P7220275	Overview of Feature 21: Stamp mill foundation upper platform	170	N/A
07	22	1:09p	P7220276	ERROR	NA	N/A
07	22	1:12p	P7220277	Overview of Feature 21: Upper platform footing	160	N/A
07	22	1:53p	P7220278	Overview of Feature 23: Cut electrical pole	270	N/A
07	22	1:55p	P7220279	Overview of Feature 19a: Pipe system	240	N/A
07	22	1:56p	P7220280	Overview of Feature 19a: Pipe system	240	N/A
07	22	1:59p	P7220281	Overview of Feature 24: Electrical pole	100	N/A
07	22	1:59p	P7220282	Overview of Feature 24: Electrical pole	100	N/A
07	22	2:03p	P7220283	Overview of Feature 25: Culvert outlet	350	N/A
07	22	2:04p	P7220284	Overview of Feature 25: Ditch	146	N/A
07	22	2:08p	P7220285	Feature 25: Corrugated pipe running east	190	N/A
07	22	2:10p	P7220286	Feature 25: Culvert outlet 1	146	N/A
07	22	2:14p	P7220287	Feature 25: Culvert outlet 2	320	N/A
07	22	2:17p	P7220288	Feature 25: Culvert outlet 3	180	N/A
07	22	2:20p	P7220289	Overview of Feature 26: Water tank	98	N/A
07	22	2:21p	P7220290	Overview of Feature 26: Water tank	98	N/A
07	22	2:25p	P7220291	Overview of Feature 27: Terrace	300	N/A
07	22	2:27p	P7220292	Overview of Feature 27: Terrace	340	N/A
07	22	2:31p	P7220293	Overview of Feature 27: Terrace	160	N/A
07	22	2:34p	P7220294	Overview of Feature 28: Pit	306	N/A
07	22	2:43p	P7220295	Overview of Feature 29: Pit	90	N/A
07	22	2:45p	P7220296	Feature 29: Pipe going into pit	122	N/A
07	22	2:45p	P7220297	Feature 29: Detail of pipe in pit	Detail	N/A
07	22	2:49p	P7220298	Feature 29: Profile of pipe in pit	40	N/A
07	22	2:52p	P7220299	Overview of Feature 29 with pipe system	80	N/A

APPENDIX C

Project Photographs

Project Photographs



Overview of staging area prior to grubbing. Facing 348 degrees (Frame P6010001; 06/01/2021)



Overview of staging area prior to grubbing. Facing 292 degrees (Frame P6010002; 06/01/2021)

Project Photographs



Water application to the staging area prior to grubbing. Facing 290 degrees (Frame P6020003; 06/02/2021)



Work in progress near Building 05 (Steel Shop) and Feature 09 (Steam Boiler Pad). Facing 100 degrees (Frame P6070095; 06/07/2021)

Project Photographs



Work in progress near Structure 01 (Headframe). Facing 294 degrees (Frame P6140215; 06/14/2021)



Backfill progress near Feature 08 (Assay Office Foundation). Facing 70 degrees (Frame IMG-4615; 06/22/2021)

Project Photographs



Work in progress. Facing 80 degrees (Frame P6280002; 06/28/2021)



Overview of gravel backfill. Facing 130 degrees (Frame P7050093; 07/05/2021)

Project Photographs



Work progress at Building 05 (left) and Feature 08 (right). Facing 20 degrees (Frame P7050094; 07/05/2021)



Overview of material stockpiles south of Industrial Area. Facing 335 degrees (Frame P7050095; 07/05/2021)

Project Photographs



Feature 30: Four-inch diameter metal pipe; facing 230 degrees (Photo No. P6050075; 06/05/2021)



Feature 31: Deteriorated wooden plank; facing 138 degrees (Photo No. P6050070; 06/05/2021)

Project Photographs



Feature 32: Wooden plank; facing 138 degrees (Photo No. P6050071; 06/05/2021)



Feature 33: Pair of one-inch metal pipes; facing 140 degrees (Photo No. P6050078; 06/05/2021)

Project Photographs



Feature 34: Vertically embedded two-inch metal pipe; detail (Photo No. P6140233; 06/14/2021)



Features 35 and 36: A two-inch metal pipe (Feature 35) and concrete footing (Feature 36); facing 130 degrees
(Photo No. P6140232; 06/14/2021)

Project Photographs



Feature 37: Two-inch metal pipe; facing 140 degrees (Photo No. P6050084; 06/05/2021)



Feature 38: One-inch metal pipe; facing 340 degrees (Photo No. P6140235; 06/14/2021)

Project Photographs



Feature 39: One-inch metal pipe; facing 120 degrees (Photo No. P6140249; 06/14/2021)



Feature 40: Narrow concrete footing; facing 326 degrees (Photo No. P6140237; 06/14/2021)

Project Photographs



Features 41 and 42: Three-inch metal pipe (Feature 41, center) and six-inch metal pipe (Feature 42, background); facing 72 degrees (Photo No. P6070106; 06/07/2021)



Features 41 and 42: Detail showing Feature 41 (three-inch metal pipe) under Feature 42 (six-inch metal pipe); facing 72 degrees (Photo No. P6070108; 06/07/2021)

Project Photographs



Feature 44: Top of concrete channel, east of Building 04; facing 212 degrees (Photo No. P6160289; 06/16/2021)



Feature 44: Top of concrete channel, east of Building 04; facing 60 degrees (Photo No. P6160290; 06/16/2021)

Project Photographs



Feature 45: Discolored sediment overlying buried pipe; facing 320 degrees (Photo No. P6070120; 06/07/2021)



Feature 46: One-inch metal pipe between Building 05 and Feature 08; facing 140 degrees (Photo No. P6070143; 06/07/2021)

Project Photographs



Feature 47: Remnant light rail track; facing 310 degrees (Photo No. P6080157; 06/08/2021)



Feature 47: Remnant light rail track; facing 310 degrees (Photo No. P6080158; 06/08/2021)

Project Photographs



Feature 48: 12-inch pipe; facing 230 degrees (Photo No. P6080154; 06/08/2021)



Feature 49: Two-inch metal pipe; facing 94 degrees (Photo No. P6070147; 06/07/2021)

Project Photographs



Feature 50: Metal plate and wooden boards; facing 298 degrees (Photo No. P6140216; 06/14/2021)



Feature 50: Metal plate and wooden boards; facing 40 degrees (Photo No. P6140218; 06/14/2021)

Project Photographs



Feature 51: One-inch metal pipe under Structure 01; facing 126 degrees (Photo No. P6140223; 06/14/2021)



Feature 52: Concrete footings; facing 126 degrees (Photo No. P6140224; 06/14/2021)

Project Photographs



Feature 53: Metal fixture under Structure 01; facing 210 degrees (Photo No. P6140226; 06/14/2021)



Feature 54: Two-inch metal pipe south of Structure 01; facing 210 degrees (Photo No. P6140227; 06/14/2021)

Project Photographs



Features 54 and 55: Two-inch metal pipe (Feature 54) and four-inch metal pipe south of Structure 01; Facing 280 degrees (Photo No. P6140231; 06/14/2021)



Feature 57: Set of two two-inch metal pipes and two one-inch metal pipes; facing 154 degrees (Photo No. P6140243; 06/14/2021)

Project Photographs



Feature 58: Concrete footing; detail (Photo No. P6160280; 06/16/2021)



Feature 59: Two-inch metal pipe; facing 314 degrees (Photo No. IMG_4594; 06/16/2021)

Project Photographs



Feature 60: Top of concrete footing exposed at ground level; facing 326 degrees (Photo No. IMG_4622; 06/22/21)



Feature 60: Concrete footing exposed; facing 360 degrees (Photo No. IMG_4634; 06/23/21)

Project Photographs



Feature 61: Four-inch metal pipe; facing 330 degrees (Photo No. IMG_4631; 06/23/2021)



Feature 61: Four-inch metal pipe; facing 320 degrees (Photo No. IMG_4629; 06/22/2021)

Project Photographs



Feature 62: Two and one-half-inch metal pipe; detail (Photo No. P6280008; 06/28/2021)



Feature 63: Two-inch metal pipe; facing 135 degrees (Photo No. P6300016; 06/30/2021)

Project Photographs



Feature 64: Stacked rock retaining wall; facing 260 degrees (Photo No. P7010021; 07/01/2021)



Feature 64: Stacked rock retaining wall; facing 200 degrees (Photo No. P7010022; 07/01/2021)

Project Photographs



Feature 65: Two-inch metal pipe; facing 85 degrees (Photo No. P7020075; 07/02/2021)



Features 35, 54, and 66: Feature 35 (foreground) overlies Feature 54 (center). Feature 66 is a concrete vault box (right). Facing 80 degrees (Photo No. P6140229; 6/14/2021)

Project Photographs



Concentration 02: Artifact Concentration; facing 184 degrees (Photo No. P6080162; 06/08/2021)



Concentration 03: Crucible Concentration; facing 180 degrees (Photo No. P6080168; 06/08/2021)

Project Photographs



Concentration 04: Brick Concentration; detail (Photo No. IMG_4608; 06/21/2021)



Concentration 05: Brick Concentration; detail (Photo No. IMG_4609; 06/21/2021)

Project Photographs



Concentration 06: Brick Concentration; detail (Photo No. IMG-4610; 06/21/2021)

APPENDIX D
LABORATORY DATA PACKAGES AND VALIDATION REPORT

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 1, 2021

Laboratory: Eurofins TestAmerica, Sacramento; West Sacramento, CA

Laboratory Job Numbers: 320-76011-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 4 soil samples collected at the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- California Administrative Manual (CAM) 17 Metals by SW-846 Methods 6010B/7471A

A level II data package was received from Eurofins TestAmerica, Sacramento; West Sacramento, CA. The data validation was conducted in general accordance with EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

CAM 17 METALS by SW-846 METHODS 6010B/7471A

The following table summarizes the sample for which this data validation is being conducted.

Sample	Lab ID	Matrix	Date Collected	Date Prepared		Date Analyzed	
				Mercury	Metals	Mercury	Metals
AHR-231-1	320-76011-1	Soil	06/30/21	07/13/21	07/13/21	07/13/21	07/14/21
AHR-232-1	320-76011-2	Soil	06/30/21	07/13/21	07/13/21	07/13/21	07/14/21
AHR-234-1	320-76011-3	Soil	07/05/21	07/13/21	07/13/21	07/13/21	07/14/21
AHR-237-1	320-76011-4	Soil	07/05/21	07/13/21	07/13/21	07/13/21	07/14/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the metals analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. **Holding Times**

The samples were received at 10.4 °C, which is outside the recommended temperature limit of ≤ 6 °C for mercury. The samples were extracted and analyzed within the recommended holding times of 28 days for mercury and 180 days for all other metals. The laboratory noted that the cooler contained ice which had not melted; therefore, in the professional judgement of the data validator, no qualification of mercury data was needed due to holding temperature exceedance.

3. **Blank Results**

One method blank each was analyzed with the metals and mercury sample sets. The method blanks were free of target analyte contamination above the reporting limits (RLs).

4. **Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results**

One metals LCS and one mercury LCS/LCSD pair were analyzed with the sample set. The recoveries and the relative percent difference (RPD) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for all analytes.

5. **Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results**

Sample AHR-231-1 was used for MS/MSD analyses for metals other than mercury. Recoveries and RPDs were within QC limits of 75-125% and $\leq 20\%$ for all analytes, with the exception of antimony (16 and 17%), chromium (126%; MSD), and vanadium (136 and 146%). The results for antimony, chromium, and vanadium were qualified as estimated (J for detects and UJ for nondetects) in sample AHR-231-1.

The MSD recoveries were also outside QC criteria for lead and zinc, but the concentrations of the analytes in the unspiked sample were greater than four times the amounts of the spiked concentrations, so no action was required.

No MS/MSD analyses were conducted for mercury.

6. **Field Duplicate Results**

The sample set did not include a field duplicate pair.

7. **Overall Assessment**

The laboratory indicated that a calibration blank was outside acceptance limits for zinc. Because zinc was detected in all samples at levels \gg RL, no qualification of data is needed.

Samples AHR-231-1, AHR-232-1, and AHR-237-1 were diluted (5x) for the determination of select analytes (antimony, beryllium, cobalt, copper, lead, silver, thallium, and vanadium); the RLs were adjusted accordingly.

Eurofins TestAmerica, Sacramento flagged sample results with the following laboratory qualifier:

^2: Indicates that a calibration blank was outside laboratory acceptance limits. These qualifiers were removed by the data validator.

F1: Indicates that MS and/or MSD recovery was outside laboratory control limits (which differed from data validation QC limits). These qualifiers were removed by the data validator; for antimony, chromium, and vanadium, the qualifiers were replaced with “J” or “UJ” qualifiers.

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as “ND” (not detected).

The metals data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

- | | |
|----|---|
| J | The associated numerical value is an estimated quantity because QC criteria were not met. |
| UJ | The analyte was analyzed for but not detected, and the associated value (i.e., the RL) is estimated because QC criteria were not met. |
| U | The analyte was analyzed for but not detected above the RL. The associated value is the RL, corrected for dilution (if applicable). |

ATTACHMENT

**EUROFINS TESTAMERICA, SACRAMENTO
RESULTS SUMMARY WITH QUALIFIERS**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-76011-1

Client Sample ID: AHR-231-1

Lab Sample ID: 320-76011-1

Date Collected: 06/30/21 10:30

Matrix: Solid

Date Received: 07/09/21 12:20

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	F1 WJ	9.6		mg/Kg		07/13/21 13:48	07/14/21 11:56	5
Arsenic	220		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:02	1
Barium	130		0.96		mg/Kg		07/13/21 13:48	07/14/21 11:02	1
Beryllium	ND		0.96		mg/Kg		07/13/21 13:48	07/14/21 11:56	5
Cadmium	1.4		0.19		mg/Kg		07/13/21 13:48	07/14/21 11:02	1
Chromium	46	F1 J	0.48		mg/Kg		07/13/21 13:48	07/14/21 11:02	1
Cobalt	27		2.4		mg/Kg		07/13/21 13:48	07/14/21 11:56	5
Copper	230		7.2		mg/Kg		07/13/21 13:48	07/14/21 11:56	5
Lead	660		4.8		mg/Kg		07/13/21 13:48	07/14/21 11:56	5
Molybdenum	ND	F1	1.9		mg/Kg		07/13/21 13:48	07/14/21 11:02	1
Nickel	59		0.96		mg/Kg		07/13/21 13:48	07/14/21 11:02	1
Selenium	1.9		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:02	1
Silver	ND		2.4		mg/Kg		07/13/21 13:48	07/14/21 11:56	5
Thallium	ND		9.6		mg/Kg		07/13/21 13:48	07/14/21 11:56	5
Vanadium	98	F1 J	2.4		mg/Kg		07/13/21 13:48	07/14/21 11:56	5
Zinc	410	2	1.9		mg/Kg		07/13/21 13:48	07/14/21 11:02	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.4		0.22		mg/Kg		07/13/21 07:00	07/13/21 12:08	5

Client Sample ID: AHR-232-1

Lab Sample ID: 320-76011-2

Date Collected: 06/30/21 10:30

Matrix: Solid

Date Received: 07/09/21 12:20

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.7		mg/Kg		07/13/21 13:48	07/14/21 12:17	5
Arsenic	49		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:23	1
Barium	140		0.97		mg/Kg		07/13/21 13:48	07/14/21 11:23	1
Beryllium	ND		0.97		mg/Kg		07/13/21 13:48	07/14/21 12:17	5
Cadmium	0.74		0.19		mg/Kg		07/13/21 13:48	07/14/21 11:23	1
Chromium	74		0.49		mg/Kg		07/13/21 13:48	07/14/21 11:23	1
Cobalt	28		2.4		mg/Kg		07/13/21 13:48	07/14/21 12:17	5
Copper	140		7.3		mg/Kg		07/13/21 13:48	07/14/21 12:17	5
Lead	190		4.9		mg/Kg		07/13/21 13:48	07/14/21 12:17	5
Molybdenum	ND		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:23	1
Nickel	42		0.97		mg/Kg		07/13/21 13:48	07/14/21 11:23	1
Selenium	ND		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:23	1
Silver	ND		2.4		mg/Kg		07/13/21 13:48	07/14/21 12:17	5
Thallium	ND		9.7		mg/Kg		07/13/21 13:48	07/14/21 12:17	5
Vanadium	150		2.4		mg/Kg		07/13/21 13:48	07/14/21 12:17	5
Zinc	330	2	1.9		mg/Kg		07/13/21 13:48	07/14/21 11:23	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.55		0.038		mg/Kg		07/13/21 07:00	07/13/21 12:10	1

KOL 9/1/2021

Eurofins TestAmerica, Sacramento

Client Sample Results

Job ID: 320-76011-1

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Client Sample ID: AHR-234-1

Date Collected: 07/05/21 10:50

Date Received: 07/09/21 12:20

Lab Sample ID: 320-76011-3

Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	4.3		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Arsenic	200		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Barium	270		0.95		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Beryllium	ND		0.19		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Cadmium	1.8		0.19		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Chromium	61		0.48		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Cobalt	22		0.48		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Copper	180		1.4		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Lead	2300		0.95		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Molybdenum	ND		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Nickel	78		0.95		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Selenium	ND		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Silver	13		0.48		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Thallium	ND		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Vanadium	84		0.48		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Zinc	710		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:27	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	14		1.8		mg/Kg		07/13/21 07:00	07/13/21 12:16	50

Client Sample ID: AHR-237-1

Date Collected: 07/05/21 11:20

Date Received: 07/09/21 12:20

Lab Sample ID: 320-76011-4

Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Arsenic	210		2.0		mg/Kg		07/13/21 13:48	07/14/21 11:31	1
Barium	260		1.0		mg/Kg		07/13/21 13:48	07/14/21 11:31	1
Beryllium	ND		1.0		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Cadmium	2.4		0.20		mg/Kg		07/13/21 13:48	07/14/21 11:31	1
Chromium	77		0.50		mg/Kg		07/13/21 13:48	07/14/21 11:31	1
Cobalt	31		2.5		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Copper	310		7.5		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Lead	3400		5.0		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Molybdenum	2.4		2.0		mg/Kg		07/13/21 13:48	07/14/21 11:31	1
Nickel	93		1.0		mg/Kg		07/13/21 13:48	07/14/21 11:31	1
Selenium	ND		10		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Silver	11		2.5		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Thallium	ND		10		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Vanadium	110		2.5		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Zinc	1100		10		mg/Kg		07/13/21 13:48	07/14/21 12:41	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	5.2		0.39		mg/Kg		07/13/21 07:00	07/13/21 12:18	10

KAL 9/1/2021

Eurofins TestAmerica, Sacramento

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 1, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Numbers: 550-165520-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 4 soil samples collected at the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by SW-846 Method 6010B
- Mercury by SW-846 Method 7471A

A level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

The laboratory transcribed the sample name incorrectly for two samples. The sample names have been corrected by the data validator in the EDD and on the results summary sheet. For lab sample ID 550-165520-3, the sample name was corrected from AHR-210-0 to AHR-210-1, and for lab sample ID 550-165520-4, the sample name was corrected from AHR-211-0 to AHR-211-1.

ARSENIC and LEAD by SW-846 METHOD 6010B

The following table summarizes the sample for which this data validation is being conducted.

Sample	Lab ID	Matrix	Date Collected	Date Prepared	Date Analyzed
AHR-196-0	550-165520-1	Soil	06/08/21	06/21/21	06/22/21
AHR-204-0	550-165520-2	Soil	06/09/21	06/21/21	06/22/21, 06/23/21
AHR-210-1	550-165520-3	Soil	06/11/21	06/21/21	06/22/21, 06/23/21
AHR-211-1	550-165520-4	Soil	06/11/21	06/21/21	06/22/21, 06/23/21

1. **Data Verification Check**

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the metals analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. **Holding Times**

The samples were extracted and analyzed within the recommended holding times of 180 days.

3. **Blank Results**

One method blank was analyzed for arsenic and lead and one method blank was analyzed for arsenic with the sample set. Both were free of target analyte contamination above the reporting limits (RLs).

4. **Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results**

One LCS/LCSD pair was analyzed for arsenic lead and one LCS/LCSD pair was analyzed for arsenic with the sample set. The recoveries and the relative percent difference (RPD) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. **Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results**

A sample outside the sample set was used for MS/MSD analyses.

6. **Field Duplicate Results**

The sample set did not include a field duplicate pair.

7. **Overall Assessment**

Samples AHR-204-0, AHR-210-1, and AHR-211-1 were diluted (5x) for the determination of arsenic due to high concentration; the RLs were adjusted accordingly.

Eurofins TestAmerica, Sacramento flagged sample results with the following laboratory qualifier:

D2: Indicates that the sample required dilution due to high concentration of the analyte. These qualifiers were removed by the data validator.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by SW-846 METHOD 7471A

The following table summarizes the sample for which this data validation is being conducted.

Sample	Lab ID	Matrix	Date Collected	Date Prepared	Date Analyzed
AHR-196-0	550-165520-1	Soil	06/08/21	06/28/21	06/28/21
AHR-204-0	550-165520-2	Soil	06/09/21	06/28/21	06/28/21
AHR-210-1	550-165520-3	Soil	06/11/21	06/30/21	06/30/21
AHR-211-1	550-165520-4	Soil	06/11/21	06/28/21	06/28/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the metals analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were received at ambient temperatures, which is outside the recommended temperature limit of ≤ 6 °C for mercury, 5-8 days after sample collection. The samples were extracted and analyzed within the recommended holding times of 28 days. The results for mercury were qualified as estimated (J) due to holding temperature exceedance.

3. Blank Results

Two method blanks were analyzed with the sample set and both were free of target analyte contamination above the RL.

4. LCS and LCSD Results

Two LCS/LCSD pairs were analyzed with the sample set. The recoveries and RPDs were within the QC limits of 80-120% and $\leq 20\%$, respectively.

5. Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Samples outside the sample set was used for MS/MSD analyses.

6. Field Duplicate Results

The sample set did not include a field duplicate pair.

7. Overall Assessment

Sample AHR-210-1 was diluted (10x) due to high mercury concentration; the RL was adjusted accordingly.

Eurofins TestAmerica, Sacramento flagged sample results with the following laboratory qualifier:

D2: Indicates that the sample required dilution due to high concentration of the analyte. This qualifier was removed by the data validator.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

J The associated numerical value is an estimated quantity because QC criteria were not met.

ATTACHMENT

**EUROFINS TESTAMERICA, SACRAMENTO
RESULTS SUMMARY WITH QUALIFIERS**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165520-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-196-0

Lab Sample ID: 550-165520-1

Date Collected: 06/08/21 12:32

Matrix: Solid

Date Received: 06/16/21 10:25

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	67		2.5	mg/Kg		06/21/21 10:50	06/22/21 14:33	1
Lead	1800		0.49	mg/Kg		06/21/21 10:50	06/22/21 14:33	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.84	J	0.097	mg/Kg		06/28/21 15:30	06/28/21 20:30	1

Client Sample ID: AHR-204-0

Lab Sample ID: 550-165520-2

Date Collected: 06/09/21 11:50

Matrix: Solid

Date Received: 06/16/21 10:25

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	450	D2	12	mg/Kg		06/21/21 10:50	06/23/21 13:58	5
Lead	400		0.49	mg/Kg		06/21/21 10:50	06/22/21 14:37	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.57	J	0.096	mg/Kg		06/28/21 15:30	06/28/21 20:32	1

Client Sample ID: AHR-210-0 /

Lab Sample ID: 550-165520-3

Date Collected: 06/11/21 12:23

Matrix: Solid

Date Received: 06/16/21 10:25

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	280	D2	12	mg/Kg		06/21/21 10:50	06/23/21 14:02	5
Lead	790		0.49	mg/Kg		06/21/21 10:50	06/22/21 14:40	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.7	D2 J	0.97	mg/Kg		06/30/21 16:15	06/30/21 20:42	10

Client Sample ID: AHR-211-0 /

Lab Sample ID: 550-165520-4

Date Collected: 06/11/21 12:25

Matrix: Solid

Date Received: 06/16/21 10:25

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	450	D2	12	mg/Kg		06/21/21 10:50	06/23/21 14:06	5
Lead	260		0.49	mg/Kg		06/21/21 10:50	06/22/21 14:44	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.4	J	0.091	mg/Kg		06/28/21 15:30	06/28/21 20:37	1

KAL 9/1/2021

Eurofins TestAmerica, Phoenix

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 1, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Number: 550-166080-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 8 air samples collected for the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by National Institute for Occupational Safety and Health (NIOSH) Method 7300
- Mercury by Occupational Safety and Health Administration (OSHA) Method 145

A Level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with the EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

The laboratory noted that two samples arrived with no identifying marks on the cassettes; sample names, AHR-AM04-062421-M and AHR-AM04-062421-Hg, were assigned based on other sample names in the set, and samples names in related data packages. Note that one sample name on the COC contained a typographical error, “AHR-AM01-0624.21-M”; the sample name was corrected by the data validator to AHR-AM01-062421-M in the EDD and on the result summary sheet. In addition, another sample name had a typographical error (“AHR-AM03-062341-M”); the laboratory used the name AHR-AM03-062421-M for this sample.

ARSENIC and LEAD by NIOSH METHOD 7300

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-062421-M	550-166080-1	06/24/21	Air	06/29/21	06/29/21
AHR-AM02-062421-M	550-166080-3	06/24/21	Air	06/29/21	06/29/21
AHR-AM03-062421-M	550-166080-5	06/24/21	Air	06/29/21	06/29/21
AHR-AM04-062421-M	550-166080-7	06/24/21	Air	06/29/21	06/29/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the arsenic and lead analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within the recommended holding time limit of 180 days from sample collection.

3. Blanks

One method blank was analyzed with the sample set and was free of target analyte contamination above the reporting limits (RLs).

4. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and relative percent differences (RPDs) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by OSHA METHOD 145

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-062421-Hg	550-166080-2	06/24/21	Air	07/01/21	07/02/21
AHR-AM02-062421-Hg	550-166080-4	06/24/21	Air	07/01/21	07/02/21
AHR-AM03-062421-Hg	550-166080-6	06/24/21	Air	07/01/21	07/02/21

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM04-062421-Hg	550-166080-8	06/24/21	Air	07/01/21	07/02/21

1. **Data Verification Check**

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the mercury analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. **Holding Times**

The samples were analyzed within 8 days of collection. The method does not specify an exact holding time limit from sample collection to analysis; it is advised to send the samples to the laboratory “as soon as possible.”

3. **Blanks**

One method blank was analyzed with the sample set and was free of mercury contamination above the RL.

4. **LCS and LCSD Results**

One LCS/LCSD pair was analyzed with the sample set. The recoveries and RPD were within QC limits of 80-120% and $\leq 20\%$, respectively.

5. **Field Duplicate Results**

The sample set did not include any field duplicate pairs.

6. **Overall Assessment**

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but not detected above the RL. The associated value is the RL.

ATTACHMENT

**EUROFINS TESTAMERICA, PHOENIX
RESULTS SUMMARY**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166080-1
SDG: Argonaut Mine Headframe

Client Sample ID: ~~AHR-AM01-062421-M~~ AHR-AM01-062421 M

Lab Sample ID: 550-166080-1

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 523.21 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000956		0.500	06/29/21 06:47	06/29/21 17:45	1
Lead	<0.250	<0.000478		0.250	06/29/21 06:47	06/29/21 17:45	1

Client Sample ID: AHR-AM01-062421-Hg

Lab Sample ID: 550-166080-2

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 559.11 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000894		0.0500	07/01/21 22:30	07/02/21 19:20	1

Client Sample ID: AHR-AM02-062421-M

Lab Sample ID: 550-166080-3

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 533.93 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000936		0.500	06/29/21 06:47	06/29/21 17:49	1
Lead	<0.250	<0.000468		0.250	06/29/21 06:47	06/29/21 17:49	1

Client Sample ID: AHR-AM02-062421-Hg

Lab Sample ID: 550-166080-4

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 564.72 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000885		0.0500	07/01/21 22:30	07/02/21 19:23	1

Client Sample ID: AHR-AM03-062421-M

Lab Sample ID: 550-166080-5

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 540.07 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000926		0.500	06/29/21 06:47	06/29/21 17:53	1
Lead	<0.250	<0.000463		0.250	06/29/21 06:47	06/29/21 17:53	1

KAL 9/1/2021

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166080-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-062421-Hg

Lab Sample ID: 550-166080-6

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 559.63 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000893		0.0500	07/01/21 22:30	07/02/21 19:24	1

Client Sample ID: AHR-AM04-062421-M

Lab Sample ID: 550-166080-7

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 529.29 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000945		0.500	06/29/21 06:47	06/29/21 17:57	1
Lead	<0.250	<0.000472		0.250	06/29/21 06:47	06/29/21 17:57	1

Client Sample ID: AHR-AM04-062421-Hg

Lab Sample ID: 550-166080-8

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 541.32 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000924		0.0500	07/01/21 22:30	07/02/21 19:26	1

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 1, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Number: 550-166082-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 8 air samples collected for the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by National Institute for Occupational Safety and Health (NIOSH) Method 7300
- Mercury by Occupational Safety and Health Administration (OSHA) Method 145

A Level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with the EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

ARSENIC and LEAD by NIOSH METHOD 7300

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-062321-M	550-166082-1	06/23/21	Air	06/29/21	06/29/21
AHR-AM02-062321-M	550-166082-3	06/23/21	Air	06/29/21	06/29/21
AHR-AM03-062321-M	550-166082-5	06/23/21	Air	06/29/21	06/29/21
AHR-AM04-062321-M	550-166082-7	06/23/21	Air	06/29/21	06/29/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the arsenic and lead analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within the recommended holding time limit of 180 days from sample collection.

3. Blanks

One method blank was analyzed with the sample set and was free of target analyte contamination above the reporting limits (RLs).

4. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and relative percent differences (RPDs) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by OSHA METHOD 145

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-062321-Hg	550-166082-2	06/23/21	Air	07/01/21	07/02/21
AHR-AM02-062321-Hg	550-166082-4	06/23/21	Air	07/01/21	07/02/21
AHR-AM03-062321-Hg	550-166082-6	06/23/21	Air	07/01/21	07/02/21
AHR-AM04-062321-Hg	550-166082-8	06/23/21	Air	07/01/21	07/02/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the mercury

analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within 9 days of collection. The method does not specify an exact holding time limit from sample collection to analysis; it is advised to send the samples to the laboratory “as soon as possible.”

3. Blanks

One method blank was analyzed with the sample set and was free of mercury contamination above the RL.

4. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and RPD were within QC limits of 80-120% and $\leq 20\%$, respectively.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but not detected above the RL. The associated value is the RL.

ATTACHMENT

**EUROFINS TESTAMERICA, PHOENIX
RESULTS SUMMARY**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166082-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-062321-M

Lab Sample ID: 550-166082-1

Date Collected: 06/23/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 467.25 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.00107			0.500	06/29/21 06:47	06/29/21 18:00	1
Lead	<0.250	<0.000535			0.250	06/29/21 06:47	06/29/21 18:00	1

Client Sample ID: AHR-AM01-062321-Hg

Lab Sample ID: 550-166082-2

Date Collected: 06/23/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 504.66 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000991			0.0500	07/01/21 22:30	07/02/21 19:28	1

Client Sample ID: AHR-AM02-062321-M

Lab Sample ID: 550-166082-3

Date Collected: 06/23/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 477.69 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.00105			0.500	06/29/21 06:47	06/29/21 18:04	1
Lead	<0.250	<0.000523			0.250	06/29/21 06:47	06/29/21 18:04	1

Client Sample ID: AHR-AM02-062321-Hg

Lab Sample ID: 550-166082-4

Date Collected: 06/23/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 479.56 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.000104			0.0500	07/01/21 22:30	07/02/21 19:30	1

Client Sample ID: AHR-AM03-062321-M

Lab Sample ID: 550-166082-5

Date Collected: 06/23/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 478.50 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.00104			0.500	06/29/21 06:47	06/29/21 18:08	1
Lead	<0.250	<0.000522			0.250	06/29/21 06:47	06/29/21 18:08	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166082-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-062321-Hg

Lab Sample ID: 550-166082-6

Date Collected: 06/23/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 505.37 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000989		0.0500	07/01/21 22:30	07/02/21 19:31	1

Client Sample ID: AHR-AM04-062321-M

Lab Sample ID: 550-166082-7

Date Collected: 06/23/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 475.60 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.00105		0.500	06/29/21 06:47	06/29/21 18:12	1
Lead	<0.250	<0.000526		0.250	06/29/21 06:47	06/29/21 18:12	1

Client Sample ID: AHR-AM04-062321-Hg

Lab Sample ID: 550-166082-8

Date Collected: 06/23/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 459.49 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.000109		0.0500	07/01/21 22:30	07/02/21 19:38	1

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 1, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Number: 550-166212-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 8 air samples collected for the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by National Institute for Occupational Safety and Health (NIOSH) Method 7300
- Mercury by Occupational Safety and Health Administration (OSHA) Method 145

A Level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with the EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

ARSENIC and LEAD by NIOSH METHOD 7300

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-062521-M	550-166212-1	06/25/21	Air	07/01/21	07/01/21
AHR-AM02-062521-M	550-166212-3	06/25/21	Air	07/01/21	07/01/21
AHR-AM03-062521-M	550-166212-5	06/25/21	Air	07/01/21	07/01/21
AHR-AM04-062521-M	550-166212-7	06/25/21	Air	07/01/21	07/01/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the arsenic and lead analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within the recommended holding time limit of 180 days from sample collection.

3. Blanks

One method blank was analyzed with the sample set and was free of target analyte contamination above the reporting limits (RLs).

4. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and relative percent differences (RPDs) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by OSHA METHOD 145

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-062521-Hg	550-166212-2	06/25/21	Air	07/01/21	07/02/21
AHR-AM02-062521-Hg	550-166212-4	06/25/21	Air	07/01/21	07/02/21
AHR-AM03-062521-Hg	550-166212-6	06/25/21	Air	07/01/21	07/02/21
AHR-AM04-062521-Hg	550-166212-8	06/25/21	Air	07/01/21	07/02/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the mercury

analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within 7 days of collection. The method does not specify an exact holding time limit from sample collection to analysis; it is advised to send the samples to the laboratory “as soon as possible.”

3. Blanks

One method blank was analyzed with the sample set and was free of mercury contamination above the RL.

4. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and RPD were within QC limits of 80-120% and $\leq 20\%$, respectively.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as $<RL$.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but not detected above the RL. The associated value is the RL.

ATTACHMENT

**EUROFINS TESTAMERICA, PHOENIX
RESULTS SUMMARY**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166212-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-062521-M

Lab Sample ID: 550-166212-1

Date Collected: 06/25/21 00:00

Matrix: Air

Date Received: 06/30/21 10:00

Sample Air Volume: 466.12 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.00107			0.500	07/01/21 09:09	07/01/21 13:52	1
Lead	<0.250	<0.000536			0.250	07/01/21 09:09	07/01/21 13:52	1

Client Sample ID: AHR-AM01-062521-Hg

Lab Sample ID: 550-166212-2

Date Collected: 06/25/21 00:00

Matrix: Air

Date Received: 06/30/21 10:00

Sample Air Volume: 500.79 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000998			0.0500	07/01/21 22:30	07/02/21 19:39	1

Client Sample ID: AHR-AM02-062521-M

Lab Sample ID: 550-166212-3

Date Collected: 06/25/21 00:00

Matrix: Air

Date Received: 06/30/21 10:00

Sample Air Volume: 461.44 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.00108			0.500	07/01/21 09:09	07/01/21 13:56	1
Lead	<0.250	<0.000542			0.250	07/01/21 09:09	07/01/21 13:56	1

Client Sample ID: AHR-AM02-062521-Hg

Lab Sample ID: 550-166212-4

Date Collected: 06/25/21 00:00

Matrix: Air

Date Received: 06/30/21 10:00

Sample Air Volume: 471.95 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.000106			0.0500	07/01/21 22:30	07/02/21 19:41	1

Client Sample ID: AHR-AM03-062521-M

Lab Sample ID: 550-166212-5

Date Collected: 06/25/21 00:00

Matrix: Air

Date Received: 06/30/21 10:00

Sample Air Volume: 484.69 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.00103			0.500	07/01/21 09:09	07/01/21 13:59	1
Lead	<0.250	<0.000516			0.250	07/01/21 09:09	07/01/21 13:59	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166212-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-062521-Hg

Lab Sample ID: 550-166212-6

Date Collected: 06/25/21 00:00

Matrix: Air

Date Received: 06/30/21 10:00

Sample Air Volume: 499.65 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.000100		0.0500	07/01/21 22:30	07/02/21 19:43	1

Client Sample ID: AHR-AM04-062521-M

Lab Sample ID: 550-166212-7

Date Collected: 06/25/21 00:00

Matrix: Air

Date Received: 06/30/21 10:00

Sample Air Volume: 450.91 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.00111		0.500	07/01/21 09:09	07/01/21 14:03	1
Lead	<0.250	<0.000554		0.250	07/01/21 09:09	07/01/21 14:03	1

Client Sample ID: AHR-AM04-062521-Hg

Lab Sample ID: 550-166212-8

Date Collected: 06/25/21 00:00

Matrix: Air

Date Received: 06/30/21 10:00

Sample Air Volume: 454.16 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.000110		0.0500	07/01/21 22:30	07/02/21 19:45	1

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 1, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Number: 550-166213-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 8 air samples collected for the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by National Institute for Occupational Safety and Health (NIOSH) Method 7300
- Mercury by Occupational Safety and Health Administration (OSHA) Method 145

A Level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with the EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

Note that one sample name on the COC contained a typographical error (“AHR-AM01-068521-Hg”); the laboratory used the name AHR-AM01-062821-Hg for this sample.

ARSENIC and LEAD by NIOSH METHOD 7300

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-062821-M	550-166213-1	06/28/21	Air	07/01/21	07/01/21
AHR-AM02-062821-M	550-166213-3	06/28/21	Air	07/01/21	07/01/21
AHR-AM03-062821-M	550-166213-5	06/28/21	Air	07/01/21	07/01/21
AHR-AM04-062821-M	550-166213-7	06/28/21	Air	07/01/21	07/01/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the arsenic and lead

analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within the recommended holding time limit of 180 days from sample collection.

3. Blanks

One method blank was analyzed with the sample set and was free of target analyte contamination above the reporting limits (RLs).

4. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and relative percent differences (RPDs) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by OSHA METHOD 145

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-062821-Hg	550-166213-2	06/28/21	Air	07/01/21	07/02/21
AHR-AM02-062821-Hg	550-166213-4	06/28/21	Air	07/01/21	07/02/21
AHR-AM03-062821-Hg	550-166213-6	06/28/21	Air	07/01/21	07/02/21
AHR-AM04-062821-Hg	550-166213-8	06/28/21	Air	07/01/21	07/02/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the mercury analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within 4 days of collection. The method does not specify an exact holding time limit from sample collection to analysis; it is advised to send the samples to the laboratory “as soon as possible.”

3. Blanks

One method blank was analyzed with the sample set and was free of mercury contamination above the RL.

4. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and RPD were within QC limits of 80-120% and $\leq 20\%$, respectively.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as $<RL$.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but not detected above the RL. The associated value is the RL.

ATTACHMENT

**EUROFINS TESTAMERICA, PHOENIX
RESULTS SUMMARY**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166213-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-062821-M

Lab Sample ID: 550-166213-1

Date Collected: 06/28/21 00:00

Matrix: Air

Date Received: 06/30/21 10:00

Sample Air Volume: 455.25 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.00110			0.500	07/01/21 09:09	07/01/21 14:07	1
Lead	<0.250	<0.000549			0.250	07/01/21 09:09	07/01/21 14:07	1

Client Sample ID: AHR-AM01-062821-Hg

Lab Sample ID: 550-166213-2

Date Collected: 06/28/21 00:00

Matrix: Air

Date Received: 06/30/21 10:00

Sample Air Volume: 460.91 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.000108			0.0500	07/01/21 22:30	07/02/21 19:46	1

Client Sample ID: AHR-AM02-062821-M

Lab Sample ID: 550-166213-3

Date Collected: 06/28/21 00:00

Matrix: Air

Date Received: 06/30/21 10:00

Sample Air Volume: 455.29 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.00110			0.500	07/01/21 09:09	07/01/21 14:11	1
Lead	0.857	0.00188			0.250	07/01/21 09:09	07/01/21 14:11	1

Client Sample ID: AHR-AM02-062821-Hg

Lab Sample ID: 550-166213-4

Date Collected: 06/28/21 00:00

Matrix: Air

Date Received: 06/30/21 10:00

Sample Air Volume: 471.98 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.000106			0.0500	07/01/21 22:30	07/02/21 19:48	1

Client Sample ID: AHR-AM03-062821-M

Lab Sample ID: 550-166213-5

Date Collected: 06/28/21 00:00

Matrix: Air

Date Received: 06/30/21 10:00

Sample Air Volume: 454.36 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.00110			0.500	07/01/21 09:09	07/01/21 14:15	1
Lead	<0.250	<0.000550			0.250	07/01/21 09:09	07/01/21 14:15	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166213-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-062821-Hg

Lab Sample ID: 550-166213-6

Date Collected: 06/28/21 00:00

Matrix: Air

Date Received: 06/30/21 10:00

Sample Air Volume: 466.77 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.000107		0.0500	07/01/21 22:30	07/02/21 19:50	1

Client Sample ID: AHR-AM04-062821-M

Lab Sample ID: 550-166213-7

Date Collected: 06/28/21 00:00

Matrix: Air

Date Received: 06/30/21 10:00

Sample Air Volume: 444.18 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.00113		0.500	07/01/21 09:09	07/01/21 14:18	1
Lead	<0.250	<0.000563		0.250	07/01/21 09:09	07/01/21 14:18	1

Client Sample ID: AHR-AM04-062821-Hg

Lab Sample ID: 550-166213-8

Date Collected: 06/28/21 00:00

Matrix: Air

Date Received: 06/30/21 10:00

Sample Air Volume: 452.01 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.000111		0.0500	07/01/21 22:30	07/02/21 19:51	1

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 1, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Number: 550-166364-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 8 air samples collected for the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by National Institute for Occupational Safety and Health (NIOSH) Method 7300
- Mercury by Occupational Safety and Health Administration (OSHA) Method 145

A Level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with the EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

Note that one sample name on the COC contained a typographical error (“AHR-AM04-062821-Hg”); the laboratory used the name AHR-AM04-063021-Hg for this sample.

ARSENIC and LEAD by NIOSH METHOD 7300

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-063021-M	550-166364-1	06/30/21	Air	07/07/21	07/07/21
AHR-AM02-063021-M	550-166364-3	06/30/21	Air	07/07/21	07/07/21
AHR-AM03-063021-M	550-166364-5	06/30/21	Air	07/07/21	07/07/21
AHR-AM04-063021-M	550-166364-7	06/30/21	Air	07/07/21	07/07/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the arsenic and lead

analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within the recommended holding time limit of 180 days from sample collection.

3. Blanks

One method blank was analyzed with the sample set and was free of target analyte contamination above the reporting limits (RLs).

4. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and relative percent differences (RPDs) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by OSHA METHOD 145

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-063021-Hg	550-166364-2	06/30/21	Air	07/07/21	07/07/21
AHR-AM02-063021-Hg	550-166364-4	06/30/21	Air	07/07/21	07/07/21
AHR-AM03-063021-Hg	550-166364-6	06/30/21	Air	07/07/21	07/07/21
AHR-AM04-063021-Hg	550-166364-8	06/30/21	Air	07/07/21	07/07/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the mercury analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within 7 days of collection. The method does not specify an exact holding time limit from sample collection to analysis; it is advised to send the samples to the laboratory “as soon as possible.”

3. Blanks

One method blank was analyzed with the sample set and was free of mercury contamination above the RL.

4. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and RPD were within QC limits of 80-120% and $\leq 20\%$, respectively.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but not detected above the RL. The associated value is the RL.

ATTACHMENT

**EUROFINS TESTAMERICA, PHOENIX
RESULTS SUMMARY**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166364-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-063021-M

Lab Sample ID: 550-166364-1

Date Collected: 06/30/21 17:47

Matrix: Air

Date Received: 07/02/21 09:45

Sample Air Volume: 1193.81 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000419		0.500	07/07/21 07:28	07/07/21 13:43	1
Lead	0.292	0.000244		0.250	07/07/21 07:28	07/07/21 13:43	1

Client Sample ID: AHR-AM01-063021-Hg

Lab Sample ID: 550-166364-2

Date Collected: 06/30/21 17:47

Matrix: Air

Date Received: 07/02/21 09:45

Sample Air Volume: 1214.01 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000412		0.0500	07/07/21 15:30	07/07/21 19:41	1

Client Sample ID: AHR-AM02-063021-M

Lab Sample ID: 550-166364-3

Date Collected: 06/30/21 17:52

Matrix: Air

Date Received: 07/02/21 09:45

Sample Air Volume: 1255.54 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000398		0.500	07/07/21 07:28	07/07/21 13:47	1
Lead	<0.250	<0.000199		0.250	07/07/21 07:28	07/07/21 13:47	1

Client Sample ID: AHR-AM02-063021-Hg

Lab Sample ID: 550-166364-4

Date Collected: 06/30/21 17:52

Matrix: Air

Date Received: 07/02/21 09:45

Sample Air Volume: 1241.31 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000403		0.0500	07/07/21 15:30	07/07/21 19:44	1

Client Sample ID: AHR-AM03-063021-M

Lab Sample ID: 550-166364-5

Date Collected: 06/30/21 17:56

Matrix: Air

Date Received: 07/02/21 09:45

Sample Air Volume: 1221.62 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000409		0.500	07/07/21 07:28	07/07/21 13:51	1
Lead	<0.250	<0.000205		0.250	07/07/21 07:28	07/07/21 13:51	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166364-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-063021-Hg

Lab Sample ID: 550-166364-6

Date Collected: 06/30/21 17:56

Matrix: Air

Date Received: 07/02/21 09:45

Sample Air Volume: 1191.06 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000420		0.0500	07/07/21 15:30	07/07/21 19:45	1

Client Sample ID: AHR-AM04-063021-M

Lab Sample ID: 550-166364-7

Date Collected: 06/30/21 18:02

Matrix: Air

Date Received: 07/02/21 09:45

Sample Air Volume: 1309.52 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000382		0.500	07/07/21 07:28	07/07/21 13:54	1
Lead	<0.250	<0.000191		0.250	07/07/21 07:28	07/07/21 13:54	1

Client Sample ID: AHR-AM04-063021-Hg

Lab Sample ID: 550-166364-8

Date Collected: 06/30/21 18:02

Matrix: Air

Date Received: 07/02/21 09:45

Sample Air Volume: 1264.45 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000395		0.0500	07/07/21 15:30	07/07/21 19:47	1

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 1, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Number: 550-166452-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 8 air samples collected for the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by National Institute for Occupational Safety and Health (NIOSH) Method 7300
- Mercury by Occupational Safety and Health Administration (OSHA) Method 145

A Level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with the EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

ARSENIC and LEAD by NIOSH METHOD 7300

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-070121-M	550-166452-1	07/01/21	Air	07/07/21	07/07/21
AHR-AM02-070121-M	550-166452-3	07/01/21	Air	07/07/21	07/07/21
AHR-AM03-070121-M	550-166452-5	07/01/21	Air	07/07/21	07/07/21
AHR-AM04-070121-M	550-166452-7	07/01/21	Air	07/07/21	07/07/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the arsenic and lead analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within the recommended holding time limit of 180 days from sample collection.

3. Blanks

One method blank was analyzed with the sample set and was free of target analyte contamination above the reporting limits (RLs).

4. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and relative percent differences (RPDs) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by OSHA METHOD 145

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-070121-Hg	550-166452-2	07/01/21	Air	07/07/21	07/07/21
AHR-AM02-070121-Hg	550-166452-4	07/01/21	Air	07/07/21	07/07/21
AHR-AM03-070121-Hg	550-166452-6	07/01/21	Air	07/07/21	07/07/21
AHR-AM04-070121-Hg	550-166452-8	07/01/21	Air	07/07/21	07/07/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the mercury

analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within 6 days of collection. The method does not specify an exact holding time limit from sample collection to analysis; it is advised to send the samples to the laboratory “as soon as possible.”

3. Blanks

One method blank was analyzed with the sample set and was free of mercury contamination above the RL.

4. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and RPD were within QC limits of 80-120% and $\leq 20\%$, respectively.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as $<RL$.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but not detected above the RL. The associated value is the RL.

ATTACHMENT

**EUROFINS TESTAMERICA, PHOENIX
RESULTS SUMMARY**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166452-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070121-M

Lab Sample ID: 550-166452-1

Date Collected: 07/01/21 16:46

Matrix: Air

Date Received: 07/06/21 09:35

Sample Air Volume: 994.23 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000503			0.500	07/07/21 07:33	07/07/21 14:55	1
Lead	<0.250	<0.000251			0.250	07/07/21 07:33	07/07/21 14:55	1

Client Sample ID: AHR-AM01-070121-Hg

Lab Sample ID: 550-166452-2

Date Collected: 07/01/21 16:46

Matrix: Air

Date Received: 07/06/21 09:35

Sample Air Volume: 1070.14 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000467			0.0500	07/07/21 15:30	07/07/21 19:49	1

Client Sample ID: AHR-AM02-070121-M

Lab Sample ID: 550-166452-3

Date Collected: 07/01/21 16:50

Matrix: Air

Date Received: 07/06/21 09:35

Sample Air Volume: 1063.37 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000470			0.500	07/07/21 07:33	07/07/21 14:59	1
Lead	<0.250	<0.000235			0.250	07/07/21 07:33	07/07/21 14:59	1

Client Sample ID: AHR-AM02-070121-Hg

Lab Sample ID: 550-166452-4

Date Collected: 07/01/21 16:50

Matrix: Air

Date Received: 07/06/21 09:35

Sample Air Volume: 1069.36 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000468			0.0500	07/07/21 15:30	07/07/21 19:51	1

Client Sample ID: AHR-AM03-070121-M

Lab Sample ID: 550-166452-5

Date Collected: 07/01/21 16:42

Matrix: Air

Date Received: 07/06/21 09:35

Sample Air Volume: 1000.31 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000500			0.500	07/07/21 07:33	07/07/21 15:08	1
Lead	<0.250	<0.000250			0.250	07/07/21 07:33	07/07/21 15:08	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166452-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-070121-Hg

Lab Sample ID: 550-166452-6

Date Collected: 07/01/21 16:42

Matrix: Air

Date Received: 07/06/21 09:35

Sample Air Volume: 944.15 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000530		0.0500	07/07/21 15:30	07/07/21 19:52	1

Client Sample ID: AHR-AM04-070121-M

Lab Sample ID: 550-166452-7

Date Collected: 07/01/21 16:55

Matrix: Air

Date Received: 07/06/21 09:35

Sample Air Volume: 1029.79 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000486		0.500	07/07/21 07:33	07/07/21 15:12	1
Lead	<0.250	<0.000243		0.250	07/07/21 07:33	07/07/21 15:12	1

Client Sample ID: AHR-AM04-070121-Hg

Lab Sample ID: 550-166452-8

Date Collected: 07/01/21 16:55

Matrix: Air

Date Received: 07/06/21 09:35

Sample Air Volume: 981.59 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000509		0.0500	07/07/21 15:30	07/07/21 19:54	1

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 1, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Number: 550-166524-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 8 air samples collected for the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by National Institute for Occupational Safety and Health (NIOSH) Method 7300
- Mercury by Occupational Safety and Health Administration (OSHA) Method 145

A Level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with the EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

ARSENIC and LEAD by NIOSH METHOD 7300

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-070221-M	550-166524-1	07/02/21	Air	07/09/21	07/09/21
AHR-AM02-070221-M	550-166524-2	07/02/21	Air	07/09/21	07/09/21
AHR-AM03-070221-M	550-166524-3	07/02/21	Air	07/09/21	07/09/21
AHR-AM04-070221-M	550-166524-4	07/02/21	Air	07/09/21	07/09/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the arsenic and lead analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within the recommended holding time limit of 180 days from sample collection.

3. Blanks

One method blank was analyzed with the sample set and was free of target analyte contamination above the reporting limits (RLs).

4. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and relative percent differences (RPDs) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by OSHA METHOD 145

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-070221-Hg	550-166524-5	07/02/21	Air	07/09/21	07/09/21
AHR-AM02-070221-Hg	550-166524-6	07/02/21	Air	07/09/21	07/09/21
AHR-AM03-070221-Hg	550-166524-7	07/02/21	Air	07/09/21	07/09/21
AHR-AM04-070221-Hg	550-166524-8	07/02/21	Air	07/09/21	07/09/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the mercury

analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within 7 days of collection. The method does not specify an exact holding time limit from sample collection to analysis; it is advised to send the samples to the laboratory “as soon as possible.”

3. Blanks

One method blank was analyzed with the sample set and was free of mercury contamination above the RL.

4. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and RPD were within QC limits of 80-120% and $\leq 20\%$, respectively.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as $<RL$.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but not detected above the RL. The associated value is the RL.

ATTACHMENT

**EUROFINS TESTAMERICA, PHOENIX
RESULTS SUMMARY**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166524-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070221-M

Lab Sample ID: 550-166524-1

Date Collected: 07/02/21 16:56

Matrix: Air

Date Received: 07/07/21 09:45

Sample Air Volume: 1200.713 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000416		0.500	07/09/21 06:05	07/09/21 15:45	1
Lead	<0.250	<0.000208		0.250	07/09/21 06:05	07/09/21 15:45	1

Client Sample ID: AHR-AM02-070221-M

Lab Sample ID: 550-166524-2

Date Collected: 07/02/21 16:54

Matrix: Air

Date Received: 07/07/21 09:45

Sample Air Volume: 1201.02 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000416		0.500	07/09/21 06:05	07/09/21 15:49	1
Lead	<0.250	<0.000208		0.250	07/09/21 06:05	07/09/21 15:49	1

Client Sample ID: AHR-AM03-070221-M

Lab Sample ID: 550-166524-3

Date Collected: 07/02/21 17:07

Matrix: Air

Date Received: 07/07/21 09:45

Sample Air Volume: 1169.773 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000427		0.500	07/09/21 06:05	07/09/21 15:53	1
Lead	<0.250	<0.000214		0.250	07/09/21 06:05	07/09/21 15:53	1

Client Sample ID: AHR-AM04-070221-M

Lab Sample ID: 550-166524-4

Date Collected: 07/02/21 17:03

Matrix: Air

Date Received: 07/07/21 09:45

Sample Air Volume: 1185.948 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000422		0.500	07/09/21 06:05	07/09/21 15:56	1
Lead	<0.250	<0.000211		0.250	07/09/21 06:05	07/09/21 15:56	1

Client Sample ID: AHR-AM01-070221-Hg

Lab Sample ID: 550-166524-5

Date Collected: 07/02/21 16:56

Matrix: Air

Date Received: 07/07/21 09:45

Sample Air Volume: 1202.118 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000416		0.0500	07/09/21 15:44	07/09/21 17:42	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166524-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM02-070221-Hg

Lab Sample ID: 550-166524-6

Date Collected: 07/02/21 16:54

Matrix: Air

Date Received: 07/07/21 09:45

Sample Air Volume: 1209.9 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000413		0.0500	07/09/21 15:44	07/09/21 17:44	1

Client Sample ID: AHR-AM03-070221-Hg

Lab Sample ID: 550-166524-7

Date Collected: 07/02/21 17:07

Matrix: Air

Date Received: 07/07/21 09:45

Sample Air Volume: 1121.0095 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000446		0.0500	07/09/21 15:44	07/09/21 17:46	1

Client Sample ID: AHR-AM04-070221-Hg

Lab Sample ID: 550-166524-8

Date Collected: 07/02/21 17:03

Matrix: Air

Date Received: 07/07/21 09:45

Sample Air Volume: 1194.288 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000419		0.0500	07/09/21 15:44	07/09/21 17:48	1

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 1, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Number: 550-166709-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 8 air samples collected for the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by National Institute for Occupational Safety and Health (NIOSH) Method 7300
- Mercury by Occupational Safety and Health Administration (OSHA) Method 145

A Level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with the EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

ARSENIC and LEAD by NIOSH METHOD 7300

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-070521-M	550-166709-1	07/05/21	Air	07/09/21	07/09/21
AHR-AM02-070521-M	550-166709-2	07/05/21	Air	07/09/21	07/09/21
AHR-AM03-070521-M	550-166709-3	07/05/21	Air	07/09/21	07/09/21
AHR-AM04-070521-M	550-166709-4	07/05/21	Air	07/09/21	07/09/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the arsenic and lead analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within the recommended holding time limit of 180 days from sample collection.

3. Blanks

One method blank was analyzed with the sample set and was free of target analyte contamination above the reporting limits (RLs).

4. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and relative percent differences (RPDs) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by OSHA METHOD 145

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-070521-Hg	550-166709-5	07/05/21	Air	07/09/21	07/09/21
AHR-AM02-070521-Hg	550-166709-6	07/05/21	Air	07/09/21	07/09/21
AHR-AM03-070521-Hg	550-166709-7	07/05/21	Air	07/09/21	07/09/21
AHR-AM04-070521-Hg	550-166709-8	07/05/21	Air	07/09/21	07/09/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the mercury

analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within 4 days of collection. The method does not specify an exact holding time limit from sample collection to analysis; it is advised to send the samples to the laboratory “as soon as possible.”

3. Blanks

One method blank was analyzed with the sample set and was free of mercury contamination above the RL.

4. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and RPD were within QC limits of 80-120% and $\leq 20\%$, respectively.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but not detected above the RL. The associated value is the RL.

ATTACHMENT

**EUROFINS TESTAMERICA, PHOENIX
RESULTS SUMMARY**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166709-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070521-M

Lab Sample ID: 550-166709-1

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 570.58 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000876			0.500	07/09/21 06:05	07/09/21 16:00	1
Lead	<0.250	<0.000438			0.250	07/09/21 06:05	07/09/21 16:00	1

Client Sample ID: AHR-AM02-070521-M

Lab Sample ID: 550-166709-2

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 567.08 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000882			0.500	07/09/21 06:05	07/09/21 16:04	1
Lead	<0.250	<0.000441			0.250	07/09/21 06:05	07/09/21 16:04	1

Client Sample ID: AHR-AM03-070521-M

Lab Sample ID: 550-166709-3

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 523.78 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000955			0.500	07/09/21 06:05	07/09/21 16:08	1
Lead	<0.250	<0.000477			0.250	07/09/21 06:05	07/09/21 16:08	1

Client Sample ID: AHR-AM04-070521-M

Lab Sample ID: 550-166709-4

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 543.41 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000920			0.500	07/09/21 06:05	07/09/21 16:11	1
Lead	<0.250	<0.000460			0.250	07/09/21 06:05	07/09/21 16:11	1

Client Sample ID: AHR-AM01-070521-Hg

Lab Sample ID: 550-166709-5

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 550.89 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000908			0.0500	07/09/21 19:13	07/09/21 23:07	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166709-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM02-070521-Hg

Lab Sample ID: 550-166709-6

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 561.67 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000890		0.0500	07/09/21 19:13	07/09/21 23:09	1

Client Sample ID: AHR-AM03-070521-Hg

Lab Sample ID: 550-166709-7

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 519.37 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000963		0.0500	07/09/21 19:13	07/09/21 23:11	1

Client Sample ID: AHR-AM04-070521-Hg

Lab Sample ID: 550-166709-8

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 536.16 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000933		0.0500	07/09/21 19:13	07/09/21 23:13	1

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 2, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Number: 550-166710-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 8 air samples collected for the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by National Institute for Occupational Safety and Health (NIOSH) Method 7300
- Mercury by Occupational Safety and Health Administration (OSHA) Method 145

A Level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with the EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

ARSENIC and LEAD by NIOSH METHOD 7300

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-070321-M	550-166710-1	07/03/21	Air	07/09/21	07/09/21
AHR-AM02-070321-M	550-166710-2	07/03/21	Air	07/09/21	07/09/21
AHR-AM03-070321-M	550-166710-3	07/03/21	Air	07/09/21	07/09/21
AHR-AM04-070321-M	550-166710-4	07/03/21	Air	07/09/21	07/09/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the arsenic and lead analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within the recommended holding time limit of 180 days from sample collection.

3. Blanks

One method blank was analyzed with the sample set and was free of target analyte contamination above the reporting limits (RLs).

4. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and relative percent differences (RPDs) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by OSHA METHOD 145

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-070321-Hg	550-166710-5	07/03/21	Air	07/09/21	07/09/21
AHR-AM02-070321-Hg	550-166710-6	07/03/21	Air	07/09/21	07/09/21
AHR-AM03-070321-Hg	550-166710-7	07/03/21	Air	07/09/21	07/09/21
AHR-AM04-070321-Hg	550-166710-8	07/03/21	Air	07/09/21	07/09/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the mercury

analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within 6 days of collection. The method does not specify an exact holding time limit from sample collection to analysis; it is advised to send the samples to the laboratory “as soon as possible.”

3. Blanks

One method blank was analyzed with the sample set and was free of mercury contamination above the RL.

4. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and RPD were within QC limits of 80-120% and $\leq 20\%$, respectively.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but not detected above the RL. The associated value is the RL.

ATTACHMENT

**EUROFINS TESTAMERICA, PHOENIX
RESULTS SUMMARY**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166710-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070321-M

Lab Sample ID: 550-166710-1

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 863.12 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000579			0.500	07/09/21 06:05	07/09/21 16:32	1
Lead	<0.250	<0.000290			0.250	07/09/21 06:05	07/09/21 16:32	1

Client Sample ID: AHR-AM02-070321-M

Lab Sample ID: 550-166710-2

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 938.68 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000533			0.500	07/09/21 06:05	07/09/21 16:41	1
Lead	<0.250	<0.000266			0.250	07/09/21 06:05	07/09/21 16:41	1

Client Sample ID: AHR-AM03-070321-M

Lab Sample ID: 550-166710-3

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 934.79 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000535			0.500	07/09/21 06:05	07/09/21 16:45	1
Lead	<0.250	<0.000267			0.250	07/09/21 06:05	07/09/21 16:45	1

Client Sample ID: AHR-AM04-070321-M

Lab Sample ID: 550-166710-4

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 889.7 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000562			0.500	07/09/21 06:05	07/09/21 16:48	1
Lead	<0.250	<0.000281			0.250	07/09/21 06:05	07/09/21 16:48	1

Client Sample ID: AHR-AM01-070321-Hg

Lab Sample ID: 550-166710-5

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 865.98 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000577			0.0500	07/09/21 19:13	07/09/21 23:15	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166710-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM02-070321-Hg

Lab Sample ID: 550-166710-6

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 945.45 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000529		0.0500	07/09/21 19:13	07/09/21 23:16	1

Client Sample ID: AHR-AM03-070321-Hg

Lab Sample ID: 550-166710-7

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 925.25 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000540		0.0500	07/09/21 19:13	07/09/21 23:18	1

Client Sample ID: AHR-AM04-070321-Hg

Lab Sample ID: 550-166710-8

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 865.92 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000577		0.0500	07/09/21 19:13	07/09/21 23:20	1

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 2, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Number: 550-166712-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 8 air samples collected for the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by National Institute for Occupational Safety and Health (NIOSH) Method 7300
- Mercury by Occupational Safety and Health Administration (OSHA) Method 145

A Level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with the EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

ARSENIC and LEAD by NIOSH METHOD 7300

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-070621-M	550-166712-1	07/06/21	Air	07/09/21	07/09/21
AHR-AM02-070621-M	550-166712-2	07/06/21	Air	07/09/21	07/09/21
AHR-AM03-070621-M	550-166712-3	07/06/21	Air	07/09/21	07/09/21
AHR-AM04-070621-M	550-166712-4	07/06/21	Air	07/09/21	07/09/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the arsenic and lead analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within the recommended holding time limit of 180 days from sample collection.

3. Blanks

One method blank was analyzed with the sample set and was free of target analyte contamination above the reporting limits (RLs).

4. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and relative percent differences (RPDs) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as $<RL$.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by OSHA METHOD 145

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-070621-Hg	550-166712-5	07/06/21	Air	07/09/21	07/09/21
AHR-AM02-070621-Hg	550-166712-6	07/06/21	Air	07/09/21	07/09/21
AHR-AM03-070621-Hg	550-166712-7	07/06/21	Air	07/09/21	07/09/21
AHR-AM04-070621-Hg	550-166712-8	07/06/21	Air	07/09/21	07/09/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the mercury

analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within 3 days of collection. The method does not specify an exact holding time limit from sample collection to analysis; it is advised to send the samples to the laboratory “as soon as possible.”

3. Blanks

One method blank was analyzed with the sample set and was free of mercury contamination above the RL.

4. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and RPD were within QC limits of 80-120% and $\leq 20\%$, respectively.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but not detected above the RL. The associated value is the RL.

ATTACHMENT

**EUROFINS TESTAMERICA, PHOENIX
RESULTS SUMMARY**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166712-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070621-M

Lab Sample ID: 550-166712-1

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 834.6 L

Sample Container: IH - MCE, 0.45um, 25-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000599			0.500	07/09/21 06:05	07/09/21 16:52	1
Lead	<0.250	<0.000300			0.250	07/09/21 06:05	07/09/21 16:52	1

Client Sample ID: AHR-AM02-070621-M

Lab Sample ID: 550-166712-2

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 821.95 L

Sample Container: IH - MCE, 0.45um, 25-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000608			0.500	07/09/21 06:05	07/09/21 16:56	1
Lead	<0.250	<0.000304			0.250	07/09/21 06:05	07/09/21 16:56	1

Client Sample ID: AHR-AM03-070621-M

Lab Sample ID: 550-166712-3

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 784.13 L

Sample Container: IH - MCE, 0.45um, 25-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000638			0.500	07/09/21 06:05	07/09/21 17:00	1
Lead	<0.250	<0.000319			0.250	07/09/21 06:05	07/09/21 17:00	1

Client Sample ID: AHR-AM04-070621-M

Lab Sample ID: 550-166712-4

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 865.65 L

Sample Container: IH - MCE, 0.45um, 25-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000578			0.500	07/09/21 06:05	07/09/21 17:03	1
Lead	<0.250	<0.000289			0.250	07/09/21 06:05	07/09/21 17:03	1

Client Sample ID: AHR-AM01-070621-Hg

Lab Sample ID: 550-166712-5

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 831.09 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000602			0.0500	07/09/21 19:13	07/09/21 23:22	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166712-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM02-070621-Hg

Lab Sample ID: 550-166712-6

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 830.59 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000602		0.0500	07/09/21 19:13	07/09/21 23:23	1

Client Sample ID: AHR-AM03-070621-Hg

Lab Sample ID: 550-166712-7

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 757.34 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000602		0.0500	07/09/21 19:13	07/09/21 23:29	1

Client Sample ID: AHR-AM04-070621-Hg

Lab Sample ID: 550-166712-8

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 823.66 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000607		0.0500	07/09/21 19:13	07/09/21 23:31	1

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 2, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Number: 550-166771-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 6 air samples collected for the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by National Institute for Occupational Safety and Health (NIOSH) Method 7300
- Mercury by Occupational Safety and Health Administration (OSHA) Method 145

A Level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with the EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

ARSENIC and LEAD by NIOSH METHOD 7300

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-070721-M	550-166771-1	07/07/21	Air	07/13/21	07/13/21
AHR-AM02-070721-M	550-166771-2	07/07/21	Air	07/13/21	07/13/21
AHR-AM04-070721-M	550-166771-3	07/07/21	Air	07/13/21	07/13/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the arsenic and lead analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within the recommended holding time limit of 180 days from sample collection.

3. Blanks

One method blank was analyzed with the sample set and was free of target analyte contamination above the reporting limits (RLs).

4. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and relative percent differences (RPDs) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by OSHA METHOD 145

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-070721-Hg	550-166771-4	07/07/21	Air	07/12/21	07/13/21
AHR-AM02-070721-Hg	550-166771-5	07/07/21	Air	07/12/21	07/13/21
AHR-AM04-070721-Hg	550-166771-6	07/07/21	Air	07/12/21	07/13/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the mercury analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within 6 days of collection. The method does not specify an exact holding time limit from sample collection to analysis; it is advised to send the samples to the laboratory “as soon as possible.”

3. Blanks

One method blank was analyzed with the sample set and was free of mercury contamination above the RL.

4. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and RPD were within QC limits of 80-120% and $\leq 20\%$, respectively.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as $<RL$.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but not detected above the RL. The associated value is the RL.

ATTACHMENT

**EUROFINS TESTAMERICA, PHOENIX
RESULTS SUMMARY**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166771-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070721-M

Lab Sample ID: 550-166771-1

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Sample Air Volume: 1239.74 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000403			0.500	07/13/21 09:23	07/13/21 16:58	1
Lead	<0.250	<0.000202			0.250	07/13/21 09:23	07/13/21 16:58	1

Client Sample ID: AHR-AM02-070721-M

Lab Sample ID: 550-166771-2

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Sample Air Volume: 1246.42 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000401			0.500	07/13/21 09:23	07/13/21 17:02	1
Lead	<0.250	<0.000201			0.250	07/13/21 09:23	07/13/21 17:02	1

Client Sample ID: AHR-AM04-070721-M

Lab Sample ID: 550-166771-3

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Sample Air Volume: 1262.9 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000396			0.500	07/13/21 09:23	07/13/21 17:10	1
Lead	<0.250	<0.000198			0.250	07/13/21 09:23	07/13/21 17:10	1

Client Sample ID: AHR-AM01-070721-Hg

Lab Sample ID: 550-166771-4

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Sample Air Volume: 1262.34 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000396			0.0500	07/12/21 18:40	07/13/21 16:22	1

Client Sample ID: AHR-AM02-070721-Hg

Lab Sample ID: 550-166771-5

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Sample Air Volume: 1294.77 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000386			0.0500	07/12/21 18:40	07/13/21 16:25	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166771-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-070721-Hg

Lab Sample ID: 550-166771-6

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Sample Air Volume: 1231.66 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000406		0.0500	07/12/21 18:40	07/13/21 16:27	1

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 2, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Number: 550-166855-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 6 air samples collected for the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by National Institute for Occupational Safety and Health (NIOSH) Method 7300
- Mercury by Occupational Safety and Health Administration (OSHA) Method 145

A Level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with the EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

ARSENIC and LEAD by NIOSH METHOD 7300

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-070821-M	550-166855-1	07/08/21	Air	07/13/21	07/13/21
AHR-AM02-070821-M	550-166855-2	07/08/21	Air	07/13/21	07/13/21
AHR-AM04-070821-M	550-166855-3	07/08/21	Air	07/13/21	07/13/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the arsenic and lead analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within the recommended holding time limit of 180 days from sample collection.

3. Blanks

One method blank was analyzed with the sample set and was free of target analyte contamination above the reporting limits (RLs).

4. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and relative percent differences (RPDs) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by OSHA METHOD 145

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-070821-Hg	550-166855-4	07/08/21	Air	07/12/21	07/13/21
AHR-AM02-070821-Hg	550-166855-5	07/08/21	Air	07/12/21	07/13/21
AHR-AM04-070821-Hg	550-166855-6	07/08/21	Air	07/12/21	07/13/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the mercury analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within 5 days of collection. The method does not specify an exact holding time limit from sample collection to analysis; it is advised to send the samples to the laboratory “as soon as possible.”

3. Blanks

One method blank was analyzed with the sample set and was free of mercury contamination above the RL.

4. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and RPD were within QC limits of 80-120% and $\leq 20\%$, respectively.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as $<RL$.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but not detected above the RL. The associated value is the RL.

ATTACHMENT

**EUROFINS TESTAMERICA, PHOENIX
RESULTS SUMMARY**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166855-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070821-M

Lab Sample ID: 550-166855-1

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Sample Air Volume: 1135.0 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000441			0.500	07/13/21 09:23	07/13/21 17:14	1
Lead	<0.250	<0.000220			0.250	07/13/21 09:23	07/13/21 17:14	1

Client Sample ID: AHR-AM02-070821-M

Lab Sample ID: 550-166855-2

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Sample Air Volume: 1108.6 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000451			0.500	07/13/21 09:23	07/13/21 17:17	1
Lead	<0.250	<0.000226			0.250	07/13/21 09:23	07/13/21 17:17	1

Client Sample ID: AHR-AM04-070821-M

Lab Sample ID: 550-166855-3

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Sample Air Volume: 1129.6 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000443			0.500	07/13/21 09:23	07/13/21 17:21	1
Lead	<0.250	<0.000221			0.250	07/13/21 09:23	07/13/21 17:21	1

Client Sample ID: AHR-AM01-070821-Hg

Lab Sample ID: 550-166855-4

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Sample Air Volume: 1136.6 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000440			0.0500	07/12/21 18:40	07/13/21 16:28	1

Client Sample ID: AHR-AM02-070821-Hg

Lab Sample ID: 550-166855-5

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Sample Air Volume: 1148.1 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000436			0.0500	07/12/21 18:40	07/13/21 16:30	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166855-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-070821-Hg

Lab Sample ID: 550-166855-6

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Sample Air Volume: 1116.5 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000448		0.0500	07/12/21 18:40	07/13/21 16:32	1

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 2, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Number: 550-166984-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 6 air samples collected for the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by National Institute for Occupational Safety and Health (NIOSH) Method 7300
- Mercury by Occupational Safety and Health Administration (OSHA) Method 145

A Level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with the EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

The laboratory transcribed the sample name for AHR-AM04-071021-Hg incorrectly as “AHR-AM02-071021-Hg”. The sample name was corrected by the data validator in the EDD and on the result summary sheet.

ARSENIC and LEAD by NIOSH METHOD 7300

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-071021-M	550-166984-1	07/10/21	Air	07/14/21	07/15/21
AHR-AM02-071021-M	550-166984-2	07/10/21	Air	07/14/21	07/15/21
AHR-AM04-071021-M	550-166984-3	07/10/21	Air	07/14/21	07/15/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the arsenic and lead

analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within the recommended holding time limit of 180 days from sample collection.

3. Blanks

One method blank was analyzed with the sample set and was free of target analyte contamination above the reporting limits (RLs).

4. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and relative percent differences (RPDs) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by OSHA METHOD 145

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-071021-Hg	550-166984-4	07/10/21	Air	07/14/21	07/14/21
AHR-AM02-071021-Hg	550-166984-5	07/10/21	Air	07/14/21	07/14/21
AHR-AM04-071021-Hg	550-166984-6	07/10/21	Air	07/14/21	07/14/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated

Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the mercury analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within 4 days of collection. The method does not specify an exact holding time limit from sample collection to analysis; it is advised to send the samples to the laboratory “as soon as possible.”

3. Blanks

One method blank was analyzed with the sample set and was free of mercury contamination above the RL.

4. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and RPD were within QC limits of 80-120% and $\leq 20\%$, respectively.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as $<RL$.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but not detected above the RL. The associated value is the RL.

ATTACHMENT

**EUROFINS TESTAMERICA, PHOENIX
RESULTS SUMMARY**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166984-1

Client Sample ID: AHR-AM01-071021-M

Lab Sample ID: 550-166984-1

Date Collected: 07/10/21 15:25

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1031.6 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000485			0.500	07/14/21 20:58	07/15/21 11:46	1
Lead	<0.250	<0.000242			0.250	07/14/21 20:58	07/15/21 11:46	1

Client Sample ID: AHR-AM02-071021-M

Lab Sample ID: 550-166984-2

Date Collected: 07/10/21 15:40

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1071.4 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000467			0.500	07/14/21 20:58	07/15/21 11:50	1
Lead	<0.250	<0.000233			0.250	07/14/21 20:58	07/15/21 11:50	1

Client Sample ID: AHR-AM04-071021-M

Lab Sample ID: 550-166984-3

Date Collected: 07/10/21 15:35

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 984.24 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000508			0.500	07/14/21 20:58	07/15/21 11:54	1
Lead	<0.250	<0.000254			0.250	07/14/21 20:58	07/15/21 11:54	1

Client Sample ID: AHR-AM01-071021-Hg

Lab Sample ID: 550-166984-4

Date Collected: 07/10/21 15:25

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1033.8 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000484			0.0500	07/14/21 16:15	07/14/21 20:41	1

Client Sample ID: AHR-AM02-071021-Hg

Lab Sample ID: 550-166984-5

Date Collected: 07/10/21 15:40

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1069.2 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000468			0.0500	07/14/21 16:15	07/14/21 20:43	1

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166984-1

Client Sample ID: ~~AHR-AM02-071021-Hg~~ **AHR-AM04-071021-Hg**

Lab Sample ID: 550-166984-6

Date Collected: 07/10/21 15:35

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 986.9 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000507		0.0500	07/14/21 16:15	07/14/21 20:45	1

KAL **9/2/2021**

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 2, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Number: 550-166985-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 6 air samples collected for the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by National Institute for Occupational Safety and Health (NIOSH) Method 7300
- Mercury by Occupational Safety and Health Administration (OSHA) Method 145

A Level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with the EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

ARSENIC and LEAD by NIOSH METHOD 7300

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-070921-M	550-166985-1	07/09/21	Air	07/14/21	07/15/21
AHR-AM02-070921-M	550-166985-2	07/09/21	Air	07/14/21	07/15/21
AHR-AM04-070921-M	550-166985-3	07/09/21	Air	07/14/21	07/15/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the arsenic and lead analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within the recommended holding time limit of 180 days from sample collection.

3. Blanks

One method blank was analyzed with the sample set and was free of target analyte contamination above the reporting limits (RLs).

4. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and relative percent differences (RPDs) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by OSHA METHOD 145

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-070921-Hg	550-166985-4	07/09/21	Air	07/14/21	07/14/21
AHR-AM02-070921-Hg	550-166985-5	07/09/21	Air	07/14/21	07/14/21
AHR-AM04-070921-Hg	550-166985-6	07/09/21	Air	07/14/21	07/14/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the mercury analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within 5 days of collection. The method does not specify an exact holding time limit from sample collection to analysis; it is advised to send the samples to the laboratory “as soon as possible.”

3. Blanks

One method blank was analyzed with the sample set and was free of mercury contamination above the RL.

4. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and RPD were within QC limits of 80-120% and $\leq 20\%$, respectively.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but not detected above the RL. The associated value is the RL.

ATTACHMENT

**EUROFINS TESTAMERICA, PHOENIX
RESULTS SUMMARY**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166985-1

Client Sample ID: AHR-AM01-070921-M

Lab Sample ID: 550-166985-1

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1257.06 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000398		0.500	07/14/21 20:58	07/15/21 11:57	1
Lead	0.386	0.000307		0.250	07/14/21 20:58	07/15/21 11:57	1

Client Sample ID: AHR-AM02-070921-M

Lab Sample ID: 550-166985-2

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1203.63 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000415		0.500	07/14/21 20:58	07/15/21 12:01	1
Lead	<0.250	<0.000208		0.250	07/14/21 20:58	07/15/21 12:01	1

Client Sample ID: AHR-AM04-070921-M

Lab Sample ID: 550-166985-3

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1247.16 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000401		0.500	07/14/21 20:58	07/15/21 12:05	1
Lead	<0.250	<0.000200		0.250	07/14/21 20:58	07/15/21 12:05	1

Client Sample ID: AHR-AM01-070921-Hg

Lab Sample ID: 550-166985-4

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1247.30 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000401		0.0500	07/14/21 16:15	07/14/21 20:47	1

Client Sample ID: AHR-AM02-070921-Hg

Lab Sample ID: 550-166985-5

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1217.09 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000411		0.0500	07/14/21 16:15	07/14/21 20:48	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166985-1

Client Sample ID: AHR-AM04-070921-Hg

Lab Sample ID: 550-166985-6

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1251.72 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000399		0.0500	07/14/21 16:15	07/14/21 20:50	1

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 2, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Number: 550-167045-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 6 air samples collected for the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by National Institute for Occupational Safety and Health (NIOSH) Method 7300
- Mercury by Occupational Safety and Health Administration (OSHA) Method 145

A Level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with the EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

ARSENIC and LEAD by NIOSH METHOD 7300

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-071221-M	550-167045-1	07/12/21	Air	07/15/21	07/16/21
AHR-AM02-071221-M	550-167045-2	07/12/21	Air	07/15/21	07/16/21
AHR-AM04-071221-M	550-167045-3	07/12/21	Air	07/15/21	07/16/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the arsenic and lead analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within the recommended holding time limit of 180 days from sample collection.

3. Blanks

One method blank was analyzed with the sample set and was free of target analyte contamination above the reporting limits (RLs).

4. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and relative percent differences (RPDs) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by OSHA METHOD 145

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-071221-Hg	550-167045-4	07/12/21	Air	07/15/21	07/15/21
AHR-AM02-071221-Hg	550-167045-5	07/12/21	Air	07/15/21	07/15/21
AHR-AM04-071221-Hg	550-167045-6	07/12/21	Air	07/15/21	07/15/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the mercury analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within 3 days of collection. The method does not specify an exact holding time limit from sample collection to analysis; it is advised to send the samples to the laboratory “as soon as possible.”

3. Blanks

One method blank was analyzed with the sample set and was free of mercury contamination above the RL.

4. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries were both 121%, outside the QC limits of 80-120%; the RPD was within the QC limits of $\leq 20\%$. No qualification of data was needed as recoveries were above the QC limits and mercury was not detected in any sample.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but not detected above the RL. The associated value is the RL.

ATTACHMENT

**EUROFINS TESTAMERICA, PHOENIX
RESULTS SUMMARY**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167045-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-071221-M

Lab Sample ID: 550-167045-1

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Sample Air Volume: 1271.3 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000393			0.500	07/15/21 07:34	07/16/21 16:12	1
Lead	<0.250	<0.000197			0.250	07/15/21 07:34	07/16/21 16:12	1

Client Sample ID: AHR-AM02-071221-M

Lab Sample ID: 550-167045-2

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Sample Air Volume: 1319.3 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000379			0.500	07/15/21 07:34	07/16/21 16:16	1
Lead	<0.250	<0.000189			0.250	07/15/21 07:34	07/16/21 16:16	1

Client Sample ID: AHR-AM04-071221-M

Lab Sample ID: 550-167045-3

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Sample Air Volume: 1287.3 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000388			0.500	07/15/21 07:34	07/16/21 16:20	1
Lead	<0.250	<0.000194			0.250	07/15/21 07:34	07/16/21 16:20	1

Client Sample ID: AHR-AM01-071221-Hg

Lab Sample ID: 550-167045-4

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Sample Air Volume: 1278.2 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000391			0.0500	07/15/21 14:30	07/15/21 21:04	1

Client Sample ID: AHR-AM02-071221-Hg

Lab Sample ID: 550-167045-5

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Sample Air Volume: 1321.1 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000378			0.0500	07/15/21 14:30	07/15/21 21:07	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167045-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-071221-Hg

Lab Sample ID: 550-167045-6

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Sample Air Volume: 1315.6 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000380		0.0500	07/15/21 14:30	07/15/21 21:08	1

ARGONAUT MINE DATA VALIDATION REPORT

Date: September 2, 2021

Laboratory: Eurofins TestAmerica, Phoenix; Phoenix, AZ

Laboratory Job Number: 550-167128-1

Data Validation Performed By: Kelly Luck, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)

Data Validation Reviewed By: Holly Dimig, WESTON START

Weston Work Order #: 20905.012.043.0081.00

This data validation report has been prepared by WESTON START under the START V U.S. Environmental Protection Agency (EPA) Region 9 contract. This report documents the data validation for 6 air samples collected for the Argonaut Mine site that were analyzed for the following parameters using the stated methods.

- Arsenic and Lead by National Institute for Occupational Safety and Health (NIOSH) Method 7300
- Mercury by Occupational Safety and Health Administration (OSHA) Method 145

A Level II data package was received from Eurofins TestAmerica, Phoenix; Phoenix, AZ. The data validation was conducted in general accordance with the EPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” dated November 2020. The Attachment contains results summary sheets with any hand-written qualifiers applied during data validation.

ARSENIC and LEAD by NIOSH METHOD 7300

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-071321-M	550-167128-1	07/13/21	Air	07/16/21	07/16/21
AHR-AM02-071321-M	550-167128-2	07/13/21	Air	07/16/21	07/16/21
AHR-AM04-071321-M	550-167128-3	07/13/21	Air	07/16/21	07/16/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the arsenic and lead analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within the recommended holding time limit of 180 days from sample collection.

3. Blanks

One method blank was analyzed with the sample set and was free of target analyte contamination above the reporting limits (RLs).

4. Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and relative percent differences (RPDs) were within quality control (QC) limits of 80-120% and $\leq 20\%$, respectively, for both analytes.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as <RL.

The arsenic and lead data are acceptable for use as qualified based on the information received.

MERCURY by OSHA METHOD 145

The following table summarizes the samples for which this data validation is being conducted.

Sample	Lab ID	Date Collected	Matrix	Date Extracted	Date Analyzed
AHR-AM01-071321-Hg	550-167128-4	07/13/21	Air	07/16/21	07/16/21
AHR-AM02-071321-Hg	550-167128-5	07/13/21	Air	07/16/21	07/16/21
AHR-AM04-071321-Hg	550-167128-6	07/13/21	Air	07/16/21	07/16/21

1. Data Verification Check

A data verification and completeness check was performed in accordance with the Stage 1 and 2A verification checks outlined in the EPA “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use” dated January 13, 2009. For the mercury analyses, all analytical data package items were received from the laboratory and the analyses requested were performed.

2. Holding Times

The samples were analyzed within 3 days of collection. The method does not specify an exact holding time limit from sample collection to analysis; it is advised to send the samples to the laboratory “as soon as possible.”

3. Blanks

One method blank was analyzed with the sample set and was free of mercury contamination above the RL.

4. LCS and LCSD Results

One LCS/LCSD pair was analyzed with the sample set. The recoveries and RPD were within QC limits of 80-120% and $\leq 20\%$, respectively.

5. Field Duplicate Results

The sample set did not include any field duplicate pairs.

6. Overall Assessment

In the EDD, the data validator applied “U” qualifiers to sample results reported by the laboratory as $<RL$.

The mercury data are acceptable for use as qualified based on the information received.

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but not detected above the RL. The associated value is the RL.

ATTACHMENT

**EUROFINS TESTAMERICA, PHOENIX
RESULTS SUMMARY**

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167128-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-071321-M

Lab Sample ID: 550-167128-1

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Sample Air Volume: 1298 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000385			0.500	07/16/21 05:51	07/16/21 20:18	1
Lead	<0.250	<0.000193			0.250	07/16/21 05:51	07/16/21 20:18	1

Client Sample ID: AHR-AM02-071321-M

Lab Sample ID: 550-167128-2

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Sample Air Volume: 1235.5 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000405			0.500	07/16/21 05:51	07/16/21 20:22	1
Lead	<0.250	<0.000202			0.250	07/16/21 05:51	07/16/21 20:22	1

Client Sample ID: AHR-AM04-071321-M

Lab Sample ID: 550-167128-3

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Sample Air Volume: 1292.1 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000387			0.500	07/16/21 05:51	07/16/21 20:26	1
Lead	<0.250	<0.000193			0.250	07/16/21 05:51	07/16/21 20:26	1

Client Sample ID: AHR-AM01-071321-Hg

Lab Sample ID: 550-167128-4

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Sample Air Volume: 1250.0 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000400			0.0500	07/16/21 15:44	07/16/21 23:28	1

Client Sample ID: AHR-AM02-071321-Hg

Lab Sample ID: 550-167128-5

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Sample Air Volume: 1263.4 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000396			0.0500	07/16/21 15:44	07/16/21 23:30	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167128-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-071321-Hg

Lab Sample ID: 550-167128-6

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Sample Air Volume: 1327.7 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000377		0.0500	07/16/21 15:44	07/16/21 23:32	1

ANALYTICAL REPORT

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

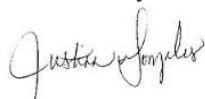
Laboratory Job ID: 320-74814-1

Client Project/Site: Argonaut Mine Removal - START Region 9

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Kelly Luck



Authorized for release by:
6/14/2021 4:06:58 PM

Justinn Gonzales, Project Manager I
(925)484-1919
Justinn.Gonzales@Eurofinset.com

LINKS

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

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.

Job ID: 320-74814-1

Project/Site: Argonaut Mine Removal - START Region 9

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-1

Job ID: 320-74814-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative 320-74814-1

Comments

No additional comments.

Receipt

The sample was received on 6/10/2021 3:15 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 19.3° C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): Cemex-Backfill 2 (320-74814-1). The container labels list Cemex-Backfill 1, while the COC lists Cemex-Backfill 2. Labeled according to the COC.

GC Semi VOA

Method 8015B: The following sample contained a hydrocarbon pattern in the diesel range; however, the elution pattern later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: Cemex-Backfill 2 (320-74814-1).

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

Organic Prep

Method 3550B: Due to the matrix, the following sample could not be concentrated to the final method required volume: Cemex-Backfill 2 (320-74814-1). Samples are associated with method 8015B-DRO solids in preparation batch 320-497944 and the reporting limits (RLs) are elevated proportionately.

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

Detection Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-1

Project/Site: Argonaut Mine Removal - START Region 9

Client Sample ID: Cemex-Backfill 2

Lab Sample ID: 320-74814-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	17		3.3		mg/Kg	1		8015B	Total/NA
Motor Oil Range Organics [C28-C40]	100		16		mg/Kg	1		8015B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: Weston Solutions, Inc.

Job ID: 320-74814-1

Project/Site: Argonaut Mine Removal - START Region 9

Client Sample ID: Cemex-Backfill 2

Lab Sample ID: 320-74814-1

Date Collected: 06/10/21 14:10

Matrix: Solid

Date Received: 06/10/21 15:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	17		3.3		mg/Kg		06/12/21 06:47	06/14/21 13:19	1
Motor Oil Range Organics [C28-C40]	100		16		mg/Kg		06/12/21 06:47	06/14/21 13:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	84		51 - 111				06/12/21 06:47	06/14/21 13:19	1

Surrogate Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-1

Project/Site: Argonaut Mine Removal - START Region 9

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH1 (51-111)
320-74814-1	Cemex-Backfill 2	84
LCS 320-497944/2-A	Lab Control Sample	79
MB 320-497944/1-A	Method Blank	59

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-1

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

Lab Sample ID: MB 320-497944/1-A

Matrix: Solid

Analysis Batch: 498159

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 497944

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.0		mg/Kg		06/12/21 06:47	06/14/21 10:56	1
Motor Oil Range Organics [C28-C40]	ND		5.0		mg/Kg		06/12/21 06:47	06/14/21 10:56	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	59		51 - 111				06/12/21 06:47	06/14/21 10:56	1

Lab Sample ID: LCS 320-497944/2-A

Matrix: Solid

Analysis Batch: 498159

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 497944

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	10.0	8.76		mg/Kg		88	57 - 132
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-Terphenyl (Surr)	79		51 - 111				

QC Association Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-1

Project/Site: Argonaut Mine Removal - START Region 9

GC Semi VOA

Prep Batch: 497944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74814-1	Cemex-Backfill 2	Total/NA	Solid	3550B	
MB 320-497944/1-A	Method Blank	Total/NA	Solid	3550B	
LCS 320-497944/2-A	Lab Control Sample	Total/NA	Solid	3550B	

Analysis Batch: 498159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74814-1	Cemex-Backfill 2	Total/NA	Solid	8015B	497944
MB 320-497944/1-A	Method Blank	Total/NA	Solid	8015B	497944
LCS 320-497944/2-A	Lab Control Sample	Total/NA	Solid	8015B	497944

Lab Chronicle

Client: Weston Solutions, Inc.

Job ID: 320-74814-1

Project/Site: Argonaut Mine Removal - START Region 9

Client Sample ID: Cemex-Backfill 2

Lab Sample ID: 320-74814-1

Date Collected: 06/10/21 14:10

Matrix: Solid

Date Received: 06/10/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			30.64 g	10 mL	497944	06/12/21 06:47	TL	TAL SAC
Total/NA	Analysis	8015B		1			498159	06/14/21 13:19	VMN	TAL SAC

Laboratory References:

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

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-1

Laboratory: Eurofins TestAmerica, Sacramento

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

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

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

Analysis Method	Prep Method	Matrix	Analyte
8015B	3550B	Solid	Motor Oil Range Organics [C28-C40]

Method Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-1

Project/Site: Argonaut Mine Removal - START Region 9

Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SAC
3550B	Ultrasonic Extraction	SW846	TAL SAC

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-1

Project/Site: Argonaut Mine Removal - START Region 9

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-74814-1	Cemex-Backfill 2	Solid	06/10/21 14:10	06/10/21 15:15	

Address:

TAL-8210		Regulatory Program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other:	
Client Contact Company Name: <u>Western Solutions</u> Address: <u>2500 Clayton Rd Ste 200</u> City/State/Zip: <u>Concord, CA 94520</u> Phone: _____ Fax: _____ Project Name: <u>Argonaut Mine Remediation</u> Site: _____ PO # _____		Project Manager: <u>Greg Reinos</u> Tel/Email: <u>513-604-4797</u> Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input checked="" type="checkbox"/> 1 day	
Site Contact: <u>Greg Reinos</u> Date: <u>6/10/11</u> Lab Contact: <u>David Allcock</u> Carrier: _____		COC No: _____ of _____ COCs Sampler: <u>Greg Thibault</u> For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____	
Sample Identification <u>File 22 numbers - 6010/1410</u>		Sample Specific Notes: 	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	
Sample Time <u>1410</u>		Matrix <u>S</u>	
Sample Cont. <u>5</u>		# of Cont. <u>1</u>	
Sample Date <u>6/10/11</u>		Sample Type (C=Comp, G=Grab) <u>C</u>	

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 320-74814-1

Login Number: 74814

List Number: 1

Creator: Guzman, Juan

List Source: Eurofins TestAmerica, Sacramento

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

ANALYTICAL REPORT

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

Laboratory Job ID: 320-74814-2

Client Project/Site: Argonaut Mine Removal - START Region 9

For:

Weston Solutions, Inc.
2300 Clayton Road
Suite 900
Concord, California 94520

Attn: Gregory Roussos



Authorized for release by:
6/15/2021 5:33:47 PM

Justinn Gonzales, Project Manager I
(925)484-1919
Justinn.Gonzales@Eurofinset.com

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.

Job ID: 320-74814-2

Project/Site: Argonaut Mine Removal - START Region 9

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-2

Job ID: 320-74814-2

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative
320-74814-2

Comments

No additional comments.

Receipt

The sample was received on 6/10/2021 3:15 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 19.3° C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): Cemex-Backfill 2 (320-74814-1). The container labels list Cemex-Backfill 1, while the COC lists Cemex-Backfill 2. Labeled according to the COC.

Metals

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

Detection Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-2

Project/Site: Argonaut Mine Removal - START Region 9

Client Sample ID: Cemex-Backfill 2

Lab Sample ID: 320-74814-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.1		2.0		mg/Kg	1		6010B	Total/NA
Barium	150		0.99		mg/Kg	1		6010B	Total/NA
Chromium	40		0.50		mg/Kg	1		6010B	Total/NA
Cobalt	12		0.50		mg/Kg	1		6010B	Total/NA
Copper	26		1.5		mg/Kg	1		6010B	Total/NA
Lead	12		0.99		mg/Kg	1		6010B	Total/NA
Nickel	43		0.99		mg/Kg	1		6010B	Total/NA
Vanadium	54		0.50		mg/Kg	1		6010B	Total/NA
Zinc	47		2.0		mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: Weston Solutions, Inc.

Job ID: 320-74814-2

Project/Site: Argonaut Mine Removal - START Region 9

Client Sample ID: Cemex-Backfill 2

Lab Sample ID: 320-74814-1

Date Collected: 06/10/21 14:10

Matrix: Solid

Date Received: 06/10/21 15:15

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		mg/Kg		06/14/21 13:41	06/15/21 15:33	1
Arsenic	5.1		2.0		mg/Kg		06/14/21 13:41	06/15/21 15:33	1
Barium	150		0.99		mg/Kg		06/14/21 13:41	06/15/21 15:33	1
Beryllium	ND		0.20		mg/Kg		06/14/21 13:41	06/15/21 15:33	1
Cadmium	ND		0.20		mg/Kg		06/14/21 13:41	06/15/21 15:33	1
Chromium	40		0.50		mg/Kg		06/14/21 13:41	06/15/21 15:33	1
Cobalt	12		0.50		mg/Kg		06/14/21 13:41	06/15/21 15:33	1
Copper	26		1.5		mg/Kg		06/14/21 13:41	06/15/21 15:33	1
Lead	12		0.99		mg/Kg		06/14/21 13:41	06/15/21 15:33	1
Molybdenum	ND		2.0		mg/Kg		06/14/21 13:41	06/15/21 15:33	1
Nickel	43		0.99		mg/Kg		06/14/21 13:41	06/15/21 15:33	1
Selenium	ND		2.0		mg/Kg		06/14/21 13:41	06/15/21 15:33	1
Silver	ND		0.50		mg/Kg		06/14/21 13:41	06/15/21 15:33	1
Thallium	ND		2.0		mg/Kg		06/14/21 13:41	06/15/21 15:33	1
Vanadium	54		0.50		mg/Kg		06/14/21 13:41	06/15/21 15:33	1
Zinc	47		2.0		mg/Kg		06/14/21 13:41	06/15/21 15:33	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.040		mg/Kg		06/14/21 08:30	06/14/21 13:51	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-2

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 320-498264/1-A
Matrix: Solid
Analysis Batch: 498724

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 498264

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		mg/Kg		06/14/21 13:41	06/15/21 14:30	1
Arsenic	ND		2.0		mg/Kg		06/14/21 13:41	06/15/21 14:30	1
Barium	ND		1.0		mg/Kg		06/14/21 13:41	06/15/21 14:30	1
Beryllium	ND		0.20		mg/Kg		06/14/21 13:41	06/15/21 14:30	1
Cadmium	ND		0.20		mg/Kg		06/14/21 13:41	06/15/21 14:30	1
Chromium	ND		0.50		mg/Kg		06/14/21 13:41	06/15/21 14:30	1
Cobalt	ND		0.50		mg/Kg		06/14/21 13:41	06/15/21 14:30	1
Copper	ND		1.5		mg/Kg		06/14/21 13:41	06/15/21 14:30	1
Lead	ND		1.0		mg/Kg		06/14/21 13:41	06/15/21 14:30	1
Molybdenum	ND		2.0		mg/Kg		06/14/21 13:41	06/15/21 14:30	1
Nickel	ND		1.0		mg/Kg		06/14/21 13:41	06/15/21 14:30	1
Selenium	ND		2.0		mg/Kg		06/14/21 13:41	06/15/21 14:30	1
Silver	ND		0.50		mg/Kg		06/14/21 13:41	06/15/21 14:30	1
Thallium	ND		2.0		mg/Kg		06/14/21 13:41	06/15/21 14:30	1
Vanadium	ND		0.50		mg/Kg		06/14/21 13:41	06/15/21 14:30	1
Zinc	ND		2.0		mg/Kg		06/14/21 13:41	06/15/21 14:30	1

Lab Sample ID: LCS 320-498264/2-A
Matrix: Solid
Analysis Batch: 498724

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 498264

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	50.0	43.1		mg/Kg		86	80 - 120
Arsenic	50.0	44.8		mg/Kg		90	80 - 120
Barium	50.0	46.0		mg/Kg		92	80 - 120
Beryllium	25.0	23.3		mg/Kg		93	80 - 120
Cadmium	25.0	23.2		mg/Kg		93	80 - 120
Chromium	25.0	23.1		mg/Kg		92	80 - 120
Cobalt	25.0	23.8		mg/Kg		95	80 - 120
Copper	25.0	22.2		mg/Kg		89	80 - 120
Lead	25.0	23.5		mg/Kg		94	80 - 120
Molybdenum	25.0	23.1		mg/Kg		92	80 - 120
Nickel	25.0	23.1		mg/Kg		92	80 - 120
Selenium	50.0	43.9		mg/Kg		88	80 - 120
Silver	5.05	4.27		mg/Kg		84	80 - 120
Thallium	50.0	47.0		mg/Kg		94	80 - 120
Vanadium	25.0	22.7		mg/Kg		91	80 - 120
Zinc	50.0	46.9		mg/Kg		94	80 - 120

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 320-498141/11-A
Matrix: Solid
Analysis Batch: 497866

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 498141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.040		mg/Kg		06/14/21 08:30	06/14/21 11:34	1

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: Weston Solutions, Inc.

Job ID: 320-74814-2

Project/Site: Argonaut Mine Removal - START Region 9

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 320-498141/12-A

Matrix: Solid

Analysis Batch: 497866

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 498141

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

Lab Sample ID: LCSD 320-498141/13-A

Matrix: Solid

Analysis Batch: 497866

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 498141

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.167	0.169		mg/Kg		101	86 - 114	1	17

QC Association Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-2

Project/Site: Argonaut Mine Removal - START Region 9

Metals

Analysis Batch: 497866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74814-1	Cemex-Backfill 2	Total/NA	Solid	7471A	498141
MB 320-498141/11-A	Method Blank	Total/NA	Solid	7471A	498141
LCS 320-498141/12-A	Lab Control Sample	Total/NA	Solid	7471A	498141
LCSD 320-498141/13-A	Lab Control Sample Dup	Total/NA	Solid	7471A	498141

Prep Batch: 498141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74814-1	Cemex-Backfill 2	Total/NA	Solid	7471A	
MB 320-498141/11-A	Method Blank	Total/NA	Solid	7471A	
LCS 320-498141/12-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 320-498141/13-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

Prep Batch: 498264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74814-1	Cemex-Backfill 2	Total/NA	Solid	3050B	
MB 320-498264/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 320-498264/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 498724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74814-1	Cemex-Backfill 2	Total/NA	Solid	6010B	498264
MB 320-498264/1-A	Method Blank	Total/NA	Solid	6010B	498264
LCS 320-498264/2-A	Lab Control Sample	Total/NA	Solid	6010B	498264

Lab Chronicle

Client: Weston Solutions, Inc.

Job ID: 320-74814-2

Project/Site: Argonaut Mine Removal - START Region 9

Client Sample ID: Cemex-Backfill 2

Lab Sample ID: 320-74814-1

Date Collected: 06/10/21 14:10

Matrix: Solid

Date Received: 06/10/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.01 g	100 mL	498264	06/14/21 13:41	JP	TAL SAC
Total/NA	Analysis	6010B		1			498724	06/15/21 15:33	SP	TAL SAC
Total/NA	Prep	7471A			0.60 g	50 mL	498141	06/14/21 08:30	IM	TAL SAC
Total/NA	Analysis	7471A		1			497866	06/14/21 13:51	IM	TAL SAC

Laboratory References:

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

Accreditation/Certification Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-2

Project/Site: Argonaut Mine Removal - START Region 9

Laboratory: Eurofins TestAmerica, Sacramento

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

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

Method Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-2

Project/Site: Argonaut Mine Removal - START Region 9

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SAC
7471A	Mercury (CVAA)	SW846	TAL SAC
3050B	Preparation, Metals	SW846	TAL SAC
7471A	Preparation, Mercury	SW846	TAL SAC

Protocol References:

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

Laboratory References:

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

Sample Summary




Client: Weston Solutions, Inc.

Job ID: 320-74814-2

Project/Site: Argonaut Mine Removal - START Region 9

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-74814-1	Cemex-Backfill 2	Solid	06/10/21 14:10	06/10/21 15:15	

Address:

TAL-8210		Regulatory Program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other:																					
Client Contact Company Name: <u>Western Solutions</u> Address: <u>2500 Clayton Rd Ste 200</u> City/State/Zip: <u>Concord, CA 94520</u> Phone: _____ Fax: _____ Project Name: <u>Argonaut Mine Remediation</u> Site: _____ PO # _____		Project Manager: <u>Greg Reinos</u> Tel/Email: <u>513-664-4797</u> Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input checked="" type="checkbox"/> 1 day																					
Site Contact: <u>Greg Reinos</u> Date: <u>6/10/11</u> Lab Contact: <u>David Allcock</u> Carrier: _____ For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____ Sample Specific Notes: _____		COC No: <u>1</u> of <u>1</u> COCs Sampler: <u>Greg Thibault</u> For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____ Sample Specific Notes: _____																					
Filtered Sample (Y / N) _____ Perform MS / MSD (Y / N) _____ 320-74814 Chain of Custody																							
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=Grab)</th> <th>Matrix</th> <th># of Cont.</th> </tr> </thead> <tbody> <tr> <td>6/10/11</td> <td>1410</td> <td>C</td> <td>S</td> <td>1</td> </tr> <tr> <td>6/10/11</td> <td>1410</td> <td>C</td> <td>S</td> <td>6</td> </tr> <tr> <td colspan="5" style="text-align: center;">  </td> </tr> </tbody> </table>				Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	6/10/11	1410	C	S	1	6/10/11	1410	C	S	6					
Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.																			
6/10/11	1410	C	S	1																			
6/10/11	1410	C	S	6																			
																							
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.																							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months																							
Special Instructions/QC Requirements & Comments:																							
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Relinquished by: <u>Greg Thibault</u> Relinquished by: _____ Relinquished by: _____		Cooler Temp. (°C): Obs'd: <u>19.3</u> Corr'd: <u>19.3</u> Therm ID No.: <u>1-02</u> Received by: _____ Date/Time: <u>6/10/11 1500</u> Received by: _____ Date/Time: <u>6/10/11 1500</u> Received in Laboratory by: _____ Date/Time: <u>6/10/11 1515</u>																					

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 320-74814-2

Login Number: 74814

List Number: 1

Creator: Guzman, Juan

List Source: Eurofins TestAmerica, Sacramento

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

ANALYTICAL REPORT

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

Laboratory Job ID: 320-74814-3

Client Project/Site: Argonaut Mine Removal - START Region 9

For:

Weston Solutions, Inc.
2300 Clayton Road
Suite 900
Concord, California 94520

Attn: Gregory Roussos



Authorized for release by:
6/16/2021 4:53:45 PM

Justinn Gonzales, Project Manager I
(925)484-1919
Justinn.Gonzales@Eurofinset.com

LINKS

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

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.

Job ID: 320-74814-3

Project/Site: Argonaut Mine Removal - START Region 9

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-3

Job ID: 320-74814-3

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative
320-74814-3

Comments

No additional comments.

Receipt

The sample was received on 6/10/2021 3:15 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 19.3° C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): Cemex-Backfill 2 (320-74814-1). The container labels list Cemex-Backfill 1, while the COC lists Cemex-Backfill 2. Labeled according to the COC.

GC/MS VOA

Method 8260B/CA_LUFTMS: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-497664 and analytical batch 320-498789.

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

Detection Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-3

Project/Site: Argonaut Mine Removal - START Region 9

Client Sample ID: Cemex-Backfill 2

Lab Sample ID: 320-74814-1

☐ No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: Weston Solutions, Inc.

Job ID: 320-74814-3

Project/Site: Argonaut Mine Removal - START Region 9

Client Sample ID: Cemex-Backfill 2

Lab Sample ID: 320-74814-1

Date Collected: 06/10/21 14:10

Matrix: Solid

Date Received: 06/10/21 15:15

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C4-C12	ND		0.45		mg/Kg		06/11/21 10:04	06/16/21 12:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 131				06/11/21 10:04	06/16/21 12:18	1

Surrogate Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-3

Project/Site: Argonaut Mine Removal - START Region 9

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-131)
320-74814-1	Cemex-Backfill 2	110
LCS 320-498789/6	Lab Control Sample	111
LCSD 320-498789/7	Lab Control Sample Dup	112
MB 320-498789/11	Method Blank	110

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-3

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 320-498789/11

Matrix: Solid

Analysis Batch: 498789

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C4-C12	ND		0.50		mg/Kg			06/16/21 10:40	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 131					06/16/21 10:40	1

Lab Sample ID: LCS 320-498789/6

Matrix: Solid

Analysis Batch: 498789

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C4-C12	1.00	0.915		mg/Kg		92	79 - 123
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	111		70 - 131				

Lab Sample ID: LCSD 320-498789/7

Matrix: Solid

Analysis Batch: 498789

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C4-C12	1.00	0.910		mg/Kg		91	79 - 123	1	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	112		70 - 131						

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-3

GC/MS VOA

Prep Batch: 497664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74814-1	Cemex-Backfill 2	Total/NA	Solid	5035	

Analysis Batch: 498789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74814-1	Cemex-Backfill 2	Total/NA	Solid	8260B/CA_LUFT MS	497664
MB 320-498789/11	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 320-498789/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 320-498789/7	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	

Lab Chronicle

Client: Weston Solutions, Inc.

Job ID: 320-74814-3

Project/Site: Argonaut Mine Removal - START Region 9

Client Sample ID: Cemex-Backfill 2

Lab Sample ID: 320-74814-1

Date Collected: 06/10/21 14:10

Matrix: Solid

Date Received: 06/10/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.543 g	5 mL	497664	06/11/21 10:04	VLW	TAL SAC
Total/NA	Analysis	8260B/CA_LUFTMS		1	5 mL	5 mL	498789	06/16/21 12:18	JRM	TAL SAC

Laboratory References:

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

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-3

Laboratory: Eurofins TestAmerica, Sacramento

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

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

Method Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-3

Project/Site: Argonaut Mine Removal - START Region 9

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTM S	Volatile Organic Compounds by GC/MS	SW846	TAL SAC
5035	Closed System Purge and Trap	SW846	TAL SAC

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-3

Project/Site: Argonaut Mine Removal - START Region 9

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-74814-1	Cemex-Backfill 2	Solid	06/10/21 14:10	06/10/21 15:15	

Address:

[illegible]

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 320-74814-3

Login Number: 74814

List Number: 1

Creator: Guzman, Juan

List Source: Eurofins TestAmerica, Sacramento

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

ANALYTICAL REPORT

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

Laboratory Job ID: 320-74814-4

Client Project/Site: Argonaut Mine Removal - START Region 9

For:

Weston Solutions, Inc.
2300 Clayton Road
Suite 900
Concord, California 94520

Attn: Gregory Roussos



Authorized for release by:
6/25/2021 10:40:08 AM

Justinn Gonzales, Project Manager I
(925)484-1919
Justinn.Gonzales@Eurofinset.com

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

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.

Job ID: 320-74814-4

Project/Site: Argonaut Mine Removal - START Region 9

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-4

Job ID: 320-74814-4

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative 320-74814-4

Comments

No additional comments.

Receipt

The sample was received on 6/10/2021 3:15 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 19.3° C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): Cemex-Backfill 2 (320-74814-1). The container labels list Cemex-Backfill 1, while the COC lists Cemex-Backfill 2. Labeled according to the COC.

GC Semi VOA

Method 8141A: The following samples in preparation batch 280-539746 and analytical batch 280-540169 were diluted due to the color and nature of the sample matrix: Cemex-Backfill 2 (320-74814-1), (320-74814-F-1-E MS) and (320-74814-F-1-F MSD). Elevated reporting limits (RLs) are provided.

Method 8141A: The following samples in preparation batch 280-539746 and analytical batch 280-540169 were diluted due to the nature of the sample matrix: Cemex-Backfill 2 (320-74814-1), (320-74814-F-1-E MS) and (320-74814-F-1-F MSD). Because of this dilution, the surrogate spike and matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8141A: The continuing calibration verification (CCV) associated with batch 280-540169 recovered above the upper control limit for Atrazine, propazine, ethoprop, Simazine and Disulfoton. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8151A: The initial calibration verification (ICV) result for batch 280-541041 was below the lower control limit for 2,4,5-T and above the upper control limit for 2,4-D on the confirmation (back) column. Sample results were reported from the in control primary column for each analyte. The associated samples were impacted: Cemex-Backfill 2 (320-74814-1).

Method 8151A: Surrogate recovery for the following sample in preparation batch 280-539716 and analytical batch 280-541041 was outside the upper control limit: Cemex-Backfill 2 (320-74814-1). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8151A: The following sample in preparation batch 280-539716 and analytical batch 280-541041 was diluted due to the nature of the sample matrix: Cemex-Backfill 2 (320-74814-1). Elevated reporting limits (RLs) are provided. The sample was diluted due to the dark yellow color of the extract.

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

General Chemistry

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

Organic Prep

Method 3540C: Samples are mostly small rocks. 15279-19 and 21 was not possible to get a full 30g with just soil, some rocks were included in aliquot. Cemex-Backfill 2 (320-74814-1), (320-74814-F-1 MS) and (320-74814-F-1 MSD) preparation batch 280-539746.

Method 8151A: Insufficient sample (Cemex-Backfill 2 (320-74814-1)) volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 280-539716 for method 8151A_SP/8151A.

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

Detection Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-4

Project/Site: Argonaut Mine Removal - START Region 9

Client Sample ID: Cemex-Backfill 2

Lab Sample ID: 320-74814-1

☐ No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-4

Client Sample ID: Cemex-Backfill 2

Lab Sample ID: 320-74814-1

Date Collected: 06/10/21 14:10

Matrix: Solid

Date Received: 06/10/21 15:15

Method: 8141A - Organophosphorous Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Atrazine	ND		3200		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Bolstar	ND		620		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Chlorpyrifos	ND		950		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Coumaphos	ND		620		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Demeton, Total	ND		1800		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Diazinon	ND	F1	1000		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Dichlorvos	ND		1100		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Dimethoate	ND		1000		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Disulfoton	ND		2300		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
EPN	ND		620		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Famphur	ND		620		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Fensulfothion	ND		1200		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Naled	ND		3300		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Mevinphos	ND		710		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Methyl parathion	ND		950		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Merphos	ND		1400		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Malathion	ND		710		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Fenthion	ND	F1	1600		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Ethyl Parathion	ND		850		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Phorate	ND		950		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Ronnel	ND		2200		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Simazine	ND		3200		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Sulfotepp	ND		950		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Thionazin	ND	F1	850		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Tokuthion	ND		950		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Trichloronate	ND	F1	950		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Demeton-O	ND		1800		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Demeton-S	ND		710		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Ethoprop	ND		710		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Propazine	ND		3200		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Azinphos-methyl	ND		850		ug/Kg		06/14/21 14:40	06/17/21 03:26	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Chlormefos	56	D	42 - 132				06/14/21 14:40	06/17/21 03:26	50
Triphenylphosphate	73	D	47 - 161				06/14/21 14:40	06/17/21 03:26	50

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	ND		98		ug/Kg		06/14/21 10:27	06/24/21 14:21	5
MCP	ND		39000		ug/Kg		06/14/21 10:27	06/24/21 14:21	5
2,4,5-T	ND		98		ug/Kg		06/14/21 10:27	06/24/21 14:21	5
2,4-D	ND		390		ug/Kg		06/14/21 10:27	06/24/21 14:21	5
2,4-DB	ND		390		ug/Kg		06/14/21 10:27	06/24/21 14:21	5
Dalapon	ND		200		ug/Kg		06/14/21 10:27	06/24/21 14:21	5
Dicamba	ND		200		ug/Kg		06/14/21 10:27	06/24/21 14:21	5
Dichlorprop	ND		390		ug/Kg		06/14/21 10:27	06/24/21 14:21	5
MCPA	ND		39000		ug/Kg		06/14/21 10:27	06/24/21 14:21	5
Picloram	ND		74		ug/Kg		06/14/21 10:27	06/24/21 14:21	5

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-4

Client Sample ID: Cemex-Backfill 2

Lab Sample ID: 320-74814-1

Date Collected: 06/10/21 14:10

Matrix: Solid

Date Received: 06/10/21 15:15

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	108	S1+ D	31 - 105	06/14/21 10:27	06/24/21 14:21	5

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		2.0		mg/Kg		06/15/21 12:41	06/16/21 13:36	1

Surrogate Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-4

Project/Site: Argonaut Mine Removal - START Region 9

Method: 8141A - Organophosphorous Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	CMF1 (42-132)	TPP1 (47-161)
320-74814-1	Cemex-Backfill 2	56 D	73 D
320-74814-1 MS	Cemex-Backfill 2	71 D	70 D
320-74814-1 MSD	Cemex-Backfill 2	66 D	77 D
LCS 280-539746/2-A	Lab Control Sample	76	82
MB 280-539746/1-A	Method Blank	75	87

Surrogate Legend

CMF = Chlormefos

TPP = Triphenylphosphate

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPAA1 (31-105)
320-74814-1	Cemex-Backfill 2	108 S1+ D
LCS 280-539716/2-A	Lab Control Sample	74
LCSD 280-539716/3-A	Lab Control Sample Dup	84
MB 280-539716/1-A	Method Blank	87

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

QC Sample Results

Client: Weston Solutions, Inc.

Job ID: 320-74814-4

Project/Site: Argonaut Mine Removal - START Region 9

Method: 8141A - Organophosphorous Pesticides (GC)

Lab Sample ID: MB 280-539746/1-A

Matrix: Solid

Analysis Batch: 540169

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 539746

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Atrazine	ND		67		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Bolstar	ND		13		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Chlorpyrifos	ND		20		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Coumaphos	ND		13		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Demeton, Total	ND		39		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Diazinon	ND		22		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Dichlorvos	ND		23		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Dimethoate	ND		22		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Disulfoton	ND		48		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
EPN	ND		13		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Famphur	ND		13		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Fensulfothion	ND		25		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Naled	ND		70		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Mevinphos	ND		15		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Methyl parathion	ND		20		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Merphos	ND		30		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Malathion	ND		15		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Fenthion	ND		33		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Ethyl Parathion	ND		18		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Phorate	ND		20		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Ronnel	ND		46		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Simazine	ND		67		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Sulfotepp	ND		20		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Thionazin	ND		18		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Tokuthion	ND		20		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Trichloronate	ND		20		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Demeton-O	ND		39		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Demeton-S	ND		15		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Ethoprop	ND		15		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Propazine	ND		67		ug/Kg		06/14/21 14:40	06/17/21 02:08	1
Azinphos-methyl	ND		18		ug/Kg		06/14/21 14:40	06/17/21 02:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Chlormefos	75		42 - 132	06/14/21 14:40	06/17/21 02:08	1
Triphenylphosphate	87		47 - 161	06/14/21 14:40	06/17/21 02:08	1

Lab Sample ID: LCS 280-539746/2-A

Matrix: Solid

Analysis Batch: 540169

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 539746

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Atrazine	133	110		ug/Kg		83	35 - 123
Bolstar	133	95.4		ug/Kg		72	48 - 115
Chlorpyrifos	133	90.0		ug/Kg		67	48 - 115
Coumaphos	133	103		ug/Kg		77	57 - 125
Demeton, Total	133	87.0		ug/Kg		65	38 - 100
Diazinon	133	95.9		ug/Kg		72	43 - 115
Dichlorvos	133	106		ug/Kg		79	37 - 143

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-4

Method: 8141A - Organophosphorous Pesticides (GC) (Continued)

Lab Sample ID: LCS 280-539746/2-A

Matrix: Solid

Analysis Batch: 540169

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 539746

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethoate	133	89.9		ug/Kg		67	20 - 115
Disulfoton	133	78.1		ug/Kg		59	31 - 98
EPN	133	90.8		ug/Kg		68	47 - 109
Famphur	133	93.1		ug/Kg		70	40 - 115
Fensulfothion	133	92.4		ug/Kg		69	49 - 115
Mevinphos	133	94.7		ug/Kg		71	33 - 95
Methyl parathion	133	89.5		ug/Kg		67	46 - 107
Merphos	133	58.1		ug/Kg		44	10 - 93
Malathion	133	95.4		ug/Kg		72	41 - 95
Fenthion	133	86.4		ug/Kg		65	43 - 110
Ethyl Parathion	133	97.5		ug/Kg		73	49 - 115
Phorate	133	85.7		ug/Kg		64	33 - 96
Ronnel	133	93.2		ug/Kg		70	50 - 115
Simazine	133	133		ug/Kg		100	38 - 115
Sulfotepp	133	95.3		ug/Kg		72	42 - 115
Thionazin	133	97.0		ug/Kg		73	40 - 108
Tokuthion	133	92.3		ug/Kg		69	50 - 115
Trichloronate	133	89.3		ug/Kg		67	52 - 110
Ethoprop	133	89.4		ug/Kg		67	44 - 102
Propazine	133	110		ug/Kg		83	39 - 122
Azinphos-methyl	133	93.6		ug/Kg		70	48 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Chlormefos	76		42 - 132
Triphenylphosphate	82		47 - 161

Lab Sample ID: 320-74814-1 MS

Matrix: Solid

Analysis Batch: 540169

Client Sample ID: Cemex-Backfill 2

Prep Type: Total/NA

Prep Batch: 539746

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Atrazine	ND		133	ND		ug/Kg		NC	35 - 123
Bolstar	ND		133	ND		ug/Kg		NC	48 - 115
Chlorpyrifos	ND		133	ND		ug/Kg		NC	48 - 115
Coumaphos	ND		133	ND		ug/Kg		NC	57 - 125
Demeton, Total	ND		133	ND		ug/Kg		NC	38 - 100
Diazinon	ND	F1	133	ND		ug/Kg		NC	43 - 115
Dichlorvos	ND		133	ND		ug/Kg		NC	37 - 143
Dimethoate	ND		133	ND		ug/Kg		NC	20 - 115
Disulfoton	ND		133	ND		ug/Kg		NC	31 - 98
EPN	ND		133	ND		ug/Kg		NC	47 - 109
Famphur	ND		133	ND		ug/Kg		NC	40 - 115
Fensulfothion	ND		133	ND		ug/Kg		NC	49 - 115
Mevinphos	ND		133	ND		ug/Kg		NC	33 - 95
Methyl parathion	ND		133	ND		ug/Kg		NC	46 - 107
Merphos	ND		133	ND		ug/Kg		NC	10 - 93
Malathion	ND		133	ND		ug/Kg		NC	41 - 95
Fenthion	ND	F1	133	ND	F1	ug/Kg		0	43 - 110

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-4

Method: 8141A - Organophosphorous Pesticides (GC) (Continued)

Lab Sample ID: 320-74814-1 MS

Matrix: Solid

Analysis Batch: 540169

Client Sample ID: Cemex-Backfill 2

Prep Type: Total/NA

Prep Batch: 539746

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethyl Parathion	ND		133	ND		ug/Kg		NC	49 - 115
Phorate	ND		133	ND		ug/Kg		NC	33 - 96
Ronnel	ND		133	ND		ug/Kg		NC	50 - 115
Simazine	ND		133	ND		ug/Kg		NC	38 - 115
Sulfotepp	ND		133	ND		ug/Kg		NC	42 - 115
Thionazin	ND	F1	133	ND	F1	ug/Kg		0	40 - 108
Tokuthion	ND		133	ND		ug/Kg		NC	50 - 115
Trichloronate	ND	F1	133	ND	F1	ug/Kg		0	52 - 110
Ethoprop	ND		133	ND		ug/Kg		NC	44 - 102
Propazine	ND		133	ND		ug/Kg		NC	39 - 122
Azinphos-methyl	ND		133	ND		ug/Kg		NC	48 - 126

Surrogate	MS %Recovery	MS Qualifier	Limits
Chlormefos	71	D	42 - 132
Triphenylphosphate	70	D	47 - 161

Lab Sample ID: 320-74814-1 MSD

Matrix: Solid

Analysis Batch: 540169

Client Sample ID: Cemex-Backfill 2

Prep Type: Total/NA

Prep Batch: 539746

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Atrazine	ND		121	ND		ug/Kg		NC	35 - 123	NC	31
Bolstar	ND		121	ND		ug/Kg		NC	48 - 115	NC	30
Chlorpyrifos	ND		121	ND		ug/Kg		NC	48 - 115	NC	27
Coumaphos	ND		121	ND		ug/Kg		NC	57 - 125	NC	26
Demeton, Total	ND		121	ND		ug/Kg		NC	38 - 100	NC	51
Diazinon	ND	F1	121	ND	F1	ug/Kg		0	43 - 115	NC	29
Dichlorvos	ND		121	ND		ug/Kg		NC	37 - 143	NC	50
Dimethoate	ND		121	ND		ug/Kg		NC	20 - 115	NC	29
Disulfoton	ND		121	ND		ug/Kg		NC	31 - 98	NC	35
EPN	ND		121	ND		ug/Kg		NC	47 - 109	NC	23
Famphur	ND		121	ND		ug/Kg		NC	40 - 115	NC	23
Fensulfothion	ND		121	ND		ug/Kg		NC	49 - 115	NC	23
Mevinphos	ND		121	ND		ug/Kg		NC	33 - 95	NC	52
Methyl parathion	ND		121	ND		ug/Kg		NC	46 - 107	NC	23
Merphos	ND		121	ND		ug/Kg		NC	10 - 93	NC	25
Malathion	ND		121	ND		ug/Kg		NC	41 - 95	NC	23
Fenthion	ND	F1	121	ND	F1	ug/Kg		0	43 - 110	NC	24
Ethyl Parathion	ND		121	ND		ug/Kg		NC	49 - 115	NC	23
Phorate	ND		121	ND		ug/Kg		NC	33 - 96	NC	44
Ronnel	ND		121	ND		ug/Kg		NC	50 - 115	NC	29
Simazine	ND		121	ND		ug/Kg		NC	38 - 115	NC	43
Sulfotepp	ND		121	ND		ug/Kg		NC	42 - 115	NC	37
Thionazin	ND	F1	121	ND	F1	ug/Kg		0	40 - 108	NC	41
Tokuthion	ND		121	ND		ug/Kg		NC	50 - 115	NC	30
Trichloronate	ND	F1	121	ND	F1	ug/Kg		0	52 - 110	NC	31
Ethoprop	ND		121	ND		ug/Kg		NC	44 - 102	NC	34
Propazine	ND		121	ND		ug/Kg		NC	39 - 122	NC	30

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: Weston Solutions, Inc.

Job ID: 320-74814-4

Project/Site: Argonaut Mine Removal - START Region 9

Method: 8141A - Organophosphorous Pesticides (GC) (Continued)

Lab Sample ID: 320-74814-1 MSD

Matrix: Solid

Analysis Batch: 540169

Client Sample ID: Cemex-Backfill 2

Prep Type: Total/NA

Prep Batch: 539746

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Azinphos-methyl	ND		121	ND		ug/Kg		NC	48 - 126	NC	21
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Chlormefos	66	D	42 - 132								
Triphenylphosphate	77	D	47 - 161								

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 280-539716/1-A

Matrix: Solid

Analysis Batch: 541041

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 539716

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	ND		20		ug/Kg		06/14/21 10:27	06/24/21 13:13	1
MCP	ND		8000		ug/Kg		06/14/21 10:27	06/24/21 13:13	1
2,4,5-T	ND		20		ug/Kg		06/14/21 10:27	06/24/21 13:13	1
2,4-D	ND		80		ug/Kg		06/14/21 10:27	06/24/21 13:13	1
2,4-DB	ND		80		ug/Kg		06/14/21 10:27	06/24/21 13:13	1
Dalapon	ND		40		ug/Kg		06/14/21 10:27	06/24/21 13:13	1
Dicamba	ND		40		ug/Kg		06/14/21 10:27	06/24/21 13:13	1
Dichlorprop	ND		80		ug/Kg		06/14/21 10:27	06/24/21 13:13	1
MCPA	ND		8000		ug/Kg		06/14/21 10:27	06/24/21 13:13	1
Picloram	ND		15		ug/Kg		06/14/21 10:27	06/24/21 13:13	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	87		31 - 105				06/14/21 10:27	06/24/21 13:13	1

Lab Sample ID: LCS 280-539716/2-A

Matrix: Solid

Analysis Batch: 541041

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 539716

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silvex (2,4,5-TP)	100	67.7		ug/Kg		68	26 - 100
MCP	10000	8360		ug/Kg		84	20 - 112
2,4,5-T	100	62.7		ug/Kg		63	22 - 102
2,4-D	100	69.3	J	ug/Kg		69	22 - 105
2,4-DB	100	42.7	J	ug/Kg		43	21 - 98
Dalapon	100	41.2		ug/Kg		41	25 - 102
Dicamba	100	65.2		ug/Kg		65	25 - 92
Dichlorprop	100	66.6	J	ug/Kg		67	24 - 98
MCPA	10000	6610	J	ug/Kg		66	15 - 100
Picloram	100	44.9		ug/Kg		45	10 - 94
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4-Dichlorophenylacetic acid	74		31 - 105				

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-4

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCSD 280-539716/3-A

Matrix: Solid

Analysis Batch: 541041

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 539716

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	100	80.3		ug/Kg		80	26 - 100	17	40
MCP	10000	9050		ug/Kg		91	20 - 112	8	50
2,4,5-T	100	73.1		ug/Kg		73	22 - 102	15	40
2,4-D	100	80.0		ug/Kg		80	22 - 105	14	40
2,4-DB	100	48.0	J	ug/Kg		48	21 - 98	12	50
Dalapon	100	57.3		ug/Kg		57	25 - 102	33	50
Dicamba	100	78.1		ug/Kg		78	25 - 92	18	50
Dichlorprop	100	76.5	J	ug/Kg		76	24 - 98	14	50
MCPA	10000	7420	J	ug/Kg		74	15 - 100	12	50
Picloram	100	50.6		ug/Kg		51	10 - 94	12	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	84		31 - 105

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 280-539906/13-A

Matrix: Solid

Analysis Batch: 540083

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 539906

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		2.0		mg/Kg		06/15/21 12:41	06/16/21 13:36	1

Lab Sample ID: LCS 280-539906/10-A

Matrix: Solid

Analysis Batch: 540083

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 539906

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	9.77	9.55		mg/Kg		98	80 - 120

Lab Sample ID: LCSD 280-539906/11-A

Matrix: Solid

Analysis Batch: 540083

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 539906

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium, hexavalent	10.0	10.0		mg/Kg		100	80 - 120	5	20

Lab Sample ID: LCS 280-539906/12-A

Matrix: Solid

Analysis Batch: 540083

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 539906

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	666	696		mg/Kg		105	80 - 120

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-4

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 320-74814-1 MS

Matrix: Solid

Analysis Batch: 540083

Client Sample ID: Cemex-Backfill 2

Prep Type: Total/NA

Prep Batch: 539906

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	ND		9.84	8.77		mg/Kg		80	75 - 125

Lab Sample ID: 320-74814-1 MSD

Matrix: Solid

Analysis Batch: 540083

Client Sample ID: Cemex-Backfill 2

Prep Type: Total/NA

Prep Batch: 539906

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium, hexavalent	ND		9.92	8.84		mg/Kg		80	75 - 125	1	20

Lab Sample ID: 320-74814-1 MSI

Matrix: Solid

Analysis Batch: 540083

Client Sample ID: Cemex-Backfill 2

Prep Type: Total/NA

Prep Batch: 539906

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	ND		633	567		mg/Kg		89	80 - 120

Lab Sample ID: 320-74814-1 DU

Matrix: Solid

Analysis Batch: 540083

Client Sample ID: Cemex-Backfill 2

Prep Type: Total/NA

Prep Batch: 539906

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium, hexavalent	ND		ND		mg/Kg		NC	20

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-4

GC Semi VOA

Prep Batch: 539716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74814-1	Cemex-Backfill 2	Total/NA	Solid	8151A	
MB 280-539716/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 280-539716/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 280-539716/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Prep Batch: 539746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74814-1	Cemex-Backfill 2	Total/NA	Solid	3540C	
MB 280-539746/1-A	Method Blank	Total/NA	Solid	3540C	
LCS 280-539746/2-A	Lab Control Sample	Total/NA	Solid	3540C	
320-74814-1 MS	Cemex-Backfill 2	Total/NA	Solid	3540C	
320-74814-1 MSD	Cemex-Backfill 2	Total/NA	Solid	3540C	

Analysis Batch: 540169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74814-1	Cemex-Backfill 2	Total/NA	Solid	8141A	539746
MB 280-539746/1-A	Method Blank	Total/NA	Solid	8141A	539746
LCS 280-539746/2-A	Lab Control Sample	Total/NA	Solid	8141A	539746
320-74814-1 MS	Cemex-Backfill 2	Total/NA	Solid	8141A	539746
320-74814-1 MSD	Cemex-Backfill 2	Total/NA	Solid	8141A	539746

Analysis Batch: 541041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74814-1	Cemex-Backfill 2	Total/NA	Solid	8151A	539716
MB 280-539716/1-A	Method Blank	Total/NA	Solid	8151A	539716
LCS 280-539716/2-A	Lab Control Sample	Total/NA	Solid	8151A	539716
LCSD 280-539716/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	539716

General Chemistry

Prep Batch: 539906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74814-1	Cemex-Backfill 2	Total/NA	Solid	3060A	
MB 280-539906/13-A	Method Blank	Total/NA	Solid	3060A	
LCS 280-539906/10-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSD 280-539906/11-A	Lab Control Sample Dup	Total/NA	Solid	3060A	
LCSI 280-539906/12-A	Lab Control Sample	Total/NA	Solid	3060A	
320-74814-1 MS	Cemex-Backfill 2	Total/NA	Solid	3060A	
320-74814-1 MSD	Cemex-Backfill 2	Total/NA	Solid	3060A	
320-74814-1 MSI	Cemex-Backfill 2	Total/NA	Solid	3060A	
320-74814-1 DU	Cemex-Backfill 2	Total/NA	Solid	3060A	

Analysis Batch: 540083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74814-1	Cemex-Backfill 2	Total/NA	Solid	7196A	539906
MB 280-539906/13-A	Method Blank	Total/NA	Solid	7196A	539906
LCS 280-539906/10-A	Lab Control Sample	Total/NA	Solid	7196A	539906
LCSD 280-539906/11-A	Lab Control Sample Dup	Total/NA	Solid	7196A	539906
LCSI 280-539906/12-A	Lab Control Sample	Total/NA	Solid	7196A	539906
320-74814-1 MS	Cemex-Backfill 2	Total/NA	Solid	7196A	539906
320-74814-1 MSD	Cemex-Backfill 2	Total/NA	Solid	7196A	539906

Eurofins TestAmerica, Sacramento

QC Association Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-4

Project/Site: Argonaut Mine Removal - START Region 9

General Chemistry (Continued)

Analysis Batch: 540083 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74814-1 MSI	Cemex-Backfill 2	Total/NA	Solid	7196A	539906
320-74814-1 DU	Cemex-Backfill 2	Total/NA	Solid	7196A	539906

Lab Chronicle

Client: Weston Solutions, Inc.

Job ID: 320-74814-4

Project/Site: Argonaut Mine Removal - START Region 9

Client Sample ID: Cemex-Backfill 2

Lab Sample ID: 320-74814-1

Date Collected: 06/10/21 14:10

Matrix: Solid

Date Received: 06/10/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			31.68 g	2 mL	539746	06/14/21 14:40	TEH	TAL DEN
Total/NA	Analysis	8141A		50			540169	06/17/21 03:26	MKW	TAL DEN
Total/NA	Prep	8151A			50.9 g	10 mL	539716	06/14/21 10:27	DB	TAL DEN
Total/NA	Analysis	8151A		5			541041	06/24/21 14:21	MB	TAL DEN
Total/NA	Prep	3060A			1.24 g	50 mL	539906	06/15/21 12:41	QJB	TAL DEN
Total/NA	Analysis	7196A		1	5 mL	5 mL	540083	06/16/21 13:36	QJB	TAL DEN

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-74814-4

Laboratory: Eurofins TestAmerica, Denver

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

Authority	Program	Identification Number	Expiration Date
California	State	2513	01-08-22

Method Summary

Client: Weston Solutions, Inc.

Job ID: 320-74814-4

Project/Site: Argonaut Mine Removal - START Region 9

Method	Method Description	Protocol	Laboratory
8141A	Organophosphorous Pesticides (GC)	SW846	TAL DEN
8151A	Herbicides (GC)	SW846	TAL DEN
7196A	Chromium, Hexavalent	SW846	TAL DEN
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	TAL DEN
3540C	Soxhlet Extraction	SW846	TAL DEN
8151A	Extraction (Herbicides)	SW846	TAL DEN

Protocol References:

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

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary


Client: Weston Solutions, Inc.

Job ID: 320-74814-4

Project/Site: Argonaut Mine Removal - START Region 9

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-74814-1	Cemex-Backfill 2	Solid	06/10/21 14:10	06/10/21 15:15	

Address:

TAL-8210		Regulatory Program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other:	
Client Contact Company Name: Western Solutions Address: 2500 Clayton Rd Ste 200 City/State/Zip: Concord, CA 94520 Phone: Fax: Project Name: Argonaut Mine Remediation Site: PO #		Project Manager: Greg Reinos Tel/Email: 513-664-4797 Analysis Turnaround Time <input type="checkbox"/> Calendar Days <input type="checkbox"/> Working Days TAT if different from Below <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input checked="" type="checkbox"/> 1 day	
Site Contact: Greg Reinos Date: 6/10/11 Lab Contact: David Allcock Carrier:		COC No: 1 of 1 COCs Sampler: Craig Thelie For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.: Sample Specific Notes:	
Filtered Sample (Y/N) Perform MS / MSD (Y/N)		Date: 6/10/11 Time: 1410 Matrix: C S B Sample Type (C=Comp, G=Grab) Sample Date: 6/10/11 Sample Time: 1410 # of Cont: 5	
Title: 222222 - 6010/1410 Cemex - Backfill 2		 320-74814 Chain of Custody	
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.			
Special Instructions/QC Requirements & Comments:			
Relinquished by: Greg Thelie Relinquished by:		Received by: [Signature] Received by: [Signature] Received in Laboratory by: [Signature]	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temp. (°C): Obs'd: 19.3 Cor'd: 19.3 Therm ID No.: 1-02	
Company: Western Company: [Signature] Company: WRS Inc		Date/Time: 6/10/11 1500 Date/Time: 6/10/11 1500 Date/Time: 6/10/11 1515	

Chain of Custody Record

Client Information (Sub Contract Lab)				Lab PM Gonzales, Justin		Carrier Tracking No(s) 320-228065.1	
Client Contact Shipping/Receiving				E-Mail Justin.Gonzales@Eurofins.com		Page Page 1 of 1	
Company TestAmerica Laboratories, Inc.				Accreditations Required (See note): State - California		Job # 320-74814-1	
Address 4955 Yarrow Street, City Arvada State, Zip CO, 80002 Phone 303-736-0100(Tel) 303-431-7171(Fax) Email				Due Date Requested: 6/23/2021		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice J - DI Water U - Acetone K - EDTA V - MCAA W - pH 4-5 L - EDA Z - other (specify) Other:	
TAT Requested (days):				Analysis Requested		Total Number of containers	
PO #				Field Filtered Sample (Yes or No)		8151A/8151A_SP Herbicide (Aqueous)	
WO #				Perform MS/MSD (Yes or No)		7196A/3060A	
Project #				8141A/3540C Standard 8141 list		8151A/8151A_SP Herbicide (Aqueous)	
SSOW#				Sample Date		Sample Time	
Project Name Argonaut Mine Removal - START Region 9				Sample Date 6/10/21		Sample Time 14:10 Pacific	
Site				Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=unknown)	
Sample Identification - Client ID (Lab ID)				Preservation Code:		Solid	
Cemex-Backfill 2 (320-74814-1)				Special Instructions/Note:		1	
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica</p>							
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
Unconfirmed				Return To Client <input type="checkbox"/> Archive For <input type="checkbox"/> Months			
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:			
Empty Kit Relinquished by:				Method of Shipment			
Relinquished by				Date/Time			
Relinquished by				Date/Time			
Relinquished by				Date/Time			
Custody Seals Intact: Yes <input type="checkbox"/> No <input type="checkbox"/>				Custody Seal No.:			

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 320-74814-4

Login Number: 74814

List Number: 1

Creator: Guzman, Juan

List Source: Eurofins TestAmerica, Sacramento

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

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 320-74814-4

Login Number: 74814

List Number: 2

Creator: Dubicki, Adam L

List Source: Eurofins TestAmerica, Denver

List Creation: 06/12/21 01:25 PM

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

ANALYTICAL REPORT

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


Laboratory Job ID: 320-76011-1

Client Project/Site: Argonaut Mine Removal - START Region 9

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Kelly Luck



Authorized for release by:
7/15/2021 10:04:31 AM

Justinn Gonzales, Project Manager I
(925)484-1919
Justinn.Gonzales@Eurofinset.com

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.

Job ID: 320-76011-1

Project/Site: Argonaut Mine Removal - START Region 9

Qualifiers

Metals

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
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.
F1	MS and/or MSD recovery exceeds control limits.

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-76011-1

Job ID: 320-76011-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative 320-76011-1

Comments

No additional comments.

Receipt

The samples were received on 7/9/2021 12:20 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 10.4° C.

Receipt Exceptions

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): Samples 1-4, all containers do not have time and date on them. Samples were logged in and labeled according to time and date on COC. AHR-231-1 (320-76011-1), AHR-232-1 (320-76011-2), AHR-234-1 (320-76011-3) and AHR-237-1 (320-76011-4).

The following sample(s) was received at the laboratory outside the required temperature criteria: Cooler received out of temp at 10.4. Temperature blank was provided and was temp at 10.4. Samples were also temp at 13.0c. There is enough ice for cooler to make temp. The Ice bag in cooler looks like it was just put in. As its still it does not look like ice has melted. AHR-231-1 (320-76011-1), AHR-232-1 (320-76011-2), AHR-234-1 (320-76011-3) and AHR-237-1 (320-76011-4).

Metals

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

Detection Summary

Client: Weston Solutions, Inc.

Job ID: 320-76011-1

Project/Site: Argonaut Mine Removal - START Region 9

Client Sample ID: AHR-231-1

Lab Sample ID: 320-76011-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	220		1.9		mg/Kg	1		6010B	Total/NA
Barium	130		0.96		mg/Kg	1		6010B	Total/NA
Cadmium	1.4		0.19		mg/Kg	1		6010B	Total/NA
Chromium	46	F1	0.48		mg/Kg	1		6010B	Total/NA
Cobalt	27		2.4		mg/Kg	5		6010B	Total/NA
Copper	230		7.2		mg/Kg	5		6010B	Total/NA
Lead	660		4.8		mg/Kg	5		6010B	Total/NA
Nickel	59		0.96		mg/Kg	1		6010B	Total/NA
Selenium	1.9		1.9		mg/Kg	1		6010B	Total/NA
Vanadium	98	F1	2.4		mg/Kg	5		6010B	Total/NA
Zinc	410	^2	1.9		mg/Kg	1		6010B	Total/NA
Mercury	1.4		0.22		mg/Kg	5		7471A	Total/NA

Client Sample ID: AHR-232-1

Lab Sample ID: 320-76011-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	49		1.9		mg/Kg	1		6010B	Total/NA
Barium	140		0.97		mg/Kg	1		6010B	Total/NA
Cadmium	0.74		0.19		mg/Kg	1		6010B	Total/NA
Chromium	74		0.49		mg/Kg	1		6010B	Total/NA
Cobalt	28		2.4		mg/Kg	5		6010B	Total/NA
Copper	140		7.3		mg/Kg	5		6010B	Total/NA
Lead	190		4.9		mg/Kg	5		6010B	Total/NA
Nickel	42		0.97		mg/Kg	1		6010B	Total/NA
Vanadium	150		2.4		mg/Kg	5		6010B	Total/NA
Zinc	330	^2	1.9		mg/Kg	1		6010B	Total/NA
Mercury	0.55		0.038		mg/Kg	1		7471A	Total/NA

Client Sample ID: AHR-234-1

Lab Sample ID: 320-76011-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	4.3		1.9		mg/Kg	1		6010B	Total/NA
Arsenic	200		1.9		mg/Kg	1		6010B	Total/NA
Barium	270		0.95		mg/Kg	1		6010B	Total/NA
Cadmium	1.8		0.19		mg/Kg	1		6010B	Total/NA
Chromium	61		0.48		mg/Kg	1		6010B	Total/NA
Cobalt	22		0.48		mg/Kg	1		6010B	Total/NA
Copper	180		1.4		mg/Kg	1		6010B	Total/NA
Lead	2300		0.95		mg/Kg	1		6010B	Total/NA
Nickel	78		0.95		mg/Kg	1		6010B	Total/NA
Silver	13		0.48		mg/Kg	1		6010B	Total/NA
Vanadium	84		0.48		mg/Kg	1		6010B	Total/NA
Zinc	710	^2	1.9		mg/Kg	1		6010B	Total/NA
Mercury	14		1.8		mg/Kg	50		7471A	Total/NA

Client Sample ID: AHR-237-1

Lab Sample ID: 320-76011-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	210		2.0		mg/Kg	1		6010B	Total/NA
Barium	260		1.0		mg/Kg	1		6010B	Total/NA
Cadmium	2.4		0.20		mg/Kg	1		6010B	Total/NA
Chromium	77		0.50		mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Detection Summary

Client: Weston Solutions, Inc.

Job ID: 320-76011-1

Project/Site: Argonaut Mine Removal - START Region 9

Client Sample ID: AHR-237-1 (Continued)

Lab Sample ID: 320-76011-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	31		2.5		mg/Kg	5		6010B	Total/NA
Copper	310		7.5		mg/Kg	5		6010B	Total/NA
Lead	3400		5.0		mg/Kg	5		6010B	Total/NA
Molybdenum	2.4		2.0		mg/Kg	1		6010B	Total/NA
Nickel	93		1.0		mg/Kg	1		6010B	Total/NA
Silver	11		2.5		mg/Kg	5		6010B	Total/NA
Vanadium	110		2.5		mg/Kg	5		6010B	Total/NA
Zinc	1100		10		mg/Kg	5		6010B	Total/NA
Mercury	5.2		0.39		mg/Kg	10		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-76011-1

Client Sample ID: AHR-231-1

Lab Sample ID: 320-76011-1

Date Collected: 06/30/21 10:30

Matrix: Solid

Date Received: 07/09/21 12:20

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	F1	9.6		mg/Kg		07/13/21 13:48	07/14/21 11:56	5
Arsenic	220		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:02	1
Barium	130		0.96		mg/Kg		07/13/21 13:48	07/14/21 11:02	1
Beryllium	ND		0.96		mg/Kg		07/13/21 13:48	07/14/21 11:56	5
Cadmium	1.4		0.19		mg/Kg		07/13/21 13:48	07/14/21 11:02	1
Chromium	46	F1	0.48		mg/Kg		07/13/21 13:48	07/14/21 11:02	1
Cobalt	27		2.4		mg/Kg		07/13/21 13:48	07/14/21 11:56	5
Copper	230		7.2		mg/Kg		07/13/21 13:48	07/14/21 11:56	5
Lead	660		4.8		mg/Kg		07/13/21 13:48	07/14/21 11:56	5
Molybdenum	ND	F1	1.9		mg/Kg		07/13/21 13:48	07/14/21 11:02	1
Nickel	59		0.96		mg/Kg		07/13/21 13:48	07/14/21 11:02	1
Selenium	1.9		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:02	1
Silver	ND		2.4		mg/Kg		07/13/21 13:48	07/14/21 11:56	5
Thallium	ND		9.6		mg/Kg		07/13/21 13:48	07/14/21 11:56	5
Vanadium	98	F1	2.4		mg/Kg		07/13/21 13:48	07/14/21 11:56	5
Zinc	410	^2	1.9		mg/Kg		07/13/21 13:48	07/14/21 11:02	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.4		0.22		mg/Kg		07/13/21 07:00	07/13/21 12:08	5

Client Sample ID: AHR-232-1

Lab Sample ID: 320-76011-2

Date Collected: 06/30/21 10:30

Matrix: Solid

Date Received: 07/09/21 12:20

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.7		mg/Kg		07/13/21 13:48	07/14/21 12:17	5
Arsenic	49		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:23	1
Barium	140		0.97		mg/Kg		07/13/21 13:48	07/14/21 11:23	1
Beryllium	ND		0.97		mg/Kg		07/13/21 13:48	07/14/21 12:17	5
Cadmium	0.74		0.19		mg/Kg		07/13/21 13:48	07/14/21 11:23	1
Chromium	74		0.49		mg/Kg		07/13/21 13:48	07/14/21 11:23	1
Cobalt	28		2.4		mg/Kg		07/13/21 13:48	07/14/21 12:17	5
Copper	140		7.3		mg/Kg		07/13/21 13:48	07/14/21 12:17	5
Lead	190		4.9		mg/Kg		07/13/21 13:48	07/14/21 12:17	5
Molybdenum	ND		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:23	1
Nickel	42		0.97		mg/Kg		07/13/21 13:48	07/14/21 11:23	1
Selenium	ND		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:23	1
Silver	ND		2.4		mg/Kg		07/13/21 13:48	07/14/21 12:17	5
Thallium	ND		9.7		mg/Kg		07/13/21 13:48	07/14/21 12:17	5
Vanadium	150		2.4		mg/Kg		07/13/21 13:48	07/14/21 12:17	5
Zinc	330	^2	1.9		mg/Kg		07/13/21 13:48	07/14/21 11:23	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.55		0.038		mg/Kg		07/13/21 07:00	07/13/21 12:10	1

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-76011-1

Client Sample ID: AHR-234-1

Lab Sample ID: 320-76011-3

Date Collected: 07/05/21 10:50

Matrix: Solid

Date Received: 07/09/21 12:20

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	4.3		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Arsenic	200		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Barium	270		0.95		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Beryllium	ND		0.19		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Cadmium	1.8		0.19		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Chromium	61		0.48		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Cobalt	22		0.48		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Copper	180		1.4		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Lead	2300		0.95		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Molybdenum	ND		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Nickel	78		0.95		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Selenium	ND		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Silver	13		0.48		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Thallium	ND		1.9		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Vanadium	84		0.48		mg/Kg		07/13/21 13:48	07/14/21 11:27	1
Zinc	710	^2	1.9		mg/Kg		07/13/21 13:48	07/14/21 11:27	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	14		1.8		mg/Kg		07/13/21 07:00	07/13/21 12:16	50

Client Sample ID: AHR-237-1

Lab Sample ID: 320-76011-4

Date Collected: 07/05/21 11:20

Matrix: Solid

Date Received: 07/09/21 12:20

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Arsenic	210		2.0		mg/Kg		07/13/21 13:48	07/14/21 11:31	1
Barium	260		1.0		mg/Kg		07/13/21 13:48	07/14/21 11:31	1
Beryllium	ND		1.0		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Cadmium	2.4		0.20		mg/Kg		07/13/21 13:48	07/14/21 11:31	1
Chromium	77		0.50		mg/Kg		07/13/21 13:48	07/14/21 11:31	1
Cobalt	31		2.5		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Copper	310		7.5		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Lead	3400		5.0		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Molybdenum	2.4		2.0		mg/Kg		07/13/21 13:48	07/14/21 11:31	1
Nickel	93		1.0		mg/Kg		07/13/21 13:48	07/14/21 11:31	1
Selenium	ND		10		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Silver	11		2.5		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Thallium	ND		10		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Vanadium	110		2.5		mg/Kg		07/13/21 13:48	07/14/21 12:41	5
Zinc	1100		10		mg/Kg		07/13/21 13:48	07/14/21 12:41	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	5.2		0.39		mg/Kg		07/13/21 07:00	07/13/21 12:18	10

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-76011-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 320-506169/1-A
Matrix: Solid
Analysis Batch: 506739

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 506169

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		mg/Kg		07/13/21 13:48	07/14/21 10:54	1
Arsenic	ND		2.0		mg/Kg		07/13/21 13:48	07/14/21 10:54	1
Barium	ND		1.0		mg/Kg		07/13/21 13:48	07/14/21 10:54	1
Beryllium	ND		0.20		mg/Kg		07/13/21 13:48	07/14/21 10:54	1
Cadmium	ND		0.20		mg/Kg		07/13/21 13:48	07/14/21 10:54	1
Chromium	ND		0.50		mg/Kg		07/13/21 13:48	07/14/21 10:54	1
Cobalt	ND		0.50		mg/Kg		07/13/21 13:48	07/14/21 10:54	1
Copper	ND		1.5		mg/Kg		07/13/21 13:48	07/14/21 10:54	1
Lead	ND		1.0		mg/Kg		07/13/21 13:48	07/14/21 10:54	1
Molybdenum	ND		2.0		mg/Kg		07/13/21 13:48	07/14/21 10:54	1
Nickel	ND		1.0		mg/Kg		07/13/21 13:48	07/14/21 10:54	1
Selenium	ND		2.0		mg/Kg		07/13/21 13:48	07/14/21 10:54	1
Silver	ND		0.50		mg/Kg		07/13/21 13:48	07/14/21 10:54	1
Thallium	ND		2.0		mg/Kg		07/13/21 13:48	07/14/21 10:54	1
Vanadium	ND		0.50		mg/Kg		07/13/21 13:48	07/14/21 10:54	1
Zinc	ND		2.0		mg/Kg		07/13/21 13:48	07/14/21 10:54	1

Lab Sample ID: LCS 320-506169/2-A
Matrix: Solid
Analysis Batch: 506739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 506169

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	50.0	44.6		mg/Kg		89	80 - 120
Arsenic	50.0	43.5		mg/Kg		87	80 - 120
Barium	50.0	43.5		mg/Kg		87	80 - 120
Beryllium	25.0	22.4		mg/Kg		89	80 - 120
Cadmium	25.0	22.5		mg/Kg		90	80 - 120
Chromium	25.0	23.1		mg/Kg		92	80 - 120
Cobalt	25.0	23.5		mg/Kg		94	80 - 120
Copper	25.0	22.3		mg/Kg		89	80 - 120
Lead	25.0	23.4		mg/Kg		94	80 - 120
Molybdenum	25.0	23.1		mg/Kg		92	80 - 120
Nickel	25.0	22.6		mg/Kg		90	80 - 120
Selenium	50.0	43.7		mg/Kg		87	80 - 120
Silver	5.05	4.77		mg/Kg		94	80 - 120
Thallium	50.0	47.0		mg/Kg		94	80 - 120
Vanadium	25.0	23.3		mg/Kg		93	80 - 120
Zinc	50.0	46.8		mg/Kg		94	80 - 120

Lab Sample ID: 320-76011-1 MS
Matrix: Solid
Analysis Batch: 506739

Client Sample ID: AHR-231-1
Prep Type: Total/NA
Prep Batch: 506169

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	220		49.5	263	4	mg/Kg		96	80 - 120
Barium	130		49.5	179		mg/Kg		92	80 - 120
Cadmium	1.4		24.8	22.6		mg/Kg		86	80 - 120
Chromium	46	F1	24.8	75.9		mg/Kg		119	80 - 120
Molybdenum	ND	F1	24.8	20.7	F1	mg/Kg		77	80 - 120

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-76011-1

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

Lab Sample ID: 320-76011-1 MS

Matrix: Solid

Analysis Batch: 506739

Client Sample ID: AHR-231-1

Prep Type: Total/NA

Prep Batch: 506169

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nickel	59		24.8	82.5		mg/Kg		94	80 - 120
Selenium	1.9		49.5	42.2		mg/Kg		81	80 - 120
Zinc	410	^2	49.5	461	4	mg/Kg		111	80 - 120

Lab Sample ID: 320-76011-1 MS

Matrix: Solid

Analysis Batch: 506739

Client Sample ID: AHR-231-1

Prep Type: Total/NA

Prep Batch: 506169

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND	F1	49.5	ND	F1	mg/Kg		16	80 - 120
Beryllium	ND		24.8	21.7		mg/Kg		88	80 - 120
Cobalt	27		24.8	51.2		mg/Kg		99	80 - 120
Copper	230		24.7	260	4	mg/Kg		108	80 - 120
Lead	660		24.8	685	4	mg/Kg		109	80 - 120
Silver	ND		5.00	5.70		mg/Kg		95	80 - 120
Thallium	ND		49.5	48.7		mg/Kg		98	80 - 120
Vanadium	98	F1	24.8	132	F1	mg/Kg		136	80 - 120

Lab Sample ID: 320-76011-1 MSD

Matrix: Solid

Analysis Batch: 506739

Client Sample ID: AHR-231-1

Prep Type: Total/NA

Prep Batch: 506169

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	220		47.6	260	4	mg/Kg		95	80 - 120	1	35
Barium	130		47.6	183		mg/Kg		105	80 - 120	2	35
Cadmium	1.4		23.8	22.1		mg/Kg		87	80 - 120	2	35
Chromium	46	F1	23.8	76.4	F1	mg/Kg		126	80 - 120	1	35
Molybdenum	ND	F1	23.8	20.4	F1	mg/Kg		79	80 - 120	2	35
Nickel	59		23.8	83.2		mg/Kg		101	80 - 120	1	35
Selenium	1.9		47.6	41.1		mg/Kg		82	80 - 120	3	35
Zinc	410	^2	47.6	467	4	mg/Kg		128	80 - 120	1	35

Lab Sample ID: 320-76011-1 MSD

Matrix: Solid

Analysis Batch: 506739

Client Sample ID: AHR-231-1

Prep Type: Total/NA

Prep Batch: 506169

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	ND	F1	47.6	ND	F1	mg/Kg		17	80 - 120	5	35
Beryllium	ND		23.8	22.0		mg/Kg		92	80 - 120	1	35
Cobalt	27		23.8	51.3		mg/Kg		103	80 - 120	0	35
Copper	230		23.8	261	4	mg/Kg		115	80 - 120	0	35
Lead	660		23.8	695	4	mg/Kg		153	80 - 120	1	35
Silver	ND		4.81	5.38		mg/Kg		93	80 - 120	6	35
Thallium	ND		47.6	47.5		mg/Kg		100	80 - 120	3	35
Vanadium	98	F1	23.8	133	4	mg/Kg		146	80 - 120	1	35

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-76011-1

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 320-506015/11-A

Matrix: Solid

Analysis Batch: 506125

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 506015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.040		mg/Kg		07/13/21 07:00	07/13/21 09:15	1

Lab Sample ID: LCS 320-506015/12-A

Matrix: Solid

Analysis Batch: 506125

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 506015

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.169		mg/Kg		101	86 - 114

Lab Sample ID: LCSD 320-506015/35-A

Matrix: Solid

Analysis Batch: 506125

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 506015

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.167	0.171		mg/Kg		102	86 - 114	1	17

QC Association Summary

Client: Weston Solutions, Inc.

Job ID: 320-76011-1

Project/Site: Argonaut Mine Removal - START Region 9

Metals

Prep Batch: 506015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-76011-1	AHR-231-1	Total/NA	Solid	7471A	
320-76011-2	AHR-232-1	Total/NA	Solid	7471A	
320-76011-3	AHR-234-1	Total/NA	Solid	7471A	
320-76011-4	AHR-237-1	Total/NA	Solid	7471A	
MB 320-506015/11-A	Method Blank	Total/NA	Solid	7471A	
LCS 320-506015/12-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 320-506015/35-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

Analysis Batch: 506125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-506015/11-A	Method Blank	Total/NA	Solid	7471A	506015
LCS 320-506015/12-A	Lab Control Sample	Total/NA	Solid	7471A	506015
LCSD 320-506015/35-A	Lab Control Sample Dup	Total/NA	Solid	7471A	506015

Analysis Batch: 506168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-76011-1	AHR-231-1	Total/NA	Solid	7471A	506015
320-76011-2	AHR-232-1	Total/NA	Solid	7471A	506015
320-76011-3	AHR-234-1	Total/NA	Solid	7471A	506015
320-76011-4	AHR-237-1	Total/NA	Solid	7471A	506015

Prep Batch: 506169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-76011-1	AHR-231-1	Total/NA	Solid	3050B	
320-76011-2	AHR-232-1	Total/NA	Solid	3050B	
320-76011-3	AHR-234-1	Total/NA	Solid	3050B	
320-76011-4	AHR-237-1	Total/NA	Solid	3050B	
MB 320-506169/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 320-506169/2-A	Lab Control Sample	Total/NA	Solid	3050B	
320-76011-1 MS	AHR-231-1	Total/NA	Solid	3050B	
320-76011-1 MSD	AHR-231-1	Total/NA	Solid	3050B	

Analysis Batch: 506739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-76011-1	AHR-231-1	Total/NA	Solid	6010B	506169
320-76011-1	AHR-231-1	Total/NA	Solid	6010B	506169
320-76011-2	AHR-232-1	Total/NA	Solid	6010B	506169
320-76011-2	AHR-232-1	Total/NA	Solid	6010B	506169
320-76011-3	AHR-234-1	Total/NA	Solid	6010B	506169
320-76011-4	AHR-237-1	Total/NA	Solid	6010B	506169
320-76011-4	AHR-237-1	Total/NA	Solid	6010B	506169
MB 320-506169/1-A	Method Blank	Total/NA	Solid	6010B	506169
LCS 320-506169/2-A	Lab Control Sample	Total/NA	Solid	6010B	506169
320-76011-1 MS	AHR-231-1	Total/NA	Solid	6010B	506169
320-76011-1 MS	AHR-231-1	Total/NA	Solid	6010B	506169
320-76011-1 MSD	AHR-231-1	Total/NA	Solid	6010B	506169
320-76011-1 MSD	AHR-231-1	Total/NA	Solid	6010B	506169

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-76011-1

Client Sample ID: AHR-231-1

Lab Sample ID: 320-76011-1

Date Collected: 06/30/21 10:30

Matrix: Solid

Date Received: 07/09/21 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	100 mL	506169	07/13/21 13:48	JP	TAL SAC
Total/NA	Analysis	6010B		1			506739	07/14/21 11:02	SP	TAL SAC
Total/NA	Prep	3050B			1.04 g	100 mL	506169	07/13/21 13:48	JP	TAL SAC
Total/NA	Analysis	6010B		5			506739	07/14/21 11:56	SP	TAL SAC
Total/NA	Prep	7471A			0.55 g	50 mL	506015	07/13/21 07:00	IM	TAL SAC
Total/NA	Analysis	7471A		5			506168	07/13/21 12:08	IM	TAL SAC

Client Sample ID: AHR-232-1

Lab Sample ID: 320-76011-2

Date Collected: 06/30/21 10:30

Matrix: Solid

Date Received: 07/09/21 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	100 mL	506169	07/13/21 13:48	JP	TAL SAC
Total/NA	Analysis	6010B		1			506739	07/14/21 11:23	SP	TAL SAC
Total/NA	Prep	3050B			1.03 g	100 mL	506169	07/13/21 13:48	JP	TAL SAC
Total/NA	Analysis	6010B		5			506739	07/14/21 12:17	SP	TAL SAC
Total/NA	Prep	7471A			0.63 g	50 mL	506015	07/13/21 07:00	IM	TAL SAC
Total/NA	Analysis	7471A		1			506168	07/13/21 12:10	IM	TAL SAC

Client Sample ID: AHR-234-1

Lab Sample ID: 320-76011-3

Date Collected: 07/05/21 10:50

Matrix: Solid

Date Received: 07/09/21 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	100 mL	506169	07/13/21 13:48	JP	TAL SAC
Total/NA	Analysis	6010B		1			506739	07/14/21 11:27	SP	TAL SAC
Total/NA	Prep	7471A			0.65 g	50 mL	506015	07/13/21 07:00	IM	TAL SAC
Total/NA	Analysis	7471A		50			506168	07/13/21 12:16	IM	TAL SAC

Client Sample ID: AHR-237-1

Lab Sample ID: 320-76011-4

Date Collected: 07/05/21 11:20

Matrix: Solid

Date Received: 07/09/21 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.00 g	100 mL	506169	07/13/21 13:48	JP	TAL SAC
Total/NA	Analysis	6010B		1			506739	07/14/21 11:31	SP	TAL SAC
Total/NA	Prep	3050B			1.00 g	100 mL	506169	07/13/21 13:48	JP	TAL SAC
Total/NA	Analysis	6010B		5			506739	07/14/21 12:41	SP	TAL SAC
Total/NA	Prep	7471A			0.61 g	50 mL	506015	07/13/21 07:00	IM	TAL SAC
Total/NA	Analysis	7471A		10			506168	07/13/21 12:18	IM	TAL SAC

Laboratory References:

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

Eurofins TestAmerica, Sacramento

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Removal - START Region 9

Job ID: 320-76011-1

Laboratory: Eurofins TestAmerica, Sacramento

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

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

Method Summary

Client: Weston Solutions, Inc.

Job ID: 320-76011-1

Project/Site: Argonaut Mine Removal - START Region 9

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SAC
7471A	Mercury (CVAA)	SW846	TAL SAC
3050B	Preparation, Metals	SW846	TAL SAC
7471A	Preparation, Mercury	SW846	TAL SAC

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Weston Solutions, Inc.

Job ID: 320-76011-1




Project/Site: Argonaut Mine Removal - START Region 9

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-76011-1	AHR-231-1	Solid	06/30/21 10:30	07/09/21 12:20	
320-76011-2	AHR-232-1	Solid	06/30/21 10:30	07/09/21 12:20	
320-76011-3	AHR-234-1	Solid	07/05/21 10:50	07/09/21 12:20	
320-76011-4	AHR-237-1	Solid	07/05/21 11:20	07/09/21 12:20	

West Sacramento, CA 95605-1500
phone 916.373.5600 fax 303.467.7248

TestAmerica Laboratories, Inc. db/a Eurofins TestAmerica

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Greg Roussos		Site Contact: Greg Roussos		Date: 7/9/2021		COC No: 07092021		
Weston Solutions		Email: greg.roussos@westonsolutions.com		Lab Contact: David Alltucker		Carrier: FEDEX		TALS Project #:		
2300 Clayton Road, #900		Tel/Fax: 513-604-4797		Analysis Turnaround Time		Sampler: GR		For Lab Use Only:		
Concord, CA 94520		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		TAT if different from Below		Walk-in Client:		Lab Sampling:		
Phone: 513-604-4797		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				Job / SDG No.:				
Project Name: Argonaut Mine Headframe Removal										
Site: Argonaut Mine Headframe										
P O #: 0104258										
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Arsenic and Lead by 6010B	Mercury by 7471A	Sample Specific Notes:
AHR-231-1	6/30/2021	10:30	C	Soil	1			x	x	
AHR-232-1	6/30/2021	10:30	C	Soil	1			x	x	
AHR-234-1	7/5/2021	10:50	C	Soil	1			x	x	
AHR-237-1	7/5/2021	11:20	C	Soil	1			x	x	
 320-76011 Chain of Custody										
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.										
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown										
Special Instructions/QC Requirements & Comments:										
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: 10.1		Corr'd: 10.1		Therm ID No: 102		
Relinquished by: 		Company: Weston Solutions		Received by: 		Company: EPA		Date/Time: 7-9-21 / 12:20		
Relinquished by:		Company:		Received by:		Company:		Date/Time:		
Relinquished by:		Company:		Received in Laboratory by:		Company:		Date/Time:		

* NO time, date or containers SD 7/9/21

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 320-76011-1

Login Number: 76011

List Source: Eurofins TestAmerica, Sacramento

List Number: 1

Creator: Oropeza, Salvador

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

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-165200-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos



Authorized for release by:
6/14/2021 6:32:31 PM

Carlene McCutcheon, Project Manager II
(602)659-7612
Carlene.McCutcheon@Eurofinset.com

LINKS

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www.eurofinsus.com/Env

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Qualifiers

IH - Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Glossary

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Job ID: 550-165200-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative 550-165200-1

Comments

No additional comments.

Receipt

The samples were received on 6/10/2021 10:15 AM. Unless otherwise noted below, the samples arrived in good condition.

Receipt Exceptions

These 2 samples have nothing written on the sample labels, they are randomly labeled.
AHR-AM04-060821-M (550-165200-15) and AHR-AM04-060821-Hg (550-165200-16).

The samples do not have 1 and/or 2 on the sample labels, they only have Background on the label.
They are randomly labeled. AHR-Background-1 (550-165200-17) and AHR-Background-2 (550-165200-18).

Metals

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

IH - Metals

Method 145: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-244979 and analytical batch 550-245099.

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

Industrial Hygiene

Method 7300: The continuing calibration verification (CCV) associated with batch 550-245232 recovered above the upper control limit for Arsenic. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Methods 7300, 7303: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-245130 and analytical batch 550-245232.

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

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-165200-1	AHR-AM01-060721-M	Air	06/07/21 00:00	06/10/21 10:15	
550-165200-2	AHR-AM01-060721-Hg	Air	06/07/21 00:00	06/10/21 10:15	
550-165200-3	AHR-AM02-060721-M	Air	06/07/21 00:00	06/10/21 10:15	
550-165200-4	AHR-AM02-060721-Hg	Air	06/07/21 00:00	06/10/21 10:15	
550-165200-5	AHR-AM03-060721-M	Air	06/07/21 00:00	06/10/21 10:15	
550-165200-6	AHR-AM03-060721-Hg	Air	06/07/21 00:00	06/10/21 10:15	
550-165200-7	AHR-AM04-060721-M	Air	06/07/21 00:00	06/10/21 10:15	
550-165200-8	AHR-AM04-060721-Hg	Air	06/07/21 00:00	06/10/21 10:15	
550-165200-9	AHR-AM01-060821-M	Air	06/08/21 00:00	06/10/21 10:15	
550-165200-10	AHR-AM01-060821-Hg	Air	06/08/21 00:00	06/10/21 10:15	
550-165200-11	AHR-AM02-060821-M	Air	06/08/21 00:00	06/10/21 10:15	
550-165200-12	AHR-AM02-060821-Hg	Air	06/08/21 00:00	06/10/21 10:15	
550-165200-13	AHR-AM03-060821-M	Air	06/08/21 00:00	06/10/21 10:15	
550-165200-14	AHR-AM03-060821-Hg	Air	06/08/21 00:00	06/10/21 10:15	
550-165200-15	AHR-AM04-060821-M	Air	06/08/21 00:00	06/10/21 10:15	
550-165200-16	AHR-AM04-060821-Hg	Air	06/08/21 00:00	06/10/21 10:15	
550-165200-17	AHR-Background-1	Air	06/01/21 00:00	06/10/21 10:15	
550-165200-18	AHR-Background-2	Air	06/01/21 00:00	06/10/21 10:15	
550-165200-19	AHR-AM01-060521-M	Air	06/05/21 00:00	06/10/21 10:15	
550-165200-20	AHR-AM01-060521-Hg	Air	06/05/21 00:00	06/10/21 10:15	
550-165200-21	AHR-AM02-060521-M	Air	06/05/21 00:00	06/10/21 10:15	
550-165200-22	AHR-AM02-060521-Hg	Air	06/05/21 00:00	06/10/21 10:15	
550-165200-23	AHR-AM03-060521-M	Air	06/05/21 00:00	06/10/21 10:15	
550-165200-24	AHR-AM03-060521-Hg	Air	06/05/21 00:00	06/10/21 10:15	
550-165200-25	AHR-AM04-060521-M	Air	06/05/21 00:00	06/10/21 10:15	
550-165200-26	AHR-AM04-060521-Hg	Air	06/05/21 00:00	06/10/21 10:15	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-060721-M

Lab Sample ID: 550-165200-1

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Dil Fac	Method	Prep Type
Lead	0.678	0.000561		0.250	1	7300	Total/NA

Client Sample ID: AHR-AM01-060721-Hg

Lab Sample ID: 550-165200-2

No Detections.

Client Sample ID: AHR-AM02-060721-M

Lab Sample ID: 550-165200-3

No Detections.

Client Sample ID: AHR-AM02-060721-Hg

Lab Sample ID: 550-165200-4

No Detections.

Client Sample ID: AHR-AM03-060721-M

Lab Sample ID: 550-165200-5

No Detections.

Client Sample ID: AHR-AM03-060721-Hg

Lab Sample ID: 550-165200-6

No Detections.

Client Sample ID: AHR-AM04-060721-M

Lab Sample ID: 550-165200-7

No Detections.

Client Sample ID: AHR-AM04-060721-Hg

Lab Sample ID: 550-165200-8

No Detections.

Client Sample ID: AHR-AM01-060821-M

Lab Sample ID: 550-165200-9

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Dil Fac	Method	Prep Type
Lead	0.935	0.000793		0.250	1	7300	Total/NA

Client Sample ID: AHR-AM01-060821-Hg

Lab Sample ID: 550-165200-10

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Dil Fac	Method	Prep Type
Hg	0.0537	0.0000452		0.0500	1	145	Total/NA

Client Sample ID: AHR-AM02-060821-M

Lab Sample ID: 550-165200-11

No Detections.

Client Sample ID: AHR-AM02-060821-Hg

Lab Sample ID: 550-165200-12

No Detections.

Client Sample ID: AHR-AM03-060821-M

Lab Sample ID: 550-165200-13

No Detections.

Client Sample ID: AHR-AM03-060821-Hg

Lab Sample ID: 550-165200-14

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-060821-M	Lab Sample ID: 550-165200-15
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☐ No Detections.

Client Sample ID: AHR-AM04-060821-Hg	Lab Sample ID: 550-165200-16
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☐ No Detections.

Client Sample ID: AHR-Background-1	Lab Sample ID: 550-165200-17
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☐ No Detections.

Client Sample ID: AHR-Background-2	Lab Sample ID: 550-165200-18
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☐ No Detections.

Client Sample ID: AHR-AM01-060521-M	Lab Sample ID: 550-165200-19
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☐ No Detections.

Client Sample ID: AHR-AM01-060521-Hg	Lab Sample ID: 550-165200-20
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☐ No Detections.

Client Sample ID: AHR-AM02-060521-M	Lab Sample ID: 550-165200-21
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☐ No Detections.

Client Sample ID: AHR-AM02-060521-Hg	Lab Sample ID: 550-165200-22
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☐ No Detections.

Client Sample ID: AHR-AM03-060521-M	Lab Sample ID: 550-165200-23
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☐ No Detections.

Client Sample ID: AHR-AM03-060521-Hg	Lab Sample ID: 550-165200-24
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☐ No Detections.

Client Sample ID: AHR-AM04-060521-M	Lab Sample ID: 550-165200-25
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☐ No Detections.

Client Sample ID: AHR-AM04-060521-Hg	Lab Sample ID: 550-165200-26
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☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-060721-M

Lab Sample ID: 550-165200-1

Date Collected: 06/07/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1207.1 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000414	^+	0.500	06/14/21 05:04	06/14/21 14:06	1
Lead	0.678	0.000561		0.250	06/14/21 05:04	06/14/21 14:06	1

Client Sample ID: AHR-AM01-060721-Hg

Lab Sample ID: 550-165200-2

Date Collected: 06/07/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1253.85 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000399		0.0500	06/10/21 22:30	06/11/21 18:20	1

Client Sample ID: AHR-AM02-060721-M

Lab Sample ID: 550-165200-3

Date Collected: 06/07/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1283.05 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000390	^+	0.500	06/14/21 05:04	06/14/21 14:10	1
Lead	<0.250	<0.000195		0.250	06/14/21 05:04	06/14/21 14:10	1

Client Sample ID: AHR-AM02-060721-Hg

Lab Sample ID: 550-165200-4

Date Collected: 06/07/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1224.01 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000408		0.0500	06/10/21 22:30	06/11/21 18:22	1

Client Sample ID: AHR-AM03-060721-M

Lab Sample ID: 550-165200-5

Date Collected: 06/07/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1228.15 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000407	^+	0.500	06/14/21 05:04	06/14/21 14:14	1
Lead	<0.250	<0.000204		0.250	06/14/21 05:04	06/14/21 14:14	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-060721-Hg

Lab Sample ID: 550-165200-6

Date Collected: 06/07/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1194.57 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000419		0.0500	06/10/21 22:30	06/11/21 18:24	1

Client Sample ID: AHR-AM04-060721-M

Lab Sample ID: 550-165200-7

Date Collected: 06/07/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1188.14 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000421	^+	0.500	06/14/21 05:04	06/14/21 14:17	1
Lead	<0.250	<0.000210		0.250	06/14/21 05:04	06/14/21 14:17	1

Client Sample ID: AHR-AM04-060721-Hg

Lab Sample ID: 550-165200-8

Date Collected: 06/07/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1131.89 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000442		0.0500	06/10/21 22:30	06/11/21 18:26	1

Client Sample ID: AHR-AM01-060821-M

Lab Sample ID: 550-165200-9

Date Collected: 06/08/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1179.14 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000424	^+	0.500	06/14/21 05:04	06/14/21 14:21	1
Lead	0.935	0.000793		0.250	06/14/21 05:04	06/14/21 14:21	1

Client Sample ID: AHR-AM01-060821-Hg

Lab Sample ID: 550-165200-10

Date Collected: 06/08/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1188.24 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	0.0537	0.0000452		0.0500	06/10/21 22:30	06/11/21 18:28	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM02-060821-M

Lab Sample ID: 550-165200-11

Date Collected: 06/08/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1179.00 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000424	^+	0.500	06/14/21 05:04	06/14/21 14:25	1
Lead	<0.250	<0.000212		0.250	06/14/21 05:04	06/14/21 14:25	1

Client Sample ID: AHR-AM02-060821-Hg

Lab Sample ID: 550-165200-12

Date Collected: 06/08/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1137.72 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000439		0.0500	06/10/21 22:30	06/11/21 18:30	1

Client Sample ID: AHR-AM03-060821-M

Lab Sample ID: 550-165200-13

Date Collected: 06/08/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1171.74 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000427	^+	0.500	06/14/21 05:04	06/14/21 14:29	1
Lead	<0.250	<0.000213		0.250	06/14/21 05:04	06/14/21 14:29	1

Client Sample ID: AHR-AM03-060821-Hg

Lab Sample ID: 550-165200-14

Date Collected: 06/08/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1141.40 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000438		0.0500	06/10/21 22:30	06/11/21 18:32	1

Client Sample ID: AHR-AM04-060821-M

Lab Sample ID: 550-165200-15

Date Collected: 06/08/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1128.15 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000443	^+	0.500	06/14/21 05:04	06/14/21 14:33	1
Lead	<0.250	<0.000222		0.250	06/14/21 05:04	06/14/21 14:33	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-060821-Hg

Lab Sample ID: 550-165200-16

Date Collected: 06/08/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1087.2 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000460		0.0500	06/10/21 22:30	06/11/21 18:34	1

Client Sample ID: AHR-Background-1

Lab Sample ID: 550-165200-17

Date Collected: 06/01/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 480 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.00104	^+	0.500	06/14/21 05:04	06/14/21 14:36	1
Lead	<0.250	<0.000521		0.250	06/14/21 05:04	06/14/21 14:36	1

Client Sample ID: AHR-Background-2

Lab Sample ID: 550-165200-18

Date Collected: 06/01/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 480 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.00104	^+	0.500	06/14/21 05:04	06/14/21 14:40	1
Lead	<0.250	<0.000521		0.250	06/14/21 05:04	06/14/21 14:40	1

Client Sample ID: AHR-AM01-060521-M

Lab Sample ID: 550-165200-19

Date Collected: 06/05/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1105.41 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000452		0.500	06/14/21 05:04	06/14/21 14:57	1
Lead	<0.250	<0.000226		0.250	06/14/21 05:04	06/14/21 14:57	1

Client Sample ID: AHR-AM01-060521-Hg

Lab Sample ID: 550-165200-20

Date Collected: 06/05/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1136.02 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000440		0.0500	06/10/21 22:30	06/11/21 18:36	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM02-060521-M

Lab Sample ID: 550-165200-21

Date Collected: 06/05/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1137.10 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000440			0.500	06/14/21 05:04	06/14/21 15:01	1
Lead	<0.250	<0.000220			0.250	06/14/21 05:04	06/14/21 15:01	1

Client Sample ID: AHR-AM02-060521-Hg

Lab Sample ID: 550-165200-22

Date Collected: 06/05/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1132.90 L

Sample Container: IH - Anasorb C300, 200 mg

Method: 145 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000441			0.0500	06/10/21 22:30	06/11/21 18:38	1

Client Sample ID: AHR-AM03-060521-M

Lab Sample ID: 550-165200-23

Date Collected: 06/05/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1141.10 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000438			0.500	06/14/21 05:04	06/14/21 15:05	1
Lead	<0.250	<0.000219			0.250	06/14/21 05:04	06/14/21 15:05	1

Client Sample ID: AHR-AM03-060521-Hg

Lab Sample ID: 550-165200-24

Date Collected: 06/05/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1107.74 L

Sample Container: IH - Anasorb C300, 200 mg

Method: 145 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000451			0.0500	06/10/21 22:30	06/11/21 18:46	1

Client Sample ID: AHR-AM04-060521-M

Lab Sample ID: 550-165200-25

Date Collected: 06/05/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1126.01 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000444			0.500	06/14/21 05:04	06/14/21 15:09	1
Lead	<0.250	<0.000222			0.250	06/14/21 05:04	06/14/21 15:09	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-060521-Hg

Lab Sample ID: 550-165200-26

Date Collected: 06/05/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Sample Air Volume: 1100.26 L

Sample Container: IH - Anasorb C300, 200 mg

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000454		0.0500	06/10/21 22:30	06/11/21 18:48	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Method: 145 - Mercury (CVAA)

Lab Sample ID: MB 550-244979/12-A
Matrix: Air
Analysis Batch: 245099

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 244979

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.0500		0.0500	ug/Sample		06/10/21 22:30	06/11/21 18:13	1

Lab Sample ID: LCS 550-244979/13-A
Matrix: Air
Analysis Batch: 245099

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 244979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.250	0.2070		ug/Sample		83	46 - 126

Lab Sample ID: LCSD 550-244979/14-A
Matrix: Air
Analysis Batch: 245099

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 244979

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.250	0.2089		ug/Sample		84	46 - 126	1	33

Method: 7300 - NIOSH Method 7300 (Modified)

Lab Sample ID: MB 550-245130/1-A
Matrix: Air
Analysis Batch: 245232

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245130

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	^+	0.500	ug/Sample		06/14/21 05:04	06/14/21 13:55	1
Lead	<0.250		0.250	ug/Sample		06/14/21 05:04	06/14/21 13:55	1

Lab Sample ID: LCS 550-245130/2-A
Matrix: Air
Analysis Batch: 245232

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	23.95	^+	ug/Sample		96	80 - 120
Lead	25.0	24.83		ug/Sample		99	80 - 120

Lab Sample ID: LCSD 550-245130/3-A
Matrix: Air
Analysis Batch: 245232

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 245130

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	25.0	23.87		ug/Sample		95	80 - 120	0	20
Lead	25.0	24.62		ug/Sample		98	80 - 120	1	20

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

IH - Metals

Prep Batch: 244979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165200-2	AHR-AM01-060721-Hg	Total/NA	Air	Filter Prep	
550-165200-4	AHR-AM02-060721-Hg	Total/NA	Air	Filter Prep	
550-165200-6	AHR-AM03-060721-Hg	Total/NA	Air	Filter Prep	
550-165200-8	AHR-AM04-060721-Hg	Total/NA	Air	Filter Prep	
550-165200-10	AHR-AM01-060821-Hg	Total/NA	Air	Filter Prep	
550-165200-12	AHR-AM02-060821-Hg	Total/NA	Air	Filter Prep	
550-165200-14	AHR-AM03-060821-Hg	Total/NA	Air	Filter Prep	
550-165200-16	AHR-AM04-060821-Hg	Total/NA	Air	Filter Prep	
550-165200-20	AHR-AM01-060521-Hg	Total/NA	Air	Filter Prep	
550-165200-22	AHR-AM02-060521-Hg	Total/NA	Air	Filter Prep	
550-165200-24	AHR-AM03-060521-Hg	Total/NA	Air	Filter Prep	
550-165200-26	AHR-AM04-060521-Hg	Total/NA	Air	Filter Prep	
MB 550-244979/12-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-244979/13-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-244979/14-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 245099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165200-2	AHR-AM01-060721-Hg	Total/NA	Air	145	244979
550-165200-4	AHR-AM02-060721-Hg	Total/NA	Air	145	244979
550-165200-6	AHR-AM03-060721-Hg	Total/NA	Air	145	244979
550-165200-8	AHR-AM04-060721-Hg	Total/NA	Air	145	244979
550-165200-10	AHR-AM01-060821-Hg	Total/NA	Air	145	244979
550-165200-12	AHR-AM02-060821-Hg	Total/NA	Air	145	244979
550-165200-14	AHR-AM03-060821-Hg	Total/NA	Air	145	244979
550-165200-16	AHR-AM04-060821-Hg	Total/NA	Air	145	244979
550-165200-20	AHR-AM01-060521-Hg	Total/NA	Air	145	244979
550-165200-22	AHR-AM02-060521-Hg	Total/NA	Air	145	244979
550-165200-24	AHR-AM03-060521-Hg	Total/NA	Air	145	244979
550-165200-26	AHR-AM04-060521-Hg	Total/NA	Air	145	244979
MB 550-244979/12-A	Method Blank	Total/NA	Air	145	244979
LCS 550-244979/13-A	Lab Control Sample	Total/NA	Air	145	244979
LCSD 550-244979/14-A	Lab Control Sample Dup	Total/NA	Air	145	244979

Prep Batch: 245130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165200-1	AHR-AM01-060721-M	Total/NA	Air	Filter Prep	
550-165200-3	AHR-AM02-060721-M	Total/NA	Air	Filter Prep	
550-165200-5	AHR-AM03-060721-M	Total/NA	Air	Filter Prep	
550-165200-7	AHR-AM04-060721-M	Total/NA	Air	Filter Prep	
550-165200-9	AHR-AM01-060821-M	Total/NA	Air	Filter Prep	
550-165200-11	AHR-AM02-060821-M	Total/NA	Air	Filter Prep	
550-165200-13	AHR-AM03-060821-M	Total/NA	Air	Filter Prep	
550-165200-15	AHR-AM04-060821-M	Total/NA	Air	Filter Prep	
550-165200-17	AHR-Background-1	Total/NA	Air	Filter Prep	
550-165200-18	AHR-Background-2	Total/NA	Air	Filter Prep	
550-165200-19	AHR-AM01-060521-M	Total/NA	Air	Filter Prep	
550-165200-21	AHR-AM02-060521-M	Total/NA	Air	Filter Prep	
550-165200-23	AHR-AM03-060521-M	Total/NA	Air	Filter Prep	
550-165200-25	AHR-AM04-060521-M	Total/NA	Air	Filter Prep	
MB 550-245130/1-A	Method Blank	Total/NA	Air	Filter Prep	

Eurofins TestAmerica, Phoenix

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

IH - Metals (Continued)

Prep Batch: 245130 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-245130/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-245130/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 245232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165200-1	AHR-AM01-060721-M	Total/NA	Air	7300	245130
550-165200-3	AHR-AM02-060721-M	Total/NA	Air	7300	245130
550-165200-5	AHR-AM03-060721-M	Total/NA	Air	7300	245130
550-165200-7	AHR-AM04-060721-M	Total/NA	Air	7300	245130
550-165200-9	AHR-AM01-060821-M	Total/NA	Air	7300	245130
550-165200-11	AHR-AM02-060821-M	Total/NA	Air	7300	245130
550-165200-13	AHR-AM03-060821-M	Total/NA	Air	7300	245130
550-165200-15	AHR-AM04-060821-M	Total/NA	Air	7300	245130
550-165200-17	AHR-Background-1	Total/NA	Air	7300	245130
550-165200-18	AHR-Background-2	Total/NA	Air	7300	245130
550-165200-19	AHR-AM01-060521-M	Total/NA	Air	7300	245130
550-165200-21	AHR-AM02-060521-M	Total/NA	Air	7300	245130
550-165200-23	AHR-AM03-060521-M	Total/NA	Air	7300	245130
550-165200-25	AHR-AM04-060521-M	Total/NA	Air	7300	245130
MB 550-245130/1-A	Method Blank	Total/NA	Air	7300	245130
LCS 550-245130/2-A	Lab Control Sample	Total/NA	Air	7300	245130
LCSD 550-245130/3-A	Lab Control Sample Dup	Total/NA	Air	7300	245130

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-060721-M

Lab Sample ID: 550-165200-1

Date Collected: 06/07/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245130	06/14/21 05:04	SGO	TAL PHX
Total/NA	Analysis	7300		1	245232	06/14/21 14:06	MGM	TAL PHX

Client Sample ID: AHR-AM01-060721-Hg

Lab Sample ID: 550-165200-2

Date Collected: 06/07/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			244979	06/10/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245099	06/11/21 18:20	SRR	TAL PHX

Client Sample ID: AHR-AM02-060721-M

Lab Sample ID: 550-165200-3

Date Collected: 06/07/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245130	06/14/21 05:04	SGO	TAL PHX
Total/NA	Analysis	7300		1	245232	06/14/21 14:10	MGM	TAL PHX

Client Sample ID: AHR-AM02-060721-Hg

Lab Sample ID: 550-165200-4

Date Collected: 06/07/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			244979	06/10/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245099	06/11/21 18:22	SRR	TAL PHX

Client Sample ID: AHR-AM03-060721-M

Lab Sample ID: 550-165200-5

Date Collected: 06/07/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245130	06/14/21 05:04	SGO	TAL PHX
Total/NA	Analysis	7300		1	245232	06/14/21 14:14	MGM	TAL PHX

Client Sample ID: AHR-AM03-060721-Hg

Lab Sample ID: 550-165200-6

Date Collected: 06/07/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			244979	06/10/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245099	06/11/21 18:24	SRR	TAL PHX

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-060721-M

Lab Sample ID: 550-165200-7

Date Collected: 06/07/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245130	06/14/21 05:04	SGO	TAL PHX
Total/NA	Analysis	7300		1	245232	06/14/21 14:17	MGM	TAL PHX

Client Sample ID: AHR-AM04-060721-Hg

Lab Sample ID: 550-165200-8

Date Collected: 06/07/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			244979	06/10/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245099	06/11/21 18:26	SRR	TAL PHX

Client Sample ID: AHR-AM01-060821-M

Lab Sample ID: 550-165200-9

Date Collected: 06/08/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245130	06/14/21 05:04	SGO	TAL PHX
Total/NA	Analysis	7300		1	245232	06/14/21 14:21	MGM	TAL PHX

Client Sample ID: AHR-AM01-060821-Hg

Lab Sample ID: 550-165200-10

Date Collected: 06/08/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			244979	06/10/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245099	06/11/21 18:28	SRR	TAL PHX

Client Sample ID: AHR-AM02-060821-M

Lab Sample ID: 550-165200-11

Date Collected: 06/08/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245130	06/14/21 05:04	SGO	TAL PHX
Total/NA	Analysis	7300		1	245232	06/14/21 14:25	MGM	TAL PHX

Client Sample ID: AHR-AM02-060821-Hg

Lab Sample ID: 550-165200-12

Date Collected: 06/08/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			244979	06/10/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245099	06/11/21 18:30	SRR	TAL PHX

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-060821-M

Lab Sample ID: 550-165200-13

Date Collected: 06/08/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245130	06/14/21 05:04	SGO	TAL PHX
Total/NA	Analysis	7300		1	245232	06/14/21 14:29	MGM	TAL PHX

Client Sample ID: AHR-AM03-060821-Hg

Lab Sample ID: 550-165200-14

Date Collected: 06/08/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			244979	06/10/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245099	06/11/21 18:32	SRR	TAL PHX

Client Sample ID: AHR-AM04-060821-M

Lab Sample ID: 550-165200-15

Date Collected: 06/08/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245130	06/14/21 05:04	SGO	TAL PHX
Total/NA	Analysis	7300		1	245232	06/14/21 14:33	MGM	TAL PHX

Client Sample ID: AHR-AM04-060821-Hg

Lab Sample ID: 550-165200-16

Date Collected: 06/08/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			244979	06/10/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245099	06/11/21 18:34	SRR	TAL PHX

Client Sample ID: AHR-Background-1

Lab Sample ID: 550-165200-17

Date Collected: 06/01/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245130	06/14/21 05:04	SGO	TAL PHX
Total/NA	Analysis	7300		1	245232	06/14/21 14:36	MGM	TAL PHX

Client Sample ID: AHR-Background-2

Lab Sample ID: 550-165200-18

Date Collected: 06/01/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245130	06/14/21 05:04	SGO	TAL PHX
Total/NA	Analysis	7300		1	245232	06/14/21 14:40	MGM	TAL PHX

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-060521-M

Lab Sample ID: 550-165200-19

Date Collected: 06/05/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245130	06/14/21 05:04	SGO	TAL PHX
Total/NA	Analysis	7300		1	245232	06/14/21 14:57	MGM	TAL PHX

Client Sample ID: AHR-AM01-060521-Hg

Lab Sample ID: 550-165200-20

Date Collected: 06/05/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			244979	06/10/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245099	06/11/21 18:36	SRR	TAL PHX

Client Sample ID: AHR-AM02-060521-M

Lab Sample ID: 550-165200-21

Date Collected: 06/05/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245130	06/14/21 05:04	SGO	TAL PHX
Total/NA	Analysis	7300		1	245232	06/14/21 15:01	MGM	TAL PHX

Client Sample ID: AHR-AM02-060521-Hg

Lab Sample ID: 550-165200-22

Date Collected: 06/05/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			244979	06/10/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245099	06/11/21 18:38	SRR	TAL PHX

Client Sample ID: AHR-AM03-060521-M

Lab Sample ID: 550-165200-23

Date Collected: 06/05/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245130	06/14/21 05:04	SGO	TAL PHX
Total/NA	Analysis	7300		1	245232	06/14/21 15:05	MGM	TAL PHX

Client Sample ID: AHR-AM03-060521-Hg

Lab Sample ID: 550-165200-24

Date Collected: 06/05/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			244979	06/10/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245099	06/11/21 18:46	SRR	TAL PHX

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-060521-M

Lab Sample ID: 550-165200-25

Date Collected: 06/05/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245130	06/14/21 05:04	SGO	TAL PHX
Total/NA	Analysis	7300		1	245232	06/14/21 15:09	MGM	TAL PHX

Client Sample ID: AHR-AM04-060521-Hg

Lab Sample ID: 550-165200-26

Date Collected: 06/05/21 00:00

Matrix: Air

Date Received: 06/10/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			244979	06/10/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245099	06/11/21 18:48	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165200-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
145	Mercury (CVAA)	OSHA	TAL PHX
7300	NIOSH Method 7300 (Modified)	NIOSH	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements
OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

165200

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

[illegible]

Eurofins TestAmerica, Phoenix
4625 East Cotton Center Boulevard
Suite 189
Phoenix, AZ 85040-4807
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

RUSH



Environment Testing
America

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

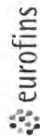
165200

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Greg Roussos		Site Contact: Greg Roussos		Date: 6/9/2021		COC No: 06072021	
Weston Solutions 2300 Clayton Road, #900 Concord, CA 94520 Phone: 513-604-4797		Email: greg.roussos@westonsolutions.com Tel/Fax: 513-604-4797		Lab Contact: David Altkucker		Carrier: FEDEX		TALS Project #:	
Project Name: Argonaut Mine Headframe Removal		Analysis Turnaround Time		For Lab Use Only:		Walk-in Client:		Sampler: GR	
Site: Argonaut Mine Headframe		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		<input type="checkbox"/> TAT if different from Below		Lab Sampling:		Job / SDG No.:	
P O #: 0104258		<input type="checkbox"/> 2 weeks		<input type="checkbox"/> 1 week					
		<input checked="" type="checkbox"/> 2 days		<input type="checkbox"/> 1 day					
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Sample Specific Notes:	
-09 AHR-AM01-060821-M	6/8/2021	1705	--	Air Filter	1		X	Volume = 1179.14 L	
-10 AHR-AM01-060821-Hg	6/8/2021	1700	--	Filter	1		X	Volume = 1188.24 L	
-11 AHR-AM02-060821-M	6/8/2021	1705	--	Filter	1		X	Volume = 1179.00 L	
-12 AHR-AM02-060821-Hg	6/8/2021	1700	--	Filter	1		X	Volume = 1137.72 L	
-13 AHR-AM03-060821-M	6/8/2021	1706	--	Filter	1		X	Volume = 1171.74 L	
-14 AHR-AM03-060821-Hg	6/8/2021	1702	--	Filter	1		X	Volume = 1141.40 L	
-15 AHR-AM04-060821-M	6/8/2021	1707	--	Filter	1		X	Volume = 1128.15 L	
-16 AHR-AM04-060821-Hg	6/8/2021	1704	--	Filter	1		X	Volume = 1087.2 L	
								Volume =	
								Volume =	
								Volume =	
								Volume =	
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.									
Special Instructions/QC Requirements & Comments:									
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd		Corr'd:		Therm ID No.:	
Relinquished by: Amy Zalka		Company: Weston		Received by:		Company:		Date/Time:	
Relinquished by:		Company:		Received by:		Company:		Date/Time:	
Relinquished by:		Company:		Received in Laboratory by:		Company:		Date/Time: 6-02-21 10:15	

Eurofins TestAmerica, Phoenix
4625 East Cotton Center Boulevard
Suite 189
Phoenix, AZ 85040-4807
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record



Environment Testing
America

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

165200

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

COC No: 06052021

3 of 3 COCs

TALS Project #:

Date: 6/7/2021

Carrier: FEDEX

Site Contact: Greg Roussos

Lab Contact: David Alltucker

Sampler: GR

For Lab Use Only:

Walk-in Client:

Lab Sampling:

Job / SDG No.:

Sample Specific Notes:

Volume = 480 L

Volume = 480 L

Volume = 1105.41 L

Volume = 1136.02

Volume = 1137.10 L

Volume = 1132.90 L

Volume = 1141.10 L

Volume = 1107.74 L

Volume = 1126.01 L

Volume = 1100.26 L

Volume =

Volume =

Project Manager: Greg Roussos

Email: greg.roussos@westonsolutions.com

Tel/Fax: 513-604-4797

Analysis Turnaround Time

☐ CALENDAR DAYS ☐ WORKING DAYS

TAT if different from Below

☐ 2 weeks

☐ 1 week

☒ 2 days

☐ 1 day

Sample Identification

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Sample Date

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Sample Type (C=Comp, G=Grab)

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of Cont.

Sample Date

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Sample Type (C=Comp, G=Grab)

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Sample Type (C=Comp, G=Grab)

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Sample Type (C=Comp, G=Grab)

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Sample Type (C=Comp, G=Grab)

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Sample Type (C=Comp, G=Grab)

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Sample Type (C=Comp, G=Grab)

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of Cont.

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of Cont.

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of Cont.

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Sample Type (C=Comp, G=Grab)

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of Cont.

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Sample Type (C=Comp, G=Grab)

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of Cont.

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Sample Type (C=Comp, G=Grab)

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of Cont.

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Sample Type (C=Comp, G=Grab)

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of Cont.

Sample Date

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of Cont.

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Sample Date

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-165200-1

SDG Number: Argonaut Mine Headframe

Login Number: 165200

List Source: Eurofins TestAmerica, Phoenix

List Number: 1

Creator: Gravlin, Andrea

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-165348-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos



Authorized for release by:
6/16/2021 5:54:47 PM

Carlene McCutcheon, Project Manager II
(602)659-7612
Carlene.McCutcheon@Eurofinset.com

LINKS

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results through
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Have a Question?



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www.eurofinsus.com/Env

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165348-1
SDG: Argonaut Mine Headframe

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165348-1
SDG: Argonaut Mine Headframe

Job ID: 550-165348-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-165348-1

Comments

No additional comments.

Receipt

The samples were received on 6/12/2021 9:50 AM. Unless otherwise noted below, the samples arrived in good condition.

IH - Metals

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

Industrial Hygiene

Methods 7300, 7303: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-245131 and analytical batch 550-245259.

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

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165348-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-165348-1	AHR-AM01-061021-M	Air	06/10/21 00:00	06/12/21 09:50	
550-165348-2	AHR-AM01-061021-Hg	Air	06/10/21 00:00	06/12/21 09:50	
550-165348-3	AHR-AM02-061021-M	Air	06/10/21 00:00	06/12/21 09:50	
550-165348-4	AHR-AM02-061021-Hg	Air	06/10/21 00:00	06/12/21 09:50	
550-165348-5	AHR-AM03-061021-M	Air	06/10/21 00:00	06/12/21 09:50	
550-165348-6	AHR-AM03-061021-Hg	Air	06/10/21 00:00	06/12/21 09:50	
550-165348-7	AHR-AM04-061021-M	Air	06/10/21 00:00	06/12/21 09:50	
550-165348-8	AHR-AM040-061021-Hg	Air	06/10/21 00:00	06/12/21 09:50	
550-165348-9	AHR-AM01-060921-M	Air	06/09/21 00:00	06/12/21 09:50	
550-165348-10	AHR-AM01-060921-Hg	Air	06/09/21 00:00	06/12/21 09:50	
550-165348-11	AHR-AM02-060921-M	Air	06/09/21 00:00	06/12/21 09:50	
550-165348-12	AHR-AM02-060921-Hg	Air	06/09/21 00:00	06/12/21 09:50	
550-165348-13	AHR-AM03-060921-M	Air	06/09/21 00:00	06/12/21 09:50	
550-165348-14	AHR-AM03-060921-Hg	Air	06/09/21 00:00	06/12/21 09:50	
550-165348-15	AHR-AM04-060921-M	Air	06/09/21 00:00	06/12/21 09:50	
550-165348-16	AHR-AM04-060921-Hg	Air	06/09/21 00:00	06/12/21 09:50	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165348-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-061021-M	Lab Sample ID: 550-165348-1
--	------------------------------------

☐ No Detections.

Client Sample ID: AHR-AM01-061021-Hg	Lab Sample ID: 550-165348-2
---	------------------------------------

☐ No Detections.

Client Sample ID: AHR-AM02-061021-M	Lab Sample ID: 550-165348-3
--	------------------------------------

☐ No Detections.

Client Sample ID: AHR-AM02-061021-Hg	Lab Sample ID: 550-165348-4
---	------------------------------------

☐ No Detections.

Client Sample ID: AHR-AM03-061021-M	Lab Sample ID: 550-165348-5
--	------------------------------------

☐ No Detections.

Client Sample ID: AHR-AM03-061021-Hg	Lab Sample ID: 550-165348-6
---	------------------------------------

☐ No Detections.

Client Sample ID: AHR-AM04-061021-M	Lab Sample ID: 550-165348-7
--	------------------------------------

☐ No Detections.

Client Sample ID: AHR-AM040-061021-Hg	Lab Sample ID: 550-165348-8
--	------------------------------------

☐ No Detections.

Client Sample ID: AHR-AM01-060921-M	Lab Sample ID: 550-165348-9
--	------------------------------------

☐ No Detections.

Client Sample ID: AHR-AM01-060921-Hg	Lab Sample ID: 550-165348-10
---	-------------------------------------

☐ No Detections.

Client Sample ID: AHR-AM02-060921-M	Lab Sample ID: 550-165348-11
--	-------------------------------------

☐ No Detections.

Client Sample ID: AHR-AM02-060921-Hg	Lab Sample ID: 550-165348-12
---	-------------------------------------

☐ No Detections.

Client Sample ID: AHR-AM03-060921-M	Lab Sample ID: 550-165348-13
--	-------------------------------------

☐ No Detections.

Client Sample ID: AHR-AM03-060921-Hg	Lab Sample ID: 550-165348-14
---	-------------------------------------

☐ No Detections.

Client Sample ID: AHR-AM04-060921-M	Lab Sample ID: 550-165348-15
--	-------------------------------------

☐ No Detections.

Client Sample ID: AHR-AM04-060921-Hg	Lab Sample ID: 550-165348-16
---	-------------------------------------

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165348-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-061021-M

Lab Sample ID: 550-165348-1

Date Collected: 06/10/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Sample Air Volume: 2024 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000247			0.500	06/14/21 05:09	06/14/21 18:33	1
Lead	<0.250	<0.000124			0.250	06/14/21 05:09	06/14/21 18:33	1

Client Sample ID: AHR-AM01-061021-Hg

Lab Sample ID: 550-165348-2

Date Collected: 06/10/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Sample Air Volume: 2005 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000249			0.0500	06/15/21 22:30	06/16/21 16:29	1

Client Sample ID: AHR-AM02-061021-M

Lab Sample ID: 550-165348-3

Date Collected: 06/10/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Sample Air Volume: 2022 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000247			0.500	06/14/21 05:09	06/14/21 18:37	1
Lead	<0.250	<0.000124			0.250	06/14/21 05:09	06/14/21 18:37	1

Client Sample ID: AHR-AM02-061021-Hg

Lab Sample ID: 550-165348-4

Date Collected: 06/10/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Sample Air Volume: 1937 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000258			0.0500	06/15/21 22:30	06/16/21 16:31	1

Client Sample ID: AHR-AM03-061021-M

Lab Sample ID: 550-165348-5

Date Collected: 06/10/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Sample Air Volume: 2066 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000242			0.500	06/14/21 05:09	06/14/21 18:41	1
Lead	<0.250	<0.000121			0.250	06/14/21 05:09	06/14/21 18:41	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165348-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-061021-Hg

Lab Sample ID: 550-165348-6

Date Collected: 06/10/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Sample Air Volume: 2011 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000249		0.0500	06/15/21 22:30	06/16/21 16:33	1

Client Sample ID: AHR-AM04-061021-M

Lab Sample ID: 550-165348-7

Date Collected: 06/10/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Sample Air Volume: 1890 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000265		0.500	06/14/21 05:09	06/14/21 18:45	1
Lead	<0.250	<0.000132		0.250	06/14/21 05:09	06/14/21 18:45	1

Client Sample ID: AHR-AM040-061021-Hg

Lab Sample ID: 550-165348-8

Date Collected: 06/10/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Sample Air Volume: 1930 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000259		0.0500	06/15/21 22:30	06/16/21 16:35	1

Client Sample ID: AHR-AM01-060921-M

Lab Sample ID: 550-165348-9

Date Collected: 06/09/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Sample Air Volume: 1988 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000252		0.500	06/14/21 05:09	06/14/21 18:48	1
Lead	<0.250	<0.000126		0.250	06/14/21 05:09	06/14/21 18:48	1

Client Sample ID: AHR-AM01-060921-Hg

Lab Sample ID: 550-165348-10

Date Collected: 06/09/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Sample Air Volume: 2065 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000242		0.0500	06/15/21 22:30	06/16/21 16:37	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165348-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM02-060921-M

Lab Sample ID: 550-165348-11

Date Collected: 06/09/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Sample Air Volume: 2057 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000243			0.500	06/14/21 05:09	06/14/21 18:52	1
Lead	<0.250	<0.000122			0.250	06/14/21 05:09	06/14/21 18:52	1

Client Sample ID: AHR-AM02-060921-Hg

Lab Sample ID: 550-165348-12

Date Collected: 06/09/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Sample Air Volume: 1972 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000254			0.0500	06/15/21 22:30	06/16/21 16:39	1

Client Sample ID: AHR-AM03-060921-M

Lab Sample ID: 550-165348-13

Date Collected: 06/09/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Sample Air Volume: 2090 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000239			0.500	06/14/21 05:09	06/14/21 18:56	1
Lead	<0.250	<0.000120			0.250	06/14/21 05:09	06/14/21 18:56	1

Client Sample ID: AHR-AM03-060921-Hg

Lab Sample ID: 550-165348-14

Date Collected: 06/09/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Sample Air Volume: 2028 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000247			0.0500	06/15/21 22:30	06/16/21 16:41	1

Client Sample ID: AHR-AM04-060921-M

Lab Sample ID: 550-165348-15

Date Collected: 06/09/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Sample Air Volume: 1964 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000255			0.500	06/14/21 05:09	06/14/21 19:00	1
Lead	<0.250	<0.000127			0.250	06/14/21 05:09	06/14/21 19:00	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165348-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-060921-Hg

Lab Sample ID: 550-165348-16

Date Collected: 06/09/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Sample Air Volume: 1899 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000263		0.0500	06/15/21 22:30	06/16/21 16:43	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165348-1
SDG: Argonaut Mine Headframe

Method: 145 - Mercury (CVAA)

Lab Sample ID: MB 550-245364/12-A
Matrix: Air
Analysis Batch: 245449

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245364

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.0500		0.0500	ug/Sample		06/15/21 22:30	06/16/21 16:22	1

Lab Sample ID: LCS 550-245364/13-A
Matrix: Air
Analysis Batch: 245449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245364

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.250	0.2221		ug/Sample		89	46 - 126

Lab Sample ID: LCSD 550-245364/14-A
Matrix: Air
Analysis Batch: 245449

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 245364

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.250	0.2240		ug/Sample		90	46 - 126	1	33

Method: 7300 - NIOSH Method 7300 (Modified)

Lab Sample ID: MB 550-245131/1-A
Matrix: Air
Analysis Batch: 245259

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245131

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		06/14/21 05:09	06/14/21 18:14	1
Lead	<0.250		0.250	ug/Sample		06/14/21 05:09	06/14/21 18:14	1

Lab Sample ID: LCS 550-245131/2-A
Matrix: Air
Analysis Batch: 245259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245131

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	24.74		ug/Sample		99	80 - 120
Lead	25.0	25.65		ug/Sample		103	80 - 120

Lab Sample ID: LCSD 550-245131/3-A
Matrix: Air
Analysis Batch: 245259

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 245131

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	25.0	24.06		ug/Sample		96	80 - 120	3	20
Lead	25.0	24.84		ug/Sample		99	80 - 120	3	20

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165348-1
SDG: Argonaut Mine Headframe

IH - Metals

Prep Batch: 245131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165348-1	AHR-AM01-061021-M	Total/NA	Air	Filter Prep	
550-165348-3	AHR-AM02-061021-M	Total/NA	Air	Filter Prep	
550-165348-5	AHR-AM03-061021-M	Total/NA	Air	Filter Prep	
550-165348-7	AHR-AM04-061021-M	Total/NA	Air	Filter Prep	
550-165348-9	AHR-AM01-060921-M	Total/NA	Air	Filter Prep	
550-165348-11	AHR-AM02-060921-M	Total/NA	Air	Filter Prep	
550-165348-13	AHR-AM03-060921-M	Total/NA	Air	Filter Prep	
550-165348-15	AHR-AM04-060921-M	Total/NA	Air	Filter Prep	
MB 550-245131/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-245131/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-245131/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 245259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165348-1	AHR-AM01-061021-M	Total/NA	Air	7300	245131
550-165348-3	AHR-AM02-061021-M	Total/NA	Air	7300	245131
550-165348-5	AHR-AM03-061021-M	Total/NA	Air	7300	245131
550-165348-7	AHR-AM04-061021-M	Total/NA	Air	7300	245131
550-165348-9	AHR-AM01-060921-M	Total/NA	Air	7300	245131
550-165348-11	AHR-AM02-060921-M	Total/NA	Air	7300	245131
550-165348-13	AHR-AM03-060921-M	Total/NA	Air	7300	245131
550-165348-15	AHR-AM04-060921-M	Total/NA	Air	7300	245131
MB 550-245131/1-A	Method Blank	Total/NA	Air	7300	245131
LCS 550-245131/2-A	Lab Control Sample	Total/NA	Air	7300	245131
LCSD 550-245131/3-A	Lab Control Sample Dup	Total/NA	Air	7300	245131

Prep Batch: 245364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165348-2	AHR-AM01-061021-Hg	Total/NA	Air	Filter Prep	
550-165348-4	AHR-AM02-061021-Hg	Total/NA	Air	Filter Prep	
550-165348-6	AHR-AM03-061021-Hg	Total/NA	Air	Filter Prep	
550-165348-8	AHR-AM04-061021-Hg	Total/NA	Air	Filter Prep	
550-165348-10	AHR-AM01-060921-Hg	Total/NA	Air	Filter Prep	
550-165348-12	AHR-AM02-060921-Hg	Total/NA	Air	Filter Prep	
550-165348-14	AHR-AM03-060921-Hg	Total/NA	Air	Filter Prep	
550-165348-16	AHR-AM04-060921-Hg	Total/NA	Air	Filter Prep	
MB 550-245364/12-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-245364/13-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-245364/14-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 245449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165348-2	AHR-AM01-061021-Hg	Total/NA	Air	145	245364
550-165348-4	AHR-AM02-061021-Hg	Total/NA	Air	145	245364
550-165348-6	AHR-AM03-061021-Hg	Total/NA	Air	145	245364
550-165348-8	AHR-AM04-061021-Hg	Total/NA	Air	145	245364
550-165348-10	AHR-AM01-060921-Hg	Total/NA	Air	145	245364
550-165348-12	AHR-AM02-060921-Hg	Total/NA	Air	145	245364
550-165348-14	AHR-AM03-060921-Hg	Total/NA	Air	145	245364
550-165348-16	AHR-AM04-060921-Hg	Total/NA	Air	145	245364
MB 550-245364/12-A	Method Blank	Total/NA	Air	145	245364

Eurofins TestAmerica, Phoenix

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165348-1
SDG: Argonaut Mine Headframe

IH - Metals (Continued)

Analysis Batch: 245449 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-245364/13-A	Lab Control Sample	Total/NA	Air	145	245364
LCSD 550-245364/14-A	Lab Control Sample Dup	Total/NA	Air	145	245364

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165348-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-061021-M

Lab Sample ID: 550-165348-1

Date Collected: 06/10/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245131	06/14/21 05:09	SGO	TAL PHX
Total/NA	Analysis	7300		1	245259	06/14/21 18:33	MGM	TAL PHX

Client Sample ID: AHR-AM01-061021-Hg

Lab Sample ID: 550-165348-2

Date Collected: 06/10/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245364	06/15/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245449	06/16/21 16:29	SRR	TAL PHX

Client Sample ID: AHR-AM02-061021-M

Lab Sample ID: 550-165348-3

Date Collected: 06/10/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245131	06/14/21 05:09	SGO	TAL PHX
Total/NA	Analysis	7300		1	245259	06/14/21 18:37	MGM	TAL PHX

Client Sample ID: AHR-AM02-061021-Hg

Lab Sample ID: 550-165348-4

Date Collected: 06/10/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245364	06/15/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245449	06/16/21 16:31	SRR	TAL PHX

Client Sample ID: AHR-AM03-061021-M

Lab Sample ID: 550-165348-5

Date Collected: 06/10/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245131	06/14/21 05:09	SGO	TAL PHX
Total/NA	Analysis	7300		1	245259	06/14/21 18:41	MGM	TAL PHX

Client Sample ID: AHR-AM03-061021-Hg

Lab Sample ID: 550-165348-6

Date Collected: 06/10/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245364	06/15/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245449	06/16/21 16:33	SRR	TAL PHX

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165348-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-061021-M

Lab Sample ID: 550-165348-7

Date Collected: 06/10/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245131	06/14/21 05:09	SGO	TAL PHX
Total/NA	Analysis	7300		1	245259	06/14/21 18:45	MGM	TAL PHX

Client Sample ID: AHR-AM040-061021-Hg

Lab Sample ID: 550-165348-8

Date Collected: 06/10/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245364	06/15/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245449	06/16/21 16:35	SRR	TAL PHX

Client Sample ID: AHR-AM01-060921-M

Lab Sample ID: 550-165348-9

Date Collected: 06/09/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245131	06/14/21 05:09	SGO	TAL PHX
Total/NA	Analysis	7300		1	245259	06/14/21 18:48	MGM	TAL PHX

Client Sample ID: AHR-AM01-060921-Hg

Lab Sample ID: 550-165348-10

Date Collected: 06/09/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245364	06/15/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245449	06/16/21 16:37	SRR	TAL PHX

Client Sample ID: AHR-AM02-060921-M

Lab Sample ID: 550-165348-11

Date Collected: 06/09/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245131	06/14/21 05:09	SGO	TAL PHX
Total/NA	Analysis	7300		1	245259	06/14/21 18:52	MGM	TAL PHX

Client Sample ID: AHR-AM02-060921-Hg

Lab Sample ID: 550-165348-12

Date Collected: 06/09/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245364	06/15/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245449	06/16/21 16:39	SRR	TAL PHX

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165348-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-060921-M

Lab Sample ID: 550-165348-13

Date Collected: 06/09/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245131	06/14/21 05:09	SGO	TAL PHX
Total/NA	Analysis	7300		1	245259	06/14/21 18:56	MGM	TAL PHX

Client Sample ID: AHR-AM03-060921-Hg

Lab Sample ID: 550-165348-14

Date Collected: 06/09/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245364	06/15/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245449	06/16/21 16:41	SRR	TAL PHX

Client Sample ID: AHR-AM04-060921-M

Lab Sample ID: 550-165348-15

Date Collected: 06/09/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245131	06/14/21 05:09	SGO	TAL PHX
Total/NA	Analysis	7300		1	245259	06/14/21 19:00	MGM	TAL PHX

Client Sample ID: AHR-AM04-060921-Hg

Lab Sample ID: 550-165348-16

Date Collected: 06/09/21 00:00

Matrix: Air

Date Received: 06/12/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245364	06/15/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	245449	06/16/21 16:43	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165348-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165348-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
145	Mercury (CVAA)	OSHA	TAL PHX
7300	NIOSH Method 7300 (Modified)	NIOSH	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements
OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-165348-1

SDG Number: Argonaut Mine Headframe

Login Number: 165348

List Number: 1

Creator: Doerr, Bret C

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-165519-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos



Authorized for release by:
6/18/2021 4:30:23 PM

Carlene McCutcheon, Project Manager II
(602)659-7612
Carlene.McCutcheon@Eurofinset.com

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165519-1
SDG: Argonaut Mine Headframe

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165519-1
SDG: Argonaut Mine Headframe

Job ID: 550-165519-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-165519-1

Comments

No additional comments.

Receipt

The samples were received on 6/16/2021 10:25 AM. Unless otherwise noted below, the samples arrived in good condition.

Metals

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

IH - Metals

Method 145: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-245458 and analytical batch 550-245590.

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

Industrial Hygiene

Methods 7300, 7303: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-245470 and analytical batch 550-245656.

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

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165519-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-165519-1	AHR-AM01-061121-M	Air	06/11/21 00:00	06/16/21 10:25	
550-165519-2	AHR-AM01-061121-Hg	Air	06/11/21 00:00	06/16/21 10:25	
550-165519-3	AHR-AM02-061121-M	Air	06/11/21 00:00	06/16/21 10:25	
550-165519-4	AHR-AM02-061121-Hg	Air	06/11/21 00:00	06/16/21 10:25	
550-165519-5	AHR-AM03-061121-M	Air	06/11/21 00:00	06/16/21 10:25	
550-165519-6	AHR-AM03-061121-Hg	Air	06/11/21 00:00	06/16/21 10:25	
550-165519-7	AHR-AM04-061121-M	Air	06/11/21 00:00	06/16/21 10:25	
550-165519-8	AHR-AM04-061121-Hg	Air	06/11/21 00:00	06/16/21 10:25	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165519-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-061121-M

Lab Sample ID: 550-165519-1

No Detections.

Client Sample ID: AHR-AM01-061121-Hg

Lab Sample ID: 550-165519-2

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Dil Fac	Method	Prep Type
Hg	0.0693	0.0000692		0.0500	1	145	Total/NA

Client Sample ID: AHR-AM02-061121-M

Lab Sample ID: 550-165519-3

No Detections.

Client Sample ID: AHR-AM02-061121-Hg

Lab Sample ID: 550-165519-4

No Detections.

Client Sample ID: AHR-AM03-061121-M

Lab Sample ID: 550-165519-5

No Detections.

Client Sample ID: AHR-AM03-061121-Hg

Lab Sample ID: 550-165519-6

No Detections.

Client Sample ID: AHR-AM04-061121-M

Lab Sample ID: 550-165519-7

No Detections.

Client Sample ID: AHR-AM04-061121-Hg

Lab Sample ID: 550-165519-8

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165519-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-061121-M

Lab Sample ID: 550-165519-1

Date Collected: 06/11/21 00:00

Matrix: Air

Date Received: 06/16/21 10:25

Sample Air Volume: 967.27 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000517			0.500	06/17/21 07:15	06/17/21 21:20	1
Lead	<0.250	<0.000258			0.250	06/17/21 07:15	06/17/21 21:20	1

Client Sample ID: AHR-AM01-061121-Hg

Lab Sample ID: 550-165519-2

Date Collected: 06/11/21 00:00

Matrix: Air

Date Received: 06/16/21 10:25

Sample Air Volume: 1000.73 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	0.0693	0.000692			0.0500	06/16/21 22:20	06/17/21 16:11	1

Client Sample ID: AHR-AM02-061121-M

Lab Sample ID: 550-165519-3

Date Collected: 06/11/21 00:00

Matrix: Air

Date Received: 06/16/21 10:25

Sample Air Volume: 966.78 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000517			0.500	06/17/21 07:15	06/17/21 21:24	1
Lead	<0.250	<0.000259			0.250	06/17/21 07:15	06/17/21 21:24	1

Client Sample ID: AHR-AM02-061121-Hg

Lab Sample ID: 550-165519-4

Date Collected: 06/11/21 00:00

Matrix: Air

Date Received: 06/16/21 10:25

Sample Air Volume: 967.67 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000517			0.0500	06/16/21 22:20	06/17/21 16:13	1

Client Sample ID: AHR-AM03-061121-M

Lab Sample ID: 550-165519-5

Date Collected: 06/11/21 00:00

Matrix: Air

Date Received: 06/16/21 10:25

Sample Air Volume: 1030.99 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000485			0.500	06/17/21 07:15	06/17/21 21:35	1
Lead	<0.250	<0.000242			0.250	06/17/21 07:15	06/17/21 21:35	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165519-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-061121-Hg

Lab Sample ID: 550-165519-6

Date Collected: 06/11/21 00:00

Matrix: Air

Date Received: 06/16/21 10:25

Sample Air Volume: 994.09 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000503		0.0500	06/16/21 22:20	06/17/21 16:15	1

Client Sample ID: AHR-AM04-061121-M

Lab Sample ID: 550-165519-7

Date Collected: 06/11/21 00:00

Matrix: Air

Date Received: 06/16/21 10:25

Sample Air Volume: 969.48 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000516		0.500	06/17/21 07:15	06/17/21 21:39	1
Lead	<0.250	<0.000258		0.250	06/17/21 07:15	06/17/21 21:39	1

Client Sample ID: AHR-AM04-061121-Hg

Lab Sample ID: 550-165519-8

Date Collected: 06/11/21 00:00

Matrix: Air

Date Received: 06/16/21 10:25

Sample Air Volume: 917.33 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000545		0.0500	06/16/21 22:20	06/17/21 16:17	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165519-1
SDG: Argonaut Mine Headframe

Method: 145 - Mercury (CVAA)

Lab Sample ID: MB 550-245458/12-A
Matrix: Air
Analysis Batch: 245590

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245458

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.0500		0.0500	ug/Sample		06/16/21 22:20	06/17/21 15:58	1

Lab Sample ID: LCS 550-245458/13-A
Matrix: Air
Analysis Batch: 245590

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245458

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.250	0.2058		ug/Sample		82	46 - 126

Lab Sample ID: LCSD 550-245458/14-A
Matrix: Air
Analysis Batch: 245590

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 245458

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.250	0.1994		ug/Sample		80	46 - 126	3	33

Method: 7300 - NIOSH Method 7300 (Modified)

Lab Sample ID: MB 550-245470/1-A
Matrix: Air
Analysis Batch: 245656

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245470

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		06/17/21 07:15	06/17/21 20:38	1
Lead	<0.250		0.250	ug/Sample		06/17/21 07:15	06/17/21 20:38	1

Lab Sample ID: LCS 550-245470/2-A
Matrix: Air
Analysis Batch: 245656

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245470

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	23.48		ug/Sample		94	80 - 120
Lead	25.0	24.91		ug/Sample		100	80 - 120

Lab Sample ID: LCSD 550-245470/3-A
Matrix: Air
Analysis Batch: 245656

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 245470

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	25.0	23.42		ug/Sample		94	80 - 120	0	20
Lead	25.0	24.73		ug/Sample		99	80 - 120	1	20

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165519-1
SDG: Argonaut Mine Headframe

IH - Metals

Prep Batch: 245458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165519-2	AHR-AM01-061121-Hg	Total/NA	Air	Filter Prep	
550-165519-4	AHR-AM02-061121-Hg	Total/NA	Air	Filter Prep	
550-165519-6	AHR-AM03-061121-Hg	Total/NA	Air	Filter Prep	
550-165519-8	AHR-AM04-061121-Hg	Total/NA	Air	Filter Prep	
MB 550-245458/12-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-245458/13-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-245458/14-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Prep Batch: 245470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165519-1	AHR-AM01-061121-M	Total/NA	Air	Filter Prep	
550-165519-3	AHR-AM02-061121-M	Total/NA	Air	Filter Prep	
550-165519-5	AHR-AM03-061121-M	Total/NA	Air	Filter Prep	
550-165519-7	AHR-AM04-061121-M	Total/NA	Air	Filter Prep	
MB 550-245470/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-245470/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-245470/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 245590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165519-2	AHR-AM01-061121-Hg	Total/NA	Air	145	245458
550-165519-4	AHR-AM02-061121-Hg	Total/NA	Air	145	245458
550-165519-6	AHR-AM03-061121-Hg	Total/NA	Air	145	245458
550-165519-8	AHR-AM04-061121-Hg	Total/NA	Air	145	245458
MB 550-245458/12-A	Method Blank	Total/NA	Air	145	245458
LCS 550-245458/13-A	Lab Control Sample	Total/NA	Air	145	245458
LCSD 550-245458/14-A	Lab Control Sample Dup	Total/NA	Air	145	245458

Analysis Batch: 245656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165519-1	AHR-AM01-061121-M	Total/NA	Air	7300	245470
550-165519-3	AHR-AM02-061121-M	Total/NA	Air	7300	245470
550-165519-5	AHR-AM03-061121-M	Total/NA	Air	7300	245470
550-165519-7	AHR-AM04-061121-M	Total/NA	Air	7300	245470
MB 550-245470/1-A	Method Blank	Total/NA	Air	7300	245470
LCS 550-245470/2-A	Lab Control Sample	Total/NA	Air	7300	245470
LCSD 550-245470/3-A	Lab Control Sample Dup	Total/NA	Air	7300	245470

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165519-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-061121-M

Lab Sample ID: 550-165519-1

Date Collected: 06/11/21 00:00

Matrix: Air

Date Received: 06/16/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245470	06/17/21 07:15	SGO	TAL PHX
Total/NA	Analysis	7300		1	245656	06/17/21 21:20	MGM	TAL PHX

Client Sample ID: AHR-AM01-061121-Hg

Lab Sample ID: 550-165519-2

Date Collected: 06/11/21 00:00

Matrix: Air

Date Received: 06/16/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245458	06/16/21 22:20	SRR	TAL PHX
Total/NA	Analysis	145		1	245590	06/17/21 16:11	SRR	TAL PHX

Client Sample ID: AHR-AM02-061121-M

Lab Sample ID: 550-165519-3

Date Collected: 06/11/21 00:00

Matrix: Air

Date Received: 06/16/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245470	06/17/21 07:15	SGO	TAL PHX
Total/NA	Analysis	7300		1	245656	06/17/21 21:24	MGM	TAL PHX

Client Sample ID: AHR-AM02-061121-Hg

Lab Sample ID: 550-165519-4

Date Collected: 06/11/21 00:00

Matrix: Air

Date Received: 06/16/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245458	06/16/21 22:20	SRR	TAL PHX
Total/NA	Analysis	145		1	245590	06/17/21 16:13	SRR	TAL PHX

Client Sample ID: AHR-AM03-061121-M

Lab Sample ID: 550-165519-5

Date Collected: 06/11/21 00:00

Matrix: Air

Date Received: 06/16/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245470	06/17/21 07:15	SGO	TAL PHX
Total/NA	Analysis	7300		1	245656	06/17/21 21:35	MGM	TAL PHX

Client Sample ID: AHR-AM03-061121-Hg

Lab Sample ID: 550-165519-6

Date Collected: 06/11/21 00:00

Matrix: Air

Date Received: 06/16/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245458	06/16/21 22:20	SRR	TAL PHX
Total/NA	Analysis	145		1	245590	06/17/21 16:15	SRR	TAL PHX

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165519-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-061121-M

Lab Sample ID: 550-165519-7

Date Collected: 06/11/21 00:00

Matrix: Air

Date Received: 06/16/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245470	06/17/21 07:15	SGO	TAL PHX
Total/NA	Analysis	7300		1	245656	06/17/21 21:39	MGM	TAL PHX

Client Sample ID: AHR-AM04-061121-Hg

Lab Sample ID: 550-165519-8

Date Collected: 06/11/21 00:00

Matrix: Air

Date Received: 06/16/21 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245458	06/16/21 22:20	SRR	TAL PHX
Total/NA	Analysis	145		1	245590	06/17/21 16:17	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165519-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165519-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
145	Mercury (CVAA)	OSHA	TAL PHX
7300	NIOSH Method 7300 (Modified)	NIOSH	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements
OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix
4625 East Cotton Center Boulevard
Suite 189
Phoenix, AZ 85040-4807
phone 602.437.3340 fax 602.454.9303

RUSH

Chain of Custody Record



Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Project Manager: Greg Roussos

Email: greg.roussos@westonsolutions.com

Tel/Fax: 513-604-4797

Analysis Turnaround Time

☐ CALENDAR DAYS ☐ WORKING DAYS

TAT if different from Below

☐ 2 weeks

☐ 1 week

☐ 2 days

☐ 1 day

Project Name: Argonaut Mine Headframe Removal

Site: Argonaut Mine Headframe

P O #: 0104258

Site Contact: Greg Roussos

Lab Contact: David Alltucker

Date: 6/9/2021

Carrier: FEDEX

COG No: 0612021

1 of 1 COCs

Sampler: GR

TALS Project #

For Lab Use Only:

It-in Client:

Sampling:

/ SDG No.:



550-165519 Chain of Custody

Sample Specific Notes:

Volume = 967.27 L

Volume = 1000.73 L

Volume = 966.78 L

Volume = 967.67 L

Volume = 1030.99 L

Volume = 994.09 L

Volume = 969.48 L

Volume = 917.33 L

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

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AMBS
RCPO

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

Special Instructions/QC Requirements & Comments:
☐ Return to Client ☒ Disposal by Lab ☐ Archive for Months

Custody Seals Intact: ☐ Yes ☐ No

Relinquished by: *Greg Roussos* Company: *Weston* Date/Time: *6/11/21* Received by: *David Alltucker* Date/Time: *6/11/21*

Relinquished by: *David Alltucker* Company: *Weston* Date/Time: *6/11/21* Received by: *David Alltucker* Date/Time: *6/11/21*

Relinquished by: *David Alltucker* Company: *Weston* Date/Time: *6/11/21* Received by: *David Alltucker* Date/Time: *6/11/21*

Relinquished by: *David Alltucker* Company: *Weston* Date/Time: *6/11/21* Received by: *David Alltucker* Date/Time: *6/11/21*

Relinquished by: *David Alltucker* Company: *Weston* Date/Time: *6/11/21* Received by: *David Alltucker* Date/Time: *6/11/21*

Relinquished by: *David Alltucker* Company: *Weston* Date/Time: *6/11/21* Received by: *David Alltucker* Date/Time: *6/11/21*

Relinquished by: *David Alltucker* Company: *Weston* Date/Time: *6/11/21* Received by: *David Alltucker* Date/Time: *6/11/21*

Relinquished by: *David Alltucker* Company: *Weston* Date/Time: *6/11/21* Received by: *David Alltucker* Date/Time: *6/11/21*

Relinquished by: *David Alltucker* Company: *Weston* Date/Time: *6/11/21* Received by: *David Alltucker* Date/Time: *6/11/21*

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-165519-1

SDG Number: Argonaut Mine Headframe

Login Number: 165519

List Number: 1

Creator: Gravlin, Andrea

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-165520-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos



Authorized for release by:
7/1/2021 4:34:35 PM

Carlene McCutcheon, Project Manager II
(602)659-7612
Carlene.McCutcheon@Eurofinset.com

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165520-1
SDG: Argonaut Mine Headframe

Qualifiers

Metals

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.

Glossary

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165520-1
SDG: Argonaut Mine Headframe

Job ID: 550-165520-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-165520-1

Comments

No additional comments.

Receipt

The samples were received on 6/16/2021 10:25 AM. Unless otherwise noted below, the samples arrived in good condition.

Receipt Exceptions

The following samples were received at the laboratory outside the required temperature criteria: AHR-196-0 (550-165520-1), AHR-204-0 (550-165520-2), AHR-210-0 (550-165520-3) and AHR-211-0 (550-165520-4). There was no cooling media present in the cooler.

Limited sample volume was received for each sample.

Metals

Method 6010B: The following samples were diluted to bring the concentration of target analytes within the calibration range: AHR-204-0 (550-165520-2), AHR-210-0 (550-165520-3) and AHR-211-0 (550-165520-4). 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.

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165520-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-165520-1	AHR-196-0	Solid	06/08/21 12:32	06/16/21 10:25	
550-165520-2	AHR-204-0	Solid	06/09/21 11:50	06/16/21 10:25	
550-165520-3	AHR-210-0	Solid	06/11/21 12:23	06/16/21 10:25	
550-165520-4	AHR-211-0	Solid	06/11/21 12:25	06/16/21 10:25	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165520-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-196-0

Lab Sample ID: 550-165520-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	67		2.5	mg/Kg	1		6010B	Total/NA
Lead	1800		0.49	mg/Kg	1		6010B	Total/NA
Mercury	0.84		0.097	mg/Kg	1		7471A	Total/NA

Client Sample ID: AHR-204-0

Lab Sample ID: 550-165520-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	450	D2	12	mg/Kg	5		6010B	Total/NA
Lead	400		0.49	mg/Kg	1		6010B	Total/NA
Mercury	0.57		0.096	mg/Kg	1		7471A	Total/NA

Client Sample ID: AHR-210-0

Lab Sample ID: 550-165520-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	280	D2	12	mg/Kg	5		6010B	Total/NA
Lead	790		0.49	mg/Kg	1		6010B	Total/NA
Mercury	4.7	D2	0.97	mg/Kg	10		7471A	Total/NA

Client Sample ID: AHR-211-0

Lab Sample ID: 550-165520-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	450	D2	12	mg/Kg	5		6010B	Total/NA
Lead	260		0.49	mg/Kg	1		6010B	Total/NA
Mercury	1.4		0.091	mg/Kg	1		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165520-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-196-0

Date Collected: 06/08/21 12:32

Date Received: 06/16/21 10:25

Lab Sample ID: 550-165520-1

Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	67		2.5	mg/Kg		06/21/21 10:50	06/22/21 14:33	1
Lead	1800		0.49	mg/Kg		06/21/21 10:50	06/22/21 14:33	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.84		0.097	mg/Kg		06/28/21 15:30	06/28/21 20:30	1

Client Sample ID: AHR-204-0

Date Collected: 06/09/21 11:50

Date Received: 06/16/21 10:25

Lab Sample ID: 550-165520-2

Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	450	D2	12	mg/Kg		06/21/21 10:50	06/23/21 13:58	5
Lead	400		0.49	mg/Kg		06/21/21 10:50	06/22/21 14:37	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.57		0.096	mg/Kg		06/28/21 15:30	06/28/21 20:32	1

Client Sample ID: AHR-210-0

Date Collected: 06/11/21 12:23

Date Received: 06/16/21 10:25

Lab Sample ID: 550-165520-3

Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	280	D2	12	mg/Kg		06/21/21 10:50	06/23/21 14:02	5
Lead	790		0.49	mg/Kg		06/21/21 10:50	06/22/21 14:40	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.7	D2	0.97	mg/Kg		06/30/21 16:15	06/30/21 20:42	10

Client Sample ID: AHR-211-0

Date Collected: 06/11/21 12:25

Date Received: 06/16/21 10:25

Lab Sample ID: 550-165520-4

Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	450	D2	12	mg/Kg		06/21/21 10:50	06/23/21 14:06	5
Lead	260		0.49	mg/Kg		06/21/21 10:50	06/22/21 14:44	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.4		0.091	mg/Kg		06/28/21 15:30	06/28/21 20:37	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165520-1
SDG: Argonaut Mine Headframe

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 550-245828/1-A
Matrix: Solid
Analysis Batch: 245984

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245828

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.5	mg/Kg		06/21/21 10:50	06/22/21 13:55	1
Lead	ND		0.49	mg/Kg		06/21/21 10:50	06/22/21 13:55	1

Lab Sample ID: MB 550-245828/1-A
Matrix: Solid
Analysis Batch: 246107

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245828

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.5	mg/Kg		06/21/21 10:50	06/23/21 13:16	1

Lab Sample ID: LCS 550-245828/2-A
Matrix: Solid
Analysis Batch: 245984

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245828

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	48.6	45.2		mg/Kg		93	80 - 110
Lead	48.6	46.4		mg/Kg		96	83 - 110

Lab Sample ID: LCS 550-245828/2-A
Matrix: Solid
Analysis Batch: 246107

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245828

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	48.6	44.8		mg/Kg		92	80 - 110

Lab Sample ID: LCSD 550-245828/3-A
Matrix: Solid
Analysis Batch: 245984

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 245828

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	49.8	46.4		mg/Kg		93	80 - 110	3	20
Lead	49.8	47.7		mg/Kg		96	83 - 110	3	20

Lab Sample ID: LCSD 550-245828/3-A
Matrix: Solid
Analysis Batch: 246107

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 245828

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	49.8	45.9		mg/Kg		92	80 - 110	2	20

Lab Sample ID: 550-165732-B-17-B MS
Matrix: Solid
Analysis Batch: 245984

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 245828

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	7.6		48.9	51.1		mg/Kg		89	75 - 125
Lead	9.4		48.9	50.3		mg/Kg		84	75 - 125

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165520-1
SDG: Argonaut Mine Headframe

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

Lab Sample ID: 550-165732-B-17-B MS

Matrix: Solid

Analysis Batch: 246107

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 245828

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	7.5		48.9	49.5		mg/Kg		86	75 - 125

Lab Sample ID: 550-165732-B-17-C MSD

Matrix: Solid

Analysis Batch: 245984

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 245828

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	7.6		50.0	50.6		mg/Kg		86	75 - 125	1	20
Lead	9.4		50.0	50.4		mg/Kg		82	75 - 125	0	20

Lab Sample ID: 550-165732-B-17-C MSD

Matrix: Solid

Analysis Batch: 246107

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 245828

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	7.5		50.0	50.0		mg/Kg		85	75 - 125	1	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 550-246505/1-A

Matrix: Solid

Analysis Batch: 246528

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 246505

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.092	mg/Kg		06/28/21 15:30	06/28/21 19:32	1

Lab Sample ID: LCS 550-246505/2-A

Matrix: Solid

Analysis Batch: 246528

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 246505

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.888	0.920		mg/Kg		104	80 - 120

Lab Sample ID: LCSD 550-246505/3-A

Matrix: Solid

Analysis Batch: 246528

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 246505

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	0.954	1.01		mg/Kg		106	80 - 120	10	20

Lab Sample ID: 550-165732-A-17-E MS

Matrix: Solid

Analysis Batch: 246528

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 246505

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.924	0.970		mg/Kg		105	75 - 125

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165520-1
SDG: Argonaut Mine Headframe

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: 550-165732-A-17-F MSD

Matrix: Solid

Analysis Batch: 246528

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 246505

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.933	0.980		mg/Kg		105	75 - 125	1	20

Lab Sample ID: MB 550-246772/1-A

Matrix: Solid

Analysis Batch: 246800

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 246772

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.093	mg/Kg		06/30/21 16:15	06/30/21 19:11	1

Lab Sample ID: LCS 550-246772/2-A

Matrix: Solid

Analysis Batch: 246800

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 246772

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.928	0.981		mg/Kg		106	80 - 120

Lab Sample ID: LCSD 550-246772/3-A

Matrix: Solid

Analysis Batch: 246800

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 246772

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.959	1.04		mg/Kg		108	80 - 120	6	20

Lab Sample ID: 550-166083-A-7-E MS

Matrix: Solid

Analysis Batch: 246800

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 246772

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.911	1.04		mg/Kg		114	75 - 125

Lab Sample ID: 550-166083-A-7-F MSD

Matrix: Solid

Analysis Batch: 246800

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 246772

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.887	1.02		mg/Kg		115	75 - 125	1	20

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165520-1
SDG: Argonaut Mine Headframe

Metals

Prep Batch: 245828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165520-1	AHR-196-0	Total/NA	Solid	3050B	
550-165520-2	AHR-204-0	Total/NA	Solid	3050B	
550-165520-3	AHR-210-0	Total/NA	Solid	3050B	
550-165520-4	AHR-211-0	Total/NA	Solid	3050B	
MB 550-245828/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 550-245828/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 550-245828/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
550-165732-B-17-B MS	Matrix Spike	Total/NA	Solid	3050B	
550-165732-B-17-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3050B	

Analysis Batch: 245984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165520-1	AHR-196-0	Total/NA	Solid	6010B	245828
550-165520-2	AHR-204-0	Total/NA	Solid	6010B	245828
550-165520-3	AHR-210-0	Total/NA	Solid	6010B	245828
550-165520-4	AHR-211-0	Total/NA	Solid	6010B	245828
MB 550-245828/1-A	Method Blank	Total/NA	Solid	6010B	245828
LCS 550-245828/2-A	Lab Control Sample	Total/NA	Solid	6010B	245828
LCSD 550-245828/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	245828
550-165732-B-17-B MS	Matrix Spike	Total/NA	Solid	6010B	245828
550-165732-B-17-C MSD	Matrix Spike Duplicate	Total/NA	Solid	6010B	245828

Analysis Batch: 246107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165520-2	AHR-204-0	Total/NA	Solid	6010B	245828
550-165520-3	AHR-210-0	Total/NA	Solid	6010B	245828
550-165520-4	AHR-211-0	Total/NA	Solid	6010B	245828
MB 550-245828/1-A	Method Blank	Total/NA	Solid	6010B	245828
LCS 550-245828/2-A	Lab Control Sample	Total/NA	Solid	6010B	245828
LCSD 550-245828/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	245828
550-165732-B-17-B MS	Matrix Spike	Total/NA	Solid	6010B	245828
550-165732-B-17-C MSD	Matrix Spike Duplicate	Total/NA	Solid	6010B	245828

Prep Batch: 246505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165520-1	AHR-196-0	Total/NA	Solid	7471A	
550-165520-2	AHR-204-0	Total/NA	Solid	7471A	
550-165520-4	AHR-211-0	Total/NA	Solid	7471A	
MB 550-246505/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 550-246505/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 550-246505/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
550-165732-A-17-E MS	Matrix Spike	Total/NA	Solid	7471A	
550-165732-A-17-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

Analysis Batch: 246528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165520-1	AHR-196-0	Total/NA	Solid	7471A	246505
550-165520-2	AHR-204-0	Total/NA	Solid	7471A	246505
550-165520-4	AHR-211-0	Total/NA	Solid	7471A	246505
MB 550-246505/1-A	Method Blank	Total/NA	Solid	7471A	246505
LCS 550-246505/2-A	Lab Control Sample	Total/NA	Solid	7471A	246505

Eurofins TestAmerica, Phoenix

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165520-1
SDG: Argonaut Mine Headframe

Metals (Continued)

Analysis Batch: 246528 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 550-246505/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	246505
550-165732-A-17-E MS	Matrix Spike	Total/NA	Solid	7471A	246505
550-165732-A-17-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	246505

Prep Batch: 246772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165520-3	AHR-210-0	Total/NA	Solid	7471A	
MB 550-246772/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 550-246772/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 550-246772/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
550-166083-A-7-E MS	Matrix Spike	Total/NA	Solid	7471A	
550-166083-A-7-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

Analysis Batch: 246800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-246772/1-A	Method Blank	Total/NA	Solid	7471A	246772
LCS 550-246772/2-A	Lab Control Sample	Total/NA	Solid	7471A	246772
LCSD 550-246772/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	246772
550-166083-A-7-E MS	Matrix Spike	Total/NA	Solid	7471A	246772
550-166083-A-7-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	246772

Analysis Batch: 246801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165520-3	AHR-210-0	Total/NA	Solid	7471A	246772

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165520-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-196-0

Date Collected: 06/08/21 12:32

Date Received: 06/16/21 10:25

Lab Sample ID: 550-165520-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			245828	06/21/21 10:50	SGO	TAL PHX
Total/NA	Analysis	6010B		1	245984	06/22/21 14:33	MGM	TAL PHX
Total/NA	Prep	7471A			246505	06/28/21 15:30	SRR	TAL PHX
Total/NA	Analysis	7471A		1	246528	06/28/21 20:30	SRR	TAL PHX

Client Sample ID: AHR-204-0

Date Collected: 06/09/21 11:50

Date Received: 06/16/21 10:25

Lab Sample ID: 550-165520-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			245828	06/21/21 10:50	SGO	TAL PHX
Total/NA	Analysis	6010B		1	245984	06/22/21 14:37	MGM	TAL PHX
Total/NA	Prep	3050B			245828	06/21/21 10:50	SGO	TAL PHX
Total/NA	Analysis	6010B		5	246107	06/23/21 13:58	MGM	TAL PHX
Total/NA	Prep	7471A			246505	06/28/21 15:30	SRR	TAL PHX
Total/NA	Analysis	7471A		1	246528	06/28/21 20:32	SRR	TAL PHX

Client Sample ID: AHR-210-0

Date Collected: 06/11/21 12:23

Date Received: 06/16/21 10:25

Lab Sample ID: 550-165520-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			245828	06/21/21 10:50	SGO	TAL PHX
Total/NA	Analysis	6010B		1	245984	06/22/21 14:40	MGM	TAL PHX
Total/NA	Prep	3050B			245828	06/21/21 10:50	SGO	TAL PHX
Total/NA	Analysis	6010B		5	246107	06/23/21 14:02	MGM	TAL PHX
Total/NA	Prep	7471A			246772	06/30/21 16:15	SRR	TAL PHX
Total/NA	Analysis	7471A		10	246801	06/30/21 20:42	SRR	TAL PHX

Client Sample ID: AHR-211-0

Date Collected: 06/11/21 12:25

Date Received: 06/16/21 10:25

Lab Sample ID: 550-165520-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			245828	06/21/21 10:50	SGO	TAL PHX
Total/NA	Analysis	6010B		1	245984	06/22/21 14:44	MGM	TAL PHX
Total/NA	Prep	3050B			245828	06/21/21 10:50	SGO	TAL PHX
Total/NA	Analysis	6010B		5	246107	06/23/21 14:06	MGM	TAL PHX
Total/NA	Prep	7471A			246505	06/28/21 15:30	SRR	TAL PHX
Total/NA	Analysis	7471A		1	246528	06/28/21 20:37	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165520-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
California	State	2941	06-10-22

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165520-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PHX
7471A	Mercury (CVAA)	SW846	TAL PHX
3050B	Preparation, Metals	SW846	TAL PHX
7471A	Preparation, Mercury	SW846	TAL PHX

Protocol References:

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

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix
4625 East Cotton Center Boulevard
Suite 189
Phoenix, AZ 85040-4807
Phone 602.437.3340 Fax 602.454.9303

RUSH

Chain of Custody Record

eurofins
Environment Testing
America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: *Ab*

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

COC No: 06112021

Client Contact
Weston Solutions
2300 Clayton Road, #900
Concord, CA 94520
Phone: 513-604-4797

Project Manager: Greg Rousseau
Email: greg.rousseau@westonsolutions.com
Tel/Fax: 513-604-4797

Site Contact: Greg Rousseau
Lab Contact: David Alltucker

Date: 6/9/2021
Carrier: FEDEX

TALS Project #:
Sampler: GR

Analysis Turnaround Time

☐ CALENDAR DAYS ☐ WORKING DAYS

Filtered Sample (Y / N)

Perform MS / MSD (Y / N)

7300 for As & Pb

145 for Hg

6010 / 7471 for As, Pb, Hg

550-165520 Chain of Custody

Barcode

Lab Use Only:
Client:
Sampling:
SDG No.:

Project Name: Argonaut Mine Headframe Removal
Site: Argonaut Mine Headframe
P O #: 0104258

TAT if different from Below
☐ 2 weeks
☐ 1 week
☒ 2 days
☐ 1 day

Sample Identification

Sample Date

Sample Time

Sample Type (C-Comp, G-Grab)

Matrix

of Cont.

AHR-AM01-061121-M

6/11/2021

1536

--

Filter

Air

1

X

Volume = 967.27 L

Volume = 1000.73 L

Volume = 966.78 L

Volume = 967.67 L

Volume = 1030.99 L

Volume = 994.09 L

Volume = 969.48 L

Volume = 917.33 L

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

AHR-AM01-061121-Hg

6/11/2021

1536

--

Filter

Air

1

X

Volume = 967.27 L

Volume = 1000.73 L

Volume = 966.78 L

Volume = 967.67 L

Volume = 1030.99 L

Volume = 994.09 L

Volume = 969.48 L

Volume = 917.33 L

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

AHR-AM02-061121-M

6/11/2021

1537

--

Filter

Air

1

X

Volume = 967.27 L

Volume = 1000.73 L

Volume = 966.78 L

Volume = 967.67 L

Volume = 1030.99 L

Volume = 994.09 L

Volume = 969.48 L

Volume = 917.33 L

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

AHR-AM02-061121-Hg

6/11/2021

1537

--

Filter

Air

1

X

Volume = 967.27 L

Volume = 1000.73 L

Volume = 966.78 L

Volume = 967.67 L

Volume = 1030.99 L

Volume = 994.09 L

Volume = 969.48 L

Volume = 917.33 L

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

AHR-AM03-061121-M

6/11/2021

1538

--

Filter

Air

1

X

Volume = 967.27 L

Volume = 1000.73 L

Volume = 966.78 L

Volume = 967.67 L

Volume = 1030.99 L

Volume = 994.09 L

Volume = 969.48 L

Volume = 917.33 L

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

AHR-AM03-061121-Hg

6/11/2021

1538

--

Filter

Air

1

X

Volume = 967.27 L

Volume = 1000.73 L

Volume = 966.78 L

Volume = 967.67 L

Volume = 1030.99 L

Volume = 994.09 L

Volume = 969.48 L

Volume = 917.33 L

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

AHR-AM04-061121-M

6/11/2021

1539

--

Filter

Air

1

X

Volume = 967.27 L

Volume = 1000.73 L

Volume = 966.78 L

Volume = 967.67 L

Volume = 1030.99 L

Volume = 994.09 L

Volume = 969.48 L

Volume = 917.33 L

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

AHR-AM04-061121-Hg

6/11/2021

1539

--

Filter

Air

1

X

Volume = 967.27 L

Volume = 1000.73 L

Volume = 966.78 L

Volume = 967.67 L

Volume = 1030.99 L

Volume = 994.09 L

Volume = 969.48 L

Volume = 917.33 L

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

AHR-196-0

6/8/2021

1232

--

Soil

1

X

Volume = 967.27 L

Volume = 1000.73 L

Volume = 966.78 L

Volume = 967.67 L

Volume = 1030.99 L

Volume = 994.09 L

Volume = 969.48 L

Volume = 917.33 L

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

AHR-204-0

6/9/2021

1150

--

Soil

1

X

Volume = 967.27 L

Volume = 1000.73 L

Volume = 966.78 L

Volume = 967.67 L

Volume = 1030.99 L

Volume = 994.09 L

Volume = 969.48 L

Volume = 917.33 L

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

AHR-210-1

6/11/2021

1223

--

Soil

1

X

Volume = 967.27 L

Volume = 1000.73 L

Volume = 966.78 L

Volume = 967.67 L

Volume = 1030.99 L

Volume = 994.09 L

Volume = 969.48 L

Volume = 917.33 L

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

*5 day TAT

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-165520-1

SDG Number: Argonaut Mine Headframe

Login Number: 165520

List Number: 1

Creator: Gravlin, Andrea

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	
Cooler Temperature is acceptable.	False	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-165682-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos



Authorized for release by:
6/30/2021 9:51:20 AM

Carlene McCutcheon, Project Manager II
(602)659-7612
Carlene.McCutcheon@Eurofinset.com

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Job ID: 550-165682-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-165682-1

Comments

No additional comments.

Receipt

The samples were received on 6/18/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition.

Metals

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

IH - Metals

Method 145: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-245994 and 550-246657 and analytical batch 550-246661.

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

Industrial Hygiene

Methods 7300, 7303: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-245811 and analytical batch 550-245891.

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

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-165682-1	AHR-AM01-0601621-M	Air	06/16/21 00:00	06/18/21 10:00	
550-165682-2	AHR-AM01-0601621Hg	Air	06/16/21 00:00	06/18/21 10:00	
550-165682-3	AHR-AM02-0601621-M	Air	06/16/21 00:00	06/18/21 10:00	
550-165682-4	AHR-AM02-0601621-Hg	Air	06/16/21 00:00	06/18/21 10:00	
550-165682-5	AHR-AM03-0601621-M	Air	06/16/21 00:00	06/18/21 10:00	
550-165682-6	AHR-AM03-0601621-Hg	Air	06/16/21 00:00	06/18/21 10:00	
550-165682-7	AHR-AM04-0601621-M	Air	06/16/21 00:00	06/18/21 10:00	
550-165682-8	AHR-AM04-0601621-Hg	Air	06/16/21 00:00	06/18/21 10:00	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-0601621-M

Lab Sample ID: 550-165682-1

☐ No Detections.

Client Sample ID: AHR-AM01-0601621-Hg

Lab Sample ID: 550-165682-2

☐ No Detections.

Client Sample ID: AHR-AM02-0601621-M

Lab Sample ID: 550-165682-3

☐ No Detections.

Client Sample ID: AHR-AM02-0601621-Hg

Lab Sample ID: 550-165682-4

☐ No Detections.

Client Sample ID: AHR-AM03-0601621-M

Lab Sample ID: 550-165682-5

☐ No Detections.

Client Sample ID: AHR-AM03-0601621-Hg

Lab Sample ID: 550-165682-6

☐ No Detections.

Client Sample ID: AHR-AM04-0601621-M

Lab Sample ID: 550-165682-7

☐ No Detections.

Client Sample ID: AHR-AM04-0601621-Hg

Lab Sample ID: 550-165682-8

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-0601621-M

Lab Sample ID: 550-165682-1

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Sample Air Volume: 909.76 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000550		0.500	06/21/21 09:39	06/21/21 19:02	1
Lead	<0.250	<0.000275		0.250	06/21/21 09:39	06/21/21 19:02	1

Client Sample ID: AHR-AM01-0601621Hg

Lab Sample ID: 550-165682-2

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Sample Air Volume: 984.35 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000508		0.0500	06/21/21 22:00	06/29/21 21:49	1

Client Sample ID: AHR-AM02-0601621-M

Lab Sample ID: 550-165682-3

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Sample Air Volume: 935.06 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000535		0.500	06/21/21 09:39	06/21/21 19:05	1
Lead	<0.250	<0.000267		0.250	06/21/21 09:39	06/21/21 19:05	1

Client Sample ID: AHR-AM02-0601621-Hg

Lab Sample ID: 550-165682-4

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Sample Air Volume: 946.39 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000528		0.0500	06/21/21 22:00	06/29/21 21:51	1

Client Sample ID: AHR-AM03-0601621-M

Lab Sample ID: 550-165682-5

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Sample Air Volume: 929.74 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000538		0.500	06/21/21 09:39	06/21/21 19:09	1
Lead	<0.250	<0.000269		0.250	06/21/21 09:39	06/21/21 19:09	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-0601621-Hg

Lab Sample ID: 550-165682-6

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Sample Air Volume: 990.12 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000505		0.0500	06/21/21 22:00	06/29/21 21:53	1

Client Sample ID: AHR-AM04-0601621-M

Lab Sample ID: 550-165682-7

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Sample Air Volume: 928.40 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000539		0.500	06/21/21 09:39	06/21/21 19:13	1
Lead	<0.250	<0.000269		0.250	06/21/21 09:39	06/21/21 19:13	1

Client Sample ID: AHR-AM04-0601621-Hg

Lab Sample ID: 550-165682-8

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Sample Air Volume: 941.72 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000531		0.0500	06/21/21 22:00	06/29/21 21:54	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Method: 145 - Mercury (CVAA)

Lab Sample ID: MB 550-245994/12-A
Matrix: Air
Analysis Batch: 246661

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245994

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.0500		0.0500	ug/Sample		06/21/21 22:00	06/29/21 21:41	1

Lab Sample ID: LCS 550-245994/13-A
Matrix: Air
Analysis Batch: 246661

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245994

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.250	0.2773		ug/Sample		111	46 - 126

Lab Sample ID: LCSD 550-245994/14-A
Matrix: Air
Analysis Batch: 246661

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 245994

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Hg	0.250	0.2826		ug/Sample		113	46 - 126	2	33

Method: 7300 - NIOSH Method 7300 (Modified)

Lab Sample ID: MB 550-245811/1-A
Matrix: Air
Analysis Batch: 245891

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245811

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		06/21/21 09:39	06/21/21 18:31	1
Lead	<0.250		0.250	ug/Sample		06/21/21 09:39	06/21/21 18:31	1

Lab Sample ID: LCS 550-245811/2-A
Matrix: Air
Analysis Batch: 245891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245811

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	23.21		ug/Sample		93	80 - 120
Lead	25.0	24.62		ug/Sample		98	80 - 120

Lab Sample ID: LCSD 550-245811/3-A
Matrix: Air
Analysis Batch: 245891

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 245811

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	25.0	23.25		ug/Sample		93	80 - 120	0	20
Lead	25.0	24.69		ug/Sample		99	80 - 120	0	20

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

IH - Metals

Prep Batch: 245811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165682-1	AHR-AM01-0601621-M	Total/NA	Air	Filter Prep	
550-165682-3	AHR-AM02-0601621-M	Total/NA	Air	Filter Prep	
550-165682-5	AHR-AM03-0601621-M	Total/NA	Air	Filter Prep	
550-165682-7	AHR-AM04-0601621-M	Total/NA	Air	Filter Prep	
MB 550-245811/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-245811/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-245811/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 245891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165682-1	AHR-AM01-0601621-M	Total/NA	Air	7300	245811
550-165682-3	AHR-AM02-0601621-M	Total/NA	Air	7300	245811
550-165682-5	AHR-AM03-0601621-M	Total/NA	Air	7300	245811
550-165682-7	AHR-AM04-0601621-M	Total/NA	Air	7300	245811
MB 550-245811/1-A	Method Blank	Total/NA	Air	7300	245811
LCS 550-245811/2-A	Lab Control Sample	Total/NA	Air	7300	245811
LCSD 550-245811/3-A	Lab Control Sample Dup	Total/NA	Air	7300	245811

Prep Batch: 245994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165682-2	AHR-AM01-0601621-Hg	Total/NA	Air	Filter Prep	
550-165682-4	AHR-AM02-0601621-Hg	Total/NA	Air	Filter Prep	
550-165682-6	AHR-AM03-0601621-Hg	Total/NA	Air	Filter Prep	
550-165682-8	AHR-AM04-0601621-Hg	Total/NA	Air	Filter Prep	
MB 550-245994/12-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-245994/13-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-245994/14-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 246661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165682-2	AHR-AM01-0601621-Hg	Total/NA	Air	145	245994
550-165682-4	AHR-AM02-0601621-Hg	Total/NA	Air	145	245994
550-165682-6	AHR-AM03-0601621-Hg	Total/NA	Air	145	245994
550-165682-8	AHR-AM04-0601621-Hg	Total/NA	Air	145	245994
MB 550-245994/12-A	Method Blank	Total/NA	Air	145	245994
LCS 550-245994/13-A	Lab Control Sample	Total/NA	Air	145	245994
LCSD 550-245994/14-A	Lab Control Sample Dup	Total/NA	Air	145	245994

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-0601621-M

Lab Sample ID: 550-165682-1

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245811	06/21/21 09:39	SGO	TAL PHX
Total/NA	Analysis	7300		1	245891	06/21/21 19:02	MGM	TAL PHX

Client Sample ID: AHR-AM01-0601621Hg

Lab Sample ID: 550-165682-2

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245994	06/21/21 22:00	SRR	TAL PHX
Total/NA	Analysis	145		1	246661	06/29/21 21:49	SRR	TAL PHX

Client Sample ID: AHR-AM02-0601621-M

Lab Sample ID: 550-165682-3

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245811	06/21/21 09:39	SGO	TAL PHX
Total/NA	Analysis	7300		1	245891	06/21/21 19:05	MGM	TAL PHX

Client Sample ID: AHR-AM02-0601621-Hg

Lab Sample ID: 550-165682-4

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245994	06/21/21 22:00	SRR	TAL PHX
Total/NA	Analysis	145		1	246661	06/29/21 21:51	SRR	TAL PHX

Client Sample ID: AHR-AM03-0601621-M

Lab Sample ID: 550-165682-5

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245811	06/21/21 09:39	SGO	TAL PHX
Total/NA	Analysis	7300		1	245891	06/21/21 19:09	MGM	TAL PHX

Client Sample ID: AHR-AM03-0601621-Hg

Lab Sample ID: 550-165682-6

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245994	06/21/21 22:00	SRR	TAL PHX
Total/NA	Analysis	145		1	246661	06/29/21 21:53	SRR	TAL PHX

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-0601621-M

Lab Sample ID: 550-165682-7

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245811	06/21/21 09:39	SGO	TAL PHX
Total/NA	Analysis	7300		1	245891	06/21/21 19:13	MGM	TAL PHX

Client Sample ID: AHR-AM04-0601621-Hg

Lab Sample ID: 550-165682-8

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245994	06/21/21 22:00	SRR	TAL PHX
Total/NA	Analysis	145		1	246661	06/29/21 21:54	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
145	Mercury (CVAA)	OSHA	TAL PHX
7300	NIOSH Method 7300 (Modified)	NIOSH	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements
OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

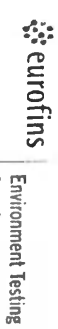
Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix
4625 East Cotton Center Boulevard
Suite 189
Phoenix, AZ 85040-4807
phone 602.437.3340 fax 602.454.9303

RUSH!

Chain of Custody Record



Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: 165682

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Project Manager: Greg Roussos
Email: greg.roussos@westonsolutions.com
Tel/Fax: 513-604-4797

Site Contact: Greg Roussos

Date: 6/17/2021

COC No: 06102021

Client Contact

Weston Solutions
2300 Clayton Road, #900
Concord, CA 94520
Phone: 513-604-4797

Lab Contact: David Alltucker

Carrier: FEDEX

TALS Project #:

Analysis Turnaround Time

☐ CALENDAR DAYS ☐ WORKING DAYS

Project Name: Argonaut Mine Headframe Removal

TAT if different from Below

☐ 2 weeks
☐ 1 week
☒ 2 days
☐ 1 day

Site: Argonaut Mine Headframe

Job / SDG No.:

For Lab Use Only:

Walk-in Client:

Lab Sampling:

Sample Specific Notes:

Volume =

Volume =

Volume =

Volume =

P O #: 0104258

Sample Identification

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Filtered Sample (Y / N)

Perform MS / MSD (Y / N)

7300 for As & Pb

145 for Hg

Volume = 909.76 L

-01 AHR-AM01-061621-M

6/16/2021

1511

Filter

1

X

X

X

X

X

X

-02 AHR-AM01-061621-Hg

6/16/2021

1512

Filter

1

X

X

X

X

X

X

-03 AHR-AM02-061621-M

6/16/2021

1513

Filter

1

X

X

X

X

X

X

-04 AHR-AM02-061621-Hg

6/16/2021

1514

Filter

1

X

X

X

X

X

X

-05 AHR-AM03-061621-M

6/16/2021

1511

Filter

1

X

X

X

X

X

X

-06 AHR-AM03-061621-Hg

6/16/2021

1512

Filter

1

X

X

X

X

X

X

-07 AHR-AM04-061621-M

6/16/2021

1513

Filter

1

X

X

X

X

X

X

-08 AHR-AM04-061621-Hg

6/16/2021

1514

Filter

1

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

Special Instructions/QC Requirements & Comments:

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

☐ Return to Client ☐ Disposal by Lab ☐ Archive for Months

AMB FEDEX

Custody Seals Intact: ☐ Yes ☐ No

Custody Seal No.

Cooler Temp. (°C): Obs'd: 11°C

Cor'd:

Therm ID No.:

Relinquished by: Greg Roussos

Company: Weston

Date/Time: 6/17/21

Received by:

Company:

Date/Time:

Relinquished by:

Company:

Date/Time:

Received in Laboratory by:

Company: TPH

Date/Time: 6/18/21 1000



550-165682 Chain of Custody

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-165682-1

SDG Number: Argonaut Mine Headframe

Login Number: 165682

List Number: 1

Creator: Gravlin, Andrea

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-165682-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos



Authorized for release by:
6/24/2021 12:07:15 PM

Carlene McCutcheon, Project Manager II
(602)659-7612
Carlene.McCutcheon@Eurofinset.com

LINKS

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www.eurofinsus.com/Env

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

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

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Preliminary Data

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Job ID: 550-165682-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-165682-1

Comments

No additional comments.

Receipt

The samples were received on 6/18/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition.

Metals

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

IH - Metals

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

Industrial Hygiene

Methods 7300, 7303: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-245811 and analytical batch 550-245891.

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

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-165682-1	AHR-AM01-0601621-M	Air	06/16/21 00:00	06/18/21 10:00	
550-165682-3	AHR-AM02-0601621-M	Air	06/16/21 00:00	06/18/21 10:00	
550-165682-5	AHR-AM03-0601621-M	Air	06/16/21 00:00	06/18/21 10:00	
550-165682-7	AHR-AM04-0601621-M	Air	06/16/21 00:00	06/18/21 10:00	

Preliminary Data

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-0601621-M

Lab Sample ID: 550-165682-1

☐ No Detections.

Client Sample ID: AHR-AM02-0601621-M

Lab Sample ID: 550-165682-3

☐ No Detections.

Client Sample ID: AHR-AM03-0601621-M

Lab Sample ID: 550-165682-5

☐ No Detections.

Client Sample ID: AHR-AM04-0601621-M

Lab Sample ID: 550-165682-7

☐ No Detections.

Preliminary Data

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix



Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-0601621-M

Lab Sample ID: 550-165682-1

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Sample Air Volume: 909.76 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000550		0.500	06/21/21 09:39	06/21/21 19:02	1
Lead	<0.250	<0.000275		0.250	06/21/21 09:39	06/21/21 19:02	1

Client Sample ID: AHR-AM02-0601621-M

Lab Sample ID: 550-165682-3

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Sample Air Volume: 935.06 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000535		0.500	06/21/21 09:39	06/21/21 19:05	1
Lead	<0.250	<0.000267		0.250	06/21/21 09:39	06/21/21 19:05	1

Client Sample ID: AHR-AM03-0601621-M

Lab Sample ID: 550-165682-5

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Sample Air Volume: 929.74 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000538		0.500	06/21/21 09:39	06/21/21 19:09	1
Lead	<0.250	<0.000269		0.250	06/21/21 09:39	06/21/21 19:09	1

Client Sample ID: AHR-AM04-0601621-M

Lab Sample ID: 550-165682-7

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Sample Air Volume: 928.40 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000539		0.500	06/21/21 09:39	06/21/21 19:13	1
Lead	<0.250	<0.000269		0.250	06/21/21 09:39	06/21/21 19:13	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Method: 7300 - NIOSH Method 7300 (Modified)

Lab Sample ID: MB 550-245811/1-A

Matrix: Air

Analysis Batch: 245891

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 245811

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		06/21/21 09:39	06/21/21 18:31	1
Lead	<0.250		0.250	ug/Sample		06/21/21 09:39	06/21/21 18:31	1

Lab Sample ID: LCS 550-245811/2-A

Matrix: Air

Analysis Batch: 245891

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 245811

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	23.21		ug/Sample		93	80 - 120
Lead	25.0	24.62		ug/Sample		98	80 - 120

Lab Sample ID: LCSD 550-245811/3-A

Matrix: Air

Analysis Batch: 245891

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 245811

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	25.0	23.25		ug/Sample		93	80 - 120	0	20
Lead	25.0	24.69		ug/Sample		99	80 - 120	0	20

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

IH - Metals

Prep Batch: 245811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165682-1	AHR-AM01-0601621-M	Total/NA	Air	Filter Prep	
550-165682-3	AHR-AM02-0601621-M	Total/NA	Air	Filter Prep	
550-165682-5	AHR-AM03-0601621-M	Total/NA	Air	Filter Prep	
550-165682-7	AHR-AM04-0601621-M	Total/NA	Air	Filter Prep	
MB 550-245811/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-245811/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-245811/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 245891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165682-1	AHR-AM01-0601621-M	Total/NA	Air	7300	245811
550-165682-3	AHR-AM02-0601621-M	Total/NA	Air	7300	245811
550-165682-5	AHR-AM03-0601621-M	Total/NA	Air	7300	245811
550-165682-7	AHR-AM04-0601621-M	Total/NA	Air	7300	245811
MB 550-245811/1-A	Method Blank	Total/NA	Air	7300	245811
LCS 550-245811/2-A	Lab Control Sample	Total/NA	Air	7300	245811
LCSD 550-245811/3-A	Lab Control Sample Dup	Total/NA	Air	7300	245811

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-0601621-M

Lab Sample ID: 550-165682-1

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245811	06/21/21 09:39	SGO	TAL PHX
Total/NA	Analysis	7300		1	245891	06/21/21 19:02	MGM	TAL PHX

Client Sample ID: AHR-AM02-0601621-M

Lab Sample ID: 550-165682-3

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245811	06/21/21 09:39	SGO	TAL PHX
Total/NA	Analysis	7300		1	245891	06/21/21 19:05	MGM	TAL PHX

Client Sample ID: AHR-AM03-0601621-M

Lab Sample ID: 550-165682-5

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245811	06/21/21 09:39	SGO	TAL PHX
Total/NA	Analysis	7300		1	245891	06/21/21 19:09	MGM	TAL PHX

Client Sample ID: AHR-AM04-0601621-M

Lab Sample ID: 550-165682-7

Date Collected: 06/16/21 00:00

Matrix: Air

Date Received: 06/18/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245811	06/21/21 09:39	SGO	TAL PHX
Total/NA	Analysis	7300		1	245891	06/21/21 19:13	MGM	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21

Preliminary Data

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165682-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
7300	NIOSH Method 7300 (Modified)	NIOSH	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements

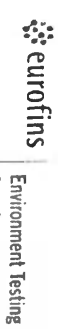
Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix
4625 East Cotton Center Boulevard
Suite 189
Phoenix, AZ 85040-4807
phone 602.437.3340 fax 602.454.9303

RUSH!

Chain of Custody Record



Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: 165682

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Project Manager: Greg Roussos
Email: greg.roussos@westonsolutions.com
Tel/Fax: 513-604-4797

Site Contact: Greg Roussos

Date: 6/17/2021

COC No: 06102021

Client Contact

Analysis Turnaround Time

Lab Contact: David Alltucker

Carrier: FEDEX

TALS Project #:

Concord, CA 94520

☐ CALENDAR DAYS ☐ WORKING DAYS

Sample GR

For Lab Use Only:

Walk-in Client:

Phone: 513-604-4797

TAT if different from Below

Lab Sampling:

Project Name: Argonaut Mine Headframe Removal

2 weeks
1 week
2 days
1 day

Job / SDG No.:

Site: Argonaut Mine Headframe

☐ 1 day
☐ 2 days
☐ 1 week
☐ 2 weeks

Sample Specific Notes:

P O #: 0104258

Filtered Sample (Y / N)

Perform MS / MSD (Y / N)

7300 for As & Pb

145 for Hg

Sample Identification

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

-01 AHR-AM01-061621-M

6/16/2021

1511

Filter

1

Volume = 909.76 L

-02 AHR-AM01-061621-Hg

6/16/2021

1512

Filter

1

Volume = 984.35 L

-03 AHR-AM02-061621-M

6/16/2021

1513

Filter

1

Volume = 935.06 L

-04 AHR-AM02-061621-Hg

6/16/2021

1514

Filter

1

Volume = 946.39 L

-05 AHR-AM03-061621-M

6/16/2021

1511

Filter

1

Volume = 929.74 L

-06 AHR-AM03-061621-Hg

6/16/2021

1512

Filter

1

Volume = 990.12 L

-07 AHR-AM04-061621-M

6/16/2021

1513

Filter

1

Volume = 928.40 L

-08 AHR-AM04-061621-Hg

6/16/2021

1514

Filter

1

Volume = 941.72 L

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

550-165682 Chain of Custody

Volume =

Volume =

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

Volume =

Volume =

Volume =

Special Instructions/QC Requirements & Comments:

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

☐ Return to Client ☐ Disposal by Lab ☐ Archive for Months

Custody Seals Intact: ☐ Yes ☐ No

Custody Seal No.:

Relinquished by: Greg Roussos

Company: Weston

Date/Time: 6/17/21

Received by:

Company:

Date/Time:

Relinquished by:

Company:

Date/Time:

Received in Laboratory by:

Company:

Date/Time:

Relinquished by:

Company:

Date/Time:

Received in Laboratory by:

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Date/Time:

Relinquished by:

Company:

Date/Time:

Received in Laboratory by:

Company:

Date/Time:

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-165682-1

SDG Number: Argonaut Mine Headframe

Login Number: 165682

List Number: 1

Creator: Gravlin, Andrea

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-165738-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos



Authorized for release by:
6/24/2021 12:17:53 PM

Carlene McCutcheon, Project Manager II
(602)659-7612
Carlene.McCutcheon@Eurofinset.com

LINKS

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www.eurofinsus.com/Env

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

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

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Preliminary Data

Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165738-1
SDG: Argonaut Mine Headframe

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165738-1
SDG: Argonaut Mine Headframe

Job ID: 550-165738-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-165738-1

Comments

No additional comments.

Receipt

The samples were received on 6/21/2021 9:15 AM. Unless otherwise noted below, the samples arrived in good condition.

Metals

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

IH - Metals

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

Industrial Hygiene

Method 7300: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-245881 and analytical batch 550-246028.

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

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165738-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-165738-1	AHR-AM01-061421-M	Air	06/14/21 00:00	06/21/21 09:15	
550-165738-3	AHR-AM02-061421-M	Air	06/14/21 00:00	06/21/21 09:15	
550-165738-5	AHR-AM03-061421-M	Air	06/14/21 00:00	06/21/21 09:15	
550-165738-7	AHR-AM04-061421-M	Air	06/14/21 00:00	06/21/21 09:15	
550-165738-9	AHR-AM01-061521-M	Air	06/15/21 00:00	06/21/21 09:15	
550-165738-11	AHR-AM02-061521-M	Air	06/15/21 00:00	06/21/21 09:15	
550-165738-13	AHR-AM03-061521-M	Air	06/15/21 00:00	06/21/21 09:15	
550-165738-15	AHR-AM04-061521-M	Air	06/15/21 00:00	06/21/21 09:15	

Preliminary Data

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165738-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-061421-M

Lab Sample ID: 550-165738-1

☐ No Detections.

Client Sample ID: AHR-AM02-061421-M

Lab Sample ID: 550-165738-3

☐ No Detections.

Client Sample ID: AHR-AM03-061421-M

Lab Sample ID: 550-165738-5

☐ No Detections.

Client Sample ID: AHR-AM04-061421-M

Lab Sample ID: 550-165738-7

☐ No Detections.

Client Sample ID: AHR-AM01-061521-M

Lab Sample ID: 550-165738-9

☐ No Detections.

Client Sample ID: AHR-AM02-061521-M

Lab Sample ID: 550-165738-11

☐ No Detections.

Client Sample ID: AHR-AM03-061521-M

Lab Sample ID: 550-165738-13

☐ No Detections.

Client Sample ID: AHR-AM04-061521-M

Lab Sample ID: 550-165738-15

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165738-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-061421-M

Lab Sample ID: 550-165738-1

Date Collected: 06/14/21 00:00

Matrix: Air

Date Received: 06/21/21 09:15

Sample Air Volume: 1092.73 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000458			0.500	06/22/21 06:03	06/22/21 22:07	1
Lead	<0.250	<0.000229			0.250	06/22/21 06:03	06/22/21 22:07	1

Client Sample ID: AHR-AM02-061421-M

Lab Sample ID: 550-165738-3

Date Collected: 06/14/21 00:00

Matrix: Air

Date Received: 06/21/21 09:15

Sample Air Volume: 1085.24 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000461			0.500	06/22/21 06:03	06/22/21 22:11	1
Lead	<0.250	<0.000230			0.250	06/22/21 06:03	06/22/21 22:11	1

Client Sample ID: AHR-AM03-061421-M

Lab Sample ID: 550-165738-5

Date Collected: 06/14/21 00:00

Matrix: Air

Date Received: 06/21/21 09:15

Sample Air Volume: 1109.06 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000451			0.500	06/22/21 06:03	06/22/21 22:14	1
Lead	<0.250	<0.000225			0.250	06/22/21 06:03	06/22/21 22:14	1

Client Sample ID: AHR-AM04-061421-M

Lab Sample ID: 550-165738-7

Date Collected: 06/14/21 00:00

Matrix: Air

Date Received: 06/21/21 09:15

Sample Air Volume: 1064.36 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000470			0.500	06/22/21 06:03	06/22/21 22:18	1
Lead	<0.250	<0.000235			0.250	06/22/21 06:03	06/22/21 22:18	1

Client Sample ID: AHR-AM01-061521-M

Lab Sample ID: 550-165738-9

Date Collected: 06/15/21 00:00

Matrix: Air

Date Received: 06/21/21 09:15

Sample Air Volume: 1101.82 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000454			0.500	06/22/21 06:03	06/22/21 22:22	1
Lead	<0.250	<0.000227			0.250	06/22/21 06:03	06/22/21 22:22	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165738-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM02-061521-M

Lab Sample ID: 550-165738-11

Date Collected: 06/15/21 00:00

Matrix: Air

Date Received: 06/21/21 09:15

Sample Air Volume: 1167.73 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000428			0.500	06/22/21 06:03	06/22/21 22:30	1
Lead	<0.250	<0.000214			0.250	06/22/21 06:03	06/22/21 22:30	1

Client Sample ID: AHR-AM03-061521-M

Lab Sample ID: 550-165738-13

Date Collected: 06/15/21 00:00

Matrix: Air

Date Received: 06/21/21 09:15

Sample Air Volume: 1123.61 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000445			0.500	06/22/21 06:03	06/22/21 22:26	1
Lead	<0.250	<0.000222			0.250	06/22/21 06:03	06/22/21 22:26	1

Client Sample ID: AHR-AM04-061521-M

Lab Sample ID: 550-165738-15

Date Collected: 06/15/21 00:00

Matrix: Air

Date Received: 06/21/21 09:15

Sample Air Volume: 1121.73 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000446			0.500	06/22/21 06:03	06/22/21 22:33	1
Lead	<0.250	<0.000223			0.250	06/22/21 06:03	06/22/21 22:33	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165738-1
SDG: Argonaut Mine Headframe

Method: 7300 - NIOSH Method 7300 (Modified)

Lab Sample ID: MB 550-245881/1-A
Matrix: Air
Analysis Batch: 246028

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245881

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		06/22/21 06:03	06/22/21 21:56	1
Lead	<0.250		0.250	ug/Sample		06/22/21 06:03	06/22/21 21:56	1

Lab Sample ID: LCS 550-245881/2-A
Matrix: Air
Analysis Batch: 246028

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245881

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	23.59		ug/Sample		94	80 - 120
Lead	25.0	24.67		ug/Sample		99	80 - 120

Lab Sample ID: LCSD 550-245881/3-A
Matrix: Air
Analysis Batch: 246028

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 245881

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	25.0	23.58		ug/Sample		94	80 - 120	0	20
Lead	25.0	24.56		ug/Sample		98	80 - 120	0	20

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165738-1
SDG: Argonaut Mine Headframe

IH - Metals

Prep Batch: 245881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165738-1	AHR-AM01-061421-M	Total/NA	Air	Filter Prep	
550-165738-3	AHR-AM02-061421-M	Total/NA	Air	Filter Prep	
550-165738-5	AHR-AM03-061421-M	Total/NA	Air	Filter Prep	
550-165738-7	AHR-AM04-061421-M	Total/NA	Air	Filter Prep	
550-165738-9	AHR-AM01-061521-M	Total/NA	Air	Filter Prep	
550-165738-11	AHR-AM02-061521-M	Total/NA	Air	Filter Prep	
550-165738-13	AHR-AM03-061521-M	Total/NA	Air	Filter Prep	
550-165738-15	AHR-AM04-061521-M	Total/NA	Air	Filter Prep	
MB 550-245881/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-245881/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-245881/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 246028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165738-1	AHR-AM01-061421-M	Total/NA	Air	7300	245881
550-165738-3	AHR-AM02-061421-M	Total/NA	Air	7300	245881
550-165738-5	AHR-AM03-061421-M	Total/NA	Air	7300	245881
550-165738-7	AHR-AM04-061421-M	Total/NA	Air	7300	245881
550-165738-9	AHR-AM01-061521-M	Total/NA	Air	7300	245881
550-165738-11	AHR-AM02-061521-M	Total/NA	Air	7300	245881
550-165738-13	AHR-AM03-061521-M	Total/NA	Air	7300	245881
550-165738-15	AHR-AM04-061521-M	Total/NA	Air	7300	245881
MB 550-245881/1-A	Method Blank	Total/NA	Air	7300	245881
LCS 550-245881/2-A	Lab Control Sample	Total/NA	Air	7300	245881
LCSD 550-245881/3-A	Lab Control Sample Dup	Total/NA	Air	7300	245881

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165738-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-061421-M

Lab Sample ID: 550-165738-1

Date Collected: 06/14/21 00:00

Matrix: Air

Date Received: 06/21/21 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245881	06/22/21 06:03	SGO	TAL PHX
Total/NA	Analysis	7300		1	246028	06/22/21 22:07	MGM	TAL PHX

Client Sample ID: AHR-AM02-061421-M

Lab Sample ID: 550-165738-3

Date Collected: 06/14/21 00:00

Matrix: Air

Date Received: 06/21/21 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245881	06/22/21 06:03	SGO	TAL PHX
Total/NA	Analysis	7300		1	246028	06/22/21 22:11	MGM	TAL PHX

Client Sample ID: AHR-AM03-061421-M

Lab Sample ID: 550-165738-5

Date Collected: 06/14/21 00:00

Matrix: Air

Date Received: 06/21/21 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245881	06/22/21 06:03	SGO	TAL PHX
Total/NA	Analysis	7300		1	246028	06/22/21 22:14	MGM	TAL PHX

Client Sample ID: AHR-AM04-061421-M

Lab Sample ID: 550-165738-7

Date Collected: 06/14/21 00:00

Matrix: Air

Date Received: 06/21/21 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245881	06/22/21 06:03	SGO	TAL PHX
Total/NA	Analysis	7300		1	246028	06/22/21 22:18	MGM	TAL PHX

Client Sample ID: AHR-AM01-061521-M

Lab Sample ID: 550-165738-9

Date Collected: 06/15/21 00:00

Matrix: Air

Date Received: 06/21/21 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245881	06/22/21 06:03	SGO	TAL PHX
Total/NA	Analysis	7300		1	246028	06/22/21 22:22	MGM	TAL PHX

Client Sample ID: AHR-AM02-061521-M

Lab Sample ID: 550-165738-11

Date Collected: 06/15/21 00:00

Matrix: Air

Date Received: 06/21/21 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245881	06/22/21 06:03	SGO	TAL PHX
Total/NA	Analysis	7300		1	246028	06/22/21 22:30	MGM	TAL PHX

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165738-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-061521-M

Lab Sample ID: 550-165738-13

Date Collected: 06/15/21 00:00

Matrix: Air

Date Received: 06/21/21 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245881	06/22/21 06:03	SGO	TAL PHX
Total/NA	Analysis	7300		1	246028	06/22/21 22:26	MGM	TAL PHX

Client Sample ID: AHR-AM04-061521-M

Lab Sample ID: 550-165738-15

Date Collected: 06/15/21 00:00

Matrix: Air

Date Received: 06/21/21 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			245881	06/22/21 06:03	SGO	TAL PHX
Total/NA	Analysis	7300		1	246028	06/22/21 22:33	MGM	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165738-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21

Preliminary Data

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165738-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
7300	NIOSH Method 7300 (Modified)	NIOSH	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix
4625 East Cotton Center Boulevard
Suite 189
Phoenix, AZ 85040-4807
phone 602.437.3340 fax 602.454.9303

165738

Chain of Custody Record

eurofins Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact		Project Manager: Greg Roussos		Site Contact: Greg Roussos		Date: 6/16/2021		COC No: 06112021			
Weston Solutions		Email: greg.roussos@westonsolutions.com		Lab Contact: David Alltucker		Carrier: FEDEX		_1_ of _2_ COCs			
2300 Clayton Road, #900		Tel/Fax: 513-604-4797						TALS Project #:			
Concord, CA 94520		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS						Sampler: GR			
Phone: 513-604-4797		TAT if different from Below						For Lab Use Only:			
		<input type="checkbox"/> 2 weeks						Walk-in Client:			
		<input type="checkbox"/> 1 week						Lab Sampling:			
		<input type="checkbox"/> 2 days						Job / SDG No:			
		<input type="checkbox"/> 1 day									
Project Name: Argonaut Mine Headframe Removal											
Site: Argonaut Mine Headframe											
PO # 0104258											
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	7300 for As & Pb	145 for Hg	6010 / 7471 for As, Pb, Hg	Sample Specific Notes
-01 AHR-AM01-061421-M	6/14/2021	1623	--	Air Filter	1			x			Volume = 1092.73 L
-02 AHR-AM01-061421-Hg	6/14/2021	1623	--	Air Filter	1			x			Volume = 1110.07 L
-03 AHR-AM02-061421-M	6/14/2021	1624	--	Air Filter	1			x			Volume = 1085.24 L
-04 AHR-AM02-061421-Hg	6/14/2021	1624	--	Air Filter	1			x			Volume = 1066.41 L
-05 AHR-AM03-061421-M	6/14/2021	1625	--	Air Filter	1			x			Volume = 1109.06 L
-06 AHR-AM03-061421-Hg	6/14/2021	1625	--	Air Filter	1			x			Volume = 1103.87 L
-07 AHR-AM04-061421-M	6/14/2021	1626	--	Air Filter	1			x			Volume = 1064.36 L
-08 AHR-AM04-061421-Hg	6/14/2021	1626	--	Air Filter	1			x			Volume = 1018.71 L
-09 AHR-AM01-061521-M	6/15/2021	1628	--	Air Filter	1			x			Volume = 1101.82 L
-10 AHR-AM01-061521-Hg	6/15/2021	1628	--	Air Filter	1			x			Volume = 1124.15 L
-11 AHR-AM02-061521-M	6/15/2021	1629	--	Air Filter	1			x			Volume = 1167.73 L
-12 AHR-AM02-061521-Hg	6/15/2021	1629	--	Air Filter	1			x			Volume = 1165.58 L
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.						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown						<input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months					
Special Instructions/QC Requirements & Comments:											
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Cor'd: _____		Therm ID No.:					
Relinquished by: <i>Greg Roussos</i>		Company: <i>Weston Solutions</i>		Date/Time: <i>6/16/21 12:00</i>		Received by:		Company:		Date/Time:	
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:	
Relinquished by:		Company: <i>FEDEX</i>		Date/Time:		Received in Laboratory by: <i>Mike Thumel</i>		Company: <i>Eurofins</i>		Date/Time: <i>6/21/21 09:15</i>	

Form No. CA-C-WI-002, Rev. 4.35, dated 10/6/2020

AMB NO ICE

RUSH!



550-165738 Chain of Custody

165738

eurofins Environment Testing
America

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact		Project Manager: Greg Roussos		Site Contact: Greg Roussos		Date: 6/16/2021		COC No: 06112021				
Weston Solutions		Email: greg.roussos@westonsolutions.com		Lab Contact: David Alltucker		Carrier: FEDEX		2 of 2 COCs				
2300 Clayton Road, #900		Tel/Fax: 513-604-4797						TALS Project #:				
Concord, CA 94520		Analysis Turnaround Time						Sampler: GR				
Phone: 513-604-4797		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS						For Lab Use Only:				
		TAT if different from Below _____						Walk-in Client:				
Project Name: Argonaut Mine Headframe Removal		<input type="checkbox"/> 2 weeks						Lab Sampling:				
Site: Argonaut Mine Headframe		<input type="checkbox"/> 1 week										
P O #: 0104258		<input checked="" type="checkbox"/> 2 days						Job / SDG No.:				
		<input type="checkbox"/> 1 day										
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	7300 for As & Pb	146 for Hg	6010 / 7471 for As, Pb, Hg	Sample Specific Notes:
-13	AHR-AM01-061521-M	6/15/2021	1630	--	Air Filter	1		x				Volume = 1123.61 L
-14	AHR-AM01-061521-Hg	6/15/2021	1630	--	Air Filter	1			x			Volume = 1121.19 L
-15	AHR-AM02-061521-M	6/15/2021	1631	--	Air Filter	1		x				Volume = 1121.73 L
-16	AHR-AM02-061521-Hg	6/15/2021	1631	--	Air Filter	1			x			Volume = 1124.15 L
				--								
				--								
				--								
				--								
				--								
				--								
				--								
				--								
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
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.							Return to Client <input type="checkbox"/> Disposal by Lab <input checked="" type="checkbox"/> Archive for _____ Months <input type="checkbox"/>					
<input type="checkbox"/> Non-Hazardous <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown												
Special Instructions/QC Requirements & Comments:												
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Cor'd: _____		Therm ID No.:						
Relinquished by: <i>Cory E. White</i>		Company: <i>Weston</i>		Date/Time: <i>6/16/21 12:00</i>		Received by:		Company:		Date/Time:		
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:		
Relinquished by:		Company: <i>FED EX</i>		Date/Time:		Received in Laboratory by: <i>Nicole Sewell</i>		Company: <i>FED EX</i>		Date/Time: <i>6/21/21 09:15</i>		

Form No. CA-C-WI-002, Rev. 4.35, dated 10/6/2020

AMB NO 102

RUSH!

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-165738-1

SDG Number: Argonaut Mine Headframe

Login Number: 165738

List Number: 1

Creator: Gravlin, Andrea

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-165870-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos



Authorized for release by:
6/28/2021 4:20:57 PM

Carlene McCutcheon, Project Manager II
(602)659-7612
Carlene.McCutcheon@Eurofinset.com

LINKS

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165870-1
SDG: Argonaut Mine Headframe

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165870-1
SDG: Argonaut Mine Headframe

Job ID: 550-165870-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-165870-1

Comments

No additional comments.

Receipt

The samples were received on 6/23/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition.

Metals

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

IH - Metals

Method 145: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-246367 and analytical batch 550-246388.

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

Industrial Hygiene

Method 7300: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-246265 and analytical batch 550-246364.

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

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165870-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-165870-1	AHR-AM01-062121-M	Air	06/21/21 00:00	06/23/21 10:00	
550-165870-2	AHR-AM01-062121-Hg	Air	06/21/21 00:00	06/23/21 10:00	
550-165870-3	AHR-AM02-062121-M	Air	06/21/21 00:00	06/23/21 10:00	
550-165870-4	AHR-AM02-062121-Hg	Air	06/21/21 00:00	06/23/21 10:00	
550-165870-5	AHR-AM03-062121-M	Air	06/21/21 00:00	06/23/21 10:00	
550-165870-6	AHR-AM03-062121-Hg	Air	06/21/21 00:00	06/23/21 10:00	
550-165870-7	AHR-AM04-062121-M	Air	06/21/21 00:00	06/23/21 10:00	
550-165870-8	AHR-AM04-062121-Hg	Air	06/21/21 00:00	06/23/21 10:00	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165870-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-062121-M

Lab Sample ID: 550-165870-1

☐ No Detections.

Client Sample ID: AHR-AM01-062121-Hg

Lab Sample ID: 550-165870-2

☐ No Detections.

Client Sample ID: AHR-AM02-062121-M

Lab Sample ID: 550-165870-3

☐ No Detections.

Client Sample ID: AHR-AM02-062121-Hg

Lab Sample ID: 550-165870-4

☐ No Detections.

Client Sample ID: AHR-AM03-062121-M

Lab Sample ID: 550-165870-5

☐ No Detections.

Client Sample ID: AHR-AM03-062121-Hg

Lab Sample ID: 550-165870-6

☐ No Detections.

Client Sample ID: AHR-AM04-062121-M

Lab Sample ID: 550-165870-7

☐ No Detections.

Client Sample ID: AHR-AM04-062121-Hg

Lab Sample ID: 550-165870-8

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165870-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-062121-M

Lab Sample ID: 550-165870-1

Date Collected: 06/21/21 00:00

Matrix: Air

Date Received: 06/23/21 10:00

Sample Air Volume: 900.0 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000556			0.500	06/25/21 05:18	06/25/21 12:58	1
Lead	<0.250	<0.000278			0.250	06/25/21 05:18	06/25/21 12:58	1

Client Sample ID: AHR-AM01-062121-Hg

Lab Sample ID: 550-165870-2

Date Collected: 06/21/21 00:00

Matrix: Air

Date Received: 06/23/21 10:00

Sample Air Volume: 948.29 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000527			0.0500	06/25/21 16:30	06/25/21 22:02	1

Client Sample ID: AHR-AM02-062121-M

Lab Sample ID: 550-165870-3

Date Collected: 06/21/21 00:00

Matrix: Air

Date Received: 06/23/21 10:00

Sample Air Volume: 936.13 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000534			0.500	06/25/21 05:18	06/25/21 13:01	1
Lead	<0.250	<0.000267			0.250	06/25/21 05:18	06/25/21 13:01	1

Client Sample ID: AHR-AM02-062121-Hg

Lab Sample ID: 550-165870-4

Date Collected: 06/21/21 00:00

Matrix: Air

Date Received: 06/23/21 10:00

Sample Air Volume: 949.95 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000526			0.0500	06/25/21 16:30	06/25/21 22:04	1

Client Sample ID: AHR-AM03-062121-M

Lab Sample ID: 550-165870-5

Date Collected: 06/21/21 00:00

Matrix: Air

Date Received: 06/23/21 10:00

Sample Air Volume: 919.80 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000544			0.500	06/25/21 05:18	06/25/21 13:05	1
Lead	<0.250	<0.000272			0.250	06/25/21 05:18	06/25/21 13:05	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165870-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-062121-Hg

Lab Sample ID: 550-165870-6

Date Collected: 06/21/21 00:00

Matrix: Air

Date Received: 06/23/21 10:00

Sample Air Volume: 940.70 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000532		0.0500	06/25/21 16:30	06/25/21 22:06	1

Client Sample ID: AHR-AM04-062121-M

Lab Sample ID: 550-165870-7

Date Collected: 06/21/21 00:00

Matrix: Air

Date Received: 06/23/21 10:00

Sample Air Volume: 909.19 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000550		0.500	06/25/21 05:18	06/25/21 13:09	1
Lead	<0.250	<0.000275		0.250	06/25/21 05:18	06/25/21 13:09	1

Client Sample ID: AHR-AM04-062121-Hg

Lab Sample ID: 550-165870-8

Date Collected: 06/21/21 00:00

Matrix: Air

Date Received: 06/23/21 10:00

Sample Air Volume: 942.48 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000531		0.0500	06/25/21 16:30	06/25/21 22:08	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165870-1
SDG: Argonaut Mine Headframe

Method: 145 - Mercury (CVAA)

Lab Sample ID: MB 550-246367/12-A
Matrix: Air
Analysis Batch: 246388

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 246367

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.0500		0.0500	ug/Sample		06/25/21 16:30	06/25/21 21:36	1

Lab Sample ID: LCS 550-246367/13-A
Matrix: Air
Analysis Batch: 246388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 246367

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.250	0.2947		ug/Sample		118	46 - 126

Lab Sample ID: LCSD 550-246367/14-A
Matrix: Air
Analysis Batch: 246388

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 246367

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.250	0.2763		ug/Sample		111	46 - 126	6	33

Method: 7300 - NIOSH Method 7300 (Modified)

Lab Sample ID: MB 550-246265/1-A
Matrix: Air
Analysis Batch: 246364

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 246265

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		06/25/21 05:18	06/25/21 12:39	1
Lead	<0.250		0.250	ug/Sample		06/25/21 05:18	06/25/21 12:39	1

Lab Sample ID: LCS 550-246265/4-A
Matrix: Air
Analysis Batch: 246364

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 246265

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	24.02		ug/Sample		96	80 - 120
Lead	25.0	25.08		ug/Sample		100	80 - 120

Lab Sample ID: LCSD 550-246265/5-A
Matrix: Air
Analysis Batch: 246364

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 246265

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	25.0	24.37		ug/Sample		97	80 - 120	1	20
Lead	25.0	25.37		ug/Sample		101	80 - 120	1	20

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165870-1
SDG: Argonaut Mine Headframe

IH - Metals

Prep Batch: 246265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165870-1	AHR-AM01-062121-M	Total/NA	Air	Filter Prep	
550-165870-3	AHR-AM02-062121-M	Total/NA	Air	Filter Prep	
550-165870-5	AHR-AM03-062121-M	Total/NA	Air	Filter Prep	
550-165870-7	AHR-AM04-062121-M	Total/NA	Air	Filter Prep	
MB 550-246265/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-246265/4-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-246265/5-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 246364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165870-1	AHR-AM01-062121-M	Total/NA	Air	7300	246265
550-165870-3	AHR-AM02-062121-M	Total/NA	Air	7300	246265
550-165870-5	AHR-AM03-062121-M	Total/NA	Air	7300	246265
550-165870-7	AHR-AM04-062121-M	Total/NA	Air	7300	246265
MB 550-246265/1-A	Method Blank	Total/NA	Air	7300	246265
LCS 550-246265/4-A	Lab Control Sample	Total/NA	Air	7300	246265
LCSD 550-246265/5-A	Lab Control Sample Dup	Total/NA	Air	7300	246265

Prep Batch: 246367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165870-2	AHR-AM01-062121-Hg	Total/NA	Air	Filter Prep	
550-165870-4	AHR-AM02-062121-Hg	Total/NA	Air	Filter Prep	
550-165870-6	AHR-AM03-062121-Hg	Total/NA	Air	Filter Prep	
550-165870-8	AHR-AM04-062121-Hg	Total/NA	Air	Filter Prep	
MB 550-246367/12-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-246367/13-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-246367/14-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 246388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165870-2	AHR-AM01-062121-Hg	Total/NA	Air	145	246367
550-165870-4	AHR-AM02-062121-Hg	Total/NA	Air	145	246367
550-165870-6	AHR-AM03-062121-Hg	Total/NA	Air	145	246367
550-165870-8	AHR-AM04-062121-Hg	Total/NA	Air	145	246367
MB 550-246367/12-A	Method Blank	Total/NA	Air	145	246367
LCS 550-246367/13-A	Lab Control Sample	Total/NA	Air	145	246367
LCSD 550-246367/14-A	Lab Control Sample Dup	Total/NA	Air	145	246367

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165870-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-062121-M

Lab Sample ID: 550-165870-1

Date Collected: 06/21/21 00:00

Matrix: Air

Date Received: 06/23/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246265	06/25/21 05:18	SGO	TAL PHX
Total/NA	Analysis	7300		1	246364	06/25/21 12:58	MGM	TAL PHX

Client Sample ID: AHR-AM01-062121-Hg

Lab Sample ID: 550-165870-2

Date Collected: 06/21/21 00:00

Matrix: Air

Date Received: 06/23/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246367	06/25/21 16:30	SRR	TAL PHX
Total/NA	Analysis	145		1	246388	06/25/21 22:02	SRR	TAL PHX

Client Sample ID: AHR-AM02-062121-M

Lab Sample ID: 550-165870-3

Date Collected: 06/21/21 00:00

Matrix: Air

Date Received: 06/23/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246265	06/25/21 05:18	SGO	TAL PHX
Total/NA	Analysis	7300		1	246364	06/25/21 13:01	MGM	TAL PHX

Client Sample ID: AHR-AM02-062121-Hg

Lab Sample ID: 550-165870-4

Date Collected: 06/21/21 00:00

Matrix: Air

Date Received: 06/23/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246367	06/25/21 16:30	SRR	TAL PHX
Total/NA	Analysis	145		1	246388	06/25/21 22:04	SRR	TAL PHX

Client Sample ID: AHR-AM03-062121-M

Lab Sample ID: 550-165870-5

Date Collected: 06/21/21 00:00

Matrix: Air

Date Received: 06/23/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246265	06/25/21 05:18	SGO	TAL PHX
Total/NA	Analysis	7300		1	246364	06/25/21 13:05	MGM	TAL PHX

Client Sample ID: AHR-AM03-062121-Hg

Lab Sample ID: 550-165870-6

Date Collected: 06/21/21 00:00

Matrix: Air

Date Received: 06/23/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246367	06/25/21 16:30	SRR	TAL PHX
Total/NA	Analysis	145		1	246388	06/25/21 22:06	SRR	TAL PHX

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165870-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-062121-M

Lab Sample ID: 550-165870-7

Date Collected: 06/21/21 00:00

Matrix: Air

Date Received: 06/23/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246265	06/25/21 05:18	SGO	TAL PHX
Total/NA	Analysis	7300		1	246364	06/25/21 13:09	MGM	TAL PHX

Client Sample ID: AHR-AM04-062121-Hg

Lab Sample ID: 550-165870-8

Date Collected: 06/21/21 00:00

Matrix: Air

Date Received: 06/23/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246367	06/25/21 16:30	SRR	TAL PHX
Total/NA	Analysis	145		1	246388	06/25/21 22:08	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165870-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165870-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
145	Mercury (CVAA)	OSHA	TAL PHX
7300	NIOSH Method 7300 (Modified)	NIOSH	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements
OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix
4625 East Cotton Center Boulevard
Suite 189
Phoenix, AZ 85040-4807
phone 602.437.3340 fax 602.454.9303

RUSH

Chain of Custody Record

165870



Environment Testing
America

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Project Manager: Greg Roussos

Email: greg.roussos@westonsolutions.com

Tel/Fax: 513-604-4797

Analysis Turnaround Time

☐ CALENDAR DAYS ☐ WORKING DAYS

TAT if different from Below

☐ 1 day ☐ 1 week ☐ 2 weeks

Project Name: Argonaut Mine Headframe Removal

Site: Argonaut Mine Headframe

P O #: 0104258

COC No: 06102021

TALS Project #:

Sampler: GR

For Lab Use Only:

Walk-in Client:

Lab Sampling:

Job / SDG No.:

Sample Specific Notes:

Volume = 900.09 L

Volume = 948.29 L

Volume = 936.13 L

Volume = 949.95 L

Volume = 919.80 L

Volume = 940.70 L

Volume = 909.19 L

Volume = 942.48 L

Volume =



550-165870 Chain of Custody

Sample Disposal (A fee may be assessed for disposal)

Return to Client

Archive for

Months

Special Instructions/QC Requirements & Comments:

Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ Poison 8 ☐ Unknown ☐

Custody Seals Intact: ☐ Yes ☐ No

Relinquished by: *Craig Zabelko*

Company: *Weston*

Date/Time: *6/22/21 0730*

Received by: *AMB*

Date/Time: *6/23/21 1000*

Relinquished by: *AMB*

Company: *FEPO*

Date/Time: *6/23/21 1000*

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-165870-1

SDG Number: Argonaut Mine Headframe

Login Number: 165870

List Number: 1

Creator: Doerr, Bret C

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-165968-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos



Authorized for release by:
6/28/2021 1:48:55 PM

Carlene McCutcheon, Project Manager II
(602)659-7612
Carlene.McCutcheon@Eurofinset.com

LINKS

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results through
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www.eurofinsus.com/Env

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165968-1
SDG: Argonaut Mine Headframe

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165968-1
SDG: Argonaut Mine Headframe

Job ID: 550-165968-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-165968-1

Comments

No additional comments.

Receipt

The samples were received on 6/24/2021 9:35 AM. Unless otherwise noted below, the samples arrived in good condition.

Metals

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

IH - Metals

Method 145: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-246367 and analytical batch 550-246388.

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

Industrial Hygiene

Method 7300: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-246265 and analytical batch 550-246364.

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

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165968-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-165968-1	AHR-AM01-062221-M	Air	06/22/21 00:00	06/24/21 09:35	
550-165968-2	AHR-AM01-062221-Hg	Air	06/22/21 00:00	06/24/21 09:35	
550-165968-3	AHR-AM02-062221-M	Air	06/22/21 00:00	06/24/21 09:35	
550-165968-4	AHR-AM02-062221-Hg	Air	06/22/21 00:00	06/24/21 09:35	
550-165968-5	AHR-AM03-062221-M	Air	06/22/21 00:00	06/24/21 09:35	
550-165968-6	AHR-AM03-062221-Hg	Air	06/22/21 00:00	06/24/21 09:35	
550-165968-7	AHR-AM04-062221-M	Air	06/22/21 00:00	06/24/21 09:35	
550-165968-8	AHR-AM04-062221-Hg	Air	06/22/21 00:00	06/24/21 09:35	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165968-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-062221-M

Lab Sample ID: 550-165968-1

☐ No Detections.

Client Sample ID: AHR-AM01-062221-Hg

Lab Sample ID: 550-165968-2

☐ No Detections.

Client Sample ID: AHR-AM02-062221-M

Lab Sample ID: 550-165968-3

☐ No Detections.

Client Sample ID: AHR-AM02-062221-Hg

Lab Sample ID: 550-165968-4

☐ No Detections.

Client Sample ID: AHR-AM03-062221-M

Lab Sample ID: 550-165968-5

☐ No Detections.

Client Sample ID: AHR-AM03-062221-Hg

Lab Sample ID: 550-165968-6

☐ No Detections.

Client Sample ID: AHR-AM04-062221-M

Lab Sample ID: 550-165968-7

☐ No Detections.

Client Sample ID: AHR-AM04-062221-Hg

Lab Sample ID: 550-165968-8

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165968-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-062221-M

Lab Sample ID: 550-165968-1

Date Collected: 06/22/21 00:00

Matrix: Air

Date Received: 06/24/21 09:35

Sample Air Volume: 938.90 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000533			0.500	06/25/21 05:18	06/25/21 13:20	1
Lead	<0.250	<0.000266			0.250	06/25/21 05:18	06/25/21 13:20	1

Client Sample ID: AHR-AM01-062221-Hg

Lab Sample ID: 550-165968-2

Date Collected: 06/22/21 00:00

Matrix: Air

Date Received: 06/24/21 09:35

Sample Air Volume: 977.44 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000512			0.0500	06/25/21 16:30	06/25/21 22:09	1

Client Sample ID: AHR-AM02-062221-M

Lab Sample ID: 550-165968-3

Date Collected: 06/22/21 00:00

Matrix: Air

Date Received: 06/24/21 09:35

Sample Air Volume: 941.85 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000531			0.500	06/25/21 05:18	06/25/21 13:24	1
Lead	<0.250	<0.000265			0.250	06/25/21 05:18	06/25/21 13:24	1

Client Sample ID: AHR-AM02-062221-Hg

Lab Sample ID: 550-165968-4

Date Collected: 06/22/21 00:00

Matrix: Air

Date Received: 06/24/21 09:35

Sample Air Volume: 953.93 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000524			0.0500	06/25/21 16:30	06/25/21 22:11	1

Client Sample ID: AHR-AM03-062221-M

Lab Sample ID: 550-165968-5

Date Collected: 06/22/21 00:00

Matrix: Air

Date Received: 06/24/21 09:35

Sample Air Volume: 959.55 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000521			0.500	06/25/21 05:18	06/25/21 13:28	1
Lead	<0.250	<0.000261			0.250	06/25/21 05:18	06/25/21 13:28	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165968-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-062221-Hg

Lab Sample ID: 550-165968-6

Date Collected: 06/22/21 00:00

Matrix: Air

Date Received: 06/24/21 09:35

Sample Air Volume: 1000.16 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000500		0.0500	06/25/21 16:30	06/25/21 22:13	1

Client Sample ID: AHR-AM04-062221-M

Lab Sample ID: 550-165968-7

Date Collected: 06/22/21 00:00

Matrix: Air

Date Received: 06/24/21 09:35

Sample Air Volume: 934.20 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000535		0.500	06/25/21 05:18	06/25/21 13:32	1
Lead	<0.250	<0.000268		0.250	06/25/21 05:18	06/25/21 13:32	1

Client Sample ID: AHR-AM04-062221-Hg

Lab Sample ID: 550-165968-8

Date Collected: 06/22/21 00:00

Matrix: Air

Date Received: 06/24/21 09:35

Sample Air Volume: 922.63 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000542		0.0500	06/25/21 16:30	06/25/21 22:15	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165968-1
SDG: Argonaut Mine Headframe

Method: PE-MET-012 - NIOSH Method 7300

Lab Sample ID: MB 550-246265/1-A

Matrix: Air

Analysis Batch: 246364

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 246265

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		06/25/21 05:18	06/25/21 12:39	1
Lead	<0.250		0.250	ug/Sample		06/25/21 05:18	06/25/21 12:39	1

Lab Sample ID: LCS 550-246265/4-A

Matrix: Air

Analysis Batch: 246364

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 246265

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	24.02		ug/Sample		96	80 - 120
Lead	25.0	25.08		ug/Sample		100	80 - 120

Lab Sample ID: LCSD 550-246265/5-A

Matrix: Air

Analysis Batch: 246364

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 246265

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	25.0	24.37		ug/Sample		97	80 - 120	1	20
Lead	25.0	25.37		ug/Sample		101	80 - 120	1	20

Method: PE-MET-019 - Mercury (CVAA)

Lab Sample ID: MB 550-246367/12-A

Matrix: Air

Analysis Batch: 246388

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 246367

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.0500		0.0500	ug/Sample		06/25/21 16:30	06/25/21 21:36	1

Lab Sample ID: LCS 550-246367/13-A

Matrix: Air

Analysis Batch: 246388

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 246367

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.250	0.2947		ug/Sample		118	46 - 126

Lab Sample ID: LCSD 550-246367/14-A

Matrix: Air

Analysis Batch: 246388

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 246367

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.250	0.2763		ug/Sample		111	46 - 126	6	33

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165968-1
SDG: Argonaut Mine Headframe

IH - Metals

Prep Batch: 246265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165968-1	AHR-AM01-062221-M	Total/NA	Air	Filter Prep	
550-165968-3	AHR-AM02-062221-M	Total/NA	Air	Filter Prep	
550-165968-5	AHR-AM03-062221-M	Total/NA	Air	Filter Prep	
550-165968-7	AHR-AM04-062221-M	Total/NA	Air	Filter Prep	
MB 550-246265/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-246265/4-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-246265/5-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 246364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165968-1	AHR-AM01-062221-M	Total/NA	Air	PE-MET-012	246265
550-165968-3	AHR-AM02-062221-M	Total/NA	Air	PE-MET-012	246265
550-165968-5	AHR-AM03-062221-M	Total/NA	Air	PE-MET-012	246265
550-165968-7	AHR-AM04-062221-M	Total/NA	Air	PE-MET-012	246265
MB 550-246265/1-A	Method Blank	Total/NA	Air	PE-MET-012	246265
LCS 550-246265/4-A	Lab Control Sample	Total/NA	Air	PE-MET-012	246265
LCSD 550-246265/5-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-012	246265

Prep Batch: 246367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165968-2	AHR-AM01-062221-Hg	Total/NA	Air	Filter Prep	
550-165968-4	AHR-AM02-062221-Hg	Total/NA	Air	Filter Prep	
550-165968-6	AHR-AM03-062221-Hg	Total/NA	Air	Filter Prep	
550-165968-8	AHR-AM04-062221-Hg	Total/NA	Air	Filter Prep	
MB 550-246367/12-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-246367/13-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-246367/14-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 246388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-165968-2	AHR-AM01-062221-Hg	Total/NA	Air	PE-MET-019	246367
550-165968-4	AHR-AM02-062221-Hg	Total/NA	Air	PE-MET-019	246367
550-165968-6	AHR-AM03-062221-Hg	Total/NA	Air	PE-MET-019	246367
550-165968-8	AHR-AM04-062221-Hg	Total/NA	Air	PE-MET-019	246367
MB 550-246367/12-A	Method Blank	Total/NA	Air	PE-MET-019	246367
LCS 550-246367/13-A	Lab Control Sample	Total/NA	Air	PE-MET-019	246367
LCSD 550-246367/14-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-019	246367

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165968-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-062221-M

Lab Sample ID: 550-165968-1

Date Collected: 06/22/21 00:00

Matrix: Air

Date Received: 06/24/21 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246265	06/25/21 05:18	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	246364	06/25/21 13:20	MGM	TAL PHX

Client Sample ID: AHR-AM01-062221-Hg

Lab Sample ID: 550-165968-2

Date Collected: 06/22/21 00:00

Matrix: Air

Date Received: 06/24/21 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246367	06/25/21 16:30	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	246388	06/25/21 22:09	SRR	TAL PHX

Client Sample ID: AHR-AM02-062221-M

Lab Sample ID: 550-165968-3

Date Collected: 06/22/21 00:00

Matrix: Air

Date Received: 06/24/21 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246265	06/25/21 05:18	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	246364	06/25/21 13:24	MGM	TAL PHX

Client Sample ID: AHR-AM02-062221-Hg

Lab Sample ID: 550-165968-4

Date Collected: 06/22/21 00:00

Matrix: Air

Date Received: 06/24/21 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246367	06/25/21 16:30	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	246388	06/25/21 22:11	SRR	TAL PHX

Client Sample ID: AHR-AM03-062221-M

Lab Sample ID: 550-165968-5

Date Collected: 06/22/21 00:00

Matrix: Air

Date Received: 06/24/21 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246265	06/25/21 05:18	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	246364	06/25/21 13:28	MGM	TAL PHX

Client Sample ID: AHR-AM03-062221-Hg

Lab Sample ID: 550-165968-6

Date Collected: 06/22/21 00:00

Matrix: Air

Date Received: 06/24/21 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246367	06/25/21 16:30	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	246388	06/25/21 22:13	SRR	TAL PHX

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165968-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-062221-M

Lab Sample ID: 550-165968-7

Date Collected: 06/22/21 00:00

Matrix: Air

Date Received: 06/24/21 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246265	06/25/21 05:18	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	246364	06/25/21 13:32	MGM	TAL PHX

Client Sample ID: AHR-AM04-062221-Hg

Lab Sample ID: 550-165968-8

Date Collected: 06/22/21 00:00

Matrix: Air

Date Received: 06/24/21 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246367	06/25/21 16:30	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	246388	06/25/21 22:15	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165968-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-165968-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
PE-MET-012	NIOSH Method 7300	NIOSH	TAL PHX
PE-MET-019	Mercury (CVAA)	OSHA	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements
OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix
 4625 East Cotton Center Boulevard
 Suite 189
 Phoenix, AZ 85040-4807
 Phone 602.437.3340 fax 602.454.9303

RUSH

Chain of Custody Record



1659468

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact		Project Manager: Greg Roussos		Site Contact: Greg Roussos		Date: 6/23/2021		Carrier: FEDEX		COC No: 06102021	
Weston Solutions		Email: greg.roussos@westonsolutions.com		Lab Contact: David Alltucker		TALS Project #:		Sampler: GR		For Lab Use Only:	
2300 Clayton Road, #900		Tel/Fax: 513-604-4797								Walk-in Client:	
Concord, CA 94520		Analysis Turnaround Time								Lab Sampling:	
Phone: 513-604-4797		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS								Job / SDG No.:	
Project Name: Argonaut Mine Headframe Removal		TAT if different from Below								Sample Specific Notes:	
Site: Argonaut Mine Headframe		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input checked="" type="checkbox"/> 2 days <input type="checkbox"/> 1 day									
P O #: 0104258											

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	7300 for As & Pb	145 for Hg	Volume =
AHR-AM01-062221-M	6/22/2021	1524	--	Air	1					Volume = 938.90 L
AHR-AM01-062221-Hg	6/22/2021	1522	--	Filter	1					Volume = 977.44 L
AHR-AM02-062221-M	6/22/2021	1523	--	Filter	1					Volume = 941.85 L
AHR-AM02-062221-Hg	6/22/2021	1519	--	Filter	1					Volume = 953.93 L
AHR-AM03-062221-M	6/22/2021	1524	--	Filter	1					Volume = 959.55 L
AHR-AM03-062221-Hg	6/22/2021	1522	--	Filter	1					Volume = 1000.16 L
AHR-AM04-062221-M	6/22/2021	1523	--	Filter	1					Volume = 934.20 L
AHR-AM04-062221-Hg	6/22/2021	1519	--	Filter	1					Volume = 922.63 L

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

Special Instructions/QC Requirements & Comments:

Return to Client ☐ Disposal by Lab ☐ Archive for Months

Custody Seals Intact: ☐ Yes ☐ No

Relinquished by: *Greg Roussos* **Company:** *Weston* **Date/Time:** *6/23/21 9:00* **Received by:** *David Alltucker* **Company:** *FEDEX* **Date/Time:** *6/24/21 09:35*

Relinquished by: *David Alltucker* **Company:** *Weston* **Date/Time:** *6/24/21 09:35*

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-165968-1

SDG Number: Argonaut Mine Headframe

Login Number: 165968

List Number: 1

Creator: Maycock, Lisa

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-166080-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine - START Reg 9

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos



Authorized for release by:
7/5/2021 11:12:30 PM

Carlene McCutcheon, Project Manager II
(602)659-7612
Carlene.McCutcheon@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



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www.eurofinsus.com/Env

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166080-1
SDG: Argonaut Mine Headframe

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166080-1
SDG: Argonaut Mine Headframe

Job ID: 550-166080-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-166080-1

Comments

No additional comments.

Receipt

The samples were received on 6/25/2021 9:45 AM. Unless otherwise noted below, the samples arrived in good condition.

Receipt Exceptions

Samples arrived with no identifying marks on the cassettes. Cassettes assigned at random.
AHR-AM04-062421-M (550-166080-7) and AHR-AM04-062421-Hg (550-166080-8).

Metals

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

IH - Metals

Method 145: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-246921 and analytical batch 550-247023.

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

Industrial Hygiene

Method 7300: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-246537 and analytical batch 550-246706.

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

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166080-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-166080-1	AHR-AM01-0624.21-M	Air	06/24/21 00:00	06/25/21 09:45	
550-166080-2	AHR-AM01-062421-Hg	Air	06/24/21 00:00	06/25/21 09:45	
550-166080-3	AHR-AM02-062421-M	Air	06/24/21 00:00	06/25/21 09:45	
550-166080-4	AHR-AM02-062421-Hg	Air	06/24/21 00:00	06/25/21 09:45	
550-166080-5	AHR-AM03-062421-M	Air	06/24/21 00:00	06/25/21 09:45	
550-166080-6	AHR-AM03-062421-Hg	Air	06/24/21 00:00	06/25/21 09:45	
550-166080-7	AHR-AM04-062421-M	Air	06/24/21 00:00	06/25/21 09:45	
550-166080-8	AHR-AM04-062421-Hg	Air	06/24/21 00:00	06/25/21 09:45	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166080-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-0624.21-M

Lab Sample ID: 550-166080-1

☐ No Detections.

Client Sample ID: AHR-AM01-062421-Hg

Lab Sample ID: 550-166080-2

☐ No Detections.

Client Sample ID: AHR-AM02-062421-M

Lab Sample ID: 550-166080-3

☐ No Detections.

Client Sample ID: AHR-AM02-062421-Hg

Lab Sample ID: 550-166080-4

☐ No Detections.

Client Sample ID: AHR-AM03-062421-M

Lab Sample ID: 550-166080-5

☐ No Detections.

Client Sample ID: AHR-AM03-062421-Hg

Lab Sample ID: 550-166080-6

☐ No Detections.

Client Sample ID: AHR-AM04-062421-M

Lab Sample ID: 550-166080-7

☐ No Detections.

Client Sample ID: AHR-AM04-062421-Hg

Lab Sample ID: 550-166080-8

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166080-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-0624.21-M

Lab Sample ID: 550-166080-1

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 523.21 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000956			0.500	06/29/21 06:47	06/29/21 17:45	1
Lead	<0.250	<0.000478			0.250	06/29/21 06:47	06/29/21 17:45	1

Client Sample ID: AHR-AM01-062421-Hg

Lab Sample ID: 550-166080-2

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 559.11 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000894			0.0500	07/01/21 22:30	07/02/21 19:20	1

Client Sample ID: AHR-AM02-062421-M

Lab Sample ID: 550-166080-3

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 533.93 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000936			0.500	06/29/21 06:47	06/29/21 17:49	1
Lead	<0.250	<0.000468			0.250	06/29/21 06:47	06/29/21 17:49	1

Client Sample ID: AHR-AM02-062421-Hg

Lab Sample ID: 550-166080-4

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 564.72 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000885			0.0500	07/01/21 22:30	07/02/21 19:23	1

Client Sample ID: AHR-AM03-062421-M

Lab Sample ID: 550-166080-5

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 540.07 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000926			0.500	06/29/21 06:47	06/29/21 17:53	1
Lead	<0.250	<0.000463			0.250	06/29/21 06:47	06/29/21 17:53	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166080-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-062421-Hg

Lab Sample ID: 550-166080-6

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 559.63 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000893		0.0500	07/01/21 22:30	07/02/21 19:24	1

Client Sample ID: AHR-AM04-062421-M

Lab Sample ID: 550-166080-7

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 529.29 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000945		0.500	06/29/21 06:47	06/29/21 17:57	1
Lead	<0.250	<0.000472		0.250	06/29/21 06:47	06/29/21 17:57	1

Client Sample ID: AHR-AM04-062421-Hg

Lab Sample ID: 550-166080-8

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Sample Air Volume: 541.32 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: 145 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000924		0.0500	07/01/21 22:30	07/02/21 19:26	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166080-1
SDG: Argonaut Mine Headframe

Method: 145 - Mercury (CVAA)

Lab Sample ID: MB 550-246921/12-A
Matrix: Air
Analysis Batch: 247023

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 246921

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.0500		0.0500	ug/Sample		07/01/21 22:30	07/02/21 19:14	1

Lab Sample ID: LCS 550-246921/13-A
Matrix: Air
Analysis Batch: 247023

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 246921

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.250	0.2592		ug/Sample		104	46 - 126

Lab Sample ID: LCSD 550-246921/14-A
Matrix: Air
Analysis Batch: 247023

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 246921

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.250	0.2395		ug/Sample		96	46 - 126	8	33

Method: 7300 - NIOSH Method 7300 (Modified)

Lab Sample ID: MB 550-246537/1-A
Matrix: Air
Analysis Batch: 246706

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 246537

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		06/29/21 06:47	06/29/21 17:26	1
Lead	<0.250		0.250	ug/Sample		06/29/21 06:47	06/29/21 17:26	1

Lab Sample ID: LCS 550-246537/4-A
Matrix: Air
Analysis Batch: 246706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 246537

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	23.38		ug/Sample		94	80 - 120
Lead	25.0	24.78		ug/Sample		99	80 - 120

Lab Sample ID: LCSD 550-246537/5-A
Matrix: Air
Analysis Batch: 246706

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 246537

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	25.0	23.85		ug/Sample		95	80 - 120	2	20
Lead	25.0	25.18		ug/Sample		101	80 - 120	2	20

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166080-1
SDG: Argonaut Mine Headframe

IH - Metals

Prep Batch: 246537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166080-1	AHR-AM01-0624.21-M	Total/NA	Air	Filter Prep	
550-166080-3	AHR-AM02-062421-M	Total/NA	Air	Filter Prep	
550-166080-5	AHR-AM03-062421-M	Total/NA	Air	Filter Prep	
550-166080-7	AHR-AM04-062421-M	Total/NA	Air	Filter Prep	
MB 550-246537/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-246537/4-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-246537/5-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 246706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166080-1	AHR-AM01-0624.21-M	Total/NA	Air	7300	246537
550-166080-3	AHR-AM02-062421-M	Total/NA	Air	7300	246537
550-166080-5	AHR-AM03-062421-M	Total/NA	Air	7300	246537
550-166080-7	AHR-AM04-062421-M	Total/NA	Air	7300	246537
MB 550-246537/1-A	Method Blank	Total/NA	Air	7300	246537
LCS 550-246537/4-A	Lab Control Sample	Total/NA	Air	7300	246537
LCSD 550-246537/5-A	Lab Control Sample Dup	Total/NA	Air	7300	246537

Prep Batch: 246921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166080-2	AHR-AM01-062421-Hg	Total/NA	Air	Filter Prep	
550-166080-4	AHR-AM02-062421-Hg	Total/NA	Air	Filter Prep	
550-166080-6	AHR-AM03-062421-Hg	Total/NA	Air	Filter Prep	
550-166080-8	AHR-AM04-062421-Hg	Total/NA	Air	Filter Prep	
MB 550-246921/12-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-246921/13-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-246921/14-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 247023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166080-2	AHR-AM01-062421-Hg	Total/NA	Air	145	246921
550-166080-4	AHR-AM02-062421-Hg	Total/NA	Air	145	246921
550-166080-6	AHR-AM03-062421-Hg	Total/NA	Air	145	246921
550-166080-8	AHR-AM04-062421-Hg	Total/NA	Air	145	246921
MB 550-246921/12-A	Method Blank	Total/NA	Air	145	246921
LCS 550-246921/13-A	Lab Control Sample	Total/NA	Air	145	246921
LCSD 550-246921/14-A	Lab Control Sample Dup	Total/NA	Air	145	246921

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166080-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-0624.21-M

Lab Sample ID: 550-166080-1

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246537	06/29/21 06:47	SGO	TAL PHX
Total/NA	Analysis	7300		1	246706	06/29/21 17:45	MGM	TAL PHX

Client Sample ID: AHR-AM01-062421-Hg

Lab Sample ID: 550-166080-2

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246921	07/01/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	247023	07/02/21 19:20	SRR	TAL PHX

Client Sample ID: AHR-AM02-062421-M

Lab Sample ID: 550-166080-3

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246537	06/29/21 06:47	SGO	TAL PHX
Total/NA	Analysis	7300		1	246706	06/29/21 17:49	MGM	TAL PHX

Client Sample ID: AHR-AM02-062421-Hg

Lab Sample ID: 550-166080-4

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246921	07/01/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	247023	07/02/21 19:23	SRR	TAL PHX

Client Sample ID: AHR-AM03-062421-M

Lab Sample ID: 550-166080-5

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246537	06/29/21 06:47	SGO	TAL PHX
Total/NA	Analysis	7300		1	246706	06/29/21 17:53	MGM	TAL PHX

Client Sample ID: AHR-AM03-062421-Hg

Lab Sample ID: 550-166080-6

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246921	07/01/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	247023	07/02/21 19:24	SRR	TAL PHX

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166080-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-062421-M

Lab Sample ID: 550-166080-7

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246537	06/29/21 06:47	SGO	TAL PHX
Total/NA	Analysis	7300		1	246706	06/29/21 17:57	MGM	TAL PHX

Client Sample ID: AHR-AM04-062421-Hg

Lab Sample ID: 550-166080-8

Date Collected: 06/24/21 00:00

Matrix: Air

Date Received: 06/25/21 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			246921	07/01/21 22:30	SRR	TAL PHX
Total/NA	Analysis	145		1	247023	07/02/21 19:26	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166080-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine - START Reg 9

Job ID: 550-166080-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
145	Mercury (CVAA)	OSHA	TAL PHX
7300	NIOSH Method 7300 (Modified)	NIOSH	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements
OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix

4625 East Cotton Center Boulevard
Suite 189
Phoenix, AZ 85040-4807
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

166080



Environment Testing
America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Project Manager: Greg Roussos

Site Contact: Greg Roussos

Date: 6/24/2021

COC No: 06102021

Email: greg.roussos@westonsolutions.com

Lab Contact: David Altucker

Carrier: FEDEX

TALS Project #:

Tel/Fax: 513-604-4797

Analysis Turnaround Time

Sample: GR

For Lab Use Only:

CALENDAR DAYS ☐ WORKING DAYS ☐

Walk-in Client:

Lab Sampling:

Job / SDG No.:

Weston Solutions

2300 Clayton Road #900

Concord, CA 94520

Phone: 513-604-4797

Project Name: Argonaut Mine Headframe Removal

Site: Argonaut Mine Headframe

P O #: 0104258

Sample Identification

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Filtered Sample (Y / N)

Perform MS / MSD (Y / N)

1

AHR-AM01-0624.21-M

6/24/2021

1212

1

2

AHR-AM01-062421-Hg

6/24/2021

1215

1

3

AHR-AM02-062421-M

6/24/2021

1213

1

4

AHR-AM02-062421-Hg

6/24/2021

1219

1

5

AHR-AM03-062341-M

6/24/2021

1213

1

6

AHR-AM03-062421-Hg

6/24/2021

1215

1

7

AHR-AM04-062421-M

6/24/2021

1213

1

8

AHR-AM04-062421-Hg

6/24/2021

1219

1

9

AHR-AM04-062421-Hg

6/24/2021

1219

1

10

AHR-AM04-062421-Hg

6/24/2021

1219

1

11

AHR-AM04-062421-Hg

6/24/2021

1219

1

12

AHR-AM04-062421-Hg

6/24/2021

1219

1

13

AHR-AM04-062421-Hg

6/24/2021

1219

1

14

AHR-AM04-062421-Hg

6/24/2021

1219

1

15

AHR-AM04-062421-Hg

6/24/2021

1219

1

16

AHR-AM04-062421-Hg

6/24/2021

1219

1

17

AHR-AM04-062421-Hg

6/24/2021

1219

1

18

AHR-AM04-062421-Hg

6/24/2021

1219

1

19

AHR-AM04-062421-Hg

6/24/2021

1219

1

20

AHR-AM04-062421-Hg

6/24/2021

1219

1

21

AHR-AM04-062421-Hg

6/24/2021

1219

1

22

AHR-AM04-062421-Hg

6/24/2021

1219

1

23

AHR-AM04-062421-Hg

6/24/2021

1219

1

24

AHR-AM04-062421-Hg

6/24/2021

1219

1

25

AHR-AM04-062421-Hg

6/24/2021

1219

1

26

AHR-AM04-062421-Hg

6/24/2021

1219

1

27

AHR-AM04-062421-Hg

6/24/2021

1219

1

28

AHR-AM04-062421-Hg

6/24/2021

1219

1

29

AHR-AM04-062421-Hg

6/24/2021

1219

1

30

AHR-AM04-062421-Hg

6/24/2021

1219

1

31

AHR-AM04-062421-Hg

6/24/2021

1219

1

32

AHR-AM04-062421-Hg

6/24/2021

1219

1

33

AHR-AM04-062421-Hg

6/24/2021

1219

1

34

AHR-AM04-062421-Hg

6/24/2021

1219

1

35

AHR-AM04-062421-Hg

6/24/2021

1219

1

36

AHR-AM04-062421-Hg

6/24/2021

1219

1

37

AHR-AM04-062421-Hg

6/24/2021

1219

1

38

AHR-AM04-062421-Hg

6/24/2021

1219

1

39

AHR-AM04-062421-Hg

6/24/2021

1219

1

40

AHR-AM04-062421-Hg

6/24/2021

1219

1

41

AHR-AM04-062421-Hg

6/24/2021

1219

1

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-166080-1

SDG Number: Argonaut Mine Headframe

Login Number: 166080

List Number: 1

Creator: Maycock, Lisa

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-166709-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos



Authorized for release by:
7/14/2021 3:43:34 PM

Emily Petrunia, Project Manager I
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Designee for

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LINKS

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166709-1
SDG: Argonaut Mine Headframe

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166709-1
SDG: Argonaut Mine Headframe

Job ID: 550-166709-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-166709-1

Comments

No additional comments.

Receipt

The samples were received on 7/8/2021 9:50 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice.

Metals

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

IH - Metals

Method 145: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247458 and analytical batch 550-247565.

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

Industrial Hygiene

Method 7300: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247345 and analytical batch 550-247437.

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

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166709-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-166709-1	AHR-AM01-070521-M	Air	07/05/21 00:00	07/08/21 09:50	
550-166709-2	AHR-AM02-070521-M	Air	07/05/21 00:00	07/08/21 09:50	
550-166709-3	AHR-AM03-070521-M	Air	07/05/21 00:00	07/08/21 09:50	
550-166709-4	AHR-AM04-070521-M	Air	07/05/21 00:00	07/08/21 09:50	
550-166709-5	AHR-AM01-070521-Hg	Air	07/05/21 00:00	07/08/21 09:50	
550-166709-6	AHR-AM02-070521-Hg	Air	07/05/21 00:00	07/08/21 09:50	
550-166709-7	AHR-AM03-070521-Hg	Air	07/05/21 00:00	07/08/21 09:50	
550-166709-8	AHR-AM04-070521-Hg	Air	07/05/21 00:00	07/08/21 09:50	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166709-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070521-M

Lab Sample ID: 550-166709-1

☐ No Detections.

Client Sample ID: AHR-AM02-070521-M

Lab Sample ID: 550-166709-2

☐ No Detections.

Client Sample ID: AHR-AM03-070521-M

Lab Sample ID: 550-166709-3

☐ No Detections.

Client Sample ID: AHR-AM04-070521-M

Lab Sample ID: 550-166709-4

☐ No Detections.

Client Sample ID: AHR-AM01-070521-Hg

Lab Sample ID: 550-166709-5

☐ No Detections.

Client Sample ID: AHR-AM02-070521-Hg

Lab Sample ID: 550-166709-6

☐ No Detections.

Client Sample ID: AHR-AM03-070521-Hg

Lab Sample ID: 550-166709-7

☐ No Detections.

Client Sample ID: AHR-AM04-070521-Hg

Lab Sample ID: 550-166709-8

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166709-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070521-M

Lab Sample ID: 550-166709-1

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 570.58 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000876			0.500	07/09/21 06:05	07/09/21 16:00	1
Lead	<0.250	<0.000438			0.250	07/09/21 06:05	07/09/21 16:00	1

Client Sample ID: AHR-AM02-070521-M

Lab Sample ID: 550-166709-2

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 567.08 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000882			0.500	07/09/21 06:05	07/09/21 16:04	1
Lead	<0.250	<0.000441			0.250	07/09/21 06:05	07/09/21 16:04	1

Client Sample ID: AHR-AM03-070521-M

Lab Sample ID: 550-166709-3

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 523.78 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000955			0.500	07/09/21 06:05	07/09/21 16:08	1
Lead	<0.250	<0.000477			0.250	07/09/21 06:05	07/09/21 16:08	1

Client Sample ID: AHR-AM04-070521-M

Lab Sample ID: 550-166709-4

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 543.41 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000920			0.500	07/09/21 06:05	07/09/21 16:11	1
Lead	<0.250	<0.000460			0.250	07/09/21 06:05	07/09/21 16:11	1

Client Sample ID: AHR-AM01-070521-Hg

Lab Sample ID: 550-166709-5

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 550.89 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000908			0.0500	07/09/21 19:13	07/09/21 23:07	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166709-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM02-070521-Hg

Lab Sample ID: 550-166709-6

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 561.67 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000890		0.0500	07/09/21 19:13	07/09/21 23:09	1

Client Sample ID: AHR-AM03-070521-Hg

Lab Sample ID: 550-166709-7

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 519.37 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000963		0.0500	07/09/21 19:13	07/09/21 23:11	1

Client Sample ID: AHR-AM04-070521-Hg

Lab Sample ID: 550-166709-8

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 536.16 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000933		0.0500	07/09/21 19:13	07/09/21 23:13	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166709-1
SDG: Argonaut Mine Headframe

Method: PE-MET-012 - NIOSH Method 7300

Lab Sample ID: MB 550-247345/1-A
Matrix: Air
Analysis Batch: 247437

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 247345

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		07/09/21 06:05	07/09/21 15:34	1
Lead	<0.250		0.250	ug/Sample		07/09/21 06:05	07/09/21 15:34	1

Lab Sample ID: LCS 550-247345/2-A
Matrix: Air
Analysis Batch: 247437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 247345

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	24.33		ug/Sample		97	80 - 120
Lead	25.0	24.96		ug/Sample		100	80 - 120

Lab Sample ID: LCSD 550-247345/3-A
Matrix: Air
Analysis Batch: 247437

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 247345

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	25.0	24.80		ug/Sample		99	80 - 120	2	20
Lead	25.0	25.35		ug/Sample		101	80 - 120	2	20

Method: PE-MET-019 - Mercury (CVAA)

Lab Sample ID: MB 550-247458/1-A
Matrix: Air
Analysis Batch: 247565

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 247458

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.0500		0.0500	ug/Sample		07/09/21 19:13	07/09/21 23:01	1

Lab Sample ID: LCS 550-247458/2-A
Matrix: Air
Analysis Batch: 247565

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 247458

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.250	0.2378		ug/Sample		95	46 - 126

Lab Sample ID: LCSD 550-247458/3-A
Matrix: Air
Analysis Batch: 247565

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 247458

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Hg	0.250	0.2407		ug/Sample		96	46 - 126	1	33

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166709-1
SDG: Argonaut Mine Headframe

IH - Metals

Prep Batch: 247345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166709-1	AHR-AM01-070521-M	Total/NA	Air	Filter Prep	
550-166709-2	AHR-AM02-070521-M	Total/NA	Air	Filter Prep	
550-166709-3	AHR-AM03-070521-M	Total/NA	Air	Filter Prep	
550-166709-4	AHR-AM04-070521-M	Total/NA	Air	Filter Prep	
MB 550-247345/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247345/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247345/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 247437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166709-1	AHR-AM01-070521-M	Total/NA	Air	PE-MET-012	247345
550-166709-2	AHR-AM02-070521-M	Total/NA	Air	PE-MET-012	247345
550-166709-3	AHR-AM03-070521-M	Total/NA	Air	PE-MET-012	247345
550-166709-4	AHR-AM04-070521-M	Total/NA	Air	PE-MET-012	247345
MB 550-247345/1-A	Method Blank	Total/NA	Air	PE-MET-012	247345
LCS 550-247345/2-A	Lab Control Sample	Total/NA	Air	PE-MET-012	247345
LCSD 550-247345/3-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-012	247345

Prep Batch: 247458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166709-5	AHR-AM01-070521-Hg	Total/NA	Air	Filter Prep	
550-166709-6	AHR-AM02-070521-Hg	Total/NA	Air	Filter Prep	
550-166709-7	AHR-AM03-070521-Hg	Total/NA	Air	Filter Prep	
550-166709-8	AHR-AM04-070521-Hg	Total/NA	Air	Filter Prep	
MB 550-247458/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247458/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247458/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 247565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166709-5	AHR-AM01-070521-Hg	Total/NA	Air	PE-MET-019	247458
550-166709-6	AHR-AM02-070521-Hg	Total/NA	Air	PE-MET-019	247458
550-166709-7	AHR-AM03-070521-Hg	Total/NA	Air	PE-MET-019	247458
550-166709-8	AHR-AM04-070521-Hg	Total/NA	Air	PE-MET-019	247458
MB 550-247458/1-A	Method Blank	Total/NA	Air	PE-MET-019	247458
LCS 550-247458/2-A	Lab Control Sample	Total/NA	Air	PE-MET-019	247458
LCSD 550-247458/3-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-019	247458

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166709-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070521-M

Lab Sample ID: 550-166709-1

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247345	07/09/21 06:05	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247437	07/09/21 16:00	MGM	TAL PHX

Client Sample ID: AHR-AM02-070521-M

Lab Sample ID: 550-166709-2

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247345	07/09/21 06:05	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247437	07/09/21 16:04	MGM	TAL PHX

Client Sample ID: AHR-AM03-070521-M

Lab Sample ID: 550-166709-3

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247345	07/09/21 06:05	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247437	07/09/21 16:08	MGM	TAL PHX

Client Sample ID: AHR-AM04-070521-M

Lab Sample ID: 550-166709-4

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247345	07/09/21 06:05	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247437	07/09/21 16:11	MGM	TAL PHX

Client Sample ID: AHR-AM01-070521-Hg

Lab Sample ID: 550-166709-5

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247458	07/09/21 19:13	CXK	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247565	07/09/21 23:07	SRR	TAL PHX

Client Sample ID: AHR-AM02-070521-Hg

Lab Sample ID: 550-166709-6

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247458	07/09/21 19:13	CXK	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247565	07/09/21 23:09	SRR	TAL PHX

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166709-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-070521-Hg

Lab Sample ID: 550-166709-7

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247458	07/09/21 19:13	CXK	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247565	07/09/21 23:11	SRR	TAL PHX

Client Sample ID: AHR-AM04-070521-Hg

Lab Sample ID: 550-166709-8

Date Collected: 07/05/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247458	07/09/21 19:13	CXK	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247565	07/09/21 23:13	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166709-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21
California	State	2941	06-10-22

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
PE-MET-012	Filter Prep	Air	Arsenic
PE-MET-012	Filter Prep	Air	Lead
PE-MET-019	Filter Prep	Air	Hg

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166709-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
PE-MET-012	NIOSH Method 7300	NIOSH	TAL PHX
PE-MET-019	Mercury (CVAA)	OSHA	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements
OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Laboratories Inc. 4145 Eureka Trail

7/14/2021

[illegible]

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-166709-1

SDG Number: Argonaut Mine Headframe

Login Number: 166709

List Number: 1

Creator: Maycock, Lisa

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-166710-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos



Authorized for release by:
7/15/2021 10:19:12 AM

Emily Petrunia, Project Manager I
(602)659-7629

emily.petrunia@eurofinset.com

Designee for

Carlene McCutcheon, Project Manager II
(602)659-7612

Carlene.McCutcheon@Eurofinset.com

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166710-1
SDG: Argonaut Mine Headframe

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166710-1
SDG: Argonaut Mine Headframe

Job ID: 550-166710-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-166710-1

Comments

No additional comments.

Receipt

The samples were received on 7/8/2021 9:50 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice.

Metals

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

IH - Metals

Method 145: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247458 and analytical batch 550-247565.

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

Industrial Hygiene

Method 7300: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247345 and analytical batch 550-247517.

Method 7300: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247345 and analytical batch 550-247527.

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

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166710-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-166710-1	AHR-AM01-070321-M	Air	07/03/21 00:00	07/08/21 09:50	
550-166710-2	AHR-AM02-070321-M	Air	07/03/21 00:00	07/08/21 09:50	
550-166710-3	AHR-AM03-070321-M	Air	07/03/21 00:00	07/08/21 09:50	
550-166710-4	AHR-AM04-070321-M	Air	07/03/21 00:00	07/08/21 09:50	
550-166710-5	AHR-AM01-070321-Hg	Air	07/03/21 00:00	07/08/21 09:50	
550-166710-6	AHR-AM02-070321-Hg	Air	07/03/21 00:00	07/08/21 09:50	
550-166710-7	AHR-AM03-070321-Hg	Air	07/03/21 00:00	07/08/21 09:50	
550-166710-8	AHR-AM04-070321-Hg	Air	07/03/21 00:00	07/08/21 09:50	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166710-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070321-M

Lab Sample ID: 550-166710-1

☐ No Detections.

Client Sample ID: AHR-AM02-070321-M

Lab Sample ID: 550-166710-2

☐ No Detections.

Client Sample ID: AHR-AM03-070321-M

Lab Sample ID: 550-166710-3

☐ No Detections.

Client Sample ID: AHR-AM04-070321-M

Lab Sample ID: 550-166710-4

☐ No Detections.

Client Sample ID: AHR-AM01-070321-Hg

Lab Sample ID: 550-166710-5

☐ No Detections.

Client Sample ID: AHR-AM02-070321-Hg

Lab Sample ID: 550-166710-6

☐ No Detections.

Client Sample ID: AHR-AM03-070321-Hg

Lab Sample ID: 550-166710-7

☐ No Detections.

Client Sample ID: AHR-AM04-070321-Hg

Lab Sample ID: 550-166710-8

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166710-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070321-M

Lab Sample ID: 550-166710-1

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 863.12 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000579		0.500	07/09/21 06:05	07/09/21 16:32	1
Lead	<0.250	<0.000290		0.250	07/09/21 06:05	07/09/21 16:32	1

Client Sample ID: AHR-AM02-070321-M

Lab Sample ID: 550-166710-2

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 938.68 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000533		0.500	07/09/21 06:05	07/09/21 16:41	1
Lead	<0.250	<0.000266		0.250	07/09/21 06:05	07/09/21 16:41	1

Client Sample ID: AHR-AM03-070321-M

Lab Sample ID: 550-166710-3

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 934.79 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000535		0.500	07/09/21 06:05	07/09/21 16:45	1
Lead	<0.250	<0.000267		0.250	07/09/21 06:05	07/09/21 16:45	1

Client Sample ID: AHR-AM04-070321-M

Lab Sample ID: 550-166710-4

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 889.7 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000562		0.500	07/09/21 06:05	07/09/21 16:48	1
Lead	<0.250	<0.000281		0.250	07/09/21 06:05	07/09/21 16:48	1

Client Sample ID: AHR-AM01-070321-Hg

Lab Sample ID: 550-166710-5

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 865.98 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000577		0.0500	07/09/21 19:13	07/09/21 23:15	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166710-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM02-070321-Hg

Lab Sample ID: 550-166710-6

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 945.45 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000529		0.0500	07/09/21 19:13	07/09/21 23:16	1

Client Sample ID: AHR-AM03-070321-Hg

Lab Sample ID: 550-166710-7

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 925.25 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000540		0.0500	07/09/21 19:13	07/09/21 23:18	1

Client Sample ID: AHR-AM04-070321-Hg

Lab Sample ID: 550-166710-8

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 865.92 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000577		0.0500	07/09/21 19:13	07/09/21 23:20	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166710-1
SDG: Argonaut Mine Headframe

Method: PE-MET-012 - NIOSH Method 7300

Lab Sample ID: MB 550-247345/1-A
Matrix: Air
Analysis Batch: 247437

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 247345

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		07/09/21 06:05	07/09/21 15:34	1
Lead	<0.250		0.250	ug/Sample		07/09/21 06:05	07/09/21 15:34	1

Lab Sample ID: LCS 550-247345/2-A
Matrix: Air
Analysis Batch: 247437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 247345

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	24.33		ug/Sample		97	80 - 120
Lead	25.0	24.96		ug/Sample		100	80 - 120

Lab Sample ID: LCSD 550-247345/3-A
Matrix: Air
Analysis Batch: 247437

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 247345

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	25.0	24.80		ug/Sample		99	80 - 120	2	20
Lead	25.0	25.35		ug/Sample		101	80 - 120	2	20

Method: PE-MET-019 - Mercury (CVAA)

Lab Sample ID: MB 550-247458/1-A
Matrix: Air
Analysis Batch: 247565

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 247458

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.0500		0.0500	ug/Sample		07/09/21 19:13	07/09/21 23:01	1

Lab Sample ID: LCS 550-247458/2-A
Matrix: Air
Analysis Batch: 247565

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 247458

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.250	0.2378		ug/Sample		95	46 - 126

Lab Sample ID: LCSD 550-247458/3-A
Matrix: Air
Analysis Batch: 247565

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 247458

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Hg	0.250	0.2407		ug/Sample		96	46 - 126	1	33

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166710-1
SDG: Argonaut Mine Headframe

IH - Metals

Prep Batch: 247345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166710-1	AHR-AM01-070321-M	Total/NA	Air	Filter Prep	
550-166710-2	AHR-AM02-070321-M	Total/NA	Air	Filter Prep	
550-166710-3	AHR-AM03-070321-M	Total/NA	Air	Filter Prep	
550-166710-4	AHR-AM04-070321-M	Total/NA	Air	Filter Prep	
MB 550-247345/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247345/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247345/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 247437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-247345/1-A	Method Blank	Total/NA	Air	PE-MET-012	247345
LCS 550-247345/2-A	Lab Control Sample	Total/NA	Air	PE-MET-012	247345
LCSD 550-247345/3-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-012	247345

Prep Batch: 247458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166710-5	AHR-AM01-070321-Hg	Total/NA	Air	Filter Prep	
550-166710-6	AHR-AM02-070321-Hg	Total/NA	Air	Filter Prep	
550-166710-7	AHR-AM03-070321-Hg	Total/NA	Air	Filter Prep	
550-166710-8	AHR-AM04-070321-Hg	Total/NA	Air	Filter Prep	
MB 550-247458/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247458/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247458/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 247527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166710-1	AHR-AM01-070321-M	Total/NA	Air	PE-MET-012	247345
550-166710-2	AHR-AM02-070321-M	Total/NA	Air	PE-MET-012	247345
550-166710-3	AHR-AM03-070321-M	Total/NA	Air	PE-MET-012	247345
550-166710-4	AHR-AM04-070321-M	Total/NA	Air	PE-MET-012	247345

Analysis Batch: 247565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166710-5	AHR-AM01-070321-Hg	Total/NA	Air	PE-MET-019	247458
550-166710-6	AHR-AM02-070321-Hg	Total/NA	Air	PE-MET-019	247458
550-166710-7	AHR-AM03-070321-Hg	Total/NA	Air	PE-MET-019	247458
550-166710-8	AHR-AM04-070321-Hg	Total/NA	Air	PE-MET-019	247458
MB 550-247458/1-A	Method Blank	Total/NA	Air	PE-MET-019	247458
LCS 550-247458/2-A	Lab Control Sample	Total/NA	Air	PE-MET-019	247458
LCSD 550-247458/3-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-019	247458

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166710-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070321-M

Lab Sample ID: 550-166710-1

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247345	07/09/21 06:05	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247527	07/09/21 16:32	MGM	TAL PHX

Client Sample ID: AHR-AM02-070321-M

Lab Sample ID: 550-166710-2

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247345	07/09/21 06:05	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247527	07/09/21 16:41	MGM	TAL PHX

Client Sample ID: AHR-AM03-070321-M

Lab Sample ID: 550-166710-3

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247345	07/09/21 06:05	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247527	07/09/21 16:45	MGM	TAL PHX

Client Sample ID: AHR-AM04-070321-M

Lab Sample ID: 550-166710-4

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247345	07/09/21 06:05	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247527	07/09/21 16:48	MGM	TAL PHX

Client Sample ID: AHR-AM01-070321-Hg

Lab Sample ID: 550-166710-5

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247458	07/09/21 19:13	CXK	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247565	07/09/21 23:15	SRR	TAL PHX

Client Sample ID: AHR-AM02-070321-Hg

Lab Sample ID: 550-166710-6

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247458	07/09/21 19:13	CXK	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247565	07/09/21 23:16	SRR	TAL PHX

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166710-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-070321-Hg

Lab Sample ID: 550-166710-7

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247458	07/09/21 19:13	CXK	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247565	07/09/21 23:18	SRR	TAL PHX

Client Sample ID: AHR-AM04-070321-Hg

Lab Sample ID: 550-166710-8

Date Collected: 07/03/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247458	07/09/21 19:13	CXK	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247565	07/09/21 23:20	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166710-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21
California	State	2941	06-10-22

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
PE-MET-012	Filter Prep	Air	Arsenic
PE-MET-012	Filter Prep	Air	Lead
PE-MET-019	Filter Prep	Air	Hg

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166710-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
PE-MET-012	NIOSH Method 7300	NIOSH	TAL PHX
PE-MET-019	Mercury (CVAA)	OSHA	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements
OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Chain of Custody Record

146710

Environment Testing
America

RUSSOS

Regulatory Program:

☐ DW ☐ NPDES☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. db/a Eurofins TestAmerica

Project Manager: Greg Roussos

Email: greg.roussos@westonsolutions.com

Tel/Fax: 513-604-4797

Analysis Turnaround Time

☐ CALENDAR DAYS☐ WORKING DAYS

Phone: 513-604-4797

TAT if different from Below

Project Name: Argonaut Mine Headframe Removal

☐ 2 weeks

Site: Argonaut Mine Headframe

☐ 1 week

P O #: 0104258

☐ 2 days☐ 1 day

Site Contact: Greg Roussos

Lab Contact: David Altucker

Date: 7/3/2021

Carrier: FEDEX

COC No: 07032021

1 of 1 COCs

TALS Project #:

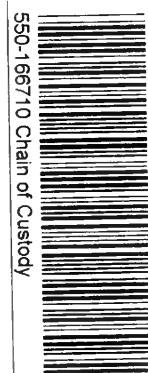
Sampler GR

For Lab Use Only:

Walk-in Client:

Lab Sampling:

Job / SDG No.:



550-166710 Chain of Custody

Sample Specific Notes:

Filtered Sample (Y / N)

Perform MS / MSD (Y / N)

7300 for As & Pb

145 for Hg

Preservation Used: 1= Ice, 2= HCI, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)****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**Special Instructions/QC Requirements & Comments:**

AMV3

FCPO

Custody Seals Intact: ☐ Yes ☐ No

Custody Seal No.:

Cooler Temp. (°F) Obs'd:

Cor'd:

Therm ID No.:

Relinquished by:

☐ Yes ☐ No

Company:

Date/Time:

Received by:

Company:

Date/Time:

Relinquished by:

☐ Yes ☐ No

Company:

Date/Time:

Received by:

Company:

Date/Time:

Relinquished by:

☐ Yes ☐ No

Company:

Date/Time:

Received by:

Company:

Date/Time:

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-166710-1

SDG Number: Argonaut Mine Headframe

Login Number: 166710

List Number: 1

Creator: Maycock, Lisa

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-166712-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos



Authorized for release by:
7/15/2021 10:16:23 AM

Emily Petrunia, Project Manager I
(602)659-7629
emily.petrunia@eurofinset.com

Designee for

Carlene McCutcheon, Project Manager II
(602)659-7612
Carlene.McCutcheon@Eurofinset.com

LINKS

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166712-1
SDG: Argonaut Mine Headframe

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166712-1
SDG: Argonaut Mine Headframe

Job ID: 550-166712-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-166712-1

Comments

No additional comments.

Receipt

The samples were received on 7/8/2021 9:50 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice.

Metals

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

IH - Metals

Method 145: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247458 and analytical batch 550-247565.

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

Industrial Hygiene

Method 7300: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247345 and analytical batch 550-247517.

Method 7300: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247345 and analytical batch 550-247527.

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

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166712-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-166712-1	AHR-AM01-070621-M	Air	07/06/21 00:00	07/08/21 09:50	
550-166712-2	AHR-AM02-070621-M	Air	07/06/21 00:00	07/08/21 09:50	
550-166712-3	AHR-AM03-070621-M	Air	07/06/21 00:00	07/08/21 09:50	
550-166712-4	AHR-AM04-070621-M	Air	07/06/21 00:00	07/08/21 09:50	
550-166712-5	AHR-AM01-070621-Hg	Air	07/06/21 00:00	07/08/21 09:50	
550-166712-6	AHR-AM02-070621-Hg	Air	07/06/21 00:00	07/08/21 09:50	
550-166712-7	AHR-AM03-070621-Hg	Air	07/06/21 00:00	07/08/21 09:50	
550-166712-8	AHR-AM04-070621-Hg	Air	07/06/21 00:00	07/08/21 09:50	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166712-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070621-M

Lab Sample ID: 550-166712-1

☐ No Detections.

Client Sample ID: AHR-AM02-070621-M

Lab Sample ID: 550-166712-2

☐ No Detections.

Client Sample ID: AHR-AM03-070621-M

Lab Sample ID: 550-166712-3

☐ No Detections.

Client Sample ID: AHR-AM04-070621-M

Lab Sample ID: 550-166712-4

☐ No Detections.

Client Sample ID: AHR-AM01-070621-Hg

Lab Sample ID: 550-166712-5

☐ No Detections.

Client Sample ID: AHR-AM02-070621-Hg

Lab Sample ID: 550-166712-6

☐ No Detections.

Client Sample ID: AHR-AM03-070621-Hg

Lab Sample ID: 550-166712-7

☐ No Detections.

Client Sample ID: AHR-AM04-070621-Hg

Lab Sample ID: 550-166712-8

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166712-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070621-M

Lab Sample ID: 550-166712-1

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 834.6 L

Sample Container: IH - MCE, 0.45um, 25-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000599		0.500	07/09/21 06:05	07/09/21 16:52	1
Lead	<0.250	<0.000300		0.250	07/09/21 06:05	07/09/21 16:52	1

Client Sample ID: AHR-AM02-070621-M

Lab Sample ID: 550-166712-2

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 821.95 L

Sample Container: IH - MCE, 0.45um, 25-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000608		0.500	07/09/21 06:05	07/09/21 16:56	1
Lead	<0.250	<0.000304		0.250	07/09/21 06:05	07/09/21 16:56	1

Client Sample ID: AHR-AM03-070621-M

Lab Sample ID: 550-166712-3

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 784.13 L

Sample Container: IH - MCE, 0.45um, 25-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000638		0.500	07/09/21 06:05	07/09/21 17:00	1
Lead	<0.250	<0.000319		0.250	07/09/21 06:05	07/09/21 17:00	1

Client Sample ID: AHR-AM04-070621-M

Lab Sample ID: 550-166712-4

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 865.65 L

Sample Container: IH - MCE, 0.45um, 25-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000578		0.500	07/09/21 06:05	07/09/21 17:03	1
Lead	<0.250	<0.000289		0.250	07/09/21 06:05	07/09/21 17:03	1

Client Sample ID: AHR-AM01-070621-Hg

Lab Sample ID: 550-166712-5

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 831.09 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000602		0.0500	07/09/21 19:13	07/09/21 23:22	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166712-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM02-070621-Hg

Lab Sample ID: 550-166712-6

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 830.59 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000602		0.0500	07/09/21 19:13	07/09/21 23:23	1

Client Sample ID: AHR-AM03-070621-Hg

Lab Sample ID: 550-166712-7

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 757.34 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000602		0.0500	07/09/21 19:13	07/09/21 23:29	1

Client Sample ID: AHR-AM04-070621-Hg

Lab Sample ID: 550-166712-8

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Sample Air Volume: 823.66 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000607		0.0500	07/09/21 19:13	07/09/21 23:31	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166712-1
SDG: Argonaut Mine Headframe

Method: PE-MET-012 - NIOSH Method 7300

Lab Sample ID: MB 550-247345/1-A
Matrix: Air
Analysis Batch: 247437

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 247345

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		07/09/21 06:05	07/09/21 15:34	1
Lead	<0.250		0.250	ug/Sample		07/09/21 06:05	07/09/21 15:34	1

Lab Sample ID: LCS 550-247345/2-A
Matrix: Air
Analysis Batch: 247437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 247345

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	24.33		ug/Sample		97	80 - 120
Lead	25.0	24.96		ug/Sample		100	80 - 120

Lab Sample ID: LCSD 550-247345/3-A
Matrix: Air
Analysis Batch: 247437

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 247345

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	25.0	24.80		ug/Sample		99	80 - 120	2	20
Lead	25.0	25.35		ug/Sample		101	80 - 120	2	20

Method: PE-MET-019 - Mercury (CVAA)

Lab Sample ID: MB 550-247458/1-A
Matrix: Air
Analysis Batch: 247565

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 247458

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.0500		0.0500	ug/Sample		07/09/21 19:13	07/09/21 23:01	1

Lab Sample ID: LCS 550-247458/2-A
Matrix: Air
Analysis Batch: 247565

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 247458

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.250	0.2378		ug/Sample		95	46 - 126

Lab Sample ID: LCSD 550-247458/3-A
Matrix: Air
Analysis Batch: 247565

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 247458

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Hg	0.250	0.2407		ug/Sample		96	46 - 126	1	33

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166712-1
SDG: Argonaut Mine Headframe

IH - Metals

Prep Batch: 247345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166712-1	AHR-AM01-070621-M	Total/NA	Air	Filter Prep	
550-166712-2	AHR-AM02-070621-M	Total/NA	Air	Filter Prep	
550-166712-3	AHR-AM03-070621-M	Total/NA	Air	Filter Prep	
550-166712-4	AHR-AM04-070621-M	Total/NA	Air	Filter Prep	
MB 550-247345/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247345/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247345/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 247437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-247345/1-A	Method Blank	Total/NA	Air	PE-MET-012	247345
LCS 550-247345/2-A	Lab Control Sample	Total/NA	Air	PE-MET-012	247345
LCSD 550-247345/3-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-012	247345

Prep Batch: 247458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166712-5	AHR-AM01-070621-Hg	Total/NA	Air	Filter Prep	
550-166712-6	AHR-AM02-070621-Hg	Total/NA	Air	Filter Prep	
550-166712-7	AHR-AM03-070621-Hg	Total/NA	Air	Filter Prep	
550-166712-8	AHR-AM04-070621-Hg	Total/NA	Air	Filter Prep	
MB 550-247458/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247458/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247458/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 247527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166712-1	AHR-AM01-070621-M	Total/NA	Air	PE-MET-012	247345
550-166712-2	AHR-AM02-070621-M	Total/NA	Air	PE-MET-012	247345
550-166712-3	AHR-AM03-070621-M	Total/NA	Air	PE-MET-012	247345
550-166712-4	AHR-AM04-070621-M	Total/NA	Air	PE-MET-012	247345

Analysis Batch: 247565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166712-5	AHR-AM01-070621-Hg	Total/NA	Air	PE-MET-019	247458
550-166712-6	AHR-AM02-070621-Hg	Total/NA	Air	PE-MET-019	247458
550-166712-7	AHR-AM03-070621-Hg	Total/NA	Air	PE-MET-019	247458
550-166712-8	AHR-AM04-070621-Hg	Total/NA	Air	PE-MET-019	247458
MB 550-247458/1-A	Method Blank	Total/NA	Air	PE-MET-019	247458
LCS 550-247458/2-A	Lab Control Sample	Total/NA	Air	PE-MET-019	247458
LCSD 550-247458/3-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-019	247458

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166712-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070621-M

Lab Sample ID: 550-166712-1

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247345	07/09/21 06:05	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247527	07/09/21 16:52	MGM	TAL PHX

Client Sample ID: AHR-AM02-070621-M

Lab Sample ID: 550-166712-2

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247345	07/09/21 06:05	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247527	07/09/21 16:56	MGM	TAL PHX

Client Sample ID: AHR-AM03-070621-M

Lab Sample ID: 550-166712-3

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247345	07/09/21 06:05	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247527	07/09/21 17:00	MGM	TAL PHX

Client Sample ID: AHR-AM04-070621-M

Lab Sample ID: 550-166712-4

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247345	07/09/21 06:05	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247527	07/09/21 17:03	MGM	TAL PHX

Client Sample ID: AHR-AM01-070621-Hg

Lab Sample ID: 550-166712-5

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247458	07/09/21 19:13	CXK	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247565	07/09/21 23:22	SRR	TAL PHX

Client Sample ID: AHR-AM02-070621-Hg

Lab Sample ID: 550-166712-6

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247458	07/09/21 19:13	CXK	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247565	07/09/21 23:23	SRR	TAL PHX

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166712-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM03-070621-Hg

Lab Sample ID: 550-166712-7

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247458	07/09/21 19:13	CXK	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247565	07/09/21 23:29	SRR	TAL PHX

Client Sample ID: AHR-AM04-070621-Hg

Lab Sample ID: 550-166712-8

Date Collected: 07/06/21 00:00

Matrix: Air

Date Received: 07/08/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247458	07/09/21 19:13	CXK	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247565	07/09/21 23:31	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166712-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21
California	State	2941	06-10-22

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
PE-MET-012	Filter Prep	Air	Arsenic
PE-MET-012	Filter Prep	Air	Lead
PE-MET-019	Filter Prep	Air	Hg

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166712-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
PE-MET-012	NIOSH Method 7300	NIOSH	TAL PHX
PE-MET-019	Mercury (CVAA)	OSHA	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements
OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix
4625 East Cotton Center Boulevard
Suite 189
Phoenix, AZ 85040-4807
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

RUSH
Regulatory Program:

Project Manager: Greg Roussos

Email: greg.roussos@westonsolutions.com

Tel/Fax: 513-604-4797

Analysis Turnaround Time

☐ CALENDAR DAYS ☐ WORKING DAYS

TAT if different from Below

☐ 2 weeks

☐ 1 week

☐ 2 days

☐ 1 day

☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

COC No: 07062021

1 of 1 COCs

TALS Project #:

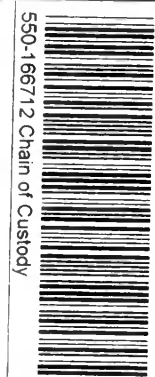
Sampler: GR

For Lab Use Only:

Walk-in Client:

-ab Sampling:

Job / SDG No.:



550-166712 Chain of Custody

Sample Specific Notes:

Volume = 834.6 L

Volume = 821.95 L

Volume = 784.13 L

Volume = 865.65 L

Volume = 831.09 L

Volume = 830.59 L

Volume = 757.34 L

Volume = 823.66 L

Volume =

Volume =

Volume =

Volume =

Volume =

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/IC Requirements & Comments:

Non-Hazardous

Flammable

Skin Irritant

Poison B

Unknown

Custody Seals Intact:

Yes ☐ No ☐

Relinquished by: *Greg Roussos* to *Lab*

Relinquished by: *Lab* Company: *Westonsolutions*

Relinquished by: *Lab* Company: *Westonsolutions*

Cooler Temp. (°C): Obs'd:

Cor'd:

Therm ID No.:

Received by: *Greg Roussos*

Company: *Westonsolutions*

Date/Time: *7/16/21 12:30*

Received by: *Lab*

Company: *Westonsolutions*

Date/Time: *7/16/21 12:30*

Received in Laboratory by: *Lab*

Company: *Westonsolutions*

Date/Time: *7/16/21 12:30*

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-166712-1

SDG Number: Argonaut Mine Headframe

Login Number: 166712

List Number: 1

Creator: Maycock, Lisa

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-166771-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos



Authorized for release by:
7/14/2021 4:00:46 PM

Emily Petrunia, Project Manager I
(602)659-7629
emily.petrunia@eurofinset.com

Designee for

Carlene McCutcheon, Project Manager II
(602)659-7612
Carlene.McCutcheon@Eurofinset.com

LINKS

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166771-1
SDG: Argonaut Mine Headframe

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166771-1
SDG: Argonaut Mine Headframe

Job ID: 550-166771-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-166771-1

Comments

No additional comments.

Receipt

The samples were received on 7/9/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice.

Metals

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

IH - Metals

Method 145: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247589 and analytical batch 550-247670.

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

Industrial Hygiene

Methods 7300, 7303: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247617 and analytical batch 550-247738.

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

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166771-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-166771-1	AHR-AM01-070721-M	Air	07/07/21 00:00	07/09/21 10:00	
550-166771-2	AHR-AM02-070721-M	Air	07/07/21 00:00	07/09/21 10:00	
550-166771-3	AHR-AM04-070721-M	Air	07/07/21 00:00	07/09/21 10:00	
550-166771-4	AHR-AM01-070721-Hg	Air	07/07/21 00:00	07/09/21 10:00	
550-166771-5	AHR-AM02-070721-Hg	Air	07/07/21 00:00	07/09/21 10:00	
550-166771-6	AHR-AM04-070721-Hg	Air	07/07/21 00:00	07/09/21 10:00	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166771-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070721-M

Lab Sample ID: 550-166771-1

☐ No Detections.

Client Sample ID: AHR-AM02-070721-M

Lab Sample ID: 550-166771-2

☐ No Detections.

Client Sample ID: AHR-AM04-070721-M

Lab Sample ID: 550-166771-3

☐ No Detections.

Client Sample ID: AHR-AM01-070721-Hg

Lab Sample ID: 550-166771-4

☐ No Detections.

Client Sample ID: AHR-AM02-070721-Hg

Lab Sample ID: 550-166771-5

☐ No Detections.

Client Sample ID: AHR-AM04-070721-Hg

Lab Sample ID: 550-166771-6

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166771-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070721-M

Lab Sample ID: 550-166771-1

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Sample Air Volume: 1239.74 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000403			0.500	07/13/21 09:23	07/13/21 16:58	1
Lead	<0.250	<0.000202			0.250	07/13/21 09:23	07/13/21 16:58	1

Client Sample ID: AHR-AM02-070721-M

Lab Sample ID: 550-166771-2

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Sample Air Volume: 1246.42 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000401			0.500	07/13/21 09:23	07/13/21 17:02	1
Lead	<0.250	<0.000201			0.250	07/13/21 09:23	07/13/21 17:02	1

Client Sample ID: AHR-AM04-070721-M

Lab Sample ID: 550-166771-3

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Sample Air Volume: 1262.9 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000396			0.500	07/13/21 09:23	07/13/21 17:10	1
Lead	<0.250	<0.000198			0.250	07/13/21 09:23	07/13/21 17:10	1

Client Sample ID: AHR-AM01-070721-Hg

Lab Sample ID: 550-166771-4

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Sample Air Volume: 1262.34 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000396			0.0500	07/12/21 18:40	07/13/21 16:22	1

Client Sample ID: AHR-AM02-070721-Hg

Lab Sample ID: 550-166771-5

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Sample Air Volume: 1294.77 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000386			0.0500	07/12/21 18:40	07/13/21 16:25	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166771-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-070721-Hg

Lab Sample ID: 550-166771-6

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Sample Air Volume: 1231.66 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000406		0.0500	07/12/21 18:40	07/13/21 16:27	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166771-1
SDG: Argonaut Mine Headframe

Method: PE-MET-012 - NIOSH Method 7300

Lab Sample ID: MB 550-247617/1-A
Matrix: Air
Analysis Batch: 247738

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 247617

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		07/13/21 09:23	07/13/21 16:47	1
Lead	<0.250		0.250	ug/Sample		07/13/21 09:23	07/13/21 16:47	1

Lab Sample ID: LCS 550-247617/2-A
Matrix: Air
Analysis Batch: 247738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 247617

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	24.86		ug/Sample		99	80 - 120
Lead	25.0	25.92		ug/Sample		104	80 - 120

Lab Sample ID: LCSD 550-247617/3-A
Matrix: Air
Analysis Batch: 247738

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 247617

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	25.0	24.55		ug/Sample		98	80 - 120	1	20
Lead	25.0	25.53		ug/Sample		102	80 - 120	1	20

Method: PE-MET-019 - Mercury (CVAA)

Lab Sample ID: MB 550-247589/12-A
Matrix: Air
Analysis Batch: 247670

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 247589

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.0500		0.0500	ug/Sample		07/12/21 18:40	07/13/21 16:17	1

Lab Sample ID: LCS 550-247589/13-A
Matrix: Air
Analysis Batch: 247670

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 247589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.250	0.2477		ug/Sample		99	46 - 126

Lab Sample ID: LCSD 550-247589/14-A
Matrix: Air
Analysis Batch: 247670

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 247589

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.250	0.2548		ug/Sample		102	46 - 126	3	33

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166771-1
SDG: Argonaut Mine Headframe

IH - Metals

Prep Batch: 247589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166771-4	AHR-AM01-070721-Hg	Total/NA	Air	Filter Prep	
550-166771-5	AHR-AM02-070721-Hg	Total/NA	Air	Filter Prep	
550-166771-6	AHR-AM04-070721-Hg	Total/NA	Air	Filter Prep	
MB 550-247589/12-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247589/13-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247589/14-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Prep Batch: 247617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166771-1	AHR-AM01-070721-M	Total/NA	Air	Filter Prep	
550-166771-2	AHR-AM02-070721-M	Total/NA	Air	Filter Prep	
550-166771-3	AHR-AM04-070721-M	Total/NA	Air	Filter Prep	
MB 550-247617/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247617/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247617/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 247670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166771-4	AHR-AM01-070721-Hg	Total/NA	Air	PE-MET-019	247589
550-166771-5	AHR-AM02-070721-Hg	Total/NA	Air	PE-MET-019	247589
550-166771-6	AHR-AM04-070721-Hg	Total/NA	Air	PE-MET-019	247589
MB 550-247589/12-A	Method Blank	Total/NA	Air	PE-MET-019	247589
LCS 550-247589/13-A	Lab Control Sample	Total/NA	Air	PE-MET-019	247589
LCSD 550-247589/14-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-019	247589

Analysis Batch: 247738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166771-1	AHR-AM01-070721-M	Total/NA	Air	PE-MET-012	247617
550-166771-2	AHR-AM02-070721-M	Total/NA	Air	PE-MET-012	247617
550-166771-3	AHR-AM04-070721-M	Total/NA	Air	PE-MET-012	247617
MB 550-247617/1-A	Method Blank	Total/NA	Air	PE-MET-012	247617
LCS 550-247617/2-A	Lab Control Sample	Total/NA	Air	PE-MET-012	247617
LCSD 550-247617/3-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-012	247617

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166771-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070721-M

Lab Sample ID: 550-166771-1

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247617	07/13/21 09:23	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247738	07/13/21 16:58	MGM	TAL PHX

Client Sample ID: AHR-AM02-070721-M

Lab Sample ID: 550-166771-2

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247617	07/13/21 09:23	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247738	07/13/21 17:02	MGM	TAL PHX

Client Sample ID: AHR-AM04-070721-M

Lab Sample ID: 550-166771-3

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247617	07/13/21 09:23	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247738	07/13/21 17:10	MGM	TAL PHX

Client Sample ID: AHR-AM01-070721-Hg

Lab Sample ID: 550-166771-4

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247589	07/12/21 18:40	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247670	07/13/21 16:22	SRR	TAL PHX

Client Sample ID: AHR-AM02-070721-Hg

Lab Sample ID: 550-166771-5

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247589	07/12/21 18:40	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247670	07/13/21 16:25	SRR	TAL PHX

Client Sample ID: AHR-AM04-070721-Hg

Lab Sample ID: 550-166771-6

Date Collected: 07/07/21 00:00

Matrix: Air

Date Received: 07/09/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247589	07/12/21 18:40	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247670	07/13/21 16:27	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166771-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21
California	State	2941	06-10-22

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
PE-MET-012	Filter Prep	Air	Arsenic
PE-MET-012	Filter Prep	Air	Lead
PE-MET-019	Filter Prep	Air	Hg

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166771-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
PE-MET-012	NIOSH Method 7300	NIOSH	TAL PHX
PE-MET-019	Mercury (CVAA)	OSHA	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements
OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

RUSH

Chain of Custody Record

Environment Testing
AmericaRegulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact		Project Manager: Greg Roussos		Site Contact: Greg Roussos		Date: 7/7/2021		COC No: 07072021	
Weston Solutions		Email: greg.roussos@westonsolutions.com		Lab Contact: David Allmucker		Carrier: FEDEX		TALS Project #:	
2300 Clayton Road, #900		Tel/Fax: 513-604-4797						Sampler: GR	
Concord, CA 94520		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS						For Lab Use Only:	
Phone: 513-604-4797		TAT if different from Below						Walk-in Client:	
		1 week						Lab Sampling:	
		2 days						Job / SDG No.:	
		1 day							
Project Name: Argonaut Mine Headframe Removal									
Site: Argonaut Mine Headframe									
P O #: 0104258									
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Sample Specific Notes:	
1 AHR-AM01-070721-M	7/7/2021	17:17	--	Air	1			Volume = 1239.74 L	
2 AHR-AM02-070721-M	7/7/2021	17:22	--	Air	1			Volume = 1246.42 L	
3 AHR-AM04-070721-M	7/7/2021	17:28	--	Air	1			Volume = 1262.9 L	
4 AHR-AM01-070721-Hg	7/7/2021	17:17	--	Air	1			Volume = 1262.34 L	
5 AHR-AM02-070721-Hg	7/7/2021	17:22	--	Air	1			Volume = 1294.77 L	
6 AHR-AM04-070721-Hg	7/7/2021	17:28	--	Air	1			Volume = 1231.66 L	
 550-166771 Chain of Custody						Volume = L			
						Volume = L			
						Volume = L			
						Volume = L			
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
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.									
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown						<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for Months			
Special Instructions/QC Requirements & Comments:									
Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	COC# Temp. (°C): Obs'd:		Cor'd:		Therm ID No.:			
Relinquished by: <i>Greg Roussos</i> (to index)	Company: <i>Weston Solutions</i>	Date/Time: <i>7/10/21 12:45</i>	Received by:	Company:		Date/Time:			
Relinquished by:	Company:	Date/Time:	Received by:	Company:		Date/Time:			
Relinquished by:	Company:	Date/Time:	Received by:	Company:		Date/Time:			

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-166771-1

SDG Number: Argonaut Mine Headframe

Login Number: 166771

List Number: 1

Creator: Maycock, Lisa

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-166855-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos



Authorized for release by:
7/14/2021 5:58:47 PM

Emily Petrunia, Project Manager I
(602)659-7629
emily.petrunia@eurofinset.com

Designee for

Carlene McCutcheon, Project Manager II
(602)659-7612
Carlene.McCutcheon@Eurofinset.com

LINKS

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166855-1
SDG: Argonaut Mine Headframe

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166855-1
SDG: Argonaut Mine Headframe

Job ID: 550-166855-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-166855-1

Comments

No additional comments.

Receipt

The samples were received on 7/12/2021 9:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice.

Metals

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

IH - Metals

Method 145: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247589 and analytical batch 550-247670.

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

Industrial Hygiene

Methods 7300, 7303: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247617 and analytical batch 550-247738.

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

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166855-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-166855-1	AHR-AM01-070821-M	Air	07/08/21 00:00	07/12/21 09:40	
550-166855-2	AHR-AM02-070821-M	Air	07/08/21 00:00	07/12/21 09:40	
550-166855-3	AHR-AM04-070821-M	Air	07/08/21 00:00	07/12/21 09:40	
550-166855-4	AHR-AM01-070821-Hg	Air	07/08/21 00:00	07/12/21 09:40	
550-166855-5	AHR-AM02-070821-Hg	Air	07/08/21 00:00	07/12/21 09:40	
550-166855-6	AHR-AM04-070821-Hg	Air	07/08/21 00:00	07/12/21 09:40	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166855-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070821-M

Lab Sample ID: 550-166855-1

☐ No Detections.

Client Sample ID: AHR-AM02-070821-M

Lab Sample ID: 550-166855-2

☐ No Detections.

Client Sample ID: AHR-AM04-070821-M

Lab Sample ID: 550-166855-3

☐ No Detections.

Client Sample ID: AHR-AM01-070821-Hg

Lab Sample ID: 550-166855-4

☐ No Detections.

Client Sample ID: AHR-AM02-070821-Hg

Lab Sample ID: 550-166855-5

☐ No Detections.

Client Sample ID: AHR-AM04-070821-Hg

Lab Sample ID: 550-166855-6

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166855-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070821-M

Lab Sample ID: 550-166855-1

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Sample Air Volume: 1135.0 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000441			0.500	07/13/21 09:23	07/13/21 17:14	1
Lead	<0.250	<0.000220			0.250	07/13/21 09:23	07/13/21 17:14	1

Client Sample ID: AHR-AM02-070821-M

Lab Sample ID: 550-166855-2

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Sample Air Volume: 1108.6 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000451			0.500	07/13/21 09:23	07/13/21 17:17	1
Lead	<0.250	<0.000226			0.250	07/13/21 09:23	07/13/21 17:17	1

Client Sample ID: AHR-AM04-070821-M

Lab Sample ID: 550-166855-3

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Sample Air Volume: 1129.6 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000443			0.500	07/13/21 09:23	07/13/21 17:21	1
Lead	<0.250	<0.000221			0.250	07/13/21 09:23	07/13/21 17:21	1

Client Sample ID: AHR-AM01-070821-Hg

Lab Sample ID: 550-166855-4

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Sample Air Volume: 1136.6 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000440			0.0500	07/12/21 18:40	07/13/21 16:28	1

Client Sample ID: AHR-AM02-070821-Hg

Lab Sample ID: 550-166855-5

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Sample Air Volume: 1148.1 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000436			0.0500	07/12/21 18:40	07/13/21 16:30	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166855-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-070821-Hg

Lab Sample ID: 550-166855-6

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Sample Air Volume: 1116.5 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000448		0.0500	07/12/21 18:40	07/13/21 16:32	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166855-1
SDG: Argonaut Mine Headframe

Method: PE-MET-012 - NIOSH Method 7300

Lab Sample ID: MB 550-247617/1-A
Matrix: Air
Analysis Batch: 247738

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 247617

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		07/13/21 09:23	07/13/21 16:47	1
Lead	<0.250		0.250	ug/Sample		07/13/21 09:23	07/13/21 16:47	1

Lab Sample ID: LCS 550-247617/2-A
Matrix: Air
Analysis Batch: 247738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 247617

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	24.86		ug/Sample		99	80 - 120
Lead	25.0	25.92		ug/Sample		104	80 - 120

Lab Sample ID: LCSD 550-247617/3-A
Matrix: Air
Analysis Batch: 247738

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 247617

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	25.0	24.55		ug/Sample		98	80 - 120	1	20
Lead	25.0	25.53		ug/Sample		102	80 - 120	1	20

Method: PE-MET-019 - Mercury (CVAA)

Lab Sample ID: MB 550-247589/12-A
Matrix: Air
Analysis Batch: 247670

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 247589

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.0500		0.0500	ug/Sample		07/12/21 18:40	07/13/21 16:17	1

Lab Sample ID: LCS 550-247589/13-A
Matrix: Air
Analysis Batch: 247670

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 247589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.250	0.2477		ug/Sample		99	46 - 126

Lab Sample ID: LCSD 550-247589/14-A
Matrix: Air
Analysis Batch: 247670

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 247589

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.250	0.2548		ug/Sample		102	46 - 126	3	33

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166855-1
SDG: Argonaut Mine Headframe

IH - Metals

Prep Batch: 247589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166855-4	AHR-AM01-070821-Hg	Total/NA	Air	Filter Prep	
550-166855-5	AHR-AM02-070821-Hg	Total/NA	Air	Filter Prep	
550-166855-6	AHR-AM04-070821-Hg	Total/NA	Air	Filter Prep	
MB 550-247589/12-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247589/13-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247589/14-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Prep Batch: 247617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166855-1	AHR-AM01-070821-M	Total/NA	Air	Filter Prep	
550-166855-2	AHR-AM02-070821-M	Total/NA	Air	Filter Prep	
550-166855-3	AHR-AM04-070821-M	Total/NA	Air	Filter Prep	
MB 550-247617/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247617/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247617/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 247670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166855-4	AHR-AM01-070821-Hg	Total/NA	Air	PE-MET-019	247589
550-166855-5	AHR-AM02-070821-Hg	Total/NA	Air	PE-MET-019	247589
550-166855-6	AHR-AM04-070821-Hg	Total/NA	Air	PE-MET-019	247589
MB 550-247589/12-A	Method Blank	Total/NA	Air	PE-MET-019	247589
LCS 550-247589/13-A	Lab Control Sample	Total/NA	Air	PE-MET-019	247589
LCSD 550-247589/14-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-019	247589

Analysis Batch: 247738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166855-1	AHR-AM01-070821-M	Total/NA	Air	PE-MET-012	247617
550-166855-2	AHR-AM02-070821-M	Total/NA	Air	PE-MET-012	247617
550-166855-3	AHR-AM04-070821-M	Total/NA	Air	PE-MET-012	247617
MB 550-247617/1-A	Method Blank	Total/NA	Air	PE-MET-012	247617
LCS 550-247617/2-A	Lab Control Sample	Total/NA	Air	PE-MET-012	247617
LCSD 550-247617/3-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-012	247617

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166855-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-070821-M

Lab Sample ID: 550-166855-1

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247617	07/13/21 09:23	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247738	07/13/21 17:14	MGM	TAL PHX

Client Sample ID: AHR-AM02-070821-M

Lab Sample ID: 550-166855-2

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247617	07/13/21 09:23	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247738	07/13/21 17:17	MGM	TAL PHX

Client Sample ID: AHR-AM04-070821-M

Lab Sample ID: 550-166855-3

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247617	07/13/21 09:23	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247738	07/13/21 17:21	MGM	TAL PHX

Client Sample ID: AHR-AM01-070821-Hg

Lab Sample ID: 550-166855-4

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247589	07/12/21 18:40	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247670	07/13/21 16:28	SRR	TAL PHX

Client Sample ID: AHR-AM02-070821-Hg

Lab Sample ID: 550-166855-5

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247589	07/12/21 18:40	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247670	07/13/21 16:30	SRR	TAL PHX

Client Sample ID: AHR-AM04-070821-Hg

Lab Sample ID: 550-166855-6

Date Collected: 07/08/21 00:00

Matrix: Air

Date Received: 07/12/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247589	07/12/21 18:40	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247670	07/13/21 16:32	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166855-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21
California	State	2941	06-10-22

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
PE-MET-012	Filter Prep	Air	Arsenic
PE-MET-012	Filter Prep	Air	Lead
PE-MET-019	Filter Prep	Air	Hg

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166855-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
PE-MET-012	NIOSH Method 7300	NIOSH	TAL PHX
PE-MET-019	Mercury (CVAA)	OSHA	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements
OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-166855-1

SDG Number: Argonaut Mine Headframe

Login Number: 166855

List Number: 1

Creator: Maycock, Lisa

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-166984-1

Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos

Tina Paulauskas

Authorized for release by:

7/15/2021 5:26:40 PM

Tina Paulauskas, Client Service Manager
(602)659-7617

Tina.Paulauskas@Eurofinset.com

Designee for

Carlene McCutcheon, Project Manager II
(602)659-7612

Carlene.McCutcheon@Eurofinset.com

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166984-1

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166984-1

Job ID: 550-166984-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-166984-1

Comments

No additional comments.

Receipt

The samples were received on 7/13/2021 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice.

Metals

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

IH - Metals

Method 145: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247783 and analytical batch 550-247819.

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

Industrial Hygiene

Method 7300: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247818 and analytical batch 550-247902.

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

Sample Summary

Client: Weston Solutions, Inc.

Job ID: 550-166984-1

Project/Site: Argonaut Mine Headframe Removal

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-166984-1	AHR-AM01-071021-M	Air	07/10/21 15:25	07/13/21 09:30	
550-166984-2	AHR-AM02-071021-M	Air	07/10/21 15:40	07/13/21 09:30	
550-166984-3	AHR-AM04-071021-M	Air	07/10/21 15:35	07/13/21 09:30	
550-166984-4	AHR-AM01-071021-Hg	Air	07/10/21 15:25	07/13/21 09:30	
550-166984-5	AHR-AM02-071021-Hg	Air	07/10/21 15:40	07/13/21 09:30	
550-166984-6	AHR-AM02-071021-Hg	Air	07/10/21 15:35	07/13/21 09:30	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166984-1

Client Sample ID: AHR-AM01-071021-M

Lab Sample ID: 550-166984-1

No Detections.

Client Sample ID: AHR-AM02-071021-M

Lab Sample ID: 550-166984-2

No Detections.

Client Sample ID: AHR-AM04-071021-M

Lab Sample ID: 550-166984-3

No Detections.

Client Sample ID: AHR-AM01-071021-Hg

Lab Sample ID: 550-166984-4

No Detections.

Client Sample ID: AHR-AM02-071021-Hg

Lab Sample ID: 550-166984-5

No Detections.

Client Sample ID: AHR-AM02-071021-Hg

Lab Sample ID: 550-166984-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166984-1

Client Sample ID: AHR-AM01-071021-M

Lab Sample ID: 550-166984-1

Date Collected: 07/10/21 15:25

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1031.6 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000485		0.500	07/14/21 20:58	07/15/21 11:46	1
Lead	<0.250	<0.000242		0.250	07/14/21 20:58	07/15/21 11:46	1

Client Sample ID: AHR-AM02-071021-M

Lab Sample ID: 550-166984-2

Date Collected: 07/10/21 15:40

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1071.4 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000467		0.500	07/14/21 20:58	07/15/21 11:50	1
Lead	<0.250	<0.000233		0.250	07/14/21 20:58	07/15/21 11:50	1

Client Sample ID: AHR-AM04-071021-M

Lab Sample ID: 550-166984-3

Date Collected: 07/10/21 15:35

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 984.24 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000508		0.500	07/14/21 20:58	07/15/21 11:54	1
Lead	<0.250	<0.000254		0.250	07/14/21 20:58	07/15/21 11:54	1

Client Sample ID: AHR-AM01-071021-Hg

Lab Sample ID: 550-166984-4

Date Collected: 07/10/21 15:25

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1033.8 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000484		0.0500	07/14/21 16:15	07/14/21 20:41	1

Client Sample ID: AHR-AM02-071021-Hg

Lab Sample ID: 550-166984-5

Date Collected: 07/10/21 15:40

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1069.2 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000468		0.0500	07/14/21 16:15	07/14/21 20:43	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166984-1

Client Sample ID: AHR-AM02-071021-Hg

Lab Sample ID: 550-166984-6

Date Collected: 07/10/21 15:35

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 986.9 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000507		0.0500	07/14/21 16:15	07/14/21 20:45	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166984-1

Method: PE-MET-012 - NIOSH Method 7300

Lab Sample ID: MB 550-247818/1-A

Matrix: Air

Analysis Batch: 247902

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 247818

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		07/14/21 20:58	07/15/21 11:35	1
Lead	<0.250		0.250	ug/Sample		07/14/21 20:58	07/15/21 11:35	1

Lab Sample ID: LCS 550-247818/2-A

Matrix: Air

Analysis Batch: 247902

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 247818

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	24.14		ug/Sample		97	80 - 120
Lead	25.0	25.04		ug/Sample		100	80 - 120

Lab Sample ID: LCSD 550-247818/3-A

Matrix: Air

Analysis Batch: 247902

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 247818

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	25.0	24.52		ug/Sample		98	80 - 120	2	20
Lead	25.0	25.31		ug/Sample		101	80 - 120	1	20

Method: PE-MET-019 - Mercury (CVAA)

Lab Sample ID: MB 550-247783/12-A

Matrix: Air

Analysis Batch: 247819

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 247783

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.0500		0.0500	ug/Sample		07/14/21 16:15	07/14/21 20:35	1

Lab Sample ID: LCS 550-247783/13-A

Matrix: Air

Analysis Batch: 247819

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 247783

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.250	0.2729		ug/Sample		109	46 - 126

Lab Sample ID: LCSD 550-247783/14-A

Matrix: Air

Analysis Batch: 247819

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 247783

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.250	0.2918		ug/Sample		117	46 - 126	7	33

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166984-1

IH - Metals

Prep Batch: 247783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166984-4	AHR-AM01-071021-Hg	Total/NA	Air	Filter Prep	
550-166984-5	AHR-AM02-071021-Hg	Total/NA	Air	Filter Prep	
550-166984-6	AHR-AM02-071021-Hg	Total/NA	Air	Filter Prep	
MB 550-247783/12-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247783/13-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247783/14-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Prep Batch: 247818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166984-1	AHR-AM01-071021-M	Total/NA	Air	Filter Prep	
550-166984-2	AHR-AM02-071021-M	Total/NA	Air	Filter Prep	
550-166984-3	AHR-AM04-071021-M	Total/NA	Air	Filter Prep	
MB 550-247818/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247818/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247818/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 247819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166984-4	AHR-AM01-071021-Hg	Total/NA	Air	PE-MET-019	247783
550-166984-5	AHR-AM02-071021-Hg	Total/NA	Air	PE-MET-019	247783
550-166984-6	AHR-AM02-071021-Hg	Total/NA	Air	PE-MET-019	247783
MB 550-247783/12-A	Method Blank	Total/NA	Air	PE-MET-019	247783
LCS 550-247783/13-A	Lab Control Sample	Total/NA	Air	PE-MET-019	247783
LCSD 550-247783/14-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-019	247783

Analysis Batch: 247902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166984-1	AHR-AM01-071021-M	Total/NA	Air	PE-MET-012	247818
550-166984-2	AHR-AM02-071021-M	Total/NA	Air	PE-MET-012	247818
550-166984-3	AHR-AM04-071021-M	Total/NA	Air	PE-MET-012	247818
MB 550-247818/1-A	Method Blank	Total/NA	Air	PE-MET-012	247818
LCS 550-247818/2-A	Lab Control Sample	Total/NA	Air	PE-MET-012	247818
LCSD 550-247818/3-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-012	247818

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166984-1

Client Sample ID: AHR-AM01-071021-M

Lab Sample ID: 550-166984-1

Date Collected: 07/10/21 15:25

Matrix: Air

Date Received: 07/13/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247818	07/14/21 20:58	CXK	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247902	07/15/21 11:46	MGM	TAL PHX

Client Sample ID: AHR-AM02-071021-M

Lab Sample ID: 550-166984-2

Date Collected: 07/10/21 15:40

Matrix: Air

Date Received: 07/13/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247818	07/14/21 20:58	CXK	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247902	07/15/21 11:50	MGM	TAL PHX

Client Sample ID: AHR-AM04-071021-M

Lab Sample ID: 550-166984-3

Date Collected: 07/10/21 15:35

Matrix: Air

Date Received: 07/13/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247818	07/14/21 20:58	CXK	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247902	07/15/21 11:54	MGM	TAL PHX

Client Sample ID: AHR-AM01-071021-Hg

Lab Sample ID: 550-166984-4

Date Collected: 07/10/21 15:25

Matrix: Air

Date Received: 07/13/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247783	07/14/21 16:15	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247819	07/14/21 20:41	SRR	TAL PHX

Client Sample ID: AHR-AM02-071021-Hg

Lab Sample ID: 550-166984-5

Date Collected: 07/10/21 15:40

Matrix: Air

Date Received: 07/13/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247783	07/14/21 16:15	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247819	07/14/21 20:43	SRR	TAL PHX

Client Sample ID: AHR-AM02-071021-Hg

Lab Sample ID: 550-166984-6

Date Collected: 07/10/21 15:35

Matrix: Air

Date Received: 07/13/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247783	07/14/21 16:15	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247819	07/14/21 20:45	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix

Accreditation/Certification Summary

Client: Weston Solutions, Inc.

Job ID: 550-166984-1

Project/Site: Argonaut Mine Headframe Removal

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21
California	State	2941	06-10-22

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
PE-MET-012	Filter Prep	Air	Arsenic
PE-MET-012	Filter Prep	Air	Lead
PE-MET-019	Filter Prep	Air	Hg

Method Summary

Client: Weston Solutions, Inc.

Job ID: 550-166984-1

Project/Site: Argonaut Mine Headframe Removal

Method	Method Description	Protocol	Laboratory
PE-MET-012	NIOSH Method 7300	NIOSH	TAL PHX
PE-MET-019	Mercury (CVAA)	OSHA	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements

OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix

4625 East Cotton Center Boulevard
Suite 189

Phoenix, AZ 85040-4807
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record



166984
Environment Testing
America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact		Project Manager: Greg Roussos		Site Contact: Greg Roussos		Date: 7/10/2021		COC No: 07102021	
Western Solutions 2300 Clayton Road, #900 Concord, CA 94520 Phone: 513-604-4797		Email: greg.roussos@westernsolutions.com Tel/Fax: 513-604-4797		Lab Contact: David Altucker		Carrier: FEDEX		TALS Project #:	
Analysis Turnaround Time		TAT if different from Below		7300 for As & Pb		145 for Hg		Sampler: GR	
<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		2 weeks 1 week 2 days 1 day						For Lab Use Only:	
Project Name: Argonaut Mine Headframe Removal								Walk-in Client:	
Site: Argonaut Mine Headframe								Lab Sampling:	
P O #: 0104258								Job / SDG No.:	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Sample Specific Notes:
-1	AHR-AM01-071021-M	7/10/2021	15:25	--	Air	1	X		Volume = 1031.6 L
-2	AHR-AM02-071021-M	7/10/2021	15:40	--	Filler	1	X		Volume = 1071.4 L
-3	AHR-AM04-071021-M	7/10/2021	15:35	--	Filler	1	X		Volume = 984.24 L
-4	AHR-AM01-071021-Hg	7/10/2021	15:25	--	Air	1	X		Volume = 1033.8 L
-5	AHR-AM02-071021-Hg	7/10/2021	15:40	--	Filler	1	X		Volume = 1069.2 L
-6	AHR-AM04-071021-Hg	7/10/2021	15:35	--	Air	1	X		Volume = 986.9 L
RUSH!									
<div style="display: flex; align-items: center;"> <div style="margin-left: 10px;"> <p>550-166984 Chain of Custody</p> </div> </div>									
<p>Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other</p> <p>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.</p> <p><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown</p> <p>Special Instructions/QC Requirements & Comments:</p>									
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C):		Cor'd:		Therm ID No.:	
Relinquished by: <i>[Signature]</i> to <i>[Signature]</i>		Company: Western Solutions		Date/Time: 7/13/21 1:30		Received by: <i>[Signature]</i>		Company: FEDEX	
Relinquished by: <i>[Signature]</i>		Company:		Date/Time:		Received in Laboratory by: <i>[Signature]</i>		Company: <i>[Signature]</i>	
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company: <i>[Signature]</i>	

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-166984-1

Login Number: 166984

List Source: Eurofins TestAmerica, Phoenix

List Number: 1

Creator: Maycock, Lisa

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-166985-1

Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos

Tina Paulauskas

Authorized for release by:

7/15/2021 5:32:54 PM

Tina Paulauskas, Client Service Manager
(602)659-7617

Tina.Paulauskas@Eurofinset.com

Designee for

Carlene McCutcheon, Project Manager II
(602)659-7612

Carlene.McCutcheon@Eurofinset.com

LINKS

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166985-1

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166985-1

Job ID: 550-166985-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-166985-1

Comments

No additional comments.

Receipt

The samples were received on 7/13/2021 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 930.0° C.

Metals

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

IH - Metals

Method 145: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247783 and analytical batch 550-247819.

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

Industrial Hygiene

Method 7300: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247818 and analytical batch 550-247902.

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

Sample Summary

Client: Weston Solutions, Inc.

Job ID: 550-166985-1

Project/Site: Argonaut Mine Headframe Removal

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-166985-1	AHR-AM01-070921-M	Air	07/09/21 00:00	07/13/21 09:30	
550-166985-2	AHR-AM02-070921-M	Air	07/09/21 00:00	07/13/21 09:30	
550-166985-3	AHR-AM04-070921-M	Air	07/09/21 00:00	07/13/21 09:30	
550-166985-4	AHR-AM01-070921-Hg	Air	07/09/21 00:00	07/13/21 09:30	
550-166985-5	AHR-AM02-070921-Hg	Air	07/09/21 00:00	07/13/21 09:30	
550-166985-6	AHR-AM04-070921-Hg	Air	07/09/21 00:00	07/13/21 09:30	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166985-1

Client Sample ID: AHR-AM01-070921-M

Lab Sample ID: 550-166985-1

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Dil Fac	Method	Prep Type
Lead	0.386	0.000307		0.250	1	PE-MET-012	Total/NA

Client Sample ID: AHR-AM02-070921-M

Lab Sample ID: 550-166985-2

No Detections.

Client Sample ID: AHR-AM04-070921-M

Lab Sample ID: 550-166985-3

No Detections.

Client Sample ID: AHR-AM01-070921-Hg

Lab Sample ID: 550-166985-4

No Detections.

Client Sample ID: AHR-AM02-070921-Hg

Lab Sample ID: 550-166985-5

No Detections.

Client Sample ID: AHR-AM04-070921-Hg

Lab Sample ID: 550-166985-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166985-1

Client Sample ID: AHR-AM01-070921-M

Lab Sample ID: 550-166985-1

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1257.06 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000398		0.500	07/14/21 20:58	07/15/21 11:57	1
Lead	0.386	0.000307		0.250	07/14/21 20:58	07/15/21 11:57	1

Client Sample ID: AHR-AM02-070921-M

Lab Sample ID: 550-166985-2

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1203.63 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000415		0.500	07/14/21 20:58	07/15/21 12:01	1
Lead	<0.250	<0.000208		0.250	07/14/21 20:58	07/15/21 12:01	1

Client Sample ID: AHR-AM04-070921-M

Lab Sample ID: 550-166985-3

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1247.16 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000401		0.500	07/14/21 20:58	07/15/21 12:05	1
Lead	<0.250	<0.000200		0.250	07/14/21 20:58	07/15/21 12:05	1

Client Sample ID: AHR-AM01-070921-Hg

Lab Sample ID: 550-166985-4

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1247.30 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000401		0.0500	07/14/21 16:15	07/14/21 20:47	1

Client Sample ID: AHR-AM02-070921-Hg

Lab Sample ID: 550-166985-5

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1217.09 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000411		0.0500	07/14/21 16:15	07/14/21 20:48	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166985-1

Client Sample ID: AHR-AM04-070921-Hg

Lab Sample ID: 550-166985-6

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Sample Air Volume: 1251.72 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000399		0.0500	07/14/21 16:15	07/14/21 20:50	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166985-1

Method: PE-MET-012 - NIOSH Method 7300

Lab Sample ID: MB 550-247818/1-A

Matrix: Air

Analysis Batch: 247902

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 247818

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		07/14/21 20:58	07/15/21 11:35	1
Lead	<0.250		0.250	ug/Sample		07/14/21 20:58	07/15/21 11:35	1

Lab Sample ID: LCS 550-247818/2-A

Matrix: Air

Analysis Batch: 247902

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 247818

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	24.14		ug/Sample		97	80 - 120
Lead	25.0	25.04		ug/Sample		100	80 - 120

Lab Sample ID: LCSD 550-247818/3-A

Matrix: Air

Analysis Batch: 247902

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 247818

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	25.0	24.52		ug/Sample		98	80 - 120	2	20
Lead	25.0	25.31		ug/Sample		101	80 - 120	1	20

Method: PE-MET-019 - Mercury (CVAA)

Lab Sample ID: MB 550-247783/12-A

Matrix: Air

Analysis Batch: 247819

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 247783

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.0500		0.0500	ug/Sample		07/14/21 16:15	07/14/21 20:35	1

Lab Sample ID: LCS 550-247783/13-A

Matrix: Air

Analysis Batch: 247819

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 247783

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.250	0.2729		ug/Sample		109	46 - 126

Lab Sample ID: LCSD 550-247783/14-A

Matrix: Air

Analysis Batch: 247819

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 247783

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.250	0.2918		ug/Sample		117	46 - 126	7	33

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166985-1

IH - Metals

Prep Batch: 247783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166985-4	AHR-AM01-070921-Hg	Total/NA	Air	Filter Prep	
550-166985-5	AHR-AM02-070921-Hg	Total/NA	Air	Filter Prep	
550-166985-6	AHR-AM04-070921-Hg	Total/NA	Air	Filter Prep	
MB 550-247783/12-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247783/13-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247783/14-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Prep Batch: 247818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166985-1	AHR-AM01-070921-M	Total/NA	Air	Filter Prep	
550-166985-2	AHR-AM02-070921-M	Total/NA	Air	Filter Prep	
550-166985-3	AHR-AM04-070921-M	Total/NA	Air	Filter Prep	
MB 550-247818/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247818/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247818/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 247819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166985-4	AHR-AM01-070921-Hg	Total/NA	Air	PE-MET-019	247783
550-166985-5	AHR-AM02-070921-Hg	Total/NA	Air	PE-MET-019	247783
550-166985-6	AHR-AM04-070921-Hg	Total/NA	Air	PE-MET-019	247783
MB 550-247783/12-A	Method Blank	Total/NA	Air	PE-MET-019	247783
LCS 550-247783/13-A	Lab Control Sample	Total/NA	Air	PE-MET-019	247783
LCSD 550-247783/14-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-019	247783

Analysis Batch: 247902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166985-1	AHR-AM01-070921-M	Total/NA	Air	PE-MET-012	247818
550-166985-2	AHR-AM02-070921-M	Total/NA	Air	PE-MET-012	247818
550-166985-3	AHR-AM04-070921-M	Total/NA	Air	PE-MET-012	247818
MB 550-247818/1-A	Method Blank	Total/NA	Air	PE-MET-012	247818
LCS 550-247818/2-A	Lab Control Sample	Total/NA	Air	PE-MET-012	247818
LCSD 550-247818/3-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-012	247818

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-166985-1

Client Sample ID: AHR-AM01-070921-M

Lab Sample ID: 550-166985-1

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247818	07/14/21 20:58	CXK	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247902	07/15/21 11:57	MGM	TAL PHX

Client Sample ID: AHR-AM02-070921-M

Lab Sample ID: 550-166985-2

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247818	07/14/21 20:58	CXK	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247902	07/15/21 12:01	MGM	TAL PHX

Client Sample ID: AHR-AM04-070921-M

Lab Sample ID: 550-166985-3

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247818	07/14/21 20:58	CXK	TAL PHX
Total/NA	Analysis	PE-MET-012		1	247902	07/15/21 12:05	MGM	TAL PHX

Client Sample ID: AHR-AM01-070921-Hg

Lab Sample ID: 550-166985-4

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247783	07/14/21 16:15	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247819	07/14/21 20:47	SRR	TAL PHX

Client Sample ID: AHR-AM02-070921-Hg

Lab Sample ID: 550-166985-5

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247783	07/14/21 16:15	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247819	07/14/21 20:48	SRR	TAL PHX

Client Sample ID: AHR-AM04-070921-Hg

Lab Sample ID: 550-166985-6

Date Collected: 07/09/21 00:00

Matrix: Air

Date Received: 07/13/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247783	07/14/21 16:15	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247819	07/14/21 20:50	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix

Accreditation/Certification Summary

Client: Weston Solutions, Inc.

Job ID: 550-166985-1

Project/Site: Argonaut Mine Headframe Removal

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21
California	State	2941	06-10-22

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
PE-MET-012	Filter Prep	Air	Arsenic
PE-MET-012	Filter Prep	Air	Lead
PE-MET-019	Filter Prep	Air	Hg

Method Summary

Client: Weston Solutions, Inc.

Job ID: 550-166985-1

Project/Site: Argonaut Mine Headframe Removal

Method	Method Description	Protocol	Laboratory
PE-MET-012	NIOSH Method 7300	NIOSH	TAL PHX
PE-MET-019	Mercury (CVAA)	OSHA	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements

OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact		Project Manager: Greg Roussos		Site Contact: Greg Roussos		Date: 7/9/2021		COC No: 07092021A	
Weston Solutions 2300 Clayton Road, #900 Concord, CA 94520 Phone: 513-604-4797		Email: greg.roussos@westonsolutions.com Tel/Fax: 513-604-4797		Lab Contact: David Alltucker		Carrier: FEDEX		TALS Project #: Sampler GR For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:	
Project Name: Argonaut Mine Headframe Removal		Analysis Turnaround Time		Filtered Sample (Y / N)		Perform MS / MSD (Y / N)		Sample Specific Notes:	
Site: Argonaut Mine Headframe P O #: 0104258		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below:		7300 for As & Pb		145 for Hg			
		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day							
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.			
-1 AHR-AM01-070921-M		7/9/2021	17:02	--	Air Filter	1	Volume = 1257.06 L		
-2 AHR-AM02-070921-M		7/9/2021	17:11	--	Air Filter	1	Volume = 1203.63 L		
-3 AHR-AM04-070921-M		7/9/2021	17:06	--	Air Filter	1	Volume = 1247.16 L		
-4 AHR-AM01-070921-Hg		7/9/2021	17:02	--	Air Filter	1	Volume = 1247.30 L		
-5 AHR-AM02-070921-Hg		7/9/2021	17:11	--	Air Filter	1	Volume = 1217.09 L		
-6 AHR-AM04-070921-Hg		7/9/2021	17:06	--	Air Filter	1	Volume = 1251.72 L		

RUSH!



550-166985 Chain of Custody

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.

Special Instructions/QC Requirements & Comments:

Amis *FCSPD*

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Received by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
		<i>Weston Solutions</i>		7/10/21 10:30	<i>[Signature]</i>	<i>Company</i>	7-1321 0930
Relinquished by:	Company:	Date/Time:					
Relinquished by:	Company:	Date/Time:					

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-166985-1

Login Number: 166985

List Source: Eurofins TestAmerica, Phoenix

List Number: 1

Creator: Maycock, Lisa

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-167045-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos



Authorized for release by:
7/16/2021 5:33:36 PM

Emily Petrunia, Project Manager I
(602)659-7629
emily.petrunia@eurofinset.com

Designee for

Carlene McCutcheon, Project Manager II
(602)659-7612
Carlene.McCutcheon@Eurofinset.com

LINKS

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167045-1
SDG: Argonaut Mine Headframe

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167045-1
SDG: Argonaut Mine Headframe

Job ID: 550-167045-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-167045-1

Comments

No additional comments.

Receipt

The samples were received on 7/14/2021 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice.

Metals

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

IH - Metals

Method 145: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247899 and analytical batch 550-247934.

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

Industrial Hygiene

Method 7300: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247826 and analytical batch 550-248050.

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

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167045-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-167045-1	AHR-AM01-071221-M	Air	07/12/21 00:00	07/14/21 09:00	
550-167045-2	AHR-AM02-071221-M	Air	07/12/21 00:00	07/14/21 09:00	
550-167045-3	AHR-AM04-071221-M	Air	07/12/21 00:00	07/14/21 09:00	
550-167045-4	AHR-AM01-071221-Hg	Air	07/12/21 00:00	07/14/21 09:00	
550-167045-5	AHR-AM02-071221-Hg	Air	07/12/21 00:00	07/14/21 09:00	
550-167045-6	AHR-AM04-071221-Hg	Air	07/12/21 00:00	07/14/21 09:00	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167045-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-071221-M

Lab Sample ID: 550-167045-1

☐ No Detections.

Client Sample ID: AHR-AM02-071221-M

Lab Sample ID: 550-167045-2

☐ No Detections.

Client Sample ID: AHR-AM04-071221-M

Lab Sample ID: 550-167045-3

☐ No Detections.

Client Sample ID: AHR-AM01-071221-Hg

Lab Sample ID: 550-167045-4

☐ No Detections.

Client Sample ID: AHR-AM02-071221-Hg

Lab Sample ID: 550-167045-5

☐ No Detections.

Client Sample ID: AHR-AM04-071221-Hg

Lab Sample ID: 550-167045-6

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167045-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-071221-M

Lab Sample ID: 550-167045-1

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Sample Air Volume: 1271.3 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000393		0.500	07/15/21 07:34	07/16/21 16:12	1
Lead	<0.250	<0.000197		0.250	07/15/21 07:34	07/16/21 16:12	1

Client Sample ID: AHR-AM02-071221-M

Lab Sample ID: 550-167045-2

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Sample Air Volume: 1319.3 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000379		0.500	07/15/21 07:34	07/16/21 16:16	1
Lead	<0.250	<0.000189		0.250	07/15/21 07:34	07/16/21 16:16	1

Client Sample ID: AHR-AM04-071221-M

Lab Sample ID: 550-167045-3

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Sample Air Volume: 1287.3 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<0.500	<0.000388		0.500	07/15/21 07:34	07/16/21 16:20	1
Lead	<0.250	<0.000194		0.250	07/15/21 07:34	07/16/21 16:20	1

Client Sample ID: AHR-AM01-071221-Hg

Lab Sample ID: 550-167045-4

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Sample Air Volume: 1278.2 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000391		0.0500	07/15/21 14:30	07/15/21 21:04	1

Client Sample ID: AHR-AM02-071221-Hg

Lab Sample ID: 550-167045-5

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Sample Air Volume: 1321.1 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000378		0.0500	07/15/21 14:30	07/15/21 21:07	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167045-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-071221-Hg

Lab Sample ID: 550-167045-6

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Sample Air Volume: 1315.6 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000380		0.0500	07/15/21 14:30	07/15/21 21:08	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167045-1
SDG: Argonaut Mine Headframe

Method: PE-MET-012 - NIOSH Method 7300

Lab Sample ID: MB 550-247826/1-A
Matrix: Air
Analysis Batch: 248050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 247826

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		07/15/21 07:34	07/16/21 16:01	1
Lead	<0.250		0.250	ug/Sample		07/15/21 07:34	07/16/21 16:01	1

Lab Sample ID: LCS 550-247826/2-A
Matrix: Air
Analysis Batch: 248050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 247826

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	23.94		ug/Sample		96	80 - 120
Lead	25.0	25.00		ug/Sample		100	80 - 120

Lab Sample ID: LCSD 550-247826/3-A
Matrix: Air
Analysis Batch: 248050

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 247826

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	25.0	23.98		ug/Sample		96	80 - 120	0	20
Lead	25.0	25.02		ug/Sample		100	80 - 120	0	20

Method: PE-MET-019 - Mercury (CVAA)

Lab Sample ID: MB 550-247899/12-A
Matrix: Air
Analysis Batch: 247934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 247899

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.0500		0.0500	ug/Sample		07/15/21 14:30	07/15/21 20:58	1

Lab Sample ID: LCS 550-247899/13-A
Matrix: Air
Analysis Batch: 247934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 247899

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.250	0.3031		ug/Sample		121	46 - 126

Lab Sample ID: LCSD 550-247899/14-A
Matrix: Air
Analysis Batch: 247934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 247899

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Hg	0.250	0.3028		ug/Sample		121	46 - 126	0	33

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167045-1
SDG: Argonaut Mine Headframe

IH - Metals

Prep Batch: 247826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-167045-1	AHR-AM01-071221-M	Total/NA	Air	Filter Prep	
550-167045-2	AHR-AM02-071221-M	Total/NA	Air	Filter Prep	
550-167045-3	AHR-AM04-071221-M	Total/NA	Air	Filter Prep	
MB 550-247826/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247826/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247826/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Prep Batch: 247899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-167045-4	AHR-AM01-071221-Hg	Total/NA	Air	Filter Prep	
550-167045-5	AHR-AM02-071221-Hg	Total/NA	Air	Filter Prep	
550-167045-6	AHR-AM04-071221-Hg	Total/NA	Air	Filter Prep	
MB 550-247899/12-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247899/13-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247899/14-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 247934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-167045-4	AHR-AM01-071221-Hg	Total/NA	Air	PE-MET-019	247899
550-167045-5	AHR-AM02-071221-Hg	Total/NA	Air	PE-MET-019	247899
550-167045-6	AHR-AM04-071221-Hg	Total/NA	Air	PE-MET-019	247899
MB 550-247899/12-A	Method Blank	Total/NA	Air	PE-MET-019	247899
LCS 550-247899/13-A	Lab Control Sample	Total/NA	Air	PE-MET-019	247899
LCSD 550-247899/14-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-019	247899

Analysis Batch: 248050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-167045-1	AHR-AM01-071221-M	Total/NA	Air	PE-MET-012	247826
550-167045-2	AHR-AM02-071221-M	Total/NA	Air	PE-MET-012	247826
550-167045-3	AHR-AM04-071221-M	Total/NA	Air	PE-MET-012	247826
MB 550-247826/1-A	Method Blank	Total/NA	Air	PE-MET-012	247826
LCS 550-247826/2-A	Lab Control Sample	Total/NA	Air	PE-MET-012	247826
LCSD 550-247826/3-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-012	247826

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167045-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-071221-M

Lab Sample ID: 550-167045-1

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247826	07/15/21 07:34	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	248050	07/16/21 16:12	MGM	TAL PHX

Client Sample ID: AHR-AM02-071221-M

Lab Sample ID: 550-167045-2

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247826	07/15/21 07:34	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	248050	07/16/21 16:16	MGM	TAL PHX

Client Sample ID: AHR-AM04-071221-M

Lab Sample ID: 550-167045-3

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247826	07/15/21 07:34	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	248050	07/16/21 16:20	MGM	TAL PHX

Client Sample ID: AHR-AM01-071221-Hg

Lab Sample ID: 550-167045-4

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247899	07/15/21 14:30	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247934	07/15/21 21:04	SRR	TAL PHX

Client Sample ID: AHR-AM02-071221-Hg

Lab Sample ID: 550-167045-5

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247899	07/15/21 14:30	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247934	07/15/21 21:07	SRR	TAL PHX

Client Sample ID: AHR-AM04-071221-Hg

Lab Sample ID: 550-167045-6

Date Collected: 07/12/21 00:00

Matrix: Air

Date Received: 07/14/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247899	07/15/21 14:30	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	247934	07/15/21 21:08	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167045-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21
California	State	2941	06-10-22

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
PE-MET-012	Filter Prep	Air	Arsenic
PE-MET-012	Filter Prep	Air	Lead
PE-MET-019	Filter Prep	Air	Hg

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167045-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
PE-MET-012	NIOSH Method 7300	NIOSH	TAL PHX
PE-MET-019	Mercury (CVAA)	OSHA	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements
OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TactAmerica | Laboratorio pro d/b/a Eurofine TactAmerica

TactAmerica | Laboratorio pro d/b/a Eurofine TactAmerica

Form No. CA-C-WI-002, Rev. 4.35, dated 10/6/2020

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-167045-1

SDG Number: Argonaut Mine Headframe

Login Number: 167045

List Source: Eurofins TestAmerica, Phoenix

List Number: 1

Creator: Gravlin, Andrea

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-167128-1

Laboratory Sample Delivery Group: Argonaut Mine Headframe
Client Project/Site: Argonaut Mine Headframe Removal

For:

Weston Solutions, Inc.
5881 N. Obispo Ave
Suite 101
Long Beach, California 90805

Attn: Gregory Roussos

Tina Paulauskas

Authorized for release by:
7/19/2021 3:24:38 PM

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

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

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167128-1
SDG: Argonaut Mine Headframe

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

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167128-1
SDG: Argonaut Mine Headframe

Job ID: 550-167128-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-167128-1

Comments

No additional comments.

Receipt

The samples were received on 7/15/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice.

Receipt Exceptions

2 day rush TAT requested.

AHR-AM01-071321-M (550-167128-1), AHR-AM02-071321-M (550-167128-2), AHR-AM04-071321-M (550-167128-3), AHR-AM01-071321-Hg (550-167128-4), AHR-AM02-071321-Hg (550-167128-5) and AHR-AM04-071321-Hg (550-167128-6)

Metals

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

IH - Metals

Method 145: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-248040 and analytical batch 550-248066.

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

Industrial Hygiene

Method 7300: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-247940 and analytical batch 550-248141.

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

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167128-1
SDG: Argonaut Mine Headframe

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-167128-1	AHR-AM01-071321-M	Air	07/13/21 00:00	07/15/21 10:00	
550-167128-2	AHR-AM02-071321-M	Air	07/13/21 00:00	07/15/21 10:00	
550-167128-3	AHR-AM04-071321-M	Air	07/13/21 00:00	07/15/21 10:00	
550-167128-4	AHR-AM01-071321-Hg	Air	07/13/21 00:00	07/15/21 10:00	
550-167128-5	AHR-AM02-071321-Hg	Air	07/13/21 00:00	07/15/21 10:00	
550-167128-6	AHR-AM04-071321-Hg	Air	07/13/21 00:00	07/15/21 10:00	

Detection Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167128-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-071321-M

Lab Sample ID: 550-167128-1

☐ No Detections.

Client Sample ID: AHR-AM02-071321-M

Lab Sample ID: 550-167128-2

☐ No Detections.

Client Sample ID: AHR-AM04-071321-M

Lab Sample ID: 550-167128-3

☐ No Detections.

Client Sample ID: AHR-AM01-071321-Hg

Lab Sample ID: 550-167128-4

☐ No Detections.

Client Sample ID: AHR-AM02-071321-Hg

Lab Sample ID: 550-167128-5

☐ No Detections.

Client Sample ID: AHR-AM04-071321-Hg

Lab Sample ID: 550-167128-6

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167128-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-071321-M

Lab Sample ID: 550-167128-1

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Sample Air Volume: 1298 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000385			0.500	07/16/21 05:51	07/16/21 20:18	1
Lead	<0.250	<0.000193			0.250	07/16/21 05:51	07/16/21 20:18	1

Client Sample ID: AHR-AM02-071321-M

Lab Sample ID: 550-167128-2

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Sample Air Volume: 1235.5 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000405			0.500	07/16/21 05:51	07/16/21 20:22	1
Lead	<0.250	<0.000202			0.250	07/16/21 05:51	07/16/21 20:22	1

Client Sample ID: AHR-AM04-071321-M

Lab Sample ID: 550-167128-3

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Sample Air Volume: 1292.1 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-012 - NIOSH Method 7300

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Arsenic	<0.500	<0.000387			0.500	07/16/21 05:51	07/16/21 20:26	1
Lead	<0.250	<0.000193			0.250	07/16/21 05:51	07/16/21 20:26	1

Client Sample ID: AHR-AM01-071321-Hg

Lab Sample ID: 550-167128-4

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Sample Air Volume: 1250.0 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000400			0.0500	07/16/21 15:44	07/16/21 23:28	1

Client Sample ID: AHR-AM02-071321-Hg

Lab Sample ID: 550-167128-5

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Sample Air Volume: 1263.4 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result	Result	Result	Qualifier	RL	Prepared	Analyzed	Dil Fac
	ug/Sample	mg/m3			ug/Sample			
Hg	<0.0500	<0.0000396			0.0500	07/16/21 15:44	07/16/21 23:30	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167128-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM04-071321-Hg

Lab Sample ID: 550-167128-6

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Sample Air Volume: 1327.7 L

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

Method: PE-MET-019 - Mercury (CVAA)

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Hg	<0.0500	<0.0000377		0.0500	07/16/21 15:44	07/16/21 23:32	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167128-1
SDG: Argonaut Mine Headframe

Method: PE-MET-012 - NIOSH Method 7300

Lab Sample ID: MB 550-247940/1-A
Matrix: Air
Analysis Batch: 248141

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 247940

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.500		0.500	ug/Sample		07/16/21 05:51	07/16/21 19:32	1
Lead	<0.250		0.250	ug/Sample		07/16/21 05:51	07/16/21 19:32	1

Lab Sample ID: LCS 550-247940/2-A
Matrix: Air
Analysis Batch: 248141

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 247940

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	23.60		ug/Sample		94	80 - 120
Lead	25.0	24.66		ug/Sample		99	80 - 120

Lab Sample ID: LCSD 550-247940/3-A
Matrix: Air
Analysis Batch: 248141

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 247940

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	25.0	24.71		ug/Sample		99	80 - 120	5	20
Lead	25.0	25.64		ug/Sample		103	80 - 120	4	20

Method: PE-MET-019 - Mercury (CVAA)

Lab Sample ID: MB 550-248040/12-A
Matrix: Air
Analysis Batch: 248066

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 248040

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.0500		0.0500	ug/Sample		07/16/21 15:44	07/16/21 23:22	1

Lab Sample ID: LCS 550-248040/13-A
Matrix: Air
Analysis Batch: 248066

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 248040

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.250	0.2040		ug/Sample		82	46 - 126

Lab Sample ID: LCSD 550-248040/14-A
Matrix: Air
Analysis Batch: 248066

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 248040

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.250	0.2129		ug/Sample		85	46 - 126	4	33

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167128-1
SDG: Argonaut Mine Headframe

IH - Metals

Prep Batch: 247940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-167128-1	AHR-AM01-071321-M	Total/NA	Air	Filter Prep	
550-167128-2	AHR-AM02-071321-M	Total/NA	Air	Filter Prep	
550-167128-3	AHR-AM04-071321-M	Total/NA	Air	Filter Prep	
MB 550-247940/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-247940/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-247940/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Prep Batch: 248040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-167128-4	AHR-AM01-071321-Hg	Total/NA	Air	Filter Prep	
550-167128-5	AHR-AM02-071321-Hg	Total/NA	Air	Filter Prep	
550-167128-6	AHR-AM04-071321-Hg	Total/NA	Air	Filter Prep	
MB 550-248040/12-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-248040/13-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-248040/14-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

Analysis Batch: 248066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-167128-4	AHR-AM01-071321-Hg	Total/NA	Air	PE-MET-019	248040
550-167128-5	AHR-AM02-071321-Hg	Total/NA	Air	PE-MET-019	248040
550-167128-6	AHR-AM04-071321-Hg	Total/NA	Air	PE-MET-019	248040
MB 550-248040/12-A	Method Blank	Total/NA	Air	PE-MET-019	248040
LCS 550-248040/13-A	Lab Control Sample	Total/NA	Air	PE-MET-019	248040
LCSD 550-248040/14-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-019	248040

Analysis Batch: 248141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-167128-1	AHR-AM01-071321-M	Total/NA	Air	PE-MET-012	247940
550-167128-2	AHR-AM02-071321-M	Total/NA	Air	PE-MET-012	247940
550-167128-3	AHR-AM04-071321-M	Total/NA	Air	PE-MET-012	247940
MB 550-247940/1-A	Method Blank	Total/NA	Air	PE-MET-012	247940
LCS 550-247940/2-A	Lab Control Sample	Total/NA	Air	PE-MET-012	247940
LCSD 550-247940/3-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-012	247940

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167128-1
SDG: Argonaut Mine Headframe

Client Sample ID: AHR-AM01-071321-M

Lab Sample ID: 550-167128-1

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247940	07/16/21 05:51	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	248141	07/16/21 20:18	MGM	TAL PHX

Client Sample ID: AHR-AM02-071321-M

Lab Sample ID: 550-167128-2

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247940	07/16/21 05:51	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	248141	07/16/21 20:22	MGM	TAL PHX

Client Sample ID: AHR-AM04-071321-M

Lab Sample ID: 550-167128-3

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			247940	07/16/21 05:51	SGO	TAL PHX
Total/NA	Analysis	PE-MET-012		1	248141	07/16/21 20:26	MGM	TAL PHX

Client Sample ID: AHR-AM01-071321-Hg

Lab Sample ID: 550-167128-4

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			248040	07/16/21 15:44	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	248066	07/16/21 23:28	SRR	TAL PHX

Client Sample ID: AHR-AM02-071321-Hg

Lab Sample ID: 550-167128-5

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			248040	07/16/21 15:44	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	248066	07/16/21 23:30	SRR	TAL PHX

Client Sample ID: AHR-AM04-071321-Hg

Lab Sample ID: 550-167128-6

Date Collected: 07/13/21 00:00

Matrix: Air

Date Received: 07/15/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			248040	07/16/21 15:44	SRR	TAL PHX
Total/NA	Analysis	PE-MET-019		1	248066	07/16/21 23:32	SRR	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Eurofins TestAmerica, Phoenix

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167128-1
SDG: Argonaut Mine Headframe

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	154268	10-01-21
California	State	2941	06-10-22

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
PE-MET-012	Filter Prep	Air	Arsenic
PE-MET-012	Filter Prep	Air	Lead
PE-MET-019	Filter Prep	Air	Hg

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Argonaut Mine Headframe Removal

Job ID: 550-167128-1
SDG: Argonaut Mine Headframe

Method	Method Description	Protocol	Laboratory
PE-MET-012	NIOSH Method 7300	NIOSH	TAL PHX
PE-MET-019	Mercury (CVAA)	OSHA	TAL PHX
Filter Prep	Preparation, IH Filter	NIOSH	TAL PHX

Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and it's Supplements
OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Project Manager: Greg Roussos
Email: greg.roussos@westonsolutions.com
Tel/Fax: 513-604-4797

RUSH
Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: 167128

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact

Weston Solutions
2300 Clayton Road, #900
Concord, CA 94520
Phone: 513-604-4797

Project Manager: Greg Roussos
Email: greg.roussos@westonsolutions.com
Tel/Fax: 513-604-4797

Site Contact: Greg Roussos
Lab Contact: David Altucker

Date: 7/13/2021
Carrier: FEDEX

COC No: 07132021
1 of 1 COCs

Analysis Turnaround Time

CALENDAR DAYS ☐ WORKING DAYS ☐

TAT if different from Below

2 weeks ☐
1 week ☐
2 days ☐
1 day ☐

Project Name: Argonaut Mine Headframe Removal
Site: Argonaut Mine Headframe
P O #: 0104258

Sample Identification

Sample Date Sample Time Sample Type (C=Comp, G=Grab) Matrix # of Cont

-01 AHR-AM01-071321-M 7/13/2021 17:00 -- Air Filter 1

-02 AHR-AM02-071321-M 7/13/2021 16:55 -- Air Filter 1

-03 AHR-AM04-071321-M 7/13/2021 17:04 -- Air Filter 1

-04 AHR-AM01-071321-Hg 7/13/2021 17:00 -- Air Filter 1

-05 AHR-AM02-071321-Hg 7/13/2021 16:55 -- Air Filter 1

-06 AHR-AM04-071321-Hg 7/13/2021 17:04 -- Air Filter 1

Filtered Sample (Y / N)

Perform MS / MSD (Y / N)

7300 for As & Pb

145 for Hg

Sample Specific Notes:

Volume = 1298 L

Volume = 1235.5 L

Volume = 1292.1 L

Volume = 1250.0 L

Volume = 1263.4 L

Volume = 1327.7 L



550-167128 Chain of Custody

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.

Special Instructions/QC Requirements & Comments:

Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Custody Seals Intact: ☐ Yes ☐ No

Relinquished by: (Signature) (6 Feb)

Relinquished by: (Signature) (6 Feb)

Relinquished by: (Signature) (6 Feb)

Relinquished by: (Signature) (6 Feb)

Relinquished by: (Signature) (6 Feb)

Custody Seal No.:

Company: Weston Solutions

Company: Weston Solutions

Company: Weston Solutions

Received by: (Signature) (6 Feb)

Received by: (Signature) (6 Feb)

Received by: (Signature) (6 Feb)

Received by: (Signature) (6 Feb)

Company: Weston Solutions

Company: Weston Solutions

Company: Weston Solutions

Company: Weston Solutions

Therm ID No.:

Date/Time:

Date/Time:

Date/Time:

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 550-167128-1

SDG Number: Argonaut Mine Headframe

Login Number: 167128

List Number: 1

Creator: Gravlin, Andrea

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

