

2018 YMEP – Focused Regional Final Report
on the
Silver Hill Region, Yukon

Beaver River Area
NTS 106D/06 & 11
Lat. 64°29'45" N • Long. 135°16'14" W
Mayo Mining District

Prepared for:



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Summary

This report summarizes the 2018 Silver Hill area Focused Regional YMEP-funded exploration program performed by Metallic Minerals Corp (MMG). Work occurred over four days in early July, with 23 total man-days performed over this period. The program consisted of initial aerial reconnaissance of the area by helicopter, identifying areas of interest and landing sites for further ground-truthing. Four main areas were identified as highly prospective: Central Carpenter Ridge, Elliot Ridge, northeast Carpenter Ridge, and Settlemier Ridge, which are located approximately 40 km north of McQuesten Lake on NTS map sheet 106D/06. Over the course of the next several days, staking occurred on Settlemier Ridge (staked as the Nazgul claims), prospecting was conducted over all of the areas and rock sampling occurred on all three areas, with 5 ridge-and-spur soil lines also being completed (two lines at NE Carpenter Ridge, three at Settlemier Ridge).

Relative to MMG's McKay Hill project, the areas of interest occur approximately 17 km to the northeast, on the other side of ATAC Resources Rackla project, which falls within the Mayo Mining District. The locations are centered at 64° 29'45" N Latitude, 135° 16'14" W Longitude. The region is accessible via helicopter from the town-site of Keno City, located ~60 km south of the property, which is 465 km by road to Whitehorse. Access to the project's areas of interest was via helicopter which was based out of the McKay Hill exploration camp.

The areas of interest were all regionally mapped by L. Green (1972) of the Geological Survey of Canada (GSC) in 1961 as part of a helicopter-supported party known as 'Operation Ogilvie'. The area has not been remapped by the YGS and no 1:50,000-scale mapping is known in the area. Currently the region is said to be underlain by the Lower Proterozoic Gillespie Lake Group dolomite which has been intruded by Middle Proterozoic resistant dark-weathering diorite and gabbroic sills and dykes assigned to the Hart River Sills. YGS MINFILE database described the occurrences within this focused regional exploration program as MVT-style, however presence of volcanics (tuffs, gabbros ± basalt), which aren't typically associated with MVT's, points to potential for epithermal style mineralization. As extensive carbonate rocks underlie the area and the Blende deposit is nearby, carbonate-replacement type mineralization could also fit.

The 2018 YMEP-funded Focused Regional exploration program consisted of staking, prospecting, along with rock and soil sample collection. A total of \$41,157.48 was spent during the program, with \$22,650.87 eligible for YMEP reimbursement. In summary, the exploration program included:

- Helicopter-based reconnaissance allowing for identification of four main areas of interest (AOI): Central Carpenter Ridge, Elliot Ridge, northeast (NE) Carpenter Ridge & Settlemier Ridge);
- Prospecting and rock sampling at Central Carpenter Ridge;
- Prospecting at Elliot Ridge (no samples collected);
- Prospecting, rock sampling, and 2 ridge-and-spur soil lines at NE Carpenter Ridge;
- Staking of the Nazgul 1-8 claims on Settlemier Ridge; and
- Prospecting, rock sampling, and 3 ridge-and-spur soil lines at Settlemier Ridge.

Although discrete packages of volcanics were located, namely basalts, it is yet to be adequately evaluated for how expansive these packages are in the district. It was also noted that these volcanics are likely not representative of the Marmot Group volcanics which underlay the McKay Hill region. More ground-work in the region should be completed to answer this. More significantly, as a result of the YMEP program, MMG was able to make a discovery on Settlemier Ridge and mineralization was located

on Carpenter Ridge. These 280°-trending veins, observed on Carpenter and Settlemier Ridges, appear to represent a regional trend.

Recommendations include follow-up at Central Carpenter Ridge and northeast Carpenter Ridge area opposite Silver Hill, where mineralized vein float was located. Although this material at NE Carpenter Ridge did not report values higher than 17.8 g/t Ag, the region shows merit for additional follow up. This greenfield target may adequately fit into the criteria for a second Focused Regional application, especially in light of the brief two-day program already highlighting potential in the area.

The discovery at Settlemier Ridge and resulting work highlighted multiple areas of interest. In particular, quartz vein float and highly anomalous soils down the northwest spur were located. As a result, the following is recommended in the immediate future.

- Staking an additional claims
- Ridge-and-spur sampling outside the current claim block to ensure no anomalies are left open
- Grid soil sampling at 50 m-spacing over block
- Complete property-scale mapping
- Prospect south slope of Settlemier Ridge

Additionally, a small knob within the valley dividing Silver Hill and Settlemier Ridge should be evaluated. The above described work may fit well into the criteria for a Target Evaluation YMEP program. The above work program is estimated to cost between \$30,000 and \$40,000.

1 Introduction

This report summarizes the 2018 Silver Hill area Focused Regional YMEP-funded exploration program performed by Metallic Minerals Corp (MMG). Work occurred over four days in early July, with 23 total man-days performed over this period. The program consisted of initial aerial reconnaissance of the area by helicopter, identifying areas of interest and landing sites for further ground-truthing. Four main areas were identified as highly prospective: Central Carpenter Ridge, Elliot Ridge, northeast Carpenter Ridge, and Settlemier Ridge. Over the course of the next several days, staking occurred on Settlemier Ridge (staked as the Nazgul claims), prospecting was conducted over all of the areas and rock sampling occurred on all three areas, with 5 ridge-and-spur soil lines also being completed (two lines at NE Carpenter Ridge, three at Settlemier Ridge). 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.

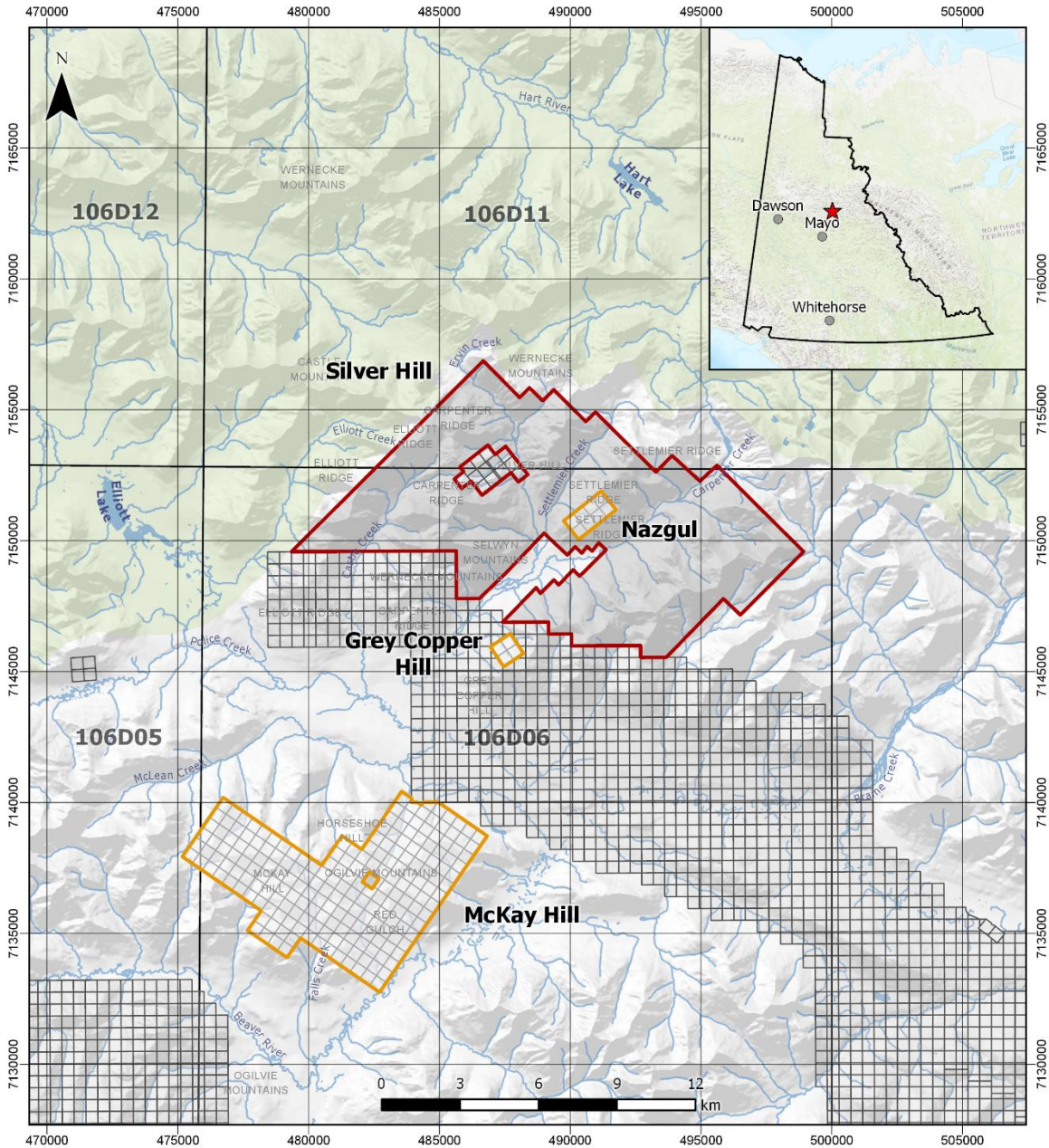
1.1 Location & Access

Initial prospecting in the Elliot Ridge area did not result in locating any mineralization or prospective bedrock packages targeted. After initial prospecting, focused regional work was completed on three areas of interest, which includes: the slopes of Carpenter Ridge (just north of the Archer Cathro claims), the slopes northeast of Carpenter Ridge (southwest of the Glencore Canada claims), and Settlemier Ridge, which are located approximately 40 km north of McQuesten Lake on NTS map sheet 106D/06. Relative to MMG's McKay Hill project, the areas of interest occur approximately 17 km to the northeast, on the other side of ATAC Resources Rackla project, which falls within the Mayo Mining District. The locations are centered at 64° 29'45" N Latitude, 135° 16'14" W Longitude (refer to **Figure 1**, following page). The region is accessible via helicopter from the town-site of Keno City, located ~60 km south of the property, which is 465 km by road to Whitehorse. Access to the project's areas of interest was via helicopter which was conveniently based out of the McKay Hill exploration camp.

1.2 Land Tenure

The historic Silver Hill mineral occurrence is currently covered by 15 leases owned by Glencore Canada Corp. The prospective area surrounding these leases to the west-northwest and east-southeast is currently open ground, which is bound by the Rackla project claims to the south, owned by Archer Cathro and operated by ATAC Resources. The Settlemier Ridge area had an unknown MINFILE occurrence located on the southwest flank of Settlemier Ridge and was open-ground until 8 claims (Nazgul) were staked by MMG staff at the beginning of the work program (details including a table with claim status can be found in Section 5.3) No previous assessment work has been filed on the claims comprising the Settlemier showing to the knowledge of MMG.

Figure 1. Location Map



Silver Hill Area Location Map		
2019-01-23	NAD 1983 UTM Zone 8N	1:200,000
		Figure
Mapsheets: 106D11, 106D06		

- YMEP Application Area
- MMG Properties
- Claims
- NTS Mapsheet
- Watercourse
- Waterbody
- Areas withdrawn from Staking

2 Current Interpreted Regional Geology

The areas of interest were all regionally mapped by L. Green (1972) of the Geological Survey of Canada (GSC) in 1961 as part of a helicopter-supported party known as 'Operation Ogilvie'. The area has not been remapped by the YGS and no 1:50,000-scale mapping is known in the area. Currently the region is said to be underlain by the Lower Proterozoic Gillespie Lake Group dolomite which has been intruded by Middle Proterozoic resistant dark-weathering diorite and gabbroic sills and dykes assigned to the Hart River Sills. **Figure 2** (following page) illustrates this current 1:250,000-scale regional geological interpretation.

While not documented by Green, numerous reports describing mapping efforts by reputable geologists in the area include volcanic packages. Over the winter of 2017-18, MMG found reports (Cockfield, 1924; Bostock, 1957; ARM files- 'Castle Ridge & Reef Projects' –Dynasty Exploration Ltd & Cyprus Anvil., 1970s) describing volcanic rocks in an area approximately 17 km northeast of McKay Hill on the other side of the Rackla belt. The Rackla belt is hosted in Upper Cambrian to Lower Devonian Bouvette Group (Limestones) and this package is presumed to be fault (thrust) – bound. Dynasty Exploration Ltd. 1970s mapping campaigns (in the Newt & Lingham areas) also delineated an extensive package of volcanic tuffs on-trend¹. The Gillespie Lake Group does not include volcanics so it may be that the sills are improperly mapped as volcanics or the Marmot Group (volcanics) currently thought to underlie McKay Hill may in fact be present.

Regional map-work by Cockfield in the 1920s, describes volcanics, agglomerates interbedded with shales and sandstones in the area of interest (refer to **Figure 3**, page 8). According to Cockfield (1924) "*The principal exposures of [volcanic agglomerate, shale and sandstone] are found near the base of the {...} limestone. {...} The thickness varies from place to place. {...} The major part of the material is volcanic in origin, and is probably related to the augite andesites [found in the region], but differs from the agglomerates directly associated with the andesites in that rounded pebbles and boulders of rocks other than greenstones are also present{...}. Associated with the agglomerate are beds of dark-coloured shales and sandstones.* According to Cockfield (1924), the Silver Hill area is underlain by calcareous/dolomitic sandstones that are intercalated with thin beds of impure sandy limestone. The strata are generally ridge-parallel with dip ranging from 50°-85°W; however, both strike and dip vary rapidly from place to place.

Interestingly, the Marmot Group unit (Menzie Creek 'CSM8' basalt) is mapped in the northern portion of the area of interest (refer to **Figure 2**, following page). The Marmot Group unit CSM5/6/7 includes²:

"CSM5. White weathering limestone, locally bioclastic (Dempster volcanics); and CSM6. Dark green to brown or orange weathering mafic, vesicular and amygdaloidal volcanic flows, carbonate-cemented hyaloclastic breccia, and volcanic-derived sandstone, grit, and pebble and cobble conglomerate; CSM7. Massive brown to green, basic lapilli tuff, breccia, flows, sills, and dikes; intraclast breccia and conglomerate, brown weathering, green to gray, medium to very thick-bedded volcanoclastic sandstone."

All of the above units comprise the general geological units observed at McKay Hill and cover the units observed by Cockfield (1924), Dynasty Exploration Ltd (1974) and could include the limestone unit currently mapped in the area.

¹ Refer to ARM files listed in the Bibliography section of this report.

² Accessed YGS Bedrock Legend: < <http://data.geology.gov.yk.ca/Compilation/DownloadProduct/114>> 03-25-2018

Figure 2. Regional Geology

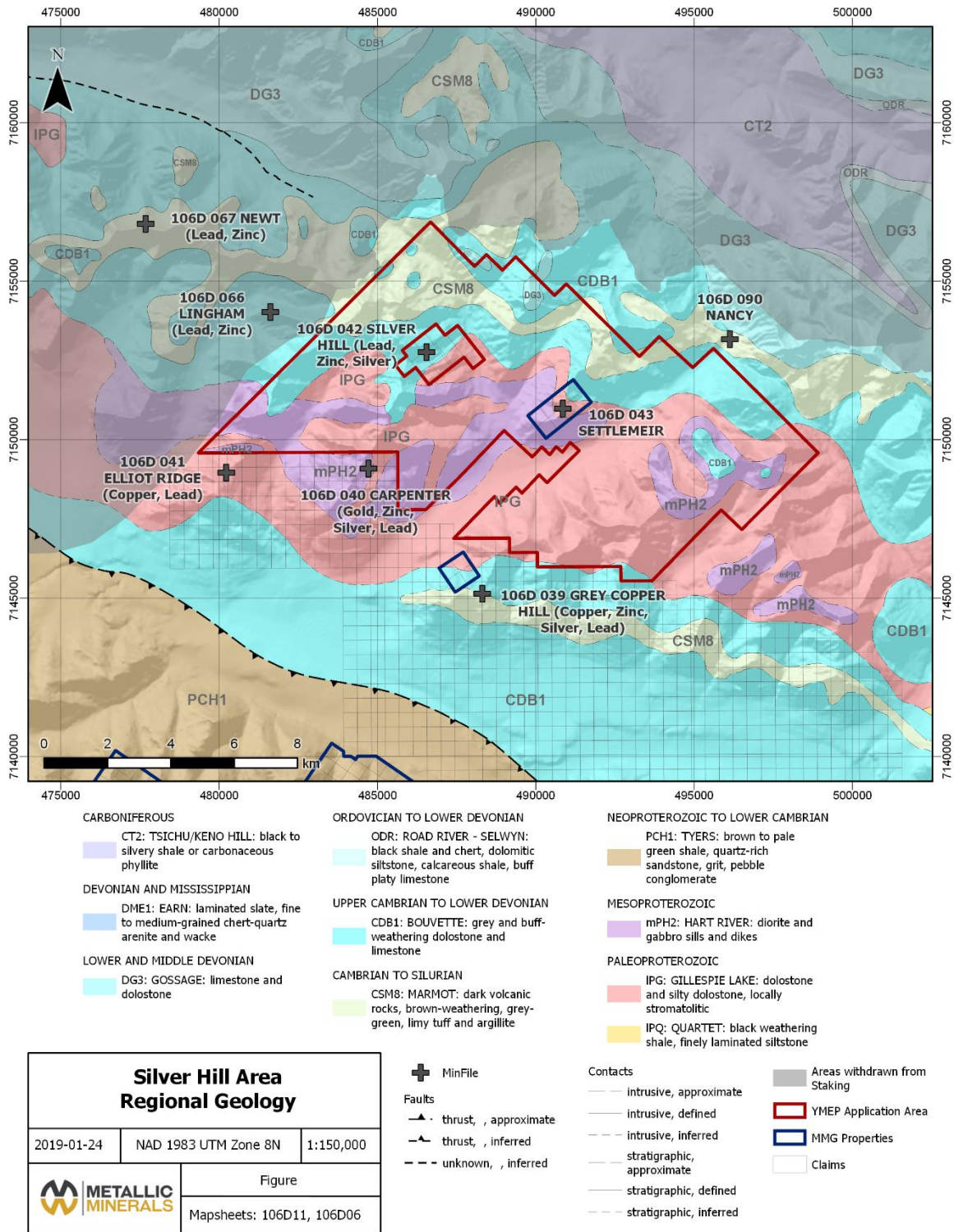
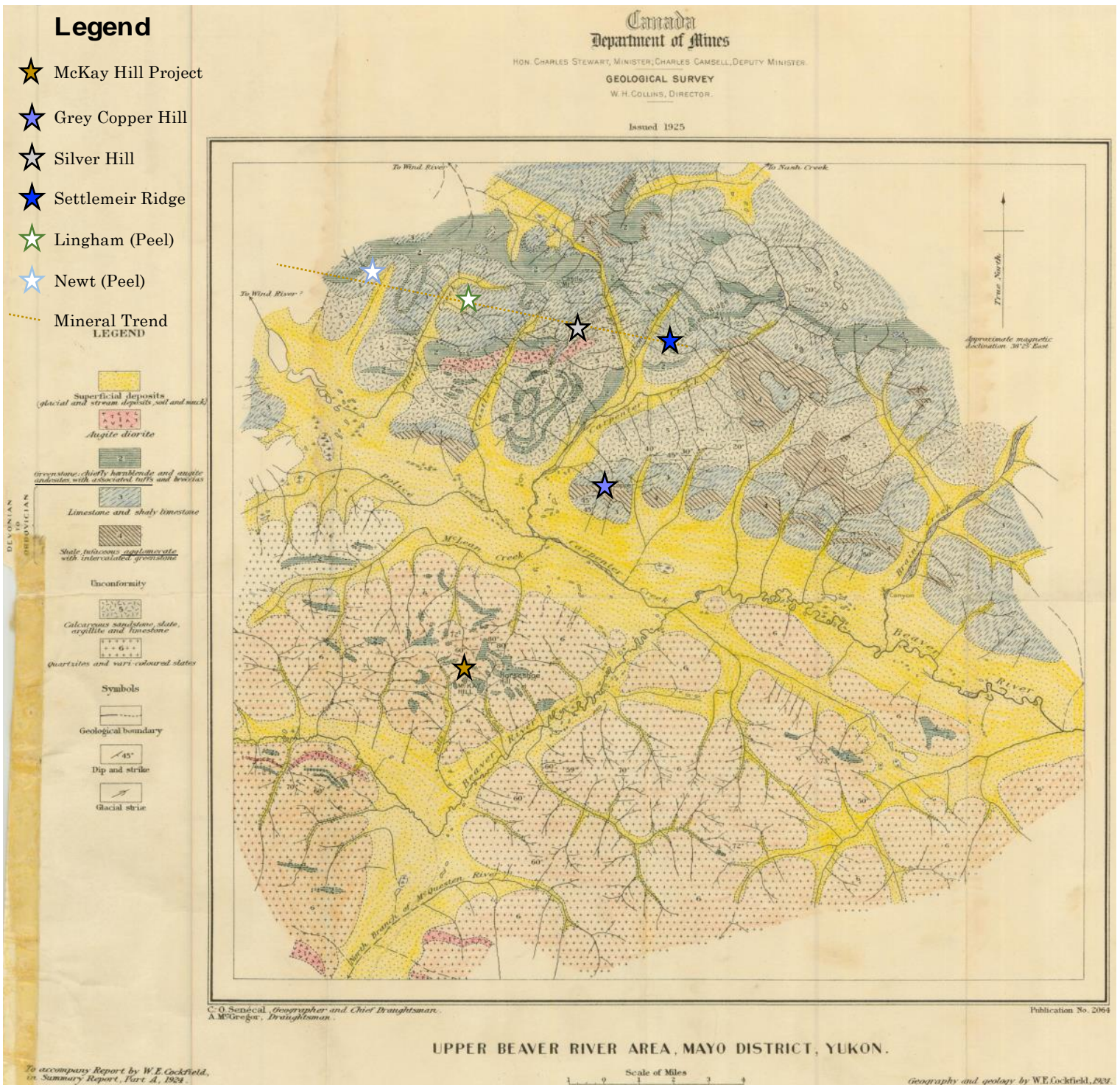


Figure 3. Cockfield's 1924 Regional Geological Map with annotated mineral occurrences³



³ Note that Cockfield's 1924 map differs from the current regional interpretation. Mapping efforts in the McKay Hill area support Cockfield's findings, but it should be noted MMG personnel have not visited the ground comprising the ATAC Rackla project.

3 Project Area – Exploration History

The staking of McKay Hill in 1922 led to further prospecting in the surrounding area and resulted in discovery of similar vein deposits (Ag-Pb-Zn±Cu) on Carpenter Hill, Silver Hill and Grey Copper Hill in the following years. The Settlemier showing (MVT-type Pb-Zn [MINFILE]) was staked a few years later in 1925, by J. McLean who performed hand-trenching in 1926.

3.1 Newt & Lingham MINFILE Occurrences*

The Newt and Lingham occurrences appear to have been discovered after the 1920's rush in the area. They fall under the Peel Watershed and are closed for staking. They reportedly cover MVT showings and were explored as the Castle Ridge project by Dynasty Exploration Ltd. (DEL, pre-1974) and the Castle Ridge & Reef projects by Cyprus Anvil Mining Corp (post-1974) via regional mapping and geochemical (RGS, soil and rock) sampling. Both groups reported anomalous Ag, Pb, Zn and Cu values, and Dynasty Exploration describes wide-spread volcanic tuffs. As MVT's are not typically associated with volcanic rocks or such appreciable levels of copper, it could be that these occurrences represent a different ore model. As a result of the Newt & Lingham being located in the Peel Watershed, no work was completed over these showings.

3.2 Carpenter MINFILE Showing*

The Carpenter showing was first staked in 1922 after the staking rush in the Beaver River area. The showing currently falls under the Rackla project claims, owned by Archer Cathro and operated by ATAC Resources. Mineralization present has been historically documented as MVT, with galena and sphalerite mineralization occurring within massive sulphide veins, breccia zones, and stockworks which cut the Gillespie Lake dolomites. It was noted that a grab sample collected by Cockfield in 1924 returned assay values of 300 g/t Ag and 56% Pb. Rimfire Minerals Corp. performed a cursory overview of the showing in 2002, with several samples returning ~150 g/t Ag and 25% Pb.

3.3 Silver Hill MINFILE Occurrence*

The occurrence was restaked in 1923 as a group of 8 claims and 2 fractions by J. McLean. Consolidated Mining & Smelting Company Ltd (forerunner to Cominco Ltd.) optioned the claims in 1929 and performed hand-trenching in 1930, drilled 4 holes totaling 455.7 m and took the claims to lease. No record of this work was ever filed. The claims then changed hands a few times and in the spring of 1990 Big Creek Resources Ltd. optioned the property, added claims, completed some trenching and in 1991 drilled 5 holes totaling 610 m. No work was filed and the claims were subsequently returned to Falconbridge Ltd. As noted above, in July 2002, Rimfire Minerals Corp. conducted a cursory examination of the occurrence and neighbouring Carpenter occurrence (YMIP 2002-042). Rimfire noted elevated Ag, Au, Pb, Zn and Cu – analogous to geochemistry to MMG's McKay Hill project.

According to MINFILE: Mineralization occurs in a highly fractured dolomitic-sandstone horizon and is exposed in outcrop and float over 1,220 m strike-length. The host horizon averages about 25 m-thick but is erratically mineralized. Trench samples across the best mineralized exposures returned up to 69.4% Pb and 308.6 g/t Ag over 1.8m. The best drill intersection from the 1991 program was hole 91-2 which averages 6.6% lead, 2.9% zinc and 41.0 g/t Ag over 5.5 m. Rimfire Minerals examined and sampled 5 m of the main veins which were described as containing massive galena with lesser sphalerite and pyrite,

* The Lingham and Newt occurrences are closed for staking, the Silver Hill occurrence is currently held by Glencore Canada Corp., and the Carpenter showing is currently held by Archer Cathro.

sparry dolomite and quartz. A 50 cm-wide chip sample collected from one of these veins returned up to 64% lead, 11.1% zinc and 468.9 g/t silver.

Cockfield (1924) describes the veins as daylighting on the western slope where the dip-slope is steep. The ore deposits have formed along short, transverse fissures via wallrock-replacement, with preference to the impure (sandy) limestone beds. The mineralization consists of galena with subordinate zinc-blende and a little pyrite in the gangue of calcite and siderite. Presence or absence of alteration is unknown.

3.4 Settlemier MINFILE Occurrence

No public data or work has ever been recorded on the Settlemier showing to the authors knowledge. The MINFILE details indicate that this occurrence is believed to be associated with MVT deposits. As mentioned above, MVT's are not typically associated with volcanic rocks or such appreciable levels of copper, and as such, it could be that this occurrence also represent a different ore model. Historic work by McLean (1926) included hand-trenching but there is no public information on results/findings or grades. This mineral occurrence was open for staking (prior to staking of 8 claims by MMG during this program [See Section 5.3]) and according to Cockfield (1924), rocks outcropping on Silver Hill project to the east on Settlemier Ridge to form the largest outcrop of this type (the aforementioned prospective package of rocks) in the region. Mineralization observed during the 2018 program did not locate MVT-type mineralization but rather Ag-Pb-Zn±Cu veins with consistent attitude and periodicity.

4 Project Rationale – Mineral Potential of Region

The McKay Hill property was recently explored by MMG's predecessor Monster Mining Corp. as a Keno Hill-type polymetallic Ag-Pb-Zn vein-deposit hosted in Yusezyu Formation rocks of the Hyland Group. Work over the last 10 years has delineated that the Ag-Au-Cu-Pb-Zn mineralization is more accurately described as intermediate-sulphidation (epithermal) veins and ore bodies. Mineralization is exclusively hosted within a siliciclastic and hypabyssal-volcanic package (volcanics are not associated with the Yusezyu Formation). MMG's current interpretation is that the area is underlain by the Dempster Volcanics of the Marmot Group. As mineralization is exclusively associated with this package of rocks, MMG conducted 1:30,000-scale mapping to project favourable host-lithologies outside of the 'Main Historic Zone'.

Over the winter of 2017-2018 while compiling data generated from this campaign, MMG examined historic literature. During this exercise, information pertaining to Cockfield's (1924) regional map-work came to light. Cockfield mapped the same packages of rocks in the McKay Hill and Silver Hill areas (refer to **Figure 3**, page 8). Cockfield also describes high-grade float which was discovered in the 1920's but was never traced to a source. In particular, mineralization described by Cockfield (1924) to resemble McKay Hill was noted in the Silver Hill area which is ~17 km northeast across ATAC's Rackla project.

In researching these mineral occurrences, in particular the ARM files on the YGS database, Dynasty Exploration Ltd. similarly delineated an extensive package of volcanic tuffs in the Newt & Lingham areas (Castle Ridge project). Dynasty's regional work included RGS sampling which highlighted similar elevated (although subdued) Pb-Zn-Cu-Ag geochemistry to McKay Hill. The similar mineralization-style and potential for analogous host rocks to the McKay Hill project peaked interest in the area which has not been explored with modern techniques (minus select claims on Silver Hill and Carpenter). Exploring this area may prove highly prospective for a similar deposit-type and exploration could result in significant discoveries.

YGS MINFILE database described the occurrences within this focused regional exploration program as MVT-style, however presence of volcanics (tuffs, gabbros ± basalt), which aren't typically associated with MVT's, points to potential for epithermal- (or SEDEX-?) style mineralization. As extensive carbonate rocks underlie the area and the Blende deposit is nearby, carbonate-replacement type⁴ mineralization could also fit. Additionally, the Silver Hill occurrence has relatively high silver values for an MVT-showing (no geochemical data is available for the Settlemier showing). Either way, delineating prospective mineralization associated with any of the above deposit-types could be a major discovery.

The work completed during the 2018 YMEP Focused Regional program led to the identification of mineralization both at Central Carpenter Ridge and Settlemier Ridge (Nazgul claims), with detailed information about each located in Sections 5.1 and 5.3, respectively.

5 2018 YMEP-funded Work Program

The 2018 YMEP-funded Focused Regional exploration program was completed over four days in early July, with 23 total man-days performed over this period. The program consisted of initial aerial reconnaissance of the area by helicopter, identifying areas of interest and landing sites for further ground-truthing of the areas. Four main areas were identified as highly prospective: Central Carpenter Ridge, Elliot Ridge, northeast Carpenter Ridge, and Settlemier Ridge, based primarily on the presence of gossanous zones seen from the air. This YMEP-funded program consisted of staking, prospecting, along with rock and soil sample collection. A total of \$41,157.48 was spent during the program, with \$22,650.87 eligible for YMEP reimbursement.

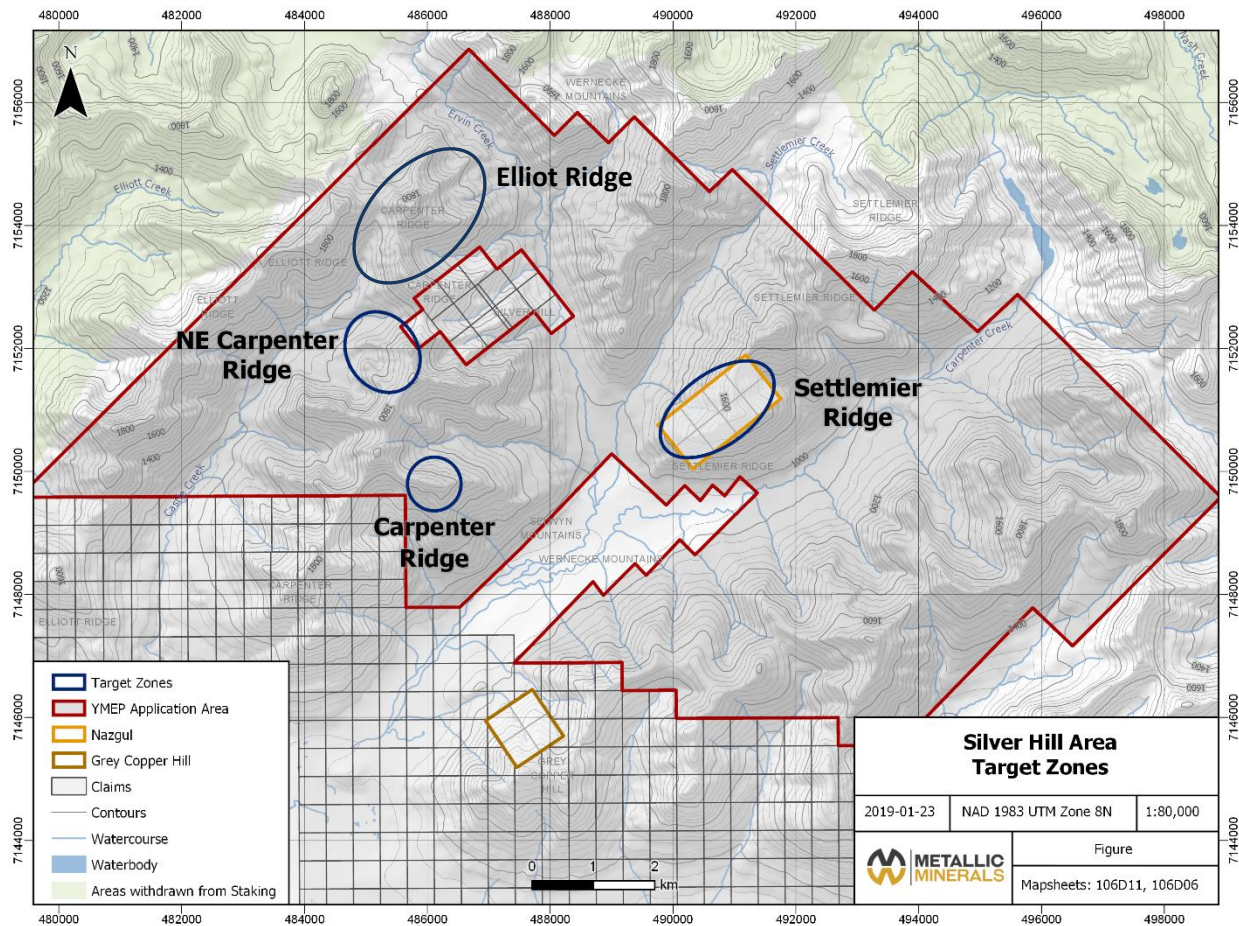
In summary, the exploration program included:

- Helicopter-based reconnaissance allowing for identification of four main areas of interest (AOI): Central Carpenter Ridge, Elliot Ridge, northeast (NE) Carpenter Ridge & Settlemier Ridge);
- Prospecting and rock sampling at Central Carpenter Ridge;
- Prospecting at Elliot Ridge (no samples collected);
- Prospecting, rock sampling, and 2 ridge-and-spur soil lines at NE Carpenter Ridge;
- Staking of the Nazgul 1-8 claims on Settlemier Ridge; and
- Prospecting, rock sampling, and 3 ridge-and-spur soil lines at Settlemier Ridge.

The three AOI's that were identified and chosen for ground truthing from the preliminary flyovers can be seen in **Figure 4** (following page). Prospecting that occurred in Elliot Ridge, south of Ervin Creek, but did not result in locating mineralization or bedrock packages of interest; as a result, no section has been dedicated to discussing it further in this report.

⁴ Work completed in 2002 on the Carpenter Ridge MINFILE occurrence, pointed toward a Carbonate-Replacement type deposit, zinc numbers assayed very low, Ag reported <469 g/t. Refer to YMEP-2002-042. Local quartz±Au veins were located south of Silver Hill – an observation that points to similarities with McKay Hill.

Figure 4. Areas of Interest within the Silver Hill YMEP Focused Regional Program



5.1 Central Carpenter Ridge

5.1.1 Central Carpenter Ridge - Prospecting

A quartz vein was identified by air at what was termed Central Carpenter Ridge, directly adjacent and northeast of the Rackla claims. MMG geologists performed prospecting along a steep ridge in order to ground truth the vein with the objective of identifying in situ mineralization. The quartz vein had trace galena mineralization. Further prospecting down the southwest side of the ridge resulted in discovering mineralized vein float which was tracked to outcrop. The vein can be characterized as a brecciated quartz vein with ankerite, limonite, malachite, azurite, chalcopryite +/- tetrahedrite which is hosted in limestone. Three samples were collected, two local float samples were collected prior to the discovery of the in-situ vein, and a 1m chip sample was collected from outcrop. The quartz vein/stockwork was measured to have a strike of 300° and a near-vertical dip.

5.1.2 Central Carpenter Ridge - Rock Sampling & Geochemical Analysis

Three rocks samples of mineralized quartz vein with moderate to strong copper oxide and chalcopryite mineralization were collected from the Central Carpenter Ridge AOI and sent for geochemical analysis (refer to **Appendix IV** for full results). Samples were sent to Bureau Veritas in Whitehorse for assaying

and multiple packages were used 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. Summarized results from the three samples can be seen in **Table 1. Figures 5-9** illustrate geochemical results for all areas included in the 2018 YMEP Focused Regional exploration program.

The relatively high copper and silver values from the collected samples at Central Carpenter Ridge are of high interest for follow up in 2019.



Photo Plate 1. LEFT TO RIGHT: Sample 1480014, 1480015, and 1480016.

Table 1. Summary of Central Carpenter Ridge Rock Samples and Results

Sample #	Easting	Northing	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	Cu (%)
1480014	486113	7149796	286.0	0.047	0.14	0.07	1.24
1480015	486109	7149792	116.0	0.036	0.08	0.12	3.99
1480016	486105	7149800	9.9	0.011	0.02	0.01	3.89

Figure 5. Rock & Soil Chemistry - Ag

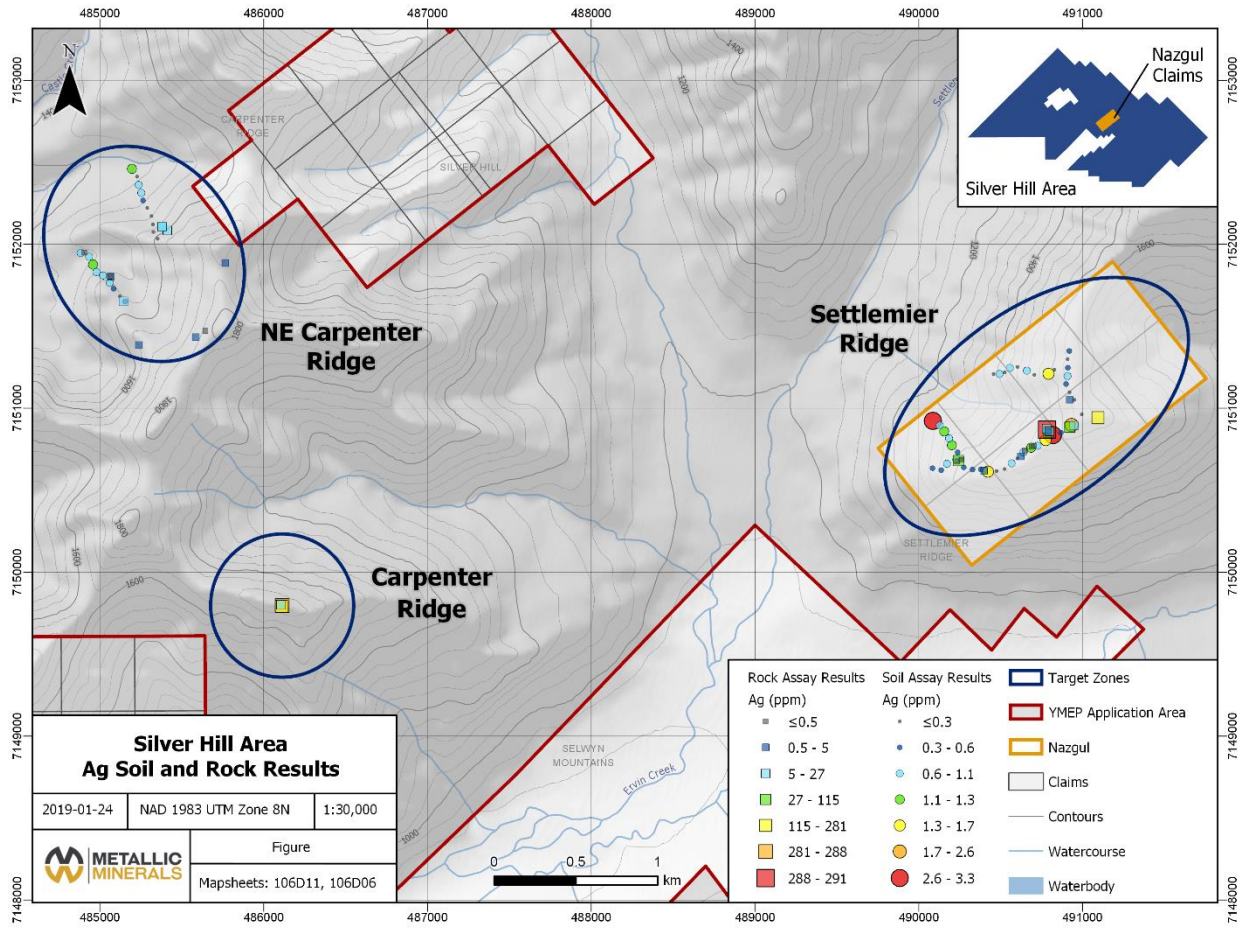


Figure 6. Rock & Soil Chemistry - Au

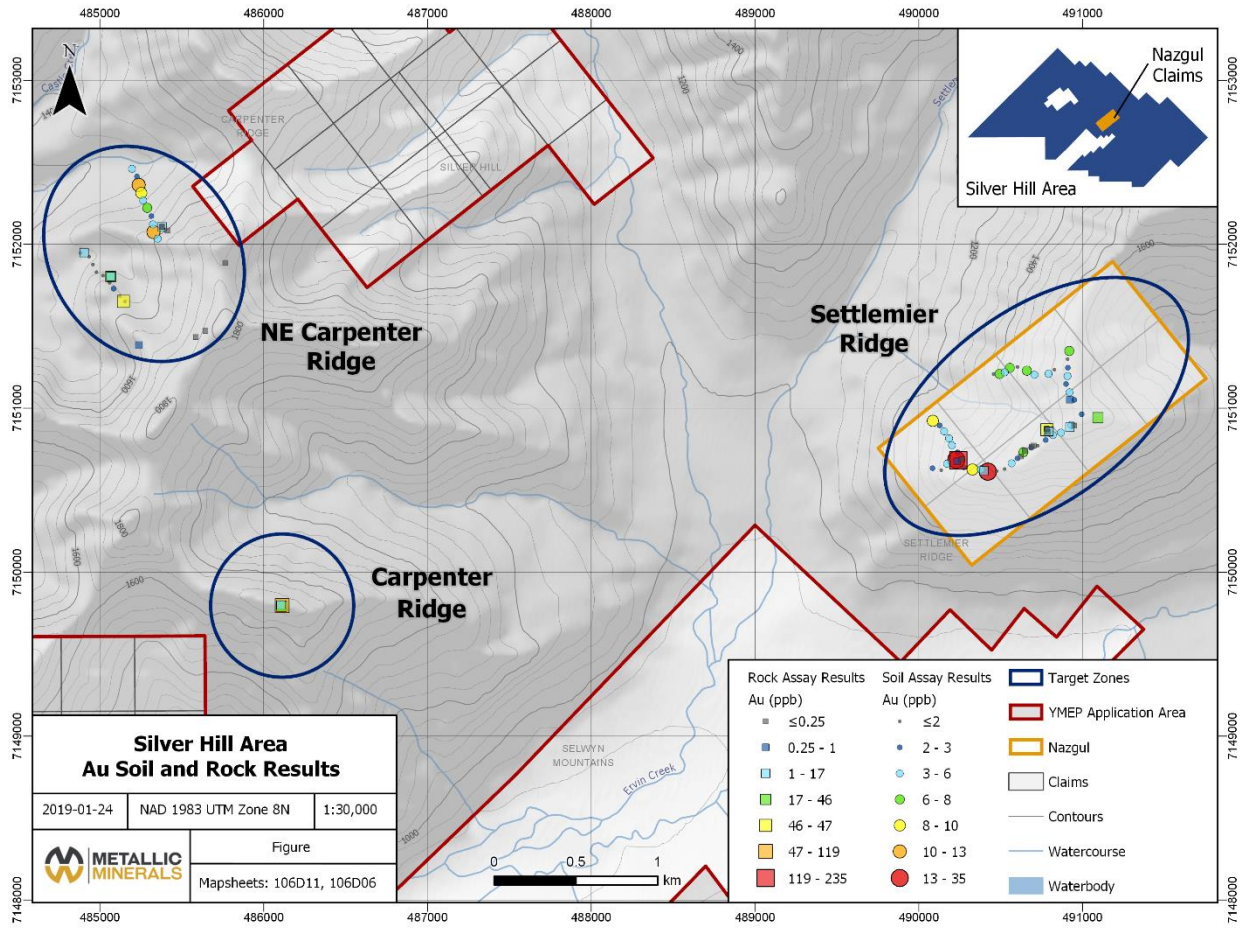


Figure 7. Rock & Soil Chemistry - Pb

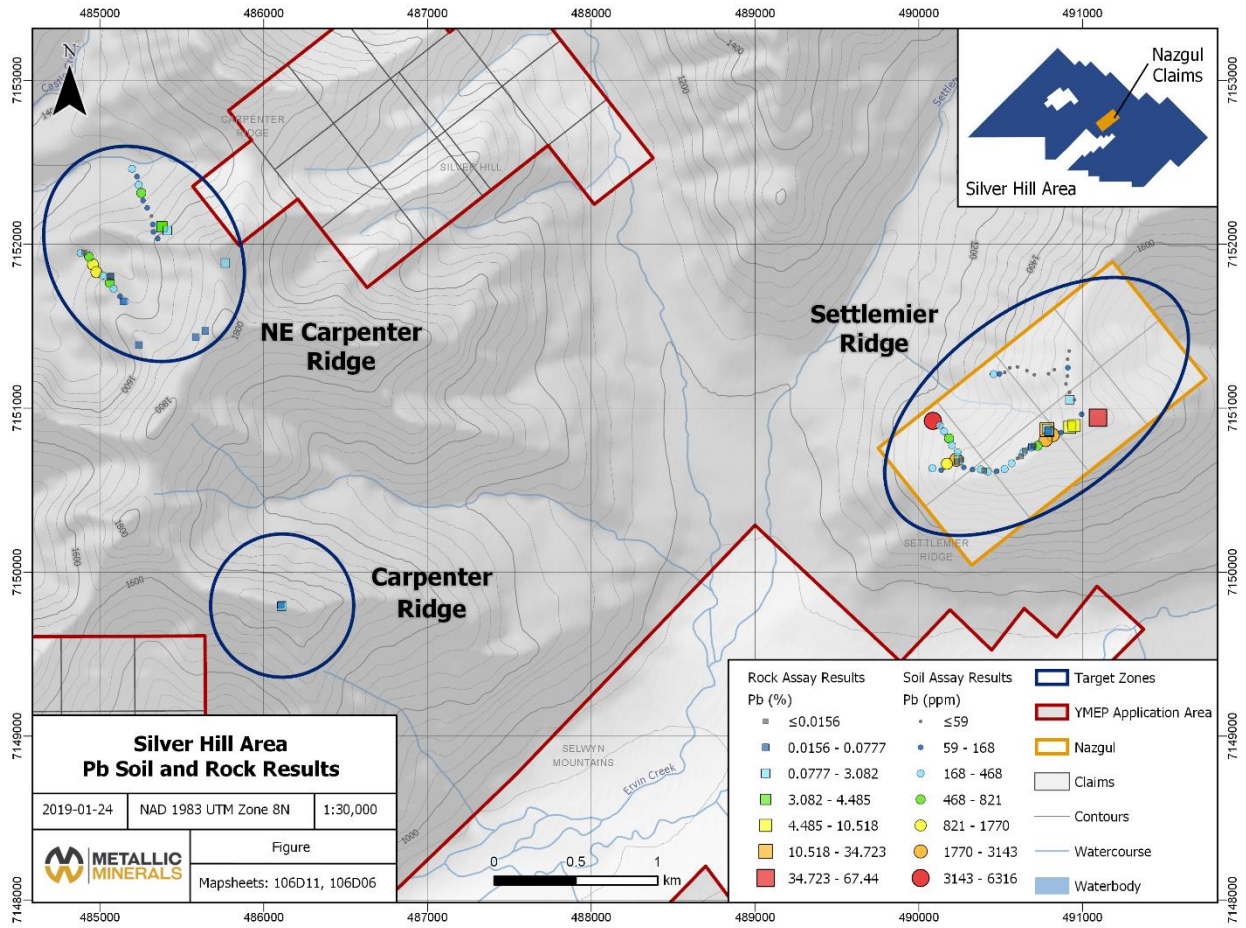


Figure 8. Rock & Soil Chemistry – Zn

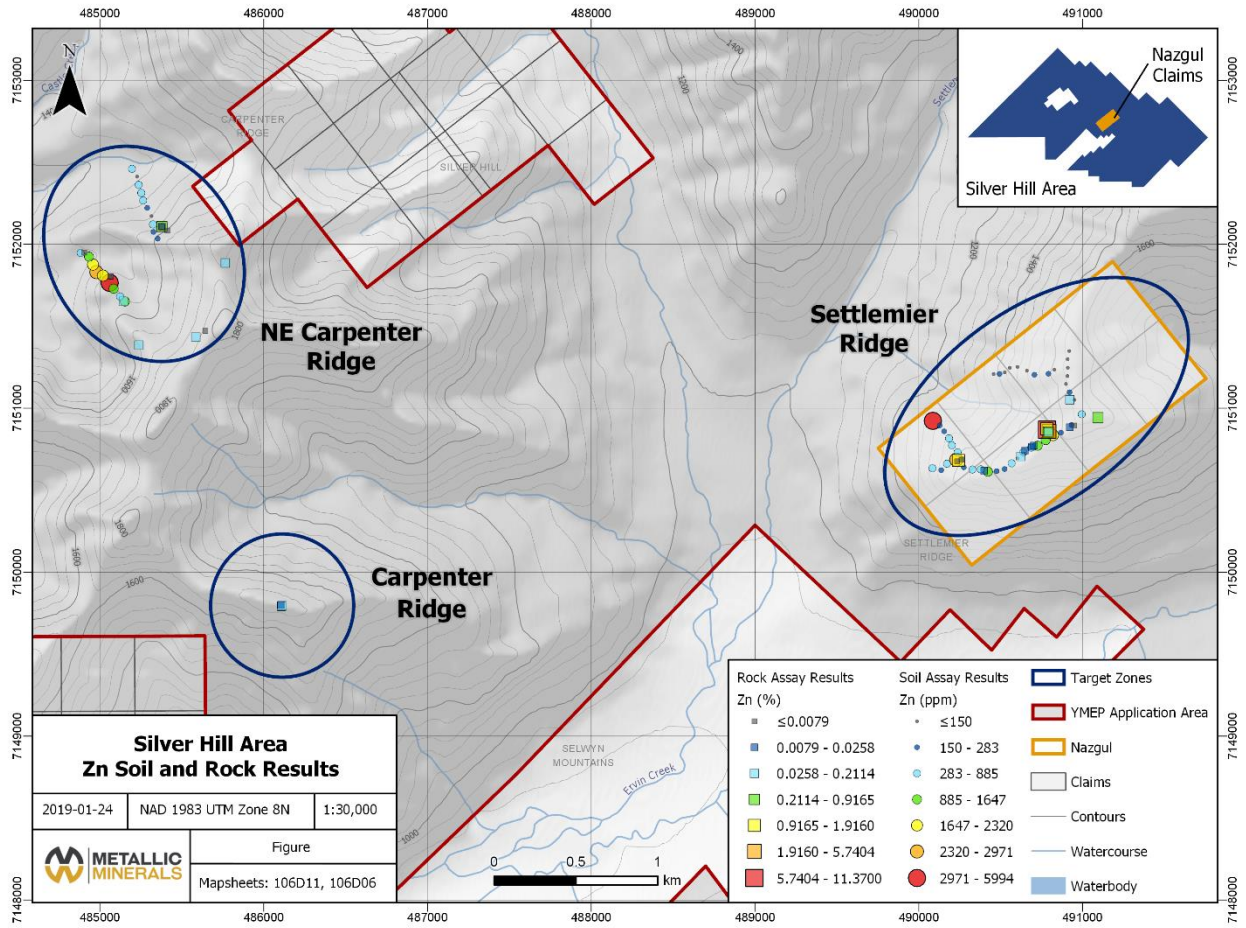
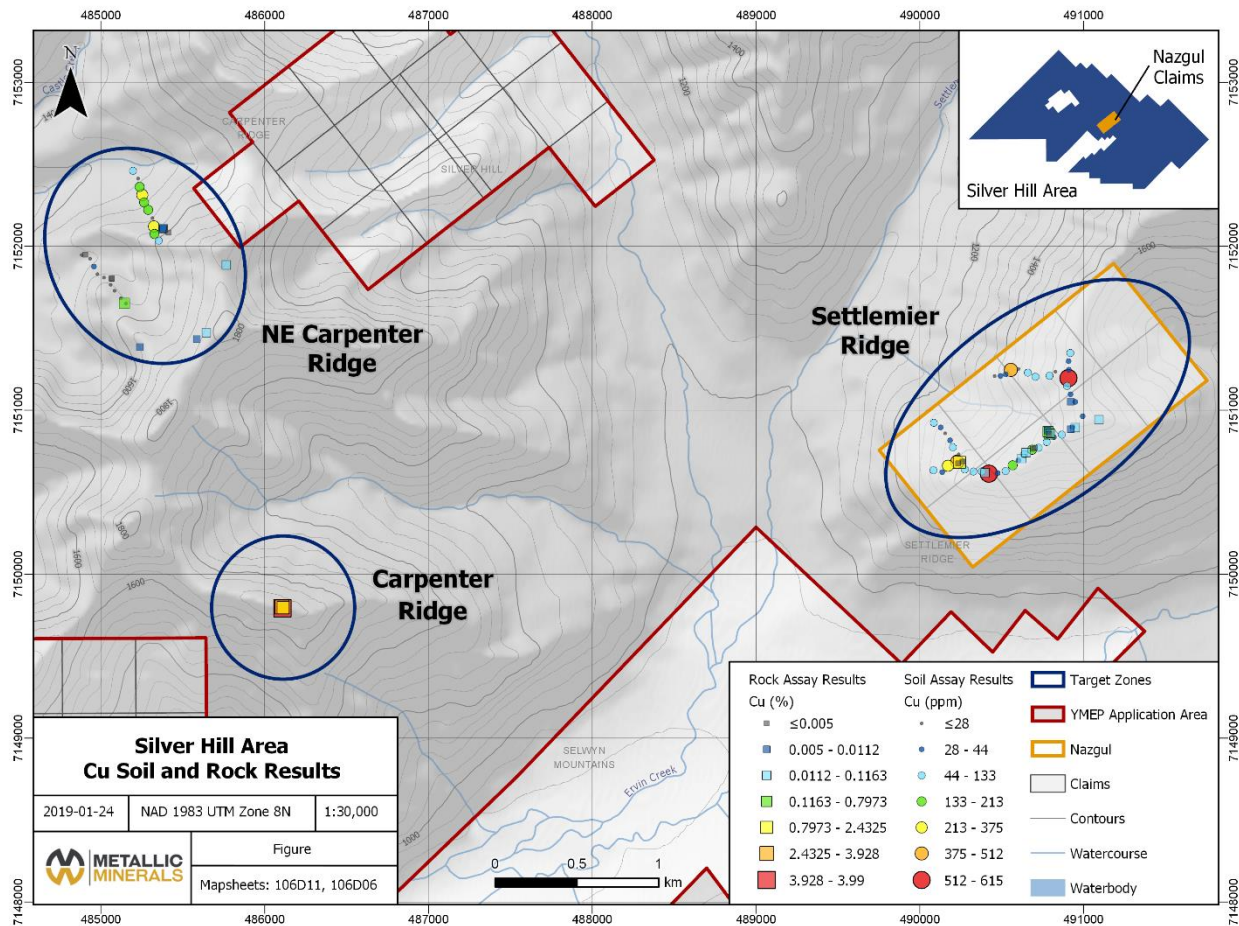


Figure 9. Rock & Soil Chemistry - Cu



5.2 Northeast (NE) Carpenter Ridge

5.2.1 NE Carpenter Ridge - Prospecting

Multiple gossanous scree slopes were identified on what was termed northeast Carpenter Ridge when the initial aerial prospecting occurred. This led to traverses by MMG staff in the area to attempt to identifying in situ gossanous and mineralized zones. Over the course of ground truthing the ridge, 12 rock samples were collected. While several volcanic (gabbroic) intrusions were identified in the area (also trending ~280°) with strong associated iron-carbonate alteration, mineralization appeared scarce. The primary lithology in the area appears to be silty to sandy limestone which are pervasively iron carbonate-altered. It is the conclusion of the authors that the gossans identified from the air are stratigraphically controlled in this area (iron-hematite-limonite horizons perhaps sourced from the siltstones), and not associated with mineralization. Minor mudstones to siltstones were also observed in the area. Quartz veins with pyrite were present (generally hosted in the clastic rocks), but samples returned no values of interest.

5.2.1.1 NE Carpenter Ridge - Rock Sampling & Geochemical Analysis

Twelve rocks samples were collected from the NE Carpenter Ridge area of interest and sent for geochemical analysis (refer to **Appendix IV** for full results). Samples chosen include characteristics such

as anomalous iron and manganese alteration and brecciated quartz carbonate veins with visible pyrite and minor sulphides. Samples were sent to Bureau Veritas in Whitehorse for assaying and multiple packages were used 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. Summarized results from the twelve samples can be seen in **Table 2**.

Table 2. Summary of NE Carpenter Ridge Rock Samples and Results

Sample #	Easting	Northing	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	Cu (%)
1480017	485766	7151886	2.5	0.000	0.14	0.18	0.02
1480018	485379	7152108	15.6	0.000	3.15	0.34	0.03
1480019	485379	7152108	13.5	0.000	3.11	0.02	0.01
1480020	485380	7152107	12.6	0.001	3.36	0.01	0.01
1480021	485412	7152084	17.8	0.000	1.77	0.01	0.01
1480254	485644	7151473	0.4	0.000	0.02	0.01	0.02
1480255	485586	7151434	0.8	0.000	0.03	0.06	0.01
1480256	485238	7151385	0.5	0.001	0.02	0.04	0.01
1480257	485144	7151652	7.5	0.046	0.06	0.04	0.14
1480258	485066	7151803	2.4	0.041	0.04	0.00	0.00
1480259	485067	7151804	0.1	0.003	0.00	0.00	0.00
1480260	484904	7151949	0.4	0.001	0.00	0.00	0.00

5.2.2 NE Carpenter Ridge - Soil Sampling

Soil sampling was performed as two lines on two separate ridges at NE Carpenter Ridge, with the aim of identifying anomalous silver, gold, lead, zinc, and copper values in soil. Two soil samplers completed the work, collecting samples at 50m intervals for as far along the ridge as possible (refer to **Figures 5-9** for geochemistry and soil locations) for a total of 19 soils. Missed samples were the result of talus covered slopes. Each sample was collected from the B/C horizon.

5.2.2.1 NE Carpenter Ridge - Soil Sampling Results

Samples were collected in Kraft soil sample bags and 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.

As seen in **Figures 5-9** (previous pages), soils were not exceptionally anomalous along the two ridges sampled. There were two occurrences of Ag in soil that averaged in 1ppm, which were the highest Ag values recorded for NE Carpenter Ridge. As for gold, the more northern ridge sampled returned better results, with 3 of 13 samples returning between 8 and 13 ppb Au. Copper results were also stronger on the northern ridge, with consistent values between 100 and 300 ppm Cu. The southern ridge had better

results for both lead and zinc, with two samples returning between 800 and 1800 ppm Pb, and one sample returning ~4000 ppm Zn, respectively. Unfortunately, the rock samples collected from the same areas did not return values of any interest. These few soil anomalies on each line were not enough for MMG to perform further work there during the 2018 program.

5.3 Settlemier Ridge

Early on during the initial prospecting flight, the area of Settlemier Ridge became of prime interest as a result of observation of gossanous scree slopes that looked quite similar to those at McKay Hill. Alteration here appeared structural versus the stratigraphically-controlled alteration observed in other areas within the region. With this rationale, MMG staff decided to perform a modest staking program over this area, followed by prospecting, rock sampling, and soil sampling. Along with MMG staff for the day of prospecting and sampling was Derek Torgerson, YMEP Geologist with the Yukon Geological Survey (YGS), who was present for what became an exciting YMEP-funded discovery.

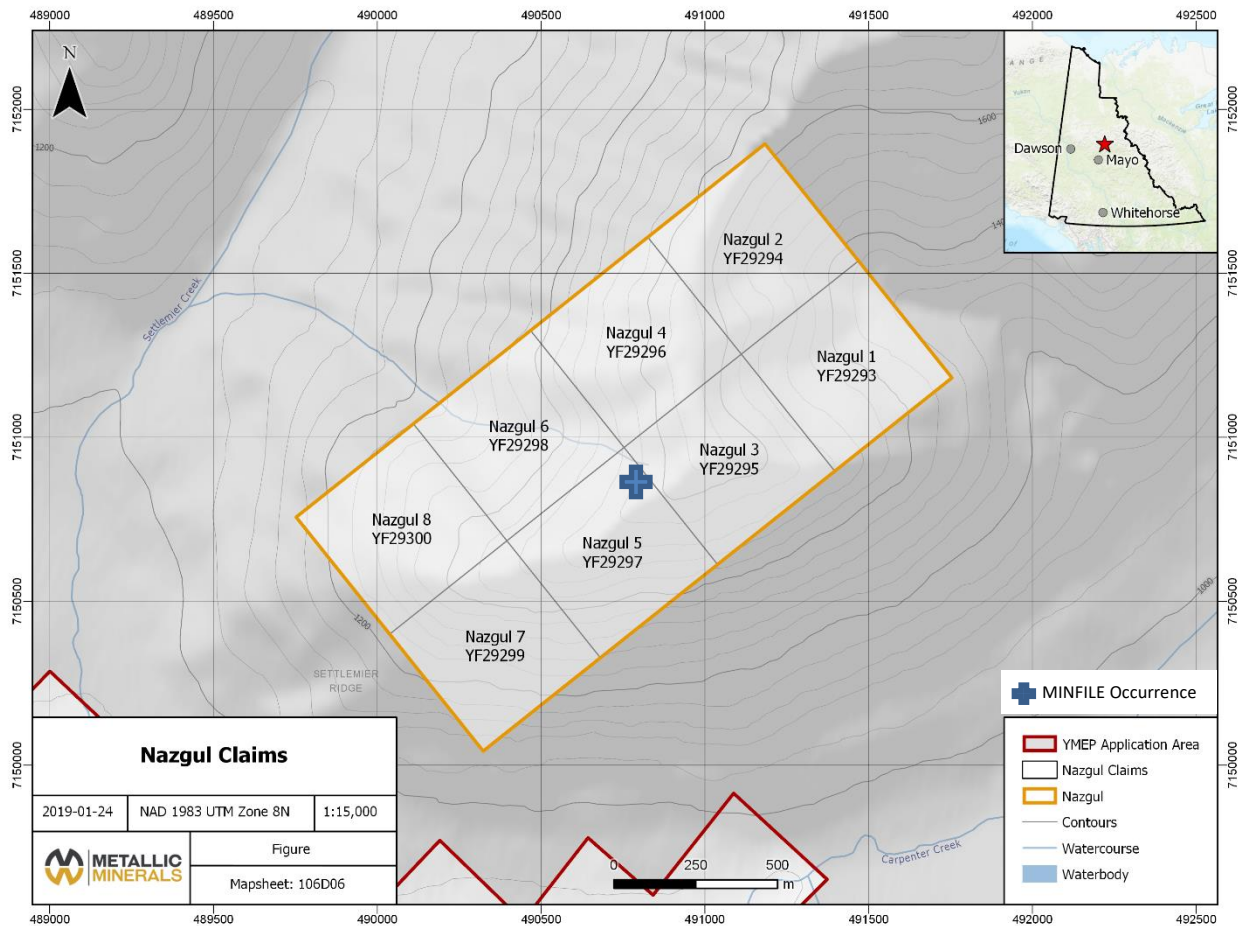
5.3.1 Settlemier Ridge - Staking

Upon arriving on Settlemier Ridge, MMG staff staked eight (8) claims totaling 165.8 hectares along the ridge on a NE-SW trend (refer to **Figure 10**, following page). This package was named the Nazgul claims. **Table 3** tabulates the current land-package and current expiry date.

Table 3. Claim Status of the Nazgul land package

Grant #	Claim Name	Claim Owner	Expiry Date
YF29293	Nazgul 1	Metallic Minerals Corp. – 100%	2023-07-20
YF29294	Nazgul 2	Metallic Minerals Corp. – 100%	2023-07-20
YF29295	Nazgul 3	Metallic Minerals Corp. – 100%	2023-07-20
YF29296	Nazgul 4	Metallic Minerals Corp. – 100%	2023-07-20
YF29297	Nazgul 5	Metallic Minerals Corp. – 100%	2023-07-20
YF29298	Nazgul 6	Metallic Minerals Corp. – 100%	2023-07-20
YF29299	Nazgul 7	Metallic Minerals Corp. – 100%	2023-07-20
YF29300	Nazgul 8	Metallic Minerals Corp. – 100%	2023-07-20

Figure 10. Nazgul Claims Map



5.3.2 Settlemier Ridge - Prospecting

MMG staff and Derek Torgerson (YGS) then conducted a day of expanded prospecting and sampling on the Settlemier Ridge area. The primary objective was to sample the strongly iron-carbonate altered zones that were visible on the west face of the sharp ridge comprising Settlemier (see **Photo Plate 2** for the topography of the ridge). Not far from where the helicopter was able to land, was a ‘bench’ approximately 15 m off the ridgeline to the west. Upon further inspection, a 15 m-long historic trench was discovered. This trench trended 040°, and is located at E 490791 N 7150855; it is likely this comprised the ‘Unknown’ historic MINFILE occurrence. The bedrock exposed within and surrounding the trench was pervasively limonite and hematite stained, with silicified siltstone to mudstone as the host rock (an intrusive contact is proximal to the NE). These siltstones appear to be silica-healed breccias with skeletal textures and mineralization of an unknown limonite-coated euhedral twinned, heptagonal red mineral, galena, pyrite ± malachite. This broad brecciated and mineralized zone appears to be multiphase, with both chaotic and mosaic brecciation present. It strikes 286° and dips 67° (RHR). Samples of both the unmineralized silica-healed breccia (ex. 1480022) and the mineralized equivalents (ex. 1480024) were collected. Images of both can be seen in **Photo Plate 3**.



LEFT, Photo Plate 2. Settlemier Ridge looking SW. Note the iron oxide staining off the right side of the ridge

Further traverses were completed along the sharp ridge towards the southwest to identify lithologic changes along with other potential zones of mineralization. From a single traverse along the ridgeline, it became apparent that the dominant lithology present was the siltstone/mudstone unit mentioned above, with varying degrees of alteration. These units were regularly cut by dioritic to gabbroic dykes, with a prominent alteration halo (visible disseminated sulphides) into the host sediments. Quartz veins tend to occur at the contact of these intrusions and sediments.

Several smaller undocumented hand pits were discovered to the northwest of the main 15m-long historic trench mentioned earlier. These were located in a spur off the ridge, located in a small, flat, east-facing saddle (E 0491095 N 7150941). A massive galena vein was discovered in another silica-healed breccia hosted in siltstones/mudstones, with strong iron carbonate and limonitic staining. Sample 1480028 was taken from a small dump pile beside the historic hand pit.

Summarized results from the 17 samples can be seen in **Table 4**, with anomalous values in bold. As noted previously, **Figures 5-9** illustrate geochemical results for all areas included in the 2018 YMEP Focused Regional exploration program.



Photo Plate 3. *LEFT: Unmineralized sample of the silica-healed breccia. RIGHT: Mineralized sample of the same unit*

Table 4. Summary of Nazgul (Settlemier Ridge Area) Rocks - Samples and Results

Sample #	Easting	Northing	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	Cu (%)
1480022	490791	7150855	1.2	0.000	0.08	0.64	0.00
1480023	490791	7150855	106.0	0.006	2.97	0.11	0.18
1480024	490783	7150869	291.0	0.047	14.67	11.37	0.15
1480025	490781	7150875	17.9	0.000	0.88	0.95	0.01
1480026	480796	7150859	9.0	0.003	0.17	2.29	0.02
1480027	490949	7150894	20.3	0.000	4.61	0.01	0.02
1480028	491094	7150942	277.0	0.019	67.44	0.22	0.02
1480261	490922	7151052	1.8	0.001	0.12	0.03	0.01
1480262	490922	7150884	38.8	0.002	7.12	0.01	0.01
1480263	490702	7150772	0.3	0.000	0.01	0.02	0.00
1480264	490690	7150765	0.3	0.000	0.02	0.01	0.00
1480265	490649	7150742	0.4	0.000	0.01	0.02	0.01
1480266	490623	7150706	1.0	0.000	0.00	0.16	0.04
1480267	490399	7150618	0.7	0.004	0.00	0.02	0.02
1480268	490261	7150686	0.1	0.000	0.00	0.00	0.00
1480269	490234	7150676	0.1	0.001	0.01	0.01	0.00
1480270	490242	7150682	29.2	0.235	0.96	1.61	0.87

5.3.2.1 Settlemier Ridge - Rock Sampling & Geochemical Analysis

Seventeen (17) samples were collected along Settlemier Ridge and sent for geochemical analysis (refer to Appendix IV for full results). Samples were sent to Bureau Veritas in Whitehorse for assaying and multiple packages were used 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.

As seen in the table above and in **Figures 5-9**, there were two locations of highly elevated silver samples which were collected from Settlemier Ridge. Sample 1480024 from the large 15m-long historic trench returned 291 g/t Ag along with 15% Pb and 11% Zn. Another extremely positive result came from sample 1480028, returning 277 g/t Ag and 67% Pb, which was collected from the dump pile of the massive galena vein identified on a spur off the ridge to the northeast of the main trench. These highly positive results indicate that far more time needs to be spent at the new Nazgul claims in 2019 and beyond, to truly establish the economic potential of this new YMEP-funded discovery.

5.3.3 Settlemier Ridge - Soil Sampling

Soil sampling was performed on the ridge and several spurs at Settlemier Ridge, with the aim of identifying anomalous silver, gold, lead, zinc, and copper values in soil. Two soil samplers completed the work and collected ridge-and-spur samples at 50m intervals (refer to **Figures 5-9** for geochemistry and soil locations) for a total of 43 soils. Missed samples were the result of talus covered slopes. Each sample was collected from the B/C horizon.

5.3.3.1 Settlemier Ridge - Soil Sampling Results

Samples were collected in Kraft soil sample bags and 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.

As seen in the aforementioned figures, silver values from soils were highest directly above the historic 15 m trench along the ridge, and also at the furthest sample along the ridge to the southwest, very close to the claim border. Anomalous zinc and lead values were also seen to occur both near the location of the historic trench, and again at the furthest sampling point along the ridge to the southwest.

These soils assist in establishing a preliminary theory of where the mineralization is occurring and trending, and future work will hope to consist of soil sampling the remaining ridges and spurs encompassed by the eight Nazgul claims.

6 Conclusions and Recommendations for Future Work

One of the objectives of the proposed Focused Regional YMEP-program was intended was to ascertain whether the prospective siliciclastic and hypabyssal-volcanic package hosting the mineral deposits on McKay Hill are present in the Silver Hill area. Although discrete packages of volcanics were located, namely basalts, it is yet to be adequately evaluated for how expansive these packages are in the district. It was also noted that these volcanics are likely not representative of the Marmot Group volcanics which underlay the McKay Hill region. More ground-work in the region should be completed to address this question.

The main remaining objective was to evaluate the district for similar Ag-Pb-Zn±Cu±Au veins. As a result of the YMEP program, MMG was able to make a discovery on Settlemier Ridge. Prior to this discovery, there was only conjecture that Settlemier may be a MVT-style Pb-Zn deposit, based exclusively on the ridge being on trend of similar style deposits. The discovery of galena rich veins, and highly brecciated mineralized corridors at Settlemier indicate that this occurrence needs to be reevaluated in regards to the type of deposit that is present. Additionally, mineralization was located on Carpenter Ridge. These 280°-trending veins, observed on Carpenter and Settlemier Ridges, appear to represent a regional trend observed and were noted in the application corresponding to this program.

The following sections detail work recommended for follow-up in 2019 and future years.

6.1 Central & NE Carpenter Ridge AOI's

Two mineralized quartz veins were located in outcrop during the 2018 reconnaissance program in the Central Carpenter Ridge area. Additionally, in the northeast Carpenter Ridge area opposite Silver Hill, mineralized vein float was located. Although this material did not report values higher than 17.8 g/t Ag, the region shows merit for additional follow up. It is unlikely that the mineralized structures comprising Silver Hill and coincident 280°-trending veins found to the on either side of this area, are not also present in NE Carpenter. At present, this region is unstaked save for Glencore's Silver Hill property. It is recommended that further follow-up be completed over this region in 2019. This greenfield target may

adequately fit into the criteria for a second Focused Regional application, especially in light of the brief two-day program already highlighting potential in the area. A similar-scoped project and budget in 2019 would adequately allow MMG to complete a more sufficient evaluation of this area. The areas of interest for this future program are outlined below in **Figure 11**.

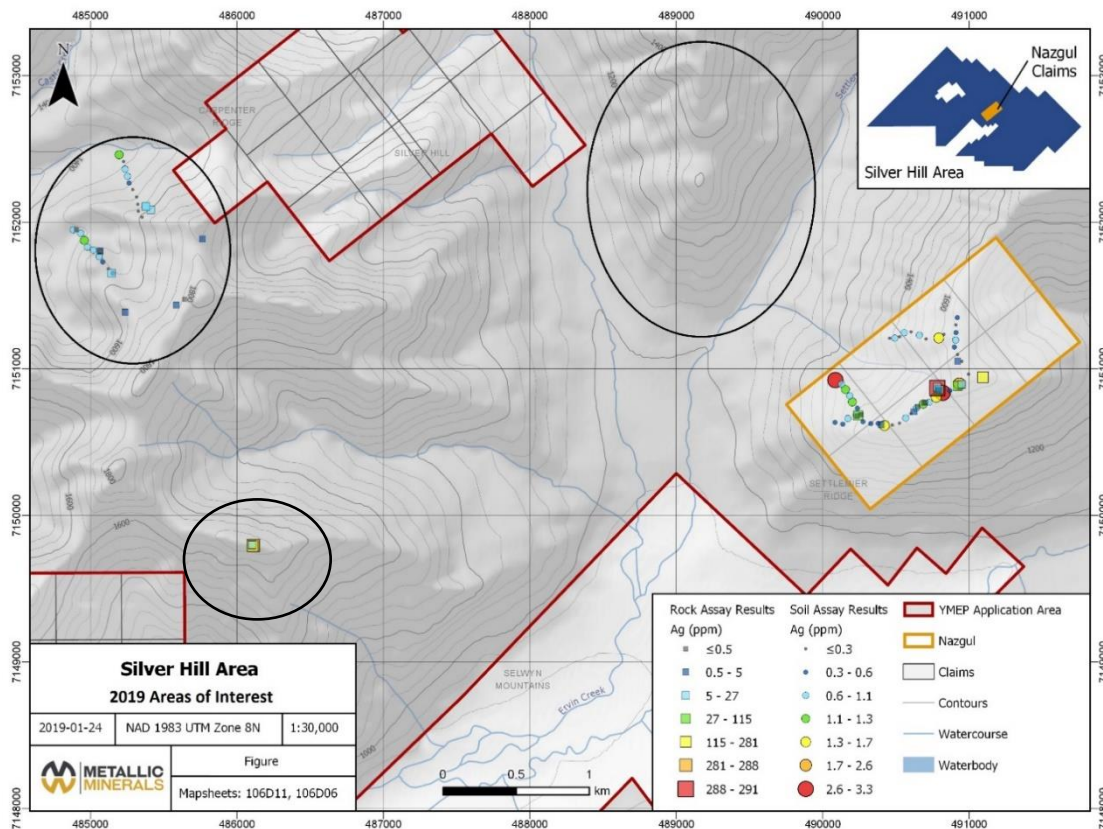
6.2 Settlemier Ridge (Nazgul Claims) – AOI

The discovery at Settlemier Ridge and resulting work highlighted multiple areas of interest. In particular, quartz vein float and highly anomalous soils down the northwest spur were located. As a result, the following is recommended for the immediate future.

- Staking of additional claims to the northwest
- Ridge-and-spur sampling outside the current claim block to ensure no anomalies are left open
- Grid soil sampling at 50 m-spacing over block
- Complete property-scale mapping
- Prospect south slope of Settlemier Ridge

Additionally, a small knob within the valley dividing Silver Hill and Settlemier Ridge should be evaluated (see **Figure 11**). The above described work may fit well into the criteria for a Target Evaluation YMEP program. The above work program is estimated to cost between \$30,000 and \$40,000.

Figure 11. 2019 Areas of Interest



7 Bibliography

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8 Statement of Qualifications

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

1. That I am a Yukon-based geologist.
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 northern Canada (NU, NWT, YT, northern BC) and Mexico 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 application, assessment and/or regulatory and financing purposes deemed necessary.

Dated at Whitehorse, Yukon Territory this 31st day of January 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 based out of Vancouver, BC.
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 application, assessment and/or regulatory and financing purposes deemed necessary.

Dated at Vancouver, British Columbia this 31st day of January 2019.



Taylor Haid M.Sc.
Metallic Minerals Corp.
2603-1011 Beach Avenue,
Vancouver, BC, V6E 1T8

Appendix I. YMEP Final Submission Form

YMEP Final Submission Form



Your feedback on any aspect of the program:

The Department of Energy, Mines and Resources may verify all statements related to, and made on this form, in any previously submitted reports, interim claims and in the Summary or Technical Report which accompanies it.

I certify that;

1. I am the person, or the representative of the company or partnership, named in the Application for Funding and in the Contribution Agreement under the Yukon Mineral Exploration Program.
2. I am a person who is nineteen years of age or older, and I have complied with all the requirements of the said program.
3. I hereby apply for the final payment of a contribution under the Yukon Mineral Exploration Program (YMEP) and declare the information contained within the Summary or Technical Report and this form to be true and accurate.

Date _____

Signature of Applicant _____

Name (print) _____

Appendix II. Statement of Expenditures

YMEP Expense Claim Form - Client Copy



YMEP no: 18-071	project name: Silver Hill Area	applicant name: Metallic Minerals Corp		
expense claim no: 1	program type: hard rock	program module: focused regional		
date submitted: Jan-31	phone: 519.643.8047	email: taylor.haid@metallic-minerals.com		
address: Suite 904-409 Granville Street, Vancouver, BC. V6C 1T2				
start/end dates of fieldwork for this claim:	Jul/3 <small>start</small>	Jul/8 <small>end</small>		
		no. of field days/this claim: 23 man days		
eligible expenses <i>Please refer to rate guidelines. Provide photocopy of receipts.</i>				
item	unit/days	rate	total	
daily field expenses	23 man-days (see attached)	23 \$100/day	2300	
personnel	Name (supply statement of qualifications)			
	See attached summary			
equipment (rental)	private or commercial	unit/days	rate	total
	private			
	private			
	private			
	private			
	private			
	private			
	private			
	private			
	private			
	private			
other	<i>Please provide details.</i>			
Transportation to site				\$6,168.87
Staffing & Contractors				\$8,400
Expediting & Assays				\$3,782
Daily Field Expenses				\$2,300
Reporting (est)				\$2000
Total this claim:				\$22,650.87



**Silver Hill Region - 2018 Focused Regional
YMEP Program Expenditures**

Transportation - Staff to McKay Base Camp			
	Details	Rate	Subtotal
8 persons (Whitehorse --> Keno) - 2 trucks	464 km X 2	\$0.60/km	\$556.80
Flight (Keno --> McKay camp) - 3 flights @ 0.5 X2	3 hours	\$1650/hr	\$4,950.00
8 persons (Keno --> Whitehorse) - 2 trucks	464 km X 2	\$0.60/km	\$556.80
Flight (McKay camp --> Keno) - 3 flights @ 0.5 X2	3 hours	\$1650/hr	\$4,950.00
Transport - Helicopter			
	No. of Hours	Rate/hr	Subtotal
Bell 407 - (Recce; Carpenter Ridge SE)	1.8	\$1,650	\$2,970
Bell 407 - (Carpenter Ridge NW)	1.1	\$1,650	\$1,815
Bell 407 - (Settlemier, Derek T visit)	2.1	\$1,650	\$3,465
Bell 407 - (Settlemier Staking & G.Leroux Map)	1.8	\$1,650	\$2,970
Transportation - Fuel			
	Fuel Use	Cost/L	Subtotal
Fuel - Jet A - \$ 387.91/Drum	342 L	\$1.89/L	\$646.38
Fuel - Jet A - \$ 387.91/Drum	209 L	\$1.89/L	\$395.01
Fuel - Jet A - \$ 387.91/Drum	399 L	\$1.89/L	\$754.11
Fuel - Jet A - \$ 387.91/Drum	342 L	\$1.89/L	\$646.38
TOTAL TRANSPORTATION =			\$24,675.48
TOTAL ALLOWABLE (25%) =			\$6,168.87
Staffing - MMG & Contractors			
	No. of Days	Rate	Subtotal
Lauren Blackburn	4	\$500.00	\$2,000.00
Matthias Bindig	3	\$350.00	\$1,050.00
Graham Leroux	4	\$500.00	\$2,000.00
Taylor Haid	3	\$400.00	\$1,200.00
TOTAL STAFFING =			\$6,250.00
Soil Sampling - Mammoth Exploration Services			
	No. of Days	Rate	Subtotal
Gabe Rondeau - Contractors	2	\$450.00	\$900.00
Tyler Quock - Contractors	2	\$450.00	\$900.00
TOTAL SOIL SAMPLING =			\$1,800.00
Daily Field expenses			
	No. of Days	Rate	Subtotal
L.R. Blackburn	4	\$100.00	\$400.00
Matthias Bindig	4	\$100.00	\$400.00
Graham Leroux	4	\$100.00	\$400.00
Taylor Haid	3	\$100.00	\$300.00
2 - Mammoth Soil samplers	4	\$100.00	\$400.00
Heli Dynamics Pilot	4	\$100.00	\$400.00
TOTAL DAILY FIELD =			\$2,300.00
Claim Staking (Nazgul 1-8, Settlemier Hill)			
	No. of Days	Rate	Subtotal
Matthias Bindig	1	\$350.00	\$350.00
Expenses			
	No. Man-days	Rate	Subtotal
Expediting Samples - Annuk Expediting			
TOTAL EXPENSES =			\$1,650.00
Assay Costs			
	No. of Samples	Cost/Each	Subtotal
Soil Samples (SHY Ridge & Spur grids #1-5)	62	\$22.00	\$1,364
Rock Samples (SHY)	32	\$24.00	\$768.00
TOTAL GEOCHEMISTRY =			\$2,132.00
Reporting			
	No. Man-days	Rate	Subtotal
Final Report (L.R. Blackburn, estimate)	4	\$500.00	\$2,000.00
TOTAL actual expenses =			\$41,157.48
TOTAL eligible=			\$22,650.87

Note: Staff were based from McKay Hill Camp, the applicant has summarized estimated costs.



Heli Dynamics Ltd.

Heli Dynamics Ltd.

Helicopter Charter Services

P.O. Box 4, Whitehorse, Yukon Canada Y1A 5X9

Phone: (867) 668-3536 or 667-4971 Fax: (867) 668-5637

E-mail: helidynamics@northwestel.net

INVOICE No.

13659

Charterer Billing Address Heli Dynamics Suite 404 - 409 Greenhill Street Whitehorse BC, Y6C 1T2			Customer P.O. # M. King		
Aircraft: E-60EH			Type: R11407	Rate/Hour: [] Casual \$ [x] Contract \$ 1150.00	Pilot: Rob Cofala
Date: 4 July 2018		Fuel: [] HD [x] Customer	Base: M. King		
From:	To:	PAX	Time Up	Time Down	Flight Time
M. King - 2nd out crew		2	08:25	08:47	0.4
M. King - 1st crew		4	09:02	09:20	0.3
Whitehorse - M. King		2	11:03	12:04	0.4
M. King - Prosperity Street Hill - YMEP		4	12:55	13:53	0.6
Ch. Hill - L.I. - YMEP		4	14:00	14:30	0.4
Ch. Hill - Ch. Hill, Upper Hill - M. King - YMEP		6	17:44	18:06	0.4
(Lance Stebbins)					
Fuel Costs/Litre \$			FUEL @	Litres/hr	TOTAL REV HOURS 257.7

SHIPPING NAME & QUANTITY	CLASS	UN #	PACKING GROUP

All Risk Slung Load Cargo Limitation Insurance accepted (check box)

 \$ _____ per lift

 Authorized by: _____

G.S.T. Reg. No.: 102320090

SUMMARY	AMOUNT	G.S.T.	TOTAL
257.7 Hours FLYING	4175.00	206.75	4381.75
Hours FUEL & OIL	3670.00	181.50	3851.50
Expenses			
Misc.			
TOTALS			3811.50
GRAND TOTAL			4381.75

Payments must be made monthly on accounts, or 2% interest will be charged.

white - office

yellow - accounts

pink - customer

gold - book



Heli Dynamics Ltd.

Heli Dynamics Ltd.
Helicopter Charter Services

P.O. Box 4, Whitehorse, Yukon Canada Y1A 5X9
Phone: (867) 668-3536 or 667-4971 Fax: (867) 668-5637
E-mail: helidynamics@northwestel.net

INVOICE No.
14401

Charterer Billing Address Melville Minerals Suite 44, 609 Granville Street Whitehorse, Yukon, Y1A 5X2			Customer P.O. # M. King		
Aircraft : EC640RH			Type : Bell 407	Rate/Hour : [] Casual \$ [x] Contract \$ 1650.00	
Date : 08 July 2018		Fuel : [] HD [x] Customer		Flight Authorized By : <i>[Signature]</i> Pilot : Rob Collins	
From : M. King - Silver Hill			To : Silver Hill - Cross Moors		
PAX			Time Up	Time Down	Flight Time
M. King - Silver Hill			6	09:27	09:43
Silver Hill - Cross Moors			3	14:06	14:29
Silver Hill - M. King			6	17:04	17:21
M. King - Keno			1	17:47	18:06
Keno - M. King			1	19:10	19:35
(Lance Blackburn)					
Fuel Costs/Litre \$			FUEL @	Litres/hr	TOTAL REV HOURS 18

SHIPPING NAME & QUANTITY	CLASS	UN #	PACKING GROUP

All Risk Slung Load Cargo Limitation Insurance accepted (check box) <input type="checkbox"/>	\$ _____ per lift
	Authorized by: _____

G.S.T. Reg. No.: 102320090

SUMMARY	AMOUNT	G.S.T.	TOTAL
1.8 Hours FLYING	2970.00	148.50	3118.50
Hours FUEL & OIL			
Expenses			
Misc.			
TOTALS			

GRAND TOTAL 3118.50

Payments must be made monthly on accounts, or 2% interest will be charged.

white - office yellow - accounts pink - customer gold - book



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INVOICE No.
14402

Charterer Billing Address Heli Dynamics Sub 104 - 609 Carville Street Whitehorse BC V6C 1T2		Customer P.O. # Heli Dynamics
		Flight Authorized By: <i>[Signature]</i>

Aircraft: C-440RH	Type: Bell 407	Rate/Hour: [] Casual \$ [x] Contract \$ 1600.00	Pilot: Jonathan Leving
Date: 06 July 2018	Fuel: [] HD [x] Customer	Base: Heli Dynamics	

From:	To:	PAX	Time Up	Time Down	Flight Time	YMEP
Sub out area (Settlement + Cattle Creek)		5	08:35	09:06	0.5	0.5
Kenia - Heli Dynamics (Derek YCS)		1	10:13	10:33	0.3	
Heli Dynamics - Cattle Creek - Settlement		3	11:38	12:19	0.7	
Dorothy Taylor		1	14:33	14:46	0.2	1.6
Settlement - Heli Dynamics		2	17:34	18:23	0.7	
Heli Dynamics - Kenia (Taylor, Derek, Louie, Graham)		4	20:03	20:22	0.3	
Kenia - Heli Dynamics		2	21:57	22:17	0.3	
(Loren Blackburn)						

Fuel Costs/Litre \$ FUEL @ Litres/hr TOTAL REV HOURS 3.0 7.1

SHIPPING NAME & QUANTITY	CLASS	UN #	PACKING GROUP

All Risk Slung Load Cargo Limitation Insurance accepted (check box) <input type="checkbox"/>	\$ _____ per lift
	Authorized by: _____

G.S.T. Reg. No.: 102320090

SUMMARY	AMOUNT	G.S.T.	TOTAL
3.0 Hours FLYING	4900.00	247.50	5147.50
Hours FUEL & OIL			
Expenses			
Misc.			
TOTALS			5147.50

GRAND TOTAL 5147.50

Payments must be made monthly on accounts, or 2% interest will be charged.

white - office

yellow - accounts

pink - customer

gold - book



Heli Dynamics Ltd.

Heli Dynamics Ltd.

Helicopter Charter Services

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E-mail: helidynamics@northwestel.net

INVOICE No.

14404

Charterer Billing Address		Customer P.O. #
Mikoy Minerals S. & 904 409 Granville Street Vancouver, B.C., V6C 1T2		Mikoy
		Flight Authorized By: <i>[Signature]</i>

Aircraft: C-640RH	Type: Bell 407	Rate/Hour: [] Casual \$ [x] Contract \$	Pilot: Jonathan Keenings
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Date: 07. July. 2018	Fuel: [] HD [x] Customer	Base: Mikoy
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From :	To :	PAX	Time Up	Time Down	Flight Time
Mikoy - Veno		0	11:11	10:34	0.4
Veno - Mikoy (Scott, Katie)		2	10:45	11:04	0.3
Mikoy - Sallanore	} YMEP	3	12:25	12:51	0.4
Sallanore - Stabing		1	13:05	13:26	0.4
Sallanore - Mikoy (Scott, Katie)		2	15:25	15:34	0.2
Mikoy - Veno (Scott, Katie, Bob)		3	16:01	16:21	0.3
Veno - Mikoy (John, Amber) - Sallanore	} YMEP	0	17:13	17:48	0.6
Sallanore - Mikoy		2	18:06	18:17	0.2
(Loren Blackburn)					

Fuel Costs/Litre \$	FUEL @	Litres/hr	TOTAL REV HOURS	2.8
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SHIPPING NAME & QUANTITY	CLASS	UN #	PACKING GROUP
Liquid Petroleum	2	1075	

All Risk Slung Load Cargo Limitation Insurance accepted (check box) <input type="checkbox"/>	\$ _____ per lift
	Authorized by:

G.S.T. Reg. No.: 102320090

SUMMARY	AMOUNT	G.S.T.	TOTAL
7.8 Hours FLYING	4670.00	231.00	4851.00
Hours FUEL & OIL			
Expenses			
Misc.			
TOTALS			

Payments must be made monthly on accounts, or 2% interest will be charged. **GRAND TOTAL** 4851.00

white - office yellow - accounts pink - customer gold - book

Appendix III. Soil Assays

Sample #	Eastings	Northing	Organics_Pct	Fragments_Pct	Slope	Depth_cm	Horizon	Colour	Quality	Ground_Cr Certificate	Ag_Equiv	Au_Best_p	Ag_Best_p	Mo_Best_p
1481901	485153	7151651	0	25	45	80	C	BR	Excellent	Moss WHI18000402	8.6229	0.00025	0.5	0.00006
1481902	485123	7151682	0	20	20	40	BC	BR	Excellent	Moss WHI18000402	5.0438	0.0007	0.3	0.00002
1481903	485084	7151729	0	20	20	60	C	BR	Excellent	Moss WHI18000402	10.3739	0.0022	0.6	0.00005
1481904	485060	7151765	0	20	20	50	BC	LBR	Excellent	Moss WHI18000402	20.6137	0.0016	1	0.00005
1481905	485019	7151809	0	30	45	30	BC	LBR	Excellent	Moss WHI18000402	11.0679	0.0011	0.7	0.00002
1481906	484979	7151830	0	30	45	30	BC	LBR	Excellent	Moss WHI18000402	17.6606	0.0009	0.9	0.00013
1481907	484958	7151876	0	30	45	30	BC	LBR	Excellent	Moss WHI18000402	18.0373	0.0015	1.2	0.00018
1481908	484934	7151924	0	30	45	40	BC	LBR	Excellent	Moss WHI18000402	10.6893	0.0012	0.8	0.00022
1481909	484883	7151947	0	30	45	40	BC	LBR	Excellent	Moss WHI18000402	5.8972	0.0009	0.7	0.00049
1481910	485353	7152034	0	0		40	BC	BR	Good	Moss WHI18000402	3.758	0.0035	0.2	0.0001
1481911	485327	7152075	0	30		30	BC	LBR	Good	Moss WHI18000402	5.1451	0.0112	0.1	0.00006
1481912	485324	7152121	0	20		20	BC	BR	Good	Moss WHI18000402	6.0061	0.0054	0.1	0.00003
1481913	485315	7152172	0	20		30	BC	BR	Good	Moss WHI18000402	1.2757	0.0022	0.1	0.00027
1481914	485289	7152222	0	20		30	BC	BR	Good	Moss WHI18000402	4.1316	0.008	0.3	0.00016
1481915	485264	7152267	0	20		30	BC	BR	Good	Moss WHI18000402	6.3061	0.0062	0.6	0.00086
1481916	485253	7152313	0	20		30	BC	BR	Good	Moss WHI18000402	10.1256	0.0088	1	0.00142
1481917	485237	7152362	0	20		30	BC	BR	Good	Moss WHI18000402	9.3872	0.0103	1	0.00138
1481918	485227	7152413	0	10		20	BC	BR	Good	Moss WHI18000402	1.3504	0.0031	0.05	0.00017
1481919	485196	7152460	0	10		40	BC	BR	Good	Moss WHI18000402	6.5058	0.0061	1.3	0.00093
1481920	490919	7151349	0	20		20	BC	BR	Good	Moss WHI18000402	2.2099	0.0074	0.5	0.00044
1481921	490909	7151299	0	20		20	BC	BR	Good	Moss WHI18000402	1.4505	0.0012	0.3	0.00011
1481922	490910	7151247	0	20		20	BC	BR	Good	Moss WHI18000402	1.6917	0.0025	0.4	0.00008
1481923	490908	7151196	0	20		30	BC	BR	Good	Moss WHI18000402	8.5163	0.0053	0.9	0.00017
1481924	490899	7151148	0	20		20	BC	BR	Good	Moss WHI18000402	2.0348	0.0021	0.6	0.00011
1481925	490921	7151097	0	20		10	BC	BR	Good	Moss WHI18000402	2.4695	0.0039	0.3	0.0001
1481926	490950	7151051	0	20		30	BC	BR	Good	Moss WHI18000402	1.5765	0.0033	0.1	0.00016
1481927	490995	7150963	0	20		20	BC	BR	Good	Moss WHI18000402	3.1652	0.0032	0.2	0.00054
1481928	490933	7150898	0	20		20	BC	BR	Good	Moss WHI18000402	7.2467	0.0037	2.1	0.00074
1481929	490868	7150851	0	20		20	BC	BR	Good	Moss WHI18000402	3.8177	0.0043	0.4	0.00094
1481930	490819	7150836	0	20		40	BC	BR	Good	Moss WHI18000402	30.731	0.0051	2.7	0.00148
1481931	490775	7150806	0	20		30	BC	BR	Good	Moss WHI18000402	18.3657	0.0021	1.7	0.00084
1481932	490726	7150771	0	20		20	BC	BR	Good	Moss WHI18000402	10.2686	0.0014	1.1	0.00113
1481933	490686	7150759	0	20		30	BC	BR	Good	Moss WHI18000402	9.2926	0.0025	1.3	0.00095
1481934	490639	7150732	0	20		30	BC	BR	Good	Moss WHI18000402	7.4555	0.0063	0.9	0.00085
1481935	490603	7150694	0	20		30	BC	LBR	Good	Moss WHI18000402	1.5843	0.0021	0.2	0.00025
1481936	490567	7150664	0	10		40	BC	BR	Good	Moss WHI18000402	7.3265	0.0035	1.1	0.00023
1481937	490524	7150629	0	10		20	BC	BR	Good	Moss WHI18000402	3.2066	0.0017	0.3	0.00112
1481938	490475	7150616	0	10		30	BC	BR	Good	Moss WHI18000402	2.6556	0.0015	0.2	0.00058
1481939	490422	7150613	0	20		10	BC	BR	Good	Moss WHI18000402	18.2411	0.035	1.7	0.00441
1481940	490379	7150627	0	20		90	C	BR	Excellent	Moss WHI18000402	5.5699	0.0039	0.6	0.0006
1481941	490328	7150626	5	15		35	BC	DBR	Good	Moss WHI18000402	6.9321	0.0086	0.6	0.00068
1481942	490275	7150639	5	20		30	BC	BR	Good	Moss WHI18000402	2.6031	0.0024	0.4	0.00109
1481943	490229	7150686	20	5		30	B	BR	Poor	Moss WHI18000402	32.8451	0.0137	1.1	0.00027
1481944	490172	7150661	5	15		30	BC	DBR	Excellent	Moss WHI18000402	15.2125	0.005	0.9	0.00012
1481945	490137	7150622	5	20		30	BC	BR	Excellent	Moss WHI18000402	2.9344	0.0009	0.5	0.00024
1481946	490084	7150634	0	20		50	BC	DBR	Excellent	Moss WHI18000402	4.4123	0.0022	0.4	0.00018
1481947	490263	7150693	5	20		30	BC	BR	Good	Moss WHI18000402	1.3161	0.0021	0.1	0.00023
1481948	490237	7150731	0	20		30	BC	BR	Good	Moss WHI18000402	4.2849	0.0027	0.5	0.00119
1481949	490202	7150774	0	20		30	BC	BR	Excellent	Moss WHI18000402	5.7632	0.0045	1.2	0.00209
1481950	490185	7150816	0	20		50	BC	DBR	Good	Moss WHI18000402	6.0963	0.005	1.1	0.00152
1481951	490155	7150859	0	20		30	BC	BR	Excellent	Moss WHI18000402	4.7855	0.0035	1.2	0.00186
1481952	490128	7150895	0	25		30	BC	BR	Good	Moss WHI18000402	3.8272	0.0031	0.7	0.00134
1481953	490086	7150923	0	20		30	BC	DBR	Excellent	Moss WHI18000402	66.826	0.0083	3.3	0.00051
1481954	490828	7151235	0	20		50	BC	BR	Excellent	Moss WHI18000402	0.9179	0.0008	0.1	0.00007
1481955	490792	7151210	0	25		30	BC	BR	Good	Moss WHI18000402	4.1292	0.0053	1.4	0.00013
1481956	490706	7151204	0	20		30	BC	BR	Good	Moss WHI18000402	2.6392	0.0052	0.2	0.00006
1481957	490660	7151229	5	25		30	BC	BR	Good	Moss WHI18000402	3.653	0.0065	0.9	0.00011
1481958	490603	7151252	0	20		30	BC	DBR	Excellent	Moss WHI18000402	1.1595	0.00025	0.1	0.00013
1481959	490556	7151246	0	20		20	BC	DBR	Excellent	Moss WHI18000402	7.7359	0.0069	1	0.00015
1481960	490525	7151219	0	25		30	BC	DBR	Good	Moss WHI18000402	1.6925	0.0057	0.2	0.00009
1481961	490493	7151209	0	20		30	BC	BR	Good	Moss WHI18000402	3.6982	0.0075	0.7	0.00006
1481962	490457	7151208	0	20		30	BC	BR	Good	Moss WHI18000402	2.2574	0.0006	0.3	0.00013

Sample #	Cu_Best_p	Pb_Best_p	Zn_Best_p	Ag_ppm	Au_ppb	Pb_ppm	Zn_ppm	Mo_ppm	Cu_ppm	Ni_ppm	Co_ppm	Mn_ppm	As_ppm	Fe_pct	Th_ppm	Cr_ppm	Al_pct	Cd_ppm	Ba_ppm
1481901	0.0019	0.02794	0.1225	0.5	-0.5	279.4	1225	0.6	19	23.1	12.8	2241	15.2	3	0.9	4	0.16	4.1	50
1481902	0.00103	0.01678	0.0705	0.3	0.7	167.8	705	0.2	10.3	17	9.9	2382	7.6	2.59	1.1	3	0.11	2.8	27
1481903	0.00177	0.0271	0.1515	0.6	2.2	271	1515	0.5	17.7	20.4	14.7	2987	10.3	3.32	1.2	8	0.33	5.3	62
1481904	0.00196	0.05112	0.3145	1	1.6	511.2	3145	0.5	19.6	18.9	12.5	3222	10.6	3.63	1	9	0.41	17.6	72
1481905	0.00157	0.02532	0.1662	0.7	1.1	253.2	1662	0.2	15.7	15.5	9.5	2846	6.8	2.53	1	4	0.14	8	49
1481906	0.00223	0.08438	0.2324	0.9	0.9	843.8	2324	1.3	22.3	24.9	13.1	2506	22.1	3.5	1	5	0.21	11.3	84
1481907	0.00287	0.09773	0.2198	1.2	1.5	977.3	2198	1.8	28.7	28.4	15.1	2878	28.2	4.19	1	7	0.23	12.1	118
1481908	0.00195	0.05621	0.1291	0.8	1.2	562.1	1291	2.2	19.5	19.2	10.4	2116	22.7	3.13	1	4	0.11	6.2	106
1481909	0.00177	0.02433	0.0704	0.7	0.9	243.3	704	4.9	17.7	19.6	9.4	1963	25.9	3.8	0.7	5	0.16	2.8	248
1481910	0.01261	0.01474	0.0206	0.2	3.5	147.4	206	1	126.1	52.5	27.6	753	9.9	5.62	3	47	2.82	0.4	112
1481911	0.02044	0.0127	0.0217	0.1	11.2	127	217	0.6	204.4	54.6	35.8	1224	8.6	5.99	1.7	70	3.07	0.9	45
1481912	0.02764	0.00769	0.0348	0.1	5.4	76.9	348	0.3	276.4	77.9	48.5	1548	5	7.95	0.9	112	4.03	0.7	54
1481913	0.00272	0.00404	0.0092	0.1	2.2	40.4	92	2.7	27.2	25.2	10.5	549	14.1	3.48	1	37	1.62	0.3	92
1481914	0.01427	0.01189	0.018	0.3	8	118.9	180	1.6	142.7	89.4	34	2022	10.4	5.83	2.4	79	2.41	0.5	79
1481915	0.0152	0.01254	0.053	0.6	6.2	125.4	530	8.6	152	140.3	53.3	8519	21.3	11.11	3.2	72	2.06	2.2	73
1481916	0.02252	0.04849	0.0653	1	8.8	484.9	653	14.2	225.2	187.3	69.1	5918	35.8	8.86	4.9	55	2.04	3.5	74
1481917	0.0211	0.0348	0.0645	1	10.3	348	645	13.8	211	136	47.6	4752	39.4	8.96	3.5	67	2.18	2.6	70
1481918	0.00271	0.0059	0.0086	-0.1	3.1	59	86	1.7	27.1	25.7	13.3	626	9.6	3.32	1.2	43	1.76	0.2	75
1481919	0.01051	0.02768	0.0408	1.3	6.1	276.8	408	9.3	105.1	73.4	34.3	2429	47.1	7.36	1.5	53	2.02	1.1	96
1481920	0.00661	0.00146	0.0053	0.5	7.4	14.6	53	4.4	66.1	20.5	16.4	415	19.8	3.36	0.7	21	0.73	0.2	149
1481921	0.0028	0.00587	0.0084	0.3	1.2	58.7	84	1.1	28	25.5	16	1550	8.9	3.82	1.6	21	0.97	0.5	127
1481922	0.00309	0.0061	0.0083	0.4	2.5	61	83	0.8	30.9	28.2	16.6	1314	9.4	3.63	1.8	23	0.73	0.4	74
1481923	0.05298	0.00476	0.0137	0.9	5.3	47.6	137	1.7	529.8	51.1	34.9	5908	18.5	7.52	7.3	37	1.6	3.3	118
1481924	0.00489	0.00348	0.0099	0.6	2.1	34.8	99	1.1	48.9	27.5	24	2591	18.5	3.71	1.2	28	0.99	0.4	126
1481925	0.00432	0.00228	0.0233	0.3	3.9	22.8	233	1	43.2	67	41.2	5302	5.7	6.4	1.7	94	2.18	0.5	541
1481926	0.00354	0.00382	0.0116	0.1	3.3	38.2	116	1.6	35.4	25.2	9.8	470	12.2	3.22	1.7	28	1.41	0.2	68
1481927	0.00345	0.01579	0.0292	0.2	3.2	157.9	292	5.4	34.5	49.8	15.1	4415	12.7	7.68	3.6	27	1.34	0.8	191
1481928	0.00371	0.06195	0.028	2.1	3.7	619.5	280	7.4	37.1	77.7	22	2435	90.7	5.64	11.2	48	1.31	1.2	129
1481929	0.01257	0.01281	0.0186	0.4	4.3	128.1	186	9.4	125.7	56.3	20.2	1376	30.6	4.49	4.9	31	1.19	0.7	110
1481930	0.00416	0.32178	0.2235	2.7	5.1	3217.8	2235	14.8	41.6	58.6	26.2	5155	29.1	7.8	18.5	42	1.04	10.8	203
1481931	0.00443	0.17874	0.141	1.7	2.1	1787.4	1410	8.4	44.3	63.2	28.2	3901	23.3	6.54	1.8	57	1.23	4.9	160
1481932	0.01221	0.0521	0.0964	1.1	1.4	521	964	11.3	122.1	101.6	60.4	2315	54.4	7.5	2.6	66	1.52	4.8	103
1481933	0.01337	0.04584	0.0758	1.3	2.5	458.4	758	9.5	133.7	79	45.5	1751	52.1	5.71	2.1	31	1	3.2	107
1481934	0.01149	0.03103	0.0606	0.9	6.3	310.3	606	8.5	114.9	111.5	41.1	1506	86.9	7.21	2	67	1.98	2.7	114
1481935	0.00407	0.00321	0.011	0.2	2.1	32.1	110	2.5	40.7	50.5	11.8	388	29.6	2.46	4.8	53	3.24	0.5	32
1481936	0.01699	0.03801	0.0403	1.1	3.5	380.1	403	2.3	169.9	68	33.6	1630	15.6	6.12	2.5	91	2.74	2.4	81
1481937	0.00442	0.01688	0.0272	0.3	1.7	168.8	272	11.2	44.2	69.6	21.6	1160	24.1	4.19	0.7	52	1.74	0.8	95
1481938	0.00434	0.01239	0.0232	0.2	1.5	123.9	232	5.8	43.4	42.9	16.3	943	16.5	3.95	0.6	56	2.16	0.7	109
1481939	0.06149	0.03813	0.0889	1.7	35	381.3	889	44.1	614.9	133.2	68.7	2327	127.7	13.05	8.8	35	2.12	2.9	30
1481940	0.00706	0.03347	0.0421	0.6	3.9	334.7	421	6	70.6	44.1	16.7	969	22.4	3.74	2.6	39	2.85	1.6	67
1481941	0.01308	0.0168	0.0621	0.6	8.6	168	621	6.8	130.8	111.6	57.6	2758	52.1	6.42	1.7	49	2.4	1.7	147
1481942	0.00447	0.01124	0.0179	0.4	2.4	112.4	179	10.9	44.7	93.5	28.5	2969	53.7	4.68	0.9	29	1.81	1	282
1481943	0.03799	0.28799	0.2356	1.1	13.7	2879.9	2356	2.7	379.9	75.9	89.2	3400	89.7	5.85	1.5	34	2.26	10.4	134
1481944	0.02134	0.14322	0.0869	0.9	5	1432.2	869	1.2	213.4	74.5	43.9	4428	21.9	9.41	0.8	53	2.9	3.2	99
1481945	0.00372	0.01528	0.0225	0.5	0.9	152.8	225	2.4	37.2	39.3	16	851	16.4	3.17	1.1	39	1.31	1.2	91
1481946	0.00728	0.02622	0.0326	0.4	2.2	262.2	326	1.8	72.8	61.1	30.8	1641	9.2	5.12	1.5	53	1.94	0.9	111
1481947	0.00144	0.00474	0.0123	0.1	2.1	47.4	123	2.3	14.4	39.8	33.7	10000	14.2	7.51	1.7	38	1.99	0.8	257
1481948	0.00171	0.01881	0.0464	0.5	2.7	188.1	464	11.9	17.1	56.5	20.3	6900	31.9	9.31	2.8	23	0.95	2.8	231
1481949	0.00454	0.04549	0.0286	1.2	4.5	454.9	286	20.9	45.4	105.7	52.1	10000	428.3	12.59	8.5	19	0.91	1.8	234
1481950	0.00323	0.04701	0.0375	1.1	5	470.1	375	15.2	32.3	86.9	45.9	5572	124.4	10.08	3.3	17	1.05	1.9	171
1481951	0.00278	0.03558	0.0244	1.2	3.5	355.8	244	18.6	27.8	92.8	21.8	5995	80.5	10.59	24.4	26	1.03	1.3	189
1481952	0.00327	0.022	0.0273	0.7	3.1	220	273	13.4	32.7	104.6	42.5	10000	86.4	14.56	11.5	19	1.2	2.1	226
1481953	0.00842	0.63161	0.5994	3.3	8.3	6316.1	5994	5.1	84.2	114.8	36.6	2828	64.5	6.43	3.2	22	1.64	20.1	91
1481954	0.00188	0.00212	0.0081	0.1	0.8	21.2	81	0.7	18.8	53.9	18.8	2185	12.5	4.65	1.1	47	1.01	0.4	146
1481955	0.0101	0.00511	0.0165	1.4	5.3	51.1	165	1.3	101	59.8	28.4	5735	9.1	7.63	0.9	125	1.91	0.6	99
1481956	0.00679	0.0024	0.0209	0.2	5.2	24	209	0.6	67.9	51.2	43.5	6845	7.4	9.38	7	28	1.91	0.4	145
1481957	0.01143	0.00337	0.0138	0.9	6.5	33.7	138	1.1	114.3	64	43.9	7718	25.9	10.72	3.7	38	0.88	0.5	200
1481958	0.00192	0.00192	0.0135	0.1	-0.5	19.2	135	1.3	19.2	34.6	27.3	6728	7.1	9.01	6.2	80	1.98	1.1	369
1481959	0.04506	0.00221	0.0146	1	6.9	22.1	146	1.5	450.6	44.8	41.6	9409	7	10.87	2.4	40	1.47	0.4	2053
1481960	0.00344	0.00259	0.0097	0.2	5.7	25.9	97	0.9	34.4	43.1	44.4	6136	9	8.38	9.4	36	1.31	0.3	192
1481961	0.00438	0.01647	0.0209	0.7	7.5	164.7	209	0.6	43.8	51.5	72.3	2797	15	6.64	4	24	1.68	0.5	65
1481962	0.00203	0.02693	0.0075	0.3	0.6	269.3	75	1.3	20.3	23.3	22.1	3151	9.9	4.55	1.6	28	1.37	0.3	133

Sample #	Bi_ppm	Ca_pct	Sb_ppm	Sr_ppm	V_ppm	P_pct	La_ppm	Mg_pct	Na_pct	B_ppm	Ti_pct	K_pct	W_ppm	Hg_ppm	S_pct	Sc_ppm	Tl_ppm	Ga_ppm	Se_ppm	Te_ppm
1481901	0.2	10.76	3.6	39	31	0.052	7	5.64	0.006	2	0.004	0.03	-0.1	0.12	-0.05	2.6	0.3	-1	-0.5	-0.2
1481902	0.1	12.29	2.5	49	22	0.031	6	6.35	0.007	2	0.004	0.02	-0.1	0.15	-0.05	2.5	0.1	-1	-0.5	-0.2
1481903	0.2	5.2	3.3	20	33	0.045	9	2.79	0.004	1	0.008	0.02	-0.1	0.26	-0.05	3.9	0.1	-1	0.5	-0.2
1481904	0.2	5.38	2.8	26	46	0.055	11	2.96	0.005	2	0.009	0.02	-0.1	0.49	-0.05	3.2	0.4	1	-0.5	-0.2
1481905	0.2	10.12	2.6	34	26	0.041	6	5.14	0.005	2	0.004	0.02	-0.1	0.21	-0.05	2.5	0.2	-1	-0.5	-0.2
1481906	0.1	9.6	2.8	29	63	0.039	7	5.25	0.006	1	0.005	0.02	-0.1	0.31	-0.05	2.4	0.3	-1	-0.5	-0.2
1481907	0.2	10.42	3.2	31	68	0.043	8	5.14	0.006	2	0.005	0.03	-0.1	0.35	-0.05	2.8	0.4	-1	-0.5	-0.2
1481908	0.1	13.62	2.3	38	40	0.03	6	7.59	0.008	1	0.003	0.03	-0.1	0.2	-0.05	2.2	0.6	-1	-0.5	-0.2
1481909	0.3	12.79	3	35	18	0.046	6	6.41	0.007	1	0.003	0.03	-0.1	0.14	-0.05	2.3	1.2	-1	0.6	-0.2
1481910	0.2	0.22	1	12	181	0.064	12	2.12	0.007	-1	0.169	0.2	0.1	0.04	-0.05	16	0.2	9	-0.5	-0.2
1481911	0.1	0.29	0.9	9	179	0.066	8	2.71	0.005	2	0.133	0.23	0.1	0.01	-0.05	6.7	0.3	10	-0.5	-0.2
1481912	-0.1	0.34	0.6	8	287	0.032	7	3.58	0.005	2	0.196	0.54	-0.1	0.02	-0.05	23.8	0.6	13	-0.5	-0.2
1481913	0.3	0.09	1.2	9	88	0.049	12	0.66	0.006	2	0.039	0.1	0.2	0.02	-0.05	3	0.3	7	-0.5	-0.2
1481914	0.2	0.26	1.4	11	110	0.046	11	2.01	0.006	1	0.054	0.07	0.1	0.05	-0.05	13.1	0.2	6	-0.5	-0.2
1481915	0.3	0.67	2.9	16	93	0.096	10	1.88	0.003	2	0.02	0.11	-0.1	0.15	-0.05	23.8	0.4	4	1.2	-0.2
1481916	0.6	0.28	4.3	21	82	0.135	12	1.61	0.004	1	0.016	0.14	0.1	0.21	0.09	16	0.4	5	1.4	-0.2
1481917	0.5	0.48	4.3	18	96	0.137	11	1.7	0.004	2	0.02	0.12	-0.1	0.18	0.05	13.5	0.4	5	2	-0.2
1481918	0.2	0.1	0.8	8	74	0.044	12	0.58	0.005	1	0.047	0.04	0.1	0.03	-0.05	3	0.2	6	-0.5	-0.2
1481919	0.6	2.19	5	16	123	0.078	11	2.74	0.004	2	0.043	0.05	-0.1	0.18	-0.05	11.9	0.9	6	0.8	-0.2
1481920	4.6	0.12	2.3	14	29	0.091	18	0.21	0.004	2	0.011	0.09	0.1	0.06	0.09	1.2	0.3	3	-0.5	-0.2
1481921	0.3	0.66	1.3	13	28	0.117	15	0.44	0.004	-1	0.008	0.06	-0.1	0.05	-0.05	4.2	0.1	2	-0.5	-0.2
1481922	0.3	1.52	2.3	15	26	0.058	17	0.95	0.007	1	0.011	0.04	-0.1	0.07	-0.05	4.4	0.2	2	-0.5	-0.2
1481923	0.5	0.28	2.6	14	60	0.08	20	0.77	0.005	1	0.017	0.06	0.1	0.12	-0.05	10.7	0.2	3	-0.5	-0.2
1481924	0.3	0.64	1	13	35	0.082	12	0.49	0.006	2	0.014	0.07	-0.1	0.07	-0.05	3.4	-0.1	2	-0.5	-0.2
1481925	0.1	0.41	0.8	21	97	0.057	12	1.42	0.006	-1	0.042	0.12	-0.1	0.07	-0.05	19	0.2	5	-0.5	-0.2
1481926	0.2	0.14	1.3	12	54	0.058	21	0.39	0.005	1	0.035	0.05	0.2	0.04	-0.05	2.5	0.2	4	-0.5	-0.2
1481927	0.6	0.15	1.7	12	96	0.061	24	0.35	0.005	-1	0.024	0.06	0.1	0.15	-0.05	5.8	0.3	3	0.6	-0.2
1481928	5.7	0.5	5	21	118	0.105	19	0.42	0.005	-1	0.017	0.04	0.2	0.09	-0.05	7.7	0.2	3	2.1	-0.2
1481929	1.1	0.2	4.4	13	72	0.081	17	0.39	0.005	-1	0.028	0.04	0.5	0.05	-0.05	3.8	0.1	4	0.6	-0.2
1481930	3.6	0.94	7.7	24	130	0.114	17	0.49	0.006	-1	0.015	0.04	0.6	1.03	-0.05	10.8	0.2	2	1.4	-0.2
1481931	0.5	1.1	4.6	20	94	0.123	14	0.97	0.006	-1	0.02	0.04	0.1	0.23	-0.05	5.8	0.1	4	0.7	-0.2
1481932	1.3	0.85	7	18	143	0.169	28	1.25	0.006	1	0.027	0.07	0.1	0.1	-0.05	6.3	0.4	6	2.3	0.2
1481933	1.9	0.55	5.8	14	85	0.112	27	0.36	0.005	-1	0.014	0.05	0.2	0.12	-0.05	4.2	0.3	3	3.1	-0.2
1481934	1.1	0.64	3.3	14	177	0.094	31	1.05	0.005	2	0.029	0.06	0.1	0.16	0.08	5.3	0.3	5	2.7	0.2
1481935	0.2	0.89	0.6	13	165	0.064	10	4.9	0.004	2	0.064	0.16	0.1	0.01	-0.05	6.4	0.7	11	-0.5	-0.2
1481936	0.2	0.84	0.7	18	165	0.086	22	2.41	0.012	3	0.064	0.07	-0.1	0.05	-0.05	13.3	0.4	10	-0.5	-0.2
1481937	0.7	0.23	1.9	12	77	0.1	12	0.7	0.007	2	0.029	0.06	0.2	0.05	0.09	2.2	0.2	5	1.9	-0.2
1481938	0.4	0.14	0.9	10	74	0.069	12	0.85	0.006	2	0.032	0.05	0.2	0.04	0.05	2.7	0.2	6	-0.5	-0.2
1481939	1.2	0.03	10	5	97	0.192	13	1.11	0.003	-1	0.029	0.05	0.4	0.16	0.19	7	0.3	5	13.3	0.6
1481940	0.2	0.19	1.5	8	136	0.072	16	3.29	0.006	2	0.049	0.06	0.3	0.08	-0.05	4.9	0.5	8	0.7	-0.2
1481941	0.9	0.24	3.3	12	126	0.071	13	1.61	0.005	2	0.029	0.05	0.2	0.08	-0.05	10.2	0.2	6	1.2	-0.2
1481942	0.4	1.3	1.3	18	57	0.111	13	0.96	0.007	1	0.021	0.05	0.1	0.09	-0.05	3.4	0.2	4	0.9	-0.2
1481943	0.2	0.65	3.8	16	98	0.078	17	1.4	0.007	4	0.024	0.05	0.2	0.17	0.06	12.5	0.2	6	0.9	-0.2
1481944	-0.1	0.92	1.4	19	137	0.066	8	1.73	0.005	3	0.008	0.07	-0.1	0.06	-0.05	20.9	0.1	7	-0.5	-0.2
1481945	0.2	5.78	1.3	35	63	0.072	13	3.2	0.006	3	0.027	0.06	0.1	0.07	-0.05	3.6	0.2	4	-0.5	-0.2
1481946	0.2	1.61	1.1	18	90	0.056	10	1.92	0.006	3	0.016	0.06	-0.1	0.07	-0.05	11.9	0.1	4	-0.5	-0.2
1481947	0.3	0.32	0.9	11	79	0.084	11	0.79	0.006	2	0.026	0.05	0.1	0.06	0.06	27.4	0.1	4	-0.5	-0.2
1481948	0.6	1.21	2.8	17	88	0.199	9	0.38	0.005	2	0.009	0.07	0.3	0.18	0.14	11.5	0.2	2	0.9	-0.2
1481949	1.4	2.03	8.6	23	77	0.129	8	0.66	0.005	2	0.014	0.04	0.2	0.13	0.13	11.1	0.2	2	1.1	-0.2
1481950	1	1.21	3.3	22	69	0.078	11	0.74	0.006	3	0.014	0.06	0.1	0.1	0.1	6.9	0.3	2	1.6	-0.2
1481951	0.6	0.64	2.9	17	84	0.091	17	0.38	0.005	1	0.017	0.05	0.2	0.13	0.07	12.8	0.2	3	1.1	-0.2
1481952	0.7	1.85	1.8	32	108	0.127	8	1.12	0.005	3	0.008	0.05	0.8	0.08	0.12	20.4	0.2	2	1	-0.2
1481953	0.1	2.3	6.8	23	106	0.069	21	2.04	0.005	3	0.012	0.09	0.1	0.3	0.07	5.3	0.3	5	1.4	-0.2
1481954	0.2	2.21	1.4	26	41	0.084	20	1.38	0.007	2	0.017	0.04	0.1	0.05	0.06	5.6	0.1	2	-0.5	-0.2
1481955	0.2	0.72	0.6	20	84	0.114	10	1.45	0.006	2	0.044	0.08	-0.1	0.13	0.09	11.8	-0.1	5	-0.5	-0.2
1481956	0.2	0.81	0.9	21	109	0.07	10	1.21	0.004	2	0.019	0.08	0.2	0.06	0.08	19.1	-0.1	4	-0.5	-0.2
1481957	0.6	0.76	1.9	22	82	0.099	9	0.6	0.005	2	0.007	0.07	0.1	0.12	0.1	28.1	0.2	1	0.7	-0.2
1481958	0.3	0.68	1.1	19	86	0.135	21	0.77	0.007	2	0.028	0.06	0.3	0.06	0.08	11.3	-0.1	4	-0.5	-0.2
1481959	0.2	0.73	0.8	19	83	0.097	13	0.68	0.007	2	0.019	0.05	0.2	0.16	0.08	17.1	-0.1	3	1.3	-0.2
1481960	0.3	0.58	1.2	17	65	0.08	14	0.79	0.005	2	0.018	0.07	-0.1	0.06	-0.05	16.5	-0.1	3	0.6	-0.2
1481961	0.3	0.62	3.3	15	56	0.025	7	1.24	0.005	1	0.005	0.08	-0.1	0.15	-0.05	13.7	-0.1	4	0.6	-0.2
1481962	0.3	0.48	1.7	19	40	0.102	13	0.63	0.004	2	0.011	0.08	-0.1	0.06	0.05	5.6	0.1	3	-0.5	-0.2

Appendix IV. Rock Descriptions and Assays

Sample no	Sampler	Location	Type	Easting	Northing	Description	Certificate	Weight (kg)
1480014	L.Blackburn	Central Carpenter Ridge	Grab - float	486113	7149796	local vein; gossanous; Fe-ank qz vein breccia + mal + tetra (?)	WHI18000335	1.00
1480015	L.Blackburn	Central Carpenter Ridge	Grab - float	486109	7149792	Same vein (float) as above; local; but less Fe/ank, increased competency, grey, increased mal and az coatings; <2% cpy; limestone host; FW of vein?	WHI18000335	1.54
1480016	L.Blackburn	Central Carpenter Ridge	1m chip	486105	7149800	Channel sample; Qz breccia + mal + az+ cpy with limestone (vein is perpendicular to bedding); in stw brecciated qtz vein zone	WHI18000335	1.21
1480017	L.Blackburn	NE Carpenter Ridge	Grab - float	485766	7151886	Local vein; Mn-Lim-Hem rotten vein material +/- sphal (?) or siderite (?)	WHI18000335	1.05
1480018	L.Blackburn	NE Carpenter Ridge	Grab - float	485379	7152108	Siliceous, hard, dark green, vfg py (<5%)	WHI18000335	0.77
1480019	L.Blackburn	NE Carpenter Ridge	Grab - float	485379	7152108	Light green, siliceous, weak brecciation + 2% galena (euhedral to FG)	WHI18000335	0.93
1480020	L.Blackburn	NE Carpenter Ridge	Grab - float	485380	7152107	Sulphurous (?) yellow, weakly vuggy/skeletal textures	WHI18000335	0.98
1480021	L.Blackburn	NE Carpenter Ridge	Grab - float	485412	7152084	Boiling textures, SiO2, <2% galena +/- CC (?), clay?	WHI18000335	0.91
1480254	G. Leroux	NE Carpenter Ridge	Subcrop	485644	7151473	polymictic qz-pebble cgl., matrix + cement completely replaced by qz, 1mm qz eyes(amygdules?) are common at 5-7%, trace disseminated py, strong Fe-ox	WHI18000335	2.17
1480255	G. Leroux	NE Carpenter Ridge	Subcrop	485586	7151434	strongly silicified, argillaceous dk-grey, chert-pebble, matrix-supported pebble-granule cgl with ~2-5% disseminated py	WHI18000335	3.05
1480256	G. Leroux	NE Carpenter Ridge	1m chip	485238	7151385	dk-grey, v. siliceous argillite/siltstone, strongly Fe-ox altered, specular py, check sample for vfg galena (SEDEX like Howards Pass)	WHI18000335	2.87
1480257	G. Leroux	NE Carpenter Ridge	Float	485144	7151652	Semi-massive py in qz veining throughout a silicified argillaceous siltstone. Trace copper oxide staining	WHI18000335	3.23
1480258	G. Leroux	NE Carpenter Ridge	20cm chip	485066	7151803	Semi-massive py +/- po (pyrrhotite) hosted in qz-veins in a sheared zone, strongly micaceous foliation. Massive sulphide: 285/44	WHI18000335	1.30
1480259	G. Leroux	NE Carpenter Ridge	Subcrop	485067	7151804	Two phase (at least) qz vein, early comb qz-cal and barite(?), later very coarse drusy euhedral qz. Along trend of 285/44	WHI18000335	3.21
1480260	G. Leroux	NE Carpenter Ridge	Float	484904	7151949	brecciated qz-siltstone, intensely Fe-ox altered, strongly graphitic (coarse grained graphite), veinlets of py and po ~3-4%	WHI18000335	4.46
1480022	L.Blackburn	Settlemier Ridge	Grab - dump	490791	7150855	V. siliceous (vein breccia zone) heal of qz+lim+proustite (?) +py +galena (<1%)	WHI18000335	0.93
1480023	L.Blackburn	Settlemier Ridge	Grab - dump	490791	7150855	CG qz+lim+s-euh galena (5%) + 1% mal	WHI18000335	0.96
1480024	L.Blackburn	Settlemier Ridge	Grab - float	490783	7150869	Downslope from above sample; SiO2, brecciated vein material +/- boiling textures + Fe carbonate+ 10-15% galena (euh)	WHI18000335	1.24
1480025	L.Blackburn	Settlemier Ridge	Grab - float	490781	7150875	SiO2 vein material (very similar to 1480022) but with cpy (5%)	WHI18000335	1.17
1480026	L.Blackburn	Settlemier Ridge	0.9m chip	480796	7150859	V hard; siliceous vein breccia (host SiO2 siltstone/mdst?)+ Fe carb+ lim+ gypsum(?)+ gal (<1%)+ py (1%)+ pyrrhotite/proustite? (1%)	WHI18000335	2.48
1480027	L.Blackburn	Settlemier Ridge	Grab - dump	490949	7150894	2m above location of previous sample; SiO2-breccia (silts/mudstone host) with Fe carb+ qz+ 5% euh galena; healed with Fe carb-qz+lim+ tr mal	WHI18000335	0.79
1480028	L.Blackburn	Settlemier Ridge	Grab - dump	491094	7150942	Massive galena vein in qtz breccia (siltstone/mdst host)+qtz+ Fe carb+ lim (40% sub-euh gal)	WHI18000335	1.35
1480261	G. Leroux	Settlemier Ridge	70cm chip	490922	7151052	comb qz-veins (+/- cal), stockwork, 2-4cm thick veins, hosted in chill margin of dioritic dyke, 0.5-1% galena, trace cp locally. Vein attitude 083/18	WHI18000335	0.78
1480262	G. Leroux	Settlemier Ridge	50cm chip	490922	7150884	~20cm thick qz(+/- carb), chaotic angular frags, cement-supported breccia, in o/c, mineralization with trace to 0.5% galena locally, hosted in silicified siltstone	WHI18000335	4.31
1480263	G. Leroux	Settlemier Ridge	50cm chip	490702	7150772	~4cm thick med-grained crystalline qz-vein (+/- carb), proustite(?) + trace galena, vein att: 148/vert	WHI18000335	2.38
1480264	G. Leroux	Settlemier Ridge	50cm chip	490690	7150765	strongly silicified, thinly bedded to medium bedded siltstone/sandstone, pervasive disseminated py-cpy, qz-veinlets and proustite(?) -Probably just octahedral py!	WHI18000335	3.74
1480265	G. Leroux	Settlemier Ridge	2m chip	490649	7150742	pervasively silicified +/- chl, mafic intrusive (diorite), trace to 1% pervasive disseminated py-apy-cp +/- gal(?) up to 2% locally	WHI18000335	1.10
1480266	G. Leroux	Settlemier Ridge	Subcrop	490623	7150706	intensely silicified silt/sandstone in contact halo (bleached) adjacent to diorite sill.	WHI18000335	1.64
1480267	G. Leroux	Settlemier Ridge	1m chip	490399	7150618	Blotchy cp mineralization in qz-vein-bxa	WHI18000403	1.76
1480268	G. Leroux	Settlemier Ridge	1.5m chip	490261	7150686	Dioritic sill with ~1-2% disseminated demagnetized po	WHI18000403	2.48
1480269	G. Leroux	Settlemier Ridge	2.m chip	490234	7150676	~60cm thick qz-ank vein, breccia, located in contact zone bwn graphitic sltst and diorite, trace cp-gal-py (hem)	WHI18000403	2.79
1480270	G. Leroux	Settlemier Ridge	Float	490242	7150682	qz +/- carb, silicified, brecciated shear zone at least a few meters wide, disseminated py is pervasive. Bxa: 293/73	WHI18000403	3.82
						Collected in the trace of a fault zone: brecciated, cataclastite, with disseminated py 2-3%, trace Cu-ox staining	WHI18000403	

Sample no	Ag_Equiv	Au_Best_pp	Ag_Best_pp	Mo_Best_pp	Cu_Best_pp	Pb_Best_pp	Zn_Best_pp	Ag_ppm	Au_ppb	Pb_ppm	Zn_ppm	Mo_ppm	Cu_ppm	Ni_ppm	Co_ppm	Mn_ppm	As_ppm	Fe_pct	Th_ppm
1480014	446.1684	0.0471	286	0.00115	1.24	0.14	0.07	100	47.1	1351.5	689	11.5	10000	52.7	20.5	306	31.5	7.85	0.7
1480015	599.2732	0.0363	116	0.00047	3.99	0.08	0.12	100	36.3	744.4	1180	4.7	10000	30.4	27.5	2100	70	4.95	0.4
1480016	470.6978	0.0111	9.9	0.0001	3.89	0.02	0.01	9.9	11.1	148.7	68	1	10000	59.4	28.7	993	35.3	3.16	0.3
1480017	20.3424	0.00025	2.5	0.01048	0.01574	0.13781	0.1768	2.5	-0.5	1378.1	1768	104.8	157.4	77.5	5	761	55.6	40	0.4
1480018	185.8663	0.00025	15.6	0.00028	0.03	3.15	0.34	15.6	-0.5	10000	3324	2.8	262.3	77.5	32.2	76	69.6	5.6	0.1
1480019	162.3811	0.00025	13.5	0.00024	0.01	3.11	0.02	13.5	-0.5	10000	191	2.4	75.6	2.5	0.7	38	40.1	1.72	0.5
1480020	172.5451	0.0013	12.6	0.00054	0.01	3.36	0.005	12.6	1.3	10000	135	5.4	55	1.2	0.1	39	35.8	2.82	0.4
1480021	102.118	0.00025	17.8	0.00003	0.005	1.77	0.005	17.8	-0.5	10000	73	0.3	14.4	1	0.3	35	1.1	0.31	0.2
1480254	3.4089	0.00025	0.4	0.00009	0.01543	0.01586	0.0079	0.4	-0.5	158.6	79	0.9	154.3	72.8	27.7	167	2.1	2.99	2.3
1480255	6.2281	0.00025	0.8	0.00014	0.00669	0.03005	0.0598	0.8	-0.5	300.5	598	1.4	66.9	77	37.4	49	53.3	3.77	3.4
1480256	4.441	0.0008	0.5	0.0018	0.00685	0.02458	0.0357	0.5	0.8	245.8	357	18	68.5	42.1	5.6	828	23.8	3.86	5.6
1480257	31.6659	0.0464	7.5	0.00008	0.13503	0.05713	0.0361	7.5	46.4	571.3	361	0.8	1350.3	288.2	439.6	810	49.7	18.26	0.2
1480258	8.0197	0.0414	2.4	0.0002	0.00407	0.03656	0.0034	2.4	41.4	365.6	34	2	40.7	286.8	612.1	205	112.1	30.51	0.1
1480259	1.0459	0.0026	0.1	0.00004	0.00344	0.00261	0.004	0.1	2.6	26.1	40	0.4	34.4	44.3	11.2	2323	-0.5	4.17	-0.1
1480260	1.1708	0.0011	0.4	0.00025	0.00259	0.00328	0.0042	0.4	1.1	32.8	42	2.5	25.9	54.1	11	2040	24.6	4.53	0.4
1480022	39.3086	0.00025	1.2	0.0003	0.00328	0.07534	0.6375	1.2	-0.5	753.4	6375	3	32.8	44.2	12.3	3487	2.2	4.29	77.4
1480023	273.5478	0.0055	106	0.00056	0.18	2.97	0.11	100	5.5	10000	1026	5.6	1836.4	11.8	4.3	3768	17.1	3.6	11.2
1480024	1612.975	0.0465	291	0.00407	0.15	14.67	11.37	100	46.5	10000	10000	40.7	1579.3	11	8.9	919	16.2	2.12	5
1480025	111.222	0.00025	17.9	0.00081	0.00879	0.88051	0.9475	17.9	-0.5	8805.1	9475	8.1	87.9	37.4	12.6	2234	0.8	3.42	10.7
1480026	142.2496	0.0026	9	0.00592	0.02	0.17	2.29	9	2.6	1586.2	10000	59.2	84.6	22.9	13.5	1041	5.5	1.94	5.8
1480027	240.2691	0.00025	20.3	0.00212	0.02	4.61	0.005	20.3	-0.5	10000	105	21.2	68.7	29.6	9.5	1463	10.7	1.73	32.1
1480028	3471.8443	0.0185	277	0.00056	0.02	67.44	0.22	100	18.5	10000	2284	5.6	168.5	13.3	1.7	375	6.2	0.99	2.7
1480261	9.6939	0.0009	1.8	0.00004	0.00798	0.1151	0.0272	1.8	0.9	1151	272	0.4	79.8	9.9	6.7	1275	2.5	2.14	2.2
1480262	376.3137	0.0019	38.8	0.00058	0.01	7.12	0.01	38.8	1.9	10000	73	5.8	96	36.1	9.1	1856	32.7	4.33	3.6
1480263	2.163	0.00025	0.3	0.00026	0.00499	0.00947	0.0151	0.3	-0.5	94.7	151	2.6	49.9	30.8	8.4	2270	19.5	4.89	2.4
1480264	2.2421	0.00025	0.3	0.00015	0.00298	0.01822	0.0133	0.3	-0.5	182.2	133	1.5	29.8	19.1	3.6	1487	4	2.48	5.9
1480265	3.4622	0.00025	0.4	0.00004	0.01242	0.00588	0.0243	0.4	-0.5	58.8	243	0.4	124.2	88.3	41.3	1611	15.1	8.45	-0.1
1480266	14.8059	0.00025	1	0.00017	0.04152	0.00285	0.1635	1	-0.5	28.5	1635	1.7	415.2	28.4	6.9	1499	66.9	4.17	4
1480267	4.6321	0.0042	0.7	0.00012	0.02144	0.00251	0.0179	0.7	4.2	25.1	179	1.2	214.4	122.2	54.8	1167	63.1	7.01	0.2
1480268	0.1817	0.00025	0.05	0.00004	0.00028	0.00043	0.0011	-0.1	-0.5	4.3	11	0.4	2.8	5.4	5.5	1277	1.2	1.26	0.1
1480269	1.307	0.0006	0.1	0.00002	0.00042	0.01481	0.0077	0.1	0.6	148.1	77	0.2	4.2	29.4	29.6	4020	6.2	6.62	-0.1
1480270	281.1313	0.235	29.2	0.00013	0.86587	0.96046	1.61	29.2	235	9604.6	10000	1.3	8658.7	67.4	12.8	280	258.8	1.61	0.2

Sample no	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	B_ppm	Ti_pct	K_pct	W_ppm	Hg_ppm	S_pct
1480014	6	0.46	3	3	3	0.04	5.5	7	14	0.005	5	0.65	0.005	-1	0.012	0.03	0.2	1.06	0.09
1480015	4	0.39	3.7	13	0.6	1.57	7.3	19	7	0.004	3	0.56	0.004	1	0.005	0.02	0.1	0.53	1.48
1480016	7	0.54	0.5	7	0.3	4.58	4.1	56	11	0.006	4	0.83	0.006	2	0.012	0.02	0.1	0.11	0.12
1480017	10	0.16	10.7	72	27.1	0.14	17.9	2	71	0.051	2	0.24	-0.001	-1	-0.001	0.03	-0.1	0.61	-0.05
1480018	22	0.21	22.2	37	0.3	0.13	22.4	6	10000	0.001	-1	0.07	0.003	-1	0.002	0.3	0.3	1.64	5.29
1480019	23	0.32	1	54	0.1	-0.01	17.1	2	5587	0.004	2	0.04	0.003	2	0.017	0.37	0.2	2.99	0.57
1480020	8	0.35	0.8	86	0.4	-0.01	18.7	3	10000	0.003	2	0.05	0.002	3	0.022	0.83	1.1	1.06	1.16
1480021	4	0.05	0.5	6	-0.1	-0.01	2.7	-1	55	0.001	2	-0.01	0.001	-1	-0.001	0.04	-0.1	1.8	-0.05
1480254	102	0.6	0.5	46	0.1	0.65	2.7	8	30	0.039	9	0.32	0.003	4	0.011	0.42	-0.1	0.07	0.88
1480255	145	0.52	5.2	35	0.1	0.12	11.7	5	17	0.059	9	0.19	0.003	4	0.008	0.36	-0.1	0.32	3.68
1480256	8	0.87	1.2	16	0.1	0.1	1.7	4	40	0.052	16	0.45	0.004	3	0.002	0.22	-0.1	0.03	-0.05
1480257	47	2.89	0.6	9	2	0.07	3	4	200	0.028	4	2.33	0.002	-1	0.17	0.07	-0.1	0.23	10
1480258	30	1.84	0.1	8	18.5	0.03	3.8	-1	68	0.017	-1	1.49	0.002	2	0.003	0.25	-0.1	0.32	10
1480259	8	1.37	0.2	5	-0.1	1.85	1.1	22	26	0.005	-1	1.61	0.015	-1	0.003	0.01	-0.1	0.02	0.05
1480260	10	0.04	0.1	6	0.4	0.24	21.2	6	14	0.027	-1	0.55	0.005	-1	-0.001	0.03	-0.1	0.22	1.23
1480022	9	0.06	20	24	1.3	7.4	3.3	419	31	0.006	3	3.63	0.008	2	-0.001	0.01	0.2	4.94	3.18
1480023	2	0.12	12.6	146	2.3	12.1	597.8	103	18	0.036	2	5.31	0.01	2	-0.001	0.07	0.4	1.34	0.43
1480024	3	0.12	734.2	45	6.3	0.47	658.8	25	14	0.013	6	0.26	0.002	-1	-0.001	0.07	0.6	23.16	2.7
1480025	6	0.12	37.3	19	1.5	2.9	64.5	221	14	0.014	2	1.5	0.003	2	-0.001	0.04	1.5	10.18	3.05
1480026	5	0.22	112.5	59	5.3	1.59	46.1	114	13	0.031	8	0.8	0.005	3	0.001	0.11	1.3	9.17	0.99
1480027	6	0.16	1.5	134	2.9	3.64	36.9	30	19	0.032	14	1.34	0.006	2	-0.001	0.1	2.2	0.14	0.7
1480028	2	0.02	17.1	22	12.1	0.36	412.5	16	7	0.008	1	0.19	-0.001	-1	-0.001	0.01	0.2	1.3	8.76
1480261	5	0.13	1	24	0.7	6.87	2.1	103	13	0.02	3	2.81	0.008	2	-0.001	0.1	-0.1	0.13	0.06
1480262	3	0.04	1.7	53	1.7	12.79	69.7	141	186	0.007	2	5.38	0.014	-1	-0.001	0.03	0.3	0.08	0.93
1480263	8	0.15	1.3	26	0.1	17.52	1.9	134	141	0.032	13	7.18	0.017	1	0.001	0.12	-0.1	0.04	0.14
1480264	12	0.36	0.8	37	-0.1	8	1.3	89	44	0.057	11	3.49	0.017	2	0.003	0.2	-0.1	0.03	0.06
1480265	131	4.63	0.3	49	0.7	2.87	0.5	91	328	0.033	2	4.81	0.014	1	0.064	0.28	-0.1	-0.01	0.05
1480266	19	0.12	14.8	12	-0.1	14.05	0.9	149	144	0.046	9	5.38	0.03	-1	0.002	0.06	-0.1	0.57	0.21
1480267	258	4.18	0.3	46	-0.1	2.64	1.5	70	176	0.026	2	4.43	0.039	3	0.015	0.3	-0.1	-0.01	1.36
1480268	7	0.05	-0.1	9	0.1	3.08	0.6	13	6	0.002	-1	1.48	0.028	3	-0.001	0.02	-0.1	-0.01	0.09
1480269	3	0.41	0.3	17	0.1	14.18	1.1	83	35	0.013	2	6.51	0.01	3	-0.001	0.15	-0.1	-0.01	0.51
1480270	14	0.04	71.1	33	7.6	2.01	2000	251	10	0.07	2	0.65	0.004	1	-0.001	0.01	-0.1	35.36	0.34

Sample no	Sc_ppm	Tl_ppm	Ga_ppm	Se_ppm	Te_ppm	Pb_pct_OL	Zn_pct_OL	Ag_ppm_OL	Cu_pct_OL	Pb_pct_OL2
1480014	6	0.2	2	35.8	1.1	0.14	0.07	286	1.24	
1480015	5.7	0.3	1	49.5	-0.2	0.08	0.12	116	3.99	
1480016	6.1	-0.1	1	14.5	-0.2	0.02	0.01		3.89	
1480017	3	2.8	1	-0.5	-0.2					
1480018	-0.1	1.4	3	-0.5	-0.2	3.15	0.34			0.03
1480019	0.3	0.9	3	-0.5	-0.2	3.11	0.02			0.01
1480020	0.3	1.5	6	-0.5	-0.2	3.36	-0.01			0.01
1480021	-0.1	-0.1	-1	-0.5	-0.2	1.77	-0.01			-0.01
1480254	9.6	0.7	1	-0.5	-0.2					
1480255	2.4	0.7	2	-0.5	-0.2					
1480256	1.2	-0.1	4	1.1	-0.2					
1480257	16.3	0.2	11	3.9	1.1					
1480258	5.1	1.1	4	8.9	1.4					
1480259	3.9	-0.1	3	-0.5	-0.2					
1480260	1.1	0.1	-1	1.2	-0.2					
1480022	4.4	-0.1	-1	0.8	-0.2					
1480023	2.4	-0.1	-1	0.9	-0.2	2.97	0.11	106	0.18	
1480024	0.8	0.1	10	10.3	-0.2	14.67	11.37	291	0.15	
1480025	1.3	-0.1	-1	2.8	-0.2					
1480026	1.2	-0.1	2	1.9	-0.2	0.17	2.29		0.02	
1480027	2.1	-0.1	-1	-0.5	-0.2	4.61	-0.01		0.02	
1480028	0.9	0.8	-1	4.3	-0.2	20	0.22	277	0.02	67.44
1480261	3	-0.1	-1	1.1	-0.2					
1480262	2.7	-0.1	-1	0.8	-0.2	7.12	0.01		0.01	
1480263	5.5	0.2	-1	0.7	-0.2					
1480264	4.1	-0.1	1	0.6	-0.2					
1480265	31.8	0.4	14	-0.5	-0.2					
1480266	4.9	-0.1	-1	0.6	-0.2					
1480267	16	0.3	9	1	-0.2					
1480268	10.9	-0.1	-1	-0.5	-0.2					
1480269	6.6	-0.1	-1	-0.5	-0.2					
1480270	4.7	-0.1	1	26.8	2.8		1.61			