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Draft Final West Side Soils Operable Unit Remedial Investigation Sampling Data Summary Report

Pioneer Technical Services, Inc.

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July 5, 2022

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RE: ***Draft Final West Side Soils Operable Unit Remedial Investigation Sampling Data Summary Report (DSR)***

Gentlemen:

I am writing you on behalf of Atlantic Richfield Company to submit the *Draft Final Atlantic Richfield West Side Soils Operable Unit Remedial Investigation Sampling Data Summary Report (DSR)* via the link included with this email. This DSR summarizes Remedial Investigation Data collected on behalf of Atlantic Richfield Company (Atlantic Richfield) on Atlantic Richfield wholly and partially owned mining claims within WSSOU as required by Unilateral Administrative Order (UAO) CERCLA-08-2019-0004.

This fulfills the requirement set forth in the UAO for submission of all deliverables for data collected by and on behalf of Atlantic Richfield. Previous submission of the *Draft Final 2020 Remedial Investigation Sampling Data Validation Report*; dated December 17, 2020, generated Agency comments dated April 27, 2021, with general comments for Data Management and Remedial Investigation Data Collection and comments specific to the 2020 DVR. Revision 1 of the 2020 DVR appended within this DSR contains Atlantic Richfield responses to comments specific to the DVR. Atlantic Richfield responses to Agency comments pertaining to Data Management and RI Data Collection are contained in the appropriate summary table in Appendix A of the DSR.

If you have questions or concerns, please do not hesitate to call me at (406) 723-1834.

Sincerely,

Josh Bryson, PE, PMP
Liability Manager & Global Risk Champion
Remediation Management Services Company
An affiliate of **Atlantic Richfield Company**

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SILVER BOW CREEK/BUTTE AREA NPL SITE
WEST SIDE SOILS OPERABLE UNIT

Draft Final

West Side Soils Operable Unit Remedial Investigation Sampling Data Summary Report

Atlantic Richfield Company

July 5, 2022

SILVER BOW CREEK/BUTTE AREA NPL SITE
WEST SIDE SOILS OPERABLE UNIT

Draft Final

West Side Soils Operable Unit Remedial Investigation Sampling Data Summary Report

Prepared for:

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Prepared by:

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July 5, 2022

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REVISION SUMMARY

Revision No.	Author	Version	Description	Date
Rev 0	Cole Dallaserra	Draft	Issued for Internal Review	May 24, 2022
Rev 1	Cole Dallaserra	Draft Final	Issued for Agency Review	July 5, 2022

ABBREVIATIONS AND ACRONYMS

Acronym	Definition	Acronym	Definition
ABA	Acid-Based Accounting	LCSD	Laboratory Control Sample Duplicate
Atlantic Richfield	Atlantic Richfield Company	LLICV	Lower Limit Initial Calibration Verification
BMFOU	Butte Mine Flooding Operable Unit	LMS	Laboratory Matrix Spike
BPSOU	Butte Priority Soils Operable Unit	LMSD	Laboratory Matrix Spike Duplicate
CCS	Calibration Check Standard	MDL	Method Detection Limit
CCV	Continuing Calibration Verification	NPL	National Priorities List
CDM Smith	CDM Federal Programs Corporation	OU	Operable Unit
CFRSSI	Clark Fork River Superfund Site Investigation	Pace	Pace Analytical Services, LLC
DM/DV	Data management/ Data Validation	Pioneer	Pioneer Technical Services, Inc.
DPT	Direct-Push Technology	QA	Quality Assurance
DQA	Data Quality Assessment	QAPP	Quality Assurance Project Plan
DQO	Data Quality Objective	QC	Quality Control
DSR	Data Summary Report	RI	Remedial Investigation
DVR	Data Validation Report	SD	Serial Dilution
EPA	U.S. Environmental Protection Agency	SiO_2	Silicon Dioxide
FPXRF	Field Portable X-Ray Fluorescence	SLERA	Screening-Level Ecological Risk Assessment
GIS	Geographic Information System	SOP	Standard Operating Procedures
GPS	Global Positioning System	SOW	Statement of Work
ICV	Initial Calibration Verification	SPLP	Synthetic Precipitation Leaching Procedure
IVBA	In Vitro Bioaccessibility Assay	UAO	Unilateral Administrative Order
LCS	Laboratory Control Sample	WSSOU	West Side Soils Operable Unit

ABSTRACT

This West Side Soils Remedial Investigation (RI) Data Collection Data Summary Report (DSR) presents the results of the surface soil sampling conducted from October 23, 2019, through November 15, 2019, and from May 12, 2020, through June 9, 2020, and the subsurface soil sampling event conducted from June 18, 2020, through July 9, 2020, at the West Side Soil Operable Unit (WSSOU) Site. Additional subsurface samples were prepared from February 16, 2021, through March 2, 2021, from archived portions of cores from the previous subsurface sampling event. Additional surface data, as requested by U.S. Environmental Protection Agency (EPA), was collected from September 20, 2021, through September 28, 2021. The work was completed under the guidelines of the approved *Final Quality Assurance Project Plan* (QAPP) *West Side Soils Operable Unit RI Sampling Silver Bow Creek/Butte Area Superfund Site* (EPA, 2019a) (referred to herein as QAPP). Sampling efforts for Atlantic Richfield Company owned and partially owned mining claims were described in the RI Statement of Work (SOW), which is included as Attachment A of the *Unilateral Administrative Order* (UAO) *for RI Data Collection for the West Side Soils Operable Unit (OU 13) of the Silver Bow Creek/Butte Area Superfund Site* (EPA 2019b) (referred to herein as WSSOU UAO). This DSR includes the analytical results of soil samples including soil paste pH, field-portable X-ray fluorescence (FPXRF), total metals, synthetic precipitation leaching procedure (SPLP), acid-base accounting (ABA), and In Vitro Bioaccessibility Assay (IVBA). Lithological layers were identified visually from each core. Not all samples received all analyses. Global Positioning System (GPS) points were collected for all locations of all collected data.

All data from 2019 and 2020 were submitted to Agencies prior to this DSR. Previously shared data are considered "preliminary," and all data contained herein within this DSR supersede previously submitted data.

This DSR was prepared by Pioneer Technical Services, Inc. (Pioneer), 1101 S. Montana Street, Butte, Montana, 59701 for:

Atlantic Richfield Company
317 Anaconda Road
Butte, Montana 59701

STATEMENT OF AUTHENTICITY

Consistent with the provisions described in the WSSOU UAO, the data sets in this document are considered to be final data, generated or evaluated. Consistent with the aforementioned order, the signatories below hereby stipulate to the authenticity and accuracy of the data and hereby waive any evidentiary or other objection as to the authenticity and accuracy of reference in endangerment assessments, public health evaluations, feasibility studies, and remedial design/remedial action documents.

Approved by: _____ _____

Josh Bryson — Date
Liability Manager
Atlantic Richfield Company

Approved by: _____ _____

Nikia Greene — Date
Remedial Project Manager
U.S. Environmental Protection Agency
Region VIII

Approved by: _____ _____

Daryl Reed — Date
State Project Officer
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Approved by: _____ _____

Pat Sampson — Date
Project Manager
Pioneer Technical Services, Inc.

EXECUTIVE SUMMARY

This WSSOU DSR presents the results of the surface soil sampling event performed from October 23, 2019, through November 15, 2019, and from May 12, 2020, through June 9, 2020; the subsurface soil sampling event performed from June 18, 2020, through July 9, 2020; and the additional subsurface samples collected from archived cores from February 16, 2021, through March 2, 2021. Additional surface data were collected from September 20, 2021, through September 28, 2021, in areas identified by EPA as potential data gaps.

Sampling was conducted under the guidelines of the approved QAPP. Sampling efforts for mining claims owned or partially owned by Atlantic Richfield Company (Atlantic Richfield) were described in the RI SOW (Appendix A of the WSSOU UAO), and the *Final RI Data Collection Work Plan* (Atlantic Richfield, 2019) information along with data from the RI sampling efforts will be used to characterize the potential contamination at the Site and evaluate potential human health and ecological risks. Remedial investigations determine the nature and extent of contamination and any threat to the public health, welfare, or the environment caused by release or threatened release of hazardous substances.

The DSR includes all FPXRF and soil pH data, laboratory analytical data, and data validation packages. Also, geographic information system (GIS) files, photographs, and all other relevant field information collected by Atlantic Richfield are submitted to EPA as part of this DSR. The DSR will not include analysis or interpretation of the data by Atlantic Richfield.

During the sampling event, paste pH and natural soil samples were collected from 83 mining claims with disturbed areas. Disturbances were identified by an initial desktop review using satellite images and a field exploration by the field team leader. Sample locations are provided in the Figures section. Each sample location and type were decided in the field by the field team leader based on observations, site characterization, and accumulated field data.

A total of 1,010 surficial sites were investigated for potential sampling and field characterization, and 139 locations were selected from these surficial sites for laboratory sample collection. A total of 78 sites were selected for subsurface soil investigations, which resulted in collecting a total of 118 laboratory samples from different depth intervals below ground surface. Soil samples were analyzed for pH, ABA, target analyte list, SPLP and IVBA. Not all samples were sent for laboratory analyses or received analysis for each parameter stated.

Pioneer submitted soil samples to Pace Analytical Services, LLC (Pace) for metals and other analyses as listed in Table B-5 of the QAPP. Total metals were analyzed by EPA Method 6010B (ICP-AES). Pace also performed SPLP by EPA Method 1312 and ABA by Modified Sobek for surface samples and EPA600/2-78-054 for subsurface sample analyses as requested by Atlantic Richfield or Pioneer (EPA600/2-78-054 is a deviation from the QAPP. See Section 4.0 for details). In response to Addendum 1 of the QAPP, Pioneer selected 8 locations approved by EPA for IVBA analysis as described in the Addendum. Pace analyzed the IVBA samples per EPA IVBA method (EPA, 2017) and EPA SW-846 6010C. Analytical results were reported in full data packages. A data validation system was implemented consistent with the procedures described in the *Clark Fork River Superfund Site Investigation* (CFRSSI) *Data Management/Data Validation* (DM/DV)

Plan (ARCO, 1992) and the *CFRSSI DM/DV Plan Addendum* (AERL, 2000a). The format for this DSR is consistent with the format established in the *CFRSSI Pilot Data Report Addendum* (AERL, 2000b).

1.0 INTRODUCTION

This DSR summarizes data collected for the WSSOU #13 RI Sampling on mining claims owned and partially owned by Atlantic Richfield. The information contained in this DSR was gathered following objectives and procedures documented in the approved QAPP and the Final RI Data Collection Work Plan (Atlantic Richfield Company, 2019). The soil sampling was conducted in conjunction with a RI of the entire WSSOU conducted by EPA and its contractors. As discussed in the WSSOU UAO, EPA is holding Atlantic Richfield responsible for collecting samples on properties that they own, wholly or partially, within the "Mine Study Area."

Sampling efforts for Atlantic Richfield owned and partially owned mining claims were described in the RI SOW (Appendix A of the WSSOU UAO) and Final RI Data Collection Work Plan (Atlantic Richfield Company, 2019). Analytical data collected during these sampling events is used to assess and characterize the potential contamination at the Site and evaluate potential human health and ecological risks.

The current Mine Study Area contains 462 unique mining claims as described in the QAPP. Of the 462 mining claims identified in the QAPP, approximately 58 are entirely owned by Atlantic Richfield and an additional 32 mining claims have been identified as partially owned by Atlantic Richfield. Several other mining claims, extending northeast, north, west, and south of the primary Mine Study Area, are comprised of several different ownerships including some that are residential. Pioneer studied 70 wholly owned and 37 partially owned claims within and around the primary Mine Study Area. Table 1 summarizes claim names, CDM claim numbers, identification, and sampling efforts.

Pioneer completed a preliminary desktop review of the Atlantic Richfield-owned and partially owned mining claims using the format provided by CDM Federal Program Corporation (CDM Smith). The desktop review used historical and internet-based resources to investigate the magnitude of mining impacts on a set of mining claims. The objective of the desktop review was to classify claims as primary or secondary sites with respect to the level of investigative effort.

Primary and secondary study areas for each claim were identified based on desktop review, which guided the level of effort anticipated for field sampling. Primary study areas have larger disturbances and underground workings associated with former active mines, whereas secondary study areas have smaller disturbances typically associated with only exploration. Claims identified with no disturbances were generally not field investigated, and therefore do not provide any analytical data.

Information referenced throughout this DSR is included in the appendices listed below:

- Appendix A Atlantic Richfield Response to Agency Comments from Comment Letter Dated April 27, 2021, Specific to General Comments for Data Management and Remedial Investigation Data Collection.
- Appendix B Data Validation Reports.
- Appendix C Copies of Field Sheets and Notes.

- Appendix D Laboratory Analytical Full Data Packages.
- Appendix E Electronic Database.

This DSR presents the data collected through field exploration and laboratory analyses, described in the field sampling method, and lists and discusses deviations from the QAPP. Stage 4 data validations (Quality Assurance [QA]/Quality Control [QC] review) of the data are included in the applicable Data Validation Report (DVR) in Appendix B. The original field logbooks and field data sheets for this investigation are located at the Pioneer office in Butte, Montana. Copies of this information are included in Appendix C.

1.1 Investigation Site Description

The project Site, consisting primarily of the Mine Study Area, is located north and west of the Butte Priority Soils Operable Unit (BPSOU) in Butte, Montana. The properties of the project Site that are not included in the Mine Study Area, lie south, northeast, north, and west of the BPSOU. The following is the description of the investigation site as described in Section A5.2 of the QAPP:

"As defined in the BPSOU record of decision (EPA 2006b), the WSSOU lies generally to the north and west of the BPSOU and includes other historic mining and metals-impacted[1] areas within the Site not addressed under the BPSOU, the Butte Mine Flooding Operable Unit (BMFOU), or the active mining area. The WSSOU abuts the BPSOU and active mining area/BMFOU to the east, and the Streamside Tailings OU and Rocker Timber Framing and Treating Plant OU to the south. The boundary of the WSSOU is currently undetermined.

The Summit Valley Mining District or Butte Mining District encompasses all the City of Butte and surrounding areas. The area west and northwest of the City of Butte and Montana Tech within this larger district is known as the Independence Mining District, although its boundary is also not well defined. Generally, the WSSOU mine study area was established to encompass the Independence Mining District in an area of primarily range land, with some rural residences. Several hundred mine claims are present with smaller disturbances associated with exploration, as well as several larger abandoned mines with substantial surface mine dumps and underground workings. The WSSOU mine study area has not yet been thoroughly assessed to determine the nature and extent of contamination and potential remedial actions. This QAPP addresses data needs to complete an RI and a screening-level ecological risk assessment (SLERA).

The Independence Mining District was officially established in 1884, primarily exemplified by the rich silver ore veins present in the area west of Butte. Manganese ores were also a large source of mining activity due to use of manganese as a flux in other mineral processing. In the 1880s, at least 18 actively producing silver mines were operating in the district. Placer claims were also established along various area drainages likely for silver and gold production. The town of Burlington appeared in the 1880s in support of the extensive active mining, along with other smaller communities of Busterville and Champion in the area. Burlington had a population of 344 registered voters in 1890, although as mining practices and economic conditions changed over time the town virtually disappeared by 1910. Fluctuating silver prices resulted in boom and bust conditions through the 1920s and minor mining activity thereafter."

Claims investigated within the site described above and summarized herein are those that are either wholly or partially owned by Atlantic Richfield. Table 1 provides a list of these claims and a summary of sites investigated on the given claim. Figure 1 contains the site location map, and Figure 2 displays an overview of the site including sampled claims that are owned by Atlantic Richfield and the primary Mine Study Area as defined in the WSSOU UAO.

1.2 Investigation Objectives

The information compiled in this DSR summarizes the WSSOU RI data collection performed by Pioneer on claims owned or partially owned by Atlantic Richfield. The objective of sampling was to obtain sufficient data to determine the nature and extent of contaminated soil in conjunction with the investigation conducted by EPA. The QAPP identifies the following as the primary monitoring objectives:

1. *Determine the nature and extent of soil and mine waste in the WSSOU mine study area.*
2. *Determine the potential for mine waste to be acid-generating and/or leachable.*
3. *Determine the geochemical characteristics in background soils.*
4. *Determine the nature and extent of surface water and sediment contamination in drainages associated with the WSSOU mine study area.*
5. *Determine the nature and extent of contamination within the Blacktail Creek upgradient of the Butte Priority Soils Operable Unit (BPSOU).*
6. *Determine the nature and extent of contaminated stormwater discharge to Silver Bow and Blacktail Creeks in areas upgradient of BPSOU.*

Per the RI SOW (Appendix A of the WSSOU UAO), EPA will be responsible for sampling surface water that crosses properties owned by Atlantic Richfield. Likewise, any discharging adits will be sampled (as surface water) and gaged by EPA. Pioneer collected soil samples from visual erosion features from mine waste dumps actively eroding into drainages of WSSOU. Pioneer did not collect any water samples.

2.0 SAMPLING AND ANALYSES SUMMARY

The QAPP identifies the established RI for the Silver Bow Creek/Butte Area Superfund Site, with Appendix B providing guidance for the soil sampling of the WSSOU of the Silver Bow Creek/Butte Area National Priorities List (NPL) Site. All samples were collected by methods outlined in the QAPP, which includes surface solid media and sediment. Table 2 and Table 3 provide surface and subsurface sample collection summaries.

As outlined in the QAPP, "*Paste pH, SPLP, and ABA analysis will be used to determine the extent of leaching and potential acid generation. SPLP data will indicate whether soils contain leachable metals and to what extent. Paste pH data, compared to background soil pH or other adjacent unimpacted soil pH results, will indicate impacts from acid-generating minerals. ABA results provide a quantitative assessment of the amount of acid-generating potential a soil sample has, and whether the sample also contains neutralizing potential from geologies such as calcite.*

Depressed soil pH from acid-generating minerology results in vegetation stress and other potential impacts to ecological receptors and provides an indication that heavy metals are being potentially leached into the environment."

The general positions of all sampling locations sampled during the surface and subsurface events are provided on Figure 3 through Figure 21. A summary of surface and subsurface soil sample collection is provided in Table 2 and Table 3, respectively. Field observations and instrument calibrations were documented daily in the field logbook (Appendix C). All geodata is contained in Appendix E.

Atlantic Richfield began surface soil sampling in October 2019 after Agency approval of the Final Remedial Investigation Data Collection Work Plan (Atlantic Richfield Company, 2019). That round of soil sampling stopped on November 15, 2019, due to freezing weather and snow cover. The onset of the COVID-19 pandemic delayed the resumption of sampling activities in Spring 2020. Surface soil sampling resumed on May 12, 2020, and continued through June 10, 2020. The subsurface portion of the data collection effort ran from June 18, 2020, until July 10, 2020. Additional samples were requested from archived subsurface core material, and these samples were collected from February 16, 2021, through March 2, 2021. As stated above, all data were shared with EPA ahead of this DSR to aid EPA's RI/Feasibility Study (FS) efforts. As such, potential data gaps were identified during EPA's spatial review of the data. Therefore, additional surface characterization was completed from September 20, 2021, through September 28, 2021.

2.1 Soil Data Collection

Site reconnaissance consisted of desktop and field reconnaissance. Field reconnaissance included preliminary site visits, aerial imagery, and in-field observations while sampling.

To assess the potential for the RI, mine waste and soil samples were analyzed for total metals and SPLP metals concentrations to assess whether metals are present and whether present metals are leachable. Current and future acid-generating potential was assessed through field paste pH and laboratory ABA analytical methods, respectively, as well as lithologic logging to identify the presence of acid-generating mineralogy. Select samples were analyzed for IVBA at the request of EPA. Collectively, results of this sampling effort will provide data to indicate whether mine waste and soil associated with abandoned mines and mineral exploration areas are sources of potential contamination to downgradient soil, sediment, surface water, and groundwater.

2.1.1 Surface Soil Data Collection Methods

Surface soil collection took place on both primary and secondary mining claims. Areas were observed and characterized to determine the type of sampling needed. The collection amount varied for areas with similar characteristics and soil pH, and the area was assessed by determining the pile size, material, color, and pH to determine how many samples would be needed to get an overall assessment of the area. Each sample consisted of a grab or composite sample. Grab samples were comprised of having 3 to 4 scoops of material from a single area typically less than a 1-foot diameter. Composite samples were comprised of having 3 to 10 subsample locations across a specific area or feature that was represented by the composite sample collected. Approximately 0

to 2 inches of fine material were collected for all sample types. Samples collected for FPXRF were sieved through a #10 or equivalent disposable sieve to ensure only fine material was collected and analyzed using a Niton XL3 Field Portable X-Ray Fluorescence analyzer. Samples analyzed by FPXRF during the 2019 and 2020 sampling events were not analyzed for elements in the low range per the Final RI Data Collection Work Plan (Atlantic Richfield, 2019). However, during technical meetings to discuss data validation pertaining to FPXRF, it was determined that the low, main, and high ranges should be ran so that the FPXRF results would include as many elements in the target analyte list as possible. All ranges were run for the 2021 FPXRF analyses. Natural samples and field duplicates were sent to the laboratory for appropriate laboratory sample analysis.

Grab paste pH samples were collected using disposable trowel scoops, plastic cups, and deionized (DI) water. Approximately one inch of fine material was scooped into the bottom of the cup. DI water was added to the sample, and the cup was swirled until a paste was made. An Oakton® pH Testr™ 50 was used to measure the paste pH sample. The pH meter was decontaminated with DI water after each use. The collected soil was returned to the area the sample was collected and tools were discarded. This limited the need to decontaminate tools.

A tablet with the application Avenza was used to record the exact sample locations for samples collected during 2019 and 2020. For the additional data collected in Fall 2021, the Survey 123 application was used in conjunction with Collector (both ESRI products) on an iPad equipped with a Bad Elf GNSS Surveyor device to enhance accuracy. For the Avenza application, a colored pin on the app would indicate a grab sample location. Similarly, a tracked polygon on the application would indicate a composite sample collected within the defined polygon. Each location and type of sample collected were recorded (pH, FPXRF, laboratory sample, etc.). During additional data collection in 2021, Collector was used to mark the grab locations and polygons for composite samples, while Survey123 was used to collect required sample site information. Photos were also taken with both applications and stored with the location along with pH values and site notes about the sample location.

2.1.2 Subsurface Soil Data Collection Method

Primary mine waste dumps were sampled with a direct-push technology (DPT) rig to determine the extent of larger mine waste dumps. The same field and laboratory parameters were collected from the selected depths based on observations to determine the vertical extent of mine waste dumps. Volumes of mining related waste are estimated by collecting depth and extent information in the location of the dump.

The area being drilled was first utility located and blind swept to ensure no underground utilities were present. The drilling team set up the rig using the dual-tube core recovery system with 4- and 5-foot core tubes. The length of tube was consistent throughout the drilling of the bore hole until completion, meaning a hole using the 4-foot system used that system until the hole was completed. Lithology was logged and recorded on a borehole log sheet as the core was recovered from the ground. Percent recovery was measured and recorded along with each interval of core observed. The borehole lithology log sheets can be found in Appendix C.4. Additional detail on the DPT sample collection is summarized in Section 2.2.2.

During the DPT effort, generally only the interval deemed to be native and just below mine waste was analyzed for field paste pH, FPXRF, and sent to the laboratory for total metals analysis. The amount of this interval varied for each hole and was typically 2 to 3 inches. Field Portable X-ray fluoresce analyses on these samples were not sieved since they were being sent to the laboratory and there was not enough material from the core to allow sieving while maintaining the integrity of the natural sample.

Material from each DPT boring was stored in resealable plastic bags from each interval of core. Bags were labeled by mining claim (CDM claim number), DPT number, interval, and date sampled. Bags were then placed into a box and stored at room temperature at the Pioneer laboratory in Butte, Montana. The archived material was later used for additional paste pH and laboratory samples as described in Section 2.1.3.

2.1.3 Additional Subsurface Soil Data Collection Methods

EPA requested additional samples to fill in data gaps. Cores that were previously collected and sent to the laboratory were no longer available to run additional analysis because they were discarded by the laboratory prior to the request; therefore, archived portions of core from previous sampling events were used. Each interval from the 78 DPT locations was sampled for paste pH at a minimum. Specific intervals were requested to be sampled; however, if more acidic intervals were found they could be sampled as well. These intervals were analyzed for paste pH and collected into a different bag to be sent to the laboratory. However, due to the limited amount of material in some of the requested intervals more material was required for analysis. Additional material came from other closely related pH material directly above or directly below the requested interval to be included in the sample. These combinations can be found in the logbook in Appendix C.1.

Archived intervals were stored in resealable plastic bags labeled with the mining claim (CDM claim number), DPT number, interval, and date sampled. The core was kneaded within the stored bag to ensure the material was broken up and homogenized. A disposable scoop was used to collect material from the bag to collect pH in a disposable cup. Material used for laboratory samples was kneaded and collected in similar fashion as for pH analysis. However, due to the small amount of material archived, the entire homogenized bag was transferred to a clean resealable plastic bag labeled for laboratory analysis. Hold times for these samples were exceeded. Table 3 shows the date and time the sample was taken from the ground, which was used for naming convention, and depicts the date and time the sample was collected from the archived material. Intervals with closely related geology and pH were combined in instances where there was an insufficient material amount. These combinations can be found in the logbook in Appendix C.1 and the field sheet provided in Appendix C.2.

2.2 Sampling Results

Results for surface and subsurface paste pH can be found in Table 2 and Table 3. Laboratory analytical data is summarized in the respective full data package from Pace in Appendix D, and FPXRF data can be found in the applicable DVRs provided in Appendix B. The electronic database provided in Appendix E contains all soil sample results, including field paste pH, FPXRF, and

respective analytical results. Secondary mineralization observations, when noted, and sample site descriptions are also included in the geodatabase as part of Appendix E. The figure set attached to this report shows a general overview of claims that Atlantic Richfield owns and the extent of surface and subsurface investigations. Quality assurance checks have been made to ensure the accuracy and consistency of reported results across all associated databases and reporting tables.

2.2.1 2019 Soil Sampling Results

Soil samples collected in 2019 consisted of surface soil collection only. In total, 237 sites were visited from varying mining disturbances from mining claims within the West Side Soils site. A total of 232 natural samples were collected for field and/or laboratory analysis. This included 108 FPXRF analyses, 47 total metals analyses (including 8 that received multi-incremental soil [MIS] sample preparation), 9 SPLP analyses, and 3 ABA analyses. Of the 237 sites visited, 231 were measured for pH; pH was not recorded for 1 sample, and 5 sites were listed as bedrock outcrops, bare areas, or well vegetated areas with no pH or sample collected. Duplicate samples are not counted in this summary. No subsurface samples were collected in 2019. A GPS location, photograph, and logbook note were taken for some physical features observed during site characterization, but not assigned a "SO" number as other observed physical features described above. Those locations show up in the geodatabase and are named according to the description of the feature observed.

Mining claims were individually investigated by Google Earth images and walking inspections to verify any mining related disturbances. These areas were identified and sampled in 2019. Samples were collected as determined by the field team leader. Sample analyses were chosen by dump characterization, dump size, soil properties, and field measurements. Samples sent to the laboratory were based off collected field data. Validated data is summarized in the appropriate DVR in Appendix B (Appendix B.1 for laboratory analysis and Appendix B.3 for FPXRF data). All data are provided in the electronic database in Appendix E.

2.2.2 2020 Soil Sampling Results

Soil samples collected in 2020 consisted of collecting surface soil and subsurface soil. For surface soil samples, 648 sites were visited from varying mining disturbances from mining claims within the West Side Soils site. A total of 602 natural samples were collected for field and/or laboratory analysis. This includes 219 FPXRF analyses, (one of which was a sample collected from a site investigation on a parcel that was later removed from the WSSOU UAO), 70 total metals analyses (including 14 samples that received MIS sample preparation), 7 SPLP analyses, 7 ABA analyses, and 8 IVBA analyses. Of the 649 sites visited, 601 were measured for pH, and 47 sites were listed as bedrock outcrops, bare areas, well vegetated areas, or other observed feature with no pH or sample collected. Duplicate samples are not counted in this summary.

For subsurface soil samples, 78 locations were selected for DPT holes to be drilled. Typically, one hole was pushed at each location, but there were instances where a "B" location was required. These locations were close to the original "A" location. This resulted from either poor core recovery from a given interval or refusal before native material was encountered. More detail on specific instances is contained in the Field Logbook entries in Appendix D.1. Three locations

(DPT-27, DPT-55, and DTP-58) encountered refusal before native material was encountered and no sample was originally collected. Other locations contain more than one natural sample collected. Samples in 2020 were collected once the native material was encountered and drilling was complete. Laboratory samples consisted of native material just below the waste dump material with a few additional samples of waste material collected just above the native material. FPXRF analysis was performed for the same interval that was sent for laboratory analysis. Intervals analyzed by FPXRF were not sieved to keep the natural sample intact. A total of 78 natural samples were collected for field and/or laboratory analysis. This includes 77 FPXRF analyses, 78 total metals analyses, and 76 field paste pH analyses (pH was not recorded for two samples). Duplicate samples collected are not counted in this summary. Additional data collected from archived cores as requested by EPA are summarized in section 2.2.3.

Analytical results are summarized and provided electronically in Appendix E. Validated laboratory analytical results, FPXRF results, and assessment are provided in the appropriate DVR in Appendix B (Appendix B.2 for laboratory analytical data and Appendix B.3 for FPXRF data).

2.2.3 2021 Soil Sampling Results

Sampling during 2021 was comprised of two different sampling events in response to EPA's request to gather more data. The request for additional data was formalized in the Comment Letter dated April 27, 2021, *Comments on WSSOU: Draft Final 2020 RI Sampling Data Validation Report; dated December 17, 2020*. The first event was completed in quarter 1 of 2021 on archived core material from the previous subsurface DPT event in Summer 2020. The second sampling event was conducted in Fall 2021 within areas identified by EPA as potential data gaps. Each sampling event is summarized, respectively, below.

Archived core sampling in 2021 contained all 78 DPT borings with each different interval being analyzed for paste pH and additional laboratory analysis as requested or determined necessary by the sampler. A total of 320 natural samples were collected for field and/or laboratory analysis. This includes 320 paste pH analyses, 36 total metals analyses, 31 SPLP analyses, and 13 ABA analyses. No FPXRF analysis was performed during this effort. Duplicate samples are not counted in this summary. Validation for the additional subsurface soil sample data can be found in Appendix B.4. Table 3 contains a summary of the samples and type of analysis performed. All data are contained in the electronic database in Appendix E.

Additional surface sampling conducted in 2021 was completed in areas identified by EPA as potential data gaps. CDM Smith reviewed the preliminary data and identified areas of potential data gaps. Prior to the field investigation, CDM Smith provided Pioneer with shapefiles delineating polygons of primary disturbed areas and polygons requesting field verification/characterization to delineate the areas where additional data collection was appropriate. The objective of collecting additional data was to collect enough surface data to fill in the potential data gaps and provide enough data to aid CDM Smith in their effort to identify disturbed area perimeters. On-site representation by EPA was provided during portions of the sampling event. Oversight was provided when initially kicking off the sampling and while characterizing areas of particular interest to EPA.

A total of 126 sites were characterized throughout the polygons delineated by EPA during the additional data collection. A total of 101 natural samples were collected for field and/or laboratory analysis. This includes 75 FPXRF analyses, 14 total metals analyses, 2 SPLP analyses, and 2 ABA analyses. Paste pH was recorded on 101 of the 126 sites visited, and the other 25 sites were listed as bedrock outcrops, bare areas, well vegetated areas, or other observed feature with no pH or sample collected. Duplicate samples are not counted in this summary.

Validated data for all additional surface samples collected in 2021 are summarized in the DVR in Appendix B (Appendix B.5 for laboratory analytical data and Appendix B.6 for FPXRF data). All data are provided in the electronic database in Appendix E.

3.0 DATA ASSESSMENT

The Data Quality Assessment (DQA) process (EPA, 2000) objective is to determine whether the project-specific objective have been satisfied and if the analytical results are acceptable for project decision making. The DQA process consists of five steps that relate the quality of the results to the intended use of the data:

Step 1: Review Data Quality Objectives (DQOs) and sampling design (Section 3.1).
Step 2: Conduct preliminary data review (Section 3.2).
Step 3: Apply statistical test(s), as appropriate, to the data set (not applicable).
Step 4: Verify assumptions (not applicable).
Step 5: Draw conclusions about the quality of the data (Section 3.5).

3.1 DQOs and Sampling Design

The DQOs for the RI sampling events, as discussed in Appendix B of the QAPP, are to collect quality soil samples to assess acid leaching soil trends at disturbed sites on mining claims and to characterize the potential contamination and evaluate potential human health and ecological risks at the Silver Bow Creek/Butte Area NPL Site. This DSR will not include an analysis or interpretation of the data collected by Atlantic Richfield.

The DQOs include collecting surface and subsurface soil samples in areas of concern within the Butte NPL Site to determine potential human health and ecological risks. Samples were analyzed for paste pH, FPXRF, total metals, SPLP, ABA, and IVBA. Not all samples collected were sent to the laboratory. Samples and field measurements summarized in this DSR were collected from October 2019 through November 2019, May 2020 through July 2020, February 2021 through March 2021, and September 2021.

3.2 Preliminary Data Review

A preliminary data review was conducted to determine if any problems or anomalies were present in the sample collection and analysis procedures. This was completed by data validation (Section 3.2.1 and Appendix B) followed by evaluating data quality indicators (Appendix B).

3.2.1 Data Validation

Pioneer performed Stage 4 data validation on laboratory data and Stage 2B data validation on FPXRF data of all the soil samples and field QC samples collected. Data validation was performed in sequences as data was collected. This was done to share data with EPA to aid the ongoing RI/FS while data collection continued. The bullets below outline the individual DVRs and the data contained within the report that was validated. The order is generally in the order in which the data were collected and the validation performed.

- Revised Final 2019 RI Sampling Laboratory DVR – Contains data validation on all laboratory analysis completed on samples collected during the 2019 field season. Report is in Appendix B.1.
- Final 2020 RI Sampling Laboratory DVR – Contains data validation on all laboratory analysis completed on all surface and subsurface samples collected during the 2020 field season. Report is in Appendix B.2.
- Draft Final 2019-2020 RI Sampling FPXRF DVR – Contains data validation on all FPXRF analyses on samples collected during the 2019 and 2020 field season. Report is in Appendix B.3.
- Draft Final 2021 RI Archived Core Sampling Laboratory DVR – Contains data validation on all laboratory analysis from samples collected on archived core material from the 2020 subsurface DPT investigation. Report is in Appendix B.4.
- Draft Final 2021 RI Additional Surface Sampling Laboratory DVR – Contains data validation on all laboratory analysis for samples collected during the 2021 field season in areas identified by EPA as potential data gaps. Report is in Appendix B.5.
- Draft Final 2021 RI Additional Surface Sampling FPXRF DVR – Contains data validation on all FPXRF analyses for samples collected during the 2021 field season in areas identified by EPA as potential data gaps. Report is in Appendix B.6.

The details and results of the data validation, as prepared by Pioneer, are provided in Appendix B. The 2019 and 2020 DVRs were sent out prior to this DSR at the request of the Agencies (Atlantic Richfield Company, 2020a and Atlantic Richfield Company, 2020b). The 2019 DVR was submitted as final on July 21, 2020; however, EPA never officially approved the final version. Upon spatial review of the data points, several data points within the 2019 DVR were identified that physically landed in a different claim than what was suggested in their individual sample identification. Those sample identifications were updated along with all associated databases, tables, and laboratory reports. Additionally, edits were made to update the 2019 DVR to be consistent with the other DVRs. Therefore, the Final 2019 DVR report contained in this DSR submittal will be the official version. These changes did not affect any other DVR within this DSR since they are all in Draft Final versions. Analytical results, assessment qualifiers, laboratory flags, sample locations, and FPXRF are summarized in the respective DVR tables provided in Appendix B.

Data validation is not required for soil sample paste pH. Paste pH samples were measured in a manner consistent with the procedures outlined in the QAPP, to the extent possible. Furthermore, pH was only used for field background data in the sampling selection process; the pH results can be found in Table 2 and Table 3.

An overall summary of the number of natural samples collected and data points generated with the enforcement and screening data quality designations is shown below:

DVR/Analysis Group	Natural Samples[1]	Data Points	Enforcement Quality Data Points (% of total)	Screening Quality Data Points (% of total)	Rejected Data Points (% of total)
2019 Laboratory DVR					
Total Metals	47	1,175	1,119 (95%)	56 (5%)	0 (0%)
SPLP	9	216	205 (95%)	11 (5%)	0 (0%)
ABA	3	24	13 (54%)	11 (46%)	0 (0%)
Subtotal	**47**	**1,415**	**1,337 (94%)**	**78 (6%)**	**0 (0%)**
2020 Laboratory DVR					
Total Metals	148	3,700	3,568 (96%)	132 (4%)	0 (0%)
SPLP	7	168	165 (98%)	3 (2%)	0 (0%)
ABA	7	56	52 (93%)	4 (7%)	0 (0%)
IVBA	8	48	36 (75%)	12 (25%)	0 (0%)
Subtotal	**156**	**3,972**	**3,821 (96%)**	**151 (4%)**	**0 (0%)**
2019 - 2020 FPXRF DVR					
FPXRF Surface	327	4,905	2,888 (59%)	2,017 (41%)	0 (0%)
FPXRF Subsurface	77	1,155	0 (0%)	1,155 (100%)	0 (0%)
Subtotal	**404**	**6,060**	**2,888 (48%)**	**3,172 (52%)**	**0 (0%)**
2021 Archive Core Laboratory DVR					
Total Metals	36	900	35 (4%)	865 (96%)	0 (0%)
SPLP	31	744	0 (0%)	744 (100%)	0 (0%)
ABA	13	182	173 (95%)	9 (5%)	0 (0%)
Subtotal	**40**	**1,826**	**208 (11%)**	**1,618 (89%)**	**0 (0%)**
2021 Additional Surface Laboratory DVR					
Total Metals	14	350	324 (93%)	26 (7%)	0 (0%)
SPLP	2	48	47 (98%)	1 (2%)	0 (0%)
ABA	2	28	2 (7%)	26 (93%)	0 (0%)
Subtotal	**14**	**426**	**373 (88%)**	**53 (12%)**	**0 (0%)**
2021 FPXRF DVR					
FPXRF Surface	75	1,425	810 (57%)	615 (43%)	0 (0%)
Subtotal	**75**	**1,425**	**810 (57%)**	**615 (43%)**	**0 (0%)**
Grand Total	**620**	**15,124**	**9,437 (62%)**	**5,687 (38%)**	**0 (0%)**

[1]Total number of samples is not a summation of the number of samples for each analytical group because some samples had results for more than one analysis group.

3.3 Field Quality Control Sample Results

The field quality control samples were collected following the requirements in the QAPP: 1 field duplicate for every 20 natural samples was collected. Field QC sample results are provided in Appendix B.

3.3.1 Field Duplicate Results

Field duplicates were collected at a frequency of 1 duplicate per 20 natural samples collected for laboratory analysis, satisfying the QAPP requirements. A total of 14 field duplicate samples were

collected during the surface soil sampling events. A total of 10 field duplicate samples were collected during the subsurface soil sampling events. All field duplicate sample results and data quality assessments are included in the applicable DVR in Appendix B.

3.3.2 Field Blank Results

No field blanks were necessary during sampling events. This was due to using disposable sampling supplies which limited the need to decontaminate tools between samples.

3.4 Data Quality Indicators

Part of the DQA process is to evaluate the results against data quality indicators of precision, accuracy, representativeness, comparability, completeness, and sensitivity. An evaluation of each data quality indicator was completed during data validation and is included in in each individual DVR in Appendix B. An overall summary for each data quality indicator is provided below.

3.4.1 Precision

Precision is the amount of scatter or variance that occurs in repeated measurements of a particular analyte. Indicators of precision, as applicable per analytical method, are as follows:

- Field duplicates.
- FPXRF duplicates.
- FPXRF replicates.
- Laboratory duplicates including:
    - Laboratory control sample duplicates (LCSD).
    - Laboratory matrix spike sample duplicates (LMSD).

Of the 15,124 natural data points, 143 (1%) were qualified for an indicator of precision.

3.4.2 Accuracy

Accuracy is the ability of the analytical procedure to determine the actual or known quantity of a particular substance in a sample. Indicators of accuracy, as applicable per analytical method, are as follows:

- FPXRF energy calibration check (system check).
- FPXRF calibration check standards (CCS).
- FPXRF silicon dioxide (SiO_2) standard.
- Calibration.
- Initial calibration verification (ICV) samples.
- Low limit initial calibration verification (LLICV) samples.
- Continuing calibration verification (CCV) samples.
- Interference check samples (ICS).

- Laboratory control samples (LCS) and LCSDs.
- Laboratory matrix spike (LMS) samples and LMSD.
- Laboratory post-digestion spike samples.
- Serial dilution (SD) samples.

Of the 15,124 natural data points, 3,289 (22%) were qualified for an indicator of precision. Of these qualifications, 1,076 were made to the FPXRF results due to detections in an SiO_2 standard sample, and 2,957 were made to the FPXRF results due to poor CCS recovery. Of the 7,639 laboratory-generated natural data points, 332 (4%) were qualified for an indicator of precision.

3.4.3 Representativeness

Representativeness was assessed based on review of sampling procedures and design, holding times and preservation criteria, and chain of custody forms completeness.

The laboratory results were reviewed, and data validation completed. Holding time criteria were not met for 1,608 natural data points. Preservation criteria were not met for 75 natural data points. Most of these qualifications were made to samples that were collected from archived cores with the understanding that holding times and preservation requirements would not be met for some analyses (Appendix B.4). These data points are considered usable as screening quality data. Chain of custody forms were complete and are included in the data packages. The representativeness goals were met.

3.4.4 Comparability

Comparability was assessed to determine if one set of data can be compared to another set of data. Comparisons were made by examining and comparing the laboratory and field methods used to acquire sample data for different distinct data sets.

The soil samples were collected using standard sampling methods and Pioneer Standard Operating Procedures (SOPs). The sampling design, SOPs, and laboratory analytical methods are based on EPA and other industry standard practices and were documented in the field logbook. Sample collection was completed by professionals who were properly trained in the SOPs and equipment use. The analytical laboratories performed the sample analysis using industry standard methods.

There were 1,155 natural data points that were qualified because of a deviation in the FPXRF sample preparation. All subsurface samples underwent the “Sample Bag” preparation method instead of “Simple Sieve.” Refer to Section 4.0 and Appendix B.4 for more details.

The subsurface FPXRF sample data are considered usable with the recognition that they are considered screening quality due to the lack of sieving prior to FPXRF analyses. Consequently, data from future soil sampling events at WSSOU using comparable sampling and analysis may be used in concert with the sample data.

3.4.5 Completeness

Completeness is assessed to determine if enough valid data were collected to meet the investigation needs. Completeness is assessed by comparing the number of valid sample results to the number of sample results planned for the investigation. The completeness target for this investigation was 90% or greater as designated in the QAPP.

All planned samples met the Level A and Level B criteria and were analyzed for the required analytes. Screening quality data is considered usable *a priori,* within the confines of data interpretation, and no data points were rejected. Therefore, the completeness for data based on the sample collection and analysis was 100%.

The Final RI Data Collection Work Plan (Atlantic Richfield, 2019) states, *"At a minimum, 20% of soil samples (1 out of 5 samples) analyzed by field XRF will be submitted for laboratory analysis."* A total of 479 samples were analyzed by FPXRF, and 116 (24%) of these samples were analyzed by the laboratory. Therefore, the 20% goal was met.

3.4.6 Sensitivity

Sensitivity was evaluated by comparing the detection limit (laboratory reporting limit or the laboratory method detection limit, as applicable) of non-detect results to the project-specific sensitivity requirements. The reporting limits in Table B-5 of the QAPP were used to evaluate sensitivity for soil analyses, and the reporting limits in Table B-4 of the QAPP were used to evaluate sensitivity for SPLP analyses.

There were some instances where the non-detect results were higher than the project-specific results. Details are provided in Appendix B.

These data are considered usable with the recognition that some of the detection limits are higher than the reporting limits listed in Table B-5 and Table B-4 of the QAPP.

3.5 Conclusions Regarding Data Quality

The field and laboratory samples were collected using standard sampling methods according to relevant Pioneer SOPs. The sampling design, SOPs, and laboratory analytical methods were based on EPA and other industry standard practices. Sample collection was completed by professionals who were properly trained in following SOPs and using equipment. Proper chain of custody and sample handling activities were observed during sample collection, delivery to the laboratory, and analyses. The analytical laboratories performed the sample analyses using industry standard methods. As shown in the checklists (Appendix B), all data met the Level A and Level B criteria.

The following is an assessment of the quality and quantity of the data collected with its intended uses as defined by the DQOs.

DQO	Assessment of the Data Quality
Determine the nature and extent of soil and mine waste in the WSSOU Mine Study Area.	The quality and quantity of data collected is sufficient to support the EPA RI/FS for the site.
Determine the potential for mine waste to be acid-generating and/or leachable.	Sufficient quantity and quality of data to help determine the DQO
Determine the geochemical characteristics in background soil.	Data was collected on background soils within well vegetated/visually unimpacted areas to achieve DQO.
Determine the nature and extent of surface water and sediment contamination in drainages associated with the WSSOU Mine Study Area.	Surface water DQO objective achieved by EPA self-performed sampling. Atlantic Richfield collected data to meet the DQO within Atlantic Richfield owned claims in the Mine Study Area. Collected sediment within visual depositional areas in drainages to meet DQO.
Determine the nature and extent of contamination within the Blacktail Creek upgradient of the Butte Priority Soils Operable Unit (BPSOU).	This DQO is not applicable to data summarized in this DSR. EPA performed assessment of data quality for their data collected to meet this DQO
Determine the nature and extent of contaminated storm water discharge to Silver Bow and Blacktail creeks in areas upgradient of BPSOU.	This DQO is not applicable to data summarized in this DSR. EPA performed assessment of data quality for their data collected to meet this DQO

3.6 Data Management and Transfer

All field analytical data, laboratory reports, chain of custody records, logbook scans, photographs, and data validation records collected according to the QAPP are included in this report and its appendices and are provided to Agencies in data validation reports. Data were transferred before this DSR was completed as requested by Agencies. Much of the previously shared data were in preliminary or draft format and any data contained in this DSR shall supersede any previously shared data.

Data contained within this DSR were collected in conjunction with the RI sampling effort performed by EPA on most of the investigation area. Ultimately, data contained herein will be consolidated with that collected by CDM Smith and managed and merged with EPA's database (SCRIBE.net as defined in the WSSOU UAO). As such, and as agreed upon during the monthly WSSOU UAO progress meeting held virtually January 27, 2022, submittal of this DSR and all data contained herein shall satisfy the requirements set forth under the WSSOU UAO for transmittal and delivery of data by Atlantic Richfield and their contractors.

4.0 DEVIATIONS

Deviations to the QAPP are summarized below.

Deviation	Affect DQOs
Subsurface FPXRF samples were not sieved.	Results in qualified Screening quality data but is still usable data. Additionally, those samples are paired with laboratory total metals analysis so essentially there was no data gap or loss in quality of data available for decision making purposes.
Silicon Dioxide Standard (Blank) and CCS for FPXRF were not closed out on multiple days of analysis.	Qualified data as described in the DVR.
ABA analysis for archived core was completed by method EPA600/2-78-054 instead of Modified Sobek as identified in the QAPP.	EPA600/2-78-054 is known to have a great potential to overestimate the neutralization potential (NP) of a material, which affects the Acid Potential (AP)/NP ratio. This data set may not be as accurate as one generated from the Modified Sobek method. However, the data are still valuable for screening purposes.

5.0 REFERENCES

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FIGURES

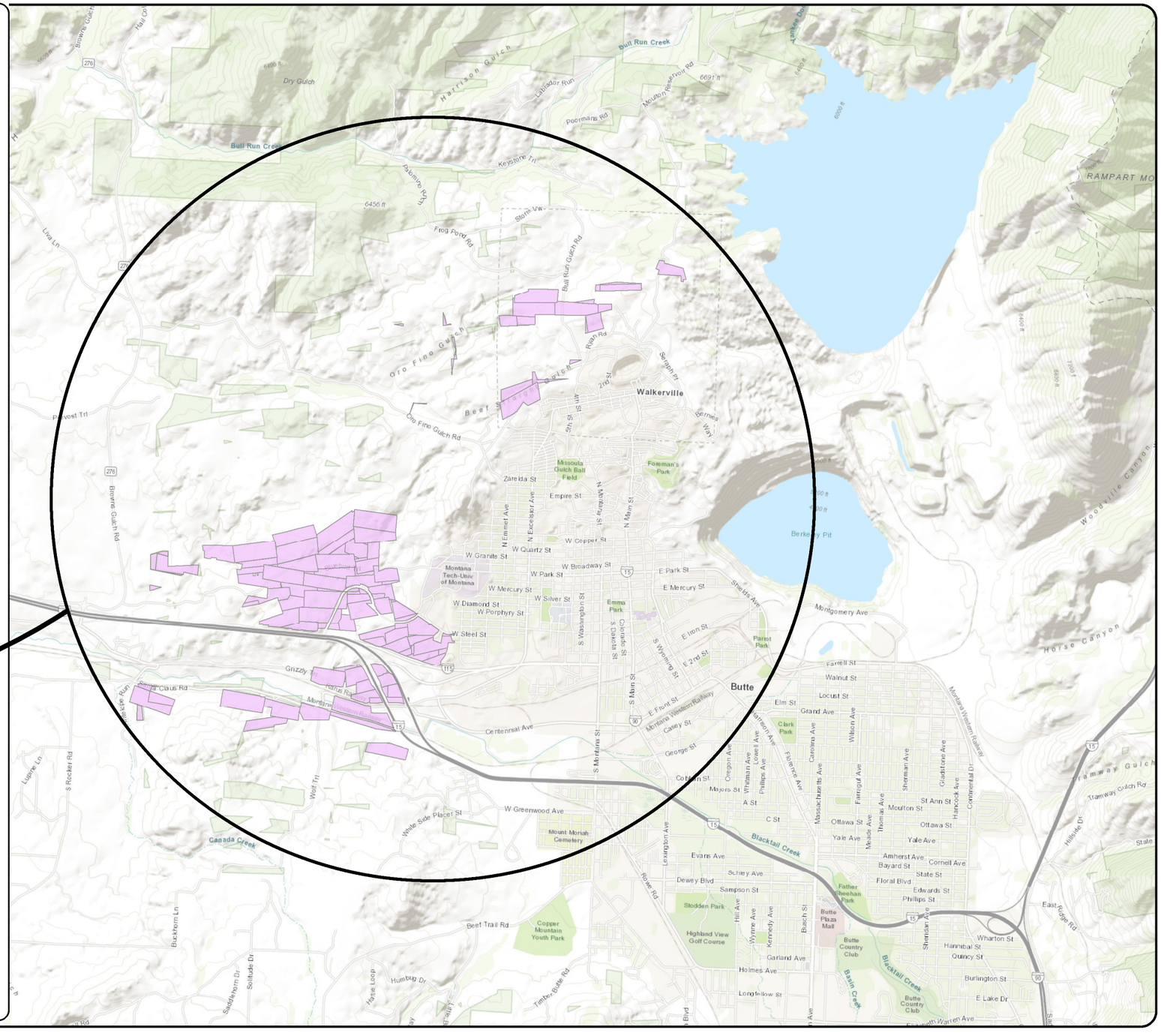

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FIGURE 1

WSS OU DSR
SITE LOCATION
MAP

PIONEER TECHNICAL SERVICES, INC.

DATE: 5/11/2022

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Claim Name	CDM ID No	Figure
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Union	0158	3
Remnant	0157	3
Daisy B	0153	3
Marget Ann	0162	3
Rescue	0160	3
Silver Lick	1137	3
Snow Drift	0122	4
Kerry	0123	4
Harkaway	0121	4
Oro Fino	0156	4
Glenggarry	0138	4
Valley Forge	0102	5
Sliver W. of Big Bonanza	1140	5
W. of Cheyenne	1142	5
sliver W of Little Annie	1143	5
E of Big Bonanza	1142	5
Sargeant	0111	6
Belcher	0350	6
Gulch	0130	6
Non Consolidated	0142	6
sliver near Houghton	1143	7
Charmmer	0019	8
Frances	0021	8
Violet	0020	8
Kit Carson	0017	8
Protection	0303	8
Convention	0293	8
Helen	0294	8
Myrtle	0292	8
West of Charmmer	1149	8
North of Mrytle	1149	8
Hibernia	0289	9
Horse Shoe	0290	9
Philadelphia	0296	9
General Washington	1150	9
Colonel Funston	0291	9
Creole	0286	10
Nettie	0288	10
Key West	0297	10
Sliver	0295	10
Burlington	0285	11
Fredonia	0299	11
Herbert	0306	11
Gus	0287	11
Cora No 2	0298	11
Independent	0246	12
Haakon	0256	12
North and West of Fairview	1144	12
Fair View	0249	12
Orphan Boy	0016	13
Milwaukee	0015	13
Georgie	0013	13
Cuneate	0014	13
Prospector	0012	13
Little Gem	0311	14
Uncle Sam	0312	14
Tom Haney	0300	14
Cora May	0307	14
Self Rising	0301	14
Last Chance B	0304	14
East of Herbert	1149	14
North of Self Rising	1149	14
James G.	0310	14
Nile	0319	15
St. Louis	0317	15
Missouri B	0321	15
United States	0320	15
Silver Cleft	0313	15
Garibaldi	0315	15
Lucky Seven	0314	15
St. Patrick A	0008	16
Katie T	0041	16
Minnie Jane	0010	16
North Pole	0038	16
Joseph Joyce	0037	16
Williamette	1131	16
Robert	0004	17
Silver Gate	0007	17
Germania	0043	17
Portland	0002	17
Humboldt	0003	17
Manhattan	0005	17
Mountain Boy	0006	17
Bessie Jay	1130	17
Tzarena	1045	17
Elba	0040	17
East of Mountain Boy	1145	17
Kcilb	0042	17
Helen Blazes	0607	18
Celestina	1101	18
Ettore	1017	18
Red Boulder	1138	18
Spur	1072	18
Eagle Bird	1016	18
Beratto Extension	1007	18
Tiger B	0302	18
New Moon	1033	18
Comstock	1012	18
Virgo	1114	19
Concentrator Placer	1116	19
Jewel	1115	19
Carrie	1113	19
Isele Placer	1117	20
Josiah	1118	20
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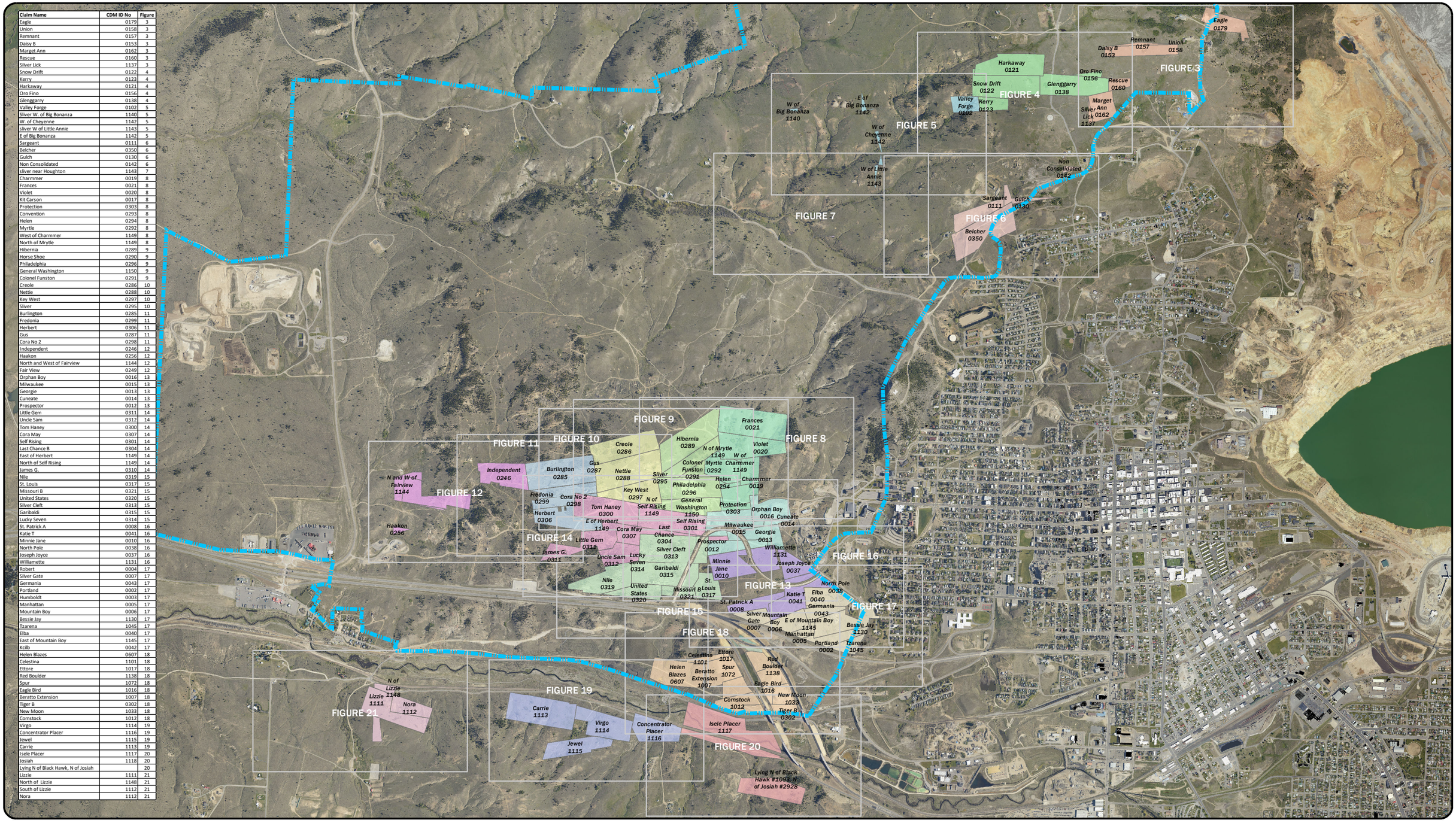

WSS MINE STUDY AREA
FIGURE LAYOUT

FIGURE 3 FIGURE 7 FIGURE 11 FIGURE 15 FIGURE 19
FIGURE 4 FIGURE 8 FIGURE 12 FIGURE 16 FIGURE 20
FIGURE 5 FIGURE 9 FIGURE 13 FIGURE 17 FIGURE 21
FIGURE 6 FIGURE 10 FIGURE 14 FIGURE 18

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FIGURE 2

PIONEER TECHNICAL SERVICES, INC.

WSS OU
DSR
FIGURE LAYOUT

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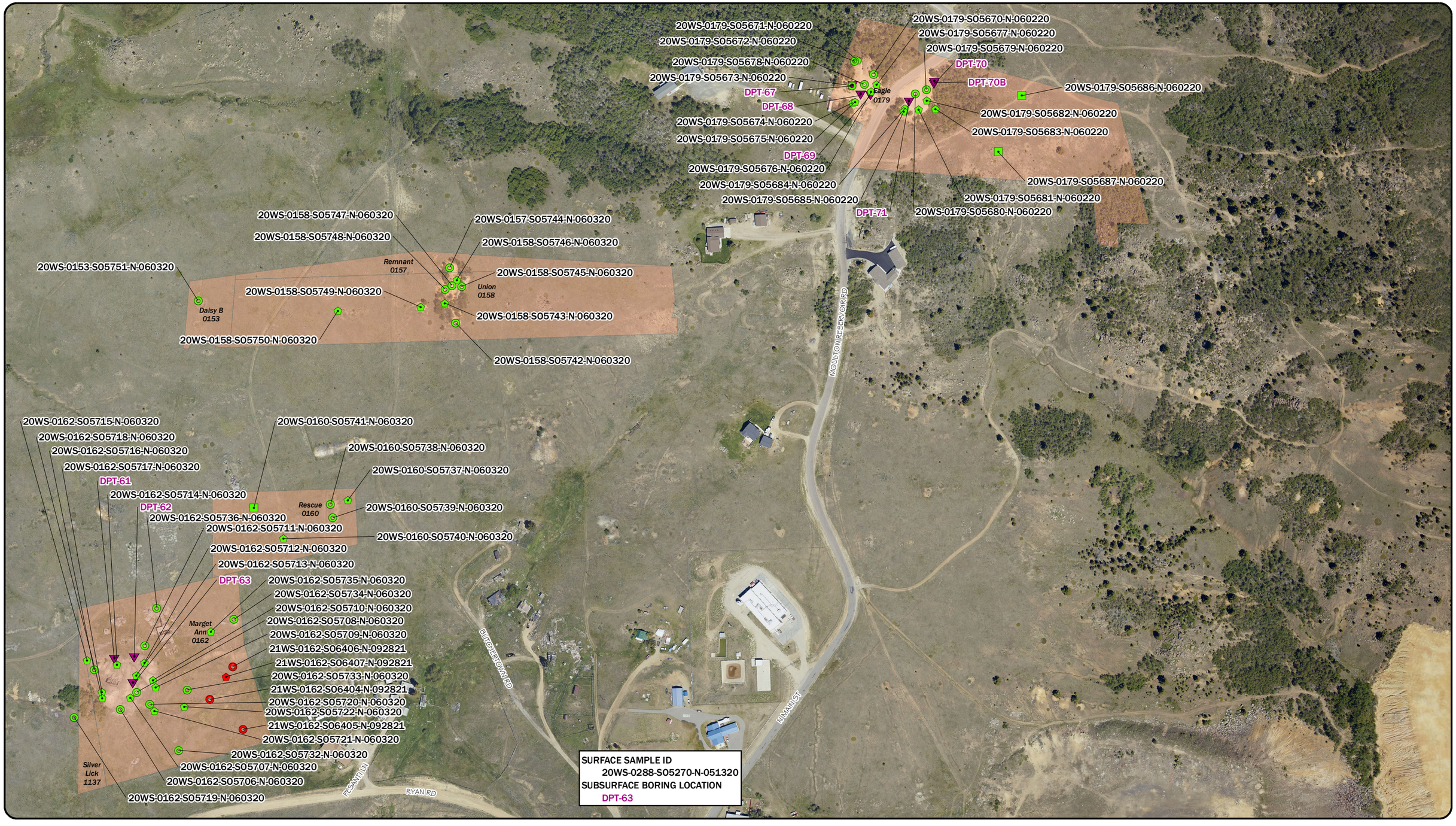

LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 3)

N

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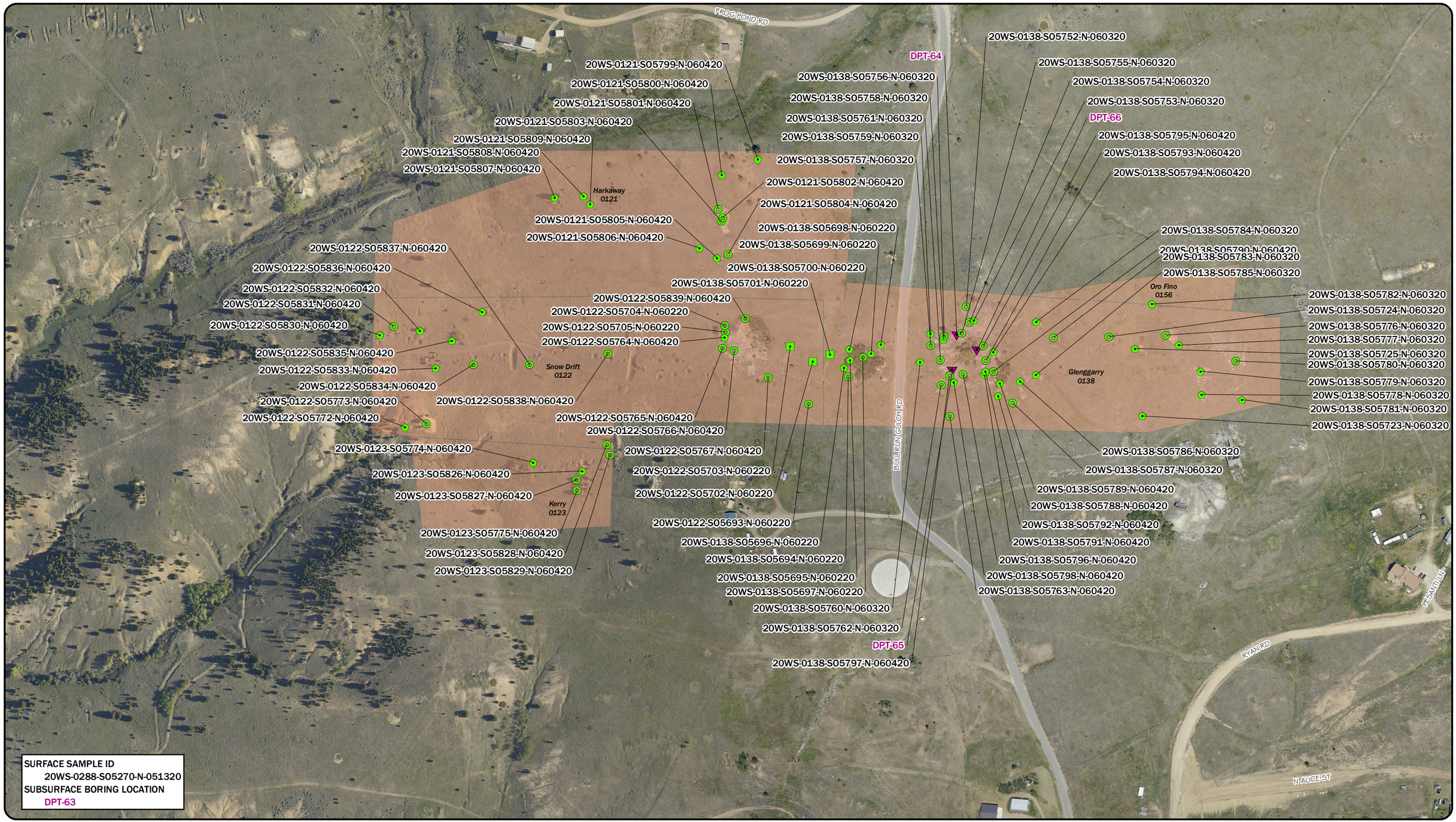
FIGURE 3

DRAFT WSSOU RI
SAMPLING DSR
SAMPLE LOCATIONS

PIONEER TECHNICAL SERVICES, INC.

DATE: 4/28/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_003_22.mxd



LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 4)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

FIGURE 4

PIONEER TECHNICAL SERVICES, INC.

DRAFT WSSOU RI SAMPLING DSR SAMPLE LOCATIONS

DATE: 6/20/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_004_22.mxd

LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 5)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

FIGURE 5

PIONEER TECHNICAL SERVICES, INC.

DRAFT WSSOU RI SAMPLING DSR SAMPLE LOCATIONS

DATE: 5/5/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_005_22.mxd

20WS-0142-S05692-N-060220
20WS-0142-S05691-N-060220
20WS-0142-S05690-N-060220
20WS-0142-S05688-N-060220
20WS-0142-S05689-N-060220
Non Consolidated
0142
BULL RUN GULCH RD
WILLIAMS ST
Alice Overlook
20WS-0111-S05726-N-060220
20WS-0111-S05650-N-060220
Gulch
0130
20WS-0111-S05643-N-060220
20WS-0350-S05633-N-060220
20WS-0350-S05840-N-060420
KNOB HL
Sargeant
0111
20WS-0350-S05634-N-060220
20WS-0350-S05635-N-060220
20WS-0350-S05649-N-060220
20WS-0350-S05648-N-060220
20WS-0111-S05644-N-060220
20WS-0350-S05647-N-060220
20WS-0350-S05646-N-060220
20WS-0350-S05645-N-060220
RYAN RD
Belcher
0350
20WS-0350-S05636-N-060220
20WS-0350-S05637-N-060220
20WS-0350-S05841-N-060420
20WS-0350-S05638-N-060220
HARRISON ST
NORTH ST
20WS-0350-S05639-N-060220
6th ST
W DALY ST
5th ST
TELLURIDE RDG
RISING STAR RD
20WS-0350-S05640-N-060220
20WS-0350-S05641-N-060220
20WS-0350-S05642-N-060220
TRANSIT ST
5th St
MISSOULA ST
WALKERVILLE DR
GARFIELD ST
BLAINE AVE

SURFACE SAMPLE ID
20WS-0288-S05270-N-051320
SUBSURFACE BORING LOCATION
DPT-63

LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 6)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

FIGURE 6

PIONEER TECHNICAL SERVICES, INC.

DRAFT WSSOU RI SAMPLING DSR SAMPLE LOCATIONS

DATE: 5/3/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_006_22.mxd

LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 7)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

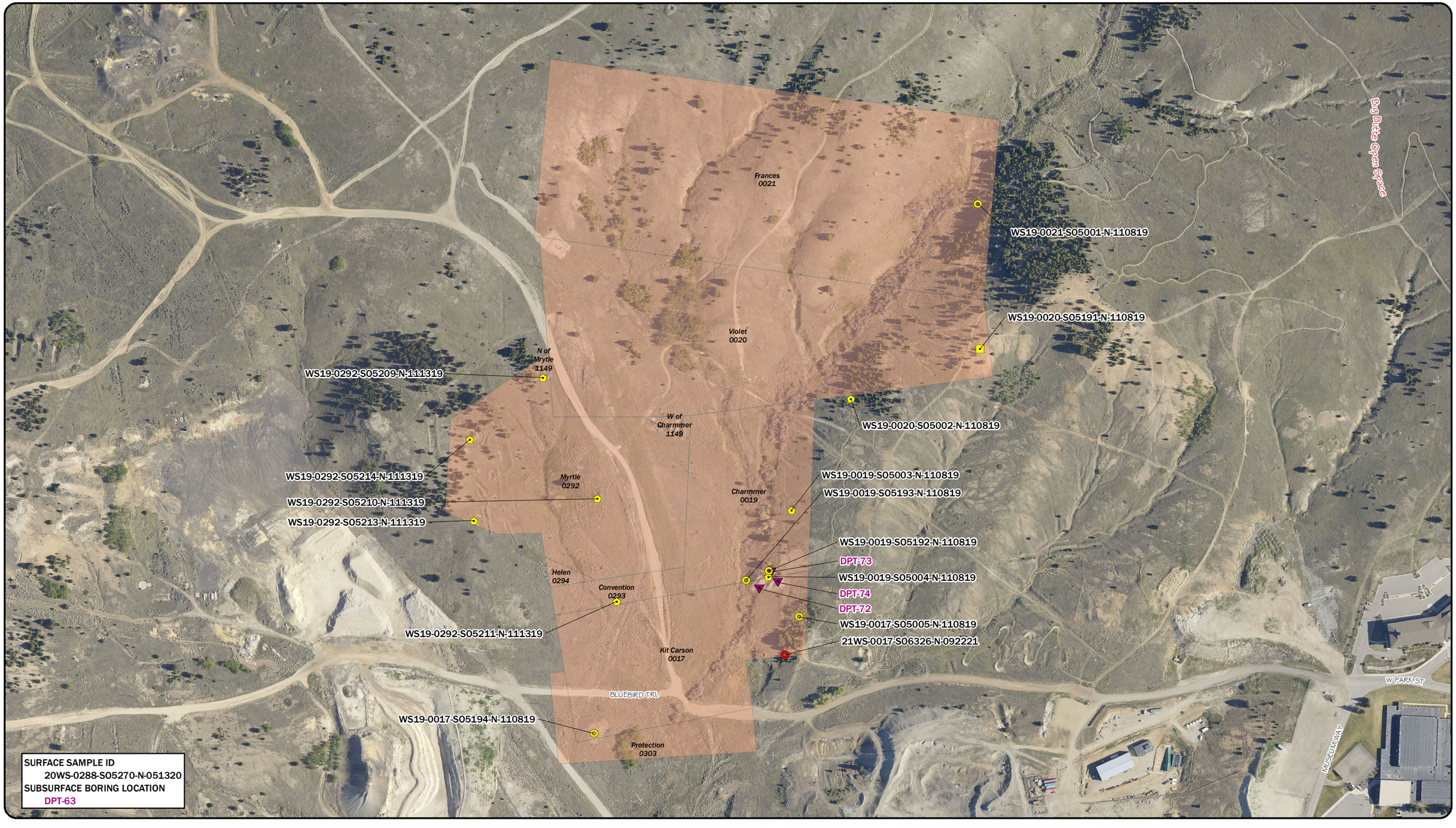
FIGURE 7

PIONEER TECHNICAL SERVICES, INC.

DRAFT WSSOU RI SAMPLING DSR SAMPLE LOCATIONS

DATE: 5/3/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_007_22.mxd



LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 8)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

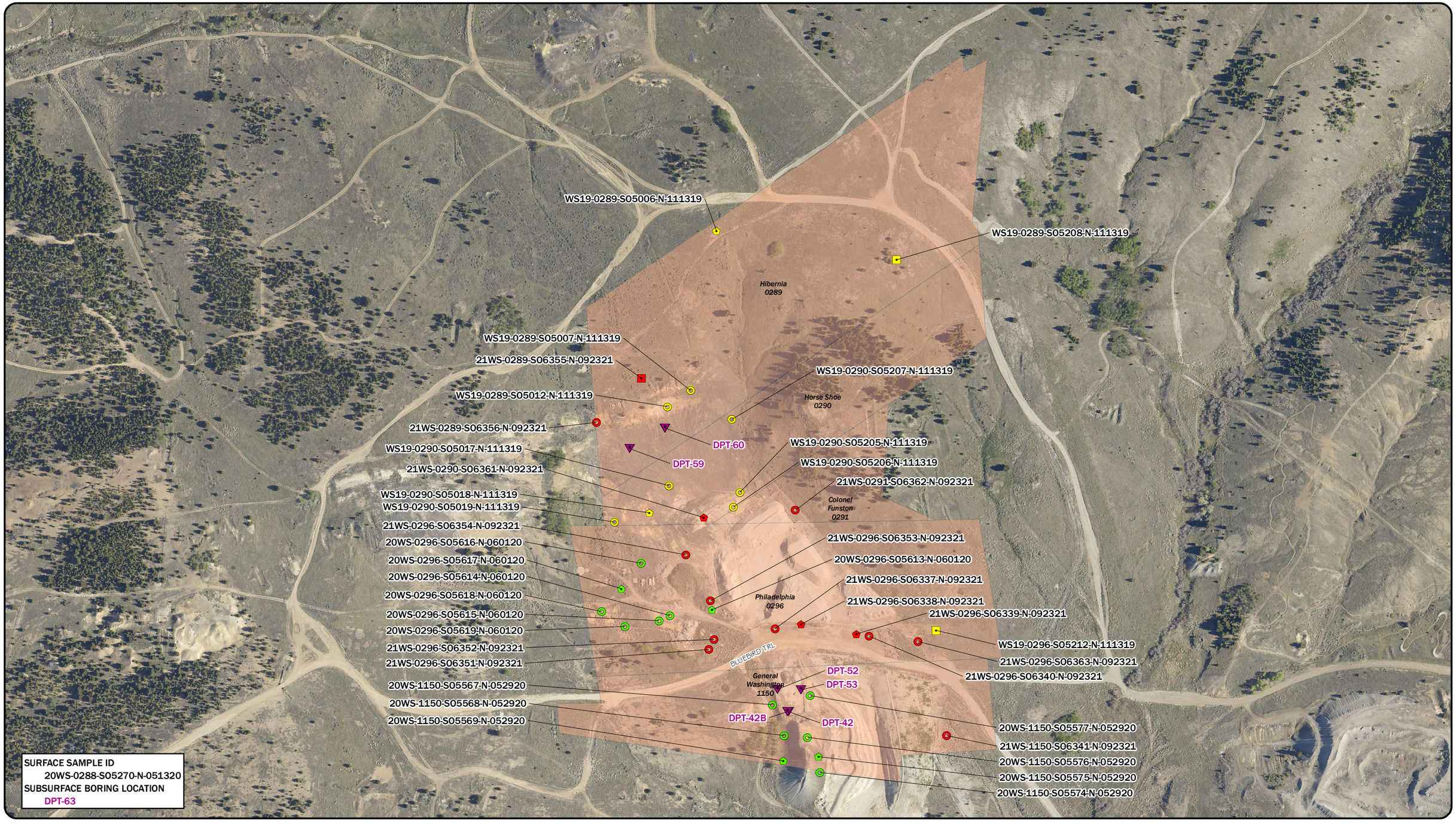
FIGURE 8

PIONEER TECHNICAL SERVICES, INC.

DRAFT WSSOU RI SAMPLING DSR SAMPLE LOCATIONS

DATE: 5/3/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_008_22.mxd



LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 9)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

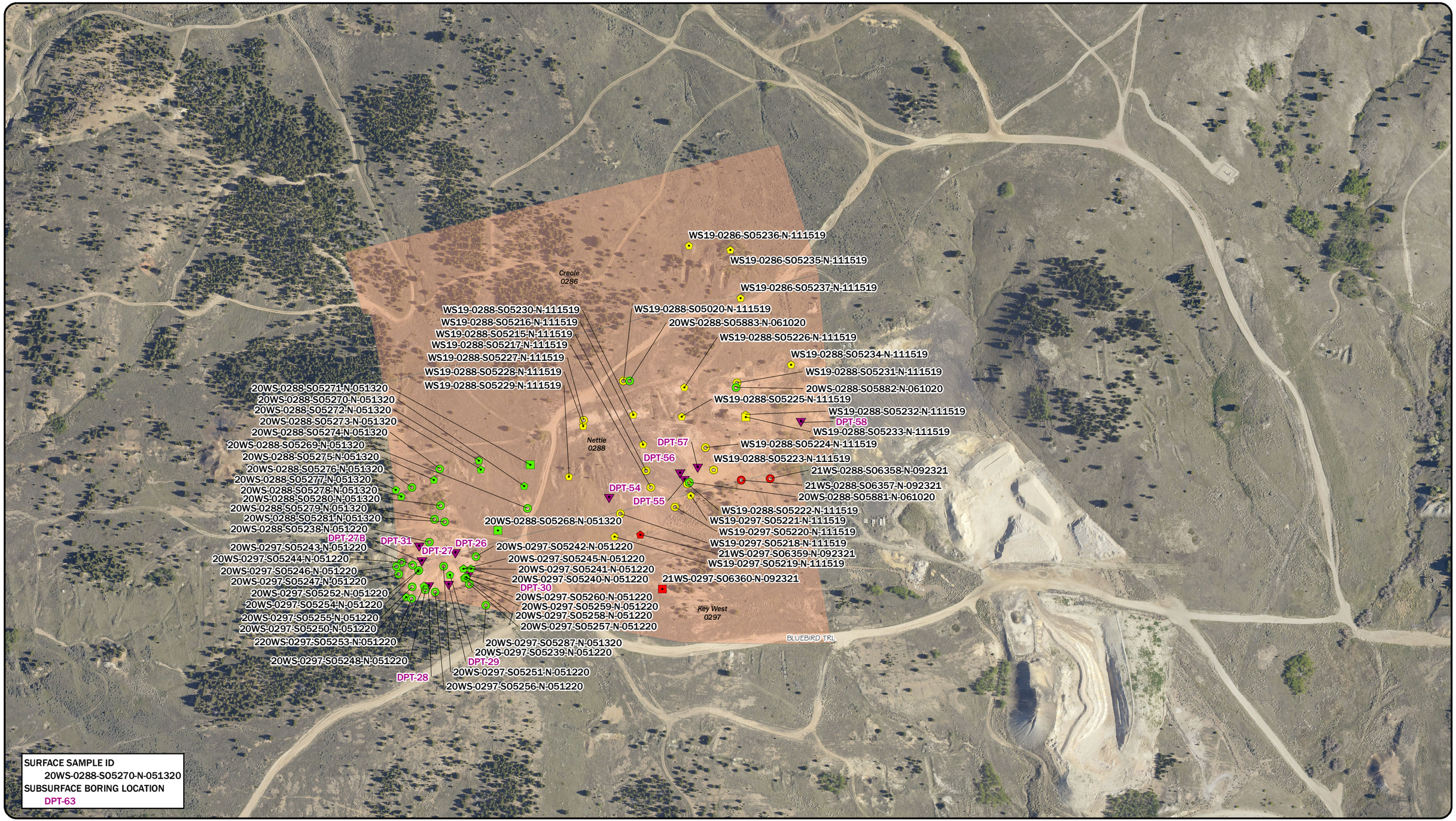
FIGURE 9

PIONEER TECHNICAL SERVICES, INC.

DRAFT WSSOU RI SAMPLING DSR SAMPLE LOCATIONS

DATE: 5/16/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_009_22.mxd



LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 10)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

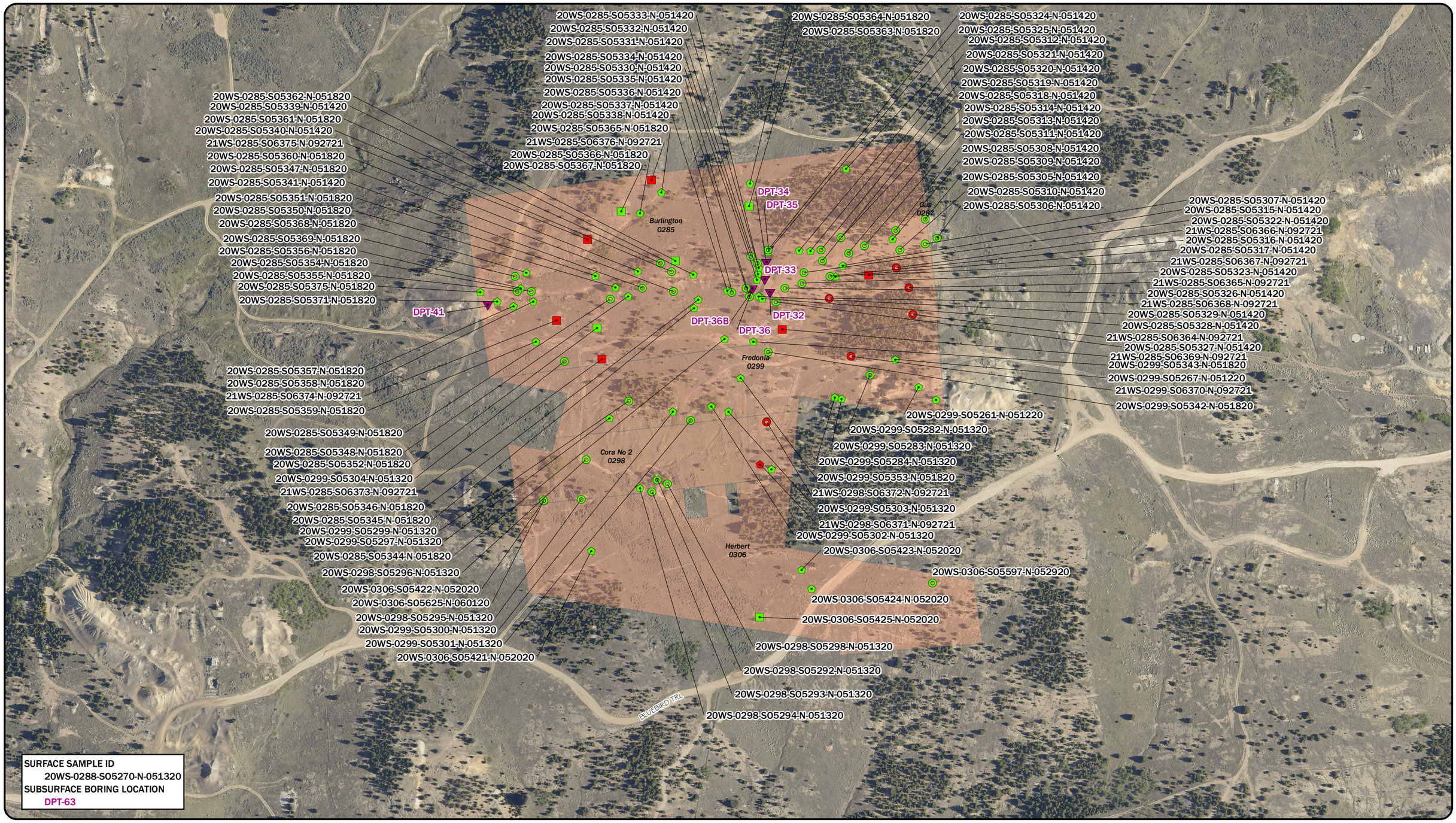
FIGURE 10

PIONEER TECHNICAL SERVICES, INC.

DRAFT WSSOU RI SAMPLING DSR SAMPLE LOCATIONS

DATE: 5/2/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_010_22.mxd



LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 11)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

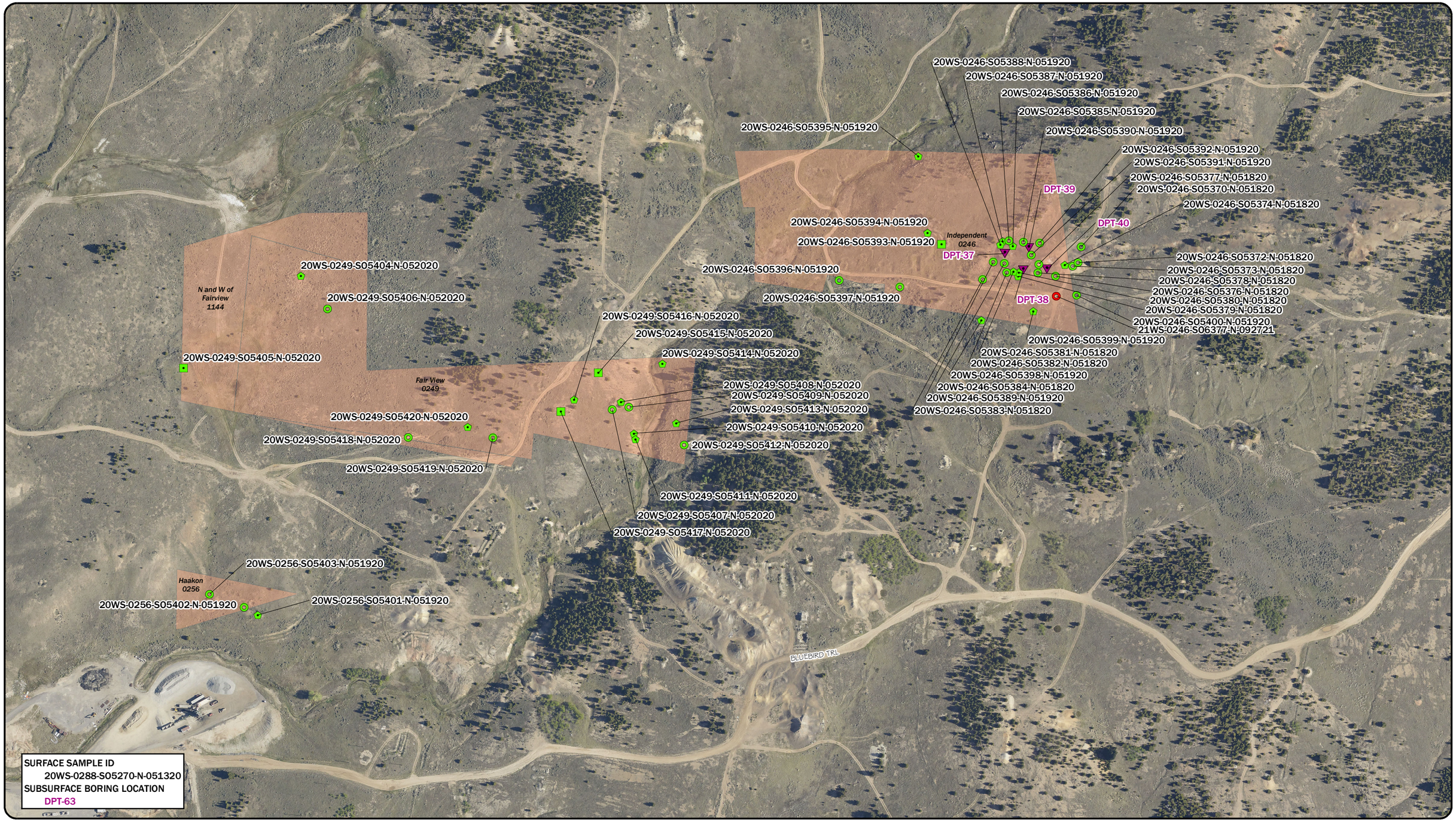
FIGURE 11

PIONEER TECHNICAL SERVICES, INC.

DRAFT WSSOU RI
SAMPLING DSR
SAMPLE LOCATIONS

DATE: 5/16/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_011_22.mxd



LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 12)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

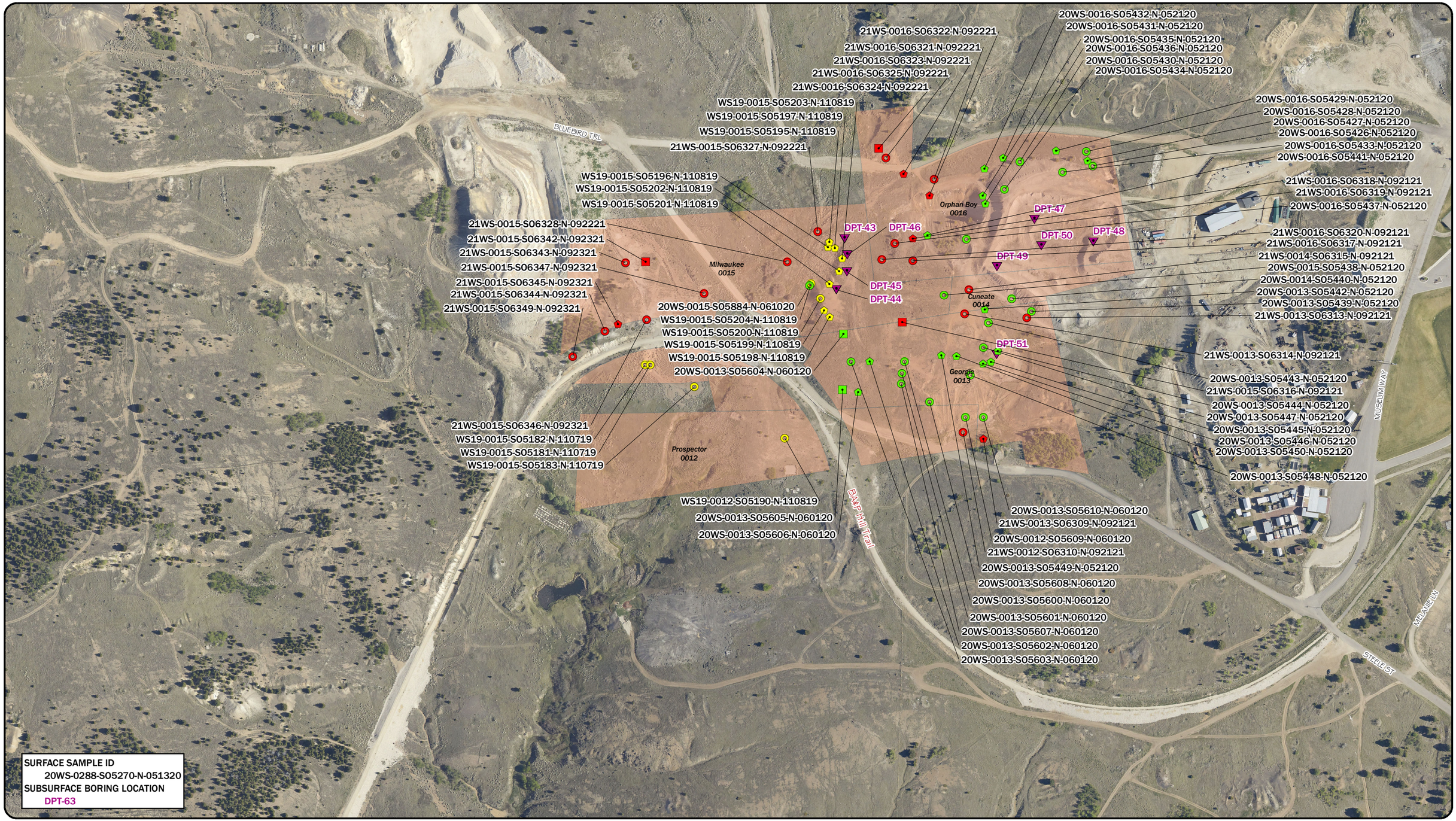
FIGURE 12

PIONEER TECHNICAL SERVICES, INC.

DRAFT WSSOU RI SAMPLING DSR SAMPLE LOCATIONS

DATE: 5/3/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_012_22.mxd



LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 13)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

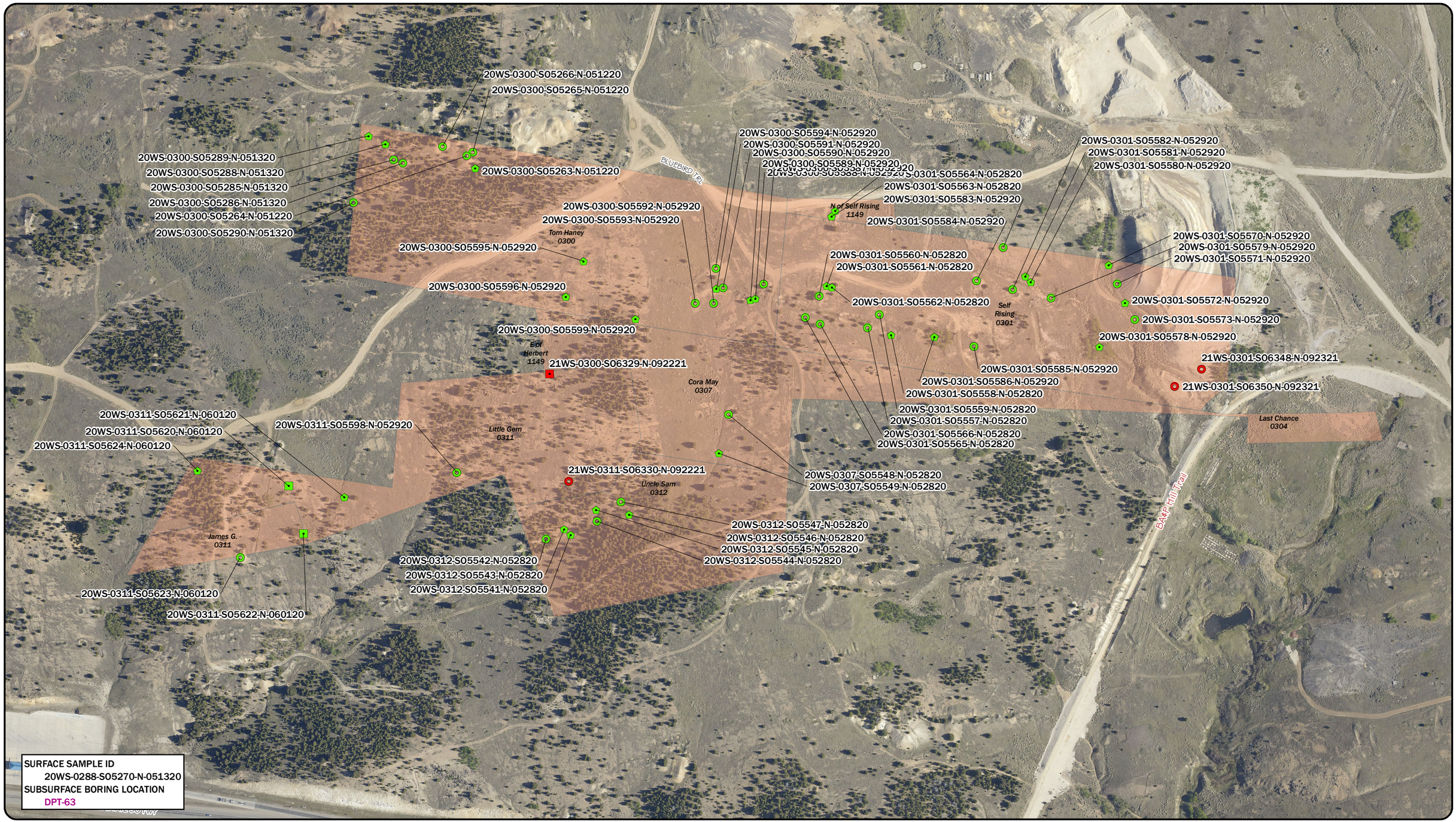
FIGURE 13

PIONEER TECHNICAL SERVICES, INC.

DRAFT WSSOU RI SAMPLING DSR SAMPLE LOCATIONS

DATE: 5/3/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_013_22.mxd



LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 14)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

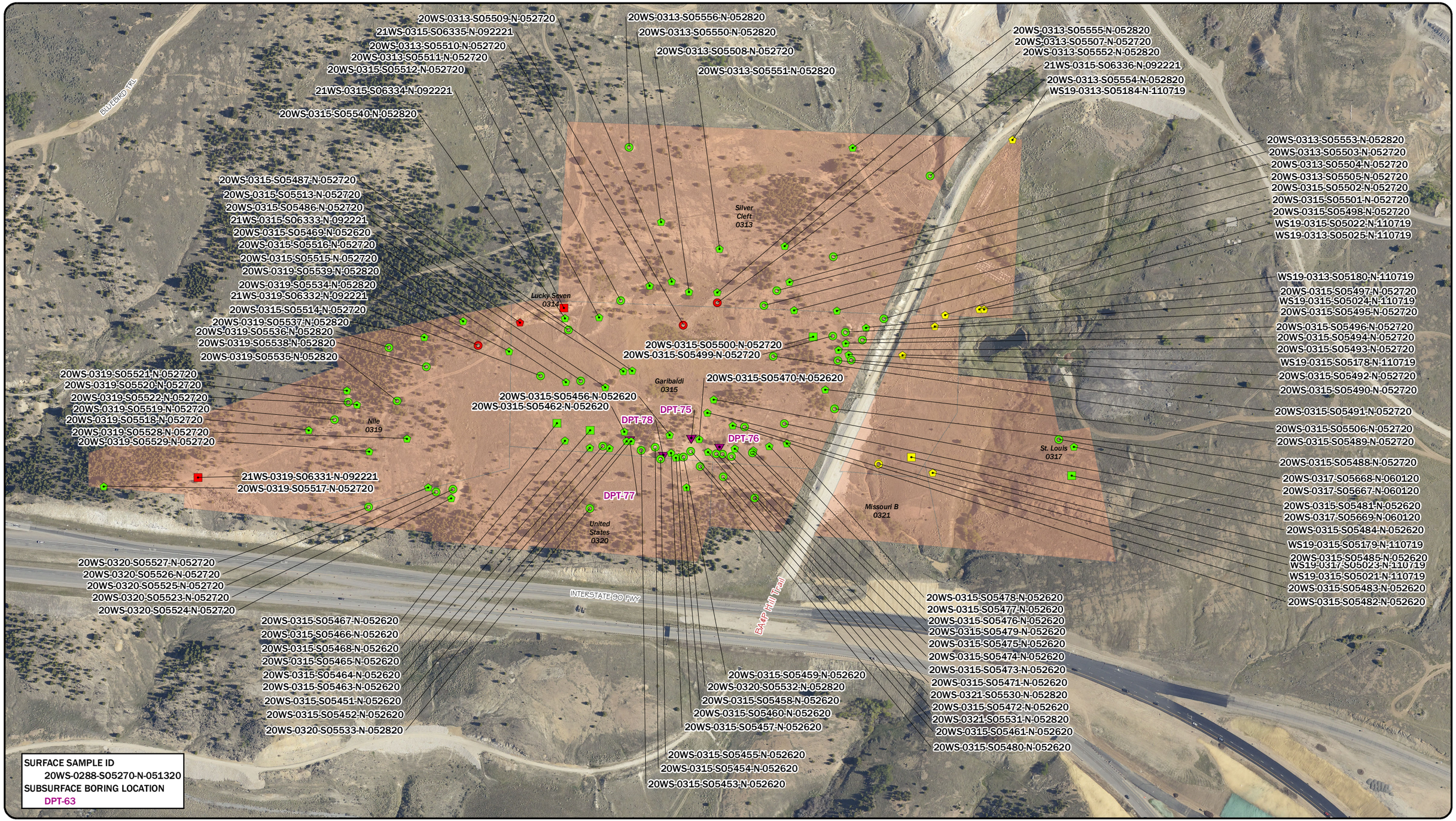
FIGURE 14

DRAFT WSSOU RI
SAMPLING DSR
SAMPLE LOCATIONS

PIONEER TECHNICAL SERVICES, INC.

DATE: 5/5/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_014_22.mxd



LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 15)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

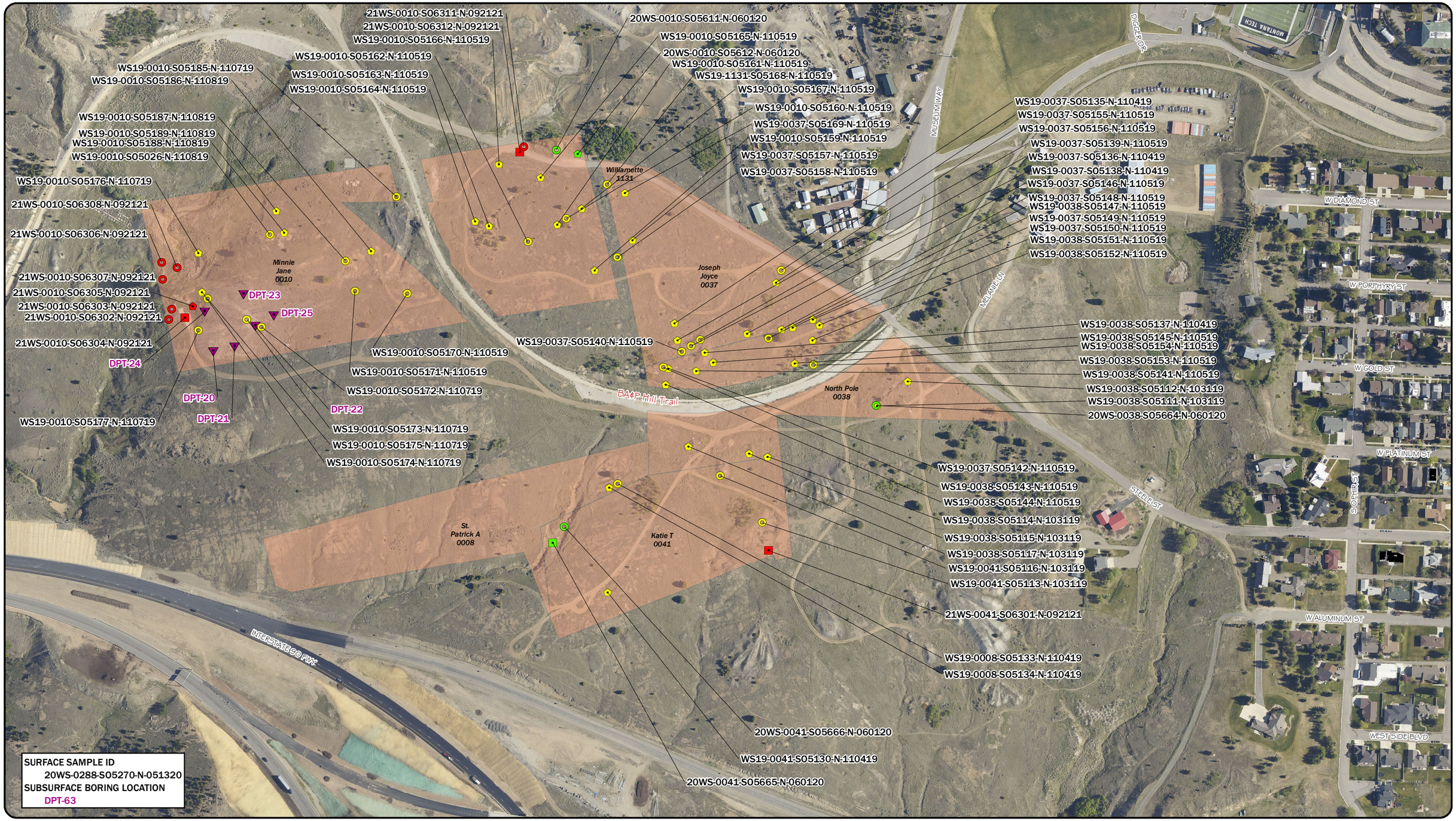
FIGURE 15

PIONEER TECHNICAL SERVICES, INC.

DRAFT WSSOU RI SAMPLING DSR SAMPLE LOCATIONS

DATE: 5/4/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_015_22.mxd



LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 16)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

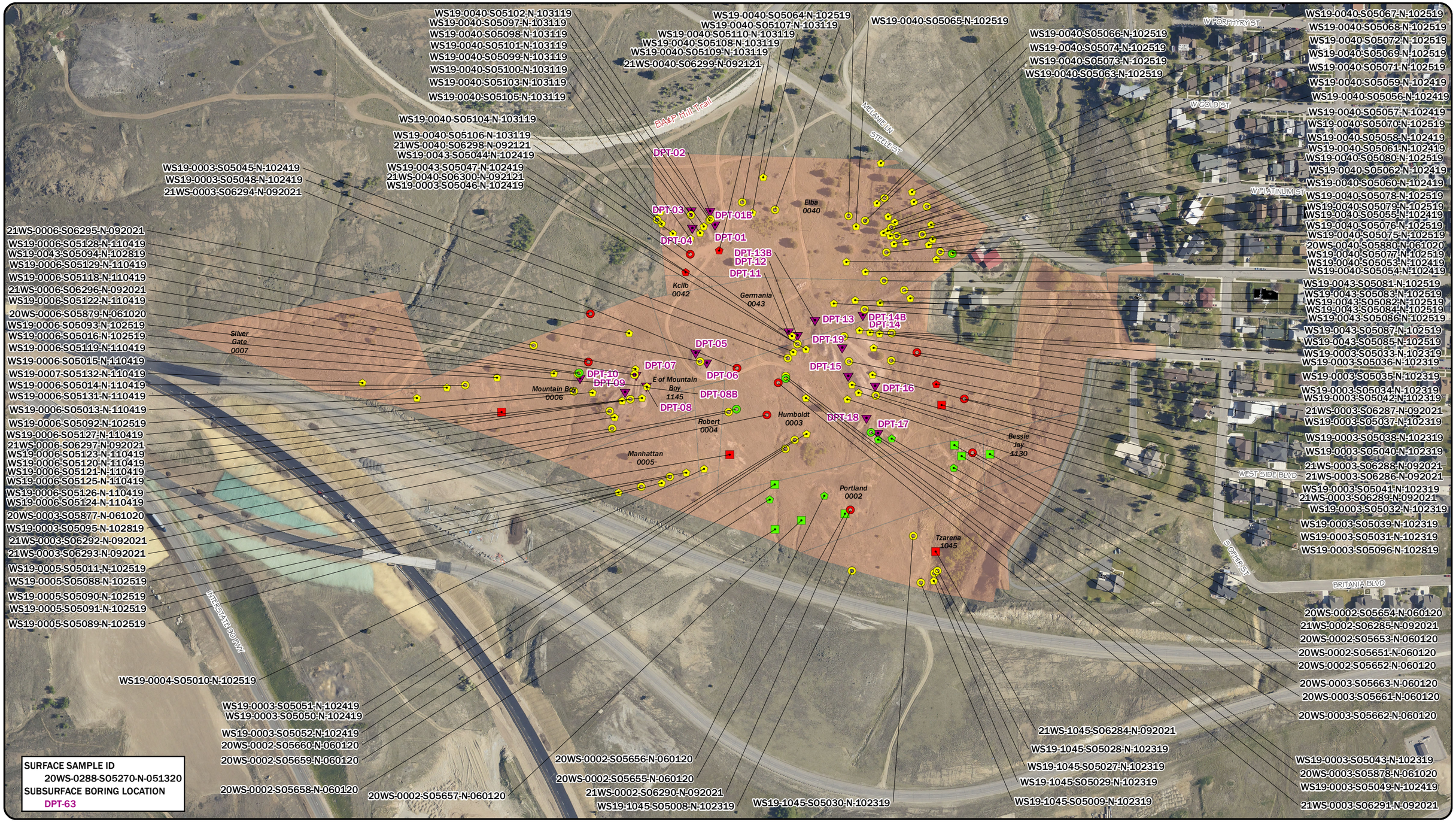
FIGURE 16

PIONEER TECHNICAL SERVICES, INC.

DRAFT WSSOU RI SAMPLING DSR SAMPLE LOCATIONS

DATE: 5/3/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_016_22.mxd



LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 17)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

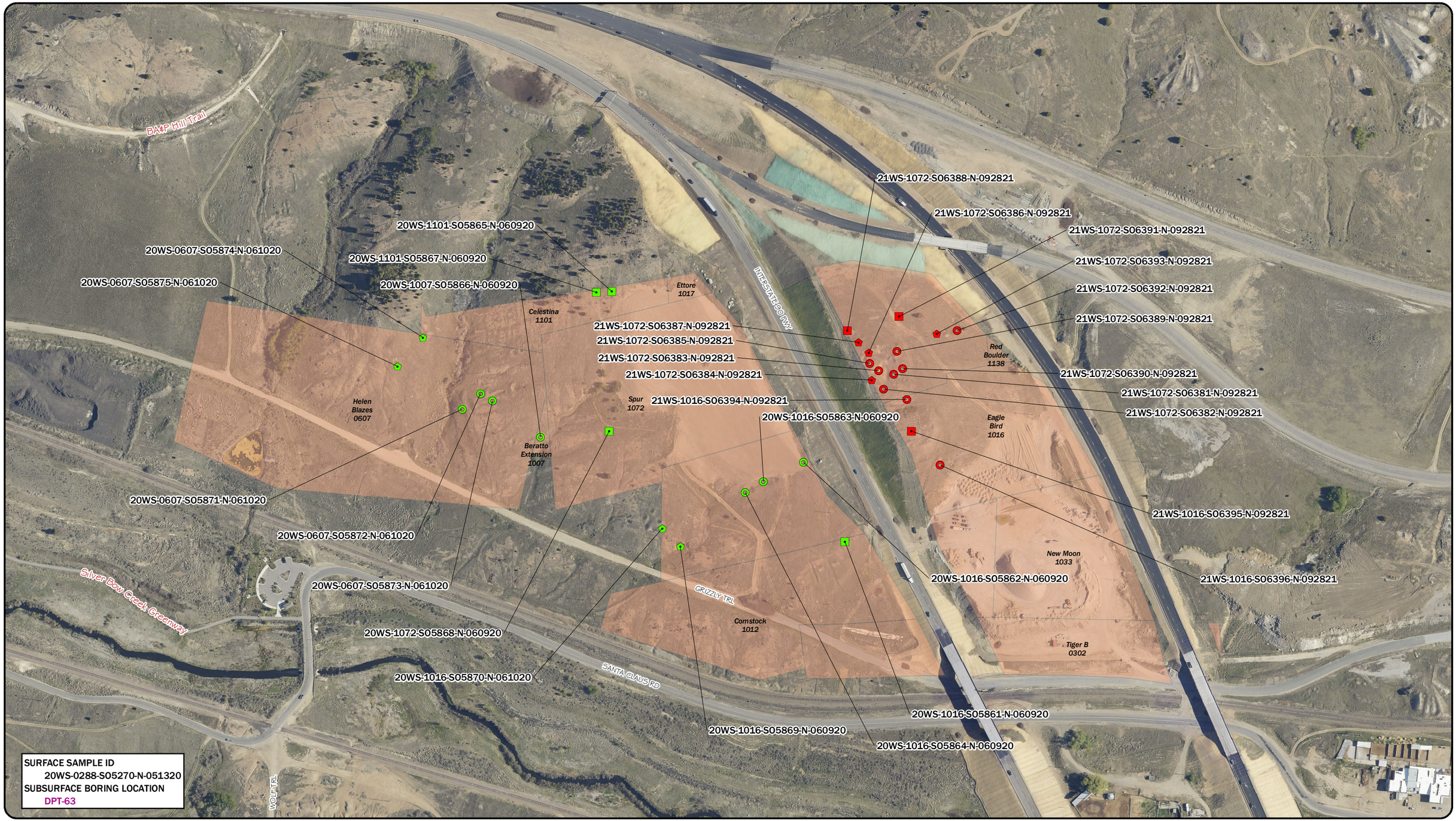
FIGURE 17

PIONEER TECHNICAL SERVICES, INC.

DRAFT WSSOU RI SAMPLING DSR SAMPLE LOCATIONS

DATE: 5/3/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_017_22.mxd



LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 18)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

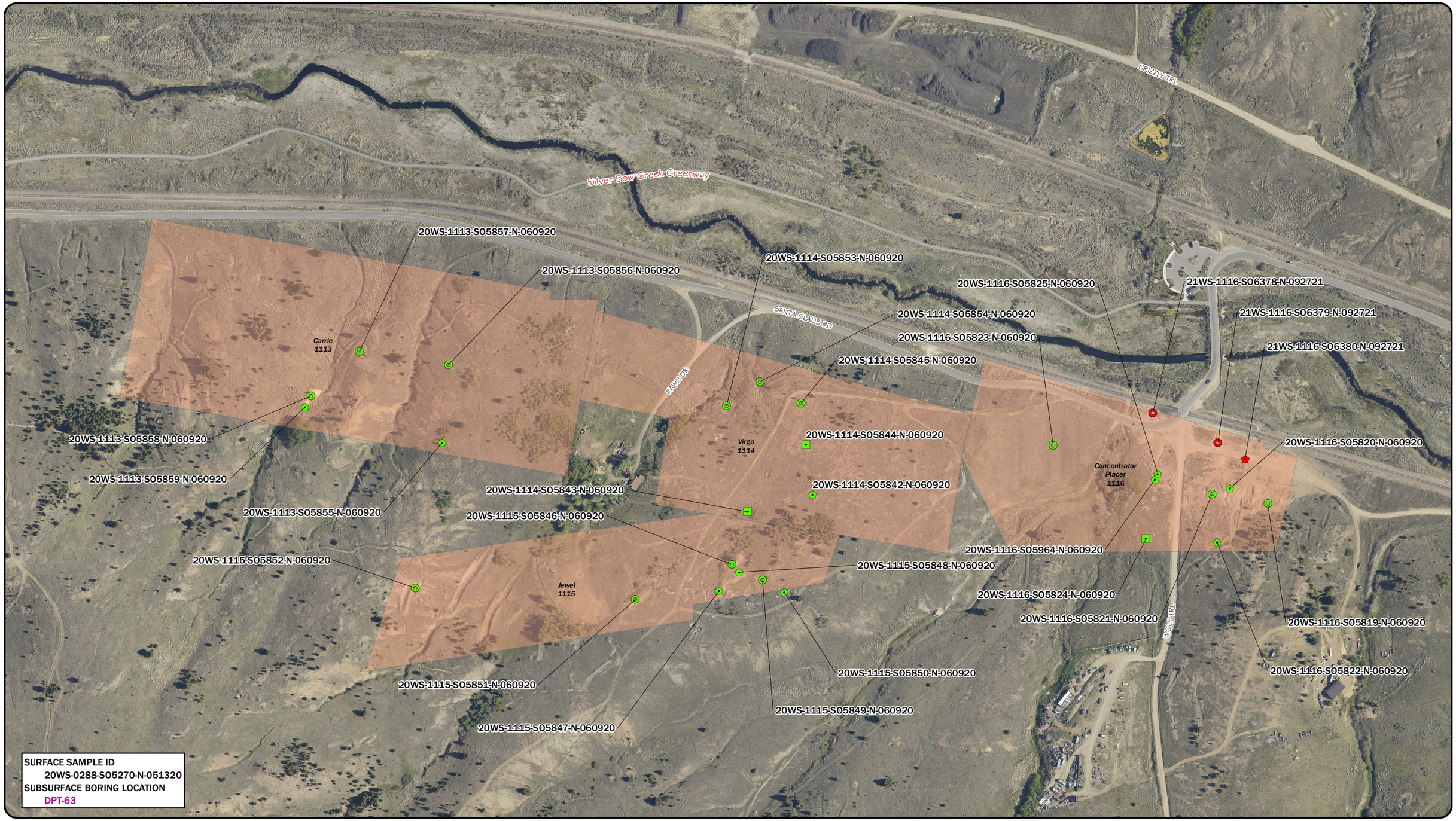
FIGURE 18

DRAFT WSSOU RI SAMPLING DSR SAMPLE LOCATIONS

PIONEER TECHNICAL SERVICES, INC.

DATE: 5/5/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_018_22.mxd



LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 19)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

FIGURE 19

PIONEER TECHNICAL SERVICES, INC.

DRAFT WSSOU RI SAMPLING DSR SAMPLE LOCATIONS

DATE: 5/2/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_019_22.mxd

Silver Bow Creek Greenway
SANTA CLAUS RD
GRIZZLY TRL
S EXCELSIOR AVE
CENTENNIAL AVE
WOLF TRL
INTERSTATE 90 FWY
Isele Placer 1117
Lying N of Black Hawk #1093, N of Josiah #2928
Josiah 1118
20WS-1118-S05818-N-060920
20WS-1118-S05817-N-060920
20WS-1118-S05816-N-060920
20WS-1118-S05815-N-060920
20WS-1118-S05813-N-060920
20WS-1118-S05814-N-060920
20WS-1118-S05812-N-060920
20WS-1118-S05811-N-060920
20WS-1118-S05810-N-060920
SURFACE SAMPLE ID
20WS-0288-S05270-N-051320
SUBSURFACE BORING LOCATION
DPT-63

LEGEND
2019 COMPOSITE SAMPLE LOCATION
2020 COMPOSITE SAMPLE LOCATION
2021 COMPOSITE SAMPLE LOCATION
2019 GRAB SAMPLE LOCATION
2020 GRAB SAMPLE LOCATION
2021 GRAB SAMPLE LOCATION
2019 OBSERVED PHYSICAL FEATURE
2020 OBSERVED PHYSICAL FEATURE
2021 OBSERVED PHYSICAL FEATURE
2020 SUBSURFACE SAMPLE LOCATION
MINING CLAIMS (FIGURE 20)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020
0 150 300 600
Feet

FIGURE 20

PIONEER TECHNICAL SERVICES, INC.

DRAFT WSSOU RI SAMPLING DSR SAMPLE LOCATIONS

DATE: 5/2/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_020_22.mxd

LEGEND

- 2019 COMPOSITE SAMPLE LOCATION
- 2020 COMPOSITE SAMPLE LOCATION
- 2021 COMPOSITE SAMPLE LOCATION
- 2019 GRAB SAMPLE LOCATION
- 2020 GRAB SAMPLE LOCATION
- 2021 GRAB SAMPLE LOCATION
- 2019 OBSERVED PHYSICAL FEATURE
- 2020 OBSERVED PHYSICAL FEATURE
- 2021 OBSERVED PHYSICAL FEATURE
- 2020 SUBSURFACE SAMPLE LOCATION
- MINING CLAIMS (FIGURE 21)

N

DISPLAYED AS:
PROJECTION/ZONE: MSP
DATUM: NAD 83
UNITS: INTN'L FT
SOURCE: PIONEER/QSI 2020

0 150 300 600
Feet

FIGURE 21

PIONEER TECHNICAL SERVICES, INC.

DRAFT WSSOU RI SAMPLING DSR SAMPLE LOCATIONS

DATE: 5/16/2022

Path: Z:\Shared\Active Projects\ARCO\WSSOU\GIS\RI_DSR\WSS_RI_DSR_021_22.mxd

TABLES

Table 1: Atlantic Richfield Owned Mining Claims Summary

Claim Name	CDM Claim Number	Whole/Paritially Owned (W/P)	Primary/Secondary Claim (P/S)	Comments	Sites Visited (Surface sites Visited)	DPT Boreholes
Belcher	350	W	P		17	
Beratto Extension	1007	P	See Comments	Included with Helen Blazes	1	
Bland	188	W	See Comments	Parcel is entirely within Butte Mine Flood Operabale Unit (BMFOU) and is addressed under BMFOU remedies .		
Burlington	285	W	P		74	6
Carrie	1113	W	S		5	
Celestina	1101	W	S		2	
Charmmer	19	P	S		4	1
Concentrator Placer	1116	P	S		11	
Colonel Funston	291	W	S		1	
Comstock	1012	P	S			
Con. Virginia	1103	W	See Comments	Inlcuded with Myrtle		
Convention	293	W	See Comments	Inlcuded with Myrtle		
Cora May	307	W	S		2	
Cora No. 2	298	W	P		10	
Creole	286	W	S		3	
Cuneate	14	W	P		2	
Daisy B	153	W	S		1	
E of Big Bonanza	1142	W	S		1	
W. of Cheyenne	1142	W	S		1	
Eagle	179	P	P		18	5
Eagle Bird	1016	P	S	Portion of claim west of Interstate 90 covered with construction spoils	9	
Elba	40	W	P		46	4
Ettore	1017	P	S			
Excelsior B	167	W	S			
Fair View	249	P	S		17	
Frances	21	W	S		1	
Fredonia	299	W	P		16	
Garibaldi	315	W	P		68	4
General Washington	1150	W	P		8	3

Table 1: Atlantic Richfield Owned Mining Claims Summary

Claim Name	CDM Claim Number	Whole/Paritially Owned (W/P)	Primary/Secondary Claim (P/S)	Comments	Sites Visited (Surface sites Visited)	DPT Boreholes
Georgie	13	W	P		23	1
Germania	43	P	P		10	6
Glengarry	138	W	P		46	3
Gulch	130	P	S		5	
Gus	287	W	See Comments	Included with Burlington		
Haakon	256	P	S		3	
Harkaway	121	W	S		11	
Helen	294	W	See Comments	Inlcuded with Myrtle		
Helen Blazes	607	P	S		5	
Herbert	306	W	S		7	
Hibernia	289	P	P		6	2
Horse Shoe	290	W	P		7	
Humboldt	3	W	P		36	5
Independent	246	W	P		30	4
Isele Placer	1117	W	See Comments	This parcel is entirely within Reach A of Stream Side Tailings Operable Unit (SSTOU).		
J.H.C. No. 2 Fraction	199	W	See Comments	Parcel is entirely within Butte Mine Flood Operabale Unit (BMFOU) and is addressed under BMFOU remedies .		
James G.	310	P	S			
Jewel	1115	W	P		7	
Joseph Joyce	37	P	P		15	
Josiah	1118	W	S		9	
Kcilb	42	W	See Comments	Included with Elba		
Katie T	41	W	S		6	
Katy Morris	1106	P	See Comments	Included with Spur		
Kerry	123	P	S		6	
Key West	297	W	P		29	5
Kit Carson	17	P	P		3	2
Last Chance B	304	W	S			
Little Gem	311	P	S		7	
Lizzie	1111	W	S		7	
Lucky Seven	314	W	See Comments	Included with Garibaldi		
Manhattan	5	P	S		5	
Marget Ann	162	P	P		26	3
Milwaukee	15	W	P		25	4

Table 1: Atlantic Richfield Owned Mining Claims Summary

Claim Name	CDM Claim Number	Whole/Paritially Owned (W/P)	Primary/Secondary Claim (P/S)	Comments	Sites Visited (Surface sites Visited)	DPT Boreholes
Minnie Irvine	398	W	See Comments	Parcel is entirely within Butte Priority Soils Operable Unit (BPSOU) and will be addressed under BPSOU remedies.		
Minnie Jane	10	P	P		34	6
Missouri B	321	W	S		2	
Mountain Boy	6	P	P		23	4
Myrtle	292	W	S		5	
Nettie	288	W	P		37	6
New Moon	1033	P	S	Entire parcel has been disturbed and coverd with interstate construction activity.		
Nile	319	P	S		16	
Non Consolidated	142	W	S		5	
Nora	1112	P	S		1	
North Pole	38	P	P		16	
Oro Fino	156	W	S			
Orphan Boy	16	P	P		22	4
Philadelphia	296	W	P		17	
Plover No. 1	192	W	See Comments	Parcel is entirely within Butte Priority Soils Operable Unit (BPSOU) and will be addressed under BPSOU remedies.		
Portland	2	P	S		11	
Prospector	12	W	P		3	
Protection	303	W	S			
Remnant	157	W	S		1	
Rescue	160	W	S		5	
Robert	4	W	S		1	
Sargeant	111	W	S		4	
Saved	1042	P	See Comments	Included with Helen Blazes		
Self Rising	301	W	S		25	
Sliver	295	W	See Comments	Included with Nettie		
Silver Cleft	313	W	S		18	
Silver Gate	7	P	S		1	

Table 1: Atlantic Richfield Owned Mining Claims Summary

Claim Name	CDM Claim Number	Whole/Paritially Owned (W/P)	Primary/Secondary Claim (P/S)	Comments	Sites Visited (Surface sites Visited)	DPT Boreholes
sliver near Houghton	1143	W	S		1	
sliver W of Little Annie	1143	W	S		3	
Snow Drift	122	P	P		21	
Spur	1072	P	P		14	
St. Louis	317	W	S		4	
St. Patrick A	8	W	S		2	
St. Patrick B.	178	W	S			
Tiger B	302	P	S			
Tom Haney	300	W	P		21	
Tzarena	1045	P	S		7	
Uncle Sam	312	W	S		7	
Union	158	W	P		8	
United States	320	P	S		7	
Valley Forge	102	W	P		6	
Violet	20	W	S		2	
Sliver W. of Big Bonanza	1140	W	S		1	
Williamette	1131	W	S		1	
Virgo	1114	P	S		6	

Table 2: Surface Soils Sampling Collection Summary

SAMPLE # (SO)	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Field Soil pH (s.u.)	XRF	Metals	SPLP	ABA	MIS	IVBA	Sample Type	Mn staining	Fe staining	NOTES	LAB SAMPLE FIELD ID
5001	WS19-0021-SO5001-N-110819	11/8/2019	1245	0021	Frances	5.95	1						5-point	Low	Moderate		
5002	WS19-0020-SO5002-N-110819	11/8/2019	1300	0020	Violet	8.32							Grab	None	NR		
5003	WS19-0019-SO5003-N-110819	11/8/2019	1325	0019	Charmmer	8.57							Grab	Low	NR		
5004	WS19-0019-SO5004-N-110819	11/8/2019	1345	0019	Charmmer	8.46							Grab	Low	NR		
5005	WS19-0017-SO5005-N-110819	11/8/2019	1410	0017	Kit Carson	5.30	1						5-point	High	NR		
5006	WS19-0289-SO5006-N-111319	11/13/2019	1005	0289	Hibernia	7.32							Grab	None	Low		
5007	WS19-0289-SO5007-N-111319	11/13/2019	1030	0289	Hibernia	6.60	1						5-point	High	NR		
5008	WS19-1045-SO5008-N-102319	10/23/2019	1050	1045	Tzarena	NR		1					5-point	NR	NR	No pH collected	WS19-1045-SO5008-N-102319
5009	WS19-1045-SO5009-N-102319	10/23/2019	0940	1045	Tzarena	6.61	1						5-point	High	NR		
5010	WS19-0004-SO5010-N-102519	10/25/2019	1400	0004	Robert	8.22							Grab	NR	NR		
5011	WS19-0005-SO5011-N-102519	10/25/2019	1410	0005	Manhattan	7.20	1						Grab	NR	NR		
5012	WS19-0289-SO5012-N-111319	11/13/2019	1035	0289	Hibernia	8.23	1						5-point	Moderate	Moderate		
5013	WS19-0006-SO5013-N-110419	11/4/2019	1410	0006	Mountain Boy	8.86							Grab	NR	NR		
5014	WS19-0006-SO5014-N-110419	11/4/2019	1355	0006	Mountain Boy	7.91	1						5-point	Low	NR		
5015	WS19-0006-SO5015-N-110419	11/4/2019	1255	0006	Mountain Boy	5.60	1						Grab	High	NR		
5016	WS19-0006-SO5016-N-102519	10/25/2019	1515	0006	Mountain Boy	7.68							Grab	NR	NR		
5017	WS19-0290-SO5017-N-111319	11/13/2019	1050	0290	Horse Shoe	7.19		1	1	1			5-point	High	NR		WS19-0290-SO5017-N-111319
5018	WS19-0290-SO5018-N-111319	11/13/2019	1110	0290	Horse Shoe	3.56	1						Grab	Moderate	NR		
5019	WS19-0290-SO5019-N-111319	11/13/2019	1120	0290	Horse Shoe	6.45	1						5-point	NR	NR		
5020	WS19-0288-SO5020-N-111519	11/15/2019	930 0935	0288	Nettie	5.97					2		30-point	None	None	MIS Duplicate	WS19-0288-SO5020-N-111519 WS19-0288-SO5020-D-111519
5021	WS19-0315-SO5021-N-110719	11/7/2019	1255	0315	Garibaldi	8.37	1						5-point	Low	NR		
5022	WS19-0315-SO5022-N-110719	11/7/2019	1305	0315	Garibaldi	7.57							Grab	None	NR		
5023	WS19-0317-SO5023-N-110719	11/7/2019	1245	0317	St. Louis	6.58							Grab	High	NR		
5024	WS19-0315-SO5024-N-110719	11/7/2019	1310	0315	Garibaldi	8.47	1						Grab	None	NR		
5025	WS19-0313-SO5025-N-110719	11/7/2019	1320	0313	Silver Cleft	8.62							Grab	High	NR		
5026	WS19-0010-SO5026-N-110819	11/8/2019	1045	0010	Minnie Jane	4.80	1						5-point	Moderate	NR		
5027	WS19-1045-SO5027-N-102319	10/23/2019	1000	1045	Tzarena	4.63	1	1	1				3-point	NR	NR		WS19-1045-SO5027-N-102319
5028	WS19-1045-SO5028-N-102319	10/23/2019	1035	1045	Tzarena	4.70	1	1					3-point	NR	NR		WS19-1045-SO5028-N-102319
5029	WS19-1045-SO5029-N-102319	10/23/2019	1040	1045	Tzarena	7.03							Grab	NR	NR		
5030	WS19-1045-SO5030-N-102319	10/23/2019	1100	1045	Tzarena	8.92	1	1					5-point	NR	NR		WS19-1045-SO5030-N-102319
5031	WS19-0003-SO5031-N-102319	10/23/2019	1125	0003	Humboldt	6.41	1						Grab	High	NR		
5032	WS19-0003-SO5032-N-102319	10/23/2019	1130	0003	Humboldt	8.69	1						Grab	NR	NR		
5033	WS19-0003-SO5033-N-102319	10/23/2019	1340	0003	Humboldt	8.84							Grab	NR	NR		
5034	WS19-0003-SO5034-N-102319	10/23/2019	1355	0003	Humboldt	7.90							Grab	NR	NR		
5035	WS19-0003-SO5035-N-102319	10/23/2019	1405	0003	Humboldt	8.61							Grab	NR	NR		
5036	WS19-0003-SO5036-N-102319	10/23/2019	1415	0003	Humboldt	5.82	1	1					3-point	NR	NR		WS19-0003-SO5036-N-102319
5037	WS19-0003-SO5037-N-102319	10/23/2019	1430	0003	Humboldt	9.15	1						Grab	NR	NR		
5038	WS19-0003-SO5038-N-102319	10/23/2019	1450	0003	Humboldt	6.30	1	1					3-point	NR	NR		WS19-0003-SO5038-N-102319
5039	WS19-0003-SO5039-N-102319	10/23/2019	1500	0003	Humboldt	8.70					1		30-point	High	NR		WS19-0003-SO5039-N-102319
5040	WS19-0003-SO5040-N-102319	10/23/2019	1530	0003	Humboldt	8.74	1						10-point	NR	NR		
5041	WS19-0003-SO5041-N-102319	10/23/2019	1545	0003	Humboldt	8.74		1					Grab	High	NR		WS19-0003-SO5041-N-102319
5042	WS19-0003-SO5042-N-102319	10/23/2019	1555	0003	Humboldt	8.83	1						3-point	NR	NR		
5043	WS19-0003-SO5043-N-102319	10/23/2019	1615	0003	Humboldt	4.70	1	1					4-point	NR	NR		WS19-0003-SO5043-N-102319
5044	WS19-0043-SO5044-N-102419	10/24/2019	1200	0043	Germania	5.90							Grab	NR	NR		
5045	WS19-0003-SO5045-N-102419	10/24/2019	1205	0003	Humboldt	5.05							Grab	High	NR		
5046	WS19-0003-SO5046-N-102419	10/24/2019	1210	0003	Humboldt	4.95							Grab	NR	NR		
5047	WS19-0043-SO5047-N-102419	10/24/2019	1220	0043	Germania	4.43		1	1				5-point	NR	NR		WS19-0043-SO5047-N-102419
5048	WS19-0003-SO5048-N-102419	10/24/2019	1235 1240	0003	Humboldt	4.87	1	2					5-point	High	NR	Metals Duplicate	WS19-0003-SO5048-N-102419 WS19-0003-SO5048-D-102419
5049	WS19-0003-SO5049-N-102419	10/24/2019	1245	0003	Humboldt	4.60	1						Grab	NR	NR		

Table 2: Surface Soils Sampling Collection Summary

SAMPLE # (SO)	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Field Soil pH (s.u.)	XRF	Metals	SPLP	ABA	MIS	IVBA	Sample Type	Mn staining	Fe staining	NOTES	LAB SAMPLE FIELD ID
5050	WS19-0003-SO5050-N-102419	10/24/2019	1258	0003	Humboldt	5.08							Grab	Low	NR		
5051	WS19-0003-SO5051-N-102419	10/24/2019	1310	0003	Humboldt	5.66	1						5-point	Low	NR		
5052	WS19-0003-SO5052-N-102419	10/24/2019	1320	0003	Humboldt	5.68	1	1					5-point	High	NR		WS19-0003-SO5052-N-102419
5053	WS19-0040-SO5053-N-102419	10/24/2019	1450	0040	Elba	5.27	1						Grab	High	NR		
5054	WS19-0040-SO5054-N-102419	10/24/2019	1505	0040	Elba	5.25							Grab	Moderate	NR		
5055	WS19-0040-SO5055-N-102419	10/24/2019	1520	0040	Elba	5.82	1	1					5-point	High	NR		WS19-0040-SO5055-N-102419
5056	WS19-0040-SO5056-N-102419	10/24/2019	1530	0040	Elba	7.40							Grab	NR	NR		
5057	WS19-0040-SO5057-N-102419	10/24/2019	1535	0040	Elba	5.98							Grab	NR	NR		
5058	WS19-0040-SO5058-N-102419	10/24/2019	1540	0040	Elba	7.86							Grab	NR	NR		
5059	WS19-0040-SO5059-N-102419	10/24/2019	1542	0040	Elba	5.52	1						5-point	NR	NR		
5060	WS19-0040-SO5060-N-102419	10/24/2019	1550	0040	Elba	7.94	1						Grab	Low	NR		
5061	WS19-0040-SO5061-N-102419	10/24/2019	1600	0040	Elba	4.13	1						5-point	NR	NR		
5062	WS19-0040-SO5062-N-102419	10/24/2019	1610	0040	Elba	4.49	1	1					Grab	NR	NR		WS19-0040-SO5062-N-102419
5063	WS19-0040-SO5063-N-102519	10/25/2019	0850	0040	Elba	5.22					1		30-point	NR	NR		WS19-0040-SO5063-N-102519
5064	WS19-0040-SO5064-N-102519	10/25/2019	0915	0040	Elba	4.92	1	1					5-point	High	NR		WS19-0040-SO5064-N-102519
5065	WS19-0040-SO5065-N-102519	10/25/2019	0920	0040	Elba	6.05							Grab	NR	NR		
5066	WS19-0040-SO5066-N-102519	10/25/2019	0930	0040	Elba	7.70							Grab	NR	NR		
5067	WS19-0040-SO5067-N-102519	10/25/2019	0935	0040	Elba	8.13							Grab	Low	NR		
5068	WS19-0040-SO5068-N-102519	10/25/2019	0940	0040	Elba	7.77							Grab	NR	NR		
5069	WS19-0040-SO5069-N-102519	10/25/2019	0950	0040	Elba	4.97	1						5-point	Low	NR		
5070	WS19-0040-SO5070-N-102519	10/25/2019	1000	0040	Elba	5.58							Grab	Moderate	NR		
5071	WS19-0040-SO5071-N-102519	10/25/2019	1005	0040	Elba	7.41							Grab	Low	NR		
5072	WS19-0040-SO5072-N-102519	10/25/2019	1015	0040	Elba	7.70	1						Grab	NR	High		
5073	WS19-0040-SO5073-N-102519	10/25/2019	1020	0040	Elba	6.62	1	1					5-point	Low	NR		WS19-0040-SO5073-N-102519
5074	WS19-0040-SO5074-N-102519	10/25/2019	1030	0040	Elba	5.61	1						Grab	NR	NR		
5075	WS19-0040-SO5075-N-102519	10/25/2019	1110	0040	Elba	6.83		1					Grab	NR	NR		WS19-0040-SO5075-N-102519
5076	WS19-0040-SO5076-N-102519	10/25/2019	1120	0040	Elba	5.08	1	1					5-point	NR	NR		WS19-0040-SO5076-N-102519
5077	WS19-0040-SO5077-N-102519	10/25/2019	1130	0040	Elba	5.54							Grab	NR	NR		
5078	WS19-0040-SO5078-N-102519	10/25/2019	1135	0040	Elba	7.75							Grab	Low	NR		
5079	WS19-0040-SO5079-N-102519	10/25/2019	1140	0040	Elba	5.23							Grab	NR	NR		
5080	WS19-0040-SO5080-N-102519	10/25/2019	1150	0040	Elba	4.70	1						5-point	High	NR		
5081	WS19-0043-SO5081-N-102519	10/25/2019	1200	0043	Germania	5.66	1	1					5-point	Moderate	NR		WS19-0043-SO5081-N-102519
5082	WS19-0043-SO5082-N-102519	10/25/2019	1215	0043	Germania	8.31							Grab	NR	NR		
5083	WS19-0043-SO5083-N-102519	10/25/2019	1225	0043	Germania	8.22	1	1					5-point	NR	NR		WS19-0043-SO5083-N-102519
5084	WS19-0043-SO5084-N-102519	10/25/2019	1230	0043	Germania	7.14							Grab	NR	NR		
5085	WS19-0043-SO5085-N-102519	10/25/2019	1240	0043	Germania	5.98	1						10-point	Moderate	NR		
5086	WS19-0043-SO5086-N-102519	10/25/2019	1250	0043	Germania	8.11	1						Grab	Moderate	NR		
5087	WS19-0043-SO5087-N-102519	10/25/2019	1255	0043	Germania	6.05	1						Grab	High	NR		
5088	WS19-0005-SO5088-N-102519	10/25/2019	1415	0005	Manhattan	7.93	1						5-point	High	NR		
5089	WS19-0005-SO5089-N-102519	10/25/2019	1425	0005	Manhattan	7.46							Grab	NR	NR		
5090	WS19-0005-SO5090-N-102519	10/25/2019	1430	0005	Manhattan	6.46	1	1					5-point	Moderate	NR		WS19-0005-SO5090-N-102519
5091	WS19-0005-SO5091-N-102519	10/25/2019	1435	0005	Manhattan	7.98							Grab	Low	NR		
5092	WS19-0006-SO5092-N-102519	10/25/2019	1450 1450	0006	Mountain Boy	4.67		2	2	1			5-point	Moderate	NR	Metals and SPLP Duplicate	WS19-0006-SO5092-N-102519 WS19-0006-SO5092-D-102519
5093	WS19-0006-SO5093-N-102519	10/25/2019	1510	0006	Mountain Boy	5.34	1	1					5-point	Moderate	NR		WS19-0006-SO5093-N-102519
5094	WS19-0043-SO5094-N-102819	10/28/2019	1020	0043	Germania	7.55	1	1					6-point	NR	NR		WS19-0043-SO5094-N-102819
5095	WS19-0003-SO5095-N-102819	10/28/2019	1055	0003	Humboldt	8.54					1		30-point	NR	NR		WS19-0003-SO5095-N-102819
5096	WS19-0003-SO5096-N-102819	10/28/2019	1120	0003	Humboldt	5.53							Grab	NR	NR		
5097	WS19-0040-SO5097-N-103119	10/31/2019	1100	0040	Elba	5.22							Grab	NR	NR		
5098	WS19-0040-SO5098-N-103119	10/31/2019	1102	0040	Elba	8.93							Grab	NR	NR		

Table 2: Surface Soils Sampling Collection Summary

SAMPLE # (SO)	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Field Soil pH (s.u.)	XRF	Metals	SPLP	ABA	MIS	IVBA	Sample Type	Mn staining	Fe staining	NOTES	LAB SAMPLE FIELD ID
5099	WS19-0040-SO5099-N-103119	10/31/2019	1105	0040	Elba	5.64							Grab	NR	NR		
5100	WS19-0040-SO5100-N-103119	10/31/2019	1107	0040	Elba	7.06							Grab	NR	NR		
5101	WS19-0040-SO5101-N-103119	10/31/2019	1112	0040	Elba	4.54	1						6-point	High	NR		
5102	WS19-0040-SO5102-N-103119	10/31/2019	1130	0040	Elba	5.96	1						6-point	High	NR		
5103	WS19-0040-SO5103-N-103119	10/31/2019	1145	0040	Elba	6.11							Grab	High	NR		
5104	WS19-0040-SO5104-N-103119	10/31/2019	1150	0040	Elba	5.31							Grab	Moderate	NR		
5105	WS19-0040-SO5105-N-103119	10/31/2019	1155	0040	Elba	5.79	1	1					5-point	High	NR		WS19-0040-SO5105-N-103119
5106	WS19-0040-SO5106-N-103119	10/31/2019	1215	0040	Elba	6.11	1						Grab	High	NR		
5107	WS19-0040-SO5107-N-103119	10/31/2019	1320	0040	Elba	7.35	1						6-point	Low	NR		
5108	WS19-0040-SO5108-N-103119	10/31/2019	1335	0040	Elba	7.28							Grab	Moderate	High		
5109	WS19-0040-SO5109-N-103119	10/31/2019	1340	0040	Elba	7.15	1						5-point	NR	High		
5110	WS19-0040-SO5110-N-103119	10/31/2019	1355	0040	Elba	8.09							Grab	Low	NR		
5111	WS19-0038-SO5111-N-103119	10/31/2019	1405	0038	North Pole	6.92	1						Grab	High	NR		
5112	WS19-0038-SO5112-N-103119	10/31/2019	1415	0038	North Pole	5.55							Grab	NR	NR		
5113	WS19-0041-SO5113-N-103119	10/31/2019	1430	0041	Katie T	7.53					1		30-point	None	None		WS19-0041-SO5113-N-103119
5114	WS19-0038-SO5114-N-103119	10/31/2019	1500	0038	North Pole	6.31							Grab	High	NR		
5115	WS19-0038-SO5115-N-103119	10/31/2019	1505	0038	North Pole	8.41							Grab	Low	High		
5116	WS19-0041-SO5116-N-103119	10/31/2019	1515	0041	Katie T	4.94	1						5-point	High	NR		
5117	WS19-0038-SO5117-N-103119	10/31/2019	1525	0038	North Pole	8.85							Grab	Low	Moderate		
5118	WS19-0006-SO5118-N-110419	11/4/2019	1040	0006	Mountain Boy	3.56							Grab	Low	NR		
5119	WS19-0006-SO5119-N-110419	11/4/2019	1045	0006	Mountain Boy	4.77							Grab	High	NR		
5120	WS19-0006-SO5120-N-110419	11/4/2019	1050	0006	Mountain Boy	8.66							Grab	None	NR		
5121	WS19-0006-SO5121-N-110419	11/4/2019	1055	0006	Mountain Boy	4.39							Grab	Moderate	NR		
5122	WS19-0006-SO5122-N-110419	11/4/2019	1100	0006	Mountain Boy	3.79	1						5-point	Low	NR		
5123	WS19-0006-SO5123-N-110419	11/4/2019	1115	0006	Mountain Boy	5.36	1	1	1				5-point	NR	NR		WS19-0006-SO5123-N-110419
5124	WS19-0006-SO5124-N-110419	11/4/2019	1130	0006	Mountain Boy	5.29					1		30-point	High	NR		WS19-0006-SO5124-N-110419
5125	WS19-0006-SO5125-N-110419	11/4/2019	1145	0006	Mountain Boy	4.69	1						5-point	High	NR		
5126	WS19-0006-SO5126-N-110419	11/4/2019	1150	0006	Mountain Boy	3.85							Grab	Moderate	NR		
5127	WS19-0006-SO5127-N-110419	11/4/2019	1155	0006	Mountain Boy	4.11							Grab	High	NR		
5128	WS19-0006-SO5128-N-110419	11/4/2019	1205	0006	Mountain Boy	5.14	1						Grab	Moderate	NR		
5129	WS19-0006-SO5129-N-110419	11/4/2019	1320	0006	Mountain Boy	6.40					1		30-point	NR	NR		WS19-0006-SO5129-N-110419
5130	WS19-0041-SO5130-N-110419	11/4/2019	1345	0041	Katie T	7.61							Grab	NR	NR		
5131	WS19-0006-SO5131-N-110419	11/4/2019	1400	0006	Mountain Boy	9.22	1						Grab	Low	NR		
5132	WS19-0007-SO5132-N-110419	11/4/2019	1415	0007	Silver Gate	6.16	1						Grab	High	NR		
5133	WS19-0008-SO5133-N-110419	11/4/2019	1450	0008	St. Patrick A	6.38							5-point	High	NR		
5134	WS19-0008-SO5134-N-110419	11/4/2019	1500	0008	St. Patrick A	8.22							Grab	Moderate	NR		
5135	WS19-0037-SO5135-N-110419	11/4/2019	1515	0037	Joseph Joyce	8.51							Grab	Low	NR		
5136	WS19-0037-SO5136-N-110419	11/4/2019	1530	0037	Joseph Joyce	4.86	1						5-point	High	NR		
5137	WS19-0038-SO5137-N-110419	11/4/2019	1540	0038	North Pole	7.25							Grab	Low	NR		
5138	WS19-0037-SO5138-N-110419	11/4/2019	1545	0037	Joseph Joyce	4.66	1						5-point	High	NR		
5139	WS19-0037-SO5139-N-110519	11/5/2019	1030	0037	Joseph Joyce	7.86							Grab	Moderate	Moderate		
5140	WS19-0037-SO5140-N-110519	11/5/2019	1040	0037	Joseph Joyce	5.62	1						5-point	Moderate	NR		
5141	WS19-0038-SO5141-N-110519	11/5/2019	1045	0038	North Pole	6.68							Grab	Moderate	NR		
5142	WS19-0037-SO5142-N-110519	11/5/2019	1055	0037	Joseph Joyce	4.10		1					Grab	Low	NR		WS19-0037-SO5142-N-110519
5143	WS19-0038-SO5143-N-110519	11/5/2019	1105	0038	North Pole	4.08	1						5-point	High	NR		
5144	WS19-0038-SO5144-N-110519	11/5/2019	1110	0038	North Pole	6.03							Grab	NR	NR		
5145	WS19-0038-SO5145-N-110519	11/5/2019	1112	0038	North Pole	8.18							Grab	Moderate	Moderate		
5146	WS19-0037-SO5146-N-110519	11/5/2019	1130	0037	Joseph Joyce	7.74							Grab	Low	NR		
5147	WS19-0038-SO5147-N-110519	11/5/2019	1135	0038	North Pole	7.03	1						5-point	High	NR		

Table 2: Surface Soils Sampling Collection Summary

SAMPLE # (SO)	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Field Soil pH (s.u.)	XRF	Metals	SPLP	ABA	MIS	IVBA	Sample Type	Mn staining	Fe staining	NOTES	LAB SAMPLE FIELD ID
5148	WS19-0037-SO5148-N-110519	11/5/2019	1140	0037	Joseph Joyce	7.78							Grab	NR	NR		
5149	WS19-0037-SO5149-N-110519	11/5/2019	1145	0037	Joseph Joyce	5.06							Grab	High	NR		
5150	WS19-0037-SO5150-N-110519	11/5/2019	1150	0037	Joseph Joyce	3.71							Grab	Moderate	NR		
5151	WS19-0038-SO5151-N-110519	11/5/2019	1155	0038	North Pole	7.08							Grab	NR	NR		
5152	WS19-0038-SO5152-N-110519	11/5/2019	1205	0038	North Pole	8.21							Grab	High	NR		
5153	WS19-0038-SO5153-N-110519	11/5/2019	1210	0038	North Pole	4.47	1						5-point	NR	NR		
5154	WS19-0038-SO5154-N-110519	11/5/2019	1220	0038	North Pole	8.61							Grab	Low	NR		
5155	WS19-0037-SO5155-N-110519	11/5/2019	1230	0037	Joseph Joyce	5.31	1	1					6-Point	High	NR		WS19-0037-SO5155-N-110519
5156	WS19-0037-SO5156-N-110519	11/5/2019	1240	0037	Joseph Joyce	5.53							Grab	Moderate	NR		
5157	WS19-0037-SO5157-N-110519	11/5/2019	1400	0037	Joseph Joyce	7.56							Grab	Moderate	NR		
5158	WS19-0037-SO5158-N-110519	11/5/2019	1410	0037	Joseph Joyce	8.23	1						5-point	High	NR		
5159	WS19-0010-SO5159-N-110519	11/5/2019	1420	0010	Minnie Jane	7.49							Grab	Low	NR		
5160	WS19-0010-SO5160-N-110519	11/5/2019	1430	0010	Minnie Jane	6.67	1						6-point	Moderate	High		
5161	WS19-0010-SO5161-N-110519	11/5/2019	1435	0010	Minnie Jane	7.85							Grab	NR	NR		
5162	WS19-0010-SO5162-N-110519	11/5/2019	1440	0010	Minnie Jane	5.62	1						5-point	High	NR		
5163	WS19-0010-SO5163-N-110519	11/5/2019	1500	0010	Minnie Jane	6.42							Grab	High	NR		
5164	WS19-0010-SO5164-N-110519	11/5/2019	1505	0010	Minnie Jane	6.49	1						Grab	Low	NR		
5165	WS19-0010-SO5165-N-110519	11/5/2019	1510	0010	Minnie Jane	6.90							Grab	Low	High		
5166	WS19-0010-SO5166-N-110519	11/5/2019	1515	0010	Minnie Jane	7.41							Grab	NR	NR		
5167	WS19-0010-SO5167-N-110519	11/5/2019	1525	0010	Minnie Jane	5.85							Grab	High	NR		
5168	WS19-1131-SO5168-N-110519	11/5/2019	1530	1131	Williamette	6.44		1					5-point	High	Moderate		WS19-1131-SO5168-N-110519
5169	WS19-0037-SO5169-N-110519	11/5/2019	1535	0037	Joseph Joyce	7.39							Grab	Moderate	Moderate		
5170	WS19-0010-SO5170-N-110519	11/5/2019	1555	0010	Minnie Jane	4.97	1						9-point	High	NR		
5171	WS19-0010-SO5171-N-110519	11/5/2019	1605	0010	Minnie Jane	5.56	1						10-point	NR	NR		
5172	WS19-0010-SO5172-N-110719	11/7/2019	1050	0010	Minnie Jane	7.76	1						5-point	High	NR		
5173	WS19-0010-SO5173-N-110719	11/7/2019	1100	0010	Minnie Jane	8.52	1						6-point	NR	NR		
5174	WS19-0010-SO5174-N-110719	11/7/2019	1115	0010	Minnie Jane	7.54	2						Grab	High	NR	Field Duplicate for XRF Analysis WS19-0010-SO5174-D-110719	
5175	WS19-0010-SO5175-N-110719	11/7/2019	1130 1135	0010	Minnie Jane	8.18		2					6-point	Moderate	NR	Metals Duplicate	WS19-0010-SO5175-N-110719 WS19-0010-SO5175-D-110719
5176	WS19-0010-SO5176-N-110719	11/7/2019	1145	0010	Minnie Jane	8.36	1						Grab	NR	NR		
5177	WS19-0010-SO5177-N-110719	11/7/2019	1200	0010	Minnie Jane	7.56	1						5-point	High	NR		
5178	WS19-0315-SO5178-N-110719	11/7/2019	1225	0315	Garibaldi	8.42							Grab	Low	NR		
5179	WS19-0315-SO5179-N-110719	11/7/2019	1235	0315	Garibaldi	NA							NA	High	NR	Bedrock outcrop. Rock Highly Mn stained	
5180	WS19-0313-SO5180-N-110719	11/7/2019	1325	0313	Silver Cleft	5.91	1						Grab	NR	NR		
5181	WS19-0015-SO5181-N-110719	11/7/2019	1430	0015	Milwaukee	5.57		1	1				5-point	High	NR		WS19-0015-SO5181-N-110719
5182	WS19-0015-SO5182-N-110719	11/7/2019	1440	0015	Milwaukee	5.05	1						6-point	Low	NR		
5183	WS19-0015-SO5183-N-110719	11/7/2019	1445	0015	Milwaukee	5.31	1						5-point	High	NR		
5184	WS19-0313-SO5184-N-110719	11/7/2019	1505	0313	Silver Cleft	4.22							Grab	NR	NR		
5185	WS19-0010-SO5185-N-110719	11/7/2019	1525	0010	Minnie Jane	7.24	1						5-point	Moderate	NR		
5186	WS19-0010-SO5186-N-110819	11/8/2019	1030	0010	Minnie Jane	4.73							Grab	High	NR		
5187	WS19-0010-SO5187-N-110819	11/8/2019	1035	0010	Minnie Jane	3.97	1	1					5-point	High	NR		WS19-0010-SO5187-N-110819
5188	WS19-0010-SO5188-N-110819	11/8/2019	1055	0010	Minnie Jane	5.78							Grab	NR	High		
5189	WS19-0010-SO5189-N-110819	11/8/2019	1100	0010	Minnie Jane	5.69							Grab	Moderate	NR		
5190	WS19-0012-SO5190-N-110819	11/8/2019	1115	0012	Prospector	7.22					1		30-point	NR	NR		WS19-0012-SO5190-N-110819
5191	WS19-0020-SO5191-N-110819	11/8/2019	1315	0020	Violet	NA							NA	NR	NR	Bedrock outcrop	
5192	WS19-0019-SO5192-N-110819	11/8/2019	1335	0019	Charmmer	4.47	1						5-point	High	NR		
5193	WS19-0019-SO5193-N-110819	11/8/2019	1350	0019	Charmmer	5.91	1	1	1	1			7-point	Moderate	NR		WS19-0019-SO5193-N-110819
5194	WS19-0017-SO5194-N-110819	11/8/2019	1435	0017	Kit Carson	5.79	1						5-point	Low	NR		
5195	WS19-0015-SO5195-N-110819	11/8/2019	1450	0015	Milwaukee	7.04							Grab	Moderate	NR		

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SAMPLE # (SO)	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Field Soil pH (s.u.)	XRF	Metals	SPLP	ABA	MIS	IVBA	Sample Type	Mn staining	Fe staining	NOTES	LAB SAMPLE FIELD ID
5196	WS19-0015-SO5196-N-110819	11/8/2019	1455	0015	Milwaukee	5.30							Grab	Moderate	NR		
5197	WS19-0015-SO5197-N-110819	11/8/2019	1500	0015	Milwaukee	8.07	1						Grab	NR	NR		
5198	WS19-0015-SO5198-N-110819	11/8/2019	1507	0015	Milwaukee	7.03							Grab	Low	High		
5199	WS19-0015-SO5199-N-110819	11/8/2019	1512	0015	Milwaukee	8.24							Grab	NR	NR		
5200	WS19-0015-SO5200-N-110819	11/8/2019	1520	0015	Milwaukee	4.87	1						5-point	Moderate	Moderate		
5201	WS19-0015-SO5201-N-110819	11/8/2019	1525	0015	Milwaukee	6.25							Grab	Low	High		
5202	WS19-0015-SO5202-N-110819	11/8/2019	1530	0015	Milwaukee	5.40							Grab	Moderate	NR		
5203	WS19-0015-SO5203-N-110819	11/8/2019	1535	0015	Milwaukee	7.83							Grab	Low	NR		
5204	WS19-0015-SO5204-N-110819	11/8/2019	1545	0015	Milwaukee	4.49	1	1					5-point	High	Moderate		WS19-0015-SO5204-N-110819
5205	WS19-0290-SO5205-N-111319	11/13/2019	1130	0290	Horse Shoe	7.10		1					5-point	NR	NR		WS19-0290-SO5205-N-111319
5206	WS19-0290-SO5206-N-111319	11/13/2019	1140	0290	Horse Shoe	3.72	1						5-point	Low	NR		
5207	WS19-0290-SO5207-N-111319	11/13/2019	1150	0290	Horse Shoe	6.60		1	1				5-point	High	NR		WS19-0290-SO5207-N-111319
5208	WS19-0289-SO5208-N-111319	11/13/2019	1240	0289	Hibernia	NA							NA	NR	NR	Bedrock outcrop	
5209	WS19-0292-SO5209-N-111319	11/13/2019	1255	0292	Myrtle	5.99							Grab	NR	NR		
5210	WS19-0292-SO5210-N-111319	11/13/2019	1300	0292	Myrtle	4.89							Grab	None	High		
5211	WS19-0292-SO5211-N-111319	11/13/2019	1315	0292	Myrtle	2.49	1						Grab	NR	NR		
5212	WS19-0296-SO5212-N-111319	11/13/2019	1330	0296	Philadelphia	NA							NA	NR	NR	Stripped topsoil pile	
5213	WS19-0292-SO5213-N-111319	11/13/2019	1400	0292	Myrtle	6.30							Grab	NR	NR		
5214	WS19-0292-SO5214-N-111319	11/13/2019	1410	0292	Myrtle	6.46	1						Grab	None	Low		
5215	WS19-0288-SO5215-N-111519	11/15/2019	0955	0288	Nettie	7.18	1						6-Point	High	NR		
5216	WS19-0288-SO5216-N-111519	11/15/2019	1005	0288	Nettie	8.69							Grab	Low	Low		
5217	WS19-0288-SO5217-N-111519	11/15/2019	1010	0288	Nettie	2.59	1	1					5-point	Moderate	High		WS19-0288-SO5217-N-111519
5218	WS19-0297-SO5218-N-111519	11/15/2019	1025	0297	Key West	5.78	1						5-point	High	NR		
5219	WS19-0297-SO5219-N-111519	11/15/2019	1035	0297	Key West	5.06							Grab	High	NR		
5220	WS19-0297-SO5220-N-111519	11/15/2019	1045	0297	Key West	6.33	1						5-point	High	NR		
5221	WS19-0297-SO5221-N-111519	11/15/2019	1055	0297	Key West	5.07	1						Grab	Moderate	NR		
5222	WS19-0288-SO5222-N-111519	11/15/2019	1110	0288	Nettie	6.73		1	1				5-point	High	NR		WS19-0288-SO5222-N-111519
5223	WS19-0288-SO5223-N-111519	11/15/2019	1120	0288	Nettie	6.87	1						10-point	Low	NR		
5224	WS19-0288-SO5224-N-111519	11/15/2019	1130	0288	Nettie	5.06	1						5-point	High	NR		
5225	WS19-0288-SO5225-N-111519	11/15/2019	1140	0288	Nettie	6.24							Grab	High	High		
5226	WS19-0288-SO5226-N-111519	11/15/2019	1155	0288	Nettie	9.19	1						Grab	NR	NR		
5227	WS19-0288-SO5227-N-111519	11/15/2019	1245	0288	Nettie	8.53	1						5-point	Low	Moderate		
5228	WS19-0288-SO5228-N-111519	11/15/2019	1255	0288	Nettie	8.89							Grab	NR	Moderate		
5229	WS19-0288-SO5229-N-111519	11/15/2019	1300	0288	Nettie	8.45							Grab	High	High		
5230	WS19-0288-SO5230-N-111519	11/15/2019	1310	0288	Nettie	8.85							Grab	Low	NR		
5231	WS19-0288-SO5231-N-111519	11/15/2019	1320	0288	Nettie	9.01	1	1					5-point	Moderate	Moderate		WS19-0288-SO5231-N-111519
5232	WS19-0288-SO5232-N-111519	11/15/2019	1335	0288	Nettie	8.31							Grab	Moderate	High		
5233	WS19-0288-SO5233-N-111519	11/15/2019	1340	0288	Nettie	NA							NA	Moderate	High	Bare Area	
5234	WS19-0288-SO5234-N-111519	11/15/2019	1345	0288	Nettie	8.57	1						Grab	Moderate	Moderate		
5235	WS19-0286-SO5235-N-111519	11/15/2019	1405	0286	Creole	7.41							Grab	NR	NR		
5236	WS19-0286-SO5236-N-111519	11/15/2019	1415	0286	Creole	7.50	1						Grab	Low	Moderate		
5237	WS19-0286-SO5237-N-111519	11/15/2019	1440	0286	Creole	7.03							Grab	Low	Moderate		
5238	20WS-0288-SO5238-N-051220	5/12/2020	0845	0288	Nettie	6.10	1						10-point	Moderate	Low		
5239	20WS-0297-SO5239-N-051220	5/12/2020	0900	0297	Key West	4.42		1					Grab	Low	None		20WS-0297-SO5239-N-051220
5240	20WS-0297-SO5240-N-051220	5/12/2020	0915	0297	Key West	5.56	1						Grab	Low	Low		
5241	20WS-0297-SO5241-N-051220	5/12/2020	0920	0297	Key West	5.36	1						Grab	None	High		
5242	20WS-0297-SO5242-N-051220	5/12/2020	0925	0297	Key West	8.02	1						5-point	Low	Low		
5243	20WS-0297-SO5243-N-051220	5/12/2020	1000	0297	Key West	5.84	1						5-point	High	None		
5244	20WS-0297-SO5244-N-051220	5/12/2020	1015	0297	Key West	5.41	1	1					5-point	High	None		20WS-0297-SO5244-N-051220

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5245	20WS-0297-SO5245-N-051220	5/12/2020	1030	0297	Key West	6.61		1					Grab	None	High		20WS-0297-SO5245-N-051220
5246	20WS-0297-SO5246-N-051220	5/12/2020	1100	0297	Key West	6.21					1		30-point	High	None		20WS-0297-SO5246-N-051220
5247	20WS-0297-SO5247-N-051220	5/12/2020	1105	0297	Key West	6.24	1						5-point	Low	None		
5248	20WS-0297-SO5248-N-051220	5/12/2020	1120	0297	Key West	4.76	1						10-point	Low	Low		
5249	20WS-0297-SO5249-N-051220	5/12/2020	1130	0297	Key West	5.45		1	1	1			5-point	None	None		20WS-0297-SO5249-N-051220
5250	20WS-0297-SO5250-N-051220	5/12/2020	1140	0297	Key West	5.25							Grab	None	Low		
5251	20WS-0297-SO5251-N-051220	5/12/2020	1225	0297	Key West	5.51	1						5-point	High	None		
5252	20WS-0297-SO5252-N-051220	5/12/2020	1245	0297	Key West	3.46							Grab	Moderate	None		
5253	20WS-0297-SO5253-N-051220	5/12/2020	1250	0297	Key West	4.58							Grab	Low	Low		
5254	20WS-0297-SO5254-N-051220	5/12/2020	1255	0297	Key West	4.27		1					5-point	Moderate	None		20WS-0297-SO5254-N-051220
5255	20WS-0297-SO5255-N-051220	5/12/2020	1300	0297	Key West	3.97	1						5-point	Low	Moderate		
5256	20WS-0297-SO5256-N-051220	5/12/2020	1305	0297	Key West	5.27					1		30-point	Low	Low		20WS-0297-SO5256-N-051220
5257	20WS-0297-SO5257-N-051220	5/12/2020	1320	0297	Key West	4.41	1						5-point	None	None		
5258	20WS-0297-SO5258-N-051220	5/12/2020	1325	0297	Key West	4.39							Grab	Low	Low		
5259	20WS-0297-SO5259-N-051220	5/12/2020	1330	0297	Key West	4.52							Grab	Low	Low		
5260	20WS-0297-SO5260-N-051220	5/12/2020	1340	0297	Key West	4.52	1						5-point	Low	Low		
5261	20WS-0299-SO5261-N-051220	5/12/2020	1420	0299	Fredonia	8.94							Grab	Low	None		
5262	20WS-0298-SO5262-N-051220	5/12/2020	1430	0298	Cora No. 2	8.85							Grab	Low	Moderate		
5263	20WS-0300-SO5263-N-051220	5/12/2020	1445	0300	Tom Haney	5.82	1						Grab	None	None		
5264	20WS-0300-SO5264-N-051220	5/12/2020	1500	0300	Tom Haney	7.22	1	1					5-point	Moderate	None		20WS-0300-SO5264-N-051220
5265	20WS-0300-SO5265-N-051220	5/12/2020	1510	0300	Tom Haney	5.67	1						5-point	High	Low		
5266	20WS-0300-SO5266-N-051220	5/12/2020	1520	0300	Tom Haney	7.10	1						10-point	Moderate	Low		
5267	20WS-0299-SO5267-N-051220	5/12/2020	1550	0299	Fredonia	8.27							Grab	Low	Low		
5268	20WS-0288-SO5268-N-051320	5/13/2020	0900	0288	Nettie	NA							NA	None	None	Well vegetated dump	
5269	20WS-0288-SO5269-N-051320	5/13/2020	0910	0288	Nettie	6.96							5-point	Low	Low		
5270	20WS-0288-SO5270-N-051320	5/13/2020	0915	0288	Nettie	6.59							Grab	High	Low		
5271	20WS-0288-SO5271-N-051320	5/13/2020	0930	0288	Nettie	NA							NA	None	None		
5272	20WS-0288-SO5272-N-051320	5/13/2020	0940	0288	Nettie	5.62							Grab	Low	Low		
5273	20WS-0288-SO5273-N-051320	5/13/2020	0945	0288	Nettie	7.32							Grab	Low	Low		
5274	20WS-0288-SO5274-N-051320	5/13/2020	0955	0288	Nettie	5.52	1						5-point	Moderate	Low		
5275	20WS-0288-SO5275-N-051320	5/13/2020	1005	0288	Nettie	5.18							Grab	High	Moderate		
5276	20WS-0288-SO5276-N-051320	5/13/2020	1010	0288	Nettie	4.67	1	1					10-point	High	None		20WS-0288-SO5276-N-051320
5277	20WS-0288-SO5277-N-051320	5/13/2020	1025	0288	Nettie	5.43							Grab	Moderate	None		
5278	20WS-0288-SO5278-N-051320	5/13/2020	1030	0288	Nettie	5.15	1						Grab	High	None		
5279	20WS-0288-SO5279-N-051320	5/13/2020	1040	0288	Nettie	8.37							5-point	Low	Low		
5280	20WS-0288-SO5280-N-051320	5/13/2020	1045	0288	Nettie	6.04	1						5-point	Low	Low		
5281	20WS-0288-SO5281-N-051320	5/13/2020	1055	0288	Nettie	5.38	1						5-point	Low	Moderate	Slag present	
5282	20WS-0299-SO5282-N-051320	5/13/2020	1130	0299	Fredonia	8.49	1						5-point	Low	Moderate		
5283	20WS-0299-SO5283-N-051320	5/13/2020	1145	0299	Fredonia	8.96							Grab	Moderate	Moderate		
5284	20WS-0299-SO5284-N-051320	5/13/2020	1150	0299	Fredonia	8.63							Grab	Moderate	Moderate		
5285	20WS-0300-SO5285-N-051320	5/13/2020	1200	0300	Tom Haney	6.11	1	1					5-point	High	Low		20WS-0300-SO5285-N-051320
5286	20WS-0300-SO5286-N-051320	5/13/2020	1210	0300	Tom Haney	8.96							5-point	Low	Moderate		
5287	20WS-0297-SO5287-N-051320	5/13/2020	1300	0297	Key West	5.60					1		30-point	None	None		20WS-0297-SO5287-N-051320
5288	20WS-0300-SO5288-N-051320	5/13/2020	1325	0300	Tom Haney	7.20	1						Grab	Moderate	Moderate		
5289	20WS-0300-SO5289-N-051320	5/13/2020	1335	0300	Tom Haney	5.96							Grab	Low	None		
5290	20WS-0300-SO5290-N-051320	5/13/2020	1345	0300	Tom Haney	6.06	1						5-point	Low	Low		
5291	20WS-0298-SO5291-N-051320	5/13/2020	1355	0298	Cora No. 2	8.87							Grab	Low	None		
5292	20WS-0298-SO5292-N-051320	5/13/2020	1405	0298	Cora No. 2	5.62	1						5-point	High	Low		
5293	20WS-0298-SO5293-N-051320	5/13/2020	1415	0298	Cora No. 2	4.77	1						5-point	Moderate	Low		

Table 2: Surface Soils Sampling Collection Summary

SAMPLE # (SO)	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Field Soil pH (s.u.)	XRF	Metals	SPLP	ABA	MIS	IVBA	Sample Type	Mn staining	Fe staining	NOTES	LAB SAMPLE FIELD ID
5294	20WS-0298-SO5294-N-051320	5/13/2020	1420	0298	Cora No. 2	5.03							Grab	Low	Low		
5295	20WS-0298-SO5295-N-051320	5/13/2020	1435	0298	Cora No. 2	8.71	1						5-point	Moderate	Low		
5296	20WS-0298-SO5296-N-051320	5/13/2020	1450	0298	Cora No. 2	6.34		1					5-point	Low	None		20WS-0298-SO5296-N-051320
5297	20WS-0299-SO5297-N-051320	5/13/2020	1500	0299	Fredonia	8.73							Grab	Low	Low		
5298	20WS-0298-SO5298-N-051320	5/13/2020	1510	0298	Cora No. 2	5.63		1	1	1			5-point	None	None		20WS-0298-SO5298-N-051320
5299	20WS-0299-SO5299-N-051320	5/13/2020	1605	0299	Fredonia	9.13	1						5-point	Moderate	Low		
5300	20WS-0299-SO5300-N-051320	5/13/2020	1620	0299	Fredonia	8.22							Grab	Low	Low		
5301	20WS-0299-SO5301-N-051320	5/13/2020	1630	0299	Fredonia	6.82	1						5-point	High	None		
5302	20WS-0299-SO5302-N-051320	5/13/2020	1635	0299	Fredonia	7.37							Grab	Moderate	Moderate		
5303	20WS-0299-SO5303-N-051320	5/13/2020	1640	0299	Fredonia	8.96							Grab	None	None		
5304	20WS-0299-SO5304-N-051320	5/13/2020	1650	0299	Fredonia	5.66					1		30-point	None	None		20WS-0299-SO5304-N-051320
5305	20WS-0285-SO5305-N-051420	5/14/2020	0845	0285	Burlington	6.19	1						10-point	Low	Moderate		
5306	20WS-0285-SO5306-N-051420	5/14/2020	0900	0285	Burlington	5.98							5-point	Moderate	None		
5307	20WS-0285-SO5307-N-051420	5/14/2020	0905	0285	Burlington	5.78							5-point	None	None		
5308	20WS-0285-SO5308-N-051420	5/14/2020	0915	0285	Burlington	4.87	1						5-point	Low	High		
5309	20WS-0285-SO5309-N-051420	5/14/2020	0925	0285	Burlington	4.54							Grab	High	Low		
5310	20WS-0285-SO5310-N-051420	5/14/2020	0930	0285	Burlington	5.43							10-point	Low	None		
5311	20WS-0285-SO5311-N-051420	5/14/2020	0940	0285	Burlington	5.11	1						10-point	Low	None		
5312	20WS-0285-SO5312-N-051420	5/14/2020	0955	0285	Burlington	5.90	1						Grab	None	None		
5313	20WS-0285-SO5313-N-051420	5/14/2020	1010	0285	Burlington	6.23		1					6-point	High	Low		20WS-0285-SO5313-N-051420
5314	20WS-0285-SO5314-N-051420	5/14/2020	1015	0285	Burlington	5.28	1						5-point	Low	None		
5315	20WS-0285-SO5315-N-051420	5/14/2020	1025	0285	Burlington	5.16							Grab	Low	None		
5316	20WS-0285-SO5316-N-051420	5/14/2020	1030	0285	Burlington	4.92	1						5-point	High	Moderate		
5317	20WS-0285-SO5317-N-051420	5/14/2020	1035	0285	Burlington	5.37							Grab	Low	High		
5318	20WS-0285-SO5318-N-051420	5/14/2020	1050	0285	Burlington	5.06	1						5-point	Moderate	Low		
5319	20WS-0285-SO5319-N-051420	5/14/2020	1055	0285	Burlington	5.13	1						5-point	Moderate	Low		
5320	20WS-0285-SO5320-N-051420	5/14/2020	1100	0285	Burlington	4.19							Grab	Moderate	Low		
5321	20WS-0285-SO5321-N-051420	5/14/2020	1105	0285	Burlington	5.85	1						Grab	Moderate	Moderate		
5322	20WS-0285-SO5322-N-051420	5/14/2020	1115	0285	Burlington	5.24	1						5-point	Low	High		
5323	20WS-0285-SO5323-N-051420	5/14/2020	1120	0285	Burlington	5.17		1					5-point	Moderate	Low		20WS-0285-SO5323-N-051420
5324	20WS-0285-SO5324-N-051420	5/14/2020	1130	0285	Burlington	5.75	1	1					5-point	High	Low		20WS-0285-SO5324-N-051420
5325	20WS-0285-SO5325-N-051420	5/14/2020	1140	0285	Burlington	6.24							Grab	High	Low		
5326	20WS-0285-SO5326-N-051420	5/14/2020	1245	0285	Burlington	5.23	1						5-point	Low	None		
5327	20WS-0285-SO5327-N-051420	5/14/2020	1300 1330	0285	Burlington	5.06		2					5-point	Low	Moderate	Metals Duplicate	20WS-0285-SO5327-N-051420 20WS-0285-SO5327-D-051420
5328	20WS-0285-SO5328-N-051420	5/14/2020	1310	0285	Burlington	5.35							Grab	Moderate	Moderate		
5329	20WS-0285-SO5329-N-051420	5/14/2020	1315	0285	Burlington	4.75	1						Grab	Moderate	Moderate		
5330	20WS-0285-SO5330-N-051420	5/14/2020	1325	0285	Burlington	4.98							Grab	Low	Low		
5331	20WS-0285-SO5331-N-051420	5/14/2020	1330	0285	Burlington	4.75							Grab	Moderate	Moderate		
5332	20WS-0285-SO5332-N-051420	5/14/2020	1335	0285	Burlington	5.57							Grab	Low	High		
5333	20WS-0285-SO5333-N-051420	5/14/2020	1340	0285	Burlington	6.15	1						5-point	High	Low		
5334	20WS-0285-SO5334-N-051420	5/14/2020	1350	0285	Burlington	4.97	1						10-point	Moderate	None		
5335	20WS-0285-SO5335-N-051420	5/14/2020	1415	0285	Burlington	4.88					1		30-point	Moderate	None		20WS-0285-SO5335-N-051420
5336	20WS-0285-SO5336-N-051420	5/14/2020	1430	0285	Burlington	5.51	1						10-point	High	Low		
5337	20WS-0285-SO5337-N-051420	5/14/2020	1440	0285	Burlington	5.15	1						5-point	Moderate	None		
5338	20WS-0285-SO5338-N-051420	5/14/2020	1445	0285	Burlington	7.92							Grab	Low	Moderate		
5339	20WS-0285-SO5339-N-051420	5/14/2020	1455	0285	Burlington	5.82							Grab	Moderate	Low		
5340	20WS-0285-SO5340-N-051420	5/14/2020	1505	0285	Burlington	6.97	1						5-point	Low	Low		
5341	20WS-0285-SO5341-N-051420	5/14/2020	1515	0285	Burlington	5.71		1					5-point	Moderate	Low		20WS-0285-SO5341-N-051420
5342	20WS-0299-SO5342-N-051820	5/18/2020	0900	0299	Fredonia	6.14	1						5-point	Moderate	Low		

Table 2: Surface Soils Sampling Collection Summary

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5343	20WS-0299-SO5343-N-051820	5/18/2020	0910	0299	Fredonia	5.36							Grab	Low	None		
5344	20WS-0285-SO5344-N-051820	5/18/2020	0920	0285	Burlington	5.28							Grab	Low	Moderate		
5345	20WS-0285-SO5345-N-051820	5/18/2020	0925	0285	Burlington	5.80	1						Grab	Low	Low		
5346	20WS-0285-SO5346-N-051820	5/18/2020	0940	0285	Burlington	7.13							Grab	Moderate	Moderate		
5347	20WS-0285-SO5347-N-051820	5/18/2020	0950	0285	Burlington	5.51		1					10-point	Moderate	Low		20WS-0285-SO5347-N-051820
5348	20WS-0285-SO5348-N-051820	5/18/2020	0955	0285	Burlington	5.28							Grab	Moderate	None		
5349	20WS-0285-SO5349-N-051820	5/18/2020	1005	0285	Burlington	6.69	1						5-point	Low	Moderate		
5350	20WS-0285-SO5350-N-051820	5/18/2020	1015	0285	Burlington	6.84							Grab	High	Low		
5351	20WS-0285-SO5351-N-051820	5/18/2020	1025	0285	Burlington	5.24							Grab	Low	None		
5352	20WS-0285-SO5352-N-051820	5/18/2020	1035	0285	Burlington	NA							NA	Low	None	Bedrock	
5353	20WS-0299-SO5353-N-051820	5/18/2020	1045	0299	Fredonia	9.15							Grab	Low	Low		
5354	20WS-0285-SO5354-N-051820	5/18/2020	1110	0285	Burlington	5.40	1						5-point	None	Low		
5355	20WS-0285-SO5355-N-051820	5/18/2020	1120	0285	Burlington	5.47	1	1					5-point	High	Low		20WS-0285-SO5355-N-051820
5356	20WS-0285-SO5356-N-051820	5/18/2020	1130	0285	Burlington	5.63							Grab	None	None		
5357	20WS-0285-SO5357-N-051820	5/18/2020	1135	0285	Burlington	4.56	1						Grab	Moderate	Low		
5358	20WS-0285-SO5358-N-051820	5/18/2020	1140	0285	Burlington	5.38							Grab	Low	None		
5359	20WS-0285-SO5359-N-051820	5/18/2020	1150	0285	Burlington	6.02							Grab	High	None		
5360	20WS-0285-SO5360-N-051820	5/18/2020	1245	0285	Burlington	5.69							Grab	High	Low		
5361	20WS-0285-SO5361-N-051820	5/18/2020	1250	0285	Burlington	6.00	1						5-point	Moderate	Moderate		
5362	20WS-0285-SO5362-N-051820	5/18/2020	1255	0285	Burlington	NA							NA	Low	Low	Bedrock	
5363	20WS-0285-SO5363-N-051820	5/18/2020	1305	0285	Burlington	NA							NA	Low	None	Bedrock	
5364	20WS-0285-SO5364-N-051820	5/18/2020	1315	0285	Burlington	6.04							Grab	None	Low		
5365	20WS-0285-SO5365-N-051820	5/18/2020	1325	0285	Burlington	6.05							Grab	None	None		
5366	20WS-0285-SO5366-N-051820	5/18/2020	1335	0285	Burlington	9.34							Grab	Low	None		
5367	20WS-0285-SO5367-N-051820	5/18/2020	1340	0285	Burlington	NA							NA	Low	Low	Bedrock	
5368	20WS-0285-SO5368-N-051820	5/18/2020	1350	0285	Burlington	5.37							Grab	None	None		
5369	20WS-0285-SO5369-N-051820	5/18/2020	1400	0285	Burlington	5.82	1						5-point	None	None		
5370	20WS-0246-SO5370-N-051820	5/18/2020	1425	0246	Independent	5.53		1					10-point	High	Low		20WS-0246-SO5370-N-051820
5371	20WS-0285-SO5371-N-051820	5/18/2020	1430	0246	Burlington	5.03							Grab	Moderate	Moderate		
5372	20WS-0246-SO5372-N-051820	5/18/2020	1440	0246	Independent	4.95	1						5-point	Low	Moderate		
5373	20WS-0246-SO5373-N-051820	5/18/2020	1445	0246	Independent	3.03	1						5-point	None	Low		
5374	20WS-0246-SO5374-N-051820	5/18/2020	1450	0246	Independent	5.36							Grab	Low	None		
5375	20WS-0285-SO5375-N-051820	5/18/2020	1455	0246	Burlington	7.01							Grab	None	None		
5376	20WS-0246-SO5376-N-051820	5/18/2020	1500	0246	Independent	5.30	1						5-Point	Moderate	Low		
5377	20WS-0246-SO5377-N-051820	5/18/2020	1510	0246	Independent	3.66	1						5-Point	None	Moderate		
5378	20WS-0246-SO5378-N-051820	5/18/2020	1515	0246	Independent	5.83		1	1	1			5-Point	High	Low		20WS-0246-SO5378-N-051820
5379	20WS-0246-SO5379-N-051820	5/18/2020	1530	0246	Independent	5.94							Grab	High	Low		
5380	20WS-0246-SO5380-N-051820	5/18/2020	1535	0246	Independent	5.49							Grab	Moderate	Low		
5381	20WS-0246-SO5381-N-051820	5/18/2020	1540	0246	Independent	5.61							Grab	High	Low		
5382	20WS-0246-SO5382-N-051820	5/18/2020	1545	0246	Independent	6.35					1		30-Point	High	Low		20WS-0246-SO5382-N-051820
5383	20WS-0246-SO5383-N-051820	5/18/2020	1550	0246	Independent	5.62	1						5-Point	Low	None		
5384	20WS-0246-SO5384-N-051820	5/18/2020	1600	0246	Independent	4.16	1						5-Point	Moderate	Low		
5385	20WS-0246-SO5385-N-051920	5/19/2020	1105	0246	Independent	5.26							Grab	High	Low		
5386	20WS-0246-SO5386-N-051920	5/19/2020	1110	0246	Independent	6.73	1						5-point	High	Low		
5387	20WS-0246-SO5387-N-051920	5/19/2020	1115	0246	Independent	5.60							Grab	High	Low		
5388	20WS-0246-SO5388-N-051920	5/19/2020	1120	0246	Independent	6.41							Grab	High	Low		
5389	20WS-0246-SO5389-N-051920	5/19/2020	1130	0246	Independent	6.36		1					5-point	High	Low		20WS-0246-SO5389-N-051920
5390	20WS-0246-SO5390-N-051920	5/19/2020	1135	0246	Independent	7.00							5-point	High	Low		
5391	20WS-0246-SO5391-N-051920	5/19/2020	1145	0246	Independent	6.27	1						10-point	High	Low		

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5392	20WS-0246-SO5392-N-051920	5/19/2020	1150	0246	Independent	5.87							5-point	High	Low		
5393	20WS-0246-SO5393-N-051920	5/19/2020	1205	0246	Independent	NA							NA	NR	NR	Well vegetated dump	
5394	20WS-0246-SO5394-N-051920	5/19/2020	1210	0246	Independent	5.10							Grab	None	None		
5395	20WS-0246-SO5395-N-051920	5/19/2020	1230	0246	Independent	7.88							Grab	None	None		
5396	20WS-0246-SO5396-N-051920	5/19/2020	1255	0246	Independent	6.10	1						5-point	High	Low		
5397	20WS-0246-SO5397-N-051920	5/19/2020	1305	0246	Independent	6.29	1						5-point	Low	None		
5398	20WS-0246-SO5398-N-051920	5/19/2020	1315	0246	Independent	6.62							Grab	Moderate	Moderate		
5399	20WS-0246-SO5399-N-051920	5/19/2020	1320	0246	Independent	5.74							Grab	High	Low		
5400	20WS-0246-SO5400-N-051920	5/19/2020	1330	0246	Independent	5.48	1						5-point	High	Low		
5401	20WS-0256-SO5401-N-051920	5/19/2020	1430	0256	Haakon	6.70							Grab	Low	Low		
5402	20WS-0256-SO5402-N-051920	5/19/2020	1440	0256	Haakon	7.14	1						5-point	Moderate	Low		
5403	20WS-0256-SO5403-N-051920	5/19/2020	1445	0256	Haakon	6.09		1					5-point	None	Low		20WS-0256-SO5403-N-051920
5404	20WS-0249-SO5404-N-052020	5/20/2020	1100	0249	Fair View	6.37							Grab	None	None		
5405	20WS-0249-SO5405-N-052020	5/20/2020	1120	0249	Fair View	NA							NA	NR	NR	Heavy grass, Borrow Area	
5406	20WS-0249-SO5406-N-052020	5/20/2020	1135	0249	Fair View	5.64					1		30-Point	None	None		20WS-0249-SO5406-N-052020
5407	20WS-0249-SO5407-N-052020	5/20/2020	1240	0249	Fair View	5.98	1						5-point	Moderate	Low		
5408	20WS-0249-SO5408-N-052020	5/20/2020	1250	0249	Fair View	4.93							Grab	Low	Moderate		
5409	20WS-0249-SO5409-N-052020	5/20/2020	1255	0249	Fair View	5.26		1					5-point	Low	Moderate		20WS-0249-SO5409-N-052020
5410	20WS-0249-SO5410-N-052020	5/20/2020	1305	0249	Fair View	6.44							Grab	Low	Moderate		
5411	20WS-0249-SO5411-N-052020	5/20/2020	1310	0249	Fair View	6.87	1						Grab	Low	Low		
5412	20WS-0249-SO5412-N-052020	5/20/2020	1320	0249	Fair View	5.69	1						5-point	Low	Low		
5413	20WS-0249-SO5413-N-052020	5/20/2020	1335	0249	Fair View	5.89							Grab	None	None		
5414	20WS-0249-SO5414-N-052020	5/20/2020	1345	0249	Fair View	5.51							Grab	None	None		
5415	20WS-0249-SO5415-N-052020	5/20/2020	1350	0249	Fair View	NA							NA	Low	Low	Bedrock	
5416	20WS-0249-SO5416-N-052020	5/20/2020	1400	0249	Fair View	5.54							Grab	Moderate	Low		
5417	20WS-0249-SO5417-N-052020	5/20/2020	1405	0249	Fair View	NA							NA	Low	Low	Bedrock	
5418	20WS-0249-SO5418-N-052020	5/20/2020	1425	0249	Fair View	8.63	1						5-point	None	Low		
5419	20WS-0249-SO5419-N-052020	5/20/2020	1450	0249	Fair View	5.76	1						5-point	Moderate	Low		
5420	20WS-0249-SO5420-N-052020	5/20/2020	1455	0249	Fair View	6.97							Grab	Moderate	Low		
5421	20WS-0306-SO5421-N-052020	5/20/2020	1540	0306	Herbert	6.15	1						Grab	None	Low		
5422	20WS-0306-SO5422-N-052020	5/20/2020	1550	0306	Herbert	6.08	1						5-point	Moderate	Low		
5423	20WS-0306-SO5423-N-052020	5/20/2020	1605	0306	Herbert	5.86							Grab	None	None		
5424	20WS-0306-SO5424-N-052020	5/20/2020	1615	0306	Herbert	5.29							Grab	None	Moderate		
5425	20WS-0306-SO5425-N-052020	5/20/2020	1620	0306	Herbert	NA							NA	Low	None	Bedrock	
5426	20WS-0016-SO5426-N-052120	5/21/2020	1205	0016	Orphan Boy	5.78	1						5-point	Low	Moderate		
5427	20WS-0016-SO5427-N-052120	5/21/2020	1215	0016	Orphan Boy	8.07							Grab	Low	Moderate		
5428	20WS-0016-SO5428-N-052120	5/21/2020	1220	0016	Orphan Boy	7.50	1						5-point	Low	Moderate		
5429	20WS-0016-SO5429-N-052120	5/21/2020	1230	0016	Orphan Boy	4.00							Grab	High	High		
5430	20WS-0016-SO5430-N-052120	5/21/2020	1240	0016	Orphan Boy	8.72	1						10-point	Low	Low		
5431	20WS-0016-SO5431-N-052120	5/21/2020	1245	0016	Orphan Boy	8.86							Grab	Low	Low		
5432	20WS-0016-SO5432-N-052120	5/21/2020	1300	0016	Orphan Boy	7.82							Grab	Low	Moderate		
5433	20WS-0016-SO5433-N-052120	5/21/2020	1345	0016	Orphan Boy	8.58							5-point	Low	Low		
5434	20WS-0016-SO5434-N-052120	5/21/2020	1355	0016	Orphan Boy	7.12		1					10-point	Low	Low		20WS-0016-SO5434-N-052120
5435	20WS-0016-SO5435-N-052120	5/21/2020	1415	0016	Orphan Boy	7.07							Grab	Low	High		
5436	20WS-0016-SO5436-N-052120	5/21/2020	1420	0016	Orphan Boy	8.46							Grab	Low	None		
5437	20WS-0016-SO5437-N-052120	5/21/2020	1425	0016	Orphan Boy	6.19	1						5-point	High	Low		
5438	20WS-0015-SO5438-N-052120	5/21/2020	1435	0015	Milwaukee	5.14	1						10-point	Moderate	Low		
5439	20WS-0013-SO5439-N-052120	5/21/2020	1445	0013	Georgie	6.34	1	1					5-point	Low	Low		20WS-0013-SO5439-N-052120
5440	20WS-0014-SO5440-N-052120	5/21/2020	1500	0014	Cuneate	8.56							10-point	Low	Low		

Table 2: Surface Soils Sampling Collection Summary

SAMPLE # (SO)	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Field Soil pH (s.u.)	XRF	Metals	SPLP	ABA	MIS	IVBA	Sample Type	Mn staining	Fe staining	NOTES	LAB SAMPLE FIELD ID
5441	20WS-0016-SO5441-N-052120	5/21/2020	1515	0016	Orphan Boy	8.55							Grab	None	Moderate		
5442	20WS-0013-SO5442-N-052120	5/21/2020	1535	0013	Georgie	6.55							Grab	High	Moderate		
5443	20WS-0013-SO5443-N-052120	5/21/2020	1540	0013	Georgie	5.64	1						5-point	Low	Low		
5444	20WS-0013-SO5444-N-052120	5/21/2020	1545	0013	Georgie	4.51							Grab	Moderate	Low		
5445	20WS-0013-SO5445-N-052120	5/21/2020	1550	0013	Georgie	3.44							Grab	Low	High		
5446	20WS-0013-SO5446-N-052120	5/21/2020	1555	0013	Georgie	8.63							Grab	Low	Low		
5447	20WS-0013-SO5447-N-052120	5/21/2020	1600	0013	Georgie	4.05	1						10-point	High	Moderate		
5448	20WS-0013-SO5448-N-052120	5/21/2020	1615	0013	Georgie	3.03		1					10-point	Low	High		20WS-0013-SO5448-N-052120
5449	20WS-0013-SO5449-N-052120	5/21/2020	1625	0013	Georgie	6.27							Grab	High	Low		
5450	20WS-0013-SO5450-N-052120	5/21/2020	1630	0013	Georgie	2.61							Grab	Moderate	High		
5451	20WS-0315-SO5451-N-052620	5/26/2020	0910	0315	Garibaldi	4.82							Grab	None	None		
5452	20WS-0315-SO5452-N-052620	5/26/2020	0915	0315	Garibaldi	5.43							Grab	Low	Low		
5453	20WS-0315-SO5453-N-052620	5/26/2020	0925	0315	Garibaldi	5.56	1						5-point	Low	Low		
5454	20WS-0315-SO5454-N-052620	5/26/2020	0930	0315	Garibaldi	4.39	1						5-point	Low	Low		
5455	20WS-0315-SO5455-N-052620	5/26/2020	0945	0315	Garibaldi	5.49		1					10-point	Low	Low		20WS-0315-SO5455-N-052620
5456	20WS-0315-SO5456-N-052620	5/26/2020	0955	0315	Garibaldi	6.45							Grab	Low	Low		
5457	20WS-0315-SO5457-N-052620	5/26/2020	1000	0315	Garibaldi	8.74							Grab	Low	Low		
5458	20WS-0315-SO5458-N-052620	5/26/2020	1005	0315	Garibaldi	8.99							Grab	None	None		
5459	20WS-0315-SO5459-N-052620	5/26/2020	1015	0315	Garibaldi	7.35	1						5-point	Low	Low		
5460	20WS-0315-SO5460-N-052620	5/26/2020	1025	0315	Garibaldi	8.93	1						Grab	None	None		
5461	20WS-0315-SO5461-N-052620	5/26/2020	1035	0315	Garibaldi	8.75							5-point	Low	Low		
5462	20WS-0315-SO5462-N-052620	5/26/2020	1050	0315	Garibaldi	5.78							Grab	None	None		
5463	20WS-0315-SO5463-N-052620	5/26/2020	1055	0315	Garibaldi	5.39							Grab	Moderate	Low		
5464	20WS-0315-SO5464-N-052620	5/26/2020	1100	0315	Garibaldi	5.41	1						5-point	Moderate	Moderate		
5465	20WS-0315-SO5465-N-052620	5/26/2020	1105	0315	Garibaldi	8.20							Grab	None	Low		
5466	20WS-0315-SO5466-N-052620	5/26/2020	1115	0315	Garibaldi	9.01							Grab	Low	Low		
5467	20WS-0315-SO5467-N-052620	5/26/2020	1120	0315	Garibaldi	NA							NA	None	None	Bedrock	
5468	20WS-0315-SO5468-N-052620	5/26/2020	1125	0315	Garibaldi	NA							NA	None	None	Bedrock	
5469	20WS-0315-SO5469-N-052620	5/26/2020	1130	0315	Garibaldi	5.23							Grab	Moderate	Low		
5470	20WS-0315-SO5470-N-052620	5/26/2020	1220	0315	Garibaldi	6.61							Grab	Low	Low		
5471	20WS-0315-SO5471-N-052620	5/26/2020	1240	0315	Garibaldi	5.35	1						7-point	High	Low		
5472	20WS-0315-SO5472-N-052620	5/26/2020	1245	0315	Garibaldi	5.27							Grab	Low	Low		
5473	20WS-0315-SO5473-N-052620	5/26/2020	1250	0315	Garibaldi	6.17							5-point	Low	Low		
5474	20WS-0315-SO5474-N-052620	5/26/2020	1300	0315	Garibaldi	6.63	1						10-point	Moderate	Low		
5475	20WS-0315-SO5475-N-052620	5/26/2020	1315	0315	Garibaldi	5.11							Grab	Moderate	Low		
5476	20WS-0315-SO5476-N-052620	5/26/2020	1320	0315	Garibaldi	4.84							Grab	High	Low		
5477	20WS-0315-SO5477-N-052620	5/26/2020	1325	0315	Garibaldi	5.23							Grab	Moderate	Low		
5478	20WS-0315-SO5478-N-052620	5/26/2020	1330	0315	Garibaldi	6.44							Grab	Low	Low		
5479	20WS-0315-SO5479-N-052620	5/26/2020	1335	0315	Garibaldi	5.15	1						5-point	High	Low		
5480	20WS-0315-SO5480-N-052620	5/26/2020	1405	0315	Garibaldi	7.88	1						5-point	None	Low		
5481	20WS-0315-SO5481-N-052620	5/26/2020	1415	0315	Garibaldi	5.24							Grab	Low	Low		
5482	20WS-0315-SO5482-N-052620	5/26/2020	1420	0315	Garibaldi	5.30							Grab	None	Low		
5483	20WS-0315-SO5483-N-052620	5/26/2020	1425	0315	Garibaldi	5.41							5-point	Low	Low		
5484	20WS-0315-SO5484-N-052620	5/26/2020	1435	0315	Garibaldi	5.28	1						5-point	Low	Low		
5485	20WS-0315-SO5485-N-052620	5/26/2020	1445	0315	Garibaldi	5.22							Grab	Moderate	Low		
5486	20WS-0315-SO5486-N-052720	5/27/2020	0900	0315	Garibaldi	8.94							Grab	Low	Low		
5487	20WS-0315-SO5487-N-052720	5/27/2020	0905	0315	Garibaldi	8.56							Grab	None	Moderate		
5488	20WS-0315-SO5488-N-052720	5/27/2020	0915	0315	Garibaldi	6.13		1					10-point	Low	Low		20WS-0315-SO5488-N-052720
5489	20WS-0315-SO5489-N-052720	5/27/2020	0930	0315	Garibaldi	5.87							Grab	None	None		
5490	20WS-0315-SO5490-N-052720	5/27/2020	0935	0315	Garibaldi	5.17	1						5-point	Moderate	Low		

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SAMPLE # (SO)	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Field Soil pH (s.u.)	XRF	Metals	SPLP	ABA	MIS	IVBA	Sample Type	Mn staining	Fe staining	NOTES	LAB SAMPLE FIELD ID
5491	20WS-0315-SO5491-N-052720	5/27/2020	0940	0315	Garibaldi	5.03							5-point	Moderate	Moderate		
5492	20WS-0315-SO5492-N-052720	5/27/2020	0950	0315	Garibaldi	4.92							Grab	High	Low		
5493	20WS-0315-SO5493-N-052720	5/27/2020	0955	0315	Garibaldi	5.24							Grab	Low	Low		
5494	20WS-0315-SO5494-N-052720	5/27/2020	1000	0315	Garibaldi	5.23							Grab	Moderate	None		
5495	20WS-0315-SO5495-N-052720	5/27/2020	1005	0315	Garibaldi	5.38	1						5-point	Low	Low		
5496	20WS-0315-SO5496-N-052720	5/27/2020	1010	0315	Garibaldi	6.53	1						5-point	Moderate	Moderate		
5497	20WS-0315-SO5497-N-052720	5/27/2020	1020	0315	Garibaldi	5.05							Grab	Moderate	High		
5498	20WS-0315-SO5498-N-052720	5/27/2020	1025	0315	Garibaldi	5.61	1						10-point	None	None		
5499	20WS-0315-SO5499-N-052720	5/27/2020	1035	0315	Garibaldi	5.07							5-point	Low	Low		
5500	20WS-0315-SO5500-N-052720	5/27/2020	1040	0315	Garibaldi	NA							NA	None	None	Bedrock	
5501	20WS-0315-SO5501-N-052720	5/27/2020	1045	0315	Garibaldi	5.62							Grab	Moderate	Moderate		
5502	20WS-0315-SO5502-N-052720	5/27/2020	1055	0315	Garibaldi	5.84							Grab	Low	High		
5503	20WS-0313-SO5503-N-052720	5/27/2020	1100	0313	Silver Cleft	7.36							Grab	High	Low		
5504	20WS-0313-SO5504-N-052720	5/27/2020	1110	0313	Silver Cleft	5.17							5-point	Moderate	Low		
5505	20WS-0313-SO5505-N-052720	5/27/2020	1115	0313	Silver Cleft	5.88	1						5-point	Moderate	Low		
5506	20WS-0315-SO5506-N-052720	5/27/2020	1125	0315	Garibaldi	5.85	1						10-point	None	None		
5507	20WS-0313-SO5507-N-052720	5/27/2020	1230	0313	Silver Cleft	8.69							Grab	Low	Low		
5508	20WS-0313-SO5508-N-052720	5/27/2020	1235	0313	Silver Cleft	8.28							Grab	Low	Low		
5509	20WS-0313-SO5509-N-052720	5/27/2020	1255	0313	Silver Cleft	8.57							Grab	Low	Low		
5510	20WS-0313-SO5510-N-052720	5/27/2020	1305	0313	Silver Cleft	7.20							Grab	Low	Low		
5511	20WS-0313-SO5511-N-052720	5/27/2020	1310	0313	Silver Cleft	7.29	1						5-point	Low	Low		
5512	20WS-0315-SO5512-N-052720	5/27/2020	1320	0315	Garibaldi	8.21							Grab	Low	Low		
5513	20WS-0315-SO5513-N-052720	5/27/2020	1325	0315	Garibaldi	5.43	1						5-point	Moderate	Moderate		
5514	20WS-0315-SO5514-N-052720	5/27/2020	1340	0315	Garibaldi	7.64					1		30-point	None	None		20WS-0315-SO5514-N-052720
5515	20WS-0315-SO5515-N-052720	5/27/2020	1355	0315	Garibaldi	6.28							Grab	Moderate	Low		
5516	20WS-0315-SO5516-N-052720	5/27/2020	1405	0315	Garibaldi	6.39	1						5-point	High	Low		
5517	20WS-0319-SO5517-N-052720	5/27/2020	1455	0319	Nile	5.87							Grab	Low	Low		
5518	20WS-0319-SO5518-N-052720	5/27/2020	1505	0319	Nile	6.58							Grab	Moderate	Low		
5519	20WS-0319-SO5519-N-052720	5/27/2020	1510	0319	Nile	6.40							5-point	Low	Low		
5520	20WS-0319-SO5520-N-052720	5/27/2020	1520 1525	0319	Nile	6.32		2					8-point	Low	Low	Metals Duplicate	20WS-0319-SO5520-N-052720 20WS-0319-SO5520-D-052720
5521	20WS-0319-SO5521-N-052720	5/27/2020	1530	0319	Nile	7.49							Grab	Low	Low		
5522	20WS-0319-SO5522-N-052720	5/27/2020	1535	0319	Nile	6.87							Grab	Moderate	Low		
5523	20WS-0320-SO5523-N-052720	5/27/2020	1540	0320	United States	6.17	1						10-point	Low	High		
5524	20WS-0320-SO5524-N-052720	5/27/2020	1545	0320	United States	7.01	1						Grab	Low	Low		
5525	20WS-0320-SO5525-N-052720	5/27/2020	1555	0320	United States	7.50							5-point	Low	Low		
5526	20WS-0320-SO5526-N-052720	5/27/2020	1600	0320	United States	6.74							Grab	High	Low		
5527	20WS-0320-SO5527-N-052720	5/27/2020	1605	0320	United States	6.51	1						6-point	Moderate	Low		
5528	20WS-0319-SO5528-N-052720	5/27/2020	1620	0319	Nile	6.69							Grab	Low	Low		
5529	20WS-0319-SO5529-N-052720	5/27/2020	1625	0319	Nile	7.65							Grab	Moderate	Moderate		
5530	20WS-0321-SO5530-N-052820	5/28/2020	1010	0321	Missouri B	5.35							5-point	Low	Low		
5531	20WS-0321-SO5531-N-052820	5/28/2020	1015	0321	Missouri B	5.47	1						5-point	Low	Low		
5532	20WS-0320-SO5532-N-052820	5/28/2020	1020	0320	United States	5.35							Grab	Low	Low		
5533	20WS-0320-SO5533-N-052820	5/28/2020	1025	0320	United States	5.22							5-point	Moderate	High		
5534	20WS-0319-SO5534-N-052820	5/28/2020	1030	0319	Nile	8.74							Grab	Low	Moderate		
5535	20WS-0319-SO5535-N-052820	5/28/2020	1100	0319	Nile	5.65	1						5-point	Low	Low		
5536	20WS-0319-SO5536-N-052820	5/28/2020	1110	0319	Nile	5.19	1	1					5-point	High	Low		20WS-0319-SO5536-N-052820
5537	20WS-0319-SO5537-N-052820	5/28/2020	1125	0319	Nile	5.02							Grab	Moderate	Low		
5538	20WS-0319-SO5538-N-052820	5/28/2020	1130	0319	Nile	5.05							5-point	High	Low		
5539	20WS-0319-SO5539-N-052820	5/28/2020	1135	0319	Nile	5.04							Grab	High	Low		

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SAMPLE # (SO)	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Field Soil pH (s.u.)	XRF	Metals	SPLP	ABA	MIS	IVBA	Sample Type	Mn staining	Fe staining	NOTES	LAB SAMPLE FIELD ID
5540	20WS-0315-SO5540-N-052820	5/28/2020	1145	0315	Garibaldi	5.07							Grab	High	Low		
5541	20WS-0312-SO5541-N-052820	5/28/2020	1235	0312	Uncle Sam	5.32							Grab	Low	None		
5542	20WS-0312-SO5542-N-052820	5/28/2020	1240	0312	Uncle Sam	6.13	1						5-point	Low	Moderate		
5543	20WS-0312-SO5543-N-052820	5/28/2020	1250	0312	Uncle Sam	5.55							Grab	None	None		
5544	20WS-0312-SO5544-N-052820	5/28/2020	1255	0312	Uncle Sam	5.00		1	1	1			5-point	None	None		20WS-0312-SO5544-N-052820
5545	20WS-0312-SO5545-N-052820	5/28/2020	1305	0312	Uncle Sam	7.89							Grab	None	None		
5546	20WS-0312-SO5546-N-052820	5/28/2020	1310	0312	Uncle Sam	6.84							Grab	High	Low		
5547	20WS-0312-SO5547-N-052820	5/28/2020	1320	0312	Uncle Sam	6.01	1						5-point	None	Low		
5548	20WS-0307-SO5548-N-052820	5/28/2020	1335	0307	Cora May	4.73	1						5-point	Moderate	Moderate		
5549	20WS-0307-SO5549-N-052820	5/28/2020	1345	0307	Cora May	5.15							Grab	Low	Low		
5550	20WS-0313-SO5550-N-052820	5/28/2020	1405	0313	Silver Cleft	5.20							Grab	None	None		
5551	20WS-0313-SO5551-N-052820	5/28/2020	1415	0313	Silver Cleft	4.95							Grab	None	None		
5552	20WS-0313-SO5552-N-052820	5/28/2020	1425	0313	Silver Cleft	4.76	1						Grab	High	Low		
5553	20WS-0313-SO5553-N-052820	5/28/2020	1430	0313	Silver Cleft	4.63	1						5-point	Moderate	Moderate		
5554	20WS-0313-SO5554-N-052820	5/28/2020	1455	0313	Silver Cleft	5.71					1		30-point	Moderate	Low		20WS-0313-SO5554-N-052820
5555	20WS-0313-SO5555-N-052820	5/28/2020	1510	0313	Silver Cleft	5.54							Grab	None	None		
5556	20WS-0313-SO5556-N-052820	5/28/2020	1520	0313	Silver Cleft	4.88	1						5-point	Moderate	Moderate		
5557	20WS-0301-SO5557-N-052820	5/28/2020	1550	0301	Self Rising	4.98	1						5-point	Moderate	Low		
5558	20WS-0301-SO5558-N-052820	5/28/2020	1555	0301	Self Rising	5.06							Grab	High	Low		
5559	20WS-0301-SO5559-N-052820	5/28/2020	1600	0301	Self Rising	4.78	1						5-point	Low	None		
5560	20WS-0301-SO5560-N-052820	5/28/2020	1610	0301	Self Rising	4.68	1						10-point	Moderate	Moderate		
5561	20WS-0301-SO5561-N-052820	5/28/2020	1615	0301	Self Rising	4.71							Grab	Low	Low		
5562	20WS-0301-SO5562-N-052820	5/28/2020	1620	0301	Self Rising	5.17							Grab	Low	Low		
5563	20WS-0301-SO5563-N-052820	5/28/2020	1625	0301	Self Rising	5.05							Grab	Moderate	High		
5564	20WS-0301-SO5564-N-052820	5/28/2020	1630	0301	Self Rising	5.65							Grab	None	None		
5565	20WS-0301-SO5565-N-052820	5/28/2020	1635	0301	Self Rising	4.93							5-point	High	Low		
5566	20WS-0301-SO5566-N-052820	5/28/2020	1640	0301	Self Rising	4.92	1						8-point	High	Low		
5567	20WS-1150-SO5567-N-052920	5/29/2020	1030	1150	General Washington	5.72	1						10-point	High	Low		
5568	20WS-1150-SO5568-N-052920	5/29/2020	1050	1150	General Washington	5.51	1						10-point	Moderate	Low		
5569	20WS-1150-SO5569-N-052920	5/29/2020	1100	1150	General Washington	5.35							Grab	High	Moderate		
5570	20WS-0301-SO5570-N-052920	5/29/2020	1105	0301	Self Rising	6.13							Grab	Low	Low		
5571	20WS-0301-SO5571-N-052920	5/29/2020	1110	0301	Self Rising	8.55		1					6-point	High	Low		20WS-0301-SO5571-N-052920
5572	20WS-0301-SO5572-N-052920	5/29/2020	1115	0301	Self Rising	8.37							Grab	Low	Low		
5573	20WS-0301-SO5573-N-052920	5/29/2020	1120	0301	Self Rising	7.55	1						5-point	Moderate	Low		
5574	20WS-1150-SO5574-N-052920	5/29/2020	1135	1150	General Washington	5.44	1						5-point	High	Moderate		
5575	20WS-1150-SO5575-N-052920	5/29/2020	1140	1150	General Washington	5.25							Grab	Moderate	Low		
5576	20WS-1150-SO5576-N-052920	5/29/2020	1145	1150	General Washington	3.51	1						5-point	Low	Moderate		
5577	20WS-1150-SO5577-N-052920	5/29/2020	1155	1150	General Washington	5.19	1						5-point	High	Low		
5578	20WS-0301-SO5578-N-052920	5/29/2020	1240	0301	Self Rising	7.15							Grab	Low	Low		
5579	20WS-0301-SO5579-N-052920	5/29/2020	1300	0301	Self Rising	5.50	1						5-point	Low	Low		
5580	20WS-0301-SO5580-N-052920	5/29/2020	1305	0301	Self Rising	5.12							Grab	High	Low		
5581	20WS-0301-SO5581-N-052920	5/29/2020	1310	0301	Self Rising	3.16							Grab	Moderate	Moderate		
5582	20WS-0301-SO5582-N-052920	5/29/2020	1315	0301	Self Rising	4.72							5-point	Moderate	Moderate		
5583	20WS-0301-SO5583-N-052920	5/29/2020	1320	0301	Self Rising	5.05							5-point	High	Low		
5584	20WS-0301-SO5584-N-052920	5/29/2020	1325	0301	Self Rising	6.23	1						6-point	Moderate	Moderate		
5585	20WS-0301-SO5585-N-052920	5/29/2020	1330	0301	Self Rising	7.09	1						5-point	High	High		
5586	20WS-0301-SO5586-N-052920	5/29/2020	1340	0301	Self Rising	6.87							Grab	Moderate	High		
5587	20WS-0300-SO5587-N-052920	5/29/2020	1355	0300	Tom Haney	5.22							5-point	Moderate	Moderate		
5588	20WS-0300-SO5588-N-052920	5/29/2020	1400	0300	Tom Haney	4.73							Grab	High	Low		

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SAMPLE # (SO)	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Field Soil pH (s.u.)	XRF	Metals	SPLP	ABA	MIS	IVBA	Sample Type	Mn staining	Fe staining	NOTES	LAB SAMPLE FIELD ID
5589	20WS-0300-SO5589-N-052920	5/29/2020	1405	0300	Tom Haney	8.89							Grab	None	Low		
5590	20WS-0300-SO5590-N-052920	5/29/2020	1410	0300	Tom Haney	5.28	1						5-point	Moderate	High		
5591	20WS-0300-SO5591-N-052920	5/29/2020	1415	0300	Tom Haney	5.41							Grab	None	Low		
5592	20WS-0300-SO5592-N-052920	5/29/2020	1420	0300	Tom Haney	4.95	1						5-point	High	None		
5593	20WS-0300-SO5593-N-052920	5/29/2020	1430	0300	Tom Haney	4.66	1						10-point	High	Moderate		
5594	20WS-0300-SO5594-N-052920	5/29/2020	1445	0300	Tom Haney	5.13							5-point	None	None		
5595	20WS-0300-SO5595-N-052920	5/29/2020	1450	0300	Tom Haney	5.42							Grab	Moderate	Moderate		
5596	20WS-0300-SO5596-N-052920	5/29/2020	1500	0300	Tom Haney	5.32							Grab	Moderate	Moderate		
5597	20WS-0306-SO5597-N-052920	5/29/2020	1505	0306	Herbert	4.97	1						5-point	Moderate	High		
5598	20WS-0311-SO5598-N-052920	5/29/2020	1530	0311	Little Gem	4.64							5-point	Moderate	Moderate		
5599	20WS-0300-SO5599-N-052920	5/29/2020	1540	0300	Tom Haney	6.42							Grab	High	Moderate		
5600	20WS-0013-SO5600-N-060120	6/1/2020	0900	0013	Georgie	6.33							5-point	Moderate	High		
5601	20WS-0013-SO5601-N-060120	6/1/2020	0905	0013	Georgie	7.18		1					5-point	High	High		20WS-0013-SO5601-N-060120
5602	20WS-0013-SO5602-N-060120	6/1/2020	0915	0013	Georgie	5.78							Grab	Moderate	High		
5603	20WS-0013-SO5603-N-060120	6/1/2020	0920	0013	Georgie	4.13	1						5-point	High	Moderate		
5604	20WS-0013-SO5604-N-060120	6/1/2020	0925	0013	Georgie	NA							NA	None	None	Bedrock	
5605	20WS-0013-SO5605-N-060120	6/1/2020	0930	0013	Georgie	NA							NA	None	None	Bare Area	
5606	20WS-0013-SO5606-N-060120	6/1/2020	0935	0013	Georgie	8.08							Grab	None	None		
5607	20WS-0013-SO5607-N-060120	6/1/2020	0940	0013	Georgie	7.05							5-point	Moderate	Moderate		
5608	20WS-0013-SO5608-N-060120	6/1/2020	0945	0013	Georgie	5.85	1						8-point	Moderate	Moderate		
5609	20WS-0012-SO5609-N-060120	6/1/2020	0955	0012	Prospector	6.94							5-point	None	None		
5610	20WS-0013-SO5610-N-060120	6/1/2020	1005	0013	Georgie	7.72					1		30-point	None	None		20WS-0013-SO5610-N-060120
5611	20WS-0010-SO5611-N-060120	6/1/2020	1020	0010	Minnie Jane	3.70		1					10-point	High	Moderate		20WS-0010-SO5611-N-060120
5612	20WS-0010-SO5612-N-060120	6/1/2020	1025	0010	Minnie Jane	4.89							Grab	High	Low		
5613	20WS-0296-SO5613-N-060120	6/1/2020	1050	0296	Philadelphia	7.82							Grab	Low	Low		
5614	20WS-0296-SO5614-N-060120	6/1/2020	1100	0296	Philadelphia	6.00	1						5-point	High	Low		
5615	20WS-0296-SO5615-N-060120	6/1/2020	1105	0296	Philadelphia	3.42	1						5-point	None	Low		
5616	20WS-0296-SO5616-N-060120	6/1/2020	1120	0296	Philadelphia	6.39							5-point	High	Low		
5617	20WS-0296-SO5617-N-060120	6/1/2020	1125	0296	Philadelphia	8.28							Grab	Low	Low		
5618	20WS-0296-SO5618-N-060120	6/1/2020	1130	0296	Philadelphia	3.63	1						5-point	Low	Low		
5619	20WS-0296-SO5619-N-060120	6/1/2020	1140	0296	Philadelphia	5.37	1						5-point	Low	Low		
5620	20WS-0311-SO5620-N-060120	6/1/2020	1240	0311	Little Gem	NA							NA	None	None	Bedrock	
5621	20WS-0311-SO5621-N-060120	6/1/2020	1245	0311	Little Gem	8.15							Grab	Low	High		
5622	20WS-0311-SO5622-N-060120	6/1/2020	1300	0311	Little Gem	NA							NA	None	None	Mammal Dens	
5623	20WS-0311-SO5623-N-060120	6/1/2020	1305	0311	Little Gem	5.73	1						5-point	Low	High		
5624	20WS-0311-SO5624-N-060120	6/1/2020	1315	0311	Little Gem	4.83							Grab	Moderate	High		
5625	20WS-0306-SO5625-N-060120	6/1/2020	1335	0306	Herbert	5.76		1					5-point	High	Low		20WS-0306-SO5625-N-060120
5626	20WS-1143-SO5626-N-060220	6/2/2020	0910	1143	sliver near Houghton	8.54	1						5-point	Low	High		
5627	20WS-1143-SO5627-N-060220	6/2/2020	0935	1143	sliver W of Little Annie	3.69	1						5-point	None	Moderate		
5628	20WS-1143-SO5628-N-060220	6/2/2020	0940	1143	sliver W of Little Annie	5.19							Grab	Moderate	Low		
5629	20WS-1143-SO5629-N-060220	6/2/2020	0950	1143	sliver W of Little Annie	6.40							Grab	None	None		
5630	20WS-1142-SO5630-N-060220	6/2/2020	1000	1142	W of Cheyenne	6.78							Grab	None	Moderate		
5631	20WS-1142-SO5631-N-060220	6/2/2020	1015	1142	E of Big Bonanza	6.11	1						5-point	Low	Low		
5632	20WS-1140-SO5632-N-060220	6/2/2020	1040	1140	Small claim W of Big Bonanza	8.53							Grab	Low	Low		
5633	20WS-0350-SO5633-N-060220	6/2/2020	1155	0350	Belcher	4.85	1						5-point	Moderate	Moderate		
5634	20WS-0350-SO5634-N-060220	6/2/2020	1205	0350	Belcher	5.64							5-point	High	High		
5635	20WS-0350-SO5635-N-060220	6/2/2020	1210	0350	Belcher	6.15							5-point	Low	High		
5636	20WS-0350-SO5636-N-060220	6/2/2020	1215	0350	Belcher	7.44							Grab	Low	Low		
5637	20WS-0350-SO5637-N-060220	6/2/2020	1225	0350	Belcher	6.65	1						5-point	Moderate	High		

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5638	20WS-0350-SO5638-N-060220	6/2/2020	1235	0350	Belcher	6.60							Grab	High	Moderate		
5639	20WS-0350-SO5639-N-060220	6/2/2020	1240	0350	Belcher	5.92							Grab	Moderate	High		
5640	20WS-0350-SO5640-N-060220	6/2/2020	1245	0350	Belcher	7.82	1						5-point	Low	High		
5641	20WS-0350-SO5641-N-060220	6/2/2020	1300	0350	Belcher	8.06							5-point	Moderate	Moderate		
5642	20WS-0350-SO5642-N-060220	6/2/2020	1310	0350	Belcher	7.70							5-point	Moderate	Moderate		
5643	20WS-0111-SO5643-N-060220	6/2/2020	1345	0111	Sargeant	7.25							Grab	None	None		
5644	20WS-0111-SO5644-N-060220	6/2/2020	1355	0111	Sargeant	7.77							Grab	None	Low		
5645	20WS-0350-SO5645-N-060220	6/2/2020	1400	0350	Belcher	6.13		1					5-point	High	Low		20WS-0350-SO5645-N-060220
5646	20WS-0350-SO5646-N-060220	6/2/2020	1415	0350	Belcher	6.22							Grab	Low	Moderate		
5647	20WS-0350-SO5647-N-060220	6/2/2020	1420	0350	Belcher	6.43							Grab	Moderate	Low		
5648	20WS-0350-SO5648-N-060220	6/2/2020	1425	0350	Belcher	4.10	1						10-point	Low	Low		
5649	20WS-0350-SO5649-N-060220	6/2/2020	1435	0350	Belcher	5.27							Grab	Low	Low		
5650	20WS-0111-SO5650-N-060220	6/2/2020	1445	0111	Sargeant	7.44							5-point	None	None		
5651	20WS-0002-SO5651-N-060120	6/1/2020	0013	0002	Portland	NA							Vegetated Piles	None	Low		
5652	20WS-0002-SO5652-N-060120	6/1/2020	1300	0002	Portland	8.08							Grab	None	Low		
5653	20WS-0002-SO5653-N-060120	6/1/2020	1310	0002	Portland	NA							NA	None	Low	Vegetated Piles	
5654	20WS-0002-SO5654-N-060120	6/1/2020	1320	0002	Portland	NA							NA	None	None	Waste rock piles	
5655	20WS-0002-SO5655-N-060120	6/1/2020	1335	0002	Portland	NA							NA	None	None	Bare Area	
5656	20WS-0002-SO5656-N-060120	6/1/2020	1340	0002	Portland	4.97							Grab	None	None		
5657	20WS-0002-SO5657-N-060120	6/1/2020	1345	0002	Portland	NA							NA	None	None	Part of Old Dump	
5658	20WS-0002-SO5658-N-060120	6/1/2020	1400	0002	Portland	NA							NA	None	None	Med Size Trench	
5659	20WS-0002-SO5659-N-060120	6/1/2020	1405	0002	Portland	5.09							Grab	Low	None		
5660	20WS-0002-SO5660-N-060120	6/1/2020	1410	0002	Portland	NA							NA	None	None	Trench/Drainage	
5661	20WS-0003-SO5661-N-060120	6/1/2020	1420	0003	Humboldt	8.00	1						5-point	Low	Low		
5662	20WS-0003-SO5662-N-060120	6/1/2020	1430	0003	Humboldt	8.11							Grab	Moderate	Low		
5663	20WS-0003-SO5663-N-060120	6/1/2020	1435	0003	Humboldt	8.14							Grab	Low	Low		
5664	20WS-0038-SO5664-N-060120	6/1/2020	1510	0038	North Pole	4.99	1						5-point	High	Low		
5665	20WS-0041-SO5665-N-060120	6/1/2020	1525	0041	Katie T	NA							NA	None	None	Imported Material	
5666	20WS-0041-SO5666-N-060120	6/1/2020	1530	0041	Katie T	6.03							5-point	Low	None		
5667	20WS-0317-SO5667-N-060120	6/1/2020	1555	0317	St. Louis	5.45							Grab	None	None		
5668	20WS-0317-SO5668-N-060120	6/1/2020	1600	0317	St. Louis	5.31	1						6-point	High	Low		
5669	20WS-0317-SO5669-N-060120	6/1/2020	1605	0317	St. Louis	NA							NA	Low	None	Bedrock	
5670	20WS-0179-SO5670-N-060220	6/2/2020	0900	0179	Eagle	3.88		1	1	1			5-point	None	Low		20WS-0179-SO5670-N-060220
5671	20WS-0179-SO5671-N-060220	6/2/2020	0920	0179	Eagle	8.00							Grab	None	Low		
5672	20WS-0179-SO5672-N-060220	6/2/2020	0925	0179	Eagle	3.59	1						5-point	None	None		
5673	20WS-0179-SO5673-N-060220	6/2/2020	0935	0179	Eagle	4.22		1					5-point	Low	Moderate		20WS-0179-SO5673-N-060220
5674	20WS-0179-SO5674-N-060220	6/2/2020	0924	0179	Eagle	3.50							Grab	None	Low		
5675	20WS-0179-SO5675-N-060220	6/2/2020	0950	0179	Eagle	3.77	1						Grab	Low	Low		
5676	20WS-0179-SO5676-N-060220	6/2/2020	1000	0179	Eagle	3.86							Grab	None	Low		
5677	20WS-0179-SO5677-N-060220	6/2/2020	1005	0179	Eagle	3.76							Grab	None	None		
5678	20WS-0179-SO5678-N-060220	6/2/2020	1020	0179	Eagle	3.77	1						10-point	None	Low		
5679	20WS-0179-SO5679-N-060220	6/2/2020	1030	0179	Eagle	3.40	1						5-point	None	Moderate		
5680	20WS-0179-SO5680-N-060220	6/2/2020	1040	0179	Eagle	3.97		1					6-point	None	Low		20WS-0179-SO5680-N-060220
5681	20WS-0179-SO5681-N-060220	6/2/2020	1055	0179	Eagle	3.17							Grab	None	Low		
5682	20WS-0179-SO5682-N-060220	6/2/2020	1100	0179	Eagle	3.25							Grab	None	Low		
5683	20WS-0179-SO5683-N-060220	6/2/2020	1105	0179	Eagle	6.37							Grab	None	None		
5684	20WS-0179-SO5684-N-060220	6/2/2020	1110	0179	Eagle	4.53	1						Grab	None	Low		
5685	20WS-0179-SO5685-N-060220	6/2/2020	1115	0179	Eagle	5.02	1						Grab	None	None		
5686	20WS-0179-SO5686-N-060220	6/2/2020	1130	0179	Eagle	NA							NA	None	None	Bare Area	
5687	20WS-0179-SO5687-N-060220	6/2/2020	1200	0179	Eagle	NA							NA	None	None	Bedrock	
5688	20WS-0142-SO5688-N-060220	6/2/2020	1315	0142	Non Consolidated	6.65	1						5-point	Moderate	Low		
5689	20WS-0142-SO5689-N-060220	6/2/2020	1325	0142	Non Consolidated	8.08							Grab	Low	Low		
5690	20WS-0142-SO5690-N-060220	6/2/2020	1330	0142	Non Consolidated	3.76							Grab	Moderate	Moderate		
5691	20WS-0142-SO5691-N-060220	6/2/2020	1340	0142	Non Consolidated	4.72							Grab	Moderate	Moderate		
5692	20WS-0142-SO5692-N-060220	6/2/2020	1345	0142	Non Consolidated	3.90	1						5-point	Low	Moderate		
5693	20WS-0122-SO5693-N-060220	6/2/2020	1425	0122	Snow Drift	5.36					1		30-point	None	None		20WS-0122-SO5693-N-060220

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5694	20WS-0138-SO5694-N-060220	6/2/2020	1455	0138	Glengarry	5.02	1						5-point	Moderate	Low		
5695	20WS-0138-SO5695-N-060220	6/2/2020	1500	0138	Glengarry	7.95							Grab	Low	None		
5696	20WS-0138-SO5696-N-060220	6/2/2020	1505	0138	Glengarry	4.63							Grab	Moderate	Low		
5697	20WS-0138-SO5697-N-060220	6/2/2020	1515	0138	Glengarry	6.33	1						5-point	High	None		
5698	20WS-0138-SO5698-N-060220	6/2/2020	1520	0138	Glengarry	4.11							Grab	Moderate	Moderate		
5699	20WS-0138-SO5699-N-060220	6/2/2020	1525	0138	Glengarry	8.02							Grab	None	Low		
5700	20WS-0138-SO5700-N-060220	6/2/2020	1530	0138	Glengarry	5.06		1					Grab	NR	NR		20WS-0138-SO5700-N-060220
5701	20WS-0138-SO5701-N-060220	6/2/2020	1550	0138	Glengarry	NA							NA	None	None	Well Vegetated Trench Pile	
5702	20WS-0122-SO5702-N-060220	6/2/2020	1555	0122	Snow Drift	NA							NA	None	None	Well Vegetated Trench Pile	
5703	20WS-0122-SO5703-N-060220	6/2/2020	1600	0122	Snow Drift	NA							NA	Low	Low	Moderate vegetated trench pile	
5704	20WS-0122-SO5704-N-060220	6/2/2020	1610	0122	Snow Drift	4.06		1					10-point	High	Low		20WS-0122-SO5704-N-060220
5705	20WS-0122-SO5705-N-060220	6/2/2020	1615	0122	Snow Drift	6.11							5-point	Moderate	Low		
5706	20WS-0162-SO5706-N-060320	6/3/2020	0840	0162	Marget Ann	8.61		1					5-point	Low	Low		20WS-0162-SO5706-N-060320
5707	20WS-0162-SO5707-N-060320	6/3/2020	0850	0162	Marget Ann	8.50							Grab	Low	None		
5708	20WS-0162-SO5708-N-060320	6/3/2020	0855	0162	Marget Ann	8.35	1						5-point	Low	None		
5709	20WS-0162-SO5709-N-060320	6/3/2020	0900	0162	Marget Ann	8.33							Grab	Moderate	Low		
5710	20WS-0162-SO5710-N-060320	6/3/2020	0905	0162	Marget Ann	8.70	1						Grab	Low	None		
5711	20WS-0162-SO5711-N-060320	6/3/2020	0915	0162	Marget Ann	8.33	1						5-point	Moderate	Low		
5712	20WS-0162-SO5712-N-060320	6/3/2020	0925	0162	Marget Ann	8.57							Grab	Low	None		
5713	20WS-0162-SO5713-N-060320	6/3/2020	0930	0162	Marget Ann	6.43							Grab	High	Low		
5714	20WS-0162-SO5714-N-060320	6/3/2020	0940	0162	Marget Ann	2.23							Grab	Moderate	High		
5715	20WS-0162-SO5715-N-060320	6/3/2020	1005	0162	Marget Ann	8.48							Grab	None	None		
5716	20WS-0162-SO5716-N-060320	6/3/2020	1015	0162	Marget Ann	6.85	1						5-point	None	Moderate		
5717	20WS-0162-SO5717-N-060320	6/3/2020	1050	0162	Marget Ann	8.39							Grab	Low	Low		
5718	20WS-0162-SO5718-N-060320	6/3/2020	1100	0162	Marget Ann	8.33							Grab	Low	None		
5719	20WS-0162-SO5719-N-060320	6/3/2020	1105	0162	Marget Ann	5.33	1						5-point	High	Low		
5720	20WS-0162-SO5720-N-060320	6/3/2020	1115	0162	Marget Ann	6.89	1						5-point	None	None		
5721	20WS-0162-SO5721-N-060320	6/3/2020	1125	0162	Marget Ann	7.67							Grab	None	None		
5722	20WS-0162-SO5722-N-060320	6/3/2020	1130	0162	Marget Ann	8.50		1					Grab	None	None		20WS-0162-SO5722-N-060320
5723	20WS-0138-SO5723-N-060320	6/3/2020	1150	0138	Glengarry	8.45							Grab	Moderate	None		
5724	20WS-0138-SO5724-N-060320	6/3/2020	1200	0138	Glengarry	6.40	1						5-point	Moderate	Low		
5725	20WS-0138-SO5725-N-060320	6/3/2020	1205	0138	Glengarry	8.53							Grab	Moderate	Low		
5726	20WS-0111-SO5726-N-060220	6/2/2020	1510	0111	Sargeant	7.82							Grab	None	None		
5727	20WS-0130-SO5727-N-060220	6/2/2020	1520	0130	Gulch	7.73							Grab	Low	Low		
5728	20WS-0130-SO5728-N-060220	6/2/2020	1530	0130	Gulch	5.42		1	1	1			5-point	Low	Low		20WS-0130-SO5728-N-060220
5729	20WS-0130-SO5729-N-060220	6/2/2020	1545	0130	Gulch	4.76	1						5-point	None	Low		
5730	20WS-0130-SO5730-N-060220	6/2/2020	1550	0130	Gulch	5.20							Grab	Low	Low		
5731	20WS-0130-SO5731-N-060220	6/2/2020	1555	0130	Gulch	5.57	1						7-point	Low	Low		
5732	20WS-0162-SO5732-N-060320	6/3/2020	0840	0162	Marget Ann	8.15					1		30-point	None	None		20WS-0162-SO5732-N-060320
5733	20WS-0162-SO5733-N-060320	6/3/2020	0900	0162	Marget Ann	8.79		1					9-point	None	None		20WS-0162-SO5733-N-060320
5734	20WS-0162-SO5734-N-060320	6/3/2020	0920	0162	Marget Ann	5.98	1						5-point	Moderate	Low		
5735	20WS-0162-SO5735-N-060320	6/3/2020	0925	0162	Marget Ann	4.77							Grab	Moderate	None		
5736	20WS-0162-SO5736-N-060320	6/3/2020	0935	0162	Marget Ann	8.29	1						5-point	Low	Low		
5737	20WS-0160-SO5737-N-060320	6/3/2020	0955	0160	Rescue	7.64							Grab	Moderate	Moderate		
5738	20WS-0160-SO5738-N-060320	6/3/2020	1000	0160	Rescue	5.07	1						5-point	Low	Moderate		
5739	20WS-0160-SO5739-N-060320	6/3/2020	1005	0160	Rescue	8.13	1						5-point	Low	Low		
5740	20WS-0160-SO5740-N-060320	6/3/2020	1015	0160	Rescue	7.36							Grab	None	None		
5741	20WS-0160-SO5741-N-060320	6/3/2020	1025	0160	Rescue	NA							NA	None	None	Vegetated Pit	
5742	20WS-0158-SO5742-N-060320	6/3/2020	1110	0158	Union	4.23							5-point	None	Low		
5743	20WS-0158-SO5743-N-060320	6/3/2020	1115	0158	Union	4.58							Grab	None	High		
5744	20WS-0157-SO5744-N-060320	6/3/2020	1120	0157	Remnant	3.31		1					8-point	Low	Moderate		20WS-0157-SO5744-N-060320
5745	20WS-0158-SO5745-N-060320	6/3/2020	1130	0158	Union	7.67	1						7-point	None	None		
5746	20WS-0158-SO5746-N-060320	6/3/2020	1140	0158	Union	4.05							Grab	None	High		
5747	20WS-0158-SO5747-N-060320	6/3/2020	1145	0158	Union	3.41							5-point	None	Moderate		
5748	20WS-0158-SO5748-N-060320	6/3/2020	1150	0158	Union	4.40	1						6-point	None	Moderate		
5749	20WS-0158-SO5749-N-060320	6/3/2020	1155	0158	Union	5.17							Grab	None	High		
5750	20WS-0158-SO5750-N-060320	6/3/2020	1200	0158	Union	5.11							Grab	Low	High		
5751	20WS-0153-SO5751-N-060320	6/3/2020	1245	0153	Daisy B	5.60	1						5-point	Moderate	Moderate		
5752	20WS-0138-SO5752-N-060320	6/3/2020	1335	0138	Glengarry	7.96	1						5-point	Moderate	Low		
5753	20WS-0138-SO5753-N-060320	6/3/2020	1345	0138	Glengarry	4.08							Grab	Moderate	Moderate		
5754	20WS-0138-SO5754-N-060320	6/3/2020	1350	0138	Glengarry	6.37	1						5-point	Moderate	High		
5755	20WS-0138-SO5755-N-060320	6/3/2020	1400	0138	Glengarry	8.14							5-point	None	None		
5756	20WS-0138-SO5756-N-060320	6/3/2020	1410	0138	Glengarry	5.15	1						5-point	High	Moderate		
5757	20WS-0138-SO5757-N-060320	6/3/2020	1415	0138	Glengarry	5.56	1	1					5-point	High	Low		20WS-0138-SO5757-N-060320
5758	20WS-0138-SO5758-N-060320	6/3/2020	1500	0138	Glengarry	5.17	1						Grab	High	Low		
5759	20WS-0138-SO5759-N-060320	6/3/2020	1510	0138	Glengarry	5.13							Grab	High	Moderate		

Table 2: Surface Soils Sampling Collection Summary

SAMPLE # (SO)	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Field Soil pH (s.u.)	XRF	Metals	SPLP	ABA	MIS	IVBA	Sample Type	Mn staining	Fe staining	NOTES	LAB SAMPLE FIELD ID
5760	20WS-0138-SO5760-N-060320	6/3/2020	1515	0138	Glengarry	8.87							Grab	None	None		
5761	20WS-0138-SO5761-N-060320	6/3/2020	1525	0138	Glengarry	8.11	1						5-point	High	Low		
5762	20WS-0138-SO5762-N-060320	6/3/2020	1535	0138	Glengarry	5.73	1						8-point	High	High		
5763	20WS-0138-SO5763-N-060420	6/4/2020	0845 0855	0138	Glengarry	5.78					2		30-point	None	None	MIS Duplicate	20WS-0138-SO5763-N-060420 20WS-0138-SO5763-D-060420
5764	20WS-0122-SO5764-N-060420	6/4/2020	0925	0122	Snow Drift	4.03							Grab	High	Moderate		
5765	20WS-0122-SO5765-N-060420	6/4/2020	0930	0122	Snow Drift	7.96	1						5-point	High	Low		
5766	20WS-0122-SO5766-N-060420	6/4/2020	0935	0122	Snow Drift	8.08	1						5-point	Moderate	Low		
5767	20WS-0122-SO5767-N-060420	6/4/2020	0950	0122	Snow Drift	6.73							5-point	High	Moderate		
5768	20WS-0102-SO5768-N-060420	6/4/2020	1010	0102	Valley Forge	NA							NA	None	None	Bedrock	
5769	20WS-0102-SO5769-N-060420	6/4/2020	1015	0102	Valley Forge	6.91							Grab	None	Moderate		
5770	20WS-0102-SO5770-N-060420	6/4/2020	1025	0102	Valley Forge	6.15	1						5-point	Low	Low		
5771	20WS-0102-SO5771-N-060420	6/4/2020	1035	0102	Valley Forge	6.96							Grab	None	Low		
5772	20WS-0122-SO5772-N-060420	6/4/2020	1050	0122	Snow Drift	5.85							Grab	Low	Moderate		
5773	20WS-0122-SO5773-N-060420	6/4/2020	1055	0122	Snow Drift	5.07	1						10-point	Low	High		
5774	20WS-0123-SO5774-N-060420	6/4/2020	1105	0123	Kerry	3.75							Grab	NR	NR		
5775	20WS-0123-SO5775-N-060420	6/4/2020	1125	0123	Kerry	4.09	1						5-point	High	Moderate		
5776	20WS-0138-SO5776-N-060320	6/3/2020	1210	0138	Glengarry	4.55	1						5-point	Moderate	Moderate		
5777	20WS-0138-SO5777-N-060320	6/3/2020	1220	0138	Glengarry	4.90							Grab	High	Low		
5778	20WS-0138-SO5778-N-060320	6/3/2020	1330	0138	Glengarry	8.55							Grab	Low	None		
5779	20WS-0138-SO5779-N-060320	6/3/2020	1340	0138	Glengarry	8.49							Grab	Low	None		
5780	20WS-0138-SO5780-N-060320	6/3/2020	1350	0138	Glengarry	8.48	1						5-point	Low	None		
5781	20WS-0138-SO5781-N-060320	6/3/2020	1405	0138	Glengarry	8.43	1						Grab	Low	Moderate		
5782	20WS-0138-SO5782-N-060320	6/3/2020	1425	0138	Glengarry	4.59							Grab	Moderate	Low		
5783	20WS-0138-SO5783-N-060320	6/3/2020	1440	0138	Glengarry	7.11	1						5-point	High	Low		
5784	20WS-0138-SO5784-N-060320	6/3/2020	1450	0138	Glengarry	8.52							Grab	Moderate	Low		
5785	20WS-0138-SO5785-N-060320	6/3/2020	1505	0138	Glengarry	3.74	1						Grab	Moderate	Moderate		
5786	20WS-0138-SO5786-N-060320	6/3/2020	1510	0138	Glengarry	7.65							Grab	Low	Low		
5787	20WS-0138-SO5787-N-060320	6/3/2020	1520	0138	Glengarry	8.16		1					5-point	Moderate	Low		20WS-0138-SO5787-N-060320
5788	20WS-0138-SO5788-N-060420	6/4/2020	0840	0138	Glengarry	8.45							Grab	None	None		
5789	20WS-0138-SO5789-N-060420	6/4/2020	0850	0138	Glengarry	7.62							Grab	Low	None		
5790	20WS-0138-SO5790-N-060420	6/4/2020	0900	0138	Glengarry	5.24	1						5-point	Moderate	None		
5791	20WS-0138-SO5791-N-060420	6/4/2020	0910	0138	Glengarry	3.74							Grab	Low	Moderate		
5792	20WS-0138-SO5792-N-060420	6/4/2020	0915	0138	Glengarry	5.67							Grab	Low	Low		
5793	20WS-0138-SO5793-N-060420	6/4/2020	0920	0138	Glengarry	5.11	1						6-point	Moderate	Moderate		
5794	20WS-0138-SO5794-N-060420	6/4/2020	0930	0138	Glengarry	5.22							Grab	Moderate	Low		
5795	20WS-0138-SO5795-N-060420	6/4/2020	0940	0138	Glengarry	5.57							5-point	High	Low		
5796	20WS-0138-SO5796-N-060420	6/4/2020	0950	0138	Glengarry	7.07	1						10-point	Moderate	Low		
5797	20WS-0138-SO5797-N-060420	6/4/2020	1000	0138	Glengarry	8.07							5-point	Moderate	Low		
5798	20WS-0138-SO5798-N-060420	6/4/2020	1010	0138	Glengarry	8.18							Grab	Low	Low		
5799	20WS-0121-SO5799-N-060420	6/4/2020	1055	0121	Harkaway	6.45							Grab	Low	Low		
5800	20WS-0121-SO5800-N-060420	6/4/2020	1110	0121	Harkaway	5.77							Grab	None	None		
5801	20WS-0121-SO5801-N-060420	6/4/2020	1125 1130	0121	Harkaway	8.29		2					7-point	Low	Low	Metals Duplicate	20WS-0121-SO5801-N-060420 20WS-0121-SO5801-D-060420
5802	20WS-0121-SO5802-N-060420	6/4/2020	1140	0121	Harkaway	4.72							5-point	Low	Moderate		
5803	20WS-0121-SO5803-N-060420	6/4/2020	1150	0121	Harkaway	7.76	1						5-point	Low	Low		
5804	20WS-0121-SO5804-N-060420	6/4/2020	1200	0121	Harkaway	5.01	1						5-point	Low	Moderate		
5805	20WS-0121-SO5805-N-060420	6/4/2020	1205	0121	Harkaway	8.15							Grab	Low	Low		
5806	20WS-0121-SO5806-N-060420	6/4/2020	1215	0121	Harkaway	8.59							Grab	Low	Low		
5807	20WS-0121-SO5807-N-060420	6/4/2020	1340	0121	Harkaway	6.60							Grab	None	None		
5808	20WS-0121-SO5808-N-060420	6/4/2020	1350	0121	Harkaway	5.99							Grab	Low	None		
5809	20WS-0121-SO5809-N-060420	6/4/2020	1355	0121	Harkaway	5.78	1						Grab	Moderate	Low		
5810	20WS-1118-SO5810-N-060920	6/9/2020	0940	1118	Josiah	NA							NA	None	None	Bare Area	
5811	20WS-1118-SO5811-N-060920	6/9/2020	0950	1118	Josiah	NA							NA	None	None	Bare Area	
5812	20WS-1118-SO5812-N-060920	6/9/2020	1000	1118	Josiah	NA							NA	Moderate	None	Bedrock	
5813	20WS-1118-SO5813-N-060920	6/9/2020	1005	1118	Josiah	5.24							Grab	None	None		
5814	20WS-1118-SO5814-N-060920	6/9/2020	1015	1118	Josiah	NA							NA	None	Moderate	Trench	
5815	20WS-1118-SO5815-N-060920	6/9/2020	1025	1118	Josiah	7.29	1						Grab	None	Low	Hazardous opening	
5816	20WS-1118-SO5816-N-060920	6/9/2020	1045	1118	Josiah	NA							NA	Moderate	Low	Bedrock	
5817	20WS-1118-SO5817-N-060920	6/9/2020	1055	1118	Josiah	6.50							Grab	Low	Low		
5818	20WS-1118-SO5818-N-060920	6/9/2020	1120	1118	Josiah	NA							NA	None	None	Bare Area	
5819	20WS-1116-SO5819-N-060920	6/9/2020	1140	1116	Concentrator Placer	5.56	1						5-point	Moderate	None		
5820	20WS-1116-SO5820-N-060920	6/9/2020	1150	1116	Concentrator Placer	5.17							Grab	Low	None		
5821	20WS-1116-SO5821-N-060920	6/9/2020	1155	1116	Concentrator Placer	5.20		1					5-point	Moderate	Low		20WS-1116-SO5821-N-060920
5822	20WS-1116-SO5822-N-060920	6/9/2020	1210	1116	Concentrator Placer	5.74							Grab	None	None		
5823	20WS-1116-SO5823-N-060920	6/9/2020	1340	1116	Concentrator Placer	8.27					1		30-point	None	None		20WS-1116-SO5823-N-060920

Table 2: Surface Soils Sampling Collection Summary

SAMPLE # (SO)	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Field Soil pH (s.u.)	XRF	Metals	SPLP	ABA	MIS	IVBA	Sample Type	Mn staining	Fe staining	NOTES	LAB SAMPLE FIELD ID
5824	20WS-1116-SO5824-N-060920	6/9/2020	1415	1116	Concentrator Placer	NA							NA	Low	None	Bedrock	
5825	20WS-1116-SO5825-N-060920	6/9/2020	1445	1116	Concentrator Placer	6.09							Grab	High	Low	Slag in soil	
5826	20WS-0123-SO5826-N-060420	6/4/2020	1130	0123	Kerry	4.88							Grab	High	Moderate		
5827	20WS-0123-SO5827-N-060420	6/4/2020	1135	0123	Kerry	6.14	1						5-point	High	Low		
5828	20WS-0123-SO5828-N-060420	6/4/2020	1145	0123	Kerry	2.96		1					5-point	None	High		20WS-0123-SO5828-N-060420
5829	20WS-0123-SO5829-N-060420	6/4/2020	1150	0123	Kerry	4.37		1					5-point	High	Low		20WS-0123-SO5829-N-060420
5830	20WS-0122-SO5830-N-060420	6/4/2020	1235	0122	Snow Drift	5.62							Grab	High	Moderate		
5831	20WS-0122-SO5831-N-060420	6/4/2020	1240	0122	Snow Drift	7.20	1						5-point	High	Low		
5832	20WS-0122-SO5832-N-060420	6/4/2020	1250	0122	Snow Drift	4.93							Grab	Moderate	Low		
5833	20WS-0122-SO5833-N-060420	6/4/2020	1255	0122	Snow Drift	6.78							Grab	High	Moderate		
5834	20WS-0122-SO5834-N-060420	6/4/2020	1300	0122	Snow Drift	6.41	1						5-point	High	High		
5835	20WS-0122-SO5835-N-060420	6/4/2020	1305	0122	Snow Drift	5.03							Grab	High	Moderate		
5836	20WS-0122-SO5836-N-060420	6/4/2020	1315	0122	Snow Drift	5.94							Grab	Moderate	Moderate		
5837	20WS-0122-SO5837-N-060420	6/4/2020	1325	0122	Snow Drift	5.27	1						5-point	Low	Low		
5838	20WS-0122-SO5838-N-060420	6/4/2020	1335	0122	Snow Drift	6.12							5-point	Moderate	High		
5839	20WS-0122-SO5839-N-060420	6/4/2020	1345	0122	Snow Drift	6.30	1						5-point	Low	Low		
5840	20WS-0350-SO5840-N-060420	6/4/2020	1445	0350	Belcher	4.65		1					5-point	Moderate	Moderate		20WS-0350-SO5840-N-060420
5841	20WS-0350-SO5841-N-060420	6/4/2020	1450	0350	Belcher	5.45		1					5-point	Moderate	High		20WS-0350-SO5841-N-060420
5842	20WS-1114-SO5842-N-060920	6/9/2020	0915	1114	Virgo	5.66							Grab	None	None		
5843	20WS-1114-SO5843-N-060920	6/9/2020	0920	1114	Virgo	NA							NA	None	None	Well Vegetated Area	
5844	20WS-1114-SO5844-N-060920	6/9/2020	0925	1114	Virgo	NA							NA	None	None	Bare Area	
5845	20WS-1114-SO5845-N-060920	6/9/2020	0930	1114	Virgo	5.41							5-point	None	Low		
5846	20WS-1115-SO5846-N-060920	6/9/2020	0945	1115	Jewel	6.25	1						5-point	Low	Low		
5847	20WS-1115-SO5847-N-060920	6/9/2020	0955	1115	Jewel	7.23							Grab	None	Low		
5848	20WS-1115-SO5848-N-060920	6/9/2020	1000	1115	Jewel	7.42							Grab	None	Moderate		
5849	20WS-1115-SO5849-N-060920	6/9/2020	1005	1115	Jewel	5.46		1					5-point	High	Low		20WS-1115-SO5849-N-060920
5850	20WS-1115-SO5850-N-060920	6/9/2020	1010	1115	Jewel	7.20	1						Grab	Low	Low		
5851	20WS-1115-SO5851-N-060920	6/9/2020	1030	1115	Jewel	8.77	1						5-point	None	Low		
5852	20WS-1115-SO5852-N-060920	6/9/2020	1045	1115	Jewel	5.52	1						5-point	None	None		
5853	20WS-1114-SO5853-N-060920	6/9/2020	1105	1114	Virgo	4.64	1						5-point	Low	Low		
5854	20WS-1114-SO5854-N-060920	6/9/2020	1115	1114	Virgo	5.47		1					5-point	Moderate	High		20WS-1114-SO5854-N-060920
5855	20WS-1113-SO5855-N-060920	6/9/2020	1140	1113	Carrie	6.10							Grab	Low	Low		
5856	20WS-1113-SO5856-N-060920	6/9/2020	1145	1113	Carrie	5.80	1						5-point	Low	Low		
5857	20WS-1113-SO5857-N-060920	6/9/2020	1245	1113	Carrie	6.77	1						5-point	Moderate	Low		
5858	20WS-1113-SO5858-N-060920	6/9/2020	1250 1300	1113	Carrie	3.39		1	2	2			5-point	None	Moderate	SPLP and ABA Duplicate	20WS-1113-SO5858-N-060920 20WS-1113-SO5858-D-060920
5859	20WS-1113-SO5859-N-060920	6/9/2020	1305	1113	Carrie	2.26	1						Grab	Low	Low		
5860	20WS-1112-SO5860-N-060920	6/9/2020	1405	1112	Nora	5.55	1						5-point	None	None		
5861	20WS-1016-SO5861-N-060920	6/9/2020	1450	1016	Eagle Bird	NA							NA	None	None	Bedrock	
5862	20WS-1016-SO5862-N-060920	6/9/2020	1500	1016	Eagle Bird	5.53							5-point	Moderate	Low		
5863	20WS-1016-SO5863-N-060920	6/9/2020	1505	1016	Eagle Bird	5.46	1						5-point	High	Moderate		
5864	20WS-1016-SO5864-N-060920	6/9/2020	1510	1016	Eagle Bird	5.88							5-point	High	Moderate		
5865	20WS-1101-SO5865-N-060920	6/9/2020	1520	1072	Celestina	NA							NA	None	None	Bedrock	
5866	20WS-1007-SO5866-N-060920	6/9/2020	1535	1007	Beratto Extension	7.11	1						5-point	Low	Low		
5867	20WS-1101-SO5867-N-060920	6/9/2020	1530	1101	Celestina	NA							NA	None	None	Bedrock	
5868	20WS-1072-SO5868-N-060920	6/9/2020	1545	1072	Spur	NA							NA	None	None	Bedrock	
5869	20WS-1016-SO5869-N-060920	6/9/2020	1555	1016	Eagle Bird	6.41							Grab	Low	Low		
5870	20WS-1016-SO5870-N-061020	6/10/2020	0835	1016	Eagle Bird	5.90	1						Grab	High	Low		
5871	20WS-0607-SO5871-N-061020	6/10/2020	0855	0607	Helen Blazes	7.68	1						5-point	High	Low		
5872	20WS-0607-SO5872-N-061020	6/10/2020	0905	0607	Helen Blazes	6.02	1						5-point	High	Moderate		
5873	20WS-0607-SO5873-N-061020	6/10/2020	0915	0607	Helen Blazes	8.21							5-point	Low	Low		
5874	20WS-0607-SO5874-N-061020	6/10/2020	0925	0607	Helen Blazes	8.34							Grab	None	Low		
5875	20WS-0607-SO5875-N-061020	6/10/2020	0930	0607	Helen Blazes	8.65							Grab	None	None		
5877	20WS-0003-SO5877-N-061020	6/10/2020	0945	0003	Humboldt	8.43						1	30-point	None	None		20WS-0003-SO5877-N-061020
5878	20WS-0003-SO5878-N-061020	6/10/2020	1005	0003	Humboldt	5.22						1	8-point	High	Low		20WS-0003-SO5878-N-061020
5879	20WS-0006-SO5879-N-061020	6/10/2020	1030	0006	Mountain Boy	4.98						1	5-point	High	Low		20WS-0006-SO5879-N-061020
5880	20WS-0040-SO5880-N-061020	6/10/2020	1115	0040	Elba	6.63						1	5-point	Low	Moderate		20WS-0040-SO5880-N-061020
5881	20WS-0288-SO5881-N-061020	6/10/2020	1210	0288	Nettie	5.74						1	5-point	Moderate	Moderate		20WS-0288-SO5881-N-061020
5882	20WS-0288-SO5882-N-061020	6/10/2020	1230	0288	Nettie	8.66						1	10-point	Low	Moderate		20WS-0288-SO5882-N-061020
5883	20WS-0288-SO5883-N-061020	6/10/2020	1245	0288	Nettie	6.62						1	30-point	None	None		20WS-0288-SO5883-N-061020
5884	20WS-0015-SO5884-N-061020	6/10/2020	1345	0015	Milwaukee	3.73						1	5-point	Moderate	Moderate		20WS-0015-SO5884-N-061020
5963	20WS-1124-SO5963-N-072820	7/28/2020	1045	1124	(01119830218230000) Shley AVE	7.24	1						NR	None	None	Sample from prelim investigation of parcel later removed from UAO	

Table 2: Surface Soils Sampling Collection Summary

SAMPLE # (SO)	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Field Soil pH (s.u.)	XRF	Metals	SPLP	ABA	MIS	IVBA	Sample Type	Mn staining	Fe staining	NOTES	LAB SAMPLE FIELD ID
5964	20WS-1116-SO5964-N-060920	6/9/2020	1450	1116	Concentrator Placer	4.98							Grab	Low	None	some slag in soil; orig # SO 5826 was used by mistake. Accidentally double assigned SO numbers 5876 and 5964 to this sample. Deleted SO5876	
6284	21WS-1045-SO6284-N-092021	9/20/2021	1105	1045	Tzarena	NA							NA	None	None	Natural Feature	
6285	21WS-0002-SO6285-N-092021	9/20/2021	1130	0002	Portland	9.01		1					8-point	None	Low		21WS-0002-SO6285-N-092021
6286	21WS-0003-SO6286-N-092021	9/20/2021	1200	0003	Humboldt	6.52	1						5-point	High	Low		
6287	21WS-0003-SO6287-N-092021	9/20/2021	1220	0003	Humboldt	7.21	1						10-point	Low	Low		
6288	21WS-0003-SO6288-N-092021	9/20/2021	1240	0003	Humboldt	7.82							Grab	Moderate	Moderate		
6289	21WS-0003-SO6289-N-092021	9/20/2021	1250	0003	Humboldt	NA							NA	High	Moderate	Bedrock outcrop	
6290	21WS-0002-SO6290-N-092021	9/20/2021	1310	0003	Humboldt	5.62	1						5-point	Low	Low		
6291	21WS-0003-SO6291-N-092021	9/20/2021	1430	0003	Humboldt	6.12	1						5-point	Low	Low		
6292	21WS-0003-SO6292-N-092021	9/20/2021	1440	0003	Humboldt	6.65							3-point	Low	Low		
6293	21WS-0003-SO6293-N-092021	9/20/2021	1455	0003	Humboldt	NA							NA	None	None	Natural Feature	
6294	21WS-0003-SO6294-N-092021	9/20/2021	1530	0003	Humboldt	5.35	1	1					7-point	Low	None		21WS-0003-SO6294-N-092021
6295	21WS-0006-SO6295-N-092021	9/20/2021	1600	0006	Mountain Boy	6.29	1						5-point	Low	None		
6296	21WS-0006-SO6296-N-092021	9/20/2021	1620	0006	Mountain Boy	5.76	1						5-point	High	Moderate		
6297	21WS-0006-SO6297-N-092021	9/20/2021	1630	0006	Mountain Boy	NA							NA	Na	NA	Natural Feature	
6298	21WS-0040-SO6298-N-092121	9/21/2021	0845	0040	Elba	5.85	1						5-point	Low	None		
6299	21WS-0040-SO6299-N-092121	9/21/2021	0855	0040	Elba	5.95	1						Grab	None	None		
6300	21WS-0040-SO6300-N-092121	9/21/2021	0900	0040	Elba	5.57							Grab	None	None		
6301	21WS-0041-SO6301-N-092121	9/21/2021	0910	0041	Katie T	NA							NA	None	None	Natural Feature	
6302	21WS-0010-SO6302-N-092121	9/21/2021	0940 0945	0010	Minnie Jane	5.83		2	2	2			8-point	High	Moderate		21WS-0010-SO6302-N-092121 21WS-0010-SO6302-D-092121
6303	21WS-0010-SO6303-N-092121	9/21/2021	1000	0010	Minnie Jane	5.61	1						3-point	High	Low		
6304	21WS-0010-SO6304-N-092121	9/21/2021	1005	0010	Minnie Jane	NA							NA	None	Low	placed riprap from rock quarry	
6305	21WS-0010-SO6305-N-092121	9/21/2021	1010	0010	Minnie Jane	5.59							Grab	High	High		
6306	21WS-0010-SO6306-N-092121	9/21/2021	1020	0010	Minnie Jane	8.41	1						5-point	None	None		
6307	21WS-0010-SO6307-N-092121	9/21/2021	1025	0010	Minnie Jane	7.71							3-point	None	None		
6308	21WS-0010-SO6308-N-092121	9/21/2021	1035	0010	Minnie Jane	7.50	1						3-point	Low	Moderate		
6309	21WS-0013-SO6309-N-092121	9/21/2021	1125	0013	Georgie	7.46	1						Grab	Low	Moderate		
6310	21WS-0012-SO6310-N-092121	9/21/2021	1135	0012	Prospector	8.39	1						5-point	None	None		
6311	21WS-0010-SO6311-N-092121	9/21/2021	1145	0010	Minnie Jane	8.51	1						3-point	None	None		
6312	21WS-0010-SO6312-N-092121	9/21/2021	1150	0010	Minnie Jane	NA							NA	NA	NA	patch of old asphalt millings	
6313	21WS-0013-SO6313-N-092121	9/21/2021	1200 1205	0013	Georgie	8.36		2					10-point	Low	Low		21WS-0013-SO6313-N-092121 21WS-0013-SO6313-D-092121
6314	21WS-0013-SO6314-N-092121	9/21/2021	1240	0013	Georgie	6.99	1						10-point	None	None		
6315	21WS-0014-SO6315-N-092121	9/21/2021	1255	0014	Cuneate	7.52	1						3-point	None	None		
6316	21WS-0015-SO6316-N-092121	9/21/2021	1300	0015	Milwaukee	NA							NA	None	None	Natural Feature	
6317	21WS-0016-SO6317-N-092121	9/21/2021	1315	0016	Orphan Boy	6.02	1						5-point	Moderate	Moderate		
6318	21WS-0016-SO6318-N-092121	9/21/2021	1325	0016	Orphan Boy	3.94	1						Grab	Moderate	High		
6319	21WS-0016-SO6319-N-092121	9/21/2021	1330	0016	Orphan Boy	5.96							3-point	Moderate	Moderate		
6320	21WS-0016-SO6320-N-092121	9/21/2021	1335	0016	Orphan Boy	6.46	1						5-point	None	None		
6321	21WS-0016-SO6321-N-092221	9/22/2021	0840	0016	Orphan Boy	7.85	1						5-point	Low	High		
6322	21WS-0016-SO6322-N-092221	9/22/2021	0850	0016	Orphan Boy	7.98							Grab	Low	High		
6323	21WS-0016-SO6323-N-092221	9/22/2021	0905	0016	Orphan Boy	8.25	1						Grab	None	Low		
6324	21WS-0016-SO6324-N-092221	9/22/2021	0910	0016	Orphan Boy	NA							NA	NA	NA	Shallow granite bedrock	
6325	21WS-0016-SO6325-N-092221	9/22/2021	0920	0016	Orphan Boy	7.13		1					5-point	Low	High		21WS-0016-SO6325-N-092221
6326	21WS-0017-SO6326-N-092221	9/22/2021	0950	0017	Kit Carson	6.23	1						3-point	None	High		
6327	21WS-0015-SO6327-N-092221	9/22/2021	1150	0015	Milwaukee	8.26	1						3-point	None	None		
6328	21WS-0015-SO6328-N-092221	9/22/2021	1200	0015	Milwaukee	7.84	1						5-point	None	None		
6329	21WS-0300-SO6329-N-092221	9/22/2021	1225	0300	Tom Haney	NA							NA	NA	NA	Natural Feature	
6330	21WS-0311-SO6330-N-092221	9/22/2021	1240	0311	Little Gem	5.23	1						3-point	Low	Moderate		
6331	21WS-0319-SO6331-N-092221	9/22/2021	1310	0319	Nile	NA							NA	NA	NA	Natural Feature	
6332	21WS-0319-SO6332-N-092221	9/22/2021	1330	0319	Nile	8.61		1					5-point	Low	Moderate		21WS-0319-SO6332-N-092221
6333	21WS-0315-SO6333-N-092221	9/22/2021	1350	0315	Garibaldi	8.26	1						Grab	Low	Moderate		
6334	21WS-0315-SO6334-N-092221	9/22/2021	1400	0315	Garibaldi	NA							NA	High	Low	Exposed bedrock outcrop	
6335	21WS-0315-SO6335-N-092221	9/22/2021	1410	0315	Garibaldi	6.46	1						5-point	Low	Moderate		
6336	21WS-0315-SO6336-N-092221	9/22/2021	1420	0315	Garibaldi	7.61							8-point	Low	Moderate		
6337	21WS-0296-SO6337-N-092321	9/23/2021	0845	0296	Philadelphia	6.26	1	1					5-point	High	None		21WS-0296-SO6337-N-092321
6338	21WS-0296-SO6338-N-092321	9/23/2021	0910	0296	Philadelphia	5.82							Grab	High	Low		
6339	21WS-0296-SO6339-N-092321	9/23/2021	0915	0296	Philadelphia	5.89							Grab	Low	Low		
6340	21WS-0296-SO6340-N-092321	9/23/2021	0920	0296	Philadelphia	5.13	1						3-point	Low	Low		
6341	21WS-1150-SO6341-N-092321	9/23/2021	0935	1150	General Washington	5.74	1						5-point	Low	Low		

Table 2: Surface Soils Sampling Collection Summary

SAMPLE # (SO)	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Field Soil pH (s.u.)	XRF	Metals	SPLP	ABA	MIS	IVBA	Sample Type	Mn staining	Fe staining	NOTES	LAB SAMPLE FIELD ID
6342	21WS-0015-SO6342-N-092321	9/23/2021	0950	0015	MIlwaukee	NA							NA	NA	NA	Bedrock outcrop	
6343	21WS-0015-SO6343-N-092321	9/23/2021	0955	0015	MIlwaukee	6.74	1						8-point	Low	Low		
6344	21WS-0015-SO6344-N-092321	9/23/2021	1015	0015	MIlwaukee	8.61	1						5-point	Low	Low		
6345	21WS-0015-SO6345-N-092321	9/23/2021	1020	0015	MIlwaukee	6.88							Grab	Low	High		
6346	21WS-0015-SO6346-N-092321	9/23/2021	1030	0015	MIlwaukee	7.07		1					5-point	High	Moderate		21WS-0015-SO6346-N-092321
6347	21WS-0015-SO6347-N-092321	9/23/2021	1045	0015	MIlwaukee	6.42	1	1					10-point	Moderate	Moderate		21WS-0015-SO6347-N-092321
6348	21WS-0301-SO6348-N-092321	9/23/2021	1125	0301	Self Rising	7.14	1						5-point	None	Low		
6349	21WS-0015-SO6349-N-092321	9/23/2021	1140	0015	MIlwaukee	5.25	1						5-point	High	High		
6350	21WS-0301-SO6350-N-092321	9/23/2021	1155	0301	Self Rising	8.08	1						5-point	None	Moderate		
6351	21WS-0296-SO6351-N-092321	9/23/2021	1245	0296	Philadelphia	5.63	1						10-point	Moderate	Low		
6355	21WS-0289-SO6355-N-092321	9/23/2021	1310	0289	Hibernia	NA							NA	NA	NA	Natural Feature	
6352	21WS-0296-SO6352-N-092321	9/23/2021	1300	0296	Philadelphia	3.48	1						5-point	Low	High		
6353	21WS-0296-SO6353-N-092321	9/23/2021	1315	0296	Philadelphia	7.94	1						5-point	High	High		
6354	21WS-0296-SO6354-N-092321	9/23/2021	1330	0296	Philadelphia	6.04	1						5-point	High	High		
6356	21WS-0289-SO6356-N-092321	9/23/2021	1345	0289	Hibernia	7.97	1						5-point	Moderate	High		
6357	21WS-0288-SO6357-N-092321	9/23/2021	1400	0288	Nettie	5.34	1						7-point	High	Low		
6358	21WS-0288-SO6358-N-092321	9/23/2021	1410	0288	Nettie	5.07	1						5-point	Low	Moderate		
6359	21WS-0297-SO6359-N-092321	9/23/2021	1440	0297	Key West	4.14	1						Grab	Moderate	High		
6360	21WS-0297-SO6360-N-092321	9/23/2021	1445	0297	Key West	NA							NA	NA	NA	Natural Feature	
6361	21WS-0290-SO6361-N-092321	9/23/2021	1520	0290	Horse Shoe	7.80	1						Grab	Low	Low		
6362	21WS-0291-SO6362-N-092321	9/23/2021	1535	0296	Colonel Funston	5.38	1						10-point	High	Mo		
6363	21WS-0296-SO6363-N-092321	9/23/2021	1550	0296	Philadelphia	5.87	1						3-point	High	Low		
6364	21WS-0285-SO6364-N-092721	9/27/2021	0905	0285	Burlington	5.02	1						3-point	Low	Moderate		
6365	21WS-0285-SO6365-N-092721	9/27/2021	0915	0285	Burlington	5.29	1						5-point	Moderate	Moderate		
6366	21WS-0285-SO6366-N-092721	9/27/2021	0930	0285	Burlington	5.61		1					10-point	Low	Low		21WS-0285-SO6366-N-092721
6367	21WS-0285-SO6367-N-092721	9/27/2021	0940	0285	Burlington	NA							NA	High	NA	Bedrock outcrop	
6368	21WS-0285-SO6368-N-092721	9/27/2021	0950	0285	Burlington	5.58	1						12-point	Low	Low		
6369	21WS-0285-SO6369-N-092721	9/27/2021	1005	0285	Burlington	NA							NA	NA	NA	Natural Feature	
6370	21WS-0299-SO6370-N-092721	9/27/2021	1015	0299	Fredonia	8.49	1						5-point	Low	Moderate		
6371	21WS-0298-SO6371-N-092721	9/27/2021	1035	0298	Cora No. 2	7.02	1						Grab	Moderate	High		
6372	21WS-0298-SO6372-N-092721	9/27/2021	1045	0298	Cora No. 2	4.76	1						7-point	Low	Low		
6373	21WS-0285-SO6373-N-092721	9/27/2021	1125	0285	Burlington	NA							NA	NA	NA	Natural Feature	
6374	21WS-0285-SO6374-N-092721	9/27/2021	1130	0285	Burlington	NA							NA	NA	NA	Natural Feature	
6375	21WS-0285-SO6375-N-092721	9/27/2021	1135	0285	Burlington	NA							NA	NA	NA	Natural Feature	
6376	21WS-0285-SO6376-N-092721	9/27/2021	1140	0285	Burlington	NA							NA	NA	NA	Natural Feature	
6377	21WS-0246-SO6377-N-092721	9/27/2021	1235	0246	Independent	6.39	1						5-point	Low	Low		
6378	21WS-1116-SO6378-N-092721	9/27/2021	1615	1116	Concentrator Placer	7.17		1	1	1			5-point	Low	Low		21WS-1116-SO6378-N-092721
6379	21WS-1116-SO6379-N-092721	9/27/2021	1630	1116	Concentrator Placer	5.95	1						5-point	Moderate	Low		
6380	21WS-1116-SO6380-N-092721	9/27/2021	1635	1116	Concentrator Placer	5.76	1						Grab	Low	Moderate		
6381	21WS-1072-SO6381-N-092821	9/28/2021	0855	1072	Spur	6.31	1						5-point	High	Moderate		
6382	21WS-1072-SO6382-N-092821	9/28/2021	0910	1072	Spur	5.49	1						5-point	High	Moderate		
6383	21WS-1072-SO6383-N-092821	9/28/2021	0915	1072	Spur	3.38	1						5-point	Low	High		
6384	21WS-1072-SO6384-N-092821	9/28/2021	0920	1072	Spur	6.97							Grab	High	Moderate		
6385	21WS-1072-SO6385-N-092821	9/28/2021	0925	1072	Spur	4.93	1	1					8-point	High	High		21WS-1072-SO6385-N-092821
6386	21WS-1072-SO6386-N-092821	9/28/2021	0935	1072	Spur	3.87							Grab	Low	High		
6387	21WS-1072-SO6387-N-092821	9/28/2021	0940	1072	Spur	8.11	1						Grab	Low	Low		
6388	21WS-1072-SO6388-N-092821	9/28/2021	0945	1072	Spur	NA							NA	NA	NA	Bedrock outcrop	
6389	21WS-1072-SO6389-N-092821	9/28/2021	0950	1072	Spur	5.34	1						5-point	Moderate	High		
6390	21WS-1072-SO6390-N-092821	9/28/2021	0955	1072	Spur	5.04	1						3-point	High	Low		
6391	21WS-1072-SO6391-N-092821	9/28/2021	1000	1072	Spur	NA							NA	NA	NA	Natural Feature	
6392	21WS-1072-SO6392-N-092821	9/28/2021	1010	1072	Spur	7.21	1						3-point	Low	High		
6393	21WS-1072-SO6393-N-092821	9/28/2021	1015	1072	Spur	4.69							Grab	High	Moderate		
6394	21WS-1016-SO6394-N-092821	9/28/2021	1020	1016	Eagle Bird	7.47	1						5-point	None	None		
6395	21WS-1016-SO6395-N-092821	9/28/2021	1030	1016	Eagle Bird	NA							NA	NA	NA	Potential overburden from interstate construction	
6396	21WS-1016-SO6396-N-092821	9/28/2021	1040	1016	Eagle Bird	5.42	1						4-point	High	Moderate		
6397	21WS-1111-SO6397-N-092821	9/28/2021	1150	1111	Lizzie	7.53	1						5-point	None	Moderate		
6398	21WS-1111-SO6398-N-092821	9/28/2021	1200	1111	Lizzie	5.58	1						5-point	None	Moderate		
6399	21WS-1111-SO6399-N-092821	9/28/2021	1210	1111	Lizzie	3.81		1					Grab	None	None		21WS-1111-SO6399-N-092821
6400	21WS-1111-SO6400-N-092821	9/28/2021	1215	1111	Lizzie	7.21							Grab	None	Moderate		
6401	21WS-1111-SO6401-N-092821	9/28/2021	1230	1111	Lizzie	5.82							Grab	None	Low		
6402	21WS-1111-SO6402-N-092821	9/28/2021	1240	1111	Lizzie	6.86	1						5-point	None	Moderate		
6403	21WS-1111-SO6403-N-092821	9/28/2021	1250	1111	Lizzie	6.19	1						5-point	None	None		
6404	21WS-0162-SO6404-N-092821	9/28/2021	1400	0162	Marget Ann	8.60		1					10-point	None	None		21WS-0162-SO6404-N-092821
6405	21WS-0162-SO6405-N-092821	9/28/2021	1405	0162	Marget Ann	8.66	1						6-point	None	None		
6406	21WS-0162-SO6406-N-092821	9/28/2021	1410	0162	Marget Ann	8.44	1						5-point	None	None		

Table 2: Surface Soils Sampling Collection Summary

SAMPLE # (SO)	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Field Soil pH (s.u.)	XRF	Metals	SPLP	ABA	MIS	IVBA	Sample Type	Mn staining	Fe staining	NOTES	LAB SAMPLE FIELD ID
6407	21WS-0162-SO6407-N-092821	9/28/2021	1415	0162	Marget Ann	7.36	1						Grab	None	None		
6408	21WS-0102-SO6408-N-092821	9/28/2021	1510	0102	Valley Forge	NA							NA	NA	NA	Natural Feature	
6409	21WS-0102-SO6409-N-092821	9/28/2021	1515	0102	Valley Forge	7.13	1						Grab	None	High		
Total						**1010**	**402**	**109**	**18**	**12**	**22**	**8**					

Table 3: Subsurface Soils Sample Collection Summary

SAMPLE #	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Bore Hole #	SOIL pH	XRF	Metals	SPLP	ABA	Sample Type	Depth Interval (ft bgs)	NOTES	Staining	LAB SAMPLE FIELD ID
5885	20WS-0040-SO5885-5.6-6.2-N-061820	6/18/2020	1030	0040	Elba	DPT-01	4.27	1	1			Core	5.6-6.2		NR	20WS-0040-SO5885-5.6-6.2-N-061820
5886	20WS-0040-SO5886-5.6-10.0-N-061820	6/18/2020	1115	0040	Elba	DPT-02	4.51	1	1			Core	5.6-10.0		NR	20WS-0040-SO5886-5.6-10.0-N-061820
5887	20WS-0040-SO5887-6.0-6.5-N-061820	6/18/2020	1155	0040	Elba	DPT-03	5.91	1	1			Core	6.0-6.5		NR	20WS-0040-SO5887-6.0-6.5-N-061820
5888	20WS-0040-SO5888-5.6-6.0-N-061820	6/18/2020	1335	0040	Elba	DPT-04	4.88	1	1			Core	5.6-6.0		NR	20WS-0040-SO5888-5.6-6.0-N-061820
5889	20WS-0043-SO5889-5.8-6.2-N-061820	6/18/2020	1425	0043	Germania	DPT-05	4.93	1	1			Core	5.8-6.2		NR	20WS-0043-SO5889-5.8-6.2-N-061820
5890	20WS-0043-SO5890-6.2-6.4-N-061820	6/18/2020	1430	0043	Germania	DPT-05	4.22	1	1			Core	6.2-6.4		NR	20WS-0043-SO5890-6.2-6.4-N-061820
5891	20WS-0043-SO5891-10.3-10.9-N-061820	6/18/2020	1505	0043	Germania	DPT-06	4.51	1	1			Core	10.3-10.9		NR	20WS-0043-SO5891-10.3-10.9-N-061820
5892	20WS-0006-SO5892-5.7-6.0-N-061820	6/18/2020	1630	0006	Mountain Boy	DPT-07	4.17	1	1			Core	5.7-6.0		NR	20WS-0006-SO5892-5.7-6.0-N-061820
5893	20WS-0006-SO5893-10.4-10.7-N-061920	6/19/2020	1030	0006	Mountain Boy	DPT-08	4.74	1	1			Core	10.4-10.7		NR	20WS-0006-SO5893-10.4-10.7-N-061920
5894	20WS-0006-SO5894-11.1-11.4-N-061920	6/19/2020	1045	0006	Mountain Boy	DPT-09	7.45	1	1			Core	11.1-11.7		NR	20WS-0006-SO5894-11.1-11.4-N-061920
5895	20WS-0006-SO5895-5.4-5.7-N-061920	6/18/2020	1140	0006	Mountain Boy	DPT-10	4.35	1	1			Core	5.4-5.7		NR	20WS-0006-SO5895-5.4-5.7-N-061920
5896	20WS-0043-SO5896-5.9-6.5-N-061920	6/19/2020	1315 1325	0043	Germania	DPT-11	6.40	2	2			Core	5.9-6.5	Metals Duplicate	NR	20WS-0043-SO5896-5.9-6.5-N-061920 20WS-0043-SO5896-5.9-6.5-D-061920
5897	20WS-0043-SO5897-7.3-7.7-N-061920	6/19/2020	1345	0043	Germania	DPT-12	4.09	1	1			Core	7.3-7.7		NR	20WS-0043-SO5897-7.3-7.7-N-061920
5898	20WS-0043-SO5898-10.8-11.2-N-061920	6/19/2020	1445	0043	Germania	DPT-13	4.28	1	1			Core	10.8-11.2		NR	20WS-0043-SO5898-10.8-11.2-N-061920
5899	20WS-0043-SO5899-16.0-16.3-N-061920	6/19/2020	1615	0043	Germania	DPT-14	6.12	1	1			Core	16.0-16.3		NR	20WS-0043-SO5899-16.0-16.3-N-061920
5900	20WS-0003-SO5900-1.0-1.5-N-062320	6/23/2020	0940	0003	Humboldt	DPT-15	8.71	1	1			Core	1.0-1.5		NR	20WS-0003-SO5900-1.0-1.5-N-062320
5901	20WS-0003-SO5901-4.4-4.7-N-062320	6/23/2020	1015	0003	Humboldt	DPT-16	6.91	1	1			Core	4.4-4.7		NR	20WS-0003-SO5901-4.4-4.7-N-062320
5902	20WS-0003-SO5902-8.6-9.0-N-062320	6/23/2020	1105	0003	Humboldt	DPT-17	6.23	1	1			Core	8.6-9.0		NR	20WS-0003-SO5902-8.6-9.0-N-062320
5903	20WS-0003-SO5903-4.6-4.9-N-062320	6/23/2020	1125	0003	Humboldt	DPT-18	4.50	1	1			Core	4.6-4.9		NR	20WS-0003-SO5903-4.6-4.9-N-062320
5904	20WS-0003-SO5904-12.6-13.0-N-062320	6/23/2020	1305	0003	Humboldt	DPT-19	6.05	1	1			Core	12.6-13.0		NR	20WS-0003-SO5904-12.6-13.0-N-062320
5905	20WS-0010-SO5905-8.4-8.8-N-062320	6/23/2020	1420	0010	Minnie Jane	DPT-20	4.20	1	1			Core	8.4-8.8		NR	20WS-0010-SO5905-8.4-8.8-N-062320
5906	20WS-0010-SO5906-13.0-13.5-N-062320	6/23/2020	1445	0010	Minnie Jane	DPT-21	4.98	1	1			Core	13.0-13.5		NR	20WS-0010-SO5906-13.0-13.5-N-062320
5907	20WS-0010-SO5907-12.2-12.6-N-062320	6/23/2020	1530	0010	Minnie Jane	DPT-22	4.43	1	1			Core	12.2-12.6		NR	20WS-0010-SO5907-12.2-12.6-N-062320
5908	20WS-0010-SO5908-12.4-12.8-N-062320	6/23/2020	1615	0010	Minnie Jane	DPT-23	4.35	1	1			Core	12.4-12.8		NR	20WS-0010-SO5908-12.4-12.8-N-062320
5909	20WS-0010-SO5909-8.2-8.5-N-062420	6/24/2020	0840	0010	Minnie Jane	DPT-24	6.37	1	1			Core	8.2-8.5		NR	20WS-0010-SO5909-8.2-8.5-N-062420
5910	20WS-0010-SO5910-9.2-9.6-N-062420	6/24/2020	0930	0010	Minnie Jane	DPT-25	3.94	1	1			Core	9.2-9.6		NR	20WS-0010-SO5910-9.2-9.6-N-062420
5911	20WS-0297-SO5911-12.7-13.0-N-062420	6/24/2020	1105	0297	Key West	DPT-26	3.95	1	1			Core	12.7-13.0		NR	20WS-0297-SO5911-12.7-13.0-N-062420
		6/24/2020	1125	0297	Key West	DPT-27	NA					Core		no sample; hit refusal before native		
5912	20WS-0297-SO5912-4.5-4.8-N-062420	6/24/2020	1350	0297	Key West	DPT-28	3.16	1	1			Core	4.5-4.8		NR	20WS-0297-SO5912-4.5-4.8-N-062420
5913	20WS-0297-SO5913-0.2-0.8-N-062420	6/24/2020	1410	0297	Key West	DPT-29	3.67	1	1			Core	0.2-0.8		NR	20WS-0297-SO5913-0.2-0.8-N-062420
5914	20WS-0297-SO5914-0.4-0.8-N-062420	6/24/2020	1430	0297	Key West	DPT-30	4.31	1	1			Core	0.4-0.8		NR	20WS-0297-SO5914-0.4-0.8-N-062420
5915	20WS-0288-SO5915-4.6-5.0-N-062420	6/24/2020	1510	0288	Nettie	DPT-31	4.27	1	1			Core	4.6-5.0		NR	20WS-0288-SO5915-4.6-5.0-N-062420
5916	20WS-0285-SO5916-4.4-4.5-N-062520	6/25/2020	0840	0285	Burlington	DPT-32	NR	1	1			Core	4.4-4.5		NR	20WS-0285-SO5916-4.4-4.5-N-062520
5917	20WS-0285-SO5917-8.4-8.7-N-062520	6/25/2020	0905	0285	Burlington	DPT-33	5.07	1	1			Core	8.4-8.7		NR	20WS-0285-SO5917-8.4-8.7-N-062520
5918	20WS-0285-SO5918-0.3-0.9-N-062520	6/25/2020	925 0930	0285	Burlington	DPT-34	5.69	2	2			Core	0.3-0.9	Metals Duplicate	NR	20WS-0285-SO5918-0.3-0.9-N-062520 20WS-0285-SO5918-0.3-0.9-D-062520
5919	20WS-0285-SO5919-1.2-1.5-N-062520	6/25/2020	0940	0285	Burlington	DPT-35	5.44	1	1			Core	1.2-1.5		NR	20WS-0285-SO5919-1.2-1.5-N-062520
5920	20WS-0285-SO5920-1.3-1.5-N-062520	6/25/2020	1035	0285	Burlington	DPT-36	4.65	1	1			Core	1.3-1.5		NR	20WS-0285-SO5920-1.3-1.5-N-062520
5921	20WS-0246-SO5921-12.2-12.6-N-062520	6/25/2020	1205	0246	Independent	DPT-37	3.95	1	1			Core	12.2-12.6		NR	20WS-0246-SO5921-12.2-12.6-N-062520
5922	20WS-0246-SO5922-8.8-9.2-N-062520	6/25/2020	1305	0246	Independent	DPT-38	4.19	1	1			Core	8.8-9.2		NR	20WS-0246-SO5922-8.8-9.2-N-062520
5923	20WS-0246-SO5923-4.8-5.1-N-062520	6/25/2020	1340	0246	Independent	DPT-39	4.06	1	1			Core	4.8-5.1		NR	20WS-0246-SO5923-4.8-5.1-N-062520
5924	20WS-0246-SO5924-8.7-9.0-N-062520	6/25/2020	1415	0246	Independent	DPT-40	4.26	1	1			Core	8.7-9.0		NR	20WS-0246-SO5924-8.7-9.0-N-062520
5925	20WS-0285-SO5925-1.0-1.4-N-062520	6/25/2020	1430	0285	Burlington	DPT-41	4.11	1	1			Core	1.0-1.4		NR	20WS-0246-SO5925-1.0-1.4-N-062520
5926	20WS-1150-SO5926-20.5-20.8-N-062520	6/25/2020	1635	1150	General Washington	DPT-42	NR	1	1			Core	20.5-20.8		NR	20WS-1150-SO5926-20.5-20.8-N-062520
5927	20WS-0015-SO5927-5.5-6.2-N-062620	6/26/2020	0920	0015	Milwaukee	DPT-43	6.64	1	1			Core	5.5-6.2		NR	20WS-0015-SO5927-5.5-6.2-N-062620
5928	20WS-0015-SO5928-12.5-12.7-N-062620	6/26/2020	1010	0015	Milwaukee	DPT-44	7.44	1	1			Core	12.5-12.7		NR	20WS-0015-SO5928-12.5-12.7-N-062620
5929	20WS-0015-SO5929-12.7-13.0-N-062620	6/26/2020	1015	0015	Milwaukee	DPT-44	7.55	1	1			Core	12.7-13.0		NR	20WS-0015-SO5929-12.7-13.0-N-062620
5930	20WS-0015-SO5930-8.7-9.0-N-062620	6/26/2020	1040	0015	Milwaukee	DPT-45	5.12	1	1			Core	8.7-9.0		NR	20WS-0015-SO5930-8.7-9.0-N-062620
5931	20WS-0015-SO5931-9.2-9.5-N-062620	6/26/2020	1110	0015	Milwaukee	DPT-46	5.62	1	1			Core	9.2-9.5		NR	20WS-0015-SO5931-9.2-9.5-N-062620
5932	20WS-0016-SO5932-4.8-5.2-N-070120	7/1/2020	0910	0016	Orphan Boy	DPT-47	4.48	1	1			Core	4.8-5.2		NR	20WS-0016-SO5932-4.8-5.2-N-070120
5933	20WS-0016-SO5933-12.7-13.0-N-070120	7/1/2020	1000	0016	Orphan Boy	DPT-48	3.08	1	1			Core	12.7-13.0		NR	20WS-0016-SO5933-12.7-13.0-N-070120
5934	20WS-0016-SO5934-12.7-13.2-N-070120	7/1/2020	1050	0016	Orphan Boy	DPT-49	4.44	1	1			Core	12.7-13.2		NR	20WS-0016-SO5934-12.7-13.2-N-070120
5935	20WS-0016-SO5935-4.0-5.0-N-070120	7/1/2020	1125 1130	0016	Orphan Boy	DPT-50	4.15	2	2			Core	4.0-5.0	Metals Duplicate	NR	20WS-0016-SO5935-4.0-5.0-N-070120 20WS-0016-SO5935-4.0-5.0-D-070120
5936	20WS-0013-SO5936-12.3-12.6-N-070120	7/1/2020	1205	0013	Georgie	DPT-51	4.53	1	1			Core	12.3-12.6		NR	20WS-0013-SO5936-12.3-12.6-N-070120
5937	20WS-1150-SO5937-12.3-12.7-N-070120	7/1/2020	1400	1150	General Washington	DPT-52	4.23	1	1			Core	12.3-12.7		NR	20WS-1150-SO5937-12.3-12.7-N-070120
5938	20WS-1150-SO5938-24.4-24.9-N-070120	7/1/2020	1450	1150	General Washington	DPT-53	5.04	1	1			Core	24.4-24.9		NR	20WS-1150-SO5938-24.4-24.9-N-070120

Table 3: Subsurface Soils Sample Collection Summary

SAMPLE #	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Bore Hole #	SOIL pH	XRF	Metals	SPLP	ABA	Sample Type	Depth Interval (ft bgs)	NOTES	Staining	LAB SAMPLE FIELD ID
5939	20WS-0288-SO5939-4.0-4.4-N-070220	7/2/2020	0845	0288	Nettie	DPT-54	3.96	1	1			Core	4.0-4.4		NR	20WS-0288-SO5939-4.0-4.4-N-070220
5940	20WS-0288-SO5940-4.4-4.9-N-070220	7/2/2020	0850	0288	Nettie	DPT-54	4.36	1	1			Core	4.4-4.9		NR	20WS-0288-SO5940-4.4-4.9-N-070220
		7/2/2020	0945	0288	Nettie	DPT-55	NA							No sample collected. Hit refusal at 6.0 ft.		
5941	20WS-0288-SO5941-4.0-4.5-N-070220	7/2/2020	1005	0288	Nettie	DPT-56	5.30	1	1			Core	4.0-4.5		NR	20WS-0288-SO5941-4.0-4.5-N-070220
5942	20WS-0288-SO5942-0.9-1.3-N-070220	7/2/2020	1025 1030	0288	Nettie	DPT-57	5.48	1	2			Core	0.9-1.3	Metals Duplicate	NR	20WS-0288-SO5942-0.9-1.3-N-070220 20WS-0288-SO5942-0.9-1.3-D-070220
		7/2/2020	1145	0288	Nettie	DPT-58	NA							No sample collected. Did not encounter native and pore core recovery.		
5944	20WS-0289-SO5944-12.3-12.6-N-070220	7/2/2020	1310	0289	Hibernia	DPT-59	4.62	1	1			Core	12.3-12.6		NR	20WS-0289-SO5944-12.3-12.6-N-070220
5945	20WS-0289-SO5945-12.8-13.3-N-070220	7/2/2020	1340	0289	Hibernia	DPT-60	5.15	1	1			Core	12.8-13.3		NR	20WS-0289-SO5945-12.8-13.3-N-070220
5943	20WS-0162-SO5943-12.3-12.7-N-070620	7/6/2020	1055	0162	Marget Ann	DPT-61	6.42	1	1			Core	12.3-12.7		NR	20WS-0162-SO5943-12.3-12.7-N-070620
5946	20WS-0162-SO5946-16.0-16.4-N-070620	7/6/2020	1130	0162	Marget Ann	DPT-62	7.04	1	1			Core	16.0-16.4		NR	20WS-0162-SO5946-16.0-16.4-N-070620
5947	20WS-0162-SO5947-20.0-20.4-N-070620	7/6/2020	1230	0162	Marget Ann	DPT-63	8.31	1	1			Core	20.0-20.4		NR	20WS-0162-SO5947-20.0-20.4-N-070620
5948	20WS-0138-SO5948-12.8-13.3-N-070620	7/6/2020	1405	0138	Glengarry	DPT-64	5.02	1	1			Core	12.8-13.3		NR	20WS-0138-SO5948-12.8-13.3-N-070620
5949	20WS-0138-SO5949-13.1-13.6-N-070620	7/6/2020	1500	0138	Glengarry	DPT-65	5.51	1	1			Core	13.1-13.6		NR	20WS-0138-SO5949-13.1-13.6-N-070620
5950	20WS-0138-SO5950-9.5-9.8-N-070620	7/6/2020	1530	0138	Glengarry	DPT-66	3.96	1	1			Core	9.5-9.8		NR	20WS-0138-SO5950-9.5-9.8-N-070620
5951	20WS-0179-SO5951-4.2-4.5-N-070820	7/8/2020	0815	0179	Eagle	DPT-67	4.02	1	1			Core	4.2-4.5		NR	20WS-0179-SO5951-4.2-4.5-N-070820
5952	20WS-0179-SO5952-0.2-0.7-N-070820	7/8/2020	0835	0179	Eagle	DPT-68	3.73		1			Core	0.2-0.7		NR	20WS-0179-SO5952-0.2-0.7-N-070820
5953	20WS-0179-SO5953-5.4-5.7-N-070820	7/8/2020	0900	0179	Eagle	DPT-69	3.72	1	1			Core	5.4-5.7		NR	20WS-0179-SO5953-5.4-5.7-N-070820
5954	20WS-0179-SO5954-4.3-4.9-N-070820	7/8/2020	1015 1030	0179	Eagle	DPT-70	3.49	2	2			Core	4.3-4.9	Metals Duplicate	NR	20WS-0179-SO5954-4.3-4.9-N-070820 20WS-0179-SO5954-4.3-4.9-D-070820
5955	20WS-0179-SO5955-0.7-1.2-N-070820	7/8/2020	1020	0179	Eagle	DPT-71	3.58	1	1			Core	0.7-1.2		NR	20WS-0179-SO5955-0.7-1.2-N-070820
5956	20WS-0017-SO5956-8.1-8.6-N-070820	7/8/2020	1255	0017	Kit Carson	DPT-72	8.19	1	1			Core	8.1-8.6		NR	20WS-0017-SO5956-8.1-8.6-N-070820
5957	20WS-0019-SO5957-5.3-5.7-N-070820	7/8/2020	1310	0019	Charmmer	DPT-73	6.37	1	1			Core	5.3-5.7		NR	20WS-0019-SO5957-5.3-5.7-N-070820
5958	20WS-0017-SO5958-12.4-12.8-N-070820	7/8/2020	1350	0017	Kit Carson	DPT-74	6.41	1	1			Core	12.4-12.8		NR	20WS-0017-SO5958-12.4-12.8-N-070820
5959	20WS-0315-SO5959-8.8-9-N-070920	7/9/2020	0900	0315	Garibaldi	DPT-75	5.64	1	1			Core	8.8-9.0		NR	20WS-0315-SO5959-8.8-9-N-070920
5960	20WS-0315-SO5960-4.3-4.7-N-070920	7/9/2020	0940	0315	Garibaldi	DPT-76	9.68	1	1			Core	4.3-4.7		NR	20WS-0315-SO5960-4.3-4.7-N-070920
5961	20WS-0315-SO5961-4.3-4.6-N-070920	7/9/2020	1100	0315	Garibaldi	DPT-77	4.92	1	1			Core	4.3-4.6		NR	20WS-0315-SO5961-4.3-4.6-N-070920
5962	20WS-0315-SO5962-5.3-5.6-N-070920	7/9/2020	1130	0315	Garibaldi	DPT-78	3.71	1	1			Core	5.3-5.6		NR	20WS-0315-SO5962-5.3-5.6-N-070920
6284	20WS-0040-SO6284-0.0-5.0-N-061820	2/16/2021	0920	0040	Elba	DPT-01	4.36					Core	0.0-5.0	Sampled from Archived Core. Orig Sample # 5964 used by mistake. Changed to 6284 after collection event	NR	
5965	20WS-0040-SO5965-6.0-10.0-N-061820	2/16/2021	0936	0040	Elba	DPT-01	5.26					Core	6.0-10.0	Sampled from Archived Core	No Staining	
5966	20WS-0040-SO5966-5.0-5.6-N-061820	2/16/2021	1021	0040	Elba	DPT-01B	4.83					Core	5.0-5.6	Sampled from Archived Core	NR	
5967	20WS-0040-SO5967-6.2-10.0-N-061820	2/16/2021	1028	0040	Elba	DPT-01B	4.87					Core	6.2-10.0	Sampled from Archived Core	NR	
5968	20WS-0040-SO5968-0.0-5.0-N-061820	2/16/2021	1037	0040	Elba	DPT-02	4.27					Core	0.0-5.0	Sampled from Archived Core	NR	
5969	20WS-0040-SO5969-5.0-5.6-N-061820	2/16/2021	1046	0040	Elba	DPT-02	5.25					Core	5.0-5.6	Sampled from Archived Core	NR	
5970	20WS-0040-SO5970-10.4-11.4-N-061820	2/16/2021	1107	0040	Elba	DPT-02	5.4					Core	10.4-11.4	Sampled from Archived Core	NR	
5971	20WS-0040-SO5971-11.4-12.3-N-061820	2/16/2021	1131	0040	Elba	DPT-02	5.04					Core	11.4-12.3	Sampled from Archived Core	NR	
5972	20WS-0040-SO5972-0.5-5.0-N-061820	2/16/2021	1138	0040	Elba	DPT-03	5.09					Core	0.5-5.0	Sampled from Archived Core	NR	
5973	20WS-0040-SO5973-5.0-5.9-N-061820	2/16/2021	1145	0040	Elba	DPT-03	5.34					Core	5.0-5.9	Sampled from Archived Core	NR	
5974	20WS-0040-SO5974-6.2-6.9-N-061820	2/16/2021	1158	0040	Elba	DPT-03	7.09					Core	6.2-6.9	Sampled from Archived Core	NR	
5975	20WS-0040-SO5975-10.0-12.2-N-061820	2/16/2021	1359	0040	Elba	DPT-03	8.55					Core	10.0-12.2	Sampled from Archived Core	NR	
5976	20WS-0040-SO5976-12.2-15.0-N-061820	2/16/2021	1406	0040	Elba	DPT-03	8.47					Core	12.2-15.0	Sampled from Archived Core	NR	
5977	20WS-0040-SO5977-0.0-5.0-N-061820	2/16/2021	1412	0040	Elba	DPT-04	4.81					Core	0.0-5.0	Sampled from Archived Core	NR	
5978	20WS-0040-SO5978-5.0-5.6-N-061820	2/16/2021	1419	0040	Elba	DPT-04	5.81					Core	5.0-5.6	Sampled from Archived Core	NR	
5979	20WS-0040-SO5979-6.0-6.7-N-061820	2/16/2021	1428	0040	Elba	DPT-04	6.51					Core	6.0-6.7	Sampled from Archived Core	NR	
5980	20WS-0040-SO5980-6.7-7.9-N-061820	2/16/2021	1438	0040	Elba	DPT-04	8.59					Core	6.7-7.9	Sampled from Archived Core	NR	
5981	20WS-0040-SO5981-7.9-8.2-N-061820	2/16/2021	1447	0040	Elba	DPT-04	8.73					Core	7.9-8.2	Sampled from Archived Core	NR	
5982	20WS-0043-SO5982-0.0-5.0-N-061820	2/16/2021	1458	0043	Germania	DPT-05	4.39					Core	0.0-5.0	Sampled from Archived Core	NR	
5983	20WS-0043-SO5983-5.0-5.8-N-061820	2/16/2021	1506	0043	Germania	DPT-05	4.45					Core	5.0-5.8	Sampled from Archived Core	NR	
5984	20WS-0043-SO5984-6.4-10.0-N-061820	2/16/2021	1513	0043	Germania	DPT-05	4.46					Core	6.4-10.0	Sampled from Archived Core	NR	
5985	20WS-0043-SO5985-10.0-13.7-N-061820	2/16/2021	1519	0043	Germania	DPT-05	4.95					Core	10.0-13.7	Sampled from Archived Core	NR	
5986	20WS-0043-SO5986-0.0-5.0-N-061820	2/16/2021	1529	0043	Germania	DPT-06	6.71					Core	0.0-5.0	Sampled from Archived Core	NR	
5987	20WS-0043-SO5987-5.0-10.3-N-061820	2/16/2021	1543	0043	Germania	DPT-06	5.94		2	2		Core	5.0-10.3	Sampled from Archived Core. Sample collection date and time is 6/18/20 at 14:55. Lab Dup at 15:00.	Some black stained gravel	20WS-0043-SO5987-5.0-10.3-N-061820 20WS-0043-SO5987-5.0-10.3-D-061820
5988	20WS-0043-SO5988-11.4-13.5-N-021621	2/16/2021	1616	0043	Germania	DPT-06	6.83					Core	11.4-13.5	Sampled from Archived Core	NR	
5989	20WS-0006-SO5989-0.0-5.0-N-021621	2/16/2021	1631	0006	Mountain Boy	DPT-07	7.13					Core	0.0-5.0	Sampled from Archived Core	NR	
5990	20WS-0006-SO5990-5.0-5.7-N-061820	2/16/2021	1639	0006	Mountain Boy	DPT-07	4.37		1	1	1	Core	5.0-5.7	Sampled from Archived Core. Sample collection date and time is 6/18/20 at 16:27.	NR	20WS-0006-SO5990-5.0-5.7-N-061820
5991	20WS-0006-SO5991-6.0-9.0-N-021621	2/16/2021	1703	0006	Mountain Boy	DPT-07	4.59					Core	6.0-9.0	Sampled from Archived Core	NR	
5992	20WS-0006-SO5992-10.0-12.0-N-021621	2/16/2021	1711	0006	Mountain Boy	DPT-07	7.45					Core	10.0-12.0	Sampled from Archived Core	Black Staining	
5993	20WS-0006-SO5993-13.0-15.0-N-021621	2/16/2021	1716	0006	Mountain Boy	DPT-07	6.82					Core	13.0-15.0	Sampled from Archived Core	NR	
5994	20WS-0006-SO5994-0.0-5.0-N-021721	2/17/2021	0907	0006	Mountain Boy	DPT-08	3.94					Core	0.0-5.0	Sampled from Archived Core	NR	
5995	20WS-0006-SO5995-5.0-5.5-N-021721	2/17/2021	0916	0006	Mountain Boy	DPT-08	6.18					Core	5.0-5.5	Sampled from Archived Core	NR	

Table 3: Subsurface Soils Sample Collection Summary

SAMPLE #	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Bore Hole #	SOIL pH	XRF	Metals	SPLP	ABA	Sample Type	Depth Interval (ft bgs)	NOTES	Staining	LAB SAMPLE FIELD ID
5996	20WS-0006-SO5996-5.5-5.9-N-021721	2/17/2021	0922	0006	Mountain Boy	DPT-08	6.57					Core	5.5-5.9	Sampled from Archived Core	NR	
5997	20WS-0006-SO5997-10.7-13.5-N-021721	2/17/2021	0931	0006	Mountain Boy	DPT-08	4.36					Core	10.7-13.5	Sampled from Archived Core	NR	
5998	20WS-0006-SO5998-5.3-6.2-N-021721	2/17/2021	0939	0006	Mountain Boy	DPT-08B	6.19					Core	5.3-6.2	Sampled from Archived Core	NR	
5999	20WS-0006-SO5999-10.0-10.4-N-021721	2/17/2021	0950	0006	Mountain Boy	DPT-08B	4.99					Core	10.0-10.4	Sampled from Archived Core	NR	
6000	20WS-0006-SO6000-0.0-5.0-N-021721	2/17/2021	1003	0006	Mountain Boy	DPT-09	5.69					Core	0.0-5.0	Sampled from Archived Core	NR	
6001	20WS-0006-SO6001-10.0-11.1-N-061920	2/17/2021	1015	0006	Mountain Boy	DPT-09	6.88		1	1		Core	10.0-11.1	Sampled from Archived Core. Sample collection date and time is 6/19/20 at 10:45.	NR	20WS-0006-SO6001-10.0-11.1-N-061920
6002	20WS-0006-SO6002-11.4-15.0-N-021721	2/17/2021	1034	0006	Mountain Boy	DPT-09	6.56					Core	11.4-15.0	Sampled from Archived Core	NR	
6003	20WS-0006-SO6003-0.0-5.0-N-021721	2/17/2021	1042	0006	Mountain Boy	DPT-10	4.72					Core	0.0-5.0	Sampled from Archived Core	NR	
6004	20WS-0006-SO6004-5.0-5.4-N-021721	2/17/2021	1049	0006	Mountain Boy	DPT-10	4.89					Core	5.0-5.4	Sampled from Archived Core	NR	
6005	20WS-0006-SO6005-5.7-6.2-N-021721	2/17/2021	1102	0006	Mountain Boy	DPT-10	4.33					Core	5.7-6.2	Sampled from Archived Core	NR	
6006	20WS-0043-SO6006-0.0-5.0-N-021721	2/17/2021	1119	0043	Germania	DPT-11	4.18					Core	0.0-5.0	Sampled from Archived Core	NR	
6007	20WS-0043-SO6007-5.0-5.9-N-021721	2/17/2021	1127	0043	Germania	DPT-11	6.17					Core	5.0-5.9	Sampled from Archived Core	NR	
6008	20WS-0043-SO6008-6.5-7.8-N-021721	2/17/2021	1134	0043	Germania	DPT-11	8.36					Core	6.5-7.8	Sampled from Archived Core	NR	
6009	20WS-0043-SO6009-0.0-5.0-N-021721	2/17/2021	1142	0043	Germania	DPT-12	4.47					Core	0.0-5.0	Sampled from Archived Core	NR	
6010	20WS-0043-SO6010-5.0-6.5-N-021721	2/17/2021	1256	0043	Germania	DPT-12	4.96					Core	5.0-6.5	Sampled from Archived Core	NR	
6011	20WS-0043-SO6011-6.5-7.3-N-061920	2/17/2021	1304	0043	Germania	DPT-12	3.69		1	1		Core	6.5-7.3	Sampled from Archived Core. Sample collection date and time is 6/19/20 at 13:42.	NR	20WS-0043-SO6011-6.5-7.3-N-061920
6012	20WS-0043-SO6012-7.7-8.3-N-021721	2/17/2021	1334	0043	Germania	DPT-12	4.08					Core	7.7-8.3	Sampled from Archived Core	NR	
6013	20WS-0043-SO6013-0.0-5.0-N-021721	2/17/2021	1347	0043	Germania	DPT-13	8.26					Core	0.0-5.0	Sampled from Archived Core	NR	
6014	20WS-0043-SO6014-5.0-10.0-N-021721	2/17/2021	1356	0043	Germania	DPT-13	5.54					Core	5.0-10.0	Sampled from Archived Core	NR	
6015	20WS-0043-SO6015-10.0-10.8-N-021721	2/17/2021	1407	0043	Germania	DPT-13B	5.4					Core	10.0-10.8	Sampled from Archived Core	NR	
6016	20WS-0043-SO6016-11.2-12.0-N-021721	2/17/2021	1425	0043	Germania	DPT-13B	4.19					Core	11.2-12.0	Sampled from Archived Core	NR	
6017	20WS-0043-SO6017-12.0-13.0-N-021721	2/17/2021	1432	0043	Germania	DPT-13B	8.18					Core	12.0-13.0	Sampled from Archived Core	NR	
6018	20WS-0043-SO6018-0.0-5.0-N-021721	2/17/2021	1441	0043	Germania	DPT-14	6.59					Core	0.0-5.0	Sampled from Archived Core	NR	
6019	20WS-0043-SO6019-5.0-10.0-N-021721	2/17/2021	1450	0043	Germania	DPT-14	7.82					Core	5.0-10.0	Sampled from Archived Core	NR	
6020	20WS-0043-SO6020-10.0-15.0-N-061920	2/17/2021	1501	0043	Germania	DPT-14B	7.7		1			Core	10.0-15.0	Sampled from Archived Core. Sample collection date and time is 6/19/20 at 15:35.	NR	20WS-0043-SO6020-10.0-15.0-N-061920
6021	20WS-0043-SO6021-15.0-16.0-N-021721	2/17/2021	1520	0043	Germania	DPT-14B	7.72					Core	15.0-16.0	Sampled from Archived Core	NR	
6022	20WS-0043-SO6022-16.3-18.0-N-021721	2/17/2021	1531	0043	Germania	DPT-14B	7.41					Core	16.3-18.0	Sampled from Archived Core	NR	
6023	20WS-0003-SO6023-0.0-4.0-N-021721	2/17/2021	1544	0003	Humboldt	DPT-15	8.63					Core	0.0-4.0	Sampled from Archived Core	NR	
6024	20WS-0003-SO6024-4.0-4.5-N-021721	2/17/2021	1549	0003	Humboldt	DPT-15	8.13					Core	4.0-4.5	Sampled from Archived Core	NR	
6025	20WS-0003-SO6025-4.5-6.0-N-021721	2/17/2021	1555	0003	Humboldt	DPT-15	7.54					Core	4.5-6.0	Sampled from Archived Core	NR	
6026	20WS-0003-SO6026-6.0-7.2-N-021721	2/17/2021	1600	0003	Humboldt	DPT-15	7.64					Core	6.0-7.2	Sampled from Archived Core	NR	
6027	20WS-0003-SO6027-0.0-4.0-N-021721	2/17/2021	1612	0003	Humboldt	DPT-16	8.39					Core	0.0-4.0	Sampled from Archived Core	NR	
6028	20WS-0003-SO6028-4.0-4.4-N-021721	2/17/2021	1619	0003	Humboldt	DPT-16	6.97					Core	4.0-4.4	Sampled from Archived Core	NR	
6029	20WS-0003-SO6029-4.7-5.0-N-021721	2/17/2021	1625	0003	Humboldt	DPT-16	8.44					Core	4.7-5.0	Sampled from Archived Core	NR	
6030	20WS-0003-SO6030-5.0-6.3-N-021721	2/17/2021	1632	0003	Humboldt	DPT-16	8.78					Core	5.0-6.3	Sampled from Archived Core	NR	
6031	20WS-0003-SO6031-0.0-4.0-N-021721	2/17/2021	1644	0003	Humboldt	DPT-17	8.06					Core	0.0-4.0	Sampled from Archived Core	NR	
6032	20WS-0003-SO6032-4.0-8.0-N-021721	2/17/2021	1650	0003	Humboldt	DPT-17	8.24					Core	4.0-8.0	Sampled from Archived Core	NR	
6033	20WS-0003-SO6033-8.0-8.6-N-021721	2/17/2021	1657	0003	Humboldt	DPT-17	7.03					Core	8.0-8.6	Sampled from Archived Core	NR	
6034	20WS-0003-SO6034-9.0-9.5-N-021721	2/17/2021	1703	0003	Humboldt	DPT-17	7.98					Core	9.0-9.5	Sampled from Archived Core	NR	
6035	20WS-0003-SO6035-9.5-11.0-N-021721	2/17/2021	1710	0003	Humboldt	DPT-17	8.24					Core	9.5-11.0	Sampled from Archived Core	NR	
6036	20WS-0003-SO6036-0.0-4.0-N-062320	2/18/2021	0852	0003	Humboldt	DPT-18	4.3				1	Core	0.0-4.0	Sampled from Archived Core. Sample collection date and time is 6/23/20 at 11:12.	NR	20WS-0003-SO6036-0.0-4.0-N-062320
6037	20WS-0003-SO6037-4.0-4.6-N-062320	2/18/2021	0907	0003	Humboldt	DPT-18	4.93		1	1		Core	4.0-4.6	Sampled from Archived Core. Sample collection date and time is 6/23/20 at 11:20.	Mn staining present	20WS-0003-SO6037-4.0-4.6-N-062320
6038	20WS-0003-SO6038-4.9-6.0-N-021821	2/18/2021	0921	0003	Humboldt	DPT-18	4.61					Core	4.9-6.0	Sampled from Archived Core	NR	
6039	20WS-0003-SO6039-0.0-4.0-N-021821	2/18/2021	0929	0003	Humboldt	DPT-19	9.2					Core	0.0-4.0	Sampled from Archived Core	NR	
6040	20WS-0003-SO6040-4.0-8.0-N-021821	2/18/2021	0938	0003	Humboldt	DPT-19	9.17					Core	4.0-8.0	Sampled from Archived Core	NR	
6041	20WS-0003-SO6041-8.0-12.0-N-021821	2/18/2021	0945	0003	Humboldt	DPT-19	8.82					Core	8.0-12.0	Sampled from Archived Core	NR	
6042	20WS-0003-SO6042-12.0-12.6-N-062320	2/18/2021	0952	0003	Humboldt	DPT-19	9.24		1	1		Core	12.0-12.6	Sampled from Archived Core. Sample collection date and time is 6/23/20 at 13:00.	NR	20WS-0003-SO6042-12.0-12.6-N-062320
6043	20WS-0010-SO6043-0.0-4.0-N-021821	2/18/2021	1016	0010	Minnie Jane	DPT-20	7.53					Core	0.0-4.0	Sampled from Archived Core	NR	
6044	20WS-0010-SO6044-4.0-8.0-N-021821	2/18/2021	1025	0010	Minnie Jane	DPT-20	5.87					Core	4.0-8.0	Sampled from Archived Core	NR	
6045	20WS-0010-SO6045-8.0-8.4-N-021821	2/18/2021	1037	0010	Minnie Jane	DPT-20	5.31					Core	8.0-8.4	Sampled from Archived Core	NR	
6046	20WS-0010-SO6046-8.8-9.4-N-021821	2/18/2021	1042	0010	Minnie Jane	DPT-20	8.1					Core	8.8-9.4	Sampled from Archived Core	NR	
6047	20WS-0010-SO6047-9.4-11.0-N-021821	2/18/2021	1049	0010	Minnie Jane	DPT-20	8.76					Core	9.4-11.0	Sampled from Archived Core	NR	
6048	20WS-0010-SO6048-0.0-4.0-N-021821	2/18/2021	1100	0010	Minnie Jane	DPT-21	6.87					Core	0.0-4.0	Sampled from Archived Core	NR	
6049	20WS-0010-SO6049-4.0-8.0-N-021821	2/18/2021	1106	0010	Minnie Jane	DPT-21	7.88					Core	4.0-8.0	Sampled from Archived Core	NR	
6050	20WS-0010-SO6050-8.0-12.0-N-021821	2/18/2021	1117	0010	Minnie Jane	DPT-21	7.86					Core	8.0-12.0	Sampled from Archived Core	NR	
6051	20WS-0010-SO6051-12.0-13.0-N-062320	2/18/2021	1123	0010	Minnie Jane	DPT-21	7.34		1	1		Core	12.0-13.0	Sampled from Archived Core. Sample collection date and time is 6/23/20 at 14:40.	NR	20WS-0010-SO6051-12.0-13.0-N-062320
6052	20WS-0010-SO6052-0.0-4.0-N-021821	2/18/2021	1143	0010	Minnie Jane	DPT-22	7.74					Core	0.0-4.0	Sampled from Archived Core	NR	
6053	20WS-0010-SO6053-4.0-8.0-N-021821	2/18/2021	1152	0010	Minnie Jane	DPT-22	5.21					Core	4.0-8.0	Sampled from Archived Core	NR	
6054	20WS-0010-SO6054-8.0-12.0-N-021821	2/18/2021	1157	0010	Minnie Jane	DPT-22	6.68					Core	8.0-12.0	Sampled from Archived Core	NR	
6055	20WS-0010-SO6055-12.0-12.2-N-021821	2/18/2021	1203	0010	Minnie Jane	DPT-22	5.31					Core	12.0-12.2	Sampled from Archived Core	NR	
6056	20WS-0010-SO6056-12.6-14.0-N-021821	2/18/2021	1210	0010	Minnie Jane	DPT-22	5.93					Core	12.6-14.0	Sampled from Archived Core	NR	

Table 3: Subsurface Soils Sample Collection Summary

SAMPLE #	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Bore Hole #	SOIL pH	XRF	Metals	SPLP	ABA	Sample Type	Depth Interval (ft bgs)	NOTES	Staining	LAB SAMPLE FIELD ID
6057	20WS-0010-SO6057-0.0-4.0-N-021821	2/18/2021	1240	0010	Minnie Jane	DPT-23	4.74					Core	0.0-4.0	Sampled from Archived Core	NR	
6058	20WS-0010-SO6058-4.0-12.0-N-021821	2/18/2021	1251	0010	Minnie Jane	DPT-23	5.97					Core	4.0-12.0	Sampled from Archived Core	NR	
6059	20WS-0010-SO6059-12.0-12.4-N-021821	2/18/2021	1258	0010	Minnie Jane	DPT-23	6.14					Core	12.0-12.4	Sampled from Archived Core	NR	
6060	20WS-0010-SO6060-12.8-13.5-N-021821	2/18/2021	1304	0010	Minnie Jane	DPT-23	5.16					Core	12.8-13.5	Sampled from Archived Core	NR	
6061	20WS-0010-SO6061-0.0-4.0-N-021821	2/18/2021	1310	0010	Minnie Jane	DPT-24	6.22					Core	0.0-4.0	Sampled from Archived Core	NR	
6062	20WS-0010-SO6062-4.0-4.6-N-021821	2/18/2021	1317	0010	Minnie Jane	DPT-24	4.25					Core	4.0-4.6	Sampled from Archived Core	NR	
6063	20WS-0010-SO6063-4.6-5.6-N-021821	2/18/2021	1326	0010	Minnie Jane	DPT-24	4.82					Core	4.6-5.6	Sampled from Archived Core	NR	
6064	20WS-0010-SO6064-8.0-8.2-N-021821	2/18/2021	1334	0010	Minnie Jane	DPT-24	6.09					Core	8.0-8.2	Sampled from Archived Core	NR	
6065	20WS-0010-SO6065-8.5-9.5-N-021821	2/18/2021	1338	0010	Minnie Jane	DPT-24	7.82					Core	8.5-9.5	Sampled from Archived Core	NR	
6066	20WS-0010-SO6066-0.0-0.5-N-021821	2/18/2021	1351	0010	Minnie Jane	DPT-25	7.78					Core	0.0-0.5	Sampled from Archived Core	NR	
6067	20WS-0010-SO6067-1.2-1.8-N-021821	2/18/2021	1357	0010	Minnie Jane	DPT-25	7.66					Core	1.2-1.8	Sampled from Archived Core	NR	
6068	20WS-0010-SO6068-4.0-8.0-N-021821	2/18/2021	1403	0010	Minnie Jane	DPT-25	7.61					Core	4.0-8.0	Sampled from Archived Core	NR	
6069	20WS-0010-SO6069-8.0-9.2-N-062420	2/18/2021	1419	0010	Minnie Jane	DPT-25	4.22		1	1	1	Core	8.0-9.2	Sampled from Archived Core. Sample collection date and time is 6/24/20 at 09:25.	NR	20WS-0010-SO6069-8.0-9.2-N-062420
6070	20WS-0010-SO6070-9.6-10.8-N-021821	2/18/2021	1438	0010	Minnie Jane	DPT-25	4.62					Core	9.6-10.8	Sampled from Archived Core	NR	
6071	20WS-0297-SO6071-0.0-4.0-N-021821	2/18/2021	1446	0297	Key West	DPT-26	5.69					Core	0.0-4.0	Sampled from Archived Core	NR	
6072	20WS-0297-SO6072-4.0-8.0-N-021821	2/18/2021	1509	0297	Key West	DPT-26	4.97					Core	4.0-8.0	Sampled from Archived Core	NR	
6073	20WS-0297-SO6073-8.0-12.0-N-021821	2/18/2021	1516	0297	Key West	DPT-26	5.03					Core	8.0-12.0	Sampled from Archived Core	NR	
6074	20WS-0297-SO6074-12.0-12.7-N-062420	2/18/2021	1524	0297	Key West	DPT-26	4.9		1	1		Core	12.0-12.7	Sampled from Archived Core. Sample collection date and time is 6/24/20 at 11:05.	NR	20WS-0297-SO6074-12.0-12.7-N-062420
6075	20WS-0297-SO6075-0.0-4.0-N-021821	2/18/2021	1541	0297	Key West	DPT-27	4.71					Core	0.0-4.0	Sampled from Archived Core	NR	
6076	20WS-0297-SO6076-4.0-5.5-N-022221	2/22/2021	0910	0297	Key West	DPT-27	5.04					Core	4.0-5.5	Sampled from Archived Core	NR	
6077	20WS-0297-SO6077-5.5-6.7-N-022221	2/22/2021	0942	0297	Key West	DPT-27	8.78					Core	5.5-6.7	Sampled from Archived Core	NR	
6078	20WS-0297-SO6078-8.0-11.0-N-022221	2/22/2021	0953	0297	Key West	DPT-27	9.08					Core	8.0-11.0	Sampled from Archived Core	NR	
6079	20WS-0297-SO6079-11.0-13.7-N-022221	2/22/2021	1011	0297	Key West	DPT-27B	9.27					Core	11.0-13.7	Not enough materials for sample, combined 8.0-11.0 (Sample #6078) and 11.0-13.7 due to similar material and pH.	NR	
6080	20WS-0297-SO6080-8.0-13.7-N-062420	2/22/2021	1019	0297	Key West	DPT-27	9.21		1	1	2	Core	8.0-13.7	Sampled from Archived Core. Sample collection date and time is 6/24/20 at 11:35. Lab Dup at 11:38.	NR	20WS-0297-SO6080-8.0-13.7-N-062420 20WS-0297-SO6080-8.0-13.7-D-062420
6081	20WS-0297-SO6081-0.0-4.0-N-062420	2/22/2021	1045	0297	Key West	DPT-28	3.69				1	Core	0.0-4.0	Sampled from Archived Core. Sample collection date and time is 6/24/20 at 13:40.	NR	20WS-0297-SO6081-0.0-4.0-N-062420
6082	20WS-0297-SO6082-4.0-4.5-N-062420	2/22/2021	1104	0297	Key West	DPT-28	3.35		1	1		Core	4.0-4.5	Sampled from Archived Core. Sample collection date and time is 6/24/20 at 13:45.	NR	20WS-0297-SO6082-4.0-4.5-N-062420
6083	20WS-0297-SO6083-4.8-5.4-N-022221	2/22/2021	1118	0297	Key West	DPT-28	3.38					Core	4.8-5.4	Sampled from Archived Core	NR	
6084	20WS-0297-SO6084-5.4-6.6-N-022221	2/22/2021	1127	0297	Key West	DPT-28	4.28					Core	5.4-6.6	Sampled from Archived Core	NR	
6085	20WS-0297-SO6085-0.0-0.2-N-022221	2/22/2021	1133	0297	Key West	DPT-29	3.68					Core	0.0-0.2	Sampled from Archived Core	NR	
6086	20WS-0297-SO6086-0.8-2.3-N-022221	2/22/2021	1139	0297	Key West	DPT-29	5.76					Core	0.8-2.3	Sampled from Archived Core	NR	
6087	20WS-0297-SO6087-0.0-0.4-N-022221	2/22/2021	1148	0297	Key West	DPT-30	3.42					Core	0.0-0.4	Sampled from Archived Core	NR	
6088	20WS-0297-SO6088-0.8-1.2-N-022221	2/22/2021	1155	0297	Key West	DPT-30	4.27					Core	0.8-1.2	Sampled from Archived Core	NR	
6089	20WS-0288-SO6089-0.0-4.0-N-022221	2/22/2021	1204	0288	Nettie	DPT-31	3.56					Core	0.0-4.0	Sampled from Archived Core	Mn staining	
6090	20WS-0288-SO6090-4.0-4.6-N-062420	2/22/2021	1210	0288	Nettie	DPT-31	3.52		1	1		Core	4.0-4.6	Sampled from Archived Core. Sample collection date and time is 6/24/20 at 15:10.	NR	20WS-0288-SO6090-4.0-4.6-N-062420
6091	20WS-0288-SO6091-5.0-6.2-N-022221	2/22/2021	1219	0288	Nettie	DPT-31	4.76					Core	5.0-6.2		NR	
6092	20WS-0285-SO6092-0.0-4.0-N-062520	2/22/2021	1321	0285	Burlington	DPT-32	4.03		1	1		Core	0.0-4.0	Sampled from Archived Core. Sample collection date and time is 6/25/20 at 08:35. DPT-35 requested for sample (SO6100), correction made to DPT-32 (SO6092). Sample was taken from both locations.	NR	20WS-0285-SO6092-0.0-4.0-N-062520
6093	20WS-0285-SO6093-4.0-4.4-N-022221	2/22/2021	1332	0285	Burlington	DPT-32	6.41					Core	4.0-4.4	Sampled from Archived Core	NR	
6094	20WS-0285-SO6094-4.5-6.5-N-022221	2/22/2021	1339	0285	Burlington	DPT-32	6.23					Core	4.5-6.5	Sampled from Archived Core	NR	
6095	20WS-0285-SO6095-0.0-4.0-N-022221	2/22/2021	1349	0285	Burlington	DPT-33	5.6					Core	0.0-4.0	Sampled from Archived Core	NR	
6096	20WS-0285-SO6096-4.0-8.4-N-062520	2/22/2021	1355	0285	Burlington	DPT-33	5.13		1	1	1	Core	4.0-8.4	Sampled from Archived Core. Sample collection date and time is 6/25/20 at 09:05.	NR	20WS-0285-SO6096-4.0-8.4-N-062520
6097	20WS-0285-SO6097-8.7-10.7-N-022221	2/22/2021	1407	0285	Burlington	DPT-33	5.24					Core	8.7-10.7	Sampled from Archived Core	NR	
6098	20WS-0285-SO6098-0.0-0.3-N-022221	2/22/2021	1417	0285	Burlington	DPT-34	4.92					Core	0.0-0.3	Sampled from Archived Core	Black Staining	
6099	20WS-0285-SO6099-0.9-3.0-N-022221	2/22/2021	1422	0285	Burlington	DPT-34	5.72					Core	0.9-3.0	Sampled from Archived Core	NR	
6100	20WS-0285-SO6100-0.0-1.2-N-062520	2/22/2021	1431	0285	Burlington	DPT-35	4.48				1	Core	0.0-1.2	Sampled from Archived Core. Sample collection date and time is 6/25/20 at 09:38.	NR	20WS-0285-SO6100-0.0-1.2-N-062520
6101	20WS-0285-SO6101-1.5-1.8-N-022221	2/22/2021	1436	0285	Burlington	DPT-35	4.76					Core	1.5-1.8	Sampled from Archived Core	NR	
6102	20WS-0285-SO6102-4.0-8.0-N-022221	2/22/2021	1442	0285	Burlington	DPT-35	5.44					Core	4.0-8.0	Sampled from Archived Core	NR	
6103	20WS-0285-SO6103-0.0-0.6-N-022221	2/22/2021	1602	0285	Burlington	DPT-36	4.41					Core	0.0-0.6	Sampled from Archived Core	NR	
6104	20WS-0285-SO6104-0.6-1.9-N-022221	2/22/2021	1609	0285	Burlington	DPT-36	4.25					Core	0.6-1.9	Sampled from Archived Core	Mn present	
6105	20WS-0285-SO6105-4.0-4.5-N-022221	2/22/2021	1613	0285	Burlington	DPT-36	4.65					Core	4.0-4.5	Sampled from Archived Core	Mn present	
6106	20WS-0285-SO6106-0.0-1.3-N-062520	2/22/2021	1619	0285	Burlington	DPT-36B	5.5		1	1		Core	0.0-1.3	Sampled from Archived Core. Sample collection date and time is 6/25/20 at 10:30.	NR	20WS-0285-SO6106-0.0-4.0-N-062520

Table 3: Subsurface Soils Sample Collection Summary

SAMPLE #	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Bore Hole #	SOIL pH	XRF	Metals	SPLP	ABA	Sample Type	Depth Interval (ft bgs)	NOTES	Staining	LAB SAMPLE FIELD ID
6107	20WS-0285-SO6107-1.5-5.0-N-022221	2/22/2021	1628	0285	Burlington	DPT-36B	4.93					Core	1.5-5.0	Sampled from Archived Core	NR	
6108	20WS-0246-SO6108-4.0-8.0-N-022221	2/22/2021	1648	0246	Independent	DPT-37	5.14					Core	4.0-8.0	Sampled from Archived Core	NR	
6109	20WS-0246-SO6109-8.0-12.0-N-062520	2/22/2021	1654	0246	Independent	DPT-37	6.02		1	1		Core	8.0-12.0	Sampled from Archived Core. Sample collection date and time is 6/25/20 at 11:50.	NR	20WS-0246-SO6109-8.0-12.0-N-062520
6110	20WS-0246-SO6110-12.0-12.2-N-022221	2/22/2021	1705	0246	Independent	DPT-37	5.32					Core	12.0-12.2	Sampled from Archived Core	NR	
6111	20WS-0246-SO6111-12.6-12.8-N-022221	2/22/2021	1708	0246	Independent	DPT-37	4.35					Core	12.6-12.8	Sampled from Archived Core	NR	
6112	20WS-0246-SO6112-12.8-15.0-N-022221	2/22/2021	1715	0246	Independent	DPT-37	4.09					Core	12.8-15.0	Sampled from Archived Core	NR	
6113	20WS-0246-SO6113-0.0-4.0-N-022421	2/24/2021	0847	0246	Independent	DPT-38	6.16					Core	0.0-4.0	Sampled from Archived Core	NR	
6114	20WS-0246-SO6114-4.0-6.6-N-022421	2/24/2021	0906	0246	Independent	DPT-38	5.2					Core	4.0-6.6	Sampled from Archived Core	NR	
6115	20WS-0246-SO6115-8.0-8.8-N-022421	2/24/2021	0910	0246	Independent	DPT-38	5.73					Core	8.0-8.8	Sampled from Archived Core	NR	
6116	20WS-0246-SO6116-12.0-13.2-N-022421	2/24/2021	0917	0246	Independent	DPT-38	4.26					Core	12.0-13.2	Sampled from Archived Core	NR	
6117	20WS-0246-SO6117-0.0-4.0-N-022421	2/24/2021	0924	0246	Independent	DPT-39	4.87					Core	0.0-4.0	Sampled from Archived Core	NR	
6118	20WS-0246-SO6118-4.0-4.8-N-022421	2/24/2021	0929	0246	Independent	DPT-39	5.33					Core	4.0-4.8	Sampled from Archived Core	NR	
6119	20WS-0246-SO6119-0.0-4.8-N-062520	2/24/2021	0936	0246	Independent	DPT-39	4.96		1	1	1	Core	0.0-4.8	Sampled from Archived Core. Sample collection date and time is 6/25/20 at 13:35.	NR	20WS-0246-SO6119-0.0-4.8-N-062520
6120	20WS-0246-SO6120-8.0-10.0-N-022421	2/24/2021	0950	0246	Independent	DPT-39	4.79					Core	8.0-10.0	Sampled from Archived Core	NR	
6121	20WS-0246-SO6121-0.0-4.0-N-022421	2/24/2021	1010	0246	Independent	DPT-40	4.66					Core	0.0-4.0	Sampled from Archived Core	NR	
6122	20WS-0246-SO6122-4.0-8.0-N-022421	2/24/2021	1014	0246	Independent	DPT-40	3.92					Core	4.0-8.0	Sampled from Archived Core	NR	
6123	20WS-0246-SO6123-8.0-8.7-N-062520	2/24/2021	1019	0246	Independent	DPT-40	4.49		1	1		Core	8.0-8.7	Sampled from Archived Core. Sample collection date and time is 6/25/20 at 14:10.	NR	20WS-0246-SO6123-8.0-8.7-N-062520
6124	20WS-0246-SO6124-9.0-9.4-N-022421	2/24/2021	1027	0246	Independent	DPT-40	4.59					Core	9.0-9.4	Sampled from Archived Core	NR	
6125	20WS-0285-SO6125-0.0-1.0-N-022421	2/24/2021	1030	0285	Burlington	DPT-41	4.4					Core	0.0-1.0	Sampled from Archived Core	NR	
6126	20WS-1150-SO6126-0.0-4.0-N-022421	2/24/2021	1105	1150	General Washington	DPT-42	5.24					Core	0.0-4.0	Sampled from Archived Core	NR	
6127	20WS-1150-SO6127-4.0-8.0-N-022421	2/24/2021	1111	1150	General Washington	DPT-42	6.04					Core	4.0-8.0	Sampled from Archived Core	NR	
6128	20WS-1150-SO6128-8.0-12.0-N-022421	2/24/2021	1115	1150	General Washington	DPT-42	5.53					Core	8.0-12.0	Sampled from Archived Core	NR	
6129	20WS-1150-SO6129-12.0-16.0-N-022421	2/24/2021	1119	1150	General Washington	DPT-42	5.65					Core	12.0-16.0	Sampled from Archived Core	NR	
6130	20WS-1150-SO6130-12.0-16.0-N-022421	2/24/2021	1127	1150	General Washington	DPT-42B	4.77					Core	12.0-16.0	Sampled from Archived Core	NR	
6131	20WS-1150-SO6131-16.0-20.0-N-022421	2/24/2021	1132	1150	General Washington	DPT-42B	4.26					Core	16.0-20.0	Sampled from Archived Core	NR	
6132	20WS-1150-SO6132-20.0-20.5-N-022421	2/24/2021	1135	1150	General Washington	DPT-42B	4.44					Core	20.0-20.5	Sampled from Archived Core	NR	
6133	20WS-1150-SO6133-16.0-20.5-N-062520	2/24/2021	1140	1150	General Washington	DPT-42B	4.33		1	1	1	Core	16.0-20.5	Sampled from Archived Core. Sample collection date and time is 6/25/20 at 16:30. DPT-42B-20.0-20.5 and DPT-42B-16.0-20.0 intervals combined for sample request due to lack of materials.	NR	20WS-1150-SO6133-16.0-20.5-N-062520
6134	20WS-1150-SO6134-20.8-22.0-N-022421	2/24/2021	1152	1150	General Washington	DPT-42B	4.78					Core	20.8-22.0	Sampled from Archived Core	NR	
6135	20WS-0015-SO6135-0.0-4.0-N-022421	2/24/2021	1300	0015	Milwaukee	DPT-43	6.02					Core	0.0-4.0	Sampled from Archived Core	NR	
6136	20WS-0015-SO6136-4.0-5.0-N-022421	2/24/2021	1303	0015	Milwaukee	DPT-43	7.28					Core	4.0-5.0	Sampled from Archived Core	NR	
6137	20WS-0015-SO6137-5.0-5.5-N-022421	2/24/2021	1308	0015	Milwaukee	DPT-43	6.86					Core	5.0-5.5	Sampled from Archived Core	NR	
6138	20WS-0015-SO6138-8.0-8.7-N-022421	2/24/2021	1313	0015	Milwaukee	DPT-43	6.97					Core	8.0-8.7	Sampled from Archived Core	NR	
6139	20WS-0015-SO6139-8.7-9.7-N-022421	2/24/2021	1316	0015	Milwaukee	DPT-43	8.53					Core	8.7-9.7	Sampled from Archived Core	NR	
6140	20WS-0015-SO6140-9.7-10.8-N-022421	2/24/2021	1320	0015	Milwaukee	DPT-43	8.3					Core	9.7-10.8	Sampled from Archived Core	NR	
6141	20WS-0015-SO6141-0.0-4.0-N-022421	2/24/2021	1324	0015	Milwaukee	DPT-44	7.06					Core	0.0-4.0	Sampled from Archived Core	NR	
6142	20WS-0015-SO6142-4.0-8.0-N-022421	2/24/2021	1329	0015	Milwaukee	DPT-44	7.58					Core	4.0-8.0	Sampled from Archived Core	NR	
6143	20WS-0015-SO6143-8.0-12.0-N-022421	2/24/2021	1333	0015	Milwaukee	DPT-44	7.8					Core	8.0-12.0	Sampled from Archived Core	NR	
6144	20WS-0015-SO6144-12.0-12.5-N-022421	2/24/2021	1338	0015	Milwaukee	DPT-44	7.91					Core	12.0-12.5	Sampled from Archived Core	NR	
6145	20WS-0015-SO6145-13.0-14.3-N-022421	2/24/2021	1343	0015	Milwaukee	DPT-44	7.06					Core	13.0-14.3	Sampled from Archived Core	NR	
6146	20WS-0015-SO6146-0.0-4.0-N-022421	2/24/2021	1351	0015	Milwaukee	DPT-45	6.32					Core	0.0-4.0	Sampled from Archived Core	NR	
6147	20WS-0015-SO6147-4.0-8.0-N-022421	2/24/2021	1356	0015	Milwaukee	DPT-45	7.82					Core	4.0-8.0	Sampled from Archived Core	NR	
6148	20WS-0015-SO6148-8.0-8.7-N-022421	2/24/2021	1404	0015	Milwaukee	DPT-45	8.05					Core	8.0-8.7	Sampled from Archived Core	NR	
6149	20WS-0015-SO6149-9.0-9.3-N-022421	2/24/2021	1411	0015	Milwaukee	DPT-45	5.06					Core	9.0-9.3	Sampled from Archived Core	NR	
6150	20WS-0015-SO6150-9.3-9.7-N-022421	2/24/2021	1414	0015	Milwaukee	DPT-45	6.31					Core	9.3-9.7	Sampled from Archived Core	NR	
6151	20WS-0015-SO6151-0.0-4.0-N-022421	2/24/2021	1421	0015	Milwaukee	DPT-46	7.78					Core	0.0-4.0	Sampled from Archived Core	NR	
6152	20WS-0015-SO6152-4.0-8.0-N-022421	2/24/2021	1427	0015	Milwaukee	DPT-46	8.26					Core	4.0-8.0	Sampled from Archived Core	NR	
6153	20WS-0015-SO6153-8.0-9.2-N-022421	2/24/2021	1431	0015	Milwaukee	DPT-46	7.95					Core	8.0-9.2	Sampled from Archived Core	NR	
6154	20WS-0015-SO6154-9.5-10.1-N-022421	2/24/2021	1435	0015	Milwaukee	DPT-46	5.95					Core	9.5-10.1	Sampled from Archived Core	NR	
6155	20WS-0016-SO6155-0.0-4.0-N-022421	2/24/2021	1440	0016	Orphan Boy	DPT-47	6.51					Core	0.0-4.0	Sampled from Archived Core	NR	
6156	20WS-0016-SO6156-4.0-4.8-N-022421	2/24/2021	1444	0016	Orphan Boy	DPT-47	4.86					Core	4.0-4.8	Sampled from Archived Core	NR	
6157	20WS-0016-SO6157-5.2-5.9-N-022421	2/24/2021	1446	0016	Orphan Boy	DPT-47	4.76					Core	5.2-5.9	Sampled from Archived Core	NR	
6158	20WS-0016-SO6158-8.0-12.0-N-022421	2/24/2021	1451	0016	Orphan Boy	DPT-47	6.76					Core	8.0-12.0	Sampled from Archived Core	NR	
6159	20WS-0016-SO6159-0.0-4.0-N-022421	2/24/2021	1503	0016	Orphan Boy	DPT-48	4.59					Core	0.0-4.0	Sampled from Archived Core	NR	
6160	20WS-0016-SO6160-4.0-8.0-N-022421	2/24/2021	1506	0016	Orphan Boy	DPT-48	5.69					Core	4.0-8.0	Sampled from Archived Core	NR	
6161	20WS-0016-SO6161-8.0-12.0-N-070120	2/24/2021	1510	0016	Orphan Boy	DPT-48	5.98				1	Core	8.0-12.0	Sampled from Archived Core. Sample collection date and time is 7/1/20 at 09:48.	NR	20WS-0016-SO6161-8.0-12.0-N-070120
6162	20WS-0016-SO6162-12.0-12.7-N-070120	2/24/2021	1513	0016	Orphan Boy	DPT-48	3.99		1	1		Core	12.0-12.7	Sampled from Archived Core. Sample collection date and time is 7/1/20 at 10:00.	NR	20WS-0016-SO6161-12.0-12.7-N-070120
6163	20WS-0016-SO6163-13.0-14.7-N-022421	2/24/2021	1525	0016	Orphan Boy	DPT-48	3.87					Core	13.0-14.7	Sampled from Archived Core	NR	
6164	20WS-0016-SO6164-0.0-4.0-N-022621	2/26/2021	0940	0016	Orphan Boy	DPT-49	8.83					Core	0.0-4.0	Sampled from Archived Core	NR	
6165	20WS-0016-SO6165-4.0-8.0-N-022621	2/26/2021	0951	0016	Orphan Boy	DPT-49	11.17					Core	4.0-8.0	Sampled from Archived Core	NR	
6166	20WS-0016-SO6166-8.0-12.0-N-070120	2/26/2021	0959	0016	Orphan Boy	DPT-49	9.28		1			Core	8.0-12.0	Sampled from Archived Core. Sample collection date and time is 7/1/20 at 10:38.	NR	20WS-0016-SO6166-8.0-12.0-N-070120

Table 3: Subsurface Soils Sample Collection Summary

SAMPLE #	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Bore Hole #	SOIL pH	XRF	Metals	SPLP	ABA	Sample Type	Depth Interval (ft bgs)	NOTES	Staining	LAB SAMPLE FIELD ID
6167	20WS-0016-SO6167-12.0-12.7-N-022621	2/26/2021	1008	0016	Orphan Boy	DPT-49	7.26					Core	12.0-12.7	Sampled from Archived Core	NR	
6168	20WS-0016-SO6168-13.2-13.7-N-022621	2/26/2021	1013	0016	Orphan Boy	DPT-49	6.42					Core	13.2-13.7	Sampled from Archived Core	NR	
6169	20WS-0016-SO6169-0.0-4.0-N-070120	2/26/2021	1022	0016	Orphan Boy	DPT-50	4.95		1	1		Core	0.0-1.3	Sampled from Archived Core. Sample collection date and time is 7/1/20 at 11:18.	NR	20WS-0016-SO6169-0.0-1.3-N-070120
6170	20WS-0016-SO6170-5.0-7.5-N-022621	2/26/2021	1035	0016	Orphan Boy	DPT-50	4.46					Core	5.0-7.5	Sampled from Archived Core	NR	
6171	20WS-0013-SO6171-0.0-4.0-N-022621	2/26/2021	1105	0013	Georgie	DPT-51	5.41					Core	0.0-4.0	Sampled from Archived Core	NR	
6172	20WS-0013-SO6172-4.0-8.0-N-022621	2/26/2021	1114	0013	Georgie	DPT-51	5.22					Core	4.0-8.0	Sampled from Archived Core	NR	
6173	20WS-0013-SO6173-8.0-12.0-N-022621	2/26/2021	1120	0013	Georgie	DPT-51	4.2					Core	8.0-12.0	Sampled from Archived Core	NR	
6174	20WS-0013-SO6174-12.0-12.3-N-022621	2/26/2021	1125	0013	Georgie	DPT-51	4.68					Core	12.0-12.3	Sampled from Archived Core	NR	
6175	20WS-0013-SO6175-12.6-13.8-N-022621	2/26/2021	1131	0013	Georgie	DPT-51	4.37					Core	12.6-13.8	Sampled from Archived Core	NR	
6176	20WS-1150-SO6176-0.0-4.0-N-022621	2/26/2021	1135	1150	General Washington	DPT-52	4.6					Core	0.0-4.0	Sampled from Archived Core	NR	
6177	20WS-1150-SO6177-4.0-8.0-N-022621	2/26/2021	1139	1150	General Washington	DPT-52	5.24					Core	4.0-8.0	Sampled from Archived Core	NR	
6178	20WS-1150-SO6178-8.0-12.0-N-022621	2/26/2021	1142	1150	General Washington	DPT-52	4.41					Core	8.0-12.0	Sampled from Archived Core	NR	
6179	20WS-1150-SO6179-12.0-12.3-N-022621	2/26/2021	1147	1150	General Washington	DPT-52	3.94					Core	12.0-12.3	Sampled from Archived Core	NR	
6180	20WS-1150-SO6180-12.7-13.5-N-022621	2/26/2021	1152	1150	General Washington	DPT-52	5.59					Core	12.7-13.5	Sampled from Archived Core	NR	
6181	20WS-1150-SO6181-13.5-15-N-022621	2/26/2021	1202	1150	General Washington	DPT-52	6.43					Core	13.5-15	Sampled from Archived Core	NR	
6182	20WS-1150-SO6182-0.0-4.0-N-022621	2/26/2021	1211	1150	General Washington	DPT-53	5.55					Core	0.0-4.0	Sampled from Archived Core	NR	
6183	20WS-1150-SO6183-4.0-8.0-N-022621	2/26/2021	1216	1150	General Washington	DPT-53	4.53					Core	4.0-8.0	Sampled from Archived Core	NR	
6184	20WS-1150-SO6184-8.0-12.0-N-022621	2/26/2021	1222	1150	General Washington	DPT-53	4.96					Core	8.0-12.0	Sampled from Archived Core	NR	
6185	20WS-1150-SO6185-16.0-20.0-N-022621	2/26/2021	1228	1150	General Washington	DPT-53	5.52					Core	16.0-20.0	Sampled from Archived Core	NR	
6186	20WS-1150-SO6186-20.0-24.0-N-070120	2/26/2021	1233	1150	General Washington	DPT-53	5.7		1	1		Core	20.0-24.0	Sampled from Archived Core. Sample collection date and time is 7/1/20 at 14:46.	NR	20WS-1150-SO6186-20.0-24.0-N-070120
6187	20WS-1150-SO6187-24.0-24.4-N-022621	2/26/2021	1243	1150	General Washington	DPT-53	6.01					Core	24.0-24.4	Sampled from Archived Core	NR	
6188	20WS-1150-SO6188-24.9-26.0-N-022621	2/26/2021	1252	1150	General Washington	DPT-53	5.05					Core	24.9-26.0	Sampled from Archived Core	NR	
6189	20WS-0288-SO6189-0.0-4.0-N-070220	3/1/2021	0934	0288	Nettie	DPT-54	4.36		2	2		Core	0.0-4.0	Sampled from Archived Core. Sample collection date and time is 7/2/20 at 08:40. Lab Dup at 08:42.	NR	20WS-0288-SO6189-0.0-4.0-N-070220 20WS-0288-SO6189-0.0-4.0-D-070220
6190	20WS-0288-SO6190-4.9-6.2-N-030121	3/1/2021	0954	0288	Nettie	DPT-54	6.7					Core	4.9-6.2	Sampled from Archived Core	NR	
6191	20WS-0288-SO6191-0.0-0.8-N-030121	3/1/2021	1005	0288	Nettie	DPT-55	5.41					Core	0.0-0.8	Sampled from Archived Core	NR	
6192	20WS-0288-SO6192-4.0-6.0-N-030121	3/1/2021	1013	0288	Nettie	DPT-55	4.89					Core	4.0-6.0	Sampled from Archived Core	NR	
6193	20WS-0288-SO6193-0.0-1.1-N-030121	3/1/2021	1018	0288	Nettie	DPT-56	5.68					Core	0.0-1.1	Sampled from Archived Core	NR	
6194	20WS-0288-SO6194-1.1-1.6-N-030121	3/1/2021	1022	0288	Nettie	DPT-56	4.92					Core	1.1-1.6	Sampled from Archived Core	NR	
6195	20WS-0288-SO6195-0.0-1.6-N-070220	3/1/2021	1032	0288	Nettie	DPT-56	5.23		1	1	1	Core	0.0-1.6	Sampled from Archived Core. Sample collection date and time is 7/2/20 at 09:55. Not enough material for requested sample interval, DPT-56-0.0-1.1 and DPT-56-1.1-1.6 combined for sample.	NR	20WS-0288-SO6195-0.0-1.6-N-070220
6196	20WS-0288-SO6196-4.5-6.0-N-030121	3/1/2021	1046	0288	Nettie	DPT-56	4.97					Core	4.5-6.0	Sampled from Archived Core	NR	
6197	20WS-0288-SO6197-0.0-0.7-N-070220	3/1/2021	1058	0288	Nettie	DPT-57	6.07		1	1		Core	0.0-0.7	Sampled from Archived Core. Sample collection date and time is 7/2/20 at 10:22.	NR	20WS-0288-SO6197-0.0-0.7-N-070220
6198	20WS-0288-SO6198-0.7-0.9-N-030121	3/1/2021	1114	0288	Nettie	DPT-57	5.04					Core	0.7-0.9	Sampled from Archived Core	NR	
6199	20WS-0288-SO6199-0.0-4.0-N-030121	3/1/2021	1125	0288	Nettie	DPT-58	4.85					Core	0.0-4.0	Sampled from Archived Core	NR	
6200	20WS-0288-SO6200-4.0-8.0-N-030121	3/1/2021	1131	0288	Nettie	DPT-58	4.76					Core	4.0-8.0	Sampled from Archived Core	NR	
6201	20WS-0288-SO6201-8.0-12.0-N-030121	3/1/2021	1137	0288	Nettie	DPT-58	5.19					Core	8.0-12.0	Sampled from Archived Core	Mn Staining	
6202	20WS-0289-SO6202-0.0-4.0-N-030121	3/1/2021	1314	0289	Hibernia	DPT-59	5.07					Core	0.0-4.0	Sampled from Archived Core	NR	
6203	20WS-0289-SO6203-4.0-4.7-N-030121	3/1/2021	1319	0289	Hibernia	DPT-59	5.4					Core	4.0-4.7	Sampled from Archived Core	NR	
6204	20WS-0289-SO6204-4.7-5.2-N-030121	3/1/2021	1324	0289	Hibernia	DPT-59	4.97					Core	4.7-5.2	Sampled from Archived Core	NR	
6205	20WS-0289-SO6205-5.2-5.7-N-030121	3/1/2021	1330	0289	Hibernia	DPT-59	4.2					Core	5.2-5.7	Sampled from Archived Core	NR	
6206	20WS-0289-SO6206-8.5-8.8-N-030121	3/1/2021	1342	0289	Hibernia	DPT-59	4.45					Core	8.5-8.8	Sampled from Archived Core	Mn present	
6207	20WS-0289-SO6207-8.8-9.3-N-030121	3/1/2021	1351	0289	Hibernia	DPT-59	4.52					Core	8.8-9.3	Sampled from Archived Core	NR	
6208	20WS-0289-SO6208-12.0-12.3-N-030121	3/1/2021	1405	0289	Hibernia	DPT-59	4.55					Core	12.0-12.3	Sampled from Archived Core	NR	
6209	20WS-0289-SO6209-12.6-14.0-N-030121	3/1/2021	1416	0289	Hibernia	DPT-59	4.97					Core	12.6-14.0	Sampled from Archived Core	NR	
6210	20WS-0289-SO6210-0.0-4.0-N-030121	3/1/2021	1428	0289	Hibernia	DPT-60	5.68					Core	0.0-4.0	Sampled from Archived Core	NR	
6211	20WS-0289-SO6211-4.0-4.6-N-030121	3/1/2021	1437	0289	Hibernia	DPT-60	4.56					Core	4.0-4.6	Sampled from Archived Core	NR	
6212	20WS-0289-SO6212-4.6-4.8-N-030121	3/1/2021	1441	0289	Hibernia	DPT-60	4.38					Core	4.6-4.8	Sampled from Archived Core	Mn present	
6213	20WS-0289-SO6213-4.8-5.0-N-030121	3/1/2021	1454	0289	Hibernia	DPT-60	4.25					Core	4.8-5.0	Sampled from Archived Core	NR	
6214	20WS-0289-SO6214-5.0-5.8-N-030121	3/1/2021	1500	0289	Hibernia	DPT-60	4.67					Core	5.0-5.8	Sampled from Archived Core	NR	
6215	20WS-0289-SO6215-8.0-12.0-N-030121	3/1/2021	1506	0289	Hibernia	DPT-60	4.77					Core	8.0-12.0	Sampled from Archived Core	NR	
6216	20WS-0289-SO6216-12.0-12.8-N-070220	3/1/2021	1512	0289	Hibernia	DPT-60	4.93		1	1		Core	12.0-12.8	Sampled from Archived Core. Sample collection date and time is 7/2/20 at 13:35.	NR	20WS-0289-SO6216-12.0-12.8-N-070220
6217	20WS-0289-SO6217-13.3-14.0-N-030121	3/1/2021	1522	0289	Hibernia	DPT-60	5.16					Core	13.3-14.0	Sampled from Archived Core	NR	
6218	20WS-0246-SO6218-0.0-4.0-N-030121	3/1/2021	1527	0246	Independent	DPT-37	5.81					Core	0.0-4.0	Sampled from Archived Core	NR	
6219	20WS-0162-SO6219-0.0-4.0-N-030121	3/1/2021	1538	0162	Marget Ann	DPT-61	7.82					Core	0.0-4.0	Sampled from Archived Core	NR	
6220	20WS-0162-SO6220-4.0-8.0-N-030121	3/1/2021	1542	0162	Marget Ann	DPT-61	8.02					Core	4.0-8.0	Sampled from Archived Core	NR	
6221	20WS-0162-SO6221-8.0-12.0-N-030121	3/1/2021	1547	0162	Marget Ann	DPT-61	7.32					Core	8.0-12.0	Sampled from Archived Core	NR	
6222	20WS-0162-SO6222-12.0-12.3-N-030121	3/1/2021	1557	0162	Marget Ann	DPT-61	7.22					Core	12.0-12.3	Sampled from Archived Core	NR	
6223	20WS-0162-SO6223-12.7-12.9-N-030121	3/1/2021	1606	0162	Marget Ann	DPT-61	6.82					Core	12.7-12.9	Sampled from Archived Core	NR	
6224	20WS-0162-SO6224-12.9-14.4-N-030121	3/1/2021	1612	0162	Marget Ann	DPT-61	7.57					Core	12.9-14.4	Sampled from Archived Core	NR	
6225	20WS-0162-SO6225-0.0-4.0-N-030121	3/1/2021	1628	0162	Marget Ann	DPT-62	8.5					Core	0.0-4.0	Sampled from Archived Core	NR	
6226	20WS-0162-SO6226-4.0-8.0-N-030121	3/1/2021	1634	0162	Marget Ann	DPT-62	5.92					Core	4.0-8.0	Sampled from Archived Core	NR	
6227	20WS-0162-SO6227-8.0-12.0-N-030121	3/1/2021	1639	0162	Marget Ann	DPT-62	7.1					Core	8.0-12.0	Sampled from Archived Core	NR	

Table 3: Subsurface Soils Sample Collection Summary

SAMPLE #	NAME	DATE	TIME	CDM CLAIM #	MINING CLAIM NAME	Bore Hole #	SOIL pH	XRF	Metals	SPLP	ABA	Sample Type	Depth Interval (ft bgs)	NOTES	Staining	LAB SAMPLE FIELD ID
6228	20WS-0162-SO6228-0.0-12.0-N-070620	3/1/2021	1654	0162	Marget Ann	DPT-62	6.59		1	1		Core	0.0-4.0	Sampled from Archived Core. Sample collection date and time is 7/6/20 at 11:18. Combined SO6225, SO6226, and SO6227 for sample due to coarse and poor recovery.	NR	20WS-0162-SO6228-0.0-12.0-N-070620
6229	20WS-0162-SO6229-16.4-16.8-N-030121	3/1/2021	1707	0162	Marget Ann	DPT-62	7.1					Core	16.4-16.8	Sampled from Archived Core	NR	
6230	20WS-0162-SO6230-16.8-17.4-N-030121	3/1/2021	1718	0162	Marget Ann	DPT-62	7.08					Core	16.8-17.4	Sampled from Archived Core	NR	
6231	20WS-0162-SO6231-0.0-4.0-N-030221	3/2/2021	0842	0162	Marget Ann	DPT-63	8.39					Core	0.0-4.0	Sampled from Archived Core	NR	
6232	20WS-0162-SO6232-4.0-8.0-N-030221	3/2/2021	0846	0162	Marget Ann	DPT-63	8.31					Core	4.0-8.0	Sampled from Archived Core	NR	
6233	20WS-0162-SO6233-8.0-12.0-N-070620	3/2/2021	0849	0162	Marget Ann	DPT-63	8.42		1			Core	8.0-12.0	Sampled from Archived Core. Sample collection date and time is 7/6/20 at 12:05.	NR	20WS-0162-SO6233-8.0-12.0-N-070620
6234	20WS-0162-SO6234-12.0-16.0-N-030221	3/2/2021	0900	0162	Marget Ann	DPT-63	8.55					Core	12.0-16.0	Sampled from Archived Core	NR	
6235	20WS-0162-SO6235-16.0-20.0-N-030221	3/2/2021	0905	0162	Marget Ann	DPT-63	9.23					Core	16.0-20.0	Sampled from Archived Core	NR	
6236	20WS-0162-SO6236-20.4-22.2-N-030221	3/2/2021	0909	0162	Marget Ann	DPT-63	7.66					Core	20.4-22.2	Sampled from Archived Core	NR	
6237	20WS-0138-SO6237-0.0-4.0-N-030221	3/2/2021	0919	0138	Glengarry	DPT-64	8.54					Core	0.0-4.0	Sampled from Archived Core	NR	
6238	20WS-0138-SO6238-4.0-12.0-N-030221	3/2/2021	0927	0138	Glengarry	DPT-64	8.03					Core	4.0-12.0	Sampled from Archived Core	NR	
6239	20WS-0138-SO6239-12.0-12.8-N-070620	3/2/2021	0932	0138	Glengarry	DPT-64	6.92		1			Core	12.0-12.8	Sampled from Archived Core. Sample collection date and time is 7/6/20 at 14:05.	NR	20WS-0138-SO6239-12.0-12.8-N-070620
6240	20WS-0138-SO6240-0.0-4.0-N-030221	3/2/2021	0944	0138	Glengarry	DPT-65	8.82					Core	0.0-4.0	Sampled from Archived Core	NR	
6241	20WS-0138-SO6241-4.0-8.0-N-030221	3/2/2021	0949	0138	Glengarry	DPT-65	6.78					Core	4.0-8.0	Sampled from Archived Core	NR	
6242	20WS-0138-SO6242-8.0-12.0-N-030221	3/2/2021	0956	0138	Glengarry	DPT-65	6.44					Core	8.0-12.0	Sampled from Archived Core	NR	
6243	20WS-0138-SO6243-12.0-13.1-N-030221	3/2/2021	1000	0138	Glengarry	DPT-65	7.98					Core	12.0-13.1	Sampled from Archived Core	NR	
6244	20WS-0138-SO6244-0.0-4.0-N-030221	3/2/2021	1005	0138	Glengarry	DPT-66	5.56					Core	0.0-4.0	Sampled from Archived Core	NR	
6245	20WS-0138-SO6245-4.0-8.0-N-030221	3/2/2021	1014	0138	Glengarry	DPT-66	5.94					Core	4.0-8.0	Sampled from Archived Core	NR	
6246	20WS-0138-SO6246-8.0-9.5-N-070620	3/2/2021	1019	0138	Glengarry	DPT-66	5.37		1	1	1	Core	8.0-9.5	Sampled from Archived Core. Sample collection date and time is 7/6/20 at 15:30.	NR	20WS-0138-SO6246-8.0-9.5-N-070620
6247	20WS-0179-SO6247-0.0-4.0-N-030221	3/2/2021	1035	0179	Eagle	DPT-67	3.55					Core	0.0-4.0	Sampled from Archived Core	NR	
6248	20WS-0179-SO6248-4.2-6.2-N-030221	3/2/2021	1041	0179	Eagle	DPT-67	3.68					Core	4.2-6.2	Sampled from Archived Core	NR	
6249	20WS-0179-SO6249-0.0-0.2-N-030221	3/2/2021	1045	0179	Eagle	DPT-68	3.71					Core	0.0-0.2	Sampled from Archived Core	NR	
6250	20WS-0179-SO6250-0.7-2.0-N-030221	3/2/2021	1049	0179	Eagle	DPT-68	3.49					Core	0.7-2.0	Sampled from Archived Core	NR	
6251	20WS-0179-SO6251-0.0-4.0-N-030221	3/2/2021	1207	0179	Eagle	DPT-69	3.41					Core	0.0-4.0	Sampled from Archived Core	NR	
6252	20WS-0179-SO6252-4.0-5.4-N-070820	3/2/2021	1215	0179	Eagle	DPT-69	3.07		1	1	1	Core	4.0-5.4	Sampled from Archived Core. Sample collection date and time is 7/8/20 at 08:57.	NR	20WS-0179-SO6252-4.0-5.4-N-070820
6253	20WS-0179-SO6253-5.7-6.3-N-030221	3/2/2021	1227	0179	Eagle	DPT-69	3.73					Core	5.7-6.3	Sampled from Archived Core	NR	
6254	20WS-0179-SO6254-0.0-4.0-N-030221	3/2/2021	1235	0179	Eagle	DPT-70	3.53					Core	0.0-4.0	Sampled from Archived Core	NR	
6255	20WS-0179-SO6255-0.0-4.0-N-030221	3/2/2021	1240	0179	Eagle	DPT-70B	3.21					Core	0.0-4.0	Sampled from Archived Core	NR	
6256	20WS-0179-SO6256-4.0-4.3-N-070820	3/2/2021	1245	0179	Eagle	DPT-70B	3.28		1			Core	4.0-4.3	Sampled from Archived Core. Sample collection date and time is 7/8/20 at 10:15.	NR	20WS-0179-SO6256-4.0-4.3-N-070820
6257	20WS-0179-SO6257-4.9-6.2-N-030221	3/2/2021	1253	0179	Eagle	DPT-70B	3.47					Core	4.9-6.2	Sampled from Archived Core	NR	
6258	20WS-0179-SO6258-0.0-0.7-N-030221	3/2/2021	1302	0179	Eagle	DPT-71	3.42					Core	0.0-0.7	Sampled from Archived Core	NR	
6259	20WS-0179-SO6259-1.2-2.1-N-030221	3/2/2021	1307	0179	Eagle	DPT-71	3.65					Core	1.2-2.1	Sampled from Archived Core	NR	
6260	20WS-0017-SO6260-0.0-4.0-N-030221	3/2/2021	1309	0017	Kit Carson	DPT-72	8.09					Core	0.0-4.0	Sampled from Archived Core	NR	
6261	20WS-0017-SO6261-4.0-8.0-N-030221	3/2/2021	1313	0017	Kit Carson	DPT-72	8.71					Core	4.0-8.0	Sampled from Archived Core	NR	
6262	20WS-0017-SO6262-8.0-8.1-N-030221	3/2/2021	1318	0017	Kit Carson	DPT-72	8.13					Core	8.0-8.1	Sampled from Archived Core	NR	
6263	20WS-0017-SO6263-8.6-9.6-N-030221	3/2/2021	1323	0017	Kit Carson	DPT-72	8.36					Core	8.6-9.6	Sampled from Archived Core	NR	
6264	20WS-0019-SO6264-0.0-4.0-N-030221	3/2/2021	1327	0019	Charmmer	DPT-73	2.97					Core	0.0-4.0	Sampled from Archived Core	NR	
6265	20WS-0019-SO6265-4.0-5.3-N-030221	3/2/2021	1334	0019	Charmmer	DPT-73	4.64					Core	4.0-5.3	Sampled from Archived Core	NR	
6266	20WS-0019-SO6266-5.7-6.0-N-030221	3/2/2021	1340	0019	Charmmer	DPT-73	6.43					Core	5.7-6.0	Sampled from Archived Core	NR	
6267	20WS-0017-SO6267-0.0-4.0-N-030221	3/2/2021	1346	0017	Kit Carson	DPT-74	9.04					Core	0.0-4.0	Sampled from Archived Core	NR	
6268	20WS-0017-SO6268-4.0-8.0-N-030221	3/2/2021	1349	0017	Kit Carson	DPT-74	9.17					Core	4.0-8.0	Sampled from Archived Core	NR	
6269	20WS-0017-SO6269-8.0-12.4-N-030221	3/2/2021	1353	0017	Kit Carson	DPT-74	9.2					Core	8.0-12.4	Sampled from Archived Core	NR	
6270	20WS-0017-SO6270-12.8-14.0-N-030221	3/2/2021	1356	0017	Kit Carson	DPT-74	8.18					Core	12.8-14.0	Sampled from Archived Core	NR	
6271	20WS-0315-SO6271-0.0-4.0-N-030221	3/2/2021	1417	0315	Garibaldi	DPT-75	4.56					Core	0.0-4.0	Sampled from Archived Core	NR	
6272	20WS-0315-SO6272-4.0-8.0-N-070920	3/2/2021	1421	0315	Garibaldi	DPT-75	5.45		1	1		Core	4.0-8.0	Sampled from Archived Core. Sample collection date and time is 7/9/20 at 08:55.	NR	20WS-0315-SO6272-4.0-8.0-N-070920
6273	20WS-0315-SO6273-8.0-8.8-N-030221	3/2/2021	1428	0315	Garibaldi	DPT-75	5.4					Core	8.0-8.8	Sampled from Archived Core	NR	
6274	20WS-0315-SO6274-9.0-9.3-N-030221	3/2/2021	1433	0315	Garibaldi	DPT-75	5.57					Core	9.0-9.3	Sampled from Archived Core	NR	
6275	20WS-0315-SO6275-0.0-4.0-N-030221	3/2/2021	1438	0315	Garibaldi	DPT-76	5.68					Core	0.0-4.0	Sampled from Archived Core	NR	
6276	20WS-0315-SO6276-4.0-4.3-N-030221	3/2/2021	1505	0315	Garibaldi	DPT-76	8.62					Core	4.0-4.3	Sampled from Archived Core	NR	
6277	20WS-0315-SO6277-4.7-6.8-N-030221	3/2/2021	1510	0315	Garibaldi	DPT-76	9.22					Core	4.7-6.8	Sampled from Archived Core	NR	
6278	20WS-0315-SO6278-0.0-4.0-N-030221	3/2/2021	1518	0315	Garibaldi	DPT-77	5.86					Core	0.0-4.0	Sampled from Archived Core	NR	
6279	20WS-0315-SO6279-4.0-4.3-N-030221	3/2/2021	1528	0315	Garibaldi	DPT-77	4.71					Core	4.0-4.3	Sampled from Archived Core	NR	
6280	20WS-0315-SO6280-0.0-4.3-N-070920	3/2/2021	1535	0315	Garibaldi	DPT-77	5.06		1	1		Core	0.0-4.3	Sampled from Archived Core. Sample collection date and time is 7/9/20 at 11:00.	NR	20WS-0315-SO6280-0.0-4.3-N-070920
6281	20WS-0315-SO6281-4.6-6.3-N-030221	3/2/2021	1557	0315	Garibaldi	DPT-77	8.35					Core	4.6-6.3	Sampled from Archived Core	NR	
6282	20WS-0315-SO6282-0.0-4.0-N-030221	3/2/2021	1600	0315	Garibaldi	DPT-78	4.56					Core	0.0-4.0	Sampled from Archived Core	NR	
6283	20WS-0315-SO6283-4.0-5.3-N-030221	3/2/2021	1606	0315	Garibaldi	DPT-78	4.24					Core	4.0-5.3	Sampled from Archived Core	NR	
Total							**399**	**77**	**114**	**31**	**13**					

NOTE: FPXRF analysis was ran on the natural sample collected. Therefore, the sample was not sieved as usual in order to maintain integrity of natural sample.

APPENDICES

(Provided electronically with this document)