ASSESSMENT REPORT

describing

2018 SOIL SAMPLING and PROSPECTING

at the

MAGA PROJECT
YMEP FOCUSED REGIONAL 18-042

FA 1 – 48, YF30417 – YF30464
BH 1 – 30, YD61333 – YD61362

located at
NTS 116C/10

Latitude 64°34'N; Longitude 140°54'W
Dawson Mining District
Yukon, CANADA

prepared by claim owner
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January, 2019

Field Work Performed August 4 - 10, 2018

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INTRODUCTION

The MAGA YMEP project 18-042 was designed to evaluate a regional area including the pre-existing FA claims, known to host an extensive polymetallic silt and soil anomaly that is coincident with magnetic anomalies and proximal to a regional northeast trending fault. The FA claims were staked in 2017 to cover a known favourable silver- lead- zinc- copper anomaly that extended at least 5 kilometres. The coincident multi-element anomaly was extended to the Alaska border in 2017. The BH claims were staked in 2018 as part of the project to cover this extension. The 8 kilometre anomaly is concentrated in three clusters named the FAN, FAB and Border zones. Most of the property is overburden covered, so the bedrock geology is not totally understood.

Work in 2018 was successful in confirming and expanding the Border zone, and confirming the strong anomalies at the FAB and FAN zones. Mineralized skarn was found at the Border, Fan and FAB zones in outcrop, float and in test pits. The FAB zone was the key target for 2018 exploration, with several infill soil lines and four test pits dug. Petrographic work has identified the skarn rocks as diopside- garnet skarn, actinolite skarn and related chlorite-epidote altered carbonate rocks. The diopside- garnet skarn was formed at high temperature, and is likely proximal to an intrusive source.

Highlights of 2018 work include rock assays up to 0.476 g/t Au, 50 g/t Ag, 2008 ppm Cu, 3501 ppm Pb and 1948 ppm Zn from skarn samples. In soil sampling the known polymetallic anomalies were expanded or confirmed. One of the most intriguing results is a molybdenum anomaly at the Border zone that is roughly 1000m diameter, with values up to 90 ppm Mo. This anomaly may suggest a moly rich porphyry at depth.

The project area is located in Yukon Tanana Terrane adjacent to the Fanning pluton, within the Tintina Gold Belt, just south of the Tintina Fault and Yukon River in westernmost Yukon Territory, adjacent to the Alaska border. The property comprises 78 FA and BH claims staked in 2017 and 2018.

This report describes a program of soil sampling, prospecting, mapping and petrography performed by the author and crew between August 4th to 10th, 2018. The author designed and supervised the program and participated in the work.

PROPERTY LOCATION, CLAIM DATA AND ACCESS

The property consists of 48 FA claims and 30 BH claims which are contiguous and located in western Yukon at latitude 64°34' north and longitude 140°51' west on NTS map sheet 116C/10 (Figure 2). The claims are registered in the name of the claim owner William Mann at the Dawson Mining Recorder. Claim data are listed below while the locations of individual claims are shown in Figure 2.

Claim Name	Grant Number	Expiry Date	Number
FA 1 – 48	YF30417 – YF30464	2022 – 06 – 05	48
BH 1 – 30	YD61333 – YD61362	2019 – 06 - 25	30

* Expiry date excludes 2018 work which will be filed for assessment credit.

The property lies about 87km northwest of Dawson City, south of the Yukon river and adjacent to the border with Alaska. The claims cover a north facing slope which drains into Fanning creek, which flows northeast into the Yukon River. Some of the BH claims drain southerly into Liberty Fork of O'Brien creek, which drains westward into Alaska, then into the Yukon River.

Access is by helicopter either from Dawson City or from the road to the past producing Clinton Creek asbestos mine located 15km south of the FA BH property. The Clinton Creek mine can be accessed in two wheel drive from the Fortymile road, which forks to the north from the Top of the World Highway from Dawson City to Alaska.

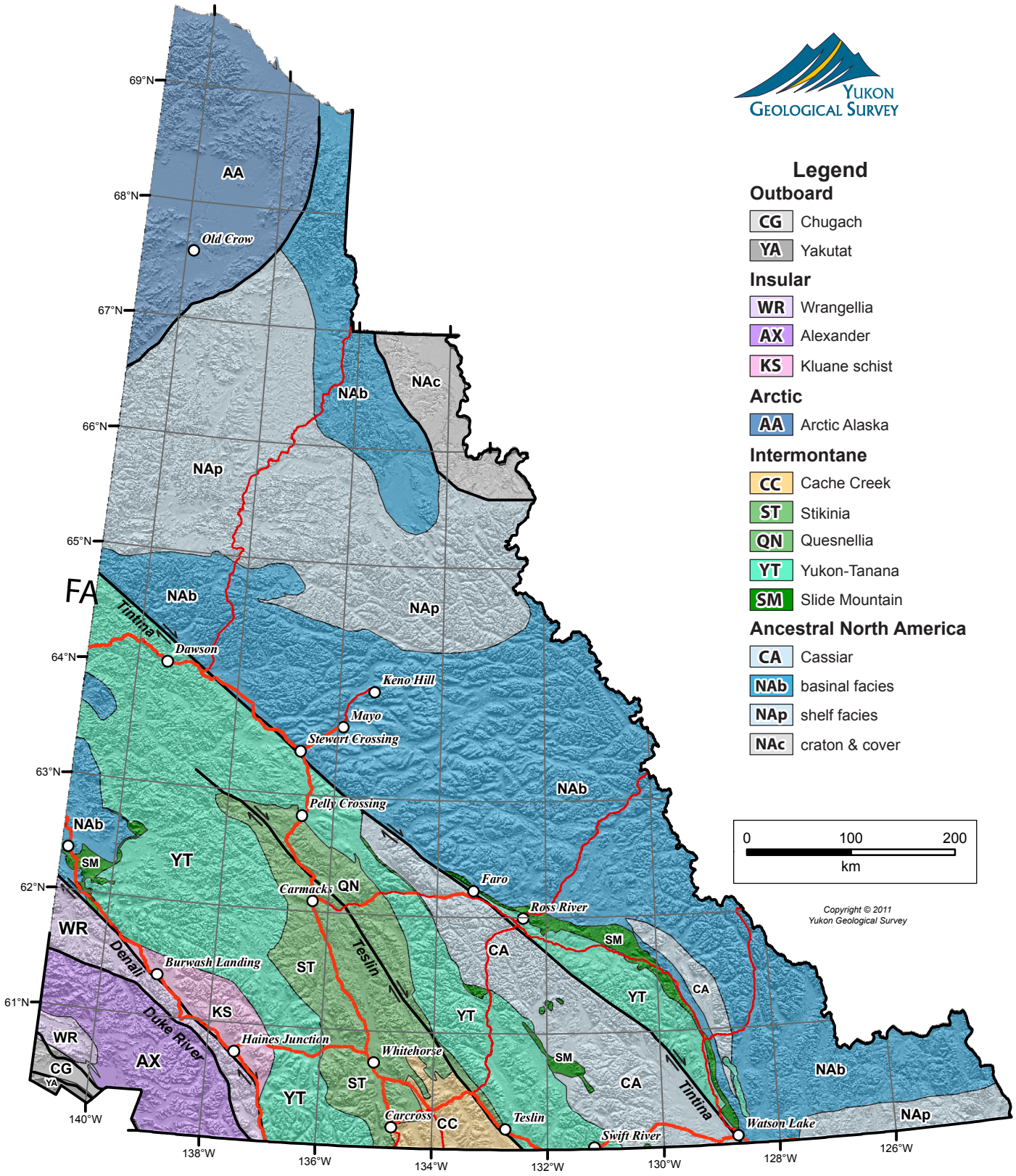
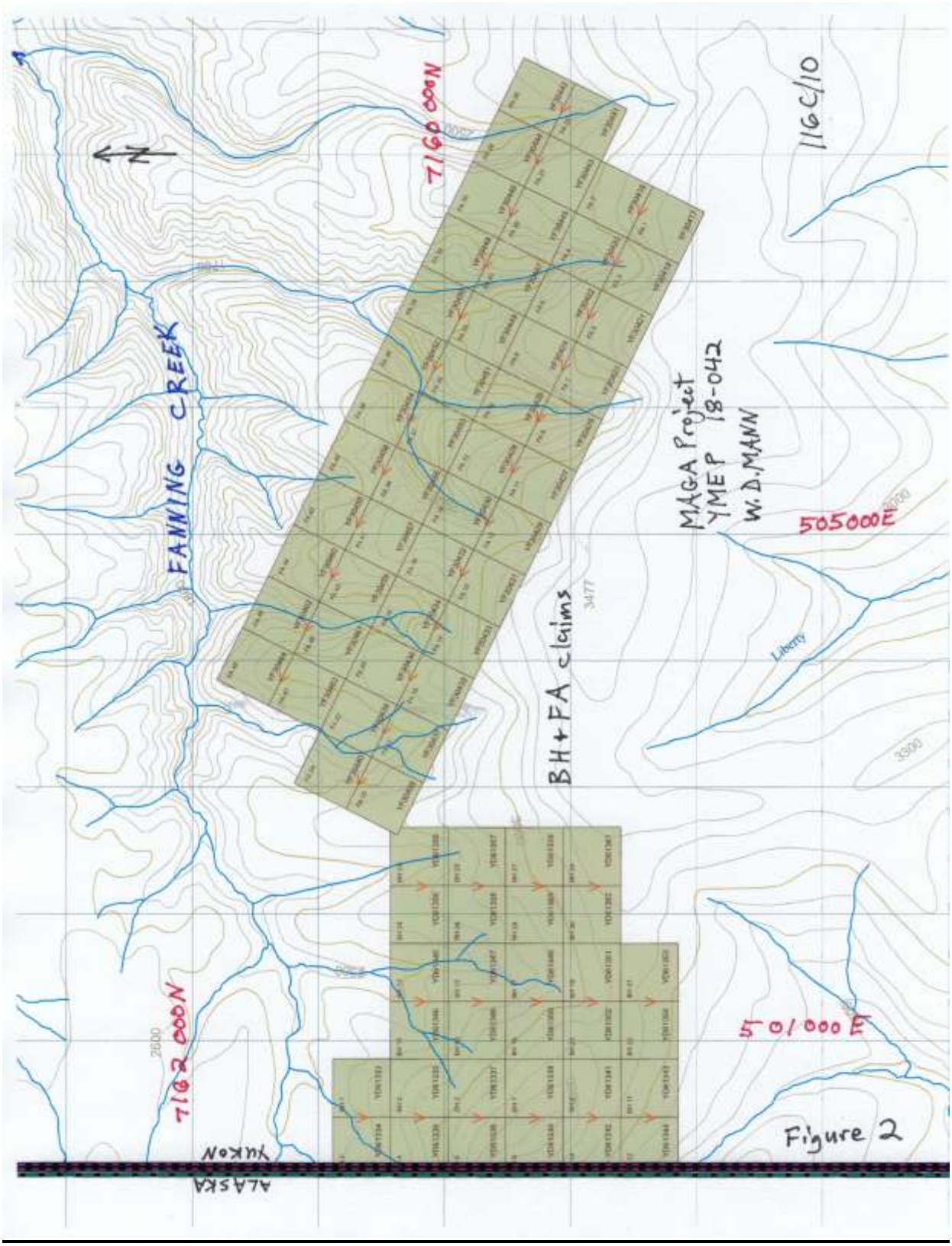


Figure 1. Location and Bedrock Terranes - FA Claims


7160 000N
FANNING CREEK
N
116C/10
MAGA Project
YMEP 18-042
W. D. MANN
505000E
BH + FA claims
3477
Liberty
7162 000N
510 000 E
YUKON
ALASKA
Figure 2

PREVIOUS WORK

1961 Regional geological mapping conducted at 1:250,000 scale by the Geological Survey of Canada (Green, 1972).

1966 Airborne magnetic survey flown by the Geological Survey of Canada.

1977 Regional stream sediment survey was conducted by the Geological Survey of Canada in the project area (RGS Open File 2365). This work did not identify significant anomalies in streams draining the property, however only a few samples were collected from the Fanning creek drainage, several kilometres downstream.

1979 Cominco performed confidential regional stream sediment geochemical surveys in the area. This program identified anomalies on Fanning creek that led to staking of the FAN claims in 1995.

1995 195 "FAN" claims were staked in the area. 192 contour and stream bank soil and silt samples were collected, and analyzed for Zn, Pb, Ag & Cu. Two significant geochemical anomalies were detected by Cominco during work on this occurrence. Anomaly 'A' is 900 metres long and comprises stream bank soil samples with maximum values up to 373 ppm Zn, 146 ppm Pb, 114 ppm Cu and 1.0 ppm Ag. Anomaly 'B' is 600 metres long and comprises stream silt and bank samples with maximum values up to 906 ppm Zn, 500 ppm Pb, 80 ppm Cu and 3.2 ppm Ag (Pride, 1996). It is reported by Ross that Cominco flew an airborne geophysical survey at this time but did not file the work for assessment.

1996 Surficial geological mapping at 1:250,000 scale by Geological Survey of Canada (Duk-Rodkin, 1996).

2004 16 Rhea claims staked by J.P. Ross. 7 float rock samples collected (Ross, 2004).

2007 32 additional Rhea claims staked by Ross. 76 soil samples and 4 float rock samples collected (Ross, 2007). Two soil lines were sampled to the west of anomaly B, and analyzed by multi-element ICP. Soil samples were collected by shovel.

2011 The Rhea claims were optioned by Zinccorp Resources Inc., and an additional 95 RH claims were staked. 259 soils, 2 silts and 7 rocks were collected for analysis (Mann, 2011). Soil samples were collected as deep as possible by auger. Work focused between and proximal to Cominco anomalies A & B.

2014 Airborne magnetic survey flown at 400m line spacing, 125m above terrain by Goldak Airborne Surveys for the Geological Survey of Canada (Kiss & Coyle, 2014). Much higher precision, accuracy and resolution was achieved compared to the 1966 survey. A prominent linear FVD magnetic high is seen to occur proximal to the polymetallic soil anomaly.

2016 Enhanced interpretation of existing RGS stream sediment geochemical data for NTS map sheet 116C. Yukon Geological Survey, Open File 2016-32, scale 1:250,000. Still no anomalies in project area due to distant sampling.

2017 30 FA claims staked by W.D. Mann to cover the FAN minfile occurrence (Assessment Report #097168). 171 soil samples and 11 rock samples were submitted for assay. 3 test pits were dug. Petrographic examination of thin sections was performed, indicating the presence of weakly deformed felsic volcanic rocks. The polymetallic soil anomaly was extended to the Alaska border.

GEOMORPHOLOGY AND VEGETATION

The FA & BH claims are situated in the Yukon Plateau ecoregion, part of the Boreal Cordillera ecozone (Smith et al, 2004). The property lies about 7 km southwest of the Tintina Trench. The area features rounded ridges and low peaks which represent the top of an ancient peneplane that has been incised by dendritic drainages. Glaciation has not affected the property. The property is drained by Fanning creek that flows north- eastward into the Yukon River and by Liberty Fork, which drains westward into Alaska and then into the Yukon River.

Local elevations range from about 2000 feet along Fanning creek on the FA claims to over 3400 feet at Border Hill on the BH claims. Rock is rare in outcrop, and is mostly confined to steep slopes near creeks and in float at Border Hill above treeline. Soil development is poor, and consists of a colluvium veneer of silt, sand and mixed fragments (Duk-Rodkin, 1996). The project lies within the zone of extensive discontinuous permafrost, with north and east facing slopes that are often moss covered and permanently frozen. This presents an obstacle to soil sampling, trenching and road construction. Soil sampling is most effective if conducted in late summer. A thin blanket of loess is present on the north-facing slope near treeline. Solifluction is apparent on slopes above treeline, and loess mixed with local soil extends downslope from high on the ridge. Loess is noted to dilute metal anomalies in some shallow soils.

Vegetation varies from mature spruce, poplar and birch forests on the lower slopes, thick stunted spruce and buckbrush near tree line, and open mossy grassland on the ridge top. Precipitation totals less than 400mm per year. Temperatures are extreme, with long very cold winters (-30C) and summers that can be hot (+30C).

Figure 3. Geomorphology of the BH claims. Note bronze border marker #115.

GEOLOGY

Geology in the vicinity of the project has not been recently mapped, and is based mostly on field work from 1961 at 1:250,000 scale (Green, 1972). Some unpublished mapping of 116C/10 was conducted in the late 1980s (Mortensen, pers comm). The geological setting has been put into broader context by Dusel-Bacon et. al. (1998), Gordey and Makepeace (1999) and Colpron (2006).

The property lies in the Yukon Tanana Terrane, southwest of the Tintina Fault. The area lies within the Tintina Gold Belt. The Yukon-Tanana Terrane (YTT) is a terrane of pericratonic affinity which occupies an intermediate position between continental margin rocks of Ancestral North America (Cassiar Terrane, Selwyn Basin) to the east and arc and oceanic terranes accreted in Mesozoic time to the west (Quesnellia, Stikinia and Cache Creek). It consists of polydeformed and metamorphosed Paleozoic metasedimentary and meta-igneous rocks (Colpron, 2006). The Yukon-Tanana comprises thrust sheets that are overlain by klippen of weakly metamorphosed oceanic rocks of the Slide Mountain terrane (which hosts asbestos at Clinton Creek).

At the FA & BH claims these rocks are intruded by the Fanning Creek Pluton, a post-kinematic mid Cretaceous granitic unit of the Whitehorse suite. This pluton is described by Green as fine to coarse grained, uneven textured biotite granodiorite and biotite quartz monzonite.

A northeast trending fault along lower Fanning creek (Mortensen's Fault) cuts the pluton and extends southwest across the west end of the claims, and probably extends into Alaska. This fault appears to terminate the soil geochemical anomaly and a linear magnetic high anomaly. The fault extension to the southwest passes adjacent to the Border Hill area, and an outcrop of granitic rock. At Border Hill felsic dykes are present in narrow dykes (less than 20 meters wide, mostly less than 1m wide), and therefore not shown on more recent maps. Northeast trending faults are spatially related to mineralization at the Fortymile Pb-Zn-Ag district in nearby Alaska, and also to the southeast proximal to the Pika- Sixtymile fault.

The YTT is host to significant base metal occurrences, including the Wolverine and Kudz Ze Kayah VMS deposits in the Finlayson Lake district, in the part of the terrane which lies northeast of Tintina Fault. Restoration of the offset of the Tintina Fault would place the FA property in proximity to the Finlayson district. Several minor VMS occurrences are found to the southeast of FA & BH (eg. Mickey, Mort, Clip). This model was the basis for exploration by Cominco (Pride, 1996) and subsequent explorers of the FAN occurrence.

Preliminary geological mapping by Cominco determined that the claims are underlain by the Nasina Assemblage, consisting of Devonian-Mississippian black meta-pelites, quartzites and thin felsic meta-tuffs. These lithologies have been hornfelsed by the Cretaceous Fanning Creek Pluton located to the north. Contour soil sampling detected two areas anomalous in Cu/Zn/Pb/Ag (anomalies A & B) underlain by black phyllite and carbonaceous siltstone (Pride, 1996).

Work by the author in 2011, 2017 and 2018, thin section work by Dr. Tim Liverton and discussion with Professor Jim Mortensen has led to a change in interpretation of the property geology. A significant amount of younger (non-foliated) felsic volcanic flow and pyroclastic rocks are present in the anomalous areas, along with limestone layers and rhyolitic dykes. Grey, rusty weathering massive rhyolitic flows look very similar to biotite-pyrrhotite hornfels. Work on the Alaska side of the border has identified similar rocks which have been dated as Permian despite lack of cleavage, and are interpreted to be a stiff basal layer at the base of Slide Mountain terrane (Mortensen, personal communication). The Fanning pluton was found to extend further to the south than shown on government maps. A revised description of the property geology is presented below in the 2018 Exploration section.

A government regional airborne magnetic survey was conducted in 2014 over the project area (Kiss & Coyle, 2014). Much higher precision, accuracy and resolution was achieved compared to the 1966 survey. A prominent linear FVD magnetic high is seen coincident with the polymetallic soil anomalies at the FAN and FAB zones at the FA claims, however the Border zone lies within a magnetic low (see figure 5). The FVD linear is likely a fault splay off Mortensen's fault that drops the felsic volcanic package down into the YTT, and forms a conduit for hydrothermal fluids that deposit pyrrhotite.

DEPOSIT TYPES

This area was explored by Cominco in the search for VMS mineralization after their discovery of the Kudz Ze Kayah VMS deposit. If the Tintina fault offset is restored, the project area lies proximal to the Finlayson VMS camp where the KZK, Fyre Lake and Wolverine deposits are located. Several minor VMS occurrences are found to the southeast of FA & BH claims (eg. Mickey, Mort, Clip) and in nearby Alaska (Dusel-Bacon, 1998). VMS remains a possible target for the area, though Finlayson group metavolcanics are no longer thought to be present in the anomalous areas.

Two significant geochemical anomalies were detected by Cominco during work in the project area in 1995. Anomaly 'A' is 900 metres long and comprises contour soil samples with maximum values up to 373 ppm Zn, 146 ppm Pb, 114 ppm Cu and 1.0 ppm Ag (Fig. 5). Anomaly 'B' is 600 metres long and comprises stream silt and bank samples with maximum values up to 906 ppm Zn, 500 ppm Pb, 80 ppm Cu and 3.2 ppm Ag. These anomalies were considered worthy of follow-up, however Cominco let the FAN claims expire.

The possibility that the anomalies are related to high temperature carbonate replacement deposits (CRD) was considered by prospector J.P. Ross who staked the RHEA claims to cover the Cominco anomalies. The presence of this deposit type is known in the nearby 40 Mile district of Alaska (Dusel-Bacon et. al. 2015). This district has had a series of CRD discoveries, with elevated values for Zn, Ag, Pb, Cu and In. Some of the occurrences are noted to be skarns, while most are mantos. The occurrences are hosted in carbonates, and are spatially associated with intrusive rocks (often immediately adjacent to felsic dykes) and northeast trending faults. The nearest of these occurrences is Lead Creek, located approximately 25km to the west of FA & BH in Alaska, which has returned drill intersections of 15.4m of 370 g/t Ag and 5.5% Pb and 9.6m of 725 g/t Ag and 6.4% Pb.

Work at the FAN target in 2011 and 2017 revealed small patches of subcrop and float that containing coarse epidote replacing limestone, with weak mineralization. Carbonate replacement was considered to be a key deposit type at the FAN target. Following the limestone beds using outcrops, subcrop and Ca in soils is thought to be an important exploration criteria. The best soil anomaly cluster at the FAB target occurs where the limestone unit is thought to overlie the magnetic high anomaly in proximity to the Mortensen Fault.

Prospecting at the Border Hill target in 2017 revealed narrow vuggy quartz veins bearing arsenopyrite and trace galena. These veins are highly anomalous in Ag, As, Pb, Zn, Mo, Cu and potential pathfinder elements. They cut felsic bomb tuff in proximity to rhyolite dykes, and are considered to be epithermal veins. These epithermal veins may be peripheral to a porphyry target, and combined with extensive Mo- Cu soil anomalies further work targeting porphyries is recommended.

2018 prospecting at Border Hill and test pits at the FAB zone resulted in the discovery of diopside- garnet and actinolite skarn with highly anomalous values in Pb, Zn, Cu, Ag and Au. Skarn and carbonate replacement type deposits are now thought to be the prime exploration target at the claims.

2018 EXPLORATION PROGRAM

The 2018 field program was conducted by the author, senior field technician Max Mikhailytchev and assistant Robyn Warren. The field program was conducted between August 4th to 10th, after the staking and recording of the BH claims in June. The property was accessed by truck to the Clinton Creek mine, then by helicopter to the property. A temporary tent camp was established, with sampling and prospecting traverses on foot. 194 soil samples were collected. 7 rocks samples were sent for assay. Five rock specimens were selected by the author for thin section examination by Dr. Timothy Liverton. A hand-held XRF device was used to help focus soil sampling and evaluate rocks before assay. The program was successful in locating mineralized skarn in float and outcrop, and in infilling and extending known polymetallic soil geochemical anomalies. The highest gold values found to date on the property were returned from rock samples at the FAB and Border zones.

2018 Soil Geochemistry

Soil sampling has been established as the best method for testing the ground. A total of 194 soil samples were collected in 2018 on 8 north-south lines, 1 east-west line and one diagonally oriented line based on UTM NAD83 zone 7 grid lines. Samples were generally spaced 50m apart, but extended to about 75m for the diagonal reconnaissance line. The lines were located to provide infill at the FAB zone, the FAN zone and the Border Hill area, and to test the saddle east of Border Hill and the assumed projection of the Mortensen Fault.

The 2018 soil samples were located using handheld GPS units, with supplemental navigation by compass. The sites are marked by flagging tape marked with the sample number. Soil samples were collected using Dutch soil augers. They were placed into Kraft paper bags along with an analytical sample tag. Soil descriptions were recorded in a notebook. Samples were collected as deep as possible, typically between 40cm and 60cm deep, occasionally to 90cm, but sometimes much shallower where very rocky soil and permafrost limited sampling depth. Some sample sites were abandoned due to bedrock or permafrost immediately beneath organic material, especially in the FAB zone. Sample material and sample sites were documented with photographs.

Soil sample locations from 2018, 2017 and 2011 are shown in Figure 4, and maps with Pb-Zn-Cu (rose diagram), Ag and Mo values in ppm are shown in Figures 5, 6 and 7 respectively (in pocket). Certificates of Analysis for soil samples are in Appendix III.

The 2018 geochemical sampling program was very successful, as strong multi-element anomalies were confirmed and expanded upon over an 8 km trend. Significantly anomalous results were returned from the three areas outlined and evaluated in 2018. A single infill line at the FAN zone, east of Cominco anomaly B produced anomalies as expected (Pb, Zn, Cu, Ag). Five infill lines at the FAB zone confirmed this area as the most concentrated anomaly on the property with very high values of Cu, Zn, Ag, Mo, W (with modest Pb levels). Four soil lines at Border Hill area were particularly successful at detecting anomalies on the west side, called the Border Zone. An east- west oriented soil line across a recessive saddle did not return any

significant anomalies. A northeast oriented soil line sited to follow the projected extension of the Mortensen Fault returned moderate anomalies in Pb, Zn and Cu. The western side of the Border zone is very high in Mo and Cu, with elevated As, Bi and W. Pb is elevated on the eastern side of the Border zone. Arsenic forms an anomaly about 1000m diameter above 20ppm and up to 177 ppm As, however there is no elevated gold in soils within this area.

Gold in soil values are generally too low to be of interest with a maximum value of 107 ppb on the property, however assays from rock have returned up to 476 ppb Au. Therefore zones of elevated gold in soil may be found in areas not yet sampled.

Potassium and thorium in soils is thought to indicate the presence of granitic rocks. Values of K above approximately 0.3% (and locally over 0.6%) coincide with known granitic rocks, while most soils underlain by other lithologies contain less than 0.1% K. Thorium shows a very similar distribution to K, with elevated Th (above about 10 or 20 ppm Th) associated with granitic intrusives. Soils in the area that are high in Ca (above 0.5% and locally over 2%) suggest the presence of limestone, potentially a host rock for skarn and CRD deposits.

One sample, # 5272747 was too small, with insufficient material sent to the laboratory for analysis. This sample was located at the FAB zone, where thick moss and organic material locally directly overlie boulders or bedrock, or permafrost, hindering soil sampling.

2018 Prospecting and Mapping

The author's time was spent prospecting, mapping and digging and describing test pits. Assay samples, thin section locations, test pit locations and geological locations are shown in figure 8. One day was spent examining the cliffs and outcrops near the creek on claims FA 21- 24 west of the FAB zone. Another day was spent examining cliffs on claims FA 35- 38 in the FAN zone. A third day was spent prospecting the Border zone.

Seven rocks were submitted for assay (see Table 1 below). The results include surprisingly high gold and silver values from skarn (476 and 298 ppb Au, 50.2 and 23.2 ppm Ag). These are the highest precious metal values from the property to date. These rocks also returned the highest Cu (2008 ppm), lead (3501 ppm) and Zn (1948 ppm) from rocks on the property.

Locations of rock assays, thin sections, test pits and outcrops are presented in figure 8 (in pocket). This map also shows a regional fault, labelled Mortensen's Fault. A colour underlay of airborne First Vertical Derivative Magnetics is also shown in this figure. Rock assay certificates with complete analyses are presented in Appendix IV.

The author examined the rocky area of the FAN zone on the north side of the western creek fork east of Cominco's anomaly "A", which is the largest area of outcrop on the property. The pale rocks present include marble, felsic metatuff and rhyolite flows and dykes. Subcrops of microgranite were found on the northeast end of this trend. Lower in this area a cliff outcrop of massive rhyolitic tuff contained a 2m thick band of limestone replaced by skarn (sites R17- R19, sample R19, figures 8, 14). The dark grey rhyolites at the western end of these cliffs contain

secondary pyrrhotite and pyrite, and occur at the location of the first vertical derivative magnetic high. The grey pyrrhotite bearing rhyolites have a field appearance similar to a pyrrhotite hornfels: very hard, weakly magnetic, massive and rusty stained. The bedded rocks near anomaly "A" have an orientation of about 110° azimuth (similar to the FVD magnetic anomaly), with a 45° dip to the south.

The creek west of the FAB zone was traversed, with numerous outcrops encountered. The southern area, south of Mortensen's fault encountered outcrops of grey- green- brown phyllite of the Yukon Tanana formation (R11 – R13, figure 8) . Across the fault the only rocks seen were grus weathered biotite- quartz- Kfeldspar granites, generally very coarse-grained with feldspars up to 1.5cm and quartz to 1cm (R14- R16, figure 8). Some impressive hoodoos were formed in these granite cliffs.

The area of the claims is mapped as metamorphic rocks of the Yukon Tanana Terrane on Yukon government maps, however on the Alaskan side of the border there is a different unit, with a "border fault" between. In Alaska, the rocks nearest the claims are mapped as a slightly metamorphosed sedimentary rock with a component of limestone (Foster & Keith, 1968). This is likely to be the same unit found on the key areas of the BH and FA claims with undeformed felsic volcanics and limestone that hosts skarn. Recent unpublished work by professor Mortensen and Alaskan colleagues suggest that this unit is of Permian age:
"There is a slightly odd package of unfoliated to at most very weakly foliated felsic volcanic rocks that is exposed along the Taylor Highway in E Alaska along King Solomon Creek, a bit north of Liberty. These rocks have always been problematical; however, we now interpret them as part of a thrust slice that sits under large slabs of Slide Mountain greenstones and ultramafic rocks, and on top of typical Yukon-Tanana metamorphic rocks. I dated zircons from a sample of this stuff and got a crystallization age of 259.0 +/- 1.1 Ma, so Late Permian. Similar age as most of the Klondike Schist, but this is clearly a completely unrelated package. It isn't clear whether this is part of the Slide Mountain terrane or something completely unrelated at this point. In any case, this package (which only locally includes the felsic rocks) appears in several areas in the eastern part of the Eagle quadrangle, including an area just south of where the Fanning Cr pluton crosses the border. I interpret this as another thrust sheet of the same package of rocks that should extend across the border and along the southern side of the pluton." (Mortensen, pers. comm. 2018)

The bulk of the Fanning pluton north of the claims is indicated to be a biotite granodiorite or quartz monzonite, however the 1961 mapping noted strong weathering and sparse outcrop of the unit. Intrusive rocks seen in the project area extend south of the pluton boundary shown on the government map, and are biotite granite and microgranite. Dating by Mortensen of the Fanning pluton indicates a mid Cretaceous age of the Whitehorse Suite (105 to 112ma). A recessive weathering zone of biotite granite grus is present on the southeast flank of Border Hill proximal to the extension of Mortensen's Fault. Rhyolite dykes are seen at the central FA claim area as well as being abundant at Border Hill. Some dykes are anomalous in ore metals, as indicated by XRF. The Lead Creek Pb-Zn-Ag occurrence in nearby Alaska has been dated by Pb isotopes as mid-Cretaceous, and a proximal thin felsic sill returned a zircon age of 96.1 Ma, the same as the Fanning Creek pluton (Dusel-Bacon et. al., 2003).

The FAN, FAB and Border Zones

The eight kilometre long polymetallic soil anomaly present at the property has been subdivided into three main zones that reflect distinct areas based on geology and geochemistry. The outlines of the FAN, FAB and Border zones are sketched in **figure 5**, along with Cu-Pb-Zn geochemistry and a FVD magnetic underlay. The naming of zones should make it easier to discuss variability along the trend.

The **FAN zone** encompasses the original Cominco A and B anomalies and the infill and extension work between these anomalies conducted by Ross and Zinccorp. This zone covers much of the FVD magnetic high anomaly that coincides with the original polymetallic soil high values. This zone has some coincident limestone, particularly at its northwest end. The limestone unit follows along the northern edge of the magnetic zone, and diverges to the north of the main anomaly near the eastern end of the zone. Some of the soils have not been tested above this limestone, especially in the central part of the zone. This should be a priority for follow-up. This zone includes the best outcrop on the property near the creeks, and not all outcrops have been examined yet due to thick bush and steep terrain.

The **FAB zone** appears to be geologically separate from the FAN zone, as the main limestone unit pinches out as determined from the distribution of Ca in soils. The FAB zone has the greatest concentration of metals in soils on the property, with a 500m diameter zone with very high Cu- Zn- Ag and other pathfinder elements returned from a cluster of over 80 samples. There is a strong As- Bi- W anomaly that occurs in the centre of the zone. The FAB zone is lower in Pb than the other zones, except on the peripheries. The area contains significant limestone (Ca in soil and limestone in test pits) that overlies the FVD magnetic high and lies adjacent to Mortensen's Fault. This target has almost no outcrop, with one rusty grey rhyolitic cliff near the creek.

The **Border zone** lies across Mortensen's Fault from the FAB and FAN zones, and is underlain by a magnetic low rather than a high. It is possible that the anomalous geochemical trend at FAB- FAN is offset southeast by the fault to the Border zone. The geochemical signature of Border is also somewhat different from FAB- FAN, with a large very high Mo anomaly and extensive elevated As. The highest Cu values are found on the west side of the zone, with Pb elevated at the east and Zn broadly distributed. Ag is elevated at the west and central part of the Border zone. Limestone is of limited extent in float and interpreted from Ca in soil, but coincides with the best mineralization near the Border marker. The highest gold found on the property is from a skarn outcrop in this area. The main rock type at the Border zone is the unfoliated felsic bomb tuff.

Table 1. 2018 Rock Assay Summary

Sample	UTM NAD83 7W			Cu	Pb	Zn	Ag	As	Au	
	E	N		PPM	PPM	PPM	PPM	PPM	PPB	
72776	499940	7159565	R 3	42.4	126.8	114	1.8	14.3	**476.1**	small subcrop dark grey f.g. skarn w/ epidote veins and red-brown garnet
72777	499941	7159601	R 5	852.2	10.4	149	8.9	1.2	5.3	float cobble skarn, coarse green actinolite, magnetite, red oxide in vugs
72778	499941	7159601	R 6	162.3	**3501.3**	**1368**	7.7	<0.5	1.9	float cobble f.g. banded skarn
72779	501124	7158884	R 8	89.5	25.3	28	0.5	27.2	1.2	Q-eye felsic intrusive, clay alt'd, limonite & MnOx stained, boulder
72780	504896	7160499	Pit 4	**1001.2**	276.6	539	**50.2**	3895.9	**298.1**	felsic volcanics minor skarny limestone, some rusty
72781	504800	7160250	Pit 5	907.7	26.5	**1948**	9.4	34.7	23	felsic volcanics, limestone, minor quartzite, tr. Malachite
72782	504903	7160203	Pit 7	**2008.6**	85.3	**1170**	**23.2**	95.2	24.6	abundant vein quartz w/ limonite, malachite, MnOx, rhyolite host rock, minor QV bxia

Figure 11. Porphyritic granite at southeast flank of Border Hill.

Figure 12. Diopside- garnet skarn outcrop R3 at Border zone assays 0.5 g/t Au.

Figure 13. Coarse-grained actinolite skarn sample R5 at Border zone.

Figure 14. 2m diopside- hedenbergite/ garnet skarn band at FAN zone cliff, sample R19.

Figure 15. Altered felsic rocks from Pit #6, FAB zone.

2018 Petrography

Five samples were selected for thin section examination. Rock slabs were sent to Vancouver Petrographics Ltd. for section preparation. The completed sections were sent to Dr. Timothy Liverton for microscopic examination and description. Diopside-hedenbergite / garnet skarn are present in R3, R6 and R19, with actinolite skarn in sample R5 and minor fine-grained chlorite/ epidote alteration in Pit 6.
Liverton's report is presented in Appendix V. Sample locations and hand sample descriptions are provided in Table 2 below.

Table 2. FA BH Thin Section Locations 2018

UTM NAD83 7W

Name	E	N	Assay #	Description
Pit 6	504600	7160450		skarny felsic tuff
R 3	499940	7159565	72776	small subcrop dark grey f.g. skarn w/ epidote veins and red-brown garnet
R 5	499941	7159601	72777	float cobble skarn, coarse green actinolite, magnetite, red oxide in vugs
R 6	499941	7159601	72778	float cobble f.g. banded skarn
R 19	506277	7160250		From 1.2m wide "skarny" band in 50m x 20m felsic volcanic cliff. Calcite & Qtz alteration, trace pyrite, malachite. Possible epidote, scapolite, garnet?

2018 Test Pits

Four test pits were dug with pick and shovel at soil sample sites with strong polymetallic anomalies from 2017, with data presented in Table 3 below. Photos of each pit are also shown below. In all cases flagging tape from 2017 sampling was still present to confirm the site locations. The pit depths ranged from 70cm to 100cm, with depth limited by permafrost or densely packed larger rocks and local abundant tree roots. Bedrock was not reached in any of the pits, though all pits were successful in reaching mineralized and oxidized angular pebbles and cobbles thought to be derived from local bedrock.

Pit #4 returned moderately anomalous Pb, Zn and Cu, elevated Tl and Se, along with **very high Ag (50 g/t) and Au (298 ppb), As, W & Bi** from a rock sample (figure 16). This sample contained 19% Fe and 3% S, so some unoxidized sulphides may have been present. The sample was also elevated in both K and Th with low Ca, suggesting an intrusive component. This pit should be re-excavated to find larger, fresher rocks with this type of mineralization for further examination and testing.
Digging was difficult in **Pit #5** and only reached 70cm depth, and returned smaller rocks with a mix of rock types. Assay values were similar to the soil from that site (figure 17).
Pit #6 returned weakly skarn altered limestone and altered felsic volcanics. No rock assay was submitted due to weak mineralization indicated by XRF (figures 15, 18).
Pit #7 returned abundant malachite stained quartz vein rubble with limonite and manganese oxides, and **2008 ppm Cu** with high values for Zn and Ag. The host rock was felsic volcanics (figure 19).

Table 3 **FA BH Test Pit Locations and Descriptions 2018**

		UTM NAD83 7W		
Pit 4	Location	504896 E	7160499 N	
	Pit Size	100 cm x 90 cm	80 cm deep	
	Strata:	A horizon	0 to 20 cm	Moss, grass, roots, black humus
		Loess?	20 to 40 cm	clay, silt, fine sand, minor angular pebbles, dark grey-brown
		Buried Organics	40 to 50cm	orange peaty organic layer - indicates solifluction?
		C horizon	50 cm +	rocky colluvium, angular pebbles, cobbles, boulders
	Rock			felsic volcanics minor skarny limestone, some rusty
	Samples	Rock	**72780**	276 ppm Pb, 539 ppm Zn, 50 ppm Ag, 1001 ppm Cu, 298 ppb Au, 3895 ppm As, >100 ppm W, 486 ppm Bi, 19% Fe
		Soil	**17569**	71 ppm Pb, 927 ppm Zn, 4.6 ppm Ag, 537 ppm Cu, 37 ppb Au, 418 ppm As, 24 ppm W, 14 ppm Bi, 4.2 % Fe (2017)

Pit 5	Location	504800 E	7160250 N	
	Pit Size	70 cm X 70 cm	70 cm deep	
	Strata:	A horizon	0 to 10 cm	Thin moss and humus, abundant roots
		C horizon	10 cm +	grey-yellow-brown sandy soil, w/ angular pebbles & cobbles
	Rock			felsic volcanics, limestone, minor quartzite, tr. Malachite
	Samples	Rock	**72781**	1948 ppm Zn, 9.4 ppm Ag, 907 ppm Cu, 23 ppb Au,
		Soil	**17576**	2571 ppm Zn, 1.5 ppm Ag, 963 ppm Cu, 6 ppb Au (2017)

Pit 6	Location	504600 E	7160450 N	
	Pit Size	110 cm x 80 cm	75 cm deep	
	Strata:	A horizon	0 to 30 cm	Moss, roots, dark brown humus
		Loess?	30 to 50 cm	grey clay-rich soil w/ angular pebbles - mixed loess?
		Buried Organics	50 to 55 cm	orange to dark brown organic layer - indicates solifluction?
		C horizon	55 cm +	light grey-brown colluvium, angular pebbles & cobbles
	Rock			variable coloured felsic volcanics and skarny limestone
	Samples	Rock	**no assay**	
		Soil	**17520**	49 ppm Pb, 1044 ppm Zn, 1.5 ppm Ag, 42 ppm Cu (2017)

Pit 7	Location	504903 E	7160203 N	
	Pit Size	110 cm x 110 cm	100 cm deep	
	Strata:	A horizon	0 to 5 cm	Moss, organic soil and thin white ash
		Loess?	5 to 25 cm	grey-brown clay-rich soil w/ angular pebbles - mixed loess?
		Buried Organics	25 to 30 cm	dark brown organic layer -mostly only 2 cm thick
		C horizon	30 cm +	light orange-brown colluvium, angular pebbles & cobbles
	Rock			abundant vein quartz w/ limonite, malachite, MnOx, rhyolite host rock, minor QV bxia
	Samples	Rock	**72782**	2008 ppm Cu, 85 ppm Pb, 1170 ppm Zn, 95 ppm As, 24.6 ppb Au, 88 ppm Bi, 23 ppm Ag
		Soil	**72728**	42 ppm Pb, 3568 ppm Zn, 2.4 ppm Ag, 1523 ppm Cu (2018)

Figure 16. Pit #4

Figure 17. Pit #5

Figure 18. Pit #6

Figure 19. Pit #7

2018 Portable XRF Utilization

A Niton XL3t portable hand-held XRF was used in the field to provide rapid qualitative evaluation of soils and rocks. The information provided by the XRF was useful in confirming anomalous areas, and could be used to adjust soil line locations and lengths. Test pit #7 was dug at the site of a highly anomalous XRF Cu (and other metals) value from 2018 soil sampling.

Rock sample 72780 from test pit #4 which was above the 100ppm detection limit for tungsten showed a value of 769 ppm W by XRF. Examination of specimen rocks from this pit with ultraviolet lamp did not show any fluorescence indicative of scheelite.

XRF readings were taken for 30 seconds through the soil sample bags, and high values of Pb, Zn, Cu (and sometimes As) used as indicators of mineralization. Rock samples were also analyzed by XRF, and this information was used to reduce the number of rock samples submitted for assay.

SAMPLE PREPARATION, ANALYSES AND SECURITY

The 2018 samples were placed into rice bags in the field by the author, sealed with zip ties and secured. The samples were transported and delivered directly by the author to the Whitehorse preparation facility of Bureau Veritas Minerals (Acmelab). The samples were shipped by BVM to their Vancouver laboratory. Bureau Veritas Mineral Laboratories is accredited and certified to the International Organization for Standardization for Quality ISO9001:2008, Environmental Management: ISO14001 and Safety Management OH SAS 18001 and AS4801.

At the laboratory samples were dried at 60°C. Soil samples were sieved to -80 mesh. Rocks were crushed, then a 250g split was pulverized to 200 mesh. The samples were analyzed by BVM method AQ201 for 36 elements by ICP-MS after digestion of 15g by 1:1:1 aqua regia.

Quality control procedures were implemented at the laboratory, involving the regular insertion of blanks and standards and repeat analyses on the samples. Quality Assurance data is provided for each batch of samples and included with each analytical certificate (Appendices III & IV).

There was no evidence of any tampering with the samples during collection or shipping. All sample preparation was conducted by the laboratory.

INTERPRETATION AND CONCLUSIONS

The geology of the FA BH property is only partly understood due to scarce outcrop and limited mapping, with significant progress made in both 2017 and 2018. The regional northeast trending fault appears to be an important control of mineralization, similar to structures at the Fortymile CRD district in nearby Alaska. The southeast trending FVD magnetic high anomaly near the FAB and FAN zones may reflect a splay structure off this fault.

An unusual package of felsic volcanic rocks with abundant bomb tuff and local limestone is present in cliff outcrop at the FAN zone, in boulders present at the FAB zone, underlying the hill at the Border zone and across the border in Alaska. The limestone within these rocks hosts skarn that may be the same age as the mid Cretaceous Fanning pluton immediately to the north of the property. Polymetallic skarn deposits are the most obvious target at the property, however related epithermal veins and a mineralizing source porphyry deposit are valid targets that should be explored for.

The FAB zone, proximal to the northeast trending fault and where limestone overlies the FVD magnetic high is currently thought to be the best skarn target, with an area roughly 700m in diameter returning some of the highest Zn, Cu, Ag, W and Bi values.

RECOMMENDATIONS

The FA & BH property covers a large Pb- Zn- Ag- Cu- Mo anomaly in soils that is open to further expansion. Skarn has been discovered in outcrop, float and test pits that contains elevated Au. The target at the property is at least in part skarn/ CRD deposits along with epithermal As- Au- Ag veins, with additional potential for Mo- Cu- Au- Ag porphyry. The length, width, strength and continuity of the soil anomalies are encouraging, and may lead to a significant discovery. The FAB zone contains the most concentrated Cu- Zn- Ag anomaly that appears to be carbonate hosted, and lies proximal to a regional fault and a subsidiary splay fault indicated by a magnetic signature. The Border zone is a large, strong Mo anomaly with locally enriched Cu, Zn, Ag, Pb and pathfinder elements. There is potential at Border for an adjacent or underlying porphyry intrusive deposit, and this potential extends into adjoining Alaska. The FAN zone is the largest target, and has not been fully investigated along the northern edge where some limestone outcrop is present on steep slopes with very thick vegetation.

Soil geochemistry is a very effective exploration method for this property. Additional soil lines should be sampled to infill gaps in the existing sample pattern at the Border zone, and extend coverage to the north and south. There is a strong magnetic low to the northwest of Border Hill shown by an airborne survey conducted in Alaska, and this area may have elevated porphyry potential. Soils should be sampled south of the Border zone to the Mortensen fault projection because Mo and As anomalies remain open in this area.

A base map should be prepared for the FAB zone at 1:5,000 scale to enable more detailed exploration of this rich zone. Additional test pits are recommended, as this technique works

fairly well. Test pit #4 should be re-excavated and deepened to seek mineralized rock similar to the sample analyzed. An additional infill soil line should be added to the FAB zone along 504100E. Line cutting in preparation for ground geophysics (IP, Mag, EM?) is warranted at this stage.

Additional soils would be beneficial at the FAN zone along line 7160100N near the north-central area, and at the far east extension of the zone at line 508500E.

Geological mapping and prospecting should be continued along the anomalous trend and across the entire area. Particular attention should be focused on the Border Hill area seeking altered and mineralized intrusive rocks that might indicate porphyry mineralization. A simplified geology map should be produced at 1:20,000 scale compiling known outcrops and subcrop deduced from airborne magnetic patterns and Ca, K & Th in soils.

The next exploration at the property should be based from a camp at the Border zone, as this is the largest underexplored target area and lies a considerable distance from the FAB zone camp. Test pitting should be done at the locations of rock samples R3 and R5 zone proximal to the bronze border marker and at locations of high polymetallic soil anomalies nearby.

The area adjacent to the Border zone in Alaska is almost certainly mineralized. This area is owned surface and subsurface by Doyon Ltd., within land block R. 33 E. Doyon Ltd should be contacted to discuss possible cooperative exploration.

The property has reasonable logistics, with roads within 10 or 15km to the southeast at Clinton Creek or across the border to the west in Alaska. The terrain is moderate, so construction of trails would be reasonably easy if exploration is successful, with no stream crossings necessary.

Respectfully submitted,

William D. Mann, M.Sc., P.Geo.

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STATEMENT OF QUALIFICATIONS

WILLIAM D. MANN, M.Sc., P.Geo.

19 HAYES CRESCENT, WHITEHORSE, YUKON Y1A 0E1

1. I am a member in good standing of the Association of Professional Engineers and Geoscientists of BC, Licence #31907.

2. I am a Graduate of Queen's University, 1986, with a Master of Science Degree in Mineral Exploration Geology.

3. I am a Graduate of the University of British Columbia, 1983, with a Bachelor of Science Degree in Geology.

4. I have worked in mineral exploration and mining continuously since 1979.

5. I participated in the work program on the MAGA Project (FA & BH claims) in 2018.

6. I am the owner of the FA and BH claims.

January 15, 2019

William D. Mann, M.Sc., P.Geo.

MAX MIKHAILYTCHEV
DAWSON CITY, YUKON

Max Mikhailytchev has worked in the mineral exploration and mining industry since 2004. He has considerable experience in claim staking, soil sampling, equipment operation, camp construction, test pitting and other bush skills.

MAGA Project YMEP 2018 **30 BH claims staked June 24**

W.D. Mann

		Activity	Units	Rate	Total
	PHASE 1 - Staking				
Labour	Geologist	Staking/ travel	2	500	1,000.00
	Technicians	Staking	2	350	700.00
		Max Mikhailytchev & Franz Vidmar			
Field Costs	$100 per worker-day		4	100	400.00
Helicopter					
Trans North A Star		Invoice #65059			3,680.77
Truck	$.60 per km	Whitehorse to Dawson return	1075	0.6	645.00
		Phase 1 subtotal			6,425.77
	PHASE 2 - Exploration FA & BH claims				
Labour	William Mann	Prospecting/ Mapping/ travel	8	500	4,000.00
	Max Mikhailytchev	Soil Sampling/ test pit	6.5	375	2,437.50
	Robyn Warren	Soil Sampling/ test pit	6	250	1,500.00
Field Costs	$100 per worker-day		19.5	100	1,950.00
Helicopter	Trans North Helicopters		#66340	mob	3,175.20
	A-Star		#66357	demob	2,963.52
Truck	$.60 per km	Whitehorse to Clinton Creek return	1217	0.6	730.20
Assays	Bureau Veritas	92.8% VANI310818 soils	194		5,449.32
		WHI18001015 rocks	7		282.11
Thin Sections		Preparation - VanPetro	5		164.33
		Analysis - Tim Liverton	5		630.00
XRF	Niton XL3t	$110 per day of use	6	110	660.00
Maps	Stewart Basin	GIS & map preparation			630.00
	Integraphics	plotting			368.55
Report	William Mann				2,500.00
		Phase 2 subtotal			27,440.73
		TOTAL			**33,866.50**
		YMEP request (75%):			**25,399.88**
		initial payment 2018-08-22			14,395.39
		expected final payment			**11,004.49**

BUREAU VERITAS MINERAL LABORATORIES Canada

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Client: **Bill Mann**
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Submitted By: Bill Mann
Receiving Lab: Canada-Whitehorse
Received: August 14, 2018
Report Date: September 13, 2018
Page: 1 of 8

CERTIFICATE OF ANALYSIS WHI18000627.1

CLIENT JOB INFORMATION

Project: MAGA
Shipment ID:
P.O. Number
Number of Samples: 209

SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp 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.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
DY060	209	Dry at 60C			WHI
SS80	209	Dry at 60C sieve 100g to -80 mesh			WHI
AQ201	208	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN
SHP01	209	Per sample shipping charges for branch shipments			VAN

ADDITIONAL COMMENTS

Invoice To: Bill Mann
19 Hayes Cres.
Whitehorse Yukon Y1A 0E1
Canada

CC:

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.

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Project: MAGA
Report Date: September 13, 2018

CERTIFICATE OF ANALYSIS WHI18000627.1

		Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Analyte	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
5272560	Soil		2.1	27.0	44.8	91	0.2	20.7	6.9	447	2.35	57.7	2.6	5.2	16	0.4	0.8	0.3	50	0.12	0.026	17
5272561	Soil		1.8	26.9	55.4	93	0.1	21.2	7.0	534	2.17	48.5	8.7	4.7	20	0.4	0.8	0.3	43	0.14	0.027	18
5272562	Soil		2.1	25.6	70.5	97	0.2	19.6	7.4	580	2.33	48.4	3.4	4.8	17	0.4	0.8	0.4	50	0.13	0.026	17
5272563	Soil		2.2	25.6	67.5	97	0.2	20.7	8.3	554	2.44	127.4	3.5	5.0	15	0.4	1.0	0.4	53	0.11	0.025	15
5272564	Soil		2.3	25.5	50.3	98	0.1	20.4	7.6	604	2.36	79.2	1.2	4.4	17	0.5	0.8	0.4	49	0.15	0.030	16
5272565	Soil		2.3	25.4	54.3	93	0.2	19.3	7.4	566	2.31	50.6	2.1	3.7	16	0.6	0.8	0.4	49	0.13	0.028	16
5272566	Soil		3.3	31.1	70.5	100	0.3	21.1	8.5	774	2.50	31.2	2.1	3.6	17	0.6	0.7	0.6	55	0.15	0.038	17
5272567	Soil		2.8	31.8	73.4	106	0.3	20.0	7.3	597	2.29	74.6	2.6	2.0	18	0.9	1.1	0.6	51	0.16	0.049	16
5272568	Soil		3.6	33.0	72.1	132	0.3	18.8	8.3	850	2.12	68.0	5.5	3.5	17	0.8	0.9	0.9	45	0.16	0.043	16
5272569	Soil		6.6	46.6	48.5	127	0.5	24.0	8.7	550	2.65	56.1	4.1	3.4	23	0.4	1.0	1.0	59	0.20	0.043	18
5272570	Soil		3.6	25.0	42.1	87	0.3	18.0	6.6	415	2.13	38.0	1.1	4.4	15	0.4	0.8	0.7	48	0.14	0.027	16
5272571	Soil		3.2	28.8	55.9	125	0.2	23.4	8.9	711	2.58	35.5	4.0	4.4	17	0.7	0.8	0.7	55	0.14	0.029	17
5272572	Soil		2.1	25.3	19.0	65	0.2	18.5	5.6	227	1.99	14.2	1.8	3.2	17	0.3	0.6	0.5	46	0.18	0.051	16
5272573	Soil		5.1	36.7	32.3	88	0.4	21.0	5.9	284	2.16	43.8	3.2	3.9	21	0.4	0.8	0.8	49	0.26	0.051	18
5272574	Soil		3.6	38.0	25.0	80	0.3	21.5	6.2	274	2.15	14.7	3.7	4.4	22	0.2	0.6	0.7	50	0.26	0.050	19
5272575	Soil		12.7	75.0	59.2	132	0.4	23.4	8.1	523	2.49	50.7	5.7	5.6	21	0.5	0.9	2.6	55	0.22	0.054	22
5272576	Soil		12.7	199.9	53.1	173	1.0	30.4	11.1	689	2.90	176.8	5.1	6.4	32	0.7	1.1	5.2	62	0.20	0.045	26
5272577	Soil		11.9	413.8	37.0	121	2.0	31.1	12.3	615	3.02	48.7	4.9	5.8	35	0.4	1.6	9.8	65	0.24	0.054	21
5272578	Soil		6.9	225.0	63.6	190	3.4	28.0	14.0	1312	3.24	46.8	2.9	4.2	15	1.6	1.0	3.9	62	0.12	0.039	16
5272579	Soil		4.8	78.1	32.9	102	0.8	14.2	7.6	914	2.57	20.1	1.0	1.4	11	0.6	0.6	1.9	58	0.09	0.038	10
5272580	Soil		2.9	48.7	23.5	66	0.6	18.7	6.6	367	2.87	102.3	4.3	2.5	12	0.2	1.1	2.0	63	0.12	0.040	15
5272581	Soil		6.8	105.7	35.0	118	1.6	25.1	8.2	936	2.81	88.7	5.8	6.9	25	0.6	1.5	4.8	55	0.26	0.055	21
5272582	Soil		2.1	43.3	22.0	76	0.2	24.8	9.5	771	2.41	23.5	3.1	5.6	22	0.4	0.7	1.6	55	0.21	0.045	21
5272583	Soil		1.9	30.2	18.3	74	0.4	22.5	9.1	826	2.38	17.3	4.0	4.0	19	0.4	0.6	1.8	53	0.24	0.066	17
5272584	Soil		4.1	22.8	21.9	61	<0.1	18.8	6.3	350	2.15	32.4	1.6	4.4	13	0.3	0.6	0.4	48	0.12	0.027	16
5272585	Soil		5.2	26.3	27.9	69	0.1	20.4	7.4	493	2.28	44.5	2.1	3.7	16	0.3	0.7	0.5	52	0.14	0.030	18
5272586	Soil		5.5	25.3	27.1	73	0.1	21.3	8.0	506	2.48	45.7	2.2	4.7	14	0.3	0.8	0.4	61	0.10	0.024	16
5272587	Soil		7.2	28.3	33.1	87	0.2	22.4	8.5	615	2.62	73.5	2.6	5.5	18	0.3	0.9	0.5	59	0.13	0.025	18
5272588	Soil		8.3	28.8	38.4	84	0.2	21.5	7.9	519	2.60	91.7	2.7	5.0	13	0.3	1.0	0.4	57	0.10	0.030	17
5272589	Soil		8.1	31.1	34.6	90	0.1	23.6	8.8	607	2.74	93.9	4.5	5.1	18	0.2	1.0	0.4	58	0.14	0.028	18

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Project: MAGA
Report Date: September 13, 2018

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		Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Analyte	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
5272560	Soil		32	0.39	206	0.046	<1	1.45	0.008	0.06	0.2	0.02	3.7	0.1	<0.05	4	<0.5	<0.2
5272561	Soil		28	0.34	259	0.045	<1	1.20	0.008	0.06	0.2	0.02	3.7	0.1	<0.05	4	<0.5	<0.2
5272562	Soil		30	0.38	200	0.046	<1	1.38	0.009	0.06	0.2	0.03	3.7	0.2	<0.05	4	<0.5	<0.2
5272563	Soil		32	0.39	188	0.047	<1	1.54	0.008	0.06	0.2	0.02	3.6	0.2	<0.05	5	<0.5	<0.2
5272564	Soil		29	0.35	181	0.049	<1	1.21	0.008	0.07	0.2	0.02	3.0	0.1	<0.05	4	<0.5	<0.2
5272565	Soil		28	0.34	170	0.047	<1	1.23	0.008	0.05	0.2	0.02	3.1	0.1	<0.05	4	<0.5	<0.2
5272566	Soil		32	0.36	214	0.047	1	1.42	0.008	0.07	0.3	0.02	3.4	0.1	<0.05	4	<0.5	<0.2
5272567	Soil		29	0.35	186	0.043	<1	1.26	0.009	0.06	0.2	0.02	2.7	0.1	<0.05	4	<0.5	<0.2
5272568	Soil		26	0.32	165	0.040	<1	1.12	0.008	0.07	0.6	0.02	2.5	0.1	<0.05	3	<0.5	<0.2
5272569	Soil		34	0.40	256	0.041	<1	1.69	0.011	0.07	1.1	0.04	3.8	0.2	<0.05	5	0.5	<0.2
5272570	Soil		29	0.37	159	0.042	<1	1.24	0.008	0.06	0.4	0.03	3.4	0.2	<0.05	4	<0.5	<0.2
5272571	Soil		33	0.41	189	0.047	<1	1.57	0.008	0.06	0.3	0.02	3.7	0.1	<0.05	4	<0.5	<0.2
5272572	Soil		28	0.36	177	0.045	<1	1.28	0.007	0.04	0.3	0.03	3.1	0.1	<0.05	4	<0.5	<0.2
5272573	Soil		30	0.40	222	0.048	<1	1.30	0.009	0.05	0.3	0.03	3.9	0.2	<0.05	4	<0.5	<0.2
5272574	Soil		31	0.44	248	0.056	<1	1.38	0.010	0.05	0.2	0.02	4.1	0.1	<0.05	4	<0.5	<0.2
5272575	Soil		33	0.40	234	0.059	<1	1.31	0.009	0.06	0.5	0.03	4.3	0.1	<0.05	4	<0.5	<0.2
5272576	Soil		38	0.45	263	0.043	1	2.09	0.011	0.07	0.8	0.04	4.4	0.2	<0.05	6	<0.5	0.4
5272577	Soil		38	0.54	196	0.067	<1	1.79	0.012	0.09	2.0	0.04	5.4	0.2	<0.05	6	0.5	0.2
5272578	Soil		37	0.49	206	0.048	1	2.12	0.009	0.08	0.3	0.09	4.3	0.2	<0.05	5	<0.5	<0.2
5272579	Soil		24	0.22	123	0.040	<1	1.45	0.009	0.05	0.2	0.06	1.8	0.2	<0.05	5	<0.5	<0.2
5272580	Soil		31	0.31	118	0.041	1	1.99	0.008	0.04	0.3	0.07	2.8	0.2	<0.05	5	<0.5	<0.2
5272581	Soil		31	0.35	143	0.058	<1	1.29	0.011	0.06	0.6	0.03	3.5	0.2	<0.05	4	<0.5	<0.2
5272582	Soil		34	0.40	200	0.055	1	1.42	0.009	0.06	0.4	0.04	3.8	0.1	<0.05	4	<0.5	<0.2
5272583	Soil		29	0.37	157	0.054	<1	1.17	0.009	0.06	0.6	0.03	2.7	0.1	<0.05	4	<0.5	<0.2
5272584	Soil		29	0.34	185	0.046	<1	1.22	0.008	0.05	0.2	0.02	3.4	0.1	<0.05	4	<0.5	<0.2
5272585	Soil		31	0.36	220	0.047	<1	1.39	0.008	0.05	0.2	0.03	3.5	0.2	<0.05	4	<0.5	<0.2
5272586	Soil		34	0.41	187	0.054	<1	1.69	0.008	0.06	0.2	0.02	3.9	0.2	<0.05	5	<0.5	<0.2
5272587	Soil		34	0.41	214	0.058	<1	1.58	0.009	0.06	0.2	0.02	4.2	0.2	<0.05	5	<0.5	<0.2
5272588	Soil		31	0.37	186	0.051	<1	1.56	0.009	0.06	0.2	0.02	3.8	0.2	<0.05	5	<0.5	<0.2
5272589	Soil		31	0.40	221	0.048	<1	1.54	0.008	0.06	0.3	0.02	4.8	0.2	<0.05	5	<0.5	<0.2

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		Analyte	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
5272590	Soil		9.4	26.9	29.8	95	0.1	23.3	8.9	650	2.76	78.4	5.3	4.7	13	0.3	0.8	0.4	58	0.10	0.032	16
5272591	Soil		11.3	28.3	40.5	97	0.2	20.3	8.0	876	2.68	84.2	1.9	2.7	13	0.4	0.9	0.5	56	0.10	0.035	16
5272592	Soil		9.3	26.3	21.3	89	0.1	22.0	7.7	525	2.32	50.1	2.1	4.2	17	0.3	0.7	0.3	49	0.15	0.027	16
5272593	Soil		23.9	49.6	59.1	159	0.3	31.5	12.8	1575	2.84	123.5	2.6	3.8	14	0.8	1.3	0.5	51	0.10	0.027	18
5272594	Soil		24.8	22.0	159.9	105	0.3	16.0	7.5	729	2.47	104.4	1.1	6.1	12	0.5	1.0	0.5	58	0.07	0.022	17
5272595	Soil		9.8	17.7	22.4	61	0.2	18.7	8.0	350	2.65	18.7	3.2	6.1	14	0.5	0.5	0.3	62	0.12	0.031	17
5272596	Soil		17.2	49.1	108.5	139	0.4	23.9	8.6	499	2.58	39.7	3.5	5.8	27	0.6	1.2	0.6	50	0.17	0.036	19
5272597	Soil		14.8	29.7	183.7	119	0.9	15.2	8.2	1846	2.63	44.6	2.0	2.9	16	2.4	1.0	1.0	58	0.10	0.031	18
5272598	Soil		12.7	53.3	137.9	179	0.4	27.5	9.5	900	2.65	26.8	2.5	7.3	21	1.0	1.3	0.9	42	0.14	0.029	23
5272599	Soil		34.2	39.3	117.9	282	1.1	24.0	11.7	1209	3.59	33.6	3.8	6.2	19	2.0	0.8	0.9	60	0.10	0.043	16
5272600	Soil		90.3	63.7	165.7	328	1.5	22.3	7.1	906	2.74	63.9	4.4	7.4	24	1.7	1.0	1.4	50	0.15	0.041	21
5272601	Soil		17.6	14.4	51.9	75	0.5	8.6	3.7	397	1.73	30.4	3.1	2.9	10	0.3	0.4	0.5	48	0.07	0.028	13
5272602	Soil		27.4	41.3	66.5	191	0.7	22.8	6.3	635	2.64	31.2	3.8	6.6	25	1.1	0.8	1.0	54	0.19	0.047	22
5272603	Soil		11.8	28.8	58.4	149	0.4	22.7	6.8	496	1.93	19.5	3.5	6.8	23	1.0	0.5	0.8	45	0.21	0.039	22
5272604	Soil		15.5	32.3	64.7	155	0.6	18.9	9.7	1078	2.13	17.6	3.9	4.0	22	1.2	0.6	0.9	48	0.15	0.050	20
5272605	Soil		7.7	23.1	55.6	139	0.6	17.1	6.8	404	1.59	13.1	4.2	5.8	21	0.7	0.6	0.7	41	0.17	0.038	18
5272606	Soil		11.8	31.4	77.6	171	0.7	21.0	11.2	784	2.26	36.9	3.6	7.0	21	0.9	0.9	0.7	50	0.21	0.044	21
5272607	Soil		9.0	17.8	50.3	96	0.8	15.6	7.6	353	1.92	17.8	2.6	2.9	17	0.4	0.7	0.7	42	0.16	0.050	16
5272608	Soil		2.8	18.2	26.9	77	0.5	15.6	6.3	233	1.62	7.0	2.7	2.6	17	0.3	0.4	0.6	39	0.18	0.048	16
5272609	Soil		2.1	19.6	18.0	67	0.3	15.0	6.3	268	1.70	10.5	3.3	2.4	16	0.3	0.4	0.3	40	0.17	0.045	17
5272610	Soil		2.1	20.9	17.5	59	0.4	13.3	5.1	166	1.61	12.7	5.6	1.5	15	0.3	0.5	0.6	37	0.15	0.047	15
5272611	Soil		2.9	33.3	16.3	66	0.4	15.4	6.5	221	1.86	15.4	2.2	2.8	16	0.2	0.5	0.6	42	0.17	0.046	17
5272612	Soil		3.2	37.9	15.8	68	0.3	14.0	7.8	349	1.94	18.7	6.5	8.0	14	0.2	0.5	0.7	37	0.15	0.042	19
5272613	Soil		2.5	28.4	16.6	62	0.6	15.7	8.0	358	2.12	26.3	10.2	5.9	16	0.2	0.6	0.6	44	0.16	0.047	19
5272614	Soil		2.0	24.8	15.6	61	0.4	15.9	6.4	207	2.07	11.1	6.3	3.5	18	0.1	0.4	0.6	45	0.19	0.047	18
5272615	Soil		2.8	19.3	17.4	64	<0.1	19.8	6.8	457	2.41	23.1	1.1	5.9	17	0.1	0.8	0.2	51	0.14	0.022	17
5272616	Soil		2.9	23.0	15.7	62	<0.1	23.8	8.0	349	2.53	75.5	2.5	5.5	20	0.1	0.8	0.2	61	0.16	0.021	17
5272617	Soil		3.6	33.3	15.4	65	<0.1	25.2	7.4	454	2.61	20.6	3.1	7.0	24	0.1	0.8	0.2	52	0.19	0.026	17
5272618	Soil		3.5	42.5	23.3	86	0.2	27.8	8.2	684	2.67	15.9	2.9	6.1	29	0.2	0.9	0.3	62	0.27	0.049	17
5272619	Soil		1.6	21.3	14.4	54	<0.1	3.1	3.9	1301	2.83	2.1	<0.5	38.4	30	0.2	0.2	0.4	29	0.28	0.059	39

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		Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Analyte	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
5272590	Soil		34	0.40	167	0.051	<1	1.63	0.008	0.07	0.2	0.03	3.9	0.2	<0.05	5	<0.5	<0.2
5272591	Soil		28	0.31	156	0.039	<1	1.37	0.008	0.05	0.3	0.02	2.7	0.2	<0.05	5	<0.5	<0.2
5272592	Soil		28	0.43	176	0.044	<1	1.37	0.008	0.06	0.2	0.02	3.5	0.1	<0.05	4	<0.5	<0.2
5272593	Soil		30	0.33	152	0.042	<1	1.43	0.007	0.06	0.3	0.03	3.4	0.3	<0.05	4	<0.5	<0.2
5272594	Soil		26	0.23	141	0.034	<1	1.64	0.007	0.07	0.2	0.03	2.7	0.2	<0.05	6	<0.5	<0.2
5272595	Soil		36	0.38	161	0.058	1	1.76	0.009	0.06	0.2	0.04	4.4	0.2	<0.05	5	<0.5	<0.2
5272596	Soil		30	0.45	181	0.053	2	1.65	0.009	0.09	0.3	0.02	3.8	0.2	<0.05	4	<0.5	<0.2
5272597	Soil		20	0.17	205	0.029	2	1.16	0.008	0.09	0.3	0.05	2.1	0.3	<0.05	6	<0.5	<0.2
5272598	Soil		27	0.42	214	0.042	2	1.59	0.008	0.10	0.2	0.05	4.0	0.2	<0.05	4	<0.5	<0.2
5272599	Soil		36	0.35	149	0.036	3	2.46	0.008	0.13	0.3	0.07	3.4	0.3	<0.05	5	<0.5	<0.2
5272600	Soil		32	0.37	130	0.042	2	1.67	0.008	0.13	0.3	0.07	4.1	0.3	<0.05	5	<0.5	<0.2
5272601	Soil		15	0.15	76	0.035	1	1.09	0.012	0.07	0.3	0.02	1.5	0.2	<0.05	6	<0.5	<0.2
5272602	Soil		32	0.42	190	0.056	2	1.57	0.009	0.10	0.4	0.04	4.4	0.2	<0.05	5	<0.5	<0.2
5272603	Soil		29	0.39	205	0.059	1	1.46	0.011	0.09	0.5	0.04	4.3	0.2	<0.05	4	<0.5	<0.2
5272604	Soil		27	0.32	179	0.043	2	1.46	0.009	0.09	0.3	0.04	3.2	0.3	<0.05	5	<0.5	<0.2
5272605	Soil		26	0.33	174	0.046	2	1.31	0.009	0.06	0.3	0.03	3.3	0.2	<0.05	4	<0.5	<0.2
5272606	Soil		30	0.40	246	0.049	1	1.53	0.010	0.07	0.3	0.04	4.5	0.2	<0.05	4	<0.5	<0.2
5272607	Soil		25	0.33	168	0.031	2	1.42	0.010	0.06	0.3	0.05	3.0	0.2	<0.05	4	<0.5	<0.2
5272608	Soil		24	0.33	173	0.041	2	1.28	0.010	0.06	0.3	0.04	2.7	0.2	<0.05	4	<0.5	<0.2
5272609	Soil		23	0.34	170	0.044	1	1.35	0.010	0.06	0.2	0.02	2.6	0.1	<0.05	4	<0.5	<0.2
5272610	Soil		21	0.30	156	0.034	1	1.22	0.009	0.05	0.2	0.04	2.2	0.1	<0.05	4	<0.5	<0.2
5272611	Soil		24	0.33	185	0.041	1	1.38	0.008	0.06	0.2	0.04	2.7	0.2	<0.05	4	<0.5	<0.2
5272612	Soil		20	0.32	186	0.051	<1	1.23	0.008	0.07	0.2	0.03	3.2	0.2	<0.05	4	<0.5	<0.2
5272613	Soil		22	0.31	179	0.043	1	1.22	0.008	0.06	0.3	0.03	3.0	0.2	<0.05	4	<0.5	<0.2
5272614	Soil		23	0.32	212	0.043	1	1.52	0.008	0.06	0.2	0.04	3.4	0.2	<0.05	5	<0.5	<0.2
5272615	Soil		30	0.39	170	0.055	<1	1.43	0.008	0.06	0.3	0.02	3.7	0.1	<0.05	4	<0.5	<0.2
5272616	Soil		33	0.45	213	0.056	1	1.83	0.009	0.07	0.2	0.02	4.3	0.2	<0.05	5	<0.5	<0.2
5272617	Soil		32	0.40	255	0.054	1	1.68	0.008	0.07	0.2	0.02	5.5	0.1	<0.05	5	<0.5	<0.2
5272618	Soil		31	0.49	254	0.061	1	1.55	0.010	0.09	0.2	0.02	5.8	0.1	<0.05	5	<0.5	<0.2
5272619	Soil		6	0.45	541	0.094	<1	1.76	0.008	0.43	0.1	<0.01	5.7	0.5	<0.05	8	<0.5	<0.2

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	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	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
5272620	Soil	0.7	24.2	139.2	168	<0.1	5.4	5.5	964	2.92	1.7	0.7	27.2	16	0.5	0.1	0.2	28	0.25	0.086	29
5272621	Soil	1.4	18.2	39.8	115	<0.1	16.9	9.6	621	3.29	9.7	3.3	16.3	41	0.4	0.5	0.3	56	0.26	0.047	21
5272622	Soil	1.8	21.9	18.6	62	<0.1	8.6	4.2	618	2.44	5.7	1.4	18.5	34	0.6	0.3	0.3	34	0.23	0.044	28
5272623	Soil	2.7	22.8	163.1	424	<0.1	6.4	5.5	872	2.83	6.7	2.2	24.8	14	0.4	0.3	0.4	30	0.16	0.061	34
5272624	Soil	4.4	11.7	128.6	213	0.1	10.5	5.6	546	2.79	10.2	0.9	17.9	25	0.3	0.4	0.4	43	0.19	0.036	23
5272625	Soil	3.7	25.2	175.2	220	0.2	17.9	6.9	513	2.85	12.0	3.3	12.2	21	0.9	0.6	0.6	50	0.22	0.065	20
5272626	Soil	3.4	26.9	51.4	292	0.1	1.9	2.5	828	2.25	18.7	<0.5	39.0	34	1.9	0.2	0.5	18	0.31	0.048	41
5272627	Soil	4.5	50.6	67.9	328	<0.1	7.6	6.2	1101	3.41	29.7	1.0	27.0	14	0.9	0.3	0.8	32	0.15	0.055	48
5272628	Soil	2.0	85.6	7.5	134	0.2	2.8	4.9	999	3.29	20.3	0.7	34.3	18	0.8	<0.1	1.0	41	0.27	0.057	51
5272629	Soil	3.2	139.7	29.1	228	0.3	3.9	4.9	1134	3.28	12.8	1.1	30.1	17	0.6	<0.1	0.9	37	0.14	0.028	44
5272630	Soil	2.7	57.7	71.1	113	0.5	30.7	6.2	292	2.57	21.8	3.8	10.1	26	0.3	1.4	0.7	32	0.19	0.062	29
5272631	Soil	1.5	37.2	15.8	92	0.2	28.2	8.9	304	2.50	14.1	3.1	7.4	19	0.2	0.6	0.2	29	0.18	0.080	41
5272632	Soil	1.1	20.5	16.4	78	0.1	20.6	6.5	146	2.22	7.8	3.2	3.0	18	0.2	0.5	0.2	45	0.20	0.054	15
5272633	Soil	2.7	17.4	92.7	103	0.1	57.7	30.2	895	2.12	56.1	0.6	30.7	9	<0.1	0.7	0.4	15	0.10	0.036	42
5272634	Soil	1.4	25.3	19.2	84	0.2	24.2	6.7	226	2.64	11.7	4.7	2.1	19	0.2	0.6	0.2	48	0.16	0.075	16
5272635	Soil	4.0	40.4	35.0	110	0.3	39.8	11.7	954	2.90	34.0	4.2	14.3	21	0.3	0.9	0.3	10	0.05	0.067	44
5272636	Soil	11.0	53.2	29.3	44	0.2	9.0	4.7	193	1.70	28.3	2.7	11.3	10	0.3	1.5	0.7	19	0.04	0.035	18
5272637	Soil	3.3	49.4	15.6	66	0.1	30.4	10.0	480	2.57	15.3	4.4	6.5	26	0.1	1.0	0.3	50	0.24	0.049	18
5272638	Soil	1.7	38.6	13.8	69	<0.1	30.6	10.7	379	2.65	9.5	5.4	8.8	20	0.1	0.7	0.2	41	0.16	0.038	31
5272639	Soil	1.4	38.0	14.6	72	0.1	29.0	8.7	273	2.53	9.1	3.1	7.6	21	<0.1	0.6	0.2	38	0.19	0.045	25
5272640	Soil	1.4	34.5	21.1	74	0.1	25.1	7.8	224	2.52	8.2	3.4	9.6	17	<0.1	0.4	0.2	42	0.13	0.037	34
5272641	Soil	1.2	32.9	23.7	75	0.1	22.9	9.8	340	2.19	7.6	4.8	7.6	13	0.5	0.6	0.2	37	0.11	0.049	29
5272642	Soil	0.9	27.6	16.5	74	0.2	19.5	7.7	224	1.99	5.1	2.7	7.0	15	0.2	0.4	0.2	30	0.11	0.046	32
5272643	Soil	2.0	54.4	22.4	167	0.4	52.6	16.6	360	3.18	8.2	3.3	13.7	22	0.2	0.6	0.3	30	0.20	0.097	49
5272644	Soil	1.1	27.3	15.1	74	0.1	22.4	7.2	169	2.60	6.7	1.7	7.5	15	0.2	0.4	0.2	35	0.13	0.044	40
5272645	Soil	1.1	33.0	18.8	100	0.4	27.4	16.4	614	3.28	9.2	6.4	8.2	13	0.2	0.6	0.3	45	0.13	0.063	32
5272646	Soil	1.4	25.7	27.4	44	0.1	17.6	7.3	91	1.32	4.2	3.9	6.6	8	<0.1	0.5	0.1	12	0.04	0.039	23
5272647	Soil	0.7	39.4	24.7	115	0.2	36.4	8.7	261	3.14	5.9	1.5	15.5	23	0.2	0.3	0.3	29	0.24	0.100	51
5272648	Soil	1.1	34.7	14.6	68	0.3	28.5	9.8	226	2.76	9.4	2.6	6.6	19	<0.1	0.7	0.2	48	0.17	0.047	30
5272649	Soil	1.3	41.6	15.3	79	0.1	31.2	10.6	330	2.71	9.3	3.1	7.4	21	0.2	0.7	0.2	49	0.19	0.054	26

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	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	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
5272620	Soil	4	0.46	362	0.123	<1	1.93	0.009	0.52	0.9	<0.01	4.8	0.5	<0.05	9	<0.5	<0.2
5272621	Soil	27	0.55	377	0.091	1	2.24	0.010	0.18	0.2	0.03	5.8	0.3	<0.05	7	<0.5	<0.2
5272622	Soil	13	0.36	336	0.069	<1	1.50	0.009	0.19	0.2	0.02	4.6	0.4	<0.05	5	<0.5	<0.2
5272623	Soil	9	0.31	211	0.078	<1	1.73	0.008	0.29	0.6	0.01	5.0	0.8	<0.05	7	<0.5	<0.2
5272624	Soil	19	0.36	194	0.056	<1	1.57	0.008	0.12	0.3	0.02	3.6	0.2	<0.05	6	<0.5	<0.2
5272625	Soil	27	0.42	182	0.063	<1	1.61	0.010	0.09	0.3	0.04	4.1	0.2	<0.05	5	<0.5	<0.2
5272626	Soil	3	0.29	348	0.052	<1	1.43	0.014	0.32	0.2	<0.01	4.8	0.6	<0.05	6	<0.5	<0.2
5272627	Soil	6	0.32	392	0.066	<1	1.61	0.007	0.29	0.3	0.02	5.3	0.8	<0.05	7	<0.5	<0.2
5272628	Soil	5	0.51	549	0.155	<1	1.97	0.010	0.74	1.7	<0.01	7.1	0.7	<0.05	9	<0.5	<0.2
5272629	Soil	4	0.50	619	0.157	<1	2.08	0.009	0.74	2.4	<0.01	6.7	0.9	<0.05	8	<0.5	<0.2
5272630	Soil	37	0.67	196	0.014	<1	1.33	0.006	0.10	0.2	0.11	3.1	0.2	<0.05	3	0.7	<0.2
5272631	Soil	18	0.23	185	0.012	1	1.05	0.007	0.12	0.1	0.03	2.2	<0.1	<0.05	3	<0.5	<0.2
5272632	Soil	25	0.31	210	0.036	2	1.32	0.008	0.05	0.2	0.05	2.7	0.1	<0.05	4	<0.5	<0.2
5272633	Soil	61	0.54	344	0.005	1	0.78	0.002	0.09	0.1	0.02	4.4	0.1	<0.05	2	<0.5	<0.2
5272634	Soil	24	0.24	211	0.018	<1	1.39	0.007	0.05	0.1	0.05	2.6	0.1	0.05	4	<0.5	<0.2
5272635	Soil	5	0.03	151	<0.001	<1	0.25	0.003	0.16	<0.1	0.03	1.4	<0.1	<0.05	<1	0.7	<0.2
5272636	Soil	9	0.11	123	0.018	1	0.52	0.003	0.04	0.2	0.01	2.5	0.4	<0.05	2	<0.5	<0.2
5272637	Soil	30	0.39	248	0.044	2	1.42	0.008	0.08	0.2	0.04	5.1	0.2	<0.05	4	0.7	<0.2
5272638	Soil	24	0.36	283	0.026	1	1.41	0.006	0.07	0.1	0.03	4.0	0.1	<0.05	4	<0.5	<0.2
5272639	Soil	24	0.38	273	0.025	1	1.42	0.006	0.07	0.1	0.03	4.1	<0.1	<0.05	4	<0.5	<0.2
5272640	Soil	26	0.37	215	0.024	1	1.56	0.006	0.08	<0.1	0.05	4.0	0.1	<0.05	4	<0.5	<0.2
5272641	Soil	24	0.31	128	0.023	2	1.32	0.006	0.09	0.1	0.05	2.8	0.1	<0.05	3	<0.5	<0.2
5272642	Soil	19	0.25	152	0.019	1	1.02	0.005	0.08	<0.1	0.03	2.3	<0.1	<0.05	3	0.5	<0.2
5272643	Soil	23	0.40	143	0.009	2	1.51	0.005	0.12	<0.1	0.04	2.7	0.1	<0.05	4	0.7	<0.2
5272644	Soil	24	0.37	133	0.018	<1	1.43	0.005	0.08	<0.1	0.02	2.0	<0.1	<0.05	4	<0.5	<0.2
5272645	Soil	29	0.41	160	0.020	1	1.86	0.007	0.10	<0.1	0.07	3.5	0.1	<0.05	5	0.6	<0.2
5272646	Soil	7	0.08	105	0.004	<1	0.50	0.003	0.07	<0.1	0.01	1.3	<0.1	<0.05	1	0.9	<0.2
5272647	Soil	23	0.42	178	0.013	1	1.45	0.005	0.10	<0.1	0.03	2.3	<0.1	<0.05	4	<0.5	<0.2
5272648	Soil	27	0.36	249	0.026	<1	1.60	0.006	0.09	<0.1	0.05	3.8	0.1	<0.05	4	<0.5	<0.2
5272649	Soil	26	0.36	273	0.034	1	1.50	0.007	0.10	0.1	0.04	4.7	0.1	<0.05	4	<0.5	<0.2

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	Analyte	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
5272650	Soil	1.1	36.6	20.1	54	0.3	22.0	7.5	271	2.24	7.5	2.3	9.7	22	0.3	0.6	0.3	35	0.11	0.049	35
5272651	Soil	1.1	31.0	22.1	74	0.2	24.0	6.6	167	2.35	8.0	4.0	4.0	19	0.3	0.5	0.2	41	0.13	0.039	29
5272652	Soil	1.3	44.7	19.7	96	0.2	34.3	10.3	334	2.74	10.6	3.8	6.6	26	0.2	0.7	0.2	55	0.24	0.048	24
5272653	Soil	1.7	51.4	24.4	112	0.4	39.2	11.6	434	3.17	12.3	3.2	7.1	28	0.3	1.0	0.2	59	0.20	0.054	23
5272654	Soil	0.9	27.6	17.6	79	0.2	20.8	6.7	225	2.03	9.6	2.8	6.8	18	0.4	0.5	0.2	32	0.11	0.043	32
5272655	Soil	1.1	24.7	18.1	76	0.2	23.6	9.8	397	2.43	13.9	3.2	5.7	17	0.2	0.6	0.2	46	0.15	0.045	21
5272656	Soil	1.6	29.9	19.4	62	0.2	19.2	5.2	164	1.95	12.9	3.2	2.1	13	0.3	0.7	0.1	32	0.08	0.055	17
5272657	Soil	1.5	40.5	13.7	69	0.3	29.7	8.3	258	2.55	14.5	3.9	4.7	18	0.6	0.8	0.2	47	0.15	0.058	17
5272658	Soil	1.8	35.1	12.3	58	0.1	23.9	7.5	209	2.18	9.5	4.6	3.2	21	0.3	0.9	0.2	44	0.12	0.043	14
5272659	Soil	2.1	57.2	13.5	106	0.1	32.2	10.1	433	2.60	9.7	2.8	4.8	33	0.3	0.6	0.2	38	0.08	0.071	17
5272660	Soil	1.2	27.2	23.6	112	0.2	29.7	12.4	451	2.40	11.0	2.7	5.1	15	0.3	0.6	0.2	46	0.11	0.038	17
5272661	Soil	1.6	31.8	20.6	95	0.2	32.7	10.2	353	2.44	11.8	3.5	7.6	21	0.4	0.7	0.1	34	0.13	0.059	24
5272662	Soil	1.3	32.3	25.0	105	0.2	28.6	10.1	318	2.78	9.7	3.2	6.7	15	0.4	0.7	0.2	47	0.11	0.042	21
5272663	Soil	1.0	25.8	26.1	72	0.1	24.8	9.6	295	2.40	9.6	3.1	5.9	16	0.2	0.5	0.1	42	0.15	0.045	22
5272664	Soil	1.3	33.6	19.2	85	0.1	27.3	11.0	329	2.85	10.1	1.9	5.8	21	0.2	0.6	0.2	51	0.18	0.049	25
5272665	Soil	1.0	31.7	15.2	87	0.3	27.8	9.7	277	2.66	12.7	2.3	6.5	20	0.2	0.5	0.2	48	0.19	0.051	26
5272666	Soil	1.1	28.7	17.3	104	0.1	27.5	9.3	218	2.68	8.5	1.3	5.1	14	0.3	0.5	0.2	40	0.14	0.064	31
5272667	Soil	1.1	22.6	15.0	84	0.1	22.2	8.1	237	2.42	7.6	2.1	3.0	16	0.2	0.5	0.2	47	0.16	0.049	21
5272668	Soil	6.0	45.4	10.8	77	0.3	40.6	11.5	240	2.73	14.2	3.7	5.8	64	0.3	0.8	0.3	90	0.48	0.058	18
5272669	Soil	4.5	43.6	9.0	61	0.2	38.3	9.8	166	2.54	10.5	2.9	4.3	62	0.4	0.6	0.2	87	0.42	0.052	17
5272670	Soil	6.0	58.0	10.6	56	0.2	37.4	9.5	157	3.06	12.0	3.4	3.8	46	0.3	0.5	0.3	89	0.34	0.062	18
5272671	Soil	3.5	60.8	7.2	55	0.1	39.3	7.1	185	2.54	9.9	2.5	6.1	74	0.1	0.5	0.3	81	0.42	0.053	19
5272672	Soil	3.7	46.1	8.3	62	0.1	37.0	8.0	210	2.74	12.3	4.7	6.0	73	0.2	0.5	0.5	91	0.41	0.048	20
5272673	Soil	9.5	105.9	7.8	79	0.1	74.9	9.6	232	3.45	15.9	5.5	7.3	70	1.0	0.6	1.0	246	0.49	0.089	19
5272674	Soil	1.8	175.0	24.0	195	0.2	84.3	17.3	380	3.29	11.0	2.1	11.8	22	3.6	0.9	1.6	102	0.30	0.036	40
5272675	Soil	1.3	39.7	111.9	140	0.1	20.0	8.3	435	2.41	20.0	1.4	2.6	15	0.5	0.6	0.9	68	0.14	0.046	15
5272676	Soil	1.0	39.0	114.5	164	0.2	24.7	7.3	352	2.28	14.5	4.0	5.5	25	0.5	0.6	0.3	57	0.26	0.048	21
5272677	Soil	0.3	56.7	44.6	451	0.8	30.7	5.8	516	1.92	15.2	1.5	8.8	56	4.0	0.6	0.4	93	1.16	0.094	19
5272678	Soil	1.6	63.6	57.8	594	1.0	59.7	22.8	1300	3.57	41.2	<0.5	9.5	65	7.8	0.6	0.3	92	0.85	0.117	19
5272679	Soil	0.8	98.6	163.5	711	0.7	23.4	6.7	1283	3.08	28.5	0.5	7.4	25	5.4	1.1	0.4	41	0.35	0.078	31

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	Analyte	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
5272650	Soil	19	0.21	226	0.014	1	1.14	0.006	0.11	<0.1	0.05	3.7	0.1	<0.05	3	<0.5	<0.2
5272651	Soil	22	0.26	241	0.021	2	1.28	0.007	0.08	<0.1	0.04	2.9	<0.1	<0.05	3	<0.5	<0.2
5272652	Soil	30	0.41	371	0.035	1	1.61	0.008	0.09	0.1	0.05	5.5	0.1	<0.05	4	0.5	<0.2
5272653	Soil	31	0.38	383	0.035	1	1.79	0.008	0.10	0.1	0.09	6.3	0.1	<0.05	5	0.7	<0.2
5272654	Soil	19	0.23	193	0.020	<1	0.93	0.006	0.08	<0.1	0.03	2.5	<0.1	<0.05	2	<0.5	<0.2
5272655	Soil	27	0.37	265	0.035	1	1.34	0.007	0.07	0.1	0.04	4.1	0.1	<0.05	4	<0.5	<0.2
5272656	Soil	21	0.16	165	0.011	1	0.86	0.003	0.06	<0.1	0.04	1.9	0.1	<0.05	2	<0.5	<0.2
5272657	Soil	29	0.30	231	0.028	1	1.34	0.006	0.06	<0.1	0.05	3.5	<0.1	<0.05	3	<0.5	<0.2
5272658	Soil	27	0.28	207	0.021	1	1.22	0.005	0.06	0.1	0.05	3.1	0.1	<0.05	3	0.7	<0.2
5272659	Soil	25	0.20	187	0.010	1	1.19	0.004	0.07	<0.1	0.03	2.3	0.2	0.06	3	0.8	<0.2
5272660	Soil	26	0.32	181	0.025	2	1.33	0.006	0.07	0.1	0.05	3.2	0.1	<0.05	3	<0.5	<0.2
5272661	Soil	18	0.22	196	0.020	<1	0.95	0.005	0.09	<0.1	0.03	3.7	<0.1	<0.05	2	0.8	<0.2
5272662	Soil	27	0.34	176	0.026	1	1.60	0.007	0.09	0.1	0.04	2.9	0.1	<0.05	4	<0.5	<0.2
5272663	Soil	24	0.36	193	0.028	1	1.43	0.006	0.07	0.1	0.03	3.2	<0.1	<0.05	4	<0.5	<0.2
5272664	Soil	29	0.42	272	0.029	<1	1.70	0.007	0.08	0.1	0.04	4.3	0.1	<0.05	4	<0.5	<0.2
5272665	Soil	28	0.43	268	0.036	1	1.49	0.007	0.08	0.1	0.04	4.7	0.1	<0.05	4	<0.5	<0.2
5272666	Soil	25	0.33	141	0.019	<1	1.46	0.006	0.10	<0.1	0.04	2.4	0.1	<0.05	4	<0.5	<0.2
5272667	Soil	25	0.32	192	0.026	<1	1.43	0.007	0.07	0.1	0.04	3.1	<0.1	<0.05	4	<0.5	<0.2
5272668	Soil	50	0.64	241	0.091	1	2.94	0.025	0.12	0.2	0.02	6.1	0.4	<0.05	9	2.4	<0.2
5272669	Soil	46	0.53	203	0.082	2	2.61	0.024	0.07	0.2	0.02	5.5	0.3	<0.05	8	1.8	<0.2
5272670	Soil	46	0.54	247	0.076	<1	2.99	0.018	0.08	0.3	0.03	5.2	0.4	<0.05	9	2.8	<0.2
5272671	Soil	48	0.68	206	0.100	<1	2.58	0.021	0.11	0.2	0.03	5.7	0.3	<0.05	7	1.3	<0.2
5272672	Soil	46	0.65	224	0.089	<1	2.59	0.024	0.16	0.2	0.01	5.1	0.5	<0.05	7	1.3	<0.2
5272673	Soil	95	0.72	269	0.118	1	3.16	0.020	0.21	0.3	0.01	7.1	0.6	<0.05	9	3.2	0.3
5272674	Soil	83	0.49	417	0.021	<1	2.00	0.004	0.12	<0.1	0.01	7.1	1.1	<0.05	8	<0.5	0.4
5272675	Soil	35	0.39	149	0.052	1	1.49	0.008	0.07	0.1	0.03	2.6	0.2	<0.05	5	<0.5	<0.2
5272676	Soil	38	0.50	376	0.064	<1	1.43	0.009	0.06	<0.1	0.03	4.1	0.2	<0.05	4	<0.5	<0.2
5272677	Soil	57	0.87	1191	0.077	<1	3.28	0.052	0.14	0.1	<0.01	6.3	0.3	<0.05	9	<0.5	<0.2
5272678	Soil	125	2.55	942	0.124	<1	3.61	0.006	0.15	0.2	<0.01	9.0	0.9	<0.05	11	<0.5	<0.2
5272679	Soil	24	1.28	583	0.053	<1	2.42	0.006	0.05	<0.1	0.01	7.3	0.2	<0.05	7	<0.5	<0.2

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Project: MAGA
Report Date: September 13, 2018

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	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	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
5272680	Soil	1.0	74.5	64.4	276	0.4	63.0	13.8	847	2.97	76.6	3.2	7.6	34	4.6	0.9	0.4	59	0.30	0.049	25
5272681	Soil	0.7	30.0	40.2	173	0.4	27.6	8.4	347	2.31	21.4	1.3	7.7	46	1.1	0.6	0.2	48	0.39	0.064	24
5272682	Soil	1.8	171.7	501.8	314	1.9	30.5	16.4	877	2.50	140.5	4.4	6.2	18	1.7	1.4	0.4	40	0.19	0.085	37
5272683	Soil	1.3	31.3	27.9	101	0.5	20.2	9.7	444	2.36	33.5	2.3	3.2	15	0.8	0.7	0.3	39	0.14	0.055	30
5272684	Soil	0.9	25.4	19.0	83	0.1	26.7	11.5	411	2.56	13.5	1.0	9.2	16	0.3	0.6	0.2	38	0.18	0.058	29
5272685	Soil	1.0	26.8	29.1	90	0.3	23.0	8.9	409	2.50	11.6	4.6	4.2	15	0.3	0.6	0.2	40	0.14	0.047	32
5272686	Soil	1.0	80.1	45.9	201	0.4	38.6	11.6	578	4.48	19.6	0.7	20.0	31	1.2	1.1	0.4	27	0.19	0.080	54
5272687	Soil	0.6	50.9	67.1	186	0.4	121.2	13.8	1046	3.02	70.6	1.4	4.2	23	2.3	1.7	0.2	49	0.13	0.048	17
5272688	Soil	1.0	29.4	13.8	63	0.1	26.2	7.4	261	2.49	11.4	2.4	5.8	16	0.2	0.9	0.2	47	0.13	0.039	22
5272689	Soil	1.0	36.2	18.4	86	0.3	39.0	9.1	353	2.68	12.3	5.2	5.2	19	0.3	0.9	0.2	53	0.19	0.065	21
5272690	Soil	1.0	38.2	15.6	90	0.2	52.5	10.6	390	2.67	15.4	2.6	6.3	23	0.3	1.0	0.2	50	0.23	0.068	26
5272691	Soil	1.0	36.2	27.3	60	0.3	18.9	7.8	342	2.24	14.1	3.0	1.6	19	0.2	0.6	0.2	37	0.12	0.059	33
5272692	Soil	1.3	29.8	39.6	55	<0.1	22.8	11.8	539	2.38	22.4	4.3	7.1	18	0.3	0.9	0.2	44	0.11	0.034	28
5272710	Soil	0.8	36.7	34.9	163	0.5	17.1	4.0	706	1.17	9.2	1.0	0.9	94	1.5	0.6	2.1	30	3.21	0.103	9
5272711	Soil	0.8	69.1	84.6	194	1.7	22.4	7.2	745	1.99	55.6	2.9	2.8	53	1.5	1.1	10.1	41	1.33	0.097	15
5272712	Soil	0.9	60.8	28.9	163	0.6	26.4	7.9	385	2.50	20.3	2.1	6.0	38	0.7	0.8	1.6	51	0.53	0.073	19
5272713	Soil	1.0	48.6	29.5	116	0.5	26.5	10.3	514	2.37	18.2	1.8	4.6	36	0.4	0.8	1.1	58	0.51	0.073	17
5272714	Soil	1.3	48.9	29.4	124	0.5	27.3	9.5	518	2.38	18.1	3.3	5.4	36	0.6	0.8	1.1	54	0.50	0.074	18
5272715	Soil	1.1	45.7	23.5	115	0.4	26.1	9.4	421	2.38	14.6	3.5	5.1	36	0.6	0.8	0.8	57	0.50	0.071	19
5272716	Soil	1.0	33.5	19.0	99	0.3	23.9	8.3	335	2.37	12.8	1.5	5.4	34	0.4	0.8	0.6	57	0.47	0.067	19
5272717	Soil	1.1	40.3	21.8	123	0.3	23.2	8.7	322	2.40	20.2	9.5	4.9	33	0.5	0.7	1.1	58	0.43	0.073	18
5272718	Soil	1.5	75.7	27.7	168	0.8	24.8	10.6	808	2.69	41.7	2.8	2.9	35	0.9	0.8	2.7	53	0.49	0.078	17
5272719	Soil	0.9	68.5	28.2	202	0.5	24.2	6.6	308	2.37	29.7	3.4	5.1	36	1.2	0.8	2.3	53	0.45	0.072	19
5272720	Soil	1.0	61.7	28.4	179	0.4	25.8	8.2	313	2.72	30.1	2.6	6.0	35	0.8	0.9	1.7	58	0.48	0.080	19
5272721	Soil	1.0	63.7	35.7	228	0.5	18.3	5.5	241	2.11	36.0	5.8	5.0	39	1.3	0.7	3.1	42	0.51	0.070	18
5272722	Soil	1.3	143.9	70.7	353	1.5	23.6	6.0	715	2.11	59.4	13.1	2.6	56	2.9	0.8	5.2	35	1.41	0.092	15
5272723	Soil	0.8	72.2	26.2	854	1.5	25.1	5.7	1043	2.36	51.1	3.1	3.5	44	3.8	0.9	2.8	48	1.01	0.171	16
5272724	Soil	1.0	31.2	18.6	154	0.5	24.9	8.0	817	2.39	17.6	4.3	3.6	39	0.5	0.8	0.9	60	0.61	0.083	18
5272725	Soil	1.0	29.7	47.7	568	1.7	25.8	7.6	1502	2.01	13.0	3.4	1.2	67	14.3	0.5	1.4	54	1.30	0.118	14
5272726	Soil	1.4	29.4	26.5	288	0.2	29.1	10.6	695	2.65	15.2	2.7	5.4	20	1.2	0.5	1.4	65	0.25	0.083	14

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	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	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
5272680	Soil	45	0.66	436	0.051	<1	1.71	0.006	0.17	0.2	0.01	4.0	0.8	<0.05	5	<0.5	<0.2
5272681	Soil	34	0.68	602	0.057	1	1.73	0.011	0.10	0.2	0.02	4.5	0.2	<0.05	5	<0.5	<0.2
5272682	Soil	24	0.33	508	0.030	<1	1.71	0.006	0.12	<0.1	0.05	3.7	0.2	<0.05	4	0.9	<0.2
5272683	Soil	27	0.35	177	0.028	1	1.31	0.007	0.08	0.1	0.03	2.3	0.2	<0.05	4	<0.5	<0.2
5272684	Soil	26	0.42	190	0.041	<1	1.36	0.007	0.10	0.1	0.01	2.5	0.1	<0.05	4	<0.5	<0.2
5272685	Soil	30	0.39	158	0.027	<1	1.51	0.007	0.10	0.1	0.04	2.7	0.2	<0.05	5	<0.5	<0.2
5272686	Soil	28	0.54	352	0.026	<1	1.84	0.005	0.27	<0.1	0.02	4.5	0.7	<0.05	5	1.9	<0.2
5272687	Soil	156	0.90	237	0.023	<1	1.48	0.006	0.07	<0.1	0.02	4.4	0.2	<0.05	5	<0.5	<0.2
5272688	Soil	39	0.46	166	0.042	1	1.50	0.009	0.07	0.1	0.03	3.2	0.1	<0.05	4	<0.5	<0.2
5272689	Soil	60	0.53	200	0.042	2	1.81	0.009	0.09	0.1	0.07	4.0	0.2	<0.05	5	<0.5	<0.2
5272690	Soil	115	0.63	203	0.041	2	1.63	0.009	0.08	0.1	0.06	4.0	0.2	<0.05	4	<0.5	<0.2
5272691	Soil	27	0.28	185	0.018	1	1.19	0.007	0.10	<0.1	0.04	2.0	0.1	<0.05	4	<0.5	<0.2
5272692	Soil	28	0.32	201	0.028	<1	1.46	0.006	0.09	0.1	0.02	3.1	0.1	<0.05	4	<0.5	<0.2
5272710	Soil	20	0.35	204	0.029	3	0.83	0.022	0.04	1.4	0.04	1.9	<0.1	0.15	2	<0.5	<0.2
5272711	Soil	24	0.33	345	0.036	2	1.32	0.021	0.04	1.7	0.05	3.3	0.2	0.06	3	1.0	<0.2
5272712	Soil	32	0.40	313	0.064	1	1.48	0.014	0.07	1.2	0.03	4.7	0.2	<0.05	4	<0.5	<0.2
5272713	Soil	31	0.43	367	0.053	1	1.60	0.018	0.05	0.7	0.04	4.3	0.2	<0.05	5	<0.5	<0.2
5272714	Soil	31	0.41	377	0.051	1	1.59	0.016	0.06	0.8	0.03	4.4	0.2	<0.05	4	<0.5	<0.2
5272715	Soil	34	0.47	390	0.055	1	1.65	0.015	0.05	0.7	0.04	5.1	0.2	<0.05	5	<0.5	<0.2
5272716	Soil	34	0.43	379	0.055	1	1.48	0.014	0.05	0.6	0.04	4.7	0.2	<0.05	4	<0.5	<0.2
5272717	Soil	32	0.45	351	0.051	1	1.55	0.014	0.05	0.9	0.04	4.6	0.1	<0.05	5	<0.5	<0.2
5272718	Soil	32	0.37	397	0.041	2	1.56	0.016	0.05	1.8	0.05	4.5	0.2	<0.05	5	<0.5	<0.2
5272719	Soil	33	0.45	365	0.057	2	1.51	0.015	0.05	1.8	0.04	4.5	0.2	<0.05	4	<0.5	<0.2
5272720	Soil	33	0.48	372	0.061	2	1.48	0.018	0.06	1.6	0.03	4.9	0.1	<0.05	4	<0.5	<0.2
5272721	Soil	27	0.42	311	0.046	2	1.39	0.012	0.05	3.0	0.04	3.7	0.2	<0.05	4	<0.5	<0.2
5272722	Soil	24	0.32	385	0.037	3	1.31	0.013	0.05	4.6	0.07	3.0	0.3	0.07	4	0.9	<0.2
5272723	Soil	31	0.62	374	0.033	1	1.67	0.013	0.05	10.6	0.04	4.3	0.2	<0.05	4	<0.5	<0.2
5272724	Soil	32	0.54	376	0.046	2	1.64	0.016	0.05	1.3	0.06	4.8	0.1	<0.05	5	<0.5	<0.2
5272725	Soil	29	0.46	423	0.031	2	1.77	0.020	0.04	0.3	0.06	3.2	0.1	<0.05	5	<0.5	<0.2
5272726	Soil	34	0.44	268	0.047	2	2.05	0.009	0.05	0.2	0.03	4.3	0.2	<0.05	5	<0.5	<0.2

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	Analyte	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
5272727	Soil	0.9	36.7	29.0	103	<0.1	26.9	8.8	537	2.54	17.3	4.3	4.9	42	0.2	0.6	2.3	71	0.45	0.087	20
5272728	Soil	1.6	1523.8	42.1	3568	2.4	38.1	8.1	834	2.38	39.2	12.5	4.1	50	22.5	2.3	16.3	61	0.81	0.299	24
5272729	Soil	7.3	34.0	46.6	113	0.3	15.7	6.5	408	2.56	26.0	2.8	5.9	20	0.6	1.2	1.2	65	0.20	0.064	13
5272730	Soil	3.6	58.8	132.8	242	0.5	43.8	10.6	327	3.80	29.0	6.3	4.6	37	0.8	2.2	0.5	59	0.07	0.053	14
5272731	Soil	0.9	27.2	12.7	74	0.2	21.6	5.9	204	2.05	10.2	3.8	4.8	29	0.2	0.6	0.4	50	0.39	0.059	18
5272732	Soil	0.8	29.9	16.1	94	0.3	22.2	6.4	252	2.11	12.0	5.6	4.7	30	0.2	0.6	0.7	52	0.44	0.059	19
5272733	Soil	1.0	34.8	20.7	104	0.4	20.6	6.8	281	2.23	14.5	3.1	4.4	28	0.5	0.5	1.4	51	0.35	0.058	18
5272734	Soil	1.0	40.3	26.4	102	0.6	22.4	6.3	235	2.07	16.0	2.8	3.8	26	0.3	0.6	1.1	51	0.35	0.054	17
5272735	Soil	1.8	53.1	40.1	111	0.7	16.6	6.5	808	1.73	24.1	3.2	1.6	47	2.8	0.7	1.3	42	1.07	0.076	11
5272736	Soil	0.6	53.0	94.3	402	1.0	21.1	6.1	1945	1.58	10.2	2.6	1.4	57	3.9	0.7	1.3	36	1.54	0.085	13
5272738	Soil	0.9	25.6	24.6	123	0.5	16.2	4.9	935	1.54	20.0	3.6	2.0	59	0.8	0.9	1.0	39	1.66	0.081	14
5272739	Soil	2.4	26.3	45.9	189	0.8	11.8	4.0	2808	1.12	93.9	4.6	0.8	63	2.6	3.0	2.1	26	2.95	0.153	9
5272740	Soil	0.6	88.5	25.9	1542	1.3	37.5	4.6	569	1.44	22.3	14.6	1.8	285	11.4	1.4	6.4	33	2.25	0.214	12
5272741	Soil	0.5	167.1	18.8	890	1.1	18.0	3.5	257	1.39	7.2	5.0	1.6	65	6.7	0.5	2.0	27	1.53	0.125	10
5272742	Soil	0.7	422.0	33.3	1635	2.1	34.5	3.7	624	1.59	9.2	5.7	1.4	59	13.7	0.7	2.8	37	1.25	0.228	14
5272743	Soil	1.9	135.5	53.3	472	0.3	25.8	6.0	506	2.05	21.2	7.9	1.0	33	2.1	1.8	4.2	59	0.21	0.068	17
5272746	Soil	5.5	44.2	47.3	93	1.5	19.8	3.1	94	2.27	15.2	7.6	0.2	29	0.6	1.7	0.7	43	0.11	0.099	16
5272747	Soil	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
5272748	Soil	1.3	21.0	23.4	72	0.2	16.5	6.0	225	1.96	9.3	2.8	3.5	22	0.5	0.5	0.5	47	0.25	0.041	17
5272749	Soil	1.4	23.7	111.0	75	0.3	17.8	6.7	248	2.19	10.5	2.9	4.0	23	0.3	0.6	0.5	50	0.25	0.051	18
5272750	Soil	0.6	64.0	39.3	403	1.2	29.8	6.5	730	1.78	7.5	5.1	2.5	95	4.1	1.1	4.3	50	1.61	0.159	14
5272751	Soil	0.6	29.5	15.1	268	0.5	29.9	5.5	526	1.31	15.7	2.4	1.5	133	3.9	1.2	1.4	45	1.73	0.144	12
5272752	Soil	0.8	112.7	68.0	547	0.7	27.2	3.6	809	1.42	41.6	9.1	2.0	59	6.8	1.4	2.2	37	1.28	0.115	14
5272753	Soil	0.7	61.2	29.7	731	0.8	34.9	6.5	680	1.67	12.2	5.1	2.7	72	5.5	1.0	1.4	47	1.22	0.119	15
5272754	Soil	0.8	87.1	32.0	304	0.5	31.7	6.1	422	1.77	23.2	6.3	3.4	95	3.1	1.3	1.8	56	1.02	0.112	15
5272755	Soil	0.5	120.9	20.4	468	0.5	24.9	4.8	373	1.67	15.7	5.2	2.2	55	3.9	0.8	2.1	36	1.30	0.080	12
5272756	Soil	0.6	159.4	32.4	595	0.7	32.3	6.0	602	1.62	10.6	7.1	3.1	68	5.6	0.8	2.8	44	1.13	0.250	16
5272757	Soil	3.1	68.4	45.0	258	0.4	36.3	14.5	422	2.78	19.3	2.7	4.1	219	3.1	1.4	1.2	69	0.58	0.057	18
5272758	Soil	5.6	64.2	38.5	121	0.4	45.2	10.3	234	2.57	15.3	2.9	3.1	75	1.0	0.7	0.5	66	0.62	0.051	15
5272759	Soil	0.6	15.9	45.6	2037	1.3	94.5	6.8	2135	1.68	7.9	3.1	2.2	220	69.6	1.4	5.0	40	1.85	0.350	20

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Project: MAGA
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	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	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
5272727	Soil	44	0.56	319	0.046	2	2.04	0.013	0.04	0.5	0.06	6.4	0.2	<0.05	6	<0.5	0.3
5272728	Soil	35	0.54	191	0.022	1	1.41	0.008	0.07	0.5	0.04	5.1	0.6	<0.05	4	3.5	1.7
5272729	Soil	28	0.38	117	0.022	1	1.77	0.008	0.08	0.3	0.02	2.3	0.4	<0.05	6	2.2	<0.2
5272730	Soil	38	0.51	341	0.021	1	2.05	0.011	0.12	<0.1	0.05	3.6	0.3	0.19	5	2.5	0.2
5272731	Soil	28	0.40	334	0.055	2	1.40	0.012	0.05	0.3	0.04	4.4	0.1	<0.05	4	<0.5	<0.2
5272732	Soil	30	0.41	352	0.056	1	1.51	0.012	0.05	0.4	0.04	4.2	0.1	<0.05	4	<0.5	<0.2
5272733	Soil	30	0.41	301	0.053	1	1.59	0.011	0.06	0.5	0.04	3.8	0.2	<0.05	5	<0.5	<0.2
5272734	Soil	32	0.43	301	0.047	1	1.64	0.011	0.05	0.3	0.04	3.5	0.2	<0.05	4	<0.5	<0.2
5272735	Soil	22	0.32	411	0.031	1	1.30	0.016	0.04	0.5	0.05	2.5	0.1	<0.05	4	0.5	<0.2
5272736	Soil	20	0.31	418	0.029	2	1.09	0.021	0.03	0.3	0.06	2.5	0.2	<0.05	3	0.8	<0.2
5272738	Soil	22	0.37	183	0.039	3	1.06	0.018	0.04	3.5	0.06	2.8	<0.1	<0.05	3	0.9	<0.2
5272739	Soil	13	0.25	156	0.020	4	0.80	0.017	0.04	18.0	0.05	1.3	0.2	<0.05	2	0.5	<0.2
5272740	Soil	27	0.53	320	0.043	6	1.01	0.032	0.04	0.5	0.04	2.3	0.1	<0.05	3	1.1	<0.2
5272741	Soil	19	0.32	246	0.035	2	1.11	0.018	0.03	0.3	0.04	2.3	<0.1	<0.05	3	0.5	<0.2
5272742	Soil	25	0.29	300	0.040	2	1.62	0.015	0.03	0.6	0.05	3.3	0.2	<0.05	4	0.7	<0.2
5272743	Soil	35	0.37	314	0.019	<1	1.77	0.008	0.05	0.3	0.02	2.5	0.7	<0.05	5	<0.5	0.3
5272746	Soil	28	0.35	262	0.015	2	1.63	0.012	0.08	0.1	0.18	1.5	0.4	<0.05	4	2.2	<0.2
5272747	Soil	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
5272748	Soil	24	0.33	269	0.040	1	1.40	0.009	0.05	0.2	0.03	2.5	0.2	<0.05	4	<0.5	<0.2
5272749	Soil	27	0.37	264	0.044	1	1.56	0.011	0.06	0.3	0.02	2.9	0.2	<0.05	4	<0.5	<0.2
5272750	Soil	31	0.42	260	0.032	2	1.36	0.022	0.04	0.4	0.04	3.9	0.2	<0.05	4	1.0	0.3
5272751	Soil	28	0.28	187	0.029	3	1.08	0.022	0.03	0.4	0.04	2.4	0.1	<0.05	3	1.2	<0.2
5272752	Soil	25	0.27	207	0.034	2	1.13	0.013	0.04	4.9	0.03	2.8	0.2	<0.05	3	0.7	<0.2
5272753	Soil	29	0.38	242	0.046	3	1.34	0.015	0.04	0.8	0.03	3.4	0.1	<0.05	3	0.7	<0.2
5272754	Soil	34	0.40	246	0.052	3	1.29	0.023	0.04	0.5	0.03	3.7	0.2	<0.05	4	0.9	<0.2
5272755	Soil	24	0.33	237	0.035	2	1.12	0.015	0.04	0.3	0.03	2.8	0.1	<0.05	3	0.6	<0.2
5272756	Soil	30	0.35	353	0.042	1	1.46	0.014	0.04	0.4	0.05	3.9	0.2	<0.05	4	0.9	<0.2
5272757	Soil	36	0.66	213	0.049	1	2.72	0.035	0.25	0.2	0.02	3.6	0.7	<0.05	6	3.8	<0.2
5272758	Soil	37	0.49	201	0.047	2	2.37	0.023	0.10	0.2	0.03	4.1	0.3	<0.05	7	3.5	<0.2
5272759	Soil	31	1.16	510	0.014	<1	1.57	0.019	0.08	0.4	0.02	3.5	0.3	<0.05	4	<0.5	0.3

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	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	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
5272760	Soil	0.9	20.3	15.6	522	0.5	41.0	6.6	553	1.82	12.7	1.8	3.2	34	10.7	0.8	0.7	53	0.42	0.149	16
5272761	Soil	2.5	19.7	44.3	134	0.6	20.4	5.4	216	1.93	11.4	11.8	1.3	22	1.4	0.7	1.0	47	0.19	0.089	15
5272762	Soil	1.3	131.1	215.0	713	1.1	74.7	16.1	1659	2.55	38.2	2.6	1.5	66	25.5	3.2	2.6	86	0.85	0.302	36
5272763	Soil	0.6	83.5	41.2	753	2.2	125.5	6.2	437	1.58	20.0	3.2	4.3	190	12.4	2.8	2.2	148	2.02	0.543	23
5272764	Soil	1.0	23.8	25.8	459	0.2	18.3	4.0	392	1.50	6.1	1.2	0.2	24	2.7	0.4	2.2	36	0.15	0.100	13
5272765	Soil	0.3	19.7	31.2	886	2.0	40.6	1.8	461	0.87	5.0	1.1	1.6	112	25.1	1.1	1.5	31	2.55	1.131	12
5272766	Soil	0.4	14.3	18.1	124	0.5	30.2	4.6	549	1.12	5.6	1.9	3.4	46	2.2	0.6	0.7	30	0.75	0.207	18
5272767	Soil	1.4	55.4	33.7	1408	1.9	91.2	7.9	452	2.49	19.7	5.9	5.8	84	17.8	1.3	2.6	68	1.45	0.382	21
5272768	Soil	2.3	23.4	16.6	55	0.3	22.9	7.6	288	2.42	10.7	1.9	4.5	61	0.3	1.1	0.4	50	0.23	0.029	14
5272769	Soil	3.1	28.0	35.1	76	0.4	25.3	8.0	197	3.20	32.0	0.7	4.9	96	0.6	1.0	0.5	44	0.19	0.034	12
5272770	Soil	5.7	33.5	36.8	101	0.3	33.9	9.1	208	3.51	17.5	1.2	6.2	99	1.0	1.7	0.8	61	0.12	0.049	16
5272771	Soil	13.7	52.8	35.1	201	0.3	51.7	17.0	680	4.00	29.3	2.3	2.3	41	1.1	4.9	0.3	54	0.08	0.092	22
5272772	Soil	21.2	58.8	121.3	326	0.6	85.2	20.5	578	3.60	55.2	2.8	3.9	48	3.4	3.9	0.2	60	0.13	0.086	26
65901	Soil	1.6	32.9	18.5	83	0.1	27.3	12.8	445	2.93	12.6	3.4	8.2	12	<0.1	1.0	0.3	41	0.07	0.053	27
65908	Soil	1.3	40.4	17.1	78	<0.1	29.3	12.8	376	2.68	10.4	1.8	8.4	10	0.2	0.9	0.3	28	0.06	0.041	25
65915	Soil	1.2	34.1	39.9	63	<0.1	24.8	11.8	221	2.85	9.8	0.9	11.2	27	<0.1	0.6	0.5	21	0.02	0.043	27
65922	Soil	1.2	116.0	21.8	142	<0.1	179.0	88.7	1651	2.79	9.4	1.6	11.6	12	0.2	0.8	0.3	21	0.05	0.045	31
65929	Soil	1.7	32.2	24.1	61	0.1	26.1	10.9	183	3.07	13.4	2.0	11.3	7	<0.1	0.7	0.3	42	0.03	0.022	31
65937	Soil	0.3	42.5	20.9	93	<0.1	38.3	14.3	520	4.48	8.0	<0.5	18.4	10	<0.1	0.3	0.2	15	0.06	0.034	62
65943	Soil	0.6	72.5	82.0	79	0.2	57.3	36.4	336	3.74	37.9	3.1	14.4	29	<0.1	0.4	2.2	21	0.25	0.074	40
862005	Soil	1.3	21.0	30.7	70	<0.1	15.0	6.5	222	3.42	13.5	1.3	12.6	8	<0.1	1.0	0.6	27	0.02	0.032	25
862006	Soil	0.8	21.1	24.3	73	<0.1	18.7	6.0	212	4.17	15.3	2.7	16.0	10	<0.1	1.3	0.4	16	0.02	0.028	51
862009	Soil	1.7	13.5	19.8	58	<0.1	15.7	6.3	163	2.99	12.0	1.0	6.1	9	<0.1	0.9	0.3	50	0.06	0.036	21
862011	Soil	0.8	53.9	29.7	88	<0.1	45.4	22.9	299	4.21	22.1	2.0	27.0	7	<0.1	0.2	0.4	15	0.02	0.030	75
862019	Soil	1.5	37.3	53.0	49	0.1	25.1	7.5	130	3.64	18.6	7.3	14.1	11	<0.1	0.8	0.9	19	0.02	0.031	52
862025	Soil	1.6	31.2	77.1	55	<0.1	7.7	3.0	132	3.98	17.1	1.5	15.6	14	<0.1	0.7	1.0	14	0.01	0.036	50
862037	Soil	0.9	45.6	31.8	83	<0.1	39.7	23.6	489	3.51	12.0	3.2	14.4	9	0.2	0.9	0.4	20	0.08	0.051	33
862039	Soil	1.6	40.8	45.6	57	0.1	23.2	10.5	211	3.17	9.6	2.5	13.0	7	<0.1	0.9	0.5	26	0.02	0.032	34
5272775	Soil	1.7	22.6	24.2	63	<0.1	22.2	6.4	194	2.99	19.0	1.0	3.0	27	0.3	1.0	0.2	61	0.08	0.036	15

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	Analyte	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
5272760	Soil	31	0.37	224	0.021	1	1.42	0.007	0.04	0.2	0.03	4.1	0.2	<0.05	4	<0.5	<0.2
5272761	Soil	26	0.31	189	0.022	1	1.31	0.007	0.04	0.2	0.04	2.3	0.2	<0.05	4	<0.5	<0.2
5272762	Soil	47	0.48	288	0.012	1	1.51	0.005	0.09	0.5	0.04	3.4	1.0	<0.05	5	<0.5	<0.2
5272763	Soil	104	0.37	256	0.040	2	1.70	0.004	0.04	0.3	0.03	6.2	0.3	<0.05	6	<0.5	0.2
5272764	Soil	23	0.24	170	0.008	1	1.06	0.006	0.04	0.1	0.03	0.4	0.4	<0.05	4	<0.5	<0.2
5272765	Soil	30	0.27	113	0.009	1	0.89	0.003	0.06	0.2	0.01	2.5	0.3	<0.05	3	<0.5	<0.2
5272766	Soil	20	0.13	129	0.003	<1	1.22	0.004	0.04	0.1	0.02	4.8	0.4	<0.05	3	<0.5	<0.2
5272767	Soil	43	0.39	167	0.018	1	1.93	0.007	0.06	0.2	0.06	6.8	0.5	<0.05	5	<0.5	0.3
5272768	Soil	28	0.44	156	0.038	<1	1.74	0.011	0.05	0.2	0.02	2.8	0.2	<0.05	5	1.1	<0.2
5272769	Soil	25	0.44	148	0.042	<1	1.81	0.013	0.08	0.2	0.01	2.1	0.3	<0.05	5	2.3	<0.2
5272770	Soil	33	0.54	152	0.057	1	2.36	0.019	0.10	0.2	0.02	3.0	0.3	<0.05	7	4.4	<0.2
5272771	Soil	31	0.62	76	0.017	1	1.38	0.011	0.05	<0.1	0.02	1.8	0.2	<0.05	5	3.6	<0.2
5272772	Soil	33	0.55	134	0.020	<1	1.23	0.010	0.05	<0.1	0.03	2.5	0.3	<0.05	4	3.4	<0.2
65901	Soil	24	0.37	287	0.015	2	1.39	0.005	0.09	0.2	0.15	4.2	0.1	<0.05	4	<0.5	<0.2
65908	Soil	17	0.27	342	0.009	2	1.06	0.005	0.10	<0.1	0.08	2.9	0.1	<0.05	3	<0.5	<0.2
65915	Soil	19	0.44	99	0.005	1	1.37	0.007	0.07	<0.1	0.02	1.4	<0.1	<0.05	3	<0.5	<0.2
65922	Soil	14	0.29	387	0.005	2	1.40	0.005	0.14	<0.1	0.12	4.0	0.1	<0.05	3	<0.5	<0.2
65929	Soil	25	0.40	185	0.009	1	1.67	0.004	0.06	0.1	0.03	2.3	0.1	<0.05	4	<0.5	<0.2
65937	Soil	29	0.82	117	0.003	2	2.13	0.003	0.05	<0.1	0.02	2.0	<0.1	<0.05	5	<0.5	<0.2
65943	Soil	29	0.63	162	0.003	1	1.76	0.004	0.04	<0.1	0.05	2.6	<0.1	<0.05	5	<0.5	0.2
862005	Soil	25	0.59	43	0.006	<1	1.52	0.005	0.03	<0.1	0.02	1.1	<0.1	<0.05	5	<0.5	<0.2
862006	Soil	26	0.67	84	0.001	<1	1.75	0.005	0.05	<0.1	0.07	1.3	<0.1	<0.05	5	<0.5	<0.2
862009	Soil	25	0.36	129	0.018	1	1.49	0.005	0.04	0.2	0.02	1.9	0.1	<0.05	5	<0.5	<0.2
862011	Soil	22	0.69	55	0.002	<1	1.50	0.004	0.05	<0.1	0.03	1.9	<0.1	<0.05	4	<0.5	<0.2
862019	Soil	19	0.47	133	0.002	<1	1.38	0.005	0.05	<0.1	0.03	1.4	<0.1	<0.05	3	<0.5	<0.2
862025	Soil	22	0.51	56	0.001	<1	1.21	0.007	0.03	<0.1	0.03	1.0	<0.1	<0.05	4	0.5	<0.2
862037	Soil	20	0.47	69	0.008	<1	1.37	0.004	0.05	<0.1	0.02	1.7	<0.1	<0.05	3	0.5	<0.2
862039	Soil	20	0.37	134	0.006	<1	1.33	0.005	0.04	<0.1	0.05	1.8	<0.1	<0.05	3	0.5	<0.2
5272775	Soil	31	0.49	89	0.043	<1	1.24	0.006	0.05	0.1	0.01	2.5	0.1	<0.05	6	0.9	<0.2

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Client: **Bill Mann**
19 Hayes Cres.
Whitehorse Yukon Y1A 0E1 Canada

Project: MAGA
Report Date: September 13, 2018

QUALITY CONTROL REPORT WHI18000627.1

	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	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
Pulp Duplicates																					
5272579	Soil	4.8	78.1	32.9	102	0.8	14.2	7.6	914	2.57	20.1	1.0	1.4	11	0.6	0.6	1.9	58	0.09	0.038	10
REP 5272579	QC	4.9	77.3	33.7	104	0.8	15.0	8.1	897	2.60	20.5	2.4	1.4	11	0.5	0.6	1.9	60	0.09	0.038	10
5272615	Soil	2.8	19.3	17.4	64	<0.1	19.8	6.8	457	2.41	23.1	1.1	5.9	17	0.1	0.8	0.2	51	0.14	0.022	17
REP 5272615	QC	2.8	18.7	17.0	67	<0.1	19.0	6.8	420	2.31	22.0	13.7	5.9	16	0.1	0.8	0.3	53	0.13	0.021	18
5272651	Soil	1.1	31.0	22.1	74	0.2	24.0	6.6	167	2.35	8.0	4.0	4.0	19	0.3	0.5	0.2	41	0.13	0.039	29
REP 5272651	QC	1.0	30.1	21.0	69	0.2	22.3	6.3	164	2.25	7.7	2.0	3.9	18	0.3	0.6	0.2	41	0.13	0.038	28
5272687	Soil	0.6	50.9	67.1	186	0.4	121.2	13.8	1046	3.02	70.6	1.4	4.2	23	2.3	1.7	0.2	49	0.13	0.048	17
REP 5272687	QC	0.6	50.1	66.6	184	0.4	122.4	13.7	1093	2.93	70.4	0.7	4.2	22	2.2	1.7	0.2	49	0.13	0.046	17
5272748	Soil	1.3	21.0	23.4	72	0.2	16.5	6.0	225	1.96	9.3	2.8	3.5	22	0.5	0.5	0.5	47	0.25	0.041	17
REP 5272748	QC	1.3	21.5	22.9	69	0.2	16.2	6.1	217	2.01	9.4	3.5	3.2	21	0.5	0.5	0.4	47	0.23	0.037	16
862005	Soil	1.3	21.0	30.7	70	<0.1	15.0	6.5	222	3.42	13.5	1.3	12.6	8	<0.1	1.0	0.6	27	0.02	0.032	25
REP 862005	QC	1.3	21.2	30.2	69	<0.1	14.6	6.5	219	3.46	13.0	2.0	12.2	8	<0.1	1.0	0.5	26	0.01	0.030	24
Reference Materials																					
STD DS11	Standard	15.0	153.6	135.0	327	1.6	77.5	14.0	931	2.92	39.9	66.0	8.0	63	2.1	7.9	11.1	53	0.96	0.068	19
STD DS11	Standard	15.6	167.1	143.5	349	1.7	86.1	15.2	1039	3.24	45.5	74.1	8.6	70	2.5	8.6	12.6	57	1.08	0.075	21
STD DS11	Standard	15.3	161.9	141.7	344	1.6	83.2	14.6	1017	3.22	44.8	75.1	8.2	66	2.2	8.5	11.9	54	1.01	0.072	19
STD DS11	Standard	14.3	154.5	138.1	346	1.6	81.9	13.9	1029	3.17	43.0	69.4	8.0	66	2.4	8.1	11.9	54	0.97	0.072	19
STD DS11	Standard	15.4	152.9	141.8	362	1.7	80.5	13.9	1046	3.13	45.5	71.1	8.1	66	2.4	8.5	12.1	57	0.99	0.075	21
STD DS11	Standard	15.7	150.1	141.5	319	1.7	79.3	14.0	1025	3.07	45.6	83.4	8.2	65	2.4	8.2	12.7	56	1.02	0.066	20
STD OXC129	Standard	1.3	27.7	6.0	41	<0.1	79.1	19.8	395	2.95	<0.5	182.4	1.8	171	<0.1	<0.1	<0.1	55	0.60	0.089	13
STD OXC129	Standard	1.4	30.5	6.5	43	<0.1	89.0	22.5	453	3.27	0.6	200.9	2.0	202	<0.1	<0.1	<0.1	61	0.76	0.111	14
STD OXC129	Standard	1.5	30.7	6.4	45	<0.1	86.1	22.8	431	3.19	0.9	191.7	1.9	190	<0.1	<0.1	<0.1	59	0.68	0.105	13
STD OXC129	Standard	1.3	30.4	6.3	45	<0.1	82.8	21.7	410	3.07	0.6	197.1	1.9	183	<0.1	<0.1	<0.1	58	0.66	0.101	13
STD OXC129	Standard	1.2	29.1	6.1	43	<0.1	78.7	21.8	429	3.23	0.9	195.4	1.9	184	<0.1	<0.1	<0.1	55	0.69	0.101	13
STD OXC129	Standard	1.3	26.7	6.5	41	<0.1	84.4	20.6	453	3.13	0.5	200.9	2.0	185	<0.1	<0.1	0.2	55	0.72	0.102	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

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Client: **Bill Mann**
19 Hayes Cres.
Whitehorse Yukon Y1A 0E1 Canada

Project: MAGA
Report Date: September 13, 2018

QUALITY CONTROL REPORT WHI18000627.1

	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	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																	
5272579	Soil	24	0.22	123	0.040	<1	1.45	0.009	0.05	0.2	0.06	1.8	0.2	<0.05	5	<0.5	<0.2
REP 5272579	QC	24	0.23	129	0.041	<1	1.47	0.009	0.05	0.2	0.06	1.8	0.2	<0.05	5	<0.5	<0.2
5272615	Soil	30	0.39	170	0.055	<1	1.43	0.008	0.06	0.3	0.02	3.7	0.1	<0.05	4	<0.5	<0.2
REP 5272615	QC	29	0.38	170	0.054	1	1.30	0.008	0.06	0.2	0.02	3.7	0.1	<0.05	5	<0.5	<0.2
5272651	Soil	22	0.26	241	0.021	2	1.28	0.007	0.08	<0.1	0.04	2.9	<0.1	<0.05	3	<0.5	<0.2
REP 5272651	QC	22	0.25	232	0.021	1	1.22	0.006	0.08	<0.1	0.03	2.8	<0.1	<0.05	3	<0.5	<0.2
5272687	Soil	156	0.90	237	0.023	<1	1.48	0.006	0.07	<0.1	0.02	4.4	0.2	<0.05	5	<0.5	<0.2
REP 5272687	QC	160	0.91	232	0.023	<1	1.49	0.006	0.07	<0.1	0.02	4.2	0.2	<0.05	5	<0.5	<0.2
5272748	Soil	24	0.33	269	0.040	1	1.40	0.009	0.05	0.2	0.03	2.5	0.2	<0.05	4	<0.5	<0.2
REP 5272748	QC	22	0.33	246	0.040	<1	1.34	0.010	0.05	0.3	0.02	2.5	0.2	<0.05	4	<0.5	<0.2
862005	Soil	25	0.59	43	0.006	<1	1.52	0.005	0.03	<0.1	0.02	1.1	<0.1	<0.05	5	<0.5	<0.2
REP 862005	QC	24	0.55	42	0.005	<1	1.44	0.005	0.03	<0.1	0.01	1.1	<0.1	<0.05	4	<0.5	<0.2
Reference Materials																	
STD DS11	Standard	59	0.80	340	0.090	6	1.09	0.072	0.36	2.8	0.24	3.1	4.6	0.26	5	2.0	4.3
STD DS11	Standard	67	0.84	390	0.101	8	1.15	0.073	0.42	3.2	0.22	3.4	4.9	0.30	5	2.1	4.7
STD DS11	Standard	63	0.78	377	0.097	7	1.06	0.067	0.40	2.9	0.25	3.2	4.8	0.32	5	2.1	4.5
STD DS11	Standard	62	0.83	365	0.096	6	1.13	0.071	0.38	3.0	0.26	3.3	4.8	0.32	5	2.3	4.6
STD DS11	Standard	60	0.87	374	0.097	6	1.18	0.070	0.38	2.9	0.25	3.3	5.1	0.26	5	1.9	4.3
STD DS11	Standard	61	0.82	373	0.093	7	1.11	0.068	0.40	3.1	0.26	3.4	5.2	0.30	4	1.9	4.5
STD OXC129	Standard	52	1.49	49	0.373	1	1.46	0.557	0.32	<0.1	<0.01	0.8	<0.1	<0.05	5	<0.5	<0.2
STD OXC129	Standard	60	1.57	54	0.445	1	1.59	0.589	0.38	<0.1	<0.01	1.2	<0.1	<0.05	6	<0.5	<0.2
STD OXC129	Standard	56	1.52	51	0.434	<1	1.54	0.587	0.36	<0.1	<0.01	1.0	<0.1	<0.05	6	<0.5	<0.2
STD OXC129	Standard	57	1.50	50	0.435	2	1.51	0.531	0.33	<0.1	<0.01	1.1	<0.1	<0.05	5	<0.5	<0.2
STD OXC129	Standard	51	1.46	51	0.394	2	1.57	0.526	0.34	<0.1	<0.01	0.9	<0.1	<0.05	6	<0.5	<0.2
STD OXC129	Standard	56	1.39	51	0.406	1	1.48	0.543	0.38	<0.1	<0.01	0.9	<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

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Client: **Bill Mann**
19 Hayes Cres.
Whitehorse Yukon Y1A 0E1 Canada

Project: MAGA
Report Date: September 13, 2018

QUALITY CONTROL REPORT WHI18000627.1

		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	<0.5	<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	0.2	<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

Client: **Bill Mann**
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QUALITY CONTROL REPORT WHI18000627.1

		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

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Client: **Bill Mann**
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Submitted By: Bill Mann
Receiving Lab: Canada-Whitehorse
Received: September 26, 2018
Report Date: November 02, 2018
Page: 1 of 2

CERTIFICATE OF ANALYSIS WHI18001015.1

CLIENT JOB INFORMATION

Project: MAGA
Shipment ID:
P.O. Number
Number of Samples: 7

SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp 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	7	Crush, split and pulverize 250 g rock to 200 mesh			WHI
AQ201	7	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN
SHP01	7	Per sample shipping charges for branch shipments			VAN
BAT01	1	Batch charge of <20 samples			VAN

ADDITIONAL COMMENTS

Invoice To: Bill Mann
19 Hayes Cres.
Whitehorse Yukon Y1A 0E1
Canada

CC:

JEFFREY CANNON
Geochemistry Department 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.

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Client: **Bill Mann**
19 Hayes Cres.
Whitehorse Yukon Y1A 0E1 Canada

Project: MAGA
Report Date: November 02, 2018

CERTIFICATE OF ANALYSIS WHI18001015.1

	Method	WGHT	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	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
72776	Rock	0.75	2.7	42.4	126.8	114	1.8	28.1	2.6	3263	2.86	14.3	476.1	3.8	61	0.9	1.8	366.0	78	5.41	0.252
72777	Rock	0.50	10.8	852.2	10.4	149	8.9	16.6	9.6	1343	5.92	1.2	5.3	1.4	10	0.2	0.5	70.1	27	1.12	0.047
72778	Rock	0.55	6.0	162.3	3501.3	1368	7.7	17.3	6.2	4863	3.93	<0.5	1.9	3.1	69	9.7	0.7	59.9	64	4.22	0.219
72779	Rock	0.57	12.5	89.5	25.3	28	0.5	7.6	5.5	703	1.90	27.2	1.2	0.7	2	0.2	5.2	1.4	10	0.03	0.031
72780	Rock	1.46	6.7	1001.2	276.6	539	50.2	9.5	2.1	577	19.07	3895.9	298.1	2.4	210	9.6	13.9	486.2	26	0.17	0.405
72781	Rock	0.82	0.8	907.7	26.5	1948	9.4	16.3	3.8	1421	1.30	34.7	23.0	3.7	77	21.6	6.9	19.7	20	2.29	0.373
72782	Rock	2.34	1.8	2008.6	85.3	1170	23.2	8.4	2.8	402	1.69	95.2	24.6	1.1	37	16.6	6.5	88.9	26	0.75	0.361

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Project: MAGA
Report Date: November 02, 2018

CERTIFICATE OF ANALYSIS WHI18001015.1

	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	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
72776	Rock	9	42	0.17	52	0.077	<1	1.85	0.008	0.03	2.7	<0.01	2.2	<0.1	<0.05	5	0.7	2.4
72777	Rock	21	9	0.32	31	0.034	<1	0.76	0.055	0.09	12.7	<0.01	0.6	0.1	<0.05	8	6.0	16.0
72778	Rock	9	39	0.18	116	0.066	<1	1.08	0.027	0.04	4.8	<0.01	1.6	<0.1	0.07	4	25.7	13.8
72779	Rock	2	6	0.01	86	0.002	<1	0.14	<0.001	0.02	0.4	0.02	1.1	0.3	<0.05	<1	0.5	<0.2
72780	Rock	25	32	0.04	69	0.053	<1	0.56	0.046	1.80	>100	*	2.2	9.3	2.99	13	75.5	37.9
72781	Rock	9	17	0.17	260	0.029	<1	0.56	0.005	0.06	1.4	0.03	1.3	0.2	<0.05	2	5.4	0.4
72782	Rock	14	18	0.01	36	0.002	<1	0.14	<0.001	0.01	2.4	0.02	3.3	0.3	<0.05	<1	27.7	11.4

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Project: MAGA
Report Date: November 02, 2018

QUALITY CONTROL REPORT WHI18001015.1

	Method	WGHT	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	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		15.4	158.4	141.4	346	1.7	82.9	13.9	1048	3.13	42.6	76.9	8.3	70	2.5	9.4	11.7	49	1.06	0.076
STD OXC129	Standard		1.5	28.3	6.5	40	<0.1	79.4	20.0	429	3.09	<0.5	194.9	1.9	194	<0.1	<0.1	<0.1	52	0.77	0.099
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		<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	5.7	1.7	38	<0.1	1.1	4.0	557	1.84	1.5	<0.5	2.5	27	<0.1	<0.1	<0.1	26	0.79	0.040

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QUALITY CONTROL REPORT WHI18001015.1

	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	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
Reference Materials																		
STD DS11	Standard	21	62	0.84	367	0.098	6	1.20	0.076	0.42	3.3	0.34	3.3	4.9	0.27	5	2.1	4.4
STD OXC129	Standard	13	54	1.51	51	0.411	<1	1.68	0.602	0.38	<0.1	<0.01	0.8	<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
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	2	0.46	63	0.095	<1	1.02	0.081	0.10	<0.1	0.01	3.3	<0.1	<0.05	4	<0.5	<0.2

PETROGRAPHIC NOTES

Standard thin sections observed in transmitted light.

Locations of the samples are as follows, with notes by Bill Mann:

FA BH Thin Section Locations 2018

UTM NAD83 7W

Name	E	N	Assay #	Description
Pit 6	504600	7160450		
R 3	499940	7159565	72776	small subcrop dark grey f.g. skarn w/ epidote veins and red-brown garnet
R 5	499941	7159601	72777	float cobble skarn, coarse green actinolite, magnetite, red oxide in vugs
R 6	499941	7159601	72778	float cobble f.g. banded skarn
R 19	506277	7160250		From 1.2m wide "skarny" band in 50m x 20m felsic volcanic cliff. Calcite & Qtz alteration, trace pyrite, malachite. Possible epidote, scapolite, garnet?

Pit 6

Possible tuff.

Texture

This fine-grained rock is foliated. Elongate mineral grains (approx. 0.12 mm long) have a high degree of preferred orientation.

Mineralogy

Under pp light domains of elongate minerals form irregular shapes that are typically 1-2mm across. Lighter ‘patches’ of fine-grained prismatic minerals are quite irregular in shape. Under crossed polarizers these lighter domains extinguish together. These domains are probably calcite masses that now include >60% of

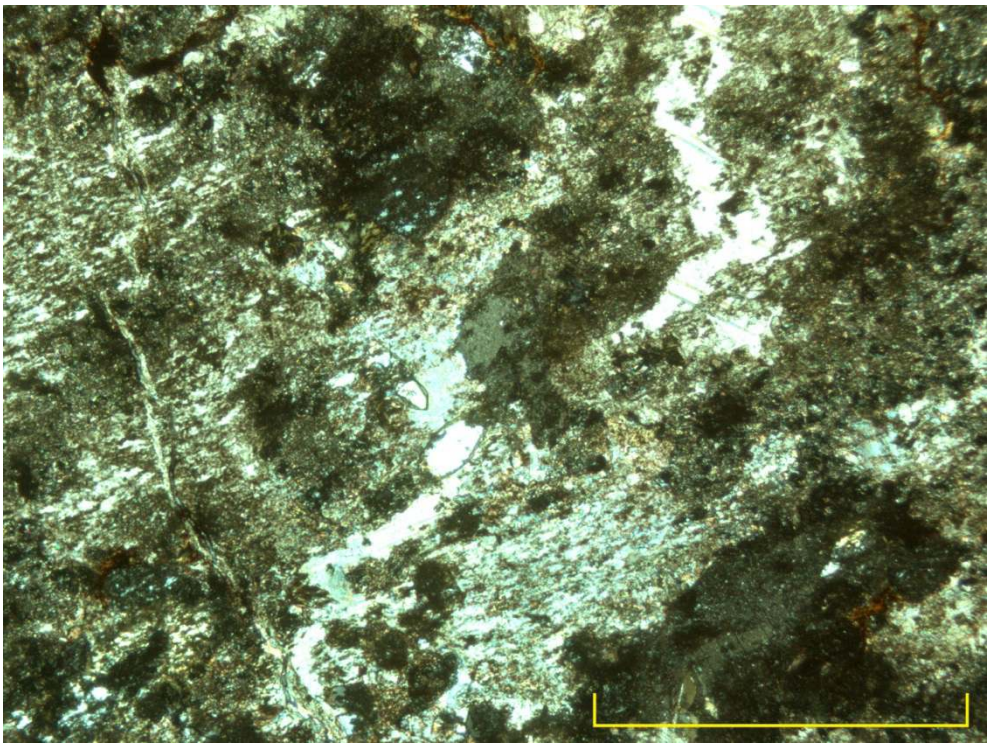
altered original rock-forming minerals. Interstitial mineral is very fine grained and virtually opaque. Chlorite and possibly some fine-grained epidote are found in the darker material. Veins of carbonate, without inclusions to 2mm wide cut the rock. One colourless unidentified mineral (two crystals) was noted (in subhedral prisms). It has high R.I., very high birefringence (six orders showing in the interference figure) and is uniaxial positive, hence it is not a carbonate. It might be cerite (Ce, Ca silicate). Since only two crystals were found, and these in near optic-axis orientation, any pleichroism, which is quite diagnostic for cerite, could not be observed. Localities for cerite are rare and mostly associated with alkaline intrusions, but I have found the mineral in skarn at Ethiudna, South Australia. There the associated granites are evolved (fractionated). Rock identification is equivocal. It is likely a highly altered tuff.

Photomicrographs:

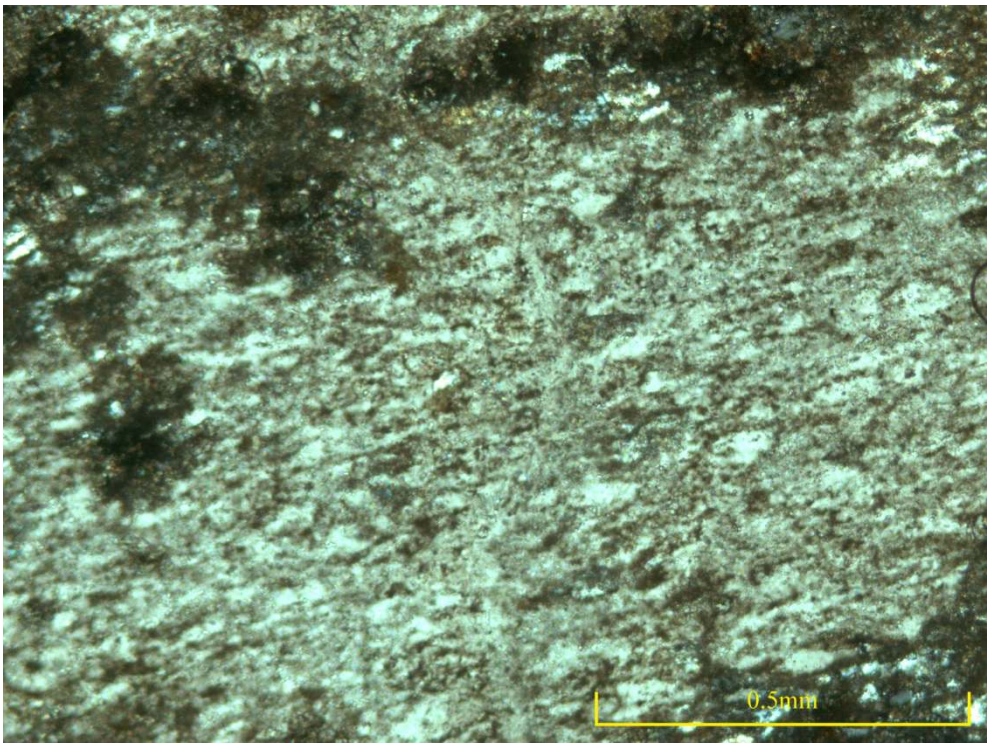
The numbers shown (5,0, 10, 20) indicate the objective lens used (all are in air); pp indicates transmitted plane polarized light, xp indicates crossed polarizers.

P6-5,0xp is a general view showing the dark inclusion-rich 'patches' lighter material, a carbonate vein and the two unidentified minerals.

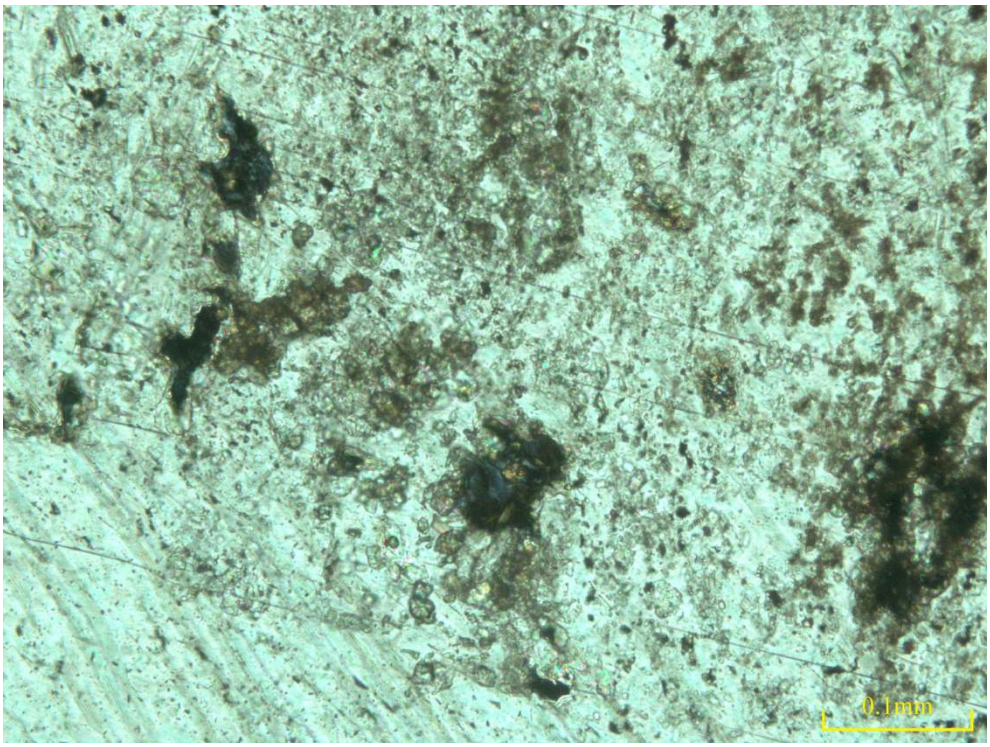
P6-10xp shows detail of a lighter 'domain' with its foliation.



P6-5,0xp

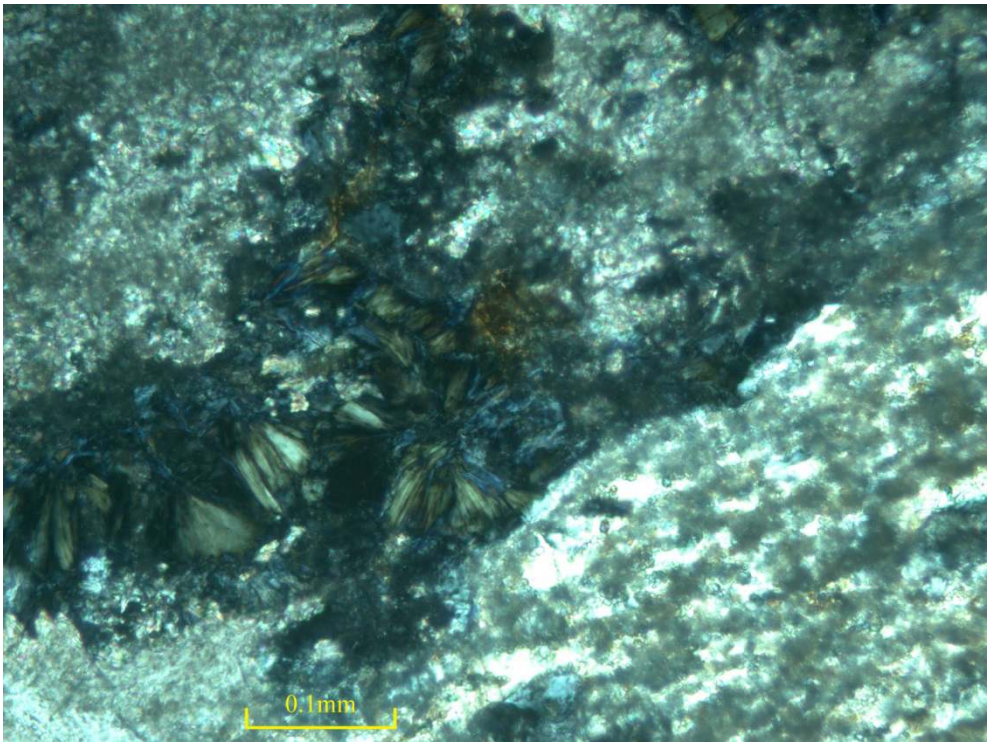


P6-10xp



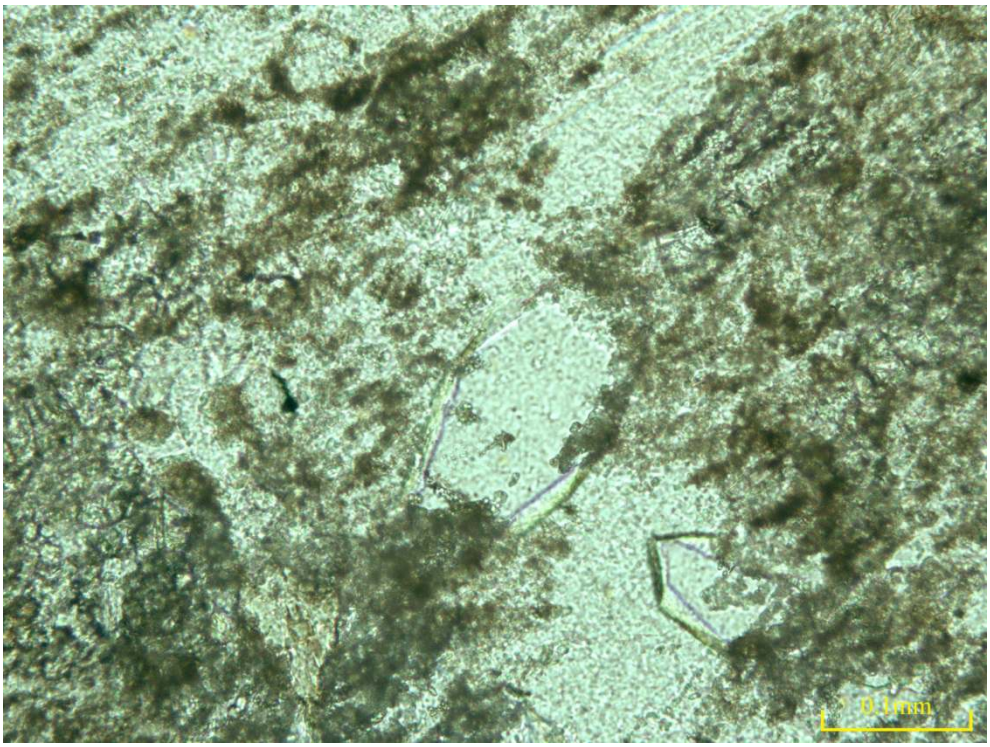
P6-20xp2

P6-20xp2 shows tiny grains of chlorite (centre) and probable epidote (high relief).



P6-20xp

P6-20xp shows unequivocal chlorite with its anomalous ‘Berlin blue’ interference colour.



P6-20pp

P6-20pp is detail of the unidentified mineral.

R3

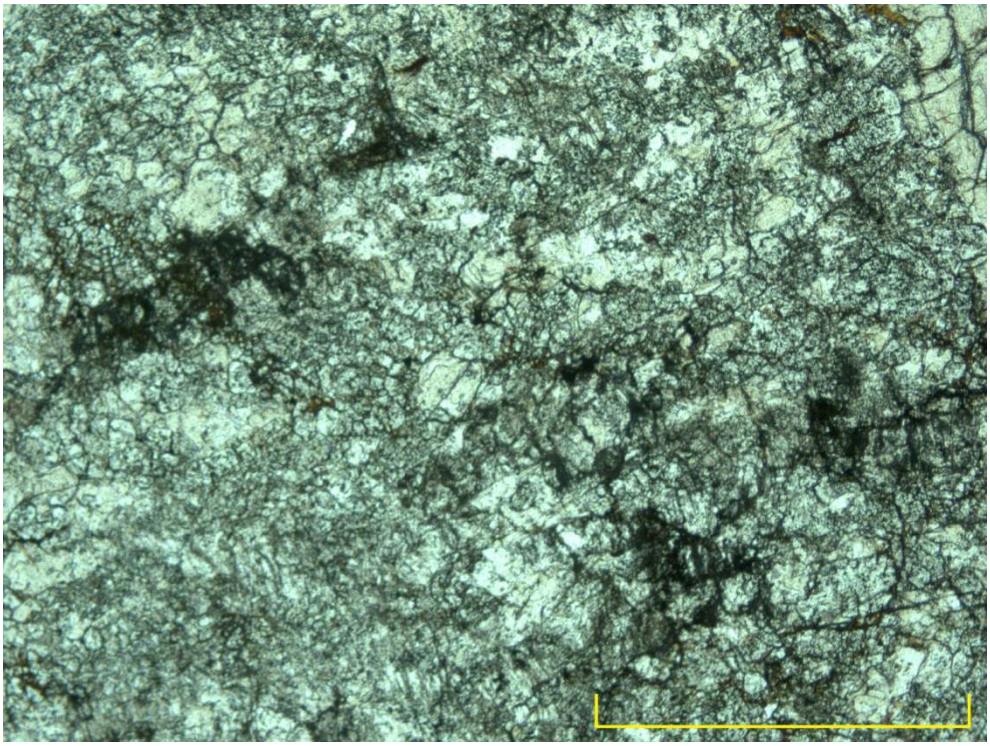
Skarn.

Predominantly diopside-hedenbergite (quite white, so it is close to diopside in composition). The pyroxene is in 0.1-0.4mm anhedralgrains. Some garnet is present. this is colourless, birefringent (Fe-Ca) garnet that shows sector twinning and zoning. It is quite anhedral and largely interstitial to the pyroxene. Grains are

to 0.8mm across. Garnet constitutes 20% of there rock. Carbonate and quartz are very occasionally seen. Some tiny acicular inclusions in the quartz are unidentified (possibly amphibole). Tiny crystals also found included in the quartz might be merwinite or another high-temperature Ca-silicate (larnite etc.).

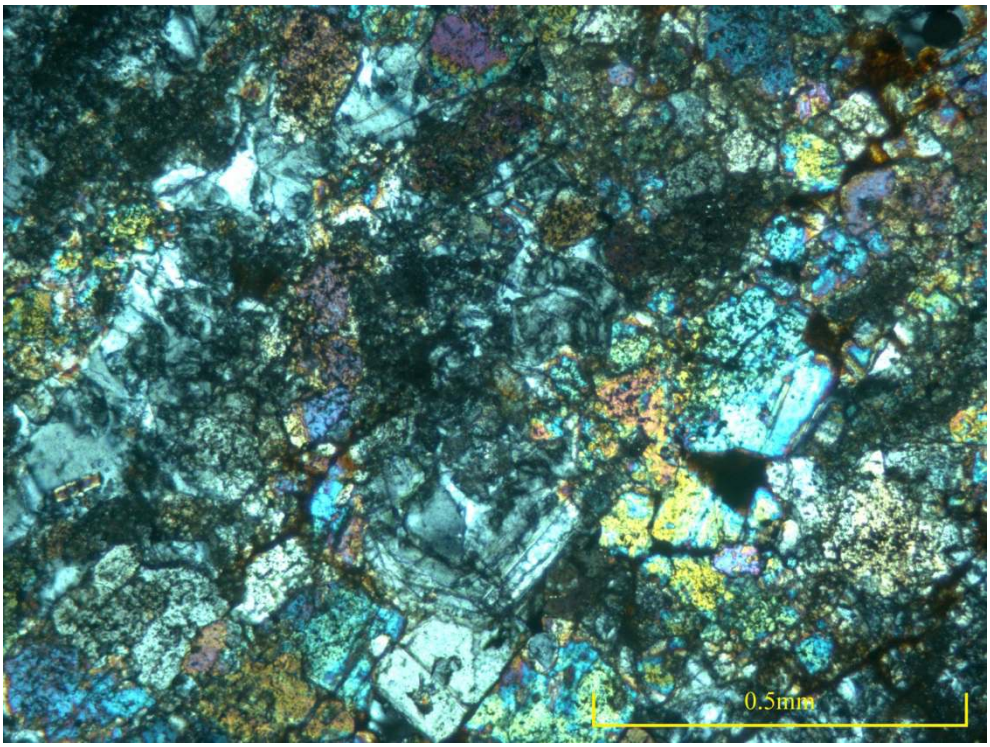
Photomicrographs:

R3-5,0pp shows a rather amorphous aggregate of garnet and pyroxene.

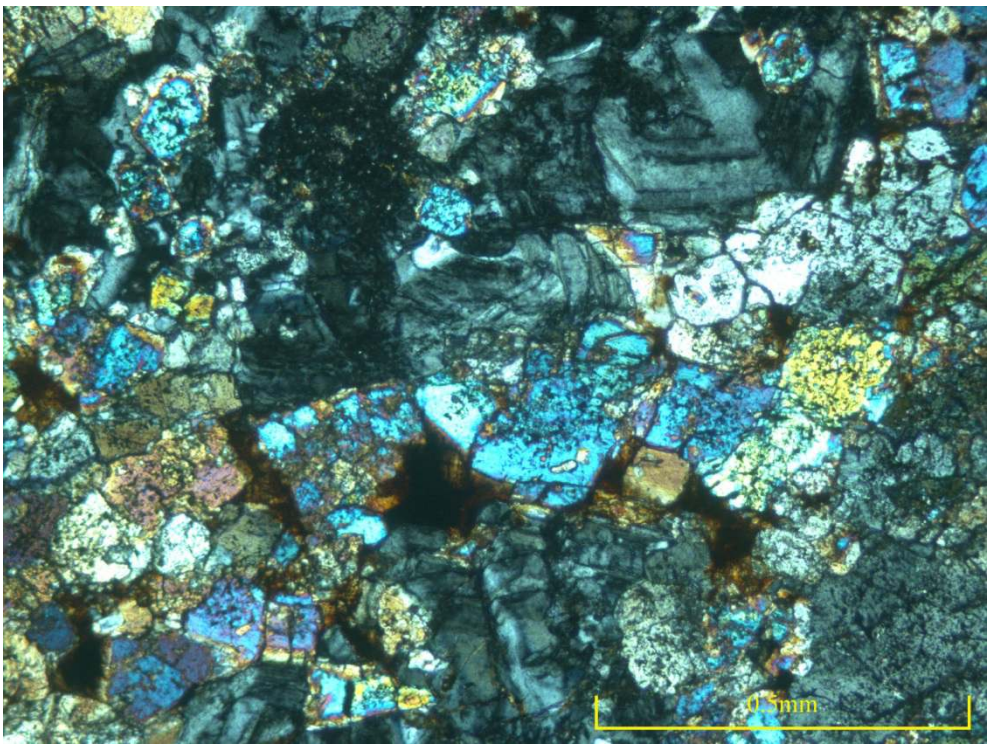


R3-5,0pp

R3-10xp and R3-10xp2 show detail of the garnet and pyroxene.

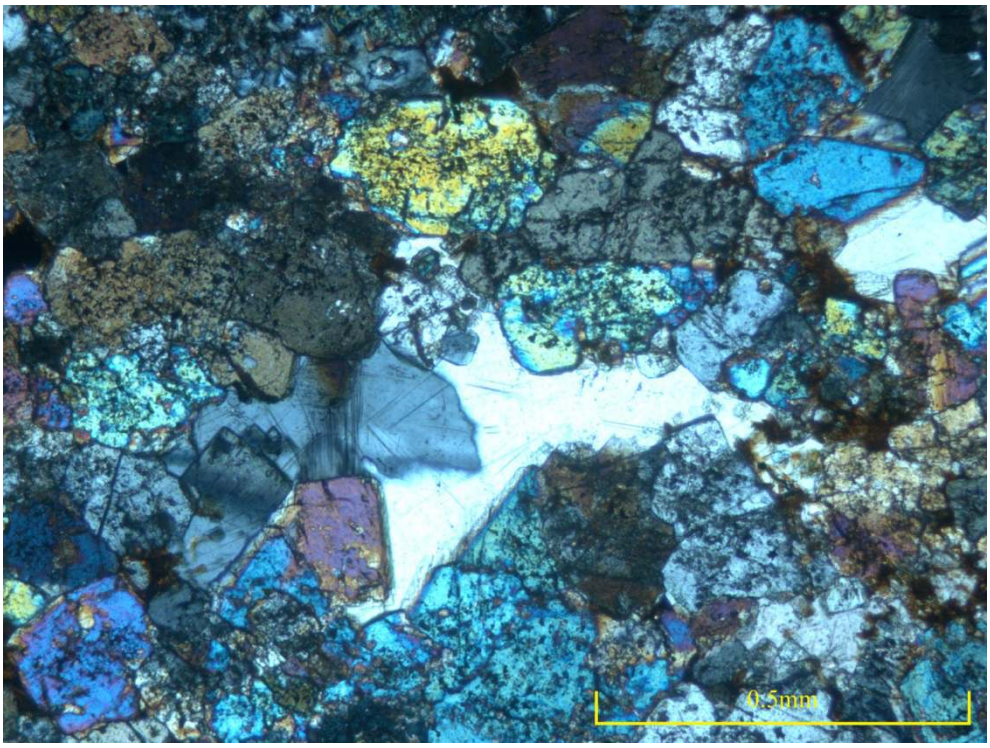


R3-10xp

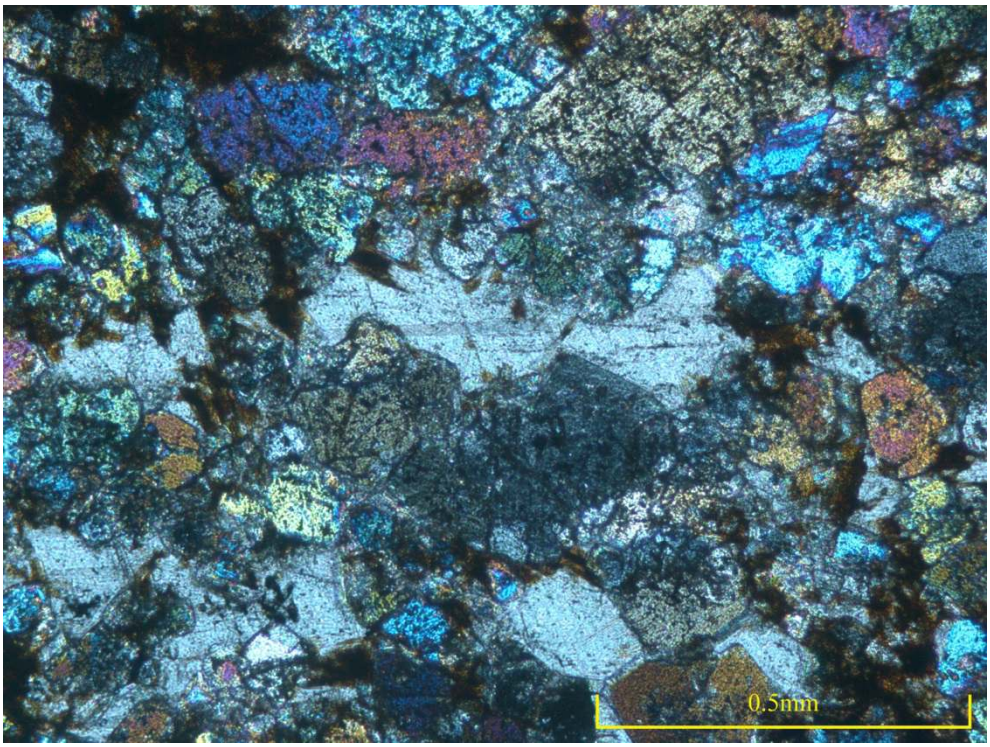


R3-10xp2

R3-10xp3 shows some interstitial quartz and R3-10xp4 some calcite (here blue-grey and showing a hint of twinning).

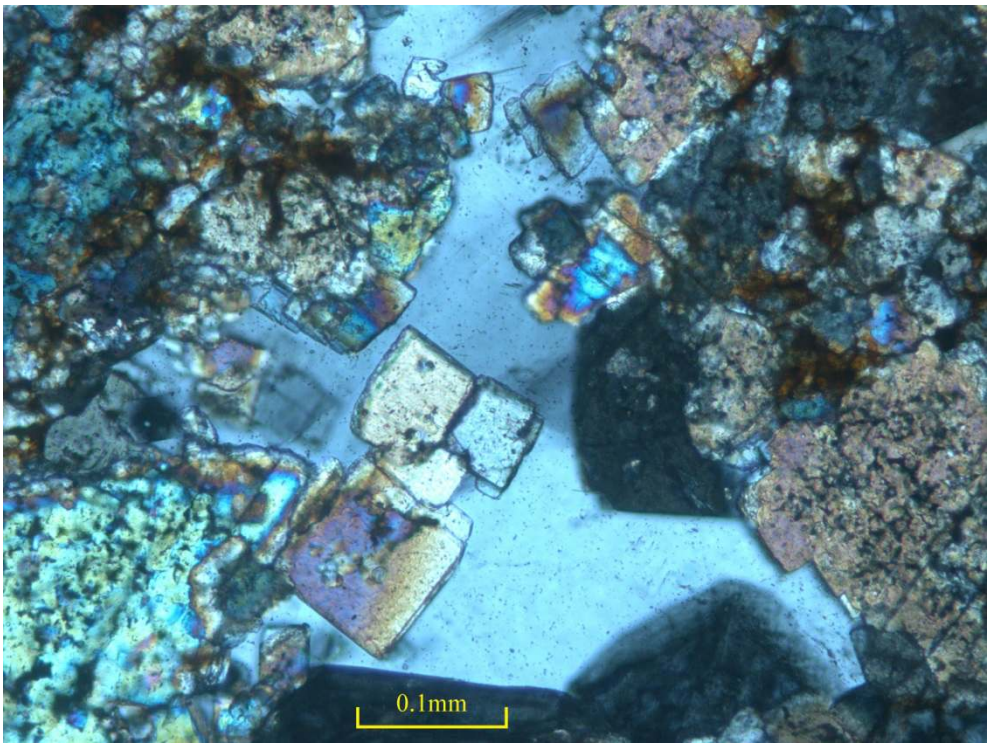


R3-10xp3



R3-10xp4

R3-20xp exhibits detail of crystals in quartz. Some of these might be merwinite.



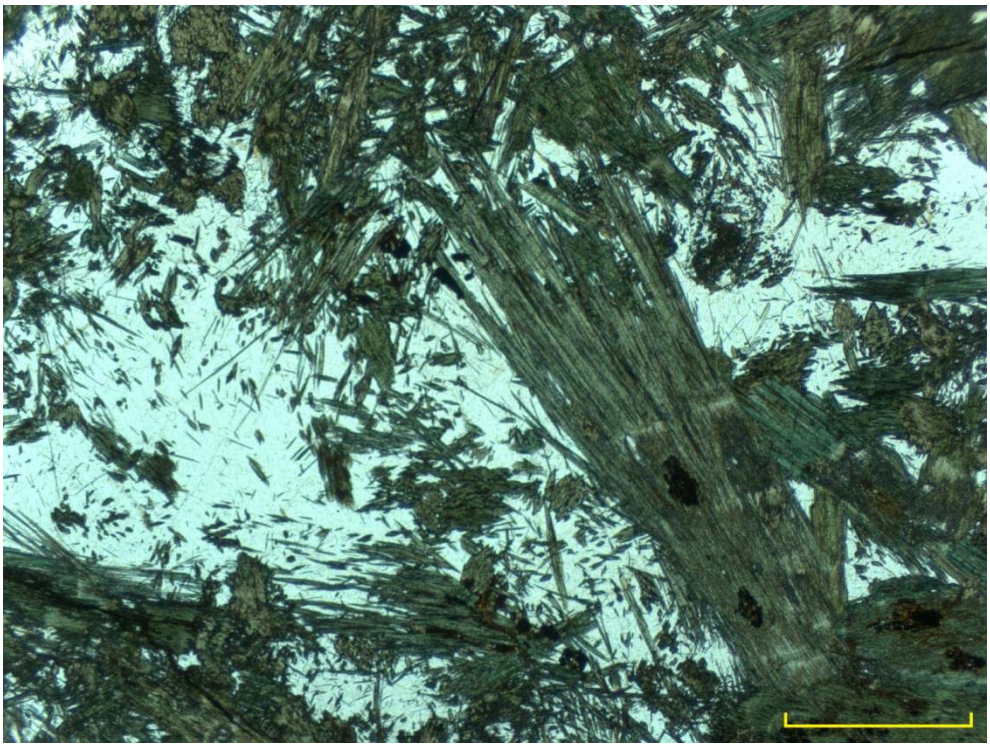
R5

Skarn.

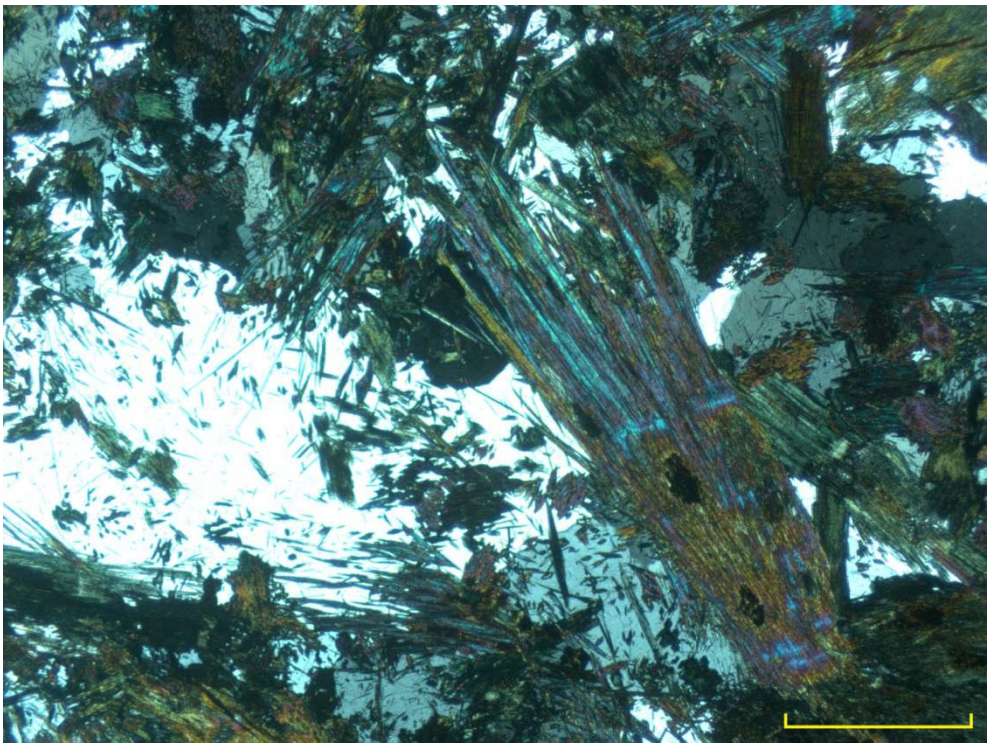
Consists entirely of actinolite and quartz. No remnant carbonate is present. Acicular amphibole crystals to 1.5mm long are in random orientation, forming a net within the quartz. One end of the section is of massive amphibole in subhedral crystals up to 5 by 1mm. Quartz is polygonized into 1-2mm grains with fairly irregular grain boundaries.

Photomicrographs:

R5-2,5pp and R5-2,5xp are of the same field. Tremolite-actinolite (closer to the actinolite end-member, judging by colour) is in acicular crystals. Quartz forms the matrix of the rock.



R5-2,5pp



R5-2,5xp

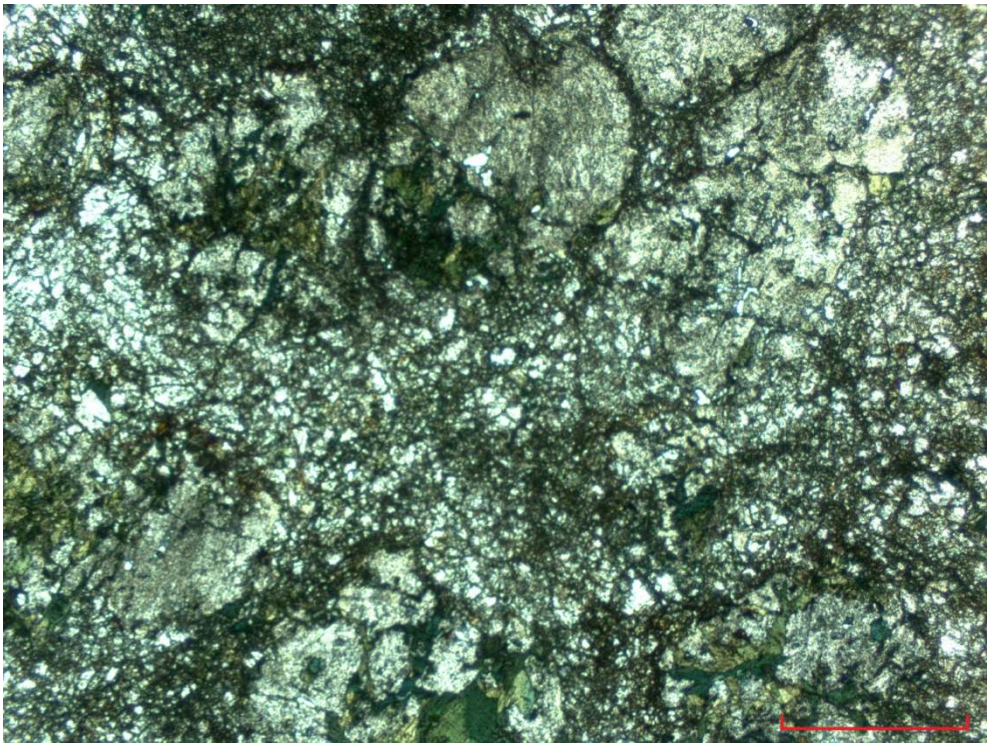
R6

Skarn.

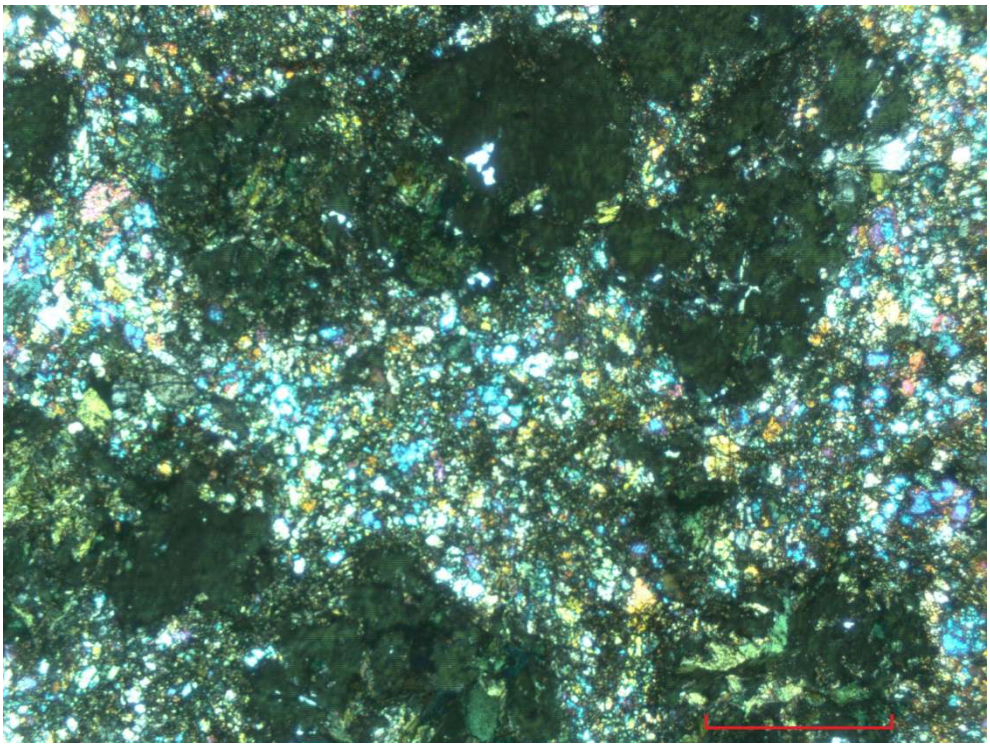
This rock is a diopside-hedenbegite / garnet skarn with retrograde actinolite. Garnets are in anhedral masses, typical 1mm across. It is mostly isotropic, but a few of the smaller grains are quite birefringent. Diopside-hedenbergite is in 0.1-0.3mm anhedral grains in granular aggregates. Actinolite is found particularly along fractures in the garnet, but also occurs as one 3mm thick monomineralic vein.

Photomicrographs:

R6-2,5pp and R6-2,5xp show the same field of this fine-grained skarn. The garnet is rather amorphous and much coarser grained than the pyroxene. Diopside-hedenbergite is in 0.1-0.2mm anhedral grains.



R6-2,5pp



R6-2,5xp

R19

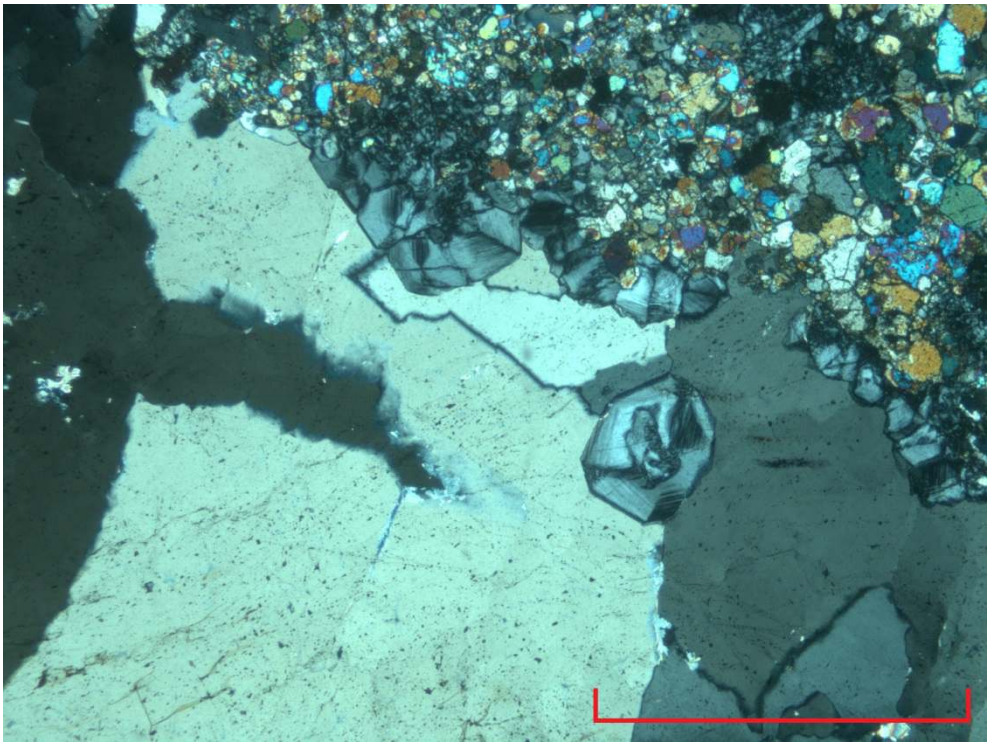
Skarn.

No fabric is evident. This rock is a skarn: diopside-hedenbergite / garnet with large masses of quartz. The quartz masses are up to 15mm across in polygonal 1-2mm grains showing frequent 120 degree junctions. Some acicular crystals are included in the quartz (0.1mm long prismatic crystals of low birefringence and R.I >quartz but < garnet). A few are also included in the garnet at the margin of the quartz. These may be apatite. Faintly pink, birefringent garnet of 0.1-1mm grain size forms aggregates to 5mm across, predominantly in quartz. Faintly green diopside-hedenbergite occurs as an aggregate of 0.1mm grains and masses of 1mm

crystals. Occasional 0.5mm masses of garnet are found within the pyroxene field. Quartz is in masses to 15mm across. Rare crystal faces are seen and those crystal boundaries have interstitial calcite where a void has occurred. The calcite content is <<1%.

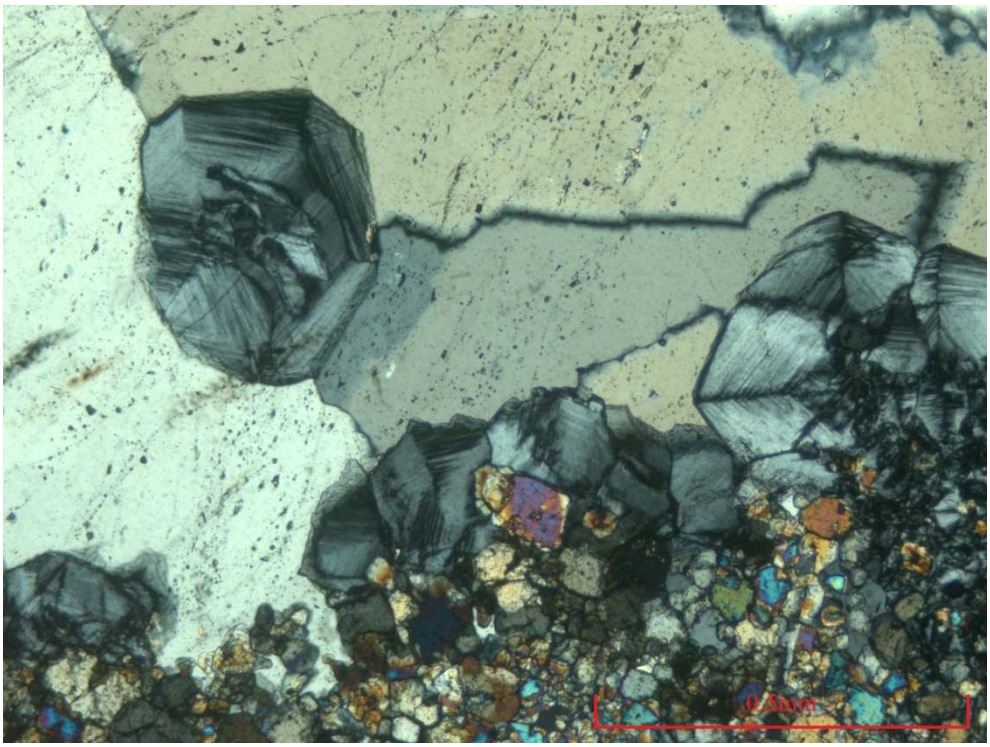
Photomicrographs:

R19-5,0xp shows the mineralogy of this skarn: a large field of quartz in contact with diopside-hedenbergite, with garnet crystals along the contact.

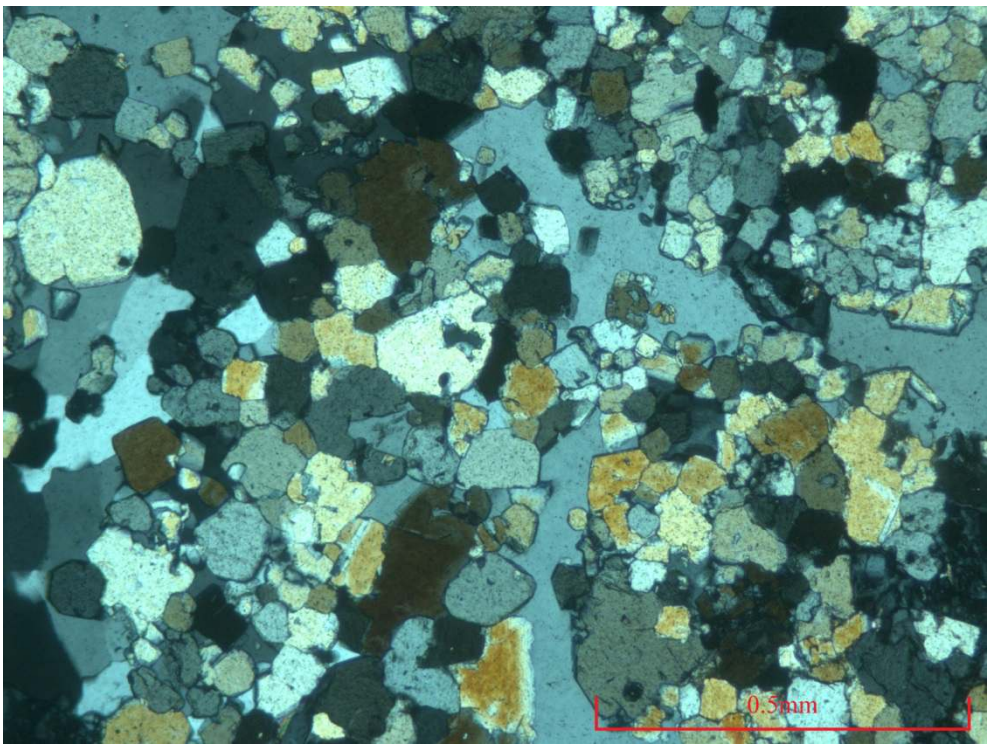


R19-5,0xp

R19-10xp2 shows detail of the birefringent, zoned and sector-twinned garnet.



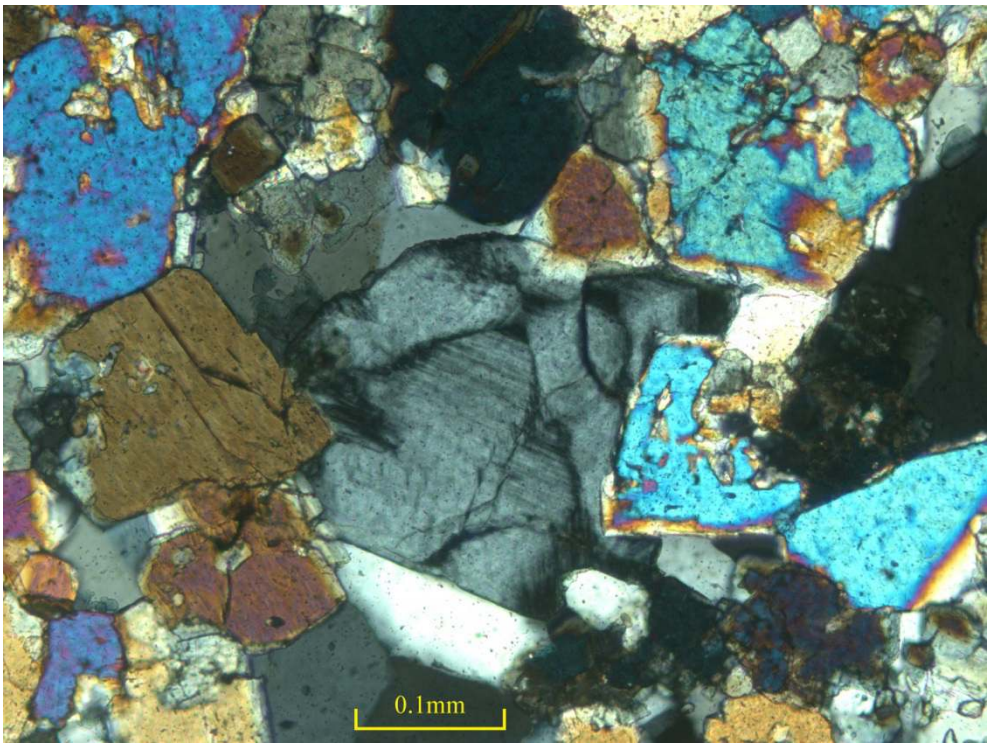
R19-10xp2



R19-10xp

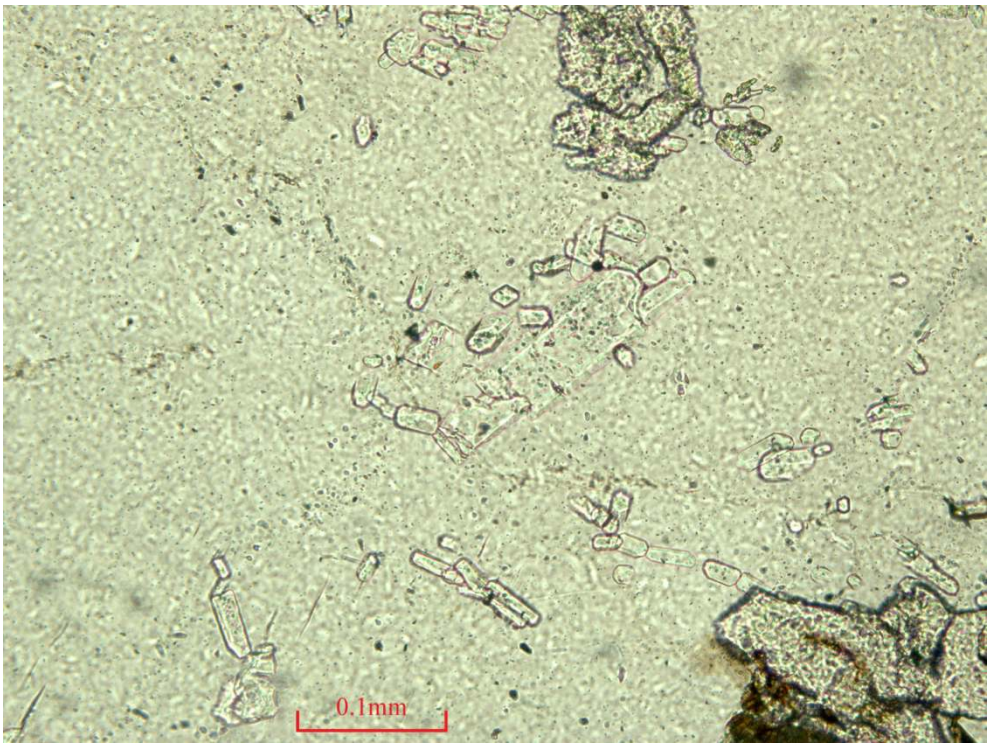
R19-10xp is of the granular pyroxene.

R19-20xp2 gives detail of garnet included in the pyroxene field. Note that edges of a pyroxene crystal are included in the garnet, so it is likely that they crystallized together.

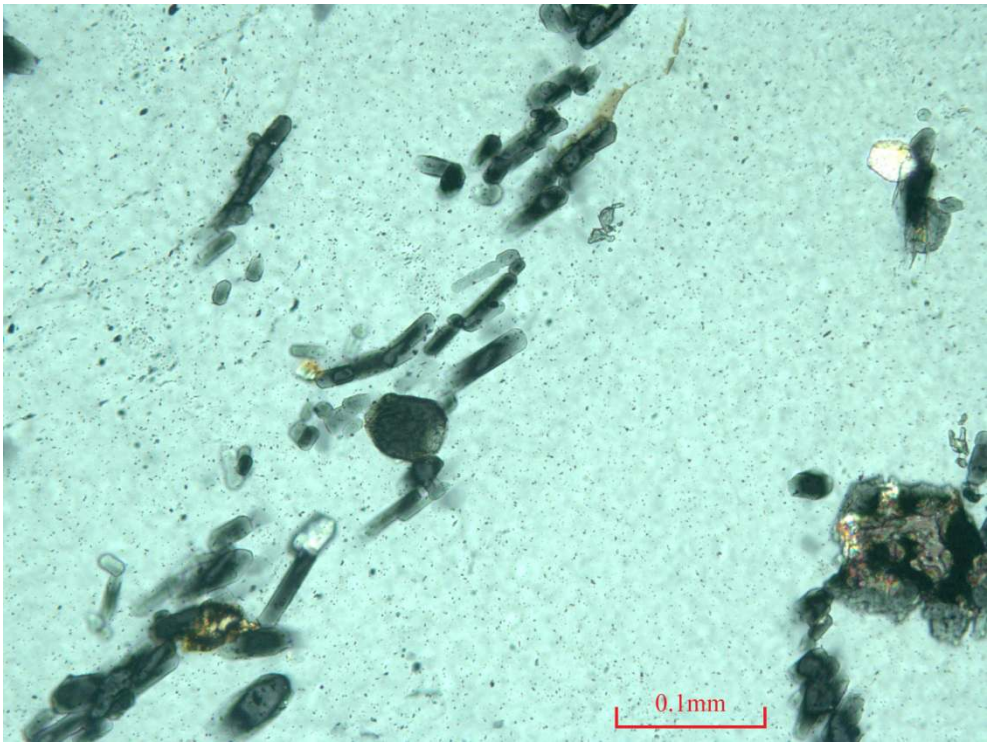


R19-20xp2

R19-20pp shows tiny inclusions in quartz which are probably apatite. The two high relief grains are garnet.



R19-20pp



R19-20xp

R19-20xp shows the ?apatite under crossed polarizers.

COMMENTS

The simple calc-silicate mineralogy of these skarns indicates that the associated intrusion (if granitic) is not a highly evolved (fractionated) granite. No boron- or fluorine-bearing minerals are present . It is, therefore, not likely to be tin granite. Garnet-pyroxene mineralogy indicates a proximal exoskarn. An underlying pluton is not likely to be more than a couple of hundred metres deep, or it may be laterally close. The retrograde amphibole-quartz assemblage of R5 may indicate involvement of meteoric water in formation of that skarn, but there is not the commonly extensive chlorite alteration found in many systems.