Final Site Inspection Report

Death Valley National Park

Site Inspections of Abandoned Mineral Lands (AML) Sites

(Skidoo, Homestake, Journigan's, Starr, Tucki, Cashier and Gold Hill)

California and Nevada

Prepared under contract to U.S. Army Corps of Engineers
Contract No. W912PL-15-D-0016 Delivery Order 0001

October 2016

Prepared by

NOREAS, Inc.

PROFESSIONAL GEOLOGIST
JEFFREY S. OSLICK
exp. 11/17
No. 7531
STATE OF CALIFORNIA

PROFESSIONAL GEOLOGIST
E. ESSI ESMAILI
No. 4469
exp. 3/18
STATE OF CALIFORNIA

Jeff Oslick, PhD, PG, Project Geologist

for Essi Esmaili, PhD, PG, CHG, Project Manager

Table of Contents

List of Appendices

List of Figures

List of Tables

List of Abbreviations and Acronyms

ABA	acid-base accounting
Ag	silver
AGP	acid-generating potential
AML	Abandoned Mineral Lands
ANP	acid-neutralization potential
As	arsenic
Ba	barium
Be	beryllium
CAM	California Administrative Manual
Cashier	Cashier Mill
Cd	cadmium
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
Co	cobalt
COCs	Constituents of Concern
CSM	Conceptual Site Model
CSP	Contaminated Sites Program
Cr	chromium
Cu	copper
DEVA	Death Valley National Park
DL	detection level
DoD	Department of Defense
DQO	Data Quality Objective
DU	decision unit
ECM	Environmental Cost Management, Inc.
ELAP	Environmental Laboratory Accreditation Program
EPA	U.S. Environmental Protection Agency
ESV	Ecological Screening Value
FSP	Field Sampling Plan
Gold Hill	Gold Hill Mill
GPS	Global Positioning System
Hg	mercury
Homestake	Homestake Mill
HR	Hydrologic Region
ISM	Incremental Sampling Methodology
ITRC	Interstate Technology Regulatory Council
Journigan's	Journigan's Mill

LCS	laboratory control sample
LOQ	limit of quantitation
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
Mo	molybdenum
Mn	manganese
MS	matrix spike
MSD	matrix spike duplicate
Ni	nickel
NOREAS	NOREAS, Inc.
NPS	National Park Service
PA	Preliminary Assessment
pH	Hydrogen potential
Pb	lead
QAPP	Quality Assurance Project Plan
QA	Quality Assurance
QC	Quality Control
QSM	Quality Systems Manual
RPD	Relative percent difference
RSL	Regional Screening Level
SAP	Sampling and Analysis Plan
Sb	antimony
Se	selenium
Skidoo	Skidoo Mill
SI	Site Inspection
SU	sampling unit
TCLP	Toxicity Characteristics Leaching Procedure
TestAmerica	TestAmerica Laboratories, Inc.
Th	thallium
Tucki	Tucki Mill
UCL	upper confidence limit
USC	United States Code
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
V	vanadium
Water Board	California Regional Water Quality Control Board
Zn	zinc
µg/L	micrograms per liter
%	percent

1 Introduction

This document reports on the results of Site Inspections (SIs) performed at six Abandoned Mineral Lands (AML) Sites at Death Valley National Park (DEVA), located in California and Nevada (Figure 1). These sites include: Skidoo Mill (Skidoo) (Figure 2), Homestake Mill (Homestake) (Figure 3), Journigan's Mill (Journigan's) (Figure 4), Starr Mill[1] (Figure 5), Tucki Mill (Tucki) (Figure 6), Cashier Mill (Cashier) (Figure 7), and Gold Hill Mill (Gold Hill) (Figure 8). Sampling activities were conducted in February and March 2016.

These SIs were conducted based on the findings of a Preliminary Assessment (PA) of 27 AML sites at DEVA, conducted by Environmental Cost Management (ECM 2014).

1.1 CERCLA and National Park Service Authority

These SIs were conducted on behalf of the United States Department of the Army, Los Angeles District Corps of Engineers (USACE) as Task Order No. 0001 and as requested in the USACE's Performance Work Statement, dated July 13, 2015, under the Contract No. W912PL-15-D-0016.

DEVA is a unit of the National Park System, created by Congress on October 31, 1994, in the California Desert Protection Act. The National Park Service (NPS) has the responsibility under the Comprehensive Environmental Recovery, Compensation and Liability Act (CERCLA) to determine if potential hazardous substances exist within each NPS unit.

The SIs were conducted in accordance with the Sampling Analysis Plan, Death Valley National Park, Site Inspections of Abandoned Mineral Lands (AML) Sites, California and Nevada (NOREAS 2016). The NPS is authorized under CERCLA, 42 United States Code (USC) §§ 9601 et seq., to respond as the Lead Agency to a release or threatened release of hazardous substances and/or a release or threatened release of any pollutant or contaminant that may present an imminent and substantial danger to public health or welfare on NPS land.

NOREAS understands that the mine wastes and mill tailings at the DEVA AML sites investigated herein should qualify as ore "beneficiation" solid wastes under 40 Code of Federal Regulations (CFR) Chapter 1; qualifying for exemption from categorization as a hazardous wastes under Resource Conservation and Recovery Act (RCRA) Subtitle C regulation. However, this issue may require further review and confirmation.

[1] Starr Mill was not originally part of the SI activities. However, during the initial SI activities at Journigan's Mill, it was determined, with USACE and NPS approval, that sampling of Starr Mill, located approximately a mile west of Journigan's Mill and sharing both northern and the southern washes, would be included in the SI.

The NPS has a number of regulations that apply to the release of hazardous substances on NPS land (see NPS 2014a) including the NPS Organic Act of 1916 (16 USC §1, et seq. 36 Code of Federal Regulations Part 1), which requires that the NPS manage parks in order to conserve the scenery, natural and historic objects, and wildlife and to provide for their enjoyment by such means as leaving them unimpaired for the future generations. Therefore, whether the Site poses risks to organisms due to interactions with the environment is especially relevant to the NPS responsibility to protect park resources.

1.2 Purpose of Field Sampling

The goal of these SIs was to obtain and analyze environmental samples, to assess human and environmental exposure to hazardous substances, and to evaluate the basis for further actions, if needed. In accordance with the recommendations of the PA (ECM 2014), the SIs collected data for characterization of the mining/milling wastes and background (native) soil. A limited number of surface water samples were also obtained. This SI Report compares concentrations of constituents of concern (COCs) to risk screening values to evaluate potential risk to human health or the environment at the six subject sites. The results of the PA are documented in the PA report (ECM 2014). Complete delineation of the extent of contaminants was not a goal of these SI activities.

The NPS will use data collected during this field investigation to support potential response actions that may be undertaken by the NPS or other parties.

The following data was collected during the SIs:

- Soil samples using the Incremental Sampling Methodology (ISM) – The samples were analyzed for Title 22 metals (California Administrative Manual [CAM] 17 metals), cyanide, acid-base accounting (ABA) and soil pH;
- Surface water (where practical) – The samples were analyzed for Title 22 metals (CAM 17 metals);
- Testing of soil leaching characteristics by Toxicity Characteristics Leaching Procedure (TCLP).

1.3 Site Location

DEVA is located east of the Sierra Nevada Mountains between the Great Basin and Mojave Desert. The park is located primarily in the state of California within Inyo and San Bernardino counties (Figure 1). DEVA and surrounding area consists of approximately 3 million acres of badlands, valleys, canyons, and mountains. The area was declared a national monument in 1933 and formally became a national park in 1994. It includes the entire Death Valley, which runs for approximately 150 miles between the Amargosa and Panamint ranges. DEVA occupies an area

of physical extremes from Badwater Basin, located at 282 feet below sea level, to Telescope Peak, located at 11,049 feet above sea level. It is the hottest, lowest, and driest area in North America.

1.4 Geologic Setting and Hydrogeology

DEVA is located in the Basin and Range Geomorphic Province and is considered the westernmost part of the Great Basin. The province is characterized by subparallel, fault-bounded ranges separated by rotated and down-dropped basins which receive interior drainage resulting in lakes and playas. Death Valley, the lowest area in the United States (282 feet below sea level at Badwater), is one of these basins. DEVA is comprised of many geologic formations including alluvial fans and lacustrine deposits, salt flats, active volcanism, and mineral-rich rock formations. Carbonate rocks of Precambrian and Paleozoic age are extensively metamorphosed by folding and faulting and are highly fractured and fissured. A salt encrusted playa extends for 200 square miles in the southern portion of the valley.

Average annual precipitation over the last 30 years in DEVA has been 2.5 inches, with higher elevations receiving over 15 inches per year. Surface water is scarce at DEVA. Dry washes of all sizes flow only after thunderstorms or heavy winter rains. Surface water drains into enclosed desert basins, where it is lost to evaporation and infiltration. Near Gold Hill Mill, a stream is present that flows from Warm Springs (Figure 8).

DEVA is located in the South Lahontan Hydrologic Region (HR) which covers approximately 21 million acres in eastern California. The HR is bounded on the west by the crest of the Sierra Nevada, on the north by the watershed divide between Mono Lake and East Walker River drainages, on the east by Nevada, and the south by the crest of the San Gabriel and San Bernardino mountains and the divide between watersheds draining south toward the Colorado River and those draining northward. This HR includes the Owens, Mojave, and Amargosa river systems, the Mono Lake drainage system, and many other internally drained basins. Runoff is about 1.3 million acre-feet per year. Areas within the South Lahontan HR where groundwater occurs outside alluvial groundwater basins are called groundwater source areas. These areas are associated with the igneous intrusive and extrusive, metamorphic, and sedimentary rocks that underlie the mountainous regions of the HR. Because many of the bedrock regions of the HR consist of mineralized metamorphic rock containing ores of copper, gold, silver, lead, mercury, zinc, and other metals, potential impacts to groundwater are anticipated to predominantly derive from these natural sources. Only a very minor cumulative contribution is expected from the historic mining and milling operations, including those sites evaluated in this PA (ECM 2014).

Seventy-six groundwater basins are delineated in the South Lahontan HR, including the Langford Valley Groundwater Basin, which is divided into two sub-basins. The groundwater basins underlie about 11.6 million acres (18,100 square miles) or about 55 percent of the HR. In most of the smaller basins, groundwater is found in unconfined alluvial aquifers; however, in some of

the larger basins, or near dry lakes, aquifers may be separated by aquitards that cause confined groundwater conditions. Depths of the basins range from tens or hundreds of feet in smaller basins to thousands of feet in larger basins. The thickness of aquifers varies from tens to hundreds of feet. Well yields vary in this region depending on aquifer characteristics and well location, size, and use.

The chemical character of the groundwater varies throughout the region, but most often is calcium or sodium bicarbonate. Near and beneath dry lakes, sodium chloride and sodium sulfate-chloride water is common. In general, groundwater near the edges of valleys contains lower total dissolved solids content than water beneath the central part of the valleys or near dry lakes.

Additional details of the hydrology of the AML site regions are presented in the PA (ECM 2014).

1.5 Climate and Topography

Death Valley National Park covers over 3 million acres of Mojave and Great Basin Desert terrain, with elevations ranging from 282 feet below mean sea level at Badwater Basin to 11,049 feet on the summit of Telescope Peak. Temperatures in the valley range from over 120 degrees Fahrenheit (°F) in the summer to an average of 40°F in the winter but often dip below freezing. Annual precipitation varies from a 2.5-inch 30-year average on the valley floor to over 15 inches in the higher mountains.

NPS maintained a climate station at Furnace Creek in Death Valley until 2007. Although exact wind speeds were not archived, daily wind movement, which measures the total distance the wind moves each day, was recorded. According to these records, average daily wind movement is lowest during the winter and peaks during the early spring. Within DEVA, it not uncommon for fine-grained material to become airborne and re-distribute great distances from its source.

Prevalent wind direction is from the south; however, conditions vary greatly in specific locations. The PA (ECM 2014) presents an analysis of wind conditions at select locations. High winds (estimated in excess of 40 miles per hour) and wind-transport of fine-grained material were observed at Skidoo Mill during Site Inspection work.

1.6 Vegetation and Wildlife

Death Valley National Park contains a great diversity of plants. Vegetation zones include creosote bush, desert holly, and mesquite at the lower elevations. At the higher elevations, shad scale, black brush, Joshua tree, pinyon-juniper, to sub-alpine limber pine and bristlecone pine woodlands can be observed. The saltpan in the middle portion of the valley is devoid of vegetation and the slopes along the valley's alluvial fans have sparse cover.

Death Valley's range of elevations and habitats support a variety of wildlife species. The PA (ECM 2014) presents more detailed information on which species occur in the vicinity of each AML site.

1.7 Milling and Ore Processing

The mineral resources of the Death Valley area have been accessed and investigated since the days of the great California gold rush. From the 1850s to 1900, mining in Death Valley was sporadic and many mining endeavors were unsuccessful for a variety of reasons, including lack of finances, inefficient mining techniques, scarcity of water, and insufficient transportation. By the early 1900s, new technology enabled large-scale mining operations for gold, silver, and other metals and renewed interest in mining in the area.

Milled ore was most commonly processed using mercury amalgamation and/or cyanide leaching to extract gold. Amalgamation followed by cyanidation increased the amount of gold recovered from ore. These extraction methods generated piles of pulverized rock or mill tailings which could potentially contain hazardous materials such as cyanide, mercury, and other metals. An alternative extraction method used in DEVA silver mine sites was a flotation method.

The PA (ECM 2014) concluded that historical milling operations and ore processing practices used in Death Valley National Park have the potential to impact the environment. The following is a description of various ore processing methods used at the DEVA mill sites.

1.7.1 Milling and Ore Processing

Amalgamation is one of the oldest gold extraction processes and was commonly used in the early days of mining in Death Valley. The process is based on the fact that mercury forms a chemical bond with gold, called an amalgam. A saturated solution of mercury with gold contains 13.5 percent of gold. The process is inefficient because less than 30 percent of the available gold is recovered and 25 to 30 percent of the mercury used in the process is lost, potentially to the environment. More modern operations followed amalgamation with cyanidation or flotation.

The amalgamation process comprises several steps. First, ore is crushed, then milled, usually in water, to create fine size particles that will pass through a number 14 or 20 size mesh. The fine-grained ore was then entered into the recovery portion of the process. Several recovery processes were used to slowly pass the fine-grained ore over copperplates coated with mercury. The gold-mercury amalgam was then removed at regular intervals and the plates were re-dressed with mercury. Finally, the mercury was distilled from the amalgam to produce nearly pure gold. Mercury was an expensive commodity, and as much as possible it was recaptured for later use. Mercury lost during the process potentially ended up in the mill tailings.

Grinding ore for mercury amalgamation purposes started with crushing by a jaw crusher, then pulverized using large mechanical devices called stamp mills. The basic design of a stamp mill has been used for thousands of years for a variety of crushing applications, but is most commonly used for the processing of ore for mineral extraction. Typical stamp mill construction consisted of a series of heavy metal stamps arranged in a wooden frame called a battery. The stamp mills

used in DEVA during the gold rush era were usually powered by water, steam engines, or internal combustion engines. A system of belts, rotating shafts, and cams raised then dropped the stamps and crushed coarser grain ore into finer grain material for further processing.

1.7.2 Cyanide Leaching

Cyanide leaching originated around 1890 and was commonly used in conjunction with amalgamation to extract gold from ore. Cyanide leaching is more economical than amalgamation because approximately 90 percent of the gold that is present can be recovered. Early in its development, the process was used on the waste tailings from amalgamation. Because of the improved recovery, many of the tailing piles from other processes were reprocessed by cyanide leaching to extract gold. By 1925, cyanidation processing technology was applied to both gold and silver ores without using amalgamation first.

Gold is soluble in dilute solutions of potassium or sodium cyanide, and the dissolved gold can be precipitated from the cyanide solution using metallic zinc. The process typically comprises the following steps. The ore is ground or pulverized to a suitable size for use in a cyanide solution, or mixed with water to form a slurry or "pulp." Sodium cyanide and lime are added to the slurry to create and maintain a cyanide solution with an alkaline condition (pH near 11). The pulp is agitated through a series of tanks or stirred to cause dissolution of the gold from the pulverized ore. The gold is precipitated from the cyanide solution by passing it over zinc shavings, or agitating it with zinc dust. The gold-zinc precipitate is refined, producing gold bullion. If silver is present, the gold and silver are separated by dissolving the silver with sulfuric or nitric acid. The bullion could be melted and cast into bars for shipment.

Not all gold ores are suitable for cyanidation processes. Arsenic and antimony-rich ores, such as some ores in the Panamint district, are problematic. Gold ores that contain copper are more soluble in a cyanide solution and increased cyanide consumption makes the process economically impractical. The flotation process is a more economical alternative for extraction of gold from these ores.

Typically, cyanide does not persist in arid environments at the surface or in aerobic conditions. Under aerobic conditions, microbial activity can degrade cyanide to ammonia, which then oxidizes to nitrate. This process has been shown effective with cyanide concentrations of up to 200 parts per million. Although biological degradation also occurs under anaerobic conditions, cyanide concentrations greater than 2 parts per million are toxic to these microorganisms. Although cyanide reacts readily in the environment and degrades or forms complexes and salts of varying stabilities, it is toxic to many living organisms at very low concentrations.

1.7.3 Floatation Process

Flotation methods came into widespread use because they can recover almost all forms of gold, including fine, free gold, gold associated with any form of sulfides, and gold-oxidized lead and gold-copper ores. When gold or silver is recovered using flotation, the high grade concentrate contains the precious metal. The concentrate may be ground, with or without roasting, treated with cyanide solution, or shipped to a smelter for further processing.

Extraction using the floatation method was completed according to the following general steps. Ore was brought into a mill, and crushed. This milled ore was mixed with water to form a slurry and then passed through a ball and/or rod mill, which used cast iron balls or long iron rods to further crush the ore into a finer powder.

The different metals in the milled ore were then separated using flotation cells. A mix of reagents and flocculants were introduced to the ore slurry to cause the desired metals to float to the top of the tank solution while at the same time sinking the other metals. In these systems, lead, copper, and other precious metals could be recovered.

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2 Site Description, Previous Investigations, and Conceptual Site Model

This section summarizes the known environmental information and historical activities that have occurred at the six subject sites and presents this information in the form of a graphical Conceptual Site Model (CSM). The CSM was developed in the SAP (NOREAS 2016), and was revised as presented in this report, based on the findings of the SI field activities. Figure 9 is a graphical CSM that illustrates the potential exposure pathways relevant for the subject sites.

2.1 Key Site Features

The following sections describe the key site features of the six subject AML sites. Additional details for each mill site are included in the PA (ECM 2014).

2.1.1 Site Descriptions

Descriptions of the six subject sites are presented below, including general site operational background and geographic and environmental setting. No prior sampling for constituents of concern had been performed at any of the six subject sites.

2.1.2 Skidoo Mill

Skidoo Mill (Figure 2) is located near the top of a broad ridge in the Panamint Mountains (Latitude: 36.4368° North, Longitude: -117.1549° West). The site is currently fully open to the public and experiences low to moderate annual visitation. The mill and process areas are located on a steep canyon wall and cover approximately 5 acres. The mill is well preserved and displays many intact features. Tanks, mercury tables, and a large portion of the mill operations are well preserved and visible. To the northwest and down the canyon, the slope goes over a shear “dry falls.” To the east and west are steep to moderately sloped canyon walls. Both mercury amalgamation and cyanide-leaching operations took place in large scale. Tailings are found in many of the operations tanks at the mill and upstream/upslope to an area that is suspected to be an impoundment area. Based on operational history and information gathered during the PA (ECM 2014), the preliminary COCs identified were cyanide and metals, including mercury.

2.1.3 Homestake Mill

Homestake Mill (Figure 3) is located in the Bullfrog Hills, in the Nevada portion of DEVA (Latitude: 36.9395° North, Longitude: -116.8886° West) in an area known as the “Nevada Triangle.” The site sits at an elevation of approximately 4,950 feet above sea level and is located on a steep south-

sloping hillside overlooking broad deposits of alluvium. The mill site contains a series of five, reinforced-concrete foundations that are between 66 and 100 feet long, 3 feet thick at the base, and up to 16 feet high. Homestake Mill covers approximately 5 acres and experiences low annual visitation. The Homestake-King mine was one of the only mines (and the largest producer) in the famous Bullfrog Mining District that is contained within the park. Based on the operational history and results gathered during the PA (ECM 2014), the preliminary COCs identified at the site were cyanide and metals, including mercury.

2.1.4 Journigan's Mill

Journigan's Mill (Figure 4) is located in the Panamint Range, 1 mile south of Emigrant Springs and 13.5 miles south of Stovepipe Wells, California (Latitude: 36.4135º North, Longitude: -117.1822° West) at an elevation of 4,398 feet above sea level. The site is open to the public and is located on the west side of Emigrant Canyon/Wildrose Canyon Road. Although the ruins at the site are not substantial, the highly visible location on the west side of paved Emigrant Canyon Road attracts visitors, including many who are unfamiliar with mining, milling, and the associated hazards. Journigan's Mill experiences moderate annual visitation. Scattered mill tailings are found around the mill foundations on all of the levels and in most of the tanks. The site includes the largest ruin of an amalgamation and cyanide plant of the 1930s-1950s period left within the park. Based on operational history and results gathered during the PA (ECM 2014), the preliminary COCs identified were cyanide and metals.

2.1.5 Starr Mill

During initial SI activities it was determined, with USACE and NPS approval, that sampling of Starr Mill, located approximately a mile northwest of Journigan's Mill and sharing both the northern and the southern washes[2], would be included in the SI. Collection and analysis of data from Starr Mill was recommended to better evaluate the potential origin of mill tailing within these washes.

Starr Mill (Figure 5) is located at 4,009 feet above sea level and bound on the west by steep canyon walls and on the east by Emigrant Canyon Road and the eastern canyon wall. The wash slopes gently to the north and towards the city of Stovepipe Wells, California (13 miles south). The entire site covers an area of less than 0.5 acre. Access to the site is via paved road, which is open to the public. Starr Mill experiences low annual visitation. The site consists of four terraced, in-ground process "pools" and/or tank foundations with stacked rock walls or "dug-in" perimeters, and a concrete grout interior liner. Starr Mill was operated during the 1930s (ECM 2014). The site currently has concrete foundations from a few of the cyanide tanks and a mound

[2] Northern and southern washes were designated as Decision Units (DUs) 5 and 6. Decision Units are described in detail in Section 3.

of tailings on bedrock above the road. Based on operational history and information gathered during the PA, the preliminary COCs were identified as cyanide and metals.

2.1.6 Tucki Mine and Mill

Tucki Mill (Figure 6) is located on the southeast slope of the Tucki Mountains in the Panamint Range (Latitude: 36.4526° North, Longitude: -117.0906° West), east of the summit. The site is located 4 miles north-northeast of Skidoo and 10 miles by road from Emigrant Canyon via Telephone Canyon. Tucki Mine experiences low annual visitation. Steep peaks surround the Tucki process area, but the site is located on a gently sloping, steep-sided wash. The wash slopes to the east and then drops off a steep mountain edge approximately 0.5 mile from the site. The site operations covered approximately 3 acres. Cyanide processing operations were conducted on the southern side of the wash. Additionally, one "pool" foundation is at the eastern end of this row. The southern side of the wash is dominated by 2,000 to 3,000 cubic yards of ¾-inch crushed rock that the four former cyanide-leaching tanks reside on. The 100-cubic yard-capacity leach tanks are of steel-lined rectangular concrete block construction and ¾-full of ore. Several feet above and to the west of the leach tanks is a second "pool" foundation. At the bottom of the wash, to the west of the cyanide-leach tanks, is a small former pump pad. Based on operational history and information gathered during the PA (ECM 2014), the preliminary COCs identified were cyanide and metals.

2.1.7 Cashier Mill

Cashier Mill (Figure 7) is located 17 miles south of Stovepipe Wells, California, in the Panamint Mountains (Latitude: 36.3615°, Longitude: -117.1107°) at an elevation of 5,089 feet above sea level. The site is open to the public and can be reached via a 1.5-mile-long graded dirt road accessed east of Emigrant Canyon/Wildrose Canyon Road. This is one of the more heavily visited mine and mill sites in DEVA. Cashier Mill experiences moderate annual visitation. The mill site is located on the southeastern side of Providence Ridge, an east-west-trending hill standing approximately 200 feet above a wide valley. The alluvial plain surrounding Providence Ridge extends over 4 miles to the northwest and gently slopes to the north. Gold ore supplying the mill was taken from the Cashier and Eureka Mines, located in the extreme northeastern extent of the ridge. An entrance to the Eureka Mine is found upslope of the mill ruins. Approximately 100 cubic yards of medium-grained pink sand tailings occur in the vicinity and down slope of the mill foundation where cyanide and mercury processing took place. A separate tailing deposit is present up slope of the mill site. Mine waste is present on the hillside to the west and south of the mill ruins. Many foot paths intersect the tailing deposits in the mill and mine areas. Based on the operational history and information gathered during the PA (ECM 2014), the preliminary COCs for the site were cyanide and metals, including mercury.

2.1.8 Gold Hill Mill

Gold Hill Mill (Figure 8) is located 35 miles south of Furnace Creek, California, in Warm Spring Canyon (Latitude: 35.9687°, Longitude: -116.9317°) at an elevation of 2,360 feet above sea level. The Gold Hill Mining District is one of the oldest mining areas within DEVA, with prospecting and work dating from the 1870s. The Gold Hill region is located within DEVA in the southwest corner, in the Panamint Mountain Range, at the northeastern end of Butte Valley and north of Warm Spring. Gold Hill Mill is heavily visited due to its location next to the Warm Spring Mining Camp and along the road to Butte Valley. This site is accessed via 14 miles of infrequently graded dirt roads requiring high clearance four-wheel drive vehicles. Gold Hill Mill experiences moderate annual visitation. The site covers less than 1 acre and consists of a complete and well-preserved mill with evidence of mercury amalgamation. A spring and an abandoned mining camp are located south of the mill ruins. Minor mill tailings from the amalgamated mercury process used to extract the gold have accumulated in and around the mill workings, primarily on the east side, scattered in and around the equipment, and comingling with native rock. Based on operational history and information gathered during the PA (ECM 2014), the preliminary COCs for the site were identified as metals, including mercury.

2.2 Summary of Previous Investigations

Preliminary Assessments of the seven above-mentioned AML sites was conducted by ECM in February 2014 (ECM 2014a). The PAs described the historical uses of the sites, current state of the sites, and approximated by visual means-only the extent of various waste rock and mill tailings at each of the sites. No chemical sampling for COCs had previously been performed at the sites.

2.2.1 Contaminants of Potential Concern

Based on operational history and information gathered during the PA (ECM 2014), the preliminary COCs for the site are metals, including mercury, and cyanide.

2.2.2 Media of Potential Concern

Soils are the primary media of concern at the subject AML sites. At Gold Hill Mill, a stream is present that flows from Warm Spring (Figure 8). Therefore, surface water samples were collected from the stream at Gold Hill Mill. In addition, samples of surface water were collected at Skidoo Mill and Cashier Mill in areas where standing water was observed during sampling following recent rain events during the sampling period.

2.3 Current and Future Property Use Scenarios

As described in Section 2.1, the subject sites are visited by a low volume of DEVA visitors each year, with the more remote sites receiving fewer visitations. Visits by site workers are also infrequent. Land uses are unlikely to change in the future.

2.4 Graphical Conceptual Site Model

The potential human and ecological exposure routes are illustrated in the CSM presented on Figure 9. The principal human exposure pathways are through dermal contact and inhalation (wind-blown material).

The potential exposure pathways for aquatic receptors are assumed to be limited to sites with significant nearby standing or running waters. At this time, potential aquatic receptors are likely to be only present near Gold Hill Mill. Depth of occurrence of groundwater at the subject sites is unknown. The presence of Warm Springs near Gold Hill Mill suggest this site may support relatively shallow groundwater. The likelihood of realization of beneficial use of groundwater, if present, at the subject sites is very low due to the remoteness of the sites and protections from future site development.

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3. Field Activities and Analytical Protocols

This section summarizes the SI field activities performed at Skidoo, Homestake, Journigan's, Starr, Tucki, Cashier, and Gold Hill between February 16, 2016 and March 9, 2016. The goal of these SIs was to obtain and analyze environmental samples, to assess human and environmental exposure to hazardous substances, and to evaluate the basis for further actions, if needed (NOREAS 2016). Complete delineation of the extent of contaminants, if present, was not a goal of these SI activities. Figures 2 through 8 illustrates the information detailed in the following sections. Table 1 summarizes sample collection for all sites. Tables 2 through 8 summarize soil sampling analytical results at individual sites. Table 9 summarizes surface water analytical results. Table 10 summarizes soil leachability testing results.

Soil samples were labeled and preserved on ice in coolers during the sampling week, and submitted to TestAmerica Laboratories, Inc., Irvine, California facility at the end of each sampling week. The Irvine facility repackaged samples for shipping to the TestAmerica's Arvada, Colorado facility, which maintains the appropriate Department of Defense (DoD) laboratory certifications in accordance with the project Sampling and Analysis Plan (SAP), (NOREAS 2016). Acid-Base Accounting (ABA) analyses were subcontracted by TestAmerica to SVL Analytical, Inc.'s laboratory in Kellogg, Idaho.

3.1. Soil and Surface Water Sampling Procedures

The following sections summarize soil and surface water sampling procedures performed at each site as described in the SAP (NOREAS 2016). Samples collected consisted of ISM soil samples, discrete background soil samples, and surface water grab samples. Photographs of ISM sampling areas, discrete samples, surface water samples and general site areas are logged and presented in Appendix A, and GPS coordinates are documented in Appendix B. Samples were collected from each Decision Unit (DU) prior to moving to next DU. Soil and surface water sample collection was conducted in accordance with SAP requirements (NOREAS 2016). A DU refers to a specific soil area, such as mill tailing impoundment, cyanide processing area, mine waste stockpile, or background native soil area, designated for sampling.

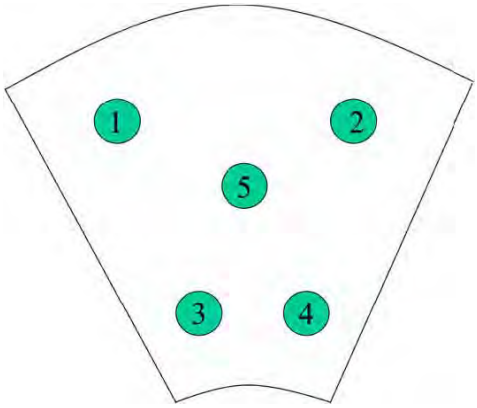
3.1.1. Soil Sampling

ISM provides representative samples of a DU by collecting numerous increments of soil (30 increments were used at DEVA) that are combined, processed, and subsampled according to specific protocols. Detailed procedures for ISM sampling are presented in Incremental Sampling Methodology (ITRC, 2012).

ISM sampling was implemented in two stages per the SAP (NOREAS 2016): 1) DU boundary and grid demarcation, and 2) sample collection. Once the DU boundaries were delineated and staked, each DU was then subdivided into 30 approximately equally sized sampling units (SUs). Survey "whiskers" were used to define the edges of each SU.

Once the ISM SU delineation was complete, a systematic random sampling approach was used to collect samples from each DU. ISM samples were collected using the following procedure:

- Five positions, one at each corner of the SU and one at the center of a SU were established and assigned a number as shown below;



- A single six-sided dice was rolled to determine the random sample locations. Sampling proceeded clockwise to the next position as each ISM sample was collected separately.
- The incremental sampling equipment was decontaminated prior to sampling and between each DU sample.
- Immediately before collecting soil samples and between each DU sample, a new pair of disposable nitrile gloves was donned.
- Approximately 35 grams of soil from between 0 and approximately 6 inches below ground surface was collected at each SU. Materials larger than 2 millimeters such as stones and roots were avoided. The soil was immediately placed into a clean plastic bag. Each ISM sample submitted to the laboratory consisted of approximately 1 kilogram of soil.

The ISM sampling tools were decontaminated between each DU sample using a triple-rinse method, and rinsate source blanks and equipment rinsate samples were collected and analyzed in accordance with the SAP (NOREAS 2016).

3.1.2. Background Soil Samples

To obtain defensible background results for each site, the background area at each site was delineated and sampled in the same manner as a DU. The background areas were located upgradient and outside but adjacent to the area potentially affected by the milling operations. The areal extent of the background sampling area was of similar scale to the DUs at each site. In addition to the ISM samples, discrete background samples were collected from randomly selected locations within the background ISM grid from Skidoo Mill and Journigan's Mill sites. These discrete sample results are compared to ISM sampling results in Section 4. Skidoo Mill was selected for this purpose due to the prevalence of metal ores in the vicinity of the mill site, which may impact the distribution of metals concentrations in native soils. Journigan's Mill was also selected for background discrete sampling because it is known that Journigan's Mill received ore metals from other mining sites in the general area; therefore, ISM results alone may not appropriately capture the range of background metals concentrations present in the mining region.

3.1.3. Surface Water Sampling

When encountered, surface water samples were collected using a grab sampling technique and filtered manually on site using a dedicated syringe, tubing, and a 0.45 micrometer capsule filter into lab provided bottles (NOREAS 2016). Following filtering, the samples were acidified with nitric acid to a pH of <2, double-bagged and iced immediately per SAP requirements (NOREAS 2016).

Surface waters were also tested for pH using a field-calibrated pH meter. The pH meter was calibrated or calibration-checked prior to sampling, on the day of sampling. Documentation of pH readings were recorded in field book

3.2. Skidoo Mill

SI field activities at Skidoo Mill were performed beginning on February 16 and through February 19, 2016. Information presented in the PA and defined in the SAP (NOREAS 2016) identified five DUs present at Skidoo Mill: DU-1 cyanide processing area, DU-2 mercury amalgamation area, DU-3 mill tailing impoundment, DU-4 mill tailings in wash, and DU-5 background native soils (Figure 2). Soil sampling results discussed in Section 4.1 and are presented in Table 2; sample summary information is summarized in Table 1.

Initial SI activities involved establishing the DU-5 background native soil sampling area. Two areas were identified as representative background native soils (Figure 2): an area located at the top of the ridge southeast and up slope from the mill, and an area upgradient within the wash east

the mill. Once the two background areas were identified and delineated, the ISM sampling grids were delineated. The DU was then subdivided into 30 approximately equally sized sampling units (SUs), with each area divided into 15 SUs. The ridge background sampling area and the upgradient wash background sampling area have a combined area of approximately 28, 000 ft^2 [Appendix A (Skidoo - Photo 41-48)]. A total of 3 ISM samples (SKID-05-001 thru SKID-05-003) and 15 discrete samples [7 discrete samples from the ridge background sampling area and 8 discrete samples from the upgradient wash background area (SKID-BG-001 thru SKID-BG-015)] were collected from DU-5.

The cyanide processing area (DU-1) ISM area is approximately 13,000 square feet and consists of the cyanide processing tanks and foundations, and extends approximately 75 feet below the tank area along the slope (Figure 2). A total of four ISM samples (SKID-01-001 thru SKID-01-004) were collected from DU-1 [Appendix A (Skidoo - Photo 5-10)].

The mercury amalgamation area (DU-2) ISM area is approximately 1,500 square feet and consists of the mercury amalgamation tables and areas in and around the mill foundations in the vicinity of the tables (behind and beneath) (Figure 2). The ISM grids were evenly distributed throughout this area [Appendix A (Skidoo - Photo 11-17)]. A total of four ISM samples (SKID-02-001 thru SKID-02-004) were collected from DU-2.

The mill tailings impoundment area (DU-3) ISM area is approximately 22,000 square feet and consists of the area at the bottom of the slope beneath the mill and within the wash bounded by a rock dam to the west and extends approximately 500 feet to the east (Figure 2) [Appendix A (Skidoo - Photo 18-22)]. A total of four ISM samples (SKID-03-001 thru SKID-03-004) were collected from DU-3.

Discrete samples of the eroded tailings in the wash (DU-4) extended from the top of the dry fall to approximately 2,000 feet west down the wash (Figure 2). A total of 15 discrete samples (SKID-04-001 thru SKID-04-015) were collected from DU-4 [Appendix A (Skidoo - Photo 23-40)]. Thick sections of eroded mill tailings were observed in the wash (Skidoo - Photo 23-40)]. Discrete samples, photos, and GPS coordinate information was collected from each sample location prior to moving to next location and per SAP requirements (NOREAS 2016).

Surface water was observed in DU-2 mercury amalgamation area and DU-3 mill tailing impoundment, the result of an overnight rain storm (Figure 2). DU-2 surface water sample was collected from the mercury amalgamation table trough (SKID-02-SW1) and the DU-3 surface water sample was collected from a low lying area within the tailings impoundment (SKID-03-SW1) [Appendix A (Skidoo - Photos 50-54)].

3.3. Homestake Mill

SI field activities at Homestake Mill were performed beginning March 7 through March 9, 2016. Information presented in the PA and defined in the SAP (NOREAS 2016) identified five DUs present at Homestake Mill: DU-1 mill foundations, DU-2 mill tailings stockpile, DU-3 mine waste stockpile, DU-4 downgradient mill tailings, and DU-5 background native soils (Figure 3). Sampling results are discussed in Section 4.2 and presented in Table 3. Sample summary information is summarized in Table 1.

Initial SI activities involved establishing the DU-5 background native soil sampling area. The area identified as representative background native soils is located approximately 500 feet northwest of the mill is a wash (Figure 3) with a total area of 11,500 square feet. Once the background area was identified and delineated, the ISM sampling girds were delineated. The DU was then subdivided into 30 approximately equally sized SUs [Appendix A (Homestake - Photos 47-48)]. A total of 3 ISM samples (HOME-05-001 thru HOME-05-003) were collected from DU-5.

The mill foundations (DU-1) consist of five, reinforced concrete foundations that are between 66 and 100 feet long (Figure 3). Four of the five foundations were identified as representative and delineated for ISM sampling. The mill foundations ISM area is approximately 11,000 square feet. A total of four ISM samples (HOME-01-001 thru HOME-01-004) were collected from DU-1 [Appendix A (Homestake - Photos 4-10)].

The mill tailings stockpile (DU-2) ISM area is approximately 240 feet downslope beneath the mill foundations to the east and has an area of approximately 8,200 square feet (Figure 3) [Appendix A (Homestake - Photos 11-12)]. A total of four ISM samples (HOME-02-001 thru HOME-02-004) were collected from DU-2.

During delineation of DU-3 mine waste stockpiles, it was observed that the mine waste stockpiles were more extensive than what was originally described in the PA (Figure 3). Mine waste stockpiles (DU-3) are located on the north and south sides of the mill foundations with a total area of approximately 17,500 square feet (Figure 3). A total of 15 discrete samples (HOME-03-001 thru HOME-03-015) were collected from DU-3 [Appendix A (Homestake - Photos 13-28]. Only fine-grained material within the mine waste stockpile was sampled.

During delineation of DU-4 eroded downgradient mill tailings, it was observed that the eroded mill tailings were more extensive than what was originally described in the PA. Thick sections of tailings were observed in the wash for approximately 0.75 miles or 3,900 feet from the mill and that thin out and continue across the access road onto BLM land (Figure 3) [Appendix A (Homestake - Photos 29-30]. Discrete samples of the eroded downgradient mill tailings (DU-4)

extended from approximately 500 feet downslope from the mill to approximately 0.75 miles where the wash meets the access road and are spaced approximately 300 feet apart (Figure 3). A total of 15 discrete samples (HOME-04-001 thru HOME-04-015) were collected from DU-4 [Appendix A (Homestake - Photos 32-46)].

3.4. Journigan's Mill

SI field activities at Journigan's Mill were performed beginning March 1 through March 3, 2016. Information presented in the PA and defined in the SAP (NOREAS 2016) identified seven DUs present at Journigan's Mill: DU-1 cyanide processing area, DU-2 mill foundations, DU-3 mill tailings large bermed stockpile, DU-4 southern mine waste stockpile, DU-5 eroded mill tailings in northern wash, DU-6 eroded mill tailings in southern wash, and DU-7 background soils (Figure 4). During initial SI activities it was determined, with USACE and NPS approval, that sampling of Starr Mill, located approximately a mile west of Journigan's Mill and sharing both the northern (DU-5) and the southern (DU-6) washes, would be included in the SI. Collection and analysis of data from Starr Mill was recommended to better evaluate the potential origin of mill tailing within these washes. Sample results are discussed in Section 4.3 and presented in Table 4; sample information is summarized in Table 1.

Initial SI activities involved establishing the DU-7 background native soil sampling area. Two areas south of the mill were identified as representative background native soils (Figure 4): an area located along a slope and an area upgradient within a wash south of the mill. Once the two background areas were identified and delineated, the ISM sampling grids were delineated. The DU was then subdivided into 30 approximately equally sized sampling units, with each area divided into 15 SUs. The sloped background sampling area and the upgradient wash background area have a combined area of approximately 11,600 square feet [Appendix A (Journigan's - Photo 58-63)]. A total of 3 ISM samples (JOUR-07-001 thru JOUR-07-003) and 19 discrete samples [7 discrete samples from the slope background sampling area and 7 discrete samples from the upgradient wash background area (JOUR-07-004 thru JOUR-07-017)] were collected from DU-5. To further evaluate the background native soils, two additional discrete background samples were collected from the northern (JOUR-07-018) and southern (JOUR-07-019) washes upgradient and east of the mill (Figure 4).

The cyanide processing area (DU-1) ISM area is approximately 7,600 square feet and consists of the cyanide processing tanks and foundations, and extends approximately 30 feet below the tank area to the toe of the slope (Figure 4). A total of four ISM samples (JOUR-01-001 thru JOUR-01-004) were collected from DU-1 [Appendix A (Journigan's - Photo 5-9)].

The mill foundations (DU-2) ISM area consists of two areas of foundations with a combined area of approximately 3,800 square feet (Figure 4) [Appendix A (Journigan's - Photo 10-13)]. A total of four ISM samples (JOUR-02-001 thru JOUR-02-004) were collected from DU-2.

The mill tailings large bermed stockpile (DU-3) ISM area consists of three areas and has a total combined area of approximately 11,300 square feet (Figure 4). The DU-3 area begins at the base of the mill foundations and extends northwest down slope toward Emigrant Canyon Road (Figure 4). The DU was subdivided into 30 approximately equally sized sampling units, with each of the three areas divided into 10 SUs [Appendix A (Journigan's - Photo 14-18)]. A total of four ISM samples (JOUR-03-001 thru JOUR-03-004) were collected from DU-3.

The southern mine waste stockpile (DU-4) ISM area is located at the top of the hill where the former mills ore chute was located (Figure 4). DU-4 extends down the western slope approximately 20 feet and is approximately 400 square feet [Appendix A (Journigan's - Photos 19-22)]. Only the fine grained material within the mine waste pile was sampled. A total of four ISM samples (JOUR-04-001 thru JOUR-04-004) were collected from DU-4.

Discrete samples of possible eroded mill tailings (based on visual characteristics) in the northern wash (DU-5) were identified extended from approximately 500 feet east of the mill along the northern shoulder of Emigrant Canyon Road to approximately 1.5 miles northwest of the mill (Figure 4). To further evaluate the fine grained material within the wash, two additional samples were collecting from the northern wash at the intersection of Emigrant Canyon Road and Highway 190 (Figure 4) approximately 4.7 miles from the site. A total of 20 discrete samples (JOUR-05-001 thru JOUR-05-020) were collected from DU-5 [Appendix A (Journigan's - Photos 23-42)]. Thick sections of eroded mill tailings were observed in the wash approximately 400 feet northwest of the mill within the northern wash (Journigan's - Photos 27-28)].

Discrete samples of the suspected eroded mill tailings in the southern wash (DU-6) extended from approximately 500 feet east of the mill along the southern shoulder of Emigrant Canyon Road to approximately 2.1 miles west of the mill (Figure 4). A total of 14 discrete samples (JOUR-06-001 thru JOUR-06-014) were collected from DU-6 [Appendix A (Journigan's - Photos 43-57)].

3.4.1. Starr Mill

As discussed in Section 3.1, Starr Mill was added to SI activities due to the mills proximity to the northern and southern washes of Journigan's Mill (Figure 5). SI field activities at Starr Mill were performed on March 3, 2016. Information presented in the PA identified two areas of concern at Starr Mill: tailings stockpiled at the mill foundation/cyanide processing area and eroded tailings

in the washes (Figure 5). Sample results are discussed in Section 4.4 and presented in Table 5; sample information is summarized in Table 1.

The mill foundations / cyanide process area (DU-1) ISM area consists of three areas with a combined area of approximately 800 square feet and includes the mill tailings stockpile and processing tanks (Figure 5) [Appendix A (Starr - Photos 1-7)]. A total of four ISM samples (STAR-01-001 thru STAR-01-004) were collected from DU-1.

A total of 3 discrete samples (STAR-01-001 thru STAR-01-003) were collected from an area where eroded mill tailings appeared to have settled/ponded, located approximately ¾ of a mile north of the mill on the west side of Emigrant Canyon Road at the 5-Mile marker [Appendix A (Starr - Photos 8-12)]. The settlement/ponded area was approximately 5,000 square feet.

3.5. Tucki Mill

SI field activities at Tucki Mill were performed on February 22 and February 23, 2016. Information presented in the PA and defined in the SAP (NOREAS 2016) identified three DUs present at Tucki Mill: DU-1 cyanide processing area, DU-2 fine-grained mine waste, and DU-3 background native soils (Figure 6). Sample results are discussed in Section 4.5 and presented in Table 6; sample information is summarized in Table 1.

Initial SI activities involved establishing the DU-3 background native soil sampling area. An area approximately 1,000 feet west of the mill on the south side of the access road was identified as representative background native soils and consists of an area of approximately 300 square feet (Figure 6) [Appendix A (Tucki - Photos 10-11)]. A total of 3 ISM samples (TUCK-03-001 thru TUCK-01-003) were collected from DU-3.

The cyanide processing area (DU-1) ISM area is approximately 11,300 square feet and consists of the cyanide processing tanks, the crushed ore/ mill foundation, and slope area (Figure 6) [Appendix A (Tucki - Photos 1, 2, 5, & 6)]. Only fine-grained material within the crushed rock pile was sampled. A total of four ISM samples (TUCK-01-001 thru TUCK-01-004) were collected from DU-1.

The fine-grained mine waste (DU-2) ISM area consists of three separate stockpiles [Appendix A (Tucki - Photos 7-9)]. The three areas have a total combined area of approximately 1,500 square feet, with one stockpile located 20 feet north and two stockpiles located approximately 45 feet east of DU-1 (Figure 6). Only the fine grained material within the mine waste piles was sampled. A total of four ISM samples (TUCK-02-001 thru TUCK-02-004) were collected from DU-2.

3.6. Cashier Mill

SI field activities at Cashier Mill were performed beginning February 23 through February 25, 2016. Information presented in the PA and defined in the SAP (NOREAS 2016) identified five DUs present at Cashier Mill: DU-1 mill foundations, DU-2 mill tailings in eastern wash, DU-3 mill tailing in western wash, DU-4 mine waste on northern slope, and DU-5 background native soils (Figure 7). Sample results are discussed in Section 4.6 and presented in Table 7; sample information is summarized in Table 1.

Initial SI activities involved establishing the DU-5 background native soil sampling area. Two areas were identified as representative background native soils (Figure 7): an area located along the top of the ridge approximately 350 feet northwest of the mill and an area within a wash approximately 250 feet south of the mill. Once the two background areas were identified and delineated, the ISM sampling girds were delineated. The DU was then subdivided into 30 approximately equally sized sampling units (SUs), with each area divided into 15 SUs. The ridge background sampling area is and the wash background sampling area have a combined area of 530 square feet [Appendix A (Cashier - Photos 27-28)]. A total of 3 ISM samples (CASH-05-001 thru CASH-05-003) were collected from DU-5.

The mill foundations (DU-1) ISM area is approximately 3,200 square feet and consists of the cyanide and mercury processing area and foundations (Figure 7). A total of four ISM samples (CASH-01-001 thru CASH-01-004) were collected from DU-1 [Appendix A (Cashier - Photos 1-3)].

The mill tailings in the eastern drainage (DU-2) ISM area is approximately 250 square feet and is located approximately 450 feet northeast of the mill (Figure 7). A total of four ISM samples (CASH-02-001 thru CASH-02-004) were collected from DU-2 [Appendix A (Cashier - Photos 4-5)].

The mill tailings in the western drainage (DU-3) ISM area is approximately 600 square feet and is located approximately 45 feet southwest of the mill (Figure 7). A total of four ISM samples (CASH-03-001 thru CASH-03-004) were collected from DU-3 [Appendix A (Cashier - Photos 6-9)].

Discrete samples of the mine waste on the northern slope (DU-4) were collected from stockpile from the toe of the slope to the top of the ridge (Figure 7). A total of 15 discrete samples (CASH-04-001 thru CASH-04-015) were collected from DU-4 [Appendix A (Cashier – Photos 10-26)]. Only fine-grained material within the mine waste stockpiles was sampled.

Surface water was observed in DU-1 mill foundation area (Figure 7), the result of an overnight rain storm. DU-1 surface water sample was collected from a depression in one of the concrete mill foundations (CASH-01-SW1).

3.7. Gold Hill Mill

SI field activities at Gold Hill Mill were performed on February 26 and February 29, 2016. Information presented in the PA and defined in the SAP (NOREAS 2016) identified three DUs present at Gold Hill Mill: DU-1 mill foundations, DU-2 eroded mill tailings in wash along road, and DU-3 background native soils (Figure 8). Warm Spring is located approximately 850 feet upslope and south of the mill. The spring actively discharges water at a rate of 50 gallons per minute, providing a stream that infiltrates approximately 500 feet downstream (ECM 2014). Sample results are discussed in Section 4.7 and presented in Table 8; sample information is summarized in Table 1.

The mill foundations (DU-1) ISM area is approximately 2,800 square feet and includes the ore crushing area and the ramp (Figure 8) [Appendix A (Gold Hill - Photos 1, & 4-9)]. A total of four ISM samples (GOLD-01-001 thru GOLD-01-004) were collected from DU-1.

Discrete samples of the mill tailings in the wash along the road (DU-2) were collected just north of the mill foundations and approximately 300 feet downgradient from the mill (Figure 8). A total of 7 discrete samples (GOLD-02-001 thru GOLD-02-007) were collected from DU-2 [Appendix A (Gold Hill - Photos 10-11)].

An area approximately 140 feet west of the mill on the north side of the road within a wash was identified as representative background native soils (DU-3) (Figure 8). The background native soil (DU-3) ISM area is approximately 3,000 square feet [Appendix A (Gold Hill - Photo 12-15)]. A total of 3 ISM samples (GOLD-03-001 thru GOLD-01-003) were collected from DU-3.

Two surface water samples were collected from the stream that flows from Warm Spring (Figure 8). The first sample was collected from the stream just at the foot of the slope located approximately 330 feet south of the mill (GOLD-SW1) and a second sample (and duplicate sample) was collected downgradient approximately 1,000 east of the mill next to Warm Springs Road (GOLD-SW2 and GOLD-SW3) [Appendix A (GOLD - Photos 16-18)].

4. Sampling Results

The following sections summarize the results of soil and, where applicable, surface water sampling at the subject mill sites.

Methods

Applicable for all sites, determination of 95-percent (%) upper confidence limit (UCL) concentration of soil sample results was performed for each DU, using USEPA ProUCL 5.1.002 software. The UCLs for each metal of potential concern is listed in the respective tables for each site, and 95% UCL for each DU are shown on the respective site figures. In cases where an analyte was not detected in a sample, a result equal to one-half of the analyte reporting limit was assumed for 95% UCL determination. The 95% UCL for all ISM samples was determined using the Chebyshev method, which is recommended for use in ISM-based samples, as this method provides a conservative estimate of the UCL (ITRC 2012). The Chebyshev method is based on non-parametric (no distributional) assumptions of the data set.

For discrete sampling performed within DUs, the ProUCL software was used to determine the data set properties (i.e., normal, gamma, non-parametric) and an appropriate UCL-determination method was selected based on the observed data set. In most cases, a normal distribution was assumed and a Student's-t 95% UCL was used. The respective site data tables (Tables 2 through 8) are notated regarding the method used for determining 95% UCL concentrations for each data set.

For Tier 1 risk screening purposes, sample results (95% UCL concentrations) in Tables 2 through 9 are compared with site screening values established in the SAP (NOREAS 2016), including USEPA Region 9 Regional Screening Levels (RSLs) (residential use assumption), NPS Ecological Screening Levels (ESVs) and California Regional Water Quality Control Board (Water Board) Environmental Screening Levels (ESLs). It should be noted that these screening levels represent conservative assumptions regarding human and ecological risk exposures. Due to their remote locations and short-term recreational visitor site uses, actual exposure duration at the subject sites is significantly less than the exposure time assumed for Tier 1 human health risk screening values used in this SI Report.

Acid-base accounting (ABA) was performed at selected DUs. ABA results measure the acid generating potential (AGP) and acid neutralization potential (ANP) of the soil. When the ratio of

ANP/AGP is greater than 1.2:1, the soil is considered to have minimal acid mine waste generation potential. In all cases described below, acid mine waste generation potential was very low.

4.1. Skidoo Mill

The following sections summarize the evaluation of the SI sampling results for Skidoo Mill. Results for Skidoo Mill are tabulated in Table 2 and summarized on Figure 2.

4.1.1. Background Soil Sampling

Background soil samples were collected using both ISM and discrete sampling methods at Skidoo Mill. Comparison of the results of 95% UCL concentrations between discrete and ISM sampling methods yielded excellent correlation (R^2=0.998), with the 95% UCL concentration from ISM samples yielding a higher result than discrete samples for all analytes except thallium. This apparent bias for higher 95% UCL concentrations from ISM results is consistent with the use of the conservative Chebyshev method for determination of the UCL.

For all metals except cadmium (Cd), cobalt (Co), selenium (Se), and silver (Ag), the background soil concentrations exceeded the NPS ESV (based on Screening Level Environmental Risk Assessment (SLERA) Chemicals of Potential Ecological Concern (COPEC) (NPS 2014b). Other Skidoo Mill DUs also exceed NPS ESVs for most metals analyzed.

USEPA Region 9 RSLs and Water Board ESLs were exceeded for arsenic in background soils. Arsenic (As) concentrations in California soils are commonly elevated above these screening levels, and the background (95% UCL) concentration of approximately 12 milligrams per kilogram (mg/kg) arsenic is consistent with values observed in many areas of California.

4.1.2. Mill Area (Mercury and Cyanide Processing Areas)

Elevated concentrations (above background) of antimony (Sb), As, lead (Pb), mercury (Hg), molybdenum (Mo), Ag, and zinc (Zn) were reported in soils collected from DU-1 (cyanide processing area) and DU-2 (mercury amalgamation area) samples. Notably, Pb is 1,359 mg/kg (95% UCL) in DU-2, which exceeds corresponding RSL (400 mg/kg) by a factor of 4, ESV (0.94 mg/kg) by approximately three orders of magnitude, and ESL (80 mg/kg) by approximately two orders of magnitude.

4.1.3. Mill Tailings Impoundment

The mill tailings impoundment area (DU-3) soils contain elevated (above background) concentrations of Sb, As, copper (Cu), Pb, Hg, Mo, Ag and Zn. Notably, the 95% UCL concentration of Pb in DU-3 is 1,477 mg/kg.

DU-3 soils have cyanide concentration (95% UCL) of 12.1 mg/kg, above the NPS ESV (0.1 mg/kg), Water Board ESL (0.0036 mg/kg) and USEPA RSL (2.7 mg/kg).

Mill tailings soils were reported to have slightly basic pH of approximately 9.4 (standard units). Results of ABA tests on mill tailing impoundment samples indicates that soils in this DU do not have net acid-generating potential [AGP; AGP<acid neutralization potential (ANP)].

4.1.4. Downgradient Wash

Discrete soil samples (15) were collected in the wash area downgradient of Skidoo Mill (DU-4). The 95% UCL concentrations of the DU-4 samples exceeded background concentrations for Sb, As, Cu, Pb, Hg, Mo, Se, Ag and Zn. Notably, the 95% UCL concentration of Pb in DU-4 is 2,083 mg/kg; the range of Pb in DU-5 discrete soil samples is from 1,150 mg/kg to 2,640 mg/kg.

4.1.5. Surface Water Samples

Surface water sample results are summarized in Table 9. Sample DEVA-SKID-02-SW1 was collected from the Hg-amalgamation tables (DU-2) within the mill structure. This sample exceeded the NPS ESV for surface waters for barium (Ba), Cu, Pb, Hg, Ag and Zn. The surface water sample collected from the Hg amalgamation tables contained Pb [10.5 micrograms per liter (μg/L)] and Hg (0.27 μg/L) at approximately an order of magnitude above their NPS ESVs (0.92 μg/L and 0.026 μg/L, respectively). Sample DEVA-SKID-03-SW1 was collected from a small area of ponded water within the mill tailings (DU-3) impoundment. The DU-3 surface water sample reported concentrations of As, Ba, Cu, Pb, Hg, Ag and Zn above NPS ESVs, including Pb at 891 μg/L and Hg at 1.02 μg/L. The presence of water at both of these sample locations was highly ephemeral, having accumulated the night before during a rain event, and largely dried by the end of the day of collection.

4.1.6. Soil Leaching Analyses

One Skidoo Mill soil sample, DEVA-SKID-01-003 (684 mg/kg Pb) was analyzed for leachability using the Toxicity Characteristic Leaching Procedure (TCLP) for Pb. The resulting leachate was reported with a concentration of 9.25 milligrams per liter (mg/L) Pb.

4.1.7. Data Quality Assessment

This section describes the quality and usability of analytical data collected during the February 2016 site inspection sampling conducted at Skidoo Mill. General data quality assessment

procedures used were the same for all sites. Field sampling and laboratory analytical activities for all SI sites were performed in accordance with the Sampling and Analysis Plan (NOREAS 2016).

At Skidoo Mill, a total of 29 discrete soil, 2 surface water, 2 source blank, and 2 equipment blank samples were collected on February 17 through 19, 2016. In addition, 15 grab soil samples were collected using ISM. Environmental samples were analyzed for Title 22 metals (California Administrative Manual [CAM] 17 metals (EPA Method 6020A and 7470A/7471), cyanide (EPA 9012A), soil pH (EPA 9045D) and ABA (Modified Sobek Method). All samples were received in good condition and technical holding time requirements were met.

Analysis of groundwater and soil samples from all SI sites were performed by Test America Denver Laboratory, Inc. located in Arvada, Colorado. Test America is an approved laboratory facility in accordance with California Department of Health Services Environmental Laboratory Accreditation Program (ELAP), State of Nevada Department of Conservation and Natural Resources, and Department of Defense (DoD) ELAP. A third-party validation firm, Laboratory Data Consultants, Inc. (LDC), performed data validation on the chemical analyses for the project samples.

The overall data quality was determined based on the analytical results generated for field and laboratory quality assurance/quality control (QA/QC) samples during this project. QA/QC for field activities was ensured through standardized sampling methods, rigorous documentation, and the collection of field QC samples as described in the project SAP (NOREAS 2016). Additionally, laboratory performed QC analyses to assess precision and accuracy of the analytical processes as determined by method-required laboratory QC samples, calibration and verification standards, instrument and method blanks. Results from field blanks and method blanks were evaluated to assess the possibility of contamination of environmental samples that may have been introduced during sampling and laboratory activities. Field duplicates could not be collected at this site due to insufficient surface water available during sampling at Skidoo Mill site.

Field Blanks

In accordance with the SAP, two equipment blanks, identified as DEVA-SKID-EB-021816 and DEVA-SKID-EB-021916, were collected to assess if non-disposable equipment decontamination procedure was effective and if cross-contamination of soil samples occurred during soil sampling activities. No target analytes were detected in the equipment blanks with the exception of thallium, beryllium, chromium, cobalt, and/or molybdenum. Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X) than the concentrations found in the associated

field blanks except for three soil (DEVA-SKID-01-001, DEVA-SKID-01-002, and DEVA-SKID-03-001) and two surface water samples (DEVA-SKID-02-SW1 and DEVA-SKID-03-SW1), for which the detected concentrations were adjusted to "not detected (ND)" at the reported concentrations.

An equipment rinsate source blank identified as DEVA-SB-021816 was also collected. No target analytes were detected in the source blank except for antimony at a trace concentration. The sample concentrations were either not detected or were significantly greater (>5X) than the concentration found in the source blank. No data qualification was required.

Laboratory Quality Control Analyses

Laboratory QC samples for all SI sites were prepared and analyzed by the laboratory to monitor the analytical process. The laboratory QC samples for this event included method blanks, initial and continuing calibration blanks, laboratory control samples (LCSs), instrument tune and calibration verifications (ICVs and CCVs), interference check, and matrix spike (MS) and matrix spike duplicate (MSD) samples. The laboratory analyzed all instrument tune, calibration, and QC samples at the method-required frequency. The analyses were performed within all specifications of the methods. The QC criteria were met and are considered acceptable. The following samples were qualified as estimated due to QC exceedances:

No contaminants were found in the laboratory blanks except for molybdenum in DEVA-SKID-EB-021816 and/or antimony in DEVA-SKID-02-SW1 and DEVA-SKID-03-SW1. Accordingly, the detection was adjusted to ND at the reported concentration.

Select metals (arsenic, beryllium, cadmium, chromium, cobalt, copper, lead, molybdenum, nickel, selenium, thallium, vanadium, and/or zinc) exceeded MS, MSD or post spike % recovery criteria. Spiked samples (DEVA-SKID-BG-014, DEVA-SKID-03-001, and DEVA-SKID-04-015) were qualified using "UJ" for not detected and "J" for detected results.

Data Validation Results

Analytical data collected during SI activities (at all sites) were reviewed and validated by LDC in Carlsbad, California. Data validation was performed in accordance with USEPA SW-846 Test Methods (EPA 1986 and final updates), DoD Quality Systems Manual (QSM) for Environmental Laboratories, version 5.0 (July 2013), modified USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010), and QA/QC criteria specified in the project-specific SAP (NOREAS 2016).

Data were subjected to approximately 10 percent Level IV and 90 percent Level III validation. Data validation included a review of sample preservation/condition, cooler temperature, and technical holding times; detection limits/sensitivity; instrument tune, calibration and verifications; laboratory blanks; LCS and MS/MSD; and field QC sample data (as applicable), including a review of chromatograms and quantitation reports. In addition, chain-of-custody records were reviewed to assess the potential for any field conditions that adversely impact data quality. Relevant data validation qualifiers are defined as follows:

U – (Not detected): The compound or analyte was analyzed for and positively identified by the laboratory; however, the compound or analyte should be considered non-detected at the reported concentration due to presence of contaminants detected in the associated blank(s).

J – (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however, the reported concentrations is estimated due to nonconformances discovered during data validation.

UJ – (Not-detected estimated): The compound or analyte was reported as not detected by the laboratory; however, the reported detection limit is estimated due to nonconformances discovered during data validation.

Third-party validation reports indicate that data associated with samples collected during the SI sampling in February 2016 are usable and acceptable. No results were rejected in this report. All technical holding time requirements were met. Overall precision and accuracy goals were met. Copies of the analytical laboratory reports, including COC forms are provided in Appendix C. Data validation reports are provided in Appendix D.

4.2. Homestake Mill

The following sections summarize sampling results for the SI performed at Homestake Mill. Table 2 presents results of soil analyses from Homestake Mill, and results are summarized on Figure 3.

4.2.1. Background Soil Sampling

Background soil samples were collected using ISM sampling methods at Homestake Mill. For all metals except Co, Cu, nickel (Ni), Se and silver (Ag), the background soil concentrations exceeded the NPS ESV. Other site DUs also exceed NPS ESVs for most metals analyzed.

USEPA Region 9 RSLs and Water Board ESLs were exceeded for arsenic in background soils. Arsenic (As) concentrations in California soils are commonly elevated above these screening levels, and the background (95% UCL) concentration of approximately 10 mg/kg arsenic is consistent with values observed in many areas of California.

4.2.2. Mill Area (Mercury and Cyanide Processing Areas)

The mill foundation area (DU-1) soils contain elevated (above background) concentrations of Sb, beryllium (Be), Cd, Cu, Pb, Hg, Se, Ag, thallium (Th) and Zn. The 95% UCL concentration of Pb in DU-1 is 725 mg/kg.

DU-3 soils have cyanide concentration (95% UCL) of 61.4 mg/kg (ISM sample range of 10.7 to 48.6 mg/kg), above the NPS ESV, Water Board ESL, and USEPA RSL (2.7 mg/kg).

Mill tailings soils were reported to have slightly basic pH of approximately 9.4 (standard units). Results of ABA tests on mill tailing impoundment samples indicates that soils in DU-3 do not have net acid-generating potential (AGP< ANP).

4.2.3. Mill Tailings Stockpile

The mill tailings stockpile (DU-2) soils contain elevated (above background) concentrations of Sb, Be, Cd, Cu, Hg, Se, Ag, vanadium (V) and Zn, based on comparison to 95% UCL concentrations. Notably, lead concentrations in DU-2 soils are only 18.1 mg/kg (95% UCL).

4.2.4. Mine Waste Stockpile

Mine waste stockpile (DU-3) soils were analyzed using 15 discrete soil samples. The 95% UCL concentrations of Sb, As, Be, Cd, Cr, Cu, Pb, Hg, Se, Ag, V and Zn in DU-3 are above background (DU-5) concentrations.

4.2.5. Downgradient Mill Tailings

Downgradient mill tailings (DU-4) soils were evaluated from 15 discrete soil sample locations in the wash areas downgradient from the site. Comparison of 95% UCL concentrations from DU-4 soils to background soils (DU-5) indicates the Be, Cu, Hg, Se, Ag and Zn are above background in DU-4.

4.2.6. Soil Leaching Analyses

Soil leaching assessment via TCLP was performed for Pb in soil samples DEVA-HOME-01-003 (566 mg/kg pb) (and DEVA-HOME-01-004 (168 mg/kg Pb) (mill foundation area). The TCLP results for these samples were 0.448 J and 0.0564 J, respectively, indicating low leaching potential from these soils. Samples DEVA-HOME-03-002 (4.3 mg/kg Hg) and DEVA-HOME-04-012 (6.28 mg/kg Hg) were analyzed for Hg leachability using TCLP. Both TCLP results were for only trace (estimated values) of Hg, indicating very low leaching potential for Hg from these soils.

4.2.7. Data Quality Assessment

This section describes the quality and usability of analytical data collected during the March 2016 site inspection (SI) sampling conducted at the Homestake Mill.

A total of 11 grab samples of soils were collected using ISM. In addition, 31 discrete soils, 2 source blanks, 2 equipment blanks, and 7 sets of MS/MSD samples were collected on March 7 through 9, 2016 at this site. Environmental samples were analyzed for metals, cyanide, soil pH ABA. All samples were received in good condition and technical holding time requirements were met.

Results from field blanks and method blanks were evaluated to assess the possibility of contamination of environmental samples that may have been introduced during sampling and laboratory activities.

Field Blanks

In accordance with the SAP, two equipment blanks, identified as DEVA-HOME-EB-030716 and DEVA-HOME-EB-030816, were collected to assess the effectiveness of the non-disposable equipment decontamination procedure and if cross-contamination of samples occurred during sampling activities. Two source blanks identified as DEVA-SB-021816 and DEVA-SB-031116 were also collected. No target analytes were detected in the equipment or source blanks with the exception of trace concentrations of barium, silver, thallium, mercury, manganese, and antimony. Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X) than the

concentrations found in the associated field blanks. No data qualification was necessary for any of the samples.

Laboratory Quality Control Analyses

The analyses were performed within all specifications of the methods. The QC criteria were met and are considered acceptable. The following samples were qualified as estimated due to QC exceedances:

- Laboratory blanks for metals analysis were free of contaminants except for detections of antimony, silver, thallium, mercury, and manganese. As a result, these detections were adjusted to ND at the reported concentrations in seven associated samples.
- Arsenic, antimony, barium, beryllium, lead, mercury, and/or silver exceeded MS/MSD and post spike % recovery criteria. Spiked samples were qualified using "J" for detected results for these analytes. This condition may be attributed to matrix interference.
- Cyanide exceeded MS/MSD % recovery criteria. Spiked sample DEVA-HOME-02-004 was qualified using "J" for detected results for cyanide. This condition may be attributed to matrix interference.
- Technical holding time (28 days) was exceeded for TCLP analysis of mercury in two samples identified as DEVA-HOME-03-002 and DEVA-HOME-04-012 for which mercury results are qualified as estimated using "J."

Data Validation Results

Third-party validation reports indicate that data associated with samples collected at Journigan's Mill during the SI sampling on March 7 through 9, 2016 are usable and acceptable. No results were rejected in this report. All technical holding time requirements were met with the exception of mercury in two samples, which were qualified as estimated. Copies of the analytical laboratory reports, including COC forms are provided in Appendix C. Data validation reports are provided in Appendix D.

4.3. Journigan's Mill

The following sections summarize sampling results for the SI performed at Journigan's Mill. Table 3 presents results of soil analyses from Journigan's Mill, and results are summarized on Figure 4.

4.3.1. Background Soil Sampling

Background soil samples were collected using both ISM and discrete sampling methods at Journigan's Mill. Comparison of the results of 95% UCL concentrations between discrete and ISM sampling methods yielded excellent correlation, with the 95% UCL concentration from ISM samples generally yielding similar or higher result than the 95% UCL concentration determined for discrete samples, except for arsenic. This apparent bias for higher 95% UCL concentrations from ISM results is consistent with the use of the conservative Chebyshev method for determination of the UCL. The higher arsenic concentration reported in the discrete background samples appears to be biased due results from 2 of 15 background samples, DEVA-JOUR-07-018 and DEVA-JOUR-07-019, with 53.4 and 29.0 mg/kg arsenic reported, respectively.

For all metals except Cd, Se and silver (Ag), the background soil concentrations exceeded the NPS ESV (based on Screening Level Environmental Risk Assessment (SLERA) Chemicals of Potential Ecological Concern (COPEC) (NPS 2014b). Other Skidoo Mill DUs also exceed NPS ESVs for most metals analyzed.

USEPA Region 9 RSLs and Water Board ESLs were exceeded for arsenic in background soils. Arsenic (As) concentrations in California soils are commonly elevated above these screening levels, and the background (95% UCL) concentration of approximately 4 mg/kg arsenic in the ISM samples is consistent with values observed in many areas of California. The 95% UCL concentration of 20.8 mg/kg arsenic derived from the discrete background sample data is on the upper end of normal background concentrations; however, given the types of naturally-occurring minerals in this area, elevated localized arsenic concentrations are not unexpected.

4.3.2. Cyanide Processing Area

The cyanide processing area (DU-1) soils contain elevated (above background) concentrations of Sb, As, Ba, Cd, Pb, Hg, Mo, Ag and Zn. The 95% UCL concentration of Pb in DU-1 is 776 mg/kg.

DU-1 soils have cyanide concentration (95% UCL) of 25.3 mg/kg, above the NPS ESV, Water Board ESL, and USEPA RSL (2.7 mg/kg).

Cyanide processing area soils were reported to have slightly basic pH of approximately 8.4.

4.3.3. Mill Foundation Area

The mill foundation area (DU-2) soils contain elevated (above background) concentrations of Sb, As, Ba, Cd, Cr, Cu, Pb, Hg, Mo, Se, Ag and Zn. The 95% UCL concentration of Pb in DU-2 is 348 mg/kg.

DU-2 soils have cyanide concentration (95% UCL) of 9.48 mg/kg, above the NPS ESV, Water Board ESL, and USEPA RSL (2.7 mg/kg).

Mill foundation soils were reported to have slightly basic pH of approximately 8.4. Results of ABA tests on mill tailing impoundment samples indicates that soils in DU-2 do not have net acid-generating potential (AGP< ANP).

4.3.4. Mill Tailings Stockpile

Soils from the mill tailings stockpile (DU-3) at Journigan's contained the following metals above background soils (95% UCL concentration comparison): Sb, Cd, Pb, Hg, Mo, Ag, Th and Zn. The 95% UCL concentration of Pb in DU-3 soils was 472 mg/kg.

Cyanide concentrations in DU-3 (95% UCL) is 29.6 mg/kg, above the NPS ESV, Water Board ESL, and USEPA RSL (2.7 mg/kg).

Mill tailings soils were reported to have slightly basic pH of approximately 8.6. Results of ABA tests on mill tailing impoundment samples indicates that soils in DU-3 do not have net acid-generating potential (AGP< ANP).

4.3.5. Mine Waste Stockpile

Mine waste stockpiles (DU-4) contain the following metals above background concentrations (95% UCL concentration comparison): Sb, Be, Cd, Cr, Cu, Pb, Hg, Ag, Th,V and Zn. The 95% UCL concentration of Pb in DU-4 is 503 mg/kg.

4.3.6. Mill Tailings in North (DU-5) and South Washes (DU-6)

Mill tailings in the north wash area (DU-5) contain the following metals above background concentrations (95% UCL concentration comparison): Sb, As, Ba, Be, Cd, Cr, Pb, Hg, Mo, Ag, Th and Zn. The 95% UCL concentration of Pb in DU-5 is 703 mg/kg; however, this result is skewed by the results of a single discrete sample, DEVA-JOUR-05-003, which reported Pb at 2,540 mg/kg. This sample is located close to mill site (Figure 4) and based on the results of the 14 other discrete

samples in the north wash area, widespread Pb contamination throughout the north wash area does not appear to have occurred.

Mill tailings in the south wash area (DU-6) contain the following metals above background concentrations (95% UCL concentration comparison): Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Hg, Mo, Ni, Ag, Th and Zn. The 95% UCL concentration of Pb in DU-6 is 381 mg/kg; however, similar to DU-5, this result is skewed by the results of a single discrete sample, DEVA-JOUR-06-002, which reported Pb at 890 (J) mg/kg. This sample is located close to mill site (Figure 4) and based on the results of the 14 other discrete samples in the south wash area, widespread Pb contamination throughout the south wash area does not appear to have occurred.

4.3.7. Soil Leaching Analyses

Soil leaching analyses by TCLP were performed on five (5) samples from Journigan's Mill.

- Sample DEVA-JOUR-02-002 (309 mg/kg Pb) was tested for TCLP Pb, with a result of 0.184 J mg/L, indicating low leaching potential.
- Sample DEVA-JOUR-01-002 (656 mg/kg Pb) was tested for TCLP Pb with a result of 0.618 mg/L, indicating low leaching potential.
- Sample DEVA-JOUR-03-003 (445 mg/kg Pb) was tested for TCLP Pb with a result of 0.247 J mg/L, indicating low leaching potential.
- Sample DEVA-JOUR-04-001 (482 mg/kg Pb) was tested for TCLP Pb with a result of 0.0251 J mg/L, indicating low leaching potential.
- Sample DEVA-JOUR-06-002 (890 mg/kg Pb) was tested for TCLP Pb with a result of 13 mg/L, indicating a high leaching potential.
- Sample DEVA-JOUR-05-003 (7.99 mg/kg Hg) was tested for TCLP Hg with a reported result of 0.000738 J mg/L, indicating a low leaching potential for Hg from this sample. It should be noted that the Pb concentration of 2,540 mg/kg in this sample is likely to exhibit similar leaching characteristic for lead as determined for sample DEVA-JOUR-06-002.

4.3.8. Data Quality Assessment

This section describes the quality and usability of analytical data collected during the March 2016 SI sampling conducted at the Journigan's Mill.

A total of 19 grab samples of soils were collected using ISM. In addition, 38 discrete soils, 1 source blank, 2 equipment blanks, and 5 sets of MS/MSD samples were collected on March 1 through 3,

2016 at this site. Environmental samples were analyzed for metals, cyanide, , soil pH and ABA. All samples were received in good condition and technical holding time requirements were met.

Results from field blanks and method blanks were evaluated to assess the possibility of contamination of environmental samples that may have been introduced during sampling and laboratory activities.

Field Blanks

In accordance with the SAP, two equipment blanks, identified as DEVA-JOUR-EB-030116 and DEVA-JOUR-EB-030216, were collected to assess the effectiveness of the non-disposable equipment decontamination procedure and if cross-contamination of samples occurred during sampling activities. A source blank identified as DEVA-SB-030116 was also collected. No target analytes were detected in the equipment or source blanks with the exception of trace concentrations of lead, barium, manganese, zinc, and antimony. Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X) than the concentrations found in the associated field blanks. No data qualification was necessary for any of the samples.

Laboratory Quality Control Analyses

Laboratory QC samples were prepared and analyzed by the laboratory to monitor the analytical process. The analyses were performed within all specifications of the methods. The QC criteria were met and are considered acceptable. The following samples were qualified as estimated due to QC exceedances:

- Laboratory blanks for metals analysis were free of contaminants except for detections of silver, thallium, molybdenum, and manganese. As a result, these detections were adjusted to ND at the reported concentrations in 16 affected samples.
- Arsenic, chromium, copper, lead, mercury, molybdenum, nickel, selenium, and/or vanadium exceeded MS/MSD and post spike % recovery criteria. Spiked samples DEVA-JOUR-07-007, DEVA-JOUR-04-002, DEVA-JOUR-05-014, and DEVA-JOUR-06-002 were qualified using “J” for detected results for these analytes. This condition may be attributed to matrix interference.
- Cyanide exceeded MS/MSD % recovery criteria. Spiked sample DEVA-JOUR-02-001 and DEVA-JOUR-01-001 were qualified using “J” for detected results for these analytes. This condition may be attributed to matrix interference.

Data Validation Results

Third-party validation reports indicate that data associated with samples collected at Journigan's Mill during the SI sampling on March 1 through 3, 2016 are usable and acceptable. No results were rejected in this report. All technical holding time requirements were met. Copies of the analytical laboratory reports, including COC forms are provided in Appendix C. Data validation reports are provided in Appendix D.

4.4. Starr Mill

The following sections summarize sampling results for the SI performed at Starr Mill. Table 4 presents results of soil analyses from Starr Mill, and results are summarized on Figure 5.

4.4.1. Background Soil Sampling

Site-specific background samples for Starr Mill were not collected. Based on proximity to Journigan's Mill, it is assumed that background concentrations at Starr Mill are similar to those reported at Journigan's Mill. Table 4 contains DU-7 ISM background sample concentrations from Journigan's Mill sampling for reference in the evaluation of Starr Mill results.

4.4.2. Mill Area (Mill Foundation and Cyanide Processing Areas)

Soils from the mill foundation and cyanide processing areas (DU-1, sample -001 through 004) at Starr Mill contained the following metals above (Journigan's Mill DU-7) background soils (95% UCL concentration comparison): Sb, As, Be, Cd, Cu, Pb, Hg, Mo, Se, Ag, Th and Zn. The 95% UCL concentration of Pb in Starr Mill foundation/cyanide processing area soils was 199 mg/kg.

The mill foundation/cyanide processing area soils at Starr Mill have cyanide concentration (95% UCL) of 2.9 mg/kg, above the NPS ESV, Water Board ESL, and USEPA RSL (2.7 mg/kg).

Mill foundation/cyanide processing area soils were reported to have slightly basic pH of approximately 9.4. Results of ABA tests on mill tailing impoundment samples indicates that soils in DU-1 do not have net acid-generating potential (AGP< ANP).

4.4.3. Downgradient Discrete Samples

Three (3) discrete soils collected from Starr Mill, close to and downgradient from the mill site (DU-1, sample -005 through 007) at Starr Mill contained the following metals above (Journigan's Mill DU-7) background soils (95% UCL concentration comparison): Sb, As, Be, Cr, Co, Cu, Pb, Mn, Hg, Mo, Ni, Ag, Th and Zn. The 95% UCL concentration of Pb in Starr Mill foundation/cyanide processing area soils was 23 mg/kg. These results are comparable to those found for the north and south wash discrete samples for Journigan's Mill, except for the noted elevated concentrations samples at Journigan's Mill discussed in Section 4.36.

4.4.4. Soil Leaching Analyses

One sample, DEVA-STAR-01-003, reporting 177 (J) mg/kg Pb and 6.61 (J) mg/kg Hg was analyzed for TCLP Pb, with a result of 0.0581 J mg/L and TCLP Hg, with a result of 0.000112 J mg/L. Both of these results indicate a low leaching potential for this sample.

4.4.5. Data Quality Assessment

A total of 3 discrete soil, 1 source blank, and 1 equipment blank samples were collected on March 3, 2016 at Starr Mill. In addition, four grab samples of soils were collected using ISM. Environmental samples were analyzed for metals, cyanide, soil pH and ABA. All samples were received in good condition and technical holding time requirements were met.

Results from field blanks and method blanks were evaluated to assess the possibility of contamination of environmental samples that may have been introduced during sampling and laboratory activities.

Field Blanks

In accordance with the SAP, one equipment blank, identified as DEVA-STAR-EB-030316, was collected to assess the effectiveness of the non-disposable equipment decontamination procedure and if cross-contamination of samples occurred during sampling activities. A source blank identified as DEVA-SB-021816 was also collected. No target analytes were detected in the equipment blank or source blank with the exception of antimony. Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X) than the concentrations found in the associated field blank except for the equipment blank DEVA-STAR-EB-030316 for which the detected concentration for antimony was adjusted to “not detected (ND)” at the reported concentration.

Laboratory Quality Control Analyses

The analyses were performed within all specifications of the methods. The QC criteria were met and are considered acceptable. The following samples were qualified as estimated due to QC exceedances:

- Laboratory blank was free of contaminants except for detections of antimony and molybdenum in DEVA-STAR-EB-030316. As a result, these detections were adjusted to ND at the reported concentrations.

- Antimony and molybdenum exceeded MS and MSD % recovery and RPD criteria. Spiked sample DEVA-STAR-01-003 were qualified using "J" for detected results. This condition may be attributed to matrix interference.
- MSMSD % recovery criteria for total cyanide exceeded acceptance limits. Cyanide result was qualified using "J" in DEVA-STAR-01-003. This condition may be attributed to matrix interference.

Data Validation Results

Third-party validation reports indicate that data associated with samples collected at Starr Mill during the SI sampling on March 3, 2016 are usable and acceptable. No results were rejected in this report. All technical holding time requirements were met. Overall precision and accuracy goals were met. Copies of the analytical laboratory reports, including COC forms are provided in Appendix C. Data validation reports are provided in Appendix D.

4.5. Tucki Mill

The following sections summarize sampling results for the SI performed at Tucki Mill. Table 5 presents results of soil analyses from Tucki Mill, and results are summarized on Figure 6.

4.5.1. Background Soil Sampling

Background soil samples were collected using ISM sampling methods at Tucki Mill. For all metals except Co, Se and silver (Ag), the background soil concentrations exceeded the NPS ESV. Other site DUs also exceed NPS ESVs for most metals analyzed.

USEPA Region 9 RSLs and Water Board ESLs were exceeded for arsenic in background soils. Arsenic (As) concentrations in California soils are commonly elevated above these screening levels, and the background (95% UCL) concentration of 15.9 mg/kg arsenic is consistent with values observed in many areas of California.

4.5.2. Cyanide Processing Area

Results from the DU-1 cyanide processing area at Tucki Mill indicates that the 95% UCL concentrations of Sb, As, Pb, manganese (Mn), Hg, Se, Ag and Zn are above the background 95% UCL concentrations of these constituents in soil. Notably, the As concentration (95% UCL) is 230 mg/kg in DU-1. Only low concentrations of cyanide were detected in DU-1 soils (ranging from 0.158 to 0.257 mg/kg). Soil pH was slightly basic at approximately 9.2.

4.5.3. Fine-Grained Mine Waste

The DU-2 Mine waste piles 95% UCL concentrations exceed background (DU-3) concentrations for the following metals: Sb, As, Ba, Cd, Cu, Pb, Mn, Hg, Se, Ag and Zn. Notably, the As concentration (95% UCL) is 111 mg/kg in DU-2. Results of ABA testing of DU-2 soils indicates no net potential for acid generation (ANP> AGP). Soil pH in DU-2 was slightly basic at approximately 9.0. Low concentrations of cyanide were reported in DU-2 soils (ranging from 0.113 to 0.197 mg/kg).

4.5.4. Soil Leaching Analyses

Sample DEVA-TUCK-02-001, reporting 89.2 mg/kg As and 0.404 mg/kg Hg was analyzed using TCLP for these two metals, with results of As at 0.0574 J mg/L and Hg not detected. Based on these results, these soils are considered to have a low leaching potential.

4.5.5. Data Quality Assessment

A total of 11 grab samples of soils were collected using the ISM. In addition, 1 source blank and 1 equipment blank were collected on February 22-23, 2016 at this site. Environmental samples were analyzed for Title 22 metals, cyanide, soil pH and ABA. All samples were received in good condition and technical holding time requirements were met.

Field Blanks

In accordance with the SAP, one equipment blank, identified as DEVA-TUCK-EB-022216, was collected to assess the effectiveness of the non-disposable equipment decontamination procedure and if cross-contamination of samples occurred during sampling activities. A source blank identified as DEVA-SB-021816 was also collected. No target analytes were detected in the equipment or source blank samples with the exception of antimony. Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X) than the concentrations found in the associated field blanks except for the equipment blank DEVA-TUCK-EB-022216 for which the detected concentration for antimony was adjusted to "not detected (ND)" at the reported concentration. The background contamination is believed to have resulted from the rinsate water.

Laboratory Quality Control Analyses

The analyses were performed within all specifications of the methods. The QC criteria were met and are considered acceptable. The following samples were qualified as estimated due to QC exceedances:

- Due to ICPMS tune (mass calibration), data for all metals except for mercury and manganese were qualified as estimated in sample DEVA-TUCK-EB-022216.
- Laboratory blank was free of contaminants except for detections of lead, manganese, molybdenum, thallium, and mercury in DEVA-TUCK-EB-022216. As a result, these detections were adjusted to ND at the reported concentrations.
- Antimony, copper, molybdenum, selenium, and vanadium exceeded MS/MSD % recovery criteria. Spiked sample DEVA-TUCK-02-002 was qualified using "J" for detected results. This condition may be attributed to matrix interference.
- Technical holding time (14 days) was exceeded by one day for total cyanide in DEVA-TUCK-02-001, DEVA-TUCK-02-002, DEVA-TUCK-02-003, and DEVA-TUCK-02-04. Cyanide results for these four samples are qualified as estimated using "J."

• MS/MSD % recovery criteria for total cyanide exceeded acceptance limits in DEVA-TUCK-02-002. Cyanide result for this sample was qualified using "J." This condition may be attributed to matrix interference.

Data Validation Results

Third-party validation reports indicate that data associated with samples collected at Tucki Mill during the SI sampling on February 22-23, 2016 are usable and acceptable. No results were rejected in this report. All technical holding time requirements were met except for total cyanide in four samples which exceeded by one day. Cyanide results for these samples were qualified as estimated. Overall precision and accuracy goals were met. Copies of the analytical laboratory reports, including COC forms are provided in Appendix C. Data validation reports are provided in Appendix D.

4.6. Cashier Mill

The following sections summarize sampling results for the SI performed at Cashier Mill. Table 6 presents results of soil analyses from Cashier Mill, and results are summarized on Figure 7.

4.6.1. Background Soil Sampling

Background soil samples were collected using ISM sampling methods at Cashier Mill. For all metals except Cd, Co, Se and silver (Ag), the background soil concentrations exceeded the NPS ESV. Other site DUs also exceed NPS ESVs for most metals analyzed.

USEPA Region 9 RSLs and Water Board ESLs were exceeded for arsenic in background soils. Arsenic (As) concentrations in California soils are commonly elevated above these screening levels, and the background (95% UCL) concentration of 24.4 mg/kg arsenic is consistent with the upper end of background values observed in California. Given the types of naturally-occurring minerals in this area, elevated localized arsenic concentrations are not unexpected.

4.6.2. Mill Foundation Area

Soils from the mill foundation area (DU-1) at Cashier Mill contained the following metals above background soils (95% UCL concentration comparison): Sb, As, Ba, Be, Cd, Cu, Pb, Mn, Hg, Mo, Ag and Zn. The 95% UCL concentration of Pb in Starr Mill foundation/cyanide processing area soils was 1,326 mg/kg.

The mill foundation/cyanide processing area soils at Cashier Mill have cyanide concentration (95% UCL) of 1.62 mg/kg, above the NPS ESV and Water Board ESL but below the USEPA RSL (2.7 mg/kg).

Mill foundation/cyanide processing area soils were reported to have slightly basic pH of approximately 9.0. Results of ABA tests on mill tailing impoundment samples indicates that soils in DU-1 do not have net acid-generating potential (AGP< ANP).

4.6.3. Mill Tailings in Eastern and Western Drainages

Mill tailings soils from the east drainage area (DU-2) at Cashier Mill contained the following metals above background soils (95% UCL concentration comparison): Sb, As, Be, Cd, Cu, Pb, Mn, Hg, Mo, Ag and Zn. The 95% UCL concentration of Pb in Cashier Mill DU-2 was 333 mg/kg. The 95% UCL concentration of As in Cashier Mill DU-2 was 274 mg/kg.

Mill tailings soils from the west drainage area (DU-3) at Cashier Mill contained the following metals above background soils (95% UCL concentration comparison): Sb, As, Ba, Be, Cd, Cu, Pb, Mn, Hg, Mo, Ag and Zn. The 95% UCL concentration of Pb in Cashier Mill DU-3 soils was 953 mg/kg. The 95% UCL concentration of As in Cashier Mill DU-2 was 298 mg/kg.

4.6.4. Mine Waste on Northern Slope

It is noted that several areas of mine waste were identified in the PA (ECM 2014) at Cashier Mill. Sample locations (Figure 6) were collected in areas along the north slope representative of the largest volumes of mine waste observed at the site.

Mine waste piles (DU-4) at Cashier Mill were sampled using 15 discrete soil sampling points, and contained the following metals above background soils (95% UCL concentration comparison): Sb, As, Ba, Be, Cd, Co, Cu, Pb, Mn, Hg, Mo, Ni, Ag and Zn. The 95% UCL concentration of Pb in Cashier Mill DU-3 soils was 1,098 mg/kg. The 95% UCL concentration of As in Cashier Mill DU-2 was 10,960 mg/kg. Highly elevated As concentrations in the DU-4 soils were reported in 5 of the 15 DU-4 discrete soil samples, DEVA-CASH-04-011, -012, -013, -014 and -015.

4.6.5. Surface Water Analysis

A surface water sample was collected from accumulated water in a depression within the Cashier Mill foundation area (Table 9). This sample reported As, Ba, Cu, Pb, Hg and Ag above NPS ESVs. Results for notable COPECs include As (78.0 J μg/L; NPS ESV 3.1 μg/L), Cu (20.9 μg/L; NPS ESV 0.23 μg/L); Pb (9.6 μg/L; NPS ESV 0.92 μg/L) and Hg (0.585 μg/L; NPS ESV 0.026 μg/L).

4.6.6. Soil Leaching Analyses

Soil leachability analyses using TCLP were performed on four (4) soil samples from Cashier Mill; DEVA-CASH-01-004 (TCLP As), DEVA-CASH-02-001 (TCLP As and Pb), DEVA-CASH-03-002 (TCLP As and Pb), DEVA-CASH-04-011 (TCLP As, Pb and Hg). As summarized on Table 11, all of the above soil samples indicated low leaching potential using TCLP.

4.6.7. Data Quality Assessment

This section describes the quality and usability of analytical data collected during the February 2016 site inspection (SI) sampling conducted at Cashier Mill.

A total of 15 discrete soil, 1 surface water, 1 source blank, and 1 equipment blank samples were collected on February 23 through 25, 2016 at this site. In addition, 15 grab samples of soils were

collected using ISM. Environmental samples were analyzed for metals, cyanide, soil pH and ABA. All samples were received in good condition and technical holding time requirements were met.

Results from field blanks and method blanks were evaluated to assess the possibility of contamination of environmental samples that may have been introduced during sampling and laboratory activities. Field duplicates could not be collected at this site due to insufficient surface water present during sampling.

Field Blanks

In accordance with the SAP, one equipment blank, identified as DEVA-CASH-EB-022416 was collected to assess if non-disposable equipment decontamination procedure was effective and if cross-contamination of samples occurred during soil sampling activities. No target analytes were detected in the equipment blank with the exception of trace concentrations of thallium, manganese, molybdenum, and vanadium. Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X) than the concentrations found in the associated field blank. Therefore, data qualifying was not required.

A source blank identified as DEVA-SB-021816 was also collected. No target analytes were detected in the source blank except for antimony at a trace concentration. The sample concentrations were either not detected or were significantly greater (>5X) than the concentration found in the source blank. Therefore, data qualifying was not required.

Laboratory Quality Control Analyses

The analyses were performed within all specifications of the methods. The QC criteria were met and are considered acceptable. The following samples were qualified as estimated due to QC exceedances:

- Due to mass calibration, data for affected metals were qualified as estimated in 18 samples.
- Laboratory blanks were free of contaminants except for detections of molybdenum in DEVA-CASH-01-SW1; manganese, molybdenum, thallium, and mercury in DEVA-CASH-EB-022416; and thallium in DEVA-CASH-04-011. As a result, these detections were adjusted to ND at the reported concentrations.
- Select metals (arsenic, antimony, barium, cadmium, chromium, cobalt, copper, lead, molybdenum, nickel, selenium, thallium, vanadium) exceeded MS and MSD % recovery criteria. This condition may be attributed to matrix interference. Spiked samples for these

analytes (DEVA-CASH-01-SW1, DEVA-CASH-01-003, DEVA-CASH-04-010) were qualified using "UJ" for not detected and "J" for detected results.

- MS/MSD % recovery and RPD criteria for total cyanide exceeded acceptance limits. Cyanide result was qualified using "J" in DEVA-CASH-01-003.
- Technical holding time for mercury in the TCLP sample run from DEVA-CASH-04-011 was exceeded; therefore, mercury result for this sample was qualified using "J."
- Percent recovery in LCS for lead was slightly outside the acceptance limit. Lead result in DEVA-CASH-02-001 was qualified using "J."

Data Validation Results

Third-party validation reports indicate that data associated with samples collected at Cashier Mill during the SI sampling in February 2016 are usable and acceptable. No results were rejected in this report. All technical holding time requirements were met except for mercury in the TCLP extraction for DEVA-CASH-04-011, which was qualified as estimated. Overall precision and accuracy goals were met. Copies of the analytical laboratory reports, including COC forms are provided in Appendix C. Data validation reports are provided in Appendix D.

4.7. Gold Hill Mill

The following sections summarize sampling results for the SI performed at Gold Hill Mill. Table 7 presents results of soil analyses from Cashier Mill, and results are summarized on Figure 8.

4.7.1. Background Soil Sampling

Background soil samples were collected using ISM sampling methods at Gold Hill Mill. For all metals except Cd, Co, Cu, Ni, Se and silver (Ag), the background soil concentrations exceeded the NPS ESV. Other site DUs also exceed NPS ESVs for most metals analyzed.

USEPA Region 9 RSLs and Water Board ESLs were exceeded for arsenic in background soils. Arsenic (As) concentrations in California soils are commonly elevated above these screening levels, and the background (95% UCL) concentration of 4.37 mg/kg arsenic is consistent with background values commonly observed in California.

4.7.2. Mill Foundation Area

Soils from the mill foundation area (DU-1) at Gold Hill Mill contained the following metals above background soils (95% UCL concentration comparison): Sb, As, Ba, Be, Cr, Cu, Pb, Mn, Hg, Mo, Ni, Se, Ag, Th, V and Zn. The 95% UCL concentration of Pb at the Gold Hill Mill foundation area soils was 14,661 mg/kg. Other metals, including Sb (1,124 mg/kg) , As (654 mg/kg) and Hg (28.4 mg/kg), reported high concentrations in the DU-1 soils, which are particularly notable as no clear evidence of high production volumes was observed at or near the mill site, and the milling mechanisms did not appear to be designed for high production volumes.

The mill foundation/cyanide processing area soils at Gold Hill Mill have cyanide concentration (95% UCL) of 0.618 mg/kg, above the NPS ESV and Water Board ESL but below the USEPA RSL (2.7 mg/kg).

Mill foundation/cyanide processing area soils were reported to have slightly basic pH of approximately 8.8. Results of ABA tests on mill tailing impoundment samples indicates that soils in DU-1 do not have net acid-generating potential (AGP< ANP).

4.7.3. Eroded Tailings in Wash (along Road)

Visually observable mill tailings in the wash (DU-2) were of limited extent. Only seven (7) discrete samples were collected in the wash due to the limited observable material. One discrete sample, DEVA-GOLD-02-007 was of uncertain origin, and was collected to determine if the soils that could not clearly be visually identified as mill tailings exhibited the chemical signature of mill tailings.

Based on the comparative results of this sample compared to samples DEVA-GOLD-02-001 through -006, sample -007 is considered to be downgradient background material, and was excluded from the determination of the 95% UCL concentrations for DU-2 discussed below, as inclusion in this data set would create a low-bias in the data set.

Mill tailings in the wash (DU-2) at Gold Hill Mill contained all CAM 17 metals above background soils (95% UCL concentration comparison). The 95% UCL concentration of Pb at the Gold Hill Mill foundation area soils was 12,579 mg/kg. Other metals, including Sb (1,540 mg/kg) , As (851 mg/kg) and Mn (12,447 mg/kg), reported high concentrations in the DU-1 soils, above the EPA Region 9 RSLs (Table 7).

4.7.4. Surface Water Analyses

Surface water samples were collected at two locations at Gold Hill Mill. Sample DEVA-GOLD-SW1 was collected as a background sample from near the source of Warm Spring. Samples DEVA-GOLD-SW2 and -SW3 were collected as a surface water sample and field duplicate sample from surface waters present in the stream bed downgradient from Gold Hill Mill. Results from near the spring source reported As, Ba, and Se above NPS ESVs (Table 10). Results from the downgradient surface water sample (SW-2 is the primary sample) reported As, Ba and Se above NPS ESVs. Surface water sampling does not indicate an influence of contaminants from Gold Hill Mill directly impacting surface waters downgradient of the site.

4.7.5. Data Quality Assessment

This section describes the quality and usability of analytical data collected during Gold Hill Mill.

A total of 7 grab samples of soils were collected using ISM. In addition, 7 discrete soils, 3 surface waters, 1 source blank, 1 equipment blank, 1 set of field duplicates, and 4 sets of MS/MSD samples were collected on February 26 and 29, 2016 at this site. Environmental samples were analyzed for metals, cyanide, soil pH and ABA. All samples were received in good condition and technical holding time requirements were met.

Results from field blanks and method blanks were evaluated to assess the possibility of contamination of environmental samples that may have been introduced during sampling and laboratory activities.

Field Duplicates

Field sampling precision is evaluated by analyzing field duplicate samples which are collected and analyzed at a frequency of 10 percent for surface water samples. Field duplicates consist of two

collocated samples of the same matrix collected at the same time and location, to the extent possible, using the same sampling techniques.

In accordance with the project SAP, a set of field duplicate samples identified as DEVA-GOLD-SW2 and DEVA-GOLD-SW3 were collected and analyzed for the constituents of concern during surface water sampling at this site. The field duplicate results met the SAP requirement of 30 relative percent difference (RPD) for the detected constituents of concern at concentrations approximately above 10 x limit of quantitation (LOQ). RPDs ranged from 1 to 22 percent indicating excellent agreement for the field duplicate samples. Higher RPDs 35 and 41 percent for were exhibited for low-level analytes nickel and copper, respectively. No data were qualified based on field duplicate results.

Field Blanks

In accordance with the SAP, one equipment blank, identified as DEVA-GOLD-EB-022916, was collected to assess the effectiveness of the non-disposable equipment decontamination procedure and if cross-contamination of samples occurred during sampling activities. A source blank identified as DEVA-SB-021816 was also collected. No target analytes were detected in the equipment blank. Source blank sample was reported having trace concentration of antimony. Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X) than the concentrations found in the associated field blanks. No data qualification was necessary.

Laboratory Quality Control Analyses

The analyses were performed within all specifications of the methods. The QC criteria were met and are considered acceptable. The following samples were qualified as estimated due to QC exceedances:

- Laboratory blanks for metals analysis were free of contaminants except for detections of antimony, molybdenum, and silver. As a result, these detections were adjusted to ND at the reported concentrations in the affected samples (DEVA-GOLD-03-001 through -003, DEVA-GOLD-SW1 through -SW3).

- Laboratory blank for cyanide analysis was free of contaminants except for trace detections of cyanide. As a result, detections of cyanide were adjusted to ND at the reported concentrations in the affected samples DEVA-GOLD-SW1 and DEVA-GOLD-SW3.

- Lead, vanadium, and zinc exceeded MS/MSD % recovery criteria. Spiked sample DEVA-GOLD-03-002 was qualified using “J” for detected results for these analytes. This condition may be attributed to matrix interference.

- All technical holding time requirements were met with the exception of mercury in sample DEVA-GOLD-02-004, which was prepared and analyzed two days outside of the holding time of 28 days. Mercury result for this sample is qualified as estimated using a "J."

Data Validation Results

Third-party validation reports indicate that data associated with samples collected at Gold Hill Mill during the SI sampling on February 26 and 29, 2016 are usable and acceptable. No results were rejected in this report. All technical holding time requirements were met with the exception of mercury in only one sample DEVA-GOLD-02-004 for which the result is qualified as estimated. Overall precision and accuracy goals were met. Copies of the analytical laboratory reports, including COC forms are provided in Appendix C. Data validation reports are provided in Appendix D.

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5. Summary and Recommendations

Site inspections were performed at seven (7) mill sites at DEVA, including Skidoo Mill, Homestake Mill, Journigan's Mill, Starr Mill, Tucki Mill, Cashier Mill and Gold Hill Mill. The results of the soil sampling indicate that all seven sites contain metals in soil above local background concentrations and above Tier 1 human and ecological risk screening criteria. A principal contaminant of concern at all sites is lead (Pb). In addition, arsenic was found at several sites at significantly elevated concentrations. Metals in ephemeral surface water at Skidoo Mill and Cashier Mill exceed NPS ESVs. Surface water impacts downgradient of Gold Hill Mill were not detected. Soil testing for acid-base accounting indicated that none of the site soils tested had potential for generation of acid-mine wastes.

The screening levels used in this report are not site-specific and do not consider the actual site conditions, site background concentrations and potential specific receptors. Therefore, the following further investigations are recommended for the sites:

- Perform additional sampling at the subject sites to document the extent and volume of impacted soils (mine waste rock and mill tailings);
- Complete site-specific Ecological Risk Assessments (ERA) and Human Health Risk Assessments (HHRA) for the subject DEVA AML sites, which include considering site-specific conditions, receptors, exposure durations, etc. The results of the ERA and HHRA will be used to evaluate risks and develop site-specific risk-based screening levels. These site specific screening levels and additional site data documenting impacted soil volumes and extent would be used to support the preparation of an Engineering Evaluation/Cost Analysis.

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6. References

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Figures

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Homestake Mill
Skidoo Mill
Tucki Mine and Mill
Starr Mill
Journigan's Mill
Cashier Mill
Gold Hill Mill
Lone Pine
Beatty
Nevada Test Site
Death Valley National Park
Indian Springs
Pahrump
Inyo National Forest
Toiyabe National Forest
Naval Air Warfare Center-China Lake
Nevada
California
395
136
190
95
160
178

LEGEND

- 2016 Investigation Abandoned Mineral Lands Sites, Death Valley National Park
- National Park Lands

N

0 5 10 20 Miles

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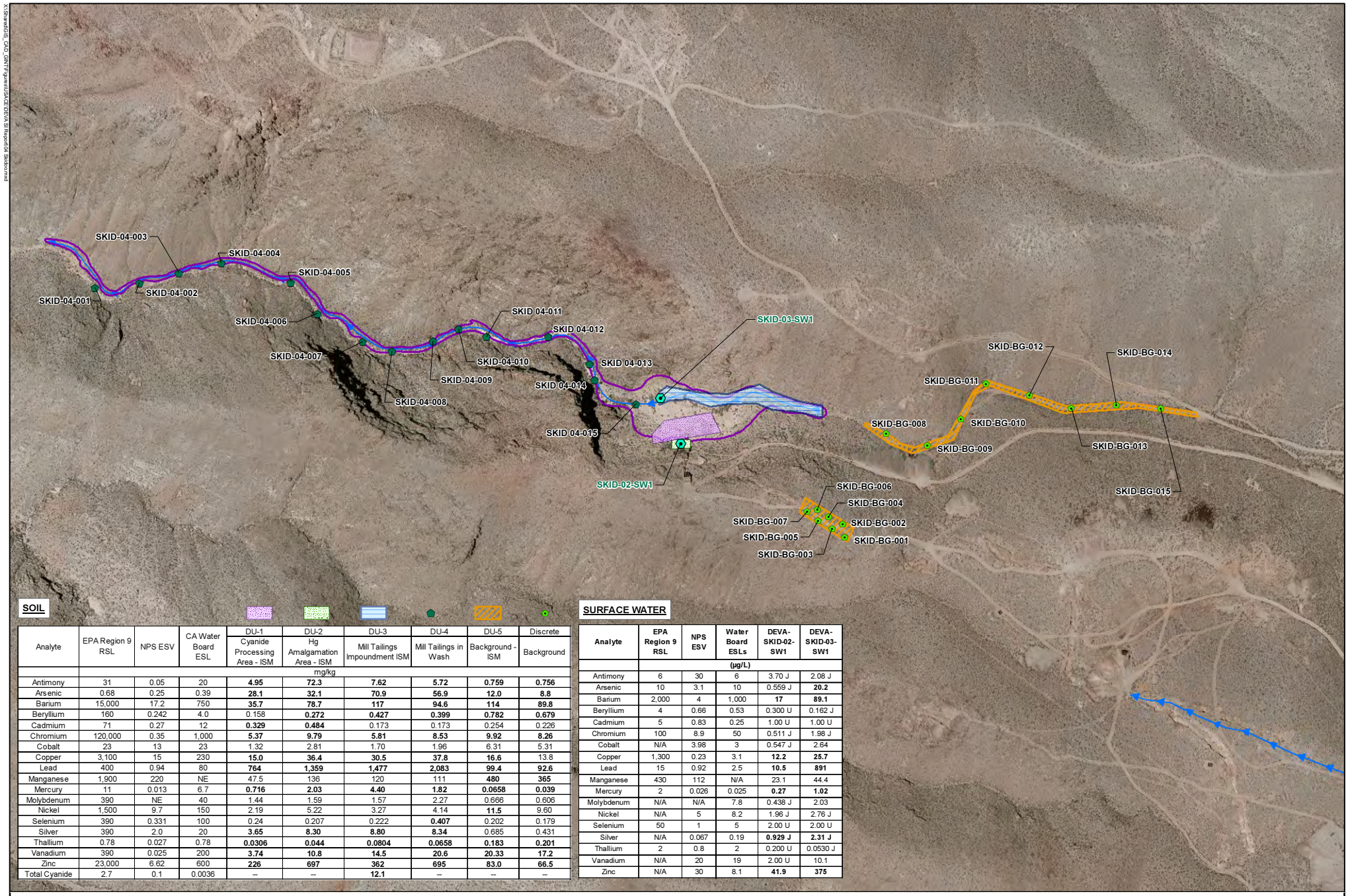
LOS ANGELES, CALIFORNIA

DEATH VALLEY NATIONAL PARK
CALIFORNIA AND NEVADA

FIGURE 1

GENERAL VICINITY MAP

NOREAS
Environmental Engineering and Science



SOIL

Analyte	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	DU-1 Cyanide Processing Area - ISM	DU-2 Hg Amalgamation Area - ISM	DU-3 Mill Tailings Impoundment ISM	DU-4 Mill Tailings in Wash	DU-5 Background - ISM	Discrete Background
	mg/kg								
Antimony	31	0.05	20	**4.95**	**72.3**	**7.62**	**5.72**	**0.759**	**0.756**
Arsenic	0.68	0.25	0.39	**28.1**	**32.1**	**70.9**	**56.9**	**12.0**	**8.8**
Barium	15,000	17.2	750	**35.7**	**78.7**	**117**	**94.6**	**114**	**89.8**
Beryllium	160	0.242	4.0	0.158	**0.272**	**0.427**	**0.399**	**0.782**	**0.679**
Cadmium	71	0.27	12	**0.329**	**0.484**	0.173	0.173	0.254	0.226
Chromium	120,000	0.35	1,000	**5.37**	**9.79**	**5.81**	**8.53**	**9.92**	**8.26**
Cobalt	23	13	23	1.32	2.81	1.70	1.96	6.31	5.31
Copper	3,100	15	230	**15.0**	**36.4**	**30.5**	**37.8**	**16.6**	13.8
Lead	400	0.94	80	**764**	**1,359**	**1,477**	**2,083**	**99.4**	**92.6**
Manganese	1,900	220	NE	47.5	136	120	111	**480**	**365**
Mercury	11	0.013	6.7	**0.716**	**2.03**	**4.40**	**1.82**	**0.0658**	**0.039**
Molybdenum	390	NE	40	1.44	1.59	1.57	2.27	0.666	0.606
Nickel	1,500	9.7	150	2.19	5.22	3.27	4.14	**11.5**	9.60
Selenium	390	0.331	100	0.24	0.207	0.222	**0.407**	0.202	0.179
Silver	390	2.0	20	**3.65**	**8.30**	**8.80**	**8.34**	0.685	0.431
Thallium	0.78	0.027	0.78	**0.0306**	**0.044**	**0.0804**	**0.0658**	**0.183**	**0.201**
Vanadium	390	0.025	200	**3.74**	**10.8**	**14.5**	**20.6**	**20.33**	**17.2**
Zinc	23,000	6.62	600	**226**	**697**	**362**	**695**	**83.0**	**66.5**
Total Cyanide	2.7	0.1	0.0036	–	–	**12.1**	–	–	–

SURFACE WATER

Analyte	EPA Region 9 RSL	NPS ESV	Water Board ESLs	DEVA-SKID-02-SW1	DEVA-SKID-03-SW1
	(µg/L)				
Antimony	6	30	6	3.70 J	2.08 J
Arsenic	10	3.1	10	0.559 J	**20.2**
Barium	2,000	4	1,000	**17**	**89.1**
Beryllium	4	0.66	0.53	0.300 U	0.162 J
Cadmium	5	0.83	0.25	1.00 U	1.00 U
Chromium	100	8.9	50	0.511 J	1.98 J
Cobalt	N/A	3.98	3	0.547 J	2.64
Copper	1,300	0.23	3.1	**12.2**	**25.7**
Lead	15	0.92	2.5	**10.5**	**891**
Manganese	430	112	N/A	23.1	44.4
Mercury	2	0.026	0.025	**0.27**	**1.02**
Molybdenum	N/A	N/A	7.8	0.438 J	2.03
Nickel	N/A	5	8.2	1.96 J	2.76 J
Selenium	50	1	5	2.00 U	2.00 U
Silver	N/A	0.067	0.19	**0.929 J**	**2.31 J**
Thallium	2	0.8	2	0.200 U	0.0530 J
Vanadium	N/A	20	19	2.00 U	10.1
Zinc	N/A	30	8.1	**41.9**	**375**

LEGEND

- SURFACE WATER SAMPLE
- DISCRETE SOIL SAMPLING LOCATIONS
- DU-1: CYANIDE PROCESSING AREA (ISM SAMPLING AREA)
- DU-2: Hg AMALGAMATION AREA (ISM SAMPLING AREA)
- DU-3: MILL TAILINGS IMPOUNDMENT (ISM SAMPLING AREA)
- DU-4: MILL TAILINGS IN WASH (DISCRETE SOIL SAMPLES)
- EXTENT OF MINE TAILINGS (ECM 2014)
- DU-5: BACKGROUND SOILS (ISM SAMPLING AREA)
- FLOW DIRECTION (ECM 2014)

NOTE:
FLOW DIRECTION AND EXTENT OF MINE TAILINGS FROM PRELIMINARY ASSESSMENT PREPARED BY ENVIRONMENTAL COST MANAGEMENT (ECM) IN 2014.

RESULTS IN **BOLD** EXCEED A SCREENING LEVEL.

ACRONYMS:
– - NOT ANALYZED FOR
EPA - ENVIRONMENTAL PROTECTION AGENCY
ESL - ENVIRONMENTAL SCREENING LEVEL (TIER 1) (WATER BOARD, 2013)
ESV - ENVIRONMENTAL SCREENING LEVEL (NPS 2014)
ISM - INCREMENTAL SAMPLING METHOD
µg/L - MICROGRAMS PER LITER
mg/kg - MILLIGRAMS PER KILOGRAM
N/A - NOT APPLICABLE
NE - NOT ESTABLISHED
NPS ESV - NATIONAL PARK SERVICE ECOLOGICAL SCREENING VALUE
RSL - REGIONAL SCREENING LEVEL - MAXIMUM CONTAMINANT LEVEL
J - LABORATORY ESTIMATED VALUE
U - NOT DETECTED AT REPORTING LIMIT SHOWN

N

0 100 200 400 Feet

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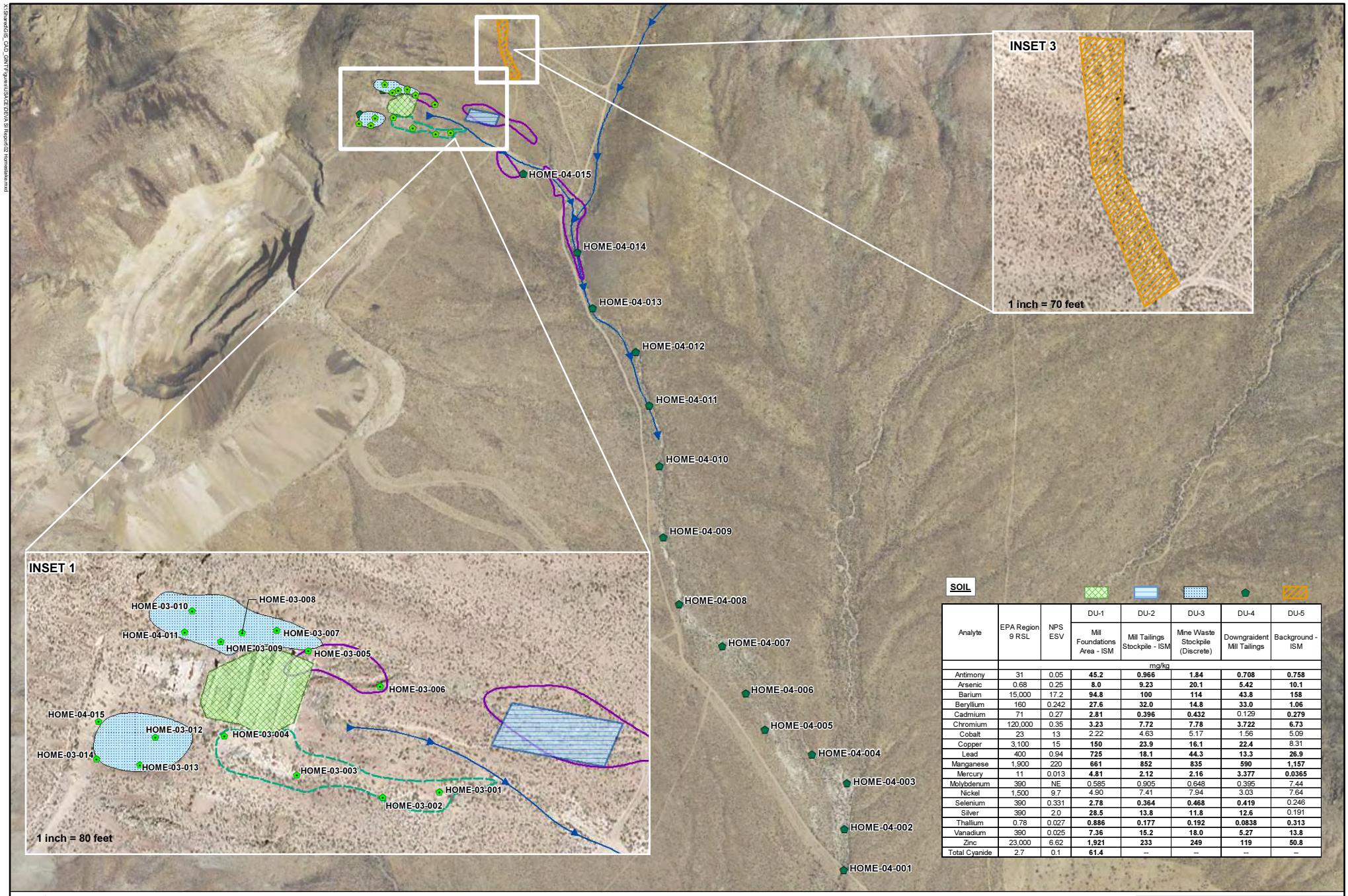
LOS ANGELES, CALIFORNIA

DEATH VALLEY NATIONAL PARK
CALIFORNIA AND NEVADA

FIGURE 2

SKIDOO MILL

NOREAS



SOIL

Analyte	EPA Region 9 RSL	NPS ESV	DU-1 Mill Foundations Area - ISM	DU-2 Mill Tailings Stockpile - ISM	DU-3 Mine Waste Stockpile (Discrete)	DU-4 Downgraident Mill Tailings	DU-5 Background - ISM
			mg/kg				
Antimony	31	0.05	**45.2**	**0.966**	**1.84**	**0.708**	**0.758**
Arsenic	0.68	0.25	**8.0**	**9.23**	**20.1**	**5.42**	**10.1**
Barium	15,000	17.2	**94.8**	**100**	**114**	**43.8**	**158**
Beryllium	160	0.242	**27.6**	**32.0**	**14.8**	**33.0**	**1.06**
Cadmium	71	0.27	**2.81**	**0.396**	**0.432**	0.129	**0.279**
Chromium	120,000	0.35	**3.23**	**7.72**	**7.78**	**3.722**	**6.73**
Cobalt	23	13	2.22	4.63	5.17	1.56	5.09
Copper	3,100	15	**150**	**23.9**	**16.1**	**22.4**	8.31
Lead	400	0.94	**725**	**18.1**	**44.3**	**13.3**	**26.9**
Manganese	1,900	220	**661**	**852**	**835**	**590**	**1,157**
Mercury	11	0.013	**4.81**	**2.12**	**2.16**	**3.377**	**0.0365**
Molybdenum	390	NE	0.585	0.905	0.648	0.395	7.44
Nickel	1,500	9.7	4.90	7.41	7.94	3.03	7.64
Selenium	390	0.331	**2.78**	**0.364**	**0.468**	**0.419**	0.246
Silver	390	2.0	**28.5**	**13.8**	**11.8**	**12.6**	0.191
Thallium	0.78	0.027	**0.886**	**0.177**	**0.192**	**0.0838**	**0.313**
Vanadium	390	0.025	**7.36**	**15.2**	**18.0**	**5.27**	**13.8**
Zinc	23,000	6.62	**1,921**	**233**	**249**	**119**	**50.8**
Total Cyanide	2.7	0.1	**61.4**	--	--	--	--

LEGEND

- DISCRETE SOIL SAMPLING LOCATIONS
- DU-1 MILL FOUNDATIONS (ISM SAMPLING AREA)
- DU-2 MILL TAILINGS STOCKPILE (ISM SAMPLING AREA)
- DU-3 MINE WASTE STOCKPILE (ISM SAMPLING AREA)
- DU-4: DOWNGRADIENT MILL TAILINGS (DISCRETE SOIL SAMPLES)
- DU-5 BACKGROUND SOIL (ISM SAMPLING AREA)
- FLOW DIRECTION (ECM 2014)
- EXTENT OF MINE TAILINGS (ECM 2014)
- EXPANDED TAILINGS (NOREAS 2016)

NOTE:
FLOW DIRECTION AND EXTENT OF MINE TAILINGS FROM PRELIMINARY ASSESSMENT PREPARED BY ENVIRONMENTAL COST MANAGEMENT (ECM) IN 2014.

RESULT IN **BOLD** EXCEEDS A SCREENING LEVEL.

ACRONYMS:
-- - NOT ANALYZED FOR
EPA - ENVIRONMENTAL PROTECTION AGENCY
ESL - ENVIRONMENTAL SCREENING LEVEL (TIER 1) (WATER BOARD, 2013)
ESV - ENVIRONMENTAL SCREENING LEVEL (NPS 2014)
ISM - INCREMENTAL SAMPLING METHOD
J - LABORATORY ESTIMATED VALUE
mg/kg - MILLIGRAMS PER KILOGRAM
NE - NOT ESTABLISHED
NPS ESV - NATIONAL PARK SERVICE ECOLOGICAL SCREENING VALUE
RSL - REGIONAL SCREENING LEVEL - MAXIMUM CONTAMINANT LEVEL
U - NOT DETECTED AT REPORTING LIMIT SHOWN

N

0 150 300 600 Feet

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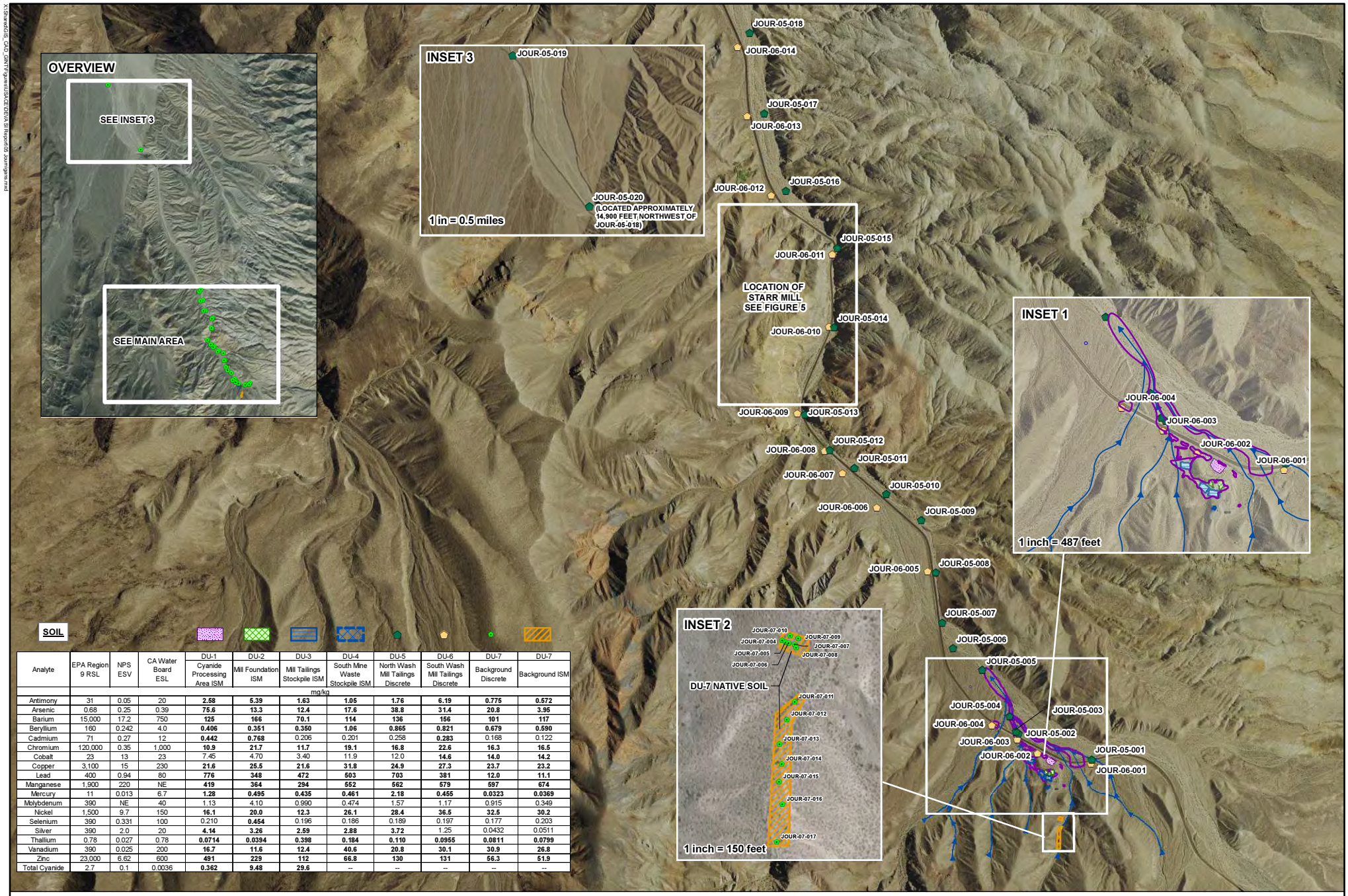
DEATH VALLEY NATIONAL PARK
CALIFORNIA AND NEVADA

FIGURE 3

HOMESTAKE MILL

NOREAS



SOIL

Analyte	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	DU-1 Cyanide Processing Area ISM	DU-2 Mill Foundation ISM	DU-3 Mill Tailings Stockpile ISM	DU-4 South Mine Waste Stockpile ISM	DU-5 North Wash Mill Tailings Discrete	DU-6 South Wash Mill Tailings Discrete	DU-7 Background Discrete	DU-7 Background ISM
	mg/kg										
Antimony	31	0.05	20	**2.58**	**5.39**	**1.63**	**1.05**	**1.76**	**6.19**	**0.775**	**0.572**
Arsenic	0.68	0.25	0.39	**75.6**	**13.3**	**12.4**	**17.6**	**38.8**	**31.4**	**20.8**	**3.95**
Barium	15,000	17.2	750	**125**	**166**	**70.1**	**114**	**136**	**156**	**101**	**117**
Beryllium	160	0.242	4.0	**0.406**	**0.351**	**0.350**	**1.06**	**0.865**	**0.821**	**0.679**	**0.590**
Cadmium	71	0.27	12	**0.442**	**0.768**	0.206	0.201	0.258	**0.283**	0.168	0.122
Chromium	120,000	0.35	1,000	**10.9**	**21.7**	**11.7**	**19.1**	**16.8**	**22.6**	**16.3**	**16.5**
Cobalt	23	13	23	7.45	4.70	3.40	11.9	12.0	**14.6**	**14.0**	**14.2**
Copper	3,100	15	230	**21.6**	**25.5**	**21.6**	**31.8**	**24.9**	**27.3**	**23.7**	**23.2**
Lead	400	0.94	80	**776**	**348**	**472**	**503**	**703**	**381**	**12.0**	**11.1**
Manganese	1,900	220	NE	**419**	**364**	**294**	**552**	**562**	**579**	**597**	**674**
Mercury	11	0.013	6.7	**1.28**	**0.495**	**0.435**	**0.461**	**2.18**	**0.455**	**0.0323**	**0.0369**
Molybdenum	390	NE	40	1.13	4.10	0.990	0.474	1.57	1.17	0.915	0.349
Nickel	1,500	9.7	150	**16.1**	**20.0**	**12.3**	**26.1**	**28.4**	**36.5**	**32.5**	**30.2**
Selenium	390	0.331	100	0.210	**0.454**	0.196	0.186	0.189	0.197	0.177	0.203
Silver	390	2.0	20	**4.14**	**3.26**	**2.59**	**2.88**	**3.72**	1.25	0.0432	0.0511
Thallium	0.78	0.027	0.78	**0.0714**	**0.0394**	**0.398**	**0.184**	**0.110**	**0.0955**	**0.0811**	**0.0799**
Vanadium	390	0.025	200	**16.7**	**11.6**	**12.4**	**40.6**	**20.8**	**30.1**	**30.9**	**26.8**
Zinc	23,000	6.62	600	**491**	**229**	**112**	**66.8**	**130**	**131**	**56.3**	**51.9**
Total Cyanide	2.7	0.1	0.0036	**0.362**	**9.48**	**29.6**	--	--	--	--	--

LEGEND

- DU-1 CYANIDE PROCESSING AREA (ISM SAMPLING AREA)
- DU-2 MILL FOUNDATIONS (ISM SAMPLING AREA)
- DU-3 MILL TAILINGS LARGE BERMED STOCKPILE (ISM SAMPLING AREA)
- DU-4 SOUTHERN MINE WASTE STOCKPILE (ISM SAMPLING AREA)
- DU-5: MILL TAILINGS IN NORTHERN WASH (DISCRETE SOIL SAMPLES)
- DU-6: MILL TAILINGS IN SOUTHERN WASH (DISCRETE SOIL SAMPLES)
- DU-7 BACKGROUND SOIL (ISM SAMPLING AREA)
- FLOW DIRECTION (ECM 2014)
- EXTENT OF MINE TAILINGS (ECM 2014)

RESULTS IN **BOLD** EXCEED A SCREENING LEVEL.

ACRONYMS:
-- - NOT ANALYZED FOR
EPA - ENVIRONMENTAL PROTECTION AGENCY
ESL - ENVIRONMENTAL SCREENING LEVEL (TIER 1) (WATER BOARD, 2013)
ESV - ENVIRONMENTAL SCREENING LEVEL (NPS 2014)
ISM - INCREMENTAL SAMPLING METHOD
mg/kg - MILLIGRAMS PER KILOGRAM
NPS ESV - NATIONAL PARK SERVICE ECOLOGICAL SCREENING VALUE
RSL - REGIONAL SCREENING LEVEL - MAXIMUM CONTAMINANT LEVEL

NOTE:
FLOW DIRECTION AND EXTENT OF MINE TAILINGS FROM PRELIMINARY ASSESSMENT PREPARED BY ENVIRONMENTAL COST MANAGEMENT (ECM) IN 2014.

N

0 400 800 1,600 Feet

UNITED STATES ARMY CORPS OF ENGINEERS

LOS ANGELES, CALIFORNIA

DEATH VALLEY NATIONAL PARK
CALIFORNIA AND NEVADA

FIGURE 4

JOURNIGANS

NOREAS

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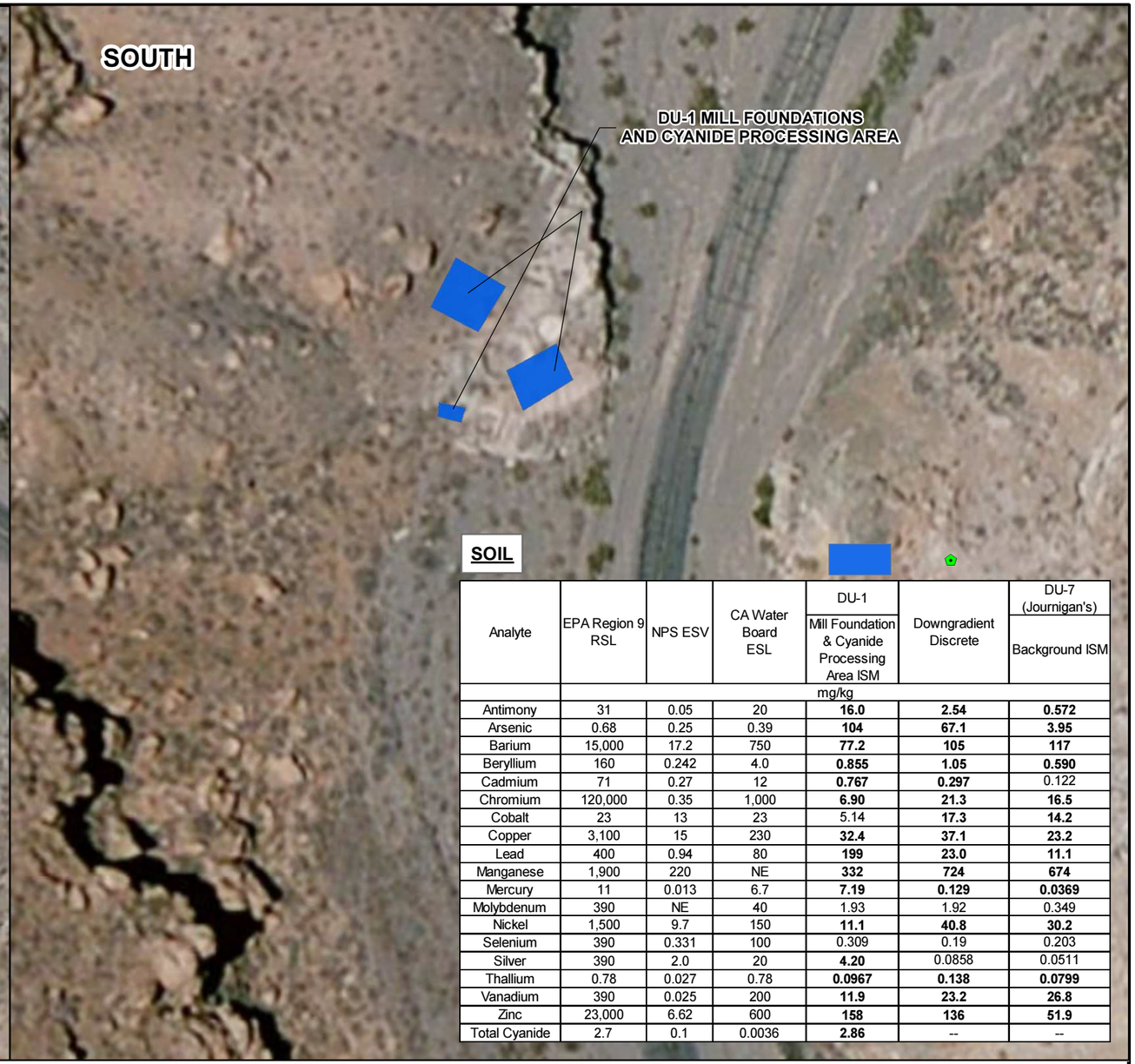

SOIL

Analyte	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	DU-1 Mill Foundation & Cyanide Processing Area ISM	Downgradient Discrete	DU-7 (Journigan's) Background ISM
	mg/kg					
Antimony	31	0.05	20	**16.0**	**2.54**	**0.572**
Arsenic	0.68	0.25	0.39	**104**	**67.1**	**3.95**
Barium	15,000	17.2	750	**77.2**	**105**	**117**
Beryllium	160	0.242	4.0	**0.855**	**1.05**	**0.590**
Cadmium	71	0.27	12	**0.767**	**0.297**	0.122
Chromium	120,000	0.35	1,000	**6.90**	**21.3**	**16.5**
Cobalt	23	13	23	5.14	**17.3**	**14.2**
Copper	3,100	15	230	**32.4**	**37.1**	**23.2**
Lead	400	0.94	80	**199**	**23.0**	**11.1**
Manganese	1,900	220	NE	**332**	**724**	**674**
Mercury	11	0.013	6.7	**7.19**	**0.129**	**0.0369**
Molybdenum	390	NE	40	1.93	1.92	0.349
Nickel	1,500	9.7	150	**11.1**	**40.8**	**30.2**
Selenium	390	0.331	100	0.309	0.19	0.203
Silver	390	2.0	20	**4.20**	0.0858	0.0511
Thallium	0.78	0.027	0.78	**0.0967**	**0.138**	**0.0799**
Vanadium	390	0.025	200	**11.9**	**23.2**	**26.8**
Zinc	23,000	6.62	600	**158**	**136**	**51.9**
Total Cyanide	2.7	0.1	0.0036	**2.86**	--	--

LEGEND

- DISCRETE DOWNGRADIENT SAMPLE LOCATION
- DU-1 MILL FOUNDATIONS AND CYANIDE PROCESSING AREA (ISM SAMPLING AREA)

RESULTS IN **BOLD** EXCEED A SCREENING LEVEL.

ACRONYMS:
-- - NOT ANALYZED FOR
EPA - ENVIRONMENTAL PROTECTION AGENCY
ESL - ENVIRONMENTAL SCREENING LEVEL (TIER 1) (WATER BOARD, 2013)
ESV - ENVIRONMENTAL SCREENING LEVEL (NPS 2014)
ISM - INCREMENTAL SAMPLING METHOD
mg/kg - MILLIGRAMS PER KILOGRAM
NE - NOT ESTABLISHED
NPS ESV - NATIONAL PARK SERVICE ECOLOGICAL SCREENING VALUE
RSL - REGIONAL SCREENING LEVEL - MAXIMUM CONTAMINANT LEVEL

N

0 30 60 120 Feet

UNITED STATES ARMY CORPS OF ENGINEERS

LOS ANGELES, CALIFORNIA

DEATH VALLEY NATIONAL PARK
CALIFORNIA AND NEVADA

FIGURE 5

STARR MILL

NOREAS
Environmental Engineering and Science

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DU-3 NATIVE SOIL

DU-2 MINE WASTE PILES

DU-1 CYANIDE PROCESSING AREA

SOIL

Analyte	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	DU-1 Cyanide Processing Area ISM	DU-2 Mine Waste Piles ISM	DU-3 Background ISM
	mg/kg					
Antimony	31	0.05	20	**22.3**	**4.51**	**3.18**
Arsenic	0.68	0.25	0.39	**230**	**111**	**15.9**
Barium	15,000	17.2	750	**153**	**168**	**156**
Beryllium	160	0.242	4.0	0.180	**0.461**	**0.553**
Cadmium	71	0.27	12	**0.287**	**1.65**	**0.272**
Chromium	120,000	0.35	1,000	**7.59**	**9.18**	**9.19**
Cobalt	23	13	23	5.96	9.52	10.6
Copper	3,100	15	230	**21.0**	**29.8**	**22.0**
Lead	400	0.94	80	**54.2**	**58.7**	**20.8**
Manganese	1,900	220	NE	**982**	**986**	**743**
Mercury	11	0.013	6.7	**0.383**	**0.441**	**0.257**
Molybdenum	390	NE	40	0.924	0.754	0.763
Nickel	1,500	9.7	150	**10.6**	**17.1**	**18.3**
Selenium	390	0.331	100	**0.358**	0.257	0.166
Silver	390	2.0	20	0.792	0.649	0.0835
Thallium	0.78	0.027	0.78	**0.259**	**0.233**	**0.239**
Vanadium	390	0.025	200	**9.52**	**15.3**	**19.4**
Zinc	23,000	6.62	600	**152**	**226**	**58.8**
Total Cyanide	2.7	0.1	0.0036	--	--	--

LEGEND

- DU-1 CYANIDE PROCESSING AREA (ISM SAMPLING AREA)
- DU-2 MINE WASTE PILES (ISM SAMPLING AREA)
- DU-3 BACKGROUND SOIL (ISM SAMPLING AREA)
- FLOW DIRECTION (ECM 2014)
- EXTENT OF MINE TAILINGS (ECM 2014)

RESULTS IN **BOLD** EXCEED A SCREENING LEVEL.

NOTE:
FLOW DIRECTION AND EXTENT OF MINE TAILINGS FROM PRELIMINARY ASSESSMENT PREPARED BY ENVIRONMENTAL COST MANAGEMENT (ECM) IN 2014.

ACRONYMS:
-- - NOT ANALYZED FOR
EPA - ENVIRONMENTAL PROTECTION AGENCY
ESL - ENVIRONMENTAL SCREENING LEVEL (TIER 1) (WATER BOARD, 2013)
ESV - ENVIRONMENTAL SCREENING LEVEL (NPS 2014)
ISM - INCREMENTAL SAMPLING METHOD
mg/kg - MILLIGRAMS PER KILOGRAM
NE - NOT ESTABLISHED
NPS ESV - NATIONAL PARK SERVICE ECOLOGICAL SCREENING VALUE
RSL - REGIONAL SCREENING LEVEL - MAXIMUM CONTAMINANT LEVEL

N

0 40 80 160 Feet

UNITED STATES ARMY CORPS OF ENGINEERS

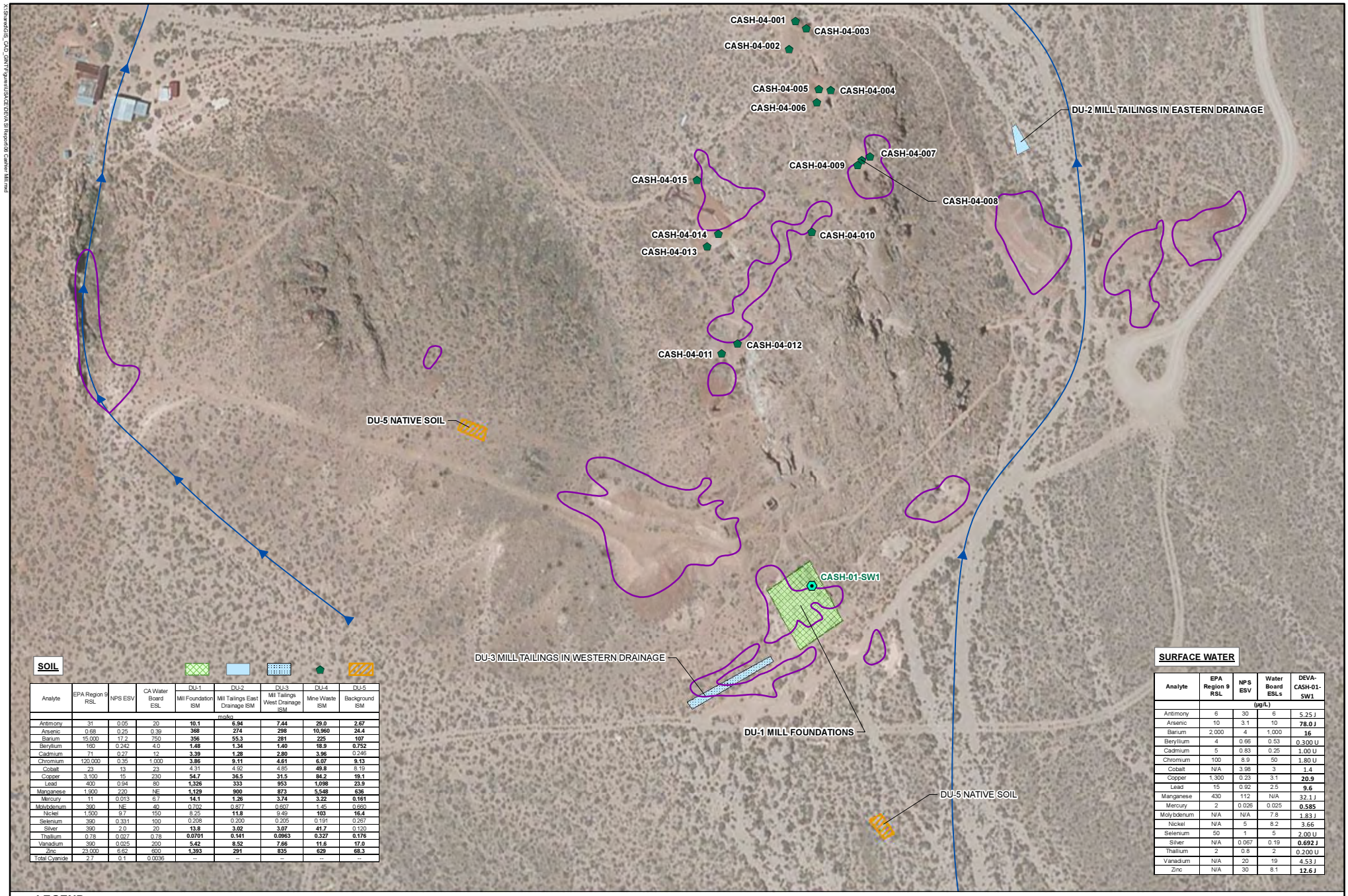
LOS ANGELES, CALIFORNIA

DEATH VALLEY NATIONAL PARK
CALIFORNIA AND NEVADA

FIGURE 6

TUCKI MILL

NOREAS
Environmental Engineering and Science



SOIL

Analyte	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	DU-1 Mill Foundation ISM	DU-2 Mill Tailings East Drainage ISM	DU-3 Mill Tailings West Drainage ISM	DU-4 Mine Waste ISM	DU-5 Background ISM
	mg/kg							
Antimony	31	0.05	20	**10.1**	**6.94**	**7.44**	**29.0**	**2.67**
Arsenic	0.68	0.25	0.39	**368**	**274**	**298**	**10,960**	**24.4**
Barium	15,000	17.2	750	**356**	**55.3**	**281**	**225**	**107**
Beryllium	160	0.242	4.0	**1.48**	**1.34**	**1.40**	**18.9**	**0.752**
Cadmium	71	0.27	12	**3.39**	**1.28**	**2.80**	**3.96**	0.246
Chromium	120,000	0.35	1,000	**3.86**	**9.11**	**4.61**	**6.07**	**9.13**
Cobalt	23	13	23	4.31	4.92	4.85	**49.8**	8.19
Copper	3,100	15	230	**54.7**	**36.5**	**31.5**	**84.2**	**19.1**
Lead	400	0.94	80	**1,326**	**333**	**953**	**1,098**	**23.9**
Manganese	1,900	220	NE	**1,129**	**900**	**873**	**5,548**	**636**
Mercury	11	0.013	6.7	**14.1**	**1.26**	**3.74**	**3.22**	**0.161**
Molybdenum	390	NE	40	0.702	0.877	0.807	1.45	0.660
Nickel	1,500	9.7	150	8.25	**11.8**	9.49	**103**	**16.4**
Selenium	390	0.331	100	0.208	0.200	0.205	0.191	0.267
Silver	390	2.0	20	**13.8**	**3.02**	**3.07**	**41.7**	0.120
Thallium	0.78	0.027	0.78	**0.0701**	**0.141**	**0.0963**	**0.327**	**0.176**
Vanadium	390	0.025	200	**5.42**	**8.52**	**7.66**	**11.6**	**17.0**
Zinc	23,000	6.62	600	**1,393**	**291**	**835**	**629**	**68.3**
Total Cyanide	2.7	0.1	0.0036	--	--	--	--	--

SURFACE WATER

Analyte	EPA Region 9 RSL	NPS ESV	Water Board ESLs	DEVA-CASH-01-SW1
	(µg/L)			
Antimony	6	30	6	5.25 J
Arsenic	10	3.1	10	**78.0 J**
Barium	2,000	4	1,000	**16**
Beryllium	4	0.66	0.53	0.300 U
Cadmium	5	0.83	0.25	1.00 U
Chromium	100	8.9	50	1.80 U
Cobalt	N/A	3.98	3	1.4
Copper	1,300	0.23	3.1	**20.9**
Lead	15	0.92	2.5	**9.6**
Manganese	430	112	N/A	32.1 J
Mercury	2	0.026	0.025	**0.585**
Molybdenum	N/A	N/A	7.8	1.83 J
Nickel	N/A	5	8.2	3.66
Selenium	50	1	5	2.00 U
Silver	N/A	0.067	0.19	**0.692 J**
Thallium	2	0.8	2	0.200 U
Vanadium	N/A	20	19	4.53 J
Zinc	N/A	30	8.1	**12.6 J**

LEGEND

- SURFACE WATER SAMPLE
- DU-1 MILL FOUNDATIONS (ISM SAMPLING AREA)
- DU-2 MILL TAILINGS IN EASTERN DRAINAGE (ISM SAMPLING AREA)
- DU-3 MILL TAILINGS IN WESTERN DRAINAGE (ISM SAMPLING AREA)
- DU-4: MINE WASTE ON NORTHERN SLOPE (DISCRETE SOIL SAMPLES)
- DU-5 BACKGROUND SOIL (ISM SAMPLING AREA)
- FLOW DIRECTION (ECM 2014)
- EXTENT OF MINE TAILINGS (ECM 2014)

NOTE:
FLOW DIRECTION AND EXTENT OF MINE TAILINGS FROM PRELIMINARY ASSESSMENT PREPARED BY ENVIRONMENTAL COST MANAGEMENT (ECM) IN 2014.

RESULTS IN **BOLD** EXCEED A SCREENING LEVEL.

ACRONYMS:
-- - NOT ANALYZED FOR
EPA - ENVIRONMENTAL PROTECTION AGENCY
ESL - ENVIRONMENTAL SCREENING LEVEL (TIER 1) (WATER BOARD, 2013)
ESV - ENVIRONMENTAL SCREENING LEVEL (NPS 2014)
ISM - INCREMENTAL SAMPLING METHOD
J - LABORATORY ESTIMATED VALUE
µg/L - MICROGRAMS PER LITER
mg/kg - MILLIGRAMS PER KILOGRAM
N/A - NOT APPLICABLE
NPS ESV - NATIONAL PARK SERVICE ECOLOGICAL SCREENING VALUE
RSL - REGIONAL SCREENING LEVEL - MAXIMUM CONTAMINANT LEVEL
U - NOT DETECTED AT REPORTING LIMIT SHOWN

N

0 30 60 120 Feet

UNITED STATES ARMY CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

DEATH VALLEY NATIONAL PARK
CALIFORNIA AND NEVADA

FIGURE 7

CASHIER MILL

NOREAS

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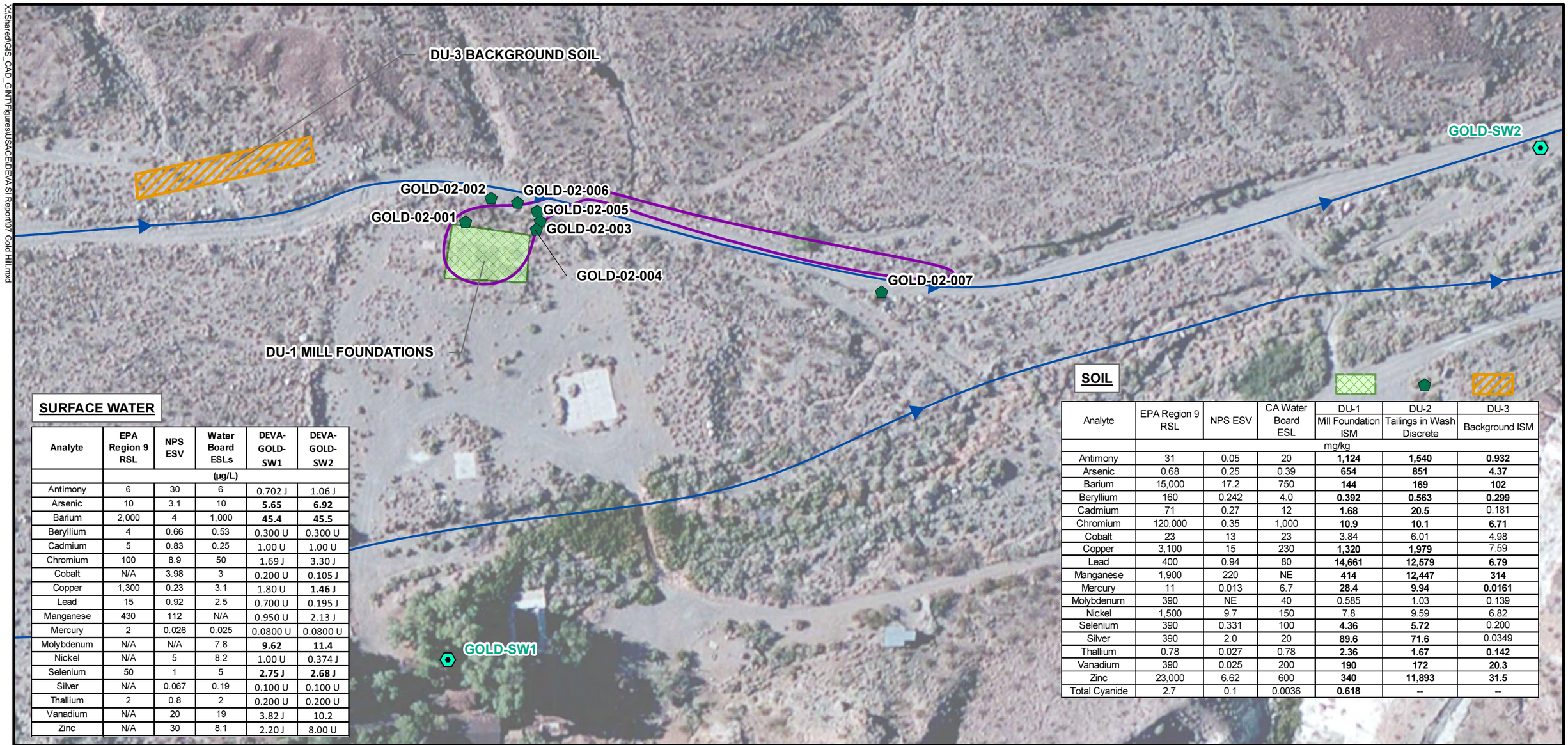


SURFACE WATER

Analyte	EPA Region 9 RSL	NPS ESV	Water Board ESLs	DEVA-GOLD-SW1	DEVA-GOLD-SW2
	(µg/L)				
Antimony	6	30	6	0.702 J	1.06 J
Arsenic	10	3.1	10	**5.65**	**6.92**
Barium	2,000	4	1,000	**45.4**	**45.5**
Beryllium	4	0.66	0.53	0.300 U	0.300 U
Cadmium	5	0.83	0.25	1.00 U	1.00 U
Chromium	100	8.9	50	1.69 J	3.30 J
Cobalt	N/A	3.98	3	0.200 U	0.105 J
Copper	1,300	0.23	3.1	1.80 U	**1.46 J**
Lead	15	0.92	2.5	0.700 U	0.195 J
Manganese	430	112	N/A	0.950 U	2.13 J
Mercury	2	0.026	0.025	0.0800 U	0.0800 U
Molybdenum	N/A	N/A	7.8	**9.62**	**11.4**
Nickel	N/A	5	8.2	1.00 U	0.374 J
Selenium	50	1	5	**2.75 J**	**2.68 J**
Silver	N/A	0.067	0.19	0.100 U	0.100 U
Thallium	2	0.8	2	0.200 U	0.200 U
Vanadium	N/A	20	19	3.82 J	10.2
Zinc	N/A	30	8.1	2.20 J	8.00 U

SOIL

Analyte	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	DU-1 Mill Foundation ISM	DU-2 Tailings in Wash Discrete	DU-3 Background ISM
	mg/kg					
Antimony	31	0.05	20	**1,124**	**1,540**	**0.932**
Arsenic	0.68	0.25	0.39	**654**	**851**	**4.37**
Barium	15,000	17.2	750	**144**	**169**	**102**
Beryllium	160	0.242	4.0	**0.392**	**0.563**	**0.299**
Cadmium	71	0.27	12	**1.68**	**20.5**	0.181
Chromium	120,000	0.35	1,000	**10.9**	**10.1**	**6.71**
Cobalt	23	13	23	3.84	6.01	4.98
Copper	3,100	15	230	**1,320**	**1,979**	7.59
Lead	400	0.94	80	**14,661**	**12,579**	**6.79**
Manganese	1,900	220	NE	**414**	**12,447**	**314**
Mercury	11	0.013	6.7	**28.4**	**9.94**	**0.0161**
Molybdenum	390	NE	40	0.585	1.03	0.139
Nickel	1,500	9.7	150	7.8	9.59	6.82
Selenium	390	0.331	100	**4.36**	**5.72**	0.200
Silver	390	2.0	20	**89.6**	**71.6**	0.0349
Thallium	0.78	0.027	0.78	**2.36**	**1.67**	**0.142**
Vanadium	390	0.025	200	**190**	**172**	**20.3**
Zinc	23,000	6.62	600	**340**	**11,893**	**31.5**
Total Cyanide	2.7	0.1	0.0036	**0.618**	--	--

LEGEND

- SURFACE WATER SAMPLE
- DU-1 MILL FOUNDATIONS
- DU-2: TAILINGS IN WASH ALONG ROAD (DISCRETE SOIL SAMPLES)
- DU-3 BACKGROUND SOIL
- FLOW DIRECTION (ECM 2014)
- EXTENT OF MINE TAILINGS (ECM 2014)

ACRONYMS:
-- - NOT ANALYZED FOR
EPA - ENVIRONMENTAL PROTECTION AGENCY
ESL - ENVIRONMENTAL SCREENING LEVEL (TIER 1) (WATER BOARD, 2013)
ESV - ENVIRONMENTAL SCREENING LEVEL (NPS 2014)
ISM - INCREMENTAL SAMPLING METHOD
J - LABORATORY ESTIMATED VALUE
µg/L - MICROGRAMS PER LITER
mg/kg - MILLIGRAMS PER KILOGRAM
N/A - NOT APPLICABLE
NE - NOT ESTABLISHED
NPS ESV - NATIONAL PARK SERVICE ECOLOGICAL SCREENING VALUE
RSL - REGIONAL SCREENING LEVEL - MAXIMUM CONTAMINANT LEVEL
U - NOT DETECTED AT REPORTING LIMIT SHOWN

NOTE: FLOW DIRECTION AND EXTENT OF MINE TAILINGS FROM PRELIMINARY ASSESSMENT PREPARED BY ENVIRONMENTAL COST MANAGEMENT (ECM) IN 2014.

RESULTS IN **BOLD** EXCEED A SCREENING LEVEL.

N

0 40 80 160 Feet

UNITED STATES ARMY CORPS OF ENGINEERS

LOS ANGELES, CALIFORNIA

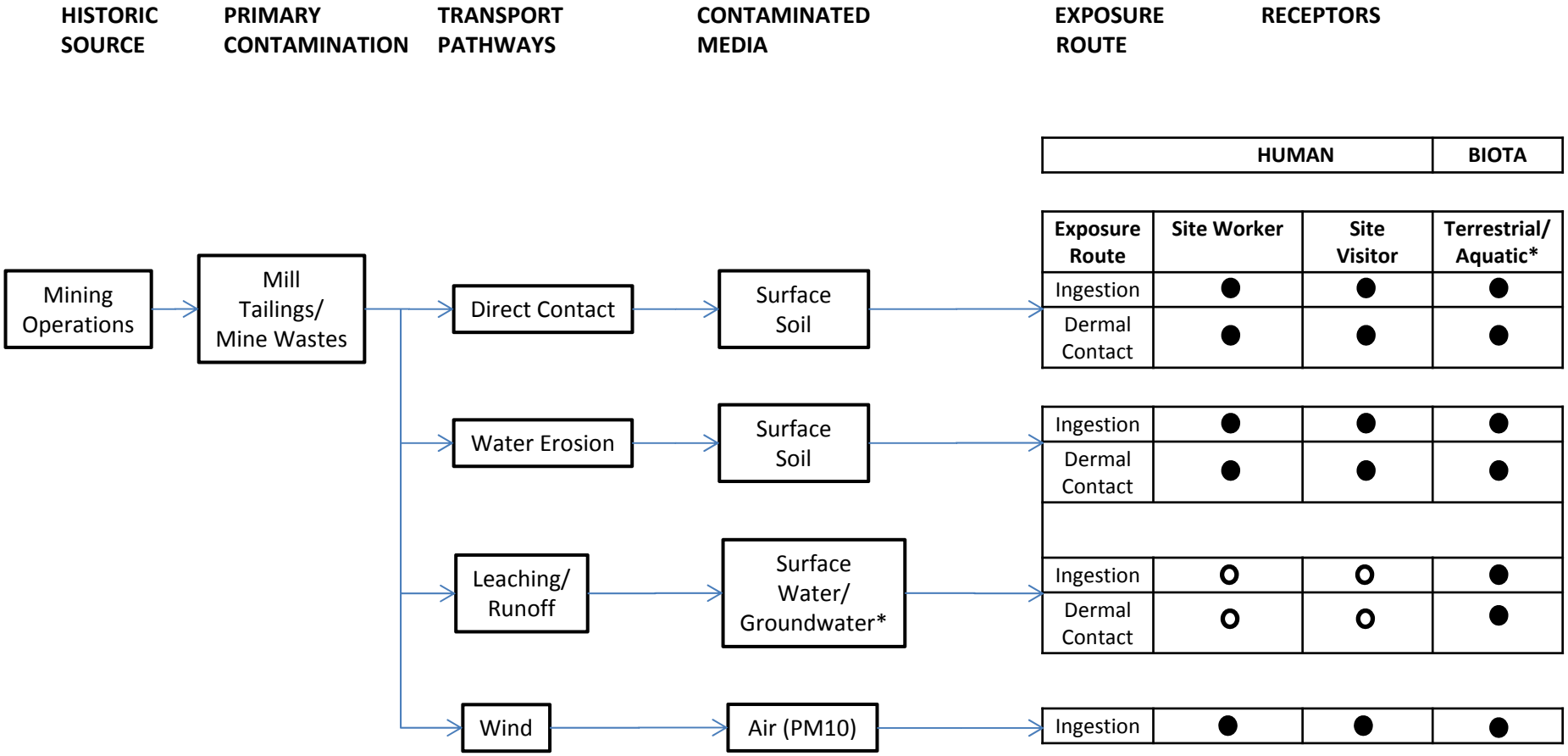
DEATH VALLEY NATIONAL PARK
CALIFORNIA AND NEVADA

FIGURE 8

GOLD HILL MILL

NOREAS
Environmental Engineering and Science

Figure 9. DEVA AML Sites Conceptual Site Model and Potential Exposure Pathways



* Surface water encountered in very limited volumes except at Gold Hill Mill; Groundwater occurrence unknown, unlikely to be used

● Pathway complete

O Pathway incomplete or unlikely to be complete

Tables

Table 1. Sampling Summary Information

Skidoo Mill Sampling Information	Soil						Water				ISM Grid Area	Sample Data	Sample IDs		
	Title 22 Metals	Hg	CN	ABA	TCLP	CAL-WET (STLC)	Title 22 Metals	Hg	CN	ISM Prep	Sq. Ft.		ISM	Discrete	Surface Water
DU-1 Cyanide Processing Area	4	4	4							4	13,00	2/18/2016 & 2/19/2016	SKID-01-001 thru 004		
DU-2 Murcery Amalgamation Area	4	4					1	1		4	1,500	2/19/2016	SKID-02-001 thru 004		SKID-02-SW1
DU-3 Mill Tailings Impoundment	4	4	4	4	4	2	1	1	1	4	22,00	2/18/2016 & 2/19/2016	SKID-03-001 thru 004		SKID-03-SW1
DU-4 Eroded Tailings in Wash	15	15										2/19/2016		SKID-04-001 thru 015	
DU-5 Background Native Soils	18	18								3	28,00	2/17/2016	SKID-05-001 thru 003	SKID-BG-001 thru 015	
	45	45	8	4	4	2	2	2	1	15					

Homestake Mill Sampling Information	Soil						Water				ISM Grid Area	Sample Data	Sample IDs	
	Title 22 Metals	Hg	CN	ABA	TCLP	CAL-WET (STLC)	Title 22 Metals	Hg	CN	ISM Prep	Sq. Ft.		ISM	Discrete
DU-1 Mill Foundations	4	4	4	4	2					4	11,000	3/8/2016	HOME-01-001 thru 004	
DU-2 Mill Tailings Stockpile	4	4	4	4						4	8,200	3/8/2016	HOME-02-001 thru 004	
DU-3 Mine Waste Stockpile	15	15			1							3/9/2016		HOME-03-001 thru 015
DU-4 Eroded Downgradient Mill Tailings	15	15			1							3/8/2016		HOME-04-001 thru 015
DU-5 Background Native Soils	3	3								3	11,500	3/7/2016	HOME-05-001 thru 003	
	41	41	8	8	4	0	0	0	0	11				

Journigan's Mill Sampling Information	Soil						Water				ISM Grid Area	Sample Data	Sample IDs	
	Title 22 Metals	Hg	CN	ABA	TCLP	CAL-WET (STLC)	Title 22 Metals	Hg	CN	ISM Prep	Sq. Ft.		ISM	Discrete
DU-1 Cyanide Processing Area	4	4	4							4	7,600	3/2/2016	JOUR-01-001 thru 004	
DU-2 Mill Foundations	4	4	4	4						4	3,800	3/1/2016	JOUR-02-001 thru 004	
DU-3 Mill Tailings Large Bermed Stockpile	4	4	4	4						4	11,300	3/2/2016	JOUR-03-001 thru 004	
DU-4 Southern Mine Waste Stockpile	4	4		15						4	400	3/2/2016	JOUR-04-001 thru 004	
DU-5 Eroded Mill Tailings in Northern Wash	20	20		20								3/3/2016 & 3/4/2016		JOUR-05-001 thru 020
DU-6 Eroded Mill Tailings in Southern Wash	14	14		14								3/3/2016 & 3/4/2016		JOUR-06-001 thru 014
DU-7 Background Native Soils	19	19		1						3	11,600	3/1/2016 & 3/3/2016	JOUR-07-001 thru 003	JOUR-07-004 thru 019
	69	69	12	58						19				

Starr Mill Sampling Information	Soil						Water				ISM Grid Area	Sample Data	Sample IDs	
	Title 22 Metals	Hg	CN	ABA	TCLP	CAL-WET (STLC)	Title 22 Metals	Hg	CN	ISM Prep	Sq. Ft.		ISM	Discrete
DU-1 Mill Foundations and Southern Wash	7	7	4	4						4	800	3/2/2016	STAR-01-001 thru 004	STAR-01-005 thru 007
	7	7	4	4						4				

Tucki Mill Sampling Information	Soil						Water				ISM Grid Area	Sample Data	Sample IDs
	Title 22 Metals	Hg	CN	ABA	TCLP	CAL-WET (STLC)	Title 22 Metals	Hg	CN	ISM Prep	Sq. Ft.		ISM
DU-1 Cyanide Processing Area	4	4	4							4	11,300	2/23/2016	TUCK-01-001 thru 004
DU-2 Fine-Grained Mine Waste	4	4	4	4						4	1,500	2/22/2016	TUCK-02-001 thru 004
DU-3 Background Native Soils	3	3								3	300	2/22/2016	TUCK-03-001 thru 003
	11	11	8	4	0	0	0	0	0	11			

Cashier Mill Sampling Information	Soil						Water				ISM Grid Area	Sample Data	Sample IDs		
	Title 22 Metals	Hg	CN	ABA	TCLP	CAL-WET (STLC)	Title 22 Metals	Hg	CN	ISM Prep	Sq. Ft.		ISM	Discrete	Surface Water
DU-1 Mill Foundations	4	4	4	4			1	1	1	4	3,200	2/24/2016	CASH-01-001 thru 004		CASH-01-SW1
DU-2 Mill Tailings in Eastern Drainage	4	4		4						4	250	2/24/2016	CASH-02-001 thru 004		
DU-3 Mill Tailings in Western Drainage	4	4		4						4	600	2/24/2016	CASH-03-001 thru 004		
DU-4 Mine Waste on Northern Slope	15	15										2/25/2016		CASH-04-001 thru 015	
DU-5 Background Native Soils	3	3								3	527	2/24/2016	CASH-05-001 thru 003		
	30	30	4	12	0	0	1	1	1	15					

Table 1. Sampling Summary Information

Gold Hill Mill Sampling Information	Soil						Water				ISM Grid Area	Sample Data	Sample IDs		
	Title 22 Metals	Hg	CN	ABA	TCLP	CAL-WET (STLC)	Title 22 Metals	Hg	CN	ISM Prep	Sq. Ft.		ISM	Discrete	Surface Water
DU-1 Mill Foundations	4	4	4	4						4	2,800	2/29/2016	GOLD-01-001 thru 004		
DU-2 Eroded Tailings in Wash Along Road	7	7										2/26/2016		GOLD-02-001 thru 007	
DU-3 Background Native Soils	3	3								3	3,000	2/29/2016	GOLD-03-001 thru 003		
Nearby Surface Water							3	3	3						GOLD-SW1 thru SW3
	14	14	4	4			3	3	3	7					

Table 2. Skidoo Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Discrete Background Samples											
					280-80101-1 DEVA-SKID-BG-001 2/17/2016 9:35 AM	280-80101-2 DEVA-SKID-BG-002 2/17/2016 9:45 AM	280-80101-3 DEVA-SKID-BG-003 2/17/2016 9:55 AM	280-80101-4 DEVA-SKID-BG-004 2/17/2016 10:05 AM	280-80101-5 DEVA-SKID-BG-005 2/17/2016 10:12 AM	280-80101-6 DEVA-SKID-BG-006 2/17/2016 10:20 AM	280-80101-7 DEVA-SKID-BG-007 2/17/2016 10:26 AM	280-80101-8 DEVA-SKID-BG-008 2/17/2016 2:22 PM	280-80101-9 DEVA-SKID-BG-009 2/17/2016 2:19 PM	280-80101-10 DEVA-SKID-BG-010 2/17/2016 2:15 PM	280-80101-11 DEVA-SKID-BG-011 2/17/2016 2:12 PM	280-80101-12 DEVA-SKID-BG-012 2/17/2016 2:08 PM
Antimony	mg/kg	31	0.05	20	0.5	1.02	0.835	0.731	0.759	0.994	0.814	0.353	0.359	0.306	0.925	0.511
Arsenic	mg/kg	0.68	0.25	0.39	7.55	9.98	10.0	9.11	10.1	8.06	8.78	12.0	3.88	7.33	8.13	5.59
Barium	mg/kg	15,000	17.2	750	104	105	95.5	101	103	91.9	105	46.9	44.1	39.5	101	72.4
Beryllium	mg/kg	160	0.242	4.0	0.71	0.657	0.769	0.718	0.874	0.729	0.774	0.446	0.331	0.464	0.681	0.558
Cadmium	mg/kg	71	0.27	12	0.289	0.328	0.251	0.255	0.266	0.219	0.233	0.122	0.087	0.081	0.198	0.158
Chromium	mg/kg	120,000	0.35	1,000	8.72	9.85	9.8	9.54	11.6	10.0	11.3	2.33	1.75	1.41	7.67	4.94
Cobalt	mg/kg	23	13	23	5.04	6.07	6.38	6.43	6.27	5.87	7.04	2.83	2.09	2.08	5.29	3.83
Copper	mg/kg	3,100	15	230	13.8	16.9	16.4	15.0	18.7	15.9	17.9	6.49	3.85	3.61	13.8	8.78
Lead	mg/kg	400	0.94	80	55.0	132	53.2	130	124	32.1	27.5	103	19.4	29.9	67.4	30.1
Manganese	mg/kg	1,900	220	NE	384	430	384	411	376	349	376	246	197	213	427	354
Mercury	mg/kg	11	0.013	6.7	0.0462	0.0861	0.0346	0.0452	0.0548	0.0279	0.0302	0.0246	0.00901 J	0.00886 J	0.0000511	0.0282
Molybdenum	mg/kg	390	NE	40	0.638	0.884	0.714	0.65	0.802	0.646	0.582	0.332	0.19	0.241	0.587	0.392
Nickel	mg/kg	1,500	9.7	150	9.69	11.4	11.4	10.9	12.9	11.5	13.0	3.05	4.45	1.97	8.92	5.85
Selenium	mg/kg	390	0.331	100	0.167 J	0.210 J	0.194 J	0.169 J	0.194 J	0.168 J	0.177 J	0.354 U	0.339 U	0.305 U	0.124 J	0.106 J
Silver	mg/kg	390	2.0	20	0.27	1.17	0.381	0.345	0.28	0.274	0.226	0.125	0.0717	0.0648	0.356	0.226
Thallium	mg/kg	0.78	0.027	0.78	0.184	0.182	0.177	0.186	0.193	0.18	0.22	0.0675 J	0.0553 J	0.0532 J	0.163	0.116
Vanadium	mg/kg	390	0.025	200	17.3	20.3	19.9	20.0	23.3	20.1	22.5	7.53	4.3	4.3	17.0	11.6
Zinc	mg/kg	23,000	6.62	600	77.4	88.7	78.6	86.7	81.1	63.6	69.3	43.1	18.9	23.7	59.3	49.6
Cyanide, Total	mg/kg	2.7	0.1	0.0036												
pH adjusted to 25 deg C	SU				9.03	8.03	9.01	8.84	9.09	9.22	9.03	8.98	9.12	9.21	9.02	8.72
ABA & Sulfur Forms																
ABA	TCaCO3/kT	NE	NE	NE												
AGP	TCaCO3/kT	NE	NE	NE												
ANP	TCaCO3/kT	NE	NE	NE												
Non-extractable Sulfur	%	NE	NE	NE												
Non-Sulfate Sulfur	%	NE	NE	NE												
Pyritic Sulfur	%	NE	NE	NE												
Sulfate Sulfur	%	NE	NE	NE												
Total Sulfur	%	NE	NE	NE												

J - Laboratory Estimated Value
U - Not Detected at stated reporting limit
ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
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SU - Standard Unit
TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
Gray shaded cells - Not Analyzed
All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

Non-Detects assumed present at 1/2 of RL
Student's-t UCL
H-UCL
Gamma UCL
Chebyshev UCL
UCL Results shown in **bold** exceed one or more screening levels

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Table 2. Skidoo Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Discrete Background Samples			Skidoo DU-5 Background Discrete	Background ISM Samples			Skidoo DU-5 Background ISM	Cyanide Processing Area ISM Samples			
					280-80101-13 DEVA-SKID-BG-013	280-80101-14 DEVA-SKID-BG-014	280-80101-15 DEVA-SKID-BG-015		280-80101-16 DEVA-SKID-05-001	280-80101-17 DEVA-SKID-05-002	280-80101-18 DEVA-SKID-05-003		280-80101-19 DEVA-SKID-01-001	280-80101-20 DEVA-SKID-01-002	280-80101-28 DEVA-SKID-01-003	280-80101-29 DEVA-SKID-01-004
					2/17/2016	2/17/2016	2/17/2016		2/17/2016	2/17/2016	2/17/2016		2/18/2016	2/18/2016	2/19/2016	2/19/2016
					2:02 PM	1:58 PM	1:52 PM	95% UCL	11:05 AM	11:10 AM	11:40 AM	95% UCL	1:10 PM	1:20 PM	9:40 AM	9:30 AM
Antimony	mg/kg	31	0.05	20	0.625	0.431	0.549	**0.756**	0.695	0.719	0.667	**0.759**	1.85	2.02	4.19	2.36
Arsenic	mg/kg	0.68	0.25	0.39	4.33	5.87 J	4.92	**8.8**	7.55	10.1	8.18	**12.0**	18.5	19.4	22.3	25.3
Barium	mg/kg	15,000	17.2	750	46.5	58.7 J	47.8	**89.8**	84.4	97.4	75.3	**114**	17.2	18.0	31.1	20.6
Beryllium	mg/kg	160	0.242	4.0	0.383	0.537	0.436	**0.679**	0.606	0.678	0.54	**0.782**	0.105	0.0973 U	0.109 J	0.11
Cadmium	mg/kg	71	0.27	12	0.093	0.146	0.104	0.226	0.185	0.225	0.186	0.254	0.128	0.132	0.279	0.152
Chromium	mg/kg	120,000	0.35	1,000	3.1	3.21	2.58	**8.26**	7.6	8.58	6.78	**9.92**	4.4	3.93	4.97	4.47
Cobalt	mg/kg	23	13	23	2.59	2.81 J	2.34	5.31	5.11	5.52	4.54	6.31	0.876	0.941	1.13	1.15
Copper	mg/kg	3,100	15	230	5.74	6.05 J	4.94	13.8	12.9	14.6	11.8	**16.6**	9.64	11.4	13.5	11.8
Lead	mg/kg	400	0.94	80	18.1	22.1 J	21.5	**92.6**	70.5	83.8	62.4	**99.4**	653	661	684	735
Manganese	mg/kg	1,900	220	NE	224	312 J	219	**365**	370	411	322	**480**	34.1	30.4	43.0	30.3
Mercury	mg/kg	11	0.013	6.7	0.0143 J	0.0171 J	0.0146 J	**0.039**	0.0437	0.0556	0.052	**0.0658**	0.44	0.364	0.624	0.363
Molybdenum	mg/kg	390	NE	40	0.304	0.288	0.349	0.606	0.535	0.549	0.432	0.666	0.726	0.738	0.813	1.26
Nickel	mg/kg	1,500	9.7	150	4.68	3.78	3.06	9.60	9.01	9.94	7.88	**11.5**	1.47	1.45	1.96	1.76
Selenium	mg/kg	390	0.331	100	0.276 U	0.338 U	0.377 U	0.179	0.388 U	0.367 U	0.372 U	0.202	0.386 U	0.391 U	0.129 J	0.140 J
Silver	mg/kg	390	2.0	20	0.263	0.132	0.113	0.431	0.576	0.473	0.425	0.685	2.92	2.13	3.11	2.28
Thallium	mg/kg	0.78	0.027	0.78	0.0732	0.0889	0.077 J	0.201	0.14	0.159	0.127	0.183	0.0172 U	0.0177 U	0.0238 J	0.0173 J
Vanadium	mg/kg	390	0.025	200	6.88	7.54	6.57	**17.2**	15.5	17.7	14.1	**20.3**	3.0	3.12	3.28	3.54
Zinc	mg/kg	23,000	6.62	600	33.0	30.6 J	24.8	**66.5**	61.1	71.2	55.0	**83.0**	132	168	189	186
Cyanide, Total	mg/kg	2.7	0.1	0.0036									8.18	18.2	10	10.3
pH adjusted to 25 deg C	SU				9.19	9.16	9.2		9.18	9.2	9.13		9.25	9.38	8.93	9.23
ABA & Sulfur Forms																
ABA	TCaCO3/kT	NE	NE	NE												
AGP	TCaCO3/kT	NE	NE	NE												
ANP	TCaCO3/kT	NE	NE	NE												
Non-extractable Sulfur	%	NE	NE	NE												
Non-Sulfate Sulfur	%	NE	NE	NE												
Pyritic Sulfur	%	NE	NE	NE												
Sulfate Sulfur	%	NE	NE	NE												
Total Sulfur	%	NE	NE	NE												

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U - Not Detected at stated reporting limit
ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
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H-UCL
Gamma UCL
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UCL Results shown in **bold** exceed one or more screening levels

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Table 2. Skidoo Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	**Skidoo DU-1 Cyanide Processing Area - ISM 95% UCL**	Mercury Amalgamation Area ISM Samples				**Skidoo DU-2 Hg Amalgamation Area - ISM 95% UCL**	Mill Tailings Impoundment ISM Samples				**Skidoo DU-3 Mill Tailings Impoundment ISM 95% UCL**
						280-80101-32 DEVA-SKID-02-001 2/19/2016 1:40 PM	280-80101-33 DEVA-SKID-02-002 2/19/2016 1:45 PM	280-80101-34 DEVA-SKID-02-003 2/19/2016 1:50 PM	280-80101-35 DEVA-SKID-02-004 2/19/2016 1:55 PM		280-80101-21 DEVA-SKID-03-001 2/18/2016 3:15 PM	280-80101-22 DEVA-SKID-03-002 2/18/2016 3:20 PM	280-80101-30 DEVA-SKID-03-003 2/19/2016 12:00 PM	280-80101-31 DEVA-SKID-03-004 2/19/2016 11:55 AM	
Antimony	mg/kg	31	0.05	20	**4.95**	7.38	49.2	39.7	10.4	**72.3**	6.38	4.04	3.09	4.84	**7.62**
Arsenic	mg/kg	0.68	0.25	0.39	**28.1**	27.4	26.0	18.8	21.2	**32.1**	46.5 J	37.1	38.8	62.0	**70.9**
Barium	mg/kg	15,000	17.2	750	**35.7**	64.4	52.1	31.9	36.2	**78.7**	61.6 J	78.2	49.5	97.6	**117**
Beryllium	mg/kg	160	0.242	4.0	0.158	0.225	0.17	0.106	0.126	**0.272**	0.218 J	0.257	0.211	0.372	**0.427**
Cadmium	mg/kg	71	0.27	12	**0.329**	0.387	0.348	0.208	0.231	**0.484**	0.0942 J	0.137	0.102	0.144	0.173
Chromium	mg/kg	120,000	0.35	1,000	**5.37**	8.61	7.34	6.17	5.7	**9.79**	3.35 J	4.77	4.61	4.67	**5.81**
Cobalt	mg/kg	23	13	23	1.32	2.51	2.02	1.67	1.8	2.81	0.845 J	1.10	1.06	1.48	1.70
Copper	mg/kg	3,100	15	230	**15.0**	32.3	28.2	22.5	23.7	**36.4**	16.9 J	20.3	16.6	26.8	**30.5**
Lead	mg/kg	400	0.94	80	**764**	1,150	983	666	832	**1,359**	1,080 J	1,020	963	1,350	**1,477**
Manganese	mg/kg	1,900	220	NE	47.5	119	91.7	72.1	78.3	136	63.2 J	76.3	67.3	106	120
Mercury	mg/kg	11	0.013	6.7	**0.716**	1.3	0.922	1.68	0.836	**2.03**	2.39 J	1.24	1.22	3.45	**4.40**
Molybdenum	mg/kg	390	NE	40	1.44	1.32	1.1	0.715	0.82	1.59	0.964 J	1.05	0.939	1.41	1.57
Nickel	mg/kg	1,500	9.7	150	2.19	4.55	3.9	3.02	3.09	5.22	1.52 J	2.23	2.14	2.76	3.27
Selenium	mg/kg	390	0.331	100	0.24	0.188 J	0.164 J	0.372 U	0.375 U	0.207	0.393 UJ	0.153 J	0.123 J	0.148 J	0.222
Silver	mg/kg	390	2.0	20	**3.65**	7.75	7.27	6.49	7.18	**8.30**	6.76	7.49	5.46	7.37	**8.80**
Thallium	mg/kg	0.78	0.027	0.78	0.0306	0.0374 J	0.0306 J	0.0211 J	0.0227 J	0.044	0.00335 U	0.0509 J	0.0361 J	0.0582 J	0.0804
Vanadium	mg/kg	390	0.025	200	**3.74**	8.64	7.85	4.73	5.39	**10.8**	6.42 J	10.6	8.96	11.8	**14.5**
Zinc	mg/kg	23,000	6.62	600	**226**	511	527	335	552	**697**	264 J	296	295	336	**362**
Cyanide, Total	mg/kg	2.7	0.1	0.0036	**21**						10.5 J	6.87	5.59	7.12	**12.1**
pH adjusted to 25 deg C	SU					8.71	8.73	8.61	8.57		9.41	9.4	9.48	9.41	
ABA & Sulfur Forms															
ABA	TCaCO3/kT	NE	NE	NE							23.6	34.5	28.2	27.6	
AGP	TCaCO3/kT	NE	NE	NE							2.1	1.5	1.3	1.9	
ANP	TCaCO3/kT	NE	NE	NE							25.7	36	29.6	29.6	
Non-extractable Sulfur	%	NE	NE	NE							0.01 U	0.01 U	0.01 U	0.01 U	
Non-Sulfate Sulfur	%	NE	NE	NE							0.07	0.05	0.04	0.06	
Pyritic Sulfur	%	NE	NE	NE							0.07	0.05	0.04	0.06	
Sulfate Sulfur	%	NE	NE	NE							0.05	0.04	0.04	0.07	
Total Sulfur	%	NE	NE	NE							0.12	0.09	0.08	0.13	

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Table 2. Skidoo Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Mill Tailings In Wash Discrete Samples											
					280-80101-36 DEVA-SKID-04-001 2/19/2016 2:30 PM	280-80101-37 DEVA-SKID-04-002 2/19/2016 2:40 PM	280-80101-38 DEVA-SKID-04-003 2/19/2016 2:50 PM	280-80101-39 DEVA-SKID-04-004 2/19/2016 3:00 PM	280-80101-40 DEVA-SKID-04-005 2/19/2016 3:10 PM	280-80101-41 DEVA-SKID-04-006 2/19/2016 3:20 PM	280-80101-42 DEVA-SKID-04-007 2/19/2016 3:30 PM	280-80101-43 DEVA-SKID-04-008 2/19/2016 3:40 PM	280-80101-44 DEVA-SKID-04-009 2/19/2016 3:50 PM	280-80101-45 DEVA-SKID-04-010 2/19/2016 4:00 PM	280-80101-46 DEVA-SKID-04-011 2/19/2016 4:05 PM	280-80101-47 DEVA-SKID-04-012 2/19/2016 4:10 PM
Antimony	mg/kg	31	0.05	20	5.66	3.45	2.61	7.87	2.07	4.05	11.2	3.08	3.17	2.59	3.31	2.06
Arsenic	mg/kg	0.68	0.25	0.39	63.3	62.6	33.5	73.6	26.9	44.4	79.6	44.9	43.7	40.1	35.1	63.9
Barium	mg/kg	15,000	17.2	750	106	222	30.2	98.8	39.1	48.9	112	49.0	47.4	46.2	55.2	55.3
Beryllium	mg/kg	160	0.242	4.0	0.345	0.264	0.186	0.516	0.178	0.302	0.523	0.324	0.245	0.381	0.218	0.253
Cadmium	mg/kg	71	0.27	12	0.186	0.277	0.0899	0.154	0.128	0.14	0.246	0.128	0.114	0.0889	0.0897	0.0659 J
Chromium	mg/kg	120,000	0.35	1,000	9.37	1.23	3.13	6.16	3.88	9.08	5.75	8.5	8.13	9.34	6.81	8.59
Cobalt	mg/kg	23	13	23	1.44	1.3	0.951	3.59	1.18	1.24	2.21	1.39	1.25	2.19	0.977	0.842
Copper	mg/kg	3,100	15	230	30.6	21.3	12.0	54.7	12.3	45.2	55.7	44.1	35.0	23.8	29.4	31.7
Lead	mg/kg	400	0.94	80	2,480	1,590	1,590	1,980	1,800	2,640	2,330	1,960	2,120	1,150	1,730	1,960
Manganese	mg/kg	1,900	220	NE	93.2	183	74.4	88.7	67.1	63.5	126	67.1	67.6	101	64.6	45.4
Mercury	mg/kg	11	0.013	6.7	1.68	2.9	0.000432	2.58	0.42	1.01	1.67	1.83	0.487	3.44	0.735	0.953
Molybdenum	mg/kg	390	NE	40	3.02	2.04	1.92	4.86	2.75	0.718	2.37	0.991	0.772	1.42	0.69	1.71
Nickel	mg/kg	1,500	9.7	150	4.03	1.84	1.55	3.28	2.73	3.84	3.42	3.44	3.27	4.46	3.09	3.37
Selenium	mg/kg	390	0.331	100	0.316 J	0.146 J	0.129 J	0.647	0.164 J	0.466	0.371 J	0.404 J	0.364 J	0.483	0.282 J	0.394 J
Silver	mg/kg	390	2.0	20	4.04	25.2	8.1	4.24	4.5	2.13	7.96	8.24	1.38	2.12	2.4	3.04
Thallium	mg/kg	0.78	0.027	0.78	0.0751 J	0.0625 J	0.0341 J	0.0715 J	0.0362 J	0.0600 J	0.0859 J	0.0569 J	0.0484 J	0.0584 J	0.0455 J	0.0455 J
Vanadium	mg/kg	390	0.025	200	17.4	7.82	4.65	17.1	5.52	29.2	16.0	21.1	19.6	18.2	15.6	20.2
Zinc	mg/kg	23,000	6.62	600	1,660	222	127	418	159	641	548	589	236	298	443	353
Cyanide, Total	mg/kg	2.7	0.1	0.0036												
pH adjusted to 25 deg C	SU				9.1	8.81	9.16	9.87	9.27	8.86	9.2	8.89	8.95	9.72	8.95	9.12
ABA & Sulfur Forms																
ABA	TCaCO3/kT	NE	NE	NE												
AGP	TCaCO3/kT	NE	NE	NE												
ANP	TCaCO3/kT	NE	NE	NE												
Non-extractable Sulfur	%	NE	NE	NE												
Non-Sulfate Sulfur	%	NE	NE	NE												
Pyritic Sulfur	%	NE	NE	NE												
Sulfate Sulfur	%	NE	NE	NE												
Total Sulfur	%	NE	NE	NE												

J - Laboratory Estimated Value
U - Not Detected at stated reporting limit
ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
NE - Not established
SU - Standard Unit
TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
Gray shaded cells - Not Analyzed
All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

Non-Detects assumed present at 1/2 of RL
Student's-t UCL
H-UCL
Gamma UCL
Chebyshev UCL
UCL Results shown in **bold** exceed one or more screening levels

ESL - Environmental Screening Level (California Water Board)
NPS ESV - National Park Service Ecological Screening Value
RSL - Regional Screening Level (USEPA)

Table 2. Skidoo Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Mill Tailings In Wash Discrete Samples			**Skidoo DU-4 Mill Tailings in Wash**
					280-80101-48 DEVA-SKID-04-013 2/19/2016 4:15 PM	280-80101-49 DEVA-SKID-04-014 2/19/2016 4:20 PM	280-80101-50 DEVA-SKID-04-015 2/19/2016 4:25 PM	**95% UCL**
Antimony	mg/kg	31	0.05	20	5.97	2.73	5.15	**5.72**
Arsenic	mg/kg	0.68	0.25	0.39	56.8	30.9	45.1 J	**56.9**
Barium	mg/kg	15,000	17.2	750	63.1	37.5	64.6 J	**94.6**
Beryllium	mg/kg	160	0.242	4.0	0.635	0.196	0.464	**0.399**
Cadmium	mg/kg	71	0.27	12	0.172	0.0594 J	0.211	0.173
Chromium	mg/kg	120,000	0.35	1,000	9.37	8.55	11.2 J	**8.53**
Cobalt	mg/kg	23	13	23	1.86	0.844	2.13 J	1.96
Copper	mg/kg	3,100	15	230	28.4	18.7	32.1 J	**37.8**
Lead	mg/kg	400	0.94	80	1,660	1,190	2,160 J	**2,083**
Manganese	mg/kg	1,900	220	NE	177	53.9	107 J	111
Mercury	mg/kg	11	0.013	6.7	1.08	1.1	0.783 J	**1.82**
Molybdenum	mg/kg	390	NE	40	1.2	0.81	0.998	2.27
Nickel	mg/kg	1,500	9.7	150	5.64	3.94	6.06	4.14
Selenium	mg/kg	390	0.331	100	0.273 J	0.356 J	0.373 J	0.407
Silver	mg/kg	390	2.0	20	3.2	3.07	2.21	**8.34**
Thallium	mg/kg	0.78	0.027	0.78	0.0776 J	0.0401 J	0.0770 J	0.0658
Vanadium	mg/kg	390	0.025	200	26.7	19.6	23.0 J	**20.6**
Zinc	mg/kg	23,000	6.62	600	442	503	680 J	**695**
Cyanide, Total	mg/kg	2.7	0.1	0.0036				
pH adjusted to 25 deg C	SU				9.07	9.49	9.26	
ABA & Sulfur Forms								
ABA	TCaCO3/kT	NE	NE	NE				
AGP	TCaCO3/kT	NE	NE	NE				
ANP	TCaCO3/kT	NE	NE	NE				
Non-extractable Sulfur	%	NE	NE	NE				
Non-Sulfate Sulfur	%	NE	NE	NE				
Pyritic Sulfur	%	NE	NE	NE				
Sulfate Sulfur	%	NE	NE	NE				
Total Sulfur	%	NE	NE	NE				

J - Laboratory Estimated Value
U - Not Detected at stated reporting limit
ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
NE - Not established
SU - Standard Unit
TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
Gray shaded cells - Not Analyzed
All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

Non-Detects assumed present at 1/2 of RL
Student's-t UCL
H-UCL
Gamma UCL
Chebyshev UCL
UCL Results shown in **bold** exceed one or more screening levels

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RSL - Regional Screening Level (USEPA)

Table 3. Homestake Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Background ISM Samples			**Homestake DU-5**	Mill Foundations ISM Samples				**Homestake DU-1**
					280-80765-2 DEVA-HOME-05-001 3/7/2016 9:15 AM	280-80765-3 DEVA-HOME-05-002 3/7/2016 9:20 AM	280-80765-4 DEVA-HOME-05-003 3/7/2016 10:15 AM	**Background - ISM** **95% UCL**	280-80765-5 DEVA-HOME-01-001 3/8/2016 12:00 PM	280-80765-6 DEVA-HOME-01-002 3/8/2016 12:05 PM	280-80765-7 DEVA-HOME-01-003 3/8/2016 1:00 PM	280-80765-8 DEVA-HOME-01-004 3/8/2016 1:05 PM	**Mill Foundations Area - ISM** **95% UCL**
Antimony	mg/kg	31	0.05	20	0.638	0.477 J	0.55	**0.758**	16.2	14.0	34.2	2.63	**45.2**
Arsenic	mg/kg	0.68	0.25	0.39	9.71	9.66 J	9.93	**10.1**	5.5	6.36	7.34	5.90	**8.0**
Barium	mg/kg	15,000	17.2	750	119	130 J	141	**158**	85.5	66.3	63.0	75.8	**94.8**
Beryllium	mg/kg	160	0.242	4.0	1.04	1.03	1.05	**1.06**	20.3	18.2	20.5	25.3	**27.6**
Cadmium	mg/kg	71	0.27	12	0.217	0.195	0.243	**0.279**	2.24	1.4	1.12	0.646	**2.81**
Chromium	mg/kg	120,000	0.35	1,000	5.82	6.30	5.72	**6.73**	2.47	2.97	2.72	2.35	**3.23**
Cobalt	mg/kg	23	13	23	4.84	4.98	4.85	5.09	1.5	1.96	1.9	1.64	2.22
Copper	mg/kg	3,100	15	230	7.91	8.08	7.77	8.31	134	94.6	95.1	83.7	**150**
Lead	mg/kg	400	0.94	80	23.2	22.9 J	25.2	26.9	67.0	138	566	168	725
Manganese	mg/kg	1,900	220	NE	813	902 J	1,010	**1,157**	594	584	537	622	**661**
Mercury	mg/kg	11	0.013	6.7	0.0358	0.035	0.0356	**0.0365**	3.31	2.22	3.99	2.29	**4.81**
Molybdenum	mg/kg	390	NE	40	5.75	4.01	5.49	7.44	0.515	0.405	0.501	0.487	0.585
Nickel	mg/kg	1,500	9.7	150	6.57	7.18	6.64	7.64	4.06	4.13	4.6	3.76	4.90
Selenium	mg/kg	390	0.331	100	0.398 U	0.393 U	0.155 J	0.246	2.17	0.392 J	0.898	0.466 J	**2.78**
Silver	mg/kg	390	2.0	20	0.154	0.104	0.126	0.191	17.6	12.7	23.6	11.2	**28.5**
Thallium	mg/kg	0.78	0.027	0.78	0.176	0.192	0.255	**0.313**	0.0868 J	0.0846 J	0.0833 J	0.082 J	**0.886**
Vanadium	mg/kg	390	0.025	200	13.6	13.6	13.7	**13.8**	5.27	6.7	6.12	5.29	**7.36**
Zinc	mg/kg	23,000	6.62	600	49.6	48.0 J	48.1	**50.8**	1,640	941	796	805	**1,921**
Cyanide, Total	mg/kg	2.7	0.1	0.0036					22.7	14	48.6	10.7	**61.4**
pH adj. to 25 deg C	SU				7.19	7.43	7.32		9.16	9.49	9.49	9.39	
ABA & Sulfur Forms													
ABA	TCaCO3/kT	NE	NE	NE					57.5	60	55	53.7	
AGP	TCaCO3/kT	NE	NE	NE					0.3 U	0.3 U	0.3 U	0.3 U	
ANP	TCaCO3/kT	NE	NE	NE					57.5	60	55	53.7	
Non-extractable Sulfur	%	NE	NE	NE					0.01 U	0.01 U	0.01 U	0.01 U	
Non-Sulfate Sulfur	%	NE	NE	NE					0.01 U	0.01 U	0.01 U	0.01 U	
Pyritic Sulfur	%	NE	NE	NE					0.01 U	0.01 U	0.01 U	0.01 U	
Sulfate Sulfur	%	NE	NE	NE					0.01 U	0.01 U	0.01	0.01	
Total Sulfur	%	NE	NE	NE					0.01 U	0.01 U	0.01	0.01	
ABA & Sulfur Forms (HCl Wash)													
ABA-HCl	TCaCO3/kT	NE	NE	NE					57.5	60	55	53.7	
AGP-HCl	TCaCO3/kT	NE	NE	NE					0.3 U	0.3 U	0.3 U	0.3 U	
Non-Sulfate Sulfur-HCl	%	NE	NE	NE					0.01 U	0.01 U	0.01 U	0.01 U	
Pyritic Sulfur-HCl	%	NE	NE	NE					0.01 U	0.01 U	0.01 U	0.01 U	
Sulfate Sulfur-HCl	%	NE	NE	NE					0.01 U	0.01 U	0.01	0.01	

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AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
NE - Not established
SU - Standard Unit
TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
Gray shaded cells - Not Analyzed
All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

Non-Detects assumed present at 1/2 of RL
Student's-t UCL
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Gamma UCL
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UCL results shown in **bold** exceed one or more screening levels

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Table 3. Homestake Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Mill Tailings Stockpile ISM Samples				Homestake DU-2 Mill Tailings Stockpile - ISM	Mine Waste Stockpile Discrete Samples					
					280-80765-9 DEVA-HOME-02-001 3/8/2016 9:40 AM	280-80765-10 DEVA-HOME-02-002 3/8/2016 9:45 AM	280-80765-11 DEVA-HOME-02-003 3/8/2016 10:35 AM	280-80765-12 DEVA-HOME-02-004 3/8/2016 10:40 AM	95% UCL	280-80765-14 DEVA-HOME-03-001 3/9/2016 10:45 AM	280-80765-15 DEVA-HOME-03-002 3/9/2016 10:50 AM	280-80765-16 DEVA-HOME-03-003 3/9/2016 10:55 AM	280-80765-17 DEVA-HOME-03-004 3/9/2016 11:00 AM	280-80765-18 DEVA-HOME-03-005 3/9/2016 11:10 AM	280-80765-19 DEVA-HOME-03-006 3/9/2016 11:20 AM
Antimony	mg/kg	31	0.05	20	0.845	0.926	0.813	0.811	**0.966**	0.508	0.488	2.04	2.82	0.803	0.592
Arsenic	mg/kg	0.68	0.25	0.39	7.93	7.85	6.38	8.00	**9.23**	3.77	4.07	3.27	10.5	18.3	5.02
Barium	mg/kg	15,000	17.2	750	83.4	76.2	55.9	79.4	**100**	24.3 J	29.3	17.5	124	164	25.1
Beryllium	mg/kg	160	0.242	4.0	22.1	29.0	24.6	20.9	**32.0**	11.3 J	12.9	12.0	7.67	4.04	45.6
Cadmium	mg/kg	71	0.27	12	0.294	0.183	0.24	0.324	**0.396**	0.539	0.891	0.584	0.279	0.33	0.21
Chromium	mg/kg	120,000	0.35	1,000	5.31	5.36	3.21	49,00	**7.72**	1.46	1.35	0.965	7.18	11.2	0.936
Cobalt	mg/kg	23	13	23	3.66	3.52	2.4	3.64	4.63	0.935	1.21	0.631	4.07	6.87	0.62
Copper	mg/kg	3,100	15	230	17.8	15.8	17.8	21.9	**23.9**	8.94	9.41	13.0	21.1	21.3	14.9
Lead	mg/kg	400	0.94	80	15.8	16.0	13.9	16.6	18.1	13.9 J	13.4	21.5	47.7	18.2	12.1
Manganese	mg/kg	1,900	220	NE	818	735	738	776	**852**	273 J	379	238	660	806	642
Mercury	mg/kg	11	0.013	6.7	1.21	1.79	1.61	1.15	**2.12**	0.614 J	4.3	1.77	4.1	0.164	1.99
Molybdenum	mg/kg	390	NE	40	0.691	0.769	0.563	0.762	0.905	0.268	0.308	0.256	0.755	0.624	0.222
Nickel	mg/kg	1,500	9.7	150	5.83	5.71	3.66	5.53	7.41	1.66	2.44	1.71	6.8	11.5	1.38
Selenium	mg/kg	390	0.331	100	0.299 J	0.227 J	0.312 J	0.290 J	**0.364**	0.353 J	0.524	0.457	0.296 J	0.177 J	0.715
Silver	mg/kg	390	2.0	20	8.2	8.69	12.4	9.11	**13.8**	8.98	19.5	8.63	6.92	1.34	20.7
Thallium	mg/kg	0.78	0.027	0.78	0.152	0.141	0.107	0.14	**0.177**	0.0549 J	0.0716 J	0.0374 J	0.15	0.27	0.0572 J
Vanadium	mg/kg	390	0.025	200	11.9	11.9	7.9	11.8	**15.2**	3.2	4.17	2.14	15.7	25.4	2.72
Zinc	mg/kg	23,000	6.62	600	142	71.9	129	184	**233**	287 J	395	321	202	118	137
Cyanide, Total	mg/kg	2.7	0.1	0.0036	0.734	0.241 J	0.995	2.45 J	**3.18**						
pH adj. to 25 deg C	SU				9.01	8.85	8.85	8.7		8.91	9.11	8.28	8.89	9.21	9.25
ABA & Sulfur Forms															
ABA	TCaCO3/kT	NE	NE	NE	71.2	93.7	90.9	77.5							
AGP	TCaCO3/kT	NE	NE	NE	0.3 U	0.3 U	0.3	0.3 U							
ANP	TCaCO3/kT	NE	NE	NE	71.2	93.7	91.2	77.5							
Non-extractable Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.01 U	0.01 U							
Non-Sulfate Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.01	0.01 U							
Pyritic Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.01	0.01 U							
Sulfate Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.01 U	0.01 U							
Total Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.01	0.01 U							
ABA & Sulfur Forms (HCl Wash)															
ABA-HCl	TCaCO3/kT	NE	NE	NE	71.2	93.7	91.2	77.5							
AGP-HCl	TCaCO3/kT	NE	NE	NE	0.3 U	0.3 U	0.3 U	0.3 U							
Non-Sulfate Sulfur-HCl	%	NE	NE	NE	0.01 U	0.01 U	0.01 U	0.01 U							
Pyritic Sulfur-HCl	%	NE	NE	NE	0.01 U	0.01 U	0.01 U	0.01 U							
Sulfate Sulfur-HCl	%	NE	NE	NE	0.01 U	0.01 U	0.01	0.01 U							

J - Laboratory Estimated Value
U - Not Detected at stated reporting limit
ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
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Non-Detects assumed present at 1/2 of RL
Student's-t UCL
H-UCL
Gamma UCL
Chebyshev UCL
UCL results shown in **bold** exceed one or more screening levels

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RSL - Regional Screening Level (USEPA)

Table 3. Homestake Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Mine Waste Stockpile Discrete Samples									**Homestake DU-3 Mine Waste Stockpile (Discrete) 95% UCL**
					280-80765-20 DEVA-HOME-03-007 3/9/2016 11:30 AM	280-80765-21 DEVA-HOME-03-008 3/9/2016 11:40 AM	280-80765-22 DEVA-HOME-03-009 3/9/2016 11:50 AM	280-80765-23 DEVA-HOME-03-010 3/9/2016 12:00 PM	280-80765-24 DEVA-HOME-03-011 3/9/2016 12:10 PM	280-80765-25 DEVA-HOME-03-012 3/9/2016 12:20 PM	280-80765-26 DEVA-HOME-03-013 3/9/2016 12:30 PM	280-80765-27 DEVA-HOME-03-014 3/9/2016 12:40 PM	280-80765-28 DEVA-HOME-03-015 3/9/2016 12:50 PM	
Antimony	mg/kg	31	0.05	20	0.456 J	0.872	0.842	1.4	0.895	4.39	0.721	0.556	1.32	**1.84**
Arsenic	mg/kg	0.68	0.25	0.39	11.1	21.4	20.5	44.6	17.5	12.6	11.4	17.0	26.2	**20.1**
Barium	mg/kg	15,000	17.2	750	38.7	169	162	84.1	70.2	86.1	117	132	96.1	**114**
Beryllium	mg/kg	160	0.242	4.0	10.3	3.69	3.28	5.55	5.2	5.98	3.46	2.47	3.81	**14.8**
Cadmium	mg/kg	71	0.27	12	0.272	0.249	0.205	0.26	0.152	0.3	0.301	0.343	0.268	**0.432**
Chromium	mg/kg	120,000	0.35	1,000	3.38	14.8	12.5	4.46	5.08	6.0	5.82	7.1	5.5	**7.78**
Cobalt	mg/kg	23	13	23	2.44	7.77	7.83	3.84	3.76	4.61	4.58	5.45	6.03	5.17
Copper	mg/kg	3,100	15	230	13.2	16.6	14.0	7.45	9.39	25.7	9.81	10.7	8.51	**16.1**
Lead	mg/kg	400	0.94	80	27.3	17.8	18.4	32.3	28.1	158	26.3	19.7	31.5	44.3
Manganese	mg/kg	1,900	220	NE	405	913	1,020	773	736	1,300	774	898	745	**835**
Mercury	mg/kg	11	0.013	6.7	1.0	0.0646	0.0933	0.452	0.373	0.353	0.253	0.1	0.589	**2.16**
Molybdenum	mg/kg	390	NE	40	1.39	0.529	0.412	0.326	0.416	0.519	0.427	0.459	0.785	0.648
Nickel	mg/kg	1,500	9.7	150	3.85	13.9	12.2	4.33	5.19	6.21	6.81	8.31	6.02	7.94
Selenium	mg/kg	390	0.331	100	0.318 J	0.132 J	0.372 U	0.354 U	0.158 J	0.173 J	0.141 J	0.148 J	0.312 U	**0.468**
Silver	mg/kg	390	2.0	20	10.9 J	0.216	0.388	1.09	1.07	2.76	1.68	0.522	0.727	**11.8**
Thallium	mg/kg	0.78	0.027	0.78	0.0824	0.298	0.29	0.106	0.112	0.105	0.13	0.152	0.151	**0.192**
Vanadium	mg/kg	390	0.025	200	15.9	29.8	26.2	14.8	13.9	13.9	12.9	16.1	14.8	**18.0**
Zinc	mg/kg	23,000	6.62	600	222	84.1	72.1	79.9	84.5	321	94.4	85.0	79.5	**249**
Cyanide, Total	mg/kg	2.7	0.1	0.0036										
pH adj. to 25 deg C	SU				9.04	9.24	8.95	8.48	8.71	8.22	6.9	8.7	8.38	
ABA & Sulfur Forms														
ABA	TCaCO3/kT	NE	NE	NE										
AGP	TCaCO3/kT	NE	NE	NE										
ANP	TCaCO3/kT	NE	NE	NE										
Non-extractable Sulfur	%	NE	NE	NE										
Non-Sulfate Sulfur	%	NE	NE	NE										
Pyritic Sulfur	%	NE	NE	NE										
Sulfate Sulfur	%	NE	NE	NE										
Total Sulfur	%	NE	NE	NE										
ABA & Sulfur Forms (HCl Wash)														
ABA-HCl	TCaCO3/kT	NE	NE	NE										
AGP-HCl	TCaCO3/kT	NE	NE	NE										
Non-Sulfate Sulfur-HCl	%	NE	NE	NE										
Pyritic Sulfur-HCl	%	NE	NE	NE										
Sulfate Sulfur-HCl	%	NE	NE	NE										

J - Laboratory Estimated Value
U - Not Detected at stated reporting limit
ABA - Acid-Base Accounting
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ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
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Gray shaded cells - Not Analyzed
All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

Non-Detects assumed present at 1/2 of RL

Student's-t UCL
H-UCL
Gamma UCL
Chebyshev UCL

UCL results shown in **bold** exceed one or more screening levels

ESL - Environmental Screening Level (California Water Board)
NPS ESV - National Park Service Ecological Screening Value
RSL - Regional Screening Level (USEPA)

Table 3. Homestake Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Downgradient Mill Tailing Discrete Samples										
					280-80765-29 DEVA-HOME-04-001 3/8/2016 12:10 PM	280-80765-30 DEVA-HOME-04-002 3/8/2016 12:20 PM	280-80765-31 DEVA-HOME-04-003 3/8/2016 12:25 PM	280-80765-32 DEVA-HOME-04-004 3/8/2016 12:30 PM	280-80765-33 DEVA-HOME-04-005 3/8/2016 12:40 PM	280-80765-34 DEVA-HOME-04-006 3/8/2016 12:45 PM	280-80765-35 DEVA-HOME-04-007 3/8/2016 12:50 PM	280-80765-36 DEVA-HOME-04-008 3/8/2016 12:55 PM	280-80765-37 DEVA-HOME-04-009 3/8/2016 1:10 PM	280-80765-38 DEVA-HOME-04-010 3/8/2016 1:20 PM	280-80765-39 DEVA-HOME-04-011 3/8/2016 1:25 PM
Antimony	mg/kg	31	0.05	20	0.475	0.805	0.385	0.474	0.866	0.746	0.57	0.497	0.59	0.541	0.745
Arsenic	mg/kg	0.68	0.25	0.39	7.11	5.32	3.14	4.26	6.59	6.36	4.26	3.63	4.47	4.67	5.29
Barium	mg/kg	15,000	17.2	750	112	27.3	27.0	24.5	22.4	31.6	28.5	19.3	17.6	26.9	33.2
Beryllium	mg/kg	160	0.242	4.0	9.76	36.2	15.5	22.5	30.3	48.3	35.4	22.4	42.6	17.5	39.3
Cadmium	mg/kg	71	0.27	12	0.14	0.176	0.0661 J	0.179	0.0374 J	0.116	0.0761	0.0743 J	0.0568 J	0.038 J	0.12
Chromium	mg/kg	120,000	0.35	1,000	8.24	1.24	1.21	1.23	1.2	1.1	0.75	1.2	1.0	1.29	2.08
Cobalt	mg/kg	23	13	23	4.44	0.955	0.817	0.941	1.46	0.8	0.502	0.733	0.517	1.16	1.23
Copper	mg/kg	3,100	15	230	17.8	16.6	7.08	15.5	12.4	44.4	16.3	7.68	20.1	19.0	30.7
Lead	mg/kg	400	0.94	80	14.2	14.5	8.0	11.3	10.8	17.8	10.2	8.84	8.76	10.9	12.9
Manganese	mg/kg	1,900	220	NE	581	636	370	456	600	761	545	418	648	438	606
Mercury	mg/kg	11	0.013	6.7	1.53	4.0	1.28	1.43	1.38	5.27	3.0	2.0	0.68	1.6	0.965
Molybdenum	mg/kg	390	NE	40	0.532	0.394	0.249	0.329	0.318	0.489	0.277	0.245	0.344	0.371	0.434
Nickel	mg/kg	1,500	9.7	150	8.86	1.8	1.29	1.82	1.41	3.97	0.821	1.11	0.881	1.78	2.28
Selenium	mg/kg	390	0.331	100	0.215 J	0.473	0.393	0.412	0.217 J	0.369 J	0.299 J	0.538	0.175 J	0.523	0.337 J
Silver	mg/kg	390	2.0	20	3.54	12.2	6.37	10.5	9.41	16.7	16.6	12.4	4.55	16.7	10.3
Thallium	mg/kg	0.78	0.027	0.78	0.2	0.059 j	0.0585 J	0.0504 J	0.0813	0.0635 J	0.0546 J	0.0471 J	0.0476 J	0.0592 J	0.0625 J
Vanadium	mg/kg	390	0.025	200	15.6	3.52	2.68	3.26	6.04	3.56	2.55	2.42	2.31	4.76	4.59
Zinc	mg/kg	23,000	6.62	600	79.5	143	72.4	112	49.9	172	133	76.4	91.9	88.8	111
Cyanide, Total	mg/kg	2.7	0.1	0.0036											
pH adj. to 25 deg C	SU				8.41	9.06	8.88	9.13	9.02	9.06	9.05	9.07	9.04	9.11	8.97
ABA & Sulfur Forms															
ABA	TCaCO3/kT	NE	NE	NE											
AGP	TCaCO3/kT	NE	NE	NE											
ANP	TCaCO3/kT	NE	NE	NE											
Non-extractable Sulfur	%	NE	NE	NE											
Non-Sulfate Sulfur	%	NE	NE	NE											
Pyritic Sulfur	%	NE	NE	NE											
Sulfate Sulfur	%	NE	NE	NE											
Total Sulfur	%	NE	NE	NE											
ABA & Sulfur Forms (HCl Wash)															
ABA-HCl	TCaCO3/kT	NE	NE	NE											
AGP-HCl	TCaCO3/kT	NE	NE	NE											
Non-Sulfate Sulfur-HCl	%	NE	NE	NE											
Pyritic Sulfur-HCl	%	NE	NE	NE											
Sulfate Sulfur-HCl	%	NE	NE	NE											

J - Laboratory Estimated Value
U - Not Detected at stated reporting limit
ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
NE - Not established
SU - Standard Unit
TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
Gray shaded cells - Not Analyzed
All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

Non-Detects assumed present at 1/2 of RL
Student's-t UCL
H-UCL
Gamma UCL
Chebyshev UCL
UCL results shown in **bold** exceed one or more screening levels

ESL - Environmental Screening Level (California Water Board)
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RSL - Regional Screening Level (USEPA)

Table 3. Homestake Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Downgradient Mill Tailing Discrete Samples				Homestake DU-4 Downgraident Mill Tailings
					280-80765-40 DEVA-HOME-04-012 3/8/2016 1:35 PM	280-80765-41 DEVA-HOME-04-013 3/8/2016 1:45 PM	280-80765-42 DEVA-HOME-04-014 3/8/2016 1:50 PM	280-80765-43 DEVA-HOME-04-015 3/8/2016 2:00 PM	95% UCL
Antimony	mg/kg	31	0.05	20	0.865	0.700 J	0.823	0.329	**0.708**
Arsenic	mg/kg	0.68	0.25	0.39	5.7	5.29	3.53	3.04	**5.42**
Barium	mg/kg	15,000	17.2	750	31.4	36.4 J	43.7	18.5	**43.8**
Beryllium	mg/kg	160	0.242	4.0	40.3	21.9 J	17.8	10.2	**33.0**
Cadmium	mg/kg	71	0.27	12	0.126	0.0473 J	0.136	0.185	0.129
Chromium	mg/kg	120,000	0.35	1,000	1.01	0.753	1.26	1.01	**3.72**
Cobalt	mg/kg	23	13	23	0.64	0.594	1.23	0.676	1.56
Copper	mg/kg	3,100	15	230	16.9	22.0	15.5	9.48	**22.4**
Lead	mg/kg	400	0.94	80	15.2	14.1	13.9	8.51	13.3
Manganese	mg/kg	1,900	220	NE	668	477 J	496	224	**590**
Mercury	mg/kg	11	0.013	6.7	6.28	3.32 J	0.697	0.885	**3.38**
Molybdenum	mg/kg	390	NE	40	0.316	0.371	0.416	0.226	0.395
Nickel	mg/kg	1,500	9.7	150	1.33	0.923	2.46	1.88	3.03
Selenium	mg/kg	390	0.331	100	0.52	0.320 J	0.334 J	0.38	**0.419**
Silver	mg/kg	390	2.0	20	9.96	6.0 J	12.8	11.8	**12.6**
Thallium	mg/kg	0.78	0.027	0.78	0.0562 J	0.0545 J	0.0652 J	0.0348 J	**0.0838**
Vanadium	mg/kg	390	0.025	200	2.59	2.23	3.03	2.37	**5.27**
Zinc	mg/kg	23,000	6.62	600	131	103 J	95.8	110	**119**
Cyanide, Total	mg/kg	2.7	0.1	0.0036					
pH adj. to 25 deg C	SU				9.03	9.31	8.87	8.63	
ABA & Sulfur Forms									
ABA	TCaCO3/kT	NE	NE	NE					
AGP	TCaCO3/kT	NE	NE	NE					
ANP	TCaCO3/kT	NE	NE	NE					
Non-extractable Sulfur	%	NE	NE	NE					
Non-Sulfate Sulfur	%	NE	NE	NE					
Pyritic Sulfur	%	NE	NE	NE					
Sulfate Sulfur	%	NE	NE	NE					
Total Sulfur	%	NE	NE	NE					
ABA & Sulfur Forms (HCl Wash)									
ABA-HCl	TCaCO3/kT	NE	NE	NE					
AGP-HCl	TCaCO3/kT	NE	NE	NE					
Non-Sulfate Sulfur-HCl	%	NE	NE	NE					
Pyritic Sulfur-HCl	%	NE	NE	NE					
Sulfate Sulfur-HCl	%	NE	NE	NE					

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ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
NE - Not established
SU - Standard Unit
TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
Gray shaded cells - Not Analyzed
All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

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Student's-t UCL
H-UCL
Gamma UCL
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Table 4. Journigan's Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Background ISM Samples			DU-7 Background ISM 95% UCL	Discrete Background Samples							
					280-80481-3 DEVA-JOUR-07-001 3/1/2016 10:00 AM	280-80481-4 DEVA-JOUR-07-002 3/1/2016 10:05 AM	280-80481-5 DEVA-JOUR-07-003 3/1/2016 11:00 AM		280-80481-6 DEVA-JOUR-07-004 3/1/2016 11:05 AM	280-80481-7 DEVA-JOUR-07-005 3/1/2016 11:10 AM	280-80481-8 DEVA-JOUR-07-006 3/1/2016 11:15 AM	280-80481-9 DEVA-JOUR-07-007 3/1/2016 11:25 AM	280-80481-10 DEVA-JOUR-07-008 3/1/2016 11:30 AM	280-80481-11 DEVA-JOUR-07-009 3/1/2016 11:35 AM	280-80481-12 DEVA-JOUR-07-010 3/1/2016 11:40 AM	280-80481-13 DEVA-JOUR-07-011 3/1/2016 11:50 AM
Antimony	mg/kg	31	0.05	20	0.412	0.486	0.489	**0.572**	0.366	0.517	0.557	0.553	0.427	1.07	0.599	0.372
Arsenic	mg/kg	0.68	0.25	0.39	3.82	3.68	3.64	**3.95**	4.18	4.46	3.74	3.99	4.27	4.54	3.92	5.96
Barium	mg/kg	15,000	17.2	750	107	96.0	92.7	**117**	68.3	77.2	75.4	95.4 J	104	111	74.6	101
Beryllium	mg/kg	160	0.242	4.0	0.584	0.58	0.576	**0.590**	0.711	0.709	0.746	0.832	0.855	0.792	0.857	0.327
Cadmium	mg/kg	71	0.27	12	0.119	0.116	0.119	0.122	0.15	0.107	0.159	0.107	0.154	0.153	0.194	0.109
Chromium	mg/kg	120,000	0.35	1,000	15.7	15.5	14.8	**16.5**	15.1	15.4	12.7	14.4	15.5	16.4	13.0	14.0
Cobalt	mg/kg	23	13	23	13.5	12.6	12.5	14.2	15.9	15.1	14.8	14.8	14.8	14.5	15.4	10.3
Copper	mg/kg	3,100	15	230	21.9	20.1	20.9	**23.2**	27.5	25.3	24.0	22.9	26.2	24.8	24.9	21.8
Lead	mg/kg	400	0.94	80	10.6	10.1	10.5	**11.1**	5.16	6.58	7.56	10.3	10.8	15.9	6.48	10.8
Manganese	mg/kg	1,900	220	NE	623	555	563	**674**	647	600	566	568 J	589	645	658	513
Mercury	mg/kg	11	0.013	6.7	0.0318	0.0248	0.0263	**0.0369**	0.0184 J	0.023	0.0437	0.0303	0.0387	0.0368	0.0235	0.0107 J
Molybdenum	mg/kg	390	NE	40	0.32	0.286	0.309	0.349	0.484	0.502	0.446	0.429 J	0.384	0.423	0.421	0.282
Nickel	mg/kg	1,500	9.7	150	29.0	27.4	27.9	**30.2**	42.9	40.1	38.1	34.9	36.9	34.9	39.7	19.6
Selenium	mg/kg	390	0.331	100	0.364 U	0.387 U	0.364 U	0.203	0.103 J	0.102 J	0.308 U	0.286 U	0.405 U	0.367 U	0.371 U	0.363 U
Silver	mg/kg	390	2.0	20	0.0423 J	0.0446 J	0.037 J	0.0511	0.0428 J	0.0331 J	0.0469 J	0.0625 J	0.0505 J	0.619 J	0.0373 J	0.0191 J
Thallium	mg/kg	0.78	0.027	0.78	0.0753 J	0.0754 J	0.0713 J	**0.0799**	0.0847	0.0866	0.0792	0.0823	0.0962 J	0.1	0.0766 J	0.0366 J
Vanadium	mg/kg	390	0.025	200	25.9	26.3	25.6	**26.8**	38.2	36.1	32.5	37.2 J	38.3	37.1	33.6	19.5
Zinc	mg/kg	23,000	6.62	600	48.8	45.0	44.8	**51.9**	42.9	43.3	42.0	45.8	48.5	51.9	44.4	43.1
Cyanide, Total	mg/kg	2.7	0.1	0.0036												
pH adj. to 25 deg C	SU				8.49	8.47	8.92		9.14	9.13	8.99	8.82	9.06	8.9	9.06	8.95
ABA & Sulfur Forms																
ABA	TCaCO3/kT	NE	NE	NE												
AGP	TCaCO3/kT	NE	NE	NE												
ANP	TCaCO3/kT	NE	NE	NE												
Non-extractable Sulfur	%	NE	NE	NE												
Non-Sulfate Sulfur	%	NE	NE	NE												
Pyritic Sulfur	%	NE	NE	NE												
Sulfate Sulfur	%	NE	NE	NE												
Total Sulfur	%	NE	NE	NE												

J - Laboratory Estimated Value
U - Not Detected at stated reporting limit
ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
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Non-Detects assumed present at 1/2 of RL

Student's-t UCL
H-UCL
Gamma UCL
Chebyshev UCL

UCL Results shown in **bold** exceed one or more screening levels

TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
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All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

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Table 4. Journigan's Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Discrete Background Samples								DU-7 Background Discrete 95% UCL
					280-80481-14 DEVA-JOUR-07-012 3/1/2016 11:55 AM	280-80481-15 DEVA-JOUR-07-013 3/1/2016 12:00 PM	280-80481-16 DEVA-JOUR-07-014 3/1/2016 12:10 PM	280-80481-17 DEVA-JOUR-07-015 3/1/2016 12:20 PM	280-80481-18 DEVA-JOUR-07-016 3/1/2016 12:25 PM	280-80481-19 DEVA-JOUR-07-017 3/1/2016 12:30 PM	280-80481-20 DEVA-JOUR-07-018 3/3/2016 1:40 PM	280-80481-51 DEVA-JOUR-07-019 3/3/2016 1:50 PM	
Antimony	mg/kg	31	0.05	20	0.512	0.449	0.529	0.303	0.677	0.714	1.78	1.2	**0.775**
Arsenic	mg/kg	0.68	0.25	0.39	5.64	5.0	4.68	2.76	8.14	6.7	53.4	29.0	**20.8**
Barium	mg/kg	15,000	17.2	750	122	71.2	89.7	96.3	109	124	92.3	79.2	**101**
Beryllium	mg/kg	160	0.242	4.0	0.41	0.328	0.349	0.474	0.379	0.344	0.868	0.67	**0.679**
Cadmium	mg/kg	71	0.27	12	0.0774 J	0.0464	0.0997	0.0832	0.156	0.0584 J	0.3	0.284	0.168
Chromium	mg/kg	120,000	0.35	1,000	14.7	12.1	14.7	25.8	14.7	14.3	16.9	11.9	**16.3**
Cobalt	mg/kg	23	13	23	12.0	9.84	10.2	17.2	11.0	12.2	12.8	9.89	14.0
Copper	mg/kg	3,100	15	230	20.8	16.7	17.2	21.6	20.9	22.2	26.6	21.7 J	**23.7**
Lead	mg/kg	400	0.94	80	12.7	11.7	9.44	11.3	12.7	13.6	17.0	11.4	**12.0**
Manganese	mg/kg	1,900	220	NE	587	431	515	608	563	577	619	485	**597**
Mercury	mg/kg	11	0.013	6.7	0.0228	0.0117 J	0.0181 J	0.0211	0.0275	0.0156 J	0.0531	0.0465	**0.0323**
Molybdenum	mg/kg	390	NE	40	0.366	0.339	0.299	0.15	0.389	0.397	1.73	1.57	0.915
Nickel	mg/kg	1,500	9.7	150	23.6	19.3	20.2	29.7	20.5	22.7	29.2	21.1	**32.5**
Selenium	mg/kg	390	0.331	100	0.353 U	0.297 U	0.308 U	0.1645	0.137 J	0.367 U	0.161	0.396 U	0.177
Silver	mg/kg	390	2.0	20	0.0207 J	0.0193 J	0.0255 J	0.0299	0.0262 J	0.024 J	0.0557	0.0368 J	0.0432
Thallium	mg/kg	0.78	0.027	0.78	0.0545 J	0.038 J	0.048 J	0.0435	0.0609 J	0.0538 J	0.108	0.103	**0.0811**
Vanadium	mg/kg	390	0.025	200	19.4	13.8	15.4	32.5	17.9	17.3	16.9	18.0	**30.9**
Zinc	mg/kg	23,000	6.62	600	47.9	38.1	46.7	71.7	47.1	45.3	96.1	70.4	**56.3**
Cyanide, Total	mg/kg	2.7	0.1	0.0036									
pH adj. to 25 deg C	SU				2.98	9.11	8.90	8.92	8.93	8.84	8.77	8.69	
ABA & Sulfur Forms													
ABA	TCaCO3/kT	NE	NE	NE								347	
AGP	TCaCO3/kT	NE	NE	NE								0.3 U	
ANP	TCaCO3/kT	NE	NE	NE								347	
Non-extractable Sulfur	%	NE	NE	NE								0.01 U	
Non-Sulfate Sulfur	%	NE	NE	NE								0.01 U	
Pyritic Sulfur	%	NE	NE	NE								0.01 U	
Sulfate Sulfur	%	NE	NE	NE								0.01 U	
Total Sulfur	%	NE	NE	NE								0.01 U	

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mg/kg - milligrams per kilogram
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Gray shaded cells - Not Analyzed
All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

Non-Detects assumed present at 1/2 of RL

Student's-t UCL
H-UCL
Gamma UCL
Chebyshev UCL

UCL Results shown in **bold** exceed one or more screening levels

ESL - Environmental Screening Level (California Water Board)
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Table 4. Journigan's Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Cyanide Processing Area ISM Samples				DU-1 Cyanide Processing Area - ISM 95% UCL	Mill Foundation ISM Samples				DU-2 Mill Foundation ISM 95% UCL
					280-80481-26 DEVA-JOUR-01-001 3/2/2016 12:30 PM	280-80481-27 DEVA-JOUR-01-002 3/2/2016 12:40 PM	280-80481-28 DEVA-JOUR-01-003 3/2/2016 1:20 PM	280-80481-29 DEVA-JOUR-01-004 3/2/2016 1:30 PM		280-80481-21 DEVA-JOUR-02-001 3/1/2016 2:20 PM	280-80481-22 DEVA-JOUR-02-002 3/1/2016 2:25 PM	280-80481-23 DEVA-JOUR-02-003 3/1/2016 3:10 PM	280-80481-24 DEVA-JOUR-02-004 3/1/2016 3:20 PM	
Antimony	mg/kg	31	0.05	20	2.38	2.15	2.04	2.34	**2.58**	2.74	2.26	3.11	4.61	**5.39**
Arsenic	mg/kg	0.68	0.25	0.39	68.2	50.8	61.9	55.3	**75.6**	10.9	12.1	9.37	9.33	**13.3**
Barium	mg/kg	15,000	17.2	750	116	107	97.5	111	**125**	88.4	86.4	120	141	**166**
Beryllium	mg/kg	160	0.242	4.0	0.362	0.36	0.31	0.365	**0.406**	0.332	0.324	0.328	0.344	**0.351**
Cadmium	mg/kg	71	0.27	12	0.252	0.281	0.155	0.356	**0.442**	0.452	0.593	0.636	0.394	**0.768**
Chromium	mg/kg	120,000	0.35	1,000	8.53	9.45	9.29	10.2	**10.9**	14.2	19.8	15.8	14.7	**21.7**
Cobalt	mg/kg	23	13	23	5.74	5.98	6.61	6.87	7.45	3.47	4.26	4.15	3.78	4.70
Copper	mg/kg	3,100	15	230	18.3	19.1	19.1	20.8	**21.6**	20.5	24.3	21.3	20.8	**25.5**
Lead	mg/kg	400	0.94	80	638	656	458	513	**776**	216	309	274	246	**348**
Manganese	mg/kg	1,900	220	NE	362	358	367	404	**419**	303	348	324	320	**364**
Mercury	mg/kg	11	0.013	6.7	0.916	0.778	0.742	1.13	**1.28**	0.309	0.412	0.358	0.231	**0.495**
Molybdenum	mg/kg	390	NE	40	0.732	0.823	0.721	1.02	1.13	1.49	2.67	2.53	3.27	4.10
Nickel	mg/kg	1,500	9.7	150	12.8	14.1	13.6	15.2	**16.1**	15.2	18.7	17.0	16.3	**20.0**
Selenium	mg/kg	390	0.331	100	0.175 J	0.160 J	0.197 J	0.171 J	0.210	0.388	0.398 U	0.395 U	0.373 U	**0.454**
Silver	mg/kg	390	2.0	20	2.87	3.56	2.85	3.62	**4.14**	2.1	2.48	2.08	1.06	**3.26**
Thallium	mg/kg	0.78	0.027	0.78	0.0644 J	0.0603 J	0.0658 J	0.0677 J	**0.0714**	0.0315	0.0365 J	0.0339 J	0.0296 J	**0.0394**
Vanadium	mg/kg	390	0.025	200	14.0	15.0	14.8	16.0	**16.7**	10.2	11.2	10.3	10.0	**11.6**
Zinc	mg/kg	23,000	6.62	600	309	334	254	429	**491**	174	196	205	159	**229**
Cyanide, Total	mg/kg	2.7	0.1	0.0036	18.8 J	20.8	15.1	11.8	**25.3**	4.76 J	8.34	5.34	5.31	**9.48**
pH adj. to 25 deg C	SU				8.14	8.49	8.66	8.47		8.36	8.39	8.44	8.57	
ABA & Sulfur Forms														
ABA	TCaCO3/kT	NE	NE	NE						290	283	300	277	
AGP	TCaCO3/kT	NE	NE	NE						0.3 U	0.3 U	0.3 U	0.3 U	
ANP	TCaCO3/kT	NE	NE	NE						290	283	300	277	
Non-extractable Sulfur	%	NE	NE	NE						0.01 U	0.01 U	0.01 U	0.01 U	
Non-Sulfate Sulfur	%	NE	NE	NE						0.01 U	0.01 U	0.01 U	0.01 U	
Pyritic Sulfur	%	NE	NE	NE						0.01 U	0.01 U	0.01 U	0.01 U	
Sulfate Sulfur	%	NE	NE	NE						0.02	0.02	0.02	0.02	
Total Sulfur	%	NE	NE	NE						0.02	0.02	0.02	0.02	

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Table 4. Journigan's Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Mill Tailings Large Bermed Stockpile ISM Samples				DU-3 Mill Tailings Stockpile ISM 95% UCL	Southern Mine Waste Stockpile ISM Samples				DU-4 South Mine Waste Stockpile ISM 95% UCL
					280-80481-30 DEVA-JOUR-03-001 3/2/2016 3:40 PM	280-80481-31 DEVA-JOUR-03-002 3/2/2016 3:45 PM	280-80481-32 DEVA-JOUR-03-003 3/2/2016 4:10 PM	280-80481-33 DEVA-JOUR-03-004 3/2/2016 4:20 PM		280-80481-34 DEVA-JOUR-04-001 3/2/2016 8:50 AM	280-80481-35 DEVA-JOUR-04-002 3/2/2016 9:00 AM	280-80481-36 DEVA-JOUR-04-003 3/2/2016 9:30 AM	280-80481-37 DEVA-JOUR-04-004 3/2/2016 9:40 AM	
Antimony	mg/kg	31	0.05	20	1.35	0.995	1.24	0.812	**1.63**	0.984	0.995	0.897	0.912	**1.05**
Arsenic	mg/kg	0.68	0.25	0.39	11.2	8.96	10.7	9.1	**12.4**	16.6	16.7 J	15.7	16.8	**17.6**
Barium	mg/kg	15,000	17.2	750	62.9	60.2	61.7	51.8	**70.1**	110	111 J	111	113	**114**
Beryllium	mg/kg	160	0.242	4.0	0.305	0.287	0.317	0.255	**0.350**	1.04	1.04	1.03	1.05	**1.06**
Cadmium	mg/kg	71	0.27	12	0.176	0.136	0.18	0.152	0.206	0.164	0.191	0.168	0.178	0.201
Chromium	mg/kg	120,000	0.35	1,000	11.3	10.5	11.1	10.7	**11.7**	18.0	18.3 J	16.9	17.8	**19.1**
Cobalt	mg/kg	23	13	23	2.69	3.18	2.99	2.98	3.40	11.3	11.6	10.9	11.1	11.9
Copper	mg/kg	3,100	15	230	20.6	19.8	21.0	19.7	**21.6**	29.2	30.2 J	27.3	29.6	**31.8**
Lead	mg/kg	400	0.94	80	401	393	445	367	**472**	482	441 J	427	421	**503**
Manganese	mg/kg	1,900	220	NE	272	209	223	207	**294**	484	501 J	415	417	**552**
Mercury	mg/kg	11	0.013	6.7	0.37	0.238	0.333	0.315	**0.435**	0.424	0.366	0.347	0.403	**0.461**
Molybdenum	mg/kg	390	NE	40	0.883	0.703	0.863	0.81	0.990	0.419	0.449 J	0.436	0.454	0.474
Nickel	mg/kg	1,500	9.7	150	11.4	12.0	11.8	11.6	**12.3**	24.0	25.4 J	23.3	23.6	**26.1**
Selenium	mg/kg	390	0.331	100	0.382 U	0.389 U	0.384 U	0.383 U	0.196	0.158 J	0.167 J	0.158 J	0.178 J	0.186
Silver	mg/kg	390	2.0	20	2.33	1.82	2.21	1.92	**2.59**	2.75	2.58	2.77	2.66	**2.88**
Thallium	mg/kg	0.78	0.027	0.78	0.0336 J	0.0316 J	0.0366 J	0.0289 J	**0.398**	0.169	0.18	0.171	0.174	**0.184**
Vanadium	mg/kg	390	0.025	200	11.2	11.6	12.0	11.8	**12.4**	39.5	40.3 J	39.6	39.9	**40.6**
Zinc	mg/kg	23,000	6.62	600	106	98.0	104	94.5	**112**	63.1	63.3 J	57.8	60.0	**66.8**
Cyanide, Total	mg/kg	2.7	0.1	0.0036	13.6	6.88	23.9	11.1	**29.6**					
pH adj. to 25 deg C	SU				8.83	8.57	8.35	8.7		8.24	8.21	8.25	8.41	
ABA & Sulfur Forms														
ABA	TCaCO3/kT	NE	NE	NE	231	152	172	134						
AGP	TCaCO3/kT	NE	NE	NE	0.3 U	0.3 U	0.3 U	0.3 U						
ANP	TCaCO3/kT	NE	NE	NE	231	152	172	134						
Non-extractable Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.01 U	0.01 U						
Non-Sulfate Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.01 U	0.01 U						
Pyritic Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.01 U	0.01 U						
Sulfate Sulfur	%	NE	NE	NE	0.01	0.01	0.01	0.01 U						
Total Sulfur	%	NE	NE	NE	0.01	0.01	0.01	0.01 U						

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Table 4. Journigan's Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Mill Tailings in Northern Wash Discrete samples									
					280-80481-38 DEVA-JOUR-05-001 3/3/2016 2:00 PM	280-80481-39 DEVA-JOUR-05-002 3/3/2016 2:25 PM	280-80481-40 DEVA-JOUR-05-003 3/3/2016 2:30 PM	280-80481-41 DEVA-JOUR-05-004 3/3/2016 2:45 PM	280-80481-42 DEVA-JOUR-05-005 3/3/2016 2:55 PM	280-80481-43 DEVA-JOUR-05-006 3/3/2016 3:05 PM	280-80481-44 DEVA-JOUR-05-007 3/3/2016 3:15 PM	280-80481-45 DEVA-JOUR-05-008 3/3/2016 3:20 PM	280-80481-46 DEVA-JOUR-05-009 3/3/2016 3:30 PM	280-80481-47 DEVA-JOUR-05-010 3/3/2016 3:45 PM
Antimony	mg/kg	31	0.05	20	1.33	1.18	4.26	1.26	1.8	1.4	1.36	1.56	1.46	1.69
Arsenic	mg/kg	0.68	0.25	0.39	27.7	20.7	60.4	20.8	44.9	37.2	30.9	38.2	37.5	41.7
Barium	mg/kg	15,000	17.2	750	88.7	81.3	400	125	85.3	86.8	72.3	86.1	93.3	73.0
Beryllium	mg/kg	160	0.242	4.0	0.725	1.03	1.51	0.659	0.818	0.622	0.608	0.657	0.822	0.691
Cadmium	mg/kg	71	0.27	12	0.332	0.157	0.191	0.264	0.292	0.186	0.214	0.29	0.295	0.349
Chromium	mg/kg	120,000	0.35	1,000	12.1	10.5	3.49 J	16.0	15.3	14.5	13.4	14.4	15.4	16.4
Cobalt	mg/kg	23	13	23	10.0	8.95	3.53	12.3	12.3	11.0	95,00	10.9	11.7	12.0
Copper	mg/kg	3,100	15	230	21.2 J	18.6	26.4	25.4	26.1	23.4 J	20.4 J	22.9 J	24.2	24.2
Lead	mg/kg	400	0.94	80	11.1	143	2,540	102	21.7	22.7	15.2	17.5	17.8	16.5
Manganese	mg/kg	1,900	220	NE	544	354	350	552	606	495	472	560	608	607
Mercury	mg/kg	11	0.013	6.7	0.0375	0.112	7.99 J	0.172	0.0999	0.0384	0.0505	0.0562	0.0557	0.0516
Molybdenum	mg/kg	390	NE	40	1.59	0.871	2.76	1.02	1.7	1.54	1.48	1.48	1.55	1.42
Nickel	mg/kg	1,500	9.7	150	20.8	18.1	6.31	26.8	27.6	25.4	22.7	25.3	27.6	27.8
Selenium	mg/kg	390	0.331	100	0.134	0.399 U	0.279 J	0.130 J	0.162 J	0.137 J	0.126 J	0.151 J	0.185 J	0.137 J
Silver	mg/kg	390	2.0	20	0.0443	0.423	13.6	0.599	0.0829 J	0.050 J	0.0556 J	0.0609 J	0.0718 J	0.0617 J
Thallium	mg/kg	0.78	0.027	0.78	0.128	0.0505 J	0.137	0.107	0.112	0.0887 J	0.0875 J	0.098 J	0.12	0.0875 J
Vanadium	mg/kg	390	0.025	200	17.4	16.4	20.7	23.4	16.9	17.7	15.8	17.2	19.2	17.2
Zinc	mg/kg	23,000	6.62	600	68.3	69.2	468	84.2	92.3	74.5	73.7	78.2	82.1	86.6
Cyanide, Total	mg/kg	2.7	0.1	0.0036										
pH adj. to 25 deg C	SU				8.79	8.81	9.3	8.62	8.76	8.87	8.45	8.76	8.79	8.89
ABA & Sulfur Forms														
ABA	TCaCO3/kT	NE	NE	NE	248	163	50.8	198	187	177	311	194	200	173
AGP	TCaCO3/kT	NE	NE	NE	0.3 U	0.3 U	4.3	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4
ANP	TCaCO3/kT	NE	NE	NE	248	163	55.2	198	187	177	311	194	200	173
Non-extractable Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.01 U	0.02	0.01	0.01	0.01 U	0.01	0.02	0.01 U
Non-Sulfate Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.14	0.02	0.02	0.01	0.01 U	0.01 U	0.01	0.01
Pyritic Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.14	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01
Sulfate Sulfur	%	NE	NE	NE	0.01	0.01	0.06	0.01 U	0.01 U	0.01 U	0.01 U	0.02	0.01 U	0.01
Total Sulfur	%	NE	NE	NE	0.01	0.01	0.2	0.02	0.03	0.01	0.01 U	0.02	0.02	0.02

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Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Mill Tailings in Northern Wash Discrete samples										DU-5 North Wash Mill Tailings - Discrete 95% UCL
					280-80481-48 DEVA-JOUR-05-011 3/3/2016 3:55 PM	280-80481-49 DEVA-JOUR-05-012 3/3/2016 4:10 PM	280-80481-50 DEVA-JOUR-05-013 3/3/2016 4:15 PM	280-80767-1 DEVA-JOUR-05-014 3/4/2016 8:10 AM	280-80767-2 DEVA-JOUR-05-015 3/4/2016 8:30 AM	280-80767-3 DEVA-JOUR-05-016 3/4/2016 9:00 AM	280-80767-4 DEVA-JOUR-05-017 3/4/2016 9:30 AM	280-80767-5 DEVA-JOUR-05-018 3/4/2016 9:45 AM	280-80767-6 DEVA-JOUR-05-019 3/4/2016 10:15 AM	280-80767-7 DEVA-JOUR-05-020 3/4/2016 10:25 AM	
Antimony	mg/kg	31	0.05	20	1.54	1.08	0.978	1.41	1.26	1.18	1.42	0.943	0.834	1.75	**1.76**
Arsenic	mg/kg	0.68	0.25	0.39	43.3	27.1	21.6	46.9 J	35.6	37.3	44.4	20.4	8.17	37.5	**38.8**
Barium	mg/kg	15,000	17.2	750	89.7	106	69.4	81.8 J	112	115	104	92.2	86.4	132	**136**
Beryllium	mg/kg	160	0.242	4.0	0.797	0.632	0.622	0.76	0.843	0.855	0.83	0.547	0.483	0.957	**0.865**
Cadmium	mg/kg	71	0.27	12	0.21	0.176	0.154	0.258	0.208	0.248	0.288	0.137	0.185	0.258	0.258
Chromium	mg/kg	120,000	0.35	1,000	17.2	16.1	16.3	18.1 J	18.6	18.3	20.3	15.0	15.1	20.2	**16.8**
Cobalt	mg/kg	23	13	23	12.8	12.1	9.14	12.0	12.4	12.8	13.7	8.66	10.8	13.0	12.0
Copper	mg/kg	3,100	15	230	26.5	23.9	16.6 J	26.6 J	24.7	25.5	29.1	16.6	19.1	28.4	**24.9**
Lead	mg/kg	400	0.94	80	19.2	20.6	12.5	21.4 J	20.4	18.3	19.4	15.0	9.58	21.6	**703**
Manganese	mg/kg	1,900	220	NE	660	552	489	568 J	558	562	608	388	433	593	**562**
Mercury	mg/kg	11	0.013	6.7	0.0575	0.0461	0.0262	0.0458	0.0381	0.0447	0.0459	0.0269	0.0158 J	0.038	**2.18**
Molybdenum	mg/kg	390	NE	40	1.54	1.07	0.916	1.78	1.42	1.4	1.53	0.818	0.619	1.34	1.57
Nickel	mg/kg	1,500	9.7	150	29.3	29.3	23.0	29.0	29.4	30.0	32.7	22.0	34.1	32.1	**28.4**
Selenium	mg/kg	390	0.331	100	0.176 J	0.127 J	0.378 U	0.149 J	0.118 J	0.140 J	0.169 J	0.292 U	0.218 J	0.314 J	0.189
Silver	mg/kg	390	2.0	20	0.0755 J	0.0642 J	0.0365 J	0.0584 J	0.0638 J	0.0597 J	0.0745	0.0406 J	0.0284 J	0.0626 J	**3.72**
Thallium	mg/kg	0.78	0.027	0.78	0.11	0.0999	0.0608 J	0.105	0.118	0.109	0.133	0.0619 J	0.0688 J	0.12	**0.110**
Vanadium	mg/kg	390	0.025	200	19.4	21.3	20.3	21.5 J	22.7	23.9	22.8	19.2	22.1	22.1	**20.8**
Zinc	mg/kg	23,000	6.62	600	90.3	71.1	57.3	82.5 J	76.9	80.0	91.4	51.0	41.2	93.4	**130**
Cyanide, Total	mg/kg	2.7	0.1	0.0036											
pH adj. to 25 deg C	SU				8.64	8.66	8.95	9.04	8.95	8.93	8.6	9.23	8.37	8.46	
ABA & Sulfur Forms															
ABA	TCaCO3/kT	NE	NE	NE	189	185	153	196	183	182	171	144	270	161	
AGP	TCaCO3/kT	NE	NE	NE	0.3 U	0.3 U	0.3 U	0.4	0.4	0.7	0.9	0.3 U	0.3 U	0.6	
ANP	TCaCO3/kT	NE	NE	NE	189	185	153	196	184	182	172	144	270	162	
Non-extractable Sulfur	%	NE	NE	NE	0.01	0.01	0.01	0.01 U	0.01 U	0.01	0.01	0.01 U	0.01 U	0.01	
Non-Sulfate Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.02	0.01	0.01	0.02	0.04	0.01 U	0.01 U	0.03	
Pyritic Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.01 U	0.01	0.01	0.02	0.03	0.01 U	0.01 U	0.02	
Sulfate Sulfur	%	NE	NE	NE	0.01	0.02	0.01 U	0.01	0.01 U	0.01 U	0.01 U	0.01	0.01 U	0.01 U	
Total Sulfur	%	NE	NE	NE	0.01	0.02	0.01	0.02	0.02	0.02	0.04	0.01	0.01 U	0.03	

J - Laboratory Estimated Value
U - Not Detected at stated reporting limit
ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
NE - Not established
SU - Standard Unit
TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
Gray shaded cells - Not Analyzed
All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

Non-Detects assumed present at 1/2 of RL

Student's-t UCL
H-UCL
Gamma UCL
Chebyshev UCL

UCL Results shown in **bold** exceed one or more screening levels

ESL - Environmental Screening Level (California Water Board)
NPS ESV - National Park Service Ecological Screening Value
RSL - Regional Screening Level (USEPA)

Table 4. Journigan's Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Mill Tailings in Southern Wash Discrete samples						
					280-80481-52 DEVA-JOUR-06-001 3/3/2016 2:05 PM	280-80481-53 DEVA-JOUR-06-002 3/3/2016 2:15 PM	280-80481-54 DEVA-JOUR-06-003 3/3/2016 2:20 PM	280-80481-55 DEVA-JOUR-06-004 3/3/2016 2:35 PM	280-80481-56 DEVA-JOUR-06-005 3/3/2016 3:25 PM	280-80481-57 DEVA-JOUR-06-006 3/3/2016 3:50 PM	280-80481-58 DEVA-JOUR-06-007 3/3/2016 4:00 PM
Antimony	mg/kg	31	0.05	20	1.45	13.1	1.2	0.72	1.53	2.12	1.09
Arsenic	mg/kg	0.68	0.25	0.39	27.7	51.3 J	23.9	7.59	36.0	21.0	5.84
Barium	mg/kg	15,000	17.2	750	82.5	219 J	106	109	92.6	80.2	202
Beryllium	mg/kg	160	0.242	4.0	0.656	0.37	0.63	0.564	0.689	0.525	0.63
Cadmium	mg/kg	71	0.27	12	0.268	0.573	0.191	0.139	0.249	0.191	0.111
Chromium	mg/kg	120,000	0.35	1,000	11.6	1,540 U	15.7	16.7	14.3	14.4	29.9
Cobalt	mg/kg	23	13	23	9.6	1.2	11.9	14.9	10.8	12.1	17.7
Copper	mg/kg	3,100	15	230	20.6 J	27.7	26.2	29.1	22.6 J	22.8	30.6
Lead	mg/kg	400	0.94	80	11.2	890 J	89.5	14.9	17.8	20.1	15.8
Manganese	mg/kg	1,900	220	NE	523	141 J	497	633	471	427	534
Mercury	mg/kg	11	0.013	6.7	0.057	1.03	0.0867	0.0389	0.0394	0.0771	0.0583
Molybdenum	mg/kg	390	NE	40	1.6	1.69	1.18	0.434	1.4	0.63	0.222
Nickel	mg/kg	1,500	9.7	150	20.4	0.736 J	27.2	35.9	25.3	31.4	52.5
Selenium	mg/kg	390	0.331	100	0.334 U	0.353 U	0.141 J	0.178 J	0.143 J	0.307 J	0.366 U
Silver	mg/kg	390	2.0	20	0.0369 J	2.88 J	0.341	0.0354 J	0.0525 J	0.148	0.0454 J
Thallium	mg/kg	0.78	0.027	0.78	0.1	0.0488 J	0.0945 J	0.0873 J	0.0918 J	0.0869	0.0722 J
Vanadium	mg/kg	390	0.025	200	18.1	3.49 J	21.9	23.9	17.9	14.2	32.7
Zinc	mg/kg	23,000	6.62	600	66.0	347 J	86.8	56.7	74.1	81.7	45.2
Cyanide, Total	mg/kg	2.7	0.1	0.0036							
pH adj. to 25 deg C	SU				8.78	9.32	8.76	8.71	8.87	8.47	8.39
ABA & Sulfur Forms											
ABA	TCaCO3/kT	NE	NE	NE	252	14.1	166	222	175	121	121
AGP	TCaCO3/kT	NE	NE	NE	0.3 U	0.8	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
ANP	TCaCO3/kT	NE	NE	NE	252	14.9	166	222	175	121	121
Non-extractable Sulfur	%	NE	NE	NE	0.01	0.01 U	0.01 U	0.01 U	0.01 U	0.02	0.01 U
Non-Sulfate Sulfur	%	NE	NE	NE	0.01 U	0.03	0.01 U	0.01 U	0.01 U	0.01	0.01 U
Pyritic Sulfur	%	NE	NE	NE	0.01 U	0.03	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Sulfate Sulfur	%	NE	NE	NE	0.01	0.02	0.01 U	0.01 U	0.02	0.01 U	0.02
Total Sulfur	%	NE	NE	NE	0.01	0.05	0.01 U	0.01 U	0.02	0.02	0.02

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SU - Standard Unit
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Gray shaded cells - Not Analyzed
All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

Non-Detects assumed present at 1/2 of RL

Student's-t UCL
H-UCL
Gamma UCL
Chebyshev UCL

UCL Results shown in **bold** exceed one or more screening levels

ESL - Environmental Screening Level (California Water Board)
NPS ESV - National Park Service Ecological Screening Value
RSL - Regional Screening Level (USEPA)

Table 4. Journigan's Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Mill Tailings in Southern Wash Discrete samples						DU-6 South Wash Mill Tailings - Discrete 95% UCL
					280-80481-59 DEVA-JOUR-06-008 3/3/2016 4:05 PM	280-80481-60 DEVA-JOUR-06-009 3/3/2016 4:20 PM	280-80767-9 DEVA-JOUR-06-011 3/4/2016 8:40 AM	280-80767-10 DEVA-JOUR-06-012 3/4/2016 9:10 AM	280-80767-11 DEVA-JOUR-06-013 3/4/2016 9:35 AM	280-80767-12 DEVA-JOUR-06-014 3/4/2016 9:50 AM	
Antimony	mg/kg	31	0.05	20	1.37	1.67	1.58	0.859	0.839	1.13 J	**6.19**
Arsenic	mg/kg	0.68	0.25	0.39	13.9	18.2	48.1	25.6	16.5	24.1	**31.4**
Barium	mg/kg	15,000	17.2	750	154	148 J	104	123	163	161	**156**
Beryllium	mg/kg	160	0.242	4.0	0.61	0.519	1.21	0.984	0.93	0.874	**0.821**
Cadmium	mg/kg	71	0.27	12	0.149	0.181	0.219	0.24	0.166	0.137	**0.283**
Chromium	mg/kg	120,000	0.35	1,000	25.3	12.3	20.8	28.9	26.6	23.7	**22.6**
Cobalt	mg/kg	23	13	23	15.8	11.3	14.1	14.6	14.5	15.2	14.6
Copper	mg/kg	3,100	15	230	27.6	22.2 J	29.6	24.0	23.9	27.1	**27.3**
Lead	mg/kg	400	0.94	80	17.8	16.3	20.3	20.4	15.9	16.5	**381**
Manganese	mg/kg	1,900	220	NE	504	477 J	633	587	592	654	**579**
Mercury	mg/kg	11	0.013	6.7	0.0485	0.0481	0.0562	0.0264	0.0187	0.0483	**0.455**
Molybdenum	mg/kg	390	NE	40	0.482	0.724	1.59	0.825	0.423	0.729	1.17
Nickel	mg/kg	1,500	9.7	150	43.3	23.7	33.0	37.5	32.3	32.3	**36.5**
Selenium	mg/kg	390	0.331	100	0.127 J	0.370 U	0.186 J	0.329 U	0.113 J	0.184 J	0.197
Silver	mg/kg	390	2.0	20	0.0546 J	0.21	0.0709 J	0.0582 J	0.0295 J	0.0583 J	1.25
Thallium	mg/kg	0.78	0.027	0.78	0.0847	0.0808 J	0.128	0.0803 J	0.0598 J	0.101	**0.0955**
Vanadium	mg/kg	390	0.025	200	26.4	20.7	21.7	42.2	41.7	35.6	**30.1**
Zinc	mg/kg	23,000	6.62	600	60.4	55.7	95.7	85.3	68.3	74.9	**131**
Cyanide, Total	mg/kg	2.7	0.1	0.0036							
pH adj. to 25 deg C	SU				8.6	8.85	8.5	8.89	9.15	8.35	
ABA & Sulfur Forms											
ABA	TCaCO3/kT	NE	NE	NE	134	143	168	161	169	200	
AGP	TCaCO3/kT	NE	NE	NE	0.3 U	0.3 U	1	0.5	0.3 U	0.3 U	
ANP	TCaCO3/kT	NE	NE	NE	134	143	170	162	170	200	
Non-extractable Sulfur	%	NE	NE	NE	0.01	0.01 U	0.01 U	0.01 U	0.02	0.02	
Non-Sulfate Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.03	0.02	0.02	0.02	
Pyritic Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.03	0.02	0.01 U	0.01 U	
Sulfate Sulfur	%	NE	NE	NE	0.02	0.01	0.01 U	0.01 U	0.01 U	0.01 U	
Total Sulfur	%	NE	NE	NE	0.02	0.01	0.04	0.02	0.01	0.02	

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ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
NE - Not established
SU - Standard Unit
TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
Gray shaded cells - Not Analyzed
All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

Non-Detects assumed present at 1/2 of RL
Student's-t UCL
H-UCL
Gamma UCL
Chebyshev UCL
UCL Results shown in **bold** exceed one or more screening levels

ESL - Environmental Screening Level (California Water Board)
NPS ESV - National Park Service Ecological Screening Value
RSL - Regional Screening Level (USEPA)

Table 5. Starr Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Journigan's Mill	Mill Foundations and Cyanide Processing Area ISM Samples					Downgradient Discrete Samples			
					DU-7 Background ISM 95% UCL	280-80475-2 DEVA-STAR-01-001 3/3/2016 11:25 AM	280-80475-3 DEVA-STAR-01-002 3/3/2016 11:25 AM	280-80475-4 DEVA-STAR-01-003 3/3/2016 12:10 PM	280-80475-5 DEVA-STAR-01-004 3/3/2016 12:20 PM	**Mill Foundation & Cyanide Processing Area ISM 95% UCL**	280-80475-6 DEVA-STAR-01-005 3/3/2016 4:40 PM	280-80475-7 DEVA-STAR-01-006 3/3/2016 4:45 PM	280-80475-8 DEVA-STAR-01-007 3/3/2016 4:50 PM	**Downgradient Discrete 95% UCL**
Antimony	mg/kg	31	0.05	20	**0.572**	6.62	8.71	13.5 J	6.41	**16.0**	1.4 J	1.56	2.06	**2.54**
Arsenic	mg/kg	0.68	0.25	0.39	**3.95**	44.8	40.5	88.3 J	45.0	**104**	29.5	34.0	51.2	**67.1**
Barium	mg/kg	15,000	17.2	750	**117**	53.6	32.6	63.4 J	45.1	**77.2**	94.6	99.6	91.7	**105**
Beryllium	mg/kg	160	0.242	4	**0.590**	0.592	0.404	0.719	0.577	**0.855**	0.72	0.75	0.912	**1.05**
Cadmium	mg/kg	71	0.27	12	0.122	0.305	0.409	0.637	0.265	**0.767**	0.221	0.251	0.261	**0.297**
Chromium	mg/kg	120,000	0.35	1,000	**16.5**	4.76	2.84	5.6	3.39	**6.90**	14.7	16.8	18.4	**21.3**
Cobalt	mg/kg	23	13	23	**14.2**	3.57	2.26	4.27	2.92	5.14	10.6	12.0	14.5	**17.3**
Copper	mg/kg	3,100	15	230	**23.2**	18.9	15.2	28.2	19.0	**32.4**	21.4 J	23.7	30.5	**37.1**
Lead	mg/kg	400	0.94	80	**11.1**	119	113	177 J	135	**199**	16.5	17.0	20.2	**23.0**
Manganese	mg/kg	1,900	220	NE	**674**	234	147	274 J	207	**332**	459	478	611	**724**
Mercury	mg/kg	11	0.013	6.7	**0.0369**	4.94	5.25	6.61 J	4.85	**7.19**	0.0962	0.0568	0.053	**0.129**
Molybdenum	mg/kg	390	NE	40	0.349	1.03	1.07	1.7	0.977	1.93	1.28	1.21	1.62	1.92
Nickel	mg/kg	1,500	9.7	150	**30.2**	7.73	4.61	8.93	5.3	**11.1**	24.6	28.0	34.0	**40.8**
Selenium	mg/kg	390	0.331	100	0.203	0.195 J	0.154 J	0.262 J	0.226 J	0.309	0.132 J	0.135 J	0.165 J	0.19
Silver	mg/kg	390	2.0	20	0.0511	2.05	3.23	3.43 J	2.65	**4.20**	0.0584 J	0.0657 J	0.0741 J	0.0858
Thallium	mg/kg	0.78	0.027	0.78	**0.0799**	0.0694 J	0.0367 J	0.0753 J	0.0564 J	**0.0967**	0.0947	0.0886	0.117	**0.138**
Vanadium	mg/kg	390	0.025	200	**26.8**	8.42	5.08	9.66	6.05	**11.9**	20.3	22.0	20.9	**23.2**
Zinc	mg/kg	23,000	6.62	600	**51.9**	119	94.1	137 J	124	**158**	65.8	73.3	106	**136**
Cyanide, Total	mg/kg	2.7	0.1	0.0036		0.433 J	0.280 J	2.21 J	0.216 J	**2.86**				
pH adjusted to 25 deg C	SU					9.4	9.21	9.39	9.43		9.09	9.00	8.9	
ABA & Sulfur Forms														
ABA	TCaCO3/kT	NE	NE	NE		81.8	76.2	85.6	76.2					
AGP	TCaCO3/kT	NE	NE	NE		1.7	2.2	1.8	2.2					
ANP	TCaCO3/kT	NE	NE	NE		83.5	78.4	87.3	78.4					
Non-extractable Sulfur	%	NE	NE	NE		0.01 U	0.01 U	0.01 U	0.01 U					
Non-Sulfate Sulfur	%	NE	NE	NE		0.06	0.07	0.06	0.07					
Pyritic Sulfur	%	NE	NE	NE		0.06	0.07	0.06	0.07					
Sulfate Sulfur	%	NE	NE	NE		0.05	0.05	0.05	0.05					
Total Sulfur	%	NE	NE	NE		0.10	0.12	0.11	0.12					

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ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
NE - Not established
SU - Standard Unit
TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
Gray shaded cells - Not Analyzed
All 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

UCL results shown in **bold** exceed one or more screening levels

ESL - Environmental Screening Level (California Water Board)
NPS ESV - National Park Service Ecological Screening Value
RSL - Regional Screening Level (USEPA)

Table 6. Tucki Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Background ISM Samples			DU-3 Background ISM 95% UCL	Cyanide Processing Area ISM Samples				DU-1 Cyanide Processing Area ISM 95% UCL
					280-80266-1 DEVA-TUCK-03-001 2/22/2016 9:20 AM	280-80266-2 DEVA-TUCK-03-002 2/22/2016 9:30 AM	280-80266-3 DEVA-TUCK-03-003 2/22/2016 10:30 AM		280-80266-9 DEVA-TUCK-01-001 2/23/2016 9:15 AM	280-80266-10 DEVA-TUCK-01-002 2/23/2016 9:20 AM	280-80266-11 DEVA-TUCK-01-003 2/23/2016 10:20 AM	280-80266-12 DEVA-TUCK-01-004 2/23/2016 10:30 AM	
Antimony	mg/kg	31	0.05	20	2.77	2.53	2.88	**3.18**	5.28	18.1	5.74	6.07	**22.3**
Arsenic	mg/kg	0.68	0.25	0.39	14.7	15.4	15.0	**15.9**	181	216	180	197	**230**
Barium	mg/kg	15,000	17.2	750	143	149	139	**156**	138	144	124	133	**153**
Beryllium	mg/kg	160	0.242	4	0.536	0.523	0.538	**0.553**	0.158	0.112	0.124	0.145	0.180
Cadmium	mg/kg	71	0.27	12	0.25	0.26	0.261	**0.272**	0.243	0.148	0.215	0.183	**0.287**
Chromium	mg/kg	120,000	0.35	1,000	8.34	8.83	8.45	**9.19**	7.09	6.38	6.21	5.71	**7.59**
Cobalt	mg/kg	23	13	23	10.3	9.9	9.98	10.6	5.48	4.86	4.99	5.53	5.96
Copper	mg/kg	3,100	15	230	21.8	21.6	21.6	**22.0**	19.1	13.1	13.5	13.8	**21.0**
Lead	mg/kg	400	0.94	80	15.9	18.7	16.3	**20.8**	39.6	47.5	33.8	30.2	**54.2**
Manganese	mg/kg	1,900	220	NE	722	700	693	**743**	903	921	819	894	**982**
Mercury	mg/kg	11	0.013	6.7	0.208	0.152	0.141	**0.257**	0.342	0.316	0.253	0.282	**0.383**
Molybdenum	mg/kg	390	NE	40	0.643	0.707	0.632	0.763	0.754	0.861	0.678	0.732	0.924
Nickel	mg/kg	1,500	9.7	150	17.8	17.2	17.6	**18.3**	9.62	8.91	8.63	9.98	**10.6**
Selenium	mg/kg	390	0.331	100	0.15 J	0.154 J	0.14 J	0.166	0.29 J	0.334 J	0.268 J	0.266 J	**0.358**
Silver	mg/kg	390	2.0	20	0.0594 J	0.0662 J	0.0731 J	0.0835	0.696	0.517	0.64	0.509	0.792
Thallium	mg/kg	0.78	0.027	0.78	0.171	0.209	0.171	**0.239**	0.234	0.232	0.196	0.22	**0.259**
Vanadium	mg/kg	390	0.025	200	17.3	18.5	17.6	**19.4**	9.0	8.38	8.09	7.64	**9.52**
Zinc	mg/kg	23,000	6.62	600	55.8	57.4	55.6	**58.8**	132	116	140	132	**152**
Cyanide, Total	mg/kg	2.7	0.1	0.0036					0.257	0.158	0.187	0.225	**0.301**
pH adj. to 25 deg C	SU				9.09	8.75	9.02		9.16	9.22	9.02	9.31	
ABA & Sulfur Forms													
ABA	TCaCO3/kT	NE	NE	NE									
AGP	TCaCO3/kT	NE	NE	NE									
ANP	TCaCO3/kT	NE	NE	NE									
Non-extractable Sulfur	%	NE	NE	NE									
Non-Sulfate Sulfur	%	NE	NE	NE									
Pyritic Sulfur	%	NE	NE	NE									
Sulfate Sulfur	%	NE	NE	NE									
Total Sulfur	%	NE	NE	NE									

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ABA - Acid-Base Accounting
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RSL - Regional Screening Level (USEPA)

Table 6. Tucki Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Fine-Grained Mine Waste ISM Samples				DU-2 Mine Waste Piles ISM 95% UCL
					280-80266-4 DEVA-TUCK-02-001 2/22/2016 12:40 PM	280-80266-5 DEVA-TUCK-02-002 2/22/2016 1:45 PM	280-80266-6 DEVA-TUCK-02-003 2/22/2016 2:00 PM	280-80266-7 DEVA-TUCK-02-004 2/22/2016 2:30 PM	
Antimony	mg/kg	31	0.05	20	3.89	3.79 J	4.22	4.21	**4.51**
Arsenic	mg/kg	0.68	0.25	0.39	89.2	69.5 J	96.5	88.0	**111**
Barium	mg/kg	15,000	17.2	750	162	144 J	151	149	**168**
Beryllium	mg/kg	160	0.242	4	0.42	0.384	0.431	0.377	**0.461**
Cadmium	mg/kg	71	0.27	12	0.628	0.99	1.32	0.547	**1.65**
Chromium	mg/kg	120,000	0.35	1,000	8.69	8.25	8.88	8.58	**9.18**
Cobalt	mg/kg	23	13	23	8.86	8.28	9.1	8.33	9.52
Copper	mg/kg	3,100	15	230	24.6	22.6 J	28.0	23.5	**29.8**
Lead	mg/kg	400	0.94	80	49.1	51.1 J	42.8	53.1	**58.7**
Manganese	mg/kg	1,900	220	NE	915	730 J	831	793	**986**
Mercury	mg/kg	11	0.013	6.7	0.404	0.339	0.312	0.297	**0.441**
Molybdenum	mg/kg	390	NE	40	0.721	0.642 J	0.672	0.692	0.754
Nickel	mg/kg	1,500	9.7	150	16.2	14.8	16.2	15.3	**17.1**
Selenium	mg/kg	390	0.331	100	0.212 J	0.185 J	0.234 J	0.218 J	0.257
Silver	mg/kg	390	2.0	20	0.561	0.325	0.447	0.399	0.649
Thallium	mg/kg	0.78	0.027	0.78	0.206	0.185	0.218	0.189	**0.233**
Vanadium	mg/kg	390	0.025	200	14.7	13.5 J	14.4	13.8	**15.3**
Zinc	mg/kg	23,000	6.62	600	220	217 J	223	216	**226**
Cyanide, Total	mg/kg	2.7	0.1	0.0036	0.113	0.173 J	0.197	0.115	
pH adj. to 25 deg C	SU				8.76	9.19	8.96	9.03	
ABA & Sulfur Forms									
ABA	TCaCO3/kT	NE	NE	NE	172	175	153	164	
AGP	TCaCO3/kT	NE	NE	NE	3.1	1.8	3.4	3.4	
ANP	TCaCO3/kT	NE	NE	NE	175	177	157	167	
Non-extractable Sulfur	%	NE	NE	NE	0.01	0.01	0.02	0.01 U	
Non-Sulfate Sulfur	%	NE	NE	NE	0.11	0.07	0.13	0.11	
Pyritic Sulfur	%	NE	NE	NE	0.1	0.06	0.11	0.11	
Sulfate Sulfur	%	NE	NE	NE	0.06	0.08	0.06	0.07	
Total Sulfur	%	NE	NE	NE	0.18	0.14	0.18	0.18	

J - Laboratory Estimated Value
U - Not Detected at stated reporting limit
ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
NE - Not established
SU - Standard Unit
TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
Gray shaded cells - Not Analyzed
All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.
UCL results shown in **bold** exceed one or more screening levels
ESL - Environmental Screening Level (California Water Board)
NPS ESV - National Park Service Ecological Screening Value
RSL - Regional Screening Level (USEPA)

Table 7. Cashier Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Background ISM Samples			DU-5 Background ISM 95% UCL	Mill Foundations ISM Samples				DU-1 Mill Foundation ISM 95% UCL
					280-80267-3 DEVA-CASH-05-001 2/24/2016 8:25 AM	280-80267-4 DEVA-CASH-05-002 2/24/2016 8:35 AM	280-80267-5 DEVA-CASH-05-003 2/24/2016 9:30 AM		280-80267-6 DEVA-CASH-01-001 2/24/2016 11:00 AM	280-80267-7 DEVA-CASH-01-002 2/24/2016 11:10 AM	280-80267-8 DEVA-CASH-01-003 2/24/2016 12:20 PM	280-80267-9 DEVA-CASH-01-004 2/24/2016 12:10 PM	
Antimony	mg/kg	31	0.05	20	2.33	2.27	2.5	**2.67**	9.98	9.95	9.74 J	9.92	**10.1**
Arsenic	mg/kg	0.68	0.25	0.39	16.6	20.9	19.3	**24.4**	329	303	309 J	349	**368**
Barium	mg/kg	15,000	17.2	750	92.6	93.3	101	**107**	316	289	290 J	335	**356**
Beryllium	mg/kg	160	0.242	4.0	0.691	0.711	0.725	**0.752**	1.34	1.16	1.33 J	1.33	**1.48**
Cadmium	mg/kg	71	0.27	12	0.228	0.219	0.206	0.246	3.12	2.42	2.76 J	2.75	**3.39**
Chromium	mg/kg	120,000	0.35	1,000	8.58	8.89	8.75	**9.13**	3.41	3.03	3.6 J	3.15	**3.86**
Cobalt	mg/kg	23	13	23	7.93	8.01	7.79	8.19	3.65	3.09	3.7 J	3.86	4.31
Copper	mg/kg	3,100	15	230	16.7	17.9	17.8	**19.1**	34.9	30.9	44.4 J	45.7	**54.7**
Lead	mg/kg	400	0.94	80	19.4	21.8	21.2	**23.9**	1,220	1,020	1,070 J	1,180	**1,326**
Manganese	mg/kg	1,900	220	NE	601	580	610	**636**	974	840	935 J	1,040	**1,129**
Mercury	mg/kg	11	0.013	6.7	0.128	0.0885	0.0844	**0.161**	11.3	8.9	11.4 J	7.24	**14.1**
Molybdenum	mg/kg	390	NE	40	0.457	0.573	0.512	0.660	0.526	0.444	0.573 J	0.618	0.702
Nickel	mg/kg	1,500	9.7	150	15.4	15.7	14.8	**16.4**	7.05	6.16	7.19 J	7.52	8.25
Selenium	mg/kg	390	0.331	100	0.383 U	0.13 J	0.395 U	0.267	0.370 U	0.399 U	0.392 UJ	0.394 U	0.208
Silver	mg/kg	390	2.0	20	0.106	0.104	0.113	0.120	9.25	8.5	6.67 J	11.9	**13.8**
Thallium	mg/kg	0.78	0.027	0.78	0.167	0.167	0.159	**0.176**	0.0585 J	0.0575 J	0.0614 J	0.0668 J	**0.0701**
Vanadium	mg/kg	390	0.025	200	14.7	16.0	15.4	**17.0**	4.57	4.6	5.21 J	4.74	**5.42**
Zinc	mg/kg	23,000	6.62	600	55.9	59.2	63.0	**68.3**	1,210	964	1,200 J	1,180	**1,393**
Cyanide, Total	mg/kg	2.7	0.1	0.0036					0.195	0.783	1.21 J	0.434	**1.62**
pH adj. to 25 deg C	SU				8.9	8.65	9.09		8.95	9.16	8.84	9.17	
ABA & Sulfur Forms													
ABA	TCaCO3/kT	NE	NE	NE					429	424	421	455	
AGP	TCaCO3/kT	NE	NE	NE					0.3 U	0.3 U	0.3 U	0.3 U	
ANP	TCaCO3/kT	NE	NE	NE					429	424	421	455	
Non-extractable Sulfur	%	NE	NE	NE					0.01 U	0.01 U	0.01 U	0.01 U	
Non-Sulfate Sulfur	%	NE	NE	NE					0.01 U	0.01 U	0.01 U	0.01 U	
Pyritic Sulfur	%	NE	NE	NE					0.01 U	0.01 U	0.01 U	0.01 U	
Sulfate Sulfur	%	NE	NE	NE					0.03	0.02	0.02	0.03	
Total Sulfur	%	NE	NE	NE					0.03	0.02	0.02	0.03	

J - Laboratory Estimated Value
U - Not Detected at stated reporting limit
ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
NE - Not established
SU - Standard Unit
TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
Gray shaded cells - Not Analyzed
All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

Non-Detects assumed present at 1/2 of RL
Student's-t UCL
H-UCL
Gamma UCL
Chebyshev UCL
UCL Results shown in **bold** exceed one or more screening levels

ESL - Environmental Screening Level (California Water Board)
NPS ESV - National Park Service Ecological Screening Value
RSL - Regional Screening Level (USEPA)

Table 7. Cashier Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Mill Tailings in Eastern Drainage ISM Samples				DU-2 Mill Tailings East Drainage ISM 95% UCL	Mill Tailings in Western Drainage ISM Samples				DU-3 Mill Tailings West Drainage ISM 95% UCL
					280-80267-14 DEVA-CASH-02-001 2/24/2016 2:10 PM	280-80267-15 DEVA-CASH-02-002 2/24/2016 2:20 PM	280-80267-16 DEVA-CASH-02-003 2/24/2016 2:55 PM	280-80267-17 DEVA-CASH-02-004 2/24/2016 3:05 PM		280-80267-10 DEVA-CASH-03-001 2/24/2016 12:50 PM	280-80267-11 DEVA-CASH-03-002 2/24/2016 1:00 PM	280-80267-12 DEVA-CASH-03-003 2/24/2016 1:30 PM	280-80267-13 DEVA-CASH-03-004 2/24/2016 1:40 PM	
Antimony	mg/kg	31	0.05	20	5.99	6.07	5.92	4.88	**6.94**	6.7	7.25	6.69	6.77	**7.44**
Arsenic	mg/kg	0.68	0.25	0.39	238	221	218	172	**274**	235	255	173	226	**298**
Barium	mg/kg	15,000	17.2	750	50.7	51.6	45.0	47.6	**55.3**	225	221	190	255	**281**
Beryllium	mg/kg	160	0.242	4.0	1.22	1.2	1.13	1.02	**1.34**	0.931	1.07	0.758	1.2	**1.40**
Cadmium	mg/kg	71	0.27	12	1.14	1.16	1.07	0.966	**1.28**	1.99	2.34	1.79	2.44	**2.80**
Chromium	mg/kg	120,000	0.35	1,000	8.34	7.94	7.02	6.83	**9.11**	2.78	2.96	2.0	3.9	**4.61**
Cobalt	mg/kg	23	13	23	4.66	4.52	4.12	4.34	4.92	2.94	3.59	2.23	3.97	4.85
Copper	mg/kg	3,100	15	230	34.9	31.9	31.8	30.1	**36.5**	26.2	25.0	18.4 J	25.2	**31.5**
Lead	mg/kg	400	0.94	80	318	293	279	277	**333**	822	803	644	810	**953**
Manganese	mg/kg	1,900	220	NE	832	789	698	788	**900**	691	644	485	731	**873**
Mercury	mg/kg	11	0.013	6.7	1.04	1.07	0.901	0.743	**1.26**	2.93	3.44	3.33	2.94	**3.74**
Molybdenum	mg/kg	390	NE	40	0.816	0.71	0.702	0.638	0.877	0.444	0.495	0.363	0.52	0.607
Nickel	mg/kg	1,500	9.7	150	11.1	10.7	9.68	9.8	**11.8**	5.7	6.8	4.38	7.91	9.49
Selenium	mg/kg	390	0.331	100	0.392 U	0.394 U	0.382 U	0.386 U	0.200	0.366 U	0.380 U	0.389 U	0.395 U	0.205
Silver	mg/kg	390	2.0	20	2.36	2.53	2.57	1.88	**3.02**	2.42	2.79	2.26	2.69	**3.07**
Thallium	mg/kg	0.78	0.027	0.78	0.128	0.13	0.116	0.112	**0.141**	0.063 J	0.0627 J	0.0412 J	0.0799 J	**0.0963**
Vanadium	mg/kg	390	0.025	200	7.85	8.05	7.13	7.37	**8.52**	4.54	4.75	3.0	6.36	**7.66**
Zinc	mg/kg	23,000	6.62	600	282	265	255	260	**291**	696	708	515	649	**835**
Cyanide, Total	mg/kg	2.7	0.1	0.0036										
pH adj. to 25 deg C	SU				8.79	8.82	8.48	8.44		9.1	9.03	8.84	8.96	
ABA & Sulfur Forms														
ABA	TCaCO3/kT	NE	NE	NE	442	450	432	408		455	390	403	398	
AGP	TCaCO3/kT	NE	NE	NE	0.3 U	0.3 U	0.3 U	0.3 U		0.3 U	0.3 U	0.3 U	0.3 U	
ANP	TCaCO3/kT	NE	NE	NE	442	450	432	408		455	390	403	398	
Non-extractable Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.01 U	0.01 U		0.01 U	0.01 U	0.01 U	0.01 U	
Non-Sulfate Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.01 U	0.01 U		0.01 U	0.01 U	0.01 U	0.01 U	
Pyritic Sulfur	%	NE	NE	NE	0.01 U	0.01 U	0.01 U	0.01 U		0.01 U	0.01 U	0.01 U	0.01 U	
Sulfate Sulfur	%	NE	NE	NE	0.01	0.01 U	0.01 U	0.01		0.03	0.02	0.02	0.03	
Total Sulfur	%	NE	NE	NE	0.01	0.01 U	0.01 U	0.01		0.03	0.02	0.02	0.03	

J - Laboratory Estimated Value
U - Not Detected at stated reporting limit
ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
NE - Not established
SU - Standard Unit
TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
Gray shaded cells - Not Analyzed
All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

Non-Detects assumed present at 1/2 of RL
Student's-t UCL
H-UCL
Gamma UCL
Chebyshev UCL
UCL Results shown in **bold** exceed one or more screening levels

ESL - Environmental Screening Level (California Water Board)
NPS ESV - National Park Service Ecological Screening Value
RSL - Regional Screening Level (USEPA)

Table 7. Cashier Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Mine Waste on Northern Slope											
					280-80267-18 DEVA-CASH-04-001 2/25/2016 9:00 AM	280-80267-19 DEVA-CASH-04-002 2/25/2016 9:05 AM	280-80267-20 DEVA-CASH-04-003 2/25/2016 9:10 AM	280-80267-21 DEVA-CASH-04-004 2/25/2016 9:13 AM	280-80267-22 DEVA-CASH-04-005 2/25/2016 9:15 AM	280-80267-23 DEVA-CASH-04-006 2/25/2016 9:20 AM	280-80267-24 DEVA-CASH-04-007 2/25/2016 9:25 AM	280-80267-25 DEVA-CASH-04-008 2/25/2016 9:30 AM	280-80267-26 DEVA-CASH-04-009 2/25/2016 9:35 AM	280-80267-27 DEVA-CASH-04-010 2/25/2016 9:40 AM	280-80267-28 DEVA-CASH-04-011 2/25/2016 9:50 AM	280-80267-29 DEVA-CASH-04-012 2/25/2016 9:55 AM
Antimony	mg/kg	31	0.05	20	29.0	2.8	8.85	1.76	3.74	5.46	2.4	1.31	1.79	9.1 J	31.4	44.4
Arsenic	mg/kg	0.68	0.25	0.39	36.4	42.1	39.4	32.0	55.1	51.9	30.1	38.2	36.2	58.9 J	2,000	4,570
Barium	mg/kg	15,000	17.2	750	291	260	448	129	192	225	44.0	62.1	54.0	82 J	14.5	28.4
Beryllium	mg/kg	160	0.242	4.0	28.6	22.0	18.5	2.62	14.5	19.6	1.36	1.59	2.33	1.29	0.818	1.7
Cadmium	mg/kg	71	0.27	12	8.69	6.32	6.15	0.452	3.21	4.64	0.378	0.371	0.363	0.491	2.79	1.99
Chromium	mg/kg	120,000	0.35	1,000	1.82	3.94	3.68	14.5	4.38	4.07	1.99	3.17	2.84	9.73	1.42	2.29
Cobalt	mg/kg	23	13	23	72.7	52.8	67.1	13.3	25.6	44.5	6.25	7.98	6.62	7.09	4.16	4.83
Copper	mg/kg	3,100	15	230	55.3	42.8	44.8	23.6	26.3	48.5	7.38	12.8	9.88	20.8 J	141	134
Lead	mg/kg	400	0.94	80	80.5	141	355	58.3	307	225	51.9	84.2	71.8	61.9 J	733	1,300
Manganese	mg/kg	1,900	220	NE	7,590	6,370	6,940	1,390	3,970	5,130	1,090	788	944	903 J	1,210	725
Mercury	mg/kg	11	0.013	6.7	1.11	1.18	1.23	0.121	1.14	1.22	0.725	0.66	0.833	0.443	6.9	1.75
Molybdenum	mg/kg	390	NE	40	2.45	2.41	1.61	0.813	1.53	1.42	1.45	1.23	1.27	0.595	0.474	0.417
Nickel	mg/kg	1,500	9.7	150	149	120	126	27.3	58.2	97.4	11.0	11.5	11.5	17.3	7.9	13.1
Selenium	mg/kg	390	0.331	100	0.268 J	0.128 J	0.420 U	0.371 U	0.12 J	0.151 J	0.314 U	0.277 U	0.350 U	0.367 U	0.104 J	0.323 U
Silver	mg/kg	390	2.0	20	43.3	2.21	62,20	0.572	1.23	1.43	0.402	0.584	0.656	4.91 J	98.5	26.1
Thallium	mg/kg	0.78	0.027	0.78	0.311	0.595	0.592	0.297	0.299	0.495	0.199	0.146	0.16	0.184	0.0424 J	0.0569 J
Vanadium	mg/kg	390	0.025	200	5.52	8.74	8.04	27.2	12.5	13.7	4.13	7.26	6.46	19.3 J	2.21	3.66
Zinc	mg/kg	23,000	6.62	600	824	715	902	125	635	488	78.0	83.3	92.6	126 J	425	753
Cyanide, Total	mg/kg	2.7	0.1	0.0036												
pH adj. to 25 deg C	SU				8.67	8.87	9.02	8.97	9.02	9.02	9	9.13	9.22	8.74	8.95	8.81
ABA & Sulfur Forms																
ABA	TCaCO3/kT	NE	NE	NE												
AGP	TCaCO3/kT	NE	NE	NE												
ANP	TCaCO3/kT	NE	NE	NE												
Non-extractable Sulfur	%	NE	NE	NE												
Non-Sulfate Sulfur	%	NE	NE	NE												
Pyritic Sulfur	%	NE	NE	NE												
Sulfate Sulfur	%	NE	NE	NE												
Total Sulfur	%	NE	NE	NE												

J - Laboratory Estimated Value
U - Not Detected at stated reporting limit
ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
NE - Not established
SU - Standard Unit

Non-Detects assumed present at 1/2 of RL

Student's-t UCL
H-UCL
Gamma UCL
Chebyshev UCL

UCL Results shown in **bold** exceed one or more screening levels

TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
Gray shaded cells - Not Analyzed
All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

ESL - Environmental Screening Level (California Water Board)
NPS ESV - National Park Service Ecological Screening Value
RSL - Regional Screening Level (USEPA)

Table 7. Cashier Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Mine Waste on Northern Slope			**DU-4 Mine Waste ISM 95% UCL**
					280-80267-30 DEVA-CASH-04-013 2/25/2016 10:00 AM	280-80267-31 DEVA-CASH-04-014 2/25/2016 10:05 AM	280-80267-32 DEVA-CASH-04-015 2/25/2016 10:15 AM	
Antimony	mg/kg	31	0.05	20	45.0	25.5	18.1	**29.0**
Arsenic	mg/kg	0.68	0.25	0.39	4,900	12,100	5,900	**10,960**
Barium	mg/kg	15,000	17.2	750	25.3	22.7	31.7	**225**
Beryllium	mg/kg	160	0.242	4.0	2.07	2.02	1.16	**18.9**
Cadmium	mg/kg	71	0.27	12	1.75	1.79	2.37	**3.96**
Chromium	mg/kg	120,000	0.35	1,000	2.48	0.654	0.609	**6.07**
Cobalt	mg/kg	23	13	23	9.06	7.16	5.04	**49.8**
Copper	mg/kg	3,100	15	230	135	30.0	49.3	**84.2**
Lead	mg/kg	400	0.94	80	2,960	411	1,240	**1,098**
Manganese	mg/kg	1,900	220	NE	837	1,000	573	**5,548**
Mercury	mg/kg	11	0.013	6.7	2.26	0.921	0.749	**3.22**
Molybdenum	mg/kg	390	NE	40	0.775	0.304	0.207	1.45
Nickel	mg/kg	1,500	9.7	150	16.9	15.6	8.5	**103**
Selenium	mg/kg	390	0.331	100	0.223 J	0.412 U	0.335 U	0.191
Silver	mg/kg	390	2.0	20	25.1	7.88	10.0	**41.7**
Thallium	mg/kg	0.78	0.027	0.78	0.124	0.0689 J	0.0478 J	**0.327**
Vanadium	mg/kg	390	0.025	200	3.31	0.881	0.786	**11.6**
Zinc	mg/kg	23,000	6.62	600	800	786	474	**629**
Cyanide, Total	mg/kg	2.7	0.1	0.0036				
pH adj. to 25 deg C	SU				8.82	8.83	8.74	
ABA & Sulfur Forms								
ABA	TCaCO3/kT	NE	NE	NE				
AGP	TCaCO3/kT	NE	NE	NE				
ANP	TCaCO3/kT	NE	NE	NE				
Non-extractable Sulfur	%	NE	NE	NE				
Non-Sulfate Sulfur	%	NE	NE	NE				
Pyritic Sulfur	%	NE	NE	NE				
Sulfate Sulfur	%	NE	NE	NE				
Total Sulfur	%	NE	NE	NE				

J - Laboratory Estimated Value
U - Not Detected at stated reporting limit
ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
NE - Not established
SU - Standard Unit
TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
Gray shaded cells - Not Analyzed
All ISM 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.

Non-Detects assumed present at 1/2 of RL
Student's-t UCL
H-UCL
Gamma UCL
Chebyshev UCL
UCL Results shown in **bold** exceed one or more screening levels

ESL - Environmental Screening Level (California Water Board)
NPS ESV - National Park Service Ecological Screening Value
RSL - Regional Screening Level (USEPA)

Table 8. Gold Hill Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Background ISM Samples			Background ISM 95% UCL	Mill Foundations ISM Samples				Mill Foundation ISM 95% UCL
					280-80478-1 DEVA-GOLD-03-001 2/29/2016 9:20 AM	280-80478-2 DEVA-GOLD-03-002 2/29/2016 9:25 AM	280-80478-3 DEVA-GOLD-03-003 2/29/2016 10:20 AM		280-80478-4 DEVA-GOLD-01-001 2/29/2016 12:40 PM	280-80478-5 DEVA-GOLD-01-002 2/29/2016 12:50 PM	280-80478-6 DEVA-GOLD-01-003 2/29/2016 1:50 PM	280-80478-7 DEVA-GOLD-01-004 2/29/2016 2:00 PM	
Antimony	mg/kg	31	0.05	20	0.7	0.727	0.834	**0.932**	956	1,000	1,070	1,040	**1,124**
Arsenic	mg/kg	0.68	0.25	0.39	3.97	3.8	3.49 J	**4.37**	564	547	505	612	**654**
Barium	mg/kg	15,000	17.2	750	90.7	96.9 J	94.1	**102**	119	95.6	106	129	**144**
Beryllium	mg/kg	160	0.242	4.0	0.29	0.282	0.278	**0.299**	0.336	0.343	0.352	0.378	**0.392**
Cadmium	mg/kg	71	0.27	12	0.156	0.153	0.131	0.181	1.4	1.55	1.58	1.42	**1.68**
Chromium	mg/kg	120,000	0.35	1,000	5.77	6.23	5.57	**6.71**	10.0	8.08	8.03	9.2	**10.9**
Cobalt	mg/kg	23	13	23	4.41	4.68	4.68	4.98	3.5	3.62	3.46	3.73	3.84
Copper	mg/kg	3,100	15	230	6.99	7.08	6.55 J	7.59	1,110	1,080	1,080	1,260	**1,320**
Lead	mg/kg	400	0.94	80	6.21	6.38	5.89	**6.79**	12,600	11,700	12,100	13,900	**14,661**
Manganese	mg/kg	1,900	220	NE	274	287	254	**314**	364	377	367	401	**414**
Mercury	mg/kg	11	0.013	6.7	0.0102 J	0.0109 J	0.0136 J	**0.0161**	22.0	25.2	20.7	17.4	**28.4**
Molybdenum	mg/kg	390	NE	40	0.124 J	0.132 J	0.130 J	**0.139**	0.476	0.509	0.393	0.501	**0.585**
Nickel	mg/kg	1,500	9.7	150	6.13	6.44	5.92	6.82	7.37	6.33	6.5	6.92	7.8
Selenium	mg/kg	390	0.331	100	0.393 U	0.385 U	0.382 U	0.200	3.31	3.63	4.07	3.32	**4.36**
Silver	mg/kg	390	2.0	20	0.0216 J	0.0197 J	0.0285 J	0.0349	77.6	80.8	86.5	78.2	**89.6**
Thallium	mg/kg	0.78	0.027	0.78	0.136	0.139	0.139	**0.142**	1.23	1.4	2.07	1.21	**2.36**
Vanadium	mg/kg	390	0.025	200	18.6	19.5 J	18.4	**20.3**	157	165	178	175	**190**
Zinc	mg/kg	23,000	6.62	600	28.2	29.8 J	27.5	**31.5**	222	260	219	306	**340**
Cyanide, Total	mg/kg	2.7	0.1	0.0036					0.429 J	0.214 J	0.468 J	0.385 J	**0.618**
pH adj. to 25 deg C	SU				9.52	9.48	9.42		8.59	8.77	9.06	8.61	
ABA & Sulfur Forms													
ABA	TCaCO3/kT								143	147	139	148	
AGP	TCaCO3/kT								1.1	0.9	0.8	1.1	
ANP	TCaCO3/kT								144	148	140	149	
Non-extractable Sulfur	%								0.02	0.02	0.01	0.01	
Non-Sulfate Sulfur	%								0.05	0.05	0.04	0.05	
Pyritic Sulfur	%								0.03	0.03	0.03	0.04	
Sulfate Sulfur	%								0.04	0.05	0.05	0.04	
Total Sulfur	%								0.09	0.1	0.1	0.09	

J - Laboratory Estimated Value
U - Not Detected at stated reporting limit
ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
NE - Not established
SU - Standard Unit
TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
Gray shaded cells - Not Analyzed
All 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.
UCL results shown in bold exceed one or more screening levels
[a] - 95% UCL excludes results from sample DEVA-GOLD-002-007, as results are signficantly lower than other discrete samples in this DU
ESL - Environmental Screening Level (California Water Board)
NPS ESV - National Park Service Ecological Screening Value
RSL - Regional Screening Level (USEPA)

Table 8. Gold Hill Mill Laboratory Soil Analyses

Analyte	Units	EPA Region 9 RSL	NPS ESV	CA Water Board ESL	Eroded Tailings in Wash Along Road Discrete Samples							Tailings in Wash Discrete[a] 95% UCL
					280-80265-1 DEVA-GOLD-02-001 2/26/2016 11:25 AM	280-80265-2 DEVA-GOLD-02-002 2/26/2016 11:35 AM	280-80265-3 DEVA-GOLD-02-003 2/26/2016 11:40 AM	280-80265-4 DEVA-GOLD-02-004 2/26/2016 11:50 AM	280-80265-5 DEVA-GOLD-02-005 2/26/2016 11:55 AM	280-80265-6 DEVA-GOLD-02-006 2/26/2016 12:00 PM	280-80265-7 DEVA-GOLD-02-007 2/26/2016 12:10 PM	
Antimony	mg/kg	31	0.05	20	557 J	284	901	756	913	1,490	5.96	**1,540**
Arsenic	mg/kg	0.68	0.25	0.39	361	322	552	392	532	854	11.9	**851**
Barium	mg/kg	15,000	17.2	750	78.4	86.6	61.8	175	69.7	37.4	107 J	**169**
Beryllium	mg/kg	160	0.242	4.0	0.398	0.511	0.456	0.523	0.44	0.353	0.413 J	**0.563**
Cadmium	mg/kg	71	0.27	12	0.519	0.404	1.04	22.8	0.845	1.13	0.164 J	**20.5**
Chromium	mg/kg	120,000	0.35	1,000	6.47	9.94	4.99	7.48	7.38	5.23	7.29 J	**10.1**
Cobalt	mg/kg	23	13	23	3.68	5.7	2.82	4.46	3.44	1.91	5.3 J	6.01
Copper	mg/kg	3,100	15	230	693	688	1,440	635	951	1,920	16.5 J	**1,979**
Lead	mg/kg	400	0.94	80	4,740	3,870	7,920	5,230	8,870	12,000	71.2 J	**12,579**
Manganese	mg/kg	1,900	220	NE	318	309	350	13,900	249	264	325 J	**12,447**
Mercury	mg/kg	11	0.013	6.7	6.75 J	2.34	8.46	7.33	5.58	6.69	0.0388	**9.94**
Molybdenum	mg/kg	390	NE	40	0.473	0.943	0.402	0.845	0.654	0.601	0.182 J	**1.03**
Nickel	mg/kg	1,500	9.7	150	6.37	9.17	4.31	7.44	5.94	4.32	7.36 J	9.59
Selenium	mg/kg	390	0.331	100	2.54	3.54	4.43	3.84	3.99	5.51	0.270 UJ	**5.72**
Silver	mg/kg	390	2.0	20	45.6 J	11.1	41.0	36.8	47.3	63.6	0.161	**71.6**
Thallium	mg/kg	0.78	0.027	0.78	0.645	0.936	1.27	1.0	1.02	1.62	0.166 J	**1.67**
Vanadium	mg/kg	390	0.025	200	58.5	59.9	151	95.7	122	132	22.2 J	**172**
Zinc	mg/kg	23,000	6.62	600	102	109	163	13,300	118	177	33.0	**11,893**
Cyanide, Total	mg/kg	2.7	0.1	0.0036								
pH adj. to 25 deg C	SU				8.9	8.74	8.69	8.56	8.64	9.04	9.05	
ABA & Sulfur Forms												
ABA	TCaCO3/kT											
AGP	TCaCO3/kT											
ANP	TCaCO3/kT											
Non-extractable Sulfur	%											
Non-Sulfate Sulfur	%											
Pyritic Sulfur	%											
Sulfate Sulfur	%											
Total Sulfur	%											

J - Laboratory Estimated Value
U - Not Detected at stated reporting limit
ABA - Acid-Base Accounting
AGA - Acid Generating Potential
ANP - Acid Neutralization Potential
ISM - Incremental Sampling Method
mg/kg - milligrams per kilogram
NE - Not established
SU - Standard Unit
TCaCO3/kT - Tons of calcium carbonate equivalent per kiloton of soil.
Gray shaded cells - Not Analyzed
All 95% Upper Confidence Limits (UCLs) determined by Chebyshev method.
UCL results shown in bold exceed one or more screening levels
[a] - 95% UCL excludes results from sample DEVA-GOLD-002-007, as results are signficantly lower than other discrete samples in this DU
ESL - Environmental Screening Level (California Water Board)
NPS ESV - National Park Service Ecological Screening Value
RSL - Regional Screening Level (USEPA)

Table 9. Summary of Surface Water Analyses

Analyte	EPA Region 9 RSL (µg/L)	NPS ESV (µg/L)	Water Board ESLs (µg/L)	280-80267-1 DEVA-CASH-01-SW1 2/23/2016	280-80101-25 DEVA-SKID-02-SW1 2/18/2016	280-80101-26 DEVA-SKID-03-SW1 2/18/2016	280-80478-8 DEVA-GOLD-SW1 2/29/2016	280-80478-9 DEVA-GOLD-SW2 2/29/2016
Antimony	6	30	6	5.25 J	3.70 J	2.08 J	0.702 J	1.06 J
Arsenic	10	3.1	10	78.0 J	0.559 J	20.2	5.65	6.92
Barium	2,000	4	1,000	16	17	89.1	45.4	45.5
Beryllium	4	0.66	0.53	0.300 U	0.300 U	0.162 J	0.300 U	0.300 U
Cadmium	5	0.83	0.25	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Chromium	100	8.9	50	1.80 U	0.511 J	1.98 J	1.69 J	3.30 J
Cobalt	N/A	3.98	3	1.4	0.547 J	2.64	0.200 U	0.105 J
Copper	1,300	0.23	3.1	20.9	12.2	25.7	1.80 U	1.46 J
Lead	15	0.92	2.5	9.6	10.5	891	0.700 U	0.195 J
Manganese	430	112	N/A	32.1 J	23.1	44.4	0.950 U	2.13 J
Mercury	2	0.026	0.025	0.585	0.27	1.02	0.0800 U	0.0800 U
Molybdenum	N/A	N/A	7.8	1.83 J	0.438 J	2.03	9.62	11.4
Nickel	N/A	5	8.2	3.66	1.96 J	2.76 J	1.00 U	0.374 J
Selenium	50	1	5	2.00 U	2.00 U	2.00 U	2.75 J	2.68 J
Silver	N/A	0.067	0.19	0.692 J	0.929 J	2.31 J	0.100 U	0.100 U
Thallium	2	0.8	2	0.200 U	0.200 U	0.0530 J	0.200 U	0.200 U
Vanadium	N/A	20	19	4.53 J	2.00 U	10.1	3.82 J	10.2
Zinc	N/A	30	8.1	12.6 J	41.9	375	2.20 J	8.00 U

ESL – Environmental Screening Level (Tier 1) (Water Board 2013)

ESV – Environmental Screening Level (NPS 2014); SLERA COPEC Selection ESV (Table 1a) listed

RSL – Regional Screening Level – Maximum Contaminant Level

SLERA – Screening Level Ecological Risk Assessment

J - Laboratory estimated value

U - not detected at reporting limit shown

ug/L - micrograms per liter

Table 10. Summary of Soil Leachability Analyses

TCLP Analyte	Units	280-80101-28 DEVA-SKID-01-003 2/19/2016	280-80765-7 DEVA-HOME-01-003 3/8/2016	280-80765-8 DEVA-HOME-01-004 3/8/2016	280-80765-15 DEVA-HOME-03-002 3/9/2016	280-80765-40 DEVA-HOME-04-012 3/8/2016
Arsenic	mg/L					
Lead	mg/L	9.25	0.448 J	0.0564 J		
Mercury	mg/L				0.0000317 J H	0.000343 J H

TCLP Analyte	Units	280-80481-27 DEVA-JOUR-01-002 3/2/2016	280-80481-22 DEVA-JOUR-02-002 3/1/2016	280-80481-32 DEVA-JOUR-03-003 3/2/2016	280-80481-34 DEVA-JOUR-04-001 3/2/2016	280-80481-40 DEVA-JOUR-05-003 3/3/2016	280-80481-53 DEVA-JOUR-06-002 3/3/2016
Arsenic	mg/L						
Lead	mg/L	0.618	0.184 J	0.247 J	0.0251 J		13
Mercury	mg/L					0.000738 J	

TCLP Analyte	Units	280-80475-4 DEVA-STAR-01-003 3/3/2016	280-80266-4 DEVA-TUCK-02-001 2/22/2016	280-80267-9 DEVA-CASH-01-004 2/24/2016	280-80267-14 DEVA-CASH-02-001 2/24/2016	280-80267-11 DEVA-CASH-03-002 2/24/2016	280-80267-28 DEVA-CASH-04-011 2/25/2016
Arsenic	mg/L		0.0574 J	0.0837 J	0.0247 J	0.160 J	0.197 J
Lead	mg/L	0.0581 J			0.131 J	0.144 J	0.0579 J
Mercury	mg/L	0.000112 J J	0.0000800 U H				0.000113 J H

J - Laboratory estimated value, below reporting limit
H - Sample analyzed outside of hold time
U - Not detected at laboratory reporting limit shown
TCLP - Toxicity Characteristics Leaching Procedure
mg/L - milligrams per liter
Gray cell - not analyzed

Appendix A – Photographic Log

Skidoo Mill Photographic Log

Photo 1: View of the remaining mill structure and foundation looking west.

Photo 2: View of the remaining mill structure and foundation looking west.

Skidoo Mill Photographic Log

Photo 3: View of the remaining mill structure and foundation looking upslope toward the south.

Photo 4: View of the remaining mill structure and foundation looking west.

Skidoo Mill Photographic Log

Photo 5: View of DU-1 Cyanide Processing Area looking west.

Photo 6: View of DU-1 Cyanide Processing Area looking upslope to the south.

Skidoo Mill Photographic Log

Photo 7: Setting up ISM grid in DU-1 Cyanide Processing Area looking west.

Photo 8: Setting up ISM grid in DU-1 Cyanide Processing Area looking west.

Skidoo Mill Photographic Log

Photo 9: Decontamination of incremental sampling tool prior to collecting each ISM sample.

Photo 10: View of the eastern section of DU-1 Cyanide Processing Area ISM grid looking east.

Skidoo Mill Photographic Log

Photo 11: View of DU-2 Mercury Amalgamation Area (mill foundation) looking west.

Photo 12: View of DU-2 Mercury Amalgamation Area (mill foundation) ISM grid looking east beneath the mill platform.

Skidoo Mill Photographic Log

Photo 13: View of DU-2 Mercury Amalgamation Area (mill foundation) ISM grid looking west beneath the mill platform

Photo 14: View of DU-2 Mercury Amalgamation Area (mill foundation) ISM grid looking west beneath the mill platform.

Skidoo Mill Photographic Log

Photo 15: View of DU-2 Mercury Amalgamation Area (mill foundation) ISM grid looking east beneath the mill patform.

Photo 16: View of DU-2 Mercury Amalgamation Area (mill foundation) ISM grid looking south beneath the mill platform.

Skidoo Mill Photographic Log

Photo 17: View of DU-2 Mercury Amalgamation Area (mill foundation) ISM grid looking south beneath the mill platform.

Photo 18: View of west portion of DU-3 Mill Tailings Impoundment Area looking north from mill platform.

Skidoo Mill Photographic Log

Photo 19: View of eastern portion of DU-3 Mill Tailings Impoundment Area looking northeast from mill platform.

Photo 20: Setting up ISM grid for DU-3 Mill Tailings Impoundment Area looking east.

Skidoo Mill Photographic Log

Photo 21: ISM sample collection within DU-3 Mill Tailings Impoundment Area looking north.

Photo 22: View of thick mill tailings on eastern section of DU-3 Mill Tailings Impoundment Area looking west toward mill.

Skidoo Mill Photographic Log

Photo 23: View of eroded mill tailings within DU-4 Eroded Mill Tailings in Wash looking west.

Photo 24: Discrete sample SKID-04-001 location within DU-4 Eroded Mill Tailings in Wash.

Skidoo Mill Photographic Log

Photo 25: Discrete sample SKID-04-002 location within DU-4 Eroded Mill Tailings in Wash.

Photo 26: Discrete sample SKID-04-003 location within DU-4 Eroded Mill Tailings in Wash.

Skidoo Mill Photographic Log

Photo 27: Discrete sample SKID-04-003 location within DU-4 Eroded Mill Tailings in Wash with view of thick section of mill tailings.

Photo 28: Discrete sample SKID-04-004 location within DU-4 Eroded Mill Tailings in Wash.

Skidoo Mill Photographic Log

Photo 29: View of thick section of mill tailings within DU-4 Eroded Mill Tailings in Wash near discrete sample SKID-04-004 looking east.

Photo 30: Collecting discrete sample SKID-04-005 within DU-4 Eroded Mill Tailings in Wash.

Skidoo Mill Photographic Log

Photo 31: Discrete sample SKID-04-006 location within DU-4 Eroded Mill Tailings in Wash.

Photo 32: Discrete sample SKID-04-007 location within DU-4 Eroded Mill Tailings in Wash.

Skidoo Mill Photographic Log

Photo 33: Discrete sample SKID-04-008 location within DU-4 Eroded Mill Tailings in Wash.

Photo 34: Discrete sample SKID-04-009 location within DU-4 Eroded Mill Tailings in Wash.

Skidoo Mill Photographic Log

Photo 35: Discrete sample SKID-04-010 location within DU-4 Eroded Mill Tailings in Wash.

Photo 36: Discrete sample SKID-04-011 location within DU-4 Eroded Mill Tailings in Wash.

Skidoo Mill Photographic Log

Photo 37: Discrete sample SKID-04-012 location within DU-4 Eroded Mill Tailings in Wash.

Photo 38: Discrete sample SKID-04-013 location within DU-4 Eroded Mill Tailings in Wash.

Skidoo Mill Photographic Log

Photo 39: Discrete sample SKID-04-014 location within DU-4 Eroded Mill Tailings in Wash.

Photo 40: Discrete sample SKID-04-015 location within DU-4 Eroded Mill Tailings in Wash.

Skidoo Mill Photographic Log

Photo 41: Setting up ISM grid for half of DU-5 Background Native Soils located at the top of the ridge southeast of the mill looking west.

Photo 42: Collecting ISM sample within half of DU-5 Background Native Soils located at the top of the ridge southeast of the mill looking northeast.

Skidoo Mill Photographic Log

Photo 43: Collecting ISM sample within half of DU-5 Background Native Soils located at the top of the ridge southeast of the mill looking southeast.

Photo 44: Collecting discrete sample SKID-BG-001 within half of DU-5 Background Native Soils located at the top of the ridge southeast of the mill.

Skidoo Mill Photographic Log

Photo 45: View of half of DU-5 Background Native Soil located upgradient in wash east of mill looking east.

Photo 46: Setting up ISM grid for half of DU-5 Background Native Soils located upgradient in wash east of mill looking east.

Skidoo Mill Photographic Log

Photo 47: Collecting ISM sample within half of DU-5 Background Native Soils located upgradient in wash east of mill looking west.

Photo 48: Collecting discrete sample within half of DU-5 Background Native Soils located upgradient in wash east of mill.

Skidoo Mill Photographic Log

Photo 49: Collecting GPS coordinates within half of DU-5 Background Native Soils located upgradient in wash east of mill looking west.

Photo 50: View of surface water ponding located within DU-3 Mill Tailing Impoundment.

Skidoo Mill Photographic Log

Photo 51: Collecting surface water sample located within DU-3 Mill Tailing Impoundment.

Photo 52: View of surface water sample location located in DU-3 Mill Tailing Impoundment looking north from mill.

Skidoo Mill Photographic Log

Photo 53: View of surface water located within DU-2 Mercury Amalgamation Area looking west.

Photo 54: View of surface water sample location within DU-2 Mercury Amalgamation Area.

Homestake Mill

Photo 1: View of Homestake Mill looking west.

Photo 2: View of Homestake Mill tiered foundation looking southwest.

Homestake Mill

Photo 3: View of Homestake Mill from access road and wash looking north.

Photo 4: View of DU-1 Mill Foundations Ism grid looking south.

Photo 5: View of DU-1 Mill Foundations Ism grid looking south.

Photo 6: View of DU-1 Mill Foundations Ism grid looking south.

Photo 7: View of DU-1 Mill Foundations Ism grid looking southeast toward wash in the valley.

Photo 8: View of DU-1 Mill Foundations Ism grid looking north long slope.

Photo 9: View of DU-1 Mill Foundations Ism grid looking north.

Photo 10: View of DU-1 Mill Foundations Ism grid looking north.

Photo 11: View of DU-2 Mill Tailings ISM grid along slope below mill foundations looking west.

Photo 12: View of DU-2 Mill Tailings ISM grid along slope below mill foundations looking west.

Photo 13: Discrete sample HOME-03-001 within DU-3 Mine Waste Stockpiles along slope around the mill foundations.

Photo 14: Discrete sample HOME-03-002 within DU-3 Mine Waste Stockpiles along slope around the mill foundations.

Photo 15: Collecting discrete sample within DU-3 Mine Waste Stockpiles.

Photo 16: Discrete sample HOME-03-003 within DU-3 Mine Waste Stockpiles along slope around the mill foundations.

Photo 17: Discrete sample HOME-03-004 within DU-3 Mine Waste Stockpiles along slope around the mill foundations.

Photo 18: Discrete sample HOME-03-005 within DU-3 Mine Waste Stockpiles along slope around the mill foundations.

Photo 19: Discrete sample HOME-03-006 within DU-3 Mine Waste Stockpiles along slope around the mill foundations.

Photo 20: Discrete sample HOME-03-007 within DU-3 Mine Waste Stockpiles along slope around the mill foundations.

Photo 21: Discrete sample HOME-03-008 within DU-3 Mine Waste Stockpiles along slope around the mill foundations.

Photo 22: Discrete sample HOME-03-009 within DU-3 Mine Waste Stockpiles along slope around the mill foundations.

Photo 23: Discrete sample HOME-03-010 within DU-3 Mine Waste Stockpiles along slope around the mill foundations.

Photo 24: A Discrete sample HOME-03-011 within DU-3 Mine Waste Stockpiles along slope around the mill foundations.

Photo 25: Discrete sample HOME-03-012 within DU-3 Mine Waste Stockpiles along slope around the mill foundations.

Photo 26: Discrete sample HOME-03-013 within DU-3 Mine Waste Stockpiles along slope around the mill foundations.

Photo 27: Discrete sample HOME-03-014 within DU-3 Mine Waste Stockpiles along slope around the mill foundations.

Photo 28: Discrete sample HOME-03-015 within DU-3 Mine Waste Stockpiles along slope around the mill foundations.

Homestake Mill

Photo 29: View of DU-4 Eroded Downgradient Mill Tails along the slope and wash from the mill foundations looking east.

Photo 30: View of DU-4 Eroded Downgradient Mill Tails along wash and access road from the mill foundations looking southeast.

Homestake Mill

Photo 31: View of fence separating Death Valley National Park from BLM land along access road and the location of the first discrete sample collected within DU-4 Eroded Downgradient Mill Tails.

Photo 32: Discrete sample HOME-04-001 collected within DU-4 Eroded Downgradient Mill Tails along the fence that separates Death Valley National Park from BLM land.

Photo 33: Discrete sample HOME-04-002 within DU-4 Eroded Downgradient Mill Tails, collected from wash south of mill.

Photo 34: Discrete sample HOME-04-003 within DU-4 Eroded Downgradient Mill Tails, collected from wash south of mill.

Homestake Mill

Photo 35: Discrete sample HOME-04-004 within DU-4 Eroded Downgradient Mill Tails, collected from wash south of mill.

Photo 36: Discrete sample HOME-04-005 within DU-4 Eroded Downgradient Mill Tails, collected from wash south of mill.

Homestake Mill

Photo 37: Discrete sample HOME-04-006 within DU-4 Eroded Downgradient Mill Tails, collected from wash south of mill.

Photo 38: Discrete sample HOME-04-007 within DU-4 Eroded Downgradient Mill Tails, collected from wash south of mill. Sample number was corrected after picture was taken and before sample was submitted to lab for analysis.

Homestake Mill

Photo 39: Discrete sample HOME-04-008 within DU-4 Eroded Downgradient Mill Tails, collected from wash south of mill.

Photo 40: Discrete sample HOME-04-009 within DU-4 Eroded Downgradient Mill Tails, collected from wash south of mill.

Homestake Mill

Photo 41: Discrete sample HOME-04-010 within DU-4 Eroded Downgradient Mill Tails, collected from wash south of mill.

Photo 42: Discrete sample HOME-04-011 within DU-4 Eroded Downgradient Mill Tails, collected from wash south of mill.

Homestake Mill

Photo 43: Discrete sample HOME-04-012 within DU-4 Eroded Downgradient Mill Tails, collected from wash south of mill.

Photo 44: Discrete sample HOME-04-013 within DU-4 Eroded Downgradient Mill Tails, collected from wash south of mill. Sample number was corrected after picture was taken and before sample was submitted to lab for analysis.

Homestake Mill

Photo 45: Discrete sample HOME-04-014 within DU-4 Eroded Downgradient Mill Tails, collected from wash south of mill.

Photo 46: Discrete sample HOME-04-015 within DU-4 Eroded Downgradient Mill Tails, collected from wash south of mill.

Homestake Mill

Photo 47: View of DU-5 Native Soil ISM grid located with small wash north of the mill looking southeast toward the valley.

Photo 48: View of DU-5 Native Soil ISM grid located with small wash north of the mill looking upslope to the northwest.

Journigan's Mill

Photo 1: View of mill foundations, mill tailings stockpile, tanks, and mine waste looking southwest.

Photo 2: View of processing tanks at the base of the mill looking east along Emigrant Canyon Road.

Journigan's Mill

Photo 3: View of mill tailings looking to the northwest.

Photo 4: View of the base of the mill tailings stockpile looking northwest.

Photo 5: View of DU-1 Cyanide processing area ISM grid looking northwest.

Photo 6: View of DU-1 Cyanide processing area ISM grid looking east.

Photo 7: View of DU-1 Cyanide processing area ISM grid looking north.

Photo 8: View of the base of DU-1 Cyanide processing area ISM grid looking east along Emigrant Canyon Road.

Journigan's Mill

Photo 9: View of the base of DU-1 Cyanide processing area ISM grid looking east along Emigrant Canyon Road.

Photo 10: View of DU-2 Mill foundation ISM grid looking east.

Journigan's Mill

Photo 11: View of DU-2 Mill foundation ISM grid looking north.

Photo 12: View of DU-2 Mill foundation ISM grid looking east.

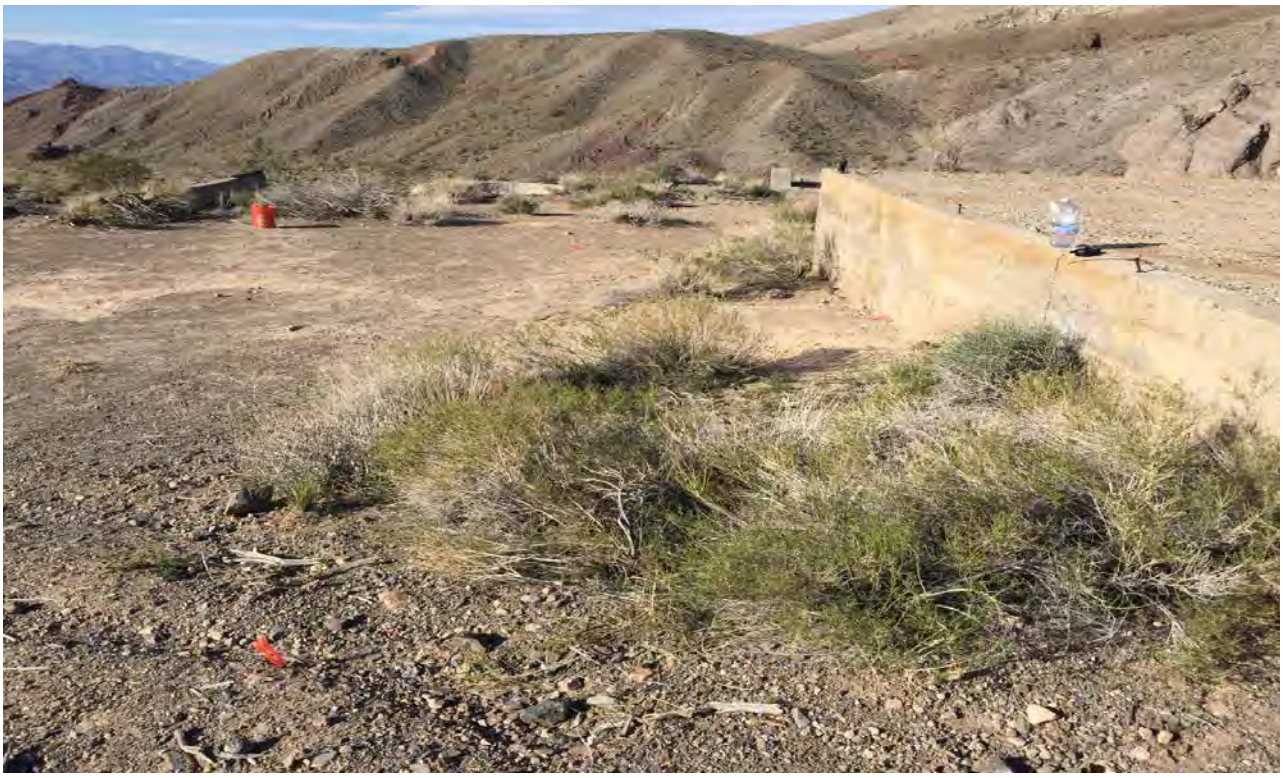

Photo 13: View of DU-2 Mill foundation ISM grid looking north.

Photo 14: View of from the top of DU-3 Mill Tailings Large Bermed Stockpile looking northwest.

Photo 15: View of the top section of DU-3 Mill Tailings Large Bermed Stockpile ISM grid boundary looking northeast.

Photo 16: View of the bottom section of DU-3 Mill Tailings Large Bermed Stockpile ISM grid boundary looking northwest.

Photo 17: View of the middle section of DU-3 Mill Tailings Large Bermed Stockpile ISM grid boundary looking northwest.

Photo 18: View of the bottom section of DU-3 Mill Tailings Large Bermed Stockpile ISM grid boundary looking west.

Photo 19: View from the top of DU-4 Southern Mine Waste Stockpile ISM grid looking down slope towards the west.

Photo 20: View from the top of DU-4 Southern Mine Waste Stockpile ISM grid looking down slope towards the northwest.

Photo 21: View from the top of DU-4 Southern Mine Waste Stockpile ISM grid looking down slope towards the west.

Photo 22: View from the bottom of DU-4 Southern Mine Waste Stockpile ISM grid looking up slope towards the east.

Photo 23: Collecting discrete sample JOUR-05-001 and GPS coordinates within DU-5 Eroded Mill Tailings in Northern Wash.

Photo 24: Discrete sample JOUR-05-002 within DU-5 Eroded Mill Tailings in Northern Wash.

Photo 25: Discrete sample JOUR-05-003 within DU-5 Eroded Mill Tailings in Northern Wash next to Emigrant Canyon Road.

Photo 26: Discrete sample JOUR-05-004 and collection of GPS coordinates within DU-5 Eroded Mill Tailings in Northern Wash

Journigan's Mill

Photo 27: View of thick mill tailings (approximately 12-18-inchs thick) in DU-5 Eroded Mill Tailings in Northern Wash next to Emigrant Canyon Road.

Photo 28: View of thick mill tailings (approximately 12-18-inchs thick) in DU-5 Eroded Mill Tailings in Northern Wash next to Emigrant Canyon Road.

Photo 29: Discrete sample JOUR-05-005 and collection of GPS coordinates within DU-5 Eroded Mill Tailings in Northern Wash

Photo 30: Discrete sample JOUR-05-006 and collection of GPS coordinates within DU-5 Eroded Mill Tailings in Northern Wash

Photo 31: Discrete sample JOUR-05-007 and collection of GPS coordinates within DU-5 Eroded Mill Tailings in Northern Wash

Photo 32: Discrete sample JOUR-05-008 within DU-5 Eroded Mill Tailings in Northern Wash

Photo 33: Discrete sample JOUR-05-009 within DU-5 Eroded Mill Tailings in Northern Wash

Photo 34: Discrete sample JOUR-05-010 within DU-5 Eroded Mill Tailings in Northern Wash

Photo 35: Discrete sample JOUR-05-011 within DU-5 Eroded Mill Tailings in Northern Wash

Photo 36: Discrete sample JOUR-05-012 within DU-5 Eroded Mill Tailings in Northern Wash

Photo 37: Discrete sample JOUR-05-013 within DU-5 Eroded Mill Tailings in Northern Wash

Photo 38: Discrete sample JOUR-05-014 within DU-5 Eroded Mill Tailings in Northern Wash

Journigan's Mill

Photo 39: Discrete sample JOUR-05-015 within DU-5 Eroded Mill Tailings in Northern Wash

Photo 40: Discrete sample JOUR-05-016 within DU-5 Eroded Mill Tailings in Northern Wash

Photo 41: Discrete sample JOUR-05-018 within DU-5 Eroded Mill Tailings in Northern Wash

Photo 42: Discrete sample JOUR-05-018 within DU-5 Eroded Mill Tailings in Northern Wash

Photo 43: Discrete sample JOUR-06-001 within DU-6 Eroded Mill Tailings in Southern Wash

Photo 44: Discrete sample JOUR-06-002 within DU-6 Eroded Mill Tailings in Southern Wash

Photo 45: Discrete sample JOUR-06-003 and collection of GPS coordinates within DU-6 Eroded Mill Tailings in Northern Wash

Photo 46: Discrete sample JOUR-06-003 within DU-6 Eroded Mill Tailings in Southern Wash

Photo 47: Discrete sample JOUR-06-004 within DU-6 Eroded Mill Tailings in Southern Wash

Photo 48: Discrete sample JOUR-06-005 within DU-6 Eroded Mill Tailings in Southern Wash

Journigan's Mill

Photo 49: Discrete sample JOUR-06-006 within DU-6 Eroded Mill Tailings in Southern Wash

Photo 50: Discrete sample JOUR-06-007 within DU-6 Eroded Mill Tailings in Southern Wash

Photo 51: Discrete sample JOUR-06-008 within DU-6 Eroded Mill Tailings in Southern Wash

Photo 52: Discrete sample JOUR-06-009 within DU-6 Eroded Mill Tailings in Southern Wash

Photo 53: Discrete sample JOUR-06-010 within DU-6 Eroded Mill Tailings in Southern Wash

Photo 54: Discrete sample JOUR-06-011 within DU-6 Eroded Mill Tailings in Southern Wash

Photo 55: Discrete sample JOUR-06-012 within DU-6 Eroded Mill Tailings in Southern Wash

Photo 56: Discrete sample JOUR-06-013 within DU-6 Eroded Mill Tailings in Southern Wash

Photo 57: Discrete sample JOUR-06-014 within DU-6 Eroded Mill Tailings in Southern Wash

Photo 58: View of half of DU-7 Native Soil ISM grid on slope south of mill looking west.

Journigan's Mill

Photo 59: View of half of DU-7 Native Soil ISM grid on slope south of mill looking west.

Photo 60: Discrete sample JOUR-07-005 collected from within DU-7 Native Soil ISM grid sloped area south of mill looking west.

Photo 61: Discrete sample JOUR-07-006 collected from within DU-7 Native Soil ISM grid sloped area south of mill looking west.

Journigan's Mill

Photo 62: View of second half of DU-7 Native Soil ISM grid along southern wash south of mill looking south

Photo 63: Discrete sample JOUR-07-018 collected east of mill on south side of Emigrant Canyon Road.

STARR MILL

Photo 1: View of Starr Mill looking to the north.

Photo 2: View of the processing tanks and mill foundation looking toward the south on Emigrant Canyon Road.

Photo 3: View of a processing tank.

Photo 4: View of a processing tank.

STARR MILL

Photo 5: View of ISM sampling grid on east side of mill foundation looking west from top of mill.

Photo 6: View of ISM sampling grid on east side of mill foundation looking south from top of mill.

STARR MILL

Photo 7: View of ISM sampling grid within mill tailings on east side of mill foundation next to processing tanks looking south.

Photo 8: Mill tailings ½ mile from Starr Mill on the eastside of Emigrant Canyon Road next to 5 Mile marker.

STARR MILL

Photo 9: Collecting discrete samples.

STARR MILL

Photo 10: Sample DEVA-01-005 collected from mill tailings ½ mile from Starr Mill.

Photo 11: Sample DEVA-01-006 collected from mill tailings ½ mile from Starr Mill.

STARR MILL

Photo 12: Sample DEVA-01-007 and GPS coordinates collected from mill tailings ½ mile from Starr Mill.

Tucki Mill

Photo 1: View of Tucki Mill foundations, crushed ore, and cyanide processing area looking east from wash/road.

Photo 2: View of cyanide processing area and crushed ore used for mill foundation looking south.

Tucki Mill

Photo 3: View of fine grained mine waste along wash/ road and crushed ore mill foundation looking north.

Photo 4: View of mill foundation and cyanide processing area and mine waste looking west.

Photo 5: View of remaining mill structure, cyanide processing area, and crushed ore/ mill foundation slope looking south.

Photo 6: View of DU-1 Cyanide Processing Area ISM grid looking east.

Photo 7: View of DU-2 Fine-Grained Mine Waste ISM grid and collecting GIS coordinates looking north.

Photo 8: View of DU-2 Fine-Grained Mine Waste ISM grid and collecting GIS coordinates looking east.

Photo 9: View of DU-2 Fine-Grained Mine Waste ISM grid looking east. (Note, samples collected from fines within waste pile.)

Photo 10: View of DU-3 Native Soil area looking east toward mill.

Tucki Mill

Photo 11: View of DU-3 Native Soil ISM gride looking east toward mill.

Cashier Mill

Photo 1: View of the Cashier Mill looking northeast.

Photo 2: View of DU-1 Mill Foundation ISM grid looking northeast.

Photo 3: View of DU-1 Mill Foundation ISM grid looking southeast.

Photo 4: View of DU-2 Tailings in Eastern Drainage ISM grid looking south.

Photo 5: Collecting ISM sampling within DU-2 Tailings in eastern drainage looking south.

Photo 6: View of DU-3 Tailings in western drainage ISM grid looking west.

Photo 7: View of DU-3 Tailings in western drainage ISM grid looking east.

Photo 8: Collecting ISM samples within DU-3 Tailings in western drainage looking east.

Photo 9: Collecting ISM samples within DU-3 Tailings in western drainage.

Photo 10: Collecting discrete samples within DU-4 Mine Waste on northern slope looking south upslope.

Photo 11: Collecting discrete samples within DU-4 Mine Waste on northern slope looking east along slope.

Cashier Mill

Photo 12: Discrete sample CASH-04-001 collected within DU-4 Mine Waste on northern slope.

Photo 13: Discrete sample CASH-04-002 collected within DU-4 Mine Waste on northern slope.

Cashier Mill

Photo 14: Discrete sample CASH-04-003 collected within DU-4 Mine Waste on northern slope.

Photo 15: Discrete sample CASH-04-004 and GPS coordinates collected within DU-4 Mine Waste on northern slope.

Cashier Mill

Photo 16: Discrete sample CASH-04-005 and GPS coordinates collected within DU-4 Mine Waste on northern slope.

Photo 17: Discrete sample CASH-04-006 and GPS coordinates collected within DU-4 Mine Waste on northern slope.

Cashier Mill

Photo 18: Discrete sample CASH-04-007 and GPS coordinates collected within DU-4 Mine Waste on northern slope.

Photo 19: Discrete sample CASH-04-008 and GPS coordinates collected within DU-4 Mine Waste on northern slope.

Cashier Mill

Photo 20: Discrete sample CASH-04-009 collected within DU-4 Mine Waste on northern slope.

Photo 21: Discrete sample CASH-04-010 and GPS coordinates collected within DU-4 Mine Waste on northern slope.

Cashier Mill

Photo 22: Discrete sample CASH-04-011 collected within DU-4 Mine Waste on northern slope.

Photo 23: Discrete sample CASH-04-012 and GPS coordinates collected within DU-4 Mine Waste on northern slope.

Cashier Mill

Photo 24: Discrete sample CASH-04-013 and GPS coordinates collected within DU-4 Mine Waste on northern slope.

Photo 25: Discrete sample CASH-04-014 collected within DU-4 Mine Waste on northern slope.

Cashier Mill

Photo 26: Discrete sample CASH-04-015 collected within DU-4 Mine Waste on northern slope.

Photo 27: Setting up ISM grid for DU-5 Native Soils located northwest on mill looking east.

Cashier Mill

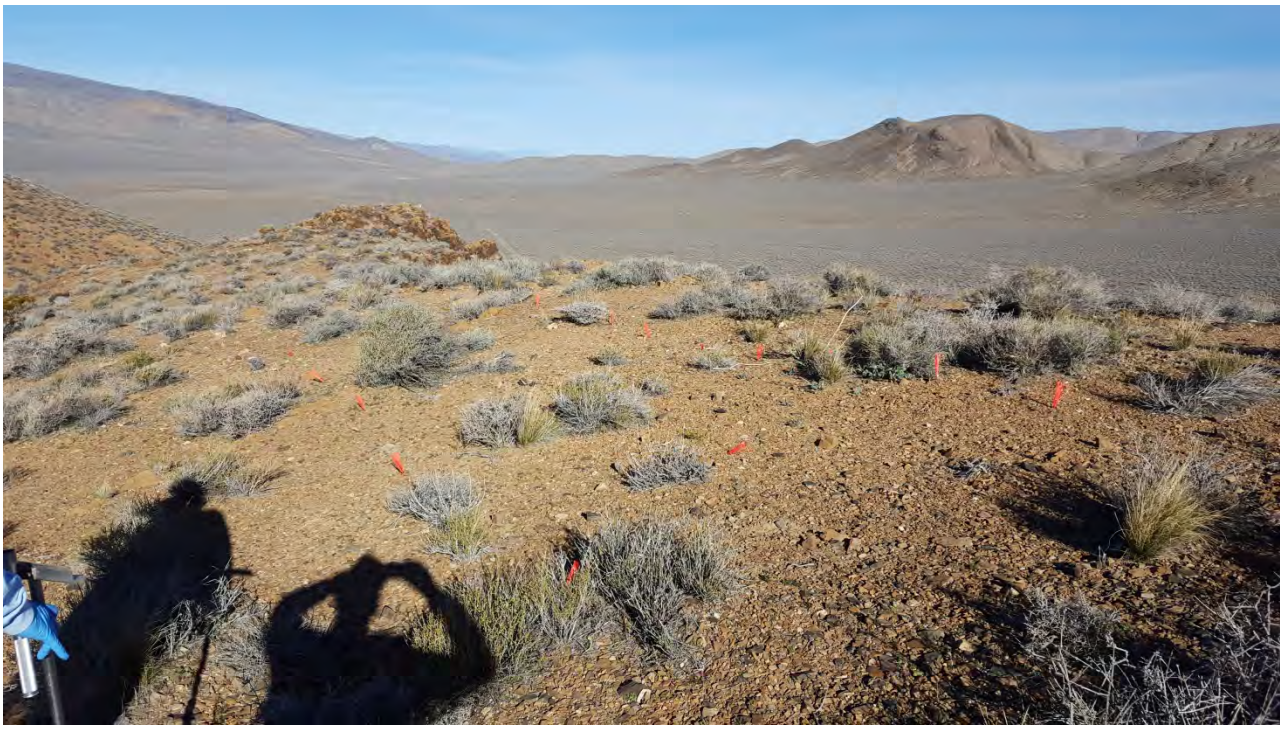

Photo 28: Setting up ISM grid for DU-5 Native Soils located northwest on mill looking north-north.

Gold Hill Mill

Photo 1: View of Gold Hill Mill looking south.

Photo 2: View of wash/road next to mill looking west.

Photo 3: View of wash/ road next to mill looking east toward abandoned talc mine.

Photo 4: View of DU-1 Mill Foundations ISM grid looking west.

Gold Hill Mill

Photo 5: View of DU-1 Mill Foundations ISM grid looking west.

Photo 6: View of DU-1 Mill Foundations ISM grid looking east.

Photo 7: View of DU-1 Mill Foundations ISM grid looking south.

Photo 8: View of DU-1 Mill Foundations ISM grid looking south.

Photo 9: View of DU-1 Mill Foundations ISM grid looking east.

Photo 10: View of DU-2 Eroded Tailings in Wash Along Road looking west.

Photo 11: View of DU-2 Eroded Tailings in Wash Along Road looking southwest.

Photo 12: View of DU-3 Native Soils ISM grid setup in wash northwest of mill looking west.

Photo 13: View of DU-3 Native Soils ISM grid setup in wash northwest of mill looking southwest.

Photo 14: View of DU-3 Native Soils ISM grid setup in wash northwest of mill looking west.

Photo 15: View of DU-3 Native Soils ISM grid setup in wash northwest of mill looking east.

Photo 16: View of Warm Spring located south of Mill.

Photo 17: View of surface water runoff from Warm Spring and GOLD-SW1 sampling location.

Photo 18: View of surface water runoff from Warm Spring and GOLD-SW2 sampling location east of Gold Hill Mill along wash/road.

Appendix B – Global Positioning System Survey Data

Appendix B
GPS Data - Site Inspection Report
DEVA AML Sites

Site	Comment	GPS_Date	GPS_Time	GNSS_Height	Point_ID	x (CA State Plane Zone 5)	y (CA State Plane Zone 5)
Cashier	CASH-01-SW1	2/23/2016 0:00	02:52:10pm	5094.601		6824414.088	2683221.624
Cashier	CASH-04-001	2/25/2016 0:00	10:05:20am	5032.191		6824398.523	2683756.335
Cashier	CASH-04-002	2/25/2016 0:00	10:07:19am	5031.967		6824392.52	2683729.854
Cashier	CASH-04-003	2/25/2016 0:00	10:09:03am	5031.503		6824408.808	2683749.748
Cashier	CASH-04-004	2/25/2016 0:00	10:13:31am	5050.626		6824431.788	2683691.062
Cashier	CASH-04-005	2/25/2016 0:00	10:16:04am	5049.512		6824420.839	2683691.912
Cashier	CASH-04-006	2/25/2016 0:00	10:18:25am	5051.137		6824418.797	2683679.499
Cashier	CASH-04-007	2/25/2016 0:00	10:24:05am	5084.362		6824468.745	2683628.367
Cashier	CASH-04-008	2/25/2016 0:00	10:28:20am	5084.552		6824461.135	2683624.973
Cashier	CASH-04-009	2/25/2016 0:00	10:30:36am	5084.732		6824457.203	2683620.27
Cashier	CASH-04-010	2/25/2016 0:00	10:39:02am	5100.888		6824413.998	2683557.061
Cashier	CASH-04-011	2/25/2016 0:00	10:44:59am	5132.629		6824328.754	2683441.751
Cashier	CASH-04-012	2/25/2016 0:00	10:50:37am	5129.782		6824343.737	2683451.381
Cashier	CASH-04-013	2/25/2016 0:00	10:56:35am	5081.083		6824315.279	2683543.327
Cashier	CASH-04-014	2/25/2016 0:00	11:01:33am	5079.302		6824325.826	2683555.238
Cashier	CASH-04-015	2/25/2016 0:00	11:10:44am	5048.931		6824305.521	2683606.066
Cashier	DU-1 Mill Foundations	2/23/2016 0:00	03:00:15pm	5091.68		6824442.572	2683188.808
Cashier	DU-1 Mill Foundations	2/23/2016 0:00	03:01:53pm	5091.565		6824402.048	2683161.894
Cashier	DU-1 Mill Foundations	2/23/2016 0:00	03:07:01pm	5109.024		6824371.99	2683217.819
Cashier	DU-1 Mill Foundations	2/23/2016 0:00	03:10:34pm	5110.391		6824411.953	2683245.882
Cashier	DU-2 Mill Tailings in Eastern Wash	2/23/2016 0:00	04:24:31pm	5049.732		6824607.675	2683630.08
Cashier	DU-2 Mill Tailings in Eastern Wash	2/23/2016 0:00	04:25:38pm	5047.356		6824619.505	2683636.873
Cashier	DU-2 Mill Tailings in Eastern Wash	2/23/2016 0:00	04:26:57pm	5046.862		6824606.717	2683658.862
Cashier	DU-2 Mill Tailings in Eastern Wash	2/23/2016 0:00	04:27:48pm	5045.624		6824602.902	2683656.362
Cashier	DU-3 Mill Tailings in Western Wash	2/23/2016 0:00	03:48:12pm	5089.984		6824377.258	2683150.494
Cashier	DU-3 Mill Tailings in Western Wash	2/23/2016 0:00	03:49:47pm	5092.079		6824374.121	2683155.192
Cashier	DU-3 Mill Tailings in Western Wash	2/23/2016 0:00	03:51:08pm	5085.946		6824300.544	2683105.329
Cashier	DU-3 Mill Tailings in Western Wash	2/23/2016 0:00	03:52:21pm	5086.528		6824296.424	2683111.267
Cashier	DU-5 Background Native Soils (Ridge)	2/23/2016 0:00	03:18:48pm	5121.204		6824104.831	2683365.573
Cashier	DU-5 Background Native Soils (Ridge)	2/23/2016 0:00	03:20:50pm	5122.028		6824105.985	2683371.023
Cashier	DU-5 Background Native Soils (Ridge)	2/23/2016 0:00	03:22:43pm	5118.69		6824081.105	2683374.182
Cashier	DU-5 Background Native Soils (Ridge)	2/23/2016 0:00	03:24:06pm	5120.049		6824083.707	2683379.2
Cashier	DU-5 Background Native Soils (Ridge)	2/24/2016 0:00	11:30:07am	5120.414		6824103.449	2683360.575
Cashier	DU-5 Background Native Soils (Ridge)	2/24/2016 0:00	11:34:33am	5121.844		6824105.701	2683371.12
Cashier	DU-5 Background Native Soils (Ridge)	2/24/2016 0:00	11:35:45am	5120.014		6824083.375	2683378.556
Cashier	DU-5 Background Native Soils (Ridge)	2/24/2016 0:00	11:37:07am	5117.949		6824078.919	2683370.349
Cashier	DU-5 Background Native Soils (Wash)	2/23/2016 0:00	04:06:46pm	5088.127		6824471.146	2683000.716
Cashier	DU-5 Background Native Soils (Wash)	2/23/2016 0:00	04:08:02pm	5087.394		6824484.461	2682984.466

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DEVA AML Sites

Site	Comment	GPS_Date	GPS_Time	GNSS_Height	Point_ID	x (CA State Plane Zone 5)	y (CA State Plane Zone 5)
Cashier	DU-5 Background Native Soils (Wash)	2/23/2016 0:00	04:09:21pm	5088.195		6824490.426	2682987.828
Cashier	DU-5 Background Native Soils (Wash)	2/23/2016 0:00	04:10:52pm	5086.826		6824477.501	2683004.602
Cashier	DU-5 Background Native Soils (Wash)	2/24/2016 0:00	11:49:02am	5086.459		6824478.221	2683005.328
Cashier	DU-5 Background Native Soils (Wash)	2/24/2016 0:00	11:51:20am	5087.446		6824468.313	2683000.066
Cashier	DU-5 Background Native Soils (Wash)	2/24/2016 0:00	11:52:46am	5088.486		6824481.263	2682983.917
Cashier	DU-5 Background Native Soils (Wash)	2/24/2016 0:00	11:53:47am	5088.223		6824490.837	2682988.16
Gold Hill	DU-1 Mill Foundation	2/29/2016 0:00	01:24:47pm	2361.236	19	6877825.646	2540610.244
Gold Hill	DU-1 Mill Foundation	2/29/2016 0:00	01:27:59pm	2358.105	20	6877828.124	2540649.28
Gold Hill	DU-1 Mill Foundation	2/29/2016 0:00	01:29:53pm	2354.695	21	6877893.785	2540643.144
Gold Hill	DU-1 Mill Foundation	2/29/2016 0:00	01:31:21pm	2357.677	22	6877889.959	2540603.403
Gold Hill	DU-3 Background Native Soils	2/29/2016 0:00	12:19:55pm	2362.323	15	6877714.667	2540703.344
Gold Hill	DU-3 Background Native Soils	2/29/2016 0:00	12:21:34pm	2362.556	16	6877711.872	2540723.507
Gold Hill	DU-3 Background Native Soils	2/29/2016 0:00	12:23:41pm	2372.176	17	6877567.352	2540692.533
Gold Hill	DU-3 Background Native Soils	2/29/2016 0:00	12:25:03pm	2371.622	18	6877568.91	2540672.422
Gold Hill	GOLD-02-001	2/26/2016 0:00	12:22:55pm	2358.701	8	6877840.185	2540653.447
Gold Hill	GOLD-02-002	2/26/2016 0:00	12:34:44pm	2352.511	9	6877861.388	2540673.038
Gold Hill	GOLD-02-003	2/26/2016 0:00	12:42:20pm	2353.31	10	6877901.997	2540654.004
Gold Hill	GOLD-02-004	2/26/2016 0:00	12:50:59pm	2354.167	11	6877898.805	2540647.013
Gold Hill	GOLD-02-005	2/26/2016 0:00	12:54:09pm	2352.447	12	6877899.571	2540662.197
Gold Hill	GOLD-02-006	2/26/2016 0:00	01:01:44pm	2353.12	13	6877883.276	2540669.264
Gold Hill	GOLD-02-007	2/26/2016 0:00	01:09:33pm	2335.469	14	6878184.003	2540595.598
Gold Hill	GOLD-SW1 Upstream Surface Water Sample	2/26/2016 0:00	11:52:15am	2372.316	6	6877825.529	2540292.344
Gold Hill	GOLD-SW2 Downstream Surface Water Sample	2/26/2016 0:00	11:44:37am	2299.781	5	6878728.202	2540714.283
Homestake	DU-1 Mill Foundation	3/8/2016 0:00	02:51:02pm	4870.541	9	6886784.209	2894242.271
Homestake	DU-1 Mill Foundation	3/8/2016 0:00	02:53:05pm	4871.104	10	6886809.863	2894316.502
Homestake	DU-1 Mill Foundation	3/8/2016 0:00	03:04:32pm	4899.299	16	6886758.582	2894302.017
Homestake	DU-1 Mill Foundation	3/8/2016 0:00	03:07:07pm	4898.916	18	6886741.086	2894246.855
Homestake	DU-1 Mill Foundation	3/8/2016 0:00	03:10:45pm	4912.675	20	6886724.645	2894267.441
Homestake	DU-1 Mill Foundation	3/8/2016 0:00	03:13:10pm	4912.462	22	6886735.566	2894305.244
Homestake	DU-1 Mill Foundation	3/8/2016 0:00	03:15:40pm	4908.144	24	6886723.859	2894308.991
Homestake	DU-1 Mill Foundation	3/8/2016 0:00	03:16:52pm	4912.261	25	6886713.439	2894271.334
Homestake	DU-1 Mill Foundation	3/8/2016 0:00	03:21:37pm	4914.096	27	6886694.391	2894281.315
Homestake	DU-1 Mill Foundation	3/8/2016 0:00	03:22:45pm	4916.874	28	6886705.593	2894258.103
Homestake	DU-1 Mill Foundation	3/8/2016 0:00	03:24:22pm	4917.851	30	6886689.832	2894262.956
Homestake	DU-1 Mill Foundation	3/8/2016 0:00	03:26:51pm	4930.913	32	6886676.807	2894263.462
Homestake	DU-1 Mill Foundation	3/8/2016 0:00	03:27:31pm	4933.731	33	6886666.717	2894265.63
Homestake	DU-1 Mill Foundation	3/8/2016 0:00	03:28:49pm	4933.948	34	6886678.284	2894305.976
Homestake	DU-1 Mill Foundation	3/8/2016 0:00	03:29:31pm	4929.679	35	6886687.765	2894302.695
Homestake	DU-2 Mill Tailings Stockpile	3/8/2016 0:00	12:21:00pm	4738.924	4	6887175.029	2894186.218

Appendix B
GPS Data - Site Inspection Report
DEVA AML Sites

Site	Comment	GPS_Date	GPS_Time	GNSS_Height	Point_ID	x (CA State Plane Zone 5)	y (CA State Plane Zone 5)
Homestake	DU-2 Mill Tailings Stockpile	3/8/2016 0:00	12:22:27pm	4737.36	5	6887197.669	2894241.056
Homestake	DU-2 Mill Tailings Stockpile	3/8/2016 0:00	12:24:13pm	4773.926	6	6887060.5	2894266.316
Homestake	DU-2 Mill Tailings Stockpile	3/8/2016 0:00	12:26:21pm	4775.8	7	6887034.072	2894212.146
Homestake	DU-5 Background Native Soils (Lower End)	3/7/2016 0:00	11:17:41am	4727.405	1	6887281.373	2894412.495
Homestake	DU-5 Background Native Soils (Midpoint)	3/7/2016 0:00	11:20:53am	4745.284	2	6887217.695	2894544.606
Homestake	DU-5 Background Native Soils (Upper End)	3/7/2016 0:00	11:22:38am	4769.037	3	6887210.737	2894692.526
Homestake	HOME-03-001	3/9/2016 0:00	11:46:33am	4786.322	52	6886968.312	2894154.086
Homestake	HOME-03-002	3/9/2016 0:00	11:50:07am	4810.32	53	6886896.9	2894147.301
Homestake	HOME-03-003	3/9/2016 0:00	11:55:02am	4848.124	54	6886788.801	2894175.396
Homestake	HOME-03-004	3/9/2016 0:00	11:59:29am	4909.9	55	6886697.333	2894224.659
Homestake	HOME-03-005	3/9/2016 0:00	12:08:51pm	4866.034	56	6886803.404	2894332.381
Homestake	HOME-03-006	3/9/2016 0:00	12:18:10pm	4832.011	57	6886893.671	2894287.587
Homestake	HOME-03-007	3/9/2016 0:00	12:29:53pm	4891.675	58	6886763.622	2894357.985
Homestake	HOME-03-008	3/9/2016 0:00	12:35:34pm	4914.786	59	6886720.02	2894354.941
Homestake	HOME-03-009	3/9/2016 0:00	12:39:28pm	4930.968	60	6886693.279	2894344.077
Homestake	HOME-03-010	3/9/2016 0:00	12:45:02pm	4951.461	61	6886657.154	2894382.663
Homestake	HOME-03-012	3/9/2016 0:00	01:11:07pm	4960.932	63	6886610.807	2894223.349
Homestake	HOME-03-013	3/9/2016 0:00	01:30:20pm	4967.813	64	6886591.307	2894188.388
Homestake	HOME-03-014	3/9/2016 0:00	01:33:43pm	4994.718	65	6886536.487	2894196.055
Homestake	HOME-04-001	3/8/2016 0:00	04:56:16pm	4460.888	51	6888822.149	2890666.873
Homestake	HOME-04-002	3/8/2016 0:00	04:54:34pm	4467.305	50	6888826.33	2890860.792
Homestake	HOME-04-003	3/8/2016 0:00	04:53:05pm	4475.25	49	6888838.939	2891077.057
Homestake	HOME-04-004	3/8/2016 0:00	04:51:32pm	4485.002	48	6888674.513	2891212.797
Homestake	HOME-04-005	3/8/2016 0:00	04:49:45pm	4497.689	47	6888451.673	2891330.664
Homestake	HOME-04-006	3/8/2016 0:00	04:48:06pm	4504.887	46	6888359.809	2891500.877
Homestake	HOME-04-007	3/8/2016 0:00	04:46:34pm	4523.058	45	6888251.313	2891722.805
Homestake	HOME-04-008	3/8/2016 0:00	04:41:15pm	4538.278	44	6888046.019	2891923.584
Homestake	HOME-04-009	3/8/2016 0:00	04:38:55pm	4553.22	43	6887970.679	2892239.367
Homestake	HOME-04-010	3/8/2016 0:00	04:36:54pm	4571.165	42	6887954.024	2892579.854
Homestake	HOME-04-011	3/8/2016 0:00	04:35:05pm	4587.864	41	6887906.406	2892863.08
Homestake	HOME-04-011	3/9/2016 0:00	01:01:24pm	4950.051	62	6886647.762	2894356.193
Homestake	HOME-04-012	3/8/2016 0:00	04:33:11pm	4602.415	40	6887841.307	2893116.824
Homestake	HOME-04-013	3/8/2016 0:00	04:31:27pm	4619.91	39	6887639.382	2893324.003
Homestake	HOME-04-014	3/8/2016 0:00	04:29:41pm	4640.732	38	6887565.026	2893588.7
Homestake	HOME-04-015	3/8/2016 0:00	04:25:19pm	4700.65	37	6887309.76	2893962.567
Homestake	HOME-04-015	3/9/2016 0:00	01:48:06pm	5002.016	66	6886539.058	2894243.359
Journigans	JOUR-07-004	3/1/2016 0:00	12:15:38pm	4451.137	1	6802404.501	2701345.818
Journigans	JOUR-07-005	3/1/2016 0:00	12:21:35pm	4450.304	2	6802411.496	2701342.176
Journigans	JOUR-07-006	3/1/2016 0:00	12:25:48pm	4448.736	3	6802416.681	2701340.478

Appendix B
GPS Data - Site Inspection Report
DEVA AML Sites

Site	Comment	GPS_Date	GPS_Time	GNSS_Height	Point_ID	x (CA State Plane Zone 5)	y (CA State Plane Zone 5)
Journigans	JOUR-07-007	3/1/2016 0:00	12:32:42pm	4446.643	4	6802428.102	2701338.402
Journigans	JOUR-07-008	3/1/2016 0:00	12:40:45pm	4444.128	5	6802431.514	2701331.561
Journigans	JOUR-07-009	3/1/2016 0:00	12:45:20pm	4444.359	6	6802435.087	2701349.491
Journigans	JOUR-07-010	3/1/2016 0:00	12:52:48pm	4447.603	7	6802419.692	2701353.996
Journigans	JOUR-07-011	3/1/2016 0:00	01:48:36pm	4447.858	13	6802429.31	2701229.62
Journigans	JOUR-07-012	3/1/2016 0:00	01:50:47pm	4448.159	14	6802414.803	2701195.609
Journigans	JOUR-07-013	3/1/2016 0:00	01:54:49pm	4453.126	15	6802400.934	2701149.126
Journigans	JOUR-07-014	3/1/2016 0:00	02:08:12pm	4457.167	16	6802405.566	2701111.44
Journigans	JOUR-07-015	3/1/2016 0:00	02:20:44pm	4460.967	18	6802400.801	2701077.571
Journigans	JOUR-07-016	3/1/2016 0:00	02:16:17pm	4466.05	17	6802407.382	2701033.859
Journigans	JOUR-07-017	3/1/2016 0:00	02:27:22pm	4475.135	20	6802397.21	2700962.241
Journigans	DU-1 Cyanide Processing Tanks	3/2/2016 0:00	12:20:39pm	4337.955	43	6802266.747	2702125.09
Journigans	DU-1 Cyanide Processing Tanks	3/2/2016 0:00	12:22:10pm	4348.883	44	6802240.774	2702074.087
Journigans	DU-1 Cyanide Processing Tanks	3/2/2016 0:00	12:25:43pm	4357.941	45	6802272.736	2702030.542
Journigans	DU-1 Cyanide Processing Tanks	3/2/2016 0:00	12:28:03pm	4366.167	46	6802315.751	2702009.61
Journigans	DU-1 Cyanide Processing Tanks	3/2/2016 0:00	12:29:10pm	4347.093	47	6802367.422	2702062.492
Journigans	DU-1 Cyanide Processing Tanks	3/2/2016 0:00	03:11:43pm	4358.229	48	6802276.937	2702051.205
Journigans	DU-2 Mill Foundations (Area A)	3/1/2016 0:00	03:57:38pm	4391.752	21	6802320.435	2701880.92
Journigans	DU-2 Mill Foundations (Area A)	3/1/2016 0:00	03:59:17pm	4393.692	22	6802310.149	2701881.875
Journigans	DU-2 Mill Foundations (Area A)	3/1/2016 0:00	04:00:31pm	4390.134	23	6802307.758	2701940.474
Journigans	DU-2 Mill Foundations (Area A)	3/1/2016 0:00	04:01:28pm	4389.062	24	6802297.801	2701939.779
Journigans	DU-2 Mill Foundations (Area A)	3/1/2016 0:00	04:02:26pm	4389.139	25	6802297.639	2701950.417
Journigans	DU-2 Mill Foundations (Area A)	3/1/2016 0:00	04:03:47pm	4385.876	26	6802344.889	2701949.984
Journigans	DU-2 Mill Foundations (Area A)	3/1/2016 0:00	04:05:12pm	4391.834	27	6802346.988	2701913.675
Journigans	DU-2 Mill Foundations (Area B)	3/1/2016 0:00	04:39:51pm	4385.447	29	6802267.605	2701896.466
Journigans	DU-2 Mill Foundations (Area B)	3/1/2016 0:00	04:40:52pm	4382.719	30	6802259.462	2701897.103
Journigans	DU-2 Mill Foundations (Area B)	3/1/2016 0:00	04:42:19pm	4380.821	31	6802257.093	2701916.314
Journigans	DU-2 Mill Foundations (Area B)	3/1/2016 0:00	04:43:20pm	4380.61	32	6802248.071	2701915.959
Journigans	DU-2 Mill Foundations (Area B)	3/1/2016 0:00	04:44:12pm	4380.757	33	6802247.846	2701925.035
Journigans	DU-2 Mill Foundations (Area B)	3/1/2016 0:00	04:45:20pm	4380.005	34	6802228.623	2701925.486
Journigans	DU-2 Mill Foundations (Area B)	3/1/2016 0:00	04:46:16pm	4381.223	35	6802227.074	2701955.57
Journigans	DU-2 Mill Foundations (Area B)	3/1/2016 0:00	04:47:17pm	4383.88	36	6802238.041	2701956.458
Journigans	DU-2 Mill Foundations (Area B)	3/1/2016 0:00	04:51:18pm	4380.897	38	6802264.203	2701936.5
Journigans	DU-3 Mill Tailings Large Bermed Stockpile (Area A)	3/3/2016 0:00	10:17:32am	4389.341	51	6802310.759	2701876.701
Journigans	DU-3 Mill Tailings Large Bermed Stockpile (Area A)	3/3/2016 0:00	10:19:53am	4397.429	52	6802311.651	2701825.61
Journigans	DU-3 Mill Tailings Large Bermed Stockpile (Area A)	3/3/2016 0:00	10:21:23am	4389.402	53	6802226.613	2701839.498
Journigans	DU-3 Mill Tailings Large Bermed Stockpile (Area A)	3/3/2016 0:00	10:22:50am	4386.468	54	6802236.433	2701886.306
Journigans	DU-3 Mill Tailings Large Bermed Stockpile (Area B)	3/3/2016 0:00	10:25:55am	4385.542	55	6802231.934	2701903.673
Journigans	DU-3 Mill Tailings Large Bermed Stockpile (Area B)	3/3/2016 0:00	10:27:22am	4386.103	56	6802205.722	2701857.548

Appendix B
GPS Data - Site Inspection Report
DEVA AML Sites

Site	Comment	GPS_Date	GPS_Time	GNSS_Height	Point_ID	x (CA State Plane Zone 5)	y (CA State Plane Zone 5)
Journigans	DU-3 Mill Tailings Large Bermed Stockpile (Area B)	3/3/2016 0:00	10:29:40am	4375.584	57	6802150.87	2701906.809
Journigans	DU-3 Mill Tailings Large Bermed Stockpile (Area B)	3/3/2016 0:00	10:31:41am	4375.515	58	6802175.858	2701948.26
Journigans	DU-3 Mill Tailings Large Bermed Stockpile (Area C)	3/3/2016 0:00	10:34:24am	4351.614	59	6802087.976	2702038.902
Journigans	DU-3 Mill Tailings Large Bermed Stockpile (Area C)	3/3/2016 0:00	10:37:23am	4351.082	60	6802095.422	2702086.937
Journigans	DU-3 Mill Tailings Large Bermed Stockpile (Area C)	3/3/2016 0:00	10:39:45am	4345.728	61	6802017.702	2702097.588
Journigans	DU-3 Mill Tailings Large Bermed Stockpile (Area C)	3/3/2016 0:00	10:40:57am	4346.529	62	6802014.713	2702052.49
Journigans	DU-4 Southern Mine Waste Stockpile	3/2/2016 0:00	11:44:07am	4436.256	39	6802268.818	2701727.916
Journigans	DU-4 Southern Mine Waste Stockpile	3/2/2016 0:00	11:46:01am	4434.49	40	6802281.367	2701748.307
Journigans	DU-4 Southern Mine Waste Stockpile	3/2/2016 0:00	11:47:49am	4423.999	41	6802253.956	2701735.242
Journigans	DU-4 Southern Mine Waste Stockpile	3/2/2016 0:00	11:51:13am	4423.734	42	6802274.01	2701759.511
Journigans	DU-7 Background Native Soils (slope)	3/1/2016 0:00	12:59:22pm	4453.209	8	6802406.397	2701362.032
Journigans	DU-7 Background Native Soils (slope)	3/1/2016 0:00	01:00:39pm	4457.428	9	6802396.602	2701336.685
Journigans	DU-7 Background Native Soils (slope)	3/1/2016 0:00	01:02:01pm	4448.188	10	6802441.881	2701319.987
Journigans	DU-7 Background Native Soils (slope)	3/1/2016 0:00	01:03:14pm	4445.669	11	6802452.115	2701349.173
Journigans	DU-7 Background Native Soils (wash lower extent)	3/1/2016 0:00	01:45:12pm	4440.368	12	6802448.409	2701238.334
Journigans	DU-7 background wash upper extent	3/1/2016 0:00	02:23:12pm	4475.531	19	6802397.51	2700958.213
Journigans	JOUR-05-001	3/3/2016 0:00	03:09:03pm	4370.637	66	6802819.363	2702090.406
Journigans	JOUR-05-002	3/3/2016 0:00	03:23:39pm	4307.659	69	6801902.146	2702415.7
Journigans	JOUR-05-003	3/3/2016 0:00	03:29:28pm	4308.155	70	6801867.792	2702440.787
Journigans	JOUR-05-004	3/3/2016 0:00	03:44:30pm	4293.276	72	6801787.918	2702629.322
Journigans	JOUR-05-005	3/3/2016 0:00	03:59:01pm	4252.216	73	6801447.331	2703213.837
Journigans	JOUR-05-006	3/3/2016 0:00	04:07:10pm	4225.744	74	6801078.355	2703484.906
Journigans	JOUR-05-007	3/3/2016 0:00	04:17:19pm	4203.475	75	6800939.033	2703815.926
Journigans	JOUR-05-008	3/3/2016 0:00	04:22:25pm	4165.361	76	6800860.36	2704444.635
Journigans	JOUR-05-009	3/3/2016 0:00	04:39:45pm	4122.544	78	6800680.421	2705104.755
Journigans	JOUR-05-010	3/3/2016 0:00	04:51:02pm	4089.243	80	6800233.428	2705428.44
Journigans	JOUR-05-011	3/3/2016 0:00	04:57:06pm	4057.171	81	6799835.48	2705768.945
Journigans	JOUR-05-012	3/3/2016 0:00	05:10:41pm	4034.55	84	6799525.6	2705995.566
Journigans	JOUR-05-013	3/3/2016 0:00	05:17:42pm	4003.614	85	6799209.287	2706439.188
Journigans	JOUR-05-014	3/4/2016 0:00	09:11:46am	3923.617	87	6799580.211	2707539.321
Journigans	JOUR-05-015	3/4/2016 0:00	09:34:54am	3857.648	89	6799623.433	2708545.107
Journigans	JOUR-05-016	3/4/2016 0:00	10:02:00am	3791.114	91	6798976.161	2709266.814
Journigans	JOUR-05-017	3/4/2016 0:00	10:24:16am	3724.368	93	6798699.962	2710241.706
Journigans	JOUR-05-019	3/3/2016 0:00	09:04:49am	2208.635	49	6789503.804	2731170.394
Journigans	JOUR-05-020	3/3/2016 0:00	09:37:17am	2665.658	50	6792680.372	2724887.482
Journigans	JOUR-06-001	3/3/2016 0:00	03:06:35pm	4371.107	65	6802809.449	2702038.769
Journigans	JOUR-06-002	3/3/2016 0:00	03:17:11pm	4330.674	67	6802144.321	2702167.206
Journigans	JOUR-06-003	3/3/2016 0:00	03:20:10pm	4317.966	68	6801883.937	2702342.72
Journigans	JOUR-06-004	3/3/2016 0:00	03:40:17pm	4318.991	71	6801568.485	2702519.402

Appendix B
GPS Data - Site Inspection Report
DEVA AML Sites

Site	Comment	GPS_Date	GPS_Time	GNSS_Height	Point_ID	x (CA State Plane Zone 5)	y (CA State Plane Zone 5)
Journigans	JOUR-06-005	3/3/2016 0:00	04:28:01pm	4161.43	77	6800758.733	2704463.826
Journigans	JOUR-06-006	3/3/2016 0:00	04:46:52pm	4097.061	79	6800118.408	2705267.413
Journigans	JOUR-06-007	3/3/2016 0:00	05:01:37pm	4057.042	82	6799685.392	2705707.796
Journigans	JOUR-06-008	3/3/2016 0:00	05:07:58pm	4037.685	83	6799462.365	2705985.865
Journigans	JOUR-06-009	3/3/2016 0:00	05:23:16pm	3997.442	86	6799118.576	2706454.757
Journigans	JOUR-06-010	3/4/2016 0:00	09:20:11am	3921.922	88	6799515.491	2707544.733
Journigans	JOUR-06-011	3/4/2016 0:00	09:46:46am	3870.51	90	6799555.307	2708466.13
Journigans	JOUR-06-012	3/4/2016 0:00	10:09:43am	3791.897	92	6798792.33	2709207.568
Journigans	JOUR-06-013	3/4/2016 0:00	10:29:41am	3726.639	94	6798481.892	2710206.83
Journigans	JOUR-06-014	3/4/2016 0:00	10:50:51am	3667.775	96	6798363.251	2711079.92
Journigans	JOUR-06-018	3/4/2016 0:00	10:42:35am	3658.504	95	6798516.762	2711258.52
Journigans	JOUR-07-018	3/3/2016 0:00	02:44:39pm	4388.265	63	6803260.608	2702228.107
Journigans	JOUR-07-019	3/3/2016 0:00	02:50:10pm	4387.654	64	6803171.018	2702116.18
Skidoo	DU-1 HCN Processing Area	2/19/2016 0:00	05:22:35pm	5512.628	75	6810294.473	2710495.78
Skidoo	DU-1 HCN Processing Area	2/19/2016 0:00	05:25:46pm	5539.638	76	6810256.467	2710452.189
Skidoo	DU-1 HCN Processing Area	2/19/2016 0:00	05:26:52pm	5554.669	77	6810258.635	2710422.099
Skidoo	DU-1 HCN Processing Area	2/19/2016 0:00	05:29:25pm	5522.9	78	6810440.683	2710521.381
Skidoo	DU-1 HCN Processing Area	2/19/2016 0:00	05:30:58pm	5549.414	79	6810472.966	2710459.07
Skidoo	DU-1 NE Corner HCN Area	2/16/2016 0:00	11:33:31am	5520.737	5	6810440.064	2710521.541
Skidoo	DU-1 North Corner HCN Area	2/16/2016 0:00	11:26:15am	5522.435	3	6810296.657	2710480.066
Skidoo	DU-1 NW Corner HCN Area	2/16/2016 0:00	11:17:18am	5538.442	1	6810265.796	2710451.825
Skidoo	DU-1 SE Corner HCN Area	2/16/2016 0:00	11:36:14am	5546.672	6	6810473.643	2710458.259
Skidoo	DU-1 SW Corner HCN Area	2/16/2016 0:00	11:23:01am	5555.289	2	6810264.114	2710421.977
Skidoo	DU-3 Mill Tailings Impoundment Area	2/18/2016 0:00	11:24:49am	5541.495	34	6810792.709	2710543.266
Skidoo	DU-3 Mill Tailings Impoundment Area	2/18/2016 0:00	11:26:41am	5543.164	35	6810792.364	2710504.519
Skidoo	DU-3 Mill Tailings Impoundment Area	2/18/2016 0:00	11:28:39am	5538.098	36	6810711.016	2710522.154
Skidoo	DU-3 Mill Tailings Impoundment Area	2/18/2016 0:00	11:30:26am	5535.111	37	6810723.199	2710555.065
Skidoo	DU-3 Mill Tailings Impoundment Area	2/18/2016 0:00	11:32:22am	5537.313	38	6810636.281	2710528.316
Skidoo	DU-3 Mill Tailings Impoundment Area	2/18/2016 0:00	11:34:16am	5529.775	39	6810639.225	2710585.719
Skidoo	DU-3 Mill Tailings Impoundment Area	2/18/2016 0:00	11:43:22am	5522.119	42	6810498.684	2710546.355
Skidoo	DU-3 Mill Tailings Impoundment Area	2/18/2016 0:00	11:45:26am	5517.844	43	6810439.712	2710538.061
Skidoo	DU-3 Mill Tailings Impoundment Area	2/18/2016 0:00	11:47:06am	5521.326	44	6810495.151	2710579.572
Skidoo	DU-3 Mill Tailings Impoundment Area	2/18/2016 0:00	11:52:28am	5505.497	45	6810371.054	2710562.848
Skidoo	DU-3 Mill Tailings Impoundment Area	2/18/2016 0:00	11:54:35am	5497.884	46	6810313.256	2710559.427
Skidoo	DU-3 Mill Tailings Impoundment Area	2/18/2016 0:00	11:56:23am	5486.91	47	6810280.208	2710544.402
Skidoo	DU-3 Mill Tailings Impoundment Area	2/18/2016 0:00	11:59:25am	5497.483	48	6810279.865	2710583.953
Skidoo	DU-3 Mill Tailings Impoundment Area	2/18/2016 0:00	12:04:26pm	5503.852	50	6810304.269	2710603.501
Skidoo	DU-3 Mill Tailings Impoundment Area	2/18/2016 0:00	12:07:13pm	5504.773	51	6810379.273	2710589.236
Skidoo	DU-3 Mill Tailings Impoundment Area	2/18/2016 0:00	12:09:20pm	5510.994	52	6810409.764	2710582.564

Appendix B
GPS Data - Site Inspection Report
DEVA AML Sites

Site	Comment	GPS_Date	GPS_Time	GNSS_Height	Point_ID	x (CA State Plane Zone 5)	y (CA State Plane Zone 5)
Skidoo	DU-3 Surface Water Sample Location	2/18/2016 0:00	12:02:31pm	5492.077	49	6810285.409	2710565.056
Skidoo	DU-5 NE Corner Uphill Background Area	2/17/2016 0:00	10:45:09am	5697.449	13	6810891.075	2710156.382
Skidoo	DU-5 NW Corner Uphill Background Area	2/17/2016 0:00	10:53:25am	5690.839	15	6810738.668	2710249.897
Skidoo	DU-5 SE Corner Uphill Background Area	2/17/2016 0:00	10:36:34am	5692.775	11	6810871.392	2710112.103
Skidoo	DU-5 SW Corner uphill Background Area	2/17/2016 0:00	11:06:44am	5697.515	17	6810720.699	2710204.87
Skidoo	DU-5 Wood Post Lower Extent Background Area	2/16/2016 0:00	01:48:24pm	5547.232	9	6810931.83	2710480.839
Skidoo	DU-5 Wood Post Upper Extent Background Area	2/17/2016 0:00	03:00:21pm	5589.726	24	6811947.206	2710523.095
Skidoo	SKID 04-011	2/19/2016 0:00	04:28:32pm	5261.288	70	6809737.943	2710758.859
Skidoo	SKID 04-012	2/19/2016 0:00	04:36:21pm	5312.767	71	6809931.889	2710758.47
Skidoo	SKID 04-013	2/19/2016 0:00	04:49:03pm	5374.683	72	6810061.738	2710673.722
Skidoo	SKID 04-014	2/19/2016 0:00	04:57:43pm	5386.451	73	6810077.671	2710622.587
Skidoo	SKID 04-015	2/19/2016 0:00	05:16:20pm	5473.587	74	6810207.866	2710547.701
Skidoo	SKID-04-001	2/19/2016 0:00	03:22:06pm	5069.102	59	6808504.842	2710914.061
Skidoo	SKID-04-002	2/19/2016 0:00	03:32:08pm	5080.554	60	6808644.33	2710929.532
Skidoo	SKID-04-003	2/19/2016 0:00	03:36:14pm	5090.95	61	6808768.317	2710961.392
Skidoo	SKID-04-004	2/19/2016 0:00	03:40:28pm	5106.604	62	6808902.313	2710991.971
Skidoo	SKID-04-005	2/19/2016 0:00	03:49:06pm	5142.471	64	6809121.818	2710931.471
Skidoo	SKID-04-006	2/19/2016 0:00	03:54:30pm	5162.278	65	6809204.178	2710832.119
Skidoo	SKID-04-007	2/19/2016 0:00	04:00:53pm	5183.557	66	6809347.43	2710742.985
Skidoo	SKID-04-008	2/19/2016 0:00	04:05:27pm	5190.536	67	6809439.539	2710712.596
Skidoo	SKID-04-009	2/19/2016 0:00	04:15:11pm	5226.77	68	6809569.249	2710743.877
Skidoo	SKID-04-010	2/19/2016 0:00	04:22:35pm	5241.4	69	6809648.908	2710782.365
Skidoo	SKID-BG-001	2/17/2016 0:00	10:40:52am	5696.471	12	6810864.344	2710126.644
Skidoo	SKID-BG-002	2/17/2016 0:00	10:49:07am	5699.31	14	6810858.084	2710168.248
Skidoo	SKID-BG-003	2/17/2016 0:00	11:01:42am	5703.576	16	6810824.532	2710154.396
Skidoo	SKID-BG-004	2/17/2016 0:00	11:11:12am	5699.242	18	6810813.978	2710191.798
Skidoo	SKID-BG-005	2/17/2016 0:00	11:17:39am	5701.562	19	6810781.173	2710178.774
Skidoo	SKID-BG-006	2/17/2016 0:00	11:22:23am	5696.898	20	6810778.61	2710214.462
Skidoo	SKID-BG-007	2/17/2016 0:00	11:30:03am	5698.233	21	6810746.926	2710207.344
Skidoo	SKID-BG-008	2/17/2016 0:00	03:27:15pm	5550.81	32	6810994.363	2710453.469
Skidoo	SKID-BG-009	2/17/2016 0:00	03:24:33pm	5553.568	31	6811124.585	2710416.17
Skidoo	SKID-BG-010	2/17/2016 0:00	03:19:45pm	5559.029	29	6811230.748	2710499.422
Skidoo	SKID-BG-011	2/17/2016 0:00	03:13:11pm	5565.164	27	6811308.706	2710611.249
Skidoo	SKID-BG-012	2/17/2016 0:00	03:08:23pm	5568.819	26	6811445.818	2710574.005
Skidoo	SKID-BG-013	2/17/2016 0:00	03:03:52pm	5573.215	25	6811577.658	2710534.481
Skidoo	SKID-BG-014	2/17/2016 0:00	02:53:40pm	5577.64	22	6811718.821	2710544.228
Skidoo	SKID-BG-015	2/17/2016 0:00	02:57:57pm	5582.581	23	6811858.142	2710533.817
Starr	DU-1 Area A	3/3/2016 0:00	01:40:31pm	4000.431	1	6799137.216	2706676.438
Starr	DU-1 Area A	3/3/2016 0:00	01:42:01pm	4000.719	2	6799130.936	2706689.631

Appendix B
GPS Data - Site Inspection Report
DEVA AML Sites

Site	Comment	GPS_Date	GPS_Time	GNSS_Height	Point_ID	x (CA State Plane Zone 5)	y (CA State Plane Zone 5)
Starr	DU-1 Area A	3/3/2016 0:00	01:43:03pm	4003.86	3	6799112.893	2706679.594
Starr	DU-1 Area A	3/3/2016 0:00	01:44:05pm	3995.856	4	6799118.801	2706664.936
Starr	DU-1 Area B	3/3/2016 0:00	01:45:36pm	3998.554	5	6799097.881	2706665.872
Starr	DU-1 Area B	3/3/2016 0:00	01:46:59pm	3996.385	6	6799096.496	2706660.389
Starr	DU-1 Area B	3/3/2016 0:00	01:48:34pm	3999.672	7	6799087.536	2706662.428
Starr	DU-1 Area B	3/3/2016 0:00	01:49:41pm	3999.66	8	6799088.168	2706667.842
Starr	DU-1 Area C	3/3/2016 0:00	01:53:28pm	4004.81	10	6799102.149	2706693.616
Starr	DU-1 Area C	3/3/2016 0:00	01:54:30pm	4003.637	11	6799084.561	2706702.35
Starr	DU-1 Area C	3/3/2016 0:00	01:55:27pm	4005.768	12	6799093.592	2706720.711
Starr	DU-1 Area C	3/3/2016 0:00	01:56:32pm	4005.264	13	6799112.522	2706710.389
Starr	STAR-01-005	3/3/2016 0:00	05:40:34pm	3815.722	14	6798995.938	2708942.468
Starr	STAR-01-006	3/3/2016 0:00	05:42:46pm	3812.829	15	6798981.336	2708979.871
Starr	STAR-01-007	3/3/2016 0:00	05:45:15pm	3812.378	16	6798936.796	2708985.25
Tucki	DU-1 Cyanide Processing Area	2/22/2016 0:00	12:36:16pm	4645.841	7	6829179.14	2716372.618
Tucki	DU-1 Cyanide Processing Area	2/22/2016 0:00	12:38:02pm	4632.189	8	6829316.944	2716315.796
Tucki	DU-1 Cyanide Processing Area	2/22/2016 0:00	12:42:45pm	4649.317	9	6829164.72	2716360.58
Tucki	DU-1 Cyanide Processing Area	2/22/2016 0:00	12:44:30pm	4653.269	10	6829194.073	2716316.612
Tucki	DU-1 Cyanide Processing Area	2/22/2016 0:00	12:58:50pm	4654.246	18	6829221.056	2716276.257
Tucki	DU-1 Cyanide Processing Area	2/22/2016 0:00	01:00:22pm	4649.008	19	6829319.759	2716262.81
Tucki	DU-1 Cyanide Processing Area	2/22/2016 0:00	01:04:53pm	4630.283	20	6829365.122	2716293.451
Tucki	DU-1 Cyanide Processing Area	2/22/2016 0:00	01:07:08pm	4630.643	21	6829372.686	2716251.645
Tucki	DU-2 Fine-Grained Mine Waste (Area A)	2/22/2016 0:00	01:24:55pm	4643.081	30	6829251.848	2716362.228
Tucki	DU-2 Fine-Grained Mine Waste (Area A)	2/22/2016 0:00	01:26:26pm	4635.689	31	6829261.353	2716369.97
Tucki	DU-2 Fine-Grained Mine Waste (Area A)	2/22/2016 0:00	01:28:31pm	4643.127	32	6829237.819	2716389.185
Tucki	DU-2 Fine-Grained Mine Waste (Area A)	2/22/2016 0:00	01:30:18pm	4647.33	33	6829226.73	2716378.931
Tucki	DU-2 Fine-Grained Mine Waste (Area B)	2/22/2016 0:00	01:18:16pm	4630.167	26	6829401.995	2716314.332
Tucki	DU-2 Fine-Grained Mine Waste (Area B)	2/22/2016 0:00	01:19:55pm	4628.484	27	6829402.872	2716326.103
Tucki	DU-2 Fine-Grained Mine Waste (Area B)	2/22/2016 0:00	01:21:36pm	4627.703	28	6829358.76	2716316.338
Tucki	DU-2 Fine-Grained Mine Waste (Area B)	2/22/2016 0:00	01:22:40pm	4631.2	29	6829360.443	2716327.782
Tucki	DU-2 Fine-Grained Mine Waste (Area C)	2/22/2016 0:00	01:09:06pm	4624.561	22	6829402.316	2716254.999
Tucki	DU-2 Fine-Grained Mine Waste (Area C)	2/22/2016 0:00	01:12:58pm	4621.232	23	6829447.881	2716241.192
Tucki	DU-2 Fine-Grained Mine Waste (Area C)	2/22/2016 0:00	01:13:53pm	4618.696	24	6829450.999	2716254.819
Tucki	DU-2 Fine-Grained Mine Waste (Area C)	2/22/2016 0:00	01:15:15pm	4619.954	25	6829402.632	2716267.288
Tucki	DU-3 Background Native Soils	2/22/2016 0:00	12:03:32pm	4710.744	1	6828405.069	2716626.156
Tucki	DU-3 Background Native Soils	2/22/2016 0:00	12:04:32pm	4710.733	2	6828401.885	2716622.182
Tucki	DU-3 Background Native Soils	2/22/2016 0:00	12:05:36pm	4710.735	3	6828407.952	2716616.276
Tucki	DU-3 Background Native Soils	2/22/2016 0:00	12:07:28pm	4711.022	4	6828406.059	2716614.272
Tucki	DU-3 Background Native Soils	2/22/2016 0:00	12:08:18pm	4710.328	5	6828424.44	2716598.254
Tucki	DU-3 Background Native Soils	2/22/2016 0:00	12:09:06pm	4707.621	6	6828430.157	2716605.689

Appendix C – Chain of Custody Records and Laboratory Reports (Provided on CD)

Appendix D – Data Validation Report (Provided on CD)