



Mountain Studies Institute

SAN JUAN MOUNTAINS COLORADO

Bonita Peak Mining District 2016-2018 Seeps, Springs, and Draining Mines Characterization Report



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List of Abbreviations and Acronyms

AT	American Tunnel
BPMD	Bonita Peak Mining District
CSM	Conceptual Site Model
DQO	Data Quality Objective
DRMS	Division of Reclamation and Mining Safety
EPA	Environmental Protection Agency
ESAT	Environmental Services Assistance Team
FSP	Field Sampling Plan
GK	Gold King Mine
GMWL	Global Meteoric Water Line
GPS	Global Positioning System
LMWL	Local Meteoric Water Line
MSI	Mountain Studies Institute
NO	Natalie Occidental Mine
OU	Operating Unit for BPMD RI
QA/QC	Quality Assurance, Quality Control
R&B	Red and Bonita Mine
REE	Rare Earth Elements
RI	Remedial Investigation
s&s	Seeps and Springs
SFA	South Fork of Animas River
SOP	Standard Operating Procedure
TAL	Target Analyte List
USGS	United States Geologic Survey

Cations, Anions, Isotopes:

Al	aluminum
Sb	antimony
As	arsenic
Ba	barium
Be	beryllium
Br	bromide
Cd	cadmium
Ca	calcium
Cl	chloride
Cr	chromium
Cu	copper
Fe	iron
F	fluoride
Pb	lead
Mg	magnesium

Mn	manganese
Ni	nickel
Se	selenium
SiO ₂	silica
SO ₄	sulfate
Ag	silver
Sr	strontium
Tl	thallium
V	vanadium
Zn	zinc
¹⁸ O	oxygen-18 isotope
² H	hydrogen-2 isotope (deuterium)

Watershed sub-basins:

CCANF	Cement Creek above North Fork
CCGS	Cement Creek at Gladstone
EG	Eureka Gulch
LEG	Lower Eureka Gulch
MC	McCarty Basin
MFC	Middle Fork Cement Creek
MH	Minnehaha Basin
NFC	North Fork Cement
PG	Prospect Gulch
RB	Ross Basin
SFA	South Fork Animas
SFC	South Fork Cement Creek
SFEG	South Fork Eureka Gulch
UCC	Upper Cement Creek
UCG	Upper California Gulch
UEG	Upper Eureka Gulch
UPG	Upper Placer Gulch
VB	Velocity Basin

1.0 Executive Summary

The Bonita Peak Mining District (BPMD) was designated by the Environmental Protection Agency (EPA) as a Superfund site on the National Priorities List in 2016. BPMD is located in a highly mineralized zone of the San Juan Mountains where high metal concentrations from natural and mine-related sources have contributed to a long history of degraded water quality. One of the current data gaps is understanding the water quality and quantity emerging from seeps, springs, and draining mines in the mining district. Understanding the quality of water at these

locations will help decipher the potential hydrologic connectivity between emerging seeps and springs and mine waters as well and evaluate non-anthropogenic groundwater quality in areas of the mining district void of mining disturbance.

This report summarizes the results of five sampling events from Fall of 2016 through Fall of 2018 to measure water quality (chemistry) and quantity (discharge) emanating from seeps, springs, and draining mine adits in the BPMD. Additionally, sampling locations were recorded with high precision GPS, which will greatly improve ability to monitor and resample these locations in the future. The target sampling area included the Cement Creek watershed above Silverton and the Animas River watershed above Silverton, which encompass Bonita Peak mountain. This focus area has recently been defined as Operable Unit 3 (OU3) by the US EPA remedial program. Samples were also collected in the Prospect Gulch study area located in Cement Creek watershed below Gladstone. Samples were not collected in parts of the BPMD study site including Mineral Creek watershed nor the east side of the Animas River watershed. The sampling was conducted by Mountain Studies Institute (MSI) with laboratory analysis provided by the Environmental Services Assistance Team (ESAT) laboratory.

MSI collected approximately 600 samples from 132 seeps and springs (s&s) sites and 31 draining mines over five different sampling events (low flow 2016, high flow and low flow 2017, high flow and low flow 2018). Of the 31 draining mines sampled, 13 are listed sites under the BPMD with the remaining unlisted mine sites sampled based on location within Prospect Gulch and OU3 study areas. An additional 160 field observations were recorded for sites that were dry during individual events, which was inclusive of an additional 15 dry mine sites primarily located in the vicinity of the Red and Bonita Mine (R&B), and Gold King Mine (GK) portals. Documentation of the dry sites provide baseline information for future actions such as bulkhead closures. In addition to these five synoptic sampling events, the six largest volume draining mines on the Cement Creek side of Bonita Peak were monitored monthly from 2016 through 2018 for field parameters and stable water isotopes, which enable a more comprehensive temporal understanding of the complete mountain hydrologic system currently influenced by draining mines. The six draining mines of focus were the GK Level 7, R&B, Mogul, American Tunnel (AT), Natalie Occidental (NO), and Blackhawk. Monthly sampling for a full suite of

water quality parameters at the six major adits began in 2019 and will be included in a future report.

Samples were analyzed for total and dissolved metals, anions, alkalinity, pH, temperature, conductivity, and stable water isotopes ($\delta^{18}\text{O}$ and $\delta^2\text{H}$). A subset of samples was collected for rare earth elements and sulfate isotope analysis in 2018 and in 2019 for multiple groundwater dating analysis (^3H , SF_6 , CFC's, Ar gas). Those results will be presented in future reports. Discharge was measured in the field concurrently with sample collection to support loading (concentration x discharge) analysis. The sampling area was divided into 18 discrete sub-basins that represent the major basins and headwater tributary flows that originate around Bonita Peak and contribute to Cement Creek and the Upper Animas River. Sampling was also conducted in Prospect Gulch study area as a separate sub-basin to Cement Creek below Gladstone and outside of the Bonita Peak groundwater system. Large variability in water chemistry was observed across the study area. Results confirm that point source loads of metals are generally larger from draining mines than from individual seeps and springs with the largest discharging mines often having the highest metal loads. The spatial and temporal distribution of metals loading from s&s and draining mines was variable and cannot alone determine the subsurface hydrologic connectivity between sites nor identify the discrete source waters contributing to each point discharge. However, stable water isotope data was collected as a conservative tracer and source water identifier in this setting. The stable isotope results indicated varying rates and quantities of source water (rain and snow) mixing at different locations and successfully demonstrated the ability to use stable water isotopes as conservative tracers across the study area. The combination of hydrologic data, metals chemistry, and stable isotope results presented herein can be used to improve the BPMD conceptual site model (CSM) and support future activities related to the BPMD remedial investigation. The summation of the data presented in this report significantly enhances the conceptual understanding of the surface and groundwater interactions occurring across the OU3 and Prospect Gulch areas of the BPMD.

2.0 Introduction

TechLaw is under contract to the U.S. Environmental Protection Agency (EPA) to support the remedial investigation (RI) at the Bonita Peak Mining District (BPMD) Superfund Site in San

Juan County, Colorado. This characterization report summarizes sampling and technical services provided by Mountain Studies Institute (MSI) for investigation of seeps, springs, and draining mines within the project area, with a specific focus on the groundwater system in the vicinity of Bonita Peak. The following report summarizes and interprets the data collected and findings associated with five sampling events from fall of 2016 through fall of 2018. The sampling results will be presented to help characterize loading sources to surface waters emanating from seeps, springs, and draining mines. Information presented in this report shall summarize:

- The location and resampling of previously identified prominent seeps and springs and all other springs found within the vicinity of the Bonita Peak groundwater system (OU3).
- Global positioning system (GPS) locations, site photography, and general descriptions of individual seeps, springs, and relevant geologic features.
- Water quantity from each identified seep, spring, or draining mine adit.
- Water quality from each identified seep, spring, or draining mine adit.

These results will provide initial information to help address the main study question:

What is the spatial distribution, flow rates, and magnitude of mining related contaminants from discharges of known seeps, springs and currently draining mine adits?

3.0 Methods

3.1 Field activity methods and procedures

The field sampling methods used, as well as applicable SOPs, for the collection of seep and spring (s&s) water, field measurements, GPS coordinates, and photographs are found in the 2016-2018 annual Field Sampling Plans (FSP) (CDM Smith; 2016, 2017, 2018). The Data Quality Objective (DQO) was to collect and analyze water samples in a manner that enables direct comparison to all other water samples, including surface water and groundwater, collected for the BPMD project. All applicable quality assurance (QA) and quality control (QC) requirements followed the BPMD Quality Assurance Project Plan (CDM Smith; 2016, 2017, 2018). Maps with previously sampled s&s from other studies were used to locate many of the

s&s. Previously located/sampled s&s locations were referenced through the BPMD web map viewer (<https://epa.maps.arcgis.com>) including; a geospatial “USGS springs” data layer, springs from USGS open file report 00-53 (Mast *et al.*, 2000), non-published data provided to MSI (Wright, 2017), and from geospatial data collected as part of USGS professional paper 1651 (Church *et al.*, 2007). MSI also sampled many existing locations for s&s by referencing data sets collected by Sunnyside Gold Corporation in the 1990’s and early 2000’s (Sunnyside Gold Corporation, 2001). Additional locations, such as the first emergence of first order streams, were located by hiking up each drainage investigated until reaching the start of a given stream channel. In several drainages the first emergence of surface water was a small lake or pond, in which case the outflow of the water body was sampled in order to quantify both concentration and discharge. For example, the start of South Fork Cement Creek is the outflow from the lake in Velocity Basin. The other common type of first emergence flows in headwater areas was from the toe (bottom) of slopes covered by unconsolidated talus deposits.

All other visible source water emergences (s&s) within the above described area were also sampled in an attempt to completely encircle the Bonita Peak groundwater system inclusive of the flooded Sunnyside Mine workings beneath Eureka Basin. The first emergence discharge point was sampled, when accessible, to provide information on the naturally occurring water quality prior to any mixing or direct inflows from other source areas. Most of the previously sampled s&s were located and identified, with the GPS locations updated using high precision GPS equipment. The accuracy of many previously identified s&s locations was often off by > 10-20m due to GPS/satellite limitations in complex terrain with limited sky view. All locations sampled in this study received updated GPS coordinates (Appendix 2) with sub-meter accuracy. Occasional accuracy issues were still encountered for s&s located in steep drainages where limited sky view impacted the ability for the Global Navigation Satellite Systems (GNSS) to locate sufficient satellites.

3.2 Metals, Anions, and Isotopic Analysis

All water samples were analyzed by the ESAT laboratory for target analyte list metals (Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Na, Ni, Pb, Sb, Se, Tl, V, Zn) (total/dissolved) and wet chemistry (alkalinity, anions, hardness). A subset of samples was also

sent to the University of Colorado, INSTAAR Arikaree Environmental Laboratory in 2016, and the University of Arizona Stable Isotope Lab in 2017-2019 for analysis of stable water isotopes. The stable isotope analysis included deuterium (D, ^2H) and ^{18}O using an L1102-i Isotopic Liquid Water Analyzer, developed by Picarro Incorporated. The analyzer is based on Picarro's unique Wavelength- Scanned Cavity Ring Down Spectroscopy, which is a time-based measurement using near-infrared laser to quantify spectral features of molecules in a gas contained in an optical measurement cavity. Oxygen has three stable isotopes: ^{16}O (99.63%), ^{17}O (0.0375%) and ^{18}O (0.1995). Ratios of ^{18}O to ^{16}O in waters are reported in ‰ (per mil) relative to Vienna Standard Mean Ocean Water (VSMOW) as shown for ^{18}O :

$$\delta^{18}\text{O} = \frac{(^{18}\text{O}/^{16}\text{O})_{\text{sample}} - (^{18}\text{O}/^{16}\text{O})_{\text{VSMOW}}}{(^{18}\text{O}/^{16}\text{O})_{\text{VSMOW}}} \times 1000$$

The precision for $\delta^{18}\text{O}$ was $\pm 0.05\text{‰}$ and for D was $\pm 0.1\text{‰}$.

3.3 Sampling locations

The initial spatial extent of sampling began in the area of the R&B and GK mine sites and extended east and north over Bonita Peak towards the Mogul Mine (north) and the Lake Emma basin at the head waters of Eureka Gulch to the east and north. Sampling then expanded in 2017 to include the accessible sub-basins on all sides of Bonita Peak. The sub-basins all drain to either the Upper Animas or to Cement Creek above Gladstone. Additional sampling was completed in Prospect Gulch, a tributary to Cement Creek located downstream of Gladstone (Figure 1). To aid in understanding the spatial variability of s&s, the study area was delineated into 18 discrete sub-basins that represent the major basins and headwater tributary flows that originate around Bonita Peak and contribute to Cement Creek and the South Fork of the Animas River. The sub-basin approach enables a finer scaled evaluation of s&s relationships with local geology (Figure 2) and potential interactions with nearby mines and mine workings (Figure 3). The sub-basin approach will enable better analysis of water quality for individual stream segments that contribute to the headwaters of Cement Creek and Animas River watersheds. To reiterate, Prospect Gulch was sampled in this study as a stand-alone sub-basin due to its initial identification of a focus study area within the BPMD and was intended to provide background information on the current hydrologic conditions within that sub-basin. Results for Prospect Gulch will be summarized and

interpreted separately from the other samples due to its independence from the focus of the rest of the study (OU3, the Bonita Peak groundwater system).

4.0 Results

The data and observations from all five sampling events are summarized in this report. Most locations have samples from all five events with some sites having fewer samples due to either inaccessibility (e.g. snow cover) or insufficient volume of water. The first round of sampling in 2016 occurred during low flow conditions which helped to make initial determination of which s&s were more perennial in nature and thus avoid choosing annual high flow (snow melt driven) only sample locations. Due to the significant drought in 2018 several of the perennial spring sites sampled the previous two years were dry in the fall of 2018. In fact, 2018 was the driest year in the 38 year record at Red Mountain Pass SNOTEL with just 23.3” of precipitation while 2016 and 2017 we relatively average hydrologic years at 45.9” and 44.5” of precipitation respectively (<https://wcc.sc.egov.usda.gov/nwcc/site?sitenum=713&state=co>).

4.1 Re-sampling previously sampled seeps and springs

MSI collected 578 water samples from 123 seeps and springs and 30 draining mine adits (not all of which are listed sites under BPMD), and an additional 15 dry mine portals were surveyed for presence of seeps or discharge. All draining and dry mines sampled during this event are identified in Appendix 1 while the full list of all samples can be found in Appendix 2. The goal of at least 100 samples for each event was met during all five sampling events. The data quality objective (DQO) requirements were also met with (10.2%) duplicate samples and a minimum of one field blank sample per collection date.

4.2 Site photography and vegetation documentation

Repeat photos were taken in all four cardinal directions at each location to document the current conditions at each site and have been uploaded to the internal EPA Arc GIS online database through the Survey 123 mobile application. Additionally, the presence/absence of wetland plant species was recorded for each s&s (Appendix 2) to provide an initial indication of perennial and inter-annual longevity of each location. Most of the sampled springs had the presence of wetland

plants indicating that they are perennial in nature and that consistent discharge of water has occurred at these locations notwithstanding any of the hydrologic alterations to mine flows (e.g. bulk heading) which has occurred in the study area only in recent decades. The short vegetative growing season (~100 days/year) at the elevation of the study site equates to multi-decadal or longer time scale for significant wetland vegetation establishment (Chimner & Cooper, 2002) so presence of established vegetation qualitatively indicates perennial water supply. In several sampled locations (e.g. SS062,069,070,236) there were fen ecosystems with several meters of organic peat accumulation indicative of consistent perennial water supply for hundreds to thousands of years. Interpreting the overall health and age of these ecosystems was beyond the scope of this study but qualitative photo documentation of the sites provides a baseline from which to monitor future changes in the hydrology or ecology of these sensitive systems in relation to any direct or indirect effects from site-wide remedial actions. Conversely, most of the draining mine sites did not contain significant wetland plants in the vicinity of the portal due to significant overburden of waste rock and other anthropogenic disturbances. Results also provide baseline qualitative data for locations that may contain obligate wetland species and will need to be evaluated and monitored further to determine if EPA Superfund remedial or removal actions impact these potentially ecologically sensitive locations within BPMD. Repeat photography at each location during future sampling efforts will document any changes to wetland vegetation, which will provide qualitative evidence of changes to the timing and magnitude of discharge at each location correlated to any EPA Bonita Peak RI actions or activities.

4.3 Discharge

Water quantity (discharge) was measured at each s&s and draining mine location using a variety of methods as described in the Field Sampling Plans (FSPs). The discharge from s&s varied from < 1 liter per minute (lpm) to over 1800 lpm with an average discharge of approximately 50 lpm across the sampled sites (Appendix 2). Of the 30 sampled draining mine sites, direct portal discharge also varied from < 1 lpm to over 4,100 lpm with an average discharge of 166 lpm. These results represent conditions observed in the vicinity of the Bonita Peak groundwater system (OU3) plus Prospect Gulch study area but do not represent the entire BPMD. Seasonal variability of discharge was observed at some sites but not at others (Appendix 2). The s&s sites

that had consistent and steady flows over the entire study (e.g. SS068) tended to be associated with significant amounts of wetland vegetation and/or where large accumulations of peat were present, which suggests consistent perennial fracture flow and potentially deep or long groundwater flow paths coming from well mixed source waters and not from quick seasonal flow through of snow melt or rain. Conversely, there were many s&s locations where discharge changed by an order of magnitude or more between high flow and low flow events. The most significant changes in flow tended to occur in alpine headwater reaches at first emergence sites where the sampling point was the outflow of a lake (e.g. Velocity Basin SS013; Upper Cement Creek SS008). The s&s locations with greatest seasonal variability in discharge were interpreted as having shallow and/or shorter flow paths from the source waters (snow melt and rain) with less reservoir mixing, and also shorter sub-surface residence times. This interpretation is based on previous research on subsurface flow paths in alpine and sub-alpine region watersheds in the Rocky Mountains (Cowie *et al.*, 2017). This interpretation of seasonal variability in discharge could be correlated with seasonal variability in stable isotope values to further explain source waters and flow paths in individual sub-basins or locations but is beyond the scope of this report. At nearly all s&s locations both the high flow and low flow discharges were lower in 2018 than the corresponding values from 2017 due to the drought conditions. 10-15% of the locations had no measurable discharge in the fall low flow sampling event of 2018.

In general, the draining mine discharges varied from a doubling of discharge during high flow conditions (e.g. Natalie Occidental, CC14) while others exhibited minimal changes over the entire study period (e.g. Big Colorado Mine, CC16C). Interestingly, the discharge from the major non-bulk headed draining mines in Cement Creek (GK, R&B) decreased by as much as 50% over the study period. The mines with bulk heads (AT and Mogul) experienced much smaller decreases in discharge. A detailed analysis and interpretation of mine discharges from all of these key locations was beyond the scope of this report but will be forthcoming in a future report. Due to the low temporal resolution of the samples included in this report (2x per year, max 5x in 30 months), and the large variability in annual hydrologic inputs over the study period, it is not feasible to determine the hydrologic drivers causing the decreases in flow at these draining mine sites with data collected in this study. Fortunately, significant improvements in the temporal resolution of mine adit discharge monitoring from the major Cement Creek draining mines has

occurred concurrently with this study and will be available in a future report. Specifically, MSI has installed continuously recording discharge devices in all the above-mentioned mines since 2017, which will enable discharge analysis at daily resolution. The high resolution mine discharge and water quality data will be presented in a future report.

In multiple locations along Cement Creek there were clear indications of correlations between mine adit locations and historic groundwater flow paths. Specifically, where s&s resided directly below (down gradient) existing mines (dry or draining) there was clear indication of historic fracture flow of groundwater along the same structures (fractures/faults) where mining tunnels had targeted mineral rich veins. Prime examples were the fen wetlands existing below the R&B and Mogul mines and the fen area below the Adams mine. All of these mines were located in areas targeting mineralized veins associated with hydrothermal alteration along fault and fracture structures associated with the Eureka Graben (Figure 2). By default, the secondary porosity of these fracture systems also provided the dominant pathway for groundwater movement and discharge, which naturally occurs at the lowest exit point to the catchment surface topography (i.e., the toe of the slopes close to the surface water channels). By documenting the spatial and temporal variability of discharge from both mines and s&s sites associated with the same fault/fracture complexes, this study provided a baseline from which to monitor future changes in both water quantity and quality related to past and future remedial actions such as completion of the Mogul and AT bulkheads and potential value closing on the R&B bulkhead. Fortunately, for Upper Cement Creek above Gladstone there was a stream tracer study performed in 1999 by Kimball *et al.*, (2007) which located and quantified stream inflows (from s&s and draining adits) during the beginning phases of Sunnyside Gold Corp bulkheading activities in the AT and Mogul. The study was repeated by the USGS in 2019 under current conditions and results from this report should be compared to both the previous and current tracer studies to further understand the s&s and mine discharge relationships along Cement Creek between Gladstone and the Mogul Mine. Due to the large number of sites, and multiple samples from each site, it is not feasible to discuss the individual discharge results from every location.

To summarize the general magnitude of discharge at each location, the average discharge (in liters per minute) from all sampling events was calculated and placed into a range of sample classes for easy visualization (Figure 4). In general, average mine discharges were slightly larger

than s&s discharges, with the exception of s&s discharges from headwater lakes which had seasonally higher flows during snowmelt.

4.4 Water quality; Metals

The total and dissolved metals concentrations for all sites and all samples are included in Appendix 3. To best represent the potential impacts of individual s&s and draining mines on nearby surface water quality, the metals concentrations were multiplied by the discharge to express metals concentrations as loads to the watershed in kilograms per day (Appendix 3). Individual locations were sampled up to five times, representing three low flow and two high flow events over three variable hydrologic water years. Due to the inherent variability in this data set the data has been summarized and condensed by calculating the study period mean concentrations and loads for all metals (Appendix 4). Individual interpretation of variability at every site in the study is beyond the scope of this report. However, several metals were found to be in elevated concentrations and of higher priority to the study based on previous water quality studies and EPA BPMD risk assessment studies. These include Al, Cd, Cu, Fe, Mn, Pb, and Zn and are presented in graphical format while the other metals analyzed (including Ag, As, Ba, Be, Co, Cr, Hg, Mg, Ni, Ag, Se, Sr, Tl, and V) are presented in Appendix 3 but were found at low levels or below detection and not a focus of this report. When analytical results were below detection for a given analyte the minimum detection limit (MDL) was reported for concentration. Loads were calculated at the MDL for non-detections. Reporting the MDL provided a most conservative approach to low-level concentrations and was best practice rather than not reporting a value which could be misinterpreted as a concentration of zero. Differing MDLs between labs and years are present in this dataset, which could lead to erroneous interpretation of changes in concentration and load that are actually a reflection of the changing MDL values. It is therefore recommended that any further interpretation using the loads presented in appendices 3 and 4 should reference the corresponding detection status and MDL value as reported in SCRIBE. Both total and dissolved metals concentrations and loads are reported in the appendices while only the mean of total metal load was chosen for clarity in graphical representation. The mean total metals load for Al, Cd, Cu, Fe, Mn, Pb, and Zn were plotted for all sampled s&s and draining mines in Figures 5-11. For visual clarity, s&s were plotted as blue triangles and draining mines were plotted as red triangles. For each metal the loads were grouped into representative

ranges and plotted using proportional symbology with the larger symbol size corresponding to greater daily load. All locations are labeled in Figure 1 for reference while only the top six mine sources were labeled (with corresponding mean daily metal load value) in the metals loading figures for clarity.

The most striking finding overall was that the GK produced an order of magnitude more daily average load of Al, Cd, and Cu than all the other sites sampled. The GK also produced the greatest daily load of Fe, Mn, and Zn while the R&B produced the greatest daily load of Pb during the study. The results confirmed that in general the largest loaders of metals of concern, were the GK, R&B, AT, and NO. Interestingly, the Blackhawk and Mogul mines were the next largest loaders but had comparable metals loads to a handful of s&s sites that were spatially dispersed across the study area from upper California Gulch to Upper Cement Creek to Velocity Basin (e.g. Zn loads, Figure 11).

Results shown in Figures 5-11 generally indicate that the draining mines produced larger loads than did the individual seeps and springs, which was most noticeable for Fe where the mine discharge loads were often an order of magnitude greater than the seeps and springs. This result suggests that addressing the largest loader mines could have a great impact on reducing the overall Fe load to the streams in this study area. Similarly, other metals including Cu, Cd, Pb, and Zn tended to have considerably greater loads from draining mines than from s&s sites and likewise the overall load to the surface waters may benefit from mine adit discharge remediation. Conversely, other metals like Al, and to some extent Mn, tended to have more widespread loading from both s&s and draining mines and it may be harder to accomplish in stream load reductions through individual site remediation in some sub-basins. Additionally, the Al and Zn loads tended to be spread out over a large area of the study site whereas other metals such as Fe tended to be clustered in smaller areas, which could support decisions on where to focus remedial actions depending on which metal(s) of concern are to be addressed. For example, Fe loads are generally greater in Cement Creek than the upper Animas River and Mineral Creek watersheds.

A complete list of the average daily load for metals across all sites can be seen in Appendix 4. Some analytes that did not have results for every site (e.g. Antimony) or are not metals of

concern (e.g. hardness, Ca, Mg, etc.) were removed from Appendix 4 (Average Metal Concentration, Average Load, and Standard Deviation of Load By Site) so that an average % metal load contribution (for all metals with data at every site) could be calculated and reported.

In addition to the average and standard deviation of daily total and dissolved metal load from each site, Appendix 4a (Average Metal Load Contribution by Site) lists the percentage of total load for every metal from every site. For example, the GK averaged 106 kg/day of total Al during the study which represented 75.1% of the total daily Al load as a sum of the Al load from all sampled sites during the study. The number became even more pronounced for copper (Cu) whereby on average the GK produced 20 kg/day of Cu which represented 96.3% of the average daily copper load when summed across all the sites sampled in the study. For Zn, the GK average daily load of total Zn was 76.7 Kg/day which represented 58.1% of all Zn load measured in this study. GK produced 48.9% of all the total Fe load measured across the study. The GK was not the single largest loader of every metal, for example the R&B produced an average of 0.14 kg/day of Pb while the GK produced an average of 0.09 kg/day of Pb over the study period. These average total Pb loads translated into R&B producing 26.59% of all total Pb load across the study while GK produced 16.64% of the daily total Pb load.

Unfortunately, not all draining mines in the BPMD were sampled in this study so a complete ranking of mine adit metals loading outside of OU3 is not possible at this time.

Additionally, Appendix 4 lists the average percent load of the sum of all metals across all sites in which case the GK represented 43.48% of the load from all the metals combined when summed across the entire data set. The R&B came in second with 12.19% of the average daily load from all metals combined. Third was the NO mine at 9.54% and fourth was the AT at 4.23%.

The summation of average total load of all metals was intended to be a general metric to help understand the variability of loading across the study site and was not intended to be used to classify or rank the greatest sources of metal loading.

The results, as summarized and presented in Figures 5-11 and Appendix 4 provide a solid foundation to begin conceptual site model (CSM) development of the spatial and temporal

distribution of metals loading across the study site. However, the quantitative significance of the results should be taken with caution due to a few important limitations in this study.

First, the average calculations were based on a total of five sampling events over three years with the events representing high flow and low flow conditions. A potentially invalid assumption of this method is that for any given hydrologic year the high flow load and low flow load were given equal weight, which assumes that each value represents 50% of the year. This may be incorrect because high flow and low flow hydrograph conditions do not last for equal portions of the year but may or may not represent 50% of the discharge each year. However, without higher temporal resolution of both concentration and discharge from given locations it is not possible to proportionately weigh the metals loads from any one source. To help address the potentially disproportionate variability between high flow and low flow sample events, the standard deviation of both discharge and metals concentrations can be found in Appendix 4. Sites with larger variability in either discharge or concentration, denoted by greater standard deviations, should be further analyzed to accurately quantify annual load and seasonal variability. For example, s&s sites that were collected as the outflow of an alpine basin such as upper Cement Creek (SS008) and Velocity Basin (SS013) had very large discharges during high flow and little to no discharge at low flow so the resulting mean metal load calculations may be an over estimate of annual mean daily load from that location. Individual site proportionate loading analysis and correction was beyond the scope of this report but could be analyzed at a future date for particular sites or sub basins using the provided data. Fortunately, at sites with low sample event to sample event variability in discharge and concentration, the result will likely not change significantly.

Secondly, the temporal variability in the single largest loader, the GK, was extremely large over the five samples collected for this study. In fact, there was a nearly 80% reduction in metals loads from the GK from 2017 to 2018. The reduction in load was a factor of both decreased discharge and concentrations over that time period. Specifically, the discharge was around 2,500 lpm during sampling in June and September of 2017 but dropped to just over 1,500 lpm in both June and October of 2018. The long-term discharge trends for GK are still being evaluated so it is not possible to compare these discharges with long term averages at this time. Additionally,

the metals concentrations dropped by as much as an order of magnitude between June of 2017 and October of 2018. As a result, there was significant reduction in metals loads from the GK over the study period with results presented in the table below for quick reference.

Table 1: Total metal loads (kg/day) from Gold King Mine collected during high flow 2017 and low flow 2018.

	Al	Cd	Cu	Fe	Mn	Zn
June 2017	224.1	0.45	33.2	950	77.3	134.4
October 2018	40.3	0.12	10.4	152	46.7	34.9

As a result of the significant decrease in metals load from the GK it could be argued that applying the average value may not accurately represent the daily load from this particular site. However, this data is important for the overall understanding of loading from point sources to Cement Creek because during the entire study the GK water was being treated at the Gladstone Interim Water Treatment Plant so none of this major variability would have been observed via the in-stream surface water sampling collected at the same time as this study. Fortunately, to better address the temporal variability of the mines with the largest sources of metals (GK, R&B, AT, NO, Mogul, and Blackhawk) in relation to temporal changes at key surface water locations, MSI is currently conducting a year-long monthly high-resolution sampling of these locations. The monthly analytical results from these six mines will be paired with daily resolution discharge data from June 2019 to June 2020 to produce more accurate flow weighted concentrations in a future report.

4.4.1 Sub-basin distribution of metals

Due to the large number of individual sites spread over a large geographic area, metals concentrations and loads were grouped by sub-basin to help characterize results in a comprehensive manner. The total, or summation, of loading from s&s and draining mines in individual sub-basins was beyond the scope of this report because not every single point source of water across the entire geographic extent of the sub-basins was sampled. For example, in the area of Cement Creek above Gladstone sampling efforts were primarily focused on the eastern

(Bonita Peak) side of the stream which was inferred to most accurately represent OU3, the Bonita Peak groundwater system, while sources emanating from high on the slopes of the western side of Cement Creek were not sampled and assumed to be unrelated to the Bonita Peak groundwater system. However, the 150+ sample sites did represent the vast majority of the largest, and predominantly perennial, discharges in the study area and therefore provide a strong initial assessment of mobilized metals sources across the study area.

The qualitative grouping of metals loading by sub-basin can still be used to help determine the overall impacts of mining in individual sub-basins, or around specific BPMD listed sites, and could be correlated to the EPA BPMD surface water loading tool to help identify the source of loads within a particular stream reach.

A total of 18 sub basins were characterized, with all but one (Prospect Gulch) representing surface basins with potential sub-surface groundwater interconnections through natural (faults and fractures) and/or anthropogenic (mine workings) pathways. Specifically, the 17 sub-basins encircle Bonita Peak with emerging groundwater within those sub-basins potentially representing the Bonita Peak groundwater system (see Figure 1).

To the east of Bonita Peak is the Eureka Basin which was divided into focused sub-basins; the Upper Eureka (formally Lake Emma Basin), the South Fork of Eureka (confluence with Upper Eureka @ Ben Franklin), Eureka Basin (below the confluence of Upper Eureka and South Fork Eureka), and McCarty Basin. The Upper Eureka Gulch (UEG) basin contains the majority of the Sunnyside Mine workings but does not have any discharging mines so all samples were s&s sites in the vicinity of the former Lake Emma and the Sunnyside Mine. The emerging water sampled in this headwater basin was generally of lower metals loads with a slight elevation in Mn concentrations near the former Sunnyside Mill site. Since there is no longer any water in Lake Emma, the s&s in the Upper Eureka Gulch may be an important identifier of potential water quality associated with surface interactions and infiltration that may occur along the Eureka Graben and near the former Lake Emma and impact recharge of the Sunnyside Mine workings residing below the former lakebed.

The adjacent basin, South Fork Eureka Gulch (SFEG), contained only s&s sites (no draining mines) with the relatively low metals loads. One unique source of water in the SFEG basin was

discharge from rock glaciers residing on the northeast flanks of Bonita Peak. The rock glacier samples were easy to identify in the field due to lower water temperatures during LF events than those of adjacent s&s from non-frozen source waters. These samples were slightly elevated in sulfate concentrations, and also had a unique isotopic signature that will be discussed later in this document. The significance of a rock glacier signal is that it represents a unique source water, potentially separate from the snowmelt and rain source waters. Therefore, documenting these unique source waters could be important in understanding potential variability in geochemical signals/loads to surface waters in these areas that are likely to be influenced by changing climate (see Williams *et al.*, 2006). In Eureka Gulch the s&s that flow into the South Fork of Eureka Gulch (SFEG) have non-detection for Cu and Zn while those that are closer to the Upper Eureka Gulch sub-basins (historically starting from Lake Emma and in the proximity of the Sunnyside Mine workings), have higher levels of metals. The variability between the two headwater basins of Eureka Gulch are likely related to the proximity of the Eureka Graben which expresses all the way to the surface just above Lake Emma. The s&s at the headwaters of Upper Eureka Gulch do reside in an area of vein-related quartz-sericite-pyrite hydrothermally altered surface rock and are along the Eureka Graben (Figure 2), which are likely influencing the degraded water quality. The highlighted differences in water quality between the two adjacent sub-basins at the alpine headwaters of Eureka Gulch demonstrates the high spatial variability in source water geochemistry over small spatial scale and highlight the potential influence of flow path host rock geochemistry separate from mine tunnel flow path influences.

Continuing to the south, McCarty (MC) sub-basin is a roadless alpine basin above 12,000 ft elevation with no major legacy mining activities. The s&s sites in MC had very low levels of metals loads, with the lowest sum of mean total Zn load of all the basins measured in this study. In fact, MC had non-detect levels of Cu and Zn emerging from s&s locations. Therefore, the most likely scenario for the emerging s&s water in MC is that its entire flow path, from infiltration to emergence, occurs in the near-surface host rock that has not undergone significant hydrothermal alteration (Figure 3) and also the water does not travel through major fault/vein structures where contact with metals like Zn and Cu would be most probable.

Continuing downgradient, the next sub-basin was the Eureka Gulch (EG) sub-basin, which included the Ben Franklin Mine and the Terry Tunnel, a former haulage tunnel from the Sunnyside Mine workings.

The loads of Al, Cu, Mn, Pb, and Zn were greater in this area than in the headwater basins above, but still lower than the major draining mines on the Cement Creek side of Bonita Peak (figures 5-11). In general, the low discharge draining mines in this area (Terry Tunnel, Ben Franklin, Bavarian) had higher metals concentrations than the adjacent s&s sites which lead to higher loading but overall individual sites in this sub-basin had lower loading of metals than other sites in the greater study area. The EG sub-basin was delineated as an important monitoring area due to its relative proximity to the Terry Tunnel and similar elevation range to the Sunnyside Mine water pool so that any potential impacts due to changes in the Sunnyside Mine pool could be monitored.

Continuing downstream, Eureka Gulch combines with the South Fork of the Animas River (SFA) before entering the Animas River near the townsite of Eureka. The loading calculations from SFA are specifically from the east-facing slope of the lower part of the drainage (SS 071-075) and do not represent emergent water quality in the headwaters of this drainage which was not sampled for this study. In this area, the loading of Al, Fe, Mn, Zn are elevated and of much higher concentrations than those found in the adjacent and upgradient McCarty Basin site. Of particular note for these five s&s sites is the inclusion of three draining mines (SS 071, 073, and 075) which do not have EPA BPMD mine site names or ID's because these mines were not sampled by DRMS (2016), nor are they listed sites under the BPMD. All of the sampled s&s and draining mines for SFA occur within a narrow elevation band at ~11,100 feet and appear to be in line with some number of radial fractures that come off the Achilles heel area of the Eureka Graben (Figure 2). Further geo-referencing of these sites relative to radial fracturing off the graben structure and elevations of the Sunnyside Mine pool is recommended. Initial surface water quality results for SFA suggest that there is a considerable degradation of surface water quality near these s&s and draining mines, which further emphasizes the need to understand their contribution of metals to the watershed. Further analysis of the SFA sites is suggested to determine if the metals loading is solely due to localized geology or potentially connected to/interacting with a larger Bonita Peak groundwater system via the radial fracturing coming off the Achilles heel area of the Eureka Graben (Figures 2 and 3). Additionally, further investigation

into the discharge and water quality history from the draining mines SS071 and SS075 is recommended because both sites had considerable average discharges (235 lpm and 156 lpm respectively) during the study and these discharges were much greater than any other discharges from all sites across all sub-basins of Eureka Gulch.

The final and lowest sub-basin that was sampled on the east side of Bonita Peak was Lower Eureka Gulch (LEG) and represented the area below the confluence of Upper Eureka Gulch with SFA and above the confluence with the Animas River at Eureka town site. Due to resource constraints only two draining mines, the Ransom and Senator, were sampled in this sub-basin. Both of these draining mines are located near the Eureka Mill site and results provide baseline information on point source loading from this area near the confluence of the South Fork Animas with the main stem of the Animas River. Of interest here is that both locations are collapsed portals with minimal historical water quantity or quality data available prior to this report.

To the north of Bonita Peak are the Upper Animas River sub-basins of Upper California Gulch (UCG) (also known as West Fork of Animas River) and Upper Placer Gulch (UPG) which were added in 2017 to the study area in this report. Both of these sub-basins had mining in the upper portions of the drainages and the major mines and nearby s&s were the focus of the expanded study area for 2017 and 2018. Interestingly, the loads of Al, Cd, Mn, Zn were all elevated from three s&s sites (SS220-222) on the eastern side of Upper California Gulch. The entire ridgeline on the eastern side of Upper California Gulch, and upgradient of these sites is hydrothermally altered quartz-sericite-pyrite and may be indicative of the higher metal concentrations found in the emerging water below. The water emerging from SS220-SS222 sites is likely following a flow path from the ridgeline above and not connected to the Bonita Peak groundwater pool to the south and therefore may represent localized rock/water interactions that are separate from the mine workings located at the headwaters of Upper California Gulch. However, Burrows Gulch and the lower portions of California Gulch and Placer Gulch, near the Frisco/Bagley and Animas Forks area, were beyond the scope of this sampling effort. Therefore, additional monitoring in the lower reaches of these two sub-basins will be required to fully understand the sources of metals loads to the Upper Animas River watershed. Fortunately, an additional stream tracer study was performed by the USGS in California Gulch in 2019 and the results can be combined

with the results in this report and future sampling to enhance the conceptual understanding of metals loads to the Upper Animas River.

Transitioning to the west side of Bonita Peak, the Cement Creek watershed was divided into several sub-basins related to different drainages and/or mine features of interest (Figure 1). In general, the highest water quality (lowest metals concentrations) was observed in Minnehaha Basin (MH), while Upper Cement Creek (UCC) headwaters above Grand Mogul and Velocity Basin (VB) above NO also have relatively low Zn and Cu loads coming from s&s (Figures 5-11). The s&s emerging from the headwaters of Middle Fork Cement Creek (MFC) and the adjacent Minnehaha Basin (MH) also have low metals concentrations.

The metal loading in UCC (inclusive of all point sources flowing into Cement Creek upgradient of the Grand Mogul Mine complex) comes primarily from SS027 and SS029 which are the sites below Queen Anne Mine and are much poorer water quality than the s&s that emerge in the basin headwaters above the Queen Anne Mine complex. These two springs reside immediately north of the Eureka Graben structure down gradient of the Lower Queen Anne Mine where sericite-pyrite is present at the surface. The springs emerge along the upgradient side of the Hurricane Pass road cut and do not appear to be hydrologically connected to the Lower Queen Anne Mine since their combined discharges are consistently higher than that of the mine itself. In fact, SS029 had the largest discharge of all non-lake outflow s&s samples (average 300 lpm), which indicates a significant groundwater flow path at this location. SS027 and SS029 produce the majority of Upper Cement Creek surface water flows coming from the Hurricane Pass road cut during low flow conditions when surface discharge from the alpine lake are not visible at the surface. Large discharges from the UCC headwater lake outflow during peak snowmelt (June) do cause increased loading from the headwaters (see SS008, Appendix 3) but discharge from the lake outflow is very small to non-existent in the fall so average metals loading from the lake itself is likely overestimated in this report and annually less significant than the loading from SS027 and SS029.

The lowest water quality sub-basins were in Cement Creek and included the dominant draining mines. The North Fork Cement Creek (NFC) sub-basin contains the GK discharge which individually represented nearly 50% of all metals loading across the study so this area had an

order of magnitude greater metals load from draining mines but the s&s load was fairly low in the upper reaches of the North Fork. The next most prevalent area of metal loading in Cement Creek was Cement Creek Above North Fork (CCANF) which included the R&B and Mogul mines. This sub-basin had the largest number of sample sites due to proximity to major mine sources and extensive historical sampling efforts in the area. As with the NFC sub-basin area, the s&s sites in CCANF had a fairly low overall impact on metal loading and were similar to other sub-basins. The third sub-basin area with considerable metals loading from point sources was the Cement Creek at Gladstone (CCGS) sub-basin which included the AT discharge and numerous s&s around the AT and emerging along Cement Creek from Gladstone upgradient to the North Fork of Cement. In this sub-basin the s&s sites did in fact have a considerable impact on individual metal loading (Appendix 4) of Al, Fe, and Zn in particular. Based on physical location alone the s&s sites along Cement Creek from Gladstone to Mogul have the highest potential of source water interactions with the adjacent draining mines, but due to the non-conservative nature of metals concentrations, additional fingerprinting techniques will be necessary to determine the direct or indirect influence of the mine workings and mine pools on the overall water quality and metals loading in Cement Creek above Gladstone. The final sub-basin of interest in this study was the South Fork of Cement Creek (SFC) which includes two draining mines (NO and Big Colorado) and a number of s&s sites. This sub-basin loading was dominated by the NO mine discharge for all metals of concern (Figures 5-11) with some additional loading of Al and Fe from the Big Colorado Mine and a slightly elevated load of Al coming from the outflow of Velocity Basin (VB) lake during high flow.

4.4.2 Metals Prospect Gulch

The sub-basin of Prospect Gulch (PG) was sampled in this study due to its designation as a defined study area at the start of the BPMD process. Joe & Johns, Henrietta, and Lark mines are on the BPMD site list and were sampled along with 18 other locations within the PG sub-basin (Figure 1).

The objective of this sampling event was to establish a baseline of current conditions and to identify metals loads from mines vs. s&s sites. Due to the large amount of hydrothermally altered acid-sulfate and quartz-sericite-pyrite assemblages (Figure 2) in this basin, the majority of the

collected samples from both draining mines and s&s were acidic. There were some elevated levels of Al, Pb, and Zn from a few sites but overall loads were much smaller than other areas of the study. One observation from the study period was that this basin had relatively small discharges at all sites and surface flows out of the sub-basin tributaries were quite small especially during fall low flow conditions resulting in lower measured loading even with elevated concentrations. It is recommended that data from this study be integrated with results from the far more detailed previous USGS studies of Prospect Gulch (Church et al., 2007, Barrok et al., 2009) to better understand the source water loading in this sub-basin. Previous work in PG by Barrok et al., (2009) used isotopes to differentiate sources of specific metals (Fe and Zn) and found that sub-basin loads of Fe appeared to come from groundwater sources while runoff from mining wastes was the major source of Zn exiting PG sub-basin. Isotopic speciation of metals was beyond the scope of this study but comparison of current results to previous findings of the studies mentioned above could improve the overall understanding of metals loading in PG.

4.5 Water quality; pH, conductivity, and major ions

All measured pH and conductivity values are in Appendix 2 and major ion values are in Appendix 3. The pH was measured at each location and ranged from 1.96 to 8.91, median of 5.98, for all s&s sites and a slightly smaller range of 2.6 to 7.8, median of 5.82, for all draining mine samples. pH was lowest (<3) in s&s along North Fork of Cement Creek below the GK Mine and was consistently below 5 along the entire main stem of Cement Creek (Figure 12). Overall, there was no noticeable difference in pH between draining mines and s&s sites, but further analysis of this data set could provide insight on individual locations where an s&s and draining mine are hydrologically connected via fracture flow but have water emerging under different conditions. Specifically, further analysis of pH values from saturated (oxygenated) draining mine water relative to s&s water emerging from unsaturated conditions (less oxygen), but originating from the same source, would help evaluate effects on pH from remedial actions such as bulk heading mine drainages.

In general, the pH was higher in the highest elevation basins with the exception of Prospect Gulch, which had both high and low pH values across the entire upper basin. The low pH s&s sites in Prospect Gulch did not appear to be related to proximity of mine features or adits and are

likely related to the acid producing hydrothermal alteration assemblages present at the surface in that area (Figure 3). Further information on the relationship between surface and subsurface geology and acid generation is beyond the scope of this report but can be found in USGS professional paper 1651 (Church *et al.*, 2007).

Specific conductance was measured with pH at all locations and ranged from a low of 12 $\mu\text{s}/\text{cm}$ to a high of 3960 $\mu\text{s}/\text{cm}$ with an average of 583 $\mu\text{s}/\text{cm}$ (Figure 13, Appendix 2). The average specific conductance for draining mines (1036 $\mu\text{s}/\text{cm}$; min 104 $\mu\text{s}/\text{cm}$; max 3960 $\mu\text{s}/\text{cm}$) was nearly double that of s&s sites (470 $\mu\text{s}/\text{cm}$; min 12 $\mu\text{s}/\text{cm}$; max 2680 $\mu\text{s}/\text{cm}$). The highest levels of around 2000 $\mu\text{s}/\text{cm}$ were consistently found at the GK, R&B, and AT locations. Similarly, the s&s locations with levels consistently over 1000 $\mu\text{s}/\text{cm}$ were also located along Cement Creek extending from Gladstone up to SS250 below Mogul. Specific conductance was high (> 1000 $\mu\text{s}/\text{cm}$) in the North Fork of Cement just below GK and it was also elevated in two other distinct locations, the South Fork of the Animas (SS071-075) and in Upper California Gulch (SS220-222). As expected, locations with high specific conductance are generally correlated to lower pH and higher metals concentrations.

The major ions (Cl^- , F^- , SO_4^{2-} , and $\text{NO}_3^-/\text{NO}_2^-$ as N) were measured for each location in the study area and can be reviewed in Appendix 3. Sulfate (SO_4^{2-}) varied widely across the sampled s&s from 3 to 2220 mg/l with a mean value of 223 mg/l for all s&s samples and 523 mg/l for all draining mine samples (Figure 14). In general, SO_4^{2-} was highest where pH was lowest (North Fork and main stem of Cement Creek) but was also elevated in the South Fork of the Animas and Upper California Gulch, at essentially the same sites where elevated specific conductance was measured. Elevated sulfate was also found in several locations in Prospect Gulch. Future analysis of the stable isotope ($\delta^{34}\text{S}$) of sulfate could be helpful in identifying where the sulfate has been derived in s&s waters relative to the waters draining from mines, especially in the Eureka Graben area. Unique $\delta^{34}\text{S}$ signals could help to differentiate sulfate coming from vein and disseminated sulfides to sulfate from gypsum and anhydrite phases common to the Eureka Graben (Bove *et al.*, 2007). The results of this study provide a solid set of locations where further sulfate isotope analysis would be most beneficial.

Fluoride (F^-) is known to be a potential conservative tracer in mine waters (Cowie *et al.*, 2014) and results from this study should be compared with previously published research to gain a better understanding of hydrologic connectivity between sites with varying host rock geochemistry. Fluoride has previously been measured in elevated concentrations (> 2 mg/L) at multiple locations within the Eureka Graben/Bonita Peak study area (Bove *et al.*, 2007). Specifically, several locations including discharge from the American Tunnel, the GK via North Fork Cement Creek, and a location in Upper Eureka Gulch, are correlated with nearby vein systems containing late-stage fluorite and huebnerite (Bove *et al.*, 2007). In this study, total fluoride from draining mines ranged from 0 to 11.2 mg/l with an average of 2.34 mg/l. Total fluoride from s&s ranged from 0.1 to 5.6 mg/l with an average of 0.84 mg/l with the exception of the three s&s in Upper California Gulch (SS220-SS222) where concentrations were the most elevated of any sites with values between 33 and 98 mg/l (Appendix 3). Similar to findings by Bove *et al.* (2007) the most elevated mine signal in this study was from the GK (mean 9.02 mg/l) followed by the R&B (mean 6.03 mg/l), AT (mean 4.35 mg/l), Mogul (mean 4.25 mg/l), and Mogul South (mean 3.53 mg/l). Interestingly, Walton-Day *et al.* (2007) also measured extremely elevated fluoride (21.8 mg/L) in the Mogul mine discharge in 1999. This is significant because the Nearby Queen Anne Mine, which exploited similarly mineralized and parallel vein structures as the Mogul Mine, had low fluoride concentrations in 1999 and remained low in this study (mean 1.2 mg/l). Also, fluorite has **not** been reported as a vein constituent at the Mogul Mine nor is it found in the associated waste dumps (Bove *et al.*, 2007; Burbank and Luedke, 1969). There were large increases in fluoride in Upper Cement Creek between 1996 and 1999 and it was suggested by Bove *et al.* (2007) that the increase was due to increases in fluoride from the Mogul Mine as a result of plugging the AT which was hypothesized to cause the rise of the mine pool waters into the Mogul Mine workings (Walton-Day *et al.*, 2007). The concentrations of fluoride from the Mogul Mine and other mines were not as high as previously reported but were potentially more stable and consistent over this study period suggesting that waters emerging from around the Mogul Mine bulkhead may have equilibrated and stabilized since bulkhead closures two decades prior. During this study the most consistently elevated fluoride concentrations emerging from s&s sites were also in the same vicinity of the above-mentioned mines. Specifically, a handful of sites along Cement Creek (SS044,046,067,068,069,200,201,210, and 250) were all elevated, suggesting potential

interactions of the emerging water at these locations with nearby vein systems containing late-stage fluorite and huebnerite as suggested by Bove *et al.* (2007). Further analysis of the location of the vein systems containing fluorite in relation to all the above mentioned sites with elevated fluoride levels would provide insight on whether or not the emerging s&s and mine waters are picking up the fluoride via direct contact along the natural flow paths or are discharging waters that contacted fluoride containing rock along artificial pathways created by specific mine workings within the Bonita Peak groundwater system (OU3). It is therefore recommended that further comparison of geochemical signatures in mine waters and s&s waters relative to the nearby areas of mineralization will enable better characterization of fluoride sources and its ability to act as a conservative tracer for subsurface waters.

4.6 Stable Water Isotopes

Precipitation is the ultimate source of groundwater in virtually all systems. Hence, knowledge of the factors that control the isotopic compositions of precipitation before and after recharge allows the use of oxygen and hydrogen isotopes as tracers of water sources and processes. Craig (1961) observed that the $\delta^{18}\text{O}$ and $\delta^2\text{H}$ (δD) values of precipitation that has not been evaporated are linearly related by:

$$\delta\text{D} = 8\delta^{18}\text{O} + 10$$

This equation, known as the "Global Meteoric Water Line" (GMWL), is based on precipitation data from locations around the globe, and has an $r^2 > 0.95$. This high correlation coefficient reflects the fact that the oxygen and hydrogen stable isotopes in water molecules are intimately associated; consequently, the isotopic ratios and fractionations of the two elements are usually discussed together. The slope and intercept of any "Local Meteoric Water Line" (LMWL), which is the line derived from precipitation collected from a single site or set of "local" sites, can be significantly different from the GMWL. The water inputs (rain and snow) for local and regional precipitation near BPMD were sampled to establish a LMWL (Figure 15). Precipitation samples were collected throughout the study with summer rain collected at the BPMD Gladstone weather station and snow collected from monthly snow pits at both the BPMD Gladstone and Minnehaha weather stations. The isotopic values measured in the precipitation collected for this study were very similar to previous results from the region published by Cowie *et al.* (2014), which provides confidence that they were representative samples for the local precipitation signals. Confidence

in the consistency of the precipitation isotopic signals is important when interpreting groundwater and surface water interactions because one must assume some amount of transit time (lag) between source water infiltration and discharge, such that the current years precipitation may not be the actual water collected at a discharge point.

The local meteoric water line developed for this study ($Y = 8.04x + 14.38$, $R^2 = .998$) was very similar to the GMWL indicating that inputs to the local hydrologic system are typical of global precipitation. The slightly higher y-intercept value is likely just a reflection of specific atmospheric processes related to elevation that are occurring in the localized area of the precipitation but is not a significant indicator of variation from global meteoric waters (Singh, 2017). Incoming snow precipitation had an average $\delta^{18}\text{O}$ of $-20.71 \pm 2.8 \text{ ‰}$ while rain had an average $\delta^{18}\text{O}$ of $-5.80 \pm 1.71 \text{ ‰}$ (Figure 15, Appendix 5). The concentration of $\delta^{18}\text{O}$ vs $\delta^2\text{H}$ found in individual water samples (from s&s and draining mines) were plotted with the LMWL to provide insight on the contribution of water sources (rain, snow, glacial ice) comprising each sample collected. All of the s&s and draining mine waters sampled were a mixture of both rain and snow with most samples falling on the LMWL. Samples that fell to the right of the LMWL indicative of fractionation associated with evaporation since arriving as meteoric waters. The s&s sites falling below the LMWL were enriched in $\delta^{18}\text{O}$ and had negative D-excess values, which is consistent with preferential loss of the lighter isotopes through evaporation. A local evaporation line was plotted for all samples exhibiting evaporation (Figure 15). The corresponding high R^2 value (0.99) of the evaporation line suggests that the isotopic values of these samples were indeed driven by evaporation (e.g. not due to sampling or analytical error) and that samples further away from the LMWL likely experienced greater evaporation prior to sample collection. A closer look at s&s locations with an evaporation signal revealed that those sites had standing surface water at the point of emergence in the form of kettle ponds or small surface water ponds where evaporation was probable. The sites with consistent evaporative signals (e.g. SS033, SS034, SS076, SS080) were consistent year to year with a few additional evaporative signals coming from s&s sites during fall low flow conditions. The evaporation signal suggests that these springs have a low discharge rate and the water resides for some time at the surface expression, therefore these springs do not present an ideal representation of groundwater discharge and may have chemistry that is altered by the longer residence time of the

water at the surface. Therefore, these sites would not be recommended for future sampling with respect to background conditions, but they do provide valuable spatial information regarding limited or lower infiltration capacity of precipitation or snow melt at these locations. Essentially, the evaporative signal provides additional insight on the overall surface water and groundwater interactions occurring in those areas. For example, the kettle pond springs in Upper Eureka Basin are all located below the remaining rock glaciers on the north east side of Bonita Peak and therefore are likely to be sitting upon glacial till and fine sediments left behind by the modern deglaciation. The fine sediments in these low-lying alpine basin areas may have lower permeability than the larger and more coarse rock and talus material found in the surrounding alpine areas. In addition to the remaining north east Bonita Peak aspect rock glaciers, there are also rock glacier remnants on the north west flank of Bonita Peak in Upper Ross Basin. The small emergent seeps and springs in this basin (SS020-SS025) have isotopic values that also indicate evaporation and potentially water contributions from melting rock glacier ice. These results therefore suggest that the Upper Ross Basin and Upper South Fork of Eureka Basin alpine areas may have a naturally lower infiltration capacity due to the legacy of glacial remnants. Conversely, there was no standing water nor evaporative signal found in the North Fork of Eureka Basin which was formally the location of Lake Emma. Lake Emma was also a remnant of recent deglaciation and would likely have had similar accumulation of fine sediments and glacial till on the lake floor with similarly low infiltration capacity. However, due to the collapse of the lake, the Sunnyside Mine workings, and subsequent backfilling of the basin over the mine workings, the current conditions are likely not representative of historic conditions that enabled evaporative signals from the other deglaciated alpine basins around Bonita Peak.

Most of the draining mines are closely clustered and fall towards the more depleted end of the LMWL. This indicates that the water from the draining mines during low flow conditions were from a similar ratio of rain and snow with the more isotopically depleted snow being a greater contributor of recharge.

The mean $\delta^{18}\text{O}$ of all seeps and springs was -15.51 ± 2.1 ‰ and the mean $\delta^{18}\text{O}$ of all sampled draining mines was -16.00 ± 0.48 ‰ indicating that both sources are derived from snow dominated meteoric recharge (Appendix 5). The draining mines were not significantly different

in isotopic composition from the s&s sites, but they were slightly more depleted with a smaller standard deviation suggesting that the source waters of draining mines were overall slightly more dominated by snow melt. A lower standard deviation also suggests the source of emerging water is a larger and more well mixed reservoir with less seasonal variability (e.g. less temporal change from rain to snow signal).

The largest input of meteoric waters within the study site is from snowmelt, which has a more depleted $\delta^{18}\text{O}$ signal (-20.71 ‰) than that of summer monsoon rains (-5.80 ‰). Assuming a snow dominated precipitation/recharge regime typical for high elevation alpine and sub-alpine mountain catchments (see Cowie *et al.*, 2017) a snow dominated water isotopic signature would be expected for groundwater emerging from s&s and draining mines. There was no significant relationship (R^2 .09) between $\delta^{18}\text{O}$ and elevation of groundwater emergence. This result demonstrates that the ratio of rain/snow contribution to recharge does not appear to change significantly for groundwater discharging across the elevation range of the BPMD study area. This is likely because the dominant sub-surface flow paths are through secondary porosity (fractures) which are non-uniform and occur across all elevations. There is very little soil in the alpine and sub-alpine areas of the study, thus limited primary porosity) so source water (melting snow) is not guaranteed to infiltrate uniformly at the elevation of recharge.

The s&s sites that have more enriched isotopic values (i.e. $\delta^{18}\text{O} > -14$ ‰) indicate a greater source contribution from rain. These locations may be expressing shallower flow path groundwater that was more heavily influenced by the recent summer monsoon rains occurring prior to the fall low flow sampling event. When recent precipitation is observed in groundwater discharge a shorter sub-surface residence time can be interpreted for the emerging waters. A shallow flow path means the water is also less likely to interact with many of the deeper mine workings that may be flooded and sourcing lower quality water with elevated metal concentrations.

In addition to providing insight on spatial variability of source waters, stable water isotopes can also indicate temporal variability in source waters and mixing when measured at unique locations over time. Ongoing monthly sampling of stable water isotopes from six of the draining

mines within the Bonita Peak complex began in September 2016 and has continued through 2019. All of the $\delta^{18}\text{O}$ for samples collected through March 2019 were available for this report and are summarized in Figure 16. During the period of measurement there was a similar signature from the AT, R&B, and GK discharges. The signals from the Blackhawk, Natalie Occidental, and Mogul mines are all enriched relative to the other three mines indicating a different mixture of source waters emerging from those locations. An enriched signal may suggest a greater input from monsoon rains via a shallower or shorter flow at those mines.

Temporal stability (low standard deviation over time) in the isotopic signal at any one location indicates the source waters are well mixed and likely have a longer sub-surface residence time and/or come from a large reservoir. Temporal instability in isotopic composition from a location will indicate changing source waters and shorter residence times suggesting shallower flow path recharge directly to the mine workings. The data from the GK, AT, and R&B locations has very little change over the past three years and the overlapping values further suggest that these three draining mines are sourced from a sizeable, well mixed, groundwater pool and are likely interconnected. Comparison of the mine discharge isotope signals with nearby s&s signals can also provide insight on the relative similarity in source water at these locations. The isotope values from s&s in the vicinity of the GK, AT, and R&B portals were thus compared to these point sources to look for similarities and differences.

Despite the overall general similarity in isotope values across the sample sites there was some clear variability in $\delta^{18}\text{O}$ between groups of springs in different sub-basins. Specifically, there were a number of s&s clusters that had $\delta^{18}\text{O}$ values between -16 and -16.5 ‰, which would be most similar to the draining mine water at GK, R&B, and AT than they would to many of the other springs or draining mines. For example, several of the s&s in the sub basins Cement Creek at Gladstone, North Fork Cement Creek below GK, and several of the springs along Cement Creek above and below R&B had consistent $\delta^{18}\text{O}$ signals that were similar to the draining mines of GK, AT, and R&B. Interestingly, these sites are all below 12,000 ft. elevation while many of the other s&s locations with more enriched $\delta^{18}\text{O}$ are located in the higher elevation sub-basins or in locations further away from the Sunnyside Mine workings and associated mine pool.

To better assess the isotopic signals across all locations and over multiple sampling dates the mean $\delta^{18}\text{O}$ from all events was plotted against the standard deviation of $\delta^{18}\text{O}$ from each site (Figure 17). Samples with lower standard deviation indicate less change in isotopic signal over the study period and a standard deviation of $< 0.1 \text{ ‰}$ means samples are within the analytical precision and cannot be defined as different. Therefore, all samples that had a mean $\delta^{18}\text{O}$ between -16 and -16.5 ‰ and a standard deviation of $< 0.1 \text{ ‰}$ were considered to potentially be from the same source water reservoir as the big three draining mines and arbitrarily defined as derived from the “Bonita Peak groundwater system” (OU3). Of note for Figure 17 is that the six largest draining mines (GK, R&B, AT, Mogul, NO, Blackhawk) mean and standard deviation of $\delta^{18}\text{O}$ values were from the full set of monthly isotope samples that were presented in Figure 16. Of the six mines, three of them (GK, R&B, AT) fell within the defined isotopic parameters of the “Bonita Peak groundwater” system while the other three mines did not. Surprisingly, in addition to the three draining mines near Gladstone, the only other draining mines falling within these isotopic parameters of the “Bonita Peak groundwater system” were the draining mines located in the South Fork of the Animas on the opposite side of Bonita Peak (SS071, SS073, SS075). In addition to the draining mines there were eight s&s locations that all met the isotopic criteria for the “Bonita Peak groundwater system” and all of those s&s were in Cement Creek near Gladstone and upgradient from the AT past R&B to SS250. The eight locations with stable isotope signatures similar to the mines included: SS055, SS065, SS066, SS067, SS086, SS201, SS250, and SS301. Figure 18 is a map of these eight sites assigned to the “Bonita Peak groundwater” locations identified in Figure 17. There were several additional locations that had isotopically similar waters (see Appendix 5) to the sites in figure 18 but were not included due to insufficient data or variability just outside of the above defined criteria. The additional sites that will be further evaluated with inclusion of 2019 data in a future report include: SS068, SS200, and SS236, all of which are in the vicinity of the AT and R&B areas of Cement Creek. Additionally, SS226, a natural spring in the headwaters of Placer Gulch shows a similar isotopic signature but only has two sampling points from high flow events and need further evaluation and additional data from low-flow season.

Of specific interest in the initial attempt to identify BP groundwater emergence points is SS250, which represents a considerable source of discharge to Cement Creek that influences water

chemistry in the creek between Gladstone and the Mogul Mine. The seep emerges directly into the stream channel so measured discharge from the stream bank just above the surface water elevation was likely an underestimate. Fortunately, significant additional sampling of SS250 occurred in 2018 and 2019, including a stream tracer study conducted by the USGS in September 2019, which will be presented in a future report and provide more detailed information about this location and its potential connection to the “Bonita Peak groundwater system”. The initial data collected at SS250 and presented in this report provide information which will require additional interpretation which is beyond the scope of this report. However, initial isotopic results suggest that SS250 may represent the current “upgradient extent” of emerging Bonita Peak groundwater along Cement creek above the R&B mine but below the Mogul Mine. The location of this spring in relation to the Eureka Graben as it crosses Cement Creek (Figure 2) or other geologic structures potentially influencing groundwater movement in this area deserve additional investigations. Further sampling of these potential “Bonita Peak groundwater” locations for additional tracers was completed in 2018 (for Rare Earth Elements) and 2019 (for tritium, argon gas, CFC’s, and SF6 age dating tracers). All results will be combined with the isotope and chemistry data found in this report to further understand if these locations produce water that is all from the same source water reservoir and if that reservoir is directly or indirectly influenced by the AT bulkheads.

4.6.1 Stable water isotopes: rock glacier signal

There were three separate locations in the study where topographical features indicated the presence or remnants of rock glacier ice with s&s water emerging below. Two of the locations that were mentioned previously are Ross Basin (SS025) and South Fork of Eureka Basin (SS032 and SS035) with the third being the north facing talus fields in upper Minnehaha Basin (SS049 and SS050 and a muted signal at SS051 and SS052). All locations and potential corresponding rock glacier isotopic signals are highlighted in Appendix 5. At each of these locations the isotopic signal was enriched relative to other nearby sites in the same sub-basins at the same elevations that would presumably have the same recharge source waters. In fact, the water at these locations had $\delta^{18}\text{O}$ signals that were as much as 2 ‰ enriched relative to nearly all other samples in the study, especially during fall low flow conditions when water from melting rock glacier ice would be most prevalent. At these locations the water temperature was much colder

than adjacent s&s sites and was often still near freezing even during late summer low flow sampling events when no remaining snow was present in the basin. This result is comparable to previous studies of rock glacier outflow isotopic signals that are often enriched relative to other local groundwater and surface water signatures at that time (see Williams *et al.*, 2006; Cowie *et al.*, 2017). To summarize, the rock glacier ice has been formed over long periods of time and is a combination of rain and snow that has melted and refrozen under the rock (talus) covered slopes. This ice and resulting melt water have significant interaction with lots of surface area of the local talus and bedrock which leads to greater weathering and higher solute concentrations in the resulting outflows. The increase in air temperatures and longer snow-free summer seasons in recent decades have led to more heating of the subsurface, and melting of the rock glacier ice may be increasing in late summer leading to increases in surface water contribution from these sources during low flow conditions (see Caine, 2010).

Elevated sulfate from draining rock glaciers is common due to greater exposed rock surfaces and longer residence times enabling more rock water interactions and greater weathering. Higher metals concentrations may also be discharged at these locations due to increased weathering and prolonged rock/water/air interactions with the host parent material at these locations. Ongoing monitoring at these locations is highly recommended because continued loss of the rock glacier ice reservoir driven by a warming climate may lead to short term increased contaminant loading from these locations followed by an eventual decrease if the melting ice source water is completely lost. Increased discharge from rock glacier locations is most common in the late summer after prolonged heating of the subsurface, which also coincides with lower baseflow conditions in the local surface waters. The result is a potential for increased natural loading during low flow conditions under reasonably expected future climatic conditions.

5.0 Conclusions

The five rounds of sampling including three low flow events and two high flow events provided a detailed snapshot of the current hydrologic conditions of seeps and springs and draining mines in OU3 and Prospect Gulch study areas. The data and figures included in this report provide a large volume of spatial and temporal information that can be used to fill previously identified BPMD data gaps and to greatly improve the hydrogeologic CSM in these areas. A reasonable

and expected range of seasonal variability was captured in this study and additional recommendations for improved spatial and temporal data collection as specific locations were highlighted throughout the report. The report adequately quantifies the concentrations and loads of metals of concern across the study area and identifies several key draining mine locations as the primary contributors to metal contamination of surface waters within the BPMD. The report also provides large amounts of data from both s&s and draining mine locations that can be further analyzed to better understand the interplay between natural background conditions and anthropogenically influenced conditions caused by legacy mining activities. Additionally, this report highlights the ability to use multiple different measured parameters of water quality as tracers to identify and understand the sources and flow paths of water across the study site. Specifically, the report highlights potential surface water and groundwater interactions and interconnections between different natural (s&s) and anthropogenic (draining mine) locations in order to better enable the EPA and its partners to make scientifically sound decisions on future remedial actions and their impacts across the BPMD. This report should be treated as an initial building block in creating a CSM for future decision making. Additional interpretation of the data herein, and combination with subsequent ongoing data collection, is encouraged. Specific recommendations for furthering the results presented in this report are listed below.

6.0 Recommendations

- Further update tables in this report with all data collected in 2019 (HF & LF)
- Interpret and integrate the REE results from 2018 with findings of this study
- Interpret and integrate the GW dating analysis results from LF 2019 with this report
- Correlate findings with other concurrent hydrologic research including stream tracer studies, distributed fiber optic temperature sensing, and geophysical surveys
- Refine the temporal variability of the predominant draining adit locations in Cement Creek using the monthly resolution data being collected at current (June 2019 through May 2020)
- Continued temporal sampling for stable water isotopes at key locations to enable further understanding of the spatial and temporal variability of emergent groundwater from both s&s and draining mines within the Bonita Peak mountain complex. Further analysis of stable water isotopes with other natural and applied conservative tracers (i.e. GW dating

analysis and REE analysis) will enhance the conceptual understanding of surface water and groundwater interactions in the BPMD.

- Sampling for stable isotope ($\delta^{34}\text{S}$) of sulfate to differentiate source water flow paths where accumulated sulfate comes from vein and disseminated sulfides to sulfate from gypsum and anhydrite phases common to the Eureka Graben.
- Additional analysis and/or sample collection recommended in the following identified data gap areas.
 1. South Fork Animas Basin upstream of SS071 and downstream of SS075. Surface water sampling in this area would address loading along this stretch. Determine if historical data is available to help decipher if the current loading could be related to Sunnyside mine pool remedial actions of recent decades.
 2. Left bank s&s inflows and loading to Cement Creek from Gladstone to Grand Mogul (assumed Bonita Peak groundwater boundary). Suggest re-visiting previous USGS work on this section (completed in 2019)
 3. Additional conservative tracers (e.g. Tritium, CFCs, SF₆, REE, Ar gas, SO₄ & Pb isotopes) collected at all key draining mines and s&s sites where stable water isotopes indicate the same source waters
 4. Additional correlation of water chemistry data with geochemistry of specific mine workings and waste rock piles (e.g. sources and movement of fluoride to trace groundwater interactions with mine workings)
 5. Increased sampling of the wells in North Fork Cement (NFPZ01) and the AT behind Bulkhead #3 (ATPZ02) to correlate with mine discharges in the area.
 6. Interpretation of the rare earth element and sulfate isotope data from 2018 in relation to the results in this report
 7. Adding the 2019 s&s HF and LF event data to this report and running principal component analysis (PCA) or other statistical techniques such as non-metric multidimensional scaling (NMDS) on the full suite of data to improve conceptual understanding of source water connections across s&s and mine discharge sites
 8. Test closure of the R&B bulkhead while concurrently monitoring key locations identified in this study. Results from this study will provide a baseline against which to directly measure the hydrologic effects of the bulkhead closure.

7.0 References

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8.0 Figures

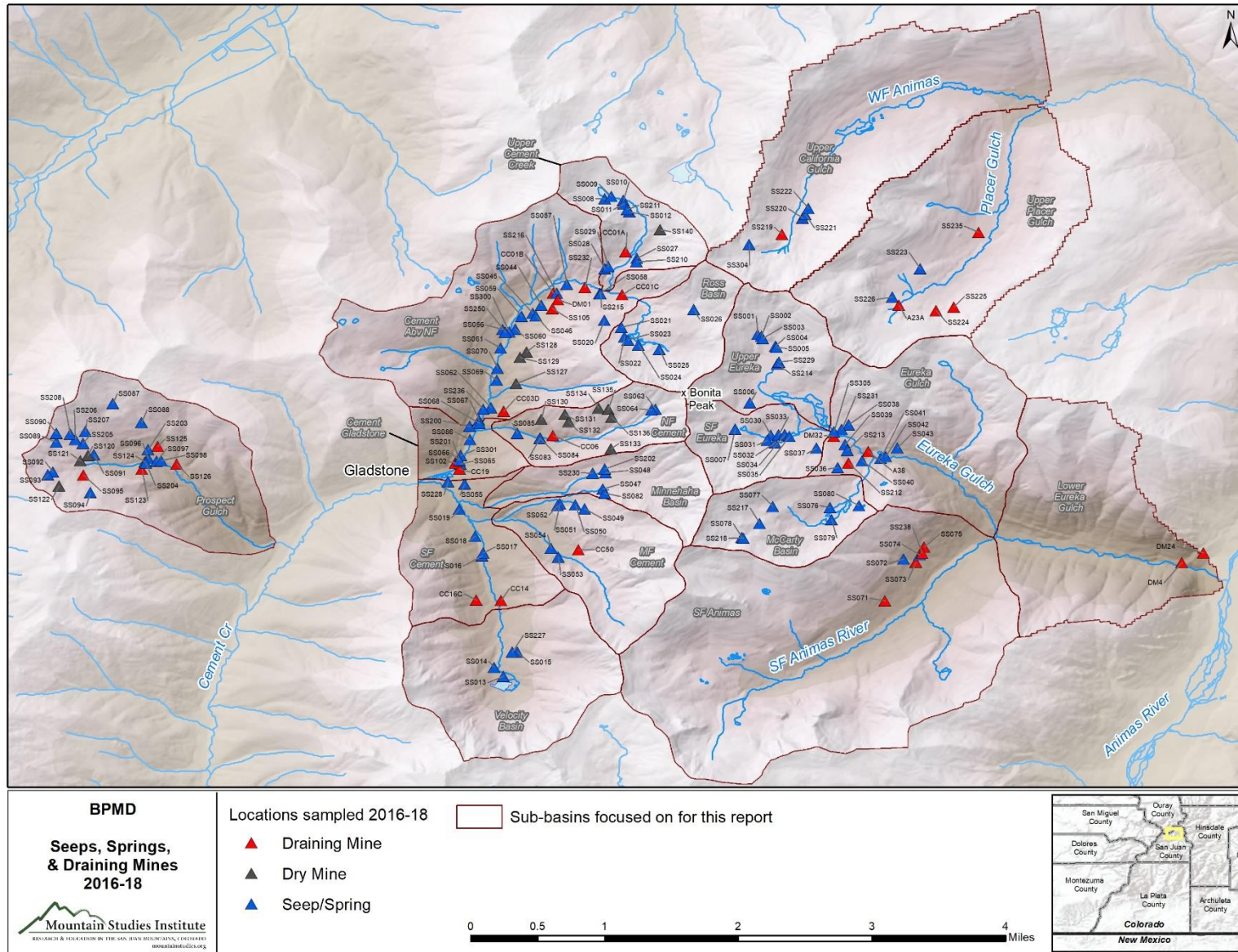


Figure 1: Location overview map with sub-watershed delineations and individual site labels.

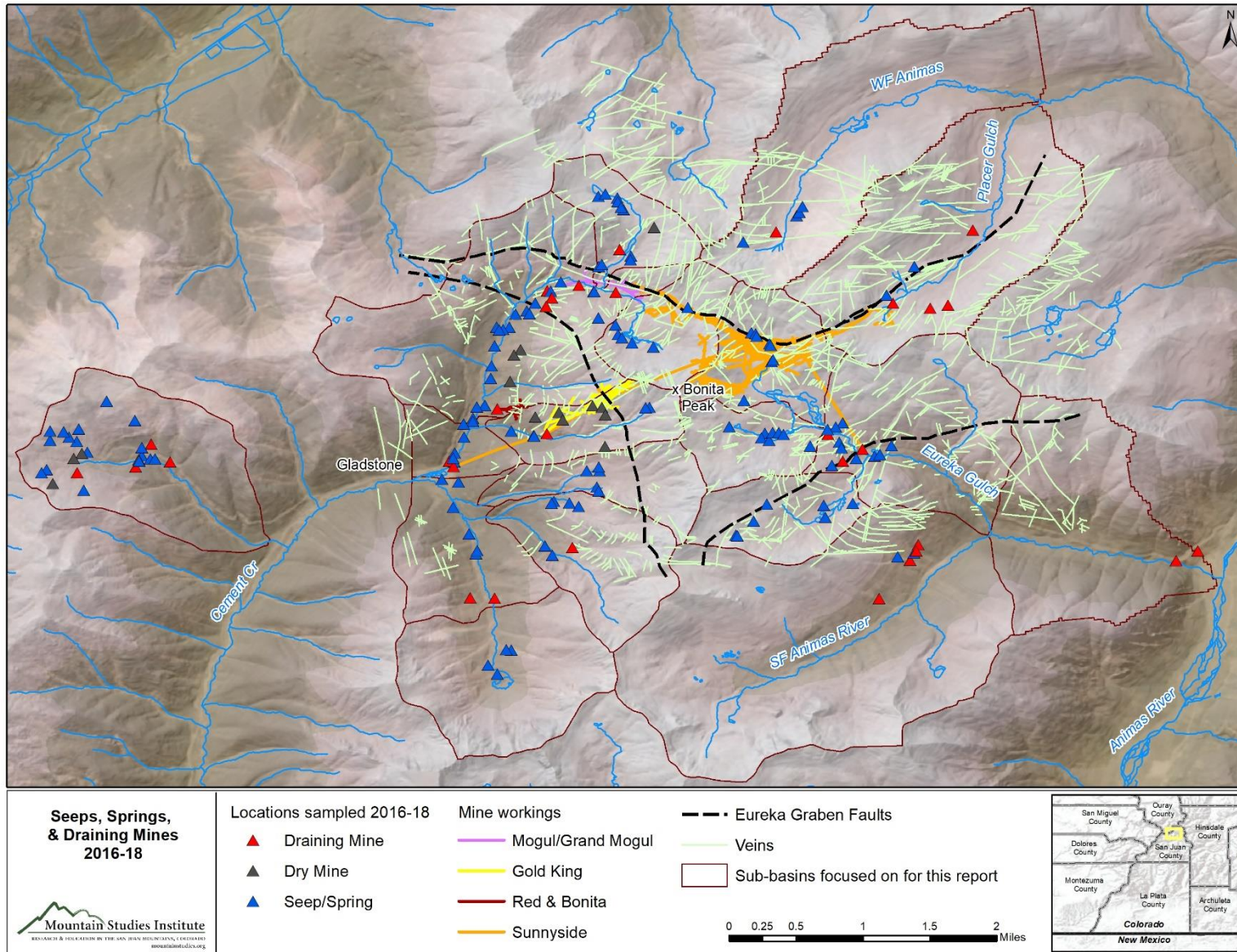


Figure 2: Location overview map with faults, veins, and major mine workings in the vicinity of Bonita Peak.

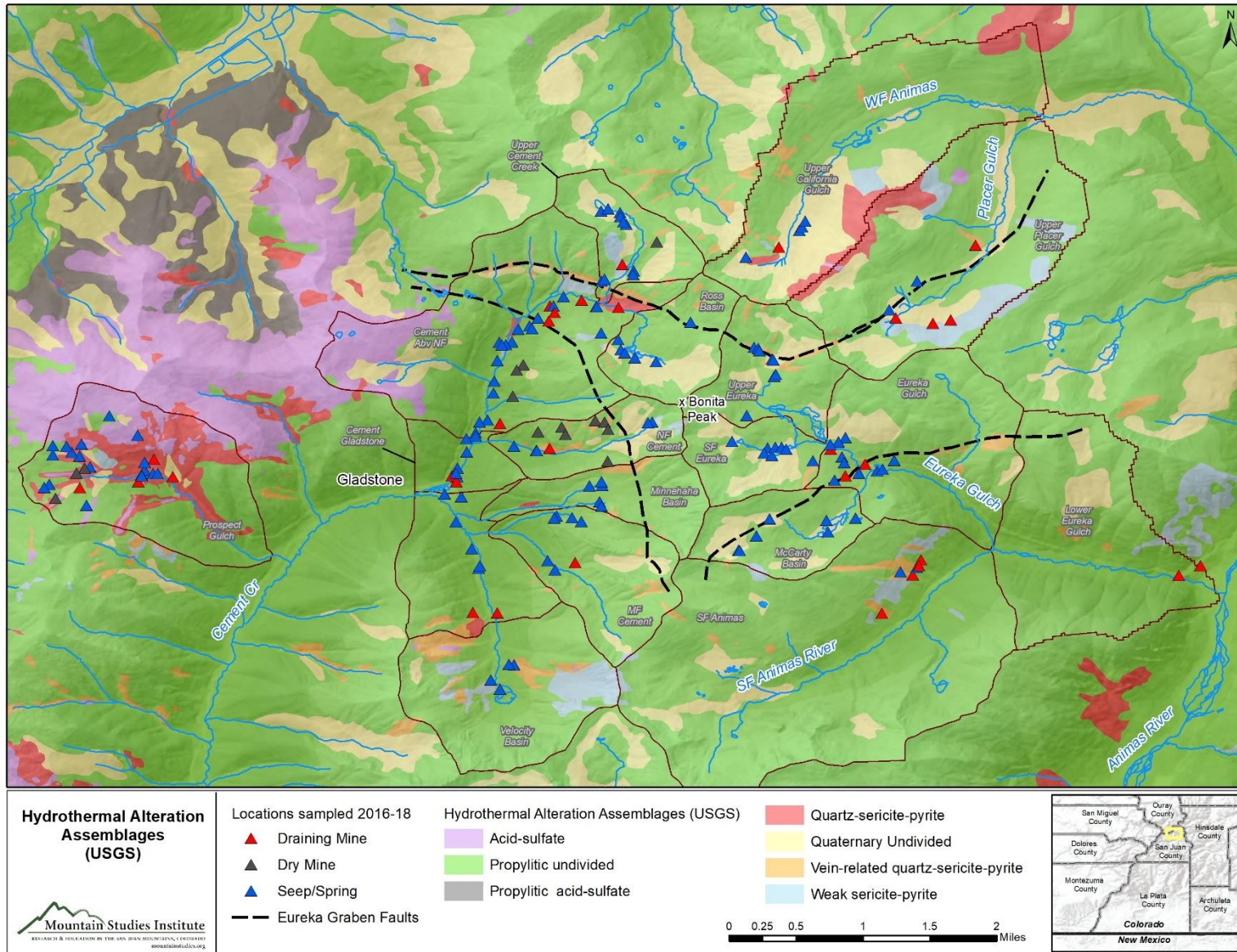


Figure 3: Sampling sites with hydrothermal alteration assemblages presented in USGS professional paper 1651 (2007).

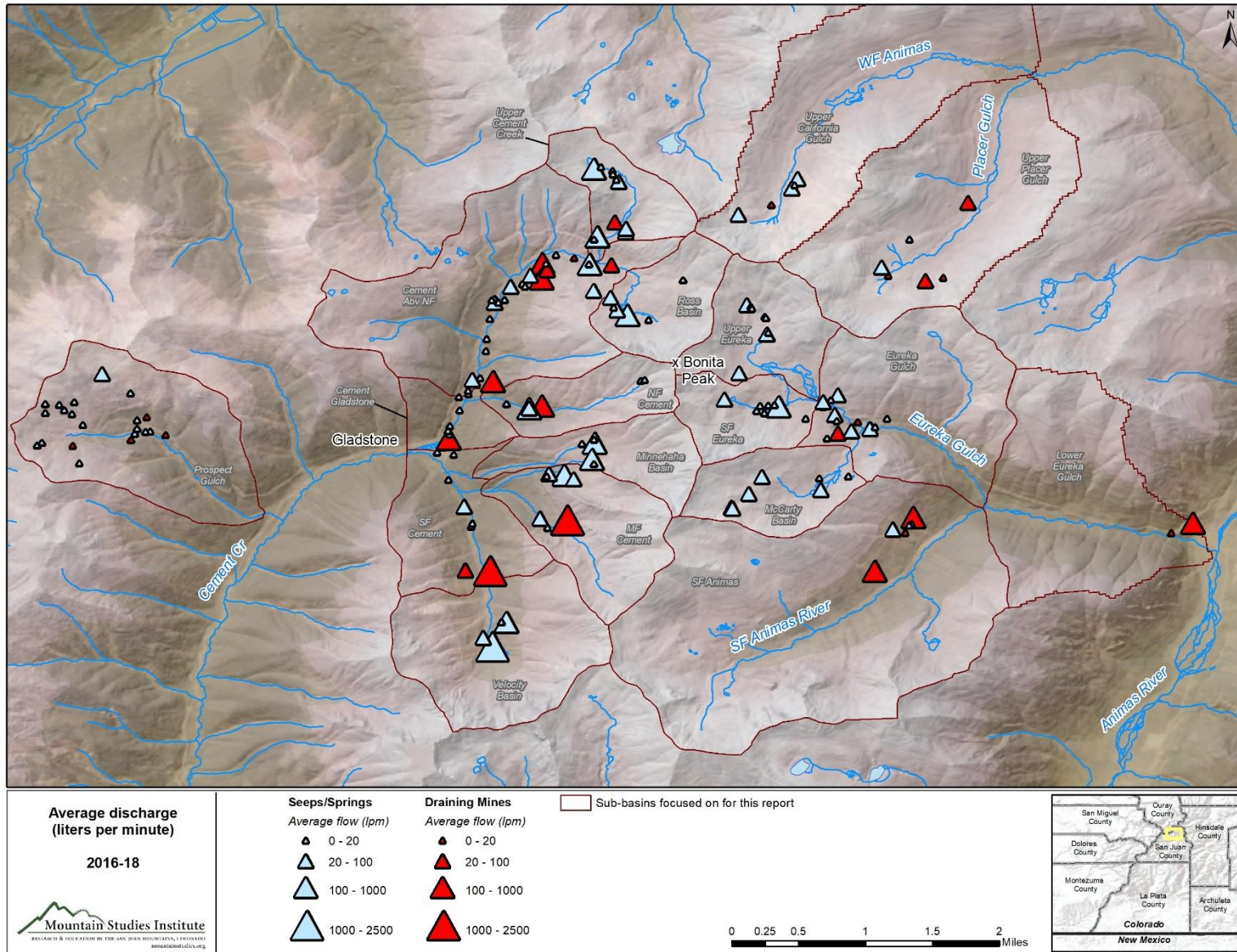


Figure 4: Average discharge from s&s and draining mines in liters per minute.

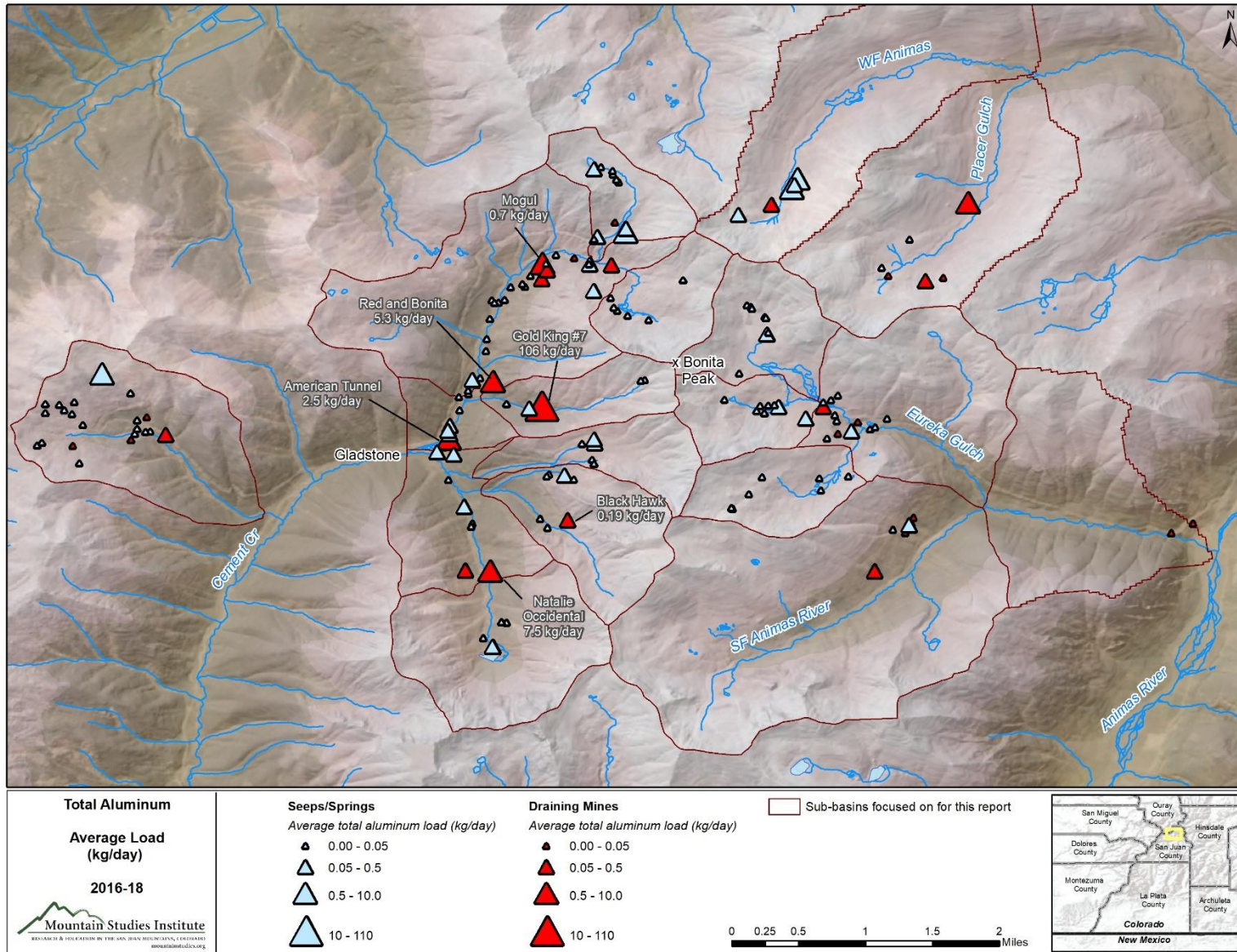


Figure 5: Average total aluminum (Al) loading (kg/day). Major mines labeled with load for reference.

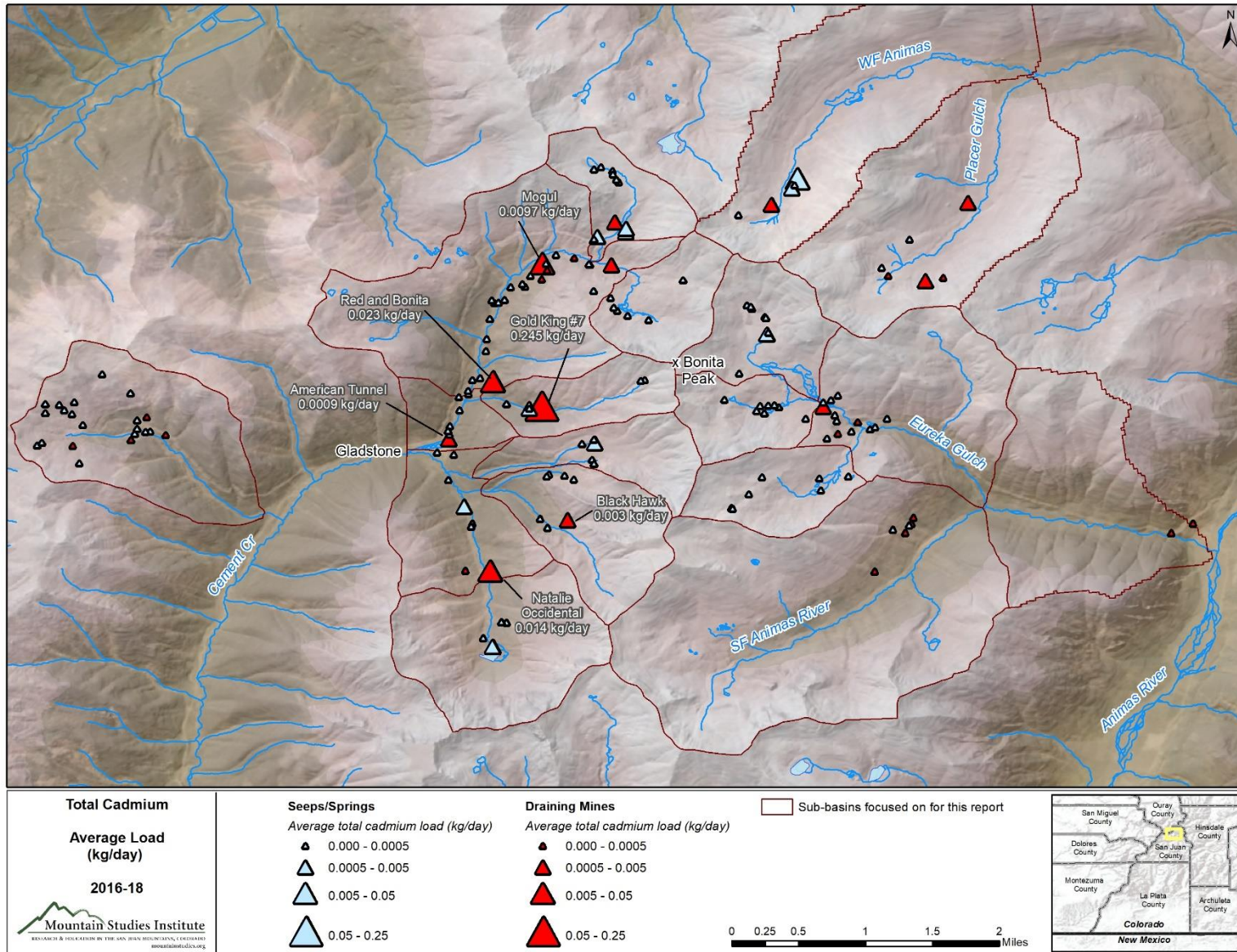


Figure 6: Average total cadmium (Cd) loading (kg/day). Major mines labeled with load for reference.

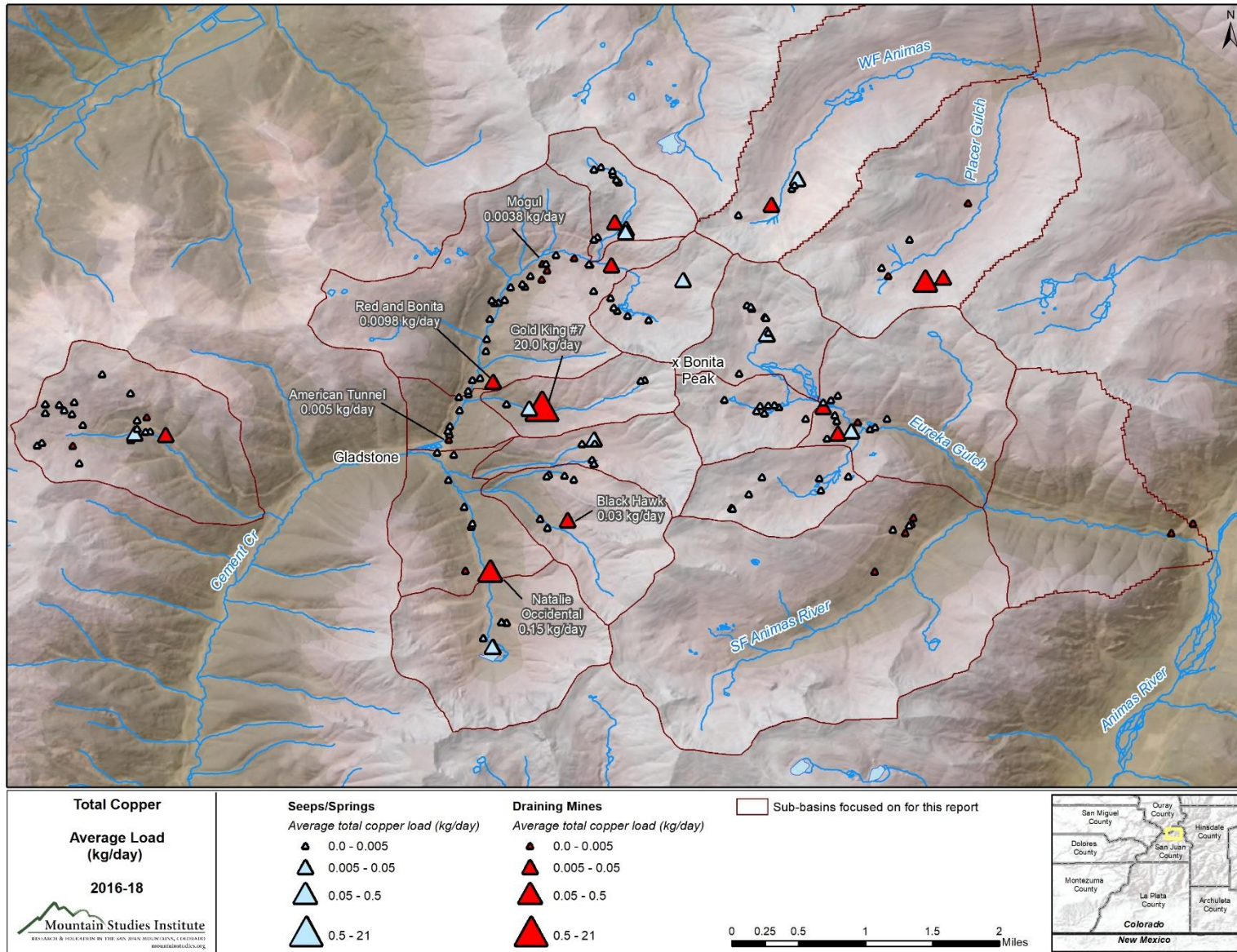


Figure 7: Average total copper (Cu) loading kg/day. Major mines labeled with load for reference.

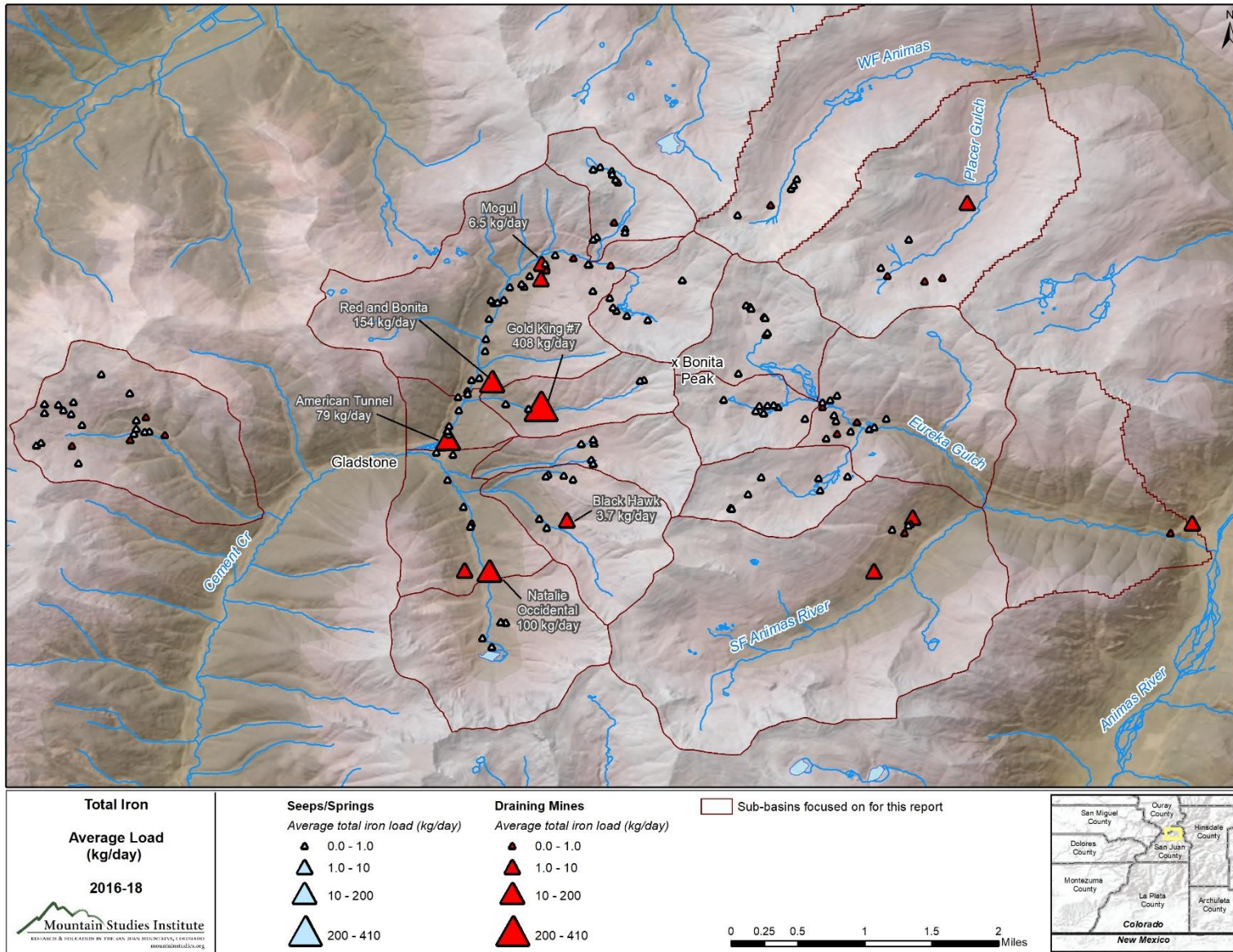


Figure 8: Average total iron (Fe) loading kg/day. Major mines labeled with load for reference.

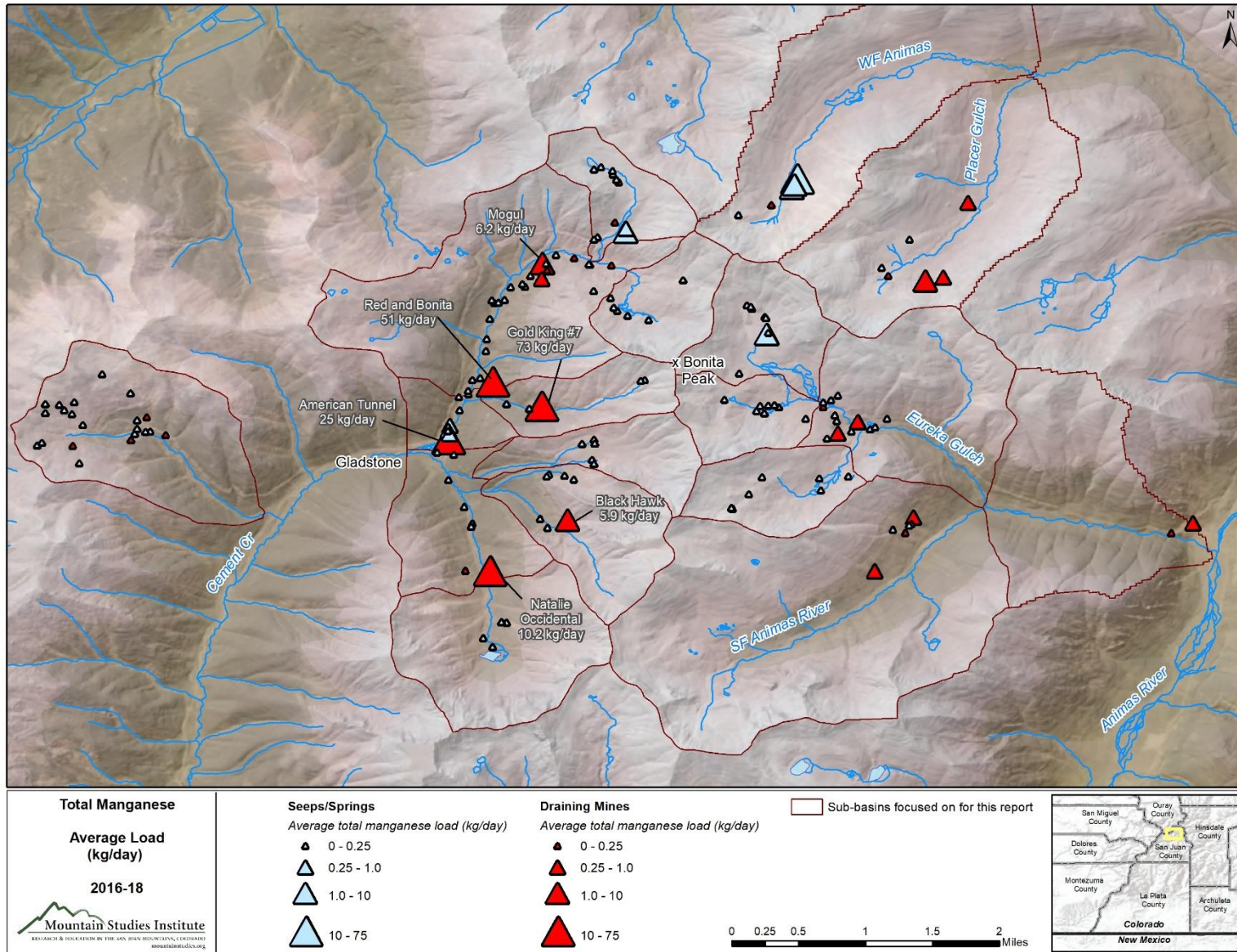


Figure 9: Average total manganese (Mn) loading (kg/day). Major mines labeled with load for reference.

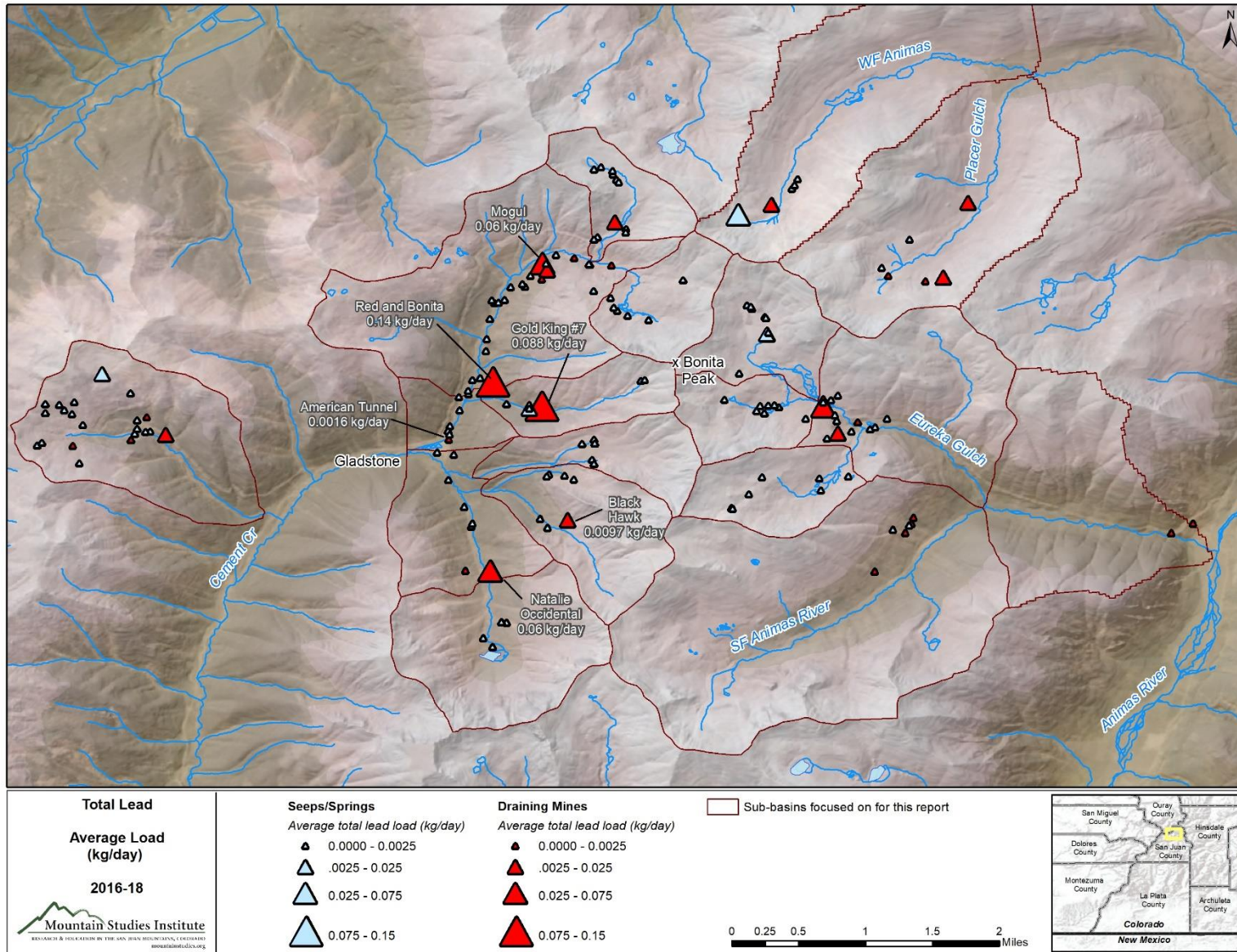


Figure 10: Average total lead (Pb) loading (kg/day). Major mines labeled with load for reference.

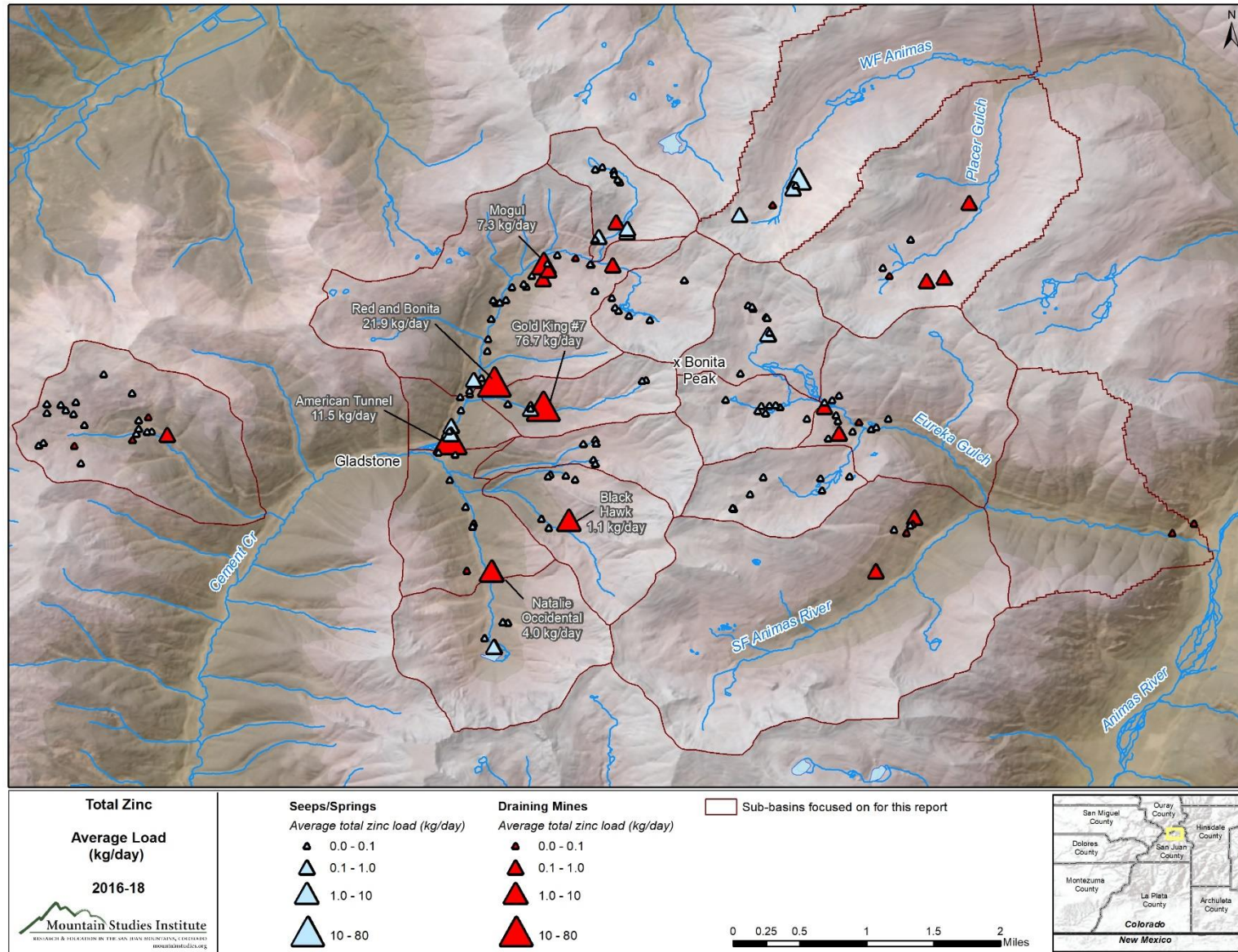


Figure 11: Average total zinc (Zn) loading (kg/day). Major mines labeled with load for reference.

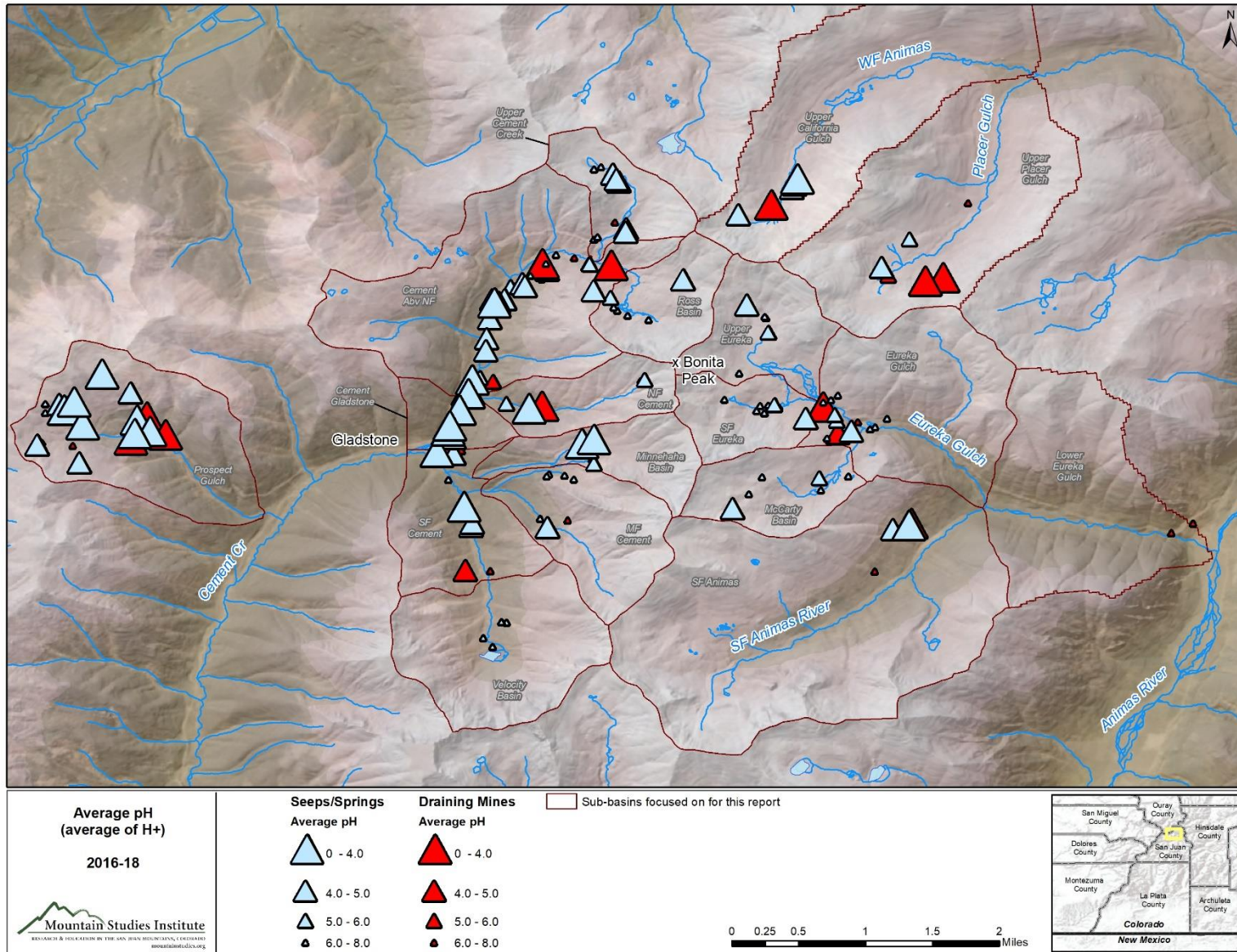


Figure 12: Average pH of all sites (average H⁺ converted to pH). Note the larger symbols represent lower pH values.

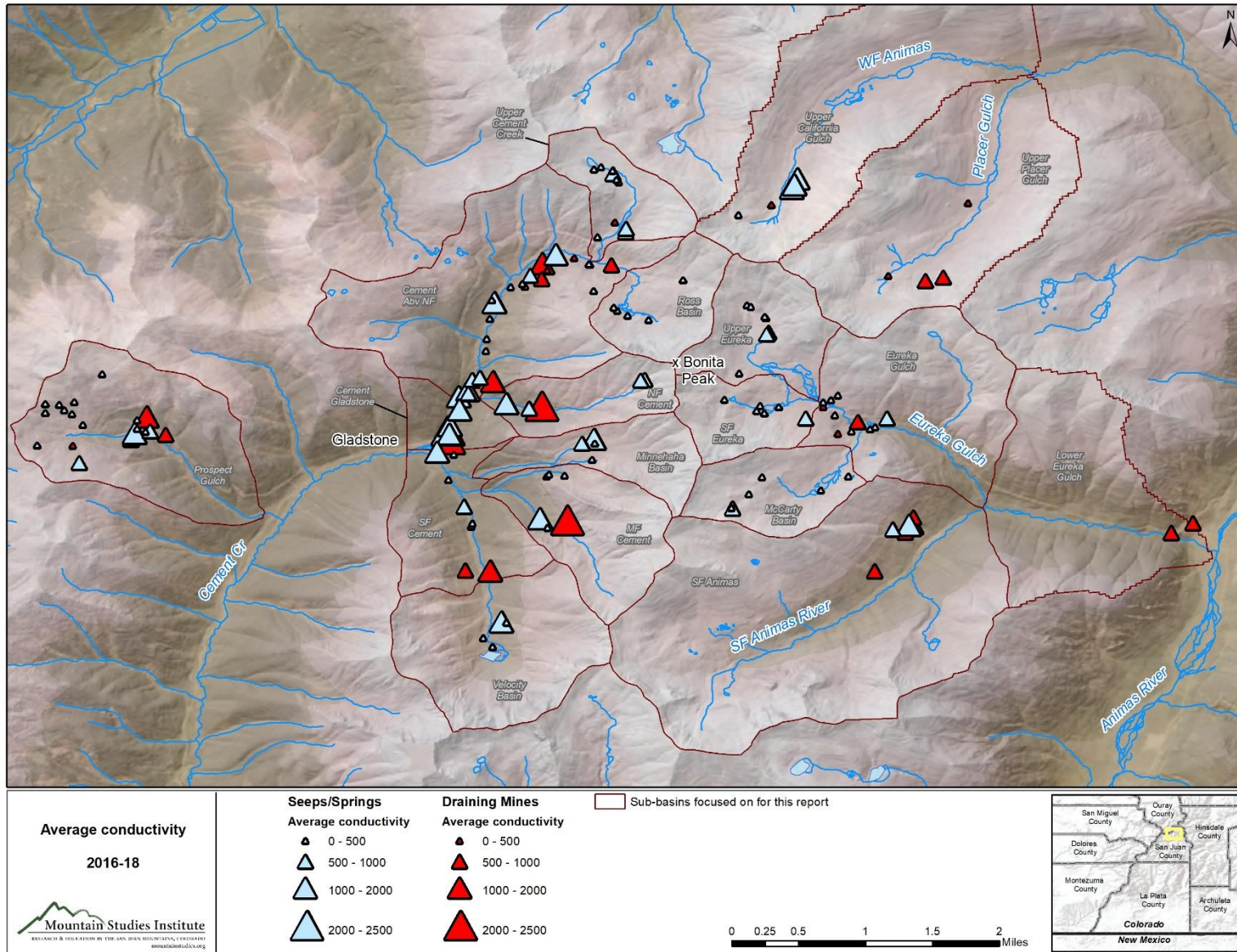


Figure 13: Average specific conductance ($\mu\text{s}/\text{cm}$) for all sites. Higher values are represented with larger symbols.

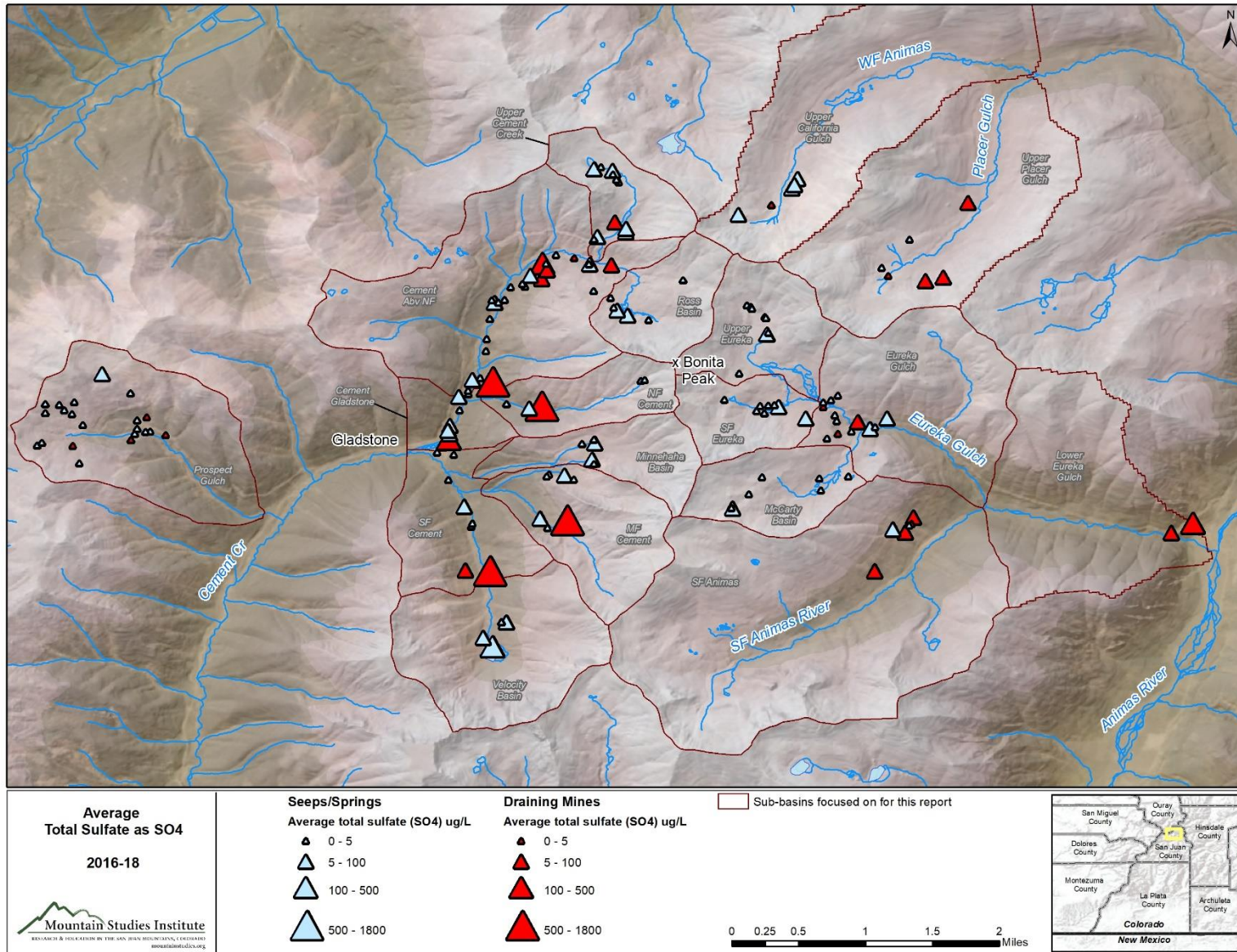


Figure 14: Average total sulfate ion (SO₄⁻) concentration in µg/l.

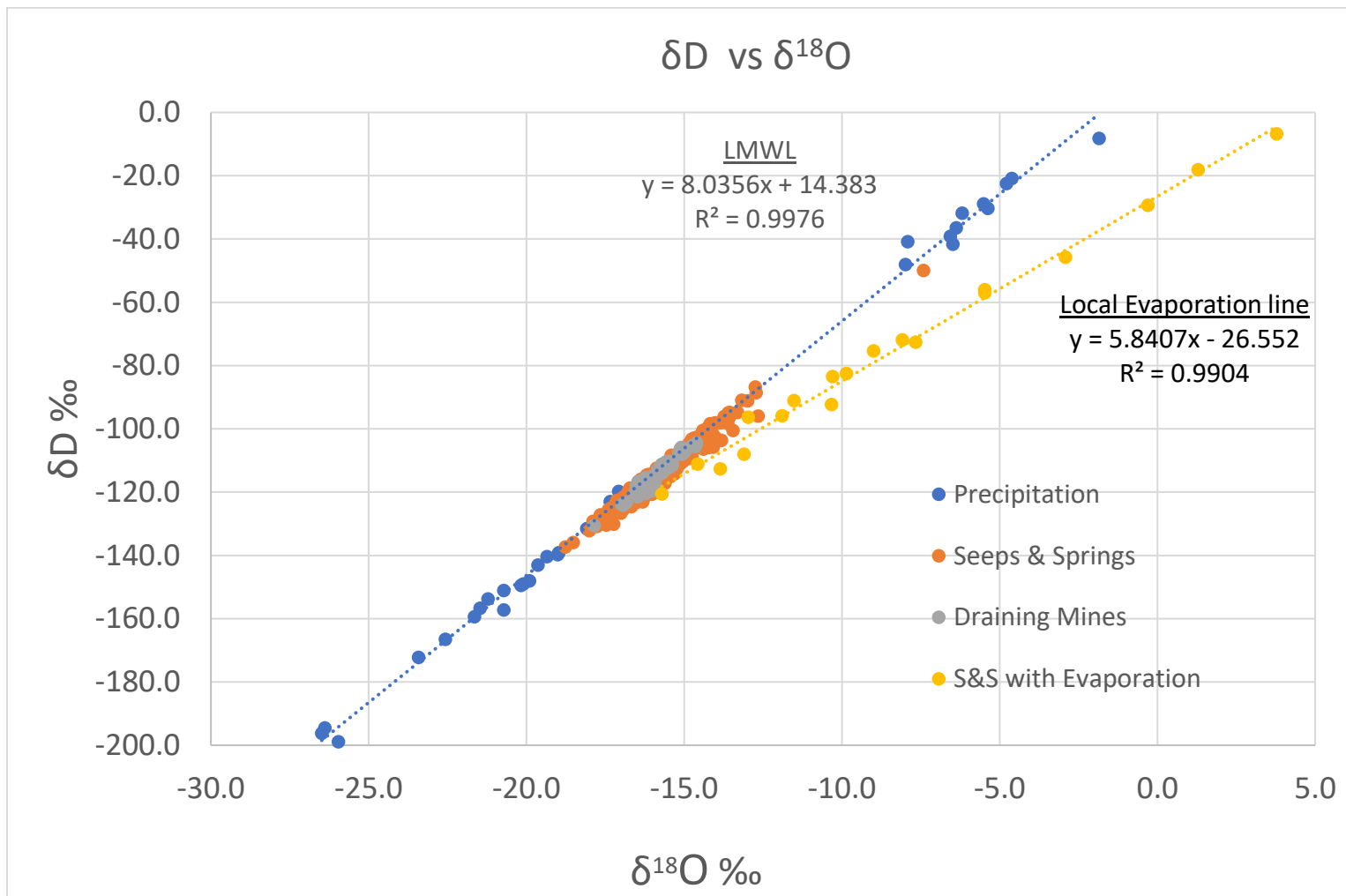


Figure 15: Stable water isotopes from precipitation, seeps and spring, and draining mines sampled from 2016 through 2018. All precipitation points more depleted in δ¹⁸O than -15‰ were snow samples while all precipitation points more enriched in δ¹⁸O than -10‰ were rain. The dotted blue line is the local meteoric water line (LMWL) and the yellow dotted line is the local evaporation line. The linear equations and r² values are reported adjacent to each trend line.

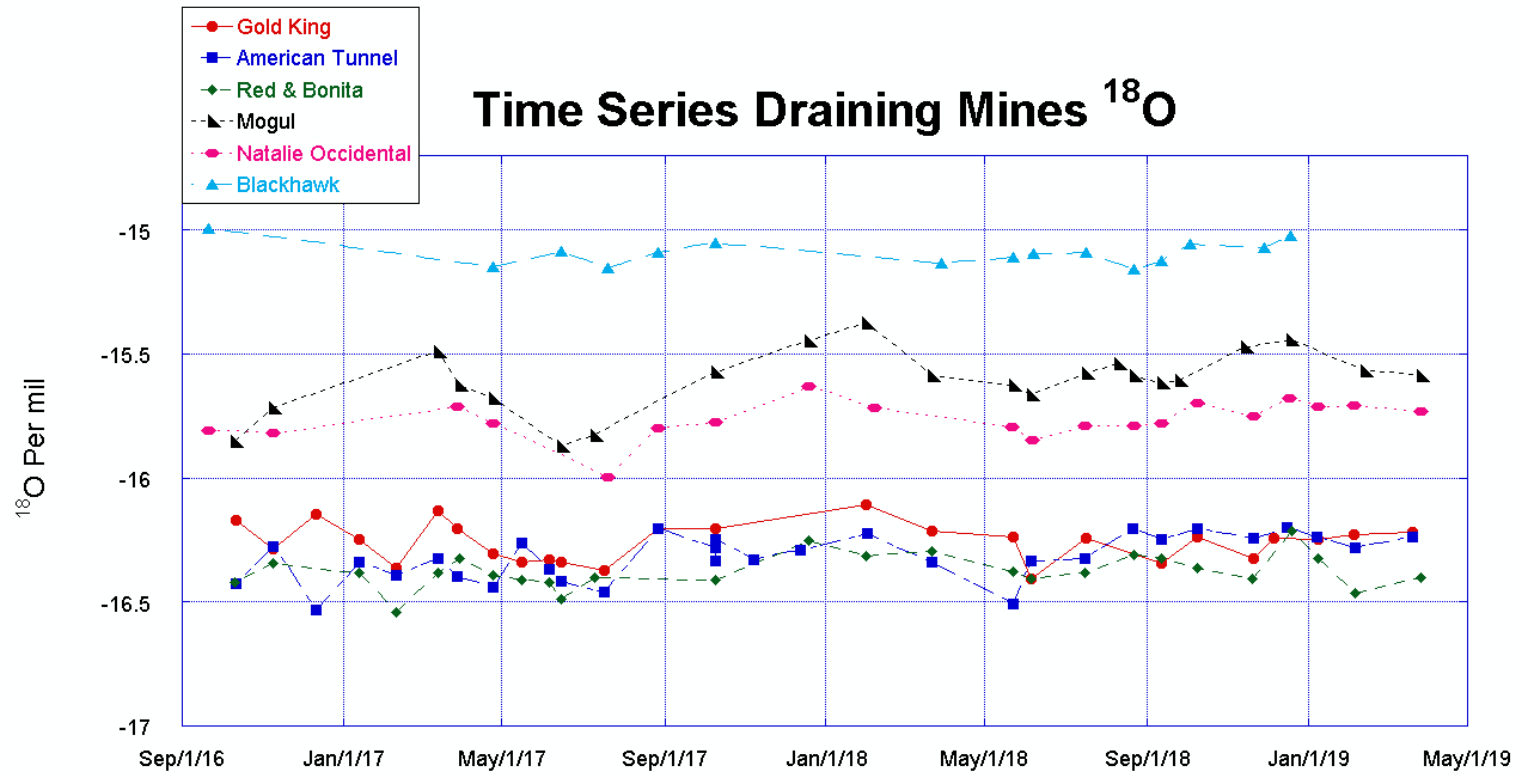


Figure 16: Time series of the stable isotope of water ($\delta^{18}\text{O}$) for the six largest draining mines in Upper Cement Creek, 2016-2019.

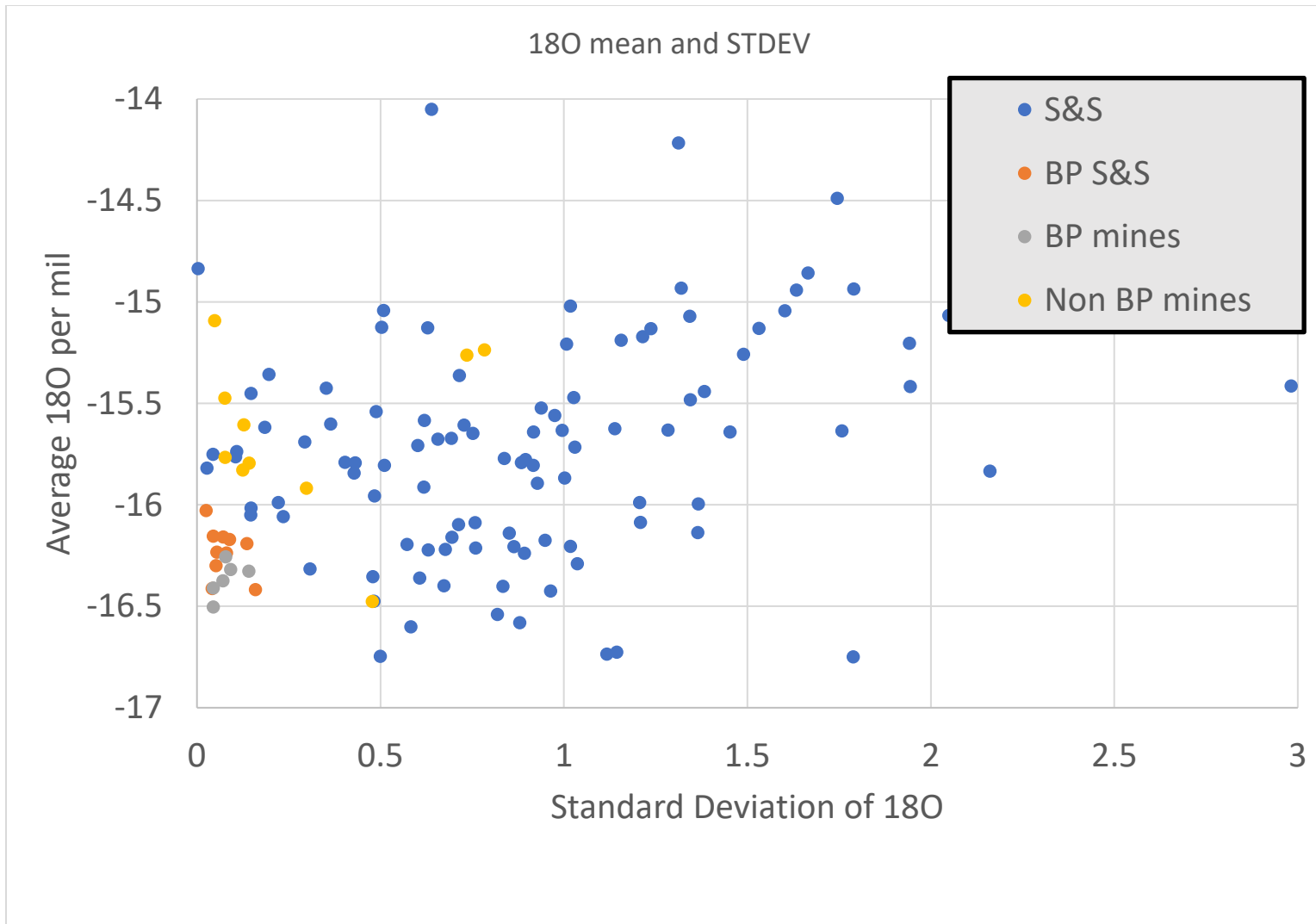


Figure 17: Mean vs STDEV of ^{18}O ‰ for all s&s and draining mine sample locations. Both s&s and draining mine locations where the mean ^{18}O value was between -16.1 and -16.5 ‰ and the standard deviation was less than 0.1 ‰ were considered to be from the same source water and called Bonita Peak groundwater in this report.

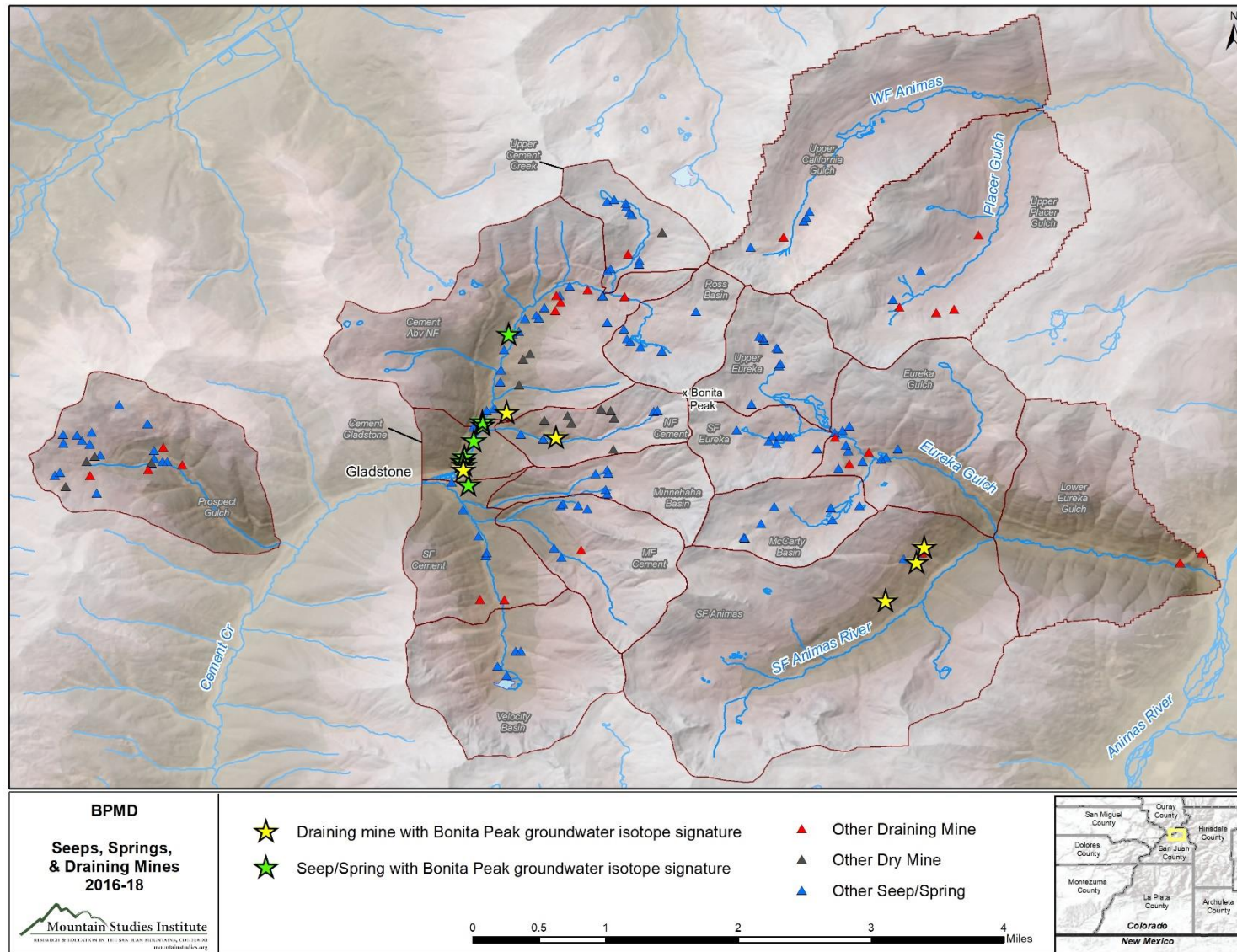


Figure 18: Overview map of sampling locations with sites denoted as representing Bonita Peak groundwater highlighted in green and yellow. The highlighted sites represent the orange and grey denoted s&s and draining mines samples in figure 17 above.

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Appendix 1 - All Site Locations

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

LocationID	SITE_TYPE	AREA	SubBasin	LAT	LONG
SS001	SS	Eureka_Gulch	UEG	37.905506	-107.6162
SS002	SS	Eureka_Gulch	UEG	37.905365	-107.6158
SS003	SS	Eureka_Gulch	UEG	37.905117	-107.6157
SS004	SS	Eureka_Gulch	UEG	37.904255	-107.6143
SS005	SS	Eureka_Gulch	UEG	37.904122	-107.6142
SS006	SS	Eureka_Gulch	UEG	37.898148	-107.6171
SS007	SS	Eureka_Gulch	SFEG	37.895306	-107.6186
SS008	SS	Cement_Creek	UCC	37.920228	-107.6328
SS009	SS	Cement_Creek	UCC	37.920468	-107.632
SS010	SS	Cement_Creek	UCC	37.920056	-107.6307
SS011	SS	Cement_Creek	UCC	37.91965	-107.6307
SS012	SS	Cement_Creek	UCC	37.918808	-107.6301
SS013	SS	Cement_Creek	VB	37.86854	-107.6437
SS014	SS	Cement_Creek	VB	37.86952	-107.6447
SS015	SS	Cement_Creek	VB	37.871164	-107.6422
SS016	SS	Cement_Creek	SFC	37.881573	-107.646
SS017	SS	Cement_Creek	SFC	37.8819	-107.6459
SS018	SS	Cement_Creek	SFC	37.883718	-107.6468
SS019	SS	Cement_Creek	SFC	37.886621	-107.6485
SS020	SS	Cement_Creek	CCANF	37.90706	-107.6328
SS021	SS	Cement_Creek	RB	37.906326	-107.6309
SS022	SS	Cement_Creek	RB	37.905258	-107.6306
SS023	SS	Cement_Creek	RB	37.90493	-107.6302
SS024	SS	Cement_Creek	RB	37.904364	-107.6291
SS025	SS	Cement_Creek	RB	37.903941	-107.6268
SS026	SS	Cement_Creek	RB	37.90822	-107.6231
SS027	SS	Cement_Creek	UCC	37.913774	-107.6293
SS028	SS	Cement_Creek	UCC	37.91265	-107.6328
SS029	SS	Cement_Creek	UCC	37.912872	-107.6324
SS030	SS	Eureka_Gulch	SFEG	37.894614	-107.6148
SS031	SS	Eureka_Gulch	SFEG	37.894083	-107.6152

Appendix 1 - All Site Locations

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

LocationID	SITE_TYPE	AREA	SubBasin	LAT	LONG
SS032	SS	Eureka_Gulch	SFEG	37.893836	-107.6143
SS033	SS	Eureka_Gulch	SFEG	37.894679	-107.6139
SS034	SS	Eureka_Gulch	SFEG	37.894703	-107.6133
SS035	SS	Eureka_Gulch	SFEG	37.894494	-107.6128
SS036	SS	Eureka_Gulch	EG	37.891128	-107.6076
SS037	SS	Eureka_Gulch	SFEG	37.893231	-107.6099
SS038	SS	Eureka_Gulch	EG	37.895748	-107.6064
SS039	SS	Eureka_Gulch	EG	37.893643	-107.6067
SS040	SS	Eureka_Gulch	EG	37.891882	-107.6049
SS041	SS	Eureka_Gulch	EG	37.892134	-107.6029
SS042	SS	Eureka_Gulch	EG	37.892317	-107.6024
SS043	SS	Eureka_Gulch	EG	37.893254	-107.6011
SS044	SS	Cement_Creek	CCANF	37.908677	-107.6396
SS045	SS	Cement_Creek	CCANF	37.907822	-107.6405
SS046	SS	Cement_Creek	CCANF	37.907521	-107.6402
SS047	SS	Cement_Creek	MH	37.888791	-107.633
SS048	SS	Cement_Creek	MH	37.890559	-107.6327
SS049	SS	Cement_Creek	MFC	37.886676	-107.6349
SS050	SS	Cement_Creek	MFC	37.887072	-107.6359
SS051	SS	Cement_Creek	MFC	37.887235	-107.6376
SS052	SS	Cement_Creek	MFC	37.887021	-107.6379
SS053	SS	Cement_Creek	MFC	37.881428	-107.6378
SS054	SS	Cement_Creek	MFC	37.882417	-107.6386
SS055	SS	Cement_Creek	SFC	37.889338	-107.6479
SS056	SS	Cement_Creek	CCANF	37.90606	-107.6438
SS057	SS	Cement_Creek	CCANF	37.910964	-107.6369
SS058	SS	Cement_Creek	CCANF	37.90994	-107.6333
SS059	SS	Cement_Creek	CCANF	37.907486	-107.6417
SS060	SS	Cement_Creek	CCANF	37.906085	-107.6424
SS061	SS	Cement_Creek	CCANF	37.904061	-107.644
SS062	SS	Cement_Creek	CCANF	37.897621	-107.645

Appendix 1 - All Site Locations

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

LocationID	SITE_TYPE	AREA	SubBasin	LAT	LONG
SS063	SS	Cement_Creek	NFC	37.897425	-107.6273
SS064	SS	Cement_Creek	NFC	37.897346	-107.6277
SS065	SS	Cement_Creek	CCGS	37.891519	-107.6484
SS066	SS	Cement_Creek	CCGS	37.891911	-107.6485
SS067	SS	Cement_Creek	CCANF	37.896249	-107.6464
SS068	SS	Cement_Creek	CCANF	37.89591	-107.6463
SS069	SS	Cement_Creek	CCANF	37.900564	-107.6444
SS070	SS	Cement_Creek	CCANF	37.901871	-107.6444
SS071	DM	SF_Animas	SFA	37.876719	-107.6024
SS072	SS	SF_Animas	SFA	37.881232	-107.6004
SS073	DM	SF_Animas	SFA	37.880884	-107.5991
SS074	SS	SF_Animas	SFA	37.881676	-107.5987
SS075	DM	SF_Animas	SFA	37.88253	-107.5982
SS076	SS	Eureka_Gulch	MC	37.886801	-107.6084
SS077	SS	Eureka_Gulch	MC	37.886933	-107.6146
SS078	SS	Eureka_Gulch	MC	37.883568	-107.6179
SS079	SS	Eureka_Gulch	MC	37.885515	-107.6082
SS080	SS	Eureka_Gulch	MC	37.887026	-107.6053
SS082	SS	Cement_Creek	MH	37.888341	-107.6328
SS083	SS	Cement_Creek	NFC	37.894344	-107.6398
SS084	SS	Cement_Creek	NFC	37.894308	-107.6397
SS085	SS	Cement_Creek	NFC	37.894842	-107.6422
SS086	SS	Cement_Creek	CCGS	37.894184	-107.6473
SS087	SS	Prospect_Gulch	PG	37.898073	-107.6859
SS088	SS	Prospect_Gulch	PG	37.895996	-107.6829
SS089	SS	Prospect_Gulch	PG	37.893865	-107.6921
SS090	SS	Prospect_Gulch	PG	37.894855	-107.6921
SS091	SS	Prospect_Gulch	PG	37.892556	-107.688
SS092	SS	Prospect_Gulch	PG	37.89066	-107.6925
SS093	SS	Prospect_Gulch	PG	37.890349	-107.693
SS094	SS	Prospect_Gulch	PG	37.888435	-107.6884

Appendix 1 - All Site Locations

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

LocationID	SITE_TYPE	AREA	SubBasin	LAT	LONG
SS095	DM	Prospect_Gulch	PG	37.89032	-107.6891
SS096	SS	Prospect_Gulch	PG	37.892169	-107.6822
SS097	SS	Prospect_Gulch	PG	37.891842	-107.6812
SS098	SS	Prospect_Gulch	PG	37.891849	-107.6807
CC14	DM	Cement_Creek	SFC	37.876764	-107.644
CC03D	DM	Cement_Creek	CCANF	37.897231	-107.6437
SS102	DM	Cement_Creek	CCGS	37.891604	-107.6489
CC01B	DM	Cement_Creek	CCANF	37.90999	-107.6383
DM32	DM	Eureka_Gulch	EG	37.894485	-107.608
CC16C	DM	Cement_Creek	SFC	37.876802	-107.6466
A38	DM	Eureka_Gulch	EG	37.892864	-107.6042
CC50	DM	Cement_Creek	MFC	37.882231	-107.6356
DM24	DM	Upper Animas	UPG	37.88189	-107.568
SS117	DM	Cement_Creek	CCANF	37.909832	-107.6309
SS120	DRY	Prospect_Gulch	PG	37.892437	-107.6886
SS121	DRY	Prospect_Gulch	PG	37.891878	-107.6895
SS122	DRY	Prospect_Gulch	PG	37.889159	-107.6918
SS123	DM	Prospect_Gulch	PG	37.890962	-107.6828
SS124	DRY	Prospect_Gulch	PG	37.891738	-107.6825
SS125	DM	Prospect_Gulch	PG	37.893411	-107.6811
SS126	DM	Prospect_Gulch	PG	37.891504	-107.6791
SS127	DRY	Cement_Creek	CCANF	37.900218	-107.6423
SS128	DRY	Cement_Creek	CCANF	37.903636	-107.6412
SS129	DRY	Cement_Creek	CCANF	37.903049	-107.6419
SS130	DRY	Cement_Creek	NFC	37.896352	-107.6396
SS131	DRY	Cement_Creek	NFC	37.896874	-107.6371
SS132	DRY	Cement_Creek	NFC	37.89608	-107.6366
SS133	DRY	Cement_Creek	NFC	37.89318	-107.6321
SS134	DRY	Cement_Creek	NFC	37.897575	-107.6334
SS135	DRY	Cement_Creek	NFC	37.897421	-107.6324
SS136	DRY	Cement_Creek	NFC	37.896607	-107.632

Appendix 1 - All Site Locations

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

LocationID	SITE_TYPE	AREA	SubBasin	LAT	LONG
SS140	DRY	Cement_Creek	UCC	37.916872	-107.6268
SS200	SS	Cement_Creek	CCANF	37.895598	-107.6474
SS202	SS	Cement_Creek	MH	37.890973	-107.6328
SS203	SS	Prospect_Gulch	PG	37.893068	-107.6821
SS204	SS	Prospect_Gulch	PG	37.891602	-107.6824
SS205	SS	Prospect_Gulch	PG	37.893738	-107.6892
SS206	SS	Prospect_Gulch	PG	37.894169	-107.69
SS207	SS	Prospect_Gulch	PG	37.89505	-107.689
SS208	SS	Prospect_Gulch	PG	37.89477	-107.6906
SS210	SS	Cement_Creek	UCC	37.913372	-107.6293
SS211	SS	Cement_Creek	UCC	37.919059	-107.6303
SS212	DM	Eureka_Gulch	EG	37.891604	-107.6064
SS213	SS	Eureka_Gulch	EG	37.893009	-107.6065
SS214	SS	Eureka_Gulch	UEG	37.90234	-107.6141
SS215	SS	Cement_Creek	CCANF	37.909909	-107.6332
SS216	SS	Cement_Creek	CCANF	37.909976	-107.638
SS217	SS	Cement_Creek	MC	37.885101	-107.616
SS218	SS	Eureka_Gulch	MC	37.883501	-107.6178
SS219	DM	WF_Animas_CG	UCG	37.916359	-107.6136
SS220	SS	WF_Animas_CG	UCG	37.918125	-107.6114
SS221	SS	WF_Animas_CG	UCG	37.918504	-107.611
SS222	SS	WF_Animas_CG	UCG	37.91915	-107.6107
SS223	SS	Placer_Gulch	UPG	37.912651	-107.5986
SS224	DM	Placer_Gulch	UPG	37.908108	-107.5969
SS225	DM	Placer_Gulch	UPG	37.908478	-107.595
SS226	SS	Placer_Gulch	UPG	37.90956	-107.6016
SS227	SS	Cement_Creek	VB	37.871202	-107.6428
SS228	SS	Cement_Creek	CCGS	37.889615	-107.6497
SS229	SS	Eureka_Gulch	UEG	37.902548	-107.6139
SS230	SS	Cement_Creek	MH	37.890528	-107.634
SS231	SS	Eureka_Gulch	EG	37.895265	-107.6071

Appendix 1 - All Site Locations**Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

LocationID	SITE_TYPE	AREA	SubBasin	LAT	LONG
SS232	DM	Cement_Creek	CCANF	37.910608	-107.6349
SS235	DM	Placer_Gulch	UPG	37.916565	-107.5923
SS236	SS	Cement_Creek	CCANF	37.897429	-107.6459
SS237	SW	SF_Animas	SFA	37.871644	-107.6067
SS238	DM	Eureka_Gulch	SFA	37.881873	-107.5984
SS300	SS	Cement_Creek	CCANF	37.905803	-107.6431
SS301	SS	Cement_Creek	CCGS	37.892444	-107.6483
SS304	SS	WF_Animas_CG	UCG	37.915265	-107.6171
DM01	DM	Cement_Creek	CCANF	37.909264	-107.6378
CC01A	DM	Cement_Creek	UCC	37.914474	-107.6305
CC19	DM	Cement_Creek	CCGS	37.890981	-107.6484
SS105	DM	Cement_Creek	CCANF	37.90833	-107.6384
SS201	SS	Cement_Creek	CCGS	37.891903	-107.6485
SS250	SS	Cement_Creek	CCANF	37.905767	-107.6435
CC01C	DM	Cement_Creek	CCANF	37.909831	-107.6309
SS305	SS	Eureka_Gulch	EG	37.895008	-107.608
A23A	DM	Upper Animas	UPG	37.908685	-107.6009
CC06	DM	Cement_Creek	NFC	37.894569	-107.6384
DM4	DM	Eueka Gulch	EG	37.880835	-107.5703
SS109	DM	Cement_Creek	CCGS	37.890981	-107.6484
SS201	SS	Cement_Creek	CCGS	37.891903	-107.6485
NFPZ	X	Cement_Creek	NFC	37.893889	-107.6381

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS001	9/22/2016	13:00	LF	2016	SS	TRM,DM,alk,stableisotopes	6.59	5	9.4	1020	6.02
SS001	7/11/2017	13:09	HF	2017	SS	TRM,DM,alk,stableisotopes	5.15	15	4.1	78	257.79
SS001	10/4/2017	10:13	LF	2017	SS	TRM,DM,alk,stableisotopes	6.53	8	5.1	394	6.00
SS001	6/27/2018	9:59	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.03	14	5.5	74	37.85
SS001	9/26/2018	11:01:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	4.03	10	8.5	116	2.50
SS002	9/22/2016	13:40	LF	2016	SS	TRM,DM,alk,stableisotopes	7.28	4	6.2	345	19.31
SS002	7/11/2017	12:51	HF	2017	SS	TRM,DM,alk,stableisotopes	7.76	15	8.6	237	8.40
SS002	10/4/2017	10:26	LF	2017	SS	TRM,DM,alk,stableisotopes	7.22	8	2.7	277	1.00
SS002	6/27/2018	10:00	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.27	12	7	231	3.00
SS003	9/22/2016	14:00	LF	2016	SS	TRM,DM,alk,stableisotopes	7.27	4	0	9999	10.03
SS003	7/12/2017	10:18	HF	2017	SS	TRM,DM,alk,stableisotopes	7.29	15	7.9	257	2.00
SS003	10/4/2017	10:43	LF	2017	SS	TRM,DM,alk,stableisotopes	7.08	8	3	408	1.00
SS003	9/26/2018	11:55:00	LF	2018	SS	TRM,DM, ALK,ISO	6.93	10	8.7	336	0.50
SS004	9/22/2016	15:50	LF	2016	SS	TRM,DM,alk,stableisotopes	7.32	4	5.6	236	9.01
SS004	7/12/2017	10:37	HF	2017	SS	TRM,DM,alk,stableisotopes	7.75	15	2	174	10.00
SS004	10/4/2017	11:06	LF	2017	SS	TRM,DM,alk,stableisotopes	5.95	5	3.8	313	4.80
SS004	6/27/2018	10:45	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.73	14	4.7	298	8.00
SS004	9/26/2018	12:30:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	6.81	11	7.5	163	10.00
SS005	9/22/2016	16:15	LF	2016	SS	TRM,DM,alk,stableisotopes	6.69	4	7.6	355	0.64
SS006	9/23/2016	10:00	LF	2016	SS	TRM,DM,alk,stableisotopes	7.75	-1	0.4	214	27.60
SS006	7/12/2017	12:17	HF	2017	SS	TRM,DM,alk,stableisotopes	7.34	15	3	161	90.85
SS006	10/4/2017	12:57	LF	2017	SS	TRM,DM,alk,stableisotopes	5.88	7	1.9	164	4.00
SS006	6/27/2018	12:08	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.94	17	14	143	6.00
SS006	9/26/2018	14:15:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	6.28	5	4.9	47	4
SS007	9/23/2016	11:00	LF	2016	SS	TRM,DM,alk,stableisotopes	7.01	-1	3.2	216	6.02
SS007	7/12/2017	11:49	HF	2017	SS	TRM,DM,alk,stableisotopes	7.44	14	8.3	86	75.71

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS007	10/4/2017	12:29	LF	2017	SS	TRM,DM,alk,stableisotopes	5.84	7	4.3	228	40.00
SS007	6/27/2018	11:45	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.96	20	13.6	121	272.55
SS007	9/26/2018	13:46:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	7.2	5	12.6	162	11.00
SS008	9/26/2016	13:50	LF	2016	SS	TRM,DM,alk,stableisotopes	7.8	10	3	252	57.54
SS008	10/2/2017	10:55	LF	2017	SS	TRM,DM,stableisotopes,alk	5.97	9999	0.8	340	10.00
SS008	6/13/2018	11:15	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.04	11	1.8	193	806.29
SS008	9/24/2018	14:51:00	LF	2018	SS	TRM,DM, ALK,ISO	7.18	3	7.3	360	
SS009	9/26/2016	15:00	LF	2016	SS	TRM,DM,alk,stableisotopes	6.63	10	11.3	225	7.19
SS009	7/10/2017	12:33	HF	2017	SS	TRM,DM,alk,stableisotopes	6.16	15	19	194	0.60
SS009	6/13/2018	11:32	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.3	12	12.1	125	30.00
SS010	9/26/2016	15:15	LF	2016	SS	TRM,DM,alk,stableisotopes	6.05	8	6.6	195	1.82
SS010	7/10/2017	12:50	HF	2017	SS	TRM,DM,alk,stableisotopes	6.42	10	1.9	346	1.20
SS010	10/2/2017	11:21	LF	2017	SS	TRM,DM,alk,stableisotopes	6.47	9999	0.7	347	
SS010	6/13/2018	11:57	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.5	12	2.3	840	50.00
SS010	9/24/2018	14:45:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	5.38	10	7.2	9999	0.50
SS011	9/26/2016	16:00	LF	2016	SS	TRM,DM,alk,stableisotopes	4.29	8	4.5	1385	
SS011	7/10/2017	13:05	HF	2017	SS	TRM,DM,alk	4.98	10	8.6	1237	1.00
SS011	10/2/2017	11:28	LF	2017	SS	TRM,DM,alk,stableisotopes	5.2	9999	0.9	365	3.00
SS011	6/13/2018	11:47	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.45	12	13	769	
SS011	9/24/2018	15:10:00	LF	2018	SS	TRM,DM, ALK,ISO	4.5	11	9	499	
SS012	9/26/2016	16:25	LF	2016	SS	TRM,DM,alk,stableisotopes	4.3	5	1.4	674	3.60
SS012	7/10/2017	13:31	HF	2017	SS	TRM,DM,alk	6.68	10	3.3	59	83.88

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS012	10/2/2017	10:50	LF	2017	SS	TRM,DM,alk,stableisotopes	6.44	9999	1	716	1.50
SS012	6/13/2018	11:23	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.83	8	4.4	255	60.00
SS013	10/3/2016	11:45	LF	2016	SS	TRM,DM,alk,stableisotopes	6.8	3	3.1	313	71.17
SS013	7/17/2017	10:24	HF	2017	SS	TRM,DM,alk,stableisotopes	7.27	23	6.3	358	5097.03
SS013	10/3/2017	10:39	LF	2017	SS	TRM,DM,alk,stableisotopes	7.44	3	3.5	220	325.55
SS013	6/12/2018	13:00	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.81	16	6.2	175	1514.16
SS013	10/4/2018	9:45:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	7.1	12	8.5	208	
SS014	10/3/2016	12:30	LF	2016	SS	TRM,DM,alk,stableisotopes	7.24	2	2.6	139	130.98
SS014	7/17/2017	10:40	HF	2017	SS	TRM,DM,alk,doc,stableisotopes	7.15	23	4.5	256	121.51
SS014	10/3/2017	10:36	LF	2017	SS	TRM,alk,DM,stableisotopes	6.84	5	3	252	36.00
SS014	6/12/2018	13:30	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.44	14	2.2	209	94.64
SS014	10/4/2018	10:15:00	LF	2018	SS	TRM,DM, ALK,ISO	7.11	12	3.5	158	65.00
SS015	10/3/2016	13:20	LF	2016	SS	TRM,DM,alk,stableisotopes	7.32	3	1.8	227	181.70
SS015	7/17/2017	11:11	HF	2017	SS	TRM,DM,alk,stableisotopes	7.49	23	8.8	350	681.37
SS015	10/3/2017	11:21	LF	2017	SS	TRM,DM,alk,stableisotopes	6.78	5	1.5	279	132.00
SS015	6/12/2018	14:00	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.42	17	5.8	196	495.89
SS015	10/4/2018	10:50:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	7.4	11	3.5	238	87.00
SS016	10/3/2016	14:15	LF	2016	SS	TRM,DM,alk,stableisotopes	4.5	3	3.6	319	7.04
SS016	6/22/2017	14:45	HF	2017	SS	TRM,DM,alk,stableisotopes	4.89	19	15.9	588	0.75
SS016	10/5/2017	15:48	LF	2017	SS	TRM,DM,alk,stableisotopes	4.6	8	5.6	666	14.50
SS016	6/12/2018	15:15	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.46	16	4.5	439	1.00
SS016	10/4/2018	12:23:00	LF	2018	SS	TRM,DM, ALK,ISO	4.52	1	5	298	0.60
SS017	10/3/2016	14:45	LF	2016	SS	TRM,DM,alk,stableisotopes	4.6	3	3	335	1.59
SS017	6/22/2017	14:28	HF	2017	SS	TRM,DM,alk,stableisotopes	5.65	18	5.3	307	6.00

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS017	10/5/2017		LF	2017	SS						
SS017	6/12/2018	15:30	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.3	15	7.5	415	6.00
SS017	10/4/2018	12:35:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	4.2	11	4.3	352	1.60
SS018	10/3/2016	15:15	LF	2016	SS	TRM,DM,alk,stableisotopes	3.86	3	4.2	635	34.14
SS018	6/23/2017	12:53	HF	2017	SS	TRM,DM,alk,stableisotopes	4.06	18	6.9	424	25.00
SS018	10/5/2017	16:18	LF	2017	SS	TRM,DM,alk,stableisotopes	3.93	8	6.1	979	48.00
SS018	6/12/2018	16:00	HF	2018	SS	TRM,DM,ALK,ISO,RE	3.66	15	3.6	494	71.92
SS018	10/4/2018	13:00:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	3.61	1	4.8	81	33.00
SS019	10/3/2016	16:00	LF	2016	SS	TRM,DM,alk,stableisotopes	7.25	3	3.6	162	14.99
SS019	6/23/2017	13:31	HF	2017	SS	TRM,DM,alk,stableisotopes	7.6	19	4.6	168	6.00
SS019	10/5/2017	16:43	LF	2017	SS	TRM,DM,alk,stableisotopes	7.03	15	3.8	327	7.00
SS019	6/12/2018	16:15	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.76	16	4.7	185	12.00
SS019	10/4/2018	13:20:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	6.37	2	4.6	170	6.30
SS020	10/4/2016	11:45	LF	2016	SS	TRM,DM,alk,stableisotopes	5.67	3	7.2	383	45.42
SS020	7/19/2017	9:47	HF	2017	SS	stableisotopes,TRM,DM	4.85	21	7.3	73	53.37
SS020	10/16/2017	12:56	LF	2017	SS	TRM,DM,alk,stableisotopes	6.72	10	7	627	20.00
SS020	6/13/2018	14:09	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.3	6	10.6	55	84.00
SS020	9/25/2018	14:50:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	4.52	20	21	121	
SS021	10/4/2016	12:20	LF	2016	SS	TRM,DM,alk,stableisotopes	5.53	4	6.2	51	1.44
SS021	7/19/2017	10:14	HF	2017	SS	TRM,DM,alk,stableisotopes	5.53	21	11.3	224	12.00
SS021	6/13/2018	14:39	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.2	8	11	32	160.00
SS022	10/4/2016	12:50	LF	2016	SS	TRM,DM,alk,stableisotopes	7.08	3	4	140	12.11

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS022	7/19/2017	10:33	HF	2017	SS	TRM,DM,alk,stableisotopes	5.85	20	13	100	48.00
SS022	10/16/2017	13:39	LF	2017	SS	TRM,DM,alk,stableisotopes	6.93	11	2.4	158	2.00
SS022	6/13/2018	14:09	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.64	6	0.6	117	15.00
SS023	10/4/2016	13:20	LF	2016	SS	TRM,DM,alk,stableisotopes	5.89	3	3.3	149	0.49
SS023	7/19/2017	10:54	HF	2017	SS	TRM,alk,DM,stableisotopes	5.59	19	15.7	76	2.00
SS023	10/16/2017	13:51	LF	2017	SS	TRM,DM,alk,stableisotopes	7.15	11	7	575	140.06
SS023	6/13/2018	14:30	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.37	7	2.6	12	5.00
SS023	9/25/2018	15:10:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	6.3	12	15	402	9999.00
SS024	10/4/2016	13:40	LF	2016	SS	TRM,DM,alk,stableisotopes	7.06	3	1.6	494	51.48
SS024	7/19/2017	11:14	HF	2017	SS	TRM,DM,stableisotopes,alk	7.45	19	2.2	363	227.12
SS024	10/16/2017	14:03	LF	2017	SS	TRM,DM,alk,stableisotopes	6.9	11	1	566	35.00
SS024	6/13/2018	15:01	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.52	8	0.3	259	272.50
SS024	9/25/2018	14:44:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	7.3	12	1.7	469	60.00
SS025	10/4/2016	14:20	LF	2016	SS	TRM,DM,alk,stableisotopes	7.23	3	2.8	352	1.70
SS025	7/19/2017	11:39	HF	2017	SS	TRM,DM,alk,stableisotopes	7.86	19	2.8	117	6.00
SS025	6/13/2018	15:22	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.8	9	5.7	102	10.00
SS026	10/4/2016	15:20	LF	2016	SS	TRM,DM,alk,stableisotopes	6.6	1	3.4	242	4.50
SS026	7/10/2017	11:05	HF	2017	SS	TRM,DM,alk,stableisotopes	4.38	15	6.3	362	42.00
SS026	10/16/2017	12:04	LF	2017	SS	TRM,DM,alk,stableisotopes	6.41	10	4.6	348	7.00
SS026	6/14/2018	11:00	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.7	10	1.4	163	21.60
SS027	10/4/2016	16:05	LF	2016	SS	TRM,DM,alk,stableisotopes	4.7	2	3.5	606	53.00

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS027	7/10/2017	10:04	HF	2017	SS	TRM,DM,alk,stableisotopes	4.69	15	1.4	310	116.60
SS027	10/16/2017	11:28	LF	2017	SS	TRM,DM,alk,stableisotopes	5.92	10	2.7	803	45.00
SS027	6/13/2018	12:52	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.5	6	1.2	251	72.00
SS027	9/24/2018	13:43:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	4.46	8	4.7	752	60.00
SS028	10/4/2016	16:50	LF	2016	SS	TRM,DM,alk,stableisotopes	7.36	4	6.7	71	1.44
SS028	7/10/2017	9:29	HF	2017	SS	TRM,DM,alk,stableisotopes	7.76	15	5	49	1.00
SS028	10/16/2017	10:56	LF	2017	SS	TRM,DM,alk,stableisotopes	7.13	8	3.4	181	0.50
SS029	10/4/2016	17:15	LF	2016	SS	TRM,DM,alk,stableisotopes	6.54	4	3.6	351	227.12
SS029	7/10/2017	9:15	HF	2017	SS	DM,alk,stableisotopes	7.22	15	2.6	168	681.37
SS029	10/16/2017	11:05	LF	2017	SS	TRM,DM,alk,stableisotopes	7.59	9	5.4	616	180.00
SS029	6/14/2018	12:50	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.9	9	2	179	215.77
SS029	9/24/2018	12:26:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	5.51	10	5.6	434	181.70
SS030	10/5/2016	10:45	LF	2016	SS	TRM,DM,alk,stableisotopes	6.6	2	5.7	331	0.50
SS030	7/12/2017	14:30	HF	2017	SS	TRM,DM,alk,stableisotopes	6.68	13	11.3	89	
SS030	10/4/2017	14:31	LF	2017	SS	DM,TRM,stableisotopes,alk	6.08	8	7.4	163	
SS030	6/15/2018	8:45	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.42	10	7.6	82	
SS030	9/26/2018	15:10:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	6.31	12	12.6	73	
SS031	10/5/2016	11:15	LF	2016	SS	TRM,DM,alk,stableisotopes	7.09	2	3.7	235	6.06
SS031	7/12/2017	14:08	HF	2017	SS	DM,TRM,stableisotopes,alk	7.82	14	3.4	147	6.00
SS031	10/4/2017	14:12	LF	2017	SS	TRM,DM,doc,stableisotopes	6.05	7	4.3	178	1.50
SS031	6/15/2018	9:00	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.49	11	2.7	138	9.00
SS031	9/26/2018	15:22:00	LF	2018	SS	TRM,DM, ALK,ISO	6.71	12	5.8	82	15.00
SS032	10/5/2016	11:40	LF	2016	SS	TRM,DM,alk,stableisotopes	7.08	2	1.5	567	5.68
SS032	7/12/2017	13:39	HF	2017	SS	TRM,DM,alk,stableisotopes	8.05	14	0.1	142	50.00
SS032	10/4/2017	13:52	LF	2017	SS	DM,TRM,alk,stableisotopes	5.98	7	2.6	535	2.00
SS032	7/23/2018	11:20	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.9	18	0.4	156	30.00

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS032	9/26/2018	15:41:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	7.11	15	1.6	121	12.00
SS033	10/5/2016	12:20	LF	2016	SS	TRM,DM,alk,stableisotopes	7.03	2	5.5	51	0.50
SS033	7/12/2017	15:09	HF	2017	SS	TRM,DM,alk,stableisotopes	5.98	15	15.3	39	0.50
SS033	10/4/2017	15:00	LF	2017	SS	TRM,DM,alk,stableisotopes	6.34	7	6.5	36	0.50
SS033	6/15/2018	9:30	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.88	12	12.5	31	0.50
SS033	9/26/2018	14:53:00	LF	2018	SS	TRM,DM, ALK,ISO	6.43	10	14.3	30	0.50
SS034	10/5/2016	12:45	LF	2016	SS	TRM,DM,alk,stableisotopes	5.3	2	5.5	145	0.50
SS034	7/12/2017	15:23	HF	2017	SS	TRM,DM,stableisotopes,alk	5.25	14	15.3	58	0.50
SS034	10/4/2017	14:50	LF	2017	SS	TRM,DM,alk,stableisotopes	6.08	7	9	54	0.50
SS034	6/15/2018	9:44	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.78	13	12.6	77	0.50
SS034	9/26/2018	14:49:00	LF	2018	SS	TRM,DM, ALK,ISO	9999	6	9999	9999	0.50
SS035	10/5/2016	13:50	LF	2016	SS	TRM,DM,alk,stableisotopes	6.8	4	6.8	417	2.99
SS035	7/12/2017	13:19	HF	2017	SS	TRM,DM,alk,stableisotopes	7.71	14	0.1	320	340.69
SS035	6/15/2018	10:00	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.7	14	3	482	26.00
SS036	10/5/2016	15:50	LF	2016	SS	TRM,DM,alk,stableisotopes	7.24	2	4.4	127	0.98
SS036	7/18/2017	13:01	HF	2017	SS	TRM,DM,alk,stableisotopes	6.61	18	6.4	77	2.25
SS036	6/27/2018	15:40	HF	2018	SS	TRM,DM,ALK,ISO,RE	7.44	16	5.5	65	0.50
SS037	10/5/2016	16:20	LF	2016	SS	TRM,DM,alk,stableisotopes	5.03	2	3.5	697	2.99
SS037	7/18/2017	14:34	HF	2017	SS	TRM,DM,alk,stableisotopes	5.07	17	2	553	24.00
SS037	10/10/2017	15:23	LF	2017	SS	TRM,DM,alk,stableisotopes	4.8	5	2.9	955	2.00
SS037	6/27/2018	16:00	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.67	18	3.5	419	27.00
SS038	10/6/2016	09:40	LF	2016	SS	TRM,DM,alk,stableisotopes	7.69	1	3	934	12.00
SS038	6/28/2017	16:09	HF	2017	SS	TRM,DM,alk,stableisotopes	8.68	23	3.8	154	126.00
SS038	10/10/2017	13:40	LF	2017	SS	TRM,DM,alk,stableisotopes	6.52	4	5.6	271	42.00
SS038	6/15/2018	10:45	HF	2018	SS	TRM,DM,ALK,ISO,RE	7.15	12	3.8	175	30.00
SS038	9/26/2018	16:00:00	LF	2018	SS	TRM,DM, ALK,ISO	7.16	14	7.3	266	8.00

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS039	10/6/2016	10:30	LF	2016	SS	TRM,DM,alk,stableisotopes	5.49	2	5.5	153	12.00
SS039	7/12/2017	15:52	HF	2017	SS	TRM,DM,alk,stableisotopes	5.16	13	4.5	116	56.78
SS039	10/10/2017	12:39	LF	2017	SS	TRM,DM,alk,stableisotopes	5.26	4	5.5	201	0.30
SS039	6/27/2018	14:22	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.89	18	5.2	120	12.00
SS040	10/6/2016	11:00	LF	2016	SS	TRM,DM,alk,stableisotopes	4.61	3	3.1	138	2.99
SS040	7/12/2017	16:26	HF	2017	SS	TRM,DM,alk,stableisotopes	4.5	12	4.2	82	340.69
SS040	10/10/2017	10:16	LF	2017	SS	TRM,DM,alk	4.53	-4	4.8	140	4.50
SS040	6/27/2018	15:25	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.39	18	3.4	103	12.00
SS040	9/27/2018	12:25:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	4.18	14	11.1	120	0.50
SS041	10/6/2016	11:30	LF	2016	SS	TRM,DM,alk,stableisotopes	6.95	4	6.9	222	37.85
SS041	6/28/2017	14:07	HF	2017	SS	DM,alk,TRM,stableisotopes	6.75	23	2.7	175	115.00
SS041	10/10/2017	10:13	LF	2017	SS	TRM,alk,stableisotopes,DM	6.71	5	5.9	254	30.00
SS041	6/27/2018	15:50	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.5	16	4.4	156	80.00
SS041	9/27/2018	12:50:00	LF	2018	SS	TRM,DM, ALK,ISO	6.4	20	5.2	240	15.00
SS042	10/6/2016	11:50	LF	2016	SS	TRM,DM,alk,stableisotopes	7.33	3	6.4	117	5.00
SS042	6/28/2017	14:25	HF	2017	SS	TRM,DM,alk,stableisotopes	6.98	23	6.9	162	3.80
SS042	10/10/2017	10:26	LF	2017	SS	TRM,alk,stableisotopes,DM	7.4	5	3.2	1136	7.00
SS042	6/27/2018	16:05	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.7	19	9.6	97	3.00
SS043	10/6/2016	12:45	LF	2016	SS	TRM,DM,alk,stableisotopes	7.35	3	8.4	757	12.00
SS043	6/28/2017	15:08	HF	2017	SS	TRM,DM,alk,stableisotopes	7.39	24	10.4	894	8.50
SS043	10/10/2017	10:42	LF	2017	SS	TRM,alk,stableisotopes,DM	7.14	5	8.2	1053	30.00
SS043	6/18/2018	15:22	HF	2018	SS	TRM,DM,ALK,ISO,RE	7.37	18	10.2	867	18.00
SS043	9/27/2018	13:30:00	LF	2018	SS	TRM,DM, ALK,ISO	7.4	14	10.1	714	11.40
SS044	10/6/2016	15:00	LF	2016	SS	TRM,DM,alk,stableisotopes	7.57	3	3	793	30.06
SS044	6/22/2017	10:00	HF	2017	SS	TRM,DM,stableisotopes,alk	6.63	18	5.8	641	155.00
SS044	10/11/2017	12:18	LF	2017	SS	TRM,alk,stableisotopes,DM	6.24	8	2.2	936	20.00

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS044	6/14/2018	15:30	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.96	13	6.3	602	10.00
SS044	9/25/2018	12:20:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	6.54	13	5.1	921	4.20
SS045	10/6/2016	15:30	LF	2016	SS	TRM,DM,alk,stableisotopes	5.17	3	4.5	259	12.00
SS045	6/22/2017	11:15	HF	2017	SS	TRM,alk,stableisotopes,DM	4.79	18	3.6	137	27.00
SS045	10/11/2017	12:45	LF	2017	SS	TRM,DM,alk,stableisotopes	4.82	5	4.4	298	9.00
SS045	6/6/2018	12:48	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.8	12	2.4	248	4.00
SS045	9/25/2018	13:31:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	4.86	13	8.3	214	1.20
SS046	10/6/2016	16:00	LF	2016	DM	TRM,DM,alk,stableisotopes	4.71	3	2.8	330	9.01
SS046	6/22/2017	11:41	HF	2017	DM	TRM,DM,doc,stableisotopes	4.3	23	3.7	473	5.00
SS046	10/11/2017	12:45	LF	2017	DM	TRM,DM,alk,stableisotopes	5.09	8	2.8	440	7.00
SS046	6/6/2018	12:29	HF	2018	DM	TRM,DM,ALK,ISO,RE	5.07	14	5.1	438	7.00
SS046	9/25/2018	13:04:00	LF	2018	DM	TRM,DM, ALK,ISO,RE	4.26	14	4.6	278	1.00
SS047	10/10/2016	11:45	LF	2016	SS	TRM,DM,alk,stableisotopes	7.52	2	2.2	197	111.18
SS047	6/26/2017	11:35	HF	2017	SS	TRM,DM,alk	6.98	23	3.2	489	1355.18
SS047	10/5/2017	13:15	LF	2017	SS	TRM,DM,alk,stableisotopes	7.19	9	2.2	389	27.50
SS047	6/12/2018	10:58	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.15	16	1.8	173	117.35
SS047	10/2/2018	12:20:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	7.08	7	3.3	216	95.00
SS048	10/10/2016	12:15	LF	2016	SS	TRM,DM,alk,stableisotopes	7.15	2	5.8	82	3.60
SS048	6/26/2017	12:28	HF	2017	SS	TRM,DM,alk	6.94	23	14.3	175	1491.45
SS048	10/5/2017	13:40	LF	2017	SS	TRM,DM,alk,stableisotopes	6.26	9	7.1	204	16.00
SS048	6/12/2018	11:54	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.69	15	7.5	89	272.55
SS049	10/10/2016	13:00	LF	2016	SS	TRM,DM,alk,stableisotopes	7.29	2	4.2	68	0.98
SS049	6/26/2017	13:21	HF	2017	SS	TRM,DM,stableisotopes,alk	6.98	18	3.5	33	70.00
SS049	10/5/2017	11:40	LF	2017	SS	TRM,DM,alk,stableisotopes	6.77	8	3.4	194	0.20

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS049	6/7/2018	10:40	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.9	14	1.3	47	10.00
SS050	10/10/2016	13:40	LF	2016	SS	TRM,DM,alk,stableisotopes	8.03	4	0.5	216	12.00
SS050	6/26/2017	13:03	HF	2017	SS	TRM,DM,alk,stableisotopes	7.76	17	2.6	192	876.00
SS050	10/5/2017	11:56	LF	2017	SS	TRM,DM,alk,stableisotopes	7.5	8	1.1	465	24.00
SS050	6/7/2018	10:46	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.2	12	0.7	214	261.19
SS050	10/2/2018	11:05:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	6.74	7	1.3	153	140.00
SS051	10/10/2016	14:00	LF	2016	SS	TRM,DM,alk,stableisotopes	7.79	4	2.5	162	15.03
SS051	6/26/2017	12:47	HF	2017	SS	TRM,DM,stableisotopes,alk	7.18	18	2.4	118	75.00
SS051	10/5/2017	12:21	LF	2017	SS	DM,alk,stableisotopes	7.23	8	2.2	350	14.00
SS051	6/7/2018	11:16	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.2	12	0.1	167	38.00
SS051	10/2/2018	9:45:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	6.05	8	5.8	143	24.00
SS052	10/10/2016	14:20	LF	2016	SS	TRM,DM,alk,stableisotopes	7.02	4	2.9	151	1.51
SS052	6/26/2017	12:36	HF	2017	SS	TRM,DM,alk,stableisotopes	6.26	18	4.5	127	3.00
SS052	10/5/2017	12:32	LF	2017	SS	TRM,DM,alk,stableisotopes	6.91	8	4	400	0.30
SS052	6/7/2018	11:11	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.65	14	1.7	121	3.00
SS052	10/2/2018	10:20:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	6.48	8	4.2	144	1.25
SS053	10/10/2016	15:30	LF	2016	SS	TRM,DM,alk,stableisotopes	4.5	3	3.1	145	12.00
SS053	7/20/2017	10:26	HF	2017	SS	TRM,DM,alk,stableisotopes	3.61	21	2.5	187	60.00
SS053	10/5/2017	10:53	LF	2017	SS	TRM,DM,alk,stableisotopes	4.59	8	3.2	403	12.00
SS053	6/7/2018	9:00	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.34	8	1.1	192	4.00
SS053	10/2/2018	10:30:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	4.89	11	3.8	191	7.90
SS054	10/10/2016	16:00	LF	2016	SS	TRM,DM,alk,stableisotopes	6.99	4	5	653	20.02
SS054	6/26/2017	11:58	HF	2017	SS	TRM,DM,stableisotopes,alk	6.67	17	5.6	1079	50.00

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS054	10/5/2017	10:31	LF	2017	SS	TRM,DM,alk,stableisotopes	6.58	9	6.2	2320	8.00
SS054	6/7/2018	9:48	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.97	10	3.4	760	189.27
SS054	10/2/2018	10:10:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	6.97	11	6.7	1286	7.80
SS055	10/10/2016	17:45	LF	2016	SS	TRM,DM,alk,stableisotopes	6.07	5	4.4	242	9.01
SS055	6/23/2017	14:04	HF	2017	SS	TRM,DM,alk,stableisotopes	3.97	19	5.9	1009	16.00
SS055	10/5/2017	15:12	LF	2017	SS	TRM,DM,alk,stableisotopes	6.04	8	12.2	487	0.20
SS055	6/14/2018	16:50	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.45	16	14.7	161	0.25
SS055	10/10/2018	8:13:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	4.06	-1	4.4	147	5.00
SS056	10/11/2016	10:30	LF	2016	SS	TRM,DM,alk,stableisotopes	5.14	4	3.7	117	0.98
SS056	6/22/2017	12:47	HF	2017	SS	TRM,DM,stableisotopes	4.31	25	8.2	92	12.00
SS056	6/14/2018	13:30	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.39	12	6.7	140	0.35
SS057	10/11/2016	12:40	LF	2016	SS	TRM,DM,alk,stableisotopes	6.08	3	3.2	1053	0.49
SS057	7/17/2017	12:46	HF	2017	SS	TRM,DM,alk,stableisotopes	6.25	19	10.1	865	0.50
SS057	10/2/2017	14:03	LF	2017	SS	TRM,DM,alk,stableisotopes	6.03	9999	3.2	1107	0.50
SS057	6/6/2018	11:31	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.03	8	9.8	1043	0.50
SS057	9/25/2018	10:59:00	LF	2018	SS	TRM,DM, ALK,ISO	6.21	13	2.7	1045	0.50
SS058	10/11/2016	13:10	LF	2016	SS	TRM,DM,alk,stableisotopes	6.34	3	4.9	21	0.50
SS058	7/17/2017	12:04	HF	2017	SS	TRM,DM,alk,stableisotopes	5.66	20	13.5	372	0.50
SS058	10/2/2017	13:34	LF	2017	SS	TRM,DM,alk,stableisotopes	5.79	9999	2.8	41	0.50
SS058	6/6/2018	10:37	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.69	12	5	69	0.50
SS059	10/11/2016	14:30	LF	2016	SS	TRM,DM,alk,stableisotopes	5.3	3	5.5	189	8.03
SS059	6/22/2017	10:45	HF	2017	SS	TRM,DM,alk,stableisotopes	5.49	18	4.6	86	80.00
SS059	10/25/2017	10:09	LF	2017	SS	TRM,DM,alk,stableisotopes	5.56	9999	5.1	174	7.00
SS059	6/19/2018	10:44	HF	2018	SS	TRM,DM,ALK,ISO,RE	5	15	4.6	201	25.00
SS059	10/9/2018	10:20:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	5.13	0	5.9	201	18.00
SS060	10/11/2016	15:50	LF	2016	SS	TRM,DM,alk,stableisotopes	4.9	2	5	60	15.03
SS060	6/21/2017	14:35	HF	2017	SS	TRM,DM,alk,stableisotopes	4.89	23	3.8	47	28.00
SS060	10/25/2017	10:38	LF	2017	SS	TRM,DM,alk,stableisotopes	4.78	5	4.9	50	6.00

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS060	6/11/2018	16:04	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.67	18	2.9	56	14.40
SS060	10/9/2018	13:05:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	4.91	0	7.7	57	2.00
SS061	10/11/2016	15:30	LF	2016	SS	TRM,DM,alk,stableisotopes	4.98	3	5.1	405	0.49
SS061	6/21/2017	13:18	HF	2017	SS	TRM,DM,alk,stableisotopes	4.78	17	12.7	52	3.00
SS062	10/11/2016	16:30	LF	2016	SS	TRM,DM,alk,stableisotopes	4.58	3	7	498	0.49
SS062	6/21/2017	12:24	HF	2017	SS	TRM,DM,stableisotopes,alk	5.41	28	14	320	12.00
SS062	10/23/2017	12:46	LF	2017	SS	TRM,DM,alk,stableisotopes	7	12	4.2	445	3.25
SS062	6/11/2018	14:51	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.07	16	8.2	564	3.10
SS062	10/8/2018	13:40:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	5.75	0	5.4	1045	5.00
SS063	10/12/2016	13:45	LF	2016	SS	TRM,DM,alk,stableisotopes	5.72	5	3.5	1126	2.99
SS063	7/20/2017	11:43	HF	2017	SS	TRM,DM,alk,stableisotopes	5.06	20	4.7	1168	8.00
SS063	10/3/2017	15:01	LF	2017	SS	TRM,DM,alk,stableisotopes	6.16	15	4.6	420	1.00
SS063	6/28/2018	10:55	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.46	15	5.8	446	1.00
SS064	10/12/2016	14:30	LF	2016	SS	TRM,DM,alk,stableisotopes	8.24	4	4.5	676	20.02
SS064	7/20/2017	11:30	HF	2017	SS	TRM,DM,alk,stableisotopes	7.2	20	12.1	271	9.00
SS064	10/3/2017	15:15	LF	2017	SS	TRM,DM,alk,stableisotopes	6.24	15	8.1	669	1.50
SS064	6/28/2018	11:00	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.77	15	7.9	427	4.00
SS064	10/2/2018	13:35:00	LF	2018	SS	TRM,DM, ALK,ISO	6.55	11	5.9	948	2.60
SS065	10/12/2016	16:00	LF	2016	SS	TRM,DM,alk,stableisotopes	4.52	6	6.5	1744	5.00
SS065	6/23/2017	11:17	HF	2017	SS	TRM,DM,alk,stableisotopes	3.74	23	6.7	1403	20.00
SS065	10/3/2017	12:45	LF	2017	SS	TRM,alk,stableisotopes,DM	6.48	10	6.7	2140	22.80
SS065	6/19/2018	13:26	HF	2018	SS	TRM,DM,ALK,ISO,RE	3.71	17	9.9	1855	5.00
SS065	10/4/2018	13:55:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	3.8	2	6.1	2120	3.30
SS066	10/12/2016	16:30	LF	2016	SS	TRM,DM,alk,stableisotopes	3.17	6	5.3	2050	6.02
SS066	6/23/2017	11:27	HF	2017	SS	TRM,DM,alk,stableisotopes	3.31	23	8.1	1945	4.00
SS066	10/3/2017	12:46	LF	2017	SS	TRM,DM,alk,stableisotopes	6.5	9	5.4	2410	1.00

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS067	10/17/2016	11:45	LF	2016	SS	TRM,DM,alk,stableisotopes	3.5	7	4	1199	1.51
SS067	6/21/2017	11:15	HF	2017	SS	TRM,DM,alk,stableisotopes	3.81	18	4.7	1171	0.50
SS067	10/23/2017	12:17	LF	2017	SS	TRM,DM,alk,stableisotopes	4.27	11	4.9	975	0.50
SS067	6/5/2018	15:16	HF	2018	SS	TRM,DM,ALK,ISO,RE	3.89	14	4.5	1534	1.00
SS067	10/8/2018	12:51:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	3.75	0	4.7	1360	1.00
SS068	10/17/2016	12:15	LF	2016	SS	TRM,DM,alk,stableisotopes	3.98	7	5.4	710	6.02
SS068	6/21/2017	10:59:00	HF	2017	SS	TRM,DM,alk,stableisotopes	3.7	19	4.6	670	7.50
SS068	10/23/2017	12:06	LF	2017	SS	TRM,alk,stableisotopes	3.8	12	4.8	598	5.00
SS068	6/5/2018	14:51	HF	2018	SS	TRM,DM,ALK,ISO,RE	3.63	13	4.1	937	8.00
SS068	10/8/2018	13:10:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	3.57	1	5.4	870	4.00
SS069	10/17/2016	14:00	LF	2016	SS	TRM,DM,alk,stableisotopes	4.2	8	4.3	474	1.51
SS069	6/21/2017	14:05:00	HF	2017	SS	TRM,DM,alk,stableisotopes	4.07	28	9.6	350	6.00
SS069	10/23/2017	14:19	LF	2017	SS	TRM,DM,alk,stableisotopes	4.35	12	9.8	398	4.00
SS069	6/19/2018	12:10	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.06	16	9.7	428	1.00
SS069	10/9/2018	14:30:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	4.07	0	5	540	0.75
SS070	10/17/2016	14:45	LF	2016	SS	TRM,DM,alk,stableisotopes	4.44	8	5.6	261	2.99
SS070	6/21/2017	13:45	HF	2017	SS	DM,alk,stableisotopes	4.15	18	11.8	214	12.00
SS070	10/23/2017	14:03:00	LF	2017	SS	TRM,DM,alk,stableisotopes	4.82	12	7	227	3.50
SS070	6/11/2018	15:26	HF	2018	SS	TRM,DM,ALK,ISO,RE	3.89	16	15	300	3.00
SS070	10/9/2018	14:10:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	3.96	0	3.5	331	3.00

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS071	10/17/2016	12:00	LF	2016	DM	TRM,DM,alk,stableisotopes	7.58	10	6.3	554	151.42
SS071	6/27/2017	11:45	HF	2017	DM	TRM,alk,stableisotopes,DM	7.31	17	7	694	507.00
SS071	10/24/2017	12:54	LF	2017	DM	TRM,DM,alk	6.97	12	6.3	522	172.61
SS071	6/18/2018	11:13	HF	2018	DM	TRM,DM,ALK,ISO,RE	7.29	16	6.6	701	211.98
SS071	10/1/2018	14:45:00	LF	2018	DM	TRM,DM, ALK,ISO	7.31	13	6.4	665	130.98
SS072	10/17/2016	13:00	LF	2016	SS	TRM,DM,alk,stableisotopes	8.01	10	8.8	915	72.11
SS072	6/27/2017	12:45	HF	2017	SS	stableisotopes,alk,TRM,DM	6.64	18	8.9	1025	7.50
SS072	10/24/2017	14:00	LF	2017	SS	TRM,DM,alk,stableisotopes	7.06	8	13.7	736	35.00
SS072	6/18/2018	12:37	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.13	16	18.6	1212	18.00
SS072	10/1/2018	13:30:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	6.95	12	10.1	945	29.40
SS073	10/17/2016	13:30	LF	2016	DM	TRM,DM,alk,stableisotopes	7.41	10	7.6	826	12.00
SS073	6/27/2017	13:15	HF	2017	DM	TRM,alk,stableisotopes,DM	7.16	18	16.6	972	7.00
SS073	10/24/2017	14:20	LF	2017	DM	TRM,DM,alk,stableisotopes	6.43	9	7.5	771	18.00
SS073	6/18/2018	12:22	HF	2018	DM	TRM,DM,ALK,ISO,RE	6.81	16	8.2	1007	7.50
SS073	10/1/2018	14:00:00	LF	2018	DM	TRM,DM, ALK,ISO	7.3	12	10.5	958	7.60
SS074	10/17/2016	14:00	LF	2016	SS	TRM,DM,alk,stableisotopes	3.06	10	8.2	1175	2.99
SS074	6/27/2017	13:50	HF	2017	SS	TRM,alk,stableisotopes,DM	3.79	19	8.9	1180	10.00
SS074	10/24/2017	15:09	LF	2017	SS	TRM,DM,alk,stableisotopes	3.54	11	5.4	965	3.20
SS074	10/1/2018	12:40:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	2.4	13	10.3	1841	0.10
SS075	10/17/2016	15:00	LF	2016	DM	TRM,DM,alk,stableisotopes	6.89	10	5.7	804	180.26
SS075	6/27/2017	14:20	HF	2017	DM	TRM,DM,alk,stableisotopes	6.74	19	6.8	875	200.00
SS075	10/24/2017	15:30	LF	2017	DM	TRM,DM,alk,stableisotopes	6.61	11	5.8	723	200.00
SS075	6/18/2018	13:49	HF	2018	DM	TRM,DM,ALK,ISO,RE	7	18	8.6	1069	71.92

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS075	10/1/2018	11:35:00	LF	2018	DM	TRM,DM, ALK,ISO	6.29	12	5.8	880	130.00
SS076	10/18/2016	10:30	LF	2016	SS	TRM,DM,alk,stableisotopes	8.34	4	5.2	47	0.50
SS076	7/18/2017	10:12	HF	2017	SS	stableisotopes,TRM,DM,alk	6.18	23	14.9	126	0.50
SS076	10/10/2017	14:25	LF	2017	SS	TRM,DM,alk,stableisotopes	7.66	12	8.2	40	0.50
SS076	6/27/2018	10:31	HF	2018	SS	TRM,DM,ALK,ISO,RE	7.51	18	16	40	0.50
SS076	9/26/2018	11:20:00	LF	2018	SS	TRM,DM, ALK,ISO	5.32	10	9.5	137	0.50
SS077	10/18/2016	11:15	LF	2016	SS	TRM,DM,alk,stableisotopes	8.75	4	5.5	80	9.01
SS077	7/18/2017	10:44	HF	2017	SS	TRM,DM,alk,stableisotopes	7.08	22	5.9	420	39.75
SS077	10/10/2017	12:54	LF	2017	SS	TRM,alk,stableisotopes,DM	7.2	10	8.3	80	38.00
SS077	6/27/2018	11:20	HF	2018	SS	TRM,DM,ALK,ISO,RE	7.94	16	4.9	69	4.00
SS077	9/26/2018	12:06:00	LF	2018	SS	TRM,DM, ALK,ISO	6.7	12	9.4	101	12.00
SS078	10/18/2016	11:45	LF	2016	SS	TRM,DM,alk,stableisotopes	8.9	5	1.7	116	66.09
SS078	7/18/2017	11:36	HF	2017	SS	TRM,DM,alk,stableisotopes	7.04	19	0.6	103	150.00
SS078	10/10/2017	13:36	LF	2017	SS	TRM,alk,stableisotopes,DM	7.73	10	4.5	146	22.00
SS078	6/27/2018	12:30	HF	2018	SS	TRM,DM,ALK,ISO,RE	7.81	17	1.2	94	68.00
SS078	9/26/2018	12:50:00	LF	2018	SS	TRM,DM, ALK,ISO	6.52	11	8.6	149	30.00
SS079	10/18/2016	12:30	LF	2016	SS	TRM,DM,alk,stableisotopes	8.83	5	3.4	181	0.98
SS079	7/18/2017	12:10	HF	2017	SS	DM,alk,stableisotopes	7.23	18	4.4	227	120.00
SS079	10/10/2017	14:46	LF	2017	SS	TRM,alk,DM,stableisotopes	6.92	12	2.4	350	6.00
SS079	6/27/2018	14:10	HF	2018	SS	TRM,DM,ALK,ISO,RE	7.67	17	5.5	107	1.00
SS079	9/26/2018	13:45:00	LF	2018	SS	TRM,DM, ALK,ISO	6	14	4.5	200	0.50
SS080	10/18/2016	13:00	LF	2016	SS	TRM,DM,alk,stableisotopes	8.91	6	6.7	89	0.50
SS080	10/10/2017	15:13	LF	2017	SS	TRM,DM,alk,stableisotopes	7.31	12	8.9	120	1.00
SS080	6/27/2018	14:40	HF	2018	SS	TRM,DM,ALK,ISO,RE	7.68	16	17.9	98	0.50
SS080	9/26/2018	14:10:00	LF	2018	SS	TRM,DM, ALK,ISO	5.8	15	16	173	0.50
SS082	10/20/2016	12:30	LF	2016	SS	TRM,DM,alk,stableisotopes	8.8	10	3.8	25	6.02

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS082	6/28/2018	10:05	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.25	13	5	24	4.00
SS083	10/20/2016	14:00	LF	2016	SS	TRM,DM,alk,stableisotopes	2.96	9	5.5	1246	0.49
SS083	7/20/2017	13:08	HF	2017	SS	TRM,DM,alk,stableisotopes	2.67	20	7	620	62.00
SS083	6/12/2018	9:38	HF	2018	SS	TRM,DM,ALK,ISO,RE	2.75	12	7	857	20.00
SS084	10/20/2016	14:30	LF	2016	SS	TRM,DM,alk,stableisotopes	2.9	9	4.6	1223	2.01
SS084	7/20/2017	13:21	HF	2017	SS	TRM,DM,alk,stableisotopes	3.71	20	12.2	363	567.81
SS084	6/12/2018	10:00	HF	2018	SS	TRM,DM,ALK,ISO,RE	2.66	15	7.8	1014	3.00
SS085	10/20/2016	15:45	LF	2016	DM	TRM,DM,alk,stableisotopes	6.8	5	0.6	1236	0.50
SS085	7/20/2017	15:05	HF	2017	DM	TRM,DM,alk,stableisotopes	5.83	18	4.2	1065	7.00
SS085	6/28/2018	12:20	HF	2018	DM	TRM,DM,ALK,ISO,RE	5.21	17	2.7	1281	3.00
SS085	10/2/2018	14:30:00	LF	2018	DM	TRM,DM, ALK,ISO,RE	5.64	8	2.9	1566	0.50
SS086	10/20/2016	16:45	LF	2016	SS	TRM,DM,alk,stableisotopes	4.28	5	7	784	0.42
SS086	6/22/2017	13:45	HF	2017	SS	TRM,DM,alk,stableisotopes	3.32	20	7.6	1094	3.00
SS086	10/11/2017	9:59	LF	2017	SS	TRM,DM,alk,stableisotopes	4.14	1	1	1327	0.50
SS086	6/14/2018	16:20	HF	2018	SS	TRM,DM,ALK,ISO,RE	3.47	15	10.3	1219	1.00
SS086	10/9/2018	15:10:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	3.42	0	2	1154	1.60
SS087	10/25/2016	10:00	LF	2016	SS	TRM,DM,alk,stableisotopes	2.94	1	1.6	936	18.02
SS087	6/27/2017	8:58	HF	2017	SS	TRM,DM,alk,stableisotopes	3.75	20	0.4	173	337.28
SS087	10/18/2017	10:25	LF	2017	SS	TRM,alk,DM,stableisotopes	3.23	9999	0.1	551	30.00
SS087	6/26/2018	10:32	HF	2018	SS	TRM,DM,ALK,ISO,RE	3.23	16	3.3	301	50.00
SS087	10/3/2018	11:30:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	3.33	10	2.2	340	60.00
SS088	10/25/2016	11:30	LF	2016	SS	TRM,DM,alk,stableisotopes	5.3	1	4.9	114	2.99
SS088	6/27/2017	9:52	HF	2017	SS	TRM,DM,alk,stableisotopes	4.38	22	9.8	141	30.00
SS088	10/18/2017	11:02	LF	2017	SS	TRM,alk,DM,stableisotopes	4.69	4	2.5	59	2.40
SS088	6/26/2018	10:54	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.65	17	8.7	28	1.00
SS088	10/3/2018	11:00:00	LF	2018	SS	TRM,DM, ALK,ISO	4	12	10.9	78	1.50

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS089	10/25/2016	12:45	LF	2016	SS	TRM,DM,alk,stableisotopes	8.7	3	6	107	1.21
SS089	6/29/2017	13:04	HF	2017	SS	TRM,DM,alk,stableisotopes	7.3	20	15.6	87	8.70
SS089	10/12/2017	12:05	LF	2017	SS	TRM,DM,alk,stableisotopes	6.85	8	13.8	436	2.00
SS089	6/28/2018	12:50	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.81	18	14.5	100	0.10
SS089	10/3/2018	13:15:00	LF	2018	SS	TRM,DM, ALK,ISO	6.58	12	9	514	0.50
SS090	10/25/2016	13:15	LF	2016	SS	TRM,DM,alk,stableisotopes	8.5	3	4.2	78	0.98
SS090	6/29/2017	12:25	HF	2017	SS	TRM,DM,alk,stableisotopes	7.03	22	14.4	82	1.50
SS090	6/28/2018	13:20	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.97	18	13	150	0.25
SS090	10/3/2018	12:45:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	6.28	11	9.5	280	0.60
SS091	10/25/2016	14:00	LF	2016	SS	TRM,DM,alk,stableisotopes	3.95	3	6.6	151	5.00
SS091	6/29/2017	13:50	HF	2017	SS	TRM,DM,alk	4.33	21	13.2	103	1.00
SS091	10/12/2017	12:28	LF	2017	SS	TRM,DM,alk,stableisotopes	3.45	8	8	179	1.00
SS091	6/26/2018	12:35	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.22	17	16.7	102	5.25
SS092	11/8/2016	10:15	LF	2016	SS	TRM,DM,alk,stableisotopes	8.61	5	7.1	80	1.51
SS092	7/21/2017	9:14	HF	2017	SS	TRM,DM,alk,stableisotopes	6.96	19	13	161	4.00
SS092	10/18/2017	10:40	LF	2017	SS	TRM,DM,alk,stableisotopes	5.99	10	5.9	103	2.00
SS092	6/26/2018	13:56	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.95	22	20.1	88	0.20
SS093	11/8/2016	10:45	LF	2016	SS	TRM,DM,alk,stableisotopes	5.28	5	4.2	212	0.98
SS093	7/21/2017	8:59:00	HF	2017	SS	TRM,DM,alk,stableisotopes	5.95	18	7.9	175	2.00
SS093	6/26/2018	14:15	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.33	22	11.7	76	18.00
SS093	10/3/2018	14:25:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	4.38	14	11.1	200	0.25
SS094	11/8/2016	11:30	LF	2016	SS	TRM,DM,alk,stableisotopes	5.04	2	0.6	1068	0.98

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS094	7/21/2017	9:51	HF	2017	SS	TRM,DM,alk,stableisotopes	4.42	18	10.6	172	0.30
SS094	6/26/2018	15:10	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.45	22	4.46	697	6.00
SS094	10/3/2018	13:30:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	6.06	14	4.8	882	1.80
SS095	11/8/2016	12:00	LF	2016	DM	TRM,DM,alk,stableisotopes	7.8	5	7.8	435	5.00
SS095	6/27/2017	10:54	HF	2017	DM	DM,alk,stableisotopes	6.7	21	6.8	434	7.20
SS095	10/18/2017	11:39	LF	2017	DM	TRM,DM,alk,stableisotopes	5.82	11	3.1	461	6.00
SS095	6/26/2018	15:40	HF	2018	DM	TRM,DM,ALK,ISO,RE	6.34	22	20	402	0.50
SS095	10/3/2018	13:00:00	LF	2018	DM	TRM,DM, ALK,ISO,RE	7.19	19	19	513	0.50
SS096	11/8/2016	13:20	LF	2016	SS	TRM,DM,alk,stableisotopes	7.51	4	4.2	76	0.49
SS096	6/26/2017	15:12	HF	2017	SS	TRM,DM,alk,stableisotopes	4.3	21	11.3	554	3.13
SS096	10/18/2017	12:42	LF	2017	SS	TRM,DM,alk,stableisotopes	4.29	10	4.3	93	0.75
SS096	6/28/2018	10:15	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.25	17	10	110	0.20
SS097	11/8/2016	13:50	LF	2016	SS	TRM,DM,alk,stableisotopes	7.26	4	8.2	98	0.26
SS097	6/26/2017	15:33	HF	2017	SS	TRM,DM,doc,stableisotopes	6.98	23	20.3	268	0.50
SS098	11/8/2016	15:30	LF	2016	SS	TRM,DM,alk,stableisotopes	2.8	2	3.7	940	0.26
SS098	6/26/2017	15:54	HF	2017	SS	TRM,DM,alk,stableisotopes	2.89	23	14	1113	0.40
SS098	10/18/2017	12:59	LF	2017	SS	TRM,DM,alk,stableisotopes	9999	12	6.9	853	4.00
SS098	10/3/2018	15:50:00	LF	2018	SS	TRM,DM, ALK,ISO	2.72	14	12.5	825	0.40
CC14	9/21/2016	11:23	LF	2016	DM	stableisotopes	9999	9999	9999	9999	1540.00
CC14	11/9/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	1540.00
CC14	6/20/2017	12:18	HF	2017	DM	TRM,DM,alk,stableisotopes	6.11	19	7.3	2130	4179.56
CC03C	10/11/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	
CC03C	11/9/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	
CC06	10/12/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	
CC06	11/9/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	
SS103	10/2/2017	12:18	LF	2017	DM	TRM,DM,alk,stableisotopes	6.8	2	1.2	437	37.55
SS103	6/14/2018	11:55	HF	2018	DM	TRM,DM,ALK,ISO,RE	6.45	11	2.3	302	30.74

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS103	9/24/2018	13:12:00	LF	2018	DM	TRM,DM, ALK,ISO	7.02	10	4.1	552	42.00
SS103	11/9/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	
SS103	7/10/2017	14:50	HF	2017	DM	TRM,alk,stableisotopes	6.52	8	1.7	576	77.00
CC19	11/9/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	
SS105	10/11/2017	12:11	LF	2017	DM	TRM,alk,stableisotopes	6.87	4	4.1	953	92.74
SS105	6/14/2018	15:39	HF	2018	DM	TRM,DM,ALK,ISO,RE	6.56	17	4.3	739	57.54
SS105	9/25/2018	11:50:00	LF	2018	DM	TRM,DM, ALK,ISO	6.64	13	4.3	888	49.20
SS105	11/9/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	
SS105	6/22/2017	10:30	HF	2017	DM	TRM,alk,DM,stableisotopes	6.37	18	5.3	718	307.40
CC01C	10/11/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	
CC01C	11/9/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	
CC01B	10/11/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	
CC01B	11/9/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	
SS109	10/12/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	
SS110	10/6/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	
SS110	6/28/2017	16:34	HF	2017	DM	TRM,DM,alk,stableisotopes	3.45	24	2.1	170	19.15
SS110	10/10/2017	15:45	LF	2017	DM	TRM,DM,alk,stableisotopes	3.99	3	2.3	662	12.00
SS110	6/27/2018	13:45	HF	2018	DM	TRM,DM,ALK,ISO,RE	3.68	15	3.5	366	18.00
SS110	9/27/2018	11:10:00	LF	2018	DM	TRM,DM, ALK,ISO,RE	3.24	15	5.6	486	4.50
SS111	9/21/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	
SS111	6/20/2017	13:29	HF	2017	DM	TRM,DM,alk,stableisotopes	4.63	20	8.3	1032	37.55
SS111	10/25/2017	13:11	LF	2017	DM	TRM,DM,alk,stableisotopes	4.35	10	6.4	689	55.00
SS111	6/12/2018	14:30	HF	2018	DM	TRM,DM,ALK,ISO,RE	4.67	15	6.4	973	321.76
SS111	10/4/2018	11:00:00	LF	2018	DM	TRM,DM, ALK,ISO,RE	4.93	0	5.4	806	43.00
SS112	10/6/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	
SS112	6/28/2017	13:32	HF	2017	DM	TRM,DM,alk,stableisotopes	7.23	24	6.3	952	6.62
SS112	6/27/2018	14:50	HF	2018	DM	TRM,DM,ALK,ISO,RE	6.51	15	5.8	838	28.00
SS112	9/27/2018	23:55:00	LF	2018	DM	TRM,DM, ALK,ISO,RE	6.9	17	6.7	1042	16.80
CC50	9/21/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
CC50	6/20/2017	15:00	HF	2017	DM	TRM,DM,alk,stableisotopes	7.33	19	7.8	3960	1533.09
SS115	10/6/2016	0:01	LF	2016	DM	stableisotopes	9999	9999	9999	9999	
SS115	9/27/2018	14:15:00	LF	2018	DM	TRM,DM, ALK,ISO,RE	6.8	14	11.9	1228	155.20
SS117	7/10/2017	15:51	HF	2017	DM	TRM,DM,alk,stableisotopes	3.37	7	3.8	373	88.60
SS117	10/2/2017	13:20	LF	2017	DM	TRM,DM,alk,stableisotopes	5.7	2	1.9	104	2.00
SS123	6/27/2017	14:39	HF	2017	DM	TRM,DM,alk,stableisotopes	2.65	23	1.6	495	36.00
SS123	6/28/2018	9:14	HF	2018	DM	TRM,DM,ALK,ISO,RE	2.74	17	7.4	1140	3.00
SS125	10/18/2017	12:55	LF	2017	DM	TRM,alk,stableisotopes,DM	3.06	10	6.8	1616	1.00
CC25C	6/27/2017	13:01	HF	2017	DM	TRM,DM,alk,doc,stableisotopes	6.69	23	10.7	265	63.00
CC25C	10/18/2017	12:23	LF	2017	DM	TRM,DM,alk	6.61	10	5.4	767	8.00
CC25C	6/28/2018	11:05	HF	2018	DM	TRM,DM,ALK,ISO,RE	2.72	17	5.1	1300	12.00
CC25C	10/3/2018	16:05:00	LF	2018	DM	TRM,DM, ALK,ISO,RE	2.61	11	10.4	1026	3.00
SS200	6/23/2017	10:15	HF	2017	SS	TRM,DM,alk,stableisotopes	6.63	25	7.6	1409	24.00
SS200	10/23/2017	11:36	LF	2017	SS	TRM,DM,stableisotopes,alk	6.93	7	5.8	930	15.00
SS200	6/11/2018	14:29	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.03	16	6.6	1341	20.00
SS200	10/8/2018	16:42:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	6.55	0	5.8	1372	18.00
SS201	10/3/2017	13:20	LF	2017	SS	TRM,DM,alk,stableisotopes	9999	15	9.8	2490	16.00
SS201	6/19/2018	13:43	HF	2018	SS	TRM,DM,ALK,ISO,RE	3.06	18	9.5	2080	10.00
SS201	10/4/2018	14:45:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	3.03	11	7.8	2377	5.60
SS201	6/23/2017	11:52	HF	2017	SS	TRM,DM,alk,stableisotopes	3	18	7.3	2150	8.00
SS202	6/26/2017	13:01	HF	2017	SS	TRM	2.76	25	7.7	1341	12.00

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS202	10/2/2018	23:45:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	9999	11	9999	9999	0.50
SS203	6/27/2017	13:53	HF	2017	SS	TRM,DM,alk,stableisotopes	3.85	23	17.3	194	2.50
SS204	6/27/2017	15:11	HF	2017	SS	TRM,DM,alk,stableisotopes	1.96	25	7.2	2680	1.20
SS205	6/29/2017	9:27	HF	2017	SS	TRM,DM,alk,stableisotopes	6.93	18	12.8	361	3.00
SS206	6/29/2017	10:06	HF	2017	SS	TRM,DM,alk,stableisotopes	3.92	20	7.3	224	18.00
SS206	10/12/2017	11:08	LF	2017	SS	TRM,DM,alk,stableisotopes	3.88	7	5.4	210	3.00
SS207	6/29/2017	10:47	HF	2017	SS	TRM,DM,alk,stableisotopes	3.81	21	8.1	186	1.00
SS208	6/29/2017	11:42	HF	2017	SS	TRM,DM,stableisotopes	3.88	23	7.9	411	1.00
SS208	10/12/2017	11:39	LF	2017	SS	TRM,DM,alk,stableisotopes	6.56	7	8.8	123	5.00
SS208	6/28/2018	13:45	HF	2018	SS	TRM,DM,ALK,ISO,RE	3.98	18	7.2	140	1.50
SS208	10/3/2018	12:15:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	5.73	12	12.9	157	1.75
SS210	7/10/2017	10:32	HF	2017	SS	TRM,DM,alk,stableisotopes	5.24	15	1	829	206.95
SS210	10/16/2017	11:38	LF	2017	SS	TRM,DM,alk,stableisotopes	6.31	10	1.5	1191	8.00
SS210	6/13/2018	12:57	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.39	7	0.4	582	84.00
SS210	9/24/2018	13:43:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	3.81	10	9.1	221	5.00
SS211	7/10/2017	13:19	HF	2017	SS	TRM,DM,alk,stableisotopes	4.04	10	3.8	302	3.00
SS212	7/11/2017	9:27	HF	2017	DM	TRM,DM,alk,stableisotopes	4.72	16	3.7	114	84.00

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS213	7/12/2017	16:02	HF	2017	SS	TRM,DM,alk,stableisotopes	5.87	13	2.3	65	18.00
SS214	7/11/2017	15:17	HF	2017	SS	TRM,DM,alk,stableisotopes	6.14	13	1.9	598	48.00
SS215	7/17/2017	12:19	HF	2017	SS	TRM,DM,alk,stableisotopes	6.18	20	6.7	239	180.19
SS215	10/2/2017	13:19	LF	2017	SS	TRM,DM,alk,stableisotopes	5.58	9999	2.2	80	1.00
SS215	6/6/2018	10:39	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.7	15	2.5	96	316.35
SS216	7/17/2017	13:29	HF	2017	SS	TRM,DM,alk,stableisotopes	6.91	18	7	156	10.00
SS216	6/5/2018	11:53	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.81	10	1.9	33	8.00
SS217	7/18/2017	11:03	HF	2017	SS	TRM,DM,alk,stableisotopes	7.34	20	1.3	43	100.00
SS217	6/27/2018	11:50	HF	2018	SS	TRM,DM,ALK,ISO,RE	7.88	16	2.6	39	22.50
SS217	9/26/2018	12:25:00	LF	2018	SS	TRM,DM, ALK,ISO	6.52	14	9.4	269	4.00
SS218	7/18/2017	11:27	HF	2017	SS	TRM,DM,alk,stableisotopes	4.81	19	2.3	611	5.00
SS218	6/27/2018	12:00	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.47	15	7.9	338.7	58
SS218	9/26/2018		LF	2018	SS	TRM,DM,ALK,ISO	4.72	12	5	623	3
SS219	7/24/2017	11:46	HF	2017	DM	DM,TRM,alk,stableisotopes	3.53	17	2.6	263	60.00
SS219	10/19/2017	10:28	LF	2017	DM	TRM,DM,alk,stableisotopes	6.72	8	2.8	240	5.00
SS219	6/28/2018	14:20	HF	2018	DM	TRM,DM,ALK,ISO,RE	3.72	17	2.2	204	12.00
SS219	10/1/2018	14:15:00	LF	2018	DM	TRM,DM, ALK,ISO,RE	3.29	7	1.9	295	3.00
SS220	7/24/2017	12:07	HF	2017	SS	TRM,DM,alk,stableisotopes	4.2	16	1.8	1439	56.78
SS220	6/28/2018	14:45	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.25	18	5.1	1722	6.00
SS220	10/1/2018	13:40:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	4.43	7	3.8	1043	12.00
SS221	7/24/2017	12:42	HF	2017	SS	TRM,DM,alk,stableisotopes	4.31	18	7.4	1095	10.00

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS221	6/28/2018	15:00	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.05	19	8.3	1657	2.00
SS222	7/24/2017	12:55	HF	2017	SS	TRM,DM,alk,stableisotopes	3.46	17	1.1	1635	100.00
SS222	6/28/2018	15:15	HF	2018	SS	TRM,DM,ALK,ISO,RE	3.52	19	1	1423	10.00
SS223	7/24/2017	13:55	HF	2017	SS	TRM,DM,alk,stableisotopes	6.34	17	5.6	31	24.00
SS223	10/19/2017	12:53	LF	2017	SS	TRM,DM,alk,stableisotopes	7.11	9	4.6	34	8.00
SS223	6/28/2018	16:05	HF	2018	SS	TRM,DM,ALK,ISO,RE	5.43	19	5.7	54	5.00
SS223	10/1/2018		LF	2018	SS	TRM,DM,ALK,ISO					2.00
SS224	7/24/2017	14:33	HF	2017	DM	TRM,DM,alk,stableisotopes	3.13	16	1.3	832	24.00
SS225	7/24/2017	14:50	HF	2017	DM	TRM,DM,alk,stableisotopes	3.6	16	1.6	545	30.00
SS225	6/28/2018	17:00	HF	2018	DM	TRM,DM,ALK,ISO,RE	3.55	18	0.5	610	6.00
SS226	7/24/2017	15:18	HF	2017	SS	TRM,DM,alk,stableisotopes	5.11	17	3.1	61	55.00
SS226	6/28/2018	16:30	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.33	16	6.8	100	8.00
SS227	10/3/2017	11:39	LF	2017	SS	TRM,DM,alk,stableisotopes	6.73	5	8	1219	1.25
SS228	10/3/2017	12:15	LF	2017	SS	TRM,DM,alk,stableisotopes	6.32	6	6.7	2110	2.00
SS228	7/19/2018	16:08	HF	2018	SS	TRM,DM,ALK,ISO,RE	3.32	22	18	1290	5.00
SS228	10/9/2018	17:25:00	LF	2018	SS	TRM,DM, ALK,ISO	2.83	1	6.9	1820	5.00
SS229	10/4/2017	11:33	LF	2017	SS	TRM,DM,alk,stableisotopes	5.73	7	4.6	712	1.30
SS229	6/27/2018	11:08	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.42	19	10.2	530	3.00
SS230	10/5/2017	14:05	LF	2017	SS	TRM,DM,alk,stableisotopes	2.98	8	6.9	1050	3.20
SS230	7/19/2018	14:55	HF	2018	SS	TRM,DM,ALK,ISO	3.08	20	19.2	866	0.50
SS231	10/10/2017	13:31	LF	2017	SS	TRM,DM,alk,stableisotopes	6.36	4	5.8	234	1.00
SS231	6/27/2018	13:16	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.4	13	9.3	141	12.00
SS231	9/26/2018	15:48:00	LF	2018	SS	TRM,DM, ALK,ISO	6.7	19	14.9	300	0.80
SS232	10/16/2017	15:47	LF	2017	DM	TRM,DM,alk,stableisotopes	6.55	9	3.5	480	

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS235	10/19/2017	13:19	LF	2017	DM	TRM,DM,alk,stableisotopes	7.18	8	6.1	304	60.00
SS236	10/23/2017	12:57	LF	2017	SS	TRM,DM,alk,stableisotopes	3.89	12	6.7	691	5.00
SS236	7/19/2018	15:30	HF	2018	SS	TRM,DM,ISO,ALK,RE	3.88	20	10.2	940	45.42
SS236	10/8/2018	14:08:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	3.59	0	5.2	802	18.00
SS237	10/24/2017	12:19	LF	2017	SW	TRM,DM,alk,stableisotopes	7.5	5	3	219	1135.62
SS238	10/24/2017	14:53	LF	2017	DM	TRM,DM,alk,stableisotopes	3.13	12	12.6	959	1.00
SS238	6/18/2018	13:14	HF	2018	DM	TRM,DM,ALK,ISO,RE	3.6	18	16.1	1432	3.00
SS250	6/14/2018	13:50	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.78	15	9.9	1120	37.85
SS250	6/19/2018	12:03	HF	2018	SS	TRM,DM,ALK,ISO,RE	6.7	16	8.5	1136	56.78
SS250	10/9/2018	12:00:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	6.81	1	7.7	1241	35.00
SS250	11/7/2017	14:49	LF	2017	SS	TRM,DM,alk,stableisotopes	6.84	9999	7.1	910	18.93
SS300	6/19/2018	12:16	HF	2018	SS	TRM,DM,ALK,ISO,RE	4.46	16	5.4	97	15.00
SS300	10/9/2018	12:50:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	4.85	0	2.2	76	1.25
SS301	6/19/2018	14:11	HF	2018	SS	TRM,DM,ALK,ISO,RE	3.03	16	6.6	1760	14.00
SS301	10/4/2018	14:20:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	2.91	11	6.7	2240	11.00
SS304	7/24/2017	11:20	HF	2017	DM	TRM,DM,alk,stableisotopes	5.04	17	7	119	189.27
SS304	6/28/2018	13:40	HF	2018	DM	TRM,DM,ALK,ISO,RE	4.71	15	14.3	154	3.00

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ID	Date	TIME	EVENT	YEAR	SITE_TYPE	ANALYSIS	PH	A_TEMP	W_TEMP	COND	Flow_LPM
SS305	10/10/2017	14:03	LF	2017	SS	TRM,DM,alk,stableisotopes	6.67	5	6	160	66.00
SS306	9/26/2018	13:00:00	LF	2018	SS	TRM,DM, ALK,ISO,RE	4.72	11	5.1	623	7.00
SS307	10/18/2017	13:55	LF	2017	SS	TRM,DM,alk,stableisotopes	4.93	12	14.9	131	1.30
CC01B	9/25/2018	11:30:00	LF	2018	DM	TRM,DM, ALK,ISO,RE	3.63	16	5.3	1297	109.78
CC01B	10/9/2018	10:45:00	LF	2018	DM	TRM,DM, ALK,ISO	3.67	0	5.1	1354	108.30
CC03C	10/9/2018	14:55:00	LF	2018	DM	TRM,DM, ALK,ISO	5.79	3	6.7	2225	984.21
CC06	10/9/2018	16:50:00	LF	2018	DM	TRM,DM, ALK,ISO,RE	4.47	5	7.1	1825	1533.09
CC14	10/9/2018	15:50:00	LF	2018	DM	TRM,DM, ALK,ISO	6.46	0	5.7	1120	1036.40
CC19	10/9/2018	16:30:00	LF	2018	DM	TRM,DM, ALK,ISO,RE	4.21	3	7.4	2316	208.20
DM01	6/22/2017	9:54	HF	2017	DM	TRM,DM,alk,stableisotopes	4.13	18	4.3	335	48.00
DM01	6/14/2018	14:40	HF	2018	DM	TRM,DM,ALK,ISO,RE	4.2	12	4.4	418	4.00
CC01C	9/25/2018	10:15:00	LF	2018	DM	TRM,DM, ALK,ISO	3.08	11	4.1	345	0.10

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS001	9/22/2016	NA	NA
SS001	7/11/2017	1inch baski Ha .55 Hb .10	Much higher flow than fall
SS001	10/4/2017	Estimate from 3 sources	
SS001	6/27/2018	1"baski, Ha .24, Hb .08	
SS001	9/26/2018		
SS002	9/22/2016	NA	NA
SS002	7/11/2017	Bag	
SS002	10/4/2017		
SS002	6/27/2018		
SS003	9/22/2016	NA	NA
SS003	7/12/2017		
SS003	10/4/2017	Estimate	
SS003	9/26/2018		
SS004	9/22/2016	NA	NA
SS004	7/12/2017	Fill and estimate diffuse flow	Just emerging from snow, spring 6 under much snow not going to sample this round
SS004	10/4/2017	Fill bucket	
SS004	6/27/2018	Fill	
SS004	9/26/2018		
SS005	9/22/2016	NA	NA
SS006	9/23/2016	NA	NA
SS006	7/12/2017	Total flow measured at outlet of complex. Bucket fill34. Seep proper about 2LPM	Sample collected from prom seep hat is part of a string and flark wetland complex
SS006	10/4/2017	Bag fill	Aquatic insects present- caddisfly, leech
SS006	6/27/2018	fill	
SS006	9/26/2018		
SS007	9/23/2016	NA	NA
SS007	7/12/2017	Seep flow diffuse into pond area. Total flow ~200gpm + 10-20 gpm at source. Some still under snow, also a secondary stream coming in from south bench west of glaciers.	

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS007	10/4/2017	Much lower than last fall, measured stream below seep, after fork in stream. Collected sample from pool.	
SS007	6/27/2018	Ha .46, Hb .07. 2/3 capture. 47.6 gpm capture. Flow at end valley before waterfall	
SS007	9/26/2018	At edge of valley. Fill bag	Very low in pond. Evidence of sheep herder dam flow to make drinking spot for sheep, sample 30 ft below
SS008	9/26/2016	NA	NA
SS008	10/2/2017	N/A Ice est 10 lpm	
SS008	6/13/2018	4" baski, Ha: 0.37, Hb: 0.12, 60% capture	Originally recorded as SS008, a site sampled in 2016 from the lake; this sample (2018) collected from the lake outflow
SS008	9/24/2018	No outflow from lake	Sampled next to outflow channel, dry
SS009	9/26/2016	NA	NA
SS009	7/10/2017	Bag to bucket. 600 ml per min	Connected to lake at high flow but separate from stream channel
SS009	6/13/2018	Bag fill method on far right (east) flow, 3/4 lpm/ 20 sec=3 lpm. 10% capture=30 lpm	High temp
SS010	9/26/2016	NA	NA
SS010	7/10/2017	Bag filling	
SS010	10/2/2017	6mx4mx.5m, pond	
SS010	6/13/2018	1 l per 10 sec = 10 lpm, 20% capture	Western flow
SS010	9/24/2018	No moving water	
SS011	9/26/2016	NA	NA
SS011	7/10/2017	1LPM	
SS011	10/2/2017		
SS011	6/13/2018	No visible flow from spring into stream	
SS011	9/24/2018		
SS012	9/26/2016	NA	NA
SS012	7/10/2017	Ha0.27. = 16.4 gpm Hb.13 Ha.16. = 5.76 gpm Hb.02 Add flows	

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS012	10/2/2017		
SS012	6/13/2018	Bag fill	This is at toe of talus slope just west of ortcrop with closed portal
SS013	10/3/2016	NA	NA
SS013	7/17/2017	Estimate. 5in flume too small.	
SS013	10/3/2017	Ha .28 = 73.1 HB .08 4 inch baski 85% capture	Measured at outflow
SS013	6/12/2018	Over topped 1". Estimate total	
SS013	10/4/2018		
SS014	10/3/2016	NA	NA
SS014	7/17/2017	Ha. .36, hb. .05, 90% capture	
SS014	10/3/2017		
SS014	6/12/2018	Ha.29, Hb .04, 75%capture	
SS014	10/4/2018		
SS015	10/3/2016	NA	NA
SS015	7/17/2017	4in flume, ha: .42, hb:. 10, 90% capture	
SS015	10/3/2017	Bucket	
SS015	6/12/2018	Ha .62, Hb .15, 1" baski	"bedrock waterfall"; SS227 is the same water. SS227 should no longer be sampled. SS015 should continue to be sampled
SS015	10/4/2018		Went up past previous sampling site to small waterfall. Decreased sample volume for DM & REE due to difficult filters.
SS016	10/3/2016	NA	NA
SS016	6/22/2017	Al stained rocks	
SS016	10/5/2017	Bag flow from ditch after determining ph & conductivity in ditch were same. 2.25pm in 10 sec at 95% capture	
SS016	6/12/2018		
SS016	10/4/2018		
SS017	10/3/2016	NA	NA
SS017	6/22/2017		

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS017	10/5/2017		
SS017	6/12/2018		
SS017	10/4/2018		
SS018	10/3/2016	NA	NA
SS018	6/23/2017	Combined flows, bag fill at 3 spots. Spring complex 15 m wide flow measured at stream entry points 25 lpm	
SS018	10/5/2017	Bag fill at stream at bottom of seep parallel to cement creek, before confluence.	
SS018	6/12/2018		
SS018	10/4/2018		
SS019	10/3/2016	NA	NA
SS019	6/23/2017	Steady flow from contained spring. This was a developed spring prob for drinking water	
SS019	10/5/2017	Below pond. May be additional seepage	
SS019	6/12/2018		
SS019	10/4/2018		
SS020	10/4/2016	NA	NA
SS020	7/19/2017	1 in flume, ha: .25, 14.1, gpm	Slightly uphill of Fall 2016 site, at first emergence
SS020	10/16/2017	Taken at lake outlet. Frozen at drop off/waterfall. Estimate from current flow of 12 LPM	Low flow. Sample syringed
SS020	6/13/2018	Bag fill, 7 l per 5 sec	
SS020	9/25/2018		Sampled remnants of kettle pind
SS021	10/4/2016	NA	NA
SS021	7/19/2017	Collected below spring at 2016 Fall discharge site, sigificantly higher than last year.	
SS021	6/13/2018	Bag fill, 2 l per 5 sec; 2 x 12= 24 lpm; 15% capture; 24/.15= 160	Dispersed flow
SS022	10/4/2016	NA	NA

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS022	7/19/2017	Below large/pond spring at 2016 site	Samples taken in emergence of inlet, upslope of kettle pond.
SS022	10/16/2017	Taken at lake outflow	
SS022	6/13/2018	Bag fill	
SS023	10/4/2016	NA	NA
SS023	7/19/2017	Collected at seep/spring flowing into pond, due to large discharge from SS24 and SS25	Multiple sources from snowfield to kettle pond. At least 2 are springs. Samples taken from source with both moss and flow.
SS023	10/16/2017	Ha: 0.33 Hb: 0.03, 1 in flume, 2/3 capture, collected at outflow	
SS023	6/13/2018	Fill bag	
SS023	9/25/2018		No visible flow from pond
SS024	10/4/2016	NA	NA
SS024	7/19/2017	1in flume, ha: 0.23 (11.9 GPM) capturing about 1/5 of flow. Large snow field spreads total flow over large area.	Spring likely partially under snow. Sampled from part of spring emerging from ground immediately next to snow.
SS024	10/16/2017	Spread across slope. 60 Ft emergence, estimate from multiple small flows. Partially frozen.	
SS024	6/13/2018	1" baski. 50% capture; Ha .40; Hb .12	
SS024	9/25/2018	Bag method	
SS025	10/4/2016	NA	NA
SS025	7/19/2017	From just toe of rock glacier. There is more water flowing through waste rock pile in stream left of rock glacier.	Sampled from top of rock glacier. Water from rock glacier mixes w/ water that flows through waste rock pile & over addit
SS025	6/13/2018	Ha.42; Hb..15; 95% capture	Likely snowmelt, flow estimated
SS026	10/4/2016	NA	NA
SS026	7/10/2017	Multiple bag measurement 42lpm 36+6	
SS026	10/16/2017		
SS026	6/14/2018		
SS027	10/4/2016	NA	NA

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS027	7/10/2017	Ha 0.37 Hb 0.08.	Spring is E of main stream channel but W of road blw junction. No staining here but stream channel is red.
SS027	10/16/2017		
SS027	6/13/2018	Bag fill w tube; 6 l per 5 =72 lpm	Side of road
SS027	9/24/2018	Fill just above culvert in ditch	
SS028	10/4/2016	NA	NA
SS028	7/10/2017	Bag fill.	
SS028	10/16/2017	Very low flow. Partially frozen	
SS029	10/4/2016	NA	NA
SS029	7/10/2017	5g bucket at culvert, 3 gallon per second, 5 measurements taken	
SS029	10/16/2017	Measured from culvert	
SS029	6/14/2018	Ha .45 Hb .08 80%	
SS029	9/24/2018		
SS030	10/5/2016	NA, est 0.5 lpm seepage downgradient	NA
SS030	7/12/2017	No obvious flow	
SS030	10/4/2017	Kettle pond 4m x 3m x .1m	
SS030	6/15/2018	3m x 5m x 0.5m	
SS030	9/26/2018	Pond spring no surface outflow	
SS031	10/5/2016	NA	NA
SS031	7/12/2017		
SS031	10/4/2017	Small Bucket fill	
SS031	6/15/2018	1.5 @ 10s	
SS031	9/26/2018	Bag fill at upwelling	Nice spring Joey
SS032	10/5/2016	NA	NA
SS032	7/12/2017	Estimate	
SS032	10/4/2017	Low seep. Estimated flow rate	
SS032	7/23/2018		Flow was difficult to estimate due to many subtle inflows from rock glacier

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS032	9/26/2018	Fill	This is rock glacier melt flow so cool
SS033	10/5/2016	NA, estimate seepage of 0.5 LPM for calculations	NA
SS033	7/12/2017	Kettle pond. No outflow	
SS033	10/4/2017	2.5m x 2.5m x 1m kettle pond	
SS033	6/15/2018	3x3x1.5m	
SS033	9/26/2018	Kettle pond no outflow	About 3 feet lower than normal. Below stream channel elevation
SS034	10/5/2016	NA, estimate seepage of 0.5 LPM for calculations	NA
SS034	7/12/2017	Kettle pond no outflow	
SS034	10/4/2017	20m x 5m x .5 kettle pond	
SS034	6/15/2018	3x3.5x1.5m upwelling area only.	
SS034	9/26/2018		
SS035	10/5/2016	NA	NA
SS035	7/12/2017	Bucket. 1.5 gp second.	Much higher flow than fall. Emerges closer to toe of glacier
SS035	6/15/2018	2.5 @ 10 and 2.75 @ 15	
SS036	10/5/2016	NA	NA
SS036	7/18/2017		
SS036	6/27/2018	Small bucket fill for 30 seconds	
SS037	10/5/2016	NA	NA
SS037	7/18/2017		
SS037	10/10/2017	Top seep only, first surface flow in gully. More flow emerges before mine portals	
SS037	6/27/2018	2.75 and 1.75 for 10 seconds ON EACH SIDE	
SS038	10/6/2016	NA	NA
SS038	6/28/2017	Two forks one 78 and one 48 lpm.	
SS038	10/10/2017	Fill with bag after spring splits and recombines	
SS038	6/15/2018		
SS038	9/26/2018		

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS039	10/6/2016	NA	NA
SS039	7/12/2017		
SS039	10/10/2017	Fill	
SS039	6/27/2018		
SS040	10/6/2016	NA	NA
SS040	7/12/2017	Bucket fill 90 gpm	
SS040	10/10/2017	Bag fill	
SS040	6/27/2018		Seems to be gaining downstream
SS040	9/27/2018		
SS041	10/6/2016	NA	NA
SS041	6/28/2017	Captured 90% of discharge at 4 points across spring. 72, 12, 12, 12 lpm respectively.	
SS041	10/10/2017	estimated from About 95% capture	
SS041	6/27/2018	Fill	Outflow in two spots ~100 ft apart
SS041	9/27/2018		Spring is ~20m east (downstream) of a dry spring where SS41 is marked to be.
SS042	10/6/2016	NA	NA
SS042	6/28/2017	Bag and bucket at three points across seep, 1, .8, 2 lpm. Almost 100%	
SS042	10/10/2017		
SS042	6/27/2018		Not much flow
SS043	10/6/2016	NA	NA
SS043	6/28/2017	Aggregate of 3 points near road.	
SS043	10/10/2017	Collected at multiple points across slope	
SS043	6/18/2018	Bag	
SS043	9/27/2018		
SS044	10/6/2016	NA	NA
SS044	6/22/2017	Measures flow as lpm at series of 5 upwellings from north to south: 1) 12 2) 24 3) 27 4) 12 5) 80	
SS044	10/11/2017	Captured from 3 emergences across slope	

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ID	Date	FLOW_NOTE	REMARK
SS044	6/14/2018	3 points w/ ~3 lpm each make up 85% of discharge at spring. EST discharge 10lpm.	
SS044	9/25/2018		
SS045	10/6/2016	NA	NA
SS045	6/22/2017		
SS045	10/11/2017	Bag fill 3 times	Duplicate taken
SS045	6/6/2018		
SS045	9/25/2018	Pipe	
SS046	10/6/2016	NA	NA
SS046	6/22/2017		
SS046	10/11/2017		
SS046	6/6/2018	Bag fill direct	
SS046	9/25/2018	Pipe and graduated cylinder	
SS047	10/10/2016	NA	NA
SS047	6/26/2017	Ha=.62 Hb=.25	
SS047	10/5/2017		First Emergence below talus
SS047	6/12/2018	1" baski; Ha .35; Hb .09; 90% capture	This is start of mini stream, toe of talus slope opposite side valley from Lead carbonate mine
SS047	10/2/2018	GPS point was dry but within 30ft 3 distinct springs come together ~50ft downstream	Where the point 47 is marked looks like it is sometimes wet.
SS048	10/10/2016	NA	NA
SS048	6/26/2017	37degrees 53' 23.7 N 107 deg. 38' 3.2976 W willows where all emergences converge 90% of flow; Ha .65; Hb .26	Sample location changed to furthest uphill emergence in spring complex. Approx 50m uphill of SS48 collected in fall 2016.
SS048	10/5/2017		
SS048	6/12/2018	1" baski; 100m downstream, full capture of large seep area; Ha .49; Hb .1; 90% capture	
SS049	10/10/2016	NA	NA
SS049	6/26/2017	Confined flow first emergence	Headwaters of stream channel. Snow melt above.
SS049	10/5/2017	Estimated, dripping slowly	Filled at small pool

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ID	Date	FLOW_NOTE	REMARK
SS049	6/7/2018	Bag fill	
SS050	10/10/2016	NA	NA
SS050	6/26/2017	232 gpm. Main flow in drainage. Coming from talus slope	Flow from toe of talus slope. Snow melt contribution lot more water than in low flow.
SS050	10/5/2017	Bag fill for 10 sec, 4 liters	
SS050	6/7/2018	Ha .49; Hb .08; 80% capture.	
SS050	10/2/2018	flow is likely engorged because of the recent and current rain	
SS051	10/10/2016	NA	NA
SS051	6/26/2017	Good confined flow from clear upwelling.	Prob some snow melt in here. Higher flow than fall.
SS051	10/5/2017		
SS051	6/7/2018	Manually measured main flow with bag method, estimated remaining	Seeps from slope under talus
SS051	10/2/2018	Bag fill; Small seep at gps 1.5LPM; flow becomes 24LPM & ph is slightly higher after convergence	
SS052	10/10/2016	NA	NA
SS052	6/26/2017	Small spring. Mosses present	
SS052	10/5/2017	Very low flow, estimate	
SS052	6/7/2018	Fill	
SS052	10/2/2018		
SS053	10/10/2016	NA	NA
SS053	7/20/2017		
SS053	10/5/2017		Downhill of original point at first emergence. GPS for new point on AC phone. GNSS dead.
SS053	6/7/2018		Snowpack preventing measuring further upstream. pH of 4.4 indicates not melting snow
SS053	10/2/2018		Only flow is 70 m downslope of normal sampling site
SS054	10/10/2016	NA	NA
SS054	6/26/2017		Large adult male black bear in area

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ID	Date	FLOW_NOTE	REMARK
SS054	10/5/2017	Small bucket fill, estimated seep spread across hillslope. Main point of discharge approx 60%, 4.8 lpm	
SS054	6/7/2018	Estimate of wetland hillslope input	Seeps coming from approx 60m hillslope
SS054	10/2/2018		
SS055	10/10/2016	NA	NA
SS055	6/23/2017	Sum all flow at roadside ditch from seep 20m long	
SS055	10/5/2017	Estimated at .2. Very little flow. Sampled with syringe.	
SS055	6/14/2018	EST flow	
SS055	10/10/2018		Roadside seep
SS056	10/11/2016	NA	NA
SS056	6/22/2017		
SS056	6/14/2018	.25, .4,.4	
SS057	10/11/2016	NA	NA
SS057	7/17/2017	Negligible flow, difficult to measure, estimate	
SS057	10/2/2017	Method: estimate	
SS057	6/6/2018	Not much flow; filled 250mL in 1min; % capture: 50 =.5 lpm	
SS057	9/25/2018	Estimate	
SS058	10/11/2016	0.5 seepage estimate for loading	NA
SS058	7/17/2017	No flow	
SS058	10/2/2017	3x4x0.5 meters	
SS058	6/6/2018	Kettle pond, no outlet	
SS059	10/11/2016	NA	NA
SS059	6/22/2017	Another upwelling spring is located 100' north	
SS059	10/25/2017		
SS059	6/19/2018	Fill	
SS059	10/9/2018	Fill	
SS060	10/11/2016	NA	NA
SS060	6/21/2017	Large marshy are, multiple springs	
SS060	10/25/2017		Top of spring complex. Several deep pools with bubbling water below point in the trees.

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ID	Date	FLOW_NOTE	REMARK
SS060	6/11/2018		
SS060	10/9/2018		
SS061	10/11/2016	NA	NA
SS061	6/21/2017		
SS062	10/11/2016	NA	NA
SS062	6/21/2017		
SS062	10/23/2017		
SS062	6/11/2018		
SS062	10/8/2018		Fen area, upstream of R&B
SS063	10/12/2016	NA	NA
SS063	7/20/2017	Estimate from capturing 6 L/m, but not all	
SS063	10/3/2017	Emergence much lower than fall 2016. Below adit, immediately adjacent SS64. Estimate from 25% fill.	
SS063	6/28/2018		Sampled lower due to no flow at mine/previous sample location
SS064	10/12/2016	NA	NA
SS064	7/20/2017		Probably not as far up channel as first emergence but well above fall 2016 sampling point
SS064	10/3/2017	Emergence lower than fall 2016	
SS064	6/28/2018		
SS064	10/2/2018		
SS065	10/12/2016	NA	NA
SS065	6/23/2017	We estimate between 10-20, based on a section of flow	
SS065	10/3/2017	Fill estimate: 5%, 1.2lpm	
SS065	6/19/2018	Small flow, visual estimate based off of flow from lower pipe	
SS065	10/4/2018		
SS066	10/12/2016	NA	NA
SS066	6/23/2017		
SS066	10/3/2017	Bag fill in liters	

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ID	Date	FLOW_NOTE	REMARK
SS067	10/17/2016	NA	Field parameters were logged as collected on 10/13, but lab data indicates collection was made on 10/17
SS067	6/21/2017		
SS067	10/23/2017		
SS067	6/5/2018	Bag fill	Same flow and condition as previous sampling events
SS067	10/8/2018		Old spring lots moss
SS068	10/17/2016	NA	Field parameters were logged as collected on 10/13, but lab data indicates collection was made on 10/17
SS068	6/21/2017	Bag method; 2.5 l p 20 sec; 7.5 l/m	
SS068	10/23/2017	Estimated from small emergences across slope in grass.	
SS068	6/5/2018		
SS068	10/8/2018	Fill	Same as previous years
SS069	10/17/2016	NA	Field parameters were logged as collected on 10/13, but lab data indicates collection was made on 10/17
SS069	6/21/2017		
SS069	10/23/2017		
SS069	6/19/2018	Bag fill	
SS069	10/9/2018		
SS070	10/17/2016	NA	Field parameters were logged as collected on 10/13, but lab data indicates collection was made on 10/17
SS070	6/21/2017		
SS070	10/23/2017	Taken downslope of sample at convergence of two emergences	
SS070	6/11/2018		
SS070	10/9/2018		

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ID	Date	FLOW_NOTE	REMARK
SS071	10/17/2016	NA	NA
SS071	6/27/2017	Up 0.35 Down 0.12 85% capture 4 flume"	
SS071	10/24/2017	Ha .45 Hb .12 1inch baski	
SS071	6/18/2018	Ha .5; Hb .12	GPS location not as accurate as bad elf indicates 10 meters iPad vs 10 ft on bad elf
SS071	10/1/2018	.37, .07. 1"	
SS072	10/17/2016	NA	NA
SS072	6/27/2017	Another spring approximately 30 feet to the east has similar looking water at 9 gallons per minute.	
SS072	10/24/2017	Fill	Steep as shit
SS072	6/18/2018	1l/ 10 sec + 2l/10sec = 18l / min	
SS072	10/1/2018		
SS073	10/17/2016	NA	NA
SS073	6/27/2017		
SS073	10/24/2017	18 lpm fill	Side seep to channel. Appears newer because no veg or erosion channel
SS073	6/18/2018		
SS073	10/1/2018		
SS074	10/17/2016	NA	NA
SS074	6/27/2017		The GPS point is approx 50 west of the draining collapsed adit, in a drainage currently draining snow.
SS074	10/24/2017		
SS074	10/1/2018		
SS075	10/17/2016	NA	NA
SS075	6/27/2017	Too steep for flume. Bag method capturing 60% of flow through flume was 6 liters in 3 seconds.	Is this a collapsed adit? There is material below that looks like waste rock.
SS075	10/24/2017	Two drainages... 1 is 15 LPM. 2 is 180, with 90% capture.	
SS075	6/18/2018	Ha .18; Hb .03; 50%efficiency	15 gpm main channel

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ID	Date	FLOW_NOTE	REMARK
SS075	10/1/2018	Flow difficult, no good location and bag gradation didn't go high enough	Extremely difficult to filter. Only got 100 ml dm sample
SS076	10/18/2016	NA, use 0.5 LPM for estimate seepage for loading	NA
SS076	7/18/2017	Kettle pond, no flow	
SS076	10/10/2017	Kettle pond: 20mx10mx 1m	
SS076	6/27/2018	5 x 3 x .75 m vol est	
SS076	9/26/2018		
SS077	10/18/2016	NA	NA
SS077	7/18/2017		
SS077	10/10/2017	Outflow of lake	
SS077	6/27/2018		
SS077	9/26/2018		Bag method
SS078	10/18/2016	NA	NA
SS078	7/18/2017		NW hillslope near SS 78
SS078	10/10/2017	Confluence of small streams flowing from top basin	
SS078	6/27/2018	8 lpm at sample spring, plus 60lpm addition from th other springs in complex	
SS078	9/26/2018		
SS079	10/18/2016	NA	NA
SS079	7/18/2017	Further up from original low flow site	
SS079	10/10/2017	Below emergence where water channelized.	
SS079	6/27/2018		
SS079	9/26/2018		
SS080	10/18/2016	Est flow	NA
SS080	10/10/2017	From outflow of lake. Very slight	
SS080	6/27/2018	Pond 1.5 meter depth. Other dimensions will be pulled from google earth	Last rain event was June 16 & 17, 2018
SS080	9/26/2018	Est flow	
SS082	10/20/2016	NA	NA

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS082	6/28/2018		Use these new coordinates for SS82
SS083	10/20/2016	NA	NA
SS083	7/20/2017	Emergences along a span of about 80ft.	Seep from waste rock adjacent channel.
SS083	6/12/2018	Disperse flow. Fill capture was 70%	
SS084	10/20/2016	NA	NA
SS084	7/20/2017		
SS084	6/12/2018	Not the main channel	
SS085	10/20/2016	NA, seepage estimate	NA
SS085	7/20/2017		
SS085	6/28/2018		
SS085	10/2/2018	Standing water in adit, but outflow is dry	
SS086	10/20/2016	NA	NA
SS086	6/22/2017	3 lpm	
SS086	10/11/2017	Very low, hard to measure	
SS086	6/14/2018	.5 lpm 50% capture.	Sampled 10m down slope from HF 2017
SS086	10/9/2018		
SS087	10/25/2016	NA	NA
SS087	6/27/2017	Ha:.58 Hb:.12 85% flow @ 85% 75.7 GPM, @100% 89.1 gpm	
SS087	10/18/2017	Fill, 30 lpm	
SS087	6/26/2018		
SS087	10/3/2018	Flow measured ~35m downstream of source to reflect contribution of several seeps in meadow below source	
SS088	10/25/2016	NA	NA
SS088	6/27/2017	Spring has two forks avg 20 lpm in left and 10 lpm in right. Right fork is where sample was collected.	
SS088	10/18/2017	Fill 2 spots	
SS088	6/26/2018		Sampled and collected flow 20m downslope top pool dry
SS088	10/3/2018	Flow ~10m below highest pool w/ most surface water= 0.5LPM, ~30m below the sampling location = 1.5LPM.	

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS089	10/25/2016	NA	NA
SS089	6/29/2017		
SS089	10/12/2017	Flowing through grasses and willows, may be more than surface flow	Sample taken in pool below first emergence, not enough concentrated flow to even use syringe above this
SS089	6/28/2018		Other seeps within 30m are dry. Sampled from southern most deep in this small basin- only one running, but barely
SS089	10/3/2018	No flow observed., seep estimate, sampled from pool.	
SS090	10/25/2016	NA	NA
SS090	6/29/2017		
SS090	6/28/2018	1/4 l in 60 seconds	Seep near ridge, probably snowmelt; Small snow drift directly upslope
SS090	10/3/2018	Pipe	
SS091	10/25/2016	NA	NA
SS091	6/29/2017	est seepage	Moved slightly upstream and in left fork above SS91 point fall 2016.
SS091	10/12/2017		
SS091	6/26/2018	1.75 per 20 sec	
SS092	11/8/2016	NA	NA
SS092	7/21/2017	Multiple emergences across ~15ft	
SS092	10/18/2017		
SS092	6/26/2018		
SS093	11/8/2016	NA	NA
SS093	7/21/2017		
SS093	6/26/2018	3L per 10 sec	
SS093	10/3/2018		
SS094	11/8/2016	NA	NA

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS094	7/21/2017	Likely more flow under surface. Little to no flow until we dug in pipe to fill sample bottles, very muddy channel.	Nearly dry. Difficult to obtain sample. Sampled at first emergence above small snowfield downstream. White/orange.
SS094	6/26/2018		
SS094	10/3/2018		Sampled below usual site
SS095	11/8/2016	NA	NA
SS095	6/27/2017	Measured on the right side of the spring/DM. Negligible flow off to the left.	pH meter broke after measurement, one of the electrode wires disconnected and cannot be fixed.
SS095	10/18/2017	Measured at pon outflow	
SS095	6/26/2018	Pond with no pressure outflow	
SS095	10/3/2018	est seepage	
SS096	11/8/2016	NA	NA
SS096	6/26/2017	Fills at 15s, 750, 800, 750mL avg 783mL/15s, 3.133LPM	
SS096	10/18/2017	Fill	
SS096	6/28/2018	Bucket fill. 1/8 liter full in 40 seconds. 95% of flow	
SS097	11/8/2016	NA	NA
SS097	6/26/2017		
SS098	11/8/2016	NA	NA
SS098	6/26/2017		
SS098	10/18/2017		Lower than GPS point down drainage
SS098	10/3/2018		Surprised no REE with pH that low
CC14	9/21/2016	NA	NA
CC14	11/9/2016	NA	NA
CC14	6/20/2017	Flow channel 40 inches wide ad about .5 ft deep	
CC03C	10/11/2016	NA	NA
CC03C	11/9/2016	NA	NA
CC06	10/12/2016	NA	NA
CC06	11/9/2016	NA	NA
SS103	10/2/2017	Ha .21 Hb .05 1baski"	Heck of a day.
SS103	6/14/2018	Ha = .19 Hb = .09	

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS103	9/24/2018		upper Queen Anne Mine
SS103	11/9/2016	NA	NA
SS103	7/10/2017	1inch baski Ha.30 Hb .05	Lower queen ANNE MINE
CC19	11/9/2016	NA	NA
SS105	10/11/2017	Ha .33 Hb .07 1 baski "	Mogul South
SS105	6/14/2018	Ha .26; Hb .05	Mogul South
SS105	9/25/2018	Ha.24, hb .05	Mogul South
SS105	11/9/2016	NA	Isotope only
SS105	6/22/2017	1 baski Ha .56 Hb .11 85 %capture "	Mogul South
CC01C	10/11/2016	NA	NA
CC01C	11/9/2016	NA	NA
CC01B	10/11/2016	NA	NA
CC01B	11/9/2016	NA	NA
SS109	10/12/2016	NA	NA
SS110	10/6/2016	NA	NA
SS110	6/28/2017	Ha: .15; hb:.06	
SS110	10/10/2017	Bag fill	Ben Franklin Adit
SS110	6/27/2018		Outflow of Ben Franklin mine
SS110	9/27/2018		Ben Franklin Adit
SS111	9/21/2016	NA	NA
SS111	6/20/2017	1 baski Ha .21 He .05"	Flume below large upwelling, full capture
SS111	10/25/2017	Measured below mine, near creek	
SS111	6/12/2018		
SS111	10/4/2018		
SS112	10/6/2016	NA	NA
SS112	6/28/2017		Water seeping at Terry Tunnel portal from base of diversion ditch. See second extra photo.
SS112	6/27/2018	2directions measured and added	Terry Tunnel
SS112	9/27/2018		Terry Tunnel
CC50	9/21/2016	NA	Blackhawk

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
CC50	6/20/2017	Portal Ha .47, hb .17, 75% capture; side portal Ha .18, hb .05 Est 100 gpm upwelling 30ft east of portal 4" baski	Blackhawk
SS115	10/6/2016	NA	NA
SS115	9/27/2018	HA: .36; HB: .07; 1" flume; 60% capture	
SS117	7/10/2017	1baski. HA.28 Hb .04 2/3 capture estimated "	
SS117	10/2/2017		
SS123	6/27/2017		Henrietta 7 mine, ss123. Was dry and snow covered fall 2016.
SS123	6/28/2018	1.5 L for 30 Sec	
SS125	10/18/2017	1 LPM flow from pipe below mine dump, appears th be mine water given high temp.	Portal dry, flow through pipe around to bottoms of reclaimed mine dump
CC25C	6/27/2017	3 lpm just out of portal; 60 lpm out of pipe below culvert. Culvert sampled, includes runoff so higher pH & flow	Portal dry fall 2016
CC25C	10/18/2017	Taken from small culvert. Leaks in culvert. Final measurement based on 6LPM. Includes runoff.	Adit dry with recently moved soil at entrance. Sample taken at culvert.
CC25C	6/28/2018	Collected from pipe in bucket, all mine flow b/c of fixed culvert 2L in 10sec, all mine flow b/c of fixed culvert	Site has been modified adding newer culverts with a backup pipe, explains difference in photos
CC25C	10/3/2018	Top culvert dry, flow and sample from smaller piping	
SS200	6/23/2017		
SS200	10/23/2017		
SS200	6/11/2018		
SS200	10/8/2018		
SS201	10/3/2017	Combined fill from two points, 12lpm, 85% capture	
SS201	6/19/2018	Bag fill at two spots	
SS201	10/4/2018		
SS201	6/23/2017	Spring complex 20 m wide. Capture cumulative flow at entry points to stream channel.	
SS202	6/26/2017		From bottom of waste rock pile

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS202	10/2/2018	estimate flow	May suspect some overland flow - while sampling water flow decreased to slow drops as rain stopped
SS203	6/27/2017		Seep in diversion channel above Lark Mine. Was dry fall 2016.
SS204	6/27/2017	Estimate. Water spreads across slope soon after emergence. Captured 80%. Sample taken at highest flow	Adjacent to Henrietta 8. Lightly covered by snow fall 2016. Emerging from graded waste rock pile downhill from Henrietta 7.
SS205	6/29/2017		Near CC45
SS206	6/29/2017	Discharge taken below convergence of streams, roughly 50/50 between the two. Snow over adit.	JSP mine, pos CC45, some mixing with water from adjacent stream.
SS206	10/12/2017	Could be some additional flow through surrounding rock	Taken at first emergence, slightly lower than spring
SS207	6/29/2017	est flow	
SS208	6/29/2017		
SS208	10/12/2017	Estimate from 4 measurements taken at emergences across slope	
SS208	6/28/2018	Pipe and bucket, measure combined from 2 channels	
SS208	10/3/2018	We captured flow and sampled about 20m downstream of the cluster of seeps that daylight near each other.	
SS210	7/10/2017	Ha .47 Hb .10 90% capture 1 baski =49.7 gpm +10%= 54.67"	Flow measured at bottom of complex, 20m below sample point. East of road, below Ross basin road.
SS210	10/16/2017	Upper part partially frozen. Flow taken between upper frozen portion and re entry to ground.	Taken below Spring 2017 sample point at first emergence.
SS210	6/13/2018	Fill bag	
SS210	9/24/2018	estimate flow	
SS211	7/10/2017	3lpm	Small seep from a prospecting pit just below ss12. Mosses present
SS212	7/11/2017	Bag measure	Access very steep.

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS213	7/12/2017		
SS214	7/11/2017	Bag fill 48 lpm	Orange seep east of lake Emma west of ss mill
SS215	7/17/2017	1in flume, ha: .46, hb:.08	Coordinates: 37.90992, -107.63324, water emerging from talus slope adjacent to SS58
SS215	10/2/2017	Method: estimate	
SS215	6/6/2018	1" Baski; Ha: .51; Hb: .01; 70% capture =58.5 gpm; Total= 83.57	flow exiting talus northwest facing.
SS216	7/17/2017		Above Mogul Mine, coordinates: 37.910263, -107.637894
SS216	6/5/2018	Bag fill	
SS217	7/18/2017		
SS217	6/27/2018	3.9 LPM in 10 seconds. 95%+ of flow captured	
SS217	9/26/2018	Bag	
SS218	7/18/2017	1.5 from sample pipe, estimate for seep discolored by precipitate.	Taken from SE hillslope bc of orange/tan precipitate. SS218 taken from NW seep nearby due to obvious difference in chem.
SS218	6/27/2018		
SS218	9/26/2018	estimate from pipe	
SS219	7/24/2017		DM10
SS219	10/19/2017	Mixed with snowmelt?	Adit snow covered. Water could be mixed with melting snow over entrance
SS219	6/28/2018		
SS219	10/1/2018		
SS220	7/24/2017	Just below spring/pond	Small spring about 200m from road on s. side
SS220	6/28/2018		
SS220	10/1/2018		
SS221	7/24/2017		

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS221	6/28/2018		Sampled approx 70m lower in channel than normal due to low flow
SS222	7/24/2017		
SS222	6/28/2018		
SS223	7/24/2017		
SS223	10/19/2017		
SS223	6/28/2018		
SS223	10/1/2018	flow estimate	
SS224	7/24/2017	flow estimate	
SS225	7/24/2017		Samples taken from inside tunnel
SS225	6/28/2018		
SS226	7/24/2017		
SS226	6/28/2018	Fill	
SS227	10/3/2017	Pipe, 20% capture of seep, .25 lpm in 1 minute	one time sample location, not significant to continue sampling
SS228	10/3/2017	Bag fill from culvert, 10 seconds, some escape below culvert, so 50% of water measured	
SS228	7/19/2018		Seep below ETI, primary flow to wetland below,
SS228	10/9/2018	Fill at culvert. More seeping into wetland below diffuse	
SS229	10/4/2017	Dispersed across slope	
SS229	6/27/2018		
SS230	10/5/2017	Bag fill, 2 30 second counts of 1.6	
SS230	7/19/2018	Minimal	This is an existing location but not in dropdown so added
SS231	10/10/2017	Fill	
SS231	6/27/2018	Fill	Ph probe not working great. Slow to stabilize
SS231	9/26/2018		
SS232	10/16/2017	Water sitting at bottom of vertical shaft	9ft. 3in from opening to water. Creek parameters: 6.2 temp, 6.59 pH, 224 fond

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS235	10/19/2017		Water is no longer flowing through pipes in limestone. Instead, it is flowing OVER limestone block.
SS236	10/23/2017		
SS236	7/19/2018	Fill bag	Old seep from fen, lots of ferricrete here. On edge of healthy fen and dead area where R&B flow comes in.
SS236	10/8/2018	Fill at bottom by creek	Iron fen seep lots ferricrete here
SS237	10/24/2017	Estimate, too large for 1inch flume	Should be above all mines, SW sample for chemistry
SS238	10/24/2017	Estimate from flow spread across slope	
SS238	6/18/2018	Bag	
SS250	6/14/2018	Estimate flow because emerging in channel flow	Smoking gun site, slump on hill slope above maybe since bulkheads with increased flow? ~100 ft upstream of another seep
SS250	6/19/2018	Estimate. Flow into channel	
SS250	10/9/2018	Est 35LPM for what we can see seeking. Likely more entering below water level and seeping at overhangs.	
SS250	11/7/2017	Large seep. Some flow below stream level	
SS300	6/19/2018	More flow likely subsurface. Wetland	Uphill from stream channel. This is a spring complex 30 ft wide. We sampled most significant emerging flow.
SS300	10/9/2018		
SS301	6/19/2018	Fill	
SS301	10/4/2018		
SS304	7/24/2017		Water sample from outflow of small holding pond.
SS304	6/28/2018		GPS location would not populate, entered manually with only numbers; logged as SS218 in CA gulch, but should be SS304

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	FLOW_NOTE	REMARK
SS305	10/10/2017	Bucket fill downstream of seep complex convergence, at confluence with main creek	alias SS232, changed name b/c SS232 already existed
SS306	9/26/2018		
SS307	10/18/2017	Fill	Located across stream from mine adit just east of confluence north and south forks
CC01B	9/25/2018	Ha .22. New permanent parshall 2" mogul	Mogul sample for September
CC01B	10/9/2018	HA .25; HB. 2" flume	Sulfate isotope sample only
CC03C	10/9/2018	Estimate, Sensor down but flow similar all summer	
CC06	10/9/2018	At plant	
CC14	10/9/2018		
CC19	10/9/2018		Sulfate isotope sample only
DM01	6/22/2017		Draining addit south of Mogul, dry in fall
DM01	6/14/2018	.75, .5, .75 / sec	
CC01C	9/25/2018	Estimate from mostly standing water	Grand Mogul

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS001	9/22/2016	NA	NA	NA
SS001	7/11/2017	Present		Cloudy 16c
SS001	10/4/2017	Present	Bryo	Windy, overcast, light snow
SS001	6/27/2018	Present		Clear
SS001	9/26/2018	Present	Moss	Clear windy
SS002	9/22/2016	NA	NA	NA
SS002	7/11/2017	Present		Cloudy 17c
SS002	10/4/2017	Present	Bryo	Windy, cold, light snow
SS002	6/27/2018	Present	Moss	Clear, calm
SS003	9/22/2016	NA	NA	NA
SS003	7/12/2017	Present	BRYO	Overcast
SS003	10/4/2017	Present		Cloudy, windy
SS003	9/26/2018	Present		Sunny, gusty
SS004	9/22/2016	NA	NA	NA
SS004	7/12/2017	Present		Part cloudy 15c
SS004	10/4/2017	Present		Cloud, sun, rain, snow. 5c.
SS004	6/27/2018	Present		Clear
SS004	9/26/2018	Present	Moss	Sunny, gusts
SS005	9/22/2016	NA	NA	NA
SS006	9/23/2016	NA	NA	NA
SS006	7/12/2017	Present		Partly cloudy.
SS006	10/4/2017	Present	Moss, CALE	Cloudy, light wind
SS006	6/27/2018	Present		Clear
SS006	9/26/2018	Present	Moss	Sunny, windy
SS007	9/23/2016	NA	NA	NA
SS007	7/12/2017	Present		Cloudy 14c

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS007	10/4/2017	Present		Cloudy windy
SS007	6/27/2018	Present		Sunny warm
SS007	9/26/2018	Present		Clear
SS008	9/26/2016	NA	NA	NA
SS008	10/2/2017	Absent		Overcast, no precip, ~40 degree F
SS008	6/13/2018	Present		Sunny light wind
SS008	9/24/2018	Absent		Light snow
SS009	9/26/2016	NA	NA	NA
SS009	7/10/2017	Present		Cloudy 13c
SS009	6/13/2018	Present		Cloudy
SS010	9/26/2016	NA	NA	NA
SS010	7/10/2017	Present		Cloudy 12 c
SS010	10/2/2017	Present		Cloudy, cold, windy
SS010	6/13/2018	Present		Sunny
SS010	9/24/2018	Present		Cloudy, light precip
SS011	9/26/2016	NA	NA	NA
SS011	7/10/2017	Present		Cloudy 10c
SS011	10/2/2017	Absent		Overcast and light snow
SS011	6/13/2018	Present		Partly cloudy
SS011	9/24/2018	Present		Cloudy, calm
SS012	9/26/2016	NA	NA	NA
SS012	7/10/2017	Present		Cloudy 10c

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS012	10/2/2017	Present		Cold, overcast, windy
SS012	6/13/2018	Present		Partly cloudy
SS013	10/3/2016	NA	NA	NA
SS013	7/17/2017	Present	Marsh marigold, other...	Clear, warm
SS013	10/3/2017	Present		Sunny clear 3 degrees C
SS013	6/12/2018	Present		Clear
SS013	10/4/2018	Present		Windy
SS014	10/3/2016	NA	NA	NA
SS014	7/17/2017	Present	Marsh marigold, other	Clear, warm
SS014	10/3/2017	Present		Clear
SS014	6/12/2018	Present		Clear
SS014	10/4/2018	Present		Chilly
SS015	10/3/2016	NA	NA	NA
SS015	7/17/2017	Present	BRYO, other?	Clear, warm
SS015	10/3/2017	Present	Moss, MIGU	Sunny clear
SS015	6/12/2018	Absent		Mostly sunny
SS015	10/4/2018	Present		Light snow
SS016	10/3/2016	NA	NA	NA
SS016	6/22/2017	Absent		Clear
SS016	10/5/2017	Present		Partly cloudy
SS016	6/12/2018	Present		Sunny
SS016	10/4/2018	Present	Moss	Break in the snow. Stopped snowing 5 minutes ago
SS017	10/3/2016	NA	NA	NA
SS017	6/22/2017	Absent		Clear

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS017	10/5/2017			
SS017	6/12/2018	Present		Clear
SS017	10/4/2018	Present		Fresh snow dusting
SS018	10/3/2016	NA	NA	NA
SS018	6/23/2017	Present		Sunny. 18c no wind
SS018	10/5/2017	Present		Partly cloudy
SS018	6/12/2018	Present	Moss	Clear
SS018	10/4/2018	Present	Moss	Break in the snow - sunny
SS019	10/3/2016	NA	NA	NA
SS019	6/23/2017	Present		Sunny clear 19 c no wind
SS019	10/5/2017	Present		Overcast
SS019	6/12/2018	Present		Partly cloudy
SS019	10/4/2018	Present	Moss	Cloudy, break in the rain/snow
SS020	10/4/2016	NA	NA	NA
SS020	7/19/2017	Present	CALE	Clear
SS020	10/16/2017	Present		Clear
SS020	6/13/2018	Absent		Cloudy
SS020	9/25/2018	Present		Clear, breezy
SS021	10/4/2016	NA	NA	NA
SS021	7/19/2017	Present	CALE	Clear
SS021	6/13/2018	Absent		Cloudy
SS022	10/4/2016	NA	NA	NA

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS022	7/19/2017	Present	BRYO, CALE	Clear, breezy
SS022	10/16/2017	Present		Clear
SS022	6/13/2018	Present		Cloudy, light rain
SS023	10/4/2016	NA	NA	NA
SS023	7/19/2017	Present	BRYO, CALE	Clear
SS023	10/16/2017	Present		Clear
SS023	6/13/2018	Present		Cloudy
SS023	9/25/2018	Absent		Windy sunny
SS024	10/4/2016	NA	NA	NA
SS024	7/19/2017	Present	BRYO, CALE	Clear
SS024	10/16/2017	Present		Clear, breezy
SS024	6/13/2018	Present		Cloudy
SS024	9/25/2018	Absent		Breezy sunny
SS025	10/4/2016	NA	NA	NA
SS025	7/19/2017	Present	BRYO	Overcast
SS025	6/13/2018	Absent		Cloudy
SS026	10/4/2016	NA	NA	NA
SS026	7/10/2017	Present		Clear 15c
SS026	10/16/2017	Present		Clear
SS026	6/14/2018	Present		Partly cloudy, smoke, var wind W 5-10.
SS027	10/4/2016	NA	NA	NA

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS027	7/10/2017	Absent		Clear 15 c
SS027	10/16/2017	Present		Clear
SS027	6/13/2018	Absent		Stormy
SS027	9/24/2018	Absent		Cloudy
SS028	10/4/2016	NA	NA	NA
SS028	7/10/2017	Present		Clear 15c
SS028	10/16/2017	Present		Clear
SS029	10/4/2016	NA	NA	NA
SS029	7/10/2017	Present		Clear. 15c
SS029	10/16/2017	Present		Clear
SS029	6/14/2018	Present		Sleet, smoke
SS029	9/24/2018	Present		Cloudy, light precip
SS030	10/5/2016	NA	NA	NA
SS030	7/12/2017	Present		Overcast, rain
SS030	10/4/2017	Present		Partly cloudy and light wind
SS030	6/15/2018	Present		Sunny and cool
SS030	9/26/2018	Present		Sunny calm
SS031	10/5/2016	NA	NA	NA
SS031	7/12/2017	Present	BRYO; marsh marigold;	Overcast, interitant rain
SS031	10/4/2017	Present	CALE	Partly cloudy, windy
SS031	6/15/2018	Present		Sunny
SS031	9/26/2018	Present		Clear
SS032	10/5/2016	NA	NA	NA
SS032	7/12/2017	Present	Marsh marigold, BRYO	Overcast, intermitant rain
SS032	10/4/2017	Present		Cloudy windy
SS032	7/23/2018	Present	Moss	Partly cloudy, slight breeze

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS032	9/26/2018	Present		Clear
SS033	10/5/2016	NA	NA	NA
SS033	7/12/2017	Present		Cloudy
SS033	10/4/2017	Present		Sunny and windy
SS033	6/15/2018	Present		Sunny, some smoke
SS033	9/26/2018	Present		Clear
SS034	10/5/2016	NA	NA	NA
SS034	7/12/2017	Present		Cloudy
SS034	10/4/2017	Present		Sunny windy
SS034	6/15/2018	Present		Sunny
SS034	9/26/2018	Absent		Sunny, light breeze
SS035	10/5/2016	NA	NA	NA
SS035	7/12/2017	Present		R Light rain. 13c
SS035	6/15/2018	Present		Sunny, clouds building
SS036	10/5/2016	NA	NA	NA
SS036	7/18/2017	Present		Overcast, light rain
SS036	6/27/2018	Absent		Partly cloudy
SS037	10/5/2016	NA	NA	NA
SS037	7/18/2017	Present	BRYO, CALE	Overcast and rainy
SS037	10/10/2017	Present		Sunny
SS037	6/27/2018	Present		partly cloudy warm
SS038	10/6/2016	NA	NA	NA
SS038	6/28/2017	Present	CACO, GRPA, SETR, CALE, Carex, byro	Clear and breezy
SS038	10/10/2017	Present		Sunny
SS038	6/15/2018	Present		Cloudy, breezy
SS038	9/26/2018	Present		Sunny

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS039	10/6/2016	NA	NA	NA
SS039	7/12/2017	Present	BRYO,	Overcast, intermitant rain
SS039	10/10/2017	Present		Clear, 5C
SS039	6/27/2018	Present		Cloudy warm
SS040	10/6/2016	NA	NA	NA
SS040	7/12/2017	Present		Clear
SS040	10/10/2017	Present		Clear, -4 C
SS040	6/27/2018	Present		Cloudy warm
SS040	9/27/2018	Present		Sunny
SS041	10/6/2016	NA	NA	NA
SS041	6/28/2017	Present	Carex sp., byro	Partly cloudy, warm, light breeze
SS041	10/10/2017	Present		Clear
SS041	6/27/2018	Absent		Cloudy cool
SS041	9/27/2018	Present		Sunny, hot, calm
SS042	10/6/2016	NA	NA	NA
SS042	6/28/2017	Present	Carex sp. byro	Partly cloudy and warm, smoke in the air from 412 Fire and UT fires.
SS042	10/10/2017	Present		Clear
SS042	6/27/2018	Present		Clear
SS043	10/6/2016	NA	NA	NA
SS043	6/28/2017	Present	BRYO, Carex, SETR, MECI	Clear, warm, hazy, breezy.
SS043	10/10/2017	Present		Clear
SS043	6/18/2018	Present		Sunny warm
SS043	9/27/2018	Present		SUNny
SS044	10/6/2016	NA	NA	NA
SS044	6/22/2017	Present		Clear
SS044	10/11/2017	Present		Clear

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS044	6/14/2018	Present		Sunny brief rain shower
SS044	9/25/2018	Absent		Clear, breezy
SS045	10/6/2016	NA	NA	NA
SS045	6/22/2017	Present	Moss	Clear
SS045	10/11/2017	Present		Clear. 5C
SS045	6/6/2018	Present	Moss, skunk cabbage	Hazy, smoky, light breeze
SS045	9/25/2018	Absent		Clear
SS046	10/6/2016	NA	NA	NA
SS046	6/22/2017	Absent		Clear
SS046	10/11/2017	Present		Clear
SS046	6/6/2018	Absent		Part cloud smoky
SS046	9/25/2018	Absent		Sunny light breeze
SS047	10/10/2016	NA	NA	NA
SS047	6/26/2017	Present	CALE; CACO; Byro; SAPL	Clear
SS047	10/5/2017	Present		Partly cloudy
SS047	6/12/2018	Present		Clear, sunny
SS047	10/2/2018	Present	moss	Raining.
SS048	10/10/2016	NA	NA	NA
SS048	6/26/2017	Present	Cale:GEPA:CACO:MECI:BYRO	Clear
SS048	10/5/2017	Present		Partly cloudy
SS048	6/12/2018	Present		clear
SS049	10/10/2016	NA	NA	NA
SS049	6/26/2017	Absent		Partly cloudy. Dry. Hot yo
SS049	10/5/2017	Present		Cloudy

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS049	6/7/2018	Present		Clear
SS050	10/10/2016	NA	NA	NA
SS050	6/26/2017	Absent		Partly cloudy, dry
SS050	10/5/2017	Present		Cloudy
SS050	6/7/2018	Present		Clear, slight breeze
SS050	10/2/2018	Present	moss	light rain for the past ~8 hours, water looks turbid
SS051	10/10/2016	NA	NA	NA
SS051	6/26/2017	Present		Clear dudes
SS051	10/5/2017	Present		Overcast, cool
SS051	6/7/2018	Present	moss and perenial	Sunny
SS051	10/2/2018	Present		Rain
SS052	10/10/2016	NA	NA	NA
SS052	6/26/2017	Present		Clear
SS052	10/5/2017	Present		Overcast, cool
SS052	6/7/2018	Present		Clear
SS052	10/2/2018	Present		Rain
SS053	10/10/2016	NA	NA	NA
SS053	7/20/2017	Present	BRYO	Clear
SS053	10/5/2017	Present		Party cloudy, cool
SS053	6/7/2018	Absent		Clear, calm
SS053	10/2/2018	Absent		Rain
SS054	10/10/2016	NA	NA	NA
SS054	6/26/2017	Present		Clear

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS054	10/5/2017	Present		Cloudy
SS054	6/7/2018	Present		Clear, calm
SS054	10/2/2018	Present		Rain
SS055	10/10/2016	NA	NA	NA
SS055	6/23/2017	Present	Mosses	Sunny 19 c
SS055	10/5/2017	Present		Overcast, breezy
SS055	6/14/2018	Present		Mostly cloudy
SS055	10/10/2018	Absent		Snow 6 inches
SS056	10/11/2016	NA	NA	NA
SS056	6/22/2017	Present		Clear
SS056	6/14/2018	Present		Partly cloudy
SS057	10/11/2016	NA	NA	NA
SS057	7/17/2017	Present		Overcast
SS057	10/2/2017	Absent		Snow rain mix
SS057	6/6/2018	Absent		Clear
SS057	9/25/2018	Present	Moss	Sunny and warm
SS058	10/11/2016	NA	NA	NA
SS058	7/17/2017	Present	Willow	Overcast, windy
SS058	10/2/2017	Absent		Overcast, light snow
SS058	6/6/2018	Present	Moss	Clear, slight breeze
SS059	10/11/2016	NA	NA	NA
SS059	6/22/2017	Present	Moss, flatworm, stonefly	Clear
SS059	10/25/2017	Present		Clear
SS059	6/19/2018	Present		Clear
SS059	10/9/2018	Present		Cloudy, fresh snow on ground
SS060	10/11/2016	NA	NA	NA
SS060	6/21/2017	Present		Clear
SS060	10/25/2017	Present		Clear

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS060	6/11/2018	Present	Moss	Clear, slight breeze
SS060	10/9/2018	Present	moss	overcast
SS061	10/11/2016	NA	NA	NA
SS061	6/21/2017	Present		Clear, ~18 Celsius
SS062	10/11/2016	NA	NA	NA
SS062	6/21/2017	Absent		Clear
SS062	10/23/2017	Present		Clear
SS062	6/11/2018	Absent		Clear, slight breeze
SS062	10/8/2018	Present		Light snow
SS063	10/12/2016	NA	NA	NA
SS063	7/20/2017	Present	BRYO , thrush	Partly cloudy
SS063	10/3/2017	Present		Clear, windy
SS063	6/28/2018	Present		Clear, calm
SS064	10/12/2016	NA	NA	NA
SS064	7/20/2017	Absent		Partly cloudy, breezy
SS064	10/3/2017	Present		Clear, windy
SS064	6/28/2018	Absent		Clear, breezy
SS064	10/2/2018	Present		Light rain
SS065	10/12/2016	NA	NA	NA
SS065	6/23/2017	Present		Clear
SS065	10/3/2017	Present	Bryo	Sunny, clear, windy
SS065	6/19/2018	Present		Sunny warm
SS065	10/4/2018	Present	Moss	Cloudy, cool. Recently rained
SS066	10/12/2016	NA	NA	NA
SS066	6/23/2017	Absent		Clear
SS066	10/3/2017	Absent		Sunny windy

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS067	10/17/2016	NA	NA	NA
SS067	6/21/2017	Present	Mosses	Clear, ~18
SS067	10/23/2017	Present		Clear
SS067	6/5/2018	Present	Lots of moss	Clear, smoky
SS067	10/8/2018	Present		Snowing.
SS068	10/17/2016	NA	NA	NA
SS068	6/21/2017	Absent		Clear. 19 c
SS068	10/23/2017	Present		Clear
SS068	6/5/2018	Present		Sunny, smoky
SS068	10/8/2018	Present		Cloudy snow
SS069	10/17/2016	NA	NA	NA
SS069	6/21/2017	Absent		Clear
SS069	10/23/2017	Present		Clear
SS069	6/19/2018	Present		Sunny warm
SS069	10/9/2018	Present	moss	overcast
SS070	10/17/2016	NA	NA	NA
SS070	6/21/2017	Present	Moss	Light rain
SS070	10/23/2017	Present		Clear
SS070	6/11/2018	Present	Moss	Clear, slight breeze
SS070	10/9/2018	Present	moss	overcast

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS071	10/17/2016	NA	NA	NA
SS071	6/27/2017	Present	Moss	Clear
SS071	10/24/2017	Present		Clear 8C
SS071	6/18/2018	Present		Clear, calm
SS071	10/1/2018	Present		Light rain
SS072	10/17/2016	NA	NA	NA
SS072	6/27/2017	Absent		Clear
SS072	10/24/2017	Absent		Clear. 5C
SS072	6/18/2018	Present	Moss	Sunny
SS072	10/1/2018	Absent		Cloudy, calm
SS073	10/17/2016	NA	NA	NA
SS073	6/27/2017	Present	Moss	Clear
SS073	10/24/2017	Absent		Clear 9C
SS073	6/18/2018	Present	Moss	Clear, slight breeze
SS073	10/1/2018	Present		Very light rain
SS074	10/17/2016	NA	NA	NA
SS074	6/27/2017	Present	Moss	Clear
SS074	10/24/2017	Absent		Clear
SS074	10/1/2018	Absent		Light rain
SS075	10/17/2016	NA	NA	NA
SS075	6/27/2017	Present	Moss	Clear
SS075	10/24/2017	Present		Clear
SS075	6/18/2018	Present	Moss	Clear, slight breeze

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS075	10/1/2018	Present		Cloudy, light rain
SS076	10/18/2016	NA	NA	NA
SS076	7/18/2017	Present		Clear
SS076	10/10/2017	Present		Clear, breezy
SS076	6/27/2018	Present		Sunny and warm
SS076	9/26/2018	Present		Clear, breezy
SS077	10/18/2016	NA	NA	NA
SS077	7/18/2017	Present		Clear
SS077	10/10/2017	Present		Clear, warm
SS077	6/27/2018	Present		Partly cloudy
SS077	9/26/2018	Present		Light breeze sunny
SS078	10/18/2016	NA	NA	NA
SS078	7/18/2017	Present		Overcast, breezy
SS078	10/10/2017	Present		Clear
SS078	6/27/2018	Present		Partly cloudy
SS078	9/26/2018	Present		Clear, breezy
SS079	10/18/2016	NA	NA	NA
SS079	7/18/2017	Present		Overcast, breezy
SS079	10/10/2017	Present		Clear, breezy
SS079	6/27/2018	Present		Mostly cloudy
SS079	9/26/2018	Present		Sunny light breeze
SS080	10/18/2016	NA	NA	NA
SS080	10/10/2017	Present		Clear, breezy
SS080	6/27/2018	Present		Partly cloudy
SS080	9/26/2018	Present		Clear, capm
SS082	10/20/2016	NA	NA	NA

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS082	6/28/2018	Present	Moss, algae	Clear, calm
SS083	10/20/2016	NA	NA	NA
SS083	7/20/2017	Present	Only BRYO	Partly cloudy, breezy
SS083	6/12/2018	Present	Moss	Clear, calm
SS084	10/20/2016	NA	NA	NA
SS084	7/20/2017	Present	BRYO, willow	Overcast, breezy
SS084	6/12/2018	Absent		Clear
SS085	10/20/2016	NA	NA	NA
SS085	7/20/2017	Present	BRYO, willow	Overcast, thunder
SS085	6/28/2018	Present		Clear, breezy
SS085	10/2/2018	Absent		Rain
SS086	10/20/2016	NA	NA	NA
SS086	6/22/2017	Present	Moss	Clear
SS086	10/11/2017	Present		Clear, sunny
SS086	6/14/2018	Present		Partly cloudy
SS086	10/9/2018	Present	moss	overcast
SS087	10/25/2016	NA	NA	NA
SS087	6/27/2017	Present	Byro, Carex sp, CALE	Clear and mild. Hazy conditions due to smoke.
SS087	10/18/2017	Present		Cloudy. 0c
SS087	6/26/2018	Present	Moss	Clear, calm
SS087	10/3/2018	Absent		Sun
SS088	10/25/2016	NA	NA	NA
SS088	6/27/2017	Present	Juncus sp., Byro, VECA, Carex sp., CALE	Clear, breezy, and hazy.
SS088	10/18/2017	Present		Cloudy. 4 C
SS088	6/26/2018	Present		Sunny warm
SS088	10/3/2018	Present	moss	sunny, calm, warm

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS089	10/25/2016	NA	NA	NA
SS089	6/29/2017	Present	CALE2, SAPA2, RHIN11,bryo	Warm, smokey
SS089	10/12/2017	Present	BRYO, willow	Partly cloudy
SS089	6/28/2018	Present	Caltha, willow	Sunny and windy
SS089	10/3/2018	Present	moss	sunny, warm
SS090	10/25/2016	NA	NA	NA
SS090	6/29/2017	Present	CALE, PEGR2, Byro, Juncus sp., SAPL2	Clear and windy
SS090	6/28/2018	Present		Warm, clear
SS090	10/3/2018	Absent		Sun
SS091	10/25/2016	NA	NA	NA
SS091	6/29/2017	Present	Byro, CAAQ, Juncus sp., VECA2	Warm, dry, windy, hazy.
SS091	10/12/2017	Present		Partly cloudy
SS091	6/26/2018	Present		Sunny warm
SS092	11/8/2016	NA	NA	NA
SS092	7/21/2017	Present	BRYO, willow, CALE,	Overcast
SS092	10/18/2017	Present		Overcast
SS092	6/26/2018	Present		Sunny warm
SS093	11/8/2016	NA	NA	NA
SS093	7/21/2017	Present	BRYO, others	Overcast, breezy
SS093	6/26/2018	Present		Sunny warm
SS093	10/3/2018	Present		Sunny
SS094	11/8/2016	NA	NA	NA

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS094	7/21/2017	Present	BRYO	Overcast
SS094	6/26/2018	Present		Sunny warm
SS094	10/3/2018	Absent		Sunny
SS095	11/8/2016	NA	NA	NA
SS095	6/27/2017	Present	SAPL, byro, CALE, Carex sp., Juncus sp., PEGR	Warm, breezy, haze from fires, partly cloudy
SS095	10/18/2017	Present		Overcast
SS095	6/26/2018	Present		Sunny warm
SS095	10/3/2018	Present		Clear slight breeze
SS096	11/8/2016	NA	NA	NA
SS096	6/26/2017	Present	VECA; CAUT; JUAR	Partly cloudy, warm.
SS096	10/18/2017	Present		Part cloud 10C
SS096	6/28/2018	Present	Sedge	Sunny and hot
SS097	11/8/2016	NA	NA	NA
SS097	6/26/2017	Present	BRYO; JAUAR; PEJR; VECA; SAPL	Clear
SS098	11/8/2016	NA	NA	NA
SS098	6/26/2017	Absent		Overcast
SS098	10/18/2017	Present		Overcast
SS098	10/3/2018	Absent		Sunny
CC14	9/21/2016	NA	NA	NA
CC14	11/9/2016	NA	NA	NA
CC14	6/20/2017	Absent		Sunny. 75F, clear
CC03C	10/11/2016	NA	NA	NA
CC03C	11/9/2016	NA	NA	NA
CC06	10/12/2016	NA	NA	NA
CC06	11/9/2016	NA	NA	NA
SS103	10/2/2017	Absent		Snow 3 deg C
SS103	6/14/2018	Present		Partly cloudy with smoke

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS103	9/24/2018	Absent		Sunny light breeze
SS103	11/9/2016	NA	NA	NA
SS103	7/10/2017	Absent		Light rain 8c.
CC19	11/9/2016	NA	NA	NA
SS105	10/11/2017	Absent		Clear, 5c
SS105	6/14/2018	Present		Cloudy, slight breeze
SS105	9/25/2018	Absent		Clear, calm
SS105	11/9/2016	NA		NA
SS105	6/22/2017	Absent		Clear 18c.
CC01C	10/11/2016	NA	NA	NA
CC01C	11/9/2016	NA	NA	NA
CC01B	10/11/2016	NA	NA	NA
CC01B	11/9/2016	NA	NA	NA
SS109	10/12/2016	NA	NA	NA
SS110	10/6/2016	NA	NA	NA
SS110	6/28/2017	Present	Bryo	Clear and warm
SS110	10/10/2017	Absent		Sunny
SS110	6/27/2018	Absent		Clear
SS110	9/27/2018	Present		Clear, slight breeze
SS111	9/21/2016	NA	NA	NA
SS111	6/20/2017	Absent		Sunny and clear, 20deg c
SS111	10/25/2017	Absent		Clear
SS111	6/12/2018	Present	Moss	Mostly sunny
SS111	10/4/2018	Present	Moss	Snowing
SS112	10/6/2016	NA	NA	NA
SS112	6/28/2017	Present	Carex sp., byro	Clear and hot
SS112	6/27/2018	Absent		Cloudy cool
SS112	9/27/2018	Absent		Clear, calm
CC50	9/21/2016	NA	NA	NA

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
CC50	6/20/2017	Present	Moses	Clear, 20deg c
SS115	10/6/2016	NA	NA	NA
SS115	9/27/2018	Present		Sunny
SS117	7/10/2017	Present		Pouring rain 7 c
SS117	10/2/2017	Present	BRYO	Wet snow, breezy
SS123	6/27/2017	Present	Byro	Clear
SS123	6/28/2018	Present		Sun, warm Draining adit near cabin
SS125	10/18/2017	Absent		Part cloud. 12 C
CC25C	6/27/2017	Absent		Clear
CC25C	10/18/2017	Absent		Overcast
CC25C	6/28/2018	Absent		Warm, clear Piped adit drainage downslope of road
CC25C	10/3/2018	Absent		Sun
SS200	6/23/2017	Present		Clear
SS200	10/23/2017	Present		Sunny, clear
SS200	6/11/2018	Absent	Moss, algae	Clear, slight breeze
SS200	10/8/2018	Present		Light snow
SS201	10/3/2017	Present		Clear, windy
SS201	6/19/2018	Present		Clear
SS201	10/4/2018	Present		Sunny light breeze
SS201	6/23/2017	Present	Mosses	Clear. 18c. No wind
SS202	6/26/2017	Absent		Clear

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS202	10/2/2018	Absent		Rain
SS203	6/27/2017	Present	BRYO; Algae; JUAR; Juncus sp; CAREX sp	Clear
SS204	6/27/2017	Present	BRYO, Caryx sp, juncus sp.	Clear
SS205	6/29/2017	Present	TRLA, BRYO, Juncus sp., Carex sp.	Warm, clear, light breeze, haze from fires
SS206	6/29/2017	Absent		Clear and warm
SS206	10/12/2017	Present		Partly cloudy
SS207	6/29/2017	Present	Byro, JUAR2,	Warm, clear, breezy.
SS208	6/29/2017	Present	Juncus sp., byro	Smoky, high wind
SS208	10/12/2017	Present		Partly cloudy
SS208	6/28/2018	Present		Clear, windy
SS208	10/3/2018	Present	moss	sunny, warm
SS210	7/10/2017	Present		Clear 15c
SS210	10/16/2017	Present		Clear
SS210	6/13/2018	Present		Cloudy
SS210	9/24/2018	Present		Cloudy, breezy
SS211	7/10/2017	Present		Cloudy 10c
SS212	7/11/2017	Absent		PC 16c

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS213	7/12/2017	Present		Clear
SS214	7/11/2017	Absent		Cloudy light rain ended. 12 c
SS215	7/17/2017	Present		Overcast
SS215	10/2/2017	Absent		Overcast, light snow
SS215	6/6/2018	Absent		Sunny
SS216	7/17/2017	Present	Willow, skunk cabbage	Overcast
SS216	6/5/2018	Present	Willow	Clear, breezy
SS217	7/18/2017	Present		Overcast
SS217	6/27/2018	Present		Partly cloudy
SS217	9/26/2018	Present		Clear, breezy
SS218	7/18/2017	Present		Overcast, breezy
SS218	6/27/2018	Present		Partly cloudy breezy
SS218	9/26/2018			
SS219	7/24/2017	Absent		Overcast
SS219	10/19/2017	Absent		Clear
SS219	6/28/2018	Absent		Clear, windy
SS219	10/1/2018	Absent		light drizzle, cloudy.
SS220	7/24/2017	Present	BRYO	Overcast
SS220	6/28/2018	Present	Moss	Smoky, breezy
SS220	10/1/2018	Present	lots of filamentous algae and moss	Cloudy, slight sprinkling.
SS221	7/24/2017	Present	BRYO	Overcast

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS221	6/28/2018	Present	Moss	Smoky, windy
SS222	7/24/2017	Present	CALE, BRYO	Overcast
SS222	6/28/2018	Present		Smoky, windy
SS223	7/24/2017	Present	BRYO	Overcast
SS223	10/19/2017	Present		Clear
SS223	6/28/2018	Present		Smoky, breezy
SS223	10/1/2018			
SS224	7/24/2017	Absent		Overcast, raining
SS225	7/24/2017	Absent		Overcast, raining
SS225	6/28/2018	Present	Moss	Smoky, slight breeze
SS226	7/24/2017	Present	BRYO	Overcast
SS226	6/28/2018	Present		Clear, smoky
SS227	10/3/2017	Present	Moss	Sunny and clear
SS228	10/3/2017	Present		Sunny, effluent from culvert going into Gladstone wetland
SS228	7/19/2018	Present		Clear
SS228	10/9/2018	Present		Cloudy
SS229	10/4/2017	Present		Overcast, windy
SS229	6/27/2018	Present		Sunny warm
SS230	10/5/2017	Present		Partly cloudy
SS230	7/19/2018	Present		Clear
SS231	10/10/2017	Present		Sunny light breeze
SS231	6/27/2018	Present		Clear
SS231	9/26/2018	Present		Clear, slight breeze
SS232	10/16/2017	Absent		Clear, breezy

Appendix 2 - Field-Recorded Data

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS235	10/19/2017	Present		Partly cloudy
SS236	10/23/2017	Present		Clear
SS236	7/19/2018	Present	Cared sp	Clear
SS236	10/8/2018	Present		Snow
SS237	10/24/2017	Absent		Clear. 5 C
SS238	10/24/2017	Present		Clear
SS238	6/18/2018	Present	Moss, algae	Sunny, light breeze
SS250	6/14/2018	Present		Sunny
SS250	6/19/2018	Present		Clear
SS250	10/9/2018	Present	moss	overcast, recent snow
SS250	11/7/2017	Present		Part cloud. Snow OC
SS300	6/19/2018	Present		Clear
SS300	10/9/2018	Present	moss	overcast
SS301	6/19/2018	Present	Moss	Clear
SS301	10/4/2018	Absent		Windy cold
SS304	7/24/2017	Present		Overcast, beginning to rain very lightly
SS304	6/28/2018	Present	Moss	Clear, windy

Appendix 2 - Field-Recorded Data**Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

ID	Date	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS305	10/10/2017	Present		Sunny
SS306	9/26/2018	Present		Clear, breezy
SS307	10/18/2017	Present		Part cloud 14c
CC01B	9/25/2018	Absent		Clear
CC01B	10/9/2018	Absent		cloudy
CC03C	10/9/2018	Absent		Cloudy
CC06	10/9/2018	Absent		Cloudy calm
CC14	10/9/2018	Absent		overcast, barely spitting snow
CC19	10/9/2018	Absent		Cloudy
DM01	6/22/2017	Absent		Clear
DM01	6/14/2018	Present		Partly cloudy, thunder
CC01C	9/25/2018	Present		Clear, light breeze

Appendix 2a - Field Data for Dry Sites

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	TIME	EVENT	YEAR	FLOW_NOTE	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS120	11/8/2016	12:00	LF	2016	NA	Absent		NA
SS120	10/12/2017	12:58	LF	2017	Dry mine	Absent		Partly cloudy
SS120	6/26/2018	12:24	HF	2018	Dry	Absent		Sunny warm
SS120	10/3/2018	15:04	LF	2018	Dry	Absent		Sun
SS121	11/9/2016	12:00	LF	2016	NA	Absent		NA
SS121	6/27/2017	10:38	HF	2017		Absent		Warm, breezy, partly cloudy
SS121	10/12/2017	13:05	LF	2017	Dry mine	Absent		Partly cloudy
SS121	6/26/2018	12:04	HF	2018	Dry	Absent		Sunny warm
SS121	10/3/2018	14:57	LF	2018	no flow	Absent		sunny, warm
SS122	11/9/2016	12:00	LF	2016	NA	Absent		NA
SS122	10/18/2017	11:03	LF	2017	Dry	Absent		Overcast
SS122	6/26/2018	14:44	HF	2018	Dry	Absent		Sunny arm
SS122	10/3/2018	13:52	LF	2018	Dry	Absent		Sunny
SS123	11/9/2016	12:00	LF	2016	NA	Absent		NA
SS123	10/18/2017	11:42	LF	2017	Dry adit	Absent		sun
SS124	11/9/2016	12:00	LF	2016	NA	NA		NA
SS124	6/27/2017	15:07	HF	2017	Dry	Absent		Clear
SS124	10/18/2017	11:53	LF	2017	Dry adit	Absent		Cloudy 7C
SS124	6/28/2018	10:00	HF	2018	Dry	Present	Moss sedges	Sunny and warm. Mossy slope that appears to be a dry seep
SS124	10/3/2018	15:42	LF	2018		Absent		Sun
SS125	11/9/2016	12:00	LF	2016	NA	Absent		NA
SS125	6/27/2017	13:45	HF	2017	Dry	Absent		Clear
SS125	6/28/2018	12:06	HF	2018	Dry	Absent		Sunny and windy
SS125	10/3/2018	15:38	LF	2018	Dry	Absent		Sunny
SS126	11/9/2016	12:00	LF	2016	NA	NA		NA
SS127	10/13/2016	12:00	LF	2016	NA	Absent		NA
SS127	6/21/2017	13:06	HF	2017		Absent		Clear
SS127	10/23/2017	14:00	LF	2017	Adams mine, dry, no sample taken, no flow	Absent		Clear, sunny
SS127	6/19/2018	12:50	HF	2018	Dry	Absent		Sunny warm
SS128	10/13/2016	12:00	LF	2016	Pride of Bonita mine	Absent		NA

Appendix 2a - Field Data for Dry Sites

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	TIME	EVENT	YEAR	FLOW_NOTE	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS128	10/25/2017	11:11	LF	2017	Dry	Absent		Clear
SS128	6/19/2018	10:35	HF	2018	Dry	Absent		Sunny warm
SS128	10/10/2018	13:10	LF	2018	Dry	Absent		Snowing, 8-10 inches today
SS128	6/21/2017	13:20	HF	2017	Dry	Absent		Clear
SS129	10/13/2016	12:00	LF	2016	Small mine south of pride of bonita	Absent		NA
SS129	6/19/2018	11:22	HF	2018	Entire slope is dry	Absent		Sunny warm
SS129	10/10/2018	13:19	LF	2018	Dry	Absent		Snow
SS129	6/21/2017	13:27	HF	2017	Dry	Absent		Clear
SS129	10/25/2017	11:20	LF	2017	Dry. Collapsed adit.	Absent		Clear
SS130	10/13/2016	12:00	LF	2016	Adams mine.	Present	sedges	NA
SS130	7/30/2018	15:03	HF	2018	Dry mine	Present	sedges	Clear
SS130	10/10/2018	13:51	LF	2018	Dry mine	Absent		Light snow
SS130	10/15/2018	15:23	LF	2018	Dry mine	Absent		Sunny
SS131	10/12/2016	12:00	LF	2016	NA	Absent		NA
SS131	7/30/2018	15:26	HF	2018	Dry	Absent		Clear
SS131	10/15/2018	15:04	LF	2018		Absent		Sunny
SS132	10/12/2016	12:00	LF	2016	NA	Absent		NA
SS132	7/30/2018	15:19	HF	2018	Dry	Absent		Clear
SS132	10/15/2018	14:56	LF	2018	No flow to measure	Absent		Sunny
SS133	10/12/2016	12:00	LF	2016	NA	Present	Moss	NA
SS133	10/18/2017	14:59	LF	2017	Frozen solid	Present	Moss	Clear, cool
SS133	6/28/2018	9:57	HF	2018		Present	Moss	Clear, calm
SS133	10/2/2018	12:50	LF	2018		Present	Moss	Rain
SS134	10/12/2016	12:00	LF	2016	NA	Absent		NA
SS134	7/30/2018	15:49	HF	2018	Dry	Absent		Clear
DM01	10/11/2017	12:02	LF	2017	Dry, no pool, no flow	Absent		Clear, warm
DM01	9/25/2018	11:15	LF	2018		Absent		Clear, breezy
SS002	9/26/2018	11:38	LF	2018	Wet rock face but no flow	Present		Clear. Windy.
SS003	6/27/2018	9:49	HF	2018	Wet but not enough water to sample	Present		Clear
SS005	10/4/2017	11:16	LF	2017	Dry spring	Absent		Cloud. 5c
SS005	6/27/2018	10:39	HF	2018	Dry spring	Absent		Sunny warm

Appendix 2a - Field Data for Dry Sites

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	TIME	EVENT	YEAR	FLOW_NOTE	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS009	10/2/2017	11:19	LF	2017	Dry	Absent		Overcast, no precip
SS009	9/24/2018	15:11	LF	2018	Dry	Absent		Cloudy
SS012	9/24/2018	15:26	LF	2018	Dry	Absent		Cloudy
SS021	10/16/2017	13:25	LF	2017	Dry	Present		Clear
SS021	9/25/2018	15:09	LF	2018	Dry	Absent		Clear slight breeze
SS022	9/25/2018	15:14	LF	2018	No flow. Very shallow surface puddles exist.	Present	Moss	Sunny, warm
SS025	10/16/2017	14:22	LF	2017	Dry, likely subsurface flow from rock glacier	Present	moss	Clear, windy
SS025	9/25/2018	14:31	LF	2018	Dry	Absent		Sunny breezy
SS026	9/25/2018	15:47	LF	2018	Dry	Absent		Windy sunny
SS028	6/14/2018	12:52	HF	2018	Not enough discharge to effectively collect, no pools, some moisture.	Present		Sleet, smoke
SS028	9/24/2018	12:45	LF	2018	Not enough discharge to effectively collect, no pools, some moisture.	Present		Cloudy, slight breeze.
SS035	9/26/2018	16:04	LF	2018	Dry as a bone	Absent		Clear
SS036	10/10/2017	14:39	LF	2017	No flow	Absent		Sunny
SS036	9/26/2018	10:43	LF	2018	No flow	Present		Clear, slight breeze
SS037	9/27/2018	11:14	LF	2018	Dry	Present		Breezy sunny
SS039	9/27/2018	11:34	LF	2018	Dry	Present		Sunny
SS042	9/27/2018	12:39	LF	2018	Dry	Present		Clear, slight breeze
SS048	10/2/2018	12:03	LF	2018	Dry	Present		Rain
SS056	10/25/2017	10:25	LF	2017	Damp, but not flowing. No sample pools or flow. Dry	Present		Clear
SS056	10/9/2018	12:38	LF	2018	No discernable flow to sample.	Present		overcast, calm, cold
SS058	9/25/2018	10:05	LF	2018	Dry first time since start	Present		Clear
SS061	10/25/2017	11:34	LF	2017	Damp, but not enough to collect sample with syringe or pipe	Present		Clear
SS061	6/11/2018	15:50	HF	2018	None	Present		Clear, slight breeze
SS061	10/9/2018	13:53	LF	2018	wet with mosque but no measurable flow	Present		overcast
SS063	10/2/2018	13:21	LF	2018		Absent		Light rain
SS066	6/19/2018	14:22	HF	2018	Dry seep	Absent		Clear
SS066	10/4/2018	15:01	LF	2018	No flow not enough to sample	Absent		Breezy

Appendix 2a - Field Data for Dry Sites

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	TIME	EVENT	YEAR	FLOW_NOTE	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS082	7/20/2017	12:29	HF	2017	Dry	Present	BRYO, etc	Clear
SS082	10/2/2018	13:39	LF	2018	Dry	Present	moss	Raining lightly
SS083	10/25/2017	12:21	LF	2017	Dry. Creek iced completely. No trace of SS83 or SS84, even frozen. Can see moss where SS83 normally flows	Present		Clear
SS083	10/1/2018	15:50	LF	2018		Absent		Cloudy and slight drizzle.
SS084	10/25/2017	12:18	LF	2017	Creek frozen, both SS83 and SS84 are dry. Neither show ice.	Absent		Clear
SS084	10/1/2018	15:52	LF	2018	Dry	Absent		Cloudy
SS085	10/25/2017	12:37	LF	2017	Frozen at adit. Outlet frozen and snow covered. Very icy. Difficult to get to adit.	Present		Clear
SS090	10/12/2017	12:01	LF	2017	Dry	Present	BRYO willow	Partly cloudy
SS091	10/3/2018	14:30	LF	2018	Damp rocks, no flow. Further down there is some water as site 120 water flows through a wet meadow adjacent to site	Absent		Sunny
SS092	10/3/2018	14:43	LF	2018	Dry	Absent		Sunny
SS093	10/18/2017	10:26	LF	2017	Dry	Present		Overcast
SS094	10/18/2017	11:17	LF	2017	Dry	Absent		Overcast
SS096	10/3/2018	15:47	LF	2018	Dry	Present	moss	sunny warm
SS097	10/18/2017	13:18	LF	2017	Not yet dry, not flowing, no pools to sample	Present	Elephants head, moss	Overcast
SS097	6/28/2018	10:53	HF	2018		Present	Elephants head, moss	Sunny. Moss wet, but no running water.
SS097	10/3/2018	15:50	LF	2018		Present	Elephants head, moss	Sun
SS098	6/28/2018	10:56	HF	2018	Dry	Absent		Warm, sun Dry channel outlet
SS123	10/3/2018	15:31	LF	2018	Dry	Absent		Sun
SS134	10/2/2018	13:19	LF	2018	Dry	Absent		Rain
SS135	10/12/2016	0:01	LF	2016	Dry	Absent		NA
SS135	7/30/2018	15:55	HF	2018	Dry, Pika nesting here	Absent		Clear

Appendix 2a - Field Data for Dry Sites

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	TIME	EVENT	YEAR	FLOW_NOTE	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS135	10/2/2018	13:15	LF	2018	Dry, Pika nesting here	Absent		Rain
SS136	10/12/2016	0:01	LF	2016	Dry colapsed	Absent		NA
SS136	7/30/2018	16:04	HF	2018	Dry	Absent		Clear
SS136	10/2/2018	13:11	LF	2018	Dry	Absent		drizzling
SS140	7/10/2017	11:48	HF	2017	Upper Queen Anne mine. Dry	Absent		Clear 15c
SS140	10/2/2017	12:03	LF	2017	Dry	Absent		cold snow high wind
SS140	9/24/2018	15:50	LF	2018	Dry	Absent		Clear, light snow
SS202	6/12/2018	11:40	HF	2018	Lead carbonate mine dry	Absent		Clear
SS203	10/18/2017	13:45	LF	2017	Dry	Absent		Clear
SS203	6/28/2018	12:09	HF	2018	Dry	Absent		Hot, clear Dry seep on hill slope above road. Some carex but no water
SS203	10/3/2018	15:30	LF	2018	Dry	Absent		Sunny
SS204	6/28/2018	10:06	HF	2018	Dry	Present		Warm, sun A handful of dry seeps in this area
SS204	10/3/2018	15:41	LF	2018	Dry	Present	moss	sunny, warm.
SS205	10/12/2017	10:42	LF	2017	Dry	Present	BRYO	Partly cloudy
SS205	6/28/2018	14:29	HF	2018	No flow. Looks like dry meadow, although signs of past water	Present	Pedicularis	Sunny and warm
SS205	10/3/2018	13:37	LF	2018	Dry	Present	moss	sunny, warm
SS206	6/28/2018	14:17	HF	2018	Dry, maybe SS208 water nearby	Absent		Sunny and windy.
SS206	10/3/2018	13:32	LF	2018	Dry, maybe SS208 water nearby	Absent		Sun
SS207	10/12/2017	10:56	LF	2017	Dry	Present	BRYO	Partly cloudy
SS207	6/28/2018	14:02	HF	2018	Dry, but moss present in Gulch next to red stain.	Present	Moss, sedges	Sunny and windy
SS207	10/3/2018	12:03	LF	2018	Dry, but moss present in Gulch next to red stain.	Absent		Sun
SS211	10/2/2017	11:41	LF	2017	Dry	Present		cold
SS211	6/13/2018	12:10	HF	2018	Dry	Present		Clear cloudy
SS211	9/24/2018	15:21	LF	2018	Dry	Absent		Cloudy
SS212	6/27/2018	16:26	HF	2018	Dry	Absent		Cool
SS212	9/27/2018	12:00	LF	2018	Dry	Absent		Sunny
SS213	10/10/2017	12:52	LF	2017	Bavarian mine, Dry	Absent		Clear 4 C

Appendix 2a - Field Data for Dry Sites

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Date	TIME	EVENT	YEAR	FLOW_NOTE	WETLAND SP.	FLORA	ENVIRONMENTAL CONDITION
SS213	7/23/2018	12:59	HF	2018	Bavarian mine, Dry	Absent		Cloudy, calm
SS213	9/27/2018	11:40	LF	2018	Bavarian mine, Dry	Absent		Sunny
SS214	10/4/2017	11:28	LF	2017	Dry. Not flowing	Present		Overcast, windy
SS214	6/27/2018	11:03	HF	2018	No flow	Present		Sunny warm
SS214	9/26/2018	12:58	LF	2018	No flow	Present		Sunn windy
SS215	9/25/2018	10:10	LF	2018		Present		Sunny, calm
SS216	10/25/2017	9:40	LF	2017	Dry	Present		Clear
SS216	9/25/2018	11:25	LF	2018	Dry	Present		Two clouds slight breeze
SS217	10/10/2017	13:23	LF	2017	Dry, new as of Spring 2017	Present		Clear sunny
SS220	10/19/2017	11:14	LF	2017	Dry	Present		Clear
SS221	10/19/2017	11:08	LF	2017	Dry	Present		Clear
SS221	10/1/2018	13:55	LF	2018	wet earth and small puddles but no observer flow and not enough water to sample	Present	moss, algae	Cloudy, cold. no precip
SS222	10/19/2017	11:02	LF	2017	Dry	Present		Clear
SS224	10/19/2017	12:02	LF	2017	Adit snow covered. No water flowing	Absent		Clear
SS224	6/28/2018	17:10	HF	2018	Dry	Absent		Smoky, breezy
SS225	10/19/2017	12:09	LF	2017	Dry. Sample from Spring 2017 taken inside portal. Today, even inside portal dry.	Absent		Clear
SS226	10/19/2017	12:33	LF	2017	Dry	Present		Clear
SS229	9/26/2018	13:00	LF	2018	Dry/moist	Present		Clear. Windy
SS230	10/2/2018	12:01	LF	2018	Dry	Absent		Rain
SS232	9/25/2018	10:50	LF	2018	Water level 30/40 ft down adit.	Absent		Clear, slight breeze
SS238	10/1/2018	12:23	LF	2018	Dry	Absent		Light rain
SS304	10/1/2018	14:44	LF	2018	Dry	Present	moss	Cloudy, slight drizzle.
SS306	10/10/2017	13:45	LF	2017	Dry,snow covered	Present		Clear

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
A23A	10/1/2018	2018	LF				0.00	727	1480	0.50	2.50	0.50	2.50	15.50	25.0	2.00	2.00	0.5	10.00	8.77
A23A	8/23/2018	2018	LF	5.50	4.4	262	4.54	907	1310	0.50	2.50	0.50	2.50	15.50	25.0	2.00	2.00	0.5	10.10	8.83
A23A	8/23/2018	2018	LF					368	8490	0.50	2.50	0.50	10.90	13.20	68.3	2.00	2.71	0.5	11.10	15.10
A23A	8/23/2018	2018	LF					2190	1940	0.50	2.50	0.50	2.50	17.50	25.0	2.00	2.00	0.5	13.30	12.00
A38	6/28/2017	2017	HF	7.23	6.3	952	6.62	50	79			2.00	10.00			5.00	5.00		0.16	0.61
A38	9/27/2018	2018	LF	6.90	6.7	1042	16.80	20	24	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	2.5	0.50	0.50
A38	6/27/2018	2018	HF	6.51	5.8	838	28.00	20	20	0.50	2.50	0.50	2.50	10.10	25.0	2.00	2.00	2.5	0.20	0.50
CC01A	6/14/2018	2018	HF	6.45	2.3	302	30.74	88	428	0.61	2.50	0.50	2.50	6.97	25.0	2.00	2.00	0.5	10.60	10.00
CC01A	10/2/2017	2017	LF	6.80	1.2	437	37.55	142	1690	1.00	5.00	2.00	10.00	7.62	50.0	5.00	5.00		12.50	12.70
CC01A	9/24/2018	2018	LF	7.02	4.1	552	42.00	51	619	0.50	2.50	0.50	2.50	11.40	25.0	2.00	2.00	1.0	15.30	13.90
CC01A	7/10/2017	2017	HF	6.52	1.7	576	77.00	50	316			2.00	10.00			5.00	5.00		6.84	6.93
CC01B	9/25/2018	2018	LF	3.63		1297	110.00	2680	2790	2.50	2.50	2.50	2.50	25.00	25.0	3.35	3.31	2.5	40.40	38.90
CC01B	6/5/2018	2018	HF	3.74	5.3	1462	143.64													
CC01B	10/9/2017	2017	LF	3.79	5.8	1350	151.20	3330	3320	2.50	2.50	2.50	4.09	25.00	25.0	3.90	3.85		48.10	47.20
CC01B	4/24/2017	2017	HF	4.44	5.1	1270	170.10		2360				5.00				2.97			33.20
CC01B	9/27/2016	2016	LF	3.78	5.5	1053	196.56	3780	3980	2.50	2.50	2.50	2.50			4.68	4.68		49.90	48.90
CC01B	3/30/2017	2017	LF	4.20	5.5	1080	197.00	2330	2500			2.59	4.75			3.22	3.30		34.30	34.80
CC01C	9/25/2018	2018	LF	3.08		345	0.10	3000	3200	0.50	2.50	0.50	2.50	22.10	25.0	2.00	2.00	0.5	28.90	26.80
CC01C	10/2/2017	2017	LF	5.70	1.9	104	2.00	11900	11600	1.00	5.00	5.41	6.63	10.00	50.0	5.00	5.00		85.80	105.00
CC01C	9/20/2016	2016	LF	3.10	5.9	1721	10.52	11000	12000			9.20	9.40						86.00	87.00
CC01C	7/10/2017	2017	HF	3.37	3.8	373	88.60	2330	2440			1.07	10.00			5.00	5.00		18.90	19.40
CC01C	6/5/2018	2018	HF					1220	1270	0.50	2.50	1.07	2.50	15.10	25.0	2.00	2.00	1.1	10.90	10.60
CC03D	9/27/2017	2017	LF	5.96	6.5	2156	772.00	3150	3290	5.00	5.00	5.00	5.00			5.79	5.93		13.00	13.80
CC03D	6/5/2018	2018	HF	5.86	6.7	2130	960.12	3060	3150	5.00	2.50	5.00	2.50	50.00	25.0	7.56	7.18	5.0	13.00	12.10
CC03D	10/9/2018	2018	LF	5.79		2225	987.00	2990	2780	2.50	2.50	2.50	2.54	25.00	25.0	7.74	7.54	5.0	11.90	11.80
CC03D	3/30/2017	2017	LF	6.52	6.5	1610	1103.76	3490	3670			5.00	5.00			6.77	6.95		16.10	17.60
CC03D	5/16/2017	2017	LF	6.60	6.8	1665	1134.00	3630	3690			5.00	5.00			6.25	6.30		16.50	16.10
CC03D	6/6/2017	2017	HF	5.75	6.5	2168	1446.00	3640	3700	2.50	2.50	3.42	2.74			6.25	6.32		17.00	16.30
CC06	10/9/2018	2018	LF	4.47		1825	1536.00	18200	18600	2.50	2.50	2.50	24.80	25.00	25.0	6.18	6.51	2.5	50.30	53.90
CC06	6/5/2018	2018	HF	3.75	7.6	1856	1587.60	18200	19300	5.00	2.50	5.00	32.50	50.00	25.0	5.45	5.42	5.0	53.80	50.00
CC06	6/6/2017	2017	HF	2.60	9.2	2949	2463.00	63200	64300	2.98	2.88	184.00	171.00			6.52	6.41		136.00	127.00
CC06	9/28/2017	2017	LF	3.50	7.2	2111	2463.00	29600	30700	5.00	3.78	5.49	43.30			9.98	10.30		88.60	77.20
CC06	10/9/2017	2017	LF	5.30	7.4	1920	2547.72	27600	29100	2.50	3.16	4.59	41.70	25.00	25.0	10.10	10.00		77.10	72.50
CC14	10/9/2018	2018	LF	6.46	5.7	1120	1039.00	657	807	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	2.5	1.76	1.59

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
CC14	9/28/2017	2017	LF	6.12	5.5	1020	1523.34													
CC14	10/9/2017	2017	LF	6.30	5.4	1020	1523.34													
CC14	9/21/2016	2016	LF	6.78	6.4	1123	1540.00	760	1100			2.40	4.00						1.80	2.20
CC14	6/5/2018	2017	HF	6.17	5.5	1107	2888.00	1210	1890	5.00	2.50	5.00	3.99	50.00	25.0	2.00	2.00	2.5	3.30	3.14
CC14	6/20/2017	2017	HF	6.11	7.3	2130	4179.56	1620	2150			3.15	10.00			5.00	2.05		4.09	4.19
CC16C	6/12/2018	2018	HF	4.67	6.4	973	32.21	7550	7930	2.50	2.50	9.00	12.20	25.00	25.0	2.00	2.00	2.5	1.11	1.12
CC16C	9/28/2016	2016	LF	4.37	6.4	944	35.30	6700	7000			8.30	9.10						4.70	4.80
CC16C	6/20/2017	2017	HF	4.63	8.3	1032	37.55	7140	7940			8.32	12.90			5.00	2.01		1.20	1.10
CC16C	10/4/2018	2018	LF	4.93	5.4	806	43.00	8100	8090	0.50	2.50	9.40	10.40	5.00	25.0	2.00	2.00	2.5	1.01	1.00
CC16C	10/25/2017	2017	LF	4.35	6.4	689	55.00	6630	7070	1.00	5.00	8.06	8.20	10.00	50.0	5.00	5.00		5.60	5.43
CC19	10/9/2018	2018	LF	4.21		2316	217.00	4310	3950	2.50	2.50	2.50	2.50	25.00	25.0	6.06	5.99	5.0	1.69	1.47
CC19	6/5/2018	2018	HF	3.19	7.5	2240	276.00	4100	4280	5.00	2.50	5.00	2.50	50.00	25.0	5.83	5.55	5.0	1.50	1.55
CC19	10/9/2017	2017	LF	4.79	7.4	2280	332.64	3140	3230	2.50	2.50	2.50	2.50	25.00	25.0	10.00	10.00		0.70	0.87
CC19	9/29/2016	2016	LF	5.33	7.6	2350	505.00	4210	4420	5.00	2.50	5.00	2.50			4.52	4.87		1.74	1.85
CC19	6/6/2017	2017	HF	5.12	8.0	2265	715.00	4210	4570	2.50	2.50	2.50	2.50			4.23	4.22		2.02	1.81
CC50	10/3/2018	2018	LF	6.96	8.0	1532	888.30	20	20	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	2.5	0.68	0.81
CC50	10/9/2017	2017	LF				945.00	156	238	2.50	2.50	2.50	2.89	25.00	25.0	2.00	2.00		1.47	1.48
CC50	6/7/2018	2018	HF	7.16	7.8	1497	1039.50	20	20	5.00	2.50	5.00	2.50	50.00	25.0	2.00	2.00	2.5	1.00	0.88
CC50	6/20/2017	2017	HF	7.33	7.8	3960	1533.09	105	90			1.09	10.00			5.00	5.00		1.61	1.89
CC50	9/21/2016	2016	LF	7.08	7.9	1555	1778.00	35	130			1.00	2.60						1.40	1.70
DM01	6/14/2018	2018	HF	4.20	4.4	418	4.00													
DM01	6/22/2017	2017	HF	4.13	4.3	335	48.00	991	995			2.00	10.00			5.00	5.00		6.81	6.56
DM24	9/16/2016	2016	LF	7.01	13.1	731	123.00	70	74			0.97	1.40						0.12	0.12
DM24	9/27/2018	2018	LF	6.80	11.9	1228	155.00	36	198	2.50	2.50	2.50	4.95	25.00	25.0	2.00	2.00	2.5	0.50	0.50
DM32	9/27/2018	2018	LF	3.24	5.6	486	4.50	2720	2750	0.50	2.50	0.50	2.50	16.00	25.0	2.00	2.00	1.0	31.20	28.50
DM32	9/27/2018	2018	LF	3.24	5.6	486	4.50	2720	2770	0.50	2.50	0.50	2.50	16.20	25.0	2.00	2.00	1.0	31.40	30.70
DM32	10/10/2017	2017	LF	3.99	2.3	662	12.00	3830	3870	1.00	5.00	2.00	10.00	10.40	50.0	5.00	5.00		40.80	37.70
DM32	6/27/2018	2018	HF	3.68	3.5	366	18.00	1990	1950	0.50	2.50	0.50	2.50	16.90	25.0	2.00	2.00	1.0	42.50	37.20
DM32	6/28/2017	2017	HF	3.45	2.1	170	19.15	2260	2360			2.00	10.00			5.00	5.00		42.60	41.80
DM4	8/23/2018	2018	LF	7.60	9.0	934	7.56	20	20	0.50	2.50	0.50	2.50	6.86	25.0	2.00	2.00	2.5	0.10	0.50
DM4	8/23/2018	2018	LF	7.60	9.0	934	7.56	20	20	0.50	2.50	0.50	2.50	6.97	25.0	2.00	2.00	2.5	0.10	0.50
SS001	9/26/2018	2018	LF	4.03	8.5	116	2.50	315	326	0.50	2.50	0.50	2.50	27.70	26.8	2.00	2.00	0.5	1.32	1.03
SS001	9/26/2018	2018	LF	4.03	8.5	116	2.50	317	335	0.50	2.50	0.50	2.50	27.60	27.7	2.00	2.00	0.5	1.30	1.25
SS001	10/4/2017	2017	LF	6.53	5.1	394	6.00	190	249	1.00	5.00	2.00	10.00	30.60	29.1	5.00	5.00		0.70	0.73

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
SS001	9/22/2016	2016	LF	6.59	9.4	1020	6.02	204	295	1.00	5.00	2.00	10.00			5.00	5.00		0.74	0.71
SS001	6/27/2018	2018	HF	5.03	5.5	74	37.85	156	637	0.58	2.50	0.50	2.50	28.80	30.4	2.00	2.00	0.5	0.88	0.73
SS001	7/11/2017	2017	HF	5.15	4.1	78	257.79	346	381			2.00	10.00			5.00	5.00		0.68	0.64
SS002	10/4/2017	2017	LF	7.22	2.7	277	1.00	50	21	1.00	5.00	2.00	10.00	7.82	50.0	5.00	5.00		0.32	1.00
SS002	6/27/2018	2018	HF	6.27	7.0	231	3.00	20	28	0.97	2.50	0.50	2.50	12.00	25.0	2.00	2.00	0.5	0.34	0.50
SS002	7/11/2017	2017	HF	7.76	8.6	237	8.40	50	50			2.00	10.00			5.00	5.00		0.14	1.00
SS002	9/22/2016	2016	LF	7.28	6.2	345	19.31	50	21	0.60	5.00	2.00	10.00			5.00	5.00		0.26	1.00
SS003	9/26/2018	2018	LF	6.93	8.7	336	0.50	20	30	2.44	2.55	0.50	2.50	5.00	25.0	2.00	2.00	0.5	3.74	3.70
SS003	10/4/2017	2017	LF	7.08	3.0	408	1.00	24	30	1.85	5.00	2.00	10.00	9.29	50.0	5.00	5.00		3.00	2.95
SS003	7/12/2017	2017	HF	7.29	7.9	257	2.00	50	38			2.00	10.00			5.00	5.00		3.04	3.06
SS003	9/22/2016	2016	LF	7.27	0.0		10.03	28	39	2.02	5.00	2.00	10.00			5.00	5.00		3.78	3.55
SS004	10/4/2017	2017	LF	5.95	3.8	313	4.80	45	89	1.00	5.00	2.00	10.00	29.90	29.1	5.00	5.00		2.60	2.62
SS004	6/27/2018	2018	HF	5.73	4.7	298	8.00	31	43	0.50	2.50	0.50	2.50	35.30	33.3	2.00	2.00	0.5	4.24	3.56
SS004	9/22/2016	2016	LF	7.32	5.6	236	9.01	50	109	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS004	7/12/2017	2017	HF	7.75	2.0	174	10.00	50	54			2.00	10.00			5.00	5.00		0.18	1.00
SS004	9/26/2018	2018	LF	6.81	7.5	163	10.00	37	72	0.50	2.50	0.50	2.50	32.10	32.5	2.00	2.00	0.5	3.09	2.80
SS005	9/22/2016	2016	LF	6.69	7.6	355	0.64	339	377	1.00	5.00	2.00	10.00			5.00	5.00		7.66	8.72
SS006	10/4/2017	2017	LF	5.88	1.9	164	4.00	50	43	1.00	5.00	2.00	10.00	13.30	42.9	5.00	5.00		0.20	1.00
SS006	9/26/2018	2018	LF	6.28	4.9	47	4.00	20	29	0.50	2.50	0.50	2.50	14.40	25.0	2.00	2.00	0.5	0.10	0.50
SS006	6/27/2018	2018	HF	5.94	14.0	143	6.00	20	22	0.50	2.50	0.50	2.50	19.40	25.0	2.00	2.00	0.5	0.10	0.50
SS006	9/23/2016	2016	LF	7.75	0.4	214	27.60	50	210	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS006	7/12/2017	2017	HF	7.34	3.0	161	90.85	50	50			2.00	10.00			5.00	5.00		0.20	1.00
SS007	9/23/2016	2016	LF	7.01	3.2	216	6.02	50	50	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS007	9/26/2018	2018	LF	7.20	12.6	162	11.00	20	191	0.50	2.50	0.50	2.50	30.10	32.1	2.00	2.00	0.5	0.10	0.50
SS007	10/4/2017	2017	LF	5.84	4.3	228	40.00	50	90	1.00	5.00	2.00	10.00	23.30	50.0	5.00	5.00		0.20	1.00
SS007	7/12/2017	2017	HF	7.44	8.3	86	75.71	50	50			2.00	10.00			5.00	5.00		0.20	1.00
SS007	6/27/2018	2018	HF	5.96	13.6	121	272.55	20	20	0.50	2.50	0.50	2.50	31.90	29.4	2.00	2.00	0.5	0.10	0.50
SS008	9/24/2018	2018	LF	7.18	7.3	360	0.00	20	27	0.50	2.50	0.50	2.50	17.50	25.0	2.00	2.00	0.5	0.10	0.50
SS008	9/24/2018	2018	LF	7.18	7.3	360	0.00	20	28	0.50	2.50	0.50	2.50	17.50	25.0	2.00	2.00	0.5	0.10	0.50
SS008	10/2/2017	2017	LF	5.97	0.8	340	10.00	50	53	1.00	5.00	2.00	10.00	10.80	50.0	5.00	5.00		0.20	1.00
SS008	9/26/2016	2016	LF	7.80	3.0	252	57.54	50	137	1.00	5.00	2.00	10.00			5.00	5.00		0.10	1.00
SS008	6/13/2018	2018	HF	6.04	1.8	193	806.29	20	290	0.58	2.50	0.50	2.50	12.30	25.0	2.00	2.00	0.5	0.10	0.50
SS009	7/10/2017	2017	HF	6.16	19.0	194	0.60	50	42			2.00	10.00			5.00	5.00		0.20	1.00
SS009	9/26/2016	2016	LF	6.63	11.3	225	7.19	35	66	1.00	5.00	2.00	10.00			5.00	5.00		0.30	1.00

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
SS009	6/13/2018	2018	HF	6.30	12.1	125	30.00	20	45	0.51	2.50	0.50	2.50	11.00	25.0	2.00	2.00	0.5	0.19	0.50
SS010	9/24/2018	2018	LF	5.38	7.2	750	0.50	58	72	0.50	2.50	0.50	2.50	23.30	25.0	2.00	2.00	0.5	0.27	0.50
SS010	10/2/2017	2017	LF	6.47	0.7	347	1.00	101	148	1.00	5.00	2.00	10.00	29.30	27.8	5.00	5.00		0.23	1.00
SS010	7/10/2017	2017	HF	6.42	1.9	346	1.20	72	109			2.00	10.00			5.00	5.00		0.34	1.00
SS010	9/26/2016	2016	LF	6.05	6.6	195	1.82	74	80	1.00	5.00	2.00	10.00			5.00	5.00		0.26	1.00
SS010	6/13/2018	2018	HF	5.50	2.3	840	50.00	208	497	0.76	2.50	0.50	2.50	23.00	40.7	2.00	2.00	1.0	1.07	1.44
SS011	6/13/2018	2018	HF	4.45	13.0	769	0.00	5890	6660	0.50	2.50	0.52	2.50	23.30	25.0	2.00	2.00	2.5	3.73	3.87
SS011	9/24/2018	2018	LF	4.50	9.0	499	0.00	2730	2730	0.50	2.50	0.50	2.50	27.30	26.6	2.00	2.00	1.0	2.18	1.79
SS011	7/10/2017	2017	HF	4.98	8.6	1237	1.00	9450	10100			2.00	10.00			2.22	2.02		5.19	5.33
SS011	10/2/2017	2017	LF	5.20	0.9	365	3.00	661	704	1.00	5.00	2.00	10.00	22.20	50.0	5.00	5.00		0.70	0.58
SS011	9/26/2016	2016	LF	4.29	4.5	1385	3.79	9420	9820	1.00	5.00	2.00	10.00			5.00	5.00		4.39	4.69
SS012	10/2/2017	2017	LF	6.44	1.0	716	1.50	4000	4230	1.00	5.00	2.00	2.79	21.20	50.0	5.00	5.00		3.91	4.06
SS012	9/26/2016	2016	LF	4.30	1.4	674	3.60	1240	1300	1.00	5.00	2.00	10.00			5.00	5.00		4.05	3.87
SS012	6/13/2018	2018	HF	5.83	4.4	255	60.00	20	21	0.50	2.50	0.50	2.50	15.80	25.0	2.00	2.00	0.5	0.10	0.50
SS012	7/10/2017	2017	HF	6.68	3.3	59	83.88	50	34			2.00	10.00			5.00	5.00		0.20	1.00
SS013	10/4/2018	2018	LF	7.10	8.5	208	0.00	20	117	0.50	2.50	0.50	2.50	24.80	27.3	2.00	2.00	0.5	0.10	0.50
SS013	10/3/2016	2016	LF	6.80	3.1	313	71.17	35	47	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS013	10/3/2017	2017	LF	7.44	3.5	220	325.55	21	44	1.00	5.00	2.00	10.00	19.60	50.0	5.00	5.00		0.20	1.00
SS013	6/12/2018	2018	HF	5.81	6.2	175	1514.16	20	74	0.50	2.50	0.50	2.50	20.00	25.0	2.00	2.00	0.5	0.56	0.61
SS013	7/17/2017	2017	HF	7.27	6.3	358	5097.03	24	63			2.00	10.00			5.00	5.00		0.75	0.54
SS014	10/3/2017	2017	LF	6.84	3.0	252	36.00	50	50	1.00	5.00	2.00	10.00	10.40	50.0	5.00	5.00		0.20	1.00
SS014	10/4/2018	2018	LF	7.11	3.5	158	65.00	20	20	0.50	2.50	0.50	2.50	11.90	25.0	2.00	2.00	0.5	0.10	0.50
SS014	6/12/2018	2018	HF	6.44	2.2	209	94.64	20	20	0.50	2.50	0.50	2.50	9.74	25.0	2.00	2.00	0.5	0.10	0.50
SS014	7/17/2017	2017	HF	7.15	4.5	256	121.51	50	50			2.00	10.00			5.00	5.00		0.20	1.00
SS014	10/3/2016	2016	LF	7.24	2.6	139	130.98	50	20	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS015	10/4/2018	2018	LF	7.40	3.5	238	87.00	20	373	0.50	2.50	0.50	2.50	14.80	25.0	2.00	2.00	0.5	0.10	0.50
SS015	10/3/2017	2017	LF	6.78	1.5	279	132.00	50	36	1.00	5.00	2.00	10.00	10.00	50.0	5.00	5.00		0.20	1.00
SS015	10/3/2016	2016	LF	7.32	1.8	227	181.70	21	131	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS015	6/12/2018	2018	HF	6.42	5.8	196	495.89	20	100	0.50	2.50	0.50	2.50	11.70	25.0	2.00	2.00	0.5	0.10	0.69
SS015	7/17/2017	2017	HF	7.49	8.8	350	681.37	26	83			2.00	10.00			5.00	5.00		0.20	1.00
SS016	10/4/2018	2018	LF	4.52	5.0	298	0.60	1550	1310	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	0.5	0.44	0.50
SS016	6/22/2017	2017	HF	4.89	15.9	588	0.75	889	1410			2.00	10.00			5.00	5.00		0.25	1.00
SS016	6/12/2018	2018	HF	4.46	4.5	439	1.00	956	986	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	1.0	0.20	0.50
SS016	10/3/2016	2016	LF	4.50	3.6	319	7.04	1330	1320	1.00	5.00	2.00	10.00			5.00	5.00		0.37	1.00

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
SS016	10/5/2017	2017	LF	4.60	5.6	666	14.50	1290	1280	1.00	5.00	2.00	10.00	10.00	50.0	5.00	5.00		0.37	1.00
SS017	10/5/2017	2017	LF				0.00	1840	1840	1.00	5.00	2.00	10.00	10.00	50.0	5.00	5.00		1.70	1.58
SS017	10/3/2016	2016	LF	4.60	3.0	335	1.59	1860	1890	1.00	5.00	2.00	10.00			5.00	5.00		2.18	2.02
SS017	10/4/2018	2018	LF	4.20	4.3	352	1.60	1980	1740	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	0.5	1.30	1.18
SS017	6/22/2017	2017	HF	5.65	5.3	307	6.00	1460	1440			2.00	10.00			5.00	5.00		1.72	1.65
SS017	6/12/2018	2018	HF	4.30	7.5	415	6.00	1990	2070	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	1.0	14.00	14.40
SS018	6/23/2017	2017	HF	4.06	6.9	424	25.00	3610	3460			2.00	10.00			5.00	5.00		4.64	5.23
SS018	10/4/2018	2018	LF	3.61	4.8	81	33.00	6390	5730	0.50	2.50	0.50	2.50	7.19	25.0	2.00	2.00	1.0	11.20	10.60
SS018	10/3/2016	2016	LF	3.86	4.2	635	34.14	5060	5050	1.00	5.00	2.00	10.00			5.00	5.00		9.46	9.52
SS018	10/5/2017	2017	LF	3.93	6.1	979	48.00	5000	4930	1.00	5.00	2.00	10.00	8.50	50.0	5.00	5.00		6.49	6.37
SS018	6/12/2018	2018	HF	3.66	3.6	494	71.92	4900	5170	0.50	2.50	0.50	2.50	6.55	25.0	2.00	2.00	1.0	9.05	9.21
SS019	6/23/2017	2017	HF	7.60	4.6	168	6.00	50	50			2.00	10.00			5.00	5.00		0.15	1.00
SS019	10/4/2018	2018	LF	6.37	4.6	170	6.30	20	20	0.50	2.50	0.50	2.50	22.70	26.1	2.00	2.00	0.5	0.16	0.50
SS019	10/4/2018	2018	LF	6.37	4.6	170	6.30	20	20	0.50	2.50	0.50	2.50	22.50	25.0	2.00	2.00	0.5	0.16	0.50
SS019	10/5/2017	2017	LF	7.03	3.8	327	7.00	50	50	1.00	5.00	2.00	10.00	19.50	50.0	5.00	5.00		0.23	1.00
SS019	6/12/2018	2018	HF	5.76	4.7	185	12.00	20	20	0.50	2.50	0.50	2.50	17.70	25.0	2.00	2.00	0.5	0.16	0.50
SS019	10/3/2016	2016	LF	7.25	3.6	162	14.99	50	50	1.00	5.00	2.00	10.00			5.00	5.00		0.17	1.00
SS020	9/25/2018	2018	LF	4.52	21.0	121	0.00	366	435	0.50	2.50	0.50	2.50	16.30	25.0	2.00	2.00	0.5	0.13	0.50
SS020	10/16/2017	2017	LF	6.72	7.0	627	20.00	312	408	1.00	5.00	2.00	10.00	20.60	50.0	5.00	5.00		0.20	1.00
SS020	10/4/2016	2016	LF	5.67	7.2	383	45.42	623	636	1.00	5.00	2.00	10.00			5.00	5.00		0.44	0.50
SS020	7/19/2017	2017	HF	4.85	7.3	73	53.37	1590	1580			2.00	10.00			5.00	5.00		0.53	0.52
SS020	6/13/2018	2018	HF	5.30	10.6	55	84.00	365	390	0.50	2.50	0.50	2.50	16.50	25.0	2.00	2.00	0.5	0.32	0.50
SS021	10/4/2016	2016	LF	5.53	6.2	51	1.44	182	180	1.00	5.00	2.00	10.00			5.00	5.00		0.61	0.64
SS021	7/19/2017	2017	HF	5.53	11.3	224	12.00	141	141			2.00	10.00			5.00	5.00		0.44	1.00
SS021	6/13/2018	2018	HF	5.20	11.0	32	160.00	86	107	0.50	2.50	0.50	2.50	12.30	25.0	2.00	2.00	0.5	0.43	0.50
SS022	10/16/2017	2017	LF	6.93	2.4	158	2.00	86	100	1.00	5.00	2.00	10.00	16.00	50.0	5.00	5.00		0.48	1.00
SS022	10/4/2016	2016	LF	7.08	4.0	140	12.11	97	107	1.00	5.00	2.00	10.00			5.00	5.00		0.99	0.93
SS022	6/13/2018	2018	HF	5.64	0.6	117	15.00	98	119	0.55	2.50	0.50	2.50	13.50	25.0	2.00	2.00	0.5	0.81	0.74
SS022	7/19/2017	2017	HF	5.85	13.0	100	48.00	122	143			2.00	10.00			5.00	5.00		0.95	0.90
SS023	9/25/2018	2018	LF	6.30	15.0	402	0.00	20	53	0.50	2.50	0.50	2.50	44.60	48.5	2.00	2.00	1.0	0.12	0.50
SS023	10/4/2016	2016	LF	5.89	3.3	149	0.49	360	399	1.00	5.00	2.00	10.00			5.00	5.00		0.63	0.57
SS023	7/19/2017	2017	HF	5.59	15.7	76	2.00	159	269			2.00	10.00			5.00	5.00		0.35	1.00
SS023	6/13/2018	2018	HF	6.37	2.6	12	5.00	60	111	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	0.5	0.10	0.50
SS023	10/16/2017	2017	LF	7.15	7.0	575	140.06	50	69	1.00	5.00	2.00	10.00	45.70	44.2	5.00	5.00		0.20	1.00

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
SS024	10/16/2017	2017	LF	6.90	1.0	566	35.00	50	50	1.00	5.00	2.00	10.00	36.30	47.5	5.00	5.00		0.20	1.00
SS024	10/4/2016	2016	LF	7.06	1.6	494	51.48	21	28	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS024	9/25/2018	2018	LF	7.30	1.7	469	60.00	20	20	0.50	2.50	0.50	2.50	51.60	54.3	2.00	2.00	1.0	0.10	0.50
SS024	7/19/2017	2017	HF	7.45	2.2	363	227.12	26	35			2.00	10.00			5.00	5.00		0.30	1.00
SS024	6/13/2018	2018	HF	6.52	0.3	259	272.00	20	20	0.50	2.50	0.50	2.50	23.90	25.0	2.00	2.00	0.5	0.10	0.50
SS025	10/4/2016	2016	LF	7.23	2.8	352	1.70	50	290	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS025	7/19/2017	2017	HF	7.86	2.8	117	6.00	50	50			2.00	10.00			5.00	5.00		0.20	1.00
SS025	6/13/2018	2018	HF	5.80	5.7	102	10.00	20	104	0.50	2.50	0.50	2.50	12.80	25.0	2.00	2.00	0.5	0.10	0.50
SS026	10/4/2016	2016	LF	6.60	3.4	242	4.50	688	324	1.00	5.00	2.00	10.00			5.00	5.00		2.83	1.13
SS026	10/16/2017	2017	LF	6.41	4.6	348	7.00	2240	2240	1.00	5.00	2.00	10.00	15.60	50.0	5.00	5.00		10.60	10.50
SS026	6/14/2018	2018	HF	5.70	1.4	163	21.60	805	778	0.50	2.50	0.50	2.50	10.90	25.0	2.00	2.00	0.5	4.26	3.98
SS026	7/10/2017	2017	HF	4.38	6.3	362	42.00	1590	1470			2.00	10.00			5.00	5.00		9.61	8.88
SS027	10/16/2017	2017	LF	5.92	2.7	803	45.00	8450	8300	1.00	5.00	2.00	10.00	16.20	50.0	5.00	5.00		35.60	33.20
SS027	10/4/2016	2016	LF	4.70	3.5	606	53.00	6540	6450	1.00	5.00	2.00	10.00			5.00	5.00		35.70	34.00
SS027	9/24/2018	2018	LF	4.46	4.7	752	60.00	9720	9540	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	1.0	40.10	40.70
SS027	6/13/2018	2018	HF	4.50	1.2	251	72.00	2110	2240	0.92	2.50	0.50	2.50	14.70	25.0	2.00	2.00	0.5	10.20	9.35
SS027	7/10/2017	2017	HF	4.69	1.4	310	116.00	2410	2310			2.00	10.00			5.00	5.00		13.90	13.30
SS028	10/16/2017	2017	LF	7.13	3.4	181	0.50	50	50	1.00	5.00	2.00	10.00	5.11	50.0	5.00	5.00		0.20	1.00
SS028	7/10/2017	2017	HF	7.76	5.0	49	1.00	50	62			2.00	10.00			5.00	5.00		0.20	1.00
SS028	10/4/2016	2016	LF	7.36	6.7	71	1.44	22	47	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS029	10/16/2017	2017	LF	7.59	5.4	616	180.00	301	300	1.00	5.00	2.00	10.00	42.40	40.2	5.00	5.00		4.00	3.84
SS029	9/24/2018	2018	LF	5.51	5.6	434	181.00	373	366	0.50	2.50	0.50	2.50	41.30	48.7	2.00	2.00	0.5	4.37	4.45
SS029	6/14/2018	2018	HF	5.90	2.0	179	215.77	510	521	0.53	2.50	0.50	2.50	22.70	25.0	2.00	2.00	0.5	4.48	4.15
SS029	10/4/2016	2016	LF	6.54	3.6	351	227.12	261	260	1.00	5.00	2.00	10.00			5.00	5.00		3.40	2.91
SS029	7/10/2017	2017	HF	7.22	2.6	168	681.37	397	403			2.00	10.00			5.00	5.00		3.13	2.83
SS030	10/5/2016	2016	LF	6.60	5.7	331	0.50	50	35	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS030	7/12/2017	2017	HF	6.68	11.3	89	0.50	50	50			2.00	10.00			5.00	5.00		0.20	1.00
SS030	10/4/2017	2017	LF	6.08	7.4	163	0.50	50	50	1.00	5.00	2.00	10.00	7.07	50.0	5.00	5.00		0.20	1.00
SS030	6/15/2018	2018	HF	6.42	7.6	82	0.50	29	55	0.50	2.50	0.50	2.50	6.94	25.0	2.00	2.00	0.5	0.10	0.50
SS030	9/26/2018	2018	LF	6.31	12.6	73	0.50	20	20	0.50	2.50	0.50	2.50	8.52	25.0	2.00	2.00	0.5	0.10	0.50
SS031	10/4/2017	2017	LF	6.05	4.3	178	1.50	50	50	1.00	5.00	2.00	10.00	9.17	50.0	5.00	5.00		0.20	1.00
SS031	7/12/2017	2017	HF	7.82	3.4	147	6.00	50	50			2.00	10.00			5.00	5.00		0.20	1.00
SS031	10/5/2016	2016	LF	7.09	3.7	235	6.06	50	50	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS031	6/15/2018	2018	HF	6.49	2.7	138	9.00	20	52	0.50	2.50	0.50	2.50	8.91	25.0	2.00	2.00	0.5	0.10	0.50

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
SS031	9/26/2018	2018	LF	6.71	5.8	82	15.00	20	24	0.50	2.50	0.50	2.50	12.90	25.0	2.00	2.00	0.5	0.10	0.50
SS032	10/4/2017	2017	LF	5.98	2.6	535	2.00	50	59	1.00	5.00	2.00	10.00	67.00	64.7	5.00	5.00		0.20	1.00
SS032	10/5/2016	2016	LF	7.08	1.5	567	5.68	50	192	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS032	9/26/2018	2018	LF	7.11	1.6	121	12.00	20	20	0.50	2.50	0.50	2.50	31.10	25.0	2.00	2.00	0.5	0.10	0.50
SS032	9/26/2018	2018	LF	7.11	1.6	121	12.00	20	20	0.50	2.50	0.50	2.50	30.70	31.3	2.00	2.00	0.5	0.10	0.50
SS032	7/23/2018	2018	HF	6.90	0.4	156	30.00													
SS032	7/12/2017	2017	HF	8.05	0.1	142	50.00	50	24			2.00	10.00			5.00	5.00		0.20	1.00
SS033	10/5/2016	2016	LF	7.03	5.5	51	0.50	50	27	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS033	7/12/2017	2017	HF	5.98	15.3	39	0.50	50	45			2.00	10.00			5.00	5.00		0.20	1.00
SS033	10/4/2017	2017	LF	6.34	6.5	36	0.50	50	22	1.00	5.00	2.00	10.00	10.00	50.0	5.00	5.00		0.20	1.00
SS033	6/15/2018	2018	HF	6.88	12.5	31	0.50	20	129	0.50	2.50	0.50	6.17	5.96	25.0	2.00	2.00	0.5	0.10	0.50
SS033	9/26/2018	2018	LF	6.43	14.3	30	0.50	20	34	0.50	2.50	0.50	2.50	6.37	25.0	2.00	2.00	0.5	0.10	0.50
SS034	10/5/2016	2016	LF	5.30	5.5	145	0.50	323	347	1.00	5.00	2.00	10.00			5.00	5.00		3.17	2.72
SS034	7/12/2017	2017	HF	5.25	15.3	58	0.50	384	400			2.00	10.00			5.00	5.00		2.64	2.73
SS034	10/4/2017	2017	LF	6.08	9.0	54	0.50	177	208	1.00	5.00	2.00	10.00	10.90	50.0	5.00	5.00		0.78	0.78
SS034	6/15/2018	2018	HF	5.78	12.6	77	0.50	496	555	0.50	2.50	0.50	2.50	25.10	25.0	2.00	2.00	0.5	4.27	3.93
SS035	10/5/2016	2016	LF	6.80	6.8	417	2.99	34	1030	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS035	6/15/2018	2018	HF	6.70	3.0	482	26.00	20	3590	0.52	2.50	0.50	2.50	26.80	28.0	2.00	2.00	1.0	0.24	0.50
SS035	7/12/2017	2017	HF	7.71	0.1	320	340.00	50	50			2.00	10.00			5.00	5.00		0.20	1.00
SS036	6/27/2018	2018	HF	7.44	5.5	65	0.50	86	96	0.50	2.50	0.50	2.50	5.18	25.0	2.00	2.00	0.5	0.53	0.51
SS036	10/5/2016	2016	LF	7.24	4.4	127	0.98	42	81	1.00	5.00	2.00	10.00			5.00	5.00		3.11	2.94
SS036	7/18/2017	2017	HF	6.61	6.4	77	2.25	60	64			2.00	10.00			5.00	5.00		1.74	1.48
SS037	10/10/2017	2017	LF	4.80	2.9	955	2.00	8380	8860	5.00	5.00	10.00	10.00	50.00	50.0	5.00	5.00		5.26	4.94
SS037	10/5/2016	2016	LF	5.03	3.5	697	2.99	5960	5990	1.00	5.00	2.00	10.00			5.00	5.00		4.57	4.33
SS037	7/18/2017	2017	HF	5.07	2.0	553	24.00	4490	4390			2.00	10.00			5.00	5.00		3.34	2.70
SS037	6/27/2018	2018	HF	4.67	3.5	419	27.00	4090	5540	0.50	2.50	0.50	2.50	15.30	25.0	2.00	2.00	1.0	3.41	3.23
SS038	9/26/2018	2018	LF	7.16	7.3	266	8.00	20	35	0.50	2.50	0.50	2.50	25.60	27.7	2.00	2.00	0.5	0.10	0.50
SS038	10/6/2016	2016	LF	7.69	3.0	934	12.00	50	42	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS038	6/15/2018	2018	HF	7.15	3.8	175	30.00	20	33	0.50	2.50	0.50	2.50	14.30	25.0	2.00	2.00	0.5	0.10	0.50
SS038	10/10/2017	2017	LF	6.52	5.6	271	42.00	50	73	1.00	5.00	2.00	10.00	18.90	50.0	5.00	5.00		0.20	1.00
SS038	6/28/2017	2017	HF	8.68	3.8	154	126.00	50	50			2.00	10.00			5.00	5.00		0.20	1.00
SS039	10/10/2017	2017	LF	5.26	5.5	201	0.30	976	1390	1.00	5.00	2.00	10.00	19.40	50.0	5.00	5.00		6.07	5.51
SS039	10/6/2016	2016	LF	5.49	5.5	153	12.00	965	973	1.00	5.00	2.00	10.00			5.00	5.00		5.12	4.94
SS039	6/27/2018	2018	HF	4.89	5.2	120	12.00	691	786	0.50	2.50	0.50	2.50	13.80	25.0	2.00	2.00	0.5	4.14	3.83

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
SS039	7/12/2017	2017	HF	5.16	4.5	116	56.78	815	800			2.00	10.00			5.00	5.00		4.65	4.52
SS040	9/27/2018	2018	LF	4.18	11.1	120	0.50	1010	938	0.50	2.50	0.50	2.50	5.12	25.0	2.00	2.00	0.5	6.03	5.87
SS040	10/6/2016	2016	LF	4.61	3.1	138	2.99	1100	1120	1.00	5.00	2.00	10.00			5.00	5.00		6.77	6.20
SS040	10/10/2017	2017	LF	4.53	4.8	140	4.50	928	953	1.00	5.00	2.00	10.00	10.00	50.0	5.00	5.00		5.52	5.05
SS040	6/27/2018	2018	HF	4.39	3.4	103	12.00	639	735	0.50	2.50	0.50	2.50	8.10	25.0	2.00	2.00	0.5	4.28	3.70
SS040	7/12/2017	2017	HF	4.50	4.2	82	340.69	531	512			2.00	10.00			5.00	5.00		2.71	2.48
SS041	9/27/2018	2018	LF	6.40	5.2	240	15.00	20	69	0.50	2.50	0.50	2.50	22.30	25.0	2.00	2.00	0.5	1.21	1.19
SS041	10/10/2017	2017	LF	6.71	5.9	254	30.00	50	95	1.00	5.00	2.00	10.00	13.60	50.0	5.00	5.00		1.09	0.96
SS041	10/6/2016	2016	LF	6.95	6.9	222	37.85	270	384	1.00	5.00	2.00	10.00			5.00	5.00		11.70	11.40
SS041	6/27/2018	2018	HF	6.50	4.4	156	80.00	40	60	0.97	2.50	0.50	2.50	8.39	25.0	2.00	2.00	0.5	1.08	0.99
SS041	6/28/2017	2017	HF	6.75	2.7	175	115.00	114	168			2.00	10.00			5.00	5.00		2.79	2.99
SS042	6/27/2018	2018	HF	6.70	9.6	97	3.00	20	20	0.50	2.50	0.50	2.50	6.85	25.0	2.00	2.00	0.5	0.91	0.85
SS042	6/28/2017	2017	HF	6.98	6.9	162	3.80	50	99			2.00	10.00			5.00	5.00		0.58	0.59
SS042	10/6/2016	2016	LF	7.33	6.4	117	5.00	50	954	1.00	5.00	2.00	10.00			5.00	5.00		1.54	4.54
SS042	10/10/2017	2017	LF	7.40	3.2	1136	7.00	84	50	5.00	5.00	10.00	10.00	50.00	50.0	5.00	5.00		8.53	7.81
SS043	6/28/2017	2017	HF	7.39	10.4	894	8.50	67	50			10.00	10.00			5.00	5.00		1.00	1.00
SS043	9/27/2018	2018	LF	7.40	10.1	714	11.40	20	26	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	2.5	0.50	0.50
SS043	10/6/2016	2016	LF	7.35	8.4	757	12.00	57	70	0.78	5.00	0.78	10.00			5.00	5.00		0.20	1.00
SS043	6/18/2018	2018	HF	7.37	10.2	867	18.00	20	241	1.09	2.50	0.67	2.50	21.40	25.0	2.00	2.00	2.5	0.10	0.50
SS043	10/10/2017	2017	LF	7.14	8.2	1053	30.00	79	24	5.00	5.00	10.00	10.00	50.00	27.9	5.00	5.00		1.00	1.00
SS044	9/25/2018	2018	LF	6.54	5.1	921	4.20	20	55	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	2.5	0.28	0.50
SS044	9/25/2018	2018	LF	6.54	5.1	921	4.20	20	56	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	2.5	0.28	0.50
SS044	6/14/2018	2018	HF	5.96	6.3	602	10.00	81	566	0.63	2.50	0.98	11.20	5.00	25.0	2.00	2.00	1.0	0.93	1.17
SS044	10/11/2017	2017	LF	6.24	2.2	936	20.00	98	321	5.00	5.00	10.00	9.89	50.00	50.0	5.00	5.00		1.00	1.00
SS044	10/6/2016	2016	LF	7.57	3.0	793	30.06	93	170	1.00	5.00	1.07	10.00			5.00	5.00		0.30	1.00
SS044	6/22/2017	2017	HF	6.63	5.8	641	155.00	852	859			1.72	3.77			5.00	5.00		2.14	1.86
SS045	9/25/2018	2018	LF	4.86	8.3	214	1.20	1200	1100	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	0.5	8.80	8.27
SS045	6/6/2018	2018	HF	4.80	2.4	248	4.00	999	1040	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	0.5	8.09	8.76
SS045	10/11/2017	2017	LF	4.82	4.4	298	9.00	1100	1110	1.00	5.00	2.00	10.00	10.00	50.0	5.00	5.00		8.11	7.16
SS045	10/6/2016	2016	LF	5.17	4.5	259	12.00	1170	1170	1.00	5.00	2.00	10.00			5.00	5.00		9.41	8.67
SS045	6/22/2017	2017	HF	4.79	3.6	137	27.00	891	907			2.00	10.00			5.00	5.00		7.89	7.22
SS046	9/25/2018	2018	LF	4.26	4.6	278	1.00	2040	1890	0.50	2.50	0.50	2.50	9.02	25.0	2.00	2.00	0.5	16.70	16.50
SS046	6/22/2017	2017	HF	4.30	3.7	473	5.00	2490	2710			2.00	10.00			5.00	5.00		25.90	26.30
SS046	10/11/2017	2017	LF	5.09	2.8	440	7.00	2180	2180	1.00	5.00	2.00	10.00	8.81	50.0	5.00	5.00		21.50	18.50

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
SS046	6/6/2018	2018	HF	5.07	5.1	438	7.00	2150	2280	0.50	2.50	0.50	2.50	8.58	25.0	2.00	2.00	0.5	19.60	15.40
SS046	10/6/2016	2016	LF	4.71	2.8	330	9.01	2100	2130	1.00	5.00	2.00	10.00			5.00	5.00		21.10	20.40
SS047	10/5/2017	2017	LF	7.19	2.2	389	27.50	50	50	1.00	5.00	2.00	10.00	23.50	50.0	5.00	5.00		0.20	1.00
SS047	10/2/2018	2018	LF	7.08	3.3	216	95.00	20	20	0.50	2.50	0.50	2.50	26.20	28.6	2.00	2.00	0.5	0.11	0.50
SS047	10/10/2016	2016	LF	7.52	2.2	197	111.18	50	50	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS047	6/12/2018	2018	HF	6.15	1.8	173	117.35	20	20	0.50	2.50	0.50	2.50	21.90	25.0	2.00	2.00	0.5	0.10	0.50
SS047	6/26/2017	2017	HF	6.98	3.2	489	1355.18	50	50			2.00	10.00			5.00	5.00		0.20	1.00
SS048	10/10/2016	2016	LF	7.15	5.8	82	3.60	50	86	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS048	10/5/2017	2017	LF	6.26	7.1	204	16.00	54	128	1.00	5.00	0.67	10.00	7.05	50.0	5.00	5.00		0.20	1.00
SS048	6/12/2018	2018	HF	5.69	7.5	89	272.55	30	270	0.50	2.50	0.50	2.50	7.30	25.0	2.00	2.00	0.5	0.10	0.50
SS048	6/26/2017	2017	HF	6.94	14.3	175	1491.45	50	724			2.00	10.00			5.00	5.00		0.20	1.00
SS049	10/5/2017	2017	LF	6.77	3.4	194	0.20	50	50	1.00	5.00	2.00	10.00	5.66	50.0	5.00	5.00		0.20	1.00
SS049	10/10/2016	2016	LF	7.29	4.2	68	0.98	50	50	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS049	6/7/2018	2018	HF	5.90	1.3	47	10.00	20	32	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	0.5	0.10	0.50
SS049	6/26/2017	2017	HF	6.98	3.5	33	70.00	50	50			2.00	10.00			5.00	5.00		0.20	1.00
SS050	10/10/2016	2016	LF	8.03	0.5	216	12.00	23	503	1.00	5.00	2.00	10.00			5.00	5.00		0.20	0.53
SS050	10/5/2017	2017	LF	7.50	1.1	465	24.00	50	28	1.00	5.00	2.00	10.00	18.00	50.0	5.00	5.00		0.20	1.00
SS050	10/2/2018	2018	LF	6.74	1.3	153	140.00	20	962	0.50	2.50	0.50	2.50	11.70	25.0	2.00	2.00	0.5	0.10	0.50
SS050	6/7/2018	2018	HF	6.20	0.7	214	261.19	20	351	0.50	2.50	0.50	2.50	14.80	25.0	2.00	2.00	0.5	0.38	0.50
SS050	6/26/2017	2017	HF	7.76	2.6	192	876.00	50	211			2.00	10.00			5.00	5.00		0.20	1.00
SS051	10/5/2017	2017	LF	7.23	2.2	350	14.00	50	50	1.00	5.00	2.00	10.00	6.69	50.0	5.00	5.00		0.20	1.00
SS051	10/10/2016	2016	LF	7.79	2.5	162	15.03	50	21	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS051	10/2/2018	2018	LF	6.05	5.8	143	24.00	67	133	0.50	2.50	0.50	2.50	29.60	26.3	2.00	2.00	0.5	0.10	0.50
SS051	6/7/2018	2018	HF	6.20	0.1	167	38.00	20	169	0.50	2.50	0.50	2.50	5.66	25.0	2.00	2.00	0.5	0.11	0.50
SS051	6/26/2017	2017	HF	7.18	2.4	118	75.00	50	50			2.00	10.00			5.00	5.00		0.20	1.00
SS052	10/5/2017	2017	LF	6.91	4.0	400	0.30	50	42	1.00	5.00	2.00	10.00	5.46	50.0	5.00	5.00		0.31	1.00
SS052	10/2/2018	2018	LF	6.48	4.2	144	1.25	20	228	0.50	2.50	0.50	2.50	6.03	25.0	2.00	2.00	0.5	0.31	0.50
SS052	10/10/2016	2016	LF	7.02	2.9	151	1.51	34	45	1.00	5.00	2.00	10.00			5.00	5.00		0.30	1.00
SS052	6/26/2017	2017	HF	6.26	4.5	127	3.00	32	234			2.00	10.00			5.00	5.00		0.30	1.00
SS052	6/7/2018	2018	HF	5.65	1.7	121	3.00	36	73	0.50	2.50	0.50	2.50	5.82	25.0	2.00	2.00	0.5	0.34	0.50
SS053	6/7/2018	2018	HF	4.34	1.1	192	4.00	815	1030	0.50	2.50	0.50	2.50	13.10	25.0	2.00	2.00	0.5	2.31	2.36
SS053	10/2/2018	2018	LF	4.89	3.8	191	7.90	1010	1000	0.50	2.50	0.50	2.50	13.80	25.0	2.00	2.00	0.5	2.54	2.39
SS053	10/10/2016	2016	LF	4.50	3.1	145	12.00	866	883	1.00	5.00	2.00	10.00			5.00	5.00		2.07	2.06
SS053	10/5/2017	2017	LF	4.59	3.2	403	12.00	1240	1250	1.00	5.00	2.00	10.00	13.70	50.0	5.00	5.00		3.13	3.02

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
SS053	7/20/2017	2017	HF	3.61	2.5	187	60.00	1410	1520			2.00	10.00			5.00	5.00		3.89	3.59
SS054	10/2/2018	2018	LF	6.97	6.7	1286	7.80	20	341	2.50	2.50	2.50	2.50	27.90	30.8	2.00	2.00	2.5	0.50	0.50
SS054	10/5/2017	2017	LF	6.58	6.2	2320	8.00	89	1220	5.00	5.00	10.00	10.00	26.40	33.4	5.00	5.00		1.00	1.00
SS054	10/10/2016	2016	LF	6.99	5.0	653	20.02	69	145	1.00	5.00	2.00	10.00			5.00	5.00		0.27	1.00
SS054	6/26/2017	2017	HF	6.67	5.6	1079	50.00	50	34			2.00	10.00			5.00	5.00		0.43	1.00
SS054	6/7/2018	2018	HF	5.97	3.4	760	189.27	20	20	0.50	2.50	0.50	2.50	15.00	25.0	2.00	2.00	1.0	0.22	0.50
SS055	10/5/2017	2017	LF	6.04	12.2	487	0.20	274	378	1.00	5.00	2.00	10.00	7.96	50.0	5.00	5.00		0.48	1.00
SS055	6/14/2018	2018	HF	5.45	14.7	161	0.25	318	1150	0.50	2.50	0.50	2.50	13.60	25.0	2.00	2.00	0.5	1.10	1.33
SS055	10/10/2018	2018	LF	4.06	4.4	147	5.00	10200	10200	0.50	2.50	1.06	2.50	6.74	25.0	2.00	2.00	2.5	3.42	2.77
SS055	10/10/2016	2016	LF	6.07	4.4	242	9.01	397	809	1.00	5.00	2.00	10.00			5.00	5.00		1.25	1.23
SS055	6/23/2017	2017	HF	3.97	5.9	1009	16.00	8720	9310			0.73	10.00			5.00	5.00		3.37	3.62
SS056	6/14/2018	2018	HF	4.39	6.7	140	0.35	1420	1590	0.50	2.50	0.50	2.50	14.30	25.0	2.00	2.00	0.5	0.96	1.04
SS056	10/11/2016	2016	LF	5.14	3.7	117	0.98	969	941	1.00	5.00	2.00	10.00			5.00	5.00		0.34	1.00
SS056	6/22/2017	2017	HF	4.31	8.2	92	12.00	781	767			2.00	10.00			5.00	5.00		0.38	1.00
SS057	10/11/2016	2016	LF	6.08	3.2	1053	0.49	456	677	1.00	5.00	0.79	10.00			5.00	5.00		0.93	0.96
SS057	7/17/2017	2017	HF	6.25	10.1	865	0.50	221	285			1.02	10.00			5.00	5.00		0.47	0.51
SS057	10/2/2017	2017	LF	6.03	3.2	1107	0.50	363	413	5.00	5.00	10.00	10.00	50.00	50.0	5.00	5.00		0.84	0.80
SS057	6/6/2018	2018	HF	6.03	9.8	1043	0.50	20	44	0.50	2.50	0.50	2.50	17.50	25.0	2.00	2.00	1.0	0.10	5.62
SS057	9/25/2018	2018	LF	6.21	2.7	1045	0.50	20	533	2.50	2.50	2.50	22.20	25.00	31.4	2.00	2.00	2.5	0.50	0.50
SS058	10/11/2016	2016	LF	6.34	4.9	21	0.50	99	105	1.00	5.00	2.00	10.00			5.00	5.00		0.32	1.00
SS058	7/17/2017	2017	HF	5.66	13.5	372	0.50	85	88			2.00	10.00			5.00	5.00		0.24	1.00
SS058	10/2/2017	2017	LF	5.79	2.8	41	0.50	92	109	1.00	5.00	2.00	10.00	10.00	50.0	5.00	5.00		0.46	1.00
SS058	6/6/2018	2018	HF	5.69	5.0	69	0.50	74	98	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	0.5	0.41	0.50
SS059	10/25/2017	2017	LF	5.56	5.1	174	7.00	975	1080	1.00	5.00	2.00	10.00	5.92	50.0	5.00	5.00		1.22	1.13
SS059	10/11/2016	2016	LF	5.30	5.5	189	8.03	1060	1040	1.00	5.00	2.00	10.00			5.00	5.00		1.29	1.39
SS059	10/9/2018	2018	LF	5.13	5.9	201	18.00	1160	1200	0.50	2.50	0.50	2.50	7.78	25.0	2.00	2.00	0.5	1.61	1.30
SS059	6/19/2018	2018	HF	5.00	4.6	201	25.00	824	930	0.50	2.50	0.50	2.50	5.55	25.0	2.00	2.00	0.5	1.25	1.10
SS059	6/22/2017	2017	HF	5.49	4.6	86	80.00	423	457			2.00	10.00			5.00	5.00		0.41	1.00
SS060	10/9/2018	2018	LF	4.91	7.7	57	2.00	660	707	0.50	2.50	0.50	2.50	5.28	25.0	2.00	2.00	0.5	1.69	1.39
SS060	10/25/2017	2017	LF	4.78	4.9	50	6.00	644	704	1.00	5.00	2.00	10.00	5.20	50.0	5.00	5.00		1.53	1.52
SS060	6/11/2018	2018	HF	4.67	2.9	56	14.40	521	586	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	0.5	1.23	1.12
SS060	10/11/2016	2016	LF	4.90	5.0	60	15.03	630	679	1.00	5.00	2.00	10.00			5.00	5.00		1.49	1.46
SS060	6/21/2017	2017	HF	4.89	3.8	47	28.00	354	407			2.00	10.00			5.00	5.00		0.95	0.86
SS061	10/11/2016	2016	LF	4.98	5.1	405	0.49	1060	1290	1.00	5.00	2.00	10.00			5.00	5.00		1.83	1.67

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
SS061	6/21/2017	2017	HF	4.78	12.7	52	3.00	202	389			2.00	10.00			5.00	5.00		0.56	1.00
SS062	10/11/2016	2016	LF	4.58	7.0	498	0.49	959	1350	1.00	5.00	2.00	10.00			5.00	5.00		0.68	1.08
SS062	6/11/2018	2018	HF	6.07	8.2	564	3.10	64	185	0.50	2.50	0.50	2.50	13.00	25.0	2.00	2.00	1.0	0.10	0.50
SS062	10/23/2017	2017	LF	7.00	4.2	445	3.25	152	200	1.00	5.00	2.00	10.00	8.97	50.0	5.00	5.00		0.20	1.00
SS062	10/8/2018	2018	LF	5.75	5.4	1045	5.00	3340	3570	0.50	2.50	0.50	2.50	20.40	25.0	2.00	2.00	2.5	1.89	1.68
SS062	6/21/2017	2017	HF	5.41	14.0	320	12.00	600	1260			2.00	10.00			5.00	5.00		1.04	0.99
SS063	10/3/2017	2017	LF	6.16	4.6	420	1.00	325	523	5.00	5.00	10.00	10.00	50.00	50.0	5.00	5.00		1.00	1.00
SS063	6/28/2018	2018	HF	6.46	5.8	446	1.00	20	3240	0.50	2.50	0.50	2.50	10.50	49.5	2.00	2.00	1.0	0.10	1.77
SS063	10/12/2016	2016	LF	5.72	3.5	1126	2.99	3390	4680	5.00	5.00	10.00	10.00			5.00	5.00		7.19	7.17
SS063	7/20/2017	2017	HF	5.06	4.7	1168	8.00	6250	6790			10.00	10.00			5.00	5.00		7.72	7.60
SS064	10/3/2017	2017	LF	6.24	8.1	669	1.50	48	474	5.00	5.00	10.00	10.00	50.00	50.0	5.00	5.00		1.00	1.00
SS064	10/2/2018	2018	LF	6.55	5.9	948	2.60	20	728	2.50	2.50	2.50	2.50	32.70	39.6	2.00	2.00	2.5	0.50	0.50
SS064	6/28/2018	2018	HF	6.77	7.9	427	4.00	20	136	0.50	2.50	0.50	2.50	12.50	25.0	2.00	2.00	1.0	0.10	0.50
SS064	7/20/2017	2017	HF	7.20	12.1	271	9.00	36	87			2.00	10.00			5.00	5.00		0.11	1.00
SS064	10/12/2016	2016	LF	8.24	4.5	676	20.02	79	159	5.00	5.00	10.00	10.00			5.00	5.00		1.00	1.00
SS065	10/4/2018	2018	LF	3.80	6.1	2120	3.30	14200	14600	2.50	2.50	2.50	2.50	25.00	25.0	2.25	2.11	5.0	3.92	3.99
SS065	10/12/2016	2016	LF	4.52	6.5	1744	5.00	12200	12100	5.00	5.00	10.00	10.00			5.00	5.00		3.83	3.61
SS065	6/19/2018	2018	HF	3.71	9.9	1855	5.00	13200	12400	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	5.0	3.81	3.64
SS065	6/23/2017	2017	HF	3.74	6.7	1403	20.00	5380	5690			2.00	10.00			5.00	5.00		2.99	2.87
SS065	10/3/2017	2017	LF	6.48	6.7	2140	22.80	12400	12100	10.00	10.00	20.00	20.00	100.00	100.0	5.00	5.00		10.60	12.20
SS066	10/3/2017	2017	LF	6.50	5.4	2410	1.00	13800	13300	10.00	10.00	20.00	20.00	100.00	100.0	5.00	5.00		4.76	4.49
SS066	6/23/2017	2017	HF	3.31	8.1	1945	4.00	12600	13800			0.53	10.00			5.00	2.06		4.55	4.47
SS066	10/12/2016	2016	LF	3.17	5.3	2050	6.02	15400	15400	5.00	5.00	10.00	10.00			5.00	5.00		4.59	4.60
SS067	6/21/2017	2017	HF	3.81	4.7	1171	0.50	16000	16300			10.00	10.00			3.10	3.58		38.30	38.00
SS067	10/23/2017	2017	LF	4.27	4.9	975	0.50	17900	17800	5.00	5.00	10.00	10.00	50.00	50.0	3.22	3.09		41.30	40.20
SS067	6/5/2018	2018	HF	3.89	4.5	1534	1.00	17100	17700	2.50	2.50	2.50	2.50	25.00	25.0	3.65	3.66	2.5	46.00	45.00
SS067	10/8/2018	2018	LF	3.75	4.7	1360	1.00	18700	19500	7.66	2.50	7.57	2.50	25.00	25.0	3.79	3.80	2.5	41.50	35.70
SS067	10/17/2016	2016	LF	3.50	4.0	1199	1.51	17900	17900	5.00	5.00	10.00	10.00			3.15	3.17		40.20	39.80
SS068	10/8/2018	2018	LF	3.57	5.4	870	4.00	4690	4920	0.50	2.50	0.50	2.50	17.60	25.0	2.00	2.00	2.5	7.84	7.24
SS068	10/23/2017	2017	LF	3.80	4.8	598	5.00	4210	4250	1.00	5.00	2.00	10.00	16.00	50.0	5.00	5.00		8.57	8.28
SS068	10/17/2016	2016	LF	3.98	5.4	710	6.02	4280	4290	5.00	5.00	10.00	10.00			5.00	5.00		8.42	8.78
SS068	6/21/2017	2017	HF	3.70	4.6	670	7.50	3210	3380			2.00	10.00			5.00	5.00		8.11	7.93
SS068	6/5/2018	2018	HF	3.63	4.1	937	8.00	3660	3910	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	2.5	5.92	6.34
SS069	10/9/2018	2018	LF	4.07	5.0	540	0.75	5050	5230	0.50	2.50	0.50	2.50	10.50	25.0	2.81	2.82	1.0	19.80	17.30

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
SS069	6/19/2018	2018	HF	4.06	9.7	428	1.00	4270	4220	0.50	2.50	0.50	2.50	8.85	25.0	2.46	2.35	1.0	17.00	15.40
SS069	10/17/2016	2016	LF	4.20	4.3	474	1.51	4710	4880	1.00	5.00	2.00	10.00			2.44	2.48		20.90	20.90
SS069	10/23/2017	2017	LF	4.35	9.8	398	4.00	4410	4440	1.00	5.00	2.00	10.00	9.60	50.0	2.53	2.32		18.60	17.10
SS069	6/21/2017	2017	HF	4.07	9.6	350	6.00	2910	3000			2.00	10.00			5.00	5.00		11.80	10.80
SS070	10/17/2016	2016	LF	4.44	5.6	261	2.99	2190	2230	1.00	5.00	2.00	10.00			5.00	5.00		9.69	9.13
SS070	6/11/2018	2018	HF	3.89	15.0	300	3.00	1190	1260	0.50	2.50	0.50	2.50	24.50	25.0	2.00	2.00	0.5	4.39	4.64
SS070	10/9/2018	2018	LF	3.96	3.5	331	3.00	3010	3180	0.50	2.50	0.50	2.50	9.63	25.0	2.00	2.00	0.5	9.59	8.19
SS070	10/23/2017	2017	LF	4.82	7.0	227	3.50	2090	2090	1.00	5.00	2.00	10.00	5.86	50.0	5.00	5.00		8.24	8.02
SS070	6/21/2017	2017	HF	4.15	11.8	214	12.00	1890	2050			2.00	10.00			5.00	5.00		6.86	6.44
SS071	10/1/2018	2018	LF	7.31	6.4	665	131.00	20	20	0.50	2.50	0.78	2.50	8.38	25.0	2.00	2.00	1.0	0.10	0.50
SS071	10/1/2018	2018	LF	7.31	6.4	665	131.00	20	20	0.50	2.50	0.78	2.50	8.11	25.0	2.00	2.00	1.0	0.10	0.50
SS071	10/17/2016	2016	LF	7.58	6.3	554	151.42	46	52	5.00	5.00	10.00	10.00			5.00	5.00		1.00	1.00
SS071	10/24/2017	2017	LF	6.97	6.3	522	172.61	21	97	1.00	5.00	0.69	10.00	7.28	50.0	5.00	5.00		0.20	1.00
SS071	6/18/2018	2018	HF	7.29	6.6	701	211.98	25	228	0.69	2.50	0.78	2.50	7.37	25.0	2.00	2.00	1.0	0.10	0.50
SS071	6/27/2017	2017	HF	7.31	7.0	694	507.00	264	315			10.00	10.00			5.00	5.00		1.00	1.00
SS072	6/27/2017	2017	HF	6.64	8.9	1025	7.50	62	2610			10.00	10.00			5.00	5.00		1.78	1.81
SS072	6/18/2018	2018	HF	4.13	18.6	1212	18.00	4240	4050	0.65	2.50	0.50	2.50	5.17	25.0	2.00	2.00	2.5	3.35	3.09
SS072	10/1/2018	2018	LF	6.95	10.1	945	29.40	20	1200	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	2.5	0.50	0.50
SS072	10/24/2017	2017	LF	7.06	13.7	736	35.00	46	137	5.00	5.00	10.00	10.00	50.00	50.0	5.00	5.00		1.00	1.00
SS072	10/17/2016	2016	LF	8.01	8.8	915	72.11	105	190	5.00	5.00	10.00	10.00			5.00	5.00		1.00	1.00
SS073	6/27/2017	2017	HF	7.16	16.6	972	7.00	174	291			10.00	10.00			5.00	5.00		1.00	1.00
SS073	6/18/2018	2018	HF	6.81	8.2	1007	7.50	174	711	0.61	2.50	0.81	4.09	10.10	25.0	2.00	2.80	2.5	0.10	0.50
SS073	10/1/2018	2018	LF	7.30	10.5	958	7.60	20	196	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	2.5	0.50	0.50
SS073	10/17/2016	2016	LF	7.41	7.6	826	12.00	424	637	5.00	5.00	10.00	10.00			5.00	5.00		1.00	1.00
SS073	10/24/2017	2017	LF	6.43	7.5	771	18.00	330	349	5.00	5.00	10.00	10.00	50.00	50.0	5.00	5.00		1.00	1.00
SS074	10/1/2018	2018	LF	2.40	10.3	1841	0.10	24400	23300	2.50	2.50	44.90	42.60	25.00	25.0	4.02	3.75	2.5	10.40	10.00
SS074	10/17/2016	2016	LF	3.06	8.2	1175	2.99	7780	8110	5.00	5.00	10.00	3.68			5.00	5.00		6.49	6.22
SS074	10/24/2017	2017	LF	3.54	5.4	965	3.20	8990	9050	5.00	5.00	10.00	10.00	50.00	50.0	5.00	5.00		6.22	6.30
SS074	6/27/2017	2017	HF	3.79	8.9	1180	10.00	8220	8630			10.00	10.00			5.00	5.00		6.99	6.48
SS075	6/18/2018	2018	HF	7.00	8.6	1069	71.92	20	120	0.55	2.50	0.97	2.50	14.80	25.0	2.00	2.00	2.5	0.34	0.50
SS075	10/1/2018	2018	LF	6.29	5.8	880	130.00	20	20	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	2.5	0.50	0.50
SS075	10/17/2016	2016	LF	6.89	5.7	804	180.26	82	87	5.00	5.00	10.00	10.00			5.00	5.00		1.00	1.00
SS075	6/27/2017	2017	HF	6.74	6.8	875	200.00	174	115			10.00	10.00			5.00	5.00		0.50	1.00
SS075	10/24/2017	2017	LF	6.61	5.8	723	200.00	42	44	5.00	5.00	10.00	10.00	50.00	50.0	5.00	5.00		1.00	1.00

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
SS076	10/18/2016	2016	LF	8.34	5.2	47	0.50	20	32	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS076	7/18/2017	2017	HF	6.18	14.9	126	0.50	29	38			2.00	10.00			5.00	5.00		0.20	1.00
SS076	10/10/2017	2017	LF	7.66	8.2	40	0.50	27	33	1.00	5.00	2.00	10.00	6.09	50.0	5.00	5.00		0.20	1.00
SS076	6/27/2018	2018	HF	7.51	16.0	40	0.50	20	51	0.68	2.50	0.50	2.50	7.02	25.0	2.00	2.00	0.5	0.10	0.50
SS076	9/26/2018	2018	LF	5.32	9.5	137	0.50	22	1170	0.50	2.50	0.50	2.50	33.30	49.2	2.00	2.00	0.5	0.10	0.50
SS077	6/27/2018	2018	HF	7.94	4.9	69	4.00	20	25	0.52	2.50	0.50	2.50	21.60	25.0	2.00	2.00	0.5	0.10	0.50
SS077	10/18/2016	2016	LF	8.75	5.5	80	9.01	50	50	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS077	9/26/2018	2018	LF	6.70	9.4	101	12.00	20	51	0.50	2.50	0.50	2.50	33.20	36.6	2.00	2.00	0.5	0.10	0.50
SS077	10/10/2017	2017	LF	7.20	8.3	80	38.00	50	419	1.00	5.00	2.00	10.00	26.90	32.0	5.00	5.00		0.20	1.00
SS077	7/18/2017	2017	HF	7.08	5.9	420	397.47	50	78			2.00	10.00			5.00	5.00		0.20	1.00
SS078	10/10/2017	2017	LF	7.73	4.5	146	22.00	50	50	1.00	5.00	2.00	10.00	31.60	28.8	5.00	5.00		0.20	1.00
SS078	9/26/2018	2018	LF	6.52	8.6	149	30.00	20	22	0.50	2.50	0.50	2.50	34.00	37.2	2.00	2.00	0.5	0.10	0.50
SS078	10/18/2016	2016	LF	8.90	1.7	116	66.09	50	50	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS078	6/27/2018	2018	HF	7.81	1.2	94	68.00	20	425	0.54	2.50	0.50	2.50	23.90	33.7	2.00	2.00	0.5	0.10	0.50
SS078	7/18/2017	2017	HF	7.04	0.6	103	150.00	50	73			2.00	10.00			5.00	5.00		0.20	1.00
SS079	9/26/2018	2018	LF	6.00	4.5	200	0.50	20	873	0.50	2.50	0.50	2.50	16.60	26.7	2.00	2.00	0.5	0.10	0.50
SS079	10/18/2016	2016	LF	8.83	3.4	181	0.98	50	33	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS079	6/27/2018	2018	HF	7.67	5.5	107	1.00	20	20	0.60	2.50	0.50	2.50	9.51	25.0	2.00	2.00	0.5	0.10	0.50
SS079	10/10/2017	2017	LF	6.92	2.4	350	6.00	50	22	1.00	5.00	2.00	10.00	13.50	50.0	5.00	5.00		0.20	1.00
SS079	7/18/2017	2017	HF	7.23	4.4	227	120.00	50	30			2.00	10.00			5.00	5.00		0.20	1.00
SS080	10/18/2016	2016	LF	8.91	6.7	89	0.50	50	32	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS080	6/27/2018	2018	HF	7.68	17.9	98	0.50	20	82	0.58	2.50	1.51	2.50	7.93	25.0	2.00	2.00	0.5	0.10	0.50
SS080	9/26/2018	2018	LF	5.80	16.0	173	0.50	20	54	0.50	2.50	0.75	2.50	11.80	25.0	2.00	2.00	0.5	0.10	0.50
SS080	10/10/2017	2017	LF	7.31	8.9	120	1.00	50	38	1.00	5.00	2.00	10.00	10.00	50.0	5.00	5.00		0.20	1.00
SS082	6/28/2018	2018	HF	5.25	5.0	24	4.00	20	367	0.66	2.50	0.50	2.50	5.00	25.0	2.00	2.00	0.5	0.10	0.50
SS082	10/20/2016	2016	LF	8.80	3.8	25	6.02	50	157	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS083	10/20/2016	2016	LF	2.96	5.5	1246	0.49	19000	18400	1.00	5.00	1.76	4.98			2.91	2.86		22.60	26.10
SS083	6/12/2018	2018	HF	2.75	7.0	857	20.00	6120	6350	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	2.5	8.00	8.84
SS083	7/20/2017	2017	HF	2.67	7.0	620	62.00	3720	3630			2.00	10.00			5.00	5.00		6.40	6.09
SS084	10/20/2016	2016	LF	2.90	4.6	1223	2.01	18400	18200	1.00	5.00	1.56	10.00			2.84	2.82		21.90	25.20
SS084	6/12/2018	2018	HF	2.66	7.8	1014	3.00	6020	6300	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	2.5	8.24	9.63
SS084	7/20/2017	2017	HF	3.71	12.2	363	567.81	1140	1220			2.00	10.00			5.00	5.00		1.98	1.85
SS085	10/20/2016	2016	LF	6.80	0.6	1236	0.50	521	589	5.00	5.00	10.00	10.00			5.00	5.00		13.60	13.70
SS085	10/2/2018	2018	LF	5.64	2.9	1566	0.50	238	327	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	2.5	13.10	12.00

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
SS085	6/28/2018	2018	HF	5.21	2.7	1281	3.00	428	571	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	2.5	10.70	10.20
SS085	7/20/2017	2017	HF	5.83	4.2	1065	7.00	537	661			10.00	10.00			5.00	5.00		9.79	9.60
SS086	10/20/2016	2016	LF	4.28	7.0	784	0.42	7890	7800	1.00	5.00	2.00	10.00			5.00	5.00		5.05	3.33
SS086	10/11/2017	2017	LF	4.14	1.0	1327	0.50	8200	8340	5.00	5.00	10.00	10.00	50.00	50.0	5.00	5.00		1.58	1.40
SS086	6/14/2018	2018	HF	3.47	10.3	1219	1.00	9350	9380	0.83	2.50	0.50	2.50	5.00	25.0	2.00	2.00	2.5	2.12	2.00
SS086	10/9/2018	2018	LF	3.42	2.0	1154	1.60	10100	10800	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	2.5	0.57	0.86
SS086	6/22/2017	2017	HF	3.32	7.6	1094	3.00	6230	6640			10.00	10.00			5.00	5.00		1.75	1.51
SS087	10/25/2016	2016	LF	2.94	1.6	936	18.02	15500	15500	1.00	5.00	2.00	10.00			5.00	2.02		1.22	1.00
SS087	10/18/2017	2017	LF	3.23	0.1	551	30.00	10300	10200	1.00	5.00	2.00	10.00	24.50	50.0	5.00	5.00		0.73	0.88
SS087	6/26/2018	2018	HF	3.23	3.3	301	50.00	2130	2220	0.50	2.50	0.50	2.50	25.80	27.3	2.00	2.00	0.5	0.27	0.50
SS087	10/3/2018	2018	LF	3.33	2.2	340	60.00	2240	2290	0.50	2.50	0.50	2.50	36.80	29.0	2.00	2.00	0.5	0.32	0.50
SS087	10/3/2018	2018	LF	3.33	2.2	340	60.00	2290	2390	0.50	2.50	0.50	2.50	29.10	30.1	2.00	2.00	0.5	0.41	0.50
SS087	6/27/2017	2017	HF	3.75	0.4	173	337.28	4530	4270			2.00	10.00			5.00	5.00		0.37	1.00
SS088	6/26/2018	2018	HF	4.65	8.7	28	1.00	66	155	0.66	2.50	0.50	2.50	105.00	114.0	2.00	2.00	0.5	0.10	0.50
SS088	10/3/2018	2018	LF	4.00	10.9	78	1.50	695	692	0.50	2.50	3.11	2.50	128.00	127.0	2.00	2.00		0.10	0.50
SS088	10/18/2017	2017	LF	4.69	2.5	59	2.40	382	388	1.00	5.00	2.00	10.00	86.70	77.4	5.00	5.00		0.20	1.00
SS088	10/25/2016	2016	LF	5.30	4.9	114	2.99	582	629	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS088	6/27/2017	2017	HF	4.38	9.8	141	30.00	413	432			2.00	10.00			5.00	5.00		0.20	1.00
SS089	6/28/2018	2018	HF	6.81	14.5	100	0.10	20	31	0.50	2.50	0.50	2.50	51.00	55.4	2.00	2.00	0.5	0.10	0.50
SS089	10/3/2018	2018	LF	6.58	9.0	514	0.50	20	20	0.50	2.50	0.50	2.50	26.30	27.9	2.00	2.00	1.0	0.10	0.50
SS089	10/25/2016	2016	LF	8.70	6.0	107	1.21	50	123	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS089	10/12/2017	2017	LF	6.85	13.8	436	2.00	58	52	1.00	5.00	0.53	10.00	22.70	50.0	5.00	5.00		0.20	1.00
SS089	6/29/2017	2017	HF	7.30	15.6	87	8.70	49	162			2.00	10.00			5.00	5.00		0.20	1.00
SS090	6/28/2018	2018	HF	5.97	13.0	150	0.25	20	40	0.50	2.50	0.50	2.50	55.00	56.8	2.00	2.00	0.5	0.10	0.50
SS090	10/3/2018	2018	LF	6.28	9.5	280	0.60	20	20	0.50	2.50	0.50	2.50	155.00	152.0	2.00	2.00	0.5	0.10	0.50
SS090	10/25/2016	2016	LF	8.50	4.2	78	0.98	63	105	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS090	6/29/2017	2017	HF	7.03	14.4	82	1.50	39	70			2.00	10.00			5.00	5.00		0.20	1.00
SS091	6/29/2017	2017	HF	4.33	13.2	103	1.00	246	241			2.00	10.00			5.00	5.00		0.20	1.00
SS091	10/12/2017	2017	LF	3.45	8.0	179	1.00	572	611	1.00	5.00	2.00	10.00	31.10	32.0	5.00	5.00		0.20	1.00
SS091	10/25/2016	2016	LF	3.95	6.6	151	5.00	432	458	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS091	6/26/2018	2018	HF	4.22	16.7	102	5.25	465	601	0.50	2.50	1.60	2.50	42.20	45.6	2.00	2.00	0.5	0.24	0.50
SS092	6/26/2018	2018	HF	5.95	20.1	88	0.20	20	24	0.53	2.50	0.50	2.50	36.70	37.8	2.00	2.00	0.5	0.10	0.50
SS092	11/8/2016	2016	LF	8.61	7.1	80	1.51	24	114	1.00	5.00	2.00	10.00			5.00	5.00		0.20	1.00
SS092	10/18/2017	2017	LF	5.99	5.9	103	2.00	50	50	1.00	5.00	2.00	10.00	29.80	26.7	5.00	5.00		0.20	1.00

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
SS092	7/21/2017	2017	HF	6.96	13.0	161	4.00	50	36			2.00	10.00			5.00	5.00		0.20	1.00
SS093	10/3/2018	2018	LF	4.38	11.1	200	0.25	2710	2920	0.50	2.50	0.50	2.50	50.10	51.3	2.00	2.00	0.5	0.15	0.50
SS093	11/8/2016	2016	LF	5.28	4.2	212	0.98	5920	6090	2.00	5.00	4.00	10.00			10.00	5.00		0.26	1.00
SS093	7/21/2017	2017	HF	5.95	7.9	175	2.00	50	871			2.00	10.00			5.00	5.00		0.20	1.00
SS093	6/26/2018	2018	HF	4.33	11.7	76	18.00	822	1010	0.50	2.50	0.50	2.50	22.60	26.2	2.00	2.00	0.5	0.10	0.50
SS094	7/21/2017	2017	HF	4.42	10.6	172	0.30	357	2320			2.00	16.60			5.00	5.00		0.23	1.00
SS094	11/8/2016	2016	LF	5.04	0.6	1068	0.98	14300	14600	1.00	5.00	2.02	4.35			5.00	5.00		3.30	3.89
SS094	10/3/2018	2018	LF	6.06	4.8	882	1.80	1160	4690	2.50	2.50	154.00	112.00	25.00	25.0	2.00	2.00	2.5	0.50	0.50
SS094	6/26/2018	2018	HF	4.45	4.5	697	6.00	5130	6080	0.66	2.70	3.10	17.70	27.70	32.5	2.00	2.00	2.5	1.93	2.09
SS095	6/26/2018	2018	HF	6.34	20.0	402	0.50	20	164	0.50	2.50	0.50	2.50	11.40	25.0	2.00	2.00	1.0	0.10	0.50
SS095	10/3/2018	2018	LF	7.19	19.0	513	0.50	20	31	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	1.0	0.50	0.50
SS095	11/8/2016	2016	LF	7.80	7.8	435	5.00	66	149	1.00	5.00	0.65	10.00			5.00	5.00		0.20	1.00
SS095	10/18/2017	2017	LF	5.82	3.1	461	6.00	50	486	1.00	5.00	2.00	10.00	14.50	50.0	5.00	5.00		0.20	1.00
SS095	6/27/2017	2017	HF	6.70	6.8	434	7.20	31	94			2.00	10.00			5.00	5.00		0.20	1.00
SS096	6/28/2018	2018	HF	4.25	10.0	110	0.20	1270	1310	0.50	2.50	0.50	2.50	191.00	177.0	2.00	2.00	0.5	2.61	2.04
SS096	11/8/2016	2016	LF	7.51	4.2	76	0.49	200	263	5.00	5.00	8.38	8.22			25.00	5.00		1.00	1.00
SS096	10/18/2017	2017	LF	4.29	4.3	93	0.75	2910	2990	1.00	5.00	2.00	10.00	70.70	58.4	5.00	5.00		3.23	2.91
SS096	6/26/2017	2017	HF	4.30	11.3	554	3.13	323	384			2.00	10.00			5.00	5.00		0.68	0.72
SS097	11/8/2016	2016	LF	7.26	8.2	98	0.26	1110	3200	1.00	5.00	2.00	10.00			5.00	5.00		1.83	1.87
SS097	6/26/2017	2017	HF	6.98	20.3	268	0.50	24	124			2.00	10.00			5.00	5.00		0.12	1.00
SS098	11/8/2016	2016	LF	2.80	3.7	940	0.26	29200	29500	5.00	5.00	10.00	10.00			5.00	5.00		54.60	56.00
SS098	6/26/2017	2017	HF	2.89	14.0	1113	0.40	13900	15200			2.00	10.00			5.00	5.00		26.70	29.30
SS098	10/3/2018	2018	LF	2.72	12.5	825	0.40	24600	27300	0.50	2.50	0.66	2.50	15.90	25.0	2.00	2.00	2.5	43.60	46.10
SS098	10/18/2017	2017	LF	6.74	6.9	853	4.00	27200	26600	1.00	5.00	0.82	10.00	14.40	50.0	5.00	5.00		41.00	42.90
SS105	9/25/2018	2018	LF	6.64	4.3	888	49.20	176	192	2.50	2.50	8.83	9.33	25.00	25.0	2.00	2.00	2.5	0.50	0.50
SS105	6/14/2018	2018	HF	6.56	4.3	739	57.54	229	260	1.39	2.50	8.73	8.32	5.02	25.0	2.00	2.00	2.5	1.07	1.01
SS105	10/11/2017	2017	LF	6.87	4.1	953	92.74	279	281	5.00		8.48		50.00		5.00	5.00		1.00	
SS105	9/20/2016	2016	LF	6.77	4.8	1151	129.00	250	250			9.30	9.80						0.65	0.66
SS105	6/22/2017	2017	HF	6.37	5.3	718	307.00	713	691			11.00	11.00			5.00	5.00		2.02	1.89
SS123	6/28/2018	2018	HF	2.74	7.4	1140	3.00	4030	4730	0.50	2.50	2.75	3.70	12.00	25.0	2.00	2.00	2.5	0.84	0.72
SS123	6/27/2017	2017	HF	2.65	1.6	495	36.00	1430	1460			2.19	2.69			5.00	5.00		0.25	1.00
SS125	10/18/2017	2017	LF	3.06	6.8	1616	1.00	17000	17100	5.00	5.00	15.50	16.30	50.00	50.0	5.00	5.00		27.40	29.00
SS125	9/29/2016	2016	LF	3.10	7.8	1849	1.14	14000	18000			9.50	15.00						23.00	30.00
SS126	10/3/2018	2018	LF	2.61	10.4	1026	3.00	11400	10400	2.50	2.50	39.20	40.60	25.00	25.0	2.00	2.00	2.5	41.50	40.90

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
SS126	10/18/2017	2017	LF	6.61	5.4	767	8.00	9700	10100	5.00	5.00	42.00	41.80	50.00	50.0	5.00	5.00		36.80	38.20
SS126	6/28/2018	2018	HF	2.72	5.1	1300	12.00	9020	8990	3.14	3.56	91.10	91.70	25.00	25.0	2.00	2.00	2.5	55.30	53.30
SS126	9/29/2016	2016	LF	2.83	4.3	1090	13.25	9900	9900			61.00	60.00						39.00	39.00
SS126	6/27/2017	2017	HF	6.69	10.7	265	63.00	284	405			2.00	10.00			5.00	5.00		0.22	1.00
SS200	10/23/2017	2017	LF	6.93	5.8	930	15.00	78	100	5.00	5.00	10.00	10.00	50.00	50.0	5.00	5.00		1.00	1.00
SS200	10/8/2018	2018	LF	6.55	5.8	1372	18.00	20	20	2.50	2.50	2.74	3.77	25.00	25.0	2.00	2.00	2.5	0.50	0.50
SS200	10/8/2018	2018	LF	6.55	5.8	1372	18.00	20	20	2.50	2.50	3.72	3.13	25.00	25.0	2.00	2.00	2.5	0.50	0.50
SS200	6/11/2018	2018	HF	6.03	6.6	1341	20.00	20	49	2.50	2.50	2.50	3.11	25.00	25.0	2.00	2.00	2.5	0.50	0.50
SS200	6/23/2017	2017	HF	6.63	7.6	1409	24.00	144	210			1.92	6.72			5.00	5.00		0.24	1.00
SS201	10/4/2018	2018	LF	3.03	7.8	2377	5.60	29200	26700	2.50	2.50	2.50	2.50	25.00	25.0	2.50	2.40	5.0	4.66	4.62
SS201	6/19/2018	2018	HF	3.06	9.5	2080	10.00	26800	27200	2.50	2.50	2.50	2.50	25.00	25.0	2.25	2.26	5.0	4.87	4.94
SS201	10/3/2017	2017	LF	6.31	9.8	2490	16.00	24200	24200	10.00	10.00	20.00	20.00	100.00	100.0	5.00	5.00		4.45	4.55
SS201	6/23/2017	2017	HF	3.00	7.3	2150	8.00	20500	20900			2.00	10.00			5.00	2.07		3.95	4.11
SS202	10/2/2018	2018	LF		7.0		0.50	7420	6830	0.50	2.50	1.10	2.62	8.46	25.0	2.00	2.00	1.0	34.60	32.10
SS202	6/26/2017	2017	HF	2.76	7.7	1341	12.00	10500	11900			2.55	2.59			5.00	5.00		24.20	24.90
SS203	6/27/2017	2017	HF	3.85	17.3	194	2.50	1960	2030			2.00	10.00			5.00	5.00		14.70	14.30
SS204	6/27/2017	2017	HF	1.96	7.2	2680	1.20	27700	30100			1160.00	1130.00			5.00	5.00		48.30	47.70
SS204	10/18/2017	2017	LF	4.93	14.9	131	1.30	673	958	1.00	5.00	2.00	10.00	67.30	43.9	5.00	5.00		1.45	0.95
SS205	6/29/2017	2017	HF	6.93	12.8	361	3.00	31	84			2.00	10.00			5.00	5.00		0.20	1.00
SS206	10/12/2017	2017	LF	3.88	5.4	210	3.00	627	1070	1.15	4.62	2.12	63.80	32.30	36.2	5.00	5.00		0.44	1.00
SS206	6/29/2017	2017	HF	3.92	7.3	224	18.00	614	688			5.08	15.00			5.00	5.00		0.34	1.00
SS207	6/29/2017	2017	HF	3.81	8.1	186	1.00	211	466			2.00	10.00			5.00	5.00		0.20	1.00
SS208	6/29/2017	2017	HF	3.88	7.9	411	1.00	1230	1170			2.00	10.00			5.00	5.00		0.20	1.00
SS208	6/28/2018	2018	HF	3.98	7.2	140	1.50	1540	1610	0.50	2.50	0.50	2.50	36.70	35.2	2.00	2.00	0.5	0.10	0.50
SS208	10/3/2018	2018	LF	5.73	12.9	157	1.75	627	550	0.50	2.50	1.50	2.50	70.20	72.7	2.00	2.00	0.5	0.10	0.50
SS208	10/12/2017	2017	LF	6.56	8.8	123	5.00	821	864	1.00	5.00	2.00	10.00	26.10	26.1	5.00	5.00		0.20	1.00
SS210	9/24/2018	2018	LF	3.81	9.1	221	5.00	18200	18400	2.50	2.50	2.50	2.50	25.00	25.1	3.69	3.24	2.5	41.50	40.60
SS210	10/16/2017	2017	LF	6.31	1.5	1191	8.00	15200	15600	1.00	5.00	2.00	10.00	11.10	50.0	2.89	3.01		34.20	32.10
SS210	6/13/2018	2018	HF	4.39	0.4	582	84.00	6140	6910	0.79	2.50	0.50	2.50	7.79	25.0	2.00	2.00	1.0	16.70	16.60
SS210	7/10/2017	2017	HF	5.24	1.0	829	206.95	8670	8460			2.00	10.00			2.19	2.20		22.10	22.30
SS211	7/10/2017	2017	HF	4.04	3.8	302	3.00	562	700			2.00	10.00			5.00	5.00		2.05	1.89
SS212	7/11/2017	2017	HF	4.72	3.7	114	84.00	250	273			2.00	10.00			5.00	5.00		3.59	3.18
SS213	7/12/2017	2017	HF	5.87	2.3	65	18.00	92	95			2.00	10.00			5.00	5.00		0.58	0.61
SS214	7/11/2017	2017	HF	6.14	1.9	598	48.00	1240	1590			2.00	10.00			5.00	5.00		40.50	39.50

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
SS215	10/2/2017	2017	LF	5.58	2.2	80	1.00	141	171	1.00	5.00	2.00	10.00	7.35	50.0	5.00	5.00		0.77	0.75
SS215	7/17/2017	2017	HF	6.18	6.7	239	180.19	183	176			2.00	10.00			5.00	5.00		0.51	1.00
SS215	6/6/2018	2018	HF	5.70	2.5	96	316.35	206	275	0.50	2.50	0.50	2.50	15.00	25.0	2.00	2.00	0.5	0.54	0.53
SS216	6/5/2018	2018	HF	5.81	1.9	33	8.00	62	181	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	0.5	0.10	0.50
SS216	7/17/2017	2017	HF	6.91	7.0	156	10.00	67	74			2.00	10.00			5.00	5.00		0.20	1.00
SS217	9/26/2018	2018	LF	6.52	9.4	269	4.00	63	366	0.50	2.50	0.50	2.50	33.00	35.0	2.00	2.00	0.5	0.22	0.50
SS217	6/27/2018	2018	HF	7.88	2.6	39	22.50	20	61	0.50	2.50	0.50	2.50	6.81	25.0	2.00	2.00	0.5	0.10	0.50
SS217	7/18/2017	2017	HF	7.34	1.3	43	100.00	50	25			2.00	10.00			5.00	5.00		0.20	1.00
SS218	9/26/2018	2018	LF	4.72	5.0	623	3.00	4670	4770	0.50	2.50	0.50	2.50	22.50	25.0	2.00	2.00	1.0	1.96	1.98
SS218	7/18/2017	2017	HF	4.81	2.3	611	5.00	6890	6830			2.00	10.00			5.00	5.00		2.09	1.95
SS218	6/27/2018	2018	HF	5.47	7.9	339	58.00	383	885	0.50	2.50	0.50	2.50	19.20	25.0	2.00	2.00	0.5	0.52	0.50
SS219	10/1/2018	2018	LF	3.29	1.9	295	3.00	3720	3200	0.50	2.50	0.60	2.50	16.70	25.0	2.00	2.00	0.5	43.60	42.50
SS219	10/19/2017	2017	LF	6.72	2.8	240	5.00	2950	3410	1.00	5.00	0.58	9.61	15.40	50.0	5.00	5.00		35.00	33.00
SS219	6/28/2018	2018	HF	3.72	2.2	204	12.00	1580	1770	0.50	2.50	0.50	2.50	13.40	25.0	2.00	2.00	0.5	13.40	16.10
SS219	7/24/2017	2017	HF	3.53	2.6	263	60.00	2620	2840			1.33	10.00			5.00	5.00		26.60	29.00
SS220	6/28/2018	2018	HF	4.25	5.1	1722	6.00	73600	77000	0.50	2.50	1.08	2.50	5.90	25.0	183.00	179.00	2.5	19.10	17.50
SS220	10/1/2018	2018	LF	4.43	3.8	1043	12.00	68600	63000	0.50	2.50	0.75	2.50	5.00	25.0	184.00	169.00	2.5	12.00	13.00
SS220	7/24/2017	2017	HF	4.20	1.8	1439	56.78	77800	78100			1.12	10.00			171.00	185.00		17.20	16.50
SS221	6/28/2018	2018	HF	4.05	8.3	1657	2.00	64100	63800	6.34	2.50	2.50	2.50	25.00	25.0	137.00	131.00	2.5	23.90	21.90
SS221	7/24/2017	2017	HF	4.31	7.4	1095	10.00	49800	53500			10.00	10.00			99.50	106.00		15.10	14.40
SS222	6/28/2018	2018	HF	3.52	1.0	1423	10.00	38700	40800	2.50	2.50	2.50	2.50	25.00	25.0	88.30	88.40	2.5	43.60	40.20
SS222	7/24/2017	2017	HF	3.46	1.1	1635	100.00	75600	78300			10.00	10.00			109.00	114.00		93.20	90.30
SS223	10/1/2018	2018	LF				3.00	20	266	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	0.5	0.10	0.60
SS223	6/28/2018	2018	HF	5.43	5.7	54	5.00	20	23	0.57	2.50	0.50	2.50	5.64	25.0	2.00	2.00	0.5	0.12	0.50
SS223	10/19/2017	2017	LF	7.11	4.6	34	8.00	50	50	1.00	5.00	2.00	10.00	10.00	50.0	5.00	5.00		0.20	1.00
SS223	7/24/2017	2017	HF	6.34	5.6	31	24.00	50	27			2.00	10.00			5.00	5.00		0.20	1.00
SS224	7/24/2017	2017	HF	3.13	1.3	832	24.00	5470	5500			10.00	10.00			25.00	3.28		33.40	31.40
SS225	6/28/2018	2018	HF	3.55	0.5	610	6.00	1030	2110	0.50	2.50	0.50	35.30	5.47	25.0	2.00	2.02	1.0	26.20	24.60
SS225	7/24/2017	2017	HF	3.60	1.6	545	30.00	1270	1260			2.00	10.00			5.00	5.00		18.70	17.00
SS226	6/28/2018	2018	HF	4.33	6.8	100	8.00	595	624	0.50	2.50	0.50	2.50	11.90	25.0	2.00	2.00	0.5	9.55	8.60
SS226	7/24/2017	2017	HF	5.11	3.1	61	55.00	50	50			2.00	10.00			5.00	5.00		3.14	2.93
SS227	10/3/2017	2017	LF	6.73	8.0	1219	1.25	1250	1290	5.00	5.00	10.00	10.00	50.00	50.0	5.00	5.00		1.00	1.00
SS228	10/3/2017	2017	LF	6.32	6.7	2110	2.00	14900	14800	5.00	5.00	10.00	10.00	50.00	50.0	2.11	2.07		13.50	13.20
SS228	7/19/2018	2018	HF	3.32	18.0	1290	5.00													

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Year	Event	pH	Temp (C)	Conductivity (µS/cm)	Flow (lpm)	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L
SS228	10/9/2018	2018	LF	2.83	6.9	1820	5.00	16400	15400	2.50	2.50	2.50	2.50	25.00	25.0	2.89	2.78	2.5	8.50	22.00
SS229	10/4/2017	2017	LF	5.73	4.6	712	1.30	46	55	5.00	5.00	10.00	10.00	50.00	50.0	5.00	5.00		0.68	0.85
SS229	6/27/2018	2018	HF	6.42	10.2	530	3.00	20	20	0.50	2.50	0.50	2.50	15.70	25.0	2.00	2.00	1.0	0.94	0.87
SS230	7/19/2018	2018	HF	3.08	19.2	866	0.50	18300	18600	0.93	2.50	0.50	2.50	30.80	36.0	2.00	2.00	2.5	31.30	32.60
SS230	10/5/2017	2017	LF	2.98	6.9	1050	3.20	10500	10800	1.00	5.00	2.00	10.00	33.60	33.5	5.00	5.00		22.30	21.00
SS231	9/26/2018	2018	LF	6.70	14.9	300	0.80	20	21	0.50	2.50	0.50	2.50	41.20	44.5	2.00	2.00	0.5	0.10	0.50
SS231	10/10/2017	2017	LF	6.36	5.8	234	1.00	50	50	1.00	5.00	2.00	10.00	30.40	30.6	5.00	5.00		0.20	1.00
SS231	6/27/2018	2018	HF	6.40	9.3	141	12.00	20	20	0.50	2.50	0.50	2.50	25.50	27.9	2.00	2.00	0.5	0.10	0.50
SS232	10/16/2017	2017	LF	6.55	3.5	480	0.00	1040	1120	1.00	5.00	1.13	10.00	13.40	50.0	5.00	5.00		69.90	68.40
SS235	10/1/2018	2018	LF				0.00	17300	18100	0.50	2.50	1.50	3.40	17.00	25.0	3.02	2.87	1.0	12.10	12.50
SS235	10/1/2018	2018	LF				0.00	17200	18100	0.50	2.50	1.51	6.63	16.70	25.0	3.06	2.84	1.0	12.10	12.50
SS235	10/19/2017	2017	LF	7.18	6.1	304	60.00	14300	14600	1.00	5.00	1.37	10.00	14.50	50.0	2.47	2.49		12.30	12.30
SS236	10/23/2017	2017	LF	3.89	6.7	691	5.00	11800	11700	1.00	5.00	2.00	10.00	7.64	50.0	3.59	3.54		22.10	21.00
SS236	10/8/2018	2018	LF	3.59	5.2	802	18.00	10800	10400	2.50	2.50	2.50	2.50	25.00	25.0	3.04	2.95	1.0	19.10	19.50
SS236	7/19/2018	2018	HF	3.88	10.2	940	45.42													
SS237	10/24/2017	2017	LF	7.50	3.0	219	1135.62	50	50	1.00	5.00	2.00	10.00	21.30	50.0	5.00	5.00		0.20	1.00
SS238	10/24/2017	2017	LF	3.13	12.6	959	1.00	7920	7910	1.00	5.00	2.00	10.00	10.00	50.0	5.00	5.00		6.12	5.86
SS238	6/18/2018	2018	HF	3.60	16.1	1432	3.00	8230	8130	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	2.5	7.31	6.79
SS250	10/9/2018	2018	LF	6.81	7.7	1241	35.00	20	20	2.50	2.50	3.00	3.02	25.00	25.0	2.00	2.00	2.5	0.50	0.61
SS250	10/9/2018	2018	LF	6.81	7.7	1241	35.00	20	20	2.64	2.50	6.05	3.01	25.00	25.0	2.00	2.00	2.5	0.66	0.59
SS250	6/14/2018	2018	HF	6.78	9.9	1120	37.85	20	283	2.50	2.50	2.50	12.70	25.00	29.8	2.00	2.00	2.5	0.50	3.65
SS250	6/19/2018	2018	HF	6.70	8.5	1136	56.78	20	20	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	2.5	0.50	0.50
SS250	11/7/2017	2017	LF	6.84	7.1	910	18.93	50	50	10.00	5.00	20.00	5.89	100.00	50.0	5.00	5.00		2.00	0.99
SS300	10/9/2018	2018	LF	4.85	2.2	76	1.25	743	1000	0.50	2.50	0.50	2.50	5.00	25.0	2.00	2.00	0.5	2.27	1.98
SS300	6/19/2018	2018	HF	4.46	5.4	97	15.00	680	789	0.50	2.50	0.50	2.50	6.36	25.0	2.00	2.00	0.5	2.34	2.11
SS301	10/4/2018	2018	LF	2.91	6.7	2240	11.00	22200	22300	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	5.0	5.83	5.71
SS301	6/19/2018	2018	HF	3.03	6.6	1760	14.00	14400	15000	2.50	2.50	2.50	2.50	25.00	25.0	2.00	2.00	2.5	4.83	4.75
SS304	6/28/2018	2018	HF	4.71	14.3	154	3.00	674	698	0.50	2.50	0.50	2.50	31.70	31.0	2.00	2.00	0.5	3.73	3.33
SS304	7/24/2017	2017	HF	5.04	7.0	119	189.27	669	697			2.00	10.00			5.00	5.00		3.63	3.32
SS305	10/10/2017	2017	LF	6.67	6.0	160	66.00	50	81	1.00	5.00	2.00	10.00	20.90	50.0	5.00	5.00		0.20	1.00
SS305	8/23/2018	2018	LF				0.000	20	20	0.5	2.5	0.50	2.50	9.60	25.0	2.00	2.00	2.5	0.10	0.50

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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								μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	mg/L	μg/L	μg/L	mg/L	μg/L	μg/L

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Site ID	Date	Ca D	Ca T	Cl- T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	FT	Hardness D	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
A23A	10/1/2018	32800	31700	1.0	1.00	5.00	1.310	1.380	119.000	113.00	0.3	96	100	100	1.18	2.25	3330	3260
A23A	8/23/2018	28500	27600	1.0	1.00	5.00	1.240	1.290	116.000	116.00	0.3	83	100	100	1.28	2.52	2950	2830
A23A	8/23/2018	27400	28300	1.0	1.00	5.00	1.230	3.540	48.200	308.00	0.2	80	100	5540	0.10	191.00	2860	3890
A23A	8/23/2018	24500	22500	1.0	1.00	5.00	1.830	1.520	190.000	177.00	0.2	73	100	100	1.69	2.22	3000	2710
A38	6/28/2017	190000	190000	20.0	2.00	10.00			1.610	11.80	1.7	519	250	821	0.20	7.72	10900	10400
A38	9/27/2018	211000	213000	5.0	5.00	5.00	3.700	3.410	3.590	2.57	1.0	575	100	290	1.15	2.73	11500	12000
A38	6/27/2018	188000	194000	5.0	2.31	5.00	3.490	3.250	2.310	2.50	0.9	512	100	278	0.31	2.74	10500	10800
CC01A	6/14/2018	48800	49900	1.0	1.00	5.00	0.931	1.000	167.000	249.00	1.1	136	100	691	1.32	39.50	3510	3570
CC01A	10/2/2017	79400	76400	4.0	2.00	10.00	1.280	1.330	67.000	253.00	1.5	221	250	1910	1.11	132.00	5600	5490
CC01A	9/24/2018	82800	81600	2.0	1.00	5.00	1.360	1.290	86.800	173.00	1.4	232	100	748	1.61	68.40	6130	6250
CC01A	7/10/2017	82700	85100	2.0	2.00	10.00			58.300	119.00	0.8	232	250	595	0.66	32.90	6310	6380
CC01B	9/25/2018	222000	223000	5.0	5.00	5.00	23.500	22.900	17.200	15.60	3.8	608	26900	28900	175.00	172.00	13300	13500
CC01B	6/5/2018																	
CC01B	10/9/2017	215000	214000	10.0	5.00	5.00	24.300	21.800	14.300	13.40	5.1	589	27100	28500	260.00	236.00	13000	13000
CC01B	4/24/2017		198000	10.0		10.00				17.00	4.0			25600		194.00		12000
CC01B	9/27/2016	203000	214000		5.00	5.00			18.100	18.10		556	24500	26300	456.00	423.00	12200	12700
CC01B	3/30/2017	209000	219000	10.0	5.00	5.00			15.400	15.40	4.1	573	24600	28000	197.00	205.00	12600	13400
CC01C	9/25/2018	10300	10600	1.0	1.00	5.00	1.870	1.830	962.000	937.00	0.7	37	366	603	16.30	16.50	2700	2830
CC01C	10/2/2017	20200	19300	20.0	2.14	10.00	19.200	20.600	3470.000	3660.00	2.5	94	24400	24100	4.79	7.18	10700	10300
CC01C	9/20/2016	20000	20000		8.00	8.30			4200.000	4300.00		93	30000	32000	4.80	4.80	11000	11000
CC01C	7/10/2017	13200	13700	2.0	2.00	10.00			493.000	497.00	0.5	43	2530	2600	26.50	25.50	2410	2460
CC01C	6/5/2018	12700	12900	1.0	1.00	5.00	1.130	1.130	203.000	205.00	0.6	39	2050	2130	18.40	18.20	1840	1870
CC03D	9/27/2017	393000	417000	10.0	10.00	10.00			8.380	5.00	5.6	1080	84200	91700	62.30	70.80	23100	24000
CC03D	6/5/2018	454000	464000	10.0	10.00	5.00	109.000	105.000	5.430	5.34	7.0	1240	106000	106000	65.10	72.40	26200	26400
CC03D	10/9/2018	453000	452000	10.0	5.00	5.00	110.000	105.000	5.510	5.74	5.8	1240	101000	104000	63.30	86.70	25800	25800
CC03D	3/30/2017	476000	473000	10.0	10.00	10.00			5.500	6.57	5.9	1290	102000	103000	77.10	89.30	25400	26600
CC03D	5/16/2017	449000	456000	10.0	10.00	10.00			6.900	7.38	5.7	1230	98100	100000	75.40	114.00	26000	26300
CC03D	6/6/2017	434000	432000	10.0	5.00	5.00			7.300	7.41	6.2	1190	95600	95600	83.90	102.00	25200	25200
CC06	10/9/2018	385000	366000	5.0	5.00	5.00	53.100	58.600	4100.000	4700.00	7.3	1040	39700	64200	5.63	23.30	19100	18000
CC06	6/5/2018	378000	359000	10.0	10.00	5.00	57.900	55.100	3850.000	3880.00	7.5	1020	32600	76300	9.04	16.40	19100	18500
CC06	6/6/2017	327000	321000	10.0	14.20	13.30			10000.000	9370.00	8.5	958	270000	267000	20.40	23.70	34300	35300
CC06	9/28/2017	330000	342000	10.0	10.00	5.00			7020.000	6880.00	11.2	920	77200	110000	25.30	36.00	23300	23700
CC06	10/9/2017	350000	357000	10.0	5.00	5.00	90.800	87.600	6490.000	6310.00	10.6	968	72000	106000	26.40	37.80	22800	23300
CC14	10/9/2018	241000	238000	5.0	5.00	5.00	17.000	16.200	3.600	7.85	3.0	642	19900	19900	1.50	5.09	9520	9690

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		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
CC14	9/28/2017																		
CC14	10/9/2017																		
CC14	9/21/2016	180000	230000		1.20	4.90			3.700	19.00			20000	23000	0.24	4.10	9000	11000	
CC14	6/5/2018	204000	203000	5.0	10.00	5.00	22.500	21.900	20.600	33.30	3.4	551	24800	25600	1.63	17.00	9790	9850	
CC14	6/20/2017	144000	154000	20.0	2.00	10.00			29.200	45.60	3.4	393	22900	25900	2.60	17.70	8160	8880	
CC16C	6/12/2018	129000	129000	5.0	5.00	5.00	59.200	62.000	7.450	12.30	5.8	379	76700	80700	1.31	1.48	13900	13600	
CC16C	9/28/2016	110000	110000		0.97	0.97			3.700	6.90		330	62000	67000	1.60	2.20	13000	13000	
CC16C	6/20/2017	125000	138000	20.0	2.00	10.00			19.000	29.10	5.7	366	70500	88600	0.97	2.97	13100	14500	
CC16C	10/4/2018	136000	135000	5.0	1.00	5.00	50.700	56.500	7.060	11.80	7.0	400	80300	78100	0.84	0.88	14600	14900	
CC16C	10/25/2017	107000	106000	20.0	2.00	10.00	45.800	53.200	3.820	11.70	6.5	319	62400	60400	1.27	2.45	12300	12400	
CC19	10/9/2018	445000	442000	10.0	5.00	5.00	145.000	141.000	8.810	8.37	4.7	1240	122000	129000	2.82	4.87	30500	30200	
CC19	6/5/2018	442000	452000	10.0	10.00	5.00	147.000	141.000	8.280	8.09	4.9	1230	125000	133000	2.66	4.12	30500	30800	
CC19	10/9/2017	441000	442000	10.0	5.00	5.00	149.000	147.000	4.680	4.83	4.2	1230	158000	161000	0.50	0.50	30900	31500	
CC19	9/29/2016	415000	431000		10.00	5.00			6.970	7.91		1150	122000	128000	1.00	3.16	28400	28800	
CC19	6/6/2017	433000	431000	10.0	5.00	5.00			15.300	9.24	3.6	1200	128000	129000	0.90	2.03	29400	30900	
CC50	10/3/2018	366000	385000	5.0	5.00	5.00	2.820	2.840	4.570	7.67	1.6	962	687	1640	0.50	2.48	11800	12600	
CC50	10/9/2017	355000	363000	10.0	5.00	5.00	5.070	5.390	8.900	15.30	1.2	939	1460	2670	0.50	8.99	12600	12700	
CC50	6/7/2018	342000	350000	5.0	10.00	5.88	3.150	3.210	5.050	10.40	2.2	900	418	1560	1.15	3.71	11400	11600	
CC50	6/20/2017	335000	361000	20.0	3.26	10.00			4.660	14.30	2.1	883	347	2060	0.20	5.36	11400	12600	
CC50	9/21/2016	340	380		1.80	4.90			3.700	22.00			690	2100	0.10	5.30	12	14	
DM01	6/14/2018																		
DM01	6/22/2017	34900	37600	2.0	2.00	10.00			14.000	14.40	1.2	96	1390	1570	52.60	56.70	2150	2220	
DM24	9/16/2016	250000	250000		0.97	0.97			3.700	3.70		670	7600	10000	0.17	1.50	15000	15000	
DM24	9/27/2018	263000	255000	5.0	5.00	5.00	12.700	21.600	2.910	2.79	3.0	711	10300	32800	0.69	4.83	13400	13400	
DM32	9/27/2018	54000	53300	2.0	1.00	5.00	3.820	3.680	1710.000	1580.00	0.7	176	100	100	1670.00	1580.00	10100	10200	
DM32	9/27/2018	54100	53100	2.0	1.00	5.00	3.870	3.830	1730.000	1650.00	0.7	177	100	100	1680.00	1660.00	10100	10200	
DM32	10/10/2017	59300	59100	4.0	2.00	10.00	5.440	5.210	2490.000	2310.00	1.2	196	120	226	2070.00	1780.00	11600	11600	
DM32	6/27/2018	33900	32500	2.0	1.00	5.00	3.390	3.030	2020.000	1770.00	0.7	106	713	743	1370.00	1240.00	5270	5090	
DM32	6/28/2017	23600	24300	2.0	2.00	10.00			2120.000	2110.00	0.6	75	1440	1380	1650.00	1490.00	3830	3880	
DM4	8/23/2018	216000	204000	5.0	1.08	5.00	1.000	1.020	1.660	2.50	1.7	570	100	100	0.10	0.50	7410	7050	
DM4	8/23/2018	223000	202000	5.0	1.12	5.00	1.010	1.070	1.400	2.50	1.7	589	100	100	0.10	0.50	7410	6910	
SS001	9/26/2018	14600	14300	1.0	1.00	5.00	0.534	0.538	27.900	27.50	0.2	44	100	100	268.00	256.00	1720	1730	
SS001	9/26/2018	14600	14500	1.0	1.00	5.00	0.532	0.508	28.100	27.10	0.2	44	100	100	266.00	262.00	1720	1750	
SS001	10/4/2017	13000	12700	2.0	2.00	10.00	0.200	1.000	4.650	5.33	0.2	39	250	116	12.40	17.60	1560	1530	

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS001	9/22/2016	12800	12900	0.8	2.00	10.00			4.840	7.05	0.2	38	250	182	18.30	27.50	1580	1560
SS001	6/27/2018	9260	9000	1.0	1.00	5.00	0.100	0.500	4.440	8.48	0.2	28	100	1130	11.20	36.20	1110	1240
SS001	7/11/2017	8750	8930	2.0	2.00	10.00			7.680	7.36	0.2	26	250	250	6.76	6.12	1130	1140
SS002	10/4/2017	35800	34600	2.0	2.00	10.00	0.200	1.000	1.050	5.00	0.2	103	250	250	0.27	0.53	3360	3300
SS002	6/27/2018	39400	37700	1.0	1.00	5.00	0.100	0.500	1.320	2.50	0.1	114	100	100	0.27	2.58	3900	3780
SS002	7/11/2017	35000	35100	2.0	2.00	10.00			1.140	5.00	0.2	102	250	250	0.20	1.00	3490	3480
SS002	9/22/2016	55800	57700	0.8	1.20	10.00			1.100	5.00	0.2	162	250	250	0.20	1.00	5550	5670
SS003	9/26/2018	53700	52900	1.0	1.00	5.00	0.244	0.500	43.900	49.10	0.3	155	100	153	49.90	86.80	5080	5090
SS003	10/4/2017	62800	60500	2.0	2.00	10.00	0.117	1.000	21.200	22.80	0.2	182	250	250	2.07	2.98	6040	5960
SS003	7/12/2017	37000	37100	2.0	2.00	10.00			27.900	35.50	0.2	107	250	250	2.99	5.87	3610	3640
SS003	9/22/2016	59400	59400	0.8	1.01	10.00			33.700	35.10	0.2	172	250	250	3.13	7.38	5710	5650
SS004	10/4/2017	42200	40600	2.0	2.00	10.00	0.200	1.000	2.910	4.24	0.3	118	250	250	0.14	1.87	3160	3100
SS004	6/27/2018	51100	53600	1.0	1.00	5.00	0.113	0.500	5.350	4.92	0.3	144	100	100	0.21	0.77	3920	4140
SS004	9/22/2016	35400	36000	0.8	1.20	10.00			0.611	6.33	0.2	98	250	208	0.12	7.81	2460	2460
SS004	7/12/2017	25100	25500	2.0	2.00	10.00			1.000	5.00	0.2	70	250	101	0.20	2.68	1770	1810
SS004	9/26/2018	47100	46300	1.0	1.00	5.00	0.100	0.500	4.440	4.62	0.3	132	100	100	0.10	1.25	3600	3650
SS005	9/22/2016	42000	48300	0.8	2.00	10.00			8.710	10.70	1.0	122	250	250	0.28	1.71	4270	4810
SS006	10/4/2017	22700	21500	2.0	2.00	10.00	0.200	1.000	1.000	5.00	0.2	61	250	250	0.20	0.89	1080	1080
SS006	9/26/2018	26300	25900	1.0	1.00	5.00	0.100	0.500	0.500	2.50	0.1	71	100	100	0.10	0.50	1260	1290
SS006	6/27/2018	23800	22000	1.0	1.00	5.00	0.100	0.500	0.973	2.50	0.1	65	100	100	0.10	0.50	1260	1170
SS006	9/23/2016	14800	15200	0.8	2.00	10.00			1.000	5.00	0.2	41	250	1050	0.20	1.91	857	946
SS006	7/12/2017	20200	21300	2.0	2.00	10.00			0.549	5.00	0.2	55	250	250	0.20	1.00	1020	1010
SS007	9/23/2016	22700	22400	0.8	2.00	10.00			1.000	5.00	0.1	61	250	250	0.20	1.00	1090	1090
SS007	9/26/2018	25200	25200	1.0	1.00	5.00	0.133	0.500	1.780	2.50	0.1	69	100	419	0.10	0.50	1440	1540
SS007	10/4/2017	24500	23500	2.0	2.00	10.00	0.200	1.000	1.000	5.00	0.2	67	250	186	0.20	0.56	1410	1420
SS007	7/12/2017	15400	16500	2.0	2.00	10.00			1.000	5.00	0.2	42	250	250	0.20	1.00	966	979
SS007	6/27/2018	16000	15200	1.0	1.00	5.00	0.121	0.500	0.764	2.50	0.1	44	109	133	0.10	0.50	856	841
SS008	9/24/2018	55600	55100	1.0	1.00	5.00	0.100	0.500	1.260	2.50	0.3	162	100	100	0.10	0.50	5670	5660
SS008	9/24/2018	55400	54800	1.0	1.00	5.00	0.100	0.500	1.240	2.50	0.3	161	100	100	0.10	0.50	5560	5670
SS008	10/2/2017	44100	43100	2.0	2.00	10.00	0.125	1.000	0.675	5.00	0.2	129	250	250	0.20	1.00	4680	4670
SS008	9/26/2016	35600	33500	0.4	2.00	10.00			0.807	5.00	0.2	107	250	250	0.20	0.62	4390	4110
SS008	6/13/2018	28800	30100	1.0	1.00	5.00	0.140	0.568	0.568	2.50	0.4	83	100	159	0.10	0.62	2760	2890
SS009	7/10/2017	22800	23800	2.0	2.00	10.00			1.510	5.00	0.2	65	250	250	0.20	1.00	2010	2070
SS009	9/26/2016	32800	32700	0.8	2.00	10.00			1.000	5.00	0.2	97	250	250	0.20	1.00	3750	3770

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Site ID	Date	Ca D	Ca T	Cl- T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	FT	Hardness D	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS009	6/13/2018	17900	18800	1.0	1.00	5.00	0.114	0.500	3.020	2.64	0.3	51	100	100	0.28	0.59	1560	1650
SS010	9/24/2018	39500	38900	1.0	1.00	5.00	0.100	0.500	1.520	2.50	0.1	115	100	100	0.53	0.50	4050	4150
SS010	10/2/2017	46600	44800	2.0	2.00	10.00	0.200	1.000	0.996	5.00	0.2	137	250	250	0.28	0.61	5060	4970
SS010	7/10/2017	41600	43800	2.0	2.00	10.00			1.080	5.00	0.2	124	250	250	0.19	1.00	4880	5080
SS010	9/26/2016	27800	27100	0.8	2.00	10.00			0.652	4.23	0.2	81	250	250	0.21	0.71	2730	2670
SS010	6/13/2018	138000	152000	2.0	1.00	5.00	0.638	1.450	1.850	3.05	0.7	416	100	100	0.41	0.50	17200	18600
SS011	6/13/2018	120000	134000	5.0	1.00	5.00	21.000	22.100	25.000	28.90	1.8	376	700	783	11.40	12.70	18400	20100
SS011	9/24/2018	73000	70000	2.0	1.00	5.00	2.770	2.640	21.400	20.40	0.4	220	100	100	12.50	11.40	9200	9090
SS011	7/10/2017	174000	183000	20.0	2.00	10.00			17.300	22.60	1.8	544	250	178	17.90	23.50	26600	26600
SS011	10/2/2017	49300	48700	2.0	2.00	10.00	0.358	1.000	5.110	4.51	0.3	146	250	250	1.28	0.78	5690	5710
SS011	9/26/2016	150000	151000	3.2	2.00	10.00			40.300	41.70	1.2	460	250	250	16.40	18.80	20900	21300
SS012	10/2/2017	155000	147000	20.0	2.00	10.00	11.200	12.200	30.300	35.50	2.0	479	159	4600	2.35	19.10	22200	21700
SS012	9/26/2016	106000	105000	1.6	2.00	10.00			23.000	24.20	0.3	316	706	4210	5.37	7.15	12600	12600
SS012	6/13/2018	37300	38500	1.0	1.00	5.00	0.100	0.500	0.882	2.50	0.3	111	100	100	0.10	0.50	4420	4590
SS012	7/10/2017	6290	6580	2.0	2.00	10.00			1.000	5.00	0.2	19	250	250	0.20	1.00	730	739
SS013	10/4/2018	43700	43900	1.0	1.00	5.00	0.137	0.500	3.860	5.87	0.2	119	100	624	0.10	1.57	2260	2370
SS013	10/3/2016	37800	37000	0.8	2.00	10.00			1.070	5.00	0.1	102	250	250	0.20	1.00	1930	1880
SS013	10/3/2017	33400	31800	2.0	2.00	10.00	0.200	1.000	1.610	11.00	0.2	91	250	250	0.20	1.00	1790	1760
SS013	6/12/2018	27300	27500	1.0	1.00	5.00	0.845	0.934	1.800	4.41	0.4	74	100	196	0.10	0.50	1430	1450
SS013	7/17/2017	33900	33300	2.0	2.00	10.00			2.090	3.80	0.2	92	250	103	0.20	1.00	1860	1830
SS014	10/3/2017	37500	36200	2.0	2.00	10.00	0.200	1.000	0.552	5.00	0.3	101	250	250	0.20	1.00	1740	1700
SS014	10/4/2018	43500	41700	1.0	1.00	5.00	0.100	0.500	0.500	2.50	0.3	117	100	100	0.10	0.50	1970	1900
SS014	6/12/2018	34200	33600	1.0	1.00	5.18	0.100	0.500	0.500	2.50	0.4	92	100	100	0.10	0.50	1550	1550
SS014	7/17/2017	36400	37300	2.0	2.00	10.00			1.000	10.70	0.3	98	250	250	0.20	1.00	1750	1800
SS014	10/3/2016	37100	37100	0.8	2.00	10.00			1.000	5.00	0.4	100	250	250	0.20	1.00	1750	1730
SS015	10/4/2018	39100	38600	1.0	1.00	5.00	0.813	0.813	1.770	6.52	0.2	110	100	875	0.10	0.50	2940	2990
SS015	10/3/2017	38000	36400	2.0	2.00	10.00	0.200	1.000	0.719	5.00	0.2	108	250	250	0.20	1.00	3080	3000
SS015	10/3/2016	34000	33600	0.8	2.00	10.00			0.964	3.04	0.2	96	250	170	0.20	1.00	2800	2740
SS015	6/12/2018	29900	28900	1.0	1.00	5.37	0.271	1.010	0.888	2.56	0.1	84	100	100	0.10	0.98	2330	2250
SS015	7/17/2017	36000	35400	2.0	2.00	10.00			0.798	5.00	0.2	103	250	250	0.20	1.00	3280	3200
SS016	10/4/2018	41200	38600	1.2	1.00	5.00	2.160	2.260	5.790	5.45	0.8	121	100	100	0.10	0.50	4420	4020
SS016	6/22/2017	54700	58000	2.0	2.00	10.00			4.810	8.53	0.8	156	429	15100	0.20	7.04	4670	5130
SS016	6/12/2018	63300	62600	2.0	1.00	5.32	5.830	6.550	4.790	4.83	1.0	180	1210	1600	0.42	0.50	5290	5210
SS016	10/3/2016	38000	37900	0.5	2.00	10.00			4.770	5.57	0.8	111	250	250	0.20	1.00	3990	3940

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		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS016	10/5/2017	38800	37500	2.0	2.00	10.00	1.640	1.810	4.420	4.83	0.6	113	250	250	0.16	1.00	4000	3940
SS017	10/5/2017	44000	41800	2.0	2.00	10.00	6.280	7.120	7.440	8.70	1.1	132	250	250	0.20	1.00	5320	5240
SS017	10/3/2016	41600	42500	0.8	2.00	10.00			8.170	10.10	1.1	126	250	250	0.20	1.00	5340	5380
SS017	10/4/2018	51500	49200	1.0	1.00	5.00	6.520	6.940	7.120	7.00	1.1	152	100	100	0.10	0.50	5560	5310
SS017	6/22/2017	31900	33400	1.5	2.00	10.00			7.250	6.78	1.0	98	250	250	0.20	1.00	4520	4680
SS017	6/12/2018	50100	49500	2.0	1.00	5.00	10.600	12.000	1.550	2.50	1.4	154	2400	2600	0.10	0.50	7030	6960
SS018	6/23/2017	38400	39300	2.0	2.00	10.00			30.400	33.00	1.5	123	250	250	0.20	1.00	6450	6540
SS018	10/4/2018	66600	64400	2.0	1.00	5.00	28.000	28.700	42.000	42.40	2.7	215	100	100	0.31	0.50	11800	11500
SS018	10/3/2016	51700	52200	0.8	2.00	10.00			37.800	41.90	2.4	166	250	109	0.24	1.00	9000	8970
SS018	10/5/2017	55900	54000	4.0	2.00	10.00	18.900	20.800	36.100	40.80	2.2	175	250	250	0.20	1.00	8630	8540
SS018	6/12/2018	56600	58100	2.0	1.00	5.18	24.200	27.500	38.300	43.60	2.2	179	100	100	0.33	0.50	9220	9440
SS019	6/23/2017	18700	19300	2.0	2.00	10.00			0.908	2.64	0.2	53	250	250	0.20	1.00	1440	1470
SS019	10/4/2018	25700	25300	1.0	1.00	5.00	0.100	0.500	0.958	3.93	0.3	72	100	100	0.10	0.50	1890	1860
SS019	10/4/2018	26000	25400	1.0	1.00	5.00	0.100	0.500	0.772	2.50	0.1	73	100	100	0.10	0.50	1910	1890
SS019	10/5/2017	24600	23300	2.0	2.00	10.00	0.200	1.000	1.100	5.00	0.2	69	250	250	0.20	1.00	1800	1770
SS019	6/12/2018	21900	21600	1.0	1.00	5.81	0.100	0.500	0.883	2.50	0.1	61	100	100	0.10	0.50	1610	1600
SS019	10/3/2016	24000	23900	0.8	2.00	10.00			0.924	5.00	0.2	67	250	250	0.20	1.00	1820	1770
SS020	9/25/2018	7550	6960	1.0	1.00	5.00	0.798	0.839	1.050	2.50	0.1	26	250	139	1.72	2.09	1770	1700
SS020	10/16/2017	6830	6880	2.0	2.00	10.00	0.816	0.559	1.000	5.00	0.1	24	250	186	0.17	1.00	1730	1760
SS020	10/4/2016	7750	7730	0.8	2.00	10.00			0.992	5.00	0.2	29	250	250	0.74	0.75	2340	2320
SS020	7/19/2017	6460	6290	2.0	2.00	10.00			3.170	3.59	0.2	24	250	250	0.28	1.00	1870	1820
SS020	6/13/2018	4560	4690	1.0	1.00	5.00	1.010	1.280	1.090	2.50	0.3	16	100	100	5.19	6.87	1100	1130
SS021	10/4/2016	4430	4220	0.8	2.00	10.00			2.280	5.00	0.1	13	250	250	0.85	0.86	572	547
SS021	7/19/2017	3620	3420	2.0	2.00	10.00			1.030	5.00	0.2	11	250	250	0.76	0.81	476	464
SS021	6/13/2018	3050	3090	1.0	1.00	5.00	0.100	0.500	1.100	2.50	0.1	9	100	100	0.67	0.89	421	425
SS022	10/16/2017	19500	19400	2.0	2.00	10.00	0.971	0.807	1.280	5.00	0.1	57	528	628	0.20	1.00	2020	2010
SS022	10/4/2016	17000	16900	0.8	2.00	10.00			1.620	5.00	0.1	50	250	250	0.20	1.00	1770	1770
SS022	6/13/2018	14900	14800	1.0	1.00	5.00	0.100	0.500	1.550	2.50	0.3	44	100	100	0.10	0.50	1580	1560
SS022	7/19/2017	13500	14100	2.0	2.00	10.00			0.872	5.00	0.2	41	250	250	0.74	0.85	1640	1710
SS023	9/25/2018	82100	75600	2.0	1.00	5.00	0.140	0.500	2.520	3.47	0.2	233	250	109	0.10	0.53	6780	6540
SS023	10/4/2016	19500	19500	0.8	2.00	10.00			1.220	5.00	0.4	59	250	250	0.20	1.00	2570	2580
SS023	7/19/2017	9670	9310	2.0	2.00	10.00			0.961	5.00	0.2	30	250	150	0.21	0.71	1350	1320
SS023	6/13/2018	1410	1400	1.0	1.00	5.00	0.424	0.500	1.500	2.50	0.1	4	100	217	0.21	0.55	204	215
SS023	10/16/2017	85900	88900	4.0	2.00	10.00	0.137	1.000	1.450	5.00	0.4	244	250	224	0.20	0.64	7130	7520

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Ca D	Ca T	Cl- T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	FT	Hardness D	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS024	10/16/2017	86100	85600	4.0	2.00	10.00	0.200	1.000	0.571	5.00	0.4	240	250	250	0.20	1.00	6150	6390
SS024	10/4/2016	82700	81300	0.8	2.00	10.00			0.690	5.00	0.2	231	250	250	0.20	1.00	5970	5780
SS024	9/25/2018	82400	76400	2.0	1.00	5.00	0.105	0.500	1.000	2.50	0.2	231	100	100	0.10	0.50	6190	5870
SS024	7/19/2017	86300	86100	2.0	1.00	10.00			1.000	5.00	0.3	251	250	250	0.20	1.00	8710	8610
SS024	6/13/2018	38600	38900	1.0	1.00	5.00	0.100	0.500	0.681	2.50	0.1	108	100	100	0.10	0.50	2790	2880
SS025	10/4/2016	50000	50500	0.8	2.00	10.00			0.564	5.00	0.2	138	250	337	0.20	3.96	3100	3200
SS025	7/19/2017	18800	18300	2.0	2.00	10.00			1.000	5.00	0.2	52	250	250	0.20	1.00	1140	1110
SS025	6/13/2018	14400	14700	1.0	1.00	5.00	0.100	0.500	5.700	11.80	0.1	40	100	887	1.53	15.10	875	905
SS026	10/4/2016	33300	15000	0.8	2.00	10.00			59.300	29.00	0.6	98	250	250	8.34	3.88	3500	1600
SS026	10/16/2017	26700	26500	2.0	2.00	10.00	2.330	2.180	435.000	415.00	1.1	81	250	250	138.00	131.00	3530	3540
SS026	6/14/2018	21100	21000	1.0	1.00	5.00	0.265	0.500	80.400	69.50	0.6	64	100	100	8.81	11.00	2730	2660
SS026	7/10/2017	17200	15900	2.0	2.00	10.00			342.000	341.00	0.8	53	250	250	119.00	110.00	2530	2340
SS027	10/16/2017	102000	98400	20.0	2.00	10.00	0.588	0.704	304.000	293.00	2.3	338	250	341	0.78	3.99	20100	19600
SS027	10/4/2016	78800	79000	1.6	2.00	10.00			464.000	477.00	3.1	256	250	250	2.31	2.64	14300	14200
SS027	9/24/2018	116000	109000	2.0	5.00	5.00	0.659	0.724	316.000	322.00	3.9	383	100	100	0.90	0.93	22800	22200
SS027	6/13/2018	28200	27700	1.0	1.00	5.00	0.634	0.500	171.000	163.00	1.1	91	100	375	0.82	3.98	5000	4970
SS027	7/10/2017	34000	32500	2.0	2.00	10.00			206.000	208.00	1.3	110	250	250	0.28	1.00	5970	5680
SS028	10/16/2017	6490	6320	2.0	2.00	10.00	0.200	1.000	1.000	5.00	0.1	18	250	250	0.20	0.78	477	478
SS028	7/10/2017	5350	5080	2.0	2.00	10.00			0.558	5.00	0.2	15	250	250	0.20	1.00	404	393
SS028	10/4/2016	7760	7670	0.4	2.00	10.00			0.585	5.00	0.2	22	250	250	0.34	0.64	581	580
SS029	10/16/2017	52800	51500	2.0	2.00	10.00	0.200	1.000	3.720	3.37	0.2	154	250	250	0.20	1.00	5370	5280
SS029	9/24/2018	58000	54000	1.0	1.00	5.00	0.100	0.500	4.170	5.23	0.3	169	100	100	0.10	0.50	5930	5690
SS029	6/14/2018	27600	27800	1.0	1.00	5.00	0.100	0.500	6.570	6.01	0.6	82	100	100	0.10	0.50	3210	3230
SS029	10/4/2016	41900	41200	0.8	2.00	10.00			3.080	3.77	0.3	122	250	250	0.20	1.00	4140	4060
SS029	7/10/2017	22300	22700	2.0	2.00	24.30			4.790	6.68	0.3	66	250	250	0.20	1.00	2510	2560
SS030	10/5/2016	15300	17400	0.8	2.00	10.00			1.000	5.00	0.1	41	250	250	0.20	1.00	720	798
SS030	7/12/2017	10100	10000	2.0	2.00	10.00			1.000	5.00	0.2	27	250	250	0.11	1.00	496	489
SS030	10/4/2017	16700	16100	2.0	2.00	10.00	0.200	1.000	1.000	5.00	0.1	45	250	250	0.20	1.00	790	771
SS030	6/15/2018	8350	8300	1.0	1.00	5.00	0.119	0.500	0.500	2.50	0.1	23	196	306	0.14	0.85	449	455
SS030	9/26/2018	21500	19900	1.0	1.00	5.00	0.100	0.500	0.500	2.50	0.1	58	100	100	0.10	0.50	1040	1000
SS031	10/4/2017	26700	25900	2.0	2.00	10.00	0.200	1.000	1.000	5.00	0.2	72	250	250	0.20	1.00	1180	1160
SS031	7/12/2017	21900	20700	2.0	2.00	10.00			1.000	5.00	0.2	59	250	250	0.20	1.00	1030	958
SS031	10/5/2016	25000	25000	0.8	2.00	10.00			1.000	5.00	0.2	67	250	250	0.20	1.00	1130	1120
SS031	6/15/2018	23300	23500	1.0	1.00	5.00	0.100	0.500	0.500	2.50	0.3	62	100	100	0.10	1.36	1030	1050

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	Ca D	Ca T	Cl- T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	FT	Hardness D	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS031	9/26/2018	23900	22200	1.0	1.00	5.00	0.100	0.500	0.500	2.50	0.1	64	100	100	0.10	0.50	1070	1030
SS032	10/4/2017	76400	72700	4.0	2.00	10.00	0.200	1.000	0.521	5.00	0.4	212	250	250	0.20	1.00	5120	4990
SS032	10/5/2016	66000	66500	0.8	1.05	10.00			1.000	5.00	0.2	185	250	106	0.20	1.00	4910	4930
SS032	9/26/2018	41300	36100	1.0	1.00	5.00	0.100	0.500	3.870	4.12	0.1	113	100	100	0.10	3.43	2350	2110
SS032	9/26/2018	41000	36200	1.0	1.00	5.00	0.100	0.500	1.000	2.50	0.1	112	100	100	0.10	0.50	2300	2080
SS032	7/23/2018																	
SS032	7/12/2017	22900	21800	2.0	1.52	10.00			1.000	5.00	0.2	66	250	250	0.20	1.00	2200	2140
SS033	10/5/2016	4030	4200	0.8	2.00	10.00			0.718	5.00	0.2	12	250	250	0.13	1.00	352	354
SS033	7/12/2017	4130	3850	2.0	2.00	10.00			0.727	5.00	0.2	12	250	171	0.47	0.70	360	346
SS033	10/4/2017	3710	3470	2.0	2.00	10.00	0.200	1.000	0.531	5.00	0.2	11	250	250	0.22	1.00	322	322
SS033	6/15/2018	3040	3190	1.0	1.00	5.00	0.100	0.500	0.899	2.50	0.1	9	100	274	0.35	1.62	281	307
SS033	9/26/2018	3810	3280	1.0	1.00	5.00	0.100	0.500	2.270	2.50	0.1	11	100	100	0.11	0.60	397	363
SS034	10/5/2016	5850	5930	0.8	2.00	10.00			47.300	46.80	0.1	17	250	119	2.29	2.58	694	689
SS034	7/12/2017	5080	4790	2.0	2.00	10.00			61.000	66.20	0.2	15	374	388	4.09	3.99	639	598
SS034	10/4/2017	5190	4940	2.0	2.00	10.00	0.140	1.000	17.800	19.10	0.1	15	250	250	0.98	1.20	572	577
SS034	6/15/2018	7160	7140	1.0	1.00	5.00	0.561	0.500	88.100	80.70	0.3	22	202	280	4.22	4.16	883	880
SS035	10/5/2016	56100	57000	0.8	2.00	10.00			0.688	3.19	0.1	161	250	1090	0.12	1.33	5150	5440
SS035	6/15/2018	83000	82900	2.0	1.00	5.00	0.132	0.770	1.310	5.83	0.2	244	100	4520	0.10	7.16	8820	9890
SS035	7/12/2017	46200	43200	2.0	2.00	10.00			1.000	5.00	0.4	137	250	250	0.20	1.00	5270	4980
SS036	6/27/2018	8200	7950	1.0	1.00	5.00	0.100	0.500	9.730	8.95	0.1	23	100	100	0.55	0.51	569	570
SS036	10/5/2016	17700	17800	0.4	2.00	10.00			35.700	37.70	0.2	49	250	250	48.20	57.00	1150	1160
SS036	7/18/2017	9210	9020	2.0	2.00	10.00			29.000	29.30	0.2	25	250	250	61.90	59.10	589	582
SS037	10/10/2017	117000	117000	20.0	10.00	10.00	1.000	1.000	238.000	221.00	2.0	406	250	125	7.49	7.97	27600	28300
SS037	10/5/2016	100000	102000	1.6	2.00	10.00			186.000	184.00	0.7	346	250	250	4.62	4.75	23400	23600
SS037	7/18/2017	67400	64300	4.0	2.00	10.00			138.000	133.00	0.6	233	250	250	1.42	1.42	15800	15200
SS037	6/27/2018	55100	54500	2.0	1.00	5.00	0.291	1.030	171.000	210.00	0.6	188	100	1940	17.70	166.00	12200	12200
SS038	9/26/2018	46800	40700	1.0	1.00	5.00	0.100	0.500	1.000	2.50	0.1	129	100	100	0.10	0.50	3000	2680
SS038	10/6/2016	40400	41500	0.8	2.00	10.00			1.000	5.00	0.2	112	250	250	0.20	1.00	2740	2810
SS038	6/15/2018	31000	30300	1.0	1.00	5.00	0.100	0.500	0.500	2.50	0.3	86	100	100	0.10	0.50	2010	2010
SS038	10/10/2017	39100	40400	2.0	1.22	10.00	0.200	1.000	1.000	5.00	0.2	108	250	250	0.20	1.00	2620	2760
SS038	6/28/2017	26500	27800	2.0	1.37	10.00			1.000	5.00	0.2	73	250	250	0.20	1.00	1670	1730
SS039	10/10/2017	20100	20200	2.0	2.00	10.00	0.200	1.000	112.000	117.00	0.1	60	250	237	29.80	35.20	2380	2460
SS039	10/6/2016	18100	18600	0.8	2.00	10.00			128.000	124.00	0.1	53	250	250	3.44	3.28	1900	1940
SS039	6/27/2018	13500	13600	1.0	1.00	5.00	0.100	0.500	122.000	111.00	0.1	39	100	100	4.04	3.92	1350	1390

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		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS039	7/12/2017	11700	12300	2.0	2.00	10.00			135.000	124.00	0.2	34	250	250	6.21	5.59	1160	1260
SS040	9/27/2018	10700	9270	1.0	1.00	5.00	0.100	0.500	162.000	166.00	0.3	33	100	100	0.10	0.50	1440	1300
SS040	10/6/2016	8140	8550	0.8	2.00	10.00			221.000	213.00	0.4	27	250	250	0.49	0.58	1550	1590
SS040	10/10/2017	9260	9250	2.0	2.00	10.00	0.200	1.000	174.000	167.00	0.3	28	250	250	0.20	1.00	1270	1290
SS040	6/27/2018	8220	8590	1.0	1.00	5.00	0.238	0.500	180.000	163.00	0.2	25	100	100	0.59	0.55	998	1060
SS040	7/12/2017	7100	6920	2.0	2.00	10.00			117.000	119.00	0.2	21	250	250	0.51	0.53	820	826
SS041	9/27/2018	58100	50700	1.0	1.00	5.00	0.100	0.500	2.160	3.81	0.1	161	100	125	0.89	7.41	3760	3390
SS041	10/10/2017	36300	38600	1.0	2.00	10.00	0.200	1.000	3.090	5.29	0.2	101	250	243	0.81	7.30	2410	2540
SS041	10/6/2016	38900	37700	0.8	2.00	10.00			79.300	78.10	0.4	111	250	242	6.10	10.70	3480	3460
SS041	6/27/2018	24500	24000	1.0	1.00	5.00	0.125	0.500	5.590	5.75	0.3	69	100	100	1.82	1.25	1890	1870
SS041	6/28/2017	25500	26500	2.0	2.00	10.00			15.100	17.10	0.3	73	250	250	2.53	4.05	2220	2270
SS042	6/27/2018	15900	15700	1.0	1.00	5.00	0.100	0.500	2.670	2.83	0.1	44	100	100	0.28	0.60	929	935
SS042	6/28/2017	11500	12700	2.0	2.00	10.00			1.860	4.16	0.2	32	250	205	0.83	19.50	712	832
SS042	10/6/2016	16800	18400	0.8	2.00	10.00			2.730	70.00	0.2	46	250	3230	2.83	810.00	1020	1250
SS042	10/10/2017	200000	214000	20.0	10.00	10.00	1.000	1.000	8.090	7.94	2.0	544	250	250	0.98	2.06	11100	11700
SS043	6/28/2017	160000	172000	4.0	10.00	10.00			5.000	5.00	0.8	434	100	250	3.88	6.18	8520	9110
SS043	9/27/2018	177000	155000	5.0	5.00	5.00	0.753	1.150	2.500	2.50	0.9	479	100	156	2.46	18.70	9150	8330
SS043	10/6/2016	157000	160000	1.6	2.00	10.00			0.816	5.00	0.8	426	250	213	4.11	10.00	8130	8410
SS043	6/18/2018	159000	156000	5.0	1.85	5.00	1.070	1.120	1.300	2.50	0.6	431	100	113	2.87	11.30	8420	8240
SS043	10/10/2017	143000	167000	20.0	10.00	10.00	1.080	1.320	2.550	5.00	2.0	389	250	599	5.43	30.90	7830	8510
SS044	9/25/2018	212000	184000	5.0	5.00	5.00	2.270	2.300	4.220	3.06	3.1	567	100	1740	0.50	0.50	8960	8020
SS044	9/25/2018	212000	183000	5.0	1.00	5.00	2.110	2.290	1.720	2.82	3.2	565	100	1550	0.10	0.50	8950	8030
SS044	6/14/2018	151000	149000	2.0	1.00	5.00	3.440	3.500	3.370	11.40	3.0	405	100	11900	0.10	5.28	6900	6980
SS044	10/11/2017	165000	173000	20.0	10.00	10.00	3.140	3.660	5.000	6.41	2.5	443	250	9100	1.00	2.54	7600	7740
SS044	10/6/2016	158000	161000	1.6	2.00	10.00			1.090	5.00	3.7	425	250	2080	0.20	0.81	7330	7480
SS044	6/22/2017	104000	104000	4.0	2.00	10.00			12.300	18.10	2.5	281	250	2800	0.20	1.77	5260	5400
SS045	9/25/2018	48000	42000	1.0	1.00	5.00	0.223	0.500	3.260	2.50	1.3	133	117	100	0.10	0.50	3190	2870
SS045	6/6/2018	29700	29100	1.0	1.00	5.07	0.138	0.500	1.740	2.50	1.1	82	100	100	0.10	0.50	2000	1960
SS045	10/11/2017	36800	38400	2.0	2.00	10.00	0.133	1.000	2.020	5.00	1.3	102	250	134	0.20	1.00	2550	2630
SS045	10/6/2016	37700	38600	0.8	2.00	10.00			2.050	2.56	1.5	105	250	250	0.20	1.00	2590	2610
SS045	6/22/2017	17600	18800	2.0	2.00	10.00			1.800	5.00	1.1	49	250	250	0.20	1.00	1290	1360
SS046	9/25/2018	38700	34300	1.0	1.00	5.00	6.070	6.660	11.900	15.90	2.8	110	6320	5690	29.70	28.50	3180	2870
SS046	6/22/2017	53100	52700	2.0	2.00	10.00			14.400	17.10	4.0	150	8820	11600	29.80	38.40	4200	4540
SS046	10/11/2017	39800	43200	2.0	2.00	10.00	7.190	7.020	16.700	16.30	3.0	113	6440	6700	29.70	27.10	3320	3420

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		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS046	6/6/2018	45400	45500	1.0	1.00	5.00	7.530	6.760	13.900	13.00	3.0	128	5340	5450	29.50	25.10	3610	3640
SS046	10/6/2016	38900	39900	0.8	2.00	10.00			15.200	16.30	3.2	110	6340	6530	32.60	31.10	3160	3230
SS047	10/5/2017	33600	32300	2.0	2.00	10.00	0.200	1.000	0.701	5.00	0.2	91	250	250	0.20	1.00	1690	1670
SS047	10/2/2018	36600	33800	1.0	1.00	5.00	0.100	0.500	2.990	2.50	0.1	99	100	189	0.10	0.50	1930	1760
SS047	10/10/2016	32700	33000	0.8	2.00	10.00			1.000	5.00	0.2	89	250	250	0.11	1.00	1670	1660
SS047	6/12/2018	28600	28800	1.0	1.00	5.61	0.100	0.500	0.500	2.50	0.1	77	100	100	0.18	0.50	1420	1440
SS047	6/26/2017	26200	26300	2.0	1.54	10.00			1.000	5.00	0.2	71	250	250	0.20	1.00	1330	1430
SS048	10/10/2016	12300	12700	0.8	2.00	10.00			1.000	5.00	0.2	36	250	149	0.20	0.88	1210	1220
SS048	10/5/2017	10300	9740	2.0	2.00	10.00	1.660	1.820	1.000	5.00	0.2	31	5920	8010	0.20	1.03	1310	1300
SS048	6/12/2018	11400	11700	1.0	1.00	5.85	0.245	0.500	1.090	2.50	0.3	33	100	443	0.10	1.19	1120	1190
SS048	6/26/2017	23200	23800	2.0	2.56	10.00			0.757	3.14	0.2	62	250	1560	0.20	2.89	1110	1380
SS049	10/5/2017	9900	9340	1.3	2.00	10.00	0.200	1.000	1.000	5.00	0.2	28	250	250	0.20	1.00	873	868
SS049	10/10/2016	8620	8620	0.8	2.00	10.00			1.000	5.00	0.2	25	250	250	0.20	1.00	808	799
SS049	6/7/2018	4470	4620	1.0	1.00	5.75	0.100	0.500	0.885	2.50	0.1	13	100	100	0.14	0.50	435	466
SS049	6/26/2017	4140	4150	2.0	2.00	10.00			1.000	5.00	0.2	12	250	250	0.20	1.00	415	454
SS050	10/10/2016	45300	45600	0.8	2.00	10.00			1.000	46.50	0.1	128	250	280	0.20	1.11	3750	3700
SS050	10/5/2017	36800	34300	2.0	2.00	10.00	0.200	1.000	0.665	5.00	0.1	104	250	250	0.20	1.00	3040	2900
SS050	10/2/2018	22400	21000	1.0	1.00	5.00	0.100	1.440	1.820	14.30	0.1	64	100	855	0.10	4.03	1930	2010
SS050	6/7/2018	26800	27100	1.0	1.00	5.53	0.903	1.070	8.620	25.40	0.4	77	100	473	0.10	1.94	2540	2610
SS050	6/26/2017	28100	26700	2.0	1.10	10.00			2.430	8.09	0.2	80	250	223	0.20	0.93	2490	2560
SS051	10/5/2017	26100	24800	2.0	2.00	10.00	0.200	1.000	1.140	5.00	0.1	75	250	250	0.20	1.00	2480	2450
SS051	10/10/2016	24900	25500	0.8	2.00	10.00			1.520	5.00	0.1	72	250	250	0.20	1.00	2450	2470
SS051	10/2/2018	17800	17600	3.9	1.00	5.00	0.235	0.501	3.620	6.08	0.1	52	206	836	0.10	0.80	1760	1710
SS051	6/7/2018	19100	19000	1.0	1.00	5.86	0.100	0.500	2.040	7.10	0.1	56	100	330	0.10	2.01	2060	2090
SS051	6/26/2017	14800	15200	2.0	2.00	10.00			1.890	5.00	0.2	44	250	250	0.20	1.00	1780	1960
SS052	10/5/2017	16000	15000	2.0	2.00	10.00	0.200	1.000	0.932	5.00	0.1	51	250	250	0.20	1.00	2660	2560
SS052	10/2/2018	17500	16400	1.2	1.00	5.00	0.111	0.586	3.150	5.05	0.1	55	100	163	0.10	0.50	2800	2680
SS052	10/10/2016	13900	13900	0.8	2.00	10.00			1.770	5.00	0.1	44	250	250	0.20	1.00	2340	2350
SS052	6/26/2017	9460	9830	2.0	2.00	10.00			2.080	4.06	0.2	33	250	250	0.20	1.00	2240	2510
SS052	6/7/2018	10600	10800	1.0	1.00	5.26	0.100	0.500	2.190	2.50	0.3	37	100	100	0.10	0.50	2460	2510
SS053	6/7/2018	16500	17400	1.0	1.00	5.72	2.040	2.430	86.600	97.50	0.4	52	100	464	1.39	3.96	2590	2740
SS053	10/2/2018	26400	24600	1.0	1.00	5.00	0.475	0.500	76.200	72.90	0.2	78	100	100	0.31	0.50	2850	2670
SS053	10/10/2016	17900	17500	0.8	2.00	10.00			57.700	60.50	0.1	55	250	250	0.62	0.97	2560	2520
SS053	10/5/2017	26500	23700	2.0	2.00	10.00	0.800	0.747	91.000	91.10	0.2	79	250	250	0.49	1.00	3120	2950

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	Ca D	Ca T	Cl- T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	FT	Hardness D	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS053	7/20/2017	16600	16500	2.0	2.00	10.00			141.000	134.00	0.3	55	129	379	2.66	3.08	3160	3140
SS054	10/2/2018	313000	293000	5.0	5.00	5.00	0.500	0.522	3.110	10.70	1.1	831	100	585	0.50	6.35	12200	11600
SS054	10/5/2017	260000	247000	20.0	10.00	10.00	1.000	0.861	5.000	19.50	2.0	692	250	1720	1.00	16.80	10500	10500
SS054	10/10/2016	140000	140000	1.6	1.04	10.00			1.560	2.73	0.3	372	250	125	0.20	2.97	5660	5750
SS054	6/26/2017	196000	201000	10.0	2.00	10.00			2.700	2.52	0.7	525	250	250	0.20	0.65	8720	9320
SS054	6/7/2018	125000	123000	2.0	1.00	5.81	0.183	0.500	1.870	2.50	0.7	335	100	134	0.10	0.50	5430	5300
SS055	10/5/2017	21100	19900	2.0	2.00	10.00	0.805	0.970	1.210	5.00	0.2	77	250	234	0.12	3.23	5990	5820
SS055	6/14/2018	17400	17200	1.0	1.00	5.00	1.200	9.260	4.660	27.60	0.4	65	100	1790	0.24	31.80	5300	5250
SS055	10/10/2018	105000	105000	5.0	1.00	5.00	36.900	37.100	11.000	11.10	2.4	323	47500	48200	0.21	0.62	15000	15000
SS055	10/10/2016	25400	25200	0.8	2.00	10.00			4.400	10.20	0.3	96	250	982	0.14	15.70	7860	8070
SS055	6/23/2017	98000	101000	20.0	2.00	10.00			12.600	14.70	2.1	301	43100	48400	0.30	2.78	13700	14600
SS056	6/14/2018	9920	9600	1.0	1.00	5.00	6.600	6.220	5.930	5.79	0.8	34	122	1070	0.53	0.78	2130	2080
SS056	10/11/2016	8040	7900	0.8	2.00	10.00			3.060	3.10	0.5	27	3590	4080	0.23	1.00	1640	1570
SS056	6/22/2017	4830	4650	2.0	2.00	10.00			3.010	5.48	0.4	17	250	160	0.19	1.00	1100	1120
SS057	10/11/2016	195000	202000	3.2	2.00	10.00			2.370	5.12	0.5	515	9270	13900	0.20	1.45	6900	7020
SS057	7/17/2017	155000	165000	8.0	2.00	10.00			2.570	2.73	0.8	409	6210	7340	0.20	0.99	5420	5720
SS057	10/2/2017	199000	188000	20.0	10.00	10.00	22.100	20.600	3.060	5.00	2.0	527	8070	7260	1.00	1.00	7070	6880
SS057	6/6/2018	97800	103000	2.0	1.00	5.00	13.400	14.700	1.560	2.50	0.7	259	6390	7250	0.10	0.51	3510	3790
SS057	9/25/2018	200000	185000	5.0	5.00	5.00	10.900	31.000	3.190	8.18	0.6	530	12000	59600	0.50	11.50	7370	6900
SS058	10/11/2016	3370	4010	1.6	2.00	10.00			3.800	3.67	0.3	10	250	250	2.13	2.38	444	450
SS058	7/17/2017	2320	2150	2.0	2.00	10.00			3.780	3.55	0.2	7	250	250	1.11	1.08	279	277
SS058	10/2/2017	4040	3800	2.0	2.00	10.00	1.070	1.090	4.230	4.64	0.2	12	250	250	1.73	2.04	523	521
SS058	6/6/2018	1870	1880	1.0	1.00	5.41	0.624	0.646	3.770	3.74	0.1	6	100	131	1.39	1.46	283	288
SS059	10/25/2017	29200	29100	2.0	2.00	10.00	0.200	1.000	3.610	5.63	1.0	84	250	250	0.20	1.00	2600	2620
SS059	10/11/2016	34700	33100	0.8	2.00	10.00			3.540	3.82	1.2	99	250	250	0.20	1.00	2990	2850
SS059	10/9/2018	36900	37600	1.0	1.00	5.00	0.100	0.500	4.410	4.28	1.1	105	100	100	0.10	0.50	3180	3300
SS059	6/19/2018	27200	26700	1.0	1.00	5.00	0.100	0.500	3.800	3.68	1.0	77	100	100	0.10	0.50	2290	2260
SS059	6/22/2017	11900	12000	2.0	2.00	10.00			1.090	5.00	0.7	34	250	250	0.20	1.00	1070	1160
SS060	10/9/2018	4820	5020	1.0	1.00	5.00	0.155	0.500	30.200	27.30	0.5	16	100	100	0.57	0.50	846	876
SS060	10/25/2017	4680	4580	2.0	2.00	10.00	0.162	1.000	27.900	31.00	0.2	15	250	157	0.51	0.84	837	851
SS060	6/11/2018	3950	4030	1.0	1.00	5.51	0.167	0.500	23.500	25.90	0.4	13	100	219	0.49	0.70	725	751
SS060	10/11/2016	4560	4430	0.8	2.00	10.00			28.300	30.30	0.3	15	250	100	0.57	0.87	820	824
SS060	6/21/2017	2940	2880	2.0	2.00	10.00			16.900	19.10	0.2	10	250	106	0.36	0.67	577	623
SS061	10/11/2016	18100	17300	1.6	2.00	10.00			10.100	14.10	0.6	56	102	475	0.78	5.68	2550	2570

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	Ca D	Ca T	Cl- T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	FT	Hardness D	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS061	6/21/2017	4220	4070	2.0	2.00	10.00			4.950	5.88	0.2	14	250	340	0.26	4.35	750	830
SS062	10/11/2016	89100	86200	1.5	2.00	10.00			20.300	35.60	0.5	257	5500	12500	4.75	18.50	8370	8240
SS062	6/11/2018	66900	67300	2.0	1.00	5.00	2.310	2.730	0.946	2.54	0.2	196	51300	52500	0.19	2.69	6940	7380
SS062	10/23/2017	72500	72800	20.0	2.00	10.00	2.750	2.790	1.440	5.00	2.0	213	20500	21500	0.11	1.04	7660	7780
SS062	10/8/2018	138000	139000	5.0	1.00	5.00	16.000	16.400	2.780	3.05	2.0	395	14600	15500	0.88	0.74	12200	12400
SS062	6/21/2017	40300	42700	2.0	2.00	10.00			5.100	7.64	0.6	118	3540	7650	0.40	17.60	4280	4860
SS063	10/3/2017	146000	142000	20.0	10.00	10.00	1.000	0.633	5.000	4.01	2.0	429	250	134	1.00	1.00	15700	15600
SS063	6/28/2018	69400	68000	2.0	1.00	5.00	0.104	5.120	0.757	31.30	0.4	197	100	8590	0.10	6.22	5770	5960
SS063	10/12/2016	226000	224000	3.2	10.00	10.00			38.700	39.90	2.7	723	250	476	1.00	1.00	38400	37400
SS063	7/20/2017	227000	228000	20.0	10.00	10.00			50.800	49.80	3.5	739	156	247	1.00	1.00	41600	41500
SS064	10/3/2017	108000	89300	20.0	10.00	10.00	1.000	1.000	5.000	5.00	2.0	312	250	630	1.00	0.85	10000	8430
SS064	10/2/2018	210000	198000	5.0	5.00	5.00	0.500	0.916	2.640	4.51	0.5	636	100	1920	0.50	2.06	26900	26300
SS064	6/28/2018	66300	68100	2.0	1.00	5.00	0.103	0.500	0.674	2.50	0.5	186	100	194	0.10	0.62	4880	4900
SS064	7/20/2017	45600	45500	2.0	2.00	10.00			0.747	5.00	0.3	134	250	250	0.20	1.00	5010	4970
SS064	10/12/2016	134000	134000	1.6	10.00	10.00			5.000	5.00	0.7	388	250	195	1.00	0.54	13000	12900
SS065	10/4/2018	419000	395000	10.0	5.00	5.00	126.000	122.000	59.400	61.70	2.5	1180	106000	106000	0.50	0.50	32900	31700
SS065	10/12/2016	341000	337000	8.0	10.00	10.00			57.600	55.70	1.7	963	92100	90000	1.00	1.00	27200	26900
SS065	6/19/2018	364000	339000	10.0	5.00	5.00	124.000	118.000	54.200	52.60	1.2	1030	88200	82100	0.50	0.50	28800	26700
SS065	6/23/2017	115000	117000	20.0	2.00	10.00			15.700	17.80	1.6	338	6370	6900	0.27	1.00	12600	13700
SS065	10/3/2017	357000	335000	20.0	20.00	20.00	112.000	117.000	81.000	150.00	1.4	1010	92000	88700	2.00	2.00	27900	26700
SS066	10/3/2017	389000	365000	20.0	20.00	20.00	133.000	136.000	18.200	19.50	2.7	1090	108000	103000	2.57	2.69	29900	29000
SS066	6/23/2017	351000	386000	20.0	1.88	10.00			18.700	22.80	2.6	996	97600	105000	3.82	3.88	28900	31500
SS066	10/12/2016	381000	379000	8.0	10.00	10.00			31.500	32.40	2.5	1070	89500	88600	6.41	6.62	29800	29600
SS067	6/21/2017	162000	172000	20.0	10.00	10.00			240.000	239.00	5.0	468	5600	6100	6.12	5.86	15100	15600
SS067	10/23/2017	222000	216000	20.0	10.00	10.00	62.400	62.300	248.000	251.00	3.3	634	15000	14800	3.64	3.72	19600	19100
SS067	6/5/2018	208000	206000	5.0	5.00	5.00	62.700	64.600	363.000	402.00	4.4	596	12900	15700	4.63	3.52	18400	18200
SS067	10/8/2018	240000	245000	5.0	5.00	5.00	64.400	61.200	257.000	238.00	5.3	687	17300	17200	6.09	3.24	21000	21000
SS067	10/17/2016	201000	200000	3.2	10.00	10.00			258.000	259.00	4.8	578	10000	10200	5.31	5.43	18500	18400
SS068	10/8/2018	139000	142000	5.0	1.00	5.00	34.200	39.000	145.000	161.00	2.8	407	1110	1110	17.90	16.80	14400	14700
SS068	10/23/2017	112000	114000	20.0	2.00	10.00	22.200	24.900	155.000	180.00	2.1	328	528	1390	14.50	16.00	11600	11600
SS068	10/17/2016	116000	115000	1.6	10.00	10.00			189.000	191.00	2.1	336	391	408	13.60	13.80	11400	11400
SS068	6/21/2017	83800	91500	4.0	2.00	10.00			165.000	188.00	1.7	246	250	111	12.20	12.40	8990	9640
SS068	6/5/2018	116000	117000	5.0	5.00	5.00	24.900	27.100	155.000	166.00	2.4	336	1540	1690	25.00	27.10	11500	11700
SS069	10/9/2018	72200	72400	2.0	1.00	5.00	16.400	15.600	147.000	142.00	2.0	212	264	178	0.89	0.54	7840	7850

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		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS069	6/19/2018	62900	61700	2.0	1.00	5.00	14.600	14.400	147.000	144.00	2.1	185	100	100	1.06	0.97	6720	6480
SS069	10/17/2016	70900	70600	1.6	2.00	10.00			148.000	170.00	2.2	207	154	359	0.73	0.92	7310	7400
SS069	10/23/2017	65300	66200	4.0	2.00	10.00	14.500	16.100	135.000	152.00	2.2	192	250	155	0.97	1.02	7000	6930
SS069	6/21/2017	40100	43200	2.0	2.00	10.00			93.600	93.80	1.2	117	250	250	0.88	0.80	4040	4150
SS070	10/17/2016	37400	37500	0.8	2.00	10.00			13.200	14.90	1.7	110	108	457	1.55	2.52	4140	4160
SS070	6/11/2018	26200	26300	1.0	1.00	5.00	16.700	19.200	6.910	7.87	1.2	78	2410	2760	1.91	2.08	3090	3110
SS070	10/9/2018	40800	41200	1.0	1.00	5.00	1.820	1.890	13.100	8.73	2.7	122	973	2730	2.84	3.12	4960	5020
SS070	10/23/2017	33900	33100	2.0	2.00	10.00	4.680	4.910	11.700	12.50	1.6	101	217	294	1.61	1.72	3880	3780
SS070	6/21/2017	18800	21100	2.0	2.00	10.00			9.910	10.20	1.5	57	1600	2130	1.55	2.15	2400	2530
SS071	10/1/2018	146000	135000	2.0	1.00	5.00	7.750	7.740	1.010	2.50	1.4	392	5210	5310	0.10	0.50	6580	6050
SS071	10/1/2018	145000	139000	2.0	1.00	5.00	7.640	7.940	1.060	2.50	1.4	389	5190	4960	0.12	0.50	6550	6260
SS071	10/17/2016	125000	124000	1.6	10.00	10.00			5.000	5.00	1.8	337	4810	4800	1.00	1.00	5860	5740
SS071	10/24/2017	124000	123000	20.0	2.00	10.00	8.540	9.270	0.896	5.00	1.3	334	5110	11000	0.20	0.65	5900	5870
SS071	6/18/2018	127000	127000	2.0	1.38	5.00	9.720	9.520	1.150	3.15	2.0	342	5540	12500	0.13	1.21	6300	6230
SS071	6/27/2017	118000	128000	10.0	10.00	10.00			5.000	5.00	1.9	320	6260	6960	1.00	1.45	6400	6850
SS072	6/27/2017	183000	205000	20.0	10.00	10.00			27.900	133.00	1.6	527	13200	18100	1.00	4.76	16900	18400
SS072	6/18/2018	197000	191000	5.0	1.00	5.00	44.400	44.400	177.000	186.00	0.6	575	4920	4810	1.85	1.77	20300	19300
SS072	10/1/2018	224000	215000	5.0	5.00	5.00	16.400	16.600	4.540	22.00	1.4	642	3310	7910	0.50	1.56	19800	19800
SS072	10/24/2017	187000	186000	20.0	10.00	10.00	22.200	21.500	3.410	6.43	2.0	532	4270	4850	1.00	1.88	15700	15700
SS072	10/17/2016	201000	202000	3.2	10.00	10.00			2.870	4.70	1.3	569	7270	12300	1.00	1.75	16300	16500
SS073	6/27/2017	179000	186000	20.0	10.00	10.00			3.640	6.00	2.0	508	16000	17800	1.00	1.00	15000	15400
SS073	6/18/2018	183000	179000	5.0	1.48	5.00	23.600	23.200	4.360	17.10	1.0	517	19200	41000	0.10	1.74	14800	14800
SS073	10/1/2018	210000	202000	5.0	5.00	5.00	17.200	20.400	2.500	6.48	2.1	595	4040	14600	0.50	0.50	17100	17000
SS073	10/17/2016	173000	170000	1.6	10.00	10.00			6.730	11.00	1.4	491	18000	23700	1.00	1.98	14300	14300
SS073	10/24/2017	185000	179000	20.0	10.00	10.00	24.200	24.100	6.380	6.33	2.0	522	20200	19600	1.00	1.00	15000	14600
SS074	10/1/2018	256000	249000	5.0	8.55	8.60	91.700	84.500	1180.000	1090.00	3.0	781	107000	105000	3.22	4.13	34500	33700
SS074	10/17/2016	169000	167000	3.2	10.00	10.00			373.000	367.00	1.6	500	24700	25100	0.85	23.90	18600	18600
SS074	10/24/2017	175000	175000	20.0	10.00	10.00	43.000	42.900	502.000	493.00	2.0	517	50500	50400	2.19	2.88	19300	19500
SS074	6/27/2017	160000	178000	20.0	10.00	10.00			434.000	430.00	2.4	478	54300	60700	10.30	10.90	19100	20600
SS075	6/18/2018	197000	189000	5.0	1.53	5.00	10.100	9.760	2.220	3.10	2.1	543	6830	6730	1.86	3.24	12300	11900
SS075	10/1/2018	228000	220000	5.0	5.00	5.00	10.100	9.310	2.500	2.50	1.3	628	7320	8360	0.77	5.06	14100	13700
SS075	10/17/2016	182000	180000	1.6	10.00	10.00			5.000	5.00	1.2	500	6260	6350	2.56	3.49	11300	11200
SS075	6/27/2017	161000	172000	10.0	10.00	10.00			5.230	6.26	1.4	443	5700	6310	3.18	5.59	10200	10500
SS075	10/24/2017	175000	177000	20.0	10.00	10.00	9.160	8.930	5.000	5.00	2.0	483	6370	6540	2.16	3.38	10900	10800

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Ca D	Ca T	Cl- T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	FT	Hardness D	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS076	10/18/2016	5390	5350	0.8	2.00	10.00			0.644	5.00	0.2	15	250	106	0.11	1.00	470	467
SS076	7/18/2017	4060	3890	2.0	2.00	10.00			0.775	5.00	0.2	12	250	155	0.17	1.00	351	343
SS076	10/10/2017	4030	4380	2.0	2.00	10.00	0.200	1.000	0.752	5.00	0.2	12	250	105	0.20	1.00	391	414
SS076	6/27/2018	4840	4830	1.0	1.00	5.00	0.100	0.500	0.892	2.50	0.1	14	100	303	0.22	0.52	371	390
SS076	9/26/2018	16700	15300	1.0	1.00	5.00	0.123	0.500	0.585	6.78	0.1	47	159	834	0.16	10.20	1300	1500
SS077	6/27/2018	11300	11500	1.0	1.00	5.00	0.100	0.500	0.500	2.50	0.1	30	100	100	0.11	0.50	481	517
SS077	10/18/2016	16500	16400	0.8	1.10	10.00			1.000	5.00	0.2	44	250	250	0.20	1.00	736	741
SS077	9/26/2018	17500	15300	1.0	1.00	5.00	0.100	0.500	0.500	2.50	0.1	47	100	100	0.10	0.51	771	712
SS077	10/10/2017	12800	13900	2.0	2.00	10.00	0.200	1.000	1.000	5.00	0.2	34	250	340	0.20	1.00	581	706
SS077	7/18/2017	8070	8020	2.0	2.00	10.00			0.523	5.00	0.2	22	250	250	0.20	1.00	375	383
SS078	10/10/2017	22500	24400	2.0	2.00	10.00	0.200	1.000	1.000	5.00	0.2	60	250	250	0.20	1.00	896	943
SS078	9/26/2018	25600	22600	1.0	1.00	5.00	0.100	0.500	0.500	2.50	0.1	68	100	100	0.10	0.50	1070	986
SS078	10/18/2016	23400	22200	0.8	2.00	10.00			1.000	5.00	0.2	62	250	250	0.20	1.00	860	860
SS078	6/27/2018	16900	16700	1.0	1.00	5.00	0.100	0.500	0.500	3.57	0.1	45	100	265	0.11	0.50	568	756
SS078	7/18/2017	17000	16700	2.0	2.00	10.00			1.000	5.00	0.2	45	250	250	0.20	1.00	660	658
SS079	9/26/2018	30700	30200	1.0	1.00	5.00	0.100	0.500	0.752	6.06	0.1	84	138	1370	0.10	2.55	1690	1950
SS079	10/18/2016	26900	25400	0.8	2.00	10.00			0.916	5.00	0.2	73	250	250	0.20	1.00	1440	1440
SS079	6/27/2018	16400	16000	1.0	1.00	5.00	0.100	0.500	1.020	2.50	0.1	45	100	100	0.10	0.50	883	889
SS079	10/10/2017	26300	28400	2.0	2.00	10.00	0.200	1.000	0.729	5.00	0.2	72	250	250	0.20	1.00	1440	1480
SS079	7/18/2017	29700	30300	2.0	2.00	10.00			1.000	5.00	0.2	85	250	250	0.20	1.00	2560	2550
SS080	10/18/2016	13800	13100	0.8	2.00	10.00			1.170	5.00	0.2	39	250	250	0.10	1.00	975	984
SS080	6/27/2018	16500	16500	1.0	1.00	5.00	0.193	0.500	2.110	2.50	0.1	45	100	257	0.55	0.98	1000	1050
SS080	9/26/2018	27000	23500	1.0	1.00	5.00	0.100	0.500	2.750	2.50	0.1	75	100	100	0.10	0.50	1780	1610
SS080	10/10/2017	10600	11500	2.0	2.00	10.00	0.200	1.000	1.170	5.00	0.2	30	250	129	0.20	0.56	727	776
SS082	6/28/2018	1810	1820	1.0	1.00	5.00	0.679	0.500	0.698	2.50	0.1	6	100	627	0.10	3.67	361	462
SS082	10/20/2016	2170	2120	0.8	2.00	10.00			0.721	5.00	0.2	7	250	154	0.20	0.71	470	488
SS083	10/20/2016	69600	68900	4.0	5.85	6.70			1900.000	2080.00	3.0	255	46800	47800	1.02	9.87	19800	19400
SS083	6/12/2018	26200	26100	5.0	2.01	6.86	13.600	15.300	780.000	851.00	1.8	92	16300	16300	0.79	0.72	6570	6540
SS083	7/20/2017	26800	26200	2.0	2.00	10.00			516.000	510.00	0.8	87	8960	8900	2.31	2.22	4800	4620
SS084	10/20/2016	69400	68600	4.0	5.87	6.78			1900.000	2100.00	3.0	253	46700	47000	0.60	0.64	19300	19200
SS084	6/12/2018	25900	26300	5.0	2.13	6.86	13.400	14.800	880.000	965.00	1.9	91	18900	19300	9.05	10.60	6380	6440
SS084	7/20/2017	25800	25900	2.0	2.00	10.00			113.000	113.00	0.3	78	289	811	3.47	17.90	3220	3230
SS085	10/20/2016	341000	343000	4.0	10.00	10.00			61.400	69.00	0.8	933	19100	24800	4.02	51.40	19700	19700
SS085	10/2/2018	392000	369000	5.0	5.00	5.00	50.400	46.900	52.100	57.40	1.3	1070	23800	25600	0.50	19.90	22300	21900

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Ca D	Ca T	Cl- T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	FT	Hardness D	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS085	6/28/2018	227000	238000	5.0	5.00	5.00	35.000	36.400	75.100	84.00	0.7	622	14400	17300	33.70	80.40	13700	14500
SS085	7/20/2017	212000	218000	20.0	10.00	10.00			99.800	81.60	2.0	581	14000	16600	35.00	99.00	12900	13000
SS086	10/20/2016	162000	163000	4.0	2.00	10.00			10.900	12.90	1.6	465	25500	28800	0.20	1.00	14500	14400
SS086	10/11/2017	167000	185000	20.0	10.00	10.00	33.100	30.700	3.530	2.81	1.1	480	21200	24800	1.00	1.00	15300	15900
SS086	6/14/2018	184000	184000	5.0	1.00	5.00	33.700	35.500	4.190	5.15	1.2	528	14900	15100	4.50	3.75	16700	17300
SS086	10/9/2018	183000	190000	5.0	5.00	5.00	19.500	35.100	2.650	4.13	2.7	530	18600	19200	1.00	1.02	17600	17300
SS086	6/22/2017	145000	157000	20.0	10.00	10.00			6.180	6.49	1.8	416	8900	10200	3.31	3.20	13200	14200
SS087	10/25/2016	52800	53200	1.6	2.00	7.97			80.800	85.80	1.5	185	13800	14100	134.00	134.00	12900	12800
SS087	10/18/2017	43300	42600	20.0	2.00	10.00	25.400	25.000	44.300	42.30	2.0	147	4140	4860	99.00	99.50	9550	9440
SS087	6/26/2018	18200	17100	1.0	1.00	5.00	6.350	6.530	17.400	17.70	0.2	60	525	813	94.40	76.90	3630	3460
SS087	10/3/2018	20500	19800	1.0	1.00	5.00	6.130	6.010	18.100	17.60	0.2	70	290	800	124.00	119.00	4520	4370
SS087	10/3/2018	20500	20300	1.0	1.00	5.00	6.270	5.930	17.900	18.00	0.3	70	301	1170	120.00	122.00	4580	4490
SS087	6/27/2017	17100	16800	2.0	2.00	10.00			22.800	21.90	0.4	59	1100	1180	77.10	76.60	4010	3750
SS088	6/26/2018	2200	2050	1.0	1.00	5.00	0.595	0.622	0.967	2.50	0.1	7	100	408	1.02	1.97	388	405
SS088	10/3/2018	2800	2610		1.00	5.00	0.847	0.800	0.622	2.50		10	888	1050	1.80	1.59	623	607
SS088	10/18/2017	1710	1620	2.0	2.00	10.00	0.479	1.000	1.000	5.00	0.2	6	129	520	0.27	1.00	413	411
SS088	10/25/2016	1210	1590	0.8	2.00	7.34			0.714	5.00	0.2	4	281	452	0.80	1.48	311	320
SS088	6/27/2017	1060	1040	2.0	2.00	10.00			0.784	5.00	0.2	4	107	144	0.70	0.70	278	276
SS089	6/28/2018	10800	10500	1.0	1.00	5.00	0.100	0.500	2.380	2.94	0.1	34	100	100	0.11	0.50	1640	1600
SS089	10/3/2018	77100	74100	2.0	1.00	5.00	0.100	0.500	0.500	2.50	0.6	244	412	397	0.10	0.50	12600	12100
SS089	10/25/2016	11300	13000	2.5	2.00	7.20			0.569	5.00	0.2	34	250	304	0.20	0.53	1460	1530
SS089	10/12/2017	61300	66000	4.0	2.40	10.00	0.200	1.000	1.000	5.00	0.2	196	458	509	0.20	1.00	10300	10500
SS089	6/29/2017	6750	6930	2.0	2.00	10.00			1.000	5.00	0.2	20	250	245	0.20	1.00	833	914
SS090	6/28/2018	10500	11400	1.0	1.00	5.00	0.100	0.500	0.500	2.50	0.1	35	100	100	0.12	0.50	2210	2440
SS090	10/3/2018	42500	40600	1.0	1.00	5.00	0.164	0.500	0.500	2.50	0.1	132	128	162	0.10	0.50	6280	6250
SS090	10/25/2016	7660	8010	1.3	2.00	7.10			1.000	5.00	0.2	26	165	1080	0.20	0.57	1630	1660
SS090	6/29/2017	3410	3350	2.0	2.00	10.00			1.000	5.00	0.2	11	135	328	0.20	1.00	680	715
SS091	6/29/2017	2280	2180	2.0	2.00	10.00			1.850	5.00	0.2	8	250	250	0.13	1.00	576	602
SS091	10/12/2017	1970	2000	2.0	2.00	10.00	1.590	1.450	5.540	4.61	0.2	7	739	963	0.58	0.59	575	598
SS091	10/25/2016	1890	2500	0.8	2.00	7.37			4.210	4.14	0.2	7	284	287	0.54	0.84	522	539
SS091	6/26/2018	7600	7920	1.0	1.00	5.00	2.560	2.540	48.500	48.30	0.1	24	1390	1770	12.20	12.80	1290	1380
SS092	6/26/2018	10400	9890	1.0	1.00	5.00	0.101	0.500	1.650	2.50	0.1	31	100	100	0.10	0.50	1350	1320
SS092	11/8/2016	10900	11200	0.8	2.00	7.23			0.965	5.00	0.1	35	250	374	0.20	1.00	1790	1790
SS092	10/18/2017	9340	9130	2.0	2.00	10.00	0.200	1.000	1.140	4.91	0.2	29	250	250	0.20	1.00	1480	1470

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Site ID	Date	Ca D	Ca T	Cl- T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	FT	Hardness D	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS092	7/21/2017	8560	8670	2.0	2.00	10.00			1.220	5.00	0.2	27	250	120	0.20	1.00	1440	1420
SS093	10/3/2018	20600	20000	1.0	1.00	5.00	9.150	8.320	11.400	10.60	0.3	63	100	266	0.10	0.50	2880	2840
SS093	11/8/2016	25200	25100	0.8	4.00	7.17			20.800	18.40	0.3	78	500	250	0.40	1.00	3710	3690
SS093	7/21/2017	7600	8200	2.0	2.00	10.00			0.672	2.90	0.2	24	250	952	0.20	4.17	1180	1340
SS093	6/26/2018	5590	5660	1.0	1.00	5.00	4.120	4.220	7.090	7.71	0.1	17	100	189	0.10	0.50	797	849
SS094	7/21/2017	15100	16200	2.0	2.00	10.00			1.400	3.50	0.2	55	250	3450	0.26	46.30	4280	4590
SS094	11/8/2016	187000	189000	2.0	2.00	7.26			18.800	20.80	3.1	740	250	111	45.30	74.50	66100	67900
SS094	10/3/2018	221000	214000	5.0	5.00	5.00	14.500	7.050	2.620	7.72	1.2	661	17800	19300	0.50	51.20	26800	26200
SS094	6/26/2018	83900	90600	5.0	1.00	5.00	4.540	4.760	14.900	18.50	1.5	334	100	217	48.90	119.00	30200	32700
SS095	6/26/2018	71400	77600	2.0	1.00	5.00	0.589	1.010	0.842	6.89	0.3	191	100	2940	0.11	0.51	3110	3440
SS095	10/3/2018	125000	122000	2.0	5.00	5.00	0.500	0.500	2.500	2.50	0.5	333	100	231	0.50	0.50	5110	5110
SS095	11/8/2016	101000	102000	0.4	2.00	7.28			0.740	4.86	0.4	270	324	1390	0.20	1.00	4360	4390
SS095	10/18/2017	109000	107000	4.0	1.47	10.00	0.387	1.320	1.210	7.91	0.4	290	250	2720	0.20	2.78	4640	4640
SS095	6/27/2017	44800	46500	2.0	2.00	10.00			1.230	4.23	0.2	120	274	1510	0.20	1.00	2060	2120
SS096	6/28/2018	4630	4450	1.0	1.00	5.00	3.480	3.220	158.000	137.00	0.1	15	100	259	16.20	15.40	930	934
SS096	11/8/2016	1570	1590	0.8	10.00	7.37			7.680	10.50	0.2	8	19600	22900	2.30	4.07	1250	388
SS096	10/18/2017	3590	3470	2.0	2.00	10.00	3.630	3.070	154.000	138.00	0.2	13	284	2360	4.89	13.30	1100	1080
SS096	6/26/2017	2320	2370	2.0	2.00	10.00			27.500	29.10	0.2	8	198	715	3.15	6.02	433	460
SS097	11/8/2016	12100	12500	0.8	2.00	7.11			8.310	16.00	0.2	38	250	2150	5.75	39.70	2020	2140
SS097	6/26/2017	10300	10700	2.0	2.00	10.00			1.920	5.00	0.2	30	250	372	1.54	10.70	1100	1210
SS098	11/8/2016	31600	32400	1.6	10.00	10.60			1810.000	1840.00	0.4	128	9330	10200	49.30	71.20	11800	11900
SS098	6/26/2017	20400	22400	4.0	1.30	10.00			961.000	1130.00	0.5	78	5800	6270	42.60	42.90	6590	7020
SS098	10/3/2018	33200	31400	5.0	2.33	5.00	37.900	42.400	1490.000	1640.00	0.5	126	7030	7040	116.00	105.00	10500	10100
SS098	10/18/2017	32900	31600	20.0	2.07	10.00	38.500	40.700	1440.000	1540.00	2.0	128	6270	6150	94.30	87.50	11200	11000
SS105	9/25/2018	184000	179000	5.0	5.00	5.00	6.380	6.270	3.030	3.40	3.1	493	6890	7400	0.50	1.41	8310	8350
SS105	6/14/2018	146000	150000	5.0	1.00	5.00	6.000	6.480	2.480	4.22	3.4	392	6000	6740	1.30	2.53	6700	6860
SS105	10/11/2017	166000	164000	20.0	10.00		5.890		2.510		3.7	445	5960	6530	0.57	1.39	7660	7790
SS105	9/20/2016	140000	150000		1.00	1.50			3.700	3.70		400	6100	6500	0.23	1.70	7300	7300
SS105	6/22/2017	104000	110000	20.0	2.00	10.00			18.900	25.20	3.9	283	7620	8810	1.17	4.81	5300	5520
SS123	6/28/2018	4260	4640	5.0	1.49	5.00	28.300	27.600	99.600	94.10	0.5	18	45700	52000	3.84	4.96	1670	1880
SS123	6/27/2017	2490	2470	2.0	2.00	10.00			31.100	31.10	0.1	10	15900	17400	2.75	4.03	905	958
SS125	10/18/2017	125000	123000	20.0	10.00	10.00	124.000	121.000	297.000	214.00	2.0	424	397000	398000	27.40	28.30	27000	27300
SS125	9/29/2016	100000	130000		2.60	4.90			190.000	270.00		440	270000	330000	29.00	38.00	21000	29000
SS126	10/3/2018	1620	1580	5.0	5.00	5.00	27.500	28.100	796.000	797.00	0.5	11	54100	50800	339.00	328.00	1720	1660

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		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS126	10/18/2017	1580	1560	20.0	10.00	10.00	25.800	25.500	374.000	371.00	2.0	11	44200	46600	603.00	621.00	1660	1750
SS126	6/28/2018	1710	1610	5.0	6.82	5.00	30.500	29.200	1770.000	1620.00	0.5	10	60400	57800	900.00	847.00	1350	1300
SS126	9/29/2016	1600	1600		1.70	2.30			440.000	450.00		11	45000	46000	840.00	830.00	1600	1700
SS126	6/27/2017	1950	1940	2.0	2.00	10.00			4.480	4.54	0.2	7	250	435	25.50	33.10	548	583
SS200	10/23/2017	300000	292000	20.0	10.00	10.00	2.350	2.310	5.000	2.51	2.1	764	2140	2310	1.00	0.60	3760	3800
SS200	10/8/2018	339000	335000	5.0	5.00	5.00	2.570	3.630	2.890	3.42	3.2	864	2500	3510	0.50	1.09	4200	4150
SS200	10/8/2018	338000	337000	5.0	5.00	5.00	2.590	3.030	3.100	3.92	3.1	862	2500	3510	0.50	1.24	4150	4170
SS200	6/11/2018	290000	304000	5.0	5.00	5.57	2.400	2.510	2.550	3.16	3.0	739	1430	2330	0.50	0.60	3630	3740
SS200	6/23/2017	248000	254000	20.0	2.00	10.00			2.090	3.44	2.9	633	990	5390	0.20	3.61	3210	3360
SS201	10/4/2018	419000	438000	10.0	5.00	5.00	183.000	181.000	63.700	60.10	2.5	1190	29800	30000	22.80	21.50	33500	33800
SS201	6/19/2018	356000	356000	10.0	5.00	5.00	146.000	149.000	79.000	82.70	4.0	1010	17800	17800	18.90	18.80	28900	29600
SS201	10/3/2017	376000	361000	20.0	20.00	20.00	172.000	180.000	44.600	45.40	2.5	1060	26500	26200	18.50	18.80	29700	29600
SS201	6/23/2017	295000	306000	20.0	2.00	10.00			48.200	59.50	2.2	838	21100	27100	15.40	17.00	24800	26800
SS202	10/2/2018	7680	7390	2.0	2.16	5.00	11.300	11.000	1000.000	905.00	0.4	36	20400	21100	56.50	164.00	4000	3900
SS202	6/26/2017	9270	10100	10.0	3.07	10.00			1090.000	1230.00	1.0	50	48300	59200	8.56	238.00	6480	7400
SS203	6/27/2017	3880	3930	2.0	2.00	10.00			407.000	422.00	0.1	14	349	365	174.00	172.00	1010	1060
SS204	6/27/2017	56700	64000	20.0	6.73	7.43			12500.000	12300.00	1.6	209	228000	283000	28.00	47.50	16300	18500
SS204	10/18/2017	8290	8180	2.0	2.00	10.00	3.510	2.520	20.600	15.00	0.2	27	250	426	329.00	251.00	1440	1450
SS205	6/29/2017	1030	1090	2.0	2.00	10.00			1.000	5.00	0.2	3	250	250	0.20	1.00	191	208
SS206	10/12/2017	9300	9220	2.0	2.00	10.00	2.110	2.200	192.000	195.00	0.2	31	148	2730	12.70	43.30	1990	2070
SS206	6/29/2017	3020	3290	2.0	2.00	10.00			98.500	102.00	0.2	10	599	897	9.46	12.10	644	656
SS207	6/29/2017	2030	2230	2.0	2.00	10.00			2.570	2.82	0.2	8	250	194	3.64	4.41	676	717
SS208	6/29/2017	2550	2260	2.0	2.00	10.00			3.390	3.30	0.2	8	250	250	0.42	1.00	507	463
SS208	6/28/2018	3630	3530	1.0	1.00	5.00	2.970	2.890	6.700	6.29	0.1	12	100	100	4.45	3.88	716	746
SS208	10/3/2018	15400	14600	1.0	1.00	5.00	1.920	1.910	1.540	2.50	0.1	52	492	497	2.35	2.21	3220	3080
SS208	10/12/2017	9240	9200	2.0	2.00	10.00	2.030	1.990	1.900	5.00	0.1	31	421	498	0.68	0.65	1920	1940
SS210	9/24/2018	172000	158000	5.0	5.00	5.00	1.730	1.820	226.000	239.00	4.7	572	100	236	2.08	5.66	34700	34000
SS210	10/16/2017	143000	145000	20.0	2.00	10.00	2.270	1.900	194.000	171.00	5.1	478	250	250	0.12	0.69	29200	30000
SS210	6/13/2018	66200	71800	2.0	1.00	5.00	1.630	1.790	95.500	107.00	2.4	220	100	100	0.19	0.50	13400	14300
SS210	7/10/2017	89400	87600	4.0	2.00	10.00			126.000	133.00	3.0	300	250	250	0.20	1.00	18600	18200
SS211	7/10/2017	31900	30700	2.0	2.00	10.00			18.300	19.10	0.2	93	506	2270	14.00	26.70	3290	3190
SS212	7/11/2017	11800	11600	2.0	2.00	10.00			243.000	246.00	0.2	33	250	157	167.00	158.00	994	955
SS213	7/12/2017	8030	7390	2.0	2.00	10.00			8.030	7.74	0.2	23	250	250	0.20	1.00	701	660
SS214	7/11/2017	76200	73300	4.0	2.00	10.00			386.000	438.00	1.6	222	250	1950	9.56	52.00	7630	7370

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Ca D	Ca T	Cl- T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	FT	Hardness D	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS215	10/2/2017	3980	3700	2.0	2.00	10.00	0.111	1.000	6.160	6.78	0.1	12	250	250	4.32	4.85	604	595
SS215	7/17/2017	6420	6170	2.0	2.00	10.00			1.510	5.00	0.2	21	250	250	0.46	1.00	1240	1200
SS215	6/6/2018	6130	6520	1.0	1.00	6.76	0.100	0.500	1.770	2.50	0.3	20	100	100	0.58	0.80	1180	1270
SS216	6/5/2018	2820	2950	1.0	1.00	5.31	0.100	0.500	1.600	2.50	0.4	8	100	100	0.10	0.86	257	286
SS216	7/17/2017	3200	3130	2.0	2.00	10.00			1.320	5.00	0.3	9	250	250	0.20	1.00	284	289
SS217	9/26/2018	37700	35000	1.0	1.00	5.00	0.553	0.706	1.060	2.50	0.2	120	100	100	0.10	0.50	6390	6120
SS217	6/27/2018	6550	6400	1.0	1.00	5.00	0.100	0.500	0.500	2.50	0.1	18	100	100	0.10	0.50	329	346
SS217	7/18/2017	6140	6110	2.0	2.00	10.00			1.000	5.00	0.2	17	250	250	0.20	1.00	308	317
SS218	9/26/2018	74600	69500	2.0	1.00	5.00	8.680	8.210	16.900	17.80	0.6	287	100	100	0.12	0.59	24400	23600
SS218	7/18/2017	68700	67200	4.0	2.00	10.00			13.500	12.80	0.9	258	250	250	0.20	1.00	21100	20600
SS218	6/27/2018	47700	47000	1.0	1.00	5.00	2.190	2.150	1.830	2.50	0.2	164	100	100	0.10	0.50	11000	11000
SS219	10/1/2018	17500	16200	1.0	1.00	5.00	5.710	5.900	1030.000	978.00	1.5	53	3810	4140	215.00	199.00	2120	1980
SS219	10/19/2017	14900	14900	2.0	2.00	10.00	4.950	4.600	981.000	888.00	1.3	45	3360	24800	179.00	197.00	1810	1940
SS219	6/28/2018	11300	11500	1.0	1.00	5.00	2.170	2.380	307.000	354.00	0.8	34	812	1170	78.00	106.00	1420	1480
SS219	7/24/2017	11300	12000	2.0	2.00	10.00			951.000	1050.00	1.0	34	3750	4410	67.70	72.40	1400	1480
SS220	6/28/2018	143000	143000	5.0	1.00	5.00	37.800	39.800	27.500	27.50	93.0	506	500	500	0.10	0.50	36100	36300
SS220	10/1/2018	109000	105000	5.0	1.00	5.00	19.500	23.300	17.400	18.80	67.9	378	500	500	0.14	0.50	25900	25100
SS220	7/24/2017	136000	137000	20.0	2.00	10.00			23.200	28.50	91.4	473	250	1250	0.20	1.00	32600	33200
SS221	6/28/2018	139000	130000	5.0	5.00	5.00	3.550	2.930	19.200	16.40	72.6	490	500	500	0.93	0.50	34900	32900
SS221	7/24/2017	93200	99100	20.0	10.00	10.00			8.820	8.51	52.0	319	1250	1250	1.00	1.00	21000	22800
SS222	6/28/2018	76100	72600	5.0	5.00	5.00	88.900	81.700	231.000	210.00	37.8	298	500	500	1.61	0.87	26300	25400
SS222	7/24/2017	87800	89200	20.0	10.00	10.00			615.000	629.00	47.5	414	1250	1250	1.92	1.90	47400	48400
SS223	10/1/2018	5770	5650	1.0	1.00	5.00	0.147	0.500	0.729	4.24	0.1	16	100	149	0.10	13.50	441	433
SS223	6/28/2018	4730	4550	1.0	1.00	5.00	0.100	0.500	0.500	2.50	0.1	13	100	100	0.18	0.55	343	349
SS223	10/19/2017	5870	5820	1.0	2.00	10.00	0.200	1.000	1.000	5.00	0.2	16	250	250	0.20	1.00	420	425
SS223	7/24/2017	4790	5010	2.0	2.00	10.00			1.000	5.00	0.2	13	250	250	0.20	1.00	364	389
SS224	7/24/2017	59000	57200	4.0	10.00	10.00			3100.000	2990.00	0.7	168	6720	10000	18.50	30.50	4910	4840
SS225	6/28/2018	52800	50500	2.0	1.00	5.00	8.030	8.660	259.000	291.00	0.4	153	461	41600	127.00	419.00	5220	5360
SS225	7/24/2017	51500	51000	2.0	2.00	10.00			207.000	208.00	0.5	150	335	423	144.00	133.00	5200	5160
SS226	6/28/2018	6790	6340	1.0	1.00	5.00	0.100	0.500	33.400	30.30	0.3	21	100	100	1.70	1.90	969	938
SS226	7/24/2017	4870	4680	2.0	2.00	10.00			3.030	3.98	0.2	14	250	250	3.09	6.01	400	388
SS227	10/3/2017	238000	226000	20.0	10.00	10.00	21.600	21.400	5.000	3.82	4.5	611	2130	2680	1.00	1.00	4020	4000
SS228	10/3/2017	207000	199000	20.0	10.00	10.00	66.700	66.100	216.000	222.00	2.7	605	22200	22900	48.00	78.80	21400	20700
SS228	7/19/2018																	

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Ca D	Ca T	Cl- T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	FT	Hardness D	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS228	10/9/2018	230000	232000	5.0	5.00	5.00	26.400	74.700	119.000	275.00	2.9	670	20600	20800	15.50	42.50	23000	23100
SS229	10/4/2017	129000	124000	20.0	10.00	10.00	1.000	1.000	5.000	3.29	2.0	362	250	250	1.00	0.52	9560	9490
SS229	6/27/2018	99600	105000	2.0	1.00	5.00	0.164	0.500	4.740	4.58	0.4	280	100	100	0.30	0.50	7590	8040
SS230	7/19/2018	16200	16900	5.0	1.74	5.00	31.800	35.100	1010.000	1070.00	1.2	93	5590	6560	205.00	741.00	12800	13200
SS230	10/5/2017	13300	12800	4.0	2.00	10.00	23.600	25.900	479.000	536.00	0.7	69	1430	2170	76.30	241.00	8750	8720
SS231	9/26/2018	48700	45900	1.0	1.00	5.00	0.100	0.500	1.000	2.50	0.1	134	100	440	0.10	0.50	2900	2840
SS231	10/10/2017	34100	34100	1.0	1.12	10.00	0.200	1.000	1.000	5.00	0.2	94	250	220	0.20	1.00	2210	2240
SS231	6/27/2018	25500	24700	1.0	1.00	5.00	0.218	0.500	0.641	2.50	0.1	70	617	1810	0.10	0.50	1600	1570
SS232	10/16/2017	11700	11900	4.0	2.00	10.00	3.970	3.840	1750.000	1690.00	1.1	33	7360	8000	4830.00	4550.00	985	1050
SS235	10/1/2018	17200	16700	2.0	1.00	5.00	22.300	23.600	1.020	2.50	1.4	68	19400	19100	180.00	186.00	6140	5860
SS235	10/1/2018	16600	16600	2.0	1.00	5.00	22.200	23.500	0.984	2.50	1.3	66	18700	19900	181.00	190.00	5920	5810
SS235	10/19/2017	14900	14500	4.0	2.00	10.00	20.200	19.900	1.140	5.00	1.0	58	15700	15800	196.00	195.00	4990	5130
SS236	10/23/2017	131000	129000	20.0	2.00	10.00	29.600	33.400	264.000	311.00	1.7	371	250	183	9.25	9.25	10900	11100
SS236	10/8/2018	125000	126000	2.0	5.00	5.00	28.100	28.800	201.000	205.00	2.3	356	100	219	6.38	6.20	11000	11000
SS236	7/19/2018																	
SS237	10/24/2017	45100	44600	2.0	2.00	10.00	0.200	1.000	0.903	5.00	0.1	122	250	250	0.20	1.00	2410	2410
SS238	10/24/2017	165000	161000	20.0	2.00	10.00	37.700	38.800	357.000	388.00	1.2	487	26200	26100	3.51	3.47	18600	18600
SS238	6/18/2018	171000	170000	5.0	1.11	5.00	38.900	38.200	429.000	420.00	1.0	504	28800	29100	9.04	8.44	18600	18300
SS250	10/9/2018	299000	290000	5.0	5.00	5.00	1.510	1.490	2.500	3.31	3.3	766	643	818	1.50	2.66	4760	4660
SS250	10/9/2018	299000	294000	5.0	5.00	5.00	1.840	1.470	3.990	3.09	3.3	767	634	700	1.76	2.10	4800	4650
SS250	6/14/2018	260000	272000	5.0	5.00	5.00	0.500	4.460	2.500	11.90	5.6	667	100	3830	0.50	11.00	4270	4500
SS250	6/19/2018	262000	267000	5.0	5.00	5.00	0.500	0.500	7.720	3.51	3.9	673	100	100	0.85	0.50	4440	4470
SS250	11/7/2017	308000	267000	20.0	20.00	10.00	1.640	1.620	10.000	3.33	3.2	788	725	1860	2.00	4.87	4500	4380
SS300	10/9/2018	5210	5460	1.0	1.00	5.00	0.479	0.723	37.000	40.70	0.5	16	100	102	0.10	0.70	745	785
SS300	6/19/2018	4260	4480	1.0	1.00	5.00	0.364	0.607	52.100	50.50	0.4	13	100	100	0.10	0.72	692	718
SS301	10/4/2018	396000	373000	10.0	5.00	5.00	176.000	169.000	44.200	42.30	2.5	1130	23200	21800	5.27	5.26	34800	32700
SS301	6/19/2018	281000	291000	5.0	5.00	5.00	130.000	118.000	39.200	36.90	2.4	804	22300	23300	5.81	5.13	24600	25500
SS304	6/28/2018	17100	16200	1.0	1.00	5.00	0.503	0.503	10.500	9.38	0.4	50	100	100	119.00	109.00	1740	1680
SS304	7/24/2017	14600	14900	2.0	2.00	10.00			11.600	12.60	0.4	43	250	250	214.00	216.00	1470	1510
SS305	10/10/2017	25800	25900	2.0	2.00	10.00	0.200	1.000	1.000	5.00	0.2	71	250	221	0.20	1.00	1620	1650
SS305	8/23/2018	215000	200000	5.0	1.08	5.00	0.891	1.020	1.560	2.50	1.7	568	100	125	0.10	0.50	7350	6900

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Site ID	Date	Ca D	Ca T	Cl- T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	FT	Hardness D	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Mn D	Mn T	Hg T	Ni D	Ni T	NO3- as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T
		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
A23A	10/1/2018	19900.00	19300.00		4.190	4.37	1.00	1350	1300	1.00	5.00			0.50	2.50	793	778			141.00
A23A	8/23/2018	18300.00	18900.00		4.270	4.19	1.00	1410	1310	1.00	5.00			0.50	2.50	746	759			130.00
A23A	8/23/2018	20000.00	27600.00		4.230	7.86	1.00	1320	3050	1.00	5.00			0.50	2.50	701	752			136.00
A23A	8/23/2018	22800.00	22700.00		5.450	5.58	1.00	1390	1100	1.00	5.00			0.50	2.50	748	664			140.00
A38	6/28/2017	9230.00	10400.00		1.000	5.00	20.00			2.00	10.00	10700	11000	1.00	5.00			3540.00	3570.00	439.00
A38	9/27/2018	11600.00	11900.00		2.500	2.50	5.00	1090	1180	5.00	5.00			2.50	2.50	5670	6040			488.00
A38	6/27/2018	11300.00	10800.00		0.500	19.20	5.00	878	1050	1.00	5.00			0.50	2.50	5190	5380			476.00
CC01A	6/14/2018	1370.00	1380.00		0.500	2.50	1.00	465	436	1.00	5.00			0.50	2.50	963	1000			145.00
CC01A	10/2/2017	2050.00	2010.00	0.05	1.000	5.00	4.00	637	655	2.00	10.00			1.00	5.00	1740	1710			195.00
CC01A	9/24/2018	2030.00	2100.00		0.500	2.50	2.00	597	791	1.00	5.00			0.50	2.50	1610	1690			217.00
CC01A	7/10/2017	870.00	932.00		1.000	5.00	2.00			2.00	10.00	6810	7090	1.00	5.00			415.00	443.00	213.00
CC01B	9/25/2018	26100.00	27100.00		2.500	2.50	5.00	1940	2110	5.00	5.00			2.50	2.50	6030	6120			730.00
CC01B	6/5/2018																			
CC01B	10/9/2017	26700.00	26400.00	0.05	5.010	3.99	10.00	2010	1930	5.00	5.00			2.50	2.50	5990	5240			720.00
CC01B	4/24/2017		24700.00			5.00	10.00				10.00		29100		5.00				1680.00	623.00
CC01B	9/27/2016	25600.00	26000.00		6.920	11.70				5.00	5.00	32100	31900	2.50	2.50			1760.00	1870.00	
CC01B	3/30/2017	25900.00	26800.00		2.580	2.50	10.00			5.00	5.00	30800	31100	2.50	2.50			1690.00	1830.00	685.00
CC01C	9/25/2018	2330.00	2440.00		3.050	2.77	1.00	630	768	1.00	5.00			0.50	2.50	893	948			76.80
CC01C	10/2/2017	10400.00	10200.00	0.05	11.500	12.50	20.00	438	414	1.59	10.00			1.00	5.00	984	956			294.00
CC01C	9/20/2016	9300.00	9400.00		15.000	16.00		700	680	0.21	0.24			0.10	0.11	850	860			350.00
CC01C	7/10/2017	1510.00	1610.00		3.250	3.17	2.00			2.00	10.00	8190	8050	1.00	5.00			36.10	39.40	83.00
CC01C	6/5/2018	788.00	777.00		2.140	2.50	1.00	291	305	1.00	5.00			0.50	2.50	565	580			64.20
CC03D	9/27/2017	28900.00	29900.00		31.000	37.20	10.00	1520	1530	10.00	10.00	38300	38900	5.00	5.00	8400	8400	4700.00	4800.00	1450.00
CC03D	6/5/2018	34700.00	33600.00		39.000	35.00	10.00	1530	1660	10.00	5.00			5.00	2.50	8820	8920			1660.00
CC03D	10/9/2018	35900.00	35500.00		31.700	31.30	10.00	1600	1630	5.00	5.00			2.50	2.50	8680	8810			1440.00
CC03D	3/30/2017	33300.00	34000.00		32.700	34.10	10.00			10.00	10.00	40500	41000	5.00	5.00			4810.00	5160.00	1530.00
CC03D	5/16/2017	32800.00	33000.00		35.600	35.10	10.00			10.00	10.00	40100	40300	5.00	5.00			4800.00	5100.00	1450.00
CC03D	6/6/2017	31800.00	31200.00		35.700	26.70	10.00			5.00	5.00	40400	39500	2.50	2.50			4680.00	4660.00	1430.00
CC06	10/9/2018	21100.00	21100.00		12.500	15.60	5.00	1370	1400	5.00	5.00			2.50	2.50	4620	4410			1160.00
CC06	6/5/2018	19400.00	18700.00		21.100	15.20	10.00	1100	1120	10.00	5.00			5.00	2.50	4400	4300			1300.00
CC06	6/6/2017	22200.00	21800.00		71.500	62.00	10.00			8.20	6.60	31800	30800	2.50	2.50			5100.00	4950.00	2220.00
CC06	9/28/2017	26700.00	27500.00		47.300	44.60	10.00	1770	1760	10.00	5.00	20800	21500	5.00	2.50	4870	4760	5450.00	5520.00	1440.00
CC06	10/9/2017	27800.00	28000.00	0.05	38.300	35.70	10.00	2650	1940	5.00	5.00			2.50	2.50	4780	3920			1370.00
CC14	10/9/2018	2600.00	2580.00		2.500	2.50	5.00	846	875	5.00	5.00			2.50	2.50	4060	4160			596.00

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Mn D	Mn T	Hg T	Ni D	Ni T	NO3- as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T	
		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
CC14	9/28/2017																				
CC14	10/9/2017																				
CC14	9/21/2016	2400.00	3000.00		7.400	7.30		1000	1900	0.05	0.26			0.07	0.37	3500	4600			550.00	
CC14	6/5/2018	2690.00	2660.00		7.680	3.31	5.00	814	912	10.00	5.00			5.00	2.50	3790	3740			610.00	
CC14	6/20/2017	2380.00	2450.00		3.940	6.00	20.00			2.00	10.00	28600	31200	1.00	5.00			1630.00	1630.00	425.00	
CC16C	6/12/2018	2450.00	2490.00		30.200	37.30	5.00	3220	3210	5.00	5.00			2.50	2.50	4570	4510			598.00	
CC16C	9/28/2016	2300.00	2300.00		34.000	32.00		3400	3400	0.05	0.06			0.07	0.07	4300	4300			600.00	
CC16C	6/20/2017	2370.00	2430.00		23.600	28.60	20.00			2.00	10.00	49300	51800	1.00	5.00			956.00	981.00	544.00	
CC16C	10/4/2018	2450.00	2420.00		22.900	26.20	5.00	3420	3470	1.00	5.00			0.50	2.50	4800	4980			545.00	
CC16C	10/25/2017	2240.00	2260.00	0.05	23.800	28.40	20.00	3050	3130	2.00	10.00			1.00	5.00	4500	4620			428.00	
CC19	10/9/2018	46800.00	45800.00		40.200	39.40	10.00	1310	1310	5.00	5.00			2.50	2.50	8650	8690			1520.00	
CC19	6/5/2018	43500.00	42300.00		48.600	43.50	10.00	1350	1380	10.00	5.00			5.00	2.50	8950	9000			1720.00	
CC19	10/9/2017	51300.00	51600.00	0.05	48.300	49.90	10.00	1250	1250	5.00	5.00			2.50	2.50	8170	6910			1610.00	
CC19	9/29/2016	39200.00	40100.00		43.900	52.70				10.00	5.00	33800	33700	5.00	2.50			5310.00	5390.00		
CC19	6/6/2017	41200.00	39600.00		46.900	34.70	10.00			5.00	5.00	34400	33000	2.50	2.50			5080.00	5000.00	1540.00	
CC50	10/3/2018	2660.00	2610.00		2.500	2.50	5.00	617	595	5.00	5.00			2.50	2.50	4110	4450			891.00	
CC50	10/9/2017	3710.00	3830.00	0.05	2.500	2.50	10.00	641	572	5.00	5.00			2.50	2.50	4340	3540			852.00	
CC50	6/7/2018	2430.00	2520.00		5.000	2.50	5.00	416	553	10.00	5.00			5.00	2.50	4000	4120			920.00	
CC50	6/20/2017	2690.00	2790.00		1.000	5.00	20.00			2.00	10.00	17700	18800	1.00	5.00			5200.00	5300.00	823.00	
CC50	9/21/2016	3400.00	4100.00		1.500	5.50		850	910					0.07	0.37	3900	5000				
DM01	6/14/2018																				
DM01	6/22/2017	1130.00	1140.00		3.980	4.09	2.00			2.00	10.00	13800	14500	1.00	5.00			524.00	517.00	115.00	
DM24	9/16/2016	4100.00	4100.00		4.500	4.60		2100	2100	0.05	0.26			0.07	0.07	5700	5700			680.00	
DM24	9/27/2018	3490.00	4380.00		2.500	2.50	5.00	1660	1720	5.00	5.00			2.50	2.50	5450	5720			635.00	
DM32	9/27/2018	8920.00	9120.00		3.090	2.50	2.00	478	521	1.00	5.00			0.64	2.50	1390	1440			223.00	
DM32	9/27/2018	8870.00	9130.00		2.950	3.01	2.00	470	527	1.00	5.00			0.64	2.50	1390	1450			224.00	
DM32	10/10/2017	12300.00	12300.00	0.05	6.180	5.70	4.00	514	460	1.16	10.00			0.83	5.00	1580	1290			265.00	
DM32	6/27/2018	9550.00	9060.00		5.970	31.50	2.00	482	498	1.00	5.00			0.72	2.50	916	906			159.00	
DM32	6/28/2017	8570.00	8710.00		5.490	5.67	2.00			2.00	10.00	7070	7180	0.92	5.00			143.00	156.00	139.00	
DM4	8/23/2018	3970.00	3960.00		0.500	2.50	5.00	807	678	1.00	5.00			0.50	2.50	5240	4980			505.00	
DM4	8/23/2018	3970.00	3890.00		0.500	2.50	5.00	756	606	1.00	5.00			0.50	2.50	5250	4890			500.00	
SS001	9/26/2018	1300.00	1330.00		2.120	2.50	1.00	250	267	1.00	5.00			0.50	2.50	508	534			48.80	
SS001	9/26/2018	1290.00	1350.00		2.280	2.50	1.00	250	275	1.00	5.00			0.50	2.50	514	542			50.70	
SS001	10/4/2017	80.60	85.70	0.05	2.300	5.00	2.00	1000	272	2.00	10.00			1.00	5.00	437	431			38.60	

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Mn D	Mn T	Hg T	Ni D	Ni T	NO3- as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T
		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS001	9/22/2016	36.40	43.90		2.680	2.74	0.20			2.00	10.00	5920	6160	1.00	5.00			52.10	52.30	37.30
SS001	6/27/2018	63.50	120.00		2.540	34.50	1.00	250	493	1.00	5.00			0.50	2.50	286	362			27.20
SS001	7/11/2017	162.00	180.00		1.510	5.00	2.00			2.00	10.00	3820	3850	1.00	5.00			30.20	33.10	28.50
SS002	10/4/2017	104.00	104.00	0.05	1.000	5.00	2.00	329	352	2.00	10.00			1.00	5.00	824	827			98.00
SS002	6/27/2018	2.00	13.30		0.500	31.70	1.00	250	276	1.00	5.00			0.50	2.50	741	765			85.50
SS002	7/11/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	3200	3190	1.00	5.00			216.00	229.00	79.90
SS002	9/22/2016	5.77	7.48		1.000	5.00	0.20			2.00	10.00	3690	3700	1.00	5.00			363.00	375.00	141.00
SS003	9/26/2018	842.00	864.00		0.500	2.50	1.00	313	361	1.00	5.00			0.50	2.50	962	1000			130.00
SS003	10/4/2017	188.00	187.00	0.05	1.000	5.00	2.00	305	311	2.00	10.00			1.00	5.00	1040	1020			166.00
SS003	7/12/2017	115.00	142.00		1.000	5.00	2.00			2.00	10.00	3930	3980	1.00	5.00			225.00	245.00	95.60
SS003	9/22/2016	423.00	444.00		1.000	5.00	0.20			2.00	10.00	4500	4430	1.00	5.00			381.00	384.00	159.00
SS004	10/4/2017	5.00	9.87	0.05	0.985	5.00	2.00	708	743	2.00	10.00			1.00	5.00	804	803			110.00
SS004	6/27/2018	6.38	8.95		1.570	33.40	1.00	646	726	1.00	5.00			0.50	2.50	789	864			148.00
SS004	9/22/2016	5.00	30.00		1.000	5.00	0.20			2.00	10.00	4880	5090	1.00	5.00			190.00	189.00	78.10
SS004	7/12/2017	5.00	9.72		1.000	5.00	2.00			2.00	10.00	3800	4000	1.00	5.00			131.00	142.00	55.50
SS004	9/26/2018	2.00	8.31		0.500	2.50	1.00	726	798	1.00	5.00			0.50	2.50	849	892			127.00
SS005	9/22/2016	7.76	12.20		5.060	6.44	0.30			1.34	10.00	14900	14800	1.00	5.00			141.00	165.00	166.00
SS006	10/4/2017	5.00	3.33	0.05	1.000	5.00	2.00	1000	1000	2.00	10.00			1.00	5.00	1140	1130			42.40
SS006	9/26/2018	2.00	3.14		0.500	2.50	1.00	314	365	1.00	5.00			0.50	2.50	1270	1320			53.10
SS006	6/27/2018	2.00	2.00		0.500	37.70	1.00	255	266	1.00	5.00			0.50	2.50	1100	1060			44.40
SS006	9/23/2016	12.90	26.20		1.000	5.00	0.20			2.00	10.00	2140	2820	1.00	5.00			102.00	105.00	25.70
SS006	7/12/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	5950	5960	1.00	5.00			136.00	152.00	36.20
SS007	9/23/2016	5.00	5.00		1.380	5.00	0.10			2.00	10.00	5970	5820	1.00	5.00			199.00	197.00	41.60
SS007	9/26/2018	10.40	14.40		0.500	2.50	1.00	250	258	1.00	5.00			0.50	2.50	1140	1200			53.60
SS007	10/4/2017	2.53	3.97	0.05	1.000	5.00	2.00	1000	255	2.00	10.00			1.00	5.00	1060	1080			49.30
SS007	7/12/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	3120	3210	1.00	5.00			102.00	117.00	30.10
SS007	6/27/2018	8.94	9.26		0.500	36.00	1.00	250	250	1.00	5.00			0.50	2.50	850	850			32.10
SS008	9/24/2018	30.20	37.80		0.500	2.50	1.00	320	301	1.00	5.00			0.50	2.50	788	806			148.00
SS008	9/24/2018	30.00	38.30		0.500	2.50	1.00	290	312	1.00	5.00			0.50	2.50	769	814			149.00
SS008	10/2/2017	143.00	156.00	0.05	1.000	5.00	2.00	1000	1000	2.00	10.00			1.00	5.00	1140	1140			121.00
SS008	9/26/2016	122.00	131.00		1.000	5.00	0.20			2.00	10.00	1210	1310	1.00	5.00			365.00	341.00	96.70
SS008	6/13/2018	123.00	477.00		0.500	2.50	1.00	250	250	1.00	5.00			0.50	2.50	607	654			77.60
SS009	7/10/2017	5.00	16.30		1.000	5.00	2.00			2.00	10.00	4300	4420	1.00	5.00			145.00	160.00	53.00
SS009	9/26/2016	5.00	2.10		1.000	5.00	0.20			2.00	10.00	4140	4270	1.00	5.00			252.00	256.00	88.10

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Site ID	Date	Mn D	Mn T	Hg T	Ni D	Ni T	NO3- as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T
		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS009	6/13/2018	34.90	36.30		0.500	2.50	1.00	441	403	1.00	5.00			0.50	2.50	523	566			48.20
SS010	9/24/2018	33.20	31.90		0.500	2.50	1.00	438	402	1.00	5.00			0.50	2.50	1050	1100			109.00
SS010	10/2/2017	9.55	9.16	0.05	1.000	5.00	2.00	458	300	2.00	10.00			1.00	5.00	1330	1030			130.00
SS010	7/10/2017	11.60	14.60		1.000	5.00	2.00			2.00	10.00	5840	6000	1.00	5.00			265.00	293.00	122.00
SS010	9/26/2016	5.01	6.73		1.000	5.00	0.10			2.00	10.00	6300	6270	1.00	5.00			189.00	186.00	72.40
SS010	6/13/2018	285.00	734.00		0.500	2.50	2.00	250	250	1.00	5.00			0.50	2.50	1840	1900			371.00
SS011	6/13/2018	5260.00	5520.00		13.400	16.30	5.00	765	844	1.00	5.00			0.50	2.50	1410	1540			488.00
SS011	9/24/2018	1640.00	1630.00		5.770	4.99	2.00	250	250	1.00	5.00			0.50	2.50	1150	1190			231.00
SS011	7/10/2017	8170.00	8270.00		25.800	28.70	20.00			2.00	10.00	13400	14000	1.00	5.00			1550.00	1660.00	615.00
SS011	10/2/2017	265.00	270.00	0.05	1.020	5.00	2.00	402	1000	2.00	10.00			1.00	5.00	1160	893			154.00
SS011	9/26/2016	5120.00	5330.00		21.500	23.40	0.80			2.00	10.00	9740	10100	1.00	5.00			1380.00	1390.00	515.00
SS012	10/2/2017	4520.00	4440.00	0.05	8.730	10.50	20.00	328	397	2.00	10.00			1.00	5.00	2210	2210			498.00
SS012	9/26/2016	1370.00	1380.00		4.560	5.40	0.70			2.00	10.00	7890	7880	1.00	5.00			609.00	603.00	333.00
SS012	6/13/2018	2.62	5.47		0.500	2.50	1.00	250	250	1.00	5.00			0.50	2.50	1700	1770			121.00
SS012	7/10/2017	7.02	10.90		1.000	5.00	2.00			2.00	10.00	908	1050	1.00	5.00			35.60	40.20	15.70
SS013	10/4/2018	14.80	46.40		0.500	2.50	1.00	1000	571	1.00	5.00			0.50	2.50	1000	930			93.90
SS013	10/3/2016	12.20	13.20		1.000	5.00	0.20			2.00	10.00	3170	3170	1.00	5.00			265.00	260.00	88.60
SS013	10/3/2017	2.81	5.54	0.05	1.000	5.00	2.00	326	337	2.00	10.00			1.00	5.00	676	679			73.60
SS013	6/12/2018	77.40	83.00		0.500	4.60	1.00	277	259	1.00	5.00			0.50	2.50	542	559			65.30
SS013	7/17/2017	89.60	92.30		1.000	5.00	2.00			2.00	10.00	2970	2980	1.00	5.00			238.00	233.00	72.00
SS014	10/3/2017	5.00	5.00	0.05	1.000	5.00	2.00	359	349	2.00	10.00			1.00	5.00	1340	1330			75.10
SS014	10/4/2018	2.00	2.00		0.500	2.50	1.00	1000	311	1.00	5.00			0.50	2.50	1380	1330			90.20
SS014	6/12/2018	2.00	2.00		0.500	2.93	1.00	328	314	1.00	5.00			0.50	2.50	1210	1200			73.80
SS014	7/17/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	6510	6440	1.00	5.00			286.00	292.00	72.40
SS014	10/3/2016	5.00	5.00		1.000	5.00	0.20			2.00	10.00	6590	6550	1.00	5.00			308.00	305.00	73.30
SS015	10/4/2018	29.50	30.90		0.500	2.50	1.00	1000	282	1.00	5.00			0.50	2.50	1900	1950			97.20
SS015	10/3/2017	5.00	5.00	0.05	1.000	5.00	2.00	280	285	2.00	10.00			1.00	5.00	1870	1830			98.40
SS015	10/3/2016	12.50	15.00		1.000	5.00	0.20			2.00	10.00	7730	7830	1.00	5.00			237.00	231.00	85.60
SS015	6/12/2018	26.00	28.80		0.500	4.53	1.00	364	349	1.00	5.00			0.50	2.50	1570	1540			78.80
SS015	7/17/2017	35.40	37.20		1.000	5.00	2.00			2.00	10.00	8460	8480	1.00	5.00			240.00	234.00	89.10
SS016	10/4/2018	912.00	813.00		0.865	2.50	1.00	1000	839	1.00	5.00			0.50	2.50	3230	2950			136.00
SS016	6/22/2017	974.00	1010.00		1.000	5.00	2.00			2.00	10.00	32700	37900	1.00	5.00			383.00	374.00	176.00
SS016	6/12/2018	1050.00	1040.00		0.500	4.99	2.00	1110	842	1.00	5.00			0.50	2.50	3980	3620			206.00
SS016	10/3/2016	744.00	750.00		1.970	5.00	0.20			2.00	10.00	33700	33600	1.00	5.00			357.00	353.00	126.00

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Mn D	Mn T	Hg T	Ni D	Ni T	NO3- as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T
		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS016	10/5/2017	770.00	755.00	0.05	1.200	5.00	2.00	935	901	2.00	10.00			1.00	5.00	2950	2930			128.00
SS017	10/5/2017	1170.00	1150.00	0.05	2.100	5.00	2.00	971	955	2.00	10.00			1.00	5.00	2760	2780			148.00
SS017	10/3/2016	1170.00	1190.00		2.770	3.77	0.20			2.00	10.00	37500	37500	1.00	5.00			406.00	410.00	146.00
SS017	10/4/2018	1210.00	1160.00		0.999	2.50	1.00	1070	975	1.00	5.00			0.50	2.50	3080	2940			172.00
SS017	6/22/2017	909.00	901.00		2.400	5.00	2.00			2.00	10.00	33000	35500	1.00	5.00			297.00	284.00	116.00
SS017	6/12/2018	1600.00	1650.00		3.610	8.04	2.00	1100	1090	1.00	5.00			0.50	2.50	2960	2940			187.00
SS018	6/23/2017	1560.00	1560.00		5.970	6.52	2.00			2.00	10.00	27600	29800	1.00	5.00			316.00	294.00	158.00
SS018	10/4/2018	3470.00	3130.00		11.000	10.90	2.00	1230	1190	1.00	5.00			0.50	2.50	3420	3350			262.00
SS018	10/3/2016	2620.00	2660.00		9.810	11.30	0.20			2.00	10.00	35600	35700	1.00	5.00			467.00	464.00	216.00
SS018	10/5/2017	2270.00	2310.00	0.05	8.000	8.79	4.00	1320	1320	2.00	10.00			1.00	5.00	3350	3370			211.00
SS018	6/12/2018	2610.00	2760.00		10.200	15.20	2.00	1050	996	1.00	5.00			0.50	2.50	2840	2880			237.00
SS019	6/23/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	5710	5850	1.00	5.00			157.00	149.00	42.50
SS019	10/4/2018	2.24	10.00		0.500	2.50	1.00	1000	448	1.00	5.00			0.50	2.50	1430	1410			58.20
SS019	10/4/2018	2.13	14.50		0.500	2.50	1.00	1000	553	1.00	5.00			0.50	2.50	1460	1410			58.10
SS019	10/5/2017	5.00	5.00	0.05	1.000	5.00	2.00	349	371	2.00	10.00			1.00	5.00	1400	1440			52.60
SS019	6/12/2018	2.00	2.00		0.500	3.64	1.00	250	250	1.00	5.00			0.50	2.50	1190	1180			51.70
SS019	10/3/2016	5.00	5.00		1.000	5.00	0.20			2.00	10.00	6510	6460	1.00	5.00			220.00	216.00	50.50
SS020	9/25/2018	72.10	71.60		1.630	2.50	1.00	283	305	1.00	5.00			0.50	2.50	1380	1370			28.70
SS020	10/16/2017	130.00	133.00	0.05	1.740	5.00	2.00	1000	1000	2.00	10.00			1.00	5.00	675	697			25.20
SS020	10/4/2016	193.00	195.00		3.530	3.52	0.20			2.00	10.00	5320	5260	1.00	5.00			39.00	38.70	50.50
SS020	7/19/2017	271.00	277.00		5.010	5.42	2.00			2.00	10.00	4170	4150	1.00	5.00			28.20	27.50	31.40
SS020	6/13/2018	119.00	124.00		2.040	3.26	1.00	250	250	1.00	5.00			0.50	2.50	541	572			20.60
SS021	10/4/2016	22.30	21.80		0.696	5.00	0.20			2.00	10.00	5640	5470	1.00	5.00			25.30	24.40	12.50
SS021	7/19/2017	20.60	19.40		0.502	5.00	2.00			2.00	10.00	5040	5050	1.00	5.00			19.90	19.30	11.40
SS021	6/13/2018	18.90	20.80		0.500	2.50	1.00	250	250	1.00	5.00			0.50	2.50	492	507			10.40
SS022	10/16/2017	366.00	335.00	0.05	0.688	5.00	2.00	1000	1000	2.00	10.00			1.00	5.00	779	809			56.20
SS022	10/4/2016	2.39	2.47		0.634	5.00	0.20			2.00	10.00	3590	7730	1.00	5.00			79.20	78.30	40.70
SS022	6/13/2018	7.61	8.17		0.500	2.50	1.00	250	250	1.00	5.00			0.50	2.50	648	651			23.70
SS022	7/19/2017	10.50	11.80		1.000	5.00	2.00			2.00	10.00	5990	6200	1.00	5.00			65.50	67.70	39.60
SS023	9/25/2018	19.20	20.30		0.500	2.50	2.00	395	324	1.00	5.00			0.50	2.50	1620	1630			185.00
SS023	10/4/2016	9.54	10.10		1.410	5.00	0.20			2.00	10.00	6870	6960	1.00	5.00			94.60	94.00	58.00
SS023	7/19/2017	16.40	18.50		1.000	5.00	2.00			2.00	10.00	3270	3530	1.00	5.00			45.80	42.30	28.60
SS023	6/13/2018	16.20	18.80		0.500	2.50	1.00	303	252	1.00	5.00			0.50	2.50	250	250			3.40
SS023	10/16/2017	11.60	14.20	0.05	1.000	5.00	4.00	338	395	2.00	10.00			1.00	5.00	1760	1860			200.00

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS024	10/16/2017	5.00	5.00	0.05	1.000	5.00	4.00	265	365	2.00	10.00			1.00	5.00	1440	1500			203.00
SS024	10/4/2016	5.00	5.00		1.000	5.00	0.40			2.00	10.00	3050	3040	1.00	5.00			846.00	828.00	193.00
SS024	9/25/2018	2.00	2.00		0.500	2.50	2.00	357	358	1.00	5.00			0.50	2.50	1390	1390			176.00
SS024	7/19/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	4290	4310	1.00	5.00			857.00	800.00	213.00
SS024	6/13/2018	2.00	2.00		0.500	2.50	1.00	302	250	1.00	5.00			0.50	2.50	893	915			84.60
SS025	10/4/2016	5.00	14.80		1.000	5.00	0.50			2.00	10.00	2390	3290	1.00	5.00			398.00	402.00	114.00
SS025	7/19/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	2160	2180	1.00	5.00			141.00	128.00	34.50
SS025	6/13/2018	2.00	4.68		0.500	2.50	1.00	250	250	1.00	5.00			0.50	2.50	400	409			32.10
SS026	10/4/2016	506.00	234.00		1.200	5.00	0.30			2.00	10.00	6750	2930	1.00	5.00			116.00	52.80	99.60
SS026	10/16/2017	4390.00	4450.00	0.05	3.900	3.73	2.00	376	396	2.00	10.00			1.00	5.00	868	903			106.00
SS026	6/14/2018	930.00	831.00		1.860	2.58	1.00	288	263	1.00	5.00			0.50	2.50	642	650			77.60
SS026	7/10/2017	2940.00	2950.00		3.210	3.14	2.00			2.00	10.00	6480	6590	1.00	5.00			49.80	46.50	68.60
SS027	10/16/2017	15600.00	15700.00	0.05	25.000	23.50	20.00	840	866	1.23	10.00			1.00	5.00	1310	1330			384.00
SS027	10/4/2016	9780.00	9870.00		19.800	19.50	0.40			1.40	10.00	10700	10600	1.00	5.00			195.00	194.00	317.00
SS027	9/24/2018	17000.00	16400.00		23.400	24.30	2.00	800	818	5.00	5.00			2.50	2.50	1470	1490			443.00
SS027	6/13/2018	3290.00	3300.00		7.040	7.08	1.00	562	559	3.19	5.00			0.51	2.50	691	655			123.00
SS027	7/10/2017	4430.00	4430.00		6.880	7.00	2.00			2.00	10.00	6940	6970	1.00	5.00			81.00	77.80	132.00
SS028	10/16/2017	4.75	6.71	0.05	1.000	5.00	2.00	1000	1000	2.00	10.00			1.00	5.00	814	849			16.40
SS028	7/10/2017	5.00	14.50		1.000	5.00	2.00			2.00	10.00	5570	5680	1.00	5.00			22.70	22.10	11.60
SS028	10/4/2016	9.62	10.60		1.000	5.00	0.20			2.00	10.00	5370	5990	1.00	5.00			37.90	37.70	17.10
SS029	10/16/2017	105.00	104.00	0.05	2.010	5.00	2.00	435	457	2.00	10.00			1.00	5.00	1180	1220			156.00
SS029	9/24/2018	117.00	117.00		0.586	2.50	1.00	445	457	1.00	5.00			0.50	2.50	1240	1250			164.00
SS029	6/14/2018	290.00	283.00		2.980	3.54	1.00	341	306	1.00	5.00			0.50	2.50	888	903			97.30
SS029	10/4/2016	102.00	102.00		2.120	5.00	0.20			2.00	10.00	6990	6860	1.00	5.00			218.00	211.00	122.00
SS029	7/10/2017	205.00	204.00		3.980	17.40	2.00			2.00	10.00	6810	6880	1.00	5.00			93.80	94.30	65.90
SS030	10/5/2016	5.00	5.00		1.000	5.00	0.20			2.00	10.00	4410	4970	1.00	5.00			196.00	217.00	29.00
SS030	7/12/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	3880	4060	1.00	5.00			120.00	123.00	17.40
SS030	10/4/2017	5.00	5.00	0.05	1.000	5.00	2.00	1000	1000	2.00	10.00			1.00	5.00	809	809			31.00
SS030	6/15/2018	9.99	10.50		0.500	2.50	1.00	250	250	1.00	5.00			0.50	2.50	623	615			14.10
SS030	9/26/2018	2.00	2.00		0.500	2.50	1.00	250	250	1.00	5.00			0.50	2.50	941	935			39.20
SS031	10/4/2017	5.00	5.00	0.05	1.000	5.00	2.00	1000	1000	2.00	10.00			1.00	5.00	851	866			43.40
SS031	7/12/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	3780	3850	1.00	5.00			157.00	148.00	33.10
SS031	10/5/2016	5.00	5.00		1.000	5.00	0.30			2.00	10.00	3930	3920	1.00	5.00			203.00	199.00	36.70
SS031	6/15/2018	2.00	51.60		0.500	2.50	1.00	250	250	1.00	5.00			0.50	2.50	726	734			41.30

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		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS031	9/26/2018	2.00	4.69		0.500	2.50	1.00	291	297	1.00	5.00			0.50	2.50	842	840			39.20
SS032	10/4/2017	5.00	5.00	0.05	1.000	5.00	4.00	646	322	2.00	10.00			1.00	5.00	1450	1490			176.00
SS032	10/5/2016	5.00	4.13		1.000	5.00	0.20			2.00	10.00	2550	3130	1.00	5.00			666.00	658.00	75.90
SS032	9/26/2018	2.00	2.00		0.500	2.50	1.00	300	295	1.00	5.00			0.50	2.50	1130	1050			56.70
SS032	9/26/2018	2.00	2.00		0.500	2.50	1.00	291	291	1.00	5.00			0.50	2.50	1120	1060			56.30
SS032	7/23/2018																			
SS032	7/12/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	1870	2030	1.00	5.00			213.00	207.00	23.60
SS033	10/5/2016	11.80	12.10		1.000	5.00	0.20			2.00	10.00	627	649	1.00	5.00			47.20	46.50	11.10
SS033	7/12/2017	18.50	20.30		1.000	5.00	2.00			2.00	10.00	1610	1740	1.00	5.00			42.30	41.10	10.90
SS033	10/4/2017	4.77	4.98	0.05	1.000	5.00	2.00	396	397	2.00	10.00			1.00	5.00	467	468			10.30
SS033	6/15/2018	7.48	38.60		0.500	3.48	1.00	250	275	1.00	5.00			0.50	2.50	268	289			7.60
SS033	9/26/2018	6.80	7.18		0.500	2.50	1.00	644	601	1.00	5.00			0.50	2.50	471	459			10.40
SS034	10/5/2016	344.00	344.00		2.320	5.00	0.20			2.00	10.00	2220	2200	1.00	5.00			48.40	47.20	19.90
SS034	7/12/2017	432.00	437.00		1.790	5.00	2.00			2.00	10.00	3200	3260	1.00	5.00			36.80	35.50	19.30
SS034	10/4/2017	222.00	219.00	0.05	0.692	5.00	2.00	311	336	2.00	10.00			1.00	5.00	419	434			16.90
SS034	6/15/2018	516.00	531.00		3.170	4.41	1.00	250	250	1.00	5.00			0.50	2.50	554	560			31.00
SS035	10/5/2016	5.00	14.70		1.000	10.00	0.20			2.00	10.00	3730	6550	1.00	5.00			531.00	530.00	146.00
SS035	6/15/2018	3.02	82.40		0.500	2.50	2.00	250	837	1.00	5.00			0.50	2.50	1510	1570			250.00
SS035	7/12/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	2120	2190	1.00	5.00			458.00	427.00	105.00
SS036	6/27/2018	4.74	5.05		0.500	12.30	1.00	250	250	1.00	5.00			0.50	2.50	370	372			24.40
SS036	10/5/2016	7.18	13.40		0.586	10.00	0.10			2.00	10.00	4190	4180	1.00	5.00			92.90	91.30	45.10
SS036	7/18/2017	59.40	61.20		1.000	5.00	2.00			2.00	10.00	2970	2950	1.00	5.00			45.50	41.70	23.20
SS037	10/10/2017	3480.00	3500.00	0.05	29.700	26.30	20.00	514	459	10.00	10.00			5.00	5.00	2250	1830			450.00
SS037	10/5/2016	3150.00	3190.00		21.900	23.80	0.20			2.00	10.00	11700	11700	1.00	5.00			628.00	618.00	386.00
SS037	7/18/2017	2330.00	2210.00		14.600	15.00	4.00			2.00	10.00	9740	9050	1.00	5.00			400.00	359.00	255.00
SS037	6/27/2018	1890.00	2060.00		16.300	28.10	2.00	482	640	1.00	5.00			0.50	2.50	1150	1160			232.00
SS038	9/26/2018	2.00	4.68		0.500	2.50	1.00	562	512	1.00	5.00			0.50	2.50	1480	1370			48.20
SS038	10/6/2016	5.00	5.00		1.000	10.00	0.40			2.00	10.00	3440	3510	1.00	5.00			817.00	821.00	46.70
SS038	6/15/2018	2.00	2.00		0.500	2.50	1.00	359	250	1.00	5.00			0.50	2.50	1070	1080			32.50
SS038	10/10/2017	5.00	2.07	0.05	1.000	5.00	2.00	564	512	2.00	10.00			1.00	5.00	1340	1100			46.70
SS038	6/28/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	3160	3260	1.00	5.00			416.00	447.00	22.20
SS039	10/10/2017	393.00	427.00	0.05	2.360	2.59	2.00	1000	262	2.00	10.00			1.00	5.00	1020	849			65.70
SS039	10/6/2016	461.00	460.00		2.400	3.94	0.20			2.00	10.00	7190	7130	1.00	5.00			80.90	81.20	58.40
SS039	6/27/2018	366.00	385.00		1.570	17.40	1.00	250	250	1.00	5.00			0.50	2.50	696	715			48.40

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		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS039	7/12/2017	565.00	546.00		1.460	5.00	2.00			2.00	10.00	5260	5340	1.00	5.00			45.30	48.20	40.10
SS040	9/27/2018	2020.00	1870.00		1.920	14.10	1.00	493	452	1.00	5.00			0.50	2.50	702	668			41.00
SS040	10/6/2016	6190.00	6210.00		2.200	3.63	0.20			2.00	10.00	10200	10100	1.00	5.00			32.80	33.10	44.80
SS040	10/10/2017	2270.00	2300.00	0.05	1.560	5.00	2.00	439	379	2.00	10.00			1.00	5.00	545	437			39.50
SS040	6/27/2018	3240.00	3210.00		1.190	13.20	1.00	250	298	1.00	5.00			0.50	2.50	399	426			40.40
SS040	7/12/2017	1980.00	1940.00		0.687	5.00	2.00			2.00	10.00	6230	6210	1.00	5.00			31.70	29.10	28.60
SS041	9/27/2018	31.30	41.60		0.500	2.50	1.00	567	518	1.00	5.00			0.50	2.50	1690	1580			125.00
SS041	10/10/2017	125.00	150.00	0.05	1.000	5.00	2.00	528	589	2.00	10.00			1.00	5.00	1290	1310			78.40
SS041	10/6/2016	3830.00	3860.00		2.450	3.51	0.20			2.00	10.00	5130	5080	1.00	5.00			466.00	464.00	109.00
SS041	6/27/2018	173.00	170.00		0.500	9.93	1.00	250	250	1.00	5.00			0.50	2.50	761	762			59.60
SS041	6/28/2017	880.00	887.00		1.000	5.00	2.00			2.00	10.00	4080	4090	1.00	5.00			271.00	259.00	64.70
SS042	6/27/2018	2.00	4.71		0.500	12.10	1.00	250	250	1.00	5.00			0.50	2.50	617	614			22.80
SS042	6/28/2017	9.68	34.60		1.000	5.00	2.00			2.00	10.00	3200	3590	1.00	5.00			142.00	146.00	10.90
SS042	10/6/2016	121.00	740.00		1.000	10.00	0.10			2.00	10.00	3870	6100	1.00	5.00			207.00	215.00	20.70
SS042	10/10/2017	728.00	786.00	0.05	5.000	5.00	20.00	843	857	10.00	10.00			5.00	5.00	5700	5710			500.00
SS043	6/28/2017	2950.00	3090.00		5.000	5.00	4.00			10.00	10.00	12200	12700	5.00	5.00			4050.00	4190.00	345.00
SS043	9/27/2018	3110.00	2940.00		2.500	2.50	5.00	1120	1050	5.00	5.00			2.50	2.50	7520	6990			334.00
SS043	10/6/2016	2910.00	3590.00		1.000	10.00	0.40			2.00	10.00	12200	12300	1.00	5.00			3990.00	4040.00	340.00
SS043	6/18/2018	2850.00	2840.00		0.500	2.50	5.00	980	937	1.00	5.00			0.50	2.50	7060	6910			374.00
SS043	10/10/2017	2720.00	3830.00	0.05	5.000	5.00	20.00	1500	1080	10.00	10.00			5.00	5.00	7420	7190			328.00
SS044	9/25/2018	1040.00	981.00		2.500	2.50	5.00	623	602	5.00	5.00			2.50	2.50	5600	5190			479.00
SS044	9/25/2018	1030.00	967.00		0.500	2.50	5.00	633	592	1.00	5.00			0.50	2.50	5660	5170			481.00
SS044	6/14/2018	1240.00	1270.00		0.500	2.50	2.00	553	526	1.00	5.00			0.50	2.50	4480	4540			435.00
SS044	10/11/2017	1370.00	1680.00	0.05	5.000	5.00	20.00	629	600	10.00	10.00			5.00	5.00	5080	5050			415.00
SS044	10/6/2016	1250.00	1270.00		1.000	10.00	0.40			2.00	10.00	21800	22000	1.00	5.00			1840.00	1840.00	421.00
SS044	6/22/2017	1340.00	1390.00		1.000	5.00	4.00			2.00	10.00	22800	25200	1.00	5.00			1220.00	1130.00	280.00
SS045	9/25/2018	99.10	91.70		0.500	5.21	1.00	557	634	1.00	5.00			0.50	2.50	2960	2750			130.00
SS045	6/6/2018	84.00	94.00		0.854	4.69	1.00	423	416	1.00	5.00			0.50	2.50	1680	1620			95.20
SS045	10/11/2017	79.50	91.20	0.05	0.669	5.00	2.00	536	515	2.00	10.00			1.00	5.00	2810	2780			111.00
SS045	10/6/2016	83.40	84.20		1.260	2.85	0.20			2.00	10.00	21600	21100	1.00	5.00			463.00	464.00	113.00
SS045	6/22/2017	90.80	93.90		1.120	5.00	2.00			2.00	10.00	15200	16700	1.00	5.00			210.00	206.00	56.20
SS046	9/25/2018	1760.00	1650.00		2.210	8.59	1.00	668	608	1.00	5.00			0.50	2.50	3420	3190			128.00
SS046	6/22/2017	2460.00	2430.00		3.540	4.70	2.00			2.00	10.00	35600	37900	1.00	5.00			619.00	613.00	189.00
SS046	10/11/2017	1900.00	2010.00	0.05	3.150	3.00	2.00	658	628	2.00	10.00			1.00	5.00	3520	3460			145.00

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Mn D	Mn T	Hg T	Ni D	Ni T	NO3- as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T
		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS046	6/6/2018	1890.00	2030.00		2.820	5.28	1.00	473	486	1.00	5.00			0.50	2.50	3570	3590			172.00
SS046	10/6/2016	1830.00	1870.00		3.870	4.73	0.20			2.00	10.00	30400	30900	1.00	5.00			517.00	527.00	142.00
SS047	10/5/2017	5.00	5.00	0.05	1.000	5.00	2.00	278	284	2.00	10.00			1.00	5.00	1160	1210			46.40
SS047	10/2/2018	12.60	16.60		0.500	2.50	1.00	954	792	1.00	5.00			0.50	2.50	1330	1170			51.00
SS047	10/10/2016	5.00	5.00		1.000	5.00	0.30			2.00	10.00	4780	4630	1.00	5.00			325.00	331.00	44.80
SS047	6/12/2018	2.00	2.00		0.500	2.93	1.00	250	250	1.00	5.00			0.50	2.50	1040	1040			37.70
SS047	6/26/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	4390	4300	1.00	5.00			222.00	221.00	31.20
SS048	10/10/2016	5.00	24.10		1.000	5.00	0.20			1.24	10.00	14400	14500	1.00	5.00			97.70	102.00	25.10
SS048	10/5/2017	114.00	117.00	0.05	1.000	5.00	2.00	812	721	2.00	10.00			1.00	5.00	1460	1530			26.00
SS048	6/12/2018	6.60	12.30		0.500	4.35	1.00	250	250	1.00	5.00			0.50	2.50	1560	1600			29.40
SS048	6/26/2017	5.00	21.10		1.000	5.00	2.00			2.00	10.00	6500	8450	1.00	5.00			162.00	170.00	18.80
SS049	10/5/2017	5.00	5.00	0.05	1.000	5.00	2.00	284	1000	2.00	10.00			1.00	5.00	660	684			19.00
SS049	10/10/2016	5.00	5.00		1.000	5.00	0.10			2.00	10.00	4390	4250	1.00	5.00			57.30	58.70	15.90
SS049	6/7/2018	2.00	2.47		0.500	6.49	1.00	250	250	1.00	5.00			0.50	2.50	441	463			8.00
SS049	6/26/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	3400	3250	1.00	5.00			22.00	21.90	7.70
SS050	10/10/2016	5.00	440.00		1.000	5.00	0.40			2.00	10.00	3920	4340	1.00	5.00			454.00	457.00	87.10
SS050	10/5/2017	5.00	5.00	0.05	1.000	5.00	2.00	294	296	2.00	10.00			1.00	5.00	1210	1240			73.10
SS050	10/2/2018	2.00	145.00		1.110	2.50	1.10	345	390	1.00	5.00			0.50	2.50	1010	929			43.70
SS050	6/7/2018	228.00	254.00		0.500	4.95	1.00	250	250	1.00	5.00			0.50	2.50	761	767			61.60
SS050	6/26/2017	70.30	86.90		1.000	5.00	2.00			2.00	10.00	3700	4060	1.00	5.00			228.00	215.00	50.20
SS051	10/5/2017	5.00	5.00	0.05	1.000	5.00	2.00	1000	1000	2.00	10.00			1.00	5.00	957	1030			56.90
SS051	10/10/2016	5.00	5.00		1.000	5.00	0.40			2.00	10.00	4470	4350	1.00	5.00			307.00	315.00	53.70
SS051	10/2/2018	54.10	76.90		0.500	2.50	1.00	2340	2550	1.00	5.00			0.50	2.50	886	849			43.30
SS051	6/7/2018	11.90	31.90		0.500	5.24	1.00	250	250	1.00	5.00			0.50	2.50	829	831			49.10
SS051	6/26/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	4670	4560	1.00	5.00			146.00	152.00	38.20
SS052	10/5/2017	5.00	4.75	0.05	1.000	5.00	2.00	291	284	2.00	10.00			1.00	5.00	1260	1320			45.30
SS052	10/2/2018	4.29	19.50		0.500	2.50	1.00	1490	1390	1.00	5.00			0.50	2.50	1240	1140			48.90
SS052	10/10/2016	5.00	5.00		1.000	5.00	0.30			2.00	10.00	7770	7690	1.00	5.00			153.00	156.00	38.90
SS052	6/26/2017	5.00	5.64		1.000	5.00	2.00			2.00	10.00	8090	8640	1.00	5.00			85.60	90.10	32.00
SS052	6/7/2018	2.23	5.44		0.622	6.28	1.00	250	316	1.00	5.00			0.50	2.50	1350	1370			38.00
SS053	6/7/2018	265.00	305.00		1.570	7.11	1.00	250	313	1.00	5.00			0.50	2.50	589	626			66.90
SS053	10/2/2018	151.00	141.00		0.500	2.50	1.00	329	250	1.00	5.00			0.50	2.50	823	754			84.40
SS053	10/10/2016	186.00	179.00		1.240	5.00	0.20			2.00	10.00	6630	6390	1.00	5.00			108.00	109.00	58.70
SS053	10/5/2017	237.00	238.00	0.05	1.650	5.00	2.00	487	311	2.00	10.00			1.00	5.00	961	864			80.80

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Mn D	Mn T	Hg T	Ni D	Ni T	NO3- as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T
		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS053	7/20/2017	405.00	420.00		2.290	2.65	2.00			2.00	10.00	7260	7670	1.00	5.00			85.80	79.00	66.90
SS054	10/2/2018	2.00	21.40		2.500	2.50	5.00	762	642	5.00	5.00			2.50	2.50	3760	3490			779.00
SS054	10/5/2017	5.00	73.20	0.05	5.000	5.00	20.00	413	683	10.00	10.00			5.00	5.00	3070	3300			633.00
SS054	10/10/2016	5.00	9.73		1.000	5.00	0.40			2.00	10.00	7230	7130	1.00	5.00			2150.00	2230.00	359.00
SS054	6/26/2017	5.00	3.14		1.000	5.00	10.00			2.00	10.00	8340	8440	1.00	5.00			2820.00	2910.00	513.00
SS054	6/7/2018	2.00	4.68		0.500	2.50	2.00	250	250	1.00	5.00			0.50	2.50	2050	2010			354.00
SS055	10/5/2017	772.00	786.00	0.05	1.330	5.00	2.00	816	845	2.00	10.00			1.00	5.00	4400	4680			85.30
SS055	6/14/2018	404.00	1080.00		1.750	3.74	1.00	1010	1130	1.00	5.00			0.50	2.50	4630	4570			86.60
SS055	10/10/2018	9860.00	9650.00		11.700	14.60	5.00	2230	2270	1.00	5.00			0.50	2.50	4500	4490			438.00
SS055	10/10/2016	353.00	619.00		2.140	5.00	0.20			2.00	10.00	27400	27500	1.00	5.00			161.00	164.00	109.00
SS055	6/23/2017	9340.00	9550.00		9.940	13.80	20.00			2.00	10.00	47200	48600	1.00	5.00			847.00	866.00	457.00
SS056	6/14/2018	924.00	923.00		3.680	7.00	1.00	250	250	1.00	5.00			0.50	2.50	2190	2150			53.20
SS056	10/11/2016	862.00	841.00		1.660	5.00	0.20			2.00	10.00	16300	15600	1.00	5.00			72.60	71.50	37.80
SS056	6/22/2017	363.00	407.00		1.560	4.48	2.00			2.00	10.00	12000	11900	1.00	5.00			32.10	32.10	24.50
SS057	10/11/2016	12700.00	12000.00		19.400	22.70	0.80			2.00	10.00	17700	18500	1.00	5.00			2800.00	2920.00	550.00
SS057	7/17/2017	8480.00	9110.00		13.500	18.60	8.00			2.00	10.00	16800	18600	1.00	5.00			2160.00	2140.00	441.00
SS057	10/2/2017	13900.00	14500.00	0.05	19.400	18.60	20.00	804	548	10.00	10.00			5.00	5.00	4380	4470			529.00
SS057	6/6/2018	14800.00	16500.00		3.690	9.38	2.00	395	550	1.00	5.00			0.50	2.50	2660	2870			339.00
SS057	9/25/2018	11500.00	11600.00		2.500	3.66	5.00	925	6660	5.00	5.00			2.50	2.50	4920	4710			546.00
SS058	10/11/2016	4.29	3.98		1.000	5.00	0.40			2.00	10.00	4560	4530	1.00	5.00			28.80	30.40	16.10
SS058	7/17/2017	3.18	3.31		1.000	5.00	2.00			2.00	10.00	3300	3300	1.00	5.00			18.60	16.40	5.40
SS058	10/2/2017	9.81	9.92	0.05	1.000	5.00	2.00	1000	1000	2.00	10.00			1.00	5.00	437	459			10.10
SS058	6/6/2018	4.04	8.99		0.500	5.33	1.00	250	250	1.00	5.00			0.50	2.50	342	333			5.70
SS059	10/25/2017	25.60	26.50	0.05	0.998	5.00	2.00	544	591	2.00	10.00			1.00	5.00	2260	2220			90.40
SS059	10/11/2016	20.10	20.00		1.200	5.00	0.20			2.00	10.00	15900	15700	1.00	5.00			376.00	370.00	101.00
SS059	10/9/2018	31.70	31.70		1.070	4.47	1.00	511	535	1.00	5.00			0.50	2.50	2520	2630			113.00
SS059	6/19/2018	23.30	24.00		1.110	2.50	1.00	409	401	1.00	5.00			0.50	2.50	1760	1750			94.00
SS059	6/22/2017	9.30	10.90		1.000	5.00	2.00			2.00	10.00	10600	10700	1.00	5.00			124.00	126.00	37.80
SS060	10/9/2018	121.00	120.00		1.780	5.91	1.00	442	543	1.00	5.00			0.50	2.50	1320	1370			21.90
SS060	10/25/2017	122.00	125.00	0.05	1.520	5.00	2.00	573	649	2.00	10.00			1.00	5.00	1310	1320			20.20
SS060	6/11/2018	103.00	112.00		1.700	7.00	1.00	318	369	1.00	5.00			0.50	2.50	1060	1040			20.20
SS060	10/11/2016	119.00	112.00		1.770	5.00	0.20			2.00	10.00	13800	13200	1.00	5.00			45.10	45.70	19.30
SS060	6/21/2017	77.90	80.30		1.030	5.00	2.00			2.00	10.00	9670	9550	1.00	5.00			24.90	25.30	13.90
SS061	10/11/2016	398.00	392.00		1.780	5.00	0.20			2.00	10.00	18700	19300	1.00	5.00			167.00	169.00	64.60

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		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS061	6/21/2017	63.60	78.30		1.000	5.00	2.00			2.00	10.00	9240	9820	1.00	5.00			30.60	29.90	16.50
SS062	10/11/2016	7680.00	7480.00		1.000	5.00	0.40			2.00	10.00	25200	26100	1.00	5.00			637.00	633.00	283.00
SS062	6/11/2018	7800.00	8440.00		0.500	2.84	2.00	333	346	1.00	5.00			0.50	2.50	4420	4670			260.00
SS062	10/23/2017	7290.00	7380.00	0.05	1.000	5.00	20.00	1000	1000	2.00	10.00			1.00	5.00	4620	4660			229.00
SS062	10/8/2018	11900.00	12000.00		3.630	2.50	5.00	707	842	1.00	5.00			0.50	2.50	5970	6080			432.00
SS062	6/21/2017	4630.00	4810.00		1.000	5.00	2.00			2.00	10.00	18300	20600	1.00	5.00			279.00	289.00	139.00
SS063	10/3/2017	190.00	213.00	0.05	5.000	5.00	20.00	556	594	10.00	10.00			5.00	5.00	2650	2900			392.00
SS063	6/28/2018	3.93	705.00		0.500	21.00	2.00	316	1310	1.00	5.00			0.50	2.50	1450	1500			193.00
SS063	10/12/2016	6900.00	6930.00		143.000	43.60	0.80			10.00	10.00	16100	16400	5.00	5.00			1710.00	1720.00	782.00
SS063	7/20/2017	7280.00	7550.00		44.800	45.90	20.00			10.00	10.00	19500	19800	5.00	5.00			1510.00	1400.00	771.00
SS064	10/3/2017	5.68	20.20	0.05	5.000	5.00	20.00	1060	836	10.00	10.00			5.00	5.00	2280	2090			274.00
SS064	10/2/2018	3.04	70.30		2.500	2.50	5.00	681	829	5.00	5.00			2.50	2.50	3100	2910			606.00
SS064	6/28/2018	2.37	5.46		0.500	8.25	2.00	336	428	1.00	5.00			0.50	2.50	1520	1520			187.00
SS064	7/20/2017	59.70	63.30		1.000	5.00	2.00			2.00	10.00	4850	4960	1.00	5.00			807.00	743.00	134.00
SS064	10/12/2016	21.10	25.90		4.360	5.00	0.40			10.00	10.00	7690	7610	5.00	5.00			1300.00	1330.00	376.00
SS065	10/4/2018	40600.00	38300.00		28.900	30.30	10.00	1640	1540	5.00	5.00			2.50	2.50	9050	8650			1560.00
SS065	10/12/2016	31100.00	31300.00		42.500	38.00	2.00			10.00	10.00	37800	37300	5.00	5.00			3780.00	3830.00	1310.00
SS065	6/19/2018	34600.00	34500.00		36.500	36.60	10.00	1450	1290	5.00	5.00			2.50	2.50	8330	7720			1450.00
SS065	6/23/2017	9970.00	10000.00		12.000	16.40	20.00			1.22	10.00	25800	26200	1.00	5.00			1040.00	1030.00	411.00
SS065	10/3/2017	33500.00	33000.00	0.05	35.600	39.00	20.00	1610	1490	20.00	20.00			10.00	10.00	7570	8120			1320.00
SS066	10/3/2017	36700.00	35900.00	0.05	37.900	37.00	20.00	1670	1680	20.00	20.00			10.00	10.00	7970	8540			1470.00
SS066	6/23/2017	36100.00	37800.00		27.200	35.40	20.00			1.14	10.00	43900	44400	1.00	5.00			3610.00	3940.00	1410.00
SS066	10/12/2016	35000.00	35600.00		45.200	44.10	2.00			10.00	10.00	41300	41600	5.00	5.00			4170.00	4280.00	1500.00
SS067	6/21/2017	14100.00	15400.00		18.300	18.20	20.00			10.00	10.00	53000	54700	5.00	5.00			1330.00	1350.00	608.00
SS067	10/23/2017	18200.00	17900.00	0.05	21.700	20.50	20.00	1210	1200	10.00	10.00			5.00	5.00	7140	7000			785.00
SS067	6/5/2018	17100.00	18100.00		19.100	25.90	5.00	1200	1090	5.00	5.00			2.50	2.50	6780	6730			858.00
SS067	10/8/2018	20200.00	20300.00		20.400	15.50	5.00	1290	1320	18.10	5.00			2.50	2.50	7800	7720			828.00
SS067	10/17/2016	16600.00	16600.00		23.800	23.90	0.80			10.00	10.00	53700	53500	5.00	5.00			1670.00	1720.00	797.00
SS068	10/8/2018	10000.00	9970.00		11.600	12.50	5.00	1160	1260	1.00	5.00			0.50	2.50	5800	5870			444.00
SS068	10/23/2017	7830.00	7890.00	0.05	12.200	12.70	20.00	1800	1480	2.00	10.00			1.00	5.00	4740	4670			493.00
SS068	10/17/2016	7960.00	8000.00		15.100	15.20	0.40			10.00	10.00	40800	40500	5.00	5.00			992.00	1020.00	414.00
SS068	6/21/2017	5790.00	6140.00		9.250	10.20	4.00			2.00	10.00	36700	38400	1.00	5.00			693.00	746.00	302.00
SS068	6/5/2018	7830.00	8150.00		11.400	16.80	5.00	1080	1150	5.00	5.00			2.50	2.50	5040	5180			436.00
SS069	10/9/2018	6290.00	6340.00		6.960	6.15	2.00	1010	1060	1.00	5.00			0.50	2.50	4820	4810			259.00

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Mn D	Mn T	Hg T	Ni D	Ni T	NO3- as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T
		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS069	6/19/2018	5530.00	5370.00		6.540	8.03	2.00	930	852	1.00	5.00			0.50	2.50	3940	3820			257.00
SS069	10/17/2016	6040.00	6060.00		8.250	9.63	0.40			2.00	10.00	35300	35100	1.00	5.00			631.00	652.00	267.00
SS069	10/23/2017	5760.00	5740.00	0.05	7.010	7.09	4.00	1010	1010	2.00	10.00			1.00	5.00	4340	4250			254.00
SS069	6/21/2017	3320.00	3430.00		4.220	3.67	2.00			2.00	10.00	24600	26800	1.00	5.00			343.00	362.00	153.00
SS070	10/17/2016	1570.00	1600.00		8.890	9.93	0.20			2.00	10.00	32100	32800	1.00	5.00			527.00	550.00	138.00
SS070	6/11/2018	5520.00	6000.00		5.270	10.90	1.00	442	505	1.00	5.00			0.50	2.50	2750	2760			126.00
SS070	10/9/2018	1750.00	1760.00		6.020	8.78	1.00	661	735	1.00	5.00			0.50	2.50	3580	3600			147.00
SS070	10/23/2017	1510.00	1490.00	0.05	6.990	7.65	2.00	631	639	2.00	10.00			1.00	5.00	2960	2920			124.00
SS070	6/21/2017	1520.00	1600.00		6.890	7.43	2.00			2.00	10.00	26900	29100	1.00	5.00			255.00	277.00	79.90
SS071	10/1/2018	2290.00	2130.00		0.500	2.50	2.00	781	629	1.00	5.00			0.50	2.50	2440	2220			302.00
SS071	10/1/2018	2300.00	2160.00		0.500	2.50	2.00	778	631	1.00	5.00			0.50	2.50	2450	2290			300.00
SS071	10/17/2016	2140.00	2140.00		5.000	5.00	0.40			10.00	10.00	14900	14800	5.00	5.00			1130.00	1140.00	261.00
SS071	10/24/2017	2300.00	2280.00	0.05	1.000	5.00	20.00	710	709	2.00	10.00			1.00	5.00	2130	2120			247.00
SS071	6/18/2018	2340.00	2300.00		0.500	2.50	2.00	706	627	1.00	5.00			0.50	2.50	2150	2140			302.00
SS071	6/27/2017	2490.00	2530.00		5.000	5.00	10.00			10.00	10.00	17200	17900	5.00	5.00			973.00	1060.00	260.00
SS072	6/27/2017	4150.00	4290.00		11.000	10.10	20.00			10.00	10.00	15000	16800	5.00	5.00			516.00	580.00	531.00
SS072	6/18/2018	5090.00	4960.00		14.000	16.00	5.00	1340	1220	1.00	5.00			0.50	2.50	1380	1310			687.00
SS072	10/1/2018	2750.00	2640.00		2.500	2.50	5.00	1370	1310	5.00	5.00			2.50	2.50	1590	1520			585.00
SS072	10/24/2017	3500.00	3430.00	0.05	5.260	4.14	20.00	1340	1320	10.00	10.00			5.00	5.00	1320	1310			488.00
SS072	10/17/2016	3950.00	4020.00		8.760	8.48	0.80			10.00	10.00	11800	12300	5.00	5.00			596.00	610.00	537.00
SS073	6/27/2017	3550.00	3650.00		2.500	5.00	20.00			10.00	10.00	15700	16800	5.00	5.00			827.00	859.00	466.00
SS073	6/18/2018	3660.00	3550.00		0.757	3.47	5.00	1350	1240	1.00	5.00			0.50	2.50	1550	1490			513.00
SS073	10/1/2018	2930.00	3930.00		2.500	2.50	5.00	1500	1520	5.00	5.00			2.50	2.50	1700	1700			525.00
SS073	10/17/2016	3450.00	3460.00		4.860	5.70	0.40			10.00	10.00	15600	16100	5.00	5.00			824.00	835.00	467.00
SS073	10/24/2017	3710.00	3770.00	0.05	2.750	5.00	20.00	1360	1320	10.00	10.00			5.00	5.00	1510	1460			444.00
SS074	10/1/2018	7330.00	6950.00		34.900	36.40	5.00	1950	1930	5.30	5.00			2.50	2.50	1710	1710			1160.00
SS074	10/17/2016	3860.00	3920.00		17.100	17.20	0.80			10.00	10.00	16000	16600	5.00	5.00			491.00	499.00	661.00
SS074	10/24/2017	4070.00	4080.00	0.05	16.500	16.10	20.00	2010	2070	10.00	10.00			5.00	5.00	1160	1150			634.00
SS074	6/27/2017	3800.00	4000.00		16.500	15.40	20.00			10.00	10.00	21300	22900	5.00	5.00			483.00	532.00	610.00
SS075	6/18/2018	2340.00	2250.00		0.500	2.50	5.00	1300	1190	1.00	5.00			0.50	2.50	1170	1140			497.00
SS075	10/1/2018	2570.00	2440.00		2.500	2.50	5.00	1470	1390	5.00	5.00			2.50	2.50	1330	1300			504.00
SS075	10/17/2016	2160.00	2160.00		5.000	5.00	0.40			10.00	10.00	8280	8230	5.00	5.00			756.00	771.00	427.00
SS075	6/27/2017	1860.00	1890.00		5.000	5.00	10.00			10.00	10.00	8900	9310	5.00	5.00			649.00	694.00	367.00
SS075	10/24/2017	2100.00	2100.00	0.05	5.000	5.00	20.00	1300	1310	10.00	10.00			5.00	5.00	1090	1060			383.00

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		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS076	10/18/2016	5.57	5.78		1.000	5.00	0.20			2.00	10.00	2320	2330	1.00	5.00			28.00	28.60	10.40
SS076	7/18/2017	7.38	7.68		1.000	5.00	2.00			2.00	10.00	1530	1510	1.00	5.00			20.40	18.60	7.80
SS076	10/10/2017	5.91	6.39	0.05	1.000	5.00	2.00	1000	1000	2.00	10.00			1.00	5.00	503	500			8.80
SS076	6/27/2018	5.83	6.49		0.500	23.40	1.00	250	250	1.00	5.00			0.50	2.50	580	588			9.20
SS076	9/26/2018	35.10	41.20		0.500	5.18	1.00	1030	606	1.00	5.00			0.50	2.50	1000	994			42.40
SS077	6/27/2018	2.00	2.00		0.500	13.90	1.00	250	250	1.00	5.00			0.50	2.50	591	622			3.40
SS077	10/18/2016	5.00	5.00		1.000	5.00	0.20			2.00	10.00	3770	3800	1.00	5.00			171.00	175.00	5.00
SS077	9/26/2018	2.00	2.66		0.500	4.17	1.00	250	250	1.00	5.00			0.50	2.50	890	843			5.10
SS077	10/10/2017	5.00	8.13	0.05	1.000	5.00	2.00	1000	302	2.00	10.00			1.00	5.00	755	746			4.00
SS077	7/18/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	2920	3220	1.00	5.00			69.30	64.40	5.00
SS078	10/10/2017	5.00	5.00	0.05	1.000	5.00	2.00	260	252	2.00	10.00			1.00	5.00	937	916			13.20
SS078	9/26/2018	2.00	2.00		0.500	4.35	1.00	261	250	1.00	5.00			0.50	2.50	970	904			14.40
SS078	10/18/2016	5.00	5.00		1.000	5.00	0.50			2.00	10.00	3170	3200	1.00	5.00			229.00	240.00	11.20
SS078	6/27/2018	2.00	44.60		0.500	18.50	1.00	250	270	1.00	5.00			0.50	2.50	742	714			5.40
SS078	7/18/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	2810	3010	1.00	5.00			212.00	209.00	8.00
SS079	9/26/2018	3.96	16.50		0.500	2.50	1.00	419	678	1.00	5.00			0.50	2.50	766	573			65.30
SS079	10/18/2016	5.00	5.00		1.000	5.00	0.30			2.00	10.00	3330	3320	1.00	5.00			133.00	138.00	55.30
SS079	6/27/2018	2.00	2.92		0.500	23.20	1.00	250	250	1.00	5.00			0.50	2.50	315	316			37.60
SS079	10/10/2017	5.00	2.10	0.05	1.000	5.00	2.00	321	288	2.00	10.00			1.00	5.00	473	479			54.10
SS079	7/18/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	1570	1640	1.00	5.00			123.00	112.00	60.40
SS080	10/18/2016	2.95	4.02		1.000	5.00	0.20			2.00	10.00	1000	1000	1.00	5.00			46.10	48.00	25.50
SS080	6/27/2018	35.90	45.90		0.500	12.70	1.00	295	394	1.00	5.00			0.50	2.50	250	250			28.80
SS080	9/26/2018	4.64	6.57		0.500	3.84	1.00	1340	1230	1.00	5.00			0.50	2.50	639	607			48.80
SS080	10/10/2017	18.00	25.30	0.05	1.000	5.00	2.00	1000	265	2.00	10.00			1.00	5.00	1000	1000			21.50
SS082	6/28/2018	2.32	13.30		0.500	12.40	1.00	250	352	1.00	5.00			0.50	2.50	853	893			6.60
SS082	10/20/2016	2.21	4.18		1.000	10.00	0.10			1.18	10.00	27900	28200	1.00	5.00			11.30	11.70	7.20
SS083	10/20/2016	7710.00	7750.00		23.300	26.10	1.00			1.66	10.00	39000	38900	1.00	5.00			733.00	718.00	623.00
SS083	6/12/2018	2060.00	2210.00		7.860	13.30	5.00	250	250	1.00	5.00			0.50	2.50	1300	1290			248.00
SS083	7/20/2017	1410.00	1460.00		4.540	4.93	2.00			2.00	10.00	16600	16400	1.00	5.00			253.00	227.00	189.00
SS084	10/20/2016	7690.00	7740.00		22.800	26.30	1.00			2.00	10.00	39100	38900	1.00	5.00			718.00	714.00	629.00
SS084	6/12/2018	2040.00	2190.00		7.800	12.70	5.00	250	250	1.00	5.00			0.50	2.50	1310	1320			265.00
SS084	7/20/2017	242.00	258.00		2.000	5.00	2.00			2.00	10.00	11300	11600	1.00	5.00			182.00	166.00	91.50
SS085	10/20/2016	14900.00	14800.00		16.200	16.70	1.00			10.00	10.00	37100	37700	5.00	5.00			4370.00	4350.00	1010.00
SS085	10/2/2018	17000.00	16400.00		2.520	6.97	5.00	952	930	5.00	5.00			2.50	2.50	8370	8210			1120.00

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		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS085	6/28/2018	10300.00	10400.00		9.880	17.30	5.00	623	669	5.00	5.00			2.50	2.50	5700	6080			775.00
SS085	7/20/2017	9130.00	9630.00		2.000	7.43	20.00			10.00	10.00	32100	32900	5.00	5.00			2750.00	2480.00	634.00
SS086	10/20/2016	6930.00	6950.00		8.610	9.60	1.00			2.00	10.00	45400	45500	1.00	5.00			1190.00	1190.00	583.00
SS086	10/11/2017	7690.00	8310.00	0.05	6.520	4.98	20.00	1160	1210	10.00	10.00			5.00	5.00	5680	5620			581.00
SS086	6/14/2018	8610.00	8490.00		6.390	8.35	5.00	1060	1090	1.00	5.00			0.50	2.50	5900	5880			713.00
SS086	10/9/2018	8670.00	8860.00		2.550	3.49	5.00	1530	1620	5.00	5.00			2.50	2.50	5870	5990			627.00
SS086	6/22/2017	5960.00	6200.00		5.330	3.91	20.00			10.00	10.00	40300	41700	5.00	5.00			971.00	1090.00	519.00
SS087	10/25/2016	2250.00	2280.00		22.400	24.10	0.50			1.16	10.00	20600	20800	1.00	5.00			523.00	542.00	375.00
SS087	10/18/2017	1650.00	1660.00	0.05	15.200	14.70	20.00	926	931	2.00	10.00			1.00	5.00	510	539			222.00
SS087	6/26/2018	521.00	531.00		4.220	17.90	1.00	733	733	1.00	5.00			0.50	2.50	288	281			94.60
SS087	10/3/2018	669.00	639.00		29.500	4.15	1.00	1270	1200	1.00	5.00			0.50	2.50	531	525			96.10
SS087	10/3/2018	673.00	656.00		4.140	4.41	1.00	1220	1240	1.00	5.00			0.50	2.50	532	542			96.10
SS087	6/27/2017	660.00	653.00		6.890	6.36	2.00			2.00	10.00	8570	8810	1.00	5.00			172.00	168.00	96.80
SS088	6/26/2018	34.90	37.80		0.500	12.30	1.00	591	647	1.00	5.00			0.50	2.50	305	312			9.30
SS088	10/3/2018	26.30	25.70		0.571	2.50		1060	1000	1.00	5.00			0.50	2.50	752	763			
SS088	10/18/2017	20.60	20.80	0.05	1.000	5.00	2.00	648	650	2.00	10.00			1.00	5.00	375	401			10.60
SS088	10/25/2016	19.10	19.40		0.563	5.00	0.20			2.00	10.00	19700	20000	1.00	5.00			13.70	14.80	10.70
SS088	6/27/2017	18.50	18.70		1.000	5.00	2.00			2.00	10.00	15500	16800	1.00	5.00			10.80	11.30	10.30
SS089	6/28/2018	4.90	9.24		0.500	10.50	1.00	333	329	1.00	5.00			0.50	2.50	664	644			15.50
SS089	10/3/2018	394.00	363.00		0.500	2.50	2.00	3300	3460	1.00	5.00			0.50	2.50	6120	5970			131.00
SS089	10/25/2016	4.60	17.00		1.000	5.00	0.20			2.00	10.00	3640	4250	1.00	5.00			405.00	431.00	19.40
SS089	10/12/2017	157.00	157.00	0.05	1.000	5.00	4.00	2270	2080	2.00	10.00			1.00	5.00	5200	5030			98.40
SS089	6/29/2017	4.22	14.40		1.000	5.00	2.00			2.00	10.00	3890	4330	1.00	5.00			265.00	254.00	10.90
SS090	6/28/2018	13.00	15.60		0.500	13.50	1.00	423	444	1.00	5.00			0.50	2.50	339	369			36.90
SS090	10/3/2018	160.00	156.00		0.500	2.50	1.00	1690	1740	1.00	5.00			0.50	2.50	696	718			130.00
SS090	10/25/2016	39.60	41.20		0.541	5.00	0.20			2.00	10.00	4480	4610	1.00	5.00			191.00	202.00	23.80
SS090	6/29/2017	7.42	8.40		1.260	5.00	2.00			2.00	10.00	1950	2120	1.00	5.00			77.20	71.70	9.80
SS091	6/29/2017	32.90	33.80		1.020	5.00	2.00			2.00	10.00	3740	3890	1.00	5.00			11.40	10.30	12.30
SS091	10/12/2017	56.60	56.90	0.05	1.310	5.00	2.00	467	454	2.00	10.00			1.00	5.00	265	252			20.40
SS091	10/25/2016	46.40	47.40		1.080	5.00	0.20			2.00	10.00	5400	5630	1.00	5.00			10.20	11.30	15.80
SS091	6/26/2018	120.00	123.00		1.860	15.00	1.00	470	553	1.00	5.00			0.50	2.50	492	530			37.50
SS092	6/26/2018	27.70	36.10		0.500	12.50	1.00	1490	1490	1.00	5.00			0.50	2.50	926	908			34.50
SS092	11/8/2016	9.18	13.30		0.789	5.00	0.20			2.00	10.00	4270	4630	1.00	5.00			218.00	227.00	27.00
SS092	10/18/2017	2.05	2.04	0.05	1.000	5.00	2.00	858	795	2.00	10.00			1.00	5.00	911	927			27.10

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Mn D	Mn T	Hg T	Ni D	Ni T	NO3- as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T
		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS092	7/21/2017	8.99	11.70		2.000	5.00	2.00			2.00	10.00	4570	4650	1.00	5.00			173.00	154.00	21.60
SS093	10/3/2018	415.00	399.00		5.040	5.34	1.00	778	768	1.00	5.00			0.50	2.50	1270	1300			83.60
SS093	11/8/2016	645.00	647.00		11.300	9.26	0.20			4.00	10.00	13500	13900	2.00	5.00			465.00	476.00	109.00
SS093	7/21/2017	3.13	63.40		2.000	5.00	2.00			2.00	10.00	5890	7690	1.00	5.00			135.00	129.00	20.70
SS093	6/26/2018	162.00	166.00		2.440	16.20	1.00	354	437	1.00	5.00			0.50	2.50	344	366			27.70
SS094	7/21/2017	111.00	144.00		5.790	5.63	2.00			2.00	10.00	2170	5440	1.00	5.00			292.00	285.00	60.90
SS094	11/8/2016	4190.00	4270.00		91.400	96.70	0.80			2.00	10.00	9360	9760	1.00	5.00			4120.00	4340.00	811.00
SS094	10/3/2018	2260.00	2200.00		11.800	5.96	5.00	2820	2730	5.00	5.00			2.50	2.50	2070	2020			656.00
SS094	6/26/2018	2100.00	2180.00		49.700	66.80	5.00	846	1010	1.00	5.00			0.50	2.50	390	436			424.00
SS095	6/26/2018	130.00	192.00		0.500	13.20	2.00	885	1050	1.00	5.00			0.50	2.50	1380	1500			173.00
SS095	10/3/2018	22.10	38.00		2.500	2.50	2.00	1810	1780	5.00	5.00			2.50	2.50	2420	2410			261.00
SS095	11/8/2016	366.00	411.00		1.000	5.00	0.20			2.00	10.00	6180	6240	1.00	5.00			4350.00	4560.00	204.00
SS095	10/18/2017	74.10	214.00	0.05	1.000	5.00	4.00	2090	2240	2.00	10.00			1.00	5.00	2140	2190			221.00
SS095	6/27/2017	184.00	206.00		1.000	5.00	2.00			2.00	10.00	4630	4920	1.00	5.00			1570.00	1710.00	87.10
SS096	6/28/2018	146.00	138.00		2.940	28.50	1.00	250	250	1.00	5.00			0.50	2.50	442	461			26.10
SS096	11/8/2016	81.60	90.10		5.000	5.00	0.20			10.00	10.00	11500	12100	5.00	5.00			14.60	15.50	9.10
SS096	10/18/2017	177.00	179.00	0.05	2.560	5.00	2.00	761	761	2.00	10.00			1.00	5.00	626	651			32.30
SS096	6/26/2017	36.10	36.90		0.969	5.00	2.00			2.00	10.00	9930	10800	1.00	5.00			16.90	18.30	12.50
SS097	11/8/2016	227.00	243.00		4.250	4.66	0.20			2.00	10.00	17800	19600	1.00	5.00			56.10	62.00	42.80
SS097	6/26/2017	3.54	10.60		1.000	5.00	2.00			2.00	10.00	10800	11600	1.00	5.00			18.40	20.10	14.00
SS098	11/8/2016	4170.00	4210.00		37.500	38.10	0.40			10.00	10.00	71000	71200	5.00	5.00			188.00	196.00	445.00
SS098	6/26/2017	2390.00	2420.00		18.400	21.90	4.00			1.04	10.00	46600	48300	1.00	5.00			108.00	119.00	267.00
SS098	10/3/2018	4620.00	4320.00		27.300	31.60	5.00	766	778	2.03	5.00			0.50	2.50	2630	2530			391.00
SS098	10/18/2017	3620.00	3590.00	0.05	28.900	31.30	20.00	741	737	1.71	10.00			1.00	5.00	2800	2880			359.00
SS105	9/25/2018	2770.00	2820.00		2.500	2.50	5.00	565	617	5.00	5.00			2.50	2.50	5070	5320			451.00
SS105	6/14/2018	2210.00	2270.00		0.500	2.50	5.00	534	471	1.00	5.00			0.50	2.50	4360	4470			423.00
SS105	10/11/2017	2620.00	2630.00		5.000	5.00	20.00	600	535	10.00	10.00			5.00	5.00	5100	4210			420.00
SS105	9/20/2016	2500.00	2600.00		3.100	3.10		630	640	0.05	0.05			0.07	0.07	4600	4700			400.00
SS105	6/22/2017	1950.00	1960.00		1.000	5.00	20.00			2.00	10.00	26000	27500	1.00	5.00			1220.00	1190.00	289.00
SS123	6/28/2018	147.00	139.00		23.000	49.00	5.00	250	250	1.77	5.00			0.50	2.50	289	328			226.00
SS123	6/27/2017	59.30	60.90		7.050	6.72	2.00			1.23	10.00	4250	4540	1.00	5.00			13.60	12.60	93.50
SS125	10/18/2017	13500.00	13800.00	0.05	113.000	106.00	20.00	3760	3840	5.41	10.00			5.00	5.00	3730	3820			1440.00
SS125	9/29/2016	9700.00	14000.00		88.000	120.00		3300	5500	1.50	1.40			0.37	0.37	2800	5000			1100.00
SS126	10/3/2018	314.00	291.00		19.700	20.10	5.00	961	921	5.00	5.00			2.50	2.50	282	271			287.00

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Mn D	Mn T	Hg T	Ni D	Ni T	NO3- as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T
		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SS126	10/18/2017	261.00	266.00	0.05	18.500	18.30	20.00	1250	1390	10.00	10.00			5.00	5.00	263	298			240.00
SS126	6/28/2018	190.00	186.00		24.000	35.60	5.00	1190	1200	5.00	5.00			2.50	2.50	257	261			306.00
SS126	9/29/2016	210.00	210.00		20.000	20.00		1500	1400	0.34	0.35			0.76	0.86					310.00
SS126	6/27/2017	58.00	58.50		0.594	5.00	2.00			2.00	10.00	26700	29000	1.00	5.00			16.70	16.00	12.80
SS200	10/23/2017	1510.00	1520.00	0.05	5.000	5.00	20.00	744	790	10.00	10.00			5.00	5.00	6180	6260			730.00
SS200	10/8/2018	1680.00	1690.00		2.500	2.50	5.00	805	787	5.00	5.00			2.50	2.50	6820	6840			787.00
SS200	10/8/2018	1660.00	1700.00		2.500	2.50	5.00	799	809	5.00	5.00			2.50	2.50	6770	7020			781.00
SS200	6/11/2018	1450.00	1480.00		2.500	2.50	5.00	631	679	5.00	5.00			2.50	2.50	5970	6200			810.00
SS200	6/23/2017	1210.00	1390.00		1.000	5.00	20.00			2.00	10.00	29600	33400	1.00	5.00			2350.00	2330.00	622.00
SS201	10/4/2018	49700.00	47200.00		39.600	39.70	10.00	1620	1540	5.00	5.00			2.50	2.50	8900	9230			1570.00
SS201	6/19/2018	37500.00	38500.00		45.400	46.80	10.00	1390	1290	5.00	5.00			2.50	2.50	8160	8080			1520.00
SS201	10/3/2017	41100.00	40700.00	0.05	42.700	44.80	20.00	1470	1340	20.00	20.00			10.00	10.00	8370	8540			1420.00
SS201	6/23/2017	29800.00	33300.00		32.800	42.50	20.00			1.15	10.00	43200	44900	1.00	5.00			3190.00	3170.00	1140.00
SS202	10/2/2018	1110.00	1060.00		10.400	10.30	2.00	519	485	1.00	5.00			0.50	2.50	569	562			179.00
SS202	6/26/2017	1650.00	1690.00		12.800	13.90	10.00			2.00	10.00	24200	28900	1.00	5.00			54.90	60.60	311.00
SS203	6/27/2017	119.00	118.00		3.300	2.93	2.00			1.00	10.00	21900	23400	1.00	5.00			25.40	24.20	46.60
SS204	6/27/2017	3020.00	3130.00		55.700	55.60	20.00			6.16	10.00	25900	28300	5.00	5.00			386.00	398.00	1210.00
SS204	10/18/2017	142.00	151.00	0.05	2.670	5.00	2.00	503	595	2.00	10.00			1.00	5.00	563	582			31.00
SS205	6/29/2017	6.03	9.27		1.000	5.00	2.00			2.00	10.00	3890	4040	1.00	5.00			5.79	6.55	3.50
SS206	10/12/2017	212.00	226.00	0.05	1.340	5.00	2.00	905	934	2.00	10.00			1.00	5.00	1000	1000			39.30
SS206	6/29/2017	58.80	65.30		1.390	5.00	2.00			2.00	10.00	13500	13500	1.00	5.00			31.60	35.10	21.60
SS207	6/29/2017	45.50	51.40		1.700	5.00	2.00			2.00	10.00	4330	5010	1.00	5.00			9.77	11.60	16.60
SS208	6/29/2017	61.40	61.50		1.600	5.00	2.00			2.00	10.00	20200	19800	1.00	5.00			23.90	22.40	21.60
SS208	6/28/2018	103.00	98.40		2.580	21.20	1.00	825	895	1.00	5.00			0.50	2.50	250	250			29.00
SS208	10/3/2018	343.00	299.00		0.627	2.50	1.00	1930	1790	1.00	5.00			0.50	2.50	287	256			57.90
SS208	10/12/2017	191.00	193.00	0.05	1.340	5.00	2.00	855	799	2.00	10.00			1.00	5.00	1000	1000			36.40
SS210	9/24/2018	33100.00	31900.00		22.500	19.70	5.00	974	1380	5.00	5.00			2.50	2.50	2180	2270			683.00
SS210	10/16/2017	30000.00	30800.00	0.05	23.500	18.60	20.00	699	882	2.00	10.00			1.00	5.00	2040	2110			610.00
SS210	6/13/2018	15500.00	16200.00		9.510	11.20	2.00	556	550	1.00	5.00			0.50	2.50	1200	1290			332.00
SS210	7/10/2017	20700.00	20900.00		12.600	13.20	4.00			1.13	10.00	10900	11000	1.00	5.00			163.00	158.00	377.00
SS211	7/10/2017	732.00	781.00		1.480	5.00	2.00			2.00	10.00	4250	4470	1.00	5.00			173.00	165.00	102.00
SS212	7/11/2017	2260.00	2290.00		1.000	5.00	2.00			2.00	10.00	5030	5040	1.00	5.00			48.20	47.90	40.20
SS213	7/12/2017	24.20	25.40		1.000	5.00	2.00			2.00	10.00	3730	3740	1.00	5.00			28.30	26.50	21.40
SS214	7/11/2017	26500.00	26600.00		7.900	8.28	4.00			1.28	10.00	6850	6870	1.00	5.00			687.00	663.00	280.00

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Mn D	Mn T	Hg T	Ni D	Ni T	NO3- as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T	
		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
SS215	10/2/2017	15.10	15.90	0.05	0.532	5.00	2.00	359	334	2.00	10.00			1.00	5.00	611	594			12.90	
SS215	7/17/2017	12.30	11.80		1.170	5.00	2.00			2.00	10.00	4600	4590	1.00	5.00			26.60	26.20	21.20	
SS215	6/6/2018	35.50	46.00		1.200	6.41	1.00	250	250	1.00	5.00			0.50	2.50	468	480			24.50	
SS216	6/5/2018	2.00	8.29		0.500	4.30	1.00	250	250	1.00	5.00			0.50	2.50	431	438			3.90	
SS216	7/17/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	5260	5310	1.00	5.00			23.50	23.60	4.20	
SS217	9/26/2018	145.00	161.00		0.500	2.50	1.00	250	250	1.00	5.00			0.50	2.50	868	876			85.50	
SS217	6/27/2018	2.00	2.00		0.500	20.20	1.00	250	250	1.00	5.00			0.50	2.50	460	465			6.70	
SS217	7/18/2017	5.00	5.00		1.000	5.00	2.00			2.00	10.00	2550	2620	1.00	5.00			56.50	56.70	4.00	
SS218	9/26/2018	1930.00	1890.00		10.700	10.80	2.00	291	314	1.00	5.00			0.50	2.50	789	801			307.00	
SS218	7/18/2017	1810.00	1910.00		10.900	11.40	4.00			2.00	10.00	6700	6850	1.00	5.00			620.00	565.00	296.00	
SS218	6/27/2018	380.00	398.00		2.720	23.70	1.00	250	250	1.00	5.00			0.50	2.50	498	504			170.00	
SS219	10/1/2018	6340.00	5560.00		4.170	4.37	1.00	796	625	1.00	5.00			1.06	2.50	637	593			108.00	
SS219	10/19/2017	4850.00	4960.00	0.05	4.150	3.72	2.00	647	861	2.00	10.00			0.93	5.00	587	609			95.70	
SS219	6/28/2018	2970.00	2810.00		2.420	19.90	1.00	438	552	1.00	5.00			0.66	2.50	603	762			60.80	
SS219	7/24/2017	2250.00	2400.00		3.340	3.75	2.00			2.00	10.00	8700	8920	1.00	5.00			42.60	45.30	76.50	
SS220	6/28/2018	207000.00	200000.00		72.600	92.30	5.00	3260	3420	2.55	5.00			0.50	2.50	5350	5380			1200.00	
SS220	10/1/2018	177000.00	161000.00		43.000	52.90	5.00	3430	3010	1.00	5.00			0.50	2.50	5430	5220			881.00	
SS220	7/24/2017	97800.00	175000.00		52.900	68.10	20.00			2.08	10.00	28000	28500	1.00	5.00			184.00	181.00	1030.00	
SS221	6/28/2018	175000.00	170000.00		74.400	76.60	5.00	2690	2650	5.00	5.00			2.50	2.50	4870	4580			1110.00	
SS221	7/24/2017	114000.00	121000.00		41.200	41.00	20.00			10.00	10.00	21700	22900	5.00	5.00			134.00	141.00	697.00	
SS222	6/28/2018	140000.00	146000.00		69.300	72.90	5.00	1640	1720	5.00	5.00			2.50	2.50	2220	2120			822.00	
SS222	7/24/2017	190000.00	197000.00		104.000	106.00	20.00			10.00	10.00	17900	18600	5.00	5.00			101.00	101.00	1160.00	
SS223	10/1/2018	16.50	644.00		0.500	2.50	1.00	279	250	1.00	5.00			0.50	2.50	525	508			8.00	
SS223	6/28/2018	4.49	12.70		0.500	10.90	1.00	250	250	1.00	5.00			0.50	2.50	394	396			5.80	
SS223	10/19/2017	5.00	8.02	0.05	1.000	5.00	2.00	1000	1000	2.00	10.00			1.00	5.00	484	500			6.60	
SS223	7/24/2017	5.36	15.10		1.000	5.00	2.00			2.00	10.00	3250	3280	1.00	5.00			16.00	16.50	5.70	
SS224	7/24/2017	51400.00	43900.00		13.800	13.90	4.00			10.00	10.00	11100	11700	5.00	5.00			524.00	489.00	365.00	
SS225	6/28/2018	31600.00	31700.00		10.200	21.00	2.00	282	594	1.00	5.00			0.50	3.60	297	306			257.00	
SS225	7/24/2017	23700.00	23800.00		7.610	8.71	2.00			2.00	10.00	10100	9930	1.00	5.00			153.00	142.00	229.00	
SS226	6/28/2018	1510.00	1490.00		2.780	14.40	1.00	372	415	1.00	5.00			0.50	2.50	250	250			34.70	
SS226	7/24/2017	6.54	12.60		1.000	5.00	2.00			2.00	10.00	2610	2600	1.00	5.00			18.20	16.50	14.20	
SS227	10/3/2017	1200.00	1200.00	0.05	5.000	5.00	20.00	436	442	10.00	10.00			5.00	5.00	3080	3170			591.00	
SS228	10/3/2017	18300.00	18300.00	0.05	20.000	21.10	20.00	634	697	10.00	10.00			5.00	5.00	5870	5830			846.00	
SS228	7/19/2018																				

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Site ID	Date	Mn D	Mn T	Hg T	Ni D	Ni T	NO3- as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T	
		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
SS228	10/9/2018	20400.00	20200.00		6.210	21.80	5.00	838	804	5.00	5.00			2.50	2.50	5940	6000			849.00	
SS229	10/4/2017	5.55	28.60	0.05	5.000	5.00	20.00	516	502	10.00	10.00			5.00	5.00	1600	1650			307.00	
SS229	6/27/2018	2.19	2.61		0.500	5.80	2.00	311	382	1.00	5.00			0.50	2.50	1390	1480			264.00	
SS230	7/19/2018	3170.00	3300.00		16.300	17.60	5.00	437	369	1.99	5.00			0.50	2.50	4660	4850			306.00	
SS230	10/5/2017	2400.00	2380.00	0.05	12.300	14.40	4.00	309	412	1.23	10.00			1.00	5.00	3170	3250			175.00	
SS231	9/26/2018	7.96	43.60		0.500	2.50	1.00	433	444	1.00	5.00			0.50	2.50	1590	1620			59.60	
SS231	10/10/2017	26.20	33.50	0.05	1.000	5.00	2.00	439	378	2.00	10.00			1.00	5.00	1060	853			33.90	
SS231	6/27/2018	251.00	261.00		0.500	9.62	1.00	250	250	1.00	5.00			0.50	2.50	856	842			19.50	
SS232	10/16/2017	1050.00	1120.00	0.05	3.410	2.98	4.00	545	644	1.06	10.00			1.00	5.00	704	751			92.70	
SS235	10/1/2018	10000.00	9810.00		10.300	11.00	2.00	3810	3530	1.00	5.00			0.50	2.50	1390	1300			218.00	
SS235	10/1/2018	10300.00	9780.00		10.600	11.00	2.00	3690	3540	1.00	5.00			0.50	2.50	1340	1290			220.00	
SS235	10/19/2017	8750.00	8930.00	0.05	9.750	9.74	4.00	3270	3460	2.00	10.00			1.00	5.00	1170	1220			188.00	
SS236	10/23/2017	11100.00	11200.00	0.05	10.900	11.70	20.00	1070	1650	2.00	10.00			1.00	5.00	5290	5380			459.00	
SS236	10/8/2018	9950.00	9860.00		9.890	9.95	2.00	1070	1080	5.00	5.00			2.50	2.50	5930	5930			434.00	
SS236	7/19/2018																				
SS237	10/24/2017	2.39	2.97	0.05	1.000	5.00	2.00	303	288	2.00	10.00			1.00	5.00	1390	1380			99.70	
SS238	10/24/2017	3860.00	3840.00	0.05	13.700	13.90	20.00	1970	2010	2.00	10.00			1.00	5.00	1110	1120			590.00	
SS238	6/18/2018	3870.00	3750.00		12.700	13.80	5.00	1560	1500	1.00	5.00			0.50	2.50	1160	1160			718.00	
SS250	10/9/2018	1340.00	1340.00		2.500	2.50	5.00	431	445	5.00	5.00			2.50	2.50	8260	8070			674.00	
SS250	10/9/2018	1350.00	1320.00		2.500	2.50	5.00	424	424	5.00	5.00			2.50	2.50	8060	7970			676.00	
SS250	6/14/2018	5.21	4300.00		2.500	2.50	5.00	408	403	5.00	5.00			2.50	2.50	7530	7830			752.00	
SS250	6/19/2018	4.67	2.80		2.500	2.50	5.00	392	307	5.00	5.00			2.50	2.50	7600	7650			745.00	
SS250	11/7/2017	1580.00	1400.00	0.10	10.000	5.00	20.00	411	421	20.00	10.00			10.00	5.00	7170	7620			624.00	
SS300	10/9/2018	245.00	307.00		3.010	10.70	1.00	352	457	1.00	5.00			0.50	2.50	1050	1120			22.80	
SS300	6/19/2018	286.00	352.00		3.120	3.86	1.00	394	414	1.00	5.00			0.50	2.50	949	1010			22.20	
SS301	10/4/2018	42100.00	39600.00		32.300	32.40	10.00	1510	1390	5.00	5.00			2.50	2.50	9270	8560			1510.00	
SS301	6/19/2018	30500.00	29900.00		36.000	32.40	5.00	1310	1310	5.00	5.00			2.50	2.50	6910	7290			1230.00	
SS304	6/28/2018	1120.00	1060.00		3.150	23.00	1.00	500	510	1.00	5.00			0.50	2.50	480	461			56.30	
SS304	7/24/2017	899.00	953.00		2.060	5.00	2.00			2.00	10.00	4170	4320	1.00	5.00			59.00	60.00	47.90	
SS305	10/10/2017	6.21	12.20	0.05	1.000	5.00	2.00	503	475	2.00	10.00			1.00	5.00	1110	891			27.10	
SS305	8/23/2018	5960.00	5850.00		0.500	2.50	5.00	706	551	1.00	5.00			0.50	2.50	5270	4920			505.00	

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Mn D	Mn T	Hg T	Ni D	Ni T	NO3- as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T
		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	TI D	TI T	Total Alkalinity	V D	V T	Zn D	Zn T	Al D Load	Al T Load	Sb D Load	Sb T Load	As D Load	As T Load	Ba D Load	Ba T Load
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
A23A	10/1/2018	1.00	5.00	5.00	2.00	10.00	3080.00	2790.00								
A23A	8/23/2018	1.00	5.00	5.00	2.00	10.00	2920.00	2970.00	0.5924	0.8557	0.3266	0.1633	0.3266	0.1633	0.1124	0.1633
A23A	8/23/2018	1.00	5.00	5.00	2.00	10.00	3120.00	4490.00								
A23A	8/23/2018	1.00	5.00	5.00	2.00	10.00	3630.00	3560.00								
A38	6/28/2017	2.00	10.00	82.40			1040.00	1210.00	0.4770	0.7498			0.1978	0.9539		
A38	9/27/2018	5.00	5.00	108.00	10.00	10.00	1410.00	1390.00	0.4838	0.5793	0.6480	0.6480	0.6480	0.6480	0.6480	0.6480
A38	6/27/2018	1.00	5.00	100.00	2.00	10.00	1280.00	1210.00	0.8640	0.8640	0.2160	0.1800	0.2160	0.1800	0.4723	0.1800
CC01A	6/14/2018	1.00	5.00	15.80	2.00	10.00	2420.00	2360.00	0.3939	0.1894	0.2718	0.1166	0.2213	0.1166	0.3857	0.1166
CC01A	10/2/2017	2.00	10.00	29.50	3.00	15.00	3400.00	3240.00	0.7678	0.9138	0.5474	0.2737	0.1815	0.5474	0.4124	0.2737
CC01A	9/24/2018	1.00	5.00	22.80	2.00	10.00	3580.00	3480.00	0.3845	0.3744	0.3240	0.1512	0.3240	0.1512	0.6895	0.1512
CC01A	7/10/2017	2.00	10.00	37.40			1610.00	1610.00	0.5544	0.3539			0.2218	0.1188		
CC01B	9/25/2018	5.00	5.00	5.00	10.00	10.00	32400.00	32100.00	0.4245	0.4419	0.3960	0.3960	0.3960	0.3960	0.3960	0.3960
CC01B	6/5/2018															
CC01B	10/9/2017	5.00	5.00	5.00	10.00	10.00	34600.00	32600.00	0.7253	0.7229	0.5443	0.5443	0.5443	0.8958	0.5443	0.5443
CC01B	4/24/2017		14.80	5.00				27200.00		0.5787				0.1225		
CC01B	9/27/2016	5.00	5.00				31600.00	32500.00	1.6992	1.1265	0.7762	0.7762	0.7762	0.7762		
CC01B	3/30/2017	5.00	5.00	5.00			29300.00	29200.00	0.6697	0.7920			0.7347	0.1347		
CC01C	9/25/2018	1.00	5.19	5.00	2.00	10.00	5950.00	5820.00	0.4320	0.4680	0.7200	0.3600	0.7200	0.3600	0.3182	0.3600
CC01C	10/2/2017	2.00	10.00	10.00	3.00	15.00	28400.00	26700.00	0.3427	0.3348	0.2880	0.1440	0.1559	0.1994	0.2880	0.1440
CC01C	9/20/2016			5.00			24000.00	24000.00	0.1667	0.1818			0.1394	0.1424		
CC01C	7/10/2017	2.00	10.00	10.00			3780.00	3550.00	0.2973	0.3113			0.1365	0.1276		
CC01C	6/5/2018	1.00	11.70	5.00	2.00	10.00	2360.00	2420.00								
CC03D	9/27/2017	10.00	18.90	34.40			12500.00	12800.00	3.5179	3.6574	0.5558	0.5558	0.5558	0.5558		
CC03D	6/5/2018	10.00	5.00	37.80	20.00	10.00	14200.00	14500.00	4.2367	4.3551	0.6913	0.3456	0.6913	0.3456	0.6913	0.3456
CC03D	10/9/2018	5.00	5.00	43.70	10.00	10.00	15200.00	14800.00	4.2496	3.9512	0.3553	0.3553	0.3553	0.3615	0.3553	0.3553
CC03D	3/30/2017	10.00	10.00	23.40			15100.00	15400.00	5.5476	5.8332			0.7948	0.7948		
CC03D	5/16/2017	10.00	10.00	19.70			14300.00	14300.00	5.9276	6.2562			0.8165	0.8165		
CC03D	6/6/2017	5.00	5.00	26.40			14000.00	13500.00	7.5794	7.7429	0.5256	0.5256	0.7121	0.5753		
CC06	10/9/2018	5.00	5.00	5.00	10.00	16.00	16100.00	15800.00	4.2555	41.1422	0.5530	0.5530	0.5530	0.5485	0.5530	0.5530
CC06	6/5/2018	10.00	5.00	5.00	20.00	14.90	15100.00	15400.00	41.6783	44.1226	0.1144	0.5715	0.1144	0.7430	0.1144	0.5715
CC06	6/6/2017	5.00	5.00	5.00			39200.00	37900.00	224.1527	228.5496	0.1569	0.1215	0.6526	0.6649		
CC06	9/28/2017	10.00	5.00	5.00			24700.00	25000.00	14.9829	18.8843	0.1773	0.1347	0.1947	0.1536		
CC06	10/9/2017	5.00	5.00	5.00	10.00	25.10	25400.00	24600.00	11.2566	16.7597	0.9172	0.1159	0.1684	0.1530	0.9172	0.9172
CC14	10/9/2018	5.00	5.00	30.60	10.00	10.00	734.00	697.00	0.9830	1.2741	0.3744	0.3744	0.3744	0.3744	0.3744	0.3744

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	TI D	TI T	Total Alkalinity	V D	V T	Zn D	Zn T	Al D Load	Al T Load	Sb D Load	Sb T Load	As D Load	As T Load	Ba D Load	Ba T Load
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
CC14	9/28/2017															
CC14	10/9/2017															
CC14	9/21/2016			21.00			680.00	830.00	1.6854	2.4394			0.5322	0.8874		
CC14	6/5/2018	10.00	5.00	5.00	20.00	10.00	954.00	951.00	5.3251	7.8600	0.2794	0.1397	0.2794	0.1659	0.2794	0.1397
CC14	6/20/2017	2.00	7.51	10.00			1010.00	1100.00	9.7588	12.9399			0.1896	0.6186		
CC16C	6/12/2018	5.00	7.50	5.00	10.00	10.00	972.00	936.00	0.3519	0.3678	0.1160	0.1160	0.4174	0.5659	0.1160	0.1160
CC16C	9/28/2016			5.00			1000.00	1000.00	0.3457	0.3558			0.4220	0.4626		
CC16C	6/20/2017	2.00	10.00	10.00			923.00	1050.00	0.3869	0.4293			0.4499	0.6976		
CC16C	10/4/2018	1.00	5.00	5.00	5.47	10.00	1020.00	994.00	0.5155	0.5933	0.3960	0.1548	0.5825	0.6440	0.3960	0.1548
CC16C	10/25/2017	2.00	6.73	10.00	4.00	15.00	1020.00	999.00	0.5260	0.5599	0.7920	0.3960	0.6384	0.6494	0.7920	0.3960
CC19	10/9/2018	5.00	5.00	5.00	10.00	10.00	20600.00	20000.00	1.3468	1.2343	0.7812	0.7812	0.7812	0.7812	0.7812	0.7812
CC19	6/5/2018	10.00	5.00	5.00	20.00	10.00	18700.00	19200.00	1.6295	1.7143	0.1987	0.9936	0.1987	0.9936	0.1987	0.9936
CC19	10/9/2017	5.00	5.00	20.00	10.00	10.00	24900.00	24300.00	1.5465	1.5472	0.1198	0.1198	0.1198	0.1198	0.1198	0.1198
CC19	9/29/2016	10.00	5.00				17800.00	18900.00	3.6151	3.2142	0.3636	0.1818	0.3636	0.1818		
CC19	6/6/2017	5.00	5.00	5.00			18800.00	17900.00	4.3346	4.7527	0.2574	0.2574	0.2574	0.2574		
CC50	10/3/2018	5.00	5.00	101.00	10.00	10.00	349.00	348.00	0.2558	0.2558	0.3198	0.3198	0.3198	0.3198	0.3198	0.3198
CC50	10/9/2017	5.00	5.00	98.50	10.00	10.00	706.00	694.00	0.2123	0.3239	0.3420	0.3420	0.3420	0.3933	0.3420	0.3420
CC50	6/7/2018	10.00	5.00	98.70	20.00	10.00	350.00	364.00	0.2994	0.2994	0.7484	0.3742	0.7484	0.3742	0.7484	0.3742
CC50	6/20/2017	2.00	10.00	92.00			496.00	592.00	0.2318	0.1990			0.2463	0.2277		
CC50	9/21/2016						610.00	740.00	0.8961	0.3328			0.2563	0.6657		
DM01	6/14/2018															
DM01	6/22/2017	2.00	10.00	10.00			2510.00	2680.00	0.6850	0.6877			0.1382	0.6912		
DM24	9/16/2016			73.00			220.00	230.00	0.1240	0.1317			0.1719	0.2480		
DM24	9/27/2018	5.00	5.00	80.70	10.00	10.00	165.00	257.00	0.7968	0.4419	0.5580	0.5580	0.5580	0.1148	0.5580	0.5580
DM32	9/27/2018	1.00	5.00	5.00	2.00	10.00	7600.00	7320.00	0.1763	0.1782	0.3240	0.1620	0.3240	0.1620	0.1368	0.1620
DM32	9/27/2018	1.00	5.00	5.00	2.00	10.00	7580.00	7320.00	0.1763	0.1795	0.3240	0.1620	0.3240	0.1620	0.1498	0.1620
DM32	10/10/2017	2.00	10.00	10.00	3.00	15.00	11000.00	10300.00	0.6618	0.6687	0.1728	0.8640	0.3456	0.1728	0.1797	0.8640
DM32	6/27/2018	1.00	5.00	5.00	2.00	10.00	11600.00	10500.00	0.5159	0.5544	0.1296	0.6480	0.1296	0.6480	0.4385	0.6480
DM32	6/28/2017	2.00	10.00	10.00			11900.00	11200.00	0.6234	0.6594			0.5516	0.2758		
DM4	8/23/2018	1.00	5.00	106.00	2.00	10.00	560.00	534.00	0.2177	0.2177	0.5443	0.2722	0.5443	0.2722	0.7469	0.2722
DM4	8/23/2018	1.00	5.00	106.00	2.00	10.00	575.00	540.00	0.2177	0.2177	0.5443	0.2722	0.5443	0.2722	0.7588	0.2722
SS001	9/26/2018	1.00	5.73	5.00	2.00	10.00	414.00	401.00	0.1134	0.1174	0.1800	0.9000	0.1800	0.9000	0.9972	0.9648
SS001	9/26/2018	1.00	5.00	5.00	2.00	10.00	409.00	402.00	0.1141	0.1260	0.1800	0.9000	0.1800	0.9000	0.9936	0.9972
SS001	10/4/2017	2.00	10.00	10.00	3.00	15.00	302.00	290.00	0.1642	0.2151	0.8640	0.4320	0.1728	0.8640	0.2644	0.2514

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		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS001	9/22/2016	2.00	10.00				297.00	293.00	0.1769	0.2557	0.8668	0.4334	0.1733	0.8668		
SS001	6/27/2018	1.00	5.00	5.00	2.00	10.00	203.00	208.00	0.8535	0.3472	0.3183	0.1363	0.2725	0.1363	0.1570	0.1657
SS001	7/11/2017	2.00	10.00	10.00			151.00	142.00	0.1284	0.1414			0.7424	0.3712		
SS002	10/4/2017	2.00	5.95	6.64	3.00	15.00	173.00	160.00	0.7200	0.3816	0.1440	0.7200	0.2880	0.1440	0.1127	0.7200
SS002	6/27/2018	1.00	5.00	31.00	2.00	10.00	83.50	89.00	0.8640	0.1253	0.4169	0.1800	0.2160	0.1800	0.5184	0.1800
SS002	7/11/2017	2.00	7.21	24.60			45.80	48.50	0.6480	0.6480			0.2419	0.1296		
SS002	9/22/2016	2.00	11.90				94.90	94.70	0.1393	0.5949	0.1662	0.1393	0.5561	0.2786		
SS003	9/26/2018	1.00	5.00	30.90	2.00	10.00	1240.00	1180.00	0.1440	0.2174	0.1757	0.1836	0.3600	0.1800	0.3600	0.1800
SS003	10/4/2017	2.00	6.52	21.30	3.00	15.00	1440.00	1300.00	0.3514	0.4349	0.2664	0.7200	0.2880	0.1440	0.1338	0.7200
SS003	7/12/2017	2.00	8.03	17.80			1180.00	1180.00	0.1440	0.1800			0.5760	0.2880		
SS003	9/22/2016	2.00	12.80				1480.00	1440.00	0.4124	0.5634	0.2918	0.7223	0.2889	0.1445		
SS004	10/4/2017	2.00	10.00	14.00	3.00	15.00	2850.00	2610.00	0.3758	0.6117	0.6912	0.3456	0.1382	0.6912	0.2667	0.2114
SS004	6/27/2018	1.00	5.00	9.25	2.00	10.00	4000.00	3720.00	0.3548	0.5000	0.5760	0.2880	0.5760	0.2880	0.4666	0.3836
SS004	9/22/2016	2.00	10.00				130.00	135.00	0.6487	0.1415	0.1297	0.6487	0.2595	0.1297		
SS004	7/12/2017	2.00	10.00	17.10			151.00	156.00	0.7200	0.7819			0.2880	0.1440		
SS004	9/26/2018	1.00	5.00	12.50	2.00	10.00	3130.00	2960.00	0.5386	0.1325	0.7200	0.3600	0.7200	0.3600	0.4622	0.4680
SS005	9/22/2016	2.00	10.00				14200.00	16000.00	0.3141	0.3494	0.9267	0.4633	0.1853	0.9267		
SS006	10/4/2017	2.00	10.00	19.20	3.00	15.00	20.00	20.00	0.2880	0.2454	0.5760	0.2880	0.1152	0.5760	0.7668	0.2471
SS006	9/26/2018	1.00	5.00	20.10	2.00	10.00	10.00	10.00	0.1152	0.1674	0.2880	0.1440	0.2880	0.1440	0.8294	0.1440
SS006	6/27/2018	1.00	5.00	20.00	2.00	10.00	10.00	17.20	0.1728	0.1858	0.4320	0.2160	0.4320	0.2160	0.1676	0.2160
SS006	9/23/2016	2.00	10.00				20.00	20.00	0.1987	0.8345	0.3974	0.1987	0.7948	0.3974		
SS006	7/12/2017	2.00	10.00	21.40			20.00	20.00	0.6541	0.6541			0.2616	0.1382		
SS007	9/23/2016	2.00	10.00				20.00	20.00	0.4334	0.4334	0.8668	0.4334	0.1733	0.8668		
SS007	9/26/2018	1.00	5.00	18.40	2.00	10.00	10.00	10.00	0.3168	0.3254	0.7920	0.3960	0.7920	0.3960	0.4768	0.5846
SS007	10/4/2017	2.00	10.00	17.80	3.00	15.00	20.00	20.00	0.2880	0.5172	0.5760	0.2880	0.1152	0.5760	0.1343	0.2880
SS007	7/12/2017	2.00	10.00	15.90			20.00	20.00	0.5460	0.5460			0.2184	0.1920		
SS007	6/27/2018	1.00	5.00	13.70	2.00	10.00	10.00	15.50	0.7849	0.7849	0.1962	0.9812	0.1962	0.9812	0.1252	0.1154
SS008	9/24/2018	1.00	5.00	16.20	2.00	10.00	10.00	10.00								
SS008	9/24/2018	1.00	5.00	16.40	2.00	10.00	10.00	10.00								
SS008	10/2/2017	2.00	10.00	11.90	3.00	15.00	20.00	20.00	0.7200	0.7690	0.1440	0.7200	0.2880	0.1440	0.1555	0.7200
SS008	9/26/2016	2.00	10.00				15.70	21.20	0.4143	0.1135	0.8286	0.4143	0.1657	0.8286		
SS008	6/13/2018	1.00	5.00	15.20	2.00	10.00	15.20	58.10	0.2322	0.3368	0.6719	0.2927	0.5854	0.2927	0.1428	0.2927
SS009	7/10/2017	2.00	10.00	15.00			22.10	26.60	0.4320	0.3655			0.1728	0.8640		
SS009	9/26/2016	2.00	10.00				40.50	39.90	0.3594	0.6836	0.1357	0.5178	0.2714	0.1357		

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	TI D	TI T	Total Alkalinity	V D	V T	Zn D	Zn T	Al D Load	Al T Load	Sb D Load	Sb T Load	As D Load	As T Load	Ba D Load	Ba T Load
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS009	6/13/2018	1.00	5.00	11.70	2.00	10.00	35.40	40.30	0.8640	0.1957	0.2195	0.1800	0.2160	0.1800	0.4752	0.1800
SS010	9/24/2018	1.00	5.00	9.36	2.00	10.00	66.20	63.90	0.4154	0.5184	0.3600	0.1800	0.3600	0.1800	0.1678	0.1800
SS010	10/2/2017	2.00	10.00	9.23	3.00	15.00	87.50	80.60	0.1454	0.2131	0.1440	0.7200	0.2880	0.1440	0.4219	0.4320
SS010	7/10/2017	2.00	10.00	8.16			82.10	84.00	0.1247	0.1884			0.3456	0.1728		
SS010	9/26/2016	2.00	10.00				77.60	72.00	0.1926	0.2956	0.2616	0.1382	0.5233	0.2616		
SS010	6/13/2018	1.00	5.00	7.09	2.00	10.00	220.00	273.00	0.1498	0.3578	0.5580	0.1800	0.3600	0.1800	0.1656	0.2934
SS011	6/13/2018	1.00	5.00	5.00	2.00	10.00	604.00	624.00								
SS011	9/24/2018	1.00	5.00	5.00	2.00	10.00	374.00	359.00								
SS011	7/10/2017	2.00	10.00	10.00			897.00	879.00	0.1368	0.1454			0.2880	0.1440		
SS011	10/2/2017	2.00	10.00	10.00	3.00	15.00	122.00	113.00	0.2856	0.3413	0.4320	0.2160	0.8640	0.4320	0.9594	0.2160
SS011	9/26/2016	2.00	10.00				748.00	747.00	0.5135	0.5353	0.5460	0.2725	0.1920	0.5460		
SS012	10/2/2017	2.00	10.00	10.00	3.00	15.00	845.00	778.00	0.8640	0.9137	0.2160	0.1800	0.4320	0.6264	0.4579	0.1800
SS012	9/26/2016	2.00	10.00				909.00	889.00	0.6421	0.6732	0.5178	0.2589	0.1357	0.5178		
SS012	6/13/2018	1.00	5.00	10.50	2.00	10.00	10.00	10.00	0.1728	0.1843	0.4320	0.2160	0.4320	0.2160	0.1365	0.2160
SS012	7/10/2017	2.00	10.00	5.53			20.00	20.00	0.6397	0.4143			0.2416	0.1279		
SS013	10/4/2018	1.00	5.00	30.80	2.00	10.00	10.00	40.80								
SS013	10/3/2016	2.00	10.00				18.30	16.90	0.3566	0.4837	0.1248	0.5124	0.2496	0.1248		
SS013	10/3/2017	2.00	10.00	17.80	3.00	15.00	21.20	23.70	0.9612	0.2486	0.4688	0.2344	0.9376	0.4688	0.9188	0.2344
SS013	6/12/2018	1.00	7.62	16.40	2.00	10.00	101.00	108.00	0.4368	0.1616	0.1920	0.5460	0.1920	0.5460	0.4368	0.5460
SS013	7/17/2017	2.00	10.00	18.90			175.00	173.00	0.1799	0.4624			0.1468	0.7340		
SS014	10/3/2017	2.00	10.00	26.60	3.00	15.00	20.00	20.00	0.2592	0.2592	0.5184	0.2592	0.1368	0.5184	0.5391	0.2592
SS014	10/4/2018	1.00	5.00	29.60	2.00	10.00	10.00	10.00	0.1872	0.1872	0.4680	0.2340	0.4680	0.2340	0.1114	0.2340
SS014	6/12/2018	1.00	5.00	26.20	2.00	10.00	10.00	10.00	0.2725	0.2725	0.6814	0.3469	0.6814	0.3469	0.1327	0.3469
SS014	7/17/2017	2.00	7.47	24.90			20.00	20.00	0.8749	0.8749			0.3500	0.1750		
SS014	10/3/2016	2.00	10.00				20.00	20.00	0.9432	0.3773	0.1886	0.9432	0.3773	0.1886		
SS015	10/4/2018	1.00	5.00	18.40	2.00	10.00	10.00	10.00	0.2556	0.4673	0.6264	0.3132	0.6264	0.3132	0.1854	0.3132
SS015	10/3/2017	2.00	10.00	12.60	3.00	15.00	20.00	20.00	0.9540	0.6748	0.1980	0.9540	0.3816	0.1980	0.1980	0.9540
SS015	10/3/2016	2.00	10.00				20.00	20.00	0.5574	0.3428	0.2616	0.1382	0.5233	0.2616		
SS015	6/12/2018	1.00	5.00	16.00	2.00	10.00	10.00	10.00	0.1428	0.7149	0.3574	0.1785	0.3574	0.1785	0.8355	0.1785
SS015	7/17/2017	2.00	8.56	15.20			20.00	20.00	0.2569	0.8114			0.1962	0.9812		
SS016	10/4/2018	1.00	5.00	5.00	2.00	10.00	243.00	217.00	0.1339	0.1132	0.4320	0.2160	0.4320	0.2160	0.4320	0.2160
SS016	6/22/2017	2.00	10.00	10.00			151.00	181.00	0.9612	0.1523			0.2160	0.1800		
SS016	6/12/2018	1.00	5.00	5.00	2.00	10.00	166.00	158.00	0.1377	0.1420	0.7200	0.3600	0.7200	0.3600	0.7200	0.3600
SS016	10/3/2016	2.00	10.00				222.00	219.00	0.1348	0.1338	0.1139	0.5694	0.2278	0.1139		

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	TI D	TI T	Total Alkalinity	V D	V T	Zn D	Zn T	Al D Load	Al T Load	Sb D Load	Sb T Load	As D Load	As T Load	Ba D Load	Ba T Load
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS016	10/5/2017	2.00	10.00	10.00	3.00	15.00	236.00	217.00	0.2694	0.2673	0.2880	0.1440	0.4176	0.2880	0.2880	0.1440
SS017	10/5/2017	2.00	10.00	10.00	3.00	15.00	421.00	386.00								
SS017	10/3/2016	2.00	10.00				407.00	398.00	0.4258	0.4327	0.2289	0.1145	0.4579	0.2289		
SS017	10/4/2018	1.00	5.00	5.00	2.00	10.00	373.00	336.00	0.4562	0.4896	0.1152	0.5760	0.1152	0.5760	0.1152	0.5760
SS017	6/22/2017	2.00	10.00	10.00			334.00	386.00	0.1261	0.1244			0.1728	0.8640		
SS017	6/12/2018	1.00	5.00	5.00	2.00	10.00	690.00	674.00	0.1719	0.1788	0.4320	0.2160	0.4320	0.2160	0.4320	0.2160
SS018	6/23/2017	2.00	10.00	10.00			990.00	1110.00	0.1300	0.1246			0.7200	0.3600		
SS018	10/4/2018	1.00	5.00	5.00	2.00	10.00	2180.00	1920.00	0.3365	0.2723	0.2376	0.1188	0.2376	0.1188	0.3417	0.1188
SS018	10/3/2016	2.00	10.00				1630.00	1620.00	0.2488	0.2483	0.4917	0.2458	0.9834	0.4917		
SS018	10/5/2017	2.00	10.00	10.00	3.00	15.00	1540.00	1460.00	0.3456	0.3476	0.6912	0.3456	0.1382	0.6912	0.5875	0.3456
SS018	6/12/2018	1.00	5.00	5.00	2.00	10.00	1660.00	1660.00	0.5749	0.5355	0.5178	0.2589	0.5178	0.2589	0.6784	0.2589
SS019	6/23/2017	2.00	10.00	14.10			71.40	83.30	0.4320	0.4320			0.1728	0.8640		
SS019	10/4/2018	1.00	5.00	20.40	2.00	10.00	84.80	78.10	0.1814	0.1814	0.4536	0.2268	0.4536	0.2268	0.2593	0.2368
SS019	10/4/2018	1.00	5.00	20.40	2.00	10.00	83.30	79.70	0.1814	0.1814	0.4536	0.2268	0.4536	0.2268	0.2412	0.2268
SS019	10/5/2017	2.00	7.36	18.20	3.00	15.00	119.00	109.00	0.5400	0.5400	0.1800	0.5400	0.2160	0.1800	0.1966	0.5400
SS019	6/12/2018	1.00	5.00	16.40	2.00	10.00	69.30	72.00	0.3456	0.3456	0.8640	0.4320	0.8640	0.4320	0.3586	0.4320
SS019	10/3/2016	2.00	10.00				84.70	80.20	0.1793	0.1793	0.2159	0.1793	0.4317	0.2159		
SS020	9/25/2018	1.00	6.18	5.00	2.00	10.00	27.50	26.10								
SS020	10/16/2017	2.00	10.00	10.00	3.00	15.00	40.70	40.00	0.8986	0.1175	0.2880	0.1440	0.5760	0.2880	0.5933	0.1440
SS020	10/4/2016	2.00	11.80				69.10	65.50	0.4752	0.4162	0.6541	0.3276	0.1382	0.6541		
SS020	7/19/2017	2.00	10.00	10.00			93.20	89.50	0.1223	0.1214			0.1537	0.7686		
SS020	6/13/2018	1.00	5.00	5.00	2.00	10.00	55.40	58.00	0.4415	0.4717	0.6480	0.3240	0.6480	0.3240	0.1996	0.3240
SS021	10/4/2016	2.00	10.00				115.00	105.00	0.3770	0.3728	0.2714	0.1357	0.4143	0.2714		
SS021	7/19/2017	2.00	10.00	10.00			94.70	87.00	0.2436	0.2436			0.3456	0.1728		
SS021	6/13/2018	1.00	5.00	5.00	2.00	10.00	77.90	80.50	0.1970	0.2465	0.1152	0.5760	0.1152	0.5760	0.2834	0.5760
SS022	10/16/2017	2.00	10.00	10.00	3.00	15.00	165.00	164.00	0.2483	0.2877	0.2880	0.1440	0.5760	0.2880	0.4680	0.1440
SS022	10/4/2016	2.00	10.00				244.00	232.00	0.1695	0.1866	0.1744	0.8722	0.3489	0.1744		
SS022	6/13/2018	1.00	5.00	5.00	2.00	10.00	201.00	201.00	0.2113	0.2574	0.1184	0.5400	0.1800	0.5400	0.2916	0.5400
SS022	7/19/2017	2.00	10.00	10.00			209.00	202.00	0.8433	0.9884			0.1382	0.6912		
SS023	9/25/2018	1.00	5.00	39.00	2.00	10.00	29.50	36.80								
SS023	10/4/2016	2.00	10.00				213.00	209.00	0.2552	0.2827	0.7863	0.3543	0.1417	0.7863		
SS023	7/19/2017	2.00	10.00	10.00			85.10	85.60	0.4579	0.7747			0.5760	0.2880		
SS023	6/13/2018	1.00	5.00	5.00	2.00	10.00	15.50	18.80	0.4291	0.7992	0.3600	0.1800	0.3600	0.1800	0.3600	0.1800
SS023	10/16/2017	2.00	10.00	40.50	3.00	15.00	54.70	68.70	0.1843	0.1396	0.2169	0.1843	0.4337	0.2169	0.9218	0.8915

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Site ID	Date	TI D	TI T	Total Alkalinity	V D	V T	Zn D	Zn T	Al D Load	Al T Load	Sb D Load	Sb T Load	As D Load	As T Load	Ba D Load	Ba T Load
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS024	10/16/2017	2.00	10.00	45.80	3.00	15.00	17.60	19.10	0.2520	0.2520	0.5400	0.2520	0.1800	0.5400	0.1830	0.2394
SS024	10/4/2016	2.00	10.00				12.80	11.40	0.1564	0.2691	0.7413	0.3767	0.1483	0.7413		
SS024	9/25/2018	1.00	5.00	44.60	2.00	10.00	12.10	11.10	0.1728	0.1728	0.4320	0.2160	0.4320	0.2160	0.4458	0.4692
SS024	7/19/2017	2.00	10.00	38.40			123.00	124.00	0.8438	0.1155			0.6541	0.3276		
SS024	6/13/2018	1.00	5.00	38.20	2.00	10.00	10.00	10.00	0.7834	0.7834	0.1958	0.9792	0.1958	0.9792	0.9361	0.9792
SS025	10/4/2016	2.00	10.00				11.20	17.80	0.1226	0.7114	0.2453	0.1226	0.4959	0.2453		
SS025	7/19/2017	2.00	10.00	16.60			14.70	14.70	0.4320	0.4320			0.1728	0.8640		
SS025	6/13/2018	1.00	5.00	13.00	2.00	10.00	23.90	26.00	0.2880	0.1498	0.7200	0.3600	0.7200	0.3600	0.1843	0.3600
SS026	10/4/2016	2.00	10.00				687.00	303.00	0.4463	0.2117	0.6487	0.3243	0.1297	0.6487		
SS026	10/16/2017	2.00	10.00	10.00	3.00	15.00	2850.00	2740.00	0.2258	0.2258	0.1800	0.5400	0.2160	0.1800	0.1572	0.5400
SS026	6/14/2018	1.00	5.00	5.00	2.00	10.00	1090.00	997.00	0.2539	0.2420	0.1555	0.7776	0.1555	0.7776	0.3393	0.7776
SS026	7/10/2017	2.00	10.00	10.00			2280.00	2310.00	0.9616	0.8896			0.1296	0.6480		
SS027	10/16/2017	2.00	10.10	10.00	3.00	15.00	5610.00	5400.00	0.5476	0.5378	0.6480	0.3240	0.1296	0.6480	0.1498	0.3240
SS027	10/4/2016	2.00	10.00				4820.00	4770.00	0.4999	0.4922	0.7631	0.3816	0.1526	0.7631		
SS027	9/24/2018	5.00	5.00	5.00	10.00	10.00	6150.00	5720.00	0.8399	0.8243	0.2160	0.2160	0.2160	0.2160	0.2160	0.2160
SS027	6/13/2018	1.00	5.00	5.00	2.00	10.00	1780.00	1740.00	0.2188	0.2322	0.9528	0.2592	0.5184	0.2592	0.1525	0.2592
SS027	7/10/2017	2.00	10.00	10.00			2250.00	2240.00	0.4257	0.3859			0.3348	0.1674		
SS028	10/16/2017	2.00	10.00	10.00	3.00	15.00	20.20	20.40	0.3600	0.3600	0.7200	0.3600	0.1440	0.7200	0.3679	0.3600
SS028	7/10/2017	2.00	10.00	6.60			19.40	24.60	0.7200	0.8885			0.2880	0.1440		
SS028	10/4/2016	2.00	10.00				18.70	16.90	0.4640	0.9632	0.2714	0.1357	0.4143	0.2714		
SS029	10/16/2017	2.00	10.00	10.00	3.00	15.00	1380.00	1290.00	0.7819	0.7776	0.2592	0.1296	0.5184	0.2592	0.1998	0.1420
SS029	9/24/2018	1.00	5.00	5.00	2.00	10.00	1470.00	1350.00	0.9722	0.9539	0.1332	0.6516	0.1332	0.6516	0.1764	0.1269
SS029	6/14/2018	1.00	5.00	5.00	2.00	10.00	1020.00	985.00	0.1585	0.1619	0.1650	0.7768	0.1554	0.7768	0.7534	0.7768
SS029	10/4/2016	2.00	10.00				1020.00	988.00	0.8536	0.8535	0.3276	0.1635	0.6541	0.3276		
SS029	7/10/2017	2.00	10.00	10.00			732.00	727.00	0.3895	0.3954			0.1962	0.9812		
SS030	10/5/2016	2.00	10.00				20.00	20.00	0.3600	0.2556	0.7200	0.3600	0.1440	0.7200		
SS030	7/12/2017	2.00	10.00	13.20			20.00	20.00	0.3600	0.3600			0.1440	0.7200		
SS030	10/4/2017	2.00	10.00	16.10	3.00	15.00	13.10	12.50	0.3600	0.3600	0.7200	0.3600	0.1440	0.7200	0.5940	0.3600
SS030	6/15/2018	1.00	5.00	12.00	2.00	10.00	10.00	10.00	0.2880	0.3974	0.3600	0.1800	0.3600	0.1800	0.4997	0.1800
SS030	9/26/2018	1.00	5.00	18.60	2.00	10.00	10.60	11.50	0.1440	0.1440	0.3600	0.1800	0.3600	0.1800	0.6134	0.1800
SS031	10/4/2017	2.00	10.00	29.60	3.00	15.00	20.00	20.00	0.1800	0.1800	0.2160	0.1800	0.4320	0.2160	0.1987	0.1800
SS031	7/12/2017	2.00	10.00	26.00			20.00	20.00	0.4320	0.4320			0.1728	0.8640		
SS031	10/5/2016	2.00	10.00				20.00	20.00	0.4368	0.4368	0.8722	0.4368	0.1744	0.8722		
SS031	6/15/2018	1.00	5.00	28.90	2.00	10.00	10.00	10.00	0.2592	0.6687	0.6480	0.3240	0.6480	0.3240	0.1155	0.3240

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	TI D	TI T	Total Alkalinity	V D	V T	Zn D	Zn T	Al D Load	Al T Load	Sb D Load	Sb T Load	As D Load	As T Load	Ba D Load	Ba T Load
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS031	9/26/2018	1.00	5.00	25.30	2.00	10.00	10.00	10.00	0.4320	0.5760	0.1800	0.5400	0.1800	0.5400	0.2786	0.5400
SS032	10/4/2017	2.00	10.00	36.40	3.00	15.00	11.70	12.80	0.1440	0.1688	0.2880	0.1440	0.5760	0.2880	0.1930	0.1863
SS032	10/5/2016	2.00	10.00				20.00	20.00	0.4882	0.1570	0.8176	0.4882	0.1635	0.8176		
SS032	9/26/2018	1.00	5.00	48.10	2.00	10.00	10.00	10.20	0.3456	0.3456	0.8640	0.4320	0.8640	0.4320	0.5375	0.4320
SS032	9/26/2018	1.00	5.00	48.00	2.00	10.00	10.80	10.50	0.3456	0.3456	0.8640	0.4320	0.8640	0.4320	0.5350	0.5486
SS032	7/23/2018															
SS032	7/12/2017	2.00	10.00	43.60			20.00	20.00	0.3600	0.1728			0.1440	0.7200		
SS033	10/5/2016	2.00	10.00				19.40	17.70	0.3600	0.1930	0.7200	0.3600	0.1440	0.7200		
SS033	7/12/2017	2.00	10.00	10.00			25.60	28.10	0.3600	0.3254			0.1440	0.7200		
SS033	10/4/2017	2.00	10.00	10.00	3.00	15.00	20.00	20.00	0.3600	0.1577	0.7200	0.3600	0.1440	0.7200	0.7200	0.3600
SS033	6/15/2018	1.00	5.00	5.00	2.00	10.00	14.10	15.40	0.1440	0.9288	0.3600	0.1800	0.3600	0.4442	0.4291	0.1800
SS033	9/26/2018	1.00	5.00	5.00	2.00	10.00	10.00	10.00	0.1440	0.2470	0.3600	0.1800	0.3600	0.1800	0.4586	0.1800
SS034	10/5/2016	2.00	10.00				865.00	830.00	0.2326	0.2498	0.7200	0.3600	0.1440	0.7200		
SS034	7/12/2017	2.00	10.00	10.00			1000.00	978.00	0.2765	0.2880			0.1440	0.7200		
SS034	10/4/2017	2.00	10.00	10.00	3.00	15.00	348.00	313.00	0.1274	0.1498	0.7200	0.3600	0.1440	0.7200	0.7848	0.3600
SS034	6/15/2018	1.00	5.00	5.00	2.00	10.00	1610.00	1480.00	0.3571	0.3996	0.3600	0.1800	0.3600	0.1800	0.1872	0.1800
SS035	10/5/2016	2.00	12.50				17.00	24.20	0.1460	0.4435	0.4363	0.2153	0.8613	0.4363		
SS035	6/15/2018	1.00	5.00	22.10	2.00	10.00	50.20	94.50	0.7488	0.1345	0.1928	0.9360	0.1872	0.9360	0.1339	0.1483
SS035	7/12/2017	2.00	10.00	29.00			20.00	20.00	0.2448	0.2448			0.9792	0.4896		
SS036	6/27/2018	1.00	5.00	5.00	2.00	10.00	235.00	211.00	0.6264	0.6919	0.3600	0.1800	0.3600	0.1800	0.3730	0.1800
SS036	10/5/2016	2.00	12.90				936.00	898.00	0.5896	0.1147	0.1417	0.7863	0.2835	0.1417		
SS036	7/18/2017	2.00	10.00	10.00			552.00	531.00	0.1928	0.2768			0.6480	0.3240		
SS037	10/10/2017	10.00	10.00	10.00	15.00	15.00	967.00	896.00	0.2413	0.2552	0.1440	0.1440	0.2880	0.2880	0.1440	0.1440
SS037	10/5/2016	2.00	10.00				738.00	743.00	0.2567	0.2579	0.4363	0.2153	0.8613	0.4363		
SS037	7/18/2017	2.00	10.00	10.00			610.00	574.00	0.1552	0.1517			0.6912	0.3456		
SS037	6/27/2018	1.00	5.00	5.00	2.00	10.00	631.00	607.00	0.1592	0.2154	0.1944	0.9720	0.1944	0.9720	0.5949	0.9720
SS038	9/26/2018	1.00	5.00	74.00	2.00	10.00	10.00	10.00	0.2340	0.4320	0.5760	0.2880	0.5760	0.2880	0.2949	0.3191
SS038	10/6/2016	2.00	10.00				20.00	20.00	0.8640	0.7393	0.1728	0.8640	0.3456	0.1728		
SS038	6/15/2018	1.00	5.00	60.00	2.00	10.00	10.00	10.00	0.8640	0.1483	0.2160	0.1800	0.2160	0.1800	0.6178	0.1800
SS038	10/10/2017	2.00	10.00	69.30	3.00	15.00	20.00	20.00	0.3240	0.4415	0.6480	0.3240	0.1296	0.6480	0.1144	0.3240
SS038	6/28/2017	2.00	10.00	54.00			20.00	20.00	0.9720	0.9720			0.3629	0.1814		
SS039	10/10/2017	2.00	10.00	10.00	3.00	15.00	1710.00	1650.00	0.4216	0.6480	0.4320	0.2160	0.8640	0.4320	0.8388	0.2160
SS039	10/6/2016	2.00	10.00				1490.00	1440.00	0.1667	0.1681	0.1728	0.8640	0.3456	0.1728		
SS039	6/27/2018	1.00	5.00	5.00	2.00	10.00	1240.00	1160.00	0.1194	0.1358	0.8640	0.4320	0.8640	0.4320	0.2385	0.4320

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Site ID	Date	Ti D	Ti T	Total Alkalinity	V D	V T	Zn D	Zn T	Al D Load	Al T Load	Sb D Load	Sb T Load	As D Load	As T Load	Ba D Load	Ba T Load
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS039	7/12/2017	2.00	7.20	10.00			1270.00	1210.00	0.6664	0.6541			0.1635	0.8176		
SS040	9/27/2018	1.00	5.52	5.00	2.00	10.00	1750.00	1530.00	0.7272	0.6754	0.3600	0.1800	0.3600	0.1800	0.3686	0.1800
SS040	10/6/2016	2.00	10.00				2410.00	2350.00	0.4737	0.4823	0.4363	0.2153	0.8613	0.4363		
SS040	10/10/2017	2.00	10.00	10.00	3.00	15.00	1530.00	1440.00	0.6134	0.6175	0.6480	0.3240	0.1296	0.6480	0.6480	0.3240
SS040	6/27/2018	1.00	5.00	5.00	2.00	10.00	1500.00	1380.00	0.1142	0.1278	0.8640	0.4320	0.8640	0.4320	0.1400	0.4320
SS040	7/12/2017	2.00	10.00	10.00			874.00	860.00	0.2653	0.2512			0.9812	0.4959		
SS041	9/27/2018	1.00	5.74	26.20	2.00	10.00	1030.00	911.00	0.4320	0.1493	0.1800	0.5400	0.1800	0.5400	0.4817	0.5400
SS041	10/10/2017	2.00	10.00	27.00	3.00	15.00	718.00	739.00	0.2160	0.4824	0.4320	0.2160	0.8640	0.4320	0.5875	0.2160
SS041	10/6/2016	2.00	10.00				3510.00	3400.00	0.1472	0.2932	0.5460	0.2725	0.1920	0.5460		
SS041	6/27/2018	1.00	5.00	15.80	2.00	10.00	572.00	505.00	0.4596	0.6924	0.1113	0.2880	0.5760	0.2880	0.9665	0.2880
SS041	6/28/2017	2.00	10.00	11.60			1130.00	1130.00	0.1888	0.2783			0.3312	0.1656		
SS042	6/27/2018	1.00	5.00	25.80	2.00	10.00	526.00	470.00	0.8640	0.8640	0.2160	0.1800	0.2160	0.1800	0.2959	0.1800
SS042	6/28/2017	2.00	10.00	23.00			323.00	358.00	0.2736	0.5463			0.1944	0.5472		
SS042	10/6/2016	2.00	10.00				733.00	1150.00	0.3598	0.6864	0.7195	0.3598	0.1440	0.7195		
SS042	10/10/2017	10.00	5.51	50.40	15.00	15.00	3500.00	3640.00	0.8477	0.5400	0.5400	0.5400	0.1800	0.1800	0.5400	0.5400
SS043	6/28/2017	10.00	10.00	113.00			49.00	52.80	0.8176	0.6120			0.1224	0.1224		
SS043	9/27/2018	5.00	5.00	114.00	10.00	10.00	46.50	44.40	0.3283	0.4187	0.4140	0.4140	0.4140	0.4140	0.4140	0.4140
SS043	10/6/2016	2.00	10.00				45.80	52.20	0.9798	0.1215	0.1348	0.8640	0.1355	0.1728		
SS043	6/18/2018	1.00	5.00	114.00	2.00	10.00	41.20	45.60	0.5184	0.6247	0.2825	0.6480	0.1742	0.6480	0.5547	0.6480
SS043	10/10/2017	10.00	5.87	116.00	15.00	15.00	57.40	104.00	0.3438	0.1325	0.2160	0.2160	0.4320	0.4320	0.2160	0.1253
SS044	9/25/2018	5.00	5.00	24.00	10.00	10.00	540.00	496.00	0.1296	0.3324	0.1512	0.1512	0.1512	0.1512	0.1512	0.1512
SS044	9/25/2018	1.00	5.00	24.30	2.00	10.00	542.00	492.00	0.1296	0.3393	0.3240	0.1512	0.3240	0.1512	0.3240	0.1512
SS044	6/14/2018	1.00	5.10	16.40	2.00	10.00	889.00	952.00	0.1163	0.8154	0.9000	0.3600	0.1483	0.1613	0.7200	0.3600
SS044	10/11/2017	10.00	10.00	20.40	15.00	15.00	584.00	760.00	0.2820	0.9245	0.1440	0.1440	0.2880	0.2848	0.1440	0.1440
SS044	10/6/2016	2.00	10.00				580.00	600.00	0.4790	0.7358	0.4329	0.2164	0.4632	0.4329		
SS044	6/22/2017	2.00	10.00	10.00			1130.00	1350.00	0.1917	0.1917			0.3839	0.8415		
SS045	9/25/2018	1.00	5.00	5.00	2.00	10.00	869.00	765.00	0.2736	0.1980	0.8640	0.4320	0.8640	0.4320	0.8640	0.4320
SS045	6/6/2018	1.00	5.00	5.00	2.00	10.00	697.00	676.00	0.5754	0.5994	0.2880	0.1440	0.2880	0.1440	0.2880	0.1440
SS045	10/11/2017	2.00	10.00	10.00	3.00	15.00	781.00	799.00	0.1426	0.1439	0.1296	0.6480	0.2592	0.1296	0.1296	0.6480
SS045	10/6/2016	2.00	10.00				811.00	765.00	0.2217	0.2217	0.1728	0.8640	0.3456	0.1728		
SS045	6/22/2017	2.00	10.00	10.00			510.00	601.00	0.3464	0.3526			0.7776	0.3888		
SS046	9/25/2018	1.00	5.00	5.00	2.00	10.00	2150.00	1910.00	0.2938	0.2722	0.7200	0.3600	0.7200	0.3600	0.1299	0.3600
SS046	6/22/2017	2.00	10.00	10.00			3280.00	3250.00	0.1793	0.1951			0.1440	0.7200		
SS046	10/11/2017	2.00	10.00	10.00	3.00	15.00	2560.00	2680.00	0.2197	0.2197	0.1800	0.5400	0.2160	0.1800	0.8885	0.5400

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		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS046	6/6/2018	1.00	5.00	5.00	2.00	10.00	2370.00	2370.00	0.2167	0.2298	0.5400	0.2520	0.5400	0.2520	0.8649	0.2520
SS046	10/6/2016	2.00	10.00				2360.00	2320.00	0.2724	0.2763	0.1297	0.6487	0.2595	0.1297		
SS047	10/5/2017	2.00	10.00	45.00	3.00	15.00	20.00	18.00	0.1980	0.1980	0.3960	0.1980	0.7920	0.3960	0.9360	0.1980
SS047	10/2/2018	1.00	5.00	47.80	2.00	10.00	18.10	22.20	0.2736	0.2736	0.6840	0.3420	0.6840	0.3420	0.3584	0.3912
SS047	10/10/2016	2.00	10.00				20.00	20.00	0.8478	0.8478	0.1696	0.8478	0.3219	0.1696		
SS047	6/12/2018	1.00	5.00	45.30	2.00	10.00	10.00	10.00	0.3380	0.3380	0.8449	0.4225	0.8449	0.4225	0.3768	0.4225
SS047	6/26/2017	2.00	10.50	41.90			20.00	20.00	0.9757	0.9757			0.3929	0.1951		
SS048	10/10/2016	2.00	10.20				20.00	20.00	0.2589	0.4453	0.5178	0.2589	0.1357	0.5178		
SS048	10/5/2017	2.00	6.67	9.98	3.00	15.00	31.10	34.70	0.1249	0.2949	0.2340	0.1152	0.1532	0.2340	0.1624	0.1152
SS048	6/12/2018	1.00	5.00	11.10	2.00	10.00	10.00	10.00	0.1185	0.1597	0.1962	0.9812	0.1962	0.9812	0.2865	0.9812
SS048	6/26/2017	2.00	11.00	47.60			20.00	20.00	0.1738	1.5549			0.4295	0.2148		
SS049	10/5/2017	2.00	7.11	10.10	3.00	15.00	20.00	20.00	0.1440	0.1440	0.2880	0.1440	0.5760	0.2880	0.1638	0.1440
SS049	10/10/2016	2.00	11.60				20.00	20.00	0.7863	0.7863	0.1417	0.7863	0.2835	0.1417		
SS049	6/7/2018	1.00	5.00	8.85	2.00	10.00	10.00	10.00	0.2880	0.4666	0.7200	0.3600	0.7200	0.3600	0.7200	0.3600
SS049	6/26/2017	2.00	10.00	7.88			20.00	20.00	0.5400	0.5400			0.2160	0.1800		
SS050	10/10/2016	2.00	10.00				20.00	90.80	0.3974	0.8692	0.1728	0.8640	0.3456	0.1728		
SS050	10/5/2017	2.00	10.00	31.00	3.00	15.00	20.00	20.00	0.1728	0.9677	0.3456	0.1728	0.6912	0.3456	0.6228	0.1728
SS050	10/2/2018	1.00	5.00	18.70	2.00	10.00	10.00	17.90	0.4320	0.1939	0.1800	0.5400	0.1800	0.5400	0.2359	0.5400
SS050	6/7/2018	1.00	6.89	25.30	2.00	10.00	76.80	83.30	0.7522	0.1322	0.1886	0.9430	0.1886	0.9430	0.5567	0.9430
SS050	6/26/2017	2.00	10.00	32.40			25.20	35.00	0.6372	0.2662			0.2523	0.1261		
SS051	10/5/2017	2.00	10.00	18.50	3.00	15.00	12.80	12.20	0.1800	0.1800	0.2160	0.1800	0.4320	0.2160	0.1349	0.1800
SS051	10/10/2016	2.00	10.00				13.30	20.00	0.1822	0.4523	0.2164	0.1822	0.4329	0.2164		
SS051	10/2/2018	1.00	5.00	8.37	2.00	10.00	12.10	14.30	0.2319	0.4596	0.1728	0.8640	0.1728	0.8640	0.1230	0.9893
SS051	6/7/2018	1.00	7.68	15.00	2.00	10.00	13.70	21.20	0.1944	0.9248	0.2736	0.1368	0.2736	0.1368	0.3972	0.1368
SS051	6/26/2017	2.00	10.00	8.64			20.60	27.80	0.5400	0.5400			0.2160	0.1800		
SS052	10/5/2017	2.00	10.00	6.84	3.00	15.00	71.40	66.50	0.2160	0.1818	0.4320	0.2160	0.8640	0.4320	0.2359	0.2160
SS052	10/2/2018	1.00	5.00	9.88	2.00	10.00	64.10	66.40	0.3600	0.4140	0.9000	0.4500	0.9000	0.4500	0.1854	0.4500
SS052	10/10/2016	2.00	10.00				65.80	59.50	0.7435	0.9877	0.2184	0.1920	0.4368	0.2184		
SS052	6/26/2017	2.00	10.00	5.64			76.70	82.90	0.1365	0.1188			0.8640	0.4320		
SS052	6/7/2018	1.00	5.00	7.07	2.00	10.00	78.30	78.40	0.1559	0.3149	0.2160	0.1800	0.2160	0.1800	0.2514	0.1800
SS053	6/7/2018	1.00	5.00	5.00	2.00	10.00	436.00	449.00	0.4694	0.5933	0.2880	0.1440	0.2880	0.1440	0.7546	0.1440
SS053	10/2/2018	1.00	5.00	5.00	2.00	10.00	411.00	371.00	0.1149	0.1138	0.5688	0.2844	0.5688	0.2844	0.1570	0.2844
SS053	10/10/2016	2.00	10.00				384.00	335.00	0.1496	0.1526	0.1728	0.8640	0.3456	0.1728		
SS053	10/5/2017	2.00	10.00	10.00	3.00	15.00	577.00	512.00	0.2143	0.2160	0.1728	0.8640	0.3456	0.1728	0.2367	0.8640

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Ti D	Ti T	Total Alkalinity	V D	V T	Zn D	Zn T	Al D Load	Al T Load	Sb D Load	Sb T Load	As D Load	As T Load	Ba D Load	Ba T Load
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS053	7/20/2017	2.00	10.00	10.00			718.00	716.00	0.1218	0.1313			0.1728	0.8640		
SS054	10/2/2018	5.00	5.00	47.80	10.00	10.00	28.00	35.50	0.2246	0.3831	0.2880	0.2880	0.2880	0.2880	0.3134	0.3459
SS054	10/5/2017	10.00	10.00	34.50	15.00	15.00	43.50	59.50	0.1287	0.1454	0.5760	0.5760	0.1152	0.1152	0.3413	0.3848
SS054	10/10/2016	2.00	10.00				36.40	32.60	0.1981	0.4181	0.2884	0.1442	0.5767	0.2884		
SS054	6/26/2017	2.00	10.00	15.00			62.10	69.40	0.3600	0.2455			0.1440	0.7200		
SS054	6/7/2018	1.00	5.00	21.90	2.00	10.00	24.50	27.70	0.5460	0.5460	0.1363	0.6814	0.1363	0.6814	0.4882	0.6814
SS055	10/5/2017	2.00	10.00	10.00	3.00	15.00	258.00	239.00	0.7891	0.1886	0.2880	0.1440	0.5760	0.2880	0.2292	0.1440
SS055	6/14/2018	1.00	5.00	5.00	2.00	10.00	328.00	336.00	0.1145	0.4140	0.1800	0.9000	0.1800	0.9000	0.4896	0.9000
SS055	10/10/2018	1.00	5.00	5.00	6.55	10.00	3380.00	3240.00	0.7344	0.7344	0.3600	0.1800	0.7632	0.1800	0.4853	0.1800
SS055	10/10/2016	2.00	10.00				313.00	295.00	0.5154	0.1495	0.1297	0.6487	0.2595	0.1297		
SS055	6/23/2017	2.00	10.00	10.00			3260.00	3310.00	0.2988	0.2145			0.1676	0.2340		
SS056	6/14/2018	1.00	5.00	5.00	2.00	10.00	1070.00	1010.00	0.7157	0.8136	0.2520	0.1260	0.2520	0.1260	0.7272	0.1260
SS056	10/11/2016	2.00	10.00				396.00	345.00	0.1373	0.1334	0.1417	0.7863	0.2835	0.1417		
SS056	6/22/2017	2.00	10.00	10.00			462.00	463.00	0.1350	0.1325			0.3456	0.1728		
SS057	10/11/2016	2.00	10.00				4460.00	4530.00	0.3231	0.4797	0.7863	0.3543	0.0000	0.7863		
SS057	7/17/2017	2.00	10.00	9.47			3970.00	4510.00	0.1591	0.2520			0.7344	0.7200		
SS057	10/2/2017	10.00	10.00	8.22	15.00	15.00	5410.00	4820.00	0.2614	0.2974	0.3600	0.3600	0.7200	0.7200	0.3600	0.3600
SS057	6/6/2018	1.00	5.00	8.58	2.00	10.00	894.00	940.00	0.1440	0.3168	0.3600	0.1800	0.3600	0.1800	0.1260	0.1800
SS057	9/25/2018	5.00	5.00	5.00	10.00	10.00	150.00	606.00	0.1440	0.3838	0.1800	0.1800	0.1800	0.1598	0.1800	0.2268
SS058	10/11/2016	2.00	10.00				184.00	162.00	0.7164	0.7560	0.7200	0.3600	0.1440	0.7200		
SS058	7/17/2017	2.00	10.00	10.00			97.80	94.30	0.6149	0.6365			0.1440	0.7200		
SS058	10/2/2017	2.00	10.00	10.00	3.00	15.00	223.00	198.00	0.6624	0.7848	0.7200	0.3600	0.1440	0.7200	0.7200	0.3600
SS058	6/6/2018	1.00	5.00	5.00	2.00	10.00	103.00	97.20	0.5292	0.7344	0.3600	0.1800	0.3600	0.1800	0.3600	0.1800
SS059	10/25/2017	2.00	10.00	10.00	3.00	15.00	694.00	677.00	0.9828	0.1886	0.1800	0.5400	0.2160	0.1800	0.5967	0.5400
SS059	10/11/2016	2.00	10.00				685.00	616.00	0.1225	0.1218	0.1156	0.5779	0.2311	0.1156		
SS059	10/9/2018	1.00	5.00	5.00	2.00	10.00	904.00	865.00	0.3672	0.3114	0.1296	0.6480	0.1296	0.6480	0.2166	0.6480
SS059	6/19/2018	1.00	5.00	5.00	2.00	10.00	711.00	664.00	0.2966	0.3348	0.1800	0.9000	0.1800	0.9000	0.1998	0.9000
SS059	6/22/2017	2.00	10.00	10.00			282.00	297.00	0.4873	0.5265			0.2340	0.1152		
SS060	10/9/2018	1.00	5.00	5.00	2.00	10.00	404.00	386.00	0.1980	0.2362	0.1440	0.7200	0.1440	0.7200	0.1526	0.7200
SS060	10/25/2017	2.00	10.00	10.00	3.00	15.00	385.00	368.00	0.5564	0.6826	0.8640	0.4320	0.1728	0.8640	0.4493	0.4320
SS060	6/11/2018	1.00	5.00	5.00	2.00	10.00	306.00	298.00	0.1835	0.1215	0.1368	0.5184	0.1368	0.5184	0.1368	0.5184
SS060	10/11/2016	2.00	10.00				383.00	329.00	0.1363	0.1469	0.2164	0.1822	0.4329	0.2164		
SS060	6/21/2017	2.00	10.00	10.00			250.00	260.00	0.1427	0.1641			0.8640	0.4320		
SS061	10/11/2016	2.00	10.00				457.00	409.00	0.7511	0.9141	0.7863	0.3543	0.1417	0.7863		

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	Ti D	Ti T	Total Alkalinity	V D	V T	Zn D	Zn T	Al D Load	Al T Load	Sb D Load	Sb T Load	As D Load	As T Load	Ba D Load	Ba T Load
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS061	6/21/2017	2.00	10.00	10.00			129.00	136.00	0.8726	0.1685			0.8640	0.4320		
SS062	10/11/2016	2.00	10.00				293.00	409.00	0.6796	0.9566	0.7863	0.3543	0.1417	0.7863		
SS062	6/11/2018	1.00	5.00	5.00	2.00	10.00	32.60	35.00	0.2848	0.8258	0.2232	0.1116	0.2232	0.1116	0.5832	0.1116
SS062	10/23/2017	2.00	10.00	12.40	3.00	15.00	177.00	180.00	0.7114	0.9360	0.4680	0.2340	0.9360	0.4680	0.4198	0.2340
SS062	10/8/2018	1.00	5.00	5.00	2.00	10.00	3060.00	2960.00	0.2448	0.2574	0.3600	0.1800	0.3600	0.1800	0.1469	0.1800
SS062	6/21/2017	2.00	10.00	10.00			347.00	375.00	0.1368	0.2177			0.3456	0.1728		
SS063	10/3/2017	10.00	10.00	25.10	15.00	15.00	133.00	130.00	0.4680	0.7531	0.7200	0.7200	0.1440	0.1440	0.7200	0.7200
SS063	6/28/2018	1.00	5.00	19.00	2.00	10.00	23.50	321.00	0.2880	0.4666	0.7200	0.3600	0.7200	0.3600	0.1512	0.7128
SS063	10/12/2016	10.00	10.00				1400.00	1360.00	0.1460	0.2153	0.2153	0.2153	0.4363	0.4363		
SS063	7/20/2017	10.00	10.00	10.00			1340.00	1350.00	0.7200	0.7823			0.1152	0.1152		
SS064	10/3/2017	10.00	10.00	24.40	15.00	15.00	29.20	26.90	0.1368	0.1238	0.1800	0.1800	0.2160	0.2160	0.1800	0.1800
SS064	10/2/2018	5.00	5.00	20.20	10.00	10.00	108.00	121.00	0.7488	0.2726	0.9360	0.9360	0.9360	0.9360	0.1224	0.1483
SS064	6/28/2018	1.00	5.00	21.80	2.00	10.00	10.00	15.70	0.1152	0.7834	0.2880	0.1440	0.2880	0.1440	0.7200	0.1440
SS064	7/20/2017	2.00	10.00	5.03			19.60	19.80	0.4666	0.1122			0.2592	0.1296		
SS064	10/12/2016	10.00	15.20				45.50	47.70	0.2278	0.4585	0.1442	0.1442	0.2884	0.2884		
SS065	10/4/2018	5.00	5.00	5.00	10.00	12.20	16800.00	15700.00	0.6748	0.6938	0.1188	0.1188	0.1188	0.1188	0.1188	0.1188
SS065	10/12/2016	10.00	10.00				13500.00	13500.00	0.8778	0.8763	0.3598	0.3598	0.7195	0.7195		
SS065	6/19/2018	5.00	5.00	5.00	10.00	10.00	13600.00	13500.00	0.9540	0.8928	0.1800	0.1800	0.1800	0.1800	0.1800	0.1800
SS065	6/23/2017	2.00	10.00	10.00			4980.00	5050.00	0.1549	0.1639			0.5760	0.2880		
SS065	10/3/2017	20.00	20.00	10.00	30.00	30.00	14800.00	14000.00	0.4712	0.3973	0.3283	0.3283	0.6566	0.6566	0.3283	0.3283
SS066	10/3/2017	20.00	20.00	10.00	30.00	30.00	15700.00	14500.00	0.1987	0.1915	0.1440	0.1440	0.2880	0.2880	0.1440	0.1440
SS066	6/23/2017	2.00	10.00	10.00			14800.00	15000.00	0.7258	0.7949			0.3780	0.5760		
SS066	10/12/2016	10.00	10.00				14500.00	14700.00	0.1335	0.1335	0.4334	0.4334	0.8668	0.8668		
SS067	6/21/2017	10.00	8.24	10.00			10600.00	11300.00	0.1152	0.1174			0.7200	0.7200		
SS067	10/23/2017	10.00	10.00	10.00	15.00	15.00	12400.00	12100.00	0.1289	0.1282	0.3600	0.3600	0.7200	0.7200	0.3600	0.3600
SS067	6/5/2018	5.00	5.00	5.00	10.00	10.00	11500.00	11400.00	0.2462	0.2549	0.3600	0.3600	0.3600	0.3600	0.3600	0.3600
SS067	10/8/2018	6.18	5.00	5.00	10.00	10.00	12700.00	12500.00	0.2693	0.2880	0.1134	0.3600	0.1980	0.3600	0.3600	0.3600
SS067	10/17/2016	10.00	10.00				12200.00	12000.00	0.3929	0.3929	0.1920	0.1920	0.2184	0.2184		
SS068	10/8/2018	1.00	5.00	5.00	2.00	10.00	7620.00	7420.00	0.2714	0.2834	0.2880	0.1440	0.2880	0.1440	0.1138	0.1440
SS068	10/23/2017	2.00	10.00	10.00	3.00	15.00	6470.00	6570.00	0.3312	0.3600	0.7200	0.3600	0.1440	0.7200	0.1152	0.3600
SS068	10/17/2016	10.00	10.00				6570.00	6500.00	0.3796	0.3718	0.4334	0.4334	0.8668	0.8668		
SS068	6/21/2017	2.00	9.22	10.00			4980.00	5370.00	0.3467	0.3654			0.2160	0.1800		
SS068	6/5/2018	5.00	5.00	5.00	10.00	10.00	5680.00	5560.00	0.4216	0.4543	0.2880	0.2880	0.2880	0.2880	0.2880	0.2880
SS069	10/9/2018	1.00	5.00	5.00	2.00	10.00	7610.00	7520.00	0.5454	0.5648	0.5400	0.2700	0.5400	0.2700	0.1134	0.2700

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Site ID	Date	TI D	TI T	Total Alkalinity	V D	V T	Zn D	Zn T	Al D Load	Al T Load	Sb D Load	Sb T Load	As D Load	As T Load	Ba D Load	Ba T Load
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS069	6/19/2018	1.00	5.00	5.00	2.00	10.00	6300.00	6000.00	0.6149	0.6768	0.7200	0.3600	0.7200	0.3600	0.1274	0.3600
SS069	10/17/2016	2.00	10.00				7370.00	7280.00	0.1270	0.1643	0.2184	0.1920	0.4368	0.2184		
SS069	10/23/2017	2.00	10.00	10.00	3.00	15.00	6930.00	6930.00	0.2542	0.2557	0.5760	0.2880	0.1152	0.5760	0.5530	0.2880
SS069	6/21/2017	2.00	10.00	10.00			3900.00	4170.00	0.2514	0.2592			0.1728	0.8640		
SS070	10/17/2016	2.00	10.00				3330.00	3340.00	0.9438	0.9631	0.4363	0.2153	0.8613	0.4363		
SS070	6/11/2018	1.00	5.00	5.00	2.00	10.00	1740.00	1800.00	0.5148	0.5443	0.2160	0.1800	0.2160	0.1800	0.1584	0.1800
SS070	10/9/2018	1.00	5.00	5.00	2.00	10.00	2690.00	2620.00	0.1332	0.1374	0.2160	0.1800	0.2160	0.1800	0.4162	0.1800
SS070	10/23/2017	2.00	10.00	10.00	3.00	15.00	2910.00	2840.00	0.1534	0.1534	0.5400	0.2520	0.1800	0.5400	0.2953	0.2520
SS070	6/21/2017	2.00	10.00	10.00			2970.00	3090.00	0.3266	0.3542			0.3456	0.1728		
SS071	10/1/2018	1.00	5.00	89.90	2.00	10.00	331.00	300.00	0.3773	0.3773	0.9432	0.4716	0.1473	0.4716	0.1588	0.4716
SS071	10/1/2018	1.00	5.00	91.30	2.00	10.00	329.00	302.00	0.3773	0.3773	0.9432	0.4716	0.1479	0.4716	0.1530	0.4716
SS071	10/17/2016	10.00	10.00				305.00	299.00	0.9929	0.1136	0.1920	0.1920	0.2184	0.2184		
SS071	10/24/2017	2.00	6.64	85.80	3.00	15.00	341.00	380.00	0.5172	0.2417	0.2486	0.1243	0.1727	0.2486	0.1896	0.1243
SS071	6/18/2018	1.00	5.00	81.20	2.00	10.00	343.00	407.00	0.7723	0.6960	0.2919	0.7631	0.2384	0.7631	0.2250	0.7631
SS071	6/27/2017	10.00	10.00	64.30			407.00	434.00	0.1927	0.2300			0.7380	0.7380		
SS072	6/27/2017	10.00	10.00	13.30			685.00	784.00	0.6768	0.2819			0.1800	0.1800		
SS072	6/18/2018	1.00	5.00	5.00	2.00	10.00	856.00	805.00	0.1998	0.1498	0.1674	0.6480	0.1296	0.6480	0.1346	0.6480
SS072	10/1/2018	5.00	5.00	38.70	10.00	10.00	276.00	304.00	0.8467	0.5832	0.1584	0.1584	0.1584	0.1584	0.1584	0.1584
SS072	10/24/2017	10.00	10.00	30.60	15.00	15.00	371.00	373.00	0.2339	0.6948	0.2520	0.2520	0.5400	0.5400	0.2520	0.2520
SS072	10/17/2016	10.00	15.70				517.00	535.00	0.1933	0.1973	0.5193	0.5193	0.1384	0.1384		
SS073	6/27/2017	10.00	10.00	56.20			424.00	484.00	0.1754	0.2933			0.1800	0.1800		
SS073	6/18/2018	1.00	5.00	66.10	2.00	10.00	443.00	477.00	0.1879	0.7679	0.6631	0.2700	0.8716	0.4417	0.1980	0.2700
SS073	10/1/2018	5.00	5.00	55.80	10.00	10.00	325.00	456.00	0.2189	0.2145	0.2736	0.2736	0.2736	0.2736	0.2736	0.2736
SS073	10/17/2016	10.00	17.80				462.00	457.00	0.7327	0.1171	0.8640	0.8640	0.1728	0.1728		
SS073	10/24/2017	10.00	10.00	73.80	15.00	15.00	490.00	493.00	0.8554	0.9468	0.1296	0.1296	0.2592	0.2592	0.1296	0.1296
SS074	10/1/2018	5.00	5.00	5.00	10.00	10.00	1940.00	1780.00	0.3514	0.3355	0.3600	0.3600	0.6466	0.6134	0.3600	0.3600
SS074	10/17/2016	10.00	10.00				1030.00	1020.00	0.3353	0.3492	0.2153	0.2153	0.4363	0.1585		
SS074	10/24/2017	10.00	10.00	10.00	15.00	15.00	1130.00	1130.00	0.4143	0.4172	0.2340	0.2340	0.4680	0.4680	0.2340	0.2340
SS074	6/27/2017	10.00	10.00	10.00			1060.00	1170.00	0.1184	0.1243			0.1440	0.1440		
SS075	6/18/2018	1.00	5.00	105.00	2.00	10.00	469.00	436.00	0.2714	0.1243	0.5696	0.2589	0.1565	0.2589	0.1533	0.2589
SS075	10/1/2018	5.00	5.00	107.00	10.00	10.00	530.00	481.00	0.3744	0.3744	0.4680	0.4680	0.4680	0.4680	0.4680	0.4680
SS075	10/17/2016	10.00	10.00				458.00	443.00	0.2116	0.2253	0.1298	0.1298	0.2596	0.2596		
SS075	6/27/2017	10.00	10.00	83.30			405.00	446.00	0.5112	0.3312			0.2880	0.2880		
SS075	10/24/2017	10.00	10.00	96.50	15.00	15.00	470.00	459.00	0.1221	0.1273	0.1440	0.1440	0.2880	0.2880	0.1440	0.1440

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		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS076	10/18/2016	2.00	10.00				20.00	20.00	0.1454	0.2311	0.7200	0.3600	0.1440	0.7200		
SS076	7/18/2017	2.00	10.00	5.32			20.00	20.00	0.2196	0.2772			0.1440	0.7200		
SS076	10/10/2017	2.00	10.00	5.09	3.00	15.00	20.00	20.00	0.1973	0.2394	0.7200	0.3600	0.1440	0.7200	0.4385	0.3600
SS076	6/27/2018	1.00	5.00	8.08	2.00	10.00	10.00	10.00	0.1440	0.3658	0.4914	0.1800	0.3600	0.1800	0.5544	0.1800
SS076	9/26/2018	1.00	5.00	5.00	2.00	10.00	10.00	13.30	0.1555	0.8424	0.3600	0.1800	0.3600	0.1800	0.2398	0.3542
SS077	6/27/2018	1.00	5.00	32.00	2.00	10.00	10.00	10.00	0.1152	0.1440	0.3960	0.1440	0.2880	0.1440	0.1244	0.1440
SS077	10/18/2016	2.00	10.00				20.00	20.00	0.6487	0.6487	0.1297	0.6487	0.2595	0.1297		
SS077	9/26/2018	1.00	5.00	42.60	2.00	10.00	10.00	10.00	0.3456	0.8744	0.8640	0.4320	0.8640	0.4320	0.5737	0.6324
SS077	10/10/2017	2.00	10.00	34.50	3.00	15.00	20.00	20.00	0.2736	0.2293	0.5472	0.2736	0.1944	0.5472	0.1472	0.1751
SS077	7/18/2017	2.00	10.00	22.40			20.00	20.00	0.2862	0.4447			0.1145	0.5724		
SS078	10/10/2017	2.00	10.00	50.60	3.00	15.00	20.00	20.00	0.1584	0.1584	0.3168	0.1584	0.6336	0.3168	0.1188	0.9124
SS078	9/26/2018	1.00	5.00	52.00	2.00	10.00	10.00	10.00	0.8640	0.9468	0.2160	0.1800	0.2160	0.1800	0.1469	0.1674
SS078	10/18/2016	2.00	10.00				20.00	20.00	0.4759	0.4759	0.9517	0.4759	0.1935	0.9517		
SS078	6/27/2018	1.00	5.00	43.60	2.00	10.00	11.90	10.00	0.1958	0.4162	0.5327	0.2448	0.4896	0.2448	0.2343	0.3300
SS078	7/18/2017	2.00	10.00	38.40			20.00	20.00	0.1800	0.1575			0.4320	0.2160		
SS079	9/26/2018	1.00	5.00	19.00	2.00	10.00	10.00	16.60	0.1440	0.6286	0.3600	0.1800	0.3600	0.1800	0.1195	0.1922
SS079	10/18/2016	2.00	10.00				20.00	20.00	0.7863	0.4719	0.1417	0.7863	0.2835	0.1417		
SS079	6/27/2018	1.00	5.00	14.30	2.00	10.00	10.00	10.00	0.2880	0.2880	0.8626	0.3600	0.7200	0.3600	0.1369	0.3600
SS079	10/10/2017	2.00	10.00	18.10	3.00	15.00	20.00	21.50	0.4320	0.1919	0.8640	0.4320	0.1728	0.8640	0.1166	0.4320
SS079	7/18/2017	2.00	10.00	24.20			20.00	20.00	0.8640	0.5115			0.3456	0.1728		
SS080	10/18/2016	2.00	10.00				20.00	20.00	0.3600	0.2326	0.7200	0.3600	0.1440	0.7200		
SS080	6/27/2018	1.00	5.00	21.20	2.00	10.00	10.00	10.00	0.1440	0.5933	0.4162	0.1800	0.1872	0.1800	0.5796	0.1800
SS080	9/26/2018	1.00	5.00	22.30	2.00	10.00	10.00	10.00	0.1440	0.3852	0.3600	0.1800	0.5393	0.1800	0.8496	0.1800
SS080	10/10/2017	2.00	10.00	9.93	3.00	15.00	20.00	20.00	0.7200	0.5443	0.1440	0.7200	0.2880	0.1440	0.1440	0.7200
SS082	6/28/2018	1.00	5.00	5.00	2.00	10.00	10.00	10.00	0.1152	0.2114	0.3784	0.1440	0.2880	0.1440	0.2880	0.1440
SS082	10/20/2016	2.00	10.00				20.00	20.00	0.4334	0.1367	0.8668	0.4334	0.1733	0.8668		
SS083	10/20/2016	2.00	10.00				6490.00	6340.00	0.1346	0.1339	0.7863	0.3543	0.1247	0.3529		
SS083	6/12/2018	1.00	5.00	5.00	2.00	10.00	2070.00	2060.00	0.1763	0.1829	0.1440	0.7200	0.1440	0.7200	0.1440	0.7200
SS083	7/20/2017	2.00	7.59	10.00			1520.00	1450.00	0.3321	0.3249			0.1786	0.8928		
SS084	10/20/2016	2.00	10.00				6490.00	6250.00	0.5316	0.5258	0.2889	0.1445	0.4569	0.2889		
SS084	6/12/2018	1.00	5.00	5.00	2.00	10.00	2170.00	2190.00	0.2664	0.2722	0.2160	0.1800	0.2160	0.1800	0.2160	0.1800
SS084	7/20/2017	2.00	10.00	10.00			450.00	427.00	0.9321	0.9975			0.1635	0.8176		
SS085	10/20/2016	10.00	10.00				3440.00	3240.00	0.3751	0.4248	0.3600	0.3600	0.7200	0.7200		
SS085	10/2/2018	5.00	5.00	5.00	10.00	10.00	3830.00	3540.00	0.1714	0.2354	0.1800	0.1800	0.1800	0.1800	0.1800	0.1800

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	TI D	TI T	Total Alkalinity	V D	V T	Zn D	Zn T	Al D Load	Al T Load	Sb D Load	Sb T Load	As D Load	As T Load	Ba D Load	Ba T Load
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS085	6/28/2018	5.00	5.00	5.00	10.00	10.00	2500.00	2500.00	0.1849	0.2467	0.1800	0.1800	0.1800	0.1800	0.1800	0.1800
SS085	7/20/2017	10.00	10.00	10.00			2240.00	2230.00	0.5413	0.6663			0.1800	0.1800		
SS086	10/20/2016	2.00	10.00				1670.00	1640.00	0.4739	0.4677	0.5997	0.2998	0.1199	0.5997		
SS086	10/11/2017	10.00	10.00	10.00	15.00	15.00	1590.00	1780.00	0.5940	0.6480	0.3600	0.3600	0.7200	0.7200	0.3600	0.3600
SS086	6/14/2018	1.00	5.00	5.00	2.00	10.00	1800.00	1760.00	0.1346	0.1357	0.1197	0.3600	0.7200	0.3600	0.7200	0.3600
SS086	10/9/2018	5.00	5.00	5.00	10.00	10.00	1660.00	1650.00	0.2327	0.2488	0.5760	0.5760	0.5760	0.5760	0.5760	0.5760
SS086	6/22/2017	10.00	10.00	10.00			1190.00	1280.00	0.2691	0.2868			0.4320	0.4320		
SS087	10/25/2016	2.00	10.00				325.00	327.00	0.4217	0.4217	0.2595	0.1297	0.5189	0.2595		
SS087	10/18/2017	2.00	10.00	10.00	3.00	15.00	237.00	226.00	0.4450	0.4464	0.4320	0.2160	0.8640	0.4320	0.1584	0.2160
SS087	6/26/2018	1.00	5.00	5.00	2.00	10.00	64.90	67.70	0.1534	0.1598	0.3600	0.1800	0.3600	0.1800	0.1858	0.1966
SS087	10/3/2018	1.00	5.00	5.00	2.00	10.00	69.50	66.80	0.1935	0.1979	0.4320	0.2160	0.4320	0.2160	0.3180	0.2556
SS087	10/3/2018	1.00	5.00	5.00	2.00	10.00	69.80	65.60	0.1979	0.2650	0.4320	0.2160	0.4320	0.2160	0.2514	0.2664
SS087	6/27/2017	2.00	10.00	10.00			99.00	108.00	2.2146	2.7387			0.9714	0.4857		
SS088	6/26/2018	1.00	5.00	5.00	2.00	10.00	10.00	10.00	0.9468	0.2232	0.9468	0.3600	0.7200	0.3600	0.1512	0.1642
SS088	10/3/2018	1.00	5.00		2.00	10.00	10.20	11.30	0.1512	0.1495	0.1800	0.5400	0.6718	0.5400	0.2765	0.2743
SS088	10/18/2017	2.00	10.00	10.00	3.00	15.00	20.00	20.00	0.1322	0.1349	0.3456	0.1728	0.6912	0.3456	0.2996	0.2675
SS088	10/25/2016	2.00	14.80				20.00	20.00	0.2563	0.2787	0.4363	0.2153	0.8613	0.4363		
SS088	6/27/2017	2.00	10.00	10.00			20.00	20.00	0.1784	0.1866			0.8640	0.4320		
SS089	6/28/2018	1.00	5.00	24.80	2.00	10.00	10.00	10.00	0.2880	0.4464	0.7200	0.3600	0.7200	0.3600	0.7344	0.7978
SS089	10/3/2018	1.00	5.00	134.00	2.00	10.00	10.00	10.00	0.1440	0.1440	0.3600	0.1800	0.3672	0.1800	0.1894	0.2880
SS089	10/25/2016	2.00	16.20				20.00	20.00	0.8722	0.2146	0.1744	0.8722	0.3489	0.1744		
SS089	10/12/2017	2.00	10.00	113.00	3.00	15.00	20.00	20.00	0.1665	0.1492	0.2880	0.1440	0.1529	0.2880	0.6538	0.1440
SS089	6/29/2017	2.00	10.00	11.90			20.00	20.00	0.6189	0.2295			0.2556	0.1253		
SS090	6/28/2018	1.00	5.00	6.32	2.00	10.00	10.00	10.00	0.7200	0.1422	0.1800	0.9000	0.1800	0.9000	0.1980	0.2448
SS090	10/3/2018	1.00	5.00	7.36	2.00	10.00	10.00	10.00	0.1728	0.1728	0.4320	0.2160	0.4320	0.2160	0.1339	0.1313
SS090	10/25/2016	2.00	10.00				20.00	20.00	0.8971	0.1488	0.1417	0.7863	0.2835	0.1417		
SS090	6/29/2017	2.00	10.00	10.00			20.00	20.00	0.8388	0.1512			0.4320	0.2160		
SS091	6/29/2017	2.00	10.00	10.00			20.00	20.00	0.3542	0.3474			0.2880	0.1440		
SS091	10/12/2017	2.00	10.00	10.00	3.00	15.00	18.90	21.00	0.8237	0.8798	0.1440	0.7200	0.2880	0.1440	0.4478	0.4680
SS091	10/25/2016	2.00	10.00				11.90	10.60	0.3184	0.3295	0.7195	0.3598	0.1440	0.7195		
SS091	6/26/2018	1.00	5.00	5.00	2.00	10.00	53.10	44.50	0.3515	0.4544	0.3780	0.1890	0.1296	0.1890	0.3193	0.3447
SS092	6/26/2018	1.00	5.00	5.25	2.00	10.00	10.00	10.00	0.5760	0.6912	0.1512	0.7200	0.1440	0.7200	0.1570	0.1886
SS092	11/8/2016	2.00	10.00				20.00	20.00	0.5255	0.2486	0.2184	0.1920	0.4368	0.2184		
SS092	10/18/2017	2.00	10.00	5.49	3.00	15.00	20.00	20.00	0.1440	0.1440	0.2880	0.1440	0.5760	0.2880	0.8582	0.7690

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	Ti D	Ti T	Total Alkalinity	V D	V T	Zn D	Zn T	Al D Load	Al T Load	Sb D Load	Sb T Load	As D Load	As T Load	Ba D Load	Ba T Load
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS092	7/21/2017	2.00	10.00	9.20			20.00	20.00	0.2880	0.2678			0.1152	0.5760		
SS093	10/3/2018	1.00	5.00	5.00	2.00	10.00	37.40	37.30	0.9756	0.1512	0.1800	0.9000	0.1800	0.9000	0.1836	0.1847
SS093	11/8/2016	4.00	10.00				58.70	57.00	0.8392	0.8631	0.2835	0.7863	0.5669	0.1417		
SS093	7/21/2017	2.00	10.00	6.18			20.00	20.00	0.1434	0.2585			0.5760	0.2880		
SS093	6/26/2018	1.00	5.00	5.00	2.00	10.00	15.80	18.70	0.2136	0.2618	0.1296	0.6480	0.1296	0.6480	0.5858	0.6791
SS094	7/21/2017	2.00	10.00	10.00			28.40	32.20	0.1542	0.1224			0.8640	0.7171		
SS094	11/8/2016	2.00	10.00				338.00	341.00	0.2267	0.2692	0.1417	0.7863	0.2863	0.6166		
SS094	10/3/2018	5.00	5.00	11.90	10.00	10.00	444.00	660.00	0.3672	0.1216	0.6480	0.6480	0.3992	0.2934	0.6480	0.6480
SS094	6/26/2018	1.00	5.00	5.00	2.00	10.00	194.00	206.00	0.4432	0.5253	0.5676	0.2333	0.2678	0.1529	0.2393	0.2880
SS095	6/26/2018	1.00	5.00	60.50	2.00	10.00	10.00	15.70	0.1440	0.1188	0.3600	0.1800	0.3600	0.1800	0.8280	0.1800
SS095	10/3/2018	5.00	5.00	77.20	10.00	10.00	10.00	10.00	0.1440	0.2232	0.1800	0.1800	0.1800	0.1800	0.1800	0.1800
SS095	11/8/2016	2.00	10.00				20.00	20.00	0.4756	0.1721	0.7195	0.3598	0.0000	0.7195		
SS095	10/18/2017	2.00	10.00	79.60	3.00	15.00	20.00	20.40	0.4320	0.4199	0.8640	0.4320	0.1728	0.8640	0.1253	0.4320
SS095	6/27/2017	2.00	10.00	41.20			20.00	20.00	0.3245	0.9695			0.2736	0.1368		
SS096	6/28/2018	1.00	5.00	5.00	2.00	10.00	705.00	654.00	0.3658	0.3773	0.1440	0.7200	0.1440	0.7200	0.5580	0.5976
SS096	11/8/2016	10.00	10.00				100.00	30.90	0.1417	0.1864	0.3543	0.3543	0.5938	0.5825		
SS096	10/18/2017	2.00	10.00	10.00	3.00	15.00	932.00	886.00	0.3143	0.3229	0.1800	0.5400	0.2160	0.1800	0.7636	0.6372
SS096	6/26/2017	2.00	10.00	10.00			196.00	227.00	0.1457	0.1732			0.9234	0.4512		
SS097	11/8/2016	2.00	10.00				890.00	914.00	0.4235	0.1221	0.3816	0.1978	0.7631	0.3816		
SS097	6/26/2017	2.00	10.00	19.00			59.30	77.90	0.1692	0.8928			0.1440	0.7200		
SS098	11/8/2016	10.00	10.00				16200.00	16100.00	0.1114	0.1126	0.1978	0.1978	0.3816	0.3816		
SS098	6/26/2017	2.00	10.00	10.00			8190.00	8760.00	0.8640	0.8755			0.1152	0.5760		
SS098	10/3/2018	1.00	5.00	5.00	2.00	10.00	16000.00	14200.00	0.1417	0.1572	0.2880	0.1440	0.3816	0.1440	0.9158	0.1440
SS098	10/18/2017	2.00	10.00	10.00	3.00	15.00	14600.00	13700.00	0.1567	0.1532	0.5760	0.2880	0.4723	0.5760	0.8294	0.2880
SS105	9/25/2018	5.00	5.00	29.40	10.00	10.00	834.00	799.00	0.1247	0.1363	0.1771	0.1771	0.6256	0.6611	0.1771	0.1771
SS105	6/14/2018	1.00	5.00	25.60	2.00	10.00	1100.00	1100.00	0.1897	0.2154	0.1152	0.2714	0.7233	0.6894	0.4159	0.2714
SS105	10/11/2017	10.00	10.00	29.90	15.00	15.00	787.00	742.00	0.3726	0.3753	0.6677		0.1132		0.6677	
SS105	9/20/2016			32.00			900.00	910.00	0.4644	0.4644			0.1728	0.1824		
SS105	6/22/2017	2.00	8.30	5.17			1410.00	1540.00	0.3152	0.3548			0.4863	0.4863		
SS123	6/28/2018	1.00	5.00	5.00	2.00	10.00	312.00	300.00	0.1750	0.2434	0.2160	0.1800	0.1188	0.1598	0.5184	0.1800
SS123	6/27/2017	2.00	10.00	10.00			103.00	124.00	0.7413	0.7569			0.1135	0.1394		
SS125	10/18/2017	10.00	10.00	10.00	15.00	15.00	27300.00	26600.00	0.2448	0.2462	0.7200	0.7200	0.2232	0.2347	0.7200	0.7200
SS125	9/29/2016			5.00			20000.00	25000.00	0.2298	0.2955			0.1560	0.2462		
SS126	10/3/2018	5.00	5.36	5.00	10.00	10.00	10800.00	9880.00	0.4925	0.4493	0.1800	0.1800	0.1693	0.1754	0.1800	0.1800

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Site ID	Date	TI D	TI T	Total Alkalinity	V D	V T	Zn D	Zn T	Al D Load	Al T Load	Sb D Load	Sb T Load	As D Load	As T Load	Ba D Load	Ba T Load
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS126	10/18/2017	10.00	9.18	10.00	15.00	15.00	9420.00	8930.00	0.1117	0.1164	0.5760	0.5760	0.4838	0.4815	0.5760	0.5760
SS126	6/28/2018	5.00	5.00	5.00	10.00	10.00	13800.00	12800.00	0.1559	0.1553	0.5426	0.6152	0.1574	0.1585	0.4320	0.4320
SS126	9/29/2016			5.00			8900.00	9100.00	0.1889	0.1889			0.1164	0.1145		
SS126	6/27/2017	2.00	10.00	10.00			44.90	61.50	0.2576	0.3674			0.1814	0.9720		
SS200	10/23/2017	10.00	10.00	30.20	15.00	15.00	276.00	276.00	0.1687	0.2151	0.1800	0.1800	0.2160	0.2160	0.1800	0.1800
SS200	10/8/2018	5.00	5.00	33.10	10.00	10.00	276.00	272.00	0.5184	0.5184	0.6480	0.6480	0.7128	0.9772	0.6480	0.6480
SS200	10/8/2018	5.00	5.00	33.00	10.00	10.00	275.00	273.00	0.5184	0.5184	0.6480	0.6480	0.9642	0.8113	0.6480	0.6480
SS200	6/11/2018	5.00	5.00	30.10	10.00	10.00	248.00	242.00	0.5760	0.1426	0.7200	0.7200	0.7200	0.8957	0.7200	0.7200
SS200	6/23/2017	2.00	10.00	25.70			205.00	271.00	0.4977	0.7258			0.6636	0.2322		
SS201	10/4/2018	5.00	5.00	5.00	10.00	10.00	20000.00	18700.00	0.2355	0.2154	0.2160	0.2160	0.2160	0.2160	0.2160	0.2160
SS201	6/19/2018	5.00	5.00	5.00	10.00	10.00	15800.00	16400.00	0.3859	0.3917	0.3600	0.3600	0.3600	0.3600	0.3600	0.3600
SS201	10/3/2017	20.00	20.00	10.00	30.00	30.00	18300.00	17000.00	0.5576	0.5576	0.2340	0.2340	0.4680	0.4680	0.2340	0.2340
SS201	6/23/2017	2.00	10.00	10.00			12800.00	15600.00	0.2362	0.2477			0.2340	0.1152		
SS202	10/2/2018	1.00	5.00	5.00	2.00	10.00	10700.00	9400.00	0.5342	0.4918	0.3600	0.1800	0.7920	0.1886	0.6912	0.1800
SS202	6/26/2017	2.00	10.00	10.00			6300.00	7480.00	0.1814	0.2563			0.4464	0.4476		
SS203	6/27/2017	2.00	10.00	10.00			3270.00	3670.00	0.7560	0.7380			0.7200	0.3600		
SS204	6/27/2017	10.00	10.00	10.00			10600.00	13200.00	0.4787	0.5213			0.2448	0.1953		
SS204	10/18/2017	2.00	10.00	10.00	3.00	15.00	349.00	336.00	0.1260	0.1793	0.1872	0.9360	0.3744	0.1872	0.1260	0.8219
SS205	6/29/2017	2.00	10.00	10.00			20.00	20.00	0.1339	0.3622			0.8640	0.4320		
SS206	10/12/2017	2.00	10.00	10.00	3.00	15.00	121.00	118.00	0.2786	0.4622	0.4968	0.1996	0.9158	0.2756	0.1395	0.1564
SS206	6/29/2017	2.00	10.00	10.00			73.60	70.20	0.1591	0.1783			0.1317	0.3888		
SS207	6/29/2017	2.00	10.00	10.00			14.50	14.90	0.3384	0.6714			0.2880	0.1440		
SS208	6/29/2017	2.00	8.53	10.00			15.80	21.40	0.1771	0.1685			0.2880	0.1440		
SS208	6/28/2018	1.00	5.00	5.00	2.00	10.00	27.70	35.30	0.3326	0.3478	0.1800	0.5400	0.1800	0.5400	0.7927	0.7632
SS208	10/3/2018	1.00	5.00	5.00	2.00	10.00	32.90	31.50	0.1584	0.1386	0.1260	0.6300	0.3780	0.6300	0.1769	0.1832
SS208	10/12/2017	2.00	10.00	10.00	3.00	15.00	19.90	19.20	0.5911	0.6228	0.7200	0.3600	0.1440	0.7200	0.1879	0.1879
SS210	9/24/2018	5.00	5.00	5.00	10.00	10.00	6840.00	6250.00	0.1314	0.1325	0.1800	0.1800	0.1800	0.1800	0.1800	0.1872
SS210	10/16/2017	2.00	10.00	10.00	3.00	15.00	6060.00	5810.00	0.1751	0.1797	0.1152	0.5760	0.2340	0.1152	0.1279	0.5760
SS210	6/13/2018	1.00	5.00	5.00	2.00	10.00	2760.00	2790.00	0.7427	0.8358	0.9495	0.3240	0.6480	0.3240	0.9423	0.3240
SS210	7/10/2017	2.00	8.57	10.00			3750.00	3720.00	2.5837	2.5211			0.5961	0.2986		
SS211	7/10/2017	2.00	10.00	10.00			455.00	457.00	0.2428	0.3240			0.8640	0.4320		
SS212	7/11/2017	2.00	10.00	10.00			1030.00	1030.00	0.3240	0.3323			0.2419	0.1296		
SS213	7/12/2017	2.00	10.00	10.00			187.00	186.00	0.2374	0.2473			0.5184	0.2592		
SS214	7/11/2017	2.00	10.00	9.35			13500.00	13100.00	0.8579	0.1998			0.1382	0.6912		

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	TI D	TI T	Total Alkalinity	V D	V T	Zn D	Zn T	Al D Load	Al T Load	Sb D Load	Sb T Load	As D Load	As T Load	Ba D Load	Ba T Load
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS215	10/2/2017	2.00	10.00	10.00	3.00	15.00	187.00	167.00	0.2340	0.2462	0.1440	0.7200	0.2880	0.1440	0.1584	0.7200
SS215	7/17/2017	2.00	10.00	10.00			160.00	148.00	0.4748	0.4567			0.5189	0.2595		
SS215	6/6/2018	1.00	5.00	5.00	2.00	10.00	142.00	152.00	0.9384	0.1253	0.2278	0.1139	0.2278	0.1139	0.6834	0.1139
SS216	6/5/2018	1.00	5.00	7.38	2.00	10.00	35.80	42.10	0.7154	0.2851	0.5760	0.2880	0.5760	0.2880	0.5760	0.2880
SS216	7/17/2017	2.00	10.00	7.13			35.70	33.30	0.9576	0.1685			0.2880	0.1440		
SS217	9/26/2018	1.00	5.00	32.40	2.00	10.00	26.10	35.10	0.3658	0.2182	0.2880	0.1440	0.2880	0.1440	0.1980	0.2160
SS217	6/27/2018	1.00	5.00	13.60	2.00	10.00	10.00	10.70	0.6480	0.1963	0.1620	0.8100	0.1620	0.8100	0.2264	0.8100
SS217	7/18/2017	2.00	10.00	15.20			20.00	20.00	0.7200	0.3643			0.2880	0.1440		
SS218	9/26/2018	1.00	5.00	5.00	2.00	10.00	429.00	399.00	0.2174	0.2664	0.2160	0.1800	0.2160	0.1800	0.9720	0.1800
SS218	7/18/2017	2.00	10.00	10.00			433.00	434.00	0.4968	0.4918			0.1440	0.7200		
SS218	6/27/2018	1.00	5.00	5.60	2.00	10.00	126.00	129.00	0.3199	0.7392	0.4176	0.2880	0.4176	0.2880	0.1636	0.2880
SS219	10/1/2018	1.00	5.00	5.00	2.00	10.00	5700.00	4950.00	0.1674	0.1382	0.2160	0.1800	0.2575	0.1800	0.7214	0.1800
SS219	10/19/2017	2.00	10.00	10.00	3.00	15.00	4850.00	4560.00	0.2124	0.2455	0.7200	0.3600	0.4248	0.6919	0.1188	0.3600
SS219	6/28/2018	1.00	5.00	5.00	2.00	10.00	2240.00	2050.00	0.2732	0.3586	0.8640	0.4320	0.8640	0.4320	0.2316	0.4320
SS219	7/24/2017	2.00	10.00	10.00			3510.00	3570.00	0.2264	0.2454			0.1149	0.8640		
SS220	6/28/2018	1.00	5.00	5.00	2.00	10.00	9660.00	9180.00	0.6359	0.6653	0.4320	0.2160	0.9331	0.2160	0.5976	0.2160
SS220	10/1/2018	1.00	5.00	5.00	2.00	10.00	7160.00	6600.00	1.1855	1.8864	0.8640	0.4320	0.1298	0.4320	0.8640	0.4320
SS220	7/24/2017	2.00	10.00	10.00			7990.00	8230.00	6.3614	6.3858			0.9158	0.8176		
SS221	6/28/2018	5.00	5.00	5.00	10.00	10.00	10000.00	9600.00	0.1847	0.1837	0.1826	0.7200	0.7200	0.7200	0.7200	0.7200
SS221	7/24/2017	10.00	10.00	10.00			6540.00	6500.00	0.7171	0.7740			0.1440	0.1440		
SS222	6/28/2018	5.00	5.00	5.00	10.00	10.00	10600.00	10400.00	0.5573	0.5875	0.3600	0.3600	0.3600	0.3600	0.3600	0.3600
SS222	7/24/2017	10.00	10.00	10.00			18800.00	18600.00	1.8864	11.2752			0.1440	0.1440		
SS223	10/1/2018	1.00	5.00	10.50	2.00	10.00	48.80	181.00	0.8640	0.1149	0.2160	0.1800	0.2160	0.1800	0.2160	0.1800
SS223	6/28/2018	1.00	5.00	9.93	2.00	10.00	99.70	112.00	0.1440	0.1620	0.4140	0.1800	0.3600	0.1800	0.4680	0.1800
SS223	10/19/2017	2.00	10.00	12.60	3.00	15.00	37.20	37.60	0.5760	0.5760	0.1152	0.5760	0.2340	0.1152	0.1152	0.5760
SS223	7/24/2017	2.00	10.00	10.10			58.70	63.00	0.1728	0.9263			0.6912	0.3456		
SS224	7/24/2017	10.00	10.00	10.00			10000.00	9860.00	0.1894	0.1980			0.3456	0.3456		
SS225	6/28/2018	1.00	5.00	5.00	2.00	10.00	9450.00	8920.00	0.8899	0.1823	0.4320	0.2160	0.4320	0.3499	0.4727	0.2160
SS225	7/24/2017	2.00	6.85	10.00			6670.00	6420.00	0.5486	0.5443			0.8640	0.4320		
SS226	6/28/2018	1.00	5.00	5.00	2.00	10.00	4950.00	4530.00	0.6854	0.7188	0.5760	0.2880	0.5760	0.2880	0.1379	0.2880
SS226	7/24/2017	2.00	7.10	10.00			1700.00	1630.00	0.3960	0.3960			0.1584	0.7920		
SS227	10/3/2017	10.00	10.00	9.99	15.00	15.00	75.00	70.00	0.2250	0.2322	0.9000	0.9000	0.1800	0.1800	0.9000	0.9000
SS228	10/3/2017	10.00	10.00	10.00	15.00	15.00	7990.00	7630.00	0.4291	0.4262	0.1440	0.1440	0.2880	0.2880	0.1440	0.1440
SS228	7/19/2018															

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	Ti D	Ti T	Total Alkalinity	V D	V T	Zn D	Zn T	Al D Load	Al T Load	Sb D Load	Sb T Load	As D Load	As T Load	Ba D Load	Ba T Load
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS228	10/9/2018	5.00	5.00	5.00	10.00	10.00	9260.00	8880.00	0.1188	0.1188	0.1800	0.1800	0.1800	0.1800	0.1800	0.1800
SS229	10/4/2017	10.00	10.00	53.20	15.00	15.00	410.00	398.00	0.8611	0.1259	0.9360	0.9360	0.1872	0.1872	0.9360	0.9360
SS229	6/27/2018	1.00	5.00	50.20	2.00	10.00	543.00	507.00	0.8640	0.8640	0.2160	0.1800	0.2160	0.1800	0.6782	0.1800
SS230	7/19/2018	1.00	5.00	5.00	2.00	10.00	9960.00	10300.00	0.1318	0.1339	0.6718	0.1800	0.3600	0.1800	0.2218	0.2592
SS230	10/5/2017	2.00	10.00	10.00	3.00	15.00	7440.00	6910.00	0.4838	0.4977	0.4680	0.2340	0.9216	0.4680	0.1548	0.1544
SS231	9/26/2018	1.00	5.00	76.60	2.00	10.00	10.00	10.00	0.2340	0.2385	0.5760	0.2880	0.5760	0.2880	0.4746	0.5126
SS231	10/10/2017	2.00	10.00	64.90	3.00	15.00	20.00	20.00	0.7200	0.7200	0.1440	0.7200	0.2880	0.1440	0.4378	0.4464
SS231	6/27/2018	1.00	5.00	54.40	2.00	10.00	10.00	10.00	0.3456	0.3456	0.8640	0.4320	0.8640	0.4320	0.4464	0.4821
SS232	10/16/2017	2.00	10.00	10.00	3.00	15.00	21500.00	20100.00								
SS235	10/1/2018	1.79	5.00	5.00	2.00	10.00	5030.00	4720.00								
SS235	10/1/2018	1.78	5.00	5.00	2.00	10.00	5140.00	4700.00								
SS235	10/19/2017	1.64	10.00	10.00	3.00	15.00	4760.00	4460.00	1.2355	1.2614	0.8640	0.4320	0.1184	0.8640	0.1253	0.4320
SS236	10/23/2017	2.00	10.00	10.00	3.00	15.00	8060.00	7800.00	0.8496	0.8424	0.7200	0.3600	0.1440	0.7200	0.5580	0.3600
SS236	10/8/2018	5.00	5.00	5.00	10.00	10.00	6910.00	6650.00	0.2799	0.2696	0.6480	0.6480	0.6480	0.6480	0.6480	0.6480
SS236	7/19/2018															
SS237	10/24/2017	2.00	10.00	27.10	3.00	15.00	17.30	17.80	0.8176	0.8176	0.1635	0.8176	0.3276	0.1635	0.3483	0.8176
SS238	10/24/2017	2.00	10.00	10.00	3.00	15.00	1100.00	1050.00	0.1145	0.1139	0.1440	0.7200	0.2880	0.1440	0.1440	0.7200
SS238	6/18/2018	1.00	5.00	5.00	2.00	10.00	1190.00	1130.00	0.3555	0.3512	0.2160	0.1800	0.2160	0.1800	0.2160	0.1800
SS250	10/9/2018	5.00	5.00	52.80	10.00	10.00	150.00	152.00	0.1800	0.1800	0.1260	0.1260	0.1512	0.1523	0.1260	0.1260
SS250	10/9/2018	5.00	5.00	52.40	10.00	10.00	150.00	146.00	0.1800	0.1800	0.1336	0.1260	0.3492	0.1517	0.1260	0.1260
SS250	6/14/2018	5.00	5.00	48.00	10.00	10.00	49.60	1220.00	0.1920	0.1543	0.1363	0.1363	0.1363	0.6923	0.1363	0.1624
SS250	6/19/2018	5.00	5.00	46.20	10.00	10.00	53.90	49.70	0.1635	0.1635	0.2441	0.2441	0.2441	0.2441	0.2441	0.2441
SS250	11/7/2017	20.00	10.00	49.00	30.00	15.00	286.00	184.00	0.1363	0.1363	0.2725	0.1363	0.5460	0.1653	0.2725	0.1363
SS300	10/9/2018	1.00	5.00	5.00	2.00	10.00	668.00	641.00	0.1337	0.1800	0.9000	0.4500	0.9000	0.4500	0.9000	0.4500
SS300	6/19/2018	1.00	5.00	5.00	2.00	10.00	536.00	525.00	0.1469	0.1742	0.1800	0.5400	0.1800	0.5400	0.1374	0.5400
SS301	10/4/2018	5.00	5.00	5.00	10.00	10.00	15300.00	14000.00	0.3516	0.3532	0.3960	0.3960	0.3960	0.3960	0.3960	0.3960
SS301	6/19/2018	5.00	5.00	5.00	10.00	10.00	11500.00	11200.00	0.2934	0.3240	0.5400	0.5400	0.5400	0.5400	0.5400	0.5400
SS304	6/28/2018	1.00	5.00	5.00	2.00	10.00	1170.00	1050.00	0.2912	0.3154	0.2160	0.1800	0.2160	0.1800	0.1369	0.1339
SS304	7/24/2017	2.00	10.00	10.00			949.00	925.00	0.1823	0.1900			0.5460	0.2725		
SS305	10/10/2017	2.00	10.00	49.30	3.00	15.00	20.00	20.00	0.4752	0.7657	0.9540	0.4752	0.1980	0.9540	0.1986	0.4752
SS305	8/23/2018	1.00	5.00	109.00	2.00	10.00	518.00	520.00								

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	TI D	TI T	Total Alkalinity	V D	V T	Zn D	Zn T	Al D Load	Al T Load	Sb D Load	Sb T Load	As D Load	As T Load	Ba D Load	Ba T Load
		µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Be D Load	Be T Load	Br T Load	Cd D Load	Cd T Load	Ca D Load	Ca T Load	Cl- T Load	Cr D Load	Cr T Load	Co D Load	Co T Load	Cu D Load	Cu T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
A23A	10/1/2018														
A23A	8/23/2018	0.1364	0.1364	0.3266	0.6597	0.5768	0.1862	0.1828	0.6532	0.6532	0.3266	0.8995	0.8427	0.7577	0.7577
A23A	8/23/2018														
A23A	8/23/2018														
A38	6/28/2017	0.4770	0.4770		0.1479	0.5819	1.8125	1.8125	0.1978	0.1978	0.9539			0.1536	0.1126
A38	9/27/2018	0.4838	0.4838	0.6480	0.1296	0.1296	5.1451	5.1529	0.1296	0.1296	0.1296	0.8951	0.8249	0.8685	0.6217
A38	6/27/2018	0.8640	0.8640	0.1800	0.8185	0.2160	7.5816	7.8228	0.2160	0.9314	0.2160	0.1472	0.1314	0.9314	0.1800
CC01A	6/14/2018	0.8852	0.8852	0.2213	0.4692	0.4426	2.1600	2.2868	0.4426	0.4426	0.2213	0.4128	0.4426	0.7392	0.1121
CC01A	10/2/2017	0.2737	0.2737		0.6759	0.6867	4.2935	4.1312	0.2163	0.1815	0.5474	0.6921	0.7192	0.3623	0.1369
CC01A	9/24/2018	0.1296	0.1296	0.6480	0.9253	0.8467	5.7744	4.9352	0.1296	0.6480	0.3240	0.8225	0.7819	0.5250	0.1463
CC01A	7/10/2017	0.5544	0.5544		0.7584	0.7684	9.1698	9.4359	0.2218	0.2218	0.1188			0.6464	0.1319
CC01B	9/25/2018	0.5364	0.5243	0.3960	0.6399	0.6162	35.1648	35.3232	0.7920	0.7920	0.7920	0.3722	0.3627	0.2724	0.2471
CC01B	6/5/2018														
CC01B	10/9/2017	0.8491	0.8383		0.1473	0.1277	46.8115	46.5938	2.1773	0.1886	0.1886	0.5298	0.4746	0.3114	0.2918
CC01B	4/24/2017		0.7275			0.8132		48.4989	2.4494		0.2449				0.4164
CC01B	9/27/2016	0.1325	0.1325		0.1412	0.1385	57.4584	6.5719		0.1415	0.1415			0.5123	0.5123
CC01B	3/30/2017	0.9134	0.9361		0.9732	0.9873	59.2891	62.1259	2.8368	0.1418	0.1418			0.4369	0.4369
CC01C	9/25/2018	0.2880	0.2880	0.7200	0.4162	0.3859	0.1483	0.1526	0.1440	0.1440	0.7200	0.2693	0.2635	0.1385	0.1349
CC01C	10/2/2017	0.1440	0.1440		0.2471	0.3240	0.5818	0.5558	0.5760	0.6163	0.2880	0.5530	0.5933	0.9994	0.1548
CC01C	9/20/2016				0.1338	0.1318	0.3342	0.3342		0.1212	0.1258			0.6364	0.6515
CC01C	7/10/2017	0.6379	0.6379		0.2411	0.2475	1.6842	1.7480	0.2552	0.2552	0.1276			0.6290	0.6349
CC01C	6/5/2018														
CC03D	9/27/2017	0.6437	0.6592		0.1445	0.1534	436.8924	463.5756	11.1168	0.1112	0.1112			0.9316	0.5558
CC03D	6/5/2018	0.1452	0.9927	6.9129	0.1797	0.1673	627.6885	641.5138	13.8257	0.1383	0.6913	0.1574	0.1452	0.7574	0.7383
CC03D	10/9/2018	0.1177	0.1716	7.1640	0.1691	0.1677	643.8398	642.4186	14.2128	0.7164	0.7164	0.1563	0.1492	0.7831	0.8158
CC03D	3/30/2017	0.1763	0.1146		0.2559	0.2797	756.5613	751.7931	15.8941	0.1589	0.1589			0.8742	0.1442
CC03D	5/16/2017	0.1260	0.1288		0.2694	0.2630	733.1994	744.6298	16.3296	0.1633	0.1633			0.1127	0.1251
CC03D	6/6/2017	0.1314	0.1316		0.3540	0.3395	93.6922	899.5277	2.8224	0.1411	0.1411			0.1524	0.1543
CC06	10/9/2018	0.1367	0.1440	5.5296	0.1113	0.1192	851.5584	89.5334	11.5920	0.1159	0.1159	0.1174	0.1296	9.6854	1.3956
CC06	6/5/2018	0.1246	0.1240	11.4372	0.1230	0.1144	864.1624	82.7257	22.8614	0.2286	0.1144	0.1324	0.1260	8.8165	8.8724
CC06	6/6/2017	0.2312	0.2273		0.4824	0.4543	1159.7774	1138.4971	35.4672	0.5363	0.4717			35.4672	33.2328
CC06	9/28/2017	0.3540	0.3653		0.3142	0.2739	117.4176	1212.9782	35.4672	0.3547	0.1773			24.8980	24.4143
CC06	10/9/2017	0.3754	0.3669		0.2829	0.2660	1284.5880	139.7319	36.6872	0.1834	0.1834	0.3331	0.3214	23.8997	23.1496
CC14	10/9/2018	0.2992	0.2992	3.7440	0.2633	0.2379	36.5746	356.8680	7.4880	0.7488	0.7488	0.2543	0.2424	0.5386	0.1174

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
CC14	9/28/2017														
CC14	10/9/2017														
CC14	9/21/2016				0.3992	0.4879	399.1680	51.4800		0.2661	0.1866			0.8251	0.4213
CC14	6/5/2018	0.8317	0.8317	1.3968	0.1372	0.1358	848.3789	844.2216	2.7936	0.4159	0.2794	0.9357	0.9176	0.8567	0.1385
CC14	6/20/2017	0.3929	0.1234		0.2462	0.2522	866.6745	926.8625	12.3715	0.1237	0.6186			0.1757	0.2744
CC16C	6/12/2018	0.9276	0.9276	0.1160	0.5148	0.5195	5.9833	5.9833	0.2319	0.2319	0.2319	0.2746	0.2876	0.3455	0.5754
CC16C	9/28/2016				0.2389	0.2440	5.5915	5.5915		0.4937	0.4937			0.1888	0.3575
CC16C	6/20/2017	0.2737	0.1869		0.6489	0.5948	6.7592	7.4622	1.8148	0.1815	0.5474			0.1274	0.1574
CC16C	10/4/2018	0.1238	0.1238	0.1548	0.6254	0.6192	8.4211	8.3592	0.3960	0.6192	0.3960	0.3139	0.3498	0.4372	0.7366
CC16C	10/25/2017	0.3960	0.3960		0.4435	0.4356	8.4744	8.3952	1.5840	0.1584	0.7920	0.3627	0.4213	0.3254	0.9266
CC19	10/9/2018	0.1894	0.1872	1.5624	0.5289	0.4593	139.5360	138.1162	3.1248	0.1562	0.1562	0.4540	0.4460	0.2753	0.2615
CC19	6/5/2018	0.2318	0.2258	1.9872	0.5962	0.6163	175.6685	179.6429	3.9744	0.3974	0.1987	0.5842	0.5639	0.3298	0.3215
CC19	10/9/2017	0.4792	0.4792		0.3330	0.4143	211.2398	211.7188	4.7916	0.2396	0.2396	0.7137	0.7413	0.2242	0.2314
CC19	9/29/2016	0.3287	0.3541		0.1265	0.1345	31.7880	313.4232		0.7272	0.3636			0.5686	0.5752
CC19	6/6/2017	0.4355	0.4345		0.2798	0.1864	445.8168	443.7576	1.2960	0.5148	0.5148			0.1575	0.9514
CC50	10/3/2018	0.2558	0.2558	3.1979	0.8724	0.1297	468.1696	492.4735	6.3958	0.6396	0.6396	0.3673	0.3633	0.5846	0.9812
CC50	10/9/2017	0.2722	0.2722		0.2376	0.2140	483.8400	493.9740	13.6800	0.6840	0.6840	0.6899	0.7335	0.1211	0.2822
CC50	6/7/2018	0.2994	0.2994	3.7422	0.1497	0.1398	511.9330	523.9800	7.4844	0.1497	0.8817	0.4715	0.4850	0.7559	0.1557
CC50	6/20/2017	0.1138	0.1138		0.3554	0.4172	739.5635	796.9624	44.1534	0.7197	0.2277			0.1288	0.3157
CC50	9/21/2016				0.3584	0.4353	0.8759	0.9729		0.4686	0.1255			0.9473	0.5633
DM01	6/14/2018														
DM01	6/22/2017	0.3456	0.3456		0.4777	0.4534	2.4123	2.5989	0.1382	0.1382	0.6912			0.9677	0.9953
DM24	9/16/2016				0.2125	0.2125	44.2800	44.2800		0.1719	0.1719			0.6553	0.6553
DM24	9/27/2018	0.4464	0.4464	0.5580	0.1116	0.1116	58.7160	56.9160	1.1160	0.1116	0.1116	0.2835	0.4821	0.6495	0.6227
DM32	9/27/2018	0.1296	0.1296	0.6480	0.2218	0.1847	0.3499	0.3454	0.1296	0.6480	0.3240	0.2475	0.2385	0.1188	0.1238
DM32	9/27/2018	0.1296	0.1296	0.6480	0.2347	0.1989	0.3557	0.3449	0.1296	0.6480	0.3240	0.2578	0.2482	0.1121	0.1692
DM32	10/10/2017	0.8640	0.8640		0.7524	0.6515	1.2474	1.2125	0.6912	0.3456	0.1728	0.9432	0.9288	0.4327	0.3992
DM32	6/27/2018	0.5184	0.5184	0.2592	0.1116	0.9642	0.8787	0.8424	0.5184	0.2592	0.1296	0.8787	0.7854	0.5236	0.4588
DM32	6/28/2017	0.1379	0.1379		0.1175	0.1153	0.6594	0.6724	0.5516	0.5516	0.2758			0.5847	0.5820
DM4	8/23/2018	0.2177	0.2177	0.2722	0.1886	0.5443	2.3515	2.2283	0.5443	0.1176	0.5443	0.1886	0.1114	0.1871	0.2722
DM4	8/23/2018	0.2177	0.2177	0.2722	0.1886	0.5443	2.4277	2.1995	0.5443	0.1219	0.5443	0.1995	0.1165	0.1525	0.2722
SS001	9/26/2018	0.7200	0.7200	0.1800	0.4752	0.3780	0.5256	0.5148	0.3600	0.3600	0.1800	0.1922	0.1937	0.1440	0.9900
SS001	9/26/2018	0.7200	0.7200	0.1800	0.4680	0.4500	0.5256	0.5220	0.3600	0.3600	0.1800	0.1915	0.1829	0.1116	0.9756
SS001	10/4/2017	0.4320	0.4320		0.6372	0.6316	0.1123	0.1973	0.1728	0.1728	0.8640	0.1728	0.8640	0.4176	0.4651

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS001	9/22/2016	0.4334	0.4334		0.0000	0.0000	0.1194	0.1119	0.6934	0.1733	0.8668			0.4195	0.6113
SS001	6/27/2018	0.1920	0.1920	0.2725	0.4797	0.3985	0.5476	0.4959	0.5460	0.5460	0.2725	0.5460	0.2725	0.2422	0.4622
SS001	7/11/2017	0.1857	0.1857		0.2513	0.2383	3.2481	3.3149	0.7424	0.7424	0.3712			0.2859	0.2732
SS002	10/4/2017	0.7200	0.7200		0.4594	0.1440	0.5155	0.4982	0.2880	0.2880	0.1440	0.2880	0.1440	0.1512	0.7200
SS002	6/27/2018	0.8640	0.8640	0.2160	0.1487	0.2160	0.1728	0.1629	0.4320	0.4320	0.2160	0.4320	0.2160	0.5724	0.1800
SS002	7/11/2017	0.6480	0.6480		0.1693	0.1296	0.4234	0.4246	0.2419	0.2419	0.1296			0.1379	0.6480
SS002	9/22/2016	0.1393	0.1393		0.7172	0.2786	1.5512	1.6464	0.2225	0.3337	0.2786			0.3588	0.1393
SS003	9/26/2018	0.1440	0.1440	0.3600	0.2693	0.2664	0.3866	0.3888	0.7200	0.7200	0.3600	0.1757	0.3600	0.3168	0.3535
SS003	10/4/2017	0.7200	0.7200		0.4320	0.4248	0.9432	0.8712	0.2880	0.2880	0.1440	0.1685	0.1440	0.3528	0.3283
SS003	7/12/2017	0.1440	0.1440		0.8755	0.8813	0.1656	0.1685	0.5760	0.5760	0.2880			0.8352	0.1224
SS003	9/22/2016	0.7223	0.7223		0.5463	0.5128	0.8585	0.8585	0.1156	0.1459	0.1445			0.4869	0.5724
SS004	10/4/2017	0.3456	0.3456		0.1797	0.1819	0.2917	0.2863	0.1382	0.1382	0.6912	0.1382	0.6912	0.2114	0.2937
SS004	6/27/2018	0.2340	0.2340	0.5760	0.4884	0.4111	0.5887	0.6175	0.1152	0.1152	0.5760	0.1318	0.5760	0.6163	0.5668
SS004	9/22/2016	0.6487	0.6487		0.0000	0.1297	0.4593	0.4674	0.1379	0.1557	0.1297			0.0000	0.8212
SS004	7/12/2017	0.7200	0.7200		0.2578	0.1440	0.3614	0.3672	0.2880	0.2880	0.1440			0.1440	0.7200
SS004	9/26/2018	0.2880	0.2880	0.7200	0.4450	0.4320	0.6782	0.6667	0.1440	0.1440	0.7200	0.1440	0.7200	0.6394	0.6653
SS005	9/22/2016	0.4633	0.4633		0.7983	0.8855	0.3893	0.4476	0.7413	0.1853	0.9267			0.8713	0.9915
SS006	10/4/2017	0.2880	0.2880		0.1152	0.5760	0.1375	0.1238	0.1152	0.1152	0.5760	0.1152	0.5760	0.5760	0.2880
SS006	9/26/2018	0.1152	0.1152	0.2880	0.5760	0.2880	0.1515	0.1492	0.5760	0.5760	0.2880	0.5760	0.2880	0.2880	0.1440
SS006	6/27/2018	0.1728	0.1728	0.4320	0.8640	0.4320	0.2563	0.1980	0.8640	0.8640	0.4320	0.8640	0.4320	0.8467	0.2160
SS006	9/23/2016	0.1987	0.1987		0.7948	0.3974	0.5881	0.6414	0.3179	0.7948	0.3974			0.3974	0.1987
SS006	7/12/2017	0.6541	0.6541		0.2616	0.1382	2.6426	2.7865	0.2616	0.2616	0.1382			0.7182	0.6541
SS007	9/23/2016	0.4334	0.4334		0.1733	0.8668	0.1967	0.1941	0.6934	0.1733	0.8668			0.8668	0.4334
SS007	9/26/2018	0.3168	0.3168	0.7920	0.1584	0.7920	0.3992	0.3992	0.1584	0.1584	0.7920	0.2167	0.7920	0.2820	0.3960
SS007	10/4/2017	0.2880	0.2880		0.1152	0.5760	1.4112	1.3536	0.1152	0.1152	0.5760	0.1152	0.5760	0.5760	0.2880
SS007	7/12/2017	0.5460	0.5460		0.2184	0.1920	1.6790	1.7988	0.2184	0.2184	0.1920			0.1920	0.5460
SS007	6/27/2018	0.7849	0.7849	0.1962	0.3925	0.1962	6.2795	5.9656	0.3925	0.3925	0.1962	0.4749	0.1962	0.2998	0.9812
SS008	9/24/2018														
SS008	9/24/2018														
SS008	10/2/2017	0.7200	0.7200		0.2880	0.1440	0.6354	0.6264	0.2880	0.2880	0.1440	0.1800	0.1440	0.9720	0.7200
SS008	9/26/2016	0.4143	0.4143		0.8368	0.8286	2.9496	2.7756	0.3314	0.1657	0.8286			0.6686	0.4143
SS008	6/13/2018	0.2322	0.2322	0.5854	0.1162	0.5854	33.4386	34.9480	1.1616	0.1162	0.5854	0.1625	0.6595	0.6595	0.2927
SS009	7/10/2017	0.4320	0.4320		0.1728	0.8640	0.1970	0.2563	0.1728	0.1728	0.8640			0.1346	0.4320
SS009	9/26/2016	0.5178	0.5178		0.3138	0.1357	0.3398	0.3387	0.8286	0.2714	0.1357			0.1357	0.5178

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS009	6/13/2018	0.8640	0.8640	0.2160	0.8784	0.2160	0.7733	0.8122	0.4320	0.4320	0.2160	0.4925	0.2160	0.1346	0.1145
SS010	9/24/2018	0.1440	0.1440	0.3600	0.1973	0.3600	0.2844	0.2880	0.7200	0.7200	0.3600	0.7200	0.3600	0.1944	0.1800
SS010	10/2/2017	0.7200	0.7200		0.3326	0.1440	0.6714	0.6451	0.2880	0.2880	0.1440	0.2880	0.1440	0.1434	0.7200
SS010	7/10/2017	0.8640	0.8640		0.5875	0.1728	0.7188	0.7569	0.3456	0.3456	0.1728			0.1866	0.8640
SS010	9/26/2016	0.1382	0.1382		0.0000	0.2616	0.7274	0.7965	0.2932	0.5233	0.2616			0.0000	0.1168
SS010	6/13/2018	0.1440	0.1440	0.7200	0.7740	0.1368	9.9360	1.9440	0.1440	0.7200	0.3600	0.4594	0.1440	0.1332	0.2196
SS011	6/13/2018														
SS011	9/24/2018														
SS011	7/10/2017	0.3197	0.2988		0.7474	0.7675	0.2556	0.2635	0.2880	0.2880	0.1440			0.2491	0.3254
SS011	10/2/2017	0.2160	0.2160		0.3240	0.2488	0.2130	0.2138	0.8640	0.8640	0.4320	0.1547	0.4320	0.2275	0.1948
SS011	9/26/2016	0.2725	0.2725		0.2393	0.2557	0.8176	0.8240	0.1744	0.1920	0.5460			0.2197	0.2274
SS012	10/2/2017	0.1800	0.1800		0.8446	0.8770	0.3348	0.3175	0.4320	0.4320	0.2160	0.2419	0.2635	0.6545	0.7668
SS012	9/26/2016	0.2589	0.2589		0.2973	0.2458	0.5489	0.5437	0.8286	0.1357	0.5178			0.1191	0.1253
SS012	6/13/2018	0.1728	0.1728	0.4320	0.8640	0.4320	3.2227	3.3264	0.8640	0.8640	0.4320	0.8640	0.4320	0.7625	0.2160
SS012	7/10/2017	0.6397	0.6397		0.2416	0.1279	0.7598	0.7948	0.2416	0.2416	0.1279			0.1279	0.6397
SS013	10/4/2018														
SS013	10/3/2016	0.5124	0.5124		0.2496	0.1248	3.8737	3.7917	0.8198	0.2496	0.1248			0.1965	0.5124
SS013	10/3/2017	0.2344	0.2344		0.9376	0.4688	15.6574	14.9738	0.9376	0.9376	0.4688	0.9376	0.4688	0.7547	0.5157
SS013	6/12/2018	0.4368	0.4368	1.9199	0.1230	0.1328	59.5248	59.9692	2.1840	0.2184	0.1920	0.1842	0.2365	0.3925	0.9616
SS013	7/17/2017	0.3670	0.3670		0.5548	0.3978	248.8166	244.4128	14.6794	0.1468	0.7340			0.1534	0.2790
SS014	10/3/2017	0.2592	0.2592		0.1368	0.5184	1.9440	1.8767	0.1368	0.1368	0.5184	0.1368	0.5184	0.2862	0.2592
SS014	10/4/2018	0.1872	0.1872	0.4680	0.9360	0.4680	4.7160	3.9312	0.9360	0.9360	0.4680	0.9360	0.4680	0.4680	0.2340
SS014	6/12/2018	0.2725	0.2725	0.6814	0.1363	0.6814	4.6660	4.5788	0.1363	0.1363	0.7594	0.1363	0.6814	0.6814	0.3469
SS014	7/17/2017	0.8749	0.8749		0.3500	0.1750	6.3692	6.5266	0.3500	0.3500	0.1750			0.1750	0.1872
SS014	10/3/2016	0.9432	0.9432		0.3773	0.1886	6.9972	6.9972	0.1588	0.3773	0.1886			0.1886	0.9432
SS015	10/4/2018	0.2556	0.2556	0.6264	0.1253	0.6264	4.8984	4.8359	0.1253	0.1253	0.6264	0.1185	0.1185	0.2217	0.8168
SS015	10/3/2017	0.9540	0.9540		0.3816	0.1980	7.2234	6.9189	0.3816	0.3816	0.1980	0.3816	0.1980	0.1367	0.9540
SS015	10/3/2016	0.1382	0.1382		0.5233	0.2616	8.8963	8.7914	0.2932	0.5233	0.2616			0.2522	0.7955
SS015	6/12/2018	0.1428	0.1428	0.3574	0.7149	0.4913	21.3599	2.6369	0.7149	0.7149	0.3835	0.1935	0.7212	0.6341	0.1828
SS015	7/17/2017	0.4959	0.4959		0.1962	0.9812	35.3224	34.7337	1.9624	0.1962	0.9812			0.7830	0.4959
SS016	10/4/2018	0.1728	0.1728	0.4320	0.3819	0.4320	0.3560	0.3335	0.1368	0.8640	0.4320	0.1866	0.1953	0.5256	0.4788
SS016	6/22/2017	0.5400	0.5400		0.2657	0.1800	0.5976	0.6264	0.2160	0.2160	0.1800			0.5195	0.9212
SS016	6/12/2018	0.2880	0.2880	0.1440	0.2851	0.7200	0.9115	0.9144	0.2880	0.1440	0.7668	0.8395	0.9432	0.6898	0.6955
SS016	10/3/2016	0.5694	0.5694		0.0000	0.1139	0.3853	0.3843	0.5694	0.2278	0.1139			0.4836	0.5647

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS016	10/5/2017	0.1440	0.1440		0.7663	0.2880	0.8114	0.7830	0.4176	0.4176	0.2880	0.3424	0.3779	0.9229	0.1854
SS017	10/5/2017														
SS017	10/3/2016	0.1145	0.1145		0.4999	0.4625	0.9524	0.9732	0.1832	0.4579	0.2289			0.1875	0.2312
SS017	10/4/2018	0.4680	0.4680	0.1152	0.2995	0.2719	0.1187	0.1134	0.2340	0.2340	0.1152	0.1523	0.1599	0.1644	0.1613
SS017	6/22/2017	0.4320	0.4320		0.1487	0.1426	0.2756	0.2886	0.1296	0.1728	0.8640			0.6264	0.5858
SS017	6/12/2018	0.1728	0.1728	0.8640	0.1296	0.1244	0.4329	0.4277	0.1728	0.8640	0.4320	0.9158	0.1368	0.1339	0.2160
SS018	6/23/2017	0.1800	0.1800		0.1674	0.1883	1.3824	1.4148	0.7200	0.7200	0.3600			0.1944	0.1188
SS018	10/4/2018	0.9540	0.9540	0.4752	0.5322	0.5371	3.1648	3.6288	0.9540	0.4752	0.2376	0.1336	0.1364	0.1996	0.2148
SS018	10/3/2016	0.2458	0.2458		0.4651	0.4688	2.5420	2.5666	0.3933	0.9834	0.4917			0.1859	0.2614
SS018	10/5/2017	0.3456	0.3456		0.4486	0.4429	3.8639	3.7325	0.2765	0.1382	0.6912	0.1364	0.1438	0.2495	0.2830
SS018	6/12/2018	0.2714	0.2714	0.1357	0.9373	0.9539	5.8620	6.1735	0.2714	0.1357	0.5365	0.2564	0.2848	0.3967	0.4516
SS019	6/23/2017	0.4320	0.4320		0.1313	0.8640	0.1616	0.1668	0.1728	0.1728	0.8640			0.7845	0.2290
SS019	10/4/2018	0.1814	0.1814	0.4536	0.1470	0.4536	0.2332	0.2295	0.9720	0.9720	0.4536	0.9720	0.4536	0.8700	0.3565
SS019	10/4/2018	0.1814	0.1814	0.4536	0.1479	0.4536	0.2359	0.2343	0.9720	0.9720	0.4536	0.9720	0.4536	0.7358	0.2268
SS019	10/5/2017	0.5400	0.5400		0.2288	0.1800	0.2480	0.2349	0.2160	0.2160	0.1800	0.2160	0.1800	0.1188	0.5400
SS019	6/12/2018	0.3456	0.3456	0.8640	0.2696	0.8640	0.3784	0.3732	0.1728	0.1728	0.1397	0.1728	0.8640	0.1526	0.4320
SS019	10/3/2016	0.1793	0.1793		0.0000	0.2159	0.5186	0.5159	0.1727	0.4317	0.2159			0.1995	0.1793
SS020	9/25/2018														
SS020	10/16/2017	0.1440	0.1440		0.5760	0.2880	0.1967	0.1981	0.5760	0.5760	0.2880	0.2358	0.1699	0.2880	0.1440
SS020	10/4/2016	0.3276	0.3276		0.2872	0.3292	0.5694	0.5563	0.5233	0.1382	0.6541			0.6489	0.3276
SS020	7/19/2017	0.3843	0.3843		0.4658	0.3981	0.4966	0.4834	0.1537	0.1537	0.7686			0.2436	0.2759
SS020	6/13/2018	0.2419	0.2419	0.6480	0.3859	0.6480	0.5516	0.5673	0.1296	0.1296	0.6480	0.1222	0.1548	0.1318	0.3240
SS021	10/4/2016	0.1357	0.1357		0.0000	0.0000	0.9176	0.8741	0.1657	0.4143	0.2714			0.4723	0.1357
SS021	7/19/2017	0.8640	0.8640		0.7517	0.1728	0.6255	0.5998	0.3456	0.3456	0.1728			0.1780	0.8640
SS021	6/13/2018	0.4680	0.4680	0.1152	0.9861	0.1152	0.7272	0.7119	0.2340	0.2340	0.1152	0.2340	0.1152	0.2534	0.5760
SS022	10/16/2017	0.1440	0.1440		0.1382	0.2880	0.5616	0.5587	0.5760	0.5760	0.2880	0.2796	0.2324	0.3686	0.1440
SS022	10/4/2016	0.8722	0.8722		0.1729	0.1619	0.2965	0.2948	0.1395	0.3489	0.1744			0.2826	0.8722
SS022	6/13/2018	0.4320	0.4320	0.1800	0.1754	0.1656	0.3218	0.3197	0.2160	0.2160	0.1800	0.2160	0.1800	0.3348	0.5400
SS022	7/19/2017	0.3456	0.3456		0.6546	0.6248	0.9331	0.9746	0.1382	0.1382	0.6912			0.6273	0.3456
SS023	9/25/2018														
SS023	10/4/2016	0.3543	0.3543		0.0000	0.0000	0.1382	0.1382	0.5669	0.1417	0.7863			0.8645	0.3543
SS023	7/19/2017	0.1440	0.1440		0.1188	0.2880	0.2785	0.2681	0.5760	0.5760	0.2880			0.2768	0.1440
SS023	6/13/2018	0.1440	0.1440	0.3600	0.7200	0.3600	0.1152	0.1800	0.7200	0.7200	0.3600	0.3528	0.3600	0.1800	0.1800
SS023	10/16/2017	0.1843	0.1843		0.4337	0.2169	17.3249	17.9300	0.8675	0.4337	0.2169	0.2763	0.2169	0.2924	0.1843

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Be D Load	Be T Load	Br T Load	Cd D Load	Cd T Load	Ca D Load	Ca T Load	Cl- T Load	Cr D Load	Cr T Load	Co D Load	Co T Load	Cu D Load	Cu T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS024	10/16/2017	0.2520	0.2520		0.1800	0.5400	4.3394	4.3142	0.2160	0.1800	0.5400	0.1800	0.5400	0.2878	0.2520
SS024	10/4/2016	0.3767	0.3767		0.1483	0.7413	6.1385	6.2754	0.5937	0.1483	0.7413			0.5115	0.3767
SS024	9/25/2018	0.1728	0.1728	0.8640	0.8640	0.4320	7.1194	6.6960	0.1728	0.8640	0.4320	0.9720	0.4320	0.8640	0.2160
SS024	7/19/2017	0.1635	0.1635		0.9746	0.3276	28.2252	28.1598	0.6541	0.3276	0.3276			0.3276	0.1635
SS024	6/13/2018	0.7834	0.7834	0.1958	0.3917	0.1958	15.1188	15.2364	0.3917	0.3917	0.1958	0.3917	0.1958	0.2667	0.9792
SS025	10/4/2016	0.1226	0.1226		0.4959	0.2453	0.1226	0.1239	0.1962	0.4959	0.2453			0.1383	0.1226
SS025	7/19/2017	0.4320	0.4320		0.1728	0.8640	0.1624	0.1581	0.1728	0.1728	0.8640			0.8640	0.4320
SS025	6/13/2018	0.2880	0.2880	0.7200	0.1440	0.7200	0.2736	0.2117	0.1440	0.1440	0.7200	0.1440	0.7200	0.8280	0.1699
SS026	10/4/2016	0.3243	0.3243		0.1836	0.7330	0.2166	0.9732	0.5189	0.1297	0.6487			0.3847	0.1881
SS026	10/16/2017	0.5400	0.5400		0.1685	0.1584	0.2691	0.2671	0.2160	0.2160	0.1800	0.2349	0.2197	0.4385	0.4183
SS026	6/14/2018	0.6228	0.6228	0.1555	0.1325	0.1238	0.6563	0.6532	0.3114	0.3114	0.1555	0.8243	0.1555	0.2576	0.2162
SS026	7/10/2017	0.3240	0.3240		0.5812	0.5376	1.4256	0.9616	0.1296	0.1296	0.6480			0.2684	0.2624
SS027	10/16/2017	0.3240	0.3240		0.2369	0.2151	6.6960	6.3763	1.2960	0.1296	0.6480	0.3812	0.4562	0.1970	0.1899
SS027	10/4/2016	0.3816	0.3816		0.2724	0.2595	6.1354	6.2880	0.1221	0.1526	0.7631			0.3550	0.3642
SS027	9/24/2018	0.1728	0.1728	0.8640	0.3465	0.3516	1.2240	9.4176	0.1728	0.4320	0.4320	0.5694	0.6255	0.2732	0.2783
SS027	6/13/2018	0.2736	0.2736	0.5184	0.1575	0.9695	2.9238	2.8719	0.1368	0.1368	0.5184	0.6573	0.5184	0.1773	0.1690
SS027	7/10/2017	0.8352	0.8352		0.2322	0.2222	5.6794	5.4288	0.3348	0.3348	0.1674			0.3441	0.3474
SS028	10/16/2017	0.3600	0.3600		0.1440	0.7200	0.4673	0.4554	0.1440	0.1440	0.7200	0.1440	0.7200	0.7200	0.3600
SS028	7/10/2017	0.7200	0.7200		0.2880	0.1440	0.7740	0.7315	0.2880	0.2880	0.1440			0.8352	0.7200
SS028	10/4/2016	0.1357	0.1357		0.4143	0.2714	0.1674	0.1589	0.8286	0.4143	0.2714			0.1212	0.1357
SS029	10/16/2017	0.1296	0.1296		0.1368	0.9953	13.6858	13.3488	0.5184	0.5184	0.2592	0.5184	0.2592	0.9642	0.8735
SS029	9/24/2018	0.5213	0.5213	0.1332	0.1139	0.1160	15.1171	14.7456	0.2664	0.2664	0.1332	0.2664	0.1332	0.1869	0.1363
SS029	6/14/2018	0.6214	0.6214	0.1554	0.1392	0.1289	8.5755	8.6376	0.3177	0.3177	0.1554	0.3177	0.1554	0.2413	0.1867
SS029	10/4/2016	0.1635	0.1635		0.1112	0.9517	13.7380	13.4749	0.2616	0.6541	0.3276			0.1734	0.1233
SS029	7/10/2017	0.4959	0.4959		0.3719	0.2777	21.8829	22.2728	1.9624	0.1962	0.2384			0.4700	0.6554
SS030	10/5/2016	0.3600	0.3600		0.1440	0.7200	0.1116	0.1253	0.5760	0.1440	0.7200			0.7200	0.3600
SS030	7/12/2017	0.3600	0.3600		0.1440	0.7200	0.7272	0.7200	0.1440	0.1440	0.7200			0.7200	0.3600
SS030	10/4/2017	0.3600	0.3600		0.1440	0.7200	0.1224	0.1159	0.1440	0.1440	0.7200	0.1440	0.7200	0.7200	0.3600
SS030	6/15/2018	0.1440	0.1440	0.3600	0.7200	0.3600	0.6120	0.5976	0.7200	0.7200	0.3600	0.8568	0.3600	0.3600	0.1800
SS030	9/26/2018	0.1440	0.1440	0.3600	0.7200	0.3600	0.1548	0.1433	0.7200	0.7200	0.3600	0.7200	0.3600	0.3600	0.1800
SS031	10/4/2017	0.1800	0.1800		0.4320	0.2160	0.5767	0.5594	0.4320	0.4320	0.2160	0.4320	0.2160	0.2160	0.1800
SS031	7/12/2017	0.4320	0.4320		0.1728	0.8640	0.1892	0.1788	0.1728	0.1728	0.8640			0.8640	0.4320
SS031	10/5/2016	0.4368	0.4368		0.1744	0.8722	0.2184	0.2184	0.6977	0.1744	0.8722			0.8722	0.4368
SS031	6/15/2018	0.2592	0.2592	0.6480	0.1296	0.6480	0.3197	0.3456	0.1296	0.1296	0.6480	0.1296	0.6480	0.6480	0.3240

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Be D Load	Be T Load	Br T Load	Cd D Load	Cd T Load	Ca D Load	Ca T Load	Cl- T Load	Cr D Load	Cr T Load	Co D Load	Co T Load	Cu D Load	Cu T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS031	9/26/2018	0.4320	0.4320	0.1800	0.2160	0.1800	0.5162	0.4795	0.2160	0.2160	0.1800	0.2160	0.1800	0.1800	0.5400
SS032	10/4/2017	0.1440	0.1440		0.5760	0.2880	0.2232	0.2938	0.1152	0.5760	0.2880	0.5760	0.2880	0.1548	0.1440
SS032	10/5/2016	0.4882	0.4882		0.1635	0.8176	0.5396	0.5437	0.6541	0.8585	0.8176			0.8176	0.4882
SS032	9/26/2018	0.3456	0.3456	0.8640	0.1728	0.8640	0.7137	0.6239	0.1728	0.1728	0.8640	0.1728	0.8640	0.6687	0.7119
SS032	9/26/2018	0.3456	0.3456	0.8640	0.1728	0.8640	0.7848	0.6255	0.1728	0.1728	0.8640	0.1728	0.8640	0.1728	0.4320
SS032	7/23/2018														
SS032	7/12/2017	0.3600	0.3600		0.1440	0.7200	1.6488	1.5696	0.1440	0.1944	0.7200			0.7200	0.3600
SS033	10/5/2016	0.3600	0.3600		0.1440	0.7200	0.2916	0.3240	0.5760	0.1440	0.7200			0.5170	0.3600
SS033	7/12/2017	0.3600	0.3600		0.1440	0.7200	0.2974	0.2772	0.1440	0.1440	0.7200			0.5234	0.3600
SS033	10/4/2017	0.3600	0.3600		0.1440	0.7200	0.2671	0.2498	0.1440	0.1440	0.7200	0.1440	0.7200	0.3823	0.3600
SS033	6/15/2018	0.1440	0.1440	0.3600	0.7200	0.3600	0.2189	0.2297	0.7200	0.7200	0.3600	0.7200	0.3600	0.6473	0.1800
SS033	9/26/2018	0.1440	0.1440	0.3600	0.7200	0.3600	0.2743	0.2362	0.7200	0.7200	0.3600	0.7200	0.3600	0.1634	0.1800
SS034	10/5/2016	0.3600	0.3600		0.2282	0.1958	0.4212	0.4270	0.5760	0.1440	0.7200			0.3456	0.3370
SS034	7/12/2017	0.3600	0.3600		0.1980	0.1966	0.3658	0.3449	0.1440	0.1440	0.7200			0.4392	0.4766
SS034	10/4/2017	0.3600	0.3600		0.5634	0.5587	0.3737	0.3557	0.1440	0.1440	0.7200	0.1800	0.7200	0.1282	0.1375
SS034	6/15/2018	0.1440	0.1440	0.3600	0.3744	0.2830	0.5155	0.5148	0.7200	0.7200	0.3600	0.4392	0.3600	0.6343	0.5814
SS035	10/5/2016	0.2153	0.2153		0.8613	0.4363	0.2416	0.2455	0.3445	0.8613	0.4363			0.0000	0.1374
SS035	6/15/2018	0.7488	0.7488	0.3744	0.8836	0.1872	3.1752	3.1378	0.7488	0.3744	0.1872	0.4943	0.2883	0.4946	0.2183
SS035	7/12/2017	0.2448	0.2448		0.9792	0.4896	22.6195	21.1572	0.9792	0.9792	0.4896			0.4896	0.2448
SS036	6/27/2018	0.1440	0.1440	0.3600	0.3845	0.3665	0.5940	0.5724	0.7200	0.7200	0.3600	0.7200	0.3600	0.7560	0.6444
SS036	10/5/2016	0.7863	0.7863		0.4477	0.4167	0.2585	0.2523	0.5669	0.2835	0.1417			0.5596	0.5344
SS036	7/18/2017	0.1620	0.1620		0.5638	0.4795	0.2984	0.2922	0.6480	0.6480	0.3240			0.9396	0.9493
SS037	10/10/2017	0.1440	0.1440		0.1515	0.1423	0.3370	0.3370	0.5760	0.2880	0.2880	0.2880	0.2880	0.6854	0.6365
SS037	10/5/2016	0.2153	0.2153		0.1968	0.1865	0.4363	0.4392	0.6896	0.8613	0.4363			0.8969	0.7924
SS037	7/18/2017	0.1728	0.1728		0.1154	0.9331	2.3293	2.2223	0.1382	0.6912	0.3456			0.4769	0.4596
SS037	6/27/2018	0.7776	0.7776	0.3888	0.1326	0.1256	2.1423	2.1190	0.7776	0.3888	0.1944	0.1131	0.4464	0.6648	0.8165
SS038	9/26/2018	0.2340	0.2340	0.5760	0.1152	0.5760	0.5391	0.4689	0.1152	0.1152	0.5760	0.1152	0.5760	0.1152	0.2880
SS038	10/6/2016	0.8640	0.8640		0.3456	0.1728	0.6990	0.7172	0.1382	0.3456	0.1728			0.1728	0.8640
SS038	6/15/2018	0.8640	0.8640	0.2160	0.4320	0.2160	1.3392	1.3896	0.4320	0.4320	0.2160	0.4320	0.2160	0.2160	0.1800
SS038	10/10/2017	0.3240	0.3240		0.1296	0.6480	2.3648	2.4434	0.1296	0.7379	0.6480	0.1296	0.6480	0.6480	0.3240
SS038	6/28/2017	0.9720	0.9720		0.3629	0.1814	4.8816	5.4432	0.3629	0.2486	0.1814			0.1814	0.9720
SS039	10/10/2017	0.2160	0.2160		0.2622	0.2383	0.8683	0.8726	0.8640	0.8640	0.4320	0.8640	0.4320	0.4838	0.5544
SS039	10/6/2016	0.8640	0.8640		0.8847	0.8536	0.3128	0.3214	0.1382	0.3456	0.1728			0.2212	0.2143
SS039	6/27/2018	0.3456	0.3456	0.8640	0.7154	0.6618	0.2333	0.2358	0.1728	0.1728	0.8640	0.1728	0.8640	0.2182	0.1919

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS039	7/12/2017	0.4882	0.4882		0.3827	0.3696	0.9566	1.5783	0.1635	0.1635	0.8176			0.1138	0.1139
SS040	9/27/2018	0.1440	0.1440	0.3600	0.4342	0.4226	0.7740	0.6674	0.7200	0.7200	0.3600	0.7200	0.3600	0.1166	0.1195
SS040	10/6/2016	0.2153	0.2153		0.2915	0.2670	0.3553	0.3682	0.3445	0.8613	0.4363			0.9517	0.9172
SS040	10/10/2017	0.3240	0.3240		0.3577	0.3272	0.6480	0.5994	0.1296	0.1296	0.6480	0.1296	0.6480	0.1128	0.1822
SS040	6/27/2018	0.3456	0.3456	0.8640	0.7396	0.6394	0.1424	0.1484	0.1728	0.1728	0.8640	0.4113	0.8640	0.3114	0.2817
SS040	7/12/2017	0.2453	0.2453		0.1329	0.1217	3.4832	3.3949	0.9812	0.9812	0.4959			0.5740	0.5838
SS041	9/27/2018	0.4320	0.4320	0.1800	0.2614	0.2574	1.2550	1.9512	0.2160	0.2160	0.1800	0.2160	0.1800	0.4666	0.8230
SS041	10/10/2017	0.2160	0.2160		0.4788	0.4134	1.5682	1.6675	0.4320	0.8640	0.4320	0.8640	0.4320	0.1335	0.2285
SS041	10/6/2016	0.2725	0.2725		0.6378	0.6214	2.1244	2.5524	0.4368	0.1920	0.5460			0.4323	0.4257
SS041	6/27/2018	0.2340	0.2340	0.5760	0.1244	0.1146	2.8224	2.7648	0.1152	0.1152	0.5760	0.1440	0.5760	0.6440	0.6624
SS041	6/28/2017	0.8280	0.8280		0.4622	0.4951	4.2228	4.3884	0.3312	0.3312	0.1656			0.2556	0.2832
SS042	6/27/2018	0.8640	0.8640	0.2160	0.3923	0.3672	0.6869	0.6782	0.4320	0.4320	0.2160	0.4320	0.2160	0.1153	0.1223
SS042	6/28/2017	0.2736	0.2736		0.3157	0.3213	0.6293	0.6949	0.1944	0.1944	0.5472			0.1178	0.2276
SS042	10/6/2016	0.3598	0.3598		0.1188	0.3267	0.1288	0.1324	0.5756	0.1440	0.7195			0.1964	0.5367
SS042	10/10/2017	0.5400	0.5400		0.8598	0.7872	2.1600	2.1571	0.2160	0.1800	0.1800	0.1800	0.1800	0.8155	0.8352
SS043	6/28/2017	0.6120	0.6120		0.1224	0.1224	1.9584	2.1528	0.4896	0.1224	0.1224			0.6120	0.6120
SS043	9/27/2018	0.3283	0.3283	0.4140	0.8280	0.8280	2.9563	2.5445	0.8280	0.8280	0.8280	0.1236	0.1888	0.4140	0.4140
SS043	10/6/2016	0.8640	0.8640		0.3456	0.1728	2.7129	2.7647	0.2765	0.3456	0.1728			0.1412	0.8640
SS043	6/18/2018	0.5184	0.5184	0.6480	0.2592	0.1296	4.1213	4.4352	0.1296	0.4795	0.1296	0.2773	0.2934	0.3370	0.6480
SS043	10/10/2017	0.2160	0.2160		0.4320	0.4320	6.1776	7.2144	0.8640	0.4320	0.4320	0.4666	0.5724	0.1116	0.2160
SS044	9/25/2018	0.1296	0.1296	0.1512	0.1712	0.3240	1.2822	1.1128	0.3240	0.3240	0.3240	0.1373	0.1391	0.2552	0.1857
SS044	9/25/2018	0.1296	0.1296	0.1512	0.1712	0.3240	1.2822	1.1678	0.3240	0.6480	0.3240	0.1276	0.1385	0.1426	0.1755
SS044	6/14/2018	0.2880	0.2880	0.1440	0.1346	0.1685	2.1744	2.1456	0.2880	0.1440	0.7200	0.4954	0.5400	0.4853	0.1642
SS044	10/11/2017	0.1440	0.1440		0.2880	0.2880	4.7520	4.9824	0.5760	0.2880	0.2880	0.9432	0.1548	0.1440	0.1847
SS044	10/6/2016	0.2164	0.2164		0.1281	0.4329	6.8384	6.9682	0.6925	0.8656	0.4329			0.4718	0.2164
SS044	6/22/2017	0.1116	0.1116		0.4776	0.4152	23.2128	23.2128	0.8928	0.4464	0.2232			0.2745	0.4399
SS045	9/25/2018	0.3456	0.3456	0.8640	0.1526	0.1430	0.8294	0.7258	0.1728	0.1728	0.8640	0.3853	0.8640	0.5633	0.4320
SS045	6/6/2018	0.1152	0.1152	0.2880	0.4660	0.5458	0.1717	0.1676	0.5760	0.5760	0.2923	0.7949	0.2880	0.1224	0.1440
SS045	10/11/2017	0.6480	0.6480		0.1516	0.9279	0.4769	0.4977	0.2592	0.2592	0.1296	0.1724	0.1296	0.2618	0.6480
SS045	10/6/2016	0.8640	0.8640		0.1626	0.1498	0.6514	0.6670	0.1382	0.3456	0.1728			0.3542	0.4424
SS045	6/22/2017	0.1944	0.1944		0.3676	0.2871	0.6843	0.7394	0.7776	0.7776	0.3888			0.6998	0.1944
SS046	9/25/2018	0.2880	0.2880	0.7200	0.2448	0.2376	0.5573	0.4939	0.1440	0.1440	0.7200	0.8748	0.9594	0.1714	0.2290
SS046	6/22/2017	0.3600	0.3600		0.1865	0.1894	0.3823	0.3794	0.1440	0.1440	0.7200			0.1368	0.1231
SS046	10/11/2017	0.5400	0.5400		0.2167	0.1865	0.4118	0.4355	0.2160	0.2160	0.1800	0.7248	0.7762	0.1683	0.1643

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Be D Load	Be T Load	Br T Load	Cd D Load	Cd T Load	Ca D Load	Ca T Load	Cl- T Load	Cr D Load	Cr T Load	Co D Load	Co T Load	Cu D Load	Cu T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS046	6/6/2018	0.2160	0.2160	0.5400	0.1976	0.1552	0.4576	0.4586	0.1800	0.1800	0.5400	0.7592	0.6815	0.1411	0.1314
SS046	10/6/2016	0.6487	0.6487		0.2737	0.2647	0.5466	0.5176	0.1379	0.2595	0.1297			0.1972	0.2115
SS047	10/5/2017	0.1980	0.1980		0.7920	0.3960	1.3356	1.2798	0.7920	0.7920	0.3960	0.7920	0.3960	0.2776	0.1980
SS047	10/2/2018	0.2736	0.2736	0.6840	0.1518	0.6840	5.6880	4.6238	0.1368	0.1368	0.6840	0.1368	0.6840	0.4932	0.3420
SS047	10/10/2016	0.8478	0.8478		0.3219	0.1696	5.2351	5.2832	0.1288	0.3219	0.1696			0.1696	0.8478
SS047	6/12/2018	0.3380	0.3380	0.8449	0.1690	0.8449	4.8329	4.8666	0.1690	0.1690	0.9480	0.1690	0.8449	0.8449	0.4225
SS047	6/26/2017	0.9757	0.9757		0.3929	0.1951	51.1281	51.3233	3.9292	0.3524	0.1951			0.1951	0.9757
SS048	10/10/2016	0.2589	0.2589		0.1357	0.5178	0.6369	0.6577	0.4143	0.1357	0.5178			0.5178	0.2589
SS048	10/5/2017	0.1152	0.1152		0.4680	0.2340	0.2373	0.2245	0.4680	0.4680	0.2340	0.3825	0.4193	0.2340	0.1152
SS048	6/12/2018	0.7849	0.7849	0.1962	0.3925	0.1962	4.4742	4.5919	0.3925	0.3925	0.2296	0.9616	0.1962	0.4278	0.9812
SS048	6/26/2017	0.1738	0.1738		0.4295	0.2148	49.8264	51.1155	4.2954	0.5499	0.2148			0.1626	0.6744
SS049	10/5/2017	0.1440	0.1440		0.5760	0.2880	0.2851	0.2690	0.3744	0.5760	0.2880	0.5760	0.2880	0.2880	0.1440
SS049	10/10/2016	0.7863	0.7863		0.2835	0.1417	0.1222	0.1222	0.1134	0.2835	0.1417			0.1417	0.7863
SS049	6/7/2018	0.2880	0.2880	0.7200	0.1440	0.7200	0.6437	0.6653	0.1440	0.1440	0.8280	0.1440	0.7200	0.1274	0.3600
SS049	6/26/2017	0.5400	0.5400		0.2160	0.1800	0.4173	0.4183	0.2160	0.2160	0.1800			0.1800	0.5400
SS050	10/10/2016	0.8640	0.8640		0.3456	0.0000	0.7828	0.7880	0.1382	0.3456	0.1728			0.1728	0.8354
SS050	10/5/2017	0.1728	0.1728		0.6912	0.3456	1.2719	1.1855	0.6912	0.6912	0.3456	0.6912	0.3456	0.2298	0.1728
SS050	10/2/2018	0.4320	0.4320	0.1800	0.2160	0.1800	4.5158	4.2336	0.2160	0.2160	0.1800	0.2160	0.2934	0.3669	0.2883
SS050	6/7/2018	0.7522	0.7522	0.1886	0.1418	0.1886	1.7998	1.1928	0.3761	0.3761	0.2799	0.3396	0.4245	0.3242	0.9553
SS050	6/26/2017	0.6372	0.6372		0.2523	0.1261	35.4465	33.6845	2.5229	0.1388	0.1261			0.3653	0.1255
SS051	10/5/2017	0.1800	0.1800		0.4320	0.2160	0.5262	0.5000	0.4320	0.4320	0.2160	0.4320	0.2160	0.2298	0.1800
SS051	10/10/2016	0.1822	0.1822		0.4329	0.2164	0.5388	0.5518	0.1731	0.4329	0.2164			0.3289	0.1822
SS051	10/2/2018	0.6912	0.6912	0.1728	0.3456	0.1728	0.6152	0.6826	0.1348	0.3456	0.1728	0.8122	0.1731	0.1252	0.2112
SS051	6/7/2018	0.1944	0.1944	0.2736	0.5998	0.2736	1.4515	1.3968	0.5472	0.5472	0.3266	0.5472	0.2736	0.1116	0.3885
SS051	6/26/2017	0.5400	0.5400		0.2160	0.1800	1.5984	1.6416	0.2160	0.2160	0.1800			0.2412	0.5400
SS052	10/5/2017	0.2160	0.2160		0.1356	0.4320	0.6912	0.6480	0.8640	0.8640	0.4320	0.8640	0.4320	0.4262	0.2160
SS052	10/2/2018	0.3600	0.3600	0.9000	0.5562	0.9000	0.3150	0.2952	0.2160	0.1800	0.9000	0.1998	0.1548	0.5670	0.9900
SS052	10/10/2016	0.1920	0.1920		0.6498	0.2184	0.3375	0.3375	0.1744	0.4368	0.2184			0.3859	0.1920
SS052	6/26/2017	0.2160	0.2160		0.1296	0.4320	0.4867	0.4247	0.8640	0.8640	0.4320			0.8986	0.1754
SS052	6/7/2018	0.8640	0.8640	0.2160	0.1456	0.2160	0.4579	0.4666	0.4320	0.4320	0.2272	0.4320	0.2160	0.9468	0.1800
SS053	6/7/2018	0.1152	0.1152	0.2880	0.1336	0.1359	0.9540	0.1224	0.5760	0.5760	0.3295	0.1175	0.1400	0.4988	0.5616
SS053	10/2/2018	0.2275	0.2275	0.5688	0.2890	0.2719	0.3326	0.2798	0.1138	0.1138	0.5688	0.5436	0.5688	0.8669	0.8293
SS053	10/10/2016	0.8640	0.8640		0.3577	0.3560	0.3936	0.3239	0.1382	0.3456	0.1728			0.9974	0.1454
SS053	10/5/2017	0.8640	0.8640		0.5486	0.5219	0.4579	0.4954	0.3456	0.3456	0.1728	0.1382	0.1298	0.1572	0.1574

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Be D Load	Be T Load	Br T Load	Cd D Load	Cd T Load	Ca D Load	Ca T Load	Cl- T Load	Cr D Load	Cr T Load	Co D Load	Co T Load	Cu D Load	Cu T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS053	7/20/2017	0.4320	0.4320		0.3370	0.3118	1.4342	1.4256	0.1728	0.1728	0.8640			0.1218	0.1158
SS054	10/2/2018	0.2246	0.2246	0.2880	0.5616	0.5616	3.5156	3.2998	0.5616	0.5616	0.5616	0.5616	0.5863	0.3493	0.1218
SS054	10/5/2017	0.5760	0.5760		0.1152	0.1152	2.9952	2.8454	0.2340	0.1152	0.1152	0.1152	0.9919	0.5760	0.2246
SS054	10/10/2016	0.1442	0.1442		0.0000	0.2884	4.3755	4.3755	0.4614	0.2999	0.2884			0.4498	0.7872
SS054	6/26/2017	0.3600	0.3600		0.3114	0.7200	14.1120	14.4720	0.7200	0.1440	0.7200			0.1944	0.1814
SS054	6/7/2018	0.5460	0.5460	0.2725	0.5888	0.1363	34.6876	33.5237	0.5460	0.2725	0.1584	0.4988	0.1363	0.5967	0.6814
SS055	10/5/2017	0.1440	0.1440		0.1394	0.2880	0.6768	0.5731	0.5760	0.5760	0.2880	0.2318	0.2794	0.3485	0.1440
SS055	6/14/2018	0.7200	0.7200	0.1800	0.3960	0.4788	0.6264	0.6192	0.3600	0.3600	0.1800	0.4320	0.3334	0.1678	0.9936
SS055	10/10/2018	0.1440	0.1440	0.1800	0.2462	0.1994	0.7560	0.7560	0.3600	0.7200	0.3600	0.2657	0.2671	0.7920	0.7992
SS055	10/10/2016	0.6487	0.6487		0.1622	0.1596	0.3295	0.3269	0.1379	0.2595	0.1297			0.5783	0.1323
SS055	6/23/2017	0.1152	0.1152		0.7764	0.8345	2.2579	2.3274	0.4680	0.4680	0.2340			0.2934	0.3387
SS056	6/14/2018	0.1800	0.1800	0.2520	0.4854	0.5242	0.5000	0.4838	0.5400	0.5400	0.2520	0.3326	0.3135	0.2989	0.2918
SS056	10/11/2016	0.7863	0.7863		0.0000	0.1417	0.1139	0.1120	0.1134	0.2835	0.1417			0.4337	0.4394
SS056	6/22/2017	0.8640	0.8640		0.6636	0.1728	0.8346	0.8352	0.3456	0.3456	0.1728			0.5213	0.9469
SS057	10/11/2016	0.3543	0.3543		0.6593	0.0000	0.1382	0.1431	0.2268	0.1417	0.7863			0.1679	0.3628
SS057	7/17/2017	0.3600	0.3600		0.3391	0.3780	0.1116	0.1188	0.5760	0.1440	0.7200			0.1854	0.1966
SS057	10/2/2017	0.3600	0.3600		0.6624	0.5731	0.1433	0.1354	0.1440	0.7200	0.7200	0.1591	0.1483	0.2232	0.3600
SS057	6/6/2018	0.1440	0.1440	0.7200	0.7200	0.4464	0.7416	0.7416	0.1440	0.7200	0.3600	0.9648	0.1584	0.1123	0.1800
SS057	9/25/2018	0.1440	0.1440	0.1800	0.3600	0.3600	0.1440	0.1332	0.3600	0.3600	0.3600	0.7848	0.2232	0.2297	0.5890
SS058	10/11/2016	0.3600	0.3600		0.2333	0.7200	0.2426	0.2887	0.1152	0.1440	0.7200			0.2736	0.2642
SS058	7/17/2017	0.3600	0.3600		0.1728	0.7200	0.1674	0.1548	0.1440	0.1440	0.7200			0.2722	0.2556
SS058	10/2/2017	0.3600	0.3600		0.3348	0.7200	0.2988	0.2736	0.1440	0.1440	0.7200	0.7740	0.7848	0.3456	0.3348
SS058	6/6/2018	0.1440	0.1440	0.3600	0.2945	0.3600	0.1346	0.1354	0.7200	0.7200	0.3895	0.4493	0.4651	0.2714	0.2693
SS059	10/25/2017	0.5400	0.5400		0.1230	0.1139	0.2943	0.2933	0.2160	0.2160	0.1800	0.2160	0.1800	0.3639	0.5675
SS059	10/11/2016	0.5779	0.5779		0.1497	0.1663	0.4997	0.3826	0.9245	0.2311	0.1156			0.4986	0.4414
SS059	10/9/2018	0.5184	0.5184	0.1296	0.4173	0.3370	0.9564	0.9746	0.2592	0.2592	0.1296	0.2592	0.1296	0.1144	0.1194
SS059	6/19/2018	0.7200	0.7200	0.1800	0.4500	0.3960	0.9792	0.9612	0.3600	0.3600	0.1800	0.3600	0.1800	0.1368	0.1325
SS059	6/22/2017	0.5760	0.5760		0.4758	0.1152	1.3788	1.3824	0.2340	0.2340	0.1152			0.1256	0.5760
SS060	10/9/2018	0.5760	0.5760	0.1440	0.4867	0.4320	0.1388	0.1446	0.2880	0.2880	0.1440	0.4464	0.1440	0.8698	0.7862
SS060	10/25/2017	0.4320	0.4320		0.1322	0.1313	0.4435	0.3957	0.1728	0.1728	0.8640	0.1400	0.8640	0.2416	0.2678
SS060	6/11/2018	0.4147	0.4147	0.1368	0.2555	0.2322	0.8197	0.8357	0.2736	0.2736	0.1143	0.3463	0.1368	0.4873	0.5376
SS060	10/11/2016	0.1822	0.1822		0.3224	0.3160	0.9868	0.9587	0.1731	0.4329	0.2164			0.6124	0.6558
SS060	6/21/2017	0.2160	0.2160		0.3826	0.3472	0.1185	0.1161	0.8640	0.8640	0.4320			0.6815	0.7711
SS061	10/11/2016	0.3543	0.3543		0.1297	0.1183	0.1283	0.1226	0.1134	0.1417	0.7863			0.7157	0.9992

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS061	6/21/2017	0.2160	0.2160		0.2419	0.4320	0.1823	0.1758	0.8640	0.8640	0.4320			0.2138	0.2542
SS062	10/11/2016	0.3543	0.3543		0.0000	0.7653	0.6314	0.6184	0.1629	0.1417	0.7863			0.1439	0.2523
SS062	6/11/2018	0.8928	0.8928	0.4464	0.4464	0.2232	0.2986	0.3427	0.8928	0.4464	0.2232	0.1312	0.1219	0.4223	0.1134
SS062	10/23/2017	0.2340	0.2340		0.9360	0.4680	0.3393	0.3474	0.9360	0.9360	0.4680	0.1287	0.1357	0.6739	0.2340
SS062	10/8/2018	0.1440	0.1440	0.1800	0.1368	0.1296	0.9936	1.8000	0.3600	0.7200	0.3600	0.1152	0.1188	0.2160	0.2196
SS062	6/21/2017	0.8640	0.8640		0.1797	0.1714	0.6964	0.7379	0.3456	0.3456	0.1728			0.8813	0.1322
SS063	10/3/2017	0.7200	0.7200		0.1440	0.1440	0.2124	0.2448	0.2880	0.1440	0.1440	0.1440	0.9115	0.7200	0.5774
SS063	6/28/2018	0.2880	0.2880	0.1440	0.1440	0.2549	0.9994	0.9792	0.2880	0.1440	0.7200	0.1498	0.7373	0.1980	0.4572
SS063	10/12/2016	0.2153	0.2153		0.3962	0.3877	0.9732	0.9647	0.1378	0.4363	0.4363			0.1667	0.1718
SS063	7/20/2017	0.5760	0.5760		0.8893	0.8755	2.6154	2.6266	0.2340	0.1152	0.1152			0.5852	0.5737
SS064	10/3/2017	0.1800	0.1800		0.2160	0.2160	0.2333	0.1929	0.4320	0.2160	0.2160	0.2160	0.2160	0.1800	0.1800
SS064	10/2/2018	0.7488	0.7488	0.9360	0.1872	0.1872	0.7862	0.7413	0.1872	0.1872	0.1872	0.1872	0.3430	0.9884	0.1689
SS064	6/28/2018	0.1152	0.1152	0.5760	0.5760	0.2880	0.3819	0.3923	0.1152	0.5760	0.2880	0.5933	0.2880	0.3882	0.1440
SS064	7/20/2017	0.6480	0.6480		0.1400	0.1296	0.5998	0.5897	0.2592	0.2592	0.1296			0.9681	0.6480
SS064	10/12/2016	0.1442	0.1442		0.2884	0.2884	3.8640	3.8640	0.4614	0.2884	0.2884			0.1442	0.1442
SS065	10/4/2018	0.1692	0.1267	0.2376	0.1863	0.1896	1.9919	1.8774	0.4752	0.2376	0.2376	0.5988	0.5797	0.2823	0.2932
SS065	10/12/2016	0.3598	0.3598		0.2756	0.2598	2.4537	2.4248	0.5756	0.7195	0.7195			0.4144	0.4779
SS065	6/19/2018	0.1440	0.1440	0.3600	0.2743	0.2628	2.6280	2.4480	0.7200	0.3600	0.3600	0.8928	0.8496	0.3924	0.3787
SS065	6/23/2017	0.1440	0.1440		0.8611	0.8266	3.3120	3.3696	0.5760	0.5760	0.2880			0.4522	0.5126
SS065	10/3/2017	0.1642	0.1642		0.3482	0.4554	11.7212	1.9987	0.6566	0.6566	0.6566	0.3677	0.3841	0.2659	0.4925
SS066	10/3/2017	0.7200	0.7200		0.6854	0.6466	0.5616	0.5256	0.2880	0.2880	0.2880	0.1915	0.1958	0.2628	0.2880
SS066	6/23/2017	0.2880	0.1187		0.2628	0.2575	2.2176	2.2234	0.1152	0.1829	0.5760			0.1771	0.1313
SS066	10/12/2016	0.4334	0.4334		0.3978	0.3987	3.3216	3.2848	0.6934	0.8668	0.8668			0.2731	0.2881
SS067	6/21/2017	0.2232	0.2578		0.2758	0.2736	0.1166	0.1238	0.1440	0.7200	0.7200			0.1728	0.1728
SS067	10/23/2017	0.2318	0.2225		0.2974	0.2894	0.1598	0.1555	0.1440	0.7200	0.7200	0.4493	0.4486	0.1786	0.1872
SS067	6/5/2018	0.5256	0.5274	0.3600	0.6624	0.6480	0.2995	0.2966	0.7200	0.7200	0.7200	0.9288	0.9324	0.5227	0.5789
SS067	10/8/2018	0.5458	0.5472	0.3600	0.5976	0.5148	0.3456	0.3528	0.7200	0.7200	0.7200	0.9274	0.8813	0.3780	0.3427
SS067	10/17/2016	0.6868	0.6912		0.8765	0.8678	0.4383	0.4368	0.6977	0.2184	0.2184			0.5625	0.5647
SS068	10/8/2018	0.1152	0.1152	0.1440	0.4516	0.4172	0.8640	0.8179	0.2880	0.5760	0.2880	0.1970	0.2246	0.8352	0.9274
SS068	10/23/2017	0.3600	0.3600		0.6174	0.5962	0.8640	0.8280	0.1440	0.1440	0.7200	0.1598	0.1793	0.1116	0.1296
SS068	10/17/2016	0.4334	0.4334		0.7298	0.7697	1.5381	0.9967	0.1387	0.8668	0.8668			0.1639	0.1655
SS068	6/21/2017	0.5400	0.5400		0.8759	0.8564	0.9540	0.9882	0.4320	0.2160	0.1800			0.1782	0.2340
SS068	6/5/2018	0.2340	0.2340	0.2880	0.6820	0.7337	1.3363	1.3478	0.5760	0.5760	0.5760	0.2868	0.3122	0.1786	0.1912
SS069	10/9/2018	0.3348	0.3456	0.1800	0.2138	0.1868	0.7798	0.7819	0.2160	0.1800	0.5400	0.1771	0.1685	0.1588	0.1534

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	Be D Load	Be T Load	Br T Load	Cd D Load	Cd T Load	Ca D Load	Ca T Load	Cl- T Load	Cr D Load	Cr T Load	Co D Load	Co T Load	Cu D Load	Cu T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS069	6/19/2018	0.3542	0.3384	0.1440	0.2448	0.2218	0.9576	0.8885	0.2880	0.1440	0.7200	0.2124	0.2736	0.2117	0.2736
SS069	10/17/2016	0.5322	0.5474		0.4557	0.4557	0.1546	0.1539	0.3489	0.4368	0.2184			0.3227	0.3767
SS069	10/23/2017	0.1457	0.1336		0.1714	0.9850	0.3761	0.3813	0.2340	0.1152	0.5760	0.8352	0.9274	0.7776	0.8755
SS069	6/21/2017	0.4320	0.4320		0.1195	0.9331	0.3465	0.3732	0.1728	0.1728	0.8640			0.8874	0.8143
SS070	10/17/2016	0.2153	0.2153		0.4173	0.3932	0.1616	0.1615	0.3445	0.8613	0.4363			0.5684	0.6416
SS070	6/11/2018	0.8640	0.8640	0.2160	0.1896	0.2448	0.1132	0.1136	0.4320	0.4320	0.2160	0.7214	0.8294	0.2985	0.3400
SS070	10/9/2018	0.8640	0.8640	0.2160	0.4143	0.3539	0.1763	0.1780	0.4320	0.4320	0.2160	0.7862	0.8165	0.5659	0.3771
SS070	10/23/2017	0.2520	0.2520		0.4153	0.4428	0.1786	0.1668	0.1800	0.1800	0.5400	0.2359	0.2475	0.5897	0.6300
SS070	6/21/2017	0.8640	0.8640		0.1185	0.1113	0.3249	0.3647	0.3456	0.3456	0.1728			0.1712	0.1763
SS071	10/1/2018	0.3773	0.3773	0.1886	0.1886	0.9432	27.5414	25.4664	0.3773	0.1886	0.9432	0.1462	0.1467	0.1953	0.4716
SS071	10/1/2018	0.3773	0.3773	0.1886	0.1886	0.9432	27.3528	26.2296	0.3773	0.1886	0.9432	0.1441	0.1498	0.2000	0.4716
SS071	10/17/2016	0.1920	0.1920		0.2184	0.2184	27.2550	27.3693	0.3489	0.2184	0.2184			0.1920	0.1920
SS071	10/24/2017	0.1243	0.1243		0.4971	0.2486	3.8229	3.5735	4.9714	0.4971	0.2486	0.2123	0.2342	0.2227	0.1243
SS071	6/18/2018	0.6151	0.6151	0.3526	0.3526	0.1526	38.7675	38.7675	0.6151	0.4213	0.1526	0.2968	0.2963	0.3514	0.9616
SS071	6/27/2017	0.3654	0.3654		0.7380	0.7380	86.1494	93.4524	7.3800	0.7380	0.7380			0.3654	0.3654
SS072	6/27/2017	0.5400	0.5400		0.1922	0.1955	1.9764	2.2140	0.2160	0.1800	0.1800			0.3132	0.1436
SS072	6/18/2018	0.5184	0.5184	0.6480	0.8683	0.8928	5.1624	4.9572	0.1296	0.2592	0.1296	0.1158	0.1158	0.4588	0.4821
SS072	10/1/2018	0.8467	0.8467	0.1584	0.2117	0.2117	9.4833	9.1224	0.2117	0.2117	0.2117	0.6943	0.7278	0.1923	0.9314
SS072	10/24/2017	0.2520	0.2520		0.5400	0.5400	9.4248	9.3744	1.8000	0.5400	0.5400	0.1119	0.1836	0.1719	0.3247
SS072	10/17/2016	0.5193	0.5193		0.1384	0.1384	2.8721	2.9760	0.3323	0.1384	0.1384			0.2982	0.4885
SS073	6/27/2017	0.5400	0.5400		0.1800	0.1800	1.8432	1.8749	0.2160	0.1800	0.1800			0.3669	0.6480
SS073	6/18/2018	0.2160	0.3240	0.2700	0.1800	0.5400	1.9764	1.9332	0.5400	0.1598	0.5400	0.2549	0.2556	0.4788	0.1847
SS073	10/1/2018	0.2189	0.2189	0.2736	0.5472	0.5472	2.2982	2.2169	0.5472	0.5472	0.5472	0.1882	0.2233	0.2736	0.7917
SS073	10/17/2016	0.8640	0.8640		0.1728	0.1728	2.9894	2.9375	0.2765	0.1728	0.1728			0.1163	0.1976
SS073	10/24/2017	0.1296	0.1296		0.2592	0.2592	4.7952	4.6397	0.5184	0.2592	0.2592	0.6273	0.6247	0.1654	0.1647
SS074	10/1/2018	0.5789	0.5400	0.3600	0.1498	0.1440	0.3686	0.3586	0.7200	0.1231	0.1238	0.1325	0.1217	0.1699	0.1570
SS074	10/17/2016	0.2153	0.2153		0.2795	0.2679	0.7278	0.7191	0.1378	0.4363	0.4363			0.1662	0.1585
SS074	10/24/2017	0.2340	0.2340		0.2866	0.2934	0.8640	0.8640	0.9216	0.4680	0.4680	0.1981	0.1977	0.2313	0.2272
SS074	6/27/2017	0.7200	0.7200		0.1656	0.9331	2.3400	2.5632	0.2880	0.1440	0.1440			0.6250	0.6192
SS075	6/18/2018	0.2714	0.2714	0.2589	0.3480	0.5178	2.4367	19.5745	0.5178	0.1585	0.5178	0.1465	0.1183	0.2299	0.3216
SS075	10/1/2018	0.3744	0.3744	0.4680	0.9360	0.9360	42.6816	41.1840	0.9360	0.9360	0.9360	0.1897	0.1743	0.4680	0.4680
SS075	10/17/2016	0.1298	0.1298		0.2596	0.2596	47.2429	46.7237	0.4153	0.2596	0.2596			0.1298	0.1298
SS075	6/27/2017	0.1440	0.1440		0.1449	0.2880	46.3680	49.5360	2.8800	0.2880	0.2880			0.1562	0.1829
SS075	10/24/2017	0.1440	0.1440		0.2880	0.2880	5.4000	5.9760	5.7600	0.2880	0.2880	0.2639	0.2572	0.1440	0.1440

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS076	10/18/2016	0.3600	0.3600		0.1440	0.7200	0.3888	0.3852	0.5760	0.1440	0.7200			0.4637	0.3600
SS076	7/18/2017	0.3600	0.3600		0.1440	0.7200	0.2923	0.2880	0.1440	0.1440	0.7200			0.5580	0.3600
SS076	10/10/2017	0.3600	0.3600		0.1440	0.7200	0.2916	0.3154	0.1440	0.1440	0.7200	0.1440	0.7200	0.5414	0.3600
SS076	6/27/2018	0.1440	0.1440	0.3600	0.7200	0.3600	0.3485	0.3478	0.7200	0.7200	0.3600	0.7200	0.3600	0.6422	0.1800
SS076	9/26/2018	0.1440	0.1440	0.3600	0.7200	0.3600	0.1224	0.1116	0.7200	0.7200	0.3600	0.8856	0.3600	0.4212	0.4882
SS077	6/27/2018	0.1152	0.1152	0.2880	0.5760	0.2880	0.6588	0.6624	0.5760	0.5760	0.2880	0.5760	0.2880	0.2880	0.1440
SS077	10/18/2016	0.6487	0.6487		0.2595	0.1297	0.2146	0.2128	0.1379	0.1428	0.1297			0.1297	0.6487
SS077	9/26/2018	0.3456	0.3456	0.8640	0.1728	0.8640	0.3240	0.2644	0.1728	0.1728	0.8640	0.1728	0.8640	0.8640	0.4320
SS077	10/10/2017	0.2736	0.2736		0.1944	0.5472	0.7416	0.7668	0.1944	0.1944	0.5472	0.1944	0.5472	0.5472	0.2736
SS077	7/18/2017	0.2862	0.2862		0.1145	0.5724	4.6189	4.5928	1.1448	0.1145	0.5724			0.2993	0.2862
SS078	10/10/2017	0.1584	0.1584		0.6336	0.3168	0.7128	0.7730	0.6336	0.6336	0.3168	0.6336	0.3168	0.3168	0.1584
SS078	9/26/2018	0.8640	0.8640	0.2160	0.4320	0.2160	1.1592	0.9763	0.4320	0.4320	0.2160	0.4320	0.2160	0.2160	0.1800
SS078	10/18/2016	0.4759	0.4759		0.1935	0.9517	2.2278	2.1129	0.7614	0.1935	0.9517			0.9517	0.4759
SS078	6/27/2018	0.1958	0.1958	0.4896	0.9792	0.4896	1.6548	1.6353	0.9792	0.9792	0.4896	0.9792	0.4896	0.4896	0.3496
SS078	7/18/2017	0.1800	0.1800		0.4320	0.2160	3.6720	3.6720	0.4320	0.4320	0.2160			0.2160	0.1800
SS079	9/26/2018	0.1440	0.1440	0.3600	0.7200	0.3600	0.2214	0.2174	0.7200	0.7200	0.3600	0.7200	0.3600	0.5414	0.4363
SS079	10/18/2016	0.7863	0.7863		0.2835	0.1417	0.3812	0.3600	0.1134	0.2835	0.1417			0.0000	0.7863
SS079	6/27/2018	0.2880	0.2880	0.7200	0.1440	0.7200	0.2362	0.2340	0.1440	0.1440	0.7200	0.1440	0.7200	0.1469	0.3600
SS079	10/10/2017	0.4320	0.4320		0.1728	0.8640	0.2272	0.2454	0.1728	0.1728	0.8640	0.1728	0.8640	0.6299	0.4320
SS079	7/18/2017	0.8640	0.8640		0.3456	0.1728	5.1322	5.2358	0.3456	0.3456	0.1728			0.1728	0.8640
SS080	10/18/2016	0.3600	0.3600		0.1440	0.7200	0.9936	0.9432	0.5760	0.1440	0.7200			0.8424	0.3600
SS080	6/27/2018	0.1440	0.1440	0.3600	0.7200	0.3600	0.1188	0.1188	0.7200	0.7200	0.3600	0.1390	0.3600	0.1519	0.1800
SS080	9/26/2018	0.1440	0.1440	0.3600	0.7200	0.3600	0.1944	0.1692	0.7200	0.7200	0.3600	0.7200	0.3600	0.1980	0.1800
SS080	10/10/2017	0.7200	0.7200		0.2880	0.1440	0.1526	0.1656	0.2880	0.2880	0.1440	0.2880	0.1440	0.1685	0.7200
SS082	6/28/2018	0.1152	0.1152	0.2880	0.5760	0.2880	0.1426	0.1483	0.5760	0.5760	0.2880	0.3911	0.2880	0.4248	0.1440
SS082	10/20/2016	0.4334	0.4334		0.1733	0.8668	0.1888	0.1837	0.6934	0.1733	0.8668			0.0000	0.4334
SS083	10/20/2016	0.2621	0.2267		0.1615	0.1850	0.4933	0.4882	0.2835	0.4145	0.4748			0.1346	0.1474
SS083	6/12/2018	0.5760	0.5760	0.7200	0.2340	0.2546	0.7546	0.7517	0.1440	0.5789	0.1976	0.3917	0.4464	0.2246	0.2459
SS083	7/20/2017	0.4464	0.4464		0.5714	0.5437	2.3927	2.3391	0.1786	0.1786	0.8928			0.4668	0.4553
SS084	10/20/2016	0.8248	0.8148		0.6327	0.7283	0.2498	0.1982	0.1156	0.1696	0.1959			0.5489	0.6670
SS084	6/12/2018	0.8640	0.8640	0.1800	0.3560	0.4162	0.1119	0.1136	0.2160	0.9216	0.2964	0.5789	0.6394	0.3816	0.4169
SS084	7/20/2017	0.4882	0.4882		0.1619	0.1513	21.9534	21.1772	1.6353	0.1635	0.8176			0.9239	0.9239
SS085	10/20/2016	0.3600	0.3600		0.9792	0.9864	0.2455	0.2470	0.2880	0.7200	0.7200			0.4428	0.4968
SS085	10/2/2018	0.1440	0.1440	0.1800	0.9432	0.8640	0.2822	0.2657	0.3600	0.3600	0.3600	0.3629	0.3377	0.3751	0.4133

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS085	6/28/2018	0.8640	0.8640	0.1800	0.4622	0.4464	0.9864	1.2816	0.2160	0.2160	0.2160	0.1512	0.1572	0.3244	0.3629
SS085	7/20/2017	0.5400	0.5400		0.9868	0.9677	2.1370	2.1974	0.2160	0.1800	0.1800			0.1598	0.8225
SS086	10/20/2016	0.2998	0.2998		0.3283	0.1997	0.9714	0.9774	0.2398	0.1199	0.5997			0.6536	0.7735
SS086	10/11/2017	0.3600	0.3600		0.1138	0.1800	0.1224	0.1332	0.1440	0.7200	0.7200	0.2383	0.2214	0.2542	0.2232
SS086	6/14/2018	0.2880	0.2880	0.3600	0.3528	0.2880	0.2650	0.2650	0.7200	0.1440	0.7200	0.4853	0.5112	0.6336	0.7416
SS086	10/9/2018	0.4680	0.4680	0.5760	0.1318	0.1988	0.4216	0.4378	0.1152	0.1152	0.1152	0.4493	0.8874	0.6156	0.9516
SS086	6/22/2017	0.2160	0.2160		0.7560	0.6523	0.6264	0.6782	0.8640	0.4320	0.4320			0.2670	0.2837
SS087	10/25/2016	0.1297	0.5241		0.3166	0.2595	1.3700	1.3837	0.4151	0.5189	0.2680			0.2965	0.2226
SS087	10/18/2017	0.2160	0.2160		0.3146	0.3816	1.8756	1.8432	0.8640	0.8640	0.4320	0.1973	0.1800	0.1914	0.1827
SS087	6/26/2018	0.1440	0.1440	0.3600	0.1922	0.3600	1.3140	1.2312	0.7200	0.7200	0.3600	0.4572	0.4716	0.1253	0.1274
SS087	10/3/2018	0.1728	0.1728	0.4320	0.2756	0.4320	1.7712	1.7172	0.8640	0.8640	0.4320	0.5296	0.5193	0.1564	0.1526
SS087	10/3/2018	0.1728	0.1728	0.4320	0.3568	0.4320	1.7712	1.7539	0.8640	0.8640	0.4320	0.5417	0.5124	0.1547	0.1555
SS087	6/27/2017	0.2428	0.2428		0.1787	0.4857	8.3519	8.1595	0.9714	0.9714	0.4857			0.1174	0.1636
SS088	6/26/2018	0.2880	0.2880	0.7200	0.1440	0.7200	0.3168	0.2952	0.1440	0.1440	0.7200	0.8568	0.8957	0.1392	0.3600
SS088	10/3/2018	0.4320	0.4320		0.2160	0.1800	0.6480	0.5638		0.2160	0.1800	0.1830	0.1728	0.1344	0.5400
SS088	10/18/2017	0.1728	0.1728		0.6912	0.3456	0.5998	0.5599	0.6912	0.6912	0.3456	0.1655	0.3456	0.3456	0.1728
SS088	10/25/2016	0.2153	0.2153		0.8613	0.4363	0.5216	0.6847	0.3445	0.8613	0.3168			0.0000	0.2153
SS088	6/27/2017	0.2160	0.2160		0.8640	0.4320	0.4579	0.4493	0.8640	0.8640	0.4320			0.3387	0.2160
SS089	6/28/2018	0.2880	0.2880	0.7200	0.1440	0.7200	0.1555	0.1512	0.1440	0.1440	0.7200	0.1440	0.7200	0.3427	0.4234
SS089	10/3/2018	0.1440	0.1440	0.7200	0.7200	0.3600	0.5551	0.5335	0.1440	0.7200	0.3600	0.7200	0.3600	0.3600	0.1800
SS089	10/25/2016	0.8722	0.8722		0.3489	0.1744	0.1972	0.2268	0.4368	0.3489	0.1256			0.0000	0.8722
SS089	10/12/2017	0.1440	0.1440		0.5760	0.2880	0.1765	0.1980	0.1152	0.6912	0.2880	0.5760	0.2880	0.2880	0.1440
SS089	6/29/2017	0.6264	0.6264		0.2556	0.1253	0.8456	0.8682	0.2556	0.2556	0.1253			0.1253	0.6264
SS090	6/28/2018	0.7200	0.7200	0.1800	0.3600	0.1800	0.3780	0.4140	0.3600	0.3600	0.1800	0.3600	0.1800	0.1800	0.9000
SS090	10/3/2018	0.1728	0.1728	0.4320	0.8640	0.4320	0.3672	0.3578	0.8640	0.8640	0.4320	0.1417	0.4320	0.4320	0.2160
SS090	10/25/2016	0.7863	0.7863		0.2835	0.1417	0.1856	0.1135	0.1842	0.2835	0.1625			0.1417	0.7863
SS090	6/29/2017	0.1800	0.1800		0.4320	0.2160	0.7366	0.7236	0.4320	0.4320	0.2160			0.2160	0.1800
SS091	6/29/2017	0.7200	0.7200		0.2880	0.1440	0.3283	0.3139	0.2880	0.2880	0.1440			0.2664	0.7200
SS091	10/12/2017	0.7200	0.7200		0.2880	0.1440	0.2837	0.2880	0.2880	0.2880	0.1440	0.2290	0.2880	0.7978	0.6638
SS091	10/25/2016	0.3598	0.3598		0.1440	0.7195	0.1360	0.1799	0.5756	0.1440	0.5329			0.3292	0.2979
SS091	6/26/2018	0.1512	0.1512	0.3780	0.1792	0.3780	0.5746	0.5988	0.7560	0.7560	0.3780	0.1935	0.1922	0.3667	0.3651
SS092	6/26/2018	0.5760	0.5760	0.1440	0.2880	0.1440	0.2995	0.2848	0.2880	0.2880	0.1440	0.2988	0.1440	0.4752	0.7200
SS092	11/8/2016	0.1920	0.1920		0.4368	0.2184	0.2377	0.2442	0.1744	0.4368	0.1576			0.2148	0.1920
SS092	10/18/2017	0.1440	0.1440		0.5760	0.2880	0.2690	0.2629	0.5760	0.5760	0.2880	0.5760	0.2880	0.3283	0.1415

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Be D Load	Be T Load	Br T Load	Cd D Load	Cd T Load	Ca D Load	Ca T Load	Cl- T Load	Cr D Load	Cr T Load	Co D Load	Co T Load	Cu D Load	Cu T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS092	7/21/2017	0.2880	0.2880		0.1152	0.5760	0.4936	0.4994	0.1152	0.1152	0.5760			0.7272	0.2880
SS093	10/3/2018	0.7200	0.7200	0.1800	0.5544	0.1800	0.7416	0.7200	0.3600	0.3600	0.1800	0.3294	0.2995	0.4140	0.3816
SS093	11/8/2016	0.1417	0.7863		0.0000	0.1417	0.3571	0.3557	0.1134	0.5669	0.1162			0.2948	0.2678
SS093	7/21/2017	0.1440	0.1440		0.5760	0.2880	0.2189	0.2362	0.5760	0.5760	0.2880			0.1935	0.8352
SS093	6/26/2018	0.5184	0.5184	0.1296	0.2592	0.1296	0.1449	0.1468	0.2592	0.2592	0.1296	0.1679	0.1938	0.1838	0.1998
SS094	7/21/2017	0.2160	0.2160		0.9850	0.4320	0.6523	0.6998	0.8640	0.8640	0.4320			0.6480	0.1512
SS094	11/8/2016	0.7863	0.7863		0.4677	0.5513	0.2653	0.2679	0.2835	0.2835	0.1289			0.2664	0.2948
SS094	10/3/2018	0.5184	0.5184	0.6480	0.1296	0.1296	0.5728	0.5547	0.1296	0.1296	0.1296	0.3758	0.1827	0.6791	0.2124
SS094	6/26/2018	0.1728	0.1728	0.2160	0.1668	0.1858	0.7249	0.7828	0.4320	0.8640	0.4320	0.3923	0.4113	0.1287	0.1598
SS095	6/26/2018	0.1440	0.1440	0.7200	0.7200	0.3600	0.5148	0.5587	0.1440	0.7200	0.3600	0.4248	0.7272	0.6624	0.4968
SS095	10/3/2018	0.1440	0.1440	0.7200	0.3600	0.3600	0.9000	0.8784	0.1440	0.3600	0.3600	0.3600	0.3600	0.1800	0.1800
SS095	11/8/2016	0.3598	0.3598		0.1440	0.7195	0.7267	0.7339	0.2878	0.1440	0.5238			0.5325	0.3497
SS095	10/18/2017	0.4320	0.4320		0.1728	0.8640	0.9418	0.9245	0.3456	0.1278	0.8640	0.3344	0.1145	0.1454	0.6834
SS095	6/27/2017	0.5184	0.5184		0.2736	0.1368	0.4645	0.4821	0.2736	0.2736	0.1368			0.1275	0.4386
SS096	6/28/2018	0.5760	0.5760	0.1440	0.7517	0.5875	0.1333	0.1282	0.2880	0.2880	0.1440	0.1224	0.9274	0.4554	0.3946
SS096	11/8/2016	0.1772	0.3543		0.7863	0.7863	0.1113	0.1127	0.5669	0.7863	0.5223			0.5442	0.7447
SS096	10/18/2017	0.5400	0.5400		0.3488	0.3143	0.3877	0.3748	0.2160	0.2160	0.1800	0.3924	0.3316	0.1663	0.1494
SS096	6/26/2017	0.2256	0.2256		0.3723	0.3235	0.1467	0.1692	0.9234	0.9234	0.4512			0.1247	0.1313
SS097	11/8/2016	0.1978	0.1978		0.6983	0.7135	0.4617	0.4770	0.3526	0.7631	0.2713			0.3178	0.6151
SS097	6/26/2017	0.3600	0.3600		0.8280	0.7200	0.7416	0.7740	0.1440	0.1440	0.7200			0.1382	0.3600
SS098	11/8/2016	0.1978	0.1978		0.2834	0.2137	0.1258	0.1236	0.6151	0.3816	0.4446			0.6965	0.7288
SS098	6/26/2017	0.2880	0.2880		0.1538	0.1688	0.1175	0.1292	0.2340	0.7488	0.5760			0.5535	0.6588
SS098	10/3/2018	0.1152	0.1152	0.1440	0.2511	0.2655	0.1912	0.1886	0.2880	0.1343	0.2880	0.2183	0.2442	0.8582	0.9446
SS098	10/18/2017	0.2880	0.2880		0.2362	0.2471	0.1895	0.1822	0.1152	0.1192	0.5760	0.2218	0.2344	0.8294	0.8874
SS105	9/25/2018	0.1417	0.1417	0.1771	0.3542	0.3542	13.3632	12.6818	0.3542	0.3542	0.3542	0.4521	0.4442	0.2147	0.2488
SS105	6/14/2018	0.1657	0.1657	0.2714	0.8865	0.8368	12.9684	12.4283	0.4143	0.8286	0.4143	0.4971	0.5369	0.2549	0.3496
SS105	10/11/2017	0.6677	0.6677		0.1335		22.1692	21.9290	2.6799	0.1335		0.7867		0.3353	
SS105	9/20/2016				0.1274	0.1226	26.6400	27.8640		0.1858	0.2786			0.6873	0.6873
SS105	6/22/2017	0.2214	0.2214		0.8932	0.8355	45.9763	48.6288	8.8416	0.8842	0.4428			0.8355	0.1114
SS123	6/28/2018	0.8640	0.8640	0.1800	0.3622	0.3974	0.1843	0.2448	0.2160	0.6437	0.2160	0.1223	0.1192	0.4327	0.4651
SS123	6/27/2017	0.2592	0.2592		0.1364	0.5184	0.1298	0.1284	0.1368	0.1368	0.5184			0.1612	0.1612
SS125	10/18/2017	0.7200	0.7200		0.3946	0.4176	0.1800	0.1771	0.2880	0.1440	0.1440	0.1786	0.1742	0.4277	0.3816
SS125	9/29/2016				0.3776	0.4925	0.1642	0.2135		0.4268	0.8438			0.3119	0.4432
SS126	10/3/2018	0.8640	0.8640	0.1800	0.1793	0.1767	0.6998	0.6826	0.2160	0.2160	0.2160	0.1188	0.1214	0.3439	0.3443

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	Be D Load	Be T Load	Br T Load	Cd D Load	Cd T Load	Ca D Load	Ca T Load	Cl- T Load	Cr D Load	Cr T Load	Co D Load	Co T Load	Cu D Load	Cu T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS126	10/18/2017	0.5760	0.5760		0.4239	0.4464	0.1822	0.1797	0.2340	0.1152	0.1152	0.2972	0.2938	0.4385	0.4274
SS126	6/28/2018	0.3456	0.3456	0.4320	0.9556	0.9212	0.2955	0.2783	0.8640	0.1178	0.8640	0.5274	0.5458	0.3586	0.2799
SS126	9/29/2016				0.7441	0.7441	0.3528	0.3528		0.3244	0.4388			0.8395	0.8586
SS126	6/27/2017	0.4536	0.4536		0.1996	0.9720	0.1769	0.1760	0.1814	0.1814	0.9720			0.4643	0.4119
SS200	10/23/2017	0.1800	0.1800		0.2160	0.2160	6.4800	6.3720	0.4320	0.2160	0.2160	0.5760	0.4990	0.1800	0.5422
SS200	10/8/2018	0.5184	0.5184	0.6480	0.1296	0.1296	8.7869	8.6832	0.1296	0.1296	0.1296	0.6661	0.9490	0.7499	0.8865
SS200	10/8/2018	0.5184	0.5184	0.6480	0.1296	0.1296	8.7696	8.7354	0.1296	0.1296	0.1296	0.6713	0.7854	0.8352	0.1166
SS200	6/11/2018	0.5760	0.5760	0.7200	0.1440	0.1440	8.3520	8.7552	0.1440	0.1440	0.1642	0.6912	0.7229	0.7344	0.9180
SS200	6/23/2017	0.1728	0.1728		0.8225	0.3456	8.5788	8.7782	0.6912	0.6912	0.3456			0.7223	0.1189
SS201	10/4/2018	0.2160	0.1935	0.4320	0.3758	0.3726	3.3788	3.5323	0.8640	0.4320	0.4320	0.1476	0.1460	0.5137	0.4846
SS201	6/19/2018	0.3240	0.3254	0.7200	0.7128	0.7114	5.1264	5.1264	0.1440	0.7200	0.7200	0.2124	0.2146	0.1138	0.1199
SS201	10/3/2017	0.1152	0.1152		0.1253	0.1483	8.6634	8.3174	0.4680	0.4680	0.4680	0.3963	0.4147	0.1276	0.1462
SS201	6/23/2017	0.5760	0.2385		0.4554	0.4735	3.3984	3.5251	0.2340	0.2340	0.1152			0.5553	0.6854
SS202	10/2/2018	0.1440	0.1440	0.7200	0.2491	0.2311	0.5530	0.5328	0.1440	0.1555	0.3600	0.8136	0.7920	0.7200	0.6516
SS202	6/26/2017	0.8640	0.8640		0.4182	0.4327	0.1619	0.1745	0.1728	0.5350	0.1728			0.1884	0.2125
SS203	6/27/2017	0.1800	0.1800		0.5292	0.5148	0.1397	0.1415	0.7200	0.7200	0.3600			0.1465	0.1519
SS204	6/27/2017	0.8640	0.8640		0.8346	0.8243	0.9798	0.1159	0.3456	0.1163	0.1284			0.2160	0.2125
SS204	10/18/2017	0.9360	0.9360		0.2714	0.1784	0.1552	0.1531	0.3744	0.3744	0.1872	0.6577	0.4717	0.3856	0.2880
SS205	6/29/2017	0.2160	0.2160		0.8640	0.4320	0.4450	0.4788	0.8640	0.8640	0.4320			0.4320	0.2160
SS206	10/12/2017	0.2160	0.2160		0.1914	0.4320	0.4176	0.3983	0.8640	0.8640	0.4320	0.9115	0.9540	0.8294	0.8424
SS206	6/29/2017	0.1296	0.1296		0.8916	0.2592	0.7828	0.8528	0.5184	0.5184	0.2592			0.2553	0.2644
SS207	6/29/2017	0.7200	0.7200		0.2880	0.1440	0.2923	0.3211	0.2880	0.2880	0.1440			0.3780	0.4680
SS208	6/29/2017	0.7200	0.7200		0.2880	0.1440	0.3672	0.3254	0.2880	0.2880	0.1440			0.4882	0.4752
SS208	6/28/2018	0.4320	0.4320	0.1800	0.2160	0.1800	0.7848	0.7625	0.2160	0.2160	0.1800	0.6415	0.6242	0.1447	0.1359
SS208	10/3/2018	0.5400	0.5400	0.1260	0.2520	0.1260	0.3888	0.3679	0.2520	0.2520	0.1260	0.4838	0.4813	0.3888	0.6300
SS208	10/12/2017	0.3600	0.3600		0.1440	0.7200	0.6653	0.6624	0.1440	0.1440	0.7200	0.1462	0.1433	0.1368	0.3600
SS210	9/24/2018	0.2657	0.2333	0.1800	0.2988	0.2923	1.2384	1.1376	0.3600	0.3600	0.3600	0.1246	0.1314	0.1627	0.1728
SS210	10/16/2017	0.3329	0.3468		0.3940	0.3698	1.6474	1.6740	0.2340	0.2340	0.1152	0.2615	0.2189	0.2235	0.1970
SS210	6/13/2018	0.2419	0.2419	0.1296	0.2232	0.2794	8.7552	8.6849	0.2419	0.1296	0.6480	0.1972	0.2165	0.1155	0.1294
SS210	7/10/2017	0.6526	0.6556		0.6586	0.6646	26.6417	26.1537	1.1922	0.5961	0.2986			0.3755	0.3963
SS211	7/10/2017	0.2160	0.2160		0.8856	0.8165	0.1379	0.1326	0.8640	0.8640	0.4320			0.7956	0.8251
SS212	7/11/2017	0.6480	0.6480		0.4342	0.3847	1.4273	1.4314	0.2419	0.2419	0.1296			0.2939	0.2976
SS213	7/12/2017	0.1296	0.1296		0.1511	0.1568	0.2814	0.1915	0.5184	0.5184	0.2592			0.2814	0.2628
SS214	7/11/2017	0.3456	0.3456		0.2799	0.2732	5.2669	5.6650	0.2765	0.1382	0.6912			0.2668	0.3275

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS215	10/2/2017	0.7200	0.7200		0.1174	0.1843	0.5731	0.5328	0.2880	0.2880	0.1440	0.1598	0.1440	0.8874	0.9763
SS215	7/17/2017	0.1297	0.1297		0.1334	0.2595	1.6658	1.6913	0.5189	0.5189	0.2595			0.3918	0.1297
SS215	6/6/2018	0.9118	0.9118	0.2278	0.2458	0.2423	2.7925	2.9712	0.4555	0.4555	0.3794	0.4555	0.2278	0.8635	0.1139
SS216	6/5/2018	0.2340	0.2340	0.5760	0.1152	0.5760	0.3249	0.3398	0.1152	0.1152	0.6117	0.1152	0.5760	0.1843	0.2880
SS216	7/17/2017	0.7200	0.7200		0.2880	0.1440	0.4680	0.4572	0.2880	0.2880	0.1440			0.1980	0.7200
SS217	9/26/2018	0.1152	0.1152	0.2880	0.1284	0.2880	0.2172	0.2160	0.5760	0.5760	0.2880	0.3185	0.4666	0.6156	0.1440
SS217	6/27/2018	0.6480	0.6480	0.1620	0.3240	0.1620	0.2122	0.2736	0.3240	0.3240	0.1620	0.3240	0.1620	0.1620	0.8100
SS217	7/18/2017	0.7200	0.7200		0.2880	0.1440	0.8842	0.8798	0.2880	0.2880	0.1440			0.1440	0.7200
SS218	9/26/2018	0.8640	0.8640	0.4320	0.8467	0.8554	0.3223	0.3240	0.8640	0.4320	0.2160	0.3750	0.3547	0.7380	0.7690
SS218	7/18/2017	0.3600	0.3600		0.1548	0.1440	0.4946	0.4838	0.2880	0.1440	0.7200			0.9720	0.9216
SS218	6/27/2018	0.1674	0.1674	0.4176	0.4313	0.4176	3.9839	3.9254	0.8352	0.8352	0.4176	0.1830	0.1796	0.1528	0.2880
SS219	10/1/2018	0.8640	0.8640	0.2160	0.1884	0.1836	0.7560	0.6998	0.4320	0.4320	0.2160	0.2467	0.2549	0.4450	0.4225
SS219	10/19/2017	0.3600	0.3600		0.2520	0.2376	0.1728	0.1728	0.1440	0.1440	0.7200	0.3564	0.3312	0.7632	0.6394
SS219	6/28/2018	0.3456	0.3456	0.8640	0.2316	0.2783	0.1953	0.1987	0.1728	0.1728	0.8640	0.3750	0.4113	0.5350	0.6117
SS219	7/24/2017	0.4320	0.4320		0.2298	0.2556	0.9763	1.3680	0.1728	0.1728	0.8640			0.8217	0.9720
SS220	6/28/2018	0.1581	0.1547	0.2160	0.1652	0.1512	1.2355	1.2355	0.4320	0.8640	0.4320	0.3266	0.3439	0.2376	0.2376
SS220	10/1/2018	0.3180	0.2923	0.4320	0.2736	0.2246	1.8835	1.8144	0.8640	0.1728	0.8640	0.3370	0.4262	0.3672	0.3249
SS220	7/24/2017	0.1398	0.1513		0.1464	0.1349	11.1226	11.2180	1.6353	0.1635	0.8176			0.1897	0.2333
SS221	6/28/2018	0.3946	0.3773	0.7200	0.6883	0.6372	0.4320	0.3744	0.1440	0.1440	0.1440	0.1224	0.8438	0.5530	0.4723
SS221	7/24/2017	0.1433	0.1526		0.2174	0.2736	1.3428	1.4274	0.2880	0.1440	0.1440			0.1278	0.1225
SS222	6/28/2018	0.1272	0.1273	0.3600	0.6278	0.5789	1.9584	1.4544	0.7200	0.7200	0.7200	0.1282	0.1176	0.3326	0.3240
SS222	7/24/2017	0.1570	0.1642		0.1343	0.1332	12.6432	12.8448	2.8800	0.1440	0.1440			0.8856	0.9576
SS223	10/1/2018	0.8640	0.8640	0.2160	0.4320	0.2574	0.2493	0.2448	0.4320	0.4320	0.2160	0.6354	0.2160	0.3149	0.1832
SS223	6/28/2018	0.1440	0.1440	0.3600	0.8856	0.3600	0.3456	0.3276	0.7200	0.7200	0.3600	0.7200	0.3600	0.3600	0.1800
SS223	10/19/2017	0.5760	0.5760		0.2340	0.1152	0.6762	0.6746	0.1152	0.2340	0.1152	0.2340	0.1152	0.1152	0.5760
SS223	7/24/2017	0.1728	0.1728		0.6912	0.3456	0.1655	0.1731	0.6912	0.6912	0.3456			0.3456	0.1728
SS224	7/24/2017	0.8640	0.1134		0.1154	0.1852	2.3940	1.9768	0.1382	0.3456	0.3456			0.1714	0.1333
SS225	6/28/2018	0.1728	0.1745	0.8640	0.2264	0.2125	0.4562	0.4363	0.1728	0.8640	0.4320	0.6938	0.7482	0.2238	0.2514
SS225	7/24/2017	0.2160	0.2160		0.8784	0.7344	2.2248	2.2320	0.8640	0.8640	0.4320			0.8942	0.8986
SS226	6/28/2018	0.2340	0.2340	0.5760	0.1116	0.9972	0.7823	0.7337	0.1152	0.1152	0.5760	0.1152	0.5760	0.3848	0.3496
SS226	7/24/2017	0.3960	0.3960		0.2487	0.2326	0.3857	0.3766	0.1584	0.1584	0.7920			0.2400	0.3152
SS227	10/3/2017	0.9000	0.9000		0.1800	0.1800	0.4284	0.4680	0.3600	0.1800	0.1800	0.3888	0.3852	0.9000	0.6876
SS228	10/3/2017	0.6768	0.5962		0.3888	0.3816	0.5962	0.5731	0.5760	0.2880	0.2880	0.1930	0.1937	0.6228	0.6394
SS228	7/19/2018														

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	Be D Load	Be T Load	Br T Load	Cd D Load	Cd T Load	Ca D Load	Ca T Load	Cl- T Load	Cr D Load	Cr T Load	Co D Load	Co T Load	Cu D Load	Cu T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS228	10/9/2018	0.2880	0.2160	0.1800	0.6120	0.1584	1.6560	1.6740	0.3600	0.3600	0.3600	0.1980	0.5378	0.8568	0.1980
SS229	10/4/2017	0.9360	0.9360		0.1277	0.1597	0.2415	0.2321	0.3744	0.1872	0.1872	0.1872	0.1872	0.9360	0.6159
SS229	6/27/2018	0.8640	0.8640	0.4320	0.4435	0.3776	0.4327	0.4536	0.8640	0.4320	0.2160	0.7848	0.2160	0.2477	0.1979
SS230	7/19/2018	0.1440	0.1440	0.1800	0.2254	0.2347	0.1166	0.1217	0.3600	0.1253	0.3600	0.2290	0.2527	0.7272	0.7740
SS230	10/5/2017	0.2340	0.2340		0.1276	0.9677	0.6129	0.5898	0.1843	0.9216	0.4680	0.1875	0.1193	0.2272	0.2470
SS231	9/26/2018	0.2340	0.2340	0.5760	0.1152	0.5760	0.5612	0.5288	0.1152	0.1152	0.5760	0.1152	0.5760	0.1152	0.2880
SS231	10/10/2017	0.7200	0.7200		0.2880	0.1440	0.4914	0.4914	0.1440	0.1613	0.1440	0.2880	0.1440	0.1440	0.7200
SS231	6/27/2018	0.3456	0.3456	0.8640	0.1728	0.8640	0.4464	0.4268	0.1728	0.1728	0.8640	0.3767	0.8640	0.1176	0.4320
SS232	10/16/2017														
SS235	10/1/2018														
SS235	10/1/2018														
SS235	10/19/2017	0.2135	0.2151		0.1627	0.1627	1.2874	1.2528	0.3456	0.1728	0.8640	0.1745	0.1719	0.9850	0.4320
SS236	10/23/2017	0.2585	0.2549		0.1591	0.1512	0.9432	0.9288	0.1440	0.1440	0.7200	0.2131	0.2448	0.1980	0.2239
SS236	10/8/2018	0.7880	0.7646	0.2592	0.4957	0.5544	3.2400	3.2659	0.5184	0.1296	0.1296	0.7284	0.7465	0.5299	0.5314
SS236	7/19/2018														
SS237	10/24/2017	0.8176	0.8176		0.3276	0.1635	73.7519	72.9343	3.2760	0.3276	0.1635	0.3276	0.1635	0.1477	0.8176
SS238	10/24/2017	0.7200	0.7200		0.8813	0.8438	0.2376	0.2318	0.2880	0.2880	0.1440	0.5429	0.5587	0.5148	0.5587
SS238	6/18/2018	0.8640	0.8640	0.1800	0.3158	0.2933	0.7387	0.7344	0.2160	0.4795	0.2160	0.1685	0.1652	0.1853	0.1814
SS250	10/9/2018	0.1800	0.1800	0.1260	0.2520	0.3744	15.6960	14.6160	0.2520	0.2520	0.2520	0.7614	0.7596	0.1260	0.1668
SS250	10/9/2018	0.1800	0.1800	0.1260	0.3316	0.2984	15.6960	14.8176	0.2520	0.2520	0.2520	0.9274	0.7488	0.2196	0.1557
SS250	6/14/2018	0.1920	0.1920	0.1363	0.2725	0.1990	14.1726	14.8268	0.2725	0.2725	0.2725	0.2725	0.2431	0.1363	0.6487
SS250	6/19/2018	0.1635	0.1635	0.2441	0.4882	0.4882	21.4224	21.8312	0.4882	0.4882	0.4882	0.4882	0.4882	0.6312	0.2870
SS250	11/7/2017	0.1363	0.1363		0.5460	0.2687	8.3945	7.2778	0.5460	0.5460	0.2725	0.4470	0.4415	0.2725	0.9759
SS300	10/9/2018	0.3600	0.3600	0.9000	0.4860	0.3564	0.9378	0.9828	0.1800	0.1800	0.9000	0.8622	0.1314	0.6660	0.7326
SS300	6/19/2018	0.4320	0.4320	0.1800	0.5544	0.4558	0.9216	0.9677	0.2160	0.2160	0.1800	0.7862	0.1311	0.1125	0.1980
SS301	10/4/2018	0.3168	0.3168	0.7920	0.9235	0.9446	6.2726	5.9832	0.1584	0.7920	0.7920	0.2788	0.2677	0.7128	0.6732
SS301	6/19/2018	0.4320	0.4320	0.5400	0.9737	0.9576	5.6650	5.8666	0.1800	0.1800	0.1800	0.2628	0.2379	0.7927	0.7439
SS304	6/28/2018	0.8640	0.8640	0.2160	0.1611	0.1439	0.7387	0.6998	0.4320	0.4320	0.2160	0.2173	0.2173	0.4536	0.4522
SS304	7/24/2017	0.1363	0.1363		0.9894	0.9486	3.9792	4.6990	0.5460	0.5460	0.2725			0.3162	0.3434
SS305	10/10/2017	0.4752	0.4752		0.1980	0.9540	2.4523	2.4615	0.1980	0.1980	0.9540	0.1980	0.9540	0.9540	0.4752
SS305	8/23/2018														

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	Be D Load	Be T Load	Br T Load	Cd D Load	Cd T Load	Ca D Load	Ca T Load	Cl- T Load	Cr D Load	Cr T Load	Co D Load	Co T Load	Cu D Load	Cu T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
A23A	10/1/2018													
A23A	8/23/2018	0.1960	0.5421	0.6532	0.6532	0.8368	0.1646	0.1927	0.1849	0.1195	0.1235		0.2790	0.2737
A23A	8/23/2018													
A23A	8/23/2018													
A38	6/28/2017	0.1622	4.9586	0.2385	0.7832	0.1978	0.7364	0.1398	0.9929	0.8847	0.9929		0.9539	0.4770
A38	9/27/2018	0.2419	13.9140	0.2419	0.7157	0.2783	0.6644	0.2783	0.2934	0.2863	0.2879		0.6480	0.6480
A38	6/27/2018	0.3629	2.6438	0.4320	0.1129	0.1230	0.1148	0.4234	0.4355	0.4556	0.4355		0.2160	0.7741
CC01A	6/14/2018	0.4869	6.1965	0.4426	0.3586	0.5843	0.1748	0.1554	0.1582	0.6639	0.6182		0.2213	0.1166
CC01A	10/2/2017	0.8112	11.9533	0.1352	0.1328	0.6220	0.7138	0.3281	0.2969	0.1185	0.1869		0.5474	0.2737
CC01A	9/24/2018	0.8467	14.3136	0.6480	0.4524	0.9737	0.4137	0.3774	0.3780	0.1228	0.1278		0.3240	0.1512
CC01A	7/10/2017	0.8874	25.7242	0.2772	0.6597	0.7274	0.3648	0.6997	0.7741	0.9647	0.1334		0.1188	0.5544
CC01B	9/25/2018	0.6192	96.3720	4.2696	4.5778	0.2772	0.2724	2.1672	2.1384	4.1342	4.2926		0.3960	0.3960
CC01B	6/5/2018													
CC01B	10/9/2017	1.1141	128.2418	5.9429	6.2525	0.5669	0.5138	2.8346	2.8346	5.8133	5.7482		0.1982	0.8687
CC01B	4/24/2017	0.9798			6.2757		0.4752		2.9393		6.5117			0.1225
CC01B	9/27/2016		157.3738	6.9346	7.4441	0.1297	0.1197	3.4532	3.5947	7.2460	7.3593		0.1959	0.3312
CC01B	3/30/2017	1.1639	162.5486	6.9785	7.9434	0.5588	0.5815	3.5744	3.8131	7.3473	7.6262		0.7319	0.7920
CC01C	9/25/2018	0.1800	0.5328	0.5274	0.8683	0.2347	0.2376	0.3888	0.4752	0.3355	0.3514		0.4392	0.3989
CC01C	10/2/2017	0.7200	0.2772	0.7272	0.6948	0.1380	0.2678	0.3816	0.2966	0.2995	0.2938		0.3312	0.3600
CC01C	9/20/2016		1.4915	0.4546	0.4849	0.7273	0.7273	0.1667	0.1667	0.1491	0.1424		0.2273	0.2424
CC01C	7/10/2017	0.6379	5.4861	0.3228	0.3317	0.3390	0.3253	0.3748	0.3139	0.1927	0.2541		0.4146	0.4444
CC01C	6/5/2018													
CC03D	9/27/2017	6.2255	12.6144	93.6346	11.9416	0.6926	0.7877	25.6799	26.6832	32.1276	33.2392		0.3446	0.4135
CC03D	6/5/2018	9.6790	1714.3927	146.5527	146.5527	0.9549	0.1983	36.2235	36.4999	47.9753	46.4544		0.5392	0.4839
CC03D	10/9/2018	8.2434	1762.3872	143.5493	147.8131	0.8997	0.1232	36.6692	36.6692	51.2395	5.4554		0.4555	0.4449
CC03D	3/30/2017	9.3775	25.3446	162.1227	163.7968	0.1225	0.1419	4.3711	42.2784	52.9275	54.4896		0.5197	0.5420
CC03D	5/16/2017	9.3787	28.5480	16.1934	163.2960	0.1231	0.1862	42.4570	42.9468	53.5619	53.8877		0.5813	0.5732
CC03D	6/6/2017	12.9989	2477.8656	199.6214	199.6214	0.1747	0.2124	52.4724	52.4724	66.2152	64.9659		0.7434	0.5560
CC06	10/9/2018	16.1464	23.3136	87.8148	142.1280	0.1245	0.5154	42.2461	39.8131	46.6698	46.6698		0.2765	0.3455
CC06	6/5/2018	17.1468	2331.8669	74.5283	174.4328	0.2667	0.3749	43.6654	42.2937	44.3512	42.7589		0.4824	0.3475
CC06	6/6/2017	3.1471	3397.7578	957.6144	946.9742	0.7235	0.8457	121.6525	125.1992	78.7372	77.3185		0.2536	0.2199
CC06	9/28/2017	39.7233	3262.9824	273.8678	39.1392	0.8973	0.1277	82.6386	84.5726	94.6974	97.5348		0.1678	0.1582
CC06	10/9/2017	38.8884	3551.3179	264.1477	388.8840	0.9685	0.1387	83.6467	85.4811	11.9933	12.7247		0.1451	0.1397
CC14	10/9/2018	4.4885	96.5347	29.7736	29.7736	0.2244	0.7615	14.2434	14.4978	3.8916	3.8693		0.3744	0.3744

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
CC14	9/28/2017													
CC14	10/9/2017													
CC14	9/21/2016			44.3520	51.4800	0.5322	0.9922	19.9584	24.3936	5.3222	6.6528		0.1641	0.1619
CC14	6/5/2018	14.1396	2291.4547	13.1363	16.4632	0.6779	0.7698	4.7139	4.9634	11.1870	11.6220		0.3194	0.1377
CC14	6/20/2017	2.4631	2365.2992	137.8253	155.8814	0.1565	0.1653	49.1116	53.4449	14.3242	14.7455		0.2371	0.3611
CC16C	6/12/2018	0.2692	17.5789	3.5575	3.7436	0.6769	0.6865	0.6447	0.6386	0.1136	0.1155		0.1475	0.1736
CC16C	9/28/2016		16.7746	3.1516	3.4574	0.8133	0.1118	0.6682	0.6682	0.1169	0.1169		0.1728	0.1627
CC16C	6/20/2017	0.3823	19.7913	3.8123	4.7994	0.5256	0.1660	0.7837	0.7848	0.1282	0.1314		0.1276	0.1547
CC16C	10/4/2018	0.4334	24.7680	4.9722	4.8360	0.5173	0.5449	0.9432	0.9227	0.1517	0.1498		0.1418	0.1622
CC16C	10/25/2017	0.5148	25.2648	4.9428	4.7837	0.1584	0.1944	0.9742	0.9828	0.1775	0.1790		0.1885	0.2249
CC19	10/9/2018	1.4687	387.4752	38.1226	4.3992	0.8812	0.1522	9.5364	9.4369	14.6246	14.3116		0.1256	0.1231
CC19	6/5/2018	1.9475	488.8512	49.6800	52.8595	0.1572	0.1637	12.1219	12.2412	17.2886	16.8117		0.1932	0.1729
CC19	10/9/2017	2.1187	589.1720	75.6823	77.1193	0.2396	0.2396	14.8115	15.8855	24.5728	24.7165		0.2314	0.2392
CC19	9/29/2016		836.2800	88.7184	93.8160	0.7272	0.2298	2.6525	2.9434	28.5624	29.1672		0.3192	0.3832
CC19	6/6/2017	3.7656	1235.5200	131.7888	132.8184	0.9277	0.2988	3.2724	31.8146	42.4195	4.7722		0.4829	0.3573
CC50	10/3/2018	2.4664	123.5442	0.8788	2.9789	0.6396	0.3172	15.9399	16.1173	3.4254	3.3386		0.3198	0.3198
CC50	10/9/2017	1.6330	1277.7912	1.9868	3.6333	0.6840	0.1223	17.1468	17.2822	5.4857	5.2119		0.3420	0.3420
CC50	6/7/2018	3.2931	1347.1920	0.6257	2.3351	0.1721	0.5553	17.6443	17.3639	3.6374	3.7721		0.7484	0.3742
CC50	6/20/2017	4.6367	1949.3569	0.7666	4.5478	0.4415	0.1183	25.1672	27.8164	5.9386	6.1593		0.2277	0.1138
CC50	9/21/2016			1.7666	5.3767	0.2563	0.1357	0.3724	0.3584	8.7588	1.4973		0.3845	0.1482
DM01	6/14/2018													
DM01	6/22/2017	0.8294	6.6355	0.9677	0.1852	0.3636	0.3919	0.1487	0.1534	0.7816	0.7880		0.2760	0.2828
DM24	9/16/2016		118.6740	1.3461	1.7712	0.3114	0.2657	2.6568	2.6568	0.7262	0.7262		0.7974	0.8148
DM24	9/27/2018	0.6696	158.6952	2.2990	7.3296	0.1545	0.1786	2.9988	2.9988	0.7790	0.9776		0.5580	0.5580
DM32	9/27/2018	0.4536	1.1448	0.6480	0.6480	0.1822	0.1238	0.6545	0.6696	0.5782	0.5998		0.2232	0.1620
DM32	9/27/2018	0.4536	1.1470	0.6480	0.6480	0.1886	0.1757	0.6545	0.6696	0.5748	0.5916		0.1912	0.1955
DM32	10/10/2017	0.2736	3.3869	0.2736	0.3953	0.3577	0.3758	0.2448	0.2448	0.2125	0.2125		0.1679	0.9850
DM32	6/27/2018	0.1814	2.7475	0.1849	0.1926	0.3551	0.3215	0.1366	0.1319	0.2475	0.2348		0.1547	0.8165
DM32	6/28/2017	0.1655	2.6865	0.3972	0.3863	0.4551	0.4197	0.1564	0.1718	0.2364	0.2424		0.1514	0.1564
DM4	8/23/2018	0.1857	6.2525	0.1886	0.1886	0.1886	0.5443	0.8668	0.7675	0.4322	0.4311		0.5443	0.2722
DM4	8/23/2018	0.1857	6.4129	0.1886	0.1886	0.1886	0.5443	0.8668	0.7523	0.4322	0.4235		0.5443	0.2722
SS001	9/26/2018	0.7200	0.1584	0.3600	0.3600	0.9648	0.9216	0.6192	0.6228	0.4680	0.4788		0.7632	0.9000
SS001	9/26/2018	0.7200	0.1584	0.3600	0.3600	0.9576	0.9432	0.6192	0.6300	0.4644	0.4860		0.8280	0.9000
SS001	10/4/2017	0.1728	0.3370	0.2160	0.1224	0.1714	0.1526	0.1348	0.1322	0.6964	0.7445		0.1987	0.4320

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS001	9/22/2016	0.1733	0.3293	0.2167	0.1577	0.1587	0.2383	0.1369	0.1353	0.3155	0.3848		0.2323	0.2375
SS001	6/27/2018	0.1920	1.5263	0.5460	0.6160	0.6151	0.1973	0.6562	0.6759	0.3461	0.6541		0.1385	0.1886
SS001	7/11/2017	0.7424	9.6515	0.9283	0.9283	0.2594	0.2272	0.4195	0.4232	0.6136	0.6682		0.5653	0.1857
SS002	10/4/2017	0.2880	0.1483	0.3600	0.3600	0.3816	0.7668	0.4838	0.4752	0.1498	0.1498		0.1440	0.7200
SS002	6/27/2018	0.4320	0.4925	0.4320	0.4320	0.1184	0.1115	0.1685	0.1633	0.8640	0.5746		0.2160	0.1369
SS002	7/11/2017	0.2419	1.2338	0.3240	0.3240	0.2419	0.1296	0.4222	0.4295	0.6480	0.6480		0.1296	0.6480
SS002	9/22/2016	0.5561	4.5361	0.6952	0.6952	0.5561	0.2786	0.1543	0.1576	0.1646	0.2794		0.2786	0.1393
SS003	9/26/2018	0.2160	0.1116	0.7200	0.1116	0.3593	0.6250	0.3658	0.3665	0.6624	0.6228		0.3600	0.1800
SS003	10/4/2017	0.2880	0.2628	0.3600	0.3600	0.2988	0.4291	0.8698	0.8582	0.2772	0.2693		0.1440	0.7200
SS003	7/12/2017	0.5760	0.3816	0.7200	0.7200	0.8611	0.1696	0.1397	0.1483	0.3312	0.4896		0.2880	0.1440
SS003	9/22/2016	0.2889	2.4846	0.3611	0.3611	0.4521	0.1666	0.8248	0.8161	0.6113	0.6414		0.1445	0.7223
SS004	10/4/2017	0.2736	0.8156	0.1728	0.1728	0.9677	0.1293	0.2184	0.2143	0.3456	0.6822		0.6883	0.3456
SS004	6/27/2018	0.3456	1.6589	0.1152	0.1152	0.2465	0.8824	0.4516	0.4769	0.7350	0.1314		0.1886	0.3848
SS004	9/22/2016	0.2595	1.2714	0.3243	0.2698	0.0000	0.1132	0.3191	0.3191	0.6487	0.3893		0.1297	0.6487
SS004	7/12/2017	0.2880	1.8000	0.3600	0.1454	0.2880	0.3859	0.2549	0.2664	0.7200	0.1400		0.1440	0.7200
SS004	9/26/2018	0.4320	1.9800	0.1440	0.1440	0.1440	0.1800	0.5184	0.5256	0.2880	0.1197		0.7200	0.3600
SS005	9/22/2016	0.9267	0.1135	0.2317	0.2317	0.2595	0.1585	0.3957	0.4457	0.7199	0.1135		0.4689	0.5968
SS006	10/4/2017	0.1152	0.3514	0.1440	0.1440	0.1152	0.5144	0.6228	0.6228	0.2880	0.1919		0.5760	0.2880
SS006	9/26/2018	0.5760	0.4896	0.5760	0.5760	0.5760	0.2880	0.7258	0.7434	0.1152	0.1886		0.2880	0.1440
SS006	6/27/2018	0.8640	0.5616	0.8640	0.8640	0.8640	0.4320	0.1886	0.1188	0.1728	0.1728		0.4320	0.3257
SS006	9/23/2016	0.7948	1.6292	0.9934	0.4172	0.7948	0.7590	0.3455	0.3759	0.5126	0.1411		0.3974	0.1987
SS006	7/12/2017	0.2616	7.1953	0.3276	0.3276	0.2616	0.1382	0.1334	0.1321	0.6541	0.6541		0.1382	0.6541
SS007	9/23/2016	0.8668	0.5287	0.2167	0.2167	0.1733	0.8668	0.9447	0.9447	0.4334	0.4334		0.1197	0.4334
SS007	9/26/2018	0.1584	1.9296	0.1584	0.6637	0.1584	0.7920	0.2290	0.2439	0.1647	0.2290		0.7920	0.3960
SS007	10/4/2017	0.1152	3.8592	0.1440	0.1714	0.1152	0.3243	0.8122	0.8179	0.1457	0.2287		0.5760	0.2880
SS007	7/12/2017	0.2184	4.5788	0.2725	0.2725	0.2184	0.1920	0.1531	0.1673	0.5460	0.5460		0.1920	0.5460
SS007	6/27/2018	0.3925	17.2687	0.4278	0.5220	0.3925	0.1962	0.3360	0.3369	0.3587	0.3634		0.1962	0.1413
SS008	9/24/2018													
SS008	9/24/2018													
SS008	10/2/2017	0.2880	1.8576	0.3600	0.3600	0.2880	0.1440	0.6739	0.6725	0.2592	0.2246		0.1440	0.7200
SS008	9/26/2016	0.1657	8.8655	0.2714	0.2714	0.1657	0.5129	0.3637	0.3453	0.1183	0.1854		0.8286	0.4143
SS008	6/13/2018	0.4644	96.3682	0.1162	0.1847	0.1162	0.7199	3.2453	3.3555	0.1428	0.5538		0.5854	0.2927
SS009	7/10/2017	0.1728	0.5616	0.2160	0.2160	0.1728	0.8640	0.1737	0.1788	0.4320	0.1483		0.8640	0.4320
SS009	9/26/2016	0.2714	1.4619	0.2589	0.2589	0.2714	0.1357	0.3884	0.3945	0.5178	0.2175		0.1357	0.5178

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS009	6/13/2018	0.1296	2.2320	0.4320	0.4320	0.1188	0.2536	0.6739	0.7128	0.1577	0.1568		0.2160	0.1800
SS010	9/24/2018	0.7200	0.8280	0.7200	0.7200	0.3888	0.3600	0.2916	0.2988	0.2394	0.2297		0.3600	0.1800
SS010	10/2/2017	0.2880	0.1973	0.3600	0.3600	0.4752	0.8726	0.7286	0.7157	0.1375	0.1319		0.1440	0.7200
SS010	7/10/2017	0.3456	0.2143	0.4320	0.4320	0.3352	0.1728	0.8433	0.8778	0.2448	0.2523		0.1728	0.8640
SS010	9/26/2016	0.5233	0.2119	0.6541	0.6541	0.0000	0.1858	0.7143	0.6986	0.1319	0.1769		0.2616	0.1382
SS010	6/13/2018	0.5400	29.9520	0.7200	0.7200	0.2923	0.3600	1.2384	1.3392	0.2520	0.5285		0.3600	0.1800
SS011	6/13/2018													
SS011	9/24/2018													
SS011	7/10/2017	0.2592	0.7834	0.3600	0.2563	0.2578	0.3384	0.3834	0.3834	0.1176	0.1199		0.3715	0.4133
SS011	10/2/2017	0.1296	0.6372	0.1800	0.1800	0.5530	0.3365	0.2459	0.2467	0.1145	0.1166		0.4464	0.2160
SS011	9/26/2016	0.6541	2.5746	0.1363	0.1363	0.8940	0.1248	0.1139	0.1162	0.2800	0.2954		0.1172	0.1276
SS012	10/2/2017	0.4320	1.3464	0.3434	0.9936	0.5760	0.4126	0.4795	0.4687	0.9763	0.9594		0.1886	0.2268
SS012	9/26/2016	0.1554	1.6364	0.3656	0.2181	0.2788	0.3726	0.6525	0.6525	0.7945	0.7146		0.2361	0.2796
SS012	6/13/2018	0.2592	9.5940	0.8640	0.8640	0.8640	0.4320	0.3819	0.3966	0.2264	0.4727		0.4320	0.2160
SS012	7/10/2017	0.2416	2.2959	0.3199	0.3199	0.2416	0.1279	0.8818	0.8927	0.8480	0.1317		0.1279	0.6397
SS013	10/4/2018													
SS013	10/3/2016	0.1248	1.4528	0.2562	0.2562	0.2496	0.1248	0.1978	0.1927	0.1252	0.1353		0.1248	0.5124
SS013	10/3/2017	0.9376	42.6595	0.1172	0.1172	0.9376	0.4688	0.8391	0.8256	0.1317	0.2598		0.4688	0.2344
SS013	6/12/2018	0.8722	161.3494	0.2184	0.4274	0.2184	0.1920	3.1180	3.1616	0.1688	0.1897		0.1920	0.1298
SS013	7/17/2017	1.4679	675.2545	1.8349	0.7560	0.1468	0.7340	13.6519	13.4317	0.6576	0.6775		0.7340	0.3670
SS014	10/3/2017	0.1555	5.2358	0.1296	0.1296	0.1368	0.5184	0.9216	0.8813	0.2592	0.2592		0.5184	0.2592
SS014	10/4/2018	0.2880	1.9512	0.9360	0.9360	0.9360	0.4680	0.1844	0.1778	0.1872	0.1872		0.4680	0.2340
SS014	6/12/2018	0.5460	12.5373	0.1363	0.1363	0.1363	0.6814	0.2112	0.2112	0.2725	0.2725		0.6814	0.3993
SS014	7/17/2017	0.5249	17.1477	0.4374	0.4374	0.3500	0.1750	0.3630	0.3150	0.8749	0.8749		0.1750	0.8749
SS014	10/3/2016	0.7544	18.8644	0.4715	0.4715	0.3773	0.1886	0.3358	0.3263	0.9432	0.9432		0.1886	0.9432
SS015	10/4/2018	0.2556	13.7880	0.1253	0.1962	0.1253	0.6264	0.3683	0.3746	0.3696	0.3871		0.6264	0.3132
SS015	10/3/2017	0.3816	2.5286	0.4752	0.4752	0.3816	0.1980	0.5854	0.5724	0.9540	0.9540		0.1980	0.9540
SS015	10/3/2016	0.5233	25.1182	0.6541	0.4448	0.5233	0.2616	0.7326	0.7169	0.3276	0.3925		0.2616	0.1382
SS015	6/12/2018	0.7149	59.9827	0.7149	0.7149	0.7149	0.6969	1.6639	1.6668	0.1857	0.2566		0.3574	0.3235
SS015	7/17/2017	0.1962	11.6142	0.2453	0.2453	0.1962	0.9812	3.2183	3.1398	0.3473	0.3650		0.9812	0.4959
SS016	10/4/2018	0.6912	0.1454	0.8640	0.8640	0.8640	0.4320	0.3819	0.3473	0.7880	0.7243		0.7474	0.2160
SS016	6/22/2017	0.8640	0.1685	0.4633	0.1638	0.2160	0.7632	0.5436	0.5544	0.1519	0.1980		0.1800	0.5400
SS016	6/12/2018	0.1440	0.2592	0.1742	0.2340	0.6192	0.7200	0.7618	0.7524	0.1512	0.1498		0.7200	0.7186
SS016	10/3/2016	0.8112	1.1254	0.2535	0.2535	0.2278	0.1139	0.4454	0.3995	0.7543	0.7641		0.1997	0.5694

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS016	10/5/2017	0.1253	2.3594	0.5220	0.5220	0.3362	0.2880	0.8352	0.8227	0.1678	0.1576		0.2556	0.1440
SS017	10/5/2017													
SS017	10/3/2016	0.2518	0.2885	0.5724	0.5724	0.4579	0.2289	0.1223	0.1232	0.2679	0.2724		0.6342	0.8631
SS017	10/4/2018	0.2534	0.3528	0.2340	0.2340	0.2340	0.1152	0.1281	0.1223	0.2788	0.2673		0.2317	0.5760
SS017	6/22/2017	0.8640	0.8467	0.2160	0.2160	0.1728	0.8640	0.3953	0.4435	0.7854	0.7785		0.2736	0.4320
SS017	6/12/2018	0.1296	1.3356	0.2736	0.2246	0.8640	0.4320	0.6739	0.6134	0.1382	0.1426		0.3119	0.6947
SS018	6/23/2017	0.5400	4.4280	0.9000	0.9000	0.7200	0.3600	0.2322	0.2354	0.5616	0.5616		0.2149	0.2347
SS018	10/4/2018	0.1283	1.2168	0.4752	0.4752	0.1459	0.2376	0.5674	0.5465	0.1649	0.1487		0.5227	0.5180
SS018	10/3/2016	0.1184	8.1619	0.1229	0.5359	0.1155	0.4917	0.4425	0.4414	0.1288	0.1379		0.4823	0.5556
SS018	10/5/2017	0.1526	12.9600	0.1728	0.1728	0.1382	0.6912	0.5966	0.5928	0.1569	0.1597		0.5530	0.6756
SS018	6/12/2018	0.2279	18.5388	0.1357	0.1357	0.3438	0.5178	0.9549	0.9777	0.2731	0.2859		0.1564	0.1574
SS019	6/23/2017	0.1728	0.4579	0.2160	0.2160	0.1728	0.8640	0.1244	0.1278	0.4320	0.4320		0.8640	0.4320
SS019	10/4/2018	0.2722	0.6532	0.9720	0.9720	0.9720	0.4536	0.1715	0.1687	0.2321	0.9720		0.4536	0.2268
SS019	10/4/2018	0.9720	0.6623	0.9720	0.9720	0.9720	0.4536	0.1733	0.1715	0.1932	0.1315		0.4536	0.2268
SS019	10/5/2017	0.2160	0.6955	0.2520	0.2520	0.2160	0.1800	0.1814	0.1784	0.5400	0.5400		0.1800	0.5400
SS019	6/12/2018	0.1728	1.5480	0.1728	0.1728	0.1728	0.8640	0.2783	0.2765	0.3456	0.3456		0.8640	0.6290
SS019	10/3/2016	0.4317	1.4463	0.5396	0.5396	0.4317	0.2159	0.3929	0.3827	0.1793	0.1793		0.2159	0.1793
SS020	9/25/2018													
SS020	10/16/2017	0.2880	0.6912	0.7200	0.5357	0.4982	0.2880	0.4982	0.5688	0.3744	0.3834		0.5112	0.1440
SS020	10/4/2016	0.1382	1.8969	0.1635	0.1635	0.4834	0.4873	0.1536	0.1518	0.1262	0.1276		0.2395	0.2325
SS020	7/19/2017	0.1537	1.8446	0.1921	0.1921	0.2153	0.7686	0.1437	0.1399	0.2829	0.2129		0.3856	0.4166
SS020	6/13/2018	0.3629	1.9354	0.1296	0.1296	0.6278	0.8400	0.1336	0.1367	0.1439	0.1500		0.2468	0.3943
SS021	10/4/2016	0.2714	0.2693	0.5178	0.5178	0.0000	0.0000	0.1185	0.1133	0.4619	0.4516		0.0000	0.1357
SS021	7/19/2017	0.3456	0.1980	0.4320	0.4320	0.1364	0.1398	0.8225	0.8179	0.3560	0.3352		0.8675	0.8640
SS021	6/13/2018	0.2340	2.7360	0.2340	0.2340	0.1556	0.2552	0.9700	0.9792	0.4355	0.4792		0.1152	0.5760
SS022	10/16/2017	0.2880	0.1642	0.1526	0.1886	0.5760	0.2880	0.5818	0.5789	0.1548	0.9648		0.1981	0.1440
SS022	10/4/2016	0.1744	0.8722	0.4368	0.4368	0.3489	0.1744	0.3874	0.3874	0.4169	0.4385		0.1159	0.8722
SS022	6/13/2018	0.6480	0.9540	0.2160	0.2160	0.2160	0.1800	0.3413	0.3370	0.1644	0.1765		0.1800	0.5400
SS022	7/19/2017	0.1382	2.8339	0.1728	0.1728	0.5136	0.5896	0.1134	0.1182	0.7258	0.8156		0.6912	0.3456
SS023	9/25/2018													
SS023	10/4/2016	0.2835	0.4189	0.1772	0.1772	0.1417	0.7863	0.1821	0.1828	0.6763	0.7157		0.9992	0.3543
SS023	7/19/2017	0.5760	0.8640	0.7200	0.4320	0.6192	0.2419	0.3888	0.3816	0.4723	0.5328		0.2880	0.1440
SS023	6/13/2018	0.7200	0.2880	0.7200	0.1562	0.1498	0.3989	0.1469	0.1548	0.1166	0.1354		0.3600	0.1800
SS023	10/16/2017	0.8675	49.2116	0.5422	0.4518	0.4337	0.1287	1.4383	1.5167	0.2340	0.2864		0.2169	0.1843

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Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS024	10/16/2017	0.2160	12.9600	0.1260	0.1260	0.1800	0.5400	0.3996	0.3226	0.2520	0.2520		0.5400	0.2520
SS024	10/4/2016	0.1483	17.1248	0.1853	0.1853	0.1483	0.7413	0.4426	0.4285	0.3767	0.3767		0.7413	0.3767
SS024	9/25/2018	0.1728	19.9584	0.8640	0.8640	0.8640	0.4320	0.5348	0.5717	0.1728	0.1728		0.4320	0.2160
SS024	7/19/2017	0.9812	82.9195	0.8176	0.8176	0.6541	0.3276	2.8487	2.8160	0.1635	0.1635		0.3276	0.1635
SS024	6/13/2018	0.3917	42.3144	0.3917	0.3917	0.3917	0.1958	1.9279	1.1284	0.7834	0.7834		0.1958	0.9792
SS025	10/4/2016	0.4959	0.3386	0.6132	0.8266	0.4959	0.9714	0.7641	0.7849	0.1226	0.3634		0.2453	0.1226
SS025	7/19/2017	0.1728	0.4493	0.2160	0.2160	0.1728	0.8640	0.9850	0.9594	0.4320	0.4320		0.8640	0.4320
SS025	6/13/2018	0.1440	0.5760	0.1440	0.1277	0.2232	0.2174	0.1260	0.1332	0.2880	0.6739		0.7200	0.3600
SS026	10/4/2016	0.3893	0.6357	0.1622	0.1622	0.5499	0.2517	0.2273	0.1379	0.3282	0.1518		0.7784	0.3243
SS026	10/16/2017	0.1188	0.8165	0.2520	0.2520	0.1391	0.1325	0.3558	0.3568	0.4425	0.4486		0.3931	0.3760
SS026	6/14/2018	0.1866	1.9966	0.3114	0.3114	0.2743	0.3421	0.8491	0.8274	0.2893	0.2585		0.5785	0.8248
SS026	7/10/2017	0.4838	3.2544	0.1512	0.1512	0.7197	0.6653	0.1531	0.1415	0.1778	0.1784		0.1941	0.1900
SS027	10/16/2017	0.1494	21.9240	0.1620	0.2297	0.5414	0.2586	1.3248	1.2780	1.1880	1.1736		0.1620	0.1523
SS027	10/4/2016	0.2366	19.5364	0.1978	0.1978	0.1763	0.2147	1.9129	1.8366	0.7463	0.7532		0.1511	0.1488
SS027	9/24/2018	0.3370	33.9120	0.8640	0.8640	0.7816	0.8698	1.9699	1.9188	1.4688	1.4170		0.2218	0.2995
SS027	6/13/2018	0.1145	9.4349	0.1368	0.3888	0.8481	0.4126	0.5184	0.5153	0.3412	0.3421		0.7300	0.7345
SS027	7/10/2017	0.2172	18.3744	0.4176	0.4176	0.4694	0.1674	0.9972	0.9488	0.7400	0.7400		0.1149	0.1169
SS028	10/16/2017	0.7200	0.1296	0.1800	0.1800	0.1440	0.5645	0.3434	0.3442	0.3420	0.4831		0.7200	0.3600
SS028	7/10/2017	0.2880	0.2160	0.3600	0.3600	0.2880	0.1440	0.5818	0.5659	0.7200	0.2880		0.1440	0.7200
SS028	10/4/2016	0.4143	0.4557	0.5178	0.5178	0.0000	0.0000	0.1235	0.1214	0.1993	0.2196		0.2714	0.1357
SS029	10/16/2017	0.5184	39.9168	0.6480	0.6480	0.5184	0.2592	1.3919	1.3686	0.2722	0.2696		0.5299	0.1296
SS029	9/24/2018	0.7819	44.4816	0.2664	0.2664	0.2664	0.1332	1.5456	1.4834	0.3495	0.3495		0.1527	0.6516
SS029	6/14/2018	0.1864	25.4779	0.3177	0.3177	0.3177	0.1554	0.9974	1.3582	0.9149	0.8793		0.9260	0.1999
SS029	10/4/2016	0.9812	39.9127	0.8176	0.8176	0.6541	0.3276	1.3543	1.3279	0.3337	0.3337		0.6934	0.1635
SS029	7/10/2017	0.2944	64.7578	0.2453	0.2453	0.1962	0.9812	2.4628	2.5118	0.2114	0.2165		0.3959	0.1773
SS030	10/5/2016	0.7200	0.2952	0.1800	0.1800	0.1440	0.7200	0.5184	0.5746	0.3600	0.3600		0.7200	0.3600
SS030	7/12/2017	0.1440	0.1944	0.1800	0.1800	0.7560	0.7200	0.3571	0.3528	0.3600	0.3600		0.7200	0.3600
SS030	10/4/2017	0.7200	0.3240	0.1800	0.1800	0.1440	0.7200	0.5688	0.5551	0.3600	0.3600		0.7200	0.3600
SS030	6/15/2018	0.7200	0.1656	0.1411	0.2232	0.9936	0.6912	0.3233	0.3276	0.7193	0.7560		0.3600	0.1800
SS030	9/26/2018	0.7200	0.4176	0.7200	0.7200	0.7200	0.3600	0.7488	0.7200	0.1440	0.1440		0.3600	0.1800
SS031	10/4/2017	0.4320	0.1555	0.5400	0.5400	0.4320	0.2160	0.2549	0.2556	0.1800	0.1800		0.2160	0.1800
SS031	7/12/2017	0.1728	0.5976	0.2160	0.2160	0.1728	0.8640	0.8899	0.8277	0.4320	0.4320		0.8640	0.4320
SS031	10/5/2016	0.1744	0.5843	0.2184	0.2184	0.1744	0.8722	0.9855	0.9768	0.4368	0.4368		0.8722	0.4368
SS031	6/15/2018	0.3888	0.8352	0.1296	0.1296	0.1296	0.1763	0.1335	0.1368	0.2592	0.6687		0.6480	0.3240

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS031	9/26/2018	0.2160	1.3824	0.2160	0.2160	0.2160	0.1800	0.2311	0.2225	0.4320	0.1134		0.1800	0.5400
SS032	10/4/2017	0.1152	0.6156	0.7200	0.7200	0.5760	0.2880	0.1475	0.1437	0.1440	0.1440		0.2880	0.1440
SS032	10/5/2016	0.1635	1.5127	0.2441	0.8668	0.1635	0.8176	0.4147	0.4319	0.4882	0.3377		0.8176	0.4882
SS032	9/26/2018	0.1728	1.9526	0.1728	0.1728	0.1728	0.5927	0.4680	0.3647	0.3456	0.3456		0.8640	0.4320
SS032	9/26/2018	0.1728	1.9354	0.1728	0.1728	0.1728	0.8640	0.3974	0.3594	0.3456	0.3456		0.8640	0.4320
SS032	7/23/2018													
SS032	7/12/2017	0.1440	4.7520	0.1800	0.1800	0.1440	0.7200	0.1584	0.1548	0.3600	0.3600		0.7200	0.3600
SS033	10/5/2016	0.1440	0.8640	0.1800	0.1800	0.9540	0.7200	0.2534	0.2549	0.8496	0.8712		0.7200	0.3600
SS033	7/12/2017	0.1440	0.8640	0.1800	0.1231	0.3362	0.5616	0.2592	0.2491	0.1332	0.1462		0.7200	0.3600
SS033	10/4/2017	0.1440	0.7920	0.1800	0.1800	0.1562	0.7200	0.2318	0.2318	0.3434	0.3586		0.7200	0.3600
SS033	6/15/2018	0.7200	0.6480	0.7200	0.1973	0.2556	0.1166	0.2232	0.2214	0.5386	0.2779		0.3600	0.2556
SS033	9/26/2018	0.7200	0.7920	0.7200	0.7200	0.7776	0.4298	0.2858	0.2614	0.4896	0.5170		0.3600	0.1800
SS034	10/5/2016	0.7200	0.1224	0.1800	0.8568	0.1649	0.1858	0.4997	0.4968	0.2477	0.2477		0.1674	0.3600
SS034	7/12/2017	0.1440	0.1800	0.2693	0.2794	0.2945	0.2873	0.4680	0.4356	0.3114	0.3146		0.1289	0.3600
SS034	10/4/2017	0.7200	0.1800	0.1800	0.1800	0.7416	0.8640	0.4118	0.4154	0.1598	0.1577		0.4982	0.3600
SS034	6/15/2018	0.2160	0.1584	0.1454	0.2160	0.3384	0.2995	0.6358	0.6336	0.3715	0.3823		0.2282	0.3175
SS035	10/5/2016	0.4363	0.6933	0.1766	0.4694	0.4952	0.5727	0.2218	0.2343	0.2153	0.6332		0.4363	0.4363
SS035	6/15/2018	0.7488	9.1354	0.3744	0.1692	0.3744	0.2687	0.3323	0.3728	0.1137	0.3856		0.1872	0.9360
SS035	7/12/2017	0.1958	67.7520	0.1224	0.1224	0.9792	0.4896	2.5819	2.4383	0.2448	0.2448		0.4896	0.2448
SS036	6/27/2018	0.7200	0.1656	0.7200	0.7200	0.3967	0.3672	0.4968	0.4140	0.3413	0.3636		0.3600	0.8856
SS036	10/5/2016	0.2835	0.6945	0.3543	0.3543	0.6831	0.8784	0.1630	0.1644	0.1176	0.1899		0.0000	0.1417
SS036	7/18/2017	0.6480	0.8100	0.8100	0.8100	0.2556	0.1915	0.1984	0.1886	0.1925	0.1983		0.3240	0.1620
SS037	10/10/2017	0.5760	1.1693	0.7200	0.3600	0.2157	0.2295	0.7949	0.8154	0.1224	0.1800		0.8554	0.7574
SS037	10/5/2016	0.3144	1.4900	0.1766	0.1766	0.1990	0.2455	0.1768	0.1163	0.1356	0.1374		0.9438	0.1249
SS037	7/18/2017	0.2736	8.5248	0.8640	0.8640	0.4975	0.4975	0.5465	0.5253	0.8525	0.7638		0.5458	0.5184
SS037	6/27/2018	0.2333	7.3944	0.3888	0.7543	0.6882	0.6455	0.4743	0.4743	0.7348	0.8928		0.6337	0.1925
SS038	9/26/2018	0.1152	1.4868	0.1152	0.1152	0.1152	0.5760	0.3456	0.3874	0.2340	0.5391		0.5760	0.2880
SS038	10/6/2016	0.3456	1.9353	0.4320	0.4320	0.3456	0.1728	0.4735	0.4856	0.8640	0.8640		0.1728	0.1728
SS038	6/15/2018	0.1296	3.7152	0.4320	0.4320	0.4320	0.2160	0.8683	0.8683	0.8640	0.8640		0.2160	0.1800
SS038	10/10/2017	0.1296	6.5318	0.1512	0.1512	0.1296	0.6480	0.1585	0.1669	0.3240	0.1252		0.6480	0.3240
SS038	6/28/2017	0.3629	13.2451	0.4536	0.4536	0.3629	0.1814	0.3348	0.3139	0.9720	0.9720		0.1814	0.9720
SS039	10/10/2017	0.4320	0.2592	0.1800	0.1238	0.1287	0.1526	0.1282	0.1627	0.1698	0.1845		0.1195	0.1119
SS039	10/6/2016	0.1728	0.9158	0.4320	0.4320	0.5944	0.5668	0.3283	0.3352	0.7966	0.7949		0.4147	0.6882
SS039	6/27/2018	0.1728	0.6739	0.1728	0.1728	0.6981	0.6774	0.2333	0.2419	0.6324	0.6653		0.2713	0.3672

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS039	7/12/2017	0.1635	2.7864	0.2441	0.2441	0.5776	0.4577	0.9485	0.1324	0.4620	0.4464		0.1194	0.4882
SS040	9/27/2018	0.2160	0.2376	0.7200	0.7200	0.7200	0.3600	0.1368	0.9360	0.1454	0.1346		0.1382	0.1152
SS040	10/6/2016	0.1723	0.1163	0.1766	0.1766	0.0000	0.0000	0.6675	0.6847	0.2666	0.2674		0.9474	0.1563
SS040	10/10/2017	0.1944	0.1814	0.1620	0.1620	0.1296	0.6480	0.8230	0.8359	0.1480	0.1494		0.1188	0.3240
SS040	6/27/2018	0.3456	0.4320	0.1728	0.1728	0.1247	0.9573	0.1725	0.1832	0.5599	0.5547		0.2563	0.2290
SS040	7/12/2017	0.9812	1.3238	0.1226	0.1226	0.2487	0.2615	0.4228	0.4523	0.9714	0.9517		0.3373	0.2453
SS041	9/27/2018	0.2160	3.4776	0.2160	0.2700	0.1927	0.1656	0.8122	0.7322	0.6768	0.8986		0.1800	0.5400
SS041	10/10/2017	0.8640	4.3632	0.1800	0.1498	0.3478	0.3154	0.1411	0.1973	0.5400	0.6480		0.4320	0.2160
SS041	10/6/2016	0.2184	6.5622	0.1363	0.1319	0.3325	0.5833	0.1897	0.1886	0.2877	0.2148		0.1335	0.1913
SS041	6/27/2018	0.3456	7.9488	0.1152	0.1152	0.2966	0.1440	0.2177	0.2154	0.1993	0.1958		0.5760	0.1144
SS041	6/28/2017	0.4968	12.8880	0.4140	0.4140	0.4190	0.6768	0.3676	0.3759	0.1457	0.1469		0.1656	0.8280
SS042	6/27/2018	0.4320	0.1980	0.4320	0.4320	0.1296	0.2693	0.4133	0.4392	0.8640	0.2347		0.2160	0.5227
SS042	6/28/2017	0.1944	0.1751	0.1368	0.1122	0.4547	0.1674	0.3897	0.4553	0.5297	0.1893		0.5472	0.2736
SS042	10/6/2016	0.1440	0.3398	0.1799	0.2325	0.2363	0.5828	0.7339	0.8994	0.8763	0.5325		0.7195	0.7195
SS042	10/10/2017	0.2160	5.4835	0.2520	0.2520	0.9919	0.2765	0.1119	0.1179	0.7338	0.7923		0.5400	0.5400
SS043	6/28/2017	0.9792	5.3122	0.1224	0.3600	0.4749	0.7564	0.1428	0.1116	0.3618	0.3782		0.6120	0.6120
SS043	9/27/2018	0.1477	7.8633	0.1642	0.2569	0.4383	0.3698	0.1526	0.1367	0.5154	0.4826		0.4140	0.4140
SS043	10/6/2016	0.1382	7.3611	0.4320	0.3686	0.7119	0.1728	0.1448	0.1453	0.5284	0.6234		0.1728	0.1728
SS043	6/18/2018	0.1555	11.1715	0.2592	0.2929	0.7439	0.2929	0.2182	0.2136	0.7387	0.7361		0.1296	0.6480
SS043	10/10/2017	0.8640	16.8480	0.1800	0.2588	0.2346	0.1335	0.3383	0.3676	0.1175	0.1655		0.2160	0.2160
SS044	9/25/2018	0.1875	3.4292	0.6480	0.1524	0.3240	0.3240	0.5420	0.4855	0.6290	0.5934		0.1512	0.1512
SS044	9/25/2018	0.1935	3.4171	0.6480	0.9374	0.6480	0.3240	0.5413	0.4857	0.6229	0.5848		0.3240	0.1512
SS044	6/14/2018	0.4320	5.8320	0.1440	0.1714	0.1440	0.7632	0.9936	0.1512	0.1786	0.1829		0.7200	0.3600
SS044	10/11/2017	0.7200	12.7584	0.7200	0.2628	0.2880	0.7315	0.2189	0.2229	0.3946	0.4838		0.1440	0.1440
SS044	10/6/2016	0.1614	18.3944	0.1822	0.9242	0.8656	0.3514	0.3172	0.3237	0.5411	0.5497		0.4329	0.4329
SS044	6/22/2017	0.5580	62.7192	0.5580	0.6250	0.4464	0.3956	1.1743	1.2528	0.2999	0.3125		0.2232	0.1116
SS045	9/25/2018	0.2246	0.2298	0.2218	0.1728	0.1728	0.8640	0.5512	0.4959	0.1712	0.1585		0.8640	0.9288
SS045	6/6/2018	0.6336	0.4723	0.5760	0.5760	0.5760	0.2880	0.1152	0.1129	0.4838	0.5414		0.4919	0.2714
SS045	10/11/2017	0.1685	1.3219	0.3240	0.1737	0.2592	0.1296	0.3348	0.3485	0.1332	0.1182		0.8672	0.6480
SS045	10/6/2016	0.2592	1.8144	0.4320	0.4320	0.3456	0.1728	0.4475	0.4600	0.1441	0.1455		0.2177	0.4925
SS045	6/22/2017	0.4277	1.9512	0.9720	0.9720	0.7776	0.3888	0.5155	0.5288	0.3533	0.3658		0.4355	0.1944
SS046	9/25/2018	0.4320	0.1584	0.9180	0.8194	0.4277	0.4140	0.4579	0.4133	0.2534	0.2376		0.3182	0.1237
SS046	6/22/2017	0.2880	1.8000	0.6354	0.8352	0.2146	0.2765	0.3240	0.3269	0.1771	0.1750		0.2549	0.3384
SS046	10/11/2017	0.3240	1.1394	0.6492	0.6754	0.2994	0.2732	0.3347	0.3447	0.1915	0.2268		0.3175	0.3240

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Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS046	6/6/2018	0.3240	1.2924	0.5383	0.5494	0.2974	0.2538	0.3639	0.3669	0.1951	0.2462		0.2843	0.5322
SS046	10/6/2016	0.4151	1.4277	0.8225	0.8472	0.4229	0.4347	0.4996	0.4194	0.2374	0.2426		0.5269	0.6136
SS047	10/5/2017	0.7920	3.6360	0.9900	0.9900	0.7920	0.3960	0.6692	0.6613	0.1980	0.1980		0.3960	0.1980
SS047	10/2/2018	0.1368	13.5432	0.1368	0.2586	0.1368	0.6840	0.2642	0.2477	0.1724	0.2279		0.6840	0.3420
SS047	10/10/2016	0.3219	14.2485	0.4239	0.4239	0.1697	0.1696	0.2674	0.2658	0.8478	0.8478		0.1696	0.8478
SS047	6/12/2018	0.1690	13.1152	0.1690	0.1690	0.3923	0.8449	0.2400	0.2433	0.3380	0.3380		0.8449	0.4951
SS047	6/26/2017	0.3929	138.5533	0.4879	0.4879	0.3929	0.1951	2.5954	2.7958	0.9757	0.9757		0.1951	0.9757
SS048	10/10/2016	0.1357	0.1864	0.1295	0.7716	0.1357	0.4541	0.6266	0.6318	0.2589	0.1248		0.5178	0.2589
SS048	10/5/2017	0.4680	0.7142	0.1364	0.1846	0.4680	0.2373	0.3182	0.2995	0.2627	0.2696		0.2340	0.1152
SS048	6/12/2018	0.1177	12.9516	0.3925	0.1739	0.3925	0.4674	0.4396	0.4674	0.2593	0.4827		0.1962	0.1773
SS048	6/26/2017	0.4295	133.1569	0.5369	3.3540	0.4295	0.6268	2.3839	2.9638	0.1738	0.4532		0.2148	0.1738
SS049	10/5/2017	0.5760	0.8640	0.7200	0.7200	0.5760	0.2880	0.2514	0.2500	0.1440	0.1440		0.2880	0.1440
SS049	10/10/2016	0.2835	0.3543	0.3543	0.3543	0.2835	0.1417	0.1145	0.1132	0.7863	0.7863		0.1417	0.7863
SS049	6/7/2018	0.1440	0.1872	0.1440	0.1440	0.2160	0.7200	0.6264	0.6714	0.2880	0.3557		0.7200	0.9346
SS049	6/26/2017	0.2160	1.2960	0.2520	0.2520	0.2160	0.1800	0.4183	0.4576	0.5400	0.5400		0.1800	0.5400
SS050	10/10/2016	0.1728	2.2118	0.4320	0.4838	0.3456	0.1918	0.6480	0.6393	0.8640	0.7635		0.1728	0.8640
SS050	10/5/2017	0.3456	3.5942	0.8640	0.8640	0.6912	0.3456	0.1562	0.1224	0.1728	0.1728		0.3456	0.1728
SS050	10/2/2018	0.2160	12.9240	0.2160	0.1724	0.2160	0.8124	0.3899	0.4522	0.4320	0.2923		0.2238	0.5400
SS050	6/7/2018	0.1545	28.9611	0.3761	0.1779	0.3874	0.7297	0.9553	0.9817	0.8576	0.9553		0.1886	0.1862
SS050	6/26/2017	0.2523	1.9152	0.3154	0.2813	0.2523	0.1173	3.1499	3.2293	0.8868	0.1962		0.1261	0.6372
SS051	10/5/2017	0.2160	1.5120	0.5400	0.5400	0.4320	0.2160	0.5000	0.4939	0.1800	0.1800		0.2160	0.1800
SS051	10/10/2016	0.2164	1.5581	0.5411	0.5411	0.4329	0.2164	0.5320	0.5345	0.1822	0.1822		0.2164	0.1822
SS051	10/2/2018	0.3456	1.7971	0.7119	0.2889	0.3456	0.2765	0.6826	0.5998	0.1870	0.2658		0.1728	0.8640
SS051	6/7/2018	0.5472	3.6432	0.5472	0.1858	0.5472	0.1999	0.1127	0.1144	0.6512	0.1746		0.2736	0.2867
SS051	6/26/2017	0.2160	4.7520	0.2700	0.2700	0.2160	0.1800	0.1922	0.2117	0.5400	0.5400		0.1800	0.5400
SS052	10/5/2017	0.4320	0.2232	0.1800	0.1800	0.8640	0.4320	0.1149	0.1159	0.2160	0.2520		0.4320	0.2160
SS052	10/2/2018	0.1800	0.9900	0.1800	0.2934	0.1800	0.9000	0.5400	0.4824	0.7722	0.3510		0.9000	0.4500
SS052	10/10/2016	0.2184	0.9594	0.5460	0.5460	0.4368	0.2184	0.5121	0.5124	0.1920	0.1920		0.2184	0.1920
SS052	6/26/2017	0.8640	0.1426	0.1800	0.1800	0.8640	0.4320	0.9677	0.1843	0.2160	0.2436		0.4320	0.2160
SS052	6/7/2018	0.1296	0.1598	0.4320	0.4320	0.4320	0.2160	0.1627	0.1843	0.9634	0.2358		0.2687	0.2713
SS053	6/7/2018	0.2340	0.2995	0.5760	0.2673	0.8640	0.2290	0.1492	0.1578	0.1526	0.1757		0.9432	0.4954
SS053	10/2/2018	0.2275	0.8873	0.1138	0.1138	0.3538	0.5688	0.3242	0.3374	0.1718	0.1642		0.5688	0.2844
SS053	10/10/2016	0.1728	0.9539	0.4320	0.4320	0.1713	0.1676	0.4424	0.4354	0.3214	0.3936		0.2143	0.8640
SS053	10/5/2017	0.3456	1.3651	0.4320	0.4320	0.8433	0.1728	0.5391	0.5976	0.4954	0.4113		0.2851	0.8640

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS053	7/20/2017	0.2592	4.7520	0.1115	0.3275	0.2298	0.2661	0.2732	0.2713	0.3499	0.3629		0.1979	0.2290
SS054	10/2/2018	0.1236	9.3338	0.1123	0.6577	0.5616	0.7132	0.1373	0.1329	0.2246	0.2436		0.2880	0.2880
SS054	10/5/2017	0.2340	7.9718	0.2880	0.1981	0.1152	0.1935	0.1296	0.1296	0.5760	0.8433		0.5760	0.5760
SS054	10/10/2016	0.8657	1.7270	0.7289	0.3645	0.5767	0.8564	0.1632	0.1659	0.1442	0.2857		0.2884	0.1442
SS054	6/26/2017	0.5400	37.8000	0.1800	0.1800	0.1440	0.4651	0.6278	0.6714	0.3600	0.2268		0.7200	0.3600
SS054	6/7/2018	0.1978	91.3413	0.2725	0.3652	0.2725	0.1363	1.4799	1.4445	0.5460	0.1276		0.1363	0.6814
SS055	10/5/2017	0.5760	0.2218	0.7200	0.6739	0.3348	0.9324	0.1725	0.1676	0.2223	0.2264		0.3834	0.1440
SS055	6/14/2018	0.1440	0.2340	0.3600	0.6444	0.8496	0.1145	0.1980	0.1890	0.1454	0.3888		0.6300	0.1346
SS055	10/10/2018	0.1728	2.3256	0.3420	0.3474	0.1483	0.4486	0.1800	0.1800	0.7992	0.6948		0.8424	0.1512
SS055	10/10/2016	0.3893	1.2454	0.3243	0.1274	0.0000	0.2368	0.1198	0.1470	0.4580	0.8351		0.2776	0.6487
SS055	6/23/2017	0.4838	6.9354	0.9932	1.1151	0.7416	0.6451	0.3156	0.3364	0.2152	0.2232		0.2292	0.3180
SS056	6/14/2018	0.4320	0.1714	0.6149	0.5393	0.2671	0.3960	0.1735	0.1483	0.4657	0.4652		0.1855	0.3528
SS056	10/11/2016	0.7863	0.3827	0.5880	0.5782	0.0000	0.1417	0.2324	0.2226	0.1222	0.1192		0.2353	0.7863
SS056	6/22/2017	0.6912	0.2938	0.4320	0.2765	0.3266	0.1728	0.1980	0.1935	0.6273	0.7330		0.2696	0.7741
SS057	10/11/2016	0.3543	0.3649	0.6569	0.9850	0.1417	0.1275	0.4890	0.4975	0.9000	0.8535		0.1375	0.1686
SS057	7/17/2017	0.5760	0.2945	0.4471	0.5285	0.1440	0.7992	0.3924	0.4118	0.6156	0.6559		0.9720	0.1339
SS057	10/2/2017	0.1440	0.3794	0.5814	0.5227	0.7200	0.7200	0.5940	0.4954	0.1800	0.1440		0.1397	0.1339
SS057	6/6/2018	0.5400	0.1865	0.4680	0.5220	0.7200	0.3665	0.2527	0.2729	0.1656	0.1188		0.2657	0.6754
SS057	9/25/2018	0.4320	0.3816	0.8640	0.4291	0.3600	0.8280	0.5364	0.4968	0.8280	0.8352		0.1800	0.2635
SS058	10/11/2016	0.2160	0.7200	0.1800	0.1800	0.1534	0.1714	0.3197	0.3240	0.3888	0.2866		0.7200	0.3600
SS058	7/17/2017	0.1440	0.5400	0.1800	0.1800	0.7992	0.7776	0.2880	0.1994	0.2290	0.2383		0.7200	0.3600
SS058	10/2/2017	0.1440	0.8640	0.1800	0.1800	0.1246	0.1469	0.3766	0.3751	0.7632	0.7142		0.7200	0.3600
SS058	6/6/2018	0.7200	0.4320	0.7200	0.9432	0.1800	0.1512	0.2376	0.2736	0.2988	0.6473		0.3600	0.3838
SS059	10/25/2017	0.1800	0.8467	0.2520	0.2520	0.2160	0.1800	0.2628	0.2650	0.2585	0.2671		0.1598	0.5400
SS059	10/11/2016	0.1387	1.1445	0.2889	0.2889	0.2311	0.1156	0.3455	0.3293	0.2323	0.2311		0.1387	0.5779
SS059	10/9/2018	0.2851	2.7216	0.2592	0.2592	0.2592	0.1296	0.8243	0.8554	0.8217	0.8217		0.2773	0.1159
SS059	6/19/2018	0.3600	2.7720	0.3600	0.3600	0.3600	0.1800	0.8244	0.8136	0.8388	0.8640		0.3996	0.9000
SS059	6/22/2017	0.8640	3.9168	0.2880	0.2880	0.2340	0.1152	0.1233	0.1336	0.1714	0.1256		0.1152	0.5760
SS060	10/9/2018	0.1440	0.4680	0.2880	0.2880	0.1639	0.1440	0.2436	0.2523	0.3485	0.3456		0.5126	0.1728
SS060	10/25/2017	0.1728	0.1296	0.2160	0.1356	0.4398	0.7214	0.7232	0.7353	0.1548	0.1800		0.1313	0.4320
SS060	6/11/2018	0.8294	0.2696	0.2736	0.4541	0.1777	0.1456	0.1534	0.1557	0.2136	0.2322		0.3525	0.1452
SS060	10/11/2016	0.6492	0.3247	0.5411	0.2164	0.1236	0.1885	0.1775	0.1783	0.2575	0.2424		0.3834	0.1822
SS060	6/21/2017	0.8640	0.4320	0.1800	0.4274	0.1464	0.2685	0.2326	0.2512	0.3149	0.3238		0.4153	0.2160
SS061	10/11/2016	0.4252	0.3968	0.7228	0.3366	0.0000	0.4251	0.1874	0.1821	0.2823	0.2778		0.1261	0.3543

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS061	6/21/2017	0.8640	0.6480	0.1800	0.1469	0.1123	0.1879	0.3240	0.3586	0.2748	0.3383		0.4320	0.2160
SS062	10/11/2016	0.3543	0.1821	0.3897	0.8858	0.3366	0.1320	0.5931	0.5839	0.5442	0.5355		0.7863	0.3543
SS062	6/11/2018	0.8928	0.8749	0.2293	0.2344	0.8258	0.1282	0.3982	0.3294	0.3482	0.3768		0.2232	0.1268
SS062	10/23/2017	0.9360	0.9968	0.9594	0.1620	0.5112	0.4867	0.3585	0.3641	0.3412	0.3454		0.4680	0.2340
SS062	10/8/2018	0.1440	2.8440	0.1512	0.1116	0.6354	0.5328	0.8784	0.8928	0.8568	0.8640		0.2614	0.1800
SS062	6/21/2017	0.1368	2.3940	0.6117	0.1322	0.6843	0.3413	0.7396	0.8399	0.8640	0.8312		0.1728	0.8640
SS063	10/3/2017	0.2880	0.6178	0.3600	0.1930	0.1440	0.1440	0.2268	0.2246	0.2736	0.3672		0.7200	0.7200
SS063	6/28/2018	0.5760	0.2837	0.1440	0.1237	0.1440	0.8957	0.8388	0.8582	0.5659	0.1152		0.7200	0.3240
SS063	10/12/2016	0.1163	3.1134	0.1766	0.2498	0.4363	0.4363	0.1654	0.1616	0.2971	0.2984		0.6158	0.1878
SS063	7/20/2017	0.4320	8.5133	0.1797	0.2845	0.1152	0.1152	0.4792	0.4788	0.8387	0.8698		0.5170	0.5288
SS064	10/3/2017	0.4320	0.6739	0.5400	0.1368	0.2160	0.1836	0.2160	0.1829	0.1227	0.4363		0.1800	0.1800
SS064	10/2/2018	0.1872	2.3812	0.3744	0.7188	0.1872	0.7713	0.1714	0.9847	0.1138	0.2632		0.9360	0.9360
SS064	6/28/2018	0.2880	1.7136	0.5760	0.1117	0.5760	0.3554	0.2819	0.2822	0.1365	0.3145		0.2880	0.4752
SS064	7/20/2017	0.3888	1.7366	0.3240	0.3240	0.2592	0.1296	0.6493	0.6441	0.7737	0.8237		0.1296	0.6480
SS064	10/12/2016	0.2185	11.1883	0.7289	0.5623	0.2884	0.1563	0.3749	0.3720	0.6843	0.7468		0.1257	0.1442
SS065	10/4/2018	0.1188	5.6736	0.5371	0.5371	0.2376	0.2376	0.1563	0.1564	0.1929	0.1822		0.1373	0.1440
SS065	10/12/2016	0.1223	6.9298	0.6627	0.6476	0.7195	0.7195	0.1957	0.1936	0.2238	0.2252		0.3588	0.2734
SS065	6/19/2018	0.8640	7.4160	0.6354	0.5911	0.3600	0.3600	0.2736	0.1922	0.2491	0.2484		0.2628	0.2635
SS065	6/23/2017	0.4680	9.7344	0.1835	0.1987	0.7776	0.2880	0.3629	0.3946	0.2871	0.2880		0.3456	0.4723
SS065	10/3/2017	0.4596	33.1632	3.2544	2.9122	0.6566	0.6566	0.9161	0.8766	1.9987	1.8346		0.1169	0.1284
SS066	10/3/2017	0.3888	1.5696	0.1555	0.1483	0.3780	0.3874	0.4356	0.4176	0.5285	0.5170		0.5458	0.5328
SS066	6/23/2017	0.1498	5.7370	0.5622	0.6480	0.2232	0.2235	0.1665	0.1814	0.2794	0.2177		0.1567	0.2394
SS066	10/12/2016	0.2167	9.2738	0.7757	0.7679	0.5556	0.5738	0.2583	0.2565	0.3335	0.3855		0.3918	0.3822
SS067	6/21/2017	0.3600	0.3370	0.4320	0.4392	0.4464	0.4219	0.1872	0.1123	0.1152	0.1188		0.1318	0.1314
SS067	10/23/2017	0.2376	0.4565	0.1800	0.1656	0.2628	0.2678	0.1411	0.1375	0.1314	0.1289		0.1562	0.1476
SS067	6/5/2018	0.6336	0.8582	0.1858	0.2268	0.6667	0.5688	0.2650	0.2628	0.2462	0.2664		0.2754	0.3730
SS067	10/8/2018	0.7632	0.9893	0.2491	0.2477	0.8770	0.4666	0.3240	0.3240	0.2988	0.2923		0.2938	0.2232
SS067	10/17/2016	0.1466	1.2627	0.2184	0.2225	0.1158	0.1184	0.4337	0.4119	0.3619	0.3619		0.5189	0.5211
SS068	10/8/2018	0.1613	2.3443	0.6394	0.6394	0.1314	0.9677	0.8294	0.8467	0.5760	0.5743		0.6682	0.7200
SS068	10/23/2017	0.1512	2.3616	0.3816	0.1800	0.1440	0.1152	0.8352	0.8352	0.5638	0.5688		0.8784	0.9144
SS068	10/17/2016	0.1829	2.9121	0.3389	0.3536	0.1179	0.1197	0.9885	0.9885	0.6899	0.6934		0.1387	0.1317
SS068	6/21/2017	0.1836	2.6568	0.2700	0.1199	0.1318	0.1339	0.9792	0.1411	0.6253	0.6631		0.9990	0.1116
SS068	6/5/2018	0.2765	3.8772	0.1775	0.1947	0.2880	0.3122	0.1325	0.1348	0.9216	0.9389		0.1313	0.1935
SS069	10/9/2018	0.2160	0.2290	0.2851	0.1922	0.9623	0.5800	0.8467	0.8478	0.6793	0.6847		0.7517	0.6642

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS069	6/19/2018	0.3240	0.2664	0.1440	0.1440	0.1526	0.1395	0.9677	0.9331	0.7963	0.7733		0.9418	0.1156
SS069	10/17/2016	0.4797	0.4513	0.3358	0.7828	0.1592	0.2126	0.1594	0.1613	0.1317	0.1321		0.1799	0.2997
SS069	10/23/2017	0.1267	1.1592	0.1440	0.8928	0.5593	0.5875	0.4320	0.3992	0.3318	0.3362		0.4378	0.4838
SS069	6/21/2017	0.1368	1.1880	0.2160	0.2160	0.7586	0.6895	0.3496	0.3586	0.2868	0.2964		0.3647	0.3179
SS070	10/17/2016	0.7327	0.4737	0.4658	0.1968	0.6675	0.1852	0.1783	0.1791	0.6769	0.6896		0.3828	0.4276
SS070	6/11/2018	0.5184	0.3370	0.1411	0.1192	0.8251	0.8986	0.1335	0.1344	0.2385	0.2592		0.2277	0.4788
SS070	10/9/2018	0.1166	0.5274	0.4234	0.1179	0.1227	0.1348	0.2143	0.2169	0.7560	0.7632		0.2664	0.3793
SS070	10/23/2017	0.8640	0.5940	0.1937	0.1482	0.8114	0.8669	0.1956	0.1951	0.7614	0.7596		0.3523	0.3856
SS070	6/21/2017	0.2592	0.9850	0.2765	0.3686	0.2678	0.3715	0.4147	0.4372	0.2627	0.2765		0.1196	0.1284
SS071	10/1/2018	0.2650	73.9469	0.9828	1.1678	0.1886	0.9432	1.2413	1.1413	0.4320	0.4183		0.9432	0.4716
SS071	10/1/2018	0.2650	73.3896	0.9794	0.9357	0.2315	0.9432	1.2356	1.1889	0.4339	0.4746		0.9432	0.4716
SS071	10/17/2016	0.3925	73.4794	1.4877	1.4660	0.2184	0.2184	1.2777	1.2515	0.4667	0.4667		0.1920	0.1920
SS071	10/24/2017	0.3231	83.2837	1.2717	2.7342	0.4971	0.1626	1.4665	1.4598	0.5717	0.5667		0.2486	0.1243
SS071	6/18/2018	0.6151	14.3974	1.6911	3.8157	0.3999	0.3694	1.9231	1.9174	0.7143	0.7288		0.1526	0.7631
SS071	6/27/2017	1.3872	233.6256	4.5738	5.8136	0.7380	0.1586	4.6725	5.1480	1.8179	1.8471		0.3654	0.3654
SS072	6/27/2017	0.1728	5.6916	0.1426	0.1955	0.1800	0.5148	0.1825	0.1987	0.4482	0.4633		0.1188	0.1980
SS072	6/18/2018	0.1555	14.9400	0.1275	0.1247	0.4795	0.4588	0.5262	0.5256	0.1319	0.1286		0.3629	0.4147
SS072	10/1/2018	0.5927	27.1797	0.1413	0.3349	0.2117	0.6644	0.8383	0.8383	0.1164	0.1118		0.1584	0.1584
SS072	10/24/2017	0.1800	26.8128	0.2153	0.2444	0.5400	0.9475	0.7913	0.7913	0.1764	0.1729		0.2651	0.2866
SS072	10/17/2016	0.1350	59.8577	0.7549	1.2772	0.1384	0.1817	1.6926	1.7134	0.4117	0.4174		0.9966	0.8858
SS073	6/27/2017	0.2160	5.1264	0.1613	0.1794	0.1800	0.1800	0.1512	0.1552	0.3578	0.3679		0.2520	0.5400
SS073	6/18/2018	0.1800	5.5836	0.2736	0.4428	0.1800	0.1879	0.1598	0.1598	0.3953	0.3834		0.8176	0.3748
SS073	10/1/2018	0.2298	6.5117	0.4421	0.1598	0.5472	0.5472	0.1871	0.1865	0.3266	0.4399		0.2736	0.2736
SS073	10/17/2016	0.2419	8.4844	0.3113	0.4953	0.1728	0.3421	0.2480	0.2480	0.5961	0.5979		0.8398	0.9849
SS073	10/24/2017	0.5184	13.5324	0.5236	0.5832	0.2592	0.2592	0.3888	0.3784	0.9616	0.9772		0.7128	0.1296
SS074	10/1/2018	0.4320	0.1125	0.1548	0.1512	0.4637	0.5947	0.4968	0.4853	0.1555	0.1800		0.5256	0.5242
SS074	10/17/2016	0.6896	2.1531	0.1637	0.1888	0.3663	0.1292	0.8969	0.8969	0.1662	0.1689		0.7364	0.7469
SS074	10/24/2017	0.9216	2.3823	0.2327	0.2322	0.1915	0.1327	0.8893	0.8986	0.1875	0.1886		0.7632	0.7419
SS074	6/27/2017	0.3456	6.8832	0.7819	0.8748	0.1483	0.1570	0.2754	0.2966	0.5472	0.5760		0.2376	0.2218
SS075	6/18/2018	0.2175	56.2379	0.7738	0.6972	0.1926	0.3356	1.2739	1.2325	0.2424	0.2333		0.5178	0.2589
SS075	10/1/2018	0.2434	117.5616	1.3734	1.5650	0.1443	0.9472	2.6395	2.5646	0.4811	0.4568		0.4680	0.4680
SS075	10/17/2016	0.3115	129.7881	1.6249	1.6484	0.6645	0.9592	2.9332	2.9725	0.5668	0.5668		0.1298	0.1298
SS075	6/27/2017	0.4320	127.5840	1.6416	1.8173	0.9158	0.1699	2.9376	3.2400	0.5357	0.5443		0.1440	0.1440
SS075	10/24/2017	0.5760	139.1400	1.8346	1.8835	0.6228	0.9734	3.1392	3.1140	0.6480	0.6480		0.1440	0.1440

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS076	10/18/2016	0.1440	0.1800	0.1800	0.7632	0.7848	0.7200	0.3384	0.3362	0.4140	0.4162		0.7200	0.3600
SS076	7/18/2017	0.1440	0.8640	0.1800	0.1116	0.1224	0.7200	0.2527	0.2470	0.5314	0.5530		0.7200	0.3600
SS076	10/10/2017	0.1440	0.8640	0.1800	0.7560	0.1411	0.7200	0.2815	0.2988	0.4255	0.4680		0.7200	0.3600
SS076	6/27/2018	0.7200	0.1800	0.7200	0.2182	0.1591	0.3758	0.2671	0.2880	0.4198	0.4673		0.3600	0.1685
SS076	9/26/2018	0.7200	0.3384	0.1145	0.6480	0.1166	0.7344	0.9360	0.1800	0.2527	0.2966		0.3600	0.3730
SS077	6/27/2018	0.5760	0.1728	0.5760	0.5760	0.6588	0.2880	0.2776	0.2978	0.1152	0.1152		0.2880	0.8640
SS077	10/18/2016	0.2595	0.5783	0.3243	0.3243	0.2595	0.1297	0.9548	0.9613	0.6487	0.6487		0.1297	0.6487
SS077	9/26/2018	0.1728	0.8122	0.1728	0.1728	0.1728	0.8726	0.1332	0.1233	0.3456	0.4596		0.8640	0.7258
SS077	10/10/2017	0.1944	1.8648	0.1368	0.1865	0.1944	0.5472	0.3179	0.3863	0.2736	0.4449		0.5472	0.2736
SS077	7/18/2017	0.1145	12.5918	0.1439	0.1439	0.1145	0.5724	0.2146	0.2192	0.2862	0.2862		0.5724	0.2862
SS078	10/10/2017	0.6336	1.9800	0.7920	0.7920	0.6336	0.3168	0.2839	0.2987	0.1584	0.1584		0.3168	0.1584
SS078	9/26/2018	0.4320	2.9376	0.4320	0.4320	0.4320	0.2160	0.4622	0.4260	0.8640	0.8640		0.2160	0.1879
SS078	10/18/2016	0.1935	5.9889	0.2379	0.2379	0.1935	0.9517	0.8185	0.8185	0.4759	0.4759		0.9517	0.4759
SS078	6/27/2018	0.9792	4.4640	0.9792	0.2595	0.1869	0.4896	0.5562	0.7428	0.1958	0.4367		0.4896	0.1812
SS078	7/18/2017	0.4320	9.7200	0.5400	0.5400	0.4320	0.2160	0.1426	0.1421	0.1800	0.1800		0.2160	0.1800
SS079	9/26/2018	0.7200	0.6480	0.9936	0.9864	0.7200	0.1836	0.1217	0.1440	0.2851	0.1188		0.3600	0.1800
SS079	10/18/2016	0.2835	0.1346	0.3543	0.3543	0.2835	0.1417	0.2485	0.2485	0.7863	0.7863		0.1417	0.7863
SS079	6/27/2018	0.1440	0.6480	0.1440	0.1440	0.1440	0.7200	0.1272	0.1282	0.2880	0.4248		0.7200	0.3348
SS079	10/10/2017	0.1728	0.6228	0.2160	0.2160	0.1728	0.8640	0.1244	0.1279	0.4320	0.1814		0.8640	0.4320
SS079	7/18/2017	0.3456	14.6880	0.4320	0.4320	0.3456	0.1728	0.4424	0.4464	0.8640	0.8640		0.1728	0.8640
SS080	10/18/2016	0.1440	0.2880	0.1800	0.1800	0.7488	0.7200	0.7200	0.7848	0.2124	0.2894		0.7200	0.3600
SS080	6/27/2018	0.7200	0.3240	0.7200	0.1854	0.3953	0.7848	0.7200	0.7560	0.2585	0.3348		0.3600	0.9144
SS080	9/26/2018	0.7200	0.5400	0.7200	0.7200	0.7200	0.3600	0.1282	0.1159	0.3348	0.4734		0.3600	0.2765
SS080	10/10/2017	0.2880	0.4320	0.3600	0.1858	0.2880	0.8640	0.1469	0.1117	0.2592	0.3643		0.1440	0.7200
SS082	6/28/2018	0.5760	0.3456	0.5760	0.3612	0.5760	0.2114	0.2794	0.2661	0.1336	0.7668		0.2880	0.7142
SS082	10/20/2016	0.1733	0.6670	0.2167	0.1335	0.1733	0.0000	0.4735	0.4230	0.1915	0.3623		0.8668	0.8668
SS083	10/20/2016	0.2126	0.1874	0.3316	0.3387	0.7228	0.6994	0.1439	0.1375	0.5464	0.5492		0.1651	0.1850
SS083	6/12/2018	0.5184	2.6496	0.4694	0.4694	0.2268	0.2736	0.1892	0.1884	0.5933	0.6365		0.2264	0.3834
SS083	7/20/2017	0.7142	7.7674	0.7999	0.7946	0.2624	0.1982	0.4285	0.4125	0.1259	0.1335		0.4533	0.4415
SS084	10/20/2016	0.8668	0.7392	0.1349	0.1358	0.0000	0.0000	0.5576	0.5547	0.2222	0.2236		0.6587	0.7598
SS084	6/12/2018	0.8280	0.3931	0.8165	0.8338	0.3996	0.4579	0.2756	0.2783	0.8813	0.9468		0.3370	0.5486
SS084	7/20/2017	0.2453	63.7766	0.2364	0.6631	0.2837	0.1464	2.6328	2.6416	0.1979	0.2195		0.1635	0.4882
SS085	10/20/2016	0.5760	0.6718	0.1375	0.1786	0.2894	0.3780	0.1418	0.1418	0.1728	0.1656		0.1166	0.1224
SS085	10/2/2018	0.9360	0.7740	0.1714	0.1843	0.3600	0.1433	0.1656	0.1577	0.1224	0.1188		0.1814	0.5184

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS085	6/28/2018	0.3240	2.6874	0.6228	0.7474	0.1456	0.3473	0.5918	0.6264	0.4450	0.4493		0.4268	0.7474
SS085	7/20/2017	0.2160	5.8565	0.1411	0.1673	0.3528	0.9979	0.1332	0.1314	0.9234	0.9774		0.2160	0.7489
SS086	10/20/2016	0.9594	0.2788	0.1529	0.1727	0.1199	0.5997	0.8694	0.8634	0.4155	0.4167		0.5163	0.5756
SS086	10/11/2017	0.7920	0.3456	0.1526	0.1786	0.7200	0.7200	0.1116	0.1145	0.5537	0.5983		0.4694	0.3586
SS086	6/14/2018	0.1728	0.7632	0.2146	0.2174	0.6480	0.5400	0.2448	0.2491	0.1240	0.1223		0.9216	0.1224
SS086	10/9/2018	0.6228	1.2211	0.4285	0.4424	0.2340	0.2358	0.4554	0.3986	0.1998	0.2413		0.5875	0.8496
SS086	6/22/2017	0.7776	1.7971	0.3845	0.4464	0.1430	0.1382	0.5724	0.6134	0.2575	0.2678		0.2326	0.1689
SS087	10/25/2016	0.3893	4.8144	0.3586	0.3658	0.3477	0.3477	0.3347	0.3321	0.5838	0.5916		0.5813	0.6253
SS087	10/18/2017	0.8640	6.3540	0.1788	0.2995	0.4277	0.4298	0.4126	0.4788	0.7128	0.7171		0.6566	0.6354
SS087	6/26/2018	0.1440	4.3200	0.3780	0.5854	0.6797	0.5537	0.2614	0.2491	0.3751	0.3823		0.3384	0.1289
SS087	10/3/2018	0.1728	6.4800	0.2556	0.6912	0.1714	0.1282	0.3953	0.3776	0.5782	0.5530		0.2549	0.3586
SS087	10/3/2018	0.2592	6.4800	0.2664	0.1188	0.1368	0.1548	0.3957	0.3879	0.5815	0.5668		0.3577	0.3812
SS087	6/27/2017	0.1943	28.6553	0.5343	0.5732	0.3745	0.3723	1.9476	1.8213	0.3255	0.3172		0.3346	0.3889
SS088	6/26/2018	0.1440	0.1800	0.1440	0.5875	0.1469	0.2837	0.5587	0.5832	0.5256	0.5443		0.7200	0.1771
SS088	10/3/2018		0.2160	0.1919	0.2268	0.3888	0.3434	0.1346	0.1311	0.5688	0.5551		0.1233	0.5400
SS088	10/18/2017	0.6912	0.2736	0.4458	0.1797	0.9193	0.3456	0.1427	0.1424	0.7119	0.7188		0.3456	0.1728
SS088	10/25/2016	0.8613	0.1723	0.1217	0.1946	0.0000	0.6373	0.1339	0.1378	0.8225	0.8354		0.0000	0.2153
SS088	6/27/2017	0.8640	0.1728	0.4622	0.6228	0.3370	0.3114	0.1296	0.1192	0.7992	0.8784		0.4320	0.2160
SS089	6/28/2018	0.1440	0.4896	0.1440	0.1440	0.1598	0.7200	0.2362	0.2340	0.7560	0.1336		0.7200	0.1512
SS089	10/3/2018	0.4320	0.1757	0.2966	0.2858	0.7200	0.3600	0.9720	0.8712	0.2837	0.2614		0.3600	0.1800
SS089	10/25/2016	0.3489	0.5937	0.4368	0.5327	0.3489	0.0000	0.2547	0.2669	0.8239	0.2965		0.1744	0.8722
SS089	10/12/2017	0.5760	0.5645	0.1319	0.1466	0.5760	0.2880	0.2966	0.3240	0.4522	0.4522		0.2880	0.1440
SS089	6/29/2017	0.2556	0.2556	0.3132	0.3694	0.2556	0.1253	0.1436	0.1146	0.5287	0.1843		0.1253	0.6264
SS090	6/28/2018	0.3600	0.1260	0.3600	0.3600	0.4284	0.1800	0.7956	0.8784	0.4680	0.5616		0.1800	0.4860
SS090	10/3/2018	0.8640	0.1145	0.1159	0.1400	0.8640	0.4320	0.5426	0.5400	0.1382	0.1348		0.4320	0.2160
SS090	10/25/2016	0.2835	0.3685	0.2338	0.1536	0.2835	0.0000	0.2311	0.2353	0.5612	0.5839		0.0000	0.7863
SS090	6/29/2017	0.4320	0.2376	0.2916	0.7848	0.4320	0.2160	0.1469	0.1544	0.1627	0.1814		0.2722	0.1800
SS091	6/29/2017	0.2880	0.1152	0.3600	0.3600	0.1980	0.1440	0.8294	0.8669	0.4738	0.4867		0.1469	0.7200
SS091	10/12/2017	0.2880	0.1800	0.1642	0.1387	0.8366	0.8467	0.8280	0.8611	0.8154	0.8194		0.1886	0.7200
SS091	10/25/2016	0.1440	0.5367	0.2435	0.2655	0.3849	0.0000	0.3756	0.3878	0.3339	0.3416		0.7779	0.3598
SS091	6/26/2018	0.7560	0.1814	0.1584	0.1338	0.9223	0.9677	0.9752	0.1433	0.9720	0.9299		0.1462	0.1134
SS092	6/26/2018	0.2880	0.8928	0.2880	0.2880	0.2880	0.1440	0.3888	0.3816	0.7978	0.1397		0.1440	0.3600
SS092	11/8/2016	0.2184	0.7631	0.5460	0.8155	0.4368	0.2184	0.3929	0.3929	0.2165	0.2900		0.1723	0.1920
SS092	10/18/2017	0.5760	0.8352	0.7200	0.7200	0.5760	0.2880	0.4262	0.4234	0.5940	0.5875		0.2880	0.1440

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Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS092	7/21/2017	0.1152	0.1555	0.1440	0.6912	0.1152	0.5760	0.8294	0.8179	0.5178	0.6739		0.1152	0.2880
SS093	10/3/2018	0.1800	0.2268	0.3600	0.9576	0.3600	0.1800	0.1368	0.1224	0.1494	0.1436		0.1814	0.1922
SS093	11/8/2016	0.4252	0.1155	0.7863	0.3543	0.5669	0.1417	0.5258	0.5230	0.9141	0.9170		0.1615	0.1312
SS093	7/21/2017	0.5760	0.6912	0.7200	0.2742	0.5760	0.1296	0.3398	0.3859	0.9144	0.1826		0.5760	0.1440
SS093	6/26/2018	0.2592	0.4464	0.2592	0.4899	0.2592	0.1296	0.2658	0.2268	0.4199	0.4327		0.6324	0.4199
SS094	7/21/2017	0.8640	0.2376	0.1800	0.1494	0.1112	0.2160	0.1849	0.1983	0.4795	0.6228		0.2513	0.2432
SS094	11/8/2016	0.4394	1.4877	0.3543	0.1573	0.6422	0.1559	0.9369	0.9623	0.5938	0.6517		0.1295	0.1375
SS094	10/3/2018	0.3114	1.7133	0.4614	0.5256	0.1296	0.1327	0.6947	0.6791	0.5858	0.5724		0.3586	0.1545
SS094	6/26/2018	0.1296	2.8858	0.8640	0.1875	0.4225	0.1282	0.2693	0.2825	0.1814	0.1884		0.4295	0.5772
SS095	6/26/2018	0.2160	0.1375	0.7200	0.2117	0.7560	0.3654	0.2239	0.2477	0.9360	0.1382		0.3600	0.9540
SS095	10/3/2018	0.3600	0.2398	0.7200	0.1663	0.3600	0.3600	0.3679	0.3679	0.1591	0.2736		0.1800	0.1800
SS095	11/8/2016	0.2878	1.9427	0.2331	0.1148	0.1440	0.7195	0.3137	0.3159	0.2633	0.2957		0.7195	0.3598
SS095	10/18/2017	0.3456	2.5560	0.2160	0.2358	0.1728	0.2419	0.4896	0.4896	0.6422	0.1849		0.8640	0.4320
SS095	6/27/2017	0.2736	1.2442	0.2848	0.1566	0.2736	0.1368	0.2136	0.2198	0.1977	0.2136		0.1368	0.5184
SS096	6/28/2018	0.2880	0.4320	0.2880	0.7459	0.4666	0.4435	0.2678	0.2690	0.4248	0.3974		0.8467	0.8280
SS096	11/8/2016	0.1417	0.5669	0.1389	0.1623	0.1630	0.2884	0.8858	0.2749	0.5782	0.6385		0.3543	0.3543
SS096	10/18/2017	0.2160	0.1440	0.3672	0.2549	0.5281	0.1436	0.1188	0.1166	0.1912	0.1933		0.2765	0.5400
SS096	6/26/2017	0.9234	0.3692	0.8933	0.3226	0.1421	0.2716	0.1953	0.2753	0.1629	0.1665		0.4372	0.2256
SS097	11/8/2016	0.7631	0.1450	0.9539	0.8237	0.2194	0.1515	0.7777	0.8166	0.8662	0.9272		0.1622	0.1778
SS097	6/26/2017	0.1440	0.2160	0.1800	0.2678	0.1188	0.7740	0.7920	0.8712	0.2549	0.7632		0.7200	0.3600
SS098	11/8/2016	0.1526	0.4885	0.3564	0.3893	0.1881	0.2717	0.4525	0.4547	0.1591	0.1665		0.1439	0.1454
SS098	6/26/2017	0.2880	0.4493	0.3348	0.3612	0.2454	0.2471	0.3796	0.4435	0.1377	0.1394		0.1598	0.1261
SS098	10/3/2018	0.2880	0.7258	0.4493	0.4554	0.6682	0.6480	0.6480	0.5818	0.2661	0.2488		0.1572	0.1822
SS098	10/18/2017	0.1152	0.7373	0.3612	0.3542	0.5432	0.5400	0.6451	0.6336	0.2851	0.2678		0.1665	0.1829
SS105	9/25/2018	0.2196	34.9286	0.4881	0.5243	0.3542	0.9990	0.5887	0.5916	0.1962	0.1998		0.1771	0.1771
SS105	6/14/2018	0.2818	32.4792	0.4971	0.5584	0.1771	0.2962	0.5551	0.5684	0.1832	0.1888		0.4143	0.2714
SS105	10/11/2017	0.4941	59.4295	0.7960	0.8728	0.7572	0.1856	1.2299	1.4349	0.3499	0.3512		0.6677	0.6677
SS105	9/20/2016		74.3400	1.1331	1.2744	0.4272	0.3158	1.3565	1.3565	0.4644	0.4830		0.5759	0.5759
SS105	6/22/2017	1.7241	125.1864	3.3686	3.8947	0.5172	0.2126	2.3432	2.4428	0.8626	0.8665		0.4428	0.2214
SS123	6/28/2018	0.2160	0.7776	0.1974	0.2246	0.1659	0.2143	0.7214	0.8122	0.6354	0.6480		0.9936	0.2117
SS123	6/27/2017	0.5184	0.5184	0.8243	0.9216	0.1426	0.2892	0.4692	0.4966	0.3741	0.3158		0.3655	0.3484
SS125	10/18/2017	0.2880	0.6156	0.5717	0.5731	0.3946	0.4752	0.3888	0.3931	0.1944	0.1987		0.1627	0.1526
SS125	9/29/2016		0.7223	0.4432	0.5417	0.4766	0.6239	0.3447	0.4766	0.1592	0.2298		0.1445	0.1970
SS126	10/3/2018	0.2160	0.4752	0.2337	0.2195	0.1464	0.1417	0.7434	0.7171	0.1356	0.1257		0.8514	0.8683

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS126	10/18/2017	0.2340	0.1267	0.5918	0.5368	0.6947	0.7154	0.1912	0.2160	0.3672	0.3643		0.2131	0.2182
SS126	6/28/2018	0.8640	0.1728	1.4371	0.9988	0.1555	0.1464	0.2333	0.2246	0.3283	0.3215		0.4147	0.6152
SS126	9/29/2016		0.2988	0.8586	0.8777	0.1627	0.1584	0.3528	0.3244	0.4680	0.4680		0.3816	0.3816
SS126	6/27/2017	0.1814	0.6354	0.2268	0.3946	0.2313	0.3283	0.4971	0.5289	0.5262	0.5371		0.5389	0.4536
SS200	10/23/2017	0.4536	16.5240	0.4622	0.4990	0.2160	0.1332	0.8122	0.8280	0.3262	0.3283		0.1800	0.1800
SS200	10/8/2018	0.8294	22.3949	0.6480	0.9979	0.1296	0.2825	0.1886	0.1757	0.4355	0.4385		0.6480	0.6480
SS200	10/8/2018	0.8352	22.3434	0.6480	0.9979	0.1296	0.3215	0.1757	0.1886	0.4327	0.4464		0.6480	0.6480
SS200	6/11/2018	0.8640	21.2832	0.4118	0.6714	0.1440	0.1714	0.1454	0.1771	0.4176	0.4262		0.7200	0.7200
SS200	6/23/2017	0.1224	21.8765	0.3421	0.1863	0.6912	0.1248	0.1194	0.1161	0.4182	0.4838		0.3456	0.1728
SS201	10/4/2018	0.2160	9.5962	0.2437	0.2419	0.1839	0.1734	0.2714	0.2726	0.4788	0.3863		0.3193	0.3215
SS201	6/19/2018	0.5760	14.5440	0.2563	0.2563	0.2722	0.2772	0.4162	0.4262	0.5400	0.5544		0.6538	0.6739
SS201	10/3/2017	0.5760	24.4224	0.6156	0.6365	0.4262	0.4332	0.6843	0.6820	0.9469	0.9377		0.9839	0.1322
SS201	6/23/2017	0.2534	9.6538	0.2437	0.3122	0.1775	0.1958	0.2857	0.3874	0.3433	0.3836		0.3779	0.4896
SS202	10/2/2018	0.2880	0.2592	0.1469	0.1519	0.4680	0.1188	0.2880	0.2880	0.7992	0.7632		0.7488	0.7416
SS202	6/26/2017	0.1728	0.8640	0.8346	1.2298	0.1479	0.4113	0.1120	0.1279	0.2851	0.2923		0.2212	0.2419
SS203	6/27/2017	0.3600	0.5400	0.1256	0.1314	0.6264	0.6192	0.3636	0.3816	0.4284	0.4248		0.1188	0.1548
SS204	6/27/2017	0.2765	0.3612	0.3940	0.4892	0.4838	0.8280	0.2817	0.3197	0.5219	0.5486		0.9625	0.9677
SS204	10/18/2017	0.3744	0.5544	0.4680	0.7975	0.6159	0.4699	0.2696	0.2714	0.2658	0.2827		0.4998	0.9360
SS205	6/29/2017	0.8640	0.1296	0.1800	0.1800	0.8640	0.4320	0.8251	0.8986	0.2650	0.4464		0.4320	0.2160
SS206	10/12/2017	0.8640	0.1339	0.6394	0.1179	0.5486	0.1876	0.8597	0.8942	0.9158	0.9763		0.5789	0.2160
SS206	6/29/2017	0.5184	0.2592	0.1553	0.2325	0.2452	0.3136	0.1669	0.1735	0.1525	0.1693		0.3629	0.1296
SS207	6/29/2017	0.2880	0.1152	0.3600	0.2794	0.5242	0.6354	0.9734	0.1325	0.6552	0.7416		0.2448	0.7200
SS208	6/29/2017	0.2880	0.1152	0.3600	0.3600	0.6912	0.1440	0.7380	0.6667	0.8842	0.8856		0.2340	0.7200
SS208	6/28/2018	0.2160	0.2592	0.2160	0.2160	0.9612	0.8388	0.1547	0.1611	0.2225	0.2125		0.5573	0.4579
SS208	10/3/2018	0.2520	0.1314	0.1240	0.1252	0.5922	0.5569	0.8114	0.7762	0.8644	0.7535		0.1584	0.6300
SS208	10/12/2017	0.7200	0.2232	0.3312	0.3586	0.4896	0.4651	0.1382	0.1397	0.1375	0.1390		0.9648	0.3600
SS210	9/24/2018	0.3384	4.1184	0.7200	0.1699	0.1498	0.4752	0.2498	0.2448	0.2383	0.2297		0.1620	0.1418
SS210	10/16/2017	0.5875	5.5656	0.2880	0.2880	0.1382	0.7983	0.3364	0.3456	0.3456	0.3548		0.2772	0.2143
SS210	6/13/2018	0.2934	26.6112	0.1296	0.1296	0.2335	0.6480	1.6286	1.7297	1.8749	1.9596		0.1153	0.1355
SS210	7/10/2017	0.8942	89.4174	0.7451	0.7451	0.5961	0.2986	5.5430	5.4238	6.1687	6.2283		0.3755	0.3934
SS211	7/10/2017	0.8640	0.4176	0.2186	0.9864	0.6480	0.1153	0.1421	0.1379	0.3162	0.3374		0.6394	0.2160
SS212	7/11/2017	0.2419	3.9917	0.3240	0.1900	0.2232	0.1911	0.1223	0.1155	0.2734	0.2770		0.1296	0.6480
SS213	7/12/2017	0.5184	0.5962	0.6480	0.6480	0.5184	0.2592	0.1817	0.1717	0.6273	0.6584		0.2592	0.1296
SS214	7/11/2017	0.1159	15.3446	0.1728	0.1348	0.6679	0.3594	0.5274	0.5941	1.8317	1.8386		0.5465	0.5723

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS215	10/2/2017	0.1440	0.1728	0.3600	0.3600	0.6228	0.6984	0.8698	0.8568	0.2174	0.2290		0.7668	0.7200
SS215	7/17/2017	0.5189	5.4488	0.6487	0.6487	0.1186	0.2595	0.3217	0.3114	0.3191	0.3617		0.3358	0.1297
SS215	6/6/2018	0.1367	9.1179	0.4555	0.4555	0.2638	0.3644	0.5375	0.5785	0.1617	0.2955		0.5466	0.2929
SS216	6/5/2018	0.4680	0.9216	0.1152	0.1152	0.1175	0.9850	0.2966	0.3295	0.2340	0.9558		0.5760	0.4954
SS216	7/17/2017	0.4320	0.1296	0.3600	0.3600	0.2880	0.1440	0.4896	0.4162	0.7200	0.7200		0.1440	0.7200
SS217	9/26/2018	0.1152	0.6912	0.5760	0.5760	0.5760	0.2880	0.3686	0.3525	0.8352	0.9274		0.2880	0.1440
SS217	6/27/2018	0.3240	0.5832	0.3240	0.3240	0.3240	0.1620	0.1660	0.1121	0.6480	0.6480		0.1620	0.6545
SS217	7/18/2017	0.2880	2.4480	0.3600	0.3600	0.2880	0.1440	0.4435	0.4565	0.7200	0.7200		0.1440	0.7200
SS218	9/26/2018	0.2592	1.2398	0.4320	0.4320	0.5976	0.2549	0.1548	0.1195	0.8338	0.8165		0.4622	0.4666
SS218	7/18/2017	0.6480	1.8576	0.1800	0.1800	0.1440	0.7200	0.1519	0.1483	0.1332	0.1375		0.7848	0.8280
SS218	6/27/2018	0.1674	13.6973	0.8352	0.8352	0.8352	0.4176	0.9187	0.9187	0.3174	0.3325		0.2272	0.1979
SS219	10/1/2018	0.6480	0.2290	0.1646	0.1788	0.9288	0.8597	0.9158	0.8554	0.2739	0.2419		0.1814	0.1888
SS219	10/19/2017	0.9360	0.3240	0.2419	0.1786	0.1289	0.1418	0.1332	0.1397	0.3492	0.3571		0.2988	0.2678
SS219	6/28/2018	0.1382	0.5875	0.1431	0.2218	0.1348	0.1832	0.2454	0.2557	0.5132	0.4856		0.4182	0.3439
SS219	7/24/2017	0.8640	2.9376	0.3240	0.3812	0.5849	0.6255	0.1296	0.1279	0.1944	0.2736		0.2886	0.3240
SS220	6/28/2018	0.8352	4.3718	0.4320	0.4320	0.8640	0.4320	0.3119	0.3136	1.7885	1.7280		0.6273	0.7975
SS220	10/1/2018	1.1733	6.5318	0.8640	0.8640	0.2488	0.8640	0.4476	0.4337	3.5856	2.7828		0.7434	0.9141
SS220	7/24/2017	7.4733	38.6748	0.2441	0.1226	0.1635	0.8176	2.6655	2.7146	7.9967	14.3886		0.4325	0.5568
SS221	6/28/2018	0.2988	1.4112	0.1440	0.1440	0.2670	0.1440	0.1512	0.9475	0.5400	0.4896		0.2143	0.2268
SS221	7/24/2017	0.7488	4.5936	0.1800	0.1800	0.1440	0.1440	0.3240	0.3283	1.6416	1.7424		0.5933	0.5940
SS222	6/28/2018	0.5443	4.2912	0.7200	0.7200	0.2318	0.1257	0.3787	0.3658	2.1600	2.1240		0.9979	0.1498
SS222	7/24/2017	6.8400	59.6160	0.1800	0.1800	0.2765	0.2736	6.8256	6.9696	27.3600	28.3680		0.1498	0.1526
SS223	10/1/2018	0.4320	0.6912	0.4320	0.6437	0.4320	0.5832	0.1951	0.1876	0.7128	0.2783		0.2160	0.1800
SS223	6/28/2018	0.7200	0.9360	0.7200	0.7200	0.1314	0.3960	0.2470	0.2513	0.3233	0.9144		0.3600	0.7848
SS223	10/19/2017	0.2340	0.1843	0.2880	0.2880	0.2340	0.1152	0.4838	0.4896	0.5760	0.9239		0.1152	0.5760
SS223	7/24/2017	0.6912	0.4493	0.8640	0.8640	0.6912	0.3456	0.1258	0.1344	0.1852	0.5219		0.3456	0.1728
SS224	7/24/2017	0.2419	5.8680	0.2322	0.3456	0.6394	0.1548	0.1697	0.1673	1.7764	1.5172		0.4769	0.4838
SS225	6/28/2018	0.3456	1.3219	0.3983	0.3594	0.1973	0.3622	0.4518	0.4631	0.2732	0.2739		0.8813	0.1814
SS225	7/24/2017	0.2160	6.4800	0.1447	0.1827	0.6228	0.5746	0.2246	0.2229	1.2384	1.2816		0.3288	0.3763
SS226	6/28/2018	0.3456	0.2419	0.1152	0.1152	0.1958	0.2189	0.1116	0.1858	0.1740	0.1716		0.3226	0.1659
SS226	7/24/2017	0.1584	1.1880	0.1980	0.1980	0.2447	0.4760	0.3168	0.3730	0.5180	0.9979		0.7920	0.3960
SS227	10/3/2017	0.8100	1.9980	0.3834	0.4824	0.1800	0.1800	0.7236	0.7200	0.2160	0.2160		0.9000	0.9000
SS228	10/3/2017	0.7776	1.7424	0.6394	0.6595	0.1382	0.2269	0.6163	0.5962	0.5274	0.5274		0.5760	0.6768
SS228	7/19/2018													

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS228	10/9/2018	0.2880	4.8240	0.1483	0.1498	0.1116	0.3600	0.1656	0.1663	0.1469	0.1454		0.4471	0.1570
SS229	10/4/2017	0.3744	0.6777	0.4680	0.4680	0.1872	0.9716	0.1790	0.1777	0.1390	0.5354		0.9360	0.9360
SS229	6/27/2018	0.1728	1.2960	0.4320	0.4320	0.1296	0.2160	0.3279	0.3473	0.9468	0.1128		0.2160	0.2556
SS230	7/19/2018	0.8640	0.6696	0.4248	0.4723	0.1476	0.5335	0.9216	0.9540	0.2282	0.2376		0.1174	0.1267
SS230	10/5/2017	0.3226	0.3180	0.6589	0.9999	0.3516	0.1115	0.4320	0.4182	0.1159	0.1967		0.5668	0.6636
SS231	9/26/2018	0.1152	0.1544	0.1152	0.5688	0.1152	0.5760	0.3348	0.3272	0.9170	0.5227		0.5760	0.2880
SS231	10/10/2017	0.2880	0.1354	0.3600	0.3168	0.2880	0.1440	0.3182	0.3226	0.3773	0.4824		0.1440	0.7200
SS231	6/27/2018	0.1728	1.2960	0.1662	0.3128	0.1728	0.8640	0.2765	0.2713	0.4337	0.4518		0.8640	0.1662
SS232	10/16/2017													
SS235	10/1/2018													
SS235	10/1/2018													
SS235	10/19/2017	0.8640	5.1120	1.3565	1.3651	0.1693	0.1685	0.4311	0.4432	0.7560	0.7716		0.8424	0.8415
SS236	10/23/2017	0.1224	2.6712	0.1800	0.1318	0.6660	0.6660	0.7848	0.7992	0.7992	0.8640		0.7848	0.8424
SS236	10/8/2018	0.5962	9.2275	0.2592	0.5676	0.1654	0.1674	0.2851	0.2851	0.2579	0.2556		0.2563	0.2579
SS236	7/19/2018													
SS237	10/24/2017	0.1635	199.5634	0.4882	0.4882	0.3276	0.1635	3.9417	3.9417	0.3984	0.4857		0.1635	0.8176
SS238	10/24/2017	0.1728	0.7128	0.3773	0.3758	0.5544	0.4997	0.2678	0.2678	0.5558	0.5530		0.1973	0.2160
SS238	6/18/2018	0.4320	2.1773	0.1244	0.1257	0.3953	0.3647	0.8352	0.7956	0.1672	0.1620		0.5486	0.5962
SS250	10/9/2018	0.1663	38.6640	0.3247	0.4123	0.7560	0.1346	0.2399	0.2349	0.6754	0.6754		0.1260	0.1260
SS250	10/9/2018	0.1663	38.6568	0.3195	0.3528	0.8874	0.1584	0.2419	0.2344	0.6840	0.6653		0.1260	0.1260
SS250	6/14/2018	0.3526	36.3581	0.5460	0.2877	0.2725	0.5997	0.2328	0.2453	0.2840	0.2344		0.1363	0.1363
SS250	6/19/2018	0.3189	55.2777	0.8176	0.8176	0.6942	0.4882	0.3634	0.3655	0.3818	0.2289		0.2441	0.2441
SS250	11/7/2017	0.8722	21.4769	0.1976	0.5694	0.5460	0.1327	0.1226	0.1194	0.4363	0.3816		0.2725	0.1363
SS300	10/9/2018	0.9000	0.2880	0.1800	0.1836	0.1800	0.1258	0.1341	0.1413	0.4410	0.5526		0.5418	0.1926
SS300	6/19/2018	0.8640	0.2880	0.2160	0.2160	0.2160	0.1564	0.1495	0.1559	0.6178	0.7632		0.6739	0.8338
SS301	10/4/2018	0.3960	17.8992	0.3675	0.3453	0.8348	0.8332	0.5512	0.5180	0.6669	0.6273		0.5116	0.5132
SS301	6/19/2018	0.4838	16.2864	0.4496	0.4697	0.1171	0.1343	0.4959	0.5148	0.6149	0.6278		0.7258	0.6532
SS304	6/28/2018	0.1728	0.2160	0.4320	0.4320	0.5148	0.4788	0.7517	0.7258	0.4838	0.4579		0.1368	0.9936
SS304	7/24/2017	0.1920	11.7196	0.6814	0.6814	0.5833	0.5888	0.4648	0.4115	0.2452	0.2597		0.5615	0.1363
SS305	10/10/2017	0.1980	6.7478	0.2376	0.2138	0.1980	0.9540	0.1540	0.1568	0.5920	0.1159		0.9540	0.4752
SS305	8/23/2018													

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	F T Load	Hardness D Load	Fe D Load	Fe T Load	Pb D Load	Pb T Load	Mg D Load	Mg T Load	Mn D Load	Mn T Load	Hg T Load	Ni D Load	Ni T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	NO3- as N T Load	K D Load	K T Load	Se D Load	Se T Load	SiO2 D Load	SiO2 T Load	Ag D Load	Ag T Load	Na D Load	Na T Load	Sr D Load	Sr T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
A23A	10/1/2018													
A23A	8/23/2018	0.6532	0.9299	0.8557	0.6532	0.3266			0.3266	0.1633	0.4873	0.4958		
A23A	8/23/2018													
A23A	8/23/2018													
A38	6/28/2017	0.1978			0.1978	0.9539	0.1270	0.1493	0.9539	0.4770			0.3377	0.3456
A38	9/27/2018	0.1296	0.2637	0.2855	0.1296	0.1296			0.6480	0.6480	0.1372	0.1461		
A38	6/27/2018	0.2160	0.3550	0.4234	0.4320	0.2160			0.2160	0.1800	0.2927	0.2169		
CC01A	6/14/2018	0.4426	0.2582	0.1930	0.4426	0.2213			0.2213	0.1166	0.4262	0.4426		
CC01A	10/2/2017	0.2163	0.3445	0.3542	0.1815	0.5474			0.5474	0.2737	0.9488	0.9247		
CC01A	9/24/2018	0.1296	0.3617	0.4784	0.6480	0.3240			0.3240	0.1512	0.9737	0.1221		
CC01A	7/10/2017	0.2218			0.2218	0.1188	0.7559	0.7861	0.1188	0.5544			0.4615	0.4912
CC01B	9/25/2018	0.7920	0.3730	0.3342	0.7920	0.7920			0.3960	0.3960	0.9552	0.9695		
CC01B	6/5/2018													
CC01B	10/9/2017	2.1773	0.4376	0.4222	0.1886	0.1886			0.5443	0.5443	1.3420	1.1489		
CC01B	4/24/2017	2.4494				0.2449		7.1279		0.1225				0.4116
CC01B	9/27/2016				0.1415	0.1415	9.8579	9.2918	0.7762	0.7762			0.4982	0.5293
CC01B	3/30/2017	2.8368			0.1418	0.1418	8.7373	8.8224	0.7920	0.7920			0.4794	0.5191
CC01C	9/25/2018	0.1440	0.9720	0.1159	0.1440	0.7200			0.7200	0.3600	0.1286	0.1365		
CC01C	10/2/2017	0.5760	0.1261	0.1192	0.4579	0.2880			0.2880	0.1440	0.2834	0.2753		
CC01C	9/20/2016		0.1665	0.1334	0.3182	0.3637			0.1560	0.1667	0.1288	0.1338		
CC01C	7/10/2017	0.2552			0.2552	0.1276	1.4491	1.2751	0.1276	0.6379			0.4658	0.5269
CC01C	6/5/2018													
CC03D	9/27/2017	11.1168	1.6898	1.7874	0.1112	0.1112	42.5773	43.2444	0.5558	0.5558	9.3381	9.3381	5.2249	5.3366
CC03D	6/5/2018	13.8257	2.1153	2.2958	0.1383	0.6913			0.6913	0.3456	12.1943	12.3325		
CC03D	10/9/2018	14.2128	2.2745	2.3167	0.7164	0.7164			0.3553	0.3553	12.3367	12.5215		
CC03D	3/30/2017	15.8941			0.1589	0.1589	64.3713	65.1660	0.7948	0.7948			7.6458	8.2138
CC03D	5/16/2017	16.3296			0.1633	0.1633	65.4817	65.8829	0.8165	0.8165			7.8383	8.3290
CC03D	6/6/2017	2.8224			0.1411	0.1411	84.1225	82.2485	0.5256	0.5256			9.7449	9.7324
CC06	10/9/2018	11.5920	3.3228	3.9658	0.1159	0.1159			0.5530	0.5530	1.2188	9.7542		
CC06	6/5/2018	22.8614	2.5148	2.5648	0.2286	0.1144			0.1144	0.5715	1.5934	9.8342		
CC06	6/6/2017	35.4672			0.2983	0.2348	112.7857	19.2390	0.8867	0.8867			18.8827	17.5563
CC06	9/28/2017	35.4672	6.2777	6.2422	0.3547	0.1773	73.7718	76.2545	0.1773	0.8867	17.2725	16.8824	19.3296	19.5779
CC06	10/9/2017	36.6872	9.7230	7.1173	0.1834	0.1834			0.9172	0.9172	17.5365	14.3814		
CC14	10/9/2018	7.4880	1.2658	1.3914	0.7488	0.7488			0.3744	0.3744	6.7450	6.2243		

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	NO3- as N T Load	K D Load	K T Load	Se D Load	Se T Load	SiO2 D Load	SiO2 T Load	Ag D Load	Ag T Load	Na D Load	Na T Load	Sr D Load	Sr T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
CC14	9/28/2017													
CC14	10/9/2017													
CC14	9/21/2016		2.2176	4.2134	0.1153	0.5766			0.1619	0.8251	7.7616	1.2960		
CC14	6/5/2018	2.7936	3.3852	3.7928	0.4159	0.2794			0.2794	0.1397	15.7615	15.5536		
CC14	6/20/2017	12.3715			0.1237	0.6186	172.1312	187.7795	0.6186	0.3929			9.8127	9.8127
CC16C	6/12/2018	0.2319	0.1494	0.1489	0.2319	0.2319			0.1160	0.1160	0.2120	0.2918		
CC16C	9/28/2016		0.1728	0.1728	0.2643	0.2897			0.3717	0.3717	0.2186	0.2186		
CC16C	6/20/2017	1.8148			0.1815	0.5474	2.6658	2.8125	0.5474	0.2737			0.5169	0.5346
CC16C	10/4/2018	0.3960	0.2118	0.2149	0.6192	0.3960			0.3960	0.1548	0.2972	0.3836		
CC16C	10/25/2017	1.5840	0.2416	0.2479	0.1584	0.7920			0.7920	0.3960	0.3564	0.3659		
CC19	10/9/2018	3.1248	0.4935	0.4935	0.1562	0.1562			0.7812	0.7812	2.7295	2.7155		
CC19	6/5/2018	3.9744	0.5365	0.5485	0.3974	0.1987			0.1987	0.9936	3.5579	3.5770		
CC19	10/9/2017	4.7916	0.5988	0.5988	0.2396	0.2396			0.1198	0.1198	3.9134	3.3992		
CC19	9/29/2016				0.7272	0.3636	24.5794	24.5664	0.3636	0.1818			3.8614	3.9197
CC19	6/6/2017	1.2960			0.5148	0.5148	35.4182	33.9768	0.2574	0.2574			5.2337	5.1480
CC50	10/3/2018	6.3958	0.7892	0.7620	0.6396	0.6396			0.3198	0.3198	5.2573	5.6922		
CC50	10/9/2017	13.6800	0.8723	0.7784	0.6840	0.6840			0.3420	0.3420	5.9587	4.8172		
CC50	6/7/2018	7.4844	0.6227	0.8278	0.1497	0.7484			0.7484	0.3742	5.9875	6.1671		
CC50	6/20/2017	44.1534			0.4415	0.2277	39.7544	41.5387	0.2277	0.1138			11.4798	11.7556
CC50	9/21/2016		2.1763	2.3299					0.1869	0.9473	9.9852	12.8160		
DM01	6/14/2018													
DM01	6/22/2017	0.1382			0.1382	0.6912	0.9539	1.2240	0.6912	0.3456			0.3622	0.3574
DM24	9/16/2016		0.3720	0.3720	0.9212	0.4651			0.1293	0.1293	1.9584	1.9584		
DM24	9/27/2018	1.1160	0.3751	0.3839	0.1116	0.1116			0.5580	0.5580	1.2164	1.2767		
DM32	9/27/2018	0.1296	0.3974	0.3377	0.6480	0.3240			0.4162	0.1620	0.9720	0.9331		
DM32	9/27/2018	0.1296	0.3456	0.3415	0.6480	0.3240			0.4154	0.1620	0.9720	0.9396		
DM32	10/10/2017	0.6912	0.8882	0.7949	0.2448	0.1728			0.1434	0.8640	0.2732	0.2229		
DM32	6/27/2018	0.5184	0.1249	0.1298	0.2592	0.1296			0.1858	0.6480	0.2374	0.2348		
DM32	6/28/2017	0.5516			0.5516	0.2758	0.1955	0.1984	0.2538	0.1379			0.3944	0.4328
DM4	8/23/2018	0.5443	0.8785	0.7390	0.1886	0.5443			0.5443	0.2722	0.5745	0.5421		
DM4	8/23/2018	0.5443	0.8231	0.6597	0.1886	0.5443			0.5443	0.2722	0.5715	0.5323		
SS001	9/26/2018	0.3600	0.9000	0.9612	0.3600	0.1800			0.1800	0.9000	0.1829	0.1922		
SS001	9/26/2018	0.3600	0.9000	0.9900	0.3600	0.1800			0.1800	0.9000	0.1854	0.1951		
SS001	10/4/2017	0.1728	0.8640	0.2358	0.1728	0.8640			0.8640	0.4320	0.3776	0.3724		

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	NO3- as N T Load	K D Load	K T Load	Se D Load	Se T Load	SiO2 D Load	SiO2 T Load	Ag D Load	Ag T Load	Na D Load	Na T Load	Sr D Load	Sr T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS001	9/22/2016	0.1733			0.1733	0.8668	0.5139	0.5339	0.8668	0.4334			0.4516	0.4533
SS001	6/27/2018	0.5460	0.1363	0.2687	0.5460	0.2725			0.2725	0.1363	0.1559	0.1973		
SS001	7/11/2017	0.7424			0.7424	0.3712	1.4183	1.4292	0.3712	0.1857			0.1122	0.1229
SS002	10/4/2017	0.2880	0.4738	0.5688	0.2880	0.1440			0.1440	0.7200	0.1187	0.1199		
SS002	6/27/2018	0.4320	0.1800	0.1192	0.4320	0.2160			0.2160	0.1800	0.3211	0.3348		
SS002	7/11/2017	0.2419			0.2419	0.1296	0.3877	0.3859	0.1296	0.6480			0.2613	0.2770
SS002	9/22/2016	0.5561			0.5561	0.2786	0.1258	0.1286	0.2786	0.1393			0.1914	0.1425
SS003	9/26/2018	0.7200	0.2254	0.2599	0.7200	0.3600			0.3600	0.1800	0.6926	0.7200		
SS003	10/4/2017	0.2880	0.4392	0.4478	0.2880	0.1440			0.1440	0.7200	0.1498	0.1469		
SS003	7/12/2017	0.5760			0.5760	0.2880	0.1132	0.1146	0.2880	0.1440			0.6480	0.7560
SS003	9/22/2016	0.2889			0.2889	0.1445	0.6539	0.6399	0.1445	0.7223			0.5536	0.5547
SS004	10/4/2017	0.1382	0.4894	0.5136	0.1382	0.6912			0.6912	0.3456	0.5557	0.5553		
SS004	6/27/2018	0.1152	0.7442	0.8364	0.1152	0.5760			0.5760	0.2880	0.9893	0.9953		
SS004	9/22/2016	0.2595			0.2595	0.1297	0.6331	0.6634	0.1297	0.6487			0.2465	0.2452
SS004	7/12/2017	0.2880			0.2880	0.1440	0.5472	0.5760	0.1440	0.7200			0.1886	0.2448
SS004	9/26/2018	0.1440	0.1454	0.1149	0.1440	0.7200			0.7200	0.3600	0.1223	0.1284		
SS005	9/22/2016	0.2786			0.1242	0.9267	0.1387	0.1371	0.9267	0.4633			0.1366	0.1529
SS006	10/4/2017	0.1152	0.5760	0.5760	0.1152	0.5760			0.5760	0.2880	0.6566	0.6588		
SS006	9/26/2018	0.5760	0.1886	0.2124	0.5760	0.2880			0.2880	0.1440	0.7315	0.7632		
SS006	6/27/2018	0.8640	0.2232	0.2298	0.8640	0.4320			0.4320	0.2160	0.9540	0.9158		
SS006	9/23/2016	0.7948			0.7948	0.3974	0.8539	0.1126	0.3974	0.1987			0.4532	0.4172
SS006	7/12/2017	0.2616			0.2616	0.1382	0.7784	0.7797	0.1382	0.6541			0.1779	0.1989
SS007	9/23/2016	0.8668			0.1733	0.8668	0.5174	0.5442	0.8668	0.4334			0.1725	0.1774
SS007	9/26/2018	0.1584	0.3960	0.4867	0.1584	0.7920			0.7920	0.3960	0.1858	0.1980		
SS007	10/4/2017	0.1152	0.5760	0.1469	0.1152	0.5760			0.5760	0.2880	0.6156	0.6228		
SS007	7/12/2017	0.2184			0.2184	0.1920	0.3414	0.3500	0.1920	0.5460			0.1112	0.1276
SS007	6/27/2018	0.3925	0.9812	0.9812	0.3925	0.1962			0.1962	0.9812	0.3337	0.3337		
SS008	9/24/2018													
SS008	9/24/2018													
SS008	10/2/2017	0.2880	0.1440	0.1440	0.2880	0.1440			0.1440	0.7200	0.1642	0.1642		
SS008	9/26/2016	0.1657			0.1657	0.8286	0.1255	0.1854	0.8286	0.4143			0.3242	0.2825
SS008	6/13/2018	1.1616	0.2927	0.2927	0.1162	0.5854			0.5854	0.2927	0.7476	0.7593		
SS009	7/10/2017	0.1728			0.1728	0.8640	0.3715	0.3819	0.8640	0.4320			0.1253	0.1382
SS009	9/26/2016	0.2714			0.2714	0.1357	0.4288	0.4422	0.1357	0.5178			0.2699	0.2651

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Site ID	Date	NO3- as N T Load	K D Load	K T Load	Se D Load	Se T Load	SiO2 D Load	SiO2 T Load	Ag D Load	Ag T Load	Na D Load	Na T Load	Sr D Load	Sr T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS009	6/13/2018	0.4320	0.1951	0.1750	0.4320	0.2160			0.2160	0.1800	0.2259	0.2445		
SS010	9/24/2018	0.7200	0.3154	0.2894	0.7200	0.3600			0.3600	0.1800	0.7560	0.7920		
SS010	10/2/2017	0.2880	0.6595	0.4320	0.2880	0.1440			0.1440	0.7200	0.1915	0.1483		
SS010	7/10/2017	0.3456			0.3456	0.1728	0.1915	0.1368	0.1728	0.8640			0.4579	0.5634
SS010	9/26/2016	0.2616			0.5233	0.2616	0.1648	0.1645	0.2616	0.1382			0.4945	0.4867
SS010	6/13/2018	0.1440	0.1800	0.1800	0.7200	0.3600			0.3600	0.1800	0.1325	0.1368		
SS011	6/13/2018													
SS011	9/24/2018													
SS011	7/10/2017	0.2880			0.2880	0.1440	0.1930	0.2160	0.1440	0.7200			0.2232	0.2394
SS011	10/2/2017	0.8640	0.1737	0.4320	0.8640	0.4320			0.4320	0.2160	0.5112	0.3858		
SS011	9/26/2016	0.4368			0.1920	0.5460	0.5393	0.5555	0.5460	0.2725			0.7522	0.7577
SS012	10/2/2017	0.4320	0.7848	0.8575	0.4320	0.2160			0.2160	0.1800	0.4774	0.4774		
SS012	9/26/2016	0.3625			0.1357	0.5178	0.4858	0.4861	0.5178	0.2589			0.3154	0.3123
SS012	6/13/2018	0.8640	0.2160	0.2160	0.8640	0.4320			0.4320	0.2160	0.1469	0.1529		
SS012	7/10/2017	0.2416			0.2416	0.1279	0.1969	0.1268	0.1279	0.6397			0.4327	0.4856
SS013	10/4/2018													
SS013	10/3/2016	0.2496			0.2496	0.1248	0.3249	0.3249	0.1248	0.5124			0.2716	0.2664
SS013	10/3/2017	0.9376	0.1528	0.1580	0.9376	0.4688			0.4688	0.2344	0.3169	0.3184		
SS013	6/12/2018	2.1840	0.6397	0.5647	0.2184	0.1920			0.1920	0.5460	1.1818	1.2188		
SS013	7/17/2017	14.6794			0.1468	0.7340	21.7990	21.8724	0.7340	0.3670			1.7469	1.7116
SS014	10/3/2017	0.1368	0.1862	0.1892	0.1368	0.5184			0.5184	0.2592	0.6947	0.6895		
SS014	10/4/2018	0.9360	0.9360	0.2920	0.9360	0.4680			0.4680	0.2340	0.1292	0.1245		
SS014	6/12/2018	0.1363	0.4470	0.4279	0.1363	0.6814			0.6814	0.3469	0.1649	0.1635		
SS014	7/17/2017	0.3500			0.3500	0.1750	1.1400	1.1269	0.1750	0.8749			0.5434	0.5193
SS014	10/3/2016	0.3773			0.3773	0.1886	1.2429	1.2354	0.1886	0.9432			0.5891	0.5752
SS015	10/4/2018	0.1253	0.1253	0.3533	0.1253	0.6264			0.6264	0.3132	0.2383	0.2443		
SS015	10/3/2017	0.3816	0.5322	0.5417	0.3816	0.1980			0.1980	0.9540	0.3554	0.3478		
SS015	10/3/2016	0.5233			0.5233	0.2616	2.2254	2.4871	0.2616	0.1382			0.6215	0.6446
SS015	6/12/2018	0.7149	0.2599	0.2492	0.7149	0.3574			0.3574	0.1785	1.1212	1.9968		
SS015	7/17/2017	1.9624			0.1962	0.9812	8.3772	8.3240	0.9812	0.4959			0.2355	0.2296
SS016	10/4/2018	0.8640	0.8640	0.7249	0.8640	0.4320			0.4320	0.2160	0.2797	0.2549		
SS016	6/22/2017	0.2160			0.2160	0.1800	0.3532	0.4932	0.1800	0.5400			0.4136	0.4392
SS016	6/12/2018	0.2880	0.1598	0.1212	0.1440	0.7200			0.7200	0.3600	0.5731	0.5213		
SS016	10/3/2016	0.2278			0.2278	0.1139	0.3417	0.3467	0.1139	0.5694			0.3620	0.3579

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	NO3- as N T Load	K D Load	K T Load	Se D Load	Se T Load	SiO2 D Load	SiO2 T Load	Ag D Load	Ag T Load	Na D Load	Na T Load	Sr D Load	Sr T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS016	10/5/2017	0.4176	0.1952	0.1881	0.4176	0.2880			0.2880	0.1440	0.6160	0.6118		
SS017	10/5/2017													
SS017	10/3/2016	0.4579			0.4579	0.2289	0.8585	0.8585	0.2289	0.1145			0.9295	0.9387
SS017	10/4/2018	0.2340	0.2465	0.2246	0.2340	0.1152			0.1152	0.5760	0.7963	0.6774		
SS017	6/22/2017	0.1728			0.1728	0.8640	0.2851	0.3672	0.8640	0.4320			0.2567	0.2454
SS017	6/12/2018	0.1728	0.9540	0.9418	0.8640	0.4320			0.4320	0.2160	0.2557	0.2542		
SS018	6/23/2017	0.7200			0.7200	0.3600	0.9936	1.7280	0.3600	0.1800			0.1138	0.1584
SS018	10/4/2018	0.9540	0.5845	0.5655	0.4752	0.2376			0.2376	0.1188	0.1625	0.1592		
SS018	10/3/2016	0.9834			0.9834	0.4917	1.7538	1.7553	0.4917	0.2458			0.2296	0.2281
SS018	10/5/2017	0.2765	0.9124	0.9124	0.1382	0.6912			0.6912	0.3456	0.2316	0.2329		
SS018	6/12/2018	0.2714	0.1875	0.1315	0.1357	0.5178			0.5178	0.2589	0.2941	0.2983		
SS019	6/23/2017	0.1728			0.1728	0.8640	0.4933	0.5544	0.8640	0.4320			0.1356	0.1287
SS019	10/4/2018	0.9720	0.9720	0.4643	0.9720	0.4536			0.4536	0.2268	0.1297	0.1279		
SS019	10/4/2018	0.9720	0.9720	0.5168	0.9720	0.4536			0.4536	0.2268	0.1325	0.1279		
SS019	10/5/2017	0.2160	0.3518	0.3740	0.2160	0.1800			0.1800	0.5400	0.1411	0.1452		
SS019	6/12/2018	0.1728	0.4320	0.4320	0.1728	0.8640			0.8640	0.4320	0.2563	0.2394		
SS019	10/3/2016	0.4317			0.4317	0.2159	0.1452	0.1394	0.2159	0.1793			0.4749	0.4663
SS020	9/25/2018													
SS020	10/16/2017	0.5760	0.2880	0.2880	0.5760	0.2880			0.2880	0.1440	0.1944	0.2736		
SS020	10/4/2016	0.1382			0.1382	0.6541	0.3480	0.3447	0.6541	0.3276			0.2552	0.2531
SS020	7/19/2017	0.1537			0.1537	0.7686	0.3252	0.3190	0.7686	0.3843			0.2167	0.2114
SS020	6/13/2018	0.1296	0.3240	0.3240	0.1296	0.6480			0.6480	0.3240	0.6544	0.6919		
SS021	10/4/2016	0.4143			0.4143	0.2714	0.1168	0.1133	0.2714	0.1357			0.5246	0.5542
SS021	7/19/2017	0.3456			0.3456	0.1728	0.8791	0.8726	0.1728	0.8640			0.3439	0.3335
SS021	6/13/2018	0.2340	0.5760	0.5760	0.2340	0.1152			0.1152	0.5760	0.1134	0.1168		
SS022	10/16/2017	0.5760	0.2880	0.2880	0.5760	0.2880			0.2880	0.1440	0.2244	0.2330		
SS022	10/4/2016	0.3489			0.3489	0.1744	0.6262	0.1348	0.1744	0.8722			0.1381	0.1366
SS022	6/13/2018	0.2160	0.5400	0.5400	0.2160	0.1800			0.1800	0.5400	0.1400	0.1462		
SS022	7/19/2017	0.1382			0.1382	0.6912	0.4143	0.4285	0.6912	0.3456			0.4527	0.4679
SS023	9/25/2018													
SS023	10/4/2016	0.1417			0.1417	0.7863	0.4868	0.4933	0.7863	0.3543			0.6736	0.6661
SS023	7/19/2017	0.5760			0.5760	0.2880	0.9418	0.1166	0.2880	0.1440			0.1319	0.1218
SS023	6/13/2018	0.7200	0.2182	0.1814	0.7200	0.3600			0.3600	0.1800	0.1800	0.1800		
SS023	10/16/2017	0.8675	0.6817	0.7967	0.4337	0.2169			0.2169	0.1843	0.3550	0.3751		

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	NO3- as N T Load	K D Load	K T Load	Se D Load	Se T Load	SiO2 D Load	SiO2 T Load	Ag D Load	Ag T Load	Na D Load	Na T Load	Sr D Load	Sr T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS024	10/16/2017	0.2160	0.1336	0.1840	0.1800	0.5400			0.5400	0.2520	0.7258	0.7560		
SS024	10/4/2016	0.2965			0.1483	0.7413	0.2262	0.2254	0.7413	0.3767			0.6272	0.6138
SS024	9/25/2018	0.1728	0.3845	0.3931	0.8640	0.4320			0.4320	0.2160	0.1296	0.1296		
SS024	7/19/2017	0.6541			0.6541	0.3276	1.4386	1.4963	0.3276	0.1635			0.2830	0.2616
SS024	6/13/2018	0.3917	0.1183	0.9792	0.3917	0.1958			0.1958	0.9792	0.3498	0.3584		
SS025	10/4/2016	0.1226			0.4959	0.2453	0.5863	0.8720	0.2453	0.1226			0.9763	0.9868
SS025	7/19/2017	0.1728			0.1728	0.8640	0.1866	0.1884	0.8640	0.4320			0.1218	0.1159
SS025	6/13/2018	0.1440	0.3600	0.3600	0.1440	0.7200			0.7200	0.3600	0.5760	0.5890		
SS026	10/4/2016	0.1946			0.1297	0.6487	0.4379	0.1960	0.6487	0.3243			0.7525	0.3425
SS026	10/16/2017	0.2160	0.3798	0.3992	0.2160	0.1800			0.1800	0.5400	0.8749	0.9122		
SS026	6/14/2018	0.3114	0.8958	0.8184	0.3114	0.1555			0.1555	0.7776	0.1997	0.2218		
SS026	7/10/2017	0.1296			0.1296	0.6480	0.3919	0.3986	0.6480	0.3240			0.3119	0.2812
SS027	10/16/2017	1.2960	0.5443	0.5612	0.7974	0.6480			0.6480	0.3240	0.8489	0.8618		
SS027	10/4/2016	0.3526			0.1684	0.7631	0.8166	0.8893	0.7631	0.3816			0.1488	0.1485
SS027	9/24/2018	0.1728	0.6912	0.7675	0.4320	0.4320			0.2160	0.2160	0.1278	0.1287		
SS027	6/13/2018	0.1368	0.5827	0.5796	0.3374	0.5184			0.5319	0.2592	0.7164	0.6791		
SS027	7/10/2017	0.3348			0.3348	0.1674	1.1593	1.1643	0.1674	0.8352			0.1353	0.1300
SS028	10/16/2017	0.1440	0.7200	0.7200	0.1440	0.7200			0.7200	0.3600	0.5868	0.6113		
SS028	7/10/2017	0.2880			0.2880	0.1440	0.8280	0.8179	0.1440	0.7200			0.3269	0.3182
SS028	10/4/2016	0.4143			0.4143	0.2714	0.1112	0.1248	0.2714	0.1357			0.7855	0.7899
SS029	10/16/2017	0.5184	0.1128	0.1185	0.5184	0.2592			0.2592	0.1296	0.3586	0.3162		
SS029	9/24/2018	0.2664	0.1160	0.1191	0.2664	0.1332			0.1332	0.6516	0.3232	0.3258		
SS029	6/14/2018	0.3177	0.1596	0.9576	0.3177	0.1554			0.1554	0.7768	0.2760	0.2857		
SS029	10/4/2016	0.6541			0.6541	0.3276	2.2861	2.2436	0.3276	0.1635			0.7130	0.6996
SS029	7/10/2017	1.9624			0.1962	0.9812	6.6818	6.7560	0.9812	0.4959			0.9235	0.9253
SS030	10/5/2016	0.1440			0.1440	0.7200	0.3175	0.3578	0.7200	0.3600			0.1411	0.1562
SS030	7/12/2017	0.1440			0.1440	0.7200	0.2794	0.2923	0.7200	0.3600			0.8640	0.8856
SS030	10/4/2017	0.1440	0.7200	0.7200	0.1440	0.7200			0.7200	0.3600	0.5825	0.5825		
SS030	6/15/2018	0.7200	0.1800	0.1800	0.7200	0.3600			0.3600	0.1800	0.4486	0.4428		
SS030	9/26/2018	0.7200	0.1800	0.1800	0.7200	0.3600			0.3600	0.1800	0.6775	0.6732		
SS031	10/4/2017	0.4320	0.2160	0.2160	0.4320	0.2160			0.2160	0.1800	0.1838	0.1876		
SS031	7/12/2017	0.1728			0.1728	0.8640	0.3266	0.3326	0.8640	0.4320			0.1356	0.1279
SS031	10/5/2016	0.2616			0.1744	0.8722	0.3428	0.3419	0.8722	0.4368			0.1775	0.1736
SS031	6/15/2018	0.1296	0.3240	0.3240	0.1296	0.6480			0.6480	0.3240	0.9490	0.9513		

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS031	9/26/2018	0.2160	0.6286	0.6415	0.2160	0.1800			0.1800	0.5400	0.1819	0.1814		
SS032	10/4/2017	0.1152	0.1865	0.9274	0.5760	0.2880			0.2880	0.1440	0.4176	0.4291		
SS032	10/5/2016	0.1635			0.1635	0.8176	0.2855	0.2559	0.8176	0.4882			0.5446	0.5381
SS032	9/26/2018	0.1728	0.5184	0.5976	0.1728	0.8640			0.8640	0.4320	0.1953	0.1814		
SS032	9/26/2018	0.1728	0.5285	0.5285	0.1728	0.8640			0.8640	0.4320	0.1935	0.1832		
SS032	7/23/2018													
SS032	7/12/2017	0.1440			0.1440	0.7200	0.1346	0.1462	0.7200	0.3600			0.1534	0.1494
SS033	10/5/2016	0.1440			0.1440	0.7200	0.4514	0.4673	0.7200	0.3600			0.3398	0.3348
SS033	7/12/2017	0.1440			0.1440	0.7200	0.1159	0.1253	0.7200	0.3600			0.3456	0.2959
SS033	10/4/2017	0.1440	0.2851	0.2858	0.1440	0.7200			0.7200	0.3600	0.3362	0.3370		
SS033	6/15/2018	0.7200	0.1800	0.1980	0.7200	0.3600			0.3600	0.1800	0.1930	0.2880		
SS033	9/26/2018	0.7200	0.4637	0.4327	0.7200	0.3600			0.3600	0.1800	0.3391	0.3348		
SS034	10/5/2016	0.1440			0.1440	0.7200	0.1598	0.1584	0.7200	0.3600			0.3485	0.3398
SS034	7/12/2017	0.1440			0.1440	0.7200	0.2340	0.2347	0.7200	0.3600			0.2650	0.2556
SS034	10/4/2017	0.1440	0.2239	0.2419	0.1440	0.7200			0.7200	0.3600	0.3168	0.3125		
SS034	6/15/2018	0.7200	0.1800	0.1800	0.7200	0.3600			0.3600	0.1800	0.3989	0.4320		
SS035	10/5/2016	0.8613			0.8613	0.4363	0.1662	0.2826	0.4363	0.2153			0.2287	0.2282
SS035	6/15/2018	0.7488	0.9360	0.3134	0.3744	0.1872			0.1872	0.9360	0.5653	0.5879		
SS035	7/12/2017	0.9792			0.9792	0.4896	1.3795	1.7222	0.4896	0.2448			0.2242	0.2959
SS036	6/27/2018	0.7200	0.1800	0.1800	0.7200	0.3600			0.3600	0.1800	0.2664	0.2678		
SS036	10/5/2016	0.1417			0.2835	0.1417	0.5938	0.5924	0.1417	0.7863			0.1317	0.1294
SS036	7/18/2017	0.6480			0.6480	0.3240	0.9623	0.9558	0.3240	0.1620			0.1474	0.1352
SS037	10/10/2017	0.5760	0.1483	0.1322	0.2880	0.2880			0.1440	0.1440	0.6480	0.5274		
SS037	10/5/2016	0.8613			0.8613	0.4363	0.5384	0.5384	0.4363	0.2153			0.2743	0.2661
SS037	7/18/2017	0.1382			0.6912	0.3456	0.3366	0.3128	0.3456	0.1728			0.1382	0.1247
SS037	6/27/2018	0.7776	0.1874	0.2488	0.3888	0.1944			0.1944	0.9720	0.4471	0.4518		
SS038	9/26/2018	0.1152	0.6474	0.5898	0.1152	0.5760			0.5760	0.2880	0.1750	0.1578		
SS038	10/6/2016	0.6912			0.3456	0.1728	0.5944	0.6652	0.1728	0.8640			0.1412	0.1419
SS038	6/15/2018	0.4320	0.1559	0.1800	0.4320	0.2160			0.2160	0.1800	0.4622	0.4666		
SS038	10/10/2017	0.1296	0.3412	0.3966	0.1296	0.6480			0.6480	0.3240	0.8143	0.6653		
SS038	6/28/2017	0.3629			0.3629	0.1814	0.5734	0.5915	0.1814	0.9720			0.7548	0.8114
SS039	10/10/2017	0.8640	0.4320	0.1132	0.8640	0.4320			0.4320	0.2160	0.4464	0.3668		
SS039	10/6/2016	0.3456			0.3456	0.1728	0.1242	0.1232	0.1728	0.8640			0.1398	0.1432
SS039	6/27/2018	0.1728	0.4320	0.4320	0.1728	0.8640			0.8640	0.4320	0.1227	0.1236		

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS039	7/12/2017	0.1635			0.1635	0.8176	0.4383	0.4366	0.8176	0.4882			0.3739	0.3942
SS040	9/27/2018	0.7200	0.3550	0.3254	0.7200	0.3600			0.3600	0.1800	0.5544	0.4896		
SS040	10/6/2016	0.8613			0.8613	0.4363	0.4392	0.4349	0.4363	0.2153			0.1412	0.1425
SS040	10/10/2017	0.1296	0.2845	0.2456	0.1296	0.6480			0.6480	0.3240	0.3532	0.2832		
SS040	6/27/2018	0.1728	0.4320	0.5149	0.1728	0.8640			0.8640	0.4320	0.6895	0.7361		
SS040	7/12/2017	0.9812			0.9812	0.4959	3.5637	3.4656	0.4959	0.2453			0.1555	0.1428
SS041	9/27/2018	0.2160	0.1225	0.1119	0.2160	0.1800			0.1800	0.5400	0.3654	0.3413		
SS041	10/10/2017	0.8640	0.2290	0.2544	0.8640	0.4320			0.4320	0.2160	0.5573	0.5659		
SS041	10/6/2016	0.1920			0.1920	0.5460	0.2796	0.2769	0.5460	0.2725			0.2542	0.2529
SS041	6/27/2018	0.1152	0.2880	0.2880	0.1152	0.5760			0.5760	0.2880	0.8767	0.8778		
SS041	6/28/2017	0.3312			0.3312	0.1656	0.6756	0.6773	0.1656	0.8280			0.4488	0.4289
SS042	6/27/2018	0.4320	0.1800	0.1800	0.4320	0.2160			0.2160	0.1800	0.2665	0.2652		
SS042	6/28/2017	0.1944			0.1944	0.5472	0.1751	0.1964	0.5472	0.2736			0.7772	0.7989
SS042	10/6/2016	0.7195			0.1440	0.7195	0.2785	0.4389	0.7195	0.3598			0.1489	0.1547
SS042	10/10/2017	0.2160	0.8497	0.8639	0.1800	0.1800			0.5400	0.5400	0.5746	0.5756		
SS043	6/28/2017	0.4896			0.1224	0.1224	0.1493	0.1554	0.6120	0.6120			0.4957	0.5129
SS043	9/27/2018	0.8280	0.1839	0.1724	0.8280	0.8280			0.4140	0.4140	0.1234	0.1147		
SS043	10/6/2016	0.6912			0.3456	0.1728	0.2181	0.2125	0.1728	0.8640			0.6895	0.6990
SS043	6/18/2018	0.1296	0.2542	0.2429	0.2592	0.1296			0.1296	0.6480	0.1830	0.1792		
SS043	10/10/2017	0.8640	0.6480	0.4666	0.4320	0.4320			0.2160	0.2160	0.3254	0.3168		
SS044	9/25/2018	0.3240	0.3768	0.3649	0.3240	0.3240			0.1512	0.1512	0.3387	0.3139		
SS044	9/25/2018	0.3240	0.3828	0.3584	0.6480	0.3240			0.3240	0.1512	0.3423	0.3127		
SS044	6/14/2018	0.2880	0.7963	0.7574	0.1440	0.7200			0.7200	0.3600	0.6451	0.6538		
SS044	10/11/2017	0.5760	0.1812	0.1728	0.2880	0.2880			0.1440	0.1440	0.1463	0.1454		
SS044	10/6/2016	0.1731			0.8656	0.4329	0.9435	0.9522	0.4329	0.2164			0.7964	0.7964
SS044	6/22/2017	0.8928			0.4464	0.2232	5.8896	5.6246	0.2232	0.1116			0.2723	0.2522
SS045	9/25/2018	0.1728	0.9625	0.1956	0.1728	0.8640			0.8640	0.4320	0.5115	0.4752		
SS045	6/6/2018	0.5760	0.2436	0.2396	0.5760	0.2880			0.2880	0.1440	0.9677	0.9331		
SS045	10/11/2017	0.2592	0.6947	0.6674	0.2592	0.1296			0.1296	0.6480	0.3642	0.3629		
SS045	10/6/2016	0.3456			0.3456	0.1728	0.3732	0.3647	0.1728	0.8640			0.8477	0.8178
SS045	6/22/2017	0.7776			0.7776	0.3888	0.5998	0.6493	0.3888	0.1944			0.8165	0.8928
SS046	9/25/2018	0.1440	0.9619	0.8755	0.1440	0.7200			0.7200	0.3600	0.4925	0.4594		
SS046	6/22/2017	0.1440			0.1440	0.7200	0.2563	0.2729	0.7200	0.3600			0.4457	0.4414
SS046	10/11/2017	0.2160	0.6633	0.6332	0.2160	0.1800			0.1800	0.5400	0.3548	0.3488		

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	NO3- as N T Load	K D Load	K T Load	Se D Load	Se T Load	SiO2 D Load	SiO2 T Load	Ag D Load	Ag T Load	Na D Load	Na T Load	Sr D Load	Sr T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS046	6/6/2018	0.1800	0.4768	0.4899	0.1800	0.5400			0.5400	0.2520	0.3599	0.3619		
SS046	10/6/2016	0.2595			0.2595	0.1297	0.3944	0.4877	0.1297	0.6487			0.6772	0.6837
SS047	10/5/2017	0.7920	0.1188	0.1125	0.7920	0.3960			0.3960	0.1980	0.4594	0.4792		
SS047	10/2/2018	0.1368	0.1357	0.1835	0.1368	0.6840			0.6840	0.3420	0.1819	0.1656		
SS047	10/10/2016	0.4829			0.3219	0.1696	0.7653	0.7412	0.1696	0.8478			0.5232	0.5299
SS047	6/12/2018	0.1690	0.4225	0.4225	0.1690	0.8449			0.8449	0.4225	0.1757	0.1757		
SS047	6/26/2017	3.9292			0.3929	0.1951	8.5669	8.3913	0.1951	0.9757			0.4332	0.4313
SS048	10/10/2016	0.1357			0.6421	0.5178	0.7457	0.7587	0.5178	0.2589			0.5593	0.5282
SS048	10/5/2017	0.4680	0.1878	0.1661	0.4680	0.2340			0.2340	0.1152	0.3364	0.3525		
SS048	6/12/2018	0.3925	0.9812	0.9812	0.3925	0.1962			0.1962	0.9812	0.6123	0.6280		
SS048	6/26/2017	4.2954			0.4295	0.2148	13.9600	18.1480	0.2148	0.1738			0.3479	0.3652
SS049	10/5/2017	0.5760	0.8179	0.2880	0.5760	0.2880			0.2880	0.1440	0.1980	0.1970		
SS049	10/10/2016	0.1417			0.2835	0.1417	0.6222	0.6233	0.1417	0.7863			0.8129	0.8319
SS049	6/7/2018	0.1440	0.3600	0.3600	0.1440	0.7200			0.7200	0.3600	0.6354	0.6667		
SS049	6/26/2017	0.2160			0.2160	0.1800	0.3427	0.3276	0.1800	0.5400			0.2218	0.2275
SS050	10/10/2016	0.6912			0.3456	0.1728	0.6774	0.7499	0.1728	0.8640			0.7845	0.7897
SS050	10/5/2017	0.6912	0.1166	0.1230	0.6912	0.3456			0.3456	0.1728	0.4182	0.4285		
SS050	10/2/2018	0.2218	0.6955	0.7862	0.2160	0.1800			0.1800	0.5400	0.2362	0.1873		
SS050	6/7/2018	0.3761	0.9430	0.9430	0.3761	0.1886			0.1886	0.9430	0.2862	0.2885		
SS050	6/26/2017	2.5229			0.2523	0.1261	4.6673	5.1214	0.1261	0.6372			0.2877	0.2713
SS051	10/5/2017	0.4320	0.2160	0.2160	0.4320	0.2160			0.2160	0.1800	0.1929	0.2765		
SS051	10/10/2016	0.8656			0.4329	0.2164	0.9673	0.9414	0.2164	0.1822			0.6644	0.6817
SS051	10/2/2018	0.3456	0.8874	0.8813	0.3456	0.1728			0.1728	0.8640	0.3622	0.2934		
SS051	6/7/2018	0.5472	0.1368	0.1368	0.5472	0.2736			0.2736	0.1368	0.4536	0.4547		
SS051	6/26/2017	0.2160			0.2160	0.1800	0.5436	0.4925	0.1800	0.5400			0.1577	0.1642
SS052	10/5/2017	0.8640	0.1257	0.1227	0.8640	0.4320			0.4320	0.2160	0.5443	0.5724		
SS052	10/2/2018	0.1800	0.2682	0.2520	0.1800	0.9000			0.9000	0.4500	0.2232	0.2520		
SS052	10/10/2016	0.6541			0.4368	0.2184	0.1694	0.1677	0.2184	0.1920			0.3337	0.3414
SS052	6/26/2017	0.8640			0.8640	0.4320	0.3495	0.3732	0.4320	0.2160			0.3698	0.3892
SS052	6/7/2018	0.4320	0.1800	0.1365	0.4320	0.2160			0.2160	0.1800	0.5832	0.5918		
SS053	6/7/2018	0.5760	0.1440	0.1829	0.5760	0.2880			0.2880	0.1440	0.3393	0.3658		
SS053	10/2/2018	0.1138	0.3743	0.2844	0.1138	0.5688			0.5688	0.2844	0.9362	0.8578		
SS053	10/10/2016	0.3456			0.3456	0.1728	0.1146	0.1142	0.1728	0.8640			0.1866	0.1883
SS053	10/5/2017	0.3456	0.8415	0.5375	0.3456	0.1728			0.1728	0.8640	0.1667	0.1493		

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	NO3- as N T Load	K D Load	K T Load	Se D Load	Se T Load	SiO2 D Load	SiO2 T Load	Ag D Load	Ag T Load	Na D Load	Na T Load	Sr D Load	Sr T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS053	7/20/2017	0.1728			0.1728	0.8640	0.6273	0.6627	0.8640	0.4320			0.7413	0.6826
SS054	10/2/2018	0.5616	0.8559	0.7219	0.5616	0.5616			0.2880	0.2880	0.4223	0.3920		
SS054	10/5/2017	0.2340	0.4758	0.7868	0.1152	0.1152			0.5760	0.5760	0.3537	0.3816		
SS054	10/10/2016	0.1153			0.5767	0.2884	0.2848	0.2560	0.2884	0.1442			0.6200	0.6434
SS054	6/26/2017	0.7200			0.1440	0.7200	0.6480	0.6768	0.7200	0.3600			0.2340	0.2952
SS054	6/7/2018	0.5460	0.6814	0.6814	0.2725	0.1363			0.1363	0.6814	0.5587	0.5478		
SS055	10/5/2017	0.5760	0.2358	0.2434	0.5760	0.2880			0.2880	0.1440	0.1267	0.1348		
SS055	6/14/2018	0.3600	0.3636	0.4680	0.3600	0.1800			0.1800	0.9000	0.1667	0.1645		
SS055	10/10/2018	0.3600	0.1656	0.1634	0.7200	0.3600			0.3600	0.1800	0.3240	0.3233		
SS055	10/10/2016	0.2595			0.2595	0.1297	0.3555	0.3568	0.1297	0.6487			0.2887	0.2128
SS055	6/23/2017	0.4680			0.4680	0.2340	1.8749	1.1197	0.2340	0.1152			0.1951	0.1995
SS056	6/14/2018	0.5400	0.1260	0.1260	0.5400	0.2520			0.2520	0.1260	0.1138	0.1836		
SS056	10/11/2016	0.2835			0.2835	0.1417	0.2311	0.2219	0.1417	0.7863			0.1289	0.1133
SS056	6/22/2017	0.3456			0.3456	0.1728	0.2736	0.2563	0.1728	0.8640			0.5547	0.5547
SS057	10/11/2016	0.5669			0.1417	0.7863	0.1254	0.1320	0.7863	0.3543			0.1984	0.2692
SS057	7/17/2017	0.5760			0.1440	0.7200	0.1296	0.1339	0.7200	0.3600			0.1555	0.1548
SS057	10/2/2017	0.1440	0.5789	0.3946	0.7200	0.7200			0.3600	0.3600	0.3154	0.3218		
SS057	6/6/2018	0.1440	0.2844	0.3960	0.7200	0.3600			0.3600	0.1800	0.1915	0.2664		
SS057	9/25/2018	0.3600	0.6660	0.4795	0.3600	0.3600			0.1800	0.1800	0.3542	0.3391		
SS058	10/11/2016	0.2880			0.1440	0.7200	0.3283	0.3262	0.7200	0.3600			0.2736	0.2189
SS058	7/17/2017	0.1440			0.1440	0.7200	0.2376	0.2376	0.7200	0.3600			0.1339	0.1188
SS058	10/2/2017	0.1440	0.7200	0.7200	0.1440	0.7200			0.7200	0.3600	0.3146	0.3348		
SS058	6/6/2018	0.7200	0.1800	0.1800	0.7200	0.3600			0.3600	0.1800	0.2462	0.2398		
SS059	10/25/2017	0.2160	0.5484	0.5957	0.2160	0.1800			0.1800	0.5400	0.2279	0.2238		
SS059	10/11/2016	0.2311			0.2311	0.1156	0.1837	0.1814	0.1156	0.5779			0.4346	0.4276
SS059	10/9/2018	0.2592	0.1325	0.1387	0.2592	0.1296			0.1296	0.6480	0.6532	0.6817		
SS059	6/19/2018	0.3600	0.1472	0.1444	0.3600	0.1800			0.1800	0.9000	0.6336	0.6300		
SS059	6/22/2017	0.2340			0.2340	0.1152	1.2211	1.2326	0.1152	0.5760			0.1428	0.1452
SS060	10/9/2018	0.2880	0.1273	0.1564	0.2880	0.1440			0.1440	0.7200	0.3816	0.3946		
SS060	10/25/2017	0.1728	0.4957	0.5674	0.1728	0.8640			0.8640	0.4320	0.1132	0.1145		
SS060	6/11/2018	0.2736	0.6594	0.7652	0.2736	0.1368			0.1368	0.5184	0.2198	0.2157		
SS060	10/11/2016	0.4329			0.4329	0.2164	0.2986	0.2857	0.2164	0.1822			0.9760	0.9890
SS060	6/21/2017	0.8640			0.8640	0.4320	0.3899	0.3856	0.4320	0.2160			0.1397	0.1296
SS061	10/11/2016	0.1417			0.1417	0.7863	0.1325	0.1368	0.7863	0.3543			0.1183	0.1198

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS061	6/21/2017	0.8640			0.8640	0.4320	0.3992	0.4242	0.4320	0.2160			0.1322	0.1292
SS062	10/11/2016	0.2835			0.1417	0.7863	0.1786	0.1850	0.7863	0.3543			0.4514	0.4486
SS062	6/11/2018	0.8928	0.1487	0.1545	0.4464	0.2232			0.2232	0.1116	0.1974	0.2847		
SS062	10/23/2017	0.9360	0.4680	0.4680	0.9360	0.4680			0.4680	0.2340	0.2162	0.2189		
SS062	10/8/2018	0.3600	0.5940	0.6624	0.7200	0.3600			0.3600	0.1800	0.4298	0.4378		
SS062	6/21/2017	0.3456			0.3456	0.1728	0.3162	0.3560	0.1728	0.8640			0.4821	0.4994
SS063	10/3/2017	0.2880	0.8640	0.8554	0.1440	0.1440			0.7200	0.7200	0.3816	0.4176		
SS063	6/28/2018	0.2880	0.4554	0.1886	0.1440	0.7200			0.7200	0.3600	0.2880	0.2160		
SS063	10/12/2016	0.3445			0.4363	0.4363	0.6933	0.7624	0.2153	0.2153			0.7364	0.7469
SS063	7/20/2017	0.2340			0.1152	0.1152	0.2246	0.2290	0.5760	0.5760			0.1740	0.1613
SS064	10/3/2017	0.4320	0.2290	0.1858	0.2160	0.2160			0.1800	0.1800	0.4925	0.4514		
SS064	10/2/2018	0.1872	0.2550	0.3138	0.1872	0.1872			0.9360	0.9360	0.1166	0.1895		
SS064	6/28/2018	0.1152	0.1935	0.2465	0.5760	0.2880			0.2880	0.1440	0.8755	0.8755		
SS064	7/20/2017	0.2592			0.2592	0.1296	0.6286	0.6428	0.1296	0.6480			0.1459	0.9629
SS064	10/12/2016	0.1153			0.2884	0.2884	0.2217	0.2194	0.1442	0.1442			0.3749	0.3835
SS065	10/4/2018	0.4752	0.7793	0.7319	0.2376	0.2376			0.1188	0.1188	0.4356	0.4115		
SS065	10/12/2016	0.1440			0.7195	0.7195	0.2720	0.2684	0.3598	0.3598			0.2720	0.2756
SS065	6/19/2018	0.7200	0.1440	0.9288	0.3600	0.3600			0.1800	0.1800	0.5998	0.5558		
SS065	6/23/2017	0.5760			0.3514	0.2880	0.7434	0.7546	0.2880	0.1440			0.2995	0.2966
SS065	10/3/2017	0.6566	0.5286	0.4892	0.6566	0.6566			0.3283	0.3283	0.2485	0.2666		
SS066	10/3/2017	0.2880	0.2448	0.2419	0.2880	0.2880			0.1440	0.1440	0.1148	0.1230		
SS066	6/23/2017	0.1152			0.6566	0.5760	0.2529	0.2557	0.5760	0.2880			0.2794	0.2269
SS066	10/12/2016	0.1733			0.8668	0.8668	0.3580	0.3655	0.4334	0.4334			0.3614	0.3796
SS067	6/21/2017	0.1440			0.7200	0.7200	0.3816	0.3938	0.3600	0.3600			0.9576	0.9720
SS067	10/23/2017	0.1440	0.8712	0.8640	0.7200	0.7200			0.3600	0.3600	0.5148	0.5400		
SS067	6/5/2018	0.7200	0.1728	0.1570	0.7200	0.7200			0.3600	0.3600	0.9763	0.9691		
SS067	10/8/2018	0.7200	0.1858	0.1980	0.2664	0.7200			0.3600	0.3600	0.1123	0.1112		
SS067	10/17/2016	0.1744			0.2184	0.2184	0.1179	0.1167	0.1920	0.1920			0.3641	0.3753
SS068	10/8/2018	0.2880	0.6682	0.7258	0.5760	0.2880			0.2880	0.1440	0.3348	0.3381		
SS068	10/23/2017	0.1440	0.1296	0.1656	0.1440	0.7200			0.7200	0.3600	0.3413	0.3362		
SS068	10/17/2016	0.3467			0.8668	0.8668	0.3536	0.3512	0.4334	0.4334			0.8598	0.8844
SS068	6/21/2017	0.4320			0.2160	0.1800	0.3964	0.4147	0.1800	0.5400			0.7484	0.8568
SS068	6/5/2018	0.5760	0.1244	0.1325	0.5760	0.5760			0.2880	0.2880	0.5868	0.5967		
SS069	10/9/2018	0.2160	0.1980	0.1145	0.1800	0.5400			0.5400	0.2700	0.5256	0.5195		

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS069	6/19/2018	0.2880	0.1339	0.1227	0.1440	0.7200			0.7200	0.3600	0.5674	0.5580		
SS069	10/17/2016	0.8722			0.4368	0.2184	0.7697	0.7653	0.2184	0.1920			0.1376	0.1422
SS069	10/23/2017	0.2340	0.5818	0.5818	0.1152	0.5760			0.5760	0.2880	0.2500	0.2448		
SS069	6/21/2017	0.1728			0.1728	0.8640	0.2125	0.2316	0.8640	0.4320			0.2964	0.3128
SS070	10/17/2016	0.8613			0.8613	0.4363	0.1382	0.1412	0.4363	0.2153			0.2269	0.2368
SS070	6/11/2018	0.4320	0.1994	0.2182	0.4320	0.2160			0.2160	0.1800	0.1188	0.1192		
SS070	10/9/2018	0.4320	0.2856	0.3175	0.4320	0.2160			0.2160	0.1800	0.1547	0.1555		
SS070	10/23/2017	0.1800	0.3182	0.3226	0.1800	0.5400			0.5400	0.2520	0.1492	0.1472		
SS070	6/21/2017	0.3456			0.3456	0.1728	0.4648	0.5285	0.1728	0.8640			0.4464	0.4787
SS071	10/1/2018	0.3773	0.1473	0.1187	0.1886	0.9432			0.9432	0.4716	0.4628	0.4188		
SS071	10/1/2018	0.3773	0.1468	0.1193	0.1886	0.9432			0.9432	0.4716	0.4622	0.4320		
SS071	10/17/2016	0.8722			0.2184	0.2184	3.2488	3.2270	0.1920	0.1920			0.2464	0.2486
SS071	10/24/2017	4.9714	0.1765	0.1762	0.4971	0.2486			0.2486	0.1243	0.5294	0.5270		
SS071	6/18/2018	0.6151	0.2155	0.1914	0.3526	0.1526			0.1526	0.7631	0.6563	0.6532		
SS071	6/27/2017	7.3800			0.7380	0.7380	12.5574	13.6843	0.3654	0.3654			0.7137	0.7739
SS072	6/27/2017	0.2160			0.1800	0.1800	0.1620	0.1814	0.5400	0.5400			0.5573	0.6264
SS072	6/18/2018	0.1296	0.3473	0.3162	0.2592	0.1296			0.1296	0.6480	0.3577	0.3396		
SS072	10/1/2018	0.2117	0.5832	0.5546	0.2117	0.2117			0.1584	0.1584	0.6731	0.6436		
SS072	10/24/2017	1.8000	0.6754	0.6653	0.5400	0.5400			0.2520	0.2520	0.6653	0.6624		
SS072	10/17/2016	0.8373			0.1384	0.1384	1.2253	1.2772	0.5193	0.5193			0.6189	0.6334
SS073	6/27/2017	0.2160			0.1800	0.1800	0.1583	0.1693	0.5400	0.5400			0.8336	0.8659
SS073	6/18/2018	0.5400	0.1458	0.1339	0.1800	0.5400			0.5400	0.2700	0.1674	0.1692		
SS073	10/1/2018	0.5472	0.1642	0.1663	0.5472	0.5472			0.2736	0.2736	0.1865	0.1865		
SS073	10/17/2016	0.6912			0.1728	0.1728	0.2696	0.2782	0.8640	0.8640			0.1424	0.1443
SS073	10/24/2017	0.5184	0.3525	0.3421	0.2592	0.2592			0.1296	0.1296	0.3914	0.3784		
SS074	10/1/2018	0.7200	0.2880	0.2779	0.7632	0.7200			0.3600	0.3600	0.2462	0.2462		
SS074	10/17/2016	0.3445			0.4363	0.4363	0.6896	0.7148	0.2153	0.2153			0.2114	0.2149
SS074	10/24/2017	0.9216	0.9263	0.9539	0.4680	0.4680			0.2340	0.2340	0.5345	0.5299		
SS074	6/27/2017	0.2880			0.1440	0.1440	0.3672	0.3298	0.7200	0.7200			0.6955	0.7668
SS075	6/18/2018	0.5178	0.1346	0.1232	0.1357	0.5178			0.5178	0.2589	0.1212	0.1187		
SS075	10/1/2018	0.9360	0.2752	0.2628	0.9360	0.9360			0.4680	0.4680	0.2490	0.2434		
SS075	10/17/2016	0.1384			0.2596	0.2596	2.1493	2.1363	0.1298	0.1298			0.1962	0.2133
SS075	6/27/2017	2.8800			0.2880	0.2880	2.5632	2.6813	0.1440	0.1440			0.1869	0.1999
SS075	10/24/2017	5.7600	0.3744	0.3773	0.2880	0.2880			0.1440	0.1440	0.3139	0.3528		

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	NO3- as N T Load	K D Load	K T Load	Se D Load	Se T Load	SiO2 D Load	SiO2 T Load	Ag D Load	Ag T Load	Na D Load	Na T Load	Sr D Load	Sr T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS076	10/18/2016	0.1440			0.1440	0.7200	0.1674	0.1678	0.7200	0.3600			0.2160	0.2592
SS076	7/18/2017	0.1440			0.1440	0.7200	0.1116	0.1872	0.7200	0.3600			0.1469	0.1339
SS076	10/10/2017	0.1440	0.7200	0.7200	0.1440	0.7200			0.7200	0.3600	0.3622	0.3600		
SS076	6/27/2018	0.7200	0.1800	0.1800	0.7200	0.3600			0.3600	0.1800	0.4176	0.4234		
SS076	9/26/2018	0.7200	0.7416	0.4363	0.7200	0.3600			0.3600	0.1800	0.7200	0.7157		
SS077	6/27/2018	0.5760	0.1440	0.1440	0.5760	0.2880			0.2880	0.1440	0.3442	0.3583		
SS077	10/18/2016	0.2595			0.2595	0.1297	0.4900	0.4930	0.1297	0.6487			0.2218	0.2273
SS077	9/26/2018	0.1728	0.4320	0.4320	0.1728	0.8640			0.8640	0.4320	0.1538	0.1457		
SS077	10/10/2017	0.1944	0.5472	0.1653	0.1944	0.5472			0.5472	0.2736	0.4131	0.4821		
SS077	7/18/2017	1.1448			0.1145	0.5724	1.6713	1.8430	0.5724	0.2862			0.3966	0.3686
SS078	10/10/2017	0.6336	0.8237	0.7983	0.6336	0.3168			0.3168	0.1584	0.2968	0.2919		
SS078	9/26/2018	0.4320	0.1128	0.1800	0.4320	0.2160			0.2160	0.1800	0.4194	0.3953		
SS078	10/18/2016	0.4759			0.1935	0.9517	0.3173	0.3456	0.9517	0.4759			0.2179	0.2284
SS078	6/27/2018	0.9792	0.2448	0.2644	0.9792	0.4896			0.4896	0.2448	0.7266	0.6991		
SS078	7/18/2017	0.4320			0.4320	0.2160	0.6696	0.6516	0.2160	0.1800			0.4579	0.4514
SS079	9/26/2018	0.7200	0.3168	0.4882	0.7200	0.3600			0.3600	0.1800	0.5515	0.4126		
SS079	10/18/2016	0.4252			0.2835	0.1417	0.4719	0.4753	0.1417	0.7863			0.1885	0.1956
SS079	6/27/2018	0.1440	0.3600	0.3600	0.1440	0.7200			0.7200	0.3600	0.4536	0.4554		
SS079	10/10/2017	0.1728	0.2773	0.2488	0.1728	0.8640			0.8640	0.4320	0.4867	0.4139		
SS079	7/18/2017	0.3456			0.3456	0.1728	0.2713	0.2834	0.1728	0.8640			0.2125	0.1935
SS080	10/18/2016	0.1440			0.1440	0.7200	0.7200	0.7200	0.7200	0.3600			0.3319	0.3456
SS080	6/27/2018	0.7200	0.2124	0.2837	0.7200	0.3600			0.3600	0.1800	0.1800	0.1800		
SS080	9/26/2018	0.7200	0.9648	0.8856	0.7200	0.3600			0.3600	0.1800	0.4680	0.4374		
SS080	10/10/2017	0.2880	0.1440	0.3816	0.2880	0.1440			0.1440	0.7200	0.1440	0.1440		
SS082	6/28/2018	0.5760	0.1440	0.2275	0.5760	0.2880			0.2880	0.1440	0.4913	0.5144		
SS082	10/20/2016	0.8668			0.1227	0.8668	0.2418	0.2444	0.8668	0.4334			0.9794	0.1145
SS083	10/20/2016	0.7863			0.1176	0.7863	0.2764	0.2757	0.7863	0.3543			0.5194	0.5880
SS083	6/12/2018	0.1440	0.7200	0.7200	0.2880	0.1440			0.1440	0.7200	0.3744	0.3715		
SS083	7/20/2017	0.1786			0.1786	0.8928	1.4825	1.4642	0.8928	0.4464			0.2259	0.2267
SS084	10/20/2016	0.2889			0.5779	0.2889	0.1130	0.1124	0.2889	0.1445			0.2743	0.2628
SS084	6/12/2018	0.2160	0.1800	0.1800	0.4320	0.2160			0.2160	0.1800	0.5659	0.5724		
SS084	7/20/2017	1.6353			0.1635	0.8176	9.2394	9.4847	0.8176	0.4882			0.1488	0.1357
SS085	10/20/2016	0.7200			0.7200	0.7200	0.2671	0.2714	0.3600	0.3600			0.3146	0.3132
SS085	10/2/2018	0.3600	0.6854	0.6696	0.3600	0.3600			0.1800	0.1800	0.6264	0.5911		

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	NO3- as N T Load	K D Load	K T Load	Se D Load	Se T Load	SiO2 D Load	SiO2 T Load	Ag D Load	Ag T Load	Na D Load	Na T Load	Sr D Load	Sr T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS085	6/28/2018	0.2160	0.2691	0.2898	0.2160	0.2160			0.1800	0.1800	0.2462	0.2627		
SS085	7/20/2017	0.2160			0.1800	0.1800	0.3236	0.3316	0.5400	0.5400			0.2772	0.2500
SS086	10/20/2016	0.5997			0.1199	0.5997	0.2722	0.2728	0.5997	0.2998			0.7135	0.7135
SS086	10/11/2017	0.1440	0.8352	0.8712	0.7200	0.7200			0.3600	0.3600	0.4896	0.4464		
SS086	6/14/2018	0.7200	0.1526	0.1570	0.1440	0.7200			0.7200	0.3600	0.8496	0.8467		
SS086	10/9/2018	0.1152	0.3525	0.3732	0.1152	0.1152			0.5760	0.5760	0.1352	0.1390		
SS086	6/22/2017	0.8640			0.4320	0.4320	0.1750	0.1814	0.2160	0.2160			0.4195	0.4788
SS087	10/25/2016	0.1297			0.3982	0.2595	0.5345	0.5397	0.2595	0.1297			0.1357	0.1463
SS087	10/18/2017	0.8640	0.4320	0.4219	0.8640	0.4320			0.4320	0.2160	0.2232	0.2328		
SS087	6/26/2018	0.7200	0.5278	0.5278	0.7200	0.3600			0.3600	0.1800	0.2736	0.2232		
SS087	10/3/2018	0.8640	0.1973	0.1368	0.8640	0.4320			0.4320	0.2160	0.4588	0.4536		
SS087	10/3/2018	0.8640	0.1548	0.1714	0.8640	0.4320			0.4320	0.2160	0.4596	0.4683		
SS087	6/27/2017	0.9714			0.9714	0.4857	4.1624	4.2789	0.4857	0.2428			0.8354	0.8159
SS088	6/26/2018	0.1440	0.8514	0.9317	0.1440	0.7200			0.7200	0.3600	0.4392	0.4493		
SS088	10/3/2018		0.2290	0.2160	0.2160	0.1800			0.1800	0.5400	0.1624	0.1649		
SS088	10/18/2017	0.6912	0.2239	0.2246	0.6912	0.3456			0.3456	0.1728	0.1296	0.1386		
SS088	10/25/2016	0.8613			0.8613	0.4363	0.8483	0.8613	0.4363	0.2153			0.5900	0.6373
SS088	6/27/2017	0.8640			0.8640	0.4320	0.6696	0.7258	0.4320	0.2160			0.4666	0.4882
SS089	6/28/2018	0.1440	0.4795	0.4738	0.1440	0.7200			0.7200	0.3600	0.9562	0.9274		
SS089	10/3/2018	0.1440	0.2376	0.2491	0.7200	0.3600			0.3600	0.1800	0.4464	0.4298		
SS089	10/25/2016	0.3489			0.3489	0.1744	0.6349	0.7413	0.1744	0.8722			0.7645	0.7519
SS089	10/12/2017	0.1152	0.6538	0.5994	0.5760	0.2880			0.2880	0.1440	0.1498	0.1449		
SS089	6/29/2017	0.2556			0.2556	0.1253	0.4873	0.5425	0.1253	0.6264			0.3320	0.3182
SS090	6/28/2018	0.3600	0.1523	0.1598	0.3600	0.1800			0.1800	0.9000	0.1224	0.1328		
SS090	10/3/2018	0.8640	0.1462	0.1534	0.8640	0.4320			0.4320	0.2160	0.6134	0.6235		
SS090	10/25/2016	0.2835			0.2835	0.1417	0.6349	0.6534	0.1417	0.7863			0.2770	0.2863
SS090	6/29/2017	0.4320			0.4320	0.2160	0.4212	0.4579	0.2160	0.1800			0.1668	0.1549
SS091	6/29/2017	0.2880			0.2880	0.1440	0.5386	0.5616	0.1440	0.7200			0.1642	0.1483
SS091	10/12/2017	0.2880	0.6725	0.6538	0.2880	0.1440			0.1440	0.7200	0.3816	0.3629		
SS091	10/25/2016	0.1440			0.1440	0.7195	0.3885	0.4596	0.7195	0.3598			0.7339	0.8137
SS091	6/26/2018	0.7560	0.3553	0.4187	0.7560	0.3780			0.3780	0.1890	0.3720	0.4680		
SS092	6/26/2018	0.2880	0.4291	0.4291	0.2880	0.1440			0.1440	0.7200	0.2667	0.2615		
SS092	11/8/2016	0.4368			0.4368	0.2184	0.9313	0.1952	0.2184	0.1920			0.4753	0.4950
SS092	10/18/2017	0.5760	0.2471	0.2290	0.5760	0.2880			0.2880	0.1440	0.2624	0.2670		

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Site ID	Date	NO3- as N T Load	K D Load	K T Load	Se D Load	Se T Load	SiO2 D Load	SiO2 T Load	Ag D Load	Ag T Load	Na D Load	Na T Load	Sr D Load	Sr T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS092	7/21/2017	0.1152			0.1152	0.5760	0.2632	0.2678	0.5760	0.2880			0.9965	0.8874
SS093	10/3/2018	0.3600	0.2880	0.2765	0.3600	0.1800			0.1800	0.9000	0.4572	0.4680		
SS093	11/8/2016	0.2835			0.5669	0.1417	0.1913	0.1970	0.2835	0.7863			0.6593	0.6746
SS093	7/21/2017	0.5760			0.5760	0.2880	0.1696	0.2215	0.2880	0.1440			0.3888	0.3715
SS093	6/26/2018	0.2592	0.9176	0.1133	0.2592	0.1296			0.1296	0.6480	0.8916	0.9487		
SS094	7/21/2017	0.8640			0.8640	0.4320	0.9374	0.2358	0.4320	0.2160			0.1261	0.1231
SS094	11/8/2016	0.1134			0.2835	0.1417	0.1327	0.1383	0.1417	0.7863			0.5839	0.6159
SS094	10/3/2018	0.1296	0.7394	0.7762	0.1296	0.1296			0.6480	0.6480	0.5365	0.5236		
SS094	6/26/2018	0.4320	0.7394	0.8726	0.8640	0.4320			0.4320	0.2160	0.3370	0.3767		
SS095	6/26/2018	0.1440	0.6372	0.7560	0.7200	0.3600			0.3600	0.1800	0.9936	0.1800		
SS095	10/3/2018	0.1440	0.1332	0.1282	0.3600	0.3600			0.1800	0.1800	0.1742	0.1735		
SS095	11/8/2016	0.1440			0.1440	0.7195	0.4447	0.4490	0.7195	0.3598			0.3130	0.3282
SS095	10/18/2017	0.3456	0.1858	0.1935	0.1728	0.8640			0.8640	0.4320	0.1849	0.1892		
SS095	6/27/2017	0.2736			0.2736	0.1368	0.4838	0.5116	0.1368	0.5184			0.1628	0.1773
SS096	6/28/2018	0.2880	0.7200	0.7200	0.2880	0.1440			0.1440	0.7200	0.1273	0.1328		
SS096	11/8/2016	0.1417			0.7863	0.7863	0.8149	0.8574	0.3543	0.3543			0.1346	0.1984
SS096	10/18/2017	0.2160	0.8219	0.8219	0.2160	0.1800			0.1800	0.5400	0.6768	0.7380		
SS096	6/26/2017	0.9234			0.9234	0.4512	0.4480	0.4872	0.4512	0.2256			0.7624	0.8257
SS097	11/8/2016	0.7631			0.7631	0.3816	0.6792	0.7479	0.3816	0.1978			0.2146	0.2366
SS097	6/26/2017	0.1440			0.1440	0.7200	0.7776	0.8352	0.7200	0.3600			0.1325	0.1447
SS098	11/8/2016	0.1526			0.3816	0.3816	0.2791	0.2717	0.1978	0.1978			0.7174	0.7479
SS098	6/26/2017	0.2340			0.5994	0.5760	0.2684	0.2783	0.5760	0.2880			0.6228	0.6854
SS098	10/3/2018	0.2880	0.4412	0.4481	0.1169	0.2880			0.2880	0.1440	0.1515	0.1457		
SS098	10/18/2017	0.1152	0.4268	0.4245	0.9850	0.5760			0.5760	0.2880	0.1613	0.1659		
SS105	9/25/2018	0.3542	0.4291	0.4371	0.3542	0.3542			0.1771	0.1771	0.3592	0.3769		
SS105	6/14/2018	0.4143	0.4424	0.3925	0.8286	0.4143			0.4143	0.2714	0.3612	0.3736		
SS105	10/11/2017	2.6799	0.8130	0.7145	0.1335	0.1335			0.6677	0.6677	0.6811	0.5622		
SS105	9/20/2016		0.1173	0.1189	0.9660	0.9660			0.1356	0.1356	0.8545	0.8737		
SS105	6/22/2017	8.8416			0.8842	0.4428	11.4948	12.1572	0.4428	0.2214			0.5393	0.5268
SS123	6/28/2018	0.2160	0.1800	0.1800	0.7646	0.2160			0.2160	0.1800	0.1248	0.1417		
SS123	6/27/2017	0.1368			0.6376	0.5184	0.2232	0.2354	0.5184	0.2592			0.7524	0.6532
SS125	10/18/2017	0.2880	0.5414	0.5530	0.7794	0.1440			0.7200	0.7200	0.5371	0.5580		
SS125	9/29/2016		0.5417	0.9288	0.2462	0.2298			0.6739	0.6739	0.4596	0.8280		
SS126	10/3/2018	0.2160	0.4152	0.3979	0.2160	0.2160			0.1800	0.1800	0.1218	0.1177		

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Site ID	Date	NO3- as N T Load	K D Load	K T Load	Se D Load	Se T Load	SiO2 D Load	SiO2 T Load	Ag D Load	Ag T Load	Na D Load	Na T Load	Sr D Load	Sr T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS126	10/18/2017	0.2340	0.1440	0.1613	0.1152	0.1152			0.5760	0.5760	0.3298	0.3433		
SS126	6/28/2018	0.8640	0.2563	0.2736	0.8640	0.8640			0.4320	0.4320	0.4450	0.4518		
SS126	9/29/2016		0.2862	0.2671	0.6487	0.6678			0.1458	0.1649				
SS126	6/27/2017	0.1814			0.1814	0.9720	2.4222	2.6388	0.9720	0.4536			0.1515	0.1452
SS200	10/23/2017	0.4320	0.1674	0.1764	0.2160	0.2160			0.1800	0.1800	0.1335	0.1352		
SS200	10/8/2018	0.1296	0.2866	0.2399	0.1296	0.1296			0.6480	0.6480	0.1768	0.1773		
SS200	10/8/2018	0.1296	0.2718	0.2969	0.1296	0.1296			0.6480	0.6480	0.1755	0.1820		
SS200	6/11/2018	0.1440	0.1817	0.1956	0.1440	0.1440			0.7200	0.7200	0.1719	0.1786		
SS200	6/23/2017	0.6912			0.6912	0.3456	1.2298	1.1543	0.3456	0.1728			0.8122	0.8525
SS201	10/4/2018	0.8640	0.1364	0.1242	0.4320	0.4320			0.2160	0.2160	0.7177	0.7444		
SS201	6/19/2018	0.1440	0.2160	0.1858	0.7200	0.7200			0.3600	0.3600	0.1175	0.1164		
SS201	10/3/2017	0.4680	0.3387	0.3874	0.4680	0.4680			0.2340	0.2340	0.1928	0.1968		
SS201	6/23/2017	0.2340			0.1325	0.1152	0.4977	0.5172	0.1152	0.5760			0.3675	0.3652
SS202	10/2/2018	0.1440	0.3737	0.3492	0.7200	0.3600			0.3600	0.1800	0.4968	0.4464		
SS202	6/26/2017	0.1728			0.3456	0.1728	0.4182	0.4994	0.1728	0.8640			0.9487	0.1472
SS203	6/27/2017	0.7200			0.3600	0.3600	0.7884	0.8424	0.3600	0.1800			0.9144	0.8712
SS204	6/27/2017	0.3456			0.1644	0.1728	0.4476	0.4892	0.8640	0.8640			0.6678	0.6877
SS204	10/18/2017	0.3744	0.9416	0.1114	0.3744	0.1872			0.1872	0.9360	0.1539	0.1895		
SS205	6/29/2017	0.8640			0.8640	0.4320	0.1685	0.1745	0.4320	0.2160			0.2513	0.2830
SS206	10/12/2017	0.8640	0.3996	0.4349	0.8640	0.4320			0.4320	0.2160	0.4320	0.4320		
SS206	6/29/2017	0.5184			0.5184	0.2592	0.3499	0.3499	0.2592	0.1296			0.8197	0.9979
SS207	6/29/2017	0.2880			0.2880	0.1440	0.6235	0.7214	0.1440	0.7200			0.1469	0.1674
SS208	6/29/2017	0.2880			0.2880	0.1440	0.2988	0.2851	0.1440	0.7200			0.3442	0.3226
SS208	6/28/2018	0.2160	0.1782	0.1933	0.2160	0.1800			0.1800	0.5400	0.5400	0.5400		
SS208	10/3/2018	0.2520	0.4864	0.4518	0.2520	0.1260			0.1260	0.6300	0.7232	0.6451		
SS208	10/12/2017	0.1440	0.6156	0.5753	0.1440	0.7200			0.7200	0.3600	0.7200	0.7200		
SS210	9/24/2018	0.3600	0.7128	0.9936	0.3600	0.3600			0.1800	0.1800	0.1570	0.1634		
SS210	10/16/2017	0.2340	0.8525	0.1166	0.2340	0.1152			0.1152	0.5760	0.2358	0.2437		
SS210	6/13/2018	0.2419	0.6725	0.6653	0.1296	0.6480			0.6480	0.3240	0.1452	0.1564		
SS210	7/10/2017	1.1922			0.3367	0.2986	3.2483	3.2786	0.2986	0.1493			0.4857	0.4785
SS211	7/10/2017	0.8640			0.8640	0.4320	0.1836	0.1931	0.4320	0.2160			0.7474	0.7128
SS212	7/11/2017	0.2419			0.2419	0.1296	0.6843	0.6964	0.1296	0.6480			0.5833	0.5794
SS213	7/12/2017	0.5184			0.5184	0.2592	0.9668	0.9695	0.2592	0.1296			0.7335	0.6869
SS214	7/11/2017	0.2765			0.8847	0.6912	0.4735	0.4749	0.6912	0.3456			0.4749	0.4583

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	NO3- as N T Load	K D Load	K T Load	Se D Load	Se T Load	SiO2 D Load	SiO2 T Load	Ag D Load	Ag T Load	Na D Load	Na T Load	Sr D Load	Sr T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS215	10/2/2017	0.2880	0.5170	0.4896	0.2880	0.1440			0.1440	0.7200	0.8798	0.8554		
SS215	7/17/2017	0.5189			0.5189	0.2595	1.1935	1.1995	0.2595	0.1297			0.6918	0.6798
SS215	6/6/2018	0.4555	0.1139	0.1139	0.4555	0.2278			0.2278	0.1139	0.2132	0.2187		
SS216	6/5/2018	0.1152	0.2880	0.2880	0.1152	0.5760			0.5760	0.2880	0.4965	0.5458		
SS216	7/17/2017	0.2880			0.2880	0.1440	0.7574	0.7646	0.1440	0.7200			0.3384	0.3398
SS217	9/26/2018	0.5760	0.1440	0.1440	0.5760	0.2880			0.2880	0.1440	0.5000	0.5458		
SS217	6/27/2018	0.3240	0.8100	0.8100	0.3240	0.1620			0.1620	0.8100	0.1494	0.1566		
SS217	7/18/2017	0.2880			0.2880	0.1440	0.3672	0.3773	0.1440	0.7200			0.8136	0.8165
SS218	9/26/2018	0.8640	0.1257	0.1356	0.4320	0.2160			0.2160	0.1800	0.3485	0.3463		
SS218	7/18/2017	0.2880			0.1440	0.7200	0.4824	0.4932	0.7200	0.3600			0.4464	0.4680
SS218	6/27/2018	0.8352	0.2880	0.2880	0.8352	0.4176			0.4176	0.2880	0.4159	0.4295		
SS219	10/1/2018	0.4320	0.3439	0.2700	0.4320	0.2160			0.4579	0.1800	0.2752	0.2562		
SS219	10/19/2017	0.1440	0.4658	0.6199	0.1440	0.7200			0.6682	0.3600	0.4226	0.4385		
SS219	6/28/2018	0.1728	0.7569	0.9539	0.1728	0.8640			0.1146	0.4320	0.1420	0.1317		
SS219	7/24/2017	0.1728			0.1728	0.8640	0.7517	0.7769	0.8640	0.4320			0.3686	0.3914
SS220	6/28/2018	0.4320	0.2817	0.2955	0.2232	0.4320			0.4320	0.2160	0.4622	0.4648		
SS220	10/1/2018	0.8640	0.5927	0.5213	0.1728	0.8640			0.8640	0.4320	0.9383	0.9216		
SS220	7/24/2017	1.6353			0.1780	0.8176	2.2894	2.3330	0.8176	0.4882			0.1545	0.1480
SS221	6/28/2018	0.1440	0.7747	0.7632	0.1440	0.1440			0.7200	0.7200	0.1426	0.1319		
SS221	7/24/2017	0.2880			0.1440	0.1440	0.3125	0.3298	0.7200	0.7200			0.1930	0.2340
SS222	6/28/2018	0.7200	0.2362	0.2477	0.7200	0.7200			0.3600	0.3600	0.3197	0.3528		
SS222	7/24/2017	2.8800			0.1440	0.1440	2.5776	2.6784	0.7200	0.7200			0.1454	0.1454
SS223	10/1/2018	0.4320	0.1253	0.1800	0.4320	0.2160			0.2160	0.1800	0.2268	0.2195		
SS223	6/28/2018	0.7200	0.1800	0.1800	0.7200	0.3600			0.3600	0.1800	0.2837	0.2851		
SS223	10/19/2017	0.2340	0.1152	0.1152	0.2340	0.1152			0.1152	0.5760	0.5576	0.5760		
SS223	7/24/2017	0.6912			0.6912	0.3456	0.1123	0.1134	0.3456	0.1728			0.5530	0.5724
SS224	7/24/2017	0.1382			0.3456	0.3456	0.3836	0.4435	0.1728	0.1728			0.1819	0.1690
SS225	6/28/2018	0.1728	0.2436	0.5132	0.8640	0.4320			0.4320	0.3114	0.2567	0.2644		
SS225	7/24/2017	0.8640			0.8640	0.4320	0.4363	0.4290	0.4320	0.2160			0.6696	0.6134
SS226	6/28/2018	0.1152	0.4285	0.4788	0.1152	0.5760			0.5760	0.2880	0.2880	0.2880		
SS226	7/24/2017	0.1584			0.1584	0.7920	0.2671	0.2592	0.7920	0.3960			0.1441	0.1368
SS227	10/3/2017	0.3600	0.7848	0.7956	0.1800	0.1800			0.9000	0.9000	0.5544	0.5760		
SS228	10/3/2017	0.5760	0.1826	0.2736	0.2880	0.2880			0.1440	0.1440	0.1696	0.1679		
SS228	7/19/2018													

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	NO3- as N T Load	K D Load	K T Load	Se D Load	Se T Load	SiO2 D Load	SiO2 T Load	Ag D Load	Ag T Load	Na D Load	Na T Load	Sr D Load	Sr T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS228	10/9/2018	0.3600	0.6336	0.5789	0.3600	0.3600			0.1800	0.1800	0.4277	0.4320		
SS229	10/4/2017	0.3744	0.9660	0.9397	0.1872	0.1872			0.9360	0.9360	0.2995	0.3888		
SS229	6/27/2018	0.8640	0.1344	0.1652	0.4320	0.2160			0.2160	0.1800	0.6480	0.6394		
SS230	7/19/2018	0.3600	0.3146	0.2657	0.1433	0.3600			0.3600	0.1800	0.3355	0.3492		
SS230	10/5/2017	0.1843	0.1424	0.1898	0.5668	0.4680			0.4680	0.2340	0.1467	0.1498		
SS231	9/26/2018	0.1152	0.4988	0.5115	0.1152	0.5760			0.5760	0.2880	0.1832	0.1866		
SS231	10/10/2017	0.2880	0.6322	0.5443	0.2880	0.1440			0.1440	0.7200	0.1526	0.1228		
SS231	6/27/2018	0.1728	0.4320	0.4320	0.1728	0.8640			0.8640	0.4320	0.1479	0.1455		
SS232	10/16/2017													
SS235	10/1/2018													
SS235	10/1/2018													
SS235	10/19/2017	0.3456	0.2825	0.2989	0.1728	0.8640			0.8640	0.4320	0.1188	0.1548		
SS236	10/23/2017	0.1440	0.7740	0.1188	0.1440	0.7200			0.7200	0.3600	0.3888	0.3874		
SS236	10/8/2018	0.5184	0.2773	0.2799	0.1296	0.1296			0.6480	0.6480	0.1538	0.1538		
SS236	7/19/2018													
SS237	10/24/2017	3.2760	0.4955	0.4797	0.3276	0.1635			0.1635	0.8176	2.2736	2.2567		
SS238	10/24/2017	0.2880	0.2837	0.2894	0.2880	0.1440			0.1440	0.7200	0.1598	0.1613		
SS238	6/18/2018	0.2160	0.6739	0.6480	0.4320	0.2160			0.2160	0.1800	0.5112	0.5112		
SS250	10/9/2018	0.2520	0.2172	0.2243	0.2520	0.2520			0.1260	0.1260	0.4163	0.4673		
SS250	10/9/2018	0.2520	0.2137	0.2137	0.2520	0.2520			0.1260	0.1260	0.4622	0.4169		
SS250	6/14/2018	0.2725	0.2225	0.2197	0.2725	0.2725			0.1363	0.1363	0.4146	0.4268		
SS250	6/19/2018	0.4882	0.3252	0.2512	0.4882	0.4882			0.2441	0.2441	0.6214	0.6255		
SS250	11/7/2017	0.5460	0.1122	0.1147	0.5460	0.2725			0.2725	0.1363	0.1954	0.2768		
SS300	10/9/2018	0.1800	0.6336	0.8226	0.1800	0.9000			0.9000	0.4500	0.1890	0.2160		
SS300	6/19/2018	0.2160	0.8514	0.8942	0.2160	0.1800			0.1800	0.5400	0.2498	0.2182		
SS301	10/4/2018	0.1584	0.2392	0.2218	0.7920	0.7920			0.3960	0.3960	0.1468	0.1356		
SS301	6/19/2018	0.1800	0.2650	0.2650	0.1800	0.1800			0.5400	0.5400	0.1394	0.1470		
SS304	6/28/2018	0.4320	0.2160	0.2232	0.4320	0.2160			0.2160	0.1800	0.2736	0.1992		
SS304	7/24/2017	0.5460			0.5460	0.2725	1.1365	1.1774	0.2725	0.1363			0.1684	0.1635
SS305	10/10/2017	0.1980	0.4785	0.4514	0.1980	0.9540			0.9540	0.4752	0.1549	0.8469		
SS305	8/23/2018													

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	NO3- as N T Load	K D Load	K T Load	Se D Load	Se T Load	SiO2 D Load	SiO2 T Load	Ag D Load	Ag T Load	Na D Load	Na T Load	Sr D Load	Sr T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	SO4 T Load	TI D Load	TI T Load	Total Alkalinity Load	V D Load	V T Load	Zn D Load	Zn T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
A23A	10/1/2018								
A23A	8/23/2018	0.8491	0.6532	0.3266	0.3266	0.1364	0.6532	0.1973	0.1940
A23A	8/23/2018								
A23A	8/23/2018								
A38	6/28/2017	4.1877	0.1978	0.9539	0.7863			0.9929	0.1154
A38	9/27/2018	11.8570	0.1296	0.1296	2.6127	0.2419	0.2419	0.3412	0.3363
A38	6/27/2018	19.1923	0.4320	0.2160	4.3200	0.8640	0.4320	0.5170	0.4879
CC01A	6/14/2018	6.4180	0.4426	0.2213	0.6993	0.8852	0.4426	0.1711	0.1446
CC01A	10/2/2017	1.5445	0.1815	0.5474	1.5952	0.1622	0.8112	0.1839	0.1752
CC01A	9/24/2018	13.1242	0.6480	0.3240	1.3789	0.1296	0.6480	0.2165	0.2147
CC01A	7/10/2017	23.6174	0.2218	0.1188	4.1469			0.1785	0.1785
CC01B	9/25/2018	115.6320	0.7920	0.7920	0.7920	0.1584	0.1584	5.1322	5.8464
CC01B	6/5/2018								
CC01B	10/9/2017	156.7642	0.1886	0.1886	1.8864	0.2177	0.2177	7.5334	7.9793
CC01B	4/24/2017	152.6112		0.3625	1.2247				6.6625
CC01B	9/27/2016		0.1415	0.1415				8.9443	9.1998
CC01B	3/30/2017	194.3280	0.1418	0.1418	1.4184			8.3118	8.2835
CC01C	9/25/2018	0.1159	0.1440	0.7474	0.7200	0.2880	0.1440	0.8568	0.8388
CC01C	10/2/2017	0.8467	0.5760	0.2880	0.2880	0.8640	0.4320	0.8179	0.7690
CC01C	9/20/2016	5.3324			0.7577			0.3637	0.3637
CC01C	7/10/2017	1.5895	0.2552	0.1276	1.2758			0.4823	0.4529
CC01C	6/5/2018								
CC03D	9/27/2017	1611.9360	0.1112	0.2118	38.2418			13.8960	14.2295
CC03D	6/5/2018	2295.7848	0.1383	0.6913	52.2613	0.2765	0.1383	19.6325	2.4736
CC03D	10/9/2018	246.6432	0.7164	0.7164	62.1994	0.1421	0.1421	21.6346	21.3494
CC03D	3/30/2017	2431.8432	0.1589	0.1589	37.1923			24.1574	24.4770
CC03D	5/16/2017	2367.7920	0.1633	0.1633	32.1693			23.3513	23.3513
CC03D	6/6/2017	2977.6320	0.1411	0.1411	54.9711			29.1514	28.1124
CC06	10/9/2018	2565.7344	0.1159	0.1159	11.5920	0.2212	0.3539	35.6162	34.9477
CC06	6/5/2018	2971.9872	0.2286	0.1144	11.4372	0.4572	0.3464	34.5277	35.2662
CC06	6/6/2017	7873.7184	0.1773	0.1773	17.7336			139.3142	134.4269
CC06	9/28/2017	517.2768	0.3547	0.1773	17.7336			87.6398	88.6680
CC06	10/9/2017	526.1422	0.1834	0.1834	18.3436	0.3669	0.9285	93.1855	9.2543
CC14	10/9/2018	891.7114	0.7488	0.7488	45.7825	0.1496	0.1496	1.9818	1.4282

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Site ID	Date	SO4 T Load	TI D Load	TI T Load	Total Alkalinity Load	V D Load	V T Load	Zn D Load	Zn T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
CC14	9/28/2017								
CC14	10/9/2017								
CC14	9/21/2016	1219.6800			46.5696			1.5797	1.8468
CC14	6/5/2018	2536.8192	0.4159	0.2794	2.7936	0.8317	0.4159	3.9674	3.9549
CC14	6/20/2017	2557.8935	0.1237	0.4520	6.1857			6.7876	6.6243
CC16C	6/12/2018	27.7367	0.2319	0.3479	0.2319	0.4638	0.4638	0.4584	0.4341
CC16C	9/28/2016	3.4992			0.2542			0.5832	0.5832
CC16C	6/20/2017	29.4162	0.1815	0.5474	0.5474			0.4991	0.5678
CC16C	10/4/2018	33.7464	0.6192	0.3960	0.3960	0.3387	0.6192	0.6316	0.6155
CC16C	10/25/2017	33.8976	0.1584	0.5332	0.7920	0.3168	0.1188	0.8784	0.7913
CC19	10/9/2018	474.9696	0.1562	0.1562	1.5624	0.3125	0.3125	6.4379	6.2496
CC19	6/5/2018	683.5968	0.3974	0.1987	1.9872	0.7949	0.3974	7.4321	7.6385
CC19	10/9/2017	771.1926	0.2396	0.2396	9.5832	0.4792	0.4792	11.9271	11.6397
CC19	9/29/2016		0.7272	0.3636				12.9442	13.7448
CC19	6/6/2017	1585.5840	0.5148	0.5148	5.1480			19.3565	18.4298
CC50	10/3/2018	1139.7244	0.6396	0.6396	129.1944	0.1279	0.1279	0.4464	0.4451
CC50	10/9/2017	1159.4160	0.6840	0.6840	134.3880	0.1368	0.1368	0.9672	0.9444
CC50	6/7/2018	1377.1296	0.1497	0.7484	147.7426	0.2994	0.1497	0.5240	0.5449
CC50	6/20/2017	1816.8977	0.4415	0.2277	23.1400			1.9500	1.3694
CC50	9/21/2016							1.5618	1.8946
DM01	6/14/2018								
DM01	6/22/2017	7.9488	0.1382	0.6912	0.6912			0.1735	0.1852
DM24	9/16/2016	12.4416			12.9298			0.3897	0.4738
DM24	9/27/2018	141.7320	0.1116	0.1116	18.1224	0.2232	0.2232	0.3683	0.5736
DM32	9/27/2018	1.4454	0.6480	0.3240	0.3240	0.1296	0.6480	0.4925	0.4743
DM32	9/27/2018	1.4515	0.6480	0.3240	0.3240	0.1296	0.6480	0.4912	0.4743
DM32	10/10/2017	4.5792	0.3456	0.1728	0.1728	0.5184	0.2592	0.1980	0.1780
DM32	6/27/2018	4.1213	0.2592	0.1296	0.1296	0.5184	0.2592	0.3672	0.2722
DM32	6/28/2017	3.8339	0.5516	0.2758	0.2758			0.3282	0.3892
DM4	8/23/2018	5.4976	0.1886	0.5443	1.1540	0.2177	0.1886	0.6964	0.5813
DM4	8/23/2018	5.4432	0.1886	0.5443	1.1540	0.2177	0.1886	0.6260	0.5879
SS001	9/26/2018	0.1757	0.3600	0.2628	0.1800	0.7200	0.3600	0.1494	0.1444
SS001	9/26/2018	0.1825	0.3600	0.1800	0.1800	0.7200	0.3600	0.1472	0.1447
SS001	10/4/2017	0.3335	0.1728	0.8640	0.8640	0.2592	0.1296	0.2693	0.2556

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS001	9/22/2016	0.3233	0.1733	0.8668				0.2574	0.2539
SS001	6/27/2018	1.4827	0.5460	0.2725	0.2725	0.1920	0.5460	0.1166	0.1134
SS001	7/11/2017	1.5796	0.7424	0.3712	3.7121			0.5653	0.5271
SS002	10/4/2017	0.1411	0.2880	0.8568	0.9562	0.4320	0.2160	0.2491	0.2340
SS002	6/27/2018	0.3694	0.4320	0.2160	0.1339	0.8640	0.4320	0.3672	0.3845
SS002	7/11/2017	0.9665	0.2419	0.8721	0.2976			0.5540	0.5867
SS002	9/22/2016	3.9199	0.5561	0.3383				0.2638	0.2633
SS003	9/26/2018	0.9360	0.7200	0.3600	0.2225	0.1440	0.7200	0.8928	0.8496
SS003	10/4/2017	0.2394	0.2880	0.9389	0.3672	0.4320	0.2160	0.2736	0.1872
SS003	7/12/2017	0.2753	0.5760	0.2313	0.5126			0.3398	0.3398
SS003	9/22/2016	2.2968	0.2889	0.1849				0.2138	0.2899
SS004	10/4/2017	0.7632	0.1382	0.6912	0.9677	0.2736	0.1368	0.1970	0.1843
SS004	6/27/2018	1.7496	0.1152	0.5760	0.1656	0.2340	0.1152	0.4680	0.4285
SS004	9/22/2016	1.1322	0.2595	0.1297				0.1687	0.1751
SS004	7/12/2017	0.7992	0.2880	0.1440	0.2462			0.2174	0.2246
SS004	9/26/2018	1.8288	0.1440	0.7200	0.1800	0.2880	0.1440	0.4572	0.4262
SS005	9/22/2016	0.1538	0.1853	0.9267				0.1316	0.1483
SS006	10/4/2017	0.2442	0.1152	0.5760	0.1159	0.1728	0.8640	0.1152	0.1152
SS006	9/26/2018	0.3586	0.5760	0.2880	0.1158	0.1152	0.5760	0.5760	0.5760
SS006	6/27/2018	0.3836	0.8640	0.4320	0.1728	0.1728	0.8640	0.8640	0.1487
SS006	9/23/2016	1.2126	0.7948	0.3974				0.7948	0.7948
SS006	7/12/2017	4.7358	0.2616	0.1382	2.7996			0.2616	0.2616
SS007	9/23/2016	0.3655	0.1733	0.8668				0.1733	0.1733
SS007	9/26/2018	0.8492	0.1584	0.7920	0.2915	0.3168	0.1584	0.1584	0.1584
SS007	10/4/2017	2.8397	0.1152	0.5760	1.2528	0.1728	0.8640	0.1152	0.1152
SS007	7/12/2017	3.2815	0.2184	0.1920	1.7334			0.2184	0.2184
SS007	6/27/2018	12.5983	0.3925	0.1962	5.3769	0.7849	0.3925	0.3925	0.6834
SS008	9/24/2018								
SS008	9/24/2018								
SS008	10/2/2017	1.7424	0.2880	0.1440	0.1714	0.4320	0.2160	0.2880	0.2880
SS008	9/26/2016	8.1288	0.1657	0.8286				0.1382	0.1757
SS008	6/13/2018	9.9837	0.1162	0.5854	17.6481	0.2322	0.1162	0.1765	0.6746
SS009	7/10/2017	0.4579	0.1728	0.8640	0.1296			0.1994	0.2298
SS009	9/26/2016	0.9124	0.2714	0.1357				0.4195	0.4132

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	SO4 T Load	TI D Load	TI T Load	Total Alkalinity Load	V D Load	V T Load	Zn D Load	Zn T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS009	6/13/2018	2.8224	0.4320	0.2160	0.5544	0.8640	0.4320	0.1529	0.1750
SS010	9/24/2018	0.7848	0.7200	0.3600	0.6739	0.1440	0.7200	0.4766	0.4680
SS010	10/2/2017	0.1872	0.2880	0.1440	0.1329	0.4320	0.2160	0.1260	0.1166
SS010	7/10/2017	0.2182	0.3456	0.1728	0.1415			0.1419	0.1452
SS010	9/26/2016	0.1894	0.5233	0.2616				0.2339	0.1884
SS010	6/13/2018	26.7120	0.7200	0.3600	0.5148	0.1440	0.7200	0.1584	0.1966
SS011	6/13/2018								
SS011	9/24/2018								
SS011	7/10/2017	0.8856	0.2880	0.1440	0.1440			0.1292	0.1266
SS011	10/2/2017	0.6653	0.8640	0.4320	0.4320	0.1296	0.6480	0.5274	0.4882
SS011	9/26/2016	2.8726	0.1920	0.5460				0.4773	0.4719
SS012	10/2/2017	1.7568	0.4320	0.2160	0.2160	0.6480	0.3240	0.1825	0.1685
SS012	9/26/2016	1.7244	0.1357	0.5178				0.4772	0.4636
SS012	6/13/2018	1.4544	0.8640	0.4320	0.9720	0.1728	0.8640	0.8640	0.8640
SS012	7/10/2017	1.8965	0.2416	0.1279	0.6680			0.2416	0.2416
SS013	10/4/2018								
SS013	10/3/2016	9.7962	0.2496	0.1248				0.1875	0.1732
SS013	10/3/2017	34.5265	0.9376	0.4688	8.3444	0.1464	0.7318	0.9938	0.1111
SS013	6/12/2018	142.3799	0.2184	0.1661	35.7585	0.4368	0.2184	0.2222	0.2355
SS013	7/17/2017	528.4674	0.1468	0.7340	138.7277			1.2845	1.2698
SS014	10/3/2017	3.8932	0.1368	0.5184	1.3789	0.1555	0.7776	0.1368	0.1368
SS014	10/4/2018	8.4427	0.9360	0.4680	2.7756	0.1872	0.9360	0.9360	0.9360
SS014	6/12/2018	1.5783	0.1363	0.6814	3.5745	0.2725	0.1363	0.1363	0.1363
SS014	7/17/2017	12.6683	0.3500	0.1378	4.3569			0.3500	0.3500
SS014	10/3/2016	13.8247	0.3773	0.1886				0.3773	0.3773
SS015	10/4/2018	12.1772	0.1253	0.6264	2.3515	0.2556	0.1253	0.1253	0.1253
SS015	10/3/2017	18.7387	0.3816	0.1980	2.3958	0.5724	0.2851	0.3816	0.3816
SS015	10/3/2016	22.3975	0.5233	0.2616				0.5233	0.5233
SS015	6/12/2018	56.2695	0.7149	0.3574	11.4253	0.1428	0.7149	0.7149	0.7149
SS015	7/17/2017	87.4233	0.1962	0.8399	14.9139			0.1962	0.1962
SS016	10/4/2018	0.1175	0.8640	0.4320	0.4320	0.1728	0.8640	0.2995	0.1875
SS016	6/22/2017	0.1980	0.2160	0.1800	0.1800			0.1638	0.1955
SS016	6/12/2018	0.2966	0.1440	0.7200	0.7200	0.2880	0.1440	0.2394	0.2275
SS016	10/3/2016	1.2775	0.2278	0.1139				0.2258	0.2225

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Site ID	Date	SO4 T Load	TI D Load	TI T Load	Total Alkalinity Load	V D Load	V T Load	Zn D Load	Zn T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS016	10/5/2017	2.6726	0.4176	0.2880	0.2880	0.6264	0.3132	0.4928	0.4540
SS017	10/5/2017								
SS017	10/3/2016	0.3343	0.4579	0.2289				0.9318	0.9112
SS017	10/4/2018	0.3963	0.2340	0.1152	0.1152	0.4680	0.2340	0.8594	0.7741
SS017	6/22/2017	1.2240	0.1728	0.8640	0.8640			0.2886	0.3335
SS017	6/12/2018	1.6157	0.8640	0.4320	0.4320	0.1728	0.8640	0.5962	0.5823
SS018	6/23/2017	5.6880	0.7200	0.3600	0.3600			0.3564	0.3996
SS018	10/4/2018	12.4524	0.4752	0.2376	0.2376	0.9540	0.4752	0.1359	0.9124
SS018	10/3/2016	1.6228	0.9834	0.4917				0.8144	0.7965
SS018	10/5/2017	14.5843	0.1382	0.6912	0.6912	0.2736	0.1368	0.1644	0.1915
SS018	6/12/2018	24.5458	0.1357	0.5178	0.5178	0.2714	0.1357	0.1719	0.1719
SS019	6/23/2017	0.3672	0.1728	0.8640	0.1218			0.6169	0.7197
SS019	10/4/2018	0.5280	0.9720	0.4536	0.1857	0.1814	0.9720	0.7694	0.7852
SS019	10/4/2018	0.5278	0.9720	0.4536	0.1857	0.1814	0.9720	0.7557	0.7234
SS019	10/5/2017	0.5328	0.2160	0.7419	0.1835	0.3240	0.1512	0.1200	0.1987
SS019	6/12/2018	0.8934	0.1728	0.8640	0.2834	0.3456	0.1728	0.1198	0.1244
SS019	10/3/2016	1.9896	0.4317	0.2159				0.1828	0.1731
SS020	9/25/2018								
SS020	10/16/2017	0.7258	0.5760	0.2880	0.2880	0.8640	0.4320	0.1172	0.1152
SS020	10/4/2016	3.3332	0.1382	0.7719				0.4520	0.4284
SS020	7/19/2017	2.4134	0.1537	0.7686	0.7686			0.7163	0.6879
SS020	6/13/2018	2.4918	0.1296	0.6480	0.6480	0.2419	0.1296	0.6712	0.7157
SS021	10/4/2016	0.2589	0.4143	0.2714				0.2383	0.2175
SS021	7/19/2017	0.1970	0.3456	0.1728	0.1728			0.1636	0.1534
SS021	6/13/2018	2.3962	0.2340	0.1152	1.1520	0.4680	0.2340	0.1795	0.1855
SS022	10/16/2017	0.1619	0.5760	0.2880	0.2880	0.8640	0.4320	0.4752	0.4723
SS022	10/4/2016	0.7994	0.3489	0.1744				0.4256	0.4468
SS022	6/13/2018	0.5119	0.2160	0.1800	0.1800	0.4320	0.2160	0.4342	0.4342
SS022	7/19/2017	2.7372	0.1382	0.6912	0.6912			0.1445	0.1396
SS023	9/25/2018								
SS023	10/4/2016	0.4115	0.1417	0.7863				0.1594	0.1481
SS023	7/19/2017	0.8237	0.5760	0.2880	0.2880			0.2459	0.2465
SS023	6/13/2018	0.2448	0.7200	0.3600	0.3600	0.1440	0.7200	0.1116	0.1354
SS023	10/16/2017	4.3373	0.4337	0.2169	8.1683	0.6562	0.3253	0.1132	0.1386

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Site ID	Date	SO4 T Load	TI D Load	TI T Load	Total Alkalinity Load	V D Load	V T Load	Zn D Load	Zn T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS024	10/16/2017	1.2312	0.1800	0.5400	2.3832	0.1512	0.7560	0.8874	0.9626
SS024	10/4/2016	14.3777	0.1483	0.7413				0.9490	0.8451
SS024	9/25/2018	15.2640	0.8640	0.4320	3.8534	0.1728	0.8640	0.1454	0.9594
SS024	7/19/2017	69.6637	0.6541	0.3276	12.5599			0.4228	0.4555
SS024	6/13/2018	33.1361	0.3917	0.1958	14.9622	0.7834	0.3917	0.3917	0.3917
SS025	10/4/2016	0.2796	0.4959	0.2453				0.2747	0.4366
SS025	7/19/2017	0.2988	0.1728	0.8640	0.1434			0.1278	0.1278
SS025	6/13/2018	0.4622	0.1440	0.7200	0.1872	0.2880	0.1440	0.3442	0.3744
SS026	10/4/2016	0.6467	0.1297	0.6487				0.4456	0.1965
SS026	10/16/2017	1.6848	0.2160	0.1800	0.1800	0.3240	0.1512	0.2873	0.2762
SS026	6/14/2018	2.4137	0.3114	0.1555	0.1555	0.6228	0.3114	0.3393	0.3117
SS026	7/10/2017	4.1489	0.1296	0.6480	0.6480			0.1379	0.1398
SS027	10/16/2017	24.8832	0.1296	0.6545	0.6480	0.1944	0.9720	0.3635	0.3499
SS027	10/4/2016	24.1916	0.1526	0.7631				0.3678	0.3642
SS027	9/24/2018	38.2752	0.4320	0.4320	0.4320	0.8640	0.8640	0.5314	0.4943
SS027	6/13/2018	12.7526	0.1368	0.5184	0.5184	0.2736	0.1368	0.1846	0.1843
SS027	7/10/2017	22.4928	0.3348	0.1674	1.6740			0.3758	0.3742
SS028	10/16/2017	0.1188	0.1440	0.7200	0.7200	0.2160	0.1800	0.1454	0.1469
SS028	7/10/2017	0.1674	0.2880	0.1440	0.9540			0.2794	0.3542
SS028	10/4/2016	0.3543	0.4143	0.2714				0.3873	0.3563
SS029	10/16/2017	4.4352	0.5184	0.2592	2.5920	0.7776	0.3888	0.3577	0.3344
SS029	9/24/2018	42.7450	0.2664	0.1332	1.3320	0.5213	0.2664	0.3831	0.3519
SS029	6/14/2018	3.2318	0.3177	0.1554	1.5535	0.6214	0.3177	0.3169	0.3646
SS029	10/4/2016	39.9127	0.6541	0.3276				0.3337	0.3231
SS029	7/10/2017	64.6597	0.1962	0.9812	9.8118			0.7182	0.7133
SS030	10/5/2016	0.2880	0.1440	0.7200				0.1440	0.1440
SS030	7/12/2017	0.1253	0.1440	0.7200	0.9540			0.1440	0.1440
SS030	10/4/2017	0.2232	0.1440	0.7200	0.1159	0.2160	0.1800	0.9432	0.9000
SS030	6/15/2018	0.1152	0.7200	0.3600	0.8640	0.1440	0.7200	0.7200	0.7200
SS030	9/26/2018	0.2822	0.7200	0.3600	0.1339	0.1440	0.7200	0.7632	0.8280
SS031	10/4/2017	0.9374	0.4320	0.2160	0.6394	0.6480	0.3240	0.4320	0.4320
SS031	7/12/2017	0.2860	0.1728	0.8640	0.2246			0.1728	0.1728
SS031	10/5/2016	0.3282	0.1744	0.8722				0.1744	0.1744
SS031	6/15/2018	0.5352	0.1296	0.6480	0.3745	0.2592	0.1296	0.1296	0.1296

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS031	9/26/2018	0.8467	0.2160	0.1800	0.5465	0.4320	0.2160	0.2160	0.2160
SS032	10/4/2017	0.5688	0.5760	0.2880	0.1483	0.8640	0.4320	0.3370	0.3686
SS032	10/5/2016	0.6260	0.1635	0.8176				0.1635	0.1635
SS032	9/26/2018	0.9798	0.1728	0.8640	0.8312	0.3456	0.1728	0.1728	0.1763
SS032	9/26/2018	0.9729	0.1728	0.8640	0.8294	0.3456	0.1728	0.1866	0.1814
SS032	7/23/2018								
SS032	7/12/2017	1.6992	0.1440	0.7200	3.1392			0.1440	0.1440
SS033	10/5/2016	0.7992	0.1440	0.7200				0.1397	0.1274
SS033	7/12/2017	0.7848	0.1440	0.7200	0.7200			0.1843	0.2232
SS033	10/4/2017	0.7416	0.1440	0.7200	0.7200	0.2160	0.1800	0.1440	0.1440
SS033	6/15/2018	0.5472	0.7200	0.3600	0.3600	0.1440	0.7200	0.1152	0.1188
SS033	9/26/2018	0.7488	0.7200	0.3600	0.3600	0.1440	0.7200	0.7200	0.7200
SS034	10/5/2016	0.1433	0.1440	0.7200				0.6228	0.5976
SS034	7/12/2017	0.1390	0.1440	0.7200	0.7200			0.7200	0.7416
SS034	10/4/2017	0.1217	0.1440	0.7200	0.7200	0.2160	0.1800	0.2556	0.2254
SS034	6/15/2018	0.2232	0.7200	0.3600	0.3600	0.1440	0.7200	0.1159	0.1656
SS035	10/5/2016	0.6287	0.8613	0.5383				0.7327	0.1421
SS035	6/15/2018	9.3600	0.3744	0.1872	0.8274	0.7488	0.3744	0.1879	0.3539
SS035	7/12/2017	51.4800	0.9792	0.4896	14.1984			0.9792	0.9792
SS036	6/27/2018	0.1757	0.7200	0.3600	0.3600	0.1440	0.7200	0.1692	0.1519
SS036	10/5/2016	0.6392	0.2835	0.1828				0.1327	0.1273
SS036	7/18/2017	0.7517	0.6480	0.3240	0.3240			0.1788	0.1724
SS037	10/10/2017	1.2960	0.2880	0.2880	0.2880	0.4320	0.4320	0.2785	0.2585
SS037	10/5/2016	1.6622	0.8613	0.4363				0.3178	0.3200
SS037	7/18/2017	8.8128	0.6912	0.3456	0.3456			0.2182	0.1984
SS037	6/27/2018	9.2160	0.3888	0.1944	0.1944	0.7776	0.3888	0.2453	0.2362
SS038	9/26/2018	0.5553	0.1152	0.5760	0.8525	0.2340	0.1152	0.1152	0.1152
SS038	10/6/2016	0.8696	0.3456	0.1728				0.3456	0.3456
SS038	6/15/2018	1.4400	0.4320	0.2160	2.5920	0.8640	0.4320	0.4320	0.4320
SS038	10/10/2017	2.8244	0.1296	0.6480	4.1913	0.1814	0.9720	0.1296	0.1296
SS038	6/28/2017	4.2797	0.3629	0.1814	9.7978			0.3629	0.3629
SS039	10/10/2017	0.2838	0.8640	0.4320	0.4320	0.1296	0.6480	0.7387	0.7128
SS039	10/6/2016	1.9131	0.3456	0.1728				0.2575	0.2488
SS039	6/27/2018	0.8364	0.1728	0.8640	0.8640	0.3456	0.1728	0.2143	0.2448

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS039	7/12/2017	3.2788	0.1635	0.5888	0.8176			0.1384	0.9894
SS040	9/27/2018	0.2952	0.7200	0.3974	0.3600	0.1440	0.7200	0.1260	0.1116
SS040	10/6/2016	0.1929	0.8613	0.4363				0.1378	0.1120
SS040	10/10/2017	0.2560	0.1296	0.6480	0.6480	0.1944	0.9720	0.9914	0.9331
SS040	6/27/2018	0.6981	0.1728	0.8640	0.8640	0.3456	0.1728	0.2592	0.2385
SS040	7/12/2017	14.3856	0.9812	0.4959	4.9589			0.4288	0.4220
SS041	9/27/2018	2.7000	0.2160	0.1240	0.5659	0.4320	0.2160	0.2225	0.1968
SS041	10/10/2017	3.3869	0.8640	0.4320	1.1664	0.1296	0.6480	0.3118	0.3192
SS041	10/6/2016	5.9416	0.1920	0.5460				0.1913	0.1853
SS041	6/27/2018	6.8659	0.1152	0.5760	1.8216	0.2340	0.1152	0.6589	0.5818
SS041	6/28/2017	1.7143	0.3312	0.1656	1.9296			0.1871	0.1871
SS042	6/27/2018	0.9850	0.4320	0.2160	0.1115	0.8640	0.4320	0.2272	0.2340
SS042	6/28/2017	0.5964	0.1944	0.5472	0.1259			0.1767	0.1959
SS042	10/6/2016	0.1489	0.1440	0.7195				0.5274	0.8275
SS042	10/10/2017	5.4000	0.1800	0.5555	0.5832	0.1512	0.1512	0.3528	0.3669
SS043	6/28/2017	4.2228	0.1224	0.1224	1.3831			0.5998	0.6463
SS043	9/27/2018	5.4829	0.8280	0.8280	1.8714	0.1642	0.1642	0.7633	0.7289
SS043	10/6/2016	5.8758	0.3456	0.1728				0.7915	0.9200
SS043	6/18/2018	9.6948	0.2592	0.1296	2.9549	0.5184	0.2592	0.1679	0.1182
SS043	10/10/2017	14.1696	0.4320	0.2536	5.1120	0.6480	0.6480	0.2480	0.4493
SS044	9/25/2018	2.8970	0.3240	0.3240	0.1452	0.6480	0.6480	0.3266	0.3000
SS044	9/25/2018	2.9988	0.6480	0.3240	0.1470	0.1296	0.6480	0.3278	0.2976
SS044	6/14/2018	6.2640	0.1440	0.7344	0.2362	0.2880	0.1440	0.1282	0.1379
SS044	10/11/2017	11.9520	0.2880	0.2880	0.5875	0.4320	0.4320	0.1682	0.2189
SS044	10/6/2016	18.2213	0.8656	0.4329				0.2513	0.2597
SS044	6/22/2017	62.4960	0.4464	0.2232	2.2320			0.2522	0.3132
SS045	9/25/2018	0.2246	0.1728	0.8640	0.8640	0.3456	0.1728	0.1516	0.1322
SS045	6/6/2018	0.5484	0.5760	0.2880	0.2880	0.1152	0.5760	0.4147	0.3894
SS045	10/11/2017	1.4386	0.2592	0.1296	0.1296	0.3888	0.1944	0.1122	0.1355
SS045	10/6/2016	1.9526	0.3456	0.1728				0.1414	0.1322
SS045	6/22/2017	2.1856	0.7776	0.3888	0.3888			0.1983	0.2337
SS046	9/25/2018	0.1843	0.1440	0.7200	0.7200	0.2880	0.1440	0.3960	0.2754
SS046	6/22/2017	1.3680	0.1440	0.7200	0.7200			0.2362	0.2340
SS046	10/11/2017	1.4616	0.2160	0.1800	0.1800	0.3240	0.1512	0.2585	0.2714

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	SO4 T Load	TI D Load	TI T Load	Total Alkalinity Load	V D Load	V T Load	Zn D Load	Zn T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS046	6/6/2018	1.7338	0.1800	0.5400	0.5400	0.2160	0.1800	0.2389	0.2389
SS046	10/6/2016	1.8422	0.2595	0.1297				0.3617	0.3982
SS047	10/5/2017	1.8374	0.7920	0.3960	1.7820	0.1188	0.5940	0.7920	0.7128
SS047	10/2/2018	6.9768	0.1368	0.6840	6.5394	0.2736	0.1368	0.2477	0.3370
SS047	10/10/2016	7.1723	0.3219	0.1696				0.3219	0.3219
SS047	6/12/2018	6.3758	0.1690	0.8449	7.6548	0.3380	0.1690	0.1690	0.1690
SS047	6/26/2017	6.8854	0.3929	0.2493	81.7660			0.3929	0.3929
SS048	10/10/2016	0.1300	0.1357	0.5282				0.1357	0.1357
SS048	10/5/2017	0.5994	0.4680	0.1537	0.2299	0.6912	0.3456	0.7165	0.7995
SS048	6/12/2018	11.5387	0.3925	0.1962	4.3564	0.7849	0.3925	0.3925	0.3925
SS048	6/26/2017	4.3766	0.4295	0.2362	12.2313			0.4295	0.4295
SS049	10/5/2017	0.5472	0.5760	0.2477	0.2988	0.8640	0.4320	0.5760	0.5760
SS049	10/10/2016	0.2253	0.2835	0.1644				0.2835	0.2835
SS049	6/7/2018	0.1152	0.1440	0.7200	0.1274	0.2880	0.1440	0.1440	0.1440
SS049	6/26/2017	0.7762	0.2160	0.1800	0.7943			0.2160	0.2160
SS050	10/10/2016	1.5557	0.3456	0.1728				0.3456	0.1569
SS050	10/5/2017	2.5263	0.6912	0.3456	1.7136	0.1368	0.5184	0.6912	0.6912
SS050	10/2/2018	8.8992	0.2160	0.1800	3.7699	0.4320	0.2160	0.2160	0.3686
SS050	6/7/2018	23.1690	0.3761	0.2591	9.5158	0.7522	0.3761	0.2889	0.3134
SS050	6/26/2017	63.3243	0.2523	0.1261	4.8766			0.3179	0.4415
SS051	10/5/2017	1.1471	0.4320	0.2160	0.3730	0.6480	0.3240	0.2585	0.2460
SS051	10/10/2016	1.1629	0.4329	0.2164				0.2878	0.4329
SS051	10/2/2018	1.4964	0.3456	0.1728	0.2893	0.6912	0.3456	0.4182	0.4943
SS051	6/7/2018	2.6868	0.5472	0.4225	0.8280	0.1944	0.5472	0.7497	0.1166
SS051	6/26/2017	4.1256	0.2160	0.1800	0.9331			0.2225	0.3240
SS052	10/5/2017	0.1957	0.8640	0.4320	0.2955	0.1296	0.6480	0.3845	0.2873
SS052	10/2/2018	0.8820	0.1800	0.9000	0.1778	0.3600	0.1800	0.1154	0.1195
SS052	10/10/2016	0.8482	0.4368	0.2184				0.1435	0.1297
SS052	6/26/2017	0.1382	0.8640	0.4320	0.2436			0.3313	0.3581
SS052	6/7/2018	0.1642	0.4320	0.2160	0.3542	0.8640	0.4320	0.3383	0.3387
SS053	6/7/2018	0.3853	0.5760	0.2880	0.2880	0.1152	0.5760	0.2511	0.2586
SS053	10/2/2018	0.9613	0.1138	0.5688	0.5688	0.2275	0.1138	0.4676	0.4225
SS053	10/10/2016	1.1432	0.3456	0.1728				0.6635	0.5789
SS053	10/5/2017	1.3962	0.3456	0.1728	0.1728	0.5184	0.2592	0.9976	0.8847

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Site ID	Date	SO4 T Load	TI D Load	TI T Load	Total Alkalinity Load	V D Load	V T Load	Zn D Load	Zn T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS053	7/20/2017	5.7816	0.1728	0.8640	0.8640			0.6235	0.6186
SS054	10/2/2018	8.7497	0.5616	0.5616	0.5369	0.1123	0.1123	0.3145	0.3987
SS054	10/5/2017	7.2922	0.1152	0.1152	0.3974	0.1728	0.1728	0.5112	0.6854
SS054	10/10/2016	1.3524	0.5767	0.2884				0.1496	0.9446
SS054	6/26/2017	36.9360	0.1440	0.7200	1.8000			0.4471	0.4997
SS054	6/7/2018	96.4826	0.2725	0.1363	5.9688	0.5460	0.2725	0.6677	0.7550
SS055	10/5/2017	0.2457	0.5760	0.2880	0.2880	0.8640	0.4320	0.7434	0.6883
SS055	6/14/2018	0.3118	0.3600	0.1800	0.1800	0.7200	0.3600	0.1188	0.1296
SS055	10/10/2018	3.1536	0.7200	0.3600	0.3600	0.4716	0.7200	0.2434	0.2333
SS055	10/10/2016	1.4150	0.2595	0.1297				0.4666	0.3827
SS055	6/23/2017	1.5293	0.4680	0.2340	0.2340			0.7511	0.7626
SS056	6/14/2018	0.2681	0.5400	0.2520	0.2520	0.1800	0.5400	0.5393	0.5940
SS056	10/11/2016	0.5357	0.2835	0.1417				0.5612	0.4890
SS056	6/22/2017	0.4234	0.3456	0.1728	0.1728			0.7983	0.8640
SS057	10/11/2016	0.3897	0.1417	0.7863				0.3165	0.3219
SS057	7/17/2017	0.3175	0.1440	0.7200	0.6818			0.2858	0.3247
SS057	10/2/2017	0.3888	0.7200	0.7200	0.5918	0.1800	0.1800	0.3895	0.3474
SS057	6/6/2018	0.2448	0.7200	0.3600	0.6178	0.1440	0.7200	0.6437	0.6768
SS057	9/25/2018	0.3931	0.3600	0.3600	0.3600	0.7200	0.7200	0.1800	0.4363
SS058	10/11/2016	0.1159	0.1440	0.7200				0.1325	0.1166
SS058	7/17/2017	0.3888	0.1440	0.7200	0.7200			0.7416	0.6790
SS058	10/2/2017	0.7272	0.1440	0.7200	0.7200	0.2160	0.1800	0.1656	0.1426
SS058	6/6/2018	0.4140	0.7200	0.3600	0.3600	0.1440	0.7200	0.7416	0.6998
SS059	10/25/2017	0.9112	0.2160	0.1800	0.1800	0.3240	0.1512	0.6996	0.6824
SS059	10/11/2016	1.1672	0.2311	0.1156				0.7916	0.7119
SS059	10/9/2018	2.9290	0.2592	0.1296	0.1296	0.5184	0.2592	0.2343	0.2243
SS059	6/19/2018	3.3840	0.3600	0.1800	0.1800	0.7200	0.3600	0.2560	0.2394
SS059	6/22/2017	4.3546	0.2340	0.1152	1.1520			0.3249	0.3421
SS060	10/9/2018	0.6372	0.2880	0.1440	0.1440	0.5760	0.2880	0.1164	0.1112
SS060	10/25/2017	0.1745	0.1728	0.8640	0.8640	0.2592	0.1296	0.3326	0.3180
SS060	6/11/2018	0.4189	0.2736	0.1368	0.1368	0.4147	0.2736	0.6345	0.6179
SS060	10/11/2016	0.4177	0.4329	0.2164				0.8288	0.7120
SS060	6/21/2017	0.5645	0.8640	0.4320	0.4320			0.1800	0.1483
SS061	10/11/2016	0.4578	0.1417	0.7863				0.3238	0.2898

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Site ID	Date	SO4 T Load	TI D Load	TI T Load	Total Alkalinity Load	V D Load	V T Load	Zn D Load	Zn T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS061	6/21/2017	0.7128	0.8640	0.4320	0.4320			0.5573	0.5875
SS062	10/11/2016	0.2542	0.1417	0.7863				0.2763	0.2898
SS062	6/11/2018	1.1664	0.4464	0.2232	0.2232	0.8928	0.4464	0.1455	0.1562
SS062	10/23/2017	1.7172	0.9360	0.4680	0.5832	0.1440	0.7200	0.8284	0.8424
SS062	10/8/2018	3.1140	0.7200	0.3600	0.3600	0.1440	0.7200	0.2232	0.2131
SS062	6/21/2017	2.4192	0.3456	0.1728	0.1728			0.5996	0.6480
SS063	10/3/2017	0.5645	0.1440	0.1440	0.3614	0.2160	0.2160	0.1915	0.1872
SS063	6/28/2018	0.2779	0.1440	0.7200	0.2736	0.2880	0.1440	0.3384	0.4622
SS063	10/12/2016	3.3675	0.4363	0.4363				0.6288	0.5857
SS063	7/20/2017	8.8819	0.1152	0.1152	0.1152			0.1544	0.1555
SS064	10/3/2017	0.5918	0.2160	0.2160	0.5274	0.3240	0.3240	0.6372	0.5814
SS064	10/2/2018	2.2689	0.1872	0.1872	0.7563	0.3744	0.3744	0.4435	0.4532
SS064	6/28/2018	1.7712	0.5760	0.2880	0.1256	0.1152	0.5760	0.5760	0.9432
SS064	7/20/2017	1.7366	0.2592	0.1296	0.6519			0.2542	0.2567
SS064	10/12/2016	1.8422	0.2884	0.4383				0.1312	0.1375
SS065	10/4/2018	7.4131	0.2376	0.2376	0.2376	0.4752	0.5797	0.7983	0.7466
SS065	10/12/2016	9.4259	0.7195	0.7195				0.9714	0.9714
SS065	6/19/2018	1.4400	0.3600	0.3600	0.3600	0.7200	0.7200	0.9792	0.9720
SS065	6/23/2017	11.8368	0.5760	0.2880	0.2880			0.1434	0.1454
SS065	10/3/2017	43.3382	0.6566	0.6566	0.3283	0.9850	0.9850	0.4859	0.4596
SS066	10/3/2017	2.1168	0.2880	0.2880	0.1440	0.4320	0.4320	0.2268	0.2880
SS066	6/23/2017	8.1216	0.1152	0.5760	0.5760			0.8525	0.8640
SS066	10/12/2016	13.6183	0.8668	0.8668				0.1257	0.1275
SS067	6/21/2017	0.4378	0.7200	0.5933	0.7200			0.7632	0.8136
SS067	10/23/2017	0.5652	0.7200	0.7200	0.7200	0.1800	0.1800	0.8928	0.8712
SS067	6/5/2018	1.2355	0.7200	0.7200	0.7200	0.1440	0.1440	0.1656	0.1642
SS067	10/8/2018	1.1923	0.8899	0.7200	0.7200	0.1440	0.1440	0.1829	0.1800
SS067	10/17/2016	1.7378	0.2184	0.2184				0.2668	0.2616
SS068	10/8/2018	2.5574	0.5760	0.2880	0.2880	0.1152	0.5760	0.4389	0.4274
SS068	10/23/2017	3.5496	0.1440	0.7200	0.7200	0.2160	0.1800	0.4658	0.4734
SS068	10/17/2016	3.5882	0.8668	0.8668				0.5694	0.5634
SS068	6/21/2017	3.2616	0.2160	0.9958	0.1800			0.5378	0.5800
SS068	6/5/2018	5.2272	0.5760	0.5760	0.5760	0.1152	0.1152	0.6543	0.6451
SS069	10/9/2018	0.2797	0.1800	0.5400	0.5400	0.2160	0.1800	0.8219	0.8122

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS069	6/19/2018	0.3780	0.1440	0.7200	0.7200	0.2880	0.1440	0.9720	0.8640
SS069	10/17/2016	0.5822	0.4368	0.2184				0.1670	0.1587
SS069	10/23/2017	1.4634	0.1152	0.5760	0.5760	0.1728	0.8640	0.3992	0.3992
SS069	6/21/2017	1.3219	0.1728	0.8640	0.8640			0.3370	0.3629
SS070	10/17/2016	0.5943	0.8613	0.4363				0.1434	0.1438
SS070	6/11/2018	0.5443	0.4320	0.2160	0.2160	0.8640	0.4320	0.7517	0.7776
SS070	10/9/2018	0.6354	0.4320	0.2160	0.2160	0.8640	0.4320	0.1163	0.1132
SS070	10/23/2017	0.6250	0.1800	0.5400	0.5400	0.1512	0.7560	0.1467	0.1431
SS070	6/21/2017	1.3867	0.3456	0.1728	0.1728			0.5132	0.5340
SS071	10/1/2018	56.9693	0.1886	0.9432	16.9587	0.3773	0.1886	0.6244	0.5659
SS071	10/1/2018	56.5920	0.1886	0.9432	17.2228	0.3773	0.1886	0.6263	0.5697
SS071	10/17/2016	56.9837	0.2184	0.2184				0.6652	0.6519
SS071	10/24/2017	61.3956	0.4971	0.1655	21.3269	0.7457	0.3728	0.8477	0.9445
SS071	6/18/2018	92.1872	0.3526	0.1526	24.7868	0.6151	0.3526	0.1473	0.1242
SS071	6/27/2017	189.8280	0.7380	0.7380	46.9441			0.2971	0.3169
SS072	6/27/2017	5.7348	0.1800	0.1800	0.1436			0.7398	0.8467
SS072	6/18/2018	17.8740	0.2592	0.1296	0.1296	0.5184	0.2592	0.2219	0.2866
SS072	10/1/2018	24.7666	0.2117	0.2117	1.6384	0.4234	0.4234	0.1168	0.1287
SS072	10/24/2017	24.5952	0.5400	0.5400	1.5422	0.7560	0.7560	0.1870	0.1880
SS072	10/17/2016	55.7628	0.1384	0.1633				0.5369	0.5556
SS073	6/27/2017	4.6973	0.1800	0.1800	0.5665			0.4274	0.4879
SS073	6/18/2018	5.5440	0.1800	0.5400	0.7139	0.2160	0.1800	0.4784	0.5152
SS073	10/1/2018	5.7456	0.5472	0.5472	0.6168	0.1944	0.1944	0.3557	0.4995
SS073	10/17/2016	8.6960	0.1728	0.3758				0.7983	0.7897
SS073	10/24/2017	11.5848	0.2592	0.2592	1.9129	0.3888	0.3888	0.1278	0.1278
SS074	10/1/2018	0.1674	0.7200	0.7200	0.7200	0.1440	0.1440	0.2794	0.2563
SS074	10/17/2016	2.8465	0.4363	0.4363				0.4435	0.4392
SS074	10/24/2017	2.9215	0.4680	0.4680	0.4680	0.6912	0.6912	0.5274	0.5274
SS074	6/27/2017	8.7840	0.1440	0.1440	0.1440			0.1526	0.1685
SS075	6/18/2018	51.4737	0.1357	0.5178	1.8747	0.2714	0.1357	0.4857	0.4516
SS075	10/1/2018	94.3488	0.9360	0.9360	2.3400	0.1872	0.1872	0.9922	0.9432
SS075	10/17/2016	11.8397	0.2596	0.2596				0.1189	0.1150
SS075	6/27/2017	15.6960	0.2880	0.2880	23.9940			0.1166	0.1284
SS075	10/24/2017	11.3400	0.2880	0.2880	27.7920	0.4320	0.4320	0.1354	0.1322

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		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS076	10/18/2016	0.7488	0.1440	0.7200				0.1440	0.1440
SS076	7/18/2017	0.5616	0.1440	0.7200	0.3834			0.1440	0.1440
SS076	10/10/2017	0.6336	0.1440	0.7200	0.3665	0.2160	0.1800	0.1440	0.1440
SS076	6/27/2018	0.6624	0.7200	0.3600	0.5818	0.1440	0.7200	0.7200	0.7200
SS076	9/26/2018	0.3528	0.7200	0.3600	0.3600	0.1440	0.7200	0.7200	0.9576
SS077	6/27/2018	0.1958	0.5760	0.2880	0.1843	0.1152	0.5760	0.5760	0.5760
SS077	10/18/2016	0.6487	0.2595	0.1297				0.2595	0.2595
SS077	9/26/2018	0.8813	0.1728	0.8640	0.7361	0.3456	0.1728	0.1728	0.1728
SS077	10/10/2017	0.2189	0.1944	0.5472	1.8878	0.1642	0.8280	0.1944	0.1944
SS077	7/18/2017	2.8618	0.1145	0.5724	12.8274			0.1145	0.1145
SS078	10/10/2017	0.4182	0.6336	0.3168	1.6380	0.9540	0.4752	0.6336	0.6336
SS078	9/26/2018	0.6228	0.4320	0.2160	2.2464	0.8640	0.4320	0.4320	0.4320
SS078	10/18/2016	1.6595	0.1935	0.9517				0.1935	0.1935
SS078	6/27/2018	0.5288	0.9792	0.4896	4.2693	0.1958	0.9792	0.1165	0.9792
SS078	7/18/2017	1.7280	0.4320	0.2160	8.2944			0.4320	0.4320
SS079	9/26/2018	0.4716	0.7200	0.3600	0.1368	0.1440	0.7200	0.7200	0.1195
SS079	10/18/2016	0.7837	0.2835	0.1417				0.2835	0.2835
SS079	6/27/2018	0.5414	0.1440	0.7200	0.2592	0.2880	0.1440	0.1440	0.1440
SS079	10/10/2017	0.4674	0.1728	0.8640	0.1564	0.2592	0.1296	0.1728	0.1858
SS079	7/18/2017	1.4371	0.3456	0.1728	4.1818			0.3456	0.3456
SS080	10/18/2016	0.1836	0.1440	0.7200				0.1440	0.1440
SS080	6/27/2018	0.2736	0.7200	0.3600	0.1526	0.1440	0.7200	0.7200	0.7200
SS080	9/26/2018	0.3514	0.7200	0.3600	0.1656	0.1440	0.7200	0.7200	0.7200
SS080	10/10/2017	0.3960	0.2880	0.1440	0.1430	0.4320	0.2160	0.2880	0.2880
SS082	6/28/2018	0.3816	0.5760	0.2880	0.2880	0.1152	0.5760	0.5760	0.5760
SS082	10/20/2016	0.6243	0.1733	0.8668				0.1733	0.1733
SS083	10/20/2016	0.4415	0.1417	0.7863				0.4599	0.4493
SS083	6/12/2018	7.1424	0.2880	0.1440	0.1440	0.5760	0.2880	0.5962	0.5933
SS083	7/20/2017	16.8739	0.1786	0.6776	0.8928			0.1358	0.1295
SS084	10/20/2016	1.8172	0.5779	0.2889				0.1875	0.1856
SS084	6/12/2018	1.1448	0.4320	0.2160	0.2160	0.8640	0.4320	0.9374	0.9468
SS084	7/20/2017	74.8149	0.1635	0.8176	8.1765			0.3679	0.3491
SS085	10/20/2016	0.7272	0.7200	0.7200				0.2477	0.2333
SS085	10/2/2018	0.8640	0.3600	0.3600	0.3600	0.7200	0.7200	0.2758	0.2549

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	SO4 T Load	TI D Load	TI T Load	Total Alkalinity Load	V D Load	V T Load	Zn D Load	Zn T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS085	6/28/2018	3.3480	0.2160	0.2160	0.2160	0.4320	0.4320	0.1800	0.1800
SS085	7/20/2017	6.3972	0.1800	0.1800	0.1800			0.2258	0.2248
SS086	10/20/2016	0.3496	0.1199	0.5997				0.1135	0.9834
SS086	10/11/2017	0.4183	0.7200	0.7200	0.7200	0.1800	0.1800	0.1145	0.1282
SS086	6/14/2018	1.2672	0.1440	0.7200	0.7200	0.2880	0.1440	0.2592	0.2534
SS086	10/9/2018	1.4447	0.1152	0.1152	0.1152	0.2340	0.2340	0.3825	0.3816
SS086	6/22/2017	2.2428	0.4320	0.4320	0.4320			0.5148	0.5530
SS087	10/25/2016	9.7322	0.5189	0.2595				0.8433	0.8485
SS087	10/18/2017	9.5940	0.8640	0.4320	0.4320	0.1296	0.6480	0.1238	0.9763
SS087	6/26/2018	6.8112	0.7200	0.3600	0.3600	0.1440	0.7200	0.4673	0.4874
SS087	10/3/2018	8.3340	0.8640	0.4320	0.4320	0.1728	0.8640	0.6480	0.5772
SS087	10/3/2018	8.3340	0.8640	0.4320	0.4320	0.1728	0.8640	0.6372	0.5668
SS087	6/27/2017	47.1416	0.9714	0.4857	4.8568			0.4883	0.5245
SS088	6/26/2018	0.1339	0.1440	0.7200	0.7200	0.2880	0.1440	0.1440	0.1440
SS088	10/3/2018		0.2160	0.1800		0.4320	0.2160	0.2232	0.2448
SS088	10/18/2017	0.3663	0.6912	0.3456	0.3456	0.1368	0.5184	0.6912	0.6912
SS088	10/25/2016	0.4677	0.8613	0.6373				0.8613	0.8613
SS088	6/27/2017	0.4450	0.8640	0.4320	0.4320			0.8640	0.8640
SS089	6/28/2018	0.2232	0.1440	0.7200	0.3571	0.2880	0.1440	0.1440	0.1440
SS089	10/3/2018	0.9432	0.7200	0.3600	0.9648	0.1440	0.7200	0.7200	0.7200
SS089	10/25/2016	0.3384	0.3489	0.2826				0.3489	0.3489
SS089	10/12/2017	0.2834	0.5760	0.2880	0.3254	0.8640	0.4320	0.5760	0.5760
SS089	6/29/2017	0.1366	0.2556	0.1253	0.1498			0.2556	0.2556
SS090	6/28/2018	0.1328	0.3600	0.1800	0.2275	0.7200	0.3600	0.3600	0.3600
SS090	10/3/2018	0.1123	0.8640	0.4320	0.6359	0.1728	0.8640	0.8640	0.8640
SS090	10/25/2016	0.3374	0.2835	0.1417				0.2835	0.2835
SS090	6/29/2017	0.2117	0.4320	0.2160	0.2160			0.4320	0.4320
SS091	6/29/2017	0.1771	0.2880	0.1440	0.1440			0.2880	0.2880
SS091	10/12/2017	0.2938	0.2880	0.1440	0.1440	0.4320	0.2160	0.2722	0.3240
SS091	10/25/2016	0.1137	0.1440	0.7195				0.8562	0.7627
SS091	6/26/2018	0.2835	0.7560	0.3780	0.3780	0.1512	0.7560	0.4144	0.3364
SS092	6/26/2018	0.9936	0.2880	0.1440	0.1512	0.5760	0.2880	0.2880	0.2880
SS092	11/8/2016	0.5888	0.4368	0.2184				0.4368	0.4368
SS092	10/18/2017	0.7848	0.5760	0.2880	0.1581	0.8640	0.4320	0.5760	0.5760

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	SO4 T Load	TI D Load	TI T Load	Total Alkalinity Load	V D Load	V T Load	Zn D Load	Zn T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS092	7/21/2017	0.1244	0.1152	0.5760	0.5299			0.1152	0.1152
SS093	10/3/2018	0.3960	0.3600	0.1800	0.1800	0.7200	0.3600	0.1346	0.1343
SS093	11/8/2016	0.1545	0.5669	0.1417				0.8319	0.8784
SS093	7/21/2017	0.5962	0.5760	0.2880	0.1780			0.5760	0.5760
SS093	6/26/2018	0.7180	0.2592	0.1296	0.1296	0.5184	0.2592	0.4954	0.4847
SS094	7/21/2017	0.2639	0.8640	0.4320	0.4320			0.1227	0.1391
SS094	11/8/2016	1.1494	0.2835	0.1417				0.4793	0.4833
SS094	10/3/2018	1.7352	0.1296	0.1296	0.3845	0.2592	0.2592	0.1158	0.1717
SS094	6/26/2018	3.6634	0.8640	0.4320	0.4320	0.1728	0.8640	0.1676	0.1780
SS095	6/26/2018	0.1246	0.7200	0.3600	0.4356	0.1440	0.7200	0.7200	0.1134
SS095	10/3/2018	0.1879	0.3600	0.3600	0.5558	0.7200	0.7200	0.7200	0.7200
SS095	11/8/2016	1.4678	0.1440	0.7195				0.1440	0.1440
SS095	10/18/2017	1.9944	0.1728	0.8640	0.6877	0.2592	0.1296	0.1728	0.1763
SS095	6/27/2017	0.9353	0.2736	0.1368	0.4272			0.2736	0.2736
SS096	6/28/2018	0.7517	0.2880	0.1440	0.1440	0.5760	0.2880	0.2340	0.1884
SS096	11/8/2016	0.6449	0.7863	0.7863				0.7863	0.2190
SS096	10/18/2017	0.3488	0.2160	0.1800	0.1800	0.3240	0.1620	0.1656	0.9569
SS096	6/26/2017	0.5639	0.9234	0.4512	0.4512			0.8843	0.1241
SS097	11/8/2016	0.1633	0.7631	0.3816				0.3396	0.3488
SS097	6/26/2017	0.1800	0.1440	0.7200	0.1368			0.4270	0.5688
SS098	11/8/2016	0.1698	0.3816	0.3816				0.6181	0.6143
SS098	6/26/2017	0.1538	0.1152	0.5760	0.5760			0.4717	0.5458
SS098	10/3/2018	0.2252	0.5760	0.2880	0.2880	0.1152	0.5760	0.9216	0.8179
SS098	10/18/2017	2.6784	0.1152	0.5760	0.5760	0.1728	0.8640	0.8496	0.7891
SS105	9/25/2018	31.9524	0.3542	0.3542	2.8293	0.7848	0.7848	0.5987	0.5668
SS105	6/14/2018	35.4775	0.8286	0.4143	2.1219	0.1657	0.8286	0.9115	0.9115
SS105	10/11/2017	56.9718	0.1335	0.1335	3.9931	0.2324	0.2324	0.1513	0.9994
SS105	9/20/2016	74.3400			5.9443			0.1672	0.1694
SS105	6/22/2017	127.7611	0.8842	0.3669	2.2856			0.6233	0.6883
SS123	6/28/2018	0.9763	0.4320	0.2160	0.2160	0.8640	0.4320	0.1348	0.1296
SS123	6/27/2017	4.8474	0.1368	0.5184	0.5184			0.5340	0.6428
SS125	10/18/2017	2.7360	0.1440	0.1440	0.1440	0.2160	0.2160	0.3931	0.3834
SS125	9/29/2016	1.8576			0.8280			0.3283	0.4140
SS126	10/3/2018	1.2398	0.2160	0.2316	0.2160	0.4320	0.4320	0.4666	0.4268

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

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Site ID	Date	SO4 T Load	TI D Load	TI T Load	Total Alkalinity Load	V D Load	V T Load	Zn D Load	Zn T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS126	10/18/2017	2.7648	0.1152	0.1575	0.1152	0.1728	0.1728	0.1852	0.1287
SS126	6/28/2018	5.2877	0.8640	0.8640	0.8640	0.1728	0.1728	0.2385	0.2212
SS126	9/29/2016	5.9148			0.9540			0.1698	0.1736
SS126	6/27/2017	1.1612	0.1814	0.9720	0.9720			0.4733	0.5579
SS200	10/23/2017	15.7680	0.2160	0.2160	0.6523	0.3240	0.3240	0.5962	0.5962
SS200	10/8/2018	2.3994	0.1296	0.1296	0.8580	0.2592	0.2592	0.7154	0.7524
SS200	10/8/2018	2.2435	0.1296	0.1296	0.8554	0.2592	0.2592	0.7128	0.7762
SS200	6/11/2018	23.3280	0.1440	0.1440	0.8669	0.2880	0.2880	0.7142	0.6970
SS200	6/23/2017	21.4963	0.6912	0.3456	0.8882			0.7848	0.9366
SS201	10/4/2018	12.6648	0.4320	0.4320	0.4320	0.8640	0.8640	0.1613	0.1580
SS201	6/19/2018	21.8880	0.7200	0.7200	0.7200	0.1440	0.1440	0.2275	0.2362
SS201	10/3/2017	32.7168	0.4680	0.4680	0.2340	0.6912	0.6912	0.4216	0.3917
SS201	6/23/2017	13.1328	0.2340	0.1152	0.1152			0.1475	0.1797
SS202	10/2/2018	0.1289	0.7200	0.3600	0.3600	0.1440	0.7200	0.7740	0.6768
SS202	6/26/2017	5.3748	0.3456	0.1728	0.1728			0.1886	0.1293
SS203	6/27/2017	0.1678	0.7200	0.3600	0.3600			0.1177	0.1321
SS204	6/27/2017	2.9880	0.1728	0.1728	0.1728			0.1832	0.2290
SS204	10/18/2017	0.5832	0.3744	0.1872	0.1872	0.5616	0.2880	0.6533	0.6290
SS205	6/29/2017	0.1512	0.8640	0.4320	0.4320			0.8640	0.8640
SS206	10/12/2017	0.1698	0.8640	0.4320	0.4320	0.1296	0.6480	0.5227	0.5976
SS206	6/29/2017	0.5599	0.5184	0.2592	0.2592			0.1977	0.1820
SS207	6/29/2017	0.2394	0.2880	0.1440	0.1440			0.2880	0.2146
SS208	6/29/2017	0.3114	0.2880	0.1228	0.1440			0.2275	0.3816
SS208	6/28/2018	0.6264	0.2160	0.1800	0.1800	0.4320	0.2160	0.5983	0.7625
SS208	10/3/2018	0.1460	0.2520	0.1260	0.1260	0.5400	0.2520	0.8298	0.7938
SS208	10/12/2017	0.2628	0.1440	0.7200	0.7200	0.2160	0.1800	0.1433	0.1382
SS210	9/24/2018	4.9176	0.3600	0.3600	0.3600	0.7200	0.7200	0.4925	0.4500
SS210	10/16/2017	7.2720	0.2340	0.1152	0.1152	0.3456	0.1728	0.6981	0.6693
SS210	6/13/2018	4.1587	0.1296	0.6480	0.6480	0.2419	0.1296	0.3338	0.3375
SS210	7/10/2017	112.3482	0.5961	0.2554	2.9858			1.1175	1.1858
SS211	7/10/2017	0.4464	0.8640	0.4320	0.4320			0.1966	0.1974
SS212	7/11/2017	4.8626	0.2419	0.1296	1.2960			0.1246	0.1246
SS213	7/12/2017	0.5547	0.5184	0.2592	0.2592			0.4847	0.4821
SS214	7/11/2017	19.3536	0.1382	0.6912	0.6463			0.9331	0.9547

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Site ID	Date	SO4 T Load	TI D Load	TI T Load	Total Alkalinity Load	V D Load	V T Load	Zn D Load	Zn T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS215	10/2/2017	0.1858	0.2880	0.1440	0.1440	0.4320	0.2160	0.2693	0.2448
SS215	7/17/2017	5.5765	0.5189	0.2595	2.5947			0.4151	0.3841
SS215	6/6/2018	11.1672	0.4555	0.2278	2.2777	0.9118	0.4555	0.6469	0.6924
SS216	6/5/2018	0.4493	0.1152	0.5760	0.8518	0.2340	0.1152	0.4124	0.4850
SS216	7/17/2017	0.6480	0.2880	0.1440	0.1267			0.5148	0.4795
SS217	9/26/2018	0.4925	0.5760	0.2880	0.1866	0.1152	0.5760	0.1534	0.2218
SS217	6/27/2018	0.2178	0.3240	0.1620	0.4464	0.6480	0.3240	0.3240	0.3467
SS217	7/18/2017	0.5760	0.2880	0.1440	2.1888			0.2880	0.2880
SS218	9/26/2018	1.3262	0.4320	0.2160	0.2160	0.8640	0.4320	0.1853	0.1724
SS218	7/18/2017	2.1312	0.1440	0.7200	0.7200			0.3118	0.3125
SS218	6/27/2018	14.1984	0.8352	0.4176	0.4677	0.1674	0.8352	0.1524	0.1775
SS219	10/1/2018	0.4666	0.4320	0.2160	0.2160	0.8640	0.4320	0.2462	0.2138
SS219	10/19/2017	0.6894	0.1440	0.7200	0.7200	0.2160	0.1800	0.3492	0.3283
SS219	6/28/2018	1.5624	0.1728	0.8640	0.8640	0.3456	0.1728	0.3877	0.3542
SS219	7/24/2017	6.6960	0.1728	0.8640	0.8640			0.3326	0.3845
SS220	6/28/2018	1.3680	0.8640	0.4320	0.4320	0.1728	0.8640	0.8346	0.7932
SS220	10/1/2018	15.2237	0.1728	0.8640	0.8640	0.3456	0.1728	0.1237	0.1145
SS220	7/24/2017	84.2178	0.1635	0.8176	0.8176			0.6533	0.6729
SS221	6/28/2018	3.1968	0.1440	0.1440	0.1440	0.2880	0.2880	0.2880	0.2765
SS221	7/24/2017	1.3680	0.1440	0.1440	0.1440			0.9418	0.9360
SS222	6/28/2018	11.8368	0.7200	0.7200	0.7200	0.1440	0.1440	0.1526	0.1498
SS222	7/24/2017	167.4000	0.1440	0.1440	1.4400			2.7720	2.6784
SS223	10/1/2018	0.3456	0.4320	0.2160	0.4536	0.8640	0.4320	0.2182	0.7819
SS223	6/28/2018	0.4176	0.7200	0.3600	0.7150	0.1440	0.7200	0.7178	0.8640
SS223	10/19/2017	0.7632	0.2340	0.1152	0.1452	0.3456	0.1728	0.4285	0.4332
SS223	7/24/2017	0.1970	0.6912	0.3456	0.3496			0.2287	0.2177
SS224	7/24/2017	12.6144	0.3456	0.3456	0.3456			0.3456	0.3476
SS225	6/28/2018	2.2248	0.8640	0.4320	0.4320	0.1728	0.8640	0.8165	0.7769
SS225	7/24/2017	9.8928	0.8640	0.2959	0.4320			0.2881	0.2773
SS226	6/28/2018	0.3997	0.1152	0.5760	0.5760	0.2340	0.1152	0.5724	0.5219
SS226	7/24/2017	1.1246	0.1584	0.5623	0.7920			0.1346	0.1300
SS227	10/3/2017	1.6380	0.1800	0.1800	0.1798	0.2700	0.2700	0.1350	0.1260
SS228	10/3/2017	2.4365	0.2880	0.2880	0.2880	0.4320	0.4320	0.2311	0.2197
SS228	7/19/2018								

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Site ID	Date	SO4 T Load	TI D Load	TI T Load	Total Alkalinity Load	V D Load	V T Load	Zn D Load	Zn T Load
		kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day	kg/day
SS228	10/9/2018	6.1128	0.3600	0.3600	0.3600	0.7200	0.7200	0.6667	0.6394
SS229	10/4/2017	0.5747	0.1872	0.1872	0.9959	0.2880	0.2880	0.7675	0.7456
SS229	6/27/2018	1.1448	0.4320	0.2160	0.2169	0.8640	0.4320	0.2346	0.2192
SS230	7/19/2018	0.2232	0.7200	0.3600	0.3600	0.1440	0.7200	0.7171	0.7416
SS230	10/5/2017	0.8640	0.9216	0.4680	0.4680	0.1382	0.6912	0.3428	0.3184
SS231	9/26/2018	0.6866	0.1152	0.5760	0.8824	0.2340	0.1152	0.1152	0.1152
SS231	10/10/2017	0.4882	0.2880	0.1440	0.9346	0.4320	0.2160	0.2880	0.2880
SS231	6/27/2018	0.3370	0.1728	0.8640	0.9432	0.3456	0.1728	0.1728	0.1728
SS232	10/16/2017								
SS235	10/1/2018								
SS235	10/1/2018								
SS235	10/19/2017	16.2432	0.1417	0.8640	0.8640	0.2592	0.1296	0.4113	0.3853
SS236	10/23/2017	3.3480	0.1440	0.7200	0.7200	0.2160	0.1800	0.5832	0.5616
SS236	10/8/2018	11.2493	0.1296	0.1296	0.1296	0.2592	0.2592	0.1792	0.1724
SS236	7/19/2018								
SS237	10/24/2017	163.3924	0.3276	0.1635	44.3166	0.4959	0.2453	0.2830	0.2918
SS238	10/24/2017	0.8496	0.2880	0.1440	0.1440	0.4320	0.2160	0.1584	0.1512
SS238	6/18/2018	3.1176	0.4320	0.2160	0.2160	0.8640	0.4320	0.5148	0.4882
SS250	10/9/2018	33.9696	0.2520	0.2520	2.6611	0.5400	0.5400	0.7560	0.7668
SS250	10/9/2018	34.7400	0.2520	0.2520	2.6496	0.5400	0.5400	0.7560	0.7358
SS250	6/14/2018	4.9915	0.2725	0.2725	2.6165	0.5460	0.5460	0.2737	0.6652
SS250	6/19/2018	6.9148	0.4882	0.4882	3.7775	0.8176	0.8176	0.4471	0.4637
SS250	11/7/2017	17.7981	0.5460	0.2725	1.3355	0.8176	0.4882	0.7795	0.5149
SS300	10/9/2018	0.4140	0.1800	0.9000	0.9000	0.3600	0.1800	0.1224	0.1154
SS300	6/19/2018	0.4795	0.2160	0.1800	0.1800	0.4320	0.2160	0.1158	0.1134
SS301	10/4/2018	23.9184	0.7920	0.7920	0.7920	0.1584	0.1584	0.2424	0.2218
SS301	6/19/2018	24.7968	0.1800	0.1800	0.1800	0.2160	0.2160	0.2318	0.2258
SS304	6/28/2018	0.2432	0.4320	0.2160	0.2160	0.8640	0.4320	0.5544	0.4536
SS304	7/24/2017	13.5513	0.5460	0.2725	2.7255			0.2586	0.2522
SS305	10/10/2017	2.5756	0.1980	0.9540	4.6855	0.2851	0.1426	0.1980	0.1980
SS305	8/23/2018								

Appendix 3 - Analytical Results (Metal Concentrations and Calculated Loadings)

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Date	SO4 T Load kg/day	TI D Load kg/day	TI T Load kg/day	Total Alkalinity Load kg/day	V D Load kg/day	V T Load kg/day	Zn D Load kg/day	Zn T Load kg/day
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**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Site Type	Area	SubBasin	pH	Temp Avg	Conductivity (µS/cm)	Flow	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T
				average of H+	avg C	avg µS/cm	avg lpm	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L
A23A	DM	Upper Animas	UPG	5.50	4.40	262	2.27	1048.00	3305.00	0.50	2.50	0.50	4.60	15.43	35.83
A38	DM	Eureka Gulch	EG	6.78	6.27	944	17.14	30.00	40.73	1.50	2.50	1.67	5.00	17.55	25.00
CC01A	DM	Cement Creek	UCC	6.64	2.33	467	46.82	82.80	763.25	0.70	3.33	1.25	6.25	8.66	33.33
CC01B	DM	Cement Creek	CCANF	3.85	5.44	1252	161.42	3030.00	2990.00	2.50	2.50	2.52	3.77	25.00	25.00
CC01C	DM	Cement Creek	CCANF	3.29	3.87	636	25.31	5890.00	6102.00	0.67	3.33	3.45	6.21	15.73	33.33
CC03D	DM	Cement Creek	CCANF	5.97	6.60	1992	1067.15	3326.67	3380.00	3.75	3.13	4.32	3.80	37.50	25.00
CC06	DM	Cement Creek	NFC	3.22	7.85	2132	2119.46	31360.00	32400.00	3.60	2.96	40.32	62.66	33.33	25.00
CC14	DM	Cement Creek	SFC	6.24	6.16	1379	2410.40	1173.40	1619.40	3.75	2.50	3.24	6.10	37.50	25.00
CC16C	DM	Cement Creek	SFC	4.54	6.58	889	40.61	7224.00	7606.00	1.33	3.33	8.62	10.56	13.33	33.33
CC19	DM	Cement Creek	CCGS	3.83	7.63	2290	409.13	3994.00	4090.00	3.50	2.50	3.50	2.50	33.33	25.00
CC50	DM	Cement Creek	MFC	7.15	7.86	2501	1286.16	73.50	98.03	3.33	2.50	2.20	5.08	33.33	25.00
DM01	DM	Cement Creek	CCANF	4.16	4.35	377	26.00	991.00	995.00			2.00	10.00		
DM24	DM	Lower Eureka	LEG	6.89	12.50	980	139.00	52.85	136.00	2.50	2.50	1.74	3.18	25.00	25.00
DM32	DM	Eureka Gulch	EG	3.44	3.38	421	13.41	2700.00	2732.50	0.67	3.33	1.25	6.25	14.43	33.33
DM4	DM	Lower Eureka Gulch	LEG	7.60	9.00	934	7.56	20.00	20.00	0.50	2.50	0.50	2.50	6.86	25.00
SS001	SS	Eureka Gulch	UEG	4.47	6.52	336	62.03	242.20	377.60	0.77	3.75	1.40	7.00	29.03	28.77
SS002	SS	Eureka Gulch	UEG	6.78	6.13	272	7.93	42.50	30.18	0.85	4.17	1.63	8.13	9.91	37.50
SS003	SS	Eureka Gulch	UEG	7.12	4.90	334	3.38	30.70	34.23	2.10	4.18	1.63	8.13	7.15	37.50
SS004	SS	Eureka Gulch	UEG	6.19	4.72	237	8.36	42.54	73.38	0.75	3.75	1.40	7.00	32.43	31.63
SS005	SS	Eureka Gulch	UEG	6.69	7.60	355	0.64	339.00	377.00	1.00	5.00	2.00	10.00		
SS006	SS	Eureka Gulch	SFEG	6.21	4.84	146	26.49	38.00	70.62	0.75	3.75	1.40	7.00	15.70	30.97
SS007	SS	Eureka Gulch	SFEG	6.26	8.40	163	81.06	38.00	80.16	0.75	3.75	1.40	7.00	28.43	37.17
SS008	SS	Cement Creek	UCC	6.37	3.23	286	218.46	35.00	126.85	0.77	3.75	1.25	6.25	13.53	33.33
SS009	SS	Cement Creek	UCC	6.32	14.13	181	12.60	34.90	51.20	0.75	3.75	1.50	7.50	11.00	25.00
SS010	SS	Cement Creek	UCC	5.75	3.74	496	10.90	102.42	181.18	0.82	3.75	1.40	7.00	25.20	31.17
SS011	SS	Cement Creek	UCC	4.57	7.20	851	1.56	5630.20	6002.80	0.75	3.75	1.40	7.00	24.27	33.87
SS012	SS	Cement Creek	UCC	4.88	2.53	426	37.25	1327.50	1396.40	0.83	4.17	1.63	6.32	18.50	37.50
SS013	SS	Cement Creek	VB	6.43	5.52	255	1401.58	23.94	69.00	0.75	3.75	1.40	7.00	21.47	34.10
SS014	SS	Cement Creek	VB	6.85	3.16	203	89.62	38.00	32.00	0.75	3.75	1.40	7.00	10.68	33.33
SS015	SS	Cement Creek	VB	6.88	4.28	258	315.59	27.48	144.44	0.75	3.75	1.40	7.00	12.17	33.33
SS016	SS	Cement Creek	SFC	4.57	6.92	462	4.78	1203.00	1261.20	0.75	3.75	1.40	7.00	6.67	33.33

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Site Type	Area	SubBasin	pH	Temp Avg	Conductivity (µS/cm)	Flow	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T
				average of H+	avg C	avg µS/cm	avg lpm	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L
SS017	SS	Cement Creek	SFC	4.45	5.03	352	3.04	1826.00	1796.00	0.75	3.75	1.40	7.00	6.67	33.33
SS018	SS	Cement Creek	SFC	3.79	5.12	523	42.41	4992.00	4868.00	0.75	3.75	1.40	7.00	7.41	33.33
SS019	SS	Cement Creek	SFC	6.34	4.26	202	9.26	38.00	38.00	0.75	3.75	1.40	7.00	19.97	33.70
SS020	SS	Cement Creek	CCANF	4.99	10.62	252	40.56	651.20	689.80	0.75	3.75	1.40	7.00	17.80	33.33
SS021	SS	Cement Creek	RB	5.39	9.50	102	57.81	136.17	142.67	0.75	3.75	1.50	7.50	12.30	25.00
SS022	SS	Cement Creek	RB	6.01	5.00	129	19.28	100.78	117.23	0.85	4.17	1.63	8.13	14.75	37.50
SS023	SS	Cement Creek	RB	6.01	8.72	243	29.51	129.72	180.22	0.75	3.75	1.40	7.00	31.77	39.23
SS024	SS	Cement Creek	RB	6.92	1.36	430	129.12	27.38	30.62	0.75	3.75	1.40	7.00	37.27	42.27
SS025	SS	Cement Creek	RB	6.26	3.77	190	5.90	40.00	148.00	0.75	3.75	1.50	7.50	12.80	25.00
SS026	SS	Cement Creek	RB	4.96	3.93	279	18.78	1330.75	1203.00	0.83	4.17	1.63	8.13	13.25	37.50
SS027	SS	Cement Creek	UCC	4.67	2.70	544	69.20	5846.00	5768.00	1.35	3.75	1.80	7.00	18.63	33.33
SS028	SS	Cement Creek	UCC	7.35	5.03	100	0.98	40.80	52.73	1.00	5.00	2.00	10.00	5.11	50.00
SS029	SS	Cement Creek	UCC	6.02	3.84	350	297.05	368.40	370.00	0.76	3.75	1.40	7.00	35.47	37.97
SS030	SS	Eureka Gulch	SFEG	6.36	8.92	148	0.50	39.78	42.00	0.75	3.75	1.40	7.00	7.51	33.33
SS031	SS	Eureka Gulch	SFEG	6.52	3.98	156	7.51	38.00	45.02	0.75	3.75	1.40	7.00	10.33	33.33
SS032	SS	Eureka Gulch	SFEG	6.63	1.24	304	19.94	42.50	73.65	0.83	4.17	1.63	8.13	49.05	44.85
SS033	SS	Eureka Gulch	SFEG	6.38	10.82	37	0.50	38.00	51.44	0.75	3.75	1.40	7.73	7.44	33.33
SS034	SS	Eureka Gulch	SFEG	5.48	10.60	84	0.50	345.00	377.50	0.83	4.17	1.63	8.13	18.00	37.50
SS035	SS	Eureka Gulch	SFEG	6.90	3.30	406	123.00	34.63	1556.67	0.76	3.75	1.50	7.50	26.80	28.00
SS036	SS	Eureka Gulch	SFEG	6.95	5.43	90	1.24	62.43	80.37	0.75	3.75	1.50	7.50	5.18	25.00
SS037	SS	Eureka Gulch	SEFG	4.86	2.98	656	14.00	5730.00	6195.00	2.17	4.17	3.63	8.13	32.65	37.50
SS038	SS	Eureka Gulch	EG	7.03	4.70	360	43.60	38.00	46.58	0.75	3.75	1.40	7.00	19.60	34.23
SS039	SS	Eureka Gulch	EG	5.15	5.18	148	20.27	861.75	987.25	0.83	4.17	1.63	8.13	16.60	37.50
SS040	SS	Eureka Gulch	EG	4.41	5.32	117	72.14	841.60	851.60	0.75	3.75	1.40	7.00	7.74	33.33
SS041	SS	Eureka Gulch	EG	6.62	5.02	209	55.57	98.78	155.14	0.87	3.75	1.40	7.00	14.76	33.33
SS042	SS	Eureka Gulch	EG	7.01	6.53	378	4.70	51.03	280.70	2.17	4.17	3.63	8.13	28.43	37.50
SS043	SS	Eureka Gulch	EG	7.32	9.46	857	15.98	48.58	82.14	2.34	3.75	4.79	7.00	32.13	25.97
SS044	SS	Cement Creek	CCANF	6.38	4.48	779	43.85	228.64	394.18	2.28	3.75	3.25	7.47	26.67	33.33
SS045	SS	Cement Creek	CCANF	4.87	4.64	231	10.64	1072.00	1065.40	0.75	3.75	1.40	7.00	6.67	33.33
SS046	SS	Cement Creek	CCANF	4.55	3.80	392	5.80	2192.00	2238.00	0.75	3.75	1.40	7.00	8.80	33.33
SS047	SS	Cement Creek	MH	6.70	2.54	293	341.24	38.00	38.00	0.75	3.75	1.40	7.00	23.87	34.53

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Site Type	Area	SubBasin	pH	Temp Avg	Conductivity (µS/cm)	Flow	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T
				average of H+	avg C	avg µS/cm	avg lpm	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L
SS048	SS	Cement Creek	MH	6.16	8.68	137	445.90	46.10	302.00	0.83	4.17	1.29	8.13	7.18	37.50
SS049	SS	Cement Creek	MFC	6.40	3.10	86	20.30	42.50	45.60	0.83	4.17	1.63	8.13	5.33	37.50
SS050	SS	Cement Creek	MFC	6.76	1.24	248	262.64	32.60	410.96	0.75	3.75	1.40	7.00	14.83	33.33
SS051	SS	Cement Creek	MFC	6.48	2.60	188	33.21	47.42	84.58	0.75	3.75	1.40	7.00	13.98	33.77
SS052	SS	Cement Creek	MFC	6.18	3.46	189	1.81	34.32	124.42	0.75	3.75	1.40	7.00	5.77	33.33
SS053	SS	Cement Creek	MFC	4.14	2.74	224	19.18	1068.20	1136.60	0.75	3.75	1.40	7.00	13.53	33.33
SS054	SS	Cement Creek	MFC	6.45	5.38	1220	55.02	49.60	352.02	2.25	3.75	3.40	7.00	23.10	29.73
SS055	SS	Cement Creek	SFC	4.40	8.32	409	6.09	3981.80	4369.40	0.75	3.75	1.26	7.00	9.43	33.33
SS056	SS	Cement Creek	CCANF	4.49	6.20	116	4.44	1056.67	1099.33	0.75	3.75	1.50	7.50	14.30	25.00
SS057	SS	Cement Creek	CCANF	6.11	5.80	1023	0.50	216.00	390.40	2.25	3.75	2.96	10.94	30.83	35.47
SS058	SS	Cement Creek	CCANF	5.80	6.55	126	0.50	87.40	100.03	0.83	4.17	1.63	8.13	7.50	37.50
SS059	SS	Cement Creek	CCANF	5.25	5.14	170	27.61	888.40	941.40	0.75	3.75	1.40	7.00	6.42	33.33
SS060	SS	Cement Creek	CCANF	4.82	4.86	54	13.09	561.80	616.60	0.75	3.75	1.40	7.00	5.16	33.33
SS061	SS	Cement Creek	CCANF	4.87	8.90	229	1.75	631.00	839.50	1.00	5.00	2.00	10.00		
SS062	SS	Cement Creek	CCANF	5.18	7.76	574	4.77	1022.96	1313.00	0.75	3.75	1.40	7.00	14.12	33.33
SS063	SS	Cement Creek	NFC	5.54	4.65	790	3.25	2496.25	3808.25	3.50	4.17	7.63	8.13	30.25	49.75
SS064	SS	Cement Creek	NFC	6.66	7.70	598	7.42	40.60	316.72	3.25	3.75	5.00	7.00	31.73	38.20
SS065	SS	Cement Creek	CCGS	3.95	7.18	1852	11.22	11476.00	11378.00	5.00	5.00	7.40	9.00	50.00	50.00
SS066	SS	Cement Creek	CCGS	3.41	6.27	2135	3.67	13933.33	14166.67	7.50	7.50	10.18	13.33	100.00	100.00
SS067	SS	Cement Creek	CCANF	3.78	4.56	1248	0.90	17520.00	17840.00	5.04	3.75	8.01	7.00	33.33	33.33
SS068	SS	Cement Creek	CCANF	3.71	4.86	757	6.10	4010.00	4150.00	2.25	3.75	3.40	7.00	19.53	33.33
SS069	SS	Cement Creek	CCANF	4.14	7.68	438	2.65	4270.00	4354.00	0.75	3.75	1.40	7.00	9.65	33.33
SS070	SS	Cement Creek	CCANF	4.14	8.58	267	4.90	2074.00	2162.00	0.75	3.75	1.40	7.00	13.33	33.33
SS071	DM	SF Animas	SFA	7.26	6.52	627	234.80	75.12	142.46	1.80	3.75	4.45	7.00	7.68	33.33
SS072	SS	SF Animas	SFA	4.83	12.02	967	32.40	894.70	1637.40	3.29	3.75	6.60	7.00	26.72	33.33
SS073	DM	SF Animas	SFA	6.86	10.08	907	10.42	224.40	436.80	3.28	3.75	6.66	7.32	28.37	33.33
SS074	SS	SF Animas	SFA	2.88	8.20	1290	4.07	12347.50	12272.50	4.17	4.17	18.73	16.57	37.50	37.50
SS075	DM	SF Animas	SFA	6.63	6.54	870	156.44	67.58	77.20	3.26	3.75	6.69	7.00	29.93	33.33
SS076	SS	Eureka Gulch	MC	5.96	10.76	78	0.50	23.70	264.74	0.80	3.75	1.40	7.00	15.47	41.40
SS077	SS	Eureka Gulch	MC	7.14	6.80	150	92.10	38.00	124.46	0.76	3.75	1.40	7.00	27.23	31.20
SS078	SS	Eureka Gulch	MC	7.07	3.32	122	67.22	38.00	123.96	0.76	3.75	1.40	7.00	29.83	33.23

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				average of H+	avg C	avg µS/cm	avg lpm	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L
SS079	SS	Eureka Gulch	MC	6.62	4.04	213	25.70	38.00	195.62	0.77	3.75	1.40	7.00	13.20	33.90
SS080	SS	Eureka Gulch	MC	6.38	12.38	120	0.63	35.00	51.50	0.77	3.75	1.56	6.25	9.91	33.33
SS082	SS	Cement Creek	MH	5.55	4.40	25	5.01	35.00	262.00	0.83	3.75	1.25	6.25	5.00	25.00
SS083	SS	Cement Creek	NFC	2.78	6.50	908	27.50	9613.33	9460.00	0.75	3.75	1.42	5.83	5.00	25.00
SS084	SS	Cement Creek	NFC	2.92	8.20	867	190.94	8520.00	8573.33	0.75	3.75	1.35	7.50	5.00	25.00
SS085	SS	Cement Creek	NFC	5.60	2.60	1287	2.75	431.00	537.00	3.33	3.33	6.25	6.25	25.00	25.00
SS086	SS	Cement Creek	CCGS	3.58	5.58	1116	1.30	8354.00	8592.00	2.33	3.75	5.00	7.00	26.67	33.33
SS087	SS	Prospect Gulch	PG	3.24	1.52	460	99.06	6940.00	6896.00	0.75	3.75	1.40	7.00	29.03	35.43
SS088	SS	Prospect Gulch	PG	4.42	7.36	84	7.58	427.54	459.20	0.79	3.75	1.92	7.00	106.57	106.13
SS089	SS	Prospect Gulch	PG	6.91	11.78	249	2.50	39.44	77.48	0.75	3.75	1.11	7.00	33.33	44.43
SS090	SS	Prospect Gulch	PG	6.37	10.28	147	0.83	35.53	58.50	0.67	3.33	1.25	6.25	105.00	104.40
SS091	SS	Prospect Gulch	PG	3.84	11.13	134	3.06	428.75	477.75	0.83	4.17	1.90	8.13	36.65	38.80
SS092	SS	Prospect Gulch	PG	6.25	11.53	108	1.93	36.03	55.98	0.84	4.17	1.63	8.13	33.25	32.25
SS093	SS	Prospect Gulch	PG	4.63	8.73	166	5.31	2375.45	2722.75	1.00	3.33	1.75	6.25	36.35	38.75
SS094	SS	Prospect Gulch	PG	4.68	5.12	705	2.27	5236.75	6922.50	1.39	3.40	40.28	37.66	26.35	28.75
SS095	DM	Prospect Gulch	PG	6.35	11.34	449	3.84	37.48	184.62	1.25	3.75	1.53	7.00	16.97	33.33
SS096	SS	Prospect Gulch	PG	4.40	7.45	208	1.14	1175.75	1236.75	2.17	4.17	3.22	7.68	130.85	117.70
SS097	SS	Prospect Gulch	PG	7.10	14.25	183	0.38	566.75	1662.00	1.00	5.00	2.00	10.00		
SS098	SS	Prospect Gulch	PG	2.92	9.28	933	1.27	23725.00	24650.00	2.17	4.17	3.37	8.13	15.15	37.50
SS105	DM	Cement Creek	CCANF	6.61	4.50	890	127.10	329.40	334.80	2.96	2.50	9.27	9.61	26.67	25.00
SS123	DM	Prospect Gulch	PG	2.69	4.50	818	19.50	2730.00	3095.00	0.50	2.50	2.47	3.20	12.00	25.00
SS125	DM	Prospect Gulch	PG	3.08	7.30	1733	1.07	15500.00	17550.00	5.00	5.00	12.50	15.65	50.00	50.00
SS126	DM	Prospect Gulch	PG	2.93	7.18	890	19.85	8060.80	7959.00	3.55	3.69	47.06	48.82	33.33	33.33
SS200	SS	Cement Creek	CCGS	6.43	6.45	1263	19.25	65.53	94.58	3.33	3.33	4.29	5.90	33.33	33.33
SS201	SS		CCGS	3.15	8.60	2274	9.90	25175.00	24750.00	5.00	5.00	6.75	8.75	50.00	50.00
SS202	SS	Cement Creek	MH	2.76	7.35	1341	6.25	8960.00	9365.00	0.50	2.50	1.83	2.61	8.46	25.00
SS203	SS	Prospect Gulch	PG	3.85	17.30	194	2.50	1960.00	2030.00			2.00	10.00		
SS204	SS	Prospect Gulch	PG	3.45	11.05	1406	1.25	14186.50	15529.00	1.00	5.00	581.00	570.00	67.30	43.90
SS205	SS	Prospect Gulch	PG	6.93	12.80	361	3.00	31.00	83.80			2.00	10.00		
SS206	SS	Prospect Gulch	PG	3.90	6.35	217	10.50	620.50	879.00	1.15	4.62	3.60	39.40	32.30	36.20
SS207	SS	Prospect Gulch	PG	3.81	8.10	186	1.00	211.00	466.00			2.00	10.00		

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Site Type	Area	SubBasin	pH	Temp Avg	Conductivity (μS/cm)	Flow	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T
				average of H+	avg C	avg μS/cm	avg lpm	avg μg/L	avg μg/L	avg μg/L	avg μg/L	avg μg/L	avg μg/L	avg μg/L	avg mg/L
SS208	SS	Prospect Gulch	PG	5.04	9.20	208	2.31	1054.50	1048.50	0.67	3.33	1.50	6.25	44.33	44.67
SS210	SS	Cement Creek	UCC	4.94	3.00	706	75.99	12052.50	12342.50	1.43	3.33	1.75	6.25	14.63	33.37
SS211	SS	Cement Creek	UCC	4.04	3.80	302	3.00	562.00	700.00			2.00	10.00		
SS212	DM	Eureka Gulch	EG	4.72	3.70	114	84.00	250.00	273.00			2.00	10.00		
SS213	SS	Eureka Gulch	EG	5.87	2.30	65	18.00	91.60	95.40			2.00	10.00		
SS214	SS	Eureka Gulch	UEG	6.14	1.90	598	48.00	1240.00	1590.00			2.00	10.00		
SS215	SS	Cement Creek	CCANF	5.82	3.80	138	165.84	176.67	207.33	0.75	3.75	1.50	7.50	11.18	37.50
SS216	SS	Cement Creek	CCANF	6.36	4.45	95	9.00	64.30	127.60	0.50	2.50	1.25	6.25	5.00	25.00
SS217	SS	Cement Creek	MC	7.25	4.43	117	42.17	44.20	150.63	0.50	2.50	1.00	5.00	19.91	30.00
SS218	SS	Eureka Gulch	MC	5.00	5.07	524	22.00	3981.00	4161.67	0.50	2.50	1.00	5.00	20.85	25.00
SS219	DM	WF Animas CG	UCG	4.32	2.38	250	20.00	2717.50	2805.00	0.67	3.33	0.75	6.15	15.17	33.33
SS220	SS	WF Animas CG	UCG	4.29	3.57	1401	24.93	73333.33	72700.00	0.50	2.50	0.98	5.00	5.45	25.00
SS221	SS	WF Animas CG	UCG	4.18	7.85	1376	6.00	56950.00	58650.00	6.34	2.50	6.25	6.25	25.00	25.00
SS222	SS	WF Animas CG	UCG	3.49	1.05	1529	55.00	57150.00	59550.00	2.50	2.50	6.25	6.25	25.00	25.00
SS223	SS	Placer Gulch	UPG	6.29	5.30	40	10.00	35.00	91.33	0.69	3.33	1.25	6.25	6.88	33.33
SS224	DM	Placer Gulch	UPG	3.13	1.30	832	24.00	5470.00	5500.00			10.00	10.00		
SS225	DM	Placer Gulch	UPG	3.58	1.05	578	18.00	1150.00	1685.00	0.50	2.50	1.25	22.65	5.47	25.00
SS226	SS	Placer Gulch	UPG	4.72	4.95	81	31.50	322.50	337.00	0.50	2.50	1.25	6.25	11.90	25.00
SS227	SS	Cement Creek	VB	6.73	8.00	1219	1.25	1250.00	1290.00	5.00	5.00	10.00	10.00	50.00	50.00
SS228	SS	Cement Creek	CCGS	4.16	10.53	1740	4.00	15650.00	15100.00	3.75	3.75	6.25	6.25	37.50	37.50
SS229	SS	Eureka Gulch	UEG	6.08	7.40	621	2.15	33.00	37.40	2.75	3.75	5.25	6.25	32.85	37.50
SS230	SS	Cement Creek	MH	3.03	13.05	958	1.85	14400.00	14700.00	0.97	3.75	1.25	6.25	32.20	34.75
SS231	SS	Eureka Gulch	EG	6.49	10.00	225	4.60	30.00	30.23	0.67	3.33	1.00	5.00	32.37	34.33
SS232	DM	Cement Creek	CCANF	6.55	3.50	480	0.00	1040.00	1120.00	1.00	5.00	1.13	10.00	13.40	50.00
SS235	DM	Placer Gulch	UPG	7.18	6.10	304	30.00	15800.00	16350.00	0.75	3.75	1.44	6.70	15.75	37.50
SS236	SS	Cement Creek	CCANF	3.79	7.37	811	22.81	11300.00	11050.00	1.75	3.75	2.25	6.25	16.32	37.50
SS238	DM	Eureka Gulch	SFA	3.37	14.35	1196	2.00	8075.00	8020.00	0.75	3.75	1.25	6.25	7.50	37.50
SS250	SS	Cement Creek	CCANF	6.78	8.30	1102	37.14	27.50	93.25	4.38	3.13	7.00	6.03	43.75	32.45
SS300	SS	Cement Creek	CCANF	4.66	3.80	87	8.13	711.50	894.50	0.50	2.50	0.50	2.50	5.68	25.00
SS301	SS	Cement Creek	CCGS	2.97	6.65	2000	12.50	18300.00	18650.00	2.50	2.50	2.50	2.50	25.00	25.00
SS304	SS	WF Animas CG	UCG	4.88	10.65	136	96.14	671.50	697.50	0.50	2.50	1.25	6.25	31.70	31.00

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Site Type	Area	SubBasin	pH	Temp Avg	Conductivity (μS/cm)	Flow	Al D	Al T	Sb D	Sb T	As D	As T	Ba D	Ba T
				average of H+	avg C	avg μS/cm	avg lpm	avg μg/L	avg μg/L	avg μg/L	avg μg/L	avg μg/L	avg μg/L	avg μg/L	avg mg/L
SS305	SS	Eureka Gulch	EG	6.67	6.00	160	66.00	35.00	50.25	0.75	3.75	1.25	6.25	15.25	37.50

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Site ID	Be D	Be T	Br T	Cd D	Cd T	Ca D	Ca T	Cl T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	F T	Hard D
	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg mg/L
A23A	2.00	2.18	0.50	11.13	11.18	28300.00	27525.00	1.00	1.00	5.00	1.40	1.93	118.30	178.50	0.25	83.00
A38	3.00	3.00	2.50	0.29	0.54	196333.33	199000.00	10.00	3.10	6.67	3.60	3.33	2.50	5.62	1.20	535.33
CC01A	3.50	3.50	0.75	11.31	10.88	73425.00	73250.00	2.25	1.50	7.50	1.19	1.21	94.78	198.50	1.20	205.25
CC01B	3.79	3.62	2.50	43.18	40.60	212250.00	213600.00	8.75	5.00	6.00	23.90	22.35	16.25	15.90	4.25	581.50
CC01C	3.50	3.50	0.80	46.10	49.76	15280.00	15300.00	6.00	2.83	7.66	7.40	7.85	1865.60	1919.80	1.08	61.20
CC03D	6.73	6.70	5.00	14.58	14.62	443166.67	449000.00	10.00	8.33	7.50	109.50	105.00	6.50	6.24	6.03	1211.67
CC06	7.65	7.73	3.75	81.16	76.12	354000.00	349000.00	9.00	8.84	6.66	67.27	67.10	6292.00	6228.00	9.02	981.20
CC14	3.50	2.03	2.50	3.01	3.06	182600.00	195800.00	12.50	4.04	6.98	19.75	19.05	17.26	30.27	3.30	494.75
CC16C	3.50	2.75	2.50	2.72	2.69	121400.00	123600.00	12.50	2.19	6.19	51.90	57.23	8.21	14.36	6.25	358.80
CC19	6.13	6.13	5.00	1.53	1.51	435200.00	439600.00	10.00	7.00	5.00	147.00	143.00	8.81	7.69	4.35	1210.00
CC50	3.20	3.20	2.50	1.30	1.44	288890.00	303396.67	12.00	4.72	6.80	3.68	3.81	5.26	14.00	1.84	913.40
DM01	5.00	5.00		6.81	6.56	34900.00	37600.00	2.00	2.00	10.00			14.00	14.40	1.20	96.00
DM24	2.00	2.00	2.50	0.31	0.31	256500.00	252500.00	5.00	2.99	2.99	12.70	21.60	3.31	3.25	3.00	690.50
DM32	3.50	3.50	1.00	39.28	36.30	42700.00	42300.00	2.50	1.50	7.50	4.22	3.97	2085.00	1942.50	0.80	138.25
DM4	2.00	2.00	2.50	0.10	0.50	216000.00	204000.00	5.00	1.08	5.00	1.00	1.02	1.66	2.50	1.70	570.00
SS001	3.80	3.80	0.50	0.86	0.77	11682.00	11566.00	1.36	1.60	8.00	0.28	0.68	9.90	11.14	0.20	35.00
SS002	4.25	4.25	0.50	0.27	0.88	41500.00	41275.00	1.45	1.55	8.75	0.15	0.75	1.15	4.38	0.18	120.25
SS003	4.25	4.25	0.50	3.39	3.32	53225.00	52475.00	1.45	1.50	8.75	0.18	0.75	31.68	35.63	0.23	154.00
SS004	3.80	3.80	0.50	2.06	2.20	40180.00	40400.00	1.36	1.44	8.00	0.14	0.67	2.86	5.02	0.26	112.40
SS005	5.00	5.00		7.66	8.72	42000.00	48300.00	0.80	2.00	10.00			8.71	10.70	1.00	122.00
SS006	3.80	3.80	0.50	0.16	0.80	21560.00	21180.00	1.36	1.60	8.00	0.13	0.67	0.80	4.00	0.16	58.60
SS007	3.80	3.80	0.50	0.16	0.80	20760.00	20560.00	1.36	1.60	8.00	0.15	0.67	1.11	4.00	0.14	56.60
SS008	3.50	3.50	0.50	0.13	0.75	41025.00	40450.00	1.10	1.50	7.50	0.12	0.69	0.83	3.75	0.28	120.25
SS009	4.00	4.00	0.50	0.23	0.83	24500.00	25100.00	1.27	1.67	8.33	0.11	0.50	1.84	4.21	0.23	71.00
SS010	3.80	3.80	0.75	0.44	0.99	58700.00	61320.00	1.56	1.60	8.00	0.31	0.98	1.22	3.96	0.28	174.60
SS011	3.24	3.20	1.75	3.24	3.25	113260.00	117340.00	6.44	1.60	8.00	8.04	8.58	21.82	23.62	1.10	349.20
SS012	4.25	4.25	0.50	2.07	2.36	76147.50	74270.00	6.15	1.75	8.75	5.65	6.35	13.80	16.80	0.70	231.25
SS013	3.80	3.80	0.50	0.36	0.73	35220.00	34700.00	1.36	1.60	8.00	0.39	0.81	2.09	6.02	0.22	95.60
SS014	3.80	3.80	0.50	0.16	0.80	37740.00	37180.00	1.36	1.60	8.04	0.13	0.67	0.71	5.14	0.34	101.60
SS015	3.80	3.80	0.50	0.16	0.84	35400.00	34580.00	1.36	1.60	8.07	0.43	0.94	1.03	4.42	0.18	100.20
SS016	3.80	3.80	0.75	0.33	0.80	47200.00	46920.00	1.54	1.60	8.06	3.21	3.54	4.92	5.84	0.80	136.20

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	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg mg/L
SS017	3.80	3.80	0.75	4.18	4.17	43820.00	43280.00	1.46	1.60	8.00	7.80	8.69	6.31	7.02	1.14	132.40
SS018	3.80	3.80	1.00	8.17	8.19	53840.00	53600.00	2.16	1.60	8.04	23.70	25.67	36.92	40.34	2.20	171.60
SS019	3.80	3.80	0.50	0.17	0.80	22980.00	22680.00	1.36	1.60	8.16	0.13	0.67	0.95	3.81	0.20	64.40
SS020	3.80	3.80	0.50	0.32	0.60	6630.00	6510.00	1.36	1.60	8.00	0.87	0.89	1.46	3.72	0.18	23.80
SS021	4.00	4.00	0.50	0.49	0.71	3700.00	3576.67	1.27	1.67	8.33	0.10	0.50	1.47	4.17	0.13	11.00
SS022	4.25	4.25	0.50	0.81	0.89	16225.00	16300.00	1.45	1.75	8.75	0.54	0.65	1.33	4.38	0.18	48.00
SS023	3.80	3.80	0.75	0.28	0.71	39716.00	38942.00	1.96	1.60	8.00	0.23	0.67	1.53	4.19	0.26	114.00
SS024	3.80	3.80	0.75	0.18	0.80	75220.00	73660.00	1.96	1.40	8.00	0.14	0.67	0.79	4.00	0.24	212.20
SS025	4.00	4.00	0.50	0.17	0.83	27733.33	27833.33	1.27	1.67	8.33	0.10	0.50	2.42	7.27	0.17	76.67
SS026	4.25	4.25	0.50	6.83	6.12	24575.00	19600.00	1.45	1.75	8.75	1.30	1.34	229.18	213.63	0.78	74.00
SS027	3.80	3.80	0.75	27.10	26.11	71800.00	69320.00	5.32	2.40	8.00	0.63	0.64	292.20	292.60	2.34	235.60
SS028	5.00	5.00		0.20	1.00	6533.33	6356.67	1.47	2.00	10.00	0.20	1.00	0.71	5.00	0.17	18.33
SS029	3.80	3.80	0.50	3.88	3.64	40520.00	39440.00	1.36	1.60	10.86	0.13	0.67	4.47	5.01	0.34	118.60
SS030	3.80	3.80	0.50	0.16	0.80	14390.00	14340.00	1.36	1.60	8.00	0.14	0.67	0.80	4.00	0.12	38.80
SS031	3.80	3.80	0.50	0.16	0.80	24160.00	23460.00	1.36	1.60	8.00	0.13	0.67	0.80	4.00	0.20	64.80
SS032	4.25	4.25	0.50	0.18	0.88	51650.00	49275.00	1.95	1.39	8.75	0.15	0.75	1.60	4.78	0.23	144.00
SS033	3.80	3.80	0.50	0.16	0.80	3744.00	3598.00	1.36	1.60	8.00	0.13	0.67	1.03	4.00	0.16	11.00
SS034	4.25	4.25	0.50	2.72	2.54	5820.00	5700.00	1.45	1.75	8.75	0.35	0.75	53.55	53.20	0.18	17.25
SS035	4.00	4.00	1.00	0.21	0.83	61766.67	61033.33	1.60	1.67	8.33	0.13	0.77	1.00	4.67	0.23	180.67
SS036	4.00	4.00	0.50	1.79	1.64	11703.33	11590.00	1.13	1.67	8.33	0.10	0.50	24.81	25.32	0.17	32.33
SS037	4.25	4.25	1.00	4.15	3.80	84875.00	84450.00	6.90	3.75	8.75	0.65	1.02	183.25	187.00	0.98	293.25
SS038	3.80	3.80	0.50	0.16	0.80	36760.00	36140.00	1.36	1.32	8.00	0.13	0.67	0.90	4.00	0.20	101.60
SS039	4.25	4.25	0.50	5.00	4.70	15850.00	16175.00	1.45	1.75	8.75	0.15	0.75	124.25	119.00	0.13	46.50
SS040	3.80	3.80	0.50	5.06	4.66	8684.00	8516.00	1.36	1.60	8.00	0.18	0.67	170.80	165.60	0.28	26.80
SS041	3.80	3.80	0.50	3.57	3.51	36660.00	35500.00	1.16	1.60	8.00	0.14	0.67	21.05	22.01	0.26	103.00
SS042	4.25	4.25	0.50	2.89	3.45	61050.00	65200.00	5.95	3.75	8.75	0.55	0.75	3.84	21.23	0.63	166.50
SS043	3.80	3.80	2.50	0.56	0.80	159200.00	162000.00	7.12	5.77	8.00	0.97	1.20	2.43	4.00	1.02	431.80
SS044	3.80	3.80	1.75	0.93	1.11	158000.00	154200.00	6.52	4.00	8.00	2.95	3.15	5.20	8.79	2.96	424.20
SS045	3.80	3.80	0.50	8.46	8.02	33960.00	33380.00	1.36	1.60	8.01	0.16	0.67	2.17	3.51	1.26	94.20
SS046	3.80	3.80	0.50	20.96	19.42	43180.00	43120.00	1.36	1.60	8.00	6.93	6.81	14.42	15.72	3.20	122.20
SS047	3.80	3.80	0.50	0.16	0.80	31540.00	30840.00	1.36	1.51	8.12	0.13	0.67	1.24	4.00	0.16	85.40

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Be D	Be T	Br T	Cd D	Cd T	Ca D	Ca T	Cl T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	F T	Hard D
	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg mg/L
SS048	4.25	4.25	0.50	0.18	0.88	14300.00	14485.00	1.45	1.89	8.96	0.95	1.16	0.96	3.91	0.23	40.50
SS049	4.25	4.25	0.50	0.18	0.88	6782.50	6682.50	1.28	1.75	8.94	0.15	0.75	0.97	4.38	0.18	19.50
SS050	3.80	3.80	0.50	0.22	0.71	31880.00	30940.00	1.36	1.42	8.11	0.40	1.17	2.91	19.86	0.18	90.60
SS051	3.80	3.80	0.50	0.16	0.80	20540.00	20420.00	1.94	1.60	8.17	0.18	0.67	2.04	5.64	0.12	59.80
SS052	3.80	3.80	0.50	0.31	0.80	13492.00	13186.00	1.40	1.60	8.05	0.14	0.70	2.02	4.32	0.16	44.00
SS053	3.80	3.80	0.50	2.79	2.68	20780.00	19940.00	1.36	1.60	8.14	1.11	1.23	90.50	91.20	0.24	63.80
SS054	3.80	3.80	1.75	0.48	0.80	206800.00	200800.00	7.72	3.81	8.16	0.56	0.63	2.85	7.59	0.96	551.00
SS055	3.80	3.80	1.50	1.92	1.99	53380.00	53660.00	5.76	1.60	8.00	12.97	15.78	6.77	13.72	1.08	172.40
SS056	4.00	4.00	0.50	0.56	1.01	7596.67	7383.33	1.27	1.67	8.33	6.60	6.22	4.00	4.79	0.57	26.00
SS057	3.80	3.80	1.75	0.57	1.68	169360.00	168600.00	7.64	4.00	8.00	15.47	22.10	2.55	4.71	0.92	448.00
SS058	4.25	4.25	0.50	0.36	0.88	2900.00	2960.00	1.65	1.75	8.85	0.85	0.87	3.90	3.90	0.20	8.75
SS059	3.80	3.80	0.50	1.16	1.18	27980.00	27700.00	1.36	1.60	8.00	0.13	0.67	3.29	4.48	1.00	79.80
SS060	3.80	3.80	0.50	1.38	1.27	4190.00	4188.00	1.36	1.60	8.10	0.16	0.67	25.36	26.72	0.32	13.80
SS061	5.00	5.00		1.19	1.34	11160.00	10685.00	1.80	2.00	10.00			7.53	9.99	0.40	35.00
SS062	3.80	3.80	1.75	0.78	1.05	81360.00	81600.00	6.10	1.60	8.00	7.02	7.31	6.11	10.77	1.06	235.80
SS063	4.25	4.25	1.00	4.00	4.39	167100.00	165500.00	11.30	7.75	8.75	0.55	2.88	23.81	31.25	2.15	522.00
SS064	3.80	3.80	1.75	0.54	0.80	112780.00	106980.00	6.12	5.60	8.00	0.53	0.81	2.81	4.40	0.80	331.20
SS065	3.85	3.82	5.00	5.03	5.26	319200.00	304600.00	13.60	8.40	10.00	120.67	119.00	53.58	67.56	1.68	904.20
SS066	5.00	4.02		4.63	4.52	373666.67	376666.67	16.00	10.63	13.33	133.00	136.00	22.80	24.90	2.60	1052.00
SS067	3.38	3.46	2.50	41.46	39.74	206600.00	207800.00	10.64	8.00	8.00	63.17	62.70	273.20	277.80	4.56	592.60
SS068	3.80	3.80	2.50	7.77	7.71	113360.00	115900.00	7.12	4.00	8.00	27.10	30.33	161.80	177.20	2.22	330.60
SS069	3.05	2.99	1.00	17.62	16.30	62280.00	62820.00	2.32	1.60	8.00	15.17	15.37	134.12	140.36	1.94	182.60
SS070	3.80	3.80	0.50	7.75	7.28	31420.00	31840.00	1.36	1.60	8.00	7.73	8.67	10.96	10.84	1.74	93.60
SS071	3.80	3.80	1.00	0.48	0.80	128000.00	127400.00	7.12	4.88	8.00	8.67	8.84	2.61	4.13	1.68	345.00
SS072	3.80	3.80	2.50	1.53	1.48	198400.00	199800.00	10.64	7.20	8.00	27.67	27.50	43.14	70.43	1.38	569.00
SS073	3.80	3.96	2.50	0.72	0.80	186000.00	183200.00	10.32	7.30	8.00	21.67	22.57	4.72	9.38	1.70	526.60
SS074	4.76	4.69	2.50	7.53	7.25	190000.00	192250.00	12.05	9.64	9.65	67.35	63.70	622.25	595.00	2.25	569.00
SS075	3.80	3.80	2.50	0.67	0.80	188600.00	187600.00	8.32	7.31	8.00	9.79	9.33	3.99	4.37	1.60	519.40
SS076	3.80	3.80	0.50	0.16	0.80	7004.00	6750.00	1.36	1.60	8.00	0.14	0.67	0.73	4.86	0.16	20.00
SS077	3.80	3.80	0.50	0.16	0.80	13234.00	13024.00	1.36	1.42	8.00	0.13	0.67	0.70	4.00	0.16	35.40
SS078	3.80	3.80	0.50	0.16	0.80	21080.00	20520.00	1.36	1.60	8.00	0.13	0.67	0.80	4.21	0.16	56.00

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Be D	Be T	Br T	Cd D	Cd T	Ca D	Ca T	Cl T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	F T	Hard D
	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg mg/L
SS079	3.80	3.80	0.50	0.16	0.80	26000.00	26060.00	1.36	1.60	8.00	0.13	0.67	0.88	4.71	0.16	71.80
SS080	3.50	3.50	0.50	0.15	0.75	16975.00	16150.00	1.20	1.50	7.50	0.16	0.67	1.80	3.75	0.15	47.25
SS082	3.50	3.50	0.50	0.15	0.75	1990.00	1970.00	0.90	1.50	7.50	0.68	0.50	0.71	3.75	0.15	6.50
SS083	3.30	3.29	2.50	12.33	13.68	40866.67	40400.00	3.67	3.29	7.85	13.60	15.30	1065.33	1147.00	1.87	144.67
SS084	3.28	3.27	2.50	10.71	12.23	40366.67	40266.67	3.67	3.33	7.88	13.40	14.80	964.33	1059.33	1.73	140.67
SS085	3.50	3.50	2.50	11.80	11.38	293000.00	292000.00	8.50	7.50	7.50	42.70	41.65	72.10	73.00	1.20	801.50
SS086	3.80	3.80	2.50	2.21	1.82	168200.00	175800.00	10.80	5.60	8.00	28.77	33.77	5.49	6.30	1.68	483.80
SS087	3.80	3.20	0.50	0.58	0.78	30380.00	29900.00	5.12	1.60	7.59	12.63	12.51	36.68	37.06	0.86	104.20
SS088	3.80	3.80	0.50	0.16	0.80	1796.00	1782.00	1.45	1.60	7.47	0.64	0.81	0.82	4.00	0.18	6.20
SS089	3.80	3.80	0.75	0.16	0.80	33450.00	34106.00	2.30	1.68	7.44	0.13	0.67	1.09	4.09	0.26	105.60
SS090	3.50	3.50	0.50	0.15	0.75	16017.50	15840.00	1.33	1.50	6.78	0.13	0.50	0.75	3.75	0.15	51.00
SS091	4.25	4.25	0.50	0.21	0.88	3435.00	3650.00	1.45	1.75	8.09	2.08	2.00	15.03	15.51	0.18	11.50
SS092	4.25	4.25	0.50	0.18	0.88	9800.00	9722.50	1.45	1.75	8.06	0.15	0.75	1.24	4.35	0.15	30.50
SS093	4.75	3.50	0.50	0.18	0.75	14747.50	14740.00	1.20	2.00	6.79	6.64	6.27	9.99	9.90	0.23	45.50
SS094	3.50	3.50	2.50	1.49	1.87	126750.00	127450.00	3.50	2.50	6.82	9.52	5.91	9.43	12.63	1.50	447.50
SS095	3.80	3.80	1.00	0.24	0.80	90240.00	91020.00	2.08	2.29	7.46	0.49	0.94	1.30	5.28	0.36	240.80
SS096	9.25	4.25	0.50	1.88	1.67	3027.50	2970.00	1.45	3.75	8.09	3.56	3.15	86.80	78.65	0.18	11.00
SS097	5.00	5.00		0.97	1.44	11200.00	11600.00	1.40	2.00	8.56			5.12	10.50	0.20	34.00
SS098	4.25	4.25	2.50	41.48	43.58	29525.00	29450.00	7.65	3.93	8.90	38.20	41.55	1425.25	1537.50	0.85	115.00
SS105	3.50	3.50	2.50	1.05	1.02	148000.00	150600.00	12.50	3.80	5.38	6.09	6.38	6.12	9.13	3.53	402.60
SS123	3.50	3.50	2.50	0.55	0.86	3375.00	3555.00	3.50	1.75	7.50	28.30	27.60	65.35	62.60	0.30	14.00
SS125	5.00	5.00		25.20	29.50	112500.00	126500.00	20.00	6.30	7.45	124.00	121.00	243.50	242.00	2.00	432.00
SS126	3.50	3.50	2.50	34.56	34.48	1692.00	1658.00	8.00	5.10	6.46	27.93	27.60	676.90	648.51	0.80	10.00
SS200	3.50	3.50	2.50	0.56	0.75	294250.00	296250.00	12.50	5.50	7.64	2.44	2.82	3.13	3.13	2.80	750.00
SS201	3.69	2.93	5.00	4.48	4.56	361500.00	365250.00	15.00	8.00	10.00	167.00	170.00	58.88	61.93	2.80	1024.50
SS202	3.50	3.50	1.00	29.40	28.50	8475.00	8745.00	6.00	2.62	7.50	11.30	11.00	1045.00	1067.50	0.70	43.00
SS203	5.00	5.00		14.70	14.30	3880.00	3930.00	2.00	2.00	10.00			407.00	422.00	0.10	14.00
SS204	5.00	5.00		24.88	24.33	32495.00	36090.00	11.00	4.37	8.72	3.51	2.52	6260.30	6157.50	0.90	118.00
SS205	5.00	5.00		0.20	1.00	1030.00	1090.00	2.00	2.00	10.00			1.00	5.00	0.20	3.00
SS206	5.00	5.00		0.39	1.00	6160.00	6255.00	2.00	2.00	10.00	2.11	2.20	145.25	148.50	0.20	20.50
SS207	5.00	5.00		0.20	1.00	2030.00	2230.00	2.00	2.00	10.00			2.57	2.82	0.20	8.00

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Be D	Be T	Br T	Cd D	Cd T	Ca D	Ca T	Cl T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	F T	Hard D
	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg mg/L
SS208	3.50	3.50	0.50	0.15	0.75	7705.00	7397.50	1.50	1.50	7.50	2.31	2.26	3.38	4.27	0.13	25.75
SS210	2.69	2.61	1.75	28.63	27.90	117650.00	115600.00	7.75	2.50	7.50	1.88	1.84	160.38	162.50	3.80	392.50
SS211	5.00	5.00		2.05	1.89	31900.00	30700.00	2.00	2.00	10.00			18.30	19.10	0.20	93.00
SS212	5.00	5.00		3.59	3.18	11800.00	11600.00	2.00	2.00	10.00			243.00	246.00	0.20	33.00
SS213	5.00	5.00		0.58	0.61	8030.00	7390.00	2.00	2.00	10.00			8.03	7.74	0.20	23.00
SS214	5.00	5.00		40.50	39.50	76200.00	73300.00	4.00	2.00	10.00			386.00	438.00	1.60	222.00
SS215	4.00	4.00	0.50	0.61	0.76	5510.00	5463.33	1.67	1.67	8.92	0.11	0.75	3.15	4.76	0.20	17.67
SS216	3.50	3.50	0.50	0.15	0.75	3010.00	3040.00	1.50	1.50	7.66	0.10	0.50	1.46	3.75	0.35	8.50
SS217	3.00	3.00	0.50	0.17	0.67	16796.67	15836.67	1.33	1.33	6.67	0.33	0.60	0.85	3.33	0.17	51.67
SS218	3.00	3.00	0.75	1.52	1.48	63666.67	61233.33	2.33	1.33	6.67	5.44	5.18	10.74	11.03	0.57	236.33
SS219	3.50	3.50	0.50	29.65	30.15	13750.00	13650.00	1.50	1.50	7.50	4.28	4.29	817.25	817.50	1.15	41.50
SS220	179.33	177.67	2.50	16.10	15.67	129333.33	128333.33	10.00	1.33	6.67	28.65	31.55	22.70	24.93	84.10	452.33
SS221	118.25	118.50	2.50	19.50	18.15	116100.00	114550.00	12.50	7.50	7.50	3.55	2.93	14.01	12.46	62.30	404.50
SS222	98.65	101.20	2.50	68.40	65.25	81950.00	80900.00	12.50	7.50	7.50	88.90	81.70	423.00	419.50	42.65	356.00
SS223	3.50	3.50	0.50	0.16	0.77	5290.00	5257.50	1.25	1.50	7.50	0.15	0.67	0.81	4.19	0.15	14.50
SS224	25.00	3.28		33.40	31.40	59000.00	57200.00	4.00	10.00	10.00			3100.00	2990.00	0.70	168.00
SS225	3.50	3.51	1.00	22.45	20.80	52150.00	50750.00	2.00	1.50	7.50	8.03	8.66	233.00	249.50	0.45	151.50
SS226	3.50	3.50	0.50	6.35	5.77	5830.00	5510.00	1.50	1.50	7.50	0.10	0.50	18.22	17.14	0.25	17.50
SS227	5.00	5.00		1.00	1.00	238000.00	226000.00	20.00	10.00	10.00	21.60	21.40	5.00	3.82	4.50	611.00
SS228	2.50	2.43	2.50	11.00	17.60	218500.00	215500.00	12.50	7.50	7.50	46.55	70.40	167.50	248.50	2.80	637.50
SS229	3.50	3.50	1.00	0.81	0.86	114300.00	114500.00	11.00	5.50	7.50	0.58	0.75	4.87	3.94	1.20	321.00
SS230	3.50	3.50	2.50	26.80	26.80	14750.00	14850.00	4.50	1.87	7.50	27.70	30.50	744.50	803.00	0.95	81.00
SS231	3.00	3.00	0.50	0.13	0.67	36100.00	34900.00	1.00	1.04	6.67	0.17	0.67	0.88	3.33	0.13	99.33
SS232	5.00	5.00		69.90	68.40	11700.00	11900.00	4.00	2.00	10.00	3.97	3.84	1750.00	1690.00	1.10	33.00
SS235	2.75	2.68	1.00	12.20	12.40	16050.00	15600.00	3.00	1.50	7.50	21.25	21.75	1.08	3.75	1.20	63.00
SS236	3.32	3.25	1.00	20.60	20.25	128000.00	127500.00	11.00	3.50	7.50	28.85	31.10	232.50	258.00	2.00	363.50
SS238	3.50	3.50	2.50	6.72	6.33	168000.00	165500.00	12.50	1.56	7.50	38.30	38.50	393.00	404.00	1.10	495.50
SS250	2.75	2.75	2.50	0.88	1.44	282250.00	274000.00	8.75	8.75	6.25	1.04	2.02	5.68	5.51	4.00	723.50
SS300	2.00	2.00	0.50	2.31	2.05	4735.00	4970.00	1.00	1.00	5.00	0.42	0.67	44.55	45.60	0.45	14.50
SS301	2.00	2.00	3.75	5.33	5.23	338500.00	332000.00	7.50	5.00	5.00	153.00	143.50	41.70	39.60	2.45	967.00
SS304	3.50	3.50	0.50	3.68	3.33	15850.00	15550.00	1.50	1.50	7.50	0.50	0.50	11.05	10.99	0.40	46.50

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Be D	Be T	Br T	Cd D	Cd T	Ca D	Ca T	Cl T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	F T	Hard D
	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg mg/L
SS305	3.50	3.50	2.50	0.15	0.75	120400.00	112950.00	3.50	1.54	7.50	0.55	1.01	1.28	3.75	0.95	319.50

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T	Mn D	Mn T	Hg T	Ni D	Ni T	Nitrate/Nitrite as N	K D	K T
	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L
A23A	100.00	1460.00	1.06	49.50	3035.00	3172.50	20250.00	22125.00		4.54	5.50	1.00	1367.50	1690.00
A38	150.00	463.00	0.55	4.40	10966.67	11066.67	10710.00	11033.33		1.33	8.90	10.00	984.00	1115.00
CC01A	175.00	_27	1.17	68.20	5387.50	5422.50	1580.00	1605.50	0.05	0.75	3.75	2.25	566.33	627.33
CC01B	25775.00	27460.00	272.00	246.00	12775.00	12920.00	26075.00	26200.00	0.05	4.25	5.14	8.75	1975.00	2020.00
CC01C	11869.20	12286.60	14.16	14.44	5730.00	5692.00	4865.60	4885.40	0.05	6.99	7.39	6.00	514.75	541.75
CC03D	97816.67	100050.00	71.18	89.20	25283.33	25716.67	32900.00	32866.67		34.28	33.23	10.00	1550.00	1606.67
CC06	98300.00	124700.00	17.35	27.44	23720.00	23760.00	23440.00	23420.00	0.05	38.14	34.62	9.00	1722.50	1555.00
CC14	22100.00	24060.00	1.71	12.32	8926.00	9660.00	2490.00	2628.00		5.09	5.02	12.50	886.67	1229.00
CC16C	70380.00	74960.00	1.20	2.00	13380.00	13680.00	2362.00	2380.00	0.05	26.90	30.50	12.50	3272.50	3302.50
CC19	131000.00	136000.00	1.58	2.94	29940.00	30440.00	44400.00	43880.00	0.05	45.58	44.04	10.00	1303.33	1313.33
CC50	658.17	2015.00	0.44	5.20	9768.67	10352.33	2930.00	3106.67	0.05	2.25	3.83	12.00	631.00	657.50
DM01	1390.00	1570.00	52.60	56.70	2150.00	2220.00	1130.00	1140.00		3.98	4.09	2.00		
DM24	8950.00	21400.00	0.43	3.17	14200.00	14200.00	3795.00	4240.00		3.50	3.55	5.00	1880.00	1910.00
DM32	593.25	612.25	1690.00	1522.50	7700.00	7692.50	9835.00	9797.50	0.05	5.18	11.34	2.50	491.33	493.00
DM4	100.00	100.00	0.10	0.50	7410.00	7050.00	3970.00	3960.00		0.50	2.50	5.00	807.00	678.00
SS001	190.00	355.60	63.33	68.68	1420.00	1440.00	328.50	351.92	0.05	2.23	9.95	1.24	500.00	344.00
SS002	212.50	212.50	0.23	1.28	4075.00	4057.50	29.19	32.45	0.05	0.88	11.68	1.30	289.50	314.00
SS003	212.50	225.75	14.52	25.76	5110.00	5085.00	392.00	409.25	0.05	0.88	4.38	1.30	309.00	336.00
SS004	190.00	151.80	0.16	2.88	2982.00	3032.00	4.68	13.37	0.05	1.01	10.18	1.24	693.33	755.67
SS005	250.00	250.00	0.28	1.71	4270.00	4810.00	7.76	12.20		5.06	6.44	0.30		
SS006	190.00	350.00	0.16	0.96	1095.40	1099.20	5.38	7.93	0.05	0.80	11.04	1.24	523.00	543.67
SS007	191.80	247.60	0.16	0.71	1152.40	1174.00	6.37	7.53	0.05	0.88	10.70	1.22	500.00	254.33
SS008	175.00	189.75	0.15	0.68	4375.00	4332.50	104.55	200.45	0.05	0.75	3.75	1.05	523.33	517.00
SS009	200.00	200.00	0.23	0.86	2440.00	2496.67	14.97	18.23		0.83	4.17	1.07	441.00	403.00
SS010	190.00	190.00	0.33	0.66	6784.00	7094.00	68.87	159.28	0.05	0.80	4.00	1.42	382.00	317.33
SS011	310.00	312.20	11.90	13.44	16158.00	16560.00	4091.00	4204.00	0.05	13.50	15.68	5.96	472.33	698.00
SS012	303.75	2290.00	2.01	6.94	9987.50	9907.25	1474.91	1459.09	0.05	3.70	5.85	5.93	289.00	323.50
SS013	190.00	284.60	0.16	1.01	1854.00	1858.00	39.36	48.09	0.05	0.80	4.42	1.24	534.33	389.00
SS014	190.00	190.00	0.16	0.80	1752.00	1736.00	3.80	3.80	0.05	0.80	4.09	1.24	562.33	324.67
SS015	190.00	329.00	0.16	0.90	2886.00	2836.00	21.68	23.38	0.05	0.80	4.41	1.24	548.00	305.33
SS016	447.80	3460.00	0.22	2.01	4474.00	4448.00	890.00	873.60	0.05	1.11	4.50	1.44	1015.00	860.67

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T	Mn D	Mn T	Hg T	Ni D	Ni T	Nitrate/Nitrite as N	K D	K T
	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L
SS017	650.00	690.00	0.16	0.80	5554.00	5514.00	1211.80	1210.20	0.05	2.38	4.86	1.44	1047.00	1006.67
SS018	190.00	161.80	0.25	0.80	9020.00	8998.00	2506.00	2484.00	0.05	9.00	10.54	2.04	1200.00	1168.67
SS019	190.00	190.00	0.16	0.80	1712.00	1694.00	3.85	5.40	0.05	0.80	4.23	1.24	533.00	356.33
SS020	220.00	185.00	1.62	2.34	1762.00	1746.00	157.02	160.12	0.05	2.79	3.94	1.24	511.00	518.33
SS021	200.00	200.00	0.76	0.85	489.67	478.67	20.60	20.67		0.57	4.17	1.07	250.00	250.00
SS022	282.00	307.00	0.31	0.84	1752.50	1762.50	96.63	89.36	0.05	0.71	4.38	1.30	625.00	625.00
SS023	220.00	190.00	0.18	0.69	3606.80	3635.00	14.59	16.38	0.05	0.88	4.00	1.84	345.33	323.67
SS024	190.00	190.00	0.16	0.80	5962.00	5906.00	3.80	3.80	0.05	0.80	4.00	1.88	308.00	324.33
SS025	200.00	491.33	0.64	6.69	1705.00	1738.33	4.00	8.16		0.83	4.17	1.17	250.00	250.00
SS026	212.50	212.50	68.54	63.97	3072.50	2535.00	2191.50	2116.25	0.05	2.54	3.61	1.33	332.00	329.50
SS027	190.00	263.20	1.02	2.51	13634.00	13330.00	10020.00	9940.00	0.05	16.42	16.28	5.08	734.00	747.67
SS028	250.00	250.00	0.25	0.81	487.33	483.67	6.46	10.60	0.05	1.00	5.00	1.40	1000.00	1000.00
SS029	190.00	190.00	0.16	0.80	4232.00	4164.00	163.80	162.00	0.05	2.34	6.69	1.24	407.00	406.67
SS030	209.20	231.20	0.15	0.87	699.00	702.60	5.40	5.50	0.05	0.80	4.00	1.24	500.00	500.00
SS031	190.00	190.00	0.16	0.97	1088.00	1063.60	3.80	14.26	0.05	0.80	4.00	1.26	513.67	515.67
SS032	212.50	176.50	0.18	1.61	3645.00	3542.50	4.25	4.03	0.05	0.88	4.38	1.80	473.00	308.50
SS033	190.00	209.00	0.25	0.98	342.40	338.40	9.87	16.63	0.05	0.80	4.20	1.24	430.00	424.33
SS034	269.00	259.25	2.89	2.98	697.00	686.00	378.50	382.75	0.05	1.99	4.85	1.30	280.50	293.00
SS035	200.00	1953.33	0.14	3.16	6413.33	6770.00	4.34	34.03		0.83	5.83	1.40	250.00	837.00
SS036	200.00	200.00	36.88	38.87	769.33	770.67	23.77	26.55		0.70	9.10	1.03	250.00	250.00
SS037	212.50	641.25	7.81	45.04	19750.00	19825.00	2712.50	2740.00	0.05	20.63	23.30	6.55	498.00	549.50
SS038	190.00	190.00	0.16	0.80	2408.00	2398.00	3.80	3.75	0.05	0.80	5.00	1.28	495.00	424.67
SS039	212.50	209.25	10.87	12.00	1697.50	1762.50	446.25	454.50	0.05	1.95	7.23	1.30	625.00	256.00
SS040	190.00	190.00	0.38	0.63	1215.60	1213.20	3140.00	3106.00	0.05	1.51	8.19	1.24	394.00	376.33
SS041	190.00	192.00	2.43	6.14	2752.00	2706.00	1007.86	1021.72	0.05	1.09	5.19	1.24	448.33	452.33
SS042	212.50	946.25	1.23	208.04	3440.25	3679.25	215.17	391.33	0.05	1.88	8.03	5.78	546.50	553.50
SS043	160.00	266.20	3.75	15.42	8410.00	8520.00	2908.00	3258.00	0.05	2.80	5.00	6.88	1200.00	1022.33
SS044	190.00	5524.00	0.40	2.18	7210.00	7124.00	1248.00	1318.20	0.05	2.00	5.00	6.28	601.67	576.00
SS045	193.40	166.80	0.16	0.80	2324.00	2286.00	87.36	91.00	0.05	0.88	4.55	1.24	505.33	521.67
SS046	6652.00	7194.00	30.26	30.04	3494.00	3540.00	1968.00	1998.00	0.05	3.12	5.26	1.24	599.67	574.00
SS047	190.00	207.80	0.16	0.80	1608.00	1592.00	5.92	6.72	0.05	0.80	4.09	1.26	494.00	442.00

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T	Mn D	Mn T	Hg T	Ni D	Ni T	Nitrate/Nitrite as N	K D	K T
	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L
SS048	1630.00	2540.50	0.18	1.50	1187.50	1272.50	32.65	43.63	0.05	0.88	4.84	1.30	531.00	485.50
SS049	212.50	212.50	0.19	0.88	632.75	646.75	4.25	4.37	0.05	0.88	5.37	1.28	267.00	625.00
SS050	190.00	416.20	0.16	1.80	2750.00	2756.00	62.06	186.18	0.05	0.92	4.49	1.30	296.33	312.00
SS051	211.20	383.20	0.16	1.16	2106.00	2136.00	16.20	24.76	0.05	0.80	4.55	1.28	1196.67	1266.67
SS052	190.00	202.60	0.16	0.80	2500.00	2522.00	4.30	8.07	0.05	0.82	4.76	1.26	677.00	663.33
SS053	165.80	288.60	1.09	1.90	2856.00	2804.00	248.80	256.60	0.05	1.45	4.45	1.24	355.33	291.33
SS054	190.00	562.80	0.40	5.45	8502.00	8494.00	3.80	22.43	0.05	2.00	4.00	7.48	475.00	525.00
SS055	18240.00	19921.20	0.20	10.83	9570.00	9748.00	4145.80	4337.00	0.05	5.37	8.43	5.64	1352.00	1415.00
SS056	1320.67	1770.00	0.32	0.93	1623.33	1590.00	716.33	723.67		2.30	5.49	1.07	250.00	250.00
SS057	8388.00	19070.00	0.40	3.09	6054.00	6062.00	12276.00	12742.00	0.05	11.70	14.59	7.16	708.00	2586.00
SS058	212.50	220.25	1.59	1.74	382.25	384.00	5.33	6.55	0.05	0.88	5.08	1.35	625.00	625.00
SS059	190.00	190.00	0.16	0.80	2426.00	2438.00	22.00	22.62	0.05	1.08	4.39	1.24	488.00	509.00
SS060	190.00	136.40	0.50	0.71	761.00	785.00	108.58	109.86	0.05	1.56	5.58	1.24	444.33	520.33
SS061	176.00	407.50	0.52	5.02	1650.00	1700.00	230.80	235.15		1.39	5.00	1.10		
SS062	19088.00	21930.00	1.26	8.11	7890.00	8132.00	7860.00	8022.00	0.05	1.43	4.07	5.88	680.00	729.33
SS063	189.00	2361.75	0.78	2.31	25367.50	25115.00	3593.48	3849.50	0.05	48.33	28.88	10.70	436.00	952.00
SS064	190.00	637.80	0.56	1.01	11958.00	11500.00	18.38	37.03	0.05	2.67	5.15	5.88	692.33	697.67
SS065	76934.00	74740.00	0.85	1.00	25880.00	25140.00	29954.00	29420.00	0.05	31.10	32.06	12.40	1566.67	1440.00
SS066	98366.67	98866.67	4.27	4.40	29533.33	30033.33	35933.33	36433.33	0.05	36.77	38.83	14.00	1670.00	1680.00
SS067	12160.00	12800.00	5.16	4.35	18520.00	18460.00	17240.00	17660.00	0.05	20.66	20.80	10.16	1233.33	1203.33
SS068	763.80	941.80	16.64	17.22	11578.00	11808.00	7882.00	8030.00	0.05	11.91	13.48	6.88	1346.67	1296.67
SS069	203.60	208.40	0.91	0.85	6582.00	6562.00	5388.00	5388.00	0.05	6.60	6.91	2.08	983.33	974.00
SS070	1061.60	1674.20	1.89	2.32	3694.00	3720.00	2374.00	2490.00	0.05	6.81	8.94	1.24	578.00	626.33
SS071	5386.00	8114.00	0.49	0.96	6208.00	6148.00	2312.00	2276.00	0.05	2.40	4.00	6.88	732.33	655.00
SS072	6594.00	9594.00	1.07	2.34	17800.00	17940.00	3888.00	3868.00	0.05	8.30	8.24	10.16	1350.00	1283.33
SS073	15488.00	23340.00	0.72	1.24	15240.00	15220.00	3460.00	3672.00	0.05	2.67	4.33	10.08	1403.33	1360.00
SS074	59125.00	60300.00	4.14	10.45	22875.00	23100.00	4765.00	4737.50	0.05	21.25	21.28	11.45	1980.00	2000.00
SS075	6496.00	6858.00	2.11	4.15	11760.00	11620.00	2206.00	2168.00	0.05	3.60	4.00	8.08	1356.67	1296.67
SS076	201.80	300.60	0.17	2.74	576.60	622.80	11.96	13.51	0.05	0.80	8.72	1.24	760.00	618.67
SS077	190.00	208.00	0.16	0.80	588.80	611.80	3.80	4.56	0.05	0.80	6.61	1.24	500.00	267.33
SS078	190.00	223.00	0.16	0.80	810.80	840.60	3.80	12.32	0.05	0.80	7.57	1.30	257.00	257.33

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T	Mn D	Mn T	Hg T	Ni D	Ni T	Nitrate/Nitrite as N	K D	K T
	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L
SS079	197.60	444.00	0.16	1.21	1602.60	1661.80	4.19	6.30	0.05	0.80	8.14	1.26	330.00	405.33
SS080	175.00	184.00	0.24	0.76	1120.50	1105.00	15.37	20.45	0.05	0.75	6.64	1.05	878.33	629.67
SS082	175.00	390.50	0.15	2.19	415.50	475.00	2.27	8.74		0.75	11.20	0.55	250.00	352.00
SS083	24020.00	24333.33	1.37	4.27	10390.00	10186.67	3726.67	3806.67		11.90	14.78	2.67	250.00	250.00
SS084	21963.00	22370.33	4.37	9.71	9633.33	9623.33	3324.00	3396.00		10.87	14.67	2.67	250.00	250.00
SS085	17825.00	21075.00	18.31	62.68	17150.00	17275.00	12832.50	12807.50		7.65	12.10	7.75	787.50	799.50
SS086	17820.00	19620.00	2.00	1.99	15460.00	15820.00	7572.00	7762.00	0.05	5.88	6.07	10.20	1250.00	1306.67
SS087	3971.00	4350.60	105.70	101.20	6922.00	6764.00	1150.00	1152.60	0.05	15.64	13.44	4.90	976.33	954.67
SS088	301.00	514.80	0.92	1.35	402.60	403.80	23.88	24.48	0.05	0.73	5.96	1.30	766.33	765.67
SS089	294.00	311.00	0.16	0.71	5366.60	5328.80	112.94	112.13	0.05	0.80	5.60	1.84	1967.67	1956.33
SS090	132.00	417.50	0.15	0.64	2700.00	2766.25	55.01	55.30		0.70	6.50	1.05	1056.50	1092.00
SS091	665.75	817.50	3.36	3.81	740.75	779.75	63.98	65.28	0.05	1.32	7.50	1.30	468.50	503.50
SS092	212.50	211.00	0.18	0.88	1515.00	1500.00	11.98	15.79	0.05	1.07	6.88	1.30	1174.00	1142.50
SS093	237.50	414.25	0.20	1.54	2141.75	2179.75	306.28	318.85		5.20	8.95	1.05	566.00	602.50
SS094	4600.00	5769.50	23.74	72.75	31845.00	32847.50	2165.25	2198.50		39.67	43.77	3.20	1833.00	1870.00
SS095	209.60	1758.20	0.24	1.16	3856.00	3940.00	155.24	212.20	0.05	1.20	6.14	2.04	1595.00	1690.00
SS096	5045.50	6558.50	6.64	9.70	928.25	715.50	110.18	111.00	0.05	2.87	10.88	1.30	505.50	505.50
SS097	250.00	1261.00	3.65	25.20	1560.00	1675.00	115.27	126.80		2.63	4.83	1.10		
SS098	7107.50	7415.00	75.55	76.65	10022.50	10005.00	3700.00	3635.00	0.05	28.03	30.73	7.35	753.50	757.50
SS105	6514.00	7196.00	0.75	2.37	7054.00	7164.00	2410.00	2456.00		2.42	3.62	12.50	582.25	565.75
SS123	30800.00	34700.00	3.30	4.50	1287.50	1419.00	103.15	99.95		15.03	27.86	3.50	250.00	250.00
SS125	333500.00	364000.00	28.20	33.15	24000.00	28150.00	11600.00	13900.00	0.05	100.50	113.00	20.00	3530.00	4670.00
SS126	40790.00	40327.00	541.50	531.82	1375.60	1398.60	206.60	202.30	0.05	16.56	19.80	8.00	1225.25	1227.75
SS200	1765.00	3385.00	0.55	1.47	3700.00	3762.50	1462.50	1520.00	0.05	2.75	3.75	12.50	726.67	752.00
SS201	23800.00	25275.00	18.90	19.03	29225.00	29950.00	39525.00	39925.00	0.05	40.13	43.45	15.00	1493.33	1390.00
SS202	34350.00	40150.00	32.53	201.00	5240.00	5650.00	1380.00	1375.00		11.60	12.10	6.00	519.00	485.00
SS203	349.00	365.00	174.00	172.00	1010.00	1060.00	119.00	118.00		3.30	2.93	2.00		
SS204	114125.00	141713.00	178.50	149.25	8870.00	9975.00	1581.00	1640.50	0.05	29.19	30.30	11.00	503.00	595.00
SS205	250.00	250.00	0.20	1.00	191.00	208.00	6.03	9.27		1.00	5.00	2.00		
SS206	373.50	1813.50	11.08	27.70	1317.00	1363.00	135.40	145.65	0.05	1.37	5.00	2.00	905.00	934.00
SS207	250.00	194.00	3.64	4.41	676.00	717.00	45.50	51.40		1.70	5.00	2.00		

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T	Mn D	Mn T	Hg T	Ni D	Ni T	Nitrate/Nitrite as N	K D	K T
	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L
SS208	315.75	336.25	1.98	1.93	1590.75	1557.25	174.60	162.98	0.05	1.54	8.43	1.50	1203.33	1161.33
SS210	175.00	209.00	0.65	1.96	23975.00	24125.00	24825.00	24950.00	0.05	17.03	15.68	7.75	743.00	937.33
SS211	506.00	2270.00	14.00	26.70	3290.00	3190.00	732.00	781.00		1.48	5.00	2.00		
SS212	250.00	157.00	167.00	158.00	994.00	955.00	2260.00	2290.00		1.00	5.00	2.00		
SS213	250.00	250.00	0.20	1.00	701.00	660.00	24.20	25.40		1.00	5.00	2.00		
SS214	250.00	1950.00	9.56	52.00	7630.00	7370.00	26500.00	26600.00		7.90	8.28	4.00		
SS215	200.00	200.00	1.78	2.22	1008.00	1021.67	20.97	24.57	0.05	0.97	5.47	1.67	304.50	292.00
SS216	175.00	175.00	0.15	0.93	270.50	287.50	3.50	6.65		0.75	4.65	1.50	250.00	250.00
SS217	150.00	150.00	0.13	0.67	2342.33	2261.00	50.67	56.00		0.67	9.23	1.33	250.00	250.00
SS218	150.00	150.00	0.14	0.70	18833.33	18400.00	1373.33	1399.33		8.11	15.30	2.33	270.50	282.00
SS219	2933.00	8630.00	134.93	143.60	1687.50	1720.00	4102.50	3932.50	0.05	3.52	7.94	1.50	627.00	679.33
SS220	416.67	750.00	0.15	0.67	31533.33	31533.33	160600.00	178666.67		56.17	71.10	10.00	3345.00	3215.00
SS221	875.00	875.00	0.96	0.75	27950.00	27850.00	144500.00	145500.00		57.80	58.80	12.50	2690.00	2650.00
SS222	875.00	875.00	1.77	1.39	36850.00	36900.00	165000.00	171500.00		86.65	89.45	12.50	1640.00	1720.00
SS223	175.00	187.25	0.17	4.01	392.00	399.00	7.84	169.96	0.05	0.75	5.85	1.50	509.67	500.00
SS224	6720.00	10000.00	18.50	30.50	4910.00	4840.00	51400.00	43900.00		13.80	13.90	4.00		
SS225	398.00	21011.50	135.50	276.00	5210.00	5260.00	27650.00	27750.00		8.91	14.86	2.00	282.00	594.00
SS226	175.00	175.00	2.40	3.96	684.50	663.00	758.27	751.30		1.89	9.70	1.50	372.00	415.00
SS227	2130.00	2680.00	1.00	1.00	4020.00	4000.00	1200.00	1200.00	0.05	5.00	5.00	20.00	436.00	442.00
SS228	21400.00	21850.00	31.75	60.65	22200.00	21900.00	19350.00	19250.00	0.05	13.11	21.45	12.50	736.00	750.50
SS229	175.00	175.00	0.65	0.51	8575.00	8765.00	3.87	15.61	0.05	2.75	5.40	11.00	413.50	442.00
SS230	3510.00	4365.00	140.65	491.00	10775.00	10960.00	2785.00	2840.00	0.05	14.30	16.00	4.50	373.00	390.50
SS231	322.33	823.33	0.13	0.67	2236.67	2216.67	95.05	112.70	0.05	0.67	5.71	1.33	374.00	357.33
SS232	7360.00	8000.00	4830.00	4550.00	985.00	1050.00	1050.00	1120.00	0.05	3.41	2.98	4.00	545.00	644.00
SS235	17550.00	17450.00	188.00	190.50	5565.00	5495.00	9375.00	9370.00	0.05	10.03	10.37	3.00	3540.00	3495.00
SS236	175.00	201.00	7.82	7.73	10950.00	11050.00	10525.00	10530.00	0.05	10.40	10.83	11.00	1070.00	1365.00
SS238	27500.00	27600.00	6.28	5.96	18600.00	18450.00	3865.00	3795.00	0.05	13.20	13.85	12.50	1765.00	1755.00
SS250	392.00	1652.00	1.21	4.76	4492.50	4502.50	732.47	1760.70	0.10	4.38	3.13	8.75	410.50	394.00
SS300	100.00	101.00	0.10	0.71	718.50	751.50	265.50	329.50		3.07	7.28	1.00	373.00	435.50
SS301	22750.00	22550.00	5.54	5.20	29700.00	29100.00	36300.00	34750.00		34.15	32.40	7.50	1410.00	1350.00
SS304	175.00	175.00	166.50	162.50	1605.00	1595.00	1009.50	1006.50		2.61	14.00	1.50	500.00	510.00

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Fe D	Fe T	Pb D	Pb T	Mg D	Mg T	Mn D	Mn T	Hg T	Ni D	Ni T	Nitrate/Nitrite as N	K D	K T
	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L
SS305	175.00	173.00	0.15	0.75	4485.00	4275.00	2983.11	2931.10	0.05	0.75	3.75	3.50	604.50	513.00

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T	TI D	TI T	Alk T	V D	V T
	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L
A23A	1.00	5.00			0.50	2.50	747.00	738.25			136.75	1.00	5.00	5.00	2.00	10.00
A38	2.67	6.67	10700.00	11000.00	1.33	3.33	5430.00	5710.00	3540.00	3570.00	467.67	2.67	6.67	96.80	6.00	10.00
CC01A	1.50	7.50	6810.00	7090.00	0.75	3.75	1437.67	1466.67	415.00	443.00	192.50	1.50	7.50	26.38	2.33	11.67
CC01B	5.00	6.00	31450.00	30700.00	2.50	3.00	6010.00	5680.00	1725.00	1793.33	689.50	5.00	6.96	5.00	10.00	10.00
CC01C	1.16	6.05	8190.00	8050.00	0.62	3.02	823.00	836.00	36.10	39.40	173.60	1.50	9.22	7.00	2.33	11.67
CC03D	8.33	7.50	39825.00	39925.00	4.17	3.75	8633.33	8710.00	4747.50	4930.00	1493.33	8.33	8.98	30.90	15.00	10.00
CC06	7.64	5.32	26300.00	26150.00	3.50	2.50	4667.50	4347.50	5275.00	5235.00	1498.00	7.00	5.00	5.00	13.33	18.67
CC14	3.81	6.05	28600.00	31200.00	1.91	3.07	3783.33	4166.67	1630.00	1630.00	521.20	4.75	6.26	15.32	15.00	10.00
CC16C	2.01	6.01	49300.00	51800.00	1.01	3.01	4542.50	4602.50	956.00	981.00	543.00	2.50	7.31	7.00	6.49	11.67
CC19	7.00	5.00	34100.00	33350.00	3.50	2.50	8590.00	8200.00	5195.00	5195.00	1597.50	7.00	5.00	8.75	13.33	10.00
CC50	4.80	7.00	17700.00	18800.00	2.01	2.98	4087.50	4277.50	5200.00	5300.00	861.80	4.80	7.00	96.44	13.33	10.00
DM01	2.00	10.00	13800.00	14500.00	1.00	5.00			524.00	517.00	115.00	2.00	10.00	10.00		
DM24	2.53	2.63			1.29	1.29	5575.00	5710.00			657.50	5.00	5.00	76.85	10.00	10.00
DM32	1.29	7.50	7070.00	7180.00	0.78	3.75	1295.33	1212.00	143.00	156.00	196.50	1.50	7.50	7.50	2.33	11.67
DM4	1.00	5.00			0.50	2.50	5240.00	4980.00			505.00	1.00	5.00	106.00	2.00	10.00
SS001	1.60	8.00	4870.00	5005.00	0.80	4.00	410.33	442.33	41.15	42.70	36.08	1.60	8.15	7.50	2.33	11.67
SS002	1.75	8.75	3445.00	3445.00	0.88	4.38	782.50	796.00	289.50	302.00	101.10	1.75	7.52	20.75	2.50	12.50
SS003	1.75	8.75	4215.00	4205.00	0.88	4.38	1001.00	1010.00	303.00	314.50	137.65	1.75	8.09	23.33	2.50	12.50
SS004	1.60	8.00	4340.00	4545.00	0.80	4.00	814.00	853.00	160.50	165.50	103.72	1.60	8.00	13.21	2.33	11.67
SS005	1.34	10.00	14900.00	14800.00	1.00	5.00			141.00	165.00	166.00	2.00	10.00			
SS006	1.60	8.00	4045.00	4390.00	0.80	4.00	1170.00	1170.00	119.00	128.50	40.36	1.60	8.00	20.18	2.33	11.67
SS007	1.60	8.00	4545.00	4515.00	0.80	4.00	1016.67	1043.33	150.50	157.00	41.34	1.60	8.00	16.45	2.33	11.67
SS008	1.50	7.50	1210.00	1310.00	0.75	3.75	845.00	866.67	365.00	341.00	110.83	1.50	7.50	14.43	2.33	11.67
SS009	1.67	8.33	4220.00	4345.00	0.83	4.17	523.00	566.00	198.50	208.00	63.10	1.67	8.33	13.35	2.00	10.00
SS010	1.60	8.00	6070.00	6135.00	0.80	4.00	1406.67	1343.33	227.00	239.50	160.88	1.60	8.00	8.46	2.33	11.67
SS011	1.60	8.00	11570.00	12050.00	0.80	4.00	1240.00	1207.67	1465.00	1525.00	400.60	1.60	8.00	7.50	2.33	11.67
SS012	1.75	8.75	4399.00	4465.00	0.88	4.38	1955.00	1990.00	322.30	321.60	241.93	1.75	8.75	8.68	2.50	12.50
SS013	1.60	8.00	3070.00	3075.00	0.80	4.00	739.33	722.67	251.50	246.50	78.68	1.60	8.52	20.98	2.33	11.67
SS014	1.60	8.00	6550.00	6495.00	0.80	4.00	1310.00	1286.67	297.00	298.50	76.96	1.60	7.49	26.83	2.33	11.67
SS015	1.60	8.00	8095.00	8155.00	0.80	4.00	1780.00	1773.33	238.50	232.50	89.82	1.60	7.71	15.55	2.33	11.67
SS016	1.60	8.00	33200.00	35750.00	0.80	4.00	3386.67	3166.67	370.00	363.50	154.40	1.60	8.00	7.50	2.33	11.67

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T	TI D	TI T	Alk T	V D	V T
	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L
SS017	1.60	8.00	35250.00	36500.00	0.80	4.00	2933.33	2886.67	351.50	347.00	153.80	1.60	8.00	7.50	2.33	11.67
SS018	1.60	8.00	31600.00	32750.00	0.80	4.00	3203.33	3200.00	391.50	379.00	216.80	1.60	8.00	7.50	2.33	11.67
SS019	1.60	8.00	6110.00	6155.00	0.80	4.00	1340.00	1343.33	188.50	182.50	51.10	1.60	7.47	17.28	2.33	11.67
SS020	1.60	8.00	4745.00	4705.00	0.80	4.00	865.33	879.67	33.60	33.10	31.28	1.60	8.60	7.50	2.33	11.67
SS021	1.67	8.33	5340.00	5260.00	0.83	4.17	492.00	507.00	22.60	21.85	11.43	1.67	8.33	7.50	2.00	10.00
SS022	1.75	8.75	4790.00	6965.00	0.88	4.38	713.50	730.00	72.35	73.00	40.05	1.75	8.75	8.33	2.50	12.50
SS023	1.60	8.00	5070.00	5245.00	0.80	4.00	1210.00	1246.67	70.20	68.15	95.00	1.60	8.00	23.63	2.33	11.67
SS024	1.60	8.00	3670.00	3675.00	0.80	4.00	1241.00	1268.33	851.50	814.00	173.92	1.60	8.00	41.75	2.33	11.67
SS025	1.67	8.33	2275.00	2735.00	0.83	4.17	400.00	409.00	269.50	265.00	60.20	1.67	8.33	14.80	2.00	10.00
SS026	1.75	8.75	6615.00	4760.00	0.88	4.38	755.00	776.50	82.90	49.65	87.95	1.75	8.75	8.33	2.50	12.50
SS027	2.56	8.00	8820.00	8785.00	1.20	4.00	1157.00	1158.33	138.00	135.90	279.80	2.40	8.02	7.50	5.00	11.67
SS028	2.00	10.00	5470.00	5835.00	1.00	5.00	814.00	849.00	30.30	29.90	15.03	2.00	10.00	8.30	3.00	15.00
SS029	1.60	8.00	6900.00	6870.00	0.80	4.00	1102.67	1124.33	155.90	152.65	121.04	1.60	8.00	7.50	2.33	11.67
SS030	1.60	8.00	4145.00	4515.00	0.80	4.00	791.00	786.33	158.00	170.00	26.14	1.60	8.00	14.98	2.33	11.67
SS031	1.60	8.00	3855.00	3885.00	0.80	4.00	806.33	813.33	180.00	173.50	38.74	1.60	8.00	27.45	2.33	11.67
SS032	1.75	8.75	2210.00	2580.00	0.88	4.38	1290.00	1270.00	439.50	432.50	83.05	1.75	8.75	42.70	2.50	12.50
SS033	1.60	8.00	1118.50	1194.50	0.80	4.00	402.00	405.33	44.75	43.80	10.06	1.60	8.00	7.50	2.33	11.67
SS034	1.75	8.75	2710.00	2730.00	0.88	4.38	486.50	497.00	42.60	41.35	21.78	1.75	8.75	8.33	2.50	12.50
SS035	1.67	8.33	2925.00	4370.00	0.83	4.17	1510.00	1570.00	494.50	478.50	167.00	1.67	9.17	25.55	2.00	10.00
SS036	1.67	8.33	3580.00	3565.00	0.83	4.17	370.00	372.00	69.20	66.50	30.90	1.67	9.30	7.50	2.00	10.00
SS037	3.75	8.75	10720.00	10375.00	1.88	4.38	1700.00	1495.00	514.00	488.50	330.75	3.75	8.75	8.33	8.50	12.50
SS038	1.60	8.00	3300.00	3385.00	0.80	4.00	1296.67	1183.33	616.50	634.00	39.26	1.60	8.00	64.33	2.33	11.67
SS039	1.75	8.75	6225.00	6235.00	0.88	4.38	858.00	782.00	63.10	64.70	53.15	1.75	8.05	8.33	2.50	12.50
SS040	1.60	8.00	8215.00	8155.00	0.80	4.00	548.67	510.33	32.25	31.10	38.86	1.60	8.10	7.50	2.33	11.67
SS041	1.60	8.00	4605.00	4585.00	0.80	4.00	1247.00	1217.33	368.50	361.50	87.34	1.60	8.15	20.15	2.33	11.67
SS042	3.75	8.75	3535.00	4845.00	1.88	4.38	3158.50	3162.00	174.50	180.50	138.60	3.75	7.63	33.07	8.50	12.50
SS043	5.60	8.00	12200.00	12500.00	2.80	4.00	7333.33	7030.00	4020.00	4115.00	344.20	5.60	7.17	114.25	9.00	11.67
SS044	4.00	8.00	22300.00	23600.00	2.00	4.00	5053.33	4926.67	1530.00	1485.00	406.00	4.00	8.02	17.70	9.00	11.67
SS045	1.60	8.00	18400.00	18900.00	0.80	4.00	2483.33	2383.33	336.50	335.00	101.08	1.60	8.00	7.50	2.33	11.67
SS046	1.60	8.00	33000.00	34400.00	0.80	4.00	3503.33	3413.33	568.00	570.00	155.20	1.60	8.00	7.50	2.33	11.67
SS047	1.60	8.00	4585.00	4465.00	0.80	4.00	1176.67	1140.00	273.50	276.00	42.22	1.60	8.10	45.00	2.33	11.67

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T	Tl D	Tl T	Alk T	V D	V T
	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L
SS048	1.56	8.75	10450.00	11475.00	0.88	4.38	1510.00	1565.00	129.85	136.00	24.83	1.75	8.22	22.89	2.50	12.50
SS049	1.75	8.75	3895.00	3750.00	0.88	4.38	550.50	573.50	39.65	40.30	12.65	1.75	8.43	8.94	2.50	12.50
SS050	1.60	8.00	3810.00	4200.00	0.80	4.00	993.67	978.67	341.00	336.00	63.14	1.60	8.38	26.85	2.33	11.67
SS051	1.60	8.00	4570.00	4455.00	0.80	4.00	890.67	903.33	226.50	233.50	48.24	1.60	8.54	12.63	2.33	11.67
SS052	1.60	8.00	7930.00	8165.00	0.80	4.00	1283.33	1276.67	119.30	123.05	40.62	1.60	8.00	7.36	2.33	11.67
SS053	1.60	8.00	6945.00	7030.00	0.80	4.00	791.00	748.00	96.90	94.00	71.54	1.60	8.00	7.50	2.33	11.67
SS054	4.00	8.00	7785.00	7785.00	2.00	4.00	2960.00	2933.33	2485.00	2570.00	527.60	4.00	8.00	29.80	9.00	11.67
SS055	1.60	8.00	37300.00	38050.00	0.80	4.00	4510.00	4580.00	504.00	515.00	235.18	1.60	8.00	7.50	3.85	11.67
SS056	1.67	8.33	14150.00	13750.00	0.83	4.17	2190.00	2150.00	52.35	51.80	38.50	1.67	8.33	7.50	2.00	10.00
SS057	4.00	8.00	17250.00	18550.00	2.00	4.00	3986.67	4016.67	2480.00	2530.00	481.00	4.00	8.00	7.82	9.00	11.67
SS058	1.75	8.75	3930.00	3915.00	0.88	4.38	389.50	396.00	23.70	23.40	9.33	1.75	8.75	8.33	2.50	12.50
SS059	1.60	8.00	13250.00	13200.00	0.80	4.00	2180.00	2200.00	250.00	248.00	87.24	1.60	8.00	7.50	2.33	11.67
SS060	1.60	8.00	11735.00	11375.00	0.80	4.00	1230.00	1243.33	35.00	35.50	19.10	1.60	8.00	7.50	2.33	11.67
SS061	2.00	10.00	13970.00	14560.00	1.00	5.00			98.80	99.45	40.55	2.00	10.00	10.00		
SS062	1.60	8.00	21750.00	23350.00	0.80	4.00	5003.33	5136.67	458.00	461.00	268.60	1.60	8.00	8.10	2.33	11.67
SS063	7.75	8.75	17800.00	18100.00	3.88	4.38	2050.00	2200.00	1610.00	1560.00	534.50	7.75	8.75	18.03	8.50	12.50
SS064	5.60	8.00	6270.00	6285.00	2.80	4.00	2300.00	2173.33	1053.50	1036.50	315.40	5.60	9.04	17.86	9.00	11.67
SS065	8.24	10.00	31800.00	31750.00	4.20	5.00	8316.67	8163.33	2410.00	2430.00	1210.20	8.40	10.00	7.50	16.67	17.40
SS066	10.38	13.33	42600.00	43000.00	5.33	6.67	7970.00	8540.00	3890.00	4110.00	1460.00	10.67	13.33	10.00	30.00	30.00
SS067	10.62	8.00	53350.00	54100.00	4.00	4.00	7240.00	7150.00	1500.00	1535.00	775.20	8.24	7.65	7.50	11.67	11.67
SS068	4.00	8.00	38750.00	39450.00	2.00	4.00	5193.33	5240.00	842.50	883.00	417.80	4.00	7.84	7.50	5.00	11.67
SS069	1.60	8.00	29950.00	30950.00	0.80	4.00	4366.67	4293.33	487.00	507.00	238.00	1.60	8.00	7.50	2.33	11.67
SS070	1.60	8.00	29500.00	30950.00	0.80	4.00	3096.67	3093.33	391.00	413.50	122.98	1.60	8.00	7.50	2.33	11.67
SS071	4.80	8.00	16050.00	16350.00	2.40	4.00	2240.00	2160.00	1051.50	1100.00	274.40	4.80	7.33	80.30	2.33	11.67
SS072	7.20	8.00	13400.00	14550.00	3.60	4.00	1430.00	1380.00	556.00	595.00	565.60	7.20	9.14	21.90	9.00	11.67
SS073	7.20	8.00	15650.00	16450.00	3.60	4.00	1586.67	1550.00	825.50	847.00	483.00	7.20	9.56	62.98	9.00	11.67
SS074	8.83	8.75	18650.00	19750.00	4.38	4.38	1435.00	1430.00	487.00	515.50	766.25	8.75	8.75	8.33	12.50	12.50
SS075	7.20	8.00	8590.00	8770.00	3.60	4.00	1196.67	1166.67	702.50	732.50	435.60	7.20	8.00	97.95	9.00	11.67
SS076	1.60	8.00	1925.00	1920.00	0.80	4.00	694.33	694.00	24.20	23.60	15.72	1.60	8.00	5.87	2.33	11.67
SS077	1.60	8.00	3345.00	3510.00	0.80	4.00	745.33	737.00	120.15	119.70	4.50	1.60	8.00	32.88	2.33	11.67
SS078	1.60	8.00	2990.00	3105.00	0.80	4.00	883.00	844.67	220.50	224.50	10.44	1.60	8.00	46.15	2.33	11.67

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T	Tl D	Tl T	Alk T	V D	V T
	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L
SS079	1.60	8.00	2450.00	2480.00	0.80	4.00	518.00	456.00	128.00	125.00	54.54	1.60	8.00	18.90	2.33	11.67
SS080	1.50	7.50	1000.00	1000.00	0.75	3.75	629.67	619.00	46.10	48.00	31.15	1.50	7.50	17.81	2.33	11.67
SS082	1.09	7.50	27900.00	28200.00	0.75	3.75	853.00	893.00	11.30	11.70	6.90	1.50	7.50	5.00	2.00	10.00
SS083	1.55	8.33	27800.00	27650.00	0.83	4.17	1300.00	1290.00	493.00	472.50	353.33	1.67	7.53	7.50	2.00	10.00
SS084	1.67	8.33	25200.00	25250.00	0.83	4.17	1310.00	1320.00	450.00	440.00	328.50	1.67	8.33	7.50	2.00	10.00
SS085	7.50	7.50	34600.00	35300.00	3.75	3.75	7035.00	7145.00	3560.00	3415.00	884.75	7.50	7.50	6.67	10.00	10.00
SS086	5.60	8.00	42850.00	43600.00	2.80	4.00	5816.67	5830.00	1080.50	1140.00	604.60	5.60	8.00	7.50	9.00	11.67
SS087	1.43	8.00	14585.00	14805.00	0.80	4.00	443.00	448.33	347.50	355.00	176.90	1.60	8.00	7.50	2.33	11.67
SS088	1.60	8.00	17600.00	18400.00	0.80	4.00	477.33	492.00	12.25	13.05	10.23	1.60	8.96	8.33	2.33	11.67
SS089	1.60	8.00	3765.00	4290.00	0.80	4.00	3994.67	3881.33	335.00	342.50	55.04	1.60	9.24	70.93	2.33	11.67
SS090	1.50	7.50	3215.00	3365.00	0.75	3.75	517.50	543.50	134.10	136.85	50.13	1.50	7.50	7.89	2.00	10.00
SS091	1.75	8.75	4570.00	4760.00	0.88	4.38	378.50	391.00	10.80	10.80	21.50	1.75	8.75	8.33	2.50	12.50
SS092	1.75	8.75	4420.00	4640.00	0.88	4.38	918.50	917.50	195.50	190.50	27.55	1.75	8.75	6.65	2.50	12.50
SS093	2.00	7.50	9695.00	10795.00	1.00	3.75	807.00	833.00	300.00	302.50	60.25	2.00	7.50	5.39	2.00	10.00
SS094	2.50	7.50	5765.00	7600.00	1.25	3.75	1230.00	1228.00	2206.00	2312.50	487.98	2.50	7.50	8.97	6.00	10.00
SS095	2.40	8.00	5405.00	5580.00	1.20	4.00	1980.00	2033.33	2960.00	3135.00	189.22	2.40	8.00	64.63	5.00	11.67
SS096	3.75	8.75	10715.00	11450.00	1.88	4.38	534.00	556.00	15.75	16.90	20.00	3.75	8.75	8.33	2.50	12.50
SS097	2.00	10.00	14300.00	15600.00	1.00	5.00			37.25	41.05	28.40	2.00	10.00	19.00		
SS098	3.70	8.75	58800.00	59750.00	1.88	4.38	2715.00	2705.00	148.00	157.50	365.50	3.75	8.75	8.33	2.50	12.50
SS105	3.61	6.01	26000.00	27500.00	1.81	3.01	4782.50	4675.00	1220.00	1190.00	396.60	4.50	7.08	24.41	9.00	11.67
SS123	1.50	7.50	4250.00	4540.00	0.75	3.75	289.00	328.00	13.60	12.60	159.75	1.50	7.50	7.50	2.00	10.00
SS125	3.46	5.70			2.69	2.69	3265.00	4410.00			1270.00	10.00	10.00	7.50	15.00	15.00
SS126	4.47	6.07	26700.00	29000.00	2.35	3.17	267.33	276.67	16.70	16.00	231.16	5.50	7.39	7.00	11.67	11.67
SS200	5.50	7.50	29600.00	33400.00	2.75	3.75	6323.33	6433.33	2350.00	2330.00	737.25	5.50	7.50	29.78	11.67	11.67
SS201	7.79	10.00	43200.00	44900.00	4.00	5.00	8476.67	8616.67	3190.00	3170.00	1412.50	8.00	10.00	7.50	16.67	16.67
SS202	1.50	7.50	24200.00	28900.00	0.75	3.75	569.00	562.00	54.90	60.60	245.00	1.50	7.50	7.50	2.00	10.00
SS203	1.00	10.00	21900.00	23400.00	1.00	5.00			25.40	24.20	46.60	2.00	10.00	10.00		
SS204	4.08	10.00	25900.00	28300.00	3.00	5.00	563.00	582.00	386.00	398.00	620.50	6.00	10.00	10.00	3.00	15.00
SS205	2.00	10.00	3890.00	4040.00	1.00	5.00			5.79	6.55	3.50	2.00	10.00	10.00		
SS206	2.00	10.00	13500.00	13500.00	1.00	5.00	1000.00	1000.00	31.60	35.10	30.45	2.00	10.00	10.00	3.00	15.00
SS207	2.00	10.00	4330.00	5010.00	1.00	5.00			9.77	11.60	16.60	2.00	10.00	10.00		

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T	Tl D	Tl T	Alk T	V D	V T
	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L
SS208	1.50	7.50	20200.00	19800.00	0.75	3.75	512.33	502.00	23.90	22.40	36.23	1.50	7.13	7.50	2.33	11.67
SS210	2.28	7.50	10900.00	11000.00	1.25	3.75	1806.67	1890.00	163.00	158.00	500.50	2.50	7.14	7.50	5.00	11.67
SS211	2.00	10.00	4250.00	4470.00	1.00	5.00			173.00	165.00	102.00	2.00	10.00	10.00		
SS212	2.00	10.00	5030.00	5040.00	1.00	5.00			48.20	47.90	40.20	2.00	10.00	10.00		
SS213	2.00	10.00	3730.00	3740.00	1.00	5.00			28.30	26.50	21.40	2.00	10.00	10.00		
SS214	1.28	10.00	6850.00	6870.00	1.00	5.00			687.00	663.00	280.00	2.00	10.00	9.35		
SS215	1.67	8.33	4600.00	4590.00	0.83	4.17	539.50	537.00	26.60	26.20	19.53	1.67	8.33	8.33	2.50	12.50
SS216	1.50	7.50	5260.00	5310.00	0.75	3.75	431.00	438.00	23.50	23.60	4.05	1.50	7.50	7.26	2.00	10.00
SS217	1.33	6.67	2550.00	2620.00	0.67	3.33	664.00	670.50	56.50	56.70	32.07	1.33	6.67	20.40	2.00	10.00
SS218	1.33	6.67	6700.00	6850.00	0.67	3.33	643.50	652.50	620.00	565.00	257.67	1.33	6.67	6.87	2.00	10.00
SS219	1.50	7.50	8700.00	8920.00	0.91	3.75	609.00	654.67	42.60	45.30	85.25	1.50	7.50	7.50	2.33	11.67
SS220	1.88	6.67	28000.00	28500.00	0.67	3.33	5390.00	5300.00	184.00	181.00	1037.00	1.33	6.67	6.67	2.00	10.00
SS221	7.50	7.50	21700.00	22900.00	3.75	3.75	4870.00	4580.00	134.00	141.00	903.50	7.50	7.50	7.50	10.00	10.00
SS222	7.50	7.50	17900.00	18600.00	3.75	3.75	2220.00	2120.00	101.00	101.00	991.00	7.50	7.50	7.50	10.00	10.00
SS223	1.50	7.50	3250.00	3280.00	0.75	3.75	467.67	468.00	16.00	16.50	6.53	1.50	7.50	10.78	2.33	11.67
SS224	10.00	10.00	11100.00	11700.00	5.00	5.00			524.00	489.00	365.00	10.00	10.00	10.00		
SS225	1.50	7.50	10100.00	9930.00	0.75	4.30	297.00	306.00	153.00	142.00	243.00	1.50	5.93	7.50	2.00	10.00
SS226	1.50	7.50	2610.00	2600.00	0.75	3.75	250.00	250.00	18.20	16.50	24.45	1.50	6.05	7.50	2.00	10.00
SS227	10.00	10.00			5.00	5.00	3080.00	3170.00			591.00	10.00	10.00	9.99	15.00	15.00
SS228	7.50	7.50			3.75	3.75	5905.00	5915.00			847.50	7.50	7.50	7.50	12.50	12.50
SS229	5.50	7.50			2.75	3.75	1495.00	1565.00			285.50	5.50	7.50	51.70	8.50	12.50
SS230	1.61	7.50			0.75	3.75	3915.00	4050.00			240.50	1.50	7.50	7.50	2.50	12.50
SS231	1.33	6.67			0.67	3.33	1168.67	1105.00			37.67	1.33	6.67	65.30	2.33	11.67
SS232	1.06	10.00			1.00	5.00	704.00	751.00			92.70	2.00	10.00	10.00	3.00	15.00
SS235	1.50	7.50			0.75	3.75	1280.00	1260.00			203.00	1.72	7.50	7.50	2.50	12.50
SS236	3.50	7.50			1.75	3.75	5610.00	5655.00			446.50	3.50	7.50	7.50	6.50	12.50
SS238	1.50	7.50			0.75	3.75	1135.00	1140.00			654.00	1.50	7.50	7.50	2.50	12.50
SS250	8.75	6.25			4.38	3.13	7640.00	7792.50			698.75	8.75	6.25	49.00	15.00	11.25
SS300	1.00	5.00			0.50	2.50	999.50	1065.00			22.50	1.00	5.00	5.00	2.00	10.00
SS301	5.00	5.00			2.50	2.50	8090.00	7925.00			1370.00	5.00	5.00	5.00	10.00	10.00
SS304	1.50	7.50	4170.00	4320.00	0.75	3.75	480.00	461.00	59.00	60.00	52.10	1.50	7.50	7.50	2.00	10.00

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D	Na T	Sr D	Sr T	SO4 T	TI D	TI T	Alk T	V D	V T
	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L	avg mg/L	avg µg/L	avg µg/L
SS305	1.50	7.50			0.75	3.75	3190.00	2905.50			266.05	1.50	7.50	79.15	2.50	12.50

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Zn D	Zn T	Al D Ld	Al T Ld	SB D Ld	Sb T Ld	As D Ld	As T Ld	Ba D Ld	Ba T Ld	Be D Ld	Be T Ld
	avg µg/L	avg µg/L	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
A23A	3187.50	3452.50	0.00592438	0.00855671	0.00000327	0.00001633	0.00000327	0.00001633	0.00010124	0.00016330	0.00001306	0.00001306
A38	1243.33	1270.00	0.00058907	0.00070904	0.00004032	0.00008064	0.00003324	0.00008556	0.00050602	0.00080640	0.00005891	0.00005891
CC01A	2752.50	2672.50	0.00505272	0.04570104	0.00003716	0.00017741	0.00009557	0.00047785	0.00047001	0.00177408	0.00025856	0.00025856
CC01B	31975.00	30720.00	0.72010901	0.71571709	0.00054931	0.00054931	0.00059567	0.00091326	0.00470160	0.00470160	0.00090447	0.00087017
CC01C	12898.00	12498.00	0.12466199	0.13174978	0.00000148	0.00000738	0.00007289	0.00035943	0.00001599	0.00007380	0.00021754	0.00021754
CC03D	14216.67	14216.67	5.17269110	5.25445853	0.00530752	0.00444341	0.00654293	0.00574035	0.05233032	0.03504816	0.01031165	0.01028824
CC06	24100.00	23740.00	102.45110170	105.79217242	0.01088699	0.00929185	0.14117354	0.20844018	0.08710704	0.06805584	0.02434072	0.02454857
CC14	877.60	935.60	5.44011618	7.47732118	0.01226700	0.00706860	0.01355465	0.02991511	0.12267000	0.07068600	0.01787387	0.00899648
CC16C	987.00	995.80	0.42069936	0.44277192	0.00007537	0.00022225	0.00050193	0.00060388	0.00075372	0.00222252	0.00022074	0.00018032
CC19	20160.00	20060.00	2.37529716	2.48040207	0.00203518	0.00147286	0.00203518	0.00147286	0.01321968	0.00990768	0.00332857	0.00335079
CC50	501.17	555.00	0.13683727	0.18500859	0.00469476	0.00344736	0.00357621	0.01028044	0.04694760	0.03447360	0.00607004	0.00607004
DM01	2510.00	2680.00	0.06849792	0.06877440			0.00013824	0.00069120			0.00034560	0.00034560
DM24	192.50	243.50	0.01018332	0.02865024	0.00055800	0.00055800	0.00036490	0.00067640	0.00558000	0.00558000	0.00044640	0.00044640
DM32	10525.00	9830.00	0.04943104	0.05008279	0.00001116	0.00005580	0.00002648	0.00013241	0.00024048	0.00055800	0.00007228	0.00007228
DM4	560.00	534.00	0.00021773	0.00021773	0.00000544	0.00002722	0.00000544	0.00002722	0.00007468	0.00027216	0.00002177	0.00002177
SS001	273.40	266.80	0.02829736	0.03640732	0.00001274	0.00005795	0.00016122	0.00080609	0.00064466	0.00066834	0.00041176	0.00041176
SS002	99.30	98.05	0.00053830	0.00033777	0.00000741	0.00005233	0.00002121	0.00010604	0.00003155	0.00009000	0.00005383	0.00005383
SS003	1335.00	1275.00	0.00015094	0.00018415	0.00001120	0.00002709	0.00000947	0.00004736	0.00000849	0.00004500	0.00002382	0.00002382
SS004	2052.20	1916.20	0.00051393	0.00086804	0.00000821	0.00004106	0.00001631	0.00008153	0.00035852	0.00035092	0.00004465	0.00004465
SS005	14200.00	16000.00	0.00031414	0.00034935	0.00000093	0.00000463	0.00000185	0.00000927			0.00000463	0.00000463
SS006	16.00	17.44	0.00182082	0.00309686	0.00001317	0.00006587	0.00007197	0.00035984	0.00010906	0.00020237	0.00018208	0.00018208
SS007	16.00	17.10	0.00338612	0.00438634	0.00006761	0.00033803	0.00011095	0.00055473	0.00477957	0.00497571	0.00033861	0.00033861
SS008	15.23	27.33	0.00936133	0.11627598	0.00025612	0.00112964	0.00025835	0.00129173	0.00721829	0.01487327	0.00093613	0.00093613
SS009	32.67	35.60	0.00042219	0.00089235	0.00001615	0.00007989	0.00001468	0.00007340	0.00047520	0.00108000	0.00004750	0.00004750
SS010	106.68	114.70	0.00309593	0.00728927	0.00001486	0.00005052	0.00000959	0.00004793	0.00057166	0.00099614	0.00003487	0.00003487
SS011	549.00	544.40	0.02260396	0.02370468	0.00000489	0.00002443	0.00000747	0.00003737	0.00009590	0.00021600	0.00001735	0.00001725
SS012	446.00	424.25	0.00570724	0.00546308	0.00001685	0.00008423	0.00007487	0.00037044	0.00070546	0.00113400	0.00020337	0.00020337
SS013	65.10	72.48	0.05896839	0.16232323	0.00055382	0.00276910	0.00422804	0.02114022	0.02639807	0.03897460	0.01097893	0.01097893
SS014	16.00	16.00	0.00507371	0.00394209	0.00008885	0.00044423	0.00018916	0.00094578	0.00099343	0.00277962	0.00050737	0.00050737
SS015	16.00	16.00	0.01149461	0.04806092	0.00021785	0.00108926	0.00065710	0.00328549	0.00403656	0.01016267	0.00176865	0.00176865
SS016	203.60	198.40	0.00881917	0.00883683	0.00000804	0.00004021	0.00001307	0.00006535	0.00007344	0.00036720	0.00003302	0.00003302

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Zn D	Zn T	Al D Ld	Al T Ld	SB D Ld	Sb T Ld	As D Ld	As T Ld	Ba D Ld	Ba T Ld	Be D Ld	Be T Ld
	avg µg/L	avg µg/L	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS017	445.00	436.00	0.00965706	0.00966559	0.00000259	0.00001294	0.00000683	0.00003416	0.00002736	0.00013680	0.00001913	0.00001913
SS018	1600.00	1554.00	0.30709802	0.30427208	0.00004846	0.00024229	0.00007682	0.00038412	0.00053585	0.00241107	0.00021472	0.00021472
SS019	85.84	84.52	0.00050847	0.00050847	0.00001121	0.00005605	0.00001876	0.00009379	0.00023612	0.00039093	0.00005085	0.00005085
SS020	57.18	55.82	0.05402336	0.05549100	0.00005156	0.00025782	0.00010066	0.00050328	0.00129456	0.00223200	0.00027432	0.00027432
SS021	95.87	90.83	0.00750422	0.00915404	0.00005864	0.00029318	0.00005130	0.00025650	0.00283392	0.00576000	0.00018585	0.00018585
SS022	204.75	199.75	0.00312167	0.00365217	0.00001072	0.00005187	0.00004742	0.00023711	0.00016884	0.00034200	0.00012260	0.00012260
SS023	79.56	83.78	0.00280662	0.00395335	0.00006867	0.00034333	0.00010354	0.00051769	0.00462654	0.00454728	0.00026019	0.00026019
SS024	35.10	35.12	0.00441679	0.00513754	0.00009089	0.00045447	0.00022845	0.00114223	0.00521630	0.00562584	0.00064283	0.00064283
SS025	16.60	19.50	0.00028088	0.00088032	0.00000483	0.00002413	0.00000980	0.00004898	0.00018432	0.00036000	0.00002809	0.00002809
SS026	1726.75	1587.50	0.03706099	0.03444635	0.00001071	0.00005353	0.00004241	0.00021206	0.00024814	0.00064080	0.00011186	0.00011186
SS027	4122.00	3974.00	0.50155842	0.49448525	0.00011310	0.00029519	0.00017683	0.00071135	0.00157795	0.00266400	0.00038419	0.00038419
SS028	19.43	20.63	0.00005147	0.00007372	0.00000140	0.00000698	0.00000282	0.00001410	0.00000368	0.00003600	0.00000705	0.00000705
SS029	1124.40	1068.00	0.16171776	0.16309658	0.00022039	0.00108992	0.00068411	0.00342055	0.00960252	0.01029356	0.00179598	0.00179598
SS030	14.74	14.80	0.00002864	0.00003024	0.00000054	0.00000270	0.00000101	0.00000504	0.00000541	0.00002400	0.00000274	0.00000274
SS031	16.00	16.00	0.00033346	0.00043048	0.00000704	0.00003520	0.00001126	0.00005632	0.00013797	0.00032400	0.00003335	0.00003335
SS032	15.43	15.75	0.00112461	0.00095306	0.00000657	0.00003283	0.00004369	0.00021844	0.00036518	0.00030917	0.00011246	0.00011246
SS033	17.82	18.24	0.00002736	0.00003704	0.00000054	0.00000270	0.00000101	0.00000557	0.00000536	0.00002400	0.00000274	0.00000274
SS034	955.75	900.25	0.00024840	0.00027180	0.00000060	0.00000300	0.00000117	0.00000585	0.00001296	0.00002700	0.00000306	0.00000306
SS035	29.07	46.23	0.00845826	0.05444169	0.00001179	0.00005757	0.00033551	0.00167755	0.00100339	0.00104832	0.00084814	0.00084814
SS036	574.33	546.67	0.00010460	0.00013051	0.00000089	0.00000444	0.00000322	0.00001612	0.00000373	0.00001800	0.00000824	0.00000824
SS037	736.50	705.00	0.09099836	0.10460626	0.00001272	0.00004438	0.00003149	0.00012867	0.00036943	0.00055800	0.00007162	0.00007162
SS038	16.00	16.00	0.00281088	0.00320590	0.00002628	0.00013140	0.00010915	0.00054576	0.00068525	0.00147437	0.00028109	0.00028109
SS039	1427.50	1365.00	0.02391884	0.02410189	0.00000878	0.00004392	0.00005190	0.00025949	0.00012342	0.00022680	0.00013299	0.00013299
SS040	1612.80	1512.00	0.05660449	0.05511128	0.00000495	0.00002473	0.00020235	0.00101175	0.00006948	0.00025800	0.00050858	0.00050858
SS041	1392.00	1337.00	0.00815691	0.01225022	0.00005495	0.00020764	0.00011900	0.00059502	0.00067858	0.00186000	0.00031803	0.00031803
SS042	1270.50	1404.50	0.00039187	0.00199884	0.00001992	0.00003239	0.00003207	0.00005957	0.00026680	0.00030600	0.00003059	0.00003059
SS043	47.98	59.80	0.00121484	0.00190491	0.00007469	0.00010206	0.00012528	0.00016661	0.00104170	0.00075456	0.00008965	0.00008965
SS044	744.60	831.60	0.03965535	0.04336276	0.00005285	0.00010288	0.00014948	0.00034710	0.00055440	0.00065040	0.00030346	0.00030346
SS045	733.60	721.20	0.01538862	0.01555163	0.00000850	0.00004248	0.00002840	0.00014198	0.00005568	0.00027840	0.00007211	0.00007211
SS046	2544.00	2506.00	0.01835121	0.01896473	0.00000720	0.00003602	0.00001325	0.00006627	0.00006276	0.00026400	0.00003486	0.00003486
SS047	17.62	18.04	0.02273463	0.02273463	0.00008815	0.00044073	0.00089104	0.00445519	0.00273848	0.00337233	0.00227346	0.00227346

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Zn D	Zn T	Al D Ld	Al T Ld	SB D Ld	Sb T Ld	As D Ld	As T Ld	Ba D Ld	Ba T Ld	Be D Ld	Be T Ld
	avg µg/L	avg µg/L	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS048	20.28	21.18	0.03018622	0.41607256	0.00007482	0.00037409	0.00112932	0.00568507	0.00151374	0.00548189	0.00291612	0.00291612
SS049	17.50	17.50	0.00135332	0.00139796	0.00000297	0.00001484	0.00005305	0.00026526	0.00003682	0.00018720	0.00013533	0.00013533
SS050	30.40	49.40	0.01535036	0.12035461	0.00008517	0.00042587	0.00058308	0.00291542	0.00284912	0.00539032	0.00154437	0.00154437
SS051	14.50	19.10	0.00218068	0.00414089	0.00002161	0.00010805	0.00006885	0.00034424	0.00048919	0.00109498	0.00018551	0.00018551
SS052	71.26	70.74	0.00008471	0.00037062	0.00000142	0.00000709	0.00000338	0.00001692	0.00001279	0.00005820	0.00000938	0.00000938
SS053	505.20	476.60	0.03487991	0.03709895	0.00001078	0.00005391	0.00005010	0.00025049	0.00015639	0.00043080	0.00012781	0.00012781
SS054	38.90	44.94	0.00245708	0.00599438	0.00006270	0.00022781	0.00009625	0.00036660	0.00156858	0.00251482	0.00022587	0.00022587
SS055	1507.80	1484.00	0.05593852	0.05979214	0.00000426	0.00002130	0.00001022	0.00007638	0.00001857	0.00006780	0.00003933	0.00003933
SS056	642.67	606.00	0.00519489	0.00512959	0.00000083	0.00000417	0.00001255	0.00006274	0.00000721	0.00001260	0.00003150	0.00003150
SS057	2976.80	3081.20	0.00015448	0.00027955	0.00000162	0.00000269	0.00000213	0.00000785	0.00002220	0.00002554	0.00000272	0.00000272
SS058	151.95	137.88	0.00006293	0.00007202	0.00000060	0.00000300	0.00000117	0.00000585	0.00000540	0.00002700	0.00000306	0.00000306
SS059	655.20	623.80	0.02610765	0.02802703	0.00001315	0.00006575	0.00006093	0.00030463	0.00015371	0.00068400	0.00016160	0.00016160
SS060	345.60	328.20	0.00923503	0.01027482	0.00001052	0.00005261	0.00003060	0.00015301	0.00005460	0.00034080	0.00008005	0.00008005
SS061	293.00	272.50	0.00081189	0.00129731	0.00000071	0.00000354	0.00000503	0.00002514			0.00001257	0.00001257
SS062	781.92	791.80	0.00721835	0.01003906	0.00000281	0.00001403	0.00001023	0.00005117	0.00008230	0.00017520	0.00002733	0.00002733
SS063	724.13	790.25	0.02177378	0.02594823	0.00000982	0.00001078	0.00004335	0.00004407	0.00004356	0.00007164	0.00002230	0.00002230
SS064	42.46	46.22	0.00060767	0.00204801	0.00004180	0.00004468	0.00006962	0.00009266	0.00010081	0.00013342	0.00004776	0.00004776
SS065	12736.00	12350.00	0.16247240	0.16137233	0.00009854	0.00009854	0.00016321	0.00020929	0.00119400	0.00119400	0.00007385	0.00007371
SS066	15000.00	14733.33	0.07530700	0.07737100	0.00002887	0.00002887	0.00003951	0.00005769	0.00014400	0.00014400	0.00002645	0.00002080
SS067	11880.00	11860.00	0.02299782	0.02342982	0.00000728	0.00000543	0.00001014	0.00000868	0.00003600	0.00003600	0.00000443	0.00000449
SS068	6264.00	6284.00	0.03425054	0.03553363	0.00002055	0.00003063	0.00003087	0.00006197	0.00016819	0.00026400	0.00003358	0.00003358
SS069	6422.00	6380.00	0.01448329	0.01477199	0.00000230	0.00001150	0.00000688	0.00003442	0.00002646	0.00011700	0.00001393	0.00001368
SS070	2728.00	2738.00	0.01415351	0.01494828	0.00000342	0.00001708	0.00001151	0.00005757	0.00005899	0.00015600	0.00003008	0.00003008
SS071	345.40	364.00	0.04386557	0.06777334	0.00041055	0.00089194	0.00200779	0.00264032	0.00188003	0.00825855	0.00139424	0.00139424
SS072	541.00	560.20	0.02493202	0.04212037	0.00022345	0.00023546	0.00035384	0.00036421	0.00123747	0.00140880	0.00019234	0.00019234
SS073	428.80	473.40	0.00394643	0.00656206	0.00006250	0.00006759	0.00011377	0.00012087	0.00055956	0.00061320	0.00006198	0.00006371
SS074	1290.00	1275.00	0.04920260	0.05106339	0.00001498	0.00001498	0.00005990	0.00005302	0.00011700	0.00011700	0.00002929	0.00002928
SS075	466.40	453.00	0.01785881	0.01691062	0.00081571	0.00086620	0.00178487	0.00181654	0.00687094	0.00722307	0.00095188	0.00095188
SS076	16.00	16.66	0.00001706	0.00019061	0.00000057	0.00000270	0.00000101	0.00000504	0.00001114	0.00002981	0.00000274	0.00000274
SS077	16.00	16.00	0.00649264	0.01381333	0.00001983	0.00009902	0.00025832	0.00129162	0.00072336	0.00084250	0.00064926	0.00064926
SS078	16.38	16.00	0.00399302	0.01293024	0.00005043	0.00024677	0.00015125	0.00075627	0.00160339	0.00193978	0.00039930	0.00039930

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Site ID	Zn D	Zn T	Al D Ld	Al T Ld	SB D Ld	Sb T Ld	As D Ld	As T Ld	Ba D Ld	Ba T Ld	Be D Ld	Be T Ld
	avg µg/L	avg µg/L	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS079	16.00	17.62	0.00183721	0.00120225	0.00000282	0.00001392	0.00007336	0.00036679	0.00004743	0.00016241	0.00018372	0.00018372
SS080	15.00	15.00	0.00003420	0.00004388	0.00000073	0.00000360	0.00000149	0.00000630	0.00000954	0.00003600	0.00000342	0.00000342
SS082	15.00	15.00	0.00027428	0.00173733	0.00000623	0.00002887	0.00001011	0.00005054	0.00002880	0.00014400	0.00002743	0.00002743
SS083	3360.00	3283.33	0.17394718	0.17333506	0.00000755	0.00003777	0.00006474	0.00032278	0.00014400	0.00072000	0.00016869	0.00016868
SS084	3036.67	2955.67	0.33709476	0.35910933	0.00000252	0.00001262	0.00054732	0.00273873	0.00002160	0.00010800	0.00136836	0.00136834
SS085	3002.50	2877.50	0.00195210	0.00244728	0.00000540	0.00000540	0.00003015	0.00003015	0.00006300	0.00006300	0.00001602	0.00001602
SS086	1582.00	1622.00	0.01485658	0.01555139	0.00000279	0.00000399	0.00001162	0.00001315	0.00003360	0.00004320	0.00000714	0.00000714
SS087	159.08	159.10	0.67883528	0.65487574	0.00003709	0.00018543	0.00023777	0.00118886	0.00203184	0.00221040	0.00061819	0.00060273
SS088	16.04	16.26	0.00465277	0.00488598	0.00000245	0.00001195	0.00002187	0.00010372	0.00024244	0.00023532	0.00005240	0.00005240
SS089	16.00	16.00	0.00017797	0.00048242	0.00000126	0.00000632	0.00000610	0.00003474	0.00003055	0.00005736	0.00001750	0.00001750
SS090	15.00	15.00	0.00004950	0.00008261	0.00000068	0.00000338	0.00000194	0.00000971	0.00007686	0.00007589	0.00000508	0.00000508
SS091	25.98	24.03	0.00195042	0.00226647	0.00000414	0.00002069	0.00000806	0.00002991	0.00018191	0.00019541	0.00001637	0.00001637
SS092	17.50	17.50	0.00012258	0.00015157	0.00000174	0.00000867	0.00000545	0.00002723	0.00004820	0.00004389	0.00001367	0.00001367
SS093	32.98	33.25	0.00770386	0.00959250	0.00000532	0.00002426	0.00000614	0.00002717	0.00030191	0.00034879	0.00002028	0.00001851
SS094	251.10	309.80	0.01693773	0.02159547	0.00000452	0.00001230	0.00010742	0.00011414	0.00015206	0.00017280	0.00000793	0.00000793
SS095	16.00	17.22	0.00025219	0.00127613	0.00000450	0.00002069	0.00000897	0.00005313	0.00005050	0.00015600	0.00002678	0.00002678
SS096	483.25	449.48	0.00127688	0.00138132	0.00000159	0.00000322	0.00000432	0.00001562	0.00006568	0.00005702	0.00001156	0.00000802
SS097	474.65	495.95	0.00022023	0.00065515	0.00000038	0.00000191	0.00000110	0.00000551			0.00000275	0.00000275
SS098	13747.50	13190.00	0.04749746	0.04723808	0.00000265	0.00001072	0.00000252	0.00001715	0.00004605	0.00015120	0.00000868	0.00000868
SS105	1006.20	1018.20	0.08606927	0.08491796	0.00032001	0.00019213	0.00181437	0.00200842	0.00295487	0.00192129	0.00079639	0.00079639
SS123	207.50	212.00	0.04577040	0.04806000	0.00000216	0.00001080	0.00006270	0.00007772	0.00005184	0.00010800	0.00013392	0.00013392
SS125	23650.00	25800.00	0.02373120	0.02708640	0.00000720	0.00000720	0.00001896	0.00002405	0.00007200	0.00007200	0.00000720	0.00000720
SS126	8592.98	8154.30	0.10630282	0.10845216	0.00004089	0.00004331	0.00071454	0.00085870	0.00037200	0.00037200	0.00013860	0.00013860
SS200	251.25	265.25	0.00193950	0.00283248	0.00008160	0.00008160	0.00010634	0.00015888	0.00081600	0.00081600	0.00009756	0.00009756
SS201	16725.00	16925.00	0.35377920	0.35133120	0.00009552	0.00009552	0.00013500	0.00015804	0.00095520	0.00095520	0.00005634	0.00004774
SS202	8500.00	8440.00	0.09339120	0.10527480	0.00000036	0.00000180	0.00002243	0.00002332	0.00000609	0.00001800	0.00004392	0.00004392
SS203	3270.00	3670.00	0.00705600	0.00730800			0.00000720	0.00003600			0.00001800	0.00001800
SS204	5474.50	6768.00	0.02456273	0.02690309	0.00000187	0.00000936	0.00100411	0.00098568	0.00012599	0.00008218	0.00000900	0.00000900
SS205	20.00	20.00	0.00013392	0.00036202			0.00000864	0.00004320			0.00002160	0.00002160
SS206	97.30	94.10	0.00931176	0.01122768	0.00000497	0.00001996	0.00007042	0.00033221	0.00013954	0.00015638	0.00007560	0.00007560
SS207	14.50	14.90	0.00030384	0.00067104			0.00000288	0.00001440			0.00000720	0.00000720

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	avg µg/L	avg µg/L	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS208	24.08	26.85	0.00314721	0.00319230	0.00000318	0.00001590	0.00000554	0.00002453	0.00014803	0.00014905	0.00001314	0.00001314
SS210	4852.50	4642.50	0.90813714	0.91728864	0.00004149	0.00012600	0.00017438	0.00085391	0.00041672	0.00126024	0.00023860	0.00023888
SS211	455.00	457.00	0.00242784	0.00302400			0.00000864	0.00004320			0.00002160	0.00002160
SS212	1030.00	1030.00	0.03024000	0.03302208			0.00024192	0.00120960			0.00060480	0.00060480
SS213	187.00	186.00	0.00237427	0.00247277			0.00005184	0.00025920			0.00012960	0.00012960
SS214	13500.00	13100.00	0.08570880	0.10990080			0.00013824	0.00069120			0.00034560	0.00034560
SS215	163.00	155.67	0.04717556	0.05706195	0.00011460	0.00057302	0.00024986	0.00124931	0.00342184	0.00573024	0.00073854	0.00073854
SS216	35.75	37.70	0.00083650	0.00157680	0.00000576	0.00002880	0.00001728	0.00008640	0.00005760	0.00028800	0.00004752	0.00004752
SS217	18.70	21.93	0.00273619	0.00257160	0.00000954	0.00004770	0.00010236	0.00051180	0.00020536	0.00050580	0.00026544	0.00026544
SS218	329.33	320.67	0.03392352	0.04789920	0.00002196	0.00010980	0.00001944	0.00009720	0.00085039	0.00109800	0.00007056	0.00007056
SS219	4075.00	3782.50	0.07274520	0.07858440	0.00000600	0.00003000	0.00003258	0.00024680	0.00013819	0.00030000	0.00012780	0.00012780
SS220	8270.00	8003.33	2.72754027	2.71325276	0.00000648	0.00003240	0.00003796	0.00029415	0.00006869	0.00032400	0.00624748	0.00653113
SS221	8270.00	8050.00	0.45086400	0.47707200	0.00001826	0.00000720	0.00007560	0.00007560	0.00007200	0.00007200	0.00091368	0.00095184
SS222	14700.00	14500.00	5.72184000	5.93136000	0.00003600	0.00003600	0.00073800	0.00073800	0.00036000	0.00036000	0.00848376	0.00884448
SS223	61.10	98.40	0.00063360	0.00070333	0.00000593	0.00002880	0.00002448	0.00012240	0.00005914	0.00028800	0.00006336	0.00006336
SS224	10000.00	9860.00	0.18904320	0.19008000			0.00034560	0.00034560			0.00086400	0.00011336
SS225	8060.00	7670.00	0.03188160	0.03633120	0.00000432	0.00002160	0.00004536	0.00036850	0.00004726	0.00021600	0.00011664	0.00011673
SS226	3325.00	3080.00	0.00540720	0.00557424	0.00000576	0.00002880	0.00008208	0.00041040	0.00013709	0.00028800	0.00020952	0.00020952
SS227	75.00	70.00	0.00225000	0.00232200	0.00000900	0.00000900	0.00001800	0.00001800	0.00009000	0.00009000	0.00000900	0.00000900
SS228	8625.00	8255.00	0.08049600	0.07675200	0.00001620	0.00001620	0.00002340	0.00002340	0.00016200	0.00016200	0.00001344	0.00001299
SS229	476.50	452.50	0.00008626	0.00009449	0.00000576	0.00001008	0.00001044	0.00001476	0.00008071	0.00010080	0.00000900	0.00000900
SS230	8700.00	8605.00	0.03078000	0.03157920	0.00000264	0.00001242	0.00000479	0.00002394	0.00008850	0.00009014	0.00001224	0.00001224
SS231	13.33	13.33	0.00014688	0.00014715	0.00000355	0.00001776	0.00000403	0.00002016	0.00017729	0.00019248	0.00001469	0.00001469
SS232	21500.00	20100.00										
SS235	4895.00	4590.00	1.23552000	1.26144000	0.00008640	0.00043200	0.00011837	0.00086400	0.00125280	0.00432000	0.00021341	0.00021514
SS236	7485.00	7225.00	0.18244800	0.17690400	0.00003600	0.00005040	0.00003960	0.00006840	0.00035150	0.00050400	0.00005232	0.00005098
SS238	1145.00	1090.00	0.02347920	0.02325600	0.00000180	0.00000900	0.00000252	0.00001260	0.00001800	0.00009000	0.00000792	0.00000792
SS250	134.88	401.43	0.00127406	0.00485809	0.00018481	0.00015074	0.00025925	0.00030236	0.00184809	0.00157282	0.00012741	0.00012741
SS300	602.00	583.00	0.00801270	0.00942120	0.00000585	0.00002925	0.00000585	0.00002925	0.00007319	0.00029250	0.00002340	0.00002340
SS301	13400.00	12600.00	0.32097600	0.32781600	0.00004500	0.00004500	0.00004500	0.00004500	0.00045000	0.00045000	0.00003600	0.00003600
SS304	1059.50	987.50	0.09262370	0.09649123	0.00000216	0.00001080	0.00027363	0.00136815	0.00013694	0.00013392	0.00068569	0.00068569

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Zn D	Zn T	Al D Ld	Al T Ld	SB D Ld	Sb T Ld	As D Ld	As T Ld	Ba D Ld	Ba T Ld	Be D Ld	Be T Ld
	avg µg/L	avg µg/L	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS305	269.00	270.00	0.00475200	0.00765072	0.00009504	0.00047520	0.00019008	0.00095040	0.00198634	0.00475200	0.00047520	0.00047520

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Br T Ld	Cd D Ld	Cd T Ld	Ca D Ld	Ca T Ld	Cl T Ld	Cr D Ld	Cr T Ld	Co D Ld	Co T Ld	Cu D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
A23A	0.00326592	0.00006597	0.00005768	0.18615744	0.18027878	0.00653184	0.00000653	0.00003266	0.00000810	0.00000843	0.00075769
A38	0.08064000	0.00000725	0.00001269	4.83237572	4.92914372	0.17111492	0.00007773	0.00013932	0.00011511	0.00010677	0.00006512
CC01A	0.04130552	0.00070722	0.00068461	5.15774310	5.17774378	0.15081937	0.00010866	0.00054331	0.00006423	0.00006473	0.00568217
CC01B	0.39600000	0.01018158	0.00965674	49.68096480	50.62275072	2.06388000	0.00117857	0.00143274	0.00450660	0.00418692	0.00383245
CC01C	0.00007200	0.00099142	0.00102491	0.51170256	0.52701336	0.10430400	0.00009567	0.00035778	0.00002778	0.00002980	0.03416748
CC03D	7.00963200	0.02287834	0.02284105	683.64509760	690.57555840	15.36691200	0.01244731	0.01129517	0.15352062	0.14720227	0.00997734
CC06	8.48016000	0.26274030	0.24474951	1065.99335040	1058.29327872	28.30844160	0.02761897	0.02114770	0.19431198	0.19231998	20.40906897
CC14	7.06860000	0.01391612	0.01415033	668.29409418	712.81494628	67.25433024	0.01516068	0.03190242	0.05950296	0.05765688	0.09014912
CC16C	0.13537800	0.00017227	0.00016948	7.04592018	7.15828819	0.80174725	0.00012194	0.00038471	0.00317085	0.00352921	0.00046015
CC19	1.77480000	0.00096046	0.00093972	254.71331712	257.33170944	5.54630400	0.00407036	0.00294572	0.05836817	0.05683732	0.00582139
CC50	3.47004000	0.00251045	0.00284182	490.53067486	517.54161707	23.15884929	0.00786184	0.01311667	0.00507388	0.00525750	0.00926077
DM01		0.00047071	0.00045343	2.41228800	2.59891200	0.13824000	0.00013824	0.00069120			0.00096768
DM24	0.55800000	0.00006643	0.00006643	51.49080000	50.59800000	1.11600000	0.00064390	0.00064390	0.00283464	0.00482112	0.00065243
DM32	0.01620000	0.00079595	0.00073832	0.72606194	0.71981880	0.04727101	0.00003053	0.00015266	0.00006888	0.00006414	0.04123507
DM4	0.02721600	0.00000109	0.00000544	2.35146240	2.22082560	0.05443200	0.00001176	0.00005443	0.00001089	0.00001110	0.00001807
SS001	0.01452748	0.00006330	0.00005887	0.80573820	0.81570628	0.16494977	0.00016703	0.00083515	0.00000303	0.00001261	0.00065510
SS002	0.00216000	0.00000270	0.00001087	0.54909090	0.56033033	0.01340801	0.00001619	0.00010874	0.00000036	0.00000180	0.00001290
SS003	0.00036000	0.00001759	0.00001675	0.27342420	0.27252420	0.00522903	0.00000599	0.00004781	0.00000017	0.00000090	0.00015732
SS004	0.00648000	0.00002330	0.00002536	0.47585909	0.47981206	0.01578454	0.00001682	0.00009449	0.00000137	0.00000662	0.00003360
SS005		0.00000710	0.00000808	0.03892009	0.04475810	0.00074134	0.00000185	0.00000927			0.00000807
SS006	0.00360000	0.00000734	0.00003670	0.74372639	0.77073305	0.06387157	0.00007341	0.00036704	0.00000086	0.00000432	0.00002572
SS007	0.10207787	0.00001518	0.00007589	1.99311209	1.94226100	0.14969698	0.00015178	0.00075889	0.00002037	0.00008725	0.00010067
SS008	0.58053075	0.00004245	0.00022593	12.34108425	12.78141233	0.40766785	0.00045186	0.00225929	0.00008217	0.00033694	0.00024536
SS009	0.02160000	0.00000380	0.00001094	0.37756169	0.39046446	0.01773784	0.00002188	0.00010940	0.00000492	0.00002160	0.00004738
SS010	0.03618000	0.00001577	0.00002196	2.03523337	2.23662258	0.03062984	0.00001686	0.00008429	0.00001543	0.00003540	0.00002786
SS011		0.00001148	0.00001191	0.42706165	0.43233465	0.01829439	0.00000747	0.00003737	0.00000155	0.00000432	0.00008889
SS012	0.04320000	0.00001555	0.00004820	1.21655732	1.24562028	0.09486838	0.00008567	0.00042833	0.00001642	0.00003478	0.00009539
SS013	1.09019860	0.00171220	0.00146931	81.96814647	80.76819796	4.46984933	0.00450059	0.02250296	0.00096810	0.00125264	0.00503228
SS014	0.05746871	0.00002121	0.00010607	4.80851578	4.77648424	0.16687841	0.00021214	0.00106562	0.00001112	0.00005559	0.00010143
SS015	0.20984002	0.00007410	0.00039737	15.53818752	15.18334464	0.67823914	0.00074103	0.00375801	0.00011113	0.00033772	0.00040555
SS016	0.00093600	0.00000248	0.00000665	0.27624900	0.27067934	0.01058124	0.00001330	0.00006659	0.00001483	0.00001639	0.00003155

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Br T Ld	Cd D Ld	Cd T Ld	Ca D Ld	Ca T Ld	Cl T Ld	Cr D Ld	Cr T Ld	Co D Ld	Co T Ld	Cu D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS017	0.00489600	0.00003595	0.00003650	0.23059394	0.23172826	0.00859388	0.00000820	0.00004100	0.00005330	0.00005983	0.00002779
SS018	0.07554443	0.00051006	0.00051085	3.36300425	3.35829730	0.13799842	0.00009193	0.00046339	0.00171443	0.00188322	0.00228214
SS019	0.00658800	0.00000230	0.00001070	0.30783615	0.30405788	0.01621215	0.00002139	0.00010976	0.00000155	0.00000775	0.00001257
SS020	0.06048000	0.00002843	0.00004050	0.43793327	0.43863091	0.09615188	0.00011578	0.00057888	0.00007284	0.00008546	0.00011729
SS021	0.11520000	0.00003580	0.00004460	0.25814993	0.25992494	0.08887237	0.00008970	0.00044850	0.00002304	0.00011520	0.00009199
SS022	0.01080000	0.00002542	0.00002439	0.40191350	0.41123343	0.04488864	0.00005012	0.00025061	0.00000248	0.00000656	0.00003142
SS023	0.00360000	0.00001063	0.00005214	4.34417772	4.49516558	0.20506847	0.00010444	0.00052219	0.00001534	0.00010264	0.00007672
SS024	0.14112000	0.00003404	0.00013813	12.18674611	12.06768715	0.29590119	0.00021084	0.00138127	0.00001944	0.00009648	0.00015202
SS025	0.00720000	0.00000122	0.00000610	0.16414645	0.16455527	0.01121412	0.00001220	0.00006098	0.00000144	0.00000720	0.00003070
SS026	0.01555200	0.00020973	0.00019351	0.54542322	0.49480906	0.04435334	0.00004630	0.00023150	0.00001586	0.00001876	0.00698860
SS027	0.06912000	0.00237506	0.00229071	6.24973429	6.02469085	0.40573245	0.00023040	0.00080639	0.00005359	0.00005334	0.02691015
SS028		0.00000028	0.00000141	0.00948356	0.00925102	0.00171618	0.00000282	0.00001410	0.00000014	0.00000072	0.00000091
SS029	0.14283665	0.00155017	0.00143462	14.59249289	14.36172311	0.66275035	0.00074124	0.00651239	0.00003632	0.00018162	0.00195992
SS030	0.00036000	0.00000012	0.00000058	0.01036080	0.01032480	0.00097920	0.00000115	0.00000576	0.00000010	0.00000048	0.00000058
SS031	0.00864000	0.00000147	0.00000736	0.25662714	0.24738234	0.01262745	0.00001472	0.00007360	0.00000130	0.00000648	0.00000736
SS032	0.00864000	0.00000458	0.00002292	0.78053608	0.73663014	0.04483530	0.00003527	0.00022924	0.00000115	0.00000576	0.00003714
SS033	0.00036000	0.00000012	0.00000058	0.00269568	0.00259056	0.00097920	0.00000115	0.00000576	0.00000010	0.00000048	0.00000074
SS034	0.00036000	0.00000196	0.00000183	0.00419040	0.00410400	0.00104400	0.00000126	0.00000630	0.00000025	0.00000054	0.00003856
SS035	0.03744000	0.00003587	0.00017088	8.65620752	8.16665140	0.35250834	0.00034175	0.00170875	0.00000494	0.00002883	0.00018054
SS036	0.00036000	0.00000348	0.00000311	0.02027662	0.02005867	0.00258897	0.00000334	0.00001672	0.00000007	0.00000036	0.00005052
SS037	0.03888000	0.00007071	0.00006294	1.30980511	1.27934225	0.07012251	0.00003635	0.00015297	0.00000710	0.00002146	0.00322604
SS038	0.01368000	0.00001146	0.00005731	1.94987235	1.99647068	0.11047674	0.00008233	0.00057312	0.00000586	0.00002928	0.00005846
SS039	0.00864000	0.00013571	0.00013088	0.37784352	0.39271101	0.04887438	0.00005406	0.00027029	0.00000091	0.00000454	0.00385165
SS040	0.00450000	0.00029454	0.00026885	0.74559762	0.72934935	0.20311675	0.00020415	0.00102075	0.00000183	0.00000516	0.01254104
SS041	0.03420000	0.00025949	0.00025962	2.39775125	2.39417287	0.11096159	0.00013268	0.00066342	0.00000840	0.00003720	0.00152946
SS042	0.00216000	0.00002604	0.00002957	0.56712431	0.60670803	0.05565506	0.00003261	0.00006227	0.00000526	0.00000612	0.00003073
SS043	0.05292000	0.00001394	0.00001878	3.57516334	3.73448473	0.23045749	0.00014380	0.00018778	0.00002892	0.00003498	0.00005204
SS044	0.01476000	0.00010688	0.00010142	7.65195115	7.68437088	0.31941788	0.00017312	0.00061101	0.00005123	0.00005657	0.00060212
SS045	0.00187200	0.00012726	0.00011761	0.41333494	0.42715888	0.02499834	0.00002915	0.00014581	0.00000097	0.00000557	0.00002945
SS046	0.00288000	0.00017971	0.00016390	0.36030557	0.36811304	0.01129174	0.00001441	0.00007203	0.00005237	0.00004950	0.00012529
SS047	0.07644520	0.00009246	0.00046081	13.50671049	13.47520058	0.88319366	0.00074208	0.00462870	0.00001283	0.00006416	0.00052657

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Br T Ld	Cd D Ld	Cd T Ld	Ca D Ld	Ca T Ld	Cl T Ld	Cr D Ld	Cr T Ld	Co D Ld	Co T Ld	Cu D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS048	0.19623575	0.00011861	0.00059304	13.65040466	13.99928595	1.18451918	0.00148675	0.00601376	0.00006720	0.00011908	0.00052045
SS049	0.00720000	0.00000549	0.00002743	0.12418699	0.12493867	0.05437705	0.00005485	0.00027696	0.00000075	0.00000374	0.00002881
SS050	0.14442963	0.00008492	0.00031880	10.41937126	10.01604395	0.63670845	0.00041380	0.00324415	0.00012224	0.00024244	0.00134292
SS051	0.02232000	0.00000787	0.00003889	0.86474860	0.86826706	0.09262727	0.00007778	0.00039829	0.00000588	0.00002161	0.00009935
SS052	0.00153000	0.00000082	0.00000200	0.03107574	0.03108582	0.00354566	0.00000400	0.00002021	0.00000024	0.00000122	0.00000568
SS053	0.00428400	0.00009363	0.00008775	0.51936642	0.50352069	0.04766394	0.00005181	0.00025988	0.00001033	0.00001086	0.00322352
SS054	0.15031482	0.00002299	0.00005085	11.74570552	11.63380566	0.31955930	0.00012358	0.00055265	0.00002234	0.00005069	0.00016832
SS055	0.00909000	0.00002380	0.00002401	0.67115685	0.68437839	0.10162294	0.00001603	0.00008016	0.00008878	0.00009024	0.00008572
SS056	0.00025200	0.00000253	0.00000641	0.03328561	0.03212891	0.01206594	0.00001263	0.00006316	0.00000333	0.00000313	0.00001978
SS057	0.00126000	0.00000041	0.00000121	0.12149573	0.12093262	0.00549352	0.00000288	0.00000574	0.00001114	0.00001591	0.00000183
SS058	0.00036000	0.00000026	0.00000063	0.00208800	0.00213120	0.00118800	0.00000126	0.00000637	0.00000061	0.00000062	0.00000280
SS059	0.01548000	0.00003230	0.00004319	0.80037217	0.79880542	0.06434498	0.00006712	0.00033559	0.00000274	0.00001368	0.00009079
SS060	0.00590400	0.00002282	0.00002133	0.07068904	0.06991673	0.02776967	0.00003296	0.00016693	0.00000177	0.00000682	0.00042183
SS061		0.00000185	0.00000275	0.01552829	0.01492084	0.00488690	0.00000503	0.00002514			0.00001427
SS062	0.01123200	0.00000669	0.00000738	0.47821289	0.48817421	0.03483019	0.00001140	0.00005700	0.00004613	0.00004777	0.00002670
SS063	0.00144000	0.00003037	0.00003060	0.97460907	0.97339193	0.06896503	0.00004353	0.00004497	0.00000079	0.00000414	0.00019004
SS064	0.00756000	0.00000697	0.00000974	1.17127498	1.15602538	0.02909944	0.00007207	0.00009742	0.00000154	0.00000282	0.00003569
SS065	0.02988000	0.00010155	0.00011087	4.41970259	4.22219594	0.28194450	0.00016919	0.00021527	0.00172291	0.00175690	0.00083970
SS066		0.00002428	0.00002403	1.96135901	2.01126096	0.07111221	0.00004210	0.00005769	0.00019152	0.00019584	0.00013564
SS067	0.00360000	0.00005419	0.00005186	0.27197197	0.27297589	0.01003545	0.00001012	0.00001012	0.00007598	0.00007534	0.00036134
SS068	0.02160000	0.00006713	0.00006722	0.97075623	0.99429481	0.05749347	0.00003721	0.00007061	0.00021456	0.00023870	0.00143138
SS069	0.00126000	0.00006010	0.00005565	0.20914683	0.21510721	0.00976973	0.00000714	0.00003568	0.00004075	0.00004344	0.00045589
SS070	0.00216000	0.00005244	0.00004929	0.18924301	0.19690353	0.01134501	0.00001238	0.00006189	0.00003453	0.00003862	0.00007470
SS071	0.24694780	0.00020944	0.00028873	42.10708038	43.05891138	2.72175208	0.00211764	0.00288727	0.00218393	0.00222344	0.00110098
SS072	0.08532000	0.00005629	0.00005501	9.37256574	9.32346523	0.37951451	0.00037760	0.00039834	0.00098801	0.00097908	0.00111025
SS073	0.02718000	0.00001197	0.00001283	2.77270781	2.71919762	0.17127349	0.00012070	0.00012830	0.00035679	0.00036616	0.00007856
SS074	0.00036000	0.00003969	0.00003764	0.96875652	1.03115138	0.09866503	0.00005859	0.00005860	0.00010567	0.00010493	0.00258475
SS075	0.36346108	0.00016417	0.00019619	41.41911017	41.59884947	2.10183328	0.00189004	0.00196192	0.00185828	0.00177517	0.00098841
SS076	0.00036000	0.00000012	0.00000058	0.00504288	0.00486000	0.00097920	0.00000115	0.00000576	0.00000010	0.00000048	0.00000053
SS077	0.00576000	0.00002606	0.00013031	1.18017268	1.17885527	0.25751344	0.00025829	0.00130314	0.00000442	0.00002208	0.00007571
SS078	0.03528000	0.00001654	0.00008268	1.87452950	1.82092926	0.14252389	0.00016537	0.00082683	0.00000682	0.00003408	0.00008268

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Br T Ld	Cd D Ld	Cd T Ld	Ca D Ld	Ca T Ld	Cl T Ld	Cr D Ld	Cr T Ld	Co D Ld	Co T Ld	Cu D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS079	0.00054000	0.00000736	0.00003679	1.08864725	1.11239967	0.07323476	0.00007357	0.00036787	0.00000065	0.00000324	0.00003648
SS080	0.00036000	0.00000014	0.00000072	0.01413000	0.01369800	0.00122400	0.00000144	0.00000720	0.00000017	0.00000072	0.00000151
SS082	0.00288000	0.00000115	0.00000577	0.01461658	0.01442870	0.00634683	0.00001155	0.00005774	0.00000391	0.00000288	0.00000513
SS083	0.07200000	0.00027260	0.00027227	1.06552819	1.04654685	0.10846484	0.00008020	0.00036504	0.00039168	0.00044064	0.02329296
SS084	0.01080000	0.00057260	0.00054235	7.13590977	7.16297033	0.55615133	0.00055382	0.00274190	0.00005789	0.00006394	0.03389503
SS085	0.00630000	0.00004103	0.00003983	0.91134000	0.93456000	0.05742000	0.00003330	0.00003330	0.00009374	0.00009551	0.00035303
SS086	0.00468000	0.00000322	0.00000288	0.30607374	0.32237926	0.02438369	0.00001291	0.00001502	0.00003910	0.00005136	0.00000958
SS087	0.03960000	0.00005772	0.00012577	2.92546692	2.86441765	0.40705634	0.00025361	0.00125753	0.00069470	0.00068981	0.00358010
SS088	0.00072000	0.00000211	0.00001055	0.01322567	0.01319266	0.02454926	0.00002110	0.00010323	0.00000145	0.00000203	0.00000863
SS089	0.00039600	0.00000070	0.00000352	0.06757720	0.07088783	0.00850416	0.00000726	0.00003419	0.00000022	0.00000110	0.00000342
SS090	0.00030600	0.00000021	0.00000105	0.01468045	0.01444266	0.00184661	0.00000209	0.00000945	0.00000009	0.00000031	0.00000105
SS091	0.00378000	0.00000095	0.00000346	0.01929378	0.02097067	0.00476906	0.00000693	0.00002991	0.00001082	0.00001065	0.00010190
SS092	0.00014400	0.00000055	0.00000274	0.02574158	0.02587559	0.00482808	0.00000548	0.00002590	0.00000030	0.00000151	0.00000322
SS093	0.00657000	0.00000090	0.00000436	0.05247793	0.05327410	0.00829345	0.00000943	0.00004259	0.00005504	0.00005619	0.00005482
SS094	0.01404000	0.00000569	0.00000632	0.39231962	0.40308305	0.01496463	0.00000632	0.00001769	0.00003840	0.00002970	0.00004069
SS095	0.00072000	0.00000113	0.00000538	0.45487616	0.45684514	0.01221082	0.00001043	0.00004993	0.00000138	0.00000416	0.00000619
SS096	0.00014400	0.00000201	0.00000192	0.00419748	0.00421206	0.00300949	0.00000464	0.00001564	0.00000246	0.00000212	0.00008533
SS097		0.00000039	0.00000072	0.00601650	0.00623681	0.00087263	0.00000110	0.00000496			0.00000228
SS098	0.00144000	0.00007437	0.00007798	0.05810880	0.05634191	0.03024863	0.00000446	0.00001757	0.00012180	0.00012943	0.00259920
SS105	0.19212887	0.00025427	0.00026931	23.85695683	24.70098917	3.07027551	0.00056850	0.00136699	0.00057858	0.00049056	0.00195960
SS123	0.01080000	0.00000834	0.00002747	0.07374240	0.07404480	0.06264000	0.00005506	0.00027000	0.00012226	0.00011923	0.00102125
SS125		0.00003861	0.00004550	0.17208000	0.19526400	0.02880000	0.00000933	0.00001122	0.00017856	0.00017424	0.00036979
SS126	0.02700000	0.00046458	0.00047452	0.05243616	0.05182848	0.12996000	0.00009371	0.00023486	0.00031435	0.00030658	0.00942689
SS200	0.06840000	0.00001430	0.00002088	8.04744000	8.13096000	0.34920000	0.00013968	0.00021290	0.00006216	0.00007209	0.00008214
SS201	0.05616000	0.00006393	0.00006514	5.14166400	5.12524800	0.22896000	0.00014904	0.00017208	0.00251366	0.00258413	0.00080853
SS202	0.00072000	0.00022154	0.00022669	0.08285760	0.08992440	0.08712000	0.00002730	0.00008820	0.00000814	0.00000792	0.00977760
SS203		0.00005292	0.00005148	0.01396800	0.01414800	0.00720000	0.00000720	0.00003600			0.00146520
SS204		0.00004309	0.00004210	0.05674824	0.06295248	0.01915200	0.00000769	0.00001578	0.00000657	0.00000472	0.01081928
SS205		0.00000086	0.00000432	0.00444960	0.00470880	0.00864000	0.00000864	0.00004320			0.00000432
SS206		0.00000542	0.00001512	0.05922720	0.06255360	0.03024000	0.00003024	0.00015120	0.00000912	0.00000950	0.00169128
SS207		0.00000029	0.00000144	0.00292320	0.00321120	0.00288000	0.00000288	0.00001440			0.00000370

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Br T Ld	Cd D Ld	Cd T Ld	Ca D Ld	Ca T Ld	Cl T Ld	Cr D Ld	Cr T Ld	Co D Ld	Co T Ld	Cu D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS208	0.00117000	0.00000055	0.00000275	0.02921220	0.02847780	0.00549000	0.00000549	0.00002745	0.00000862	0.00000846	0.00000923
SS210	0.06948000	0.00232469	0.00232889	9.38375734	9.39955873	0.42508579	0.00019400	0.00093401	0.00007859	0.00008384	0.01324062
SS211		0.00000886	0.00000816	0.13780800	0.13262400	0.00864000	0.00000864	0.00004320			0.00007906
SS212		0.00043425	0.00038465	1.42732800	1.40313600	0.24192000	0.00024192	0.00120960			0.02939328
SS213		0.00001511	0.00001568	0.20813760	0.19154880	0.05184000	0.00005184	0.00025920			0.00020814
SS214		0.00279936	0.00273024	5.26694400	5.06649600	0.27648000	0.00013824	0.00069120			0.02668032
SS215	0.22776974	0.00012652	0.00016763	1.48798936	1.52545282	0.32578467	0.00032578	0.00189617	0.00002286	0.00011460	0.00040232
SS216	0.00576000	0.00000202	0.00001008	0.03928320	0.03952800	0.02016000	0.00002016	0.00010259	0.00000115	0.00000576	0.00001872
SS217	0.00954000	0.00001111	0.00005436	0.43784400	0.42960000	0.10872000	0.00010872	0.00054360	0.00000321	0.00001013	0.00005544
SS218	0.02304000	0.00002218	0.00002145	1.60027200	1.56984000	0.04032000	0.00003408	0.00017040	0.00011020	0.00010752	0.00010768
SS219	0.00540000	0.00074254	0.00080125	0.33861600	0.35319600	0.05220000	0.00005220	0.00026100	0.00003260	0.00003324	0.02474604
SS220	0.03240000	0.00059291	0.00057499	4.74635523	4.75057020	0.58829930	0.00006315	0.00031575	0.00033178	0.00037325	0.00081174
SS221	0.00720000	0.00014314	0.00013522	0.87120000	0.90072000	0.15120000	0.00007920	0.00007920	0.00001022	0.00000844	0.00009115
SS222	0.03600000	0.00702432	0.00679104	6.86952000	6.94512000	1.47600000	0.00075600	0.00075600	0.00128016	0.00117648	0.04594320
SS223	0.00288000	0.00000263	0.00001306	0.07303680	0.07434000	0.02304000	0.00002592	0.00012960	0.00000122	0.00000576	0.00001321
SS224		0.00115430	0.00108518	2.03904000	1.97683200	0.13824000	0.00034560	0.00034560			0.10713600
SS225	0.00864000	0.00051710	0.00047347	1.34049600	1.31976000	0.05184000	0.00004752	0.00023760	0.00006938	0.00007482	0.00559008
SS226	0.00576000	0.00017935	0.00016556	0.23196240	0.22184640	0.08496000	0.00008496	0.00042480	0.00000115	0.00000576	0.00031237
SS227		0.00000180	0.00000180	0.42840000	0.40680000	0.03600000	0.00001800	0.00001800	0.00003888	0.00003852	0.00000900
SS228	0.01800000	0.00005004	0.00009821	1.12608000	1.12176000	0.04680000	0.00003240	0.00003240	0.00019109	0.00036410	0.00073944
SS229	0.00432000	0.00000266	0.00000269	0.33588000	0.34286400	0.02304000	0.00001152	0.00002016	0.00000129	0.00000202	0.00001492
SS230	0.00180000	0.00006265	0.00006012	0.03647520	0.03557520	0.01101600	0.00000523	0.00002484	0.00006582	0.00007231	0.00146722
SS231	0.00460800	0.00000071	0.00000355	0.18194880	0.17626560	0.00662400	0.00000668	0.00003552	0.00000139	0.00000355	0.00000456
SS232											
SS235		0.00106272	0.00106272	1.28736000	1.25280000	0.34560000	0.00017280	0.00086400	0.00174528	0.00171936	0.00009850
SS236	0.02592000	0.00032710	0.00032832	2.09160000	2.09736000	0.09792000	0.00007200	0.00010080	0.00047074	0.00049349	0.00355536
SS238	0.01080000	0.00002020	0.00001889	0.48816000	0.48312000	0.02520000	0.00000384	0.00001800	0.00011117	0.00011045	0.00118368
SS250	0.15556235	0.00003696	0.00007437	14.76477836	14.63775088	0.36961836	0.00036962	0.00030148	0.00004723	0.00010081	0.00029151
SS300	0.00585000	0.00002732	0.00002457	0.05069700	0.05329800	0.01170000	0.00001170	0.00005850	0.00000436	0.00000721	0.00059598
SS301	0.06480000	0.00009486	0.00009310	5.96880000	5.88744000	0.12960000	0.00009000	0.00009000	0.00270432	0.00252792	0.00074520
SS304	0.00216000	0.00050273	0.00045963	2.02654844	2.06548689	0.27470965	0.00027471	0.00137355	0.00000217	0.00000217	0.00160347

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Br T Ld	Cd D Ld	Cd T Ld	Ca D Ld	Ca T Ld	Cl T Ld	Cr D Ld	Cr T Ld	Co D Ld	Co T Ld	Cu D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS305		0.00001901	0.00009504	2.45203200	2.46153600	0.19008000	0.00019008	0.00095040	0.00001901	0.00009504	0.00009504

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Cu T Ld	F T Ld	Hard D Ld	Fe D Ld	Fe T Ld	Pb D Ld	Pb T Ld	Mg D Ld	Mg T Ld	Mn D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
A23A	0.00075769	0.00195955	0.54214272	0.00065318	0.00065318	0.00000836	0.00001646	0.01926893	0.01848511	0.11953267
A38	0.00009185	0.02556557	13.16836813	0.00294534	0.00868545	0.00001401	0.00008339	0.26851523	0.27498936	0.27476345
CC01A	0.01208992	0.07579376	14.43137038	0.01292817	0.06126970	0.00007214	0.00416772	0.38214215	0.38507385	0.09768260
CC01B	0.00380889	0.96379920	136.11785760	6.01863840	6.48814694	0.06732085	0.06080615	2.99117952	3.06083866	6.13521936
CC01C	0.03480976	0.02369760	1.79282660	0.21191890	0.22152020	0.00086746	0.00083729	0.12633887	0.12765035	0.09096350
CC03D	0.00983710	9.29035776	1869.02380800	150.84687360	153.72912000	0.11159986		38.97879552	39.59116416	50.63843328
CC06	20.00993795	28.41025882	2968.84770048	331.58142720	408.48606720	0.05841173	0.08788906	74.76986189	75.36887309	73.28919053
CC14	0.14825170	14.88860614	1995.64695922	90.58249690	99.80073973	0.00817035	0.06009267	34.62776475	37.34892786	9.80952408
CC16C	0.00083042	0.38136972	20.83546378	4.08711531	4.31187577	0.00006938	0.00011792	0.77841816	0.79607509	0.13756350
CC19	0.00468200	2.28361968	707.45967360	76.79840256	79.23773952	0.00076655	0.00155735	17.47528589	17.90491968	25.48224922
CC50	0.02761080	3.24897566	1550.84822833	1.13166211	3.75641283	0.00069675	0.00969917	16.61161645	17.73866036	5.44513123
DM01	0.00099533	0.08294400	6.63552000	0.09607680	0.10851840	0.00363571	0.00391910	0.14860800	0.15344640	0.07810560
DM24	0.00063904	0.66960000	138.68280000	1.82253600	4.54608000	0.00009228	0.00067187	2.82384000	2.82384000	0.75258000
DM32	0.03855792	0.01499130	2.33588296	0.01523017	0.01546876	0.03190299	0.02855870	0.12703339	0.12637376	0.18856489
DM4	0.00002722	0.01850688	6.20524800	0.00108864	0.00108864	0.00000109	0.00000544	0.08066822	0.07674912	0.04321901
SS001	0.00068010	0.01786519	2.40050305	0.02058818	0.03146780	0.00087009	0.00111142	0.10266813	0.10474851	0.01385794
SS002	0.00005437	0.00217480	1.59455060	0.00269150	0.00269150	0.00000239	0.00001295	0.05454795	0.05520051	0.00009482
SS003	0.00016936	0.00099226	0.79160065	0.00119082	0.00120036	0.00002318	0.00004757	0.02630843	0.02608635	0.00182961
SS004	0.00006133	0.00306485	1.33093712	0.00223267	0.00169457	0.00000187	0.00003593	0.03524856	0.03593169	0.00005474
SS005	0.00000992	0.00092667	0.11305359	0.00023167	0.00023167	0.00000026	0.00000158	0.00395688	0.00445728	0.00000719
SS006	0.00018352	0.00734086	2.02929561	0.00910408	0.01546212	0.00000734	0.00004381	0.03837207	0.03869679	0.00024487
SS007	0.00037944	0.01500437	5.46568634	0.01763703	0.01979420	0.00001518	0.00007085	0.11094830	0.11048634	0.00088152
SS008	0.00112964	0.16129187	35.69706670	0.04680664	0.06964085	0.00004519	0.00026185	1.21188521	1.25441673	0.05165936
SS009	0.00005672	0.00506806	1.08799267	0.00237507	0.00237507	0.00000471	0.00001219	0.03598899	0.03737131	0.00052126
SS010	0.00004966	0.01032578	6.13165732	0.00174362	0.00174362	0.00000618	0.00000816	0.25283560	0.27302181	0.00411816
SS011	0.00009311	0.00347640	1.30717893	0.00093425	0.00089969	0.00004023	0.00004656	0.05893685	0.05969245	0.01360623
SS012	0.00025549	0.01398808	3.63912855	0.01070948	0.01764394	0.00001642	0.00006057	0.14581700	0.14949079	0.00448300
SS013	0.01079388	0.61102712	222.42905557	0.54894663	0.33154134	0.00045006	0.00225030	4.45169071	4.40274790	0.20724237
SS014	0.00072983	0.04521535	12.94649868	0.02536856	0.02536856	0.00002121	0.00010607	0.22441735	0.22368758	0.00050737
SS015	0.00185931	0.07660906	44.09435053	0.08843252	0.10366456	0.00007410	0.00043850	1.31369118	1.28163879	0.01224331
SS016	0.00003564	0.00472686	0.80341520	0.00200937	0.00529062	0.00000126	0.00000795	0.02809082	0.02774607	0.00539456

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Site ID	Cu T Ld	F T Ld	Hard D Ld	Fe D Ld	Fe T Ld	Pb D Ld	Pb T Ld	Mg D Ld	Mg T Ld	Mn D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS017	0.00002986	0.00644719	0.70398864	0.00592469	0.00635669	0.00000082	0.00000410	0.03120693	0.03128023	0.00678605
SS018	0.00251974	0.13604452	10.68830160	0.01073618	0.00934964	0.00001631	0.00004597	0.55737163	0.55818630	0.15541832
SS019	0.00005200	0.00250216	0.86139229	0.00254234	0.00254234	0.00000214	0.00001070	0.02296778	0.02265428	0.00005128
SS020	0.00026235	0.01690555	1.59203040	0.01371593	0.01325513	0.00017566	0.00024635	0.11991755	0.11975296	0.01289788
SS021	0.00022425	0.00890105	0.76353597	0.00929261	0.00929261	0.00005663	0.00007376	0.03546950	0.03569032	0.00158557
SS022	0.00012530	0.00558408	1.20515972	0.00633036	0.00640236	0.00001440	0.00002252	0.04604421	0.04713861	0.00049648
SS023	0.00026109	0.02056354	12.34214346	0.01300971	0.01183735	0.00001064	0.00003370	0.36130111	0.38096554	0.00062755
SS024	0.00069063	0.03791051	34.71452681	0.03214125	0.03214125	0.00002763	0.00013813	1.04576583	1.04034741	0.00064283
SS025	0.00007513	0.00121953	0.45459555	0.00140441	0.00525315	0.00000808	0.00007860	0.01001791	0.01015728	0.00002809
SS026	0.00678918	0.02050660	1.66206770	0.00559302	0.00559302	0.00222907	0.00208515	0.07405353	0.06758043	0.06356785
SS027	0.02697062	0.21075462	20.46784778	0.01920930	0.02609106	0.00008731	0.00022408	1.17586352	1.14717884	0.86142487
SS028	0.00000705	0.00025809	0.02671010	0.00035261	0.00035261	0.00000038	0.00000111	0.00070956	0.00070383	0.00001018
SS029	0.00237826	0.14178549	42.82039334	0.08979885	0.08979885	0.00007412	0.00037062	1.55033054	1.53897588	0.07646350
SS030	0.00000288	0.00008640	0.02793600	0.00015062	0.00016646	0.00000011	0.00000063	0.00050328	0.00050587	0.00000389
SS031	0.00003680	0.00199046	0.68710929	0.00166728	0.00166728	0.00000147	0.00000959	0.01155284	0.01128138	0.00003335
SS032	0.00012162	0.00472882	2.20696264	0.00562303	0.00532868	0.00000458	0.00003558	0.06347504	0.06130552	0.00011246
SS033	0.00000288	0.00011520	0.00792000	0.00013680	0.00015048	0.00000018	0.00000071	0.00024653	0.00024365	0.00000711
SS034	0.00003830	0.00012600	0.01242000	0.00019368	0.00018666	0.00000208	0.00000215	0.00050184	0.00049392	0.00027252
SS035	0.00089334	0.06791954	25.63462393	0.04240686	0.09877422	0.00003405	0.00025447	0.97753005	0.94397193	0.00086087
SS036	0.00005160	0.00033448	0.05566855	0.00041210	0.00041210	0.00008975	0.00009088	0.00131596	0.00131337	0.00006868
SS037	0.00354753	0.01320960	4.50529361	0.00358114	0.02137594	0.00019468	0.00163664	0.30015976	0.29569508	0.04439880
SS038	0.00028656	0.01319039	5.38271211	0.01405438	0.01405438	0.00001146	0.00005731	0.12604013	0.12941548	0.00028109
SS039	0.00356254	0.00496304	1.09891694	0.00664928	0.00664788	0.00016247	0.00014917	0.03800869	0.04040705	0.01516433
SS040	0.01266314	0.02109128	2.21116929	0.02542878	0.02542878	0.00005249	0.00005608	0.08709397	0.08793716	0.21403481
SS041	0.00161244	0.02336879	6.78580044	0.01590150	0.01586180	0.00020304	0.00037467	0.19207651	0.19257847	0.07610134
SS042	0.00015467	0.00578137	1.54492207	0.00152971	0.00682865	0.00000901	0.00148957	0.03178414	0.03388051	0.00206762
SS043	0.00009389	0.02806842	9.70257479	0.00411550	0.00762144	0.00009357	0.00043664	0.19029543	0.19495726	0.06576431
SS044	0.00092472	0.17041761	20.62663837	0.01517300	0.23178955	0.00001731	0.00011648	0.37274219	0.38018999	0.08335821
SS045	0.00006443	0.01882357	1.14870940	0.00361162	0.00330507	0.00000291	0.00001457	0.02899796	0.02966209	0.00133137
SS046	0.00013057	0.02696535	1.01894999	0.05471966	0.05978033	0.00025540	0.00024943	0.02913389	0.02997791	0.01643817
SS047	0.00230404	0.09216166	36.59203485	0.11367317	0.11610821	0.00009196	0.00046081	0.68673925	0.72131450	0.00256348

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Cu T Ld	F T Ld	Hard D Ld	Fe D Ld	Fe T Ld	Pb D Ld	Pb T Ld	Mg D Ld	Mg T Ld	Mn D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS048	0.00196651	0.13823085	36.75227003	0.17846534	0.92739630	0.00011861	0.00167554	0.71498842	0.86678117	0.00399531
SS049	0.00013713	0.00548526	0.36007386	0.00676658	0.00676658	0.00000563	0.00002743	0.01237314	0.01346399	0.00013533
SS050	0.00472353	0.08561587	29.71695214	0.07721835	0.12901030	0.00006431	0.00055380	0.93105514	0.95606608	0.03501933
SS051	0.00026953	0.00694161	2.53671037	0.01000829	0.01687997	0.00000778	0.00005749	0.09376094	0.09759726	0.00065397
SS052	0.00001010	0.00052025	0.10387390	0.00046902	0.00049170	0.00000040	0.00000200	0.00631905	0.00654805	0.00001040
SS053	0.00311763	0.00713663	1.65086973	0.00429982	0.00903915	0.00005210	0.00006573	0.08370270	0.08239461	0.00910911
SS054	0.00025727	0.05704614	31.42733294	0.01129342	0.01690225	0.00001291	0.00010666	0.50579707	0.50652198	0.00022587
SS055	0.00011246	0.01395152	2.11033178	0.26767507	0.29512553	0.00000208	0.00005692	0.10585035	0.11052904	0.05822659
SS056	0.00003400	0.00267461	0.11638732	0.00315648	0.00302883	0.00000128	0.00000636	0.00746861	0.00754234	0.00265334
SS057	0.00000338	0.00066126	0.32138880	0.00601828	0.01369879	0.00000029	0.00000222	0.00434319	0.00434868	0.00880984
SS058	0.00000281	0.00014400	0.00630000	0.00015300	0.00015858	0.00000114	0.00000125	0.00027522	0.00027648	0.00000384
SS059	0.00018406	0.03381987	2.28023488	0.00808021	0.00808021	0.00000671	0.00003356	0.06977807	0.07197450	0.00064443
SS060	0.00046187	0.00520371	0.23461093	0.00400234	0.00252473	0.00000862	0.00001378	0.01314231	0.01367987	0.00185090
SS061	0.00001770	0.00064459	0.05008161	0.00057614	0.00090270	0.00000084	0.00001141	0.00252350	0.00270339	0.00027839
SS062	0.00004279	0.00707502	1.38738834	0.09902637	0.11752597	0.00000358	0.00006789	0.04691172	0.04969092	0.04801301
SS063	0.00019909	0.01385074	3.13204092	0.00084442	0.00436445	0.00000435	0.00000656	0.16887753	0.16754536	0.02846456
SS064	0.00005021	0.00662901	3.41027523	0.00238787	0.00370594	0.00000721	0.00000834	0.11804336	0.11625848	0.00028389
SS065	0.00130203	0.02495937	12.56943285	1.00108802	0.97066567	0.00001732	0.00002153	0.36766121	0.36152133	0.41056667
SS066	0.00014674	0.01351057	5.52677813	0.49779985	0.50700773	0.00002709	0.00002787	0.15593298	0.15991518	0.18804392
SS067	0.00036782	0.00608198	0.78024592	0.01602479	0.01693281	0.00000681	0.00000569	0.02441147	0.02431026	0.02263252
SS068	0.00156430	0.01909137	2.82911570	0.00680497	0.00812107	0.00014903	0.00015554	0.09896814	0.10117854	0.06713991
SS069	0.00048347	0.00660417	0.61270044	0.00087298	0.00083436	0.00000345	0.00000335	0.02186166	0.02194339	0.01795768
SS070	0.00007503	0.01163054	0.56633826	0.00876426	0.01279459	0.00001242	0.00001583	0.02272624	0.02316107	0.01440865
SS071	0.00148332	0.59547312	113.69401740	1.91263418	2.73590781	0.00021134	0.00038048	2.11622429	2.15093772	0.80049761
SS072	0.00160021	0.06557925	26.73477560	0.27607073	0.43534448	0.00004683	0.00008796	0.80616878	0.80837843	0.17595008
SS073	0.00013405	0.02599478	7.84609341	0.24949428	0.33991321	0.00001197	0.00001890	0.22681627	0.22533019	0.05263118
SS074	0.00255028	0.01277451	2.88278556	0.28409931	0.30738274	0.00004063	0.00006844	0.11225982	0.11786142	0.02278808
SS075	0.00106596	0.35030923	114.05512757	1.43575738	1.52222398	0.00050788	0.00095442	2.58468582	2.56775278	0.48492399
SS076	0.00000350	0.00011520	0.01440000	0.00014530	0.00021643	0.00000012	0.00000198	0.00041515	0.00044842	0.00000861
SS077	0.00065157	0.02606271	3.20161236	0.03246318	0.03344814	0.00002608	0.00013033	0.05441340	0.05654771	0.00064926
SS078	0.00043437	0.01653657	4.97312179	0.01996512	0.02319648	0.00001675	0.00008268	0.07092755	0.07409498	0.00039930

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Site ID	Cu T Ld	FT Ld	Hard D Ld	Fe D Ld	Fe T Ld	Pb D Ld	Pb T Ld	Mg D Ld	Mg T Ld	Mn D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS079	0.00018445	0.00735749	3.10776397	0.00919153	0.00936894	0.00000736	0.00003708	0.09186775	0.09163044	0.00018400
SS080	0.00000360	0.00014400	0.03942000	0.00017100	0.00015570	0.00000021	0.00000065	0.00093762	0.00093528	0.00001431
SS082	0.00002887	0.00115471	0.04761478	0.00137138	0.00247313	0.00000115	0.00001363	0.00307644	0.00344533	0.00001626
SS083	0.02383852	0.04179663	3.53255347	0.43418421	0.43263482	0.00007652	0.00007531	0.21059695	0.20485767	0.06355878
SS084	0.03421003	0.08738992	21.63355389	0.15095536	0.29409118	0.00095935	0.00489452	0.90538314	0.90809874	0.07630015
SS085	0.00031910	0.00617400	2.49642000	0.05855400	0.06958800	0.00012541	0.00034915	0.05486400	0.05590800	0.03987360
SS086	0.00001095	0.00349523	0.88059566	0.02666249	0.02903391	0.00000478	0.00000458	0.02826655	0.02923951	0.01356267
SS087	0.00349702	0.07025470	10.03477390	0.22680413	0.25531267	0.01254205	0.01215940	0.66935030	0.63758543	0.10910497
SS088	0.00005276	0.00258411	0.04848823	0.00166807	0.00256398	0.00000802	0.00000924	0.00333612	0.00332319	0.00021194
SS089	0.00001760	0.00077537	0.21098456	0.00103963	0.00107316	0.00000070	0.00000335	0.01039094	0.01066036	0.00015949
SS090	0.00000524	0.00020946	0.04681418	0.00016801	0.00060377	0.00000021	0.00000089	0.00250011	0.00254386	0.00005377
SS091	0.00010219	0.00069277	0.06335179	0.00349401	0.00429824	0.00002428	0.00002628	0.00379145	0.00400977	0.00034249
SS092	0.00001364	0.00049371	0.08107048	0.00068347	0.00056387	0.00000055	0.00000274	0.00421213	0.00417397	0.00002142
SS093	0.00005952	0.00092529	0.16074653	0.00101416	0.00202268	0.00000094	0.00000664	0.00758787	0.00802934	0.00131790
SS094	0.00005271	0.00513758	1.41790076	0.01186598	0.01338705	0.00012203	0.00032161	0.10648083	0.11216328	0.00749705
SS095	0.00003079	0.00179674	1.21395478	0.00149522	0.01028822	0.00000114	0.00000846	0.01974753	0.01996263	0.00105819
SS096	0.00008181	0.00032221	0.01503030	0.00377948	0.00551918	0.00000645	0.00001221	0.00107378	0.00094641	0.00011347
SS097	0.00000485	0.00011016	0.01804982	0.00013770	0.00054411	0.00000165	0.00001143	0.00078139	0.00084388	0.00004458
SS098	0.00279200	0.00306216	0.22590622	0.01176633	0.01174564	0.00016333	0.00015409	0.01971459	0.01944045	0.00662003
SS105	0.00310456	0.67989516	65.24987035	1.25660258	1.41139209	0.00015576	0.00058747	1.17318717	1.19932912	0.41114279
SS123	0.00100937	0.00367200	0.29808000	0.51084000	0.56332800	0.00007957	0.00011517	0.02706480	0.02889216	0.00185458
SS125	0.00037570	0.00288000	0.66643200	0.50745600	0.55742400	0.00004353	0.00005157	0.03667680	0.04345920	0.01768176
SS126	0.00894169	0.01299600	0.23839200	0.53357760	0.53444304	0.00846072	0.00840925	0.02602483	0.02702419	0.00338299
SS200	0.00008819	0.07873200	20.51424000	0.04660560	0.09856440	0.00001397	0.00004579	0.10139040	0.10337040	0.03993480
SS201	0.00085175	0.04017600	14.55408000	0.33756480	0.35352000	0.00026492	0.00026827	0.41407200	0.42238080	0.55775520
SS202	0.01095300	0.00878400	0.44496000	0.42465600	0.51908400	0.00009430	0.00211536	0.05742720	0.06534000	0.01465560
SS203	0.00151920	0.00036000	0.05040000	0.00125640	0.00131400	0.00062640	0.00061920	0.00363600	0.00381600	0.00042840
SS204	0.01064124	0.00156960	0.20584800	0.19722600	0.24491074	0.00033214	0.00027598	0.01543104	0.01734120	0.00274219
SS205	0.00002160	0.00086400	0.01296000	0.00108000	0.00108000	0.00000086	0.00000432	0.00082512	0.00089856	0.00002605
SS206	0.00174312	0.00302400	0.19656000	0.00808272	0.01752192	0.00015003	0.00025034	0.01264464	0.01297296	0.00121997
SS207	0.00000406	0.00028800	0.01152000	0.00036000	0.00027936	0.00000524	0.00000635	0.00097344	0.00103248	0.00006552

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Site ID	Cu T Ld	FT Ld	Hard D Ld	Fe D Ld	Fe T Ld	Pb D Ld	Pb T Ld	Mg D Ld	Mg T Ld	Mn D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS208	0.00001516	0.00036900	0.09792000	0.00121176	0.00135351	0.00000526	0.00000501	0.00605376	0.00600192	0.00063761
SS210	0.01406705	0.31922834	31.40947402	0.02254936	0.02279416	0.00002483	0.00010181	1.93749891	1.93595833	2.15687995
SS211	0.00008251	0.00086400	0.40176000	0.00218592	0.00980640	0.00006048	0.00011534	0.01421280	0.01378080	0.00316224
SS212	0.02975616	0.02419200	3.99168000	0.03024000	0.01899072	0.02020032	0.01911168	0.12023424	0.11551680	0.27336960
SS213	0.00020062	0.00518400	0.59616000	0.00648000	0.00648000	0.00000518	0.00002592	0.01816992	0.01710720	0.00062726
SS214	0.03027456	0.11059200	15.34464000	0.01728000	0.13478400	0.00066079	0.00359424	0.52738560	0.50941440	1.83168000
SS215	0.00081532	0.06289977	4.85896076	0.03692692	0.03692692	0.00012935	0.00021029	0.28671525	0.29691755	0.00646161
SS216	0.00005040	0.00446400	0.11088000	0.00237600	0.00237600	0.00000203	0.00001212	0.00352512	0.00372816	0.00004752
SS217	0.00027180	0.01106400	1.24080000	0.01327200	0.01327200	0.00001087	0.00005436	0.03060600	0.03070320	0.00054000
SS218	0.00012595	0.00859200	5.59824000	0.00352800	0.00352800	0.00000343	0.00001717	0.39201600	0.38966400	0.01770240
SS219	0.02686392	0.02901600	1.01952000	0.09467064	0.14942160	0.00235368	0.00259128	0.04192200	0.04399200	0.07700760
SS220	0.00096425	3.15004780	16.52615843	0.01113374	0.03838871	0.00000657	0.00003157	1.14166386	1.15398484	4.28121557
SS221	0.00008489	0.47894400	3.00240000	0.00972000	0.00972000	0.00000853	0.00000792	0.20145600	0.21153600	1.07280000
SS222	0.04680000	3.69216000	31.95360000	0.09360000	0.09360000	0.00014983	0.00014309	3.60216000	3.66768000	14.68800000
SS223	0.00006668	0.00259200	0.19908000	0.00316800	0.00322092	0.00000274	0.00002709	0.00544824	0.00568080	0.00008661
SS224	0.10333440	0.02419200	5.80608000	0.23224320	0.34560000	0.00063936	0.00105408	0.16968960	0.16727040	1.77638400
SS225	0.00574992	0.01252800	3.90096000	0.00922752	0.18884880	0.00365904	0.00468288	0.13487040	0.13461120	0.64843200
SS226	0.00033214	0.00964800	0.67536000	0.01047600	0.01047600	0.00013216	0.00024894	0.02142144	0.02076768	0.00895658
SS227	0.00000688	0.00810000	1.09980000	0.00383400	0.00482400	0.00000180	0.00000180	0.00723600	0.00720000	0.00216000
SS228	0.00130968	0.01432800	3.28320000	0.10612800	0.10785600	0.00012492	0.00026647	0.11361600	0.11296800	0.09979200
SS229	0.00001297	0.00273600	0.94363200	0.00045000	0.00045000	0.00000158	0.00000157	0.02534256	0.02624904	0.00000993
SS230	0.00162014	0.00204480	0.19245600	0.00530712	0.00736128	0.00024960	0.00082202	0.02476800	0.02484288	0.00667080
SS231	0.00001776	0.00071040	0.49977600	0.00371232	0.01070016	0.00000071	0.00000355	0.01139040	0.01120896	0.00146139
SS232										
SS235	0.00043200	0.08640000	5.01120000	1.35648000	1.36512000	0.01693440	0.01684800	0.43113600	0.44323200	0.75600000
SS236	0.00377640	0.03592800	5.94936000	0.00219600	0.00349704	0.00011598	0.00011365	0.18180000	0.18252000	0.16891200
SS238	0.00118656	0.00302400	1.43928000	0.08107200	0.08164800	0.00002205	0.00002073	0.05356800	0.05292000	0.01113840
SS250	0.00029831	0.21941865	37.86730247	0.01644863	0.07721774	0.00005670	0.00022682	0.23958622	0.24125613	0.02781617
SS300	0.00058203	0.00477000	0.15480000	0.00117000	0.00117180	0.00000117	0.00000845	0.00814410	0.00846090	0.00330930
SS301	0.00070697	0.04399200	17.05392000	0.40852800	0.40752000	0.00010030	0.00009337	0.52358400	0.51602400	0.64087200
SS304	0.00173732	0.05537393	5.96781747	0.03428471	0.03428471	0.02941985	0.02967080	0.20408239	0.20940379	0.12493027

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Cu T Ld	F T Ld	Hard D Ld	Fe D Ld	Fe T Ld	Pb D Ld	Pb T Ld	Mg D Ld	Mg T Ld	Mn D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS305	0.00047520	0.01900800	6.74784000	0.02376000	0.02100384	0.00001901	0.00009504	0.15396480	0.15681600	0.00059020

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Mn T Ld	Hg T Ld	Ni D Ld	Ni T Ld	Nitrate/Nitrite as N T Ld	K D Ld	K T Ld	Se D Ld	Se T Ld	SiO2 D Ld	SiO2 T Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
A23A	0.12345178		0.00002789	0.00002737	0.00653184	0.00920989	0.00855671	0.00000653	0.00003266		
A38	0.27418296		0.00003006	0.00029411	0.17111492	0.03088512	0.03544128	0.00006012	0.00013932	0.10206984	0.10493162
CC01A	0.10002956	0.00000270	0.00005433	0.00027166	0.15081937	0.03037782	0.03418544	0.00010866	0.00054331	0.75509280	0.78613920
CC01B	6.21052128	0.00001089	0.00104435	0.00130206	2.06388000	0.37246464	0.37721952	0.00117857	0.00143274	8.91156672	8.32649952
CC01C	0.09439186	0.00000014	0.00016887	0.00017082	0.10430400	0.00398621	0.00386878	0.00006577	0.00032725	1.04491296	1.02705120
CC03D	50.50712928		0.05298003	0.05022372	15.36691200	2.02637933	2.10420922	0.01244731	0.01129517	64.13820480	64.11677760
CC06	73.39961664	0.00018344	0.12754957	0.11566153	28.30844160	5.38619328	4.75414877	0.02336291	0.01639509	93.27873600	92.74672800
CC14	10.21321916		0.01990319	0.02118342	67.25433024	2.28951648	3.10511088	0.01465152	0.02984449	172.13118849	187.77947835
CC16C	0.13852873	0.00000396	0.00154162	0.00175496	0.80174725	0.19387663	0.19611868	0.00011260	0.00037543	2.66584083	2.80102545
CC19	25.15453171	0.00002395	0.02704508	0.02551062	5.54630400	0.51488160	0.51885600	0.00407036	0.00294572	29.99880000	29.24172000
CC50	5.85643323	0.00006804	0.00372334	0.00775006	23.15884929	1.11512092	1.17428472	0.00739983	0.01296744	39.07544326	41.50386064
DM01	0.07879680		0.00027510	0.00028270	0.13824000			0.00013824	0.00069120	0.95385600	1.00224000
DM24	0.85190400		0.00067752	0.00068638	1.11600000	0.37123200	0.37792800	0.00056261	0.00058103		
DM32	0.18667906	0.00000086	0.00010825	0.00027189	0.04727101	0.00815760	0.00807768	0.00002690	0.00015266	0.19500491	0.19803894
DM4	0.04311014		0.00000544	0.00002722	0.05443200	0.00878532	0.00738098	0.00001089	0.00005443		
SS001	0.01585368	0.00000043	0.00014994	0.00076252	0.16390972	0.00772249	0.01006156	0.00016703	0.00083515	0.73467066	0.74127890
SS002	0.00011891	0.00000007	0.00001087	0.00008591	0.00923800	0.00077688	0.00084960	0.00002175	0.00010874	0.07064472	0.07072324
SS003	0.00192849	0.00000007	0.00000478	0.00002391	0.00306226	0.00033228	0.00035388	0.00000956	0.00004781	0.03816075	0.03772717
SS004	0.00016403	0.00000035	0.00001189	0.00011844	0.01422773	0.00759667	0.00833011	0.00001890	0.00009449	0.05901501	0.06181721
SS005	0.00001131		0.00000469	0.00000597	0.00027800			0.00000124	0.00000927	0.01380737	0.01371470
SS006	0.00034996	0.00000029	0.00003670	0.00024435	0.05910304	0.00325728	0.00338688	0.00007341	0.00036704	0.43172028	0.44588523
SS007	0.00093590	0.00000288	0.00007655	0.00300900	0.14848358	0.05322596	0.03896420	0.00015178	0.00075889	0.19594221	0.20019807
SS008	0.18897559	0.00000072	0.00022593	0.00112964	0.40214418	0.15233269	0.15233269	0.00045186	0.00225929	0.10025466	0.10854017
SS009	0.00053466		0.00001094	0.00005470	0.01566646	0.01905120	0.01740960	0.00002188	0.00010940	0.02329636	0.02402139
SS010	0.01058540	0.00000007	0.00000843	0.00004214	0.03026353	0.00632496	0.00624048	0.00001686	0.00008429	0.01328766	0.01338665
SS011	0.01404300	0.00000022	0.00005292	0.00006349	0.01393360	0.00173664	0.00432000	0.00000747	0.00003737	0.03619434	0.03760751
SS012	0.00463148	0.00000011	0.00005162	0.00021765	0.09370323	0.01115424	0.01122876	0.00008567	0.00042833	0.07526944	0.08381992
SS013	0.21559480	0.00002344	0.00225030	0.01239619	4.45447753	0.37839703	0.36135178	0.00450059	0.02250296	11.06191764	11.09861626
SS014	0.00050737	0.00000259	0.00010607	0.00054208	0.14424589	0.05230290	0.02999735	0.00021214	0.00106072	1.19100109	1.18110481
SS015	0.01316232	0.00000950	0.00037052	0.00214250	0.64684142	0.14614252	0.11290524	0.00074103	0.00370517	5.16165428	5.18454845
SS016	0.00533187	0.00000104	0.00000952	0.00003397	0.00993835	0.00732840	0.00691675	0.00001330	0.00006650	0.18849757	0.19079863

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Mn T Ld	Hg T Ld	Ni D Ld	Ni T Ld	Nitrate/Nitrite as N T Ld	K D Ld	K T Ld	Se D Ld	Se T Ld	SiO2 D Ld	SiO2 T Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS017	0.00685942		0.00001514	0.00003176	0.00933047	0.00598464	0.00583200	0.00000820	0.00004100	0.18548657	0.19628657
SS018	0.15624033	0.00000346	0.00056587	0.00069802	0.13209827	0.08614510	0.08364726	0.00009193	0.00045966	1.37198963	1.41404803
SS019	0.00006536	0.00000050	0.00001070	0.00005742	0.01362184	0.00563664	0.00404131	0.00002139	0.00010696	0.09492941	0.09499456
SS020	0.01321868	0.00000144	0.00022821	0.00029629	0.08634010	0.02952000	0.02952000	0.00011578	0.00057888	0.33424671	0.33151577
SS021	0.00172424		0.00004177	0.00022425	0.08845809	0.05760000	0.05760000	0.00008970	0.00044850	0.04938688	0.04929722
SS022	0.00049999	0.00000014	0.00002324	0.00012530	0.04227216	0.00414000	0.00414000	0.00005012	0.00025061	0.23832490	0.28168988
SS023	0.00076494	0.00001008	0.00005229	0.00026109	0.20496217	0.03517586	0.04074033	0.00010444	0.00052219	0.00714294	0.00754923
SS024	0.00064283	0.00000252	0.00013813	0.00069063	0.28997051	0.05416272	0.04908240	0.00027625	0.00138127	0.81459639	0.81749632
SS025	0.00004897		0.00000610	0.00003049	0.01096882	0.00360000	0.00360000	0.00001220	0.00006098	0.01226247	0.01345270
SS026	0.06265933	0.00000050	0.00007477	0.00008505	0.04354250	0.00637402	0.00608602	0.00004630	0.00023150	0.21784775	0.20878459
SS027	0.85393388	0.00000324	0.00140638	0.00140276	0.38741711	0.06060672	0.06158304	0.00025667	0.00080639	0.98790818	0.98659808
SS028	0.00001589	0.00000004	0.00000141	0.00000705	0.00157809	0.00072000	0.00072000	0.00000282	0.00001410	0.00957205	0.01029338
SS029	0.07578044	0.00001296	0.00123962	0.00435106	0.62350320	0.11156258	0.11088103	0.00074124	0.00370622	4.48398684	4.49706922
SS030	0.00000396	0.00000004	0.00000058	0.00000288	0.00089280	0.00036000	0.00036000	0.00000115	0.00000576	0.00298440	0.00325080
SS031	0.00017353	0.00000011	0.00000736	0.00003680	0.01175530	0.00389520	0.00393840	0.00001472	0.00007360	0.03346752	0.03372631
SS032	0.00011068	0.00000014	0.00002292	0.00011462	0.04360882	0.00352224	0.00301248	0.00004585	0.00022924	0.07774502	0.08587621
SS033	0.00001198	0.00000004	0.00000058	0.00000302	0.00089280	0.00030960	0.00030552	0.00000115	0.00000576	0.00080532	0.00086004
SS034	0.00027558	0.00000004	0.00000143	0.00000349	0.00093600	0.00020196	0.00021096	0.00000126	0.00000630	0.00195120	0.00196560
SS035	0.00186545		0.00017088	0.00086155	0.35164709	0.00936000	0.03133728	0.00034175	0.00170875	0.52700722	0.55021508
SS036	0.00007364		0.00000148	0.00001308	0.00244724	0.00018000	0.00018000	0.00000334	0.00001672	0.00778056	0.00774107
SS037	0.04507186	0.00000014	0.00032954	0.00044729	0.06861531	0.01011024	0.01310256	0.00003635	0.00015297	0.19349896	0.18157576
SS038	0.00025182	0.00000302	0.00005731	0.00030384	0.10909437	0.01869792	0.01588800	0.00011462	0.00057312	0.31639619	0.32607298
SS039	0.01485738	0.00000002	0.00004725	0.00019467	0.04628243	0.00237600	0.00221659	0.00005406	0.00027029	0.27716201	0.27991421
SS040	0.21004092	0.00000032	0.00007571	0.00054785	0.20260000	0.00250656	0.00264360	0.00020415	0.00102075	1.55014794	1.54502673
SS041	0.07685162	0.00000216	0.00008215	0.00048665	0.11306040	0.02128560	0.02181120	0.00013268	0.00066342	0.47764197	0.47710722
SS042	0.00336427	0.00000050	0.00001631	0.00005050	0.05439588	0.00478872	0.00485928	0.00003261	0.00006227	0.02267813	0.03176794
SS043	0.07743748	0.00000216	0.00006970	0.00011117	0.22631037	0.03619584	0.02939328	0.00013939	0.00018778	0.18006985	0.18399383
SS044	0.08756396	0.00000144	0.00008656	0.00034879	0.30903047	0.00994877	0.00949843	0.00017312	0.00061101	3.01624164	3.28840973
SS045	0.00139753	0.00000065	0.00001595	0.00006889	0.02292479	0.00344851	0.00338870	0.00002915	0.00014573	0.48210820	0.50694828
SS046	0.01697108	0.00000050	0.00002781	0.00003821	0.00973493	0.00412080	0.00403488	0.00001441	0.00007203	0.32535512	0.33687846
SS047	0.00267292	0.00000198	0.00046081	0.00231857	0.86718409	0.06125373	0.05394573	0.00092162	0.00460808	4.66607344	4.56625077

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Mn T Ld	Hg T Ld	Ni D Ld	Ni T Ld	Nitrate/Nitrite as N T Ld	K D Ld	K T Ld	Se D Ld	Se T Ld	SiO2 D Ld	SiO2 T Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS048	0.01324104	0.00000115	0.00059304	0.00314670	1.18374242	0.05841318	0.05736486	0.00118509	0.00593036	7.01728132	9.11153920
SS049	0.00013702	0.00000001	0.00002743	0.00015150	0.05417943	0.00184090	0.00194400	0.00005485	0.00027426	0.17447088	0.16681167
SS050	0.04843222	0.00000173	0.00034502	0.00178644	0.63935808	0.05791409	0.06096113	0.00064086	0.00320428	2.36753211	2.59822004
SS051	0.00103045	0.00000101	0.00003889	0.00022443	0.07085124	0.03823680	0.04065600	0.00007778	0.00038888	0.30054639	0.29330796
SS052	0.00001918	0.00000002	0.00000210	0.00001326	0.00325562	0.00129590	0.00132994	0.00000400	0.00001998	0.02594524	0.02704603
SS053	0.00937090	0.00000086	0.00005251	0.00009423	0.04559039	0.00453269	0.00334032	0.00005181	0.00025906	0.37091403	0.38655247
SS054	0.00057316	0.00000058	0.00006456	0.00025425	0.31263872	0.02715132	0.02773884	0.00012912	0.00050849	0.40448125	0.40663946
SS055	0.05963154	0.00000001	0.00006841	0.00009815	0.10006613	0.00555154	0.00566472	0.00001603	0.00008016	0.72147908	0.73825575
SS056	0.00289669		0.00001039	0.00002934	0.01178248	0.00012600	0.00012600	0.00001263	0.00006316	0.11523065	0.11387061
SS057	0.00914695	0.00000004	0.00000838	0.00001045	0.00515338	0.00050976	0.00186192	0.00000288	0.00000574	0.01231937	0.01325082
SS058	0.00000472	0.00000004	0.00000063	0.00000366	0.00097200	0.00045000	0.00045000	0.00000126	0.00000630	0.00282960	0.00281880
SS059	0.00068792	0.00000050	0.00004136	0.00017801	0.06295824	0.01115088	0.01142016	0.00006712	0.00033559	0.70243104	0.70703543
SS060	0.00188189	0.00000043	0.00002667	0.00010304	0.02517282	0.00427258	0.00494093	0.00003296	0.00016482	0.34426625	0.33535492
SS061	0.00030802		0.00000279	0.00001257	0.00439086			0.00000503	0.00002514	0.02658408	0.02804947
SS062	0.04940638	0.00000023	0.00001021	0.00002880	0.03467429	0.00375230	0.00409565	0.00001140	0.00005700	0.16704073	0.18723161
SS063	0.02953512	0.00000007	0.00028495	0.00018849	0.06638126	0.00062784	0.00137088	0.00004353	0.00004497	0.14698559	0.14935953
SS064	0.00038110	0.00000011	0.00003234	0.00005533	0.02217886	0.00225821	0.00245827	0.00007207	0.00009742	0.14230147	0.14186084
SS065	0.40541417	0.00000164	0.00044407	0.00048674	0.27331012	0.02369760	0.02184192	0.00016470	0.00021527	0.50751137	0.51147255
SS066	0.19265734	0.00000007	0.00020100	0.00021313	0.05377805	0.00240480	0.00241920	0.00004068	0.00005769	0.30540718	0.30814724
SS067	0.02309332	0.00000004	0.00002751	0.00002792	0.00898886	0.00148560	0.00144480	0.00001389	0.00001012	0.07762366	0.07801763
SS068	0.06875437	0.00000036	0.00010335	0.00011978	0.05541337	0.01069440	0.01038720	0.00003721	0.00007061	0.37498841	0.38286835
SS069	0.01809816	0.00000029	0.00002235	0.00002235	0.00924643	0.00274920	0.00272976	0.00000714	0.00003568	0.14475601	0.15404197
SS070	0.01511417	0.00000025	0.00004827	0.00005895	0.01082825	0.00264840	0.00285912	0.00001238	0.00006189	0.30153187	0.32204707
SS071	0.79686547	0.00001243	0.00104722	0.00144363	2.66942254	0.17977322	0.16209420	0.00209444	0.00288727	7.90308391	8.14770993
SS072	0.17539535	0.00000252	0.00035245	0.00034377	0.32967063	0.05342304	0.05120352	0.00037760	0.00039834	0.69366436	0.72934471
SS073	0.05512958	0.00000130	0.00004320	0.00006867	0.16712637	0.02208240	0.02141376	0.00011966	0.00012830	0.21390925	0.22377316
SS074	0.02357052	0.00000023	0.00009807	0.00009381	0.09608126	0.00477144	0.00490824	0.00005848	0.00005847	0.18781028	0.20062216
SS075	0.47992055	0.00001440	0.00093953	0.00098096	2.03953497	0.26140784	0.25357832	0.00187907	0.00196192	2.35624583	2.40879642
SS076	0.00000973	0.00000004	0.00000058	0.00000628	0.00089280	0.00054720	0.00044544	0.00000115	0.00000576	0.00138600	0.00138240
SS077	0.00068580	0.00000274	0.00013031	0.00067047	0.25595664	0.02016000	0.00742848	0.00026063	0.00130314	0.86009202	0.94613976
SS078	0.00123358	0.00000158	0.00008268	0.00074274	0.13681343	0.01466400	0.01507392	0.00016537	0.00082683	0.45433133	0.47735894

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Mn T Ld	Hg T Ld	Ni D Ld	Ni T Ld	Nitrate/Nitrite as N T Ld	K D Ld	K T Ld	Se D Ld	Se T Ld	SiO2 D Ld	SiO2 T Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS079	0.00018106	0.00000043	0.00003679	0.00018990	0.07309304	0.00114504	0.00111216	0.00007357	0.00036787	0.13800773	0.14404865
SS080	0.00001928	0.00000007	0.00000072	0.00000568	0.00111600	0.00087240	0.00051696	0.00000144	0.00000720	0.00072000	0.00072000
SS082	0.00005642		0.00000577	0.00007905	0.00331335	0.00144000	0.00202752	0.00000799	0.00005774	0.24181150	0.24441162
SS083	0.06649623		0.00021607	0.00028056	0.10775621	0.00720000	0.00720000	0.00006951	0.00034796	0.75484227	0.74587884
SS084	0.08092510		0.00057829	0.00140636	0.55326231	0.00108000	0.00108000	0.00054847	0.00274233	4.67619702	4.79855546
SS085	0.04111560		0.00001908	0.00004167	0.05688000	0.00168840	0.00177984	0.00003330	0.00003330	0.17514000	0.17938800
SS086	0.01391470	0.00000004	0.00000959	0.00000926	0.02402392	0.00196224	0.00205776	0.00001291	0.00001502	0.10065913	0.10371311
SS087	0.10829269	0.00000216	0.00148737	0.00119933	0.40134806	0.06750240	0.06555840	0.00024925	0.00126806	2.34840498	2.40928167
SS088	0.00021464	0.00000017	0.00001021	0.00005558	0.02390331	0.00179338	0.00177936	0.00002110	0.00010552	0.37721690	0.40594284
SS089	0.00018498	0.00000014	0.00000352	0.00001781	0.00770177	0.00298718	0.00284299	0.00000703	0.00003517	0.02754162	0.03082980
SS090	0.00005423		0.00000103	0.00000623	0.00145686	0.00080622	0.00083160	0.00000209	0.00001047	0.00528066	0.00555638
SS091	0.00035039	0.00000007	0.00000630	0.00004094	0.00368977	0.00211284	0.00241722	0.00000693	0.00003464	0.02212014	0.02305560
SS092	0.00002817	0.00000014	0.00000407	0.00001443	0.00450102	0.00145008	0.00135936	0.00000548	0.00002741	0.01781675	0.01843962
SS093	0.00138648		0.00002171	0.00011234	0.00808086	0.00472788	0.00580176	0.00000943	0.00004359	0.01804809	0.02092354
SS094	0.00766288		0.00014801	0.00018302	0.01453945	0.00730944	0.00790128	0.00000632	0.00001866	0.00710149	0.00809126
SS095	0.00142153	0.00000043	0.00000567	0.00002846	0.01192301	0.00666600	0.00713040	0.00001135	0.00005385	0.04623543	0.04795465
SS096	0.00011585	0.00000005	0.00000288	0.00000993	0.00290319	0.00044694	0.00044694	0.00000464	0.00001611	0.02647431	0.02864941
SS097	0.00005018		0.00000117	0.00000269	0.00075816			0.00000110	0.00000551	0.00728397	0.00791538
SS098	0.00654176	0.00000029	0.00005177	0.00005641	0.03013416	0.00235469	0.00234662	0.00000386	0.00001751	0.02696652	0.02749427
SS105	0.41771199		0.00038085	0.00076765	3.07027551	0.07035803	0.06826831	0.00053328	0.00130689	11.49408000	12.15720000
SS123	0.00187877		0.00023242	0.00028002	0.06264000	0.00108000	0.00108000	0.00003570	0.00027000	0.22032000	0.23535360
SS125	0.02142720	0.00000007	0.00015359	0.00017482	0.02880000	0.00541584	0.00727920	0.00000513	0.00000835		
SS126	0.00336989	0.00000058	0.00022969	0.00034960	0.12996000	0.01693368	0.01685988	0.00008223	0.00022742	2.42222400	2.63088000
SS200	0.04182480	0.00000108	0.00006984	0.00010440	0.34920000	0.01836960	0.01900608	0.00013968	0.00020880	1.02297600	1.15430400
SS201	0.56409120	0.00000115	0.00058369	0.00062896	0.22896000	0.02231616	0.02062272	0.00014659	0.00017208	0.49766400	0.51724800
SS202	0.01498320		0.00011434	0.00012380	0.08712000	0.00037368	0.00034920	0.00001764	0.00008820	0.41817600	0.49939200
SS203	0.00042480		0.00001188	0.00001055	0.00720000			0.00000360	0.00003600	0.07884000	0.08424000
SS204	0.00284566	0.00000009	0.00005062	0.00005272	0.01915200	0.00094162	0.00111384	0.00000719	0.00001800	0.04475520	0.04890240
SS205	0.00004005		0.00000432	0.00002160	0.00864000			0.00000864	0.00004320	0.01680480	0.01745280
SS206	0.00133445	0.00000022	0.00002091	0.00007560	0.03024000	0.00390960	0.00403488	0.00003024	0.00015120	0.34992000	0.34992000
SS207	0.00007402		0.00000245	0.00000720	0.00288000			0.00000288	0.00001440	0.00623520	0.00721440

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Mn T Ld	Hg T Ld	Ni D Ld	Ni T Ld	Nitrate/Nitrite as N T Ld	K D Ld	K T Ld	Se D Ld	Se T Ld	SiO2 D Ld	SiO2 T Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS208	0.00061105	0.00000036	0.00000478	0.00002382	0.00549000	0.00426720	0.00406560	0.00000549	0.00002745	0.02908800	0.02851200
SS210	2.19309224	0.00000058	0.00133448	0.00141114	0.42508579	0.02743968	0.02887488	0.00012919	0.00093401	3.24826308	3.27806366
SS211	0.00337392		0.00000639	0.00002160	0.00864000			0.00000864	0.00004320	0.01836000	0.01931040
SS212	0.27699840		0.00012096	0.00060480	0.24192000			0.00024192	0.00120960	0.60842880	0.60963840
SS213	0.00065837		0.00002592	0.00012960	0.05184000			0.00005184	0.00025920	0.09668160	0.09694080
SS214	1.83859200		0.00054605	0.00057231	0.27648000			0.00008847	0.00069120	0.47347200	0.47485440
SS215	0.00801314	0.00000007	0.00028366	0.00140818	0.32578467	0.05720092	0.05718292	0.00032578	0.00162892	1.19354943	1.19095475
SS216	0.00008375		0.00001008	0.00006077	0.02016000	0.00288000	0.00288000	0.00002016	0.00010080	0.07574400	0.07646400
SS217	0.00057072		0.00005436	0.00046296	0.10872000	0.00477000	0.00477000	0.00010872	0.00054360	0.36720000	0.37728000
SS218	0.01838592		0.00011729	0.00070272	0.04032000	0.01106856	0.01111824	0.00003408	0.00017040	0.04824000	0.04932000
SS219	0.07891200	0.00000036	0.00009457	0.00017838	0.05220000	0.00522192	0.00614592	0.00005220	0.00026100	0.75168000	0.77068800
SS220	6.27297887		0.00189856	0.00242659	0.58829930	0.04371840	0.04078080	0.00006979	0.00031575	2.28941706	2.33029950
SS221	1.11600000		0.00040378	0.00040550	0.15120000	0.00774720	0.00763200	0.00007920	0.00007920	0.31248000	0.32976000
SS222	15.23520000		0.00798696	0.00815688	1.47600000	0.02361600	0.02476800	0.00075600	0.00075600	2.57760000	2.67840000
SS223	0.00087194	0.00000058	0.00001296	0.00007992	0.02592000	0.00484176	0.00480000	0.00002592	0.00012960	0.11232000	0.11335680
SS224	1.51718400		0.00047693	0.00048038	0.13824000			0.00034560	0.00034560	0.38361600	0.40435200
SS225	0.65102400		0.00020844	0.00027886	0.05184000	0.00243648	0.00513216	0.00004752	0.00023760	0.43632000	0.42897600
SS226	0.00908136		0.00005561	0.00028094	0.08496000	0.00428544	0.00478080	0.00008496	0.00042480	0.20671200	0.20592000
SS227	0.00216000	0.00000009	0.00000900	0.00000900	0.03600000	0.00078480	0.00079560	0.00001800	0.00001800		
SS228	0.09907200	0.00000014	0.00005116	0.00010886	0.04680000	0.00392976	0.00389808	0.00003240	0.00003240		
SS229	0.00003241	0.00000009	0.00000576	0.00001721	0.02304000	0.00115474	0.00129499	0.00001152	0.00002016		
SS230	0.00667152	0.00000023	0.00003421	0.00003951	0.01101600	0.00086926	0.00108209	0.00000355	0.00002484		
SS231	0.00153618	0.00000007	0.00000355	0.00005877	0.00710400	0.00181699	0.00179194	0.00000710	0.00003552		
SS232											
SS235	0.77155200	0.00000432	0.00084240	0.00084154	0.34560000	0.28252800	0.29894400	0.00017280	0.00086400		
SS236	0.16810560	0.00000036	0.00016741	0.00017107	0.09792000	0.01771920	0.01993680	0.00007200	0.00010080		
SS238	0.01086480	0.00000007	0.00003730	0.00003982	0.02520000	0.00478800	0.00468720	0.00000360	0.00001800		
SS250	0.08507865	0.00000273	0.00018481	0.00015074	0.36961836	0.02180402	0.02024292	0.00036962	0.00030148		
SS300	0.00407790		0.00003641	0.00005132	0.01170000	0.00457200	0.00488250	0.00001170	0.00005850		
SS301	0.61502400		0.00061870	0.00058320	0.12960000	0.02516400	0.02421360	0.00009000	0.00009000		
SS304	0.13215951		0.00028753	0.00073105	0.27470965	0.00216000	0.00220320	0.00027471	0.00137355	1.13653204	1.17741449

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Mn T Ld	Hg T Ld	Ni D Ld	Ni T Ld	Nitrate/Nitrite as N T Ld	K D Ld	K T Ld	Se D Ld	Se T Ld	SiO2 D Ld	SiO2 T Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS305	0.00115949	0.00000475	0.00009504	0.00047520	0.19008000	0.04780512	0.04514400	0.00019008	0.00095040		

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Ag D Ld	Ag T Ld	Na D Ld	Na T Ld	Sr D Ld	Sr T Ld	SO4 T Ld	TI D Ld	TI T Ld	Alk T Ld	V D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
A23A	0.00000327	0.00001633	0.00487275	0.00495767			0.84913920	0.00000653	0.00003266	0.03265920	0.00001306
A38	0.00003006	0.00006966	0.17321472	0.18152064	0.03376890	0.03405508	11.72858046	0.00006012	0.00013932	2.47692306	0.00016128
CC01A	0.00005433	0.00027166	0.07802856	0.07964652	0.04601520	0.04911984	13.42600000	0.00010866	0.00054331	1.95509380	0.00012390
CC01B	0.00058928	0.00071637	1.12967136	1.05515136	0.48879043	0.48664570	154.82926800	0.00117857	0.00166789	1.13094000	0.00188064
CC01C	0.00003301	0.00016359	0.00528060	0.00530687	0.00460578	0.00502681	4.18762260	0.00008702	0.00043513	0.34528014	0.00000446
CC03D	0.00622366	0.00564758	11.28970483	11.39737939	7.61326762	7.89219418	2288.47488000	0.01244731	0.01294416	46.15762080	0.02093213
CC06	0.01054650	0.00763007	13.77168178	12.71209766	18.70894800	18.56707920	4708.97176320	0.02109300	0.01526014	15.26014080	0.03484282
CC14	0.00734661	0.01502869	9.86585280	10.65953280	9.81027403	9.81027403	1952.79952608	0.01828557	0.02966834	46.70343130	0.04906800
CC16C	0.00005678	0.00018817	0.27104029	0.27550696	0.05169460	0.05304645	31.05920997	0.00014009	0.00043281	0.42568210	0.00037311
CC19	0.00203518	0.00147286	3.39116102	3.20077075	4.54590000	4.53380400	878.83574400	0.00407036	0.00294572	4.56940800	0.00528787
CC50	0.00311441	0.00556099	6.78398868	7.36955100	11.47979124	11.70055646	1462.01021805	0.00739983	0.01296744	163.43664115	0.01877904
DM01	0.00006912	0.00034560			0.03621888	0.03573504	7.94880000	0.00013824	0.00069120	0.69120000	
DM24	0.00028546	0.00028546	1.11301200	1.14314400			131.08680000	0.00111600	0.00111600	15.47100000	0.00223200
DM32	0.00001562	0.00007633	0.02001744	0.01836864	0.00394423	0.00430280	3.49485535	0.00003053	0.00015266	0.15265506	0.00003888
DM4	0.00000544	0.00002722	0.05704474	0.05421427			5.49763200	0.00001089	0.00005443	1.15395840	0.00002177
SS001	0.00008351	0.00041757	0.00706477	0.00845961	0.00583109	0.00637021	2.57893918	0.00016703	0.00083567	1.02226897	0.00004738
SS002	0.00001087	0.00005437	0.00219384	0.00224784	0.00635208	0.00659750	1.34918987	0.00002175	0.00011205	0.14701440	0.00000648
SS003	0.00000478	0.00002391	0.00109512	0.00109440	0.00307580	0.00312627	0.72618597	0.00000956	0.00005525	0.03472800	0.00000288
SS004	0.00000945	0.00004725	0.00895738	0.00944947	0.00217567	0.00224838	1.22129994	0.00001890	0.00009449	0.15739200	0.00002419
SS005	0.00000093	0.00000463			0.00013066	0.00015290	0.15382702	0.00000185	0.00000927		
SS006	0.00003670	0.00018352	0.00779520	0.00775680	0.01092265	0.01202884	1.33815572	0.00007341	0.00036704	0.79969950	0.00001536
SS007	0.00007589	0.00037944	0.13757146	0.13827226	0.00642239	0.00723137	3.98581745	0.00015178	0.00075889	2.10675281	0.00032981
SS008	0.00022593	0.00112964	0.36059017	0.38787511	0.03024211	0.02825359	33.28428684	0.00045186	0.00225929	8.90974746	0.00118266
SS009	0.00001094	0.00005470	0.02259360	0.02445120	0.00136761	0.00139480	1.01349124	0.00002188	0.00010940	0.25920000	0.00008640
SS010	0.00000843	0.00004214	0.04505040	0.04635840	0.00047622	0.00049648	5.47558578	0.00001686	0.00008429	0.13615272	0.00004992
SS011	0.00000374	0.00001868	0.00501120	0.00385776	0.00487719	0.00498364	1.45271380	0.00000747	0.00003737	0.02880000	0.00001296
SS012	0.00004283	0.00021417	0.07582680	0.07885080	0.00372697	0.00398926	3.78774188	0.00008567	0.00042833	0.53226362	0.00008964
SS013	0.00225030	0.01125148	0.74933710	0.76857366	0.88700548	0.86839998	178.60555565	0.00450059	0.02393112	60.94122086	0.00288358
SS014	0.00010607	0.00053036	0.12117538	0.11898833	0.05406676	0.05430879	9.77720225	0.00021214	0.00097218	3.01920715	0.00020509
SS015	0.00037052	0.00185259	0.57152911	0.56394191	0.14874670	0.14501822	39.39413281	0.00074103	0.00342259	7.75983953	0.00074965
SS016	0.00000665	0.00003325	0.02337264	0.02298000	0.00201660	0.00199147	0.91087174	0.00001330	0.00006650	0.05778000	0.00002242

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Site ID	Ag D Ld	Ag T Ld	Na D Ld	Na T Ld	Sr D Ld	Sr T Ld	SO4 T Ld	TI D Ld	TI T Ld	Alk T Ld	V D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS017	0.00000410	0.00002050	0.01633536	0.01608768	0.00174779	0.00169621	0.83711572	0.00000820	0.00004100	0.04704000	0.00001094
SS018	0.00004597	0.00022983	0.22940199	0.23013491	0.01716872	0.01669897	13.57773202	0.00009193	0.00045966	0.45166108	0.00016985
SS019	0.00001070	0.00005348	0.01588272	0.01589904	0.00305269	0.00297496	0.68177280	0.00002139	0.00010164	0.19343520	0.00002765
SS020	0.00005789	0.00028944	0.04243968	0.04463136	0.00235924	0.00232253	2.23355260	0.00011578	0.00060831	0.55379667	0.00016416
SS021	0.00004485	0.00022425	0.11335680	0.11681280	0.00019814	0.00019202	0.87301474	0.00008970	0.00044850	0.66240000	0.00046080
SS022	0.00002506	0.00012530	0.00812016	0.00819576	0.00295443	0.00302261	1.03021633	0.00005012	0.00025061	0.27600000	0.00002592
SS023	0.00005222	0.00026109	0.17838433	0.18846867	0.00009947	0.00009422	10.12132416	0.00010444	0.00052219	2.74437100	0.00030973
SS024	0.00013813	0.00069063	0.18081408	0.18469440	0.17150350	0.16151510	28.50903697	0.00027625	0.00138127	8.42075596	0.00036912
SS025	0.00000610	0.00003049	0.00576000	0.00588960	0.00109726	0.00104600	0.34665198	0.00001220	0.00006098	0.16531200	0.00002880
SS026	0.00002315	0.00011575	0.01435910	0.01465992	0.00188218	0.00157741	2.06928797	0.00004630	0.00023150	0.28704000	0.00004622
SS027	0.00011547	0.00040319	0.09451296	0.09427680	0.01420573	0.01390030	24.43036538	0.00023040	0.00080768	0.81720000	0.00042192
SS028	0.00000141	0.00000705	0.00058608	0.00061128	0.00005560	0.00005496	0.02131085	0.00000282	0.00001410	0.00835200	0.00000216
SS029	0.00037062	0.00185311	0.30165235	0.30753069	0.08166678	0.08076736	43.59457196	0.00074124	0.00370622	3.81513010	0.00064010
SS030	0.00000058	0.00000288	0.00056952	0.00056616	0.00011376	0.00012240	0.01882080	0.00000115	0.00000576	0.01078200	0.00000168
SS031	0.00000736	0.00003680	0.00981144	0.00984240	0.00156348	0.00150716	0.41635566	0.00001472	0.00007360	0.30240000	0.00002520
SS032	0.00002292	0.00011462	0.01185120	0.01121760	0.01039077	0.01014207	0.95161289	0.00004585	0.00022924	1.35840000	0.00002160
SS033	0.00000058	0.00000288	0.00028944	0.00029184	0.00003222	0.00003154	0.00724320	0.00000115	0.00000576	0.00540000	0.00000168
SS034	0.00000063	0.00000315	0.00035028	0.00035784	0.00003067	0.00002977	0.01567800	0.00000126	0.00000630	0.00600000	0.00000180
SS035	0.00017088	0.00085438	0.05653440	0.05878080	0.11326172	0.10567077	20.46557251	0.00034175	0.00171234	7.51291200	0.00007488
SS036	0.00000167	0.00000836	0.00026640	0.00026784	0.00013954	0.00013225	0.05221811	0.00000334	0.00001809	0.01800000	0.00000144
SS037	0.00001818	0.00007648	0.02559600	0.02518560	0.00826417	0.00753416	5.19779645	0.00003635	0.00015297	0.18960000	0.00006048
SS038	0.00005731	0.00028656	0.04810560	0.04298880	0.04479826	0.04764514	1.92372151	0.00011462	0.00057312	4.35837600	0.00009696
SS039	0.00002703	0.00013515	0.00623376	0.00636098	0.00255094	0.00267209	1.28815953	0.00005406	0.00021306	0.30278965	0.00001793
SS040	0.00010208	0.00051038	0.00364392	0.00355800	0.00784646	0.00720934	3.04147390	0.00020415	0.00102083	1.26517342	0.00001848
SS041	0.00006634	0.00033171	0.05996640	0.05950080	0.03513961	0.03409150	5.92174047	0.00013268	0.00066662	1.36836000	0.00013440
SS042	0.00001631	0.00003113	0.03006072	0.03010464	0.00113323	0.00117295	1.33677093	0.00003261	0.00005095	0.24844800	0.00007992
SS043	0.00006970	0.00009389	0.20899584	0.20148768	0.05925890	0.06054769	7.88890085	0.00013939	0.00015209	2.80515600	0.00028800
SS044	0.00008656	0.00030550	0.08156160	0.08073504	0.17597041	0.16592641	20.36604886	0.00017312	0.00061130	0.80020800	0.00017376
SS045	0.00001457	0.00007286	0.01706976	0.01670400	0.00808264	0.00801352	1.26984164	0.00002915	0.00014573	0.13896000	0.00001795
SS046	0.00000720	0.00003601	0.02546400	0.02521920	0.00558201	0.00562528	1.31653952	0.00001441	0.00007203	0.05760000	0.00001776
SS047	0.00046081	0.00230404	0.13454000	0.12790400	0.24262710	0.24213166	16.64850252	0.00092162	0.00480323	24.43546363	0.00024345

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Ag D Ld	Ag T Ld	Na D Ld	Na T Ld	Sr D Ld	Sr T Ld	SO4 T Ld	TI D Ld	TI T Ld	Alk T Ld	V D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS048	0.00059304	0.00296518	0.32294697	0.33160280	0.17421596	0.18281786	13.16106905	0.00118607	0.00644836	35.60549192	0.00042703
SS049	0.00002743	0.00013713	0.00327024	0.00343210	0.00114940	0.00114536	0.22984160	0.00005485	0.00027462	0.30821760	0.00001483
SS050	0.00032043	0.00160214	0.17721993	0.17287457	0.14772664	0.13955320	19.86690039	0.00064086	0.00334645	13.80693362	0.00041971
SS051	0.00003889	0.00019444	0.03175872	0.03185952	0.01120581	0.01161637	2.12359915	0.00007778	0.00041821	0.60403680	0.00007968
SS052	0.00000200	0.00000999	0.00286944	0.00284688	0.00035170	0.00036469	0.09896141	0.00000400	0.00001998	0.01891152	0.00000451
SS053	0.00002591	0.00012953	0.00978706	0.00903773	0.00463966	0.00435454	1.90723554	0.00005181	0.00025906	0.28062000	0.00002870
SS054	0.00006456	0.00025425	0.21210850	0.20834683	0.13251843	0.13691186	31.96249985	0.00012912	0.00050849	1.99579173	0.00027674
SS055	0.00000802	0.00004008	0.01177800	0.01177368	0.01080180	0.01104014	3.03054380	0.00001603	0.00008016	0.06777000	0.00001625
SS056	0.00000632	0.00003158	0.00110376	0.00108360	0.00032879	0.00032801	0.16791505	0.00001263	0.00006316	0.08766000	0.00000101
SS057	0.00000144	0.00000287	0.00287040	0.00289200	0.00176968	0.00180500	0.34506920	0.00000288	0.00000574	0.00562860	0.00000648
SS058	0.00000063	0.00000315	0.00028044	0.00028512	0.00001706	0.00001685	0.00671400	0.00000126	0.00000630	0.00600000	0.00000180
SS059	0.00003356	0.00016780	0.05048640	0.05118240	0.00931495	0.00939548	2.54918372	0.00006712	0.00033559	0.39060000	0.00005136
SS060	0.00001648	0.00008241	0.01236672	0.01230528	0.00098998	0.00100453	0.32691515	0.00003296	0.00016482	0.15192000	0.00002438
SS061	0.00000251	0.00001257			0.00012527	0.00012446	0.05852872	0.00000503	0.00002514	0.04320000	
SS062	0.00000570	0.00002850	0.02811216	0.02881056	0.00263626	0.00272124	1.58904441	0.00001140	0.00005700	0.07228800	0.00001246
SS063	0.00002176	0.00002248	0.00295200	0.00316800	0.01237947	0.01176740	3.27295861	0.00004353	0.00004497	0.05956800	0.00001224
SS064	0.00003604	0.00004871	0.00842880	0.00805488	0.02397260	0.02399042	3.30334142	0.00007207	0.00012740	0.07977240	0.00002712
SS065	0.00008460	0.00010764	0.11717328	0.12109488	0.02857514	0.02861102	16.49080342	0.00016919	0.00021527	0.16902000	0.00036816
SS066	0.00002117	0.00002885	0.01147680	0.01229760	0.02846766	0.02989475	7.74633943	0.00004233	0.00005769	0.03600000	0.00004320
SS067	0.00000506	0.00000506	0.00871200	0.00861600	0.00229943	0.00236114	1.03371531	0.00001046	0.00000987	0.00720000	0.00001320
SS068	0.00001860	0.00003531	0.04186560	0.04236960	0.00804107	0.00844861	3.59590613	0.00003721	0.00006893	0.06660000	0.00004944
SS069	0.00000357	0.00001784	0.01195920	0.01172520	0.00216968	0.00227465	0.80338521	0.00000714	0.00003568	0.03915000	0.00000744
SS070	0.00000619	0.00003095	0.01408800	0.01406400	0.00333791	0.00357751	0.75585185	0.00001238	0.00006189	0.06660000	0.00001080
SS071	0.00104722	0.00144363	0.54867507	0.53299540	0.47837636	0.51122504	91.45625292	0.00209444	0.00272023	27.50413410	0.00057783
SS072	0.00018880	0.00019917	0.05653728	0.05477664	0.03373114	0.03480363	25.73328813	0.00037760	0.00051672	0.86347080	0.00041040
SS073	0.00005983	0.00006415	0.02482800	0.02418000	0.01128729	0.01154361	7.11227110	0.00011966	0.00015526	0.95098680	0.00017328
SS074	0.00002923	0.00002923	0.00279576	0.00277272	0.00453479	0.00490482	3.67974151	0.00005847	0.00005847	0.06360000	0.00003528
SS075	0.00093953	0.00098096	0.22802386	0.22223617	0.19157584	0.20000266	94.53232021	0.00187907	0.00196192	20.67188275	0.00213305
SS076	0.00000058	0.00000288	0.00049992	0.00049968	0.00001742	0.00001699	0.01131840	0.00000115	0.00000576	0.00422820	0.00000168
SS077	0.00013031	0.00065157	0.02003232	0.01965696	0.02094130	0.01956498	0.65064603	0.00026063	0.00130314	3.90725588	0.00007008
SS078	0.00008268	0.00041341	0.04808160	0.04599552	0.03379346	0.03399292	0.87259532	0.00016537	0.00082683	4.10328000	0.00012576

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Ag D Ld	Ag T Ld	Na D Ld	Na T Ld	Sr D Ld	Sr T Ld	SO4 T Ld	TI D Ld	TI T Ld	Alk T Ld	V D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS079	0.00003679	0.00018394	0.00169728	0.00166872	0.01072145	0.00977459	2.21681568	0.00007357	0.00036787	1.09310400	0.00001008
SS080	0.00000072	0.00000360	0.00069336	0.00068568	0.00003319	0.00003456	0.02629800	0.00000144	0.00000720	0.01520640	0.00000240
SS082	0.00000577	0.00002887	0.00491328	0.00514368	0.00009794	0.00010140	0.05020948	0.00001155	0.00005774	0.02880000	0.00001152
SS083	0.00003480	0.00017398	0.03744000	0.03715200	0.01155363	0.01038768	8.15259864	0.00006959	0.00027624	0.51840000	0.00005760
SS084	0.00027423	0.00137116	0.00565920	0.00570240	0.07544321	0.06889625	25.92562545	0.00054847	0.00274233	4.09904474	0.00000864
SS085	0.00001665	0.00001665	0.01532520	0.01608840	0.01543320	0.01406520	2.81808000	0.00003330	0.00003330	0.04200000	0.00002520
SS086	0.00000646	0.00000751	0.00870336	0.00877152	0.00245413	0.00271117	1.09626004	0.00001291	0.00001502	0.01728000	0.00001224
SS087	0.00012681	0.00063403	0.02954880	0.02962560	0.04855385	0.04782897	16.28976459	0.00025361	0.00126806	1.52020869	0.00014880
SS088	0.00001055	0.00005276	0.00111984	0.00116107	0.00026278	0.00027595	0.13526571	0.00002110	0.00010966	0.15792000	0.00000586
SS089	0.00000352	0.00001758	0.00649267	0.00629251	0.00201318	0.00196696	0.11006779	0.00000703	0.00003733	0.14364360	0.00000346
SS090	0.00000105	0.00000524	0.00036169	0.00037660	0.00021872	0.00022058	0.04512569	0.00000209	0.00001047	0.01007808	0.00000122
SS091	0.00000346	0.00001732	0.00205056	0.00218484	0.00004490	0.00004807	0.11106848	0.00000693	0.00003464	0.02220000	0.00000972
SS092	0.00000274	0.00001371	0.00144518	0.00146563	0.00073590	0.00069100	0.06781768	0.00000548	0.00002741	0.02343840	0.00000461
SS093	0.00000471	0.00002180	0.00468684	0.00497736	0.00052391	0.00052307	0.24054429	0.00000943	0.00004359	0.04973280	0.00002628
SS094	0.00000316	0.00000933	0.00436752	0.00450144	0.00298262	0.00313701	1.63485430	0.00000632	0.00001866	0.02612160	0.00002160
SS095	0.00000567	0.00002692	0.00707520	0.00724560	0.02378868	0.02526995	0.91856324	0.00001135	0.00005385	0.30351240	0.00001152
SS096	0.00000232	0.00000806	0.00040169	0.00041792	0.00004330	0.00004677	0.02631083	0.00000464	0.00001611	0.01911840	0.00000191
SS097	0.00000055	0.00000275			0.00001733	0.00001906	0.01320559	0.00000110	0.00000551	0.01368000	
SS098	0.00000213	0.00000876	0.00882144	0.00902304	0.00006697	0.00007167	0.65416161	0.00000427	0.00001751	0.02208000	0.00000922
SS105	0.00026839	0.00065519	0.56401129	0.54564708	0.53933760	0.52607520	65.03119809	0.00066419	0.00144332	3.28540402	0.00095914
SS123	0.00002700	0.00013500	0.00124848	0.00141696	0.00070502	0.00065318	2.91168000	0.00005400	0.00027000	0.27000000	0.00000864
SS125	0.00000390	0.00000390	0.00498384	0.00685440			1.93968000	0.00001440	0.00001440	0.01130400	0.00002160
SS126	0.00004336	0.00011632	0.00289632	0.00303792	0.00151502	0.00145152	3.27366720	0.00010116	0.00028063	0.24516000	0.00012960
SS200	0.00006984	0.00010440	0.16073280	0.16368960	0.08121600	0.08052480	20.24784000	0.00013968	0.00020880	0.81633600	0.00029040
SS201	0.00007452	0.00008604	0.12737280	0.12918144	0.03674880	0.03651840	20.09952000	0.00014904	0.00017208	0.11448000	0.00030528
SS202	0.00000882	0.00004410	0.00040968	0.00040464	0.00094867	0.00104717	2.75148000	0.00001764	0.00008820	0.08820000	0.00000144
SS203	0.00000360	0.00001800			0.00009144	0.00008712	0.16776000	0.00000720	0.00003600	0.03600000	
SS204	0.00000526	0.00000900	0.00105394	0.00108950	0.00066701	0.00068774	1.07445600	0.00001051	0.00001800	0.01800000	0.00000562
SS205	0.00000432	0.00002160			0.00002501	0.00002830	0.01512000	0.00000864	0.00004320	0.04320000	
SS206	0.00001512	0.00007560	0.00432000	0.00432000	0.00081907	0.00090979	0.36482400	0.00003024	0.00015120	0.15120000	0.00001296
SS207	0.00000144	0.00000720			0.00001407	0.00001670	0.02390400	0.00000288	0.00001440	0.01440000	

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Ag D Ld	Ag T Ld	Na D Ld	Na T Ld	Sr D Ld	Sr T Ld	SO4 T Ld	TI D Ld	TI T Ld	Alk T Ld	V D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS208	0.00000275	0.00001373	0.00282108	0.00279504	0.00003442	0.00003226	0.12543300	0.00000549	0.00002692	0.02745000	0.00001032
SS210	0.00009700	0.00046701	0.06144960	0.06556320	0.04857494	0.04708491	41.11292541	0.00019400	0.00082748	0.93401447	0.00011616
SS211	0.00000432	0.00002160			0.00074736	0.00071280	0.44064000	0.00000864	0.00004320	0.04320000	
SS212	0.00012096	0.00060480			0.00583027	0.00579398	4.86259200	0.00024192	0.00120960	1.20960000	
SS213	0.00002592	0.00012960			0.00073354	0.00068688	0.55468800	0.00005184	0.00025920	0.25920000	
SS214	0.00006912	0.00034560			0.04748544	0.04582656	19.35360000	0.00013824	0.00069120	0.64627200	
SS215	0.00016289	0.00081446	0.10703616	0.10975716	0.00690183	0.00679804	5.55999980	0.00032578	0.00162892	1.62892336	0.00045770
SS216	0.00001008	0.00005040	0.00496512	0.00504576	0.00033840	0.00033984	0.05270400	0.00002016	0.00010080	0.09384480	0.00002304
SS217	0.00005436	0.00027180	0.00995184	0.01005588	0.00813600	0.00816480	0.42852000	0.00010872	0.00054360	0.93868800	0.00003816
SS218	0.00001704	0.00008520	0.02250072	0.02277720	0.00446400	0.00406800	5.88528000	0.00003408	0.00017040	0.18710400	0.00008784
SS219	0.00002728	0.00013050	0.00579936	0.00670464	0.00368064	0.00391392	2.20395600	0.00005220	0.00026100	0.26100000	0.00002160
SS220	0.00003157	0.00015787	0.07002720	0.06834240	0.01504474	0.01479945	36.60317391	0.00006315	0.00031575	0.31574965	0.00002592
SS221	0.00003960	0.00003960	0.01402560	0.01319040	0.00192960	0.00203040	6.61680000	0.00007920	0.00007920	0.07920000	0.00002880
SS222	0.00037800	0.00037800	0.03196800	0.03052800	0.01454400	0.01454400	89.43840000	0.00075600	0.00075600	0.75600000	0.00014400
SS223	0.00001296	0.00006480	0.00356016	0.00360192	0.00055296	0.00057024	0.08733600	0.00002592	0.00012960	0.15276600	0.00001920
SS224	0.00017280	0.00017280			0.01810944	0.01689984	12.61440000	0.00034560	0.00034560	0.34560000	
SS225	0.00002376	0.00012355	0.00256608	0.00264384	0.00660960	0.00613440	6.05664000	0.00004752	0.00016956	0.23760000	0.00001728
SS226	0.00004248	0.00021240	0.00288000	0.00288000	0.00144144	0.00130680	0.76219200	0.00008496	0.00030996	0.42480000	0.00002304
SS227	0.00000900	0.00000900	0.00554400	0.00570600			1.06380000	0.00001800	0.00001800	0.01798200	0.00002700
SS228	0.00001620	0.00001620	0.02983680	0.02999520			4.27464000	0.00003240	0.00003240	0.03240000	0.00005760
SS229	0.00000576	0.00001008	0.00450000	0.00474120			0.85759200	0.00001152	0.00002016	0.15822720	0.00001836
SS230	0.00000248	0.00001242	0.00898128	0.00923400			0.51336000	0.00000497	0.00002484	0.02484000	0.00000763
SS231	0.00000355	0.00001776	0.00604992	0.00588144			0.15147840	0.00000710	0.00003552	0.37391040	0.00001373
SS232											
SS235	0.00008640	0.00043200	0.10108800	0.10540800			16.24320000	0.00014170	0.00086400	0.86400000	0.00025920
SS236	0.00003600	0.00005040	0.09589680	0.09622080			7.27704000	0.00007200	0.00010080	0.10080000	0.00014040
SS238	0.00000180	0.00000900	0.00330480	0.00331200			1.97568000	0.00000360	0.00001800	0.01800000	0.00000648
SS250	0.00018481	0.00015074	0.41089877	0.41668126			38.22075303	0.00036962	0.00030148	2.59765702	0.00067110
SS300	0.00000585	0.00002925	0.01119420	0.01191600			0.26028000	0.00001170	0.00005850	0.05850000	0.00002340
SS301	0.00004500	0.00004500	0.14307120	0.14127840			24.35760000	0.00009000	0.00009000	0.09000000	0.00018000
SS304	0.00013735	0.00068677	0.00207360	0.00199152	0.01608043	0.01635298	6.64917211	0.00027471	0.00137355	1.37354825	0.00000864

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Ag D Ld	Ag T Ld	Na D Ld	Na T Ld	Sr D Ld	Sr T Ld	SO4 T Ld	TI D Ld	TI T Ld	Alk T Ld	V D Ld
	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day	avg kg/day
SS305	0.00009504	0.00047520	0.10549440	0.08468064			2.57558400	0.00019008	0.00095040	4.68547200	0.00028512

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	V T Ld	Zn D Ld	Zn T Ld	Cond	Flow	Al D	Al T	Sb D	Sb T	As D
	avg kg/day	avg kg/day	avg kg/day	stdev µS/cm	stdev lpm	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
A23A	0.00006532	0.01907297	0.01939956		3.20743636	793.61745613	3466.89582576	0.00000000	0.00000000	0.00000000
A38	0.00032256	0.03188038	0.03131885	102.31941816	10.69185557	17.32050808	32.84285818	1.41421356	0.00000000	1.04083300
CC01A	0.00061951	0.17150012	0.16716124	125.64854423	20.64476733	43.28540940	630.36993107	0.26204071	1.44337567	0.86602540
CC01B	0.00188064	7.48040976	7.26550272	158.26433584	33.58777019	649.35865796	664.45466362	0.00000000	0.00000000	0.04500000
CC01C	0.00002232	0.23214175	0.22357699	733.50727104	42.43897695	5125.10487698	5248.67792877	0.28867513	1.44337567	3.77277749
CC03D	0.01401926	21.93913920	21.87505056	277.14881682	225.53469930	294.12015685	375.12664528	1.44337567	1.25000000	1.09288609
CC06	0.05384593	77.99044262	76.69856218	469.91988679	510.57485296	18556.61607083	18664.40462485	1.29656469	0.53430328	80.32988068
CC14	0.02827440	3.74621717	4.01584698	515.16400532	1335.41963011	457.66013591	625.71303327	1.76776695	0.00000000	1.04486841
CC16C	0.00075701	0.05795365	0.05833855	139.12117021	8.95678530	614.02768667	525.67099977	1.04083300	1.44337567	0.56096346
CC19	0.00396307	11.61939917	11.53882138	43.30357953	202.01223210	483.14594068	532.58802089	1.36930639	0.00000000	1.36930639
CC50	0.01378944	0.94714050	1.07381690	1332.22134047	374.00028697	56.56412290	81.13792373	1.44337567	0.00000000	1.54428840
DM01		0.17349120	0.18524160	58.83128419	31.11269837					
DM24	0.00223200	0.03789720	0.04905000	351.43207025	22.62741700	24.25376259	87.68124087			1.08187338
DM32	0.00019440	0.21705652	0.20162407	206.94819601	6.71912435	811.37742964	825.68658299	0.28867513	1.44337567	0.86602540
DM4	0.00010886	0.00609638	0.00581334							
SS001	0.00023690	0.01475848	0.01410778	404.60696979	110.36930438	83.19975962	152.74423066	0.26664083	1.44337567	0.82158384
SS002	0.00003240	0.00095052	0.00095855	52.54828732	8.20477356	15.00000000	13.56720924	0.22267989	1.44337567	0.75000000
SS003	0.00001440	0.00693590	0.00673025	75.52703710	4.47599183	13.31615560	4.68783888	0.30369941	1.41450816	0.75000000
SS004	0.00012096	0.02294243	0.02150330	68.81642246	2.15661467	8.35751159	26.28244661	0.28867513	1.44337567	0.82158384
SS005		0.01315870	0.01482670							
SS006	0.00007680	0.00073409	0.00074653	61.20212415	37.33248360	16.43167673	78.71163828	0.28867513	1.44337567	0.82158384
SS007	0.00164904	0.00151777	0.00194949	60.67783780	110.59208308	16.43167673	66.74000300	0.28867513	1.44337567	0.82158384
SS008	0.00591331	0.00641232	0.02316740	77.88185497	392.69303055	17.32050808	118.44248956	0.26805659	1.44337567	0.86602540
SS009	0.00043200	0.00065594	0.00072573	51.18919157	15.42730355	15.00099997	12.90465032	0.34789654	1.76776695	0.86602540
SS010	0.00024960	0.00327171	0.00403032	282.02535347	21.86075750	61.06801127	179.04681511	0.23823798	1.44337567	0.82158384
SS011	0.00006480	0.00196535	0.00194194	447.48631264	1.74691264	3940.97262107	4200.54986877	0.28867513	1.44337567	0.81613724
SS012	0.00044820	0.00245307	0.00239100	321.21332475	41.24320041	1870.06907181	1981.98539685	0.28867513	1.44337567	0.75000000
SS013	0.01441788	0.37912132	0.37952428	77.14726178	2154.14165301	6.34491923	29.50144064	0.28867513	1.44337567	0.82158384
SS014	0.00102545	0.00212143	0.00212143	53.18317403	39.47701918	16.43167673	16.43167673	0.28867513	1.44337567	0.82158384
SS015	0.00374827	0.00741035	0.00741035	59.39276050	259.89950272	12.83693889	132.35838848	0.28867513	1.44337567	0.82158384
SS016	0.00011208	0.00155812	0.00147237	162.30064695	6.07436413	275.55035837	161.29848108	0.28867513	1.44337567	0.82158384

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	V T Ld	Zn D Ld	Zn T Ld	Cond	Flow	Al D	Al T	Sb D	Sb T	As D
	avg kg/day	avg kg/day	avg kg/day	stdev µS/cm	stdev lpm	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS017	0.00005472	0.00265964	0.00271093	45.69711880	2.78124288	215.59220765	232.22833591	0.28867513	1.44337567	0.82158384
SS018	0.00084923	0.09954930	0.09673800	326.52917174	18.45420641	984.56589419	844.64193597	0.28867513	1.44337567	0.82158384
SS019	0.00013824	0.00112231	0.00110046	70.16623119	4.02616210	16.43167673	16.43167673	0.28867513	1.44337567	0.82158384
SS020	0.00082080	0.00488914	0.00483276	247.96893354	32.18204043	538.62018158	507.33736310	0.28867513	1.44337567	0.82158384
SS021	0.00230400	0.00660759	0.00675602	105.79382465	88.65411185	48.43122271	36.52852766	0.35355339	1.76776695	0.86602540
SS022	0.00012960	0.00587975	0.00570574	25.47384279	19.94255520	15.11254997	18.90509191	0.26096232	1.44337567	0.75000000
SS023	0.00154865	0.00288497	0.00359647	237.43341804	61.82995517	138.92153181	149.22617733	0.28867513	1.44337567	0.82158384
SS024	0.00184560	0.00940530	0.00944780	120.25265070	111.44896485	12.86980963	12.55993631	0.28867513	1.44337567	0.82158384
SS025	0.00014400	0.00016621	0.00018169	140.36589092	4.14916565	17.32050808	125.90472588	0.35355339	1.76776695	0.86602540
SS026	0.00023112	0.05124553	0.05007604	93.94102760	17.22086954	726.51835260	836.64488683	0.28867513	1.44337567	0.75000000
SS027	0.00095760	0.36462228	0.35254362	252.38522144	27.97738918	3465.33259587	3373.00607767	0.76445422	1.44337567	0.75828754
SS028	0.00001080	0.00002707	0.00002837	70.72010558	0.46956445	15.93486743	7.96010888	0.00000000	0.00000000	0.00000000
SS029	0.00320049	0.42191623	0.40574596	187.20122863	215.85271042	96.13428109	101.12615883	0.28001235	1.44337567	0.82158384
SS030	0.00000840	0.00001061	0.00001066	108.65979937	0.00000000	14.34370942	14.47480570	0.28867513	1.44337567	0.82158384
SS031	0.00012600	0.00014721	0.00014721	56.11432972	4.97072911	16.43167673	12.04997925	0.28867513	1.44337567	0.82158384
SS032	0.00010800	0.00045251	0.00045416	225.92410230	19.95680079	15.00000000	80.78091771	0.28867513	1.44337567	0.75000000
SS033	0.00000840	0.00001283	0.00001313	8.46297820	0.00000000	16.43167673	44.23802663	0.28867513	1.44337567	0.82158384
SS034	0.00000900	0.00068814	0.00064818	42.20468971	0.00000000	132.95362600	143.37944995	0.28867513	1.44337567	0.75000000
SS035	0.00037440	0.00391490	0.00447810	81.38589149	188.28208357	15.01343842	1827.82201905	0.34294679	1.76776695	0.86602540
SS036	0.00000720	0.00109474	0.00104835	33.03035018	0.90362125	22.44422717	16.00666528	0.35355339	1.76776695	0.86602540
SS037	0.00021600	0.01289447	0.01230441	229.49383979	13.34428231	1941.01348098	1900.11403167	2.46644143	1.44337567	4.30842198
SS038	0.00048480	0.00114624	0.00114624	325.10722539	48.07082134	16.43167673	16.26013530	0.28867513	1.44337567	0.82158384
SS039	0.00008964	0.03793850	0.03614395	39.33192088	24.95767612	135.46801591	281.64679417	0.28867513	1.44337567	0.75000000
SS040	0.00009240	0.09524953	0.09326117	24.49081460	150.18610120	245.00673460	233.83177714	0.28867513	1.44337567	0.82158384
SS041	0.00067200	0.09952357	0.09644803	42.20180091	41.05591331	101.98108648	134.77293126	0.24485846	1.44337567	0.82158384
SS042	0.00009720	0.01114848	0.01223880	506.12084196	1.73954535	26.19546717	450.03980565	2.46644143	1.44337567	4.30842198
SS043	0.00035712	0.00114042	0.00159038	132.58192939	8.56460663	27.30113551	90.84279278	1.92330228	1.44337567	4.80984025
SS044	0.00021216	0.06204113	0.07317703	154.33349604	62.91136572	349.85511716	322.60759755	1.98529752	1.44337567	3.82034747
SS045	0.00008976	0.00989614	0.01043131	60.43225960	10.06716612	127.34009581	99.82885354	0.28867513	1.44337567	0.82158384
SS046	0.00008880	0.02140471	0.02143052	83.39784170	3.03559967	174.84278653	300.28319966	0.28867513	1.44337567	0.82158384
SS047	0.00121727	0.00943778	0.00953412	138.90346288	567.93320288	16.43167673	16.43167673	0.28867513	1.44337567	0.82158384

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	VT Ld	Zn D Ld	Zn T Ld	Cond	Flow	Al D	Al T	Sb D	Sb T	As D
	avg kg/day	avg kg/day	avg kg/day	stdev µS/cm	stdev lpm	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS048	0.00213516	0.01192466	0.01194540	61.16558809	707.97282511	10.78332045	292.14151822	0.28867513	1.44337567	0.82116152
SS049	0.00007416	0.00054853	0.00054853	73.74957627	33.43296674	15.00000000	8.80000000	0.28867513	1.44337567	0.75000000
SS050	0.00209853	0.01274540	0.01626998	123.92538077	357.42927049	15.93110166	354.43872249	0.28867513	1.44337567	0.82158384
SS051	0.00039840	0.00078770	0.00106709	92.58239573	25.26746101	17.02298446	63.08313562	0.28867513	1.44337567	0.82158384
SS052	0.00002256	0.00019186	0.00019496	118.80361947	1.17402921	10.73391820	98.05665199	0.28867513	1.44337567	0.82158384
SS053	0.00014352	0.01716561	0.01666104	102.21131053	23.05998435	252.35134238	252.08688978	0.28867513	1.44337567	0.82158384
SS054	0.00100354	0.00260278	0.00291413	664.70391905	76.99625339	30.38659244	501.91593121	2.02072594	1.44337567	3.76497012
SS055	0.00002664	0.02073989	0.02072147	362.06670656	6.64673000	5028.38325906	4934.00656668	0.28867513	1.44337567	0.70655064
SS056	0.00000504	0.00302796	0.00299954	23.85630594	6.55073040	328.39660981	433.74454848	0.35355339	1.76776695	0.86602540
SS057	0.00000840	0.00213315	0.00220816	91.92823288	0.00353141	197.52594766	241.91279420	2.02072594	1.44337567	4.00873786
SS058	0.00000900	0.00010940	0.00009927	165.33596372	0.00000000	10.74026691	9.05257790	0.28867513	1.44337567	0.75000000
SS059	0.00025680	0.01928511	0.01889638	48.29917101	30.21679020	287.86159869	287.48008627	0.28867513	1.44337567	0.82158384
SS060	0.00012192	0.00584069	0.00561469	5.34041946	10.01294758	128.35186013	127.05628674	0.28867513	1.44337567	0.82158384
SS061		0.00044056	0.00043867	249.60869376	1.77335060	606.69761826	637.10320985			0.00000000
SS062	0.00006228	0.00584193	0.00581609	277.88180941	4.35101958	1344.45338632	1379.25523381	0.28867513	1.44337567	0.82158384
SS063	0.00001800	0.00542274	0.00551450	412.72105188	3.30428158	2928.91155836	2631.00467186	2.59807621	1.44337567	4.75000000
SS064	0.00004248	0.00041821	0.00044673	259.70887547	7.60514918	24.49081460	275.85266357	2.17944947	1.44337567	4.62331050
SS065	0.00037164	0.18084558	0.17480622	303.33199633	9.37187973	3497.55343061	3347.44977558	3.53553391	3.53553391	7.78941590
SS066	0.00004320	0.07784288	0.07822869	243.87496797	2.52533740	1404.75383371	1096.96551146	3.53553391	3.53553391	9.73471604
SS067	0.00001320	0.01560177	0.01548575	210.47493913	0.42342596	1020.78401241	1134.90087673	2.10706747	1.44337567	3.25706616
SS068	0.00009360	0.05332710	0.05368528	141.62273829	1.67306022	578.31652233	564.13650830	2.02072594	1.44337567	3.76497012
SS069	0.00003720	0.02139463	0.02171610	72.70488292	2.27308060	817.19030831	851.86853446	0.28867513	1.44337567	0.82158384
SS070	0.00005400	0.01989311	0.02023724	49.03027636	3.97606169	652.90121764	684.15641486	0.28867513	1.44337567	0.82158384
SS071	0.00288915	0.12310959	0.13146689	83.31086364	155.08683635	106.09418928	124.79682688	2.14578414	1.44337567	5.06583366
SS072	0.00047952	0.02273093	0.02331146	173.15975283	24.59766474	1870.33378839	1681.07667880	2.11841033	1.44337567	4.70903387
SS073	0.00020208	0.00665982	0.00713923	102.32643842	4.69380515	156.40588224	224.84261162	2.13172442	1.44337567	4.61058562
SS074	0.00003528	0.00629647	0.00667594	380.59197312	4.19714372	8050.54604773	7361.71345544	1.44337567	1.44337567	17.45000000
SS075	0.00240923	0.10373515	0.10216630	128.15108271	55.23728035	64.57694635	43.91377916	2.15846203	1.44337567	4.55881763
SS076	0.00000840	0.00001152	0.00001200	49.13469243	0.00000000	4.34165867	506.11034172	0.24754999	1.44337567	0.82158384
SS077	0.00035040	0.00260627	0.00260627	151.37197726	171.21496651	16.43167673	165.70470120	0.28274296	1.44337567	0.82158384
SS078	0.00062880	0.00169087	0.00165366	24.84306744	50.70646671	16.43167673	169.25469861	0.27655741	1.44337567	0.82158384

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	VT Ld	Zn D Ld	Zn T Ld	Cond	Flow	Al D	Al T	Sb D	Sb T	As D
	avg kg/day	avg kg/day	avg kg/day	stdev µS/cm	stdev lpm	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS079	0.00005040	0.00073575	0.00073929	88.50207907	52.76499875	16.43167673	378.70534984	0.26321775	1.44337567	0.82158384
SS080	0.00001200	0.00001440	0.00001440	37.59238254	0.25000000	17.32050808	22.47324335	0.26805659	1.44337567	0.59085552
SS082	0.00005760	0.00011547	0.00011547	0.70710678	1.42751054	21.21320344	148.49242405	0.24253763	1.76776695	1.06066017
SS083	0.00028800	0.06664020	0.06442557	316.04463820	31.43188231	8217.18524395	7860.80784653	0.35355339	1.76776695	0.80572948
SS084	0.00004320	0.13202207	0.12555111	448.53130697	326.38147130	8897.43783344	8715.28159805	0.35355339	1.76776695	0.77105988
SS085	0.00002520	0.00965340	0.00954000	207.97596015	3.06865877	137.34870464	145.29969030	1.44337567	1.44337567	4.33012702
SS086	0.00001608	0.00274072	0.00282611	204.50012225	1.05956400	1482.47428308	1580.92378058	1.92991112	1.44337567	4.62331050
SS087	0.00074400	0.01548627	0.01626950	298.70838622	134.18124436	5822.31483175	5807.78184852	0.28867513	1.44337567	0.82158384
SS088	0.00002928	0.00021114	0.00021161	44.58902017	12.55801854	239.06392032	212.94060205	0.25165237	1.44337567	0.92893487
SS089	0.00001728	0.00007034	0.00007034	208.43504984	3.53944346	18.05292220	62.00170965	0.28867513	1.44337567	0.81583656
SS090	0.00000612	0.00002095	0.00002095	94.37931889	0.53601286	20.52825289	37.08773382	0.28867513	1.44337567	0.86602540
SS091	0.00004860	0.00013577	0.00011793	37.93532874	2.38287392	135.69911569	172.61397201	0.28867513	1.44337567	0.20000000
SS092	0.00002304	0.00005482	0.00005482	36.59690333	1.57645282	16.22351688	40.11652818	0.27424138	1.44337567	0.75000000
SS093	0.00013140	0.00014095	0.00015913	61.78659509	8.49133433	2613.91234423	2431.71892222	0.86602540	1.44337567	1.65831240
SS094	0.00005616	0.00082958	0.00099694	386.11685947	2.56046604	6392.33256201	5348.54731056	0.98016138	1.38924440	75.81507502
SS095	0.00004800	0.00010769	0.00010921	41.44273157	3.14660347	20.15656221	176.45742263	0.86602540	1.44337567	0.89644899
SS096	0.00000954	0.00054118	0.00054781	230.91755383	1.34504793	1251.10307995	1258.91788851	2.46644143	1.44337567	3.51192255
SS097		0.00019115	0.00020242	120.20815280	0.16618507	768.27151776	2175.06045893			0.00000000
SS098	0.00004608	0.02605272	0.02457006	129.75971383	1.82361465	6815.36254844	6420.02076840	2.46644143	1.44337567	4.46020926
SS105	0.00118009	0.20916959	0.21933731	176.40776627	105.42212454	217.71839610	201.83582437	1.84906283	0.00000000	1.01280304
SS123	0.00004320	0.00334368	0.00386208	456.08387387	23.33452378	1838.47763109	2312.23917448			0.39597980
SS125	0.00002160	0.03607200	0.03967200	164.75588002	0.09899495	2121.32034356	636.39610307			4.24264069
SS126	0.00012960	0.11350475	0.10918930	397.64121014	24.45122696	4433.35574932	4255.45884718	1.29866598	1.25480410	32.60226986
SS200	0.00029040	0.00683568	0.00733680	223.73347239	3.77491722	59.05225793	83.69414058	1.44337567	1.44337567	3.82219832
SS201	0.00030528	0.23947200	0.23958720	191.72615019	4.44672164	3725.92270451	2882.70706108	4.33012702	4.33012702	8.83647743
SS202	0.00000720	0.05828400	0.06801120		8.13172798	2177.88888605	3585.03138062			1.02530483
SS203		0.01177200	0.01321200							
SS204	0.00002808	0.00948506	0.01171930	1802.41518524	0.07071068	19110.97497513	20606.50581734			818.82965261
SS205		0.00008640	0.00008640							
SS206	0.00006480	0.00121522	0.00116467	10.18233765	10.60660172	9.19238816	270.11479041			2.09303607
SS207		0.00002088	0.00002146							

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	VT Ld	Zn D Ld	Zn T Ld	Cond	Flow	Al D	Al T	Sb D	Sb T	As D
	avg kg/day	avg kg/day	avg kg/day	stdev µS/cm	stdev lpm	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS208	0.00005160	0.00007719	0.00008117	136.20909172	1.81859607	409.79222378	451.88014635	0.28867513	1.44337567	0.70710678
SS210	0.00048480	0.39260763	0.38949778	408.63787963	94.65111256	5600.52006514	5534.45194516	0.93429563	1.44337567	0.86602540
SS211		0.00196560	0.00197424							
SS212		0.12458880	0.12458880							
SS213		0.00484704	0.00482112							
SS214		0.93312000	0.90547200							
SS215	0.00228850	0.03549022	0.03596121	87.54617829	158.16184430	32.95957119	58.65435477	0.35355339	1.76776695	0.86602540
SS216	0.00011520	0.00046325	0.00048226	86.97413409	1.41421356	3.11126984	75.51900423			1.06066017
SS217	0.00019080	0.00111811	0.00114295	131.63208512	50.93214440	21.88424091	187.34626586	0.00000000	0.00000000	0.86602540
SS218	0.00043920	0.00516480	0.00520752	160.78856717	31.19294792	3307.76404842	3018.82565468	0.00000000	0.00000000	0.86602540
SS219	0.00010800	0.10037880	0.09952200	38.53867105	26.94438717	887.40727215	729.04046527	0.28867513	1.44337567	0.38736159
SS220	0.00012960	0.28682957	0.28876276	341.06353269	27.74911936	4605.79345318	8418.43215807	0.00000000	0.00000000	0.20248539
SS221	0.00002880	0.06148800	0.06062400	397.39401103	5.65685425	10111.62697097	7283.19984622			5.30330086
SS222	0.00014400	1.42992000	1.41408000	149.90663761	63.63961031	26092.24022578	26516.50429450			5.30330086
SS223	0.00009600	0.00084647	0.00104969	12.52052848	9.55684746	17.32050808	117.07471617	0.27073973	1.44337567	0.86602540
SS224		0.34560000	0.34076160							
SS225	0.00008640	0.18489600	0.17720640	46.24478349	16.97056275	169.70562748	601.04076401			1.06066017
SS226	0.00011520	0.09583200	0.09064080	27.57716447	33.23401872	385.37319575	405.87929240			1.06066017
SS227	0.00002700	0.00013500	0.00012600							
SS228	0.00005760	0.04484160	0.04295520	415.81245773	1.73205081	1060.66017178	424.26406871	1.76776695	1.76776695	5.30330086
SS229	0.00003564	0.00155664	0.00146765	128.69343418	1.20208153	18.38477631	24.60731599	3.18198052	1.76776695	6.71751442
SS230	0.00003816	0.02072736	0.01962864	130.10764774	1.90918831	5515.43289326	5515.43289326	0.04737615	1.76776695	1.06066017
SS231	0.00006864	0.00007104	0.00007104	79.88116173	6.40936814	17.32050808	17.12201312	0.28867513	1.44337567	0.86602540
SS232										
SS235	0.00129600	0.41126400	0.38534400		42.42640687	2121.32034356	2474.87373415	0.35355339	1.76776695	0.09192388
SS236	0.00018360	0.11856960	0.11426400	124.74373732	20.63695441	707.10678119	919.23881554	1.06066017	1.76776695	0.35355339
SS238	0.00003240	0.00336240	0.00319680	334.46150750	1.41421356	219.20310217	155.56349186	0.35355339	1.76776695	1.06066017
SS250	0.00056889	0.00561644	0.02081039	138.64192488	15.51962861	15.00000000	127.28805914	3.75000000	1.25000000	8.66987120
SS300	0.00011700	0.00639000	0.00624690	14.84924240	9.72271824	44.54772721	149.19953083	0.00000000	0.00000000	0.00000000
SS301	0.00018000	0.23709600	0.22377600	339.41125497	2.12132034	5515.43289326	5161.87950266	0.00000000	0.00000000	0.00000000
SS304	0.00004320	0.13185201	0.12832221	24.67802666	131.71319732	3.53553391	0.70710678			1.06066017

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	V T Ld	Zn D Ld	Zn T Ld	Cond	Flow	Al D	Al T	Sb D	Sb T	As D
	avg kg/day	avg kg/day	avg kg/day	stdev μ S/cm	stdev lpm	stdev μ g/L	stdev μ g/L	stdev μ g/L	stdev μ g/L	stdev μ g/L
SS305	0.00142560	0.00190080	0.00190080			21.21320344	42.77996026	0.35355339	1.76776695	1.06066017

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T	Ca D	Ca T
	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
A23A	4.20000000	1.75760253	21.65000000	0.00000000	0.35500000	0.00000000	1.53269914	3.02044699	3441.89870081	3798.57429395
A38	4.33012702	10.53589104	0.00000000	1.73205081	1.73205081	0.00000000	0.18687696	0.06350853	12741.00990241	12288.20572744
CC01A	4.33012702	2.39220261	14.43375673	1.73205081	1.73205081	0.35355339	3.55064313	3.09890707	16492.49829468	15971.74588662
CC01B	1.20431308	0.00000000	0.00000000	0.66399674	0.67035065		7.20988904	7.13687607	8139.41029805	9502.63121456
CC01C	3.61402546	6.07481138	14.43375673	1.73205081	1.73205081	0.42426407	36.88773509	43.07166122	4535.08544572	4138.23633931
CC03D	1.32069174	17.67766953	0.00000000	0.78165636	0.61574887	0.00000000	2.19218308	2.40284554	28024.39413559	20842.26475218
CC06	61.02190590	14.43375673	0.00000000	2.21974773	2.25414507	1.76776695	34.56939398	30.73689965	26730.13280925	17930.42107704
CC14	3.61393414	17.67766953	0.00000000	1.73205081	0.02886751	0.00000000	1.16656333	1.16840490	41398.06758775	40301.36474116
CC16C	1.99323857	10.40833000	14.43375673	1.73205081	1.49834075	0.00000000	2.23837664	2.22535390	12461.94206374	14673.10464762
CC19	0.00000000	14.43375673	0.00000000	2.30618083	2.26762651	0.00000000	0.50197610	0.39522778	12132.60071048	8848.72872225
CC50	3.81240300	14.43375673	0.00000000	1.64316767	1.64316767	0.00000000	0.37493822	0.48921365	141880.59980138	148888.49541407
DM01										
DM24	2.51022907						0.26870058	0.26870058	9192.38815543	3535.53390593
DM32	4.33012702	3.52183664	14.43375673	1.73205081	1.73205081	0.00000000	5.44632904	5.59344855	16787.89246253	16565.82828194
DM4										
SS001	4.10791918	1.46401275	1.82300119	1.64316767	1.64316767	0.00000000	0.26732134	0.15061308	2547.76765032	2453.21829440
SS002	3.75000000	2.95570635	17.67766953	1.50000000	1.50000000		0.09097756	0.25000000	9723.51102569	11034.00048335
SS003	3.75000000	3.03348809	17.67766953	1.50000000	1.50000000		0.42786291	0.36592349	11449.70887548	10784.67276586
SS004	4.10791918	2.71538825	2.23009716	1.64316767	1.64316767	0.00000000	1.80936458	1.14737962	10264.84291161	10612.02148509
SS005										
SS006	4.10791918	3.25115364	10.33456982	1.64316767	1.64316767	0.00000000	0.05477226	0.27386128	4368.40932148	3834.97066482
SS007	4.10791918	4.53578365	11.19568369	1.64316767	1.64316767	0.00000000	0.05477226	0.27386128	4713.06694202	4437.67957383
SS008	4.33012702	3.51615320	14.43375673	1.73205081	1.73205081	0.00000000	0.04983556	0.28867513	11558.07798324	11211.15515904
SS009	4.33012702			1.73205081	1.73205081		0.06355313	0.28867513	7594.07663907	7040.59656563
SS010	4.10791918	3.55387113	8.37396760	1.64316767	1.64316767	0.35355339	0.35709341	0.33274615	44863.01371954	51177.11402570
SS011	4.10791918	2.68390263	13.99476092	1.60551549	1.63953652	1.06066017	1.79863003	2.00413752	51952.74776179	56290.12346762
SS012	4.24806132	3.81837662	17.67766953	1.50000000	1.50000000		2.21236676	1.86898145	67077.28645625	63496.49544135
SS013	4.10791918	2.89367126	13.81774222	1.64316767	1.64316767	0.00000000	0.27926332	0.24934153	6048.71887262	6167.25222445
SS014	4.10791918	1.10688753	14.43375673	1.64316767	1.64316767	0.00000000	0.05477226	0.27386128	3463.09110478	2925.23503329
SS015	4.10791918	2.43378991	14.43375673	1.64316767	1.64316767	0.00000000	0.05477226	0.23209653	3640.74168268	3652.67025613
SS016	4.10791918	2.88675135	14.43375673	1.64316767	1.64316767	0.35355339	0.10015837	0.27386128	11254.55463357	12328.30077505

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T	Ca D	Ca T
	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS017	4.10791918	2.88675135	14.43375673	1.64316767	1.64316767	0.35355339	5.49838158	5.72874157	7833.70921084	6598.25734569
SS018	4.10791918	0.99399866	14.43375673	1.64316767	1.64316767	0.00000000	2.59338967	2.27438563	10218.26795499	9266.87649643
SS019	4.10791918	2.53245599	14.12692465	1.64316767	1.64316767	0.00000000	0.03066757	0.27386128	2763.51225798	2309.11238358
SS020	4.10791918	2.42693222	14.43375673	1.64316767	1.64316767	0.00000000	0.16571451	0.22138473	1270.29524127	1138.92493168
SS021	4.33012702			1.73205081	1.73205081		0.10138540	0.25822729	693.46953790	581.06224566
SS022	3.75000000	1.76776695	17.67766953	1.50000000	1.50000000		0.23123509	0.10939036	2614.54266237	2384.67328300
SS023	4.10791918	23.18713724	12.51252706	1.64316767	1.64316767	0.35355339	0.21782791	0.26277785	40951.69019711	40326.97385126
SS024	4.10791918	13.87527777	15.33503614	1.64316767	1.64316767	0.35355339	0.08295059	0.27386128	20552.78569927	19820.77193250
SS025	4.33012702			1.73205081	1.73205081		0.05773503	0.28867513	19408.58916391	19712.26352638
SS026	3.75000000	3.32340187	17.67766953	1.50000000	1.50000000		3.85340110	4.33134602	7002.55905604	5304.71488395
SS027	4.10791918	5.56447062	14.43375673	1.64316767	1.64316767	0.35355339	13.91994971	13.87787808	39511.01112348	37422.54667978
SS028	0.00000000			0.00000000	0.00000000		0.00000000	0.00000000	1205.58422905	1295.38925939
SS029	4.10791918	11.06992924	12.00680363	1.64316767	1.64316767	0.00000000	0.59315259	0.73231141	15468.90429216	13930.64966181
SS030	4.10791918	0.87709749	14.43375673	1.64316767	1.64316767	0.00000000	0.05477226	0.27386128	5282.09238844	4967.19236591
SS031	4.10791918	2.23236048	14.43375673	1.64316767	1.64316767	0.00000000	0.05477226	0.27386128	1807.76104616	2093.56155868
SS032	3.75000000	25.38513344	28.07213921	1.50000000	1.50000000		0.05000000	0.25000000	24167.26436043	24316.57527970
SS033	3.36322464	2.22360818	14.43375673	1.64316767	1.64316767	0.00000000	0.05477226	0.27386128	427.76161586	421.27188370
SS034	3.75000000	10.04091629	17.67766953	1.50000000	1.50000000		1.45684168	1.30541079	955.85912491	1085.08064216
SS035	4.33012702			1.73205081	1.73205081		0.02078461	0.28867513	19043.19651039	20154.98284131
SS036	4.33012702			1.73205081	1.73205081		1.28886979	1.22366948	5217.76133350	5404.56288704
SS037	3.75000000	24.53660531	17.67766953	1.50000000	1.50000000		0.93311307	1.01905185	28593.16643303	29835.82857349
SS038	4.10791918	5.68242906	13.72090862	1.64316767	1.64316767	0.00000000	0.05477226	0.27386128	8030.75338932	6544.69250615
SS039	3.75000000	3.95979797	17.67766953	1.50000000	1.50000000		0.82083291	0.70781353	3910.24295920	3817.83097234
SS040	4.10791918	2.45983739	14.43375673	1.64316767	1.64316767	0.00000000	1.59745735	1.55417181	1361.64606268	956.70267063
SS041	4.10791918	7.02759086	14.43375673	1.64316767	1.64316767	0.00000000	4.59960107	4.49313067	13576.00824985	10709.10827287
SS042	3.75000000	30.51165761	17.67766953	1.50000000	1.50000000		3.78199184	3.42317722	92662.27207805	99227.31478781
SS043	4.10791918	15.57733396	1.67431578	1.64316767	1.64316767	0.00000000	0.42778499	0.27386128	12091.31920015	7314.36941916
SS044	4.01749549	22.54624876	14.43375673	1.64316767	1.64316767	1.06066017	0.75656560	0.49048955	38503.24661636	30962.88100290
SS045	4.10791918	2.88675135	14.43375673	1.64316767	1.64316767	0.00000000	0.63292970	0.77655006	11235.79102689	9455.79187588
SS046	4.10791918	0.22007574	14.43375673	1.64316767	1.64316767	0.00000000	3.34335161	4.29616108	6187.64898811	6811.90134984
SS047	4.10791918	2.17332311	13.51493002	1.64316767	1.64316767	0.00000000	0.05190568	0.27386128	4133.76341848	3175.37399372

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T	Ca D	Ca T
	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS048	3.75000000	0.17677670	17.67766953	1.50000000	1.50000000		0.05000000	0.25000000	5989.43514309	6330.52657104
SS049	3.75000000	0.46669048	17.67766953	1.50000000	1.50000000		0.05000000	0.25000000	2911.22396940	2676.04652426
SS050	4.10791918	3.15013227	14.43375673	1.64316767	1.64316767	0.00000000	0.10017884	0.26882745	9141.49878302	9456.90224122
SS051	4.10791918	13.53423191	14.07349755	1.64316767	1.64316767	0.00000000	0.05265738	0.27386128	4807.59815292	4533.43137149
SS052	4.10791918	0.28827071	14.43375673	1.64316767	1.64316767	0.00000000	0.01563010	0.27386128	3432.97538587	2787.73743383
SS053	4.10791918	0.37859389	14.43375673	1.64316767	1.64316767	0.00000000	0.73090355	0.61532918	5205.47788392	3875.95149608
SS054	4.10791918	7.05478561	4.30038758	1.64316767	1.64316767	1.06066017	0.31063805	0.27386128	79653.62515291	71387.67400609
SS055	4.10791918	3.65963568	14.43375673	1.64316767	1.64316767	1.41421356	1.37256883	1.14658188	44088.00290328	45155.04401504
SS056	4.33012702			1.73205081	1.73205081		0.34896848	0.02309401	2573.79745383	2515.12093811
SS057	7.08293724	17.01714821	12.98665982	1.64316767	1.64316767	1.06066017	0.33135148	2.21228552	44163.87664144	38978.19903485
SS058	3.75000000	3.53553391	17.67766953	1.50000000	1.50000000		0.09816780	0.25000000	986.20484688	1100.09090533
SS059	4.10791918	1.19508717	14.43375673	1.64316767	1.64316767	0.00000000	0.44414277	0.15789237	9815.65076803	9703.34993701
SS060	4.10791918	0.14422205	14.43375673	1.64316767	1.64316767	0.00000000	0.29109139	0.27512761	773.62781749	812.44692134
SS061	0.00000000			0.00000000	0.00000000		0.90085404	0.47376154	9814.64212287	9355.02271510
SS062	4.10791918	5.79720910	14.43375673	1.64316767	1.64316767	1.06066017	0.72610109	0.42016759	36199.14363628	35745.83891868
SS063	3.75000000	27.93071786	0.35355339	1.50000000	1.50000000		4.00934222	3.48276231	75382.84508649	76129.27601565
SS064	4.10791918	18.76867958	12.55866235	1.64316767	1.64316767	1.06066017	0.44861208	0.27386128	64417.40448047	60454.00731134
SS065	7.20243015	43.30127019	43.30127019	1.57718103	1.61351170	0.00000000	3.13635935	3.89985513	117865.17721533	107846.18676615
SS066	5.77350269			0.00000000	1.69740979		0.11150486	0.07000000	20033.30560176	10692.67662156
SS067	4.10791918	14.43375673	14.43375673	0.31538865	0.31264996	0.00000000	2.83778082	3.43627706	29048.23574677	26442.39020966
SS068	4.10791918	4.80138869	14.43375673	1.64316767	1.64316767	0.00000000	1.07301911	0.95077863	19665.90958995	17903.91018744
SS069	4.10791918	0.82613558	14.43375673	1.10121297	1.13880639	0.00000000	3.56117958	3.66946863	12982.37266450	11725.27185186
SS070	4.10791918	9.85545027	14.43375673	1.64316767	1.64316767	0.00000000	2.20629327	1.76587938	8893.93051468	8174.22779227
SS071	4.10791918	0.61076455	14.43375673	1.64316767	1.64316767	0.00000000	0.47644517	0.27386128	10606.60171780	4722.28758125
SS072	4.10791918	22.46463072	14.43375673	1.64316767	1.64316767	0.00000000	1.11775668	1.01516009	16056.15146914	11519.54860227
SS073	3.71525504	20.16192782	14.43375673	1.64316767	1.45189531	0.00000000	0.40865633	0.27386128	14177.44687876	11945.71052721
SS074	17.60722200	17.67766953	17.67766953	0.49000000	0.62500000		1.94303028	1.83655475	44429.71978305	38117.14399934
SS075	4.10791918	18.11113838	14.43375673	1.64316767	1.64316767	0.00000000	0.31069310	0.27386128	25559.73395793	19138.96548928
SS076	4.10791918	15.44823291	14.20844819	1.64316767	1.64316767	0.00000000	0.05477226	0.27386128	5450.04862364	4810.02598746
SS077	4.10791918	5.80717946	5.84123275	1.64316767	1.64316767	0.00000000	0.05477226	0.27386128	3855.55184118	3343.18411099
SS078	4.10791918	5.27667825	4.21939964	1.64316767	1.64316767	0.00000000	0.05477226	0.27386128	3935.35258903	3584.27119510

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Site ID	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T	Ca D	Ca T
	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS079	4.10791918	3.55429787	13.96889401	1.64316767	1.64316767	0.00000000	0.05477226	0.27386128	5675.38544947	5963.05290937
SS080	4.33012702	1.93656913	14.43375673	1.73205081	1.73205081	0.00000000	0.05773503	0.28867513	7105.10379938	5325.09780818
SS082	5.30330086			2.12132034	2.12132034		0.07071068	0.35355339	254.55844123	212.13203436
SS083	3.82101208			1.53819158	1.54484088		8.92711226	10.84642952	24885.60494208	24681.77465257
SS084	4.33012702			1.54764337	1.55052679		10.18650742	11.88960190	25143.65393759	24538.20150975
SS085	4.33012702	0.00000000	0.00000000	1.73205081	1.73205081	0.00000000	1.84210704	1.85539753	87601.36985230	75104.37182126
SS086	4.10791918	22.54624876	14.43375673	1.64316767	1.64316767	0.00000000	1.68731888	0.93552755	16177.14437099	14754.66028074
SS087	4.10791918	6.75746501	12.64370726	1.64316767	1.63953652	0.00000000	0.40070026	0.25667100	16522.01561554	16894.08180399
SS088	4.10791918	20.69452424	25.71873506	1.64316767	1.64316767		0.05477226	0.27386128	718.28267416	585.46562666
SS089	4.10791918	15.40530212	14.57063256	1.64316767	1.64316767	0.35355339	0.05477226	0.27386128	33156.74893593	33007.53217070
SS090	4.33012702	70.71067812	67.31656557	1.73205081	1.73205081	0.00000000	0.05773503	0.28867513	17893.78360400	16833.30231020
SS091	3.75000000	7.84888527	9.61665222	1.50000000	1.50000000		0.01850000	0.25000000	2781.75604011	2854.16654501
SS092	3.75000000	4.87903679	7.84888527	1.50000000	1.50000000		0.05000000	0.25000000	1051.85550338	1106.02516548
SS093	4.33012702	19.44543648	17.74838021	3.77491722	1.73205081	0.00000000	0.06758883	0.28867513	9634.19387737	9313.34526365
SS094	49.92633532	1.90918831	5.30330086	1.73205081	1.73205081	0.00000000	1.41920670	1.50139935	94542.70639945	91312.26642681
SS095	4.10791918	7.12764571	14.43375673	1.64316767	1.64316767	0.00000000	0.15165751	0.27386128	31998.87498022	29571.13457411
SS096	3.55381485	85.06494578	83.86286425	10.59481005	1.50000000		1.23388286	1.00524736	1355.14759344	1252.30454230
SS097	0.00000000			0.00000000	0.00000000		1.21268813	0.61518290	1272.79220614	1272.79220614
SS098	3.75000000	1.06066017	17.67766953	1.50000000	1.50000000		11.47907517	11.03007253	6122.83975510	4719.81638061
SS105	1.11215631	22.53663980	0.00000000	1.73205081	1.73205081	0.00000000	0.59293339	0.62099383	30099.83388658	25667.09956345
SS123	0.71417785			2.12132034	2.12132034		0.41436457	0.20011122	1251.57900270	1534.42171517
SS125	0.91923882						3.11126984	0.70710678	17677.66952966	4949.74746831
SS126	29.94798825	14.43375673	14.43375673	1.73205081	1.73205081	0.00000000	20.50779071	19.68875313	152.54507531	158.80806025
SS200	3.15189890	14.43375673	14.43375673	1.73205081	1.73205081	0.00000000	0.31858175	0.28867513	37384.26585254	33490.04827308
SS201	8.29156198	43.30127019	43.30127019	1.51897718	1.38495186	0.00000000	0.39423977	0.34180891	51539.62876596	54487.76621102
SS202	0.02121320			2.12132034	2.12132034		7.35391052	5.09116882	1124.29978209	1916.25937702
SS203										
SS204	791.95959493			0.00000000	0.00000000		33.12795270	33.05512070	34231.03927724	39470.70052583
SS205										
SS206	34.50681092			0.00000000	0.00000000		0.07000357	0.00000000	4440.63058585	4193.14321244
SS207										

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T	Ca D	Ca T
	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS208	4.33012702	23.01962930	24.70026990	1.73205081	1.73205081	0.00000000	0.05773503	0.28867513	5909.00160772	5670.87515292
SS210	4.33012702	9.13190561	14.40497599	0.76726245	0.60472446	1.06066017	11.27870412	10.61414151	48448.28858346	42286.95622372
SS211										
SS212										
SS213										
SS214										
SS215	4.33012702	5.40936688	17.67766953	1.73205081	1.73205081		0.14080838	0.23412034	1332.92910539	1537.08598762
SS216	5.30330086			2.12132034	2.12132034		0.07071068	0.35355339	268.70057685	127.27922061
SS217	4.33012702	18.51912660	7.07106781	1.73205081	1.73205081	0.00000000	0.06539368	0.28867513	18103.97838414	16596.56691407
SS218	4.33012702	2.33345238	0.00000000	1.73205081	1.73205081	0.35355339	0.87421870	0.84595114	14138.71752789	12379.95691969
SS219	4.22054795	1.66232769	14.43375673	1.73205081	1.73205081	0.00000000	12.86584626	10.94486181	3021.58898595	2266.42155537
SS220	4.33012702	0.63639610	0.00000000	7.23417814	8.08290377	0.00000000	3.67559519	2.36290781	17953.64401266	20428.73792806
SS221	5.30330086			26.51650429	17.67766953		6.22253967	5.30330086	32385.49057834	21849.59953866
SS222	5.30330086			14.63711037	18.10193360		35.07249635	35.42604974	8273.14933988	11737.97256770
SS223	4.33012702	2.72088221	14.43375673	1.73205081	1.73205081	0.00000000	0.05195110	0.26411409	613.84037013	586.59327192
SS224										
SS225	17.88980156			2.12132034	2.10717821		5.30330086	5.37401154	919.23881554	353.55339059
SS226	5.30330086			2.12132034	2.12132034		4.53255447	4.00929545	1357.64501988	1173.79725677
SS227										
SS228	5.30330086	17.67766953	17.67766953	0.55154329	0.50204581		3.53553391	6.22253967	16263.45596729	23334.52377916
SS229	5.30330086	24.25376259	17.67766953	2.12132034	2.12132034		0.17960512	0.01484924	20788.93936688	13435.02884254
SS230	5.30330086	1.97989899	1.76776695	2.12132034	2.12132034		6.36396103	8.20243866	2050.60966544	2899.13780286
SS231	4.33012702	8.03264174	8.90748749	1.73205081	1.73205081	0.00000000	0.05773503	0.28867513	11728.59752912	10622.61737991
SS232										
SS235	4.66690476	1.76776695	17.67766953	0.38890873	0.26870058		0.14142136	0.14142136	1626.34559673	1555.63491861
SS236	5.30330086	12.27537372	17.67766953	0.38890873	0.41719300		2.12132034	1.06066017	4242.64068712	2121.32034356
SS238	5.30330086	3.53553391	17.67766953	2.12132034	2.12132034		0.84145707	0.65760931	4242.64068712	6363.96103068
SS250	4.69146299	37.50000000	11.91679487	1.50000000	1.50000000	0.00000000	0.75000000	1.49026474	24824.38317461	10923.97973878
SS300	0.00000000	0.96166522	0.00000000	0.00000000	0.00000000	0.00000000	0.04949747	0.09192388	671.75144213	692.96464556
SS301	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	1.76776695	0.70710678	0.67882251	81317.27983645	57982.75605730
SS304	5.30330086			2.12132034	2.12132034		0.07071068	0.00707107	1767.76695297	919.23881554

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	As T	Ba D	Ba T	Be D	Be T	Br T	Cd D	Cd T	Ca D	Ca T
	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS305	5.30330086	7.99030663	17.67766953	2.12132034	2.12132034		0.07071068	0.35355339	133784.60300050	123107.29060458

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Cl T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	FT	Hard D	Fe D
	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev mg/L	stdev µg/L
A23A	0.00000000	0.00000000	0.00000000	0.28721363	1.07583688	57.90993006	91.23047736	0.05773503	9.62635272	0.00000000
A38	8.66025404	1.64985858	2.88675135	0.14849242	0.11313708	1.00405843	5.34926475	0.43588989	34.53018004	86.60254038
CC01A	1.25830574	0.57735027	2.88675135	0.22812350	0.18009257	49.60486367	64.52648035	0.31622777	46.45696934	86.60254038
CC01B	2.50000000	0.00000000	2.23606798	0.56568542	0.77781746	1.71755640	1.77763888	0.58022984	22.21861082	1417.45076340
CC01C	9.34523051	2.94073460	2.52547025	10.22579581	11.04448429	1836.32004291	1912.09589195	0.95350232	29.56687336	14157.22265135
CC03D	0.00000000	2.58198890	2.73861279	0.70710678	0.00000000	1.22141994	1.03682207	0.51639778	71.94905605	7549.94481216
CC06	2.23606798	3.90230701	3.71187284	20.52128976	17.83956277	2504.33024979	2130.25115890	1.78801566	48.53040284	97939.06268696
CC14	8.66025404	3.63428122	2.75717246	3.88908730	4.03050865	12.91077070	16.64983483	0.20000000	123.22438882	2110.68709192
CC16C	8.66025404	1.64869039	3.84423985	6.78011799	4.44559707	6.28363589	8.52631222	0.61373175	33.80384594	8250.27272276
CC19	0.00000000	2.73861279	0.00000000	2.00000000	3.46410162	3.96369398	1.67726563	0.58022984	36.74234614	15297.05854078
CC50	7.58287544	2.85743941	2.50664450	1.21503086	1.37790904	1.83974636	4.87644850	0.42778499	35.51478565	423.34639087
DM01										
DM24		2.84964033	2.84964033			0.55861436	0.64346717		28.99137803	1909.18830920
DM32	1.00000000	0.57735027	2.88675135	1.08103346	1.11921103	321.50686877	328.77297131	0.27080128	57.15694767	632.08299824
DM4										
SS001	0.58991525	0.54772256	2.73861279	0.22727076	0.27835469	10.14773472	9.21273195	0.00000000	7.68114575	82.15838363
SS002	0.64031242	0.52599113	2.50000000	0.07071068	0.35355339	0.11757976	1.25000000	0.05000000	28.35930182	75.00000000
SS003	0.64031242	0.57447802	2.50000000	0.08980256	0.35355339	9.61816857	10.74472739	0.05000000	33.25657830	75.00000000
SS004	0.58991525	0.51768716	2.73861279	0.05437217	0.28867513	2.07464315	0.78975946	0.05477226	29.23696291	82.15838363
SS005										
SS006	0.58991525	0.54772256	2.73861279	0.05773503	0.28867513	0.25633630	1.36930639	0.05477226	11.43678276	82.15838363
SS007	0.58991525	0.54772256	2.73861279	0.04257151	0.28867513	0.38887942	1.36930639	0.05477226	12.77888884	79.75713134
SS008	0.66332496	0.57735027	2.88675135	0.02020726	0.27118505	0.30445197	1.44337567	0.09574271	33.57950764	86.60254038
SS009	0.64291005	0.57735027	2.88675135			1.05044435	1.36254664	0.05773503	23.57965225	86.60254038
SS010	0.60663004	0.54772256	2.73861279	0.28614915	0.47521925	0.46885477	1.13970610	0.23874673	136.52948400	82.15838363
SS011	7.67906244	0.54772256	2.73861279	11.28600024	11.73734212	12.76179533	13.52188670	0.72801099	165.01878681	227.48626332
SS012	9.24247442	0.50000000	2.50000000	7.84888527	8.27314934	15.13940381	15.79219216	0.86794777	206.61780336	275.17312732
SS013	0.58991525	0.54772256	2.73861279	0.39184563	0.27163456	1.05921197	2.88893233	0.10954451	16.50151508	82.15838363
SS014	0.58991525	0.54772256	2.69007063	0.05773503	0.28867513	0.26521840	3.35007463	0.05477226	9.28977933	82.15838363
SS015	0.58991525	0.54772256	2.64052646	0.33530434	0.11096396	0.42504141	1.61606931	0.04472136	10.54514106	82.15838363
SS016	0.67675697	0.54772256	2.65339028	2.28383449	2.61642886	0.51437341	1.54120732	0.14142136	30.47457957	441.73430929

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Cl T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	FT	Hard D	Fe D
	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev mg/L	stdev µg/L
SS017	0.55497748	0.54772256	2.73861279	2.42783854	2.87084192	2.68950367	2.86343849	0.15165751	22.77718156	980.43357756
SS018	1.15238882	0.54772256	2.69007063	4.57055795	4.25715085	4.23284774	4.22468934	0.44158804	32.95147948	82.15838363
SS019	0.58991525	0.54772256	2.53302586	0.05773503	0.28867513	0.08571348	1.21773560	0.07071068	7.53657747	82.15838363
SS020	0.58991525	0.54772256	2.73861279	0.11754715	0.36348361	0.95652015	1.25204633	0.08366600	4.81663783	67.08203932
SS021	0.64291005	0.57735027	2.88675135			0.70235319	1.44337567	0.05773503	2.00000000	86.60254038
SS022	0.64031242	0.50000000	2.50000000	0.61589001	0.21708178	0.33900000	1.25000000	0.09574271	7.07106781	178.59451279
SS023	1.26806940	0.54772256	2.73861279	0.16484033	0.28867513	0.59314012	1.15571623	0.13416408	115.37114024	67.08203932
SS024	1.26806940	0.54772256	2.73861279	0.05634714	0.28867513	0.19876443	1.36930639	0.11401754	58.82771456	82.15838363
SS025	0.64291005	0.57735027	2.88675135			2.84776497	3.92598183	0.05773503	53.45403009	86.60254038
SS026	0.64031242	0.50000000	2.50000000	1.46017550	1.18793939	188.04691569	192.90298728	0.23629078	19.71463078	75.00000000
SS027	8.21656863	1.51657509	2.73861279	0.03601389	0.12395698	114.39055905	121.26541139	1.18659176	131.63700088	82.15838363
SS028	0.92376043	0.00000000	0.00000000			0.24776266	0.00000000	0.05773503	3.51188458	0.00000000
SS029	0.58991525	0.54772256	7.91820687	0.05773503	0.28867513	1.33200225	1.41990141	0.15165751	44.47246339	82.15838363
SS030	0.58991525	0.54772256	2.73861279	0.05310681	0.28867513	0.27386128	1.36930639	0.04472136	14.14920492	65.36971776
SS031	0.58991525	0.54772256	2.73861279	0.05773503	0.28867513	0.27386128	1.36930639	0.07071068	4.96990946	82.15838363
SS032	1.46401275	0.46785860	2.50000000	0.07071068	0.35355339	1.53157008	0.44000000	0.12583057	66.70832032	75.00000000
SS033	0.58991525	0.54772256	2.73861279	0.05773503	0.28867513	0.70585232	1.36930639	0.05477226	1.22474487	82.15838363
SS034	0.64031242	0.50000000	2.50000000	0.29769195	0.35355339	29.24796289	26.63969469	0.09574271	3.30403793	73.56629663
SS035	0.69282032	0.57735027	2.88675135			0.31100054	1.34997531	0.15275252	56.14564394	86.60254038
SS036	0.80829038	0.57735027	2.88675135			13.48248123	14.78312664	0.05773503	14.46835628	86.60254038
SS037	8.79621131	4.19324854	2.50000000	0.50133871	0.02121320	41.64432734	39.20034013	0.68495742	100.33734765	75.00000000
SS038	0.58991525	0.41221354	2.73861279	0.05773503	0.28867513	0.22360680	1.36930639	0.07071068	22.14271889	82.15838363
SS039	0.64031242	0.50000000	2.50000000	0.07071068	0.35355339	9.74251850	6.27162924	0.05000000	12.06924466	75.00000000
SS040	0.58991525	0.54772256	2.73861279	0.07128347	0.28867513	37.37244975	33.26860382	0.08366600	4.38178046	82.15838363
SS041	0.47749346	0.54772256	2.73861279	0.05204165	0.28867513	32.96539959	31.80165955	0.11401754	37.04051835	82.15838363
SS042	9.38136451	4.19324854	2.50000000	0.63639610	0.35355339	2.86262554	32.58364557	0.91787799	251.74259340	75.00000000
SS043	7.33293938	4.06072654	2.73861279	0.18597401	0.10785793	1.62065147	1.36930639	0.55856960	32.01093563	82.15838363
SS044	7.66498532	3.67423461	2.73861279	0.60770058	0.74332586	4.23235514	6.04875028	0.49799598	102.00588218	82.15838363
SS045	0.58991525	0.54772256	2.71955511	0.05057997	0.28867513	0.62183599	1.35857278	0.16733201	31.12394577	77.73544880
SS046	0.58991525	0.54772256	2.73861279	0.76393717	0.18583146	1.76266843	1.58177116	0.46904158	17.23948955	1291.71204221
SS047	0.58991525	0.50031990	2.58058520	0.05773503	0.28867513	1.00197365	1.36930639	0.05477226	11.26055061	82.15838363

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Site ID	Cl T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	FT	Hard D	Fe D
	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev mg/L	stdev µg/L
SS048	0.64031242	0.64940999	2.07500000	1.00055610	0.93338095	0.14294142	1.28545712	0.05000000	14.47987109	2860.87399233
SS049	0.52519838	0.50000000	2.12500000	0.07071068	0.35355339	0.05750000	1.25000000	0.05000000	8.18535277	75.00000000
SS050	0.58991525	0.53103672	2.60022691	0.43761056	0.23643181	3.26767042	16.81254948	0.13038405	25.41259530	82.15838363
SS051	1.22800651	0.54772256	2.52149162	0.07005950	0.28838689	0.94858842	0.94259217	0.04472136	13.27403480	65.01692087
SS052	0.56568542	0.54772256	2.66899232	0.05483612	0.26733001	0.79930395	1.09973633	0.08944272	9.21954446	82.15838363
SS053	0.58991525	0.54772256	2.55414956	0.82587832	1.05026965	31.00822472	28.05761929	0.11401754	13.47961424	77.77017423
SS054	7.64146583	3.82678978	2.53302586	0.41190169	0.20237177	1.35435224	7.52915666	0.64652920	210.74510670	82.15838363
SS055	8.13560078	0.54772256	2.73861279	20.72637229	18.92602529	4.81830676	8.49864695	1.07563934	128.15147287	24751.29794576
SS056	0.64291005	0.57735027	2.88675135			1.67161598	1.47176764	0.20816660	8.54400375	1966.34212011
SS057	7.26966299	3.67423461	2.73861279	5.87905888	8.25287829	0.64857536	2.29660184	0.61400326	116.93587987	2380.19326946
SS058	0.47258156	0.50000000	2.29500000	0.31536962	0.31395541	0.22368132	0.49953312	0.08164966	2.75378527	75.00000000
SS059	0.58991525	0.54772256	2.73861279	0.05773503	0.28867513	1.27665579	0.82287302	0.18708287	27.95889840	82.15838363
SS060	0.58991525	0.54772256	2.60519097	0.00602771	0.28867513	5.32803904	4.74889461	0.13038405	2.38746728	82.15838363
SS061	0.28284271	0.00000000	0.00000000			3.64159992	5.81241774	0.28284271	29.69848481	104.65180362
SS062	7.89303490	0.54772256	2.73861279	7.78001928	7.87511481	8.09229332	14.02631384	0.87063195	102.19442255	19275.13216557
SS063	10.05783277	4.50000000	2.50000000	0.63356768	3.17278813	24.73478682	19.67185023	1.31782649	259.33504712	74.05403433
SS064	7.87857855	4.27784993	2.73861279	0.44948452	0.26774117	2.14706432	1.08421400	0.68556546	197.78068662	82.15838363
SS065	5.89915248	7.09224929	6.12372436	7.57187779	2.64575131	23.64935517	49.17116025	0.49699095	326.77392797	40025.07064329
SS066	6.92820323	9.07624004	5.77350269			7.53856750	6.70149237	0.10000000	49.51767361	9273.79821504
SS067	8.57601306	2.73861279	2.73861279	1.07857931	1.73493516	50.73164693	69.97642460	0.77653075	81.20221672	4547.85663802
SS068	7.33293938	3.67423461	2.73861279	6.29523629	7.58573222	16.76901905	13.25518766	0.40865633	57.13842840	543.34905908
SS069	0.95498691	0.54772256	2.73861279	1.06926766	0.87368949	23.27599622	28.27451149	0.42190046	38.26617305	72.71038440
SS070	0.58991525	0.54772256	2.73861279	7.89593144	9.24626591	2.62915005	2.86887609	0.56833089	26.04419321	966.77417218
SS071	8.01698198	4.69114911	2.73861279	0.99141313	0.96365623	2.18252084	1.21326007	0.31144823	27.51363298	553.74181710
SS072	8.57601306	4.08656335	2.73861279	14.77881366	14.83947438	75.56596939	83.71578035	0.51185936	46.09229871	3971.27561370
SS073	8.94494271	3.90615924	2.73861279	3.87986254	1.92959409	1.80416740	4.77911289	0.47958315	40.01624670	6588.07407366
SS074	9.20923450	0.72500000	0.70000000	34.43610024	29.41564210	375.54793303	333.98502960	0.59721576	142.23220451	34519.40275652
SS075	7.18414922	3.88756736	2.73861279	0.54270925	0.41549168	1.49422221	1.53912962	0.41833001	70.51453751	611.49816026
SS076	0.58991525	0.54772256	2.73861279	0.05237366	0.28867513	0.11955459	1.52600131	0.05477226	15.14925741	69.21849464
SS077	0.58991525	0.53103672	2.73861279	0.05773503	0.28867513	0.26982550	1.36930639	0.05477226	10.23718711	82.15838363
SS078	0.58991525	0.54772256	2.73861279	0.05773503	0.28867513	0.27386128	1.14082426	0.05477226	10.46422477	82.15838363

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Cl T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	FT	Hard D	Fe D
	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev mg/L	stdev µg/L
SS079	0.58991525	0.54772256	2.73861279	0.05773503	0.28867513	0.13640308	1.31898446	0.05477226	16.14620698	72.99863012
SS080	0.54160256	0.57735027	2.88675135	0.05582413	0.28867513	0.77295968	1.44337567	0.05773503	19.50000000	86.60254038
SS082	0.14142136	0.70710678	3.53553391			0.01626346	1.76776695	0.07071068	0.70710678	106.06601718
SS083	1.52752523	2.21991742	1.86078836			734.79611685	825.79476869	1.10151411	95.58416884	20066.51937930
SS084	1.52752523	2.19777918	1.83640954			896.47996817	996.85321554	1.35769412	97.50042735	23356.62019642
SS085	7.68114575	2.88675135	2.88675135	10.88944443	7.42462120	20.74270956	12.30609605	0.59441848	238.20509370	4607.51198226
SS086	8.40832920	4.27784993	2.73861279	8.03077414	2.66333125	3.29170928	3.93088794	0.63796552	47.57310164	6306.90098226
SS087	8.32898553	0.54772256	2.50882044	11.06257806	10.81689573	26.99179505	29.09627124	0.83546394	58.15238602	5707.56340306
SS088	0.64031242	0.54772256	2.50102379	0.18814179	0.18910667	0.16256629	1.36930639	0.05000000	2.48997992	336.37404775
SS089	1.09544512	0.64187226	2.50359741	0.05773503	0.28867513	0.75826130	1.25845938	0.19493589	105.95659489	143.46428127
SS090	0.47169906	0.57735027	2.36696008	0.04525483	0.00000000	0.28867513	1.44337567	0.05773503	54.89990893	26.69581740
SS091	0.64031242	0.50000000	2.40573447	0.68589358	0.77074639	22.36877064	21.86116096	0.05000000	8.34665602	531.81599261
SS092	0.64031242	0.50000000	2.42072131	0.07000357	0.35355339	0.29101475	1.23572853	0.05773503	3.41565026	75.00000000
SS093	0.54160256	1.41421356	2.37042015	3.55674711	2.89913780	8.44747148	6.49451243	0.09574271	29.64793416	188.74586088
SS094	1.73205081	1.73205081	2.37561922	7.04278354	1.61927453	8.72877998	8.34007994	1.20277457	315.21262665	8800.28408632
SS095	1.27749755	1.56913352	2.50193525	0.10123734	0.41404509	0.70289885	2.15152736	0.11401754	84.92172867	103.55095364
SS096	0.64031242	4.19324854	2.40573447	0.10606602	0.10606602	80.33626060	68.37828603	0.05000000	3.55902608	9703.29117705
SS097	0.84852814	0.00000000	2.04353860			4.51841233	7.77817459	0.00000000	5.65685425	0.00000000
SS098	8.35603574	4.07354473	2.61533937	0.42426407	1.20208153	350.22409493	298.92864254	0.76811457	24.68467811	1565.93688677
SS105	8.66025404	3.83405790	3.49702254	0.25709920	0.14849242	7.15916406	10.71868773	0.35000000	78.09161287	725.79611462
SS123	2.12132034	0.36062446	3.53553391			48.43681451	44.54772721	0.28284271	5.65685425	21071.78207936
SS125		5.23259018	3.60624458			75.66042559	39.59797975		11.31370850	89802.56121069
SS126	8.12403840	3.46944952	3.41438135	2.37977590	1.90000000	672.50856803	611.75106892	0.81240384	1.73205081	23635.52411096
SS200	8.66025404	3.31662479	2.73213439	0.11532563	0.71143048	1.28743608	0.43415627	0.48304589	94.87184338	681.59127537
SS201	5.77350269	8.12403840	7.07106781	19.00000000	18.19340540	15.76945888	15.42603319	0.81240384	145.65141034	5372.15040743
SS202	5.65685425	0.64346717	3.53553391			63.63961031	229.80970389	0.42426407	9.89949494	19728.27919510
SS203										
SS204	12.72792206	3.34461508	1.81726443			8824.26836514	8686.80680688	0.98994949	128.69343418	161043.56941524
SS205										
SS206	0.00000000	0.00000000	0.00000000			66.11448404	65.76093065	0.00000000	14.84924240	318.90515832
SS207										

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Cl T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	F T	Hard D	Fe D
	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev mg/L	stdev µg/L
SS208	0.57735027	0.57735027	2.88675135	0.57709040	0.54418134	2.35219578	1.70167320	0.05000000	20.17217556	176.08023739
SS210	8.26135582	1.73205081	2.88675135	0.34428670	0.05686241	60.07686049	57.37304826	1.30384048	161.08279445	86.60254038
SS211										
SS212										
SS213										
SS214										
SS215	0.57735027	0.57735027	1.87061487	0.00777817	0.35355339	2.61285923	2.15006977	0.10000000	4.93288286	86.60254038
SS216	0.70710678	0.70710678	3.31633080			0.19798990	1.76776695	0.07071068	0.70710678	106.06601718
SS217	0.57735027	0.57735027	2.88675135	0.32031937	0.14566400	0.30746273	1.44337567	0.05773503	59.18051481	86.60254038
SS218	1.52752523	0.57735027	2.88675135	4.58912301	4.28506709	7.90415292	7.80149558	0.35118846	64.29878174	86.60254038
SS219	0.57735027	0.57735027	2.88675135	1.86358078	1.77992509	341.72149967	316.02689759	0.31091264	9.25562892	1428.00420167
SS220	8.66025404	0.57735027	2.88675135	12.94005410	11.66726189	5.06853036	5.33510387	14.05240193	66.45549889	144.33756730
SS221	10.60660172	3.53553391	3.53553391			7.33976839	5.57907250	14.56639969	120.91525958	530.33008589
SS222	10.60660172	3.53553391	3.53553391			271.52900398	296.27774132	6.85893578	82.02438662	530.33008589
SS223	0.50000000	0.57735027	2.88675135	0.05002999	0.28867513	0.24140612	1.17908156	0.05773503	1.73205081	86.60254038
SS224										
SS225	0.00000000	0.70710678	3.53553391			36.76955262	58.68986284	0.07071068	2.12132034	89.09545443
SS226	0.70710678	0.70710678	3.53553391			21.47483294	18.61105048	0.07071068	4.94974747	106.06601718
SS227										
SS228	10.60660172	3.53553391	3.53553391	28.49640328	6.08111832	68.58935778	37.47665940	0.14142136	45.96194078	1131.37084990
SS229	12.72792206	6.36396103	3.53553391	0.59114127	0.35355339	0.18384776	0.91216775	1.13137085	57.98275606	106.06601718
SS230	0.70710678	0.18384776	3.53553391	5.79827561	6.50538239	375.47370081	377.59502115	0.35355339	16.97056275	2941.56420974
SS231	0.00000000	0.06928203	2.88675135	0.06357148	0.28867513	0.20726875	1.44337567	0.05773503	32.33161507	265.98182895
SS232										
SS235	1.41421356	0.70710678	3.53553391	1.48492424	2.61629509	0.08485281	1.76776695	0.28284271	7.07106781	2616.29509039
SS236	12.72792206	2.12132034	3.53553391	1.06066017	3.25269119	44.54772721	74.95331881	0.42426407	10.60660172	106.06601718
SS238	10.60660172	0.62932504	3.53553391	0.84852814	0.42426407	50.91168825	22.62741700	0.14142136	12.02081528	1838.47763109
SS250	7.50000000	7.50000000	2.50000000	0.62291653	1.70341569	3.78808659	4.25928300	1.11055542	62.47399459	338.83034103
SS300	0.00000000	0.00000000	0.00000000	0.08131728	0.08202439	10.67731240	6.92964646	0.07071068	2.12132034	0.00000000
SS301	3.53553391	0.00000000	0.00000000	32.52691193	36.06244584	3.53553391	3.81837662	0.07071068	230.51681067	636.39610307
SS304	0.70710678	0.70710678	3.53553391			0.77781746	2.27688384	0.00000000	4.94974747	106.06601718

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Cl T	Cr D	Cr T	Co D	Co T	Cu D	Cu T	F T	Hard D	Fe D
	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev mg/L	stdev µg/L
SS305	2.12132034	0.65053824	3.53553391	0.48861079	0.01414214	0.39597980	1.76776695	1.06066017	351.43207025	106.06601718

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Fe T	Pb D	Pb T	Mg D	Mg T	Mn D	Mn T	Ni D	Ni T
	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
A23A	2720.00000000	0.67854624	94.33509646	205.02032420	533.44009348	1869.93761037	4028.54398842	0.61087369	1.69006903
A38	310.09514669	0.52082467	2.87809544	503.32229568	832.66639979	1290.46503246	776.74534652	1.04083300	9.00721933
CC01A	619.22693740	0.40159349	45.24105805	1287.43608256	1295.87486536	569.09284538	551.54419587	0.28867513	1.44337567
CC01B	1436.31472874	127.84626184	101.59970472	478.71355388	605.80524923	464.57866216	935.41434669	2.12586257	3.81820900
CC01C	14677.08938448	9.35734043	8.46082029	4685.32816353	4545.68696679	4599.17457812	4533.59027703	5.86374198	6.38962205
CC03D	5463.24079645	8.86079379	16.76866125	1132.10717985	980.64604556	2433.92686825	2017.58932062	3.03144630	3.72862799
CC06	81880.82803685	9.49765655	9.13252430	6237.94838068	6968.35705170	3639.09329367	4120.31552190	23.15486990	19.93318841
CC14	2625.45234198	0.97410472	7.06456793	754.70524047	873.12656585	145.25839046	226.42879676	2.31285970	2.02445548
CC16C	11227.33271975	0.30109251	0.82281833	887.13020465	1032.95692069	92.57429449	96.17692031	4.94469413	4.33012702
CC19	14106.73597967	1.08025099	1.72824477	1026.15788259	1026.15788259	4781.73608640	4959.53626864	3.53652372	7.38904595
CC50	396.97606981	0.38524884	2.19288851	4802.47963730	5081.44395489	503.46797316	678.42955910	1.50831031	1.47196014
DM01									
DM24	16122.03461105	0.36910974	2.35466558	1131.37084990	1131.37084990	431.33513652	197.98989873	1.41421356	1.48492424
DM32	582.55893836	287.98148089	223.96056200	3735.05020047	3779.95921495	1692.62124135	1678.10160598	1.42457889	13.52195345
DM4									
SS001	436.95629072	114.48698232	105.31197121	280.80242164	243.20773014	545.10006421	549.02943182	0.45661800	13.77673837
SS002	75.00000000	0.04029371	0.89559812	1009.90098525	1093.08050939	49.89817857	47.83000558	0.25000000	13.35000000
SS003	48.50000000	23.58968613	40.73592385	1076.38283152	1028.41301690	327.51895619	331.07036009	0.25000000	1.25000000
SS004	72.02221879	0.04936395	2.85003425	871.04534899	926.64448415	1.61086312	9.31758284	0.37898549	13.02543665
SS005									
SS006	398.43443626	0.05477226	0.57701542	170.98479465	135.28931961	4.46340677	10.26701904	0.27386128	14.94265706
SS007	107.60715590	0.05477226	0.26361677	262.47056978	295.99070931	3.21500855	4.34928500	0.37666962	14.18449858
SS008	73.62234715	0.05773503	0.21758581	1208.09767817	1155.63474622	50.50158413	191.25378428	0.28867513	1.44337567
SS009	86.60254038	0.04330127	0.23844566	1156.58981493	1122.55660585	17.26277305	17.18177329	0.28867513	1.44337567
SS010	82.15838363	0.14110811	0.20746373	5894.91560584	6503.73969344	121.30678122	321.42983763	0.27386128	1.36930639
SS011	270.38343145	6.51237898	8.58695570	8581.10249327	8793.80748027	3150.76657339	3226.21759960	10.37790056	10.69861767
SS012	2448.14215274	2.47179422	8.65384067	9533.60154052	9285.28963379	2129.62579752	2089.84409599	3.81096991	3.35509563
SS013	199.00703505	0.05477226	0.37878754	297.70791054	331.46643872	40.76720766	39.38242908	0.27386128	1.08719823
SS014	82.15838363	0.05477226	0.27386128	148.72793954	129.34450124	1.64316767	1.64316767	0.27386128	1.26074581
SS015	311.57663584	0.05477226	0.22116781	357.88266234	365.96447915	12.55535742	13.08594666	0.27386128	1.08474882
SS016	6535.42271012	0.12020483	2.82406091	539.93518129	660.50738073	131.20213413	140.80944571	0.54586628	1.11692435

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Fe T	Pb D	Pb T	Mg D	Mg T	Mn D	Mn T	Ni D	Ni T
	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS017	1069.69621856	0.05477226	0.27386128	914.92076160	854.56421643	247.93386215	271.83671570	0.95536286	2.05604475
SS018	80.59900744	0.06140603	0.27386128	1905.63637665	1782.39165169	689.87680060	593.40542633	2.01723325	3.22667321
SS019	82.15838363	0.05477226	0.27386128	184.03803955	156.62056059	1.57972149	2.88097206	0.27386128	1.13133549
SS020	66.69332800	2.08689178	2.58450285	443.02370140	423.29658633	76.93017613	78.66620621	1.45658848	1.22743635
SS021	86.60254038	0.08652360	0.04166933	76.42207360	62.30837290	1.70000000	1.20554275	0.11258774	1.44337567
SS022	225.37967965	0.29199700	0.23590729	195.17086531	187.14967272	179.61469103	163.80501763	0.21164357	1.25000000
SS023	58.40804739	0.04681666	0.18878480	3171.32798682	3228.81170092	3.92310081	4.18055020	0.38680745	1.36930639
SS024	82.15838363	0.05477226	0.27386128	2103.59691956	2044.48771089	1.64316767	1.64316767	0.27386128	1.36930639
SS025	345.40748882	0.76787586	7.43495349	1215.34974390	1269.98359569	1.73205081	5.75263418	0.28867513	1.44337567
SS026	75.00000000	69.67212756	65.89995144	517.58252160	803.72051527	1809.78332036	1943.90163932	1.23240618	1.03734838
SS027	106.69442347	0.76207427	1.51096565	8055.29515288	7860.64246738	6254.10665083	6110.72417967	8.84247024	8.62518869
SS028	0.00000000	0.08313844	0.17934696	88.95129754	93.62869930	2.74237731	3.89500107	0.00000000	0.00000000
SS029	82.15838363	0.05477226	0.27386128	1431.47476401	1325.71867302	82.29641547	79.67747486	1.25826277	6.08060194
SS030	77.24765369	0.04914061	0.21689444	239.11921713	228.66853741	2.87698106	3.08220700	0.27386128	1.36930639
SS031	82.15838363	0.05477226	0.30646370	65.72670690	78.96074974	1.64316767	20.87524419	0.27386128	1.36930639
SS032	84.90583019	0.05000000	1.21500000	1585.44420694	1637.01710437	1.50000000	1.41570654	0.25000000	1.25000000
SS033	72.30490993	0.15147046	0.39803831	43.50057471	23.24435415	5.46234382	13.61704520	0.27386128	1.15415770
SS034	110.69891598	1.55183365	1.38333835	133.65876951	138.16656614	125.76565509	133.21254946	1.03699373	0.29500000
SS035	2262.13026445	0.05392897	3.46514550	2085.09791936	2711.77063927	1.14315353	42.16661397	0.28867513	3.81881308
SS036	86.60254038	32.20201081	33.23732390	329.81863703	337.22593811	30.87770933	30.29682327	0.26733001	3.73229152
SS037	867.83615005	7.04562926	80.68765891	7013.08301201	7429.83849084	731.04377434	712.60087005	6.80655321	5.80746646
SS038	82.15838363	0.05477226	0.27386128	549.69991814	494.23678536	1.64316767	1.57120973	0.27386128	3.06186218
SS039	73.09069708	12.67430833	15.49895561	552.71300570	550.53761603	88.68436540	68.28616258	0.50168881	6.84970741
SS040	82.15838363	0.21495883	0.20695483	303.72158303	286.70751647	1779.70503174	1815.38701108	0.59716396	5.02926237
SS041	73.17444909	2.17123624	3.60667021	819.92072788	698.73457049	1613.29823591	1621.72290851	0.80031244	2.85474517
SS042	1523.79665638	1.10845519	401.39781917	5108.13419133	5350.12232726	346.18404874	429.75438531	2.09662427	3.59664195
SS043	193.30209518	1.16269084	9.77390812	493.60915713	344.52866354	142.54823745	430.54616477	2.13892496	3.06186218
SS044	4664.79152803	0.36742346	1.91059697	1334.87827160	1037.05351839	129.11235417	252.19278340	1.83711731	3.06186218
SS045	77.20880779	0.05477226	0.27386128	715.17829945	618.08575457	7.72029792	4.00562105	0.31288784	0.96827166
SS046	2519.98611107	1.31263095	5.15829429	433.68191108	626.37847983	280.65993658	285.16661796	0.64379345	2.04886554
SS047	65.79665645	0.05054899	0.27386128	238.15961035	148.55975229	3.95373241	5.67379943	0.27386128	1.26074581

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Fe T	Pb D	Pb T	Mg D	Mg T	Mn D	Mn T	Ni D	Ni T
	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS048	3696.64663355	0.05000000	0.93758320	93.22910847	85.39125638	54.23857791	49.17230759	0.25000000	0.32500000
SS049	75.00000000	0.03000000	0.25000000	241.49033797	217.52758446	1.50000000	1.26500000	0.25000000	0.74500000
SS050	264.23039189	0.05396110	1.31010305	683.41056474	618.08575457	97.11188393	168.37654825	0.24066574	1.11265448
SS051	255.48228901	0.05477226	0.48189210	348.68323734	325.85272747	21.39637820	31.38842143	0.27386128	1.14957383
SS052	68.62069659	0.05477226	0.27386128	229.34689882	118.61703082	1.19947072	6.40144359	0.24428835	1.37756307
SS053	139.18261386	0.96759661	1.52240599	283.07242889	243.37214302	97.86316978	110.42327653	0.65318451	1.91853329
SS054	673.23599131	0.36742346	6.77059386	2967.69607608	2832.16878028	1.64316767	29.27076357	1.83711731	1.36930639
SS055	25912.12135662	0.07570469	13.13585828	4486.51312268	4732.92404334	4984.99550652	4807.40345717	5.02027589	5.30169030
SS056	2051.60912457	0.18687518	0.12990381	515.20222567	480.31239834	307.56191789	277.28925932	1.19616052	1.33046358
SS057	22837.42104529	0.36742346	4.71365495	1608.85984473	1375.50717919	2459.65038166	2839.86267274	8.22526717	7.81890785
SS058	59.50000000	0.44030293	0.58126299	121.29131598	120.81666552	3.02426851	3.38688648	0.25000000	0.16500000
SS059	82.15838363	0.05477226	0.27386128	832.78448593	807.91088617	8.27103379	7.80429369	0.08430184	1.08336513
SS060	52.01249850	0.08492232	0.14792802	113.61557992	101.92889679	18.81042264	17.42836768	0.31408598	0.88522314
SS061	95.45941546	0.36840263	0.94045202	1272.79220614	1230.36579926	236.45650763	221.81939726	0.55154329	0.00000000
SS062	17810.79728704	1.97166232	9.10618361	2863.30228932	2721.34525557	2603.62247647	2599.13831875	1.25095164	1.28184242
SS063	4154.60342070	0.45000000	2.61000000	17424.72070556	17096.18573445	4041.12399932	3928.32419742	66.18173842	19.48253491
SS064	739.51281260	0.42778499	0.61269911	9035.42583391	8896.99106440	24.32933661	28.28779101	1.98819516	2.04328167
SS065	38927.40679778	0.69395965	0.61237244	7745.77304083	6742.99636660	11706.51869686	11159.61468869	11.71558791	9.38605348
SS066	8947.25283723	1.95857942	2.01529981	550.75705473	1305.11813003	862.16781043	1193.03534454	9.05336033	4.63069469
SS067	4566.72749351	1.04884222	1.20044992	2181.05479069	1943.70779697	2234.50218170	1833.84841249	2.18013761	4.20000000
SS068	664.10631679	5.12376814	5.79240883	1917.00808553	1822.44890189	1489.45291970	1357.44244814	2.10309296	2.56456624
SS069	99.92146916	0.12239894	0.19304222	1480.54719614	1442.31411281	1190.99538202	1152.80961134	1.47378085	2.22262907
SS070	1213.25562022	0.55056335	0.53067881	984.31702210	958.56663827	1761.31484976	1964.51011705	1.35654709	1.48252150
SS071	3454.80534908	0.47042768	0.39071575	316.10124960	433.84328968	125.17987059	161.95678436	2.38222585	1.36930639
SS072	5654.69981520	0.48682646	1.35548146	2104.75651798	1775.66888805	860.65091646	879.41457800	4.55173374	5.32663871
SS073	10405.19101218	0.40865633	0.60421850	1078.42477716	1073.31262920	312.88975694	184.71599822	1.45943578	1.30987786
SS074	33343.16521668	4.21973933	9.63244993	7755.58938229	7113.83628338	1713.91365010	1476.44561927	9.10439454	10.11051433
SS075	856.13667133	0.89516043	1.09067410	1512.61363210	1275.53910171	266.23298068	201.66804407	2.04328167	1.36930639
SS076	308.96973962	0.04202975	4.17294342	406.90453426	492.40095451	12.95615182	15.49558550	0.27386128	8.20897558
SS077	105.21406750	0.05141790	0.27249771	167.52372966	155.67819372	1.64316767	2.41327993	0.27386128	4.08882379
SS078	69.06518660	0.05190568	0.27386128	199.09595676	134.63209127	1.64316767	18.09176608	0.27386128	6.11653497

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Fe T	Pb D	Pb T	Mg D	Mg T	Mn D	Mn T	Ni D	Ni T
	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS079	521.70873100	0.05477226	0.77974355	611.34180292	622.78102091	1.30549607	5.84132519	0.27386128	8.48810933
SS080	81.17060223	0.21226143	0.26793780	456.60814710	356.33879010	15.25108821	19.44071565	0.28867513	4.08014297
SS082	334.46150750	0.07071068	2.09515739	77.07463915	18.38477631	0.07778175	6.44881384	0.35355339	1.69705627
SS083	20656.79871939	0.82107145	4.90739238	8197.21294099	8036.52495382	3464.94348198	3435.55429783	10.01127365	10.66197136
SS084	23247.06734909	4.29813405	8.66357088	8519.37399891	8447.51048140	3886.47243654	3884.05818700	10.73374740	10.78532954
SS085	4782.86873470	18.59039447	34.59531519	4582.21198404	4212.97598696	3731.16045398	3304.97982848	6.74079125	5.66644509
SS086	7423.74568530	1.81700853	1.36589897	1744.41967428	1502.33152134	1151.92013612	1133.03574524	2.20873267	2.74633028
SS087	5711.48770462	23.05601874	25.45201367	4114.89611047	4163.11541997	762.74209272	779.14331159	10.54715222	8.23931551
SS088	331.40187085	0.56416150	0.50194004	134.91960569	127.17979399	6.88926701	7.93202370	0.25090775	3.70580626
SS089	154.53640348	0.05190568	0.26849991	5620.56739129	5486.70549601	170.41584633	153.40819378	0.27386128	2.94533530
SS090	452.03355333	0.05282282	0.24080975	2468.58934076	2427.23222004	71.39098052	68.59300256	0.37366685	4.81317636
SS091	714.58915935	5.89545118	5.99756658	367.03439893	401.20184031	38.59070484	39.63377137	0.38265520	5.00000000
SS092	127.39963370	0.05000000	0.25000000	191.22412679	203.14198647	10.99247318	14.42782843	0.65157265	3.75000000
SS093	360.03182730	0.14142136	1.76745344	1382.96020068	1315.65709185	282.41099936	259.95145060	4.28536657	5.20554832
SS094	9152.47487477	27.01486064	33.19703802	25569.46290663	26276.57432645	1666.61240745	1684.48083001	39.58613004	45.52003762
SS095	1101.27480676	0.15051578	0.94042214	1247.32914662	1185.72762471	132.47068732	132.58657549	0.75828754	4.09243204
SS096	10931.63935556	6.46714002	5.49815954	355.10409272	343.09328178	63.38413971	61.32052402	1.65848030	11.75000000
SS097	1257.23585695	2.97691955	20.50609665	650.53823869	657.60930650	158.01008132	164.33161595	2.29809704	0.24041631
SS098	1898.07797522	35.41435679	26.39576986	2349.18957657	2121.34391365	964.33051042	871.41647142	7.82533279	6.66752078
SS105	972.43508781	0.45968228	1.44136047	1140.95573972	1073.79234492	329.16561181	340.63176599	1.79080987	1.28335498
SS123	24465.89462905	0.77074639	0.65760931	540.93668761	651.95245225	62.01326471	55.22503961	11.27835316	29.89647471
SS125	48083.26112069	1.13137085	6.85893578	4242.64068712	1202.08152802	2687.00576851	141.42135624	17.67766953	9.89949494
SS126	22791.96448312	363.54813987	348.73594882	483.58742746	489.27987901	95.99895833	90.73147194	9.16138020	10.85195835
SS200	1449.63213724	0.33166248	1.44256447	407.67634221	323.56091647	194.48650339	125.69805090	1.65831240	1.44337567
SS201	5240.46753639	3.03424895	1.85539753	3567.79577143	2886.17393793	8260.09483400	5757.53129967	5.42793699	3.05559596
SS202	26940.76836321	33.89869909	52.32590181	1753.62481734	2474.87373415	381.83766184	445.47727215	1.69705627	2.54558441
SS203									
SS204	199809.99158701	212.83914114	143.89622997	10507.60676843	12056.17061923	2035.05331625	2106.47110115	37.49787261	35.77960313
SS205									
SS206	1296.12672991	2.29102597	22.06173157	951.76572748	999.84898860	108.32875888	113.63205974	0.03535534	0.00000000
SS207									

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Fe T	Pb D	Pb T	Mg D	Mg T	Mn D	Mn T	Ni D	Ni T
	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS208	196.00744033	1.85759493	1.45995342	1252.00675584	1200.10759934	124.59042232	106.25661940	0.80802779	8.59781949
SS210	72.96574539	0.95518528	2.47308490	9713.34991991	9374.92222190	8149.18196304	7648.31136047	7.02275053	4.11936484
SS211									
SS212									
SS213									
SS214									
SS215	86.60254038	2.19653826	2.28272498	351.15808406	371.15809749	12.66385934	18.67467090	0.37730801	0.81406388
SS216	106.06601718	0.06929646	0.10253048	19.09188309	2.12132034	2.12132034	2.32638131	0.35355339	0.49497475
SS217	86.60254038	0.05773503	0.28867513	3505.39788517	3342.02348885	81.70883265	90.94503835	0.28867513	9.57931800
SS218	86.60254038	0.05330416	0.26652079	6981.64259565	6581.79306876	862.34177293	867.23776056	4.66606187	7.28079666
SS219	10879.47609033	73.28998908	64.30116640	344.61330986	277.60883752	1851.07851445	1561.31088085	0.82901548	7.98229082
SS220	433.01270189	0.05011986	0.28867513	5182.98498294	5783.02112510	56417.01870890	19756.85535032	15.06795717	19.87058127
SS221	530.33008589	0.05161880	0.35355339	9828.78425849	7141.77848998	43133.51365238	34648.23227814	23.47594514	25.17300141
SS222	530.33008589	0.21920310	0.72619866	14919.95308304	16263.45596729	35355.33905933	36062.44584051	24.53660531	23.40523446
SS223	75.16814485	0.04775982	6.32855631	46.07964120	38.43609415	5.78601979	316.04367436	0.28867513	3.56697818
SS224									
SS225	29116.53592892	12.02081528	202.23253942	14.14213562	141.42135624	5586.14357137	5586.14357137	1.83140656	8.69034234
SS226	106.06601718	0.98287843	2.90620887	402.34375850	388.90872965	1063.10676124	1044.67955853	1.25865007	6.64680374
SS227									
SS228	1484.92424049	22.98097039	25.66797616	1131.37084990	1697.05627485	1484.92424049	1343.50288425	9.75100251	0.49497475
SS229	106.06601718	0.49497475	0.01343503	1393.00035894	1025.30483272	2.37587878	18.37770524	3.18198052	0.56568542
SS230	3104.19876941	91.00464274	353.55339059	2863.78246381	3167.83837972	544.47222151	650.53823869	2.82842712	2.26274170
SS231	861.52964739	0.05773503	0.28867513	650.41012702	635.32144095	135.36135539	128.53081343	0.28867513	3.61222000
SS232									
SS235	2333.45237792	11.31370850	6.36396103	813.17279836	516.18795027	883.88347648	622.25396744	0.38890873	0.89095454
SS236	25.45584412	2.02939646	2.15667568	70.71067812	70.71067812	813.17279836	947.52308679	0.71417785	1.23743687
SS238	2121.32034356	3.91030050	3.51432070	0.00000000	212.13203436	7.07106781	63.63961031	0.70710678	0.07071068
SS250	1621.85161672	0.66897951	4.52796036	203.20351047	116.72617530	845.77375805	1811.56929024	3.75000000	1.25000000
SS300	1.41421356	0.00000000	0.01767767	37.47665940	47.37615434	28.99137803	31.81980515	0.07778175	4.83661038
SS301	1060.66017178	0.38183766	0.09192388	7212.48916810	5091.16882454	8202.43866176	6858.93577751	2.61629509	0.00000000
SS304	106.06601718	67.17514421	75.66042559	190.91883092	120.20815280	156.27059864	75.66042559	0.77074639	12.72792206

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Fe T	Pb D	Pb T	Mg D	Mg T	Mn D	Mn T	Ni D	Ni T
	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS305	67.88225099	0.07071068	0.35355339	4051.72185620	3712.31060123	4209.96528276	4127.94796721	0.35355339	1.76776695

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Nitrate/Nitrite as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D
	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
A23A	0.00000000	40.31128874	911.81138400	0.00000000	0.00000000			0.00000000	0.00000000	37.56771664
A38	8.66025404	149.90663761	91.92388155	2.08166600	2.88675135			1.04083300	1.44337567	339.41125497
CC01A	1.25830574	90.00740710	179.10983595	0.57735027	2.88675135			0.28867513	1.44337567	416.18064988
CC01B	2.50000000	49.49747468	127.27922061	0.00000000	2.23606798	919.23881554	1442.22051019	0.00000000	1.11803399	28.28427125
CC01C	9.34523051	185.79087706	218.07701239	0.67900663	4.09774572			0.38374497	2.05241809	180.84431610
CC03D	0.00000000	43.58898944	68.06859286	2.58198890	2.73861279	1030.77640640	917.87798753	1.29099445	1.36930639	213.85353243
CC06	2.23606798	676.82469419	366.74241642	2.51952376	0.71554175	7778.17459305	6576.09306503	1.36930639	0.00000000	206.13506899
CC14	8.66025404	99.44512725	581.39745441	3.88609583	4.09066254	0.00000000	0.00000000	1.93176494	1.96147394	280.05951748
CC16C	8.66025404	173.46949780	159.03353944	1.85702472	4.16288960			0.91627823	2.06556670	206.29671188
CC19	0.00000000	50.33222957	65.06407099	2.73861279	0.00000000	424.26406871	494.97474683	1.36930639	0.00000000	393.44631146
CC50	7.58287544	177.46548960	169.20697385	3.27108545	2.73861279	0.00000000	0.00000000	1.74427296	1.76997646	188.92238265
DM01										
DM24		311.12698372	268.70057685	3.49876435	3.35168614			1.71614816	1.71614816	176.77669530
DM32	1.00000000	19.73153145	30.80584360	0.47930505	2.88675135			0.12258704	1.44337567	341.97270846
DM4										
SS001	0.76681158	433.01270189	129.06200060	0.54772256	2.73861279	1484.92424049	1633.41666454	0.27386128	1.36930639	113.37695239
SS002	0.87177979	55.86143571	53.74011537	0.50000000	2.50000000	346.48232278	360.62445841	0.25000000	1.25000000	58.68986284
SS003	0.87177979	5.65685425	35.35533906	0.50000000	2.50000000	403.05086528	318.19805153	0.25000000	1.25000000	55.15432893
SS004	0.76681158	41.96824196	37.63420430	0.54772256	2.73861279	763.67532368	770.74639149	0.27386128	1.36930639	31.22498999
SS005										
SS006	0.76681158	414.14610948	398.28423686	0.54772256	2.73861279	2694.07683632	2220.31529293	0.27386128	1.36930639	88.88194417
SS007	0.80124902	433.01270189	4.04145188	0.54772256	2.73861279	2015.25432638	1845.54869890	0.27386128	1.36930639	149.77761292
SS008	0.73711148	414.28653530	419.06682045	0.57735027	2.88675135			0.28867513	1.44337567	271.03320830
SS009	0.90184995			0.57735027	2.88675135	113.13708499	106.06601718	0.28867513	1.44337567	
SS010	0.85556999	114.75190630	77.46827308	0.54772256	2.73861279	325.26911935	190.91883092	0.27386128	1.36930639	400.54130041
SS011	8.00049998	264.60599640	395.74234042	0.54772256	2.73861279	2588.01081914	2757.71644663	0.27386128	1.36930639	147.30919863
SS012	9.39977837	55.15432893	103.94469683	0.50000000	2.50000000	4937.01954624	4829.53931550	0.25000000	1.25000000	360.62445841
SS013	0.76681158	404.02268913	162.36994796	0.54772256	2.73861279	141.42135624	134.35028843	0.27386128	1.36930639	235.47682122
SS014	0.76681158	379.34724638	21.12660250	0.54772256	2.73861279	56.56854249	77.78174593	0.27386128	1.36930639	88.88194417
SS015	0.76681158	393.69023356	37.84617990	0.54772256	2.73861279	516.18795027	459.61940777	0.27386128	1.36930639	182.48287591
SS016	0.81731267	88.45903006	34.96188401	0.54772256	2.73861279	707.10678119	3040.55915910	0.27386128	1.36930639	532.57237380

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Nitrate/Nitrite as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D
	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS017	0.81731267	67.50555533	72.85830998	0.54772256	2.73861279	3181.98051534	1414.21356237	0.27386128	1.36930639	161.65807537
SS018	1.34461891	137.47727085	163.05009455	0.54772256	2.73861279	5656.85424949	4171.93000900	0.27386128	1.36930639	316.59648345
SS019	0.76681158	407.45183764	99.81148898	0.54772256	2.73861279	565.68542495	431.33513652	0.27386128	1.36930639	130.76696831
SS020	0.76681158	423.80773943	418.04106656	0.54772256	2.73861279	813.17279836	784.88852712	0.27386128	1.36930639	450.72201337
SS021	0.90184995			0.57735027	2.88675135	424.26406871	296.98484810	0.28867513	1.44337567	
SS022	0.87177979	530.33008589	530.33008589	0.50000000	2.50000000	1697.05627485	1081.87337522	0.25000000	1.25000000	92.63098834
SS023	1.42407865	46.43633635	71.50058275	0.54772256	2.73861279	2545.58441227	2425.37625947	0.27386128	1.36930639	834.32607534
SS024	1.36821051	46.29254800	64.46963109	0.54772256	2.73861279	876.81240867	898.02561211	0.27386128	1.36930639	302.41197066
SS025	0.76376262			0.57735027	2.88675135	162.63455967	784.88852712	0.28867513	1.44337567	
SS026	0.83016063	62.22539674	94.04520190	0.50000000	2.50000000	190.91883092	2588.01081914	0.25000000	1.25000000	159.80613255
SS027	8.36851241	150.29304708	165.14337205	1.56353126	2.73861279	2658.72149726	2566.79761571	0.75530378	1.36930639	411.42070925
SS028	1.03923048			0.00000000	0.00000000	141.42135624	219.20310217	0.00000000	0.00000000	
SS029	0.76681158	57.37595315	87.17989065	0.54772256	2.73861279	127.27922061	14.14213562	0.27386128	1.36930639	188.31179818
SS030	0.76681158	433.01270189	433.01270189	0.54772256	2.73861279	374.76659403	643.46717088	0.27386128	1.36930639	159.76232347
SS031	0.73348483	421.67562573	420.10276521	0.54772256	2.73861279	106.06601718	49.49747468	0.27386128	1.36930639	69.71609092
SS032	1.64113782	244.65894629	19.09188309	0.50000000	2.50000000	480.83261121	777.81745931	0.25000000	1.25000000	226.27416998
SS033	0.76681158	199.18835307	164.70984589	0.54772256	2.73861279	695.08596591	771.45349827	0.27386128	1.36930639	116.06463716
SS034	0.87177979	43.13351365	60.81118318	0.50000000	2.50000000	692.96464556	749.53318806	0.25000000	1.25000000	95.45941546
SS035	1.03923048			0.57735027	2.88675135	1138.44191771	3082.98556597	0.28867513	1.44337567	
SS036	0.95043850			0.57735027	2.88675135	862.67027305	869.74134086	0.28867513	1.44337567	
SS037	9.10000000	22.62741700	127.98632739	4.19324854	2.50000000	1385.92929113	1873.83297014	2.09662427	1.25000000	777.81745931
SS038	0.70142712	117.78370006	151.26577053	0.54772256	2.73861279	197.98989873	176.77669530	0.27386128	1.36930639	208.40665376
SS039	0.87177979	530.33008589	8.48528137	0.50000000	2.50000000	1364.71608769	1265.72113832	0.25000000	1.25000000	229.10259710
SS040	0.76681158	127.59702191	77.03462425	0.54772256	2.73861279	2807.21392131	2750.64537882	0.27386128	1.36930639	151.53327467
SS041	0.76681158	172.86507262	178.78571904	0.54772256	2.73861279	742.46212025	700.03571337	0.27386128	1.36930639	465.99034325
SS042	9.51503197	419.31432124	429.21381618	4.19324854	2.50000000	473.76154339	1774.83802078	2.09662427	1.25000000	3594.22376877
SS043	7.57443067	269.07248094	75.40778032	4.27784993	2.73861279	0.00000000	282.84271247	2.13892496	1.36930639	241.93663082
SS044	7.87349986	42.25320501	43.31281566	3.67423461	2.73861279	707.10678119	2262.74169980	1.83711731	1.36930639	560.47598819
SS045	0.76681158	72.07172354	109.15279810	0.54772256	2.73861279	4525.48339959	3111.26983722	0.27386128	1.36930639	699.73804622
SS046	0.76681158	109.81044273	76.86351540	0.54772256	2.73861279	3676.95526217	4949.74746831	0.27386128	1.36930639	76.37626158
SS047	0.73348483	398.61761125	303.58524338	0.54772256	2.73861279	275.77164466	233.34523779	0.27386128	1.36930639	145.71661996

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Site ID	Nitrate/Nitrite as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D
	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS048	0.87177979	397.39401103	333.04729394	0.51742954	2.50000000	5586.14357137	4277.99602618	0.25000000	1.25000000	70.71067812
SS049	0.91423921	24.04163056	530.33008589	0.50000000	2.50000000	700.03571337	707.10678119	0.25000000	1.25000000	154.85638508
SS050	0.69282032	47.54296303	71.35825110	0.54772256	2.73861279	155.56349186	197.98989873	0.27386128	1.36930639	224.94517851
SS051	0.70142712	1058.78861598	1172.95922066	0.54772256	2.73861279	141.42135624	148.49242405	0.27386128	1.36930639	64.12747721
SS052	0.73348483	704.37702972	629.51515735	0.54772256	2.73861279	226.27416998	671.75144213	0.27386128	1.36930639	58.59465277
SS053	0.76681158	120.67449330	35.80968212	0.54772256	2.73861279	445.47727215	905.09667992	0.27386128	1.36930639	188.05318397
SS054	7.89632826	261.57025825	239.03765394	3.67423461	2.73861279	784.88852712	926.30988335	1.83711731	1.36930639	860.29064856
SS055	8.23091732	766.53245202	754.03912365	0.54772256	2.73861279	14000.71426749	14919.95308304	0.27386128	1.36930639	115.32562595
SS056	0.90184995			0.57735027	2.88675135	3040.55915910	2616.29509039	0.28867513	1.44337567	
SS057	7.70246714	277.73548567	3528.18763673	3.67423461	2.73861279	636.39610307	70.71067812	1.83711731	1.36930639	1180.22596706
SS058	0.78951462	530.33008589	530.33008589	0.50000000	2.50000000	890.95454430	869.74134086	0.25000000	1.25000000	67.17514421
SS059	0.76681158	70.37755324	97.63196198	0.54772256	2.73861279	3747.66594029	3535.53390593	0.27386128	1.36930639	386.26415832
SS060	0.76681158	127.51601207	141.36949223	0.54772256	2.73861279	2920.35100630	2580.93975133	0.27386128	1.36930639	147.30919863
SS061	1.27279221			0.00000000	0.00000000	6689.23015002	6703.37228565	0.00000000	0.00000000	
SS062	8.06672176	334.31871022	341.24673381	0.54772256	2.73861279	4879.03679019	3889.08729653	0.27386128	1.36930639	843.10932466
SS063	10.74988372	169.70562748	506.28845533	4.50000000	2.50000000	2404.16305603	2404.16305603	2.25000000	1.25000000	848.52813742
SS064	8.06672176	362.13303265	233.56440939	4.27784993	2.73861279	2008.18325857	1873.83297014	2.13892496	1.36930639	790.18985061
SS065	7.66811581	102.14368964	132.28756555	7.27445393	6.12372436	8485.28137424	7848.88527117	3.54612465	3.06186218	740.09008461
SS066	10.39230485			9.43574056	5.77350269	1838.47763109	1979.89898732	4.50924975	2.88675135	
SS067	9.14483461	49.32882862	115.03622618	4.70871532	2.73861279	494.97474683	848.52813742	1.36930639	1.36930639	517.30068626
SS068	7.57443067	394.63062899	168.02777548	3.67423461	2.73861279	2899.13780286	1484.92424049	1.83711731	1.36930639	546.38203972
SS069	1.27749755	46.18802154	108.57255639	0.54772256	2.73861279	7566.04255870	5868.98628385	0.27386128	1.36930639	440.60564378
SS070	0.76681158	118.73078792	115.52200368	0.54772256	2.73861279	3676.95526217	2616.29509039	0.27386128	1.36930639	431.54760263
SS071	8.23844646	42.19399641	46.77606225	4.76445170	2.73861279	1626.34559673	2192.03102168	2.38222585	1.36930639	173.49351573
SS072	9.14483461	17.32050808	55.07570547	4.08656335	2.73861279	2262.74169980	3181.98051534	2.04328167	1.36930639	141.77446879
SS073	9.24835120	83.86497084	144.22205102	4.08656335	2.73861279	70.71067812	494.97474683	2.04328167	1.36930639	100.16652801
SS074	10.02047903	42.42640687	98.99494937	2.35000000	2.50000000	3747.66594029	4454.77272148	1.25000000	1.25000000	388.90872965
SS075	7.47876995	98.14954576	100.66445914	4.08656335	2.73861279	438.40620434	763.67532368	2.04328167	1.36930639	122.20201853
SS076	0.76681158	441.92759588	375.16041014	0.54772256	2.73861279	558.61435714	579.82756057	0.27386128	1.36930639	267.50015576
SS077	0.76681158	433.01270189	30.02221400	0.54772256	2.73861279	601.04076401	410.12193309	0.27386128	1.36930639	149.73420896
SS078	0.67082039	6.08276253	11.01514109	0.54772256	2.73861279	254.55844123	134.35028843	0.27386128	1.36930639	123.21931667

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	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS079	0.73348483	84.85870609	236.89941607	0.54772256	2.73861279	1244.50793489	1187.93939239	0.27386128	1.36930639	228.84274076
SS080	0.73711148	533.01813603	523.88961942	0.57735027	2.88675135			0.28867513	1.44337567	375.08710100
SS082	0.63639610			0.12727922	3.53553391			0.35355339	1.76776695	
SS083	2.08166600			0.50846173	2.88675135	15839.19189858	15909.90257670	0.28867513	1.44337567	
SS084	2.08166600			0.57735027	2.88675135	19657.56851699	19304.01512639	0.28867513	1.44337567	
SS085	8.38152731	232.63813101	184.55486989	2.88675135	2.88675135	3535.53390593	3394.11254970	1.44337567	1.44337567	1887.97510577
SS086	9.09395404	247.58836806	277.90885796	4.27784993	2.73861279	3606.24458405	2687.00576851	2.13892496	1.36930639	119.30353445
SS087	8.45872331	272.01531820	234.39781000	0.52260884	2.73861279	8506.49457767	8478.21030643	0.27386128	1.36930639	134.64397499
SS088	0.87177979	255.91469933	202.94416309	0.54772256	2.73861279	2969.84848098	2262.74169980	0.27386128	1.36930639	240.42947684
SS089	1.42407865	1506.42833661	1569.15911664	0.54772256	2.73861279	176.77669530	56.56854249	0.27386128	1.36930639	2920.89118820
SS090	0.73711148	895.90429176	916.41038842	0.57735027	2.88675135	1788.98015640	1760.69588515	0.28867513	1.44337567	252.43712088
SS091	0.87177979	2.12132034	70.00357134	0.50000000	2.50000000	1173.79725677	1230.36579926	0.25000000	1.25000000	160.51323933
SS092	0.87177979	446.89148571	491.43921292	0.50000000	2.50000000	212.13203436	14.14213562	0.25000000	1.25000000	10.60660172
SS093	0.73711148	299.81327522	234.05234457	1.41421356	2.88675135	5381.08260483	4391.13311117	0.70710678	1.44337567	654.78087938
SS094	2.13541565	1395.82878606	1216.22366364	1.73205081	2.88675135	5084.09775673	3054.70129473	0.86602540	1.44337567	1187.93939239
SS095	1.34461891	630.61477940	600.08332755	1.51657509	2.73861279	1096.01551084	933.38095117	0.75828754	1.36930639	538.14496188
SS096	0.87177979	361.33156519	361.33156519	4.19324854	2.50000000	1110.15764646	919.23881554	2.09662427	1.25000000	130.10764774
SS097	1.27279221			0.00000000	0.00000000	4949.74746831	5656.85424949	0.00000000	0.00000000	
SS098	8.66160108	17.67766953	28.99137803	4.22352538	2.50000000	17253.40546095	16192.74528917	2.09662427	1.25000000	120.20815280
SS105	8.66025404	41.71630377	77.59456596	4.02578449	4.16467775			2.00258977	2.06556670	362.98530732
SS123	2.12132034			0.38183766	3.53553391			0.35355339	1.76776695	
SS125		325.26911935	1173.79725677	2.76478751	6.08111832			3.27390440	3.27390440	657.60930650
SS126	8.12403840	221.48796055	224.24744517	3.68444297	4.05887916			1.68953248	1.79803226	13.05118130
SS200	8.66025404	88.28552165	63.23764702	3.31662479	2.88675135			1.65831240	1.44337567	442.75651699
SS201	5.77350269	116.76186592	132.28756555	8.34150016	7.07106781			4.06201920	3.53553391	381.35722536
SS202	5.65685425			0.70710678	3.53553391			0.35355339	1.76776695	
SS203										
SS204	12.72792206			2.94156421	0.00000000			2.82842712	0.00000000	
SS205										
SS206	0.00000000			0.00000000	0.00000000			0.00000000	0.00000000	
SS207										

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Site ID	Nitrate/Nitrite as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D
	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS208	0.57735027	629.49053474	546.55313862	0.57735027	2.88675135			0.28867513	1.44337567	422.73671870
SS210	8.26135582	212.44528707	417.75750542	1.86526808	2.88675135			0.86602540	1.44337567	530.03144561
SS211										
SS212										
SS213										
SS214										
SS215	0.57735027	77.07463915	59.39696962	0.57735027	2.88675135			0.28867513	1.44337567	101.11626971
SS216	0.70710678			0.70710678	3.53553391			0.35355339	1.76776695	
SS217	0.57735027	0.00000000	0.00000000	0.57735027	2.88675135			0.28867513	1.44337567	288.49956672
SS218	1.52752523	28.99137803	45.25483400	0.57735027	2.88675135			0.28867513	1.44337567	205.76807333
SS219	0.57735027	179.83603643	161.50644982	0.57735027	2.88675135			0.17502643	1.44337567	25.53429067
SS220	8.66025404	120.20815280	289.91378029	0.79475363	2.88675135			0.28867513	1.44337567	56.56854249
SS221	10.60660172			3.53553391	3.53553391			1.76776695	1.76776695	
SS222	10.60660172			3.53553391	3.53553391			1.76776695	1.76776695	
SS223	0.57735027	424.88861285	433.01270189	0.57735027	2.88675135			0.28867513	1.44337567	67.00994951
SS224										
SS225	0.00000000			0.70710678	3.53553391			0.35355339	0.98994949	
SS226	0.70710678			0.70710678	3.53553391			0.35355339	1.76776695	
SS227										
SS228	10.60660172	144.24978336	75.66042559	3.53553391	3.53553391			1.76776695	1.76776695	49.49747468
SS229	12.72792206	144.95689014	84.85281374	6.36396103	3.53553391			3.18198052	1.76776695	148.49242405
SS230	0.70710678	90.50966799	30.40559159	0.53740115	3.53553391			0.35355339	1.76776695	1053.58910397
SS231	0.57735027	107.42904635	98.63738304	0.57735027	2.88675135			0.28867513	1.44337567	378.87376966
SS232										
SS235	1.41421356	381.83766184	49.49747468	0.70710678	3.53553391			0.35355339	1.76776695	155.56349186
SS236	12.72792206	0.00000000	403.05086528	2.12132034	3.53553391			1.06066017	1.76776695	452.54833996
SS238	10.60660172	289.91378029	360.62445841	0.70710678	3.53553391			0.35355339	1.76776695	35.35533906
SS250	7.50000000	16.01041328	60.49793385	7.50000000	2.50000000			3.75000000	1.25000000	454.23929083
SS300	0.00000000	29.69848481	30.40559159	0.00000000	0.00000000			0.00000000	0.00000000	71.41778490
SS301	3.53553391	141.42135624	56.56854249	0.00000000	0.00000000			0.00000000	0.00000000	1668.77200360
SS304	0.70710678			0.70710678	3.53553391			0.35355339	1.76776695	

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Nitrate/Nitrite as N T	K D	K T	Se D	Se T	SiO2 D	SiO2 T	Ag D	Ag T	Na D
	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS305	2.12132034	143.54267658	53.74011537	0.70710678	3.53553391			0.35355339	1.76776695	2941.56420974

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Na T	Sr D	Sr T	SO4 T	TI D	TI T	Alk T	V D	V T	Zn D
	stdev µg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L
A23A	50.70420758			4.99165971	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	307.39496851
A38	466.69047558			25.54081701	2.08166600	2.88675135	13.09656443	5.65685425	0.00000000	187.70544300
CC01A	404.26888742			33.08070938	0.57735027	2.88675135	9.23629616	0.57735027	2.88675135	916.49240768
CC01B	622.25396744	49.49747468	100.16652801	48.34942261	0.00000000	4.38269324	0.00000000	0.00000000	0.00000000	2188.41647468
CC01C	176.12117041			137.07669386	0.57735027	2.80523766	2.73861279	0.57735027	2.88675135	12308.82285192
CC03D	274.04379212	67.01989754	239.16521486	89.14407814	2.58198890	5.44074137	9.22648362	7.07106781	0.00000000	974.50842309
CC06	345.96483444	247.48737342	403.05086528	416.67733320	2.73861279	0.00000000	0.00000000	5.77350269	5.59851171	9683.23293121
CC14	430.03875794	0.00000000	0.00000000	90.57979907	3.77491722	1.44914918	10.35432277	7.07106781	0.00000000	158.55850655
CC16C	284.53177913			69.82836100	1.73205081	2.07723173	2.73861279	3.12734712	2.88675135	40.82891133
CC19	1127.87410645	162.63455967	275.77164466	90.32349270	2.73861279	0.00000000	7.50000000	5.77350269	0.00000000	2837.78082311
CC50	611.13964580	0.00000000	0.00000000	42.85673809	3.27108545	2.73861279	4.17049158	5.77350269	0.00000000	141.32291628
DM01										
DM24	14.14213562			31.81980515			5.44472222			38.89087297
DM32	275.41241802			58.04308744	0.57735027	2.88675135	2.88675135	0.57735027	2.88675135	1985.57296517
DM4										
SS001	86.55826554	15.48563851	13.57645020	8.74568465	0.54772256	2.55177977	2.88675135	0.57735027	2.88675135	101.34248862
SS002	43.84062043	103.94469683	103.23759005	27.65513816	0.50000000	3.06026687	12.62887696	0.70710678	3.53553391	53.42577405
SS003	14.14213562	110.30865787	98.28784258	32.07423681	0.50000000	3.37642192	6.78257572	0.70710678	3.53553391	147.30919863
SS004	45.50824101	41.71930009	33.23401872	37.16069160	0.54772256	2.73861279	3.26301880	0.57735027	2.88675135	1795.93129045
SS005										
SS006	134.53624047	24.04163056	33.23401872	10.18592166	0.54772256	2.73861279	0.91058589	0.57735027	2.88675135	5.47722558
SS007	177.85762096	68.58935778	56.56854249	10.31324391	0.54772256	2.73861279	2.12053452	0.57735027	2.88675135	5.47722558
SS008	248.61482927			30.49003936	0.57735027	2.88675135	2.25018518	0.57735027	2.88675135	4.09583121
SS009		75.66042559	67.88225099	21.78325045	0.57735027	2.88675135	2.33345238			9.49964912
SS010	483.35632129	53.74011537	75.66042559	119.51557221	0.54772256	2.73861279	1.05984276	0.57735027	2.88675135	63.83131677
SS011	323.86159595	120.20815280	190.91883092	197.65449653	0.54772256	2.73861279	2.88675135	0.57735027	2.88675135	306.87293787
SS012	311.12698372	405.45502833	397.95969645	215.76968238	0.50000000	2.50000000	2.73653674	0.70710678	3.53553391	498.37803590
SS013	189.31543343	19.09188309	19.09188309	12.03648620	0.54772256	2.22325887	6.62941677	0.57735027	2.88675135	71.62450698
SS014	75.05553499	15.55634919	9.19238816	7.46545377	0.54772256	2.50003600	1.98725103	0.57735027	2.88675135	5.47722558
SS015	210.79215672	2.12132034	2.12132034	8.18303122	0.54772256	2.54454711	2.39095518	0.57735027	2.88675135	5.47722558
SS016	392.72551908	18.38477631	14.84924240	35.25336863	0.54772256	2.73861279	2.88675135	0.57735027	2.88675135	42.19360141

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Na T	Sr D	Sr T	SO4 T	TI D	TI T	Alk T	V D	V T	Zn D
	stdev µg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS017	92.37604307	77.07463915	89.09545443	27.18823275	0.54772256	2.73861279	2.88675135	0.57735027	2.88675135	141.02304776
SS018	277.30849248	106.77312396	120.20815280	38.54477915	0.54772256	2.73861279	2.88675135	0.57735027	2.88675135	423.26114870
SS019	142.24392196	44.54772721	47.37615434	5.64225132	0.54772256	2.50078388	2.67503894	0.57735027	2.88675135	19.90007538
SS020	429.21595186	7.63675324	7.91959595	11.47941636	0.54772256	2.87125060	2.88675135	0.57735027	2.88675135	25.47149387
SS021		3.81837662	3.60624458	1.05039675	0.57735027	2.88675135	3.53553391			18.57749535
SS022	111.72287143	9.68736290	7.49533188	13.27616913	0.50000000	2.50000000	2.88675135	0.70710678	3.53553391	32.41784488
SS023	870.76594636	34.50681092	36.55742059	91.23255998	0.54772256	2.73861279	18.74110900	0.57735027	2.88675135	79.15906771
SS024	310.89923341	7.77817459	19.79898987	51.76709380	0.54772256	2.73861279	4.01455685	0.57735027	2.88675135	49.21625748
SS025		181.72644276	193.74725805	46.60761740	0.57735027	2.88675135	2.54558441			6.55972560
SS026	178.89801564	46.81046891	4.45477272	17.73010622	0.50000000	2.50000000	2.88675135	0.70710678	3.53553391	1009.01053017
SS027	443.17979798	80.61017306	82.16580797	146.03663924	1.51657509	2.75717246	2.88675135	4.35889894	2.88675135	1987.67955164
SS028		10.74802307	11.03086579	2.99388265	0.00000000	0.00000000	2.40416306			0.75055535
SS029	192.26630837	87.82266222	82.51936136	40.84327362	0.54772256	2.73861279	2.88675135	0.57735027	2.88675135	300.22791343
SS030	161.19966915	53.74011537	66.46803743	10.29213292	0.54772256	2.73861279	2.96690074	0.57735027	2.88675135	4.94044532
SS031	69.92376801	32.52691193	36.06244584	4.01410015	0.54772256	2.73861279	2.11738833	0.57735027	2.88675135	5.47722558
SS032	311.12698372	320.31937188	318.90515832	65.62380158	0.50000000	2.50000000	5.90169467	0.70710678	3.53553391	5.32814852
SS033	100.84807055	3.46482323	3.81837662	1.41527383	0.54772256	2.73861279	2.88675135	0.57735027	2.88675135	5.97427820
SS034	89.09545443	8.20243866	8.27314934	6.28510143	0.50000000	2.50000000	2.88675135	0.70710678	3.53553391	518.84382686
SS035		51.61879503	72.83199846	74.74623736	0.57735027	3.81881308	4.87903679			18.36336933
SS036		33.51686143	35.07249635	12.31218908	0.57735027	3.99624824	3.53553391			351.03323679
SS037	473.76154339	161.22034611	183.14065633	104.50318974	4.19324854	2.50000000	2.88675135	9.19238816	3.53553391	163.56955707
SS038	161.96707484	283.54981926	264.45793616	11.48229071	0.54772256	2.73861279	9.01235263	0.57735027	2.88675135	5.47722558
SS039	94.75230868	25.17300141	23.33452378	11.22393276	0.50000000	2.42418371	2.88675135	0.70710678	3.53553391	218.84164747
SS040	136.65406446	0.77781746	2.82842712	6.08095387	0.54772256	2.60270628	2.88675135	0.57735027	2.88675135	552.21300238
SS041	416.79891235	137.88582233	144.95689014	28.50189467	0.54772256	2.54941562	7.64961873	0.57735027	2.88675135	1205.43436155
SS042	3603.41615693	45.96194078	48.79036790	240.98914222	4.19324854	2.74742758	15.07625064	9.19238816	3.53553391	1495.72869643
SS043	144.22205102	42.42640687	106.06601718	17.83816134	4.27784993	2.60410829	1.25830574	6.55743852	2.88675135	5.97260412
SS044	342.10134951	438.40620434	502.04581464	74.75292636	3.67423461	2.71145717	5.99888879	6.55743852	2.88675135	256.96848056
SS045	661.23621599	178.89801564	182.43354955	27.95374751	0.54772256	2.73861279	2.88675135	0.57735027	2.88675135	139.55930639
SS046	204.04247924	72.12489168	60.81118318	24.71234509	0.54772256	2.73861279	2.88675135	0.57735027	2.88675135	436.26826609
SS047	88.88194417	72.83199846	77.78174593	7.79563981	0.54772256	2.83725219	2.41798814	0.57735027	2.88675135	4.33843290

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Na T	Sr D	Sr T	SO4 T	TI D	TI T	Alk T	V D	V T	Zn D
	stdev µg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS048	49.49747468	45.46696603	48.08326112	4.42295150	0.50000000	2.85304954	21.40392799	0.70710678	3.53553391	8.61988979
SS049	156.27059864	24.96086938	26.02152955	5.68653380	0.50000000	2.94511318	1.11293905	0.70710678	3.53553391	5.00000000
SS050	240.37956097	159.80613255	171.11984105	17.47149106	0.54772256	2.31935767	6.24099351	0.57735027	2.88675135	26.51641001
SS051	110.06513223	113.84419177	115.25840533	7.59526168	0.54772256	2.21731369	4.97130013	0.57735027	2.88675135	3.46193587
SS052	120.96831541	47.65899705	46.59833688	6.60658762	0.54772256	2.73861279	1.79474000	0.57735027	2.88675135	6.32953395
SS053	119.11339135	15.69777054	21.21320344	10.71274941	0.54772256	2.73861279	2.88675135	0.57735027	2.88675135	140.34849483
SS054	805.25358325	473.76154339	480.83261121	182.40559202	3.67423461	2.73861279	14.46305639	6.55743852	2.88675135	14.93167774
SS055	95.39392014	485.07525189	496.38896039	194.16583634	0.54772256	2.73861279	2.88675135	2.39112944	2.88675135	1655.05383598
SS056		28.63782464	27.86000718	14.36279917	0.57735027	2.88675135	3.53553391			371.54990692
SS057	1000.26663112	452.54833996	551.54328933	90.90379530	3.67423461	2.73861279	1.95042517	6.55743852	2.88675135	2314.93222363
SS058	89.09545443	7.21248917	9.89949494	5.00158308	0.50000000	2.50000000	2.88675135	0.70710678	3.53553391	61.65395364
SS059	440.34077713	178.19090886	172.53405461	28.95216745	0.54772256	2.73861279	2.88675135	0.57735027	2.88675135	227.31409987
SS060	177.85762096	14.28355698	14.42497834	3.05532322	0.54772256	2.73861279	2.88675135	0.57735027	2.88675135	65.32457424
SS061		96.44936495	98.35855326	34.01183618	0.00000000	0.00000000				231.93102423
SS062	816.96593156	253.14422766	243.24473273	106.47206206	0.54772256	2.73861279	3.71124418	0.57735027	2.88675135	1279.18483105
SS063	989.94949366	141.42135624	226.27416998	291.04237950	4.50000000	2.50000000	7.59627102	9.19238816	3.53553391	747.53220388
SS064	698.73695575	348.60364312	415.07168056	186.56580608	4.27784993	4.25534957	8.72505349	6.55743852	2.88675135	38.91269716
SS065	466.51187909	1937.47258045	1979.89898732	458.42142184	7.09224929	6.12372436	2.88675135	11.54700538	10.96722390	4534.91786034
SS066		395.97979746	240.41630560	45.82575695	9.01849951	5.77350269	0.00000000			624.49979984
SS067	511.76166328	240.41630560	261.62950904	97.68674424	2.45122010	2.52180887	2.88675135	2.88675135	2.88675135	840.83292038
SS068	602.24579700	211.42492757	193.74725805	70.88159140	3.67423461	2.61566053	2.88675135	4.35889894	2.88675135	995.55512153
SS069	496.42052066	203.64675298	205.06096654	47.75981575	0.54772256	2.73861279	2.88675135	0.57735027	2.88675135	1495.28258199
SS070	446.01943156	192.33304448	193.04015126	25.82928570	0.54772256	2.73861279	2.88675135	0.57735027	2.88675135	598.26415570
SS071	52.91502622	111.01576465	56.56854249	25.79341001	4.76445170	2.52941100	11.24307194	0.57735027	2.88675135	37.61382724
SS072	121.24355653	56.56854249	21.21320344	76.07759197	4.08656335	4.43824290	15.46501428	6.55743852	2.88675135	234.34056414
SS073	130.76696831	2.12132034	16.97056275	34.38749773	4.08656335	5.24099227	8.64730208	6.55743852	2.88675135	62.94203683
SS074	395.97979746	5.65685425	23.33452378	263.32536908	2.50000000	2.50000000	2.88675135	3.53553391	3.53553391	435.35426188
SS075	122.20201853	75.66042559	54.44722215	63.23606566	4.08656335	2.73861279	10.77543503	6.55743852	2.88675135	44.45559582
SS076	263.50711565	5.37401154	7.07106781	14.94362740	0.54772256	2.73861279	1.47782216	0.57735027	2.88675135	5.47722558
SS077	110.77454581	71.91275965	78.20601000	0.76157731	0.54772256	2.73861279	8.32080725	0.57735027	2.88675135	5.47722558
SS078	113.31960701	12.02081528	21.92031022	3.71591173	0.54772256	2.73861279	6.34008412	0.57735027	2.88675135	5.00219952

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Na T	Sr D	Sr T	SO4 T	TI D	TI T	Alk T	V D	V T	Zn D
	stdev µg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS079	130.03461078	7.07106781	18.38477631	10.46245669	0.54772256	2.73861279	4.07839838	0.57735027	2.88675135	5.47722558
SS080	375.14397236			12.13933002	0.57735027	2.88675135	6.84640782	0.57735027	2.88675135	5.77350269
SS082				0.42426407	0.70710678	3.53553391				7.07106781
SS083		339.41125497	347.18942956	235.39399596	0.57735027	2.50053994	3.53553391			2724.57336110
SS084		379.00923472	387.49451609	274.31870151	0.57735027	2.88675135	3.53553391			3111.86974877
SS085	1506.13744393	1145.51298552	1322.28968082	220.56801672	2.88675135	2.88675135	2.88675135	0.00000000	0.00000000	755.00000000
SS086	190.00000000	154.85638508	70.71067812	71.76907412	4.27784993	2.73861279	2.88675135	6.55743852	2.88675135	231.88359149
SS087	145.08388378	248.19448020	264.45793616	123.48639601	0.54772256	2.73861279	2.88675135	0.57735027	2.88675135	116.30243764
SS088	238.87444401	2.05060967	2.47487373	0.63966137	0.54772256	4.11193385	2.88675135	0.57735027	2.88675135	5.42291435
SS089	2842.73553700	98.99494937	125.15790027	55.74937668	0.54772256	4.62471621	61.53651355	0.57735027	2.88675135	5.47722558
SS090	246.78026663	80.46875170	92.13601359	54.38758284	0.57735027	2.88675135	1.89708548	0.00000000	0.00000000	5.77350269
SS091	196.57568517	0.84852814	0.70710678	11.17049686	0.50000000	2.50000000	2.88675135	0.70710678	3.53553391	18.43572167
SS092	13.43502884	31.81980515	51.61879503	5.29811287	0.50000000	2.50000000	2.21450521	0.70710678	3.53553391	5.00000000
SS093	660.43773363	233.34523779	245.36605307	42.99414689	1.41421356	2.88675135	0.68127332	0.00000000	0.00000000	19.53362486
SS094	1120.05714140	2706.80475838	2867.31799771	326.12032928	1.73205081	2.88675135	3.56417358	5.65685425	0.00000000	180.38636312
SS095	474.79820275	1965.75685170	2015.25432638	65.33063600	1.51657509	2.73861279	17.77758420	4.35889894	2.88675135	5.47722558
SS096	134.35028843	1.62634560	1.97989899	11.00848158	4.19324854	2.50000000	2.88675135	0.70710678	3.53553391	399.97614512
SS097		26.65792565	29.62777413	20.36467530	0.00000000	0.00000000				587.39360313
SS098	247.48737342	56.56854249	54.44722215	74.64359763	4.19324854	2.50000000	2.88675135	0.70710678	3.53553391	3772.75650774
SS105	474.30651131			62.83549952	4.04145188	2.49449394	11.00274875	6.55743852	2.88675135	255.35896303
SS123				93.69164851	0.70710678	3.53553391	3.53553391			147.78531727
SS125	834.38600180			240.41630560			3.53553391			5161.87950266
SS126	19.13983629			125.19396152	3.31662479	2.57222990	2.73861279	2.88675135	2.88675135	5143.73136954
SS200	353.45909711			83.87043579	3.31662479	2.88675135	3.05218501	2.88675135	2.88675135	33.53977738
SS201	578.82064004			192.07203510	8.12403840	7.07106781	2.88675135	11.54700538	11.54700538	3134.08678884
SS202				93.33809512	0.70710678	3.53553391	3.53553391			3111.26983722
SS203										
SS204				833.67889502	5.65685425	0.00000000	0.00000000			7248.55161394
SS205										
SS206				12.51579003	0.00000000	0.00000000	0.00000000			33.51686143
SS207										

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Na T	Sr D	Sr T	SO4 T	TI D	TI T	Alk T	V D	V T	Zn D
	stdev µg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS208	431.29108500			15.66234870	0.57735027	2.53447398	2.88675135	0.57735027	2.88675135	7.67957247
SS210	525.73757712			172.18304214	1.73205081	2.54189398	2.88675135	4.35889894	2.88675135	1915.05221861
SS211										
SS212										
SS213										
SS214										
SS215	80.61017306			5.97689998	0.57735027	2.88675135	2.88675135	0.70710678	3.53553391	22.64950331
SS216				0.21213203	0.70710678	3.53553391	0.17677670			0.07071068
SS217	290.62088707			46.29431211	0.57735027	2.88675135	10.42305138	0.00000000	0.00000000	8.12834547
SS218	210.01071401			76.12051848	0.57735027	2.88675135	2.73007936	0.00000000	0.00000000	176.10318945
SS219	93.29701674			20.82570527	0.57735027	2.88675135	2.88675135	0.57735027	2.88675135	1519.61617961
SS220	113.13708499			159.61516219	0.57735027	2.88675135	2.88675135	0.00000000	0.00000000	1273.30279195
SS221				292.03510063	3.53553391	3.53553391	3.53553391			2446.58946291
SS222				239.00209204	3.53553391	3.53553391	3.53553391			5798.27560573
SS223	62.48199741			1.06262254	0.57735027	2.88675135	1.23500000	0.57735027	2.88675135	27.19203315
SS224										
SS225				19.79898987	0.70710678	1.30814755	3.53553391			1965.75685170
SS226				14.49568901	0.70710678	1.48492424	3.53553391			2298.09703886
SS227										
SS228	120.20815280			2.12132034	3.53553391	3.53553391	3.53553391	3.53553391	3.53553391	898.02561211
SS229	120.20815280			30.40559159	6.36396103	3.53553391	2.12132034	9.19238816	3.53553391	94.04520190
SS230	1131.37084990			92.63098834	0.70710678	3.53553391	3.53553391	0.70710678	3.53553391	1781.90908859
SS231	446.03699398			20.31362433	0.57735027	2.88675135	11.10540409	0.57735027	2.88675135	5.77350269
SS232										
SS235	56.56854249			21.21320344	0.10606602	3.53553391	3.53553391	0.70710678	3.53553391	190.91883092
SS236	388.90872965			17.67766953	2.12132034	3.53553391	3.53553391	4.94974747	3.53553391	813.17279836
SS238	28.28427125			90.50966799	0.70710678	3.53553391	3.53553391	0.70710678	3.53553391	63.63961031
SS250	206.94202087			61.03209538	7.50000000	2.50000000	2.78567766	10.00000000	2.50000000	110.89981590
SS300	77.78174593			0.42426407	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	93.33809512
SS301	898.02561211			197.98989873	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	2687.00576851
SS304				5.93969696	0.70710678	3.53553391	3.53553391			156.27059864

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
 Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Na T	Sr D	Sr T	SO4 T	TI D	TI T	Alk T	V D	V T	Zn D
	stdev µg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev mg/L	stdev µg/L	stdev µg/L	stdev µg/L
SS305	2848.93322140			337.92633073	0.70710678	3.53553391	42.21427484	0.70710678	3.53553391	352.13917703

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Zn T	Al D Ld	Al T Ld	An D Ld	An T Ld	As D Ld	As T Ld	Ba D Ld	Ba T Ld	Be D Ld	Be T Ld
	stdev µg/L	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
A23A	765.87096389										
A38	103.92304845	0.00018825	0.00012291	0.00002851	0.00002851	0.00002360	0.00002189	0.00013970	0.00028511	0.00001882	0.00001882
CC01A	856.48020020	0.00202729	0.03154324	0.00001472	0.00008302	0.00009263	0.00046317	0.00019699	0.00083020	0.00021253	0.00021253
CC01B	2413.91797707	0.26662287	0.25630047	0.00015587	0.00015587	0.00015745	0.00038598	0.00104878	0.00104878	0.00032632	0.00029661
CC01C	11834.49703198	0.13560010	0.14335914	0.00000199	0.00000993	0.00007541	0.00061418	0.00001811	0.00009928	0.00036413	0.00036413
CC03D	932.55920277	1.48549507	1.54849483	0.00138180	0.00109403	0.00173096	0.00202664	0.02375641	0.00068425	0.00214595	0.00213517
CC06	9157.40137812	74.81529946	75.73223955	0.00444174	0.00353639	0.28594417	0.22699730	0.02977458	0.02051300	0.01162302	0.01167306
CC14	174.90940512	4.22144521	5.57941782	0.01205843	0.00470679	0.00829002	0.02800932	0.12058433	0.04706786	0.01427578	0.00442883
CC16C	40.44996910	0.08663975	0.08727986	0.00004263	0.00015172	0.00010159	0.00009202	0.00042627	0.00151718	0.00014017	0.00014434
CC19	2486.56389421	1.29256561	1.45942059	0.00113241	0.00072724	0.00113241	0.00072724	0.00612558	0.00208166	0.00125237	0.00128399
CC50	164.69001184	0.09976456	0.13489788	0.00241805	0.00027498	0.00196044	0.00921554	0.02418054	0.00274980	0.00453801	0.00453801
DM01											
DM24	19.09188309	0.00313260	0.02198163			0.00027308	0.00060590				
DM32	1717.24585699	0.02208572	0.02271824	0.00000719	0.00003595	0.00002317	0.00011586	0.00017527	0.00035955	0.00005305	0.00005305
DM4											
SS001	97.80950874	0.05606344	0.06040233	0.00001314	0.00005466	0.00032503	0.00162516	0.00080549	0.00085979	0.00080822	0.00080822
SS002	46.13794534	0.00061953	0.00030488	0.00000809	0.00007508	0.00002510	0.00012551	0.00002869	0.00002546	0.00006195	0.00006195
SS003	123.69316877	0.00018197	0.00025545	0.00001558	0.00003918	0.00001313	0.00006566	0.00000691	0.00003818	0.00003271	0.00003271
SS004	1665.49908436	0.00017967	0.00036531	0.00000324	0.00001618	0.00001060	0.00005299	0.00013441	0.00013640	0.00002223	0.00002223
SS005											
SS006	4.33220498	0.00275155	0.00401855	0.00001775	0.00008874	0.00011072	0.00055361	0.00005081	0.00005289	0.00027516	0.00027516
SS007	4.42153819	0.00326269	0.00279386	0.00008885	0.00044424	0.00009765	0.00048823	0.00671722	0.00580606	0.00032627	0.00032627
SS008	21.12208560	0.01212442	0.19097290	0.00036101	0.00154498	0.00028729	0.00143647	0.00998826	0.02001574	0.00121244	0.00121244
SS009	7.79679421	0.00041399	0.00097708	0.00000819	0.00003975	0.00001123	0.00005613			0.00004121	0.00004121
SS010	88.83709811	0.00664139	0.01592917	0.00002678	0.00008644	0.00001487	0.00007434	0.00093916	0.00167515	0.00006115	0.00006115
SS011	308.14736734	0.02546732	0.02646100	0.00000080	0.00000400	0.00000414	0.00002068			0.00001258	0.00001274
SS012	474.74651131	0.00288997	0.00316084	0.00002287	0.00011436	0.00011245	0.00056557	0.00093291	0.00145098	0.00027689	0.00027689
SS013	66.77983977	0.08199716	0.21210682	0.00049932	0.00249660	0.00697831	0.03489154	0.02433844	0.02197027	0.01721834	0.01721834
SS014	5.47722558	0.00368815	0.00277137	0.00006713	0.00033563	0.00016081	0.00080404	0.00040765	0.00055763	0.00036881	0.00036881
SS015	5.47722558	0.00903889	0.02974102	0.00012403	0.00062017	0.00074862	0.00374309	0.00373972	0.00738207	0.00181276	0.00181276
SS016	27.61883415	0.01143529	0.01127587	0.00000967	0.00004837	0.00001807	0.00009036	0.00011723	0.00058617	0.00004488	0.00004488

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Zn T	Al D Ld	Al T Ld	An D Ld	An T Ld	As D Ld	As T Ld	Ba D Ld	Ba T Ld	Be D Ld	Be T Ld
	stdev µg/L	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS017	135.17396199	0.00634172	0.00672705	0.00000160	0.00000802	0.00000714	0.00003568	0.00002240	0.00011201	0.00001686	0.00001686
SS018	298.12748951	0.13822799	0.15101952	0.00001869	0.00009347	0.00004388	0.00021938	0.00017420	0.00114445	0.00009177	0.00009177
SS019	14.29499913	0.00034102	0.00034102	0.00000730	0.00003652	0.00001504	0.00007520	0.00006058	0.00013826	0.00003410	0.00003410
SS020	24.32256154	0.04813474	0.04663409	0.00001987	0.00009934	0.00004897	0.00024484	0.00099176	0.00112006	0.00010474	0.00010474
SS021	12.69186091	0.01061124	0.01346192	0.00007999	0.00039997	0.00005739	0.00028695			0.00024113	0.00024113
SS022	27.83732506	0.00362950	0.00426288	0.00000735	0.00003645	0.00006187	0.00030933	0.00017361	0.00028001	0.00015165	0.00015165
SS023	74.73333928	0.00485264	0.00667316	0.00011521	0.00057605	0.00019990	0.00099949	0.00649201	0.00617626	0.00049885	0.00049885
SS024	49.81693487	0.00342091	0.00436661	0.00007120	0.00035601	0.00024459	0.00122296	0.00382261	0.00378646	0.00060260	0.00060260
SS025	5.83866423	0.00015480	0.00055253	0.00000336	0.00001678	0.00000658	0.00003291			0.00001548	0.00001548
SS026	1132.68015491	0.04045561	0.03767327	0.00000456	0.00002282	0.00005245	0.00026225	0.00012854	0.00019346	0.00012761	0.00012761
SS027	1851.56150316	0.22710496	0.21863400	0.00006974	0.00007270	0.00010571	0.00058658	0.00055708	0.00054359	0.00026599	0.00026599
SS028	3.85529938	0.00001853	0.00003288	0.00000096	0.00000478	0.00000135	0.00000676			0.00000338	0.00000338
SS029	254.15448058	0.13124766	0.13410147	0.00008957	0.00045829	0.00074976	0.00374879	0.00221079	0.00246518	0.00179943	0.00179943
SS030	4.82959626	0.00001033	0.00001042	0.00000021	0.00000104	0.00000059	0.00000296	0.00000063	0.00001039	0.00000118	0.00000118
SS031	5.47722558	0.00014688	0.00020417	0.00000370	0.00001851	0.00000604	0.00003018	0.00013088	0.00021600	0.00001469	0.00001469
SS032	5.02095608	0.00165412	0.00080935	0.00000320	0.00001600	0.00006702	0.00033512	0.00024356	0.00017371	0.00016541	0.00016541
SS033	6.64401987	0.00001183	0.00003185	0.00000021	0.00000104	0.00000059	0.00000242	0.00000160	0.00001039	0.00000118	0.00000118
SS034	480.26130040	0.00009573	0.00010323	0.00000021	0.00000104	0.00000054	0.00000270	0.00000723	0.00001273	0.00000108	0.00000108
SS035	41.85287724	0.01387851	0.06997568	0.00001059	0.00005096	0.00055747	0.00278737			0.00138578	0.00138578
SS036	343.76784802	0.00007638	0.00007059	0.00000075	0.00000374	0.00000308	0.00001539			0.00000745	0.00000745
SS037	146.84458905	0.07634260	0.09479831	0.00000771	0.00004588	0.00002641	0.00014759	0.00031881	0.00058548	0.00007316	0.00007316
SS038	5.47722558	0.00365673	0.00364297	0.00002376	0.00011880	0.00014869	0.00074346	0.00042809	0.00139491	0.00036567	0.00036567
SS039	225.75798251	0.02928615	0.02841729	0.00000842	0.00004212	0.00007580	0.00037901	0.00016269	0.00029020	0.00018714	0.00018714
SS040	536.25553610	0.11404221	0.10969181	0.00000353	0.00001766	0.00043540	0.00217701	0.00006826	0.00021475	0.00108702	0.00108702
SS041	1175.81057148	0.00815947	0.01149595	0.00004188	0.00010700	0.00012417	0.00062083	0.00025493	0.00119850	0.00029823	0.00029823
SS042	1530.86936085	0.00032462	0.00325019	0.00002652	0.00002004	0.00004611	0.00003766	0.00033546	0.00028001	0.00001745	0.00001745
SS043	24.99599968	0.00126405	0.00244793	0.00009488	0.00007819	0.00017699	0.00015697	0.00097116	0.00040801	0.00007322	0.00007322
SS044	337.13024189	0.08415150	0.08301270	0.00006257	0.00009443	0.00017405	0.00031637	0.00076797	0.00069174	0.00046194	0.00046194
SS045	81.21083672	0.01289772	0.01312891	0.00000789	0.00003946	0.00003118	0.00015592	0.00006481	0.00032403	0.00007681	0.00007681
SS046	498.02610373	0.00923304	0.00954571	0.00000542	0.00002712	0.00001042	0.00005212	0.00004312	0.00023423	0.00002440	0.00002440
SS047	4.73370891	0.04190177	0.04190177	0.00005144	0.00025718	0.00168698	0.00843489	0.00156675	0.00121585	0.00419018	0.00419018

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Zn T	Al D Ld	Al T Ld	An D Ld	An T Ld	As D Ld	As T Ld	Ba D Ld	Ba T Ld	Be D Ld	Be T Ld
	stdev µg/L	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS048	10.17460073	0.05173240	0.76082740	0.00010553	0.00052765	0.00211248	0.01053559	0.00191103	0.00612339	0.00522588	0.00522588
SS049	5.00000000	0.00246062	0.00243635	0.00000371	0.00001854	0.00009907	0.00049535	0.00004976	0.00024438	0.00024606	0.00024606
SS050	35.09679473	0.02681369	0.11568767	0.00007746	0.00038731	0.00108587	0.00542937	0.00250845	0.00384946	0.00267494	0.00267494
SS051	6.15548536	0.00188052	0.00358096	0.00000424	0.00002120	0.00008292	0.00041459	0.00047047	0.00024158	0.00019884	0.00019884
SS052	9.61368816	0.00005937	0.00039140	0.00000089	0.00000445	0.00000326	0.00001632	0.00001151	0.00004469	0.00000771	0.00000771
SS053	150.44035363	0.04897742	0.05298434	0.00000759	0.00003795	0.00007025	0.00035125	0.00008064	0.00038167	0.00017358	0.00017358
SS054	18.36363254	0.00209287	0.00463025	0.00005094	0.00030636	0.00005093	0.00031933	0.00218210	0.00372303	0.00022151	0.00022151
SS055	1635.50160501	0.08680255	0.09170544	0.00000602	0.00003011	0.00001107	0.00010134	0.00002598	0.00009721	0.00004989	0.00004989
SS056	354.81403580	0.00719621	0.00704077	0.00000082	0.00000412	0.00001911	0.00009553			0.00004764	0.00004764
SS057	2113.95771008	0.00014065	0.00017192	0.00000146	0.00000102	0.00000289	0.00000510	0.00001225	0.00000935	0.00000117	0.00000117
SS058	50.82737943	0.00000773	0.00000652	0.00000021	0.00000104	0.00000054	0.00000270	0.00000255	0.00001273	0.00000108	0.00000108
SS059	205.84144383	0.01578888	0.01728724	0.00000344	0.00001721	0.00009481	0.00047406	0.00008144	0.00020044	0.00023181	0.00023181
SS060	51.20742134	0.00534922	0.00604448	0.00000836	0.00004180	0.00003202	0.00016011	0.00004502	0.00023676	0.00007735	0.00007735
SS061	193.04015126	0.00008591	0.00054189			0.00000511	0.00002554			0.00001277	0.00001277
SS062	1221.51492009	0.01032386	0.01258283	0.00000172	0.00000860	0.00001395	0.00006974	0.00005650	0.00006134	0.00003382	0.00003382
SS063	656.77513910	0.03416109	0.03584106	0.00001065	0.00000949	0.00005105	0.00005026	0.00004022	0.00000051	0.00002485	0.00002485
SS064	43.58035108	0.00094742	0.00161245	0.00006834	0.00006636	0.00012262	0.00012018	0.00002597	0.00002212	0.00005892	0.00005892
SS065	4179.71290880	0.14058546	0.13677949	0.00015352	0.00015352	0.00027701	0.00027420	0.00180956	0.00180956	0.00007422	0.00007436
SS066	251.66114784	0.05684973	0.05718990	0.00002046	0.00002046	0.00004282	0.00002894			0.00001818	0.00001965
SS067	502.99105360	0.01128098	0.01138636	0.00000425	0.00000365	0.00000701	0.00000755	0.00000000	0.00000000	0.00000206	0.00000201
SS068	833.44465923	0.00588960	0.00652285	0.00001895	0.00001234	0.00003263	0.00003935	0.00010399	0.00010998	0.00001670	0.00001670
SS069	1363.87316126	0.01001964	0.01020890	0.00000242	0.00001210	0.00000732	0.00003659	0.00002498	0.00014816	0.00001701	0.00001702
SS070	589.59308001	0.01072871	0.01182295	0.00000148	0.00000741	0.00001338	0.00006692	0.00004102	0.00008314	0.00003236	0.00003236
SS071	61.89911146	0.08325748	0.09419846	0.00045780	0.00034434	0.00308253	0.00274694	0.00033999	0.00389419	0.00130901	0.00130901
SS072	229.85364909	0.04768563	0.03860636	0.00021973	0.00020552	0.00042700	0.00041717	0.00120303	0.00098396	0.00020054	0.00020054
SS073	16.44080290	0.00372916	0.00386828	0.00005606	0.00004988	0.00010405	0.00009600	0.00064306	0.00059132	0.00004621	0.00004445
SS074	342.58818816	0.04891590	0.05158708	0.00001268	0.00001268	0.00005889	0.00006300	0.00016037	0.00016037	0.00003026	0.00003028
SS075	17.73414785	0.01956721	0.01123908	0.00066303	0.00058962	0.00138087	0.00133359	0.00670755	0.00630270	0.00060917	0.00060917
SS076	4.71995763	0.00000313	0.00036440	0.00000018	0.00000104	0.00000059	0.00000296	0.00001112	0.00001023	0.00000118	0.00000118
SS077	5.47722558	0.01241210	0.01968881	0.00002361	0.00011821	0.00049735	0.00248676	0.00068613	0.00082385	0.00124121	0.00124121
SS078	5.47722558	0.00408213	0.01710215	0.00003262	0.00016285	0.00016981	0.00084907	0.00067967	0.00122805	0.00040821	0.00040821

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Zn T	Al D Ld	Al T Ld	An D Ld	An T Ld	As D Ld	As T Ld	Ba D Ld	Ba T Ld	Be D Ld	Be T Ld
	stdev µg/L	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS079	4.62298605	0.00380675	0.00220056	0.00000390	0.00001964	0.00015235	0.00076174	0.00005994	0.00023362	0.00038068	0.00038068
SS080	5.77350269	0.00002718	0.00001637	0.00000050	0.00000255	0.00000100	0.00000597	0.00000444	0.00003118	0.00000272	0.00000272
SS082	7.07106781	0.00022497	0.00053258	0.00000345	0.00002046	0.00001022	0.00005110			0.00002250	0.00002250
SS083	2664.66383121	0.15934137	0.15574333	0.00000968	0.00004841	0.00009879	0.00049484			0.00024210	0.00024212
SS084	2986.05363872	0.51548560	0.55303544	0.00000052	0.00000258	0.00094222	0.00470925			0.00235549	0.00235550
SS085	614.29498886	0.00242529	0.00298648	0.00000476	0.00000476	0.00004724	0.00004724	0.00006364	0.00006364	0.00002312	0.00002312
SS086	201.29580224	0.01000976	0.01087588	0.00000237	0.00000121	0.00001788	0.00001685	0.00002529	0.00001247	0.00000811	0.00000811
SS087	114.18239794	0.85983507	0.80268654	0.00000817	0.00004083	0.00041055	0.00205274	0.00107124	0.00027351	0.00101248	0.00102235
SS088	5.14178957	0.00742240	0.00775145	0.00000169	0.00000881	0.00003620	0.00018434	0.00007986	0.00006172	0.00009181	0.00009181
SS089	5.47722558	0.00025504	0.00086947	0.00000130	0.00000651	0.00001068	0.00005196	0.00003071	0.00007528	0.00002588	0.00002588
SS090	5.77350269	0.00004329	0.00007721	0.00000065	0.00000327	0.00000199	0.00000993	0.00008070	0.00007840	0.00000473	0.00000473
SS091	14.43153376	0.00159241	0.00198754	0.00000289	0.00001447	0.00000606	0.00002811	0.00019392	0.00021118	0.00001359	0.00001359
SS092	5.00000000	0.00012433	0.00010558	0.00000142	0.00000711	0.00000470	0.00002350	0.00005321	0.00004668	0.00001167	0.00001167
SS093	17.96041945	0.00979669	0.01153516	0.00000674	0.00003524	0.00000524	0.00002755	0.00040146	0.00046714	0.00002199	0.00002291
SS094	265.48677305	0.02030440	0.02214356	0.00000272	0.00000956	0.00019486	0.00013619	0.00012341	0.00015274	0.00000656	0.00000656
SS095	4.47235956	0.00022392	0.00170242	0.00000403	0.00002202	0.00000937	0.00004818	0.00006495	0.00023902	0.00002380	0.00002380
SS096	390.33520103	0.00137027	0.00141114	0.00000176	0.00000236	0.00000395	0.00002009	0.00001510	0.00000855	0.00001029	0.00000989
SS097	591.21197975	0.00028753	0.00080026			0.00000048	0.00000239			0.00000120	0.00000120
SS098	3129.06801886	0.07282651	0.07071074	0.00000281	0.00001566	0.00000208	0.00002702	0.00005217	0.00019346	0.00001343	0.00001343
SS105	322.10588321	0.12881561	0.12397092	0.00030274	0.00002123	0.00175851	0.00197811	0.00329431	0.00021226	0.00097337	0.00097337
SS123	124.45079349	0.04010823	0.03906963			0.00007188	0.00008730			0.00017717	0.00017717
SS125	1131.37084990	0.00105896	0.00348236			0.00000476	0.00000081				
SS126	4784.08924979	0.06900856	0.06691383	0.00002611	0.00002822	0.00062761	0.00055233	0.00023970	0.00023970	0.00021095	0.00021095
SS200	15.64981363	0.00209497	0.00302463	0.00002314	0.00002314	0.00007315	0.00007570	0.00023145	0.00023145	0.00005615	0.00005615
SS201	1314.97781984	0.15318239	0.15799574	0.00011708	0.00011708	0.00021731	0.00020608	0.00117078	0.00117078	0.00004222	0.00004531
SS202	1357.64501988	0.12451981	0.14192651			0.00003060	0.00003031			0.00006008	0.00006008
SS203											
SS204	9096.22163318	0.03295524	0.03551050			0.00141473	0.00136749			0.00000051	0.00000051
SS205											
SS206	33.79970414	0.00933822	0.00934128			0.00008663	0.00008003			0.00007637	0.00007637
SS207											

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Zn T	Al D Ld	Al T Ld	An D Ld	An T Ld	As D Ld	As T Ld	Ba D Ld	Ba T Ld	Be D Ld	Be T Ld
	stdev µg/L	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS208	7.77281588	0.00200176	0.00222025	0.00000348	0.00001741	0.00000602	0.00003191	0.00005980	0.00006328	0.00001529	0.00001529
SS210	1656.28852156	1.15125060	1.11637547	0.00004641	0.00015404	0.00028172	0.00142233	0.00045590	0.00154019	0.00029357	0.00029543
SS211											
SS212											
SS213											
SS214											
SS215	10.01665280	0.04681980	0.06328777	0.00016004	0.00080020	0.00025874	0.00129368	0.00482424	0.00800196	0.00066215	0.00066215
SS216	6.22253967	0.00017127	0.00071887			0.00001629	0.00008146			0.00003462	0.00003462
SS217	12.31435477	0.00386844	0.00093085	0.00000942	0.00004709	0.00016091	0.00080453	0.00002161	0.00043020	0.00039456	0.00039456
SS218	166.90815838	0.01481193	0.02667733	0.00002800	0.00014001	0.00002028	0.00010138	0.00106517	0.00140007	0.00008467	0.00008467
SS219	1292.83602982	0.10251802	0.11141025	0.00000340	0.00001701	0.00005495	0.00041216	0.00008314	0.00017013	0.00020319	0.00020319
SS220	1304.84992751	3.15890710	3.18758871	0.00000305	0.00001527	0.00004647	0.00045349	0.00002505	0.00015274	0.00674563	0.00747544
SS221	2192.03102168	0.37654285	0.41482844			0.00009673	0.00009673			0.00073415	0.00081255
SS222	5798.27560573	7.30379080	7.55733100			0.00099278	0.00099278			0.01019965	0.01070775
SS223	63.13350933	0.00076161	0.00043114	0.00000494	0.00002520	0.00003125	0.00015623	0.00004947	0.00025200	0.00007616	0.00007616
SS224											
SS225	1767.76695297	0.03250202	0.02559840			0.00005804	0.00008981			0.00014052	0.00014039
SS226	2050.60966544	0.00204665	0.00228288			0.00010793	0.00053966			0.00026372	0.00026372
SS227											
SS228	883.88347648	0.05315180	0.04826428	0.00000255	0.00000255	0.00000764	0.00000764	0.00002546	0.00002546	0.00001042	0.00000994
SS229	77.07463915	0.00000020	0.00001144	0.00000509	0.00000102	0.00001171	0.00000560	0.00001823	0.00001018	0.00000051	0.00000051
SS230	2397.09198822	0.02489582	0.02572058	0.00000278	0.00001502	0.00000626	0.00003131	0.00009380	0.00009083	0.00001527	0.00001527
SS231	5.77350269	0.00017383	0.00017354	0.00000443	0.00002214	0.00000415	0.00002077	0.00022807	0.00025085	0.00001738	0.00001738
SS232											
SS235	183.84776311										
SS236	813.17279836	0.13786885	0.13104669	0.00004073	0.00002036	0.00003564	0.00000509	0.00041931	0.00020365	0.00003744	0.00003605
SS238	56.56854249	0.01707578	0.01678049	0.00000051	0.00000255	0.00000051	0.00000255	0.00000509	0.00002546	0.00000102	0.00000102
SS250	548.71424485	0.00028458	0.00705016	0.00006806	0.00003611	0.00019280	0.00026095	0.00068061	0.00034965	0.00002846	0.00002846
SS300	82.02438662	0.00944030	0.01077800	0.00000700	0.00003500	0.00000700	0.00003500	0.00009078	0.00035002	0.00002800	0.00002800
SS301	1979.89898732	0.04337676	0.03594365	0.00000764	0.00000764	0.00000764	0.00000764	0.00007637	0.00007637	0.00000611	0.00000611
SS304	88.38834765	0.12687195	0.13219485			0.00038392	0.00191958			0.00095750	0.00095750

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Zn T	Al D Ld	Al T Ld	An D Ld	An T Ld	As D Ld	As T Ld	Ba D Ld	Ba T Ld	Be D Ld	Be T Ld
	stdev µg/L	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS305	353.55339059										

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Site ID	Br T Ld	Cd D Ld	Cd T Ld	Ca D Ld	Ca T Ld	Cl T Ld	Cr D Ld	Cr T Ld	Co D Ld	Co T Ld	Cu D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
A23A											
A38	0.02851055	0.00000537	0.00000719	2.89346650	3.01105404	0.04377076	0.00005266	0.00005543	0.00003621	0.00003433	0.00004321
CC01A	0.02711682	0.00018960	0.00017315	2.93555322	3.06056415	0.08478547	0.00008013	0.00040063	0.00002097	0.00001799	0.00162910
CC01B		0.00316946	0.00284947	11.13190905	11.02416114	0.89005620	0.00030058	0.00062513	0.00110902	0.00079133	0.00111024
CC01C		0.00110181	0.00111859	0.79248252	0.82444151	0.13377316	0.00012004	0.00061438	0.00003891	0.00004176	0.03384476
CC03D	0.13685062	0.00789011	0.00764055	156.07477575	146.00537410	3.24769967	0.00355793	0.00410024	0.00398834	0.00287386	0.00288495
CC06	4.17272197	0.15310415	0.13817953	196.19316576	230.16368425	11.17927616	0.01550643	0.01494112	0.12044205	0.11178378	11.42150716
CC14	4.70678558	0.01066312	0.01084782	263.75190969	263.28123231	61.57470645	0.01527329	0.02627848	0.04817977	0.04726173	0.08451633
CC16C	0.02746686	0.00017042	0.00016653	1.34706146	1.31337232	0.64732507	0.00007499	0.00028797	0.00044160	0.00066939	0.00032951
CC19	0.30037896	0.00071752	0.00063828	122.73118825	122.70830800	3.23862869	0.00226482	0.00145449	0.01303091	0.01319490	0.00565319
CC50	0.38489236	0.00120860	0.00155819	270.11674347	291.27984536	19.36117639	0.00361235	0.00727357	0.00167508	0.00189199	0.00222874
DM01											
DM24		0.00006388	0.00006388	10.19761116	8.93500129		0.00066765	0.00066765			0.00000412
DM32	0.01374616	0.00044644	0.00042308	0.29417030	0.28783379	0.02406796	0.00002019	0.00010094	0.00003833	0.00003536	0.02108236
DM4											
SS001	0.01799938	0.00010668	0.00010143	1.37719112	1.40798948	0.32345173	0.00032221	0.00161106	0.00000210	0.00001312	0.00123024
SS002		0.00000303	0.00001229	0.68586089	0.71330371	0.01136853	0.00001502	0.00012287	0.00000010	0.00000051	0.00001284
SS003		0.00002481	0.00002317	0.39081911	0.39141340	0.00469621	0.00000610	0.00006525	0.00000001	0.00000076	0.00022088
SS004	0.00101823	0.00002229	0.00001410	0.15888024	0.16309814	0.00745943	0.00000686	0.00003938	0.00000007	0.00000076	0.00002700
SS005											
SS006	0.00101823	0.00001096	0.00005481	1.07774319	1.14381549	0.11103239	0.00010963	0.00054813	0.00000029	0.00000144	0.00002976
SS007	0.13315934	0.00001583	0.00007914	2.47883269	2.34473548	0.16054539	0.00015828	0.00079142	0.00002395	0.00009760	0.00011759
SS008		0.00006385	0.00030900	18.30757543	19.22700190	0.65246166	0.00061799	0.00308996	0.00011367	0.00045614	0.00035978
SS009		0.00000399	0.00001038	0.37821396	0.39833197	0.02229331	0.00002076	0.00010380			0.00007210
SS010	0.05065713	0.00003425	0.00004569	4.41670102	4.86760813	0.06338415	0.00003087	0.00015434	0.00002642	0.00005976	0.00005889
SS011		0.00001101	0.00001211	0.33878012	0.33945397	0.01010692	0.00000414	0.00002068			0.00011327
SS012		0.00000820	0.00005047	1.34864913	1.40081785	0.10289894	0.00011045	0.00055227	0.00001100	0.00001191	0.00002871
SS013		0.00258829	0.00174962	113.78044380	111.76690069	6.86070518	0.00683471	0.03417357	0.00123650	0.00110854	0.00707120
SS014	0.01508783	0.00001395	0.00006974	1.99977582	2.07399517	0.10496757	0.00013947	0.00069411	0.00000223	0.00001115	0.00007484
SS015	0.20817227	0.00007157	0.00036162	12.76390686	12.53184640	0.75245372	0.00071574	0.00357818	0.00007816	0.00033504	0.00028473
SS016	0.00071276	0.00000327	0.00000894	0.33025342	0.31920681	0.01749155	0.00001788	0.00008930	0.00001712	0.00001891	0.00003866

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Site ID	Br T Ld	Cd D Ld	Cd T Ld	Ca D Ld	Ca T Ld	Cl T Ld	Cr D Ld	Cr T Ld	Co D Ld	Co T Ld	Cu D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS017	0.00529482	0.00005691	0.00005883	0.15683433	0.15674975	0.00774174	0.00000660	0.00003298	0.00005414	0.00006201	0.00002334
SS018	0.03963253	0.00027680	0.00027712	1.66822617	1.71051219	0.09986642	0.00003424	0.00017300	0.00068594	0.00083646	0.00106715
SS019	0.00290197	0.00000098	0.00000643	0.14118726	0.14041217	0.00418223	0.00001286	0.00006348	0.00000058	0.00000288	0.00000503
SS020		0.00001599	0.00001407	0.16258329	0.16420299	0.04945013	0.00004114	0.00020570	0.00006977	0.00009810	0.00009443
SS021		0.00005449	0.00006166	0.38593289	0.39226196	0.12366569	0.00012279	0.00061397			0.00013998
SS022		0.00002774	0.00002615	0.37382814	0.39395253	0.06256944	0.00005994	0.00029970	0.00000045	0.00000599	0.00002321
SS023		0.00001981	0.00009971	8.65381223	8.95652665	0.40112911	0.00019931	0.00099653	0.00001738	0.00014007	0.00014388
SS024	0.07738577	0.00003754	0.00012230	9.87121024	9.94343741	0.23319370	0.00013939	0.00122299	0.00001709	0.00008612	0.00013552
SS025		0.00000065	0.00000324	0.04238234	0.04425628	0.00814063	0.00000647	0.00003237			0.00004464
SS026		0.00025244	0.00023469	0.38384107	0.38852793	0.05216404	0.00005033	0.00025164	0.00001078	0.00000454	0.00927543
SS027	0.02443761	0.00087358	0.00091719	2.53996187	2.34149746	0.50587787	0.00014462	0.00049914	0.00001412	0.00000857	0.00813838
SS028		0.00000014	0.00000068	0.00590520	0.00591124	0.00105324	0.00000135	0.00000676			0.00000026
SS029	0.01770122	0.00086064	0.00076223	4.77502051	4.93063287	0.73422180	0.00070084	0.00972037	0.00001367	0.00006834	0.00159490
SS030	0.00000000	0.00000004	0.00000020	0.00380311	0.00357638	0.00042474	0.00000039	0.00000197	0.00000004	0.00000021	0.00000020
SS031	0.00305470	0.00000066	0.00000328	0.16961060	0.15761009	0.00712744	0.00000657	0.00003284	0.00000086	0.00000432	0.00000328
SS032		0.00000656	0.00003282	0.61387997	0.58360160	0.06625526	0.00004969	0.00032821	0.00000081	0.00000407	0.00003745
SS033	0.00000000	0.00000004	0.00000020	0.00030799	0.00030332	0.00042474	0.00000039	0.00000197	0.00000004	0.00000021	0.00000051
SS034		0.00000105	0.00000094	0.00068822	0.00078126	0.00046102	0.00000036	0.00000180	0.00000021	0.00000025	0.00002106
SS035		0.00005388	0.00027612	12.17719060	11.33499109	0.54390492	0.00055224	0.00276118			0.00026865
SS036		0.00000275	0.00000240	0.01267208	0.01257407	0.00337060	0.00000291	0.00001457			0.00004348
SS037		0.00006197	0.00005532	1.07267058	1.03082623	0.05432458	0.00002521	0.00014868	0.00000596	0.00002628	0.00296818
SS038	0.01120057	0.00001448	0.00007238	1.75156959	1.86617237	0.14788315	0.00009557	0.00072376	0.00000563	0.00002816	0.00007139
SS039		0.00016717	0.00016304	0.40678811	0.42940464	0.07676287	0.00007427	0.00037133	0.00000116	0.00000580	0.00489357
SS040	0.00585484	0.00057909	0.00053027	1.53118091	1.49101251	0.43500247	0.00043442	0.00217208	0.00000207	0.00000429	0.02510038
SS041	0.03309260	0.00027474	0.00027829	1.18133680	1.26933947	0.12809817	0.00011700	0.00058500	0.00000612	0.00002397	0.00184908
SS042		0.00004012	0.00003555	0.96626883	1.03404478	0.09733821	0.00004565	0.00003311	0.00000682	0.00000560	0.00003414
SS043	0.01680086	0.00001681	0.00001403	1.64898498	2.07461624	0.35624341	0.00016466	0.00014027	0.00001718	0.00001976	0.00003660
SS044	0.00050912	0.00020749	0.00017601	8.96924236	8.98343938	0.39536954	0.00018774	0.00092080	0.00003838	0.00004606	0.00119898
SS045	0.00142553	0.00011513	0.00010421	0.27477466	0.29490209	0.03090767	0.00003042	0.00015203	0.00000069	0.00000648	0.00002566
SS046	0.00305470	0.00009328	0.00008807	0.17694273	0.18493180	0.00684956	0.00000940	0.00004698	0.00003783	0.00003459	0.00006966
SS047	0.01137762	0.00016672	0.00083449	21.09225082	21.21783327	1.68837969	0.00126828	0.00833337	0.00000455	0.00002274	0.00080973

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Br T Ld	Cd D Ld	Cd T Ld	Ca D Ld	Ca T Ld	Cl T Ld	Cr D Ld	Cr T Ld	Co D Ld	Co T Ld	Cu D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS048		0.00020800	0.00104001	24.20343106	24.83256492	2.08119695	0.00267977	0.01035895	0.00004095	0.00010911	0.00076230
SS049		0.00000980	0.00004901	0.19728177	0.19759841	0.09835970	0.00009802	0.00048864	0.00000098	0.00000489	0.00004832
SS050	0.06170161	0.00010973	0.00053148	14.47294266	13.75326995	1.06360374	0.00056065	0.00529132	0.00018839	0.00018856	0.00166025
SS051	0.00712764	0.00000773	0.00003881	0.46203990	0.48239190	0.08191973	0.00007762	0.00038515	0.00000207	0.00000518	0.00007423
SS052	0.00089095	0.00000055	0.00000151	0.01497579	0.01565594	0.00311882	0.00000302	0.00001513	0.00000018	0.00000088	0.00000375
SS053	0.00198556	0.00013633	0.00012512	0.52747661	0.52730266	0.07079665	0.00006890	0.00034381	0.00000439	0.00000452	0.00502301
SS054	0.17286615	0.00002245	0.00005437	13.30080342	13.15074425	0.30137570	0.00009485	0.00063214	0.00002403	0.00007415	0.00020153
SS055	0.01260064	0.00003188	0.00003437	0.93890136	0.96846991	0.20131115	0.00001977	0.00009886	0.00015320	0.00015319	0.00011945
SS056		0.00000355	0.00000943	0.04357186	0.04188324	0.01948298	0.00001903	0.00009513			0.00002792
SS057	0.00076368	0.00000024	0.00000159	0.03149014	0.02758699	0.00523974	0.00000265	0.00000195	0.00000423	0.00000594	0.00000047
SS058		0.00000007	0.00000018	0.00071007	0.00079207	0.00034026	0.00000036	0.00000165	0.00000023	0.00000023	0.00000016
SS059	0.00356382	0.00001722	0.00004194	0.44648390	0.45460623	0.09333076	0.00009147	0.00045736	0.00000080	0.00000401	0.00004829
SS060	0.00631305	0.00001368	0.00001280	0.04284138	0.04180666	0.03034645	0.00003033	0.00015066	0.00000154	0.00000474	0.00025140
SS061		0.00000078	0.00000222	0.00382136	0.00376401	0.00530768	0.00000511	0.00002554			0.00001006
SS062	0.00957140	0.00000845	0.00000698	0.36641902	0.37567566	0.03628527	0.00001328	0.00006642	0.00005983	0.00006089	0.00003490
SS063		0.00004156	0.00004034	1.16050687	1.16772121	0.10814664	0.00005085	0.00004932	0.00000091	0.00000457	0.00027437
SS064	0.00254558	0.00001224	0.00001163	1.51976020	1.52780797	0.01513266	0.00012114	0.00011634	0.00000083	0.00000064	0.00006071
SS065	0.00865499	0.00014038	0.00016396	4.10901674	3.82596025	0.30669373	0.00027313	0.00026900	0.00169882	0.00181022	0.00101920
SS066		0.00001655	0.00001677	1.37199605	1.39178563	0.04322736	0.00003963	0.00002894			0.00012575
SS067	0.00000000	0.00002551	0.00002506	0.13279047	0.13188257	0.00398530	0.00000653	0.00000653	0.00002692	0.00002651	0.00018409
SS068	0.01018234	0.00001554	0.00001704	0.22085452	0.21578098	0.05102512	0.00003397	0.00002990	0.00006530	0.00006756	0.00043186
SS069	0.00025456	0.00004166	0.00003822	0.14228490	0.15088209	0.00971253	0.00000705	0.00003526	0.00003708	0.00004274	0.00031370
SS070	0.00000000	0.00003823	0.00003560	0.07981123	0.09692620	0.01324431	0.00001266	0.00006331	0.00003351	0.00003927	0.00005529
SS071	0.08245969	0.00030207	0.00025383	25.05482290	28.63471579	3.22539371	0.00300391	0.00253830	0.00075443	0.00072636	0.00147159
SS072	0.02901966	0.00003820	0.00003687	7.16169746	7.16759564	0.35867346	0.00041126	0.00039122	0.00025486	0.00024163	0.00194493
SS073	0.00025456	0.00000984	0.00000878	1.21803344	1.15381677	0.20578067	0.00009697	0.00008776	0.00023659	0.00022429	0.00005984
SS074		0.00004256	0.00003917	0.95494097	1.07790603	0.13252512	0.00006050	0.00006050	0.00013077	0.00013118	0.00260088
SS075	0.14784035	0.00010785	0.00011430	12.06578009	12.86892671	2.27487557	0.00126161	0.00114295	0.00079651	0.00078101	0.00059456
SS076	0.00000000	0.00000004	0.00000020	0.00392404	0.00346322	0.00042474	0.00000039	0.00000197	0.00000004	0.00000021	0.00000009
SS077	0.00407294	0.00004959	0.00024796	1.93663859	1.92485467	0.49779724	0.00049732	0.00247955	0.00000568	0.00002841	0.00012668
SS078	0.01934644	0.00001594	0.00007969	1.15583602	1.13159198	0.16303755	0.00015937	0.00079686	0.00000277	0.00001384	0.00007969

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Br T Ld	Cd D Ld	Cd T Ld	Ca D Ld	Ca T Ld	Cl T Ld	Cr D Ld	Cr T Ld	Co D Ld	Co T Ld	Cu D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS079	0.00025456	0.00001522	0.00007611	2.26204754	2.30701995	0.15241816	0.00015222	0.00076109	0.00000094	0.00000468	0.00007624
SS080	0.00000000	0.00000010	0.00000051	0.00416870	0.00365496	0.00110608	0.00000102	0.00000509	0.00000011	0.00000062	0.00000048
SS082		0.00000082	0.00000409	0.00592694	0.00557978	0.00082991	0.00000818	0.00004092			0.00000158
SS083		0.00028008	0.00026306	1.20224264	1.17328236	0.09309631	0.00008932	0.00046711			0.02237256
SS084		0.00090626	0.00084045	12.08930488	12.13667271	0.93458183	0.00093660	0.00470649			0.05066891
SS085	0.00636396	0.00004213	0.00004135	0.88431328	0.91720973	0.09650932	0.00004567	0.00004567	0.00008126	0.00008731	0.00045537
SS086	0.00152735	0.00000259	0.00000214	0.22127010	0.23953069	0.03496356	0.00001747	0.00001589	0.00001334	0.00002938	0.00000970
SS087	0.00509117	0.00006784	0.00020130	3.01722190	2.97015633	0.46796043	0.00040149	0.00201417	0.00035052	0.00033881	0.00420154
SS088		0.00000366	0.00001831	0.01824147	0.01779759	0.04129574	0.00003663	0.00018419	0.00000052	0.00000131	0.00001414
SS089	0.00045821	0.00000103	0.00000516	0.06884399	0.07400246	0.01024720	0.00001030	0.00005208	0.00000031	0.00000154	0.00000520
SS090	0.00017819	0.00000018	0.00000091	0.01497435	0.01407371	0.00176004	0.00000183	0.00000881	0.00000007	0.00000018	0.00000091
SS091		0.00000078	0.00000272	0.02592267	0.02688054	0.00230224	0.00000544	0.00001896	0.00001207	0.00001210	0.00017691
SS092		0.00000046	0.00000232	0.01895523	0.01924929	0.00502567	0.00000465	0.00002390	0.00000039	0.00000193	0.00000279
SS093	0.00903682	0.00000115	0.00000584	0.06268394	0.06336532	0.01199047	0.00001128	0.00005909	0.00007318	0.00007523	0.00008687
SS094	0.01069145	0.00000758	0.00000813	0.32053808	0.33779911	0.01955524	0.00000552	0.00001738	0.00000116	0.00001616	0.00005974
SS095	0.00000000	0.00000087	0.00000472	0.38954202	0.38504430	0.01492720	0.00000819	0.00004615	0.00000170	0.00000627	0.00000530
SS096		0.00000148	0.00000147	0.00436370	0.00448390	0.00409297	0.00000409	0.00002002	0.00000206	0.00000169	0.00007309
SS097		0.00000044	0.00000000	0.00197920	0.00207492	0.00080239	0.00000048	0.00000317			0.00000126
SS098		0.00010793	0.00011282	0.08766297	0.08382245	0.05664244	0.00000515	0.00002671	0.00014137	0.00014850	0.00379884
SS105	0.02122574	0.00035906	0.00037916	13.71247216	14.87833567	3.99578124	0.00052824	0.00203663	0.00018156	0.00006554	0.00358065
SS123		0.00000668	0.00003447	0.07826145	0.07636753	0.05803932	0.00006876	0.00035129			0.00083577
SS125		0.00000120	0.00000529	0.01120057	0.02565949		0.00000716	0.00000449			0.00008187
SS126	0.02291026	0.00038729	0.00035681	0.07023645	0.07003468	0.09376877	0.00006651	0.00037761	0.00020466	0.00019191	0.01216738
SS200	0.00509117	0.00000554	0.00000987	1.05993489	1.21651367	0.26717724	0.00006034	0.00009542	0.00000996	0.00002210	0.00001727
SS201	0.02240114	0.00002922	0.00003003	2.48642477	2.25749403	0.16630182	0.00020883	0.00019491	0.00129358	0.00139644	0.00032008
SS202		0.00027808	0.00028791	0.10935831	0.11964756	0.12116982	0.00003641	0.00011964			0.01280938
SS203											
SS204		0.00005710	0.00005702	0.05830712	0.06737246	0.02179020	0.00000558	0.00000416			0.01524624
SS205											
SS206		0.00000495	0.00001527	0.02694247	0.03213546	0.03054701	0.00003055	0.00015274			0.00121883
SS207											

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Br T Ld	Cd D Ld	Cd T Ld	Ca D Ld	Ca T Ld	Cl T Ld	Cr D Ld	Cr T Ld	Co D Ld	Co T Ld	Cu D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS208	0.00012728	0.00000059	0.00000297	0.02940287	0.02924709	0.00594727	0.00000595	0.00002974	0.00000525	0.00000513	0.00000562
SS210	0.07280371	0.00294861	0.00298452	11.91539361	11.65607963	0.51994645	0.00027150	0.00138703	0.00010292	0.00011499	0.01682988
SS211											
SS212											
SS213											
SS214											
SS215		0.00012213	0.00014449	1.40184426	1.48383449	0.28143437	0.00028143	0.00164759	0.00003210	0.00016004	0.00039882
SS216		0.00000122	0.00000611	0.00961213	0.00784040	0.01221881	0.00001222	0.00005857			0.00000041
SS217	0.00941866	0.00001535	0.00007792	0.38652886	0.38992991	0.15583135	0.00015583	0.00077916	0.00000004	0.00000858	0.00007687
SS218	0.02647408	0.00001834	0.00001780	2.06608417	2.04207389	0.03874644	0.00004311	0.00021556	0.00010282	0.00010189	0.00004094
SS219	0.00458205	0.00103748	0.00113689	0.42813937	0.45893390	0.08059177	0.00008059	0.00040296	0.00000693	0.00000782	0.03829570
SS220	0.01527351	0.00070478	0.00067142	5.52926147	5.59441319	0.90698462	0.00008704	0.00043519	0.00000733	0.00004154	0.00094035
SS221		0.00010508	0.00010203	0.66592488	0.74432888	0.19346442	0.00009164	0.00009164			0.00005071
SS222		0.00904599	0.00878532	8.16521656	8.34340747	1.98555584	0.00096732	0.00096732			0.06026926
SS223	0.00101823	0.00000296	0.00001488	0.06434468	0.06840527	0.03086217	0.00002995	0.00014976	0.00000094	0.00000504	0.00001475
SS224											
SS225		0.00041116	0.00036901	1.25059471	1.24937283	0.04887522	0.00005498	0.00027492			0.00474090
SS226		0.00009806	0.00009403	0.21742346	0.21044855	0.10385984	0.00010386	0.00051930			0.00010238
SS227											
SS228		0.00001578	0.00008512	0.74942005	0.77589413	0.01527351	0.00000509	0.00000509	0.00000143	0.00024570	0.00016597
SS229		0.00000196	0.00000154	0.13349045	0.15660435	0.02036468	0.00001018	0.00000204	0.00000082	0.00000020	0.00000786
SS230		0.00005673	0.00005183	0.03508834	0.03310278	0.01048781	0.00000563	0.00003004	0.00006071	0.00006652	0.00104654
SS231	0.00570211	0.00000089	0.00000443	0.22406048	0.21699121	0.00922949	0.00000918	0.00004427	0.00000206	0.00000443	0.00000565
SS232											
SS235											
SS236		0.00023755	0.00025049	1.62408286	1.65259340	0.06516696	0.00008146	0.00004073	0.00036432	0.00035781	0.00233990
SS238		0.00001610	0.00001477	0.35434535	0.35536358	0.00509117	0.00000135	0.00000509	0.00008044	0.00007718	0.00094696
SS250	0.04261603	0.00001361	0.00008327	5.33378058	5.94311402	0.13612138	0.00013612	0.00007222	0.00002065	0.00009611	0.00023612
SS300	0.00700036	0.00003285	0.00002971	0.05843389	0.06147586	0.01400071	0.00001400	0.00007000	0.00000495	0.00000835	0.00074866
SS301	0.02036468	0.00000355	0.00000376	0.42969465	0.02952878	0.04072935	0.00001527	0.00001527	0.00011812	0.00021077	0.00006374
SS304		0.00068819	0.00062966	2.76150151	2.82206725	0.38238871	0.00038239	0.00191194			0.00220350

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
 Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Br T Ld	Cd D Ld	Cd T Ld	Ca D Ld	Ca T Ld	Cl T Ld	Cr D Ld	Cr T Ld	Co D Ld	Co T Ld	Cu D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS305											

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Cu T Ld	FT Ld	Hard D Ld	Fe D Ld	Fe T Ld	Pb D Ld	Pb T Ld	Mg D Ld	Mg T Ld	Mn D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
A23A										
A38	0.00002636	0.01010590	7.87275869	0.00094124	0.00222318	0.00001304	0.00002377	0.15991162	0.16864629	0.18385456
CC01A	0.00158534	0.01833463	8.25832732	0.01062649	0.03154683	0.00001800	0.00223200	0.22997551	0.23330213	0.02693649
CC01B	0.00108985	0.25326099	30.53589224	1.27329598	1.30456413	0.04330742	0.03489477	0.67370580	0.66182091	1.50670739
CC01C	0.03430275	0.03490373	2.53637059	0.21300964	0.22632303	0.00167596	0.00161101	0.14074336	0.14374472	0.09086890
CC03D	0.00356908	2.17941133	425.46082616	34.31519302	31.66930151	0.03731322	0.05099742	8.78527343	8.59295091	11.01192217
CC06	10.25321161	11.38063430	604.65547201	362.38905564	322.67865410	0.03933847	0.04483013	33.03021315	35.42241313	26.72894812
CC14	0.12433911	7.54706570	690.95227405	51.12814463	58.35074021	0.00719784	0.04944696	16.48720641	17.47313527	4.94566176
CC16C	0.00046613	0.11326756	3.97714276	0.82848525	0.68399328	0.00002114	0.00005938	0.15058844	0.15521209	0.02680932
CC19	0.00302159	0.97908346	338.97422254	36.73725798	36.32565627	0.00031737	0.00080261	8.25730500	8.86608798	10.97586227
CC50	0.01651632	1.40597999	366.14509160	0.58679943	1.31634813	0.00052497	0.00424966	9.20996284	10.19303414	1.93450559
DM01										
DM24	0.00002306		28.30180750	0.67376528	3.92427293	0.00008792	0.00057444	0.23623023	0.23623023	0.03731827
DM32	0.02035654	0.00718056	0.96167225	0.01822052	0.01710984	0.01480483	0.01304502	0.05695515	0.05634992	0.08838876
DM4										
SS001	0.00115986	0.03178636	4.09012683	0.04041121	0.04318283	0.00098132	0.00097570	0.17840970	0.17971307	0.02593573
SS002	0.00006144	0.00245742	1.99155871	0.00309767	0.00309767	0.00000228	0.00001115	0.06829586	0.07004483	0.00007286
SS003	0.00022739	0.00127404	1.13175793	0.00163527	0.00162666	0.00002056	0.00004662	0.03755803	0.03713041	0.00285752
SS004	0.00002013	0.00086113	0.44879850	0.00111152	0.00059703	0.00000078	0.00003830	0.01284137	0.01358965	0.00002140
SS005										
SS006	0.00027407	0.01096269	2.93440100	0.01375776	0.02011461	0.00001096	0.00005773	0.05434584	0.05380735	0.00031309
SS007	0.00039571	0.01601614	6.82228276	0.01755100	0.02044512	0.00001583	0.00008137	0.13192324	0.12910722	0.00148096
SS008	0.00154498	0.26260988	52.65936596	0.06062208	0.09993217	0.00006180	0.00039708	1.73203027	1.82468708	0.07904178
SS009	0.00005503	0.00690023	1.07594549	0.00206036	0.00206036	0.00000628	0.00001235	0.03292029	0.03477600	0.00085459
SS010	0.00009506	0.02240275	13.31608802	0.00305729	0.00305729	0.00001289	0.00001557	0.55095124	0.59601554	0.00916891
SS011	0.00011640	0.00273215	1.04226913	0.00051702	0.00057483	0.00004376	0.00005077	0.04811357	0.04932920	0.01347683
SS012	0.00023938	0.01283100	4.00076709	0.01343269	0.01025319	0.00001124	0.00004023	0.15824079	0.16563558	0.00469157
SS013	0.01198868	0.69065221	308.77859688	0.86091697	0.33109444	0.00068347	0.00341736	6.26015821	6.15323874	0.31047055
SS014	0.00070167	0.02359303	5.39045357	0.01844073	0.01844073	0.00001395	0.00006974	0.09700482	0.09936095	0.00036881
SS015	0.00175552	0.06905475	36.51039457	0.09063781	0.08335175	0.00007157	0.00038586	1.17385044	1.14083906	0.01437790
SS016	0.00004232	0.00534608	0.96340918	0.00204594	0.00642235	0.00000141	0.00000838	0.03451339	0.03396132	0.00659352

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Cu T Ld	FT Ld	Hard D Ld	Fe D Ld	Fe T Ld	Pb D Ld	Pb T Ld	Mg D Ld	Mg T Ld	Mn D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS017	0.00001938	0.00474212	0.48675225	0.00990993	0.01077107	0.00000066	0.00000330	0.02332699	0.02337183	0.00527666
SS018	0.00125632	0.06285272	5.22993447	0.00458832	0.00502714	0.00001051	0.00001712	0.26386784	0.27158793	0.07722187
SS019	0.00003289	0.00109287	0.39142369	0.00170511	0.00170511	0.00000129	0.00000643	0.01069825	0.01027708	0.00003359
SS020	0.00008161	0.01401623	0.60170407	0.00523681	0.00602331	0.00030195	0.00039026	0.04743860	0.04649753	0.00704762
SS021	0.00030699	0.01235198	1.13747768	0.01205641	0.01205641	0.00008543	0.00011427	0.05340174	0.05400232	0.00240301
SS022	0.00014985	0.00609621	1.14197673	0.00740043	0.00733919	0.00002467	0.00002501	0.04662361	0.04900365	0.00047631
SS023	0.00049826	0.04007452	24.57962656	0.02494263	0.02223514	0.00001980	0.00006293	0.71781769	0.75714650	0.00114225
SS024	0.00061150	0.03500025	28.90034616	0.03012982	0.03012982	0.00002446	0.00012230	1.05107795	1.04105255	0.00060260
SS025	0.00008354	0.00064750	0.11883586	0.00077400	0.00654625	0.00001210	0.00012024	0.00250218	0.00263738	0.00001548
SS026	0.00936611	0.01953889	1.19141767	0.00638075	0.00638075	0.00336336	0.00309461	0.05907518	0.05769667	0.07801503
SS027	0.00887789	0.08630785	8.49092949	0.01329930	0.01395298	0.00005244	0.00012356	0.52864897	0.51285269	0.41531952
SS028	0.00000338	0.00017309	0.01689505	0.00016904	0.00016904	0.00000030	0.00000048	0.00044403	0.00044495	0.00000865
SS029	0.00236149	0.09913477	14.14628809	0.08997162	0.08997162	0.00007008	0.00035042	0.54816717	0.57223271	0.07437584
SS030	0.00000099	0.00003220	0.01018743	0.00004707	0.00005562	0.00000004	0.00000016	0.00017217	0.00016464	0.00000207
SS031	0.00001642	0.00124375	0.45320546	0.00073441	0.00073441	0.00000066	0.00000554	0.00754711	0.00731453	0.00001469
SS032	0.00016061	0.00645239	1.78628719	0.00827061	0.00845924	0.00000656	0.00003516	0.06442677	0.06289675	0.00016541
SS033	0.00000099	0.00003944	0.00088182	0.00005915	0.00005206	0.00000011	0.00000029	0.00003132	0.00001674	0.00000393
SS034	0.00001918	0.00006893	0.00237891	0.00005297	0.00007970	0.00000112	0.00000100	0.00009623	0.00009948	0.00009055
SS035	0.00135026	0.11083855	36.13596620	0.06928893	0.08477364	0.00005533	0.00024222	1.39646578	1.30561604	0.00137526
SS036	0.00004427	0.00029137	0.03435818	0.00037238	0.00037238	0.00010179	0.00009596	0.00079712	0.00079127	0.00010725
SS037	0.00358165	0.01030319	3.68179779	0.00365811	0.03622834	0.00032927	0.00321165	0.24443940	0.23676728	0.03778652
SS038	0.00036188	0.01391432	4.82148317	0.01828365	0.01828365	0.00001448	0.00007238	0.11007498	0.11565075	0.00036567
SS039	0.00448338	0.00763472	1.18202238	0.00935683	0.00935814	0.00023152	0.00020650	0.04016845	0.04391199	0.02095896
SS040	0.02557550	0.04307448	4.52565593	0.05435078	0.05435078	0.00010977	0.00011488	0.17629223	0.17748042	0.42384043
SS041	0.00184667	0.01927901	3.42155198	0.01491137	0.01483399	0.00017714	0.00024182	0.11348041	0.11753572	0.09525304
SS042	0.00023457	0.00959486	2.62667072	0.00087259	0.01097589	0.00000838	0.00289278	0.05342642	0.05608113	0.00353603
SS043	0.00007013	0.03268373	4.49278792	0.00392194	0.01021303	0.00008017	0.00051094	0.09241181	0.10365780	0.03193068
SS044	0.00174310	0.22315887	24.25545596	0.02309706	0.23885576	0.00001877	0.00015860	0.45962803	0.47353224	0.12201720
SS045	0.00007651	0.01626601	0.76601349	0.00383378	0.00393383	0.00000304	0.00001521	0.01980750	0.02088410	0.00132308
SS046	0.00006952	0.01380613	0.49971371	0.02748168	0.03134554	0.00014022	0.00013083	0.01428513	0.01485618	0.00810039
SS047	0.00417243	0.16689736	57.16394609	0.20950884	0.20812228	0.00016699	0.00083449	1.07021949	1.15953140	0.00406548

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Cu T Ld	FT Ld	Hard D Ld	Fe D Ld	Fe T Ld	Pb D Ld	Pb T Ld	Mg D Ld	Mg T Ld	Mn D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS048	0.00321384	0.20162456	64.53970067	0.24565063	1.61752917	0.00020800	0.00302841	1.13026450	1.41398007	0.00465739
SS049	0.00024505	0.00980188	0.57180523	0.01230309	0.01230309	0.00000973	0.00004901	0.01981708	0.02172194	0.00024606
SS050	0.00481764	0.11186445	41.20503822	0.13374691	0.11976088	0.00010599	0.00050913	1.28557138	1.32287434	0.04766121
SS051	0.00019061	0.00831060	1.39109313	0.00953243	0.01139997	0.00000776	0.00004711	0.06065812	0.06901233	0.00072368
SS052	0.00000549	0.00053727	0.05341736	0.00038546	0.00036710	0.00000030	0.00000151	0.00386263	0.00422829	0.00000709
SS053	0.00474386	0.01051907	1.77471751	0.00420512	0.01331826	0.00009938	0.00011219	0.10682767	0.10644660	0.01450813
SS054	0.00024359	0.07652778	35.68134893	0.01107532	0.01302093	0.00000886	0.00005859	0.58423282	0.57297227	0.00022151
SS055	0.00013736	0.02050340	2.86303429	0.43151520	0.48182787	0.00000287	0.00008594	0.12814133	0.13665859	0.09275979
SS056	0.00005257	0.00367286	0.15397214	0.00270771	0.00263152	0.00000172	0.00000947	0.01001296	0.01024576	0.00315712
SS057	0.00000165	0.00044306	0.08339192	0.00170460	0.01645204	0.00000026	0.00000340	0.00114855	0.00097702	0.00176590
SS058	0.00000036	0.00005879	0.00198273	0.00005400	0.00004284	0.00000032	0.00000042	0.00008733	0.00008699	0.00000218
SS059	0.00022215	0.02822559	1.27091035	0.01159059	0.01159059	0.00000915	0.00004574	0.03974985	0.04380040	0.00037770
SS060	0.00028406	0.00337786	0.14518497	0.00386750	0.00184551	0.00000545	0.00000991	0.00831828	0.00889094	0.00113602
SS061	0.00001090	0.00031029	0.01470554	0.00071257	0.00080059	0.00000040	0.00001044	0.00101328	0.00124764	0.00000515
SS062	0.00005017	0.00618684	1.05049655	0.08279969	0.08061478	0.00000297	0.00013212	0.03340004	0.03578720	0.03399197
SS063	0.00025959	0.01827697	3.80319376	0.00074984	0.00545126	0.00000508	0.00000453	0.21871546	0.21816791	0.03947773
SS064	0.00005698	0.00763699	4.39646119	0.00294620	0.00265613	0.00001211	0.00000592	0.14702737	0.14642626	0.00037627
SS065	0.00202670	0.01927878	11.60672117	1.14483767	1.09908323	0.00002712	0.00002690	0.31647729	0.30321332	0.38687809
SS066	0.00012707	0.00897998	3.85638536	0.31506369	0.32115935	0.00002630	0.00002717	0.10799725	0.10899860	0.12642905
SS067	0.00019828	0.00322414	0.38128986	0.00851492	0.00892237	0.00000353	0.00000355	0.01205557	0.01194997	0.01091015
SS068	0.00045397	0.00497738	0.62751948	0.00627102	0.00714589	0.00007855	0.00008857	0.02013709	0.02078375	0.01381456
SS069	0.00033858	0.00465885	0.41684220	0.00088650	0.00081430	0.00000296	0.00000284	0.01478021	0.01492252	0.01218788
SS070	0.00005828	0.00832230	0.24559593	0.01126748	0.01434855	0.00000830	0.00001207	0.01089811	0.01187216	0.00976303
SS071	0.00124543	0.46156532	68.20540458	1.51127831	1.76977530	0.00030069	0.00039242	1.45453389	1.61958507	0.57926030
SS072	0.00185161	0.05228344	20.18398577	0.26989698	0.47681034	0.00003613	0.00005573	0.55999372	0.56719521	0.13922718
SS073	0.00006325	0.01537228	3.42944861	0.18069963	0.15960865	0.00000984	0.00001164	0.09801502	0.09308579	0.02656247
SS074	0.00258253	0.01499150	2.85545247	0.34363321	0.38812702	0.00007190	0.00007455	0.11487305	0.12509089	0.02270270
SS075	0.00064210	0.14518818	33.21570391	0.43932680	0.47861353	0.00032998	0.00045151	0.75410193	0.77473866	0.14277806
SS076	0.00000110	0.00003944	0.01090747	0.00004984	0.00022246	0.00000003	0.00000300	0.00029297	0.00035453	0.00000933
SS077	0.00123978	0.04959101	5.28626421	0.06206051	0.06172605	0.00004958	0.00024794	0.09020846	0.09193837	0.00124121
SS078	0.00039001	0.01593711	3.05356922	0.02041064	0.01966266	0.00001583	0.00007969	0.04445498	0.04369309	0.00040821

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Site ID	Cu T Ld	FT Ld	Hard D Ld	Fe D Ld	Fe T Ld	Pb D Ld	Pb T Ld	Mg D Ld	Mg T Ld	Mn D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS079	0.00038024	0.01522188	6.47788360	0.01903050	0.01892841	0.00001522	0.00007594	0.19599304	0.19516289	0.00038051
SS080	0.00000255	0.00010182	0.01161523	0.00013590	0.00005586	0.00000016	0.00000020	0.00027877	0.00023587	0.00001338
SS082	0.00002046	0.00081842	0.01846224	0.00112484	0.00160993	0.00000082	0.00001061	0.00141009	0.00110904	0.00000409
SS083	0.02203707	0.03572407	3.86963254	0.38460632	0.38169296	0.00011287	0.00010665	0.20808206	0.19987489	0.06032201
SS084	0.05039802	0.13674973	36.49735494	0.07856374	0.32065503	0.00162641	0.00843633	1.49607896	1.50080547	0.10549657
SS085	0.00036747	0.00938625	2.42451840	0.05931039	0.07041010	0.00016609	0.00045842	0.05425192	0.05490066	0.03809978
SS086	0.00000996	0.00326400	0.63615963	0.01310956	0.01390628	0.00000587	0.00000552	0.02047152	0.02181349	0.00927171
SS087	0.00400689	0.07508201	10.44334584	0.21821899	0.21717362	0.01420440	0.01424576	0.71694144	0.66442333	0.11881792
SS088	0.00009157	0.00404884	0.06964042	0.00179004	0.00214101	0.00001256	0.00001175	0.00486148	0.00481976	0.00032852
SS089	0.00002580	0.00098898	0.21980121	0.00126723	0.00124244	0.00000103	0.00000524	0.01159573	0.01183672	0.00020038
SS090	0.00000457	0.00018278	0.04590498	0.00011595	0.00068496	0.00000018	0.00000088	0.00204658	0.00199723	0.00006048
SS091	0.00017563	0.00054425	0.08090703	0.00472694	0.00609574	0.00004533	0.00004705	0.00420673	0.00451163	0.00039757
SS092	0.00001161	0.00049405	0.05993300	0.00058350	0.00036064	0.00000046	0.00000232	0.00323424	0.00318914	0.00002118
SS093	0.00009404	0.00112813	0.19001598	0.00109943	0.00225729	0.00000113	0.00000678	0.00888315	0.00948111	0.00196151
SS094	0.00007236	0.00551869	1.20024494	0.02284992	0.02443679	0.00020254	0.00047347	0.11005412	0.12024418	0.00761496
SS095	0.00002787	0.00146306	1.03780370	0.00132313	0.00965258	0.00000087	0.00000973	0.01670512	0.01669734	0.00116133
SS096	0.00006902	0.00039432	0.01468476	0.00674939	0.00726629	0.00000542	0.00001119	0.00070043	0.00086266	0.00007455
SS097	0.00000177	0.00004786	0.00502071	0.00005983	0.00039070	0.00000077	0.00000526	0.00001501	0.00003864	0.00005944
SS098	0.00405429	0.00563892	0.34113465	0.01623528	0.01578663	0.00025413	0.00023384	0.02987974	0.02928923	0.00950407
SS105	0.00536060	0.70599699	37.72352000	1.20990826	1.41544131	0.00020411	0.00086373	0.73281688	0.76766623	0.27752849
SS123	0.00085257	0.00213829	0.31157953	0.44323716	0.47897716	0.00008908	0.00013257	0.02807270	0.02937401	0.00172468
SS125	0.00009551		0.07901494	0.09082645	0.02219750	0.00000576	0.00001529	0.00311580	0.00586503	0.00248653
SS126	0.01104404	0.00937688	0.22986280	0.42349954	0.41159802	0.00701013	0.00658852	0.01566956	0.01703210	0.00142979
SS200	0.00002649	0.02346725	2.71284993	0.01309093	0.06085406	0.00000603	0.00005304	0.01371077	0.01474611	0.00494904
SS201	0.00032413	0.02023051	6.97562298	0.18213093	0.16948394	0.00011591	0.00011753	0.19167395	0.18508482	0.27228470
SS202	0.01456838	0.01201516	0.59261205	0.57978231	0.71261090	0.00007583	0.00282458	0.07714139	0.08843360	0.01959591
SS203										
SS204	0.01500927	0.00169027	0.21963302	0.27825783	0.34522829	0.00040129	0.00027421	0.01801052	0.02068542	0.00350211
SS205										
SS206	0.00127381	0.00305470	0.08858634	0.01052650	0.00810107	0.00013459	0.00008950	0.00572451	0.00570007	0.00043010
SS207										

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Site ID	Cu T Ld	F T Ld	Hard D Ld	Fe D Ld	Fe T Ld	Pb D Ld	Pb T Ld	Mg D Ld	Mg T Ld	Mn D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS208	0.00001442	0.00023584	0.09906391	0.00129463	0.00155707	0.00000370	0.00000286	0.00614490	0.00617242	0.00059705
SS210	0.01783015	0.40021389	40.00787242	0.03498427	0.03478345	0.00002489	0.00013258	2.48401498	2.42185646	2.77704821
SS211										
SS212										
SS213										
SS214										
SS215	0.00070212	0.06892122	4.57536048	0.03310742	0.03310742	0.00012914	0.00018373	0.27004229	0.28910988	0.00855718
SS216	0.00003055	0.00020365	0.02647408	0.00173100	0.00173100	0.00000121	0.00000322	0.00079830	0.00061298	0.00003462
SS217	0.00038958	0.01539527	1.04685953	0.01972804	0.01972804	0.00001558	0.00007792	0.01768129	0.01766353	0.00041555
SS218	0.00007215	0.00728921	7.02077229	0.00423333	0.00423333	0.00000428	0.00002142	0.45673151	0.45876212	0.01237940
SS219	0.04258163	0.03837512	1.28768372	0.15294761	0.17174043	0.00233775	0.00247498	0.05309522	0.05636897	0.07889685
SS220	0.00118383	3.74861876	19.21166275	0.00834491	0.05530969	0.00000851	0.00004352	1.32145331	1.35286092	3.27969119
SS221	0.00005325	0.38163402	2.25029662	0.01170969	0.01170969	0.00000829	0.00000916	0.14275637	0.16515752	0.80440467
SS222	0.06190861	4.45171802	39.12054125	0.12218805	0.12218805	0.00017911	0.00018458	4.55863257	4.66962005	17.92091426
SS223	0.00007315	0.00299529	0.17400530	0.00380807	0.00375852	0.00000288	0.00002455	0.00492130	0.00533650	0.00006770
SS224										
SS225	0.00457594	0.01282975	3.64731335	0.00741681	0.24122976	0.00362288	0.00150291	0.12695339	0.12487619	0.53090709
SS226	0.00002393	0.00875681	0.61297673	0.01318613	0.01318613	0.00015920	0.00032110	0.01450779	0.01408828	0.01193401
SS227										
SS228	0.00094798	0.00926593	2.17902026	0.05966850	0.05926121	0.00001884	0.00005590	0.07351648	0.07545112	0.06659249
SS229	0.00000964	0.00142553	0.37613555	0.00002546	0.00002546	0.00000041	0.00000084	0.01053057	0.01199785	0.00000066
SS230	0.00120172	0.00166990	0.17747815	0.00181347	0.00373081	0.00014424	0.00040801	0.02199385	0.02169245	0.00620613
SS231	0.00002214	0.00088549	0.61479908	0.00601964	0.01782015	0.00000089	0.00000443	0.01407972	0.01378770	0.00249063
SS232										
SS235										
SS236	0.00217393	0.03349989	4.63601833	0.00056003	0.00308219	0.00006984	0.00006654	0.14611655	0.14509831	0.12585369
SS238	0.00088790	0.00183282	1.04368961	0.06129767	0.06231591	0.00002404	0.00002225	0.03787830	0.03696189	0.00789131
SS250	0.00024715	0.11189012	13.73499868	0.01231552	0.08957735	0.00002153	0.00025232	0.09825361	0.10057432	0.03327055
SS300	0.00071951	0.00547301	0.17819091	0.00140007	0.00139753	0.00000140	0.00001017	0.00962104	0.00996724	0.00405639
SS301	0.00005224	0.00621123	1.19540644	0.05803932	0.08797540	0.00002380	0.00001421	0.03910018	0.00274923	0.03675824
SS304	0.00239964	0.07586680	8.13429827	0.04787496	0.04787496	0.04087894	0.04129493	0.27798573	0.28587788	0.16983555

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
 Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Cu T Ld	FT Ld	Hard D Ld	Fe D Ld	Fe T Ld	Pb D Ld	Pb T Ld	Mg D Ld	Mg T Ld	Mn D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS305										

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Mn T Ld	Ni D Ld	Ni T Ld	Nitrate/Nitrite as N T Ld	K D Ld	K T Ld	Se D Ld	Se T Ld	SiO2 D Ld	SiO2 T Ld	Ag D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
A23A											
A38	0.16854220	0.00002687	0.00041577	0.04377076	0.00638636	0.00975061	0.00005375	0.00005543			0.00002687
CC01A	0.02787300	0.00004006	0.00020031	0.08478547	0.00852413	0.01431060	0.00008013	0.00040063			0.00004006
CC01B	1.33934068	0.00067235	0.00116239	0.89005620	0.09216237	0.06080485	0.00030058	0.00062513	0.24638813	1.04317706	0.00015029
CC01C	0.09609614	0.00019202	0.00018879	0.13377316	0.00576312	0.00559876	0.00012628	0.00063252			0.00006306
CC03D	10.46492069	0.01334359	0.00647953	3.24769967	0.30213408	0.34946882	0.00355793	0.00410024	16.99119289	16.00394574	0.00177896
CC06	27.89092311	0.09211664	0.08068573	11.17927616	3.33619553	2.26264121	0.00943479	0.00519352	27.58700739	23.32356080	0.00453643
CC14	4.86936263	0.01057507	0.01440423	61.57470645	1.06155197	1.56951522	0.01582657	0.02863497	0.00000000	0.00000000	0.00788945
CC16C	0.02652399	0.00025414	0.00028394	0.64732507	0.04090339	0.04399023	0.00008805	0.00030190			0.00004329
CC19	10.57501656	0.01378289	0.01132414	3.23862869	0.09654190	0.09811223	0.00226482	0.00145449	7.66424555	6.69641435	0.00113241
CC50	2.56205313	0.00195618	0.00484574	19.36117639	0.71500434	0.77092226	0.00437228	0.00832450	0.00000000	0.00000000	0.00242492
DM01											
DM24	0.17778362	0.00016903	0.00018155		0.00101823	0.00845134	0.00078262	0.00075657			0.00038542
DM32	0.08589480	0.00006275	0.00036759	0.02406796	0.00473969	0.00476735	0.00002052	0.00010094			0.00000889
DM4											
SS001	0.02861115	0.00023555	0.00100957	0.32409457	0.00641316	0.01457603	0.00032221	0.00161106	0.96641918	0.97282294	0.00016111
SS002	0.00007319	0.00001229	0.00006394	0.01002930	0.00042868	0.00048468	0.00002457	0.00012287	0.04516647	0.04544858	0.00001229
SS003	0.00299362	0.00000652	0.00003262	0.00206779	0.00015121	0.00013288	0.00001305	0.00006525	0.03796081	0.03714399	0.00000652
SS004	0.00012859	0.00000484	0.00014982	0.00942342	0.00278358	0.00317792	0.00000788	0.00003938	0.00607406	0.00596404	0.00000394
SS005											
SS006	0.00047446	0.00005481	0.00026266	0.11324459	0.00217638	0.00205751	0.00010963	0.00054813	0.49028171	0.47209957	0.00005481
SS007	0.00151920	0.00007845	0.00621975	0.16191125	0.04723109	0.05150209	0.00015828	0.00079142	0.20392924	0.21178651	0.00007914
SS008	0.31599933	0.00030900	0.00154498	0.65727013	0.19506628	0.19506628	0.00061799	0.00308996			0.00030900
SS009	0.00089504	0.00001038	0.00005190	0.02384536			0.00002076	0.00010380	0.02769194	0.02857067	0.00001038
SS010	0.02362551	0.00001543	0.00007717	0.06359524	0.01011235	0.01018429	0.00003087	0.00015434	0.00452003	0.00426902	0.00001543
SS011	0.01406566	0.00005802	0.00005635	0.01305126			0.00000414	0.00002068	0.02389786	0.02467451	0.00000207
SS012	0.00444219	0.00004731	0.00027279	0.10422400	0.01477254	0.01466715	0.00011045	0.00055227	0.04866524	0.06083068	0.00005523
SS013	0.31926090	0.00341736	0.01671806	6.87386978	0.31900838	0.28761016	0.00683471	0.03417357	15.18449624	15.23639592	0.00341736
SS014	0.00036881	0.00006974	0.00034163	0.12035099	0.03806873	0.01237298	0.00013947	0.00069737	0.07339999	0.07672637	0.00006974
SS015	0.01516771	0.00035787	0.00189029	0.77969437	0.10491873	0.11842222	0.00071574	0.00357871	4.43938303	4.43475771	0.00035787
SS016	0.00648307	0.00001200	0.00004412	0.01780352	0.01056704	0.01030523	0.00001788	0.00008938	0.21663146	0.21194342	0.00000894

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Mn T Ld	Ni D Ld	Ni T Ld	Nitrate/Nitrite as N T Ld	K D Ld	K T Ld	Se D Ld	Se T Ld	SiO2 D Ld	SiO2 T Ld	Ag D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS017	0.00548309	0.00001331	0.00003035	0.00921021	0.00497713	0.00507080	0.00000660	0.00003298	0.14090295	0.15617645	0.00000330
SS018	0.08296185	0.00030528	0.00051071	0.10771580	0.02553275	0.02421248	0.00003424	0.00017122	0.53512375	0.48259759	0.00001712
SS019	0.00003209	0.00000643	0.00003178	0.00664811	0.00300202	0.00029084	0.00001286	0.00006430	0.06448108	0.06286259	0.00000643
SS020	0.00722656	0.00013744	0.00013119	0.06306347	0.00101823	0.00101823	0.00004114	0.00020570	0.01943791	0.01774967	0.00002057
SS021	0.00266099	0.00006369	0.00030699	0.12410524			0.00012279	0.00061397	0.05332195	0.05369314	0.00006140
SS022	0.00045793	0.00003088	0.00014985	0.06448376	0.00178191	0.00178191	0.00005994	0.00029970	0.24848283	0.20768309	0.00002997
SS023	0.00140035	0.00009960	0.00049826	0.40120142	0.04666093	0.05504958	0.00019931	0.00099653	0.00321685	0.00370124	0.00009965
SS024	0.00060260	0.00012230	0.00061150	0.24096282	0.05621781	0.04275648	0.00024460	0.00122299	0.83224941	0.83739894	0.00012230
SS025	0.00001633	0.00000324	0.00001619	0.00855913			0.00000647	0.00003237	0.00905087	0.00761201	0.00000324
SS026	0.07918324	0.00008222	0.00007312	0.05299432	0.00365424	0.00296184	0.00005033	0.00025164	0.24616176	0.26838749	0.00002516
SS027	0.39647285	0.00048965	0.00050221	0.52016981	0.00761814	0.00792762	0.00015491	0.00049914	0.24232468	0.25126434	0.00007202
SS028	0.00000959	0.00000068	0.00000338	0.00123865			0.00000135	0.00000676	0.00219380	0.00298990	0.00000068
SS029	0.07391214	0.00151652	0.00712039	0.76559695	0.00512158	0.01369132	0.00070084	0.00350420	3.10821567	3.18684612	0.00035042
SS030	0.00000222	0.00000020	0.00000099	0.00055210	0.00031177	0.00031177	0.00000039	0.00000197	0.00026983	0.00046330	0.00000020
SS031	0.00027874	0.00000328	0.00001642	0.00818067	0.00213942	0.00221190	0.00000657	0.00003284	0.00114314	0.00065381	0.00000328
SS032	0.00016647	0.00003282	0.00016411	0.06723854	0.00235008	0.00294880	0.00006564	0.00032821	0.08046165	0.08525416	0.00003282
SS033	0.00000980	0.00000020	0.00000083	0.00055210	0.00014342	0.00011859	0.00000039	0.00000197	0.00050046	0.00055545	0.00000020
SS034	0.00009591	0.00000075	0.00000021	0.00062768	0.00003106	0.00004378	0.00000036	0.00000180	0.00049893	0.00053966	0.00000018
SS035	0.00159288	0.00027612	0.00137413	0.54473543			0.00055224	0.00276118	0.72258504	0.73823209	0.00027612
SS036	0.00010822	0.00000154	0.00000379	0.00350442			0.00000291	0.00001457	0.00260533	0.00256953	0.00000146
SS037	0.03835282	0.00028169	0.00047551	0.05669560	0.01220455	0.01666034	0.00002521	0.00014868	0.20239579	0.18553384	0.00001261
SS038	0.00036724	0.00007238	0.00035186	0.14904029	0.01409154	0.01328574	0.00014475	0.00072376	0.36338812	0.37536257	0.00007238
SS039	0.02014581	0.00005092	0.00019199	0.07849634	0.00274923	0.00297467	0.00007427	0.00037133	0.21626343	0.22162187	0.00003713
SS040	0.41510402	0.00014624	0.00106884	0.43530040	0.00200403	0.00241747	0.00043442	0.00217208	2.13012217	2.12348869	0.00021721
SS041	0.09584230	0.00006484	0.00047334	0.12951987	0.00838097	0.00935098	0.00011700	0.00058500	0.28002281	0.28312100	0.00005850
SS042	0.00391091	0.00002282	0.00001825	0.09822739	0.00524492	0.00534471	0.00004565	0.00003311	0.00730827	0.01714516	0.00002282
SS043	0.05103852	0.00008406	0.00007803	0.35930218	0.02501906	0.01535993	0.00016812	0.00014027	0.04347554	0.04036991	0.00008406
SS044	0.12614336	0.00009387	0.00046010	0.40416961	0.00737686	0.00702016	0.00018774	0.00092080	2.93126642	3.30392854	0.00009387
SS045	0.00135972	0.00001730	0.00007331	0.03216692	0.00311776	0.00291886	0.00003042	0.00015210	0.15396232	0.20131007	0.00001521
SS046	0.00850639	0.00001680	0.00001944	0.00791128	0.00289020	0.00282814	0.00000940	0.00004698	0.09763041	0.09050749	0.00000470
SS047	0.00404454	0.00083449	0.00416436	1.69768379	0.06197548	0.04959577	0.00166897	0.00834487	5.51658713	5.40937797	0.00083449

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Mn T Ld	Ni D Ld	Ni T Ld	Nitrate/Nitrite as N T Ld	K D Ld	K T Ld	Se D Ld	Se T Ld	SiO2 D Ld	SiO2 T Ld	Ag D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS048	0.02146975	0.00104001	0.00511977	2.08178485	0.05615092	0.05763347	0.00208077	0.01040012	9.81847709	12.77947265	0.00104001
SS049	0.00024511	0.00004901	0.00023875	0.09850318	0.00248775	0.00234194	0.00009802	0.00049009	0.23794018	0.22738903	0.00004901
SS050	0.05081109	0.00052033	0.00262591	1.06260267	0.04312867	0.04460479	0.00106060	0.00530302	3.25240254	3.56838095	0.00053030
SS051	0.00113077	0.00003881	0.00019449	0.08283389	0.03706367	0.04123943	0.00007762	0.00038809	0.28823597	0.28167180	0.00003881
SS052	0.00001285	0.00000154	0.00001081	0.00334406	0.00129175	0.00119005	0.00000302	0.00001509	0.01273295	0.01453638	0.00000151
SS053	0.01508219	0.00008178	0.00007975	0.07217401	0.00355415	0.00183660	0.00006890	0.00034450	0.36253360	0.39051460	0.00003445
SS054	0.00046987	0.00004431	0.00027183	0.30951153	0.03554584	0.03498773	0.00008862	0.00054365	0.27718409	0.28431426	0.00004431
SS055	0.09424256	0.00009607	0.00013057	0.20222121	0.00909736	0.00924889	0.00001977	0.00009886	0.51761478	0.53950586	0.00000989
SS056	0.00360050	0.00001435	0.00004167	0.01972622			0.00001903	0.00009513	0.13029057	0.12977020	0.00000951
SS057	0.00205450	0.00000587	0.00000556	0.00554766	0.00019997	0.00254030	0.00000265	0.00000195	0.00031589	0.00019966	0.00000132
SS058	0.00000244	0.00000018	0.00000012	0.00056845	0.00038184	0.00038184	0.00000036	0.00000180	0.00064149	0.00062621	0.00000018
SS059	0.00043502	0.00004294	0.00022402	0.09439951	0.00496347	0.00473953	0.00009147	0.00045736	0.73353697	0.74331712	0.00004574
SS060	0.00115424	0.00001641	0.00007499	0.03197680	0.00272459	0.00309811	0.00003033	0.00015166	0.06452795	0.07028794	0.00001517
SS061	0.00004276	0.00000216	0.00001277	0.00600919			0.00000511	0.00002554	0.01885531	0.02032639	0.00000255
SS062	0.03467312	0.00001105	0.00003302	0.03646783	0.00197293	0.00231492	0.00001328	0.00006642	0.21097701	0.23862929	0.00000664
SS063	0.04069084	0.00032702	0.00024062	0.11001194	0.00024438	0.00072906	0.00005085	0.00004932	0.10981992	0.11135018	0.00002542
SS064	0.00037973	0.00005234	0.00005509	0.01317921	0.00030835	0.00064904	0.00012114	0.00011634	0.11235286	0.10971361	0.00006057
SS065	0.38097435	0.00041262	0.00045907	0.31508301	0.02528961	0.02347070	0.00027560	0.00026900	0.33308778	0.34377758	0.00013657
SS066	0.13024839	0.00017290	0.00016466	0.05350101			0.00004135	0.00002894	0.07430728	0.07410937	0.00001968
SS067	0.01079847	0.00001537	0.00001656	0.00541859	0.00053602	0.00052955	0.00000929	0.00000653	0.05581005	0.05463620	0.00000327
SS068	0.01507501	0.00002796	0.00004680	0.05340471	0.00348484	0.00300423	0.00003397	0.00002990	0.03022399	0.04504504	0.00001698
SS069	0.01239878	0.00001525	0.00001409	0.01019409	0.00266021	0.00267446	0.00000705	0.00003526	0.09586669	0.10961573	0.00000353
SS070	0.01067407	0.00004008	0.00003900	0.01367307	0.00066023	0.00058719	0.00001266	0.00006331	0.23094126	0.25569113	0.00000633
SS071	0.59793174	0.00151034	0.00126915	3.27525370	0.03421030	0.03837613	0.00302069	0.00253830	6.58216299	6.95895189	0.00151034
SS072	0.14273432	0.00032925	0.00032525	0.38334453	0.01687383	0.01783787	0.00041126	0.00039122	0.75188694	0.77485427	0.00020563
SS073	0.02549778	0.00003261	0.00004363	0.20957281	0.01144140	0.01120363	0.00009838	0.00008776	0.07870558	0.07697446	0.00004919
SS074	0.02404790	0.00009867	0.00009127	0.13481273	0.00635072	0.00654826	0.00006065	0.00006067	0.16816374	0.18262848	0.00003033
SS075	0.14811823	0.00064027	0.00057148	2.33605036	0.12047244	0.12714622	0.00128054	0.00114295	0.29267740	0.38534998	0.00064027
SS076	0.00001116	0.00000020	0.00000591	0.00055210	0.00031819	0.00027012	0.00000039	0.00000197	0.00040220	0.00041748	0.00000020
SS077	0.00122907	0.00024796	0.00122808	0.49877456	0.02996446	0.00800872	0.00049591	0.00247955	1.14718520	1.26832467	0.00024796
SS078	0.00179510	0.00007969	0.00070295	0.16640915	0.00863559	0.00994218	0.00015937	0.00079686	0.21584954	0.24437760	0.00007969

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Mn T Ld	Ni D Ld	Ni T Ld	Nitrate/Nitrite as N T Ld	K D Ld	K T Ld	Se D Ld	Se T Ld	SiO2 D Ld	SiO2 T Ld	Ag D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS079	0.00038181	0.00007611	0.00037723	0.15250227	0.00141054	0.00119351	0.00015222	0.00076109	0.18849807	0.19706126	0.00007611
SS080	0.00001793	0.00000051	0.00000301	0.00120694	0.00061899	0.00032298	0.00000102	0.00000509			0.00000051
SS082	0.00002855	0.00000409	0.00001078	0.00346008			0.00000316	0.00004092			0.00000409
SS083	0.06247717	0.00019461	0.00022875	0.09430263			0.00009544	0.00047678	1.02842421	1.01584822	0.00004768
SS084	0.11279242	0.00091554	0.00232260	0.93711701			0.00094122	0.00470612	6.45339038	6.62724848	0.00047061
SS085	0.04054708	0.00001743	0.00003838	0.09692138	0.00141840	0.00157012	0.00004567	0.00004567	0.20990889	0.21530553	0.00002283
SS086	0.00959982	0.00000771	0.00000529	0.03525438	0.00139692	0.00149180	0.00001747	0.00001589	0.10385542	0.10808960	0.00000873
SS087	0.11736753	0.00136880	0.00111057	0.47367333	0.03712192	0.03360596	0.00040433	0.00200743	2.56524539	2.64399918	0.00020074
SS088	0.00033183	0.00001847	0.00008988	0.04175355	0.00081647	0.00073538	0.00003663	0.00018314	0.41349214	0.45228976	0.00001831
SS089	0.00018378	0.00000516	0.00002562	0.01079517	0.00328771	0.00298709	0.00001032	0.00005162	0.02997044	0.03311585	0.00000516
SS090	0.00005823	0.00000116	0.00000365	0.00192605	0.00092481	0.00095001	0.00000183	0.00000914	0.00151131	0.00138194	0.00000091
SS091	0.00040784	0.00000592	0.00005017	0.00266807	0.00203698	0.00249391	0.00000544	0.00002721	0.02366621	0.02468368	0.00000272
SS092	0.00002800	0.00000509	0.00001059	0.00532680	0.00144386	0.00131556	0.00000465	0.00002323	0.01202994	0.01180074	0.00000232
SS093	0.00197644	0.00002833	0.00020512	0.01216597	0.00629014	0.00781393	0.00001128	0.00005839	0.00153427	0.00173051	0.00000564
SS094	0.00793789	0.00019535	0.00026966	0.01992194	0.00000000	0.00116690	0.00000552	0.00001694	0.00871728	0.00811925	0.00000276
SS095	0.00128860	0.00000437	0.00002174	0.01516412	0.00987103	0.01058886	0.00000874	0.00004722	0.00250091	0.00432171	0.00000437
SS096	0.00007541	0.00000151	0.00000864	0.00418210	0.00053025	0.00053025	0.00000409	0.00001972	0.02591558	0.02839034	0.00000205
SS097	0.00006017	0.00000064	0.00000129	0.00096427			0.00000048	0.00000239	0.00069584	0.00061747	0.00000024
SS098	0.00943633	0.00007649	0.00008262	0.05672271	0.00270606	0.00268488	0.00000423	0.00002675	0.00017666	0.00046178	0.00000252
SS105	0.27851761	0.00026495	0.00083534	3.99578124	0.03594161	0.03665354	0.00056475	0.00180862			0.00028037
SS123	0.00180777	0.00018817	0.00009665	0.05803932			0.00003968	0.00035129			0.00003513
SS125	0.00219938	0.00001291	0.00003136		0.00000204	0.00247431	0.00000377	0.00000856			0.00000466
SS126	0.00147817	0.00016538	0.00020656	0.09376877	0.01032064	0.00963899	0.00007134	0.00038265			0.00003293
SS200	0.00643010	0.00003017	0.00004936	0.26717724	0.00240365	0.00173400	0.00006034	0.00009872			0.00003017
SS201	0.26199940	0.00030400	0.00030518	0.16630182	0.01059157	0.00939622	0.00021084	0.00019491			0.00010441
SS202	0.02011012	0.00015111	0.00016460	0.12116982			0.00002393	0.00011964			0.00001196
SS203											
SS204	0.00362461	0.00006452	0.00006132	0.02179020			0.00000488	0.00000102			0.00000479
SS205											
SS206	0.00050647	0.00002138	0.00007637	0.03054701			0.00003055	0.00015274			0.00001527
SS207											

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Mn T Ld	Ni D Ld	Ni T Ld	Nitrate/Nitrite as N T Ld	K D Ld	K T Ld	Se D Ld	Se T Ld	SiO2 D Ld	SiO2 T Ld	Ag D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS208	0.00059392	0.00000368	0.00002012	0.00594727	0.00224716	0.00194833	0.00000595	0.00002974			0.00000297
SS210	2.80308514	0.00167317	0.00177106	0.51994645	0.03448392	0.03260875	0.00014503	0.00138703			0.00013575
SS211											
SS212											
SS213											
SS214											
SS215	0.01131034	0.00027348	0.00145956	0.28143437	0.08016322	0.08018867	0.00028143	0.00140717			0.00014072
SS216	0.00001662	0.00000611	0.00001588	0.01221881			0.00001222	0.00006109			0.00000611
SS217	0.00045024	0.00007792	0.00038984	0.15583135	0.00470933	0.00470933	0.00015583	0.00077916			0.00007792
SS218	0.01316466	0.00009652	0.00110580	0.03874644	0.01387547	0.01380521	0.00004311	0.00021556			0.00002156
SS219	0.08621637	0.00012970	0.00017983	0.08059177	0.00212184	0.00341959	0.00008059	0.00040296			0.00003952
SS220	6.97920263	0.00210247	0.00272133	0.90698462	0.02199385	0.01588445	0.00008687	0.00043519			0.00004352
SS221	0.88586338	0.00026800	0.00026148	0.19346442			0.00009164	0.00009164			0.00004582
SS222	18.57258387	0.00988400	0.01005099	1.98555584			0.00096732	0.00096732			0.00048366
SS223	0.00128945	0.00001498	0.00006808	0.02995292	0.00579116	0.00583081	0.00002995	0.00014976			0.00001498
SS224											
SS225	0.53335085	0.00017015	0.00013777	0.04887522			0.00005498	0.00027492			0.00002749
SS226	0.01143171	0.00003336	0.00016271	0.10385984			0.00010386	0.00051930			0.00005193
SS227											
SS228	0.06557425	0.00000911	0.00006802	0.01527351	0.00297528	0.00267388	0.00000509	0.00000509			0.00000255
SS229	0.00002989	0.00000509	0.00001110	0.02036468	0.00026698	0.00050240	0.00001018	0.00000204			0.00000509
SS230	0.00607478	0.00003178	0.00003796	0.01048781	0.00078435	0.00115458	0.00000299	0.00003004			0.00000300
SS231	0.00257547	0.00000443	0.00009309	0.00885493	0.00216869	0.00218943	0.00000885	0.00004427			0.00000443
SS232											
SS235											
SS236	0.12369504	0.00012577	0.00012280	0.06516696	0.01416363	0.01139404	0.00008146	0.00004073			0.00004073
SS238	0.00754511	0.00002484	0.00002800	0.00509117	0.00275941	0.00253540	0.00000102	0.00000509			0.00000051
SS250	0.10328528	0.00006806	0.00003611	0.13612138	0.00851708	0.00600682	0.00013612	0.00007222			0.00006806
SS300	0.00498553	0.00004382	0.00004534	0.01400071	0.00556974	0.00574157	0.00001400	0.00007000			0.00000700
SS301	0.01730997	0.00015141	0.00009897	0.04072935	0.00176154	0.00310561	0.00001527	0.00001527			0.00000764
SS304	0.18042580	0.00038738	0.00089335	0.38238871			0.00038239	0.00191194			0.00019119

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
 Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Mn T Ld	Ni D Ld	Ni T Ld	Nitrate/Nitrite as N T Ld	K D Ld	K T Ld	Se D Ld	Se T Ld	SiO2 D Ld	SiO2 T Ld	Ag D Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS305											

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Ag T Ld	Na D Ld	Na T Ld	Sr D Ld	Sr T Ld	SO4 T Ld	Th D Ld	Th T Ld	Alk T Ld	V D Ld	V T Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
A23A											
A38	0.00002772	0.05097686	0.05006452			7.50259456	0.00005375	0.00005543	1.62723969	0.00011404	0.00011404
CC01A	0.00020031	0.03070487	0.03102878			7.33421767	0.00008013	0.00040063	1.51023957	0.00003694	0.00018468
CC01B	0.00031256	0.24680765	0.12125942	0.01325292	0.06527103	32.16996457	0.00030058	0.00112469	0.26337398	0.00041951	0.00041951
CC01C	0.00031629	0.00671824	0.00681589			4.85913532	0.00014564	0.00072821	0.62114513	0.00000591	0.00002953
CC03D	0.00205012	1.69162841	1.78587795	1.85289992	1.83478317	451.21241498	0.00355793	0.00569395	11.90057883	0.00950256	0.00027370
CC06	0.00183807	4.19670291	3.52282693	0.87776842	1.42950856	2114.55946444	0.00907286	0.00367614	3.67613894	0.01190983	0.03312246
CC14	0.01418283	5.17504361	4.68166809	0.00000000	0.00000000	827.15307456	0.01568220	0.01873927	16.09138092	0.04823373	0.01882714
CC16C	0.00015025	0.06883160	0.07503478			2.70785255	0.00007280	0.00012122	0.23867788	0.00007932	0.00038125
CC19	0.00072724	0.62206992	0.44100048	0.96798393	0.86860431	487.27345386	0.00226482	0.00145449	3.70364761	0.00245023	0.00083267
CC50	0.00435524	2.15903110	3.66427279	0.00000000	0.00000000	337.09609682	0.00437228	0.00832450	36.84455853	0.00967222	0.00109992
DM01											
DM24	0.00038542	0.14626928	0.18888236			15.05458621			3.59385607		
DM32	0.00005047	0.00969984	0.00784932			1.40058397	0.00002019	0.00010094	0.10094272	0.00002245	0.00011224
DM4											
SS001	0.00080553	0.00744682	0.00980415	0.00760781	0.00836780	4.50325877	0.00032221	0.00161073	1.79646115	0.00005420	0.00027098
SS002	0.00006144	0.00142451	0.00149477	0.00528823	0.00541293	1.74871921	0.00002457	0.00014985	0.14444583	0.00000305	0.00001527
SS003	0.00003262	0.00056919	0.00052948	0.00343342	0.00342334	1.05000029	0.00001305	0.00008682	0.01492717	0.00000204	0.00001018
SS004	0.00001969	0.00333613	0.00367324	0.00040909	0.00028791	0.50915411	0.00000788	0.00003938	0.06991483	0.00000415	0.00002077
SS005											
SS006	0.00027407	0.00152649	0.00133146	0.00971479	0.01111060	1.92471033	0.00010963	0.00054813	1.33358483	0.00000333	0.00001663
SS007	0.00039571	0.17112228	0.17053293	0.00664346	0.00781205	4.97411272	0.00015828	0.00079142	2.25816033	0.00040042	0.00200212
SS008	0.00154498	0.48673578	0.52532252			49.30220616	0.00061799	0.00308996	12.35794605	0.00161144	0.00805721
SS009	0.00005190			0.00175692	0.00177705	1.02197768	0.00002076	0.00010380	0.34823595		
SS010	0.00007717	0.07571847	0.07832549	0.00002588	0.00001389	11.87162875	0.00003087	0.00015434	0.24957329	0.00008149	0.00040744
SS011	0.00001034			0.00374086	0.00366740	1.17823368	0.00000414	0.00002068	0.02036468		
SS012	0.00027614	0.10048440	0.10476098	0.00081076	0.00122564	4.45846855	0.00011045	0.00055227	0.45813562	0.00011761	0.00058803
SS013	0.01708679	0.61155993	0.63677564	1.21600960	1.19042208	240.28814890	0.00683471	0.03364239	68.73956071	0.00208910	0.01044552
SS014	0.00034868	0.04821293	0.04753053	0.00568992	0.00454746	3.91221404	0.00013947	0.00061073	1.27090381	0.00006053	0.00030266
SS015	0.00178936	0.47955455	0.46684561	0.12266351	0.11961080	31.81706119	0.00071574	0.00298202	6.40706170	0.00060896	0.00304478
SS016	0.00004469	0.03313503	0.03310759	0.00226693	0.00224513	1.09138599	0.00001788	0.00008938	0.10071489	0.00003484	0.00017420

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Ag T Ld	Na D Ld	Na T Ld	Sr D Ld	Sr T Ld	SO4 T Ld	Th D Ld	Th T Ld	Alk T Ld	V D Ld	V T Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS017	0.00001649	0.01306598	0.01317187	0.00115723	0.00107134	0.60017399	0.00000660	0.00003298	0.03758740	0.00000896	0.00004480
SS018	0.00008561	0.06583493	0.06958542	0.00819214	0.00864787	6.95661277	0.00003424	0.00017122	0.19662402	0.00006478	0.00032392
SS019	0.00003215	0.00409323	0.00398397	0.00239881	0.00238663	0.29877896	0.00001286	0.00006601	0.06680811	0.00000851	0.00004255
SS020	0.00010285	0.03252646	0.03472992	0.00027128	0.00029544	1.08271516	0.00004114	0.00022734	0.24432088	0.00010997	0.00054985
SS021	0.00030699			0.00020610	0.00020008	1.32185377	0.00012279	0.00061397	0.69239896		
SS022	0.00014985	0.00831082	0.00829555	0.00222446	0.00234309	1.16030007	0.00005994	0.00029970	0.36174776	0.00002444	0.00012219
SS023	0.00049826	0.24972796	0.26398936	0.00004587	0.00003904	20.14403069	0.00019931	0.00099653	4.69727294	0.00041766	0.00208830
SS024	0.00061150	0.14823689	0.15205876	0.15384742	0.14160883	24.63651271	0.00024460	0.00122299	6.27530120	0.00035890	0.00179452
SS025	0.00001619			0.00017110	0.00008474	0.10052606	0.00000647	0.00003237	0.03095431		
SS026	0.00012582	0.00793326	0.00785975	0.00159767	0.00174643	1.57804288	0.00005033	0.00025164	0.27654499	0.00002260	0.00011302
SS027	0.00024957	0.02891028	0.03120991	0.00095528	0.00127929	9.13756526	0.00014462	0.00049864	0.57568491	0.00038291	0.00008730
SS028	0.00000338			0.00003240	0.00003272	0.01246216	0.00000135	0.00000676	0.00162917		
SS029	0.00175210	0.02392170	0.02383616	0.01466227	0.01662803	12.71463370	0.00070084	0.00350420	4.03652326	0.00012918	0.00064589
SS030	0.00000099	0.00011503	0.00011606	0.00003869	0.00004786	0.00741034	0.00000039	0.00000197	0.00213617	0.00000042	0.00000208
SS031	0.00001642	0.00818195	0.00814173	0.00029274	0.00032306	0.28709426	0.00000657	0.00003284	0.20631004	0.00001837	0.00009185
SS032	0.00016411	0.01085437	0.00979541	0.00699361	0.00673439	0.53759944	0.00006564	0.00032821	1.58440130	0.00001833	0.00009164
SS033	0.00000099	0.00008357	0.00007261	0.00000249	0.00000275	0.00101900	0.00000039	0.00000197	0.00207846	0.00000042	0.00000208
SS034	0.00000090	0.00006873	0.00006415	0.00000591	0.00000596	0.00452527	0.00000036	0.00000180	0.00207846	0.00000051	0.00000255
SS035	0.00138059			0.15694247	0.14621333	27.15021524	0.00055224	0.00275793	9.45470780		
SS036	0.00000728			0.00001114	0.00000404	0.03053050	0.00000291	0.00001440	0.02036468		
SS037	0.00007434	0.02703411	0.02816435	0.00786278	0.00689129	4.29740189	0.00002521	0.00014868	0.15845454	0.00002444	0.00024438
SS038	0.00036188	0.03203827	0.02557079	0.04338918	0.04731753	1.46876202	0.00014475	0.00072376	3.87411132	0.00007973	0.00039863
SS039	0.00018567	0.00819271	0.00847710	0.00163061	0.00179461	1.39422192	0.00007427	0.00025971	0.44776596	0.00002352	0.00011761
SS040	0.00108604	0.00319612	0.00349718	0.01089682	0.00999397	6.14823283	0.00043442	0.00217203	2.42740017	0.00001658	0.00008290
SS041	0.00029250	0.02584359	0.02694521	0.01377159	0.01244352	3.18848775	0.00011700	0.00058124	0.63092202	0.00009369	0.00046846
SS042	0.00001656	0.03874278	0.03882322	0.00050375	0.00052897	2.46909004	0.00004565	0.00002112	0.22492161	0.00010081	0.00007637
SS043	0.00007013	0.10108759	0.09982968	0.01369934	0.01309857	4.06171918	0.00016812	0.00006523	1.61070267	0.00031679	0.00025635
SS044	0.00046040	0.05812431	0.05855618	0.13623626	0.12203190	24.26089901	0.00018774	0.00092059	0.97339835	0.00022420	0.00019491
SS045	0.00007605	0.01691026	0.01689166	0.00011619	0.00000599	0.85808453	0.00003042	0.00015210	0.17476285	0.00001857	0.00009284
SS046	0.00002349	0.01778925	0.01787431	0.00159129	0.00171358	0.66244489	0.00000940	0.00004698	0.03943602	0.00001384	0.00006918
SS047	0.00417243	0.07679599	0.06971411	0.26954347	0.26748435	24.82563177	0.00166897	0.00878064	38.30509003	0.00011265	0.00056324

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Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Ag T Ld	Na D Ld	Na T Ld	Sr D Ld	Sr T Ld	SO4 T Ld	Th D Ld	Th T Ld	Alk T Ld	V D Ld	V T Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS048	0.00520006	0.40914410	0.41910445	0.24566307	0.25779650	18.89383459	0.00208002	0.01148439	57.73548378	0.00050616	0.00253082
SS049	0.00024505	0.00435600	0.00457513	0.00151066	0.00150213	0.36738920	0.00009802	0.00048985	0.42554318	0.00001975	0.00009877
SS050	0.00265151	0.12432399	0.12344681	0.19782257	0.18619027	25.78544654	0.00106060	0.00526807	18.38292131	0.00032459	0.00162297
SS051	0.00019404	0.01307212	0.01254476	0.00645191	0.00678770	1.28418324	0.00007762	0.00038270	0.32029071	0.00002613	0.00013066
SS052	0.00000755	0.00270086	0.00276126	0.00002559	0.00003471	0.05571465	0.00000302	0.00001509	0.01184485	0.00000376	0.00001878
SS053	0.00017225	0.00661695	0.00567609	0.00392226	0.00349461	2.19494519	0.00006890	0.00034450	0.39388250	0.00002081	0.00010404
SS054	0.00027183	0.30019987	0.29399714	0.09973255	0.10268341	38.08558306	0.00008862	0.00054365	2.66501341	0.00023437	0.00149157
SS055	0.00004943	0.01786029	0.01780118	0.01232216	0.01260418	4.38438126	0.00001977	0.00009886	0.10957585	0.00002677	0.00003928
SS056	0.00004756			0.00031947	0.00032057	0.22162606	0.00001903	0.00009513	0.12040614		
SS057	0.00000098	0.00084976	0.00072019	0.00030332	0.00037363	0.06431385	0.00000265	0.00000195	0.00140431	0.00000472	0.00000208
SS058	0.00000090	0.00004837	0.00006415	0.00000519	0.00000713	0.00360114	0.00000036	0.00000180	0.00207846	0.00000051	0.00000255
SS059	0.00022868	0.02401373	0.02507925	0.00702843	0.00724038	1.47422767	0.00009147	0.00045736	0.50865422	0.00002088	0.00010442
SS060	0.00007583	0.00913451	0.00884437	0.00001979	0.00002201	0.20252318	0.00003033	0.00015166	0.17192378	0.00001791	0.00008953
SS061	0.00001277			0.00000979	0.00000665	0.01803303	0.00000511	0.00002554			
SS062	0.00003321	0.01291404	0.01296937	0.00308986	0.00321405	1.15697702	0.00001328	0.00006642	0.06860397	0.00000306	0.00001530
SS063	0.00002466	0.00122188	0.00142553	0.00709331	0.00616681	3.99063493	0.00005085	0.00004932	0.04837850	0.00001324	0.00000509
SS064	0.00005817	0.00335274	0.00324746	0.01911151	0.02030971	4.26227748	0.00012114	0.00017986	0.03193632	0.00001374	0.00001333
SS065	0.00013450	0.11408139	0.12621533	0.00194718	0.00148914	15.09449091	0.00027313	0.00026900	0.16158333	0.00053430	0.00053119
SS066	0.00001447			0.01085276	0.01018283	5.45160440	0.00003936	0.00002894	0.03054701		
SS067	0.00000327	0.00317875	0.00317788	0.00189764	0.00196454	0.53297565	0.00000638	0.00000670	0.00000000	0.00000208	0.00000208
SS068	0.00001495	0.01403007	0.01498600	0.00078725	0.00055410	0.89835606	0.00003397	0.00002740	0.03292901	0.00005717	0.00003138
SS069	0.00001763	0.01129470	0.01104704	0.00112267	0.00120637	0.55112143	0.00000705	0.00003526	0.03971914	0.00000853	0.00004265
SS070	0.00003166	0.00193166	0.00190044	0.00151108	0.00170986	0.35106399	0.00001266	0.00006331	0.07208994	0.00000374	0.00001871
SS071	0.00126915	0.09941395	0.11734962	0.32808550	0.37145699	56.92685554	0.00302069	0.00259811	13.34992836	0.00018637	0.00093185
SS072	0.00019561	0.01798963	0.01805129	0.03982191	0.04036113	18.48491797	0.00041126	0.00064230	0.84023223	0.00035226	0.00025312
SS073	0.00004388	0.01242889	0.01189919	0.00417353	0.00407985	2.75743873	0.00009838	0.00011972	0.64423963	0.00019174	0.00016171
SS074	0.00003033	0.00360557	0.00357298	0.00342297	0.00389755	3.63601739	0.00006067	0.00006067	0.07322911	0.00004786	0.00004786
SS075	0.00057148	0.09806553	0.09537661	0.00659566	0.00018478	24.96677793	0.00128054	0.00114295	7.25957548	0.00206882	0.00170679
SS076	0.00000099	0.00019260	0.00018973	0.00000387	0.00000509	0.01075941	0.00000039	0.00000197	0.00106403	0.00000042	0.00000208
SS077	0.00123978	0.01937834	0.01913387	0.02647811	0.02445831	1.23827502	0.00049591	0.00247955	5.98454853	0.00008229	0.00041143
SS078	0.00039843	0.02214228	0.02131365	0.01696850	0.01577001	0.53772118	0.00015937	0.00079686	3.01620163	0.00006084	0.00030422

Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Site ID	Ag T Ld	Na D Ld	Na T Ld	Sr D Ld	Sr T Ld	SO4 T Ld	Th D Ld	Th T Ld	Alk T Ld	V D Ld	V T Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS079	0.00038055	0.00206989	0.00213905	0.01489584	0.01354676	4.59869234	0.00015222	0.00076109	2.06015197	0.00001374	0.00006868
SS080	0.00000255	0.00066160	0.00066578			0.00803725	0.00000102	0.00000509	0.00087982	0.00000166	0.00000831
SS082	0.00002046					0.01724419	0.00000818	0.00004092			
SS083	0.00023839			0.01560473	0.01397085	8.26266788	0.00009536	0.00035429	0.52948156		
SS084	0.00235306			0.10375928	0.09451681	42.34067017	0.00094122	0.00470612	5.76637766		
SS085	0.00002283	0.01315049	0.01439273	0.01737616	0.01546188	2.67477148	0.00004567	0.00004567	0.05171151	0.00002546	0.00002546
SS086	0.00000795	0.00472086	0.00488440	0.00246157	0.00282508	0.78361836	0.00001747	0.00001589	0.01739959	0.00001016	0.00000629
SS087	0.00100372	0.01415669	0.01371162	0.04947444	0.04775212	17.21577154	0.00040149	0.00200743	2.22467631	0.00002200	0.00010998
SS088	0.00009157	0.00061188	0.00063022	0.00028819	0.00030012	0.20691917	0.00003663	0.00018161	0.23775413	0.00000397	0.00001987
SS089	0.00002581	0.00765643	0.00740113	0.00184800	0.00171849	0.11003423	0.00001032	0.00005091	0.13530731	0.00000453	0.00002263
SS090	0.00000457	0.00033892	0.00034472	0.00007350	0.00009292	0.04558064	0.00000183	0.00000914	0.01018506	0.00000071	0.00000356
SS091	0.00001361	0.00236027	0.00257664	0.00004029	0.00004700	0.12264933	0.00000544	0.00002721	0.01351000	0.00000764	0.00003818
SS092	0.00001162	0.00166665	0.00170289	0.00036851	0.00027725	0.04739327	0.00000465	0.00002323	0.02657401	0.00000570	0.00002851
SS093	0.00002920	0.00598161	0.00637720	0.00019108	0.00021432	0.32268616	0.00001128	0.00005839	0.06962804	0.00003615	0.00018074
SS094	0.00000847	0.00141127	0.00103860	0.00403967	0.00426228	1.52120712	0.00000552	0.00001694	0.01986568	0.00000611	0.00004277
SS095	0.00002361	0.00989225	0.01011702	0.01062205	0.01066412	0.78231495	0.00000874	0.00004722	0.31196516	0.00001280	0.00007067
SS096	0.00000986	0.00038805	0.00040327	0.00004660	0.00005061	0.02398766	0.00000409	0.00001972	0.02299516	0.00000188	0.00000942
SS097	0.00000120			0.00000577	0.00000649	0.00442025	0.00000048	0.00000239			
SS098	0.00001338	0.01033304	0.01069960	0.00000674	0.00000441	0.94294898	0.00000504	0.00002675	0.03079491	0.00001140	0.00005702
SS105	0.00090275	0.24573176	0.23571098			39.03259451	0.00055769	0.00155043	1.68611766	0.00094406	0.00071539
SS123	0.00017565					2.73701236	0.00007026	0.00035129	0.35129065		
SS125	0.00000466	0.00054781	0.00191428			0.18939148			0.00437841		
SS126	0.00018952	0.00161550	0.00170437			2.22989232	0.00006631	0.00041920	0.37175208	0.00007482	0.00007482
SS200	0.00004936	0.02371839	0.02466700			3.22169292	0.00006034	0.00009872	0.11007743	0.00003247	0.00003247
SS201	0.00009746	0.06113793	0.06216637			9.42105654	0.00020883	0.00019491	0.08315091	0.00033571	0.00033571
SS202	0.00005982					3.70891649	0.00002393	0.00011964	0.11964247		
SS203											
SS204	0.00000051					1.43744061	0.00000957	0.00000102	0.00101823		
SS205											
SS206	0.00007637					0.27583953	0.00003055	0.00015274	0.15273506		
SS207											

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Ag T Ld	Na D Ld	Na T Ld	Sr D Ld	Sr T Ld	SO4 T Ld	Th D Ld	Th T Ld	Alk T Ld	V D Ld	V T Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS208	0.00001487	0.00379336	0.00381517			0.10317065	0.00000595	0.00003006	0.02973634	0.00000978	0.00004888
SS210	0.00069352	0.07259337	0.07845492			50.15745374	0.00027150	0.00117812	1.38703075	0.00011051	0.00062972
SS211											
SS212											
SS213											
SS214											
SS215	0.00070359	0.15012771	0.15401040			5.57130733	0.00028143	0.00140717	1.40717184	0.00064118	0.00320588
SS216	0.00003055					0.01099692	0.00001222	0.00006109	0.01248355		
SS217	0.00038958	0.00700341	0.00708538			0.18781388	0.00015583	0.00077916	1.09005323	0.00003767	0.00018837
SS218	0.00010778	0.02700050	0.02731819			7.21061462	0.00004311	0.00021556	0.24431676	0.00011201	0.00056003
SS219	0.00020148	0.00406881	0.00567062			2.94694130	0.00008059	0.00040296	0.40295886	0.00001296	0.00006480
SS220	0.00021760	0.03366281	0.03091358			41.30692255	0.00008704	0.00043519	0.43519391	0.00001222	0.00006109
SS221	0.00004582					4.83661038	0.00009164	0.00009164	0.09164104		
SS222	0.00048366					109.74523518	0.00096732	0.00096732	0.96732208		
SS223	0.00007488	0.00176851	0.00189757			0.07530980	0.00002995	0.00014976	0.13751194	0.00001361	0.00006805
SS224											
SS225	0.00013074					5.42514950	0.00005498	0.00017870	0.27492312		
SS226	0.00025965					0.51257888	0.00010386	0.00035689	0.51929922		
SS227											
SS228	0.00000255	0.01828748	0.01867441			2.59955080	0.00000509	0.00000509	0.00509117	0.00002036	0.00002036
SS229	0.00000102	0.00212811	0.00233685			0.40006405	0.00001018	0.00000204	0.08292496	0.00001375	0.00001069
SS230	0.00001502	0.00795648	0.00812041			0.41442114	0.00000601	0.00003004	0.03003790	0.00000876	0.00004378
SS231	0.00002214	0.00757212	0.00751376			0.16093790	0.00000885	0.00004427	0.49028262	0.00001807	0.00009035
SS232											
SS235											
SS236	0.00002036	0.08175399	0.08129578			5.61759568	0.00008146	0.00004073	0.04072935	0.00016801	0.00010691
SS238	0.00000255	0.00241321	0.00240303			1.59251761	0.00000102	0.00000509	0.00509117	0.00000305	0.00001527
SS250	0.00003611	0.17395177	0.17077073			18.17315053	0.00013612	0.00007222	0.99825823	0.00017005	0.00017538
SS300	0.00003500	0.01315813	0.01400071			0.31005218	0.00001400	0.00007000	0.07000357	0.00002800	0.00014001
SS301	0.00000764	0.00532536	0.00804405			0.62112260	0.00001527	0.00001527	0.01527351	0.00003055	0.00003055
SS304	0.00095597					9.05939001	0.00038239	0.00191194	1.91194355		

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
 Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Ag T Ld	Na D Ld	Na T Ld	Sr D Ld	Sr T Ld	SO4 T Ld	Th D Ld	Th T Ld	Alk T Ld	V D Ld	V T Ld
	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day	stdev kg/day
SS305											

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Zn D Ld	Zn T Ld
	stdev kg/day	stdev kg/day
A23A		
A38	0.02093370	0.01872932
CC01A	0.04609401	0.04472464
CC01B	1.66845329	1.57500426
CC01C	0.22800240	0.21859267
CC03D	5.06721624	4.69740016
CC06	43.97433797	42.20051202
CC14	2.39542706	2.60489689
CC16C	0.01439935	0.01345116
CC19	5.15028408	4.88895710
CC50	0.41268628	0.54299137
DM01		
DM24	0.00151208	0.01175551
DM32	0.12680386	0.11664905
DM4		
SS001	0.02340399	0.02194761
SS002	0.00113217	0.00112557
SS003	0.00968284	0.00943878
SS004	0.02190153	0.02046284
SS005		
SS006	0.00109627	0.00108740
SS007	0.00158285	0.00245665
SS008	0.00974367	0.03836353
SS009	0.00078237	0.00090061
SS010	0.00702610	0.00873517
SS011	0.00186857	0.00188512
SS012	0.00163318	0.00160551
SS013	0.61195945	0.60325372
SS014	0.00139473	0.00139473
SS015	0.00715743	0.00715743
SS016	0.00208191	0.00192000

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Zn D Ld	Zn T Ld
	stdev kg/day	stdev kg/day
SS017	0.00239307	0.00238516
SS018	0.04940400	0.04800090
SS019	0.00047173	0.00042340
SS020	0.00273297	0.00275683
SS021	0.00984607	0.01023168
SS022	0.00598869	0.00577845
SS023	0.00543182	0.00683979
SS024	0.01727817	0.01743801
SS025	0.00016194	0.00017202
SS026	0.05917501	0.06114588
SS027	0.12284614	0.11214648
SS028	0.00001212	0.00001185
SS029	0.16751795	0.17274451
SS030	0.00000356	0.00000348
SS031	0.00006568	0.00006568
SS032	0.00066138	0.00066023
SS033	0.00000430	0.00000478
SS034	0.00037357	0.00034579
SS035	0.00516923	0.00491183
SS036	0.00083416	0.00080797
SS037	0.01153404	0.01098170
SS038	0.00144753	0.00144753
SS039	0.04527060	0.04314374
SS040	0.18665822	0.18389978
SS041	0.08351412	0.08313427
SS042	0.01616197	0.01656825
SS043	0.00076733	0.00163541
SS044	0.10660088	0.12783753
SS045	0.00742837	0.00867217
SS046	0.01061253	0.01078403
SS047	0.01656637	0.01651979

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
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Site ID	Zn D Ld	Zn T Ld
	stdev kg/day	stdev kg/day
SS048	0.02075386	0.02073897
SS049	0.00098019	0.00098019
SS050	0.01610378	0.02014491
SS051	0.00082669	0.00113565
SS052	0.00013693	0.00014565
SS053	0.02523234	0.02537367
SS054	0.00283547	0.00320221
SS055	0.03201408	0.03251123
SS056	0.00429152	0.00433109
SS057	0.00165876	0.00151337
SS058	0.00004439	0.00003660
SS059	0.01130915	0.01179613
SS060	0.00361990	0.00362262
SS061	0.00016506	0.00021050
SS062	0.00937380	0.00905366
SS063	0.00723544	0.00718271
SS064	0.00052015	0.00054238
SS065	0.17215845	0.16131685
SS066	0.05192983	0.05373107
SS067	0.00770016	0.00743523
SS068	0.00857838	0.00856736
SS069	0.01456194	0.01521555
SS070	0.01780106	0.01873259
SS071	0.09871948	0.10699199
SS072	0.01824754	0.01867734
SS073	0.00377767	0.00339314
SS074	0.00635800	0.00711933
SS075	0.03338941	0.03589539
SS076	0.00000394	0.00000340
SS077	0.00495910	0.00495910
SS078	0.00157610	0.00159371

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Zn D Ld	Zn T Ld
	stdev kg/day	stdev kg/day
SS079	0.00152219	0.00152043
SS080	0.00001018	0.00001018
SS082	0.00008184	0.00008184
SS083	0.06583494	0.06263741
SS084	0.20436645	0.19367798
SS085	0.00944187	0.00948350
SS086	0.00176987	0.00187928
SS087	0.01834835	0.02032423
SS088	0.00036623	0.00036592
SS089	0.00010324	0.00010324
SS090	0.00001828	0.00001828
SS091	0.00017918	0.00014732
SS092	0.00004646	0.00004646
SS093	0.00018136	0.00021884
SS094	0.00073276	0.00088555
SS095	0.00009445	0.00009397
SS096	0.00047252	0.00051640
SS097	0.00020994	0.00020695
SS098	0.03874085	0.03625121
SS105	0.23482935	0.26117731
SS123	0.00282254	0.00362899
SS125	0.00458205	0.00193464
SS126	0.09388048	0.08929356
SS200	0.00058350	0.00144046
SS201	0.12636725	0.10741313
SS202	0.07153092	0.08661096
SS203		
SS204	0.01248996	0.01568406
SS205		
SS206	0.00097934	0.00092619
SS207		

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Zn D Ld	Zn T Ld
	stdev kg/day	stdev kg/day
SS208	0.00005055	0.00004405
SS210	0.50034864	0.49749887
SS211		
SS212		
SS213		
SS214		
SS215	0.03262851	0.03456541
SS216	0.00007189	0.00000387
SS217	0.00152831	0.00150606
SS218	0.00468365	0.00487142
SS219	0.13538763	0.13941751
SS220	0.31801184	0.33314728
SS221	0.04622781	0.04663511
SS222	1.80634670	1.78801849
SS223	0.00081504	0.00077082
SS224		
SS225	0.14601472	0.14161595
SS226	0.05488280	0.05438387
SS227		
SS228	0.03087285	0.02967133
SS229	0.00111598	0.00102190
SS230	0.01917131	0.01727128
SS231	0.00008855	0.00008855
SS232		
SS235		
SS236	0.08561309	0.08217146
SS238	0.00251504	0.00238267
SS250	0.00248125	0.03049915
SS300	0.00733637	0.00720273
SS301	0.00743311	0.00285105
SS304	0.17931890	0.17506014

**Appendix 4 - Average Metal Concentration, Average Load, and Standard Deviation of Load By Site
Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

Site ID	Zn D Ld	Zn T Ld
	stdev kg/day	stdev kg/day
SS305		

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	SITE_TYPE	AREA	SubBasin	Al D Ld_Avg	Al T Ld_Avg	As D Ld_Avg	As T Ld_Avg	Be D Ld_Avg	Be T Ld_Avg	Cd D Ld_Avg
				<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
CC06	DM	Cement_Creek	NFC	0.76712841	0.75286856	0.72772718	0.60280728	0.19646363	0.21337822	0.75814911
CC03D	DM	Cement_Creek	CCANF	0.03873183	0.03739328	0.03372778	0.01660104	0.08322947	0.08942622	0.06601648
CC14	DM	Cement_Creek	SFC	0.04073424	0.05321225	0.06987207	0.08651425	0.14426717	0.07819814	0.04015561
CC19	DM	Cement_Creek	CCGS	0.01778564	0.01765175	0.01049103	0.00425950	0.02686625	0.02912533	0.00277144
SS013	SS	Cement_Creek	VB	0.00044154	0.00115517	0.02179489	0.06113733	0.08861535	0.09542981	0.00494062
CC50	DM	Cement_Creek	MFC	0.00102460	0.00131661	0.01843481	0.02973096	0.04899369	0.05276127	0.00724403
CC01B	DM	Cement_Creek	CCANF	0.00539200	0.00509339	0.00307057	0.00264115	0.00730035	0.00756358	0.02937941
SS222	SS	WF_Animas_CG	UCG	0.04284372	0.04221044	0.00380427	0.00213429	0.06847582	0.07687696	0.02026900
SS048	SS	Cement_Creek	MH	0.00022603	0.00296097	0.00582149	0.01644117	0.02353719	0.02534719	0.00034225
SS220	SS	WF_Animas_CG	UCG	0.02042314	0.01930883	0.00019569	0.00085068	0.05042590	0.05676912	0.00171088
SS071	DM	SF_Animas	SFA	0.00032845	0.00048231	0.01034982	0.00763578	0.01125349	0.01211888	0.00060436
SS029	SS	Cement_Creek	UCC	0.00121090	0.00116067	0.00352648	0.00989220	0.01449605	0.01561078	0.00447309
SS047	SS	Cement_Creek	MH	0.00017023	0.00016179	0.00459316	0.01288438	0.01835003	0.01976114	0.00026681
SS304	SS	WF_Animas_CG	UCG	0.00069354	0.00068668	0.00141052	0.00395667	0.00553451	0.00596011	0.00145066
SS075	DM	SF_Animas	SFA	0.00013372	0.00012034	0.00920070	0.00525341	0.00768303	0.00827385	0.00047371
SS015	SS	Cement_Creek	VB	0.00008607	0.00034202	0.00338724	0.00950162	0.01427548	0.01537326	0.00021383
DM32	DM	Eureka_Gulch	EG	0.00037013	0.00035641	0.00013651	0.00038291	0.00058338	0.00062824	0.00229675
SS235	DM	Placer_Gulch	UPG	0.00925127	0.00897702	0.00061017	0.00249868	0.00172250	0.00186998	0.00306653
SS084	SS	Cement_Creek	NFC	0.00252408	0.00255560	0.00282136	0.00792037	0.01104461	0.01189376	0.00165227
SS212	DM	Eureka_Gulch	EG	0.00022643	0.00023500	0.00124706	0.00349815	0.00488158	0.00525697	0.00125304
SS050	SS	Cement_Creek	MFC	0.00011494	0.00085650	0.00300570	0.00843137	0.01246520	0.01342377	0.00024505
SS087	SS	Prospect_Gulch	PG	0.00508295	0.00466041	0.00122568	0.00343817	0.00498966	0.00523894	0.00016654
SS105	DM	Cement_Creek	CCANF	0.00064447	0.00060432	0.00935280	0.00580834	0.00642797	0.00692227	0.00073372
SS008	SS	Cement_Creek	UCC	0.00007010	0.00082748	0.00133174	0.00373569	0.00755590	0.00813695	0.00012250
SS210	SS	Cement_Creek	UCC	0.00679991	0.00652787	0.00089892	0.00246951	0.00192586	0.00207640	0.00670799
SS214	SS	Eureka_Gulch	UEG	0.00064177	0.00078211	0.00071261	0.00199894	0.00278948	0.00300398	0.00807768
SS027	SS	Cement_Creek	UCC	0.00375554	0.00351900	0.00091153	0.00205721	0.00310092	0.00333938	0.00685335
DM24	DM	Upper Cal.	UCG	0.00007625	0.00020389	0.00188102	0.00195615	0.00360307	0.00388015	0.00019168
SS224	DM	Placer_Gulch	UPG	0.00141551	0.00135270	0.00178151	0.00099947	0.00697369	0.00098531	0.00333080

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	SITE_TYPE	AREA	SubBasin	Al D Ld_Avg	Al T Ld_Avg	As D Ld_Avg	As T Ld_Avg	Be D Ld_Avg	Be T Ld_Avg	Cd D Ld_Avg
				<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
SS035	SS	Eureka_Gulch	SFEG	0.00006333	0.00038743	0.00172951	0.00485147	0.00684565	0.00737208	0.00010351
SS215	SS	Cement_Creek	CCANF	0.00035324	0.00040608	0.00128800	0.00361299	0.00596104	0.00641944	0.00036507
SS126	DM	Prospect_Gulch	PG	0.00079597	0.00077180	0.00368335	0.00248336	0.00111870	0.00120472	0.00134055
SS024	SS	Cement_Creek	RB	0.00003307	0.00003656	0.00117760	0.00330331	0.00518850	0.00558749	0.00009821
SS077	SS	Eureka_Gulch	MC	0.00004862	0.00009830	0.00133161	0.00373534	0.00524047	0.00564345	0.00007521
DM01	DM	Cement_Creek	CC	0.00051290	0.00048943	0.00071261	0.00199894	0.00278948	0.00300398	0.00135825
CC16C	DM	Cement_Creek	SFC	0.00315009	0.00315098	0.00258736	0.00174641	0.00178171	0.00156739	0.00049709
SS040	SS	Eureka_Gulch	EG	0.00042384	0.00039220	0.00104308	0.00292598	0.00410492	0.00442058	0.00084992
SS014	SS	Cement_Creek	VB	0.00003799	0.00002805	0.00097507	0.00273519	0.00409520	0.00441011	0.00006121
SS001	SS	Eureka_Gulch	UEG	0.00021188	0.00025909	0.00083106	0.00233122	0.00332351	0.00357908	0.00018265
SS305	SS	Eureka_Gulch	EG	0.00003558	0.00005445	0.00097983	0.00274855	0.00383553	0.00413048	0.00005485
SS225	DM	Placer_Gulch	UPG	0.00023872	0.00025855	0.00023382	0.00106569	0.00094145	0.00101460	0.00149213
SS221	SS	WF_Animas_CG	UCG	0.00337596	0.00339508	0.00038971	0.00021863	0.00737468	0.00827347	0.00041303
SS007	SS	Eureka_Gulch	SFEG	0.00002535	0.00003122	0.00057191	0.00160427	0.00273307	0.00294324	0.00004380
CC01A	DM	Cement_Creek	UCC	0.00003783	0.00032523	0.00049265	0.00138193	0.00208697	0.00224745	0.00204070
SS078	SS	Eureka_Gulch	MC	0.00002990	0.00009202	0.00077969	0.00218712	0.00322293	0.00347077	0.00004772
SS072	SS	SF_Animas	SFA	0.00018668	0.00029975	0.00182400	0.00105329	0.00155248	0.00167187	0.00016244
CC01C	DM	Cement_Creek	CCANF	0.00093344	0.00093760	0.00037575	0.00103947	0.00175582	0.00189084	0.00286079
SS041	SS	Eureka_Gulch	EG	0.00006108	0.00008718	0.00061345	0.00172079	0.00256695	0.00276434	0.00074876
SS018	SS	Cement_Creek	SFC	0.00229947	0.00216535	0.00039602	0.00111087	0.00173312	0.00186639	0.00147179
SS219	DM	WF_Animas_CG	UCG	0.00054470	0.00055924	0.00016796	0.00071374	0.00103152	0.00111085	0.00214262
SS044	SS	Cement_Creek	CCANF	0.00029693	0.00030859	0.00077056	0.00100381	0.00244935	0.00263770	0.00030839
SS201	SS	Cement_Creek	CCGS	0.00264901	0.00250024	0.00069590	0.00045705	0.00045474	0.00041493	0.00018449
SS065	SS	Cement_Creek	CCGS	0.00121655	0.00114840	0.00084135	0.00060528	0.00059604	0.00064072	0.00029303
SS250	SS	Cement_Creek	CCANF	0.00000954	0.00003457	0.00133637	0.00087441	0.00102835	0.00110742	0.00010666
SS020	SS	Cement_Creek	CCANF	0.00040451	0.00039490	0.00051886	0.00145547	0.00221414	0.00238440	0.00008204
SS301	SS	Cement_Creek	CCGS	0.00240339	0.00233290	0.00023197	0.00013014	0.00029057	0.00031292	0.00027372
SS038	SS	Eureka_Gulch	EG	0.00002105	0.00002281	0.00056266	0.00157833	0.00226877	0.00244324	0.00003308
SS083	SS	Cement_Creek	NFC	0.00130247	0.00123354	0.00033370	0.00093347	0.00136154	0.00146614	0.00078661

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	SITE_TYPE	AREA	SubBasin	Al D Ld_Avg	Al T Ld_Avg	As D Ld_Avg	As T Ld_Avg	Be D Ld_Avg	Be T Ld_Avg	Cd D Ld_Avg
				<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
SS217	SS	Cement_Creek	MC	0.00002049	0.00001830	0.00052765	0.00148012	0.00214247	0.00230723	0.00003205
SS054	SS	Cement_Creek	MFC	0.00001840	0.00004266	0.00049613	0.00106021	0.00182307	0.00196327	0.00006634
SS023	SS	Cement_Creek	RB	0.00002102	0.00002813	0.00053372	0.00149715	0.00210013	0.00226163	0.00003067
SS026	SS	Cement_Creek	RB	0.00027750	0.00024514	0.00021862	0.00061327	0.00090287	0.00097230	0.00060519
SS226	SS	Placer_Gulch	UPG	0.00004049	0.00003967	0.00042311	0.00118687	0.00169112	0.00182117	0.00051753
SS021	SS	Cement_Creek	RB	0.00005619	0.00006514	0.00026445	0.00074181	0.00150009	0.00161544	0.00010329
SS012	SS	Cement_Creek	UCC	0.00004273	0.00003888	0.00038592	0.00107130	0.00164144	0.00176767	0.00004488
SS051	SS	Cement_Creek	MFC	0.00001633	0.00002947	0.00035490	0.00099554	0.00149735	0.00161249	0.00002270
SS006	SS	Eureka_Gulch	UEG	0.00001363	0.00002204	0.00037099	0.00104066	0.00146965	0.00158267	0.00002118
SS079	SS	Eureka_Gulch	MC	0.00001376	0.00000856	0.00037815	0.00106077	0.00148289	0.00159692	0.00002123
SS236	SS	Cement_Creek	CCANF	0.00136613	0.00125893	0.00020413	0.00019781	0.00042231	0.00044309	0.00094385
SS059	SS	Cement_Creek	CCANF	0.00019549	0.00019945	0.00031407	0.00088099	0.00130437	0.00140468	0.00009321
SS037	SS	Eureka_Gulch	SFEG	0.00068137	0.00074443	0.00016234	0.00037210	0.00057810	0.00062255	0.00020404
SS123	DM	Prospect_Gulch	PG	0.00034272	0.00034202	0.00032323	0.00022476	0.00108092	0.00116404	0.00002407
SS043	SS	Eureka_Gulch	EG	0.00000910	0.00001356	0.00064580	0.00048183	0.00072363	0.00077928	0.00004022
SS039	SS	Eureka_Gulch	EG	0.00017910	0.00017152	0.00026753	0.00075045	0.00107338	0.00115592	0.00039160
SS200	SS	Cement_Creek	CCANF	0.00001452	0.00002016	0.00054819	0.00045949	0.00078745	0.00084800	0.00004125
SS202	SS	Cement_Creek	MH	0.00069929	0.00074919	0.00011561	0.00006744	0.00035450	0.00038176	0.00063928
SS053	SS	Cement_Creek	MFC	0.00026117	0.00026401	0.00025824	0.00072441	0.00103164	0.00111097	0.00027017
SS204	SS	Prospect_Gulch	PG	0.00018392	0.00019146	0.00517604	0.00285058	0.00007264	0.00007823	0.00012433
SS049	SS	Cement_Creek	MFC	0.00001013	0.00000995	0.00027348	0.00076714	0.00109232	0.00117631	0.00001583
SS073	DM	SF_Animas	SFA	0.00002955	0.00004670	0.00058649	0.00034954	0.00050024	0.00055373	0.00003453
SS213	SS	Eureka_Gulch	EG	0.00001778	0.00001760	0.00026723	0.00074960	0.00104605	0.00112649	0.00004360
A38	DM	Eureka_Gulch	EG	0.00000441	0.00000505	0.00017134	0.00024743	0.00047546	0.00051202	0.00002093
SS022	SS	Cement_Creek	RB	0.00002337	0.00002599	0.00024445	0.00068571	0.00098959	0.00106568	0.00007334
SS066	SS	Cement_Creek	CCGS	0.00056388	0.00055061	0.00020369	0.00016684	0.00021345	0.00018080	0.00007007
SS218	SS	Eureka_Gulch	MC	0.00025401	0.00034087	0.00010021	0.00028110	0.00056952	0.00061331	0.00006399
SS032	SS	Eureka_Gulch	SFEG	0.00000842	0.00000678	0.00022521	0.00063173	0.00090771	0.00097752	0.00001323
SS206	SS	Prospect_Gulch	PG	0.00006972	0.00007990	0.00036298	0.00096074	0.00061020	0.00065712	0.00001563

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	SITE_TYPE	AREA	SubBasin	Al D Ld_Avg	Al T Ld_Avg	As D Ld_Avg	As T Ld_Avg	Be D Ld_Avg	Be T Ld_Avg	Cd D Ld_Avg
				<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
SS060	SS	Cement_Creek	CCANF	0.00006915	0.00007312	0.00015775	0.00044250	0.00064609	0.00069577	0.00006585
SS068	SS	Cement_Creek	CCANF	0.00025646	0.00025287	0.00015913	0.00017923	0.00027103	0.00029187	0.00019369
SS074	SS	SF_Animas	SFA	0.00036842	0.00036339	0.00030879	0.00015332	0.00023639	0.00025449	0.00011453
SS045	SS	Cement_Creek	CCANF	0.00011523	0.00011067	0.00014638	0.00041061	0.00058207	0.00062683	0.00036720
SS228	SS	Cement_Creek	CCGS	0.00060273	0.00054620	0.00012062	0.00006767	0.00010850	0.00011290	0.00014439
SS064	SS	Cement_Creek	NFC	0.00000455	0.00001457	0.00035890	0.00026798	0.00038547	0.00041511	0.00002011
SS042	SS	Eureka_Gulch	EG	0.00000293	0.00001422	0.00016533	0.00017227	0.00024694	0.00026593	0.00007513
SS055	SS	Cement_Creek	SFC	0.00041885	0.00042551	0.00005267	0.00022090	0.00031741	0.00034182	0.00006869
SS046	SS	Cement_Creek	CCANF	0.00013741	0.00013496	0.00006832	0.00019164	0.00028138	0.00030302	0.00051856
SS063	SS	Cement_Creek	NFC	0.00016304	0.00018466	0.00022344	0.00012744	0.00018002	0.00019386	0.00008763
SS223	SS	Placer_Gulch	UPG	0.00000474	0.00000501	0.00012619	0.00035398	0.00051140	0.00055073	0.00000760
SS002	SS	Eureka_Gulch	UEG	0.00000403	0.00000240	0.00010932	0.00030667	0.00043448	0.00046790	0.00000780
SS125	DM	Prospect_Gulch	PG	0.00017769	0.00019276	0.00009772	0.00006955	0.00005811	0.00006258	0.00011140
SS203	SS	Prospect_Gulch	PG	0.00005283	0.00005201	0.00003711	0.00010411	0.00014529	0.00015646	0.00015270
SS004	SS	Eureka_Gulch	UEG	0.00000385	0.00000618	0.00008406	0.00023579	0.00036042	0.00038813	0.00006724
SS088	SS	Prospect_Gulch	PG	0.00003484	0.00003477	0.00011275	0.00029997	0.00042296	0.00045549	0.00000609
SS019	SS	Cement_Creek	SFC	0.00000381	0.00000362	0.00009669	0.00027123	0.00041040	0.00044196	0.00000664
SS085	SS	Cement_Creek	NFC	0.00001462	0.00001742	0.00015542	0.00008719	0.00012930	0.00013925	0.00011840
SS009	SS	Cement_Creek	UCC	0.00000316	0.00000635	0.00007568	0.00021228	0.00038340	0.00041289	0.00001095
SS230	SS	Cement_Creek	MH	0.00023047	0.00022473	0.00002468	0.00006923	0.00009879	0.00010639	0.00018077
SS216	SS	Cement_Creek	CCANF	0.00000626	0.00001122	0.00008908	0.00024987	0.00038355	0.00041305	0.00000582
SS094	SS	Prospect_Gulch	PG	0.00012683	0.00015368	0.00055373	0.00033010	0.00006399	0.00006891	0.00001641
SS070	SS	Cement_Creek	CCANF	0.00010598	0.00010638	0.00005936	0.00016650	0.00024281	0.00026148	0.00015131
SS010	SS	Cement_Creek	UCC	0.00002318	0.00005187	0.00004941	0.00013861	0.00028147	0.00030311	0.00004550
SS062	SS	Cement_Creek	CCANF	0.00005405	0.00007144	0.00005275	0.00014798	0.00022063	0.00023759	0.00001930
SS098	SS	Prospect_Gulch	PG	0.00035565	0.00033617	0.00001298	0.00004961	0.00007010	0.00007549	0.00021460
A23A	DM	Upper Animas	UPG	0.00004436	0.00006089	0.00001684	0.00004723	0.00010544	0.00011355	0.00019036
SS031	SS	Eureka_Gulch	SFEG	0.00000250	0.00000306	0.00005807	0.00016289	0.00026915	0.00028984	0.00000425
SS016	SS	Cement_Creek	SFC	0.00006604	0.00006289	0.00006737	0.00018899	0.00026652	0.00028702	0.00000714

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	SITE_TYPE	AREA	SubBasin	Al D Ld_Avg	Al T Ld_Avg	As D Ld_Avg	As T Ld_Avg	Be D Ld_Avg	Be T Ld_Avg	Cd D Ld_Avg
				<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
SS300	SS	Cement_Creek	CCANF	0.00006000	0.00006705	0.00003016	0.00008459	0.00018887	0.00020339	0.00007882
SS056	SS	Cement_Creek	CCANF	0.00003890	0.00003650	0.00006469	0.00018146	0.00025423	0.00027378	0.00000731
SS025	SS	Cement_Creek	RB	0.00000210	0.00000626	0.00005049	0.00014164	0.00022671	0.00024415	0.00000352
DM4	DM	Eueka Gulch	LEG	0.00000163	0.00000155	0.00002806	0.00007871	0.00017574	0.00018925	0.00000314
SS082	SS	Cement_Creek	MH	0.00000205	0.00001236	0.00005210	0.00014615	0.00022138	0.00023840	0.00000333
SS011	SS	Cement_Creek	UCC	0.00016925	0.00016869	0.00003853	0.00010807	0.00014004	0.00014998	0.00003311
SS069	SS	Cement_Creek	CCANF	0.00010845	0.00010512	0.00003549	0.00009954	0.00011247	0.00011891	0.00017343
SS003	SS	Eureka_Gulch	UEG	0.00000113	0.00000131	0.00004883	0.00013697	0.00019223	0.00020701	0.00005076
SS095	DM	Prospect_Gulch	PG	0.00000189	0.00000908	0.00004626	0.00015364	0.00021615	0.00023277	0.00000327
SS211	SS	Cement_Creek	UCC	0.00001818	0.00002152	0.00004454	0.00012493	0.00017434	0.00018775	0.00002555
SS093	SS	Prospect_Gulch	PG	0.00005768	0.00006826	0.00003166	0.00007857	0.00016371	0.00016090	0.00000259
SS017	SS	Cement_Creek	SFC	0.00007231	0.00006879	0.00003522	0.00009880	0.00015444	0.00016631	0.00010374
SS067	SS	Cement_Creek	CCANF	0.00017220	0.00016674	0.00005228	0.00002510	0.00003573	0.00003904	0.00015638
SS238	DM	Eureka_Gulch	SFA	0.00017581	0.00016550	0.00001299	0.00003644	0.00006393	0.00006884	0.00005828
SS205	SS	Prospect_Gulch	PG	0.00000100	0.00000258	0.00004454	0.00012493	0.00017434	0.00018775	0.00000249
SS091	SS	Prospect_Gulch	PG	0.00001460	0.00001613	0.00004156	0.00008651	0.00013216	0.00014233	0.00000275
SS231	SS	Eureka_Gulch	EG	0.00000110	0.00000105	0.00002078	0.00005830	0.00011855	0.00012767	0.00000205
SS086	SS	Cement_Creek	CCGS	0.00011124	0.00011067	0.00005988	0.00003803	0.00005761	0.00006204	0.00000928
SS089	SS	Prospect_Gulch	PG	0.00000133	0.00000343	0.00003145	0.00010046	0.00014123	0.00015209	0.00000203
SS227	SS	Cement_Creek	VB	0.00001685	0.00001652	0.00009279	0.00005206	0.00007264	0.00007823	0.00000519
SS208	SS	Prospect_Gulch	PG	0.00002357	0.00002272	0.00002853	0.00007093	0.00010606	0.00011421	0.00000158
SS229	SS	Eureka_Gulch	UEG	0.00000065	0.00000067	0.00005382	0.00004269	0.00007264	0.00007823	0.00000768
SS092	SS	Prospect_Gulch	PG	0.00000092	0.00000108	0.00002807	0.00007875	0.00011033	0.00011882	0.00000158
SS036	SS	Eureka_Gulch	EG	0.00000078	0.00000093	0.00001662	0.00004663	0.00006653	0.00007164	0.00001003
SS061	SS	Cement_Creek	CCANF	0.00000608	0.00000923	0.00002592	0.00007271	0.00010147	0.00010927	0.00000534
SS096	SS	Prospect_Gulch	PG	0.00000956	0.00000983	0.00002225	0.00004516	0.00009332	0.00006970	0.00000579
SS052	SS	Cement_Creek	MFC	0.00000063	0.00000264	0.00001745	0.00004895	0.00007571	0.00008154	0.00000236
SS207	SS	Prospect_Gulch	PG	0.00000228	0.00000478	0.00001485	0.00004164	0.00005811	0.00006258	0.00000083
SS005	SS	Eureka_Gulch	UEG	0.00000235	0.00000249	0.00000955	0.00002680	0.00003740	0.00004027	0.00002048

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	SITE_TYPE	AREA	SubBasin	Al D Ld_Avg	Al T Ld_Avg	As D Ld_Avg	As T Ld_Avg	Be D Ld_Avg	Be T Ld_Avg	Cd D Ld_Avg
				<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
SS028	SS	Cement_Creek	UCC	0.00000039	0.00000052	0.00001454	0.00004079	0.00005692	0.00006130	0.00000081
SS057	SS	Cement_Creek	CCANF	0.00000116	0.00000199	0.00001099	0.00002271	0.00002199	0.00002368	0.00000118
SS090	SS	Prospect_Gulch	PG	0.00000037	0.00000059	0.00001001	0.00002808	0.00004103	0.00004419	0.00000060
SS080	SS	Eureka_Gulch	MC	0.00000026	0.00000031	0.00000766	0.00001822	0.00002760	0.00002973	0.00000042
SS034	SS	Eureka_Gulch	SFEG	0.00000186	0.00000193	0.00000603	0.00001692	0.00002470	0.00002660	0.00000564
SS058	SS	Cement_Creek	CCANF	0.00000047	0.00000051	0.00000603	0.00001692	0.00002470	0.00002660	0.00000075
SS097	SS	Prospect_Gulch	PG	0.00000165	0.00000466	0.00000568	0.00001593	0.00002223	0.00002394	0.00000113
SS076	SS	Eureka_Gulch	MC	0.00000013	0.00000136	0.00000520	0.00001458	0.00002208	0.00002378	0.00000033
SS033	SS	Eureka_Gulch	SFEG	0.00000020	0.00000026	0.00000520	0.00001610	0.00002208	0.00002378	0.00000033
SS030	SS	Eureka_Gulch	SFEG	0.00000021	0.00000022	0.00000520	0.00001458	0.00002208	0.00002378	0.00000033

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Cd T Ld_Avg	Ch D Ld_Avg	Ch T Ld_Avg	Cu D Ld_Avg	Cu T Ld_Avg	Fe D Ld_Avg	Fe T Ld_Avg	Pb D Ld_Avg	Pb T Ld_Avg	Mn D Ld_Avg
	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
CC06	0.74056545	0.29503901	0.11812585	0.96894864	0.96311011	0.48880836	0.52412489	0.14981569	0.16651126	0.35385251
CC03D	0.06911266	0.13296813	0.06309204	0.00047369	0.00047348	0.22237438	0.19724848	0.28623379	0.26603146	0.24449085
CC14	0.04281620	0.16195364	0.17819910	0.00427995	0.00713559	0.13353426	0.12805345	0.02095550	0.11384927	0.04736203
CC19	0.00284342	0.04348154	0.01645408	0.00027638	0.00022535	0.11321413	0.10166925	0.00196607	0.00295050	0.12303257
SS013	0.00444586	0.04807748	0.12569605	0.00023891	0.00051953	0.00080924	0.00042540	0.00115432	0.00426333	0.00100060
CC50	0.00859882	0.08398391	0.07326651	0.00043967	0.00132895	0.00166827	0.00481982	0.00178703	0.01837568	0.02629001
CC01B	0.02921945	0.01259003	0.00800295	0.00018195	0.00018333	0.00887251	0.00832488	0.17266601	0.11520101	0.02962187
SS222	0.02054839	0.00807595	0.00422283	0.00218122	0.00225256	0.00013798	0.00012010	0.00038429	0.00027108	0.07091613
SS048	0.00179442	0.01588217	0.03359141	0.00002471	0.00009465	0.00026309	0.00118993	0.00030421	0.00317441	0.00001929
SS220	0.00173980	0.00067460	0.00176370	0.00003854	0.00004641	0.00001641	0.00004926	0.00001685	0.00005982	0.02067043
SS071	0.00087363	0.02262168	0.01612756	0.00005227	0.00007139	0.00281955	0.00351042	0.00054204	0.00072084	0.00386494
SS029	0.00434088	0.00791833	0.03637664	0.00009305	0.00011447	0.00013238	0.00011522	0.00019012	0.00070217	0.00036918
SS047	0.00139432	0.00792728	0.02585478	0.00002500	0.00011090	0.00016757	0.00014898	0.00023585	0.00087303	0.00001238
SS304	0.00139074	0.00293458	0.00767230	0.00007613	0.00008362	0.00005054	0.00004399	0.07545669	0.05621317	0.00060318
SS075	0.00059364	0.02019036	0.01095881	0.00004693	0.00005131	0.00211655	0.00195315	0.00130262	0.00180820	0.00234129
SS015	0.00120236	0.00791608	0.02099135	0.00001925	0.00008949	0.00013036	0.00013301	0.00019006	0.00083076	0.00005911
DM32	0.00223402	0.00032615	0.00085269	0.00195769	0.00185585	0.00002245	0.00001985	0.08182548	0.05410623	0.00091042
SS235	0.00321559	0.00184593	0.00482609	0.00000468	0.00002079	0.00199969	0.00175157	0.04343372	0.03191958	0.00365009
SS084	0.00164105	0.00591616	0.01531560	0.00160921	0.00164658	0.00022253	0.00037735	0.00246057	0.00927297	0.00036839
SS212	0.00116389	0.00258430	0.00675653	0.00139549	0.00143221	0.00004458	0.00002437	0.05181023	0.03620826	0.00131987
SS050	0.00096463	0.00442037	0.01812101	0.00006376	0.00022735	0.00011383	0.00016553	0.00016495	0.00104921	0.00016908
SS087	0.00038055	0.00270921	0.00702423	0.00016997	0.00016832	0.00033435	0.00032759	0.03216813	0.02303674	0.00052678
SS105	0.00081488	0.00607301	0.00763566	0.00009303	0.00014943	0.00185245	0.00181094	0.00039951	0.00111300	0.00198507
SS008	0.00068362	0.00482695	0.01261982	0.00001165	0.00005437	0.00006900	0.00008936	0.00011589	0.00049609	0.00024942
SS210	0.00704679	0.00207243	0.00521718	0.00062862	0.00067707	0.00003324	0.00002925	0.00006367	0.00019288	0.01041378
SS214	0.00826119	0.00147675	0.00386087	0.00126668	0.00145716	0.00002547	0.00017294	0.00169480	0.00680951	0.00884366
SS027	0.00693125	0.00246122	0.00450428	0.00127760	0.00129814	0.00002832	0.00003348	0.00022394	0.00042454	0.00415910
DM24	0.00020100	0.00687848	0.00359669	0.00003097	0.00003076	0.00268673	0.00583304	0.00023669	0.00127290	0.00363358
SS224	0.00328356	0.00369186	0.00193044	0.00508643	0.00497365	0.00034237	0.00044344	0.00163984	0.00199702	0.00857668

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Cd T Ld_Avg	Ch D Ld_Avg	Ch T Ld_Avg	Cu D Ld_Avg	Cu T Ld_Avg	Fe D Ld_Avg	Fe T Ld_Avg	Pb D Ld_Avg	Pb T Ld_Avg	Mn D Ld_Avg
	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
SS035	0.00051704	0.00365075	0.00954468	0.00000857	0.00004300	0.00006252	0.00012674	0.00008734	0.00048210	0.00000416
SS215	0.00050723	0.00348019	0.01059156	0.00001910	0.00003924	0.00005444	0.00004738	0.00033175	0.00039842	0.00003120
SS126	0.00143582	0.00100100	0.00131185	0.00044755	0.00043038	0.00078659	0.00068574	0.02170024	0.01593185	0.00001633
SS024	0.00041794	0.00225231	0.00771541	0.00000722	0.00003324	0.00004738	0.00004124	0.00007085	0.00026169	0.00000310
SS077	0.00039430	0.00275920	0.00727899	0.00000359	0.00003136	0.00004786	0.00004292	0.00006688	0.00024692	0.00000313
DM01	0.00137198	0.00147675	0.00386087	0.00004594	0.00004791	0.00014163	0.00013924	0.00932495	0.00742498	0.00037711
CC16C	0.00051281	0.00130259	0.00214890	0.00002185	0.00003997	0.00602511	0.00553253	0.00017794	0.00022341	0.00066418
SS040	0.00081349	0.00218083	0.00570167	0.00059540	0.00060950	0.00003749	0.00003263	0.00013463	0.00010625	0.00103340
SS014	0.00032095	0.00226622	0.00595231	0.00000482	0.00003513	0.00003740	0.00003255	0.00005441	0.00020096	0.00000245
SS001	0.00017812	0.00178429	0.00466494	0.00003110	0.00003273	0.00003035	0.00004038	0.00223163	0.00210565	0.00006691
SS305	0.00028757	0.00203053	0.00530870	0.00000451	0.00002287	0.00003503	0.00002695	0.00004875	0.00018006	0.00000285
SS225	0.00143264	0.00050763	0.00132718	0.00026540	0.00027675	0.00001360	0.00024231	0.00938479	0.00887201	0.00313074
SS221	0.00040914	0.00084605	0.00044239	0.00000433	0.00000409	0.00001433	0.00001247	0.00002189	0.00001500	0.00517966
SS007	0.00022962	0.00162136	0.00423895	0.00000478	0.00001826	0.00002600	0.00002540	0.00003893	0.00013424	0.00000426
CC01A	0.00207149	0.00116078	0.00303481	0.00026977	0.00058191	0.00001906	0.00007861	0.00018502	0.00789600	0.00047163
SS078	0.00025018	0.00176652	0.00461846	0.00000393	0.00002091	0.00002943	0.00002976	0.00004297	0.00015665	0.00000193
SS072	0.00016645	0.00403373	0.00222502	0.00005271	0.00007702	0.00040698	0.00055859	0.00012012	0.00016665	0.00084952
CC01C	0.00310117	0.00102202	0.00199847	0.00162215	0.00167545	0.00031241	0.00028423	0.00222489	0.00158631	0.00043919
SS041	0.00078557	0.00141739	0.00370570	0.00007261	0.00007761	0.00002344	0.00002035	0.00052075	0.00070984	0.00036743
SS018	0.00154573	0.00098207	0.00258840	0.00010835	0.00012128	0.00001583	0.00001200	0.00004183	0.00008709	0.00075039
SS219	0.00242444	0.00055763	0.00145788	0.00117485	0.00129300	0.00013956	0.00019172	0.00603677	0.00490934	0.00037181
SS044	0.00030688	0.00184935	0.00341295	0.00002859	0.00004451	0.00002237	0.00029741	0.00004440	0.00022068	0.00040247
SS201	0.00019711	0.00159212	0.00096120	0.00003839	0.00004100	0.00049763	0.00045360	0.00067946	0.00050826	0.00269294
SS065	0.00033547	0.00180737	0.00120245	0.00003987	0.00006267	0.00147578	0.00124545	0.00004443	0.00004078	0.00198228
SS250	0.00022502	0.00394844	0.00168400	0.00001384	0.00001436	0.00002425	0.00009908	0.00014541	0.00042973	0.00013430
SS020	0.00012254	0.00123677	0.00323347	0.00000557	0.00001263	0.00002022	0.00001701	0.00045053	0.00046672	0.00006227
SS301	0.00028171	0.00096142	0.00050272	0.00003538	0.00003403	0.00060224	0.00052289	0.00025726	0.00017689	0.00309424
SS038	0.00017341	0.00087946	0.00320130	0.00000278	0.00001379	0.00002072	0.00001803	0.00002940	0.00010858	0.00000136
SS083	0.00082383	0.00085671	0.00203902	0.00110587	0.00114739	0.00064006	0.00055511	0.00019627	0.00014268	0.00030687

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Cd T Ld_Avg	Ch D Ld_Avg	Ch T Ld_Avg	Cu D Ld_Avg	Cu T Ld_Avg	Fe D Ld_Avg	Fe T Ld_Avg	Pb D Ld_Avg	Pb T Ld_Avg	Mn D Ld_Avg
	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
SS217	0.00016448	0.00116140	0.00303642	0.00000263	0.00001308	0.00001957	0.00001703	0.00002788	0.00010299	0.00000261
SS054	0.00015386	0.00132014	0.00308695	0.00000799	0.00001238	0.00001665	0.00002169	0.00003312	0.00020207	0.00000109
SS023	0.00015777	0.00111565	0.00291682	0.00000364	0.00001257	0.00001918	0.00001519	0.00002730	0.00006385	0.00000303
SS026	0.00058551	0.00049459	0.00129308	0.00033179	0.00032677	0.00000825	0.00000718	0.00571717	0.00395044	0.00030692
SS226	0.00050097	0.00090758	0.00237283	0.00001483	0.00001599	0.00001544	0.00001344	0.00033896	0.00047163	0.00004324
SS021	0.00013495	0.00095823	0.00250524	0.00000437	0.00001079	0.00001370	0.00001192	0.00014523	0.00013974	0.00000766
SS012	0.00014585	0.00091513	0.00239255	0.00000453	0.00001230	0.00001579	0.00002264	0.00004212	0.00011475	0.00002164
SS051	0.00011767	0.00083084	0.00222477	0.00000472	0.00001297	0.00001475	0.00002166	0.00001995	0.00010891	0.00000316
SS006	0.00011106	0.00078419	0.00205021	0.00000122	0.00000883	0.00001342	0.00001984	0.00001883	0.00008301	0.00000118
SS079	0.00011131	0.00078596	0.00205486	0.00000173	0.00000888	0.00001355	0.00001202	0.00001887	0.00007026	0.00000089
SS236	0.00099343	0.00076914	0.00056304	0.00016880	0.00018176	0.00000324	0.00000449	0.00029748	0.00021532	0.00081554
SS059	0.00013068	0.00071699	0.00187454	0.00000431	0.00000886	0.00001191	0.00001037	0.00001721	0.00006358	0.00000311
SS037	0.00019045	0.00038834	0.00085443	0.00015316	0.00017075	0.00000528	0.00002743	0.00049932	0.00310072	0.00021436
SS123	0.00008312	0.00058816	0.00150815	0.00004849	0.00004858	0.00075307	0.00072280	0.00020409	0.00021820	0.00000895
SS043	0.00005682	0.00153612	0.00104887	0.00000247	0.00000452	0.00000607	0.00000978	0.00024000	0.00082724	0.00031752
SS039	0.00039600	0.00057748	0.00150978	0.00018286	0.00017147	0.00000980	0.00000853	0.00041671	0.00028262	0.00007322
SS200	0.00006318	0.00149213	0.00118923	0.00000390	0.00000424	0.00006870	0.00012647	0.00003583	0.00008675	0.00019281
SS202	0.00068593	0.00029166	0.00049266	0.00046421	0.00052719	0.00062602	0.00066603	0.00024186	0.00400768	0.00007076
SS053	0.00026551	0.00055347	0.00145165	0.00015304	0.00015006	0.00000634	0.00001160	0.00013363	0.00012453	0.00004398
SS204	0.00012740	0.00008211	0.00008814	0.00051366	0.00051218	0.00029075	0.00031424	0.00085187	0.00052285	0.00001324
SS049	0.00008299	0.00058596	0.00154705	0.00000137	0.00000660	0.00000998	0.00000868	0.00001444	0.00005196	0.00000065
SS073	0.00003882	0.00128938	0.00071667	0.00000373	0.00000645	0.00036780	0.00043614	0.00003069	0.00003580	0.00025411
SS213	0.00004745	0.00055378	0.00144783	0.00000988	0.00000966	0.00000955	0.00000831	0.00001330	0.00004911	0.00000303
A38	0.00003840	0.00083031	0.00077819	0.00000309	0.00000442	0.00000434	0.00001114	0.00003593	0.00015798	0.00132660
SS022	0.00007380	0.00053542	0.00139983	0.00000149	0.00000603	0.00000933	0.00000821	0.00003692	0.00004267	0.00000240
SS066	0.00007270	0.00044973	0.00032224	0.00000644	0.00000706	0.00073384	0.00065054	0.00006947	0.00005279	0.00090791
SS218	0.00006491	0.00036406	0.00095181	0.00000511	0.00000606	0.00000520	0.00000453	0.00000881	0.00003253	0.00008547
SS032	0.00006936	0.00037673	0.00128049	0.00000176	0.00000585	0.00000829	0.00000684	0.00001176	0.00006741	0.00000054
SS206	0.00004575	0.00032304	0.00084457	0.00008030	0.00008390	0.00001192	0.00002248	0.00038481	0.00047429	0.00000589

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Cd T Ld_Avg	Ch D Ld_Avg	Ch T Ld_Avg	Cu D Ld_Avg	Cu T Ld_Avg	Fe D Ld_Avg	Fe T Ld_Avg	Pb D Ld_Avg	Pb T Ld_Avg	Mn D Ld_Avg
	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
SS060	0.00006455	0.00035213	0.00093244	0.00002003	0.00002223	0.00000590	0.00000324	0.00002211	0.00002611	0.00000894
SS068	0.00020339	0.00039745	0.00039443	0.00006796	0.00007529	0.00001003	0.00001042	0.00038223	0.00029467	0.00032416
SS074	0.00011390	0.00062592	0.00032730	0.00012271	0.00012275	0.00041881	0.00039440	0.00010422	0.00012966	0.00011002
SS045	0.00035588	0.00031135	0.00081445	0.00000140	0.00000310	0.00000532	0.00000424	0.00000748	0.00002761	0.00000643
SS228	0.00029716	0.00034611	0.00018098	0.00003511	0.00006304	0.00015645	0.00013839	0.00032040	0.00050485	0.00048181
SS064	0.00002948	0.00076990	0.00054414	0.00000169	0.00000242	0.00000352	0.00000476	0.00001849	0.00001580	0.00000137
SS042	0.00008947	0.00034839	0.00034782	0.00000146	0.00000744	0.00000226	0.00000876	0.00002310	0.00282208	0.00000998
SS055	0.00007266	0.00017127	0.00044777	0.00000407	0.00000541	0.00039460	0.00037867	0.00000534	0.00010784	0.00028113
SS046	0.00049592	0.00015388	0.00040232	0.00000595	0.00000628	0.00008067	0.00007670	0.00065505	0.00047257	0.00007937
SS063	0.00009260	0.00046496	0.00025117	0.00000902	0.00000958	0.00000124	0.00000560	0.00001116	0.00001242	0.00013743
SS223	0.00003952	0.00027689	0.00072391	0.00000063	0.00000321	0.00000467	0.00000413	0.00000703	0.00005132	0.00000042
SS002	0.00003290	0.00017293	0.00060740	0.00000061	0.00000262	0.00000397	0.00000345	0.00000612	0.00002454	0.00000046
SS125	0.00013769	0.00009971	0.00006268	0.00001756	0.00001808	0.00074808	0.00071523	0.00011165	0.00009770	0.00008537
SS203	0.00015577	0.00007691	0.00020109	0.00006956	0.00007312	0.00000185	0.00000169	0.00160660	0.00117311	0.00000207
SS004	0.00007674	0.00017970	0.00052780	0.00000160	0.00000295	0.00000329	0.00000217	0.00000480	0.00006808	0.00000026
SS088	0.00003193	0.00022545	0.00057664	0.00000041	0.00000254	0.00000246	0.00000329	0.00002057	0.00001751	0.00000102
SS019	0.00003237	0.00022853	0.00061311	0.00000060	0.00000250	0.00000375	0.00000326	0.00000549	0.00002026	0.00000025
SS085	0.00012053	0.00035573	0.00018601	0.00001676	0.00001536	0.00008632	0.00008929	0.00032165	0.00066148	0.00019252
SS009	0.00003310	0.00023374	0.00061110	0.00000225	0.00000273	0.00000350	0.00000305	0.00001208	0.00002310	0.00000252
SS230	0.00018191	0.00005592	0.00013875	0.00006966	0.00007798	0.00000782	0.00000945	0.00064017	0.00155738	0.00003221
SS216	0.00003050	0.00021536	0.00057302	0.00000089	0.00000243	0.00000350	0.00000305	0.00000520	0.00002297	0.00000023
SS094	0.00001914	0.00006756	0.00009882	0.00000193	0.00000254	0.00001749	0.00001718	0.00031298	0.00060932	0.00003620
SS070	0.00014914	0.00013223	0.00034572	0.00000355	0.00000361	0.00001292	0.00001642	0.00003185	0.00002999	0.00006957
SS010	0.00006646	0.00018008	0.00047082	0.00000132	0.00000239	0.00000257	0.00000224	0.00001586	0.00001547	0.00001988
SS062	0.00002234	0.00012178	0.00031840	0.00000127	0.00000206	0.00014598	0.00015080	0.00000918	0.00012862	0.00023181
SS098	0.00023594	0.00004762	0.00009815	0.00012340	0.00013438	0.00001735	0.00001507	0.00041892	0.00029193	0.00003196
A23A	0.00017452	0.00006978	0.00018243	0.00003597	0.00003647	0.00000096	0.00000084	0.00002144	0.00003118	0.00057712
SS031	0.00002227	0.00015725	0.00041113	0.00000035	0.00000177	0.00000246	0.00000214	0.00000378	0.00001817	0.00000016
SS016	0.00002012	0.00014208	0.00037198	0.00000150	0.00000172	0.00000296	0.00000679	0.00000323	0.00001507	0.00002605

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Cd T Ld_Avg	Ch D Ld_Avg	Ch T Ld_Avg	Cu D Ld_Avg	Cu T Ld_Avg	Fe D Ld_Avg	Fe T Ld_Avg	Pb D Ld_Avg	Pb T Ld_Avg	Mn D Ld_Avg
	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
SS300	0.00007434	0.00012498	0.00032677	0.00002829	0.00002801	0.00000172	0.00000150	0.00000300	0.00001601	0.00001598
SS056	0.00001939	0.00013495	0.00035282	0.00000094	0.00000164	0.00000465	0.00000389	0.00000330	0.00001205	0.00001281
SS025	0.00001845	0.00013028	0.00034060	0.00000146	0.00000362	0.00000207	0.00000674	0.00002073	0.00014891	0.00000014
DM4	0.00001647	0.00012560	0.00030404	0.00000086	0.00000131	0.00000160	0.00000140	0.00000279	0.00001031	0.00020867
SS082	0.00001747	0.00012335	0.00032250	0.00000024	0.00000139	0.00000202	0.00000317	0.00000296	0.00002583	0.00000008
SS011	0.00003604	0.00007984	0.00020874	0.00000422	0.00000448	0.00000138	0.00000115	0.00010319	0.00008821	0.00006569
SS069	0.00016838	0.00007623	0.00019930	0.00002164	0.00002327	0.00000129	0.00000107	0.00000885	0.00000635	0.00008670
SS003	0.00005069	0.00006396	0.00026707	0.00000747	0.00000815	0.00000176	0.00000154	0.00005946	0.00009013	0.00000883
SS095	0.00001629	0.00011141	0.00027891	0.00000029	0.00000148	0.00000220	0.00001320	0.00000291	0.00001603	0.00000511
SS211	0.00002471	0.00009230	0.00024130	0.00000375	0.00000397	0.00000322	0.00001258	0.00015512	0.00021853	0.00001527
SS093	0.00001319	0.00010071	0.00023790	0.00000260	0.00000286	0.00000150	0.00000260	0.00000242	0.00001258	0.00000636
SS017	0.00011045	0.00008760	0.00022904	0.00000132	0.00000144	0.00000873	0.00000816	0.00000210	0.00000777	0.00003276
SS067	0.00015691	0.00010812	0.00005653	0.00001716	0.00001770	0.00002362	0.00002173	0.00001746	0.00001079	0.00010927
SS238	0.00005714	0.00004100	0.00010054	0.00005620	0.00005711	0.00011951	0.00010476	0.00005656	0.00003927	0.00005378
SS205	0.00001307	0.00009230	0.00024130	0.00000021	0.00000104	0.00000159	0.00000139	0.00000222	0.00000818	0.00000013
SS091	0.00001048	0.00007400	0.00016706	0.00000484	0.00000492	0.00000515	0.00000552	0.00006227	0.00004978	0.00000165
SS231	0.00001075	0.00007138	0.00019841	0.00000022	0.00000085	0.00000547	0.00001373	0.00000182	0.00000673	0.00000706
SS086	0.00000871	0.00013793	0.00008392	0.00000045	0.00000053	0.00003931	0.00003725	0.00001227	0.00000867	0.00006548
SS089	0.00001064	0.00007760	0.00019099	0.00000016	0.00000085	0.00000153	0.00000138	0.00000180	0.00000635	0.00000077
SS227	0.00000545	0.00019228	0.00010054	0.00000043	0.00000033	0.00000565	0.00000619	0.00000462	0.00000341	0.00001043
SS208	0.00000831	0.00005865	0.00015333	0.00000044	0.00000073	0.00000179	0.00000174	0.00001349	0.00000949	0.00000308
SS229	0.00000813	0.00012306	0.00011261	0.00000071	0.00000062	0.00000066	0.00000058	0.00000406	0.00000297	0.00000005
SS092	0.00000829	0.00005856	0.00014468	0.00000015	0.00000066	0.00000101	0.00000072	0.00000141	0.00000519	0.00000010
SS036	0.00000941	0.00003573	0.00009342	0.00000240	0.00000248	0.00000061	0.00000053	0.00023021	0.00017217	0.00000033
SS061	0.00000833	0.00005372	0.00014044	0.00000068	0.00000085	0.00000085	0.00000116	0.00000215	0.00002161	0.00000134
SS096	0.00000580	0.00004956	0.00008739	0.00000405	0.00000394	0.00000557	0.00000708	0.00001654	0.00002313	0.00000055
SS052	0.00000605	0.00004270	0.00011288	0.00000027	0.00000049	0.00000069	0.00000063	0.00000103	0.00000379	0.00000005
SS207	0.00000436	0.00003077	0.00008043	0.00000018	0.00000020	0.00000053	0.00000036	0.00001344	0.00001203	0.00000032
SS005	0.00002445	0.00001980	0.00005176	0.00000038	0.00000048	0.00000034	0.00000030	0.00000067	0.00000300	0.00000003

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Cd T Ld_Avg	Ch D Ld_Avg	Ch T Ld_Avg	Cu D Ld_Avg	Cu T Ld_Avg	Fe D Ld_Avg	Fe T Ld_Avg	Pb D Ld_Avg	Pb T Ld_Avg	Mn D Ld_Avg
	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
SS028	0.00000427	0.00003013	0.00007878	0.00000004	0.00000034	0.00000052	0.00000045	0.00000098	0.00000211	0.00000005
SS057	0.00000365	0.00003072	0.00003205	0.00000009	0.00000016	0.00000887	0.00001758	0.00000074	0.00000421	0.00004254
SS090	0.00000317	0.00002238	0.00005276	0.00000005	0.00000025	0.00000025	0.00000077	0.00000054	0.00000169	0.00000026
SS080	0.00000218	0.00001538	0.00004022	0.00000007	0.00000017	0.00000025	0.00000020	0.00000053	0.00000123	0.00000007
SS034	0.00000553	0.00001346	0.00003519	0.00000183	0.00000184	0.00000029	0.00000024	0.00000535	0.00000407	0.00000132
SS058	0.00000191	0.00001346	0.00003560	0.00000013	0.00000014	0.00000023	0.00000020	0.00000294	0.00000237	0.00000002
SS097	0.00000217	0.00001177	0.00002769	0.00000011	0.00000023	0.00000020	0.00000070	0.00000424	0.00002165	0.00000022
SS076	0.00000174	0.00001231	0.00003217	0.00000002	0.00000017	0.00000021	0.00000028	0.00000032	0.00000374	0.00000004
SS033	0.00000174	0.00001231	0.00003217	0.00000004	0.00000014	0.00000020	0.00000019	0.00000047	0.00000134	0.00000003
SS030	0.00000174	0.00001231	0.00003217	0.00000003	0.00000014	0.00000022	0.00000021	0.00000027	0.00000119	0.00000002

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Mn T Ld_Avg	Ni D Ld_Avg	Ni T Ld_Avg	Se D Ld_Avg	Se T Ld_Avg	Ag D Ld_Avg	Ag T Ld_Avg	Tl D Ld_Avg	Tl T Ld_Avg	Zn D Ld_Avg	Zn T Ld_Avg
	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
CC06	0.34882852	0.47341543	0.38623223	0.26477238	0.09726551	0.24818507	0.09203887	0.23317734	0.08894767	0.58571814	0.58189621
CC03D	0.24003296	0.19664171	0.16771368	0.14106569	0.06700971	0.14645789	0.06812483	0.13760160	0.07544838	0.16476573	0.16596151
CC14	0.04853788	0.07387308	0.07073848	0.16604605	0.17705540	0.17288366	0.18128580	0.20214196	0.17292959	0.02813457	0.03046740
CC19	0.11954583	0.10038102	0.08518842	0.04612951	0.01747579	0.04789280	0.01776660	0.04499672	0.01716990	0.08726317	0.08754266
SS013	0.00102461	0.00835224	0.04139500	0.05100533	0.13350108	0.05295500	0.13572269	0.04975281	0.13948874	0.00284725	0.00287937
CC50	0.02783245	0.01381964	0.02588002	0.08386250	0.07693064	0.07328982	0.06708023	0.08180312	0.07558408	0.00711315	0.00814683
CC01B	0.02951524	0.00387622	0.00434801	0.01335674	0.00849989	0.01386730	0.00864133	0.01302874	0.00972172	0.05617883	0.05512187
SS222	0.07240463	0.02964455	0.02723853	0.00856777	0.00448505	0.00889527	0.00455968	0.00835737	0.00440654	0.01073888	0.01072833
SS048	0.00006293	0.00220113	0.01050788	0.01343064	0.03518247	0.01395560	0.03576795	0.01311171	0.03758596	0.00008956	0.00009063
SS220	0.02981206	0.00704672	0.00810319	0.00079098	0.00187322	0.00074304	0.00190439	0.00069811	0.00184043	0.00215413	0.00219078
SS071	0.00378707	0.00388689	0.00482077	0.02373639	0.01712899	0.02464371	0.01741404	0.02315351	0.01585556	0.00092457	0.00099741
SS029	0.00036014	0.00460099	0.01452964	0.00840054	0.02198754	0.00872165	0.02235344	0.00819425	0.02160268	0.00316864	0.00307831
SS047	0.00001270	0.00171035	0.00774249	0.01044470	0.02733791	0.01084395	0.02779285	0.01018822	0.02799686	0.00007088	0.00007233
SS304	0.00062808	0.00106720	0.00244123	0.00311329	0.00814871	0.00323230	0.00828432	0.00303684	0.00800608	0.00099023	0.00097355
SS075	0.00228080	0.00348719	0.00327575	0.02129551	0.01163929	0.02210952	0.01183299	0.02077256	0.01143557	0.00077906	0.00077511
SS015	0.00006255	0.00137522	0.00715453	0.00839816	0.02198131	0.00871918	0.02234710	0.00819193	0.01994947	0.00005565	0.00005622
DM32	0.00088718	0.00040177	0.00090794	0.00030488	0.00090564	0.00036747	0.00092071	0.00033751	0.00088979	0.00163012	0.00152968
SS235	0.00366677	0.00312667	0.00281017	0.00195835	0.00512577	0.00203320	0.00521106	0.00156641	0.00503605	0.00308864	0.00292353
SS084	0.00038459	0.00214638	0.00469631	0.00621577	0.01626913	0.00645337	0.01653986	0.00606313	0.01598436	0.00099150	0.00095253
SS212	0.00131642	0.00044896	0.00201963	0.00274169	0.00717607	0.00284649	0.00729549	0.00267436	0.00705047	0.00093568	0.00094523
SS050	0.00023017	0.00128059	0.00596551	0.00726283	0.01900970	0.00754045	0.01932604	0.00708448	0.01950565	0.00009572	0.00012344
SS087	0.00051466	0.00552055	0.00400497	0.00282479	0.00752289	0.00298406	0.00764808	0.00280361	0.00739122	0.00011630	0.00012343
SS105	0.00198516	0.00141356	0.00256345	0.00604369	0.00775328	0.00631580	0.00790336	0.00734240	0.00841275	0.00157089	0.00166407
SS008	0.00089810	0.00083856	0.00377225	0.00512091	0.01340344	0.00531665	0.01362649	0.00499516	0.01316883	0.00004816	0.00017577
SS210	0.01042258	0.00495308	0.00471225	0.00146408	0.00554113	0.00228268	0.00563334	0.00214465	0.00482317	0.00294853	0.00295504
SS214	0.00873783	0.00202672	0.00191115	0.00100267	0.00410061	0.00162656	0.00416885	0.00152821	0.00402884	0.00700785	0.00686963
SS027	0.00405828	0.00521996	0.00468426	0.00290888	0.00478398	0.00271725	0.00486359	0.00254698	0.00470779	0.00273836	0.00267468
DM24	0.00404864	0.00251470	0.00229204	0.00637602	0.00344699	0.00671769	0.00344346	0.01233707	0.00650489	0.00028461	0.00037213
SS224	0.00721035	0.00177018	0.00160416	0.00391669	0.00205031	0.00406641	0.00208443	0.00382051	0.00201442	0.00259550	0.00258529

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Mn T Ld_Avg	Ni D Ld_Avg	Ni T Ld_Avg	Se D Ld_Avg	Se T Ld_Avg	Ag D Ld_Avg	Ag T Ld_Avg	Tl D Ld_Avg	Tl T Ld_Avg	Zn D Ld_Avg	Zn T Ld_Avg
	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
SS035	0.00000887	0.00063422	0.00287702	0.00387307	0.01013736	0.00402112	0.01030605	0.00377796	0.00998083	0.00002940	0.00003397
SS215	0.00003808	0.00105285	0.00470239	0.00369213	0.00966375	0.00383326	0.00982457	0.00360146	0.00949460	0.00026654	0.00027283
SS126	0.00001602	0.00085251	0.00116744	0.00093186	0.00134917	0.00102047	0.00140315	0.00111830	0.00163571	0.00085244	0.00082840
SS024	0.00000305	0.00051267	0.00230625	0.00313078	0.00819450	0.00325046	0.00833086	0.00305390	0.00805107	0.00007064	0.00007168
SS077	0.00000326	0.00048367	0.00223893	0.00295369	0.00773098	0.00306660	0.00785963	0.00288116	0.00759566	0.00001957	0.00001977
DM01	0.00037448	0.00102106	0.00094403	0.00156668	0.00410061	0.00162656	0.00416885	0.00152821	0.00402884	0.00130294	0.00140539
CC16C	0.00065835	0.00572191	0.00586038	0.00127615	0.00222727	0.00133618	0.00226979	0.00154871	0.00252272	0.00043524	0.00044260
SS040	0.00099821	0.00028102	0.00182944	0.00231364	0.00605571	0.00240208	0.00615648	0.00225682	0.00595015	0.00071534	0.00070755
SS014	0.00000241	0.00039370	0.00181018	0.00240423	0.00629281	0.00249613	0.00639753	0.00234519	0.00566660	0.00001593	0.00001609
SS001	0.00007534	0.00055653	0.00254631	0.00189295	0.00495461	0.00196531	0.00503706	0.00184647	0.00487095	0.00011084	0.00010703
SS305	0.00000551	0.00035275	0.00158685	0.00215418	0.00563834	0.00223652	0.00573217	0.00210128	0.00553965	0.00001428	0.00001442
SS225	0.00309396	0.00077365	0.00093119	0.00053855	0.00140959	0.00055913	0.00149036	0.00052532	0.00098832	0.00138859	0.00134443
SS221	0.00530374	0.00149866	0.00135411	0.00089758	0.00046986	0.00093189	0.00047768	0.00087553	0.00046164	0.00046178	0.00045994
SS007	0.00000445	0.00028411	0.01004806	0.00172009	0.00450216	0.00178584	0.00457708	0.00167785	0.00442336	0.00001140	0.00001479
CC01A	0.00047539	0.00020166	0.00090715	0.00123147	0.00322325	0.00127855	0.00327689	0.00120123	0.00316684	0.00128799	0.00126822
SS078	0.00000586	0.00030689	0.00248026	0.00187409	0.00490524	0.00194573	0.00498687	0.00182807	0.00481938	0.00001270	0.00001255
SS072	0.00083356	0.00130818	0.00114798	0.00427938	0.00236318	0.00444296	0.00240251	0.00417430	0.00301182	0.00017071	0.00017686
CC01C	0.00044859	0.00062679	0.00057042	0.00074535	0.00194144	0.00077678	0.00197329	0.00096203	0.00253626	0.00174341	0.00169623
SS041	0.00036523	0.00030491	0.00162510	0.00150371	0.00393580	0.00156119	0.00400130	0.00146678	0.00388555	0.00074743	0.00073173
SS018	0.00074253	0.00210029	0.00233092	0.00104188	0.00272701	0.00108170	0.00277239	0.00101629	0.00267927	0.00074763	0.00073393
SS219	0.00037503	0.00035102	0.00059568	0.00059158	0.00154841	0.00064195	0.00157418	0.00057706	0.00152131	0.00075386	0.00075505
SS044	0.00041614	0.00032128	0.00116471	0.00196198	0.00362488	0.00203697	0.00368520	0.00191380	0.00356311	0.00046594	0.00055518
SS201	0.00268082	0.00216643	0.00210032	0.00166133	0.00102088	0.00175364	0.00103787	0.00164760	0.00100301	0.00179847	0.00181770
SS065	0.00192671	0.00164822	0.00162538	0.00186652	0.00127711	0.00199074	0.00129837	0.00187036	0.00125476	0.00135817	0.00132622
SS250	0.00040433	0.00068594	0.00050337	0.00418889	0.00178857	0.00434901	0.00181833	0.00408603	0.00175726	0.00004218	0.00015788
SS020	0.00006282	0.00084703	0.00098941	0.00131209	0.00343425	0.00136224	0.00349140	0.00127987	0.00354571	0.00003672	0.00003667
SS301	0.00292288	0.00229636	0.00194750	0.00101997	0.00053393	0.00105896	0.00054282	0.00099493	0.00052459	0.00178062	0.00169774
SS038	0.00000120	0.00021272	0.00101462	0.00129904	0.00340009	0.00134869	0.00345667	0.00126714	0.00334057	0.00000861	0.00000870
SS083	0.00031602	0.00080197	0.00093689	0.00078778	0.00206432	0.00081884	0.00209867	0.00076932	0.00161014	0.00050048	0.00048878

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Mn T Ld_Avg	Ni D Ld_Avg	Ni T Ld_Avg	Se D Ld_Avg	Se T Ld_Avg	Ag D Ld_Avg	Ag T Ld_Avg	Tl D Ld_Avg	Tl T Ld_Avg	Zn D Ld_Avg	Zn T Ld_Avg
	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
SS217	0.00000271	0.00020176	0.00154598	0.00123213	0.00322496	0.00127922	0.00327863	0.00120187	0.00316851	0.00000840	0.00000867
SS054	0.00000272	0.00023962	0.00084901	0.00146328	0.00301669	0.00151921	0.00306689	0.00142734	0.00296388	0.00001955	0.00002211
SS023	0.00000364	0.00019409	0.00087188	0.00118359	0.00309793	0.00122884	0.00314949	0.00115453	0.00304371	0.00002167	0.00002729
SS026	0.00029779	0.00027753	0.00028400	0.00052471	0.00137338	0.00054477	0.00139623	0.00051183	0.00134934	0.00038486	0.00037992
SS226	0.00004316	0.00020641	0.00093817	0.00096285	0.00252017	0.00099966	0.00256211	0.00093921	0.00180668	0.00071971	0.00068767
SS021	0.00000819	0.00015504	0.00074885	0.00101658	0.00266080	0.00105544	0.00270508	0.00099162	0.00261422	0.00004962	0.00005126
SS012	0.00002201	0.00019158	0.00072682	0.00097086	0.00254112	0.00100797	0.00258340	0.00094702	0.00249664	0.00001842	0.00001814
SS051	0.00000490	0.00014434	0.00074944	0.00088144	0.00230707	0.00091513	0.00234547	0.00085979	0.00243765	0.00000592	0.00000810
SS006	0.00000166	0.00013623	0.00081596	0.00083194	0.00217752	0.00086374	0.00221376	0.00081151	0.00213941	0.00000551	0.00000566
SS079	0.00000086	0.00013654	0.00063414	0.00083383	0.00218245	0.00086570	0.00221877	0.00081335	0.00214425	0.00000553	0.00000561
SS236	0.00079891	0.00062138	0.00057127	0.00081598	0.00059801	0.00084717	0.00060796	0.00079594	0.00058754	0.00089047	0.00086690
SS059	0.00000327	0.00015353	0.00059443	0.00076065	0.00199093	0.00078973	0.00202407	0.00074198	0.00195609	0.00014483	0.00014336
SS037	0.00021420	0.00122313	0.00149365	0.00041199	0.00090748	0.00042774	0.00092259	0.00040187	0.00089160	0.00009684	0.00009335
SS123	0.00000893	0.00086264	0.00093509	0.00040464	0.00160180	0.00063538	0.00162846	0.00059696	0.00157376	0.00002511	0.00002930
SS043	0.00036802	0.00025868	0.00037122	0.00157973	0.00111400	0.00164012	0.00113253	0.00154094	0.00088651	0.00000856	0.00001207
SS039	0.00007061	0.00017537	0.00065008	0.00061264	0.00160353	0.00063606	0.00163021	0.00059760	0.00124185	0.00028492	0.00027422
SS200	0.00019877	0.00025922	0.00034863	0.00158300	0.00123873	0.00164351	0.00125934	0.00154412	0.00121704	0.00005134	0.00005566
SS202	0.00007121	0.00042437	0.00041342	0.00019991	0.00052326	0.00020756	0.00053196	0.00019501	0.00051410	0.00043772	0.00051599
SS053	0.00004453	0.00019488	0.00031467	0.00058718	0.00153687	0.00060962	0.00156245	0.00057276	0.00150997	0.00012892	0.00012640
SS204	0.00001352	0.00018790	0.00017604	0.00008153	0.00010679	0.00012369	0.00010856	0.00011621	0.00010492	0.00007123	0.00008891
SS049	0.00000065	0.00010180	0.00050589	0.00062165	0.00162709	0.00064541	0.00165417	0.00060638	0.00160071	0.00000412	0.00000416
SS073	0.00026200	0.00016034	0.00022930	0.00135615	0.00076117	0.00140799	0.00077384	0.00132284	0.00090497	0.00005002	0.00005416
SS213	0.00000313	0.00009621	0.00043278	0.00058750	0.00153773	0.00060996	0.00156332	0.00057308	0.00151081	0.00003640	0.00003658
A38	0.00130304	0.00011157	0.00098212	0.00068134	0.00082651	0.00070738	0.00084027	0.00066460	0.00081205	0.00023943	0.00023761
SS022	0.00000238	0.00008626	0.00041843	0.00056803	0.00148676	0.00058974	0.00151150	0.00055408	0.00146073	0.00004416	0.00004329
SS066	0.00091560	0.00074604	0.00071173	0.00046102	0.00034225	0.00049807	0.00034795	0.00046795	0.00033626	0.00058461	0.00059350
SS218	0.00008738	0.00043535	0.00234662	0.00038623	0.00101092	0.00040099	0.00102774	0.00037674	0.00099322	0.00003879	0.00003951
SS032	0.00000053	0.00008509	0.00038276	0.00051960	0.00136000	0.00053946	0.00138263	0.00050684	0.00133619	0.00000340	0.00000345
SS206	0.00000634	0.00007761	0.00025245	0.00034271	0.00089701	0.00035581	0.00091194	0.00033429	0.00088131	0.00000913	0.00000884

Appendix 4a - Average Metal Load Contribution by Site

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ID	Mn T Ld_Avg	Ni D Ld_Avg	Ni T Ld_Avg	Se D Ld_Avg	Se T Ld_Avg	Ag D Ld_Avg	Ag T Ld_Avg	Tl D Ld_Avg	Tl T Ld_Avg	Zn D Ld_Avg	Zn T Ld_Avg
	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
SS060	0.00000894	0.00009898	0.00034407	0.00037357	0.00097779	0.00038785	0.00099406	0.00036440	0.00096068	0.00004386	0.00004260
SS068	0.00032675	0.00038360	0.00039997	0.00042166	0.00041893	0.00043778	0.00042590	0.00041130	0.00040177	0.00040049	0.00040730
SS074	0.00011202	0.00036401	0.00031328	0.00066272	0.00034685	0.00068792	0.00035263	0.00064632	0.00034078	0.00004729	0.00005065
SS045	0.00000664	0.00005922	0.00023006	0.00033031	0.00086454	0.00034293	0.00087893	0.00032220	0.00084941	0.00007432	0.00007914
SS228	0.00047084	0.00018987	0.00036353	0.00036719	0.00019222	0.00038123	0.00019541	0.00035817	0.00018885	0.00033677	0.00032589
SS064	0.00000181	0.00012005	0.00018477	0.00081679	0.00057793	0.00084801	0.00058754	0.00079673	0.00074261	0.00000314	0.00000339
SS042	0.00001599	0.00006052	0.00016862	0.00036961	0.00036941	0.00038374	0.00037556	0.00036053	0.00029700	0.00008373	0.00009285
SS055	0.00028340	0.00025390	0.00032774	0.00018170	0.00047557	0.00018864	0.00048349	0.00017724	0.00046725	0.00015576	0.00015721
SS046	0.00008065	0.00010322	0.00012759	0.00016326	0.00042731	0.00016950	0.00043442	0.00015925	0.00041983	0.00016075	0.00016259
SS063	0.00014036	0.00105764	0.00062943	0.00049328	0.00026676	0.00051213	0.00027120	0.00048116	0.00026209	0.00004073	0.00004184
SS223	0.00000414	0.00004810	0.00026688	0.00029375	0.00076886	0.00030498	0.00078166	0.00028654	0.00075541	0.00000636	0.00000796
SS002	0.00000057	0.00004036	0.00028687	0.00024647	0.00064511	0.00025589	0.00065585	0.00024042	0.00065311	0.00000714	0.00000727
SS125	0.00010183	0.00057007	0.00058377	0.00005810	0.00004953	0.00009186	0.00004709	0.00015919	0.00008393	0.00027091	0.00030098
SS203	0.00000202	0.00004409	0.00003522	0.00004080	0.00021357	0.00008472	0.00021713	0.00007959	0.00020984	0.00008841	0.00010024
SS004	0.00000078	0.00004414	0.00039551	0.00021417	0.00056058	0.00022236	0.00056990	0.00020891	0.00055076	0.00017230	0.00016314
SS088	0.00000102	0.00003788	0.00018562	0.00023918	0.00062604	0.00024833	0.00063645	0.00023331	0.00063917	0.00000159	0.00000161
SS019	0.00000031	0.00003970	0.00019175	0.00024244	0.00063457	0.00025171	0.00064513	0.00023649	0.00059244	0.00000843	0.00000835
SS085	0.00019540	0.00007082	0.00013914	0.00037739	0.00019756	0.00039182	0.00020084	0.00036812	0.00019410	0.00007250	0.00007238
SS009	0.00000254	0.00004061	0.00018267	0.00024797	0.00064904	0.00025745	0.00065984	0.00024188	0.00063768	0.00000493	0.00000551
SS230	0.00003171	0.00012696	0.00013195	0.00004024	0.00014737	0.00005845	0.00014982	0.00005492	0.00014479	0.00015567	0.00014892
SS216	0.00000040	0.00003741	0.00020292	0.00022847	0.00059801	0.00023721	0.00060796	0.00022286	0.00058754	0.00000348	0.00000366
SS094	0.00003642	0.00054935	0.00061117	0.00007168	0.00011072	0.00007442	0.00011256	0.00006992	0.00010878	0.00000623	0.00000756
SS070	0.00007183	0.00017916	0.00019684	0.00014029	0.00036718	0.00014565	0.00037329	0.00013684	0.00036076	0.00014940	0.00015354
SS010	0.00005031	0.00003128	0.00014073	0.00019105	0.00050005	0.00019835	0.00050837	0.00018636	0.00049130	0.00002457	0.00003058
SS062	0.00023480	0.00003789	0.00009619	0.00012920	0.00033817	0.00013414	0.00034379	0.00012603	0.00033225	0.00004387	0.00004413
SS098	0.00003109	0.00019217	0.00018837	0.00004373	0.00010390	0.00005019	0.00010563	0.00004716	0.00010208	0.00019566	0.00018641
A23A	0.00058670	0.00010352	0.00009139	0.00007403	0.00019375	0.00007686	0.00019698	0.00007221	0.00019036	0.00014324	0.00014718
SS031	0.00000082	0.00002732	0.00012289	0.00016683	0.00043666	0.00017321	0.00044392	0.00016273	0.00042902	0.00000111	0.00000112
SS016	0.00002534	0.00003532	0.00011343	0.00015073	0.00039453	0.00015649	0.00040109	0.00014703	0.00038762	0.00001170	0.00001117

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ID	Mn T Ld_Avg	Ni D Ld_Avg	Ni T Ld_Avg	Se D Ld_Avg	Se T Ld_Avg	Ag D Ld_Avg	Ag T Ld_Avg	Tl D Ld_Avg	Tl T Ld_Avg	Zn D Ld_Avg	Zn T Ld_Avg
	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
SS300	0.00001938	0.00013512	0.00017137	0.00013260	0.00034706	0.00013766	0.00035283	0.00012934	0.00034098	0.00004799	0.00004739
SS056	0.00001377	0.00003856	0.00009799	0.00014317	0.00037473	0.00014864	0.00038096	0.00013965	0.00036817	0.00002274	0.00002276
SS025	0.00000023	0.00002263	0.00010181	0.00013821	0.00036175	0.00014349	0.00036777	0.00013482	0.00035542	0.00000125	0.00000138
DM4	0.00020488	0.00002020	0.00009088	0.00012338	0.00032292	0.00012809	0.00032830	0.00012035	0.00031727	0.00004578	0.00004410
SS082	0.00000027	0.00002143	0.00026397	0.00009059	0.00034252	0.00013587	0.00034822	0.00012765	0.00033653	0.00000087	0.00000088
SS011	0.00006674	0.00019641	0.00021203	0.00008470	0.00022170	0.00008794	0.00022539	0.00008262	0.00021782	0.00001476	0.00001473
SS069	0.00008601	0.00008296	0.00007463	0.00008087	0.00021168	0.00008397	0.00021520	0.00007889	0.00020797	0.00016068	0.00016476
SS003	0.00000917	0.00001775	0.00007983	0.00010837	0.00028365	0.00011252	0.00028837	0.00010571	0.00032206	0.00005209	0.00005106
SS095	0.00000676	0.00002105	0.00009505	0.00012858	0.00031945	0.00013349	0.00032477	0.00012542	0.00031386	0.00000081	0.00000083
SS211	0.00001603	0.00002373	0.00007213	0.00009792	0.00025629	0.00010166	0.00026055	0.00009551	0.00025180	0.00001476	0.00001498
SS093	0.00000659	0.00008057	0.00037513	0.00010684	0.00025862	0.00011092	0.00026292	0.00010422	0.00025409	0.00000106	0.00000121
SS017	0.00003260	0.00005620	0.00010607	0.00009294	0.00024326	0.00009649	0.00024731	0.00009066	0.00023900	0.00001997	0.00002057
SS067	0.00010975	0.00010212	0.00009323	0.00015746	0.00006004	0.00011908	0.00006104	0.00011564	0.00005751	0.00011717	0.00011749
SS238	0.00005163	0.00013843	0.00013296	0.00004080	0.00010679	0.00004236	0.00010856	0.00003980	0.00010492	0.00002525	0.00002425
SS205	0.00000019	0.00001603	0.00007213	0.00009792	0.00025629	0.00010166	0.00026055	0.00009551	0.00025180	0.00000065	0.00000066
SS091	0.00000167	0.00002337	0.00013673	0.00007851	0.00020550	0.00008151	0.00020891	0.00007658	0.00020190	0.00000102	0.00000089
SS231	0.00000730	0.00001318	0.00019626	0.00008051	0.00021073	0.00008359	0.00021423	0.00007853	0.00020704	0.00000053	0.00000054
SS086	0.00006613	0.00003560	0.00003092	0.00014633	0.00008913	0.00015192	0.00009061	0.00014274	0.00008757	0.00002058	0.00002144
SS089	0.00000088	0.00001305	0.00005949	0.00007971	0.00020864	0.00008276	0.00021211	0.00007776	0.00021760	0.00000053	0.00000053
SS227	0.00001027	0.00003340	0.00003005	0.00020399	0.00010679	0.00021179	0.00010856	0.00019899	0.00010492	0.00000101	0.00000096
SS208	0.00000290	0.00001773	0.00007955	0.00006222	0.00016285	0.00006460	0.00016556	0.00006069	0.00015691	0.00000058	0.00000062
SS229	0.00000015	0.00002138	0.00005746	0.00013056	0.00011960	0.00013555	0.00012159	0.00012735	0.00011751	0.00001169	0.00001113
SS092	0.00000013	0.00001509	0.00004817	0.00006213	0.00016262	0.00006450	0.00016532	0.00006060	0.00015977	0.00000041	0.00000042
SS036	0.00000035	0.00000548	0.00004367	0.00003791	0.00009922	0.00003936	0.00010087	0.00003698	0.00010547	0.00000822	0.00000795
SS061	0.00000146	0.00001036	0.00004198	0.00005699	0.00014916	0.00005917	0.00015165	0.00005559	0.00014655	0.00000331	0.00000333
SS096	0.00000055	0.00001070	0.00003315	0.00005258	0.00009558	0.00005459	0.00009717	0.00005129	0.00009390	0.00000406	0.00000416
SS052	0.00000009	0.00000781	0.00004427	0.00004530	0.00011856	0.00004703	0.00012053	0.00004419	0.00011649	0.00000144	0.00000148
SS207	0.00000035	0.00000909	0.00002404	0.00003264	0.00008543	0.00003389	0.00008685	0.00003184	0.00008393	0.00000016	0.00000016
SS005	0.00000005	0.00001740	0.00001993	0.00001407	0.00005498	0.00002181	0.00005589	0.00002049	0.00005401	0.00009882	0.00011249

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Mn T Ld_Avg	Ni D Ld_Avg	Ni T Ld_Avg	Se D Ld_Avg	Se T Ld_Avg	Ag D Ld_Avg	Ag T Ld_Avg	TI D Ld_Avg	TI T Ld_Avg	Zn D Ld_Avg	Zn T Ld_Avg
	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>	<i>Proportion of load contribution</i>
SS028	0.00000008	0.00000524	0.00002355	0.00003197	0.00008368	0.00003319	0.00008507	0.00003118	0.00008221	0.00000020	0.00000022
SS057	0.00004347	0.00003110	0.00003490	0.00003259	0.00003404	0.00003383	0.00003460	0.00003179	0.00003344	0.00001602	0.00001675
SS090	0.00000026	0.00000380	0.00002079	0.00002374	0.00006213	0.00002465	0.00006317	0.00002316	0.00006105	0.00000016	0.00000016
SS080	0.00000009	0.00000267	0.00001896	0.00001632	0.00004271	0.00001694	0.00004343	0.00001592	0.00004197	0.00000011	0.00000011
SS034	0.00000131	0.00000533	0.00001167	0.00001428	0.00003738	0.00001483	0.00003800	0.00001393	0.00003672	0.00000517	0.00000492
SS058	0.00000002	0.00000234	0.00001222	0.00001428	0.00003738	0.00001483	0.00003800	0.00001393	0.00003672	0.00000082	0.00000075
SS097	0.00000024	0.00000435	0.00000898	0.00001248	0.00003268	0.00001296	0.00003322	0.00001218	0.00003210	0.00000144	0.00000154
SS076	0.00000005	0.00000214	0.00002096	0.00001306	0.00003417	0.00001355	0.00003474	0.00001274	0.00003357	0.00000009	0.00000009
SS033	0.00000006	0.00000214	0.00001009	0.00001306	0.00003417	0.00001355	0.00003474	0.00001274	0.00003357	0.00000010	0.00000010
SS030	0.00000002	0.00000214	0.00000962	0.00001306	0.00003417	0.00001355	0.00003474	0.00001274	0.00003357	0.00000008	0.00000008

Appendix 4a - Average Metal Load Contribution by Site**Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

ID	Average proportion of load contribution across all metals
CC06	0.43528220
CC03D	0.12208746
CC14	0.09554238
CC19	0.04237202
SS013	0.03853820
CC50	0.03290740
CC01B	0.02362358
SS222	0.01984827
SS048	0.01046432
SS220	0.00828275
SS071	0.00822594
SS029	0.00777573
SS047	0.00775539
SS304	0.00729070
SS075	0.00650661
SS015	0.00617974
DM32	0.00564100
SS235	0.00561466
SS084	0.00556927
SS212	0.00552816
SS050	0.00540810
SS087	0.00475367
SS105	0.00376390
SS008	0.00365574
SS210	0.00363078
SS214	0.00338873
SS027	0.00309939
DM24	0.00301897
SS224	0.00294723

Appendix 4a - Average Metal Load Contribution by Site**Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

ID	Average proportion of load contribution across all metals
SS035	0.00291285
SS215	0.00286960
SS126	0.00236862
SS024	0.00225897
SS077	0.00221075
DM01	0.00204088
CC16C	0.00197963
SS040	0.00196687
SS014	0.00175324
SS001	0.00163743
SS305	0.00161297
SS225	0.00156218
SS221	0.00155651
SS007	0.00154800
CC01A	0.00149645
SS078	0.00142602
SS072	0.00141853
CC01C	0.00136002
SS041	0.00129971
SS018	0.00125964
SS219	0.00121831
SS044	0.00121836
SS201	0.00120379
SS065	0.00110788
SS250	0.00110706
SS020	0.00105287
SS301	0.00099160
SS038	0.00095489
SS083	0.00094373

Appendix 4a - Average Metal Load Contribution by Site**Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

ID	Average proportion of load contribution across all metals
SS217	0.00093676
SS054	0.00088987
SS023	0.00088515
SS026	0.00086361
SS226	0.00081431
SS021	0.00072625
SS012	0.00072158
SS051	0.00066241
SS006	0.00062913
SS079	0.00062434
SS236	0.00060179
SS059	0.00059060
SS037	0.00057334
SS123	0.00057098
SS043	0.00055911
SS039	0.00054982
SS200	0.00054934
SS202	0.00053984
SS053	0.00050010
SS204	0.00047046
SS049	0.00046525
SS073	0.00044868
SS213	0.00044313
A38	0.00042975
SS022	0.00042820
SS066	0.00040097
SS218	0.00038911
SS032	0.00038284
SS206	0.00032538

Appendix 4a - Average Metal Load Contribution by Site**Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

ID	Average proportion of load contribution across all metals
SS060	0.00029303
SS068	0.00029285
SS074	0.00029262
SS045	0.00028335
SS228	0.00027133
SS064	0.00026932
SS042	0.00025647
SS055	0.00024523
SS046	0.00023116
SS063	0.00022685
SS223	0.00022129
SS002	0.00018667
SS125	0.00018503
SS203	0.00018493
SS004	0.00018270
SS088	0.00018210
SS019	0.00017842
SS085	0.00017812
SS009	0.00017721
SS230	0.00017490
SS216	0.00016950
SS094	0.00015199
SS070	0.00014870
SS010	0.00014369
SS062	0.00013559
SS098	0.00013485
A23A	0.00012806
SS031	0.00012053
SS016	0.00012043

Appendix 4a - Average Metal Load Contribution by Site**Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report**

ID	Average proportion of load contribution across all metals
SS300	0.00011412
SS056	0.00011266
SS025	0.00010631
DM4	0.00010348
SS082	0.00010156
SS011	0.00010091
SS069	0.00009979
SS003	0.00009385
SS095	0.00009218
SS211	0.00009189
SS093	0.00008958
SS017	0.00008693
SS067	0.00008205
SS238	0.00007441
SS205	0.00007330
SS091	0.00006565
SS231	0.00006208
SS086	0.00006165
SS089	0.00005990
SS227	0.00005980
SS208	0.00004974
SS229	0.00004871
SS092	0.00004641
SS036	0.00004450
SS061	0.00004431
SS096	0.00003418
SS052	0.00003375
SS207	0.00002557
SS005	0.00002538

Appendix 4a - Average Metal Load Contribution by Site

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

ID	Average proportion of load contribution across all metals
SS028	0.00002391
SS057	0.00002024
SS090	0.00001750
SS080	0.00001228
SS034	0.00001201
SS058	0.00001087
SS097	0.00001058
SS076	0.00001013
SS033	0.00000968
SS030	0.00000959

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	COMMON NAME	LF 2016			
		Sample Date	d 18O	d D	D-EXCESS
SS001	Sunnyside Saddle 1, abv Lake EMMA	9/22/2016	-16.09	-115.76	12.97
SS002	Sunnyside Saddle 2, abv Lake Emma	9/22/2016	-15.39	-109.39	13.73
SS003	Sunnyside Saddle 3, abv Lake Emma	9/22/2016	-15.11	-106.82	14.06
SS004	Sunnyside Saddle 4, north of Lake road natural	9/22/2016	-15.81	-112.95	13.56
SS005	Sunnysdie Saddle 5, north of lake road natural	9/22/2016	-15.44	-110.16	13.40
SS006	Eureka Gulch S Fork headwater, natural	9/23/2016	-15.41	-109.03	14.26
SS007	Eureka Gulch M Fork headwater	9/23/2016	-16.02	-114.29	13.86
SS008	Alaska Basin Lake Talus/outflow	9/26/2016	-14.94	-106.81	12.69
SS009	Alaska Basin below Lake 2	9/26/2016	-15.13	-107.91	13.15
SS010	Alaska Basin below Lake 3	9/26/2016	-15.13	-107.80	13.26
SS011	Alaska Basin below Lake 4	9/26/2016	-14.43	-103.03	12.43
SS012	Alaska Basin Draining Adit	9/26/2016	-12.74	-86.77	15.17
SS013	Velocity Basin 1 (lake outflow)	10/3/2016	-12.99	-91.14	12.74
SS014	Velocity Basin 2 Spring below lake	10/3/2016	-15.10	-106.41	14.40
SS015	Velocity Basin 3 Spring	10/3/2016	-15.39	-108.58	14.56
SS016	Velocity Basin 4 S Fork Cement below NO, abv M Fork	10/3/2016	-15.93	-115.59	11.83
SS017	Velocity Basin 5; Sunnyside #15,S Fork Cement below NO, abv M Fork	10/3/2016	-15.86	-114.83	12.03
SS018	Velocity Basin 6; S Fork Cement, creekside natrual	10/3/2016	-15.35	-111.26	11.57
SS019	Velocity Basin 7; Sunnyside S-1? Miners spring box?	10/3/2016	-14.89	-105.48	13.61
SS020	Ross Basin 1	10/4/2016	-14.89	-105.97	13.13
SS021	Ross Basin 2	10/4/2016	-15.23	-108.55	13.31
SS022	Ross Basin 3				
SS023	Ross Basin 4	10/4/2016	-16.06	-114.82	13.68
SS024	Ross Basin 5 below Rock Glacier area	10/4/2016	-14.75	-103.30	14.73
SS025	Ross Basin 6 (Rock glacier melt? Cond 3521 us/cm)	10/4/2016	-13.17	-90.96	14.43
SS026	Ross Basin 7	10/4/2016	-14.25	-99.65	14.34
SS027	at Ross Basin rd junction	10/4/2016	-14.69	-102.90	14.59
SS028	Below Queen Anne 1				

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	COMMON NAME	LF 2016			
		Sample Date	d 18O	d D	D-EXCESS
SS029	Roadside blw Queene Anne 2	10/4/2016	-14.84	-105.97	12.74
SS030	S. Fork Eureka Upwelling, No confined discharge	10/5/2016	-16.24	-116.96	12.94
SS031	S. Fork Eureka	10/5/2016	-15.02	-105.95	14.17
SS032	S. Fork Eureka, Rock Glacier outflow	10/5/2016	-13.56	-94.83	13.63
SS33	S. Fork Eureka, kettle spring, no discharge measured	10/5/2016	-8.99	-75.37	-3.43
SS34	S. Fork Eureka, Kettle spring 2, no measurable Q	10/5/2016	-10.29	-83.52	-1.19
SS35	S. Fork Eureka Rock Glacier flow	10/5/2016	-13.46	-100.48	7.16
SS36	McCarthy Basin 1, Pack Trail Spring abv Bavarian Mine	10/5/2016	-14.27	-101.30	12.88
SS37	Above Ben Franklin (possible four bank spring)	10/5/2016	-15.01	-106.36	13.73
SS38	North of Ben Franklin, south facing hillslope	10/6/2016	-15.98	-115.61	12.20
SS39	Below Ben Franklin, Sunnyside #18	10/6/2016	-14.63	-104.53	12.52
SS40	Below Bavarian Mine, Sunnyside S17	10/6/2016	-15.14	-108.84	12.27
SS41	Terry Tunnel Tailings seep, Sunnyside TT-1	10/6/2016	-14.67	-106.01	11.36
SS42	Terry Tunnel Tailings seep, Sunnyside TT-2	10/6/2016	-16.06	-117.42	11.06
SS43	North side road abv Terry Tunnel Turn off	10/6/2016	-15.82	-114.97	11.57
SS44	Below mogul, represents Sunnyside MS-1, prob SS105 flow	10/6/2016	-15.65	-112.79	12.41
SS45	South of Mogul South, Sunnyside S-9, below road, natural	10/6/2016	-15.54	-112.32	11.98
SS47	LC01, natural, headwater emergence abv cabins	10/10/2016	-15.27	-108.62	13.52
SS48	LC02 Right below Lead Carbonite Mine	10/10/2016	-16.15	-117.47	11.76
SS49	Near LC-01 (Sunnyside) top of mini basin abv cabins	10/10/2016	-13.58	-95.24	13.41
SS50	MH02 (BLM MH4) Mini Haha area	10/10/2016	-15.00	-105.95	14.08
SS51	MH03 mini Haha area near cabins/road	10/10/2016	-13.60	-95.00	13.80
SS52	Mini 4 mini Haha area near cabins/road	10/10/2016	-13.72	-96.04	13.73
SS53	MFC 1 iron seep into creek bed below BH mine	10/10/2016	-14.02	-98.13	14.02
SS54	MFC 2 natural sp below BH mine, same side of creek, moss	10/10/2016	-14.50	-102.82	13.19
SS55	MFC 3 road abv Gladstone natural	10/10/2016	-16.31	-119.76	10.74
SS56	CC (vicinity of Sunnyside S-5)	10/11/2016	-15.67	-113.85	11.52
SS57	CC (roadside btw mogul and Grand Mogul)	10/11/2016	-15.50	-110.98	13.00

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	COMMON NAME	LF 2016			
		Sample Date	d 18O	d D	D-EXCESS
SS58	CC spring pool below Gr Mogul, natural	10/11/2016	-15.15	-108.57	12.65
SS59	Mogul Spring 02	10/11/2016	-14.93	-107.82	11.65
SS60	Mogul Spring 0?	10/11/2016	-15.86	-114.60	12.28
SS61	CC (same fault as Pride of Bonita?)	10/11/2016	-14.86	-107.58	11.29
SS62	CC (in fen complex North of R&B)	10/11/2016	-14.70	-105.72	11.92
SS63	MFC01 top of N Fork	10/12/2016	-14.56	-102.50	14.01
SS64	MFC02 top of N fork	10/12/2016	-14.96	-106.53	13.15
SS65	Near AT portal on slope abv	10/12/2016	-16.27	-117.67	12.50
SS66	Near AT portal part of upgradient complex	10/12/2016	-16.46	-118.97	12.70
SS67	MFC03, upgradient N Fork, below R&B, Historic bc moss	10/13/2016	-16.19	-117.93	11.63
SS68	MFC04, upgradient N Fork, below R&B	10/13/2016	-16.01	-116.74	11.31
SS69	CC Mace's fen south	10/13/2016	-15.68	-113.65	11.79
SS70	CC Mace's Fen north	10/13/2016	-15.59	-112.96	11.79
SS71	SFA01 Draining Mine A	10/17/2016	-16.56	-120.60	11.90
SS72	SFA02	10/17/2016	-16.20	-117.26	12.33
SS73	SFA03 Draining mine B	10/17/2016	-16.50	-119.56	12.41
SS74	SFA04	10/17/2016	-15.97	-116.55	11.18
SS75	SFA05 Draining mine C	10/17/2016	-16.45	-119.62	11.98
SS76	MB01 McCarty Basin, shallower flow, not part of BP GW system	10/18/2016	-13.82	-103.62	6.94
SS77	MB02 McCarty Basin, shallower flow, not part of BP GW system	10/18/2016	-15.32	-109.56	13.01
SS78	MB03 McCarty Basin, shallower flow, not part of BP GW system	10/18/2016	-14.85	-104.64	14.14
SS79	MB04 McCarty Basin, shallower flow, not part of BP GW system	10/18/2016	-15.36	-109.29	13.62
SS80	MB05 McCarty basin, isolated pond	10/18/2016	-5.47	-55.97	-12.21
SS82	MFC05 - Sid channel to N Fork near Mini ridge	10/20/2016	-15.21	-110.84	10.86
SS83	MFC06 NFC below GK	10/20/2016	-14.74	-106.02	11.88
SS84	MFC07 NFC below GK	10/20/2016	-14.75	-106.25	11.72
SS85	MFC08 -side of N Fork small adit	10/20/2016	-16.09	-117.51	11.17
SS86	CC between Gladstone and North Fork below road	10/20/2016	-16.31	-119.58	10.86

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground- water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	COMMON NAME	LF 2016			
		Sample Date	d 18O	d D	D-EXCESS
SS87	PG01	10/25/2016	-13.74	-96.35	13.57
SS88	PG02	10/25/2016	-15.76	-113.89	12.18
SS89	PG03				
SS90	PG04				
SS91	PG05				
SS92	PG06	10/25/2016	-13.56	-96.07	12.44
SS93	PG07	10/25/2016	-14.11	-101.41	11.45
SS94	PG08	10/25/2016	-13.86	-98.07	12.79
SS96	PG10	10/25/2016	-15.42	-112.18	11.17
SS97	PG11	10/25/2016	-14.12	-102.23	10.75
SS98	PG12	10/25/2016	-14.88	-107.46	11.54
SS200	Across Cement from N Fork opposite side creek				
SS201	near AT same as 66				
SS202	Mini area, near lead carbonate, close to SS48				
SS203	prospect ss				
SS204	Prospect Gulch				
SS205	Prospect Gulch				
SS206	Prospect Gulch				
SS207	Prospect Gulch				
SS208	Prospect Gulch				
SS210					
SS212					
SS213					
SS214					
SS215					
SS216	Directly above Mogul Portal, seasonal flow HF only				
SS217	McCarty basin				
SS218	McCarty basin				

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground- water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	COMMON NAME	LF 2016			
		Sample Date	d 18O	d D	D-EXCESS
SS218					
SS219	California, just above road switchback, SS				
SS220	California, east hillside, natural no mines above				
SS221	California, east hillside, natural no mines above				
SS222	California, east hillside, natural no mines above				
SS223	Placer Gulch natural, above road cut				
SS226	Placer Gulch near Gold Prince, Natural				
SS227	same as 15 one off sample				
SS228	Seep at Gladstone below rain gauge				
SS229					
SS230	Below Lead Carbonate, fen area seep				
SS231					
SS232					
SS236	Straight out of R&B fen, fericroete so old, flows low now?				
SS238					
SS250	Smoking Spring				
SS250	Smoking Spring				
SS300					
SS301	Upgradient of AT along Cement, big complex spring				
SS304	Mountain Queene				

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	HF 2017				LF 2017			
	Sample Date	d 18O	d D	D-EXCESS	Sample Date	d 18O	d D	D-EXCESS
SS001	7/11/2017	-18.51	-135.96	12.14	10/4/2017	-16.42	-119.67	11.70
SS002	7/11/2017	-17.13	-122.74	14.34	10/4/2017	-15.47	-111.01	12.76
SS003	7/11/2017	-17.15	-123.71	13.51	10/4/2017	-15.41	-110.88	12.41
SS004	7/12/2017	-17.40	-125.52	13.64	10/4/2017	-15.89	-114.87	12.26
SS005								
SS006	7/12/2017	-17.66	-127.22	14.03	10/4/2017	-16.13	-117.00	12.07
SS007	7/12/2017	-17.89	-129.23	13.89	10/4/2017	-16.23	-117.73	12.13
SS008					10/2/2017	-15.13	-108.81	12.22
SS009	7/10/2017	-15.33	-111.91	10.74				
SS010	7/10/2017	-16.19	-116.26	13.25	10/2/2017	-15.42	-111.09	12.26
SS011	7/10/2017	-16.75	-119.25	14.73	10/2/2017	-15.06	-109.47	11.03
SS012	7/10/2017	-17.46	-127.36	12.33	10/2/2017	-14.18	-98.35	15.05
SS013	7/17/2017	-16.54	-118.76	13.55	10/3/2017	-13.96	-103.49	8.20
SS014	7/17/2017	-15.41	-108.34	14.95	10/3/2017	-15.33	-108.99	13.61
SS015	7/17/2017	-15.87	-112.50	14.48	10/3/2017	-15.40	-109.97	13.24
SS016	6/22/2017	-16.29	-117.57	12.75	10/5/2017	-15.79	-114.71	11.64
SS017	6/22/2017	-15.36	-113.38	9.54	10/5/2017	-15.65	-114.08	11.11
SS018	6/23/2017	-15.63	-114.97	10.05	10/5/2017	-15.31	-111.06	11.41
SS019	7/10/2017	-16.64	-119.72	13.39	10/5/2017	-15.49	-111.59	12.33
SS020	7/19/2017	-17.31	-125.08	13.43				
SS021	7/19/2017	-16.94	-122.76	12.77				
SS022	7/19/2017	-17.12	-122.64	14.31	10/4/2017	-14.58	-104.88	11.74
SS023	7/19/2017	-16.54	-119.51	12.83				
SS024	7/19/2017	-16.38	-116.03	15.04				
SS025	7/19/2017	-16.51	-118.79	13.30				
SS026	7/10/2017	-17.23	-124.48	13.36	10/16/2017	-14.63	-103.47	13.54
SS027	7/10/2017	-17.27	-125.11	13.07	10/16/2017	-15.12	-106.28	14.64
SS028	7/10/2017	-16.88	-121.76	13.27	10/16/2017	-14.39	-106.40	8.75

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	HF 2017				LF 2017			
	Sample Date	d 18O	d D	D-EXCESS	Sample Date	d 18O	d D	D-EXCESS
SS029	7/10/2017	-16.79	-120.13	14.19	10/16/2017	-14.98	-106.27	13.59
SS030	7/12/2017	-17.30	-127.01	11.42	10/4/2017	-16.45	-120.02	11.58
SS031	7/12/2017	-16.95	-122.82	12.75	10/4/2017	-16.11	-115.42	13.50
SS032	7/12/2017	-17.78	-129.34	12.94	10/4/2017	-14.53	-103.57	12.70
SS33	7/12/2017	-14.57	-111.10	5.42	10/4/2017	-8.08	-71.89	-7.25
SS34	7/12/2017	-15.93	-118.33	9.09	10/4/2017	-7.66	-72.60	-11.28
SS35	7/12/2017	-17.68	-129.48	11.94				
SS36	7/18/2017	-16.82	-121.23	13.36				
SS37	7/18/2017	-16.69	-120.59	12.97				
SS38	6/28/2017	-17.17	-123.90	13.49				
SS39	7/11/2017	-16.97	-125.59	10.15	10/10/2017	-15.21	-109.66	12.01
SS40	7/11/2017	-17.65	-129.85	11.38				
SS41	6/28/2017	-17.54	-128.11	12.23				
SS42	6/28/2017	-17.22	-126.58	11.17				
SS43	6/28/2017	-15.86	-114.58	12.28				
SS44	6/22/2017	-15.93	-113.86	13.58	10/11/2017	-15.75	-112.76	13.24
SS45	6/22/2017	-17.17	-123.56	13.77	10/11/2017	-15.93	-114.07	13.41
SS47	6/26/2017	-16.72	-122.18	11.59	10/5/2017	-15.64	-112.46	12.67
SS48	6/26/2017	-16.40	-119.81	11.42	10/5/2017	-16.00	-116.75	11.24
SS49	6/26/2017	-17.46	-130.38	9.34	10/5/2017	-13.59	-96.23	12.47
SS50	6/26/2017	-17.09	-124.70	12.02	10/5/2017	-13.67	-96.39	12.95
SS51	6/26/2017	-16.90	-124.82	10.41	10/5/2017	-14.61	-104.47	12.40
SS52	6/26/2017	-16.67	-124.60	8.79	10/5/2017	-14.58	-104.29	12.31
SS53	7/20/2017	-16.48	-119.55	12.27	10/5/2017	-14.65	-105.35	11.88
SS54	6/26/2017	-15.66	-112.48	12.76	10/5/2017	-14.91	-106.18	13.10
SS55	6/22/2017	-16.57	-120.98	11.61	10/5/2017	-16.25	-120.07	9.95
SS56	6/22/2017	-17.00	-123.84	12.15				
SS57	7/18/2017	-16.17	-115.28	14.10	10/2/2017	-15.53	-111.00	13.22

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	HF 2017				LF 2017			
	Sample Date	d 18O	d D	D-EXCESS	Sample Date	d 18O	d D	D-EXCESS
SS58	7/17/2017	-16.92	-123.30	12.06	10/2/2017	-15.07	-109.83	10.71
SS59	6/22/2017	-17.15	-124.79	12.44	10/25/2017	-15.23	-110.78	11.04
SS60	7/21/2017	-17.01	-123.55	12.49				
SS61	7/21/2017	-16.19	-119.97	9.52				
SS62	7/21/2017	-16.31	-118.46	12.05				
SS63	7/20/2017	-14.79	-103.90	14.41	10/3/2017	-15.08	-107.89	12.76
SS64	7/20/2017	-15.76	-114.39	11.70	10/3/2017	-14.28	-102.11	12.16
SS65	6/22/2017	-16.07	-117.63	10.96	10/3/2017	-16.24	-117.23	12.68
SS66	6/22/2017	-16.39	-118.03	13.13	10/3/2017	-16.38	-118.30	12.76
SS67	7/21/2017	-16.21	-118.56	11.09	10/23/2017	-16.11	-117.37	11.54
SS68	7/21/2017	-16.36	-118.51	12.40	10/23/2017	-16.13	-114.47	14.60
SS69	7/21/2017	-16.68	-121.52	11.88				
SS70	7/21/2017	-16.45	-119.00	12.58				
SS71	6/27/2017	-16.47	-119.91	11.88				
SS72	6/27/2017	-16.11	-117.24	11.67				
SS73	6/27/2017	-16.31	-119.29	11.20	10/24/2017	-16.25	-117.96	12.04
SS74	6/27/2017	-16.16	-118.31	10.95	10/24/2017	-16.04	-116.15	12.16
SS75	6/27/2017	-16.44	-119.23	12.26	10/24/2017	-16.34	-119.23	11.48
SS76	7/18/2017	-14.91	-108.69	10.62	10/10/2017	-11.52	-91.06	1.07
SS77	7/18/2017	-16.99	-122.23	13.71				
SS78	7/18/2017	-16.71	-118.71	15.00				
SS79	7/18/2017	-16.19	-114.71	14.84	10/10/2017	-15.71	-111.41	14.31
SS80					10/10/2017	-5.47	-56.99	-13.24
SS82								
SS83	7/20/2017	-16.65	-120.48	12.70				
SS84	7/20/2017	-16.37	-120.24	10.71				
SS85	7/20/2017	-15.83	-116.60	10.01				
SS86	6/22/2017	-16.33	-118.23	12.41	10/11/2017	-16.28	-118.55	11.70

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	HF 2017				LF 2017			
	Sample Date	d 18O	d D	D-EXCESS	Sample Date	d 18O	d D	D-EXCESS
SS87	6/27/2017	-17.48	-126.99	12.87	10/18/2017	-14.28	-102.22	12.05
SS88	6/22/2017	-16.57	-119.55	12.99	10/18/2017	-15.16	-110.74	10.51
SS89	6/29/2017	-17.76	-130.83	11.25	10/12/2017	-16.21	-116.48	13.20
SS90	6/29/2017	-18.77	-137.32	12.83				
SS91	6/29/2017	-17.13	-125.85	11.22	10/12/2017	-16.06	-117.12	11.35
SS92	7/27/2017	-14.94	-107.75	11.81	10/18/2017	-13.62	-98.29	10.66
SS93	7/27/2017	-17.59	-127.77	12.97				
SS94	7/27/2017	-16.80	-123.03	11.36				
SS96	6/26/2017	-16.80	-124.08	10.29				
SS97	6/26/2017	-16.02	-120.64	7.53				
SS98	6/26/2017	-16.47	-121.62	10.14				
SS200	6/23/2017	-17.00	-126.65	9.35	10/23/2017	-16.84	-123.98	10.77
SS201	6/23/2017	-16.33	-120.90	9.78	10/3/2017	-16.22	-116.47	13.29
SS202	6/26/2017	-17.52	-129.35	10.84				
SS203	6/27/2017	-16.91	-123.70	11.61				
SS204	6/27/2017	-16.19	-117.73	11.77				
SS205	6/29/2017	-17.09	-125.68	11.06				
SS206	6/29/2017	-17.53	-129.98	10.23	10/12/2017	-15.95	-115.22	12.35
SS207	6/29/2017	-17.32	-127.30	11.29				
SS208	6/29/2017	-17.56	-128.55	11.92	10/12/2017	-16.33	-118.33	12.30
SS210	7/10/2017	-16.66	-119.11	14.17	10/16/2017	-14.41	-100.55	14.73
SS212	7/11/2017	-17.54	-129.84	10.50				
SS213	7/11/2017	-18.01	-132.20	11.87				
SS214	7/11/2017	-16.45	-118.73	12.89				
SS215	7/18/2017	-16.91	-121.48	13.80	10/2/2017	-15.10	-110.28	10.55
SS216	7/18/2017	-17.10	-124.99	11.80				
SS217	7/18/2017	-16.75	-120.16	13.85				
SS218	7/24/2017	-16.08	-115.00	13.61				

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	HF 2017				LF 2017			
	Sample Date	d 18O	d D	D-EXCESS	Sample Date	d 18O	d D	D-EXCESS
SS218	7/18/2017	-16.62	-119.74	13.25				
SS219	7/24/2017	-16.65	-120.57	12.63				
SS220	7/24/2017	-14.80	-104.31	14.09				
SS221	7/27/2017	-15.74	-111.90	14.02				
SS222								
SS223	7/24/2017	-16.92	-125.44	9.95				
SS226	7/24/2017	-16.40	-118.06	13.11				
SS227					10/3/2017	-15.71	-113.09	12.60
SS228					10/3/2017	-16.32	-119.14	11.43
SS229								10.29
SS230					10/5/2017	-14.84	-108.42	9.40
SS231								12.84
SS232					10/10/2017	-7.41	-49.91	12.10
SS236								
SS238					10/24/2017	-15.97	-115.68	
SS250					11/7/2017	-16.20	-117.84	11.78
SS250								
SS300								
SS301								
SS304								

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	HF 2018				LF 2018			
	Sample Date	d 18O	d D	D-EXCESS	Sample Date	d 18O	d D	D-EXCESS
SS001	6/27/2018	-17.07	-125.22	11.37	9/26/2018	-15.53	-113.17	11.08
SS002	6/27/2018	-16.56	-120.58	11.89				
SS003					9/26/2018	-15.55	-111.76	12.63
SS004	6/27/2018	-16.20	-117.15	12.44	9/26/2018	-15.80	-115.00	11.41
SS005								
SS006	6/27/2018	-16.68	-122.93	10.49	9/26/2018	-16.13	-115.86	13.15
SS007	6/27/2018	-16.69	-123.01	10.53	9/26/2018	-15.29	-112.88	9.41
SS008	6/13/2018	-17.02	-122.70	13.50	9/24/2018	-12.65	-95.95	5.28
SS009	6/13/2018	-16.29	-122.19	8.14				
SS010	6/13/2018	-16.52	-118.65	13.49	9/24/2018	-14.78	-108.80	9.41
SS011	6/13/2018	-11.90	-95.89	-0.70	9/24/2018	-14.30	-104.48	9.95
SS012	6/13/2018	-15.89	-114.88	12.21				
SS013	6/12/2018	-15.95	-115.41	12.16	10/4/2018	-9.86	-82.46	-3.61
SS014	6/12/2018	-15.64	-111.68	13.47	10/4/2018	-15.30	-111.36	11.08
SS015	6/12/2018	-16.35	-115.97	14.83	10/4/2018	-15.94	-118.03	9.47
SS016	6/12/2018	-16.15	-118.34	10.83	10/4/2018	-15.79	-116.07	10.23
SS017	6/12/2018	-15.53	-113.41	10.80	10/4/2018	-15.70	-115.82	9.74
SS018	6/12/2018	-15.52	-112.09	12.05				
SS019	6/12/2018	-16.19	-119.08	10.44	10/4/2018	-15.03	-109.34	10.91
SS020	6/13/2018	-16.16	-119.64	9.65	9/25/2018	-2.91	-45.71	-22.43
SS021								
SS022	6/13/2018	-16.71	-121.18	12.52				
SS023	6/13/2018	-17.24	-130.10	7.79	9/25/2018	-15.11	-108.50	12.39
SS024	6/13/2018	-16.53	-119.92	12.29	9/25/2018	-15.42	-110.83	12.52
SS025	6/13/2018	-16.57	-121.73	10.83				
SS026	6/14/2018	-15.82	-115.81	10.76				
SS027	6/13/2018	-16.34	-118.17	12.52	9/24/2018	-14.71	-104.84	12.87
SS028								

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	HF 2018				LF 2018			
	Sample Date	d 18O	d D	D-EXCESS	Sample Date	d 18O	d D	D-EXCESS
SS029	6/14/2018	-16.44	-119.97	11.56	9/24/2018	-14.75	-105.54	12.43
SS030	6/15/2018	-16.31	-123.05	7.43	9/26/2018	-16.08	-115.69	12.91
SS031	6/15/2018	-16.79	-123.23	11.06	9/26/2018	-16.20	-117.37	12.26
SS032	7/19/2018	-14.59	-104.59	12.09	9/26/2018	-14.76	-104.46	13.59
SS33	6/15/2018	-13.86	-112.65	-1.80	9/26/2018	1.29	-18.13	-28.48
SS34	6/15/2018	-15.71	-120.55	5.09				
SS35	6/15/2018	-16.37	-118.94	12.02				
SS36	6/27/2018	-15.80	-118.62	7.78				
SS37	6/27/2018	-15.22	-111.64	10.12				
SS38	6/15/2018	-16.47	-121.50	10.25	9/26/2018	-15.83	-116.20	10.41
SS39	6/27/2018	-15.08	-110.46	10.19				
SS40	6/27/2018	-16.27	-120.46	9.67	9/27/2018	-16.10	-118.55	10.28
SS41	6/27/2018	-16.18	-119.64	9.76	9/27/2018	-15.56	-114.41	10.11
SS42	6/27/2018	-16.53	-123.33	8.87				
SS43	6/18/2018	-15.80	-114.24	12.12	9/27/2018	-15.81	-115.08	11.36
SS44	6/14/2018	-15.78	-113.83	12.44	9/25/2018	-15.71	-113.53	12.12
SS45	6/6/2018	-16.51	-120.80	11.26	9/25/2018	-15.97	-115.32	12.40
SS47	6/12/2018	-16.40	-117.65	13.58	10/2/2018	-15.53	-113.54	10.72
SS48	6/12/2018	-16.70	-121.81	11.82				
SS49	6/7/2018	-16.18	-117.37	12.09				
SS50	6/7/2018	-16.23	-116.80	13.07	10/2/2018	-13.66	-96.12	13.12
SS51	6/7/2018	-15.54	-111.46	12.82	10/2/2018	-14.02	-102.66	9.46
SS52	6/7/2018	-16.17	-117.02	12.31	10/2/2018	-14.52	-103.79	12.37
SS53	6/7/2018	-16.00	-114.67	13.32	10/2/2018	-14.89	-107.95	11.17
SS54	6/7/2018	-15.63	-111.80	13.26	10/2/2018	-14.93	-107.60	11.81
SS55	6/14/2018	-15.61	-117.17	7.71	10/10/2018	-16.53	-121.43	10.82
SS56	6/14/2018	-16.53	-122.96	9.24				
SS57	6/6/2018	-15.77	-115.40	10.78	9/25/2018	-15.48	-112.59	11.27

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	HF 2018				LF 2018			
	Sample Date	d 18O	d D	D-EXCESS	Sample Date	d 18O	d D	D-EXCESS
SS58	6/6/2018	-16.44	-120.26	11.24				
SS59	6/19/2018	-16.10	-118.25	10.56	10/9/2018	-14.75	-109.00	9.01
SS60	6/11/2018	-16.34	-119.26	11.50	10/9/2018	-16.21	-119.64	10.02
SS61								
SS62	6/11/2018	-15.98	-115.21	12.62	10/8/2018	-15.69	-115.14	10.39
SS63	6/28/2018	-15.74	-115.25	10.64				
SS64	6/28/2018	-15.75	-115.29	10.68	10/2/2018	-14.89	-107.80	11.31
SS65	6/19/2018	-16.09	-117.28	11.42	10/4/2018	-16.18	-118.30	11.17
SS66								
SS67	6/5/2018	-16.22	-118.52	11.26	10/8/2018	-16.05	-118.33	10.11
SS68	6/5/2018	-16.27	-118.94	11.23	10/8/2018	-16.18	-119.93	9.51
SS69	6/19/2018	-15.80	-115.33	11.09	10/9/2018	-15.66	-113.57	11.74
SS70	6/11/2018	-15.84	-115.52	11.19	10/9/2018	-15.49	-114.01	9.94
SS71	6/18/2018	-16.51	-121.27	10.82	10/1/2018	-16.47	-121.47	10.26
SS72	6/18/2018	-15.31	-114.24	8.28	10/1/2018	-15.54	-113.59	10.77
SS73	6/18/2018	-16.43	-118.30	13.18	10/1/2018	-16.14	-117.91	11.24
SS74	6/18/2018	-16.07	-116.97	11.62	10/1/2018	-12.97	-96.31	7.46
SS75	6/18/2018	-16.39	-119.33	11.80	10/1/2018	-16.43	-120.01	11.42
SS76	6/27/2018	-13.10	-108.04	-3.24	9/26/2018	-0.30	-29.37	-26.97
SS77	6/27/2018	-16.28	-120.15	10.09	9/26/2018	-15.80	-114.32	12.08
SS78	6/27/2018	-16.35	-119.71	11.12	9/26/2018	-15.25	-109.37	12.67
SS79	6/27/2018	-15.36	-113.32	9.59	9/26/2018	-15.37	-111.09	11.87
SS80	6/27/2018	-10.33	-92.33	-9.73	9/26/2018	3.78	-6.73	-37.00
SS82	6/28/2018	-16.14	-118.15	10.98				
SS83	6/12/2018	-16.22	-118.15	11.60				
SS84	6/12/2018	-16.21	-117.71	12.01				
SS85	6/28/2018	-15.98	-117.20	10.66	10/2/2018	-16.17	-119.16	10.19
SS86	6/14/2018	-16.36	-119.87	11.02	10/9/2018	-16.22	-118.81	10.98

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	HF 2018				LF 2018			
	Sample Date	d 18O	d D	D-EXCESS	Sample Date	d 18O	d D	D-EXCESS
SS87	6/26/2018	-15.63	-112.96	12.08	10/3/2018	-13.57	-96.53	12.06
SS88	6/26/2018	-15.94	-115.76	11.74	10/3/2018	-15.12	-111.00	9.94
SS89	6/28/2018	-15.99	-117.97	9.94	10/3/2018	-16.20	-119.12	10.52
SS90	6/28/2018	-16.12	-119.17	9.77	10/3/2018	-15.36	-112.72	10.17
SS91	6/26/2018	-15.43	-115.10	8.31				
SS92	6/26/2018	-14.08	-105.75	6.86				
SS93	6/26/2018	-15.64	-114.30	10.78	10/3/2018	-15.23	-112.64	9.19
SS94	6/26/2018	-15.06	-108.17	12.28	10/3/2018	-14.98	-108.25	11.56
SS96	6/28/2018	-16.26	-120.04	10.07				
SS97								
SS98					10/3/2018	-14.22	-105.84	7.94
SS200	6/11/2018	-16.92	-123.95	11.38	10/8/2018	-16.91	-125.21	10.10
SS201	6/19/2018	-16.25	-117.42	12.60	10/4/2018	-16.14	-118.24	10.88
SS202					10/2/2018	-13.31	-94.84	11.60
SS203								
SS204								
SS205								
SS206								
SS207								
SS208					10/3/2018	-15.85	-117.01	9.83
SS210	6/13/2018	-16.36	-117.66	13.24	9/24/2018	-13.60	-96.21	12.59
SS212								
SS213								
SS214								
SS215	6/6/2018	-16.51	-120.46	11.62				
SS216	6/5/2018	-16.39	-120.72	10.42				
SS217	6/27/2018	-15.70	-115.44	10.18	9/26/2018	-14.69	-106.54	10.99
SS218	6/27/2018	-15.37	-111.59	11.33	9/26/2018	-14.65	-103.74	13.43

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	HF 2018				LF 2018			
	Sample Date	d 18O	d D	D-EXCESS	Sample Date	d 18O	d D	D-EXCESS
SS218	6/28/2018	-15.55	-114.88	9.54				
SS219	6/28/2018	-16.38	-119.91	11.15	10/1/2018	-15.55	-113.77	10.64
SS220	6/28/2018	-15.14	-107.70	13.40	10/1/2018	-12.71	-88.54	13.17
SS221	6/28/2018	-14.30	-103.13	11.27				
SS222								
SS223	6/28/2018	-15.48	-111.70	12.18				
SS226	6/28/2018	-16.46	-121.03	10.67				
SS227								
SS228	7/19/2018	-15.98	-118.32	9.54	10/9/2018	-15.87	-115.08	11.88
SS229	6/27/2018	-15.41	-111.81	11.49				
SS230	7/19/2018	-14.83	-109.36	9.32				
SS231	6/27/2018	-16.96	-123.82	11.88	9/26/2018	-15.03	-110.28	9.95
SS232	6/27/2018	-16.33	-118.70	11.98				
SS236	7/19/2018	-16.05	-117.16	11.20	10/8/2018	-16.01	-117.87	10.22
SS238								
SS250	6/14/2018	-16.27	-118.61	11.54	10/9/2018	-16.17	-119.25	10.14
SS250	6/19/2018	-16.29	-118.47	11.83				
SS300	6/19/2018	-16.15	-118.10	11.12	10/9/2018	-15.95	-117.45	10.12
SS301	6/19/2018	-16.12	-118.05	10.93	10/4/2018	-16.19	-117.92	11.56
SS304								

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	Average of d 18O	Stdev of d 18O	Coef of var	Comments
SS001	-16.73	1.14	-0.07	Seasonal "sources" to Lake Emma recharge
SS002	-16.14	0.85	-0.05	Seasonal "sources" to Lake Emma recharge
SS003	-15.81	0.92	-0.06	Seasonal "sources" to Lake Emma recharge
SS004	-16.22	0.68	-0.04	Seasonal "sources" to Lake Emma recharge
SS005	-15.44		0.00	Seasonal "sources" to Lake Emma recharge
SS006	-16.40	0.83	-0.05	Seasonal "sources" to Lake Emma recharge
SS007	-16.42	0.96	-0.06	Seasonal "sources" to Lake Emma recharge
SS008	-14.94	1.79	-0.12	very seasonal
SS009	-15.58	0.62	-0.04	
SS010	-15.61	0.73	-0.05	
SS011	-14.49	1.74	-0.12	
SS012	-15.07	2.05	-0.14	
SS013	-14.86	1.66	-0.11	Lake outflow, evaporation signal in fall
SS014	-15.36	0.20	-0.01	
SS015	-15.79	0.40	-0.03	
SS016	-15.99	0.22	-0.01	
SS017	-15.62	0.18	-0.01	
SS018	-15.45	0.15	-0.01	
SS019	-15.65	0.75	-0.05	
SS020	-12.82	6.68	-0.52	Shallow/Evap
SS021	-16.09	1.21	-0.08	
SS022	-16.14	1.37	-0.08	
SS023	-16.24	0.89	-0.05	
SS024	-15.77	0.84	-0.05	
SS025	-15.42	1.94	-0.13	Glacier source seasonal
SS026	-15.48	1.34	-0.09	
SS027	-15.62	1.14	-0.07	
SS028	-15.64	1.76	-0.11	

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	Average of d 18O	Stdev of d 18O	Coef of var	Comments
SS029	-15.56	0.98	-0.06	Seasonal but consistent due to large volume (From UCC headwater Lake?)
SS030	-16.48	0.48	-0.03	
SS031	-16.21	0.76	-0.05	
SS032	-15.04	1.60	-0.11	Glacier source seasonal
SS33	-8.84	6.35	-0.72	Shallow/Evap
SS34	-12.40	4.09	-0.33	Shallow/Evap
SS35	-15.83	2.16	-0.14	Glacier source seasonal, snow dominant in high flow
SS36	-15.63	1.28	-0.08	
SS37	-15.64	0.92	-0.06	
SS38	-16.36	0.61	-0.04	
SS39	-15.47	1.03	-0.07	
SS40	-16.29	1.04	-0.06	
SS41	-15.99	1.21	-0.08	
SS42	-16.60	0.58	-0.04	
SS43	-15.82	0.03	0.00	Consistent GW signal but non-BP GW source area, historical water source for miners
SS44	-15.76	0.11	-0.01	
SS45	-16.22	0.63	-0.04	same as 46 but picks up snow melt in HF samples
SS47	-15.91	0.62	-0.04	
SS48	-16.32	0.31	-0.02	similar to BP GW signal but elevation is above mine pools, snow melt dom.
SS49	-15.20	1.94	-0.13	very seasonal, looks like rock glacier ice in fall, from talus
SS50	-15.13	1.53	-0.10	very seasonal, rock glacier ice in fall?
SS51	-14.93	1.32	-0.09	very seasonal, rock glacier ice mix in fall?
SS52	-15.13	1.24	-0.08	very seasonal, rock glacier ice mix in fall?
SS53	-15.21	1.01	-0.07	
SS54	-15.13	0.50	-0.03	
SS55	-16.26	0.39	-0.02	BP GW (HF 18 excluded, low D-ex indicates sample contamination/issue)
SS56	-16.40	0.67	-0.04	
SS57	-15.69	0.29	-0.02	

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	Average of d 18O	Stdev of d 18O	Coef of var	Comments
SS58	-15.89	0.93	-0.06	
SS59	-15.63	1.00	-0.06	natural, seasonal, shallow
SS60	-16.35	0.48	-0.03	
SS61	-15.52	0.94	-0.06	
SS62	-15.67	0.69	-0.04	
SS63	-15.04	0.51	-0.03	
SS64	-15.13	0.63	-0.04	
SS65	-16.17	0.09	-0.01	BP GW
SS66	-16.41	0.04	0.00	BP GW
SS67	-16.16	0.07	0.00	BP GW
SS68	-16.19	0.14	-0.01	potential BP GW, STDEV a little high
SS69	-15.96	0.48	-0.03	
SS70	-15.84	0.43	-0.03	
SS71	-16.50	0.04	0.00	BP GW
SS72	-15.79	0.43	-0.03	
SS73	-16.33	0.14	-0.01	BP GW
SS74	-15.44	1.38	-0.09	
SS75	-16.41	0.04	0.00	BP GW
SS76	-10.73	5.96	-0.56	Shallow/Evap
SS77	-16.10	0.71	-0.04	shallow/seasonal
SS78	-15.79	0.88	-0.06	shallow/seasonal
SS79	-15.60	0.36	-0.02	shallow/seasonal
SS80	-4.37	5.90	-1.35	Shallow/Evap
SS82	-15.68	0.66	-0.04	
SS83	-15.87	1.00	-0.06	
SS84	-15.78	0.90	-0.06	
SS85	-16.02	0.15	-0.01	
SS86	-16.30	0.05	0.00	BP GW

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	Average of d 18O	Stdev of d 18O	Coef of var	Comments
SS87	-14.94	1.63	-0.11	Prospect alpine Isolated/shallow
SS88	-15.71	0.60	-0.04	Prospect alpine isolated/seasonal
SS89	-16.54	0.82	-0.05	Prospect isolated/seasonal
SS90	-16.75	1.79	-0.11	Prospect isolated/seasonal
SS91	-16.21	0.86	-0.05	Prospect isolated/seasonal
SS92	-14.05	0.64	-0.05	Prospect isolated/seasonal
SS93	-15.64	1.45	-0.09	Prospect isolated/seasonal
SS94	-15.17	1.21	-0.08	Prospect isolated/seasonal
SS96	-16.16	0.70	-0.04	Prospect isolated/seasonal
SS97	-15.07	1.34	-0.09	Prospect isolated/seasonal
SS98	-15.19	1.16	-0.08	Prospect isolated/seasonal
SS200	-16.92	0.06	0.00	BP GW, Some extra snow melt source here, consistent
SS201	-16.24	0.08	0.00	BP GW
SS202	-15.41	2.98	-0.19	
SS203	-16.91		0.00	
SS204	-16.19		0.00	
SS205	-17.09		0.00	Seasonal snowmelt dominant
SS206	-16.74	1.12	-0.07	Seasonal snowmelt dominant
SS207	-17.32		0.00	Seasonal snowmelt dominant
SS208	-16.58	0.88	-0.05	Seasonal snowmelt
SS210	-15.26	1.49	-0.10	
SS212	-17.54		0.00	
SS213	-18.01		0.00	
SS214	-16.45		0.00	
SS215	-16.17	0.95	-0.06	
SS216	-16.75	0.50	-0.03	Good example of localized flow through above mine workings
SS217	-15.72	1.03	-0.07	
SS218	-15.36	0.72	-0.05	

Appendix 6 - All Isotope Data - Seeps and Springs Sites Coded

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

KEY:	<i>Draining mine</i>	<i>Evaporation Signal</i>	<i>BP Ground-water signal</i>	<i>Rock Glacier melt signal</i>
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Site ID	Average of d 18O	Stdev of d 18O	Coef of var	Comments
SS218	-16.09	0.76	-0.05	
SS219	-16.19	0.57	-0.04	
SS220	-14.22	1.31	-0.09	
SS221	-15.02	1.02	-0.07	
SS222			#DIV/0!	
SS223	-16.20	1.02	-0.06	
SS226	-16.43	0.05	0.00	Possible BP GW, need more samples, Seasonal b/c No LF data
SS227	-15.71		0.00	
SS228	-16.06	0.24	-0.01	
SS229	-15.41		0.00	
SS230	-14.84	0.00	0.00	steady but only 2 samples
SS231	-16.00	1.37	-0.09	
SS232	-11.87	6.31	-0.53	
SS236	-16.03	0.02	0.00	BP GW, need more samples from 2019 to confirm
SS238	-15.97		0.00	
SS250	-16.23	0.05	0.00	BP GW
SS250	-16.29		0.00	This is a DUP of sample above- BP GW
SS300	-16.05	0.15	-0.01	
SS301	-16.15	0.04	0.00	BP GW
SS304				

Appendix 5a - All Isotope Data - Mines Event Only

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Cement Creek Mines						
Site Id	Common Name	Sample Date	Sample Time	d 18O	d D	D-EXCESS
SS103	Queen Anne	11/9/2016	14:45	-14.61	-104.44	12.43
SS103	Queen Anne	7/10/2017	15:00	-16.39	-117.67	13.46
SS103	Queen Anne	10/2/2017	12:15	-15.04	-107.45	12.90
SS103	Queen Anne	10/2/2017	12:15	-14.94	-106.88	12.66
SS 103	Queen Anne	6/14/2018		-15.95	-116.32	11.24
SS103	Queen Anne	9/24/2018	13:15	-14.64	-105.59	11.53
			Mean	-15.26	-109.72	12.37
			STDEV	0.74	5.74	0.84
SS106	Grand Mogul	11/9/2016	14:30	-16.00	-115.38	12.61
SS117	Grand Mogul	7/10/2017	15:45	-16.96	-124.01	11.69
CC01C1	Grand Mogul	7/11/2017	17:00	-16.93	-124.15	11.31
SS117	Grand Mogul	10/2/2017	13:20	-16.07	-117.04	11.50
CC01C	Grand Mogul	6/6/2018	10:00	-16.83	-123.28	11.40
CC01C	Grand Mogul	9/28/2018	10:15	-16.06	-119.68	8.79
			Mean	-16.48	-120.59	11.22
			STDEV	0.48	3.80	1.28
SS105	Mogul South	11/9/2016	13:30	-15.75	-113.33	12.70
SS105	Mogul South	6/22/2017	0.44	-15.72	-113.16	12.63
SS105	Mogul South	10/11/2017	12:15	-15.66	-112.80	12.49
SS105	Mogul South	6/14/2018	15:30	-16.03	-115.44	12.81
SS105	Mogul South	9/25/2018	11:50	-15.80	-113.74	12.70
			Mean	-15.79	-113.69	12.67
			STDEV	0.14	1.03	0.12
SS108	DM01	10/11/2016	14:00	-15.81	-113.45	13.05
DM01	Btw Mogul & M sou	6/22/2017	0.42			
DM1	Btw Mogul & M sou	6/14/2018	14:40	-16.39	-120.52	10.58
			Mean	-16.10	-116.99	11.82
			STDEV	0.41	5.00	1.75
SS111	Big Colorado	9/21/2016	15:00	-16.20	-117.50	12.09
SS111	Big Colorado	7/20/2017	13:30	-16.01	-115.20	12.89
SS111	Big Colorado	10/25/2017	0.55			
SS111	Big Colorado	6/12/2018		-15.96	-115.72	11.99
SS111	Big Colorado	10/4/2018	12:00	-15.50	-111.50	12.48
			Mean	-15.92	-114.98	12.36
			STDEV	0.30	2.52	0.41
SS046	draining adit	10/6/2016		-15.63	-113.00	12.03
SS046	draining adit	6/22/2017		-15.68	-112.25	13.23
SS046	draining adit	10/11/2017		-15.75	-113.25	12.77
SS046	draining adit	6/6/2018		-15.91	-113.51	13.81
SS046	draining adit	9/25/2018		-15.71	-113.82	11.85
			Mean	-15.74	-113.17	12.74
			STDEV	0.11	0.60	0.82

Appendix 5a - All Isotope Data - Mines Event Only

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Eureka & U Animas Mines						
Site Id	Common Name	Sample Date	Sample Time	d 18O	d D	D-EXCESS
SS112	Terry Tunnel	10/6/2016	11:00	-15.74	-113.65	12.25
SS112	Terry Tunnel	6/28/2017	13:30	-15.94	-116.33	11.20
SS112	Terry Tunnel	6/27/2018	14:50	-15.93	-115.59	11.86
SS112	Terry Tunnel	9/27/2018	11:55	-15.71	-113.98	11.67
			Mean	-15.83	-114.89	11.75
			STDEV	0.12	1.28	0.43
SS110	Ben Franklin	10/6/2016	10:00	-14.74	-105.35	12.56
SS110	Ben Franklin	6/28/2017		-17.85	-130.55	12.27
SS110	Ben Franklin	10/10/2017				
SS110	Ben Franklin	6/27/2018		-16.14	-117.35	11.77
SS110	Ben Franklin	9/27/2018	11:10	-14.83	-107.09	11.57
			Mean	-15.89	-115.08	12.04
			STDEV	1.46	11.59	0.45
SS305	Ransom seep	8/23/2018	15:30	-16.07	-119.43	9.10
DM4	Ransom	8/23/2018	14:30	-16.31	-120.07	10.42
DM4-30	Ransom	8/23/2018	14:30	-16.23	-120.44	9.38
			Mean	-16.20	-119.98	9.63
			STDEV	0.12	0.51	0.70
SSA23a	Gold Prince	10/1/2018	10:50	-15.48	-111.11	12.77
A23A	Gold Prince Adit	8/23/2018	11:45	-15.38	-110.45	12.55
A23Aa	Gold Prince BH wall	8/23/2018	12:40	-15.56	-111.80	12.67
A23A6	Gold Prince portal pool	8/23/2018	12:20	-15.48	-111.89	11.93
			Mean	-15.47	-111.31	12.48
			STDEV	0.08	0.68	0.38
	Senator	10/6/2016	12:30	-16.02	-117.59	10.57
SS115	Senator	9/27/2018	14:15	-15.90	-118.37	8.85
			Mean	-15.96	-117.98	9.71
			STDEV	0.08	0.55	1.22
SS71	S Fork Animas Mine A	10/17/2016		-16.56	-120.60	11.90
SS71	S Fork Animas Mine A	6/27/2017		-16.47	-119.91	11.88
SS71	S Fork Animas Mine A	6/18/2018		-16.51	-121.27	10.82
SS71	S Fork Animas Mine A	10/1/2018		-16.47	-121.47	10.26
			Mean	-16.48	-120.88	10.99
			STDEV	0.04	0.71	0.81
SS75	S Fork Animas Mine C	10/17/2016		-16.45	-119.62	11.98
SS75	S Fork Animas Mine C	6/27/2017		-16.44	-119.23	12.26
SS75	S Fork Animas Mine C	10/24/2017		-16.34	-119.23	11.48
SS75	S Fork Animas Mine C	6/18/2018		-16.39	-119.33	11.80
SS75	S Fork Animas Mine C	10/1/2018		-16.43	-120.01	11.42
			Mean	-16.41	-119.49	11.79
			STDEV	0.04	0.33	0.35
SS73	S Fork Animas Mine B	10/17/2016		-16.50	-119.56	12.41
SS73	S Fork Animas Mine B	6/27/2017		-16.31	-119.29	11.20
SS73	S Fork Animas Mine B	10/24/2017		-16.25	-117.96	12.04
SS73	S Fork Animas Mine B	6/18/2018		-16.43	-118.30	13.18

Appendix 5a - All Isotope Data - Mines Event Only

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Eureka & U Animas Mines						
SS73	S Fork Animas Mine B	10/1/2018		-16.14	-117.91	11.24
			Mean	-16.28	-118.37	11.91
			STDEV	0.14	0.77	0.83
SS235	Evening Star Mine	10/19/2017		-15.72	-112.92	
SS235	Evening Star Mine	10/1/2018		-15.78	-114.29	11.97
			Mean	-15.75	-113.61	11.97
			STDEV	0.04	0.97	
SS224	Silver Queen	7/24/2017		-15.08	-109.41	11.26
SS224	Silver Queen	6/28/2018		-16.06	-119.04	9.41
SS224	Silver Queen	10/1/2018		-15.48	-114.21	9.66
			Mean	-15.54	-114.22	10.11
			STDEV	0.40	3.93	0.82
SS225	Sound Democrate	7/24/2017		-15.67	-111.77	13.62
		6/28/2018		-15.18	-108.81	12.60
			Mean	-15.43	-110.29	13.11
			STDEV	0.35	2.10	0.72

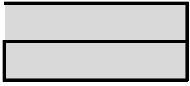
Appendix 5a - All Isotope Data - Mines Event Only

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Prospect Gulch Mines						
Site Id	Common Name	Sample Date	Sample Time	d 18O	d D	D-EXCESS
SS123	Prospect DM no name	6/27/2017	14:30	-16.57	-122.62	9.94
SS123	Prospect DM no name	6/22/2017	14:30	-16.37	-120.00	10.99
SS123	Prospect DM no name	6/28/2018		-15.79	-116.29	10.02
			Mean	-16.24	-119.64	10.32
			STDEV	0.41	3.18	0.58
SS126	Joe and John	11/8/2016	16:00	-16.64	-121.16	11.93
SS126-00	Joe and John	6/27/2017	13:00	-16.03	-119.94	8.26
SS126	Joe and John	10/18/2017	12:25	-16.46	-119.90	11.76
SS126	Joe and John	6/28/2018	11:05	-16.66	-121.89	11.38
SS126	Joe and John	10/3/2018	16:05	-16.46	-122.34	9.36
			Mean	-16.45	-121.05	10.54
			STDEV	0.25	1.11	1.64
SS95	PG09-DM		10/25/2016	-15.57	-113.23	11.34
SS95	PG09-DM		6/27/2017	-16.69	-121.77	11.75
SS95	PG09-DM		10/18/2017	-15.77	-112.00	14.16
SS95	PG09-DM		6/26/2018	-15.59	-114.36	10.38
SS95	PG09-DM		10/3/2018	-15.41	-113.26	9.99
			Mean	-15.81	-114.92	11.52
			STDEV	0.51	3.92	1.64
			Prospect isolated/seasonal/DM so lower STDEV			

Appendix 5a - All Isotope Data - Mines Event Only

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report



Appendix 5b - All Isotope Data - Mines Monthly

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

R&B	CC03C			
Sample Date	Sample Time	d 18O	d D	D-EXCESS
		per mill	per mill	per mill
10/11/2016	16:00	-16.42	-119.00	12.38
11/9/2016	13:00	-16.34	-118.77	11.96
1/13/2017	12:00	-16.38	-119.42	11.62
2/10/2017	15:30	-16.54	-119.68	12.66
3/14/2017	16:30	-16.38	-118.40	12.65
3/30/2017	16:00	-16.32	-119.54	11.04
4/24/2017	13:30	-16.39	-119.13	12.00
5/16/2017	14:00	-16.41	-119.32	11.97
6/6/2017	9:20	-16.42	-120.52	10.84
6/15/2017	13:00	-16.49	-119.44	12.45
7/10/2017	14:10	-16.40	-119.91	11.30
10/9/2017	14:15	-16.41	-118.07	13.23
12/19/2017	15:30	-16.25	-118.87	11.15
1/31/2018	13:00	-16.31	-118.10	12.42
3/22/2018	16:00	-16.30	-118.27	12.09
5/23/2018	11:00	-16.38	-118.64	12.39
6/5/2018	14:00	-16.40	-118.64	12.59
7/16/2018	14:00	-16.38	-118.46	12.61
8/22/2018	13:30	-16.31	-119.25	11.21
9/12/2018	12:45	-16.33	-118.85	11.76
10/9/2018	14:50	-16.36	-118.32	12.57
11/19/2018	13:55	-16.40	-117.93	13.30
12/19/2018	14:30	-16.21	-118.50	11.19
1/8/2019	13:15	-16.32	-118.17	12.40
2/5/2019	13:00	-16.46	-116.73	14.96
3/27/2019	16:00	-16.40	-116.86	14.37
	Mean	-16.37	-118.72	12.27
	STDEV	0.07	0.85	0.97

Appendix 5b - All Isotope Data - Mines Monthly

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Gold King	CC06			
Sample Date	Sample Time	d 18O	d D	D-EXCESS
		per mill	per mill	per mill
10/12/2016	16:00	-16.17	-116.91	12.47
11/9/2016	15:00	-16.29	-117.24	13.05
12/11/2016	12:45	-16.15	-116.82	12.36
1/13/2017	15:30	-16.25	-117.25	12.74
2/10/2017	12:00	-16.36	-118.36	12.52
3/14/2017	12:00	-16.13	-117.87	11.17
3/28/2017	12:00	-16.20	-117.85	11.79
4/24/2017	12:00	-16.30	-118.07	12.36
5/16/2017	12:00	-16.34	-118.37	12.32
6/6/2017	13:00	-16.33	-119.51	11.12
6/15/2017	12:00	-16.34	-118.54	12.16
7/17/2017	12:00	-16.37	-118.09	12.89
8/27/2017	13:00	-16.20	-117.09	12.53
10/9/2017	11:30	-16.21	-116.37	13.28
1/31/2018	12:00	-16.11	-116.88	11.96
3/22/2018	16:30	-16.22	-116.34	13.38
5/23/2018	15:30	-16.24	-117.41	12.49
6/5/2018	10:30	-16.40	-117.36	13.88
7/17/2018	15:10	-16.24	-117.06	12.87
9/12/2018	14:30	-16.35	-117.42	13.34
10/9/2018	16:50	-16.24	-117.43	12.47
11/20/2018	14:30	-16.32	-116.27	14.33
12/16/2018	12:20	-16.24	-117.10	12.84
1/8/2019	16:10	-16.25	-115.97	14.01
2/4/2019	13:50	-16.23	-115.87	13.95
3/21/2019	12:00	-16.22	-115.41	14.33
	Mean	-16.26	-117.26	12.79
	STDEV	0.08	0.93	0.85

Appendix 5b - All Isotope Data - Mines Monthly

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

American Tunnel	CC19			
Sample Date	Sample Time	d 18O	d D	D-EXCESS
		per mill	per mill	per mill
10/12/2016	16:00	-16.42	-118.57	12.81
11/9/2016	15:00	-16.28	-118.18	12.04
12/11/2016	12:00	-16.53	-120.45	11.80
1/13/2017	15:00	-16.34	-118.47	12.25
2/10/2017	16:00	-16.39	-118.66	12.46
3/14/2017	17:00	-16.32	-119.24	11.34
3/28/2017	13:30	-16.40	-118.74	12.43
4/24/2017	14:00	-16.44	-119.67	11.83
5/16/2017	13:15	-16.26	-119.64	10.45
6/6/2017	12:40	-16.37	-119.70	11.12
6/15/2017	09:30	-16.41	-118.92	12.40
7/17/2017	14:30	-16.46	-119.05	12.61
8/27/2017	13:00	-16.20	-117.09	12.53
10/9/2017	11:30	-16.28	-117.18	13.08
10/9/2017	11:00	-16.33	-117.15	13.51
10/9/2017	11:30	-16.25	-116.81	13.17
11/7/2017	15:45	-16.33	-117.55	13.08
12/13/2017	14:10	-16.29	-117.51	12.82
2/1/2018	13:45	-16.22	-117.67	12.11
3/22/2018	16:30	-16.34	-117.57	13.14
5/23/2018	15:00	-16.51	-117.95	14.11
6/5/2018	09:00	-16.33	-117.70	12.97
7/16/2018	14:30	-16.33	-117.94	12.67
8/21/2018	09:45	-16.20	-118.68	10.93
9/12/2018	14:15	-16.25	-118.34	11.65
10/9/2018	16:30	-16.21	-117.71	11.93
11/20/2018	14:30	-16.24	-117.47	12.47
12/16/2018	12:00	-16.20	-117.44	12.17
1/7/2019	14:25	-16.24	-116.81	13.11
2/5/2019	11:00	-16.28	-116.69	13.55
3/21/2019	11:15	-16.24	-116.64	13.26
	Mean	-16.32	-118.10	12.45
	STDEV	0.09	1.00	0.82

Appendix 5b - All Isotope Data - Mines Monthly

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Mogul	CC01B			
Sample Date	Sample Time	d 18O	d D	D-EXCESS
		per mill	per mill	per mill
10/11/2016	10:00	-15.85	-114.131	12.668
11/9/2016	14:00	-15.718	-112.309	13.434
3/14/2017	14:30	-15.491	-112.31	13.434
3/30/2017	14:00	-15.625	-112.37	12.63
4/24/2017	12:30	-15.679	-113.7	11.73
6/15/2017	14:00	-15.870	-114.941	12.018
7/10/2017	13:15	-15.83	-113.70	12.92
10/9/2017	13:48	-15.57	-111.79	12.79
12/19/2017	15:10	-15.45	-111.5	12.1
1/31/2018	12:30	-15.38	-111.6	11.4
3/22/2018	13:45	-15.59	-111.5	13.2
5/23/2018	10:00	-15.62	-111.8	13.2
6/5/2018	12:00	-15.67	-112.2	13.2
7/17/2018	12:00	-15.58	-112.2	12.4
8/10/2018	09:30	-15.54	-111.6	12.8
8/22/2018	12:40	-15.58	-112.8	11.9
9/12/2018	12:00	-15.62	-112.3	12.6
9/25/2018	11:30	-15.60	-111.3	13.5
11/14/2018	12:30	-15.5	-110.2	13.6
12/18/2018	14:45	-15.4	-111.5	12.0
2/5/2019	13:00	-16.5	-116.7	15.0
2/12/2019	12:45	-15.6	-110.5	14.1
3/27/2019	15:00	-15.6	-110.8	13.9
2/5/2019	13:00	-16.5	-116.7	15.0
	Mean	-15.677	-112.515	12.978
	STDEV	0.271	1.710	0.928

Appendix 5b - All Isotope Data - Mines Monthly

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Nat Occidental	CC14			
Sample Date	Sample Time	d 18O	d D	D-EXCESS
		per mill	per mill	per mill
9/21/2016	15:45	-15.81	-113.41	13.06
11/9/2016	15:00	-15.82	-113.22	13.31
3/28/2017	11:30	-15.71	-113.57	12.11
4/24/2017	10:30	-15.78	-113.35	12.88
7/20/2017	14:11	-16.00	-115.08	12.91
8/27/2017	12:00	-15.80	-112.35	14.03
10/9/2017	13:40	-15.78	-113.02	13.19
12/19/2017	12:00	-15.63	-112.67	12.38
2/7/2018	11:30	-15.72	-112.49	13.26
5/22/2018	13:00	-15.79	-112.76	13.58
6/6/2018	08:30	-15.85	-113.10	13.69
7/16/2018	12:00	-15.79	-113.36	12.95
8/22/2018	11:00	-15.79	-113.27	13.06
9/12/2018	13:00	-15.78	-113.64	12.61
10/9/2018	15:40	-15.70	-112.90	12.67
11/20/2018	13:40	-15.75	-112.28	13.74
12/17/2018	13:00	-15.68	-111.88	13.56
1/8/2019	11:15	-15.71	-112.22	13.48
2/4/2019	11:20	-15.71	-111.21	14.46
3/27/2019		-15.73	-111.69	14.16
	Mean	-15.77	-112.87	13.25
	STDEV	0.08	0.84	0.60

Appendix 5b - All Isotope Data - Mines Monthly

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

BlackHawk	CC50			
Sample Date	Sample Time	d 18O	d D	D-EXCESS
		per mill	per mill	per mill
9/21/2016	15:00	-14.99	-106.38	13.56
4/24/2017	13:00	-15.15	-107.82	13.37
6/15/2017	13:30	-15.08	-107.96	12.71
7/20/2017	10:30	-15.15	-107.48	13.74
8/27/2017	13:45	-15.09	-105.82	14.89
10/9/2017	15:00	-15.05	-107.18	13.22
3/29/2018	12:00	-15.13	-106.64	14.44
5/23/2018	15:00	-15.11	-106.97	13.91
6/7/2018	09:00	-15.10	-106.95	13.81
7/17/2018	11:10	-15.09	-106.89	13.85
8/22/2018	12:00	-15.16	-107.75	13.51
9/12/2018	11:00	-15.12	-107.26	13.74
10/3/2018	10:45	-15.06	-108.04	12.43
11/28/2018	12:25	-15.07	-106.64	13.94
12/18/2018	11:00	-15.02	-107.53	12.64
	Mean	-15.09	-107.15	13.58
	STDEV	0.05	0.63	0.66

Appendix 5c - All Isotope Data - Precipitation

Bonita Peak Mining District 2016-2018 Seeps and Springs and Draining Mines Characterization Report

Type	Sample Date	Sample Time	δ18O ‰	δD ‰	d-excess
Snow	1/13/2017	16:00	-20.71	-151.12	14.58
Snow	1/13/2017	16:00	-22.57	-166.51	14.03
Snow	1/13/2017	16:00	-18.07	-131.58	12.96
Snow	1/13/2017	16:00	-18.09	-131.55	13.15
Snow	12/11/2016	13:00	-20.71	-157.21	8.49
Snow	2/15/2017	12:00	-19.90	-148.06	11.18
Snow	3/1/2017	12:00	-25.96	-198.94	8.75
Snow	3/28/2017	12:00	-19.01	-139.72	12.34
Snow	3/28/2017	12:00	-17.24	-126.83	11.11
Snow	3/28/2017	12:00	-18.97	-139.16	12.61
Snow	4/18/2017	17:00	-20.10	-149.05	11.76
Snow	4/18/2017	17:00	-20.17	-149.51	11.86
Snow	1/9/2019	11:50	-26.49	-196.19	15.72
Snow	1/9/2019	11:50	-21.47	-156.70	15.06
Snow	1/10/2019	14:00	-26.39	-194.49	16.61
Snow	1/10/2019	14:00	-21.21	-153.76	15.94
Snow	2/7/2019	14:00	-17.07	-119.76	16.80
Snow	2/7/2019	14:00	-19.63	-143.04	14.00
Snow	3/4/2019	15:45	-23.41	-172.24	15.07
Snow	3/4/2019	15:45	-21.64	-159.42	13.72
Snow	3/27/2019	12:20	-17.34	-122.96	15.78
Snow	3/27/2019	12:20	-19.35	-140.34	14.44
		Mean	-20.71	-152.19	13.45
		STDEV	2.81	22.47	2.30
Type	Sample Date	Sample Time	δ18O ‰	δD ‰	d-excess
Rain	7/18/2017	12:00	-7.91	-40.85	22.47
Rain	7/12/2018	12:00	-6.18	-31.82	17.66
Rain	7/16/2018	12:00	-4.61	-20.87	16.03
Rain	7/25/2018	11:00	-1.84	-8.21	6.54
Rain	7/30/2018	16:00	-6.57	-39.17	13.36
Rain	8/21/2018	14:15	-4.78	-22.48	15.79
Rain	8/22/2018	10:30	-6.38	-36.50	14.50
Rain	8/28/2018	09:30	-5.37	-30.33	12.65
Rain	9/5/2018	14:00	-7.99	-48.05	15.86
Rain	9/7/2018	09:30	-5.50	-28.93	15.10
Rain	9/21/2018	15:00	-6.48	-41.63	10.20
		Mean	-5.78	-31.71	14.56
		STDEV	1.71	11.37	4.08

** all samples collected from Gladstone or Minihaha BPMD weather station sites