

2018 Assessment Report McKay Hill Project, Yukon

Beaver River Area
NTS 106D/06
Lat. 64°20'57" N • Long. 135°21'9" W
Mayo Mining District

Claims work applied to:
SNOOSE 1 -20 (YC56719 to YC56737)
SNOOSE 21-90 (YD11201 to YD11270)
MK 1-54 (YD34989 to YD34936)
MK 55-96 (YF29201 to YF29242)
SNOOSE 91-116 (YF29091 to YF29116)

Prepared for:



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Period of Work: June 9th – August 4th, 2018

Summary	1
1 Introduction	5
1.1 Underlying Agreements & Land Tenure	5
Table 1. Claim Status	5
Figure 1. Location & Access	6
Figure 2. McKay Hill Claims Map	7
1.2 Location & Access	8
1.3 Physiography & Climate	8
Photo-plate 1.....	8
2 Property History & Known Zones	9
Table 2. Property History	9
2.1 McKay Hill (106D 038) Showing – Central Zone	10
Figure 3. Known Zones at McKay Hill & Veins located to Date	12
2.2 West McKay Zone	13
2.3 Falls Zone	13
2.4 Bella Zone	13
2.5 Red Zone	13
2.6 Independence Hill Zone	14
2.7 Independence North Zone	14
2.8 White Hill (106D 037) Showing – White Hill Zone	14
3 Regional and Property Geology	15
3.1 Regional Geology and Tectonic Setting	15
Figure 4. Regional Geology	17
3.2 McKay Hill Property Geology	18
Table 3. Property-scale Lithological Units	20
Photo-plate 2.....	20
Figure 5. McKay Hill Area Property Geology.....	21
4 Mineralization-Style & Deposit-Type	22
Photo-plate 3.....	23
5 2018 Work Program	23
5.1 Camp Build	24
Photo-plate 4.....	24
5.2 Trenching	24
Table 4. Summary of Trenching.....	25
5.2.1 Trench Mapping and Sampling (1:250-scale).....	25
5.2.2 Trenching Results	25
Table 5. Highlighted Trench Results	26
Table 6. Highlighted Trench Composites	26
Figure 6. Trench Locations and Results - Ag	27
5.3 Property-Wide Mapping	28
5.3.1 1:45,000 Property-scale Mapping – Results & Interpretation.....	28
5.3.2 1:7,000-scale Falls Zone Mapping - Results & Interpretation	28
5.3.3 1:250-scale Trench Mapping	29
Figure 7. 1:7,000-scale mapping of the Falls Zone area	30
5.3.4 Updated - Vein Summary	31
Table 7a. McKay Hill Vein Summary (Part 1)	32

Table 7b. McKay Hill Vein Summary (Part 2)	33
Figure 8. Equal area projection stereonet with vein orientations observed	34
5.4 Historic Disturbance Documentation	34
5.5 Prospecting.....	35
Table 8. Summary of Selected 2018 Prospecting Rock Samples & Results	35
5.5.1 Rock Sampling – Geochemical Analysis	35
Figure 9. Rock Chemistry - Ag	37
Figure 10. Rock Chemistry – Au	38
Figure 11. Rock Chemistry – Pb	39
Figure 12. Rock Chemistry – Zn	40
Figure 13. Rock Chemistry – Cu	41
Figure 14. Rock Chemistry – Hg	42
5.6 Soil Sampling.....	43
Figure 15. 2018 Soil Sampling Grids	44
5.6.1 Soil Sampling Results & Maps	45
Figure 16. Kriged Soil Results - Ag	47
Figure 17. Kriged Soil Results – Au	48
Figure 18. Kriged Soil Results – Pb.....	49
Figure 19. Kriged Soil Results – Zn.....	50
Figure 20. Kriged Soil Results – Cu.....	51
5.7 Staking.....	52
Photo-plate 5.	52
6 Conclusions	52
6.1 Central Zone	53
6.2 West McKay Zone	53
6.3 Falls Zone.....	53
6.4 Bella Zone	54
6.5 Red Zone.....	54
6.6 Independence Hill Zone	54
6.7 Independence North Zone	55
6.8 White Hill Zone	55
6.9 Property-wide.....	55
7 Recommendations for Future Work	56
8 Bibliography	59
9 Statement of Qualifications	61
Appendix I. Statement of Expenditures.....	63
Appendix II. Batch Sheets and Assay Certificates	64
Appendix III. Rock Descriptions & Data	65
Appendix IV. Soil Descriptions & Data	66
Appendix V. Trench Maps.....	67

Summary

The McKay Hill Project is located within the Mayo Mining District, 50 km north of Keno City, and centered at 64° 20' N Latitude, 135° 22' W Longitude (NTS mapsheet 106D/06). The property is situated on the southern slopes of the McKay, Horseshoe and Sullivan hills, which comprise part of the Ogilvie mountains encompassing a portion of the southern Wernecke mountain belt in central Yukon. An exploration program was completed between June 9th and August 4th, 2018, with the staking of an additional 42 claims to the west. Currently the McKay Hill project is comprised of 212 unsurveyed mineral quartz claims which are 100% owned by MMG.

Stratigraphically, McKay Hill is currently described as part of the Yusezyu Formation of the Upper Proterozoic to Lower Cambrian Hyland Group, which sits within the Dawson Thrust sheet. Data collected during 2018 corroborates, as previously proposed by Blackburn (2010), that the McKay Hill project is underlain by Dempster volcanics (CO_v) of the Marmot Group and not by the Yusezyu Formation of the Hyland Group. The Dempster volcanics are described as an unconstrained mafic volcanic alkalic rock formation of at least two different ages. The volcanic products mainly consist in flows (sometimes pillowed) and associated breccias, with no clear boundaries between flows (Abbott, 1997). During the 2018 program, the Narchilla Formation thrust contact with the Marmot Group was affirmed. In addition, the unconformable contact between Narchilla Formation and Algae Formation was mapped.

Known mineralization at McKay Hill occurs as a series of decimetre to metre-scale north-northeast striking quartz-galena ± copper oxides ± sphalerite ± sulfosalts veins. Texturally the veins can be banded, vuggy, and/or replacement-type with localized brecciation parallel to vein walls on well-developed veins. In lithological units with high initial porosity such as conglomerates, mafic volcanoclastics and grit (coarse, weakly reworked sandstone), mineralization is often observed as matrix-replacement type. Mineralization has been categorized into three zones: 1) high-level quartz-carbonate-gold mineralization zone; 2) quartz-carbonate-gold-galena (± lead) transition zone; and 3) low-level galena mineralization (refer to Blackburn, 2009). In comparison to the nearby Keno-Hill type veins, silver mineralization encountered at McKay is generally lower-grade and associated with higher concentrations of copper and gold. Current evaluation of mineralization on the property characterizes the metals as part of an intermediate-sulphidation epithermal system. To date, 37 mineralized veins have been located in the property area, including 5 massive, metre-scale, vuggy quartz veins that are enriched by the No. 6 corridor. This also includes an additional 12 new veins which were discovered during the 2018 field season – six of which are in the Central Zone, one in the Bella Zone, three in the Falls Zone, one in the Red Zone and one in the Independence North Zone.

The 2018 exploration program was completed from June 9th to August 4th, 2018 and included camp construction; property-wide mapping and prospecting activities; trenching via heli-portable KH41 Kubota; widespread soil sampling (5 grids); and claim-staking for a total of 420 man-days at a cost of approximately \$500,000. In summary, the exploration program included:

- Camp construction – 8 framed structures including a plumbed dry and a kitchen;
- 16 excavator and hand-trenches in the Central Zone;
- Property-wide geological mapping and prospecting;
- Collection of 571 soil samples over 5 grids; and
- subsequent staking of the MK 55-96 claims to the west.

Additionally, from July 26-27th Yukon Geological Survey (YGS) Head of Bedrock Geology, Maurice Colpron visited the project. During this time, Colpron and Blackburn completed some widespread traverses to transect the Marmot Group geology that underlies the project area. Radiolarian and zircon samples were collected to assist in obtaining better age-constraints on the local geological units.

At the beginning of the 2018 field season an 8-(temporary) structure camp was constructed on a flat knob along-side Red Gulch on the north-side of McKay Hill Central Zone. Materials were slung in from Keno City via Bell 407 helicopter. The camp includes 6 framed 14' X 16' for the camp first aid, office and staff accommodations. An 18' X 20' kitchen and a 14' X 16' dry was also constructed.

Over the duration of the 2018 field season, a total of 16 trenches were excavated; 10 by the heli-portable track-mounted KH41 Kubota, and 6 by hand tools. Of the 16 trenches excavated, 9 trenches hit bedrock, 1 trench reached subcrop, and the remaining 6 did not reach in situ bedrock. In total, 8 of the 9 trenches excavated that reached bedrock were mineralized. The trenching performed led to a much greater understanding of the geometry of several of the mineralized veins on the property. A direct result of the trenching program was the discovery of a new vein, not present at surface. The Chinook vein was undiscovered prior to trenching and is characterized by cubiform galena mineralizing internal open-space fractures + malachite + sulphur, reporting values of 270 g/t Ag, 0.5% Cu, and 30% Pb over 1m.

Widespread reconnaissance (1:45,000-scale) mapping was conducted all over the property to create a project-scale map. The completion of property-scale mapping traverses has led to a greater understanding of the geological framework controlling mineralization at McKay Hill. Stratigraphy generally follows the regional foliation (284^o), with younging direction to the north. Stratigraphic offset can be seen in the central wedge of the property, which is bounded by two kilometer-scale structures which trends ~330^o and can be seen prominently in the 2017 orthophoto imagery. The current interpretation of the central zone 'wedge' is that the D₂ dextral transcurrent regime led to clockwise block rotation within a dextral wrench zone. Within this wrench zone, clockwise warping and folding of the lithologies occurred. In this model, the mineralized veins at McKay Hill appear to lie along a limb (with parasitic folding) of an antiform.

1:7,000 scale mapping of the Falls Zone (encompassing the mineralized Falls, Lower Falls, Ghost, and Spell veins) was performed by several MMG geologists over multiple days. Outcrops were mapped along prominent ridges in the zone, which were then extrapolated upon to generate the current geological map. Folding in the Falls Zone – especially near the Spell vein – is a prominent feature best displayed in the grit package and the ductile slate and mudstone horizons. It is important to note that Spell, Ghost, and an unnamed vein in the centre of the zone all appear to be near a fold hinge, which may act as open space, or as a plane upon which later faulting occurs, creating conduits for mineralizing fluids.

1:250-scale detailed mapping occurred on 10 of the 16 trenches completed during the 2018 season. This mapping was completed by approaching each trench as a 'pseudo-drillhole', with the start of the trench denoted as 0 meters. Trenches were 'logged' and broken into distinct lithologies. The objective of excavating these trenches was to expose areas of known veins, allowing for structural analysis of mineralized veins. Trench mapping shows that mineralization was predominantly found in three main cases: galena-quartz veins, along contacts, and replacement-type within the permeable volcanic country rock.

A vein summary and analysis were completed following the 2018 field season, which built on the mineralized vein orientation analysis completed in 2017. Orientations from 20 mineralized veins were measured and after compilation, these orientations outline three strong mineralized vein trends: 030°, 060°, and 090° N. The tenor of mineralization also appears to have a direct relationship with the vein orientation. High tenor (Au, Ag) appears to be most associated with the 030° orientation, moderate tenor (Ag, Pb) associated with the 060° orientation, and lower tenor (Zn, Cu) associated with the 090° orientation. It is hypothesized that these lower angle veins act as better structural traps for ore deposition, while the more E-W trending veins parallel the regional stratigraphy (and perceived fluid conduit), which leads to reduced structural traps and smaller veins, with ore-bearing fluids precipitating along favourable lithologic contacts.

As part of the recommended Heritage Resources assessment, MMG committed to allocating staff members to complete historic disturbance documentation forms whenever a pre-existing working was located. During the 2018 exploration program a total of 74 open-cuts/trenches, 2 adits and one tote-trail were documented, all of which, aside from 7, were in the Central Zone. One of the positive results that came from the historic disturbance documentation work was the location of additional mineralized veins, in particular the expansion of the No. 6 vein into the No. 6 vein corridor. In addition, the discovery of the Ghost vein in the Falls Zone and the Bella No. 2 vein in the Bella Zone were directly related to identifying overgrown historic open-cuts.

During the 2018 field season an additional 12 new veins were discovered via prospecting; 6 of which are in the Central Zone, 1 in the Bella Zone, 3 in the Falls Zone, 1 in the Red Zone and 1 in the Independence North Zone. A total of 33 rock samples were collected as a result of prospecting, with significant results from newly identified veins such as Hertl (Central Zone) and Ghost (Falls Zone), indicate high potential for locating additional mineralization, with the Ghost vein extending prospective ground beyond the known Central Zone. Ghost samples reported high lead (up to 61% Pb) and zinc (up to 27% Zn), indicating it may be at a low-level within the mineralizing system.

A total of 571 soil samples were collected from 5 grids on the McKay Hill property during the 2018 exploration program. The soils program covered an area approximately 3 km long by 1.5 km wide with samples collected at approximately 50 m-spacing. Within this 3 km-long area are six discrete zones of elevated soil values, registering between 2 g/t to 200 g/t Ag Eq. that correspond with the target areas previously identified through mapping and rock sampling. Soil sampling expanded these target areas with more continuous coverage where outcrop exposure is limited on the property. These large areas of highly elevated metal-in-soil may indicate buried mineralized systems. The soil anomalies defined both by their strong tenor and large areal extent coincide spatially with both the historic and new vein exposures that together outline the Central Zone and newly defined five additional target areas.

Overall, the 2018 exploration season was deemed successful in demonstrating the property's merit for additional future work. In addition to the significant expansion of the main Central Zone, systematic exploration on the McKay Hill Project over the last two years has also identified and refined six additional surrounding target zones: Bella, Falls, Red, West McKay, Independence and Independence North. These zones previously had seen very little work, and although known mineralized veins were located in bedrock and sampled, it wasn't until this season that more than one vein was located in each zone. In addition, soil work completed over these areas highlighted anomalous Ag-metal chemistry which remains open in multiple directions. The previously untested West McKay Zone soil sampling highlighted an anomaly that appears to be a significant parallel zone to the Central Zone, reporting some of the highest soil grades from the survey. These findings coincide with several newly-defined sulphide-

bearing quartz veins that were located in 2018 and that have similar orientations as the vein structures seen in the Central Zone. In addition, a step-out trench exposed the Chinook vein, a 020°-striking vein, similar in orientation with the 030°-trending veins comprising the No. 6 vein corridor. However, the Chinook vein was observed to be dipping shallowly, as opposed to near-vertical attitude of veins comprising the No. 6 corridor. A total of 77 rock samples (44 via trenching and 33 via prospecting) were collected at McKay Hill in 2018, along with 571 soil samples. As a result of aerial reconnaissance to the western corner of the claim block, large gossans were observed, and the MK 55-96 claims were added.

The McKay Hill project is deemed highly prospective. The authors recommend follow-up and testing of the targets delineated to date as well as helicopter-supported prospecting campaigns in outlying areas. In order to adequately test the mineralization observed on the McKay Hill property, the following recommendations are made: complete a comprehensive soil sampling grid that encompasses all eight currently identified mineralized zones along with ridge and spur soil traverses; utilization of a portable TerraSpec Halo to assist in real time preliminary analysis of rocks and soils; methodical geochemical sampling via channel sampling on all newly identified veins; continue property-scale (1:25,000 & 1:50,000) mapping with focus on areas that have seen minimal mapping efforts; continuation of historic disturbance documentation in conjunction with mapping and prospecting traverses; test veins via bedrock-interface probing and heli-portable RAB drilling (following access development); hyperspectral surveying; and finally, combined VLF (\pm IP) surveys. Currently, planning for the 2019 exploration program is underway which is proposed to include the above recommendations minus drilling, hyperspectral surveying, and geophysical surveying at a proposed budget of approximately \$300,000.00.

1 Introduction

This report summarizes the 2018 exploration program activities performed by Metallic Minerals Corp. (*herein* MMG). Work included camp construction; property-wide mapping and prospecting activities; trenching via heli-portable KH41 Kubota; widespread soil sampling (5 grids); and claim-staking. All assay results, certificates as well as a description of the analytical techniques used, and location of all samples are provided. Current interpretations concerning mineralization-styles and geological setting are based on work-to-date are included, leading to recommendations for future exploration work.

1.1 Underlying Agreements & Land Tenure

The McKay Hill Project is located within the Selwyn Mountain range; more specifically the Southern Wernecke belt, with the property claims comprising peaks of the Ogilvie Mountains (refer to **Figure 1**, page 6). Metallic Minerals precursor Monster Mining Corp. acquired the initial land package at McKay Hill from prospector Matthias Bindig in 2007. The project currently covers 212 unsurveyed mineral quartz claims in the Mayo Mining District which are 100% owned by MMG: Snoose 1-20 (YC56719 – YC56737), Snoose 21-90 (YD11201 – YD11270), Snoose 91-116 (YF 29091 – YF29116), MK 1-54 (YD34989 - YD34936) and the newly staked MK 55-96 (YF29201 – YF29242).

This report covers work completed from June 9th to August 4th for a total of 420 man-days completed at a cost of approximately \$500,000. **Table 1. Claim Status** (below) tabulates the current land-package and current expiry data; **Figure 2. McKay Hill Claims Map** (page 7) shows the location of the claims; and **Appendix I.** includes the Statement of Work Expenditures.

Table 1. Claim Status¹

Claim Name	Grant No.	Owner	New Expiry
Snoose 1-20	YC56719 to YC56738	Metallic Minerals Corp. 100%	2028-12-01
Snoose 21-90	YD11201 to YD11270	Metallic Minerals Corp. 100%	2027-12-01
Snoose 91-116	YF29091 to YF29116	Metallic Minerals Corp. 100%	2019-10-19
MK 1-54	YD34989 to YD34936	Metallic Minerals Corp. 100%	2027-12-01
MK 55-96	YF29201 to YF29242	Metallic Minerals Corp. 100%	2022-12-01

¹ Claim expiry dates based on acceptance of submitted Assessment Report. *Newly staked MK 55-96 (YF29201 to YF29242) claims.

Figure 1. Location & Access

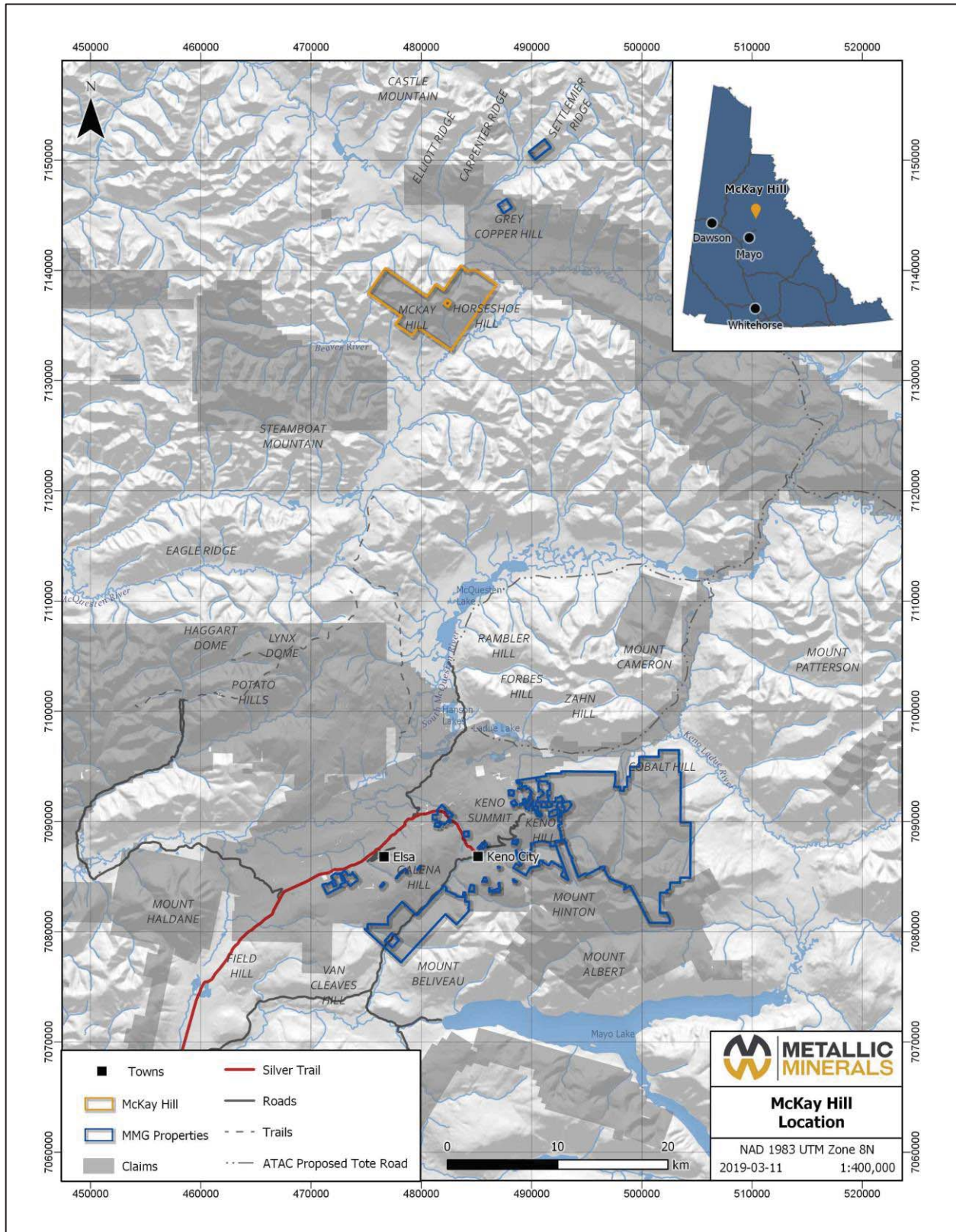
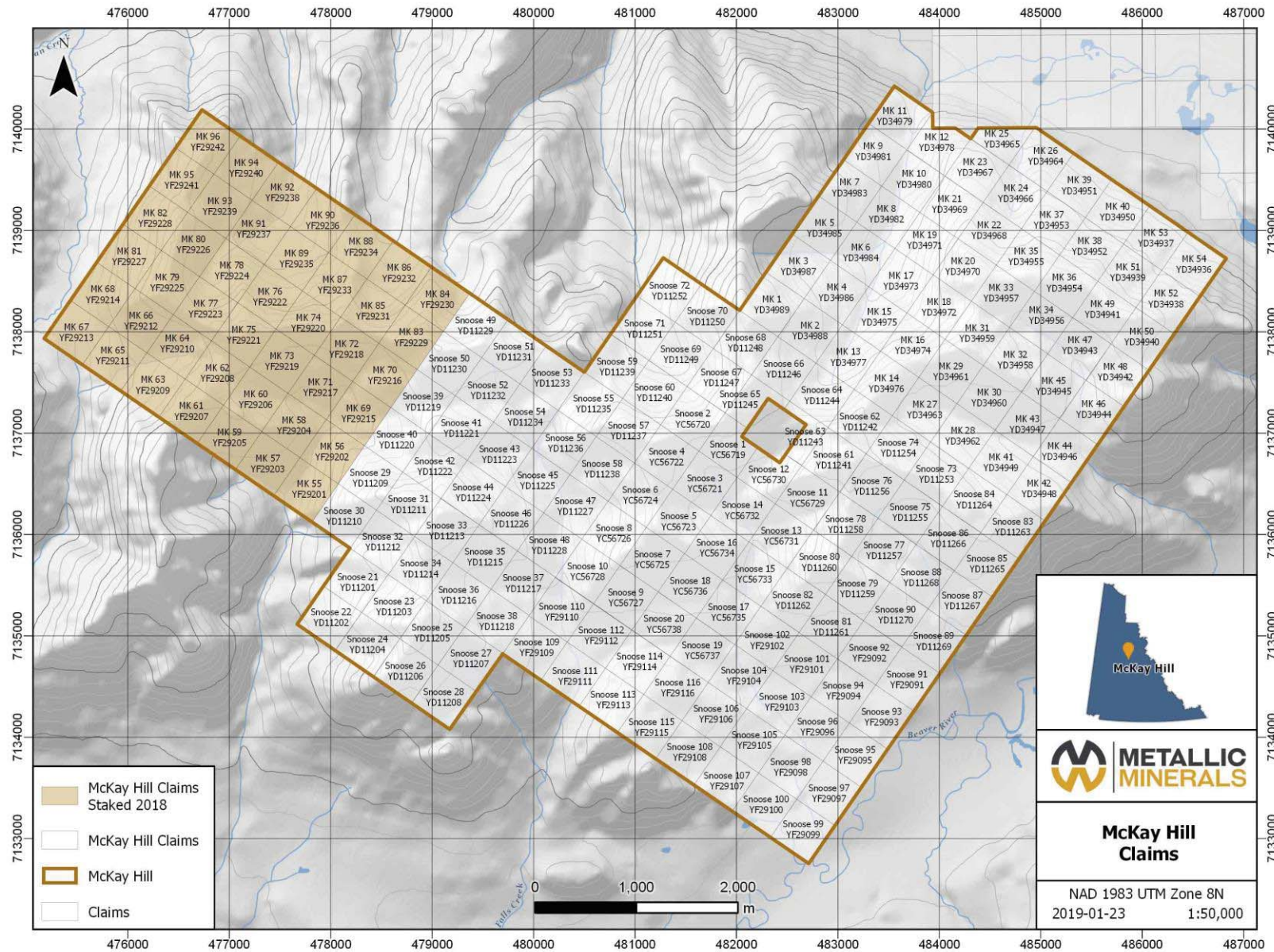


Figure 2. McKay Hill Claims Map²



² Claims staked in July are highlighted in tan.

1.2 Location & Access

The occurrence area is situated on the south slopes of McKay and Horseshoe Hills near the headwaters of Red Gulch approximately 23.5 km northwest of McQuesten Lake on NTS map sheet 106D/06. The McKay Hill property is located within the Mayo Mining District, 50 km north of Keno City which is 465 km by road to Whitehorse. The property is centered at 64° 20' N Latitude, 135° 22' W Longitude (refer to **Figure 1**, page 6). McKay Hill is currently accessible by helicopter from the townsite of Keno 50 km south of the property. The closest road access is via Hanson Lake Road to McQuesten Lake from the Silver Trail Highway at km 102.1. From this point, a 1959 era winter road forms the Wind River Trail which follows McQuesten Lake, Scrougale Creek and the Beaver River to its junction with Braine Creek which is approximately 20 km downstream along the Beaver River from the McKay Hill property (Pautler, 2009). If the target proves that it has development potential the original access route that followed the South McQuesten River from Elsa across a low divide to the East McQuesten River to the Beaver River could be evaluated.

1.3 Physiography & Climate

The claims are located in the area surrounding McKay Hill on the southern flank of Horseshoe Hill, roughly due north of the Beaver River. Broad U-shaped valleys and bare mountain ridges characterize the Southern Wernecke range (also denoted as the Ogilvie Mountains) where the McKay Hill project is located. Elevations within the claim area range from 1050 m ASL to 1750 m ASL. It should be noted that McKay Hill appears to originally refer to the hill on the southern flank of Horseshoe Hill where the showing(s) are located but it now marked as a hill 2 km to the west (Pautler, 2009).

The area experiences warm summers and long cold winters with relatively little precipitation. In the Mayo area summer temperatures average 15°C during the day and 9°C at night. Winter temperatures average -20°C during the day and -31°C at night. Permafrost was found to extend down to 46 m below surface by Cominco in 1929 (Pautler, 2009). Previously, fly-camps were temporarily set-up on a saddle on the Snoose 8 (YC567526) claim. However, in 2018 a camp was constructed on a knoll opposite Red Gulch on the north side of McKay Hill Central Zone. Water is available if the need arises for drilling from Red Gulch which flows southerly into the Beaver River. Most of the property lies above tree line with narrow ridge-tops and steep slopes (refer to *Photo-plate 1*, below).

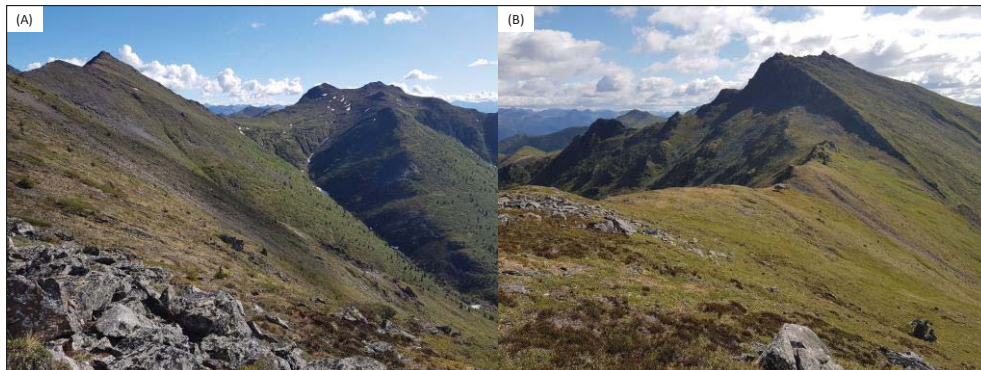


Photo-plate 1. (A) Looking at Margret's Saddle (northeast) from the No. 7 vein on McKay Hill; (B) Looking east from the newly staked claims (MK 55-96); note the sharp ridgelines and steep slopes that dominate the physiography in this region.

2 Property History & Known Zones

The McKay Hill property is comprised of the White Hill (106D 037) and McKay Hill MINFILE occurrences (106D 038) which have a rich exploration history dating back to 1922 during the early days of the Keno Hill district staking rush. **Table 2** (below and following page) summarizes the work history in the area surrounding the McKay Hill showing (106D 038) and is based primarily on the YGS's MINFILE database (Deklerk and Traynor (*compilers*, 2008)). **Figure 3** (refer to page 12) illustrates the defined zones and veins located to date on the property.

Table 2. Property History

June 1922	Originally staked by W. McKay (Snowdrift- 14669 and Blackhawk- 14676) and L. Erickson (Carrie- 14672) and Margaret (14702) by N. Marquis.
1925-29	While under option, Cominco pursues the Carrie (14672) claim via prospecting, trenching and a 7-hole, 832 m diamond drilling program. Trenching in 1926 returned average values of 154.3 g/t Ag and 9.6% Zn over an average width of 1.6 m.
1926 & 29	McKay drives an 18 m-long adit into the Blackhawk claim (14676).
1945-46	The Carrie claim was restaked as Rit (55329) by Yukon Northwest Exploration Ltd (a Leitch Gold Mines Ltd subsidiary) and sold to Hoyle Mining Company Ltd. (a Ventures Ltd. subsidiary).
1948-49	East Bay Gold Limited held a sub-lease from Hoyle Mining Co. and produced 143 tons from the Carrie (14672) claim at 390.8 g/t Ag and 74.1% Pb.
1951-52	Mac (61588) claims are staked by M. McCallion who explored with a 3.7m shaft in 1952.
1952	Property is transferred to Beaver River Silver ML.
1953	Rit group are taken to lease.
1959	Property is transferred to Venture Claims Ltd.
1966-1981	Pat (Y6309) claims staked by P. Callison and L. Brown. The Sam (Y31831) claims staked by P. Verslucce. The McCal (Y94231) claims staked by C.A. Lindstrom. The Beaver (YA41621) claims are staked by Grant Oil Inc. which transferred the claims to Jamto Resources Ltd in 1981.
July 19 th 2007	SNOOSE 1-20 (YC56719 to YC56737) claims are staked by Matthias Bindig.
October 12 th 2007	Prospecting, trench mapping/verification and geochemical sampling by Monster Mining Corp. (previously Northex Minerals Inc.).
July 24 th 2008	Prospecting, trench mapping/verification and geochemical sampling by Monster Mining Corp. (previously Northex Minerals Inc.).
August 1 st 2009	Staking of SNOOSE 21-90 (YD11201 to YD11270) by Monster Mining Corp. for a total of 90 claims (1,881 Ha).
August 12-14 th 2009	YMIP-funded exploration program completed on the SNOOSE 1-90 (YC56719 to YC56737, YD11201 to YD11270) claims by Monster Mining Corp. Detailed mapping (700 m ² area), collection and analysis of 140 soil samples and petrographic work.
2011	Detailed Structural mapping (refer to Nicholson, 2011), rock sampling and helicopter-borne SkyTEM time domain electromagnetic geophysical survey by Monster Mining Corp.
2017	Satellite imagery data collection over the property (50cm per-pixel orthophotos), mapping (1:250- to 1:30,000-scale), prospecting, rock sampling, exposing the No. 6 vein via hand-pitting, soil sampling and subsequent claim staking by Metallic Minerals Corp.

2.1 McKay Hill (106D 038) Showing – Central Zone

The McKay Hill showing was initially staked in 1922 as 25 contiguous claims by L.B. Erickson, W. McKay and N. Marquis. In 1925, the area around the main showing was evaluated by Consolidated Mining and Smelting Co. Ltd (the precursor to Cominco), which identified nine veins primarily as lines of float on the White Rock, Snowdrift, Carrie and Black Hawk claims (Cram, 1925). Consolidated Mining optioned the White Rock and Carrie claims along with five other claims in 1926 and carried out trenching on the No. 6 vein in 1927 and 1928. Trenching across the No. 6 (Carrie?) vein in 1927 returned average grades of 182 g/t Ag, 29.0 % Pb and 4.9 % Zn across an average width of 1.7 m (Pautler, 2009). This discovery was followed up by 832 m of drilling in the Carrie claim (now Snoose 7 claim) in 1929. Results were reportedly disappointing with only trace galena identified (Erickson & Bussey, 1944), although it is likely that the veins were not adequately tested (Pautler, 2009) as the drill mast had a limited dip range and several drill holes appear to have missed their targets due to fault offsets in the veins (Ettlinger, 2012).

In 1949, East Bay Mining Ltd. shipped 143 tons of ore from the No. 6 vein with an average grade of 390.9 g/t Ag and 74.1 % Pb (Green, 1972). Tetrahedrite showings in the area returned best results of 1302.8 g/t Ag, 4.58 % Pb, and 8.84 % Cu, and 2129.1 g/t Ag, 9.27 % Pb and 15.04 % Cu (Green, 1972). Falconbridge Ltd. held the property from 1972 to 1998, but no work was recorded during this period. In 2007, Monster Mining Corp. optioned the property from prospector M. Bindig.

In both 2007 and 2008, Pautler conducted prospecting programs to locate the veins, trenches and drill holes reported by Consolidated Mining between 1926 and 1929 (Pautler, 2009). Forty-two rock samples were collected from outcrop and float during the course of the 2007 and 2008 programs, the results of which verified grades reported by Consolidated Mining and Smelting Co. Ltd. Pautler (2009) successfully located 17 veins and confirmed grades reported from these veins in the 1920's. Of these veins, 14 were sampled and 10 returned "significant Au ±Ag analyses" (Pautler, 2009).

The 2009 program objective was to complete detailed mapping the central claims and establish mineralization styles, locate and verify the White Hill Occurrence and to collect soil geochemical samples for analysis (refer to Blackburn, 2010). The soil campaign collected 140 soils on a 450m X 300m grid over the cluster of veins in the central claim area. Geochemical results indicated Pb-Ag-Zn anomalies related to the No. 6, No. 8, No. 9 and Snowdrift veins and Au-As anomalies related to the No. 6, No. 7, North, Blackhawk and Snowdrift veins. Mapping work conducted in the area highlighted that the underlying bedrock is atypical of the Hyland Group, Yusezyu Formation rock mapped regionally, but may represent the extension of the Middle Cambrian to Early Ordovician volcanic rocks (Dempster volcanics, COv) mapped by Abbott (1997) on NTS map-sheets 116A/10 116A/11. It was also proposed that the mineralization-style was not polymetallic Keno Hill-type veins but rather may represent an epithermal scenario, now interpreted as intermediate-sulphidation type.

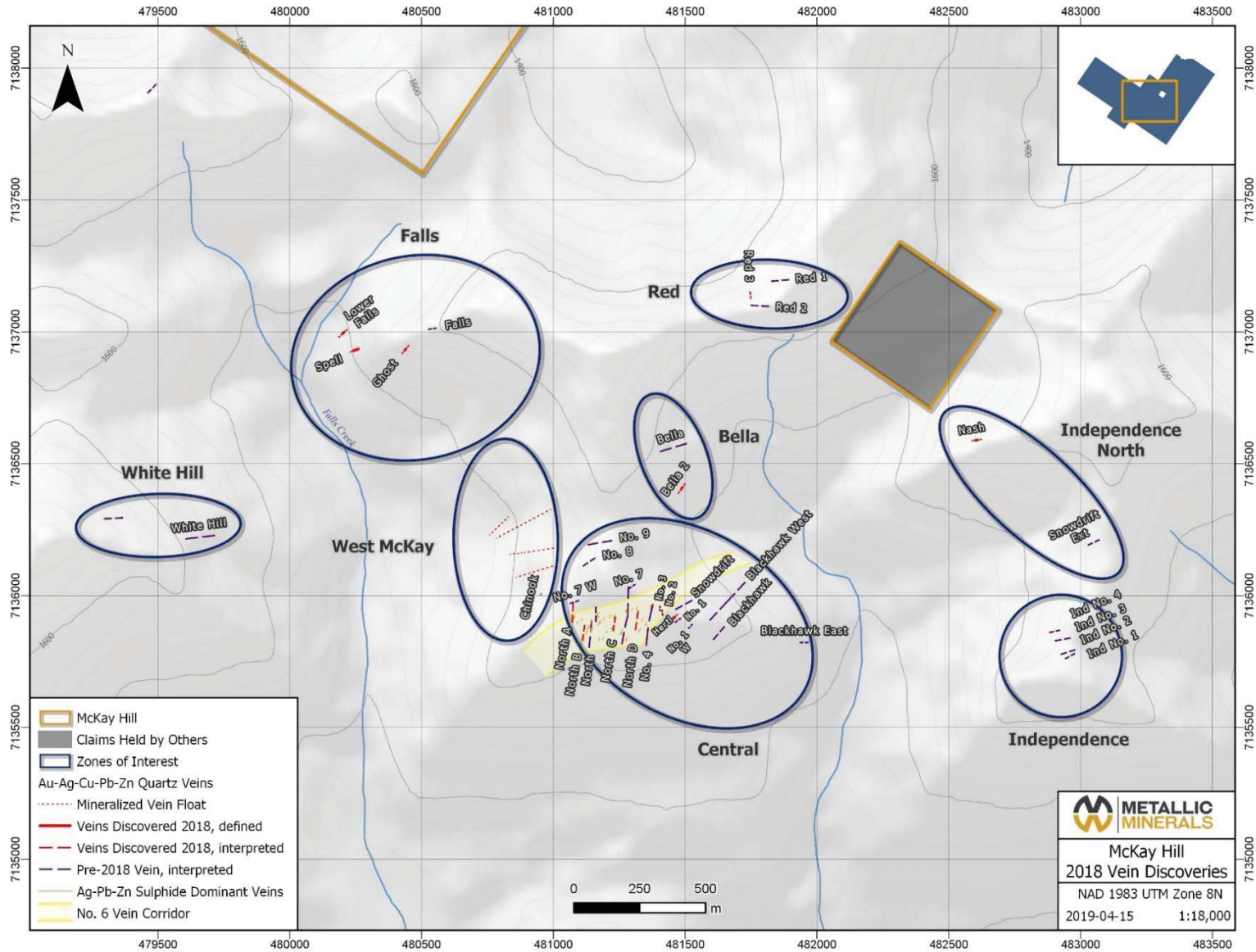
In 2011, a helicopter-borne SkyTEM time domain electromagnetic geophysical survey was flown by Monster Mining Corp. and highlighted several areas on the property with similar geophysical properties to those of the known veins and associated alteration. Additionally, structural mapping and prospecting identified four deformation events on the property and provided constraints on the attitude of mineralization which indicated that mineralization at McKay Hill occurs at the intersection of D₂ quartz-carbonate veins and D₃ faults. Prospecting identified a new, previously unknown outcropping vein set, which returned best results of 288.8 g/t Ag, 10.94 % Pb and 1452 ppm Zn from an iron carbonate-altered conglomerate.

In 2017, MMG completed satellite (orthophotography) imagery over the project area, 1:30,000-scale mapping of the project area to evaluate regional geological setting and confirm Blackburn's (2009) findings, 1:250-scale mapping around the No. 6 vein, delineating vein-attitude and extending it to the southwest; 1:750-scale mapping, prospecting and sampling at the Independence Zone; two soil sampling campaigns covering four grids (252 samples), and subsequent staking of the Snoose 91-116 claims.

In 2018, MMG obtained a Class III MLUP and constructed an 8-temporary structure camp along-side Red Gulch on the north-side of McKay Hill Central Zone. Concurrent with camp building, the following exploration tasks were undertaken:

- Historic Disturbance documentation – 74 open-cuts/trenches, 2 adits and one tote-trail were documented at part of MMG's Heritage Resources Overview Assessment (HROA);
- Trenching – twenty-one trenches were cut, 10 trenches were excavated via heli-portable KH41 Kubota and 6 by hand-means for a total of 1855 m³ at the Blackhawk, Blackhawk West, No. 6-No. 4, No. 8, No. 9, Chinook and North veins. Trenches that exposed bedrock were mapped at 1:250-scale and channel sampled (total of 42 channel samples and 2 grab samples);
- Soil sampling – 571 soil samples over 5 grids;
- Prospecting – property-wide traverses including the collection of 33 samples;
- Mapping – property-wide traverses; and
- Staking – MK 55-96 claims (YF29201 – YF29242).

Figure 3. Known Zones at McKay Hill & Veins located to Date



2.2 West McKay Zone

West McKay covers the area between Central Zone and Falls Zone (refer to **Figure 3**, previous page). Prior to 2018 this area had remained unmapped and largely un-prospected. In 2017, in an attempt to extend the No. 6 corridor to the west, gophering recovered mineralized local float, and as a result an excavator trench was laid out. In 2018, MHTR-018-33 was cut mid-season and exposed a new galena ± malachite, sulphur vein with white quartz-ankerite gangue mineralogy (coined the 'Chinook vein'). The vein is oriented 020° and appears to be dipping shallowly to the ESE (25°?) with an alteration halo of strong silicification (distal) and pervasive iron-carbonate alteration. The vein assayed at 270 g/t Ag, 29.82% Pb and 1.47% Zn (1 m channel 1480136, refer to **Table 5**, page 26). During the 2018 field season prospecting traverses further west over this area located four mineralized quartz-galena float-trains that may be the extensions of the No. 8, No. 9 and Bella veins (refer to **Figure 3**, previous page).

2.3 Falls Zone

The mineralization at the Falls Zone was first documented by Pautler (2008) where prospecting by M. Bindig located two veins present as float in historic pits/open-cuts; the Falls 1 vein (AKA: Falls vein) and the Falls 2 vein (AKA- Lower Falls). M. Bindig returned to the area to prospect further in 2018 with Blackburn whereby two additional veins were located (later coined the Spell and Ghost veins). Unlike the Central Zone, the Spell vein, which is described as a milky quartz-copper-oxide vein, akin in texture and mineralogy to the high-level Snowdrift and Snowdrift Ext. veins, was located downslope towards Falls Creek (*i.e.*, low-level with respect to topography). The Ghost vein, located upslope, was situated within a slumped historic open-cut. The mineralization observed at the Ghost vein is very fine-grained to coarse-grained galena vein with sulphurous and malachite-coated clots with local boiling textures and an iron-carbonate halo. The Ghost vein is similar in texture and mineralogy to the Independence 1 vein, both of which are distal to the Central Zone.

2.4 Bella Zone

A historic working was first noted by prospector Matthias Bindig in 2007 whereby hand-tool work exposed a vein coined the Bella vein. The vein is described as a quartz copper-oxide vein with lesser interstitial galena. In 2018 during a mapping traverse, another open-cut was located downslope from the Bella vein (coined Bella No. 2 vein). The Bella No. 2 vein had a higher modal percentage of galena than that of the Bella vein which is primarily comprised of milky-quartz with open-space prismatic crystals and local copper-oxide (azurite, malachite) mineralization. Interestingly, the Bella No. 1 vein with lesser galena mineralization has to date produced higher silver-assay values (refer to **Table 7a & 7b**, pages 32-33).

2.5 Red Zone

The Red Zone, aptly named due to the intense ferric alteration observed at the Red 1 and Red 2 veins. The Red 1 and Red 2 veins were mapped by Pautler (2008) and sampled in previous years. These veins trend ~090°E (an orientation noted for lower grades) and are described as vuggy quartz veins with limonitic coatings and have assayed up to 29 oz/t Ag. During the 2018 program whilst soil sampling, quartz-copper-oxide float was spotted. The author followed up and located the Red 3 vein, a north-trending quartz vein breccia with internal slate fragments, interstitial malachite-azurite and limonitic coatings. This vein assayed 19.6 g/t Ag and 0.7% Cu (refer to **Table 7a & 7b**, pages 32-33). Highly anomalous soil results in the Red Zone indicate this area requires more detailed prospecting in future programs.

2.6 Independence Hill Zone³

In 2017, the MMG geology team coined the 'Independence Hill Zone' after the original claim 'Independence' which was centred on a set of mineralized base-metal veins on the ridge east of McKay Hill proper (refer to **Figure 3**, page 12). No MINFILE occurrence is associated with this showing which is characterized by a base-metal vein hosted in intensely clay-altered volcanics that have cockade and boiling textures. Currently four veins (Independence 1-4) are documented. No follow up was completed on the Independence Zone in 2018. In future years, it is recommended that the anomalous soil values to the southwest, south and southeast be followed up on in conjunction with a traverse to locate the limestone hand specimens collected whilst prospecting, as they may represent the Algae Formation, which is also present in the southwestern portion of the claim block. There is potential for skarn-related mineralization in this unit.

2.7 Independence North Zone

The Independence North Zone is comprised of the Snowdrift Extension and Nash veins. Both veins have small historic workings, but it wasn't until 2018 that the Nash vein was located and examined. The Snowdrift Extension vein is a milky, quartz, copper-oxide vein that is very similar to the Snowdrift vein (which is across the gully from Central Zone on the east side of the ridge) in mineralogy but is lacking the freibergite which results in an overall lower silver-grade. The Snowdrift vein is oriented $\sim 220^\circ/70^\circ\text{NW}$ (RHR) and assays up to 668 g/t Ag, while the Snowdrift Extension vein is oriented $273^\circ/74^\circ\text{NW}$ (RHR) with the highest silver value to be reported is 98.5 g/t Ag. Although this vein's nomenclature insinuates it's the extension of the Snowdrift vein, in light of its different attitude and grade it may not be as closely related as previously thought. The second known vein in the Independence North Zone is the Nash vein, which was identified near the ridge in a historic open-cut was an estimated trend of 080° , this vein reports a lower-grade 28.8 g/t Ag and has a higher lead ratio.

2.8 White Hill (106D 037) Showing – White Hill Zone

White Hill was first staked as a single claim (Crystal) in 1924 by F.E. Endvoldsen. Additional single claims were staked in 1925 including Selma (E. Anderson), Seline (C. Williamson) and Northstar (L.B. Erickson). Only a minor amount of prospecting was conducted on each claim. The occurrence reportedly comprises a single quartz-galena-chalcopyrite-sphalerite vein at the margins of a small greenstone sill that intrudes Hyland Group quartzites and schist. In 2009 Monster Mining Corp. staked and sampled the White Hill showing, five rock samples sent for geochemical analysis and reported up to 0.06 g/t Au, 3.9 g/t Ag, 1.41% Pb, 0.13% Zn and 0.5% Cu (refer to Blackburn, 2010). Although the results from White Hill are lower tenor relative to other known zones, more mapping and prospecting follow-up should be completed with the utilization of a portable TerraSpec to delineate where White Hill falls within the system via identification of clay-mineralogy associated with iron-clay-carbonate alteration distinct to the property.

³ On most topographic maps, 'McKay Hill' covers three peaks, the eastern-most which underlay the historic Independence claim, coined Independence Hill.

3 Regional and Property Geology

3.1 Regional Geology and Tectonic Setting

The property is located on the 1:250,000 scale Mayo (106D) map-sheet and the 1:50,000 scale Horseshoe Hill map-sheet (106D/06). The most recent mapping of the area was completed by the Geological Survey of Canada (GSC) in 1961 by L.J. Green and J.A. Roddick (1972 GSC 1:250,000 map 1282A). The south-central portion of NTS 106D/06 & 07 have never been mapped at a 1:50,000-scale, and as a result the underlying geology is poorly understood. The current interpreted regional geology surrounding McKay Hill can be seen in **Figure 4** (page 17).

The McKay Hill property is part of the Omineca Belt within the Ancestral North American terrane. The Omineca Belt consists of a poorly understood Neoproterozoic to late Paleozoic assemblage of alternating basin (Selwyn Basin) and platform (Mackenzie Platform) sequences occurring in sheets separated by a series of regional scale thrust faults. McKay Hill sits within the Dawson Thrust sheet, which is part of the Selwyn Basin and bound by the Mesozoic Dawson Thrust (Abbott, 1997) to the northeast and the Tombstone Thrust to the north (refer to **Figure 4**, page 17). These regional-scale thrust faults are the result of the northeast-directed accretion of a succession of allochthonous terranes. This main tectonic event is also responsible for mega to microscopic folding of the Selwyn Basin sedimentary sequence. Widespread granitic magmatism during the early to mid-Cretaceous formed at least five main intrusive suites between 112 and 90 Ma and a younger suite at 65 Ma (Ettlinger, 2012 and references therein).

In the McKay Hill area, the Dawson Thrust sheet is currently mapped as underlain by the Yusezyu Formation of the Upper Proterozoic to Lower Cambrian Hyland Group (PCH; Blackburn, 2010). The Hyland Group and Earn Group together form the Dawson Range Mineral Belt (formally known as the Dawson Thrust Sheet) which is bound by the Dawson Thrust to the northwest and the Tombstone Thrust to the southwest. Approximately 7 km to the southwest the Hyland Group rocks are overlain by the Earn Group (DME) metasediments, which host the Keno Hill mineral occurrences. In the Keno district, the Keno Hill Quartzite (Early Carboniferous) hosts 'blow-outs' of polymetallic Ag-Pb-Zn ± Au veins and is extensively exposed within the Dawson Thrust Sheet.

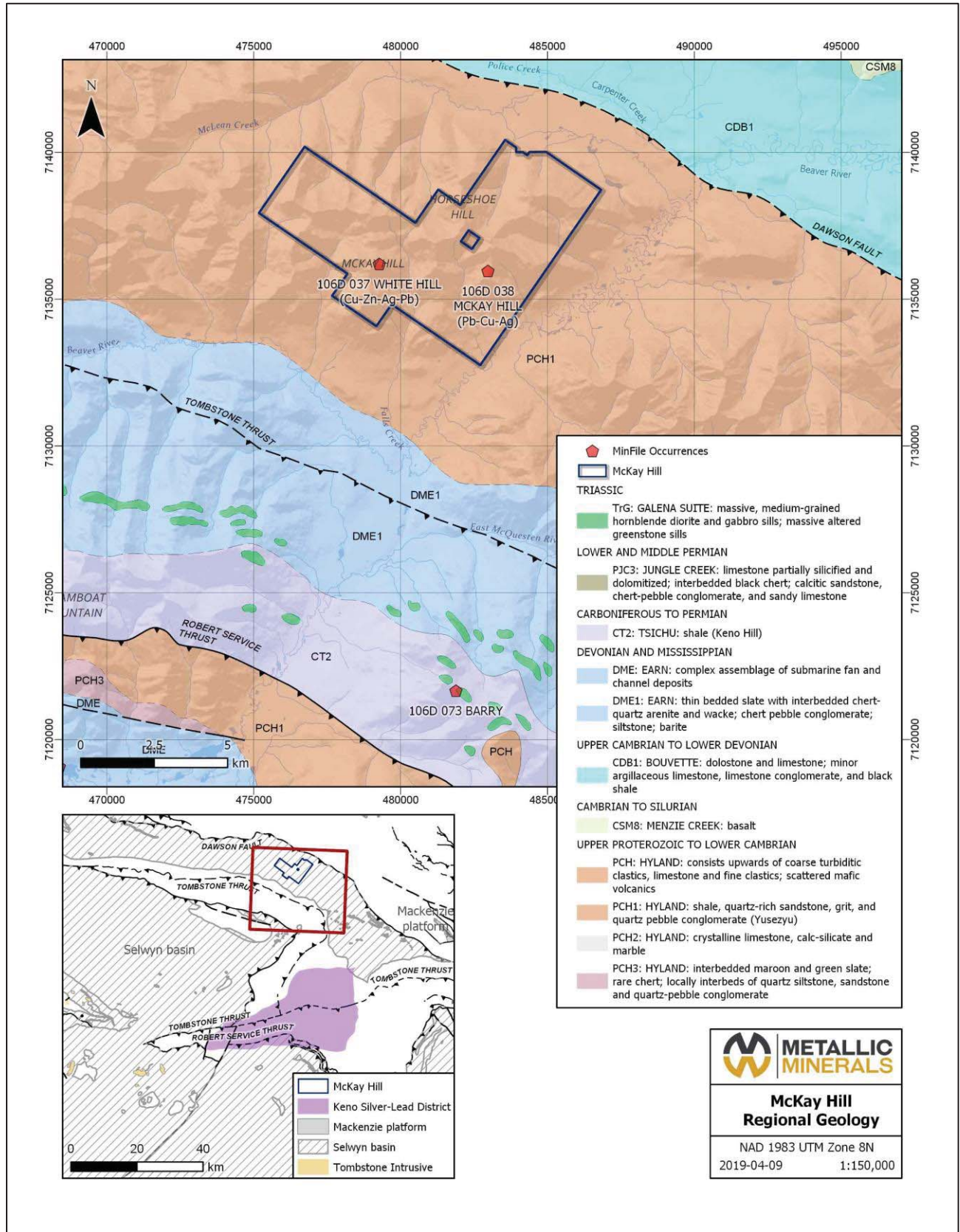
The Hyland Group consists upwards, from oldest to youngest of coarse turbiditic clastics, limestone and fine clastics typified by maroon and green shale and may include younger scattered mafic volcanic rocks (Gordey and Makepeace (compilers), 2003). The Hyland Group is divided into two formations- the Late Proterozoic to Cambrian Narchilla Formation (PCn) and the Late Proterozoic Yusezyu Formation (PY). The McKay Hill area is mapped to cover the older Yusezyu Formation which is described by Roots (1997) as consisting of metamorphosed sandstone, grit, black slate, minor limestone, chlorite schist and conglomerate.

Yusezyu Formation stratigraphy comprises shale-siltstone, sandstone-quartzite with younger lesser grits. The extensive hypabyssal volcanic rocks found at McKay Hill are not incorporated into the geological models proposed for the formation and conglomerate within the Yusezyu Formation are described as containing strained quartz and feldspar sedimentary clasts surrounded by little matrix material (Blackburn, 2010). However, on the McKay Hill property most clasts found within the conglomerate are undeformed and volcanic in origin (Blackburn, 2010). These findings suggest that the Hyland Group Yusezyu Formation does in fact not underlie the McKay Hill area but may represent the extension of the

Middle (?) Cambrian to Early (?) Ordovician volcanic rocks (“Dempster volcanics” (COv) mapped by Abbott (1997) on NTS map-sheets 116A/10 116A/11.

During the 2018 program, Maurice Colpron (Head, Regional Mapping, Yukon Geological Survey) visited the property. Colpron and Blackburn visited various areas on the property to affirm the Narchilla Formation thrust contact with the Marmot Group. Samples were collected for geochron dating including conglomerate for detrital zircons, limestone clasts that are partly melted and assimilated in basaltic flows for (potential) archaocyphthiad fossils, as well as chert-argillite for radiolarian samples. At present, no dates have been confirmed. In addition, the unconformable contact between Narchilla Formation and Algae Formation was mapped (refer to **Table 3**, page 20, and **Figure 5**, page 21).

Figure 4. Regional Geology



3.2 McKay Hill Property Geology

Cockfield's 1920's-era mapping efforts described meta-sedimentary and volcanic packages covering the project area. As aforementioned, no 1:50,000-scale mapping has been conducted in the area despite the significant exploration history. Regional, 1:250 000-scale mapping (Mayo (106D) map-sheet) extends the regional stratigraphy of Hyland Group, Yusezyu Fm. rocks to underlie the area. However, in agreement with Cockfield's circa 1920's-era findings, Monster Mining Corp. and Metallic Minerals Corp. have verified the presence of siliciclastic and hypabyssal-volcanic rocks (refer to page 21 for **Figure 5. McKay Hill Area Property Geology**) which may represent the Dempster Volcanics of the Marmot Group. The following is taken from Blackburn (2010):

Previous mapping completed in the area by Cockfield (1924a, b and 1925a, b) recognized two units within the siliciclastic sequence—sedimentary and breccia/volcanic rocks. In 2009 these units were broken up and described more specifically as: sedimentary rocks comprising slate, conglomerate and sandstone grit, and hypabyssal volcanic rocks comprising basalt (amygdaloidal, vesicular and pillowed), andesite, volcanic tuff and their brecciated equivalents.

Extensive fine-grained grey-blue slate and matrix-supported, polymictic, cobble-conglomerate (diamictite) are present as a steeply dipping, near vertical, succession striking roughly northwest. Slate bedding appears to be parallel to foliation consistently in the mapped area, less a few localized pockets where it was observed as an argillic-altered slate breccia related to brittle deformation along discrete topographic depressions presumed to be faults. Layers of fining-upwards, poorly bedded conglomerate are characterized by very fine to fine-grained, immature matrix material, enveloping poorly sorted sub-angular to sub-rounded clasts. The diamictite unit is one of the more favorable hosts for deep level Ag-Cu-Pb mineralization. Clasts (≤ 15 cm) of primarily volcanic (and lesser sedimentary) origin appear to float in the finer-grained detrital clay-rich matrix. A thin bed of poorly sorted sandstone grit overlies the conglomerate and is penetratively weathered a distinct rusty-orange colour.

The interior of the succession comprises thickening upward intercalations of volcanic rocks. Most notably, andesite and basaltic units with extensive local variation. Amygdaloidal, vesicular and pillowed basalts were observed on the property illustrating the local variation along strike. Calcite (\pm quartz) circular to oblong amygdules (≤ 3 mm) comprise $\leq 35\%$ of the amygdaloidal basalt, this unit was noted to almost always exhibit a weak to well-developed penetrative planar fabric and hosts numerous high-level siliceous veins. Two small, hillside outcrops of pillowed basalt were mapped on the southwest end of the map area on the west margin of the thick conglomerate layer. These pillows were distinctly concentric with a northeasterly younging direction and locally were brecciated and generally vesicular. Highly porous basalts with abundant vesicles were noted on the property as small, but prolific, localized lenses on the west end of the map area. This unit appears to be particularly favourable host for mineralization at depth. Volcanic tuff is a favourable host for deep-level base metal mineralization at the Snowdrift vein where its groundmass is replaced with galena \pm copper carbonate minerals (namely azurite, malachite \pm chrysocolla). Outcrops of volcanic tuff, surrounded by resistant andesite, were noted to exhibit extensive iron-carbonate and propylitic (? Clay) alteration. At the center of the map area a resistant knob

of massive (locally foliated), dark green hornblende-porphyritic to nearly aphanitic, locally propylitic altered (clay ± pyrite) andesite forms the top of McKay Hill.

Lithological contacts between units are parallel to foliation, which consistently strike roughly northwest and steeply dip (Blackburn, 2009; this study). Further structural work by Nicholson (2011) estimates the foliation fabric to be consistent within the study area, with an average of 289N/71°NE. All units have undergone greenschist facies metamorphism (Pautler, 2009). This host sequence is intruded by minor diorite and gabbro sills, which are, according to Pautler (2009) and Ettliger (2012) considered favourable host rocks for mineralized veins. Work performed this year outlines that, while this is sometimes true, numerous veins are hosted at the contact between mafic intrusive or extrusive bodies and brecciated units (of volcanic or sedimentary origin) or within sedimentary units.

In 2011, Monster Mining Corp. performed a 10-day structural study (Nicholson, 2011) focusing on the different controls on vein emplacement in the 'McKay Hill' and 'Independence Hill' zones. The main goal was to develop drill targets and establish a geological framework for identifying potential precious metal targets outside the areas of known mineralization. Main results include the delineation of four main deformation events affecting the property (see below) as well as the generation of an extensive structural measurement database.

- D₁ is associated with the late Jurassic-early Cretaceous accretion of allochthonous terranes on the Ancestral American craton. At McKay Hill, D₁ generated the regional foliation and associated minor folding as well as faults and veins with the average 284N/84°NE orientation.
- D₂ corresponds to a shift from the main northward compressional event to a dextral transcurrent regime after the emplacement of the Dawson thrust. At McKay, it is expressed as steeply dipping faults and veins averaging 358N/81°E.
- D₃ represents a period of extension associated with initiation of movement along the Tintina fault and expressed by the emplacement of the Tombstone intrusive suite. At McKay Hill, D₃ is expressed by a series of mineralized tensile veins oriented 220N/87°NE on average. Veins are quartz-dominated and can be up to 2 meters wide.
- D₄ is a poorly constrained compressive event post-Tombstone intrusive event and Dawson thrust movement. It reactivated older faults and generated new faults and veins oriented 150N/17°SW on average.

In 2018, Metallic Minerals Corp. furthered property-scale (1:45,000) mapping (refer to Section 5.3.1. and **Figure 5**, page 21) over the area to create better stratigraphic and structural constraints on the proposed underlying geology (*i.e.*, Marmot Group rather than currently mapped Hyland Gp., Yusezyu Formation; Blackburn, 2009). As noted above, the thrust contact between the Marmot Group volcanics (which underlies McKay Hill) and the Narchilla Formation slate was located. In addition, the unconformable contact between Narchilla Formation and Algae Formation was mapped (see *Photo-plate 2(A)*, page 20). Further stratigraphic relationships can be seen in *Photo-plate 2(B, C)*, (page 20). The Algae Formation limestone is currently interpreted to underlie a large portion of the southwestern corner of the property. In addition, it is important to note that basalts with partly melted/assimilated clasts of limestone were found on a south-facing slope in the West McKay Zone, which may be assimilated Algae Formation limestone (see *Photo-plate 2(D)*, page 20). Further investigation is needed to fully understand the extent of the Algae Formation.

The resulting map depicts the current geological interpretation based on the compilation of multiple years of mapping data along with orthophotography interpretation which assisted in identifying property-scale structures. The proposed model invokes multiple faults that strike approximately 330°

which bound McKay Hill and the main mineralized zones. This model proposes that the D₂ dextral transcurrent regime led to block rotation within a dextral wrench zone. Within this wrench zone, clockwise warping and folding of the lithologies occurs. This is reflected by the rotation of bedding and foliation strike, which is most prominent in the slate and grit. In this model, the mineralized veins at McKay Hill appear to lie along a limb (with parasitic folding) of a broader antiform.

Table 3. Property-scale Lithological Units

Age	Regional Unit	Unit	Description
Cambrian to Silurian	Marmot Group	Mafic volcanics	Package of variably calcareous volcanics including basalt (vesicular, pillowed, hyaloclastite, iron-carbonate altered to silicified varieties), agglomerates (locally re-worked to conglomerate), minor volcanic tuff and gabbroic rocks.
		Gunmetal slate	Dark gunmetal blue, very fine grained, very fissile slate; minor lithic arenite.
		Grit	Package of ubiquitously calcareous, fine to medium grained, moderately to poorly sorted, quartz- and lithic-bearing arkoses; finely laminated, siliceous siltstones, tan-weathering boulder conglomerates with calcareous groundmass, and black, massive, very fine-grained mudstones
Neoproterozoic to Lower Cambrian	Narchilla Formation	Green-maroon slate	Pale grey-apple green to maroon, very fine grained, fissile slate
		Arkose	Pale gray, medium grained, massive, quartz-feldspar-biotite (chlorite?) arkose.
	Algae Formation	Limestone	Very fine crystalline, dark grey-black, pale grey weathering, massive to finely laminated

Thrust

U/C

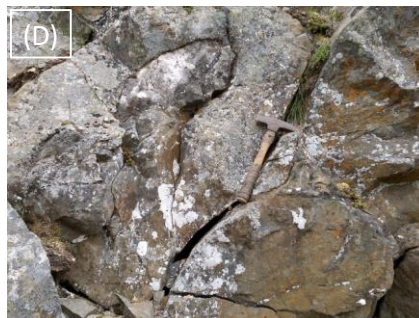
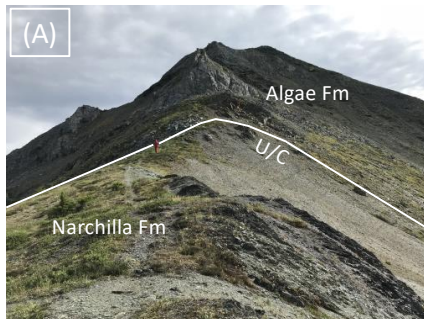
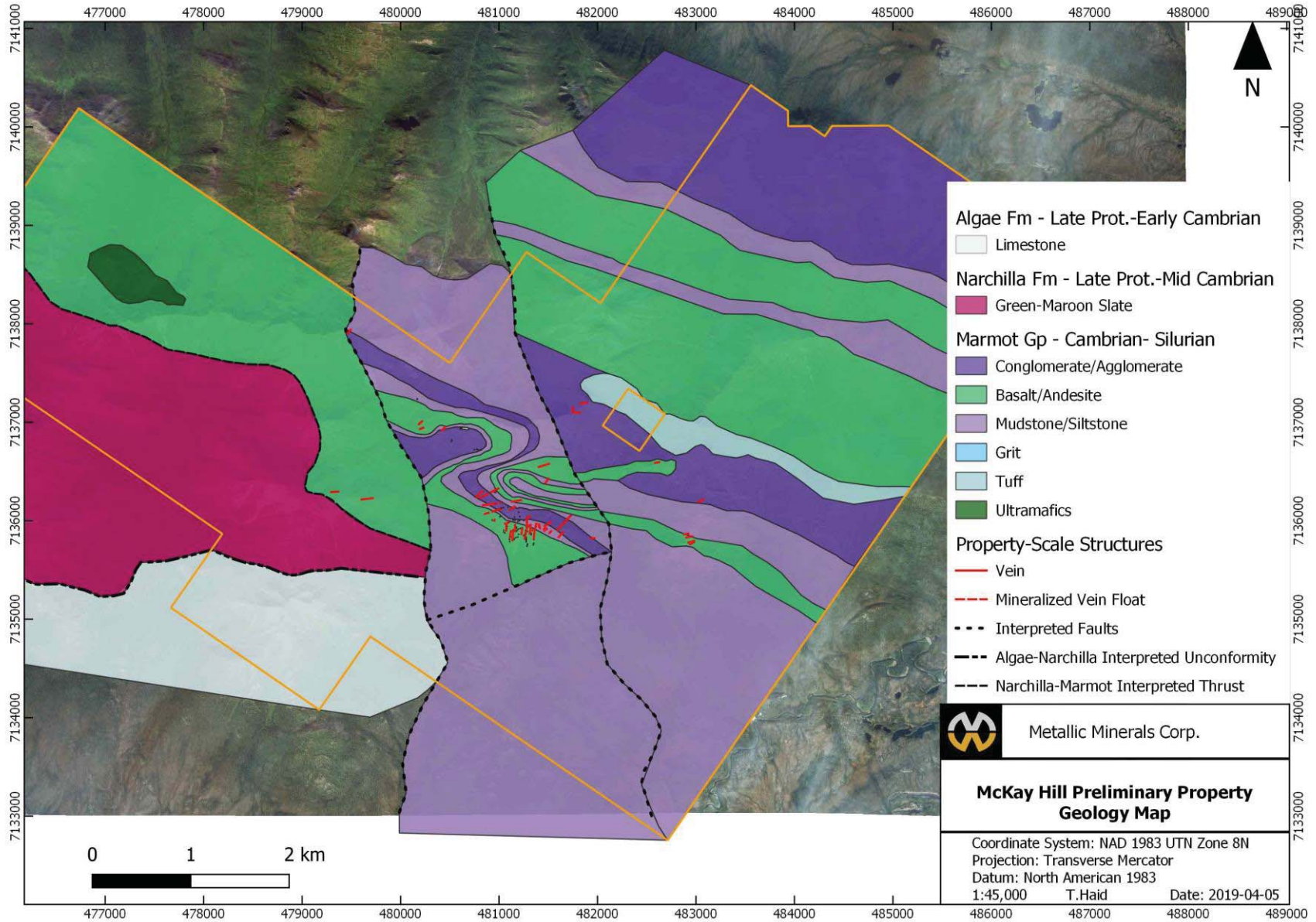


Photo-plate 2. (A) Looking at Narchilla Formation slate unconformable contact with Algae Formation limestone (E0478904/N7135441); (B) Sharp contact between pyroxene-plagioclase-phyric basalt above conglomerate (E0484329/N7138369); (C) Looking at textbook hyaloclastite (quenched basalt) subaqueous flows (E0484348/N7138326); (D) Pillowed, locally-vesicular, basalts with intrapillow carbonate (limestone) E0477850/N7138477).

Figure 5. McKay Hill Area Property Geology



4 Mineralization-Style & Deposit-Type

McKay Hill encompasses MINFILE occurrences 106D 037 (White Hill) and 106D 038 (McKay Hill) and has historically been explored for Keno Hill-style polymetallic Ag-Pb-Zn veins. To date, 37 mineralized veins have been located in the property area, including 5 quartz veins that are mineralized by the No. 6 corridor. This also includes an additional 12 new veins which were discovered during the 2018 field season – six of which are in the Central Zone, one in the Bella Zone, three in the Falls Zone, one in the Red Zone and one in the Independence North Zone (refer to **Figure 3**, page 12).

Known mineralization at McKay Hill occurs as a series of decimetre to metre-scale quartz- galena ± copper oxides ± sphalerite ± sulfosalts veins with banding and localized brecciation parallel to vein walls observed on well-developed veins (refer to *Photo-plate 3* (A, C, D); following page). In lithological units with high initial porosity such as conglomerates, mafic volcanoclastics and grit (coarse, weakly reworked sandstone), mineralization is frequently observed as matrix replacement-type (refer to *Photo-plate 3* (B); following page). In 2009, Bennett and Blackburn (2009), categorized mineralized occurrences part of the McKay Hill showing into three zones: 1) high-level quartz-carbonate-gold mineralization zone 2) quartz-carbonate-gold-galena (± lead) transition zone and 3) low-level galena mineralization (refer to Blackburn, 2009).

This classification is based on an interpreted vertical zonation from gold-copper in hypabyssal volcanic rocks to: “deeper level massive galena mineralization in less competent sedimentary (± highly vesicular volcanic) rocks” (Blackburn, 2009). It is important to note that mineralization is post-D₁ deformation; *i.e.*, veins crosscut the main foliation, therefore a spatial zonation based on the nature of the host rock is important, since these units were already deformed prior to vein emplacement. Structural telescoping of the system through unrecognized faults may be another reason for the spatial juxtaposition of high- and low-level veins at McKay. A final hypothesis includes the occurrence of two separate mineralizing events leading to the zonation contrast. Nicholson (2011), also states that the mineralization is concentrated where D₃ (220N/87°NE) veins intersect D₂ (358N/81°E) structures. D₄ event is also responsible for a potential second mineralizing event or remobilization of D₃-related mineralization. The association of these deformation events with mineralization may be supported by the relationship between vein strike orientation and variation in ore tenor, as high tenor (0°-30° vein strike) transitions to moderate (30°-60° vein strike) and low tenor (60°-90° vein strike; see **Section 5.3.4** for further details).

In 2009, Blackburn presented an alternative deposit type for the mineralization style observed in the area which was then interpreted to represent polymetallic Ag-Pb-Zn Keno Hill-type veins. An epithermal model was presented, and it was speculated that the mineralization may be of high-sulphidation type. Since 2009, limited work has been completed concerning mineralization-style (fluid source, chemistry etc.), however, in culmination with data collected to date, an intermediate-sulphidation epithermal model appears to most accurately fit. Intermediate-sulphidation deposits are often temporally-related to Carlin gold deposits. Interestingly, the neighbouring ATAC Rau-Nadaleen Block property is interpreted to represent a Carlin-type deposit. Intermediate sulphidation deposits are generally characterized by the following (refer to Sillitoe & Hedenquist, 2003):

- Generally, ore is present as veins and breccia, similar to low-sulphidation epithermals but with coarser banding;
- Alunite may be present, as often in high-sulphidation epithermals;
- In addition to gold, usually contain significant silver & lead (galena), zinc (sphalerite) at depth;

- Gold and silver deposition is controlled by boiling, base metal mineralization is mainly by fluid mixing and cooling.

The aforementioned characteristics largely describe the overall observations at McKay Hill, whereby placing the Central Zone which is primarily coarsely-banded base-metal veins/breccias at lower level (*i.e.*, originally at depth in deposit) and the Independence Hill Zone which has boiling and cockade-textures, at a higher level (*i.e.*, originally closer to surface within the ore shoot). It may be the ore shoot has since tilted to the north-northwest thereby creating a vertical zonation that daylights along the hillsides, particularly along ridges. Alternatively, the D₂ dextral transcurrent regime which is believed to have led to clockwise warping and folding of the lithologies occurs, and the mineralized veins at McKay Hill appear to lie along a limb (with parasitic folding) of a broader antiform. The volcanic package (a favourable host for mineralized veins on McKay ridge), may extend east-northeast between the Bella and Red Zones, and could represent a prospective area to host the other limb of the Central Zone mineralized system.

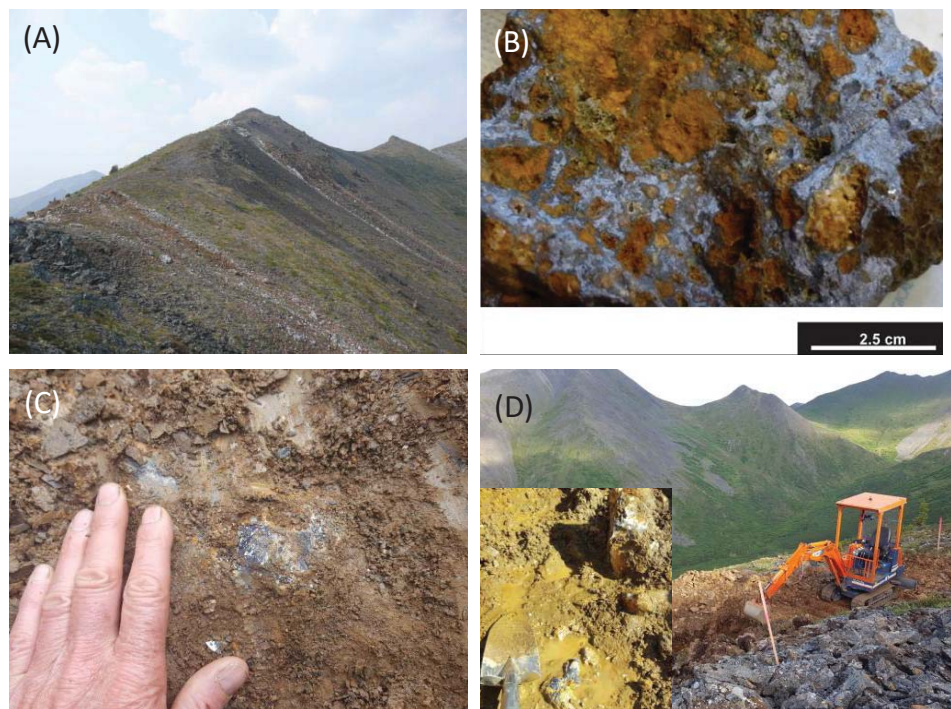


Photo-plate 3. (A) McKay Hill ridge mineralized vein occurrences on the south face, looking north-northwest (M. Bindig, from Blackburn, 2009); (B) Replacement type galena vein in conglomerate (Blackburn, 2009); (C) Galena mineralization (No. 8 vein) exposed in MHTR-18-24; (D) Excavating MHTR-18-33 and exposing the new Chinook vein (inset).

5 2018 Work Program

The 2018 exploration program was completed from June 9th to August 4th, 2018 and included camp construction; property-wide mapping and prospecting activities; trenching via heli-portable KH41 Kubota; widespread soil sampling (5 grids); and claim-staking for a total of 420 man-days at a cost of approximately \$500,000.

In summary, the exploration program included:

- Camp construction – 8 framed structures including a plumbed dry and a kitchen;
- 16 excavator and hand-trenches in the Central Zone;
- Property-wide geological mapping and prospecting;
- Collection of 571 soil samples over 5 grids; and
- subsequent staking of the MK 55-96 claims to the west.

Additionally, from July 26-27th Yukon Geological Survey (YGS) Head of Bedrock Geology, Maurice Colpron visited the project. During this time, Colpron and Blackburn completed some widespread traverses to transect the Marmot Group geology that underlies the project area. Radiolarian and zircon samples were collected to assist in obtaining better age-constraints on the local units. The thrust whereby the Narchilla Formation and Algae Formation unconformity are in contact with the Marmot Group was located at the western-edge of the claim block (refer to **Figure 5. McKay Hill Property Geology**, page 21).

5.1 Camp Build

At the start of the 2018 field season an 8-(temporary) structure camp was constructed on a flat knob along-side Red Gulch on the north-side of McKay Hill Central Zone. Materials were slung in from Keno City via Bell 407 helicopter. The camp includes 6 framed 14' X 16' for the camp first aid, office and staff accommodations. An 18' X 20' kitchen and a 14' X 16' dry was also constructed. To minimize vegetative mat disturbance pads were cut with a Kubota KH41 (see *Photo-plate 4(A)*, below). Above camp, a fuel lay-down and helicopter pad was constructed (see *Photo-plate 4(C)*, below).



Photo-plate 4. (A) KH41 Heli-portable Kubota working on heli-pad above camp, pads for temporary framed structures being laid out; (B) The new camp was constructed on the north-side of the Central Zone, note Falls Creek in foreground; (C) Completed McKay Hill camp with Bell 407 helicopter in foreground.

5.2 Trenching

Over the duration of the 2018 field season, a total of 16 trenches were excavated; 10 by the heli-portable track-mounted KH41 Kubota, and 6 by hand tools. Of the 16 trenches excavated, 9 trenches hit bedrock, 1 trench reached subcrop, and the remaining 6 did not reach in situ bedrock. In total, 8 of the 9 trenches excavated that exposed bedrock were mineralized. A summary of all trenches excavated in 2018 can be seen below in **Table 4** (following page).

It is important to note that the steep topography and frequently-encountered permafrost made trenching difficult. The extreme slope grades along both sides of the Central Zone ridge meant that the excavator was often unable to safely land or operate, resulting in hand trenching in these areas. Due to the presence of permafrost in most trenches, there often was difficulty in reaching bedrock, leading to increased days at each trench to allow for thawing and continued excavation.

Table 4. Summary of Trenching

Trench	Target	Easting	Northing	Trenching Method	Bedrock Hit	Mineralized Vein Hit
MH-TR-18-02	Blackhawk	481628	7135889	Excavator	Yes	Yes
MH-TR-18-03	Blackhawk	481658	7135899	Excavator	Yes	No
MH-TR-18-05	Blackhawk West	481578	7135891	Excavator	Yes	No
MH-TR-18-10	Blackhawk West	481630	7135958	Hand Trench	Yes	Yes
MH-TR-18-19	No. 4 = No. 6	481394	7135966	Excavator	Yes	Yes
MH-TR-18-24	No. 8	481099	7136107	Excavator	Subcrop	Yes (Subcrop)
MH-TR-18-26	No. 9	481155	7136194	Excavator	Yes	Yes (contact, not vein)
MH-TR-18-27	No. 6	481345	7135955	Excavator	Yes	Yes (altered basalt host)
MH-TR-18-30	North A Vein	481070	7135908	Hand Trench	No	No - did not reach bedrock
MH-TR-18-33	Chinook	480951	7135997	Excavator	Yes	Yes
MH-TR-18-34	North Vein	481161	7135943	Hand Trench	No	No - did not reach bedrock
MH-TR-18-37	No. 9 Ext	481090	7136202	Excavator	Yes	Yes (altered basalt host)
MH-TR-18-38	No. 8 Ext	481009	7136117	Hand	No	No - did not reach bedrock
MH-TR-18-39	North Vein	481167	7135928	Hand	No	No - did not reach bedrock
MH-TR-18-40	North Vein	481152	7135825	Excavator	No	No - did not reach bedrock
MH-TR-18-42*	No. 4 = No. 6 (lower)	481457	7136027	Hand	No	No - did not reach bedrock

*Incomplete trench - bedrock not yet hit.

5.2.1 Trench Mapping and Sampling (1:250-scale)

Following excavation, 10 trenches were mapped, and 9 of the 10 trenches were sampled. Mapping and sampling were performed by treating each trench as a ‘pseudo-drillhole’, with the start of the trench denoted as 0 meters. Trenches were ‘logged’ and broken into distinct lithologies. It should be noted that trenches MH-TR-18-03 and -05 reached bedrock but did not intersect any mineralization. A total of 44 samples were collected during trenching, 42 as channel samples, and 2 as grab samples from subcrop.

Channel samples were taken over areas of interest including exposed quartz veins and surrounding host rocks. The samples were of a maximum length of 2 meters, and a minimum of 0.5 meters. These channel samples were collected and documented in a ‘to’ and ‘from’ form in order to utilize these samples as a ‘pseudo-drillhole’ which could then generate composites of the entire sampled trench. Care was taken to ensure that each channel sample did not include more than one lithology. Only for a select trench (MH-TR-18-26) was the contact itself sampled across, as there was no discrete vein, but rather mineralization of the host-rocks along the contact was observed.

5.2.2 Trenching Results

As mentioned above, the 2018 trenching program led to the excavation of 8 mineralized trenches (7 in situ, 1 subcrop). Highlighted Trench Results from the mineralized trenches can be seen below in **Table 5** (following page), and the locations and silver assays for trench samples can be seen in **Figure 6. Trench Locations and Results - Ag** (page 27). The trenching performed led to a greater understanding of the geometry of several of the mineralized veins on the property. **Table 6** (following page) contains composite trench results of the six most prospective trenches excavated in 2018. Numerous veins were extended via the 2018 trenching program.

A direct result of the trenching program was the discovery of a new vein, not present at surface. The Chinook vein was undiscovered prior to trenching and is characterized by cubiform galena infilling open-space internal fractures + malachite + sulphur. This vein was intersected over 2 meters, with a true

width estimated at 0.4 meters. As seen in the table below, the Chinook vein returned silver values of 270 g/t Ag, 0.5% Cu, and 30% Pb over 1m.

These trenching results will be an important tool moving forward into the next phase of exploration and will greatly assist in establishing proposed drillholes.

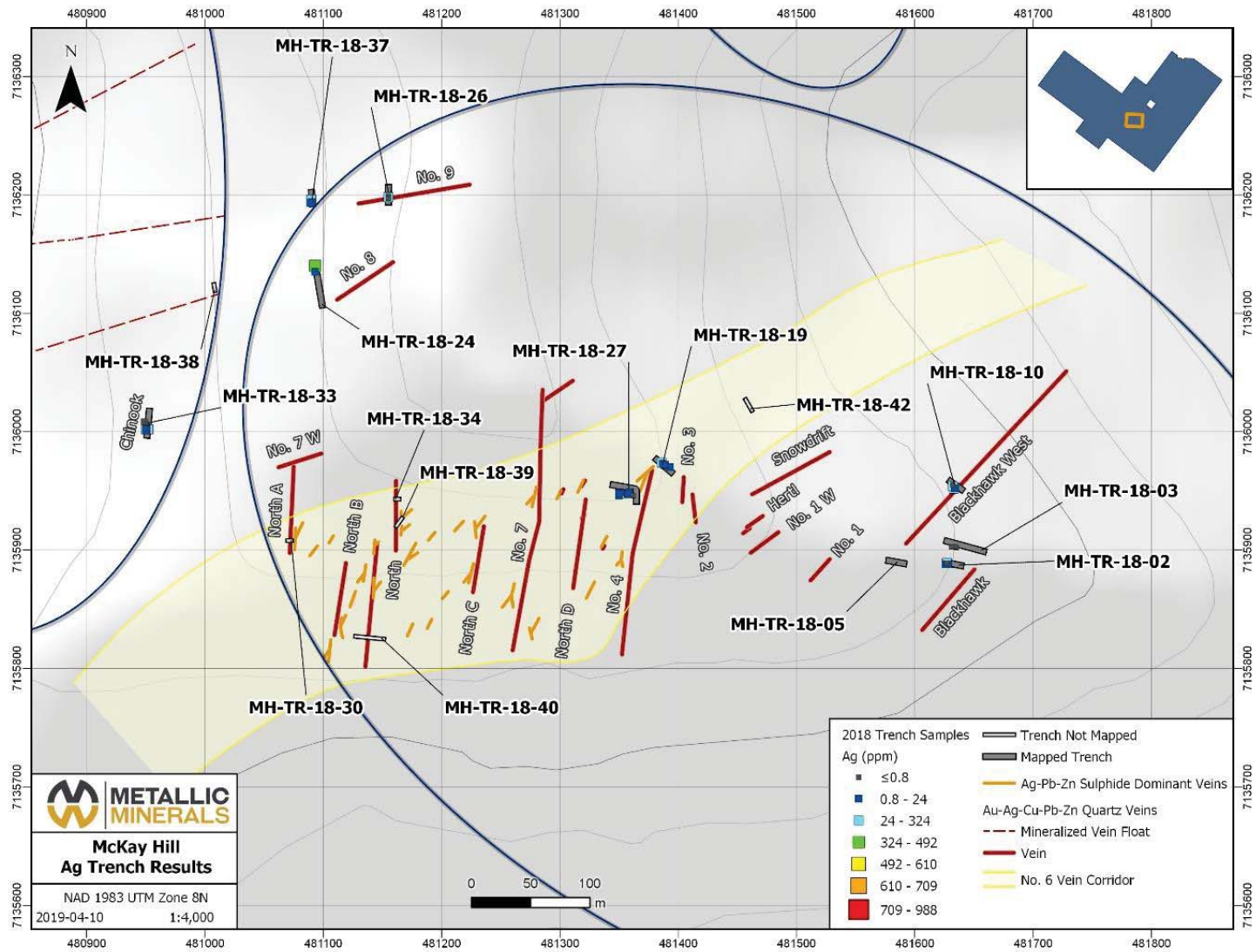
Table 5. Highlighted Trench Results

Trench	Target	Sample	Width (m)	Ag Equivalent	Ag (g/t)	Au (g/t)	Cu (%)	Pb (%)	Zn (%)
MH-TR-18-02	Blackhawk	1480107	2.00	2126.20	128.00	0.55	0.07	27.24	12.37
MH-TR-18-10	Blackhawk West	1480109	0.50	534.74	25.10	0.10	0.05	3.82	5.90
		1480110	1.50	334.16	13.20	0.02	0.03	1.90	4.21
		1480111	1.00	1349.29	102.00	0.22	0.04	16.24	8.57
MH-TR-18-19	No. 4 = No. 6	1480121	0.50	314.61	2.50	0.34	0.03	2.76	2.85
		1480123	1.50	1169.47	5.10	0.01	0.04	1.01	20.75
		1480124	1.50	895.44	25.60	0.04	0.04	4.62	12.03
MH-TR-18-24	No. 8	1480119	Subcrop grab	1743.92	331.00	0.94	1.13	14.74	9.54
MH-TR-18-26	No. 9	1480113	0.40	915.94	105.00	0.10	0.31	14.31	1.71
MH-TR-18-27	No. 6	1480127	2.00	490.42	17.90	0.19	0.01	3.04	5.86
		1480128	2.00	812.94	55.60	0.04	0.02	13.74	1.95
		1480129	2.00	717.08	42.90	0.05	0.01	9.16	4.43
		1480133	2.00	312.44	1.20	0.05	0.02	0.11	5.59
MH-TR-18-33	Chinook	1480136	1.00	1822.43	270.00	0.05	0.54	29.82	1.47
		1480137	1.00	589.02	92.40	0.03	0.26	7.07	2.44
MH-TR-18-37	No. 9 Ext	1480115	1.40	915.11	42.70	0.04	0.23	5.60	10.79

Table 6. Highlighted Trench Composites

Zone	Trench	Length (m)	Ag Equiv ppm	Ag ppm	Au ppm	Pb %	Zn %	Cu %
Blackhawk	MH-TR-18-02	4.0m	1093.5	64.7	0.356	13.75	6.48	0.05
Blackhawk West	MH-TR-18-10	4.0m	663.2	39.9	0.103	6.21	5.93	0.04
# 9 Vein	MH-TR-18-37	1.8m	751.2	34.2	0.033	4.51	8.91	0.21
# 4 Vein	MH-TR-18-19	7.3m	542.4	9.5	0.040	1.76	8.30	0.02
#4/#6 Vein Int.	MH-TR-18-27	16.0m	321.0	15.3	0.048	3.31	2.69	0.01
Chinook	MH-TR-18-33	2.0m	1205.7	181.2	0.040	18.45	1.96	0.40

Figure 6. Trench Locations and Results - Ag



5.3 Property-Wide Mapping

During the 2018 field season various scales of mapping were employed on the claims:

- Reconnaissance (1:45,000-scale) mapping was conducted property-wide;
- 1:7,000-scale mapping of the Falls Zone; and
- 1:250-scale trench mapping.

5.3.1 1:45,000 Property-scale Mapping – Results & Interpretation

Project-wide traverses were completed in the central, western, southern and northwestern areas with the intent of creating a first-pass property-scale map (refer to **Figure 5. McKay Hill Area Property Geology**, page 21). These traverses focused along ridgelines and saddles where exposure is greatest. A product of this work was the grouping of host stratigraphy earlier described in Blackburn (2009) into six packages from the Neoproterozoic to Lower Cambrian Hyland (Narchilla) Group, Algae Formation and the Cambrian to Silurian Marmot Group (refer to **Table 3**, page 20). Mapping led to the identification of the unconformable contact between Algae Formation limestone and the Narchilla Formation slate in the southwestern region of the claim block. This is an important distinction because carbonate-replacement style mineralization has been found within the Algae Formation at the Einarson property (Venus zone) currently owned by Anthill Resources, which are situated distally to the east (Kovacs, 2014). A thrust contact between the Narchilla Formation slate and the Marmot Group volcanics was identified via both mapping and orthophotography, which follows regional stratigraphy and is also situated in the southwestern region of the property. The confirmation of these stratigraphic relationships shown in **Table 3** (page 20) confirms the previously held interpretation that the rocks are of the Dempster volcanics rather than part of the turbiditic clastic rocks of the Hyland Group as earlier suggested (Blackburn, 2010).

The completion of property-scale mapping traverses has led to a greater understanding of the geological framework within which the mineralization at McKay Hill occurs. Stratigraphy generally follows the regional foliation (284°), with younging direction to the north. As seen in **Figure 5** (page 21), stratigraphic offset can be seen in the central wedge of the property, which is bounded by two kilometer-scale structures which trend approximately 330° and can be seen prominently in the orthophoto. The current interpretation of the central zone 'wedge' is that the D_2 dextral transcurrent regime led to clockwise block rotation within a dextral wrench zone. Within this wrench zone, clockwise warping and folding of the lithologies occurred. This is reflected by the rotation of bedding and foliation strike, which is most prominent in the fine sediments and grit. In this model, the mineralized veins at McKay Hill appear to lie along a limb (with parasitic folding) of an antiform. It is postulated that later D_4 compression led to the 330° - 150° striking axial planar foliation (meter to decameter fold periodicity) that has been mapped in multiple locations at the property.

If the mineralization at McKay Hill is indeed along a limb of a fold (and it is not dependent on the 330° structures), then mineralization may extend east-northeast of the Central Zone, with possible offset due to dextral movement of the blocks. The 2019 program at McKay Hill will include mapping traverses to answer these questions and increase the confidence of the included preliminary property-scale map.

5.3.2 1:7,000-scale Falls Zone Mapping - Results & Interpretation

One of the main objectives of the 2018 program was to expand the mapped zones beyond the Central Zone, which has received the majority of attention in previous years. The Falls Zone is located just

northwest of the Central Zone and consists of the mineralized Falls, Lower Falls, Ghost, and Spell veins (refer to **Figure 7. 1:7,000-scale mapping of the Falls Zone area**, page 30). 1:7,000-scale mapping was performed by several MMG geologists over multiple days. Outcrops were mapped along prominent ridges in the zone, which were then extrapolated upon to generate the current geological map.

Folding in the Falls Zone – especially near the Spell vein – is a prominent feature and best displayed in the grit package (as meter scale folds and kink folds) and in the ductile slate and mudstones (as pencil cleavage). It is important to note that Spell, Ghost, and an unnamed vein in the centre of the zone all appear to be near a fold hinge, which may act as open space, or as a plane upon which later faulting occurs, creating conduits for mineralizing fluids. The axial planes measured on these folds strike between 320° and 340° which indicate these are perhaps parasitic folds developed during D₄ compression along the limbs of larger scale folding and rotation occurring during D₂ dextral transcurrent regime which is thought to have led to clockwise block rotation within a dextral wrench zone.

As noted above, zone-scale folding appears to be occurring, which is supported by the observation of bedding and foliation deviations from the regional trend (~284°). This occurs most prominently along the eastern ridge mapped in **Figure 7** (page 30), where measurements in the mudstones shift to average to 230°. Further mapping in 2019 will aim to test this model with targeted traverses.

5.3.3 1:250-scale Trench Mapping⁴

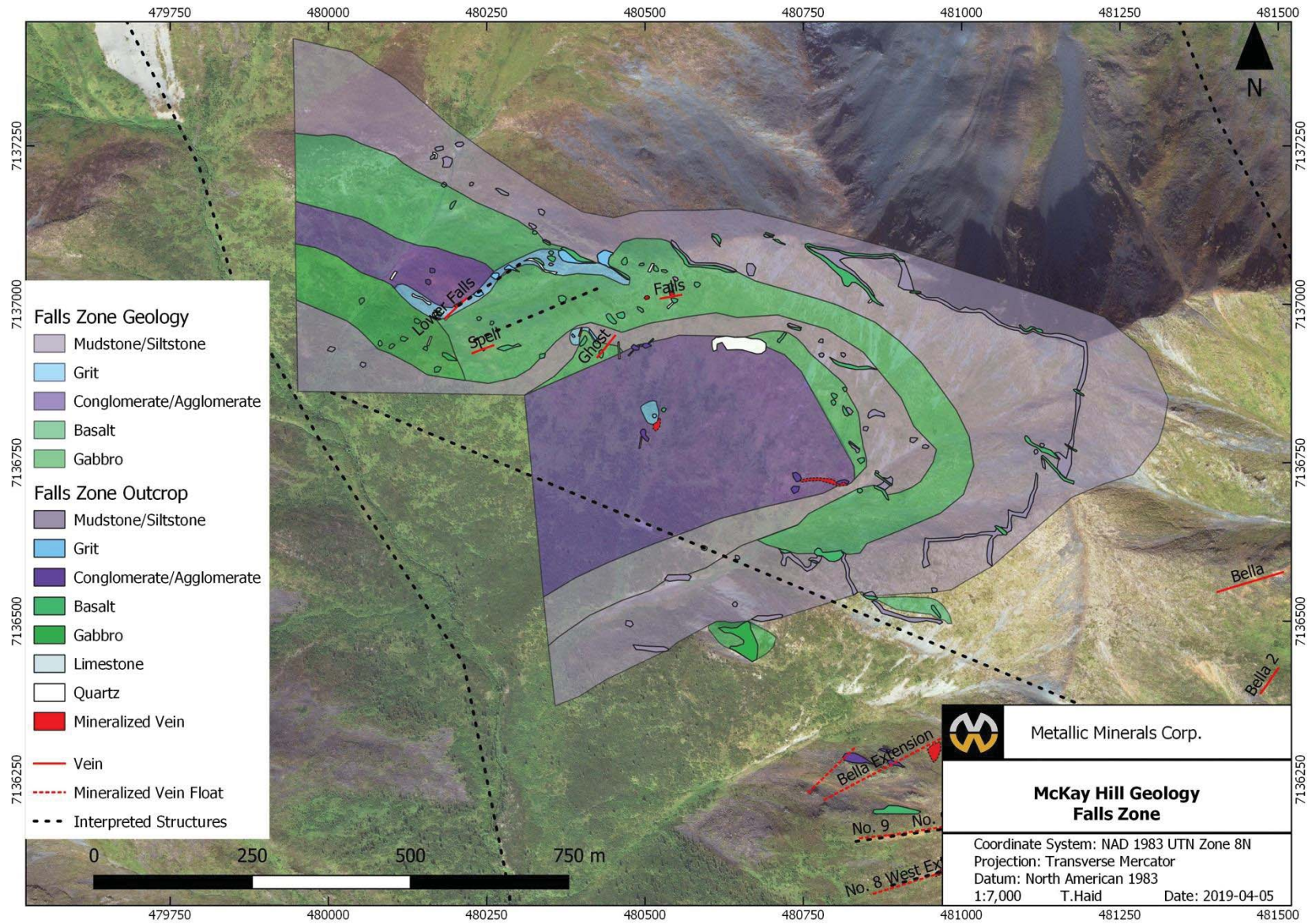
During the 2018 season MMG cut 16 trenches (1855 m³ total) at the Blackhawk, Blackhawk West, No. 6-No. 4, No. 8, No. 9, Chinook and North veins via hand-trenching and heli-portable KH-41 Kubota excavator.

As outlined in Section 5.2.1, detailed mapping occurred on 10 of the 16 trenches completed during the 2018 season. This mapping was completed by approaching each trench as a 'pseudo-drillhole', with the start of the trench denoted as 0 meters. Trenches were 'logged' and broken into distinct lithologies. The objective of excavating these trenches was to expose areas of known veins, allowing for in situ orientations and analysis of major mineralized veins. Trench mapping shows that mineralization was predominantly found in three main cases:

- a) Galena-Quartz veins: Strong galena mineralization occurs within quartz to quartz-carbonate veins which are most often along contacts between impermeable slate/mudstone and permeable volcanics (basalt/agglomerate-conglomerate). The mineralization often is found as cubic to sooty galena with minor azurite, malachite and sulphur as vug-infilling mineralization. Mineralization generally is strongest along the hanging wall of the vein, which is often the impermeable slate (refer to MH-TR-18-19).

⁴ Trench maps are Appended.

Figure 7. 1:7,000-scale mapping of the Falls Zone area



- b) Contacts: Minor mineralization will occur along contacts between impermeable slate/mudstone and the permeable volcanics (basalt/conglomerate), even without the presence of vein material (refer to MH-TR-18-26). In this instance, mineralization is confined along the contact, with weak mineralization into the volcanics. The volcanics often retain a moderate to pervasive iron-carbonate alteration in proximity to these mineralizing fluids.
- c) Hosted within the volcanics: Mineralization has been observed to be present in association with quartz veins exclusively within the permeable volcanics (namely, agglomerate-conglomerate), possibly due to the presence of faults acting as mineralizing conduits (refer to MH-TR-18-33). Mineralization can occur within these volcanics without veins, as has been observed throughout the No. 6 corridor, which appears to act as a fluid pathway which has led to wide scale replacement of country rock with massive, cubic galena.

5.3.4 Updated - Vein Summary

Following the 2018 field season, an updated total of 37 veins have been identified on the McKay Hill property, 26 of which have been sampled and contain mineralization, and 9 of which are unmineralized or have yet to be sampled. **Table 7a & 7b** (page 32 and 33) displays each of these 37 veins and documents the defining characteristics of each. Twelve new mineralized veins were discovered during the 2018 program (refer to **Figure 3. Known Zones at McKay Hill & Veins located to Date**, page 13), 7 of which were from outside the Central Zone, greatly expanding the extent of known mineralization on the property.

Building on the mineralized vein orientation analysis completed in 2017, orientations from 20 mineralized veins were measured and plotted in a rose diagram (**Figure 8**, page 34). It should be noted that for the historically significant No. 6 vein – which is now believed to be a vein corridor with multiple surface expressions – 10 total measurements (N=10), each from different exposures within the corridor, were used in the analysis, with N=1 for all other veins for a total of 29 data points. After compilation, these orientations outline three strong trends: 030°, 060°, and 090° N.

Current interpretation of these three major trends is that these vein orientations are Riedel shear conjugates which splay off from an east-west structure. The tenor of mineralization also appears to have a direct relationship with the vein orientation. High tenor (Au, Ag) appears to be most associated with the 030° orientation, moderate tenor (Ag, Pb) associated with the 060° orientation, and low tenor (Zn, Cu) associated with the 090° orientation. It is hypothesized that these more northerly-striking veins act as better structural traps for ore deposition, while the more E-W trending veins parallel the regional stratigraphy (and perceived fluid conduit), which leads to reduced structural traps and smaller veins, with ore-bearing fluids precipitating along favourable lithologic contacts.

Table 7a. McKay Hill Vein Summary (Part 1)

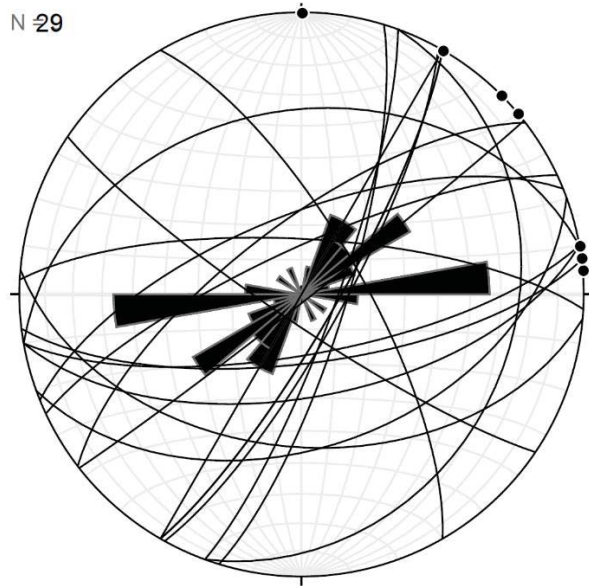
Vein	Area	Easting	Northing	Strike	Dip	Geochemical Highlights					Host Rock	
						Sample	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)		Cu (%)
Blackhawk	Central Zone	481607	7135834	315°-345°	70°-75°NE	29890	551.00	0.51	47.30	1.16	0.51	Basalt/andesite or intrusive equivalent
Blackhawk West	Central Zone	481581	7135890	045°		113390	919.00		82.55	1.03	0.05	Basalt/andesite or intrusive equivalent
Blackhawk East	Central Zone	481952	7135822			526247	27.90	0.02	5.14	19.10		Basalt/andesite or intrusive equivalent
Snowdrift	Central Zone	481465	7135938	200°-240°	70°NW	MK006	668.00	15.60	2.40	0.94	3.90	Grit
No. 1	Central Zone	481519	7135882			not sampled						
No 1. W	Central Zone	481472	7135905			29887	502.00	0.77	46.37	0.47	2.40	Amygdaloidal to vesicular basalt
Hertl	Central Zone	481458	7135919	050° (Vein float)		1480004	565.00	0.03	81.53	0.05	0.31	Amygdaloidal to vesicular basalt
No. 2	Central Zone	481410	7135930	360°		526147	608.00	0.22	35.20	3.50	3.22	Andesite
No. 3	Central Zone	481403	7135953	010°		526149	29.00	0.48	3.73	0.01		Calcite-rich grit
No. 4	Central Zone	481377	7135967	080°	70°-75°S-SE	1480123	5.10	0.01	1.01	20.75	0.04	Contact between unoxidized graphitic slate (FW) and highly oxidized basalt (HW)
No. 6	Central Zone	481277	7135939	030°	Near vertical	1907517	988.00	24.40	37.74	3.71	7.97	Conglomerate, re-worked volcanic tuff ± basalt
No. 7	Central Zone	481070	7135972	250°	54°NNW	526242	1.40	0.04	0.02	0.03	0.01	Basalt/andesite or intrusive equivalent
No. 8	Central Zone	481139	7136132	085°	SE	MK002	646.00	16.80	27.00	0.14	0.64	Basalt (juvenile)/gabbro
No. 9	Central Zone	481155	7136196	075°-090°	SSE	MK009	366.00	0.36	25.00	6.90	0.72	Contact between slate and silicified basalt
Chinook	Central Zone	480152	7136005	20°	25° ESE?	1480136	270.00	0.06	29.82	1.47	0.54	Basalt (silicified)
North	Central Zone	481159	7135950	70° (?)	45°SSE	526241	372.00	1.84	22.74	7.01	1.96	Basalt/agglomerate
North A	Central Zone	481070	7135908	360°		not sampled						Basalt/agglomerate
North B	Central Zone	481110	7135830	360°		not sampled						Basalt/agglomerate
North C	Central Zone	481240	7135890	360°		not sampled						Basalt/agglomerate
North D	Central Zone	481319	7135945	360°		not sampled						Basalt/agglomerate
Bella (No. 1)	Bella Zone	481419	7136554	080°	60°S	29895	84.00	0.45	15.19	1.00	1.06	Basalt (iron-carbonate altered) with slate (blue grey)
Bella No. 2	Bella Zone	481489	7136409	030°?		1480007	24.90	0.39	1.03	0.21	1.25	
Red No. 1	Red Zone	481856	7137189	095°	45°S	29892	29.00	0.48	3.73	0.01	0.00	
Red No. 2	Red Zone	481767	7137098	095°		29893	0.00	0.01	0.04	0.01	0.00	Diorite
Red No. 3	Red Zone	481747	7137140	360°		1480029	19.60	0.02	1.01	0.46	0.70	Basalt (vesicular) with <20% vfg slate
Falls	Falls Zone	480541	7137012	260°	35°NNW	29897	42.30	0.20	0.97	0.04	1.33	Basalt/andesite or intrusive equivalent
Lower Falls	Falls Zone	480207	7136999	248° ?	67°NNW	1480052	74.40	0.49	3.27	1.47	2.56	Basalt/andesite or intrusive equivalent
Ghost	Falls Zone	480438	7136932	050°?		1480054	18.40	0.00	60.93	11.69	0.53	Basalt (amygdaloidal)
Spell	Falls Zone	480244	7136929			1480056	25.20	0.38	2.02	0.68	1.24	Basalt (amygdaloidal)
Snowdrift Ext.	Independence NW	483056	7136202	273°	74°N	580076	98.50	0.34	0.07	0.95	3.01	Basalt/andesite or intrusive equivalent
Nash	Independence NW	482615	7136590	080°		1480058	28.80	0.02	13.54	4.58	1.11	
White No. 1	White Hill	479660	7136214	222°	84° NW	56853	0.20	0.01	0.03	0.01	0.50	Contact with agglomerate (north) and basaltic sandy flows (south)
White No. 2	White Hill	479325	7136303	090°?		56851	3.90	0.01	1.41	0.13	0.01	Contact with agglomerate (north) and basaltic sandy flows (south)
Independence 1	Independence	482960	7135770			580079	59.70	0.02	10.71	9.04	0.04	Basalt (vesicular) to altered andesite with local slate
Independence 2	Independence	482965	7135775			580078	23.20	0.02	12.36	4.48	0.03	Basalt (vesicular)
Independence 3	Independence	482942	7135836			580077	16.10	0.07	1.34	0.83	0.09	Basalt (vesicular)
Independence 4	Independence	482913	7135867			580082	288.80	0.03	10.94	0.15	0.03	Basalt (vesicular) to conglomerate

Table 7b. McKay Hill Vein Summary (Part 2)

Vein	Alteration	Sulphides & Oxides	Gangue mineralogy & Vein texture	Description
Blackhawk	Silica-rich	Galena-malachite-azurite ± scorodite, freibergite	Vuggy, with anhedral quartz with rare <5 mm veinlets of copper oxides. Transparent euhedral quartz filling vugs	Qtz w gal +/- mal, az
Blackhawk West	Silica-rich with proximal iron-carbonate	Galena-tetrahedrite-limonite ± malachite, azurite, scorodite, tenorite	Vuggy quartz with skeletal/framework textures	Qtz w gal, tetra, +/- mal, tenorite
Blackhawk East	Iron-carbonate	Galena-sphalerite	Quartz with iron oxides in vein fractures	Qtz w sphal + gal
Snowdrift	Proximal iron- carbonate, distal silica-rich	Scorodite-malachite-azurite-freibergite ± tenorite, galena, sphalerite	Vuggy quartz, with both transparent euhedral quartz and anhedral milky white quartz	Qtz w high gr freibergite + mal, az, tr gal
Snowdrift Ext	Proximal iron- carbonate, distal silica-rich	Galena-malachite-azurite ± scorodite	Milky quartz with vuggy, prismatic, clear crystals. Some botryoidal and skeletal textures	Qtz w abundant az, mal, scor, and fg tetra and arseno
No 1				Potentially Snowdrift?
No 1 W		Galena-malachite-freibergite ± lead oxide		Qtz w freibergite, gal, mal, PbO
Hertl	Iron-carbonate	Galena-tenorite-malachite ± sulphur, azurite	Brecciated milky white quartz with skeletal/framework textures, internal vugs coated in iron carbonate	Potentially Snowdrift? Between No. 1W and Snowdrift; Qtz w cubiform gal, fecc, sulphur +/- mal
No 2	Iron-carbonate	30-40% euhedral galena ± tetrahedrite	Anhedral quartz with semi-massive galena and trace copper oxides	Qtz w freibergite, gal; Not exposed. Open-cut orientation.
No 3	Carbonate (?)	Galena 3-5% and limonite (3-5%)	<3 cm pods of sulphides and oxides in quartz gangue	Qtz w minor gal, freibergite; Not exposed. Open-cut orientation.
No 4	Strong iron-carbonate alteration in both units, basalt is moderately silicified	Galena-sphalerite-jarosite-azurite-malachite scorodite	Zoned vein, from barren quartz (basalt HW) grading to base-metal with Cu-O at the slate FW contact; skeletal textures prominent in mineralized zone	Qtz w gal, skeletal texture
No 6	Weak to moderate pervasive iron carbonate alteration	Galena (>30%)-tetrahedrite and limonite ± azurite, sulphur (mineralization found both in vein and in surrounding host rocks as replacement style mineralization (galena dominant))	Quartz. Zonation perpendicular to vein walls from quartz to massive galena at the centre	Qtz w gal, asz, mal, sulphur
No 7		Barren	Milky quartz	White qtz
No 8	Iron carbonate; Potential chrysocolla observed	Galena (>30%)-tetrahedrite-malachite ± sphalerite	White quartz with fracture infill of mineralization, semi-massive sulphides	Qt w high gr freibergite and gal
No 9		Galena-Scorodite ± azurite, malachite, tetrahedrite	Quartz, unconsolidated and iron altered	Qtz w high gr freibergite, gal, sphal, poss stibnite
Chinook	Strong silicification (distal) and strong to pervasive iron-carbonate alteration (proximal to vein)	Galena ± malachite, sulphur	White quartz (fractured to vuggy) with strong ankerite infill	Qtz w gal, mal, ankerite
North	Iron-carbonate	Cubiform galena ± malachite, azurite, sulphur	Milky white quartz, localized brecciation, with localized skeletal/framework textures	White qtz w gal, freibergite, mal, az
North A		Unmineralized until intersection with No. 6 corridor	Milky white quartz, pre to syn mineralization	Early, pre-syn min. Mineralized by No 6 corridor
North B		Unmineralized until intersection with No. 6 corridor	Milky white quartz, pre to syn mineralization	Early, pre-syn min. Mineralized by No 6 corridor
North C		Unmineralized until intersection with No. 6 corridor	Milky white quartz, pre to syn mineralization	Early, pre-syn min. Mineralized by No 6 corridor
North D	Iron carbonate (at intersection with No. 6 corridor)	Unmineralized until intersection with No. 6 corridor; at intersection: galena ± sulphur	Massive milky white qz (1m x 1m blocks) with local internal brecciation, vugs, clear prismatic (V4) qtz	Early, pre-syn min. Massive, milky white qz vein (1x1m blocks) w local internal BRX, vugs with prismatic (V4) qz +/- interstitial galena At No 6 corridor intersection the No 6 impregnates the North D vein w/ FG sooty galena +/- trace mal-az; t No 6 replacement style mineralization grades into massive cubiform galena + sulphur +Fecc clots +/- Cu oxides
Bella	Fracture-controlled iron-carbonate alteration	Galena (<20 %)-malachite-azurite-limonite	Massive quartz vein with common <2 cm euhedral galena crystals and rare azurite-limonite.	Qtz w gal, mal, az, freibergite, PbO
Bella 2		Malachite (1%)-azurite (trace)-galena (trace)		Orientation of open-cut. Qz vein from MH HTR062 open-cut (?). Weakly mineralized with <1% malachite + trace azurite, trace-1% galena.
Red 1		Limonite	White quartz (vuggy)	
Red 2		Limonite	White quartz (vuggy)	
Red 3	Iron-carbonate	Limonite-malachite-azurite-argentite(?)	Quartz breccia with 25-30% slate fragments	Qtz vein breccia (w slate frags) + lim, fecc, mal, az, argentite?
Falls		Galena-malachite-azurite ± chalcocopyrite	White quartz carbonate vein with iron coating	Orientations in parentheses are MB measurements 190618MB005; Qtz w gal, mal, az, cp, calcite
Lower Falls		Azurite-malachite-jarosite-tenorite-limonite-sulphur ± galena, tetrahedrite	White to milky quartz, vuggy (limonite infill)	Orientations in parentheses are MB measurements 180618MB002; Qz vein + mineralization in HW (azurite, malachite, jarosite, tenorite, sulphur + galena +/- tetrahedrite)
Ghost	Pervasive iron-carbonate	Galena (<5%) ± malachite (1%), sulphur	Skeletal/framework textures	Vfg-CG (non-cubiform) galena vein + sulphurous clots + FeCC + 1% malachite w/ boiling texture.
Spell	Iron-carbonate	Malachite-azurite-galena (<3%)	White quartz with internal brecciation; pull apart clear quartz crystals (V4)	White Qz vn + internal brx + FeCC clots, pull-apart texture with V4 qz crystals, + malachite, azurite, <3% FG galena.
Nash		Galena ± tetrahedrite, malachite, azurite		High-grade sample from historic dump pile - galena +/- tetrahedrite, malachite, azurite. Qz vein appears oriented 080.
White 1	Trace iron-carbonate	Trace malachite-azurite-galena	Massive white quartz (boulders up to 3m in size)	White and rusty qtz +/- mal, gal
White 2		Trace malachite-azurite-galena		Qtz w gal-cp (mal-az)
Independence 1	Iron-carbonate	Galena	Highly brecciated quartz vein	High gr gal in andesite and salte
Independence 2	Iron-carbonate	Galena		Solid gal
Independence 3	Pervasive silicification	Galena (massive)-limonite (boxwork) ± malachite (trace), pistachio green oxide	Coarse quartz, highly brecciated and silica healed	Qz (coarse) w massive gal and tr mal
Independence 4	Iron	Galena-tetrahedrite	Brecciated quartz vein	Qtz float with fg gal/tetra, bx

As noted previously, multiple dextral offsets from ~330°N-oriented faults at the meter-scale have been mapped throughout the Central Zone and beyond. These have been observed to offset the No. 6 stockwork zone. Along with this zone, the only other significant vein that does not fit into the three main orientations described above is the Blackhawk vein, which returned samples with values high in Ag and Pb. This is also thought to be related to D₄ compression/remobilization along the late ~330°N-oriented dextral faults identified throughout the property.

Figure 8. Equal area projection stereonet with vein orientations observed*



5.4 Historic Disturbance Documentation

The McKay Hill property was originally recognized for its mineral endowment almost a century ago. As such there are numerous historic disturbances including open-cuts, trenches and adits. Most of these historic workings are located within the Central Zone. As part of the recommended Heritage Resources assessment, MMG committed to allocating staff members to complete historic disturbance documentation forms whenever a pre-existing working was located. During the 2018 exploration program a total of 74 open-cuts/trenches, 2 adits and one tote-trail were documented, all of which, aside from 7, were in the Central Zone. An additional 5 known historic open-cuts/trenches are located on Independence Hill and in Independence North; these sites were not documented during the 2018 season. Location of additional historic sites are anticipated in the seasons to come.

One of the positive results that came from the historic disturbance documentation work was the location of additional mineralized veins, in particular the expansion of the No. 6 vein into the No. 6 vein corridor. This work demonstrated that the No. 6 vein zone, which was previously thought of as a discrete vein-set, actually represents a larger 300 m X 250 m-mineral corridor trending N065°, which is open on both ends and is comprised of widespread ~030°/near vertical, en echelon vein-sets. In addition, the discovery of the Ghost vein (Falls Zone) and the Bella No. 2 vein (Bella Zone) were the direct result of identifying overgrown historic open-cuts.

* N=10 for No. 6 vein, N=1 for all other veins

5.5 Prospecting

During the 2018 field season an additional 12 new veins were discovered; 6 of which are in the Central Zone, 1 in the Bella Zone, 3 in the Falls Zone, 1 in the Red Zone and 1 in the Independence North Zone. All of these less the Spell vein (Falls), the Red No. 3 vein (Red), and the Chinook vein (Central), had historic workings. The Chinook vein was discovered on a trenching step out and the Spell and Red No. 3 vein were located via prospecting. The remainder of the veins were located as a result of pairing prospecting with historic disturbance documentation work.

In 2017, property-wide orthophotography was completed. This work highlighted zones a large rusty-orange area that overlapped with previously conducted airborne geophysical anomalies in the northwestern corner of the project area. This area was a high prospecting target for the 2018 season but unfortunately no veins were located. The colour anomaly was ground-truthed to be orange lichen ground cover and the false geophysical anomaly is currently interpreted as a lithologic ‘high’. Further prospecting in this area should be completed, preferably with a TerraSpec Halo to map out potential clay mineralogy that may point to unexposed mineralized structures.

Table 8. Summary of Selected 2018 Prospecting Rock Samples & Results

Zone	Vein	Sample	Easting	Northing	Length	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	Cu (%)
Central	Blackhawk West	1480001	481687	7136017	Grab - float	342.00	0.06	82.52	0.13	0.40
	Hertl	1480002	481456	7135917	Grab - dump	255.00	1.93	29.34	23.72	2.09
	Hertl	1480003	481458	7135919	Grab - dump	195.00	2.55	23.94	1.63	0.54
	Hertl	1480004	481464	7135924	Grab - dump	565.00	0.03	81.53	0.05	0.31
	Blackhawk	1480009	481606	7135837	2.5 m chip	33.20	0.21	4.63	1.37	0.07
	No. 6 corridor	1480030	481249	7135853	Grab - dump	284.00	0.65	77.33	1.89	1.23
	No. 4 (North Face)	1480031	481494	7136059	Grab - float	339.00	0.12	49.31	5.63	0.08
	No. 6 corridor	1480032	481199	7135861	Grab - dump	326.00	0.57	80.41	0.24	1.29
Bella	Blackhawk West	1480051	481671	7135973	Grab - float	325.00	0.01	40.35	20.32	0.09
	Bella	1480005	481425	7136554	Grab - dump	48.60	0.24	8.32	0.73	0.91
Falls	Bella 2	1480007	481489	7136409	Grab - dump	24.90	0.39	1.03	0.21	1.25
	Lower Falls	1480052	480206	7136996	Grab - dump	74.40	0.49	3.27	1.47	2.56
	Lower Falls	1480053	480207	7136999	Channel - 0.35 m	8.80	0.02	0.14	0.08	0.46
	Ghost	1480054	480438	7136932	Grab - float	18.40	0.00	60.93	11.69	0.53
	Ghost	1480055	480438	7136932	Grab - float	9.60	0.00	17.90	27.36	0.20
	Spell	1480056	480244	7136929	Outcrop	25.20	0.38	2.02	0.68	1.24
Independence NW	Unnamed	1480276	480813	7136718	Grab - float	14.40	0.00	0.02	0.05	0.64
	Snowdrift Ext	1480008	483054	7136209	0.4m chip	22.00	0.08	0.01	0.55	0.76
Red	Nash	1480058	482608	7136587	Grab - dump	28.80	0.02	13.54	4.58	1.11
	Red 3	1480029	481746	7137153	Grab - subcrop	19.60	0.02	0.01	0.46	0.70
West McKay	No. 9 (SW Ext?)	1480060	480889	7136164	Grab - float	167.00	0.38	20.72	17.71	2.27
	Bella Ext	1480061	480957	7136292	Grab - float	23.40	0.04	3.58	5.97	0.20
	Bella Ext	1480062	480754	7136231	Grab - float	12.00	0.00	6.82	23.02	0.06

5.5.1 Rock Sampling – Geochemical Analysis

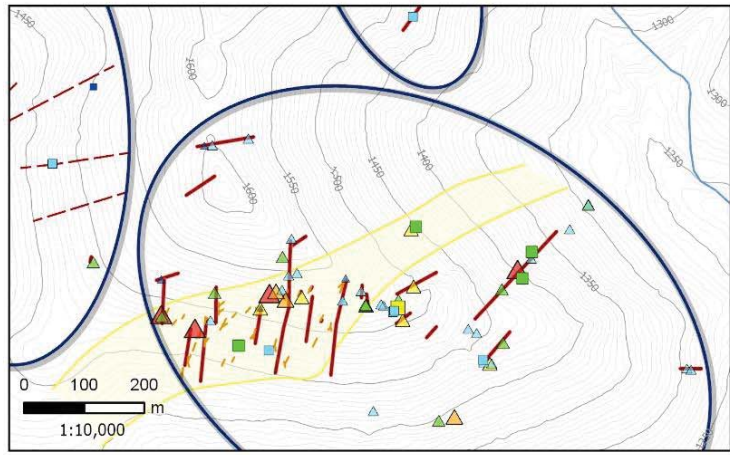
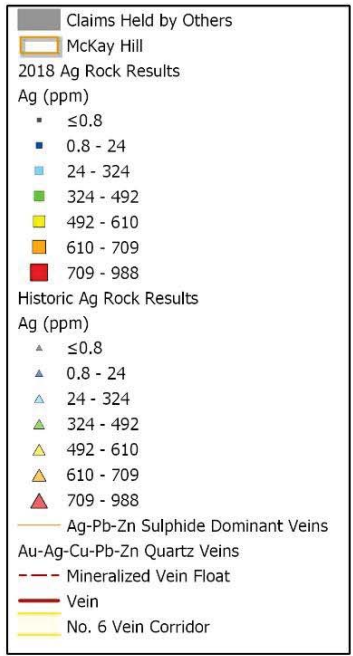
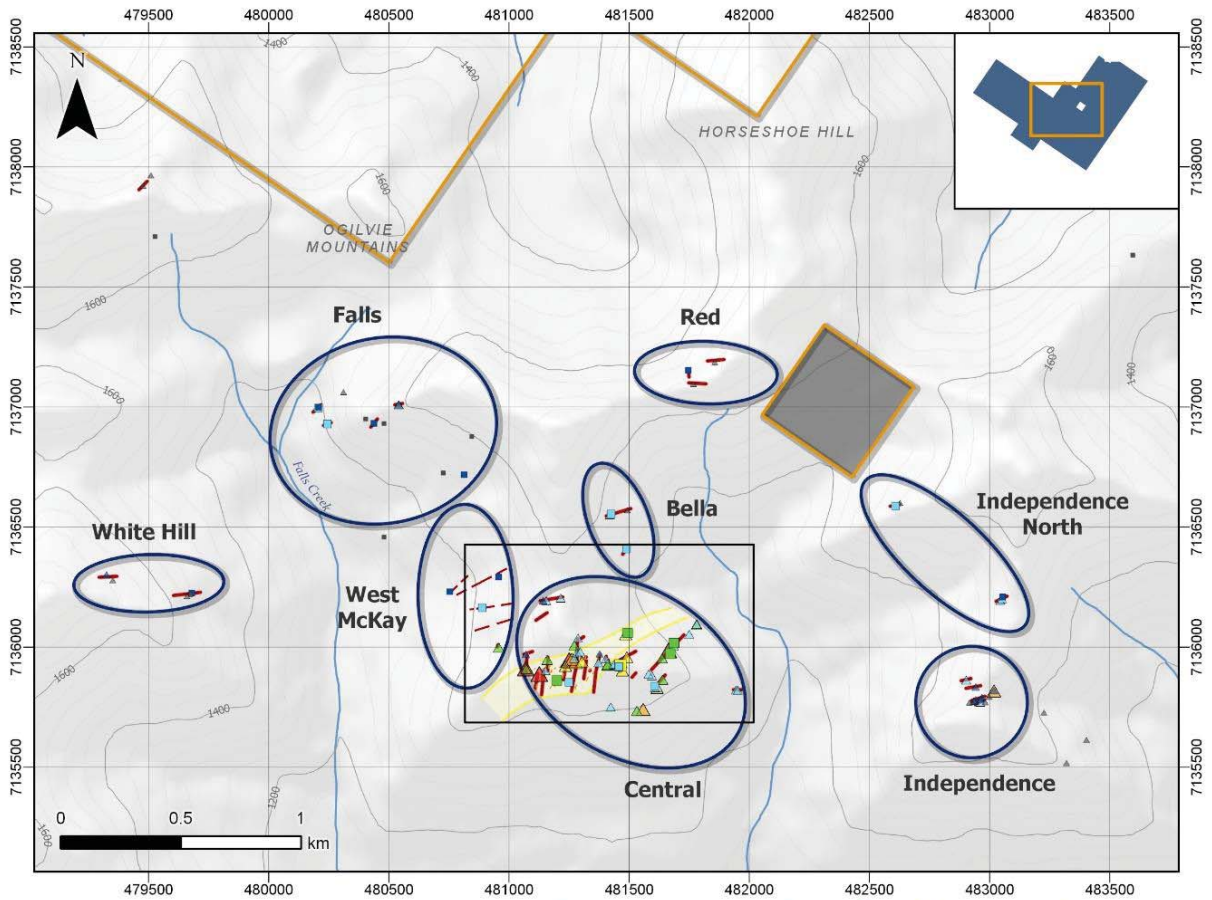
A total of 33 rock samples were collected as a result of prospecting, along with 44 rock samples collected via trench sampling (refer to **Section 5.2** for a detailed analysis of trench sampling and results), for a total of 77 rock samples collected at McKay Hill over the 2018 field season. **Table 8. Summary of Selected 2018 Prospecting Rock Samples and Results** (above) displays highlighted results from samples collected from prospecting.

All 77 rocks were sent to Bureau Veritas in Whitehorse for geochemical analysis (full results can be found in **Appendix II**), with multiple packages utilized to properly evaluate the precious metal concentrations, from low- to high-grade. Sample preparation consisted of crushing, split and pulverize 250 g of rock to 200 mesh. Sample splits of 0.5 g were then leached in hot modified Aqua Regia (partial digestion). Thirty grams of the total sample were then analysed for 36 elements using inductively coupled mass spectrometry (ICP-ES/MS) analytical technique. Samples with over limit ($\geq 0.01\%$) Cu, Pb and Zn concentrations were assayed by titration and over limit (≥ 10 ppm) Au and Ag samples were analysed by fire assay and gravimetric methods. Results for the major elements can be seen in **Figures 9-14** (pages 37-42).

Significant results from newly identified veins such as Hertl (Central Zone) and Ghost (Falls Zone) indicate high potential for locating additional mineralization with the Ghost vein extending prospective ground beyond the known Central Zone. Ghost samples contain high lead (up to 61% Pb) and zinc (up to 27% Zn), indicating it may be at a low-level within the larger mineralizing system, but as only two samples were collected, more work is needed in 2019 to identify if there is any appreciable Ag associated with this vein. Further work will be required in 2019 to follow up on these results at all newly identified veins.

It is important to note that due to the HROA limitations set, the veins on the northeast end of McKay Hill ridge, including Hertl and Snowdrift could not be examined via trenching this season. It is hoped that the HROA ground-assessment will be completed in the near future to allow for further exploration of these highly prospective veins.

Figure 9. Rock Chemistry - Ag

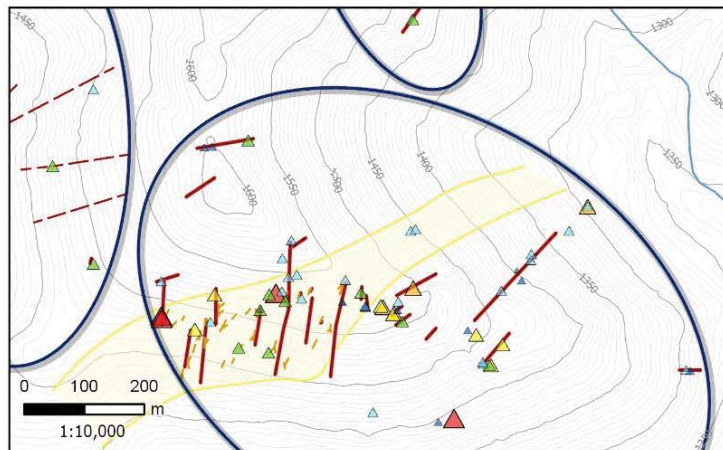
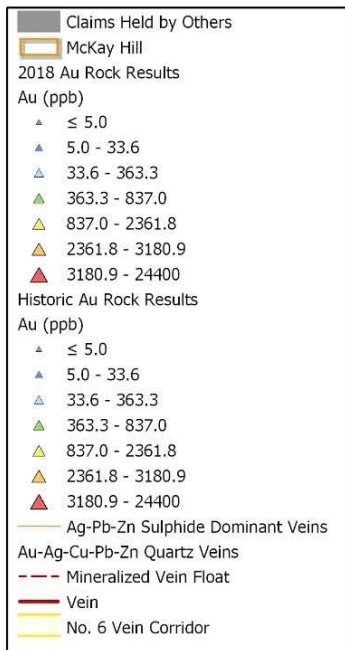
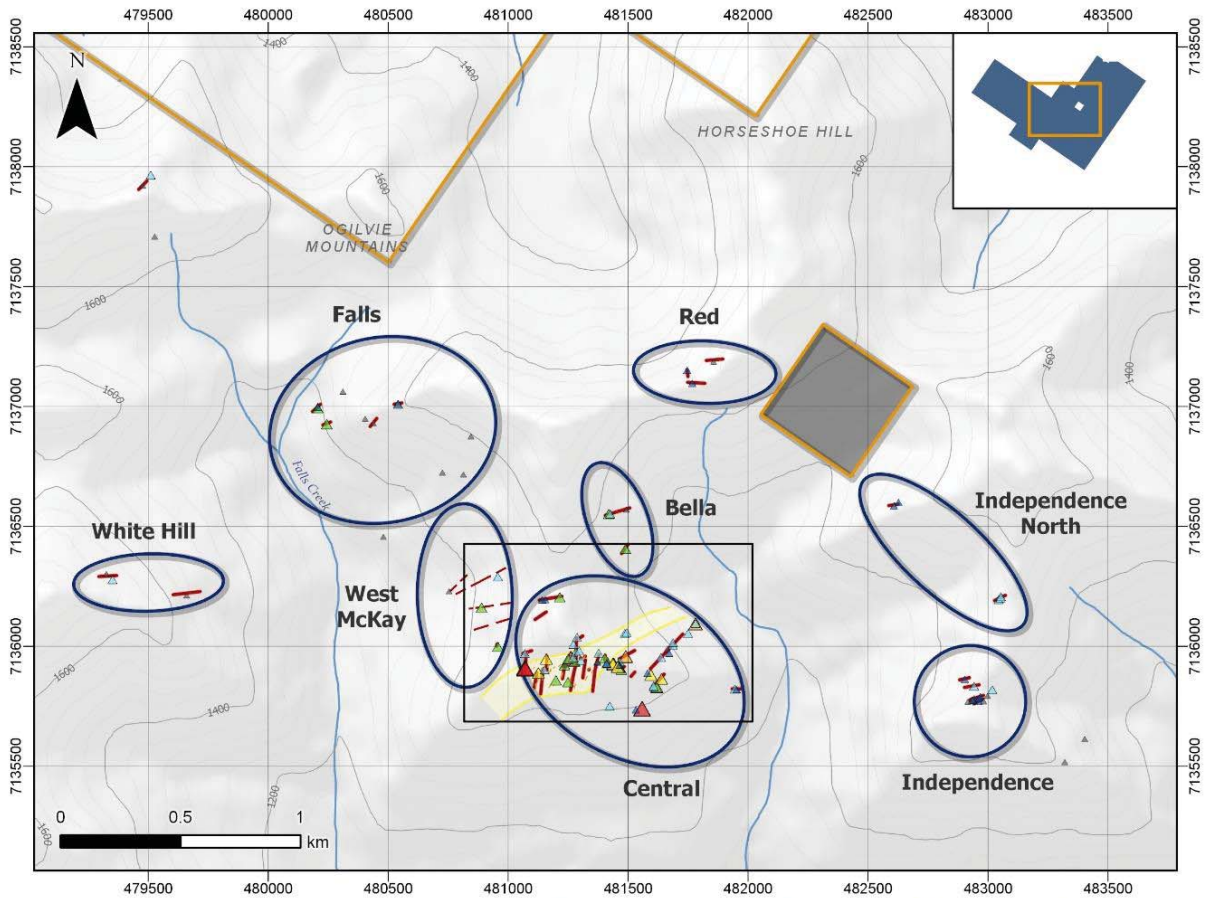


METALLIC MINERALS

McKay Hill
Ag Rock Results

NAD 1983 UTM Zone 8N
2019-04-15 1:25,000

Figure 10. Rock Chemistry – Au

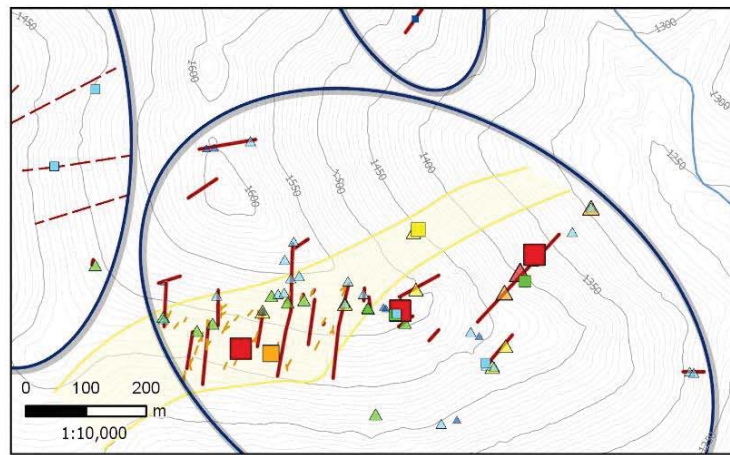
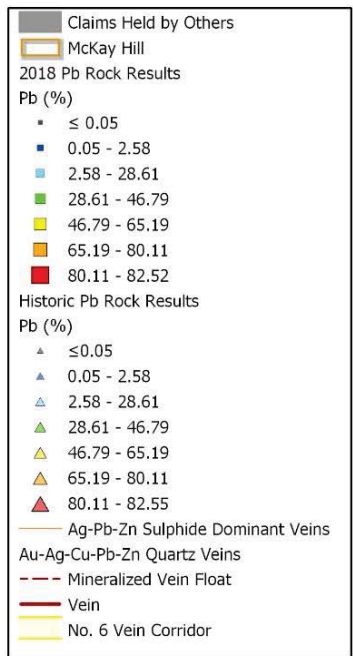
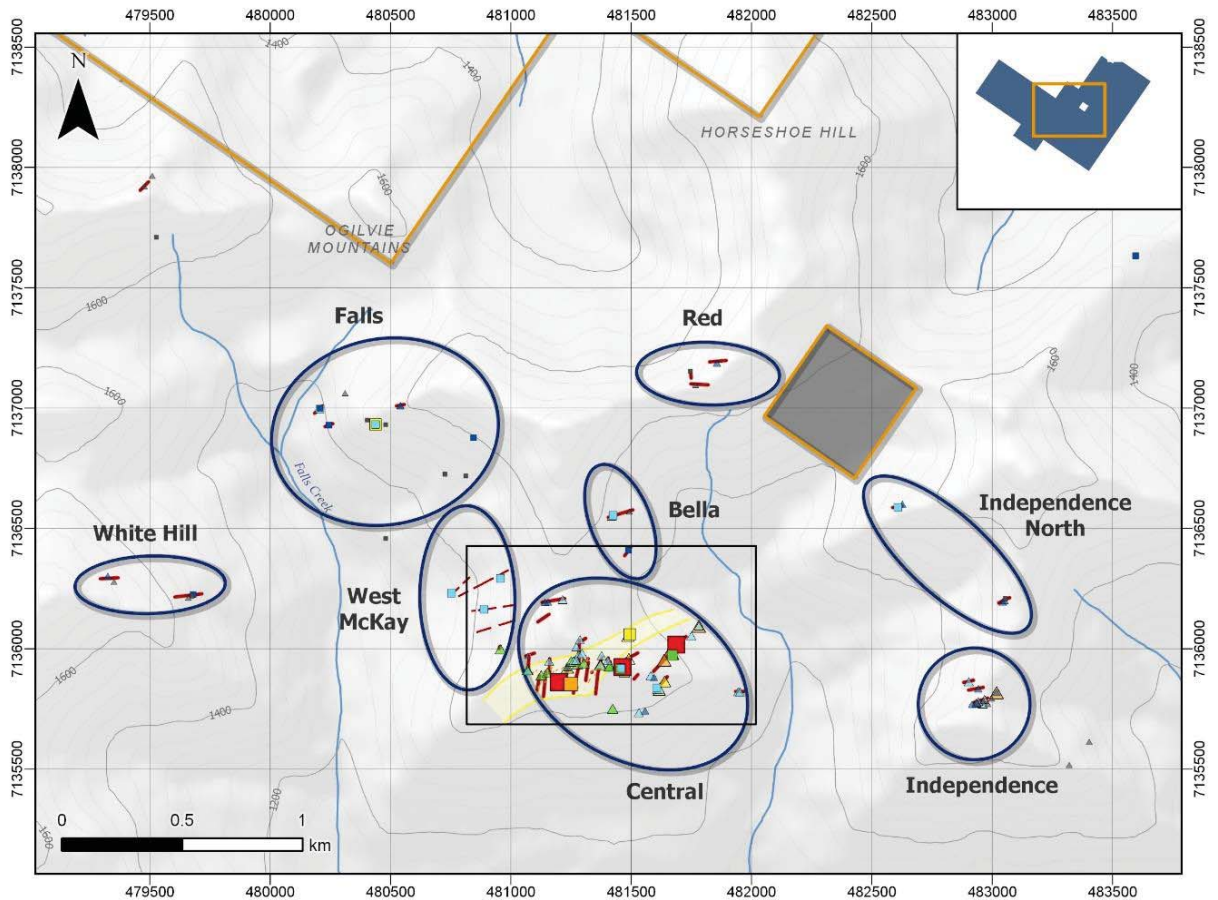


METALLIC MINERALS

McKay Hill
Au Rock Results

NAD 1983 UTM Zone 8N
 2019-04-15 1:25,000

Figure 11. Rock Chemistry – Pb



METALLIC MINERALS

**McKay Hill
Pb Rock Results**

NAD 1983 UTM Zone 8N
2019-04-15 1:25,000

Figure 12. Rock Chemistry – Zn

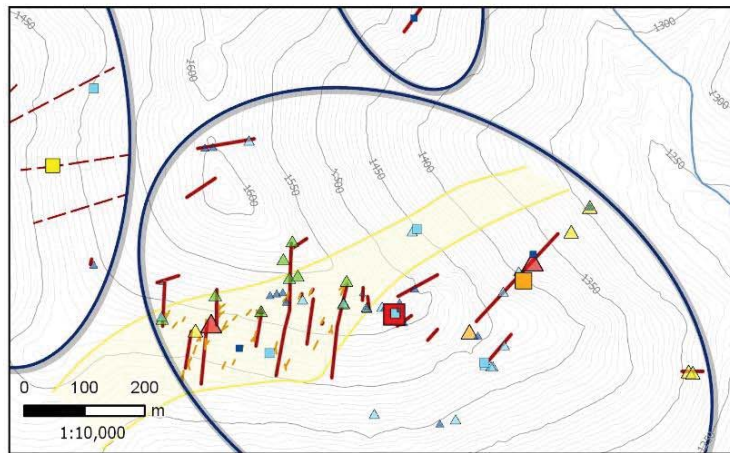
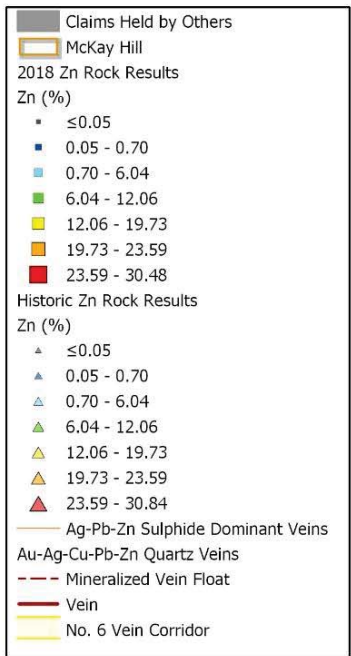
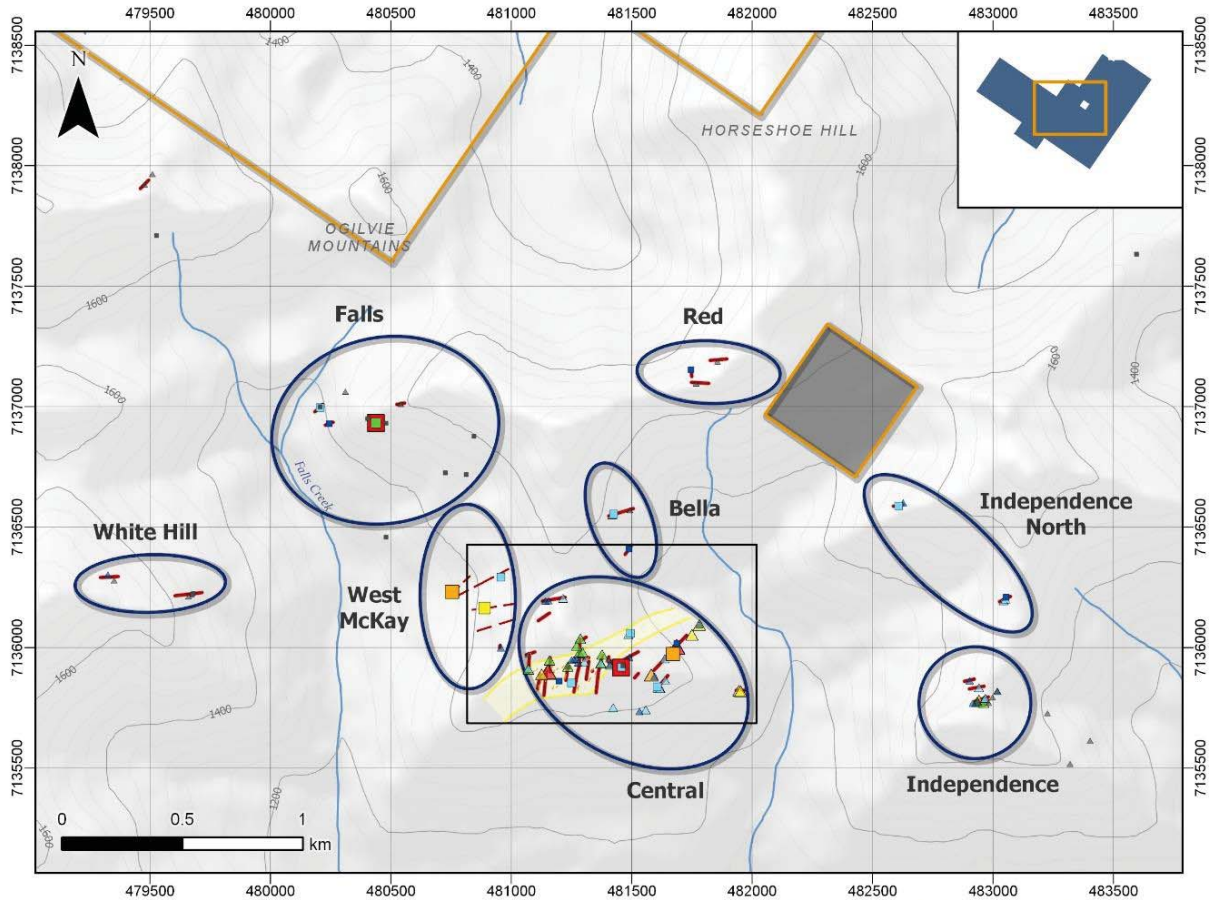
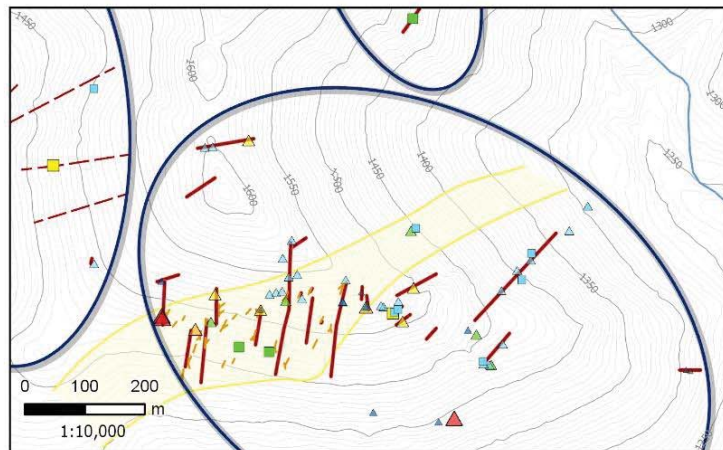
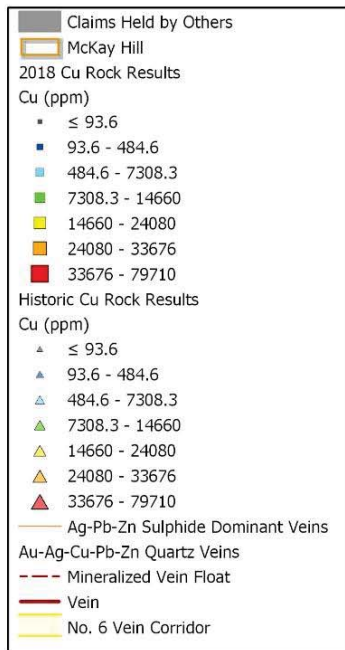
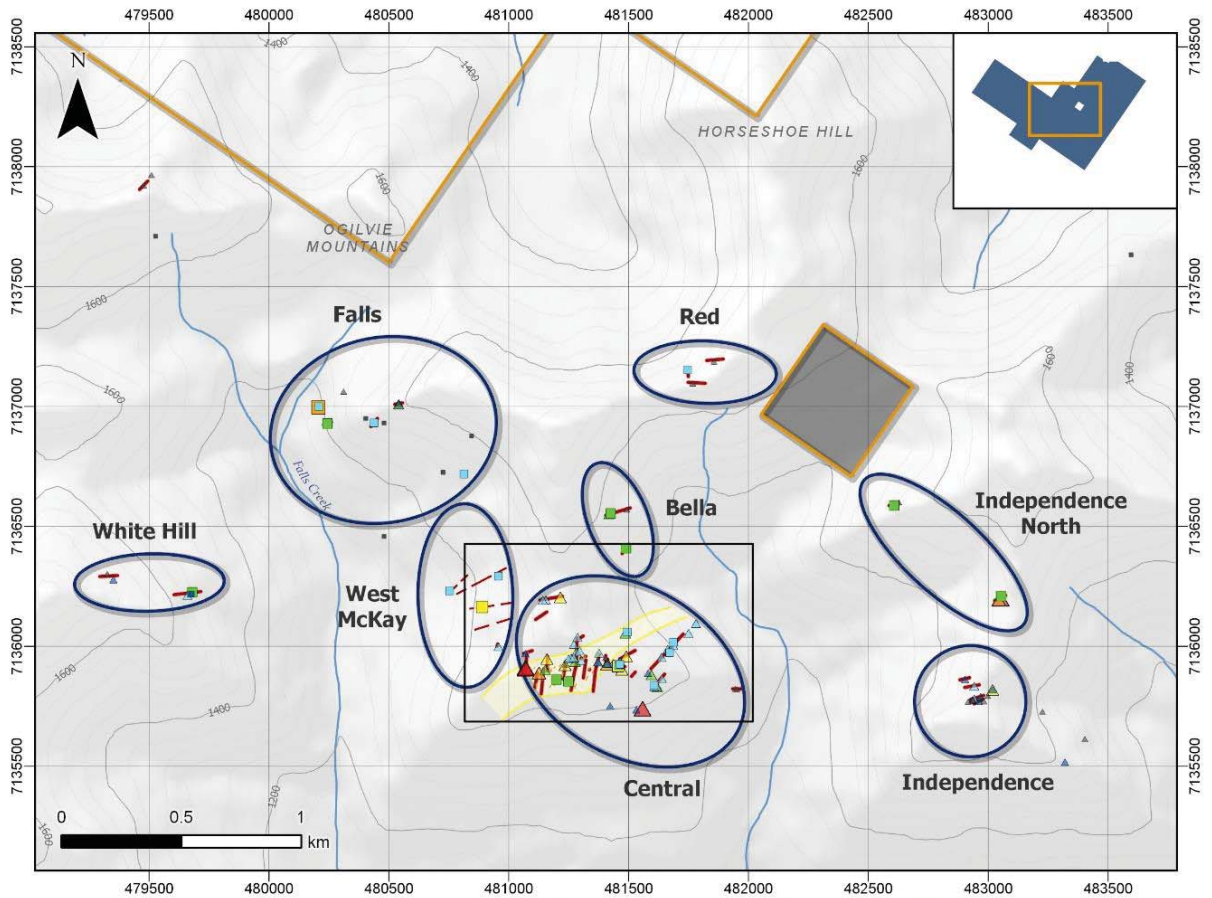


Figure 13. Rock Chemistry – Cu

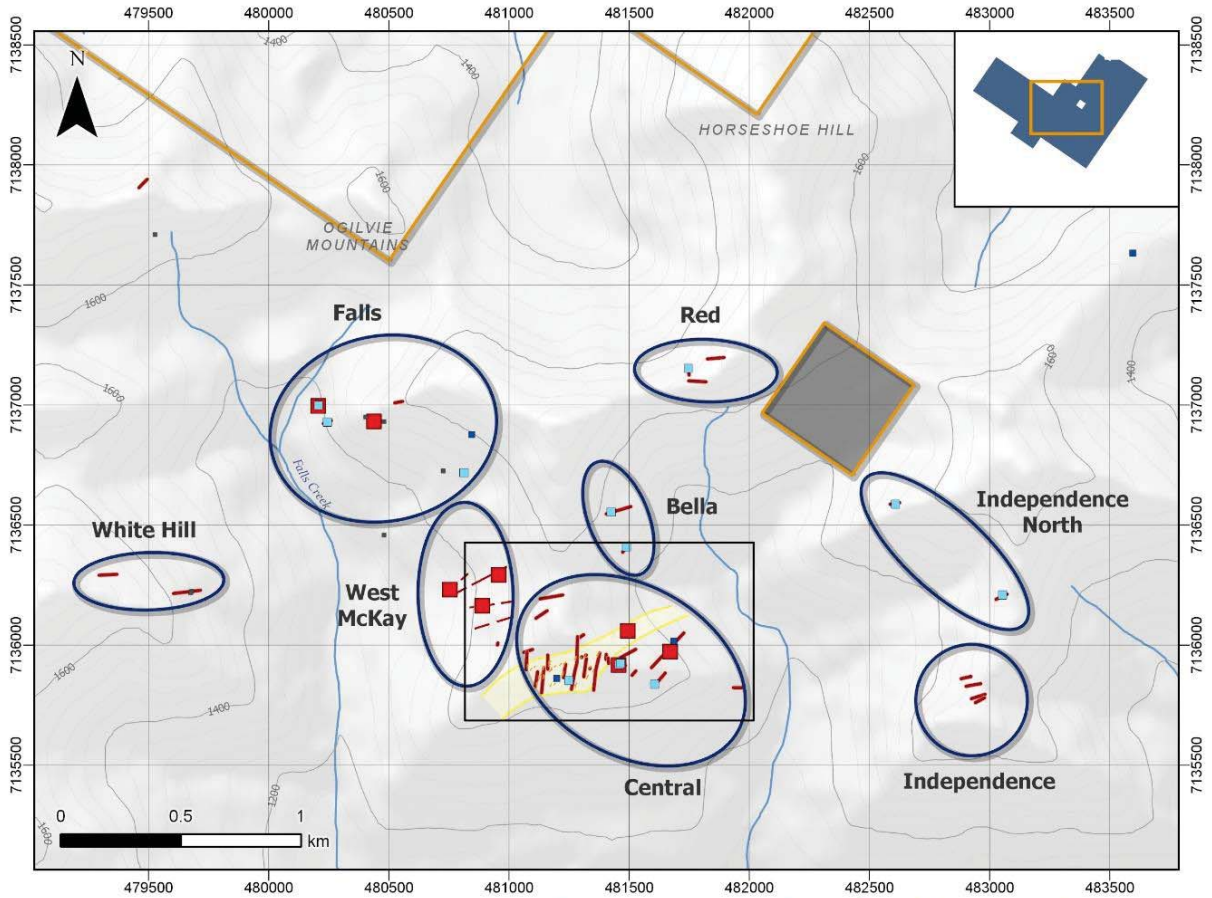


METALLIC MINERALS

McKay Hill
Cu Rock Results

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2019-04-15 1:25,000

Figure 14. Rock Chemistry – Hg



Claims Held by Others
 McKay Hill

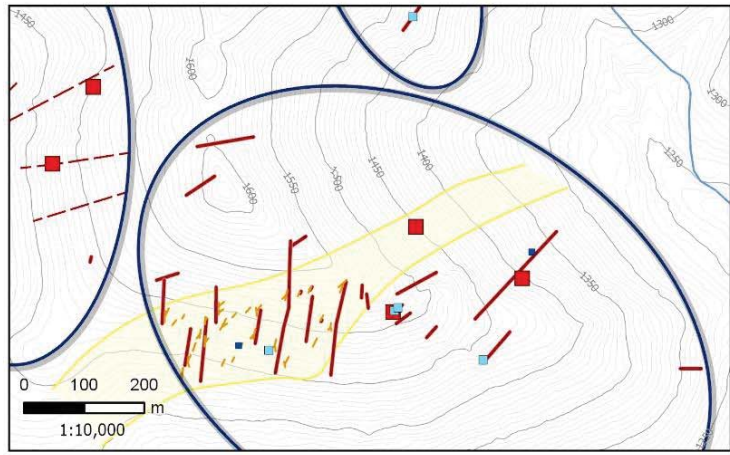
2018 Hg Rock Results
 Hg (ppm)

- ≤ 0.62
- 0.62 - 7.64
- 7.64 - 46.61
- 46.61 - 70.30
- 70.30 - 100.00

Historic Hg Rock Results
 Hg (ppm)

- ≤ 0.62
- 0.62 - 7.64
- 7.64 - 46.61
- 46.61 - 70.30
- 70.30 - 100.00

Ag-Pb-Zn Sulphide Dominant Veins
 Au-Ag-Cu-Pb-Zn Quartz Veins
 Mineralized Vein Float
 Vein
 No. 6 Vein Corridor




McKay Hill
Hg Rock Results
 NAD 1983 UTM Zone 8N
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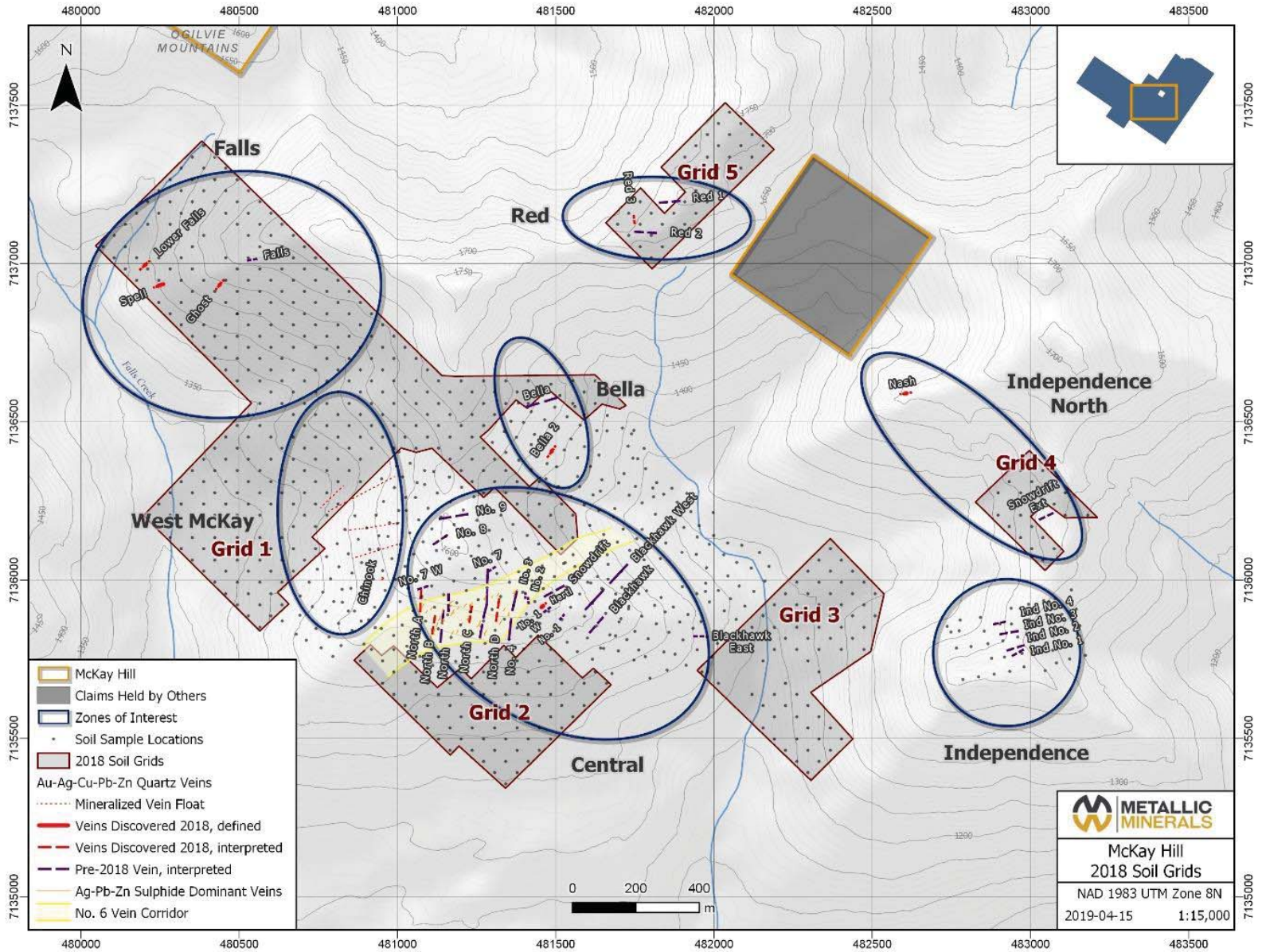
5.6 Soil Sampling

A total of 571 soil samples were collected from 5 grids on the McKay Hill property during the 2018 exploration program (see **Figure 15. 2018 Soil Sampling Grids**, page 44). The soils program covered an area approximately 3 km long by 1.5 km wide with samples collected at approximately 50 m spacing.

All of the 2018 soil grids were laid out during the winter season with the intent of addressing open-soil anomalies (Grids 1-3) and areas not yet sampled (Grids 4 and 5). The soil sampling campaign followed early program prospecting and mapping and as a result was adjusted to reflect findings. Five grids were completed which were aimed at characterizing the soil signature on known mineralized zones and trace potential extensions along strike to orient future exploration work. Grid 1 aimed to fill in a hole between Bella and Central Zone as well as west of Central Zone to include what is now called West McKay and Falls Zones respectively. Grid 2 was intended to follow up on the open-ended south Central Zone soil anomaly; steep topography has resulted in mineralized float from transporting downslope so soil samples here had to be collected to C-horizon with special care. Grid 3 was intended to connect Central Zone to Independence Zone, however a small section on the east side of the grid was not completed due to heavy permafrost. Grid 4 and 5 were completed over the Snowdrift Extension vein area and Red Zones, respectively, which previously had no soil chemistry coverage.

Samples (taken from the C-horizon) were collected with soil augers at 50 m spacing and placed in Kraft soil sample bags, which were then shipped to Bureau Veritas in Whitehorse for assaying to evaluate the precious metal concentrations present. Sample preparation consisted of drying the samples at 60°C, followed by sieving 100g of the samples to -80 mesh. These samples were then leached in hot modified Aqua Regia (partial digestion). Finally, 15 grams of the total sample were then analysed for 36 elements using inductively coupled mass spectrometry (ICP-ES/MS) analytical technique.

Figure 15. 2018 Soil Sampling Grids



5.6.1 Soil Sampling Results & Maps

Within this 3 km-long area are six discrete zones of elevated soil values, registering between 2 g/t to 200 g/t Ag Eq. that correspond with the target areas previously identified through mapping and rock sampling. Soil sampling expanded these target areas with more continuous coverage where outcrop exposure is limited on the property. These large areas of highly elevated metal-in-soil may represent buried mineralized systems. The soil anomalies defined both by their strong tenor and large areal extent coincide spatially with both the historic and the new vein exposures that together outline the Central Zone and newly defined five additional target areas.

The 2018 soil sampling grid at the Central Zone was designed to expand on previous sampling that showed elevated metals in soils along the main ridge, where most of the previously known mineralized exposures has been identified. When viewed in the context of the area's geology, the new results from the 2018 sampling highlight that the Central Zone is one of a series of roughly 1 to 1.5 km long, east-west to northeast trending zones of mineralization on the property.

Ordinary kriging of the combined 2009, 2017, and 2018 data for economic metals – Ag, Au, Pb, Zn, and Cu (refer to **Figures 16-20**, pages 47-51) – shows several interesting trends. A prominent high is present along the south face of McKay Hill, below the Snowdrift vein and the newly identified Hertl vein, which may indicate that these veins extend along strike into the valley south of McKay Hill. This eastern extend of the Central Zone is not as steep, which increases the likelihood that this anomaly is more than just mineralized float. Further prospecting, mapping, and trenching should be completed in 2019 in order to confirm. There is also highly anomalous chemistry (especially Au, Pb, Zn) around the Falls vein zone (new Spell and Ghost veins). The Bella, No. 8, and No. 9 vein proposed extensions all line up well with anomalous soil chemistry, adding merit to the hypothesis that these are indeed extensions of known veins. The soil grid between Independence Hill and McKay Hill also highlights some anomalous chemistry, especially gold. These results cannot be explained by scree from Independence, as mineralization at the ridge is relatively weak. This suggests that there are potential extensions from McKay Hill towards Independence to the east at lower-level, near the valley floor. Further prospecting is needed in this area in 2019.

The zone of highest interest for follow up both with soil sampling and prospecting in 2019 is the junction between the Red Zone and Bella Zone, both of which have highly anomalous soil chemistry. This information, coupled with the newly interpreted property-scale map, point to this junction having high potential for hosting more mineralized veins. As noted in Section 5.3.1, if the Central Zone is indeed on the limb of an antiform, then mineralization may extend east-northeast of the Central Zone, which is precisely where the junction between the Red Zone and Bella Zone is located. Soil grids and mapping/prospecting traverses have already been planned for 2019.

A correlation matrix of selected base and precious metals concentrations in soils was completed in 2017, which shows very strong (>0.75) correlation coefficients between Ag-Pb, Ag-Zn and Zn-Pb. On the other hand, Ag-Cu, Ag-Au and Pb-Cu have poor correlations (<0.45). This poor correlation between Ag and Au is also seen in the Central Zone, where Au is concentrated at the center of the vein cluster whereas anomalous Ag in soil values occur as a halo to the Au-rich zone. Correlation coefficients for soil data results from a mix of actual metal association in the rock and variable element mobility in soil. For that reason, metal associations highlighted in soil data only is not robust and requires rock assay data to be verified. Preliminary analysis of soil data shows a good metal association between Ag-Pb-Zn, which

indicates that Zn and Pb minerals can be used to target Ag mineralization in the area. Distribution of Au- vs Ag-anomalous soils in the Central Zone also seem to highlight a metal zonation from an Au-rich center to an Ag-rich rim. Work is ongoing to refine these correlations, and an updated matrix encompassing the seven mineralized zones will be completed following the 2019 soil sampling program.

Figure 16. Kriged Soil Results - Ag

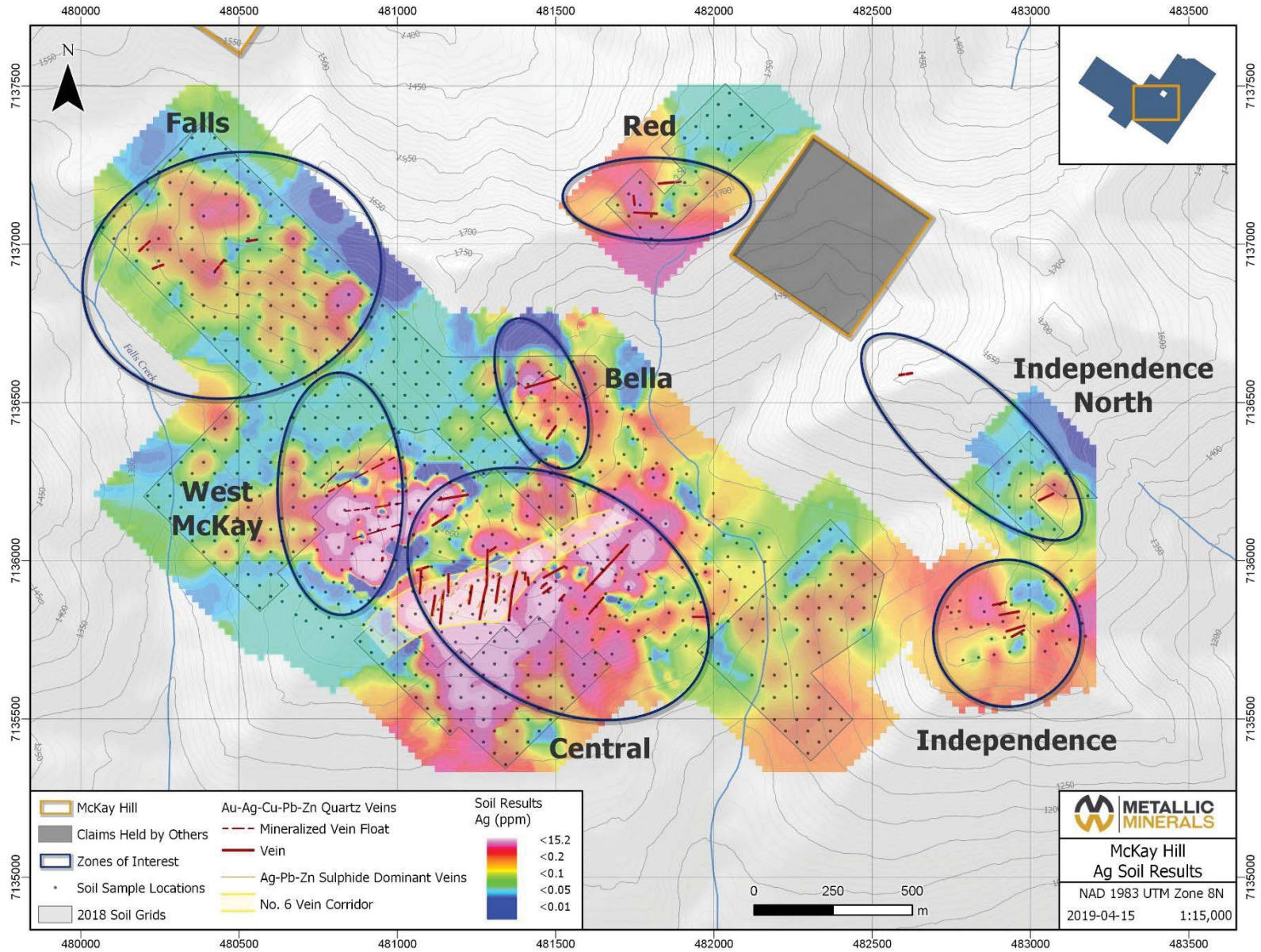


Figure 17. Kriged Soil Results – Au

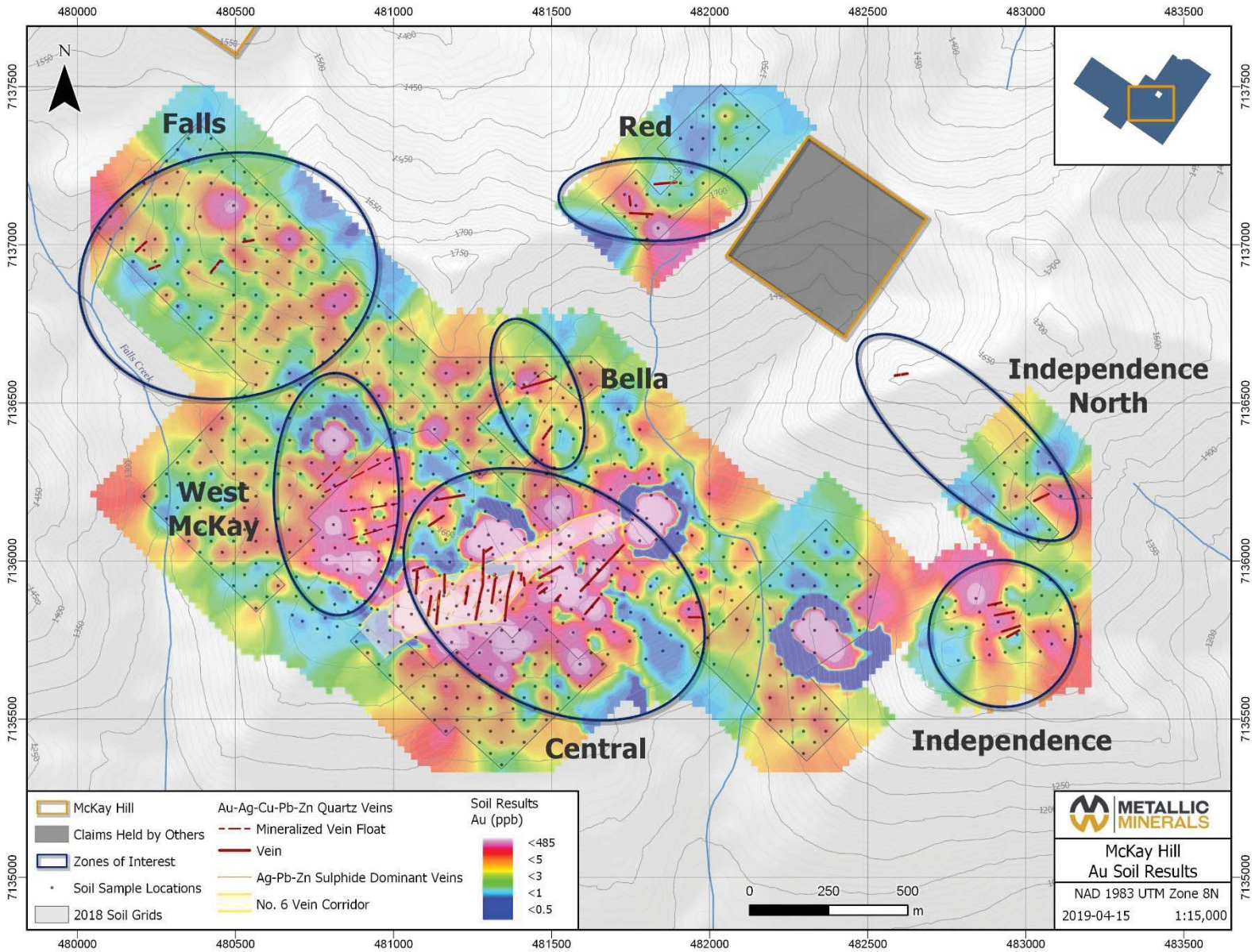


Figure 18. Kriged Soil Results – Pb

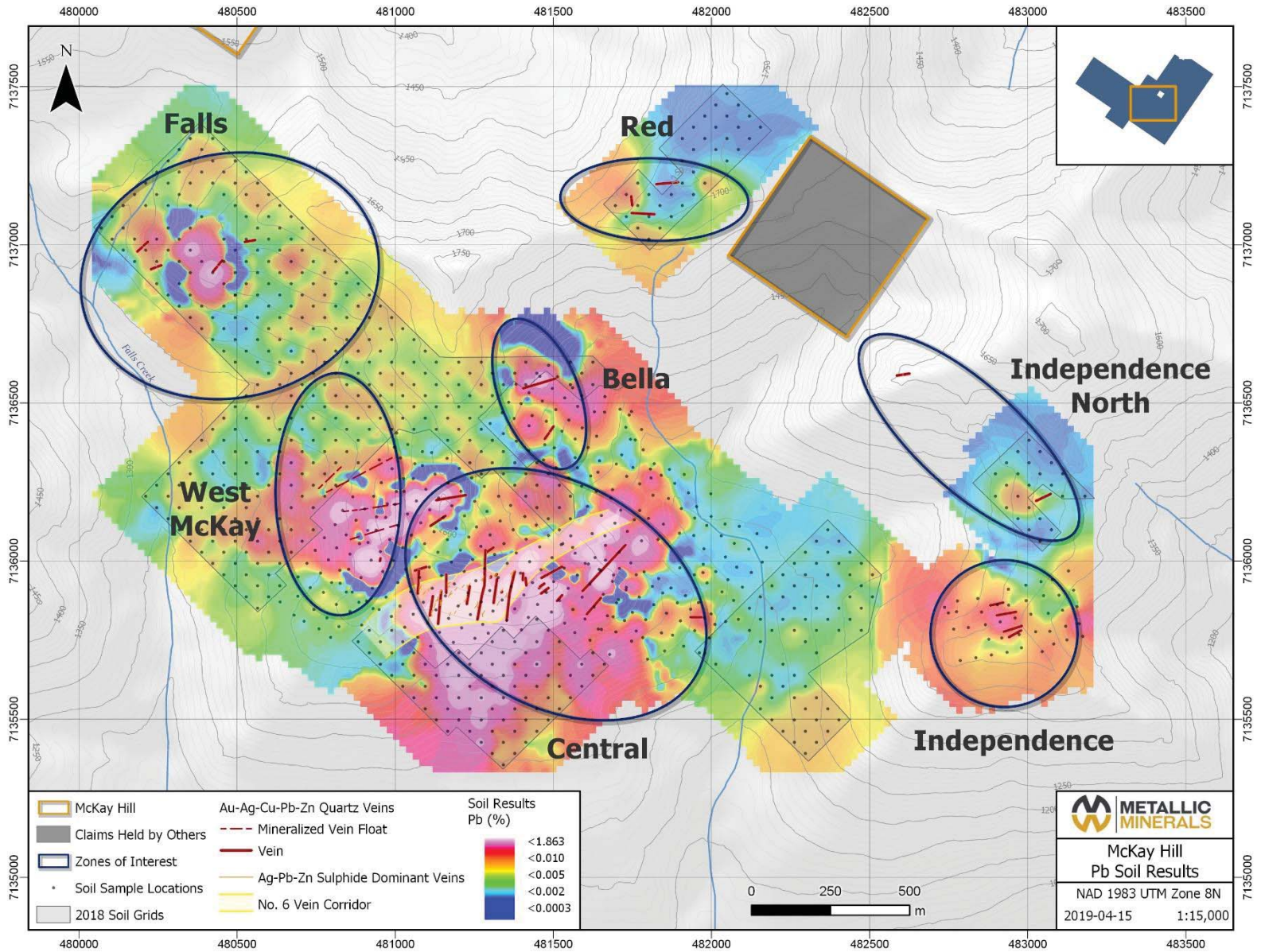


Figure 19. Kriged Soil Results – Zn

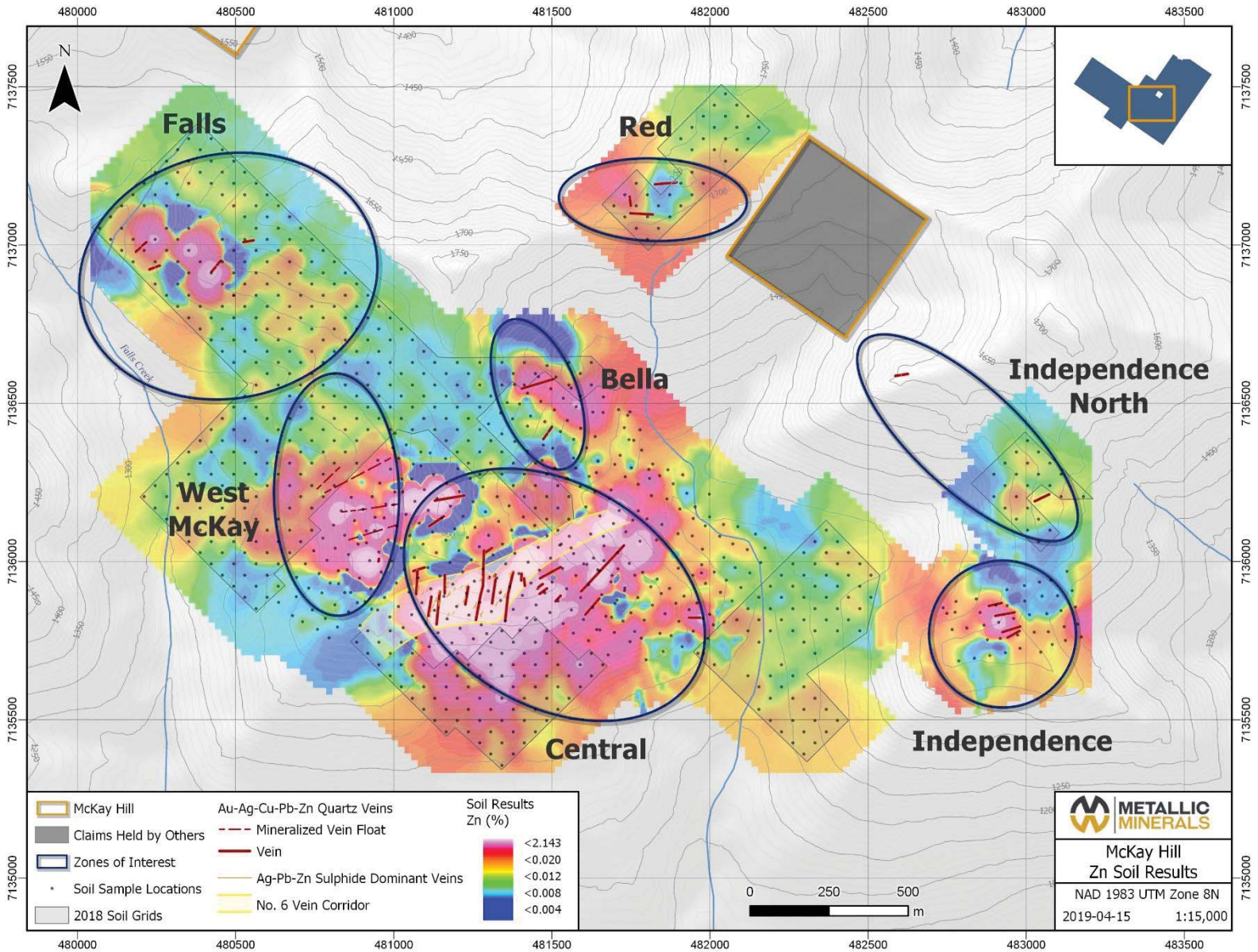
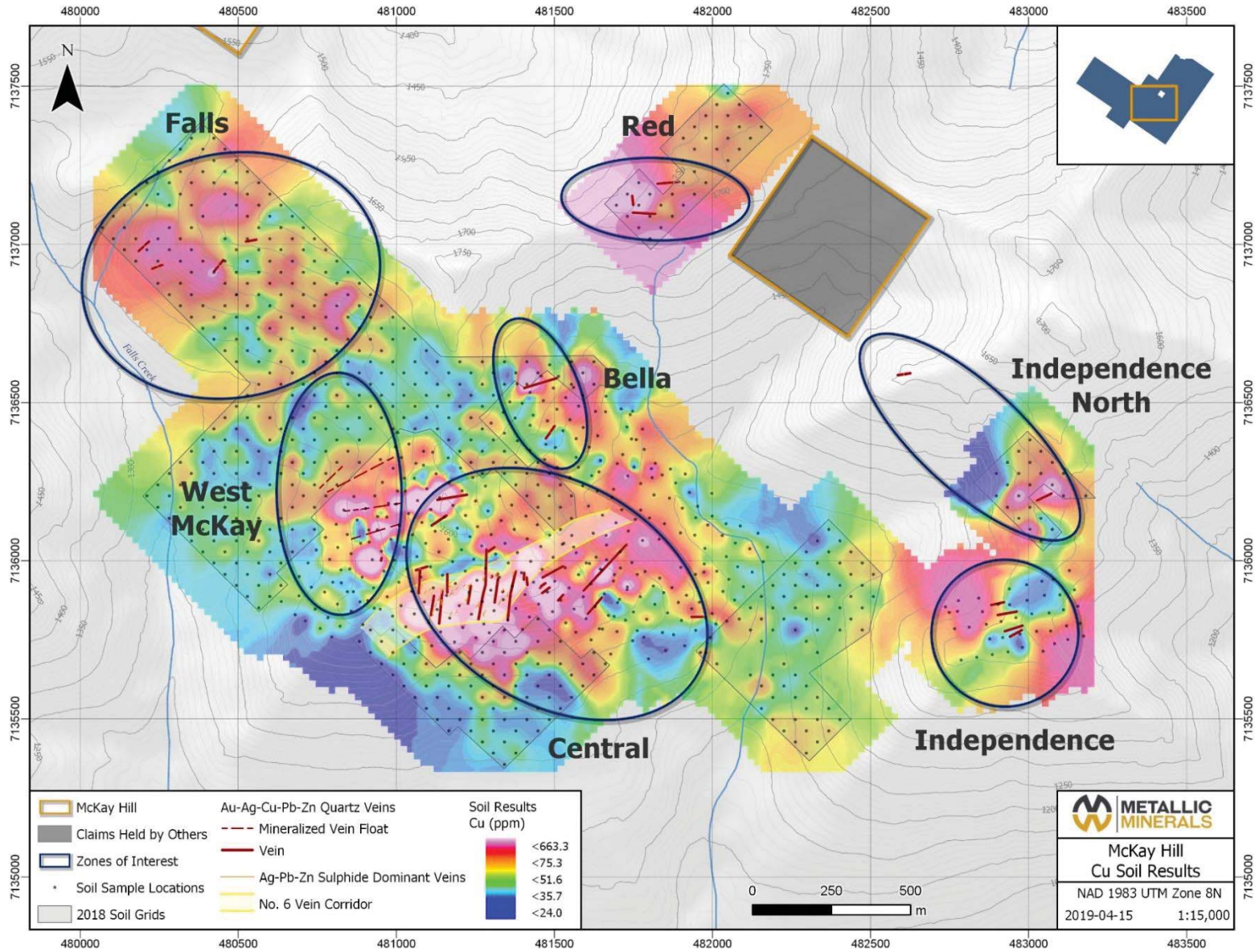


Figure 20. Kriged Soil Results – Cu



5.7 Staking

As a result of aerial surveying, an additional 42 claims (MK 55-96 claims) were staked to expand the property to the west (refer to **Figure 2**, page 7) where the favourable (Marmot Group) stratigraphy is projected. Approximately 4 man-days were spent evaluating the new claims via recce-scale mapping and prospecting along summit and ridge traverses. As a result, a sizable cliff exposing a thick package of listwaenite-altered ultramafics was located (refer to *Photo-plate 5*, below).

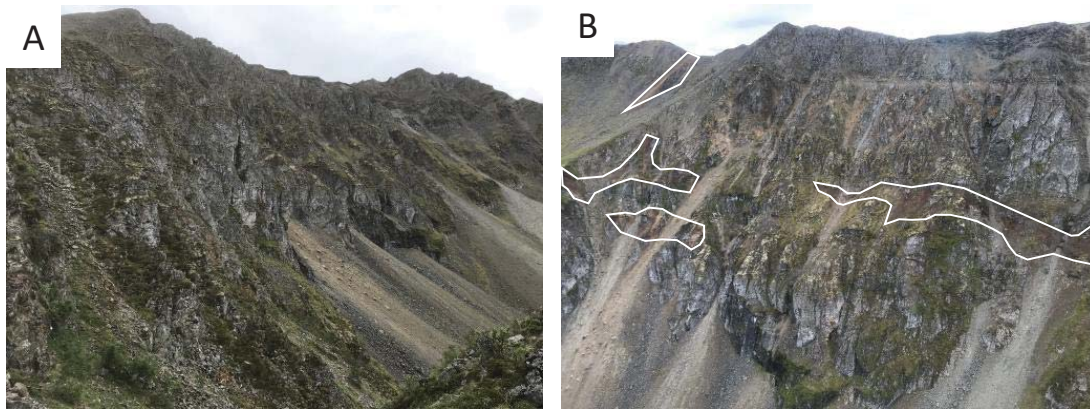


Photo-plate 5. (A) Cliff-forming listwaenite-altered ultramafics exposed on new west McKay Hill claims; (B) Prominent gossanous and Fe±Lim±MnO-altered zones (circled in white) within (supposed) alternating ultramafic-sedimentary package.

Although limited time was spent assessing the newly acquired claims, reconnaissance highlighted numerous gossanous zones which require follow-up.

6 Conclusions

Overall, the 2018 exploration season was deemed successful in demonstrating the property's merit for additional future work. In addition to the significant expansion of the main Central Zone, systematic exploration on the McKay Hill Project over the last two years has also identified and refined six additional surrounding target zones: Bella, Falls, Red, West McKay, Independence and Independence North (**Figure 3**, refer to page 12). These zones previously had seen very little work, and although known mineralized veins were located in bedrock and sampled, it wasn't until this season that more than one vein was located in each zone. In addition, soil work completed over these areas highlighted anomalous Ag-metal chemistry which remains open in multiple directions. The previously untested West McKay zone soil work highlighted an anomaly that appears to be a significant parallel zone to the Central Zone and contains some of the highest soil grades from the survey. These findings coincide with several newly-defined sulphide-bearing quartz veins that were located in 2018 and that have similar orientations as the vein structures seen in the Central Zone. In addition, a step-out trench exposed the Chinook vein, a 020°-trending vein, similar to the No. 6 vein corridor but dipping shallowly, as opposed to near-vertical. A total of 77 rock samples (44 via trenching and 33 via prospecting) were collected at McKay Hill in 2018, along with 571 soil samples. As a result of aerial reconnaissance to the western corner of the claim block, large gossans were observed, and the MK 55-96 claims were added.

Additionally, a preliminary 1:45,000-scale geological map was produced as the result of widespread traverses over the entire claim block. This mapping has resulted in a better understanding of the

stratigraphic and structural constraints on the proposed underlying Marmot Formation geology. Property-scale mapping led to the identification of an unconformable contact between Algae Formation limestone and the Narchilla Formation slate. A thrust contact between the Narchilla Formation slate and the Marmot Formation volcanics was also identified via mapping and orthophotography analysis, which follows regional stratigraphy. The confirmation of these stratigraphic relationships confirms the previously held beliefs that the rocks are of the Dempster volcanics (Marmot Fm.) rather than part of the turbiditic clastic rocks of the Hyland Group, as earlier suggested by Blackburn (2010).

6.1 Central Zone

Work in the Central Zone included historic disturbance tracking, follow-up mapping and prospecting on the No. 6 vein corridor, trenching (Blackhawk, Blackhawk West, No. 4-6 vein junction, No. 8 vein, No. 9 vein and newly discovered Chinook vein), and pad building (excavator landing sites and proposed drill pads).

One of the most significant results from the 2018 season was focused prospecting along the southern face of the Central Zone led to the definition of the No. 6 vein stockwork zone, or vein 'corridor', which appears to trend north-northeast with a current delineated length of ~1 km by 250 m. One hand-trench was laid out within the No. 6 corridor to test the No. 6 junction with the North vein. Unfortunately, as a result of heavy overburden and large blocky talus, bedrock was not reached. This trench will be revisited in future years to test this projected vein-to-vein junction.

In addition, the vein-to-vein junction of the No. 4 vein, a pre-syn mineralization massive quartz vein, with the No. 6 vein corridor was examined near the ridge. This vein was tested via trenching (MHTR-18-19) whereby bedrock was exposed and No. 6 corridor fluids (represented by stockwork replacement-type mineralization) mineralized the vuggy No. 4 quartz vein. Along trend with the No. 4 vein on the north face, similar mineralization was located via prospecting (sample 1480031, reported 339 g/t Ag, 0.119 g/t Au, 49.31% Pb, 5.63% Zn, and 0.08% Cu), suggesting that the No. 6 corridor, is part of a much larger vein stockwork zone that extends through the hillside to the north face of McKay Hill.

6.2 West McKay Zone

Work in the West McKay Zone included trenching along with mapping and prospecting. A highlight at West McKay was the discovery of the Chinook vein via trenching. MH-TR-18-33 was cut mid-season and exposed a new galena ± malachite, sulphur vein with white quartz-ankerite gangue mineralogy. The vein is oriented 020° and appears to be dipping shallowly to the ESE (25°?) with an alteration halo of strong silicification (distal) and pervasive iron-carbonate alteration (proximal). The vein assayed at 270 g/t Ag, 29.82% Pb and 1.47% Zn. Prospecting traverses further west over this area located four mineralized quartz-galena float-trains that may be the extensions of the No. 8, No. 9 and Bella veins. Further follow-up needs to be completed to ascertain whether or not these are the above vein extensions or newly identified veins that will need to be exposed in-situ via trenching or ground-probe work.

6.3 Falls Zone

Work in the Falls Zone included prospecting and mapping along with associated historic disturbance documentation. Two new mineralized veins were discovered (coined the Spell and Ghost veins) during follow-up prospecting from previous seasons while exploring the Falls and Lower Falls veins. Unlike the quartz copper-oxide veins on the ridge in the Central Zone, the Spell vein, which is described as a milky quartz-copper-oxide vein, akin in texture and mineralogy to the high-level Snowdrift and Snowdrift Ext. veins, was located downslope towards Falls Creek (*i.e.*, low-level with respect to topography). The Ghost

vein, located upslope, was situated within a slumped historic open-cut. The mineralization observed at the Ghost vein is very fine-grained to coarse-grained galena vein with sulphurous and malachite-coated clots with local boiling textures and an iron-carbonate halo. The Ghost vein is similar in texture and mineralogy to the Independence 1 vein, both of which are distal to the Central Zone.

Focused zone-scale mapping occurred in the Falls Zone during the 2018 season and resulted in the generation of a Falls Zone geological map, which greatly assisted in the compilation of the property-scale geological map. Major findings include the increased folding in this zone – especially near the Spell vein – and is a prominent feature best displayed in the grit package (as meter scale folds and kink folds) and the slate and mudstones (pencil cleavage). Importantly, Spell, Ghost, and a narrow quartz copper-oxide vein the centre of the zone all appear to be near a fold hinge, possibly creating conduits for mineralizing fluids.

6.4 Bella Zone

Prospecting, mapping, and historic disturbance documentation occurred in the Bella Zone in 2018. Bella No. 2 was discovered during a mapping traverse, when another historic open-cut (MH-HTR-062) was located downslope from the previously identified Bella vein. The Bella No. 2 vein has a higher modal percentage of galena than that of the Bella vein, which is primarily comprised of milky-quartz with open-space prismatic crystals and local copper-oxide (azurite, malachite) mineralization. However, the Bella (No. 1) vein has reported higher Ag-grades to date. Soil sampling highlighted open anomalous Ag-chemistry to the north (towards Red Zone) and to the east (towards Margaret Saddle).

6.5 Red Zone

Work at the Red Zone in 2018 included soil sampling, prospecting and localized mapping. The Red Zone is aptly named for its pervasive ferric-red alteration. Prior to 2018, very limited work had occurred in this area less a couple focused brief prospecting visits from M. Bindig in 2008 and 2009 where he located the Red No. 1 and Red No. 2 veins which were identified by small historic open-cuts. In 2018, while completing soil sampling, mineralized float was located downslope on the north-side of the ridge. This was followed up briefly with localized mapping and tracing the vein to source up-slope. A new vein, with no historic working, the Red No. 3 vein was identified. Unlike the east-trending Red No. 1 and 2 veins, the Red No. 3 vein is trending north and reports higher copper and zinc. All three veins identified in the Red Zone are relatively low-tenor, reporting up to 29 g/t Ag (Red No. 1 vein) and 0.48 g/t Au (Red No. 2 vein; refer to **Table 8**, page 35).

An important note is the Red Zone has some of the highest tenor soil chemistry to date (refer to **Figures 16-20**, pages 47-51). As a result, this soil chemistry may indicate a buried mineralized source. The relatively low-tenor values obtained at surface do not support such a high tenor soil-chemistry. The broad soil Ag-anomaly is open to the south and west towards the Bella and Falls Zones (respectively). This will be infilled in 2019 to complete a coherent surface geochemical assessment. In addition, prospecting and mapping should verify presence of additional at-surface mineralized veins.

6.6 Independence Hill Zone

No additional work was completed at the Independence Hill Zone in the 2018 season. In 2017, Independence Hill was locally mapped and sampled whereby boiling textures in highly-altered volcanic (?) rock surrounding historic trenches which cut a galena vein were noted. An area of approximately 1135 m² of strongly altered (basaltic?) protolith with boiling textures hosting a series of north-northwest – south-southeast oriented historical trenches was observed. 2017 geochemical rock sampling returned

trace precious metal values. Another set of historical trenches less than 100 metres to the north contain vein material of massive galena hosted in a strongly iron-carbonate altered (basaltic?) protolith. A soil grid was centered over the Independence Hill historical trench area in 2017. Results highlight a weakly anomalous silver and moderately anomalous copper lineament on-trend with McKay Hill proper. However, while layering airborne geophysics and underlying favourable geology, the Independence East area looks prospective and should see localized prospecting, mapping and ridge-and-spur soil sampling.

6.7 Independence North Zone

Work in the Independence North Zone in 2018 included a small soil grid (over Snowdrift Ext. vein), historic disturbance tracking, prospecting and localized mapping. The Independence North Zone covers the region north of Independence Ridge proper and currently includes the Snowdrift Ext. and Nash veins. The Snowdrift Extension vein, as aforementioned, is likely not the extension of the Snowdrift vein on McKay Hill ridge within the Central Zone. Despite their similar mineralogy and textures, these two veins have different attitudes and chemistry. However, this may be the result of the potential for offset from the mapped lineament cutting between Independence and McKay Hills. The Snowdrift Ext. vein has reported 98.5 g/t Ag, 0.34 g/t Au and 3.01% Cu (refer to **Table 8**, page 35), significantly lower silver and gold than that of the Snowdrift vein in the Central Zone which has reported up to 668 g/t Ag, 15.6 g/t Au

The Nash vein was located, mapped and sampled in 2018 and is present within a small open-cut. The Nash vein appears to be trending 080° but was not exposed within bedrock, and reported 28.8 g/t Ag, 13.54% Pb, 4.58% Zn and 1.11% Cu (refer to **Table 8**, page 35). The Nash vein is very similar in appearance and mineralogy to the newly identified Ghost vein (Falls Zone). It is plausible that both of these veins have lower-tenor silver as a result of their more easterly-trend, as opposed to the veins in the Central Zone which report higher-grades but trend north-northeast (030°). Both of these veins report higher lead and zinc ratios.

6.8 White Hill Zone

Work in the White Hill Zone was limited to include a short mapping traverse and some geochemical rock sampling at the known White No. 1 and 2 veins, which are described as massive white quartz veins with trace copper-oxide (malachite, azurite) and galena. Both of these veins are mapped along lithological contacts and have less pervasive iron-carbonate alteration halos. To date, these veins have reported low-tenor chemistry with the highest Ag-assay reporting 3.9 g/t Ag. As a result, limited work has been completed in the area, however, ridge-and-spur soil sampling should be completed along White Hill Ridge.

6.9 Property-wide

Outside of the aforementioned zones, reconnaissance prospecting and mapping was completed to 'dart-board' various areas highlighted by aerial geophysics and orthophotography analysis. In particular, the northeastern corner of McKay Hill, covers a large aeromagnetic high and had numerous orange surface expressions identified via orthophotography. Widespread traverses over this area were completed and current findings are that the aeromagnetic high is a result of a large volcanic tuff-agglomerate package. The orange surface expressions were briefly examined, which were large orange lichen patches and not the iron-carbonate indicative of mineralization on the property. However, based upon favourable underlying geology and interpreted lineaments (orthophoto, resistivity and magnetic), the area has merit for further explorative work. As a result, it is recommended that ridge-and-spur soil sampling be completed over the area to examine potential for buried mineralized sources.

In addition, aerial surveying to the west of McKay Hill identified large gossanous zones and the resulting MK 55-96 (YF29201 - YF29242) were staked. Early recce prospecting and mapping has delineated a cliff-forming package of ultramafics with localized listwaenite-alteration (refer to *Photo-plate 5*, page 52). This region has seen very limited work and as a result of the favourable geology and noted gossanous zones, should see ridge-and-spur soil sampling as well as prospecting and mapping in future programs.

7 Recommendations for Future Work

The McKay Hill project is deemed highly prospective. As access is limited and there is very little infrastructure on-site, exploration techniques utilized to date have been limited to prospecting, mapping, trenching, geochemical sampling (soil & rock) and aerial surveying. The authors recommend extensive follow-up and testing of the targets delineated to date as well as helicopter prospecting campaigns in outlying areas. In order to adequately test the mineralization observed on the McKay Hill property, the following recommendations are made:

- Soil Sampling*:
 - Complete a comprehensively sampled grid without gaps that encompasses all eight currently identified mineralized zones:
 - 5 soil grids are planned to infill data gaps from 2018 and will expand soil sampling at the Red, Falls, Bella and Independence zone grids;
 - 27 ridge and spur soil sampling traverses are planned to generate targets outside of the six zones and encompass ridges across the entire property, including the newly staked western claims;
 - Utilization of a portable TerraSpec Halo to assist in real time preliminary analysis of soils, allowing for on-the-fly target adjustments;
- Rock Sampling*:
 - Methodical geochemical sampling via channel sampling on all newly identified veins (if they can be adequately exposed), as well as veins that were not analyzed in 2018. Once collected, this geochemical suite can be used to characterize grade and Ag:Au ratios across the known mineralized zones at McKay Hill:
 - New veins to be channel sampled include: Spell, Ghost, Bella 2, Red 3, Nash, North A-D, and Hertl;
 - Previously identified veins to be channel sampled include: Blackhawk East, No. 1, No. 1 West, No. 3, No. 7, No. 8, North, Bella 1, Red 1 and 2, White 2, Independence 2-4;
 - Utilization of a portable TerraSpec (Halo) to assist in creating a clay-geochemical map;
- Mapping and Prospecting*:
 - Continue property-scale (1:25,000 & 1:50,000) mapping, testing and honing the current interpretation with mapping in areas that have minimal mapping completed;
 - Central Zone:
 - Mapping and prospecting south of Blackhawk, where a grit package was historically mapped. Follow up to confirm extent of this package, as this corresponds with a soil high;
 - Mapping and prospecting between Blackhawk and Blackhawk East, which lacks any mapping;
 - Independence Zone:

- Mapping and prospecting to the east of the Independence veins, which is thought to host a limestone package that may contain skarn-related mineralization;
 - Mapping and prospecting between the Independence veins and Blackhawk East, where an anomalous Au soil response is;
 - Red and Bella Zones:
 - The saddle between these two zones is of highest priority for 2019 mapping and prospecting, as detailed mapping and prospecting will confirm whether this area is the other limb of the highly mineralized Central Zone or possibly bisected by a large fault which may host further mineralization;
 - Falls Zone:
 - Mapping and prospecting traverses to follow up on questions raised during 2018 mapping, including establishing further confidence between the relationship of folding and mineralized veins;
 - West McKay:
 - Prospecting downslope of newly discovered Chinook vein to discern if vein daylights;
 - Property-wide:
 - Traverse along the Algae Formation limestone and Narchilla Formation slate contact to ground truth orthophoto-derived contact;
 - Increased mapping and prospecting to the newly staked west claims, including delineation of the extent of the ultramafic units discovered in 2018;
 - Mapping and prospecting ENE of the Red Zone along a prominent ridge which appears to have the same magnetic response and trend as the Central Zone;
 - Mapping and prospecting east of Independence Zone (2019 Soil Grid 5), which appears to show E-W trending depressions (via orthophoto) that may be historic disturbances.
- Historic Disturbance Documentation*:
 - In conjunction with mapping and prospecting traverses, historic disturbance documentation will occur on areas with disturbance that was not documented in 2018:
 - Red 1 and 2 veins;
 - Independence 1-4 veins;
 - Blackhawk East vein;
 - Unnamed vein NW of Falls Zone;
 - White Hill 1 and 2 veins;
 - Depressions east of Independence Zone (noted above);
 - Falls vein;
- Long-term:
 - Test veins: via bedrock-interface probing and heli-portable RAB drilling (following access development);
 - Hyperspectral surveying: after establishing and characterizing alteration related to mineralized (Au-rich and Ag-rich) veins, conduct a hyperspectral survey combined with high resolution satellite photos already available to generate greenfield targets for prospecting and reconnaissance mapping;
 - VLF (\pm IP): combined VLF-IP ground surveys have proved effective in recognizing structures in the region; potential areas to survey include the valleys to the north and northwest of the central claim area to test iron carbonate-altered gossanous zone and

on lineaments highlighted in the central claims block to identify potential extensions of known veins.

Currently, planning for the 2019 exploration program is underway and includes the above starred recommendations at a proposed budget of approximately \$300,000.00.

8 Bibliography

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9 Statement of Qualifications

I, Lauren Blackburn, of the City of Keno, in the Territory of Yukon, HEREBY CERTIFY:

1. That I am a geologist and that I worked at the property during the summers of 2009, 2010, 2017, and 2018.
2. That I am a graduate of the University of Alberta (B.Sc. Geology, 2007).
3. That I have been engaged in mineral exploration and development and have worked on a full-time basis in Yukon Territory and Mexico since 2006 and in northern Canada (NU, NWT, YT, northern BC) since 2005.
4. That I am an employee of Metallic Minerals Corp. (2017 – present).
5. I consent to the use of this report by Metallic Minerals Corp. for such assessment and/or regulatory and financing purposes deemed necessary.

Dated at Whitehorse, Yukon Territory this 26th day of April 2019.



Lauren Blackburn B.Sc.
Metallic Minerals Corp.
PO Box 28,
Keno City, Yukon Y0B 1M1

I, Taylor Haid, of the City of Vancouver, in the Province of British Columbia, HEREBY CERTIFY:

1. That I am a geologist, and that I worked on the property during the summer of 2018.
2. I am a graduate of the University of Regina (B.Sc. Hons Geology, 2014), and of Western University (M.Sc. Geology & Planetary Science, 2016).
3. I have worked in the field of geology and mineral exploration in Canada (SK, NU, ON) part-time since 2011 (including roles as a geology summer student), and full-time in Yukon Territory and British Columbia since 2016.
4. That I am an employee of Metallic Minerals Corp. (2018 - present).
5. I consent to the use of this report by Metallic Minerals Corp. for such assessment and/or regulatory and financing purposes deemed necessary.

Dated at Vancouver, British Columbia this 26th day of April 2019.

A handwritten signature in black ink, appearing to read 'Taylor Haid', written in a cursive style.

Taylor Haid M.Sc.
Metallic Minerals Corp.
1201-1323 Homer Street,
Vancouver, BC, V6B 5T1

Appendix I. Statement of Expenditures



Statement of Expenditures - Summer 2018 Program (June 9-August 4th)

Prospecting & Mapping

<i>Labour</i>	No. of Days	Rate	Total
Lauren R. Blackburn	54	\$450.00	\$24,300.00
Matthias Bindig	12	\$400.00	\$4,800.00
Mike Linley	33	\$400.00	\$13,200.00
			\$42,300.00

Soil Sampling	No. of Days	Rate	Total
Mammoth Exploration - G. Rondeau	13	\$375.00	\$4,875.00
Mammoth Exploration - T. Quock	6	\$375.00	\$2,250.00
			\$7,125.00

Trenching, Access & Reclamation	No. of Days	Rate	Total
<i>Equipment (16 trenches, ~600m³)</i>			
Stewart Basin Exploration - KH41 Excavator	32	\$900.00	\$28,800.00
<i>Labour</i>			
Taylor Haid (Trench Mapping & Sampling)	38	\$400.00	\$15,200.00
Mike Linley (Hand-trenching)	17	\$400.00	\$6,800.00
Thomas Lee (Hand-trenching)	17	\$300.00	\$5,100.00
			\$55,900.00

Geochemical Assaying	Date	Invoice	Total
Bureau Veritas	Aug/3/2018	VANI307963	\$1,202.45
Bureau Veritas	Aug/10/2018	VANI308414	\$1,365.55
<i>Bureau Veritas (portion of Invoice)</i>	Aug/16/2018	VANI308929	\$1,523.79
Bureau Veritas	Aug/21/2018	VANI309203	\$725.76
Bureau Veritas	Aug/21/2018	VANI309263	\$3,626.53
Bureau Veritas	Aug/21/2018	VANI309286	\$3,805.62
Bureau Veritas	Aug/28/2018	VANI309961	\$385.29
Bureau Veritas	Aug/28/2018	VANI309962	\$4,320.50
<i>Bureau Veritas (portion of Invoice)</i>	Sep/6/2018	VANI310526	\$1,011.93
Bureau Veritas	Sep/6/2018	VANI310524	\$268.87
Bureau Veritas	Sep/6/2018	VANI310527	\$1,122.45
			\$19,358.74

GRAND TOTAL =	\$124,683.74
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Note: ~\$500,000 was spent on the project during the 2018 program which additionally included helicopter support, camp building, expediting and logistics etc. This Statement of Expenditures only includes costs to meet the expenditures required to cover the claims listed in the Schedule A.

Appendix II.

Batch Sheets and Assay Certificates



BUREAU VERITAS MINERAL LABORATORIES
Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Submitted By: Scott Petsel
Receiving Lab: Canada-Whitehorse
Received: June 29, 2018
Report Date: August 03, 2018
Page: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000196.1

CLIENT JOB INFORMATION

Project: McKay Hill
Shipment ID: MH
P.O. Number
Number of Samples: 18

SAMPLE DISPOSAL

RTRN-PLP Return After 90 days
DISP-RJT Dispose of Reject After 60 days

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	18	Crush, split and pulverize 250 g rock to 200 mesh			WHI
AQ202	18	1:1:1 Aqua Regia digestion ICP-MS analysis	30	Completed	VAN
SHP01	18	Per sample shipping charges for branch shipments			VAN
BAT01	18	Batch charge of <20 samples			VAN
FA530-Ag	6	Lead collection fire assay fusion - Grav finish	30	Completed	VAN
EN002	6	Environmental disposal charge-Fire assay lead waste			VAN
MA404	15	4 Acid Digest AAS Finish Vancouver	0.5	Completed	VAN
CV402	8	Hg by 0.5g/10ml Aqua Regia, CVAA	0.5	Completed	VAN
GC817	7	Lead Assay by Classical Titration	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2
Canada

CC: Lauren Blackburn
Samantha Dyck



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
*** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Client: Metallic Minerals Corp.
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Project: McKay Hill
Report Date: August 03, 2018

Page: 2 of 2

Part: 1 of 3

CERTIFICATE OF ANALYSIS

WHI18000196.1

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01	0.001	
1480001	Rock	1.40	<0.1	4149.7	>10000	1524	>100	<0.1	<0.1	5	0.04	83.1	60.2	<0.1	26	86.0	>2000	0.2	<1	<0.01	<0.001
1480002	Rock	0.85	1.8	>10000	>10000	>10000	>100	44.5	19.9	501	1.75	398.8	1930.0	<0.1	37	>2000	>2000	<0.1	8	0.10	0.021
1480003	Rock	0.81	0.3	5466.9	>10000	>10000	>100	1.8	0.5	47	0.35	73.2	2547.3	<0.1	25	341.8	>2000	0.1	<1	0.01	<0.001
1480004	Rock	1.32	0.3	3259.6	>10000	565	>100	0.5	0.2	14	0.10	90.0	26.4	<0.1	42	62.3	>2000	0.5	<1	<0.01	<0.001
1480005	Rock	1.06	0.4	9477.9	>10000	7586	48.6	3.3	1.6	96	0.63	189.9	244.9	<0.1	23	214.2	>2000	25.3	1	<0.01	<0.001
1480007	Rock	0.93	0.4	>10000	9646.3	2143	24.9	11.9	3.7	135	0.75	132.8	389.0	0.2	31	140.4	>2000	3.8	3	0.42	0.014
1480051	Rock	1.87	<0.1	948.3	>10000	>10000	>100	10.0	3.3	1206	2.39	526.6	6.6	<0.1	49	1803.8	1340.7	<0.1	6	0.24	0.013
1480052	Rock	1.35	0.2	>10000	>10000	>10000	74.4	9.6	6.7	57	0.64	774.3	491.8	<0.1	52	179.4	>2000	9.8	2	0.20	0.009
1480053	Rock	1.25	0.4	4592.2	1371.2	756	8.8	31.3	8.4	324	2.25	140.4	20.1	0.3	84	9.4	1361.7	0.3	16	3.68	0.034
1480054	Rock	1.29	4.2	5605.7	>10000	>10000	18.4	20.6	4.7	73	0.45	114.9	2.8	<0.1	320	>2000	>2000	0.2	3	0.13	0.001
1480055	Rock	1.05	1.6	1927.2	>10000	>10000	9.6	68.8	17.5	542	3.64	169.5	<0.5	0.2	557	>2000	1575.9	0.4	24	4.14	0.140
1480056	Rock	1.17	0.5	>10000	>10000	6422	25.2	63.2	14.9	443	2.25	397.3	376.4	0.3	432	207.4	>2000	4.0	15	3.95	0.025
1480057	Rock	1.04	0.3	47.4	591.2	452	0.2	8.0	4.5	636	1.39	3.0	<0.5	1.1	10	6.9	24.8	0.2	7	0.05	0.018
1480058	Rock	0.86	0.7	>10000	>10000	>10000	28.8	5.1	3.8	108	1.56	658.8	17.4	0.2	130	859.8	>2000	19.9	6	0.03	0.010
1480059	Rock	1.00	0.7	43.8	141.6	124	0.1	44.1	36.0	1201	7.81	231.1	2.8	1.5	593	1.1	29.8	<0.1	43	10.32	0.377
1480060	Rock	1.12	0.9	>10000	>10000	>10000	>100	89.9	30.6	629	2.01	404.5	380.8	0.2	69	>2000	>2000	2.8	9	0.09	0.017
1480061	Rock	0.87	0.3	2102.3	>10000	>10000	23.4	14.7	7.2	130	0.90	98.0	35.6	<0.1	39	705.2	1469.0	1.2	9	0.09	0.003
1480062	Rock	0.67	0.4	684.2	>10000	>10000	12.0	64.7	17.1	3902	6.18	257.6	3.7	0.4	155	>2000	>2000	<0.1	20	6.91	0.041



Bureau Veritas Commodities Canada Ltd.

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Project: McKay Hill
Report Date: August 03, 2018

Page: 2 of 2

Part: 2 of 3

CERTIFICATE OF ANALYSIS

WHI18000196.1

Method	Analyte	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	FA530	MA404	MA404
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Cu	Pb
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	%	%
		MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.01	0.05	1	0.5	0.2	20	0.01
1480001	Rock	<1	<1	<0.01	10	<0.001	<1	<0.01	<0.001	<0.01	<0.1	5.25	<0.1	1.3	>10	<1	<0.5	<0.2	342	0.40	>20
1480002	Rock	<1	19	0.06	40	<0.001	<1	0.08	0.008	0.03	<0.1	>50	2.9	0.4	2.34	1	9.0	0.4	255	2.09	>20
1480003	Rock	<1	3	<0.01	13	<0.001	<1	0.01	0.002	<0.01	<0.1	33.05	0.2	0.2	2.92	<1	2.1	<0.2	195	0.54	>20
1480004	Rock	<1	2	<0.01	10	<0.001	<1	<0.01	<0.001	<0.01	<0.1	8.44	0.1	0.7	>10	<1	0.7	<0.2	565	0.31	>20
1480005	Rock	<1	2	<0.01	24	<0.001	<1	0.03	0.005	0.02	<0.1	23.67	0.6	0.2	1.13	<1	49.0	1.6		0.91	8.32
1480007	Rock	<1	4	0.15	22	<0.001	<1	0.04	0.004	0.02	<0.1	30.59	0.7	<0.1	0.17	<1	5.1	0.3		1.25	1.03
1480051	Rock	<1	5	0.10	11	<0.001	1	0.10	0.004	0.03	<0.1	>50	1.2	1.9	4.19	4	3.7	0.2	325	0.09	>20
1480052	Rock	<1	5	<0.01	76	<0.001	8	0.04	0.006	0.01	0.2	>50	0.6	<0.1	0.58	<1	33.6	<0.2		2.56	3.27
1480053	Rock	2	12	0.18	61	0.002	1	0.18	0.021	0.05	<0.1	11.19	6.2	<0.1	0.10	<1	<0.5	<0.2			
1480054	Rock	<1	6	0.09	26	<0.001	<1	0.07	0.004	0.01	<0.1	>50	1.6	4.0	8.00	3	7.3	0.3		0.53	>20
1480055	Rock	<1	25	1.28	71	0.001	2	0.29	0.008	0.06	<0.1	>50	3.1	0.7	2.24	7	10.4	0.3		0.20	17.90
1480056	Rock	<1	25	1.63	55	0.001	1	0.10	0.005	0.05	<0.1	32.35	5.4	<0.1	0.30	<1	13.4	0.6		1.24	2.02
1480057	Rock	5	6	0.24	20	0.012	1	0.55	0.023	0.04	<0.1	1.08	3.1	<0.1	<0.05	2	<0.5	<0.2			
1480058	Rock	7	3	0.02	28	<0.001	<1	0.04	0.003	0.02	<0.1	27.86	1.1	0.3	0.74	<1	8.1	1.0		1.11	13.54
1480059	Rock	16	18	2.48	187	0.005	8	0.71	0.009	0.37	<0.1	0.30	14.4	0.1	1.22	2	<0.5	<0.2			
1480060	Rock	<1	10	0.11	28	0.001	<1	0.11	0.004	0.03	<0.1	>50	2.9	1.0	1.19	2	18.5	0.5	167	2.27	>20
1480061	Rock	1	3	0.03	20	<0.001	<1	0.07	0.004	0.02	0.1	>50	0.1	0.3	0.19	2	3.7	0.3		0.20	3.58
1480062	Rock	4	7	2.11	25	0.001	2	0.19	0.005	0.05	0.3	>50	1.5	0.6	1.82	11	4.0	<0.2		0.06	6.82



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Project: McKay Hill
Report Date: August 03, 2018

Page: 2 of 2

Part: 3 of 3

CERTIFICATE OF ANALYSIS

WHI18000196.1

	Method	MA404	CV402	GC817
		Zn	CVHg	Pb
Analyte	Unit	%	ppm	%
MDL		0.01	0.01	2
1480001	Rock	0.13		82.52
1480002	Rock	23.72	>100	29.34
1480003	Rock	1.63		23.94
1480004	Rock	0.05		81.53
1480005	Rock	0.73		
1480007	Rock	0.21		
1480051	Rock	20.32	94.17	40.35
1480052	Rock	1.47	99.30	
1480053	Rock			
1480054	Rock	11.69	>100	60.93
1480055	Rock	27.36	>100	
1480056	Rock	0.68		
1480057	Rock			
1480058	Rock	4.58		
1480059	Rock			
1480060	Rock	17.71	>100	20.72
1480061	Rock	5.97	>100	
1480062	Rock	23.02	>100	



QUALITY CONTROL REPORT

WHI18000196.1

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01	0.001	
Pulp Duplicates																					
1480002	Rock	0.85	1.8	>10000	>10000	>10000	>100	44.5	19.9	501	1.75	398.8	1930.0	<0.1	37	>2000	>2000	<0.1	8	0.10	0.021
REP 1480002	QC		1.6	>10000	>10000	>10000	>100	46.3	20.9	501	1.75	405.4	1946.0	<0.1	37	>2000	>2000	0.1	8	0.10	0.019
1480004	Rock	1.32	0.3	3259.6	>10000	565	>100	0.5	0.2	14	0.10	90.0	26.4	<0.1	42	62.3	>2000	0.5	<1	<0.01	<0.001
REP 1480004	QC																				
1480052	Rock	1.35	0.2	>10000	>10000	>10000	74.4	9.6	6.7	57	0.64	774.3	491.8	<0.1	52	179.4	>2000	9.8	2	0.20	0.009
REP 1480052	QC																				
Reference Materials																					
STD AGPROOF	Standard																				
STD CPB-2	Standard																				
STD CPB-2	Standard																				
STD CPB-2	Standard																				
STD CPB-2	Standard																				
STD CVHG-4	Standard																				
STD DS11	Standard		13.4	156.7	149.5	361	1.8	80.5	13.5	1057	3.12	45.7	87.4	8.3	68	2.4	9.5	12.3	48	1.07	0.075
STD OREAS134B	Standard																				
STD OREAS133A	Standard																				
STD OREAS623	Standard																				
STD OXC129	Standard		1.2	28.0	6.7	44	<0.1	82.8	20.5	430	3.09	0.7	199.8	1.9	191	<0.1	<0.1	<0.1	51	0.69	0.108
STD OXQ114	Standard																				
STD SP49	Standard																				
STD OXC129 Expected			1.3	28	6.2	42.9		79.5	20.3	421	3.065	0.6	195	1.9					51	0.684	0.102
STD DS11 Expected			14.6	149	138	345	1.71	77.7	14.2	1055	3.1	42.8	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701
STD AGPROOF Expected																					
STD SP49 Expected																					
STD OXQ114 Expected																					
STD OREAS134B Expected																					
STD OREAS133A Expected																					
STD CVHG-4 Expected																					



Bureau Veritas Commodities Canada Ltd.
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Client: Metallic Minerals Corp.
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Project: McKay Hill
Report Date: August 03, 2018

Page: 1 of 2

Part: 2 of 3

QUALITY CONTROL REPORT

WHI18000196.1

Method	Analyte	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	FA530	MA404	
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Cu	Pb
Unit		ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	%	%
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	20	0.01	0.01	
Pulp Duplicates																					
1480002	Rock	<1	19	0.06	40	<0.001	<1	0.08	0.008	0.03	<0.1	>50	2.9	0.4	2.34	1	9.0	0.4	255	2.09	>20
REP 1480002	QC	<1	20	0.06	42	<0.001	<1	0.08	0.009	0.03	<0.1	>50	2.7	0.3	2.33	1	6.1	0.6		2.10	>20
1480004	Rock	<1	2	<0.01	10	<0.001	<1	<0.01	<0.001	<0.01	<0.1	8.44	0.1	0.7	>10	<1	0.7	<0.2	565	0.31	>20
REP 1480004	QC																				
1480052	Rock	<1	5	<0.01	76	<0.001	8	0.04	0.006	0.01	0.2	>50	0.6	<0.1	0.58	<1	33.6	<0.2		2.56	3.27
REP 1480052	QC																				
Reference Materials																					
STD AGPROOF	Standard																		91		
STD CPB-2	Standard																				
STD CPB-2	Standard																				
STD CPB-2	Standard																				
STD CVHG-4	Standard																				
STD DS11	Standard	19	59	0.85	342	0.099	9	1.18	0.072	0.41	3.1	0.31	3.4	5.2	0.26	5	2.1	4.5			
STD OREAS134B	Standard																			0.12	13.65
STD OREAS133A	Standard																			0.03	5.08
STD OREAS623	Standard																				
STD OXC129	Standard	12	52	1.58	50	0.413	1	1.63	0.577	0.38	<0.1	<0.01	2.0	<0.1	<0.05	6	<0.5	<0.2			
STD OXQ114	Standard																			124	
STD SP49	Standard																			61	
STD OXC129 Expected		12.5	52	1.545	50	0.4	1	1.58	0.59	0.3655			1.1			5.5					
STD DS11 Expected		18.6	61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	0.26	3.4	4.9	0.2835	5.1	2.2	4.56			
STD AGPROOF Expected																				94	
STD SP49 Expected																				60.2	
STD OXQ114 Expected																				127.1	
STD OREAS134B Expected																				0.1348	13.36
STD OREAS133A Expected																				0.0323	4.9
STD CVHG-4 Expected																					



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Project: McKay Hill
Report Date: August 03, 2018

Page: 1 of 2

Part: 3 of 3

QUALITY CONTROL REPORT

WHI18000196.1

Method	MA404	CV402	GC817
Analyte	Zn	CVHg	Pb
Unit	%	ppm	%
MDL	0.01	0.01	2
Pulp Duplicates			
1480002	Rock	23.72	>100 29.34
REP 1480002	QC	23.07	
1480004	Rock	0.05	81.53
REP 1480004	QC		81.67
1480052	Rock	1.47	99.30
REP 1480052	QC		>100
Reference Materials			
STD AGPROOF	Standard		
STD CPB-2	Standard		63.49
STD CPB-2	Standard		63.55
STD CPB-2	Standard		63.26
STD CPB-2	Standard		63.82
STD CVHG-4	Standard	0.77	
STD DS11	Standard		
STD OREAS134B	Standard	17.94	
STD OREAS133A	Standard	10.62	
STD OREAS623	Standard	0.77	
STD OXC129	Standard		
STD OXQ114	Standard		
STD SP49	Standard		
STD OXC129 Expected			
STD DS11 Expected			
STD AGPROOF Expected			
STD SP49 Expected			
STD OXQ114 Expected			
STD OREAS134B Expected		18.03	
STD OREAS133A Expected		10.87	
STD CVHG-4 Expected		0.743	



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Page: 2 of 2

Part: 1 of 3

QUALITY CONTROL REPORT

WHI18000196.1

		WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01	0.001
STD OREAS623 Expected																					
STD CPB-2 Expected																					
BLK	Blank		<0.1	<0.1	0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.001
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
Prep Wash																					
ROCK-WHI	Prep Blank		0.8	3.3	2.1	38	<0.1	0.7	3.7	563	1.77	1.6	<0.5	2.2	30	<0.1	<0.1	<0.1	21	0.63	0.043
ROCK-WHI	Prep Blank		0.7	4.9	2.4	41	<0.1	0.7	3.9	584	1.79	1.4	<0.5	2.1	26	<0.1	<0.1	<0.1	22	0.81	0.043



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Project: McKay Hill
Report Date: August 03, 2018

Page: 2 of 2

Part: 2 of 3

QUALITY CONTROL REPORT

WHI18000196.1

		AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	FA530	MA404	
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Cu	Pb
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	%	%
STD OREAS623 Expected		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	20	0.01	0.01
STD CPB-2 Expected																					
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2			
BLK	Blank																		<20		
BLK	Blank																			<0.01	<0.01
BLK	Blank																				
Prep Wash																					
ROCK-WHI	Prep Blank	7	2	0.49	72	0.073	3	1.06	0.143	0.13	<0.1	<0.01	5.0	<0.1	<0.05	4	<0.5	<0.2			
ROCK-WHI	Prep Blank	6	2	0.50	64	0.079	<1	1.08	0.140	0.13	<0.1	<0.01	4.6	<0.1	<0.05	4	<0.5	<0.2			



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Page: 2 of 2

Part: 3 of 3

QUALITY CONTROL REPORT

WHI18000196.1

		MA404	CV402	GC817
		Zn	CVHg	Pb
		%	ppm	%
		0.01	0.01	2
STD OREAS623 Expected			0.79	
STD CPB-2 Expected				63.52
BLK	Blank			
BLK	Blank			
BLK	Blank	<0.01		
BLK	Blank		<0.01	
Prep Wash				
ROCK-WHI	Prep Blank			
ROCK-WHI	Prep Blank			



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Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Submitted By: Scott Petsel
Receiving Lab: Canada-Whitehorse
Received: July 06, 2018
Report Date: August 20, 2018
Page: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000273.1

CLIENT JOB INFORMATION

Project: McKay Hill
Shipment ID: MH
P.O. Number
Number of Samples: 16

SAMPLE DISPOSAL

RTRN-PLP Return After 90 days
DISP-RJT Dispose of Reject After 60 days

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	16	Crush, split and pulverize 250 g rock to 200 mesh			WHI
AQ202	16	1:1:1 Aqua Regia digestion ICP-MS analysis	30	Completed	VAN
SHP01	16	Per sample shipping charges for branch shipments			VAN
BAT01	16	Batch charge of <20 samples			VAN
FA530-Ag	3	Lead collection fire assay fusion - Grav finish	30	Completed	VAN
EN002	3	Environmental disposal charge-Fire assay lead waste			VAN
MA404	6	4 Acid Digest AAS Finish Vancouver	0.5	Completed	VAN
CV402	2	Hg by 0.5g/10ml Aqua Regia, CVAA	0.5	Completed	VAN
GC817	1	Lead Assay by Classical Titration	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Metallic Minerals Corp.
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2
Canada

CC: Lauren Blackburn
Samantha Dyck



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
*** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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Report Date: August 20, 2018

Page: 2 of 2

Part: 1 of 3

CERTIFICATE OF ANALYSIS

WHI18000273.1

Method	Analyte	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	
		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P		
		kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%		
		MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01	0.001	
1480008	Rock	4.17	0.4	7573.6	64.1	5539	22.0	10.0	2.9	72	0.56	178.7	83.7	<0.1	24	74.4	>2000	2.9	1	0.46	0.004		
1480009	Rock	2.73	0.2	730.7	>10000	>10000	33.2	6.4	1.8	126	0.73	339.3	214.3	0.1	14	222.7	904.0	1.9	5	0.04	0.006		
1480101	Rock	1.65	0.4	104.5	210.7	275	0.5	65.1	17.1	1502	7.62	225.2	34.2	1.6	161	3.1	27.8	<0.1	19	7.44	0.145		
1480102	Rock	1.15	0.8	19.7	270.5	839	0.2	40.3	9.4	505	2.11	76.3	14.1	0.2	146	5.8	22.8	<0.1	6	3.55	0.008		
1480103	Rock	1.39	0.4	81.6	86.8	269	0.2	201.2	46.9	1820	8.32	386.0	161.0	0.8	205	2.0	16.9	<0.1	26	9.49	0.180		
1480104	Rock	1.06	1.1	95.5	212.9	2477	0.3	163.4	33.3	1398	8.71	395.1	9.7	1.0	58	14.5	27.0	<0.1	60	3.40	0.221		
1480105	Rock	1.09	0.8	118.7	3326.4	2117	2.5	33.0	9.9	454	2.38	434.2	162.5	0.6	18	14.2	64.9	<0.1	17	0.18	0.044		
1480106	Rock	1.13	1.4	396.2	4937.6	9377	2.3	153.6	47.4	1883	8.67	1465.9	315.4	1.2	94	100.4	225.7	<0.1	30	6.46	0.164		
1480107	Rock	2.92	0.9	716.8	>10000	>10000	>100	9.2	4.8	134	0.91	136.5	549.7	0.2	45	1706.1	289.0	0.2	5	0.11	0.015		
1480108	Rock	5.58	0.7	56.6	183.4	2787	0.2	72.7	39.1	1610	9.20	98.9	<0.5	3.7	425	24.5	11.9	<0.1	181	7.30	0.377		
1480109	Rock	3.65	0.6	469.1	>10000	>10000	25.1	15.3	6.9	541	2.22	778.7	102.0	0.4	29	558.8	752.9	0.6	17	0.20	0.030		
1480110	Rock	2.10	1.3	339.3	>10000	>10000	13.2	48.1	33.2	1494	8.29	1054.8	23.8	3.0	243	349.8	170.2	<0.1	56	5.38	0.316		
1480111	Rock	3.35	0.2	427.9	>10000	>10000	>100	9.9	4.4	209	2.06	3321.8	224.9	<0.1	63	1077.8	392.8	1.8	10	0.14	0.016		
1480112	Rock	1.19	0.2	30.7	167.8	643	0.1	40.0	16.6	575	4.07	6.2	0.6	10.4	9	4.2	4.1	0.2	9	0.06	0.036		
1480113	Rock	1.73	1.0	3140.9	>10000	>10000	>100	43.3	21.1	895	5.14	95.0	98.8	1.9	195	361.0	>2000	1.5	49	5.52	0.286		
1480114	Rock	1.85	0.8	70.2	218.5	356	0.3	159.7	39.4	1273	8.20	128.1	2.8	4.3	430	2.5	17.5	<0.1	76	9.65	0.473		



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Project: McKay Hill
Report Date: August 20, 2018

Page: 2 of 2

Part: 2 of 3

CERTIFICATE OF ANALYSIS

WHI18000273.1

Method	Analyte	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	FA530	MA404	MA404
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Pb	Zn
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	%	%
		MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.01	0.01	0.1	0.01	0.05	1	0.5	0.2	20	0.01
1480008	Rock	<1	6	0.04	17	<0.001	2	0.03	0.006	<0.01	<0.1	10.46	0.4	<0.1	0.22	<1	1.4	<0.2			
1480009	Rock	5	8	0.04	22	0.006	<1	0.07	0.005	<0.01	<0.1	12.75	0.9	0.2	0.54	<1	5.0	0.3		4.63	1.37
1480101	Rock	7	34	0.55	104	0.002	4	0.76	0.011	0.23	<0.1	0.53	12.0	<0.1	0.22	2	<0.5	<0.2			
1480102	Rock	2	4	0.08	16	0.002	<1	0.05	0.004	0.02	<0.1	0.26	2.0	<0.1	<0.05	<1	<0.5	<0.2			
1480103	Rock	9	58	0.48	85	0.003	<1	0.67	0.026	0.19	<0.1	0.28	13.1	<0.1	0.14	1	<0.5	<0.2			
1480104	Rock	11	96	0.11	81	0.002	2	0.76	0.048	0.10	<0.1	0.57	16.7	0.2	<0.05	2	<0.5	<0.2			
1480105	Rock	4	26	0.05	38	0.005	1	0.25	0.013	0.05	<0.1	4.73	3.9	<0.1	<0.05	1	<0.5	<0.2			
1480106	Rock	5	53	0.15	82	0.002	5	0.56	0.038	0.19	<0.1	2.42	15.7	0.4	0.18	1	<0.5	<0.2			
1480107	Rock	<1	7	0.05	19	0.004	11	0.10	<0.001	<0.01	0.1	>50	7.0	0.4	3.02	2	2.7	<0.2	128	>20	12.37
1480108	Rock	62	126	2.27	201	0.040	<1	2.53	0.012	0.12	<0.1	0.66	13.8	0.1	0.09	12	<0.5	<0.2			
1480109	Rock	4	14	0.11	41	0.014	<1	0.17	0.005	0.03	<0.1	18.91	2.3	0.2	0.41	1	2.9	<0.2		3.82	5.90
1480110	Rock	38	37	1.19	167	0.009	6	0.81	0.064	0.23	<0.1	6.99	9.7	0.3	0.21	3	1.1	<0.2		1.90	4.21
1480111	Rock	2	9	0.10	22	0.006	13	0.12	<0.001	<0.01	<0.1	>50	1.0	0.5	1.91	2	17.3	0.3	102	16.24	8.57
1480112	Rock	32	17	0.25	88	0.005	6	1.02	0.014	0.26	<0.1	0.45	4.6	<0.1	<0.05	3	<0.5	<0.2			
1480113	Rock	19	34	1.10	69	0.003	1	0.52	0.048	0.09	<0.1	25.26	8.0	0.4	1.01	2	3.5	<0.2	105	14.31	1.71
1480114	Rock	43	168	2.74	99	0.005	3	0.85	0.085	0.19	<0.1	0.49	12.6	0.1	<0.05	3	<0.5	<0.2			



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Page: 2 of 2

Part: 3 of 3

CERTIFICATE OF ANALYSIS

WHI18000273.1

Method	Analyte	CV402	GC817
		CVHg	Pb
Unit		ppm	%
MDL		0.01	2
1480008	Rock		
1480009	Rock		
1480101	Rock		
1480102	Rock		
1480103	Rock		
1480104	Rock		
1480105	Rock		
1480106	Rock		
1480107	Rock	>100	27.24
1480108	Rock		
1480109	Rock		
1480110	Rock		
1480111	Rock	73.65	
1480112	Rock		
1480113	Rock		
1480114	Rock		



QUALITY CONTROL REPORT

WHI18000273.1

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01	0.001	
Pulp Duplicates																					
1480107	Rock	2.92	0.9	716.8	>10000	>10000	>100	9.2	4.8	134	0.91	136.5	549.7	0.2	45	1706.1	289.0	0.2	5	0.11	0.015
REP 1480107	QC																				
REP 1480109	QC																				
1480110	Rock	2.10	1.3	339.3	>10000	>10000	13.2	48.1	33.2	1494	8.29	1054.8	23.8	3.0	243	349.8	170.2	<0.1	56	5.38	0.316
REP 1480110	QC		1.2	334.9	>10000	>10000	13.3	46.0	32.9	1496	8.30	1068.7	27.0	3.1	237	356.7	176.9	<0.1	57	5.40	0.324
1480111	Rock	3.35	0.2	427.9	>10000	>10000	>100	9.9	4.4	209	2.06	3321.8	224.9	<0.1	63	1077.8	392.8	1.8	10	0.14	0.016
REP 1480111	QC																				
1480114	Rock	1.85	0.8	70.2	218.5	356	0.3	159.7	39.4	1273	8.20	128.1	2.8	4.3	430	2.5	17.5	<0.1	76	9.65	0.473
REP 1480114	QC		0.8	67.5	210.2	344	0.3	159.4	38.6	1251	8.03	125.0	1.0	4.3	408	2.3	18.0	<0.1	76	9.43	0.448
Core Reject Duplicates																					
1480109	Rock	3.65	0.6	469.1	>10000	>10000	25.1	15.3	6.9	541	2.22	778.7	102.0	0.4	29	558.8	752.9	0.6	17	0.20	0.030
DUP 1480109	QC		0.4	582.9	>10000	>10000	28.9	18.6	8.7	634	2.62	1004.3	98.5	0.5	38	591.0	922.5	0.6	24	0.29	0.038
Reference Materials																					
STD AGPROOF	Standard																				
STD CPB-2	Standard																				
STD CPB-2	Standard																				
STD CVHG-4	Standard																				
STD DS11	Standard		14.5	153.5	141.2	344	1.8	80.3	13.8	1039	3.11	42.8	74.2	7.7	61	2.3	6.9	10.6	49	1.05	0.074
STD DS11	Standard		14.7	147.5	129.4	330	1.7	79.2	14.0	1053	3.27	43.0	81.1	7.7	66	2.6	7.5	11.2	49	1.06	0.068
STD OREAS134B	Standard																				
STD OREAS133A	Standard																				
STD OREAS134B	Standard																				
STD OREAS133A	Standard																				
STD OREAS623	Standard																				
STD OXC129	Standard		1.2	27.1	7.0	41	<0.1	80.6	20.4	428	3.09	<0.5	197.8	1.9	186	<0.1	<0.1	<0.1	52	0.74	0.103
STD OXC129	Standard		1.3	27.3	8.3	47	<0.1	79.8	20.8	415	3.17	0.7	175.9	1.8	189	0.1	0.1	<0.1	52	0.70	0.094
STD OXQ114	Standard																				
STD SP49	Standard																				



QUALITY CONTROL REPORT

WHI18000273.1

Method Analyte Unit MDL	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	FA530	MA404		
	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Te ppm	Ag gm/t	Pb %	Zn %		
Pulp Duplicates																						
1480107	Rock	<1	7	0.05	19	0.004	11	0.10	<0.001	<0.01	0.1	>50	7.0	0.4	3.02	2	2.7	<0.2	128	>20	12.37	
REP 1480107	QC																		146			
REP 1480109	QC																				4.27	5.79
1480110	Rock	38	37	1.19	167	0.009	6	0.81	0.064	0.23	<0.1	6.99	9.7	0.3	0.21	3	1.1	<0.2		1.90	4.21	
REP 1480110	QC	38	37	1.20	164	0.010	4	0.81	0.065	0.23	<0.1	7.17	9.8	0.3	0.22	3	<0.5	<0.2				
1480111	Rock	2	9	0.10	22	0.006	13	0.12	<0.001	<0.01	<0.1	>50	1.0	0.5	1.91	2	17.3	0.3	102	16.24	8.57	
REP 1480111	QC																					
1480114	Rock	43	168	2.74	99	0.005	3	0.85	0.085	0.19	<0.1	0.49	12.6	0.1	<0.05	3	<0.5	<0.2				
REP 1480114	QC	43	169	2.69	101	0.004	1	0.82	0.085	0.18	<0.1	0.50	12.6	0.1	<0.05	3	0.6	<0.2				
Core Reject Duplicates																						
1480109	Rock	4	14	0.11	41	0.014	<1	0.17	0.005	0.03	<0.1	18.91	2.3	0.2	0.41	1	2.9	<0.2		3.82	5.90	
DUP 1480109	QC	6	18	0.14	52	0.018	<1	0.23	0.006	0.03	<0.1	18.03	2.9	0.2	0.45	2	4.2	<0.2		4.09	5.78	
Reference Materials																						
STD AGPROOF	Standard																			97		
STD CPB-2	Standard																					
STD CPB-2	Standard																					
STD CVHG-4	Standard																					
STD DS11	Standard	18	60	0.84	360	0.095	8	1.17	0.072	0.40	2.7	0.27	3.3	4.8	0.26	5	1.8	4.6				
STD DS11	Standard	19	59	0.84	370	0.095	7	1.19	0.073	0.45	2.8	0.28	3.2	4.9	0.28	5	1.8	5.0				
STD OREAS134B	Standard																			13.35	17.72	
STD OREAS133A	Standard																			4.78	10.44	
STD OREAS134B	Standard																			13.70	17.69	
STD OREAS133A	Standard																			4.85	10.71	
STD OREAS623	Standard																					
STD OXC129	Standard	13	55	1.55	51	0.415	<1	1.63	0.585	0.37	<0.1	<0.01	0.8	<0.1	<0.05	6	<0.5	<0.2				
STD OXC129	Standard	12	53	1.50	50	0.397	<1	1.58	0.606	0.43	<0.1	<0.01	0.9	<0.1	<0.05	5	<0.5	<0.2				
STD OXQ114	Standard																			128		
STD SP49	Standard																			64		



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Project: McKay Hill
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Page: 1 of 2

Part: 3 of 3

QUALITY CONTROL REPORT

WHI18000273.1

Method	CV402	GC817
Analyte	CVHg	Pb
Unit	ppm	%
MDL	0.01	2
Pulp Duplicates		
1480107	Rock	>100 27.24
REP 1480107	QC	
REP 1480109	QC	
1480110	Rock	
REP 1480110	QC	
1480111	Rock	73.65
REP 1480111	QC	73.21
1480114	Rock	
REP 1480114	QC	
Core Reject Duplicates		
1480109	Rock	
DUP 1480109	QC	
Reference Materials		
STD AGPROOF	Standard	
STD CPB-2	Standard	63.39
STD CPB-2	Standard	63.56
STD CVHG-4	Standard	0.77
STD DS11	Standard	
STD DS11	Standard	
STD OREAS134B	Standard	
STD OREAS133A	Standard	
STD OREAS134B	Standard	
STD OREAS133A	Standard	
STD OREAS623	Standard	0.77
STD OXC129	Standard	
STD OXC129	Standard	
STD OXQ114	Standard	
STD SP49	Standard	



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Page: 2 of 2

Part: 1 of 3

QUALITY CONTROL REPORT

WHI18000273.1

	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01	0.001	
STD OXC129 Expected		1.3	28	6.2	42.9		79.5	20.3	421	3.065	0.6	195	1.9					51	0.684	0.102	
STD DS11 Expected		14.6	149	138	345	1.71	77.7	14.2	1055	3.1	42.8	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701	
STD AGPROOF Expected																					
STD SP49 Expected																					
STD OXQ114 Expected																					
STD CVHG-4 Expected																					
STD OREAS623 Expected																					
STD OREAS134B Expected																					
STD OREAS133A Expected																					
STD CPB-2 Expected																					
BLK	Blank	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.001	
BLK	Blank	<0.1	0.2	<0.1	<1	<0.1	0.2	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	2	<0.01	<0.001	
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
Prep Wash																					
ROCK-WHI	Prep Blank	1.5	3.9	1.6	34	<0.1	2.0	4.0	571	1.78	1.2	<0.5	2.1	32	<0.1	<0.1	<0.1	22	0.71	0.041	
ROCK-WHI	Prep Blank	1.0	3.4	1.4	34	<0.1	1.5	4.0	589	1.88	1.2	<0.5	2.1	27	<0.1	<0.1	<0.1	22	0.65	0.040	



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Project: McKay Hill
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Page: 2 of 2

Part: 2 of 3

QUALITY CONTROL REPORT

WHI18000273.1

	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	FA530	MA404
	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Pb	Zn
	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	%	%
	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	20	0.01	0.01
STD OXC129 Expected	12.5	52	1.545	50	0.4	1	1.58	0.59	0.3655			1.1			5.5					
STD DS11 Expected	18.6	61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	0.26	3.4	4.9	0.2835	5.1	2.2	4.56			
STD AGPROOF Expected																		94		
STD SP49 Expected																		60.2		
STD OXQ114 Expected																		127.1		
STD CVHG-4 Expected																				
STD OREAS623 Expected																				
STD OREAS134B Expected																			13.36	18.03
STD OREAS133A Expected																			4.9	10.87
STD CPB-2 Expected																				
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2		
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2		
BLK	Blank																	<20		
BLK	Blank																		<0.01	<0.01
BLK	Blank																		<0.01	<0.01
BLK	Blank																			
Prep Wash																				
ROCK-WHI	Prep Blank	6	4	0.51	60	0.085	2	1.06	0.097	0.12	<0.1	<0.01	3.4	<0.1	<0.05	4	<0.5	<0.2		
ROCK-WHI	Prep Blank	6	3	0.52	68	0.075	3	1.01	0.100	0.11	<0.1	<0.01	3.2	<0.1	<0.05	4	<0.5	<0.2		



Bureau Veritas Commodities Canada Ltd.
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PHONE (604) 253-3158

Client: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Project: McKay Hill
Report Date: August 20, 2018

Page: 2 of 2

Part: 3 of 3

QUALITY CONTROL REPORT

WHI18000273.1

	CV402	GC817
	CVHg	Pb
	ppm	%
	0.01	2
STD OXC129 Expected		
STD DS11 Expected		
STD AGPROOF Expected		
STD SP49 Expected		
STD OXQ114 Expected		
STD CVHG-4 Expected	0.743	
STD OREAS623 Expected	0.79	
STD OREAS134B Expected		
STD OREAS133A Expected		
STD CPB-2 Expected		63.52
BLK	Blank	
BLK	Blank	
BLK	Blank	
BLK	Blank	
BLK	Blank	<0.01
BLK	Blank	
Prep Wash		
ROCK-WHI	Prep Blank	
ROCK-WHI	Prep Blank	



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Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
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Client: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Submitted By: Scott Petsel
Receiving Lab: Canada-Whitehorse
Received: July 13, 2018
Report Date: September 01, 2018
Page: 1 of 3

CERTIFICATE OF ANALYSIS

WHI18000335.1

CLIENT JOB INFORMATION

Project: McKay Hill
Shipment ID: MH
P.O. Number: McKay Hill
Number of Samples: 40

SAMPLE DISPOSAL

RTRN-PLP Return After 90 days
DISP-RJT Dispose of Reject After 60 days

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	40	Crush, split and pulverize 250 g rock to 200 mesh			WHI
AQ202	40	1:1:1 Aqua Regia digestion ICP-MS analysis	30	Completed	VAN
SHP01	40	Per sample shipping charges for branch shipments			VAN
MA404	19	4 Acid Digest AAS Finish Vancouver	0.5	Completed	VAN
FA530-Ag	8	Lead collection fire assay fusion - Grav finish	30	Completed	VAN
EN002	8	Environmental disposal charge-Fire assay lead waste			VAN
CV402	1	Hg by 0.5g/10ml Aqua Regia, CVAA	0.5	Completed	VAN
GC817	1	Lead Assay by Classical Titration	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Metallic Minerals Corp.
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2
Canada

CC: Lauren Blackburn
Samantha Dyck



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
*** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

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Project: McKay Hill
Report Date: September 01, 2018

Page: 2 of 3

Part: 1 of 3

CERTIFICATE OF ANALYSIS

WHI18000335.1

Method	Analyte	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
Unit	MDL	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01	0.001
1480010	Rock	2.00	4.3	330.2	812.2	573	1.8	91.9	50.6	8442	32.79	5.9	<0.5	40.9	251	1.2	2.2	3.7	247	1.46	0.027
1480011	Rock	1.43	9.7	520.9	584.4	568	0.9	69.4	45.5	4455	25.95	9.8	<0.5	70.9	66	1.2	2.5	1.9	409	0.60	0.048
1480012	Rock	2.22	0.4	>10000	212.5	691	>100	61.6	84.7	2138	14.37	51.5	23.3	57.0	55	2.4	2.1	2.4	37	0.26	0.141
1480013	Rock	1.31	0.8	4627.9	55.6	612	1.9	94.6	56.3	7714	6.57	13.6	<0.5	12.7	34	3.7	1.9	0.3	36	2.38	0.043
1480014	Rock	1.00	11.5	>10000	1351.5	689	>100	52.7	20.5	306	7.85	31.5	47.1	0.7	7	3.0	5.5	3.0	14	0.04	0.005
1480015	Rock	1.54	4.7	>10000	744.4	1180	>100	30.4	27.5	2100	4.95	70.0	36.3	0.4	19	3.7	7.3	0.6	7	1.57	0.004
1480016	Rock	1.21	1.0	>10000	148.7	68	9.9	59.4	28.7	993	3.16	35.3	11.1	0.3	56	0.5	4.1	0.3	11	4.58	0.006
1480017	Rock	1.05	104.8	157.4	1378.1	1768	2.5	77.5	5.0	761	>40	55.6	<0.5	0.4	2	10.7	17.9	27.1	71	0.14	0.051
1480018	Rock	0.77	2.8	262.3	>10000	3324	15.6	77.5	32.2	76	5.60	69.6	<0.5	0.1	6	22.2	22.4	0.3	>10000	0.13	0.001
1480019	Rock	0.93	2.4	75.6	>10000	191	13.5	2.5	0.7	38	1.72	40.1	<0.5	0.5	2	1.0	17.1	0.1	5587	<0.01	0.004
1480020	Rock	0.98	5.4	55.0	>10000	135	12.6	1.2	0.1	39	2.82	35.8	1.3	0.4	3	0.8	18.7	0.4	>10000	<0.01	0.003
1480021	Rock	0.91	0.3	14.4	>10000	73	17.8	1.0	0.3	35	0.31	1.1	<0.5	0.2	<1	0.5	2.7	<0.1	55	<0.01	0.001
1480022	Rock	0.93	3.0	32.8	753.4	6375	1.2	44.2	12.3	3487	4.29	2.2	<0.5	77.4	419	20.0	3.3	1.3	31	7.40	0.006
1480023	Rock	0.96	5.6	1836.4	>10000	1026	>100	11.8	4.3	3768	3.60	17.1	5.5	11.2	103	12.6	597.8	2.3	18	12.10	0.036
1480024	Rock	1.24	40.7	1579.3	>10000	>10000	>100	11.0	8.9	919	2.12	16.2	46.5	5.0	25	734.2	658.8	6.3	14	0.47	0.013
1480025	Rock	1.17	8.1	87.9	8805.1	9475	17.9	37.4	12.6	2234	3.42	0.8	<0.5	10.7	221	37.3	64.5	1.5	14	2.90	0.014
1480026	Rock	2.48	59.2	84.6	1586.2	>10000	9.0	22.9	13.5	1041	1.94	5.5	2.6	5.8	114	112.5	46.1	5.3	13	1.59	0.031
1480027	Rock	0.79	21.2	68.7	>10000	105	20.3	29.6	9.5	1463	1.73	10.7	<0.5	32.1	30	1.5	36.9	2.9	19	3.64	0.032
1480028	Rock	1.35	5.6	168.5	>10000	2284	>100	13.3	1.7	375	0.99	6.2	18.5	2.7	16	17.1	412.5	12.1	7	0.36	0.008
1480115	Rock	2.65	1.1	2384.8	>10000	>10000	42.7	139.0	36.1	1289	5.49	151.9	42.1	2.3	225	834.8	>2000	1.0	68	4.98	0.195
1480116	Rock	2.69	0.9	1324.4	7116.0	>10000	4.4	110.3	35.6	1357	6.48	98.8	2.7	4.7	137	495.8	148.9	0.3	60	5.62	0.220
1480117	Rock	2.22	1.4	121.2	2652.8	2096	2.4	65.3	27.1	1058	5.48	43.9	<0.5	10.1	52	18.0	35.1	0.4	24	1.21	0.106
1480118	Rock	2.00	0.9	194.8	>10000	>10000	8.9	12.8	10.4	493	1.69	38.8	18.0	1.2	9	173.6	141.5	0.2	6	0.12	0.010
1480119	Rock	2.48	0.9	>10000	>10000	>10000	>100	6.2	3.6	108	0.67	152.7	944.8	0.1	35	1663.0	>2000	7.9	4	0.05	0.007
1480251	Rock	2.48	0.3	50.8	535.1	195	0.8	8.0	2.6	173	0.67	2.0	2.5	0.1	38	4.6	48.8	<0.1	4	0.56	0.025
1480252	Rock	1.99	1.9	>10000	3108.8	582	>100	241.5	56.1	1301	16.81	269.9	34.3	11.1	63	3.1	156.1	6.3	36	1.40	0.022
1480253	Rock	1.58	0.6	7598.1	231.0	177	15.4	39.9	18.5	4404	6.89	9.2	5.4	11.3	126	1.1	108.4	0.4	40	3.83	0.008
1480254	Rock	2.17	0.9	154.3	158.6	79	0.4	72.8	27.7	167	2.99	2.1	<0.5	2.3	8	0.5	2.7	0.1	30	0.65	0.039
1480255	Rock	3.05	1.4	66.9	300.5	598	0.8	77.0	37.4	49	3.77	53.3	<0.5	3.4	5	5.2	11.7	0.1	17	0.12	0.059
1480256	Rock	2.87	18.0	68.5	245.8	357	0.5	42.1	5.6	828	3.86	23.8	0.8	5.6	4	1.2	1.7	0.1	40	0.10	0.052



Bureau Veritas Commodities Canada Ltd.

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Project: McKay Hill
Report Date: September 01, 2018

Page: 2 of 3

Part: 2 of 3

CERTIFICATE OF ANALYSIS

WHI18000335.1

Method	Analyte	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	MA404	MA404	MA404	
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Cu	Pb	Zn
Unit		ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	%	%	
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.01	0.01	0.01	0.05	1	0.5	0.2	0.01	0.01	0.01	
1480010	Rock	6	18	1.16	272	0.002	2	0.20	0.003	0.18	>100	<0.01	4.5	0.1	0.15	<1	<0.5	<0.2			
1480011	Rock	9	8	0.36	125	0.001	<1	0.29	0.003	0.24	30.0	0.03	5.3	0.1	<0.05	1	<0.5	<0.2			
1480012	Rock	24	11	0.35	58	0.002	<1	0.26	0.004	0.18	1.7	4.72	3.5	0.2	2.60	<1	1.6	<0.2	6.83	0.03	0.07
1480013	Rock	21	5	1.66	201	0.001	<1	0.60	0.006	0.39	2.6	0.13	7.3	0.2	0.12	1	<0.5	<0.2			
1480014	Rock	5	6	0.65	3	0.012	<1	0.46	0.005	0.03	0.2	1.06	6.0	0.2	0.09	2	35.8	1.1	1.24	0.14	0.07
1480015	Rock	3	4	0.56	13	0.005	1	0.39	0.004	0.02	0.1	0.53	5.7	0.3	1.48	1	49.5	<0.2	3.99	0.08	0.12
1480016	Rock	4	7	0.83	7	0.012	2	0.54	0.006	0.02	0.1	0.11	6.1	<0.1	0.12	1	14.5	<0.2	3.89	0.02	0.01
1480017	Rock	2	10	0.24	72	<0.001	<1	0.16	<0.001	0.03	<0.1	0.61	3.0	2.8	<0.05	1	<0.5	<0.2			
1480018	Rock	<1	22	0.07	37	0.002	<1	0.21	0.003	0.30	0.3	1.64	<0.1	1.4	5.29	3	<0.5	<0.2	0.03	3.15	0.34
1480019	Rock	2	23	0.04	54	0.017	2	0.32	0.003	0.37	0.2	2.99	0.3	0.9	0.57	3	<0.5	<0.2	0.01	3.11	0.02
1480020	Rock	2	8	0.05	86	0.022	3	0.35	0.002	0.83	1.1	1.06	0.3	1.5	1.16	6	<0.5	<0.2	0.01	3.36	<0.01
1480021	Rock	2	4	<0.01	6	<0.001	<1	0.05	0.001	0.04	<0.1	1.80	<0.1	<0.1	<0.05	<1	<0.5	<0.2	<0.01	1.77	<0.01
1480022	Rock	3	9	3.63	24	<0.001	2	0.06	0.008	0.01	0.2	4.94	4.4	<0.1	3.18	<1	0.8	<0.2			
1480023	Rock	2	2	5.31	146	<0.001	2	0.12	0.010	0.07	0.4	1.34	2.4	<0.1	0.43	<1	0.9	<0.2	0.18	2.97	0.11
1480024	Rock	6	3	0.26	45	<0.001	<1	0.12	0.002	0.07	0.6	23.16	0.8	0.1	2.70	10	10.3	<0.2	0.15	14.67	11.37
1480025	Rock	2	6	1.50	19	<0.001	2	0.12	0.003	0.04	1.5	10.18	1.3	<0.1	3.05	<1	2.8	<0.2			
1480026	Rock	8	5	0.80	59	0.001	3	0.22	0.005	0.11	1.3	9.17	1.2	<0.1	0.99	2	1.9	<0.2	0.02	0.17	2.29
1480027	Rock	14	6	1.34	134	<0.001	2	0.16	0.006	0.10	2.2	0.14	2.1	<0.1	0.70	<1	<0.5	<0.2	0.02	4.61	<0.01
1480028	Rock	1	2	0.19	22	<0.001	<1	0.02	<0.001	0.01	0.2	1.30	0.9	0.8	8.76	<1	4.3	<0.2	0.02	>20	0.22
1480115	Rock	17	114	0.99	85	0.003	4	0.90	0.019	0.09	<0.1	45.99	12.0	0.3	0.33	4	2.8	0.2	0.23	5.60	10.79
1480116	Rock	20	92	1.01	88	0.002	<1	1.04	0.025	0.16	<0.1	2.79	12.0	0.1	0.11	3	1.2	<0.2	0.13	0.68	2.34
1480117	Rock	29	39	0.24	114	0.001	3	0.85	0.024	0.27	<0.1	1.95	7.3	0.1	<0.05	2	<0.5	<0.2			
1480118	Rock	3	7	0.08	41	0.001	1	0.14	0.006	0.08	<0.1	7.34	2.6	<0.1	0.15	<1	<0.5	<0.2	0.03	1.12	1.82
1480119	Rock	<1	9	0.03	21	<0.001	<1	0.02	<0.001	0.02	<0.1	>50	<0.1	0.3	2.78	2	25.9	1.1	1.13	14.74	9.54
1480251	Rock	2	10	0.09	7	<0.001	<1	0.14	0.004	<0.01	<0.1	0.62	0.3	<0.1	<0.05	<1	<0.5	<0.2			
1480252	Rock	<1	4	0.70	16	<0.001	1	0.04	0.002	0.02	0.3	2.57	3.1	<0.1	0.77	<1	13.7	0.4	2.16	0.30	0.06
1480253	Rock	<1	4	2.35	24	<0.001	<1	0.03	0.005	0.02	0.7	0.41	4.1	<0.1	0.46	<1	<0.5	<0.2			
1480254	Rock	9	102	0.32	46	0.011	4	0.60	0.003	0.42	<0.1	0.07	9.6	0.7	0.88	1	<0.5	<0.2			
1480255	Rock	9	145	0.19	35	0.008	4	0.52	0.003	0.36	<0.1	0.32	2.4	0.7	3.68	2	<0.5	<0.2			
1480256	Rock	16	8	0.45	16	0.002	3	0.87	0.004	0.22	<0.1	0.03	1.2	<0.1	<0.05	4	1.1	<0.2			



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Project: McKay Hill
Report Date: September 01, 2018

Page: 2 of 3

Part: 3 of 3

CERTIFICATE OF ANALYSIS

WHI18000335.1

Method	FA530	CV402	GC817
Analyte	Ag	CVHg	Pb
Unit	gm/t	ppm	%
MDL	20	0.01	2
1480010	Rock		
1480011	Rock		
1480012	Rock	98	
1480013	Rock		
1480014	Rock	286	
1480015	Rock	116	
1480016	Rock		
1480017	Rock		
1480018	Rock		
1480019	Rock		
1480020	Rock		
1480021	Rock		
1480022	Rock		
1480023	Rock	106	
1480024	Rock	291	
1480025	Rock		
1480026	Rock		
1480027	Rock		
1480028	Rock	277	67.44
1480115	Rock		
1480116	Rock		
1480117	Rock		
1480118	Rock		
1480119	Rock	331	>100
1480251	Rock		
1480252	Rock	101	
1480253	Rock		
1480254	Rock		
1480255	Rock		
1480256	Rock		



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Page: 3 of 3

Part: 1 of 3

CERTIFICATE OF ANALYSIS

WHI18000335.1

Method	Analyte	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%
		MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01
1480257	Rock	3.23	0.8	1350.3	571.3	361	7.5	288.2	439.6	810	18.26	49.7	46.4	0.2	4	0.6	3.0	2.0	200	0.07	0.028
1480258	Rock	1.30	2.0	40.7	365.6	34	2.4	286.8	612.1	205	30.51	112.1	41.4	0.1	<1	0.1	3.8	18.5	68	0.03	0.017
1480259	Rock	3.21	0.4	34.4	26.1	40	0.1	44.3	11.2	2323	4.17	<0.5	2.6	<0.1	22	0.2	1.1	<0.1	26	1.85	0.005
1480260	Rock	4.46	2.5	25.9	32.8	42	0.4	54.1	11.0	2040	4.53	24.6	1.1	0.4	6	0.1	21.2	0.4	14	0.24	0.027
1480261	Rock	0.78	0.4	79.8	1151.0	272	1.8	9.9	6.7	1275	2.14	2.5	0.9	2.2	103	1.0	2.1	0.7	13	6.87	0.020
1480262	Rock	4.31	5.8	96.0	>10000	73	38.8	36.1	9.1	1856	4.33	32.7	1.9	3.6	141	1.7	69.7	1.7	186	12.79	0.007
1480263	Rock	2.38	2.6	49.9	94.7	151	0.3	30.8	8.4	2270	4.89	19.5	<0.5	2.4	134	1.3	1.9	0.1	141	17.52	0.032
1480264	Rock	3.74	1.5	29.8	182.2	133	0.3	19.1	3.6	1487	2.48	4.0	<0.5	5.9	89	0.8	1.3	<0.1	44	8.00	0.057
1480265	Rock	1.10	0.4	124.2	58.8	243	0.4	88.3	41.3	1611	8.45	15.1	<0.5	<0.1	91	0.3	0.5	0.7	328	2.87	0.033
1480266	Rock	1.64	1.7	415.2	28.5	1635	1.0	28.4	6.9	1499	4.17	66.9	<0.5	4.0	149	14.8	0.9	<0.1	144	14.05	0.046



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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Client: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Project: McKay Hill
Report Date: September 01, 2018

Page: 3 of 3

Part: 2 of 3

CERTIFICATE OF ANALYSIS

WHI18000335.1

Method	Analyte	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	MA404	MA404	MA404
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Cu	Pb	Zn
Unit		ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	%	%
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	0.01	0.01	0.01	
1480257	Rock	4	47	2.33	9	0.170	<1	2.89	0.002	0.07	<0.1	0.23	16.3	0.2	>10	11	3.9	1.1			
1480258	Rock	<1	30	1.49	8	0.003	2	1.84	0.002	0.25	<0.1	0.32	5.1	1.1	>10	4	8.9	1.4			
1480259	Rock	<1	8	1.61	5	0.003	<1	1.37	0.015	0.01	<0.1	0.02	3.9	<0.1	0.05	3	<0.5	<0.2			
1480260	Rock	<1	10	0.55	6	<0.001	<1	0.04	0.005	0.03	<0.1	0.22	1.1	0.1	1.23	<1	1.2	<0.2			
1480261	Rock	3	5	2.81	24	<0.001	2	0.13	0.008	0.10	<0.1	0.13	3.0	<0.1	0.06	<1	1.1	<0.2			
1480262	Rock	2	3	5.38	53	<0.001	<1	0.04	0.014	0.03	0.3	0.08	2.7	<0.1	0.93	<1	0.8	<0.2	0.01	7.12	0.01
1480263	Rock	13	8	7.18	26	0.001	1	0.15	0.017	0.12	<0.1	0.04	5.5	0.2	0.14	<1	0.7	<0.2			
1480264	Rock	11	12	3.49	37	0.003	2	0.36	0.017	0.20	<0.1	0.03	4.1	<0.1	0.06	1	0.6	<0.2			
1480265	Rock	2	131	4.81	49	0.064	1	4.63	0.014	0.28	<0.1	<0.01	31.8	0.4	0.05	14	<0.5	<0.2			
1480266	Rock	9	19	5.38	12	0.002	<1	0.12	0.030	0.06	<0.1	0.57	4.9	<0.1	0.21	<1	0.6	<0.2			



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Project: McKay Hill
Report Date: September 01, 2018

Page: 3 of 3

Part: 3 of 3

CERTIFICATE OF ANALYSIS

WHI18000335.1

Method	FA530	CV402	GC817
Analyte	Ag	CVHg	Pb
Unit	gm/t	ppm	%
MDL	20	0.01	2
1480257	Rock		
1480258	Rock		
1480259	Rock		
1480260	Rock		
1480261	Rock		
1480262	Rock		
1480263	Rock		
1480264	Rock		
1480265	Rock		
1480266	Rock		



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Project: McKay Hill
Report Date: September 01, 2018

Page: 1 of 2

Part: 1 of 3

QUALITY CONTROL REPORT

WHI18000335.1

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01	0.001	
Pulp Duplicates																					
1480116	Rock	2.69	0.9	1324.4	7116.0	>10000	4.4	110.3	35.6	1357	6.48	98.8	2.7	4.7	137	495.8	148.9	0.3	60	5.62	0.220
REP 1480116	QC																				
REP 1480119	QC																				
1480251	Rock	2.48	0.3	50.8	535.1	195	0.8	8.0	2.6	173	0.67	2.0	2.5	0.1	38	4.6	48.8	<0.1	4	0.56	0.025
REP 1480251	QC		0.3	47.4	518.8	174	0.8	7.6	2.7	165	0.65	1.9	0.9	0.1	36	5.0	45.9	<0.1	3	0.53	0.024
Core Reject Duplicates																					
1480119	Rock	2.48	0.9	>10000	>10000	>10000	>100	6.2	3.6	108	0.67	152.7	944.8	0.1	35	1663.0	>2000	7.9	4	0.05	0.007
DUP 1480119	QC		0.9	>10000	>10000	>10000	>100	6.7	3.9	111	0.70	147.9	1013.8	0.1	31	1679.7	>2000	6.2	4	0.06	0.008
Reference Materials																					
STD AGPROOF	Standard																				
STD CPB-2	Standard																				
STD CPB-2	Standard																				
STD CVHG-4	Standard																				
STD DS11	Standard		15.7	159.2	150.3	342	1.7	78.4	14.6	1043	3.20	44.0	97.5	8.4	68	2.4	7.4	13.0	51	1.10	0.074
STD DS11	Standard		13.4	152.5	130.2	331	1.7	76.8	13.0	1038	3.14	41.5	61.9	7.5	65	2.2	7.1	10.9	51	1.08	0.069
STD OREAS134B	Standard																				
STD OREAS133A	Standard																				
STD OREAS134B	Standard																				
STD OREAS133A	Standard																				
STD OREAS623	Standard																				
STD OXC129	Standard		1.4	29.8	8.0	45	<0.1	82.5	21.0	427	3.07	0.9	200.0	2.1	199	<0.1	<0.1	<0.1	54	0.69	0.104
STD OXC129	Standard		1.3	26.3	6.7	42	<0.1	78.1	20.4	416	3.06	0.8	199.8	1.8	196	<0.1	<0.1	<0.1	54	0.67	0.100
STD OXQ114	Standard																				
STD SP49	Standard																				
STD OXC129 Expected			1.3	28	6.2	42.9		79.5	20.3	421	3.065	0.6	195	1.9					51	0.684	0.102
STD DS11 Expected			14.6	149	138	345	1.71	77.7	14.2	1055	3.1	42.8	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701
STD AGPROOF Expected																					
STD SP49 Expected																					



QUALITY CONTROL REPORT

WHI18000335.1

Method	Analyte	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	Cu	Pb	Zn	MA404
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te					
Unit		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	%	%		
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	0.01	0.01	0.01		
Pulp Duplicates																							
1480116	Rock	20	92	1.01	88	0.002	<1	1.04	0.025	0.16	<0.1	2.79	12.0	0.1	0.11	3	1.2	<0.2	0.13	0.68	2.34		
REP 1480116	QC																		0.13	0.68	2.36		
REP 1480119	QC																						
1480251	Rock	2	10	0.09	7	<0.001	<1	0.14	0.004	<0.01	<0.1	0.62	0.3	<0.1	<0.05	<1	<0.5	<0.2					
REP 1480251	QC	2	10	0.08	7	<0.001	<1	0.14	0.004	<0.01	<0.1	0.57	0.4	<0.1	<0.05	<1	<0.5	<0.2					
Core Reject Duplicates																							
1480119	Rock	<1	9	0.03	21	<0.001	<1	0.02	<0.001	0.02	<0.1	>50	<0.1	0.3	2.78	2	25.9	1.1	1.13	14.74	9.54		
DUP 1480119	QC	<1	11	0.04	20	<0.001	<1	0.02	<0.001	0.02	<0.1	>50	0.5	0.3	2.68	2	20.7	1.0	1.06	14.65	9.82		
Reference Materials																							
STD AGPROOF	Standard																						
STD CPB-2	Standard																						
STD CPB-2	Standard																						
STD CVHG-4	Standard																						
STD DS11	Standard	20	66	0.86	385	0.096	8	1.18	0.076	0.42	3.0	0.27	3.6	5.4	0.28	5	1.9	4.7					
STD DS11	Standard	18	59	0.85	355	0.096	6	1.15	0.074	0.41	2.6	0.25	3.2	4.6	0.28	5	1.6	4.7					
STD OREAS134B	Standard																		0.13	13.33	17.54		
STD OREAS133A	Standard																		0.03	4.92	10.56		
STD OREAS134B	Standard																		0.14	13.25	18.07		
STD OREAS133A	Standard																		0.04	4.94	10.85		
STD OREAS623	Standard																						
STD OXC129	Standard	13	57	1.51	51	0.414	2	1.62	0.606	0.38	<0.1	<0.01	1.1	<0.1	<0.05	6	<0.5	<0.2					
STD OXC129	Standard	13	52	1.54	51	0.408	<1	1.59	0.617	0.38	<0.1	0.01	0.9	<0.1	<0.05	5	<0.5	<0.2					
STD OXQ114	Standard																						
STD SP49	Standard																						
STD OXC129 Expected		12.5	52	1.545	50	0.4	1	1.58	0.59	0.3655			1.1			5.5							
STD DS11 Expected		18.6	61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	0.26	3.4	4.9	0.2835	5.1	2.2	4.56					
STD AGPROOF Expected																							
STD SP49 Expected																							



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Client: **Metallic Minerals Corp.**
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Project: McKay Hill
Report Date: September 01, 2018

Page: 1 of 2

Part: 3 of 3

QUALITY CONTROL REPORT

WHI18000335.1

Method	FA530	CV402	GC817
Analyte	Ag	CVHg	Pb
Unit	gm/t	ppm	%
MDL	20	0.01	2
Pulp Duplicates			
1480116	Rock		
REP 1480116	QC		
REP 1480119	QC	>100	
1480251	Rock		
REP 1480251	QC		
Core Reject Duplicates			
1480119	Rock	331	>100
DUP 1480119	QC	301	>100
Reference Materials			
STD AGPROOF	Standard	97	
STD CPB-2	Standard		64.17
STD CPB-2	Standard		63.34
STD CVHG-4	Standard	0.71	
STD DS11	Standard		
STD DS11	Standard		
STD OREAS134B	Standard		
STD OREAS133A	Standard		
STD OREAS134B	Standard		
STD OREAS133A	Standard		
STD OREAS623	Standard	0.72	
STD OXC129	Standard		
STD OXC129	Standard		
STD OXQ114	Standard	126	
STD SP49	Standard	57	
STD OXC129 Expected			
STD DS11 Expected			
STD AGPROOF Expected		94	
STD SP49 Expected		60.2	



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Page: 2 of 2

Part: 1 of 3

QUALITY CONTROL REPORT

WHI18000335.1

		WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01	0.001
STD OXQ114 Expected																					
STD OREAS134B Expected																					
STD OREAS133A Expected																					
STD CVHG-4 Expected																					
STD OREAS623 Expected																					
STD CPB-2 Expected																					
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.001
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.001
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
Prep Wash																					
ROCK-WHI	Prep Blank		1.2	39.6	4.2	40	0.7	1.2	3.4	523	1.74	1.3	2.3	2.2	24	<0.1	<0.1	<0.1	21	0.61	0.043
ROCK-WHI	Prep Blank		1.3	78.7	3.0	38	0.3	0.9	3.4	521	1.80	1.3	<0.5	2.1	26	<0.1	<0.1	<0.1	22	0.73	0.043



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Page: 2 of 2

Part: 2 of 3

QUALITY CONTROL REPORT

WHI18000335.1

		AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	MA404
La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Cu	Pb	Zn	
ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	%	%	
1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	0.01	0.01	0.01	
STD OXQ114 Expected																				
STD OREAS134B Expected																				
STD OREAS133A Expected																				
STD CVHG-4 Expected																				
STD OREAS623 Expected																				
STD CPB-2 Expected																				
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2		
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2		
BLK	Blank																			
BLK	Blank																			
BLK	Blank																			
BLK	Blank																			
BLK	Blank																			
BLK	Blank																			
BLK	Blank																			
BLK	Blank																			
BLK	Blank																			
Prep Wash																				
ROCK-WHI	Prep Blank	5	3	0.48	53	0.067	3	0.94	0.103	0.11	<0.1	0.01	2.4	<0.1	0.05	3	<0.5	<0.2		
ROCK-WHI	Prep Blank	6	3	0.48	58	0.074	<1	0.97	0.083	0.10	<0.1	0.01	3.0	<0.1	<0.05	4	<0.5	<0.2		



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Page: 2 of 2

Part: 3 of 3

QUALITY CONTROL REPORT

WHI18000335.1

		FA530	CV402	GC817
		Ag	CVHg	Pb
		gm/t	ppm	%
		20	0.01	2
STD OXQ114 Expected		127.1		
STD OREAS134B Expected				
STD OREAS133A Expected				
STD CVHG-4 Expected			0.743	
STD OREAS623 Expected			0.79	
STD CPB-2 Expected				63.52
BLK	Blank			
BLK	Blank			
BLK	Blank			
BLK	Blank	<20		
BLK	Blank			
BLK	Blank		<0.01	
Prep Wash				
ROCK-WHI	Prep Blank			
ROCK-WHI	Prep Blank			



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Client: **Metallic Minerals Corp.**
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Submitted By: Scott Petsel
Receiving Lab: Canada-Whitehorse
Received: July 20, 2018
Report Date: August 28, 2018
Page: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000403.1

CLIENT JOB INFORMATION

Project: McKay Hill
Shipment ID: MH
P.O. Number: McKay Hill
Number of Samples: 12

SAMPLE DISPOSAL

RTRN-PLP Return After 90 days
DISP-RJT Dispose of Reject After 60 days

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.


Invoice To: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2
Canada

CC: Lauren Blackburn
Samantha Dyck

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	12	Crush, split and pulverize 250 g rock to 200 mesh			WHI
AQ202	12	1:1:1 Aqua Regia digestion ICP-MS analysis	30	Completed	VAN
SHP01	12	Per sample shipping charges for branch shipments			VAN
MA404	1	4 Acid Digest AAS Finish Vancouver	0.5	Completed	VAN

ADDITIONAL COMMENTS


JEFFREY CANNON
Geochemistry Department Supervisor



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Project: McKay Hill
Report Date: August 28, 2018

Page: 2 of 2

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000403.1

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01	0.001	
1480267	Rock	1.76	1.2	214.4	25.1	179	0.7	122.2	54.8	1167	7.01	63.1	4.2	0.2	70	0.3	1.5	<0.1	176	2.64	0.026
1480268	Rock	2.48	0.4	2.8	4.3	11	<0.1	5.4	5.5	1277	1.26	1.2	<0.5	0.1	13	<0.1	0.6	0.1	6	3.08	0.002
1480269	Rock	2.79	0.2	4.2	148.1	77	0.1	29.4	29.6	4020	6.62	6.2	0.6	<0.1	83	0.3	1.1	0.1	35	14.18	0.013
1480270	Rock	3.82	1.3	8658.7	9604.6	>10000	29.2	67.4	12.8	280	1.61	258.8	235.0	0.2	251	71.1	>2000	7.6	10	2.01	0.070
1480271	Rock	3.04	2.9	17.8	145.2	109	0.4	24.1	30.0	966	4.60	37.3	2.4	1.9	4	0.4	6.0	0.4	5	0.74	<0.001
1480272	Rock	1.89	0.4	11.7	10.6	19	<0.1	20.3	5.1	176	0.80	0.8	<0.5	<0.1	207	<0.1	3.1	<0.1	2	2.84	0.015
1480273	Rock	1.76	0.3	33.2	42.5	64	0.1	4.6	1.3	157	1.00	8.4	2.2	<0.1	22	0.3	19.7	<0.1	3	0.81	0.003
1480274	Rock	1.62	0.3	8.4	1.4	15	<0.1	19.1	7.1	320	1.55	11.0	0.8	0.2	95	<0.1	1.9	<0.1	11	2.25	0.029
1480275	Rock	1.67	0.3	14.0	5.3	11	<0.1	9.2	6.1	248	0.83	17.9	2.2	0.2	154	<0.1	5.0	<0.1	4	2.41	0.047
1480276	Rock	1.46	0.2	6399.2	209.2	512	14.4	6.7	1.7	216	1.09	129.9	3.7	0.2	16	13.5	1125.1	0.7	5	0.92	0.051
1480277	Rock	2.94	0.4	7740.9	1768.1	53	5.2	5.6	1.4	75	1.23	19.8	<0.5	<0.1	17	0.8	30.6	5.5	1	0.17	0.002
1480278	Rock	3.44	0.4	264.7	134.5	47	0.3	4.9	1.7	134	0.57	3.2	0.8	<0.1	23	2.4	6.3	0.3	2	0.78	0.007



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Bureau Veritas Commodities Canada Ltd.

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Client: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Project: McKay Hill
Report Date: August 28, 2018

Page: 2 of 2

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000403.1

Method	Analyte	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	MA404	
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Zn	
Unit		ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%		
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	0.01		
1480267	Rock	2	258	4.43	46	0.015	3	4.18	0.039	0.30	<0.1	<0.01	16.0	0.3	1.36	9	1.0	<0.2		
1480268	Rock	<1	7	1.48	9	<0.001	3	0.05	0.028	0.02	<0.1	<0.01	10.9	<0.1	0.09	<1	<0.5	<0.2		
1480269	Rock	2	3	6.51	17	<0.001	3	0.41	0.010	0.15	<0.1	<0.01	6.6	<0.1	0.51	<1	<0.5	<0.2		
1480270	Rock	2	14	0.65	33	<0.001	1	0.04	0.004	0.01	<0.1	<0.01	35.36	4.7	<0.1	0.34	1	26.8	2.8	1.61
1480271	Rock	<1	4	0.16	4	<0.001	<1	0.10	0.005	0.02	<0.1	0.09	1.6	0.1	2.56	<1	2.4	<0.2		
1480272	Rock	1	7	0.05	102	<0.001	2	0.10	0.007	0.09	<0.1	0.07	1.9	<0.1	<0.05	<1	<0.5	<0.2		
1480273	Rock	<1	8	0.09	7	<0.001	2	<0.01	0.003	<0.01	<0.1	0.21	0.8	<0.1	<0.05	<1	<0.5	<0.2		
1480274	Rock	5	22	0.24	25	0.002	2	0.25	0.006	0.03	<0.1	0.02	3.1	<0.1	<0.05	<1	<0.5	<0.2		
1480275	Rock	5	14	0.08	20	<0.001	2	0.04	0.006	0.02	<0.1	0.03	1.8	<0.1	<0.05	<1	<0.5	<0.2		
1480276	Rock	<1	12	0.02	14	<0.001	1	0.05	0.001	0.02	<0.1	25.99	1.2	<0.1	<0.05	<1	<0.5	2.1		
1480277	Rock	<1	8	<0.01	4	<0.001	<1	0.01	0.001	<0.01	<0.1	0.30	0.6	0.1	0.17	<1	7.5	0.5		
1480278	Rock	<1	11	<0.01	9	<0.001	1	0.02	<0.001	0.01	<0.1	0.13	0.9	<0.1	<0.05	<1	<0.5	<0.2		



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Project: McKay Hill
Report Date: August 28, 2018

Page: 1 of 1

Part: 1 of 2

QUALITY CONTROL REPORT

WHI18000403.1

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01	0.001
Reference Materials																				
STD DS11	Standard	15.8	147.1	145.2	373	1.7	84.9	13.2	1061	3.19	43.6	79.1	7.0	61	2.2	7.6	11.5	53	1.07	0.072
STD DS11	Standard	13.7	152.8	144.0	363	1.9	77.6	14.3	1071	3.15	45.2	85.5	7.9	69	2.7	10.2	12.5	51	1.07	0.074
STD OREAS134B	Standard																			
STD OREAS133A	Standard																			
STD OXC129	Standard	1.2	29.5	6.5	41	<0.1	89.5	21.0	445	3.12	0.9	200.0	1.8	193	<0.1	<0.1	<0.1	55	0.71	0.109
STD OXC129	Standard	1.3	28.0	7.7	46	<0.1	76.8	21.1	433	3.02	<0.5	205.3	1.9	190	<0.1	<0.1	<0.1	54	0.65	0.092
STD OREAS134B Expected																				
STD OREAS133A Expected																				
STD OXC129 Expected		1.3	28	6.2	42.9		79.5	20.3	421	3.065	0.6	195	1.9					51	0.684	0.102
STD DS11 Expected		14.6	149	138	345	1.71	77.7	14.2	1055	3.1	42.8	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701
BLK	Blank																			
BLK	Blank	<0.1	0.2	<0.1	<1	<0.1	0.3	<0.1	4	<0.01	<0.5	<0.5	<0.1	<1	0.1	<0.1	<0.1	<1	<0.01	<0.001
Prep Wash																				
ROCK-WHI	Prep Blank	1.1	7.3	1.4	38	<0.1	1.0	3.9	578	1.83	1.4	1.3	2.3	20	<0.1	<0.1	<0.1	26	0.66	0.039
ROCK-WHI	Prep Blank	1.1	4.0	1.3	40	<0.1	0.7	3.4	575	1.75	1.4	1.5	2.3	21	<0.1	<0.1	<0.1	24	0.66	0.046



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Project: McKay Hill
Report Date: August 28, 2018

Page: 1 of 1

Part: 2 of 2

QUALITY CONTROL REPORT

WHI18000403.1

Method	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	MA404
Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Zn
Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%
MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	0.01
Reference Materials																		
STD DS11	Standard	18	59	0.84	400	0.097	8	1.18	0.076	0.41	3.0	0.27	3.2	4.8	0.30	5	2.5	4.8
STD DS11	Standard	19	59	0.84	353	0.096	5	1.13	0.072	0.40	3.1	0.31	3.1	4.8	0.29	5	2.1	4.9
STD OREAS134B	Standard																	
STD OREAS133A	Standard																	17.60
STD OXC129	Standard	12	57	1.53	48	0.407	2	1.59	0.589	0.38	<0.1	<0.01	0.9	<0.1	<0.05	6	<0.5	<0.2
STD OXC129	Standard	13	51	1.54	48	0.383	<1	1.55	0.581	0.37	<0.1	0.05	0.9	<0.1	<0.05	6	<0.5	<0.2
STD OREAS134B Expected																		18.03
STD OREAS133A Expected																		10.87
STD OXC129 Expected		12.5	52	1.545	50	0.4	1	1.58	0.59	0.3655			1.1			5.5		
STD DS11 Expected		18.6	61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	0.26	3.4	4.9	0.2835	5.1	2.2	4.56
BLK	Blank																	<0.01
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
Prep Wash																		
ROCK-WHI	Prep Blank	6	3	0.46	79	0.076	3	0.86	0.087	0.09	<0.1	<0.01	3.0	<0.1	<0.05	4	<0.5	<0.2
ROCK-WHI	Prep Blank	7	3	0.44	62	0.076	4	0.87	0.087	0.09	<0.1	<0.01	2.8	<0.1	<0.05	4	<0.5	<0.2



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Client: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Submitted By: Scott Petsel
Receiving Lab: Canada-Whitehorse
Received: July 20, 2018
Report Date: August 29, 2018
Page: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000405.1

CLIENT JOB INFORMATION

Project: McKay Hill
Shipment ID: MH
P.O. Number: McKay Hill
Number of Samples: 6

SAMPLE DISPOSAL

RTRN-PLP Return After 90 days
DISP-RJT Dispose of Reject After 60 days

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Metallic Minerals Corp.
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2
Canada

CC: Lauren Blackburn
Samantha Dyck

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	6	Crush, split and pulverize 250 g rock to 200 mesh			WHI
AQ202	6	1:1:1 Aqua Regia digestion ICP-MS analysis	30	Completed	VAN
SHP01	6	Per sample shipping charges for branch shipments			VAN
MA404	5	4 Acid Digest AAS Finish Vancouver	0.5	Completed	VAN
CV402	1	Hg by 0.5g/10ml Aqua Regia, CVAA	0.5	Completed	VAN

ADDITIONAL COMMENTS



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
*** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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#904 - 409 Granville Street
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Page: 2 of 2

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000405.1

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01	0.001	
1480029	Rock	0.89	0.4	7010.0	134.7	4618	19.6	16.7	2.9	79	1.42	130.7	20.2	0.4	6	27.4	1434.5	3.2	11	0.24	0.007
1480120	Rock	1.26	0.4	111.7	>10000	8152	13.5	83.4	25.6	746	3.71	168.2	4.1	0.5	154	78.6	200.7	0.5	36	5.34	0.096
1480121	Rock	1.04	2.7	265.0	>10000	>10000	2.5	180.5	49.7	2399	7.72	614.5	335.4	0.9	46	159.2	>2000	0.9	56	4.69	0.100
1480122	Rock	1.51	1.5	29.7	1325.5	>10000	0.9	43.7	10.0	3189	4.94	174.9	18.5	0.9	80	274.7	22.5	0.2	19	4.77	0.092
1480123	Rock	2.82	0.7	358.2	>10000	>10000	5.1	59.5	14.6	3359	4.49	192.5	12.3	0.2	19	1615.8	194.5	2.2	19	0.38	0.004
1480124	Rock	2.10	1.3	398.4	>10000	>10000	25.6	56.2	10.7	3111	3.87	222.8	37.1	0.3	22	861.6	361.1	0.4	18	0.25	0.020



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Page: 2 of 2

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000405.1

Method	Analyte	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	MA404	MA404	CV402
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Pb	Zn	CVHg
Unit		ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	%	ppm
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	0.01	0.01	0.01	
1480029	Rock	2	12	0.02	29	<0.001	2	0.12	0.007	0.05	<0.1	9.50	2.0	<0.1	<0.05	<1	0.5	2.4			
1480120	Rock	7	84	1.25	78	0.002	2	0.26	0.010	0.10	<0.1	15.91	10.6	0.3	0.24	2	0.8	<0.2	1.79	0.90	
1480121	Rock	4	96	0.12	102	0.004	4	0.37	0.010	0.14	<0.1	3.32	16.7	0.8	0.76	2	2.4	2.8	2.76	2.85	
1480122	Rock	9	21	0.66	50	0.001	2	0.18	0.006	0.08	<0.1	9.65	8.1	0.1	0.11	2	1.1	<0.2	0.14	3.75	
1480123	Rock	2	13	0.18	24	<0.001	1	0.10	0.003	0.04	<0.1	>50	7.2	<0.1	0.20	11	4.4	<0.2	1.01	20.75	55.61
1480124	Rock	2	17	0.12	33	0.002	2	0.11	0.004	0.05	<0.1	27.26	5.8	0.5	0.72	2	3.7	<0.2	4.62	12.03	



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Page: 1 of 1

Part: 1 of 2

QUALITY CONTROL REPORT

WHI18000405.1

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01	0.001	
Pulp Duplicates																					
1480120	Rock	1.26	0.4	111.7	>10000	8152	13.5	83.4	25.6	746	3.71	168.2	4.1	0.5	154	78.6	200.7	0.5	36	5.34	0.096
REP 1480120	QC		0.4	107.0	>10000	8284	13.7	88.3	26.0	713	3.76	171.3	5.1	0.6	148	82.6	197.2	0.4	37	5.46	0.098
1480124	Rock	2.10	1.3	398.4	>10000	>10000	25.6	56.2	10.7	3111	3.87	222.8	37.1	0.3	22	861.6	361.1	0.4	18	0.25	0.020
REP 1480124	QC																				
Reference Materials																					
STD CVHG-4	Standard																				
STD DS11	Standard		15.8	147.1	145.2	373	1.7	84.9	13.2	1061	3.19	43.6	79.1	7.0	61	2.2	7.6	11.5	53	1.07	0.072
STD OREAS134B	Standard																				
STD OREAS133A	Standard																				
STD OREAS623	Standard																				
STD OXC129	Standard		1.2	29.5	6.5	41	<0.1	89.5	21.0	445	3.12	0.9	200.0	1.8	193	<0.1	<0.1	<0.1	55	0.71	0.109
STD OXC129 Expected			1.3	28	6.2	42.9		79.5	20.3	421	3.065	0.6	195	1.9					51	0.684	0.102
STD DS11 Expected			14.6	149	138	345	1.71	77.7	14.2	1055	3.1	42.8	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701
STD OREAS134B Expected																					
STD OREAS133A Expected																					
STD CVHG-4 Expected																					
STD OREAS623 Expected																					
BLK	Blank		<0.1	1.0	1.6	1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	0.2	<0.1	<1	<0.01	<0.001
BLK	Blank																				
BLK	Blank																				
Prep Wash																					
ROCK-WHI	Prep Blank		1.2	6.0	1.4	37	<0.1	1.0	3.8	594	1.84	1.5	<0.5	2.4	25	<0.1	<0.1	<0.1	24	0.65	0.041



QUALITY CONTROL REPORT

WHI18000405.1

Method	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	MA404	CV402	
Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Pb	Zn	CVHg	
Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	%	ppm	
MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	0.01	0.01	0.01	
Pulp Duplicates																					
1480120	Rock	7	84	1.25	78	0.002	2	0.26	0.010	0.10	<0.1	15.91	10.6	0.3	0.24	2	0.8	<0.2	1.79	0.90	
REP 1480120	QC	7	81	1.25	75	0.003	4	0.27	0.009	0.11	<0.1	15.78	11.2	0.3	0.25	2	0.5	<0.2			
1480124	Rock	2	17	0.12	33	0.002	2	0.11	0.004	0.05	<0.1	27.26	5.8	0.5	0.72	2	3.7	<0.2	4.62	12.03	
REP 1480124	QC																		4.63	12.09	
Reference Materials																					
STD CVHG-4	Standard																				0.71
STD DS11	Standard	18	59	0.84	400	0.097	8	1.18	0.076	0.41	3.0	0.27	3.2	4.8	0.30	5	2.5	4.8			
STD OREAS134B	Standard																		13.56	17.60	
STD OREAS133A	Standard																		4.96	10.34	
STD OREAS623	Standard																				0.72
STD OXC129	Standard	12	57	1.53	48	0.407	2	1.59	0.589	0.38	<0.1	<0.01	0.9	<0.1	<0.05	6	<0.5	<0.2			
STD OXC129 Expected		12.5	52	1.545	50	0.4	1	1.58	0.59	0.3655			1.1			5.5					
STD DS11 Expected		18.6	61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	0.26	3.4	4.9	0.2835	5.1	2.2	4.56			
STD OREAS134B Expected																			13.36	18.03	
STD OREAS133A Expected																			4.9	10.87	
STD CVHG-4 Expected																					0.743
STD OREAS623 Expected																					0.79
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2			
BLK	Blank																		<0.01	<0.01	
BLK	Blank																				<0.01
Prep Wash																					
ROCK-WHI	Prep Blank	7	4	0.45	73	0.082	2	0.89	0.103	0.11	<0.1	<0.01	3.6	<0.1	<0.05	4	<0.5	<0.2			



BUREAU VERITAS MINERAL LABORATORIES
Canada

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Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Submitted By: Scott Petsel
Receiving Lab: Canada-Whitehorse
Received: July 27, 2018
Report Date: September 01, 2018
Page: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000484.1

CLIENT JOB INFORMATION

Project: McKay Hill
Shipment ID: MH
P.O. Number: McKay Hill
Number of Samples: 23

SAMPLE DISPOSAL

RTRN-PLP Return After 90 days
DISP-RJT Dispose of Reject After 60 days

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	23	Crush, split and pulverize 250 g rock to 200 mesh			WHI
AQ202	23	1:1:1 Aqua Regia digestion ICP-MS analysis	30	Completed	VAN
SHP01	23	Per sample shipping charges for branch shipments			VAN
FA530-Ag	4	Lead collection fire assay fusion - Grav finish	30	Completed	VAN
EN002	4	Environmental disposal charge-Fire assay lead waste			VAN
MA404	11	4 Acid Digest AAS Finish Vancouver	0.5	Completed	VAN
CV402	2	Hg by 0.5g/10ml Aqua Regia, CVAA	0.5	Completed	VAN
GC817	4	Lead Assay by Classical Titration	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Metallic Minerals Corp.
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2
Canada

CC: Lauren Blackburn
Samantha Dyck



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
*** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

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Vancouver British Columbia V6C 1T2 Canada

Project: McKay Hill
Report Date: September 01, 2018

Page: 2 of 2

Part: 1 of 3

CERTIFICATE OF ANALYSIS

WHI18000484.1

Method	Analyte	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01
14800030	Rock	2.64	0.1	>10000	>10000	>10000	>100	0.6	0.4	12	0.17	604.0	651.5	<0.1	14	239.4	>2000	0.6	<1	0.01	0.002
14800031	Rock	1.46	0.4	864.0	>10000	>10000	>100	3.4	1.0	74	0.52	146.6	118.8	<0.1	102	808.2	745.6	0.8	2	0.02	0.004
14800032	Rock	2.40	0.2	>10000	>10000	2489	>100	2.1	0.6	17	0.15	830.8	566.4	<0.1	25	87.2	>2000	1.3	<1	<0.01	0.002
1480125	Rock	0.67	0.6	121.9	2670.3	580	1.6	182.0	51.1	1187	5.57	168.7	4.2	1.0	304	4.3	73.0	<0.1	78	9.58	0.168
1480126	Rock	2.04	1.2	89.3	1541.2	1549	0.9	157.0	42.4	1295	5.71	235.6	6.2	0.9	197	8.0	69.8	<0.1	66	10.18	0.166
1480127	Rock	1.99	0.9	86.3	>10000	>10000	17.9	147.6	41.7	2189	5.93	208.9	188.2	0.8	170	355.0	70.4	<0.1	65	7.00	0.154
1480128	Rock	1.03	0.9	157.9	>10000	>10000	55.6	168.1	47.4	1197	4.37	161.9	35.7	1.1	152	140.2	162.1	0.1	78	5.84	0.254
1480129	Rock	2.08	2.0	136.0	>10000	>10000	42.9	233.7	66.2	1871	5.31	326.6	49.5	1.1	104	283.9	300.5	0.2	73	5.09	0.160
1480130	Rock	2.31	1.4	156.7	2838.2	>10000	2.5	288.3	81.7	1211	5.11	279.6	12.2	1.6	99	80.5	134.7	<0.1	80	6.72	0.141
1480131	Rock	1.64	1.3	132.1	489.1	3850	0.9	306.1	67.2	1459	6.84	209.1	9.5	1.8	125	24.8	72.5	<0.1	134	9.00	0.198
1480132	Rock	3.92	2.0	94.5	655.1	>10000	0.9	184.5	45.5	1404	5.08	340.4	18.9	1.1	81	83.2	103.5	<0.1	51	6.56	0.163
1480133	Rock	2.86	1.7	173.6	1091.8	>10000	1.2	140.9	36.2	2310	5.28	398.3	54.3	0.9	181	412.0	114.2	<0.1	58	9.36	0.128
1480134	Rock	1.96	1.9	104.7	552.8	7249	0.5	287.5	55.5	1375	6.59	293.5	12.8	1.2	167	89.8	70.4	<0.1	151	14.23	0.243
1480135	Rock	2.08	0.9	110.0	362.4	1918	1.9	35.0	26.3	1683	6.97	71.0	3.7	2.5	155	15.6	90.9	<0.1	81	7.81	0.276
1480136	Rock	2.28	1.2	5457.8	>10000	>10000	>100	14.2	8.8	342	1.84	120.4	54.6	0.5	45	458.0	>2000	4.6	12	1.10	0.058
1480137	Rock	3.44	0.8	2731.8	>10000	>10000	92.4	12.1	6.6	401	2.01	71.7	25.3	0.7	27	461.3	>2000	1.7	14	0.39	0.034
1480138	Rock	1.63	1.1	104.1	206.5	215	0.9	66.4	41.5	1513	8.59	122.2	9.5	2.7	190	1.9	36.2	<0.1	123	8.20	0.386
1480139	Rock	1.43	1.4	120.9	150.2	423	0.3	73.8	45.6	1743	9.57	34.2	14.3	3.9	119	2.9	17.9	<0.1	249	6.23	0.428
1480140	Rock	1.99	1.2	123.9	161.5	617	0.3	87.1	55.1	1802	9.23	40.1	9.8	4.2	163	5.7	20.8	<0.1	271	6.50	0.456
1480141	Rock	1.27	0.7	60.5	240.4	343	0.4	44.9	26.5	972	5.17	25.1	2.3	2.4	204	2.8	14.2	0.1	164	5.41	0.255
1480142	Rock	2.34	0.7	95.8	174.6	336	0.3	50.3	30.0	1151	5.89	26.7	4.1	2.3	260	2.8	18.0	<0.1	221	5.55	0.315
1480143	Rock	1.40	0.5	83.1	198.5	390	0.4	57.9	41.7	1597	7.52	19.6	4.6	3.1	419	3.4	9.2	<0.1	274	11.62	0.446
1480144	Rock	1.56	0.5	68.2	55.9	279	0.1	49.0	41.6	1528	8.00	19.0	2.7	3.1	334	1.3	5.5	<0.1	232	9.89	0.396



Bureau Veritas Commodities Canada Ltd.

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Client: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Project: McKay Hill
Report Date: September 01, 2018

Page: 2 of 2

Part: 2 of 3

CERTIFICATE OF ANALYSIS

WHI18000484.1

Method	Analyte	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	FA530	MA404	MA404
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Cu	Pb
Unit		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	%	%
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	20	0.01	0.01	
14800030	Rock	<1	<1	<0.01	10	<0.001	<1	<0.01	<0.001	<0.01	<0.1	17.10	0.2	0.9	>10	<1	1.2	<0.2	284	1.23	>20
14800031	Rock	<1	3	0.01	10	<0.001	<1	0.02	<0.001	<0.01	<0.1	>50	0.9	1.6	4.57	3	5.0	<0.2	339	0.08	>20
14800032	Rock	<1	1	<0.01	12	<0.001	<1	<0.01	<0.001	<0.01	<0.1	7.17	0.2	1.2	>10	<1	1.9	<0.2	326	1.29	>20
1480125	Rock	15	169	2.44	81	0.003	<1	0.44	0.053	0.09	<0.1	0.51	18.0	<0.1	<0.05	1	<0.5	<0.2			
1480126	Rock	17	157	1.35	76	0.004	2	0.41	0.034	0.10	<0.1	0.59	19.8	0.2	<0.05	1	<0.5	<0.2			
1480127	Rock	9	123	1.33	65	0.004	2	0.39	0.037	0.09	<0.1	10.22	17.2	0.2	0.25	2	1.5	<0.2	<0.01	3.04	
1480128	Rock	10	175	0.69	96	0.005	2	0.46	0.026	0.10	0.2	7.47	16.0	0.4	1.51	2	<0.5	<0.2	0.02	13.74	
1480129	Rock	9	154	0.82	94	0.005	2	0.45	0.026	0.11	<0.1	11.01	17.1	0.3	0.97	2	1.7	<0.2	0.01	9.16	
1480130	Rock	14	187	0.68	141	0.005	1	0.58	0.032	0.16	<0.1	4.57	22.6	0.2	0.07	2	0.5	<0.2	0.02	0.29	
1480131	Rock	25	305	0.53	137	0.007	2	0.77	0.038	0.14	<0.1	2.40	25.6	0.3	<0.05	3	<0.5	<0.2			
1480132	Rock	15	115	0.33	97	0.006	2	0.35	0.014	0.12	<0.1	2.96	14.0	0.2	<0.05	1	0.7	<0.2	<0.01	0.07	
1480133	Rock	15	131	0.89	84	0.005	2	0.62	0.013	0.15	<0.1	8.98	15.3	0.2	<0.05	3	1.4	<0.2	0.02	0.11	
1480134	Rock	24	384	2.30	95	0.007	2	2.02	0.008	0.12	<0.1	3.08	20.1	0.2	<0.05	7	<0.5	<0.2			
1480135	Rock	32	14	0.26	199	0.005	3	0.79	0.045	0.19	<0.1	1.83	10.4	0.1	<0.05	2	<0.5	<0.2			
1480136	Rock	3	6	0.09	35	0.004	<1	0.19	<0.001	0.06	<0.1	>50	2.5	0.3	3.88	<1	10.8	0.5	270	0.54	>20
1480137	Rock	4	9	0.09	33	0.005	<1	0.19	0.008	0.05	<0.1	35.78	2.7	0.1	0.86	1	4.3	0.3	0.26	7.07	
1480138	Rock	26	67	1.07	63	0.007	3	0.89	0.035	0.13	<0.1	0.53	18.3	0.1	0.25	2	0.6	<0.2			
1480139	Rock	40	98	0.56	87	0.007	2	1.51	0.009	0.04	<0.1	0.88	18.0	<0.1	<0.05	5	<0.5	<0.2			
1480140	Rock	46	128	1.51	85	0.012	1	2.34	0.007	0.03	<0.1	0.86	19.8	<0.1	<0.05	8	<0.5	<0.2			
1480141	Rock	31	60	1.79	64	0.017	2	2.38	0.007	0.05	<0.1	0.60	9.1	<0.1	<0.05	9	<0.5	<0.2			
1480142	Rock	34	112	2.45	54	0.033	<1	3.02	0.028	0.04	<0.1	0.62	11.3	<0.1	<0.05	10	<0.5	<0.2			
1480143	Rock	58	99	3.43	52	0.034	<1	4.15	0.024	0.03	<0.1	0.66	12.6	<0.1	<0.05	16	<0.5	<0.2			
1480144	Rock	59	54	3.53	90	0.020	2	4.30	0.009	0.11	<0.1	0.28	9.7	<0.1	<0.05	15	<0.5	<0.2			



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Client: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Project: McKay Hill
Report Date: September 01, 2018

Page: 2 of 2

Part: 3 of 3

CERTIFICATE OF ANALYSIS

WHI18000484.1

Method	Analyte	MA404	CV402	GC817
		Zn	CVHg	Pb
Unit		%	ppm	%
MDL		0.01	0.01	2
14800030	Rock	1.89		77.33
14800031	Rock	5.63	79.77	49.31
14800032	Rock	0.24		80.41
1480125	Rock			
1480126	Rock			
1480127	Rock	5.86		
1480128	Rock	1.95		
1480129	Rock	4.43		
1480130	Rock	1.17		
1480131	Rock			
1480132	Rock	1.42		
1480133	Rock	5.59		
1480134	Rock			
1480135	Rock			
1480136	Rock	1.47	66.63	29.82
1480137	Rock	2.44		
1480138	Rock			
1480139	Rock			
1480140	Rock			
1480141	Rock			
1480142	Rock			
1480143	Rock			
1480144	Rock			



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Project: McKay Hill
Report Date: September 01, 2018

Page: 1 of 2 Part: 1 of 3

QUALITY CONTROL REPORT

WHI18000484.1

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01	0.001	
Pulp Duplicates																					
14800031	Rock	1.46	0.4	864.0	>10000	>10000	>100	3.4	1.0	74	0.52	146.6	118.8	<0.1	102	808.2	745.6	0.8	2	0.02	0.004
REP 14800031	QC																				
1480130	Rock	2.31	1.4	156.7	2838.2	>10000	2.5	288.3	81.7	1211	5.11	279.6	12.2	1.6	99	80.5	134.7	<0.1	80	6.72	0.141
REP 1480130	QC																				
1480144	Rock	1.56	0.5	68.2	55.9	279	0.1	49.0	41.6	1528	8.00	19.0	2.7	3.1	334	1.3	5.5	<0.1	232	9.89	0.396
REP 1480144	QC		0.6	68.7	53.6	283	0.1	49.5	40.9	1511	7.95	19.0	1.7	3.0	328	1.4	5.2	<0.1	227	9.89	0.410
Core Reject Duplicates																					
1480125	Rock	0.67	0.6	121.9	2670.3	580	1.6	182.0	51.1	1187	5.57	168.7	4.2	1.0	304	4.3	73.0	<0.1	78	9.58	0.168
DUP 1480125	QC		0.6	122.8	2499.1	561	1.5	179.1	49.2	1195	5.56	163.1	4.9	1.1	305	4.7	75.0	<0.1	80	9.45	0.181
Reference Materials																					
STD AGPROOF	Standard																				
STD CPB-2	Standard																				
STD CPB-2	Standard																				
STD CVHG-4	Standard																				
STD DS11	Standard		13.7	152.8	144.0	363	1.9	77.6	14.3	1071	3.15	45.2	85.5	7.9	69	2.7	10.2	12.5	51	1.07	0.074
STD DS11	Standard		12.5	151.4	140.6	311	1.8	76.9	13.6	1048	3.14	41.7	88.6	7.2	61	2.7	8.7	11.3	50	1.02	0.079
STD OREAS134B	Standard																				
STD OREAS133A	Standard																				
STD OREAS623	Standard																				
STD OXC129	Standard		1.3	28.0	7.7	46	<0.1	76.8	21.1	433	3.02	<0.5	205.3	1.9	190	<0.1	<0.1	<0.1	54	0.65	0.092
STD OXC129	Standard		1.3	30.2	6.5	52	<0.1	83.7	19.3	382	2.93	1.4	207.8	2.1	196	<0.1	<0.1	<0.1	50	0.58	0.098
STD OXQ114	Standard																				
STD SP49	Standard																				
STD CVHG-4 Expected																					
STD OREAS623 Expected																					
STD OREAS134B Expected																					
STD OREAS133A Expected																					
STD AGPROOF Expected																					



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Project: McKay Hill
Report Date: September 01, 2018

Page: 1 of 2 Part: 2 of 3

QUALITY CONTROL REPORT

WHI18000484.1

Method	Analyte	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	FA530	MA404	
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Cu	Pb
Unit		ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	%	%	
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	20	0.01	0.01	
Pulp Duplicates																					
14800031	Rock	<1	3	0.01	10	<0.001	<1	0.02	<0.001	<0.01	<0.1	>50	0.9	1.6	4.57	3	5.0	<0.2	339	0.08	>20
REP 14800031	QC																				
1480130	Rock	14	187	0.68	141	0.005	1	0.58	0.032	0.16	<0.1	4.57	22.6	0.2	0.07	2	0.5	<0.2		0.02	0.29
REP 1480130	QC																			0.02	0.28
1480144	Rock	59	54	3.53	90	0.020	2	4.30	0.009	0.11	<0.1	0.28	9.7	<0.1	<0.05	15	<0.5	<0.2			
REP 1480144	QC	58	54	3.51	88	0.019	2	4.26	0.008	0.11	<0.1	0.26	9.6	<0.1	<0.05	15	<0.5	<0.2			
Core Reject Duplicates																					
1480125	Rock	15	169	2.44	81	0.003	<1	0.44	0.053	0.09	<0.1	0.51	18.0	<0.1	<0.05	1	<0.5	<0.2			
DUP 1480125	QC	15	174	2.41	84	0.003	2	0.49	0.059	0.10	<0.1	0.50	18.3	0.1	<0.05	2	<0.5	<0.2			
Reference Materials																					
STD AGPROOF	Standard																		94		
STD CPB-2	Standard																				
STD CPB-2	Standard																				
STD CVHG-4	Standard																				
STD DS11	Standard	19	59	0.84	353	0.096	5	1.13	0.072	0.40	3.1	0.31	3.1	4.8	0.29	5	2.1	4.9			
STD DS11	Standard	16	58	0.84	325	0.079	7	1.11	0.070	0.40	3.1	0.26	3.2	5.4	0.28	5	1.8	4.4			
STD OREAS134B	Standard																			0.13	13.39
STD OREAS133A	Standard																			0.03	4.94
STD OREAS623	Standard																				
STD OXC129	Standard	13	51	1.54	48	0.383	<1	1.55	0.581	0.37	<0.1	0.05	0.9	<0.1	<0.05	6	<0.5	<0.2			
STD OXC129	Standard	13	57	1.47	50	0.384	2	1.43	0.557	0.36	<0.1	<0.01	1.7	<0.1	<0.05	5	<0.5	<0.2			
STD OXQ114	Standard																			124	
STD SP49	Standard																			60	
STD CVHG-4 Expected																					
STD OREAS623 Expected																					
STD OREAS134B Expected																					
STD OREAS133A Expected																					
STD AGPROOF Expected																					



Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Project: McKay Hill
Report Date: September 01, 2018

Page: 1 of 2

Part: 3 of 3

QUALITY CONTROL REPORT

WHI18000484.1

Method	MA404	CV402	GC817
Analyte	Zn	CVHg	Pb
Unit	%	ppm	%
MDL	0.01	0.01	2
Pulp Duplicates			
14800031	Rock	5.63	79.77 49.31
REP 14800031	QC		49.01
1480130	Rock	1.17	
REP 1480130	QC	1.15	
1480144	Rock		
REP 1480144	QC		
Core Reject Duplicates			
1480125	Rock		
DUP 1480125	QC		
Reference Materials			
STD AGPROOF	Standard		
STD CPB-2	Standard		64.17
STD CPB-2	Standard		63.34
STD CVHG-4	Standard	0.69	
STD DS11	Standard		
STD DS11	Standard		
STD OREAS134B	Standard	17.66	
STD OREAS133A	Standard	10.63	
STD OREAS623	Standard	0.72	
STD OXC129	Standard		
STD OXC129	Standard		
STD OXQ114	Standard		
STD SP49	Standard		
STD CVHG-4 Expected		0.743	
STD OREAS623 Expected		0.79	
STD OREAS134B Expected	18.03		
STD OREAS133A Expected	10.87		
STD AGPROOF Expected			



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Report Date: September 01, 2018

Page: 2 of 2

Part: 1 of 3

QUALITY CONTROL REPORT

WHI18000484.1

	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	1	0.01	0.001	
STD SP49 Expected																					
STD OXQ114 Expected																					
STD OXC129 Expected		1.3	28	6.2	42.9		79.5	20.3	421	3.065	0.6	195	1.9					51	0.684	0.102	
STD DS11 Expected		14.6	149	138	345	1.71	77.7	14.2	1055	3.1	42.8	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701	
STD CPB-2 Expected																					
BLK	Blank	<0.1	0.2	<0.1	<1	<0.1	0.3	<0.1	4	<0.01	<0.5	<0.5	<0.1	<1	0.1	<0.1	<0.1	<1	<0.01	<0.001	
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank	<0.1	<0.1	0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	0.001	
Prep Wash																					
ROCK-WHI	Prep Blank	1.2	4.8	30.3	44	<0.1	1.4	3.8	609	2.12	1.5	0.7	2.6	33	0.1	0.3	<0.1	25	0.74	0.040	
ROCK-WHI	Prep Blank	1.1	5.1	31.3	38	<0.1	1.3	3.8	551	1.97	1.6	<0.5	2.4	26	0.1	0.8	<0.1	23	0.80	0.038	



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Page: 2 of 2

Part: 2 of 3

QUALITY CONTROL REPORT

WHI18000484.1

		AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	FA530	MA404		
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Cu	Pb
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	%	%
		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	20	0.01	0.01
STD SP49 Expected																		60.2			
STD OXQ114 Expected																		127.1			
STD OXC129 Expected		12.5	52	1.545	50	0.4	1	1.58	0.59	0.3655			1.1			5.5					
STD DS11 Expected		18.6	61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	0.26	3.4	4.9	0.2835	5.1	2.2	4.56			
STD CPB-2 Expected																					
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2			
BLK	Blank																				
BLK	Blank																			<0.01	<0.01
BLK	Blank																		<20		
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2			
Prep Wash																					
ROCK-WHI	Prep Blank	7	4	0.46	88	0.088	2	1.09	0.164	0.15	<0.1	0.02	3.9	<0.1	<0.05	4	<0.5	<0.2			
ROCK-WHI	Prep Blank	7	4	0.45	70	0.081	2	0.91	0.110	0.12	<0.1	<0.01	3.3	<0.1	<0.05	4	<0.5	<0.2			



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Page: 2 of 2

Part: 3 of 3

QUALITY CONTROL REPORT

WHI18000484.1

		MA404	CV402	GC817
		Zn	CVHg	Pb
		%	ppm	%
		0.01	0.01	2
STD SP49	Expected			
STD OXQ114	Expected			
STD OXC129	Expected			
STD DS11	Expected			
STD CPB-2	Expected			63.52
BLK	Blank			
BLK	Blank		<0.01	
BLK	Blank	<0.01		
BLK	Blank			
BLK	Blank			
Prep Wash				
ROCK-WHI	Prep Blank			
ROCK-WHI	Prep Blank			



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PHONE (604) 253-3158

Client: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Submitted By: Scott Petsel
Receiving Lab: Canada-Whitehorse
Received: July 13, 2018
Report Date: August 09, 2018
Page: 1 of 4

CERTIFICATE OF ANALYSIS

WHI18000334.1

CLIENT JOB INFORMATION

Project: McKay Hill
Shipment ID: MH
P.O. Number: McKay Hill
Number of Samples: 62

SAMPLE DISPOSAL

RTRN-PLP Return After 90 days
DISP-RJT-SOIL Immediate Disposal of Soil Reject

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2
Canada

CC: Lauren Blackburn
Samantha Dyck

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
DY060	61	Dry at 60C			WHI
SS80	61	Dry at 60C sieve 100g to -80 mesh			WHI
AQ201	61	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN
SHP01	61	Per sample shipping charges for branch shipments			VAN

ADDITIONAL COMMENTS


GEORGE ARCALA
Instrumentation Shift Supervisor

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
*** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



Bureau Veritas Commodities Canada Ltd.

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Project: McKay Hill
Report Date: August 09, 2018

Page: 2 of 4

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000334.1

Method Analyte	Unit	MDL	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
			Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
			ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	%	ppm	
			0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	0.001	0.001	1	
1480501	Soil		1.4	41.0	35.4	84	<0.1	61.5	25.1	1335	4.58	16.7	7.3	1.7	38	0.2	2.2	0.3	74	0.31	0.108	35
1480502	Soil		2.1	139.0	1196.9	2922	1.0	60.7	33.6	1655	5.78	95.6	8.0	4.9	54	23.9	121.4	0.5	52	0.47	0.149	32
1480503	Soil		2.0	79.1	248.7	807	0.4	33.9	24.2	1120	6.45	182.6	5.3	4.0	92	3.3	26.0	0.4	53	0.81	0.200	50
1480504	Soil		1.5	76.2	48.1	205	0.1	158.3	54.1	1688	9.16	63.2	13.4	4.9	128	0.7	8.1	0.1	221	1.01	0.353	61
1480505	Soil		1.4	20.3	32.3	73	<0.1	20.2	13.0	719	3.32	13.9	3.8	2.0	9	0.1	1.3	0.3	44	0.09	0.055	17
1480506	Soil		1.4	77.3	40.2	98	<0.1	136.4	46.8	2161	5.08	56.9	9.0	2.2	26	0.3	39.7	0.4	49	0.36	0.086	17
1480507	Soil		0.8	46.1	18.1	77	<0.1	151.8	29.2	1004	4.16	30.0	1.4	0.9	113	0.2	6.6	0.2	60	0.86	0.127	10
1480508	Soil		0.9	43.4	33.0	85	<0.1	112.0	27.5	1275	4.18	31.9	4.3	2.9	30	0.2	5.5	0.3	50	0.27	0.063	17
1480509	Soil		1.1	42.8	42.4	81	<0.1	86.1	26.3	1279	4.00	20.1	2.3	2.4	19	0.1	2.8	0.3	48	0.19	0.076	17
1480510	Soil		0.9	56.4	15.8	77	<0.1	51.0	16.4	643	3.37	17.9	4.6	2.1	24	0.2	1.4	0.2	58	0.30	0.058	20
1480511	Soil		1.5	58.3	45.2	94	<0.1	44.2	24.0	1690	4.59	61.8	2.2	5.9	19	<0.1	1.0	0.4	36	0.22	0.066	46
1480512	Soil		1.3	55.3	36.7	96	<0.1	48.1	22.3	1227	4.55	21.0	8.3	3.2	24	0.2	1.2	0.4	52	0.32	0.091	37
1480513	Soil		0.9	47.6	182.3	237	0.3	72.3	34.1	2501	10.27	38.7	3.5	1.5	112	1.1	14.0	<0.1	212	1.29	0.248	61
1480514	Soil		2.1	75.7	292.9	587	0.4	107.9	43.1	1637	8.34	289.4	55.8	3.7	88	2.3	30.0	0.2	71	0.87	0.162	26
1480515	Soil		2.1	69.4	22.8	139	0.1	144.6	51.1	1650	8.23	48.7	7.6	4.4	150	0.2	3.8	0.1	208	1.33	0.326	65
1480516	Soil		1.5	35.8	47.9	72	<0.1	27.6	22.7	1211	2.95	16.8	3.4	1.6	14	<0.1	2.0	0.3	45	0.15	0.064	22
1480517	Soil		1.6	37.8	48.8	66	0.1	20.9	13.2	895	3.95	21.4	3.2	2.1	8	0.1	1.4	0.5	51	0.08	0.061	17
1480518	Soil		1.8	39.3	47.3	86	<0.1	28.6	24.8	1940	4.24	22.6	9.2	1.5	11	0.1	1.9	0.5	44	0.08	0.097	20
1480519	Soil		1.2	29.5	37.0	72	<0.1	24.0	17.3	1606	3.64	14.6	1.8	0.4	15	0.2	1.6	0.4	41	0.23	0.065	18
1480520	Soil		1.2	73.1	45.8	133	<0.1	41.2	27.2	1633	5.60	9.7	1.3	10.8	14	0.1	1.2	0.5	16	0.13	0.040	57
1480521	Soil		1.3	42.1	40.0	76	<0.1	32.1	18.4	1092	4.10	27.6	2.4	1.9	14	0.1	0.9	0.4	39	0.16	0.059	27
1480522	Soil		1.0	49.3	31.7	78	<0.1	32.3	18.6	1249	3.94	10.3	1.7	0.9	14	0.1	1.1	0.5	29	0.09	0.065	28
1480523	Soil		1.4	90.3	498.3	766	0.4	85.4	36.0	1527	6.17	61.3	4.5	7.6	55	6.3	37.2	0.4	55	0.40	0.133	37
1480524	Soil		2.3	68.8	167.5	363	0.3	103.5	41.1	1675	8.12	101.0	11.6	3.3	85	2.5	16.6	0.2	118	0.92	0.180	36
1480525	Soil		1.2	56.9	80.7	226	0.1	104.8	40.2	1760	7.34	137.5	12.2	3.3	103	0.7	11.9	0.2	104	1.17	0.236	39
1480526	Soil		1.4	73.7	51.5	179	0.2	152.3	54.7	2170	8.78	146.2	18.1	3.6	107	0.6	12.6	0.1	154	1.06	0.273	46
1480527	Soil		1.4	35.4	36.7	72	<0.1	23.5	19.6	1519	3.53	18.8	23.0	0.6	9	0.1	1.3	0.4	48	0.10	0.092	17
1480528	Soil		1.0	23.3	22.3	56	<0.1	21.6	12.9	470	3.09	17.4	2.4	3.1	9	<0.1	1.1	0.3	41	0.09	0.049	17
1480529	Soil		1.2	42.4	39.3	97	<0.1	37.6	22.8	1035	4.86	12.0	<0.5	5.4	7	0.1	0.6	0.4	22	0.07	0.071	35
1480530	Soil		3.0	86.4	111.2	101	<0.1	33.7	29.2	1912	4.13	18.6	3.0	5.1	19	<0.1	0.9	0.6	34	0.16	0.074	59



Bureau Veritas Commodities Canada Ltd.

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Project: McKay Hill
Report Date: August 09, 2018

Page: 2 of 4

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000334.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
1480501	Soil	78	0.78	133	0.021	2	1.59	0.005	0.04	<0.1	0.17	4.2	0.1	<0.05	5	<0.5	<0.2
1480502	Soil	41	0.46	119	0.012	2	1.08	0.006	0.07	0.1	6.21	9.1	0.1	<0.05	3	<0.5	<0.2
1480503	Soil	24	0.37	129	0.006	3	1.15	0.006	0.07	0.1	0.72	5.5	0.1	<0.05	2	<0.5	<0.2
1480504	Soil	260	1.16	136	0.026	2	1.30	0.004	0.03	<0.1	0.92	20.3	0.1	<0.05	5	<0.5	<0.2
1480505	Soil	27	0.39	65	0.030	2	1.56	0.004	0.05	0.2	0.06	1.8	0.1	<0.05	5	<0.5	<0.2
1480506	Soil	102	0.83	99	0.015	2	1.59	0.006	0.04	0.1	0.10	9.4	0.2	<0.05	4	<0.5	<0.2
1480507	Soil	218	1.87	105	0.017	2	2.09	0.008	0.04	<0.1	0.06	8.8	0.1	0.06	5	<0.5	<0.2
1480508	Soil	136	1.23	140	0.025	1	1.61	0.006	0.05	<0.1	0.05	7.7	0.1	<0.05	4	<0.5	<0.2
1480509	Soil	120	1.12	101	0.020	2	1.71	0.004	0.05	<0.1	0.04	4.3	<0.1	<0.05	5	<0.5	<0.2
1480510	Soil	57	0.84	133	0.034	2	1.83	0.007	0.05	0.2	0.03	5.0	0.1	<0.05	5	<0.5	<0.2
1480511	Soil	34	0.51	76	0.004	1	1.46	0.004	0.07	<0.1	0.11	5.1	<0.1	<0.05	4	<0.5	<0.2
1480512	Soil	51	0.60	110	0.007	1	1.61	0.005	0.08	<0.1	0.08	4.8	<0.1	<0.05	5	<0.5	<0.2
1480513	Soil	141	0.57	152	0.013	3	1.01	0.005	0.04	<0.1	0.48	13.0	0.1	0.07	3	<0.5	<0.2
1480514	Soil	75	0.70	145	0.009	2	1.00	0.008	0.09	<0.1	0.73	15.6	0.2	<0.05	3	<0.5	<0.2
1480515	Soil	230	2.19	145	0.063	2	2.32	0.007	0.05	<0.1	0.30	16.4	0.1	<0.05	10	0.7	<0.2
1480516	Soil	31	0.50	90	0.031	<1	1.47	0.005	0.05	0.1	0.06	2.1	0.1	<0.05	5	<0.5	<0.2
1480517	Soil	30	0.38	64	0.034	<1	1.66	0.005	0.05	0.2	0.07	2.0	0.1	<0.05	6	<0.5	<0.2
1480518	Soil	32	0.49	93	0.021	<1	1.94	0.007	0.06	0.1	0.03	2.0	0.1	<0.05	6	<0.5	<0.2
1480519	Soil	32	0.42	77	0.012	<1	1.48	0.006	0.06	<0.1	0.04	1.0	<0.1	<0.05	5	<0.5	<0.2
1480520	Soil	23	0.47	48	0.001	<1	1.33	0.004	0.06	<0.1	0.06	3.8	<0.1	<0.05	3	<0.5	<0.2
1480521	Soil	34	0.45	63	0.012	1	1.54	0.004	0.05	<0.1	0.06	2.4	<0.1	<0.05	4	<0.5	<0.2
1480522	Soil	26	0.31	90	0.007	<1	1.09	0.003	0.07	<0.1	0.08	1.5	<0.1	<0.05	3	<0.5	<0.2
1480523	Soil	58	0.41	107	0.005	1	0.91	0.004	0.05	<0.1	0.70	8.4	<0.1	<0.05	3	<0.5	<0.2
1480524	Soil	85	1.03	142	0.011	1	1.70	0.008	0.07	<0.1	0.37	17.7	<0.1	<0.05	5	<0.5	<0.2
1480525	Soil	111	0.88	136	0.016	2	1.16	0.008	0.08	<0.1	0.44	12.1	0.2	<0.05	4	<0.5	<0.2
1480526	Soil	135	0.67	128	0.008	<1	1.07	0.006	0.06	<0.1	0.51	17.7	0.2	<0.05	4	<0.5	<0.2
1480527	Soil	33	0.46	73	0.020	<1	1.62	0.005	0.06	0.1	0.05	1.5	0.1	<0.05	6	<0.5	<0.2
1480528	Soil	26	0.41	46	0.032	<1	1.27	0.005	0.05	0.1	0.03	1.9	<0.1	<0.05	5	<0.5	<0.2
1480529	Soil	27	0.65	35	0.004	<1	1.99	0.004	0.06	<0.1	0.04	2.2	<0.1	<0.05	5	<0.5	<0.2
1480530	Soil	29	0.44	116	0.018	<1	1.47	0.006	0.06	<0.1	0.05	3.0	<0.1	<0.05	4	<0.5	<0.2



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Page: 3 of 4

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000334.1

Method Analyte Unit MDL	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
	0.1	0.1	0.1	1	0.1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
1480531	Soil	2.1	39.5	42.7	86	<0.1	29.7	20.4	1743	3.51	16.4	9.2	3.1	11	<0.1	0.7	0.3	42	0.11	0.066	28
1481776	Soil	1.9	35.2	46.6	122	0.5	14.9	8.1	329	3.08	25.4	4.0	2.7	12	0.2	5.0	0.7	48	0.06	0.031	14
1481777	Soil	1.2	8.8	31.3	28	0.2	5.0	2.1	90	1.31	21.1	<0.5	1.4	17	<0.1	1.1	0.9	38	0.03	0.038	19
1481778	Soil	1.1	44.6	34.4	137	2.0	27.0	13.6	842	2.97	17.1	2.4	2.1	14	0.3	1.6	0.5	40	0.15	0.076	15
1481781	Soil	1.8	30.0	166.4	573	0.9	24.3	14.5	2171	3.63	14.2	1.6	2.3	37	1.2	2.5	0.5	24	0.98	0.066	14
1481782	Soil	1.9	22.7	73.4	398	0.4	18.8	10.9	854	2.99	15.2	2.9	2.3	17	0.5	1.8	0.6	31	0.35	0.054	15
1481783	Soil	1.9	15.8	50.7	175	0.2	15.6	9.4	815	2.84	17.9	2.0	2.9	17	0.3	1.7	0.5	37	0.09	0.054	14
1481784	Soil	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1481785	Soil	1.7	19.1	39.4	174	0.4	14.0	7.9	1479	2.47	11.6	<0.5	0.6	16	0.5	1.5	0.4	25	0.46	0.074	12
1481787	Soil	1.4	14.0	100.6	154	0.3	11.7	7.9	1293	2.10	8.0	1.1	0.5	39	0.6	1.4	0.4	22	0.83	0.094	7
1481788	Soil	2.0	43.8	183.6	458	1.1	26.7	15.9	1353	3.25	19.3	3.4	3.1	35	0.8	3.4	0.7	25	0.97	0.085	14
1481789	Soil	1.7	32.3	100.6	586	0.7	19.4	11.7	997	2.70	12.7	2.8	1.5	37	1.1	1.9	0.6	24	0.97	0.086	10
1481790	Soil	3.0	36.9	66.0	274	0.7	30.5	14.9	1566	3.20	23.7	2.4	3.3	26	0.8	3.0	0.8	32	0.23	0.076	19
1481791	Soil	2.6	36.0	70.0	188	0.6	19.0	11.8	1011	2.61	20.2	1.9	1.9	22	0.4	2.8	0.9	24	0.10	0.081	16
1481793	Soil	2.1	53.5	79.5	246	1.2	26.4	14.6	1771	3.15	16.9	1.8	2.2	37	0.5	2.4	0.7	24	0.72	0.104	14
1481794	Soil	2.1	30.5	110.4	561	0.6	24.3	12.3	1449	3.39	16.2	3.8	2.2	28	1.4	1.9	0.7	30	0.44	0.066	16
1481795	Soil	4.0	35.0	99.8	151	0.6	27.4	13.6	888	2.83	23.5	3.6	3.6	43	0.6	3.2	0.6	33	3.18	0.074	11
1481796	Soil	2.3	32.9	65.0	210	0.7	28.3	13.6	1867	3.90	19.7	2.9	2.3	26	0.4	1.9	0.8	37	0.30	0.086	18
1481797	Soil	2.4	36.8	68.7	240	0.7	25.8	14.1	2022	3.67	17.4	1.7	2.0	26	0.4	2.3	0.6	30	0.78	0.083	15
1481798	Soil	2.8	10.8	36.0	113	0.1	9.3	6.6	905	1.93	11.6	2.5	0.9	9	0.2	0.9	0.6	34	0.14	0.050	14
1481799	Soil	1.7	44.6	42.6	140	0.7	19.2	10.1	949	2.13	10.4	3.0	0.7	33	0.1	1.9	0.5	24	1.43	0.119	9
1481800	Soil	1.7	38.5	59.6	164	0.3	36.2	15.6	839	3.01	9.1	1.8	4.9	46	0.4	1.1	0.4	40	3.76	0.103	17
1481801	Soil	14.0	82.4	77.8	114	1.3	18.6	8.3	462	2.76	52.2	1.4	1.3	48	<0.1	5.4	1.1	64	0.52	0.129	16
1481802	Soil	2.9	45.3	73.7	188	0.9	32.6	15.3	1715	3.39	23.8	2.9	3.4	40	0.4	3.2	0.7	33	0.76	0.094	17
1481803	Soil	2.9	80.2	60.4	180	0.9	29.0	13.4	1083	3.18	48.9	2.3	5.0	67	0.4	3.4	0.8	45	0.36	0.159	18
1481804	Soil	2.5	52.8	63.1	238	0.7	29.8	14.8	1128	3.50	22.4	4.4	4.4	27	0.4	2.7	0.7	33	0.61	0.080	18
1481805	Soil	2.0	49.4	56.1	222	0.8	26.1	13.0	1304	3.09	15.3	2.9	1.8	28	0.4	2.3	0.5	29	0.92	0.092	13
1481806	Soil	10.3	50.1	63.9	285	0.9	47.5	15.6	1074	3.86	43.1	3.0	2.6	37	1.1	4.3	0.9	95	2.37	0.116	16
1481807	Soil	1.8	23.1	41.9	135	0.4	27.7	11.8	1616	2.82	12.2	8.3	0.8	42	0.7	1.8	0.4	24	3.26	0.093	9
1481808	Soil	8.7	18.3	56.2	46	0.9	8.6	3.3	260	1.49	30.0	3.5	7.7	13	0.1	7.7	1.1	24	0.66	0.029	24



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Project: McKay Hill
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Page: 3 of 4

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000334.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2		
1480531	Soil	37	0.44	83	0.024	<1	1.66	0.004	0.05	0.1	0.06	2.6	<0.1	<0.05	5	<0.5	<0.2	
1481776	Soil	22	0.26	72	0.025	<1	1.25	0.004	0.05	0.1	0.10	2.1	0.3	<0.05	5	<0.5	<0.2	
1481777	Soil	10	0.08	37	0.025	<1	0.55	0.003	0.04	0.1	0.03	0.8	0.1	<0.05	4	<0.5	<0.2	
1481778	Soil	24	0.37	101	0.023	<1	1.44	0.007	0.06	0.1	0.17	2.3	0.1	<0.05	4	<0.5	<0.2	
1481781	Soil	14	0.43	103	0.012	1	0.74	0.007	0.07	<0.1	0.25	4.2	0.2	<0.05	2	<0.5	<0.2	
1481782	Soil	16	0.29	118	0.012	<1	0.82	0.005	0.07	<0.1	0.15	3.2	0.2	<0.05	3	<0.5	<0.2	
1481783	Soil	18	0.21	126	0.015	1	1.13	0.005	0.06	0.1	0.06	2.2	0.3	<0.05	4	<0.5	<0.2	
1481784	Soil	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1481785	Soil	10	0.22	110	0.012	2	0.58	0.008	0.05	0.1	0.13	1.8	0.1	0.06	2	<0.5	<0.2	
1481787	Soil	9	0.18	81	0.011	2	0.52	0.008	0.05	<0.1	0.12	1.4	0.1	0.08	2	<0.5	<0.2	
1481788	Soil	14	0.49	109	0.020	3	0.62	0.007	0.06	0.1	0.27	3.8	0.2	<0.05	2	0.5	<0.2	
1481789	Soil	16	0.34	128	0.009	3	0.80	0.008	0.07	<0.1	0.29	3.1	0.2	0.06	2	<0.5	<0.2	
1481790	Soil	18	0.28	200	0.018	2	1.05	0.006	0.08	0.2	0.18	3.6	0.2	<0.05	3	<0.5	<0.2	
1481791	Soil	12	0.14	106	0.011	2	0.64	0.004	0.07	0.1	0.09	1.6	0.2	<0.05	2	<0.5	0.3	
1481793	Soil	16	0.29	144	0.011	3	0.80	0.007	0.08	<0.1	0.27	3.9	0.2	0.07	2	0.9	<0.2	
1481794	Soil	18	0.28	132	0.015	2	0.96	0.005	0.07	<0.1	0.27	3.5	0.2	<0.05	3	<0.5	<0.2	
1481795	Soil	18	1.72	699	0.026	2	0.68	0.009	0.06	0.1	0.16	2.7	0.3	0.06	2	<0.5	<0.2	
1481796	Soil	23	0.31	220	0.012	2	1.19	0.005	0.09	<0.1	0.13	4.3	0.2	<0.05	3	0.6	<0.2	
1481797	Soil	18	0.37	163	0.014	2	0.89	0.006	0.08	0.1	0.17	4.1	0.2	0.06	2	<0.5	<0.2	
1481798	Soil	13	0.12	106	0.015	1	0.70	0.005	0.06	0.1	0.04	1.3	0.2	<0.05	4	<0.5	<0.2	
1481799	Soil	17	0.41	142	0.009	3	0.86	0.007	0.06	<0.1	0.20	1.8	0.2	0.14	2	0.8	<0.2	
1481800	Soil	33	2.29	169	0.055	3	0.84	0.010	0.08	<0.1	0.08	3.6	0.1	<0.05	3	<0.5	<0.2	
1481801	Soil	22	0.27	274	0.018	3	1.08	0.009	0.13	0.2	0.46	2.4	0.5	0.18	4	2.8	<0.2	
1481802	Soil	20	0.53	231	0.018	2	1.00	0.009	0.12	0.1	0.24	4.8	0.3	0.06	2	<0.5	<0.2	
1481803	Soil	22	0.32	203	0.024	3	0.98	0.009	0.08	0.2	0.21	4.0	0.3	<0.05	3	<0.5	<0.2	
1481804	Soil	20	0.45	133	0.027	2	0.81	0.009	0.08	0.1	0.22	4.3	0.2	<0.05	2	<0.5	<0.2	
1481805	Soil	21	0.39	145	0.015	3	0.86	0.007	0.08	<0.1	0.22	3.6	0.2	0.08	2	<0.5	<0.2	
1481806	Soil	42	1.98	749	0.071	3	1.40	0.009	0.07	0.2	0.15	4.3	0.5	<0.05	5	0.6	<0.2	
1481807	Soil	17	1.09	292	0.012	3	0.49	0.009	0.05	<0.1	0.08	2.5	0.2	0.09	1	0.6	<0.2	
1481808	Soil	8	0.43	101	0.013	2	0.28	0.005	0.10	0.1	0.18	1.3	0.4	0.11	1	3.0	<0.2	

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.



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Report Date: August 09, 2018

Page: 4 of 4

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000334.1

Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	
																						Analyte
Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	0.1	2	0.01	0.001	1	
1481809	Soil	7.9	31.0	295.6	108	1.5	23.9	9.5	478	3.45	65.1	17.0	3.7	41	0.3	14.8	1.4	48	0.20	0.107	17	
1481810	Soil	2.2	16.9	41.7	106	0.5	22.3	10.2	762	3.27	14.1	<0.5	2.5	20	0.1	1.3	0.5	51	0.27	0.043	16	



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Report Date: August 09, 2018

Page: 4 of 4

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000334.1

Method	AQ201																
	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Analyte	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
1481809	Soil	24	0.36	273	0.042	2	1.16	0.006	0.09	0.3	0.41	2.4	0.7	0.08	4	0.7	<0.2
1481810	Soil	27	0.40	200	0.025	2	1.67	0.007	0.06	0.2	0.09	3.0	0.2	<0.05	5	<0.5	<0.2



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Report Date: August 09, 2018

Page: 1 of 1

Part: 1 of 2

QUALITY CONTROL REPORT

WHI18000334.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	2	0.01	0.001	1	
Pulp Duplicates																					
1480522	Soil	1.0	49.3	31.7	78	<0.1	32.3	18.6	1249	3.94	10.3	1.7	0.9	14	0.1	1.1	0.5	29	0.09	0.065	28
REP 1480522	QC	1.2	47.6	31.9	79	<0.1	32.8	18.6	1211	3.77	10.3	2.3	0.9	15	<0.1	1.3	0.5	29	0.10	0.062	30
1481808	Soil	8.7	18.3	56.2	46	0.9	8.6	3.3	260	1.49	30.0	3.5	7.7	13	0.1	7.7	1.1	24	0.66	0.029	24
REP 1481808	QC	9.3	19.0	58.6	48	0.9	8.9	3.3	266	1.54	31.2	2.4	8.0	14	0.1	7.5	1.1	25	0.68	0.031	26
Reference Materials																					
STD DS11	Standard	14.9	159.9	138.5	349	1.8	82.0	14.6	1058	3.33	42.8	93.0	7.5	68	2.3	7.6	11.3	52	1.02	0.069	19
STD DS11	Standard	14.5	144.7	136.9	342	1.7	78.9	13.9	994	3.12	41.0	76.4	7.4	63	2.2	7.2	10.9	52	1.02	0.069	19
STD OXC129	Standard	1.4	30.2	6.7	44	<0.1	84.9	21.5	438	3.30	0.8	198.6	1.9	212	<0.1	<0.1	<0.1	57	0.72	0.103	13
STD OXC129	Standard	1.3	28.7	6.6	44	<0.1	81.8	21.2	438	3.19	0.6	201.5	2.0	207	<0.1	<0.1	<0.1	57	0.79	0.099	13
STD OXC129 Expected		1.3	28	6.2	42.9		79.5	20.3	421	3.065	0.6	195	1.9					51	0.684	0.102	12.5
STD DS11 Expected		14.6	149	138	345	1.71	77.7	14.2	1055	3.1	42.8	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701	18.6
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1



Bureau Veritas Commodities Canada Ltd.
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Client: Metallic Minerals Corp.
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Project: McKay Hill
Report Date: August 09, 2018

Page: 1 of 1

Part: 2 of 2

QUALITY CONTROL REPORT

WHI18000334.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Pulp Duplicates																	
1480522	Soil	26	0.31	90	0.007	<1	1.09	0.003	0.07	<0.1	0.08	1.5	<0.1	<0.05	3	<0.5	<0.2
REP 1480522	QC	26	0.32	92	0.007	<1	1.11	0.004	0.07	<0.1	0.10	1.5	<0.1	<0.05	3	<0.5	<0.2
1481808	Soil	8	0.43	101	0.013	2	0.28	0.005	0.10	0.1	0.18	1.3	0.4	0.11	1	3.0	<0.2
REP 1481808	QC	9	0.43	104	0.014	2	0.30	0.004	0.10	<0.1	0.19	1.3	0.4	0.12	1	2.9	<0.2
Reference Materials																	
STD DS11	Standard	62	0.83	372	0.091	8	1.11	0.072	0.40	3.0	0.25	3.3	5.0	0.29	5	1.9	4.7
STD DS11	Standard	60	0.82	349	0.091	8	1.11	0.082	0.39	3.0	0.26	3.2	5.0	0.28	5	1.9	4.6
STD OXC129	Standard	55	1.63	51	0.429	1	1.63	0.646	0.35	<0.1	<0.01	1.2	<0.1	<0.05	6	<0.5	<0.2
STD OXC129	Standard	56	1.63	53	0.436	<1	1.69	0.615	0.37	<0.1	<0.01	1.4	<0.1	<0.05	6	<0.5	<0.2
STD OXC129 Expected		52	1.545	50	0.4	1	1.58	0.59	0.3655			1.1			5.5		
STD DS11 Expected		61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	0.26	3.4	4.9	0.2835	5.1	2.2	4.56
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2



BUREAU VERITAS MINERAL LABORATORIES
Canada

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Bureau Veritas Commodities Canada Ltd.
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Client: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Submitted By: Scott Petsel
Receiving Lab: Canada-Whitehorse
Received: July 20, 2018
Report Date: August 16, 2018
Page: 1 of 6

CERTIFICATE OF ANALYSIS

WHI18000402.1

CLIENT JOB INFORMATION

Project: McKay Hill
Shipment ID: MH
P.O. Number: McKay Hill
Number of Samples: 129

SAMPLE DISPOSAL

RTRN-PLP Return After 90 days
DISP-RJT-SOIL Immediate Disposal of Soil Reject

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Metallic Minerals Corp.
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2
Canada

CC: Lauren Blackburn
Samantha Dyck

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
DY060	129	Dry at 60C			WHI
SS80	129	Dry at 60C sieve 100g to -80 mesh			WHI
AQ201	129	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN
SHP01	129	Per sample shipping charges for branch shipments			VAN

ADDITIONAL COMMENTS


KERRY JAY
Geochem Project Specialist

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
*** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

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Client: **Metallic Minerals Corp.**
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Vancouver British Columbia V6C 1T2 Canada

Project: McKay Hill
Report Date: August 16, 2018

Page: 2 of 6

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000402.1

Method Analyte	Unit	MDL	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
			Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
			ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
			0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
1481901	Soil		0.6	19.0	279.4	1225	0.5	23.1	12.8	2241	3.00	15.2	<0.5	0.9	39	4.1	3.6	0.2	31	10.76	0.052	7
1481902	Soil		0.2	10.3	167.8	705	0.3	17.0	9.9	2382	2.59	7.6	0.7	1.1	49	2.8	2.5	0.1	22	12.29	0.031	6
1481903	Soil		0.5	17.7	271.0	1515	0.6	20.4	14.7	2987	3.32	10.3	2.2	1.2	20	5.3	3.3	0.2	33	5.20	0.045	9
1481904	Soil		0.5	19.6	511.2	3145	1.0	18.9	12.5	3222	3.63	10.6	1.6	1.0	26	17.6	2.8	0.2	46	5.38	0.055	11
1481905	Soil		0.2	15.7	253.2	1662	0.7	15.5	9.5	2846	2.53	6.8	1.1	1.0	34	8.0	2.6	0.2	26	10.12	0.041	6
1481906	Soil		1.3	22.3	843.8	2324	0.9	24.9	13.1	2506	3.50	22.1	0.9	1.0	29	11.3	2.8	0.1	63	9.60	0.039	7
1481907	Soil		1.8	28.7	977.3	2198	1.2	28.4	15.1	2878	4.19	28.2	1.5	1.0	31	12.1	3.2	0.2	68	10.42	0.043	8
1481908	Soil		2.2	19.5	562.1	1291	0.8	19.2	10.4	2116	3.13	22.7	1.2	1.0	38	6.2	2.3	0.1	40	13.62	0.030	6
1481909	Soil		4.9	17.7	243.3	704	0.7	19.6	9.4	1963	3.80	25.9	0.9	0.7	35	2.8	3.0	0.3	18	12.79	0.046	6
1481910	Soil		1.0	126.1	147.4	206	0.2	52.5	27.6	753	5.62	9.9	3.5	3.0	12	0.4	1.0	0.2	181	0.22	0.064	12
1481911	Soil		0.6	204.4	127.0	217	0.1	54.6	35.8	1224	5.99	8.6	11.2	1.7	9	0.9	0.9	0.1	179	0.29	0.066	8
1481912	Soil		0.3	276.4	76.9	348	0.1	77.9	48.5	1548	7.95	5.0	5.4	0.9	8	0.7	0.6	<0.1	287	0.34	0.032	7
1481913	Soil		2.7	27.2	40.4	92	0.1	25.2	10.5	549	3.48	14.1	2.2	1.0	9	0.3	1.2	0.3	88	0.09	0.049	12
1481914	Soil		1.6	142.7	118.9	180	0.3	89.4	34.0	2022	5.83	10.4	8.0	2.4	11	0.5	1.4	0.2	110	0.26	0.046	11
1481915	Soil		8.6	152.0	125.4	530	0.6	140.3	53.3	8519	11.11	21.3	6.2	3.2	16	2.2	2.9	0.3	93	0.67	0.096	10
1481916	Soil		14.2	225.2	484.9	653	1.0	187.3	69.1	5918	8.86	35.8	8.8	4.9	21	3.5	4.3	0.6	82	0.28	0.135	12
1481917	Soil		13.8	211.0	348.0	645	1.0	136.0	47.6	4752	8.96	39.4	10.3	3.5	18	2.6	4.3	0.5	96	0.48	0.137	11
1481918	Soil		1.7	27.1	59.0	86	<0.1	25.7	13.3	626	3.32	9.6	3.1	1.2	8	0.2	0.8	0.2	74	0.10	0.044	12
1481919	Soil		9.3	105.1	276.8	408	1.3	73.4	34.3	2429	7.36	47.1	6.1	1.5	16	1.1	5.0	0.6	123	2.19	0.078	11
1481920	Soil		4.4	66.1	14.6	53	0.5	20.5	16.4	415	3.36	19.8	7.4	0.7	14	0.2	2.3	4.6	29	0.12	0.091	18
1481921	Soil		1.1	28.0	58.7	84	0.3	25.5	16.0	1550	3.82	8.9	1.2	1.6	13	0.5	1.3	0.3	28	0.66	0.117	15
1481922	Soil		0.8	30.9	61.0	83	0.4	28.2	16.6	1314	3.63	9.4	2.5	1.8	15	0.4	2.3	0.3	26	1.52	0.058	17
1481923	Soil		1.7	529.8	47.6	137	0.9	51.1	34.9	5908	7.52	18.5	5.3	7.3	14	0.3	2.6	0.5	60	0.28	0.080	20
1481924	Soil		1.1	48.9	34.8	99	0.6	27.5	24.0	2591	3.71	18.5	2.1	1.2	13	0.4	1.0	0.3	35	0.64	0.082	12
1481925	Soil		1.0	43.2	22.8	233	0.3	67.0	41.2	5302	6.40	5.7	3.9	1.7	21	0.5	0.8	0.1	97	0.41	0.057	12
1481926	Soil		1.6	35.4	38.2	116	0.1	25.2	9.8	470	3.22	12.2	3.3	1.7	12	0.2	1.3	0.2	54	0.14	0.058	21
1481927	Soil		5.4	34.5	157.9	292	0.2	49.8	15.1	4415	7.68	12.7	3.2	3.6	12	0.8	1.7	0.6	96	0.15	0.061	24
1481928	Soil		7.4	37.1	619.5	280	2.1	77.7	22.0	2435	5.64	90.7	3.7	11.2	21	1.2	5.0	5.7	118	0.50	0.105	19
1481929	Soil		9.4	125.7	128.1	186	0.4	56.3	20.2	1376	4.49	30.6	4.3	4.9	13	0.7	4.4	1.1	72	0.20	0.081	17
1481930	Soil		14.8	41.6	3217.8	2235	2.7	58.6	26.2	5155	7.80	29.1	5.1	18.5	24	10.8	7.7	3.6	130	0.94	0.114	17



Bureau Veritas Commodities Canada Ltd.

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Project: McKay Hill
Report Date: August 16, 2018

Page: 2 of 6

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000402.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Ti	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
1481901	Soil	4	5.64	50	0.004	2	0.16	0.006	0.03	<0.1	0.12	2.6	0.3	<0.05	<1	<0.5	<0.2
1481902	Soil	3	6.35	27	0.004	2	0.11	0.007	0.02	<0.1	0.15	2.5	0.1	<0.05	<1	<0.5	<0.2
1481903	Soil	8	2.79	62	0.008	1	0.33	0.004	0.02	<0.1	0.26	3.9	0.1	<0.05	<1	0.5	<0.2
1481904	Soil	9	2.96	72	0.009	2	0.41	0.005	0.02	<0.1	0.49	3.2	0.4	<0.05	1	<0.5	<0.2
1481905	Soil	4	5.14	49	0.004	2	0.14	0.005	0.02	<0.1	0.21	2.5	0.2	<0.05	<1	<0.5	<0.2
1481906	Soil	5	5.25	84	0.005	1	0.21	0.006	0.02	<0.1	0.31	2.4	0.3	<0.05	<1	<0.5	<0.2
1481907	Soil	7	5.14	118	0.005	2	0.23	0.006	0.03	<0.1	0.35	2.8	0.4	<0.05	<1	<0.5	<0.2
1481908	Soil	4	7.59	106	0.003	1	0.11	0.008	0.03	<0.1	0.20	2.2	0.6	<0.05	<1	<0.5	<0.2
1481909	Soil	5	6.41	248	0.003	1	0.16	0.007	0.03	<0.1	0.14	2.3	1.2	<0.05	<1	0.6	<0.2
1481910	Soil	47	2.12	112	0.169	<1	2.82	0.007	0.20	0.1	0.04	16.0	0.2	<0.05	9	<0.5	<0.2
1481911	Soil	70	2.71	45	0.133	2	3.07	0.005	0.23	0.1	0.01	6.7	0.3	<0.05	10	<0.5	<0.2
1481912	Soil	112	3.58	54	0.196	2	4.03	0.005	0.54	<0.1	0.02	23.8	0.6	<0.05	13	<0.5	<0.2
1481913	Soil	37	0.66	92	0.039	2	1.62	0.006	0.10	0.2	0.02	3.0	0.3	<0.05	7	<0.5	<0.2
1481914	Soil	79	2.01	79	0.054	1	2.41	0.006	0.07	0.1	0.05	13.1	0.2	<0.05	6	<0.5	<0.2
1481915	Soil	72	1.88	73	0.020	2	2.06	0.003	0.11	<0.1	0.15	23.8	0.4	<0.05	4	1.2	<0.2
1481916	Soil	55	1.61	74	0.016	1	2.04	0.004	0.14	0.1	0.21	16.0	0.4	0.09	5	1.4	<0.2
1481917	Soil	67	1.70	70	0.020	2	2.18	0.004	0.12	<0.1	0.18	13.5	0.4	0.05	5	2.0	<0.2
1481918	Soil	43	0.58	75	0.047	1	1.76	0.005	0.04	0.1	0.03	3.0	0.2	<0.05	6	<0.5	<0.2
1481919	Soil	53	2.74	96	0.043	2	2.02	0.004	0.05	<0.1	0.18	11.9	0.9	<0.05	6	0.8	<0.2
1481920	Soil	21	0.21	149	0.011	2	0.73	0.004	0.09	0.1	0.06	1.2	0.3	0.09	3	<0.5	<0.2
1481921	Soil	21	0.44	127	0.008	<1	0.97	0.004	0.06	<0.1	0.05	4.2	0.1	<0.05	2	<0.5	<0.2
1481922	Soil	23	0.95	74	0.011	1	0.73	0.007	0.04	<0.1	0.07	4.4	0.2	<0.05	2	<0.5	<0.2
1481923	Soil	37	0.77	118	0.017	1	1.60	0.005	0.06	0.1	0.12	10.7	0.2	<0.05	3	<0.5	<0.2
1481924	Soil	28	0.49	126	0.014	2	0.99	0.006	0.07	<0.1	0.07	3.4	<0.1	<0.05	2	<0.5	<0.2
1481925	Soil	94	1.42	541	0.042	<1	2.18	0.006	0.12	<0.1	0.07	19.0	0.2	<0.05	5	<0.5	<0.2
1481926	Soil	28	0.39	68	0.035	1	1.41	0.005	0.05	0.2	0.04	2.5	0.2	<0.05	4	<0.5	<0.2
1481927	Soil	27	0.35	191	0.024	<1	1.34	0.005	0.06	0.1	0.15	5.8	0.3	<0.05	3	0.6	<0.2
1481928	Soil	48	0.42	129	0.017	<1	1.31	0.005	0.04	0.2	0.09	7.7	0.2	<0.05	3	2.1	<0.2
1481929	Soil	31	0.39	110	0.028	<1	1.19	0.005	0.04	0.5	0.05	3.8	0.1	<0.05	4	0.6	<0.2
1481930	Soil	42	0.49	203	0.015	<1	1.04	0.006	0.04	0.6	1.03	10.8	0.2	<0.05	2	1.4	<0.2



Bureau Veritas Commodities Canada Ltd.

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Project: McKay Hill
Report Date: August 16, 2018

Page: 3 of 6

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000402.1

Method Analyte	AQ201																				
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	
1481931	Soil	8.4	44.3	1787.4	1410	1.7	63.2	28.2	3901	6.54	23.3	2.1	1.8	20	4.9	4.6	0.5	94	1.10	0.123	14
1481932	Soil	11.3	122.1	521.0	964	1.1	101.6	60.4	2315	7.50	54.4	1.4	2.6	18	4.8	7.0	1.3	143	0.85	0.169	28
1481933	Soil	9.5	133.7	458.4	758	1.3	79.0	45.5	1751	5.71	52.1	2.5	2.1	14	3.2	5.8	1.9	85	0.55	0.112	27
1481934	Soil	8.5	114.9	310.3	606	0.9	111.5	41.1	1506	7.21	86.9	6.3	2.0	14	2.7	3.3	1.1	177	0.64	0.094	31
1481935	Soil	2.5	40.7	32.1	110	0.2	50.5	11.8	388	2.46	29.6	2.1	4.8	13	0.5	0.6	0.2	165	0.89	0.064	10
1481936	Soil	2.3	169.9	380.1	403	1.1	68.0	33.6	1630	6.12	15.6	3.5	2.5	18	2.4	0.7	0.2	165	0.84	0.086	22
1481937	Soil	11.2	44.2	168.8	272	0.3	69.6	21.6	1160	4.19	24.1	1.7	0.7	12	0.8	1.9	0.7	77	0.23	0.100	12
1481938	Soil	5.8	43.4	123.9	232	0.2	42.9	16.3	943	3.95	16.5	1.5	0.6	10	0.7	0.9	0.4	74	0.14	0.069	12
1481939	Soil	44.1	614.9	381.3	889	1.7	133.2	68.7	2327	13.05	127.7	35.0	8.8	5	2.9	10.0	1.2	97	0.03	0.192	13
1481940	Soil	6.0	70.6	334.7	421	0.6	44.1	16.7	969	3.74	22.4	3.9	2.6	8	1.6	1.5	0.2	136	0.19	0.072	16
1481941	Soil	6.8	130.8	168.0	621	0.6	111.6	57.6	2758	6.42	52.1	8.6	1.7	12	1.7	3.3	0.9	126	0.24	0.071	13
1481942	Soil	10.9	44.7	112.4	179	0.4	93.5	28.5	2969	4.68	53.7	2.4	0.9	18	1.0	1.3	0.4	57	1.30	0.111	13
1481943	Soil	2.7	379.9	2879.9	2356	1.1	75.9	89.2	3400	5.85	89.7	13.7	1.5	16	10.4	3.8	0.2	98	0.65	0.078	17
1481944	Soil	1.2	213.4	1432.2	869	0.9	74.5	43.9	4428	9.41	21.9	5.0	0.8	19	3.2	1.4	<0.1	137	0.92	0.066	8
1481945	Soil	2.4	37.2	152.8	225	0.5	39.3	16.0	851	3.17	16.4	0.9	1.1	35	1.2	1.3	0.2	63	5.78	0.072	13
1481946	Soil	1.8	72.8	262.2	326	0.4	61.1	30.8	1641	5.12	9.2	2.2	1.5	18	0.9	1.1	0.2	90	1.61	0.056	10
1481947	Soil	2.3	14.4	47.4	123	0.1	39.8	33.7	>10000	7.51	14.2	2.1	1.7	11	0.8	0.9	0.3	79	0.32	0.084	11
1481948	Soil	11.9	17.1	188.1	464	0.5	56.5	20.3	6900	9.31	31.9	2.7	2.8	17	2.8	2.8	0.6	88	1.21	0.199	9
1481949	Soil	20.9	45.4	454.9	286	1.2	105.7	52.1	>10000	12.59	428.3	4.5	8.5	23	1.8	8.6	1.4	77	2.03	0.129	8
1481950	Soil	15.2	32.3	470.1	375	1.1	86.9	45.9	5572	10.08	124.4	5.0	3.3	22	1.9	3.3	1.0	69	1.21	0.078	11
1481951	Soil	18.6	27.8	355.8	244	1.2	92.8	21.8	5995	10.59	80.5	3.5	24.4	17	1.3	2.9	0.6	84	0.64	0.091	17
1481952	Soil	13.4	32.7	220.0	273	0.7	104.6	42.5	>10000	14.56	86.4	3.1	11.5	32	2.1	1.8	0.7	108	1.85	0.127	8
1481953	Soil	5.1	84.2	6316.1	5994	3.3	114.8	36.6	2828	6.43	64.5	8.3	3.2	23	20.1	6.8	0.1	106	2.30	0.069	21
1481954	Soil	0.7	18.8	21.2	81	0.1	53.9	18.8	2185	4.65	12.5	0.8	1.1	26	0.4	1.4	0.2	41	2.21	0.084	20
1481955	Soil	1.3	101.0	51.1	165	1.4	59.8	28.4	5735	7.63	9.1	5.3	0.9	20	0.6	0.6	0.2	84	0.72	0.114	10
1481956	Soil	0.6	67.9	24.0	209	0.2	51.2	43.5	6845	9.38	7.4	5.2	7.0	21	0.4	0.9	0.2	109	0.81	0.070	10
1481957	Soil	1.1	114.3	33.7	138	0.9	64.0	43.9	7718	10.72	25.9	6.5	3.7	22	0.5	1.9	0.6	82	0.76	0.099	9
1481958	Soil	1.3	19.2	19.2	135	0.1	34.6	27.3	6728	9.01	7.1	<0.5	6.2	19	1.1	1.1	0.3	86	0.68	0.135	21
1481959	Soil	1.5	450.6	22.1	146	1.0	44.8	41.6	9409	10.87	7.0	6.9	2.4	19	0.4	0.8	0.2	83	0.73	0.097	13
1481960	Soil	0.9	34.4	25.9	97	0.2	43.1	44.4	6136	8.38	9.0	5.7	9.4	17	0.3	1.2	0.3	65	0.58	0.080	14



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Page: 3 of 6

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000402.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2		
1481931	Soil	57	0.97	160	0.020	<1	1.23	0.006	0.04	0.1	0.23	5.8	0.1	<0.05	4	0.7	<0.2	
1481932	Soil	66	1.25	103	0.027	1	1.52	0.006	0.07	0.1	0.10	6.3	0.4	<0.05	6	2.3	0.2	
1481933	Soil	31	0.36	107	0.014	<1	1.00	0.005	0.05	0.2	0.12	4.2	0.3	<0.05	3	3.1	<0.2	
1481934	Soil	67	1.05	114	0.029	2	1.98	0.005	0.06	0.1	0.16	5.3	0.3	0.08	5	2.7	0.2	
1481935	Soil	53	4.90	32	0.064	2	3.24	0.004	0.16	0.1	0.01	6.4	0.7	<0.05	11	<0.5	<0.2	
1481936	Soil	91	2.41	81	0.064	3	2.74	0.012	0.07	<0.1	0.05	13.3	0.4	<0.05	10	<0.5	<0.2	
1481937	Soil	52	0.70	95	0.029	2	1.74	0.007	0.06	0.2	0.05	2.2	0.2	0.09	5	1.9	<0.2	
1481938	Soil	56	0.85	109	0.032	2	2.16	0.006	0.05	0.2	0.04	2.7	0.2	0.05	6	<0.5	<0.2	
1481939	Soil	35	1.11	30	0.029	<1	2.12	0.003	0.05	0.4	0.16	7.0	0.3	0.19	5	13.3	0.6	
1481940	Soil	39	3.29	67	0.049	2	2.85	0.006	0.06	0.3	0.08	4.9	0.5	<0.05	8	0.7	<0.2	
1481941	Soil	49	1.61	147	0.029	2	2.40	0.005	0.05	0.2	0.08	10.2	0.2	<0.05	6	1.2	<0.2	
1481942	Soil	29	0.96	282	0.021	1	1.81	0.007	0.05	0.1	0.09	3.4	0.2	<0.05	4	0.9	<0.2	
1481943	Soil	34	1.40	134	0.024	4	2.26	0.007	0.05	0.2	0.17	12.5	0.2	0.06	6	0.9	<0.2	
1481944	Soil	53	1.73	99	0.008	3	2.90	0.005	0.07	<0.1	0.06	20.9	0.1	<0.05	7	<0.5	<0.2	
1481945	Soil	39	3.20	91	0.027	3	1.31	0.006	0.06	0.1	0.07	3.6	0.2	<0.05	4	<0.5	<0.2	
1481946	Soil	53	1.92	111	0.016	3	1.94	0.006	0.06	<0.1	0.07	11.9	0.1	<0.05	4	<0.5	<0.2	
1481947	Soil	38	0.79	257	0.026	2	1.99	0.006	0.05	0.1	0.06	27.4	0.1	0.06	4	<0.5	<0.2	
1481948	Soil	23	0.38	231	0.009	2	0.95	0.005	0.07	0.3	0.18	11.5	0.2	0.14	2	0.9	<0.2	
1481949	Soil	19	0.66	234	0.014	2	0.91	0.005	0.04	0.2	0.13	11.1	0.2	0.13	2	1.1	<0.2	
1481950	Soil	17	0.74	171	0.014	3	1.05	0.006	0.06	0.1	0.10	6.9	0.3	0.10	2	1.6	<0.2	
1481951	Soil	26	0.38	189	0.017	1	1.03	0.005	0.05	0.2	0.13	12.8	0.2	0.07	3	1.1	<0.2	
1481952	Soil	19	1.12	226	0.008	3	1.20	0.005	0.05	0.8	0.08	20.4	0.2	0.12	2	1.0	<0.2	
1481953	Soil	22	2.04	91	0.012	3	1.64	0.005	0.09	0.1	0.30	5.3	0.3	0.07	5	1.4	<0.2	
1481954	Soil	47	1.38	146	0.017	2	1.01	0.007	0.04	0.1	0.05	5.6	0.1	0.06	2	<0.5	<0.2	
1481955	Soil	125	1.45	99	0.044	2	1.91	0.006	0.08	<0.1	0.13	11.8	<0.1	0.09	5	<0.5	<0.2	
1481956	Soil	28	1.21	145	0.019	2	1.91	0.004	0.08	0.2	0.06	19.1	<0.1	0.08	4	<0.5	<0.2	
1481957	Soil	38	0.60	200	0.007	2	0.88	0.005	0.07	0.1	0.12	28.1	0.2	0.10	1	0.7	<0.2	
1481958	Soil	80	0.77	369	0.028	2	1.98	0.007	0.06	0.3	0.06	11.3	<0.1	0.08	4	<0.5	<0.2	
1481959	Soil	40	0.68	2053	0.019	2	1.47	0.007	0.05	0.2	0.16	17.1	<0.1	0.08	3	1.3	<0.2	
1481960	Soil	36	0.79	192	0.018	2	1.31	0.005	0.07	<0.1	0.06	16.5	<0.1	<0.05	3	0.6	<0.2	



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Page: 4 of 6

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000402.1

Method Analyte	Unit	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
MDL		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
1481961	Soil	0.6	43.8	164.7	209	0.7	51.5	72.3	2797	6.64	15.0	7.5	4.0	15	0.5	3.3	0.3	56	0.62	0.025	7
1481962	Soil	1.3	20.3	269.3	75	0.3	23.3	22.1	3151	4.55	9.9	0.6	1.6	19	0.3	1.7	0.3	40	0.48	0.102	13
1480662	Soil	1.4	52.8	44.5	75	<0.1	44.0	27.4	1284	3.68	14.8	1.4	2.6	12	<0.1	0.7	0.3	30	0.13	0.063	21
1480663	Soil	1.5	78.3	54.8	104	<0.1	40.4	18.2	1025	3.68	23.6	1.4	1.7	29	<0.1	1.2	0.4	31	0.44	0.128	40
1480664	Soil	1.0	45.8	59.2	87	<0.1	33.1	26.8	1324	3.92	15.1	<0.5	3.5	11	<0.1	1.0	0.4	30	0.12	0.085	22
1480665	Soil	1.1	45.1	43.6	88	<0.1	48.0	25.2	1272	4.40	14.6	4.9	2.5	11	<0.1	1.0	0.4	32	0.13	0.097	17
1480666	Soil	1.2	37.4	38.9	75	<0.1	27.1	18.0	1398	3.90	12.4	2.7	0.8	8	<0.1	0.8	0.4	34	0.06	0.106	17
1480667	Soil	0.9	29.6	44.6	66	<0.1	23.6	13.8	806	4.05	16.6	2.2	0.8	7	0.1	1.0	0.4	36	0.07	0.080	15
1480668	Soil	1.1	29.3	35.8	74	<0.1	22.2	17.8	1811	4.87	14.7	4.1	0.7	6	0.2	1.1	0.3	34	0.05	0.112	12
1480669	Soil	0.9	33.2	49.2	73	<0.1	33.2	19.5	1756	3.77	22.2	11.6	1.9	15	<0.1	1.7	0.5	31	0.11	0.086	20
1480670	Soil	1.2	27.5	31.0	63	<0.1	19.9	14.8	1434	3.25	14.2	2.6	1.0	9	<0.1	1.3	0.4	39	0.08	0.050	17
1480671	Soil	1.4	40.8	51.9	83	<0.1	30.8	21.0	1391	4.05	15.0	3.4	0.7	9	0.1	0.9	0.5	35	0.08	0.095	23
1480672	Soil	1.2	55.5	47.6	77	<0.1	32.3	22.0	1996	3.74	12.9	1.2	2.3	13	0.1	1.0	0.4	31	0.13	0.068	27
1480673	Soil	1.1	40.6	43.7	72	<0.1	30.1	18.8	1402	3.90	14.3	5.6	1.3	11	<0.1	1.3	0.4	34	0.10	0.082	24
1480674	Soil	1.4	39.5	45.5	80	<0.1	31.0	19.4	1848	3.87	13.0	1.0	1.3	14	<0.1	1.3	0.4	32	0.16	0.097	25
1480676	Soil	0.8	33.0	31.3	76	<0.1	26.0	18.1	1665	4.56	10.0	2.0	1.1	7	0.1	1.0	0.3	28	0.06	0.123	12
1480677	Soil	1.2	33.2	37.5	76	<0.1	25.4	19.7	1968	4.07	17.3	3.1	0.6	7	0.1	1.3	0.4	28	0.05	0.113	14
1480678	Soil	1.1	29.8	34.5	72	<0.1	24.5	16.3	1054	3.42	16.0	3.5	0.9	11	0.2	1.3	0.3	34	0.11	0.082	20
1480679	Soil	1.3	43.3	49.1	81	<0.1	33.2	26.3	1812	3.62	20.2	4.3	3.9	13	0.1	1.8	0.4	32	0.12	0.077	28
1480680	Soil	1.4	34.0	41.2	86	0.1	26.2	26.5	2001	4.82	10.5	1.5	0.7	9	0.2	1.2	0.5	40	0.06	0.134	19
1480681	Soil	1.3	34.7	42.6	69	<0.1	22.8	17.8	1937	4.04	10.6	2.3	0.9	9	<0.1	1.0	0.4	35	0.09	0.097	23
1480682	Soil	1.6	60.4	51.6	92	<0.1	58.4	27.3	2313	4.56	18.7	3.1	4.0	21	0.2	1.3	0.5	38	0.25	0.119	18
1480683	Soil	0.9	58.6	43.7	83	<0.1	44.2	38.0	3107	3.98	8.3	3.2	4.3	15	0.1	1.8	0.4	20	0.11	0.104	20
1480684	Soil	1.4	42.9	37.3	75	<0.1	25.3	19.3	2454	4.00	9.3	2.1	1.5	9	0.1	1.4	0.4	39	0.08	0.123	19
1480685	Soil	1.4	37.1	48.1	83	<0.1	26.9	26.5	3044	5.02	10.9	3.1	1.2	7	0.2	1.3	0.4	31	0.04	0.166	15
1480686	Soil	1.1	36.3	47.0	88	<0.1	29.5	24.7	2520	4.54	10.1	2.7	2.3	8	0.2	1.3	0.4	34	0.07	0.128	22
1480687	Soil	1.2	36.6	42.7	85	<0.1	29.4	26.7	1626	3.89	18.9	2.2	1.1	9	0.1	1.4	0.4	32	0.09	0.108	20
1480688	Soil	1.1	34.7	31.9	73	<0.1	25.3	16.6	1515	3.20	14.6	2.8	0.6	11	0.2	1.5	0.3	39	0.11	0.092	19
1480689	Soil	1.0	117.4	45.1	180	0.3	155.7	50.2	4110	8.78	154.9	5.9	3.6	98	1.1	34.6	0.2	80	1.12	0.336	51
1480690	Soil	1.1	80.6	56.8	132	0.2	113.5	33.7	1773	6.42	117.1	3.9	3.8	50	0.5	21.3	0.3	50	0.54	0.167	32



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Page: 4 of 6

Part: 2 of 2

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Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Ti	S	Ga	Se	Te	
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2		
1481961	Soil	24	1.24	65	0.005	1	1.68	0.005	0.08	<0.1	0.15	13.7	<0.1	<0.05	4	0.6	<0.2	
1481962	Soil	28	0.63	133	0.011	2	1.37	0.004	0.08	<0.1	0.06	5.6	0.1	0.05	3	<0.5	<0.2	
1480662	Soil	43	0.66	68	0.012	1	1.55	0.004	0.04	<0.1	0.04	2.4	<0.1	<0.05	4	<0.5	<0.2	
1480663	Soil	35	0.61	85	0.008	1	1.80	0.008	0.06	<0.1	0.04	1.9	<0.1	0.07	5	<0.5	<0.2	
1480664	Soil	29	0.60	70	0.011	<1	1.77	0.005	0.05	<0.1	0.03	2.1	<0.1	<0.05	5	<0.5	<0.2	
1480665	Soil	47	0.77	60	0.006	<1	1.84	0.005	0.06	<0.1	0.03	1.8	<0.1	<0.05	6	<0.5	<0.2	
1480666	Soil	30	0.51	56	0.008	1	1.83	0.005	0.06	<0.1	0.04	0.9	0.1	0.06	5	<0.5	<0.2	
1480667	Soil	29	0.41	43	0.015	<1	1.51	0.004	0.04	0.1	0.04	1.3	<0.1	<0.05	5	<0.5	<0.2	
1480668	Soil	29	0.34	68	0.009	<1	1.66	0.005	0.05	<0.1	0.08	0.9	<0.1	0.10	6	<0.5	<0.2	
1480669	Soil	29	0.49	75	0.015	2	1.46	0.005	0.04	<0.1	0.05	2.1	<0.1	<0.05	4	<0.5	<0.2	
1480670	Soil	23	0.38	80	0.024	2	1.44	0.005	0.04	<0.1	0.05	1.6	<0.1	<0.05	4	0.6	<0.2	
1480671	Soil	36	0.53	66	0.009	2	1.77	0.004	0.05	<0.1	0.05	0.9	<0.1	0.05	5	<0.5	<0.2	
1480672	Soil	33	0.61	69	0.012	1	1.73	0.005	0.04	<0.1	0.05	2.1	<0.1	<0.05	5	<0.5	<0.2	
1480673	Soil	32	0.55	58	0.012	<1	1.68	0.004	0.04	<0.1	0.04	1.6	<0.1	0.06	4	<0.5	<0.2	
1480674	Soil	36	0.54	63	0.010	1	1.69	0.004	0.05	<0.1	0.06	1.6	<0.1	<0.05	5	<0.5	<0.2	
1480676	Soil	29	0.50	66	0.007	2	1.82	0.004	0.05	<0.1	0.07	0.9	<0.1	0.09	6	<0.5	<0.2	
1480677	Soil	27	0.44	54	0.007	<1	1.70	0.005	0.04	<0.1	0.05	1.0	<0.1	0.08	5	<0.5	<0.2	
1480678	Soil	26	0.44	54	0.020	2	1.43	0.004	0.04	<0.1	0.05	1.4	<0.1	<0.05	4	<0.5	<0.2	
1480679	Soil	29	0.58	80	0.023	1	1.72	0.004	0.04	<0.1	0.04	2.4	<0.1	<0.05	5	<0.5	<0.2	
1480680	Soil	36	0.44	79	0.010	2	2.06	0.005	0.07	<0.1	0.07	0.9	<0.1	0.08	6	<0.5	<0.2	
1480681	Soil	28	0.41	59	0.011	1	1.66	0.004	0.05	<0.1	0.07	1.1	<0.1	0.06	5	<0.5	<0.2	
1480682	Soil	73	0.89	85	0.006	1	2.20	0.005	0.07	<0.1	0.06	3.9	<0.1	<0.05	6	<0.5	<0.2	
1480683	Soil	32	0.73	49	0.005	1	1.99	0.006	0.05	<0.1	0.08	2.4	0.1	<0.05	5	<0.5	<0.2	
1480684	Soil	31	0.50	58	0.016	1	1.78	0.005	0.06	<0.1	0.06	1.9	0.1	0.05	6	0.6	<0.2	
1480685	Soil	31	0.50	73	0.008	<1	2.03	0.003	0.06	<0.1	0.07	1.1	<0.1	0.07	6	<0.5	<0.2	
1480686	Soil	34	0.57	61	0.014	1	1.82	0.005	0.06	<0.1	0.06	1.8	<0.1	<0.05	6	<0.5	<0.2	
1480687	Soil	29	0.53	61	0.014	2	1.83	0.004	0.06	<0.1	0.05	1.2	<0.1	<0.05	5	<0.5	<0.2	
1480688	Soil	30	0.46	80	0.016	<1	1.53	0.004	0.05	<0.1	0.06	1.3	<0.1	<0.05	5	<0.5	<0.2	
1480689	Soil	126	0.94	194	0.014	4	1.74	0.007	0.08	0.1	0.19	22.6	0.2	<0.05	4	<0.5	<0.2	
1480690	Soil	78	0.58	122	0.013	1	1.58	0.006	0.06	<0.1	0.11	12.6	<0.1	<0.05	3	<0.5	<0.2	



CERTIFICATE OF ANALYSIS

WHI18000402.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	2	0.01	0.001	1	
1480691	Soil	1.4	54.6	68.3	92	<0.1	30.9	29.7	2148	3.79	10.6	1.7	4.9	10	<0.1	1.2	0.5	30	0.09	0.106	29
1480692	Soil	1.5	31.7	31.0	63	<0.1	18.1	12.9	1142	3.59	8.0	3.1	0.6	7	0.2	1.3	0.3	35	0.05	0.084	16
1480693	Soil	1.3	33.1	49.8	70	<0.1	24.9	22.3	2241	3.85	10.0	4.2	1.2	9	0.1	1.1	0.4	35	0.09	0.102	20
1480694	Soil	1.1	36.2	52.7	84	<0.1	26.7	24.0	1725	3.83	14.0	1.7	1.9	9	<0.1	1.3	0.4	34	0.09	0.109	25
1480695	Soil	1.1	38.2	42.3	77	<0.1	29.5	25.2	2156	4.23	14.1	2.1	1.2	8	0.2	1.5	0.4	30	0.06	0.103	23
1480696	Soil	1.4	46.3	48.8	96	<0.1	38.1	32.3	1716	4.17	15.6	5.8	5.4	11	0.1	1.6	0.5	29	0.10	0.094	30
1480697	Soil	1.4	28.0	29.1	68	<0.1	20.9	13.3	1178	3.27	15.3	1.2	0.4	9	0.2	1.3	0.3	44	0.08	0.091	16
1480698	Soil	1.1	47.3	45.8	145	0.1	65.3	24.2	1045	4.98	207.2	6.4	0.5	35	0.7	13.3	0.2	57	0.51	0.176	20
1480699	Soil	1.2	34.2	43.6	68	0.1	25.1	19.0	1653	4.12	9.5	2.9	0.7	9	0.1	1.2	0.5	33	0.08	0.096	15
1480700	Soil	1.7	27.2	28.5	66	<0.1	21.7	12.6	925	3.67	11.7	2.1	0.8	10	0.1	0.9	0.3	52	0.09	0.071	13
1480701	Soil	1.2	28.3	33.1	56	<0.1	18.7	15.4	1633	4.16	7.3	5.4	1.3	7	0.1	0.8	0.4	37	0.06	0.090	16
1480702	Soil	1.3	31.5	38.7	66	<0.1	24.0	18.1	1680	3.50	9.5	1.0	0.6	8	<0.1	0.8	0.3	34	0.09	0.084	15
1480703	Soil	0.7	34.4	40.9	73	<0.1	26.8	19.5	978	3.47	11.4	14.1	1.1	9	<0.1	1.0	0.3	29	0.10	0.083	21
1480704	Soil	1.2	36.3	35.9	76	<0.1	29.2	19.0	1460	3.77	11.4	1.9	0.8	10	0.1	1.1	0.3	31	0.10	0.105	19
1480705	Soil	0.9	38.2	44.4	91	<0.1	32.2	26.3	1717	4.24	12.4	5.1	1.0	9	0.2	1.3	0.4	25	0.08	0.107	15
1480706	Soil	1.5	26.4	28.9	70	<0.1	23.3	12.7	833	3.54	15.5	1.0	0.4	7	0.2	0.9	0.3	45	0.08	0.086	12
1480707	Soil	1.7	52.9	67.7	165	0.2	74.1	24.6	1137	5.15	86.6	1.4	0.9	49	0.7	10.2	0.2	44	1.02	0.255	21
1480708	Soil	1.3	79.1	57.8	86	<0.1	38.0	27.4	2264	3.84	27.9	5.0	4.3	16	0.1	1.1	0.4	41	0.22	0.080	19
1480709	Soil	1.5	46.1	51.8	79	<0.1	33.2	23.9	2993	3.82	21.5	4.7	2.9	16	0.2	1.2	0.4	43	0.21	0.093	15
1480710	Soil	1.6	28.7	36.7	70	<0.1	22.9	14.2	1318	4.65	10.8	3.8	2.4	6	0.2	1.0	0.4	44	0.06	0.097	13
1480711	Soil	1.5	38.3	66.2	78	<0.1	31.2	32.6	3965	4.92	17.0	1.1	2.3	14	0.2	1.0	0.4	37	0.21	0.134	15
1480712	Soil	1.0	51.1	64.7	82	<0.1	40.2	36.5	1658	4.26	25.4	1.6	1.5	7	<0.1	1.4	0.4	31	0.10	0.101	17
1480713	Soil	1.0	46.1	43.7	93	<0.1	39.3	28.1	1420	4.11	15.8	2.6	4.3	8	0.1	1.0	0.3	25	0.11	0.085	23
1480714	Soil	0.7	47.6	58.0	108	<0.1	48.5	26.4	1591	5.60	7.5	0.8	10.6	7	<0.1	0.9	0.4	26	0.16	0.056	20
1480715	Soil	1.2	33.6	41.6	77	<0.1	34.0	25.6	1913	4.83	27.3	1.8	2.9	10	<0.1	2.8	0.4	34	0.13	0.078	16
1480716	Soil	1.2	76.7	78.9	142	0.1	77.7	32.0	1968	5.32	40.9	1.3	5.2	36	0.4	8.9	0.4	39	0.33	0.122	29
1480717	Soil	1.4	32.0	35.4	75	<0.1	25.0	20.1	1900	5.20	14.6	2.3	3.3	6	0.1	1.9	0.5	34	0.05	0.113	15
1480718	Soil	1.4	62.7	100.2	92	<0.1	43.1	39.9	1916	4.23	31.1	<0.5	5.6	11	<0.1	2.0	0.5	27	0.14	0.100	20
1480719	Soil	1.0	43.3	53.3	99	<0.1	36.9	32.0	1964	4.66	12.9	<0.5	6.4	8	<0.1	1.0	0.3	28	0.10	0.099	24
1480720	Soil	0.7	36.2	48.1	107	<0.1	44.8	26.9	1356	5.65	7.8	0.6	8.8	9	<0.1	0.8	0.4	23	0.16	0.059	18



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Project: McKay Hill
Report Date: August 16, 2018

Page: 5 of 6

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000402.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2		
1480691	Soil	27	0.57	72	0.015	2	1.84	0.006	0.06	0.1	0.10	2.3	<0.1	<0.05	5	<0.5	<0.2	
1480692	Soil	23	0.30	44	0.013	1	1.32	0.004	0.04	<0.1	0.07	1.0	<0.1	0.06	5	0.6	<0.2	
1480693	Soil	28	0.44	57	0.016	1	1.67	0.005	0.05	0.1	0.06	1.4	<0.1	<0.05	5	<0.5	<0.2	
1480694	Soil	28	0.49	55	0.016	<1	1.56	0.004	0.05	<0.1	0.03	1.6	<0.1	<0.05	5	<0.5	<0.2	
1480695	Soil	29	0.48	64	0.009	<1	1.73	0.003	0.05	<0.1	0.06	1.4	<0.1	<0.05	5	<0.5	<0.2	
1480696	Soil	29	0.67	64	0.016	<1	2.04	0.004	0.06	<0.1	0.03	2.3	<0.1	<0.05	5	<0.5	<0.2	
1480697	Soil	29	0.41	69	0.016	1	1.58	0.005	0.05	0.1	0.04	1.0	<0.1	<0.05	5	<0.5	<0.2	
1480698	Soil	90	0.84	121	0.007	<1	1.68	0.005	0.05	<0.1	0.14	2.7	<0.1	0.07	5	<0.5	<0.2	
1480699	Soil	27	0.41	64	0.010	<1	1.63	0.006	0.06	0.1	0.06	1.3	<0.1	0.07	5	<0.5	<0.2	
1480700	Soil	31	0.40	67	0.024	1	1.75	0.005	0.06	0.1	0.05	1.7	0.1	<0.05	6	<0.5	<0.2	
1480701	Soil	26	0.35	45	0.017	<1	1.52	0.004	0.04	<0.1	0.07	1.3	<0.1	<0.05	5	<0.5	<0.2	
1480702	Soil	30	0.43	62	0.011	1	1.47	0.004	0.05	<0.1	0.05	0.9	<0.1	<0.05	5	<0.5	<0.2	
1480703	Soil	25	0.49	50	0.011	<1	1.67	0.004	0.04	<0.1	0.04	1.0	<0.1	<0.05	4	<0.5	<0.2	
1480704	Soil	28	0.49	64	0.009	<1	1.69	0.004	0.05	<0.1	0.05	1.0	<0.1	<0.05	5	<0.5	<0.2	
1480705	Soil	29	0.56	57	0.006	<1	1.88	0.004	0.05	<0.1	0.05	0.9	<0.1	<0.05	5	<0.5	<0.2	
1480706	Soil	34	0.40	55	0.016	1	1.78	0.004	0.05	0.1	0.04	0.9	<0.1	<0.05	5	0.5	<0.2	
1480707	Soil	58	0.57	97	0.006	2	1.40	0.008	0.05	<0.1	0.15	5.0	<0.1	0.15	4	0.6	<0.2	
1480708	Soil	35	0.68	120	0.020	2	2.13	0.005	0.06	0.2	0.06	5.2	0.1	<0.05	6	<0.5	<0.2	
1480709	Soil	39	0.52	97	0.019	1	1.84	0.005	0.05	0.2	0.06	3.6	<0.1	<0.05	5	<0.5	<0.2	
1480710	Soil	31	0.43	48	0.019	4	1.90	0.004	0.05	<0.1	0.05	1.6	<0.1	<0.05	8	<0.5	<0.2	
1480711	Soil	39	0.55	86	0.014	1	2.03	0.003	0.06	<0.1	0.07	2.3	<0.1	<0.05	7	<0.5	<0.2	
1480712	Soil	39	0.65	74	0.007	1	1.97	0.004	0.04	<0.1	0.04	1.3	<0.1	<0.05	6	<0.5	<0.2	
1480713	Soil	31	0.73	49	0.007	1	2.07	0.004	0.05	<0.1	0.03	2.0	<0.1	<0.05	6	<0.5	<0.2	
1480714	Soil	43	0.92	56	0.002	<1	2.75	0.005	0.05	<0.1	0.01	3.3	<0.1	<0.05	9	<0.5	<0.2	
1480715	Soil	30	0.49	72	0.010	<1	1.37	0.005	0.05	0.1	0.05	3.6	<0.1	<0.05	5	<0.5	<0.2	
1480716	Soil	73	0.99	79	0.009	1	2.10	0.004	0.06	<0.1	0.14	5.6	<0.1	<0.05	6	<0.5	<0.2	
1480717	Soil	31	0.48	41	0.014	1	1.88	0.004	0.05	<0.1	0.06	1.8	<0.1	<0.05	7	0.6	<0.2	
1480718	Soil	34	0.65	85	0.008	1	1.75	0.004	0.05	<0.1	0.06	3.4	<0.1	<0.05	5	<0.5	<0.2	
1480719	Soil	34	0.75	54	0.015	1	2.03	0.006	0.06	<0.1	0.03	2.5	<0.1	<0.05	6	<0.5	<0.2	
1480720	Soil	38	0.91	34	0.001	1	2.84	0.004	0.05	<0.1	0.02	2.9	<0.1	<0.05	8	<0.5	<0.2	



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Report Date: August 16, 2018

Page: 6 of 6

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000402.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	2	0.01	0.001	1	
1480721	Soil	0.7	39.7	32.8	104	<0.1	44.9	23.5	1426	5.33	7.1	0.6	9.2	7	<0.1	0.8	0.3	21	0.11	0.058	22
1480722	Soil	1.0	58.7	79.7	99	<0.1	42.7	37.7	1372	5.13	17.6	<0.5	7.5	6	<0.1	1.5	0.6	26	0.10	0.069	26
1480723	Soil	0.9	35.1	32.2	107	<0.1	41.3	24.4	1214	5.48	5.7	<0.5	7.1	8	<0.1	0.7	0.3	24	0.10	0.045	6
1480724	Soil	0.9	28.3	19.6	114	<0.1	47.3	25.0	1297	6.17	3.2	1.6	7.6	7	<0.1	0.6	0.3	26	0.10	0.048	5
1480725	Soil	0.5	33.4	27.2	120	<0.1	49.3	28.5	1454	6.32	4.6	1.9	8.4	8	<0.1	0.6	0.3	24	0.13	0.052	5
1480726	Soil	0.9	38.1	26.9	108	<0.1	48.3	25.5	1300	5.94	12.1	<0.5	10.4	8	<0.1	0.8	0.3	25	0.11	0.051	12
1480727	Soil	1.3	81.8	81.7	99	<0.1	35.2	34.7	2927	4.83	15.9	1.2	10.2	6	<0.1	0.6	0.7	28	0.07	0.089	36
1480728	Soil	1.8	33.4	117.5	71	<0.1	30.2	27.6	1325	3.84	18.7	4.3	3.1	8	<0.1	0.7	0.8	49	0.10	0.099	24
1481526	Soil	2.0	111.6	1978.3	2877	0.2	156.3	44.8	1463	6.10	179.3	2.1	1.7	179	18.2	19.0	0.2	59	1.78	0.245	23



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Page: 6 of 6

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000402.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
1480721	Soil	38	0.90	41	0.001	1	2.82	0.005	0.06	<0.1	0.01	2.9	<0.1	<0.05	8	<0.5	<0.2
1480722	Soil	33	0.66	40	0.006	<1	1.87	0.003	0.04	<0.1	0.01	2.5	<0.1	<0.05	6	<0.5	<0.2
1480723	Soil	36	0.74	40	<0.001	1	2.49	0.004	0.04	<0.1	<0.01	2.8	<0.1	<0.05	8	<0.5	<0.2
1480724	Soil	42	0.91	21	<0.001	<1	2.88	0.004	0.05	<0.1	0.01	2.8	<0.1	<0.05	9	<0.5	<0.2
1480725	Soil	42	0.99	23	<0.001	<1	3.02	0.006	0.04	<0.1	0.01	2.9	<0.1	<0.05	9	<0.5	<0.2
1480726	Soil	38	0.86	29	0.002	<1	2.52	0.003	0.04	<0.1	<0.01	3.0	<0.1	<0.05	9	<0.5	<0.2
1480727	Soil	32	0.82	61	0.009	<1	2.22	0.005	0.05	<0.1	0.05	3.1	<0.1	<0.05	6	<0.5	<0.2
1480728	Soil	40	0.59	59	0.021	<1	1.83	0.004	0.05	0.2	0.05	2.3	<0.1	<0.05	6	<0.5	<0.2
1481526	Soil	92	1.08	242	0.003	3	1.52	0.006	0.04	<0.1	1.55	11.8	0.1	<0.05	4	<0.5	<0.2



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Project: McKay Hill
Report Date: August 16, 2018

Page: 1 of 1

Part: 1 of 2

QUALITY CONTROL REPORT

WHI18000402.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	2	0.01	0.001	1	
Pulp Duplicates																					
1481908	Soil	2.2	19.5	562.1	1291	0.8	19.2	10.4	2116	3.13	22.7	1.2	1.0	38	6.2	2.3	0.1	40	13.62	0.030	6
REP 1481908	QC	2.5	19.7	553.8	1334	0.7	20.0	10.5	2049	3.03	22.3	1.5	1.0	39	6.3	2.3	0.1	42	14.12	0.034	6
1481923	Soil	1.7	529.8	47.6	137	0.9	51.1	34.9	5908	7.52	18.5	5.3	7.3	14	0.3	2.6	0.5	60	0.28	0.080	20
REP 1481923	QC	1.6	516.1	47.0	136	0.9	50.4	35.8	5924	7.69	18.2	12.1	7.2	13	0.3	2.6	0.5	57	0.27	0.078	20
1481959	Soil	1.5	450.6	22.1	146	1.0	44.8	41.6	9409	10.87	7.0	6.9	2.4	19	0.4	0.8	0.2	83	0.73	0.097	13
REP 1481959	QC	1.6	447.7	22.6	143	1.0	45.9	40.6	9519	10.58	7.0	7.5	2.4	19	0.5	0.8	0.2	81	0.73	0.099	14
1480695	Soil	1.1	38.2	42.3	77	<0.1	29.5	25.2	2156	4.23	14.1	2.1	1.2	8	0.2	1.5	0.4	30	0.06	0.103	23
REP 1480695	QC	1.2	37.7	42.7	82	<0.1	28.5	24.8	2161	4.20	14.5	2.2	1.6	8	<0.1	1.4	0.4	30	0.07	0.106	21
1480725	Soil	0.5	33.4	27.2	120	<0.1	49.3	28.5	1454	6.32	4.6	1.9	8.4	8	<0.1	0.6	0.3	24	0.13	0.052	5
REP 1480725	QC	0.5	32.9	27.7	119	<0.1	50.4	29.7	1523	6.56	4.6	<0.5	8.3	8	<0.1	0.6	0.3	25	0.14	0.048	5
Reference Materials																					
STD DS11	Standard	14.5	145.2	135.6	325	1.8	77.8	14.3	1046	3.20	41.3	100.0	7.5	62	2.3	8.1	11.4	50	1.02	0.070	18
STD DS11	Standard	14.3	138.5	132.0	348	1.7	77.2	13.7	1054	3.23	43.2	78.2	6.9	59	2.2	7.3	11.4	52	1.04	0.069	16
STD DS11	Standard	13.6	144.9	134.9	319	1.7	79.1	14.3	991	3.01	44.2	126.1	7.2	58	2.2	7.3	10.5	45	1.03	0.066	16
STD DS11	Standard	14.8	158.0	144.9	348	1.7	82.3	14.3	1030	3.27	40.4	71.6	7.6	54	2.4	6.5	10.4	50	1.04	0.073	17
STD DS11	Standard	14.9	150.0	135.0	338	1.7	78.3	13.5	1024	3.11	42.9	96.1	7.4	66	2.4	7.3	10.6	49	1.03	0.071	18
STD OXC129	Standard	1.3	29.3	7.0	45	<0.1	86.2	22.1	435	3.20	<0.5	201.1	2.0	202	<0.1	<0.1	<0.1	60	0.74	0.103	13
STD OXC129	Standard	1.2	24.3	6.4	43	<0.1	72.6	19.8	412	2.77	0.5	179.1	1.7	181	<0.1	<0.1	<0.1	49	0.64	0.097	11
STD OXC129	Standard	1.3	29.7	6.4	41	<0.1	81.5	20.4	402	3.17	0.7	198.0	1.8	204	<0.1	<0.1	<0.1	51	0.67	0.098	11
STD OXC129	Standard	1.4	26.6	6.5	44	<0.1	82.8	21.0	415	3.19	0.6	199.5	1.9	187	<0.1	<0.1	<0.1	53	0.67	0.108	11
STD OXC129	Standard	1.3	27.4	6.2	45	<0.1	74.2	19.2	415	3.01	0.6	192.5	1.8	192	<0.1	<0.1	<0.1	50	0.68	0.101	12
STD OXC129 Expected		1.3	28	6.2	42.9		79.5	20.3	421	3.065	0.6	195	1.9					51	0.684	0.102	12.5
STD DS11 Expected		14.6	149	138	345	1.71	77.7	14.2	1055	3.1	42.8	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701	18.6
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	0.02	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	3	0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1



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Project: McKay Hill
Report Date: August 16, 2018

Page: 1 of 1

Part: 2 of 2

QUALITY CONTROL REPORT

WHI18000402.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
Pulp Duplicates																	
1481908	Soil	4	7.59	106	0.003	1	0.11	0.008	0.03	<0.1	0.20	2.2	0.6	<0.05	<1	<0.5	<0.2
REP 1481908	QC	4	6.80	107	0.003	1	0.12	0.007	0.03	<0.1	0.18	2.3	0.6	<0.05	<1	<0.5	<0.2
1481923	Soil	37	0.77	118	0.017	1	1.60	0.005	0.06	0.1	0.12	10.7	0.2	<0.05	3	<0.5	<0.2
REP 1481923	QC	36	0.75	116	0.017	1	1.51	0.005	0.06	0.1	0.11	10.4	0.2	<0.05	3	<0.5	0.2
1481959	Soil	40	0.68	2053	0.019	2	1.47	0.007	0.05	0.2	0.16	17.1	<0.1	0.08	3	1.3	<0.2
REP 1481959	QC	39	0.68	2099	0.018	2	1.53	0.005	0.05	0.2	0.15	17.4	<0.1	0.09	3	<0.5	<0.2
1480695	Soil	29	0.48	64	0.009	<1	1.73	0.003	0.05	<0.1	0.06	1.4	<0.1	<0.05	5	<0.5	<0.2
REP 1480695	QC	29	0.49	64	0.009	2	1.79	0.003	0.05	<0.1	0.05	1.3	<0.1	<0.05	5	0.5	<0.2
1480725	Soil	42	0.99	23	<0.001	<1	3.02	0.006	0.04	<0.1	0.01	2.9	<0.1	<0.05	9	<0.5	<0.2
REP 1480725	QC	43	0.90	22	<0.001	1	2.80	0.005	0.04	<0.1	0.01	3.3	<0.1	<0.05	9	<0.5	<0.2
Reference Materials																	
STD DS11	Standard	60	0.82	355	0.087	7	1.12	0.083	0.37	2.9	0.25	3.4	4.7	0.22	4	1.7	4.3
STD DS11	Standard	60	0.83	384	0.083	8	1.12	0.070	0.41	3.1	0.25	3.2	4.9	0.29	5	2.3	4.8
STD DS11	Standard	57	0.93	376	0.078	9	1.18	0.064	0.39	3.0	0.26	3.0	5.0	0.25	4	2.0	4.6
STD DS11	Standard	58	0.82	372	0.083	8	1.10	0.070	0.37	3.0	0.26	3.1	5.2	0.25	5	2.0	4.6
STD DS11	Standard	58	0.80	355	0.091	8	1.12	0.072	0.41	2.9	0.28	3.1	4.8	0.27	5	1.8	4.5
STD OXC129	Standard	59	1.64	51	0.420	1	1.72	0.619	0.38	<0.1	<0.01	1.1	<0.1	<0.05	6	<0.5	<0.2
STD OXC129	Standard	49	1.48	48	0.391	<1	1.54	0.588	0.37	<0.1	<0.01	1.1	<0.1	<0.05	6	<0.5	<0.2
STD OXC129	Standard	50	1.57	49	0.391	1	1.57	0.607	0.37	<0.1	<0.01	1.0	<0.1	<0.05	6	<0.5	<0.2
STD OXC129	Standard	48	1.46	47	0.404	1	1.46	0.594	0.32	0.1	<0.01	0.8	<0.1	<0.05	6	<0.5	<0.2
STD OXC129	Standard	50	1.53	48	0.385	1	1.51	0.563	0.39	<0.1	<0.01	1.1	<0.1	<0.05	6	<0.5	<0.2
STD OXC129 Expected		52	1.545	50	0.4	1	1.58	0.59	0.3655			1.1			5.5		
STD DS11 Expected		61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	0.26	3.4	4.9	0.2835	5.1	2.2	4.56
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2



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Client: **Metallic Minerals Corp.**
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Submitted By: Scott Petsel
Receiving Lab: Canada-Whitehorse
Received: July 20, 2018
Report Date: August 21, 2018
Page: 1 of 7

CERTIFICATE OF ANALYSIS

WHI18000404.1

CLIENT JOB INFORMATION

Project: McKay Hill
Shipment ID: MH
P.O. Number: McKay Hill
Number of Samples: 162

SAMPLE DISPOSAL

RTRN-PLP Return After 90 days
DISP-RJT-SOIL Immediate Disposal of Soil Reject

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2
Canada

CC: Lauren Blackburn
Samantha Dyck

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
DY060	162	Dry at 60C			WHI
SS80	162	Dry at 60C sieve 100g to -80 mesh			WHI
AQ201	162	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN
SHP01	162	Per sample shipping charges for branch shipments			VAN

ADDITIONAL COMMENTS


KERRY JAY
Geochem Project Specialist



Bureau Veritas Commodities Canada Ltd.

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Page: 2 of 7

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000404.1

Method Analyte	Unit	MDL	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	
			Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
			ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	%	ppm	
			0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	0.1	0.1	1	
1480729	Soil		0.6	36.2	34.4	117	<0.1	43.2	25.1	1295	5.47	10.0	2.3	7.2	6	<0.1	0.7	0.4	26	0.09	0.052	9
1480730	Soil		0.8	38.5	32.8	100	<0.1	38.2	23.5	1215	4.82	9.5	2.3	6.8	5	<0.1	0.8	0.4	26	0.07	0.072	20
1480731	Soil		1.6	14.0	20.3	33	<0.1	10.4	4.7	180	3.45	11.1	2.4	3.7	6	<0.1	0.6	0.3	63	0.06	0.035	24
1480732	Soil		1.3	51.0	51.6	90	<0.1	37.2	25.7	1118	4.99	22.1	1.3	7.3	6	<0.1	1.1	0.6	26	0.04	0.060	9
1480733	Soil		1.1	39.1	31.3	97	<0.1	38.4	23.1	1300	4.91	12.6	2.0	6.2	7	<0.1	0.7	0.4	24	0.05	0.053	8
1480734	Soil		1.0	41.7	42.9	111	<0.1	41.6	25.4	1216	5.03	12.0	114.2	7.3	11	<0.1	0.8	0.4	26	0.17	0.063	16
1480735	Soil		0.9	58.5	48.9	102	<0.1	46.1	33.0	1394	4.89	25.7	<0.5	10.1	12	<0.1	0.5	0.4	35	0.21	0.077	60
1480736	Soil		1.4	74.8	84.8	280	0.2	146.7	50.9	1486	8.20	429.4	7.7	3.5	128	1.1	9.6	<0.1	184	1.74	0.336	49
1480737	Soil		1.2	66.0	67.2	140	<0.1	79.0	31.2	1696	5.22	35.2	3.9	6.2	25	0.5	8.5	0.4	43	0.25	0.100	32
1480740	Soil		1.2	22.5	21.4	63	<0.1	24.4	11.9	679	3.53	13.0	1.0	0.6	9	0.1	0.5	0.2	56	0.10	0.068	14
1480741	Soil		0.8	28.3	14.8	98	<0.1	35.9	18.7	839	5.02	6.2	1.3	5.4	5	<0.1	0.3	0.5	32	0.09	0.069	15
1480742	Soil		0.9	34.5	27.7	104	<0.1	38.1	22.5	1188	5.40	12.7	1.1	6.7	7	<0.1	0.8	0.3	24	0.07	0.050	8
1480743	Soil		0.9	42.5	43.6	101	<0.1	39.6	24.7	1181	5.39	11.2	1.4	5.9	6	<0.1	0.7	0.4	28	0.07	0.071	15
1480744	Soil		1.2	66.7	65.0	239	0.1	150.8	44.5	1572	8.60	280.8	7.9	2.3	109	0.9	7.5	<0.1	194	1.89	0.292	51
1480746	Soil		1.5	54.8	48.1	76	<0.1	26.5	16.5	809	3.34	19.4	1.9	3.2	9	0.1	0.7	0.3	43	0.14	0.082	20
1480747	Soil		0.6	47.9	49.6	95	<0.1	45.5	25.1	1127	5.70	11.4	1.3	13.9	14	<0.1	0.2	0.4	23	0.23	0.050	37
1480748	Soil		0.9	74.2	47.7	94	<0.1	42.1	24.1	943	5.45	11.5	1.4	11.6	17	<0.1	0.2	0.4	26	0.19	0.058	28
1480749	Soil		0.8	46.4	39.8	98	<0.1	40.9	25.9	1195	5.64	16.0	<0.5	11.9	5	<0.1	0.4	0.4	27	0.11	0.050	28
1480750	Soil		1.0	46.1	61.5	87	<0.1	35.2	21.3	744	3.90	13.9	2.9	9.5	8	<0.1	0.5	0.4	33	0.12	0.063	23
1480751	Soil		1.3	28.7	30.4	73	<0.1	26.8	15.2	940	3.88	11.5	1.1	0.8	6	<0.1	0.8	0.4	38	0.05	0.082	12
1480752	Soil		1.0	37.8	36.7	97	<0.1	37.5	22.4	1048	5.03	12.6	10.8	4.6	7	<0.1	0.7	0.4	32	0.08	0.072	12
1480753	Soil		2.9	57.1	145.7	387	0.1	67.7	38.4	1410	8.28	1584.6	8.9	3.6	119	1.2	16.6	0.1	90	1.10	0.313	57
1480754	Soil		1.3	52.7	58.4	403	0.1	74.4	40.4	1926	7.78	199.0	12.9	4.5	124	1.6	15.0	<0.1	164	1.12	0.398	70
1480755	Soil		1.0	51.4	33.5	87	<0.1	41.1	19.2	898	4.88	17.6	1.9	9.4	16	<0.1	0.3	0.4	31	0.21	0.051	31
1480756	Soil		1.6	44.0	30.4	68	<0.1	31.5	20.9	709	3.34	14.7	3.1	6.3	13	0.1	0.9	0.3	35	0.18	0.084	26
1480758	Soil		1.4	54.8	43.8	71	<0.1	36.4	17.6	812	3.95	14.0	3.7	6.0	14	<0.1	0.4	0.4	35	0.21	0.055	23
1480759	Soil		1.5	22.6	25.6	63	<0.1	17.3	10.8	723	4.12	15.9	0.8	1.0	6	0.1	0.8	0.3	53	0.06	0.073	15
1480760	Soil		1.1	86.6	599.0	655	0.3	56.9	24.8	1350	4.87	97.3	6.4	0.8	25	5.9	45.4	0.4	48	0.29	0.143	24
1480761	Soil		0.9	29.2	32.0	88	<0.1	35.1	20.3	1031	4.35	13.3	1.1	3.2	7	<0.1	0.8	0.3	33	0.08	0.076	15
1480762	Soil		0.7	51.9	123.6	296	0.1	87.0	36.0	1758	7.27	767.8	2.2	1.7	74	1.3	13.4	<0.1	129	1.13	0.203	41



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Page: 2 of 7

Part: 2 of 2

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WHI18000404.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Ti	S	Ga	Se	Te	
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2		
1480729	Soil	41	0.86	34	<0.001	1	2.71	0.004	0.05	<0.1	0.01	2.7	<0.1	<0.05	9	<0.5	<0.2	
1480730	Soil	37	0.81	47	0.002	1	2.53	0.005	0.05	<0.1	0.01	2.4	<0.1	<0.05	8	<0.5	<0.2	
1480731	Soil	19	0.14	42	0.023	2	0.95	0.004	0.04	0.1	0.03	1.4	0.1	0.08	8	<0.5	<0.2	
1480732	Soil	37	0.67	45	0.001	1	2.43	0.005	0.05	<0.1	0.02	3.2	<0.1	<0.05	7	<0.5	<0.2	
1480733	Soil	35	0.71	37	0.001	2	2.38	0.004	0.04	<0.1	<0.01	2.6	<0.1	<0.05	8	<0.5	<0.2	
1480734	Soil	36	0.75	49	0.003	2	2.48	0.005	0.06	<0.1	0.01	2.3	<0.1	<0.05	8	<0.5	<0.2	
1480735	Soil	48	0.85	79	0.006	1	2.37	0.005	0.05	<0.1	0.03	3.8	<0.1	<0.05	7	<0.5	<0.2	
1480736	Soil	222	1.28	221	0.020	3	1.48	0.007	0.06	<0.1	0.71	16.3	0.2	0.05	7	<0.5	<0.2	
1480737	Soil	81	1.09	72	0.009	1	2.04	0.005	0.06	<0.1	0.11	5.0	<0.1	<0.05	6	<0.5	<0.2	
1480740	Soil	38	0.50	87	0.024	1	1.59	0.006	0.05	0.1	0.04	1.4	<0.1	<0.05	6	<0.5	<0.2	
1480741	Soil	35	0.69	29	0.007	<1	2.23	0.005	0.05	<0.1	0.02	2.1	<0.1	<0.05	8	<0.5	<0.2	
1480742	Soil	34	0.69	32	0.001	<1	2.34	0.004	0.04	<0.1	0.01	2.5	<0.1	<0.05	8	<0.5	<0.2	
1480743	Soil	37	0.74	42	0.003	<1	2.52	0.005	0.05	<0.1	0.02	2.3	<0.1	<0.05	8	<0.5	<0.2	
1480744	Soil	254	1.02	235	0.014	2	1.37	0.007	0.04	<0.1	0.80	17.2	0.2	0.07	6	<0.5	<0.2	
1480746	Soil	28	0.43	54	0.025	<1	1.64	0.006	0.05	0.2	0.04	2.0	<0.1	<0.05	5	0.6	<0.2	
1480747	Soil	40	0.88	63	0.001	2	2.78	0.005	0.09	<0.1	<0.01	3.5	<0.1	<0.05	9	<0.5	<0.2	
1480748	Soil	40	0.78	77	0.001	<1	2.42	0.005	0.06	<0.1	0.01	3.4	<0.1	<0.05	8	<0.5	<0.2	
1480749	Soil	38	0.75	42	0.003	<1	2.43	0.004	0.05	<0.1	<0.01	2.4	<0.1	<0.05	8	<0.5	<0.2	
1480750	Soil	32	0.62	52	0.013	1	2.01	0.005	0.05	<0.1	0.02	2.4	<0.1	<0.05	6	<0.5	<0.2	
1480751	Soil	32	0.46	58	0.007	<1	1.91	0.006	0.06	<0.1	0.03	1.1	<0.1	<0.05	7	<0.5	<0.2	
1480752	Soil	36	0.70	49	0.005	<1	2.35	0.005	0.05	<0.1	0.01	2.2	<0.1	<0.05	8	<0.5	<0.2	
1480753	Soil	41	0.29	212	0.003	1	1.29	0.007	0.06	0.1	0.61	12.7	0.5	0.07	4	0.5	<0.2	
1480754	Soil	102	1.35	190	0.030	2	1.92	0.007	0.04	<0.1	0.27	10.8	0.2	<0.05	9	<0.5	<0.2	
1480755	Soil	42	0.78	77	0.005	<1	2.28	0.006	0.05	<0.1	0.03	3.2	<0.1	<0.05	8	<0.5	<0.2	
1480756	Soil	24	0.43	84	0.022	1	1.35	0.007	0.05	0.1	0.02	2.5	<0.1	<0.05	4	<0.5	<0.2	
1480758	Soil	40	0.71	84	0.009	<1	2.12	0.006	0.05	<0.1	0.02	2.7	<0.1	<0.05	7	<0.5	<0.2	
1480759	Soil	30	0.30	53	0.030	1	1.61	0.005	0.05	0.1	0.06	1.5	0.1	<0.05	8	0.6	<0.2	
1480760	Soil	41	0.46	93	0.011	<1	1.50	0.006	0.06	<0.1	0.98	2.8	<0.1	<0.05	5	<0.5	<0.2	
1480761	Soil	34	0.62	45	0.007	<1	1.96	0.004	0.04	<0.1	0.04	2.0	<0.1	<0.05	7	<0.5	<0.2	
1480762	Soil	126	1.16	389	0.053	2	1.90	0.008	0.13	0.1	0.15	12.1	0.3	0.07	9	0.6	<0.2	



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Page: 3 of 7

Part: 1 of 2

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WHI18000404.1

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		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	2	0.01	0.001	1	
1480763	Soil	0.8	77.3	34.8	114	0.2	118.6	38.3	1143	4.64	79.6	3.8	2.2	50	0.6	4.6	0.1	128	0.92	0.152	30
1480764	Soil	1.3	62.6	51.6	147	0.3	48.4	42.7	2312	10.03	791.7	6.5	1.5	75	0.8	22.0	<0.1	71	1.31	0.191	20
1480765	Soil	1.2	23.8	23.9	50	<0.1	20.7	8.7	382	3.29	18.5	1.4	1.4	10	0.1	0.9	0.3	33	0.11	0.062	17
1480766	Soil	1.9	26.6	21.6	51	<0.1	19.5	9.8	381	3.18	17.4	4.5	3.1	12	<0.1	0.8	0.3	53	0.15	0.042	14
1480767	Soil	1.4	22.8	16.8	72	<0.1	25.3	12.7	855	3.52	13.2	1.4	0.6	8	0.4	0.7	0.3	51	0.10	0.085	12
1480768	Soil	0.9	31.7	21.0	71	<0.1	28.5	16.1	749	3.60	25.6	2.6	2.3	15	0.1	2.5	0.2	56	0.24	0.105	32
1480769	Soil	0.9	43.6	44.0	102	<0.1	46.3	25.4	1250	5.17	17.3	1.7	8.2	11	<0.1	1.0	0.4	27	0.21	0.054	21
1480770	Soil	0.9	70.8	617.6	1026	0.3	101.8	40.4	2252	7.28	453.5	6.3	1.1	81	5.2	52.2	0.1	129	1.45	0.181	30
1480771	Soil	0.5	69.8	31.8	120	0.1	173.6	47.6	1263	7.07	34.3	5.9	2.9	70	0.4	2.4	0.1	198	1.11	0.211	28
1480772	Soil	1.1	60.4	336.0	376	0.6	80.5	26.0	1258	5.59	70.5	7.3	1.8	48	3.3	15.3	0.2	89	0.84	0.138	29
1480773	Soil	1.4	53.3	45.4	117	0.2	67.6	36.6	1532	9.30	324.6	6.3	4.8	72	0.5	10.9	0.2	75	1.00	0.302	34
1480774	Soil	1.2	35.4	22.7	76	0.1	26.3	15.4	727	4.73	44.1	3.2	2.7	40	0.2	2.9	0.2	58	0.63	0.110	22
1480775	Soil	1.4	47.1	36.9	94	<0.1	27.9	20.2	883	4.70	168.0	2.4	1.2	20	0.2	3.0	0.2	83	0.41	0.094	20
1480776	Soil	1.1	36.8	29.0	81	<0.1	29.3	19.4	954	4.77	192.8	2.1	1.6	22	0.3	2.4	0.2	71	0.28	0.124	25
1480777	Soil	1.1	26.8	22.7	90	<0.1	20.3	12.5	691	4.10	20.5	5.4	0.3	13	0.4	1.8	0.2	71	0.17	0.095	16
1480778	Soil	1.0	31.1	36.4	97	<0.1	37.6	18.9	822	4.31	37.0	1.6	1.4	31	0.3	1.8	0.2	78	0.41	0.116	27
1480780	Soil	1.2	72.0	400.4	439	0.3	81.4	38.3	1985	6.52	71.8	3.2	3.1	82	4.0	19.8	0.1	111	1.07	0.225	29
1480782	Soil	1.3	25.8	86.7	229	<0.1	38.8	13.3	604	3.74	47.6	5.1	1.5	28	0.9	4.7	0.2	55	0.48	0.088	23
1480783	Soil	1.5	33.5	78.0	181	<0.1	45.9	26.0	1300	6.91	469.7	2.8	1.7	31	0.6	11.3	0.2	63	0.46	0.167	21
1480784	Soil	0.8	29.8	16.0	66	<0.1	28.8	11.1	441	3.19	31.7	4.9	2.4	21	0.1	1.0	0.2	52	0.35	0.100	22
1480785	Soil	1.2	38.1	22.1	89	<0.1	26.0	15.2	599	4.34	79.6	3.1	1.8	26	0.1	2.1	0.2	83	0.58	0.101	19
1480786	Soil	1.1	31.8	28.7	86	<0.1	29.0	19.0	920	4.62	200.1	3.9	2.0	23	0.2	2.0	0.2	65	0.38	0.101	19
1480787	Soil	1.1	32.1	27.6	89	<0.1	27.8	18.9	730	4.57	192.7	3.2	1.7	20	0.2	2.3	0.2	79	0.29	0.089	21
1480788	Soil	1.0	47.4	68.6	176	0.1	63.5	27.0	1161	6.40	52.1	3.9	2.2	51	0.3	4.4	0.2	89	0.78	0.168	35
1480790	Soil	1.3	61.1	79.9	201	0.2	56.9	34.5	1572	5.97	45.0	1.9	3.1	69	1.0	10.1	0.1	124	0.83	0.226	41
1480791	Soil	1.1	29.0	112.7	206	<0.1	46.4	16.8	757	3.74	61.9	6.2	0.7	22	0.9	5.4	0.2	60	0.28	0.100	24
1480792	Soil	1.0	35.0	373.5	501	0.3	36.2	15.7	615	3.72	47.2	6.7	2.4	26	2.9	16.3	0.2	49	0.39	0.091	19
1480793	Soil	1.5	48.9	51.0	115	<0.1	59.1	26.8	1281	5.06	37.5	2.0	5.9	24	0.3	5.7	0.3	36	0.29	0.102	20
1480794	Soil	1.1	28.8	19.5	72	0.2	23.8	15.3	643	3.02	31.6	4.6	1.4	29	0.2	1.3	0.2	49	0.46	0.120	23
1480795	Soil	0.9	30.4	18.7	72	<0.1	25.7	18.0	584	3.81	41.8	0.9	4.0	18	0.2	1.7	0.2	63	0.28	0.106	19



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Page: 3 of 7

Part: 2 of 2

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		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
1480763	Soil	216	1.33	185	0.040	1	1.99	0.009	0.06	0.3	0.08	12.3	0.1	<0.05	7	<0.5	<0.2
1480764	Soil	27	0.42	172	0.007	2	1.09	0.007	0.04	0.1	0.22	14.9	0.1	0.09	3	0.5	<0.2
1480765	Soil	24	0.29	77	0.009	<1	1.26	0.005	0.05	0.1	0.04	1.6	<0.1	<0.05	4	<0.5	<0.2
1480766	Soil	26	0.33	95	0.029	<1	1.40	0.005	0.06	0.2	0.03	2.5	0.1	<0.05	7	<0.5	<0.2
1480767	Soil	32	0.41	91	0.027	1	1.45	0.006	0.06	0.1	0.05	1.6	<0.1	0.09	7	<0.5	<0.2
1480768	Soil	24	0.49	106	0.017	1	1.44	0.005	0.04	<0.1	0.04	4.0	<0.1	<0.05	4	<0.5	<0.2
1480769	Soil	42	0.80	41	0.002	<1	2.25	0.004	0.04	<0.1	0.03	3.1	<0.1	<0.05	7	<0.5	<0.2
1480770	Soil	158	1.32	272	0.018	3	1.86	0.009	0.06	<0.1	1.26	12.4	0.3	0.09	7	0.6	<0.2
1480771	Soil	517	4.37	379	0.172	<1	3.41	0.006	0.21	0.1	0.10	14.2	0.3	<0.05	13	<0.5	<0.2
1480772	Soil	133	1.02	236	0.019	1	1.74	0.006	0.06	0.1	0.41	9.8	0.1	<0.05	6	0.5	<0.2
1480773	Soil	64	0.41	127	0.008	1	1.24	0.006	0.05	0.2	0.15	18.4	<0.1	<0.05	3	<0.5	<0.2
1480774	Soil	30	0.51	203	0.015	<1	1.38	0.008	0.06	0.1	0.09	8.0	<0.1	<0.05	4	<0.5	<0.2
1480775	Soil	32	0.91	190	0.042	<1	2.11	0.008	0.06	<0.1	0.05	3.9	0.2	<0.05	7	<0.5	<0.2
1480776	Soil	30	0.55	179	0.017	1	1.75	0.005	0.05	0.1	0.07	5.4	0.1	<0.05	5	<0.5	<0.2
1480777	Soil	27	0.57	131	0.016	<1	1.55	0.006	0.05	<0.1	0.05	1.6	0.1	<0.05	6	<0.5	<0.2
1480778	Soil	57	0.81	201	0.028	<1	1.79	0.007	0.06	<0.1	0.06	3.8	<0.1	<0.05	6	<0.5	<0.2
1480780	Soil	108	1.40	323	0.047	2	1.83	0.009	0.05	0.1	0.50	13.0	0.1	<0.05	6	<0.5	<0.2
1480782	Soil	49	0.56	197	0.014	<1	1.57	0.005	0.05	0.2	0.16	3.6	0.1	<0.05	5	<0.5	<0.2
1480783	Soil	39	0.44	172	0.009	<1	1.44	0.006	0.06	0.2	0.10	8.2	0.1	<0.05	4	<0.5	<0.2
1480784	Soil	33	0.63	191	0.028	<1	1.81	0.006	0.04	0.2	0.03	3.8	0.1	<0.05	5	<0.5	<0.2
1480785	Soil	30	0.86	177	0.069	<1	1.85	0.006	0.05	0.1	0.05	4.2	0.1	<0.05	7	<0.5	<0.2
1480786	Soil	34	0.63	194	0.025	<1	1.79	0.006	0.05	0.2	0.04	3.8	0.1	<0.05	6	<0.5	<0.2
1480787	Soil	35	0.80	224	0.064	1	1.86	0.006	0.05	0.1	0.04	4.4	0.1	<0.05	6	<0.5	<0.2
1480788	Soil	109	1.19	228	0.011	<1	2.15	0.008	0.04	<0.1	0.14	8.2	0.1	0.06	8	<0.5	<0.2
1480790	Soil	76	1.26	255	0.035	<1	1.86	0.008	0.05	0.1	0.19	10.2	0.1	<0.05	6	<0.5	<0.2
1480791	Soil	60	0.61	164	0.018	<1	1.68	0.006	0.05	0.1	0.11	2.8	0.1	0.06	5	<0.5	<0.2
1480792	Soil	35	0.50	142	0.017	<1	1.34	0.006	0.05	0.2	0.28	3.9	<0.1	<0.05	4	<0.5	<0.2
1480793	Soil	64	0.86	76	0.005	<1	2.04	0.004	0.05	<0.1	0.06	4.6	<0.1	<0.05	6	<0.5	<0.2
1480794	Soil	30	0.54	306	0.017	1	1.69	0.006	0.04	0.1	0.06	3.6	0.1	<0.05	5	<0.5	<0.2
1480795	Soil	27	0.67	111	0.041	<1	1.70	0.005	0.04	0.1	0.04	3.5	<0.1	<0.05	5	<0.5	<0.2



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Project: McKay Hill
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Page: 4 of 7

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000404.1

Method Analyte Unit MDL	AQ201																				
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	
1480796	Soil	0.7	33.7	17.2	70	<0.1	26.2	14.5	578	2.89	22.2	2.7	4.3	20	0.2	1.1	0.1	51	0.33	0.105	23
1480797	Soil	0.7	35.8	32.7	112	<0.1	44.7	22.3	1058	5.22	21.8	<0.5	7.1	23	<0.1	1.3	0.3	34	0.36	0.075	19
1480798	Soil	0.9	36.2	93.7	206	0.2	52.2	19.6	669	3.97	43.0	5.4	2.6	46	1.2	5.2	0.2	67	0.60	0.125	21
1480799	Soil	1.1	48.3	126.0	270	0.2	61.0	21.3	578	4.06	34.4	7.8	5.2	48	2.0	6.2	0.2	78	0.63	0.169	25
1480800	Soil	0.8	32.2	68.6	157	<0.1	50.0	16.9	590	3.34	43.5	4.6	5.0	35	0.7	5.1	0.2	45	0.42	0.114	24
1480801	Soil	1.0	35.7	209.6	499	0.2	39.1	16.3	596	3.74	48.9	6.9	3.1	25	2.6	12.0	0.2	52	0.34	0.086	20
1480802	Soil	1.0	27.4	182.2	217	0.1	33.5	15.7	607	3.16	24.4	5.9	1.7	19	0.9	5.7	0.2	42	0.25	0.110	20
1480803	Soil	1.0	50.5	45.0	111	<0.1	52.4	24.9	1272	5.04	30.6	2.9	6.2	32	0.1	4.6	0.3	34	0.32	0.078	19
1480804	Soil	1.3	53.8	48.5	98	0.1	53.1	23.3	1203	4.90	34.6	2.1	4.3	33	0.2	4.5	0.3	34	0.45	0.094	18
1480805	Soil	1.1	28.3	34.1	78	<0.1	28.7	18.0	666	3.48	20.7	2.4	3.8	12	0.2	1.0	0.3	46	0.18	0.074	21
1480806	Soil	0.7	41.8	41.6	138	<0.1	52.2	26.6	1122	5.63	28.3	1.7	7.8	20	0.1	2.2	0.3	47	0.27	0.058	25
1480807	Soil	0.9	38.2	38.1	104	<0.1	42.3	22.3	1039	5.16	19.2	1.4	7.5	17	<0.1	1.4	0.3	33	0.24	0.065	21
1480808	Soil	1.0	46.5	76.5	169	0.2	46.8	18.2	779	4.55	47.9	4.9	2.8	34	0.6	4.2	0.3	68	0.48	0.106	27
1480809	Soil	1.3	39.6	66.1	140	<0.1	33.6	15.8	609	3.38	25.4	3.6	1.6	21	0.4	2.8	0.3	52	0.26	0.103	37
1480810	Soil	1.5	54.7	369.0	474	0.3	46.8	19.9	630	3.90	38.5	7.2	6.0	35	3.3	12.6	0.2	51	0.43	0.165	30
1480811	Soil	1.4	30.5	113.9	185	<0.1	34.1	17.3	661	3.39	25.8	3.8	1.9	20	0.9	4.0	0.3	50	0.25	0.101	25
1480812	Soil	1.3	40.7	36.6	93	<0.1	27.3	17.5	1364	4.59	14.1	1.2	1.2	13	0.1	1.0	0.5	48	0.03	0.068	15
1480813	Soil	1.1	46.6	35.9	99	<0.1	51.5	22.7	1049	4.62	27.9	1.6	1.4	70	0.3	3.1	0.3	58	0.86	0.118	18
1480814	Soil	1.0	55.0	46.1	108	<0.1	53.7	22.9	945	4.71	31.1	1.5	5.9	25	0.2	4.3	0.3	33	0.28	0.083	22
1480815	Soil	1.0	37.9	42.2	140	<0.1	51.3	22.9	1056	5.51	55.3	1.0	6.4	27	0.3	2.0	0.3	46	0.33	0.075	24
1480816	Soil	0.7	39.3	45.1	120	<0.1	39.8	22.1	1034	4.69	77.6	2.7	5.0	29	0.2	2.0	0.3	52	0.44	0.081	26
1480817	Soil	0.6	34.3	39.0	108	<0.1	43.2	19.5	983	4.77	25.2	4.6	6.7	22	0.2	1.2	0.3	40	0.32	0.074	24
1480818	Soil	1.0	29.6	133.3	166	0.1	28.9	13.5	758	3.21	22.5	3.4	1.0	20	1.1	3.8	0.2	50	0.26	0.090	20
1480819	Soil	1.2	39.3	44.9	90	<0.1	27.3	15.5	944	3.41	14.5	1.6	1.5	18	0.3	2.1	0.4	41	0.22	0.061	14
1480820	Soil	1.0	40.6	36.0	79	<0.1	38.4	21.9	2171	3.80	14.9	5.8	4.7	16	<0.1	1.5	0.4	42	0.07	0.041	19
1480821	Soil	1.5	37.6	43.3	91	<0.1	27.9	15.1	777	4.47	20.3	0.8	2.8	8	0.4	1.1	0.4	57	0.06	0.052	16
1480822	Soil	1.5	23.5	22.6	63	<0.1	17.5	8.8	518	3.33	12.3	1.6	1.5	8	<0.1	0.9	0.3	55	0.05	0.042	12
1480823	Soil	1.0	48.5	32.6	92	<0.1	36.2	20.2	1560	3.99	14.9	5.5	4.8	13	<0.1	1.6	0.4	31	0.03	0.038	18
1480824	Soil	0.8	42.3	24.2	95	<0.1	57.9	26.3	1224	5.25	16.5	2.5	2.0	63	0.1	1.1	0.2	108	0.89	0.134	25
1480825	Soil	1.0	32.7	47.8	89	<0.1	52.8	25.3	926	5.06	14.2	1.6	6.3	36	0.1	1.2	0.2	87	0.42	0.152	24



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Page: 4 of 7

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000404.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2		
1480796	Soil	26	0.62	169	0.051	1	1.32	0.006	0.05	0.1	0.04	4.4	<0.1	<0.05	4	<0.5	<0.2	
1480797	Soil	46	0.90	66	0.005	1	2.40	0.006	0.04	<0.1	0.04	4.0	<0.1	<0.05	7	<0.5	<0.2	
1480798	Soil	69	0.88	208	0.027	1	1.54	0.008	0.05	0.2	0.09	5.2	<0.1	<0.05	5	<0.5	<0.2	
1480799	Soil	83	1.08	130	0.054	1	1.49	0.010	0.05	0.2	0.15	6.4	<0.1	<0.05	5	<0.5	<0.2	
1480800	Soil	49	0.55	121	0.032	<1	0.99	0.006	0.04	0.1	0.08	4.0	<0.1	<0.05	3	<0.5	<0.2	
1480801	Soil	39	0.56	167	0.019	<1	1.44	0.006	0.05	0.1	0.25	4.8	<0.1	<0.05	4	<0.5	<0.2	
1480802	Soil	32	0.50	63	0.027	<1	1.32	0.006	0.04	0.2	0.07	2.3	<0.1	<0.05	4	<0.5	<0.2	
1480803	Soil	49	0.88	67	0.006	<1	2.24	0.005	0.03	<0.1	0.06	4.4	<0.1	<0.05	5	<0.5	<0.2	
1480804	Soil	53	0.79	120	0.005	<1	2.10	0.006	0.04	<0.1	0.08	4.7	<0.1	<0.05	5	<0.5	<0.2	
1480805	Soil	29	0.53	116	0.026	<1	1.67	0.005	0.04	0.2	0.03	2.6	<0.1	<0.05	5	<0.5	<0.2	
1480806	Soil	63	1.01	77	0.008	<1	2.48	0.006	0.04	<0.1	0.05	4.8	<0.1	<0.05	7	<0.5	<0.2	
1480807	Soil	45	0.78	75	0.003	<1	2.28	0.004	0.03	<0.1	0.05	3.6	<0.1	<0.05	7	<0.5	<0.2	
1480808	Soil	64	0.89	200	0.016	2	1.91	0.007	0.05	0.2	0.13	6.3	0.1	<0.05	5	<0.5	<0.2	
1480809	Soil	45	0.61	141	0.014	2	1.63	0.005	0.04	0.2	0.07	2.6	0.1	<0.05	5	<0.5	<0.2	
1480810	Soil	37	0.57	83	0.032	<1	1.14	0.006	0.04	0.1	0.21	5.3	<0.1	<0.05	3	<0.5	<0.2	
1480811	Soil	34	0.52	110	0.022	<1	1.53	0.005	0.05	0.2	0.06	2.5	0.1	<0.05	5	<0.5	<0.2	
1480812	Soil	18	0.14	57	0.008	<1	0.79	0.004	0.04	<0.1	0.09	2.0	<0.1	<0.05	3	<0.5	<0.2	
1480813	Soil	67	1.10	112	0.072	2	2.12	0.007	0.06	<0.1	0.06	3.5	<0.1	<0.05	6	<0.5	<0.2	
1480814	Soil	52	0.86	66	0.007	<1	1.95	0.006	0.04	<0.1	0.05	4.5	<0.1	<0.05	5	<0.5	<0.2	
1480815	Soil	62	0.90	95	0.007	1	2.32	0.005	0.04	<0.1	0.07	4.6	<0.1	<0.05	7	<0.5	<0.2	
1480816	Soil	55	0.81	157	0.008	<1	2.36	0.006	0.04	<0.1	0.07	4.7	0.1	<0.05	6	<0.5	<0.2	
1480817	Soil	51	0.89	112	0.004	1	2.59	0.005	0.04	<0.1	0.04	4.0	<0.1	<0.05	7	<0.5	<0.2	
1480818	Soil	35	0.51	148	0.013	1	1.49	0.006	0.05	0.2	0.09	2.3	<0.1	<0.05	5	<0.5	<0.2	
1480819	Soil	23	0.32	116	0.008	<1	1.39	0.005	0.05	0.1	0.06	2.1	<0.1	<0.05	4	<0.5	<0.2	
1480820	Soil	22	0.27	140	0.017	<1	0.95	0.004	0.04	0.2	0.11	3.5	0.1	<0.05	3	<0.5	<0.2	
1480821	Soil	24	0.32	68	0.020	<1	1.48	0.004	0.04	0.1	0.06	2.5	<0.1	<0.05	6	<0.5	<0.2	
1480822	Soil	23	0.23	50	0.018	<1	1.47	0.004	0.04	0.1	0.04	1.6	0.1	<0.05	5	<0.5	<0.2	
1480823	Soil	12	0.11	60	0.004	<1	0.48	0.003	0.03	<0.1	0.08	2.7	<0.1	<0.05	1	<0.5	<0.2	
1480824	Soil	108	1.77	393	0.094	1	2.39	0.009	0.08	0.1	0.05	8.4	0.1	<0.05	8	<0.5	<0.2	
1480825	Soil	88	1.35	168	0.163	<1	2.49	0.006	0.06	0.2	0.02	4.9	<0.1	<0.05	8	<0.5	<0.2	



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Page: 5 of 7

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000404.1

Method Analyte	Unit	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
		MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL
1480826	Soil	1.1	48.2	50.2	127	<0.1	51.7	25.5	1344	4.80	48.9	1.3	5.3	43	0.4	3.1	0.3	44	0.49	0.096	21
1480827	Soil	0.8	36.2	39.6	114	<0.1	43.6	23.1	1190	5.31	32.1	3.0	7.5	19	0.1	1.1	0.3	40	0.29	0.066	22
1480828	Soil	0.9	42.4	53.3	130	<0.1	48.1	25.4	1178	5.37	41.2	1.2	6.7	23	0.2	2.4	0.3	53	0.33	0.088	30
1480829	Soil	0.9	36.6	33.2	94	<0.1	31.0	19.3	1316	4.05	12.4	1.7	4.2	17	0.3	1.5	0.4	35	0.08	0.045	18
1480830	Soil	1.3	50.0	46.3	100	0.2	53.2	20.1	1209	4.42	27.0	6.8	5.5	24	0.3	3.4	0.4	55	0.40	0.094	19
1480831	Soil	1.3	31.6	27.4	58	<0.1	19.8	8.6	323	4.00	20.4	2.2	2.5	8	0.2	1.8	0.3	55	0.08	0.058	13
1480832	Soil	1.2	35.6	35.1	67	<0.1	25.3	16.0	754	3.76	15.2	1.7	3.8	9	0.2	1.2	0.4	53	0.08	0.063	14
1480833	Soil	0.9	38.2	39.9	71	<0.1	28.7	22.1	1149	3.64	15.1	1.5	1.7	12	<0.1	1.0	0.5	42	0.11	0.067	12
1480834	Soil	0.9	43.3	29.2	77	<0.1	31.9	16.0	887	3.71	15.0	1.6	5.3	13	0.1	1.3	0.4	29	0.03	0.038	21
1480835	Soil	0.8	42.0	35.8	120	<0.1	48.8	22.1	918	5.01	30.2	7.2	2.3	63	0.3	0.9	0.2	117	1.00	0.113	29
1480836	Soil	0.5	39.4	10.1	97	<0.1	53.6	29.3	1048	5.87	7.5	0.8	3.4	82	0.1	0.6	<0.1	141	0.99	0.245	31
1480837	Soil	1.0	27.7	22.9	84	<0.1	48.9	23.8	1060	5.18	14.5	0.7	3.3	22	0.2	1.1	0.2	96	0.31	0.137	17
1480838	Soil	1.2	36.2	24.9	132	<0.1	59.7	24.0	1153	5.10	26.6	1.5	1.5	45	0.6	1.6	0.3	95	0.56	0.097	23
1480839	Soil	0.7	36.0	72.3	164	<0.1	40.5	20.1	971	3.99	23.7	7.0	7.0	25	0.7	2.9	0.2	42	0.35	0.089	27
1480840	Soil	1.1	41.4	39.9	91	0.1	33.8	17.2	965	3.63	15.5	2.0	2.8	19	0.1	1.9	0.4	41	0.27	0.060	14
1480841	Soil	0.9	35.5	51.3	83	<0.1	31.5	16.8	980	3.53	13.4	2.4	2.3	16	0.1	1.1	0.4	42	0.16	0.059	16
1480842	Soil	1.0	34.0	32.3	74	<0.1	26.9	15.0	836	3.21	14.3	1.5	2.7	11	0.1	1.0	0.4	32	0.06	0.047	13
1480843	Soil	0.9	34.1	30.1	75	<0.1	26.0	14.5	778	3.30	19.7	1.3	3.7	11	0.1	1.4	0.4	28	0.08	0.045	11
1480844	Soil	0.7	31.3	25.9	58	<0.1	22.5	11.7	631	2.63	18.3	1.8	1.8	10	<0.1	1.7	0.4	19	0.05	0.047	5
1480845	Soil	1.0	39.4	42.7	80	<0.1	30.3	18.1	842	3.78	25.0	4.3	3.3	13	<0.1	2.2	0.5	19	0.08	0.052	6
1481812	Soil	2.5	47.5	71.9	210	0.7	31.5	15.4	1832	3.71	19.6	11.9	4.1	29	0.6	2.9	0.6	35	1.56	0.101	16
1481814	Soil	2.9	50.3	62.5	226	0.8	29.5	13.4	883	3.34	24.3	4.3	3.9	34	0.4	2.9	0.7	34	2.64	0.084	14
1481816	Soil	3.1	42.6	67.8	217	0.6	34.8	14.8	778	3.17	20.2	2.4	3.8	33	0.8	2.5	0.5	41	3.13	0.095	14
1481817	Soil	3.8	39.2	78.5	179	0.7	27.1	12.6	866	3.26	40.2	3.5	1.7	31	0.4	4.1	1.6	33	2.97	0.081	12
1481818	Soil	2.1	20.7	61.0	145	0.4	23.7	12.6	1515	3.85	18.2	1.7	2.3	19	0.3	2.2	0.6	44	0.36	0.067	16
1481821	Soil	4.9	49.0	95.8	155	1.4	25.1	13.5	838	3.70	67.7	3.1	5.4	64	0.2	8.1	1.6	41	0.31	0.126	15
1481823	Soil	3.5	47.3	67.4	190	0.9	30.0	12.3	1211	3.50	29.7	2.3	4.9	28	0.4	3.8	0.9	40	0.56	0.079	18
1481824	Soil	6.4	38.5	85.1	255	1.0	39.7	17.6	1804	4.51	47.8	12.8	4.1	33	1.1	4.5	1.0	40	1.38	0.103	19
1481825	Soil	1.6	22.2	94.1	203	0.4	26.1	12.7	1004	3.10	12.9	1.9	3.0	20	0.6	1.6	0.4	38	0.60	0.075	16
1481826	Soil	5.9	27.9	54.1	152	0.5	27.5	13.0	1318	2.70	50.7	2.9	1.2	58	0.5	3.9	1.3	24	9.11	0.051	8

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.



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Page: 5 of 7

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000404.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
1480826	Soil	63	0.85	134	0.006	<1	2.09	0.007	0.04	<0.1	0.08	4.6	<0.1	<0.05	6	<0.5	<0.2
1480827	Soil	48	0.79	118	0.003	<1	2.66	0.005	0.04	<0.1	0.06	3.9	<0.1	<0.05	8	<0.5	<0.2
1480828	Soil	60	0.89	126	0.006	<1	2.64	0.006	0.04	<0.1	0.09	5.1	<0.1	<0.05	7	<0.5	<0.2
1480829	Soil	18	0.26	80	0.009	<1	0.84	0.004	0.05	<0.1	0.06	2.6	<0.1	<0.05	2	<0.5	<0.2
1480830	Soil	66	0.56	125	0.029	<1	1.53	0.007	0.05	0.3	0.15	6.4	<0.1	<0.05	4	<0.5	<0.2
1480831	Soil	27	0.35	51	0.041	<1	1.42	0.005	0.04	0.2	0.07	2.0	<0.1	<0.05	6	<0.5	<0.2
1480832	Soil	29	0.41	57	0.023	<1	1.84	0.006	0.05	0.1	0.05	2.1	<0.1	<0.05	6	0.6	<0.2
1480833	Soil	30	0.43	68	0.030	<1	1.48	0.006	0.06	0.1	0.07	2.2	<0.1	<0.05	4	<0.5	<0.2
1480834	Soil	14	0.19	50	0.003	<1	0.72	0.004	0.04	<0.1	0.06	2.4	<0.1	<0.05	2	<0.5	<0.2
1480835	Soil	106	1.50	366	0.140	<1	2.56	0.008	0.07	0.2	0.07	8.3	0.2	<0.05	9	<0.5	<0.2
1480836	Soil	117	2.09	304	0.201	<1	2.65	0.010	0.13	0.2	0.03	7.2	0.1	<0.05	10	<0.5	<0.2
1480837	Soil	100	1.31	116	0.178	<1	2.39	0.006	0.04	<0.1	0.04	4.2	<0.1	<0.05	8	<0.5	<0.2
1480838	Soil	127	1.41	177	0.085	1	2.50	0.007	0.07	<0.1	0.04	5.6	<0.1	<0.05	8	<0.5	<0.2
1480839	Soil	42	0.67	131	0.018	<1	1.66	0.007	0.05	<0.1	0.07	4.1	<0.1	<0.05	5	<0.5	<0.2
1480840	Soil	34	0.38	112	0.015	<1	1.18	0.006	0.04	0.1	0.09	3.4	<0.1	<0.05	3	<0.5	<0.2
1480841	Soil	28	0.42	123	0.027	<1	1.27	0.006	0.05	0.1	0.05	3.1	<0.1	<0.05	4	<0.5	<0.2
1480842	Soil	18	0.23	72	0.008	<1	0.93	0.005	0.04	<0.1	0.06	2.6	<0.1	<0.05	3	<0.5	<0.2
1480843	Soil	19	0.28	70	0.006	<1	0.94	0.006	0.04	<0.1	0.05	2.7	<0.1	<0.05	3	<0.5	<0.2
1480844	Soil	13	0.15	62	0.002	<1	0.70	0.007	0.04	<0.1	0.06	1.7	<0.1	<0.05	2	<0.5	<0.2
1480845	Soil	18	0.32	43	0.002	<1	0.92	0.005	0.04	<0.1	0.05	2.8	<0.1	<0.05	3	<0.5	<0.2
1481812	Soil	21	1.08	180	0.027	2	0.99	0.008	0.07	0.1	0.18	4.4	0.2	<0.05	2	0.5	<0.2
1481814	Soil	22	1.76	150	0.028	1	0.92	0.009	0.07	0.1	0.18	4.1	0.2	<0.05	2	<0.5	<0.2
1481816	Soil	24	1.83	421	0.035	1	0.88	0.010	0.07	0.2	0.15	3.8	0.2	<0.05	3	0.5	<0.2
1481817	Soil	23	1.79	160	0.019	2	0.90	0.009	0.06	0.1	0.08	3.0	0.2	<0.05	2	0.9	<0.2
1481818	Soil	26	0.40	237	0.015	1	1.47	0.006	0.05	0.2	0.10	3.9	0.3	<0.05	4	<0.5	<0.2
1481821	Soil	25	0.33	311	0.020	2	0.93	0.007	0.12	0.2	0.26	3.6	0.7	0.13	4	0.9	0.3
1481823	Soil	25	0.53	181	0.029	1	1.02	0.007	0.08	0.2	0.17	4.4	0.2	<0.05	3	0.5	<0.2
1481824	Soil	31	0.97	210	0.031	1	1.31	0.008	0.08	0.1	0.07	4.4	0.5	<0.05	3	0.6	<0.2
1481825	Soil	22	0.49	181	0.026	<1	1.16	0.008	0.05	0.1	0.09	3.6	0.2	<0.05	3	<0.5	<0.2
1481826	Soil	18	4.94	134	0.017	2	0.62	0.011	0.04	0.1	0.08	2.4	0.4	<0.05	2	0.6	<0.2



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Page: 6 of 7

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000404.1

	Method Analyte Unit MDL	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	ppm
1481827	Soil	2.5	39.6	106.3	182	0.6	30.9	16.5	1195	3.02	23.3	4.7	2.2	36	0.7	3.2	0.7	32	3.01	0.075	12
1481828	Soil	19.3	53.7	75.3	257	1.6	31.3	18.0	2081	4.88	140.8	9.5	1.3	91	0.9	10.3	5.6	15	13.52	0.031	4
1481831	Soil	2.0	30.7	81.6	163	0.6	30.9	14.7	1349	3.41	14.5	4.6	3.0	27	0.6	1.8	0.4	35	1.09	0.115	17
1481832	Soil	3.4	42.1	104.5	220	0.8	33.9	17.0	1819	3.97	25.2	20.2	4.5	23	0.5	3.2	0.8	34	0.60	0.087	19
1481833	Soil	2.1	39.5	50.6	165	0.5	39.9	18.2	1503	3.95	15.7	8.3	4.4	28	0.5	1.9	0.6	41	1.24	0.099	20
1481834	Soil	6.8	40.4	104.9	278	0.6	45.6	17.0	1760	4.15	20.3	2.9	3.2	22	1.2	2.8	0.5	72	0.92	0.071	18
1481835	Soil	13.4	38.0	78.8	216	1.2	10.7	5.7	2042	2.99	216.5	5.3	<0.1	84	1.3	17.0	9.5	13	14.78	0.027	2
1481836	Soil	31.8	86.0	79.2	295	3.3	26.0	20.3	4577	6.69	298.8	9.6	0.1	90	1.5	16.8	13.4	12	12.34	0.015	3
1481837	Soil	13.3	32.8	58.9	232	1.0	27.2	16.2	2142	4.82	85.1	4.5	0.4	82	1.0	8.5	3.0	16	13.49	0.037	4
1481838	Soil	23.1	101.4	126.9	340	2.1	25.6	14.8	1495	6.31	188.5	7.9	1.1	86	1.2	21.1	2.3	19	12.27	0.051	5
1481839	Soil	18.2	170.9	114.8	337	3.2	25.2	14.5	2182	6.60	301.3	10.4	0.9	92	1.2	26.6	7.0	21	9.16	0.093	6
1481840	Soil	32.5	204.1	295.5	628	18.7	47.9	22.4	3882	9.53	621.6	284.3	1.3	55	2.4	56.5	122.8	54	6.64	0.081	8
1481841	Soil	3.5	34.0	107.7	296	0.7	33.8	17.7	1626	3.68	21.3	2.7	2.9	28	0.7	2.8	0.7	33	2.59	0.088	15
1481842	Soil	23.0	51.4	42.3	357	0.9	62.8	17.7	927	4.04	26.9	2.3	2.5	69	3.8	4.4	0.4	154	6.01	0.167	16
1481843	Soil	3.8	26.0	157.0	308	0.4	28.3	15.5	1239	3.46	17.0	1.8	2.8	15	0.5	2.3	0.5	43	0.32	0.069	15
1481844	Soil	60.2	360.9	169.9	902	5.7	24.9	38.2	6956	9.31	559.1	10.9	0.2	89	2.8	45.4	24.0	31	15.10	0.062	6
1481845	Soil	19.3	107.0	94.1	333	2.8	14.1	9.1	3170	4.77	354.8	14.2	0.1	92	1.1	16.3	15.1	15	15.78	0.025	3
1481846	Soil	28.2	113.3	108.0	408	3.0	16.3	12.3	4631	5.50	462.1	8.0	0.2	87	1.7	26.5	25.7	23	15.37	0.037	4
1481847	Soil	22.1	82.3	108.5	360	2.2	23.0	14.0	2122	5.58	225.5	10.4	0.6	89	1.3	19.9	8.3	19	14.47	0.035	4
1481848	Soil	13.8	85.6	150.4	274	8.6	15.1	7.3	1804	4.82	337.5	105.2	0.3	62	1.0	40.9	61.8	21	14.65	0.040	3
1481849	Soil	40.0	218.4	293.1	664	39.1	55.6	29.5	3610	11.55	1098.2	696.3	1.2	38	2.5	108.5	223.1	66	1.83	0.123	11
1481850	Soil	18.0	45.3	42.0	301	0.7	55.1	14.9	750	3.81	25.0	2.0	2.6	70	2.2	2.5	0.5	145	5.15	0.163	16
1481851	Soil	19.7	40.7	39.7	312	0.8	49.2	11.8	686	2.91	26.1	3.8	2.3	72	2.7	3.0	0.4	129	7.46	0.143	13
1481852	Soil	3.9	35.1	55.8	247	0.6	37.0	13.9	1263	3.89	12.6	1.5	2.3	28	1.2	1.6	0.4	67	1.54	0.116	19
1481853	Soil	7.8	6.3	22.6	203	0.6	7.3	2.2	1385	1.03	43.7	2.2	<0.1	89	0.6	3.9	0.4	11	18.54	0.023	1
1481854	Soil	10.0	16.7	43.1	341	1.1	9.2	1.9	2015	1.52	89.6	3.0	<0.1	106	0.9	6.9	1.0	14	18.32	0.023	2
1481855	Soil	13.1	60.1	76.8	198	7.7	11.5	3.5	1457	3.73	572.3	131.6	0.3	71	0.7	32.7	33.5	22	17.00	0.026	3
1481856	Soil	14.1	38.4	26.6	174	0.8	16.6	11.5	1464	3.16	61.3	3.4	0.4	73	0.5	4.9	0.7	21	20.88	0.035	2
1481857	Soil	11.9	49.5	27.2	188	1.1	15.9	15.7	1499	3.43	81.3	8.2	0.4	68	0.7	5.9	1.1	20	19.32	0.051	3
1481858	Soil	26.6	141.9	67.8	370	1.7	41.0	18.4	1660	5.05	209.5	10.8	0.8	56	1.3	13.3	3.3	65	12.40	0.088	6



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Page: 6 of 7

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000404.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2		
1481827	Soil	20	1.77	142	0.021	2	0.73	0.009	0.06	0.1	0.14	3.0	0.2	<0.05	2	<0.5	<0.2	
1481828	Soil	7	7.14	263	0.007	2	0.30	0.010	0.04	<0.1	0.16	1.4	1.3	<0.05	<1	0.8	<0.2	
1481831	Soil	26	0.81	179	0.023	1	1.22	0.009	0.05	0.2	0.08	4.3	0.1	<0.05	2	<0.5	<0.2	
1481832	Soil	24	0.50	165	0.014	1	1.23	0.005	0.07	0.1	0.14	4.6	0.3	<0.05	2	<0.5	<0.2	
1481833	Soil	34	1.00	149	0.033	2	1.06	0.007	0.09	0.1	0.09	4.7	0.2	<0.05	3	<0.5	<0.2	
1481834	Soil	34	0.93	412	0.026	2	1.50	0.007	0.09	0.2	0.14	5.4	0.3	<0.05	4	<0.5	<0.2	
1481835	Soil	5	8.14	219	0.004	<1	0.13	0.009	<0.01	0.1	0.08	0.4	0.3	<0.05	<1	1.1	<0.2	
1481836	Soil	4	7.01	468	0.003	<1	0.08	0.007	<0.01	<0.1	0.08	0.5	1.5	<0.05	<1	1.6	<0.2	
1481837	Soil	8	7.50	166	0.005	2	0.28	0.011	0.02	<0.1	0.10	1.6	1.1	<0.05	<1	0.9	<0.2	
1481838	Soil	11	6.20	206	0.008	2	0.36	0.008	0.06	<0.1	0.14	2.1	2.5	<0.05	1	1.0	<0.2	
1481839	Soil	11	4.78	294	0.006	3	0.41	0.008	0.05	0.1	0.18	1.8	1.6	<0.05	2	1.4	<0.2	
1481840	Soil	24	3.79	486	0.014	2	0.85	0.005	0.06	0.2	0.51	3.0	2.9	<0.05	4	4.7	0.6	
1481841	Soil	20	1.59	131	0.018	<1	0.92	0.007	0.07	<0.1	0.14	4.2	0.2	<0.05	2	<0.5	<0.2	
1481842	Soil	63	5.01	422	0.141	1	1.90	0.008	0.13	0.2	0.13	5.1	0.4	<0.05	7	1.3	<0.2	
1481843	Soil	21	0.44	228	0.015	<1	1.13	0.004	0.06	0.1	0.06	3.2	0.2	<0.05	3	<0.5	<0.2	
1481844	Soil	11	7.77	761	0.006	<1	0.20	0.010	0.02	0.3	0.34	0.7	1.5	<0.05	<1	3.1	<0.2	
1481845	Soil	5	9.09	280	0.004	<1	0.14	0.012	0.01	0.1	0.12	0.5	1.0	<0.05	<1	1.6	<0.2	
1481846	Soil	7	8.53	515	0.007	<1	0.20	0.013	0.02	0.2	0.17	0.7	0.9	<0.05	<1	1.8	<0.2	
1481847	Soil	8	7.85	218	0.007	1	0.29	0.010	0.02	0.1	0.14	1.4	2.3	<0.05	<1	1.2	<0.2	
1481848	Soil	7	8.28	156	0.005	<1	0.27	0.011	0.02	0.2	0.25	0.9	1.1	<0.05	2	2.6	0.2	
1481849	Soil	27	0.91	1024	0.018	2	0.99	0.006	0.09	0.6	1.09	2.8	3.5	0.17	10	18.3	0.8	
1481850	Soil	57	4.19	505	0.146	1	1.77	0.010	0.10	0.2	0.10	4.7	0.4	<0.05	6	0.8	<0.2	
1481851	Soil	44	4.77	321	0.119	<1	1.26	0.008	0.10	0.2	0.13	3.4	0.4	<0.05	5	1.5	<0.2	
1481852	Soil	43	1.29	272	0.041	<1	1.46	0.007	0.08	0.1	0.12	4.7	0.2	<0.05	4	<0.5	<0.2	
1481853	Soil	3	9.62	165	0.003	<1	0.09	0.010	<0.01	0.2	0.08	0.3	0.5	<0.05	<1	0.5	<0.2	
1481854	Soil	4	9.72	280	0.003	<1	0.10	0.010	<0.01	0.1	0.13	0.4	0.6	<0.05	<1	0.8	<0.2	
1481855	Soil	8	9.27	206	0.010	1	0.22	0.010	0.02	0.4	0.43	0.7	0.6	<0.05	3	3.9	0.3	
1481856	Soil	6	10.42	141	0.008	2	0.24	0.012	0.02	<0.1	0.06	0.9	1.1	<0.05	1	0.7	<0.2	
1481857	Soil	6	9.95	204	0.007	2	0.39	0.012	0.04	<0.1	0.07	1.1	1.3	<0.05	1	0.8	<0.2	
1481858	Soil	19	6.64	1216	0.020	1	0.61	0.008	0.05	0.2	0.26	1.9	1.2	<0.05	3	2.6	<0.2	



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Page: 7 of 7

Part: 1 of 2

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		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	2	0.01	0.001	1	
1481859	Soil	15.6	38.5	38.8	265	0.7	42.9	12.8	614	3.21	23.7	2.1	1.9	66	2.0	3.0	0.4	147	7.14	0.138	14
1481860	Soil	24.9	53.3	44.5	352	1.0	58.8	13.6	714	3.42	29.1	2.9	2.7	60	2.9	4.2	0.4	181	5.42	0.144	16
1481861	Soil	8.8	16.6	58.9	153	0.4	21.5	7.7	833	2.01	23.1	1.5	0.9	58	0.5	2.6	0.6	28	11.22	0.059	7
1481862	Soil	17.4	8.1	30.1	130	0.3	20.8	2.9	844	0.83	24.8	0.6	<0.1	65	0.5	5.5	1.0	23	17.47	0.104	3
1481863	Soil	30.2	41.4	67.8	300	1.1	23.9	6.3	1186	1.99	86.9	3.1	0.5	67	1.3	13.0	1.8	40	15.59	0.084	5
1481864	Soil	24.5	67.8	41.9	174	2.6	16.6	4.6	1445	3.18	154.5	22.8	0.5	77	0.8	8.0	3.5	24	17.12	0.077	4
1481865	Soil	26.8	118.6	95.4	318	7.7	35.0	16.5	1815	5.48	545.8	80.9	1.1	77	0.9	26.9	35.3	66	13.87	0.099	6
1481866	Soil	17.5	129.1	62.4	304	1.0	32.1	16.1	1118	4.37	136.8	9.9	1.1	93	1.1	9.8	2.2	38	14.05	0.052	5
1481867	Soil	13.0	65.8	42.2	304	0.5	30.2	13.6	1126	3.97	92.8	6.8	0.6	71	1.2	5.1	0.6	33	15.25	0.037	4
1481868	Soil	30.5	58.4	61.6	484	1.2	67.8	13.0	837	3.09	39.6	2.5	2.6	63	3.3	6.4	0.5	219	6.44	0.134	14
1481869	Soil	18.1	30.1	108.2	367	0.8	33.7	10.2	1048	3.06	36.0	2.7	0.7	41	1.3	4.4	1.8	66	8.66	0.118	9
1481870	Soil	15.1	17.6	69.8	195	0.4	21.6	8.7	1023	2.08	25.1	2.6	0.7	64	0.6	3.3	0.6	32	13.16	0.068	6



Bureau Veritas Commodities Canada Ltd.

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Project: McKay Hill
Report Date: August 21, 2018

Page: 7 of 7

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000404.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
1481859	Soil	49	4.32	432	0.124	2	1.32	0.007	0.09	0.2	0.12	3.8	0.3	<0.05	5	0.8	<0.2
1481860	Soil	53	3.84	339	0.139	2	1.41	0.006	0.12	0.2	0.17	4.5	0.5	<0.05	5	1.6	<0.2
1481861	Soil	13	6.59	156	0.014	<1	0.46	0.009	0.03	0.1	0.05	2.0	0.4	<0.05	1	0.5	<0.2
1481862	Soil	6	8.22	211	0.003	3	0.25	0.010	0.02	0.9	0.05	0.3	0.5	<0.05	<1	0.6	<0.2
1481863	Soil	11	8.38	333	0.013	<1	0.41	0.010	0.03	0.3	0.15	1.3	0.9	<0.05	1	0.8	<0.2
1481864	Soil	6	8.73	388	0.007	<1	0.24	0.010	0.02	0.2	0.11	0.9	0.7	<0.05	2	0.7	<0.2
1481865	Soil	22	7.41	698	0.024	2	0.78	0.009	0.09	0.3	0.38	1.8	1.0	<0.05	4	3.5	<0.2
1481866	Soil	11	7.47	1585	0.013	<1	0.40	0.008	0.04	0.1	0.27	1.8	1.0	<0.05	2	1.8	<0.2
1481867	Soil	10	7.97	1250	0.011	<1	0.38	0.009	0.03	<0.1	0.13	1.7	0.7	<0.05	<1	0.8	<0.2
1481868	Soil	47	4.32	369	0.098	1	1.23	0.007	0.12	0.3	0.23	4.2	0.7	<0.05	5	1.2	<0.2
1481869	Soil	20	4.46	409	0.013	1	0.78	0.009	0.04	0.3	0.16	2.2	0.3	<0.05	2	1.0	<0.2
1481870	Soil	15	6.62	223	0.011	1	0.44	0.010	0.03	0.1	0.06	1.9	0.4	<0.05	1	0.7	<0.2



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Page: 1 of 2

Part: 1 of 2

QUALITY CONTROL REPORT

WHI18000404.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	2	0.01	0.001	1	
Pulp Duplicates																					
1480763	Soil	0.8	77.3	34.8	114	0.2	118.6	38.3	1143	4.64	79.6	3.8	2.2	50	0.6	4.6	0.1	128	0.92	0.152	30
REP 1480763	QC	0.9	76.2	36.1	106	0.2	121.8	37.7	1097	4.63	78.6	4.6	2.3	49	0.7	4.8	0.1	116	0.86	0.147	31
1480802	Soil	1.0	27.4	182.2	217	0.1	33.5	15.7	607	3.16	24.4	5.9	1.7	19	0.9	5.7	0.2	42	0.25	0.110	20
REP 1480802	QC	1.2	28.9	178.3	223	0.1	33.1	16.4	565	3.25	24.2	2.4	1.6	19	0.8	5.5	0.2	46	0.27	0.102	19
1480838	Soil	1.2	36.2	24.9	132	<0.1	59.7	24.0	1153	5.10	26.6	1.5	1.5	45	0.6	1.6	0.3	95	0.56	0.097	23
REP 1480838	QC	1.1	38.4	25.1	127	<0.1	62.3	25.0	1204	5.38	27.2	<0.5	1.5	43	0.5	1.6	0.3	100	0.57	0.114	22
1481838	Soil	23.1	101.4	126.9	340	2.1	25.6	14.8	1495	6.31	188.5	7.9	1.1	86	1.2	21.1	2.3	19	12.27	0.051	5
REP 1481838	QC	22.4	98.6	121.4	331	2.0	25.8	14.5	1503	6.09	184.2	6.8	1.0	84	1.1	21.2	2.0	18	11.58	0.051	4
1481862	Soil	17.4	8.1	30.1	130	0.3	20.8	2.9	844	0.83	24.8	0.6	<0.1	65	0.5	5.5	1.0	23	17.47	0.104	3
REP 1481862	QC	17.6	8.0	29.9	127	0.3	19.4	3.0	918	0.91	25.4	0.7	<0.1	69	0.5	5.4	1.0	22	16.50	0.100	3
Reference Materials																					
STD DS11	Standard	14.5	153.1	133.5	344	1.7	76.6	14.0	1049	3.19	44.6	64.5	7.0	61	2.4	8.2	11.6	51	1.06	0.071	17
STD DS11	Standard	14.2	150.4	140.4	332	1.7	77.7	13.6	1034	3.19	43.7	117.7	7.7	58	2.1	6.8	9.7	48	1.05	0.070	17
STD DS11	Standard	15.4	149.7	141.7	337	1.7	78.8	14.3	1027	3.11	44.1	59.2	8.2	59	2.2	6.8	10.9	50	1.07	0.063	18
STD DS11	Standard	14.0	153.7	138.0	357	1.7	80.2	14.1	964	2.95	42.4	75.3	7.9	56	2.5	6.5	10.6	52	1.05	0.076	18
STD DS11	Standard	13.6	145.3	133.4	323	1.6	75.5	12.1	985	2.94	42.9	78.2	7.6	60	2.0	7.4	10.4	45	0.99	0.071	17
STD DS11	Standard	13.4	147.6	138.4	343	1.8	81.7	13.8	1015	3.08	41.6	83.9	7.6	59	2.4	7.9	11.2	49	1.07	0.070	17
STD DS11	Standard	14.0	148.1	134.7	344	1.7	78.4	13.8	1018	3.25	41.6	75.5	7.6	50	2.5	6.2	8.8	46	1.00	0.065	16
STD OXC129	Standard	1.3	26.8	6.1	41	<0.1	72.8	20.4	411	2.95	0.6	193.4	1.6	179	<0.1	<0.1	<0.1	49	0.66	0.093	11
STD OXC129	Standard	1.4	27.9	6.6	44	<0.1	80.9	21.9	429	3.27	0.8	198.1	2.0	210	<0.1	<0.1	<0.1	52	0.74	0.095	11
STD OXC129	Standard	1.3	27.5	6.4	46	<0.1	79.7	21.5	417	3.04	0.6	204.1	1.9	198	<0.1	<0.1	<0.1	55	0.73	0.102	11
STD OXC129	Standard	1.2	27.8	6.7	46	<0.1	82.0	21.3	432	3.30	0.8	193.6	2.0	194	<0.1	<0.1	<0.1	56	0.68	0.105	12
STD OXC129	Standard	1.0	26.8	6.1	42	<0.1	77.0	19.3	402	2.96	0.7	192.4	1.7	189	<0.1	<0.1	<0.1	49	0.70	0.095	12
STD OXC129	Standard	1.3	27.2	6.1	43	<0.1	83.5	20.2	417	3.07	0.8	197.1	1.8	179	<0.1	<0.1	<0.1	53	0.68	0.101	12
STD OXC129	Standard	1.1	26.8	6.4	42	<0.1	76.7	19.2	398	2.92	0.7	203.9	1.8	189	<0.1	<0.1	<0.1	51	0.66	0.097	11
STD OXC129 Expected		1.3	28	6.2	42.9		79.5	20.3	421	3.065	0.6	195	1.9					51	0.684	0.102	12.5
STD DS11 Expected		14.6	149	138	345	1.71	77.7	14.2	1055	3.1	42.8	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701	18.6
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	0.01	<0.001	<1



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Project: McKay Hill
Report Date: August 21, 2018

Page: 1 of 2

Part: 2 of 2

QUALITY CONTROL REPORT

WHI18000404.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Pulp Duplicates																	
1480763	Soil	216	1.33	185	0.040	1	1.99	0.009	0.06	0.3	0.08	12.3	0.1	<0.05	7	<0.5	<0.2
REP 1480763	QC	205	1.41	192	0.039	2	1.90	0.009	0.05	0.2	0.08	13.0	0.1	<0.05	7	<0.5	<0.2
1480802	Soil	32	0.50	63	0.027	<1	1.32	0.006	0.04	0.2	0.07	2.3	<0.1	<0.05	4	<0.5	<0.2
REP 1480802	QC	31	0.47	66	0.026	<1	1.23	0.005	0.05	0.2	0.06	2.3	<0.1	<0.05	3	<0.5	<0.2
1480838	Soil	127	1.41	177	0.085	1	2.50	0.007	0.07	<0.1	0.04	5.6	<0.1	<0.05	8	<0.5	<0.2
REP 1480838	QC	122	1.51	175	0.088	1	2.78	0.007	0.07	<0.1	0.04	5.1	0.1	<0.05	9	<0.5	<0.2
1481838	Soil	11	6.20	206	0.008	2	0.36	0.008	0.06	<0.1	0.14	2.1	2.5	<0.05	1	1.0	<0.2
REP 1481838	QC	11	6.43	199	0.007	1	0.38	0.008	0.06	<0.1	0.16	2.0	2.5	<0.05	1	0.9	<0.2
1481862	Soil	6	8.22	211	0.003	3	0.25	0.010	0.02	0.9	0.05	0.3	0.5	<0.05	<1	0.6	<0.2
REP 1481862	QC	6	9.33	230	0.004	3	0.25	0.012	0.02	1.0	0.07	0.4	0.6	<0.05	<1	0.7	<0.2
Reference Materials																	
STD DS11	Standard	60	0.84	349	0.083	7	1.07	0.071	0.40	2.8	0.25	3.4	5.1	0.29	5	2.0	4.7
STD DS11	Standard	59	0.84	351	0.081	6	1.08	0.072	0.40	3.3	0.26	3.2	5.1	0.23	5	2.0	4.7
STD DS11	Standard	60	0.89	370	0.083	6	1.23	0.084	0.38	3.1	0.25	3.2	4.7	0.25	5	2.3	5.0
STD DS11	Standard	58	0.84	367	0.078	6	1.22	0.071	0.40	3.1	0.27	3.2	4.9	0.26	5	1.8	4.7
STD DS11	Standard	56	0.80	337	0.085	6	1.10	0.079	0.38	2.9	0.30	3.5	5.1	0.27	5	2.6	4.4
STD DS11	Standard	60	0.79	322	0.085	6	1.04	0.064	0.40	3.1	0.24	3.1	4.8	0.26	5	2.2	4.4
STD DS11	Standard	56	0.85	377	0.074	6	1.19	0.076	0.39	3.0	0.28	3.0	5.1	0.22	5	1.7	4.5
STD OXC129	Standard	49	1.46	50	0.380	<1	1.40	0.563	0.34	<0.1	<0.01	0.8	<0.1	<0.05	5	<0.5	<0.2
STD OXC129	Standard	54	1.60	50	0.412	1	1.57	0.632	0.38	0.1	<0.01	0.9	<0.1	<0.05	6	<0.5	<0.2
STD OXC129	Standard	55	1.57	49	0.407	<1	1.63	0.625	0.36	0.1	<0.01	0.7	<0.1	<0.05	6	<0.5	<0.2
STD OXC129	Standard	51	1.62	50	0.405	<1	1.72	0.631	0.35	<0.1	<0.01	1.0	<0.1	<0.05	6	<0.5	<0.2
STD OXC129	Standard	49	1.53	49	0.377	1	1.53	0.627	0.33	<0.1	<0.01	1.4	<0.1	<0.05	6	<0.5	<0.2
STD OXC129	Standard	54	1.54	46	0.401	<1	1.59	0.544	0.35	<0.1	<0.01	0.9	<0.1	<0.05	6	<0.5	<0.2
STD OXC129	Standard	47	1.49	49	0.374	2	1.56	0.610	0.37	<0.1	<0.01	1.0	<0.1	<0.05	5	<0.5	<0.2
STD OXC129 Expected		52	1.545	50	0.4	1	1.58	0.59	0.3655			1.1			5.5		
STD DS11 Expected		61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	0.26	3.4	4.9	0.2835	5.1	2.2	4.56
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2



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Page: 2 of 2

Part: 1 of 2

QUALITY CONTROL REPORT

WHI18000404.1

		AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	0.6	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	0.02	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1



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Report Date: August 21, 2018

Page: 2 of 2

Part: 2 of 2

QUALITY CONTROL REPORT

WHI18000404.1

		AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2



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#904 - 409 Granville Street
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Submitted By: Scott Petsel
Receiving Lab: Canada-Whitehorse
Received: July 27, 2018
Report Date: August 21, 2018
Page: 1 of 7

CERTIFICATE OF ANALYSIS

WHI18000483.1

CLIENT JOB INFORMATION

Project: McKay Hill
Shipment ID: MH
P.O. Number: McKay Hill
Number of Samples: 176

SAMPLE DISPOSAL

RTRN-PLP Return After 90 days
DISP-RJT-SOIL Immediate Disposal of Soil Reject

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Metallic Minerals Corp.
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2
Canada

CC: Lauren Blackburn
Samantha Dyck

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
DY060	170	Dry at 60C			WHI
SS80	170	Dry at 60C sieve 100g to -80 mesh			WHI
AQ201	170	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN
SHP01	170	Per sample shipping charges for branch shipments			VAN

ADDITIONAL COMMENTS


KERRY JAY
Geochem Project Specialist

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
*** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

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Page: 2 of 7

Part: 1 of 2

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Method Analyte	Unit	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
MDL		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
1480532	Soil	1.4	67.9	209.1	633	0.3	106.6	35.6	1624	7.07	153.2	3.6	1.2	42	5.8	12.4	0.2	163	1.17	0.133	22
1480533	Soil	1.4	49.7	205.1	403	0.2	64.0	27.6	1223	5.22	61.8	7.0	2.2	18	3.7	8.6	0.3	89	0.27	0.096	22
1480534	Soil	1.5	93.6	5457.0	9140	2.3	163.6	51.1	4123	9.00	625.5	18.6	1.8	49	58.1	54.8	<0.1	132	1.51	0.213	23
1480535	Soil	0.8	106.4	439.3	773	0.9	132.8	34.6	1024	6.29	75.6	11.3	1.5	53	6.8	31.1	0.1	145	1.67	0.158	25
1480536	Soil	0.8	77.1	175.1	611	0.3	139.3	36.2	1020	6.24	64.0	6.5	1.6	56	4.5	13.9	<0.1	157	1.66	0.161	25
1480538	Soil	3.5	88.7	1304.3	2047	1.1	83.3	32.0	3128	4.97	501.9	47.1	5.9	22	19.6	87.1	0.6	21	0.25	0.076	19
1480539	Soil	0.9	89.7	216.6	582	0.3	119.3	30.2	1018	5.82	105.4	7.7	1.0	43	2.7	18.1	0.2	148	0.70	0.261	36
1480540	Soil	1.0	101.5	1590.0	2968	1.2	159.0	39.7	1343	7.88	310.2	12.8	1.7	59	20.8	31.6	<0.1	176	1.22	0.222	35
1480541	Soil	1.6	72.5	370.9	359	0.3	84.3	24.6	1756	4.87	62.4	5.3	0.9	36	4.0	14.5	0.2	69	0.96	0.201	23
1480542	Soil	1.4	51.6	144.1	354	0.2	81.8	25.9	2274	5.00	48.3	2.8	2.3	41	3.4	5.1	0.2	78	0.80	0.143	26
1480543	Soil	0.9	53.2	495.6	339	0.4	71.5	23.4	910	4.82	99.4	4.4	5.0	42	1.8	14.9	0.2	60	0.64	0.168	24
1480544	Soil	1.2	55.8	917.5	587	0.7	66.2	22.9	1214	5.32	221.9	4.5	3.6	54	3.3	23.4	0.2	84	0.82	0.178	24
1480545	Soil	1.8	94.8	3228.4	6323	2.5	180.1	51.8	1672	8.23	330.3	35.7	2.5	54	38.9	71.3	0.1	138	1.00	0.253	27
1480546	Soil	0.9	388.4	5017.8	6247	4.9	70.9	22.9	1008	4.56	136.9	163.7	3.3	49	54.9	193.6	0.1	101	1.03	0.182	26
1480547	Soil	1.1	50.1	436.5	797	0.2	53.1	21.8	900	5.08	147.1	3.0	2.2	38	7.2	15.5	0.2	91	0.70	0.147	24
1480548	Soil	1.1	51.7	1410.6	1573	0.8	80.7	24.2	933	4.89	213.6	6.4	1.7	42	9.2	22.7	0.1	104	0.94	0.140	19
1480549	Soil	1.0	18.5	156.6	249	0.2	33.5	18.6	759	4.28	29.4	2.3	3.1	19	1.2	2.9	0.2	82	0.31	0.066	15
1480550	Soil	1.6	19.9	104.5	119	0.1	25.4	14.4	946	4.10	26.3	<0.5	3.0	12	0.9	3.0	0.3	73	0.17	0.075	15
1480551	Soil	0.9	23.1	66.3	114	0.1	36.2	15.7	627	4.34	14.9	1.8	3.5	25	0.4	1.4	0.2	97	0.47	0.062	19
1480552	Soil	1.2	103.9	1928.8	3691	1.7	149.6	34.3	1446	8.15	330.8	12.6	2.0	49	22.4	63.3	<0.1	134	0.95	0.206	24
1480553	Soil	1.4	143.2	4162.9	7450	2.3	180.6	57.7	1885	7.55	291.9	25.3	2.8	51	44.5	94.8	<0.1	171	0.78	0.262	28
1480554	Soil	0.9	43.4	129.3	326	0.2	96.7	25.0	822	5.34	29.0	3.7	3.4	70	1.7	5.4	<0.1	120	0.87	0.182	50
1480555	Soil	1.3	31.4	620.7	468	0.3	43.6	19.1	1026	3.79	49.3	3.7	1.8	18	4.0	7.9	0.2	82	0.27	0.088	20
1480556	Soil	1.0	23.1	236.3	335	0.1	30.8	14.9	877	4.05	41.8	2.2	2.0	20	3.4	5.1	0.2	83	0.30	0.084	16
1480557	Soil	0.7	29.9	117.1	158	0.2	46.1	20.1	864	4.22	18.6	6.4	4.0	35	0.5	2.2	0.1	89	0.55	0.118	24
1480558	Soil	0.9	27.8	96.6	147	0.2	40.3	16.8	748	3.96	14.3	2.3	2.7	31	0.6	1.5	0.2	86	0.59	0.087	18
1480559	Soil	1.3	222.2	8533.5	8229	10.2	162.6	33.7	1518	8.40	227.9	21.5	2.4	46	50.2	121.9	0.1	116	0.82	0.185	28
1480560	Soil	1.1	89.5	3392.5	2579	3.8	94.4	27.4	1377	5.87	130.8	12.0	2.7	54	12.5	54.3	0.1	98	0.94	0.212	30
1480561	Soil	1.7	136.2	3099.0	7647	2.7	184.9	40.5	1329	8.45	341.6	33.0	2.4	49	52.3	77.2	<0.1	148	0.85	0.215	28
1480562	Soil	1.0	28.7	173.1	358	0.2	56.0	18.0	781	4.05	29.5	1.5	1.7	39	3.5	5.5	0.2	85	0.69	0.094	22



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Page: 2 of 7

Part: 2 of 2

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Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2		
1480532	Soil	220	1.66	144	0.068	2	2.33	0.008	0.05	<0.1	0.15	10.1	0.2	0.05	10	<0.5	<0.2	
1480533	Soil	107	0.99	164	0.037	2	2.27	0.007	0.08	0.1	0.10	9.1	0.1	<0.05	7	<0.5	<0.2	
1480534	Soil	185	1.04	151	0.011	3	1.45	0.007	0.05	0.1	3.61	22.4	0.3	0.07	5	0.8	<0.2	
1480535	Soil	248	1.85	536	0.050	3	2.20	0.009	0.07	0.1	0.50	19.3	0.2	0.07	7	<0.5	<0.2	
1480536	Soil	284	1.77	377	0.072	2	1.96	0.008	0.05	0.1	0.42	17.1	0.2	0.06	7	<0.5	<0.2	
1480538	Soil	19	0.21	131	0.004	1	0.54	0.004	0.06	<0.1	0.74	6.9	0.1	<0.05	1	<0.5	<0.2	
1480539	Soil	260	1.30	236	0.035	1	2.35	0.006	0.05	0.1	0.19	11.1	0.1	<0.05	8	<0.5	<0.2	
1480540	Soil	299	1.74	196	0.028	2	2.13	0.007	0.05	0.2	1.39	21.8	0.1	0.06	7	<0.5	<0.2	
1480541	Soil	113	0.86	146	0.016	2	2.04	0.008	0.06	<0.1	0.16	7.4	<0.1	0.09	6	<0.5	<0.2	
1480542	Soil	108	1.02	250	0.031	2	2.50	0.009	0.06	0.1	0.10	10.1	0.1	<0.05	7	<0.5	<0.2	
1480543	Soil	80	1.05	152	0.083	1	1.63	0.011	0.07	0.1	0.25	8.9	<0.1	<0.05	5	<0.5	<0.2	
1480544	Soil	93	1.22	220	0.105	3	1.82	0.008	0.08	0.1	0.26	8.0	0.1	<0.05	6	<0.5	<0.2	
1480545	Soil	218	1.92	91	0.017	2	1.93	0.007	0.05	0.1	1.90	19.6	0.2	<0.05	8	<0.5	<0.2	
1480546	Soil	125	1.47	173	0.079	2	1.67	0.011	0.07	0.2	7.78	10.3	0.2	<0.05	6	<0.5	<0.2	
1480547	Soil	85	0.81	194	0.013	1	2.09	0.007	0.06	0.1	0.15	9.0	0.3	0.05	6	<0.5	<0.2	
1480548	Soil	137	1.17	241	0.026	1	2.09	0.007	0.06	0.1	0.58	9.9	0.2	<0.05	7	<0.5	<0.2	
1480549	Soil	64	0.90	200	0.126	2	2.31	0.007	0.08	0.1	0.04	4.3	0.1	<0.05	8	<0.5	<0.2	
1480550	Soil	50	0.47	127	0.079	<1	1.35	0.006	0.09	0.1	0.05	3.1	<0.1	<0.05	7	<0.5	<0.2	
1480551	Soil	74	1.09	301	0.186	1	2.45	0.007	0.06	0.2	0.03	6.1	0.1	<0.05	8	<0.5	<0.2	
1480552	Soil	180	1.76	140	0.024	2	2.00	0.006	0.06	0.1	1.21	23.8	0.2	<0.05	7	<0.5	<0.2	
1480553	Soil	328	2.83	147	0.080	<1	2.53	0.005	0.06	0.1	2.16	20.7	0.2	<0.05	10	<0.5	<0.2	
1480554	Soil	173	1.83	381	0.071	2	2.62	0.009	0.08	<0.1	0.17	9.7	0.2	<0.05	9	<0.5	<0.2	
1480555	Soil	76	0.80	154	0.049	2	1.82	0.006	0.07	0.1	0.09	4.1	0.1	<0.05	7	<0.5	<0.2	
1480556	Soil	60	0.82	189	0.126	<1	1.64	0.006	0.08	<0.1	0.10	3.6	<0.1	<0.05	7	<0.5	<0.2	
1480557	Soil	88	1.32	222	0.173	1	2.18	0.008	0.07	0.1	0.07	6.8	0.1	<0.05	7	<0.5	<0.2	
1480558	Soil	79	1.28	274	0.173	1	2.18	0.007	0.06	0.1	0.03	6.1	0.1	<0.05	8	<0.5	<0.2	
1480559	Soil	246	1.03	229	0.026	2	1.57	0.008	0.09	0.1	2.06	22.4	0.2	<0.05	5	<0.5	<0.2	
1480560	Soil	136	1.37	204	0.048	1	1.91	0.008	0.08	0.2	1.16	13.3	0.2	<0.05	7	<0.5	<0.2	
1480561	Soil	234	2.30	231	0.063	1	2.25	0.006	0.07	0.1	2.00	22.6	0.2	<0.05	8	0.7	<0.2	
1480562	Soil	118	1.01	289	0.079	2	2.01	0.006	0.07	0.1	0.08	4.9	0.1	<0.05	8	<0.5	<0.2	



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Page: 3 of 7

Part: 1 of 2

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Method Analyte	AQ201																				
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	
1480563	Soil	1.0	30.4	195.5	233	0.3	31.0	14.6	948	3.42	27.9	1.3	2.3	19	1.8	4.6	0.2	68	0.26	0.084	17
1480564	Soil	1.0	32.9	143.7	188	0.3	33.4	17.4	1163	3.71	15.7	0.6	1.8	22	2.5	1.9	0.2	69	0.34	0.071	17
1480565	Soil	0.7	34.1	65.8	120	<0.1	39.0	15.8	736	3.59	18.8	4.4	3.3	21	0.4	2.2	0.2	66	0.34	0.073	17
1480566	Soil	1.2	44.1	1872.6	486	1.6	50.4	16.5	892	4.10	63.2	7.3	3.5	21	2.9	25.1	0.2	47	0.34	0.090	19
1480567	Soil	1.2	63.7	680.3	399	0.6	136.3	33.6	1140	7.79	109.8	13.2	3.4	52	2.2	15.4	0.1	126	0.62	0.218	32
1480568	Soil	1.0	44.9	1105.7	473	1.3	48.6	15.7	605	4.28	65.2	5.9	1.8	33	2.8	12.6	0.2	63	0.74	0.146	14
1480569	Soil	1.1	41.0	209.7	285	0.2	35.8	16.5	791	3.93	31.6	1.1	2.1	22	2.2	5.6	0.2	61	0.48	0.070	15
1480570	Soil	1.3	69.4	1934.1	2649	1.9	63.4	24.2	1252	5.21	112.2	6.9	1.5	40	27.1	40.3	0.2	101	0.88	0.119	18
1480571	Soil	0.8	33.3	202.0	295	0.1	53.7	19.3	1188	4.52	30.4	3.4	2.9	26	1.7	6.0	0.2	80	0.43	0.089	20
1480572	Soil	0.9	28.6	104.4	164	<0.1	43.8	18.3	923	4.10	18.0	1.5	3.6	31	1.0	2.5	0.2	78	0.50	0.125	18
1480573	Soil	0.6	29.1	62.0	130	<0.1	39.0	16.7	680	3.65	12.1	3.6	4.2	37	0.3	1.4	0.1	65	0.60	0.126	18
1480574	Soil	1.0	49.9	1669.7	802	1.1	45.5	18.2	789	3.93	52.5	4.7	6.2	23	4.2	23.1	0.2	41	0.31	0.108	17
1480575	Soil	1.1	54.9	7585.6	548	5.2	48.5	15.9	821	4.14	57.5	3.9	2.1	29	4.1	19.5	0.2	48	0.60	0.120	19
1480576	Soil	1.3	36.5	320.7	251	0.4	49.9	17.2	697	4.32	41.2	4.7	1.1	18	1.2	6.7	0.2	59	0.26	0.082	16
1480577	Soil	1.0	59.9	2776.0	966	4.0	71.2	24.0	972	5.55	67.4	6.3	4.6	41	5.1	22.5	0.1	80	0.61	0.140	23
1480578	Soil	0.7	27.7	406.7	297	0.4	38.3	13.0	501	3.25	20.7	1.9	1.7	32	1.7	6.6	0.2	57	0.61	0.092	17
1480579	Soil	0.6	26.9	462.6	504	0.3	38.5	15.5	846	3.36	26.4	5.1	4.0	27	1.6	7.7	0.1	64	0.51	0.106	15
1480580	Soil	0.8	31.8	260.1	470	0.2	45.9	18.3	823	3.94	25.6	3.5	3.9	29	2.7	6.4	0.1	75	0.48	0.116	18
1480581	Soil	0.8	31.4	35.0	112	<0.1	50.1	21.1	1121	4.58	14.7	3.6	4.2	40	0.3	1.3	0.1	89	0.62	0.151	22
1480582	Soil	1.3	31.7	23.6	62	<0.1	20.4	10.7	646	3.10	10.5	1.5	0.5	7	0.2	0.9	0.3	48	0.07	0.076	12
1480583	Soil	1.0	29.5	22.8	88	<0.1	27.7	14.0	748	3.54	12.9	0.7	1.1	8	0.3	1.0	0.3	44	0.10	0.080	14
1480584	Soil	0.9	29.2	33.1	88	<0.1	30.9	11.5	589	3.36	19.9	8.0	1.0	15	0.3	4.0	0.3	33	0.26	0.073	12
1480585	Soil	1.2	56.9	553.1	856	0.6	57.0	18.9	935	4.58	60.9	6.4	3.4	22	9.8	46.6	0.2	41	0.37	0.101	15
1480586	Soil	1.3	38.0	539.4	546	0.4	41.8	13.7	625	4.07	42.0	4.0	0.9	16	3.3	21.3	0.2	43	0.30	0.073	12
1480587	Soil	1.2	32.3	967.3	731	0.7	40.5	15.2	739	3.99	40.0	8.5	3.5	20	2.6	12.1	0.2	49	0.29	0.102	18
1480588	Soil	0.9	34.3	2146.8	547	3.5	41.2	13.3	687	3.62	39.6	5.9	4.6	21	1.8	13.8	0.2	45	0.35	0.109	18
1480589	Soil	1.0	28.8	770.8	296	0.3	47.4	16.9	767	3.89	32.7	3.2	3.4	26	1.1	7.5	0.2	65	0.36	0.107	19
1480590	Soil	0.8	44.7	1790.2	641	2.1	50.2	16.1	726	4.05	43.1	3.7	2.0	41	4.3	14.0	0.2	68	0.64	0.133	18
1480591	Soil	0.8	32.4	106.7	132	<0.1	49.9	20.8	962	4.25	15.3	4.3	3.5	37	0.6	2.0	0.1	87	0.63	0.120	17
1480592	Soil	0.8	36.5	88.1	159	0.2	42.7	18.3	815	4.13	15.9	3.8	5.5	40	0.7	2.0	0.1	87	0.77	0.111	33



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Project: McKay Hill
Report Date: August 21, 2018

Page: 3 of 7

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000483.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Ti	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
1480563	Soil	58	0.65	243	0.057	2	1.57	0.007	0.07	0.1	0.07	3.9	0.1	<0.05	6	<0.5	<0.2
1480564	Soil	55	0.71	267	0.054	1	1.74	0.005	0.07	0.1	0.03	3.4	<0.1	<0.05	7	<0.5	<0.2
1480565	Soil	56	0.92	220	0.082	1	1.73	0.006	0.05	0.2	0.05	4.9	<0.1	<0.05	5	<0.5	<0.2
1480566	Soil	40	0.44	105	0.013	1	1.22	0.006	0.05	0.2	0.38	5.3	0.1	<0.05	3	<0.5	<0.2
1480567	Soil	233	1.41	172	0.008	<1	2.04	0.005	0.04	0.1	0.57	14.2	0.2	<0.05	7	<0.5	<0.2
1480568	Soil	68	0.78	165	0.010	1	1.62	0.007	0.05	<0.1	0.26	5.6	0.1	0.07	5	<0.5	<0.2
1480569	Soil	45	0.75	191	0.016	<1	1.88	0.005	0.05	0.1	0.06	3.9	<0.1	<0.05	6	<0.5	<0.2
1480570	Soil	118	1.34	314	0.051	1	2.01	0.006	0.06	0.1	0.91	7.5	0.1	<0.05	7	<0.5	<0.2
1480571	Soil	92	1.00	249	0.064	1	1.83	0.006	0.06	0.1	0.10	4.9	0.1	<0.05	6	<0.5	<0.2
1480572	Soil	74	1.10	207	0.118	1	1.94	0.006	0.06	0.2	0.04	4.8	<0.1	<0.05	6	<0.5	<0.2
1480573	Soil	65	1.11	200	0.106	<1	1.66	0.010	0.05	0.1	0.05	4.6	<0.1	<0.05	5	<0.5	<0.2
1480574	Soil	30	0.48	65	0.020	<1	1.07	0.005	0.03	0.1	0.50	4.1	<0.1	<0.05	3	<0.5	<0.2
1480575	Soil	42	0.52	137	0.008	<1	1.47	0.006	0.06	0.2	0.34	5.4	0.1	<0.05	4	<0.5	<0.2
1480576	Soil	63	0.61	191	0.010	<1	1.61	0.004	0.05	0.1	0.09	2.6	0.1	<0.05	5	<0.5	<0.2
1480577	Soil	94	1.02	188	0.031	<1	1.76	0.007	0.06	0.1	0.46	8.6	0.1	<0.05	6	<0.5	<0.2
1480578	Soil	57	0.77	247	0.035	<1	1.72	0.005	0.05	0.1	0.09	3.6	<0.1	<0.05	5	<0.5	<0.2
1480579	Soil	61	0.97	156	0.073	<1	1.51	0.006	0.05	0.2	0.11	4.4	<0.1	<0.05	5	<0.5	<0.2
1480580	Soil	71	1.04	166	0.098	1	1.71	0.006	0.05	0.2	0.14	4.7	<0.1	<0.05	6	<0.5	<0.2
1480581	Soil	80	1.36	239	0.135	<1	1.92	0.007	0.06	0.2	0.04	5.5	<0.1	<0.05	7	<0.5	<0.2
1480582	Soil	28	0.35	67	0.013	<1	1.68	0.004	0.05	0.1	0.05	1.2	<0.1	<0.05	5	<0.5	<0.2
1480583	Soil	33	0.55	87	0.012	<1	1.79	0.004	0.05	<0.1	0.04	1.6	<0.1	<0.05	5	<0.5	<0.2
1480584	Soil	31	0.40	116	0.005	<1	1.39	0.005	0.04	<0.1	0.07	1.4	<0.1	<0.05	4	<0.5	<0.2
1480585	Soil	37	0.38	86	0.013	<1	0.99	0.005	0.05	0.1	0.74	5.8	<0.1	<0.05	3	<0.5	<0.2
1480586	Soil	35	0.33	115	0.006	<1	1.14	0.005	0.05	0.1	0.36	2.5	0.1	<0.05	4	<0.5	<0.2
1480587	Soil	39	0.56	98	0.023	<1	1.38	0.006	0.05	0.2	0.27	3.9	0.1	<0.05	4	<0.5	<0.2
1480588	Soil	37	0.58	86	0.036	<1	1.47	0.005	0.05	0.2	0.20	3.9	<0.1	<0.05	4	<0.5	<0.2
1480589	Soil	66	0.80	180	0.053	<1	1.70	0.006	0.05	0.1	0.09	4.3	<0.1	<0.05	5	<0.5	<0.2
1480590	Soil	76	0.78	237	0.024	<1	1.71	0.007	0.06	0.2	0.31	6.3	0.1	<0.05	5	<0.5	<0.2
1480591	Soil	76	1.20	223	0.131	1	1.92	0.007	0.07	0.2	0.03	4.9	<0.1	<0.05	7	<0.5	<0.2
1480592	Soil	69	1.16	268	0.104	2	1.83	0.008	0.06	0.2	0.04	5.3	<0.1	<0.05	7	<0.5	<0.2



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Report Date: August 21, 2018

Page: 4 of 7

Part: 1 of 2

CERTIFICATE OF ANALYSIS

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Method Analyte	AQ201																				
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	
1480593	Soil	0.8	41.5	120.2	379	0.2	48.1	20.3	966	4.42	17.6	2.1	3.1	40	1.8	2.9	0.1	88	0.79	0.133	21
1480594	Soil	1.7	26.2	21.0	56	<0.1	20.6	10.6	555	4.04	12.2	<0.5	4.8	7	0.2	1.0	0.3	62	0.07	0.050	13
1480595	Soil	1.5	56.0	36.3	90	<0.1	37.5	18.2	989	4.16	15.3	<0.5	14.8	16	<0.1	1.0	0.5	31	0.05	0.043	11
1480596	Soil	1.2	56.9	36.1	103	<0.1	44.7	23.3	1076	5.09	15.7	<0.5	13.0	10	<0.1	1.1	0.5	27	0.05	0.045	17
1480597	Soil	1.2	39.0	22.5	72	<0.1	27.8	12.0	714	3.42	16.0	5.1	4.1	10	0.1	1.2	0.4	33	0.06	0.046	12
1480598	Soil	1.2	41.6	23.7	90	<0.1	35.3	17.0	937	4.33	17.5	5.0	7.3	10	<0.1	1.3	0.4	35	0.06	0.041	16
1480599	Soil	1.2	40.2	24.8	79	<0.1	30.9	16.4	964	3.99	15.9	3.0	4.0	9	<0.1	1.4	0.4	34	0.04	0.052	12
1480600	Soil	1.0	26.4	516.7	354	0.3	36.0	15.1	797	3.80	18.5	3.3	1.4	26	1.9	6.2	0.2	72	0.39	0.097	16
1480601	Soil	0.9	26.8	683.7	358	0.4	40.3	16.3	978	3.86	20.7	5.5	3.1	39	1.9	5.5	0.2	70	0.54	0.131	18
1480602	Soil	0.8	24.1	849.0	252	0.5	40.9	16.6	723	3.67	16.4	4.9	3.3	33	0.8	4.4	0.2	69	0.44	0.130	16
1480603	Soil	0.8	33.1	621.9	261	0.4	44.3	16.3	715	3.85	19.2	3.6	3.1	33	0.8	4.9	0.2	75	0.44	0.125	20
1480604	Soil	0.7	39.0	1267.3	416	0.8	49.0	18.0	820	4.34	21.3	2.5	2.9	39	2.2	8.0	0.2	80	0.55	0.140	21
1480605	Soil	0.6	32.2	78.3	117	0.2	43.7	17.0	828	3.59	13.0	2.4	3.7	44	0.4	1.8	0.1	68	0.60	0.135	23
1480606	Soil	0.7	29.8	110.1	156	0.3	36.1	17.0	816	3.53	12.5	1.6	1.4	48	0.7	2.1	0.2	72	0.90	0.131	20
1480607	Soil	1.3	19.9	21.0	49	<0.1	15.6	7.9	410	3.71	7.7	0.9	2.3	7	0.1	0.8	0.4	55	0.05	0.043	15
1480608	Soil	0.9	25.2	23.2	64	<0.1	24.1	12.9	929	2.88	13.9	3.7	5.8	13	0.1	1.5	0.3	30	0.13	0.066	13
1480609	Soil	1.4	16.2	17.0	57	<0.1	17.0	10.7	641	3.04	11.6	2.0	2.2	8	0.2	1.0	0.3	54	0.07	0.048	11
1480610	Soil	1.4	15.7	19.0	98	<0.1	24.0	8.7	463	3.45	13.4	2.0	3.3	9	0.4	0.8	0.2	56	0.09	0.056	12
1480611	Soil	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1480612	Soil	0.9	22.0	371.4	215	0.3	35.2	14.1	726	3.94	18.5	3.3	2.0	22	0.9	2.8	0.2	77	0.30	0.085	17
1480613	Soil	0.7	29.1	176.0	171	0.2	45.1	18.7	819	4.16	16.2	3.5	3.1	36	0.8	2.3	0.2	79	0.56	0.123	23
1480614	Soil	0.8	29.1	221.3	257	<0.1	41.1	16.5	911	4.26	29.9	6.0	1.5	23	2.1	9.4	0.3	58	0.29	0.101	16
1480615	Soil	0.6	23.6	545.6	301	0.3	38.7	14.3	726	3.68	16.6	9.1	3.2	33	1.4	4.1	0.2	63	0.52	0.123	19
1481501	Soil	0.8	41.1	32.7	97	<0.1	46.1	23.6	895	4.84	21.2	5.4	8.7	18	<0.1	1.1	0.4	27	0.23	0.058	23
1481502	Soil	1.2	45.8	34.8	71	0.2	36.0	15.1	700	3.61	14.8	4.7	1.5	60	0.2	0.9	0.4	41	0.84	0.138	14
1481503	Soil	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1481504	Soil	1.5	71.9	53.6	86	0.2	50.1	25.8	1147	4.63	19.4	3.1	2.6	46	0.1	1.2	0.5	49	0.48	0.146	21
1481505	Soil	3.4	102.8	26.7	69	0.4	213.0	88.7	3915	6.38	25.5	3.7	0.9	163	0.6	0.8	0.2	102	2.43	0.181	50
1481507	Soil	0.7	37.3	21.4	69	<0.1	72.4	23.0	1446	4.27	9.4	2.0	2.7	95	0.3	0.6	0.2	77	1.14	0.262	38
1481508	Soil	0.7	52.6	13.2	67	<0.1	99.8	25.2	1243	4.19	23.1	7.4	1.7	70	0.3	1.1	0.2	78	0.80	0.155	36



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Page: 4 of 7

Part: 2 of 2

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Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Ti	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
1480593	Soil	76	1.28	255	0.122	1	2.03	0.009	0.07	0.2	0.08	6.1	<0.1	<0.05	7	<0.5	<0.2
1480594	Soil	30	0.35	60	0.036	<1	1.82	0.005	0.05	0.2	0.07	2.4	0.1	<0.05	6	<0.5	<0.2
1480595	Soil	15	0.27	38	<0.001	<1	0.89	0.005	0.05	<0.1	0.16	4.0	<0.1	<0.05	3	<0.5	<0.2
1480596	Soil	29	0.75	41	0.001	1	2.17	0.006	0.05	<0.1	0.08	3.3	<0.1	<0.05	6	<0.5	<0.2
1480597	Soil	22	0.37	66	0.004	<1	1.40	0.004	0.05	<0.1	0.08	2.4	<0.1	<0.05	5	<0.5	<0.2
1480598	Soil	24	0.49	52	0.005	<1	1.52	0.004	0.04	<0.1	0.07	2.7	<0.1	<0.05	5	<0.5	<0.2
1480599	Soil	23	0.45	61	0.004	<1	1.44	0.004	0.05	<0.1	0.08	2.2	<0.1	<0.05	4	<0.5	<0.2
1480600	Soil	63	0.82	158	0.083	2	1.73	0.006	0.05	0.1	0.13	4.0	<0.1	<0.05	7	<0.5	<0.2
1480601	Soil	64	1.04	174	0.113	2	1.63	0.007	0.05	0.2	0.07	5.0	<0.1	<0.05	6	<0.5	<0.2
1480602	Soil	62	1.12	135	0.110	2	1.84	0.007	0.04	0.2	0.05	4.2	<0.1	<0.05	7	<0.5	<0.2
1480603	Soil	69	1.08	191	0.094	2	1.98	0.007	0.04	0.2	0.09	5.7	<0.1	<0.05	6	<0.5	<0.2
1480604	Soil	83	1.26	208	0.105	2	2.07	0.007	0.06	0.2	0.13	6.8	<0.1	<0.05	7	<0.5	<0.2
1480605	Soil	63	1.09	238	0.108	2	1.57	0.010	0.06	0.2	0.06	6.3	<0.1	<0.05	6	<0.5	<0.2
1480606	Soil	66	1.03	295	0.076	1	1.84	0.008	0.05	0.1	0.06	4.9	<0.1	<0.05	6	0.6	<0.2
1480607	Soil	23	0.21	74	0.014	1	1.40	0.004	0.04	0.1	0.05	1.9	0.1	<0.05	8	<0.5	<0.2
1480608	Soil	20	0.38	73	0.020	1	1.11	0.005	0.04	0.1	0.08	2.6	<0.1	<0.05	3	<0.5	<0.2
1480609	Soil	28	0.30	92	0.033	1	1.73	0.005	0.06	0.2	0.06	2.4	0.1	<0.05	7	0.5	<0.2
1480610	Soil	33	0.44	145	0.034	1	2.07	0.006	0.07	0.2	0.05	3.0	0.1	<0.05	6	0.6	<0.2
1480611	Soil	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1480612	Soil	66	0.92	169	0.132	2	1.90	0.006	0.05	0.1	0.05	4.6	0.2	<0.05	7	<0.5	<0.2
1480613	Soil	73	1.19	237	0.132	2	1.87	0.010	0.06	0.2	0.08	5.8	<0.1	<0.05	6	<0.5	<0.2
1480614	Soil	56	0.71	134	0.042	2	1.57	0.005	0.07	0.1	0.08	3.5	<0.1	<0.05	5	<0.5	<0.2
1480615	Soil	59	0.96	195	0.109	1	1.65	0.007	0.05	0.2	0.07	4.7	<0.1	<0.05	6	<0.5	<0.2
1481501	Soil	41	0.91	51	0.005	1	2.18	0.006	0.04	<0.1	0.03	3.7	<0.1	<0.05	7	<0.5	<0.2
1481502	Soil	41	0.81	100	0.010	2	1.84	0.007	0.05	<0.1	0.07	3.0	<0.1	0.10	6	0.7	<0.2
1481503	Soil	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1481504	Soil	54	1.04	116	0.012	1	2.29	0.008	0.05	<0.1	0.09	4.4	<0.1	0.09	7	0.5	<0.2
1481505	Soil	232	2.72	197	0.011	5	2.74	0.006	0.04	<0.1	0.10	10.7	<0.1	0.16	8	1.3	<0.2
1481507	Soil	157	2.28	229	0.036	1	2.69	0.008	0.05	<0.1	0.04	6.8	<0.1	<0.05	7	<0.5	<0.2
1481508	Soil	156	1.48	268	0.024	2	2.12	0.008	0.04	0.1	0.04	7.8	0.1	<0.05	6	0.6	<0.2



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Page: 5 of 7

Part: 1 of 2

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Method Analyte	AQ201																				
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	
1481509	Soil	1.1	34.3	56.7	74	0.1	39.9	18.6	1338	4.22	20.2	6.9	0.7	68	0.2	7.4	0.4	59	0.76	0.242	15
1481510	Soil	1.4	38.9	21.2	123	0.1	85.4	24.5	1280	5.47	74.4	2.5	0.5	57	0.4	7.5	0.1	75	0.84	0.262	14
1481511	Soil	1.0	47.2	41.3	90	<0.1	39.0	21.1	1104	4.25	17.3	4.4	5.4	25	0.1	0.9	0.5	37	0.27	0.075	27
1481512	Soil	1.2	35.4	42.6	70	<0.1	30.2	19.4	1254	4.98	10.8	3.3	2.3	8	0.2	0.9	0.5	27	0.08	0.111	22
1481513	Soil	1.1	36.8	20.8	51	0.1	81.7	22.3	670	3.31	16.1	1.6	1.7	116	0.2	1.1	0.2	44	1.35	0.160	12
1481515	Soil	0.5	44.2	15.0	58	0.1	88.9	28.1	1345	4.64	12.2	3.8	2.0	122	0.1	2.2	0.1	60	1.42	0.242	39
1481518	Soil	0.7	47.9	14.9	72	<0.1	94.9	24.3	1129	5.19	20.1	0.9	1.8	110	0.2	1.6	0.2	104	1.03	0.268	44
1481519	Soil	0.8	38.3	12.6	76	<0.1	73.4	21.3	815	4.16	16.7	1.3	1.7	53	0.3	1.1	0.1	70	0.75	0.145	21
1481520	Soil	1.6	68.2	64.6	190	0.2	141.4	35.1	1354	6.34	96.6	2.4	2.1	89	0.7	7.3	0.2	74	1.18	0.228	22
1481521	Soil	1.3	47.9	51.8	102	<0.1	49.2	30.3	1867	5.52	18.7	3.0	4.4	14	0.1	1.3	0.5	47	0.15	0.140	28
1481522	Soil	1.9	49.3	38.1	84	<0.1	50.3	28.7	1870	4.41	25.4	2.6	4.3	11	0.1	2.9	0.4	46	0.12	0.082	22
1481525	Soil	0.6	77.6	15.3	103	0.1	249.0	64.0	1808	7.12	378.1	0.7	4.4	405	0.3	15.5	<0.1	117	4.37	0.706	59
1481526	Soil	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1481527	Soil	1.7	94.0	364.4	571	0.2	158.8	44.1	1521	6.14	202.4	2.8	1.6	165	3.7	20.1	0.2	57	1.53	0.211	23
1481528	Soil	1.8	149.1	3517.4	5362	0.4	141.8	43.4	1602	5.88	118.1	2.4	1.6	224	52.7	65.1	0.2	79	2.35	0.237	34
1481529	Soil	1.3	74.6	33.3	110	0.1	131.7	31.3	1545	5.83	99.8	3.4	1.6	144	0.8	3.7	0.1	87	1.53	0.243	36
1481530	Soil	1.3	73.9	45.2	207	0.1	136.8	33.8	948	6.46	105.9	2.3	2.5	83	0.9	5.8	0.2	99	1.18	0.218	30
1481531	Soil	1.5	55.8	49.7	110	0.1	81.3	29.2	1038	5.28	45.1	5.9	3.7	46	0.2	5.6	0.4	53	0.45	0.120	23
1481534	Soil	1.0	130.6	384.2	2313	0.3	135.8	45.0	1907	6.86	106.3	5.5	1.5	122	16.6	65.7	0.2	81	1.36	0.202	27
1481535	Soil	5.2	108.0	25.6	99	0.2	123.8	39.4	3146	6.71	48.6	2.6	2.5	112	0.9	3.8	0.2	111	1.00	0.222	37
1481536	Soil	1.6	105.5	36.2	106	0.2	121.2	42.2	2657	6.75	82.1	1.1	2.2	205	0.9	4.1	0.2	126	1.09	0.243	36
1481537	Soil	1.6	99.0	38.3	109	0.2	220.3	46.3	1355	6.78	265.9	4.3	4.2	201	0.5	14.5	0.2	104	1.00	0.266	38
1481540	Soil	0.7	58.0	27.5	113	0.1	118.8	28.3	879	5.23	27.4	2.6	2.2	76	0.5	3.6	0.1	100	0.71	0.177	35
1481541	Soil	1.0	63.5	20.8	100	0.1	111.8	37.5	979	5.60	53.2	10.1	4.2	89	0.5	7.5	0.1	78	1.13	0.206	26
1481542	Soil	1.0	89.6	57.2	203	0.1	226.1	81.4	1659	8.99	207.3	6.4	1.9	124	1.0	21.0	<0.1	74	1.26	0.251	20
1481543	Soil	0.6	75.3	54.1	225	0.1	153.6	50.9	1700	9.52	106.8	2.2	1.4	80	1.7	12.0	<0.1	84	1.32	0.243	22
1481544	Soil	1.0	122.0	104.9	388	0.2	206.5	61.9	1775	10.48	269.2	4.8	1.8	102	2.1	73.6	0.1	80	1.35	0.230	20
1481545	Soil	1.6	93.0	105.6	249	0.1	191.7	57.6	1419	6.59	74.4	2.6	3.8	133	1.3	18.2	0.1	104	1.01	0.290	36
1481547	Soil	0.3	77.5	21.6	97	<0.1	253.1	48.2	1079	6.54	8.3	0.9	4.8	234	0.3	0.9	<0.1	159	1.58	0.299	40
1481548	Soil	0.7	91.2	21.8	106	0.1	234.7	57.5	1285	6.60	81.0	2.6	5.0	206	0.4	3.6	<0.1	149	1.37	0.377	47



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Page: 5 of 7

Part: 2 of 2

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WHI18000483.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Ti	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
1481509	Soil	76	0.84	167	0.008	2	1.67	0.006	0.06	<0.1	0.11	2.0	<0.1	0.09	7	0.5	<0.2
1481510	Soil	111	0.96	138	0.009	2	1.53	0.007	0.04	<0.1	0.10	4.5	<0.1	0.15	6	0.6	<0.2
1481511	Soil	42	0.81	83	0.014	1	2.02	0.005	0.05	0.1	0.04	3.3	<0.1	<0.05	6	<0.5	<0.2
1481512	Soil	36	0.68	41	0.007	1	2.00	0.005	0.04	<0.1	0.06	1.6	<0.1	<0.05	6	<0.5	<0.2
1481513	Soil	92	1.46	102	0.009	<1	1.88	0.007	0.03	<0.1	0.10	4.7	<0.1	0.19	5	<0.5	<0.2
1481515	Soil	140	1.63	228	0.011	2	2.03	0.007	0.04	<0.1	0.05	9.3	<0.1	0.07	5	0.5	<0.2
1481518	Soil	199	2.18	207	0.015	2	2.67	0.006	0.04	<0.1	0.04	10.5	<0.1	<0.05	8	0.5	<0.2
1481519	Soil	97	1.29	178	0.021	2	1.89	0.007	0.04	0.2	0.05	8.1	<0.1	<0.05	6	<0.5	<0.2
1481520	Soil	151	1.47	144	0.007	2	2.09	0.009	0.06	<0.1	0.26	10.1	0.1	0.07	6	0.5	<0.2
1481521	Soil	62	1.00	75	0.010	1	2.50	0.006	0.05	<0.1	0.03	4.2	<0.1	<0.05	7	<0.5	<0.2
1481522	Soil	55	0.85	110	0.019	1	1.92	0.006	0.05	0.1	0.04	6.4	<0.1	<0.05	5	<0.5	<0.2
1481525	Soil	276	1.84	167	0.003	3	1.68	0.006	0.04	<0.1	0.14	18.1	0.4	0.08	4	<0.5	<0.2
1481526	Soil	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1481527	Soil	93	0.79	216	0.003	2	1.33	0.005	0.06	<0.1	0.28	12.4	0.1	0.09	3	<0.5	<0.2
1481528	Soil	133	1.98	194	0.015	3	1.92	0.008	0.04	0.2	9.38	12.7	<0.1	<0.05	6	0.8	<0.2
1481529	Soil	180	1.67	209	0.009	2	1.98	0.006	0.07	<0.1	0.15	13.2	0.1	0.08	6	0.6	<0.2
1481530	Soil	175	1.62	137	0.010	3	1.96	0.007	0.05	<0.1	0.19	13.4	<0.1	<0.05	6	0.5	<0.2
1481531	Soil	76	1.13	108	0.009	1	1.92	0.005	0.06	<0.1	0.10	6.9	<0.1	<0.05	6	<0.5	<0.2
1481534	Soil	140	1.44	249	0.008	3	1.82	0.008	0.06	0.1	0.77	17.6	<0.1	0.08	5	<0.5	<0.2
1481535	Soil	156	2.39	239	0.017	3	2.45	0.008	0.04	<0.1	0.08	17.8	0.2	<0.05	8	<0.5	<0.2
1481536	Soil	160	2.53	283	0.005	1	2.91	0.007	0.04	<0.1	0.09	20.7	0.3	<0.05	8	0.5	<0.2
1481537	Soil	212	1.10	230	0.004	2	1.83	0.009	0.04	0.1	0.12	22.2	0.4	<0.05	5	<0.5	<0.2
1481540	Soil	173	1.97	187	0.021	<1	2.35	0.006	0.05	0.1	0.10	12.9	<0.1	<0.05	7	<0.5	<0.2
1481541	Soil	108	1.55	163	0.051	1	1.65	0.011	0.06	0.2	0.06	11.6	<0.1	<0.05	5	<0.5	<0.2
1481542	Soil	95	0.88	184	0.010	2	1.15	0.011	0.07	0.1	0.12	21.1	<0.1	0.07	3	<0.5	<0.2
1481543	Soil	108	0.81	221	0.006	2	1.19	0.007	0.07	<0.1	0.12	21.4	<0.1	0.05	3	0.6	<0.2
1481544	Soil	90	0.57	186	0.007	3	0.95	0.007	0.07	0.2	0.14	25.0	<0.1	<0.05	3	<0.5	<0.2
1481545	Soil	197	2.39	147	0.034	1	2.08	0.007	0.03	<0.1	0.17	13.3	<0.1	<0.05	7	<0.5	<0.2
1481547	Soil	729	6.36	238	0.154	<1	3.98	0.005	0.28	<0.1	0.04	13.7	0.7	<0.05	14	<0.5	<0.2
1481548	Soil	479	4.79	306	0.101	1	3.30	0.006	0.07	<0.1	0.08	12.3	0.3	<0.05	11	<0.5	<0.2



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Page: 6 of 7

Part: 1 of 2

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WHI18000483.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	2	0.01	0.001	1	
1481549	Soil	0.9	63.6	43.8	133	0.1	164.5	37.4	1388	5.95	13.9	1.7	3.8	119	0.9	1.4	0.1	124	1.07	0.289	44
1481550	Soil	0.8	57.9	17.8	88	0.1	154.3	33.3	1208	5.67	14.6	1.1	3.0	161	0.4	1.1	0.1	117	1.29	0.338	51
1481551	Soil	0.3	69.9	21.1	92	<0.1	190.4	46.7	1232	6.69	9.6	7.8	8.7	380	0.2	1.2	<0.1	141	3.09	0.914	97
1481552	Soil	0.5	85.5	47.9	125	0.1	167.1	43.6	1059	6.42	25.4	4.8	4.9	353	0.5	2.9	<0.1	138	2.51	0.675	65
1481553	Soil	0.6	82.4	21.9	128	0.1	247.2	56.5	1497	8.47	54.4	3.2	5.0	289	0.5	7.6	<0.1	135	1.53	0.344	43
1481554	Soil	0.5	85.6	19.8	108	<0.1	195.0	51.5	1171	8.00	10.3	<0.5	3.4	287	0.2	1.2	<0.1	191	1.48	0.362	36
1481556	Soil	1.1	90.3	43.7	138	0.1	193.0	45.4	1647	7.78	111.6	0.7	2.8	159	0.6	17.9	0.1	114	1.16	0.308	41
1481557	Soil	0.3	66.5	28.6	97	<0.1	229.0	47.6	1158	7.01	14.2	5.1	5.6	243	0.3	1.5	<0.1	166	1.66	0.431	60
1481558	Soil	1.1	66.9	20.6	104	<0.1	158.5	38.9	1223	7.01	33.3	<0.5	2.5	141	0.4	4.3	<0.1	136	1.11	0.254	33
1481559	Soil	1.0	65.7	135.2	239	0.1	175.3	43.4	1253	6.65	46.9	2.2	2.3	158	1.5	3.6	0.1	128	1.40	0.292	36
1481560	Soil	1.2	42.1	107.2	192	<0.1	103.7	28.9	1284	5.26	25.4	1.3	1.7	56	1.1	1.8	0.2	113	0.54	0.156	33
1480640	Soil	1.3	60.6	114.5	238	0.1	108.8	32.0	1605	5.79	101.6	2.9	2.5	58	0.9	8.6	0.2	61	1.24	0.137	33
1480643	Soil	0.7	52.9	11.0	88	0.1	156.0	35.1	1567	3.67	14.1	1.8	0.3	73	0.5	1.2	<0.1	72	2.45	0.155	17
1480644	Soil	3.6	194.6	59.6	122	0.4	184.4	87.3	1711	7.49	84.7	6.1	1.7	123	0.6	7.0	0.3	105	1.44	0.164	37
1480645	Soil	1.3	97.1	428.3	733	0.2	171.5	45.0	1309	6.48	143.9	7.5	1.9	138	4.4	17.1	0.1	88	2.16	0.281	39
1480646	Soil	0.9	51.2	53.0	158	0.1	132.3	34.6	1478	5.39	65.1	4.6	2.8	72	0.4	8.1	0.1	82	0.99	0.210	49
1480647	Soil	1.3	103.3	764.4	1293	0.3	217.5	54.2	1310	7.46	191.9	2.7	3.7	214	10.1	42.0	<0.1	117	2.58	0.329	41
1480648	Soil	2.1	96.8	277.1	259	0.2	212.7	66.2	2612	9.63	62.0	2.8	5.2	61	1.6	6.2	0.2	172	1.11	0.272	64
1480649	Soil	5.0	116.5	166.8	616	0.3	196.5	77.1	2789	9.60	239.9	8.2	4.2	67	3.5	38.1	0.2	93	1.13	0.275	34
1480650	Soil	1.4	41.7	46.2	84	<0.1	30.6	24.1	1833	4.26	17.4	3.7	1.4	11	0.1	2.2	0.5	37	0.08	0.110	20
1480651	Soil	1.5	29.0	39.3	72	<0.1	19.2	15.6	1548	3.86	12.1	3.1	0.7	9	0.3	0.9	0.4	50	0.08	0.103	18
1480652	Soil	2.0	414.8	1524.5	1670	2.6	57.8	37.8	3639	5.93	51.9	24.2	1.5	39	20.2	175.6	0.7	56	0.57	0.171	34
1480653	Soil	1.2	60.2	54.0	101	<0.1	44.9	27.8	2711	4.96	18.3	5.0	6.1	13	0.1	3.6	0.6	34	0.10	0.115	22
1480654	Soil	1.8	35.6	31.4	62	0.2	21.3	13.4	889	3.68	14.5	1.6	0.7	11	<0.1	1.7	0.5	40	0.08	0.103	14
1480655	Soil	1.1	34.7	32.6	72	<0.1	25.7	18.4	1615	3.72	11.1	4.3	1.1	21	0.3	1.0	0.4	45	0.21	0.091	18
1480656	Soil	1.2	49.0	43.3	81	<0.1	32.1	23.0	1805	3.51	17.2	5.0	3.8	13	0.2	4.5	0.4	37	0.11	0.075	25
1480657	Soil	1.4	35.1	49.6	69	<0.1	24.5	16.6	1673	3.73	13.2	7.7	0.7	10	0.1	1.5	0.5	41	0.09	0.088	18
1480658	Soil	1.6	52.0	62.9	105	0.1	30.5	32.7	9167	5.04	14.5	1.7	1.9	13	0.3	1.8	0.6	41	0.10	0.178	22
1480659	Soil	1.1	34.8	42.1	79	<0.1	23.6	21.6	2515	4.21	12.9	8.2	1.0	9	<0.1	1.5	0.4	32	0.06	0.089	18
1480660	Soil	1.2	25.8	29.5	63	<0.1	22.8	15.0	1693	4.09	17.9	1.1	2.1	8	0.2	1.8	0.3	34	0.06	0.067	19



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Page: 6 of 7

Part: 2 of 2

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		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2		
1481549	Soil	316	3.63	326	0.114	1	2.94	0.007	0.09	0.1	0.04	11.2	0.2	<0.05	11	<0.5	<0.2	
1481550	Soil	346	3.64	206	0.074	1	3.16	0.007	0.05	<0.1	0.04	10.6	0.1	<0.05	10	<0.5	<0.2	
1481551	Soil	438	4.81	371	0.093	<1	3.62	0.006	0.22	<0.1	0.02	7.8	0.3	<0.05	11	<0.5	<0.2	
1481552	Soil	326	3.91	288	0.088	1	3.03	0.007	0.10	<0.1	0.06	8.7	0.2	<0.05	9	<0.5	<0.2	
1481553	Soil	268	4.23	1068	0.075	1	2.96	0.007	0.14	<0.1	0.10	15.5	0.2	<0.05	9	<0.5	<0.2	
1481554	Soil	352	6.48	630	0.061	1	4.31	0.005	0.09	<0.1	0.04	12.5	0.1	<0.05	16	<0.5	<0.2	
1481556	Soil	272	2.35	183	0.024	1	2.34	0.006	0.04	0.1	0.14	22.4	0.1	<0.05	7	<0.5	<0.2	
1481557	Soil	629	5.63	246	0.119	1	3.90	0.006	0.12	<0.1	0.03	14.6	0.4	<0.05	13	<0.5	<0.2	
1481558	Soil	364	4.02	251	0.082	<1	3.09	0.006	0.03	<0.1	0.04	13.0	0.2	<0.05	11	<0.5	<0.2	
1481559	Soil	347	4.32	257	0.071	<1	3.32	0.006	0.03	<0.1	0.11	14.6	0.1	<0.05	11	<0.5	<0.2	
1481560	Soil	220	2.11	169	0.067	<1	2.42	0.006	0.05	<0.1	0.07	7.6	0.1	<0.05	9	<0.5	<0.2	
1480640	Soil	99	0.73	114	0.004	1	1.46	0.007	0.05	<0.1	0.22	8.7	0.1	<0.05	4	<0.5	<0.2	
1480643	Soil	158	1.26	149	0.009	3	1.89	0.010	0.03	<0.1	0.08	5.4	<0.1	0.15	6	<0.5	<0.2	
1480644	Soil	185	1.66	232	0.014	3	1.90	0.009	0.04	<0.1	0.13	15.6	0.2	<0.05	6	1.9	<0.2	
1480645	Soil	190	2.02	175	0.012	3	1.84	0.008	0.06	0.1	0.31	13.9	0.2	<0.05	6	0.6	<0.2	
1480646	Soil	157	1.46	147	0.018	<1	1.70	0.008	0.05	0.2	0.12	13.8	0.1	<0.05	5	<0.5	<0.2	
1480647	Soil	291	2.68	185	0.022	2	2.12	0.007	0.06	<0.1	0.84	16.2	0.2	<0.05	7	<0.5	<0.2	
1480648	Soil	241	0.64	192	0.009	1	1.27	0.009	0.06	<0.1	0.14	21.7	0.3	<0.05	3	0.6	<0.2	
1480649	Soil	100	0.71	137	0.007	<1	1.21	0.009	0.05	0.1	0.52	18.3	0.3	<0.05	4	<0.5	<0.2	
1480650	Soil	33	0.58	54	0.012	<1	1.83	0.006	0.06	<0.1	0.05	1.8	<0.1	<0.05	6	<0.5	<0.2	
1480651	Soil	29	0.32	87	0.014	1	1.73	0.005	0.07	<0.1	0.06	1.0	0.1	0.07	6	<0.5	<0.2	
1480652	Soil	49	0.51	160	0.011	1	1.78	0.008	0.07	<0.1	2.38	5.8	0.1	0.05	4	0.7	<0.2	
1480653	Soil	37	0.75	80	0.012	2	2.37	0.005	0.05	<0.1	0.05	4.7	<0.1	<0.05	6	<0.5	<0.2	
1480654	Soil	27	0.37	72	0.012	2	1.42	0.006	0.05	0.1	0.07	0.9	<0.1	0.10	5	<0.5	<0.2	
1480655	Soil	30	0.52	104	0.016	<1	1.61	0.006	0.05	0.1	0.03	1.6	0.1	0.06	5	<0.5	<0.2	
1480656	Soil	29	0.54	92	0.020	1	1.55	0.006	0.04	<0.1	0.05	3.4	<0.1	0.05	4	<0.5	<0.2	
1480657	Soil	29	0.39	77	0.015	<1	1.43	0.004	0.04	<0.1	0.08	1.0	0.1	0.10	5	0.6	<0.2	
1480658	Soil	31	0.52	160	0.016	1	2.18	0.006	0.07	<0.1	0.12	2.2	0.1	0.05	5	0.6	<0.2	
1480659	Soil	25	0.44	89	0.009	2	1.62	0.005	0.04	<0.1	0.04	1.4	<0.1	0.09	5	<0.5	<0.2	
1480660	Soil	23	0.29	71	0.018	2	1.14	0.005	0.05	<0.1	0.06	2.0	<0.1	0.06	4	0.8	<0.2	



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Project: McKay Hill
Report Date: August 21, 2018

Page: 7 of 7

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000483.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
		MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL
1480661	Soil	1.1	35.6	38.7	69	<0.1	44.7	24.3	1401	3.75	24.4	5.5	3.8	14	<0.1	5.7	0.3	29	0.15	0.082	26
1480852	Soil	0.2	72.9	6.8	96	<0.1	127.3	43.8	1299	8.55	2.5	0.6	4.1	169	0.2	0.2	<0.1	186	1.85	0.332	38
1480853	Soil	0.2	77.2	6.6	102	<0.1	139.4	44.4	1145	8.12	2.4	<0.5	4.7	258	<0.1	0.3	<0.1	188	3.20	0.382	46
1480854	Soil	0.4	46.9	12.3	94	<0.1	114.4	39.2	1326	7.25	4.6	<0.5	4.9	129	0.2	0.5	<0.1	163	1.09	0.256	48
1480857	Soil	1.1	57.8	14.4	111	<0.1	111.1	35.7	1181	7.38	10.3	3.1	7.0	234	0.2	0.8	0.1	168	1.50	0.353	71
1480858	Soil	0.6	71.1	12.6	128	<0.1	130.9	44.6	1451	8.62	6.4	2.1	5.4	223	0.3	0.4	<0.1	194	1.67	0.423	68
1480859	Soil	0.7	71.8	14.3	107	<0.1	183.8	51.2	1592	8.42	3.9	1.0	5.5	207	<0.1	0.6	<0.1	225	1.42	0.477	64
1480860	Soil	3.3	188.7	15.7	87	0.3	502.7	118.5	1323	10.24	19.8	6.9	3.3	432	0.2	6.6	<0.1	207	6.32	1.084	48
1480863	Soil	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1480851	Soil	0.8	55.3	10.3	88	<0.1	88.4	28.9	1116	6.38	9.0	3.5	2.4	163	0.1	0.7	<0.1	158	1.82	0.235	39
1480864	Soil	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1480856	Soil	0.5	67.2	9.2	100	<0.1	127.0	37.4	1251	7.91	4.3	7.6	4.1	206	<0.1	0.4	<0.1	176	1.70	0.340	50
1480865	Soil	0.5	72.2	16.1	76	0.1	255.0	49.7	1449	5.38	29.1	2.3	0.7	96	0.1	3.8	<0.1	76	3.41	0.162	17
1480869	Soil	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1480861	Soil	0.9	111.7	26.4	140	0.2	113.4	31.2	588	6.15	17.8	10.8	2.9	107	0.3	2.0	0.2	120	1.39	0.160	29
1480870	Soil	1.2	30.1	43.5	74	<0.1	23.5	13.3	367	3.40	15.3	3.1	1.9	15	0.1	1.6	0.4	45	0.16	0.065	21
1480871	Soil	3.6	174.1	130.6	272	0.1	256.2	73.4	9031	7.37	68.9	5.4	3.4	53	1.8	3.6	0.4	110	0.47	0.090	15
1480872	Soil	1.0	57.2	64.3	99	<0.1	51.3	27.5	1929	4.04	23.1	1.7	3.4	30	0.2	1.4	0.4	49	0.38	0.082	20
1480873	Soil	0.2	21.9	11.3	121	<0.1	5.1	35.3	1585	8.36	7.1	1.2	3.3	168	0.2	0.6	<0.1	112	1.74	0.441	39
1480874	Soil	0.6	29.4	10.9	53	<0.1	48.0	20.4	463	3.07	15.0	1.4	2.6	55	<0.1	1.3	0.1	69	0.49	0.051	15
1480876	Soil	2.3	24.2	33.9	68	<0.1	18.0	9.7	339	2.90	14.4	<0.5	3.1	13	<0.1	1.2	0.3	45	0.14	0.045	22
1480877	Soil	1.8	85.6	42.2	113	<0.1	101.5	34.0	3828	5.63	44.0	3.1	2.7	57	0.3	2.6	0.2	74	0.58	0.104	20
1480878	Soil	0.6	41.0	16.9	109	<0.1	20.5	22.5	1057	6.07	8.8	1.4	2.9	106	0.5	1.1	<0.1	79	1.16	0.241	27
1480879	Soil	0.6	157.4	10.2	82	<0.1	50.6	38.4	1222	7.04	8.2	<0.5	1.8	129	0.1	0.8	0.2	165	1.64	0.475	34
1480880	Soil	1.5	37.7	6.8	53	0.1	196.7	62.0	1257	5.21	17.6	3.0	1.9	108	0.1	3.1	0.1	100	0.76	0.099	26
1481524	Soil	0.5	116.3	16.7	97	0.2	264.8	62.3	1741	8.44	21.4	2.0	5.3	248	0.3	2.0	0.2	148	1.67	0.549	58



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Project: McKay Hill
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Page: 7 of 7

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000483.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2		
1480661	Soil	41	0.46	66	0.010	1	1.38	0.003	0.05	<0.1	0.12	2.5	<0.1	0.08	5	<0.5	<0.2	
1480852	Soil	294	3.28	234	0.236	2	3.17	0.009	0.41	0.2	0.03	4.1	0.3	<0.05	15	<0.5	<0.2	
1480853	Soil	329	3.56	291	0.239	3	3.16	0.011	0.65	0.2	0.01	3.9	0.2	<0.05	16	<0.5	<0.2	
1480854	Soil	250	3.58	428	0.280	3	3.13	0.009	0.36	0.1	0.01	6.5	0.2	<0.05	13	<0.5	<0.2	
1480857	Soil	226	2.90	359	0.190	2	2.47	0.011	0.23	0.2	0.02	4.2	0.2	<0.05	13	<0.5	<0.2	
1480858	Soil	304	3.85	452	0.183	3	3.14	0.011	0.33	0.1	0.03	5.8	0.2	<0.05	16	<0.5	<0.2	
1480859	Soil	341	6.16	383	0.209	1	4.50	0.007	0.46	<0.1	0.02	10.9	0.2	<0.05	17	<0.5	<0.2	
1480860	Soil	620	6.34	70	0.053	2	4.19	0.005	<0.01	<0.1	0.06	23.2	<0.1	0.24	15	<0.5	<0.2	
1480863	Soil	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1480851	Soil	193	2.49	325	0.190	2	2.42	0.010	0.11	0.1	0.04	7.0	0.2	<0.05	11	<0.5	<0.2	
1480864	Soil	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1480856	Soil	289	4.64	367	0.225	2	3.54	0.009	0.49	0.1	0.02	7.6	0.2	<0.05	15	0.6	<0.2	
1480865	Soil	294	1.93	176	0.011	5	2.33	0.005	0.10	<0.1	0.06	8.8	<0.1	<0.05	7	<0.5	<0.2	
1480869	Soil	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1480861	Soil	200	1.60	233	0.200	5	2.04	0.012	0.22	0.2	0.03	11.6	0.2	<0.05	8	<0.5	<0.2	
1480870	Soil	27	0.39	82	0.034	3	1.31	0.005	0.12	<0.1	0.04	1.9	0.1	<0.05	5	<0.5	<0.2	
1480871	Soil	283	1.19	142	0.014	2	2.60	0.009	0.09	<0.1	0.14	14.6	0.2	<0.05	8	<0.5	<0.2	
1480872	Soil	78	0.63	142	0.019	2	1.71	0.007	0.13	0.1	0.05	3.9	<0.1	<0.05	6	0.6	<0.2	
1480873	Soil	4	2.00	350	0.172	2	3.41	0.007	0.41	0.1	0.01	1.1	0.3	<0.05	12	<0.5	<0.2	
1480874	Soil	79	1.11	158	0.107	<1	1.63	0.009	0.03	<0.1	0.04	5.2	0.1	<0.05	6	<0.5	<0.2	
1480876	Soil	27	0.38	60	0.044	2	1.21	0.005	0.06	0.1	0.05	2.1	0.1	<0.05	5	<0.5	<0.2	
1480877	Soil	162	0.85	160	0.020	4	2.05	0.009	0.09	<0.1	0.04	8.4	<0.1	<0.05	7	<0.5	<0.2	
1480878	Soil	16	1.19	246	0.111	2	2.40	0.007	0.15	0.1	0.01	2.5	0.2	<0.05	8	0.6	<0.2	
1480879	Soil	31	2.01	264	0.157	3	3.02	0.008	0.18	<0.1	0.04	2.9	0.4	<0.05	13	<0.5	<0.2	
1480880	Soil	268	3.83	107	0.113	4	2.48	0.010	0.04	<0.1	0.04	7.3	0.1	<0.05	9	<0.5	<0.2	
1481524	Soil	419	5.34	319	0.061	4	4.25	0.007	0.04	<0.1	0.05	25.9	0.2	<0.05	11	0.7	<0.2	



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Page: 1 of 1

Part: 1 of 2

QUALITY CONTROL REPORT

WHI18000483.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	2	0.01	0.001	1	
Pulp Duplicates																					
1480556	Soil	1.0	23.1	236.3	335	0.1	30.8	14.9	877	4.05	41.8	2.2	2.0	20	3.4	5.1	0.2	83	0.30	0.084	16
REP 1480556	QC	1.0	21.3	244.5	328	0.2	33.0	16.2	864	3.73	42.7	3.5	1.9	21	3.8	5.5	0.2	86	0.31	0.087	16
1480592	Soil	0.8	36.5	88.1	159	0.2	42.7	18.3	815	4.13	15.9	3.8	5.5	40	0.7	2.0	0.1	87	0.77	0.111	33
REP 1480592	QC	0.9	34.4	86.1	150	0.2	42.3	17.7	759	4.01	14.7	1.4	5.7	41	0.8	1.8	0.1	79	0.73	0.109	32
1481519	Soil	0.8	38.3	12.6	76	<0.1	73.4	21.3	815	4.16	16.7	1.3	1.7	53	0.3	1.1	0.1	70	0.75	0.145	21
REP 1481519	QC	0.7	37.2	12.5	74	<0.1	72.0	21.6	816	4.10	16.7	3.1	1.8	52	0.2	1.1	0.1	70	0.75	0.135	22
1480645	Soil	1.3	97.1	428.3	733	0.2	171.5	45.0	1309	6.48	143.9	7.5	1.9	138	4.4	17.1	0.1	88	2.16	0.281	39
REP 1480645	QC	1.1	94.2	407.1	687	0.2	162.7	42.5	1305	6.18	138.8	7.2	1.8	132	4.0	15.8	0.1	89	2.04	0.250	38
1480874	Soil	0.6	29.4	10.9	53	<0.1	48.0	20.4	463	3.07	15.0	1.4	2.6	55	<0.1	1.3	0.1	69	0.49	0.051	15
REP 1480874	QC	1.1	28.6	10.7	55	<0.1	48.3	21.3	490	3.10	14.4	<0.5	2.5	53	<0.1	1.1	0.1	65	0.48	0.060	15
Reference Materials																					
STD DS11	Standard	15.1	154.6	138.3	324	1.7	77.3	14.1	1033	3.38	43.0	103.6	7.9	61	2.3	7.3	10.4	49	0.97	0.075	17
STD DS11	Standard	14.4	139.1	134.8	321	1.7	75.9	13.2	1008	3.08	41.9	69.9	7.3	62	2.5	7.6	10.6	49	1.01	0.067	17
STD DS11	Standard	13.4	135.8	135.4	323	1.8	78.3	13.4	975	3.02	42.4	74.1	7.1	61	2.3	7.6	10.7	46	1.02	0.072	17
STD DS11	Standard	14.0	152.2	112.4	328	1.7	76.5	13.5	1012	3.07	43.8	69.0	7.7	50	2.5	6.1	9.3	49	0.97	0.066	16
STD DS11	Standard	14.1	145.4	131.4	302	1.6	81.3	12.6	1019	2.97	40.4	88.7	7.2	70	2.9	7.4	11.0	45	0.99	0.062	18
STD OXC129	Standard	1.4	29.9	6.7	42	<0.1	82.1	22.0	422	3.36	0.7	207.1	2.0	211	<0.1	<0.1	<0.1	55	0.69	0.107	12
STD OXC129	Standard	1.3	27.0	6.3	39	<0.1	77.7	19.6	422	3.01	0.7	187.5	1.7	191	<0.1	<0.1	<0.1	51	0.67	0.099	12
STD OXC129	Standard	1.3	25.8	6.2	41	<0.1	76.3	20.1	397	2.98	<0.5	194.4	1.8	163	<0.1	<0.1	<0.1	49	0.66	0.097	12
STD OXC129	Standard	1.3	30.2	5.4	40	<0.1	76.6	19.9	409	3.15	0.7	187.1	1.9	187	<0.1	<0.1	<0.1	51	0.63	0.094	10
STD OXC129	Standard	1.2	27.8	6.2	44	<0.1	82.7	21.4	423	3.14	<0.5	213.4	1.9	198	<0.1	<0.1	<0.1	53	0.70	0.109	13
STD OXC129 Expected		1.3	28	6.2	42.9		79.5	20.3	421	3.065	0.6	195	1.9					51	0.684	0.102	12.5
STD DS11 Expected		14.6	149	138	345	1.71	77.7	14.2	1055	3.1	42.8	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701	18.6
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	2	<0.1	<0.1	<0.1	<2	0.01	<0.001	<1



Bureau Veritas Commodities Canada Ltd.
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PHONE (604) 253-3158

Project: McKay Hill
Report Date: August 21, 2018

Page: 1 of 1

Part: 2 of 2

QUALITY CONTROL REPORT

WHI18000483.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
Pulp Duplicates																	
1480556	Soil	60	0.82	189	0.126	<1	1.64	0.006	0.08	<0.1	0.10	3.6	<0.1	<0.05	7	<0.5	<0.2
REP 1480556	QC	66	0.79	194	0.129	1	1.58	0.006	0.08	<0.1	0.13	3.8	<0.1	<0.05	7	<0.5	<0.2
1480592	Soil	69	1.16	268	0.104	2	1.83	0.008	0.06	0.2	0.04	5.3	<0.1	<0.05	7	<0.5	<0.2
REP 1480592	QC	63	1.13	258	0.103	2	1.86	0.008	0.06	0.1	0.05	5.1	<0.1	<0.05	6	<0.5	<0.2
1481519	Soil	97	1.29	178	0.021	2	1.89	0.007	0.04	0.2	0.05	8.1	<0.1	<0.05	6	<0.5	<0.2
REP 1481519	QC	96	1.40	185	0.023	2	1.88	0.009	0.04	0.2	0.03	7.8	<0.1	<0.05	5	<0.5	<0.2
1480645	Soil	190	2.02	175	0.012	3	1.84	0.008	0.06	0.1	0.31	13.9	0.2	<0.05	6	0.6	<0.2
REP 1480645	QC	187	2.00	166	0.011	2	1.83	0.008	0.06	<0.1	0.29	13.1	0.2	<0.05	5	0.7	<0.2
1480874	Soil	79	1.11	158	0.107	<1	1.63	0.009	0.03	<0.1	0.04	5.2	0.1	<0.05	6	<0.5	<0.2
REP 1480874	QC	78	1.10	161	0.105	2	1.77	0.007	0.04	0.1	0.03	4.5	0.1	<0.05	6	<0.5	<0.2
Reference Materials																	
STD DS11	Standard	59	0.88	363	0.085	9	1.16	0.073	0.41	2.9	0.27	3.4	5.3	0.26	5	1.8	4.8
STD DS11	Standard	58	0.81	359	0.086	6	1.11	0.071	0.39	2.9	0.26	3.6	4.9	0.24	5	1.9	4.6
STD DS11	Standard	57	0.86	360	0.083	6	1.16	0.071	0.39	3.3	0.26	3.4	4.7	0.27	4	2.6	5.2
STD DS11	Standard	57	0.82	354	0.076	7	1.13	0.068	0.40	3.2	0.28	2.9	5.1	0.22	5	1.6	4.7
STD DS11	Standard	56	0.85	381	0.088	7	1.12	0.069	0.34	2.7	0.25	3.2	4.5	0.29	5	1.9	4.3
STD OXC129	Standard	52	1.73	52	0.401	1	1.71	0.671	0.36	<0.1	<0.01	1.2	<0.1	<0.05	6	<0.5	<0.2
STD OXC129	Standard	51	1.50	49	0.350	1	1.60	0.593	0.39	<0.1	<0.01	2.1	<0.1	<0.05	5	<0.5	<0.2
STD OXC129	Standard	52	1.51	47	0.383	1	1.53	0.569	0.38	<0.1	<0.01	1.7	<0.1	<0.05	5	<0.5	<0.2
STD OXC129	Standard	51	1.58	46	0.381	<1	1.58	0.596	0.35	<0.1	<0.01	1.1	<0.1	<0.05	5	<0.5	<0.2
STD OXC129	Standard	54	1.67	53	0.412	1	1.71	0.602	0.38	<0.1	<0.01	1.5	<0.1	<0.05	6	<0.5	<0.2
STD OXC129 Expected		52	1.545	50	0.4	1	1.58	0.59	0.3655			1.1			5.5		
STD DS11 Expected		61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	0.26	3.4	4.9	0.2835	5.1	2.2	4.56
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2



Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Submitted By: Scott Petsel
Receiving Lab: Canada-Whitehorse
Received: August 03, 2018
Report Date: August 25, 2018
Page: 1 of 8

CERTIFICATE OF ANALYSIS

WHI18000536.1

CLIENT JOB INFORMATION

Project: McKay Hill
Shipment ID: MH
P.O. Number: McKay Hill
Number of Samples: 193

SAMPLE DISPOSAL

RTRN-PLP Return After 90 days
DISP-RJT Dispose of Reject After 60 days

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

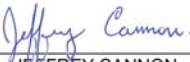
Invoice To: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2
Canada

CC: Lauren Blackburn
Samantha Dyck

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
DY060	193	Dry at 60C			WHI
SS80	193	Dry at 60C sieve 100g to -80 mesh			WHI
AQ201	193	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN
SHP01	193	Per sample shipping charges for branch shipments			VAN

ADDITIONAL COMMENTS


JEFFREY CANNON
Geochemistry Department Supervisor



Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

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Client: **Metallic Minerals Corp.**
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Vancouver British Columbia V6C 1T2 Canada

Project: McKay Hill
Report Date: August 25, 2018

Page: 2 of 8

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000536.1

Method Analyte	AQ201																				
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	
1480881	Soil	1.6	37.4	20.4	106	<0.1	40.6	17.9	696	3.92	12.5	1.1	2.1	41	0.4	1.4	0.3	57	0.47	0.083	14
1480882	Soil	0.9	34.5	10.5	82	<0.1	44.7	17.0	580	3.67	8.5	2.5	2.2	53	0.2	0.7	0.1	77	0.59	0.144	20
1480883	Soil	1.0	55.4	19.4	124	<0.1	107.3	38.5	1232	7.65	6.7	<0.5	3.7	167	0.1	0.6	<0.1	169	1.53	0.369	46
1480884	Soil	1.2	48.9	32.9	114	0.2	65.7	27.6	1202	4.84	18.8	3.9	3.1	56	0.4	2.3	0.2	86	1.01	0.164	20
1480885	Soil	1.9	57.2	51.3	121	0.2	60.3	27.2	1748	5.39	23.0	4.7	4.5	53	0.5	3.3	0.3	73	1.52	0.174	21
1480891	Soil	0.7	18.1	11.1	52	<0.1	22.7	9.9	380	2.52	8.7	1.1	2.1	19	0.1	0.7	0.1	50	0.29	0.081	11
1480892	Soil	1.1	41.6	19.9	131	<0.1	92.0	32.6	1184	6.55	6.4	<0.5	3.2	119	0.2	0.7	<0.1	153	1.12	0.301	36
1480893	Soil	0.8	49.0	27.7	126	0.2	59.2	23.4	1027	5.20	13.7	2.7	2.8	63	0.2	1.6	0.1	102	2.37	0.188	23
1480894	Soil	0.8	52.0	34.9	107	0.2	57.9	23.2	1122	4.96	15.6	2.3	1.4	78	0.5	2.2	0.1	88	3.77	0.177	20
1480895	Soil	0.7	45.2	27.9	107	0.2	55.5	23.7	982	4.97	12.1	1.4	2.2	115	0.4	1.6	0.1	104	3.77	0.231	22
1480896	Soil	0.9	37.0	22.0	77	0.1	31.3	13.3	517	2.90	11.0	10.9	3.4	34	0.1	1.1	0.2	52	0.58	0.112	15
1480951	Soil	1.0	29.2	24.6	79	<0.1	40.3	19.6	743	3.89	10.3	2.0	3.0	23	0.2	1.0	0.2	78	0.37	0.096	15
1480952	Soil	1.0	40.6	17.7	97	<0.1	59.2	25.8	1098	4.85	10.1	2.6	3.2	46	0.3	1.0	0.2	99	0.59	0.181	26
1480953	Soil	0.8	36.9	16.6	80	0.1	36.5	14.8	563	3.27	9.7	1.8	3.1	52	0.2	1.0	0.2	62	1.81	0.141	16
1480954	Soil	0.7	35.5	14.9	76	0.1	35.3	15.6	573	3.04	9.4	1.9	3.1	59	0.3	0.9	0.1	58	1.67	0.132	14
1480955	Soil	1.0	50.1	38.9	122	0.2	69.0	30.4	1206	6.13	15.5	2.3	2.4	110	0.4	1.7	0.2	113	3.11	0.236	23
1480956	Soil	1.2	47.2	43.4	121	0.2	60.3	26.9	948	5.31	14.0	11.9	2.8	122	0.4	1.8	0.2	100	3.28	0.240	23
1480961	Soil	0.9	42.9	22.7	92	<0.1	55.6	22.0	1059	4.06	10.2	1.0	3.4	35	0.3	1.1	0.2	74	0.46	0.147	19
1480962	Soil	0.9	27.7	16.0	78	<0.1	34.7	16.2	681	3.14	9.9	<0.5	3.3	34	0.2	0.9	0.2	60	0.84	0.110	16
1480963	Soil	0.7	31.4	18.5	86	0.1	37.7	14.3	533	3.54	10.5	<0.5	2.3	51	0.3	1.1	0.2	64	1.46	0.152	17
1480964	Soil	0.7	43.1	21.5	87	0.2	41.9	16.8	760	4.01	10.8	1.5	1.7	46	0.2	1.1	0.2	75	1.07	0.166	21
1480965	Soil	1.1	41.2	22.9	103	0.2	60.2	26.2	1198	5.21	12.2	1.2	2.2	92	0.4	1.3	0.1	99	3.57	0.226	23
1480966	Soil	1.1	47.5	30.6	96	0.2	49.2	19.2	841	4.40	13.1	2.9	2.7	46	0.2	1.5	0.3	70	0.87	0.141	21
1480967	Soil	1.3	56.0	35.9	81	<0.1	59.3	22.1	995	4.49	21.1	2.7	4.2	28	0.1	2.1	0.3	46	0.38	0.087	20
1480971	Soil	0.6	34.9	17.8	86	<0.1	42.7	18.3	871	3.85	9.7	1.5	3.5	33	0.2	1.0	0.2	68	0.47	0.145	17
1480972	Soil	0.8	38.2	15.8	103	<0.1	40.8	23.6	767	4.31	8.6	<0.5	3.4	99	0.4	0.9	0.2	77	3.88	0.218	18
1480973	Soil	0.7	41.9	19.4	91	0.2	48.0	19.9	812	4.06	9.5	2.1	2.2	57	0.3	1.1	0.2	76	1.78	0.162	18
1480974	Soil	0.9	51.6	17.9	98	0.2	56.1	23.4	1033	4.95	9.2	1.9	1.7	100	0.2	1.0	0.1	96	3.47	0.240	21
1480975	Soil	0.9	39.0	22.9	96	0.1	48.5	18.0	590	4.40	9.9	<0.5	2.0	55	0.2	1.1	0.2	76	1.20	0.177	20
1480976	Soil	1.0	44.4	32.8	97	0.1	50.4	20.2	881	4.63	14.3	1.4	2.6	52	0.2	1.4	0.2	74	1.28	0.153	19



Bureau Veritas Commodities Canada Ltd.

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Project: McKay Hill
Report Date: August 25, 2018

Page: 2 of 8

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000536.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Ti	S	Ga	Se	Te	
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2		
1480881	Soil	55	0.77	142	0.045	3	1.65	0.007	0.05	0.2	0.02	3.1	<0.1	<0.05	6	0.8	<0.2	
1480882	Soil	91	1.19	204	0.095	1	1.56	0.009	0.06	0.2	0.02	3.6	<0.1	<0.05	6	0.5	<0.2	
1480883	Soil	271	3.64	355	0.169	<1	3.17	0.009	0.16	0.2	0.02	4.7	0.1	<0.05	15	<0.5	<0.2	
1480884	Soil	87	1.32	203	0.079	2	1.76	0.009	0.06	0.2	0.05	5.9	<0.1	<0.05	7	0.7	<0.2	
1480885	Soil	84	1.84	167	0.072	3	1.87	0.007	0.07	0.1	0.06	6.7	<0.1	<0.05	7	1.0	<0.2	
1480891	Soil	30	0.52	121	0.052	<1	1.20	0.007	0.05	0.2	0.01	2.2	<0.1	<0.05	4	<0.5	<0.2	
1480892	Soil	236	3.26	310	0.210	<1	3.01	0.011	0.10	0.2	0.02	5.0	0.1	<0.05	13	<0.5	<0.2	
1480893	Soil	99	2.83	251	0.107	3	2.00	0.008	0.08	0.1	0.08	6.7	<0.1	<0.05	8	0.8	<0.2	
1480894	Soil	95	3.15	315	0.073	2	1.82	0.007	0.08	<0.1	0.08	5.1	<0.1	<0.05	8	1.3	<0.2	
1480895	Soil	102	2.94	283	0.109	3	1.93	0.007	0.12	0.1	0.07	5.3	<0.1	<0.05	8	1.0	<0.2	
1480896	Soil	43	0.79	125	0.060	3	1.10	0.011	0.06	0.3	0.04	3.4	<0.1	<0.05	4	<0.5	<0.2	
1480951	Soil	62	1.01	143	0.105	2	1.85	0.006	0.05	0.2	0.01	3.6	<0.1	<0.05	6	<0.5	<0.2	
1480952	Soil	91	1.61	303	0.141	1	2.15	0.007	0.07	0.1	0.03	5.8	0.1	<0.05	8	<0.5	<0.2	
1480953	Soil	53	1.52	175	0.085	1	1.28	0.012	0.08	0.2	0.05	4.2	0.1	<0.05	5	0.8	<0.2	
1480954	Soil	47	1.38	179	0.069	1	1.20	0.011	0.08	0.2	0.04	3.5	<0.1	<0.05	5	0.7	<0.2	
1480955	Soil	124	3.19	315	0.122	3	2.24	0.007	0.15	0.1	0.08	5.9	<0.1	<0.05	10	1.0	<0.2	
1480956	Soil	108	2.96	266	0.115	3	1.99	0.007	0.15	0.1	0.06	5.1	<0.1	<0.05	8	<0.5	<0.2	
1480961	Soil	68	1.13	194	0.087	<1	1.94	0.008	0.06	0.2	0.04	4.9	0.1	<0.05	6	0.8	<0.2	
1480962	Soil	48	1.00	184	0.085	<1	1.52	0.007	0.05	0.2	0.03	3.6	<0.1	<0.05	5	<0.5	<0.2	
1480963	Soil	57	1.41	191	0.075	1	1.40	0.010	0.06	0.2	0.05	4.4	<0.1	<0.05	5	<0.5	<0.2	
1480964	Soil	71	1.39	231	0.059	<1	1.67	0.008	0.05	0.1	0.07	4.2	<0.1	<0.05	6	<0.5	<0.2	
1480965	Soil	100	3.43	180	0.102	2	1.86	0.007	0.13	0.1	0.04	4.9	<0.1	<0.05	8	0.8	<0.2	
1480966	Soil	69	1.21	187	0.063	1	1.61	0.008	0.06	0.1	0.05	5.1	<0.1	<0.05	6	<0.5	<0.2	
1480967	Soil	63	0.82	126	0.020	1	1.50	0.006	0.05	0.1	0.04	4.6	<0.1	<0.05	5	<0.5	<0.2	
1480971	Soil	58	1.05	178	0.080	1	1.56	0.008	0.05	0.2	0.03	4.0	<0.1	<0.05	6	<0.5	<0.2	
1480972	Soil	49	2.50	351	0.102	2	1.67	0.011	0.27	0.2	0.03	3.6	0.2	<0.05	7	<0.5	<0.2	
1480973	Soil	74	1.68	264	0.082	<1	1.61	0.008	0.06	0.1	0.07	4.8	<0.1	<0.05	7	0.7	<0.2	
1480974	Soil	101	2.78	286	0.110	2	1.86	0.008	0.08	0.2	0.06	4.6	<0.1	<0.05	8	<0.5	<0.2	
1480975	Soil	80	1.42	213	0.074	4	1.69	0.008	0.05	0.1	0.05	4.4	<0.1	<0.05	7	<0.5	<0.2	
1480976	Soil	75	1.51	215	0.068	1	1.66	0.007	0.08	0.2	0.06	4.9	<0.1	<0.05	7	<0.5	<0.2	

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.



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Project: McKay Hill
Report Date: August 25, 2018

Page: 3 of 8

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000536.1

Method Analyte Unit MDL	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	
1480981	Soil	0.7	39.8	28.7	99	0.1	42.8	22.1	655	3.52	12.5	1.1	2.7	117	0.3	1.2	0.2	55	5.92	0.169	14
1480982	Soil	0.7	30.0	14.7	72	<0.1	30.2	13.0	480	2.58	9.5	2.7	3.4	58	0.2	1.0	0.1	47	2.24	0.115	12
1480983	Soil	0.6	44.7	16.4	100	0.2	53.7	24.1	965	4.39	7.5	2.8	2.1	75	0.3	0.8	0.2	84	3.24	0.206	20
1480984	Soil	0.8	37.7	21.0	104	0.2	52.6	21.4	835	4.84	12.3	3.1	1.9	65	0.4	1.1	0.2	92	1.59	0.181	21
1480985	Soil	0.9	35.3	30.7	107	0.2	59.6	22.7	969	4.90	14.5	440.3	2.5	60	0.3	1.5	0.2	99	1.29	0.169	25
1480991	Soil	0.8	39.9	17.4	95	0.1	47.2	18.7	682	3.87	9.8	3.0	3.9	75	0.2	1.1	0.2	79	2.56	0.184	20
1480992	Soil	1.2	40.1	14.2	86	0.1	43.4	20.8	1315	4.30	40.0	3.5	3.0	97	0.3	1.0	0.1	75	3.57	0.193	18
1480993	Soil	0.7	36.6	17.6	106	0.1	54.9	22.1	965	4.77	8.9	5.1	2.8	76	0.2	1.0	0.1	98	3.72	0.230	23
1480994	Soil	0.8	17.1	45.8	86	<0.1	35.7	16.1	766	4.07	11.9	2.2	3.2	34	0.3	1.0	0.2	84	0.96	0.094	18
1480995	Soil	0.9	46.3	30.9	106	0.2	50.0	21.9	857	4.40	13.1	4.3	2.9	70	0.3	1.5	0.2	82	1.32	0.159	23
1480996	Soil	0.9	41.4	31.1	87	0.2	42.8	16.7	624	3.69	39.5	3.0	2.6	57	0.3	1.5	0.2	60	0.92	0.117	18
1480901	Soil	0.7	45.0	17.5	89	0.1	53.1	20.8	757	4.15	10.6	3.4	2.8	74	0.3	1.3	0.2	85	2.26	0.166	20
1480902	Soil	0.8	55.8	24.0	141	0.2	55.4	21.4	904	4.26	19.4	2.0	1.6	88	0.6	1.5	0.1	85	2.25	0.176	23
1480903	Soil	0.8	41.1	26.0	105	0.1	53.8	20.9	785	4.74	12.7	2.6	2.7	82	0.3	1.5	0.1	82	2.87	0.189	21
1480911	Soil	0.8	47.9	39.7	293	0.2	72.9	25.8	1041	5.48	47.2	5.0	3.5	85	1.4	2.3	0.1	103	1.64	0.252	26
1480912	Soil	0.6	52.2	25.4	163	0.2	71.9	25.8	1006	4.92	14.5	4.5	2.5	104	0.6	1.5	0.1	104	2.56	0.223	23
1480913	Soil	0.9	43.6	24.7	112	0.1	46.8	20.4	831	4.17	12.0	2.3	3.8	94	0.4	1.3	0.2	77	3.19	0.181	18
1480915	Soil	0.9	46.8	25.3	112	0.1	51.8	19.9	881	4.10	19.7	5.5	3.3	61	0.3	1.6	0.2	69	2.42	0.161	20
1480916	Soil	0.7	36.0	17.3	83	0.1	36.8	15.0	642	3.28	12.6	2.5	3.3	51	0.4	1.4	0.1	56	2.11	0.147	17
1480917	Soil	0.7	41.3	26.9	117	0.2	49.5	21.3	833	4.12	13.0	8.6	3.5	78	0.4	1.5	0.1	77	2.97	0.189	19
1480918	Soil	0.9	47.6	59.6	181	0.2	69.7	23.2	928	4.77	24.7	2.7	2.6	51	0.7	3.1	0.2	66	0.97	0.142	22
1480919	Soil	0.8	42.2	54.2	127	0.2	65.4	23.7	873	4.34	19.7	3.9	2.9	76	0.7	2.4	0.1	78	2.71	0.195	21
1480920	Soil	0.8	44.3	46.9	129	0.2	63.2	23.5	862	4.56	19.8	2.7	2.1	80	0.6	2.3	0.1	75	3.13	0.169	20
1480925	Soil	0.8	39.0	19.5	92	0.2	41.9	16.2	864	3.25	11.0	3.5	2.9	57	0.4	1.3	0.1	58	2.01	0.142	16
1480926	Soil	0.9	35.1	15.1	83	0.1	36.8	14.4	704	3.01	10.8	3.1	4.0	66	0.3	1.2	0.2	59	2.40	0.131	16
1480927	Soil	0.6	41.3	50.1	136	0.1	65.3	22.9	954	3.97	13.6	4.3	3.3	56	0.6	2.1	0.2	61	1.19	0.134	20
1480928	Soil	0.6	43.6	55.2	134	0.2	61.2	21.3	1188	3.98	16.5	2.1	2.4	62	0.6	2.3	0.1	62	1.83	0.141	20
1480929	Soil	0.6	49.1	50.5	131	0.2	67.8	23.7	1157	4.31	22.8	7.2	2.0	77	0.5	2.6	0.1	74	2.32	0.168	21
1480930	Soil	0.8	54.6	62.6	142	0.2	74.5	24.9	1345	4.70	54.4	6.2	1.5	70	0.8	3.1	0.1	70	2.23	0.118	20
1480935	Soil	1.1	71.6	54.9	149	0.1	88.7	28.3	754	5.29	11.6	2.7	3.5	113	0.6	1.6	0.1	119	1.94	0.260	30



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Project: McKay Hill
Report Date: August 25, 2018

Page: 3 of 8

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000536.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Ti	S	Ga	Se	Te	
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2
1480981	Soil	55	2.73	223	0.053	1	1.11	0.007	0.09	0.1	0.03	3.1	<0.1	<0.05	5	<0.5	<0.2	
1480982	Soil	35	1.29	209	0.054	<1	0.89	0.012	0.07	0.2	0.04	3.5	<0.1	<0.05	3	<0.5	<0.2	
1480983	Soil	87	2.86	322	0.093	5	1.72	0.008	0.06	0.2	0.08	5.1	<0.1	<0.05	7	0.5	<0.2	
1480984	Soil	96	1.53	251	0.114	3	1.84	0.008	0.07	0.1	0.05	5.7	<0.1	0.12	7	0.5	<0.2	
1480985	Soil	99	1.72	201	0.151	1	1.87	0.006	0.08	0.2	0.05	6.8	<0.1	<0.05	8	0.5	<0.2	
1480991	Soil	70	1.94	220	0.117	2	1.49	0.011	0.09	0.2	0.03	5.0	<0.1	<0.05	6	<0.5	<0.2	
1480992	Soil	66	2.20	314	0.126	1	1.37	0.010	0.13	0.2	0.06	4.5	0.1	<0.05	6	<0.5	<0.2	
1480993	Soil	103	3.17	216	0.149	4	1.79	0.008	0.08	0.1	0.04	5.9	<0.1	0.05	7	<0.5	<0.2	
1480994	Soil	62	1.09	180	0.149	2	2.03	0.006	0.05	0.2	0.03	5.0	<0.1	<0.05	6	<0.5	<0.2	
1480995	Soil	74	1.31	275	0.089	1	1.85	0.009	0.08	0.2	0.07	6.0	0.1	<0.05	7	0.5	<0.2	
1480996	Soil	55	0.86	185	0.051	1	1.53	0.010	0.06	0.2	0.05	5.3	<0.1	<0.05	5	<0.5	<0.2	
1480901	Soil	84	1.87	249	0.139	2	1.69	0.009	0.09	0.1	0.05	5.5	<0.1	<0.05	7	<0.5	<0.2	
1480902	Soil	91	1.67	347	0.109	1	1.83	0.009	0.07	0.1	0.09	5.5	<0.1	0.12	7	0.9	<0.2	
1480903	Soil	84	2.26	226	0.129	2	1.59	0.007	0.10	0.1	0.05	5.5	<0.1	0.06	7	<0.5	<0.2	
1480911	Soil	119	2.16	287	0.108	1	2.03	0.008	0.09	0.2	0.08	7.1	<0.1	<0.05	8	<0.5	<0.2	
1480912	Soil	130	2.68	396	0.137	<1	2.11	0.008	0.08	0.1	0.08	6.8	0.1	<0.05	8	<0.5	<0.2	
1480913	Soil	68	2.41	240	0.123	<1	1.57	0.009	0.11	0.1	0.04	5.1	<0.1	<0.05	6	<0.5	<0.2	
1480915	Soil	68	1.87	269	0.096	2	1.58	0.008	0.08	0.2	0.06	5.9	<0.1	<0.05	6	<0.5	<0.2	
1480916	Soil	49	1.51	201	0.086	1	1.22	0.012	0.06	0.3	0.05	4.4	<0.1	<0.05	4	<0.5	<0.2	
1480917	Soil	76	2.49	215	0.130	<1	1.65	0.010	0.10	0.2	0.04	5.1	<0.1	<0.05	6	0.5	<0.2	
1480918	Soil	83	1.14	230	0.063	1	1.79	0.007	0.06	<0.1	0.09	6.6	<0.1	<0.05	6	<0.5	<0.2	
1480919	Soil	86	1.99	239	0.110	<1	1.69	0.009	0.07	0.2	0.07	6.0	<0.1	<0.05	6	<0.5	<0.2	
1480920	Soil	84	2.22	243	0.112	<1	1.60	0.008	0.07	0.1	0.08	5.7	<0.1	<0.05	6	0.6	<0.2	
1480925	Soil	52	1.41	210	0.095	<1	1.23	0.011	0.06	0.3	0.07	4.6	<0.1	<0.05	5	<0.5	<0.2	
1480926	Soil	45	1.39	200	0.095	<1	1.08	0.013	0.08	0.2	0.05	4.5	0.1	<0.05	4	<0.5	<0.2	
1480927	Soil	79	1.11	230	0.071	<1	1.74	0.007	0.06	0.1	0.07	6.1	<0.1	0.06	6	1.5	<0.2	
1480928	Soil	71	1.44	291	0.086	<1	1.58	0.007	0.06	0.1	0.08	6.1	<0.1	<0.05	6	<0.5	<0.2	
1480929	Soil	77	1.57	343	0.093	1	1.62	0.008	0.07	0.1	0.08	6.3	<0.1	<0.05	6	<0.5	<0.2	
1480930	Soil	75	1.27	315	0.085	<1	1.71	0.008	0.06	0.1	0.11	6.6	<0.1	0.09	6	0.8	<0.2	
1480935	Soil	156	2.39	294	0.160	<1	2.10	0.007	0.12	0.2	0.06	5.4	<0.1	<0.05	8	<0.5	<0.2	



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Page: 4 of 8

Part: 1 of 2

CERTIFICATE OF ANALYSIS

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Method Analyte	AQ201																				
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	
1480936	Soil	0.8	41.1	23.7	100	0.1	45.3	16.8	885	3.50	13.1	7.1	4.2	52	0.5	1.5	0.2	63	1.25	0.137	19
1480938	Soil	0.8	53.0	46.8	121	0.2	60.7	22.1	904	4.28	20.1	4.8	2.0	81	0.6	2.6	0.1	68	2.62	0.157	20
1480939	Soil	0.7	52.5	60.5	130	0.2	77.1	25.4	1107	4.55	35.1	2.2	1.7	78	0.9	3.2	0.1	75	2.78	0.158	19
1480940	Soil	0.8	49.1	52.8	125	0.2	71.1	26.0	992	4.60	25.0	3.3	2.2	78	0.5	2.8	0.1	80	2.69	0.162	21
1480941	Soil	0.8	58.0	24.2	143	<0.1	54.3	25.1	819	5.17	30.1	1.9	4.1	69	0.5	3.1	0.2	105	0.73	0.184	22
1480942	Soil	0.8	48.1	28.5	127	<0.1	47.6	21.5	889	5.15	25.5	1.9	2.7	74	0.5	2.5	0.2	116	1.02	0.136	26
1480946	Soil	0.6	31.1	34.5	112	0.1	51.3	20.9	867	4.04	14.3	1.2	2.8	62	0.2	1.6	0.2	70	1.06	0.153	21
1480947	Soil	0.7	55.3	47.6	158	0.2	65.0	22.5	752	4.37	20.3	6.2	2.6	67	0.7	3.7	0.1	77	1.82	0.175	22
1480948	Soil	0.8	48.7	53.4	134	0.2	80.6	26.7	1300	4.50	23.2	3.1	2.1	86	0.6	2.8	0.1	73	3.09	0.160	20
1480949	Soil	0.5	57.0	51.7	122	0.2	75.1	27.6	988	4.58	24.8	3.0	1.8	59	0.4	2.4	0.2	76	1.83	0.103	23
1480950	Soil	0.6	51.5	60.3	131	0.2	82.3	30.5	1140	4.58	21.3	5.3	1.8	66	0.7	2.1	0.1	72	2.09	0.142	21
1481561	Soil	0.8	30.5	11.4	83	<0.1	48.6	29.4	1377	5.21	9.4	0.9	1.6	65	0.2	0.6	0.2	158	0.68	0.184	37
1481562	Soil	1.2	72.9	7.8	101	<0.1	132.2	51.7	1080	7.22	3.3	1.2	3.2	286	0.2	0.8	<0.1	207	4.19	0.251	31
1481563	Soil	4.1	90.1	9.5	108	<0.1	105.2	58.9	1361	8.31	9.7	1.7	3.1	243	0.3	0.7	<0.1	223	3.07	0.297	33
1481564	Soil	0.9	65.0	5.9	84	<0.1	99.4	39.1	1612	7.32	3.8	1.1	2.6	105	<0.1	0.4	<0.1	187	1.25	0.180	37
1481565	Soil	0.5	58.7	5.5	102	<0.1	84.3	46.5	1316	8.09	1.9	0.8	2.7	87	0.2	0.2	<0.1	207	1.11	0.230	29
1481566	Soil	53.0	77.5	7.7	86	<0.1	66.0	43.8	1250	8.01	6.7	3.8	2.4	174	0.2	1.0	<0.1	156	2.78	0.203	28
1481567	Soil	1.5	58.6	7.8	101	<0.1	106.4	46.9	1403	8.40	2.8	0.8	3.0	155	0.2	0.4	<0.1	230	1.71	0.372	36
1481568	Soil	0.2	60.1	2.6	86	<0.1	166.7	44.8	1155	6.28	0.7	1.6	2.4	236	<0.1	0.1	<0.1	146	3.01	0.292	24
1481569	Soil	0.3	76.4	4.6	86	<0.1	113.6	39.7	1058	6.72	2.1	1.2	3.1	214	<0.1	0.2	<0.1	147	2.55	0.297	32
1481570	Soil	0.5	61.5	5.0	86	<0.1	70.8	32.5	851	6.21	1.9	0.6	2.6	161	0.1	0.3	<0.1	163	1.87	0.254	30
1481571	Soil	3.6	75.9	9.7	106	<0.1	102.6	47.0	1998	8.29	3.8	2.4	2.2	201	0.2	0.6	<0.1	224	2.82	0.343	38
1481572	Soil	0.5	64.6	8.2	107	<0.1	211.5	53.0	1101	8.73	3.3	1.1	2.9	312	0.1	0.2	<0.1	253	3.17	0.402	39
1481573	Soil	0.4	69.8	6.6	100	<0.1	128.6	44.2	1278	7.63	2.8	0.6	4.5	235	0.2	0.1	<0.1	188	2.04	0.436	48
1481574	Soil	0.5	52.0	6.7	105	<0.1	122.9	37.2	1159	8.00	2.8	<0.5	3.2	215	0.1	0.1	<0.1	197	1.71	0.401	45
1481575	Soil	1.0	73.3	11.2	121	<0.1	261.5	55.1	1017	8.64	6.8	1.0	2.4	210	0.3	0.3	<0.1	243	2.73	0.344	32
1481576	Soil	1.0	66.7	20.1	160	<0.1	160.3	46.8	1120	7.45	28.2	1.2	3.0	140	0.4	0.8	<0.1	209	1.27	0.333	39
1481577	Soil	0.4	67.4	6.0	101	<0.1	354.9	65.2	947	9.22	4.3	0.8	1.5	250	0.2	<0.1	<0.1	246	3.22	0.314	25
1481578	Soil	0.2	71.9	5.4	99	<0.1	472.0	78.0	815	9.66	6.7	<0.5	1.6	311	<0.1	0.1	<0.1	280	3.94	0.313	22
1481582	Soil	1.9	56.2	12.6	115	<0.1	155.4	47.7	1293	8.04	3.1	1.3	5.3	151	0.1	0.3	<0.1	250	1.27	0.314	49



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Project: McKay Hill
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Page: 4 of 8

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000536.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
1480936	Soil	57	1.11	219	0.090	<1	1.44	0.013	0.08	0.2	0.05	5.2	<0.1	<0.05	5	<0.5	<0.2
1480938	Soil	76	1.67	352	0.098	<1	1.63	0.007	0.07	0.1	0.07	6.2	<0.1	<0.05	6	<0.5	<0.2
1480939	Soil	80	1.62	251	0.085	<1	1.63	0.007	0.07	0.2	0.09	6.8	<0.1	0.07	6	0.8	<0.2
1480940	Soil	81	1.85	239	0.102	4	1.71	0.008	0.07	0.2	0.07	6.9	<0.1	<0.05	6	<0.5	<0.2
1480941	Soil	76	1.93	333	0.099	<1	2.10	0.008	0.09	0.2	0.08	7.2	<0.1	<0.05	7	<0.5	<0.2
1480942	Soil	81	1.56	455	0.100	<1	2.21	0.008	0.07	0.1	0.09	7.6	0.1	<0.05	8	<0.5	<0.2
1480946	Soil	82	1.24	226	0.112	1	1.65	0.009	0.05	0.2	0.05	5.4	<0.1	<0.05	6	0.7	<0.2
1480947	Soil	80	1.47	278	0.096	<1	1.78	0.008	0.07	0.1	0.10	8.0	<0.1	0.05	6	0.9	<0.2
1480948	Soil	83	1.66	285	0.089	1	1.75	0.007	0.06	0.1	0.08	6.9	<0.1	0.07	6	<0.5	<0.2
1480949	Soil	79	1.37	277	0.099	3	1.64	0.009	0.05	0.1	0.09	8.0	<0.1	<0.05	6	<0.5	<0.2
1480950	Soil	86	1.45	230	0.099	3	1.61	0.009	0.06	0.1	0.09	7.8	<0.1	<0.05	6	0.5	<0.2
1481561	Soil	120	1.81	237	0.052	1	2.43	0.008	0.06	<0.1	0.08	6.7	0.1	0.06	10	<0.5	<0.2
1481562	Soil	309	4.06	296	0.196	1	3.44	0.006	0.36	<0.1	0.02	9.8	<0.1	<0.05	13	<0.5	<0.2
1481563	Soil	197	3.87	526	0.188	2	2.93	0.007	0.28	0.1	0.03	9.8	<0.1	<0.05	15	0.5	<0.2
1481564	Soil	214	3.41	1115	0.255	1	2.87	0.008	0.15	0.1	0.03	9.2	<0.1	<0.05	13	<0.5	<0.2
1481565	Soil	305	4.90	669	0.238	<1	3.29	0.008	0.55	<0.1	0.03	13.3	0.2	<0.05	16	<0.5	<0.2
1481566	Soil	110	2.35	418	0.173	1	1.88	0.009	0.12	0.1	0.03	6.4	0.1	0.07	9	<0.5	<0.2
1481567	Soil	266	4.30	351	0.180	<1	3.44	0.008	0.20	<0.1	0.02	9.0	<0.1	<0.05	15	<0.5	<0.2
1481568	Soil	308	4.48	1157	0.292	1	3.16	0.010	0.78	0.2	<0.01	3.4	0.1	<0.05	13	<0.5	<0.2
1481569	Soil	282	4.36	470	0.230	1	3.00	0.009	0.36	0.2	0.02	4.7	0.2	<0.05	13	<0.5	<0.2
1481570	Soil	178	3.73	463	0.221	2	2.70	0.008	0.28	0.2	0.02	5.9	<0.1	<0.05	12	<0.5	<0.2
1481571	Soil	217	3.26	285	0.174	1	3.02	0.008	0.24	0.1	0.03	8.6	0.1	<0.05	14	<0.5	<0.2
1481572	Soil	393	6.17	978	0.172	2	3.97	0.007	0.45	0.2	0.02	9.6	0.1	<0.05	16	<0.5	<0.2
1481573	Soil	300	4.19	476	0.203	1	3.45	0.007	0.44	0.2	0.02	4.6	0.1	<0.05	16	<0.5	<0.2
1481574	Soil	297	5.55	814	0.183	2	3.56	0.008	0.34	0.1	0.02	8.1	<0.1	<0.05	14	<0.5	<0.2
1481575	Soil	439	4.76	894	0.181	2	3.39	0.008	0.43	0.1	0.03	9.8	0.1	<0.05	15	<0.5	<0.2
1481576	Soil	274	3.82	495	0.159	2	2.88	0.008	0.31	0.1	0.04	10.2	0.2	<0.05	13	0.8	<0.2
1481577	Soil	511	6.30	562	0.171	2	4.13	0.007	0.52	<0.1	0.01	8.3	0.2	<0.05	16	<0.5	<0.2
1481578	Soil	568	6.57	683	0.159	1	4.22	0.006	0.65	0.1	0.01	8.8	0.2	<0.05	16	<0.5	<0.2
1481582	Soil	339	4.78	277	0.200	<1	3.57	0.008	0.27	0.2	0.03	9.6	0.3	<0.05	17	<0.5	<0.2



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Page: 5 of 8

Part: 1 of 2

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WHI18000536.1

Method Analyte	Unit	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
MDL		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	0.01	0.001	1	
1481583	Soil	0.8	61.1	9.6	121	<0.1	89.4	43.4	1600	8.88	1.8	<0.5	5.4	170	0.2	0.2	<0.1	250	1.24	0.377	57
1481584	Soil	2.2	69.7	63.7	327	0.2	95.6	39.8	2635	12.67	171.4	3.4	1.6	53	2.4	10.3	0.3	79	0.61	0.229	33
1481587	Soil	6.2	66.2	15.3	79	0.1	48.9	23.7	705	4.87	2.8	2.0	0.4	66	0.1	0.4	0.2	138	0.44	0.210	26
1481588	Soil	1.0	88.1	9.4	84	<0.1	69.4	43.3	1227	6.79	4.4	0.8	2.0	118	0.2	0.3	<0.1	198	1.48	0.199	31
1481591	Soil	0.6	79.8	5.9	68	<0.1	315.1	56.0	899	5.29	3.8	1.9	0.3	124	0.2	0.6	<0.1	80	7.60	0.168	14
1481592	Soil	1.8	110.5	20.1	120	0.2	316.6	54.2	873	6.97	13.0	2.3	0.9	144	0.5	1.6	<0.1	127	5.58	0.225	19
1481593	Soil	3.0	128.2	36.5	161	0.4	275.9	44.9	1017	6.64	13.0	3.7	3.2	161	0.8	2.3	0.1	115	1.59	0.343	41
1481594	Soil	1.0	157.6	18.2	81	0.2	375.4	65.0	1226	6.55	6.0	1.7	3.5	181	0.3	0.5	0.2	119	1.36	0.309	32
1481595	Soil	2.6	57.6	15.2	67	<0.1	52.1	20.3	584	4.66	6.7	2.3	2.3	44	0.2	0.7	0.2	111	0.46	0.143	22
1481596	Soil	1.4	71.9	16.6	73	<0.1	127.5	29.0	637	4.36	6.3	4.0	2.8	57	0.2	0.5	0.2	92	0.84	0.123	22
1481597	Soil	6.4	195.8	156.9	728	0.4	221.8	73.1	2366	10.11	179.0	9.2	2.6	73	4.9	18.4	0.2	80	1.35	0.194	26
1481598	Soil	7.3	217.6	42.3	214	0.8	101.5	43.4	1933	7.48	10.3	13.7	2.2	107	1.6	3.6	0.4	129	0.32	0.283	37
1481599	Soil	2.3	77.0	14.8	82	0.1	59.5	20.5	1694	5.23	7.0	1.9	0.5	34	0.4	0.9	0.2	101	0.39	0.173	15
1481600	Soil	3.9	124.6	41.8	198	0.5	309.1	42.8	1125	6.37	14.8	31.1	3.2	90	1.2	3.2	0.2	100	0.78	0.251	34
1481601	Soil	6.0	197.6	69.1	178	0.1	85.7	77.1	874	4.72	35.2	3.3	3.5	41	0.3	2.1	0.6	40	0.17	0.162	75
1481602	Soil	2.7	91.5	12.7	134	0.2	202.6	71.4	1525	8.46	8.7	2.5	4.4	157	0.4	3.0	<0.1	245	1.36	0.341	69
1481603	Soil	9.5	107.6	60.2	295	0.4	216.2	44.5	1432	6.57	54.1	2.7	4.2	87	1.2	4.9	0.2	122	0.77	0.212	39
1481604	Soil	12.4	162.8	59.7	304	1.1	230.1	44.7	1238	6.77	51.1	4.0	3.7	94	2.4	8.9	0.3	91	0.82	0.245	37
1481605	Soil	0.9	38.1	31.2	87	<0.1	42.1	21.0	994	4.58	10.7	0.7	6.8	10	0.1	0.3	0.4	32	0.14	0.062	18
1481606	Soil	1.2	50.9	37.3	80	<0.1	45.3	21.1	1349	4.44	19.7	1.5	7.0	22	<0.1	1.2	0.4	37	0.32	0.089	22
1481607	Soil	1.4	100.2	39.1	89	<0.1	52.8	33.1	1933	5.85	42.5	1.7	8.8	19	<0.1	1.0	0.4	69	0.33	0.074	24
1481608	Soil	1.3	69.2	41.1	82	<0.1	52.0	42.3	2363	4.96	39.2	1.8	12.0	16	0.1	1.2	0.4	47	0.22	0.070	38
1481609	Soil	1.2	62.0	37.9	90	<0.1	57.2	23.3	1464	4.48	16.4	2.1	7.6	19	0.1	2.2	0.4	40	0.20	0.082	28
1481610	Soil	1.5	73.0	54.2	87	<0.1	69.0	29.0	2388	4.50	16.8	2.8	7.2	23	0.1	1.5	0.4	48	0.24	0.083	37
1481611	Soil	1.7	63.0	46.9	80	<0.1	44.6	25.7	1436	3.91	11.2	1.9	5.1	17	<0.1	0.8	0.4	36	0.20	0.081	34
1481612	Soil	1.4	46.8	44.0	96	<0.1	44.4	19.8	663	4.21	7.4	2.8	10.4	12	<0.1	1.0	0.5	25	0.09	0.064	49
1481613	Soil	1.2	36.0	44.9	57	<0.1	25.1	15.3	555	2.65	6.4	2.0	2.0	12	<0.1	0.8	0.4	23	0.05	0.050	31
1481614	Soil	1.1	45.4	39.8	88	<0.1	35.6	20.4	810	4.09	13.5	1.8	4.3	10	<0.1	1.1	0.5	32	0.08	0.093	36
1481615	Soil	1.2	50.5	53.5	92	<0.1	33.6	24.9	1110	4.14	17.5	3.6	1.8	10	<0.1	0.8	0.5	34	0.08	0.119	45
1481616	Soil	1.1	55.2	52.0	84	<0.1	36.6	25.2	1146	3.51	14.9	1.6	3.5	13	<0.1	0.8	0.4	34	0.16	0.075	45



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Page: 5 of 8

Part: 2 of 2

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Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
1481583	Soil	174	5.84	326	0.160	<1	4.37	0.012	0.42	0.1	0.02	8.0	0.3	<0.05	20	<0.5	<0.2
1481584	Soil	55	0.73	213	0.031	3	1.15	0.005	0.09	0.2	0.29	14.4	0.3	<0.05	3	0.5	<0.2
1481587	Soil	88	1.14	71	0.090	<1	1.67	0.015	0.08	0.2	0.06	2.3	0.1	0.12	8	0.7	<0.2
1481588	Soil	92	2.83	331	0.273	3	2.69	0.007	0.21	0.2	0.03	4.6	0.3	<0.05	12	<0.5	<0.2
1481591	Soil	252	1.10	85	0.051	3	1.19	0.005	0.10	<0.1	0.03	6.5	<0.1	0.07	6	<0.5	<0.2
1481592	Soil	310	1.54	107	0.085	3	1.64	0.006	0.08	0.1	0.07	8.2	<0.1	0.08	8	1.3	<0.2
1481593	Soil	404	3.95	121	0.169	3	2.83	0.006	0.03	0.1	0.13	5.5	0.1	<0.05	10	0.9	<0.2
1481594	Soil	604	3.83	200	0.189	2	3.20	0.007	0.08	0.1	0.03	4.4	0.2	<0.05	20	<0.5	<0.2
1481595	Soil	100	1.32	136	0.215	1	1.95	0.007	0.04	0.2	0.04	4.4	0.1	0.05	7	<0.5	<0.2
1481596	Soil	220	2.05	106	0.208	2	2.01	0.007	0.05	0.3	0.04	4.0	0.2	<0.05	8	<0.5	<0.2
1481597	Soil	96	0.96	123	0.014	2	1.17	0.006	0.08	<0.1	0.38	17.4	0.2	0.11	4	1.9	<0.2
1481598	Soil	89	1.29	212	0.055	1	2.31	0.022	0.13	0.2	0.13	6.3	0.3	0.20	7	2.4	0.2
1481599	Soil	104	1.26	186	0.045	1	2.20	0.005	0.05	0.1	0.06	3.2	0.1	<0.05	8	0.6	<0.2
1481600	Soil	419	2.85	83	0.071	3	2.14	0.007	0.05	0.2	0.12	7.7	0.1	<0.05	6	0.8	<0.2
1481601	Soil	31	0.40	86	0.026	2	1.34	0.022	0.10	0.2	0.18	2.7	0.3	0.15	3	0.7	0.2
1481602	Soil	258	2.36	756	0.167	2	3.03	0.009	0.32	<0.1	1.63	33.3	0.5	<0.05	10	<0.5	<0.2
1481603	Soil	363	1.89	272	0.085	3	1.97	0.006	0.10	<0.1	0.36	13.7	0.2	<0.05	6	1.2	<0.2
1481604	Soil	290	1.57	143	0.055	2	1.62	0.008	0.08	0.1	0.33	10.8	0.1	<0.05	5	2.3	<0.2
1481605	Soil	40	0.74	78	0.004	<1	2.49	0.006	0.04	<0.1	0.03	2.9	<0.1	<0.05	7	<0.5	<0.2
1481606	Soil	50	0.77	92	0.004	1	2.11	0.007	0.04	<0.1	0.04	6.5	<0.1	<0.05	6	<0.5	<0.2
1481607	Soil	66	1.13	73	0.003	<1	2.58	0.007	0.04	<0.1	0.06	14.0	<0.1	<0.05	8	<0.5	<0.2
1481608	Soil	52	1.10	68	0.007	<1	2.13	0.006	0.03	<0.1	0.05	8.2	<0.1	<0.05	6	<0.5	<0.2
1481609	Soil	53	0.88	76	0.010	1	2.14	0.006	0.04	<0.1	0.06	6.5	<0.1	<0.05	5	<0.5	<0.2
1481610	Soil	70	0.97	88	0.010	1	2.06	0.006	0.04	<0.1	0.08	9.7	<0.1	<0.05	5	<0.5	<0.2
1481611	Soil	39	0.80	81	0.013	1	1.91	0.007	0.04	<0.1	0.03	3.7	<0.1	<0.05	5	<0.5	<0.2
1481612	Soil	34	0.78	32	0.013	1	2.04	0.009	0.06	<0.1	0.04	2.6	<0.1	<0.05	5	<0.5	<0.2
1481613	Soil	19	0.32	59	0.006	1	1.06	0.005	0.04	<0.1	0.04	1.3	<0.1	<0.05	3	<0.5	<0.2
1481614	Soil	39	0.68	42	0.013	<1	1.82	0.007	0.05	<0.1	0.03	2.1	<0.1	<0.05	5	<0.5	<0.2
1481615	Soil	37	0.59	79	0.009	2	1.79	0.005	0.06	<0.1	0.04	1.4	<0.1	<0.05	6	<0.5	<0.2
1481616	Soil	36	0.63	71	0.016	<1	1.66	0.005	0.04	<0.1	0.03	2.0	<0.1	<0.05	4	<0.5	<0.2



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Client: **Metallic Minerals Corp.**
#904 - 409 Granville Street
Vancouver British Columbia V6C 1T2 Canada

Project: McKay Hill
Report Date: August 25, 2018

Page: 6 of 8

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000536.1

Method Analyte	Unit	AQ201																			
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
		MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL
1481617	Soil	1.5	45.2	49.1	90	<0.1	52.5	30.0	1712	4.51	13.3	1.2	2.0	9	0.1	0.8	0.5	34	0.08	0.078	36
1481618	Soil	1.0	37.3	37.4	76	<0.1	44.3	23.0	1134	3.54	13.0	3.3	1.0	7	0.1	0.8	0.4	40	0.06	0.076	24
1481619	Soil	2.0	48.4	28.7	88	<0.1	42.4	19.3	1298	3.72	17.5	2.9	1.2	14	0.2	1.5	0.3	40	0.15	0.100	23
1481620	Soil	0.8	46.1	44.6	88	<0.1	40.8	22.4	1233	4.68	18.4	1.8	11.3	15	<0.1	0.8	0.4	27	0.18	0.038	31
1481621	Soil	1.2	55.8	62.5	89	<0.1	50.0	22.8	1244	4.55	14.7	1.5	5.4	12	<0.1	0.7	0.5	32	0.17	0.087	41
1481622	Soil	1.2	51.3	72.3	91	<0.1	38.3	23.9	1009	4.66	12.5	1.8	7.8	11	0.1	0.7	0.5	32	0.14	0.118	40
1481623	Soil	0.9	43.9	55.4	101	<0.1	70.1	32.6	1195	4.67	18.5	2.1	9.1	8	0.1	0.7	0.4	34	0.09	0.090	37
1481624	Soil	1.4	49.2	49.4	85	<0.1	51.6	20.4	1231	3.61	15.1	1.7	4.3	12	0.2	1.0	0.4	42	0.13	0.076	23
1481625	Soil	1.6	65.8	57.7	108	<0.1	39.1	29.2	1989	4.08	15.0	2.0	4.3	12	0.2	0.9	0.5	48	0.14	0.143	24
1481626	Soil	2.1	80.3	73.8	105	<0.1	42.6	41.4	1902	3.76	21.4	3.6	5.7	14	0.2	1.1	0.6	41	0.12	0.072	26
1481627	Soil	1.2	28.5	28.7	66	<0.1	28.5	13.1	924	2.92	8.6	4.2	1.7	16	0.1	0.7	0.3	44	0.17	0.093	25
1481628	Soil	2.0	49.1	44.9	98	<0.1	34.6	26.9	1966	4.06	13.4	2.5	2.6	12	0.2	0.8	0.5	32	0.10	0.108	39
1481629	Soil	4.0	73.1	29.5	90	0.4	85.0	41.7	2183	5.18	17.5	19.3	6.8	33	0.2	2.9	0.3	52	0.40	0.104	89
1481630	Soil	2.0	41.2	49.2	88	<0.1	36.9	28.9	2592	3.98	15.4	1.1	2.3	13	0.1	0.8	0.5	35	0.13	0.114	34
1481631	Soil	0.9	46.5	36.2	74	<0.1	32.8	21.6	1310	3.11	17.2	5.1	1.9	16	0.1	0.7	0.3	32	0.19	0.072	30
1481632	Soil	1.2	46.7	52.9	95	<0.1	37.1	27.7	1579	3.98	12.6	1.5	4.8	12	0.1	0.8	0.5	37	0.16	0.112	36
1481633	Soil	1.5	40.3	37.0	85	0.1	41.8	27.0	1717	4.10	12.8	2.5	1.8	9	0.2	0.9	0.5	37	0.08	0.144	20
1481634	Soil	6.2	130.2	30.9	173	1.0	133.8	50.3	2378	6.40	46.3	12.5	2.7	24	1.8	5.5	0.3	70	0.27	0.132	29
1481635	Soil	0.7	33.8	26.5	98	<0.1	40.9	24.4	1174	5.30	10.6	0.9	9.0	5	<0.1	0.2	0.4	20	0.09	0.047	20
1481636	Soil	1.1	72.8	82.0	107	<0.1	48.6	38.7	1274	5.53	26.7	0.6	13.4	7	<0.1	0.2	0.6	25	0.15	0.067	21
1481637	Soil	1.1	58.3	55.1	94	<0.1	42.3	28.5	1577	4.78	15.6	2.6	7.7	12	<0.1	0.8	0.5	34	0.17	0.087	33
1481638	Soil	2.0	58.9	41.5	102	0.1	48.3	22.2	1153	4.86	20.8	4.9	7.2	25	0.1	2.8	0.5	33	0.26	0.083	22
1481639	Soil	2.5	103.1	27.0	110	0.2	124.5	40.7	1393	6.19	107.0	9.2	3.4	67	0.2	9.8	0.3	59	0.91	0.151	27
1481640	Soil	2.7	116.0	32.0	122	0.4	95.9	38.3	1353	6.35	43.8	29.0	5.5	63	0.4	10.3	0.3	53	0.74	0.129	27
1481641	Soil	1.7	85.9	28.0	86	0.2	79.9	34.2	1777	4.73	14.1	2.1	6.0	27	0.2	2.8	0.3	60	0.33	0.071	28
1481642	Soil	3.1	42.4	36.8	85	<0.1	41.8	25.7	1942	4.31	33.7	4.0	1.1	16	0.3	1.7	0.4	51	0.17	0.108	23
1481643	Soil	1.1	64.0	35.8	76	0.1	57.5	23.6	1191	3.80	13.0	5.3	4.0	41	0.2	1.2	0.4	47	0.49	0.128	40
1481644	Soil	1.5	42.4	27.4	73	<0.1	57.4	22.5	936	3.87	12.9	2.6	4.4	35	0.1	1.7	0.3	49	0.37	0.121	40
1481645	Soil	1.1	97.7	204.6	302	0.2	142.7	43.0	1760	6.66	98.3	4.0	6.3	73	2.0	18.9	0.3	70	0.71	0.194	57
1481646	Soil	1.1	45.2	33.2	87	<0.1	57.4	24.5	1543	4.39	17.3	1.7	1.7	50	0.2	4.4	0.3	56	0.53	0.184	34



CERTIFICATE OF ANALYSIS

WHI18000536.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2		
1481617	Soil	69	0.90	75	0.011	1	2.17	0.004	0.05	<0.1	0.03	1.7	<0.1	<0.05	6	<0.5	<0.2	
1481618	Soil	57	0.75	54	0.013	1	1.46	0.005	0.04	<0.1	0.04	1.4	<0.1	<0.05	4	<0.5	<0.2	
1481619	Soil	42	0.65	69	0.010	<1	1.61	0.005	0.05	<0.1	0.04	1.6	<0.1	<0.05	5	<0.5	<0.2	
1481620	Soil	41	0.79	40	0.002	1	2.59	0.006	0.04	<0.1	0.03	3.7	<0.1	<0.05	7	<0.5	<0.2	
1481621	Soil	49	0.73	61	0.010	<1	2.02	0.006	0.05	<0.1	0.03	2.3	<0.1	<0.05	6	<0.5	<0.2	
1481622	Soil	39	0.63	39	0.017	1	2.04	0.006	0.05	<0.1	0.03	2.7	<0.1	<0.05	6	<0.5	<0.2	
1481623	Soil	71	0.99	45	0.011	1	2.34	0.005	0.04	<0.1	0.03	3.1	<0.1	<0.05	7	<0.5	<0.2	
1481624	Soil	50	0.67	89	0.025	1	2.04	0.007	0.05	0.1	0.04	3.1	<0.1	<0.05	5	<0.5	<0.2	
1481625	Soil	40	0.77	88	0.028	2	2.30	0.008	0.07	0.1	0.04	3.4	0.1	<0.05	6	<0.5	<0.2	
1481626	Soil	37	0.68	104	0.028	1	1.86	0.008	0.05	0.1	0.05	2.8	<0.1	<0.05	5	<0.5	<0.2	
1481627	Soil	38	0.65	94	0.022	1	1.58	0.011	0.04	0.1	0.03	2.2	<0.1	<0.05	4	<0.5	<0.2	
1481628	Soil	34	0.55	67	0.009	2	1.95	0.009	0.05	<0.1	0.06	1.6	<0.1	<0.05	5	<0.5	<0.2	
1481629	Soil	53	1.18	124	0.017	1	2.33	0.008	0.04	<0.1	0.19	6.1	<0.1	<0.05	5	<0.5	<0.2	
1481630	Soil	41	0.63	87	0.008	2	2.01	0.008	0.05	<0.1	0.04	1.9	<0.1	0.07	6	<0.5	<0.2	
1481631	Soil	32	0.58	92	0.012	1	1.58	0.006	0.04	<0.1	0.04	2.0	<0.1	<0.05	4	<0.5	<0.2	
1481632	Soil	38	0.67	68	0.025	1	1.84	0.006	0.06	<0.1	0.04	2.6	<0.1	<0.05	5	<0.5	<0.2	
1481633	Soil	56	0.72	60	0.010	1	2.17	0.004	0.05	<0.1	0.09	1.1	<0.1	0.06	6	<0.5	<0.2	
1481634	Soil	79	0.87	108	0.012	1	1.87	0.005	0.04	<0.1	0.29	7.4	0.2	<0.05	5	1.5	<0.2	
1481635	Soil	38	0.87	27	0.002	<1	2.58	0.006	0.04	<0.1	0.02	2.8	<0.1	<0.05	7	<0.5	<0.2	
1481636	Soil	43	0.95	32	0.002	<1	2.65	0.007	0.04	<0.1	0.02	3.3	<0.1	<0.05	9	<0.5	<0.2	
1481637	Soil	43	0.92	64	0.012	1	2.19	0.007	0.05	<0.1	0.03	3.6	<0.1	<0.05	6	<0.5	<0.2	
1481638	Soil	39	0.67	72	0.006	2	1.68	0.005	0.05	<0.1	0.09	4.1	<0.1	<0.05	5	<0.5	<0.2	
1481639	Soil	77	0.66	100	0.008	2	1.32	0.008	0.04	<0.1	0.18	10.3	0.1	0.08	4	0.7	<0.2	
1481640	Soil	59	0.79	92	0.015	2	1.47	0.009	0.04	0.2	0.23	7.9	0.1	0.09	4	0.7	<0.2	
1481641	Soil	75	0.89	131	0.014	<1	2.06	0.007	0.05	<0.1	0.14	9.0	<0.1	0.05	6	<0.5	<0.2	
1481642	Soil	39	0.54	91	0.018	1	2.03	0.009	0.05	0.1	0.06	2.2	0.2	0.07	5	0.7	<0.2	
1481643	Soil	65	0.83	129	0.013	2	1.89	0.007	0.07	<0.1	0.07	5.0	<0.1	0.08	5	<0.5	<0.2	
1481644	Soil	64	0.87	99	0.021	1	1.68	0.006	0.04	0.1	0.03	3.9	<0.1	<0.05	5	<0.5	<0.2	
1481645	Soil	112	0.68	105	0.013	1	1.41	0.006	0.05	0.1	0.29	13.7	0.1	<0.05	4	<0.5	<0.2	
1481646	Soil	82	0.89	120	0.011	<1	1.76	0.006	0.05	<0.1	0.06	3.2	<0.1	0.08	6	<0.5	<0.2	



CERTIFICATE OF ANALYSIS

WHI18000536.1

Method Analyte	Unit	MDL	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	
			Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
			ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
			0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
1481647	Soil		1.3	61.7	47.1	105	0.2	78.3	29.0	2588	5.89	49.7	2.8	5.9	85	0.3	11.1	0.4	47	0.74	0.263	60
1481648	Soil		3.0	74.8	64.8	131	0.2	79.7	32.6	1941	5.66	28.7	6.4	2.0	32	0.4	7.9	0.3	59	0.38	0.139	26
1481649	Soil		4.8	137.4	25.4	111	0.5	152.7	58.1	2093	7.46	53.3	13.2	4.0	41	0.6	15.8	0.3	78	0.54	0.139	27
1481650	Soil		1.2	50.8	34.4	89	<0.1	39.7	19.5	1010	4.21	15.4	1.6	7.2	16	<0.1	1.1	0.4	26	0.19	0.089	22
1481651	Soil		1.2	56.6	41.9	121	0.1	64.3	23.8	711	4.96	34.2	4.5	8.1	32	<0.1	3.1	0.4	39	0.47	0.075	25
1481652	Soil		1.2	80.6	59.8	126	0.2	65.2	29.0	957	5.26	39.4	3.0	8.1	31	0.2	2.7	0.4	41	0.44	0.085	27
1481657	Soil		1.2	62.3	37.9	101	<0.1	95.9	35.8	2380	5.83	45.8	1.6	6.3	52	0.1	2.8	0.4	70	0.48	0.192	44
1481658	Soil		1.1	45.0	17.4	68	<0.1	66.8	19.2	934	4.18	10.9	2.0	2.0	84	0.2	1.2	0.2	71	0.94	0.191	34
1481659	Soil		1.7	72.0	41.4	116	0.1	109.6	42.5	2535	7.44	44.9	3.5	5.5	53	0.4	8.4	0.3	62	0.67	0.171	56
1481660	Soil		1.6	70.8	42.7	133	0.2	121.3	41.0	797	5.51	73.6	5.0	6.0	52	0.3	17.2	0.2	42	0.44	0.139	28
1481661	Soil		1.2	79.9	35.4	132	0.2	142.8	48.6	1540	7.82	109.5	3.4	3.4	61	0.3	28.0	0.3	44	0.85	0.172	35
1481662	Soil		1.0	56.3	56.1	170	<0.1	87.0	37.8	1811	6.56	59.9	2.2	2.2	49	1.5	17.1	0.3	48	0.79	0.172	31
1481663	Soil		2.0	56.1	49.2	112	<0.1	53.4	27.0	1712	4.86	29.3	5.2	1.3	20	0.5	6.4	0.4	43	0.22	0.134	21
1481664	Soil		2.4	94.2	54.4	114	0.2	89.5	40.5	2212	5.50	59.0	4.4	3.3	34	0.5	21.0	0.4	46	0.35	0.125	26
1481665	Soil		1.3	88.5	33.9	141	0.2	166.0	50.1	1453	7.84	92.8	4.0	4.9	67	0.4	20.4	0.2	48	0.68	0.199	38
1481666	Soil		1.4	51.5	23.9	100	0.1	84.8	27.5	1306	6.66	69.0	2.5	2.1	46	0.3	13.6	0.3	38	0.57	0.235	21
1481667	Soil		1.0	78.1	28.5	123	0.2	135.8	40.4	1610	7.21	60.5	5.0	2.8	73	0.4	20.3	0.3	60	0.84	0.205	33
1481668	Soil		3.1	92.5	107.5	110	0.2	88.1	43.9	2406	7.07	30.1	4.7	4.5	33	0.4	6.6	0.3	57	0.32	0.136	28
1481669	Soil		1.3	56.4	30.0	88	0.2	83.7	30.2	2041	5.34	51.9	2.3	2.1	65	0.4	6.3	0.3	60	0.91	0.155	30
1481670	Soil		2.1	37.6	22.9	90	<0.1	53.7	20.3	1201	4.80	22.0	1.1	0.7	38	0.4	3.5	0.3	59	0.45	0.208	19
1481671	Soil		2.5	37.2	22.4	95	0.2	39.4	22.9	1578	4.53	27.2	2.7	0.4	29	0.5	6.6	0.3	34	0.21	0.251	16
1481672	Soil		1.3	61.8	35.0	129	0.1	123.9	33.6	1423	7.62	106.5	5.5	0.9	79	0.6	21.4	0.2	49	1.28	0.200	25
1481673	Soil		1.3	45.6	39.8	122	<0.1	65.4	24.6	951	4.46	28.9	2.8	1.6	35	0.5	5.9	0.3	47	0.43	0.147	28
1481675	Soil		1.3	74.4	116.3	249	0.1	112.6	30.1	1369	6.55	120.6	1.5	3.1	100	1.1	9.9	0.2	86	0.94	0.184	33
1481676	Soil		2.1	66.5	20.3	101	0.1	115.7	39.5	1105	5.51	141.3	4.2	1.7	27	0.4	6.9	0.2	57	0.17	0.115	21
1481677	Soil		1.6	38.6	20.2	90	<0.1	61.2	24.9	1288	5.09	29.5	1.5	1.0	25	0.2	4.4	0.2	69	0.22	0.162	22
1481678	Soil		1.4	101.4	42.8	135	0.2	150.2	50.2	2999	7.34	158.7	4.8	8.5	102	0.4	30.0	0.3	67	1.03	0.391	61
1481679	Soil		1.2	54.2	50.7	108	0.1	59.4	24.2	1235	4.62	104.6	4.0	1.6	25	0.3	12.5	0.4	41	0.33	0.118	26
1481680	Soil		0.7	46.9	14.3	82	<0.1	82.3	20.5	582	3.83	11.4	1.7	2.2	122	0.2	1.0	0.2	91	1.07	0.382	49
1481681	Soil		1.9	36.7	16.7	80	0.1	56.0	18.9	1019	4.02	52.9	3.9	0.2	20	0.3	3.7	0.3	68	0.17	0.141	14



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Project: McKay Hill
Report Date: August 25, 2018

Page: 7 of 8

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000536.1

Method Analyte Unit MDL	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Te ppm	
1481647	Soil	75	0.57	168	0.015	2	1.70	0.007	0.06	<0.1	0.12	9.9	<0.1	0.06	3	<0.5	<0.2
1481648	Soil	70	0.78	114	0.010	<1	1.90	0.005	0.05	<0.1	0.05	4.8	<0.1	<0.05	5	<0.5	<0.2
1481649	Soil	103	1.02	100	0.009	1	1.85	0.006	0.04	<0.1	0.18	11.0	<0.1	<0.05	6	0.9	<0.2
1481650	Soil	36	0.64	76	0.004	<1	1.87	0.005	0.05	<0.1	0.06	3.2	<0.1	0.05	5	<0.5	<0.2
1481651	Soil	60	0.78	75	0.005	1	1.90	0.005	0.05	<0.1	0.07	5.5	<0.1	<0.05	6	<0.5	<0.2
1481652	Soil	61	0.88	78	0.004	<1	2.11	0.005	0.04	<0.1	0.12	5.8	<0.1	<0.05	6	<0.5	<0.2
1481657	Soil	106	0.81	223	0.005	<1	1.80	0.006	0.08	<0.1	0.19	9.0	0.2	<0.05	4	<0.5	<0.2
1481658	Soil	109	1.27	186	0.017	1	2.07	0.006	0.06	0.1	0.04	5.9	<0.1	0.11	6	0.6	<0.2
1481659	Soil	92	1.10	128	0.010	<1	2.21	0.007	0.06	<0.1	0.08	10.0	<0.1	0.07	6	<0.5	<0.2
1481660	Soil	54	0.57	79	0.022	<1	1.23	0.020	0.06	0.1	0.20	8.6	<0.1	0.09	3	<0.5	<0.2
1481661	Soil	61	0.55	104	0.007	1	1.37	0.006	0.05	<0.1	0.16	14.0	<0.1	0.08	3	<0.5	<0.2
1481662	Soil	62	0.65	107	0.012	1	1.65	0.005	0.06	<0.1	0.13	7.8	<0.1	0.08	5	<0.5	<0.2
1481663	Soil	55	0.63	94	0.009	<1	1.76	0.004	0.06	<0.1	0.06	1.9	<0.1	0.07	5	<0.5	<0.2
1481664	Soil	51	0.57	149	0.013	<1	1.41	0.006	0.07	<0.1	0.12	7.6	<0.1	<0.05	4	0.8	<0.2
1481665	Soil	75	0.69	90	0.010	<1	1.31	0.009	0.06	<0.1	0.18	13.3	0.1	<0.05	3	<0.5	<0.2
1481666	Soil	46	0.53	162	0.006	1	1.58	0.006	0.06	<0.1	0.07	5.9	<0.1	0.11	4	0.7	<0.2
1481667	Soil	107	1.09	139	0.011	1	1.81	0.006	0.05	<0.1	0.15	10.9	<0.1	0.05	5	0.7	<0.2
1481668	Soil	75	1.15	124	0.013	<1	2.18	0.007	0.05	<0.1	0.09	9.5	<0.1	<0.05	5	0.9	<0.2
1481669	Soil	83	0.81	162	0.016	1	1.62	0.007	0.06	0.1	0.09	9.8	<0.1	0.07	5	0.7	<0.2
1481670	Soil	80	0.71	92	0.008	<1	1.71	0.007	0.06	<0.1	0.05	1.1	<0.1	0.13	6	0.6	<0.2
1481671	Soil	33	0.32	103	0.005	<1	1.32	0.013	0.09	<0.1	0.10	0.6	0.1	0.21	4	0.5	<0.2
1481672	Soil	79	0.63	112	0.008	<1	1.18	0.007	0.06	<0.1	0.15	7.3	<0.1	0.10	4	0.6	<0.2
1481673	Soil	56	0.67	91	0.015	<1	1.53	0.007	0.05	<0.1	0.07	3.5	<0.1	<0.05	4	<0.5	<0.2
1481675	Soil	114	1.03	164	0.011	1	1.62	0.007	0.05	0.1	0.17	13.9	0.1	<0.05	5	0.7	<0.2
1481676	Soil	68	0.79	122	0.010	<1	1.69	0.012	0.06	0.1	0.07	4.4	0.2	0.07	4	0.6	<0.2
1481677	Soil	83	0.91	188	0.016	<1	2.33	0.006	0.06	<0.1	0.04	3.4	0.1	0.07	6	<0.5	<0.2
1481678	Soil	111	0.84	158	0.011	<1	1.48	0.008	0.05	<0.1	0.21	16.7	0.1	<0.05	4	<0.5	<0.2
1481679	Soil	54	0.58	112	0.013	2	1.24	0.007	0.05	<0.1	0.15	4.4	<0.1	<0.05	3	0.6	<0.2
1481680	Soil	167	2.01	184	0.057	1	2.31	0.010	0.05	0.2	0.03	3.2	0.2	<0.05	6	<0.5	<0.2
1481681	Soil	71	0.56	127	0.008	1	1.47	0.008	0.06	<0.1	0.05	1.1	0.1	0.06	5	<0.5	<0.2



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Project: McKay Hill
Report Date: August 25, 2018

Page: 8 of 8

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI18000536.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
1481682	Soil	1.4	29.8	14.1	65	<0.1	43.4	15.1	790	4.08	15.6	1.8	0.8	43	0.2	1.9	0.3	86	0.43	0.107	20
1481683	Soil	1.4	36.3	24.8	79	0.1	42.2	19.5	1388	4.13	38.1	3.5	0.4	14	0.3	4.3	0.3	55	0.09	0.128	19
1481684	Soil	1.3	39.1	30.7	78	0.1	41.4	17.2	1319	4.31	34.7	2.2	0.3	19	0.3	4.2	0.3	47	0.18	0.150	18
1481685	Soil	1.0	59.5	44.1	103	0.1	105.4	31.9	1337	5.34	40.9	2.8	2.9	123	0.4	4.1	0.2	95	0.94	0.284	41
1481686	Soil	1.4	38.7	18.5	85	<0.1	60.4	18.7	769	4.07	51.9	3.5	0.6	24	0.3	3.4	0.2	58	0.24	0.093	19
1481687	Soil	1.3	49.3	16.2	90	<0.1	68.0	23.9	872	4.37	18.4	3.4	0.6	15	0.2	1.9	0.3	70	0.15	0.088	17
1481688	Soil	1.1	33.3	24.1	77	<0.1	38.9	17.1	934	3.80	28.6	2.9	0.9	13	0.2	3.4	0.3	49	0.11	0.087	19
1481689	Soil	1.3	38.2	24.2	88	<0.1	63.9	21.8	1093	4.98	34.8	3.3	0.4	19	0.3	6.5	0.3	60	0.18	0.137	19
1481690	Soil	0.7	46.8	18.4	84	<0.1	99.4	24.2	843	4.70	13.0	3.4	2.7	61	0.3	1.1	0.2	102	0.58	0.162	36
1481691	Soil	0.8	33.4	20.5	79	<0.1	66.6	17.4	702	3.83	17.3	3.3	0.7	30	0.1	1.2	0.2	71	0.28	0.119	24
1481692	Soil	0.8	49.6	37.0	78	<0.1	55.7	26.8	1095	3.89	14.8	2.1	4.2	24	0.1	1.6	0.3	38	0.24	0.087	22
1481693	Soil	1.0	47.5	37.4	72	<0.1	79.3	28.7	1665	4.01	25.2	3.0	6.4	12	<0.1	2.9	0.3	27	0.05	0.037	21
1480934	Soil	0.9	42.4	20.3	117	<0.1	88.8	31.1	896	5.90	8.8	2.6	4.0	137	0.3	1.2	<0.1	131	1.26	0.307	37



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Project: McKay Hill
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Page: 8 of 8

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI18000536.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
1481682	Soil	79	0.94	149	0.027	<1	2.09	0.007	0.06	0.1	0.04	3.8	0.2	<0.05	7	<0.5	<0.2
1481683	Soil	58	0.50	118	0.008	1	1.84	0.007	0.07	<0.1	0.06	1.1	0.2	<0.05	5	<0.5	<0.2
1481684	Soil	52	0.41	113	0.006	<1	1.45	0.007	0.06	<0.1	0.05	0.9	0.1	0.05	5	<0.5	<0.2
1481685	Soil	186	2.26	236	0.058	2	2.56	0.010	0.05	0.1	0.09	7.5	0.1	<0.05	7	<0.5	<0.2
1481686	Soil	61	0.74	140	0.011	<1	1.71	0.009	0.06	<0.1	0.04	2.3	0.2	<0.05	5	<0.5	<0.2
1481687	Soil	97	0.76	118	0.019	<1	1.84	0.007	0.07	0.1	0.04	2.8	<0.1	<0.05	6	<0.5	<0.2
1481688	Soil	47	0.50	90	0.015	<1	1.67	0.007	0.05	0.1	0.04	2.2	<0.1	<0.05	4	0.5	<0.2
1481689	Soil	66	0.62	146	0.008	<1	1.74	0.008	0.06	<0.1	0.06	2.0	0.1	<0.05	5	<0.5	<0.2
1481690	Soil	199	2.32	207	0.077	1	2.78	0.008	0.05	0.1	0.03	8.2	0.1	<0.05	7	<0.5	<0.2
1481691	Soil	123	1.42	162	0.015	<1	1.95	0.008	0.05	<0.1	0.04	2.8	0.1	<0.05	6	<0.5	<0.2
1481692	Soil	58	0.89	117	0.010	<1	2.23	0.008	0.05	<0.1	0.04	3.8	<0.1	<0.05	5	<0.5	<0.2
1481693	Soil	47	0.54	104	0.004	<1	1.39	0.005	0.03	<0.1	0.05	3.9	<0.1	<0.05	4	<0.5	<0.2
1480934	Soil	193	2.84	383	0.208	1	2.59	0.012	0.12	0.2	0.03	5.6	<0.1	<0.05	10	<0.5	<0.2



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Project: McKay Hill
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Page: 1 of 2

Part: 1 of 2

QUALITY CONTROL REPORT

WHI18000536.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	2	0.01	0.001	1	
Pulp Duplicates																					
1480991	Soil	0.8	39.9	17.4	95	0.1	47.2	18.7	682	3.87	9.8	3.0	3.9	75	0.2	1.1	0.2	79	2.56	0.184	20
REP 1480991	QC	0.7	39.3	17.8	100	0.1	48.3	19.1	654	4.08	10.5	3.8	3.8	76	0.4	1.2	0.2	75	2.55	0.180	21
1481561	Soil	0.8	30.5	11.4	83	<0.1	48.6	29.4	1377	5.21	9.4	0.9	1.6	65	0.2	0.6	0.2	158	0.68	0.184	37
REP 1481561	QC	0.8	29.4	11.5	84	<0.1	48.4	27.1	1374	5.41	9.6	1.9	1.6	65	0.1	0.6	0.1	153	0.70	0.184	34
1481604	Soil	12.4	162.8	59.7	304	1.1	230.1	44.7	1238	6.77	51.1	4.0	3.7	94	2.4	8.9	0.3	91	0.82	0.245	37
REP 1481604	QC	12.3	161.5	61.7	312	1.0	238.6	45.0	1158	6.48	52.0	5.0	3.6	96	2.5	9.6	0.3	94	0.78	0.252	37
1481640	Soil	2.7	116.0	32.0	122	0.4	95.9	38.3	1353	6.35	43.8	29.0	5.5	63	0.4	10.3	0.3	53	0.74	0.129	27
REP 1481640	QC	2.9	111.9	32.7	122	0.4	98.3	38.9	1350	6.38	44.1	14.3	5.5	61	0.3	10.2	0.3	54	0.75	0.124	27
1481680	Soil	0.7	46.9	14.3	82	<0.1	82.3	20.5	582	3.83	11.4	1.7	2.2	122	0.2	1.0	0.2	91	1.07	0.382	49
REP 1481680	QC	0.6	47.5	13.7	81	<0.1	80.6	19.8	603	3.84	11.3	3.8	2.1	121	0.2	0.9	0.2	98	1.14	0.401	46
Reference Materials																					
STD DS11	Standard	15.8	157.3	145.1	345	1.6	81.4	14.1	1003	3.14	41.4	63.3	8.6	66	2.4	9.0	12.2	52	0.96	0.066	20
STD DS11	Standard	13.7	148.0	133.6	330	1.6	76.1	14.0	966	3.20	40.9	74.4	7.4	68	2.2	9.1	11.4	55	0.99	0.066	19
STD DS11	Standard	14.6	147.7	129.4	338	1.7	76.3	14.1	990	3.04	41.3	70.2	7.2	65	2.4	8.1	11.9	47	1.00	0.067	19
STD DS11	Standard	13.2	137.7	131.9	331	1.6	74.2	12.6	938	3.08	39.2	55.0	7.0	58	2.3	7.7	11.8	51	0.95	0.069	16
STD DS11	Standard	11.2	149.3	143.2	327	1.7	77.1	13.3	1005	3.21	40.5	72.0	7.1	59	2.2	8.0	12.4	50	1.02	0.068	15
STD DS11	Standard	13.7	155.0	143.9	343	1.7	79.0	13.6	1041	3.22	44.4	67.7	7.8	67	2.4	8.6	12.7	47	1.00	0.081	18
STD OXC129	Standard	1.4	28.2	6.7	40	<0.1	81.0	21.1	408	3.11	0.6	190.1	2.1	182	<0.1	<0.1	<0.1	55	0.71	0.097	13
STD OXC129	Standard	1.4	27.6	6.4	43	<0.1	79.4	20.4	399	3.01	<0.5	199.0	1.8	182	<0.1	<0.1	<0.1	54	0.69	0.094	12
STD OXC129	Standard	1.3	28.1	6.4	46	<0.1	79.1	20.5	404	2.93	<0.5	188.2	1.8	187	<0.1	<0.1	<0.1	50	0.69	0.100	12
STD OXC129	Standard	1.2	28.9	6.1	42	<0.1	77.4	19.7	402	3.05	0.7	193.1	1.8	185	<0.1	<0.1	<0.1	51	0.62	0.099	12
STD OXC129	Standard	1.3	26.5	6.4	40	<0.1	78.9	20.8	411	3.24	<0.5	196.1	1.9	177	<0.1	<0.1	<0.1	55	0.59	0.104	12
STD OXC129	Standard	1.4	27.6	6.6	43	<0.1	82.7	20.6	413	3.20	0.6	200.5	2.0	190	<0.1	<0.1	<0.1	54	0.63	0.105	13
STD OXC129 Expected		1.3	28	6.2	42.9		79.5	20.3	421	3.065	0.6	195	1.9				51	0.684	0.102	12.5	
STD DS11 Expected		14.6	149	138	345	1.71	77.7	14.2	1055	3.1	42.8	79	7.65	67.3	2.37	8.74	12.2	50	1.063	0.0701	18.6
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1



QUALITY CONTROL REPORT

WHI18000536.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
Pulp Duplicates																	
1480991	Soil	70	1.94	220	0.117	2	1.49	0.011	0.09	0.2	0.03	5.0	<0.1	<0.05	6	<0.5	<0.2
REP 1480991	QC	72	1.92	236	0.117	3	1.54	0.011	0.09	0.2	0.06	4.8	<0.1	<0.05	6	<0.5	<0.2
1481561	Soil	120	1.81	237	0.052	1	2.43	0.008	0.06	<0.1	0.08	6.7	0.1	0.06	10	<0.5	<0.2
REP 1481561	QC	120	1.98	217	0.050	1	2.27	0.008	0.05	<0.1	0.08	6.8	<0.1	<0.05	9	<0.5	<0.2
1481604	Soil	290	1.57	143	0.055	2	1.62	0.008	0.08	0.1	0.33	10.8	0.1	<0.05	5	2.3	<0.2
REP 1481604	QC	294	1.48	138	0.052	2	1.57	0.007	0.08	0.1	0.34	10.8	0.1	<0.05	5	2.4	<0.2
1481640	Soil	59	0.79	92	0.015	2	1.47	0.009	0.04	0.2	0.23	7.9	0.1	0.09	4	0.7	<0.2
REP 1481640	QC	58	0.76	95	0.015	2	1.45	0.009	0.05	<0.1	0.24	8.2	0.1	0.09	4	1.2	<0.2
1481680	Soil	167	2.01	184	0.057	1	2.31	0.010	0.05	0.2	0.03	3.2	0.2	<0.05	6	<0.5	<0.2
REP 1481680	QC	154	1.96	180	0.060	2	2.26	0.009	0.04	0.2	0.02	3.3	0.2	<0.05	6	<0.5	<0.2
Reference Materials																	
STD DS11	Standard	61	0.82	333	0.091	7	1.07	0.067	0.39	2.8	0.26	3.1	4.6	0.32	5	2.2	4.5
STD DS11	Standard	59	0.81	351	0.090	6	1.11	0.085	0.34	2.9	0.27	3.2	5.0	0.22	5	1.9	4.3
STD DS11	Standard	59	0.79	370	0.091	7	1.04	0.075	0.36	2.6	0.25	3.2	4.8	0.24	5	2.0	4.6
STD DS11	Standard	57	0.78	343	0.084	6	1.06	0.069	0.38	2.9	0.27	3.5	4.8	0.23	5	2.3	4.1
STD DS11	Standard	56	0.83	317	0.075	7	1.02	0.062	0.39	3.0	0.26	2.6	4.7	0.21	4	2.6	4.7
STD DS11	Standard	59	0.85	361	0.084	6	1.14	0.063	0.43	3.0	0.27	3.0	4.9	0.28	5	1.4	5.1
STD OXC129	Standard	53	1.50	48	0.413	<1	1.53	0.567	0.34	<0.1	<0.01	0.9	<0.1	<0.05	5	<0.5	<0.2
STD OXC129	Standard	52	1.54	49	0.396	<1	1.42	0.587	0.34	<0.1	<0.01	1.2	<0.1	<0.05	5	<0.5	<0.2
STD OXC129	Standard	50	1.54	50	0.411	1	1.55	0.555	0.32	<0.1	<0.01	0.9	<0.1	<0.05	5	<0.5	<0.2
STD OXC129	Standard	50	1.40	49	0.376	<1	1.39	0.542	0.32	<0.1	<0.01	1.1	<0.1	<0.05	5	<0.5	<0.2
STD OXC129	Standard	50	1.49	48	0.384	<1	1.40	0.572	0.34	<0.1	<0.01	0.2	<0.1	<0.05	5	<0.5	<0.2
STD OXC129	Standard	53	1.48	52	0.403	<1	1.55	0.610	0.37	<0.1	<0.01	0.5	<0.1	<0.05	5	<0.5	<0.2
STD OXC129 Expected		52	1.545	50	0.4	1	1.58	0.59	0.3655			1.1			5.5		
STD DS11 Expected		61.5	0.85	385	0.0976		1.1795	0.0762	0.4	2.9	0.26	3.4	4.9	0.2835	5.1	2.2	4.56
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2



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Project: McKay Hill
Report Date: August 25, 2018

Page: 2 of 2

Part: 1 of 2

QUALITY CONTROL REPORT

WHI18000536.1

		AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1



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Page: 2 of 2

Part: 2 of 2

QUALITY CONTROL REPORT

WHI18000536.1

		AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2

Appendix III.

Rock Descriptions & Data

Sample no	Sampler	location	Source	Easting	Northing	Description	Certificate	Weight (kg)
1480001	L.Blackburn	Central Zone	Grab-float	481687	7136017	High-grade , fine-grained, flow-banded galena + Cu-oxide (azurite, malachite 1%+ + scorodite (tr-1%). Below open-cut, MB vein brx 2017 sample above.	WHI18000196	1.4
1480002	L.Blackburn	Central Zone	Grab - dump	481456	7135917	Boiling textures, bkn Qz + galena + sulphur +/- tenorite, Cu-oxides	WHI18000196	0.85
1480003	L.Blackburn	Central Zone	Grab - dump	481458	7135919	Bkn milky-white Qz vein +/- brx + tenorite (?), malachite, sulphur	WHI18000196	0.81
1480004	L.Blackburn	Central Zone	Grab - dump	481464	7135924	Cubiform c-g galena (semi-iridescent), Fe-CC internal vugs, native sulphur +/- malachite, green ZnO2 min (?).	WHI18000196	1.32
1480005	L.Blackburn	Bella Vein Zone	Grab - dump	481425	7136554	1st find of galena on Bella vein zone, from MH HTR057 dump pile. Milky Qz vn + <3% galena (f-g to c-g and cubic), <2% malachite, <1% azurite.	WHI18000196	1.06
1480007	L.Blackburn	Bella Vein Zone	Grab - dump	481489	7136409	Qz vein from MH HTR062 open-cut (?). Weakly mineralized with <1% malachite + trace azurite, trace-1% galena.	WHI18000196	0.93
1480008	L.Blackburn	Independence - North	Outcrop	483054	7136209	Milky-white Qz vn (273/74) with pull-apart/vuggy open-space, prismatic, clear qz crystals, <2% galena (poddy), hackly, steel-blue, <2% malachite-azurite. Internal HW & FW slicks.	WHI18000273	4.17
1480009	L.Blackburn	Central Zone	Outcrop	481606	7135837	Across >3m wide vein (sample not truly perpendicular due to exposure/angle) in re-opened HTR (at adit), milky-white Qz + lim + gal +/- cu-oxides.	WHI18000273	2.73
1480029	L.Blackburn	Red Vein Area	Grab-subcrop	481746	7137153	Subcropping NEW mineralized vein (no historical workings); qtz vein breccia (25-30% slate fragments) + lim + fe carb+ mal + az+ argentite? (or steel gal)	WHI18000405	0.89
1480030	L.Blackburn	Central Zone	Grab- dump	481249	7135853	Collected from MHHTR-48 dump pile; sooty, blue-steel galena; replacement style mineralization + <10% bkn qz vn + s + mal + az + Fe carbonate clots	WHI18000484	2.64
1480031	L.Blackburn	Central Zone	Grab- float	481494	7136059	North slope of No. 4 vein; fels train- pieces of replacement style No. 6 vein (?) style; Galena (Fa) qz vein pieces, tr s + Fe carbonate + clay	WHI18000484	1.46
1480032	L.Blackburn	Central Zone	Grab- dump	481199	7135861	Collected from undocumented historical trench dump pile; trench exposing No. 6 style mineralization along old trail; fg galena +/- mal, az, s, hem coating	WHI18000484	2.4
1480051	M. Bindig	Central Zone	Grab - float	481671	7135973	~20m east of 'main' vein trench, hanging wall (?) side of alteration zone. Galena + limonite + quartz.	WHI18000196	1.87
1480052	M. Bindig	Falls	Grab - dump	480206	7136996	"High-grade" grab sample of mineralized hanging-wall vein material from dump pile w/ azurite, malachite, jarosite, tenorite, sulphur + galena +/- tetrahedrite.	WHI18000196	1.35
1480053	M. Bindig	Falls	Outcrop	480207	7136999	Channel sample across Quartz vein - hanging wall is mineralized with azurite, malachite, limonite +/- sulphur.	WHI18000196	1.25
1480054	M. Bindig	Falls	Grab - dump	480438	7136932	In buried dump pile on side of historic trench. Vfg-CG (non-cubiform) galena vein + sulphurous clots + FeCC + 1% malachite w/ boiling texture.	WHI18000196	1.29
1480055	M. Bindig	Falls	Grab - dump	480438	7136932	In buried dump pile on side of historic trench. Pervasively FeCC altered, boiling texture vein material w/ <5% VFG galena, rusty-brown-orange.	WHI18000196	1.05
1480056	M. Bindig	Falls	Outcrop	480244	7136929	White Qz vn + internal brx + FeCC clots, pull-apart texture with V4 qz crystals, + malachite, azurite, <3% FG galena. Potentially Falls Vein downslope but mineralized? Couldn't get attitude, slumped.	WHI18000196	1.17
1480057	M. Bindig	N of large NE Lineament	Grab - float	483596	7137633	White Qz vn , vuggy + limonite-MnO (?), greenish UNK mineral.	WHI18000196	1.04
1480058	M. Bindig	SE of Margaret Saddle	Grab - dump	482608	7136587	High-grade sample from historic dump pile - galena +/- tetrahedrite, malachite, azurite. Qz vein appears oriented 080.	WHI18000196	0.86
1480059	M. Bindig	N corner of Snoose 52 claim	Grab - float	479527	7137710	Conglomerate (?) with Fe-alteration coating, 3-5% pyrite throughout.	WHI18000196	1
1480060	M. Bindig	(SW Ext of No. 9 Vein?)	Grab - float	480889	7136164	Soft, crumbly Fe-altered Qz w/ limonite, malachite, galena +/- chrysocolla, tetrahedrite.	WHI18000196	1.12
1480061	M. Bindig	N of large Lineament	Grab - float	480957	7136292	Appears local. White, rusty-orange quartz with minor malachite + galena, vuggy + azurite +/- tetrahedrite (? Dull black-grey mineral).	WHI18000196	0.87

1480062	M. Bindig	N of large Lineament	Grab - float	480754	7136231	Grab sample of mineralized vein float pieces (very local). Intensely Fe-altered Qz, vuggy + limonite + trace galena.	WHI18000196	0.67
1480101	T. Haid	Central Zone	Trench - O/C	481635	7135902	Vesicular/amyg basalt with moderate to str ox (Fe carbonate infill)	WHI18000273	1.65
1480102	T. Haid	Central Zone	Trench - O/C	481634	7135903	Bull white unmineralized qtz vein; very vuggy	WHI18000273	1.15
1480103	T. Haid	Central Zone	Trench - O/C	481631	7135903	Vesicular/amyg basalt with moderate to str ox (Fe carbonate infill)	WHI18000273	1.39
1480104	T. Haid	Central Zone	Trench - O/C	481627	7135889	HW basalt; highly altered and Fe carb ox	WHI18000273	1.06
1480105	T. Haid	Central Zone	Trench - O/C	481628	7135888	Galena-qtz vein; fractured white qtz with sooty galena infill and replacement; boiling textures present; Fe carb ox; galena appears dominantly concentrated along HW	WHI18000273	1.09
1480106	T. Haid	Central Zone	Trench - O/C	481626	7135888	FW basalt; highly altered and Fe ox	WHI18000273	1.13
1480107	T. Haid	Central Zone	Trench - O/C	481627	7135889	Open cut along mineralized galena-qtz vein (same description as 1480105)	WHI18000273	2.92
1480108	T. Haid	Central Zone	Trench - O/C	481632	7135955	FW gabbro; blocky dark green to black w tr subhedral py in groundmass; Fe ox in prox to vein; qtz bx at contact	WHI18000273	5.58
1480109	T. Haid	Central Zone	Trench - O/C	481632	7135954	Galena-qtz vein; skeletal/framework textures; strong Fe carb ox; cubic and sooty galena as 5-8cm veinlet near HW contact	WHI18000273	3.65
1480110	T. Haid	Central Zone	Trench - O/C	481634	7135952	HW gabbro; as 1480108	WHI18000273	2.1
1480111	T. Haid	Central Zone	Trench - O/C	481633	7135952	Open cut along mineralized galena-qtz vein	WHI18000273	3.35
1480112	T. Haid	Central Zone	Trench - O/C	481155	7136197	Unaltered slate near contact	WHI18000273	1.19
1480113	T. Haid	Central Zone	Trench - O/C	481155	7136198	Contact between slate and basalt	WHI18000273	1.73
1480114	T. Haid	Central Zone	Trench - O/C	481155	7136199	strongly oxidized and patchy cubic galena (minor mal + az) mineralization within basalt in proximity to contact	WHI18000273	1.85
1480115	T. Haid	Central Zone	Trench - O/C	481090	7136196	basalt with strong Fe ox near contact; grades to pervasive alteration and destruction of textures at contact; mineralized fragments present as galena (cubic to sooty) infilling qtz fractures or as replacement (stringers and blebs) within the pervasively Fe ox basalt (mal and az appear to overprint as trace mineralization)	WHI18000335	2.65
1480116	T. Haid	Central Zone	Trench - O/C	481090	7136194	Unconsolidated gouge material at contact between basalt and slate	WHI18000335	2.69
1480117	T. Haid	Central Zone	Trench - O/C	481089	7136193	slate; little to no oxidation	WHI18000335	2.22
1480118	T. Haid	Central Zone	Trench - subcrop	481093	7136135	Subcrop float of mineralized galena-qtz vein; sooty galena within qtz fractures as infill; qtz is generally white with moderate limonite along fracs	WHI18000335	2
1480119	T. Haid	Central Zone	Trench - subcrop	481093	7136140	Subcrop float of mineralized galena-qtz vein; sooty galena within qtz fractures as infill; trace malachite associated with mineralization; qtz is generally white with moderate limonite along fracs	WHI18000335	2.48
1480120	T. Haid	Central Zone	Trench - O/C	481393	7135970	Altered basalt with parallel thin quartz veins (045/85) with minor galena mineralization	WHI18000405	1.26
1480121	T. Haid	Central Zone	Trench - O/C	481389	7135972	FW basalt that becomes pervasively altered near contact with qtz vein	WHI18000405	1.04
1480122	T. Haid	Central Zone	Trench - O/C	481388	7135972	qtz vein- bull white; mod lim ox; weak mn ox; trace galena mineralization	WHI18000405	1.51
1480123	T. Haid	Central Zone	Trench - O/C	481387	7135973	qtz-galena vein- skeletal/framework texture becomes prevalent; cubic and sooty galena present as infill of framework and qtz vugs; pervasive Fe ox; minor association of yellow sulphur and malachite	WHI18000405	2.82
1480124	T. Haid	Central Zone	Trench - O/C	481386	7135974	As above (1480123)	WHI18000405	2.1
1480125	T. Haid	Central Zone	Trench - O/C	481350	7135946	Pervasively Fe ox (limonite) amnd ankeritic amygdaloidal basalt (+/- silicification)	WHI18000484	0.67
1480126	T. Haid	Central Zone	Trench - O/C	481350	7135948	Pervasively Fe ox (limonite) amnd ankeritic amygdaloidal basalt (+/- silicification)	WHI18000484	2.04

1480127	T. Haid	Central Zone	Trench - O/C	481351	7135949	Pervasively Fe ox (limonite) amnd ankeritic amygdaloidal basalt (+/- silicification)	WHI18000484	1.99
1480128	T. Haid	Central Zone	Trench - O/C	481353	7135948	Pervasively Fe ox (limonite) amnd ankeritic amygdaloidal basalt (+/- silicification)	WHI18000484	1.03
1480129	T. Haid	Central Zone	Trench - O/C	481355	7135948	Pervasively Fe ox (limonite) amnd ankeritic amygdaloidal basalt (+/- silicification)	WHI18000484	2.08
1480130	T. Haid	Central Zone	Trench - O/C	481357	7135948	Pervasively Fe ox (limonite) amnd ankeritic amygdaloidal basalt (+/- silicification)	WHI18000484	2.31
1480131	T. Haid	Central Zone	Trench - O/C	481359	7135949	Pervasively Fe ox (limonite) amnd ankeritic amygdaloidal basalt (+/- silicification)	WHI18000484	1.64
1480132	T. Haid	Central Zone	Trench - O/C	481358	7135947	Qtz vein; white, massive, weak Fe ox (limonite) and Mn ox; minor galena associated along contact with host basalt	WHI18000484	3.92
1480133	T. Haid	Central Zone	Trench - O/C	481359	7135947	Pervasively Fe ox (limonite) amnd ankeritic amygdaloidal basalt (+/- silicification)	WHI18000484	2.86
1480134	T. Haid	Central Zone	Trench - O/C	481362	7135946	Pervasively Fe ox (limonite) amnd ankeritic amygdaloidal basalt (+/- silicification)	WHI18000484	1.96
1480135	T. Haid	Central Zone	Trench - O/C	480950	7136001	HW basalt; strongly silicified and Fe carb; minor andesitic component	WHI18000484	2.08
1480136	T. Haid	Central Zone	Trench - O/C	480952	7136002	qtz-galena vein- cubic galena infilling internal fractures and open space +/- mal, s; strong ankerite infill	WHI18000484	2.28
1480137	T. Haid	Central Zone	Trench - O/C	480950	7136002	qtz-galena vein- cubic galena infilling internal fractures and open space +/- mal, s; strong ankerite infill	WHI18000484	3.44
1480138	T. Haid	Central Zone	Trench - O/C	480950	7136004	FW basalt; strong to pervasive Fe carb alteration	WHI18000484	1.63
1480139	T. Haid	Central Zone	Trench - O/C	480950	7136006	FW basalt; strong to pervasive Fe carb alteration	WHI18000484	1.43
1480140	T. Haid	Central Zone	Trench - O/C	480950	7136007	FW basalt; strong to pervasive Fe carb alteration	WHI18000484	1.99
1480141	T. Haid	Central Zone	Trench - O/C	480948	7136008	FW basalt; strong to pervasive Fe carb alteration; minor white unmineralized qtz;	WHI18000484	1.27
1480142	T. Haid	Central Zone	Trench - subcrop	480950	7136008	qtz vein; loose subcrop possible flt zone; white massive bull qtz with Fe carb along internal fractures	WHI18000484	2.34
1480143	T. Haid	Central Zone	Trench - O/C	480949	7136009	Basalt as above with decreasing Fe carb ox	WHI18000484	1.4
1480144	T. Haid	Central Zone	Trench - O/C	480948	7136009	Basalt as above with decreasing Fe carb ox	WHI18000484	1.56
1480251	G. Leroux	McKay Hill	Outcrop, channel over 1m	480845	7136877	Coarse grained qz vein ~17cm thick, attitude 217/66, trace galena, hosted in qz-fsp phyric andesite lapilli tuff	WHI18000335	2.48
1480271	G. Leroux	McKay Hill	Outcrop, channel over 90cm	480404	7136950	coarse drusy qz-vein ~9cm thick, intergrown with massive patchy gal + mal-az, situated in fault plane 015/90	WHI18000403	3.04
1480272	G. Leroux	McKay Hill	Outcrop, channel over 40cm	480480	7136931	medium grained sericitic qz-vein ~8cm thick, hosted in basaltic agglomerate. Possible sulphides. Attitude of vein 222/77	WHI18000403	1.89
1480273	G. Leroux	McKay Hill	Grab, subcrop	480480	7136458	multiphase qz-vein, latest phase has clear prismatic qz (+/- carb-sulphides), blackish-soft-brown streak metallic sulphide(?)	WHI18000403	1.76
1480274	G. Leroux	McKay Hill	Outcrop, channel over 1m	480727	7136725	~30cm thick qz-vein (+/- carb), coarse grained white qz hosted in andesite agglomerate. Vein att: 285/32	WHI18000403	1.62
1480275	G. Leroux	McKay Hill	Outcrop, channel over 25cm	480726	7136726	Coarse grained white qz-ank, trace silvery sulphide + enargite(?) Vein att: 262/62	WHI18000403	1.67
1480276	G. Leroux	McKay Hill	Grab, float	480813	7136718	Qz-vein float mineralized with enargite-mal-az-cp	WHI18000403	1.46
1480277	G. Leroux	White Hill	Grab, subcrop	479680	7136225	qz-vein minerlized with gal-cp (mal-az) located on fault surface that connects agglomerates to the north and basaltic sandy flows(?) to the south. Fault:Vn:222/84	WHI18000403	2.94
1480278	G. Leroux	White Hill	Outcrop, channel over 1m	479676	7136218	In place qz vein, minerlized with gal-cp (mal-az) located on fault surface that connects agglomerates to the north and basaltic sandy flows(?) to the south. Fault:Vn:222/84	WHI18000403	3.44

Sample #	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Ag (ppm)	Al (%)	As (ppm)	Au (ppb)	B (ppm)	Ba (ppm)	Bi (ppm)	Ca (%)	Cd (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Ga (ppm)
1480001	0.06	342	0.40	82.52	0.13	>100	<0.01	83	60.2	-1	10	0.2	-0.01	86	-0.1	-1	4149.7	0.04	-1
1480002	1.93	255	2.09	29.34	23.72	>100	0.08	399	1930	-1	40	-0.1	0.1	2000	19.9	19	10000	1.75	1
1480003	2.55	195	0.54	23.94	1.63	>100	0.01	73	2547.3	-1	13	0.1	0.01	341.8	0.5	3	5466.9	0.35	-1
1480004	0.03	565	0.31	81.53	0.05	>100	<0.01	90	26.4	-1	10	0.5	-0.01	62.3	0.2	2	3259.6	0.1	-1
1480005	0.24	48.6	0.91	8.32	0.73	48.6	0.03	190	244.9	-1	24	25.3	-0.01	214.2	1.6	2	9477.9	0.63	-1
1480007	0.39	24.9	1.25	1.03	0.21	24.9	0.04	133	389	-1	22	3.8	0.42	140.4	3.7	4	10000	0.75	-1
1480008	0.08	22	0.76	0.01	0.55	22	0.03	179	83.7	2	17	2.9	0.46	74.4	2.9	6	7573.6	0.56	-1
1480009	0.21	33.2	0.07	4.63	1.37	33.2	0.07	339	214.3	-1	22	1.9	0.04	222.7	1.8	8	730.7	0.73	-1
1480029	0.02	19.6	0.70	0.01	0.46	19.6	0.12	131	20.2	2	29	3.2	0.24	27.4	2.9	12	7010	1.42	-1
1480030	0.65	284	1.23	77.33	1.89	>100	<0.01	604	651.5	-1	10	0.6	0.01	239.4	0.4	-1	10000	0.17	-1
1480031	0.12	339	0.08	49.31	5.63	>100	0.02	147	118.8	-1	10	0.8	0.02	808.2	1	3	864	0.52	3
1480032	0.57	326	1.29	80.41	0.24	>100	<0.01	831	566.4	-1	12	1.3	-0.01	87.2	0.6	1	10000	0.15	-1
1480051	0.01	325	0.09	40.35	20.32	>100	0.1	527	6.6	1	11	-0.1	0.24	1803.8	3.3	5	948.3	2.39	4
1480052	0.49	74.4	2.56	3.27	1.47	74.4	0.04	774	491.8	8	76	9.8	0.2	179.4	6.7	5	10000	0.64	-1
1480053	0.02	8.8	0.46	0.14	0.08	8.8	0.18	140	20.1	1	61	0.3	3.68	9.4	8.4	12	4592.2	2.25	-1
1480054	0.00	18.4	0.53	60.93	11.69	18.4	0.07	115	2.8	-1	26	0.2	0.13	2000	4.7	6	5605.7	0.45	3
1480055	0.00	9.6	0.20	17.90	27.36	9.6	0.29	170	-0.5	2	71	0.4	4.14	2000	17.5	25	1927.2	3.64	7
1480056	0.38	25.2	1.24	2.02	0.68	25.2	0.1	397	376.4	1	55	4	3.95	207.4	14.9	25	10000	2.25	-1
1480057	0.00	0.2	0.00	0.06	0.05	0.2	0.55	3	-0.5	1	20	0.2	0.05	6.9	4.5	6	47.4	1.39	2
1480058	0.02	28.8	1.11	13.54	4.58	28.8	0.04	659	17.4	-1	28	19.9	0.03	859.8	3.8	3	10000	1.56	-1
1480059	0.00	0.1	0.00	0.01	0.01	0.1	0.71	231	2.8	8	187	-0.1	10.32	1.1	36	18	43.8	7.81	2
1480060	0.38	167	2.27	20.72	17.71	>100	0.11	405	380.8	-1	28	2.8	0.09	2000	30.6	10	10000	2.01	2
1480061	0.04	23.4	0.20	3.58	5.97	23.4	0.07	98	35.6	-1	20	1.2	0.09	705.2	7.2	3	2102.3	0.9	2

1480062	0.00	12	0.06	6.82	23.02	12	0.19	258	3.7	2	25	-0.1	6.91	2000	17.1	7	684.2	6.18	11
1480101	0.03	0.5	0.01	0.02	0.03	0.5	0.76	225	34.2	4	104	-0.1	7.44	3.1	17.1	34	104.5	7.62	2
1480102	0.01	0.2	0.00	0.03	0.08	0.2	0.05	76	14.1	-1	16	-0.1	3.55	5.8	9.4	4	19.7	2.11	-1
1480103	0.16	0.2	0.01	0.01	0.03	0.2	0.67	386	161	-1	85	-0.1	9.49	2	46.9	58	81.6	8.32	1
1480104	0.01	0.3	0.01	0.02	0.25	0.3	0.76	395	9.7	2	81	-0.1	3.4	14.5	33.3	96	95.5	8.71	2
1480105	0.16	2.5	0.01	0.33	0.21	2.5	0.25	434	162.5	1	38	-0.1	0.18	14.2	9.9	26	118.7	2.38	1
1480106	0.32	2.3	0.04	0.49	0.94	2.3	0.56	1466	315.4	5	82	-0.1	6.46	100.4	47.4	53	396.2	8.67	1
1480107	0.55	128	0.07	27.24	12.37	>100	0.1	137	549.7	11	19	0.2	0.11	1706.1	4.8	7	716.8	0.91	2
1480108	0.00	0.2	0.01	0.02	0.28	0.2	2.53	99	-0.5	-1	201	-0.1	7.3	24.5	39.1	126	56.6	9.2	12
1480109	0.10	25.1	0.05	3.82	5.90	25.1	0.17	779	102	-1	41	0.6	0.2	558.8	6.9	14	469.1	2.22	1
1480110	0.02	13.2	0.03	1.90	4.21	13.2	0.81	1055	23.8	6	167	-0.1	5.38	349.8	33.2	37	339.3	8.29	3
1480111	0.22	102	0.04	16.24	8.57	>100	0.12	3322	224.9	13	22	1.8	0.14	1077.8	4.4	9	427.9	2.06	2
1480112	0.00	0.1	0.00	0.02	0.06	0.1	1.02	6	0.6	6	88	0.2	0.06	4.2	16.6	17	30.7	4.07	3
1480113	0.10	105	0.31	14.31	1.71	>100	0.52	95	98.8	1	69	1.5	5.52	361	21.1	34	3140.9	5.14	2
1480114	0.00	0.3	0.01	0.02	0.04	0.3	0.85	128	2.8	3	99	-0.1	9.65	2.5	39.4	168	70.2	8.2	3
1480115	0.04	42.7	0.23	5.60	10.79	42.7	0.9	152	42.1	4	85	1	4.98	834.8	36.1	114	2384.8	5.49	4
1480116	0.00	4.4	0.13	0.68	2.34	4.4	1.04	99	2.7	-1	88	0.3	5.62	495.8	35.6	92	1324.4	6.48	3
1480117	0.00	2.4	0.01	0.27	0.21	2.4	0.85	44	-0.5	3	114	0.4	1.21	18	27.1	39	121.2	5.48	2
1480118	0.02	8.9	0.03	1.12	1.82	8.9	0.14	39	18	1	41	0.2	0.12	173.6	10.4	7	194.8	1.69	-1
1480119	0.94	331	1.13	14.74	9.54	>100	0.02	153	944.8	-1	21	7.9	0.05	1663	3.6	9	10000	0.67	2
1480120	0.00	13.5	0.01	1.79	0.90	13.5	0.26	168	4.1	2	78	0.5	5.34	78.6	25.6	84	111.7	3.71	2
1480121	0.34	2.5	0.03	2.76	2.85	2.5	0.37	615	335.4	4	102	0.9	4.69	159.2	49.7	96	265	7.72	2
1480122	0.02	0.9	0.00	0.14	3.75	0.9	0.18	175	18.5	2	50	0.2	4.77	274.7	10	21	29.7	4.94	2
1480123	0.01	5.1	0.04	1.01	20.75	5.1	0.1	193	12.3	1	24	2.2	0.38	1615.8	14.6	13	358.2	4.49	11
1480124	0.04	25.6	0.04	4.62	12.03	25.6	0.11	223	37.1	2	33	0.4	0.25	861.6	10.7	17	398.4	3.87	2
1480125	0.00	1.6	0.01	0.27	0.06	1.6	0.44	169	4.2	-1	81	-0.1	9.58	4.3	51.1	169	121.9	5.57	1
1480126	0.01	0.9	0.01	0.15	0.15	0.9	0.41	236	6.2	2	76	-0.1	10.18	8	42.4	157	89.3	5.71	1

1480127	0.19	17.9	0.01	3.04	5.86	17.9	0.39	209	188.2	2	65	-0.1	7	355	41.7	123	86.3	5.93	2
1480128	0.04	55.6	0.02	13.74	1.95	55.6	0.46	162	35.7	2	96	0.1	5.84	140.2	47.4	175	157.9	4.37	2
1480129	0.05	42.9	0.01	9.16	4.43	42.9	0.45	327	49.5	2	94	0.2	5.09	283.9	66.2	154	136	5.31	2
1480130	0.01	2.5	0.02	0.29	1.17	2.5	0.58	280	12.2	1	141	-0.1	6.72	80.5	81.7	187	156.7	5.11	2
1480131	0.01	0.9	0.01	0.05	0.39	0.9	0.77	209	9.5	2	137	-0.1	9	24.8	67.2	305	132.1	6.84	3
1480132	0.02	0.9	0.01	0.07	1.42	0.9	0.35	340	18.9	2	97	-0.1	6.56	83.2	45.5	115	94.5	5.08	1
1480133	0.05	1.2	0.02	0.11	5.59	1.2	0.62	398	54.3	2	84	-0.1	9.36	412	36.2	131	173.6	5.28	3
1480134	0.01	0.5	0.01	0.06	0.72	0.5	2.02	294	12.8	2	95	-0.1	14.23	89.8	55.5	384	104.7	6.59	7
1480135	0.00	1.9	0.01	0.04	0.19	1.9	0.79	71	3.7	3	199	-0.1	7.81	15.6	26.3	14	110	6.97	2
1480136	0.05	270	0.54	29.82	1.47	>100	0.19	120	54.6	-1	35	4.6	1.1	458	8.8	6	5457.8	1.84	-1
1480137	0.03	92.4	0.26	7.07	2.44	92.4	0.19	72	25.3	-1	33	1.7	0.39	461.3	6.6	9	2731.8	2.01	1
1480138	0.01	0.9	0.01	0.02	0.02	0.9	0.89	122	9.5	3	63	-0.1	8.2	1.9	41.5	67	104.1	8.59	2
1480139	0.01	0.3	0.01	0.02	0.04	0.3	1.51	34	14.3	2	87	-0.1	6.23	2.9	45.6	98	120.9	9.57	5
1480140	0.01	0.3	0.01	0.02	0.06	0.3	2.34	40	9.8	1	85	-0.1	6.5	5.7	55.1	128	123.9	9.23	8
1480141	0.00	0.4	0.01	0.02	0.03	0.4	2.38	25	2.3	2	64	0.1	5.41	2.8	26.5	60	60.5	5.17	9
1480142	0.00	0.3	0.01	0.02	0.03	0.3	3.02	27	4.1	-1	54	-0.1	5.55	2.8	30	112	95.8	5.89	10
1480143	0.00	0.4	0.01	0.02	0.04	0.4	4.15	20	4.6	-1	52	-0.1	11.62	3.4	41.7	99	83.1	7.52	16
1480144	0.00	0.1	0.01	0.01	0.03	0.1	4.3	19	2.7	2	90	-0.1	9.89	1.3	41.6	54	68.2	8	15
1480251	0.00	0.8	0.01	0.05	0.02	0.8	0.14	2	2.5	-1	7	-0.1	0.56	4.6	2.6	10	50.8	0.67	-1
1480271	0.00	0.4	0.00	0.01	0.01	0.4	0.1	37	2.4	-1	4	0.4	0.74	0.4	30	4	17.8	4.6	-1
1480272	0.00	0.05	0.00	0.00	0.00	-0.1	0.1	1	-0.5	2	102	-0.1	2.84	-0.1	5.1	7	11.7	0.8	-1
1480273	0.00	0.1	0.00	0.00	0.01	0.1	<0.01	8	2.2	2	7	-0.1	0.81	0.3	1.3	8	33.2	1	-1
1480274	0.00	0.05	0.00	0.00	0.00	-0.1	0.25	11	0.8	2	25	-0.1	2.25	-0.1	7.1	22	8.4	1.55	-1
1480275	0.00	0.05	0.00	0.00	0.00	-0.1	0.04	18	2.2	2	20	-0.1	2.41	-0.1	6.1	14	14	0.83	-1
1480276	0.00	14.4	0.64	0.02	0.05	14.4	0.05	130	3.7	1	14	0.7	0.92	13.5	1.7	12	6399.2	1.09	-1
1480277	0.00	5.2	0.77	0.18	0.01	5.2	0.01	20	-0.5	-1	4	5.5	0.17	0.8	1.4	8	7740.9	1.23	-1
1480278	0.00	0.3	0.03	0.01	0.00	0.3	0.02	3	0.8	1	9	0.3	0.78	2.4	1.7	11	264.7	0.57	-1

Sample ID	K (%)	La (ppm)	Mg (%)	Mn (ppm)	Mo (ppm)	Na (%)	Ni (ppm)	P (%)	Pb (ppm)	S (%)	Sb (ppm)	Sc (ppm)	Se (ppm)	Te (ppm)	Th (ppm)	Sr (ppm)	Ti (%)	V (ppm)	W (ppm)	Zn (ppm)	Hg (ppm)
1480001	-0.01	-1	-0.01	5	-0.1	-0.001	-0.1	-0.001	>10000	10	2000	-0.1	-0.5	-0.2	-0.1	26	-0.001	-1	-0.1	1524	5.25
1480002	0.03	-1	0.06	501	1.8	0.008	44.5	0.021	>10000	2.34	2000	2.9	9	0.4	-0.1	37	-0.001	8	-0.1	10000	100
1480003	-0.01	-1	-0.01	47	0.3	0.002	1.8	-0.001	>10000	2.92	2000	0.2	2.1	-0.2	-0.1	25	-0.001	-1	-0.1	10000	33.05
1480004	-0.01	-1	-0.01	14	0.3	-0.001	0.5	-0.001	>10000	10	2000	0.1	0.7	-0.2	-0.1	42	-0.001	-1	-0.1	565	8.44
1480005	0.02	-1	-0.01	96	0.4	0.005	3.3	-0.001	>10000	1.13	2000	0.6	49	1.6	-0.1	23	-0.001	1	-0.1	7586	23.67
1480007	0.02	-1	0.15	135	0.4	0.004	11.9	0.014	9646.3	0.17	2000	0.7	5.1	0.3	0.2	31	-0.001	3	-0.1	2143	30.59
1480008	-0.01	-1	0.04	72	0.4	0.006	10	0.004	64.1	0.22	2000	0.4	1.4	-0.2	-0.1	24	-0.001	1	-0.1	5539	10.46
1480009	-0.01	5	0.04	126	0.2	0.005	6.4	0.006	>10000	0.54	904	0.9	5	0.3	0.1	14	0.006	5	-0.1	10000	12.75
1480029	0.05	2	0.02	79	0.4	0.007	16.7	0.007	134.7	-0.05	1434.5	2	0.5	2.4	0.4	6	-0.001	11	-0.1	4618	9.5
1480030	-0.01	-1	-0.01	12	0.1	-0.001	0.6	0.002	>10000	10	2000	0.2	1.2	-0.2	-0.1	14	-0.001	-1	-0.1	10000	17.1
1480031	-0.01	-1	0.01	74	0.4	-0.001	3.4	0.004	>10000	4.57	745.6	0.9	5	-0.2	-0.1	102	-0.001	2	-0.1	10000	79.77
1480032	-0.01	-1	-0.01	17	0.2	-0.001	2.1	0.002	>10000	10	2000	0.2	1.9	-0.2	-0.1	25	-0.001	-1	-0.1	2489	7.17
1480051	0.03	-1	0.1	1206	-0.1	0.004	10	0.013	>10000	4.19	1340.7	1.2	3.7	0.2	-0.1	49	-0.001	6	-0.1	10000	94.17
1480052	0.01	-1	-0.01	57	0.2	0.006	9.6	0.009	>10000	0.58	2000	0.6	33.6	-0.2	-0.1	52	-0.001	2	0.2	10000	99.3
1480053	0.05	2	0.18	324	0.4	0.021	31.3	0.034	1371.2	0.1	1361.7	6.2	-0.5	-0.2	0.3	84	0.002	16	-0.1	756	11.19
1480054	0.01	-1	0.09	73	4.2	0.004	20.6	0.001	>10000	8	2000	1.6	7.3	0.3	-0.1	320	-0.001	3	-0.1	10000	100
1480055	0.06	-1	1.28	542	1.6	0.008	68.8	0.14	>10000	2.24	1575.9	3.1	10.4	0.3	0.2	557	0.001	24	-0.1	10000	100
1480056	0.05	-1	1.63	443	0.5	0.005	63.2	0.025	>10000	0.3	2000	5.4	13.4	0.6	0.3	432	0.001	15	-0.1	6422	32.35
1480057	0.04	5	0.24	636	0.3	0.023	8	0.018	591.2	-0.05	24.8	3.1	-0.5	-0.2	1.1	10	0.012	7	-0.1	452	1.08
1480058	0.02	7	0.02	108	0.7	0.003	5.1	0.01	>10000	0.74	2000	1.1	8.1	1	0.2	130	-0.001	6	-0.1	10000	27.86
1480059	0.37	16	2.48	1201	0.7	0.009	44.1	0.377	141.6	1.22	29.8	14.4	-0.5	-0.2	1.5	593	0.005	43	-0.1	124	0.3
1480060	0.03	-1	0.11	629	0.9	0.004	89.9	0.017	>10000	1.19	2000	2.9	18.5	0.5	0.2	69	0.001	9	-0.1	10000	100
1480061	0.02	1	0.03	130	0.3	0.004	14.7	0.003	>10000	0.19	1469	0.1	3.7	0.3	-0.1	39	-0.001	9	0.1	10000	100

1480062	0.05	4	2.11	3902	0.4	0.005	64.7	0.041	>10000	1.82	2000	1.5	4	-0.2	0.4	155	0.001	20	0.3	10000	100
1480101	0.23	7	0.55	1502	0.4	0.011	65.1	0.145	210.7	0.22	27.8	12	-0.5	-0.2	1.6	161	0.002	19	-0.1	275	0.53
1480102	0.02	2	0.08	505	0.8	0.004	40.3	0.008	270.5	-0.05	22.8	2	-0.5	-0.2	0.2	146	0.002	6	-0.1	839	0.26
1480103	0.19	9	0.48	1820	0.4	0.026	201.2	0.18	86.8	0.14	16.9	13.1	-0.5	-0.2	0.8	205	0.003	26	-0.1	269	0.28
1480104	0.1	11	0.11	1398	1.1	0.048	163.4	0.221	212.9	-0.05	27	16.7	-0.5	-0.2	1	58	0.002	60	-0.1	2477	0.57
1480105	0.05	4	0.05	454	0.8	0.013	33	0.044	3326.4	-0.05	64.9	3.9	-0.5	-0.2	0.6	18	0.005	17	-0.1	2117	4.73
1480106	0.19	5	0.15	1883	1.4	0.038	153.6	0.164	4937.6	0.18	225.7	15.7	-0.5	-0.2	1.2	94	0.002	30	-0.1	9377	2.42
1480107	-0.01	-1	0.05	134	0.9	-0.001	9.2	0.015	>10000	3.02	289	7	2.7	-0.2	0.2	45	0.004	5	0.1	10000	100
1480108	0.12	62	2.27	1610	0.7	0.012	72.7	0.377	183.4	0.09	11.9	13.8	-0.5	-0.2	3.7	425	0.04	181	-0.1	2787	0.66
1480109	0.03	4	0.11	541	0.6	0.005	15.3	0.03	>10000	0.41	752.9	2.3	2.9	-0.2	0.4	29	0.014	17	-0.1	10000	18.91
1480110	0.23	38	1.19	1494	1.3	0.064	48.1	0.316	>10000	0.21	170.2	9.7	1.1	-0.2	3	243	0.009	56	-0.1	10000	6.99
1480111	-0.01	2	0.1	209	0.2	-0.001	9.9	0.016	>10000	1.91	392.8	1	17.3	0.3	-0.1	63	0.006	10	-0.1	10000	73.65
1480112	0.26	32	0.25	575	0.2	0.014	40	0.036	167.8	-0.05	4.1	4.6	-0.5	-0.2	10.4	9	0.005	9	-0.1	643	0.45
1480113	0.09	19	1.1	895	1	0.048	43.3	0.286	>10000	1.01	2000	8	3.5	-0.2	1.9	195	0.003	49	-0.1	10000	25.26
1480114	0.19	43	2.74	1273	0.8	0.085	159.7	0.473	218.5	-0.05	17.5	12.6	-0.5	-0.2	4.3	430	0.005	76	-0.1	356	0.49
1480115	0.09	17	0.99	1289	1.1	0.019	139	0.195	>10000	0.33	2000	12	2.8	0.2	2.3	225	0.003	68	-0.1	10000	45.99
1480116	0.16	20	1.01	1357	0.9	0.025	110.3	0.22	7116	0.11	148.9	12	1.2	-0.2	4.7	137	0.002	60	-0.1	10000	2.79
1480117	0.27	29	0.24	1058	1.4	0.024	65.3	0.106	2652.8	-0.05	35.1	7.3	-0.5	-0.2	10.1	52	0.001	24	-0.1	2096	1.95
1480118	0.08	3	0.08	493	0.9	0.006	12.8	0.01	>10000	0.15	141.5	2.6	-0.5	-0.2	1.2	9	0.001	6	-0.1	10000	7.34
1480119	0.02	-1	0.03	108	0.9	-0.001	6.2	0.007	>10000	2.78	2000	-0.1	25.9	1.1	0.1	35	-0.001	4	-0.1	10000	100
1480120	0.1	7	1.25	746	0.4	0.01	83.4	0.096	>10000	0.24	200.7	10.6	0.8	-0.2	0.5	154	0.002	36	-0.1	8152	15.91
1480121	0.14	4	0.12	2399	2.7	0.01	180.5	0.1	>10000	0.76	2000	16.7	2.4	2.8	0.9	46	0.004	56	-0.1	10000	3.32
1480122	0.08	9	0.66	3189	1.5	0.006	43.7	0.092	1325.5	0.11	22.5	8.1	1.1	-0.2	0.9	80	0.001	19	-0.1	10000	9.65
1480123	0.04	2	0.18	3359	0.7	0.003	59.5	0.004	>10000	0.2	194.5	7.2	4.4	-0.2	0.2	19	-0.001	19	-0.1	10000	55.61
1480124	0.05	2	0.12	3111	1.3	0.004	56.2	0.02	>10000	0.72	361.1	5.8	3.7	-0.2	0.3	22	0.002	18	-0.1	10000	27.26
1480125	0.09	15	2.44	1187	0.6	0.053	182	0.168	2670.3	-0.05	73	18	-0.5	-0.2	1	304	0.003	78	-0.1	580	0.51
1480126	0.1	17	1.35	1295	1.2	0.034	157	0.166	1541.2	-0.05	69.8	19.8	-0.5	-0.2	0.9	197	0.004	66	-0.1	1549	0.59

1480127	0.09	9	1.33	2189	0.9	0.037	147.6	0.154	>10000	0.25	70.4	17.2	1.5	-0.2	0.8	170	0.004	65	-0.1	10000	10.22
1480128	0.1	10	0.69	1197	0.9	0.026	168.1	0.254	>10000	1.51	162.1	16	-0.5	-0.2	1.1	152	0.005	78	0.2	10000	7.47
1480129	0.11	9	0.82	1871	2	0.026	233.7	0.16	>10000	0.97	300.5	17.1	1.7	-0.2	1.1	104	0.005	73	-0.1	10000	11.01
1480130	0.16	14	0.68	1211	1.4	0.032	288.3	0.141	2838.2	0.07	134.7	22.6	0.5	-0.2	1.6	99	0.005	80	-0.1	10000	4.57
1480131	0.14	25	0.53	1459	1.3	0.038	306.1	0.198	489.1	-0.05	72.5	25.6	-0.5	-0.2	1.8	125	0.007	134	-0.1	3850	2.4
1480132	0.12	15	0.33	1404	2	0.014	184.5	0.163	655.1	-0.05	103.5	14	0.7	-0.2	1.1	81	0.006	51	-0.1	10000	2.96
1480133	0.15	15	0.89	2310	1.7	0.013	140.9	0.128	1091.8	-0.05	114.2	15.3	1.4	-0.2	0.9	181	0.005	58	-0.1	10000	8.98
1480134	0.12	24	2.3	1375	1.9	0.008	287.5	0.243	552.8	-0.05	70.4	20.1	-0.5	-0.2	1.2	167	0.007	151	-0.1	7249	3.08
1480135	0.19	32	0.26	1683	0.9	0.045	35	0.276	362.4	-0.05	90.9	10.4	-0.5	-0.2	2.5	155	0.005	81	-0.1	1918	1.83
1480136	0.06	3	0.09	342	1.2	-0.001	14.2	0.058	>10000	3.88	2000	2.5	10.8	0.5	0.5	45	0.004	12	-0.1	10000	66.63
1480137	0.05	4	0.09	401	0.8	0.008	12.1	0.034	>10000	0.86	2000	2.7	4.3	0.3	0.7	27	0.005	14	-0.1	10000	35.78
1480138	0.13	26	1.07	1513	1.1	0.035	66.4	0.386	206.5	0.25	36.2	18.3	0.6	-0.2	2.7	190	0.007	123	-0.1	215	0.53
1480139	0.04	40	0.56	1743	1.4	0.009	73.8	0.428	150.2	-0.05	17.9	18	-0.5	-0.2	3.9	119	0.007	249	-0.1	423	0.88
1480140	0.03	46	1.51	1802	1.2	0.007	87.1	0.456	161.5	-0.05	20.8	19.8	-0.5	-0.2	4.2	163	0.012	271	-0.1	617	0.86
1480141	0.05	31	1.79	972	0.7	0.007	44.9	0.255	240.4	-0.05	14.2	9.1	-0.5	-0.2	2.4	204	0.017	164	-0.1	343	0.6
1480142	0.04	34	2.45	1151	0.7	0.028	50.3	0.315	174.6	-0.05	18	11.3	-0.5	-0.2	2.3	260	0.033	221	-0.1	336	0.62
1480143	0.03	58	3.43	1597	0.5	0.024	57.9	0.446	198.5	-0.05	9.2	12.6	-0.5	-0.2	3.1	419	0.034	274	-0.1	390	0.66
1480144	0.11	59	3.53	1528	0.5	0.009	49	0.396	55.9	-0.05	5.5	9.7	-0.5	-0.2	3.1	334	0.02	232	-0.1	279	0.28
1480251	-0.01	2	0.09	173	0.3	0.004	8	0.025	535.1	-0.05	48.8	0.3	-0.5	-0.2	0.1	38	-0.001	4	-0.1	195	0.62
1480271	0.02	-1	0.16	966	2.9	0.005	24.1	-0.001	145.2	2.56	6	1.6	2.4	-0.2	1.9	4	-0.001	5	-0.1	109	0.09
1480272	0.09	1	0.05	176	0.4	0.007	20.3	0.015	10.6	-0.05	3.1	1.9	-0.5	-0.2	-0.1	207	-0.001	2	-0.1	19	0.07
1480273	-0.01	-1	0.09	157	0.3	0.003	4.6	0.003	42.5	-0.05	19.7	0.8	-0.5	-0.2	-0.1	22	-0.001	3	-0.1	64	0.21
1480274	0.03	5	0.24	320	0.3	0.006	19.1	0.029	1.4	-0.05	1.9	3.1	-0.5	-0.2	0.2	95	0.002	11	-0.1	15	0.02
1480275	0.02	5	0.08	248	0.3	0.006	9.2	0.047	5.3	-0.05	5	1.8	-0.5	-0.2	0.2	154	-0.001	4	-0.1	11	0.03
1480276	0.02	-1	0.02	216	0.2	0.001	6.7	0.051	209.2	-0.05	1125.1	1.2	-0.5	2.1	0.2	16	-0.001	5	-0.1	512	25.99
1480277	-0.01	-1	-0.01	75	0.4	0.001	5.6	0.002	1768.1	0.17	30.6	0.6	7.5	0.5	-0.1	17	-0.001	1	-0.1	53	0.3
1480278	0.01	-1	-0.01	134	0.4	-0.001	4.9	0.007	134.5	-0.05	6.3	0.9	-0.5	-0.2	-0.1	23	-0.001	2	-0.1	47	0.13

Appendix IV.

Soil Descriptions & Data

Sample #	Easting	Northing	Org_pct	Frag_pct	Depth_cm	Horizon	Colour	Quality	Certificate	Ag_Equiv	Au_Best_ppm	Ag_Best_ppm
1480501	481448	7136311	10	25	25	BC	BRN	POOR	WHI18000334	1.7204	0.0073	0.05
1480502	481484	7136276	10	15	25	BC	BRN	EXC	WHI18000334	24.5588	0.008	1
1480503	481519	7136240	15	15	25	BC	ORA	EXC	WHI18000334	7.2418	0.0053	0.4
1480504	481554	7136205	10	30	25	BC	ORA	EXC	WHI18000334	3.3699	0.0134	0.1
1480505	481201	7136488	0	20	30	Bc	BRN	EXC	WHI18000334	1.1294	0.0038	0.05
1480506	481236	7136452	5	30	40	Bc	BRN	EXC	WHI18000334	2.3786	0.009	0.05
1480507	481272	7136417	5	20	50	Bc	BRN	POOR	WHI18000334	1.2005	0.0014	0.05
1480508	481307	7136382	5	30	30	Bc	LBR	GOOD	WHI18000334	1.5083	0.0043	0.05
1480509	481342	7136346	15	30	30	Bc	BRN	GOOD	WHI18000334	1.3679	0.0023	0.05
1480510	481378	7136311	0	20	20	Bc	BRN	GOOD	WHI18000334	1.561	0.0046	0.05
1480511	481413	7136276	5	30	50	Bc	BRN	EXC	WHI18000334	1.6256	0.0022	0.05
1480512	481448	7136240	0	30	60	C	LBR	GOOD	WHI18000334	2.0375	0.0083	0.05
1480513	481484	7136205	0	30	50	C	ORA	GOOD	WHI18000334	3.2634	0.0035	0.3
1480514	481519	7136169	0	10	50	B	BRN	GOOD	WHI18000334	10.1769	0.0558	0.4
1480515	481554	7136134	0	10	60	B	BRN	GOOD	WHI18000334	2.3638	0.0076	0.1
1480516	481166	7136452	5	20	50	BC	BRN	GOOD	WHI18000334	1.3491	0.0034	0.05
1480517	481201	7136417	5	20	30	BC	BRN	GOOD	WHI18000334	1.3791	0.0032	0.1
1480518	481236	7136382	0	30	70	BC	LBR	GOOD	WHI18000334	1.9156	0.0092	0.05
1480519	481272	7136346	0	20	50	BC	BRN	EXC	WHI18000334	1.0984	0.0018	0.05
1480520	481307	7136311	0	30	60	C	LBR	EXC	WHI18000334	1.9415	0.0013	0.05
1480521	481342	7136276	0	30	70	C	LBR	EXC	WHI18000334	1.3294	0.0024	0.05
1480522	481378	7136240	0	30	60	Bc	LBR	EXC	WHI18000334	1.3311	0.0017	0.05
1480523	481413	7136205	0	30	60	Bc	LBR	EXC	WHI18000334	8.2683	0.0045	0.4
1480524	481448	7136169	5	20	50	Bc	BRN	GOOD	WHI18000334	4.7513	0.0116	0.3
1480525	481484	7136134	10	30	30	Bc	BRN	GOOD	WHI18000334	3.3148	0.0122	0.1
1480526	481519	7136099	0	30	70	Bc	BRN	EXC	WHI18000334	3.6843	0.0181	0.2
1480527	481130	7136417	0	30	30	B	LBR	GOOD	WHI18000334	2.8228	0.023	0.05
1480528	481166	7136382	0	30	20	B	LBR	GOOD	WHI18000334	0.9172	0.0024	0.05
1480529	481201	7136346	0	30	60	C	LBR	GOOD	WHI18000334	1.2741	0.00025	0.05
1480530	481236	7136311	10	30	60	C	LBR	GOOD	WHI18000334	2.3679	0.003	0.05
1480531	481272	7136276	10	30	50	B	LBR	GOOD	WHI18000334	1.8963	0.0092	0.05
1480532	481625	7135710	0	20	30	BC	BRN	GOOD	WHI18000483	5.7582	0.0036	0.3
1480533	481661	7135674	0	20	30	BC	BRN	GOOD	WHI18000483	4.4584	0.007	0.2
1480534	481448	7135816	10	15	30	BC	BRN	GOOD	WHI18000483	79.5446	0.0186	2.3
1480535	481484	7135781	10	20	30	BC	DBR	GOOD	WHI18000483	9.2487	0.0113	0.9
1480536	481519	7135745	10	20	30	BC	DBR	GOOD	WHI18000483	5.8151	0.0065	0.3
1480538	481590	7135674	0	20	40	BC	LBR	GOOD	WHI18000483	22.9396	0.0471	1.1
1480539	481625	7135639	0	20	30	BC	DBR	GOOD	WHI18000483	6.0976	0.0077	0.3
1480540	481448	7135745	0	20	20	BC	BRN	GOOD	WHI18000483	26.7914	0.0128	1.2
1480541	481484	7135710	0	20	20	BC	BRN	GOOD	WHI18000483	5.2402	0.0053	0.3
1480542	481519	7135674	0	20	30	BC	BRN	GOOD	WHI18000483	3.6026	0.0028	0.2
1480543	481554	7135639	0	20	20	BC	LBR	GOOD	WHI18000483	5.5231	0.0044	0.4
1480544	481590	7135604	0	20	30	BC	BRN	GOOD	WHI18000483	9.179	0.0045	0.7
1480545	481342	7135781	0	20	20	BC	BRN	GOOD	WHI18000483	55.498	0.0357	2.5
1480546	481378	7135745	0	20	20	BC	BRN	GOOD	WHI18000483	79.3866	0.1637	4.9
1480547	481413	7135710	0	20	30	BC	BRN	GOOD	WHI18000483	7.3521	0.003	0.2
1480548	481448	7135674	0	20	30	BC	BRN	GOOD	WHI18000483	16.9857	0.0064	0.8
1480549	481484	7135639	0	20	30	BC	BRN	GOOD	WHI18000483	2.6699	0.0023	0.2
1480550	481519	7135604	0	20	30	BC	BRN	GOOD	WHI18000483	1.4842	0.00025	0.1
1480551	481554	7135568	0	20	30	BC	BRN	GOOD	WHI18000483	1.4361	0.0018	0.1

1480552	481307	7135745	0	20	10	BC	BRN	GOOD	WHI18000483	32.7743	0.0126	1.7
1480553	481342	7135710	0	20	10	BC	BRN	GOOD	WHI18000483	65.4986	0.0253	2.3
1480554	481378	7135674	0	20	60	BC	BRN	GOOD	WHI18000483	3.3565	0.0037	0.2
1480555	481413	7135639	0	20	60	BC	BRN	GOOD	WHI18000483	6.3923	0.0037	0.3
1480556	481448	7135604	0	20	30	BC	BRN	GOOD	WHI18000483	3.4527	0.0022	0.1
1480557	481484	7135568	0	20	40	BC	BRN	GOOD	WHI18000483	2.4508	0.0064	0.2
1480558	481519	7135533	0	20	30	BC	BRN	GOOD	WHI18000483	1.9502	0.0023	0.2
1480559	481272	7135710	0	20	10	BC	BRN	GOOD	WHI18000483	98.8098	0.0215	10.2
1480560	481307	7135674	0	20	30	BC	BRN	GOOD	WHI18000483	35.6009	0.012	3.8
1480561	481342	7135639	0	20	30	BC	BRN	GOOD	WHI18000483	62.4576	0.033	2.7
1480562	481378	7135604	0	20	30	BC	BRN	GOOD	WHI18000483	3.3893	0.0015	0.2
1480563	481413	7135568	0	20	30	BC	BRN	GOOD	WHI18000483	2.9296	0.0013	0.3
1480564	481448	7135533	0	20	30	BC	BRN	GOOD	WHI18000483	2.4192	0.0006	0.3
1480565	481484	7135498	0	20	30	BC	BRN	GOOD	WHI18000483	1.7487	0.0044	0.05
1480566	481201	7135710	0	20	70	BC	OBR	EXC	WHI18000483	14.1214	0.0073	1.6
1480567	481236	7135674	0	20	80	BC	OBR	EXC	WHI18000483	7.7265	0.0132	0.6
1480568	481272	7135639	0	20	70	BC	OBR	EXC	WHI18000483	10.0365	0.0059	1.3
1480569	481307	7135604	0	20	90	BC	OBR	EXC	WHI18000483	3.2845	0.0011	0.2
1480570	481342	7135568	0	20	90	BC	OBR	EXC	WHI18000483	26.5654	0.0069	1.9
1480571	481378	7135533	0	20	90	BC	OBR	EXC	WHI18000483	3.2907	0.0034	0.1
1480572	481413	7135498	0	20	70	BC	OBR	EXC	WHI18000483	1.875	0.0015	0.05
1480573	481448	7135462	0	20	70	BC	OBR	EXC	WHI18000483	1.6629	0.0036	0.05
1480574	481166	7135674	0	20	90	BC	OBR	EXC	WHI18000483	14.2229	0.0047	1.1
1480575	481201	7135639	0	20	80	BC	OBR	EXC	WHI18000483	44.8474	0.0039	5.2
1480576	481236	7135604	0	20	70	BC	OBR	EXC	WHI18000483	4.0538	0.0047	0.4
1480577	481272	7135568	0	20	70	BC	OBR	EXC	WHI18000483	23.4596	0.0063	4
1480578	481307	7135533	0	20	80	BC	OBR	EXC	WHI18000483	4.3832	0.0019	0.4
1480579	481342	7135498	0	20	70	BC	OBR	EXC	WHI18000483	5.8962	0.0051	0.3
1480580	481378	7135462	0	20	70	BC	OBR	EXC	WHI18000483	4.5922	0.0035	0.2
1480581	481413	7135427	0	20	80	BC	OBR	EXC	WHI18000483	1.4663	0.0036	0.05
1480582	480989	7135781	0	20	50	BC	BRN	GOOD	WHI18000483	0.9842	0.0015	0.05
1480583	481024	7135745	0	20	60	BC	BRN	GOOD	WHI18000483	1.0313	0.0007	0.05
1480584	481059	7135710	0	20	120	BC	BRN	GOOD	WHI18000483	1.6466	0.008	0.05
1480585	481095	7135674	0	20	80	BC	OBR	GOOD	WHI18000483	8.9636	0.0064	0.6
1480586	481130	7135639	0	20	70	BC	OBR	GOOD	WHI18000483	6.6281	0.004	0.4
1480587	481166	7135604	0	20	80	BC	OBR	GOOD	WHI18000483	10.2207	0.0085	0.7
1480588	481201	7135568	0	20	80	BC	BRN	EXC	WHI18000483	17.4159	0.0059	3.5
1480589	481236	7135533	0	20	80	BC	OBR	EXC	WHI18000483	6.1088	0.0032	0.3
1480590	481272	7135498	0	20	70	BC	OBR	EXC	WHI18000483	14.7891	0.0037	2.1
1480591	481307	7135462	0	20	70	BC	OBR	EXC	WHI18000483	1.9779	0.0043	0.05
1480592	481342	7135427	0	20	70	BC	OBR	EXC	WHI18000483	2.1941	0.0038	0.2
1480593	481378	7135392	0	20	70	BC	OBR	EXC	WHI18000483	3.4501	0.0021	0.2
1480594	480918	7135781	0	20	70	BC	BRN	GOOD	WHI18000483	0.7773	0.00025	0.05
1480595	480953	7135745	0	20	70	BC	LBR	GOOD	WHI18000483	1.3828	0.00025	0.05
1480596	480989	7135710	0	20	70	BC	LBR	GOOD	WHI18000483	1.4621	0.00025	0.05
1480597	481024	7135674	0	20	70	BC	LBR	GOOD	WHI18000483	1.3998	0.0051	0.05
1480598	481059	7135639	0	20	70	BC	LBR	GOOD	WHI18000483	1.5248	0.005	0.05
1480599	481095	7135604	0	20	70	BC	OBR	GOOD	WHI18000483	1.2983	0.003	0.05
1480600	481130	7135568	0	20	70	BC	OBR	GOOD	WHI18000483	5.2012	0.0033	0.3
1480601	481166	7135533	0	20	70	BC	OBR	GOOD	WHI18000483	6.2864	0.0055	0.4
1480602	481201	7135498	0	20	80	BC	OBR	GOOD	WHI18000483	6.5192	0.0049	0.5
1480603	481236	7135462	0	20	90	BC	OBR	GOOD	WHI18000483	5.4013	0.0036	0.4
1480604	481272	7135427	0	20	70	BC	OBR	GOOD	WHI18000483	9.6578	0.0025	0.8
1480605	481307	7135392	0	20	70	BC	OBR	EXC	WHI18000483	1.7629	0.0024	0.2
1480606	481342	7135356	0	20	70	BC	OBR	GOOD	WHI18000483	2.1309	0.0016	0.3

1480607	480883	7135745	0	20	70	BC	BRN	GOOD	WHI18000483	0.7163	0.0009	0.05
1480608	480918	7135710	0	20	70	BC	BRN	GOOD	WHI18000483	1.0883	0.0037	0.05
1480609	480953	7135674	0	20	70	BC	OBR	GOOD	WHI18000483	0.7827	0.002	0.05
1480610	480989	7135639	0	10	40	BC	BRN	POOR	WHI18000483	1.0058	0.002	0.05
1480612	481059	7135568	0	20	70	BC	BRN	GOOD	WHI18000483	3.7197	0.0033	0.3
1480613	481095	7135533	0	20	70	BC	OBR	GOOD	WHI18000483	2.5621	0.0035	0.2
1480614	481130	7135498	0	20	70	BC	OBR	GOOD	WHI18000483	3.2817	0.006	0.05
1480615	481166	7135462	0	20	70	BC	OBR	GOOD	WHI18000483	5.4736	0.0091	0.3
1480640	481625	7136629	0	20	10	BC	OBR	GOOD	WHI18000483	2.8555	0.0029	0.1
1480643	481554	7136629	0	10	20	BC	DBR	POOR	WHI18000483	1.3873	0.0018	0.1
1480644	481590	7136594	0	20	10	BC	DBR	GOOD	WHI18000483	4.1045	0.0061	0.4
1480645	481625	7136558	0	20	10	BC	DBR	GOOD	WHI18000483	7.8761	0.0075	0.2
1480646	481554	7136558	0	20	30	BC	BRN	GOOD	WHI18000483	2.159	0.0046	0.1
1480647	481590	7136523	0	25	10	BC	BRN	GOOD	WHI18000483	12.2585	0.0027	0.3
1480648	481413	7136629	0	20	15	BC	OBR	GOOD	WHI18000483	4.2533	0.0028	0.2
1480649	481448	7136594	0	20	15	BC	OBR	GOOD	WHI18000483	6.3999	0.0082	0.3
1480650	481342	7136629	10	20	15	AB	OBR	GOOD	WHI18000483	1.4983	0.0037	0.05
1480651	481378	7136594	10	20	15	AB	OBR	GOOD	WHI18000483	1.2049	0.0031	0.05
1480652	481413	7136558	5	25	15	BC	BRN	GOOD	WHI18000483	25.5122	0.0242	2.6
1480653	481272	7136629	10	20	15	BC	BRN	GOOD	WHI18000483	1.9457	0.005	0.05
1480654	481307	7136594	10	20	15	AB	BRN	GOOD	WHI18000483	1.2247	0.0016	0.2
1480655	481342	7136558	10	20	15	AB	BRN	GOOD	WHI18000483	1.3343	0.0043	0.05
1480656	481201	7136629	10	20	15	AB	BRN	GOOD	WHI18000483	1.6562	0.005	0.05
1480657	481236	7136594	10	20	15	AB	BRN	GOOD	WHI18000483	1.6687	0.0077	0.05
1480658	481272	7136558	10	20	15	AB	BRN	GOOD	WHI18000483	1.7047	0.0017	0.1
1480659	481307	7136523	10	20	15	AB	BRN	GOOD	WHI18000483	1.7224	0.0082	0.05
1480660	481236	7136523	10	20	15	AB	BRN	GOOD	WHI18000483	0.9166	0.0011	0.05
1480661	481272	7136488	10	20	15	AB	BRN	GOOD	WHI18000483	1.4513	0.0055	0.05
1480662	480918	7136841	0	20	30	BC	BRN	GOOD	WHI18000402	1.3932	0.0014	0.05
1480663	480953	7136806	10	20	30	BC	BRN	GOOD	WHI18000402	1.8976	0.0014	0.05
1480664	480989	7136770	0	20	30	BC	BRN	GOOD	WHI18000402	1.3544	0.00025	0.05
1480665	481024	7136735	0	20	30	BC	BRN	GOOD	WHI18000402	1.6413	0.0049	0.05
1480666	481059	7136700	0	20	30	BC	BRN	GOOD	WHI18000402	1.2869	0.0027	0.05
1480667	481095	7136664	0	20	30	BC	BRN	GOOD	WHI18000402	1.1345	0.0022	0.05
1480668	481130	7136629	10	30	30	BC	BRN	GOOD	WHI18000402	1.2808	0.0041	0.05
1480669	481166	7136594	0	30	30	BC	LBR	GOOD	WHI18000402	1.9705	0.0116	0.05
1480670	481201	7136558	0	20	20	BC	LBR	GOOD	WHI18000402	1.0609	0.0026	0.05
1480671	480883	7136806	0	20	30	BC	LBR	GOOD	WHI18000402	1.4858	0.0034	0.05
1480672	480918	7136770	0	20	30	BC	BRN	GOOD	WHI18000402	1.4347	0.0012	0.05
1480673	480953	7136735	0	20	30	BC	BRN	GOOD	WHI18000402	1.5577	0.0056	0.05
1480674	480989	7136700	0	20	30	BC	LBR	POOR	WHI18000402	1.2367	0.001	0.05
1480676	481059	7136629	10	30	30	BC	BRN	GOOD	WHI18000402	1.1499	0.002	0.05
1480677	481095	7136594	10	30	30	BC	LBR	GOOD	WHI18000402	1.2674	0.0031	0.05
1480678	481130	7136558	10	30	30	BC	BRN	GOOD	WHI18000402	1.223	0.0035	0.05
1480679	481166	7136523	0	30	20	BC	BRN	GOOD	WHI18000402	1.5616	0.0043	0.05
1480680	480847	7136770	0	20	10	BC	BRN	GOOD	WHI18000402	1.2728	0.0015	0.1
1480681	480883	7136735	0	20	10	BC	BRN	GOOD	WHI18000402	1.2091	0.0023	0.05
1480682	480918	7136700	0	20	10	BC	BRN	GOOD	WHI18000402	1.7401	0.0031	0.05
1480683	480953	7136664	0	20	60	BC	BRN	GOOD	WHI18000402	1.6413	0.0032	0.05
1480684	480989	7136629	0	30	10	BC	BRN	GOOD	WHI18000402	1.2973	0.0021	0.05
1480685	481024	7136594	0	30	10	BC	BRN	GOOD	WHI18000402	1.4008	0.0031	0.05
1480686	481059	7136558	0	30	10	BC	BRN	GOOD	WHI18000402	1.3817	0.0027	0.05
1480687	481095	7136523	0	30	10	BC	BRN	GOOD	WHI18000402	1.3099	0.0022	0.05
1480688	481130	7136488	5	25	70	BC	BRN	GOOD	WHI18000402	1.2191	0.0028	0.05
1480689	480812	7136735	0	20	30	BC	OBR	GOOD	WHI18000402	3.3214	0.0059	0.3

1480690	480847	7136700	0	30	10	BC	OBR	EXC	WHI18000402	2.4295	0.0039	0.2
1480691	480883	7136664	0	30	10	BC	BRN	POOR	WHI18000402	1.6411	0.0017	0.05
1480692	480918	7136629	0	30	10	BC	BRN	GOOD	WHI18000402	1.1494	0.0031	0.05
1480693	480953	7136594	0	30	10	BC	BRN	GOOD	WHI18000402	1.378	0.0042	0.05
1480694	480989	7136558	0	30	10	BC	BRN	GOOD	WHI18000402	1.3079	0.0017	0.05
1480695	481024	7136523	0	30	10	BC	BRN	GOOD	WHI18000402	1.2762	0.0021	0.05
1480696	481059	7136488	0	30	10	BC	BRN	GOOD	WHI18000402	1.7931	0.0058	0.05
1480697	481095	7136452	0	30	110	BC	BRN	EXC	WHI18000402	0.9752	0.0012	0.05
1480698	480777	7136700	10	30	30	BC	BRN	GOOD	WHI18000402	2.1501	0.0064	0.1
1480699	480812	7136664	10	30	20	BC	DBR	POOR	WHI18000402	1.2994	0.0029	0.1
1480700	480847	7136629	10	30	30	BC	BRN	GOOD	WHI18000402	1.0225	0.0021	0.05
1480701	480883	7136594	10	30	30	BC	BRN	GOOD	WHI18000402	1.2614	0.0054	0.05
1480702	480918	7136558	0	20	30	BC	BRN	GOOD	WHI18000402	1.0354	0.001	0.05
1480703	480953	7136523	10	30	30	BC	BRN	GOOD	WHI18000402	2.1409	0.0141	0.05
1480704	480989	7136488	0	30	30	BC	BRN	GOOD	WHI18000402	1.2026	0.0019	0.05
1480705	481024	7136452	0	30	30	BC	LBR	GOOD	WHI18000402	1.5954	0.0051	0.05
1480706	481059	7136417	0	30	30	BC	BRN	GOOD	WHI18000402	0.9505	0.001	0.05
1480707	480741	7136664	30	20	20	BC	BRN	POOR	WHI18000402	2.1359	0.0014	0.2
1480708	480777	7136629	0	30	10	B	BRN	GOOD	WHI18000402	2.106	0.005	0.05
1480709	480812	7136594	0	30	10	B	BRN	GOOD	WHI18000402	1.6279	0.0047	0.05
1480710	480847	7136558	0	30	10	B	BRN	GOOD	WHI18000402	1.2331	0.0038	0.05
1480711	480883	7136523	0	30	10	B	BRN	GOOD	WHI18000402	1.3172	0.0011	0.05
1480712	480918	7136488	0	30	20	BC	DBR	GOOD	WHI18000402	1.5215	0.0016	0.05
1480713	480953	7136452	0	20	60	BC	BRN	GOOD	WHI18000402	1.5006	0.0026	0.05
1480714	480989	7136417	0	15	70	BC	LBR	EXC	WHI18000402	1.5255	0.0008	0.05
1480715	480706	7136629	0	30	10	BC	BRN	GOOD	WHI18000402	1.1952	0.0018	0.05
1480716	480741	7136594							WHI18000402	2.2381	0.0013	0.1
1480717	480777	7136558	0	30	10	BC	BRN	GOOD	WHI18000402	1.1755	0.0023	0.05
1480718	480812	7136523	0	30	10	BC	BRN	GOOD	WHI18000402	1.7737	0.00025	0.05
1480719	480847	7136488	0	30	10	BC	BRN	GOOD	WHI18000402	1.3614	0.00025	0.05
1480720	480883	7136452	0	20	80	BC	BRN	GOOD	WHI18000402	1.3235	0.0006	0.05
1480721	480918	7136417	0	20	80	C	LBR	EXC	WHI18000402	1.2765	0.0006	0.05
1480722	480671	7136594	0	20	40	BC	LBR	EXC	WHI18000402	1.6674	0.00025	0.05
1480723	480706	7136558	0	10	60	C	LBR	EXC	WHI18000402	1.2082	0.00025	0.05
1480724	480741	7136523	0	10	70	C	LBR	EXC	WHI18000402	1.2116	0.0016	0.05
1480725	480777	7136488	0	10	40	C	LBR	EXC	WHI18000402	1.3631	0.0019	0.05
1480726	480812	7136452	0	10	50	C	LBR	EXC	WHI18000402	1.2239	0.00025	0.05
1480727	480635	7136558	0	30	10	B	BRN	GOOD	WHI18000402	2.0233	0.0012	0.05
1480728	480671	7136523	0	30	50	BC	LBR	EXC	WHI18000402	1.7138	0.0043	0.05
1480729	480847	7136417	0	30	20	BC	LBR	GOOD	WHI18000404	1.4453	0.0023	0.05
1480730	480883	7136382	0	30	20	BC	LBR	GOOD	WHI18000404	1.3738	0.0023	0.05
1480731	480706	7136488	0	20	20	BC	LBR	GOOD	WHI18000404	0.675	0.0024	0.05
1480732	480741	7136452	0	20	30	BC	LBR	GOOD	WHI18000404	1.478	0.0013	0.05
1480733	480777	7136417	0	20	30	BC	LBR	GOOD	WHI18000404	1.3342	0.002	0.05
1480734	480812	7136382	0	20	30	BC	LBR	GOOD	WHI18000404	10.2602	0.1142	0.05
1480735	480847	7136346	0	20	30	BC	LBR	GOOD	WHI18000404	1.5359	0.00025	0.05
1480736	480883	7136311	0	30	20	BC	BRN	GOOD	WHI18000404	3.5828	0.0077	0.2
1480737	480565	7136558	0	30	20	BC	LBR	GOOD	WHI18000404	2.1993	0.0039	0.05
1480740	480671	7136452	0	20	30	BC	LBR	GOOD	WHI18000404	0.8317	0.001	0.05
1480741	480706	7136417	0	20	40	BC	LBR	GOOD	WHI18000404	1.0798	0.0013	0.05
1480742	480741	7136382	0	20	50	BC	LBR	GOOD	WHI18000404	1.2302	0.0011	0.05
1480743	480777	7136346	0	20	50	BC	LBR	GOOD	WHI18000404	1.4069	0.0014	0.05
1480744	480812	7136311	10	10	50	BC	DBR	GOOD	WHI18000404	3.09	0.0079	0.1
1480746	480529	7136523	0	30	20	BC	BRN	GOOD	WHI18000404	1.4782	0.0019	0.05
1480747	480565	7136488	0	10	60	BC	LBR	GOOD	WHI18000404	1.4588	0.0013	0.05

1480748	480600	7136452	0	20	30	BC	LBR	GOOD	WHI18000404	1.7623	0.0014	0.05
1480749	480635	7136417	0	20	50	BC	LBR	GOOD	WHI18000404	1.329	0.00025	0.05
1480750	480671	7136382	0	20	30	BC	LBR	GOOD	WHI18000404	1.5759	0.0029	0.05
1480751	480706	7136346	0	20	40	BC	BRN	GOOD	WHI18000404	1.0086	0.0011	0.05
1480752	480741	7136311	0	20	40	BC	BRN	GOOD	WHI18000404	2.0319	0.0108	0.05
1480753	480777	7136276	0	30	10	BC	ORA	GOOD	WHI18000404	4.2283	0.0089	0.1
1480754	480812	7136240	0	30	10	BC	LBR	GOOD	WHI18000404	4.1631	0.0129	0.1
1480755	480494	7136488	0	15	60	BC	LBR	EXC	WHI18000404	1.4282	0.0019	0.05
1480756	480529	7136452	0	20	40	BC	BRN	GOOD	WHI18000404	1.3183	0.0031	0.05
1480758	480600	7136382	0	20	60	BC	LBR	EXC	WHI18000404	1.5717	0.0037	0.05
1480759	480635	7136346	0	20	50	BC	BRN	GOOD	WHI18000404	0.837	0.0008	0.05
1480760	480671	7136311	0	20	50	BC	BRN	GOOD	WHI18000404	8.1533	0.0064	0.3
1480761	480706	7136276	0	20	50	BC	BRN	GOOD	WHI18000404	1.1023	0.0011	0.05
1480762	480741	7136240	0	10	40	BC	BRN	POOR	WHI18000404	3.0519	0.0022	0.1
1480763	480777	7136205	0	15	30	BC	BRN	GOOD	WHI18000404	2.1826	0.0038	0.2
1480764	480458	7136452	0	15	50	BC	BRN	GOOD	WHI18000404	2.5763	0.0065	0.3
1480765	480494	7136417	0	15	40	BC	BRN	GOOD	WHI18000404	0.8204	0.0014	0.05
1480766	480529	7136382	0	15	50	BC	BRN	GOOD	WHI18000404	1.0901	0.0045	0.05
1480767	480565	7136346	0	15	50	BC	BRN	GOOD	WHI18000404	0.893	0.0014	0.05
1480768	480600	7136311	5	10	50	BC	BRN	GOOD	WHI18000404	1.1061	0.0026	0.05
1480769	480635	7136276	0	20	30	BC	BRN	GOOD	WHI18000404	1.4505	0.0017	0.05
1480770	480671	7136240	20	0	70	AB	BRN	POOR	WHI18000404	10.0344	0.0063	0.3
1480771	480706	7136205	0	15	40	BC	BRN	GOOD	WHI18000404	2.1763	0.0059	0.1
1480772	480741	7136169	10	15	40	BC	BRN	GOOD	WHI18000404	5.4804	0.0073	0.6
1480773	480423	7136417	0	15	70	BC	OBR	EXC	WHI18000404	2.1611	0.0063	0.2
1480774	480458	7136382	15	10	30	AB	BRN	POOR	WHI18000404	1.2813	0.0032	0.1
1480775	480494	7136346	0	20	70	BC	BRN	GOOD	WHI18000404	1.4701	0.0024	0.05
1480776	480529	7136311	0	20	70	BC	BRN	EXC	WHI18000404	1.2184	0.0021	0.05
1480777	480565	7136276	0	20	60	BC	BRN	GOOD	WHI18000404	1.3769	0.0054	0.05
1480778	480600	7136240	0	15	50	BC	BRN	GOOD	WHI18000404	1.2328	0.0016	0.05
1480780	480671	7136169	0	20	40	BC		GOOD	WHI18000404	5.6378	0.0032	0.3
1480782	480741	7136099	0	20	20	BC		GOOD	WHI18000404	2.388	0.0051	0.05
1480783	480388	7136382	0	25	70	BC	OBR	EXC	WHI18000404	2.0009	0.0028	0.05
1480784	480423	7136346	0	25	70	BC	OBR	EXC	WHI18000404	1.213	0.0049	0.05
1480785	480458	7136311	0	25	70	BC	OBR	EXC	WHI18000404	1.3222	0.0031	0.05
1480786	480494	7136276	0	25	50	BC	OBR	EXC	WHI18000404	1.3255	0.0039	0.05
1480787	480529	7136240	0	25	60	BC	OBR	EXC	WHI18000404	1.2852	0.0032	0.05
1480788	480565	7136205	0	25	70	BC	OBR	EXC	WHI18000404	2.2295	0.0039	0.1
1480790	480635	7136134	0	25	70	BC	OBR	EXC	WHI18000404	2.5219	0.0019	0.2
1480791	480671	7136099	0	25	80	BC	OBR	EXC	WHI18000404	2.511	0.0062	0.05
1480792	480706	7136063	0	25	80	BC	LBR	EXC	WHI18000404	5.6805	0.0067	0.3
1480793	480352	7136346	0	20	70	BC	OBR	EXC	WHI18000404	1.639	0.002	0.05
1480794	480388	7136311	0	20	80	BC	OBR	EXC	WHI18000404	1.3764	0.0046	0.2
1480795	480423	7136276	0	20	70	BC	OBR	EXC	WHI18000404	0.9524	0.0009	0.05
1480796	480458	7136240	0	25	70	BC	OBR	EXC	WHI18000404	1.1142	0.0027	0.05
1480797	480494	7136205	0	25	90	BC	LBR	EXC	WHI18000404	1.2456	0.00025	0.05
1480798	480529	7136169	0	25	60	BC	OBR	EXC	WHI18000404	2.5938	0.0054	0.2
1480799	480565	7136134	0	25	70	BC	OBR	EXC	WHI18000404	3.419	0.0078	0.2
1480800	480600	7136099	0	20	80	BC	OBR	EXC	WHI18000404	1.9533	0.0046	0.05
1480801	480635	7136063	0	25	70	BC	OBR	EXC	WHI18000404	4.821	0.0069	0.2
1480802	480671	7136028	0	20	70	BC	OBR	EXC	WHI18000404	2.9053	0.0059	0.1
1480803	480317	7136311	0	25	60	BC	LBR	EXC	WHI18000404	1.6785	0.0029	0.05
1480804	480352	7136276	0	25	90	BC	LBR	EXC	WHI18000404	1.6517	0.0021	0.1
1480805	480388	7136240	0	25	80	BC	LBR	EXC	WHI18000404	1.1496	0.0024	0.05
1480806	480423	7136205	0	25	70	BC	LBR	EXC	WHI18000404	1.6108	0.0017	0.05

1480807	480458	7136169	0	25	90	BC	LBR	EXC	WHI18000404	1.3463	0.0014	0.05
1480808	480494	7136134	0	25	80	BC	OBR	EXC	WHI18000404	2.3968	0.0049	0.2
1480809	480529	7136099	0	25	70	BC	OBR	EXC	WHI18000404	1.8595	0.0036	0.05
1480810	480565	7136063	0	25	100	BC	OBR	EXC	WHI18000404	5.7859	0.0072	0.3
1480811	480600	7136028	0	25	70	BC	BRN	EXC	WHI18000404	2.2343	0.0038	0.05
1480812	480635	7135993	0	25	90	BC	BRN	EXC	WHI18000404	1.2942	0.0012	0.05
1480813	480282	7136276	0	25	80	BC	OBR	EXC	WHI18000404	1.4238	0.0016	0.05
1480814	480317	7136240	0	25	70	BC	OBR	EXC	WHI18000404	1.6113	0.0015	0.05
1480815	480352	7136205	0	25	70	BC	OBR	EXC	WHI18000404	1.5237	0.001	0.05
1480816	480388	7136169	0	25	90	BC	LBR	EXC	WHI18000404	1.5796	0.0027	0.05
1480817	480423	7136134	0	25	90	BC	LBR	EXC	WHI18000404	1.576	0.0046	0.05
1480818	480458	7136099	0	20	30	BC	BRN	GOOD	WHI18000404	2.2321	0.0034	0.1
1480819	480494	7136063	0	20	30	BC	LBR	GOOD	WHI18000404	1.332	0.0016	0.05
1480820	480529	7136028	0	20	30	BC	LBR	GOOD	WHI18000404	1.5745	0.0058	0.05
1480821	480565	7135993	0	20	30	BC	LBR	GOOD	WHI18000404	1.2472	0.0008	0.05
1480822	480600	7135957	0	20	30	BC	BRN	GOOD	WHI18000404	0.896	0.0016	0.05
1480823	480635	7135922	0	20	20	BC	DBR	GOOD	WHI18000404	1.6978	0.0055	0.05
1480824	480246	7136240	0	20	40	BC	DBR	GOOD	WHI18000404	1.3668	0.0025	0.05
1480825	480282	7136205	0	20	30	BC	BRN	GOOD	WHI18000404	1.2625	0.0016	0.05
1480826	480317	7136169	0	20	30	BC	LBR	GOOD	WHI18000404	1.6366	0.0013	0.05
1480827	480352	7136134	0	20	40	BC	LBR	GOOD	WHI18000404	1.5084	0.003	0.05
1480828	480388	7136099	0	20	40	BC	LBR	GOOD	WHI18000404	1.5911	0.0012	0.05
1480829	480423	7136063	0	20	30	BC	LBR	GOOD	WHI18000404	1.2742	0.0017	0.05
1480830	480458	7136028	0	20	40	BC	LBR	GOOD	WHI18000404	2.0745	0.0068	0.2
1480831	480494	7135993	0	20	30	BC	BRN	GOOD	WHI18000404	1.0342	0.0022	0.05
1480832	480529	7135957	0	20	30	BC	LBR	GOOD	WHI18000404	1.1268	0.0017	0.05
1480833	480565	7135922	0	20	30	BC	LBR	GOOD	WHI18000404	1.1858	0.0015	0.05
1480834	480600	7135887	0	20	20	BC	LBR	GOOD	WHI18000404	1.2355	0.0016	0.05
1480835	480211	7136205	0	10	30	BC	DBR	GOOD	WHI18000404	1.9191	0.0072	0.05
1480836	480246	7136169	0	20	60	BC	BRN	GOOD	WHI18000404	1.1441	0.0008	0.05
1480837	480282	7136134	0	20	40	BC	BRN	GOOD	WHI18000404	0.9891	0.0007	0.05
1480838	480317	7136099	0	20	30	BC	BRN	GOOD	WHI18000404	1.4183	0.0015	0.05
1480839	480352	7136063	0	20	40	BC	LBR	GOOD	WHI18000404	2.2405	0.007	0.05
1480840	480388	7136028	0	20	40	BC	LBR	GOOD	WHI18000404	1.4197	0.002	0.1
1480841	480423	7135993	0	20	40	BC	LBR	GOOD	WHI18000404	1.3424	0.0024	0.05
1480842	480458	7135957	0	20	40	BC	LBR	GOOD	WHI18000404	1.1166	0.0015	0.05
1480843	480494	7135922	0	20	30	BC	LBR	GOOD	WHI18000404	1.0971	0.0013	0.05
1480844	480529	7135887	0	20	20	BC	LBR	GOOD	WHI18000404	0.9923	0.0018	0.05
1480845	480565	7135851	0	20	20	BC	LBR	GOOD	WHI18000404	1.4801	0.0043	0.05
1480851	483004	7136382							WHI18000483	1.4951	0.0035	0.05
1480852	483039	7136346	0	10	30	BC	LBR	GOOD	WHI18000483	1.5024	0.0006	0.05
1480853	483075	7136311	0	10	30	BC	LBR	GOOD	WHI18000483	1.5569	0.00025	0.05
1480854	483110	7136276	0	10	30	BC	LBR	GOOD	WHI18000483	1.1838	0.00025	0.05
1480856	483181	7136205							WHI18000483	2.0148	0.0076	0.05
1480857	482969	7136346	0	20	30	BC	BRN	GOOD	WHI18000483	1.6359	0.0031	0.05
1480858	483004	7136311	0	20	30	BC	BRN	GOOD	WHI18000483	1.7971	0.0021	0.05
1480859	483039	7136276	0	20	30	BC	LBR	GOOD	WHI18000483	1.6149	0.001	0.05
1480860	483075	7136240	0	20	10	BC	LBR	GOOD	WHI18000483	3.603	0.0069	0.3
1480861	483110	7136205							WHI18000483	3.2346	0.0108	0.2
1480865	483004	7136240							WHI18000483	1.6136	0.0023	0.1
1480870	482933	7136240							WHI18000483	1.2484	0.0031	0.05
1480871	482969	7136205	5	30	15	AB	BRN	POOR	WHI18000483	4.6465	0.0054	0.1
1480872	483004	7136169	5	30	15	AB	BRN	POOR	WHI18000483	1.6904	0.0017	0.05
1480873	483039	7136134	5	30	15	AB	BRN	POOR	WHI18000483	1.1033	0.0012	0.05
1480874	483075	7136099	5	30	15	AB	BRN	POOR	WHI18000483	0.8412	0.0014	0.05

1480876	482898	7136205	0	30	10	BC	BRN	GOOD	WHI18000483	0.8788	0.00025	0.05
1480877	482933	7136169							WHI18000483	2.1053	0.0031	0.05
1480878	482969	7136134	0	0	30	BC	BRN	GOOD	WHI18000483	1.3062	0.0014	0.05
1480879	483004	7136099	10	0	30	BC	BRN	GOOD	WHI18000483	2.4119	0.00025	0.05
1480880	483039	7136063	5	30	15	AB	BRN	POOR	WHI18000483	1.0947	0.003	0.1
1480881	482368	7136099	0	20	50	BC	BRN	GOOD	WHI18000536	1.2407	0.0011	0.05
1480882	482403	7136063	0	0	60	BC	DBR	GOOD	WHI18000536	1.1407	0.0025	0.05
1480883	482438	7136028	0	0	60	BC	BRN	GOOD	WHI18000536	1.4782	0.00025	0.05
1480884	482474	7135993	0	20	50	BC	DBR	GOOD	WHI18000536	1.8468	0.0039	0.2
1480885	482509	7135957	0	20	30	BC	BRN	GOOD	WHI18000536	2.1313	0.0047	0.2
1480891	482332	7136063	0	0	40	BC	BRN	GOOD	WHI18000536	0.6801	0.0011	0.05
1480892	482368	7136028	0	0	60	BC	BRN	GOOD	WHI18000536	1.3554	0.00025	0.05
1480893	482403	7135993	0	20	40	BC	DBR	GOOD	WHI18000536	1.794	0.0027	0.2
1480894	482438	7135957	0	20	40	BC	DBR	GOOD	WHI18000536	1.7303	0.0023	0.2
1480895	482474	7135922	0	20	40	BC	DBR	GOOD	WHI18000536	1.5468	0.0014	0.2
1480896	482509	7135887	0	20	20	BC	DBR	GOOD	WHI18000536	1.9038	0.0109	0.1
1480901	482120	7135851	10	10	30	BC	LBR	GOOD	WHI18000536	1.4552	0.0034	0.1
1480902	482155	7135816	10	10	20	BC	DBR	POOR	WHI18000536	1.8824	0.002	0.2
1480903	482191	7135781	10	10	20	B	DBR	POOR	WHI18000536	1.4726	0.0026	0.1
1480911	482085	7135816	0	5	80	BC	BRN	GOOD	WHI18000536	2.9119	0.005	0.2
1480912	482120	7135781	30	0	75	B	BRN	GOOD	WHI18000536	2.1597	0.0045	0.2
1480913	482155	7135745	5	5	70	BC	LBR	GOOD	WHI18000536	1.51	0.0023	0.1
1480915	482226	7135674	10	10	85	BC	LBR	GOOD	WHI18000536	1.8005	0.0055	0.1
1480916	482262	7135639	20	5	80	AB	LBR	POOR	WHI18000536	1.2458	0.0025	0.1
1480917	482297	7135604	0	20	80	C	BRN	EXC	WHI18000536	2.1122	0.0086	0.2
1480918	482332	7135568	15	10	70	B	BRN	GOOD	WHI18000536	2.2225	0.0027	0.2
1480919	482368	7135533	10	10	80	BC	BRN	GOOD	WHI18000536	1.9379	0.0039	0.2
1480920	482403	7135498	30	5	80	AB	BRN	POOR	WHI18000536	1.8452	0.0027	0.2
1480925	482191	7135639	25	5	60	AB	BRN	POOR	WHI18000536	1.5178	0.0035	0.2
1480926	482226	7135604	10	5	70	B	LBR	GOOD	WHI18000536	1.2717	0.0031	0.1
1480927	482262	7135568	30	0	60	B	LBR	GOOD	WHI18000536	1.8874	0.0043	0.1
1480928	482297	7135533	20	10	60	B	BRN	GOOD	WHI18000536	1.856	0.0021	0.2
1480929	482332	7135498	10	10	80	BC	BRN	GOOD	WHI18000536	2.281	0.0072	0.2
1480930	482368	7135462	30	5	75	AB	BRN	POOR	WHI18000536	2.3837	0.0062	0.2
1480934	482120	7135639	0	5	80	C	BRN	EXC	WHI18000536	1.4753	0.0026	0.05
1480935	482155	7135604	5	5	70	C	BRN	EXC	WHI18000536	2.2118	0.0027	0.1
1480936	482191	7135568	20	0	60	B	LBR	GOOD	WHI18000536	1.7865	0.0071	0.1
1480938	482262	7135498	30	10	70	AB	BRN	POOR	WHI18000536	2.0684	0.0048	0.2
1480939	482297	7135462	25	10	70	AB	BRN	POOR	WHI18000536	1.9722	0.0022	0.2
1480940	482332	7135427	30	5	70	B	BRN	GOOD	WHI18000536	1.955	0.0033	0.2
1480941	481979	7135710	10	10	60	B	LBR	GOOD	WHI18000536	1.7621	0.0019	0.05
1480942	482014	7135674	20	5	50	B	BRN	GOOD	WHI18000536	1.58	0.0019	0.05
1480946	482155	7135533	30	5	70	AB	BRN	POOR	WHI18000536	1.3229	0.0012	0.1
1480947	482191	7135498	30	10	80	B	BRN	GOOD	WHI18000536	2.4069	0.0062	0.2
1480948	482226	7135462	30	10	70	AB	BRN	GOOD	WHI18000536	1.9857	0.0031	0.2
1480949	482262	7135427	30	5	60	AB	BRN	POOR	WHI18000536	2.0034	0.003	0.2
1480950	482297	7135392	30	5	80	AB	BRN	POOR	WHI18000536	2.207	0.0053	0.2
1480951	482297	7136028	0	25	80	C	BRN	EXC	WHI18000536	1.0896	0.002	0.05
1480952	482332	7135993	0	20	90	C	BRN	EXC	WHI18000536	1.3347	0.0026	0.05
1480953	482368	7135957	0	20	70	BC	BRN	EXC	WHI18000536	1.1823	0.0018	0.1
1480954	482403	7135922	0	20	80	C	LBR	EXC	WHI18000536	1.1442	0.0019	0.1
1480955	482438	7135887	0	30	80	BC	LBR	EXC	WHI18000536	1.8071	0.0023	0.2
1480956	482474	7135851	0	30	80	C	LBR	EXC	WHI18000536	2.5388	0.0119	0.2
1480961	482262	7135993	0	30	65	BC	LBR	EXC	WHI18000536	1.2336	0.001	0.05
1480962	482297	7135957	0	30	60	BC	LBR	EXC	WHI18000536	0.8893	0.00025	0.05

1480963	482332	7135922	0	30	70	BC	LBR	EXC	WHI18000536	1.0375	0.00025	0.1
1480964	482368	7135887	0	25	60	BC	BRN	EXC	WHI18000536	1.3926	0.0015	0.2
1480965	482403	7135851	0	30	45	BC	BRN	EXC	WHI18000536	1.439	0.0012	0.2
1480966	482438	7135816	0	20	50	BC	LBR	EXC	WHI18000536	1.6449	0.0029	0.2
1480967	482474	7135781	0	25	60	C	LBR	EXC	WHI18000536	1.5241	0.0027	0.05
1480971	482226	7135957	0	10	40	BC	BRN	GOOD	WHI18000536	1.1231	0.0015	0.05
1480972	482262	7135922	0	20	40	BC	LBR	GOOD	WHI18000536	1.146	0.00025	0.05
1480973	482297	7135887	0	10	40	BC	DBR	GOOD	WHI18000536	1.4368	0.0021	0.2
1480974	482332	7135851	0	10	40	BC	DBR	GOOD	WHI18000536	1.5659	0.0019	0.2
1480975	482368	7135816	0	10	40	BC	DBR	GOOD	WHI18000536	1.2014	0.00025	0.1
1480976	482403	7135781	0	10	30	BC	LBR	GOOD	WHI18000536	1.4069	0.0014	0.1
1480981	482191	7135922	0	20	40	BC	LBR	GOOD	WHI18000536	1.3206	0.0011	0.1
1480982	482226	7135887	0	10	40	BC	DBR	GOOD	WHI18000536	1.0695	0.0027	0.05
1480983	482262	7135851	0	10	40	BC	DBR	GOOD	WHI18000536	1.5586	0.0028	0.2
1480984	482297	7135816	0	10	40	BC	DBR	GOOD	WHI18000536	1.5426	0.0031	0.2
1480985	482332	7135781	0	10	30	BC	LBR	GOOD	WHI18000536	35.7324	0.4403	0.2
1480991	482155	7135887	0	20	30	BC	LBR	GOOD	WHI18000536	1.3956	0.003	0.1
1480992	482191	7135851	0	10	30	BC	LBR	GOOD	WHI18000536	1.3737	0.0035	0.1
1480993	482226	7135816	0	10	30	BC	LBR	GOOD	WHI18000536	1.5806	0.0051	0.1
1480994	482262	7135781	0	20	20	BC	LBR	GOOD	WHI18000536	1.1	0.0022	0.05
1480995	482297	7135745	0	10	20	BC	DBR	GOOD	WHI18000536	1.7951	0.0043	0.2
1480996	482332	7135710	0	10	20	BC	DBR	GOOD	WHI18000536	1.535	0.003	0.2
1481501	480246	7137230	0	20	50	BC	LBR	GOOD	WHI18000483	1.63	0.0054	0.05
1481502	480282	7137195	20	20	20	BC	DBR	POOR	WHI18000483	1.6514	0.0047	0.2
1481504	480352	7137124	0	30	20	BC	DBR	POOR	WHI18000483	2.0029	0.0031	0.2
1481505	480388	7137089	0	30	10	BC	DBR	POOR	WHI18000483	2.3961	0.0037	0.4
1481507	480458	7137018	0	20	30	BC	DBR	GOOD	WHI18000483	1.1164	0.002	0.05
1481508	480494	7136983	10	20	30	BC	DBR	GOOD	WHI18000483	1.6692	0.0074	0.05
1481509	480529	7136947	20	20	30	BC	DBR	GOOD	WHI18000483	1.707	0.0069	0.1
1481510	480565	7136912	20	20	30	BC	DBR	GOOD	WHI18000483	1.5126	0.0025	0.1
1481511	480211	7137195	0	20	30	BC	LBR	GOOD	WHI18000483	1.6268	0.0044	0.05
1481512	480246	7137159	0	30	30	BC	LBR	POOR	WHI18000483	1.3008	0.0033	0.05
1481513	480282	7137124	20	20	30	BC	DBR	POOR	WHI18000483	1.03	0.0016	0.1
1481515	480352	7137053	20	20	20	B	DBR	POOR	WHI18000483	1.2992	0.0038	0.1
1481518	480458	7136947	20	20	30	BC	DBR	GOOD	WHI18000483	1.1408	0.0009	0.05
1481519	480494	7136912	0	20	40	BC	DBR	GOOD	WHI18000483	1.0695	0.0013	0.05
1481520	480529	7136877	0	20	60	BC	DBR	GOOD	WHI18000483	2.5136	0.0024	0.2
1481521	480176	7137159	0	20	40	BC	LBR	GOOD	WHI18000483	1.6395	0.003	0.05
1481522	480211	7137124	0	20	40	BC	LBR	GOOD	WHI18000483	1.4637	0.0026	0.05
1481524	480282	7137053	10	10	20	BC	BRN	GOOD	WHI18000483	2.3252	0.002	0.2
1481525	480317	7137018	10	10	20	BC	BRN	GOOD	WHI18000483	1.6931	0.0007	0.1
1481526	480352	7136983	10	10	20	BC	BRN	GOOD	WHI18000402	26.4175	0.0021	0.2
1481527	480388	7136947	10	10	20	BC	BRN	GOOD	WHI18000483	6.3033	0.0028	0.2
1481528	480423	7136912	10	10	20	BC	BRN	GOOD	WHI18000483	47.6507	0.0024	0.4
1481529	480458	7136877	10	10	20	AB	BRN	POOR	WHI18000483	1.9911	0.0034	0.1
1481530	480494	7136841	10	10	20	AB	BRN	GOOD	WHI18000483	2.4726	0.0023	0.1
1481531	480140	7137124	0	20	40	BC	BRN	EXC	WHI18000483	2.0421	0.0059	0.1
1481534	480246	7137018	10	10	10	AB	BRN	GOOD	WHI18000483	16.4708	0.0055	0.3
1481535	480282	7136983	10	10	10	AB	BRN	GOOD	WHI18000483	2.327	0.0026	0.2
1481536	480317	7136947	10	10	10	AB	BRN	GOOD	WHI18000483	2.2678	0.0011	0.2
1481537	480352	7136912	10	10	10	AB	OBR	GOOD	WHI18000483	2.4672	0.0043	0.2
1481540	480458	7136806	0	20	70	BC	BRN	GOOD	WHI18000483	1.7217	0.0026	0.1
1481541	480105	7137089	0	20	40	BC	BRN	GOOD	WHI18000483	2.2712	0.0101	0.1
1481542	480140	7137053	10	10	10	B	OBR	GOOD	WHI18000483	3.0131	0.0064	0.1
1481543	480176	7137018	10	10	10	B	OBR	GOOD	WHI18000483	2.6197	0.0022	0.1

1481544	480211	7136983	10	10	10	B	OBR	GOOD	WHI18000483	4.5859	0.0048	0.2
1481545	480246	7136947	10	10	10	B	OBR	GOOD	WHI18000483	3.2309	0.0026	0.1
1481547	480317	7136877	20	20	60	BC	LBR	GOOD	WHI18000483	1.6551	0.0009	0.05
1481548	480352	7136841	10	10	10	BC	LBR	GOOD	WHI18000483	2.0486	0.0026	0.1
1481549	480388	7136806	10	10	10	BC	LBR	GOOD	WHI18000483	1.9013	0.0017	0.1
1481550	480423	7136770	10	10	40	BC	LBR	GOOD	WHI18000483	1.4236	0.0011	0.1
1481551	480070	7137053	0	20	20	BC	LBR	GOOD	WHI18000483	2.0755	0.0078	0.05
1481552	480105	7137018	0	20	50	BC	LBR	GOOD	WHI18000483	2.3781	0.0048	0.1
1481553	480140	7136983	0	20	50	BC	BRN	GOOD	WHI18000483	2.1101	0.0032	0.1
1481554	480176	7136947	0	20	50	BC	BRN	GOOD	WHI18000483	1.7503	0.00025	0.05
1481556	480246	7136877	0	20	10	BC	BRN	GOOD	WHI18000483	2.1642	0.0007	0.1
1481557	480282	7136841	0	20	50	BC	BRN	GOOD	WHI18000483	1.8866	0.0051	0.05
1481558	480317	7136806	0	20	40	BC	BRN	GOOD	WHI18000483	1.5122	0.00025	0.05
1481559	480352	7136770	0	20	40	BC	BRN	GOOD	WHI18000483	2.9639	0.0022	0.1
1481560	480388	7136735	20	20	40	BC	BRN	GOOD	WHI18000483	2.1816	0.0013	0.05
1481561	482049	7137478	0	20	20	BC	BRN	GOOD	WHI18000536	0.9781	0.0009	0.05
1481562	482085	7137442	0	10	40	BC	LBR	GOOD	WHI18000536	1.5807	0.0012	0.05
1481563	482120	7137407	0	20	40	BC	LBR	GOOD	WHI18000536	1.868	0.0017	0.05
1481564	482155	7137372	0	10	10	BC	BRN	POOR	WHI18000536	1.3798	0.0011	0.05
1481565	482014	7137442	0	20	20	BC	LBR	GOOD	WHI18000536	1.3766	0.0008	0.05
1481566	482049	7137407	0	20	30	BC	BRN	GOOD	WHI18000536	1.7572	0.0038	0.05
1481567	482085	7137372	0	10	30	BC	LBR	GOOD	WHI18000536	1.381	0.0008	0.05
1481568	482120	7137336	0	10	30	BC	LBR	GOOD	WHI18000536	1.3563	0.0016	0.05
1481569	481979	7137407	25	5	40	B	BRN	POOR	WHI18000536	1.5265	0.0012	0.05
1481570	482014	7137372	25	5	50	B	BRN	EXC	WHI18000536	1.306	0.0006	0.05
1481571	482049	7137336	10	10	35	B	BRN	EXC	WHI18000536	1.7456	0.0024	0.05
1481572	482085	7137301	5	5	85	B	GRY	GOOD	WHI18000536	1.5091	0.0011	0.05
1481573	481943	7137372	5	5	40	B	BRN	GOOD	WHI18000536	1.4863	0.0006	0.05
1481574	481979	7137336	20	5	40	B	BRN	GOOD	WHI18000536	1.2764	0.00025	0.05
1481575	482014	7137301	5	10	40	B	BRN	GOOD	WHI18000536	1.693	0.001	0.05
1481576	482049	7137265	5	10	25	B	BRN	GOOD	WHI18000536	1.8817	0.0012	0.05
1481577	481908	7137336	0	20	30	B	LBR	GOOD	WHI18000536	1.4762	0.0008	0.05
1481578	481943	7137301	0	20	30	B	LBR	GOOD	WHI18000536	1.4727	0.00025	0.05
1481582	481908	7137265	0	10	30	B	LBR	GOOD	WHI18000536	1.4894	0.0013	0.05
1481583	481943	7137230	0	20	30	B	LBR	GOOD	WHI18000536	1.4831	0.00025	0.05
1481584	481979	7137195	0	30	10	B	OBR	GOOD	WHI18000536	3.3391	0.0034	0.2
1481587	481908	7137195	0	20	10	B	LBR	GOOD	WHI18000536	1.5318	0.002	0.1
1481588	481943	7137159	0	20	10	B	BRN	GOOD	WHI18000536	1.6451	0.0008	0.05
1481591	481873	7137159	0	10	20	B	BRN	GOOD	WHI18000536	1.531	0.0019	0.05
1481592	481908	7137124	0	10	10	B	BRN	GOOD	WHI18000536	2.4196	0.0023	0.2
1481593	481767	7137195	5	30	10	BC	GRY	GOOD	WHI18000536	3.2345	0.0037	0.4
1481594	481802	7137159	5	10	10	BC	BRN	GOOD	WHI18000536	2.7099	0.0017	0.2
1481595	481837	7137124	5	10	25	B	BRN	GOOD	WHI18000536	1.3391	0.0023	0.05
1481596	481873	7137089	25	5	10	B	BRN	GOOD	WHI18000536	1.6792	0.004	0.05
1481597	481731	7137159	5	30	5	C	OBR	EXC	WHI18000536	8.0659	0.0092	0.4
1481598	481767	7137124	5	30	5	C	GRY	EXC	WHI18000536	5.7806	0.0137	0.8
1481599	481802	7137089	5	30	40	BC	BRN	GOOD	WHI18000536	1.665	0.0019	0.1
1481600	481837	7137053	5	30	50	BC	BRN	GOOD	WHI18000536	5.6559	0.0311	0.5
1481601	481696	7137124	5	30	5	C	GRY	EXC	WHI18000536	3.9659	0.0033	0.1
1481602	481731	7137089	0	25	5	C	ORA	EXC	WHI18000536	2.2514	0.0025	0.2
1481603	481767	7137053	5	20	70	BC	BRN	EXC	WHI18000536	3.7432	0.0027	0.4
1481604	481802	7137018	5	30	10	BC	BRN	EXC	WHI18000536	5.2411	0.004	1.1
1481605	480388	7137372	0	20	40	BC	LBR	GOOD	WHI18000536	1.1669	0.0007	0.05
1481606	480423	7137336	0	20	20	BC	LBR	GOOD	WHI18000536	1.3715	0.0015	0.05
1481607	480458	7137301	0	30	10	BC	LBR	GOOD	WHI18000536	2.0248	0.0017	0.05

1481608	480494	7137265	0	30	10	BC	LBR	GOOD	WHI18000536	1.6392	0.0018	0.05
1481609	480529	7137230	0	30	10	BC	LBR	GOOD	WHI18000536	1.6056	0.0021	0.05
1481610	480565	7137195	0	30	10	BC	LBR	GOOD	WHI18000536	1.8507	0.0028	0.05
1481611	480600	7137159	0	20	20	BC	LBR	GOOD	WHI18000536	1.5906	0.0019	0.05
1481612	480635	7137124	0	30	5	C	GRY	GOOD	WHI18000536	1.542	0.0028	0.05

1481613	480671	7137089	5	15	5	BC	GRY	EXC	WHI18000536	1.1475	0.002	0.05
1481614	480706	7137053	0	30	5	C	GRY	GOOD	WHI18000536	1.3847	0.0018	0.05
1481615	480741	7137018	10	20	10	BC	BRN	GOOD	WHI18000536	1.6715	0.0036	0.05
1481616	480777	7136983	5	30	70	C	GRY	GOOD	WHI18000536	1.5207	0.0016	0.05
1481617	480812	7136947	0	30	30	C	BRN	EXC	WHI18000536	1.39	0.0012	0.05
1481618	480847	7136912	5	30	50	C	GRY	EXC	WHI18000536	1.3309	0.0033	0.05
1481619	480883	7136877	0	20	40	BC	BRN	GOOD	WHI18000536	1.4537	0.0029	0.05
1481620	480352	7137336	0	20	30	BC	LBR	GOOD	WHI18000536	1.4156	0.0018	0.05
1481621	480388	7137301	0	30	20	BC	LBR	GOOD	WHI18000536	1.5962	0.0015	0.05
1481622	480423	7137265	0	30	10	BC	LBR	GOOD	WHI18000536	1.6235	0.0018	0.05
1481623	480458	7137230	5	30	5	BC	GRY	GOOD	WHI18000536	1.5337	0.0021	0.05
1481624	480494	7137195	5	20	35	BC	GRY	GOOD	WHI18000536	1.4509	0.0017	0.05
1481625	480529	7137159	0	20	5	BC	GRY	EXC	WHI18000536	1.8323	0.002	0.05
1481626	480565	7137124	0	10	10	BC	GRY	GOOD	WHI18000536	2.188	0.0036	0.05
1481627	480600	7137089	5	5	10	BC	BRN	GOOD	WHI18000536	1.2029	0.0042	0.05
1481628	480635	7137053	5	25	50	BC	GRY	EXC	WHI18000536	1.5606	0.0025	0.05
1481629	480671	7137018	0	10	75	BC	GRY	EXC	WHI18000536	3.3905	0.0193	0.4
1481630	480706	7136983	0	20	50	BC	GRY	GOOD	WHI18000536	1.3249	0.0011	0.05
1481631	480741	7136947	5	10	10	BC	GRY	GOOD	WHI18000536	1.5635	0.0051	0.05
1481632	480777	7136912	0	30	10	BC	GRY	GOOD	WHI18000536	1.4759	0.0015	0.05
1481633	480812	7136877	5	25	10	BC	BRN	GOOD	WHI18000536	1.4	0.0025	0.1
1481634	480847	7136841	5	30	50	BC	BRN	GOOD	WHI18000536	4.5835	0.0125	1
1481635	480317	7137301	0	30	70	C	GRY	EXC	WHI18000536	1.1686	0.0009	0.05
1481636	480352	7137265	0	30	70	C	GRY	EXC	WHI18000536	1.9146	0.0006	0.05
1481637	480388	7137230	0	30	50	C	GRY	GOOD	WHI18000536	1.7035	0.0026	0.05
1481638	480423	7137195	0	30	50	C	GRY	GOOD	WHI18000536	1.919	0.0049	0.1
1481639	480458	7137159	5	10	40	B	BRN	GOOD	WHI18000536	2.8504	0.0092	0.2
1481640	480494	7137124	0	25	30	BC	BRN	GOOD	WHI18000536	4.8371	0.029	0.4
1481641	480529	7137089	0	25	15	BC	BRN	GOOD	WHI18000536	1.9691	0.0021	0.2
1481642	480565	7137053	0	30	10	BC	BRN	GOOD	WHI18000536	1.491	0.004	0.05
1481643	480600	7137018	5	20	15	BC	GRY	GOOD	WHI18000536	1.8442	0.0053	0.1
1481644	480635	7136983	5	5	45	BC	BRN	EXC	WHI18000536	1.2731	0.0026	0.05
1481645	480671	7136947	5	15	30	C	OBR	EXC	WHI18000536	4.2463	0.004	0.2
1481646	480706	7136912	5	30	20	BC	OBR	GOOD	WHI18000536	1.3381	0.0017	0.05
1481647	480741	7136877	5	30	10	BC	OBR	GOOD	WHI18000536	1.9304	0.0028	0.2
1481648	480777	7136841	5	10	60	BC	BRN	EXC	WHI18000536	2.5888	0.0064	0.2
1481649	480812	7136806	5	10	30	BC	BRN	GOOD	WHI18000536	3.8649	0.0132	0.5
1481650	480282	7137265	0	20	20	BC	LBR	GOOD	WHI18000536	1.4126	0.0016	0.05
1481651	480317	7137230	0	20	20	BC	LBR	GOOD	WHI18000536	1.9643	0.0045	0.1
1481652	480352	7137195	0	20	20	BC	LBR	GOOD	WHI18000536	2.3412	0.003	0.2
1481657	480529	7137018	0	10	30	C	BRN	EXC	WHI18000536	1.629	0.0016	0.05
1481658	480565	7136983	5	5	25	B	BRN	GOOD	WHI18000536	1.1829	0.002	0.05
1481659	480600	7136947	0	5	75	BC	OBR	EXC	WHI18000536	2.0386	0.0035	0.1
1481660	480635	7136912	0	10	55	BC	OBR	EXC	WHI18000536	2.3388	0.005	0.2
1481661	480671	7136877	5	15	10	BC	OBR	GOOD	WHI18000536	2.2813	0.0034	0.2
1481662	480706	7136841	5	10	10	BC	OBR	GOOD	WHI18000536	2.0605	0.0022	0.05
1481663	480741	7136806	0	10	80	BC	GRY	EXC	WHI18000536	1.9493	0.0052	0.05
1481664	480777	7136770	0	20	30	BC	GRY	GOOD	WHI18000536	2.5211	0.0044	0.2
1481665	480600	7136877	0	20	20	BC	BRN	GOOD	WHI18000536	2.4707	0.004	0.2
1481666	480635	7136841	0	20	30	BC	BRN	GOOD	WHI18000536	1.5506	0.0025	0.1
1481667	480671	7136806	0	20	30	BC	BRN	GOOD	WHI18000536	2.3043	0.005	0.2
1481668	480706	7136770	0	20	30	BC	BRN	GOOD	WHI18000536	2.7534	0.0047	0.2
1481669	480741	7136735	0	20	20	BC	BRN	GOOD	WHI18000536	1.6572	0.0023	0.2
1481670	480565	7136841	0	20	30	BC	BRN	GOOD	WHI18000536	1.1692	0.0011	0.05
1481671	480600	7136806	10	30	20	BC	BRN	POOR	WHI18000536	1.4639	0.0027	0.2

1481672	480635	7136770	0	20	30	BC	BRN	GOOD	WHI18000536	2.1141	0.0055	0.1
1481673	480671	7136735	0	20	30	BC	BRN	GOOD	WHI18000536	1.6473	0.0028	0.05
1481675	480494	7136841	0	20	30	BC	BRN	GOOD	WHI18000536	2.9762	0.0015	0.1
1481676	480529	7136806	0	20	30	BC	BRN	GOOD	WHI18000536	1.8486	0.0042	0.1
1481677	480565	7136770	0	20	20	BC	BRN	GOOD	WHI18000536	1.1995	0.0015	0.05
1481678	480600	7136735	0	20	30	BC	BRN	GOOD	WHI18000536	2.695	0.0048	0.2
1481679	480635	7136700	0	20	30	BC	BRN	GOOD	WHI18000536	1.8688	0.004	0.1
1481680	480671	7136664	0	20	30	BC	BRN	GOOD	WHI18000536	1.2422	0.0017	0.05
1481681	480494	7136770	0	20	20	BC	BRN	GOOD	WHI18000536	1.3445	0.0039	0.1
1481682	480529	7136735	0	20	20	BC	BRN	GOOD	WHI18000536	0.9565	0.0018	0.05
1481683	480565	7136700	0	20	20	BC	BRN	GOOD	WHI18000536	1.3414	0.0035	0.1
1481684	480600	7136664	0	20	30	BC	BRN	GOOD	WHI18000536	1.2953	0.0022	0.1
1481685	480635	7136629	0	20	30	BC	BRN	GOOD	WHI18000536	1.7796	0.0028	0.1
1481686	480458	7136735	0	20	30	BC	BRN	GOOD	WHI18000536	1.3221	0.0035	0.05
1481687	480494	7136700	0	20	30	BC	BRN	GOOD	WHI18000536	1.4551	0.0034	0.05
1481688	480529	7136664	0	20	30	BC	BRN	GOOD	WHI18000536	1.1951	0.0029	0.05
1481689	480565	7136629	0	20	20	BC	BRN	GOOD	WHI18000536	1.3435	0.0033	0.05
1481690	480600	7136594	0	20	30	BC	BRN	GOOD	WHI18000536	1.4039	0.0034	0.05
1481691	480423	7136700	0	20	40	BC	BRN	GOOD	WHI18000536	1.2213	0.0033	0.05
1481692	480458	7136664	0	20	30	BC	BRN	GOOD	WHI18000536	1.3909	0.0021	0.05
1481693	480494	7136629	0	20	30	BC	BRN	GOOD	WHI18000536	1.4062	0.003	0.05

Sample ID	Mo_Best_pct	Cu_Best_pct	Pb_Best_pct	Zn_Best_pct	Pb_ppm	Zn_ppm	Mo_ppm	Cu_ppm	Ni_ppm	Co_ppm	Mn_ppm	As_ppm	Fe_pct
1480501	0.00014	0.0041	0.00354	0.0084	35.4	84	1.4	41	61.5	25.1	1335	16.7	4.58
1480502	0.00021	0.0139	0.11969	0.2922	1196.9	2922	2.1	139	60.7	33.6	1655	95.6	5.78
1480503	0.0002	0.00791	0.02487	0.0807	248.7	807	2	79.1	33.9	24.2	1120	182.6	6.45
1480504	0.00015	0.00762	0.00481	0.0205	48.1	205	1.5	76.2	158.3	54.1	1688	63.2	9.16
1480505	0.00014	0.00203	0.00323	0.0073	32.3	73	1.4	20.3	20.2	13	719	13.9	3.32
1480506	0.00014	0.00773	0.00402	0.0098	40.2	98	1.4	77.3	136.4	46.8	2161	56.9	5.08
1480507	0.00008	0.00461	0.00181	0.0077	18.1	77	0.8	46.1	151.8	29.2	1004	30	4.16
1480508	0.00009	0.00434	0.0033	0.0085	33	85	0.9	43.4	112	27.5	1275	31.9	4.18
1480509	0.00011	0.00428	0.00424	0.0081	42.4	81	1.1	42.8	86.1	26.3	1279	20.1	4
1480510	0.00009	0.00564	0.00158	0.0077	15.8	77	0.9	56.4	51	16.4	643	17.9	3.37
1480511	0.00015	0.00583	0.00452	0.0094	45.2	94	1.5	58.3	44.2	24	1690	61.8	4.59
1480512	0.00013	0.00553	0.00367	0.0096	36.7	96	1.3	55.3	48.1	22.3	1227	21	4.55
1480513	0.00009	0.00476	0.01823	0.0237	182.3	237	0.9	47.6	72.3	34.1	2501	38.7	10.27
1480514	0.00021	0.00757	0.02929	0.0587	292.9	587	2.1	75.7	107.9	43.1	1637	289.4	8.34
1480515	0.00021	0.00694	0.00228	0.0139	22.8	139	2.1	69.4	144.6	51.1	1650	48.7	8.23
1480516	0.00015	0.00358	0.00479	0.0072	47.9	72	1.5	35.8	27.6	22.7	1211	16.8	2.95
1480517	0.00016	0.00378	0.00488	0.0066	48.8	66	1.6	37.8	20.9	13.2	895	21.4	3.95
1480518	0.00018	0.00393	0.00473	0.0086	47.3	86	1.8	39.3	28.6	24.8	1940	22.6	4.24
1480519	0.00012	0.00295	0.0037	0.0072	37	72	1.2	29.5	24	17.3	1606	14.6	3.64
1480520	0.00012	0.00731	0.00458	0.0133	45.8	133	1.2	73.1	41.2	27.2	1633	9.7	5.6
1480521	0.00013	0.00421	0.004	0.0076	40	76	1.3	42.1	32.1	18.4	1092	27.6	4.1
1480522	0.0001	0.00493	0.00317	0.0078	31.7	78	1	49.3	32.3	18.6	1249	10.3	3.94
1480523	0.00014	0.00903	0.04983	0.0766	498.3	766	1.4	90.3	85.4	36	1527	61.3	6.17
1480524	0.00023	0.00688	0.01675	0.0363	167.5	363	2.3	68.8	103.5	41.1	1675	101	8.12
1480525	0.00012	0.00569	0.00807	0.0226	80.7	226	1.2	56.9	104.8	40.2	1760	137.5	7.34
1480526	0.00014	0.00737	0.00515	0.0179	51.5	179	1.4	73.7	152.3	54.7	2170	146.2	8.78
1480527	0.00014	0.00354	0.00367	0.0072	36.7	72	1.4	35.4	23.5	19.6	1519	18.8	3.53
1480528	0.0001	0.00233	0.00223	0.0056	22.3	56	1	23.3	21.6	12.9	470	17.4	3.09
1480529	0.00012	0.00424	0.00393	0.0097	39.3	97	1.2	42.4	37.6	22.8	1035	12	4.86
1480530	0.0003	0.00864	0.01112	0.0101	111.2	101	3	86.4	33.7	29.2	1912	18.6	4.13
1480531	0.00021	0.00395	0.00427	0.0086	42.7	86	2.1	39.5	29.7	20.4	1743	16.4	3.51
1480532	0.00014	0.00679	0.02091	0.0633	209.1	633	1.4	67.9	106.6	35.6	1624	153.2	7.07
1480533	0.00014	0.00497	0.02051	0.0403	205.1	403	1.4	49.7	64	27.6	1223	61.8	5.22
1480534	0.00015	0.00936	0.5457	0.914	5457	9140	1.5	93.6	163.6	51.1	4123	625.5	9
1480535	0.00008	0.01064	0.04393	0.0773	439.3	773	0.8	106.4	132.8	34.6	1024	75.6	6.29
1480536	0.00008	0.00771	0.01751	0.0611	175.1	611	0.8	77.1	139.3	36.2	1020	64	6.24
1480538	0.00035	0.00887	0.13043	0.2047	1304.3	2047	3.5	88.7	83.3	32	3128	501.9	4.97
1480539	0.00009	0.00897	0.02166	0.0582	216.6	582	0.9	89.7	119.3	30.2	1018	105.4	5.82
1480540	0.0001	0.01015	0.159	0.2968	1590	2968	1	101.5	159	39.7	1343	310.2	7.88
1480541	0.00016	0.00725	0.03709	0.0359	370.9	359	1.6	72.5	84.3	24.6	1756	62.4	4.87
1480542	0.00014	0.00516	0.01441	0.0354	144.1	354	1.4	51.6	81.8	25.9	2274	48.3	5
1480543	0.00009	0.00532	0.04956	0.0339	495.6	339	0.9	53.2	71.5	23.4	910	99.4	4.82
1480544	0.00012	0.00558	0.09175	0.0587	917.5	587	1.2	55.8	66.2	22.9	1214	221.9	5.32
1480545	0.00018	0.00948	0.32284	0.6323	3228.4	6323	1.8	94.8	180.1	51.8	1672	330.3	8.23
1480546	0.00009	0.03884	0.50178	0.6247	5017.8	6247	0.9	388.4	70.9	22.9	1008	136.9	4.56
1480547	0.00011	0.00501	0.04365	0.0797	436.5	797	1.1	50.1	53.1	21.8	900	147.1	5.08
1480548	0.00011	0.00517	0.14106	0.1573	1410.6	1573	1.1	51.7	80.7	24.2	933	213.6	4.89
1480549	0.0001	0.00185	0.01566	0.0249	156.6	249	1	18.5	33.5	18.6	759	29.4	4.28
1480550	0.00016	0.00199	0.01045	0.0119	104.5	119	1.6	19.9	25.4	14.4	946	26.3	4.1
1480551	0.00009	0.00231	0.00663	0.0114	66.3	114	0.9	23.1	36.2	15.7	627	14.9	4.34

1480552	0.00012	0.01039	0.19288	0.3691	1928.8	3691	1.2	103.9	149.6	34.3	1446	330.8	8.15
1480553	0.00014	0.01432	0.41629	0.745	4162.9	7450	1.4	143.2	180.6	57.7	1885	291.9	7.55
1480554	0.00009	0.00434	0.01293	0.0326	129.3	326	0.9	43.4	96.7	25	822	29	5.34
1480555	0.00013	0.00314	0.06207	0.0468	620.7	468	1.3	31.4	43.6	19.1	1026	49.3	3.79
1480556	0.0001	0.00231	0.02363	0.0335	236.3	335	1	23.1	30.8	14.9	877	41.8	4.05
1480557	0.00007	0.00299	0.01171	0.0158	117.1	158	0.7	29.9	46.1	20.1	864	18.6	4.22
1480558	0.00009	0.00278	0.00966	0.0147	96.6	147	0.9	27.8	40.3	16.8	748	14.3	3.96
1480559	0.00013	0.02222	0.85335	0.8229	8533.5	8229	1.3	222.2	162.6	33.7	1518	227.9	8.4
1480560	0.00011	0.00895	0.33925	0.2579	3392.5	2579	1.1	89.5	94.4	27.4	1377	130.8	5.87
1480561	0.00017	0.01362	0.3099	0.7647	3099	7647	1.7	136.2	184.9	40.5	1329	341.6	8.45
1480562	0.0001	0.00287	0.01731	0.0358	173.1	358	1	28.7	56	18	781	29.5	4.05
1480563	0.0001	0.00304	0.01955	0.0233	195.5	233	1	30.4	31	14.6	948	27.9	3.42
1480564	0.0001	0.00329	0.01437	0.0188	143.7	188	1	32.9	33.4	17.4	1163	15.7	3.71
1480565	0.00007	0.00341	0.00658	0.012	65.8	120	0.7	34.1	39	15.8	736	18.8	3.59
1480566	0.00012	0.00441	0.18726	0.0486	1872.6	486	1.2	44.1	50.4	16.5	892	63.2	4.1
1480567	0.00012	0.00637	0.06803	0.0399	680.3	399	1.2	63.7	136.3	33.6	1140	109.8	7.79
1480568	0.0001	0.00449	0.11057	0.0473	1105.7	473	1	44.9	48.6	15.7	605	65.2	4.28
1480569	0.00011	0.0041	0.02097	0.0285	209.7	285	1.1	41	35.8	16.5	791	31.6	3.93
1480570	0.00013	0.00694	0.19341	0.2649	1934.1	2649	1.3	69.4	63.4	24.2	1252	112.2	5.21
1480571	0.00008	0.00333	0.0202	0.0295	202	295	0.8	33.3	53.7	19.3	1188	30.4	4.52
1480572	0.00009	0.00286	0.01044	0.0164	104.4	164	0.9	28.6	43.8	18.3	923	18	4.1
1480573	0.00006	0.00291	0.0062	0.013	62	130	0.6	29.1	39	16.7	680	12.1	3.65
1480574	0.0001	0.00499	0.16697	0.0802	1669.7	802	1	49.9	45.5	18.2	789	52.5	3.93
1480575	0.00011	0.00549	0.75856	0.0548	7585.6	548	1.1	54.9	48.5	15.9	821	57.5	4.14
1480576	0.00013	0.00365	0.03207	0.0251	320.7	251	1.3	36.5	49.9	17.2	697	41.2	4.32
1480577	0.0001	0.00599	0.2776	0.0966	2776	966	1	59.9	71.2	24	972	67.4	5.55
1480578	0.00007	0.00277	0.04067	0.0297	406.7	297	0.7	27.7	38.3	13	501	20.7	3.25
1480579	0.00006	0.00269	0.04626	0.0504	462.6	504	0.6	26.9	38.5	15.5	846	26.4	3.36
1480580	0.00008	0.00318	0.02601	0.047	260.1	470	0.8	31.8	45.9	18.3	823	25.6	3.94
1480581	0.00008	0.00314	0.0035	0.0112	35	112	0.8	31.4	50.1	21.1	1121	14.7	4.58
1480582	0.00013	0.00317	0.00236	0.0062	23.6	62	1.3	31.7	20.4	10.7	646	10.5	3.1
1480583	0.0001	0.00295	0.00228	0.0088	22.8	88	1	29.5	27.7	14	748	12.9	3.54
1480584	0.00009	0.00292	0.00331	0.0088	33.1	88	0.9	29.2	30.9	11.5	589	19.9	3.36
1480585	0.00012	0.00569	0.05531	0.0856	553.1	856	1.2	56.9	57	18.9	935	60.9	4.58
1480586	0.00013	0.0038	0.05394	0.0546	539.4	546	1.3	38	41.8	13.7	625	42	4.07
1480587	0.00012	0.00323	0.09673	0.0731	967.3	731	1.2	32.3	40.5	15.2	739	40	3.99
1480588	0.00009	0.00343	0.21468	0.0547	2146.8	547	0.9	34.3	41.2	13.3	687	39.6	3.62
1480589	0.0001	0.00288	0.07708	0.0296	770.8	296	1	28.8	47.4	16.9	767	32.7	3.89
1480590	0.00008	0.00447	0.17902	0.0641	1790.2	641	0.8	44.7	50.2	16.1	726	43.1	4.05
1480591	0.00008	0.00324	0.01067	0.0132	106.7	132	0.8	32.4	49.9	20.8	962	15.3	4.25
1480592	0.00008	0.00365	0.00881	0.0159	88.1	159	0.8	36.5	42.7	18.3	815	15.9	4.13
1480593	0.00008	0.00415	0.01202	0.0379	120.2	379	0.8	41.5	48.1	20.3	966	17.6	4.42
1480594	0.00017	0.00262	0.0021	0.0056	21	56	1.7	26.2	20.6	10.6	555	12.2	4.04
1480595	0.00015	0.0056	0.00363	0.009	36.3	90	1.5	56	37.5	18.2	989	15.3	4.16
1480596	0.00012	0.00569	0.00361	0.0103	36.1	103	1.2	56.9	44.7	23.3	1076	15.7	5.09
1480597	0.00012	0.0039	0.00225	0.0072	22.5	72	1.2	39	27.8	12	714	16	3.42
1480598	0.00012	0.00416	0.00237	0.009	23.7	90	1.2	41.6	35.3	17	937	17.5	4.33
1480599	0.00012	0.00402	0.00248	0.0079	24.8	79	1.2	40.2	30.9	16.4	964	15.9	3.99
1480600	0.0001	0.00264	0.05167	0.0354	516.7	354	1	26.4	36	15.1	797	18.5	3.8
1480601	0.00009	0.00268	0.06837	0.0358	683.7	358	0.9	26.8	40.3	16.3	978	20.7	3.86
1480602	0.00008	0.00241	0.0849	0.0252	849	252	0.8	24.1	40.9	16.6	723	16.4	3.67
1480603	0.00008	0.00331	0.06219	0.0261	621.9	261	0.8	33.1	44.3	16.3	715	19.2	3.85
1480604	0.00007	0.0039	0.12673	0.0416	1267.3	416	0.7	39	49	18	820	21.3	4.34
1480605	0.00006	0.00322	0.00783	0.0117	78.3	117	0.6	32.2	43.7	17	828	13	3.59
1480606	0.00007	0.00298	0.01101	0.0156	110.1	156	0.7	29.8	36.1	17	816	12.5	3.53

1480607	0.00013	0.00199	0.0021	0.0049	21	49	1.3	19.9	15.6	7.9	410	7.7	3.71
1480608	0.00009	0.00252	0.00232	0.0064	23.2	64	0.9	25.2	24.1	12.9	929	13.9	2.88
1480609	0.00014	0.00162	0.0017	0.0057	17	57	1.4	16.2	17	10.7	641	11.6	3.04
1480610	0.00014	0.00157	0.0019	0.0098	19	98	1.4	15.7	24	8.7	463	13.4	3.45
1480612	0.00009	0.0022	0.03714	0.0215	371.4	215	0.9	22	35.2	14.1	726	18.5	3.94
1480613	0.00007	0.00291	0.0176	0.0171	176	171	0.7	29.1	45.1	18.7	819	16.2	4.16
1480614	0.00008	0.00291	0.02213	0.0257	221.3	257	0.8	29.1	41.1	16.5	911	29.9	4.26
1480615	0.00006	0.00236	0.05456	0.0301	545.6	301	0.6	23.6	38.7	14.3	726	16.6	3.68
1480640	0.00013	0.00606	0.01145	0.0238	114.5	238	1.3	60.6	108.8	32	1605	101.6	5.79
1480643	0.00007	0.00529	0.0011	0.0088	11	88	0.7	52.9	156	35.1	1567	14.1	3.67
1480644	0.00036	0.01946	0.00596	0.0122	59.6	122	3.6	194.6	184.4	87.3	1711	84.7	7.49
1480645	0.00013	0.00971	0.04283	0.0733	428.3	733	1.3	97.1	171.5	45	1309	143.9	6.48
1480646	0.00009	0.00512	0.0053	0.0158	53	158	0.9	51.2	132.3	34.6	1478	65.1	5.39
1480647	0.00013	0.01033	0.07644	0.1293	764.4	1293	1.3	103.3	217.5	54.2	1310	191.9	7.46
1480648	0.00021	0.00968	0.02771	0.0259	277.1	259	2.1	96.8	212.7	66.2	2612	62	9.63
1480649	0.0005	0.01165	0.01668	0.0616	166.8	616	5	116.5	196.5	77.1	2789	239.9	9.6
1480650	0.00014	0.00417	0.00462	0.0084	46.2	84	1.4	41.7	30.6	24.1	1833	17.4	4.26
1480651	0.00015	0.0029	0.00393	0.0072	39.3	72	1.5	29	19.2	15.6	1548	12.1	3.86
1480652	0.0002	0.04148	0.15245	0.167	1524.5	1670	2	414.8	57.8	37.8	3639	51.9	5.93
1480653	0.00012	0.00602	0.0054	0.0101	54	101	1.2	60.2	44.9	27.8	2711	18.3	4.96
1480654	0.00018	0.00356	0.00314	0.0062	31.4	62	1.8	35.6	21.3	13.4	889	14.5	3.68
1480655	0.00011	0.00347	0.00326	0.0072	32.6	72	1.1	34.7	25.7	18.4	1615	11.1	3.72
1480656	0.00012	0.0049	0.00433	0.0081	43.3	81	1.2	49	32.1	23	1805	17.2	3.51
1480657	0.00014	0.00351	0.00496	0.0069	49.6	69	1.4	35.1	24.5	16.6	1673	13.2	3.73
1480658	0.00016	0.0052	0.00629	0.0105	62.9	105	1.6	52	30.5	32.7	9167	14.5	5.04
1480659	0.00011	0.00348	0.00421	0.0079	42.1	79	1.1	34.8	23.6	21.6	2515	12.9	4.21
1480660	0.00012	0.00258	0.00295	0.0063	29.5	63	1.2	25.8	22.8	15	1693	17.9	4.09
1480661	0.00011	0.00356	0.00387	0.0069	38.7	69	1.1	35.6	44.7	24.3	1401	24.4	3.75
1480662	0.00014	0.00528	0.00445	0.0075	44.5	75	1.4	52.8	44	27.4	1284	14.8	3.68
1480663	0.00015	0.00783	0.00548	0.0104	54.8	104	1.5	78.3	40.4	18.2	1025	23.6	3.68
1480664	0.0001	0.00458	0.00592	0.0087	59.2	87	1	45.8	33.1	26.8	1324	15.1	3.92
1480665	0.00011	0.00451	0.00436	0.0088	43.6	88	1.1	45.1	48	25.2	1272	14.6	4.4
1480666	0.00012	0.00374	0.00389	0.0075	38.9	75	1.2	37.4	27.1	18	1398	12.4	3.9
1480667	0.00009	0.00296	0.00446	0.0066	44.6	66	0.9	29.6	23.6	13.8	806	16.6	4.05
1480668	0.00011	0.00293	0.00358	0.0074	35.8	74	1.1	29.3	22.2	17.8	1811	14.7	4.87
1480669	0.00009	0.00332	0.00492	0.0073	49.2	73	0.9	33.2	33.2	19.5	1756	22.2	3.77
1480670	0.00012	0.00275	0.0031	0.0063	31	63	1.2	27.5	19.9	14.8	1434	14.2	3.25
1480671	0.00014	0.00408	0.00519	0.0083	51.9	83	1.4	40.8	30.8	21	1391	15	4.05
1480672	0.00012	0.00555	0.00476	0.0077	47.6	77	1.2	55.5	32.3	22	1996	12.9	3.74
1480673	0.00011	0.00406	0.00437	0.0072	43.7	72	1.1	40.6	30.1	18.8	1402	14.3	3.9
1480674	0.00014	0.00395	0.00455	0.008	45.5	80	1.4	39.5	31	19.4	1848	13	3.87
1480676	0.00008	0.0033	0.00313	0.0076	31.3	76	0.8	33	26	18.1	1665	10	4.56
1480677	0.00012	0.00332	0.00375	0.0076	37.5	76	1.2	33.2	25.4	19.7	1968	17.3	4.07
1480678	0.00011	0.00298	0.00345	0.0072	34.5	72	1.1	29.8	24.5	16.3	1054	16	3.42
1480679	0.00013	0.00433	0.00491	0.0081	49.1	81	1.3	43.3	33.2	26.3	1812	20.2	3.62
1480680	0.00014	0.0034	0.00412	0.0086	41.2	86	1.4	34	26.2	26.5	2001	10.5	4.82
1480681	0.00013	0.00347	0.00426	0.0069	42.6	69	1.3	34.7	22.8	17.8	1937	10.6	4.04
1480682	0.00016	0.00604	0.00516	0.0092	51.6	92	1.6	60.4	58.4	27.3	2313	18.7	4.56
1480683	0.00009	0.00586	0.00437	0.0083	43.7	83	0.9	58.6	44.2	38	3107	8.3	3.98
1480684	0.00014	0.00429	0.00373	0.0075	37.3	75	1.4	42.9	25.3	19.3	2454	9.3	4
1480685	0.00014	0.00371	0.00481	0.0083	48.1	83	1.4	37.1	26.9	26.5	3044	10.9	5.02
1480686	0.00011	0.00363	0.0047	0.0088	47	88	1.1	36.3	29.5	24.7	2520	10.1	4.54
1480687	0.00012	0.00366	0.00427	0.0085	42.7	85	1.2	36.6	29.4	26.7	1626	18.9	3.89
1480688	0.00011	0.00347	0.00319	0.0073	31.9	73	1.1	34.7	25.3	16.6	1515	14.6	3.2
1480689	0.0001	0.01174	0.00451	0.018	45.1	180	1	117.4	155.7	50.2	4110	154.9	8.78

1480690	0.00011	0.00806	0.00568	0.0132	56.8	132	1.1	80.6	113.5	33.7	1773	117.1	6.42
1480691	0.00014	0.00546	0.00683	0.0092	68.3	92	1.4	54.6	30.9	29.7	2148	10.6	3.79
1480692	0.00015	0.00317	0.0031	0.0063	31	63	1.5	31.7	18.1	12.9	1142	8	3.59
1480693	0.00013	0.00331	0.00498	0.007	49.8	70	1.3	33.1	24.9	22.3	2241	10	3.85
1480694	0.00011	0.00362	0.00527	0.0084	52.7	84	1.1	36.2	26.7	24	1725	14	3.83
1480695	0.00011	0.00382	0.00423	0.0077	42.3	77	1.1	38.2	29.5	25.2	2156	14.1	4.23
1480696	0.00014	0.00463	0.00488	0.0096	48.8	96	1.4	46.3	38.1	32.3	1716	15.6	4.17
1480697	0.00014	0.0028	0.00291	0.0068	29.1	68	1.4	28	20.9	13.3	1178	15.3	3.27
1480698	0.00011	0.00473	0.00458	0.0145	45.8	145	1.1	47.3	65.3	24.2	1045	207.2	4.98
1480699	0.00012	0.00342	0.00436	0.0068	43.6	68	1.2	34.2	25.1	19	1653	9.5	4.12
1480700	0.00017	0.00272	0.00285	0.0066	28.5	66	1.7	27.2	21.7	12.6	925	11.7	3.67
1480701	0.00012	0.00283	0.00331	0.0056	33.1	56	1.2	28.3	18.7	15.4	1633	7.3	4.16
1480702	0.00013	0.00315	0.00387	0.0066	38.7	66	1.3	31.5	24	18.1	1680	9.5	3.5
1480703	0.00007	0.00344	0.00409	0.0073	40.9	73	0.7	34.4	26.8	19.5	978	11.4	3.47
1480704	0.00012	0.00363	0.00359	0.0076	35.9	76	1.2	36.3	29.2	19	1460	11.4	3.77
1480705	0.00009	0.00382	0.00444	0.0091	44.4	91	0.9	38.2	32.2	26.3	1717	12.4	4.24
1480706	0.00015	0.00264	0.00289	0.007	28.9	70	1.5	26.4	23.3	12.7	833	15.5	3.54
1480707	0.00017	0.00529	0.00677	0.0165	67.7	165	1.7	52.9	74.1	24.6	1137	86.6	5.15
1480708	0.00013	0.00791	0.00578	0.0086	57.8	86	1.3	79.1	38	27.4	2264	27.9	3.84
1480709	0.00015	0.00461	0.00518	0.0079	51.8	79	1.5	46.1	33.2	23.9	2993	21.5	3.82
1480710	0.00016	0.00287	0.00367	0.007	36.7	70	1.6	28.7	22.9	14.2	1318	10.8	4.65
1480711	0.00015	0.00383	0.00662	0.0078	66.2	78	1.5	38.3	31.2	32.6	3965	17	4.92
1480712	0.0001	0.00511	0.00647	0.0082	64.7	82	1	51.1	40.2	36.5	1658	25.4	4.26
1480713	0.0001	0.00461	0.00437	0.0093	43.7	93	1	46.1	39.3	28.1	1420	15.8	4.11
1480714	0.00007	0.00476	0.0058	0.0108	58	108	0.7	47.108	48.5	26.4	1591	7.5	5.6
1480715	0.00012	0.00336	0.00416	0.0077	41.6	77	1.2	33.6	34	25.6	1913	27.3	4.83
1480716	0.00012	0.00767	0.00789	0.0142	78.9	142	1.2	76.7	77.7	32	1968	40.9	5.32
1480717	0.00014	0.0032	0.00354	0.0075	35.4	75	1.4	32	25	20.1	1900	14.6	5.2
1480718	0.00014	0.00627	0.01002	0.0092	100.2	92	1.4	62.7	43.1	39.9	1916	31.1	4.23
1480719	0.0001	0.00433	0.00533	0.0099	53.3	99	1	43.3	36.9	32	1964	12.9	4.66
1480720	0.00007	0.00362	0.00481	0.0107	48.1	107	0.7	36.2	44.8	26.9	1356	7.8	5.65
1480721	0.00007	0.00397	0.00328	0.0104	32.8	104	0.7	39.7	44.9	23.5	1426	7.1	5.33
1480722	0.0001	0.00587	0.00797	0.0099	79.7	99	1	58.7	42.7	37.7	1372	17.6	5.13
1480723	0.00009	0.00351	0.00322	0.0107	32.2	107	0.9	35.1	41.3	24.4	1214	5.7	5.48
1480724	0.00009	0.00283	0.00196	0.0114	19.6	114	0.9	28.3	47.3	25	1297	3.2	6.17
1480725	0.00005	0.00334	0.00272	0.012	27.2	120	0.5	33.4	49.3	28.5	1454	4.6	6.32
1480726	0.00009	0.00381	0.00269	0.0108	26.9	108	0.9	38.1	48.3	25.5	1300	12.1	5.94
1480727	0.00013	0.00818	0.00817	0.0099	81.7	99	1.3	81.8	35.2	34.7	2927	15.9	4.83
1480728	0.00018	0.00334	0.01175	0.0071	117.5	71	1.8	33.4	30.2	27.6	1325	18.7	3.84
1480729	0.00006	0.00362	0.00344	0.0117	34.4	117	0.6	36.2	43.2	25.1	1295	10	5.47
1480730	0.00008	0.00385	0.00328	0.01	32.8	100	0.8	38.5	38.2	23.5	1215	9.5	4.82
1480731	0.00016	0.0014	0.00203	0.0033	20.3	33	1.6	14	10.4	4.7	180	11.1	3.45
1480732	0.00013	0.0051	0.00516	0.009	51.6	90	1.3	51	37.2	25.7	1118	22.1	4.99
1480733	0.00011	0.00391	0.00313	0.0097	31.3	97	1.1	39.1	38.4	23.1	1300	12.6	4.91
1480734	0.0001	0.00417	0.00429	0.0111	42.9	111	1	41.7	41.6	25.4	1216	12	5.03
1480735	0.00009	0.00585	0.00489	0.0102	48.9	102	0.9	58.5	46.1	33	1394	25.7	4.89
1480736	0.00014	0.00748	0.00848	0.028	84.8	280	1.4	74.8	146.7	50.9	1486	429.4	8.2
1480737	0.00012	0.0066	0.00672	0.014	67.2	140	1.2	66	79	31.2	1696	35.2	5.22
1480740	0.00012	0.00225	0.00214	0.0063	21.4	63	1.2	22.5	24.4	11.9	679	13	3.53
1480741	0.00008	0.00283	0.00148	0.0098	14.8	98	0.8	28.3	35.9	18.7	839	6.2	5.02
1480742	0.00009	0.00345	0.00277	0.0104	27.7	104	0.9	34.5	38.1	22.5	1188	12.7	5.4
1480743	0.00009	0.00425	0.00436	0.0101	43.6	101	0.9	42.5	39.6	24.7	1181	11.2	5.39
1480744	0.00012	0.00667	0.0065	0.0239	65	239	1.2	66.7	150.8	44.5	1572	280.8	8.6
1480746	0.00015	0.00548	0.00481	0.0076	48.1	76	1.5	54.8	26.5	16.5	809	19.4	3.34
1480747	0.00006	0.00479	0.00496	0.0095	49.6	95	0.6	47.9	45.5	25.1	1127	11.4	5.7

1480748	0.00009	0.00742	0.00477	0.0094	47.7	94	0.9	74.2	42.1	24.1	943	11.5	5.45
1480749	0.00008	0.00464	0.00398	0.0098	39.8	98	0.8	46.4	40.9	25.9	1195	16	5.64
1480750	0.0001	0.00461	0.00615	0.0087	61.5	87	1	46.1	35.2	21.3	744	13.9	3.9
1480751	0.00013	0.00287	0.00304	0.0073	30.4	73	1.3	28.7	26.8	15.2	940	11.5	3.88
1480752	0.0001	0.00378	0.00367	0.0097	36.7	97	1	37.8	37.5	22.4	1048	12.6	5.03
1480753	0.00029	0.00571	0.01457	0.0387	145.7	387	2.9	57.1	67.7	38.4	1410	1584.6	8.28
1480754	0.00013	0.00527	0.00584	0.0403	58.4	403	1.3	52.7	74.4	40.4	1926	199	7.78
1480755	0.0001	0.00514	0.00335	0.0087	33.5	87	1	51.4	41.1	19.2	898	17.6	4.88
1480756	0.00016	0.0044	0.00304	0.0068	30.4	68	1.6	44	31.5	20.9	709	14.7	3.34
1480758	0.00014	0.00548	0.00438	0.0071	43.8	71	1.4	54.8	36.4	17.6	812	14	3.95
1480759	0.00015	0.00226	0.00256	0.0063	25.6	63	1.5	22.6	17.3	10.8	723	15.9	4.12
1480760	0.00011	0.00866	0.0599	0.0655	599	655	1.1	86.6	56.9	24.8	1350	97.3	4.87
1480761	0.00009	0.00292	0.0032	0.0088	32	88	0.9	29.2	35.1	20.3	1031	13.3	4.35
1480762	0.00007	0.00519	0.01236	0.0296	123.6	296	0.7	51.9	87	36	1758	767.8	7.27
1480763	0.00008	0.00773	0.00348	0.0114	34.8	114	0.8	77.3	118.6	38.3	1143	79.6	4.64
1480764	0.00013	0.00626	0.00516	0.0147	51.6	147	1.3	62.6	48.4	42.7	2312	791.7	10.03
1480765	0.00012	0.00238	0.00239	0.005	23.9	50	1.2	23.8	20.7	8.7	382	18.5	3.29
1480766	0.00019	0.00266	0.00216	0.0051	21.6	51	1.9	26.6	19.5	9.8	381	17.4	3.18
1480767	0.00014	0.00228	0.00168	0.0072	16.8	72	1.4	22.8	25.3	12.7	855	13.2	3.52
1480768	0.00009	0.00317	0.0021	0.0071	21	71	0.9	31.7	28.5	16.1	749	25.6	3.6
1480769	0.00009	0.00436	0.0044	0.0102	44	102	0.9	43.6	46.3	25.4	1250	17.3	5.17
1480770	0.00009	0.00708	0.06176	0.1026	617.6	1026	0.9	70.8	101.8	40.4	2252	453.5	7.28
1480771	0.00005	0.00698	0.00318	0.012	31.8	120	0.5	69.8	173.6	47.6	1263	34.3	7.07
1480772	0.00011	0.00604	0.0336	0.0376	336	376	1.1	60.4	80.5	26	1258	70.5	5.59
1480773	0.00014	0.00533	0.00454	0.0117	45.4	117	1.4	53.3	67.6	36.6	1532	324.6	9.3
1480774	0.00012	0.00354	0.00227	0.0076	22.7	76	1.2	35.4	26.3	15.4	727	44.1	4.73
1480775	0.00014	0.00471	0.00369	0.0094	36.9	94	1.4	47.1	27.9	20.2	883	168	4.7
1480776	0.00011	0.00368	0.0029	0.0081	29	81	1.1	36.8	29.3	19.4	954	192.8	4.77
1480777	0.00011	0.00268	0.00227	0.009	22.7	90	1.1	26.8	20.3	12.5	691	20.5	4.1
1480778	0.0001	0.00311	0.00364	0.0097	36.4	97	1	31.1	37.6	18.9	822	37	4.31
1480780	0.00012	0.0072	0.04004	0.0439	400.4	439	1.2	72	81.4	38.3	1985	71.8	6.52
1480782	0.00013	0.00258	0.00867	0.0229	86.7	229	1.3	25.8	38.8	13.3	604	47.6	3.74
1480783	0.00015	0.00335	0.0078	0.0181	78	181	1.5	33.5	45.9	26	1300	469.7	6.91
1480784	0.00008	0.00298	0.0016	0.0066	16	66	0.8	29.8	28.8	11.1	441	31.7	3.19
1480785	0.00012	0.00381	0.00221	0.0089	22.1	89	1.2	38.1	26	15.2	599	79.6	4.34
1480786	0.00011	0.00318	0.00287	0.0086	28.7	86	1.1	31.8	29	19	920	200.1	4.62
1480787	0.00011	0.00321	0.00276	0.0089	27.6	89	1.1	32.1	27.8	18.9	730	192.7	4.57
1480788	0.0001	0.00474	0.00686	0.0176	68.6	176	1	47.4	63.5	27	1161	52.1	6.4
1480790	0.00013	0.00611	0.00799	0.0201	79.9	201	1.3	61.1	56.9	34.5	1572	45	5.97
1480791	0.00011	0.0029	0.01127	0.0206	112.7	206	1.1	29	46.4	16.8	757	61.9	3.74
1480792	0.0001	0.0035	0.03735	0.0501	373.5	501	1	35	36.2	15.7	615	47.2	3.72
1480793	0.00015	0.00489	0.0051	0.0115	51	115	1.5	48.9	59.1	26.8	1281	37.5	5.06
1480794	0.00011	0.00288	0.00195	0.0072	19.5	72	1.1	28.8	23.8	15.3	643	31.6	3.02
1480795	0.00009	0.00304	0.00187	0.0072	18.7	72	0.9	30.4	25.7	18	584	41.8	3.81
1480796	0.00007	0.00337	0.00172	0.007	17.2	70	0.7	33.7	26.2	14.5	578	22.2	2.89
1480797	0.00007	0.00358	0.00327	0.0112	32.7	112	0.7	35.8	44.7	22.3	1058	21.8	5.22
1480798	0.00009	0.00362	0.00937	0.0206	93.7	206	0.9	36.2	52.2	19.6	669	43	3.97
1480799	0.00011	0.00483	0.0126	0.027	126	270	1.1	48.3	61	21.3	578	34.4	4.06
1480800	0.00008	0.00322	0.00686	0.0157	68.6	157	0.8	32.2	50	16.9	590	43.5	3.34
1480801	0.0001	0.00357	0.02096	0.0499	209.6	499	1	35.7	39.1	16.3	596	48.9	3.74
1480802	0.0001	0.00274	0.01822	0.0217	182.2	217	1	27.4	33.5	15.7	607	24.4	3.16
1480803	0.0001	0.00505	0.0045	0.0111	45	111	1	50.5	52.4	24.9	1272	30.6	5.04
1480804	0.00013	0.00538	0.00485	0.0098	48.5	98	1.3	53.8	53.1	23.3	1203	34.6	4.9
1480805	0.00011	0.00283	0.00341	0.0078	34.1	78	1.1	28.3	28.7	18	666	20.7	3.48
1480806	0.00007	0.00418	0.00416	0.0138	41.6	138	0.7	41.8	52.2	26.6	1122	28.3	5.63

1480807	0.00009	0.00382	0.00381	0.0104	38.1	104	0.9	38.2	42.3	22.3	1039	19.2	5.16
1480808	0.0001	0.00465	0.00765	0.0169	76.5	169	1	46.5	46.8	18.2	779	47.9	4.55
1480809	0.00013	0.00396	0.00661	0.014	66.1	140	1.3	39.6	33.6	15.8	609	25.4	3.38
1480810	0.00015	0.00547	0.0369	0.0474	369	474	1.5	54.7	46.8	19.9	630	38.5	3.9
1480811	0.00014	0.00305	0.01139	0.0185	113.9	185	1.4	30.5	34.1	17.3	661	25.8	3.39
1480812	0.00013	0.00407	0.00366	0.0093	36.6	93	1.3	40.7	27.3	17.5	1364	14.1	4.59
1480813	0.00011	0.00466	0.00359	0.0099	35.9	99	1.1	46.6	51.5	22.7	1049	27.9	4.62
1480814	0.0001	0.0055	0.00461	0.0108	46.1	108	1	55	53.7	22.9	945	31.1	4.71
1480815	0.0001	0.00379	0.00422	0.014	42.2	140	1	37.9	51.3	22.9	1056	55.3	5.51
1480816	0.00007	0.00393	0.00451	0.012	45.1	120	0.7	39.3	39.8	22.1	1034	77.6	4.69
1480817	0.00006	0.00343	0.0039	0.0108	39	108	0.6	34.3	43.2	19.5	983	25.2	4.77
1480818	0.0001	0.00296	0.01333	0.0166	133.3	166	1	29.6	28.9	13.5	758	22.5	3.21
1480819	0.00012	0.00393	0.00449	0.009	44.9	90	1.2	39.3	27.3	15.5	944	14.5	3.41
1480820	0.0001	0.00406	0.0036	0.0079	36	79	1	40.6	38.4	21.9	2171	14.9	3.8
1480821	0.00015	0.00376	0.00433	0.0091	43.3	91	1.5	37.6	27.9	15.1	777	20.3	4.47
1480822	0.00015	0.00235	0.00226	0.0063	22.6	63	1.5	23.5	17.5	8.8	518	12.3	3.33
1480823	0.0001	0.00485	0.00326	0.0092	32.6	92	1	48.5	36.2	20.2	1560	14.9	3.99
1480824	0.00008	0.00423	0.00242	0.0095	24.2	95	0.8	42.3	57.9	26.3	1224	16.5	5.25
1480825	0.0001	0.00327	0.00478	0.0089	47.8	89	1	32.7	52.8	25.3	926	14.2	5.06
1480826	0.00011	0.00482	0.00502	0.0127	50.2	127	1.1	48.2	51.7	25.5	1344	48.9	4.8
1480827	0.00008	0.00362	0.00396	0.0114	39.6	114	0.8	36.2	43.6	23.1	1190	32.1	5.31
1480828	0.00009	0.00424	0.00533	0.013	53.3	130	0.9	42.4	48.1	25.4	1178	41.2	5.37
1480829	0.00009	0.00366	0.00332	0.0094	33.2	94	0.9	36.6	31	19.3	1316	12.4	4.05
1480830	0.00013	0.005	0.00463	0.01	46.3	100	1.3	50	53.2	20.1	1209	27	4.42
1480831	0.00013	0.00316	0.00274	0.0058	27.4	58	1.3	31.6	19.8	8.6	323	20.4	4
1480832	0.00012	0.00356	0.00351	0.0067	35.1	67	1.2	35.6	25.3	16	754	15.2	3.76
1480833	0.00009	0.00382	0.00399	0.0071	39.9	71	0.9	38.2	28.7	22.1	1149	15.1	3.64
1480834	0.00009	0.00433	0.00292	0.0077	29.2	77	0.9	43.3	31.9	16	887	15	3.71
1480835	0.00008	0.0042	0.00358	0.012	35.8	120	0.8	42	48.8	22.1	918	30.2	5.01
1480836	0.00005	0.00394	0.00101	0.0097	10.1	97	0.5	39.4	53.6	29.3	1048	7.5	5.87
1480837	0.0001	0.00277	0.00229	0.0084	22.9	84	1	27.7	48.9	23.8	1060	14.5	5.18
1480838	0.00012	0.00362	0.00249	0.0132	24.9	132	1.2	36.2	59.7	24	1153	26.6	5.1
1480839	0.00007	0.0036	0.00723	0.0164	72.3	164	0.7	36	40.5	20.1	971	23.7	3.99
1480840	0.00011	0.00414	0.00399	0.0091	39.9	91	1.1	41.4	33.8	17.2	965	15.5	3.63
1480841	0.00009	0.00355	0.00513	0.0083	51.3	83	0.9	35.5	31.5	16.8	980	13.4	3.53
1480842	0.0001	0.0034	0.00323	0.0074	32.3	74	1	34	26.9	15	836	14.3	3.21
1480843	0.00009	0.00341	0.00301	0.0075	30.1	75	0.9	34.1	26	14.5	778	19.7	3.3
1480844	0.00007	0.00313	0.00259	0.0058	25.9	58	0.7	31.3	22.5	11.7	631	18.3	2.63
1480845	0.0001	0.00394	0.00427	0.008	42.7	80	1	39.4	30.3	18.1	842	25	3.78
1480851	0.00008	0.00553	0.00103	0.0088	10.3	88	0.8	55.3	88.4	28.9	1116	9	6.38
1480852	0.00002	0.00729	0.00068	0.0096	6.8	96	0.2	72.9	127.3	43.8	1299	2.5	8.55
1480853	0.00002	0.00772	0.00066	0.0102	6.6	102	0.2	77.2	139.4	44.4	1145	2.4	8.12
1480854	0.00004	0.00469	0.00123	0.0094	12.3	94	0.4	46.9	114.4	39.2	1326	4.6	7.25
1480856	0.00005	0.00672	0.00092	0.01	9.2	100	0.5	67.2	127	37.4	1251	4.3	7.91
1480857	0.00011	0.00578	0.00144	0.0111	14.4	111	1.1	57.8	111.1	35.7	1181	10.3	7.38
1480858	0.00006	0.00711	0.00126	0.0128	12.6	128	0.6	71.1	130.9	44.6	1451	6.4	8.62
1480859	0.00007	0.00718	0.00143	0.0107	14.3	107	0.7	71.8	183.8	51.2	1592	3.9	8.42
1480860	0.00033	0.01887	0.00157	0.0087	15.7	87	3.3	188.7	502.7	118.5	1323	19.8	10.24
1480861	0.00009	0.01117	0.00264	0.014	26.4	140	0.9	111.7	113.4	31.2	588	17.8	6.15
1480865	0.00005	0.00722	0.00161	0.0076	16.1	76	0.5	72.2	255	49.7	1449	29.1	5.38
1480870	0.00012	0.00301	0.00435	0.0074	43.5	74	1.2	30.1	23.5	13.3	367	15.3	3.4
1480871	0.00036	0.01741	0.01306	0.0272	130.6	272	3.6	174.1	256.2	73.4	9031	68.9	7.37
1480872	0.0001	0.00572	0.00643	0.0099	64.3	99	1	57.2	51.3	27.5	1929	23.1	4.04
1480873	0.00002	0.00219	0.00113	0.0121	11.3	121	0.2	21.9	5.1	35.3	1585	7.1	8.36
1480874	0.00006	0.00294	0.00109	0.0053	10.9	53	0.6	29.4	48	20.4	463	15	3.07

1480876	0.00023	0.00242	0.00339	0.0068	33.9	68	2.3	24.2	18	9.7	339	14.4	2.9
1480877	0.00018	0.00856	0.00422	0.0113	42.2	113	1.8	85.6	101.5	34	3828	44	5.63
1480878	0.00006	0.0041	0.00169	0.0109	16.9	109	0.6	41	20.5	22.5	1057	8.8	6.07
1480879	0.00006	0.01574	0.00102	0.0082	10.2	82	0.6	157.4	50.6	38.4	1222	8.2	7.04
1480880	0.00015	0.00377	0.00068	0.0053	6.8	53	1.5	37.7	196.7	62	1257	17.6	5.21
1480881	0.00016	0.00374	0.00204	0.0106	20.4	106	1.6	37.4	40.6	17.9	696	12.5	3.92
1480882	0.00009	0.00345	0.00105	0.0082	10.5	82	0.9	34.5	44.7	17	580	8.5	3.67
1480883	0.0001	0.00554	0.00194	0.0124	19.4	124	1	55.4	107.3	38.5	1232	6.7	7.65
1480884	0.00012	0.00489	0.00329	0.0114	32.9	114	1.2	48.9	65.7	27.6	1202	18.8	4.84
1480885	0.00019	0.00572	0.00513	0.0121	51.3	121	1.9	57.2	60.3	27.2	1748	23	5.39
1480891	0.00007	0.00181	0.00111	0.0052	11.1	52	0.7	18.1	22.7	9.9	380	8.7	2.52
1480892	0.00011	0.00416	0.00199	0.0131	19.9	131	1.1	41.6	92	32.6	1184	6.4	6.55
1480893	0.00008	0.0049	0.00277	0.0126	27.7	126	0.8	49	59.2	23.4	1027	13.7	5.2
1480894	0.00008	0.0052	0.00349	0.0107	34.9	107	0.8	52	57.9	23.2	1122	15.6	4.96
1480895	0.00007	0.00452	0.00279	0.0107	27.9	107	0.7	45.2	55.5	23.7	982	12.1	4.97
1480896	0.00009	0.0037	0.0022	0.0077	22	77	0.9	37	31.3	13.3	517	11	2.9
1480901	0.00007	0.0045	0.00175	0.0089	17.5	89	0.7	45	53.1	20.8	757	10.6	4.15
1480902	0.00008	0.00558	0.0024	0.0141	24	141	0.8	55.8	55.4	21.4	904	19.4	4.26
1480903	0.00008	0.00411	0.0026	0.0105	26	105	0.8	41.1	53.8	20.9	785	12.7	4.74
1480911	0.00008	0.00479	0.00397	0.0293	39.7	293	0.8	47.9	72.9	25.8	1041	47.2	5.48
1480912	0.00006	0.00522	0.00254	0.0163	25.4	163	0.6	52.2	71.9	25.8	1006	14.5	4.92
1480913	0.00009	0.00436	0.00247	0.0112	24.7	112	0.9	43.6	46.8	20.4	831	12	4.17
1480915	0.00009	0.00468	0.00253	0.0112	25.3	112	0.9	46.8	51.8	19.9	881	19.7	4.1
1480916	0.00007	0.0036	0.00173	0.0083	17.3	83	0.7	36	36.8	15	642	12.6	3.28
1480917	0.00007	0.00413	0.00269	0.0117	26.9	117	0.7	41.3	49.5	21.3	833	13	4.12
1480918	0.00009	0.00476	0.00596	0.0181	59.6	181	0.9	47.6	69.7	23.2	928	24.7	4.77
1480919	0.00008	0.00422	0.00542	0.0127	54.2	127	0.8	42.2	65.4	23.7	873	19.7	4.34
1480920	0.00008	0.00443	0.00469	0.0129	46.9	129	0.8	44.3	63.2	23.5	862	19.8	4.56
1480925	0.00008	0.0039	0.00195	0.0092	19.5	92	0.8	39	41.9	16.2	864	11	3.25
1480926	0.00009	0.00351	0.00151	0.0083	15.1	83	0.9	35.1	36.8	14.4	704	10.8	3.01
1480927	0.00006	0.00413	0.00501	0.0136	50.1	136	0.6	41.3	65.3	22.9	954	13.6	3.97
1480928	0.00006	0.00436	0.00552	0.0134	55.2	134	0.6	43.6	61.2	21.3	1188	16.5	3.98
1480929	0.00006	0.00491	0.00505	0.0131	50.5	131	0.6	49.1	67.8	23.7	1157	22.8	4.31
1480930	0.00008	0.00546	0.00626	0.0142	62.6	142	0.8	54.6	74.5	24.9	1345	54.4	4.7
1480934	0.00009	0.00424	0.00203	0.0117	20.3	117	0.9	42.4	88.8	31.1	896	8.8	5.9
1480935	0.00011	0.00716	0.00549	0.0149	54.9	149	1.1	71.6	88.7	28.3	754	11.6	5.29
1480936	0.00008	0.00411	0.00237	0.01	23.7	100	0.8	41.1	45.3	16.8	885	13.1	3.5
1480938	0.00008	0.0053	0.00468	0.0121	46.8	121	0.8	53	60.7	22.1	904	20.1	4.28
1480939	0.00007	0.00525	0.00605	0.013	60.5	130	0.7	52.5	77.1	25.4	1107	35.1	4.55
1480940	0.00008	0.00491	0.00528	0.0125	52.8	125	0.8	49.1	71.1	26	992	25	4.6
1480941	0.00008	0.0058	0.00242	0.0143	24.2	143	0.8	58	54.3	25.1	819	30.1	5.17
1480942	0.00008	0.00481	0.00285	0.0127	28.5	127	0.8	48.1	47.6	21.5	889	25.5	5.15
1480946	0.00006	0.00311	0.00345	0.0112	34.5	112	0.6	31.1	51.3	20.9	867	14.3	4.04
1480947	0.00007	0.00553	0.00476	0.0158	47.6	158	0.7	55.3	65	22.5	752	20.3	4.37
1480948	0.00008	0.00487	0.00534	0.0134	53.4	134	0.8	48.7	80.6	26.7	1300	23.2	4.5
1480949	0.00005	0.0057	0.00517	0.0122	51.7	122	0.5	57	75.1	27.6	988	24.8	4.58
1480950	0.00006	0.00515	0.00603	0.0131	60.3	131	0.6	51.5	82.3	30.5	1140	21.3	4.58
1480951	0.0001	0.00292	0.00246	0.0079	24.6	79	1	29.2	40.3	19.6	743	10.3	3.89
1480952	0.0001	0.00406	0.00177	0.0097	17.7	97	1	40.6	59.2	25.8	1098	10.1	4.85
1480953	0.00008	0.00369	0.00166	0.008	16.6	80	0.8	36.9	36.5	14.8	563	9.7	3.27
1480954	0.00007	0.00355	0.00149	0.0076	14.9	76	0.7	35.5	35.3	15.6	573	9.4	3.04
1480955	0.0001	0.00501	0.00389	0.0122	38.9	122	1	50.1	69	30.4	1206	15.5	6.13
1480956	0.00012	0.00472	0.00434	0.0121	43.4	121	1.2	47.2	60.3	26.9	948	14	5.31
1480961	0.00009	0.00429	0.00227	0.0092	22.7	92	0.9	42.9	55.6	22	1059	10.2	4.06
1480962	0.00009	0.00277	0.0016	0.0078	16	78	0.9	27.7	34.7	16.2	681	9.9	3.14

1480963	0.00007	0.00314	0.00185	0.0086	18.5	86	0.7	31.4	37.7	14.3	533	10.5	3.54
1480964	0.00007	0.00431	0.00215	0.0087	21.5	87	0.7	43.1	41.9	16.8	760	10.8	4.01
1480965	0.00011	0.00412	0.00229	0.0103	22.9	103	1.1	41.2	60.2	26.2	1198	12.2	5.21
1480966	0.00011	0.00475	0.00306	0.0096	30.6	96	1.1	47.5	49.2	19.2	841	13.1	4.4
1480967	0.00013	0.0056	0.00359	0.0081	35.9	81	1.3	56	59.3	22.1	995	21.1	4.49
1480971	0.00006	0.00349	0.00178	0.0086	17.8	86	0.6	34.9	42.7	18.3	871	9.7	3.85
1480972	0.00008	0.00382	0.00158	0.0103	15.8	103	0.8	38.2	40.8	23.6	767	8.6	4.31
1480973	0.00007	0.00419	0.00194	0.0091	19.4	91	0.7	41.9	48	19.9	812	9.5	4.06
1480974	0.00009	0.00516	0.00179	0.0098	17.9	98	0.9	51.6	56.1	23.4	1033	9.2	4.95
1480975	0.00009	0.0039	0.00229	0.0096	22.9	96	0.9	39	48.5	18	590	9.9	4.4
1480976	0.0001	0.00444	0.00328	0.0097	32.8	97	1	44.4	50.4	20.2	881	14.3	4.63
1480981	0.00007	0.00398	0.00287	0.0099	28.7	99	0.7	39.8	42.8	22.1	655	12.5	3.52
1480982	0.00007	0.003	0.00147	0.0072	14.7	72	0.7	30	30.2	13	480	9.5	2.58
1480983	0.00006	0.00447	0.00164	0.01	16.4	100	0.6	44.7	53.7	24.1	965	7.5	4.39
1480984	0.00008	0.00377	0.0021	0.0104	21	104	0.8	37.7	52.6	21.4	835	12.3	4.84
1480985	0.00009	0.00353	0.00307	0.0107	30.7	107	0.9	35.3	59.6	22.7	969	14.5	4.9
1480991	0.00008	0.00399	0.00174	0.0095	17.4	95	0.8	39.9	47.2	18.7	682	9.8	3.87
1480992	0.00012	0.00401	0.00142	0.0086	14.2	86	1.2	40.1	43.4	20.8	1315	40	4.3
1480993	0.00007	0.00366	0.00176	0.0106	17.6	106	0.7	36.6	54.9	22.1	965	8.9	4.77
1480994	0.00008	0.00171	0.00458	0.0086	45.8	86	0.8	17.1	35.7	16.1	766	11.9	4.07
1480995	0.00009	0.00463	0.00309	0.0106	30.9	106	0.9	46.3	50	21.9	857	13.1	4.4
1480996	0.00009	0.00414	0.00311	0.0087	31.1	87	0.9	41.4	42.8	16.7	624	39.5	3.69
1481501	0.00008	0.00411	0.00327	0.0097	32.7	97	0.8	41.1	46.1	23.6	895	21.2	4.84
1481502	0.00012	0.00458	0.00348	0.0071	34.8	71	1.2	45.8	36	15.1	700	14.8	3.61
1481504	0.00015	0.00719	0.00536	0.0086	53.6	86	1.5	71.9	50.1	25.8	1147	19.4	4.63
1481505	0.00034	0.01028	0.00267	0.0069	26.7	69	3.4	102.8	213	88.7	3915	25.5	6.38
1481507	0.00007	0.00373	0.00214	0.0069	21.4	69	0.7	37.3	72.4	23	1446	9.4	4.27
1481508	0.00007	0.00526	0.00132	0.0067	13.2	67	0.7	52.6	99.8	25.2	1243	23.1	4.19
1481509	0.00011	0.00343	0.00567	0.0074	56.7	74	1.1	34.3	39.9	18.6	1338	20.2	4.22
1481510	0.00014	0.00389	0.00212	0.0123	21.2	123	1.4	38.9	85.4	24.5	1280	74.4	5.47
1481511	0.0001	0.00472	0.00413	0.009	41.3	90	1	47.2	39	21.1	1104	17.3	4.25
1481512	0.00012	0.00354	0.00426	0.007	42.6	70	1.2	35.4	30.2	19.4	1254	10.8	4.98
1481513	0.00011	0.00368	0.00208	0.0051	20.8	51	1.1	36.8	81.7	22.3	670	16.1	3.31
1481515	0.00005	0.00442	0.0015	0.0058	15	58	0.5	44.2	88.9	28.1	1345	12.2	4.64
1481518	0.00007	0.00479	0.00149	0.0072	14.9	72	0.7	47.9	94.9	24.3	1129	20.1	5.19
1481519	0.00008	0.00383	0.00126	0.0076	12.6	76	0.8	38.3	73.4	21.3	815	16.7	4.16
1481520	0.00016	0.00682	0.00646	0.019	64.6	190	1.6	68.2	141.4	35.1	1354	96.6	6.34
1481521	0.00013	0.00479	0.00518	0.0102	51.8	102	1.3	47.9	49.2	30.3	1867	18.7	5.52
1481522	0.00019	0.00493	0.00381	0.0084	38.1	84	1.9	49.3	50.3	28.7	1870	25.4	4.41
1481524	0.00005	0.01163	0.00167	0.0097	16.7	97	0.5	116.3	264.8	62.3	1741	21.4	8.44
1481525	0.00006	0.00776	0.00153	0.0103	15.3	103	0.6	77.6	249	64	1808	378.1	7.12
1481526	0.0002	0.01116	0.19783	0.2877	1978.3	2877	2	111.6	156.3	44.8	1463	179.3	6.1
1481527	0.00017	0.0094	0.03644	0.0571	364.4	571	1.7	94	158.8	44.1	1521	202.4	6.14
1481528	0.00018	0.01491	0.35174	0.5362	3517.4	5362	1.8	149.1	141.8	43.4	1602	118.1	5.88
1481529	0.00013	0.00746	0.00333	0.011	33.3	110	1.3	74.6	131.7	31.3	1545	99.8	5.83
1481530	0.00013	0.00739	0.00452	0.0207	45.2	207	1.3	73.9	136.8	33.8	948	105.9	6.46
1481531	0.00015	0.00558	0.00497	0.011	49.7	110	1.5	55.8	81.3	29.2	1038	45.1	5.28
1481534	0.0001	0.01306	0.03842	0.2313	384.2	2313	1	130.6	135.8	45	1907	106.3	6.86
1481535	0.00052	0.0108	0.00256	0.0099	25.6	99	5.2	108	123.8	39.4	3146	48.6	6.71
1481536	0.00016	0.01055	0.00362	0.0106	36.2	106	1.6	105.5	121.2	42.2	2657	82.1	6.75
1481537	0.00016	0.0099	0.00383	0.0109	38.3	109	1.6	99	220.3	46.3	1355	265.9	6.78
1481540	0.00007	0.0058	0.00275	0.0113	27.5	113	0.7	58	118.8	28.3	879	27.4	5.23
1481541	0.0001	0.00635	0.00208	0.01	20.8	100	1	63.5	111.8	37.5	979	53.2	5.6
1481542	0.0001	0.00896	0.00572	0.0203	57.2	203	1	89.6	226.1	81.4	1659	207.3	8.99
1481543	0.00006	0.00753	0.00541	0.0225	54.1	225	0.6	75.3	153.6	50.9	1700	106.8	9.52

1481544	0.0001	0.0122	0.01049	0.0388	104.9	388	1	122	206.5	61.9	1775	269.2	10.48
1481545	0.00016	0.0093	0.01056	0.0249	105.6	249	1.6	93	191.7	57.6	1419	74.4	6.59
1481547	0.00003	0.00775	0.00216	0.0097	21.6	97	0.3	77.5	253.1	48.2	1079	8.3	6.54
1481548	0.00007	0.00912	0.00218	0.0106	21.8	106	0.7	91.2	234.7	57.5	1285	81	6.6
1481549	0.00009	0.00636	0.00438	0.0133	43.8	133	0.9	63.6	164.5	37.4	1388	13.9	5.95
1481550	0.00008	0.00579	0.00178	0.0088	17.8	88	0.8	57.9	154.3	33.3	1208	14.6	5.67
1481551	0.00003	0.00699	0.00211	0.0092	21.1	92	0.3	69.9	190.4	46.7	1232	9.6	6.69
1481552	0.00005	0.00855	0.00479	0.0125	47.9	125	0.5	85.5	167.1	43.6	1059	25.4	6.42
1481553	0.00006	0.00824	0.00219	0.0128	21.9	128	0.6	82.4	247.2	56.5	1497	54.4	8.47
1481554	0.00005	0.00856	0.00198	0.0108	19.8	108	0.5	85.6	195	51.5	1171	10.3	8
1481556	0.00011	0.00903	0.00437	0.0138	43.7	138	1.1	90.3	193	45.4	1647	111.6	7.78
1481557	0.00003	0.00665	0.00286	0.0097	28.6	97	0.3	66.5	229	47.6	1158	14.2	7.01
1481558	0.00011	0.00669	0.00206	0.0104	20.6	104	1.1	66.9	158.5	38.9	1223	33.3	7.01
1481559	0.0001	0.00657	0.01352	0.0239	135.2	239	1	65.7	175.3	43.4	1253	46.9	6.65
1481560	0.00012	0.00421	0.01072	0.0192	107.2	192	1.2	42.1	103.7	28.9	1284	25.4	5.26
1481561	0.00008	0.00305	0.00114	0.0083	11.4	83	0.8	30.5	48.6	29.4	1377	9.4	5.21
1481562	0.00012	0.00729	0.00078	0.0101	7.8	101	1.2	72.9	132.2	51.7	1080	3.3	7.22
1481563	0.00041	0.00901	0.00095	0.0108	9.5	108	4.1	90.1	105.2	58.9	1361	9.7	8.31
1481564	0.00009	0.0065	0.00059	0.0084	5.9	84	0.9	65	99.4	39.1	1612	3.8	7.32
1481565	0.00005	0.00587	0.00055	0.0102	5.5	102	0.5	58.7	84.3	46.5	1316	1.9	8.09
1481566	0.0053	0.00775	0.00077	0.0086	7.7	86	53	77.5	66	43.8	1250	6.7	8.01
1481567	0.00015	0.00586	0.00078	0.0101	7.8	101	1.5	58.6	106.4	46.9	1403	2.8	8.4
1481568	0.00002	0.00601	0.00026	0.0086	2.6	86	0.2	60.1	166.7	44.8	1155	0.7	6.28
1481569	0.00003	0.00764	0.00046	0.0086	4.6	86	0.3	76.4	113.6	39.7	1058	2.1	6.72
1481570	0.00005	0.00615	0.0005	0.0086	5	86	0.5	61.5	70.8	32.5	851	1.9	6.21
1481571	0.00036	0.00759	0.00097	0.0106	9.7	106	3.6	75.9	102.6	47	1998	3.8	8.29
1481572	0.00005	0.00646	0.00082	0.0107	8.2	107	0.5	64.6	211.5	53	1101	3.3	8.73
1481573	0.00004	0.00698	0.00066	0.01	6.6	100	0.4	69.8	128.6	44.2	1278	2.8	7.63
1481574	0.00005	0.0052	0.00067	0.0105	6.7	105	0.5	52	122.9	37.2	1159	2.8	8
1481575	0.0001	0.00733	0.00112	0.0121	11.2	121	1	73.3	261.5	55.1	1017	6.8	8.64
1481576	0.0001	0.00667	0.00201	0.016	20.1	160	1	66.7	160.3	46.8	1120	28.2	7.45
1481577	0.00004	0.00674	0.0006	0.0101	6	101	0.4	67.4	354.9	65.2	947	4.3	9.22
1481578	0.00002	0.00719	0.00054	0.0099	5.4	99	0.2	71.9	472	78	815	6.7	9.66
1481582	0.00019	0.00562	0.00126	0.0115	12.6	115	1.9	56.2	155.4	47.7	1293	3.1	8.04
1481583	0.00008	0.00611	0.00096	0.0121	9.6	121	0.8	61.1	89.4	43.4	1600	1.8	8.88
1481584	0.00022	0.00697	0.00637	0.0327	63.7	327	2.2	69.7	95.6	39.8	2635	171.4	12.67
1481587	0.00062	0.00662	0.00153	0.0079	15.3	79	6.2	66.2	48.9	23.7	705	2.8	4.87
1481588	0.0001	0.00881	0.00094	0.0084	9.4	84	1	88.1	69.4	43.3	1227	4.4	6.79
1481591	0.00006	0.00798	0.00059	0.0068	5.9	68	0.6	79.8	315.1	56	899	3.8	5.29
1481592	0.00018	0.01105	0.00201	0.012	20.1	120	1.8	110.5	316.6	54.2	873	13	6.97
1481593	0.0003	0.01282	0.00365	0.0161	36.5	161	3	128.2	275.9	44.9	1017	13	6.64
1481594	0.0001	0.01576	0.00182	0.0081	18.2	81	1	157.6	375.4	65	1226	6	6.55
1481595	0.00026	0.00576	0.00152	0.0067	15.2	67	2.6	57.6	52.1	20.3	584	6.7	4.66
1481596	0.00014	0.00719	0.00166	0.0073	16.6	73	1.4	71.9	127.5	29	637	6.3	4.36
1481597	0.00064	0.01958	0.01569	0.0728	156.9	728	6.4	195.8	221.8	73.1	2366	179	10.11
1481598	0.00073	0.02176	0.00423	0.0214	42.3	214	7.3	217.6	101.5	43.4	1933	10.3	7.48
1481599	0.00023	0.0077	0.00148	0.0082	14.8	82	2.3	77	59.5	20.5	1694	7	5.23
1481600	0.00039	0.01246	0.00418	0.0198	41.8	198	3.9	124.6	309.1	42.8	1125	14.8	6.37
1481601	0.0006	0.01976	0.00691	0.0178	69.1	178	6	197.6	85.7	77.1	874	35.2	4.72
1481602	0.00027	0.00915	0.00127	0.0134	12.7	134	2.7	91.5	202.6	71.4	1525	8.7	8.46
1481603	0.00095	0.01076	0.00602	0.0295	60.2	295	9.5	107.6	216.2	44.5	1432	54.1	6.57
1481604	0.00124	0.01628	0.00597	0.0304	59.7	304	12.4	162.8	230.1	44.7	1238	51.1	6.77
1481605	0.00009	0.00381	0.00312	0.0087	31.2	87	0.9	38.1	42.1	21	994	10.7	4.58
1481606	0.00012	0.00509	0.00373	0.008	37.3	80	1.2	50.9	45.3	21.1	1349	19.7	4.44
1481607	0.00014	0.01002	0.00391	0.0089	39.1	89	1.4	100.2	52.8	33.1	1933	42.5	5.85

1481608	0.00013	0.00692	0.00411	0.0082	41.1	82	1.3	69.2	52	42.3	2363	39.2	4.96
1481609	0.00012	0.0062	0.00379	0.009	37.9	90	1.2	62	57.2	23.3	1464	16.4	4.48
1481610	0.00015	0.0073	0.00542	0.0087	54.2	87	1.5	73	69	29	2388	16.8	4.5
1481611	0.00017	0.0063	0.00469	0.008	46.9	80	1.7	63	44.6	25.7	1436	11.2	3.91
1481612	0.00014	0.00468	0.0044	0.0096	44	96	1.4	46.8	44.4	19.8	663	7.4	4.21

1481613	0.00012	0.0036	0.00449	0.0057	44.9	57	1.2	36	25.1	15.3	555	6.4	2.65
1481614	0.00011	0.00454	0.00398	0.0088	39.8	88	1.1	45.4	35.6	20.4	810	13.5	4.09
1481615	0.00012	0.00505	0.00535	0.0092	53.5	92	1.2	50.5	33.6	24.9	1110	17.5	4.14
1481616	0.00011	0.00552	0.0052	0.0084	52	84	1.1	55.2	36.6	25.2	1146	14.9	3.51
1481617	0.00015	0.00452	0.00491	0.009	49.1	90	1.5	45.2	52.5	30	1712	13.3	4.51
1481618	0.0001	0.00373	0.00374	0.0076	37.4	76	1	37.3	44.3	23	1134	13	3.54
1481619	0.0002	0.00484	0.00287	0.0088	28.7	88	2	48.4	42.4	19.3	1298	17.5	3.72
1481620	0.00008	0.00461	0.00446	0.0088	44.6	88	0.8	46.1	40.8	22.4	1233	18.4	4.68
1481621	0.00012	0.00558	0.00625	0.0089	62.5	89	1.2	55.8	50	22.8	1244	14.7	4.55
1481622	0.00012	0.00513	0.00723	0.0091	72.3	91	1.2	51.3	38.3	23.9	1009	12.5	4.66
1481623	0.00009	0.00439	0.00554	0.0101	55.4	101	0.9	43.9	70.1	32.6	1195	18.5	4.67
1481624	0.00014	0.00492	0.00494	0.0085	49.4	85	1.4	49.2	51.6	20.4	1231	15.1	3.61
1481625	0.00016	0.00658	0.00577	0.0108	57.7	108	1.6	65.8	39.1	29.2	1989	15	4.08
1481626	0.00021	0.00803	0.00738	0.0105	73.8	105	2.1	80.3	42.6	41.4	1902	21.4	3.76
1481627	0.00012	0.00285	0.00287	0.0066	28.7	66	1.2	28.5	28.5	13.1	924	8.6	2.92
1481628	0.0002	0.00491	0.00449	0.0098	44.9	98	2	49.1	34.6	26.9	1966	13.4	4.06
1481629	0.0004	0.00731	0.00295	0.009	29.5	90	4	73.1	85	41.7	2183	17.5	5.18
1481630	0.0002	0.00412	0.00492	0.0088	49.2	88	2	41.2	36.9	28.9	2592	15.4	3.98
1481631	0.00009	0.00465	0.00362	0.0074	36.2	74	0.9	46.5	32.8	21.6	1310	17.2	3.11
1481632	0.00012	0.00467	0.00529	0.0095	52.9	95	1.2	46.7	37.1	27.7	1579	12.6	3.98
1481633	0.00015	0.00403	0.0037	0.0085	37	85	1.5	40.3	41.8	27	1717	12.8	4.1
1481634	0.00062	0.01302	0.00309	0.0173	30.9	173	6.2	130.2	133.8	50.3	2378	46.3	6.4
1481635	0.00007	0.00338	0.00265	0.0098	26.5	98	0.7	33.8	40.9	24.4	1174	10.6	5.3
1481636	0.00011	0.00728	0.0082	0.0107	82	107	1.1	72.8	48.6	38.7	1274	26.7	5.53
1481637	0.00011	0.00583	0.00551	0.0094	55.1	94	1.1	58.3	42.3	28.5	1577	15.6	4.78
1481638	0.0002	0.00589	0.00415	0.0102	41.5	102	2	58.9	48.3	22.2	1153	20.8	4.86
1481639	0.00025	0.01031	0.0027	0.011	27	110	2.5	103.1	124.5	40.7	1393	107	6.19
1481640	0.00027	0.0116	0.0032	0.0122	32	122	2.7	116	95.9	38.3	1353	43.8	6.35
1481641	0.00017	0.00859	0.0028	0.0086	28	86	1.7	85.9	79.9	34.2	1777	14.1	4.73
1481642	0.00031	0.00424	0.00368	0.0085	36.8	85	3.1	42.4	41.8	25.7	1942	33.7	4.31
1481643	0.00011	0.0064	0.00358	0.0076	35.8	76	1.1	64	57.5	23.6	1191	13	3.8
1481644	0.00015	0.00424	0.00274	0.0073	27.4	73	1.5	42.4	57.4	22.5	936	12.9	3.87
1481645	0.00011	0.00977	0.02046	0.0302	204.6	302	1.1	97.7	142.7	43	1760	98.3	6.66
1481646	0.00011	0.00452	0.00332	0.0087	33.2	87	1.1	45.2	57.4	24.5	1543	17.3	4.39
1481647	0.00013	0.00617	0.00471	0.0105	47.1	105	1.3	61.7	78.3	29	2588	49.7	5.89
1481648	0.0003	0.00748	0.00648	0.0131	64.8	131	3	74.8	79.7	32.6	1941	28.7	5.66
1481649	0.00048	0.01374	0.00254	0.0111	25.4	111	4.8	137.4	152.7	58.1	2093	53.3	7.46
1481650	0.00012	0.00508	0.00344	0.0089	34.4	89	1.2	50.8	39.7	19.5	1010	15.4	4.21
1481651	0.00012	0.00566	0.00419	0.0121	41.9	121	1.2	56.6	64.3	23.8	711	34.2	4.96
1481652	0.00012	0.00806	0.00598	0.0126	59.8	126	1.2	80.6	65.2	29	957	39.4	5.26
1481657	0.00012	0.00623	0.00379	0.0101	37.9	101	1.2	62.3	95.9	35.8	2380	45.8	5.83
1481658	0.00011	0.0045	0.00174	0.0068	17.4	68	1.1	45	66.8	19.2	934	10.9	4.18
1481659	0.00017	0.0072	0.00414	0.0116	41.4	116	1.7	72	109.6	42.5	2535	44.9	7.44
1481660	0.00016	0.00708	0.00427	0.0133	42.7	133	1.6	70.8	121.3	41	797	73.6	5.51
1481661	0.00012	0.00799	0.00354	0.0132	35.4	132	1.2	79.9	142.8	48.6	1540	109.5	7.82
1481662	0.0001	0.00563	0.00561	0.017	56.1	170	1	56.3	87	37.8	1811	59.9	6.56
1481663	0.0002	0.00561	0.00492	0.0112	49.2	112	2	56.1	53.4	27	1712	29.3	4.86
1481664	0.00024	0.00942	0.00544	0.0114	54.4	114	2.4	94.2	89.5	40.5	2212	59	5.5
1481665	0.00013	0.00885	0.00339	0.0141	33.9	141	1.3	88.5	166	50.1	1453	92.8	7.84
1481666	0.00014	0.00515	0.00239	0.01	23.9	100	1.4	51.5	84.8	27.5	1306	69	6.66
1481667	0.0001	0.00781	0.00285	0.0123	28.5	123	1	78.1	135.8	40.4	1610	60.5	7.21
1481668	0.00031	0.00925	0.01075	0.011	107.5	110	3.1	92.5	88.1	43.9	2406	30.1	7.07
1481669	0.00013	0.00564	0.003	0.0088	30	88	1.3	56.4	83.7	30.2	2041	51.9	5.34
1481670	0.00021	0.00376	0.00229	0.009	22.9	90	2.1	37.6	53.7	20.3	1201	22	4.8
1481671	0.00025	0.00372	0.00224	0.0095	22.4	95	2.5	37.2	39.4	22.9	1578	27.2	4.53

1481672	0.00013	0.00618	0.0035	0.0129	35	129	1.3	61.8	123.9	33.6	1423	106.5	7.62
1481673	0.00013	0.00456	0.00398	0.0122	39.8	122	1.3	45.6	65.4	24.6	951	28.9	4.46
1481675	0.00013	0.00744	0.01163	0.0249	116.3	249	1.3	74.4	112.6	30.1	1369	120.6	6.55
1481676	0.00021	0.00665	0.00203	0.0101	20.3	101	2.1	66.5	115.7	39.5	1105	141.3	5.51
1481677	0.00016	0.00386	0.00202	0.009	20.2	90	1.6	38.6	61.2	24.9	1288	29.5	5.09
1481678	0.00014	0.01014	0.00428	0.0135	42.8	135	1.4	101.4	150.2	50.2	2999	158.7	7.34
1481679	0.00012	0.00542	0.00507	0.0108	50.7	108	1.2	54.2	59.4	24.2	1235	104.6	4.62
1481680	0.00007	0.00469	0.00143	0.0082	14.3	82	0.7	46.9	82.3	20.5	582	11.4	3.83
1481681	0.00019	0.00367	0.00167	0.008	16.7	80	1.9	36.7	56	18.9	1019	52.9	4.02
1481682	0.00014	0.00298	0.00141	0.0065	14.1	65	1.4	29.8	43.4	15.1	790	15.6	4.08
1481683	0.00014	0.00363	0.00248	0.0079	24.8	79	1.4	36.3	42.2	19.5	1388	38.1	4.13
1481684	0.00013	0.00391	0.00307	0.0078	30.7	78	1.3	39.1	41.4	17.2	1319	34.7	4.31
1481685	0.0001	0.00595	0.00441	0.0103	44.1	103	1	59.5	105.4	31.9	1337	40.9	5.34
1481686	0.00014	0.00387	0.00185	0.0085	18.5	85	1.4	38.7	60.4	18.7	769	51.9	4.07
1481687	0.00013	0.00493	0.00162	0.009	16.2	90	1.3	49.3	68	23.9	872	18.4	4.37
1481688	0.00011	0.00333	0.00241	0.0077	24.1	77	1.1	33.3	38.9	17.1	934	28.6	3.8
1481689	0.00013	0.00382	0.00242	0.0088	24.2	88	1.3	38.2	63.9	21.8	1093	34.8	4.98
1481690	0.00007	0.00468	0.00184	0.0084	18.4	84	0.7	46.8	99.4	24.2	843	13	4.7
1481691	0.00008	0.00334	0.00205	0.0079	20.5	79	0.8	33.4	66.6	17.4	702	17.3	3.83
1481692	0.00008	0.00496	0.0037	0.0078	37	78	0.8	49.6	55.7	26.8	1095	14.8	3.89
1481693	0.0001	0.00475	0.00374	0.0072	37.4	72	1	47.5	79.3	28.7	1665	25.2	4.01

Sample	Th_ppm	Cr_ppm	Al_pct	Cd_ppm	Ba_ppm	Bi_ppm	Ca_pct	Sb_ppm	Sr_ppm	V_ppm	P_pct	La_ppm	Mg_pct	Na_pct
1480501	1.7	78	1.59	0.2	133	0.3	0.31	2.2	38	74	0.108	35	0.78	0.005
1480502	4.9	41	1.08	23.9	119	0.5	0.47	121.4	54	52	0.149	32	0.46	0.006
1480503	4	24	1.15	3.3	129	0.4	0.81	26	92	53	0.2	50	0.37	0.006
1480504	4.9	260	1.3	0.7	136	0.1	1.01	8.1	128	221	0.353	61	1.16	0.004
1480505	2	27	1.56	0.1	65	0.3	0.09	1.3	9	44	0.055	17	0.39	0.004
1480506	2.2	102	1.59	0.3	99	0.4	0.36	39.7	26	49	0.086	17	0.83	0.006
1480507	0.9	218	2.09	0.2	105	0.2	0.86	6.6	113	60	0.127	10	1.87	0.008
1480508	2.9	136	1.61	0.2	140	0.3	0.27	5.5	30	50	0.063	17	1.23	0.006
1480509	2.4	120	1.71	0.1	101	0.3	0.19	2.8	19	48	0.076	17	1.12	0.004
1480510	2.1	57	1.83	0.2	133	0.2	0.3	1.4	24	58	0.058	20	0.84	0.007
1480511	5.9	34	1.46	-0.1	76	0.4	0.22	1	19	36	0.066	46	0.51	0.004
1480512	3.2	51	1.61	0.2	110	0.4	0.32	1.2	24	52	0.091	37	0.6	0.005
1480513	1.5	141	1.01	1.1	152	-0.1	1.29	14	112	212	0.248	61	0.57	0.005
1480514	3.7	75	1	2.3	145	0.2	0.87	30	88	71	0.162	26	0.7	0.008
1480515	4.4	230	2.32	0.2	145	0.1	1.33	3.8	150	208	0.326	65	2.19	0.007
1480516	1.6	31	1.47	-0.1	90	0.3	0.15	2	14	45	0.064	22	0.5	0.005
1480517	2.1	30	1.66	0.1	64	0.5	0.08	1.4	8	51	0.061	17	0.38	0.005
1480518	1.5	32	1.94	0.1	93	0.5	0.08	1.9	11	44	0.097	20	0.49	0.007
1480519	0.4	32	1.48	0.2	77	0.4	0.23	1.6	15	41	0.065	18	0.42	0.006
1480520	10.8	23	1.33	0.1	48	0.5	0.13	1.2	14	16	0.04	57	0.47	0.004
1480521	1.9	34	1.54	0.1	63	0.4	0.16	0.9	14	39	0.059	27	0.45	0.004
1480522	0.9	26	1.09	0.1	90	0.5	0.09	1.1	14	29	0.065	28	0.31	0.003
1480523	7.6	58	0.91	6.3	107	0.4	0.4	37.2	55	55	0.133	37	0.41	0.004
1480524	3.3	85	1.7	2.5	142	0.2	0.92	16.6	85	118	0.18	36	1.03	0.008
1480525	3.3	111	1.16	0.7	136	0.2	1.17	11.9	103	104	0.236	39	0.88	0.008
1480526	3.6	135	1.07	0.6	128	0.1	1.06	12.6	107	154	0.273	46	0.67	0.006
1480527	0.6	33	1.62	0.1	73	0.4	0.1	1.3	9	48	0.092	17	0.46	0.005
1480528	3.1	26	1.27	-0.1	46	0.3	0.09	1.1	9	41	0.049	17	0.41	0.005
1480529	5.4	27	1.99	0.1	35	0.4	0.07	0.6	7	22	0.071	35	0.65	0.004
1480530	5.1	29	1.47	-0.1	116	0.6	0.16	0.9	19	34	0.074	59	0.44	0.006
1480531	3.1	37	1.66	-0.1	83	0.3	0.11	0.7	11	42	0.066	28	0.44	0.004
1480532	1.2	220	2.33	5.8	144	0.2	1.17	12.4	42	163	0.133	22	1.66	0.008
1480533	2.2	107	2.27	3.7	164	0.3	0.27	8.6	18	89	0.096	22	0.99	0.007
1480534	1.8	185	1.45	58.1	151	-0.1	1.51	54.8	49	132	0.213	23	1.04	0.007
1480535	1.5	248	2.2	6.8	536	0.1	1.67	31.1	53	145	0.158	25	1.85	0.009
1480536	1.6	284	1.96	4.5	377	-0.1	1.66	13.9	56	157	0.161	25	1.77	0.008
1480538	5.9	19	0.54	19.6	131	0.6	0.25	87.1	22	21	0.076	19	0.21	0.004
1480539	1	260	2.35	2.7	236	0.2	0.7	18.1	43	148	0.261	36	1.3	0.006
1480540	1.7	299	2.13	20.8	196	-0.1	1.22	31.6	59	176	0.222	35	1.74	0.007
1480541	0.9	113	2.04	4	146	0.2	0.96	14.5	36	69	0.201	23	0.86	0.008
1480542	2.3	108	2.5	3.4	250	0.2	0.8	5.1	41	78	0.143	26	1.02	0.009
1480543	5	80	1.63	1.8	152	0.2	0.64	14.9	42	60	0.168	24	1.05	0.011
1480544	3.6	93	1.82	3.3	220	0.2	0.82	23.4	54	84	0.178	24	1.22	0.008
1480545	2.5	218	1.93	38.9	91	0.1	1	71.3	54	138	0.253	27	1.92	0.007
1480546	3.3	125	1.67	54.9	173	0.1	1.03	193.6	49	101	0.182	26	1.47	0.011
1480547	2.2	85	2.09	7.2	194	0.2	0.7	15.5	38	91	0.147	24	0.81	0.007
1480548	1.7	137	2.09	9.2	241	0.1	0.94	22.7	42	104	0.14	19	1.17	0.007
1480549	3.1	64	2.31	1.2	200	0.2	0.31	2.9	19	82	0.066	15	0.9	0.007
1480550	3	50	1.35	0.9	127	0.3	0.17	3	12	73	0.075	15	0.47	0.006
1480551	3.5	74	2.45	0.4	301	0.2	0.47	1.4	25	97	0.062	19	1.09	0.007

1480552	2	180	2	22.4	140	-0.1	0.95	63.3	49	134	0.206	24	1.76	0.006
1480553	2.8	328	2.53	44.5	147	-0.1	0.78	94.8	51	171	0.262	28	2.83	0.005
1480554	3.4	173	2.62	1.7	381	-0.1	0.87	5.4	70	120	0.182	50	1.83	0.009
1480555	1.8	76	1.82	4	154	0.2	0.27	7.9	18	82	0.088	20	0.8	0.006
1480556	2	60	1.64	3.4	189	0.2	0.3	5.1	20	83	0.084	16	0.82	0.006
1480557	4	88	2.18	0.5	222	0.1	0.55	2.2	35	89	0.118	24	1.32	0.008
1480558	2.7	79	2.18	0.6	274	0.2	0.59	1.5	31	86	0.087	18	1.28	0.007
1480559	2.4	246	1.57	50.2	229	0.1	0.82	121.9	46	116	0.185	28	1.03	0.008
1480560	2.7	136	1.91	12.5	204	0.1	0.94	54.3	54	98	0.212	30	1.37	0.008
1480561	2.4	234	2.25	52.3	231	-0.1	0.85	77.2	49	148	0.215	28	2.3	0.006
1480562	1.7	118	2.01	3.5	289	0.2	0.69	5.5	39	85	0.094	22	1.01	0.006
1480563	2.3	58	1.57	1.8	243	0.2	0.26	4.6	19	68	0.084	17	0.65	0.007
1480564	1.8	55	1.74	2.5	267	0.2	0.34	1.9	22	69	0.071	17	0.71	0.005
1480565	3.3	56	1.73	0.4	220	0.2	0.34	2.2	21	66	0.073	17	0.92	0.006
1480566	3.5	40	1.22	2.9	105	0.2	0.34	25.1	21	47	0.09	19	0.44	0.006
1480567	3.4	233	2.04	2.2	172	0.1	0.62	15.4	52	126	0.218	32	1.41	0.005
1480568	1.8	68	1.62	2.8	165	0.2	0.74	12.6	33	63	0.146	14	0.78	0.007
1480569	2.1	45	1.88	2.2	191	0.2	0.48	5.6	22	61	0.07	15	0.75	0.005
1480570	1.5	118	2.01	27.1	314	0.2	0.88	40.3	40	101	0.119	18	1.34	0.006
1480571	2.9	92	1.83	1.7	249	0.2	0.43	6	26	80	0.089	20	1	0.006
1480572	3.6	74	1.94	1	207	0.2	0.5	2.5	31	78	0.125	18	1.1	0.006
1480573	4.2	65	1.66	0.3	200	0.1	0.6	1.4	37	65	0.126	18	1.11	0.01
1480574	6.2	30	1.07	4.2	65	0.2	0.31	23.1	23	41	0.108	17	0.48	0.005
1480575	2.1	42	1.47	4.1	137	0.2	0.6	19.5	29	48	0.12	19	0.52	0.006
1480576	1.1	63	1.61	1.2	191	0.2	0.26	6.7	18	59	0.082	16	0.61	0.004
1480577	4.6	94	1.76	5.1	188	0.1	0.61	22.5	41	80	0.14	23	1.02	0.007
1480578	1.7	57	1.72	1.7	247	0.2	0.61	6.6	32	57	0.092	17	0.77	0.005
1480579	4	61	1.51	1.6	156	0.1	0.51	7.7	27	64	0.106	15	0.97	0.006
1480580	3.9	71	1.71	2.7	166	0.1	0.48	6.4	29	75	0.116	18	1.04	0.006
1480581	4.2	80	1.92	0.3	239	0.1	0.62	1.3	40	89	0.151	22	1.36	0.007
1480582	0.5	28	1.68	0.2	67	0.3	0.07	0.9	7	48	0.076	12	0.35	0.004
1480583	1.1	33	1.79	0.3	87	0.3	0.1	1	8	44	0.08	14	0.55	0.004
1480584	1	31	1.39	0.3	116	0.3	0.26	4	15	33	0.073	12	0.4	0.005
1480585	3.4	37	0.99	9.8	86	0.2	0.37	46.6	22	41	0.101	15	0.38	0.005
1480586	0.9	35	1.14	3.3	115	0.2	0.3	21.3	16	43	0.073	12	0.33	0.005
1480587	3.5	39	1.38	2.6	98	0.2	0.29	12.1	20	49	0.102	18	0.56	0.006
1480588	4.6	37	1.47	1.8	86	0.2	0.35	13.8	21	45	0.109	18	0.58	0.005
1480589	3.4	66	1.7	1.1	180	0.2	0.36	7.5	26	65	0.107	19	0.8	0.006
1480590	2	76	1.71	4.3	237	0.2	0.64	14	41	68	0.133	18	0.78	0.007
1480591	3.5	76	1.92	0.6	223	0.1	0.63	2	37	87	0.12	17	1.2	0.007
1480592	5.5	69	1.83	0.7	268	0.1	0.77	2	40	87	0.111	33	1.16	0.008
1480593	3.1	76	2.03	1.8	255	0.1	0.79	2.9	40	88	0.133	21	1.28	0.009
1480594	4.8	30	1.82	0.2	60	0.3	0.07	1	7	62	0.05	13	0.35	0.005
1480595	14.8	15	0.89	-0.1	38	0.5	0.05	1	16	31	0.043	11	0.27	0.005
1480596	13	29	2.17	-0.1	41	0.5	0.05	1.1	10	27	0.045	17	0.75	0.006
1480597	4.1	22	1.4	0.1	66	0.4	0.06	1.2	10	33	0.046	12	0.37	0.004
1480598	7.3	24	1.52	-0.1	52	0.4	0.06	1.3	10	35	0.041	16	0.49	0.004
1480599	4	23	1.44	-0.1	61	0.4	0.04	1.4	9	34	0.052	12	0.45	0.004
1480600	1.4	63	1.73	1.9	158	0.2	0.39	6.2	26	72	0.097	16	0.82	0.006
1480601	3.1	64	1.63	1.9	174	0.2	0.54	5.5	39	70	0.131	18	1.04	0.007
1480602	3.3	62	1.84	0.8	135	0.2	0.44	4.4	33	69	0.13	16	1.12	0.007
1480603	3.1	69	1.98	0.8	191	0.2	0.44	4.9	33	75	0.125	20	1.08	0.007
1480604	2.9	83	2.07	2.2	208	0.2	0.55	8	39	80	0.14	21	1.26	0.007
1480605	3.7	63	1.57	0.4	238	0.1	0.6	1.8	44	68	0.135	23	1.09	0.01
1480606	1.4	66	1.84	0.7	295	0.2	0.9	2.1	48	72	0.131	20	1.03	0.008

1480607	2.3	23	1.4	0.1	74	0.4	0.05	0.8	7	55	0.043	15	0.21	0.004
1480608	5.8	20	1.11	0.1	73	0.3	0.13	1.5	13	30	0.066	13	0.38	0.005
1480609	2.2	28	1.73	0.2	92	0.3	0.07	1	8	54	0.048	11	0.3	0.005
1480610	3.3	33	2.07	0.4	145	0.2	0.09	0.8	9	56	0.056	12	0.44	0.006
1480612	2	66	1.9	0.9	169	0.2	0.3	2.8	22	77	0.085	17	0.92	0.006
1480613	3.1	73	1.87	0.8	237	0.2	0.56	2.3	36	79	0.123	23	1.19	0.01
1480614	1.5	56	1.57	2.1	134	0.3	0.29	9.4	23	58	0.101	16	0.71	0.005
1480615	3.2	59	1.65	1.4	195	0.2	0.52	4.1	33	63	0.123	19	0.96	0.007
1480640	2.5	99	1.46	0.9	114	0.2	1.24	8.6	58	61	0.137	33	0.73	0.007
1480643	0.3	158	1.89	0.5	149	-0.1	2.45	1.2	73	72	0.155	17	1.26	0.01
1480644	1.7	185	1.9	0.6	232	0.3	1.44	7	123	105	0.164	37	1.66	0.009
1480645	1.9	190	1.84	4.4	175	0.1	2.16	17.1	138	88	0.281	39	2.02	0.008
1480646	2.8	157	1.7	0.4	147	0.1	0.99	8.1	72	82	0.21	49	1.46	0.008
1480647	3.7	291	2.12	10.1	185	-0.1	2.58	42	214	117	0.329	41	2.68	0.007
1480648	5.2	241	1.27	1.6	192	0.2	1.11	6.2	61	172	0.272	64	0.64	0.009
1480649	4.2	100	1.21	3.5	137	0.2	1.13	38.1	67	93	0.275	34	0.71	0.009
1480650	1.4	33	1.83	0.1	54	0.5	0.08	2.2	11	37	0.11	20	0.58	0.006
1480651	0.7	29	1.73	0.3	87	0.4	0.08	0.9	9	50	0.103	18	0.32	0.005
1480652	1.5	49	1.78	20.2	160	0.7	0.57	175.6	39	56	0.171	34	0.51	0.008
1480653	6.1	37	2.37	0.1	80	0.6	0.1	3.6	13	34	0.115	22	0.75	0.005
1480654	0.7	27	1.42	-0.1	72	0.5	0.08	1.7	11	40	0.103	14	0.37	0.006
1480655	1.1	30	1.61	0.3	104	0.4	0.21	1	21	45	0.091	18	0.52	0.006
1480656	3.8	29	1.55	0.2	92	0.4	0.11	4.5	13	37	0.075	25	0.54	0.006
1480657	0.7	29	1.43	0.1	77	0.5	0.09	1.5	10	41	0.088	18	0.39	0.004
1480658	1.9	31	2.18	0.3	160	0.6	0.1	1.8	13	41	0.178	22	0.52	0.006
1480659	1	25	1.62	-0.1	89	0.4	0.06	1.5	9	32	0.089	18	0.44	0.005
1480660	2.1	23	1.14	0.2	71	0.3	0.06	1.8	8	34	0.067	19	0.29	0.005
1480661	3.8	41	1.38	-0.1	66	0.3	0.15	5.7	14	29	0.082	26	0.46	0.003
1480662	2.6	43	1.55	-0.1	68	0.3	0.13	0.7	12	30	0.063	21	0.66	0.004
1480663	1.7	35	1.8	-0.1	85	0.4	0.44	1.2	29	31	0.128	40	0.61	0.008
1480664	3.5	29	1.77	-0.1	70	0.4	0.12	1	11	30	0.085	22	0.6	0.005
1480665	2.5	47	1.84	-0.1	60	0.4	0.13	1	11	32	0.097	17	0.77	0.005
1480666	0.8	30	1.83	-0.1	56	0.4	0.06	0.8	8	34	0.106	17	0.51	0.005
1480667	0.8	29	1.51	0.1	43	0.4	0.07	1	7	36	0.08	15	0.41	0.004
1480668	0.7	29	1.66	0.2	68	0.3	0.05	1.1	6	34	0.112	12	0.34	0.005
1480669	1.9	29	1.46	-0.1	75	0.5	0.11	1.7	15	31	0.086	20	0.49	0.005
1480670	1	23	1.44	-0.1	80	0.4	0.08	1.3	9	39	0.05	17	0.38	0.005
1480671	0.7	36	1.77	0.1	66	0.5	0.08	0.9	9	35	0.095	23	0.53	0.004
1480672	2.3	33	1.73	0.1	69	0.4	0.13	1	13	31	0.068	27	0.61	0.005
1480673	1.3	32	1.68	-0.1	58	0.4	0.1	1.3	11	34	0.082	24	0.55	0.004
1480674	1.3	36	1.69	-0.1	63	0.4	0.16	1.3	14	32	0.097	25	0.54	0.004
1480676	1.1	29	1.82	0.1	66	0.3	0.06	1	7	28	0.123	12	0.5	0.004
1480677	0.6	27	1.7	0.1	54	0.4	0.05	1.3	7	28	0.113	14	0.44	0.005
1480678	0.9	26	1.43	0.2	54	0.3	0.11	1.3	11	34	0.082	20	0.44	0.004
1480679	3.9	29	1.72	0.1	80	0.4	0.12	1.8	13	32	0.077	28	0.58	0.004
1480680	0.7	36	2.06	0.2	79	0.5	0.06	1.2	9	40	0.134	19	0.44	0.005
1480681	0.9	28	1.66	-0.1	59	0.4	0.09	1	9	35	0.097	23	0.41	0.004
1480682	4	73	2.2	0.2	85	0.5	0.25	1.3	21	38	0.119	18	0.89	0.005
1480683	4.3	32	1.99	0.1	49	0.4	0.11	1.8	15	20	0.104	20	0.73	0.006
1480684	1.5	31	1.78	0.1	58	0.4	0.08	1.4	9	39	0.123	19	0.5	0.005
1480685	1.2	31	2.03	0.2	73	0.4	0.04	1.3	7	31	0.166	15	0.5	0.003
1480686	2.3	34	1.82	0.2	61	0.4	0.07	1.3	8	34	0.128	22	0.57	0.005
1480687	1.1	29	1.83	0.1	61	0.4	0.09	1.4	9	32	0.108	20	0.53	0.004
1480688	0.6	30	1.53	0.2	80	0.3	0.11	1.5	11	39	0.092	19	0.46	0.004
1480689	3.6	126	1.74	1.1	194	0.2	1.12	34.6	98	80	0.336	51	0.94	0.007

1480690	3.8	78	1.58	0.5	122	0.3	0.54	21.3	50	50	0.167	32	0.58	0.006
1480691	4.9	27	1.84	-0.1	72	0.5	0.09	1.2	10	30	0.106	29	0.57	0.006
1480692	0.6	23	1.32	0.2	44	0.3	0.05	1.3	7	35	0.084	16	0.3	0.004
1480693	1.2	28	1.67	0.1	57	0.4	0.09	1.1	9	35	0.102	20	0.44	0.005
1480694	1.9	28	1.56	-0.1	55	0.4	0.09	1.3	9	34	0.109	25	0.49	0.004
1480695	1.2	29	1.73	0.2	64	0.4	0.06	1.5	8	30	0.103	23	0.48	0.003
1480696	5.4	29	2.04	0.1	64	0.5	0.1	1.6	11	29	0.094	30	0.67	0.004
1480697	0.4	29	1.58	0.2	69	0.3	0.08	1.3	9	44	0.091	16	0.41	0.005
1480698	0.5	90	1.68	0.7	121	0.2	0.51	13.3	35	57	0.176	20	0.84	0.005
1480699	0.7	27	1.63	0.1	64	0.5	0.08	1.2	9	33	0.096	15	0.41	0.006
1480700	0.8	31	1.75	0.1	67	0.3	0.09	0.9	10	52	0.071	13	0.4	0.005
1480701	1.3	26	1.52	0.1	45	0.4	0.06	0.8	7	37	0.09	16	0.35	0.004
1480702	0.6	30	1.47	-0.1	62	0.3	0.09	0.8	8	34	0.084	15	0.43	0.004
1480703	1.1	25	1.67	-0.1	50	0.3	0.1	1	9	29	0.083	21	0.49	0.004
1480704	0.8	28	1.69	0.1	64	0.3	0.1	1.1	10	31	0.105	19	0.49	0.004
1480705	1	29	1.88	0.2	57	0.4	0.08	1.3	9	25	0.107	15	0.56	0.004
1480706	0.4	34	1.78	0.2	55	0.3	0.08	0.9	7	45	0.086	12	0.4	0.004
1480707	0.9	58	1.4	0.7	97	0.2	1.02	10.2	49	44	0.255	21	0.57	0.008
1480708	4.3	35	2.13	0.1	120	0.4	0.22	1.1	16	41	0.08	19	0.68	0.005
1480709	2.9	39	1.84	0.2	97	0.4	0.21	1.2	16	43	0.093	15	0.52	0.005
1480710	2.4	31	1.9	0.2	48	0.4	0.06	1	6	44	0.097	13	0.43	0.004
1480711	2.3	39	2.03	0.2	86	0.4	0.21	1	14	37	0.134	15	0.55	0.003
1480712	1.5	39	1.97	-0.1	74	0.4	0.1	1.4	7	31	0.101	17	0.65	0.004
1480713	4.3	31	2.07	0.1	49	0.3	0.11	1	8	25	0.085	23	0.73	0.004
1480714	10.6	43	2.75	-0.1	56	0.4	0.16	0.9	7	26	0.056	20	0.92	0.005
1480715	2.9	30	1.37	-0.1	72	0.4	0.13	2.8	10	34	0.078	16	0.49	0.005
1480716	5.2	73	2.1	0.4	79	0.4	0.33	8.9	36	39	0.122	29	0.99	0.004
1480717	3.3	31	1.88	0.1	41	0.5	0.05	1.9	6	34	0.113	15	0.48	0.004
1480718	5.6	34	1.75	-0.1	85	0.5	0.14	2	11	27	0.1	20	0.65	0.004
1480719	6.4	34	2.03	-0.1	54	0.3	0.1	1	8	28	0.099	24	0.75	0.006
1480720	8.8	38	2.84	-0.1	34	0.4	0.16	0.8	9	23	0.059	18	0.91	0.004
1480721	9.2	38	2.82	-0.1	41	0.3	0.11	0.8	7	21	0.058	22	0.9	0.005
1480722	7.5	33	1.87	-0.1	40	0.6	0.1	1.5	6	26	0.069	26	0.66	0.003
1480723	7.1	36	2.49	-0.1	40	0.3	0.1	0.7	8	24	0.045	6	0.74	0.004
1480724	7.6	42	2.88	-0.1	21	0.3	0.1	0.6	7	26	0.048	5	0.91	0.004
1480725	8.4	42	3.02	-0.1	23	0.3	0.13	0.6	8	24	0.052	5	0.99	0.006
1480726	10.4	38	2.52	-0.1	29	0.3	0.11	0.8	8	25	0.051	12	0.86	0.003
1480727	10.2	32	2.22	-0.1	61	0.7	0.07	0.6	6	28	0.089	36	0.82	0.005
1480728	3.1	40	1.83	-0.1	59	0.8	0.1	0.7	8	49	0.099	24	0.59	0.004
1480729	7.2	41	2.71	-0.1	34	0.4	0.09	0.7	6	26	0.052	9	0.86	0.004
1480730	6.8	37	2.53	-0.1	47	0.4	0.07	0.8	5	26	0.072	20	0.81	0.005
1480731	3.7	19	0.95	-0.1	42	0.3	0.06	0.6	6	63	0.035	24	0.14	0.004
1480732	7.3	37	2.43	-0.1	45	0.6	0.04	1.1	6	26	0.06	9	0.67	0.005
1480733	6.2	35	2.38	-0.1	37	0.4	0.05	0.7	7	24	0.053	8	0.71	0.004
1480734	7.3	36	2.48	-0.1	49	0.4	0.17	0.8	11	26	0.063	16	0.75	0.005
1480735	10.1	48	2.37	-0.1	79	0.4	0.21	0.5	12	35	0.077	60	0.85	0.005
1480736	3.5	222	1.48	1.1	221	-0.1	1.74	9.6	128	184	0.336	49	1.28	0.007
1480737	6.2	81	2.04	0.5	72	0.4	0.25	8.5	25	43	0.1	32	1.09	0.005
1480740	0.6	38	1.59	0.1	87	0.2	0.1	0.5	9	56	0.068	14	0.5	0.006
1480741	5.4	35	2.23	-0.1	29	0.5	0.09	0.3	5	32	0.069	15	0.69	0.005
1480742	6.7	34	2.34	-0.1	32	0.3	0.07	0.8	7	24	0.05	8	0.69	0.004
1480743	5.9	37	2.52	-0.1	42	0.4	0.07	0.7	6	28	0.071	15	0.74	0.005
1480744	2.3	254	1.37	0.9	235	-0.1	1.89	7.5	109	194	0.292	51	1.02	0.007
1480746	3.2	28	1.64	0.1	54	0.3	0.14	0.7	9	43	0.082	20	0.43	0.006
1480747	13.9	40	2.78	-0.1	63	0.4	0.23	0.2	14	23	0.05	37	0.88	0.005

1480748	11.6	40	2.42	-0.1	77	0.4	0.19	0.2	17	26	0.058	28	0.78	0.005
1480749	11.9	38	2.43	-0.1	42	0.4	0.11	0.4	5	27	0.05	28	0.75	0.004
1480750	9.5	32	2.01	-0.1	52	0.4	0.12	0.5	8	33	0.063	23	0.62	0.005
1480751	0.8	32	1.91	-0.1	58	0.4	0.05	0.8	6	38	0.082	12	0.46	0.006
1480752	4.6	36	2.35	-0.1	49	0.4	0.08	0.7	7	32	0.072	12	0.7	0.005
1480753	3.6	41	1.29	1.2	212	0.1	1.1	16.6	119	90	0.313	57	0.29	0.007
1480754	4.5	102	1.92	1.6	190	-0.1	1.12	15	124	164	0.398	70	1.35	0.007
1480755	9.4	42	2.28	-0.1	77	0.4	0.21	0.3	16	31	0.051	31	0.78	0.006
1480756	6.3	24	1.35	0.1	84	0.3	0.18	0.9	13	35	0.084	26	0.43	0.007
1480758	6	40	2.12	-0.1	84	0.4	0.21	0.4	14	35	0.055	23	0.71	0.006
1480759	1	30	1.61	0.1	53	0.3	0.06	0.8	6	53	0.073	15	0.3	0.005
1480760	0.8	41	1.5	5.9	93	0.4	0.29	45.4	25	48	0.143	24	0.46	0.006
1480761	3.2	34	1.96	-0.1	45	0.3	0.08	0.8	7	33	0.076	15	0.62	0.004
1480762	1.7	126	1.9	1.3	389	-0.1	1.13	13.4	74	129	0.203	41	1.16	0.008
1480763	2.2	216	1.99	0.6	185	0.1	0.92	4.6	50	128	0.152	30	1.33	0.009
1480764	1.5	27	1.09	0.8	172	-0.1	1.31	22	75	71	0.191	20	0.42	0.007
1480765	1.4	24	1.26	0.1	77	0.3	0.11	0.9	10	33	0.062	17	0.29	0.005
1480766	3.1	26	1.4	-0.1	95	0.3	0.15	0.8	12	53	0.042	14	0.33	0.005
1480767	0.6	32	1.45	0.4	91	0.3	0.1	0.7	8	51	0.085	12	0.41	0.006
1480768	2.3	24	1.44	0.1	106	0.2	0.24	2.5	15	56	0.105	32	0.49	0.005
1480769	8.2	42	2.25	-0.1	41	0.4	0.21	1	11	27	0.054	21	0.8	0.004
1480770	1.1	158	1.86	5.2	272	0.1	1.45	52.2	81	129	0.181	30	1.32	0.009
1480771	2.9	517	3.41	0.4	379	0.1	1.11	2.4	70	198	0.211	28	4.37	0.006
1480772	1.8	133	1.74	3.3	236	0.2	0.84	15.3	48	89	0.138	29	1.02	0.006
1480773	4.8	64	1.24	0.5	127	0.2	1	10.9	72	75	0.302	34	0.41	0.006
1480774	2.7	30	1.38	0.2	203	0.2	0.63	2.9	40	58	0.11	22	0.51	0.008
1480775	1.2	32	2.11	0.2	190	0.2	0.41	3	20	83	0.094	20	0.91	0.008
1480776	1.6	30	1.75	0.3	179	0.2	0.28	2.4	22	71	0.124	25	0.55	0.005
1480777	0.3	27	1.55	0.4	131	0.2	0.17	1.8	13	71	0.095	16	0.57	0.006
1480778	1.4	57	1.79	0.3	201	0.2	0.41	1.8	31	78	0.116	27	0.81	0.007
1480780	3.1	108	1.83	4	323	0.1	1.07	19.8	82	111	0.225	29	1.4	0.009
1480782	1.5	49	1.57	0.9	197	0.2	0.48	4.7	28	55	0.088	23	0.56	0.005
1480783	1.7	39	1.44	0.6	172	0.2	0.46	11.3	31	63	0.167	21	0.44	0.006
1480784	2.4	33	1.81	0.1	191	0.2	0.35	1	21	52	0.1	22	0.63	0.006
1480785	1.8	30	1.85	0.1	177	0.2	0.58	2.1	26	83	0.101	19	0.86	0.006
1480786	2	34	1.79	0.2	194	0.2	0.38	2	23	65	0.101	19	0.63	0.006
1480787	1.7	35	1.86	0.2	224	0.2	0.29	2.3	20	79	0.089	21	0.8	0.006
1480788	2.2	109	2.15	0.3	228	0.2	0.78	4.4	51	89	0.168	35	1.19	0.008
1480790	3.1	76	1.86	1	255	0.1	0.83	10.1	69	124	0.226	41	1.26	0.008
1480791	0.7	60	1.68	0.9	164	0.2	0.28	5.4	22	60	0.1	24	0.61	0.006
1480792	2.4	35	1.34	2.9	142	0.2	0.39	16.3	26	49	0.091	19	0.5	0.006
1480793	5.9	64	2.04	0.3	76	0.3	0.29	5.7	24	36	0.102	20	0.86	0.004
1480794	1.4	30	1.69	0.2	306	0.2	0.46	1.3	29	49	0.12	23	0.54	0.006
1480795	4	27	1.7	0.2	111	0.2	0.28	1.7	18	63	0.106	19	0.67	0.005
1480796	4.3	26	1.32	0.2	169	0.1	0.33	1.1	20	51	0.105	23	0.62	0.006
1480797	7.1	46	2.4	-0.1	66	0.3	0.36	1.3	23	34	0.075	19	0.9	0.006
1480798	2.6	69	1.54	1.2	208	0.2	0.6	5.2	46	67	0.125	21	0.88	0.008
1480799	5.2	83	1.49	2	130	0.2	0.63	6.2	48	78	0.169	25	1.08	0.01
1480800	5	49	0.99	0.7	121	0.2	0.42	5.1	35	45	0.114	24	0.55	0.006
1480801	3.1	39	1.44	2.6	167	0.2	0.34	12	25	52	0.086	20	0.56	0.006
1480802	1.7	32	1.32	0.9	63	0.2	0.25	5.7	19	42	0.11	20	0.5	0.006
1480803	6.2	49	2.24	0.1	67	0.3	0.32	4.6	32	34	0.078	19	0.88	0.005
1480804	4.3	53	2.1	0.2	120	0.3	0.45	4.5	33	34	0.094	18	0.79	0.006
1480805	3.8	29	1.67	0.2	116	0.3	0.18	1	12	46	0.074	21	0.53	0.005
1480806	7.8	63	2.48	0.1	77	0.3	0.27	2.2	20	47	0.058	25	1.01	0.006

1480807	7.5	45	2.28	-0.1	75	0.3	0.24	1.4	17	33	0.065	21	0.78	0.004
1480808	2.8	64	1.91	0.6	200	0.3	0.48	4.2	34	68	0.106	27	0.89	0.007
1480809	1.6	45	1.63	0.4	141	0.3	0.26	2.8	21	52	0.103	37	0.61	0.005
1480810	6	37	1.14	3.3	83	0.2	0.43	12.6	35	51	0.165	30	0.57	0.006
1480811	1.9	34	1.53	0.9	110	0.3	0.25	4	20	50	0.101	25	0.52	0.005
1480812	1.2	18	0.79	0.1	57	0.5	0.03	1	13	48	0.068	15	0.14	0.004
1480813	1.4	67	2.12	0.3	112	0.3	0.86	3.1	70	58	0.118	18	1.1	0.007
1480814	5.9	52	1.95	0.2	66	0.3	0.28	4.3	25	33	0.083	22	0.86	0.006
1480815	6.4	62	2.32	0.3	95	0.3	0.33	2	27	46	0.075	24	0.9	0.005
1480816	5	55	2.36	0.2	157	0.3	0.44	2	29	52	0.081	26	0.81	0.006
1480817	6.7	51	2.59	0.2	112	0.3	0.32	1.2	22	40	0.074	24	0.89	0.005
1480818	1	35	1.49	1.1	148	0.2	0.26	3.8	20	50	0.09	20	0.51	0.006
1480819	1.5	23	1.39	0.3	116	0.4	0.22	2.1	18	41	0.061	14	0.32	0.005
1480820	4.7	22	0.95	-0.1	140	0.4	0.07	1.5	16	42	0.041	19	0.27	0.004
1480821	2.8	24	1.48	0.4	68	0.4	0.06	1.1	8	57	0.052	16	0.32	0.004
1480822	1.5	23	1.47	-0.1	50	0.3	0.05	0.9	8	55	0.042	12	0.23	0.004
1480823	4.8	12	0.48	-0.1	60	0.4	0.03	1.6	13	31	0.038	18	0.11	0.003
1480824	2	108	2.39	0.1	393	0.2	0.89	1.1	63	108	0.134	25	1.77	0.009
1480825	6.3	88	2.49	0.1	168	0.2	0.42	1.2	36	87	0.152	24	1.35	0.006
1480826	5.3	63	2.09	0.4	134	0.3	0.49	3.1	43	44	0.096	21	0.85	0.007
1480827	7.5	48	2.66	0.1	118	0.3	0.29	1.1	19	40	0.066	22	0.79	0.005
1480828	6.7	60	2.64	0.2	126	0.3	0.33	2.4	23	53	0.088	30	0.89	0.006
1480829	4.2	18	0.84	0.3	80	0.4	0.08	1.5	17	35	0.045	18	0.26	0.004
1480830	5.5	66	1.53	0.3	125	0.4	0.4	3.4	24	55	0.094	19	0.56	0.007
1480831	2.5	27	1.42	0.2	51	0.3	0.08	1.8	8	55	0.058	13	0.35	0.005
1480832	3.8	29	1.84	0.2	57	0.4	0.08	1.2	9	53	0.063	14	0.41	0.006
1480833	1.7	30	1.48	-0.1	68	0.5	0.11	1	12	42	0.067	12	0.43	0.006
1480834	5.3	14	0.72	0.1	50	0.4	0.03	1.3	13	29	0.038	21	0.19	0.004
1480835	2.3	106	2.56	0.3	366	0.2	1	0.9	63	117	0.113	29	1.5	0.008
1480836	3.4	117	2.65	0.1	304	-0.1	0.99	0.6	82	141	0.245	31	2.09	0.01
1480837	3.3	100	2.39	0.2	116	0.2	0.31	1.1	22	96	0.137	17	1.31	0.006
1480838	1.5	127	2.5	0.6	177	0.3	0.56	1.6	45	95	0.097	23	1.41	0.007
1480839	7	42	1.66	0.7	131	0.2	0.35	2.9	25	42	0.089	27	0.67	0.007
1480840	2.8	34	1.18	0.1	112	0.4	0.27	1.9	19	41	0.06	14	0.38	0.006
1480841	2.3	28	1.27	0.1	123	0.4	0.16	1.1	16	42	0.059	16	0.42	0.006
1480842	2.7	18	0.93	0.1	72	0.4	0.06	1	11	32	0.047	13	0.23	0.005
1480843	3.7	19	0.94	0.1	70	0.4	0.08	1.4	11	28	0.045	11	0.28	0.006
1480844	1.8	13	0.7	-0.1	62	0.4	0.05	1.7	10	19	0.047	5	0.15	0.007
1480845	3.3	18	0.92	-0.1	43	0.5	0.08	2.2	13	19	0.052	6	0.32	0.005
1480851	2.4	193	2.42	0.1	325	-0.1	1.82	0.7	163	158	0.235	39	2.49	0.01
1480852	4.1	294	3.17	0.2	234	-0.1	1.85	0.2	169	186	0.332	38	3.28	0.009
1480853	4.7	329	3.16	-0.1	291	-0.1	3.2	0.3	258	188	0.382	46	3.56	0.011
1480854	4.9	250	3.13	0.2	428	-0.1	1.09	0.5	129	163	0.256	48	3.58	0.009
1480856	4.1	289	3.54	-0.1	367	-0.1	1.7	0.4	206	176	0.34	50	4.64	0.009
1480857	7	226	2.47	0.2	359	0.1	1.5	0.8	234	168	0.353	71	2.9	0.011
1480858	5.4	304	3.14	0.3	452	-0.1	1.67	0.4	223	194	0.423	68	3.85	0.011
1480859	5.5	341	4.5	-0.1	383	-0.1	1.42	0.6	207	225	0.477	64	6.16	0.007
1480860	3.3	620	4.19	0.2	70	-0.1	6.32	6.6	432	207	1.084	48	6.34	0.005
1480861	2.9	200	2.04	0.3	233	0.2	1.39	2	107	120	0.16	29	1.6	0.012
1480865	0.7	294	2.33	0.1	176	-0.1	3.41	3.8	96	76	0.162	17	1.93	0.005
1480870	1.9	27	1.31	0.1	82	0.4	0.16	1.6	15	45	0.065	21	0.39	0.005
1480871	3.4	283	2.6	1.8	142	0.4	0.47	3.6	53	110	0.09	15	1.19	0.009
1480872	3.4	78	1.71	0.2	142	0.4	0.38	1.4	30	49	0.082	20	0.63	0.007
1480873	3.3	4	3.41	0.2	350	-0.1	1.74	0.6	168	112	0.441	39	2	0.007
1480874	2.6	79	1.63	-0.1	158	0.1	0.49	1.3	55	69	0.051	15	1.11	0.009

1480876	3.1	27	1.21	-0.1	60	0.3	0.14	1.2	13	45	0.045	22	0.38	0.005
1480877	2.7	162	2.05	0.3	160	0.2	0.58	2.6	57	74	0.104	20	0.85	0.009
1480878	2.9	16	2.4	0.5	246	-0.1	1.16	1.1	106	79	0.241	27	1.19	0.007
1480879	1.8	31	3.02	0.1	264	0.2	1.64	0.8	129	165	0.475	34	2.01	0.008
1480880	1.9	268	2.48	0.1	107	0.1	0.76	3.1	108	100	0.099	26	3.83	0.01
1480881	2.1	55	1.65	0.4	142	0.3	0.47	1.4	41	57	0.083	14	0.77	0.007
1480882	2.2	91	1.56	0.2	204	0.1	0.59	0.7	53	77	0.144	20	1.19	0.009
1480883	3.7	271	3.17	0.1	355	-0.1	1.53	0.6	167	169	0.369	46	3.64	0.009
1480884	3.1	87	1.76	0.4	203	0.2	1.01	2.3	56	86	0.164	20	1.32	0.009
1480885	4.5	84	1.87	0.5	167	0.3	1.52	3.3	53	73	0.174	21	1.84	0.007
1480891	2.1	30	1.2	0.1	121	0.1	0.29	0.7	19	50	0.081	11	0.52	0.007
1480892	3.2	236	3.01	0.2	310	-0.1	1.12	0.7	119	153	0.301	36	3.26	0.011
1480893	2.8	99	2	0.2	251	0.1	2.37	1.6	63	102	0.188	23	2.83	0.008
1480894	1.4	95	1.82	0.5	315	0.1	3.77	2.2	78	88	0.177	20	3.15	0.007
1480895	2.2	102	1.93	0.4	283	0.1	3.77	1.6	115	104	0.231	22	2.94	0.007
1480896	3.4	43	1.1	0.1	125	0.2	0.58	1.1	34	52	0.112	15	0.79	0.011
1480901	2.8	84	1.69	0.3	249	0.2	2.26	1.3	74	85	0.166	20	1.87	0.009
1480902	1.6	91	1.83	0.6	347	0.1	2.25	1.5	88	85	0.176	23	1.67	0.009
1480903	2.7	84	1.59	0.3	226	0.1	2.87	1.5	82	82	0.189	21	2.26	0.007
1480911	3.5	119	2.03	1.4	287	0.1	1.64	2.3	85	103	0.252	26	2.16	0.008
1480912	2.5	130	2.11	0.6	396	0.1	2.56	1.5	104	104	0.223	23	2.68	0.008
1480913	3.8	68	1.57	0.4	240	0.2	3.19	1.3	94	77	0.181	18	2.41	0.009
1480915	3.3	68	1.58	0.3	269	0.2	2.42	1.6	61	69	0.161	20	1.87	0.008
1480916	3.3	49	1.22	0.4	201	0.1	2.11	1.4	51	56	0.147	17	1.51	0.012
1480917	3.5	76	1.65	0.4	215	0.1	2.97	1.5	78	77	0.189	19	2.49	0.01
1480918	2.6	83	1.79	0.7	230	0.2	0.97	3.1	51	66	0.142	22	1.14	0.007
1480919	2.9	86	1.69	0.7	239	0.1	2.71	2.4	76	78	0.195	21	1.99	0.009
1480920	2.1	84	1.6	0.6	243	0.1	3.13	2.3	80	75	0.169	20	2.22	0.008
1480925	2.9	52	1.23	0.4	210	0.1	2.01	1.3	57	58	0.142	16	1.41	0.011
1480926	4	45	1.08	0.3	200	0.2	2.4	1.2	66	59	0.131	16	1.39	0.013
1480927	3.3	79	1.74	0.6	230	0.2	1.19	2.1	56	61	0.134	20	1.11	0.007
1480928	2.4	71	1.58	0.6	291	0.1	1.83	2.3	62	62	0.141	20	1.44	0.007
1480929	2	77	1.62	0.5	343	0.1	2.32	2.6	77	74	0.168	21	1.57	0.008
1480930	1.5	75	1.71	0.8	315	0.1	2.23	3.1	70	70	0.118	20	1.27	0.008
1480934	4	193	2.59	0.3	383	-0.1	1.26	1.2	137	131	0.307	37	2.84	0.012
1480935	3.5	156	2.1	0.6	294	0.1	1.94	1.6	113	119	0.26	30	2.39	0.007
1480936	4.2	57	1.44	0.5	219	0.2	1.25	1.5	52	63	0.137	19	1.11	0.013
1480938	2	76	1.63	0.6	352	0.1	2.62	2.6	81	68	0.157	20	1.67	0.007
1480939	1.7	80	1.63	0.9	251	0.1	2.78	3.2	78	75	0.158	19	1.62	0.007
1480940	2.2	81	1.71	0.5	239	0.1	2.69	2.8	78	80	0.162	21	1.85	0.008
1480941	4.1	76	2.1	0.5	333	0.2	0.73	3.1	69	105	0.184	22	1.93	0.008
1480942	2.7	81	2.21	0.5	455	0.2	1.02	2.5	74	116	0.136	26	1.56	0.008
1480946	2.8	82	1.65	0.2	226	0.2	1.06	1.6	62	70	0.153	21	1.24	0.009
1480947	2.6	80	1.78	0.7	278	0.1	1.82	3.7	67	77	0.175	22	1.47	0.008
1480948	2.1	83	1.75	0.6	285	0.1	3.09	2.8	86	73	0.16	20	1.66	0.007
1480949	1.8	79	1.64	0.4	277	0.2	1.83	2.4	59	76	0.103	23	1.37	0.009
1480950	1.8	86	1.61	0.7	230	0.1	2.09	2.1	66	72	0.142	21	1.45	0.009
1480951	3	62	1.85	0.2	143	0.2	0.37	1	23	78	0.096	15	1.01	0.006
1480952	3.2	91	2.15	0.3	303	0.2	0.59	1	46	99	0.181	26	1.61	0.007
1480953	3.1	53	1.28	0.2	175	0.2	1.81	1	52	62	0.141	16	1.52	0.012
1480954	3.1	47	1.2	0.3	179	0.1	1.67	0.9	59	58	0.132	14	1.38	0.011
1480955	2.4	124	2.24	0.4	315	0.2	3.11	1.7	110	113	0.236	23	3.19	0.007
1480956	2.8	108	1.99	0.4	266	0.2	3.28	1.8	122	100	0.24	23	2.96	0.007
1480961	3.4	68	1.94	0.3	194	0.2	0.46	1.1	35	74	0.147	19	1.13	0.008
1480962	3.3	48	1.52	0.2	184	0.2	0.84	0.9	34	60	0.11	16	1	0.007

1480963	2.3	57	1.4	0.3	191	0.2	1.46	1.1	51	64	0.152	17	1.41	0.01
1480964	1.7	71	1.67	0.2	231	0.2	1.07	1.1	46	75	0.166	21	1.39	0.008
1480965	2.2	100	1.86	0.4	180	0.1	3.57	1.3	92	99	0.226	23	3.43	0.007
1480966	2.7	69	1.61	0.2	187	0.3	0.87	1.5	46	70	0.141	21	1.21	0.008
1480967	4.2	63	1.5	0.1	126	0.3	0.38	2.1	28	46	0.087	20	0.82	0.006
1480971	3.5	58	1.56	0.2	178	0.2	0.47	1	33	68	0.145	17	1.05	0.008
1480972	3.4	49	1.67	0.4	351	0.2	3.88	0.9	99	77	0.218	18	2.5	0.011
1480973	2.2	74	1.61	0.3	264	0.2	1.78	1.1	57	76	0.162	18	1.68	0.008
1480974	1.7	101	1.86	0.2	286	0.1	3.47	1	100	96	0.24	21	2.78	0.008
1480975	2	80	1.69	0.2	213	0.2	1.2	1.1	55	76	0.177	20	1.42	0.008
1480976	2.6	75	1.66	0.2	215	0.2	1.28	1.4	52	74	0.153	19	1.51	0.007
1480981	2.7	55	1.11	0.3	223	0.2	5.92	1.2	117	55	0.169	14	2.73	0.007
1480982	3.4	35	0.89	0.2	209	0.1	2.24	1	58	47	0.115	12	1.29	0.012
1480983	2.1	87	1.72	0.3	322	0.2	3.24	0.8	75	84	0.206	20	2.86	0.008
1480984	1.9	96	1.84	0.4	251	0.2	1.59	1.1	65	92	0.181	21	1.53	0.008
1480985	2.5	99	1.87	0.3	201	0.2	1.29	1.5	60	99	0.169	25	1.72	0.006
1480991	3.9	70	1.49	0.2	220	0.2	2.56	1.1	75	79	0.184	20	1.94	0.011
1480992	3	66	1.37	0.3	314	0.1	3.57	1	97	75	0.193	18	2.2	0.01
1480993	2.8	103	1.79	0.2	216	0.1	3.72	1	76	98	0.23	23	3.17	0.008
1480994	3.2	62	2.03	0.3	180	0.2	0.96	1	34	84	0.094	18	1.09	0.006
1480995	2.9	74	1.85	0.3	275	0.2	1.32	1.5	70	82	0.159	23	1.31	0.009
1480996	2.6	55	1.53	0.3	185	0.2	0.92	1.5	57	60	0.117	18	0.86	0.01
1481501	8.7	41	2.18	-0.1	51	0.4	0.23	1.1	18	27	0.058	23	0.91	0.006
1481502	1.5	41	1.84	0.2	100	0.4	0.84	0.9	60	41	0.138	14	0.81	0.007
1481504	2.6	54	2.29	0.1	116	0.5	0.48	1.2	46	49	0.146	21	1.04	0.008
1481505	0.9	232	2.74	0.6	197	0.2	2.43	0.8	163	102	0.181	50	2.72	0.006
1481507	2.7	157	2.69	0.3	229	0.2	1.14	0.6	95	77	0.262	38	2.28	0.008
1481508	1.7	156	2.12	0.3	268	0.2	0.8	1.1	70	78	0.155	36	1.48	0.008
1481509	0.7	76	1.67	0.2	167	0.4	0.76	7.4	68	59	0.242	15	0.84	0.006
1481510	0.5	111	1.53	0.4	138	0.1	0.84	7.5	57	75	0.262	14	0.96	0.007
1481511	5.4	42	2.02	0.1	83	0.5	0.27	0.9	25	37	0.075	27	0.81	0.005
1481512	2.3	36	2	0.2	41	0.5	0.08	0.9	8	27	0.111	22	0.68	0.005
1481513	1.7	92	1.88	0.2	102	0.2	1.35	1.1	116	44	0.16	12	1.46	0.007
1481515	2	140	2.03	0.1	228	0.1	1.42	2.2	122	60	0.242	39	1.63	0.007
1481518	1.8	199	2.67	0.2	207	0.2	1.03	1.6	110	104	0.268	44	2.18	0.006
1481519	1.7	97	1.89	0.3	178	0.1	0.75	1.1	53	70	0.145	21	1.29	0.007
1481520	2.1	151	2.09	0.7	144	0.2	1.18	7.3	89	74	0.228	22	1.47	0.009
1481521	4.4	62	2.5	0.1	75	0.5	0.15	1.3	14	47	0.14	28	1	0.006
1481522	4.3	55	1.92	0.1	110	0.4	0.12	2.9	11	46	0.082	22	0.85	0.006
1481524	5.3	419	4.25	0.3	319	0.2	1.67	2	248	148	0.549	58	5.34	0.007
1481525	4.4	276	1.68	0.3	167	-0.1	4.37	15.5	405	117	0.706	59	1.84	0.006
1481526	1.7	92	1.52	18.2	242	0.2	1.78	19	179	59	0.245	23	1.08	0.006
1481527	1.6	93	1.33	3.7	216	0.2	1.53	20.1	165	57	0.211	23	0.79	0.005
1481528	1.6	133	1.92	52.7	194	0.2	2.35	65.1	224	79	0.237	34	1.98	0.008
1481529	1.6	180	1.98	0.8	209	0.1	1.53	3.7	144	87	0.243	36	1.67	0.006
1481530	2.5	175	1.96	0.9	137	0.2	1.18	5.8	83	99	0.218	30	1.62	0.007
1481531	3.7	76	1.92	0.2	108	0.4	0.45	5.6	46	53	0.12	23	1.13	0.005
1481534	1.5	140	1.82	16.6	249	0.2	1.36	65.7	122	81	0.202	27	1.44	0.008
1481535	2.5	156	2.45	0.9	239	0.2	1	3.8	112	111	0.222	37	2.39	0.008
1481536	2.2	160	2.91	0.9	283	0.2	1.09	4.1	205	126	0.243	36	2.53	0.007
1481537	4.2	212	1.83	0.5	230	0.2	1	14.5	201	104	0.266	38	1.1	0.009
1481540	2.2	173	2.35	0.5	187	0.1	0.71	3.6	76	100	0.177	35	1.97	0.006
1481541	4.2	108	1.65	0.5	163	0.1	1.13	7.5	89	78	0.206	26	1.55	0.011
1481542	1.9	95	1.15	1	184	-0.1	1.26	21	124	74	0.251	20	0.88	0.011
1481543	1.4	108	1.19	1.7	221	-0.1	1.32	12	80	84	0.243	22	0.81	0.007

1481544	1.8	90	0.95	2.1	186	0.1	1.35	73.6	102	80	0.23	20	0.57	0.007
1481545	3.8	197	2.08	1.3	147	0.1	1.01	18.2	133	104	0.29	36	2.39	0.007
1481547	4.8	729	3.98	0.3	238	-0.1	1.58	0.9	234	159	0.299	40	6.36	0.005
1481548	5	479	3.3	0.4	306	-0.1	1.37	3.6	206	149	0.377	47	4.79	0.006
1481549	3.8	316	2.94	0.9	326	0.1	1.07	1.4	119	124	0.289	44	3.63	0.007
1481550	3	346	3.16	0.4	206	0.1	1.29	1.1	161	117	0.338	51	3.64	0.007
1481551	8.7	438	3.62	0.2	371	-0.1	3.09	1.2	380	141	0.914	97	4.81	0.006
1481552	4.9	326	3.03	0.5	288	-0.1	2.51	2.9	353	138	0.675	65	3.91	0.007
1481553	5	268	2.96	0.5	1068	-0.1	1.53	7.6	289	135	0.344	43	4.23	0.007
1481554	3.4	352	4.31	0.2	630	-0.1	1.48	1.2	287	191	0.362	36	6.48	0.005
1481556	2.8	272	2.34	0.6	183	0.1	1.16	17.9	159	114	0.308	41	2.35	0.006
1481557	5.6	629	3.9	0.3	246	-0.1	1.66	1.5	243	166	0.431	60	5.63	0.006
1481558	2.5	364	3.09	0.4	251	-0.1	1.11	4.3	141	136	0.254	33	4.02	0.006
1481559	2.3	347	3.32	1.5	257	0.1	1.4	3.6	158	128	0.292	36	4.32	0.006
1481560	1.7	220	2.42	1.1	169	0.2	0.54	1.8	56	113	0.156	33	2.11	0.006
1481561	1.6	120	2.43	0.2	237	0.2	0.68	0.6	65	158	0.184	37	1.81	0.008
1481562	3.2	309	3.44	0.2	296	-0.1	4.19	0.8	286	207	0.251	31	4.06	0.006
1481563	3.1	197	2.93	0.3	526	-0.1	3.07	0.7	243	223	0.297	33	3.87	0.007
1481564	2.6	214	2.87	-0.1	1115	-0.1	1.25	0.4	105	187	0.18	37	3.41	0.008
1481565	2.7	305	3.29	0.2	669	-0.1	1.11	0.2	87	207	0.23	29	4.9	0.008
1481566	2.4	110	1.88	0.2	418	-0.1	2.78	1	174	156	0.203	28	2.35	0.009
1481567	3	266	3.44	0.2	351	-0.1	1.71	0.4	155	230	0.372	36	4.3	0.008
1481568	2.4	308	3.16	-0.1	1157	-0.1	3.01	0.1	236	146	0.292	24	4.48	0.01
1481569	3.1	282	3	-0.1	470	-0.1	2.55	0.2	214	147	0.297	32	4.36	0.009
1481570	2.6	178	2.7	0.1	463	-0.1	1.87	0.3	161	163	0.254	30	3.73	0.008
1481571	2.2	217	3.02	0.2	285	-0.1	2.82	0.6	201	224	0.343	38	3.26	0.008
1481572	2.9	393	3.97	0.1	978	-0.1	3.17	0.2	312	253	0.402	39	6.17	0.007
1481573	4.5	300	3.45	0.2	476	-0.1	2.04	0.1	235	188	0.436	48	4.19	0.007
1481574	3.2	297	3.56	0.1	814	-0.1	1.71	0.1	215	197	0.401	45	5.55	0.008
1481575	2.4	439	3.39	0.3	894	-0.1	2.73	0.3	210	243	0.344	32	4.76	0.008
1481576	3	274	2.88	0.4	495	-0.1	1.27	0.8	140	209	0.333	39	3.82	0.008
1481577	1.5	511	4.13	0.2	562	-0.1	3.22	-0.1	250	246	0.314	25	6.3	0.007
1481578	1.6	568	4.22	-0.1	683	-0.1	3.94	0.1	311	280	0.313	22	6.57	0.006
1481582	5.3	339	3.57	0.1	277	-0.1	1.27	0.3	151	250	0.314	49	4.78	0.008
1481583	5.4	174	4.37	0.2	326	-0.1	1.24	0.2	170	250	0.377	57	5.84	0.012
1481584	1.6	55	1.15	2.4	213	0.3	0.61	10.3	53	79	0.229	33	0.73	0.005
1481587	0.4	88	1.67	0.1	71	0.2	0.44	0.4	66	138	0.21	26	1.14	0.015
1481588	2	92	2.69	0.2	331	-0.1	1.48	0.3	118	198	0.199	31	2.83	0.007
1481591	0.3	252	1.19	0.2	85	-0.1	7.6	0.6	124	80	0.168	14	1.1	0.005
1481592	0.9	310	1.64	0.5	107	-0.1	5.58	1.6	144	127	0.225	19	1.54	0.006
1481593	3.2	404	2.83	0.8	121	0.1	1.59	2.3	161	115	0.343	41	3.95	0.006
1481594	3.5	604	3.2	0.3	200	0.2	1.36	0.5	181	119	0.309	32	3.83	0.007
1481595	2.3	100	1.95	0.2	136	0.2	0.46	0.7	44	111	0.143	22	1.32	0.007
1481596	2.8	220	2.01	0.2	106	0.2	0.84	0.5	57	92	0.123	22	2.05	0.007
1481597	2.6	96	1.17	4.9	123	0.2	1.35	18.4	73	80	0.194	26	0.96	0.006
1481598	2.2	89	2.31	1.6	212	0.4	0.32	3.6	107	129	0.283	37	1.29	0.022
1481599	0.5	104	2.2	0.4	186	0.2	0.39	0.9	34	101	0.173	15	1.26	0.005
1481600	3.2	419	2.14	1.2	83	0.2	0.78	3.2	90	100	0.251	34	2.85	0.007
1481601	3.5	31	1.34	0.3	86	0.6	0.17	2.1	41	40	0.162	75	0.4	0.022
1481602	4.4	258	3.03	0.4	756	-0.1	1.36	3	157	245	0.341	69	2.36	0.009
1481603	4.2	363	1.97	1.2	272	0.2	0.77	4.9	87	122	0.212	39	1.89	0.006
1481604	3.7	290	1.62	2.4	143	0.3	0.82	8.9	94	91	0.245	37	1.57	0.008
1481605	6.8	40	2.49	0.1	78	0.4	0.14	0.3	10	32	0.062	18	0.74	0.006
1481606	7	50	2.11	-0.1	92	0.4	0.32	1.2	22	37	0.089	22	0.77	0.007
1481607	8.8	66	2.58	-0.1	73	0.4	0.33	1	19	69	0.074	24	1.13	0.007

1481608	12	52	2.13	0.1	68	0.4	0.22	1.2	16	47	0.07	38	1.1	0.006
1481609	7.6	53	2.14	0.1	76	0.4	0.2	2.2	19	40	0.082	28	0.88	0.006
1481610	7.2	70	2.06	0.1	88	0.4	0.24	1.5	23	48	0.083	37	0.97	0.006
1481611	5.1	39	1.91	-0.1	81	0.4	0.2	0.8	17	36	0.081	34	0.8	0.007
1481612	10.4	34	2.04	-0.1	32	0.5	0.09	1	12	25	0.064	49	0.78	0.009

1481613	2	19	1.06	-0.1	59	0.4	0.05	0.8	12	23	0.05	31	0.32	0.005
1481614	4.3	39	1.82	-0.1	42	0.5	0.08	1.1	10	32	0.093	36	0.68	0.007
1481615	1.8	37	1.79	-0.1	79	0.5	0.08	0.8	10	34	0.119	45	0.59	0.005
1481616	3.5	36	1.66	-0.1	71	0.4	0.16	0.8	13	34	0.075	45	0.63	0.005
1481617	2	69	2.17	0.1	75	0.5	0.08	0.8	9	34	0.078	36	0.9	0.004
1481618	1	57	1.46	0.1	54	0.4	0.06	0.8	7	40	0.076	24	0.75	0.005
1481619	1.2	42	1.61	0.2	69	0.3	0.15	1.5	14	40	0.1	23	0.65	0.005
1481620	11.3	41	2.59	-0.1	40	0.4	0.18	0.8	15	27	0.038	31	0.79	0.006
1481621	5.4	49	2.02	-0.1	61	0.5	0.17	0.7	12	32	0.087	41	0.73	0.006
1481622	7.8	39	2.04	0.1	39	0.5	0.14	0.7	11	32	0.118	40	0.63	0.006
1481623	9.1	71	2.34	0.1	45	0.4	0.09	0.7	8	34	0.09	37	0.99	0.005
1481624	4.3	50	2.04	0.2	89	0.4	0.13	1	12	42	0.076	23	0.67	0.007
1481625	4.3	40	2.3	0.2	88	0.5	0.14	0.9	12	48	0.143	24	0.77	0.008
1481626	5.7	37	1.86	0.2	104	0.6	0.12	1.1	14	41	0.072	26	0.68	0.008
1481627	1.7	38	1.58	0.1	94	0.3	0.17	0.7	16	44	0.093	25	0.65	0.011
1481628	2.6	34	1.95	0.2	67	0.5	0.1	0.8	12	32	0.108	39	0.55	0.009
1481629	6.8	53	2.33	0.2	124	0.3	0.4	2.9	33	52	0.104	89	1.18	0.008
1481630	2.3	41	2.01	0.1	87	0.5	0.13	0.8	13	35	0.114	34	0.63	0.008
1481631	1.9	32	1.58	0.1	92	0.3	0.19	0.7	16	32	0.072	30	0.58	0.006
1481632	4.8	38	1.84	0.1	68	0.5	0.16	0.8	12	37	0.112	36	0.67	0.006
1481633	1.8	56	2.17	0.2	60	0.5	0.08	0.9	9	37	0.144	20	0.72	0.004
1481634	2.7	79	1.87	1.8	108	0.3	0.27	5.5	24	70	0.132	29	0.87	0.005
1481635	9	38	2.58	-0.1	27	0.4	0.09	0.2	5	20	0.047	20	0.87	0.006
1481636	13.4	43	2.65	-0.1	32	0.6	0.15	0.2	7	25	0.067	21	0.95	0.007
1481637	7.7	43	2.19	-0.1	64	0.5	0.17	0.8	12	34	0.087	33	0.92	0.007
1481638	7.2	39	1.68	0.1	72	0.5	0.26	2.8	25	33	0.083	22	0.67	0.005
1481639	3.4	77	1.32	0.2	100	0.3	0.91	9.8	67	59	0.151	27	0.66	0.008
1481640	5.5	59	1.47	0.4	92	0.3	0.74	10.3	63	53	0.129	27	0.79	0.009
1481641	6	75	2.06	0.2	131	0.3	0.33	2.8	27	60	0.071	28	0.89	0.007
1481642	1.1	39	2.03	0.3	91	0.4	0.17	1.7	16	51	0.108	23	0.54	0.009
1481643	4	65	1.89	0.2	129	0.4	0.49	1.2	41	47	0.128	40	0.83	0.007
1481644	4.4	64	1.68	0.1	99	0.3	0.37	1.7	35	49	0.121	40	0.87	0.006
1481645	6.3	112	1.41	2	105	0.3	0.71	18.9	73	70	0.194	57	0.68	0.006
1481646	1.7	82	1.76	0.2	120	0.3	0.53	4.4	50	56	0.184	34	0.89	0.006
1481647	5.9	75	1.7	0.3	168	0.4	0.74	11.1	85	47	0.263	60	0.57	0.007
1481648	2	70	1.9	0.4	114	0.3	0.38	7.9	32	59	0.139	26	0.78	0.005
1481649	4	103	1.85	0.6	100	0.3	0.54	15.8	41	78	0.139	27	1.02	0.006
1481650	7.2	36	1.87	-0.1	76	0.4	0.19	1.1	16	26	0.089	22	0.64	0.005
1481651	8.1	60	1.9	-0.1	75	0.4	0.47	3.1	32	39	0.075	25	0.78	0.005
1481652	8.1	61	2.11	0.2	78	0.4	0.44	2.7	31	41	0.085	27	0.88	0.005
1481657	6.3	106	1.8	0.1	223	0.4	0.48	2.8	52	70	0.192	44	0.81	0.006
1481658	2	109	2.07	0.2	186	0.2	0.94	1.2	84	71	0.191	34	1.27	0.006
1481659	5.5	92	2.21	0.4	128	0.3	0.67	8.4	53	62	0.171	56	1.1	0.007
1481660	6	54	1.23	0.3	79	0.2	0.44	17.2	52	42	0.139	28	0.57	0.02
1481661	3.4	61	1.37	0.3	104	0.3	0.85	28	61	44	0.172	35	0.55	0.006
1481662	2.2	62	1.65	1.5	107	0.3	0.79	17.1	49	48	0.172	31	0.65	0.005
1481663	1.3	55	1.76	0.5	94	0.4	0.22	6.4	20	43	0.134	21	0.63	0.004
1481664	3.3	51	1.41	0.5	149	0.4	0.35	21	34	46	0.125	26	0.57	0.006
1481665	4.9	75	1.31	0.4	90	0.2	0.68	20.4	67	48	0.199	38	0.69	0.009
1481666	2.1	46	1.58	0.3	162	0.3	0.57	13.6	46	38	0.235	21	0.53	0.006
1481667	2.8	107	1.81	0.4	139	0.3	0.84	20.3	73	60	0.205	33	1.09	0.006
1481668	4.5	75	2.18	0.4	124	0.3	0.32	6.6	33	57	0.136	28	1.15	0.007
1481669	2.1	83	1.62	0.4	162	0.3	0.91	6.3	65	60	0.155	30	0.81	0.007
1481670	0.7	80	1.71	0.4	92	0.3	0.45	3.5	38	59	0.208	19	0.71	0.007
1481671	0.4	33	1.32	0.5	103	0.3	0.21	6.6	29	34	0.251	16	0.32	0.013

1481672	0.9	79	1.18	0.6	112	0.2	1.28	21.4	79	49	0.2	25	0.63	0.007
1481673	1.6	56	1.53	0.5	91	0.3	0.43	5.9	35	47	0.147	28	0.67	0.007
1481675	3.1	114	1.62	1.1	164	0.2	0.94	9.9	100	86	0.184	33	1.03	0.007
1481676	1.7	68	1.69	0.4	122	0.2	0.17	6.9	27	57	0.115	21	0.79	0.012
1481677	1	83	2.33	0.2	188	0.2	0.22	4.4	25	69	0.162	22	0.91	0.006
1481678	8.5	111	1.48	0.4	158	0.3	1.03	30	102	67	0.391	61	0.84	0.008
1481679	1.6	54	1.24	0.3	112	0.4	0.33	12.5	25	41	0.118	26	0.58	0.007
1481680	2.2	167	2.31	0.2	184	0.2	1.07	1	122	91	0.382	49	2.01	0.01
1481681	0.2	71	1.47	0.3	127	0.3	0.17	3.7	20	68	0.141	14	0.56	0.008
1481682	0.8	79	2.09	0.2	149	0.3	0.43	1.9	43	86	0.107	20	0.94	0.007
1481683	0.4	58	1.84	0.3	118	0.3	0.09	4.3	14	55	0.128	19	0.5	0.007
1481684	0.3	52	1.45	0.3	113	0.3	0.18	4.2	19	47	0.15	18	0.41	0.007
1481685	2.9	186	2.56	0.4	236	0.2	0.94	4.1	123	95	0.284	41	2.26	0.01
1481686	0.6	61	1.71	0.3	140	0.2	0.24	3.4	24	58	0.093	19	0.74	0.009
1481687	0.6	97	1.84	0.2	118	0.3	0.15	1.9	15	70	0.088	17	0.76	0.007
1481688	0.9	47	1.67	0.2	90	0.3	0.11	3.4	13	49	0.087	19	0.5	0.007
1481689	0.4	66	1.74	0.3	146	0.3	0.18	6.5	19	60	0.137	19	0.62	0.008
1481690	2.7	199	2.78	0.3	207	0.2	0.58	1.1	61	102	0.162	36	2.32	0.008
1481691	0.7	123	1.95	0.1	162	0.2	0.28	1.2	30	71	0.119	24	1.42	0.008
1481692	4.2	58	2.23	0.1	117	0.3	0.24	1.6	24	38	0.087	22	0.89	0.008
1481693	6.4	47	1.39	-0.1	104	0.3	0.05	2.9	12	27	0.037	21	0.54	0.005

Sample 2	B_ppm	Ti_pct	K_pct	W_ppm	Hg_ppm	S_pct	Sc_ppm	Tl_ppm	Ga_ppm	Se_ppm	Te_ppm
1480501	2	0.021	0.04	-0.1	0.17	-0.05	4.2	0.1	5	-0.5	-0.2
1480502	2	0.012	0.07	0.1	6.21	-0.05	9.1	0.1	3	-0.5	-0.2
1480503	3	0.006	0.07	0.1	0.72	-0.05	5.5	0.1	2	-0.5	-0.2
1480504	2	0.026	0.03	-0.1	0.92	-0.05	20.3	0.1	5	-0.5	-0.2
1480505	2	0.03	0.05	0.2	0.06	-0.05	1.8	0.1	5	-0.5	-0.2
1480506	2	0.015	0.04	0.1	0.1	-0.05	9.4	0.2	4	-0.5	-0.2
1480507	2	0.017	0.04	-0.1	0.06	0.06	8.8	0.1	5	-0.5	-0.2
1480508	1	0.025	0.05	-0.1	0.05	-0.05	7.7	0.1	4	-0.5	-0.2
1480509	2	0.02	0.05	-0.1	0.04	-0.05	4.3	-0.1	5	-0.5	-0.2
1480510	2	0.034	0.05	0.2	0.03	-0.05	5	0.1	5	-0.5	-0.2
1480511	1	0.004	0.07	-0.1	0.11	-0.05	5.1	-0.1	4	-0.5	-0.2
1480512	1	0.007	0.08	-0.1	0.08	-0.05	4.8	-0.1	5	-0.5	-0.2
1480513	3	0.013	0.04	-0.1	0.48	0.07	13	0.1	3	-0.5	-0.2
1480514	2	0.009	0.09	-0.1	0.73	-0.05	15.6	0.2	3	-0.5	-0.2
1480515	2	0.063	0.05	-0.1	0.3	-0.05	16.4	0.1	10	0.7	-0.2
1480516	-1	0.031	0.05	0.1	0.06	-0.05	2.1	0.1	5	-0.5	-0.2
1480517	-1	0.034	0.05	0.2	0.07	-0.05	2	0.1	6	-0.5	-0.2
1480518	-1	0.021	0.06	0.1	0.03	-0.05	2	0.1	6	-0.5	-0.2
1480519	-1	0.012	0.06	-0.1	0.04	-0.05	1	-0.1	5	-0.5	-0.2
1480520	-1	0.001	0.06	-0.1	0.06	-0.05	3.8	-0.1	3	-0.5	-0.2
1480521	1	0.012	0.05	-0.1	0.06	-0.05	2.4	-0.1	4	-0.5	-0.2
1480522	-1	0.007	0.07	-0.1	0.08	-0.05	1.5	-0.1	3	-0.5	-0.2
1480523	1	0.005	0.05	-0.1	0.7	-0.05	8.4	-0.1	3	-0.5	-0.2
1480524	1	0.011	0.07	-0.1	0.37	-0.05	17.7	-0.1	5	-0.5	-0.2
1480525	2	0.016	0.08	-0.1	0.44	-0.05	12.1	0.2	4	-0.5	-0.2
1480526	-1	0.008	0.06	-0.1	0.51	-0.05	17.7	0.2	4	-0.5	-0.2
1480527	-1	0.02	0.06	0.1	0.05	-0.05	1.5	0.1	6	-0.5	-0.2
1480528	-1	0.032	0.05	0.1	0.03	-0.05	1.9	-0.1	5	-0.5	-0.2
1480529	-1	0.004	0.06	-0.1	0.04	-0.05	2.2	-0.1	5	-0.5	-0.2
1480530	-1	0.018	0.06	-0.1	0.05	-0.05	3	-0.1	4	-0.5	-0.2
1480531	-1	0.024	0.05	0.1	0.06	-0.05	2.6	-0.1	5	-0.5	-0.2
1480532	2	0.068	0.05	-0.1	0.15	0.05	10.1	0.2	10	-0.5	-0.2
1480533	2	0.037	0.08	0.1	0.1	-0.05	9.1	0.1	7	-0.5	-0.2
1480534	3	0.011	0.05	0.1	3.61	0.07	22.4	0.3	5	0.8	-0.2
1480535	3	0.05	0.07	0.1	0.5	0.07	19.3	0.2	7	-0.5	-0.2
1480536	2	0.072	0.05	0.1	0.42	0.06	17.1	0.2	7	-0.5	-0.2
1480538	1	0.004	0.06	-0.1	0.74	-0.05	6.9	0.1	1	-0.5	-0.2
1480539	1	0.035	0.05	0.1	0.19	-0.05	11.1	0.1	8	-0.5	-0.2
1480540	2	0.028	0.05	0.2	1.39	0.06	21.8	0.1	7	-0.5	-0.2
1480541	2	0.016	0.06	-0.1	0.16	0.09	7.4	-0.1	6	-0.5	-0.2
1480542	2	0.031	0.06	0.1	0.1	-0.05	10.1	0.1	7	-0.5	-0.2
1480543	1	0.083	0.07	0.1	0.25	-0.05	8.9	-0.1	5	-0.5	-0.2
1480544	3	0.105	0.08	0.1	0.26	-0.05	8	0.1	6	-0.5	-0.2
1480545	2	0.017	0.05	0.1	1.9	-0.05	19.6	0.2	8	-0.5	-0.2
1480546	2	0.079	0.07	0.2	7.78	-0.05	10.3	0.2	6	-0.5	-0.2
1480547	1	0.013	0.06	0.1	0.15	0.05	9	0.3	6	-0.5	-0.2
1480548	1	0.026	0.06	0.1	0.58	-0.05	9.9	0.2	7	-0.5	-0.2
1480549	2	0.126	0.08	0.1	0.04	-0.05	4.3	0.1	8	-0.5	-0.2
1480550	-1	0.079	0.09	0.1	0.05	-0.05	3.1	-0.1	7	-0.5	-0.2
1480551	1	0.186	0.06	0.2	0.03	-0.05	6.1	0.1	8	-0.5	-0.2

1480552	2	0.024	0.06	0.1	1.21	-0.05	23.8	0.2	7	-0.5	-0.2
1480553	-1	0.08	0.06	0.1	2.16	-0.05	20.7	0.2	10	-0.5	-0.2
1480554	2	0.071	0.08	-0.1	0.17	-0.05	9.7	0.2	9	-0.5	-0.2
1480555	2	0.049	0.07	0.1	0.09	-0.05	4.1	0.1	7	-0.5	-0.2
1480556	-1	0.126	0.08	-0.1	0.1	-0.05	3.6	-0.1	7	-0.5	-0.2
1480557	1	0.173	0.07	0.1	0.07	-0.05	6.8	0.1	7	-0.5	-0.2
1480558	1	0.173	0.06	0.1	0.03	-0.05	6.1	0.1	8	-0.5	-0.2
1480559	2	0.026	0.09	0.1	2.06	-0.05	22.4	0.2	5	-0.5	-0.2
1480560	1	0.048	0.08	0.2	1.16	-0.05	13.3	0.2	7	-0.5	-0.2
1480561	1	0.063	0.07	0.1	2	-0.05	22.6	0.2	8	0.7	-0.2
1480562	2	0.079	0.07	0.1	0.08	-0.05	4.9	0.1	8	-0.5	-0.2
1480563	2	0.057	0.07	0.1	0.07	-0.05	3.9	0.1	6	-0.5	-0.2
1480564	1	0.054	0.07	0.1	0.03	-0.05	3.4	-0.1	7	-0.5	-0.2
1480565	1	0.082	0.05	0.2	0.05	-0.05	4.9	-0.1	5	-0.5	-0.2
1480566	1	0.013	0.05	0.2	0.38	-0.05	5.3	0.1	3	-0.5	-0.2
1480567	-1	0.008	0.04	0.1	0.57	-0.05	14.2	0.2	7	-0.5	-0.2
1480568	1	0.01	0.05	-0.1	0.26	0.07	5.6	0.1	5	-0.5	-0.2
1480569	-1	0.016	0.05	0.1	0.06	-0.05	3.9	-0.1	6	-0.5	-0.2
1480570	1	0.051	0.06	0.1	0.91	-0.05	7.5	0.1	7	-0.5	-0.2
1480571	1	0.064	0.06	0.1	0.1	-0.05	4.9	0.1	6	-0.5	-0.2
1480572	1	0.118	0.06	0.2	0.04	-0.05	4.8	-0.1	6	-0.5	-0.2
1480573	-1	0.106	0.05	0.1	0.05	-0.05	4.6	-0.1	5	-0.5	-0.2
1480574	-1	0.02	0.03	0.1	0.5	-0.05	4.1	-0.1	3	-0.5	-0.2
1480575	-1	0.008	0.06	0.2	0.34	-0.05	5.4	0.1	4	-0.5	-0.2
1480576	-1	0.01	0.05	0.1	0.09	-0.05	2.6	0.1	5	-0.5	-0.2
1480577	-1	0.031	0.06	0.1	0.46	-0.05	8.6	0.1	6	-0.5	-0.2
1480578	-1	0.035	0.05	0.1	0.09	-0.05	3.6	-0.1	5	-0.5	-0.2
1480579	-1	0.073	0.05	0.2	0.11	-0.05	4.4	-0.1	5	-0.5	-0.2
1480580	1	0.098	0.05	0.2	0.14	-0.05	4.7	-0.1	6	-0.5	-0.2
1480581	-1	0.135	0.06	0.2	0.04	-0.05	5.5	-0.1	7	-0.5	-0.2
1480582	-1	0.013	0.05	0.1	0.05	-0.05	1.2	-0.1	5	-0.5	-0.2
1480583	-1	0.012	0.05	-0.1	0.04	-0.05	1.6	-0.1	5	-0.5	-0.2
1480584	-1	0.005	0.04	-0.1	0.07	-0.05	1.4	-0.1	4	-0.5	-0.2
1480585	-1	0.013	0.05	0.1	0.74	-0.05	5.8	-0.1	3	-0.5	-0.2
1480586	-1	0.006	0.05	0.1	0.36	-0.05	2.5	0.1	4	-0.5	-0.2
1480587	-1	0.023	0.05	0.2	0.27	-0.05	3.9	0.1	4	-0.5	-0.2
1480588	-1	0.036	0.05	0.2	0.2	-0.05	3.9	-0.1	4	-0.5	-0.2
1480589	-1	0.053	0.05	0.1	0.09	-0.05	4.3	-0.1	5	-0.5	-0.2
1480590	-1	0.024	0.06	0.2	0.31	-0.05	6.3	0.1	5	-0.5	-0.2
1480591	1	0.131	0.07	0.2	0.03	-0.05	4.9	-0.1	7	-0.5	-0.2
1480592	2	0.104	0.06	0.2	0.04	-0.05	5.3	-0.1	7	-0.5	-0.2
1480593	1	0.122	0.07	0.2	0.08	-0.05	6.1	-0.1	7	-0.5	-0.2
1480594	-1	0.036	0.05	0.2	0.07	-0.05	2.4	0.1	6	-0.5	-0.2
1480595	-1	-0.001	0.05	-0.1	0.16	-0.05	4	-0.1	3	-0.5	-0.2
1480596	1	0.001	0.05	-0.1	0.08	-0.05	3.3	-0.1	6	-0.5	-0.2
1480597	-1	0.004	0.05	-0.1	0.08	-0.05	2.4	-0.1	5	-0.5	-0.2
1480598	-1	0.005	0.04	-0.1	0.07	-0.05	2.7	-0.1	5	-0.5	-0.2
1480599	-1	0.004	0.05	-0.1	0.08	-0.05	2.2	-0.1	4	-0.5	-0.2
1480600	2	0.083	0.05	0.1	0.13	-0.05	4	-0.1	7	-0.5	-0.2
1480601	2	0.113	0.05	0.2	0.07	-0.05	5	-0.1	6	-0.5	-0.2
1480602	2	0.11	0.04	0.2	0.05	-0.05	4.2	-0.1	7	-0.5	-0.2
1480603	2	0.094	0.04	0.2	0.09	-0.05	5.7	-0.1	6	-0.5	-0.2
1480604	2	0.105	0.06	0.2	0.13	-0.05	6.8	-0.1	7	-0.5	-0.2
1480605	2	0.108	0.06	0.2	0.06	-0.05	6.3	-0.1	6	-0.5	-0.2
1480606	1	0.076	0.05	0.1	0.06	-0.05	4.9	-0.1	6	0.6	-0.2

1480607	1	0.014	0.04	0.1	0.05	-0.05	1.9	0.1	8	-0.5	-0.2
1480608	1	0.02	0.04	0.1	0.08	-0.05	2.6	-0.1	3	-0.5	-0.2
1480609	1	0.033	0.06	0.2	0.06	-0.05	2.4	0.1	7	0.5	-0.2
1480610	1	0.034	0.07	0.2	0.05	-0.05	3	0.1	6	0.6	-0.2
1480612	2	0.132	0.05	0.1	0.05	-0.05	4.6	0.2	7	-0.5	-0.2
1480613	2	0.132	0.06	0.2	0.08	-0.05	5.8	-0.1	6	-0.5	-0.2
1480614	2	0.042	0.07	0.1	0.08	-0.05	3.5	-0.1	5	-0.5	-0.2
1480615	1	0.109	0.05	0.2	0.07	-0.05	4.7	-0.1	6	-0.5	-0.2
1480640	1	0.004	0.05	-0.1	0.22	-0.05	8.7	0.1	4	-0.5	-0.2
1480643	3	0.009	0.03	-0.1	0.08	0.15	5.4	-0.1	6	-0.5	-0.2
1480644	3	0.014	0.04	-0.1	0.13	-0.05	15.6	0.2	6	1.9	-0.2
1480645	3	0.012	0.06	0.1	0.31	-0.05	13.9	0.2	6	0.6	-0.2
1480646	-1	0.018	0.05	0.2	0.12	-0.05	13.8	0.1	5	-0.5	-0.2
1480647	2	0.022	0.06	-0.1	0.84	-0.05	16.2	0.2	7	-0.5	-0.2
1480648	1	0.009	0.06	-0.1	0.14	-0.05	21.7	0.3	3	0.6	-0.2
1480649	-1	0.007	0.05	0.1	0.52	-0.05	18.3	0.3	4	-0.5	-0.2
1480650	-1	0.012	0.06	-0.1	0.05	-0.05	1.8	-0.1	6	-0.5	-0.2
1480651	1	0.014	0.07	-0.1	0.06	0.07	1	0.1	6	-0.5	-0.2
1480652	1	0.011	0.07	-0.1	2.38	0.05	5.8	0.1	4	0.7	-0.2
1480653	2	0.012	0.05	-0.1	0.05	-0.05	4.7	-0.1	6	-0.5	-0.2
1480654	2	0.012	0.05	0.1	0.07	0.1	0.9	-0.1	5	-0.5	-0.2
1480655	-1	0.016	0.05	0.1	0.03	0.06	1.6	0.1	5	-0.5	-0.2
1480656	1	0.02	0.04	-0.1	0.05	0.05	3.4	-0.1	4	-0.5	-0.2
1480657	-1	0.015	0.04	-0.1	0.08	0.1	1	0.1	5	0.6	-0.2
1480658	1	0.016	0.07	-0.1	0.12	0.05	2.2	0.1	5	0.6	-0.2
1480659	2	0.009	0.04	-0.1	0.04	0.09	1.4	-0.1	5	-0.5	-0.2
1480660	2	0.018	0.05	-0.1	0.06	0.06	2	-0.1	4	0.8	-0.2
1480661	1	0.01	0.05	-0.1	0.12	0.08	2.5	-0.1	5	-0.5	-0.2
1480662	1	0.012	0.04	-0.1	0.04	-0.05	2.4	-0.1	4	-0.5	-0.2
1480663	1	0.008	0.06	-0.1	0.04	0.07	1.9	-0.1	5	-0.5	-0.2
1480664	-1	0.011	0.05	-0.1	0.03	-0.05	2.1	-0.1	5	-0.5	-0.2
1480665	-1	0.006	0.06	-0.1	0.03	-0.05	1.8	-0.1	6	-0.5	-0.2
1480666	1	0.008	0.06	-0.1	0.04	0.06	0.9	0.1	5	-0.5	-0.2
1480667	-1	0.015	0.04	0.1	0.04	-0.05	1.3	-0.1	5	-0.5	-0.2
1480668	-1	0.009	0.05	-0.1	0.08	0.1	0.9	-0.1	6	-0.5	-0.2
1480669	2	0.015	0.04	-0.1	0.05	-0.05	2.1	-0.1	4	-0.5	-0.2
1480670	2	0.024	0.04	-0.1	0.05	-0.05	1.6	-0.1	4	0.6	-0.2
1480671	2	0.009	0.05	-0.1	0.05	0.05	0.9	-0.1	5	-0.5	-0.2
1480672	1	0.012	0.04	-0.1	0.05	-0.05	2.1	-0.1	5	-0.5	-0.2
1480673	-1	0.012	0.04	-0.1	0.04	0.06	1.6	-0.1	4	-0.5	-0.2
1480674	1	0.01	0.05	-0.1	0.06	-0.05	1.6	-0.1	5	-0.5	-0.2
1480676	2	0.007	0.05	-0.1	0.07	0.09	0.9	-0.1	6	-0.5	-0.2
1480677	-1	0.007	0.04	-0.1	0.05	0.08	1	-0.1	5	-0.5	-0.2
1480678	2	0.02	0.04	-0.1	0.05	-0.05	1.4	-0.1	4	-0.5	-0.2
1480679	1	0.023	0.04	-0.1	0.04	-0.05	2.4	-0.1	5	-0.5	-0.2
1480680	2	0.01	0.07	-0.1	0.07	0.08	0.9	-0.1	6	-0.5	-0.2
1480681	1	0.011	0.05	-0.1	0.07	0.06	1.1	-0.1	5	-0.5	-0.2
1480682	1	0.006	0.07	-0.1	0.06	-0.05	3.9	-0.1	6	-0.5	-0.2
1480683	1	0.005	0.05	-0.1	0.08	-0.05	2.4	0.1	5	-0.5	-0.2
1480684	1	0.016	0.06	-0.1	0.06	0.05	1.9	0.1	6	0.6	-0.2
1480685	-1	0.008	0.06	-0.1	0.07	0.07	1.1	-0.1	6	-0.5	-0.2
1480686	1	0.014	0.06	-0.1	0.06	-0.05	1.8	-0.1	6	-0.5	-0.2
1480687	2	0.014	0.06	-0.1	0.05	-0.05	1.2	-0.1	5	-0.5	-0.2
1480688	-1	0.016	0.05	-0.1	0.06	-0.05	1.3	-0.1	5	-0.5	-0.2
1480689	4	0.014	0.08	0.1	0.19	-0.05	22.6	0.2	4	-0.5	-0.2

1480690	1	0.013	0.06	-0.1	0.11	-0.05	12.6	-0.1	3	-0.5	-0.2
1480691	2	0.015	0.06	0.1	0.1	-0.05	2.3	-0.1	5	-0.5	-0.2
1480692	1	0.013	0.04	-0.1	0.07	0.06	1	-0.1	5	0.6	-0.2
1480693	1	0.016	0.05	0.1	0.06	-0.05	1.4	-0.1	5	-0.5	-0.2
1480694	-1	0.016	0.05	-0.1	0.03	-0.05	1.6	-0.1	5	-0.5	-0.2
1480695	-1	0.009	0.05	-0.1	0.06	-0.05	1.4	-0.1	5	-0.5	-0.2
1480696	-1	0.016	0.06	-0.1	0.03	-0.05	2.3	-0.1	5	-0.5	-0.2
1480697	1	0.016	0.05	0.1	0.04	-0.05	1	-0.1	5	-0.5	-0.2
1480698	-1	0.007	0.05	-0.1	0.14	0.07	2.7	-0.1	5	-0.5	-0.2
1480699	-1	0.01	0.06	0.1	0.06	0.07	1.3	-0.1	5	-0.5	-0.2
1480700	1	0.024	0.06	0.1	0.05	-0.05	1.7	0.1	6	-0.5	-0.2
1480701	-1	0.017	0.04	-0.1	0.07	-0.05	1.3	-0.1	5	-0.5	-0.2
1480702	1	0.011	0.05	-0.1	0.05	-0.05	0.9	-0.1	5	-0.5	-0.2
1480703	-1	0.011	0.04	-0.1	0.04	-0.05	1	-0.1	4	-0.5	-0.2
1480704	-1	0.009	0.05	-0.1	0.05	-0.05	1	-0.1	5	-0.5	-0.2
1480705	-1	0.006	0.05	-0.1	0.05	-0.05	0.9	-0.1	5	-0.5	-0.2
1480706	1	0.016	0.05	0.1	0.04	-0.05	0.9	-0.1	5	0.5	-0.2
1480707	2	0.006	0.05	-0.1	0.15	0.15	5	-0.1	4	0.6	-0.2
1480708	2	0.02	0.06	0.2	0.06	-0.05	5.2	0.1	6	-0.5	-0.2
1480709	1	0.019	0.05	0.2	0.06	-0.05	3.6	-0.1	5	-0.5	-0.2
1480710	4	0.019	0.05	-0.1	0.05	-0.05	1.6	-0.1	8	-0.5	-0.2
1480711	1	0.014	0.06	-0.1	0.07	-0.05	2.3	-0.1	7	-0.5	-0.2
1480712	1	0.007	0.04	-0.1	0.04	-0.05	1.3	-0.1	6	-0.5	-0.2
1480713	1	0.007	0.05	-0.1	0.03	-0.05	2	-0.1	6	-0.5	-0.2
1480714	-1	0.002	0.05	-0.1	0.01	-0.05	3.3	-0.1	9	-0.5	-0.2
1480715	-1	0.01	0.05	0.1	0.05	-0.05	3.6	-0.1	5	-0.5	-0.2
1480716	1	0.009	0.06	-0.1	0.14	-0.05	5.6	-0.1	6	-0.5	-0.2
1480717	1	0.014	0.05	-0.1	0.06	-0.05	1.8	-0.1	7	0.6	-0.2
1480718	1	0.008	0.05	-0.1	0.06	-0.05	3.4	-0.1	5	-0.5	-0.2
1480719	1	0.015	0.06	-0.1	0.03	-0.05	2.5	-0.1	6	-0.5	-0.2
1480720	1	0.001	0.05	-0.1	0.02	-0.05	2.9	-0.1	8	-0.5	-0.2
1480721	1	0.001	0.06	-0.1	0.01	-0.05	2.9	-0.1	8	-0.5	-0.2
1480722	-1	0.006	0.04	-0.1	0.01	-0.05	2.5	-0.1	6	-0.5	-0.2
1480723	1	-0.001	0.04	-0.1	-0.01	-0.05	2.8	-0.1	8	-0.5	-0.2
1480724	-1	-0.001	0.05	-0.1	0.01	-0.05	2.8	-0.1	9	-0.5	-0.2
1480725	-1	-0.001	0.04	-0.1	0.01	-0.05	2.9	-0.1	9	-0.5	-0.2
1480726	-1	0.002	0.04	-0.1	-0.01	-0.05	3	-0.1	9	-0.5	-0.2
1480727	-1	0.009	0.05	-0.1	0.05	-0.05	3.1	-0.1	6	-0.5	-0.2
1480728	-1	0.021	0.05	0.2	0.05	-0.05	2.3	-0.1	6	-0.5	-0.2
1480729	1	-0.001	0.05	-0.1	0.01	-0.05	2.7	-0.1	9	-0.5	-0.2
1480730	1	0.002	0.05	-0.1	0.01	-0.05	2.4	-0.1	8	-0.5	-0.2
1480731	2	0.023	0.04	0.1	0.03	0.08	1.4	0.1	8	-0.5	-0.2
1480732	1	0.001	0.05	-0.1	0.02	-0.05	3.2	-0.1	7	-0.5	-0.2
1480733	2	0.001	0.04	-0.1	-0.01	-0.05	2.6	-0.1	8	-0.5	-0.2
1480734	2	0.003	0.06	-0.1	0.01	-0.05	2.3	-0.1	8	-0.5	-0.2
1480735	1	0.006	0.05	-0.1	0.03	-0.05	3.8	-0.1	7	-0.5	-0.2
1480736	3	0.02	0.06	-0.1	0.71	0.05	16.3	0.2	7	-0.5	-0.2
1480737	1	0.009	0.06	-0.1	0.11	-0.05	5	-0.1	6	-0.5	-0.2
1480740	1	0.024	0.05	0.1	0.04	-0.05	1.4	-0.1	6	-0.5	-0.2
1480741	-1	0.007	0.05	-0.1	0.02	-0.05	2.1	-0.1	8	-0.5	-0.2
1480742	-1	0.001	0.04	-0.1	0.01	-0.05	2.5	-0.1	8	-0.5	-0.2
1480743	-1	0.003	0.05	-0.1	0.02	-0.05	2.3	-0.1	8	-0.5	-0.2
1480744	2	0.014	0.04	-0.1	0.8	0.07	17.2	0.2	6	-0.5	-0.2
1480746	-1	0.025	0.05	0.2	0.04	-0.05	2	-0.1	5	0.6	-0.2
1480747	2	0.001	0.09	-0.1	-0.01	-0.05	3.5	-0.1	9	-0.5	-0.2

1480748	-1	0.001	0.06	-0.1	0.01	-0.05	3.4	-0.1	8	-0.5	-0.2
1480749	-1	0.003	0.05	-0.1	-0.01	-0.05	2.4	-0.1	8	-0.5	-0.2
1480750	1	0.013	0.05	-0.1	0.02	-0.05	2.4	-0.1	6	-0.5	-0.2
1480751	-1	0.007	0.06	-0.1	0.03	-0.05	1.1	-0.1	7	-0.5	-0.2
1480752	-1	0.005	0.05	-0.1	0.01	-0.05	2.2	-0.1	8	-0.5	-0.2
1480753	1	0.003	0.06	0.1	0.61	0.07	12.7	0.5	4	0.5	-0.2
1480754	2	0.03	0.04	-0.1	0.27	-0.05	10.8	0.2	9	-0.5	-0.2
1480755	-1	0.005	0.05	-0.1	0.03	-0.05	3.2	-0.1	8	-0.5	-0.2
1480756	1	0.022	0.05	0.1	0.02	-0.05	2.5	-0.1	4	-0.5	-0.2
1480758	-1	0.009	0.05	-0.1	0.02	-0.05	2.7	-0.1	7	-0.5	-0.2
1480759	1	0.03	0.05	0.1	0.06	-0.05	1.5	0.1	8	0.6	-0.2
1480760	-1	0.011	0.06	-0.1	0.98	-0.05	2.8	-0.1	5	-0.5	-0.2
1480761	-1	0.007	0.04	-0.1	0.04	-0.05	2	-0.1	7	-0.5	-0.2
1480762	2	0.053	0.13	0.1	0.15	0.07	12.1	0.3	9	0.6	-0.2
1480763	1	0.04	0.06	0.3	0.08	-0.05	12.3	0.1	7	-0.5	-0.2
1480764	2	0.007	0.04	0.1	0.22	0.09	14.9	0.1	3	0.5	-0.2
1480765	-1	0.009	0.05	0.1	0.04	-0.05	1.6	-0.1	4	-0.5	-0.2
1480766	-1	0.029	0.06	0.2	0.03	-0.05	2.5	0.1	7	-0.5	-0.2
1480767	1	0.027	0.06	0.1	0.05	0.09	1.6	-0.1	7	-0.5	-0.2
1480768	1	0.017	0.04	-0.1	0.04	-0.05	4	-0.1	4	-0.5	-0.2
1480769	-1	0.002	0.04	-0.1	0.03	-0.05	3.1	-0.1	7	-0.5	-0.2
1480770	3	0.018	0.06	-0.1	1.26	0.09	12.4	0.3	7	0.6	-0.2
1480771	-1	0.172	0.21	0.1	0.1	-0.05	14.2	0.3	13	-0.5	-0.2
1480772	1	0.019	0.06	0.1	0.41	-0.05	9.8	0.1	6	0.5	-0.2
1480773	1	0.008	0.05	0.2	0.15	-0.05	18.4	-0.1	3	-0.5	-0.2
1480774	-1	0.015	0.06	0.1	0.09	-0.05	8	-0.1	4	-0.5	-0.2
1480775	-1	0.042	0.06	-0.1	0.05	-0.05	3.9	0.2	7	-0.5	-0.2
1480776	1	0.017	0.05	0.1	0.07	-0.05	5.4	0.1	5	-0.5	-0.2
1480777	-1	0.016	0.05	-0.1	0.05	-0.05	1.6	0.1	6	-0.5	-0.2
1480778	-1	0.028	0.06	-0.1	0.06	-0.05	3.8	-0.1	6	-0.5	-0.2
1480780	2	0.047	0.05	0.1	0.5	-0.05	13	0.1	6	-0.5	-0.2
1480782	-1	0.014	0.05	0.2	0.16	-0.05	3.6	0.1	5	-0.5	-0.2
1480783	-1	0.009	0.06	0.2	0.1	-0.05	8.2	0.1	4	-0.5	-0.2
1480784	-1	0.028	0.04	0.2	0.03	-0.05	3.8	0.1	5	-0.5	-0.2
1480785	-1	0.069	0.05	0.1	0.05	-0.05	4.2	0.1	7	-0.5	-0.2
1480786	-1	0.025	0.05	0.2	0.04	-0.05	3.8	0.1	6	-0.5	-0.2
1480787	1	0.064	0.05	0.1	0.04	-0.05	4.4	0.1	6	-0.5	-0.2
1480788	-1	0.011	0.04	-0.1	0.14	0.06	8.2	0.1	8	-0.5	-0.2
1480790	-1	0.035	0.05	0.1	0.19	-0.05	10.2	0.1	6	-0.5	-0.2
1480791	-1	0.018	0.05	0.1	0.11	0.06	2.8	0.1	5	-0.5	-0.2
1480792	-1	0.017	0.05	0.2	0.28	-0.05	3.9	-0.1	4	-0.5	-0.2
1480793	-1	0.005	0.05	-0.1	0.06	-0.05	4.6	-0.1	6	-0.5	-0.2
1480794	1	0.017	0.04	0.1	0.06	-0.05	3.6	0.1	5	-0.5	-0.2
1480795	-1	0.041	0.04	0.1	0.04	-0.05	3.5	-0.1	5	-0.5	-0.2
1480796	1	0.051	0.05	0.1	0.04	-0.05	4.4	-0.1	4	-0.5	-0.2
1480797	1	0.005	0.04	-0.1	0.04	-0.05	4	-0.1	7	-0.5	-0.2
1480798	1	0.027	0.05	0.2	0.09	-0.05	5.2	-0.1	5	-0.5	-0.2
1480799	1	0.054	0.05	0.2	0.15	-0.05	6.4	-0.1	5	-0.5	-0.2
1480800	-1	0.032	0.04	0.1	0.08	-0.05	4	-0.1	3	-0.5	-0.2
1480801	-1	0.019	0.05	0.1	0.25	-0.05	4.8	-0.1	4	-0.5	-0.2
1480802	-1	0.027	0.04	0.2	0.07	-0.05	2.3	-0.1	4	-0.5	-0.2
1480803	-1	0.006	0.03	-0.1	0.06	-0.05	4.4	-0.1	5	-0.5	-0.2
1480804	-1	0.005	0.04	-0.1	0.08	-0.05	4.7	-0.1	5	-0.5	-0.2
1480805	-1	0.026	0.04	0.2	0.03	-0.05	2.6	-0.1	5	-0.5	-0.2
1480806	-1	0.008	0.04	-0.1	0.05	-0.05	4.8	-0.1	7	-0.5	-0.2

1480807	-1	0.003	0.03	-0.1	0.05	-0.05	3.6	-0.1	7	-0.5	-0.2
1480808	2	0.016	0.05	0.2	0.13	-0.05	6.3	0.1	5	-0.5	-0.2
1480809	2	0.014	0.04	0.2	0.07	-0.05	2.6	0.1	5	-0.5	-0.2
1480810	-1	0.032	0.04	0.1	0.21	-0.05	5.3	-0.1	3	-0.5	-0.2
1480811	-1	0.022	0.05	0.2	0.06	-0.05	2.5	0.1	5	-0.5	-0.2
1480812	-1	0.008	0.04	-0.1	0.09	-0.05	2	-0.1	3	-0.5	-0.2
1480813	2	0.072	0.06	-0.1	0.06	-0.05	3.5	-0.1	6	-0.5	-0.2
1480814	-1	0.007	0.04	-0.1	0.05	-0.05	4.5	-0.1	5	-0.5	-0.2
1480815	1	0.007	0.04	-0.1	0.07	-0.05	4.6	-0.1	7	-0.5	-0.2
1480816	-1	0.008	0.04	-0.1	0.07	-0.05	4.7	0.1	6	-0.5	-0.2
1480817	1	0.004	0.04	-0.1	0.04	-0.05	4	-0.1	7	-0.5	-0.2
1480818	1	0.013	0.05	0.2	0.09	-0.05	2.3	-0.1	5	-0.5	-0.2
1480819	-1	0.008	0.05	0.1	0.06	-0.05	2.1	-0.1	4	-0.5	-0.2
1480820	-1	0.017	0.04	0.2	0.11	-0.05	3.5	0.1	3	-0.5	-0.2
1480821	-1	0.02	0.04	0.1	0.06	-0.05	2.5	-0.1	6	-0.5	-0.2
1480822	-1	0.018	0.04	0.1	0.04	-0.05	1.6	0.1	5	-0.5	-0.2
1480823	-1	0.004	0.03	-0.1	0.08	-0.05	2.7	-0.1	1	-0.5	-0.2
1480824	1	0.094	0.08	0.1	0.05	-0.05	8.4	0.1	8	-0.5	-0.2
1480825	-1	0.163	0.06	0.2	0.02	-0.05	4.9	-0.1	8	-0.5	-0.2
1480826	-1	0.006	0.04	-0.1	0.08	-0.05	4.6	-0.1	6	-0.5	-0.2
1480827	-1	0.003	0.04	-0.1	0.06	-0.05	3.9	-0.1	8	-0.5	-0.2
1480828	-1	0.006	0.04	-0.1	0.09	-0.05	5.1	-0.1	7	-0.5	-0.2
1480829	-1	0.009	0.05	-0.1	0.06	-0.05	2.6	-0.1	2	-0.5	-0.2
1480830	-1	0.029	0.05	0.3	0.15	-0.05	6.4	-0.1	4	-0.5	-0.2
1480831	-1	0.041	0.04	0.2	0.07	-0.05	2	-0.1	6	-0.5	-0.2
1480832	-1	0.023	0.05	0.1	0.05	-0.05	2.1	-0.1	6	0.6	-0.2
1480833	-1	0.03	0.06	0.1	0.07	-0.05	2.2	-0.1	4	-0.5	-0.2
1480834	-1	0.003	0.04	-0.1	0.06	-0.05	2.4	-0.1	2	-0.5	-0.2
1480835	-1	0.14	0.07	0.2	0.07	-0.05	8.3	0.2	9	-0.5	-0.2
1480836	-1	0.201	0.13	0.2	0.03	-0.05	7.2	0.1	10	-0.5	-0.2
1480837	-1	0.178	0.04	-0.1	0.04	-0.05	4.2	-0.1	8	-0.5	-0.2
1480838	1	0.085	0.07	-0.1	0.04	-0.05	5.6	-0.1	8	-0.5	-0.2
1480839	-1	0.018	0.05	-0.1	0.07	-0.05	4.1	-0.1	5	-0.5	-0.2
1480840	-1	0.015	0.04	0.1	0.09	-0.05	3.4	-0.1	3	-0.5	-0.2
1480841	-1	0.027	0.05	0.1	0.05	-0.05	3.1	-0.1	4	-0.5	-0.2
1480842	-1	0.008	0.04	-0.1	0.06	-0.05	2.6	-0.1	3	-0.5	-0.2
1480843	-1	0.006	0.04	-0.1	0.05	-0.05	2.7	-0.1	3	-0.5	-0.2
1480844	-1	0.002	0.04	-0.1	0.06	-0.05	1.7	-0.1	2	-0.5	-0.2
1480845	-1	0.002	0.04	-0.1	0.05	-0.05	2.8	-0.1	3	-0.5	-0.2
1480851	2	0.19	0.11	0.1	0.04	-0.05	7	0.2	11	-0.5	-0.2
1480852	2	0.236	0.41	0.2	0.03	-0.05	4.1	0.3	15	-0.5	-0.2
1480853	3	0.239	0.65	0.2	0.01	-0.05	3.9	0.2	16	-0.5	-0.2
1480854	3	0.28	0.36	0.1	0.01	-0.05	6.5	0.2	13	-0.5	-0.2
1480856	2	0.225	0.49	0.1	0.02	-0.05	7.6	0.2	15	0.6	-0.2
1480857	2	0.19	0.23	0.2	0.02	-0.05	4.2	0.2	13	-0.5	-0.2
1480858	3	0.183	0.33	0.1	0.03	-0.05	5.8	0.2	16	-0.5	-0.2
1480859	1	0.209	0.46	-0.1	0.02	-0.05	10.9	0.2	17	-0.5	-0.2
1480860	2	0.053	-0.01	-0.1	0.06	0.24	23.2	-0.1	15	-0.5	-0.2
1480861	5	0.2	0.22	0.2	0.03	-0.05	11.6	0.2	8	-0.5	-0.2
1480865	5	0.011	0.1	-0.1	0.06	-0.05	8.8	-0.1	7	-0.5	-0.2
1480870	3	0.034	0.12	-0.1	0.04	-0.05	1.9	0.1	5	-0.5	-0.2
1480871	2	0.014	0.09	-0.1	0.14	-0.05	14.6	0.2	8	-0.5	-0.2
1480872	2	0.019	0.13	0.1	0.05	-0.05	3.9	-0.1	6	0.6	-0.2
1480873	2	0.172	0.41	0.1	0.01	-0.05	1.1	0.3	12	-0.5	-0.2
1480874	-1	0.107	0.03	-0.1	0.04	-0.05	5.2	0.1	6	-0.5	-0.2

1480876	2	0.044	0.06	0.1	0.05	-0.05	2.1	0.1	5	-0.5	-0.2
1480877	4	0.02	0.09	-0.1	0.04	-0.05	8.4	-0.1	7	-0.5	-0.2
1480878	2	0.111	0.15	0.1	0.01	-0.05	2.5	0.2	8	0.6	-0.2
1480879	3	0.157	0.18	-0.1	0.04	-0.05	2.9	0.4	13	-0.5	-0.2
1480880	4	0.113	0.04	-0.1	0.04	-0.05	7.3	0.1	9	-0.5	-0.2
1480881	3	0.045	0.05	0.2	0.02	-0.05	3.1	-0.1	6	0.8	-0.2
1480882	1	0.095	0.06	0.2	0.02	-0.05	3.6	-0.1	6	0.5	-0.2
1480883	-1	0.169	0.16	0.2	0.02	-0.05	4.7	0.1	15	-0.5	-0.2
1480884	2	0.079	0.06	0.2	0.05	-0.05	5.9	-0.1	7	0.7	-0.2
1480885	3	0.072	0.07	0.1	0.06	-0.05	6.7	-0.1	7	1	-0.2
1480891	-1	0.052	0.05	0.2	0.01	-0.05	2.2	-0.1	4	-0.5	-0.2
1480892	-1	0.21	0.1	0.2	0.02	-0.05	5	0.1	13	-0.5	-0.2
1480893	3	0.107	0.08	0.1	0.08	-0.05	6.7	-0.1	8	0.8	-0.2
1480894	2	0.073	0.08	-0.1	0.08	-0.05	5.1	-0.1	8	1.3	-0.2
1480895	3	0.109	0.12	0.1	0.07	-0.05	5.3	-0.1	8	1	-0.2
1480896	3	0.06	0.06	0.3	0.04	-0.05	3.4	-0.1	4	-0.5	-0.2
1480901	2	0.139	0.09	0.1	0.05	-0.05	5.5	-0.1	7	-0.5	-0.2
1480902	1	0.109	0.07	0.1	0.09	0.12	5.5	-0.1	7	0.9	-0.2
1480903	2	0.129	0.1	0.1	0.05	0.06	5.5	-0.1	7	-0.5	-0.2
1480911	1	0.108	0.09	0.2	0.08	-0.05	7.1	-0.1	8	-0.5	-0.2
1480912	-1	0.137	0.08	0.1	0.08	-0.05	6.8	0.1	8	-0.5	-0.2
1480913	-1	0.123	0.11	0.1	0.04	-0.05	5.1	-0.1	6	-0.5	-0.2
1480915	2	0.096	0.08	0.2	0.06	-0.05	5.9	-0.1	6	-0.5	-0.2
1480916	1	0.086	0.06	0.3	0.05	-0.05	4.4	-0.1	4	-0.5	-0.2
1480917	-1	0.13	0.1	0.2	0.04	-0.05	5.1	-0.1	6	0.5	-0.2
1480918	1	0.063	0.06	-0.1	0.09	-0.05	6.6	-0.1	6	-0.5	-0.2
1480919	-1	0.11	0.07	0.2	0.07	-0.05	6	-0.1	6	-0.5	-0.2
1480920	-1	0.112	0.07	0.1	0.08	-0.05	5.7	-0.1	6	0.6	-0.2
1480925	-1	0.095	0.06	0.3	0.07	-0.05	4.6	-0.1	5	-0.5	-0.2
1480926	-1	0.095	0.08	0.2	0.05	-0.05	4.5	0.1	4	-0.5	-0.2
1480927	-1	0.071	0.06	0.1	0.07	0.06	6.1	-0.1	6	1.5	-0.2
1480928	-1	0.086	0.06	0.1	0.08	-0.05	6.1	-0.1	6	-0.5	-0.2
1480929	1	0.093	0.07	0.1	0.08	-0.05	6.3	-0.1	6	-0.5	-0.2
1480930	-1	0.085	0.06	0.1	0.11	0.09	6.6	-0.1	6	0.8	-0.2
1480934	1	0.208	0.12	0.2	0.03	-0.05	5.6	-0.1	10	-0.5	-0.2
1480935	-1	0.16	0.12	0.2	0.06	-0.05	5.4	-0.1	8	-0.5	-0.2
1480936	-1	0.09	0.08	0.2	0.05	-0.05	5.2	-0.1	5	-0.5	-0.2
1480938	-1	0.098	0.07	0.1	0.07	-0.05	6.2	-0.1	6	-0.5	-0.2
1480939	-1	0.085	0.07	0.2	0.09	0.07	6.8	-0.1	6	0.8	-0.2
1480940	4	0.102	0.07	0.2	0.07	-0.05	6.9	-0.1	6	-0.5	-0.2
1480941	-1	0.099	0.09	0.2	0.08	-0.05	7.2	-0.1	7	-0.5	-0.2
1480942	-1	0.1	0.07	0.1	0.09	-0.05	7.6	0.1	8	-0.5	-0.2
1480946	1	0.112	0.05	0.2	0.05	-0.05	5.4	-0.1	6	0.7	-0.2
1480947	-1	0.096	0.07	0.1	0.1	0.05	8	-0.1	6	0.9	-0.2
1480948	1	0.089	0.06	0.1	0.08	0.07	6.9	-0.1	6	-0.5	-0.2
1480949	3	0.099	0.05	0.1	0.09	-0.05	8	-0.1	6	-0.5	-0.2
1480950	3	0.099	0.06	0.1	0.09	-0.05	7.8	-0.1	6	0.5	-0.2
1480951	2	0.105	0.05	0.2	0.01	-0.05	3.6	-0.1	6	-0.5	-0.2
1480952	1	0.141	0.07	0.1	0.03	-0.05	5.8	0.1	8	-0.5	-0.2
1480953	1	0.085	0.08	0.2	0.05	-0.05	4.2	0.1	5	0.8	-0.2
1480954	1	0.069	0.08	0.2	0.04	-0.05	3.5	-0.1	5	0.7	-0.2
1480955	3	0.122	0.15	0.1	0.08	-0.05	5.9	-0.1	10	1	-0.2
1480956	3	0.115	0.15	0.1	0.06	-0.05	5.1	-0.1	8	-0.5	-0.2
1480961	-1	0.087	0.06	0.2	0.04	-0.05	4.9	0.1	6	0.8	-0.2
1480962	-1	0.085	0.05	0.2	0.03	-0.05	3.6	-0.1	5	-0.5	-0.2

1480963		1	0.075	0.06	0.2	0.05	-0.05	4.4	-0.1	5	-0.5	-0.2
1480964		-1	0.059	0.05	0.1	0.07	-0.05	4.2	-0.1	6	-0.5	-0.2
1480965		2	0.102	0.13	0.1	0.04	-0.05	4.9	-0.1	8	0.8	-0.2
1480966		1	0.063	0.06	0.1	0.05	-0.05	5.1	-0.1	6	-0.5	-0.2
1480967		1	0.02	0.05	0.1	0.04	-0.05	4.6	-0.1	5	-0.5	-0.2
1480971		1	0.08	0.05	0.2	0.03	-0.05	4	-0.1	6	-0.5	-0.2
1480972		2	0.102	0.27	0.2	0.03	-0.05	3.6	0.2	7	-0.5	-0.2
1480973		-1	0.082	0.06	0.1	0.07	-0.05	4.8	-0.1	7	0.7	-0.2
1480974		2	0.11	0.08	0.2	0.06	-0.05	4.6	-0.1	8	-0.5	-0.2
1480975		4	0.074	0.05	0.1	0.05	-0.05	4.4	-0.1	7	-0.5	-0.2
1480976		1	0.068	0.08	0.2	0.06	-0.05	4.9	-0.1	7	-0.5	-0.2
1480981		1	0.053	0.09	0.1	0.03	-0.05	3.1	-0.1	5	-0.5	-0.2
1480982		-1	0.054	0.07	0.2	0.04	-0.05	3.5	-0.1	3	-0.5	-0.2
1480983		5	0.093	0.06	0.2	0.08	-0.05	5.1	-0.1	7	0.5	-0.2
1480984		3	0.114	0.07	0.1	0.05	0.12	5.7	-0.1	7	0.5	-0.2
1480985		1	0.151	0.08	0.2	0.05	-0.05	6.8	-0.1	8	0.5	-0.2
1480991		2	0.117	0.09	0.2	0.03	-0.05	5	-0.1	6	-0.5	-0.2
1480992		1	0.126	0.13	0.2	0.06	-0.05	4.5	0.1	6	-0.5	-0.2
1480993		4	0.149	0.08	0.1	0.04	0.05	5.9	-0.1	7	-0.5	-0.2
1480994		2	0.149	0.05	0.2	0.03	-0.05	5	-0.1	6	-0.5	-0.2
1480995		1	0.089	0.08	0.2	0.07	-0.05	6	0.1	7	0.5	-0.2
1480996		1	0.051	0.06	0.2	0.05	-0.05	5.3	-0.1	5	-0.5	-0.2
1481501		1	0.005	0.04	-0.1	0.03	-0.05	3.7	-0.1	7	-0.5	-0.2
1481502		2	0.01	0.05	-0.1	0.07	0.1	3	-0.1	6	0.7	-0.2
1481504		1	0.012	0.05	-0.1	0.09	0.09	4.4	-0.1	7	0.5	-0.2
1481505		5	0.011	0.04	-0.1	0.1	0.16	10.7	-0.1	8	1.3	-0.2
1481507		1	0.036	0.05	-0.1	0.04	-0.05	6.8	-0.1	7	-0.5	-0.2
1481508		2	0.024	0.04	0.1	0.04	-0.05	7.8	0.1	6	0.6	-0.2
1481509		2	0.008	0.06	-0.1	0.11	0.09	2	-0.1	7	0.5	-0.2
1481510		2	0.009	0.04	-0.1	0.1	0.15	4.5	-0.1	6	0.6	-0.2
1481511		1	0.014	0.05	0.1	0.04	-0.05	3.3	-0.1	6	-0.5	-0.2
1481512		1	0.007	0.04	-0.1	0.06	-0.05	1.6	-0.1	6	-0.5	-0.2
1481513		-1	0.009	0.03	-0.1	0.1	0.19	4.7	-0.1	5	-0.5	-0.2
1481515		2	0.011	0.04	-0.1	0.05	0.07	9.3	-0.1	5	0.5	-0.2
1481518		2	0.015	0.04	-0.1	0.04	-0.05	10.5	-0.1	8	0.5	-0.2
1481519		2	0.021	0.04	0.2	0.05	-0.05	8.1	-0.1	6	-0.5	-0.2
1481520		2	0.007	0.06	-0.1	0.26	0.07	10.1	0.1	6	0.5	-0.2
1481521		1	0.01	0.05	-0.1	0.03	-0.05	4.2	-0.1	7	-0.5	-0.2
1481522		1	0.019	0.05	0.1	0.04	-0.05	6.4	-0.1	5	-0.5	-0.2
1481524		4	0.061	0.04	-0.1	0.05	-0.05	25.9	0.2	11	0.7	-0.2
1481525		3	0.003	0.04	-0.1	0.14	0.08	18.1	0.4	4	-0.5	-0.2
1481526		3	0.003	0.04	-0.1	1.55	-0.05	11.8	0.1	4	-0.5	-0.2
1481527		2	0.003	0.06	-0.1	0.28	0.09	12.4	0.1	3	-0.5	-0.2
1481528		3	0.015	0.04	0.2	9.38	-0.05	12.7	-0.1	6	0.8	-0.2
1481529		2	0.009	0.07	-0.1	0.15	0.08	13.2	0.1	6	0.6	-0.2
1481530		3	0.01	0.05	-0.1	0.19	-0.05	13.4	-0.1	6	0.5	-0.2
1481531		1	0.009	0.06	-0.1	0.1	-0.05	6.9	-0.1	6	-0.5	-0.2
1481534		3	0.008	0.06	0.1	0.77	0.08	17.6	-0.1	5	-0.5	-0.2
1481535		3	0.017	0.04	-0.1	0.08	-0.05	17.8	0.2	8	-0.5	-0.2
1481536		1	0.005	0.04	-0.1	0.09	-0.05	20.7	0.3	8	0.5	-0.2
1481537		2	0.004	0.04	0.1	0.12	-0.05	22.2	0.4	5	-0.5	-0.2
1481540		-1	0.021	0.05	0.1	0.1	-0.05	12.9	-0.1	7	-0.5	-0.2
1481541		1	0.051	0.06	0.2	0.06	-0.05	11.6	-0.1	5	-0.5	-0.2
1481542		2	0.01	0.07	0.1	0.12	0.07	21.1	-0.1	3	-0.5	-0.2
1481543		2	0.006	0.07	-0.1	0.12	0.05	21.4	-0.1	3	0.6	-0.2

1481544		3	0.007	0.07	0.2	0.14	-0.05	25	-0.1	3	-0.5	-0.2
1481545		1	0.034	0.03	-0.1	0.17	-0.05	13.3	-0.1	7	-0.5	-0.2
1481547		-1	0.154	0.28	-0.1	0.04	-0.05	13.7	0.7	14	-0.5	-0.2
1481548		1	0.101	0.07	-0.1	0.08	-0.05	12.3	0.3	11	-0.5	-0.2
1481549		1	0.114	0.09	0.1	0.04	-0.05	11.2	0.2	11	-0.5	-0.2
1481550		1	0.074	0.05	-0.1	0.04	-0.05	10.6	0.1	10	-0.5	-0.2
1481551		-1	0.093	0.22	-0.1	0.02	-0.05	7.8	0.3	11	-0.5	-0.2
1481552		1	0.088	0.1	-0.1	0.06	-0.05	8.7	0.2	9	-0.5	-0.2
1481553		1	0.075	0.14	-0.1	0.1	-0.05	15.5	0.2	9	-0.5	-0.2
1481554		1	0.061	0.09	-0.1	0.04	-0.05	12.5	0.1	16	-0.5	-0.2
1481556		1	0.024	0.04	0.1	0.14	-0.05	22.4	0.1	7	-0.5	-0.2
1481557		1	0.119	0.12	-0.1	0.03	-0.05	14.6	0.4	13	-0.5	-0.2
1481558		-1	0.082	0.03	-0.1	0.04	-0.05	13	0.2	11	-0.5	-0.2
1481559		-1	0.071	0.03	-0.1	0.11	-0.05	14.6	0.1	11	-0.5	-0.2
1481560		-1	0.067	0.05	-0.1	0.07	-0.05	7.6	0.1	9	-0.5	-0.2
1481561		1	0.052	0.06	-0.1	0.08	0.06	6.7	0.1	10	-0.5	-0.2
1481562		1	0.196	0.36	-0.1	0.02	-0.05	9.8	-0.1	13	-0.5	-0.2
1481563		2	0.188	0.28	0.1	0.03	-0.05	9.8	-0.1	15	0.5	-0.2
1481564		1	0.255	0.15	0.1	0.03	-0.05	9.2	-0.1	13	-0.5	-0.2
1481565		-1	0.238	0.55	-0.1	0.03	-0.05	13.3	0.2	16	-0.5	-0.2
1481566		1	0.173	0.12	0.1	0.03	0.07	6.4	0.1	9	-0.5	-0.2
1481567		-1	0.18	0.2	-0.1	0.02	-0.05	9	-0.1	15	-0.5	-0.2
1481568		1	0.292	0.78	0.2	-0.01	-0.05	3.4	0.1	13	-0.5	-0.2
1481569		1	0.23	0.36	0.2	0.02	-0.05	4.7	0.2	13	-0.5	-0.2
1481570		2	0.221	0.28	0.2	0.02	-0.05	5.9	-0.1	12	-0.5	-0.2
1481571		1	0.174	0.24	0.1	0.03	-0.05	8.6	0.1	14	-0.5	-0.2
1481572		2	0.172	0.45	0.2	0.02	-0.05	9.6	0.1	16	-0.5	-0.2
1481573		1	0.203	0.44	0.2	0.02	-0.05	4.6	0.1	16	-0.5	-0.2
1481574		2	0.183	0.34	0.1	0.02	-0.05	8.1	-0.1	14	-0.5	-0.2
1481575		2	0.181	0.43	0.1	0.03	-0.05	9.8	0.1	15	-0.5	-0.2
1481576		2	0.159	0.31	0.1	0.04	-0.05	10.2	0.2	13	0.8	-0.2
1481577		2	0.171	0.52	-0.1	0.01	-0.05	8.3	0.2	16	-0.5	-0.2
1481578		1	0.159	0.65	0.1	0.01	-0.05	8.8	0.2	16	-0.5	-0.2
1481582		-1	0.2	0.27	0.2	0.03	-0.05	9.6	0.3	17	-0.5	-0.2
1481583		-1	0.16	0.42	0.1	0.02	-0.05	8	0.3	20	-0.5	-0.2
1481584		3	0.031	0.09	0.2	0.29	-0.05	14.4	0.3	3	0.5	-0.2
1481587		-1	0.09	0.08	0.2	0.06	0.12	2.3	0.1	8	0.7	-0.2
1481588		3	0.273	0.21	0.2	0.03	-0.05	4.6	0.3	12	-0.5	-0.2
1481591		3	0.051	0.1	-0.1	0.03	0.07	6.5	-0.1	6	-0.5	-0.2
1481592		3	0.085	0.08	0.1	0.07	0.08	8.2	-0.1	8	1.3	-0.2
1481593		3	0.169	0.03	0.1	0.13	-0.05	5.5	0.1	10	0.9	-0.2
1481594		2	0.189	0.08	0.1	0.03	-0.05	4.4	0.2	20	-0.5	-0.2
1481595		1	0.215	0.04	0.2	0.04	0.05	4.4	0.1	7	-0.5	-0.2
1481596		2	0.208	0.05	0.3	0.04	-0.05	4	0.2	8	-0.5	-0.2
1481597		2	0.014	0.08	-0.1	0.38	0.11	17.4	0.2	4	1.9	-0.2
1481598		1	0.055	0.13	0.2	0.13	0.2	6.3	0.3	7	2.4	0.2
1481599		1	0.045	0.05	0.1	0.06	-0.05	3.2	0.1	8	0.6	-0.2
1481600		3	0.071	0.05	0.2	0.12	-0.05	7.7	0.1	6	0.8	-0.2
1481601		2	0.026	0.1	0.2	0.18	0.15	2.7	0.3	3	0.7	0.2
1481602		2	0.167	0.32	-0.1	1.63	-0.05	33.3	0.5	10	-0.5	-0.2
1481603		3	0.085	0.1	-0.1	0.36	-0.05	13.7	0.2	6	1.2	-0.2
1481604		2	0.055	0.08	0.1	0.33	-0.05	10.8	0.1	5	2.3	-0.2
1481605		-1	0.004	0.04	-0.1	0.03	-0.05	2.9	-0.1	7	-0.5	-0.2
1481606		1	0.004	0.04	-0.1	0.04	-0.05	6.5	-0.1	6	-0.5	-0.2
1481607		-1	0.003	0.04	-0.1	0.06	-0.05	14	-0.1	8	-0.5	-0.2

1481608	-1	0.007	0.03	-0.1	0.05	-0.05	8.2	-0.1	6	-0.5	-0.2
1481609	1	0.01	0.04	-0.1	0.06	-0.05	6.5	-0.1	5	-0.5	-0.2
1481610	1	0.01	0.04	-0.1	0.08	-0.05	9.7	-0.1	5	-0.5	-0.2
1481611	1	0.013	0.04	-0.1	0.03	-0.05	3.7	-0.1	5	-0.5	-0.2
1481612	1	0.013	0.06	-0.1	0.04	-0.05	2.6	-0.1	5	-0.5	-0.2

1481613		1	0.006	0.04	-0.1	0.04	-0.05	1.3	-0.1	3	-0.5	-0.2
1481614		-1	0.013	0.05	-0.1	0.03	-0.05	2.1	-0.1	5	-0.5	-0.2
1481615		2	0.009	0.06	-0.1	0.04	-0.05	1.4	-0.1	6	-0.5	-0.2
1481616		-1	0.016	0.04	-0.1	0.03	-0.05	2	-0.1	4	-0.5	-0.2
1481617		1	0.011	0.05	-0.1	0.03	-0.05	1.7	-0.1	6	-0.5	-0.2
1481618		1	0.013	0.04	-0.1	0.04	-0.05	1.4	-0.1	4	-0.5	-0.2
1481619		-1	0.01	0.05	-0.1	0.04	-0.05	1.6	-0.1	5	-0.5	-0.2
1481620		1	0.002	0.04	-0.1	0.03	-0.05	3.7	-0.1	7	-0.5	-0.2
1481621		-1	0.01	0.05	-0.1	0.03	-0.05	2.3	-0.1	6	-0.5	-0.2
1481622		1	0.017	0.05	-0.1	0.03	-0.05	2.7	-0.1	6	-0.5	-0.2
1481623		1	0.011	0.04	-0.1	0.03	-0.05	3.1	-0.1	7	-0.5	-0.2
1481624		1	0.025	0.05	0.1	0.04	-0.05	3.1	-0.1	5	-0.5	-0.2
1481625		2	0.028	0.07	0.1	0.04	-0.05	3.4	0.1	6	-0.5	-0.2
1481626		1	0.028	0.05	0.1	0.05	-0.05	2.8	-0.1	5	-0.5	-0.2
1481627		1	0.022	0.04	0.1	0.03	-0.05	2.2	-0.1	4	-0.5	-0.2
1481628		2	0.009	0.05	-0.1	0.06	-0.05	1.6	-0.1	5	-0.5	-0.2
1481629		1	0.017	0.04	-0.1	0.19	-0.05	6.1	-0.1	5	-0.5	-0.2
1481630		2	0.008	0.05	-0.1	0.04	0.07	1.9	-0.1	6	-0.5	-0.2
1481631		1	0.012	0.04	-0.1	0.04	-0.05	2	-0.1	4	-0.5	-0.2
1481632		1	0.025	0.06	-0.1	0.04	-0.05	2.6	-0.1	5	-0.5	-0.2
1481633		1	0.01	0.05	-0.1	0.09	0.06	1.1	-0.1	6	-0.5	-0.2
1481634		1	0.012	0.04	-0.1	0.29	-0.05	7.4	0.2	5	1.5	-0.2
1481635		-1	0.002	0.04	-0.1	0.02	-0.05	2.8	-0.1	7	-0.5	-0.2
1481636		-1	0.002	0.04	-0.1	0.02	-0.05	3.3	-0.1	9	-0.5	-0.2
1481637		1	0.012	0.05	-0.1	0.03	-0.05	3.6	-0.1	6	-0.5	-0.2
1481638		2	0.006	0.05	-0.1	0.09	-0.05	4.1	-0.1	5	-0.5	-0.2
1481639		2	0.008	0.04	-0.1	0.18	0.08	10.3	0.1	4	0.7	-0.2
1481640		2	0.015	0.04	0.2	0.23	0.09	7.9	0.1	4	0.7	-0.2
1481641		-1	0.014	0.05	-0.1	0.14	0.05	9	-0.1	6	-0.5	-0.2
1481642		1	0.018	0.05	0.1	0.06	0.07	2.2	0.2	5	0.7	-0.2
1481643		2	0.013	0.07	-0.1	0.07	0.08	5	-0.1	5	-0.5	-0.2
1481644		1	0.021	0.04	0.1	0.03	-0.05	3.9	-0.1	5	-0.5	-0.2
1481645		1	0.013	0.05	0.1	0.29	-0.05	13.7	0.1	4	-0.5	-0.2
1481646		-1	0.011	0.05	-0.1	0.06	0.08	3.2	-0.1	6	-0.5	-0.2
1481647		2	0.015	0.06	-0.1	0.12	0.06	9.9	-0.1	3	-0.5	-0.2
1481648		-1	0.01	0.05	-0.1	0.05	-0.05	4.8	-0.1	5	-0.5	-0.2
1481649		1	0.009	0.04	-0.1	0.18	-0.05	11	-0.1	6	0.9	-0.2
1481650		-1	0.004	0.05	-0.1	0.06	0.05	3.2	-0.1	5	-0.5	-0.2
1481651		1	0.005	0.05	-0.1	0.07	-0.05	5.5	-0.1	6	-0.5	-0.2
1481652		-1	0.004	0.04	-0.1	0.12	-0.05	5.8	-0.1	6	-0.5	-0.2
1481657		-1	0.005	0.08	-0.1	0.19	-0.05	9	0.2	4	-0.5	-0.2
1481658		1	0.017	0.06	0.1	0.04	0.11	5.9	-0.1	6	0.6	-0.2
1481659		-1	0.01	0.06	-0.1	0.08	0.07	10	-0.1	6	-0.5	-0.2
1481660		-1	0.022	0.06	0.1	0.2	0.09	8.6	-0.1	3	-0.5	-0.2
1481661		1	0.007	0.05	-0.1	0.16	0.08	14	-0.1	3	-0.5	-0.2
1481662		1	0.012	0.06	-0.1	0.13	0.08	7.8	-0.1	5	-0.5	-0.2
1481663		-1	0.009	0.06	-0.1	0.06	0.07	1.9	-0.1	5	-0.5	-0.2
1481664		-1	0.013	0.07	-0.1	0.12	-0.05	7.6	-0.1	4	0.8	-0.2
1481665		-1	0.01	0.06	-0.1	0.18	-0.05	13.3	0.1	3	-0.5	-0.2
1481666		1	0.006	0.06	-0.1	0.07	0.11	5.9	-0.1	4	0.7	-0.2
1481667		1	0.011	0.05	-0.1	0.15	0.05	10.9	-0.1	5	0.7	-0.2
1481668		-1	0.013	0.05	-0.1	0.09	-0.05	9.5	-0.1	5	0.9	-0.2
1481669		1	0.016	0.06	0.1	0.09	0.07	9.8	-0.1	5	0.7	-0.2
1481670		-1	0.008	0.06	-0.1	0.05	0.13	1.1	-0.1	6	0.6	-0.2
1481671		-1	0.005	0.09	-0.1	0.1	0.21	0.6	0.1	4	0.5	-0.2

1481672	-1	0.008	0.06	-0.1	0.15	0.1	7.3	-0.1	4	0.6	-0.2
1481673	-1	0.015	0.05	-0.1	0.07	-0.05	3.5	-0.1	4	-0.5	-0.2
1481675	1	0.011	0.05	0.1	0.17	-0.05	13.9	0.1	5	0.7	-0.2
1481676	-1	0.01	0.06	0.1	0.07	0.07	4.4	0.2	4	0.6	-0.2
1481677	-1	0.016	0.06	-0.1	0.04	0.07	3.4	0.1	6	-0.5	-0.2
1481678	-1	0.011	0.05	-0.1	0.21	-0.05	16.7	0.1	4	-0.5	-0.2
1481679	2	0.013	0.05	-0.1	0.15	-0.05	4.4	-0.1	3	0.6	-0.2
1481680	1	0.057	0.05	0.2	0.03	-0.05	3.2	0.2	6	-0.5	-0.2
1481681	1	0.008	0.06	-0.1	0.05	0.06	1.1	0.1	5	-0.5	-0.2
1481682	-1	0.027	0.06	0.1	0.04	-0.05	3.8	0.2	7	-0.5	-0.2
1481683	1	0.008	0.07	-0.1	0.06	-0.05	1.1	0.2	5	-0.5	-0.2
1481684	-1	0.006	0.06	-0.1	0.05	0.05	0.9	0.1	5	-0.5	-0.2
1481685	2	0.058	0.05	0.1	0.09	-0.05	7.5	0.1	7	-0.5	-0.2
1481686	-1	0.011	0.06	-0.1	0.04	-0.05	2.3	0.2	5	-0.5	-0.2
1481687	-1	0.019	0.07	0.1	0.04	-0.05	2.8	-0.1	6	-0.5	-0.2
1481688	-1	0.015	0.05	0.1	0.04	-0.05	2.2	-0.1	4	0.5	-0.2
1481689	-1	0.008	0.06	-0.1	0.06	-0.05	2	0.1	5	-0.5	-0.2
1481690	1	0.077	0.05	0.1	0.03	-0.05	8.2	0.1	7	-0.5	-0.2
1481691	-1	0.015	0.05	-0.1	0.04	-0.05	2.8	0.1	6	-0.5	-0.2
1481692	-1	0.01	0.05	-0.1	0.04	-0.05	3.8	-0.1	5	-0.5	-0.2
1481693	-1	0.004	0.03	-0.1	0.05	-0.05	3.9	-0.1	4	-0.5	-0.2

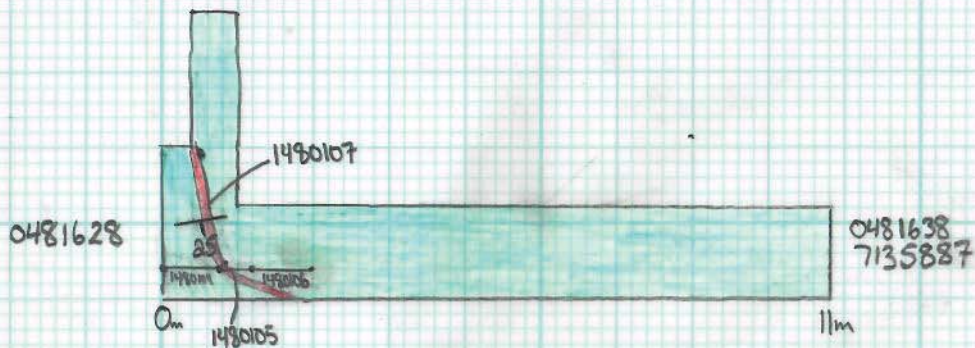
Appendix V.

Trench Maps




T. Haid
June 25, 2018

MH-TR-18-02

1:125
Plan View



Legend

-  Basalt
-  Galena-gtz vein
-  Channel Sample

Note: VNG appears curvilinear from plan view, but in actuality it is striking $\sim 080/25$.

Trench Summary

A shallow dipping 0.4m wide galena-gtz vein was intersected from 1.0-1.4m ($080-100/20-30^\circ$). Vein is hosted in basalt, which is blocky, highly fractured, & generally unorientable. In proximity to the vein, basalt becomes highly Fe (carb) oxidized & unconsolidated.

- Mineralization generally as sooty galena infill of fractured gtz (with boiling textures).

T. Haid
June 23, 2018

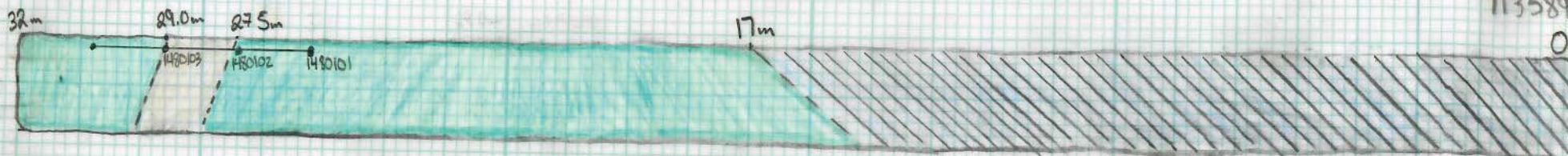
MH-TR-18-03

32x21m

1:125
Plan View



0481629
7135906






048165
713589

Summary

- Blue slaty encountered from 0 to 17m, wk ox and foliation trending $\sim 310^\circ$; from 13-17m fracturing becomes blockier (increased argillic component)
- Contact with vesicular to amygdaloidal basalt. (with minor andesitic + slate components) @ 17m; tends to be blocky + moderately oxidized
- Qtz vein (unmineralized) encountered from 27.5-29m; buff white + vuggy (70% ankerite infill, 30% druse); general trend of $0-40^\circ$ (very difficult to ascertain due to unconsolidated nature of subsurface)
- Basalt as above to EOT; slate content increases to 40% @ 32m

Legend

-  Slate
-  Basalt
-  Quartz Vein


T. Haid
June 29/18

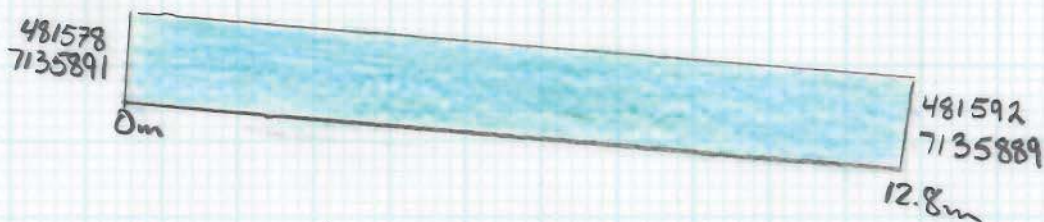
MH TR 18 05

1:125
Plan View



Legend

 Andesite



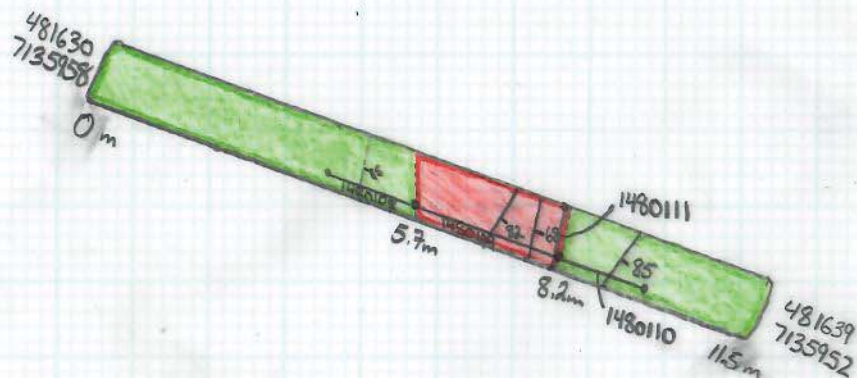
Summary

- Trenching uncovered blocky + highly silicified + mod Fe ox andesite. 1-2mm white Qtz stringers throughout.
- Trace malachite present along microfractures in the andesite
- Presence of loose/unconsolidated white, drusy Qtz fragments throughout trench
- One 0.5 x 0.3m Qtz fragment found near the start of the trench with boiling textures, but was unable to find any more
- No orientations possible due to unconsolidated nature of subcrop.

T. Haid
June 29/18

MH TR 18 10

1:125
Plan View



Legend

- Gabbro
- Galena-gtz vein
- S_1/E_1
- Inferred contact
- Channel Sample

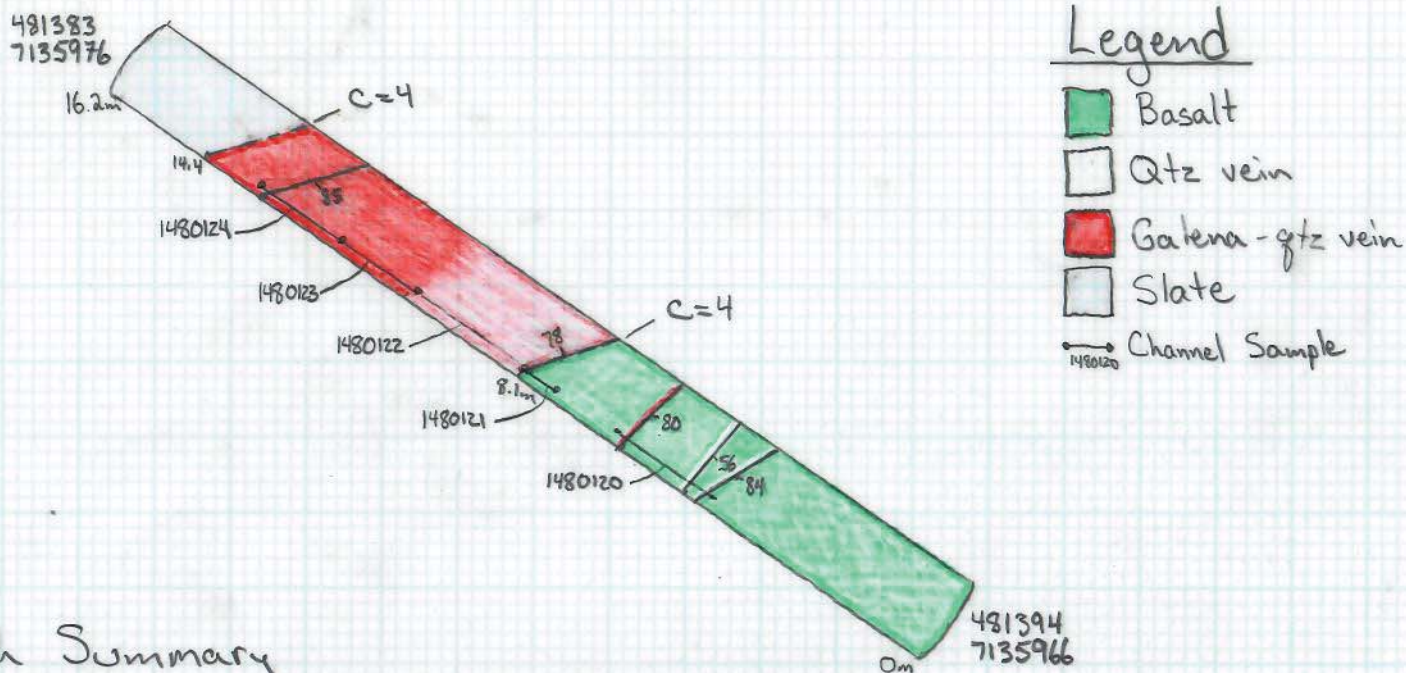
Trench Summary

- Trench was hand-dug due to steepness of slope
- Mineralized galena-gtz vein (2.5m) exposed within host gabbro
 - ↳ Ore dominates near hanging wall contact (8.2m) + is characterized by boiling textures, pervasive Fe carbonate alteration; and cubic to sooty galena as 5-8cm stringers
- Dominant fracture pattern ranges between 010 + 035/vertical
- Vein contacts inferred (due to unconsolidated subcrop) but overall it is my belief it's trending -030-040/75-85°.

T. Haid
July 17/18

MH TR 18 19 (No. 4 Vein)

1:125
Plan View
↑
N



Trench Summary

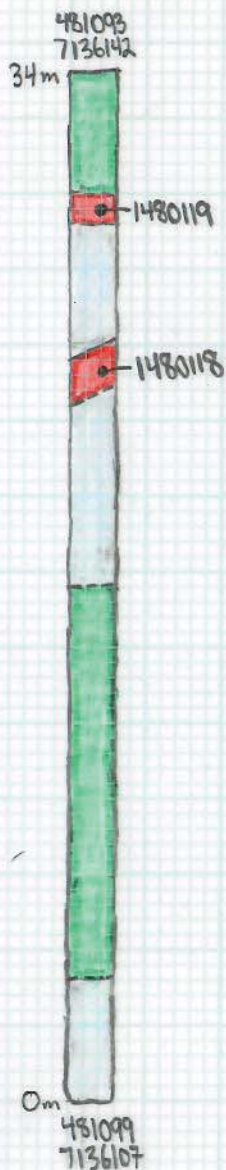
- Trench intersected 6m quartz vein at contact of highly oxidized (fw) basalt and weakly to unoxidized graphitic slate (Mu).
- Vein is relatively unmineralized, massive bull white gtz (minor Fe + Mn Ox along fractures) from 8.1-10.4m
- At 10.4m, vein becomes increasingly mineralized with cubic (65%) + sooty (35%) galena (+/- mal + sulphur), along with appearance of skeletal/framework textures + drusy gtz. Mineralization is within vuggy gtz + replacing framework textures.

Interpretation: Trench is proximal to the confluence of the No. 4 vein and No. 6 'Corridor'; as replacement-style mineralization is prominent within 10m SW of trench.

T. Haid
July 15/18

MH-TR-18-24

1:250
Plan View



Legend

- Slate
- Basalt
- Galena-gtz vein
- Inferred Contact
- Grab Samples

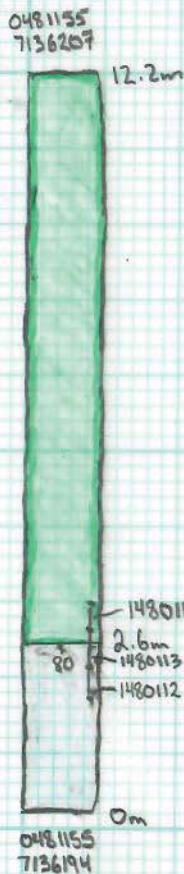
Trench Summary

- * No in situ rock in trench; frozen ground has impeded digging any deeper
- Trench has well foliated steel blue-black slate along with two basalt units which are highly silicified + blocky (15% bleached fragments)
- Veins present are not in situ; but present as gtz-galena float
 - Mineralization as sooty galena within gtz fractures (trace malachite)
- Interp: Perhaps both mineralized float occurrences are splays of the No. 8 vein (which we see more of higher up on the ridge)





T. Haid
July 5/18

MH-TR-18-26

1:125
Plan View



Legend

-  Slate
-  Basalt
-  Contact
-  Channel Sample

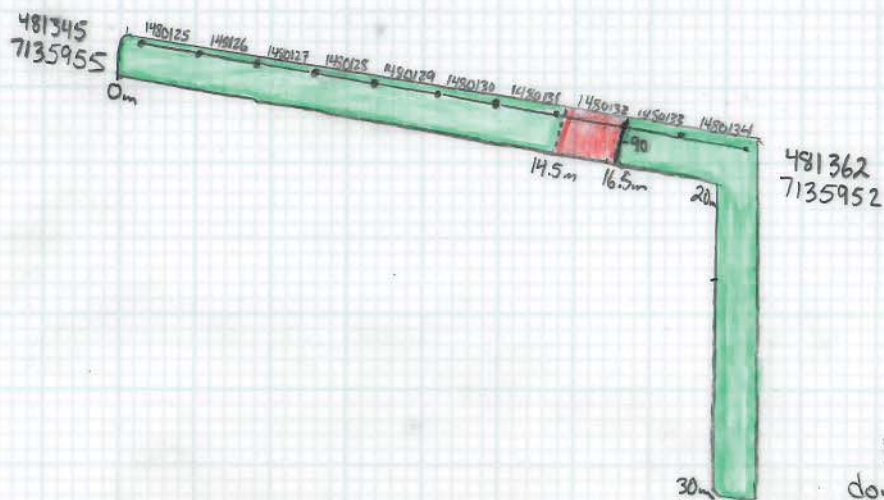
Trench Summary

- Trench was excavated by the Kibota at the top of the ridge near the repeater with the goal of intersecting No. 9 vein.
- A sharp contact between unoxidized slate + highly Fe carb oxidized basalt was observed at 2.6m
- Fragments of mineralization present near contact (exclusively within basalt) as cubic galena infill of pt_2 (minor mal + az).

T. Haid
July 24, 2018

MH TR 18 27

1:250
Plan View



Legend

- Basalt
- Quartz-galena vein
- Fracture
- Inferred contact
- Channel Sample

Trenching Summary

Highly to pervasively Fe carbonate amygdaloidal basalt dominates from 0m to 23m (with exception of Qtz-galena vein from ~14.5 to 16.5m). No in situ mineralization identified except in vein, but abundant mineralized float, therefore the trench was sampled from 0.5 - 20.5m. Qtz-galena vein was intersected from ~14.5 to 16.5m with minor galena. Qtz primarily white, massive, with mod. Fe + Mn ox along fractures. From 23m to EOT (30m), the basalt becomes clean + unoxidized but retains its carbonate content.

Interpretation: Very close to intersection between No. 4 vein + No. 6 corridor.

Taylor Haid
July 25, 2018

MH TR 18 33 (Chinook Vein)

1:250
Plan View
↑
N



Legend

- Basalt
- Qtz-galena vein
- Qtz vein
- Inferred Contact
- Channel Sample

Trench Summary

Trench intersected in situ rock for 80% of length. Primary lithology is strongly silicified and carbonate rich basalt. Fe carbonate increases with proximity to vein. Qtz-galena vein intersected from 5.7-7.7m (estimated true width; 0.4m) and is characterized by cubic galena infill of internal fractures and open space; +/- mal + sulfbr. Another unmineralized qtz vein (subcrop) was intersected from 14.2-15.2m with an apparent strike of 060. Samples collected from mineralized vein onwards.

Interpretation: This is an intersection with a new vein (-020/25); named Chinook.

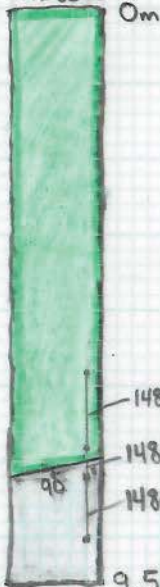
T. Haid
July 15/18

MH-TR-18-37

1:125
Plan View







481090
7136202



481091
7136192

Legend

-  Basalt
-  Slate
-  Contact
-  Channel Sample

Trench Summary

- Goal of trench was to identify if vein is present at the contact between the basalt + slate (No. 9 vein)
- Gouged contact identified at 7.6m, with little to no vein
- Rare mineralization present within basalt (1.5m proximity to contact) as cubic to sooty galena within gtz fragments and as replacement of pervasively oxidized basalt
- * No in situ rock in trench; frozen ground encountered at 1m depth