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ASSESSMENT REPORT

BASED ON THE

2021-2022 GEOLOGICAL MAPPING AND INTERPRETATION

COMPLETED ON THE

SYLVANITE GOLD PROPERTY

FOR

EXIRO MINERALS CORP.

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SUMMARY

From May 2021 to February 2022, Exiro Minerals Corp carried out a robust geological survey program which consisted of a structural interpretation using high-resolution magnetic gradient survey data, structural mapping and analysis, prospecting, geological mapping, detailed structural and geological interpretations and a lithogeochemical analysis. The field portions of the survey completed over 67 concurrent field days between May – August, 2021 by Exiro Minerals, Bjorkman Prospecting, and Orix Geoscience. Structural analysis and interpretations were completed by Orix, and lithogeochemical analysis was completed by an independent consultant.

The project was designed to gain a better understanding of the geological setting, controls on mineralization at known occurrences, collect additional information to refine the geological interpretation and explore for gold mineralisation.

A total of 638 sample were collected and sent for analysis, sample locations were recorded using UTM NAD 83 Zone 17N coordinate system. The mapping program identified 9 main lithologies across the project area: Iron Formation, Conglomerate and Clastic Sediments, Felsic Intrusive, Felsic Volcanics, Intermediate to Mafic Volcanics, Mafic Intrusive, Porphyritic intrusive, and Ultramafic intrusive. Overall, the prospecting program confirmed gold occurrences identified by historic work, and identified numerous new outcrops, with three hundred and fifty outcrops recorded by the field teams.

A total of 346 structural measurements were recorded across the project area (Fig 8.2.1), which included contacts, foliations, bedding, folds, faults, stretching lineations, shear fabrics, kinematic indicators, and veins. The collected structural information was used as a basis for refining the understanding of the structures present in the geology, as well as possible controls on mineralization. Interpretation of observed structures in outcrop revealed trends of multiple deformation events, at least 5 events of deformation were observed:

- D1:** N-S shortening, identified as S0/S1 bedding and foliation.
- D2:** NNE-SSW shortening identified by S2 foliations, L2 stretched mineral lineation's and F2 tight isoclinal folding of S1, S2 is axial plane, plunging moderately to steeply.
- D3:** NW-SE shortening with a NE striking S3 foliation, axil plane to F3 folds, close to chevron to kink folds on S2, moderately plunging to the NE or SW.
- D4:** E-W shortening, last ductile deformation event, seen as spaced NNE and NNW cleavage crenulation, S4 is axial plane to the F4 folds which plunge moderately to the NNE.
- D5:** NNE to NNW late intense brittle faulting, based on mag and historic data, many host the late diabase swarm, many with significant sinistral offset across property.

The updated geological interpretation integrated historical geological data, 2021 high-resolution magnetic gradient information, and geological information collected from the 2021 geological mapping program. The updated interpretation correlated with previous interpretations at a regional scale. However, rendered a more refined geological map which provided to be useful when targeting on the project area.

Due to thin yet laterally extensive overburden cover, a soil and/or till sampling program followed by diamond drilling is recommended to further assess the mineralization potential of the Property.

1.0 INTRODUCTION

Beginning in May 2021 a multi-phase geological survey was undertaken by Exiro Minerals and supported by Orix Geoscience and Bjorkman Prospecting on the Sylvanite Project located in Chapleau, Ontario. The purpose of the program was to collect detailed surface lithological and structural data, refine the geological and structural interpretations, and investigate the structural controls on gold mineralization to identify target areas for future diamond drilling.

The geological survey can be subdivided into five main phases. First, a preliminary property wide structural interpretation using a high-resolution helicopter-borne magnetic gradient survey was completed by Orix Geoscience from May – June 2021. Second, a structural mapping program was completed by Orix Geoscience in June – July 2021 followed by a detailed structural analysis. Third, a concurrent prospecting program was completed by Bjorkman Prospecting and Exiro Minerals between May – August 2021. Fourth, a series of detailed structural geological interpretations were completed by Orix Geoscience between July 2021 through to February 2022 resulting in a single comprehensive, property-wide interpretation. Finally, a lithogeochemical study was completed by an independent consultant in March 2022 using the contemporary analytical data collected as well as historical data in order to assess the validity of the interpretation and generated targets.

This report will outline the technical aspects of each phase of the survey, provide a summary of the interpretations completed, discuss the resulting targets, and propose the next steps in assessing the targets.

1.1 TERMS OF REFERENCE

The following report was prepared to provide a detailed account of the 2021 mapping Program completed on the Sylvanite Gold Property (“Property”). The Property is comprised of 39 multiple cell claims, 1057 single cell claims, and 7 boundary cell claims, for a total surface area of 34,984 hectares, located 190 km north west of the Greater City of Sudbury, Ontario (Fig. 2.1).

The Property is an amalgamation of claims owned by several holders, and is being operated by Exiro Minerals under an option agreement between each of the holders.

This report was prepared by Sam Grasis, B.Sc. P.Geo, a Project Geologist with Orix Geoscience Inc., and Sydney Ramnath, B.Sc. G.I.T, a Senior Geologist with Exiro Minerals at the request of Exiro Minerals Corp.

This report is based, in part, on internal company reports and published government documents as listed in the Reference Section at the end of this report. Several sections from these reports authored by other consultants have been directly quoted and are so indicated in the appropriate sections. The author has not conducted detailed land status evaluations and has relied upon public documents and statements by Exiro Minerals Corp., regarding property status and legal title to the Property.

2.0 PROPERTY DESCRIPTION & LOCATION

2.1 PROPERTY LOCATION

The Sylvanite project is approximately 350 square kilometers and located approximately 50km east of Chapleau, Ontario. The property encompasses parts of the townships of Halcrow, Denyes, Tooms, Greenlaw, Crockett, Raney, Swayze, Cunningham, Eisenhower, and Kaplan. The geographic coordinate location is 47°45'35"N 82°50'37"W.



Figure 2.1: Property Location Map (Natural Resources Canada, 2002).

2.2 DESCRIPTION AND OWNERSHIP

The property comprises 39 multiple cell claims, 1057 single cell claims, and 7 boundary cell claims, for a total surface area of 34,983.99 hectares measure approximately 20km by 22km (Appendix 3). The Property includes claims staked by Exiro Minerals as well as claims optioned from various underlying holders, some of which have retained the claims in their name during the option period. The Property occurs within the traditional territories of the Brunswick House First Nation, Flying Post First Nation, Chapleau Ojibwe First Nation and Chapleau Cree First Nation. None of the claims are on reserve lands, but occur in in the first nations traditional territories, and bordering the reserve land Mountbatten 76A, in the Mountbatten township, community consultation was required and consistent updates were provided regarding the planned work.

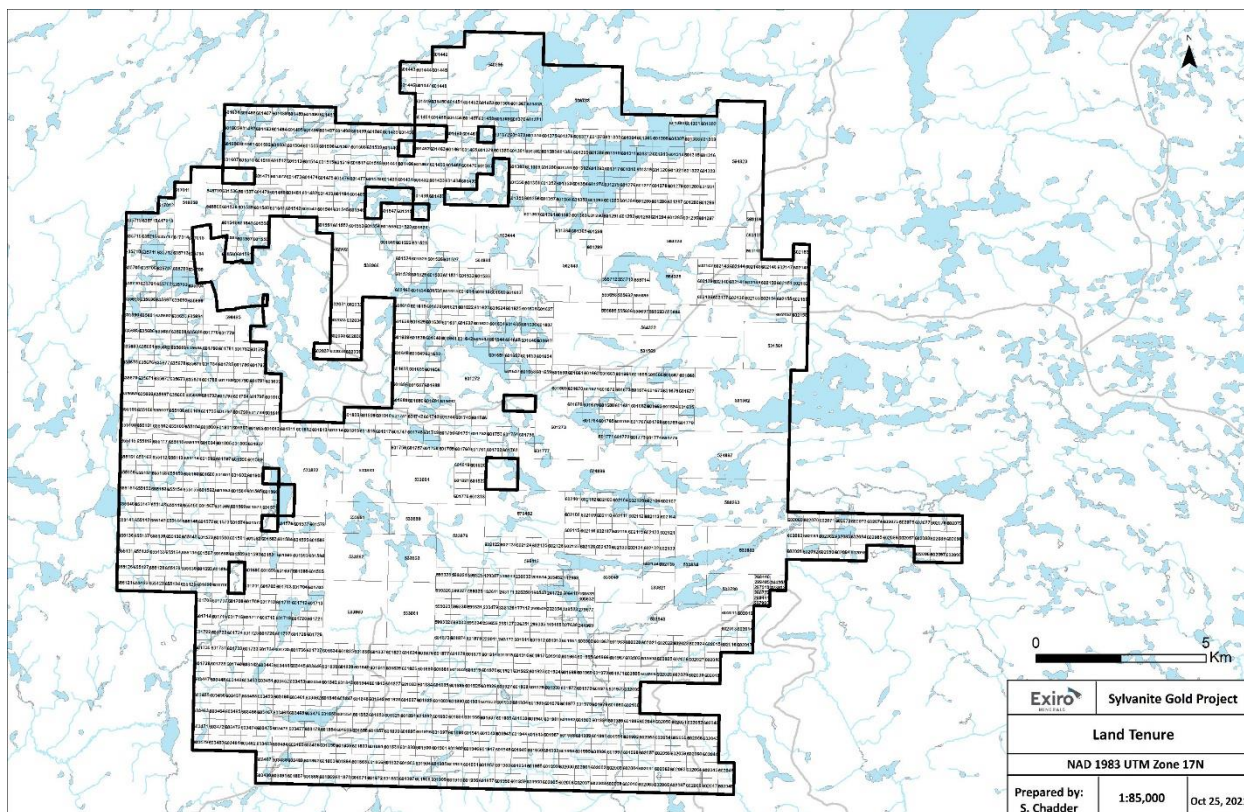


Figure 2.2: Property Land Tenure, Illustrating Surrounding Claims and Leases (MNDM MLAS Dataset, 2021).

3.0 ACCESSIBILITY, CLIMATE, INFRASTRUCTURE, & PHYSIOGRAPHY

3.1 ACCESSIBILITY

The Sylvanite Gold Property is accessible from a network of forestry roads which are maintained by the Eacom Timber logging company. This access route is utilized year-round and is under a public access agreement with the province of Ontario. The Sultan Industrial Road connects at its far North corner the town of Sultan to the easternmost corner at Watershed 144 at King's Highway 144 and Secondary Highway 560. The southern portion of the property is accessed from the Kormack Road off of Highway 667 between Chapleau and the town of Sultan. The northern portion of the property is accessed from the Swayze Road off of the Dore Road off of the Sultan Industrial Road. Logging roads traverse through the majority of the property allowing for easily accessible exploration. Additional access is gained via ATV's and small boat.

3.2 CLIMATE

The Property is located in a climatic region characterized by warm but rainy summers through May to August and long, cold winters. Chapleau has a significant amount of rainfall during the year with an average of 843.28 millimetres of precipitation falling annually. Long-term climate data (1981-2010) from the Chapleau Airport monitoring station (Government of Canada 2016a) indicates that the mean annual air temperature is 2.0°C, ranging from an extreme maximum of 39.4°C to an extreme minimum of -50°C. The minimum and maximum monthly mean temperatures measured at the Chapleau Airport monitoring station during 1981-2010 were -15.6°C for January and 14.8°C for June. There is an annual average of 98 frost-free days. On average, there are 181 days with precipitation per year with an average annual precipitation of 809.0mm (545.1mm as rain and 281.5mm as snow-water-equivalent).

3.3 LOCAL RESOURCES AND INFRASTRUCTURE

The neighbouring towns in relation to the project are those of Foleyet, Chapleau and Sultan. Chapleau being the largest of the residential towns has a population of approximately 2000 residents. Business in Chapleau is largely tied to the mining (Newmont) and the logging industry. Sultan is considerably smaller than Chapleau with a population of 49 (2011), the local economy is based primarily on hunting and related tourism. Sultan is 68 kilometers east of Chapleau. Foleyet located north of Chapleau with a population of 177 (2016) serviced by the Ontario 101 highway and is on the Canadian National Railway transcontinental main line. The larger centres of Sudbury and Timmins are an approximately 3 hour drive from the property.

3.4 PHYSIOGRAPHY

Within the Chapleau – Sultan area the terrain is characterized by low to moderate relief, with rock knobs and moraines forming the uplands and glaciofluvial deposits underlying the lowlands. Elevation ranges from 335 meters near Nemegosenda Lake to a maximum of ~579 meters near the Pemache river and on Lackner Hill. Windermere, Como, Borden and Nemegosenda Lakes are large lakes in the northern part of the area (Roed & Hallert, 1979).

The area displays numerous landforms, major terrain unit groups, including bedrock terrain, moraines, glaciofluvial outwash, eskers, and kames, and organic terrain. Less significant terrain units include alluvium and eolian deposits.

Bedrock terrain, which occurs in the northwestern corner of the Chapleau region, is constitute of underlain bedrock, either at surface or within 1 to 2m of the surface. There is very little overburden in this area, although patches of moraine till occur throughout. Within this area poorly drained depressions are seen with deposits of peat and organics. Most of the rock terrain is of moderate relief and is rugged to uneven with densely surrounding forests. A small amount of high relief rock terrain occurs in the southwest corner of the Chapleau region. Drainage is generally good except in the organic depressions.

Small eskers, crevasse fillings and drumlins can be found in this unit, together with a small number of scarps and steep sided gullies (Roed & Hallert, 1979).

Morainal landforms in this region are either ground moraine or hummocky moraine. Moraines consist of sandy till which occur throughout the north-central and southwestern parts of the region as a major terrain unit or as a sub-ordinate unit.

Large tracts of land in the Chapleau region are underlain by glacio-fluvial outwash composed of sand and gravel. Often the upper 2m of the deposit consists of fine- to coarse-grained sand. This is underlain by stratified pebble to cobble gravel which in places, is ~5m thick. Interbedded sand and gravel layers may occur at depth.

4.0 PERSONNEL

This section outlines the companies that aided in completing the various components of the program described in this report.

Exiro Minerals mobilized a team of geologists and geological assistants from May to June 2021 to complete a property wide mapping and prospecting program. The team consisted of 1 geologist and 4 assistants that were in the field for a total of 46 days. The team was remobilized in August 2021 for 21 days to complete additional mapping and sampling.

Bjorkman Prospecting was contracted to assist with the prospecting program. The Bjorkman team consisted of 2 prospectors and 2 helpers who were in the field for a total of 42 days between May and June 2021

Orix Geoscience provided consultation services, which included 19 days of field mapping by a structural geologist in June 2021 and various stages of interpretation between May 2021 through to February 2022. Interpretation work was mainly completed by the structural geologist with additional technical support provided on an at-need basis.

All samples taken by Bjorkman Prospecting and Exiro's field team were sent to ALS Canada Ltd. Geochemistry, Sudbury branch, and analysed for gold and whole rock geochemistry. All sample results have been received.

Lastly, Gyorgi Tuba, an independent consultant, completed a lithochemical study using the analytical data from ALS as well as historical lab analytical, the resulting data was used by Exiro minerals to understand and develop new exploration targets and interpret gold mineralization.

5.0 HISTORY OF EXPLORATION

A comprehensive search of previous work on the Sylvanite Gold Property was completed, including a full review of all available assessment reports. Available assessment reports were obtained from OGSEarth, an online compilation map published by the Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry. Below is a brief description of the historical exploration activities that have occurred within the area of the current Sylvanite Gold Property. The exploration history is categorized by means of townships and most significant occurrences. The property covers the majority of the Halcrow, Tooms, Denyes and Greenlaw Townships and parts of Swayze, Cunningham, Raney, Crockett, Eisenhower, and Kaplan.

The earliest record of work in the Swayze Greenstone Belt, are two geological surveys, one by Parks (1900) and the other by Emmons and Thomson (1929). The discovery of gold in Swayze Township in 1931, led to extensive prospecting which resulted in several new discoveries. In 1959, Bartley M.W. prospected an area covering all above listed townships on behalf of Canadian Pacific Railway Company. Numerous companies have been actively involved in the exploration for gold in the Swayze area, since the early 1930's. A few of the more prominent companies are:

Kenty Gold Mines Ltd. (Swayze Township)

- Between 1931-1934 surface and underground work,
- In 1936, a 5-ton test mill was installed and operated for 3 months,
- Between 1947-1949 they dewatered the No. 1 shaft to continue with minor development, 100-ton mill was installed, 1,634 feet of diamond drilling was completed, and 1,250 tons of ore hoisted from the development and,
- Only a limited amount of work was completed in 1950.

Halcrow-Swayze Mines Ltd. (Halcrow Township)

- Between 1932-1935 surface and underground work was completed, installation of 25-ton pilot mill, and processing of 211 tons of ore to extract 38.98 oz. of gold,
- In 1937 there was minor diamond drilling completed, and
- In 1984 Regal Petroleum performed limited surface exploration.

Hotstone Minerals Ltd. (Greenlaw Township)

- From 1932 to 1945 surface exploration and diamond drilling was completed,
- Between 1946-1947 a more extensive surface exploration program, which included diamond drilling and EM surveys were completed, and
- Final, between 1982-1984, Noranda Exploration optioned the ground and conducted an extensive surface exploration.

The Ontario Geological Survey has published several reports on the area, Furse (1932), Rickaby (1934), Laird (1935) and Donovan (1965, 1968), and one regional report by Thurston et al. (1977). An aeromagnetic survey was flown jointly by the OGS-GSC (1970) and a combined airborne magnetometer and VLF-EM survey flown by the OGS (1982), both of which supply good geophysical data on a regional scale.

Currently there is an extensive multiple year research program occurring through the Swayze Greenstone Belt, which is part of Metal Earth. With funding from the Canada First Research Excellence Fund and federal/provincial/industry partners, Metal Earth is a strategic consortium of outstanding researchers from academia and allied Canadian and international research centres, government, and industry. This work is providing a new robust regional volcano sedimentary stratigraphic framework, allowing for a more comprehensive re-interpretation of the available historical data.

Table 5.1: List of Geophysical Abbreviations Used In This Section.

Abbreviation	Description
EM, AEM	Electromagnetic (Airborne)
MAG, AMAG	Magnetometer Survey (Airborne)
VLF, AVLF	Electromagnetic Very Low Frequency (Airborne)
HLEM	Magnetic and Horizontal Loop Electromagnetic
IP	Induced Polarisation
GRAV	Gravity
VTEM	Versatile Time Domain Electromagnetic

For a more exhaustive description of the historical exploration activities on the Sylvanite Gold Property, please refer to a previously submitted report titled "Assessment Report Based on the 2021 Geophysical Survey & Inversion Modelling Programs Completed on the Sylvanite Gold Property".

6.0 GEOLOGICAL SETTING & MINERALIZATION

6.1 ABITIBI AND SWAYZE GREENSTONE BELTS

The Property is located within the Swayze Greenstone Belt (SGB). The historic classification of the

Swayze Greenstone Belt as a discrete lithostructural entity that is separate from the adjacent Abitibi Greenstone Belt is no longer tenable (Breemen et al., 2006) given the commonalities among

depositional ages and rock assemblages in both belts (Ayer et al., 2002). Instead, the Swayze Greenstone Belt is now widely regarded as the southwestern extension of the prolifically endowed Abitibi Greenstone Belt (Heather, 2001; Ayer et al., 2002; Breemen et al., 2006; Thurston et al., 2008).

In general terms, the Abitibi Greenstone Belt comprises Archean metavolcanic rocks, related synvolcanic intrusions, and clastic sedimentary rocks, intruded by Archean alkaline intrusions and Paleoproterozoic diabase dykes.

The supracrustal rocks of the Abitibi Greenstone Belt were deposited over a time span of ~125 m.y. from 2795 to 2670 Ma (Ayer et al., 2002b, 2005; Thurston et al., 2008; Leclerc et al., 2012). Based on geochronological information, six volcanic assemblages are distinguished in the southern Abitibi Greenstone Belt, that formed as a result of submarine volcanic activity between ~2750 Ma and ~2695

Ma. These assemblages are referred to, from oldest to youngest, as the Pacaud, Deloro, StoughtonRoquemaure, Kidd-Munro, Tisdale, and Blake River assemblages (Ayer et al., 2002, 2005; Thurston et al., 2008; Monecke et al., 2017). Submarine volcanism was followed by the development of distinct sedimentary successor basins.

In the southern Abitibi Greenstone Belt, the sedimentary successor basins include the 2690 to 2685 Ma flysch-like deposits of the Porcupine assemblage and the 2679 to 2669 Ma molasse-like deposits of the Timiskaming assemblage (Corfu et al., 1991; Bleeker and Parrish, 1996; Ayer et al., 2002, 2005; Frieman et al., 2017; Monecke et al., 2017). The Timiskaming assemblage was deposited in a terrestrial setting and unconformably overly all older supracrustal rocks of the Abitibi Greenstone Belt (Born, 1995; Mueller et al., 1994; Corcoran and Mueller, 2007). The predominantly clastic sedimentary rocks of the Timiskaming assemblage are locally intercalated with alkaline volcanic deposits (Hyde, 1980; Mueller et al., 1994).

The bulk of gold mineralization is generally interpreted as having occurred over a protracted period of time after the deposition of the Timiskaming assemblage (Wilkinson et al., 1999; Ayer et al., 2005; Bateman et al., 2008; Ispolatov et al., 2008; Bleeker, 2012; Monecke et al., 2017; Dubé et al., 2017; Poulsen, 2017).

Figure 6.1.1 shows the regional extent and geology of the Abitibi Greenstone Belt, including the SBG, as well as notable deposits and structures.

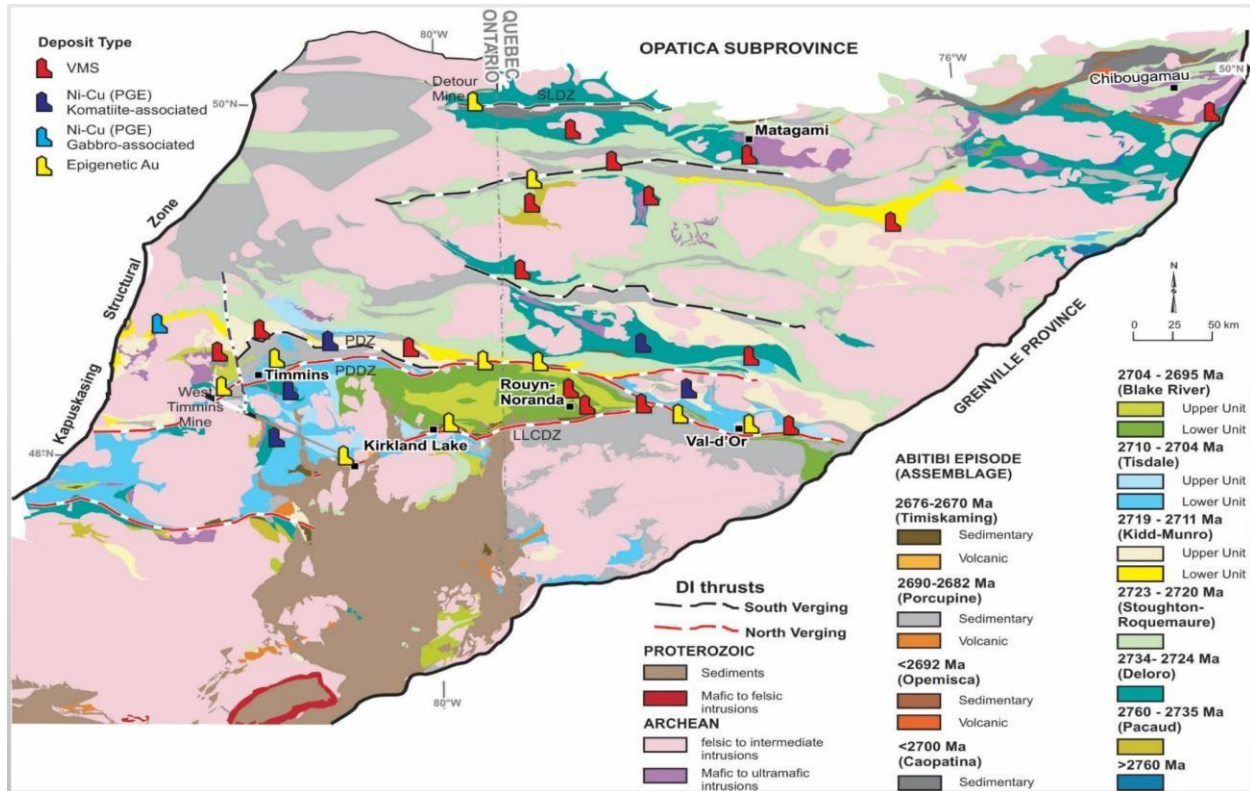


Figure 6.1.1: Abitibi Greenstone Belt Stratigraphy (modified from Thurston et. al, 2008)

The SGB can be divided into a northern (above 48 degrees N) and southern (below 48 degrees N) segment, which is bounded by the Nat River granitoid complex in the north, the Ramsey-Algoma granitoid complex in the south, the Kenogamissi granitoid complex to the east and the Kapuskasing structural zone to the west (Heather 2001; Breemen et al., 2006). The northern SGB is connected to the southwestern AGB by a narrow septum of volcano-sedimentary rocks associated with the Slate Rock High Strain Zone, while the connection in the southern SGB is via the Ridout High Strain Zone (Figure 6.1.2). Like the rest of the AGB, the SGB comprises a range of intrusive and extrusive rock types, including felsic to ultramafic volcanic, and chemical and clastic sedimentary rocks (Heather, 2001). All rock types within the belt are aged between 2,680 Ma and 2748.2 Ma (Heather et al., 1996) with plutonism lasting during the entire period of volcanism and subsequent sedimentation.



Figure 6.1.2: Regional geology of the Abitibi and Swayze Greenstone Belt (Modified from Ontario Geological Survey and Deposit Data Sourced from Company Websites in 2020).

The SGB underwent a complex and protracted structural history of polyphase folding, development of multiple foliations, ductile high-strain zones, and late brittle faulting. The map pattern preserved within the Swayze Greenstone Belt is dominated by regional F_2 folding, and anticlines and synclines with an associated S_2 axial-planar foliation interpreted to have formed during orogen-wide shortening across the entire Superior Province. An important structural element is the Ridout High Strain Zone (RHSZ), a major east–west high-strain zone that is interpreted to be the western extension of the Larder Lake-Cadillac deformation zone of the Abitibi Greenstone Belt (Breemen et al., 2006). The F_2 Ridout Synform coincides with the RHSZ wherein intense deformation is characterized by intense flattening, tight to isoclinal folding, transposition, and locally a component of dextral simple shear in east–southeast-striking zones (Heather et al., 1996).

The SGB includes several supra-crustal assemblages that form an upwardfacing "layer-cake". Rock types include ultra-mafic, mafic, and felsic intrusive and extrusive rocks, clastic sedimentary rocks, and chemical sedimentary rocks including a notable chert-magnetite iron formation. The SGB is bounded to the south by the Ramsey-Algoma granitoid complex, to the east by the Kenogarnissi granitoid complex, to the north by the Nat River granitoid complex, and to the west by the Kapuskasing Structural Zone (Heather, 2001; Heather and Shore, 1999).

Heather (2001) recognized six supracrustal groups; from the oldest to the youngest these are the Chester, Marion, Biscotasing, Trailbreaker, Swayze, and Ridout groups. These groups have subsequently been correlated by Ayer et al. (2002) with coeval assemblages across the southern Abitibi Greenstone Belt having similar characteristic features.

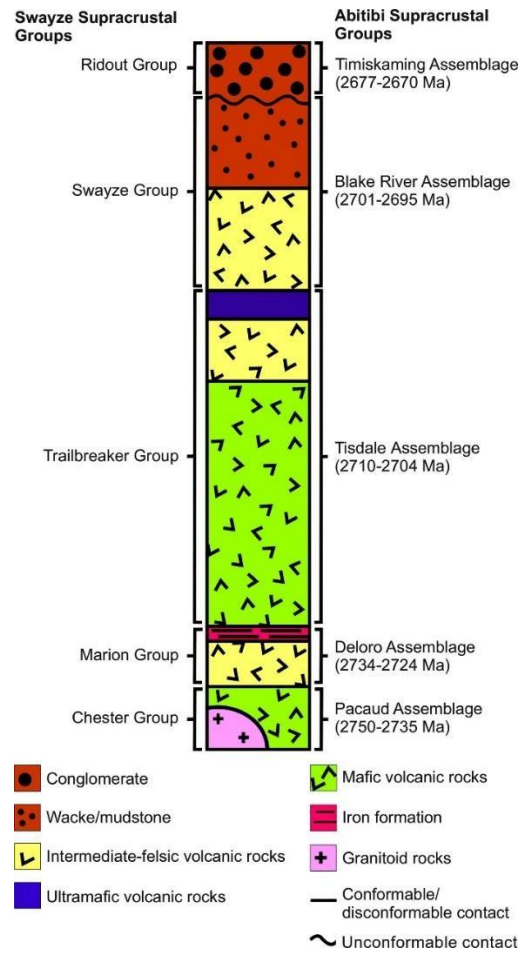


Figure 6.1.3: Schematic Stratigraphic Section for the Central Swayze Greenstone Belt, which correlated the Supracrustal Groups with the Abitibi Greenstone Belt (Katz, 2016).

Most of the rocks of the SGB have been metamorphosed to greenschist facies, which grades to amphibolite facies within the contact aureole of the large bounding granitoid batholith complexes (Heather, 2001; Heather and Shore, 1999).

In the SGB there are at least four separate diabase dyke swarms, ranging in age from late Archean to late Proterozoic:

- North-striking Matachewan dyke swarm
- Northwest-striking Sudbury dyke swarm
- East–northeast-striking Abitibi dyke swarm • Late, southeast-striking dyke swarm.

Unlike the Abitibi, which is richly endowed with respect to orogenic gold, base metals (i.e., Cu, Pb, Zn, Au), and Ni-Cu deposits, the SGB has historically been regarded as poorly endowed. However, with the recent discovery of the world class high tonnage low-grade Côté Au deposit and the Borden Lake deposit near Chapleau, interest has been greatly renewed as a more prospective outlook has been developed for the belt.

Given the previous disregard for the belt, there is a lack of prior academic research and exploration activity undertaken on the mineral deposits of the SGB compared to those of the AGB.

6.2 SYLVANITE GOLD PROPERTY GEOLOGICAL SETTING

Located in the southwestern portion of the SGB, the Sylvanite Property encompasses quite a large area and includes much of the units seen in the larger regional geological map of the belt. The most dominant rock type is a larger mafic to intermediate volcanic sequence, with large packages of intercalated felsic volcanics, narrower bands of ultramafic volcanics, as well as several sequences of clastic metasedimentary rocks (Figure 6.4).

Ultramafics occur frequently across the property, as narrow packages of peridotite, pyroxenite and dunite intrusions spatially related to spinifex textured komatiite flows (Heather, 2001). Vesicular and/or variolitic pillow flows are common, as is hyaloclastic breccia in the pillow intersects. These ultramafic and high-Mg mafic units are noted to weather a distinctive chocolate orange brown colour, which distinguishes them from the surrounding Fe-tholeiite mafics (Heather, 2001).

The larger volcanic sequence is by Fe-tholeiitic, Mg-tholeiitic, and calc-alkaline basalts, along with intermediate calc-alkaline units. The mafic units occur in the form of massive, pillowed, pillow breccia, variolitic and amygdaloidal flows, while more intermediate units occur as massive to pillowed flows, volcanic breccia's, and lapilli and ash tuffs of andesitic composition. Synvolcanic gabbro and diorite dykes/sills are also common in the Property.

The intercalated felsic volcanics are dominant in the central and northeast portions of the Property and have been described in regional studies as including feldspar +/- quartz porphyritic dacite to rhyolite flows and intrusions, as well as ash tuffs, lapilli tuffs and volcanic breccia's (Heather, 2001).

Clastic metasedimentary units occur in the northern half of the Property, and as more narrow packages along the Ridout High Strain Zone in the south half. Historically, these rocks have been subdivided in to two major types:

1. Older sequences associated and intercalated with the volcanics, which would be the metasediments found mostly in the north (grey metasediments; Figure 6.2.1).
2. Younger sequences, referred to as the Ridout Group, which unconformably overlie the older volcanics and sedimentary rocks (brown conglomerate; Figure 6.4), likely correlative with the Timiskaming Group in the AGB (Heather, 2001).

Although no chemical metasediments have been noted at surface, iron formation has been noted in drilling and regionally in the SGB.

All of these units are cut by a series of NW striking diabase dykes of the Matachewan swarm (2452 Ma), with lesser occurrences of the NNE striking Biscotasing swarm (2167 Ma), the WNW striking Sudbury swarm (1238 Ma) and the NE striking Abitibi swarm (1140 Ma) (Heather 2001).

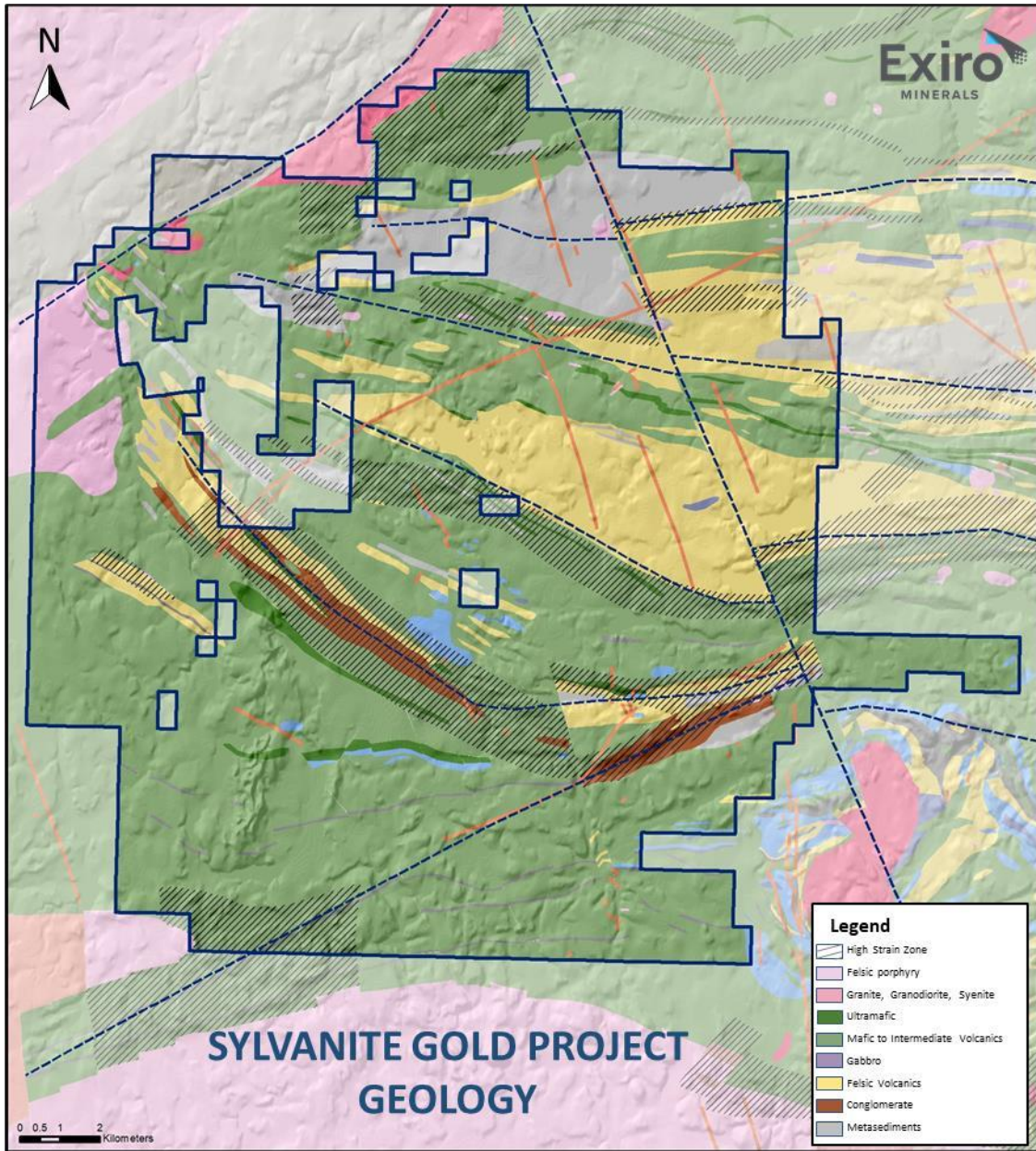


Figure 6.2.1: Local Geology of the Sylvanite Gold Property (Modified from Ontario Geological Survey).

6.3 SYLVANITE GOLD PROPERTY MINERALIZATION

Gold Mineralization

The Swayze Greenstone Belt hosts a variety of gold deposit types whose genesis is poorly understood. According to Hastie et al. (2015), Hastie (2017) and Kontak et al. (2013), the gold deposits can be subdivided into five categories:

- i) Intrusion-related deposits such as the Côté deposit,
- ii) Syenite associated deposits, such as the Jerome and Rundle deposits,
- iii) Greenstone hosted deposits, such as the Kenty deposit,
- iv) Banded iron formation hosted deposits, such as the 4 K deposit, and
- v) Auriferous VMS deposits, such as the Shunsby deposit.

This classification of gold deposits introduces a problem as it suggests that gold prospectivity is restricted to certain rock types which emphasizes the differences in gold mineralizing systems rather than commonalities of mineralization controls (Maepa and Smith, 2020).

There are several gold showings that occur within the Property, which are listed in the Mineral Deposits Index from the Ministry of Northern Development, Mines, Natural Resources and Forestry. Although, since this Property is still in the early stages of exploration, further work is required to validate and verify the accuracy of this information. Figure 6.3.1 illustrates the spatial distribution of the most significant gold showings within the Property.

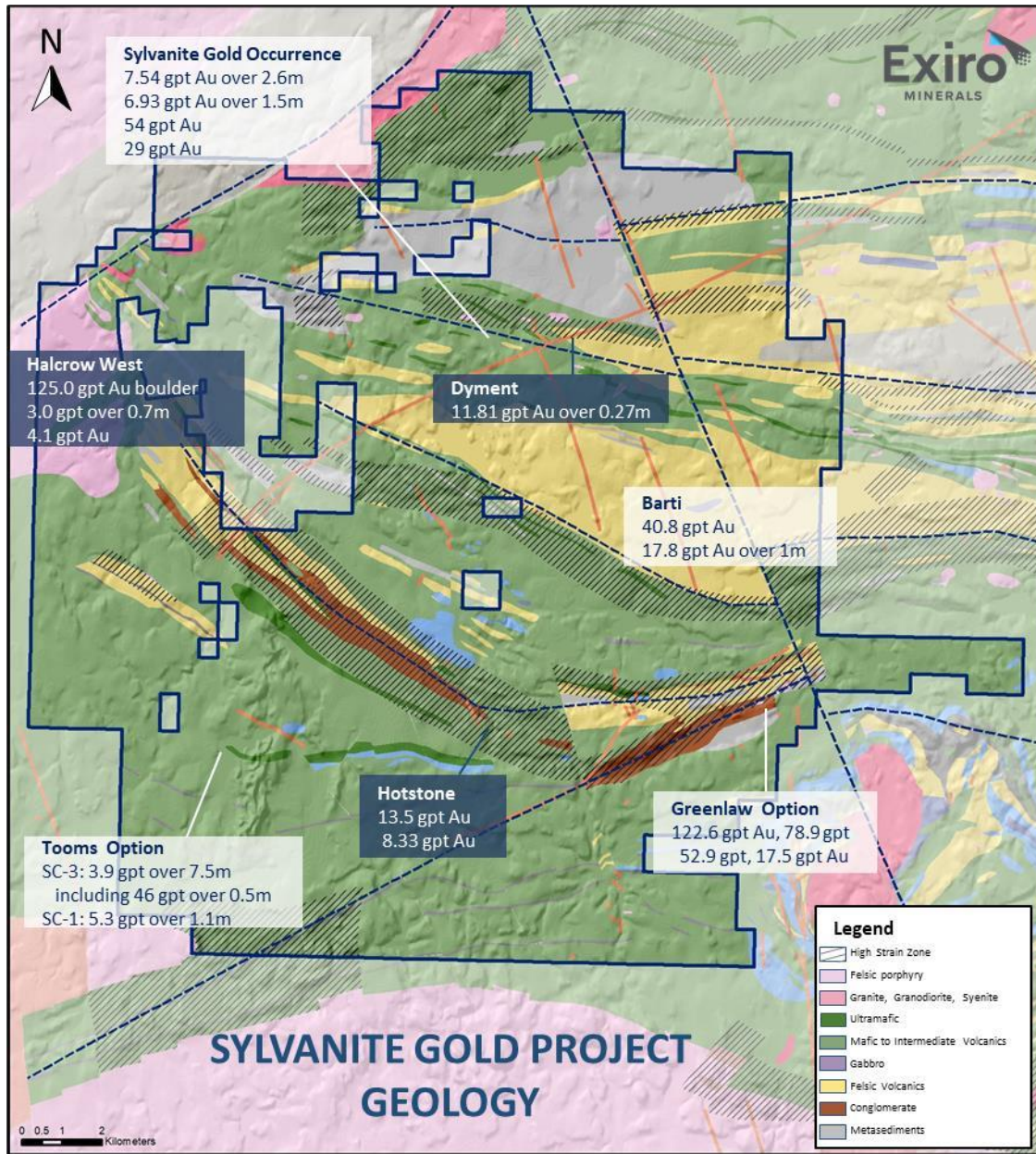


Figure 6.3.1: Local Geology of the Sylvanite Gold Property with Significant Gold Occurrences (Modified from Ontario Geological Survey).

Base Metal Mineralization

Within the Sylvanite Property there are several occurrences of sulphide hosted base metals (Cu, Co, Pb, & Zn). However, due to the poor understanding of overall volcanic architecture of the SGB and complex structural overprinting, exploration efforts have not identified or understood the controls on these occurrences.

There are two distinct types of base metal occurrences observed in the SGB, both of which are considered to be related to exhalative synvolcanic processes: 1) iron formation type and 2) volcanogenic massive sulphide (VMS) type.

The SGB shares many features commonly associated with Archean aged volcanogenic massive sulphide.

The majority of the known base metal occurrences in the SGB are associated with iron formation of the Woman River Formation. This association is analogous to the Geco deposit in the Manitouwadge Greenstone Belt (Heather, 2001). Furthermore, the age dates for many of the volcanic packages are similar to those found in volcanogenic massive sulphide camps in the Abitibi Greenstone Belt. Suggestive of the potential for a similar geodynamic setting to have existed.

In addition, an extensive zone of volcanogenic silicification in northeastern Foleyet Township bears resemblance to similar alteration associated with a number of Archean VMS deposits, including the silicification underlying the Mine Series deposits at Noranda, Quebec (Gibson et al. 1983). Throughout the SGB there is documentation of synvolcanic alteration zones, although continued studies are needed to understand the economic potential of the SGB to contain a base metal deposit.

Magmatic Ni-Cu Mineralization

Nickel occurrences are closely associated with the cumulate textured ultramafic rocks. The presence of large ultramafic bodies, some of which have documented nickel mineralization, is an indication that there may be good potential for either intrusions hosted, or komatiite hosted magmatic Ni-Cu deposits. Further work is required to understand the geological potential of these showings to host an economic scale deposit. The most significant occurrence of magmatic Ni-Cu mineralization documented within the Property is the Tooms prospect, which has historically been drill tested. The showing is reported to be hosted in a strongly altered, medium-grained peridotite (MDI41O10NW00041).

7.0 DEPOSIT TYPE

Côte Gold Deposit Type

The Côte Gold deposit is a new Archean low-grade, high-tonnage gold (\pm copper) discovery. It is described as a synvolcanic intrusion-related and stockwork disseminated gold deposit (Kontak et al., 2012; Katz et al., 2015; Katz, 2016). Deposits of this type are commonly spatially associated with and/or hosted in intrusive rocks. They include porphyry Cu–Au, syenite-associated disseminated gold and reduced Au–Bi–Te–W intrusion-related deposits, as well as stockwork disseminated gold.

Certain features of the Côte Gold deposit resemble those characteristic of gold-rich porphyry deposits (as described by Sillitoe, 2000). These include:

- Emplacement at shallow (1–2 km) crustal levels; frequently associated with coeval volcanic rocks
- Localized by major fault zones, although many deposits show only relatively minor structures in their immediate vicinities
- Hydrothermal breccias are commonly associated with the deposits, and consist of early orthomagmatic as well as later phreatic and phreatomagmatic breccias

- Gold is fine-grained, commonly <20 µm, generally <100 µm, and is closely associated with iron and copper–iron sulphides (pyrite, bornite, chalcopyrite).

Orogenic Gold Deposit Type

Gold occurrences on the Property can be considered as belonging to the style of gold mineralization referred to as orogenic. The orogenic gold deposit model (Groves et al., 1998) characterizes structurally controlled gold occurrences formed during orogenesis by relatively homogeneous hydrothermal fluid flows of variable origin (Fig. 7.1). The origins of the fluids are theorized to include metamorphic devolatilization, felsic plutonism and mantle fluids (Hagemann and Cassidy, 2000).

These deposits are thought to have first-order tectonic controls and are associated with crustal-scale faults, which tap sub-crustal source regions, although individual deposits are commonly situated in second order and third-order structures (Groves et al., 2016). Any rock type within a greenstone belt, including supracrustal rocks, dykes, or intrusions within or bounding such belts may host an orogenic gold deposit (Fig. 7.2). There is strong structural control of mineralization at a variety of scales, but the favoured host is typically the locally most reactive and/or most competent lithological unit.

Orogenic gold deposits exhibit strong hydrothermal alteration with lateral zoning composed of mineral assemblage's indicative of proximal to distal alteration. These alteration mineral assemblages, composed generally of carbonates (ankerite, dolomite or calcite) and sulphides (mainly pyrite, pyrrhotite, arsenopyrite), vary with the type of host rock and crustal depth. The assemblages are typically enriched in As, Au, CO₂, K, Rb, S, Sb, Te, and W; in some cases, Ag, B, Bi, Co, Cu, and Se are also enriched.

The mineralized deposits typically form shoots. A mineralized deposit can be 0.5 – 50 m wide, 100's of metres long, and consists typically of a vein network, an en-echelon vein swarm, or just of one single large vein. The depth extent of a mineralized deposit may well be much larger than its extent along strike.

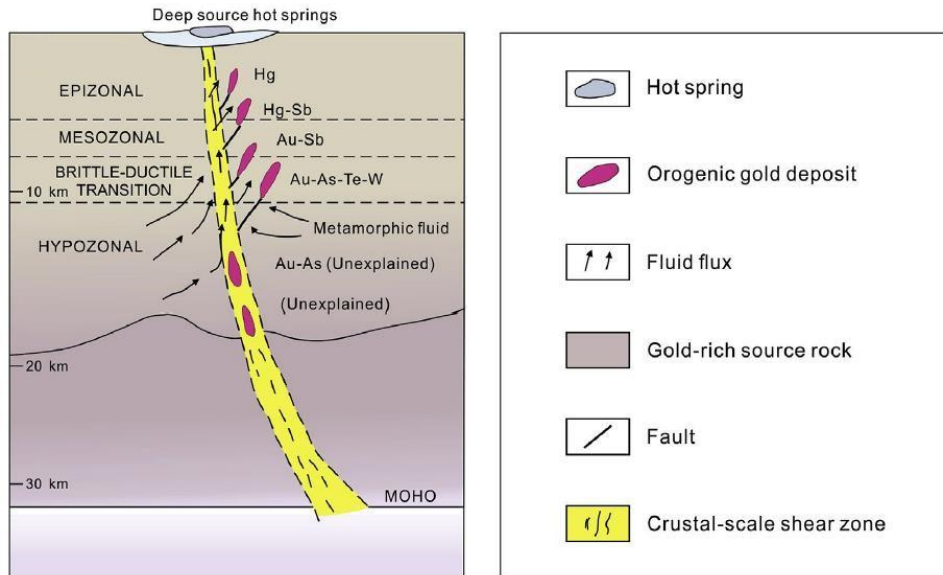


Figure 7.1: Schematic representation of mineralized-fluid source models for orogenic gold deposits (Groves et. Al, 2020).

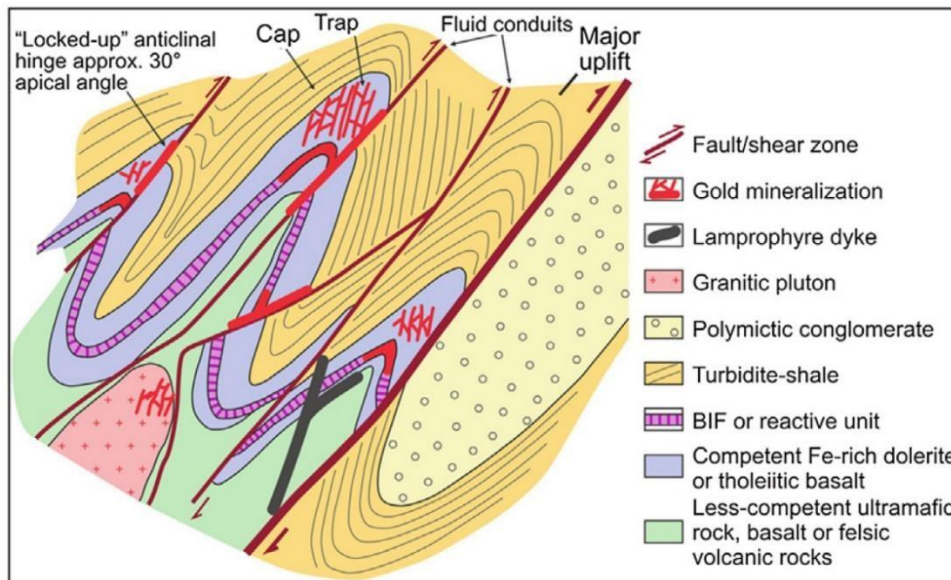


Figure 7.2: Schematic representation of the conjunction of parameters responsible for the formation of orogenic gold deposits (Groves et. al., 2016).

Syenite-Intrusion Related

The following is sourced from Robert (2001), and Hart and Goldfarb (2005). Syenite-Intrusion deposits are spatially associated with quartz-monzonite to syenite stocks and dykes and are located along major fault zones. Disseminated gold can occur within composite syenitic stocks or along their margins, along satellite dykes and sills, and along faults and lithologic contacts away from intrusions. Mineralized zones in these different positions are interpreted to represent proximal to distal components of large

magmatic-hydrothermal systems centred on, and possibly genetically related to, composite syenitic stocks.

Mineralized zones are characterized by disseminated sulfide replacement zones with variably developed stockworks of quartz-carbonate-K feldspar veinlets, within zones of carbonate, albite, K-feldspar, and sericite alteration. The syenitic intrusions are broadly contemporaneous with deposition of Timiskaming sedimentary rocks and are often found in association with preserved slivers of alluvial-fluvial sediments.

8.0 2021 MAPPING, PROSPECTING, & INTERPRETATIONS

The geological survey conducted by Exiro Minerals and supported by Bjorkman Prospecting, Orix Geoscience, and Gyorgi Tuba can be subdivided into five phases: 1) Preliminary, coarse structural interpretation of the Property using high-resolution magnetic gradient survey data, 2) Structural mapping and analysis, 3) Prospecting, mapping, and sampling, 4) Detailed structural and geological interpretations and 5) Lithogeochemical analysis. The first three phases of the program were conducted concurrently during the spring and summer of 2021. The interpretation phase of the survey was completed over several months and integrated all data collected and generated to produce a series of detailed interpretations from which potential target zones were identified, and the final lithogeochemical analysis was completed in March 2022. The purpose, execution, and results of each phase is discussed below.

8.1 PRELIMINARY STRUCTURAL INTERPRETATION

In May 2021, Orix Geosciences was contracted to complete a preliminary property wide structural interpretation. The purpose of the preliminary interpretation was to provide a framework from which a detailed structural interpretation could be built upon after collection of field data.

The preliminary interpretation was completed using a high-resolution helicopter borne magnetic gradient survey flown by Sander Geophysics Limited. The survey was flown between April 18th – May 15th, 2021, the final report was prepared in August 2021, however preliminary images were provided prior to the final deliverables for the purpose of the interpretation. Details regarding the magnetic survey and subsequent inversion modelling can be found in a previously submitted report titled “Assessment Report Based on the 2021 Geophysical Survey & Inversion Modelling Programs”. The structural interpretation was completed primarily using mainly the 1st vertical derivative and revealed a network of folds, brittle faults, and shear zones across the Property. From this exercise a total of 11 zones were selected for further assessment (Fig 8.1.1): Halcrow, Sylvanite Vein, Dymont, IP, Blue Hill, Barti Shear Zone, Ridout Shear Zone, Quinterra, Hotstone, Gold Island, and Ridout Lake Zone.

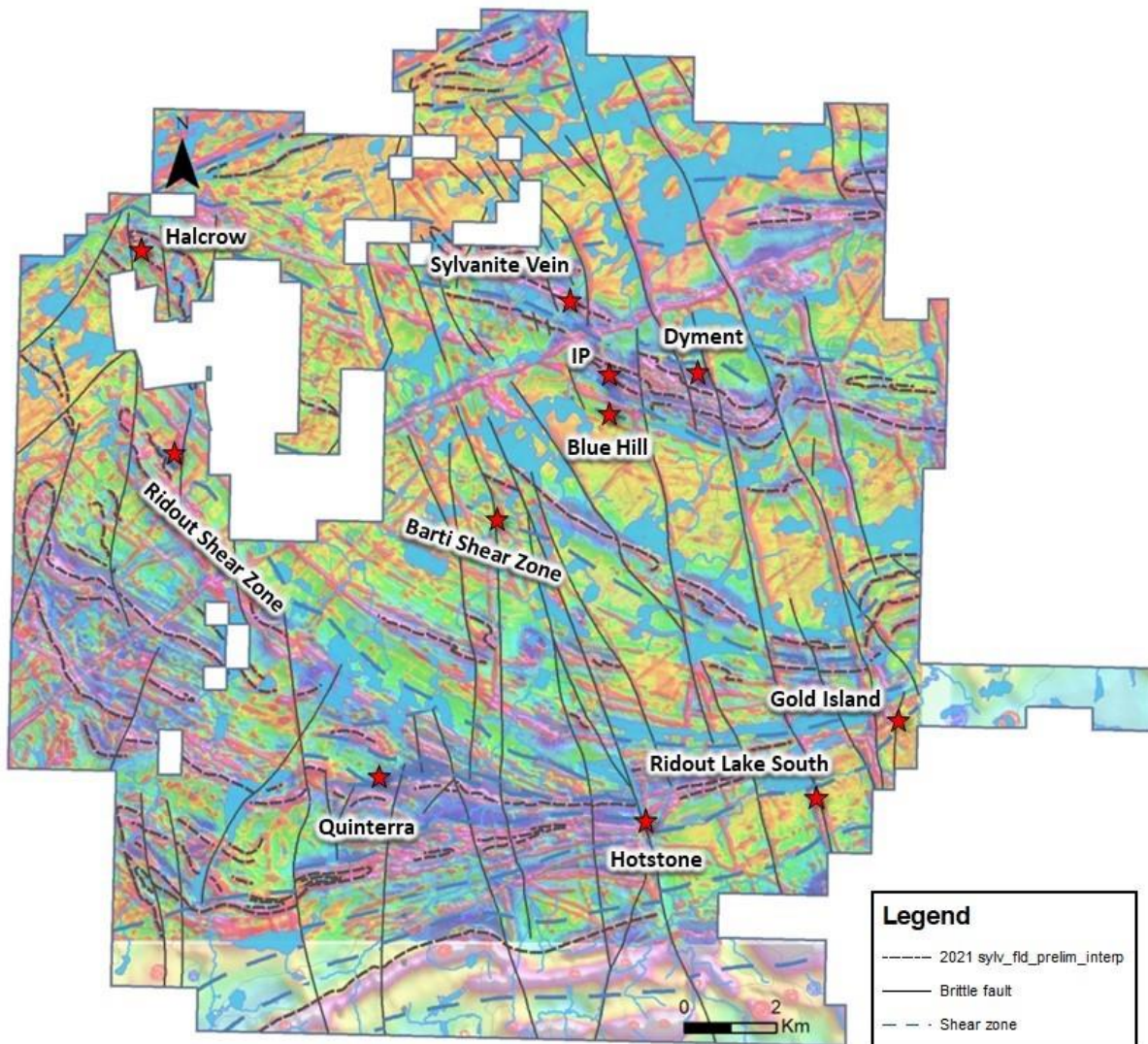


Figure 8.1.1: Preliminary Structural Interpretation Completed Using 1VD of High-Resolution Heli-Borne Aeromagnetic Survey of the Sylvanite Property Highlighting Target Area for Field Analysis

8.2 STRUCTURAL MAPPING AND ANALYSIS

In June 2021, following the preliminary structural interpretation, a detailed structural mapping program was undertaken by Orix Geoscience. This program was supplemented by the concurrent prospecting and mapping being conducted by Exiro Minerals and Bjorkman Prospecting, and a total of 346 structural measurements were recorded across the Property (Fig 8.2.1), which included contacts, foliations, bedding, folds, faults, stretching lineations, shear fabrics, kinematic indicators, and veins. A summary of the data collected, including UTM coordinates, can be found in Appendix 3. Collected structural information was used as a basis for refining the understanding of the structures present in the geology, as well as possible controls on mineralization. Interpretation of observed structures in outcrop revealed

trends of multiple deformation events, at least 5 events of deformation were observed; summarized in table **.

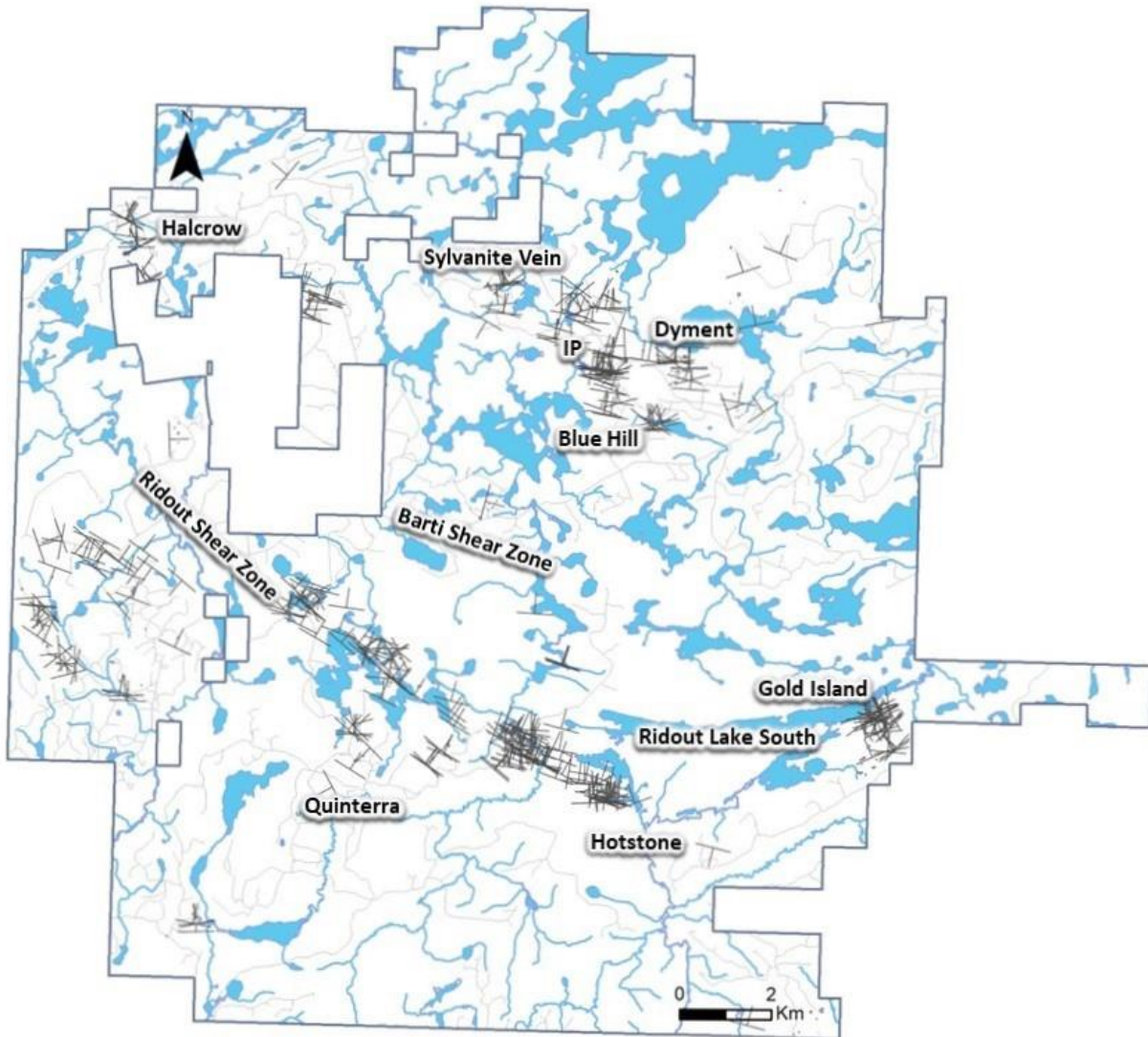


Figure 8.2.1: Structural Data Points Collected During Mapping, Prospecting, and Structural Analysis Program

Table 8.2.1: Generations of deformation on the sylvanite project by structural observation

D1: N-S shortening, identified as S0/S1 bedding and foliation
D2: NNE-SSW shortening identified by S2 foliations, L2 stretched mineral lineation's and F2 tight isoclinal folding of S1, S2 is axial plane, plunging moderately to steeply
D3: NW-SE shortening with a NE striking S3 foliation, axial plane to F3 folds, close to chevron to kink folds on S2, moderately plunging to the NE or SW

D4: E-W shortening, last ductile deformation event, seen as spaced NNE and NNW cleavage crenulation, S4 is axial plane to the F4 folds which plunge moderately to the NNE

D5: NNE to NNW late intense brittle faulting, based on mag and historic data, many host the late diabase swarm, many with significant sinistral offset across property.

Extensive shearing across the property was also interpreted.

Sinistral Shearing: Early sinistral S2-parallel to sub-parallel shear zones and high-strain zones are interpreted from the slight clockwise rotation of the S2 foliation with respect to the S0/S1. However, intense synthetic sinistral shear bands (C'), early S-asymmetry folded quartz veinlets, and S-C fabric confirm this interpretation. Where the shear fabric is seen at the vertical face (Ridout Shear Zone), the N-side up movement is recorded.

Dextral Shearing: Late dextral shearing is interpreted as late-to post D2 event that is best seen as narrow to meters wide, S2-parallel to sub-parallel shear zones with distinct S-C fabric, synthetic dextral shear bands (C'), and displaced markers as kinematic indicators. Additionally, clockwise rotation of S2 foliation along the major shear zones (e.g. Ridout Shear Zone and Sylvanite – Dymment Zone), can be interpreted as progressive dextral deformation along these structures.

Along with the 5 generations of deformation, at least two styles of mineralization with close relationship to the structures were identified. Porphyry intrusive related mineralization in the form of quartz-iron carbonate veins, breccia zones, and stockwork hosted by intrusives, at sheared contact or proximal to the sheared/altered volcanics (e.g. Sylvanite-Dymment, IP, Blue Hill, Barti, Quintera, Hotstone, and possibly Halcrow). The second structurally relative mineralization is the sheared (S2 foliation sub-parallel) quartz-iron carbonate veins hosted by mafic/intermediate volcanics (e.g. Gold Island, Ridout Lake South, and Hotstone).

8.3 PROSPECTING AND MAPPING

Concurrent with the structural interpretation and mapping exercise was the prospecting and mapping program conducted by Exiro Minerals and Bjorkman Prospecting. Details of Bjorkman's involvement, including daily field logs and 1:5000 scale traverse and sampling maps, were outlined in a report previously submitted titled "Assessment Report Based on the 2021 Prospecting Program Completed on the Sylvanite Gold Property". Mapping and prospecting was conducted by the Exiro team was completed in two-person teams for safety, data collection and areas of traverse were based on many factors including historic gold occurrences, anomalous magnetic areas, and IP anomalies, and geologically significant features. The teams visited the five given townships within the Sylvanite property boundary: Halcrow, Dynes, Tooms, Greenlaw, and Cunningham. Traverses and samples collected by both the Bjorkman and Exiro teams are illustrated in figure 8.3.1.

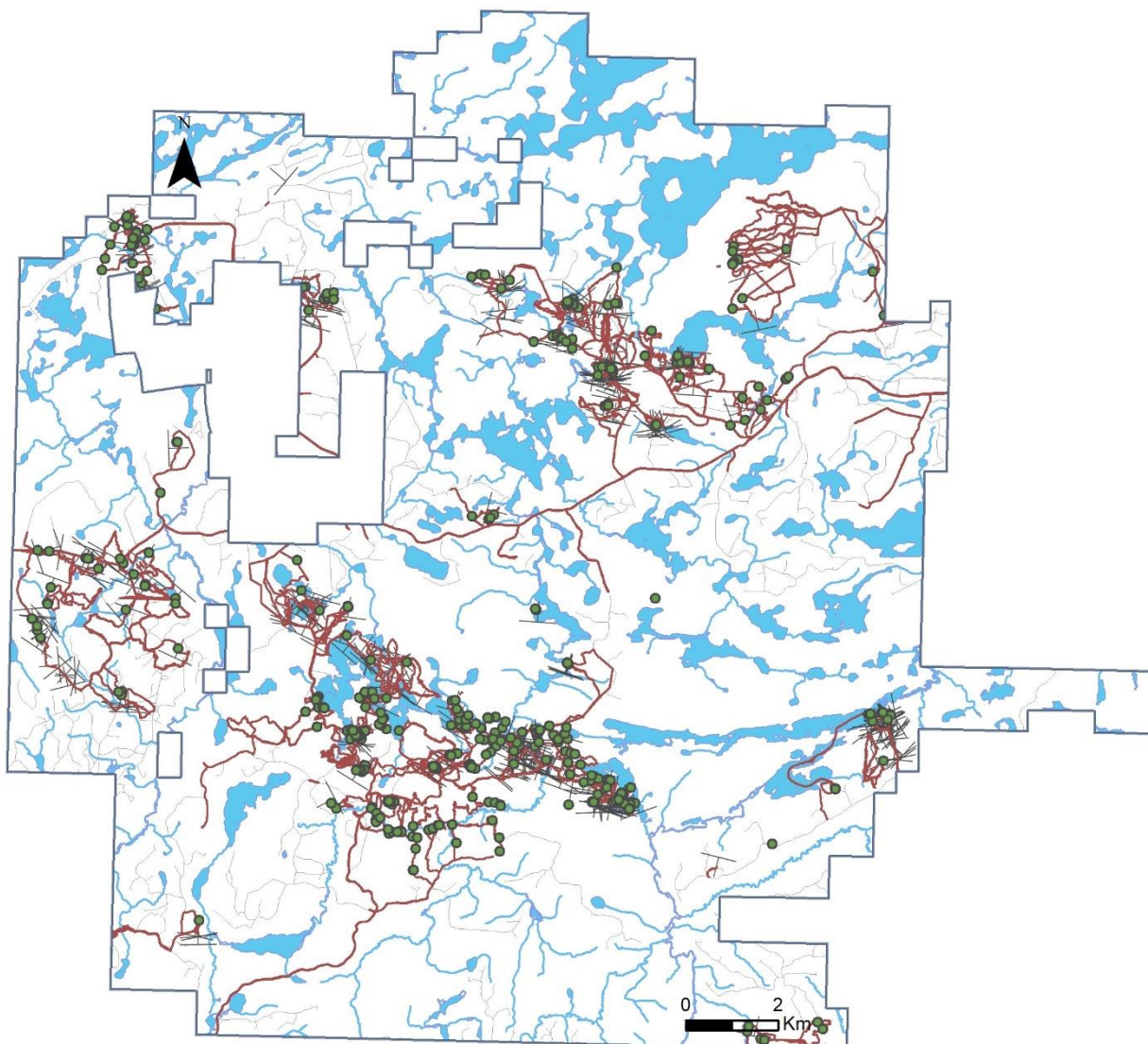


Figure 8.3.1: Recorded Traverses and Sample Sites of the 2021 Field Program

The goal of this portion of the geological survey was to collect samples for analysis with lesser emphasis placed on rock type identification or detailed outcrop mapping. Samples were collected with a simple geological hammer and Geotool and typically weighed between 0.5 – 2kg; each sample was cataloged with its location and basic geological information using a tablet or mobile device on ESRI Field Maps. 638 samples were sent for analysis; 617 rock samples (grab, float, chip, and channel samples) and 21 QC samples (blanks and standards). A detailed list of sample locations and descriptions can be found in Appendix 2.

There were 9 main lithologies encountered across the property during the prospecting program.

Chemical Sediments: Historically no instances of chemical sediments have been reported to be exposed at surface on the Property. There were three outcrops encountered with possible narrow bands of folded iron formations consisting of hematite and quartz with up to 5% fine grained pyrite. These iron formations were noted within metasediments and along the contact of a feldspar porphyry dyke.

Conglomerates and Clastic Sediments: There were many instances of conglomerate mapped across the Property typically composed of a very fine-grained green-grey matrix with polymictic clasts ranging from 10-40cm in size, sericite and hematite alterations were common and the units were typically strained. Deformation varied significantly in type and intensity from weakly foliated to intensely sheared and/or folded. Mineralization ranged from nil to 3% pyrite. Other clastic sediments include chlorite schists and possible tuffs of varying compositions, though intense deformation often does not allow for consistent field characterization.

Felsic Intrusives: Mapped felsic intrusives, generally characterized as granites in the field, were typically massive, weakly or undeformed with minor hematite staining and contained up to 7% cubic pyrite.

Felsic Volcanics: Felsic volcanic units were typically cream to buff coloured sericite-ankerite schists with minor hematite, very little sulphide mineralization was noted in the volcanic matrix, with up to 10% pyrite noted along contacts with other units and associated with veining.

Intermediate to Mafic Volcanics: The most prominent rock type encountered while mapping, these units varied widely. They were typically chlorite altered with variable carbonate (calcite/ankerite) and minor hematite, deformation varies from weakly foliated, weakly to strongly sheared or folded. Most samples collected contained nil to 1% pyrite, with a few occurrences of up to 10% disseminated pyrite, 3% chalcopyrite or trace pyrrhotite.

Mafic Intrusives: Mafic intrusives across the Property are generally comprised of synvolcanic sills and dykes that are weakly – moderately chlorite +/- carbonate altered and are occasionally silicified, vary significantly in their level of deformation from weakly foliated to very strongly sheared, and contain up to 1% cubic pyrite.

Porphyritic Intrusives: Several varieties of porphyritic intrusives were encountered and sampled including quartz porphyries, feldspar porphyries, and quartz-feldspar porphyries. These intrusions are typically silicified +/- carbonate altered and occasionally hematite altered. Deformation varies significantly in both character and intensity displaying both brittle and ductile deformation and varying from weak to very strong. Mineralization is generally ~1% or less and consists of a variety of sulphide minerals including pyrite, chalcopyrite, arsenopyrite, possible bornite and pyrrhotite; pyrite is the most commonly observed mineral.

Ultramafic Volcanics and Intrusives: Very few ultramafic rocks were encountered. They are strongly fuchsite and carbonate altered and foliated with trace pyrite observed.

Veining: Veining was observed in all rock types and varied in composition from quartz, carbonate and quartz-carbonate and in character including, but not limited to, fracture-fill, crack-and-seal, stockwork and saccharoidal. A detailed analysis of the vein paragenesis and mineral association was not within the scope of this project.

Overall, the prospecting program confirmed gold occurrences identified by historic work, and identified numerous new outcrops, with three hundred and fifty outcrops recorded by the field teams. A summary of significant assay result can be found in table ##. The prospecting also revealed new locations of gold occurrences not previously recorded, in the Dynes and Toom's townships (Fig 8.3.).

Table 8.3.1: Significant Results from the 2021 Field Program

Sample Number	Area	Au (g/t)
C796158	Denyes/ Sylvanite Showing	19.3
C797919	Denyes/ Sylvanite Showing	11.4
C797892	Greenlaw/ Gold Island	9.45
C796354	Denyes/ Sylvanite Showing	6.9
C797888	Greenlaw/ Gold Island	6.25
C797889	Greenlaw/ Gold Island	10.1
C797926	Denyes/ Sylvanite Showing	6.13
C797912	Greenlaw/ Hotstone lake	4.55
C796331	Greenlaw/ Hotstone lake	4.32
C796351	Denyes/ Sylvanite Showing	4.2
C796216	Tooms	3.16
C796098	Denyes/ Sylvanite Showing	3.05
C796170	Tooms	3.01
C796155	Denyes/ Sylvanite Showing	2.15
C796156	Denyes/ Sylvanite Showing	1.79
C797890	Greenlaw/ Gold Island	1.79
C796360	Denyes/ Sylvanite Showing	1.75
C796157	Denyes/ Sylvanite Showing	1.69
C796214	Tooms	1.58
C796326	Denyes/ Sylvanite Showing	1.55
C797899	Tooms	1.28
C796358	Denyes/ Sylvanite Showing	1.12
C796382	Greenlaw/ Sylvanite Creek	1.09
C796219	Tooms	1.06

8.3 DETAILED STRUCTURAL AND GEOLOGICAL INTERPRETATION

Upon completion of the prospecting, mapping, and structural analysis, Orix Geoscience was tasked with completing a detailed structural and geological interpretation of the Sylvanite Property.

Interpretation was completed by integrating field data with the high-resolution magnetic gradient survey data and historical geological data compiled from various publicly available assessment reports obtained through the Ontario Assessment File Database (OAFD). Due to the extensive geographical size of the Sylvanite Property and the complexity of the underlying geology, interpretation was undertaken with a piece-meal approach over several months from August 2021 through to February 2022. The Property was divided into several cells of varying sizes based on several factors including geological and structural complexity, the amount of data available, and the subjective value of the target(s) contained within the cell. A folio set was plotted for each cell and included a layer for geophysics, structural data,

outcrop and grab sample data, and diamond drilling data. The structure and lithology for each cell were interpreted by hand on paper. The pages were then scanned, and the resulting shapes were digitized using ArcGIS. Finally, the shapefiles were merged to create a single, cohesive geological and structural map of the Sylvanite Property (Fig. 8.3.1), see Appendix 4 for a high-resolution copy of the interpretation.

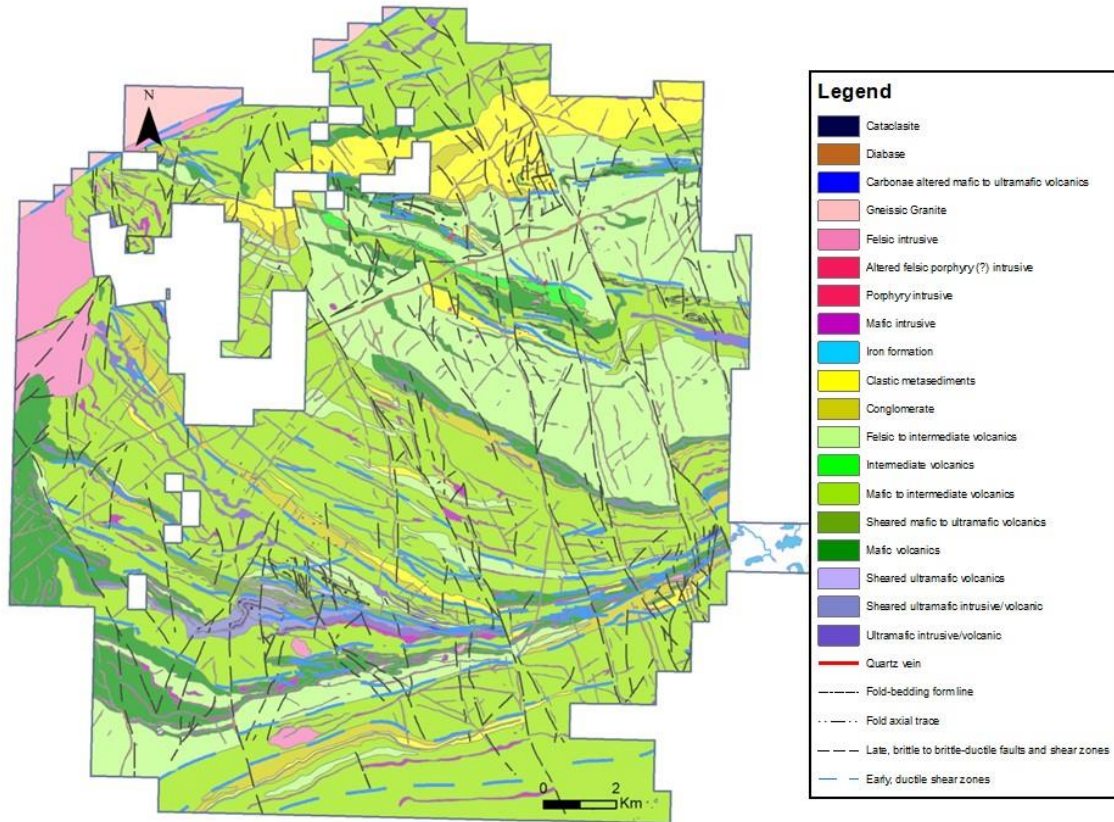


Figure 8.3.1: Detailed Merged Lithology and Structural Interpretation of the Sylvanite Property

Overall, the updated geological interpretation correlated with previous interpretations at a regional scale. However, with the integration of the 2021 airborne magnetic data and information collected by the 2021 multi-phase geological mapping program, the updated interpretation rendered a more refined geological map, and in some areas, provided detailed classifications of the lithologies. Furthermore, the 2021 structural analysis has advanced the understanding of the structural framework, which, in conjunction with the geological mapping, has generated new targets related to the historical occurrences.

8.4 LITHOGEOCHEMICAL ANALYSIS

Finally, in March 2022 an independent consultant, Gyorgi Tuba, conducted a lithogeochemical analysis of all surface samples in order to identify the main lithology, alteration, and mineralization geochemical signatures. There were 3 datasets available for analysis that contained a total of 808 samples, a summary of the datasets can be found in Table 8.4.

Table 8.4: Summary of the datasets used for lithogeochemical analysis

COMPANY	YEAR	NUMBER OF SAMPLES	ANALYTICAL METHODS
EXIRO	2021	609	Au, ICP61
TECK	2017	68	Au, 4-acid ICP
TECK	2014	131	Au, 4-acid ICP

Due to the fact that the samples were not collected nor analyzed with the specific intention of conducting a lithogeochemical classification, there were certain limitations inherent in the data. These limitations include the following:

- Critical immobile trace elements used for rock-type classification may be underreported due to partial dissolution during the 4-acid digestion method
- Trace elements used for rock-type discrimination may not have been routinely analyzed or may have inadequate precision
- Due to a lack of LOI, CO₂, and H₂O⁺ values it was not possible to assess the degree of alteration
- Since SiO₂ was not reported it was not possible to assess host rock lithologies of vein samples
- Al and K values may be underreported due to retention within the test vessel following digestion

With the above limitations accounted for, the datasets were plotted using various elemental ratios to classify rock types based on geochemical signatures. These classifications were then merged with the field data to further refine the classification and resolve discrepancies between geochemical signatures and interpreted geology.

The analysis revealed that overall, there was a strong correlation between the interpreted geology and the lithogeochemical classes defined but also revealed potential subgroups within the major lithological domains that were previously unrecognized. Primarily, there appears to be an unmapped mafic horizon within the mafic-intermediate volcanic domain in the North-West quadrant of the Property.

Next, correlation matrices were used to gain insight into which element associations were characteristic to specific rock types/lithogeochemical classes, alteration features and gold mineralization. Insights include that Au-Ag have little to no correlation with S and As in ultramafic units and Au-Ag correlate with K, Na, and S in mafic groups.

A comprehensive report on the lithogeochemical analysis, along with the discrimination diagrams used to define the geochemical classes, can be found in Appendix 6.

9.0 SAMPLE PREPARATION, ANALYSES, & SECURITY

Surface samples collected during the 2021 Exploration Program were submitted for gold analysis and whole-rock geochemistry. The samples were dropped off to ALS Canada Ltd. in Sudbury, Ontario, for preparation.

9.1 SAMPLE PREPARATION

The sample preparation consisting of drying as required, and undergo preparation (Prep-31b), crushing to 70% less than 2mm or better using a jaw and/or roller crusher. The crushed sample was split using a riffle splitter and an approximately 1000g split was pulverized to 85% less than 75 microns or better using a ring and puck grinding mill. The pulverized splits of the samples were transported by ALS Canada to their facility in North Vancouver for analyses.

9.2 SAMPLE ANALYSES

All samples were analyzed by fire assay, Au-AA26, a technique that requires a 50g aliquot to be fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6mg of gold-free silver. The resulting lead button is cupelled to remove the lead and yield a precious metal bead. The bead is digested in 0.5mL dilute nitric acid in the microwave oven. A 0.5mL concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 4 mL with demineralized water, and analyzed by atomic absorption spectroscopy against matrix-matched standards.

All sample results that are above the detection limit of Au-AA26 (lower limit 0.01, upper limit 100), were then re-analyzed with a gravimetric finish, using method Au-GRA22.

Samples were analyzed for multiple elements using a 4 acid near total digestion method, ME-ICP61a. The sample is digested in a mixture of nitric, perchloric and hydrofluoric acids. Perchloric acid is added to assist oxidation of the sample and to reduce the possibility of mechanical loss of sample as the solution is evaporated to moist salts. Elements are determined by inductively coupled plasma – atomic emission spectroscopy (ICP-AES). This technique provided a suite of trace elements that can be utilized for pathfinder element interpretations, it also provided all base-metal elements, allowing for a full assessment of the samples economic potential. Elements in the package include Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Th, Ti, Tl, U, V, W and Zn.

The analytical certificates are included in Appendix 5, where the detection limits for this method can be located. A four-acid digestion is able to dissolve most minerals; however, the term “near-total” is used as the sample matrix properties may dictate what elements are quantitatively extracted.

9.4 SAMPLE QAQC

QAQC of the sample analysis is closely monitored by ALS. QAQC specifications are defined by the sample preparation which are clearly defined as crushing to 70% less than 2mm or better, and pulverisation of approximately 1000g split to 85% less than 75 microns or better. Analysis quality is ensured by comparison to matrix matched standards in atomic absorption spectrometry. Final ICP-AES analysis uses a series of 2 standards, 1 blank, and 1 duplicate per 40 sample rack size.

Additional QAQC is ensured by Exiro with submissions of standards which were inserted every 50th sample in consecutive order, starting with the first sample ending in 25 (all samples ending in _25 and _75). If a series of samples is assumed to run higher grade, a standard may have been included for precision checks to test the calibration of the lab instruments. If results returned from analyzed standards were outside of 2 standard deviations from the certified value, the standard was considered to have failed and a re-analysis of the batch would have been requested.

Additionally, a blank was inserted every 50th sample to test the laboratory for contamination and proper cleaning of the equipment (samples ending in _00 and _50). A blank may have also been inserted after a suspected high-grade sample such as notable amounts of sulphide mineralization or VG to ensure no contamination. If Au results fell above 1 ppb Au, the blank was considered to have failed and a re-analysis of the batch would have been requested.

10.0 DISCUSSION OF 2021-2022 GEOLOGICAL SURVEY PROGRAM RESULTS

The 2021-2022 Geological Survey program of the Sylvanite Gold property was very extensive and covered much of the property. With integration of surficial outcrop lithology, structures, assay results, three priority target areas have emerged: Tooms/Hotstone Lake, Gold Island and the Sylvanite areas.

Mapping in the Tooms/Hotstone Lake area identified a broad deformation zone forming a 50- to 1,000-meter-wide system of shear zones which have a collective strike length of over 12 kms in the area. This deformation zone comprises of heavily altered and sheared mafic and ultramafic volcanics, Iron Formation and sediments along the northern margin of an intrusive ultramafic body. Where these structures outcrop or are intersected by historical drilling there are several known gold occurrences. Historical results include grab samples up to 77.9 g/t gold and drill intersections of up to 3.9 g/t gold over 7.0 metres. The majority of the structure is covered by shallow overburden. Reconnaissance mapping and sampling confirmed anomalous gold at all of the historically known occurrences as well as several new occurrences. The Geological interpretation which utilized the 2021 mapping and airborne magnetics

The Sylvanite target area, known as the Sylvanite vein, is centered on an intensely silicified Porphyry intrusive which historically returned channel samples assaying 7.54 gpt Au over 2.6m, 6.93 gpt Au over 1.5m, and grab samples assaying 54 gpt Au and 29 gpt Au. Reconnaissance mapping and sampling from the 2021 mapping program confirmed the presence of anomalous gold with assays ranging from 3 gpt Au to 11.4 gpt Au and a nearby float sample assaying 19.3 gpt Au. Geological mapping of the altered porphyry identified a quartz carbonate breccia vein containing up to 10% sulphide and altered mafic volcanic fragments. The vein appears to be spatially related to the northern contact of the porphyry and is oriented parallel to sub parallel to the dominant foliation and shearing. Although exposure is limited, this structure appears to be the dominant control on gold mineralization in the area and warrants further investigation.

Gold Island, situated on the eastern flank of Rideout lake, historically produced gold grades up to 122 g/t collected from a quartz vein. The 2021 geological mapping and prospecting program confirmed the location of the gold bearing quartz vein which returned some of the highest Au grades on the project ranging from 1.79 to 10.1 gpt. Mapping demonstrates that the gold bearing quartz vein appears to be sheared and boudinaged with a thickness ranging from 20-25cm. Structural and geological mapping delineated the gold bearing vein strikes A2285 dipping 77 to north and extends across the island. Further exploration is warranted in the surrounding area to gain a better understanding on the control on mineralization.

11.0 CONCLUSIONS & RECOMMENDATIONS

Mapping and prospecting of the sylvanite gold property has confirmed many historical gold occurrences, identified new occurrences, as well as further mapped the surface geology, structural trends and deformation that occurs across the property. The structural history of the property has been further identified with many deformation events and structural controls which influence the locations of mineralization. In particular, the areas of mineralization occur in the noted areas of Porphyry intrusive related mineralization and in the sheared (S2 foliation sub-parallel) quartz-iron carbonate veins hosted by mafic/intermediate volcanics, are key areas of historic and newly identified gold occurrences. These observations that were made has enabled Exiro Minerals to generate a re-interpretation of the surficial geology across key areas of the property, in the Tooms/ Hotstone and Sylvanite Vein locations.

The reinterpretation of surface geology, when combined with other surveys (mag, IP) and the structural interpretations, can be used to generate smaller target areas for further exploration.

Future recommendations for this project include:

- A soil or till sampling program may be useful to help define key areas where mineralization is proximal to the surface. The extensive but thin overburden has and continues to hamper traditional prospecting and mapping techniques but may be sampled to highlight areas where the mineralization is possibly exposed at the overburden-bedrock interface.
- A drilling program to test for potential structural-chemical traps associated with alteration zones marked by magnetic destruction, intersected by a favorable brittle deformation event.

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13.0 STATEMENT OF QUALIFICATIONS

I, Sydney Ramnath,

1. I am a Senior Project Geologist (GIT) at Exiro Minerals Corp.
2. I hold a B.Sc. in Geological Sciences (2008) from the Clayton H. Riddell Faculty of Environment, Earth, and Resources at the University of Manitoba.
3. I have been involved in various exploration projects located in Canada (Ontario, Manitoba, and British Columbia), United States (Arizona, Nevada), Australia (Western Australia) and Greenland (West Greenland). I have focused my professional development on exploration for Porphyry Cu and Ni-Cu-PGE sulphide deposits.

Signed: March 13, 2023

A handwritten signature in black ink, appearing to read 'Sydney', with a long horizontal line extending to the right from the end of the signature.

I, Sam Grasis, of the City of Sudbury, Province, do hereby certify that:

1. I am a Project Geologist with Orix Geoscience 2018 Inc.
2. I hold a B.Sc. Hons. Degree in Geology (2013) from Laurentian University, Sudbury, Ontario and have worked as a geologist for 10 years.
3. I am a registered professional geoscientist with the Professional Geoscientists of Ontario
4. This certificate applies to the Report titled "Assessment Report Based on the 2021-2022 Geological Mapping and Interpretation Completed on the Sylvanite Property for Exiro Minerals Corp." authored by Sam Grasis and Sydney Ramnath, dated March 13th, 2023
5. As of the date of this certificate, to the best of my knowledge, information and belief, the Report contains all scientific and technical information that is required to be disclosed to make the Report not misleading.

Signed: March 13th, 2023

A handwritten signature in black ink, appearing to read 'Sam Grasis', with a long horizontal flourish extending to the right.

Tenure Number	Tenure Type	NTS Sheet	Area	Anniversary Date	Owner (Percentage)
119168	Single Cell Mining Claim	041010	Greenlaw	2022-06-05	(100) DAVID LAWRENCE GIBSON
129387	Single Cell Mining Claim	041010	Greenlaw	2023-01-12	(100) DAVID LAWRENCE GIBSON
142969	Single Cell Mining Claim	041010	Greenlaw	2022-10-03	(100) DAVID LAWRENCE GIBSON
160539	Boundary Cell Mining Claim	041010	Greenlaw	2022-10-03	(100) DAVID LAWRENCE GIBSON
160540	Single Cell Mining Claim	041010	Greenlaw	2022-06-17	(100) DAVID LAWRENCE GIBSON
177112	Single Cell Mining Claim	041010	Greenlaw	2022-06-17	(100) DAVID LAWRENCE GIBSON
192611	Single Cell Mining Claim	041010	Greenlaw	2022-06-15	(100) DAVID LAWRENCE GIBSON
201614	Single Cell Mining Claim	041010	Greenlaw	2022-06-17	(100) DAVID LAWRENCE GIBSON
223011	Single Cell Mining Claim	041010	Greenlaw	2022-06-15	(100) DAVID LAWRENCE GIBSON
230032	Single Cell Mining Claim	041010	Greenlaw	2022-06-17	(100) DAVID LAWRENCE GIBSON
230033	Single Cell Mining Claim	041010	Greenlaw	2023-01-12	(100) DAVID LAWRENCE GIBSON
230479	Single Cell Mining Claim	041010	Greenlaw	2022-06-15	(100) DAVID LAWRENCE GIBSON
232354	Single Cell Mining Claim	041010	Greenlaw	2022-06-17	(100) DAVID LAWRENCE GIBSON
241728	Single Cell Mining Claim	041010	Greenlaw	2022-06-17	(100) DAVID LAWRENCE GIBSON
243171	Single Cell Mining Claim	041010	Greenlaw	2022-06-15	(100) DAVID LAWRENCE GIBSON
243172	Single Cell Mining Claim	041010	Greenlaw	2022-06-15	(100) DAVID LAWRENCE GIBSON
244253	Boundary Cell Mining Claim	041010	Cunningham	2023-08-27	(100) EXIRO MINERALS CORP.
244569	Single Cell Mining Claim	041010	Greenlaw	2024-10-03	(100) DAVID LAWRENCE GIBSON
259659	Single Cell Mining Claim	041010	Greenlaw	2022-06-15	(100) DAVID LAWRENCE GIBSON
269440	Boundary Cell Mining Claim	041010	Denyes/Cunningham	2023-04-22	(100) EXIRO MINERALS CORP.
269441	Boundary Cell Mining Claim	041010	Denyes/Cunningham	2023-04-22	(100) EXIRO MINERALS CORP.
279877	Single Cell Mining Claim	041010	Greenlaw	2024-10-03	(100) DAVID LAWRENCE GIBSON
280777	Boundary Cell Mining Claim	041010	Denyes/Cunningham	2023-08-27	(100) EXIRO MINERALS CORP.
299035	Single Cell Mining Claim	041010	Greenlaw	2022-06-17	(100) DAVID LAWRENCE GIBSON
299405	Boundary Cell Mining Claim	041010	Denyes/Cunningham	2023-08-27	(100) EXIRO MINERALS CORP.
299549	Single Cell Mining Claim	041010	Greenlaw	2022-06-17	(100) DAVID LAWRENCE GIBSON
305452	Single Cell Mining Claim	041010	Greenlaw	2022-06-17	(100) DAVID LAWRENCE GIBSON
305632	Boundary Cell Mining Claim	041010	Greenlaw	2023-04-22	(100) EXIRO MINERALS CORP.
306410	Single Cell Mining Claim	041010	Greenlaw	2022-06-17	(100) DAVID LAWRENCE GIBSON
326250	Single Cell Mining Claim	041010	Greenlaw	2022-06-17	(100) DAVID LAWRENCE GIBSON
326251	Single Cell Mining Claim	041010	Greenlaw	2022-06-17	(100) DAVID LAWRENCE GIBSON
327638	Single Cell Mining Claim	041010	Greenlaw	2023-07-15	(100) DAVID LAWRENCE GIBSON
338126	Single Cell Mining Claim	041010	Greenlaw	2022-06-15	(100) DAVID LAWRENCE GIBSON
338127	Single Cell Mining Claim	041010	Greenlaw	2022-06-15	(100) DAVID LAWRENCE GIBSON
339523	Single Cell Mining Claim	041010	Greenlaw	2022-06-17	(100) DAVID LAWRENCE GIBSON
524896	Multi-cell Mining Claim	041015	Dynes/ Greenlaw	2022-06-22	(100) JONATHAN PAUL CAMILLERI
524897	Multi-cell Mining Claim	041015	Cunningham/ Greenl	2022-06-22	(100) JONATHAN PAUL CAMILLERI
531561	Multi-cell Mining Claim	041015	Dynes/Swayze	2022-09-19	(100) JONATHAN PAUL CAMILLERI
531562	Multi-cell Mining Claim	041015	Dynes/Swayze	2022-09-19	(100) JONATHAN PAUL CAMILLERI
531569	Multi-cell Mining Claim	041015	Denyes	2022-09-19	(100) JONATHAN PAUL CAMILLERI
532902	Multi-cell Mining Claim	041015	Halcrow	2022-10-15	(100) DON THOMAS FUDGE
533780	Multi-cell Mining Claim	041010	Greenlaw	2024-04-22	(100) EXIRO MINERALS CORP.
533821	Multi-cell Mining Claim	041010	Greenlaw	2023-04-22	(100) EXIRO MINERALS CORP.
533833	Multi-cell Mining Claim	041010	Denyes/Cunningham	2023-08-26	(100) EXIRO MINERALS CORP.
533834	Multi-cell Mining Claim	041010	Greenlaw	2023-08-26	(100) EXIRO MINERALS CORP.

533843	Multi-cell Mining Claim	041010	Greenlaw	2023-09-15	(100) EXIRO MINERALS CORP.
533849	Multi-cell Mining Claim	041010	Greenlaw	2023-04-22	(100) EXIRO MINERALS CORP.
533860	Multi-cell Mining Claim	041010	Tooms	2023-05-02	(100) EXIRO MINERALS CORP.
533861	Multi-cell Mining Claim	041010	Tooms	2023-05-02	(100) EXIRO MINERALS CORP.
533862	Multi-cell Mining Claim	041010	Tooms	2023-05-02	(100) EXIRO MINERALS CORP.
533863	Multi-cell Mining Claim	041010	Tooms	2023-05-02	(100) EXIRO MINERALS CORP.
533879	Multi-cell Mining Claim	041010	Greenlaw	2023-05-02	(100) EXIRO MINERALS CORP.
533880	Multi-cell Mining Claim	041010	Tooms	2023-05-02	(100) EXIRO MINERALS CORP.
533881	Multi-cell Mining Claim	041010	Tooms	2023-05-02	(100) EXIRO MINERALS CORP.
533882	Multi-cell Mining Claim	041010/ 041	Halcrow/Tooms	2023-05-02	(100) EXIRO MINERALS CORP.
533883	Multi-cell Mining Claim	041010/ 041	Halcrow/Tooms	2023-05-02	(100) EXIRO MINERALS CORP.
533884	Multi-cell Mining Claim	041010/ 041	Halcrow, Tooms, Der	2023-05-02	(100) EXIRO MINERALS CORP.
536788	Multi-cell Mining Claim	041015	Raney	2022-12-15	(100) JONATHAN PAUL CAMILLERI
538966	Multi-cell Mining Claim	041015	Halcrow	2023-01-10	(100) DON THOMAS FUDGE
540395	Multi-cell Mining Claim	041015	Raney	2023-01-30	(100) JONATHAN PAUL CAMILLERI
548799	Single Cell Mining Claim	041015	Halcrow	2022-04-21	(100) DON THOMAS FUDGE
548800	Single Cell Mining Claim	041015	Halcrow	2022-04-21	(100) DON THOMAS FUDGE
548950	Multi-cell Mining Claim	041015	Halcrow	2022-04-24	(100) DON THOMAS FUDGE
553339	Single Cell Mining Claim	041015	Halcrow	2022-07-10	(100) EXIRO MINERALS CORP.
555692	Single Cell Mining Claim	041015	Denyes	2022-08-14	(100) DAVID LAWRENCE GIBSON
555693	Single Cell Mining Claim	041015	Denyes	2022-08-14	(100) DAVID LAWRENCE GIBSON
555694	Single Cell Mining Claim	041015	Denyes	2022-08-14	(100) DAVID LAWRENCE GIBSON
555695	Single Cell Mining Claim	041015	Denyes	2022-08-14	(100) DAVID LAWRENCE GIBSON
555696	Single Cell Mining Claim	041015	Denyes	2022-08-14	(100) DAVID LAWRENCE GIBSON
555697	Single Cell Mining Claim	041015	Denyes	2022-08-14	(100) DAVID LAWRENCE GIBSON
555698	Single Cell Mining Claim	041015	Denyes	2022-08-14	(100) DAVID LAWRENCE GIBSON
555699	Single Cell Mining Claim	041015	Denyes	2022-08-14	(100) DAVID LAWRENCE GIBSON
555712	Single Cell Mining Claim	041015	Denyes	2022-08-14	(100) DAVID LAWRENCE GIBSON
555713	Single Cell Mining Claim	041015	Denyes	2022-08-14	(100) DAVID LAWRENCE GIBSON
555714	Single Cell Mining Claim	041015	Denyes	2022-08-14	(100) DAVID LAWRENCE GIBSON
562443	Multi-cell Mining Claim	041015	Denyes	2022-10-19	(100) EXIRO MINERALS CORP.
562444	Multi-cell Mining Claim	041015	Denyes	2022-10-19	(100) EXIRO MINERALS CORP.
563108	Single Cell Mining Claim	041015	Denyes	2022-11-02	(100) DAVID LAWRENCE GIBSON
563109	Single Cell Mining Claim	041015	Denyes	2022-11-02	(100) DAVID LAWRENCE GIBSON
563110	Single Cell Mining Claim	041015	Denyes	2022-11-02	(100) DAVID LAWRENCE GIBSON
564322	Multi-cell Mining Claim	041015	Dynes/Swayze	2022-11-18	(100) JONATHAN PAUL CAMILLERI
564323	Multi-cell Mining Claim	041015	Raney / Denyes	2022-11-18	(100) JONATHAN PAUL CAMILLERI
564324	Multi-cell Mining Claim	041015	Denyes	2022-11-18	(100) JONATHAN PAUL CAMILLERI
564325	Multi-cell Mining Claim	041015	Denyes	2022-11-18	(100) JONATHAN PAUL CAMILLERI
564898	Multi-cell Mining Claim	041015	Halcrow / Swayze	2022-11-28	(100) EXIRO MINERALS CORP.
568112	Multi-cell Mining Claim	041010	Greenlaw	2023-01-12	(100) DAVID LAWRENCE GIBSON
576492	Multi-cell Mining Claim	041010	Greenlaw	2023-02-12	(100) JONATHAN PAUL CAMILLERI
579468	Single Cell Mining Claim	041015	Dynes/ Greenlaw	2022-02-25	(100) EXIRO MINERALS CORP.
579469	Single Cell Mining Claim	041015	Dynes/ Greenlaw	2022-02-25	(100) EXIRO MINERALS CORP.
579470	Single Cell Mining Claim	041015	Greenlaw	2022-02-25	(100) EXIRO MINERALS CORP.
579471	Single Cell Mining Claim	041015	Greenlaw	2022-02-25	(100) EXIRO MINERALS CORP.
588263	Multi-cell Mining Claim	041010/ 041	Denyes/Cunningham	2022-05-13	(100) JONATHAN PAUL CAMILLERI

655138	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655139	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655140	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655141	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655142	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655143	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655144	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655145	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655146	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655147	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655148	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655149	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655150	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655151	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655152	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655153	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655154	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655155	Single Cell Mining Claim	041010	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655156	Single Cell Mining Claim	041015	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655157	Single Cell Mining Claim	041015	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655158	Single Cell Mining Claim	041015	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655159	Single Cell Mining Claim	041015	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655160	Single Cell Mining Claim	041015	Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655161	Single Cell Mining Claim	041015	Halcrow/Tooms	2023-05-06	(100) EXIRO MINERALS CORP.
655162	Single Cell Mining Claim	041015	Halcrow/Tooms	2023-05-06	(100) EXIRO MINERALS CORP.

Sample Location				Sample Type		Sample Material		
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
B0159501	371312	5285531	17N	Cunningham	Grab	Rock	Unknown	No description recorded in field.
B0159502	361026	5287529	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Foliated mafic volcanics. Crack-seal texture in QV. Sample taken mostly of QV. No sulfide seen. Crack-seal quartz vein 25cm thick, foliation parallel. Ankerite weathering out in QV.
B0159503	362853	5290687	17N	Greenlaw	Float	Rock	Clastic Sediments	Possible metasediments? Some foliation and metamorphism. Brecciated with quartz-carbonate filling cracks. 1.5% anhedral sulfides disseminated and in vein. Taken from old mine dump. Schistose. Chlorite schist.
B0159504	362849	5290677	17N	Greenlaw	Float	Rock	Intermediate Volcanic	Schistose intermediate chloritic hornblende rock. Might be a schist. Dissem sulfide a along quartz veinlets (1-3mm wide x 3cm length). Carbonate veinlets of similar size also present.
B0159505	362854	5290677	17N	Greenlaw	Float	Rock	Clastic Sediments	Soft, altered rock, large amounts of carbonate. Greasy almost talc like mineral on exterior but wrong composition. Soft material. Large quartz vein running through. No sulphides present.
B0159506	362837	5290691	17N	Greenlaw	Float	Rock	Intermediate Volcanic	Rocktype unknown, maybe sed. Schist. Minor pervasive silicification. Schistose chlorite hornblende rock with 1-3mmx3cm long quartz and carbonate veinlets hosting dissem sulfides. Chalco may be present.
B0159507	360989	5287558	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Strongly foliated mafic volcanics. Boudinaged quartz-carbonate veinlets 1cm wide, parallel to foliation with ductile shearing. Some folding present. Sulfide is euhedral contained parallel to foliation. Schisty. Crenulation seen in sample.
B0159508	359018	5287231	17N	Tooms	Float	Rock	Porphyry Intrusive	Sample came from interior fill of trench located next to insitu rock. Various multi generation quartz veinlets crosscut the entirety of the sample. Iron oxide staining on weathered surface. Large amounts of mostly euhedral pyrite. Partial pyrite oxidation. Trace amounts of calco visible. This is potentially a QFP contact and/or dyke cross cutting mafics and ultramafics
B0159509	359024	5287221	17N	Tooms	Grab	Rock	Porphyry Intrusive	Sample taken in place near veinlet parallel to foliation with visible weathered sulfide. . Moderately foliated QFP with quartz-carbonate veinlets cross-cutting. Anhedral pyrite both disseminated in rock and in veinlets.
B0159510	359024	5287222	17N	Tooms	Grab	Rock	Mafic Volcanic	Foliated very siliceous, not sure if MV or QFP. Quartz/carb veinlets parallel to foliation and cross cutting. Euhedral to massive sulfide in vein and disseminated. Very silicified. Taken from boulder in trench. Boulder is very angular and fits in with adjacent rock, so boulder assumed to be nearly in place.. Near contact between QFP and mafic/ultramafic
B0159511	359026	5287226	17N	Tooms	Grab	Rock	Ultramafic Volcanic	Sample taken from trench on rock . Up to 5cm qtz-Carb vein with shallow dip to east and at very high angle to fol in UV. Heavy fuchsite alt host rock. Trace carbonate and oxide altered pyrite. Weathered surface displays oxide staining. Some chlorite alteration within quartz.
B0159512	359025	5287224	17N	Tooms	Grab	Rock	Ultramafic Volcanic	Foliated likely ultramafic volcanic with heavy fuchsite alteration. Quartz veins with trace carb along foliation and cross cutting, some crack-seal texture. Many generations of veinlets. Small anhedral sulfide along foliation planes and massive in veins. Taken from angular nearly in place boulder near B0159511.. Very visible fuchsite, very green. Chlorite alteration in one QV with smoky quartz staining
B0159513	359019	5287225	17N	Tooms	Float	Rock	Ultramafic Volcanic	Sample taken from trench fill. Up to 5cm qtz-Carb vein with shallow dip to east and at very high angle to foliation in UV. Heavy fuchsite alt host rock. Trace chalco, and oxide altered pyrite. Weathered surface displays oxide staining. .

Sample Location				Sample Type		Sample Material		
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
B0159514	359021	5287225	17N	Tooms	Grab	Rock	Mafic Volcanic	Sample taken inside trench insitu. Quartz-ankerite veins primarily hold the sulphides. Veinlets up to 1cm. Green staining within matrix. Weathered surface displays magnetic hematite alteration. Lots of carb.
B0159515	359025	5287226	17N	Tooms	Float	Rock	Porphyry Intrusive	Foliated QFP with quartz-carb veinlets ~1cm cross cutting and larger QV. Anhedral pyrite disseminated and massive pyrite in veinlets. Possibly trace chalco, some blue/green staining in disseminated sulfide. Taken from large angular boulder at north end of trench..
B0159516	358971	5287213	17N	Tooms	Float	Rock	Ultramafic Volcanic	Foliated ultramafic volcanic with fuchsite alteration. Quartz veins cross-cutting with trace carb. Anhedral sulfide in veinlets, trace chalco. Taken from boulder in trench, not in place. Some iron oxide staining..
B0159517	353189	5291776	17N	Halcrow	Grab	Rock	Clastic Sediments	Mostly mafic fine grained Clastic Sediments with some thin felsic layers. Iron rich with oxide staining. Fine grained anhedral pyrite foliation controlled. No carbonate or other alteration.
B0159518	352100	5291958	17N	Halcrow	Grab	Rock	Felsic Intrusive	Moderately coarse grained felsic intrusive, granitic. No carbonate or other alteration. Mostly euhedral pyrite disseminated throughout rock, some of it very fine grained and anhedral. Granitic with some darker minerals.
B0159519	364099	5286527	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Mostly QV with trace carbonate alteration. Blebs of altered yellow/brown material with fuchsite present in these blebs. Some quartz is yellow stained. No sulfide seen. Host rock is hard to tell original composition, very altered, gray, foliated. Taken from subcrop boulder at QV ~15cm wide. Based on map location we think this may be the VG quartz vein. Quartz is mostly white with some yellow and smoky staining. Possible crack-seal texture
B0159520	364103	5286528	17N	Greenlaw	Float	Rock	Mafic Volcanic	Sample taken from trench waste. Multiple quartz veinlets cross cut the foliation ranging in size from 1-5cm. Fuchsite alteration present on fracture surfaces. Small amounts of carb. Rock itself is very chewed up and extremely sheared. Iron oxide staining on weathered surface. No sulphides present. Larger early quartz veins seen as well.
B0159521	364100	5286525	17N	Greenlaw	Float	Rock	Mafic Volcanic	Large quartz vein taken from inside of trench. Fuchsite alteration on fracture surface and interior. Carb seen within quartz vein. No sulphides present. Host rock is extremely chewed, sheared. Iron oxide weathering present on weather surface.
B0159522	364062	5286535	17N	Greenlaw	Float	Rock	Intermediate Volcanic	Very foliated and sheared intermediate? volcanic, hard to tell, very schisty. Large cubic pyrite up to 5mm along foliation. Carb veins parallel to foliation. Lots of iron oxide rust. Platy fracture.
B0159523	370344	5287420	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Very fine grained, magnetic on oxidation/hematite faces. Veinlets of quartz carb are seen throughout the sample. Sulphides present within veins as well as in host. Oxidized pyrite also visible.
B0159551	358281	5288560	17N	Tooms	Channel	Rock	Intermediate Volcanic	Trace carb present. Silicious alteration pervasive and vein style. Host may be IV. Silicious veins controlling most of pyrite min. Euhedral pyrite also in what appears to be host rock. Hematite staining throughout.
B0159552	358255	5288574	17N	Tooms	Float	Rock	Intermediate Volcanic	Quartz Boulder taken from blast material out of large trench. Small amounts of carb present. Iron oxide staining and alteration along fracture planes and weather surface. Trace sulphide, pyrite, disseminated and fracture filled. Cubic pyrite.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
B0159553	358921	5288073	17N	Tooms	Float	Rock	Mafic Volcanic	Schistose mafic volcanic with overprint of chlorite alteration. Minor trend of mineralized pyrite along foliation planes and within carb and qtz veinlets but is also pervasive throughout host. Large euhedral pyrite altered to hematite as well. Silicification appears pervasive throughout host fabric with minor veinlets along foliation and crosscutting. Carbonates appear structurally controlled veins throughout host foliation. Some minor pervasive carbonates traces overprinting host. 50% of all pyrite oxidized to hematite. Disseminated euhedral.
B0159554	358908	5288068	17N	Tooms	Float	Rock	Intermediate Volcanic	Foliated intermediate volcanics with quartz-carbonate vein 8cm wide. Disseminated sulfide with blue chalc in intermediate rock. Some cubic euhedral pyrite in vein. Sheared, saw folded carbonate veinlets. Similar to rock found at Sylvanite vein. Taken from subcrop angular boulder, outcrop likely underneath or nearby. Intermediate to mafic.
B0159555	354167	5298678	17N	Halcrow	Grab	Rock	Mafic Volcanic	Foliated mafic volcanics, fine grained. Quartz-carb veinlets up to 1cm parallel to foliation. Smaller veinlets ~1mm cross cutting. Epidote in larger veinlets. Anhedral pyrite in foliation controlled veinlets.
B0159556	354176	5298679	17N	Halcrow	Grab	Rock	Mafic Volcanic	Fine grained MV. Hematite alteration seen on fracture faces, highly magnetic. Quartz carbonate epidote veinlets cross cutting foliation. Sulphides seen in both veins and blebs but mostly disseminated. Some cubic. Slight oxidation on weathered surface.
B0159557	354024	5299152	17N	Halcrow	Grab	Rock	Felsic Volcanic	Likely felsic volcanic with some foliation/banding. Calcite veins with visible crystals and cleavage cross cutting. Fine grained sulfide disseminated and in veinlets parallel to foliation. Taken from large angular boulder (subcrop?) in torn-up trenched area.
B0159558	364098	5286532	17N	Greenlaw	Float	Rock	Quartz Vein	Large qv with alteration found within trench, host rock is really sheared, oxidized and unknown- possibly volcanic or sedimentary in nature. qv 25cm- possibly emplaced but more likely as float from trench it is found within. Calcite is around as well as within qv, fuchite found within qv as well as in high. Oxidation present throughout rock in blebs as well as throughout host rock.
B0159559	364079	5286534	17N	Greenlaw	Grab	Rock	Quartz Vein	Qv with high levels of oxidation and fuchite alteration in a highly sheared and oxidized host rock - either sedimentary or volcanic. Fuchite within qv and host rock in disseminated/blebs. Large veins of oxidation in qv, as well as much oxidation in host rock. Small amount calcite.
B0159560	364069	5286528	17N	Greenlaw	Float	Rock	Intermediate Volcanic	Sample is a quartz vein float taken nearby to trenches. Heavily altered with fuchsite interbedded with the quartz. Iron oxide staining seen throughout sample fracture filled. Slight carb. Talc greasy feel on portion of rock but talc itself not seen. No sulphides present in sample. Sample is sheared.
B0159561	361452	5287278	17N	Greenlaw	Float	Rock	Ultra Mafic	Float bolder beside heavily altered outcrop- displayed the most alteration. Possible UM protolith. Also late(?) dark chlorite alteration on slicken slides. Rock almost completely altered to fuchite, with some oxidation on surface. Have been heavily altered, brittle deformed with different generations of quartz veins. Most intense chlorite alteration seen anywhere on property.
B0159562	361454	5287282	17N	Greenlaw	Float	Rock	Unknown	Highly angular float from trench. Cannot tell original lithology. Lots of prev. work in area, very overgrown. Possible shaft to the north west. Pyrite mineralization occurs concentrated as crack seal texture in host rock as well as through rock less concentrated. Pyrite mostly anhedral. Very oxidized on surface as well as areas within. Rock is very dense and altered. Silicified. Many generations of alteration.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
B0159563	361457	5287288	17N	Greenlaw	Float	Rock	Unknown	Angular Boulder from trench, unknown original rock type. Highly altered, small amounts fuchsite. Disseminated cubic pyrites with black coatings in outside. Moderate amounts of carbonate in the rock as well, foliated with smooth surfaces.
C796001	361427	5287348	17N	Greenlaw	Grab	Rock	Mafic Intrusive	Pyrite throughout w some cubes, quartz veinlets and rust. Dark greenish rock, fine grained, non mag. GPS in photo is NAD27.
C796002	361407	5287333	17N	Greenlaw	Grab	Rock	Diorite	Diorite? quartz throughout. Pyrite be inlets and rust. Non mag, 1-2m grain, grey rock. Strike 223SW, Dip 70. GPS in photo is NAD27.
C796003	361422	5287319	17N	Greenlaw	Grab	Rock	Unknown	GPS in photo is NAD27.
C796004	360703	5287255	17N	Tooms	Grab	Rock	Unknown	Greenish rock with quartz interspersed. Possibly chlorite. Pyrite is cubic. GPS in photo is NAD27.
C796005	360673	5287266	17N	Tooms	Float	Rock	Unknown	Greenish looking rock, folded quartz, rusty trench float. GPS in photo is NAD27.
C796006	359099	5287187	17N	Tooms	Grab	Rock	Quartz Vein	Rusty fine grained grey rock with wavy quartz veins about 1/4-1in. Lots of pyrite in rusty strongly magnetic veinlets. GPS in photo is NAD27.
C796007	359174	5287303	17N	Tooms	Grab	Rock	Unknown	Grey/green fine grained rock. Rusty. Pyrite in quartz and wall rock with possible chlorite. Prominent quartz has intersecting veinlets. GPS in photo is NAD27.
C796008	359157	5287320	17N	Tooms	Grab	Rock	Quartz Vein	Qv w pyrite and rust. Qv 2-4in. GPS in photo is NAD27.
C796009	358544	5286396	17N	Tooms	Grab	Rock	Unknown	Group of qv's ranging from 2-20mm, in a lighter green rock. With spots of rust and decent pyrite content in the seams between the veins. Some rust spots are magnetic (probably not magnetite). Strike 328, dip 60. GPS in photo is NAD27.
C796010	358114	5288777	17N	Tooms	Grab	Rock	Unknown	Grey rock medium grain. Qv with trace chalcopyrite in the wall-rock. Strike 48 Dip 38.
C796011	358160	5288808	17N	Tooms	Grab	Rock	Unknown	Less than 1 percent pyrite in wall rock surrounding quartz veinlet.
C796012	358105	5288742	17N	Tooms	Grab	Rock	Unknown	Grey/green medium grained rock with rust and pyrite, possible chalco but heard to say do sure.
C796013	358165	5288562	17N	Tooms	Grab	Rock	Quartz Vein	Quartz vein with rust. Potentially a giant boulder but too hard to tell.
C796014	358776	5288072	17N	Tooms	Grab	Rock	Unknown	Quartz vein in magnetic host rock. Black substance inside of quartz vein with trace sulphides.
C796015	358778	5288076	17N	Tooms	Grab	Rock	Unknown	Magnetic small grain host rock from sample c796114. Approx. 0,5 percent Cubic pyrite.
C796016	359089	5287894	17N	Tooms	Chip	Rock	Unknown	Soft wall rock with quartz veinlet, 0,5 percent sulphides. Rusty. Black veinlet of very reflective substance. Magnetic.
C796017	359082	5287978	17N	Tooms	Grab	Rock	Unknown	Dark grey/green rock, fine grain rusty and fairly magnetic. Carb altered large cubic pyrite. Quartz has slight purple tinge to it.
C796018	359158	5288065	17N	Tooms	Grab	Rock	Quartz Vein	Qv with some cubic pyrite in brownish red rock strike 38 dip 65.
C796019	359162	5288062	17N	Tooms	Grab	Rock	Quartz Vein	Composite sample bisecting 5cm quartz vein with green (fuchsite? Malachite?) on both sides of quartz. Wall rock contains trace sulphides, rusty.
C796020	359176	5288583	17N	Tooms	Grab	Rock	Unknown	Vein of quartz hematite and cubic pyrite 4-5in wide. In green rock. Lots of cubic pyrite in wall rock as well. Strike 295 Dip 62.
C796021	359061	5288775	17N	Tooms	Grab	Rock	Unknown	80 percent magnetite, iridescent coating in some spots. Rusty. Trace pyrite.
C796022	359626	5288107	17N	Tooms	Grab	Rock	Unknown	Grey rock; finer grain, magnetic and trace pyrite. Some quartz veinlets nearby but couldn't get a piece.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C796023	359510	5288183	17N	Tooms	Grab	Rock	Unknown	Knotted quartz and Trace py in grey medium grained rock.
C796024	359470	5288205	17N	Tooms	Grab	Rock	Quartz Vein	Slightly magnetic qv in broken off piece of outcrop. Wall rock grey/green medium grained.
C796025					QC			QC
C796026	359574	5288341	17N	Tooms	Grab	Rock	Unknown	Layered grey rock with rust. Trace pyrite, non magnetic. Medium grain. Pyrite in the veinlet.
C796027	359533	5288310	17N	Tooms	Float	Rock	Unknown	Mineralized QVeinlets in muck pile from potential trench or road work. Rusty grey rock.
C796028	361735	5287867	17N	Greenlaw	Grab	Rock	Unknown	Rusty grey rock with quartz veinlets, some one of the veinlets a decent pyrite content. Pretty fine grained stuff.
C796029	361645	5287897	17N	Greenlaw	Grab	Rock	Unknown	Quartz veinlets in fine grained green/grey rock with clumps of pyrite. Some rust on rock and folding of the quartz veinlets.
C796030	361929	5287827	17N	Greenlaw	Grab	Rock	Unknown	Green rock with trace pyrite and rust and little quartz veinlets running a different angles.
C796031	361989	5287738	17N	Greenlaw	Grab	Rock	Unknown	Trace Pyrite and quartz veinlets in a kinda rusty band. Green/grey layered rock, medium fine grain.
C796032	361874	5287614	17N	Greenlaw	Grab	Rock	Unknown	Grey green rock, medium grained. Cubic pyrite and some very fine quartz veinlets.
C796033	361781	5287550	17N	Greenlaw	Grab	Rock	Unknown	Darker grey rusty rock with heaps of magnetite. Seems like a very localized oddity, maybe a dyke or something.
C796034	361544	5287253	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Rusty grey rock with trace pyrite and carbonate.
C796035	361463	5287290	17N	Greenlaw	Grab	Rock	Quartz Vein	Quartz with pyrite and either fuchsite or chlorite.
C796036	361484	5286643	17N	Greenlaw	Grab	Rock	Unknown	grey rock with pyrite and quartz in the same veinlet, probably chlorite as well.
C796037	359322	5286416	17N	Tooms	Grab	Rock	Unknown	Carb altered fine grained grey rock, non magnetic.
C796038	359703	5286538	17N	Tooms	Float	Rock	Unknown	Rusty medium gained green/grey rock with chalcopryite, pyrite and probably some bornite in the too. Trench float, medium magnetic.
C796039	359717	5286546	17N	Tooms	Grab	Rock	Unknown	Rusty grey/green rock, medium fine grain. With chalcopryite, pyrite and probably some bornite, magnetic.
C796040	359678	5286556	17N	Tooms	Grab	Rock	Unknown	Rusty medium grained grey/green rock with sulphides throughout. Medium Mag.
C796041	359928	5285914	17N	Tooms	Grab	Rock	Unknown	Darker green rusty rock medium fine grain with pyrite and potentially another very fine sulphide with more of a silver hue.
C796042	359957	5285887	17N	Tooms	Grab	Rock	Unknown	Knotted quartz with pyrite in the knot and the wall rock. Medium grained greenish rock. Quartz is crystallized.
C796043	359295	5286391	17N	Tooms	Grab	Rock	Unknown	Host rock is dark grey, fine grained, non magnetic and a little rusty. Possibly contains hematite and chlorite. Wavy vein, couldn't read the dip. Also little veinlets running at different angels.
C796044	359413	5286287	17N	Tooms	Grab	Rock	Quartz Vein	Quartz fold, some rust dark grey/green. Quartz fold, and sporadic veinlets.
C796045	359401	5286141	17N	Tooms	Grab	Rock	Felsic Intrusive	Qv in felsic rock, non magnetic, spots of hematite and this others orange stuff that could just be weathering. Strike-256/Dip-39. Vein at least 1m but could be wider, we couldn't dig any deeper.
C796046	359404	5286148	17N	Tooms	Grab	Rock	Felsic Intrusive	Wall rock of sample C796045. Rusty large grain.
C796047	359406	5286145	17N	Tooms	Grab	Rock	Felsic Intrusive	Wide quartz vein with pyrite and hematite. Sample taken closer to the wall rock. Same qv as C796045.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C796048	359403	5286100	17N	Tooms	Grab	Rock	Felsic Intrusive	QV with pyrite and hematite strike 230 dip 35. Qv with pyrite and hematite. Carb alteration in the wall rock.
C796049	359497	5286190	17N	Tooms	Grab	Rock	Unknown	Dark green and cloudy white medium grained rock. With pyrite, hematite and carb.
C796050					QC			QC
C796051	359657	5285938	17N	Tooms	Grab	Rock	Unknown	Darker green rock with silica, medium fine grain, some rust and carb altered.
C796052	359682	5285856	17N	Tooms	Grab	Rock	Felsic Intrusive	Quartz knot in felsic intrusive medium large grained rock. Decent pyrite in the wall rock and the quartz seemed to be covering what seemed to be chlorite. Medium Mag and carb alteration.
C796053	359746	5285883	17N	Tooms	Grab	Rock	Mafic Volcanic	Fine grained greenish rock, non mag. Quartz is hanging out in the calcite veinlets.
C796054	359859	5285889	17N	Tooms	Grab	Rock	Mafic Volcanic	QV with calcite and chlorite alteration and pyrite. The wall rock is dark green with pyrite as well. Strike 256 Dip 80. Slightly magnetic.
C796055	359861	5285882	17N	Tooms	Grab	Rock	Mafic Volcanic	Dark green host rock with a opaque light pinkish red vein of 2-3cm. Pyrite in the host rock and vein. Couldn't get a strike and dip, vein was to squirrely. Non carb altered and non magnetic. Slight rust on the rock as well.
C796056	360193	5285783	17N	Tooms	Grab	Rock	Mafic Volcanic	Darker green fine grained and foliated, strongly magnetic, carb and chlorite altered, with a bit of quartz as well.
C796057	360291	5285758	17N	Tooms	Grab	Rock	Mafic Volcanic	Green finer grained rock, some rust and foliated. with, magnetite and non carb altered. Trace pyrite as well.
C796058	360259	5285530	17N	Tooms	Grab	Rock	Quartz Vein	Qv with pyrite, chlorite, carb altered, non mag.
C796059	360204	5285065	17N	Tooms	Grab	Rock	Mafic Volcanic	Green rock, quartz pockets, magnetic, possible contact. Borders with sample C796060.
C796060	360208	5285067	17N	Tooms	Grab	Rock	Dyke	Light coloured rock, some sort of dyke probably.
C796061	362122	5288129	17N	Greenlaw	Grab	Rock	Schist	Foliated dark grey rock, metamorphosed schist. With pyrite and white mica.
C796062	362193	5288261	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Greenish grey rock, Foliated with some quartz knots. Rust, pyrite and carbonate.
C796063	361975	5288365	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Medium grained green rock. Carb altered non magnetic. Some rust.
C796064	361845	5288331	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Green finer grained foliated rock with plenty of quartz/carb alteration. With pyrite.
C796065	361816	5288350	17N	Greenlaw	Grab	Rock	Mafic Volcanic	3-4cm carb altered quartz vein in dark green foliated host rock. Pyrite, hematite and a little chlorite. Strike 294 dip is almost vertical so the strike might be flipped.
C796066	361817	5288348	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Qv with carb hematite and chlorite. Strike 300 basically vertical. Vein.
C796067	361672	5288122	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Dark grey rock, fine grained. Looks decently strained.
C796068	361668	5288125	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Pyrite vein of roughly 2cm, appears to widen as it goes into the rock. Host rock is dark grey with carb and quartz alteration. Slightly magnetic. Strike 330 Dip 72.
C796069	361928	5287894	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Conglomerate of fine grained green rock, quartz carb clast with pyrite in the host rock. Non magnetic.
C796070	362095	5287851	17N	Greenlaw	Grab	Rock	Clastic Sediments	Conglomerate of dark green fine grained rock. Rocks taken from two places on the outcrop. Carb altered, Non magnetic.
C796071	362369	5287632	17N	Greenlaw	Grab	Rock	Clastic Sediments	Conglomerate with quartz clasts. Some rust.
C796072	362382	5287627	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Intermediate volcanic with some rust. Probably trace bornite. Non magnetic non carb altered. Diabase Dike?

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C796073	362453	5287682	17N	Greenlaw	Grab	Rock	Clastic Sediments	Quartz clast in conglomerate, trace sulphides with evidence of rotted out pyrite in the quartz. Host rock is dark green.
C796074	362497	5287747	17N	Greenlaw	Grab	Rock	Clastic Sediments	Crenulated conglomerate with pyrite and carb alteration.
C796075					QC			QC
C796076	362437	5287813	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Seem of carbonate with pyrite. Host rock is light grey and fine grained, non magnetic.
C796077	361969	5288026	17N	Greenlaw	Grab	Rock	Clastic Sediments	Conglomerate with pyrite and carb alteration. Some rust, host rock is gray and fine grained.
C796078	361323	5288119	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Fine grained grey rock with rust, trace pyrite and quartz carb alteration.
C796079	361345	5288163	17N	Greenlaw	Grab	Rock	Unknown	Fine grained grey rock with rust and pyrite that follows the same trend as the rock over about an inch, plus there appears to be a second structure of pyrite, carb and quartz in mm seems running at a different angle.
C796080	361339	5288312	17N	Greenlaw	Grab	Rock	Unknown	Grey fine grained rock with trace pyrite and carb and quartz alteration.
C796081	361391	5288400	17N	Greenlaw	Grab	Rock	Clastic Sediments	Conglomerate, host rock is fine grained and grey. Trace pyrite trending with the rock.
C796082	361553	5288220	17N	Greenlaw	Grab	Rock	Clastic Sediments	Conglomerate, host rock is fine grained grey rock. Pyrite is trending with the rock.
C796083	357875	5288475	17N	Tooms	Grab	Rock	Unknown	Not outcrop, float from the MNRF road, realized afterwards.
C796084	358123	5288148	17N	Tooms	Grab	Rock	Unknown	Darker green medium grained rock. Not much in it but the only rock we've seen. Could even possibly be a large bolder mostly buried in sand.
C796085	367050	5294650	17N	Denyes	Grab	Rock	Mafic Volcanic	Grey fine grained rock with rust, pyrite, carb and quartz alteration. Not magnetic.
C796086	362100	5297598	17N	Denyes	Grab	Rock	Felsic to Intermediate Schist	Felsic/Intermediate schist with rust pyrite and biotite.
C796087	361468	5297853	17N	Denyes	Grab	Rock	Felsic to Intermediate Schist	Felsic/Intermediate schist with rust. Some pyrite and thin 1-2mm cross cutting seems of quartz (I think).
C796088	361654	5297909	17N	Denyes	Grab	Rock	Mafic Volcanic	Fine grained green rock with fine pyrite. Quartz and carb alteration. Carb is in the quartz and the host rock. Non magnetic.
C796089	361751	5297895	17N	Denyes	Grab	Rock	Mafic Volcanic	Fine grained green rock with rust, foliated and a little twisted with pyrite and chalcopryrite. Quartz and carb alteration.
C796090	362286	5297784	17N	Denyes	Grab	Rock	Unknown	Very rusty rock, fine grained grey with pinkish rust staining. Quartz knots and intersecting slashes brought something red into the rock. Carb altered. Host rock is magnetic quartz is not.
C796091	362286	5297780	17N	Denyes	Grab	Rock	Unknown	Fine grained grey rock with pyrite and carb alteration. Possibly some chalcopryrite as well.
C796092	362798	5296446	17N	Denyes	Grab	Rock	Unknown	Intersecting quartz veins (one folded) in a green fine grained foliated host rock. Lots of pyrite and potentially chalcopryrite. Carb altered.
C796093	363208	5296582	17N	Denyes	Grab	Rock	Intermediate Volcanic	Intermediate medium grained grey/green rock. Seems to be a dyke running through a mafic volcanic foliated rock. Carb altered.
C796094	363210	5296578	17N	Denyes	Grab	Rock	Mafic Volcanic	Fine grained foliated green rock with rust and pyrite. Quartz and carb alteration.
C796095	363516	5297246	17N	Denyes	Grab	Rock	Felsic Intrusive	Medium grained light coloured rock, hints of green and red, some rust and pyrite, carb altered and not magnetic.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C796096	363631	5297318	17N	Denyes	Grab	Rock	Felsic/Mafic Volcanic Contact	Quartz vein of about 3in bent in a half circle running through what's probably a felsic/mafic contact. Some sulphides, carb alteration and rust.
C796097	363593	5297290	17N	Denyes	Grab	Rock	Mafic Volcanic	Small quartz vein mined out in shallow shaft. Fine grained green rock with foliations and rust. Pyrite and carb alteration.
C796098	363595	5297294	17N	Denyes	Float	Rock	Mafic Volcanic	Trench float, fine grained green rock host rock. Probably a quartz vein of at least 5in. Chock full of pyrite. Carb altered and strongly magnetic.
C796099	363535	5297299	17N	Denyes	Grab	Rock	Quartz Vein	Squirrely quartz vein with sulphides, seems to be in an area where different rock types are mashing together.
C796100					QC			QC
C796101	358985	5287241	17N	Tooms	Grab	Rock	Unknown	Layered gray rock with 1 percent cubic pyrite throughout. Small quartz veins scattered in bedrock. Foot wide adjacent quartz vein.
C796102	359164	5287313	17N	Tooms	Grab	Rock	Quartz Vein	Quartz vein at historical trench. 5% pyrite in quartz.
C796103	359176	5287302	17N	Tooms	Grab	Rock	Unknown	Small quartz veins through wall rock with 1 percent pyrite throughout.
C796104	358433	5286506	17N	Tooms	Grab	Rock	Mafic Volcanic	Chlorite with 3percent rusty pyrite.
C796105	359666	5286557	17N	Tooms	Grab	Rock	Unknown	Small grain Grey rock with 5percent pyrite.
C796106	359657	5286532	17N	Tooms	Grab	Rock	Mafic Volcanic	Mafic volcanic with less than 1 percent trace pyrite.
C796107	359692	5286517	17N	Tooms	Grab	Rock	Intermediate Volcanic	Intermediate volcanic with less than 1 percent trace sulphides.
C796108	359749	5286479	17N	Tooms	Grab	Rock	Unknown	Soft wall rock with rusty pyrite located around 1cm quartz vein.
C796109	359791	5286543	17N	Tooms	Grab	Rock	Unknown	Medium grain rusty. 5 percent sulphide. Green substance present in rock.
C796110	359785	5286545	17N	Tooms	Grab	Rock	Unknown	Pyrite rich vein running through host rock. Rusty.
C796111	359788	5286541	17N	Tooms	Grab	Rock	Unknown	5 percent pyrite distributed evenly in host rock,.
C796151	363531	5297314	17N	Denyes	Grab	Rock	Quartz Vein	Basically the same as C796099 except I couldn't find any chalcopyrite. It's also right where to to rock types in the area converge.
C796152	363613	5297321	17N	Denyes	Grab	Rock	Mafic Volcanic	Fine grained and foliated grey/green rock with pyrite stringers that trend with the foliation. Sample was taken from local trench float.
C796153	363537	5297310	17N	Denyes	Grab	Rock	Felsic Intrusive	Medium grained rock light coloured and weathered. Rusty.Sheared felsic intrusive, trace pyrite and malachite.
C796154	363549	5297305	17N	Denyes	Grab	Rock	Felsic Intrusive	Taken from large quartz vein in historical trenches from showing.Quartz vein with 0.5 pct pyrite.Mostly fresh with some brown.
C796155	363545	5297303	17N	Denyes	Grab	Rock	Felsic Intrusive	Large exposed outcrop with felsic and magic units. Lots of veins with sulphides in the neighbourhood..Sample of Quartz vein.
C796156	363598	5297289	17N	Denyes	Grab	Rock	Mafic Volcanic	Rock type not easily identifiable, could be felsic with mafic clasts but my best guess is mafic.Quartz vein, with ankerite. Carbonate. Pyrite throughout with some areas of very high concentration.
C796157	363567	5297302	17N	Denyes	Grab	Rock	Mafic Volcanic	Trench float.Quartz veins running through mafic volcanic, lots of pyrite throughout.
C796158	363569	5297301	17N	Denyes	Grab	Rock	Mafic Volcanic	Trench float.Quartz veins running through mafic volcanic, lots of pyrite in seems. Strong alteration.
C796159	366582	5295871	17N	Denyes	Grab	Rock	Intermediate Volcanic	Probably pyrrhotite in medium grain intermediate rock.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C796160	365901	5295997	17N	Denyes	Grab	Rock	Felsic Intrusive	First of this rock type we saw, approached from the south. Coarse grained felsic unit with quartz veinlets and cubic pyrite.
C796161	365906	5296150	17N	Denyes	Grab	Rock	Felsic Intrusive	No sample description.
C796162	365895	5296131	17N	Denyes	Grab	Rock	Mafic Volcanic	Possibly a mafic dyke. Wrap rock and tree tag are labeled as C796163 but the tag for them is C796162.
C796163	359162	5288065	17N	Tooms	Grab	Rock	Mafic Volcanic	Subcrop with 1cm quartz veinlet. Rep taken..
C796164	359161	5288068	17N	Tooms	Grab	Rock	Mafic Volcanic	Mafic?
C796165	359162	5288067	17N	Tooms	Grab	Rock	Mafic Volcanic	Mafic?
C796166	359162	5288065	17N	Tooms	Grab	Rock	Mafic Volcanic	Wall rock of main vein with smaller veinlets 1 cm wide running through. Fuchsite local to quartz vein+veinlets. Trace pyrite.
C796167	359056	5287963	17N	Tooms	Float	Rock	Mafic Volcanic	Quartz stringers 3mm Wide with trace pyrite where quartz meets wall rock. Rusty on weathered fractures of wall rock. Sub crop.
C796168	359006	5288028	17N	Tooms	Float	Rock	Mafic Volcanic	15cm x 15cm float (local) with folded and faulted quartz veinlets. Pyrite where quartz meets wall rock on edge on veinlet.
C796169	358928	5288071	17N	Tooms	Float	Rock	Mafic Volcanic	Quartz veinlet 1-2cm on local float with coarse pyrite. Very rusty . Carb altered.
C796170	358921	5288075	17N	Tooms	Float	Rock	Quartz Vein	Very Rotted sulphide quartz vein found under fallen tree root.
C796171	358852	5287887	17N	Tooms	Grab	Rock	Mafic Volcanic	Quartz veinlets with calcite and magnetite? Very magnetic. Carb altered. Sub crop from trench.
C796172	358848	5287881	17N	Tooms	Float	Rock	Mafic Volcanic	Quartz veinlet with pyrite where quartz meets wall rock. Rusty, ankerite. Calcite crystals. Sub crop in trench.
C796173	358849	5287887	17N	Tooms	Grab	Rock	Mafic Volcanic	Quartz veinlet with pyrite where quartz meets wall rock. Some cubic pyrite in wall rock. Rusty. Ankerite.
C796174	358991	5287959	17N	Tooms	Float	Rock	Mafic Volcanic	Float of quartz vein near trench of sample c796304-c796307. Cubic pyrite with rust in where quartz meets wall rock.
C796175					QC			QC
C796176	358974	5287974	17N	Tooms	Float	Rock	Mafic Volcanic	Sub crop from trench loaded with cubic pyrite. Seemingly originates from versifié a very large quartz vein in the trench.
C796177	358975	5287971	17N	Tooms	Float	Rock	Mafic Volcanic	Quartz vein approx 5cm with a pyrite vein approx 8mm wide where quartz contacts wall rock. Little rust. Subcrop from trench.
C796178	359029	5287950	17N	Tooms	Grab	Rock	Intermediate Volcanic	Quartz vein with orange brown alt, doesn't fizz, minor py in local patches, v approx trending 275.
C796179	358975	5287943	17N	Tooms	Grab	Rock	Felsic Volcanic	Wall rock near quartz vein in trench. Cubic pyrite. Ankerite. Moderately silicified.
C796180	358976	5287946	17N	Tooms	Grab	Rock	Felsic Volcanic	Mostly quartz vein in silicified fléaux volcanic. Cubic pyrite along contact with wall rock. Ankerite..
C796181	358975	5287942	17N	Tooms	Float	Rock	Felsic Volcanic	Trench muckpile in place, mg cream altered felsic, white 2 cm Qv, fg dark grey fragment, 2% mg py.
C796182	358976	5287941	17N	Tooms	Float	Rock	Intermediate Volcanic	Intermediate f-mg pinkish grey with 0.5 cm qtz-carb veinlets, subhedral f-mg py diss and along fractures.
C796183	358978	5287945	17N	Tooms	Float	Rock	Intermediate Volcanic	Grey white intermediate w biotite and diss fine py, 1 cm Qv w cg py and cpy, trench muckpile
C796184	358981	5287998	17N	Tooms	Grab	Rock	Intermediate Volcanic	Oc of well foliated int volc with 1-3 cm Boudinaged white qvs 270/67, 1-5 mm subhedral py.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C796185	358999	5287991	17N	Tooms	Float	Rock	Intermediate Volcanic	Local float, orange brown alt, white Qv 2 cm with clots of mg py and cpy.
C796186	358970	5287974	17N	Tooms	Grab	Rock	Quartz Vein	Quartz vein float in trench. Unsure of rock type, lots of rust. Carb altered.
C796187	358963	5287977	17N	Tooms	Float	Rock	Intermediate Volcanic	Trench muckpile, qtz carb veinlets in fg Grey intermediate with 3-5% fine magnetite.
C796188	358964	5287978	17N	Tooms	Float	Rock	Intermediate Volcanic	Trench muckpile, qtz carb veinlets 1-3 cm in fg Grey intermediate with 3-5% fine magnetite.
C796189	359157	5287300	17N	Tooms	Float	Rock	Unknown	Fuchsite with quartz veinlets and cubic pyrite. Subcrop from trench.
C796190	359156	5287320	17N	Tooms	Grab	Rock	Intermediate Volcanic	Host buff coloured, mg, qtz veinlets 1-5 cm, mg subhedral py concentrated in qvs.
C796191	359157	5287318	17N	Tooms	Grab	Rock	Mafic Volcanic	Green black fuchsite altered with quartz veinlets stockwork 2-8 mm, fine anhedral py concentrated on fractures, trench oc.
C796192	359156	5287313	17N	Tooms	Grab	Rock	Intermediate Volcanic	Trench outcrop, silicified, fine py, grey pink, f-mg.
C796193	359156	5287310	17N	Tooms	Grab	Rock	Mafic Intrusive	Mafic to intermediate?, grey, f-mg, qtz carb veinlet 3-8 mm, trench oc.
C796194	359166	5287306	17N	Tooms	Grab	Rock	Unknown	Quartz veins through fuchsite fine cubic pyrite throughout. Outcrop of trench.
C796195	359172	5287307	17N	Tooms	Float	Rock	Intermediate Volcanic	Quartz veins through fuchsite fine cubic pyrite throughout. Rusty. Pyrite filled quartz stringer running through middle of sample. Float of trench.
C796196	359176	5287304	17N	Tooms	Grab	Rock	Quartz Vein	Quartz vein from trench with approx 10 percent fuchsite content. Cubic Pyrite is with fuchsite.
C796197	359156	5287314	17N	Tooms	Float	Rock	Mafic Volcanic	Trench subcrop, carb on fracture, chlorite fractures.
C796198	363543	5297302	17N	Denyes	Grab	Rock	Porphyry Intrusive	Outcrop in trench. Looks similar to sample that ran. Porphyry wall rock with next to large quartz vein, with veinlets going through and moderate to strong silicification. Approx 8 percent cubic pyrite.
C796199	363593	5297290	17N	Denyes	Grab	Rock	Porphyry Intrusive	Faint rotten egg smell with HCL on rusty sulphide area potentially arsenopyrite. Outcrop on trench with sample c796156. Mostly porphyry with ankerite veining. One end is very rusty with silver looking sulphide in it. Arseno?
C796200					QC			QC
C796201	359042	5288778	17N	Tooms	Grab	Rock	Intermediate Volcanic	Host rock with 0.5 pct sulphides. Black subsistence surrounding quartz. Appears to be similar to black substance in sample c796016.
C796202	359172	5288876	17N	Tooms	Grab	Rock	Quartz Vein	2cm Quartz veinlet. Located on edge of schist outcrop. Strike130 dip57.
C796203	359161	5288902	17N	Tooms	Grab	Rock	Schist	Quartz veinlets in schist.
C796204	359320	5288901	17N	Tooms	Grab	Rock	Schist	4cm quartz veinlet surrounded by schist. Trace sulphides.
C796205	359362	5288762	17N	Tooms	Grab	Rock	Unknown	Large grain host rock. Needle like structure in crystals. Rusty with trace sulphides.
C796206	359500	5288453	17N	Tooms	Grab	Rock	Quartz Vein	Quartz veinlet with some rust. Small grain wall rock.
C796207	360703	5287274	17N	Tooms	Grab	Rock	Mafic Volcanic	Quartz vein in mafic volcanic, moderate carb, 2% fg py, 305/45 N.
C796208	360711	5287273	17N	Tooms	Grab	Rock	Unknown	315/65, 1-2 cm white qv in grey green weak carb alt host, fine-medium grained, 5% fine py diss throughout and concentrated on qv edge, in trench.
C796209	360709	5287275	17N	Tooms	Grab	Rock	Unknown	315/65, grey green weak carb alt, fine-medium grained, 3% fine py diss throughout, host to C796208, in trench.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C796210	360710	5287274	17N	Tooms	Grab	Rock	Mafic Volcanic	Mafic volcanic with Boudinaged qv up to 15 cm wide, weak carb-chl alt, in trench.
C796211	360656	5287300	17N	Tooms	Grab	Rock	Felsic Intrusive	Trench oc, felsic intrusive? Or quartz flooded.
C796212	360657	5287301	17N	Tooms	Grab	Rock	Felsic Intrusive	Trench oc, felsic intrusive? Or quartz flooded.
C796213	360656	5287294	17N	Tooms	Grab	Rock	Quartz Vein	Qv with chl fractures in trench.
C796214	360657	5287293	17N	Tooms	Grab	Rock	Quartz Vein	Qv part of 30 cm vein (same vein as C796213-15), in trench, rep.
C796215	360656	5287292	17N	Tooms	Grab	Rock	Quartz Vein	Qv, white, 30 cm, weak Fe-carb-chl-fuch, trench oc.
C796216	360649	5287302	17N	Tooms	Grab	Rock	Unknown	Trench oc, discontinuous Qv mm-cm in intermediate?+AH69:AH76 5% fine to coarse py, very weak fuchsite.
C796217	360633	5287309	17N	Tooms	Grab	Rock	Unknown	Silicified, white grey, 3% fine py, wk ser-carb, tr fuch, in trench.
C796218	360631	5287307	17N	Tooms	Float	Rock	Unknown	Trench muckpile, strong chlorite, weak ank, medium to coarse grained chunky py, 2 mm tension crack quartz-carb veinlets.
C796219	360630	5287304	17N	Tooms	Grab	Rock	Unknown	Trench oc, 1-3 cm Qv with 3% fine to mg py, trace cpy, very weak fuch, wk carb, 305/85.
C796220	360199	5286016	17N	Tooms	Grab	Rock	Mafic Intrusive	Qtz diorite, mg, grey, moderately magnetic-1% mgt, no sulfide.
C796221	361836	5286529	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Intermediate volcanic? grey, mg, moderately magnetic, 2% magnetite, no sulfide.
C796222	361970	5286518	17N	Greenlaw	Grab	Rock	Mafic Intrusive	Mafic intrusive? Silicified, dark grey, moderate calcite carb, 3% fine magnetite.
C796223	362080	5286474	17N	Greenlaw	Float	Rock	Intermediate Volcanic	Intermediate volcanic, grey, fg, 5% fine py, 0.5% fine cpy concentrated on 3 mm cc vein on fracture, non-magnetic, subcrop in place.
C796224	362089	5286454	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Intermediate volcanic, f-mg, 5% py, green grey, 2-3 mm discontinuous cc veinlets infilling tension cracks.
C796225					QC			QC
C796226	360544	5285929	17N	Tooms	Grab	Rock	Intermediate Volcanic	Intermediate volcanic with moderate to strong calcite carb, weak kspar, composite sample across 1 metre, 265 Foliation.
C796227	360634	5285951	17N	Tooms	Grab	Rock	Felsic Intrusive	Granite, light grey with 5-10% chlorite, 0.5% fine py close to 1 cm white qv.
C796228	360634	5285953	17N	Tooms	Grab	Rock	Intermediate Volcanic	Intermediate volcanic, grey green, mg, 2.5 cm white Qv locally trending 280/40 with no sulfide except at contact with host, 3% non-cubic f-mg py.
C796229	360629	5285971	17N	Tooms	Grab	Rock	Intermediate Volcanic	Milky 10 cm Qv in trench, needle-like grey mineral in local patch, chlorite fractures.
C796230	360629	5285971	17N	Tooms	Grab	Rock	Intermediate Volcanic	Wallrock to Qv C796229, grey, calcite carb discontinuous in fracture with fine cpy, mg, granitic along fracture (close to contact), in trench oc.
C796231	360742	5286030	17N	Greenlaw	Grab	Rock	Felsic Intrusive	Granite, moderate orange brown carb, 5-7% m-cg py semi-cubic, oc in trench.
C796232	360743	5286030	17N	Greenlaw	Grab	Rock	Felsic Intrusive	Similar to C796231 but 1 cm Qv, 2 by 2 cm patch massive mg py, trench oc.
C796233	360764	5286030	17N	Greenlaw	Grab	Rock	Felsic Intrusive	Quartz with granite outcrop in trench, moderate orange brown carb, 2% py in wallrock.
C796234	360767	5286030	17N	Greenlaw	Float	Rock	Felsic Intrusive	Muckpile, granite with quartz, cg 5mm py cubic and semi-cu, orange brown carb.
C796235	360768	5286032	17N	Greenlaw	Float	Rock	Felsic Intrusive	White granitic with white quartz from muckpile of trench, 3% fg py diss, 0.5% mg py in fracture locally.
C796236	361130	5285648	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Mafic volcanic interspersed with white quartz, py is f-mg chunks in chlorite/mafic fractures, weakly magnetic.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C796237	361048	5286046	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Shear zone with quartz veining approx 265/70, 0.1% fine py, composite sample from three places in oc.
C796238	361914	5286138	17N	Greenlaw	Grab	Rock	Dyke	60% kspar+felsic+quartz, 40% chl+mafic, next to massive intermediate volcanic, mg.
C796239	362054	5285759	17N	Greenlaw	Grab	Rock	Mafic Volcanic	0.5 m of folded/Boudinaged Qv with mafic volcanic, moderate calcite carb, no mineralization, close to Au in till.
C796240	362065	5285467	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Mafic volcanic oc in road, rusty gossan, 3 mm seams of f-mg non-cubic py, rep.
C796241	362065	5285467	17N	Greenlaw	Grab	Rock	Clastic Sediments	Intermediate tuff?, Grey, f-mg, possibly contact with previous sample mafic volcanic, py in 2-15 mm seams/bands, oc in road.
C796242	359893	5288076	17N	Tooms	Grab	Rock	Intermediate Volcanic	Intermediate to mafic volcanic, weak calcite carb, weak pink alteration (hematite?), non-magnetic.
C796243	361161	5287571	17N	Greenlaw	Grab	Rock	Felsic Volcanic	Light grey felsic volcanic with 10% mm-cm scale quartz stockwork, some quartz black, no mineralization.
C796244	361237	5288172	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Quartz calcite vein, white and dark grey, moderate calcite carb, from shaft outcrop, no sulfide, 300/75.
C796245	361200	5288308	17N	Greenlaw	Grab	Rock	Clastic Sediments	Strained conglomerate with cm red and orange sacchroidal quartz very locally, weak calcite carb, 305/68.
C796246	361192	5288451	17N	Greenlaw	Grab	Rock	Clastic Sediments	1-2 cm sacchroidal qv, reddish orange hem altered, composite along strike from two places 4 metres apart, 305/67.
C796247	361192	5288451	17N	Greenlaw	Grab	Rock	Clastic Sediments	Felsic clast 3 cm wide, elongated to 1.3 m with 1-2 cm white Qv parallel + several 1-3 mm quartz stringers cross cutting, highly strained conglomerate.
C796248	361148	5288535	17N	Greenlaw	Grab	Rock	Clastic Sediments	Conglomerate intensely strained to schist, locally rusty, 1-2 mm seam of py, weakly crenulated.
C796249	361148	5288533	17N	Greenlaw	Grab	Rock	Clastic Sediments	Schist, weakly rusty, weakly crenulated, 0.1% very fine py.
C796250					QC			QC
C796251	361045	5288719	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	4 cm Quartz vein in sericite chlorite sheared intermediate volcanic, no mineralization.
C796252	361117	5288729	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Shared intermediate volcanic?, with 2mm calcite carb veinlets, grey, f-mg, 285/80.
C796253	361026	5288189	17N	Greenlaw	Grab	Rock	Clastic Sediments	Green grey intermediate composition, weak carb, 0.1% very fine pyrite, 290/55.
C796254	364114	5287081	17N	Greenlaw	Grab	Rock	No Compositional Information	290/70, grey, fg, weakly carb alt, well foliated, carb clast, 0.1% mg py along fractures, sheared mafic volcanic?
C796255	364031	5286988	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Sheared carb altered mafic volcanic with boudinaged quartz veins, trace very fine py, drill core bits piled nearby on oc, 280/55.
C796256	364203	5287036	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Grey, fg, intermediate volcanic, local 2mm discontinuous seam py, very little mineralization in area.
C796257	364388	5287015	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Intermediate, grey, fg, carb fractures, 0.1% mg py.
C796258	364419	5287011	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Chlorite schist with 3-4 cm quartz carb vein, 0.05% very fine py, possible very fine aspy, smokey coloured in fractures and smells faintly of garlic.
C796259	364418	5287011	17N	Greenlaw	Grab	Rock	Mafic Volcanic	White grey Qv, smells faintly of garlic/very fine aspy?, rocks tied with wire in tree on lakeshore as marker, wire w flags in oc.
C796260	364457	5286990	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Intermediate volcanic, fg, grey, 1-2 cm quartz carb vein, 5% py concentrated in seams of veinlet edges, lakeshore.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C796261	364459	5287000	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Carb vein with angular 1 cm quartz pieces floating, wk chlorite fractures, very fine bluish black sulfide?, very faint smell of garlic/possibly aspy.
C796262	357943	5297131	17N	Halcrow	Grab	Rock	Clastic Sediments	Intermediate matrix grey, fg, with felsic oblong clasts, 10-40 cm long, moderate chlorite fractures, local fine py.
C796263	358278	5297375	17N	Halcrow	Grab	Rock	Clastic Sediments	Conglomerate, moderately strained, oblong clasts 10-20 cm, trace fine py.
C796264	358358	5297372	17N	Halcrow	Grab	Rock	Clastic Sediments	Conglomerate, moderately sheared, very fine py in clast with quartz grains, approx 280/80.
C796265	358378	5297384	17N	Halcrow	Grab	Rock	Dyke	At contact with cong with fg green grey matrix to the south, altered syenite dike to the north, 50-60% kspar, chl fractures, 2% qtz, 1% mg cu py.
C796266	358326	5297435	17N	Halcrow	Float	Rock	Clastic Sediments	Quartz carb vein with black chlorite fractures, poss minor tourmaline, 1% py with muscovite, angular very local float.
C796267	358326	5297436	17N	Halcrow	Float	Rock	Clastic Sediments	Wallrock to Quartz carb vein with black chlorite fractures, poss minor tourmaline, 1% py with muscovite, angular very local float, weak fuchsite.
C796268	358355	5297421	17N	Halcrow	Grab	Rock	Clastic Sediments	Green grey fg matrix with 1-2 cm wide kspar felsic clasts, highly strained, 1-3% fg-mg cubic py.
C796269	358347	5297483	17N	Halcrow	Grab	Rock	Clastic Sediments	Chlorite schist, moderately carb alt orange brown, very fine py, 290/83.
C796270	358485	5297507	17N	Halcrow	Grab	Rock	Clastic Sediments	Highly strained, black chlorite fractures, minor py around kspar clasts.
C796271	358485	5297367	17N	Halcrow	Grab	Rock	Clastic Sediments	Intermediate to mafic fg dark grey matrix locally mineralized with 3% py close to 1 cm qv and felsic clast, weakly magnetic, rep.
C796272	357877	5297636	17N	Halcrow	Grab	Rock	Clastic Sediments	Conglomerate with fg green grey matrix and quartz stockwork of 1-10 cm, weak carb, 294/81.
C796273	357818	5297619	17N	Halcrow	Grab	Rock	Clastic Sediments	10 cm white qv with tourmaline, muscovite in vein, some carb, in conglomerate at old trench, 285/76, rep.
C796274	357823	5297618	17N	Halcrow	Grab	Rock	Clastic Sediments	Conglomerate, grey, weakly schistose, 285/76, very fine py, weakly rusty, oc in trench.
C796275					QC			QC
C796276	353952	5291681	17N	Halcrow	Grab	Rock	Mafic Volcanic	Highly altered mafic volc at ct with felsic intrusive dike, 2 mm quartz veinlets, py on fracture+weakly in seams, wkly carb altered, non-mag, 305/70. Mafic interbedded with felsic dike parallel along with foliation.
C796277	354170	5291443	17N	Halcrow	Grab	Rock	Mafic Volcanic	Strongly sheared mafic volcanic, strike 140/vertical, Axial plane 120/61, fold hinge 78/265, boudinaged quartz veinlets mm-cm scale, tr py.
C796278	354170	5291440	17N	Halcrow	Grab	Rock	Mafic Volcanic	Mafic volcanic, strongly sheared, 140/subvertical, 1-3 mm stringers py along fractures, quartz veinlets mm-cm scale boudinaged.
C796279	354419	5291229	17N	Halcrow	Grab	Rock	Mafic Volcanic	Sheared mafic volcanic 310/82, 1 cm semi sacchroidal qv orange, 0.5% fine py.
C796280	354417	5291185	17N	Halcrow	Grab	Rock	Mafic Volcanic	125/83 locally, changes a few metres over, mafic volcanic with semi sacchroidal cm quartz with py.
C796281	354408	5291193	17N	Halcrow	Grab	Rock	Mafic Volcanic	Semi sacchroidal qv 2-10 cm wide, moderately red/hem alt, no sulfide, 120/sub vertical, composite.
C796282	355078	5290922	17N	Tooms	Grab	Rock	Mafic Volcanic	2 cm white sacchroidal qtz carb vein with 0.1% fine py, 0.5% cpy, crack and seal chl fractures, 130/80.
C796283	355080	5290810	17N	Tooms	Grab	Rock	Mafic Volcanic	Basalt, black, mg, py diss and in stringers.
C796284	353884	5291777	17N	Halcrow	Grab	Rock	Mafic Volcanic	Mafic volcanic fg dark grey, 1 cm white semi sacchroidal qtz carb veinlet, py in splotches on fracture, very fine cpy in carb fractures.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C796285	353422	5291565	17N	Halcrow	Grab	Rock	Mafic Volcanic	Qv is approx trending 145 variable dip, however, probably discontinuous according to other oc exposure, sacchroidal, weathered orange, 1-2 cm wide, mg.wallrock with 5% py, molybdenum or telluride? Bluish black sulfide in quartz, oc is in creek.
C796286	353422	5291565	17N	Halcrow	Grab	Rock	Mafic Volcanic	Qv is approx trending 145 variable dip, however, probably discontinuous according to other oc exposure, sacchroidal, weathered orange, 1-2 cm wide, fg.wallrock with 5% py, 5% molybdenum or telluride? Bluish black sulfide in quartz, oc is in creek, lower than previous sample but same vein.
C796287	353422	5291565	17N	Halcrow	Grab	Rock	Mafic Volcanic	Mafic volcanic, f-mg, dark grey, 0.5 cm semi sacchroidal qtz veinlet (not main vein), 7% py, 2% fine po, both diss + fracture filled, weakly magnetic.Wallrock to Qv, oc in creek.
C796288	353422	5291565	17N	Halcrow	Grab	Rock	Mafic Volcanic	Mafic volcanic, f-mg, dark grey, 0.5 cm semi sacchroidal qtz veinlet (not main vein), 10% py, 2% fine po, both diss + fracture filled, weakly magnetic.Wallrock to Qv, oc in creek.
C796289	353422	5291566	17N	Halcrow	Grab	Rock	Mafic Volcanic	Qv 130/80, 10 cm wide, py along rim of wallrock, white mostly unmineralized.
C796290	353404	5291560	17N	Halcrow	Grab	Rock	Mafic Volcanic	Reddish semi sacchroidal 1-2 cm qv with fg dark grey wallrock, 308/80.
C796291	353404	5291562	17N	Halcrow	Grab	Rock	Mafic Volcanic	Wallrock to Qv, fg, dark grey with very fine py, 308/80.
C796292	365916	5296144	17N	Denyes	Chip	Rock	Other	Sericite-carb schist with 20 cm + 10 cm Qv, dark grey fractures with very fine sulfide, 1 m chip sample, 275/83.
C796293	365911	5296145	17N	Denyes	Grab	Rock	Other	20 cm + 10 cm Qv white with orange brown carb, 275/83, sericite fractures with very fine dark grey sulfide, rep.
C796294	365913	5296148	17N	Denyes	Grab	Rock	Other	Schist Wallrock with Qv, 275/83, sericite fractures with very fine dark grey sulfide.
C796295	365922	5296143	17N	Denyes	Grab	Rock	Quartz Vein	Quartz vein east side of trench 30 cm wide, sericite fractures, 30% orange brown carb, very fine sulfide in sericite fractures.
C796296	365913	5296149	17N	Denyes	Grab	Rock	Quartz Vein	10 cm Qv white with orange brown carb, sericite fractures with very fine dark grey sulfide.
C796297	365912	5296149	17N	Denyes	Float	Rock	Unknown	Muckpile, one fleck cpy, sericite fractures with fine dark sulfide.
C796298	365902	5296119	17N	Denyes	Grab	Rock	Felsic Volcanic	Silicified felsic with carb veinlets few mm, fine py diss, in trench outcrop, 272/82.
C796299	365899	5296120	17N	Denyes	Grab	Rock	Felsic Volcanic	Felsic intrusive or volcanic?, very fine py, at contact with mafic dike, with quartz vein flooding.
C796300					QC			QC
C796301	358865	5288092	17N	Tooms	Float	Rock	Mafic Volcanic	Qv 2 cm in side of trench (1x10 m) with no outcrop, minor py locally, no carb.
C796302	358861	5288096	17N	Tooms	Float	Rock	Mafic Volcanic	Mafic intrusive?, trench (1x10 m) with no outcrop, mg py concentrated on fracture, 1% f-mg magnetite, weak carb on fracture.
C796303	358959	5287957	17N	Tooms	Float	Rock	Mafic Volcanic	Quartz carb vein from old trench muckpile, mg py elongated along fractures locally, no vein in trench oc.
C796304	358992	5287962	17N	Tooms	Float	Rock	Mafic Volcanic	Local angular float in trench area, pervasive ank orange brown alt, fine to mg anhedral-subhedral py, rep.
C796305	358999	5287965	17N	Tooms	Grab	Rock	Mafic Volcanic	Mafic volc?, fg, sugary calcite carb veinlets 2-5 mm folded with mg anhedral py.
C796306	358998	5287966	17N	Tooms	Float	Rock	Mafic Volcanic	Qv 15 cm angular loose in place, weak orange brown carb alt, py with carb.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C796307	363576	5297300	17N	Denyes	Grab	Rock	Mafic Volcanic	Mafic volcanic 1 m from contact with porphyry, locally mineralized with mg py on fracture with kspar-carb vein, moderately magnetic, 295/60, trench oc.
C796308	363579	5297298	17N	Denyes	Grab	Rock	Porphyry Intrusive	Feldspar porphyry with 1-4 cm quartz veinlets stockwork, very fine py, trench outcrop.
C796309	363602	5297262	17N	Denyes	Grab	Rock	Mafic Volcanic	Mafic-intermediate grey fg-mg, at contact with felsic porphyry, f-mg cu py with 2 mm felsic-carb veinlet, weakly magnetic, trench oc.
C796310	360657	5287299	17N	Tooms	Grab	Rock	Unknown	Trench oc, wk-mod carb, wk chl, very wk fuch, Qtz-carb white few cms with chl fractures, 1-2 mm qtz veinlets cross-cutting.
C796311	370120	5297963	17N	Denyes	Grab	Rock	Intermediate Volcanic	Weakly sheared 255, discontinuous 1.5 cm white Qv, composite from two places 0.5 m apart, end of large stripped outcrop.
C796312	367216	5298215	17N	Denyes	Float	Rock	Porphyry Intrusive	Grey and light grey, feldspar porphyritic, very fine py, several angular large pieces of float of same composition.
C796313	367123	5298179	17N	Denyes	Grab	Rock	Felsic Volcanic	Rhyolite?, light pink, mg with porphyritic feldspar, outcrop, trace very fine py.
C796314	367091	5298145	17N	Denyes	Grab	Rock	Felsic Volcanic	Felsic tuff? Cream coloured altered to sericite, weak to mod ank fractures, weak hem fractures, py very locally in 3 mm Qv.
C796315	367091	5298124	17N	Denyes	Grab	Rock	Porphyry Intrusive	Greenish cream, mg, qtz carb veinlets 1-4 mm stockwork w diss anhedral fg py, composite.
C796316	367092	5298119	17N	Denyes	Grab	Rock	Felsic Volcanic	Cream, mg, feldspar porphyritic, mg, 2% f-mg euhedral shiny py.
C796317	367092	5298119	17N	Denyes	Grab	Rock	Felsic Intrusive	Cream, mg, feldspar porphyritic, mg, 2% f-mg euhedral shiny py, 2 mm qtz veinlets.
C796318	363601	5297265	17N	Denyes	Grab	Rock	Porphyry Intrusive	Weakly sheared 300/80, 1-2 cm quartz carb veinlet, minor fine py, at contact with mafic, next to c796309.
C796319	363662	5297279	17N	Denyes	Grab	Rock	Mafic Volcanic	3-8mm carb veinlets, mafic volcanic or mudstone? Fg, dark grey, non-magnetic, at contact with feldspar porphyry, trace very fine py, trench outcrop.
C796320	363672	5297261	17N	Denyes	Grab	Rock	Mafic Volcanic	At contact with feldspar porphyry, quartz carb stockwork mm-cm, 3% f-mg py concentrated around veining very locally, in historical pit.
C796321	363672	5297259	17N	Denyes	Grab	Rock	Mafic Volcanic	At contact with feldspar porphyry, quartz carb stockwork mm-cm, 3% f-mg py concentrated around veining, mineralization is very local, in old pit.
C796322	363672	5297257	17N	Denyes	Grab	Rock	Porphyry Intrusive	Can see chlorite lineation(?) along fractures horizontally, trace very fine py.
C796323	363565	5297299	17N	Denyes	Grab	Rock	Mafic Volcanic	On strike with Ben's samples C796353, 54, 58, 59. 3 metres away west of Ben's samples. Dark grey, fg, felsic veinlets wk stwk broken discount, well foliated, at contact with porphyry. 280 at contact. 285 a few metres away, trench oc.
C796324	363565	5297299	17N	Denyes	Grab	Rock	Felsic Intrusive	At contact with mafic volcanic, 1-5 cm white Qv in cream brown alt felsic, trench outcrop, west of Ben's samples.
C796325					QC			QC
C796326	363557	5297302	17N	Denyes	Grab	Rock	Mafic Volcanic	Looks like ank but barely fizzes, at contact with felsic, trench oc, 1-3 mm discontin felsic veinlets w mg semi cubic aspy-asy replacing py cubes???
C796327	363561	5297300	17N	Denyes	Grab	Rock	Mafic Volcanic	Fg dark grey mafic volc a metre away from vein C796360 (Ben's), aspy f-mg along fractures in stringers and patches, trench outcrop.
C796328	364514	5286529	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Sericite-chlorite schist with 0.5 cm qtz veinlet, no sulfide, 270/70.
C796329	364575	5286567	17N	Greenlaw	Grab	Rock	Felsic Intrusive	Silicified feldspar porph w 2-5 mm white qvs+cross cutting 2 mm clear grey qtz veinlets, locally 40 cm wide, ser-chl fractures w very fine py, 290/74.
C796330	364574	5286565	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Wallrock to porphyry, looks ank altered orange brown but doesn't fizz.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C796331	364726	5286515	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Sacchroidal cm Qv with fg subhedral and euhedral py, folding/crenulated, rep.
C796332	364725	5286516	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Wallrock to Sacchroidal cm Qv with fg subhedral and anhedral py, crenulated, rep.
C796333	364817	5286533	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Quartz vein with chlorite sericite fractures and trace fuchsite, no mineralization, large amount of outcrop with white barren quartz veining+fuchsite.
C796334	364986	5286510	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Quartz vein 3-4 cm wide trending approx 250/70, white, semi-sacchroidal with very fine cpy in vein.
C796335	353216	5291780	17N	Halcrow	Grab	Rock	Chemical Sediments	289/80, well foliated and folded, iron formation?, metased, rusty gossan locally, non-magnetic, 5-8% fine rotted py.
C796336	353136	5291789	17N	Halcrow	Grab	Rock	Chemical Sediments	Iron formation?, f-mg, with hematized semi-sacchroidal 2 cm Qv, 120/south approx 75, rusty gossan.
C796337	352355	5291937	17N	Halcrow	Grab	Rock	Chemical Sediments	In folded metased-cliff, next to feldspar porphyry dike that pinches out and up to 20 cm wide.
C796338	363592	5287125	17N	Greenlaw	Grab	Rock	Clastic Sediments	No mineralization, Boudinaged Qv locally 5 cm wide, chloritic wallrock, 300/64.
C796339	363547	5287387	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Intermediate volcanic or conglomerate?, several 2-5 cm discontinuous white qvs in outcrop, no mineralization.
C796340	363489	5287618	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Intermediate f-mg grey with greasy black green fractures, mm-cm sacchroidal calcite carb veinlets, f-mg cu and semi cubic py.
C796341	363605	5287592	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	.Chl-ser-hem-ank-fuch sheared altered volcanic, rusted out fg py around destroyed Qv.
C796342	363691	5287570	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Dark grey, mg.
C796343	363812	5287335	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Quartz carb vein 2-3 cm wide, sacchroidal, trace py, 286/75, host is grey mg intermediate.
C796344	354156	5298145	17N	Halcrow	Grab	Rock	Intermediate Volcanic	Grey, fg, rusty fractures, pyrrhotite is weakly magnetic.
C796345	353485	5297990	17N	Halcrow	Grab	Rock	Intermediate Volcanic	Grey fg, Boudinaged qvs, 315/ steep east, no mineralization, non-magnetic.
C796346	353484	5297990	17N	Halcrow	Grab	Rock	Intermediate Volcanic	Grey fg, Boudinaged qvs, 315/ steep east, no mineralization, non-magnetic, mafic dike 10 cm with biotite cuts through 5/80.
C796347	353554	5298241	17N	Halcrow	Grab	Rock	Mafic Intrusive	Foliation 317/76, Boudinaged white Qv 305, wallrock has very fine cpy+py, non-magnetic.
C796348	354064	5299133	17N	Halcrow	Grab	Rock	Felsic Volcanic	Sericite-ankerite schist 300/near vertical, sacchroidal rusted vein 1.5 cm.
C796349	354064	5299135	17N	Halcrow	Grab	Rock	Felsic Volcanic	Sericite-ankerite schist 300/near vertical, sacchroidal rusted veins 1.5 cm, composite across outcrop 2.5 perpendicular to strike. What I believe is an epidote veinlet with folding also has a vein of brown-red quartz through it. This is just one small section of sample.
C796350					QC			QC
C796351	363578	5297293	17N	Denyes	Grab	Rock	Porphyry Intrusive	Porphyry with quartz veinlets. Tension crack filled in with black chlorite. Rusty. Carb alteration.
C796352	363576	5297298	17N	Denyes	Grab	Rock	Porphyry Intrusive	Porphyry with quartz veinlet. Rusty. Carb alteration. Hematite?
C796353	363562	5297295	17N	Denyes	Grab	Rock	Porphyry Intrusive	Bornite present. Walk rock from porphyry side of quartz vein in contact with mafic volcanic.rusty sections.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C796354	363562	5297290	17N	Denyes	Grab	Rock	Mafic Volcanic	Next to c796353.(Mafic volcanic clast inside of quartz vein?) on contact zone. Loaded with pyrite. Ankerite. Rep taken.
C796355	363664	5297284	17N	Denyes	Grab	Rock	Porphyry Intrusive	No sample description.
C796356	363663	5297283	17N	Denyes	Grab	Rock	Porphyry Intrusive	Wall rock near contact zone next to quartz vein. Some rust.
C796357	363652	5297248	17N	Denyes	Grab	Rock	Mafic Volcanic	Mafic volcanic wall rock with quartz stringers near lake down trend from sylvanite trenches. Weak rust. Small amount of cubic pyrite.
C796358	363563	5297290	17N	Denyes	Grab	Rock	Mafic Volcanic	Mafic volcanic wall rock 0.5 metres across strike on main trend from c796354. Loaded with sulphides. On edge of pit where blasting occurred.
C796359	363550	5297289	17N	Denyes	Grab	Rock	Porphyry Intrusive	1m across strike of main vein in sylvanite trench. On edge of square pit.
C796360	363569	5297305	17N	Denyes	Grab	Rock	Porphyry Intrusive	Quartz vein with porphyry on contact. Some small pyrite veining. 2m down strike from c796353 on main vein in sylvanite trench.
C796361	364377	5286848	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Near fault.Minor folding in sheared mafic volcanic. Quartz stringer on strike. Trace sulphides in wall rock near quartz and in quartz. Moderate Carb alteration.
C796362	364727	5286507	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Quartz veinlet through rusty sheared mafic volcanic. Ankerite? Sulphides mostly follow a thin dark line in some parts of rock.
C796363	364670	5286513	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Quartz veinlet popping out of sheared mafic volcanic. Rusty. Weak carb alteration.
C796364	364884	5286479	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Composite sample of two separate parts of same quartz veinlet.Quartz veinlet popping out of sheared mafic volcanic. Rusty. Moderate carb alteration.
C796365	354501	5291902	17N	Halcrow	Grab	Rock	Mafic Volcanic	Felsic vein/intrusion in foliated mafic volcanics along strike of foliation. Ortho feldspar/quartz, granitic. 0.1% small anhedral pyrite. Sample taken from felsic vein.
C796366	354502	5291899	17N	Halcrow	Grab	Rock	Mafic Volcanic	Quartz vein Cross cutting felsic intrusive vein in mafic volcanic outcrop. Mostly milky.
C796367	354505	5291912	17N	Halcrow	Grab	Rock	Mafic Volcanic	Foliated/layered mafic volcanics? Quartz-carb along foliation. Sulfide disseminated in rock and in QV. Quartz vein present cross cutting. Iron oxide staining. Possibly sediment? Not sure.
C796368	360068	5289551	17N	Tooms	Grab	Rock	Mafic Volcanic	Mafic volcanic schist? Strong carb alteration. very silicified. Located on side of large outcrop.
C796369	364055	5287102	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Outcrop revealed from upturned tree. Small section with darker coloration shows sulphides.Carb altered. Angular folding in the area. Included in photo.
C796370	363537	5287891	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Very magnetic possibly iron with bands of magnetite but am not sure. Really different from what I've been finding.Little quartz stringer.
C796371	363317	5287837	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Quartz veinlet running through super rusty magic volcanic schist. Potentially arseno as well.rep taken. 130 strike 75 dip approx.
C796372	363327	5287823	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Really pretty. Wall rock of c796371 super rusty magic volcanic schist. Potentially arseno as well.rep taken.
C796373	354218	5298831	17N	Halcrow	Grab	Rock	Mafic Volcanic	What I believe is an epidote veinlet with folding also has a vein of brown-red quartz through it. This is just one small section of sample.Sample mostly consists of mafic volcanic with some quartz veinlets and sulphides.
C796374	354227	5298796	17N	Halcrow	Grab	Rock	Intermediate Volcanic	Sample of fold in outcrop that contains good mineralization as well as a quartz eye? Rusty with hematite.
C796375					QC			QC

Sample Location				Sample Type		Sample Material		
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C796376	362555	5288034	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Unsuspected find of sulfides in calcite on some boring looking out crop. The sulfides are only in the calcite it seems.
C796377	363235	5287972	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Subcrop Taken in trench. Very silicified rusty in some places. Magnetite and trace
C796378	363235	5287972	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Taken in trench where quartz veinlet cross cuts strike of outcrop. Very silicified rusty and purple in some places. Weak Carb only in veinlets.
C796379	363332	5287885	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Rusty. Sulfides appear in multiple layers of foliation on mafic volcanic wall rock. Quartz is Smokey. Possibly ankerite. Carb.
C796380	363333	5287881	17N	Greenlaw	Grab	Rock	Mafic Volcanic	1m from c796379 on same outcrop. Less quartz content. More sulfides. Rep taken. Rusty. Pyrite appear in multiple layers of foliation on mafic volcanic wall rock. Quartz is Smokey. Possibly ankerite. Carb.
C796381	362911	5287829	17N	Greenlaw	Float	Rock	Ultra Mafic	Definitely glacial float but it has so much pyrite I had to sample it. Rock is super purple.. ultra mafic?? Hematite..
C796382	363518	5289536	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Quartz vein with mineralization on side of historic shaft.
C796383	363525	5289530	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Taken from side of historical shaft.
C796384	363531	5289527	17N	Greenlaw	Grab	Rock	Felsic Intrusive	On contact with mafic volcanic. Small mineralization zone where rock types meet..
C796385	363539	5289522	17N	Greenlaw	Grab	Rock	Mafic Volcanic	On contact with felsic intrusive. Small mineralization zone where rock types meet..
C796386	367840	5295190	17N	Denyes	Grab	Rock	Felsic Volcanic	Haven't seen anything like it elsewhere in the property. No mineralization. Chert maybe? Pale army green.
C796387	368245	5295646	17N	Denyes	Grab	Rock	Felsic Volcanic	Super rusty. Quartz vein inside of felsic schist. (Black chlorite?) veinlets inside of quartz. Trace pyrite. Strong carb alteration.
C796388	368249	5295649	17N	Denyes	Grab	Rock	Felsic Volcanic	Felsic volcanic schist. Trace pyrite, rusty in some layers. Carb (ankerite?).
C796389	368300	5295701	17N	Denyes	Grab	Rock	Intermediate Volcanic	No sample description.
C796390	354409	5298636	17N	Halcrow	Grab	Rock	Mafic Volcanic	Next to c796391-93.Malachite. Super carb altered in some areas. Oil slick-like iridescence in one spot. Green-orange-purple-brown in colour. Chalco?.
C796391	354406	5298635	17N	Halcrow	Grab	Rock	Mafic Volcanic	Next to c796390, c796392-93.Malachite. Moderately carb altered in some areas. Green-orange-purple-brown in colour.large anhedral pyrite in some areas. So much going on. Rep taken.
C796392	354409	5298639	17N	Halcrow	Grab	Rock	Mafic Volcanic	Next to c796390-91, c796393.Moderately carb altered in some areas. Green-orange-purple-brown in colour.large anhedral pyrite in some areas. Rep taken.
C796393	354409	5298639	17N	Halcrow	Grab	Rock	Mafic Volcanic	Next to c796390-92.Heavy carb. White-Green-orange-purple-brown in colour. Quartz mostly. Less interesting than others.
C796394	364729	5286650	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Subcrop.Sugary quartz veinlet less than 1cm wide in mafic volcanic with trace sulfides.
C796395	364721	5286697	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Similar to c796394. Quartz veinlet is less sugary but more trace sulfides.
C796396	364694	5286735	17N	Greenlaw	Grab	Rock	Quartz Vein	Quartz vein with pyrite especially with the small chlorite veins. Located in old pit. Sample 1 of 3 at this location.Strike 260 dip 63.
C796397	364693	5286729	17N	Greenlaw	Grab	Rock	Quartz Vein	Quartz vein between 396 & 398. Located in old pit. Sample 2 of 3 at this location.Strike 260 dip 63.
C796398	364700	5286725	17N	Greenlaw	Grab	Rock	Quartz Vein	Quartz vein with pyrite especially with the small chlorite veins. Granite clast in vein. Located in old pit. Sample 3 of 3 at this location.Strike 260 dip 63.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C796401	362831	5288100	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Weakly sheared intermediate volc 273/65, cm white Qv weakly hematite altered, wallrock has trace fine py.
C796402	362864	5288022	17N	Greenlaw	Grab	Rock	Mafic Intrusive	Sheared gabbro, green grey, mg, 3-5 mm quartz calcite veinlet rimmed by very fine py, moderate serpentine and hematite on fractures.
C796403	362911	5288049	17N	Greenlaw	Grab	Rock	Mafic Intrusive	Sheared gabbro, 270/70?, fg green grey, with 2 cm white semi sacchroidal qv with minor py.
C796404	362936	5288088	17N	Greenlaw	Grab	Rock	Chlorite Schist	Chlorite-sericite-ankerite schist with 10 cm quartz carb vein containing chlorite fractures, minor fuchsite.
C796405	363472	5288007	17N	Greenlaw	Grab	Rock	Chlorite Schist	Sacchroidal 1-2 cm Qv with local 3 cm knot, very fine py, rusty, green mica (not fuchsite) on fractures, 278/dip-70?, wallrock is chlorite schist.
C796406	363474	5288008	17N	Greenlaw	Grab	Rock	Chlorite Schist	Wallrock to C796405, chlorite schist, very fine py, rusty, green mica (not fuchsite) on fractures, 278/dip-?.
C796407	363515	5288139	17N	Greenlaw	Grab	Rock	Mafic Intrusive	Sacchroidal Qv in felsic white grey 10-20 cm layer, locally rusty and hematized with fine to medium rotted and semi-cubic py.
C796408	363139	5288171	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Chlorite sericite ankerite schist with 0.5-1.5 cm white semi sacchroidal qvs, 266/75, rep.
C796409	363140	5288173	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Chlorite sericite ankerite schist rusty with yellow sulfur oxidization, 266/75, more sericite locally than chloritic/outcrop intercalated.
C796410	363546	5289514	17N	Greenlaw	Grab	Rock	Mafic Intrusive	Diorite? According to MDI write up, quartz ank veinlets 1-5 mm pinkish, mg semi-cubic py very locally at contact-5-10 cm wide, oc in trench.
C796411	363542	5289511	17N	Greenlaw	Grab	Rock	Mafic Intrusive	Diorite, dark grey, locally mineralized with fg py, non-distinct quartz ank veinlets 2-8 mm, moderately magnetic.
C796412	363554	5289503	17N	Greenlaw	Grab	Rock	Mafic Intrusive	Quartz calcite carb veining perpendicular to strike, strongly magnetic.
C796413	363553	5289502	17N	Greenlaw	Grab	Rock	Mafic Intrusive	Quartz calcite carb veining perpendicular to strike, strongly magnetic.
C796414	363553	5289501	17N	Greenlaw	Grab	Rock	Mafic Intrusive	Quartz carb flooded chlorite schist with cm sacchroidal qv, strongly magnetic-5% mgt.
C796415	363552	5289501	17N	Greenlaw	Grab	Rock	Mafic Intrusive	Farthest southwest end of trench, weakly sheared.
C796416	363552	5289501	17N	Greenlaw	Grab	Rock	Mafic Intrusive	Silicified, ank altered, 1% fine cubic and non-cubic py.
C796417	367702	5294989	17N	Denyes	Grab	Rock	Intermediate Volcanic	Intermediate to mafic volc with mg py, 235/73.
C796418	367660	5295482	17N	Denyes	Grab	Rock	Intermediate Volcanic	Quartz veinlet stockwork over 0.5 m trending approx 235/dip north,.
C796419	352389	5291157	17N	Halcrow	Grab	Rock	Mafic Volcanic	30 cm semi-sacchroidal white quartz blob with f-mg dark grey mafic volcanic containing 4 mm quartz-felsic veinlets with minor cpy.
C796420	352383	5291155	17N	Halcrow	Grab	Rock	Mafic Volcanic	Sacchroidal discontinuous Qv reddish orange in mafic volcanic.
C796421	352383	5291154	17N	Halcrow	Grab	Rock	Mafic Volcanic	Mafic volcanic, mg dark grey, minor py disseminated with foliation.
C796422	352314	5290820	17N	Tooms	Grab	Rock	Metasedimentry	Metased?, biotite, mineralized only at contact with felsic within 1 metre, sheared locally with 3 mm semi-cubic py.
C796423	352311	5290817	17N	Tooms	Grab	Rock	Metasedimentry	Metased?, biotite, mineralized only at contact with felsic within 1 m locally, 1-2 mm cubic and semi-cu py, from contact.
C796424	352312	5290816	17N	Tooms	Grab	Rock	Felsic Volcanic	Felsic rhyolite?, pink red weathered, with weak discontinuous quartz stockwork, mineralized only at contact within a few cms, fg 1-2 py, from contact.
C796425					QC			QC

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C796426	352313	5290802	17N	Tooms	Grab	Rock	Felsic Volcanic	Rhyolite? With moderate quartz stockwork 1-10 cm, at contact, more mineralized than last contact.
C796427	354049	5299119	17N	Halcrow	Grab	Rock	Felsic Volcanic	Sericite schist with 10% py, rotted and rusty, at contact with mafic volcanic.
C796428	354051	5299118	17N	Halcrow	Grab	Rock	Mafic Volcanic	Local subcrop, crenulated, Grey, mg, several mineralized angular soft pieces.
C796429	353759	5298935	17N	Halcrow	Grab	Rock	Mafic Volcanic	Orange rusty layer with felsic vein and hematite.
C796430	353672	5298550	17N	Halcrow	Grab	Rock	Mafic Volcanic	No sample description.
C796431	357702	5291744	17N	Halcrow	Grab	Rock	Intermediate Volcanic	Chlorite ankerite schist 305/can't tell dip, metasedimentary? Grey, soft, fg, Boudinaged Qv 4 cm wide, white.
C796432	364761	5286494	17N	Greenlaw	Grab	Rock	Schist	Sericite chlorite ankerite moderately sheared, very fine sulfide in 1-10 mm quartz carb veinlets.
C796433	364879	5286391	17N	Greenlaw	Grab	Rock	Schist	Chlorite schist with Boudinaged cm quartz veinlets trending 089/67 (south), rusty, possibly aspy.
C796434	364882	5286387	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Quartz vein crack and seal; dirty grey white, fine sulfides in chlorite fractures, subcrop in place.
C796435	364869	5286383	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	30 cm Qv intermixed with altered fragments of volcanic rafted in?
C796436	364899	5286844	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Quartz carb vein 5 cm wide, Grey and white.
C796451	364911	5286492	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Foliation controlled fuchsite and planer sheets of quartz that fold at a low angle through the foliation planes. The veins contain ankerite and carbonate along and within the quartz veins. The rock is altered and have no visible sulphides. Rock type is not clear.
C796452	364644	5286643	17N	Greenlaw	Float	Rock	Intermediate Volcanic	Large Boulder with angular quartz vein. Not nearly as deformed as rocks from south of this area. Large 10-15 cm qv running through angular Boulder close to Dunbar H-84-2. Carbonate and ankerite along edges of the vein. Crack seal texture seen in vein from multiple generations of veining.
C796453	363556	5286470	17N	Greenlaw	Chip	Rock	Intermediate Volcanic	Unknown and very altered rocks seen in trench originally recorded in Dunbar thesis. Structurally complex with many many open folds plunging north hand flat line folds plunging NE. Most structurally complex rocks seen on project so far. Early budonaged quartz veins crosscut by secondary quartz veins running perpendicular to foliation. The secondary quartz crosscut the fuchsite alteration. No sulphides Carbonate and ankerite alteration is seen across foliation planes. Fushite is foliation controlled. Sample is from Chips across outcrop.
C797501	359079	5288044	17N	Tooms	Grab	Rock	Mafic Intrusive	could be stripped. wait for assay the area is fairly flat. Pink almost looks like ankerite but does not fizz sample all qtz flooded. 1 percent cubic py.
C797502	354185	5298544	17N	Halcrow	Grab	Rock	Mafic Volcanic	Quartz vein with tourmaline.
C797503	358775	5290119	17N	Tooms	Grab	Rock	Clastic Sediments	Fine grain conglomerate from 4m large Boulder. Quartz vein included. Contained in quartz vein.
C797504	358794	5290744	17N	Tooms	Grab	Rock	Mafic Volcanic	Old drill location near basin of water. Veins of mica and quartz pyrite cubes visible from samples taken from intersecting crystal faces of mica and Quartz. Lots of alteration. Mica sits in veinlet below mafics.

Sample Location				Sample Type		Sample Material		
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C797505	358794	5290744	17N	Tooms	Grab	Rock	Mafic Volcanic	Large anhedral sulfide chunks from 1 to 10 mm wide. Lots of alteration and heavily oxidized. Very rusty Quartz veinlets running through.Mica right below sample taken on outcrop Large very platy micas. Not included much in sample.Trace epidote.Very rusty.
C797506	358809	5290731	17N	Tooms	Grab	Rock	Unknown	Silicified found near mica and quartz veins. Sample taken from previous channel cut sample near basin of water at the north east end of the outcrop.
C797507	358795	5290749	17N	Tooms	Grab	Rock	Mafic Volcanic	Lots of oxidation and very silicified. Found in vein with platy micaceous rock on each side.
C797508	358791	5290750	17N	Tooms	Grab	Rock	Mafic Volcanic	Mica layers with trace sulfides and quartz veining. Very platy.
C797509	358793	5290744	17N	Tooms	Grab	Rock	Mafic Volcanic	Taken from edge of old cut channel.Mostly anhedral pyrite with some small euhedral crystals. Ranges from <1mm to 15mm in size with some in veins Also smoky quartz in veins < 5 cm wide.Very banded weakly magnetic pyrrhotite Dark gray in color submetallic. Exists in veins/bands Lots of iron oxide especially near pyrrhotite bands.
C797510	360655	5287308	17N	Tooms	Grab	Rock	Mafic Volcanic	Trace sulfides surrounded by veins of ankerite. Heavily striated outcrop evidence of chlorite and oxidization.
C797511	367705	5281425	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Evidence of oxidization. Trace sulfide veins of calcite striated outcrop.
C797512	367779	5281408	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Large quartz vein cuts accross foliation. Taken from subcrop.
C797513	367413	5281589	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Boulder not sure? Quartz vein milky white 20cm diameter with trace sulphides. Carb or ankorite present some host rock put in sample crack seal texture.
C797514	367438	5281699	17N	Greenlaw	Grab	Rock	Unknown	Boulder quartz vein. Altered to produce saurassite evidence of sulphides found in Boulder field.
C797515	354346	5297716	17N	Halcrow	Grab	Rock	Intermediate Volcanic	Foliated intermediate volcanic with presence of small quartz veins.Ahedral pyrite and small carbonate occurances within intermediate volcanic.
C797516	354229	5297567	17N	Halcrow	Grab	Rock	Intermediate Volcanic	Striations present foliated intermediate volcanic with presence of small quartz veins. sample taken from host rock and Boulder both included very small trace amounts Ankorite highly magnetic and dense.
C797517	354278	5297815	17N	Halcrow	Grab	Rock	Intermediate Volcanic	Highly striated under weathered surface intermediate composition. Carbonates present and evidence of higly oxidized material pyrrhotite occurs in small veins 1 to 2 mm thick.
C797518	354457	5297978	17N	Halcrow	Grab	Rock	Intermediate Volcanic	Rock has been fractured and shifted. Rock is foliated and contains small quartz veins throughout (<2mm).Trace carbonates and pyrite within a intermediate volcanic.
C797519	363757	5297179	17N	Denyes	Grab	Rock	Porphyry Intrusive	Sample taken from quartz vein and adjacent host rock Composition unknown as rock is heavily altered Mostly silica with mainly anhedral pyrite Lots of iron oxide alteration along veins.Quartz veining all through rock.Iron oxide in veins.Trace ankerite.
C797520	363766	5297185	17N	Denyes	Float	Rock	Intermediate Volcanic	Might be intermediate host. Silicified erratic rocks close to quarry hole. Disseminated chalco and massive pyrite. Mainly quartz vein and overall oxidized. Sample taken from rock not on outcrop.
C797521	367308	5297385	17N	Denyes	Grab	Rock	Porphyry Intrusive	Felsic porphyry with QV veinlets. No visible sulphides minor chlorite alteration on quartz veins and carbonates present.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C797522	367092	5297165	17N	Denyes	Grab	Rock	Porphyry Intrusive	Medium grained plag phenos with pyrite dissem and In fracture stringers epidote & chlorite minor staining-weathering. No sericite minor alignment of coarse grain Amp phenos no confident trend fabric unmeasurable-massive <u>outcrop bleached pink white</u>
C797523	366168	5296011	17N	Denyes	Grab	Rock	Porphyry Intrusive	Porphyry with feldspar porphroblasts. Sheared light green hue may indicate presence epidote alteration. Fracture planes mineralized with pyrite 1-3mm euhedral. Characteristic <u>orange ankerite fills fractures. Trace sericite within rock.</u>
C797524	366169	5296000	17N	Denyes	Float	Rock	Intermediate Volcanic	Muck sample from trenching. Evident as same lithology as surrounding outcrop intermediate volcanic are fine grained with quartz veining. Ankerite is distinct orange and fills the fractures within the rock. Evidence of trace sericite.
C797525					QC			QC
C797526	366144	5296003	17N	Denyes	Grab	Rock	Porphyry Intrusive	Heavily sheared. Disseminated euhedral pyrite present. Oxidized in places. Late ankerite alteration. Heavily altered. Faint green colour, epidote may be present. Sample taken <u>from old working south of Dymont Lake.</u>
C797527	366145	5296003	17N	Denyes	Float	Rock	Porphyry Intrusive	Highly angular fragment from bolder from previous trenching. Fine grained feldspar porphroblasts and oxidized. Quartz ankerite veins cross cut foliations at approx. 4cm intervals <u>trace pyrite associated with quartz veins. Trace implied.</u>
C797528	366120	5296024	17N	Denyes	Float	Rock	Porphyry Intrusive	Fine grained and oxidized. Boulder from previous trenching in area porphyry protolith. Fractures filled with mineralized pyrite and a euhedral form ~1mm with ankerite cross cut veins many quartz veins with associated ankerite on margins. Chalcopyrite occurs in trace implied by grain surrounded by distinct green stain. sericite implied in <u>trace by texture</u>
C797529	365973	5296017	17N	Denyes	Grab	Rock	Porphyry Intrusive	Quartz veins up to 7cm in width. finer quartz carbonate veins within the feldspar porphyry. Minealization occurring within fragments of crack seal texture in quartz veins. <u>ankerite occurs along quartz veins.</u>
C797530	364451	5295917	17N	Denyes	UNK	Rock	Unknown	No sample description.
C797531	368255	5298449	17N	Denyes	Float	Rock	Intermediate Volcanic	Intermediate volcanic, fine grained. Found as Boulder. Disseminated pyrite as well as veinlets seen throughout rock along with quartz veins. Rock is slightly altered by chlorite and carbonates and is heavily oxidized on exposed surfaces and fractures. Pyrite occurring throughout rock and as stringers/veinlets 1mm-1cm in width, anhedral shape. Some Chlorite alteration seen throughout rock. Slight Reaction when tested with HCL.
C797532	365447	5294662	17N	Denyes	Grab	Rock	Porphyry Intrusive	Plag phenocrysts with disseminated pyrite. Minor Epidote overprint rock. Minor Carbonates present and hematite staining. <u>Appears to be intermediate matrix.</u>
C797533	365429	5294632	17N	Denyes	Grab	Rock	Unknown	Quartz veins cross cutting metasediments with 2 generations of foliation. Quite silicified. <u>Iron oxide staining.</u>
C797534	362379	5287356	17N	Greenlaw	Grab	Rock	Porphyry Intrusive	IV to MV matrix composition with plag phenocrysts and some minor pervasive silicification. Carbonates present. Subhedral dissem pyrite. Lack of fabric - massive.
C797535	370481	5288426	17N	Cunningham	Grab	Rock	Intermediate Volcanic	Highly silicified. No sulfides visible. Lots of iron oxide staining. QV present. Some foliation. Ankerite present. Taken off angular Boulder.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C797536	370502	5288397	17N	Cunningham	Grab	Rock	Mafic Volcanic	Sample is host rock, very siliceous mafics, magnetic and moderately foliated. Contact between sheared zone intermediates and mafic. Quartz veinlets host pyrite and hematite mineralization. Sulphides also present on fracture surfaces. Carbonates present.
C797538	370335	5288461	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Moderately foliated to massive mafic volcanics. Big QV >15cm running through parallel to foliation and offset at one point. Carbonate present. No sulfide seen. Slight iron oxide staining.
C797539	370299	5288451	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Carbonate veinlets and some chlorite alteration in foliated mafic volcanic. Rock is fine grained and contained sulfides occur disseminated throughout as well as fracture controlled.
C797540	370114	5288274	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Vuggy quartz vein up to 5cm, fine grained intermediates, iron oxide alteration. No sulfide seen. Moderately foliated. Lots of carbonate in quartz. Quartz has a little bit of comb texture.
C797541	354002	5290672	17N	Tooms	Grab	Rock	Intermediate Volcanic	Quartz vein, milky colour with some epidote alteration on side. Host rock is schisty amphibolite meta volcanic, with possible intermediate protolith. Sample 20% host rock.
C797542	355129	5289837	17N	Tooms	Grab	Rock	Clastic Sediments	Massive QV within congo host. 15% host in sample. No mineralization. Minor oxidation staining. Minor carbonates.
C797543	359157	5287321	17N	Tooms	Float	Rock	Porphyry Intrusive	In situ angular fragments from trench with cm veinlets of Qtz and 2% finely diss pyrite proximal to vnl and in matrix as well.
C797544	359160	5287314	17N	Tooms	Grab	Rock	Ultramafic Volcanic	5cm NNE Qtz-Ank vein shallow dip to east and at very high angle to fol in UV fuchsite alt host rock.
C797545	359156	5287222	17N	Tooms	Float	Rock	Unknown	Angular single Boulder top of the hill south of trenches, loaded by sulphide cubic pyrite blebby to disseminate, might be meta sed or felsic intrusive.?! , trace of fuchsite.
C797546	360644	5287299	17N	Tooms	Grab	Rock	Porphyry Intrusive	Old pit/trench, altered QFP?
C797547	360645	5287297	17N	Tooms	Grab	Rock	Porphyry Intrusive	Qv ank hosted by QFP in old trench, good hematite, iron oxide and pyrite.
C797551	359175	5287306	17N	Tooms	Grab	Rock	Mafic Intrusive	.Highly altered cannot confirm original composition. Intrusions of quartz some smoky. high alteration of apparent fuchsite.
C797552	354182	5298635	17N	Halcrow	Grab	Rock	Mafic Volcanic	sample is chunky quartz vein within mafic volcanic. presence of tourmaline. Tourmaline bands.
C797553	354139	5298556	17N	Halcrow	Grab	Rock	Mafic Volcanic	small amounts ankerite.
C797554	354010	5299110	17N	Halcrow	Grab	Rock	Felsic Volcanic	felsic volcanic with pyrite. occurring in veins ~1mm which are folded along with the foliations.
C797555	354039	5298963	17N	Halcrow	Grab	Rock	Felsic Volcanic	small amounts carbonate. samples in the past have been taken from here.
C797556	354467	5298862	17N	Halcrow	Grab	Rock	Ultramafic Intrusive	Magnetic. Boulder sample either mafic or ultramafic.
C797557	354471	5298859	17N	Halcrow	Grab	Rock	Mafic Intrusive	Small veins of quartz. Intermediate composition.
C797558	354458	5298864	17N	Halcrow	Grab	Rock	Felsic Intrusive	Very strongly leached.
C797559	354456	5298868	17N	Halcrow	Grab	Rock	Felsic Intrusive	Sulphides present slightly more than trace. Heavily altered.
C797560	357788	5291094	17N	Halcrow	Grab	Rock	Intermediate Volcanic	Black mineral on sides of quartz vein tourmaline?. Quartz carbonate alteration.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C797561	358189	5290664	17N	Tooms	Grab	Rock	Clastic Sediments	In strong Shear zone.anchorite carbonate strong.
C797562	368930	5281792	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Found in mafic volcanics with no foliation and few quartz veins.Small anhedral pyrite. Slight carbonate veins. Trace copper oxide.
C797563	369043	5281641	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Outcrop has no clear foliations or other identified structures.slight carbonate throughout within a mafic volcanic with trace anhedral pyrite.
C797564	365345	5296687	17N	Denyes	Grab	Rock	Felsic Intrusive	Plag crystals about 5mm in size in fine grained dark matrix. Slight carbonate alteration in feldspar Massive with no visible foliation.Slight carbonate in feldspar.
C797565	365205	5296145	17N	Denyes	Grab	Rock	Intermediate Volcanic	Intermediate fine grained volcanic. Slightly foliated.chalcopyrite displays distinctive green staining although not visible form in a intermediate volcanic with trace amounts carbonate alteration.pyrite is in an anhedral vein like form found disseminated throughout sample.
C797566	365954	5295683	17N	Denyes	Grab	Rock	Mafic Volcanic	Fine grained. Some foliation noted sulphide found along with carbonates evidence of oxidation.
C797567	364202	5295898	17N	Denyes	Grab	Rock	Porphyry Intrusive	Porphyry intrusive. large clasts of orthoclase trace sulfides fine grained matrix with coarse grained alteration carbonate seen in blebs and veinlets of ankerite.
C797568	364275	5295916	17N	Denyes	Grab	Rock	Intermediate Volcanic	Fine grained intermediate volcanics with strong foliation. Anhedral disseminated pyrite and pyrrhotite Pyrrhotite is magnetic Ankerite alteration in veinlets Quartz veins.
C797569	367116	5298511	17N	Denyes	Grab	Rock	Felsic Intrusive	Felsic intrusive, large crystals of quartz and k-spar. Rock is massive in some areas and platy in others. Carb alteration. Elongated, acicular very green crystals disseminated in rock, not sure if tourmaline or epidote? TAKEN FROM ANGULAR, LARGE BOULDER.
C797570	367096	5298402	17N	Denyes	Grab	Rock	Felsic Intrusive	Silicified felsic intrusive. Evidence of oxidation. Little foliation , not enough to measure. Trace carbonate, some chlorite alteration. Fine grained matrix, coarse grained carbonate. Small veinlets of quartz (<1mm). Trace.
C797651	352169	5290067	17N	Tooms	Grab	Rock	No Compositional Information	Foliated rock with lots of deformation, both Z and S folds. Unsure as to original composition. Tons of gossan and iron oxide staining. 1% euhedral sulfide. Moderately fine grained and dark in colour. No carbonate.Partially melted with foliation in many different directions.
C797652	352163	5290081	17N	Tooms	Grab	Rock	No Compositional Information	Highly deformed and foliated rock, unsure of original composition. Lots of gossan and iron staining. Sulfide associated with QV and in host rock. Arseno present. No carb.
C797653	352094	5290232	17N	Tooms	Grab	Rock	Mafic Intrusive	Highly foliated and sheared mafic intrusive with lots of ankerite. No sulfide seen but slight iron oxide staining on fracture planes.
C797654	352086	5290323	17N	Tooms	Grab	Rock	Mafic Volcanic	Highly foliated and deformed mafic volcanics. 20% sulfide both foliation controlled and massive >1cm. Lots of gossan and iron oxide staining. Host rock has highly deformed QV and lots of folds. Taken from narrow gossan zone ~3cm thick.
C797655	351977	5290484	17N	Tooms	Grab	Rock	Mafic Volcanic	Highly foliated and folded mafic volcanic Lots of gossan and iron staining Sulfide both massive and foliation controlled. Epidote stringers.
C797656	353912	5288917	17N	Tooms	Grab	Rock	Mafic Volcanic	Quartz varies from red hematite staining to yellow limonite staining. Anhedral sulfide disseminated. Host rock is foliated mafic volcanics, sample taken from quartz vein/vug >30cm. Arseno?.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C797657	353912	5288912	17N	Tooms	Grab	Rock	Mafic Volcanic	Foliated mafic volcanics with deformed quartz vug/vein >30cm with limonite and hematite staining. Euhedral to anhedral sulfide disseminated in host rock. Sample taken from host rock.
C797658	353900	5288832	17N	Tooms	Float	Rock	Quartz	Taken from solid quartz Boulder ~80cm. Some iron oxide staining. Boulder is angular. Solid quartz.
C797659	353852	5288908	17N	Tooms	Float	Rock	Mafic Volcanic	Sulfide along foliation and bleby massive. Moderately fine grained mafic volcanics with weak foliation. Taken from angular boulder on outcrop.
C797660	354098	5299107	17N	Halcrow	Grab	Rock	Clastic Sediments	Sericite schist, metasediments. Extremely sheared and foliated. Heavily oxide altered. Fracture controlled sulphide; pyrite. Sulphides aren't fresh. Trace amounts carbonate.
C797661	364634	5286574	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Sample taken 1.2m away from channel sample. Quartz veinlet running parallel to foliation. Heavily sheared, some solcification. Good foliation. Altered my oxide, hematite staining. Weathering as if there are old sulphides, very trace amounts. Odd that very little sulphide was seen, extensive amount of ankorite as a potential reasoning.
C797662	364635	5286580	17N	Greenlaw	Float	Rock	Felsic Volcanic	Sample looks more felsic than surrounding outcrop. Heavily carbonated. Oxide alteration present, hematite staining. Fine grained, don't see the fuchsite and don't see that it is a porphvry. May be a rhyolite or have heavy alteration.
C797663	364184	5286694	17N	Greenlaw	Grab	Rock	Mafic Volcanic	Fine grained Mafic volcanic. Disseminated Trace sulphide seam. Hematite staining along fractures. Some foliation controlled ankerite.
C797851	370499	5288398	17N	Cunningham	Grab	Rock	Mafic Volcanic	Highly silicified mafic volcanics. Moderately foliated. Sulfide along fracture planes as well as in veins. Trace carbonate. Iron oxide staining. QV sub-parallel to foliation. Sheared.
C797852	370502	5288394	17N	Cunningham	Grab	Rock	Mafic Volcanic	Chlorite is seen as alteration in a quartz vein 10cm in width surrounded by large amounts of iron oxide and hematite staining. Quartz vein is within a highly silicified mafic volcanic host rock which is very fined grained. Quartz vein is subparallel to foliation.
C797853	370493	5288407	17N	Cunningham	Grab	Rock	Intermediate Volcanic	Calcite is along the host rock and the fracture plain Iron oxide alteration along quartz vein. Quartz vein from 3-5cm running parallel to sub parallel along foliation. Hematite staining 5%. Host rock present good foliation and is heavily sheared.
C797854	370442	5288304	17N	Cunningham	Grab	Rock	Mafic Volcanic	Banded veinlets of ccp (3%) foliation controlled within fine grained MV. Pyrite (10%) also present. Bands range from 5cm wide and smaller.
C797855	370444	5288305	17N	Cunningham	Grab	Rock	Mafic Volcanic	Dissem sulfide within MV. Minor milky quartz veining (3cm wide by 7cm long).
C797856	370438	5288302	17N	Cunningham	Grab	Rock	Mafic Volcanic	Sample taken along quartz vein intrusion parallel to foliated MV. Sample 50/50 quartz and MV with dissem within qtz and host MV. Quartz vein 4cm wide by 8cm long. See pictures.
C797857	370438	5288298	17N	Cunningham	Grab	Rock	Mafic Volcanic	Massive portion of the MV. Small carbonate veinlets (mm size). Dissem pyrite within massive host.
C797858	370436	5288306	17N	Cunningham	Grab	Rock	Mafic Volcanic	MV with dissem pyrite. Carbonates present. And small quartz veinlet (1cm wide running through MV foliation).
C797859	370444	5288294	17N	Cunningham	Float	Rock	Mafic Volcanic	Highly angular qtz-fe carb vein boulder, breccia red with fresh-carb altered host rock fragments, open space texture, up to 10% oxidized.
C797860	370442	5288294	17N	Cunningham	Float	Rock	Mafic Volcanic	Same as sample C797859, 1m west of that, angular qv-fe carb vein with up to 1% pyrite, highly bx by altered mv fragments, highly oxidized.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C797861	367368	5294768	17N	Denyes	Grab	Rock	Mafic Volcanic	Fine grained mv with pyrite and iron oxide ff, likely contains fe-carb.
C797862	367304	5295234	17N	Denyes	Float	Rock	Felsic Volcanic	In situ angular, mm wide fe carb vnlt with quartz and pyrite in likely felsic volcanic or possibly altered QFP.
C797863	367305	5295247	17N	Denyes	Grab	Rock	Felsic Volcanic	Finely diss py in felsic volcanic or altered Porphyry.
C797864	361944	5292720	17N	Denyes	Float	Rock	Unknown	Erratic angular Boulder found on outcrop with a shear zone. Veinlets of sulphide 1mm cross cutting main vein of quartz (up to 2 cm) as well as disseminated sulphides found in association with quartz vein. Iron oxide alteration. No carbonate. Magnetic - sulphides most likely pyrrhotite.
C797865	361471	5292693	17N	Denyes	Float	Rock	Mafic Volcanic	Very angular Boulder 100% from Mapped outcrop. Fine grained massive. Strong hematite oxidation 15-20% fracture filled. Sulphide content seen in blebs. Sheared and highly foliated.
C797866	361843	5292635	17N	Denyes	Float	Rock	Quartz	Large angular quartz Boulder most likely from surrounding outcrop. Iron oxide alteration seen via fracture filled. No visible sulphides.
C797867	361837	5292636	17N	Denyes	Grab	Rock	Quartz Vein	Large quartz vein up to 15cm. No visible sulphides but good oxide alteration, fracture filled.
C797868	361865	5292661	17N	Denyes	Grab	Rock	Felsic Intrusive	Hematite staining in fracture fills with fresh sulphides. Quartz vein sample up to 4cm. Host rock is most likely intrusive, highly altered by oxides.
C797869	361837	5292627	17N	Denyes	Grab	Rock	Quartz Vein	Quartz vein with hematite, sericite, carbonate possibly episode and calcite alteration. Oxide is fracture filled. Quartz vein up to 6cm. No visible matrix.
C797870	361867	5292655	17N	Denyes	Grab	Rock	Felsic Intrusive	Sample is of quartz vein up to 5cm apart of stockwork. Intense hematite staining and fracture filled, NNE trending x-cut to N-S veinlets hosted by altered intrusive.
C797871	355098	5294290	17N	Halcrow	Grab	Rock	Clastic Sediments	Boudinaged quartz veins within a conglomerate sample. Host conglomerate is very schisty containing high amounts of chlorite and sericite alteration. Quartz vein has hematite staining visible. Vein is up to 6 cm wide, parallel to foliation.
C797872	355095	5294295	17N	Halcrow	Grab	Rock	Clastic Sediments	Cm wide barren sheared quartz vein parallel to foliation hosted in conglomerate
C797873	355119	5294287	17N	Halcrow	Grab	Rock	Clastic Sediments	Bull early deformed quartz vein up to 12 cm wide slightly oxidized, some chlorite and sericite, no visible sulphide.
C797874	354752	5293192	17N	Halcrow	Grab	Rock	Intermediate Volcanic	Quartz banded and breccia veinlets up to 5 cm wide from a highly angular fragment, no visible sulphide but slightly iron oxide, silvers of chlorite. Dark chlorite host rock within quartz, slightly vuggy with some open space texture.
C797875					QC			QC
C797876	366153	5296001	17N	Denyes	Grab	Rock	Porphyry Intrusive	QFP altered with cm wide qvs stockwork up to 2% pyrite cubic mostly associated with veins and also in matrix! Rock fragments in situ for sure on the. Trench, rock has silica and fe carb and sericite alt.
C797877	366122	5296009	17N	Denyes	Float	Rock	Porphyry Intrusive	Solid quartz Boulder with some iron oxide staining. Sample taken from small angular quartz Boulder. Nearby host rock is felsic porphyry. No carbonate.
C797878	366124	5296021	17N	Denyes	Float	Rock	Porphyry Intrusive	Main qv zone hosted in QFP, identical to Sylvanite Gold, quartz ankerite vns at old pit, highly angular boulders, trace pyrite, slightly oxidized.
C797879	366116	5296026	17N	Denyes	Float	Rock	Porphyry Intrusive	Highly sil and fe carb altered QFP and quart breccia with intense qtz ank vns and up to 2% finely diss and ff py. Highly angular in situ fragment on historical trench and proximal to workings.
C797880	366116	5296026	17N	Denyes	Float	Rock	Quartz Vein	Angular qv fragment from main veining zone of the trench proximal to the historical working! Quartz fe carb vein with trace py slightly brecciated. dark grey mafic clasts.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C797881	366125	5296019	17N	Denyes	Grab	Rock	Porphyry Intrusive	In place quartz vein in a pit hosted by altered QFP, quartz ankerite with trace to up to 0.5% py, 10% iron oxides, same 305-310 perfectly lined up. With other observations and similar to Sylvanite Gold.
C797882	366126	5296020	17N	Denyes	Grab	Rock	Porphyry Intrusive	Wall rock to the sample C797881, strong sil and fe carb alt with cm wide qtz ank vnlt, up to 2% pyrite mostly proximal to vnlt.
C797883	354147	5298521	17N	Halcrow	Float	Rock	Mafic Volcanic	Highly angular vein fragment hosted by dark green mafic volcanic, up to 10 cm wide smoky qtz with pyre hottie and pyrite associated with vein and at the margins, strongly rusty with up to 25% hematite stains and other fe oxide, beside a historical sample.
C797884	354131	5298517	17N	Halcrow	Grab	Rock	Mafic Volcanic	In place remaining of qtz vein parallel to fol at 265/steep N, up to 1% pyrite mostly proximal to mafic wall rock.
C797885	354133	5298517	17N	Halcrow	Grab	Rock	Porphyry Intrusive	Less than meter wide highly altered QFP parallel to fol 265/75, 2m east of previous sample with 1% diss pyrite.
C797886	354123	5298539	17N	Halcrow	Grab	Rock	Mafic Volcanic	Quartz vein remnants on the mafic rock face parallel to fol, shear breccia vein, strongly oxidized with up to 25% hematite stains and trace to 0.1% fresh pyrite in hematite, the vein remain has irregular shape but up to 10 cm wide! Pyrite was seen in both quartz and hematite. likely 255/60.
C797887	354652	5297163	17N	Halcrow	Float	Rock	Intermediate Volcanic	Highly angular bull qtz vein up to 20cm wide, slightly rusty and oxidized, no visible sulphide, most likely hosted by massive intermediate volcanic.
C797888	370027	5288419	17N	Greenlaw	Grab	Rock	Quartz Vein	25cm wide qv with chl seems oblique to the fol.
C797889	370026	5288420	17N	Greenlaw	Grab	Rock	Quartz Vein	Similar to previous sample.
C797890	370022	5288417	17N	Greenlaw	Grab	Rock	Intermediate Schist	Quartz vein hosted in intermediate schist containing disseminated pyrite. Chlorite seams seen within veins and genitive replacing pyrite seen.
C797891	370025	5288417	17N	Greenlaw	Float	Rock	Quartz Vein	5% euhedral to anhedral pyrite in QV. Sample taken from QV Boulder near vein. Some hematite staining around pyrite. Also chlorite in and around QV.
C797892	370066	5288429	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Shear qv up to 20cm, boudinaged, diss pyrite, fe oxide at contact with schist IV.
C797893	370072	5288429	17N	Greenlaw	Float	Rock	Intermediate Volcanic	Quartz brain subcrop beside outcrop, host rock intermediate schist. Quartz vein. Milky white in colour with chlorite seams and hematite staining.
C797894	370067	5288427	17N	Greenlaw	Grab	Rock	Felsic Intrusive	Sheared quartz vein parallel to foliation and is boudinaged. Minor chlorite. Hematite staining.
C797895	369310	5286815	17N	Greenlaw	Float	Rock	Intermediate to Mafic Volcanic	Possibly highly sil intermediate to mafic volcanic highly angular fragment with rusty quartz veins up to 2cm, 10% fe oxides associated with veinlets!. Pyrite mostly in the wall rock clasts.
C797896	369311	5286817	17N	Greenlaw	Grab	Rock	Felsic Intrusive	QV up to 20cm wide at 45 degrees to pillow bedding in IV/MV. Low Hematite staining.
C797897	355584	5283987	17N	Tooms	Grab	Rock	Felsic Intrusive	Up to 5 cm wide qv in felsic dyke that cross the high mag mafic intrusive in E-W trend parallel to foliation, up to 1% pyrite proximal to vein within. Felsic host rock.
C797898	355579	5283978	17N	Tooms	Float	Rock	Ultramafic Intrusive	Quartz vein Boulder highly angular hosted by possibly mag to ultramafic vol/intrusive, highly oxidized by hematite, up to 15 cm wide.
C797899	359157	5287321	17N	Tooms	Float	Rock	Porphyry Intrusive	Highly solidified QFP with intense quartz veining up to 10% pyrite in both veins and host rock, hematite forms from pyrite too. Old trench.
C797900					QC			QC

Sample Location				Sample Type		Sample Material		
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C797901	362306	5287911	17N	Greenlaw	Grab	Rock	Clastic Sediments	5% or less of sample is host rock, fine grained dark grey. Quartz vein sample greater than 5 cm in pinch and swell fashion. Fresh pyrite seen in addition to pyrite on the oxidation surface. Sample surrounded by shale, hard to gather.
C797902	362874	5287976	17N	Greenlaw	Float	Rock	Unknown	Sample taken from an angular fragment sitting on low ground swampy zone, strongly silicified and banded can-wide quartz and iron carbonate bands, bands are oxidized and brownish, parallel, up to 2% finely disseminated sulphide, host is very fine silicic.
C797903	362880	5287981	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Quartz vein sample, minor oxidation at surface, no visible sulphide at surface. Comes in fragment but most likely in-situ.
C797904	362899	5287840	17N	Greenlaw	Float	Rock	Mafic Volcanic	Float, likely altered mafic to intermediate rounded Boulder contains less than can wide qvs, sulphide fracture filled and disseminated proximal to veinlets, highly oxidation and silicification.
C797905	362823	5287733	17N	Greenlaw	Grab	Rock	Clastic Sediments	10-20 cm zone of veins, sulphides present 20-30% in oxidation but not fresh. Open space texture in veins. Quartz vein sample. Oxidation mineralization.
C797906	363075	5287444	17N	Greenlaw	Grab	Rock	Clastic Sediments	Vuggy quartz vein up to 40 cm in the swelling section, parallel to foliation/bedding, open space texture, oxidized, no visible fresh sulphide was seen, associated with carbonate veinlets.
C797907	363883	5286960	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Iron oxide/hematite staining in quartz. Taken from boudinaged quartz vein in intermediate volcanics Disseminated anhedral pyrite Carbonate in quartz.
C797908	364761	5286497	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Coarse iron-carbonate vein in quartz, trace sulfide, TAKEN FROM LOOSE MATERIAL NOT OUTCROP source material likely nearby.
C797909	364918	5286485	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	QV with carbonate and fuschite alt. Trace sulfides. Sampled off channel.
C797910	364915	5286483	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Coarse iron carbonate, taken from loose fragment not outcrop. Quartz vein material with iron carbonate veins running through. Green mica/fuchsite present. Trace sulfide.
C797911	364915	5286529	17N	Greenlaw	Grab	Rock	Felsic Intrusive	Felsic intrusive, moderately fine grained. Coarse quartz veinlets cutting through. Massive. Some iron oxide staining. Silicified.
C797912	364799	5286465	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Intermediate volcanic host rock with quartz vein. Scattered platy fuchsite. Iron oxide/carbonate staining. Mostly quartz. No sulfide visible. Sample taken from quartz vein, contains some host rock. Host rock is highly foliated intermediate volcanics.
C797913	363648	5297370	17N	Denyes	Float	Rock	Mafic Volcanic	Taken from angular Boulder. Quartz ankerite vein. Ample oxide staining/hematite. Fragments of wall rock with green staining, probably chlorite or sericite. Finely disseminated fracture filled sulphides.
C797914	363545	5297301	17N	Denyes	Grab	Rock	Porphyry Intrusive	Porphyry host rock, about 15% QV, 85% matrix. Some sericite alteration. Trace sulfide in silicified areas of porphyry and matrix. Ankerite present in and along veinlets.
C797915	363549	5297303	17N	Denyes	Grab	Rock	Porphyry Intrusive	Massive QV no host matrix. Low Trace of sericite. Dissem pyrite (0.5%) within massive QV. yellow iron staining throughout QV. Trace carbonates.
C797916	363541	5297311	17N	Denyes	Grab	Rock	Porphyry Intrusive	Massive QV no host matrix Dissem pyrite and stringers (1%) within massive QV yellow iron staining throughout QV. No carbonates (also scratched surface for siderite) no sericite.
C797917	363543	5297310	17N	Denyes	Grab	Rock	Intermediate Volcanic	Silicified intermediate volcanic (Pervasive). QV veinlets (10%) matrix 90% (1% being porphyry). Along the contact of the working area. Dissem, euhedral and stringers of pyrite. Trace sericite in porphyry. Trace carb along QV veinlets.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C797918	363539	5297314	17N	Denyes	Grab	Rock	Quartz Vein	Massive QV (no matrix) taken along contact of working area between IV and porphyry. Dissem pyrite very minor. No carbonates or sericite. QV stained yellow.
C797919	363537	5297317	17N	Denyes	Grab	Rock	Intermediate Volcanic	Highly silicified portion of IV/MF (45%) with massive QV (55%). Taken on contact of IV and QV. Disseminated, euhedral and stringers all present of pyrite. Focused more within the pervasive silicified host IV. No sericite. Trace carbonates.
C797920	363535	5297318	17N	Denyes	Grab	Rock	Porphyry Intrusive	Matrix is porphyry(40%) and IV (20%) and 40% Massive QV. Matrix is highly silicified, pervasive. Dissem pyrite focused along IV areas of samples. Perhaps a quarter of sulfides within porphyry areas. Minor sericite along QV and porphyry. Trace carbonates. Working area between massive QV stock, porphyry and IV/MV.
C797921	363541	5297316	17N	Denyes	Grab	Rock	Porphyry Intrusive	Highly silicified QFP matrix (15%). Remaining 85% massive QV. Dissem pyrite along contact of QFP and QV. Very minor pyrite within QV itself. Minor sericite alteration. No carbonates. QFP with mainly Massive QV at working area contact.
C797922	363532	5297313	17N	Denyes	Grab	Rock	Porphyry Intrusive	QV within interior of QFP south of working area near bushline. Dissem but mainly massive stringers of pyrite along vein and QFP contact. More locally within QFP. QFP is moderately silicified with no carbonate or sericite. 30% QFP, 70% QV sampled.
C797923	363538	5297313	17N	Denyes	Grab	Rock	Porphyry Intrusive	Highly pervasive silicified QFP (75%) with massive QV (15%) and quartz veinlets (10%). Pyrite is spotty/pervasive within host QFP and mainly along contacts of quartz veinlets. Hematite/oxidized staining pervasive throughout. No sericite or carb alt.
C797924	363534	5297324	17N	Denyes	Grab	Rock	Porphyry Intrusive	Moderate to highly silicified QFP (60%). Massive QV (20%) and veinlets (20%). Pyrite within QV and very low trace along veinlets. None visible within QFP. No sericite or carbs. Sample south centre edge to bush of outcrop. (Perpendicular to metre 18).
C797925					QC			QC
C797926	363563	5297317	17N	Denyes	Float	Rock	Quartz Vein	Angular float east of working. Massive QV no host matrix. Low Trace of sericite. Oxidized staining throughout QV. Trace carbonates. Some clay like pervasive network overprint on massive quartz hosting most of sulfides. LISTED AS C797925 ON TAPE*. Originally took as C797925 - later changed to a blank and re-numbered as c797926 as required but tape still says C797925.
C797927	364508	5295859	17N	Denyes	Float	Rock	Porphyry Intrusive	Rock is subcrop of porphyry outcrop nearby/in stitsu and is an angular Boulder with quartz vein 10cm across. Quartz vein displaying dogs tooth texture within an altered porphyry. Rock is oxidized and contains iron carbonate within and surrounding quartz veins. Possible oxidized sulphides within/surrounding quartz veins.
C797928	364506	5295858	17N	Denyes	Float	Rock	Porphyry Intrusive	Very angular fragments, definitely in situ up to 10 cm wide qv veinlets hosted by altered QFP. 10% oxide associated with vein materials.
C797929	364505	5295851	17N	Denyes	Grab	Rock	Porphyry Intrusive	Quartz veinlets up to 5cm wide parallel to foliation in sheared QFP, heavily oxidized, hematite is the most, chlorite at the margins of veins w/comb.
C797930	364469	5295868	17N	Denyes	Grab	Rock	Porphyry Intrusive	Intense quartz stock work in QFP, altered to arriviste, carbonate and green minerals likely chlorite. Veinlets are oxidized with hematite! 5-10% hm fd.
C797931	364470	5295870	17N	Denyes	Grab	Rock	Porphyry Intrusive	Quartz stockwork within a porphyry intrusive. Presence of chlorite alteration within it.
C797932	364467	5295881	17N	Denyes	Grab	Rock	Porphyry Intrusive	Up to 4cm qv in QFP, highly oxidized, comb texture.

Sample Location				Sample Type		Sample Material		
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C797933	364514	5295802	17N	Denyes	Grab	Rock	Porphyry Intrusive	Intense veined parallel to shr in QFP, moderately oxidized, trace of cubic pyrite.
C797934	364189	5295725	17N	Denyes	Grab	Rock	Intermediate Volcanic	Vuggy qv up to 5 cm wide in mafic to intermediate volcanic, ff and diss pyrite very fine, vnltls up to 4 cm wide, highly rusty.
C797935	364189	5295726	17N	Denyes	Grab	Rock	Intermediate Volcanic	Disseminate magnetic and trace of pyrite in quartz carbonate ff and vuggy highly oxidized veins.
C797936	364337	5295063	17N	Denyes	Grab	Rock	Porphyry Intrusive	Qtz-carb-ser sch, mm-wide qtz vnltls parallel to foliation, highly carbonated and oxidized, no visible sul.
C797937	364386	5295086	17N	Denyes	Float	Rock	Porphyry Intrusive	Very angular irradic, very likely to be from surrounding outcrop. Quartz hematite alteration with multiple veinlets 1 to 3mm. Veinlets parallel Carbonates present. No visible sulphides seen. Sheared and good foliation.
C797938	364402	5295113	17N	Denyes	Float	Rock	Porphyry Intrusive	Very angular irradic very likely to be from surrounding outcrop Quartz hematite alteration with multiple veins 4 to 10cm 10% hematite staining in quartz vein vein has comb texture. no visible sulphides.
C797939	364390	5295079	17N	Denyes	Grab	Rock	Intermediate Volcanic	Sample taken from intermediate contact between porphyry and conglomerate. Quartz vein with hematite staining 10%. Quartz veinlets up to 3cm, with more vuggy texture. No visible sulphides. Carbonates most likely ankerite fracture filled.
C797940	364401	5295076	17N	Denyes	Float	Rock	Unknown	Angular fragment of qv likely up to 30cm wide with intense silicified dark FP fragments, 10-15% iron oxides, no visible sul, very likely in situ.
C797941	364411	5295073	17N	Denyes	Grab	Rock	Porphyry Intrusive	Highly silicic QFP with str quartz ankerite vein parallel to foliation at 275, trace sul.
C797942	364410	5295076	17N	Denyes	Float	Rock	Intermediate Volcanic	Quartz ankerite breccia angular fragment from most likely here with str oxidation, the origin is likely sample C797942, 10% sil felsic wall rock.
C797943	364413	5295075	17N	Denyes	Float	Rock	Porphyry Intrusive	Very angular erratic most likely from outcrop to the saw. Large vuggy quartz vein up to 15cm with hematite staining 10%. Smaller late quartz veinlets up to 1cm seen with comb texture. No visible sulphides. Silicified quartz porphyry intrusive.
C797944	370476	5288423	17N	Cunningham	Float	Rock	Intermediate Volcanic	Very angular erratic, most likely from surrounding outcrop. No visible sulphides. Quartz vein with iron oxide staining. Sheared and heavily foliated. Very silicified and iron carbonate alteration intermediate volcanic rock type?.
C797945	370492	5288406	17N	Cunningham	Grab	Rock	Intermediate Volcanic	Foliated intermediate volcanics. Lots of iron oxide staining but no sulfide present, possibly eroded pyrites. Small bits of staining that look like eroded pyrites. Taken from old channel sample.
C797946	370481	5288402	17N	Cunningham	Grab	Rock	Intermediate Volcanic	Quartz vein up to 5cm, parallel to sub-parallel to foliation. Good foliation and heavily sheared. Iron oxide alteration and staining within quartz vein 40%. Small amounts of carbonate most likely sericite. Intermediate volcanic heavily silicified.No visible sulphides.
C797947	370498	5288407	17N	Cunningham	Grab	Rock	Intermediate Volcanic	Highly foliated and sheared intermediate volcanics. Sericite alteration along foliation. Loads of ankerite. Lots of iron oxide staining, pyrite has been leached out. QV ~10% up to 1cm. Silicified.
C797948	370499	5288397	17N	Cunningham	Grab	Rock	Intermediate Volcanic	Highly foliated and sheared intermediate?volcanics. QV up to 5cm wide. Lots of ankerite and iron oxide staining. No sulfide present, likely leached out. Sericite along foliation. Taken from old channel sample.
C797949	370502	5288397	17N	Cunningham	Grab	Rock	Intermediate Volcanic	Highly sheared and foliated intermediate volcanics. Silicified. Large QV ~5cm. Sulfide leached out. lots of carbonate/ankerite. Small veinlets ~1mm running through.
C797950					QC			QC

Sample Location				Sample Type		Sample Material		
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C797951	366736	5285117	17N	Greenlaw	Grab	Rock	Unknown	No sample description.
C797952	367919	5285645	17N	Cunningham	Grab	Rock	Intermediate Volcanic	Euhedral pyrite disseminated throughout rock. Heavily altered mafic to intermediate volcanics Taken near 3cm quartz vein No visible foliation Silicified. Ankerite in quartz vein. pink colour.
C797953	367950	5285627	17N	Greenlaw	Grab	Rock	Intermediate Volcanic	Intermediate volcanic that contains small quartz veins in a massive oblique unit. Weathered face is highly oxidized Contains felsic veins about 3mm Rock unit is fairly silicified. mostly euhedral pyrite mineralization <=3mm orrouring with small <1mm carbonate veins possibly ankerite.
C797954	371567	5286873	17N	Cunningham	Grab	Rock	Intermediate Volcanic	pyrite observed to occur mosly in the fracture planes of the rock along with small amounts of carbonate throughout. pyrite occurs in clusters.
C797955	371589	5286873	17N	Cunningham	UNK	Rock	Unknown	No sample description.
C797956	370582	5285955	17N	Cunningham	UNK	Rock	Unknown	No sample description.
C797957					QC			QC
C797958	370589	5285982	17N	Cunningham	UNK	Rock	Unknown	No sample description.
C797959	371266	5285535	17N	Cunningham	UNK	Rock	Unknown	No sample description.
C797960	371310	5285535	17N	Cunningham	UNK	Rock	Unknown	No sample description.
C797961	359625	5288773	17N	Tooms	Grab	Rock	Clastic Sediments	Quartz veins with trace carbonate cross-cutting foliation of carbonate. Trace sulfide. Quartz-felsic clasts in conglomerate. Local late brittle fractures present on outcrop.
C797962	359292	5289593	17N	Tooms	Grab	Rock	Clastic Sediments	Sheared conglomerate with felsic/quartz and mafic clasts. Mostly euhedral pyrite along foliation. Sample taken from subcrop material, very angular. Carbonate present in quartz.
C797963	363656	5297363	17N	Denyes	Grab	Rock	Mafic Volcanic	Possible fushite although possible other green mineral within host rock. Ankerite occurs along quartz veins. Platy and very sheared rock with foliations, possible mafic protolith, boudons within rock are folded. Sericite present.
C797964	364398	5297238	17N	Denyes	Grab	Rock	Intermediate Volcanic	Crenelated cleavage observed. Fine grained lithology with carbonate vein 1cm in width parallel to cleavage and deseminated sulfides.
C797965	364564	5297285	17N	Denyes	Float	Rock	Porphyry Intrusive	Carbonate alteration occurs along the foliation planes. Patches of green alteration possibly fuchite and trace sulphides disseminated. Crenelation cleavage observed in outcrop in fine grained highly sheared felsic. Schisty with presence of square mineral that has weathered brown. Carbonate alteration strongest in area that has been seen so far in property. Sample is angular subcrop of Outcrop which is located ~5m away.
C797966	364620	5297278	17N	Denyes	Grab	Rock	Porphyry Intrusive	Coarse grain porphyroblast. Chlorite is Very thin and platy and seen on the fractured surface between host and contact. Large amounts of carbonate on the foliation face. Less sheared than outcrops seem to the west but still moderately sheared. CS fabric. Sericite alteration seen.

Sample Location					Sample Type		Sample Material	
Sample Number	Easting	Northing	UTM	Area	Type	Medium	Lithology	Description
C797967	364591	5298053	17N	Denyes	Grab	Rock	Porphyry Intrusive	Sample taken from dog tooth quartz veinlet 2-3cm in width. Small amounts of carbonate alteration along the quartz vein. Little bits of more strongly altered porphyry. Sulphide appear to be within fragments of porphyry not within the host rock or vein. Green alteration mineral probably fuchsite. Arsenopyrite may be included within sample, silvery in colour
C797968	363632	5296504	17N	Denyes	Grab	Rock	Mafic Volcanic	Moderately foliated mafic material with felsic xenolith. Quartz vein present in felsic material. Highly magnetic. 0.1% sulfide. Little alteration. Carbonate alteration strongest in area that has been seen so far in property
C797969	363307	5296626	17N	Denyes	Grab	Rock	Porphyry Intrusive	Disseminated euhedral pyrite in quartz feldspar porphyry. Some carbonate present. Weakly foliated with SC fabric. Likely near contact with mafic volcanics.
C797970	363308	5296559	17N	Denyes	Grab	Rock	Mafic Volcanic	Carbonate in epidote clots and along foliation. Moderately foliated. About 1% anhedral pyrite in mafic material. Possibly sheared pillow salvages? Not magnetic.
C797971	363367	5296517	17N	Denyes	Grab	Rock	Porphyry Intrusive	Quartz-feldspar porphyry. Mostly massive. Lots of iron oxide staining. Iron oxide veinlets ~2mm. Some QV. One green blob, possibly chalco staining?.
C797972	363424	5296517	17N	Denyes	Grab	Rock	Porphyry Intrusive	Quartz-feldspar porphyry. QV (~10%) cross-cutting. Significant carbonate present. Stringer veins with chlorite ~2mm. Iron carbonate on outsides of stringers. No sulfide seen.
C797973	363504	5296451	17N	Denyes	Float	Rock	Mafic Volcanic	Very fine grained mafic. Magnetic. Fine grained (<1mm) disseminated pyrite. Mostly massive, conchoidal fracture. Similar to rock found north of road. Taken off angular boulder on south side of trench. Unsure of rock type.
C797974	363634	5296310	17N	Denyes	UNK	Rock	Unknown	No sample description.
C797975					QC			QC

OBJECTID	Project	Date	Northing	Easting	Azimuth	Dip	Lithology	Structure Type	Comments
1	SYL	2021-05-08	5298547	354185	270	70	Mafic Volcanic	Foliation	
2	SYL	2021-05-08	5298544	354173	270	72	Mafic Volcanic	Fold	dextral fold, z , there is strain partitioning where banding is present
3	SYL	2021-05-08	5298530	354130	239	73	Mafic Volcanic	Foliation	chunky quartz vein, trace iron oxide
4	SYL	2021-05-08	5298538	354133	245	73	Mafic Intrusive	Foliation	
5	SYL	12:00:00 AM	5298537	354133	240	80	Mafic Volcanic	Foliation	
6	SYL	2021-05-08	5300039	357268	220	72		Fold	Chevron fold, clear axial plane, pic#145027, 145041
7	SYL	2021-05-08	5287274	360707	305	45		Foliation	
8	SYL	2021-05-08	5287275	360710	315	65		Foliation	
9	SYL	2021-05-08	5287305	360630	305	85		Foliation	
10	SYL	2021-05-09	5290183	358676	290	68	Clastic Sedimentary	Foliation	Polymictic
11	SYL	2021-05-09	5289947	359211	308	40		Foliation	conglomerate
12	SYL	2021-05-09	5289743	359298	330	22	Clastic Sedimentary	Fold	Chevron fold axial plane
13	SYL	2021-05-09	5289747	359294	320	12	Clastic Sedimentary	Fold	Fold hinge of chevron fold
14	SYL	2021-05-09	5289681	359273	310	78	Clastic Sedimentary	Foliation	
15	SYL	2021-05-09	5289936	358824	311	76	Clastic Sedimentary	Foliation	Polymictic conglomerate
16	SYL	2021-05-09	5286518	358314	152	88	Mafic Volcanic	Foliation	
17	SYL	2021-05-10	5296562	361675	120	84	Mafic Volcanic	Foliation	clear striations. quartz veins, heavily oxidize, sulphides present. presented of sulphur
18	SYL	2021-05-11	5290073	358202	300	68	Clastic Sedimentary	Foliation	large clasts conglomerate, heavily foliated, quartz veins along foliation. Epidote present
19	SYL	2021-05-11	5290338	357878	296	72	Mafic Volcanic	Foliation	
20	SYL	2021-05-11	5290592	357568	275	84	Mafic Volcanic	Foliation	
21	SYL	2021-05-11	5290601	357525	284	82	Mafic Volcanic	Foliation	
22	SYL	2021-05-11	5290648	357560	318	30		Fold	Axial plane
23	SYL	12:00:00 AM	5290646	357557	289	44	Mafic Volcanic	Lineation	stretching lineation. felsic fragment measurement
24	SYL	2021-05-11	5291102	357785	312	83	Intermediate Volcanic	Foliation	older foliation oriented 280/64
25	SYL	2021-05-11	5290833	357983	110	44	Clastic Sedimentary	Fold	

OBJECTID	Project	Date	Northing	Easting	Azimuth	Dip	Lithology	Structure Type	Comments
26	SYL	2021-05-11	5290833	357985	328	46	Clastic Sedimentary	Foliation	foliation is folded
27	SYL	2021-05-11	5290697	358082	310	74		Foliation	polymictic. gray chert and misc. granitic clasts
28	SYL	2021-05-11	5290660	358152	310	74	Clastic Sedimentary	Foliation	highly sheared conglomerate
29	SYL	2021-05-12	5290734	358807	278	70	Mafic Intrusive	Foliation	
30	SYL	2021-05-12	5290661	358177	330	82	Clastic Sedimentary	Foliation	conglomerate. ground drops away steeply to south, can be implied of the presence of a fault oriented similarly to the foliation
31	SYL	2021-05-12	5290667	358192	104	64	Clastic Sedimentary	Lineation	highly sheared conglomerate. stretching lineation-long axis of clast. presence of gray chert clasts. dextral shear indicated by 4 clasts
32	SYL	2021-05-12	5290659	358189	313	80	Clastic Sedimentary	Foliation	strongly sheared conglomerate
33	SYL	2021-05-12	5290649	358210	62	54	Clastic Sedimentary	Fold	orientation of fold hard to tell
34	SYL	2021-05-12	5290749	357787	299	76	Clastic Sedimentary	Foliation	strongly sheared conglomerate with some chlorite
35	SYL	2021-05-12	5290738	357781	122	48	Clastic Sedimentary	Lineation	stretching lineation
36	SYL	2021-05-12	5288172	361243	300	75	Intermediate Volcanic	Foliation	At shaft with quartz vein
37	SYL	2021-05-13	5288309	361200	305	68	Clastic Sedimentary	Foliation	
38	SYL	2021-05-13	5288450	361193	305	67	Clastic Sedimentary	Foliation	Highly strained conglomerate
39	SYL	2021-05-13	5288728	361118	285	80	Intermediate Volcanic	Foliation	Intermediate volcanic bear creek
40	SYL	2021-05-14	5287306	360657	130	42	Mafic Volcanic	Foliation	
41	SYL	2021-05-14	5286991	364029	280	55	Mafic Volcanic	Shear	
42	SYL	2021-05-14	5287010	364418	290	70	Mafic Volcanic	Foliation	
43	SYL	2021-05-15	5281712	367591	285	86	Mafic Volcanic	Foliation	rock looks bland no significant alteration or veins
44	SYL	2021-05-16	5297987	354433	306	78		Foliation	
45	SYL	2021-05-16	5297730	354404	240	69	Intermediate Volcanic	Foliation	strongly foliated evidence of oxide alteration. carbonates present.
46	SYL	2021-05-16	5297746	354277	240	82	Intermediate Volcanic	Foliation	fine grained and highly oxidized. sheared with weathered and oblique faces

OBJECTID	Project	Date	Northing	Easting	Azimuth	Dip	Lithology	Structure Type	Comments
47	SYL	2021-05-16	5297778	354265	240	76	Intermediate Volcanic	Foliation	
48	SYL	2021-05-16	5297340	358289	280	80	Clastic Sedimentary	Foliation	
49	SYL	2021-05-16	5296988	358076	285	0	Clastic Sedimentary	Foliation	
50	SYL	2021-05-16	5297372	358361	280	80	Clastic Sedimentary	Foliation	Very approximate
51	SYL	2021-05-16	5297385	358379	293	80		Foliation	At contact
52	SYL	2021-05-16	5297482	358347	290	83	Clastic Sedimentary	Foliation	Schist
53	SYL	2021-05-17	5297636	357877	294	81	Clastic Sedimentary	Foliation	
54	SYL	2021-05-17	5285117	366737	104	0	Intermediate Volcanic	Contact	
55	SYL	2021-05-17	5297804	357803	285	85	Chemical Sedimentary	Foliation	
56	SYL	2021-05-17	5297618	357822	285	76	Chemical Sedimentary	Foliation	General trend in trench
57	SYL	2021-05-18	5296586	364915	19	40	Mafic Volcanic	Foliation	may be boulder moderately confident in outcrop. fine grained evidence some oxidation very trace amounts carb more siliceous
58	SYL	2021-05-18	5296143	365206	278	82	Intermediate Volcanic	Foliation	
59	SYL	2021-05-18	5291678	353953	305	80	Mafic Volcanic	Foliation	
60	SYL	2021-05-18	5291678	353952	305	80	Mafic Volcanic	Foliation	
61	SYL	2021-05-18	5291185	354418	125	83	Mafic Volcanic	Foliation	
62	SYL	2021-05-18	5290923	355081	130	80	Mafic Volcanic	Foliation	
63	SYL	2021-05-19	5291569	353394	289	87	Mafic Volcanic	Foliation	Near vertical
64	SYL	2021-05-19	5291738	353414	120	90	No Compositional Information	Foliation	
65	SYL	2021-05-19	5291566	353422	130	80	Mafic Volcanic	Fault	Very approximate measurement
66	SYL	2021-05-19	5291560	353405	308	80	Mafic Volcanic	Fault	Quartz vein few cms
67	SYL	2021-05-19	5297315	363637	127	72	Mafic Volcanic	Foliation	
68	SYL	2021-05-19	5296844	363385	287	72	Intermediate Volcanic	Foliation	
69	SYL	2021-05-20	5297143	363587	280	42	Intermediate Volcanic	Foliation	
70	SYL	2021-05-20	5297183	363759	50	0			Large quartz vein ~10cm wide
71	SYL	2021-05-20	5297100	363853	290	54		Foliation	
72	SYL	2021-05-20	5296125	365911	272	82	Felsic Volcanic	Foliation	

OBJECTID	Project	Date	Northing	Easting	Azimuth	Dip	Lithology	Structure Type	Comments
73	SYL	2021-05-21	5295745	366154	285	24	Intermediate Volcanic	Foliation	Heavily striated, carbonate veinlets running parallel to foliation. Strong foliation with shallow dip. Fine to medium grained
74	SYL	2021-05-22	5295836	364344	270	42	Felsic Volcanic	Foliation	
75	SYL	2021-05-22	5295892	364326	280	50	Intermediate Volcanic	Foliation	Strongly sheared intermediate volcanics.
76	SYL	2021-05-22	5295904	364333	280	50	Mafic Volcanic	Foliation	Strongly sheared mafic volcanics.
77	SYL	2021-05-22	5295932	364194	275	46	Mafic Volcanic	Foliation	
78	SYL	2021-05-22	5295953	364225	278	40	Mafic Volcanic		
79	SYL	2021-05-22	5296074	365516	265	62	Intermediate Volcanic	Foliation	Heavily foliated
80	SYL	2021-05-22	5295874	364272	300	58	Mafic Volcanic	Foliation	
81		2021-05-22	5295899	364270	280	62	Mafic Volcanic	Foliation	
82	SYL	2021-05-22	5295920	364197	282	82	Porphyry Intrusive	Foliation	Dip varies greatly from nearby mafic volcanics
83	SYL	2021-05-22	5296126	365342	280	58	Mafic Volcanic	Foliation	
84	SYL	2021-05-22	5296925	367600	258	68	Porphyry Intrusive	Foliation	dip is low confidence.
85		2021-05-24	5295995	366198	268	70	Porphyry Intrusive	Foliation	
86	SYL	2021-05-24	5296150	365907	275	75	Porphyry Intrusive	Foliation	felsic protolith very sheared
87	SYL	2021-05-24	5296154	365912	285	35	Porphyry Intrusive	Fold	fold hinge trend plunge
88	SYL	2021-05-24	5296152	365911	308	89	Porphyry Intrusive	Fold	
89	SYL	2021-05-24	5295732	366216	255	69	Felsic Volcanic	Foliation	
90	SYL	2021-05-24	5295986	366216	272	81	Intermediate Volcanic	Fold	Axial plane
91	SYL	2021-05-24	5295988	366224	94	34	Porphyry Intrusive	Fold	Hinge
92	SYL	2021-05-24	5296131	365896	265	75	Dyke	Contact	Diabase dyke contacting host porphyry
93	SYL	2021-05-24	5295500	364569	289	43	Intermediate Volcanic	Foliation	
94	SYL	2021-05-24	5294983	364400	281	42	Intermediate Volcanic	Foliation	intermediate to mafic volcanic. fine grained but noticeably larger than outcrop to the north northeast
95	SYL	2021-05-24	5295531	366251	274	72	Intermediate Volcanic	Foliation	
96	SYL	2021-05-26	5296907	363986	292	52	Mafic Volcanic	Foliation	
97	SYL	2021-05-26	5297210	363999	50	0	Mafic Volcanic	Glacial Striation	
98	SYL	2021-05-26	5296985	364100	275	62	Mafic Volcanic	Foliation	

OBJECTID	Project	Date	Northing	Easting	Azimuth	Dip	Lithology	Structure Type	Comments
99	SYL	2021-05-26	5296230	364498	280	84	Porphyry Intrusive	Foliation	intermediate porphyry
100	SYL	2021-05-26	5296235	364556	288	82	Porphyry Intrusive	Foliation	
101	SYL	2021-05-26	5295922	364450	281	74	Mafic Volcanic	Foliation	
102		12:00:00 AM	5296231	364585	178	72	Intermediate Volcanic	Foliation	Mafic to intermediate volcanics. Strong foliation, lesser so on the margins. Sheared, fine grained, feldspars clasts seen but not distinguishable as porphyry as matrix seems to be much more mafic.
103	SYL	2021-05-26	5296219	364556	272	57	Intermediate Volcanic	Foliation	
104	SYL	2021-05-26	5296278	364425	284	84	Intermediate Volcanic	Foliation	Strong foliation, no mineralization, some alteration, fine grained intermediate volcanic. Strain partition some areas that are more strongly sheared than others.
105	SYL	2021-05-27	5298452	368259	292	76		Foliation	Structure may be a boulder however it is angular and concordant with regional structure and lithology (very fine grained mafic-intermediate).
106	SYL	2021-05-27	5298058	367297	251	88	Intermediate Volcanic	Foliation	Dip is low confidence
107	SYL	2021-06-09	5289171	359940	308	56	Clastic Sedimentary	Foliation	Conglomerate
108	SYL	2021-06-09	5289186	359961	12	76	Clastic Sedimentary	Fold	Axial plane
110		2021-06-09	5289048	360048	308	82	Clastic Sedimentary	Foliation	
111	SYL	2021-06-09	5288819	360367	302	52	Clastic Sedimentary	Foliation	
112	SYL	2021-06-09	5289044	360077	308	82	Clastic Sedimentary	Foliation	
113	SYL	2021-06-09	5289576	359483	320	82	Clastic Sedimentary	Foliation	
114	SYL	12:00:00 AM	5289588	359489	105	72	Clastic Sedimentary	Lineation	Quartz boudinage
115	SYL	12:00:00 AM	5289585	359485	18	83		Fold	axial plane
116	SYL	2021-06-09	5289583	359483	19	64	Clastic Sedimentary	Fold	
117	SYL	2021-06-09	5288764	359618	296	81	Clastic Sedimentary	Foliation	2 different clast types. Strongly sheared, 1:20 aspect ratio approximately.
118	SYL	2021-06-09	5288763	359617	94	58	Clastic Sedimentary	Lineation	
119	SYL	2021-06-09	5289423	359766	90	59	Clastic Sedimentary	Fold	Axial plan
120	SYL	2021-06-09	5289421	359765	130	45	Clastic Sedimentary	Fold	

OBJECTID	Project	Date	Northing	Easting	Azimuth	Dip	Lithology	Structure Type	Comments
121	SYL	2021-06-09	5289422	359763	318	58	Clastic Sedimentary	Foliation	
122	SYL	2021-06-09	5289423	359767	154	69	Clastic Sedimentary	Lineation	Stretching lineation
123	SYL	2021-06-09	5289629	359940	334	62	Intermediate Volcanic	Fold	Fold hinge
124	SYL	2021-06-09	5289628	359940	330	54	Intermediate Volcanic	Fold	Axial plane
125	SYL	2021-06-09	5287972	362470	310	80	Clastic Sedimentary	Foliation	
126	SYL	2021-06-09	5287973	362469	20	70	Clastic Sedimentary	Fold	non continuous folding with sub vertical axial plane throughout outcrop. Open/gentle fold late generation, weak foliation, trending north-east
127	SYL	2021-06-09	5288004	362525	300	64	Clastic Sedimentary	Foliation	Similar to other outcrop/structures in area
128	SYL	2021-06-09	5288027	362558	295	70	Intermediate Volcanic	Foliation	Weak to moderate foliation as travelling away from formation zone. Fine grained, grey greenish
129	SYL	2021-06-09	5288067	362663	295	50	Clastic Sedimentary	Foliation	Strongly foliated, slaty shale. Darkly coloured; greys/blacks
130	SYL	2021-06-09	5287998	362832	285	45	Intermediate Volcanic	Foliation	Moderate foliation.
131	SYL	2021-06-09	5287953	362881	295	50	Clastic Sedimentary	Foliation	Slaty shale
132	SYL	2021-06-09	5287843	362903	295	75	Intermediate Volcanic	Foliation	
133	SYL	2021-06-09	5287729	362831	290	80	Clastic Sedimentary	Foliation	Sandstone, moderate to strong foliation
134	SYL	2021-06-09	5287445	363074	305	55	Clastic Sedimentary	Foliation	Moderate to strong foliation.
135	SYL	2021-06-09	5287185	362170	310	30	Intermediate Volcanic	Foliation	Foliation in possibly intermediate volcanic, weak to moderate, unknown generation, non mag, fine to medium grain, massive to weakly foliated
136	SYL	2021-06-09	5287223	362181	310	30	Intermediate Volcanic	Foliation	As before, intermediate foliated, moderately to weakly
137	SYL	2021-06-09	5287671	362328	295	45	Intermediate Volcanic	Foliation	Strong to moderate foliated intermediate volcanic, possibly S2

OBJECTID	Project	Date	Northing	Easting	Azimuth	Dip	Lithology	Structure Type	Comments
138	SYL	2021-06-09	5287858	362269	303	45	Clastic Sedimentary	Foliation	Outcrop is questionable! Can be fine grained sediments, grey to greenish, quartz veinlets parallel to foliation! 298-300 is the open folding axial trace!
139	SYL	2021-06-09	5287859	362263	20	63	Clastic Sedimentary	Fold	Fold axis on the S2 foliation, open to gentle
140	SYL	2021-06-09	5287911	362302	289	78	Clastic Sedimentary	Foliation	Bedding parallel foliation, S1/S2, or compositional layering, on a clastic meta sediment outcrop, intensely deformed, argillite-dark shale/slate, shear quartz vein parallel to sub-parallel to the foliation, contains fresh pyrite trace and 5% oxidized sulphide
141	SYL	2021-06-09	5287912	362311	315	0		Foliation	Dip can't be taken, possibly steep, oblique to the compositional layering, quartz vein is partially cross-cut the layering
142	SYL	2021-06-09	5288001	362864	280	60	Intermediate Volcanic	Foliation	Moderate to strong foliation in intermediate volcanic, shear barren quartz vein 5cm wide runs parallel to it.
143	SYL	2021-06-10	5287998	358984	270	67	Intermediate Volcanic	Foliation	
144	SYL	2021-06-10	5287990	358983	280	67	Intermediate Volcanic	Foliation	Quartz veins Boudinaged with foliation
145	SYL	2021-06-10	5288063	359163	315	65	Mafic Volcanic	Fault	Quartz vein
146	SYL	2021-06-10	5288063	359163	345	45	Mafic Volcanic	Shear	Dip may be steeper, schist fallen a bit
147	SYL	2021-06-10	5287320	359158	135	75	Other	Fault	Quartz vein in trench
148	SYL	2021-06-10	5287326	363126	290	53	Clastic Sedimentary	Foliation	Polymictic S1
149	SYL	2021-06-10	5287324	363113	285	70	Clastic Sedimentary	Foliation	S/C Fabric. North side up.
150	SYL	2021-06-10	5286536	364491	186	75	Intermediate Volcanic	Crenulation	
151	SYL	2021-06-10	5286535	364491	360	62	Intermediate Volcanic	Fold	Fold axis
152	SYL	2021-06-10	5286535	364492	290	48	Intermediate Volcanic	Foliation	
153	SYL	2021-06-10	5286503	364675	10	44	Intermediate Volcanic	Fold	Fold axis
154	SYL	2021-06-10	5286503	364675	280	60	Intermediate Volcanic	Foliation	

OBJECTID	Project	Date	Northing	Easting	Azimuth	Dip	Lithology	Structure Type	Comments
155	SYL	2021-06-10	5287331	363122	290	0	Clastic Sedimentary	Crenulation	20-25 from W. This is the rake angle. Intersection of two foliations.
156	SYL	2021-06-10	5287332	363125	295	48	Clastic Sedimentary	Lineation	Stretching lineation
157	SYL	2021-06-10	5287325	363133	295	35	Clastic Sedimentary	Foliation	s2
158	SYL	2021-06-10	5287325	363133	280	0	Clastic Sedimentary	Foliation	Shear foliation in sc fabric. Steep dip cannot measure
159	SYL	2021-06-10	5287327	363164	18	62	Clastic Sedimentary	Fold	Fold axis geometry
160	SYL	2021-06-10	5287327	363165	300	64	Clastic Sedimentary	Foliation	
161	SYL	2021-06-10	5287041	363408	290	81	Intermediate Volcanic	Foliation	
162	SYL	2021-06-10	5286968	363864	277	78	Intermediate Volcanic	Foliation	
163	SYL	2021-06-10	5286967	363865	10	65	Intermediate Volcanic	Fold	Fold axis geometry
164	SYL	2021-06-10	5286929	363980	273	62	Intermediate Volcanic	Foliation	
165	SYL	2021-06-10	5286796	364152	265	70	Clastic Sedimentary	Foliation	Sinistral shearing
166	SYL	2021-06-10	5286540	364401	290	65		Foliation	s1/s2
167	SYL	2021-06-10	5286539	364401	15	57		Fold	fold axis
168	SYL	2021-06-10	5286539	364401	350	65	Intermediate Volcanic	Fold	conjugate with previous fold
169	SYL	2021-06-10	5286538	364403	60	0	Intermediate Volcanic	Fold	fold axial plane. Intensely sheared quartz vein. asymmetry indicating sinistral shear. dip unknown.
170	SYL	2021-06-10	5286528	364586	280	65	Intermediate Volcanic	Foliation	
171	SYL	2021-06-11	5294790	365337	260	84	Intermediate Volcanic	Foliation	Moderately foliated, not super platy.
172	SYL	2021-06-11	5294769	365548	255	80	Clastic Sedimentary	Foliation	Very hard to tell rock type, could be sediments.
173	SYL	2021-06-11	5294758	365511	240	90	Clastic Sedimentary	Foliation	Nearly vertical dip. Hard to measure
174	SYL	2021-06-11	5294697	365581	255	82	Intermediate Volcanic	Foliation	Could be intermediates or sed, really not sure. Very foliated
175	SYL	2021-06-11	5294701	365578	302	65	Intermediate Volcanic	Fold	Fold axis. Late brittle fold? Sinistral. Could be sediments or intermediate volcanics.
176	SYL	2021-06-11	5294631	365427	270	42	Intermediate Volcanic	Foliation	Hard to measure dip.
177	SYL	2021-06-11	5294658	365364	270	85	Clastic Sedimentary	Foliation	

OBJECTID	Project	Date	Northing	Easting	Azimuth	Dip	Lithology	Structure Type	Comments
178	SYL	2021-06-11	5297368	363655	360	0	Mafic Volcanic	Glacial Striation	Textbook glacial striation, running north-south running along a contact between mafic and intermediate
179	SYL	2021-06-11	5294801	365397	310	70	Clastic Sedimentary	Fold	Fold axis measurement. Sinistral movement
180	SYL	2021-06-11	5294800	365394	260	85	Clastic Sedimentary	Foliation	Foliation. Clasts in unit are small and can be easily overlooked. Heavily matrix supported. Transitional lithology
181	SYL	2021-06-11	5297007	370361	260	85	Felsic Volcanic	Foliation	
182	SYL	2021-06-13	5297238	364398	280	76	Intermediate Volcanic	Foliation	Moderate foliation
183	SYL	2021-06-13	5297276	364528	274	68	Felsic Volcanic	Foliation	
184	SYL	2021-06-13	5297276	364528	20	59	Felsic Volcanic	Fold	Fold hinge of open fold
185	SYL	2021-06-13	5297276	364528	32	81	Felsic Volcanic	Fold	Axial plane
186	SYL	2021-06-13	5297283	364565	268	76	Felsic Volcanic	Foliation	
187	SYL	12:00:00 AM	5295852	364506	245	75	Porphyry Intrusive	Foliation	Moderate to strong foliation in altered QFP, quartz veinlets parallel to foliation, strongly oxidized
188	SYL	2021-06-14	5295868	364467	265	42	Porphyry Intrusive	Foliation	Moderate foliation in quartz feldspar porphyry
189	SYL	2021-06-14	5295847	364451	225	35	Intermediate Volcanic	Foliation	Strong schist in chlorite schist sub crop
190	SYL	2021-06-14	5295859	364463	265	47	Porphyry Intrusive	Foliation	Sheared altered QFP south of sampling zone, strong foliation
191	SYL	12:00:00 AM	5295802	364514	275	65	Porphyry Intrusive	Foliation	Moderate to strong foliation with quartz veins parallel in QFP
192	SYL	2021-06-14	5296501	363631	265	75	Mafic Volcanic	Foliation	Folded quartz vein ~1cm cross cutting
193	SYL	2021-06-14	5296612	363314	275	60	Mafic Volcanic	Foliation	Steeper foliation. Two present
194	SYL	2021-06-14	5296613	363312	282	40	Mafic Volcanic	Foliation	Second foliation. Roughly parallel to first foliation, no intersection visible.
195	SYL	2021-06-14	5296495	363354	290	60	Mafic Volcanic	Foliation	
196	SYL	12:00:00 AM	5287456	362852	7	68	Clastic Sedimentary	Fold	See other structure comment
197	SYL	2021-06-14	5287455	362854	291	67	Clastic Sedimentary	Foliation	Heavy foliation, tight fold bands, sinistral, s1

OBJECTID	Project	Date	Northing	Easting	Azimuth	Dip	Lithology	Structure Type	Comments
198	SYL	2021-06-14	5287484	362836	294	75	Clastic Sedimentary	Foliation	Same as other outcrop in area
199	SYL	12:00:00 AM	5287485	362811	353	63	Clastic Sedimentary	Fold	Multiple s1 folds, sinistral, highly foliated, mafic clasts seen within host. Tight fold bands. 70% matrix estimate
200	SYL	2021-06-14	5287487	362811	286	0	Clastic Sedimentary	Foliation	Cannot get a dip, loose estimation of 70% matrix supported. Late veins cutting S1 fabric at 227
201	SYL	2021-06-14	5287519	362815	2	63	Clastic Sedimentary	Fold	Highly foliated, s1, sinistral folds.
202	SYL	2021-06-14	5287518	362816	307	77	Clastic Sedimentary	Foliation	Heavily foliated, matrix supported, large mafic clasts
203	SYL	2021-06-14	5287527	362798	287	0	Clastic Sedimentary	Fold	S2 fabric measurements taken
204	SYL	2021-06-14	5287529	362798	299	67	Clastic Sedimentary	Foliation	
205	SYL	2021-06-14	5287604	362726	309	76	Clastic Sedimentary	Foliation	Heavily foliated
206	SYL	2021-06-14	5287689	362643	291	66	Clastic Sedimentary	Foliation	Right on edge of river bed near beaver dam
207	SYL	2021-06-14	5287688	362645	5	68	Clastic Sedimentary	Fold	Strong s folds, sinistral with some chevron indicators
208	SYL	2021-06-14	5287579	362581	285	62	Clastic Sedimentary	Foliation	
209	SYL	2021-06-14	5287578	362582	9	67	Clastic Sedimentary	Fold	Sinistral folding, S1 fabric, tight folds, counter clockwise rotation indicating shear sense as sinistral. Large clasts interfering with folding making resemblance of dextral folds
210	SYL	2021-06-14	5287479	362483	3	52	Clastic Sedimentary	Fold	Conglomerate. Clasts not as easily viable as surrounding outcrop . Highly oxidized. S folds seen. Sinistral
211	SYL	2021-06-14	5287477	362488	288	51	Intermediate Volcanic	Foliation	
212	SYL	2021-06-14	5287395	362380	288	58	Clastic Sedimentary	Foliation	Not as foliated as surrounding outcrop
213	SYL	2021-06-14	5287339	362372	291	0	Porphyry Intrusive	Foliation	Mafic composition, area of outcrop is weak to moderately foliated. No dip collected.
214	SYL	12:00:00 AM	5287295	362357	277	55	Intermediate Volcanic	Foliation	Intermediate volcanic, strong foliation.

OBJECTID	Project	Date	Northing	Easting	Azimuth	Dip	Lithology	Structure Type	Comments
215	SYL	2021-06-14	5295914	364477	260	0	Porphyry Intrusive	Contact	Mafic porphyry in contact with mafic volcanics
216	SYL	2021-06-14	5295760	364312	275	80	Mafic Volcanic	Foliation	
217	SYL	2021-06-14	5295759	364311	10	45	Mafic Volcanic	Fold	Fold axis- late folding
218	SYL	2021-06-14	5295724	364217	285	70	Intermediate Volcanic	Foliation	S2 foliation overprinted s1/s0
219	SYL	2021-06-14	5295685	364285	290	50	Intermediate Volcanic	Foliation	S2 foliations , sinistral motion
220	SYL	2021-06-12	5297181	363767	250	57	Porphyry Intrusive	Foliation	S2 Foliation . Porphyry but silicified/QFP
221	SYL	2021-06-14	5286528	364513	270	70	Intermediate Volcanic	Foliation	
222	SYL	2021-06-14	5286566	364575	290	74	Felsic Intrusive		
223	SYL	2021-06-14	5286506	364986	250	70		Foliation	Quartz vein in schist
224	SYL	12:00:00 AM	5291777	353217	289	80	Chemical Sedimentary	Foliation	Difficult to tell the lithology. Could be intermediate volcanic. Banded interstices of mafic and felsic comps. Very fine grained mylonitic texture. Strong foliation.
225	SYL	2021-06-15	5291957	352359	190	55	Intermediate Volcanic	Foliation	
226	SYL	2021-06-15	5291966	352367	160	53		Foliation	
227	SYL	2021-06-15	5291913	354505	306	72	Mafic Volcanic	Foliation	
228	SYL	2021-06-15	5295064	364341	290	90		Foliation	Moderate to strong foliation in altered QFP, sericite-quartz schist
229	SYL	2021-06-15	5295209	364641	278	65	Mafic Volcanic	Foliation	Weakly foliated
230	SYL	2021-06-15	5295209	364640	255	70	Mafic Volcanic	Foliation	Two fabrics seen but do not see good cross cutting to establish s1 and s2
231	SYL	2021-06-15	5294924	364527	280	76	Porphyry Intrusive	Foliation	Good foliation, fracture controlled iron oxide alteration. CS fabric seen, Trend 250, dextral cannot take a plunge
232	SYL	2021-06-15	5295019	364396	100	80		Foliation	Late quartz chlorite vein on porphyry 275 strike with steep dip. heavily sheared. SC fabric 90/70 dextral. Trend crossing the shearing fabric.
233	SYL	2021-06-16	5289708	359475	290	71	Clastic Sedimentary	Foliation	Unmineralized
234	SYL	2021-06-17	5288449	370368	248	74	Mafic Volcanic	Foliation	

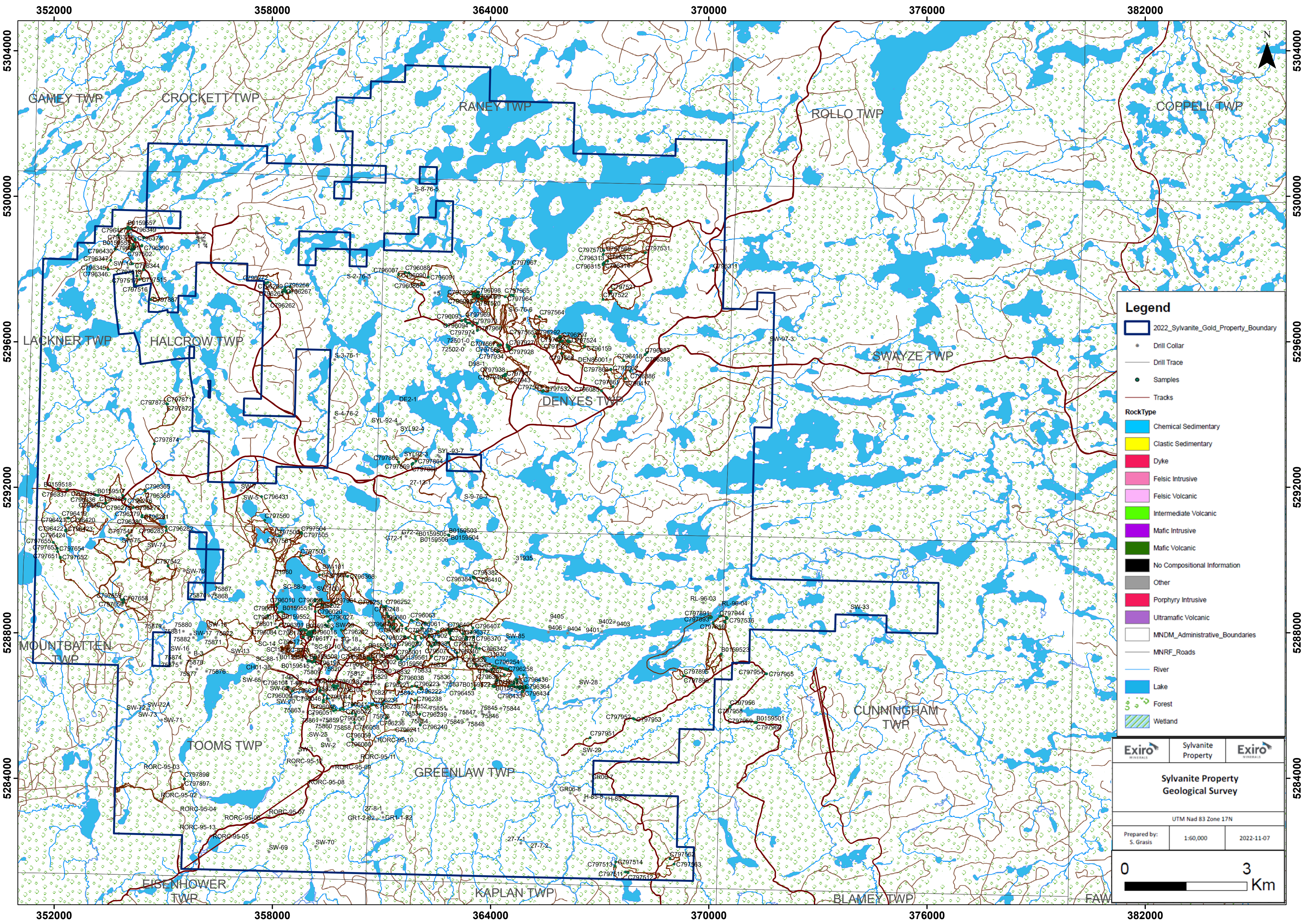
OBJECTID	Project	Date	Northing	Easting	Azimuth	Dip	Lithology	Structure Type	Comments
235	SYL	2021-06-17	5288448	370303	242	64	Mafic Volcanic	Foliation	
236	SYL	2021-06-17	5288241	370123	200	54	Intermediate Volcanic	Fold	
237	SYL	2021-06-17	5288466	370356	170	58	Mafic Volcanic	Fold	Fold axis. Sinistral folding throughout outcrop.
238	SYL	2021-06-17	5288343	370167	236	50	Mafic Volcanic	Fold	Fold axis
239	SYL	2021-06-17	5288342	370169	262	84	Mafic Volcanic	Foliation	
240	SYL	2021-06-17	5288085	370336	250	70	Clastic Sedimentary	Foliation	Highly foliated and sheared.
241	SYL	2021-06-17	5288466	370353	240	75	Intermediate Volcanic	Foliation	Mafic to intermediates protolith. Good Foliation, s2. Dextral Quartz intrusion folding as well as sinistral S fold within host rock. Sheared and tight fold bands. Small quartz veinlets present running perpendicular to foliation, late brittle fracture filling
242	SYL	12:00:00 AM	5288457	370336	240	68	Intermediate Volcanic		Moderately foliated. Sheared.
243	SYL	2021-06-17	5288463	370310	240	60	Mafic Volcanic	Foliation	
244	SYL	2021-06-17	5288307	370151	250	0		Foliation	Dip unable to take
245	SYL	2021-06-17	5288292	370105	252	0		Foliation	No dip taken
246	SYL	2021-06-17	5288230	370123	200	55	Intermediate Volcanic	Fold	
247	SYL	2021-06-17	5288230	370124	250	85	Intermediate Volcanic	Foliation	Highly foliated, tight foliation and fold banding
248	SYL	2021-06-17	5288229	370125	194	0	Intermediate Volcanic	Glacial Striation	Three glacial striation parallel to one another
249	SYL	2021-06-17	5287125	363592	300	64	Clastic Sedimentary	Foliation	Varies slightly in outcrop
250	SYL	2021-06-17	5287435	363500	290	64	Intermediate Volcanic	Foliation	Entire outcrop is weakly crenulated, intermediate schist, not sure of original rock type
251	SYL	2021-06-17	5287435	363500	25	79	Intermediate Volcanic	Crenulation	Entire outcrop is weakly crenulated, intermediate schist, not sure of original rock type, crenulation dips west steeply varies between 25-50 degrees?

OBJECTID	Project	Date	Northing	Easting	Azimuth	Dip	Lithology	Structure Type	Comments
252	SYL	2021-06-17	5287647	363454	280	56	Intermediate Volcanic	Shear	Serpentinized fractures, greasy black green with grey sheared intermediate
253	SYL	2021-06-17	5287631	370583	235	0	Mafic Volcanic	Bedding	Pillows
254	SYL	12:00:00 AM	5287675	370589	275	80	Mafic Volcanic	Foliation	S2 Foliation - Most likely pillow bedding
255	SYL	2021-06-17	5287678	370587	222	80	Mafic Intrusive	Foliation	S3 Foliation
256	SYL	2021-06-17	5287694	370595	258	0	Mafic Volcanic	Bedding	S0/S1 Pillows
257	SYL	2021-06-17	5287692	370595	235	0	Mafic Volcanic	Foliation	S3
258	SYL	2021-06-17	5288101	370450	65	88	Clastic Sedimentary	Bedding	S0/S1 bedding/foliation
259	SYL	2021-06-17	5288106	370459	265	0	Clastic Sedimentary	Foliation	S2
260	SYL	2021-06-17	5288101	370443	225	0	Clastic Sedimentary	Foliation	S3 Steep Dip
261	SYL	2021-06-17	5288115	370440	65	73	Clastic Sedimentary	Foliation	S0/S1 Bedding/Foliation
262	SYL	2021-06-17	5288148	370464	72	75	Clastic Sedimentary	Foliation	S0/S1
263	SYL	2021-06-17	5288149	370467	215	0	Clastic Sedimentary	Foliation	S3 steep dipping
264	SYL	2021-06-17	5288155	370460	335	0	Clastic Sedimentary	Foliation	S-Kink Folds of S4 direction strike of cleavage
265	SYL	2021-06-17	5288152	370463	150	65	Clastic Sedimentary	Foliation	Fold Axis of S4. S-Kink Fold
266	SYL	2021-06-17	5288164	370488	70	75	Clastic Sedimentary	Bedding	S0/S1 foliation/bedding
267	SYL	2021-06-17	5288221	370460	65	65	Mafic Volcanic	Foliation	S0/S1 Foliation.
268	SYL	2021-06-17	5288222	370453	230	38	Mafic Volcanic	Fold	Fold Axis
269	SYL	2021-06-17	5288217	370459	235	0	Mafic Volcanic	Foliation	S3 Steep dip
270	SYL	2021-06-18	5299135	354064	300	80	Felsic Volcanic	Shear	Dip steep, not sure exactly as outcrop is weathered
271	SYL	2021-06-19	5288101	362831	273	65	Intermediate Volcanic	Foliation	
272	SYL	2021-06-19	5288142	363516	285	42	Mafic Intrusive	Foliation	
273	SYL	2021-06-20	5289514	363546	289	63	Mafic Intrusive	Contact	Possibly moved outcrop, hard to tell
274	SYL	2021-06-20	5289502	363553	288	66		Shear	Weakly-moderately sheared across 1 m
275	SYL	2021-06-20	5289520	363534	290	63	Mafic Intrusive	Foliation	Shaft
276	SYL	2021-06-19	5289254	352678	134	85	Mafic Volcanic	Foliation	Dips a tiny bit south. Foliation taken from thin layer of sediments between mafic layers.
277	SYL	2021-06-19	5289253	352679	52	62	Mafic Volcanic	Fold	Fold axis
278	SYL	2021-06-19	5289251	352677	256	66	Mafic Volcanic	Fold	Axial plane

OBJECTID	Project	Date	Northing	Easting	Azimuth	Dip	Lithology	Structure Type	Comments
279	SYL	2021-06-19	5289255	352677	178	26	Mafic Volcanic	Fold	Fold axis
280	SYL	2021-06-19	5289255	352677	194	65	Mafic Volcanic	Fold	Axial plane. This fold is likely later than other one immediately south-east
281	SYL	2021-06-19	5289464	352335	174	75	No Compositional Information	Foliation	
282		2021-06-19	5290038	352181	304	85	Mafic Volcanic	Foliation	
283	SYL	2021-06-19	5290161	352136	146	72		Foliation	
284	SYL	12:00:00 AM	5290157	352130	204	0	Mafic Intrusive	Glacial Striation	
285	SYL	2021-06-19	5290210	352114	124	58		Foliation	
286	SYL	2021-06-19	5290298	352089	94	16	Mafic Volcanic	Fold	Fold axis
287	SYL	2021-06-19	5290293	352088	96	63	Mafic Volcanic	Fold	Axial plane
288	SYL	2021-06-19	5290336	352078	136	62	Mafic Volcanic	Foliation	Fold hinge
289	SYL	2021-06-19	5290487	351989	85	80	Mafic Volcanic	Foliation	
290	SYL	2021-06-20	5288706	354047	272	85	Mafic Volcanic	Foliation	
291	SYL	2021-06-20	5288799	353988	268	45	Mafic Intrusive	Foliation	
292	SYL	2021-06-20	5288849	353890	280	38	Mafic Intrusive	Foliation	
293	SYL	12:00:00 AM	5292803	362012	15	0	Felsic Volcanic	Glacial Striation	
294	SYL	2021-06-20	5289842	355130	295	0			Very steep dip, low confidence in measurements
295	SYL	2021-06-19	5291446	354069	218	0	Dyke	Glacial Striation	Running NW-SE conforming to regional ice direction
296	SYL	2021-06-19	5291443	354080	289	0	Mafic Volcanic	Foliation	Steeply dipping
297	SYL	2021-06-19	5290671	354002	320	80	Intermediate Volcanic	Foliation	
298	SYL	2021-06-19	5290889	354197	290	82	Intermediate Volcanic	Foliation	
299	SYL	2021-06-20	5294160	355148	358	80	Clastic Sedimentary	Fold	
300	SYL	2021-06-18	5294950	367244	340	70	Mafic Volcanic	Foliation	Weak foliation in fine-grained to medium-grained mafic volcanic
301	SYL	2021-06-18	5295237	367313	280	40	Felsic Volcanic	Foliation	Weak to moderate foliation
302	SYL	12:00:00 AM	5288817	353896	284	42	Mafic Intrusive	Foliation	gabbro
303	SYL	2021-06-22	5294990	367701	235	73	Intermediate Volcanic	Foliation	
304	SYL	2021-06-22	5297767	362166	236	52	Porphyry Intrusive	Foliation	Early foliation
305	SYL	2021-06-22	5297766	362165	268	71	Porphyry Intrusive	Foliation	Late, Quartz filled foliation
306	SYL	2021-06-22	5297767	362165	252	76	Porphyry Intrusive	Foliation	Chlorite foliation controlled veinlets

OBJECTID	Project	Date	Northing	Easting	Azimuth	Dip	Lithology	Structure Type	Comments
307	SYL	2021-06-22	5297780	362119	264	68	Mafic Volcanic	Foliation	Sheared
308	SYL	2021-06-22	5297777	362054	259	60		Foliation	
309	SYL	2021-06-22	5297346	362015	264	52	Intermediate Volcanic	Foliation	
310	SYL	2021-06-22	5297167	362187	274	63	Mafic Volcanic	Boudinage	Epidote boudinage. Dextral Shear sense. Asymmetrical fragment. Seen in multiple locations on outcrop.
311	SYL	2021-06-22	5297172	362198	285	48	Mafic Volcanic	Lineation	
312	SYL	2021-06-23	5291162	352375	110	36	Mafic Volcanic	Foliation	Dipping south, hard to find a good face to read dip
313	SYL	2021-06-23	5287530	370137	246	0	Clastic Sedimentary	Foliation	Weak foliation cannot measure dip. Sediment
314	SYL	2021-06-23	5287848	370131	53	68	Clastic Sedimentary	Foliation	Moderate confidence on dip
315	SYL	2021-06-23	5287993	370014	72	66	Mafic Volcanic	Foliation	Rocks dip south.
316	SYL	2021-06-23	5287949	370088	89	80	Mafic Volcanic	Foliation	Very Fine grained mafic volcanic. Difficult to constrain level of shearing. (Hard to get outcrop). Low is my estimate.
317	SYL	2021-06-24	5299116	354016	247	0	Felsic Volcanic	Crenulation	230, 247/ dip north axial plane, 275/62 fold hinge
318	SYL	2021-06-25	5283696	355564	269	84	Intermediate Volcanic	Foliation	
319	SYL	2021-06-25	5283844	355522	258	47	Mafic Volcanic	Fold	
320	SYL	2021-06-25	5283846	355525	282	0	Mafic Volcanic	Contact	Contact between felsic intrusion and mafic volcanic- felsic is fine to medium grained and fine grained volcanics highly sheared
321	SYL	2021-06-25	5299096	354091	300	61	Chemical Sedimentary	Foliation	
322	SYL	2021-06-26	5286574	364632	285	36	Intermediate Volcanic	Foliation	Very shallow dip. Strong fuchsite on the foliation plane
323	SYL	12:00:00 AM	5286577	364634	270	46	Intermediate Volcanic	Foliation	Quartz vein orientation 270/46. Fuchsite seen in foliation surface
324	SYL	2021-06-26	5286651	364563	270	71	Intermediate Volcanic	Foliation	Vein orientation
325	SYL	2021-06-26	5286573	364500	280	70	Felsic Volcanic	Foliation	
326	SYL	12:00:00 AM	5286642	364454	265	61	Intermediate Volcanic	Foliation	

OBJECTID	Project	Date	Northing	Easting	Azimuth	Dip	Lithology	Structure Type	Comments
327	SYL	2021-06-26	5286694	364184	280	71	Mafic Volcanic	Foliation	
328	SYL	12:00:00 AM	5286896	364566	281	66	Clastic Sedimentary	Foliation	
329	SYL	2021-06-25	5283860	355511	264	77	Mafic Volcanic	Foliation	
330	SYL	2021-08-09	5287559	360988	294	70	Mafic Volcanic	Foliation	
331	SYL	2021-08-09	5287586	360987	304	52	Intermediate Volcanic	Foliation	
332	SYL	2021-08-10	5290635	362890	274	78	Clastic Sedimentary	Foliation	
333	SYL	2021-08-12	5288045	358981	312	50	Intermediate Volcanic	Foliation	
334	SYL	2021-05-27	5285534	371312	136	44	Other	Bedding	
335	SYL	2021-08-15	5287196	358982	302	68	Mafic Volcanic	Foliation	
336	SYL	2021-08-18	5298689	354173	260	58	Mafic Volcanic	Foliation	
337	SYL	2021-08-18	5299146	354043	300	60		Foliation	
338	SYL	2021-08-18	5299146	354043	288	60			
339	SYL	12:00:00 AM	5297113	357933	300	78	Clastic Sedimentary	Foliation	
340	SYL	2021-08-19	5297131	357945	296	72	Clastic Sedimentary	Foliation	
341	SYL	2021-08-19	5297222	357952	270	60	Clastic Sedimentary	Foliation	
342	SYL	2021-08-18	5298776	354054	278	88	Mafic Volcanic	Foliation	Nearly vertical
343	SYL	2021-08-19	5291802	353138	111	87	Clastic Sedimentary	Foliation	Overtured due to ductile deformation
344	SYL	2021-08-19	5291827	353015	130	83	Clastic Sedimentary	Foliation	
345	SYL	2021-08-19	5291902	352304	341	51	Intermediate Volcanic	Fold	Fold axis trend and plunge
346	SYL	2021-08-21	5286527	364100	268	56	Intermediate Volcanic	Foliation	
347	SYL	12:00:00 AM	5286527	364089	268	58	Mafic Volcanic	Foliation	



Legend

- 2022_Sylvanite_Gold_Property_Boundary
- Drill Collar
- Drill Trace
- Samples
- Tracks

RockType

- Chemical Sedimentary
- Clastic Sedimentary
- Dyke
- Felsic Intrusive
- Felsic Volcanic
- Intermediate Volcanic
- Mafic Intrusive
- Mafic Volcanic
- No Compositional Information
- Other
- Porphyry Intrusive
- Ultramafic Volcanic
- MNM Administrative Boundaries
- MNRF Roads
- River
- Lake
- Forest
- Wetland

	Sylvanite Property	
Sylvanite Property Geological Survey		
UTM Nad 83 Zone 17N		
Prepared by: S. Grasis	1:60,000	2022-11-07
0		3 Km

352000

358000

364000

370000

376000

382000



5304000

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














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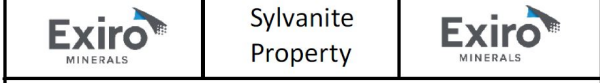
370000

376000

382000

Legend

-  Quartz vein
 -  Fold-bedding form line
 -  Fold axial trace
 -  Late, brittle to brittle-ductile faults and shear zones
 -  Early, ductile shear zones
 -  Cataclasite
 -  Diabase
 -  Carbonae altered mafic to ultramafic volcanics
 -  Gneissic Granite
 -  Felsic intrusive
 -  Altered felsic porphyry (?) intrusive
 -  Porphyry intrusive
 -  Mafic intrusive
 -  Iron formation
 -  Clastic metasediments
 -  Conglomerate
 -  Felsic to intermediate volcanics
 -  Intermediate volcanics
 -  Mafic to intermediate volcanics
 -  Sheared mafic to ultramafic volcanics
 -  Mafic volcanics
 -  Sheared ultramafic volcanics
 -  Sheared ultramafic intrusive/volcanic
 -  Ultramafic intrusive/volcanic
- Outcrop**
-  Chemical Sedimentary
 -  Clastic Sedimentary
 -  Dyke
 -  Felsic Intrusive
 -  Felsic Volcanic
 -  Intermediate Volcanic
 -  Mafic Intrusive
 -  Mafic Volcanic
 -  Porphyry Intrusive
 -  Ultramafic Volcanic
- Structures**
-  Crenulation
 -  Fold
 -  Foliation
 -  Glacial Striation
 -  Lineations
 -  Shear Zone



Sylvanite Property Geological Interpretation

UTM Nad 83 Zone 17N
Prepared by: S. Grasis 1:60,000 2022-11-07





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Plus Appendix Pages
Finalized Date: 7-JUL-2021
This copy reported on
19-JUL-2021
Account: CGAKUT

CERTIFICATE SD21162424

Project: Sylvanite Gold

This report is for 50 samples of Rock submitted to our lab in Sudbury, ON, Canada on 21-JUN-2021.

The following have access to data associated with this certificate:

JOSHUA BAILEY
SYDNEY RAMNATH

KYLIE COVENTRY

ROB JONES

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-32	Pulverize 1000g to 85% < 75 um
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
LOG-21	Sample logging - ClientBarCode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP61a	High Grade Four Acid ICP-AES	ICP-AES
Au-AA26	Ore Grade Au 50g FA AA finish	AAS

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Saa Traxler, General Manager, North Vancouver



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Project: Sylvanite Gold

CERTIFICATE OF ANALYSIS SD21162424

Sample Description	Method Analyte Units LOD	WEI-21	CRU-QC	PUL-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass2mm %	Pass75um %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
C797901		0.28	83.7	96.4	<0.01	<1	0.99	<50	100	<10	<20	0.24	<10	<10	70	10
C797902		1.03		90.6	<0.01	<1	0.06	<50	<50	<10	<20	0.65	<10	<10	50	10
C797903		1.37			<0.01	<1	0.20	<50	<50	<10	<20	0.38	<10	<10	60	<10
C797904		1.21			0.02	1	0.05	<50	<50	<10	<20	0.21	<10	<10	40	10
C797905		1.79			<0.01	<1	3.09	<50	2790	<10	<20	0.30	<10	10	70	10
C797906		1.03			<0.01	<1	2.05	<50	70	<10	<20	1.65	<10	20	140	50
C797907		1.22			<0.01	1	0.83	<50	<50	<10	<20	1.61	<10	10	50	10
C797908		1.86			<0.01	<1	0.13	<50	<50	<10	20	0.22	<10	<10	70	<10
C797909		1.12			0.01	1	1.20	<50	<50	<10	<20	3.86	<10	30	630	10
C797910		1.92			0.01	1	1.71	<50	50	<10	<20	3.07	<10	10	90	40
C797911		2.67			0.01	1	2.10	<50	50	<10	<20	0.36	<10	<10	20	10
C797912		2.12			4.55	2	0.61	<50	<50	<10	<20	3.91	<10	10	250	<10
C797913		2.45			0.01	2	1.92	<50	70	<10	20	4.01	<10	10	200	10
C797914		1.18			0.04	<1	4.40	<50	640	<10	<20	1.33	<10	10	30	10
C797915		1.17			0.07	<1	1.48	<50	<50	<10	<20	0.61	<10	<10	30	<10
C797916		1.39			0.38	1	0.68	<50	80	<10	<20	0.10	<10	10	50	<10
C797917		1.50			0.11	<1	6.09	<50	680	<10	<20	6.07	<10	30	30	150
C797918		1.06			0.61	1	0.78	<50	140	<10	<20	0.19	<10	10	40	20
C797919		2.05			11.40	3	4.79	320	750	<10	<20	5.22	<10	50	40	70
C797920		1.94			0.51	<1	2.80	<50	360	<10	<20	1.26	<10	10	40	20
C797921		1.09			0.14	<1	2.21	<50	250	<10	<20	0.91	<10	10	40	10
C797922		0.97			0.01	<1	1.41	<50	400	<10	20	0.09	<10	<10	40	<10
C797923		1.88			0.01	<1	3.68	<50	670	<10	<20	1.19	<10	10	40	10
C797924		0.93			0.01	<1	1.39	<50	530	<10	<20	<0.05	<10	10	30	<10
C797925		0.14			0.01	1	0.18	<50	<50	<10	<20	<0.05	<10	<10	<10	<10
C797926		2.36			6.13	2	4.81	240	850	<10	<20	5.02	<10	30	30	30
C797927		1.74			0.01	<1	0.13	<50	<50	<10	<20	0.07	<10	<10	40	10
C797928		0.93			0.01	<1	1.04	<50	120	<10	<20	<0.05	<10	10	50	<10
C797929		0.80			0.01	<1	1.91	<50	240	<10	<20	0.18	<10	<10	50	40
C797930		1.39			0.01	<1	1.86	<50	520	<10	<20	0.12	<10	10	50	<10
C797931		1.02			<0.01	<1	1.82	<50	300	<10	<20	<0.05	<10	10	50	<10
C797932		1.06			<0.01	<1	0.72	<50	70	<10	<20	0.37	<10	<10	50	<10
C797933		0.88			<0.01	<1	2.81	<50	390	<10	<20	0.18	<10	10	40	<10
C797934		1.05			0.12	<1	5.05	390	150	<10	<20	1.56	<10	30	170	20
C797935		1.47		92.6	0.01	<1	3.77	60	90	<10	<20	9.18	<10	20	110	10
C797961		2.03		87.2	<0.01	<1	4.62	<50	120	<10	<20	4.24	<10	20	10	40
C797962		2.20			<0.01	<1	5.02	<50	540	<10	<20	3.95	<10	20	100	50
C797963		2.77			<0.01	<1	1.48	<50	130	<10	<20	2.36	<10	10	160	<10
C797964		2.13		90.1	<0.01	<1	5.84	<50	140	<10	<20	6.57	<10	40	30	80
C797965		1.44	91.4	90.4	<0.01	<1	4.16	<50	500	<10	<20	0.74	<10	10	50	<10



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 Account: CGAKUT

Project: Sylvanite Gold

CERTIFICATE OF ANALYSIS SD21162424

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm
C797901		1.51	<50	0.3	<50	0.11	370	10	0.32	10	110	20	<0.05	<50	<10	100
C797902		23.5	<50	<0.1	<50	0.32	1430	<10	<0.05	<10	650	<20	0.09	<50	<10	20
C797903		0.96	<50	<0.1	<50	0.08	140	<10	0.09	<10	<50	<20	<0.05	<50	<10	10
C797904		15.10	<50	<0.1	<50	0.23	3310	<10	<0.05	10	190	<20	0.38	<50	<10	20
C797905		2.26	<50	4.2	<50	0.80	230	<10	1.20	30	750	<20	<0.05	<50	<10	330
C797906		4.66	<50	0.4	<50	0.93	1110	<10	0.40	60	120	<20	<0.05	<50	10	60
C797907		1.37	<50	0.1	<50	0.23	340	<10	0.71	30	80	<20	0.12	<50	<10	50
C797908		0.78	<50	<0.1	<50	0.13	140	10	0.06	10	<50	<20	<0.05	<50	<10	20
C797909		2.88	<50	0.2	<50	5.15	500	<10	0.24	300	<50	<20	<0.05	<50	10	150
C797910		1.81	<50	0.4	<50	1.98	470	<10	0.78	70	<50	<20	<0.05	<50	10	100
C797911		0.71	<50	0.2	<50	0.34	140	<10	5.22	40	<50	<20	<0.05	<50	<10	130
C797912		2.01	<50	0.1	<50	2.21	700	<10	0.06	80	<50	<20	<0.05	<50	<10	80
C797913		3.49	<50	0.2	<50	1.46	940	10	0.20	80	200	<20	<0.05	<50	<10	170
C797914		1.77	<50	1.2	<50	0.48	410	<10	4.12	20	640	<20	0.40	<50	<10	290
C797915		1.01	<50	0.1	<50	0.25	220	<10	2.28	<10	180	<20	0.30	<50	<10	120
C797916		2.09	<50	0.2	<50	0.07	160	10	0.58	10	80	20	1.28	<50	<10	40
C797917		9.90	<50	2.0	<50	2.32	2080	<10	0.62	40	500	<20	0.52	<50	40	240
C797918		1.48	<50	0.3	<50	0.09	860	<10	0.32	10	200	<20	0.17	<50	<10	40
C797919		10.05	<50	2.2	<50	2.02	1540	<10	0.26	50	540	80	6.97	<50	40	340
C797920		1.55	<50	0.8	<50	0.41	400	<10	3.19	10	410	<20	0.38	<50	<10	240
C797921		1.35	<50	0.5	<50	0.30	290	<10	2.41	10	290	<20	0.35	<50	<10	190
C797922		1.17	<50	1.0	<50	0.11	430	<10	2.62	10	400	<20	0.26	<50	<10	100
C797923		1.69	<50	1.3	<50	0.46	410	<10	3.52	20	580	<20	0.37	<50	<10	290
C797924		0.92	<50	1.4	<50	0.10	120	<10	3.33	10	410	<20	0.14	<50	<10	110
C797925		0.61	<50	<0.1	<50	<0.05	70	<10	0.05	<10	<50	<20	<0.05	<50	<10	10
C797926		7.07	<50	2.1	<50	1.73	1600	<10	0.47	30	400	20	3.96	<50	30	310
C797927		1.32	<50	<0.1	<50	<0.05	340	<10	<0.05	<10	<50	<20	<0.05	<50	<10	10
C797928		1.16	<50	0.4	<50	0.07	120	<10	1.30	20	140	<20	<0.05	<50	<10	30
C797929		1.37	<50	0.6	<50	0.10	230	<10	1.43	50	230	<20	<0.05	<50	<10	60
C797930		1.17	<50	1.2	<50	0.18	180	<10	4.17	20	390	<20	<0.05	<50	<10	100
C797931		1.24	<50	0.9	<50	0.06	100	<10	3.94	10	250	<20	0.06	<50	<10	60
C797932		1.25	<50	0.1	<50	0.07	330	<10	0.35	<10	50	<20	<0.05	<50	<10	30
C797933		1.35	<50	0.9	<50	0.09	190	<10	4.43	20	350	<20	<0.05	<50	<10	90
C797934		7.27	<50	0.9	<50	2.32	1710	<10	0.35	80	300	<20	0.54	<50	30	40
C797935		7.10	<50	0.3	<50	3.26	1590	<10	0.08	50	130	<20	0.05	<50	20	80
C797961		10.25	<50	0.1	<50	0.79	1720	<10	1.90	<10	800	<20	<0.05	<50	20	110
C797962		4.78	<50	0.9	<50	1.63	1030	<10	2.72	50	980	<20	0.08	<50	10	560
C797963		2.07	<50	0.4	<50	0.76	570	<10	0.12	40	140	<20	<0.05	<50	<10	120
C797964		10.05	<50	0.2	<50	2.55	2170	<10	1.51	40	550	<20	0.13	<50	30	160
C797965		1.59	<50	1.2	<50	0.42	250	<10	3.38	30	460	<20	<0.05	<50	<10	240



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 25 ADELAIDE STREET EAST
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Project: Sylvanite Gold

CERTIFICATE OF ANALYSIS SD21162424

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C797901		<50	<0.05	<50	<50	10	<50	20
C797902		<50	<0.05	<50	<50	<10	<50	<20
C797903		<50	<0.05	<50	<50	10	<50	<20
C797904		<50	<0.05	<50	<50	<10	<50	450
C797905		<50	0.25	<50	<50	60	<50	60
C797906		<50	0.10	<50	<50	130	<50	50
C797907		<50	<0.05	<50	<50	20	<50	<20
C797908		<50	<0.05	<50	<50	<10	<50	<20
C797909		<50	<0.05	<50	<50	50	<50	30
C797910		<50	<0.05	<50	<50	60	<50	<20
C797911		<50	0.07	<50	<50	10	<50	<20
C797912		<50	<0.05	<50	<50	20	<50	<20
C797913		<50	0.06	<50	<50	60	<50	50
C797914		<50	0.13	<50	<50	60	<50	30
C797915		<50	<0.05	<50	<50	10	<50	<20
C797916		<50	<0.05	<50	<50	20	<50	40
C797917		<50	0.59	<50	<50	410	<50	200
C797918		<50	0.06	<50	<50	30	<50	20
C797919		<50	0.60	<50	<50	350	<50	80
C797920		<50	0.11	<50	<50	50	<50	20
C797921		<50	0.07	<50	<50	30	<50	<20
C797922		<50	0.10	<50	<50	30	<50	30
C797923		<50	0.13	<50	<50	40	<50	30
C797924		<50	0.13	<50	<50	50	<50	20
C797925		<50	<0.05	<50	<50	<10	<50	<20
C797926		<50	0.80	<50	<50	380	<50	40
C797927		<50	<0.05	<50	<50	10	<50	<20
C797928		<50	0.05	<50	<50	50	<50	20
C797929		<50	0.07	<50	<50	80	<50	50
C797930		<50	0.12	<50	<50	50	<50	40
C797931		<50	0.10	<50	<50	60	<50	<20
C797932		<50	<0.05	<50	<50	10	<50	<20
C797933		<50	0.08	<50	<50	40	<50	30
C797934		<50	0.24	<50	<50	230	<50	50
C797935		<50	0.26	<50	<50	170	<50	50
C797961		<50	0.58	<50	<50	10	<50	170
C797962		<50	0.35	<50	<50	130	<50	80
C797963		<50	<0.05	<50	<50	40	<50	20
C797964		<50	0.59	<50	<50	360	<50	110
C797965		<50	0.17	<50	<50	40	<50	50



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CERTIFICATE OF ANALYSIS SD21162424

Sample Description	Method Analyte Units LOD	WEI-21	CRU-QC	PUL-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass2mm %	Pass75um %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
C797966		1.38		90.4	<0.01	<1	3.97	<50	730	<10	<20	1.12	<10	10	30	<10
C797967		1.56			<0.01	<1	1.89	<50	200	<10	<20	1.06	<10	<10	40	10
C797968		1.12			0.06	<1	4.25	<50	670	<10	<20	4.21	<10	20	40	60
C797969		1.70			<0.01	<1	5.05	<50	530	<10	<20	1.42	<10	10	40	<10
C797970		1.86			<0.01	<1	6.46	<50	<50	<10	<20	6.18	<10	50	200	110
C797971		1.29			<0.01	<1	3.18	<50	480	<10	<20	0.61	<10	10	40	<10
C797972		0.70			<0.01	<1	3.38	<50	350	<10	<20	0.52	<10	10	40	30
C797973		1.19			<0.01	<1	6.62	<50	220	<10	<20	9.01	<10	50	200	110
C797974		2.29		88.6	0.01	<1	4.72	<50	430	<10	<20	1.50	<10	10	40	<10
C797975		0.13			<0.01	<1	0.18	<50	<50	<10	<20	<0.05	<10	<10	10	<10

***** See Appendix Page for comments regarding this certificate *****



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CERTIFICATE OF ANALYSIS SD21162424

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Fe	Ga	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
		%	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
		0.05	50	0.1	50	0.05	10	10	0.05	10	50	20	0.05	50	10	10
C797966		2.15	<50	0.9	<50	0.60	420	<10	4.17	20	750	<20	<0.05	<50	<10	400
C797967		1.20	<50	0.5	<50	0.27	230	<10	0.73	10	130	<20	<0.05	<50	<10	200
C797968		6.24	<50	1.4	<50	1.52	1540	<10	2.33	30	470	<20	0.08	<50	10	260
C797969		1.61	<50	1.4	<50	0.41	410	<10	3.70	20	440	<20	0.05	<50	<10	200
C797970		10.60	<50	<0.1	<50	3.45	2360	<10	0.84	120	260	<20	0.11	<50	30	200
C797971		1.33	<50	1.5	<50	0.40	280	<10	3.96	20	420	<20	<0.05	<50	<10	190
C797972		1.41	<50	1.1	<50	0.47	220	<10	3.92	30	380	<20	<0.05	<50	<10	140
C797973		9.18	<50	0.5	<50	2.99	1890	<10	1.36	110	300	<20	0.27	<50	40	270
C797974		1.88	<50	0.9	<50	0.72	340	<10	4.21	30	440	<20	0.09	<50	<10	370
C797975		1.80	<50	0.1	<50	<0.05	200	<10	0.05	10	<50	<20	<0.05	<50	<10	10

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CERTIFICATE OF ANALYSIS SD21162424

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C797966		<50	0.18	<50	<50	60	<50	60
C797967		<50	<0.05	<50	<50	20	<50	30
C797968		<50	0.47	<50	<50	230	<50	70
C797969		<50	0.16	<50	<50	40	<50	60
C797970		<50	0.61	<50	<50	320	<50	90
C797971		<50	0.15	<50	<50	40	<50	30
C797972		<50	0.11	<50	<50	50	<50	40
C797973		<50	0.63	<50	<50	330	<50	80
C797974		<50	0.11	<50	<50	40	<50	50
C797975		<50	<0.05	<50	<50	<10	<50	<20



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CERTIFICATE OF ANALYSIS SD21162424

CERTIFICATE COMMENTS																
	<p style="text-align: center;">LABORATORY ADDRESSES</p> <p>Processed at ALS Sudbury located at 1351-B Kelly Lake Road, Unit #1, Sudbury, ON, Canada.</p> <table><tr><td>Applies to Method:</td><td>CRU-31</td><td>CRU-QC</td><td>LOG-21</td><td>PUL-32</td></tr><tr><td></td><td>PUL-QC</td><td>SPL-21</td><td>WEI-21</td><td></td></tr></table> <p>Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.</p> <table><tr><td>Applies to Method:</td><td>Au-AA26</td><td>ME-ICP61a</td><td></td><td></td></tr></table>	Applies to Method:	CRU-31	CRU-QC	LOG-21	PUL-32		PUL-QC	SPL-21	WEI-21		Applies to Method:	Au-AA26	ME-ICP61a		
Applies to Method:	CRU-31	CRU-QC	LOG-21	PUL-32												
	PUL-QC	SPL-21	WEI-21													
Applies to Method:	Au-AA26	ME-ICP61a														



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This copy reported on
29-JUL-2021
Account: CGAKUT

CERTIFICATE SD21164995

Project: Sylvanite Gold

This report is for 69 samples of Rock submitted to our lab in Sudbury, ON, Canada on 28-JUN-2021.

The following have access to data associated with this certificate:

JOSHUA BAILEY

SYDNEY RAMNATH

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-32	Pulverize 1000g to 85% < 75 um
LOG-21	Sample logging - ClientBarCode
LOG-23	Pulp Login - Rcvd with Barcode
PUL-QC	Pulverizing QC Test
CRU-QC	Crushing QC Test

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA26	Ore Grade Au 50g FA AA finish	AAS
ME-ICP61a	High Grade Four Acid ICP-AES	ICP-AES

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Saa Traxler, General Manager, North Vancouver



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CERTIFICATE OF ANALYSIS SD21164995

Sample Description	Method Analyte Units LOD	WEI-21	PUL-QC	CRU-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass75um %	Pass2mm %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
C796386		0.66	88.6	70.5	<0.01	<1	5.32	<50	540	<10	<20	1.75	<10	10	60	20
C796387		0.88	90.5		<0.01	<1	2.12	<50	3530	<10	<20	10.10	<10	30	100	50
C796388		0.62			<0.01	<1	5.04	<50	1020	<10	<20	7.15	<10	20	230	50
C796389		0.92			<0.01	<1	6.21	<50	<50	<10	<20	5.32	<10	50	340	100
C796390		0.70			0.08	3	5.55	130	110	<10	<20	1.02	<10	30	120	660
C796391		1.15			0.25	3	6.32	80	120	<10	<20	1.80	<10	190	110	2820
C796392		0.49			0.29	9	5.08	200	190	<10	<20	0.86	<10	210	110	2440
C796393		0.80			0.01	<1	2.44	<50	50	<10	<20	0.90	<10	30	70	270
C796394		0.70			<0.01	<1	4.15	<50	390	<10	<20	2.48	<10	20	30	40
C796395		0.67			<0.01	<1	5.56	<50	290	<10	<20	1.34	<10	30	30	50
C796396		0.57			<0.01	<1	3.17	<50	1110	<10	<20	0.33	<10	10	30	310
C796397		0.81			<0.01	<1	1.04	<50	190	<10	<20	0.17	<10	10	30	60
C796398		0.62			0.01	<1	3.57	<50	500	<10	<20	0.21	<10	10	20	150
C796417		1.15			<0.01	<1	5.30	<50	160	<10	<20	2.16	<10	30	10	<10
C796418		0.89			<0.01	<1	1.85	<50	240	<10	<20	0.14	<10	10	50	20
C796419		1.17			<0.01	<1	3.60	<50	<50	<10	<20	3.21	<10	30	30	200
C796420		0.88			<0.01	<1	1.21	<50	<50	<10	<20	0.61	<10	10	30	60
C796421		0.85			<0.01	<1	6.83	<50	<50	<10	<20	6.07	<10	50	40	140
C796422		0.93			<0.01	<1	4.94	<50	50	<10	<20	2.95	<10	70	110	420
C796423		0.73			<0.01	<1	4.91	<50	<50	<10	<20	3.11	<10	30	140	20
C796424		0.83			<0.01	1	3.18	<50	110	<10	<20	1.92	<10	20	70	20
C796425		0.07			2.31	<1	4.57	490	630	<10	<20	0.61	<10	20	140	30
C796426		1.09			<0.01	<1	1.64	<50	<50	<10	<20	0.16	<10	10	40	10
C796427		0.95			0.39	<1	5.58	<50	420	<10	130	0.11	<10	10	230	60
C796428		1.02		86.3	0.06	1	4.87	<50	50	<10	<20	1.89	<10	40	240	20
C796429		0.47			<0.01	<1	4.20	<50	180	50	<20	1.95	<10	100	710	100
C796430		1.06			0.05	<1	7.93	<50	140	<10	<20	2.20	<10	60	220	200
C796431		0.91			<0.01	1	1.30	<50	90	<10	<20	1.91	<10	10	50	20
C796432		1.11			0.01	<1	1.76	370	<50	<10	<20	5.06	<10	70	1850	10
C796433		1.23			0.44	2	2.44	<50	<50	<10	<20	3.87	<10	30	40	150
C796434		0.74			0.03	<1	2.69	<50	90	<10	<20	0.60	<10	10	40	10
C796435		0.96			0.04	<1	2.07	<50	60	<10	<20	0.27	<10	<10	40	<10
C796436		1.03			0.02	1	3.75	80	90	<10	<20	11.85	<10	20	80	40
C797543		1.03			0.07	<1	6.89	<50	130	<10	<20	5.42	<10	40	210	170
C797544		0.72			0.01	<1	2.31	<50	<50	<10	<20	2.29	<10	20	90	70
C797545		0.73			0.08	1	4.68	<50	70	<10	<20	0.98	<10	60	300	440
C797546		1.14			0.25	<1	2.75	<50	70	<10	<20	0.76	<10	10	20	40
C797547		1.42			0.16	1	3.14	<50	70	<10	<20	0.76	<10	10	30	30
C797660		0.95	92.0		0.96	<1	5.72	<50	360	<10	20	1.31	<10	40	230	40
C797661		1.06	89.2	84.1	0.56	1	2.12	80	130	<10	<20	4.34	<10	30	370	50



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Project: Sylvanite Gold

CERTIFICATE OF ANALYSIS SD21164995

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm
		0.05	50	0.1	50	0.05	10	10	0.05	10	50	20	0.05	50	10	10
C796386		1.80	<50	1.6	<50	0.64	280	<10	3.05	40	350	<20	<0.05	<50	<10	260
C796387		5.42	<50	0.6	<50	3.06	1510	<10	0.54	110	570	<20	0.09	<50	10	540
C796388		4.56	<50	2.7	<50	2.05	1010	<10	0.41	130	1490	<20	<0.05	<50	10	270
C796389		8.08	<50	<0.1	<50	3.50	1210	<10	2.13	180	390	<20	0.14	<50	30	90
C796390		9.46	<50	0.3	<50	2.03	740	<10	2.00	110	310	<20	0.26	<50	40	70
C796391		9.48	<50	0.3	<50	2.84	1210	<10	2.24	180	340	<20	1.22	<50	30	80
C796392		10.40	<50	0.5	<50	1.53	630	<10	1.98	490	450	20	2.81	<50	30	70
C796393		3.89	<50	0.2	<50	1.19	610	<10	0.79	90	160	<20	<0.05	<50	10	40
C796394		5.46	<50	0.9	<50	1.52	880	10	2.41	40	830	<20	0.22	<50	10	220
C796395		6.53	<50	1.5	<50	1.37	1000	<10	1.38	60	740	<20	0.27	<50	10	100
C796396		4.25	<50	2.2	<50	0.22	250	<10	0.60	10	280	<20	2.45	<50	10	70
C796397		1.53	<50	0.4	<50	0.07	160	<10	0.21	<10	90	<20	0.12	<50	<10	20
C796398		3.32	<50	1.6	<50	0.16	90	<10	2.28	10	320	<20	1.06	<50	<10	150
C796417		9.41	<50	0.5	<50	0.88	1150	<10	2.02	<10	1140	<20	<0.05	<50	20	80
C796418		1.30	<50	0.6	<50	0.33	160	<10	2.16	20	460	<20	<0.05	<50	<10	90
C796419		6.36	<50	0.1	<50	1.59	900	<10	1.15	30	160	<20	<0.05	<50	20	40
C796420		1.77	<50	0.1	<50	0.22	220	<10	0.68	10	190	<20	<0.05	<50	<10	40
C796421		11.55	<50	0.2	<50	3.42	1850	<10	2.02	60	480	<20	<0.05	<50	40	110
C796422		8.84	<50	0.5	<50	2.18	960	<10	3.81	100	500	<20	5.38	<50	20	110
C796423		4.31	<50	0.4	60	1.98	1000	<10	4.38	130	1820	<20	1.48	<50	10	120
C796424		1.96	<50	0.3	<50	0.77	530	<10	5.48	60	920	<20	1.06	<50	<10	110
C796425		3.67	<50	2.4	<50	1.31	320	<10	0.69	60	550	20	0.10	450	10	80
C796426		0.51	<50	0.4	<50	0.14	190	<10	6.85	40	70	<20	0.13	<50	<10	40
C796427		10.20	<50	1.9	<50	0.53	60	<10	4.09	50	220	20	4.11	<50	30	230
C796428		9.46	<50	0.2	<50	1.90	530	<10	4.47	170	270	<20	2.86	<50	20	200
C796429		13.35	<50	0.1	60	0.86	2430	<10	2.96	360	4340	40	0.08	<50	70	350
C796430		12.65	<50	0.7	<50	5.55	2290	<10	1.33	110	170	<20	0.54	<50	40	110
C796431		1.67	<50	0.3	<50	0.10	820	<10	0.24	20	180	<20	<0.05	<50	<10	80
C796432		6.42	<50	<0.1	<50	8.56	1500	<10	<0.05	680	80	<20	<0.05	<50	10	110
C796433		14.55	<50	0.1	<50	3.27	1890	<10	0.30	50	260	20	9.46	<50	10	40
C796434		1.34	<50	0.2	<50	0.59	340	<10	4.85	10	440	<20	0.23	<50	<10	250
C796435		1.27	<50	0.3	<50	0.18	320	<10	3.74	10	<50	<20	0.25	<50	<10	130
C796436		6.05	<50	0.4	<50	1.64	2810	<10	0.19	70	130	<20	0.37	<50	20	220
C797543		6.38	<50	0.9	<50	3.16	1110	<10	3.47	50	150	<20	1.27	<50	40	110
C797544		3.13	<50	0.2	<50	1.21	570	<10	0.61	30	170	<20	0.44	<50	10	70
C797545		11.25	<50	1.8	<50	2.70	770	<10	1.14	140	360	<20	4.12	<50	20	30
C797546		1.76	<50	0.1	<50	0.54	320	<10	6.79	20	550	<20	1.44	<50	<10	170
C797547		1.46	<50	0.1	<50	0.48	300	<10	5.97	10	490	<20	0.94	<50	<10	160
C797660		10.70	<50	1.8	<50	1.01	210	<10	3.99	140	250	<20	9.84	<50	30	330
C797661		6.24	<50	0.7	<50	3.66	860	<10	0.52	170	<50	<20	0.07	<50	20	170



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Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C796386		<50	0.14	<50	<50	40	<50	50
C796387		<50	0.07	<50	<50	30	<50	90
C796388		<50	0.22	<50	<50	110	<50	60
C796389		<50	0.47	<50	<50	280	<50	110
C796390		<50	0.51	<50	<50	230	<50	70
C796391		<50	0.50	<50	<50	270	<50	100
C796392		<50	0.57	<50	<50	180	<50	60
C796393		<50	0.20	<50	<50	110	<50	40
C796394		<50	0.50	<50	<50	150	<50	140
C796395		<50	0.52	<50	<50	150	<50	170
C796396		<50	0.17	<50	<50	120	<50	90
C796397		<50	0.07	<50	<50	30	<50	30
C796398		<50	0.17	<50	<50	70	<50	30
C796417		<50	0.44	<50	<50	70	<50	110
C796418		<50	0.13	<50	<50	30	<50	30
C796419		<50	0.44	<50	<50	210	<50	70
C796420		<50	0.11	<50	<50	30	<50	20
C796421		<50	0.82	<50	<50	340	<50	140
C796422		<50	0.15	<50	<50	110	<50	150
C796423		<50	0.10	<50	<50	80	<50	140
C796424		<50	<0.05	<50	<50	10	<50	50
C796425		<50	0.47	<50	<50	110	<50	100
C796426		<50	<0.05	<50	<50	10	<50	30
C796427		<50	0.19	<50	<50	270	<50	<20
C796428		<50	0.12	<50	<50	240	<50	40
C796429		120	3.31	<50	<50	490	<50	140
C796430		<50	0.65	<50	<50	370	<50	220
C796431		<50	0.08	<50	<50	30	<50	40
C796432		<50	<0.05	<50	<50	70	<50	130
C796433		<50	0.13	<50	<50	60	<50	610
C796434		<50	0.11	<50	<50	20	<50	20
C796435		<50	0.07	<50	<50	<10	<50	<20
C796436		<50	0.15	<50	<50	130	<50	70
C797543		<50	0.13	<50	<50	200	<50	60
C797544		<50	0.07	<50	<50	70	<50	30
C797545		<50	0.08	<50	<50	130	<50	200
C797546		<50	0.11	<50	<50	20	<50	<20
C797547		<50	0.11	<50	<50	20	<50	<20
C797660		<50	0.20	<50	<50	230	<50	30
C797661		<50	0.06	<50	<50	70	<50	90



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Sample Description	Method Analyte Units LOD	WEI-21	PUL-QC	CRU-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass75um %	Pass2mm %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
C797662		1.15			0.01	<1	2.48	<50	70	<10	<20	0.36	<10	<10	30	10
C797663		1.57			0.02	<1	5.35	<50	80	<10	<20	5.37	<10	20	50	10
C797875		0.12			<0.01	<1	0.34	<50	<50	<10	<20	0.06	<10	<10	10	<10
C797876		1.62			0.04	<1	4.18	<50	680	<10	<20	0.89	<10	10	30	10
C797877		1.00			0.01	<1	0.15	<50	<50	<10	<20	<0.05	<10	<10	40	<10
C797878		1.40			<0.01	<1	0.14	<50	<50	<10	<20	0.25	<10	<10	50	<10
C797879		1.17			0.16	<1	2.32	<50	470	<10	<20	0.29	<10	10	40	10
C797880		0.94			0.09	1	0.81	<50	60	<10	<20	0.12	<10	<10	40	<10
C797881		1.08			0.15	<1	1.02	<50	130	<10	<20	<0.05	<10	<10	30	<10
C797882		0.73			0.06	<1	3.56	<50	370	<10	<20	0.81	<10	10	40	10
C797883		1.53			0.01	<1	4.89	<50	50	<10	<20	7.47	<10	20	50	40
C797884		0.49			0.56	1	2.55	<50	140	<10	<20	0.61	<10	120	60	160
C797885		1.36			0.53	1	4.22	<50	390	<10	<20	0.70	<10	80	40	30
C797886		1.28			<0.01	1	1.95	<50	<50	<10	<20	1.64	<10	10	50	20
C797887		0.76			<0.01	1	0.71	<50	<50	<10	<20	0.13	<10	<10	50	<10
C797888		1.09			6.25	2	1.40	<50	160	<10	<20	2.07	<10	<10	30	20
C797889		1.26			10.10	2	0.98	<50	90	<10	<20	1.31	<10	<10	40	<10
C797890		0.76			1.79	2	0.84	<50	50	<10	<20	2.64	<10	<10	40	20
C797891		2.30			0.04	<1	0.59	<50	<50	<10	<20	1.88	<10	<10	40	<10
C797892		1.61			9.45	4	0.44	<50	<50	<10	<20	0.67	<10	<10	50	10
C797893		1.04			0.02	1	0.17	<50	<50	<10	<20	0.53	<10	<10	40	<10
C797894		1.04			0.34	2	0.48	<50	<50	<10	<20	0.92	<10	<10	50	<10
C797895		0.92			<0.01	1	5.46	<50	230	<10	<20	2.00	<10	10	60	20
C797896		0.92			<0.01	1	0.66	<50	<50	<10	<20	0.10	<10	<10	40	<10
C797897		0.70			<0.01	1	2.57	<50	200	<10	<20	0.28	<10	<10	20	10
C797898		1.05			<0.01	<1	1.73	<50	<50	<10	<20	0.91	<10	10	30	20
C797899		0.84			1.28	4	6.22	<50	140	<10	<20	4.08	<10	40	100	50
C797900		0.06			2.24	1	7.33	470	710	<10	<20	0.75	<10	10	140	30
C797950		0.07			2.23	1	7.03	450	690	<10	<20	0.72	<10	10	130	30



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		Fe	Ga	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
		%	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
		0.05	50	0.1	50	0.05	10	10	0.05	10	50	20	0.05	50	10	10
C797662		0.80	<50	0.4	<50	0.32	150	<10	5.03	20	<50	<20	<0.05	<50	<10	110
C797663		5.26	<50	0.2	<50	1.59	810	<10	2.13	70	530	<20	0.27	<50	10	310
C797875		1.64	<50	0.1	<50	<0.05	190	<10	0.12	<10	<50	<20	<0.05	<50	<10	10
C797876		1.83	<50	1.2	<50	0.39	220	<10	3.27	20	590	<20	0.51	<50	<10	230
C797877		0.54	<50	<0.1	<50	<0.05	60	<10	<0.05	<10	<50	<20	<0.05	<50	<10	10
C797878		0.69	<50	<0.1	<50	0.06	110	<10	<0.05	<10	<50	<20	<0.05	<50	<10	20
C797879		1.43	<50	1.0	<50	0.20	150	<10	2.24	20	390	<20	0.45	<50	<10	170
C797880		0.86	<50	0.2	<50	0.10	80	<10	0.12	10	60	<20	0.05	<50	<10	40
C797881		1.37	<50	0.3	<50	<0.05	160	<10	0.62	10	250	<20	<0.05	<50	<10	60
C797882		1.59	<50	0.8	<50	0.25	230	<10	4.63	20	630	<20	0.34	<50	<10	360
C797883		4.15	<50	0.1	<50	0.69	720	<10	0.87	30	130	<20	0.05	<50	10	470
C797884		3.96	<50	0.1	<50	0.82	400	<10	1.61	40	160	<20	0.57	<50	10	80
C797885		2.30	<50	0.5	<50	0.20	210	10	5.82	20	410	<20	1.25	<50	10	180
C797886		2.15	<50	<0.1	<50	0.73	380	<10	1.07	30	90	<20	<0.05	<50	10	70
C797887		1.68	<50	<0.1	<50	0.45	270	<10	0.08	10	<50	<20	<0.05	<50	<10	<10
C797888		1.49	<50	0.9	<50	0.10	300	<10	0.13	<10	70	<20	0.43	<50	<10	60
C797889		1.05	<50	0.5	<50	0.06	280	<10	0.08	<10	50	<20	<0.05	<50	<10	40
C797890		1.49	<50	0.3	<50	0.24	530	<10	<0.05	<10	<50	<20	0.08	<50	<10	10
C797891		0.70	<50	0.2	<50	0.06	270	<10	0.10	<10	60	<20	0.06	<50	<10	80
C797892		0.85	<50	0.1	<50	0.09	190	<10	0.09	<10	<50	<20	0.09	<50	<10	20
C797893		0.50	<50	<0.1	<50	<0.05	110	<10	0.09	<10	<50	<20	<0.05	<50	<10	10
C797894		1.09	<50	0.1	<50	0.16	410	<10	<0.05	<10	50	<20	<0.05	<50	<10	20
C797895		1.61	<50	0.7	<50	0.36	390	<10	3.64	10	350	<20	0.14	<50	<10	290
C797896		0.86	<50	0.1	<50	0.12	150	<10	0.33	10	90	<20	<0.05	<50	<10	<10
C797897		1.07	<50	0.6	<50	0.13	150	<10	2.73	<10	440	<20	<0.05	<50	<10	110
C797898		3.89	<50	0.1	<50	0.76	680	<10	0.22	<10	100	<20	<0.05	<50	10	<10
C797899		6.10	<50	0.8	<50	4.01	1210	<10	3.84	70	90	<20	3.70	<50	30	150
C797900		3.97	<50	2.7	<50	1.58	350	<10	0.74	60	580	<20	0.11	460	10	90
C797950		3.89	<50	2.4	<50	1.53	340	<10	0.73	60	560	<20	0.11	440	10	90



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	Analyte	Th	Ti	Tl	U	V	W	
	Units LOD	ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C797662		<50	0.05	<50	<50	20	<50	<20
C797663		<50	0.44	<50	<50	180	<50	70
C797875		<50	<0.05	<50	<50	<10	<50	<20
C797876		<50	0.17	<50	<50	50	<50	30
C797877		<50	<0.05	<50	<50	<10	<50	<20
C797878		<50	<0.05	<50	<50	<10	<50	<20
C797879		<50	0.12	<50	<50	40	<50	20
C797880		<50	<0.05	<50	<50	10	<50	<20
C797881		<50	<0.05	<50	<50	10	<50	20
C797882		<50	0.17	<50	<50	40	<50	30
C797883		<50	0.18	<50	<50	250	<50	20
C797884		<50	0.20	<50	<50	80	<50	40
C797885		<50	0.24	<50	<50	100	210	<20
C797886		<50	0.14	<50	<50	100	<50	<20
C797887		<50	<0.05	<50	<50	30	<50	20
C797888		<50	0.05	<50	<50	40	<50	20
C797889		<50	<0.05	<50	<50	20	<50	<20
C797890		<50	<0.05	<50	<50	10	<50	30
C797891		<50	<0.05	<50	<50	10	<50	<20
C797892		<50	<0.05	<50	<50	10	<50	<20
C797893		<50	<0.05	<50	<50	<10	<50	<20
C797894		<50	<0.05	<50	<50	20	<50	<20
C797895		<50	0.19	<50	<50	40	<50	30
C797896		<50	<0.05	<50	<50	10	<50	<20
C797897		<50	0.10	<50	<50	10	<50	<20
C797898		<50	0.21	<50	<50	120	<50	30
C797899		<50	0.11	<50	<50	100	<50	50
C797900		<50	0.49	<50	<50	110	<50	110
C797950		<50	0.48	<50	<50	110	<50	110



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To: EXIRO MINERALS
 25 ADELAIDE STREET EAST
 SUITE 1400
 TORONTO ON M5C 3A1

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 Finalized Date: 9-JUL-2021
 This copy reported on
 19-JUL-2021
 Account: CGAKUT

CERTIFICATE SD21158308

Project: Sylvanite Gold

This report is for 196 samples of Rock submitted to our lab in Sudbury, ON, Canada on 21-JUN-2021.

The following have access to data associated with this certificate:

JOSHUA BAILEY SYDNEY RAMNATH	KYLIE COVENTRY	ROB JONES
---------------------------------	----------------	-----------

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-21	Sample logging - ClientBarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-32	Pulverize 1000g to 85% < 75 um
PUL-QC	Pulverizing QC Test
CRU-QC	Crushing QC Test
LOG-23	Pulp Login - Rcvd with Barcode

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP61a	High Grade Four Acid ICP-AES	ICP-AES
Au-AA26	Ore Grade Au 50g FA AA finish	AAS

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.
 ***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Saa Traxler, General Manager, North Vancouver



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CERTIFICATE OF ANALYSIS SD21158308

Sample Description	Method Analyte Units LOD	WEI-21	PUL-QC	CRU-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass75um %	Pass2mm %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
C796163		0.71	96.6	87.9	0.04	1	2.51	<50	<50	<10	<20	7.34	<10	60	1110	20
C796164		1.03	93.9		0.35	<1	5.44	<50	90	<10	<20	5.82	<10	30	40	140
C796165		0.90			0.17	1	6.04	<50	90	<10	<20	4.33	<10	30	120	60
C796166		1.62			<0.01	<1	2.89	<50	<50	<10	<20	6.34	<10	40	890	<10
C796167		1.35			0.01	<1	6.19	<50	<50	<10	<20	3.53	<10	40	40	160
C796168		2.04			0.03	<1	5.47	<50	<50	<10	20	2.41	<10	40	40	260
C796169		1.64			0.11	<1	3.34	<50	90	<10	<20	6.49	<10	30	30	50
C796170		0.66			3.01	9	5.15	<50	90	<10	<20	0.23	<10	10	20	100
C796171		0.87			0.01	1	1.85	<50	70	<10	<20	17.40	<10	10	20	70
C796172		1.10			<0.01	2	5.24	<50	140	<10	<20	10.85	<10	40	30	80
C796173		0.85			0.02	1	5.67	<50	200	<10	<20	5.38	<10	50	30	160
C796174		0.95			0.07	<1	1.82	<50	<50	<10	<20	0.41	<10	20	50	10
C796175		0.07			2.25	<1	6.15	470	690	<10	<20	0.75	<10	10	140	30
C796176		1.01			0.01	<1	5.66	<50	<50	<10	<20	5.38	<10	50	30	230
C796177		2.02			0.62	3	1.90	<50	<50	<10	20	1.62	<10	30	30	470
C796178		0.94			0.02	<1	0.88	<50	<50	<10	<20	0.24	<10	10	50	30
C796179		0.97			0.11	1	5.96	<50	380	<10	<20	4.16	<10	40	30	260
C796180		0.74			0.12	1	2.23	<50	120	<10	<20	5.49	<10	10	30	120
C796181		1.34			0.12	1	5.17	<50	100	<10	<20	1.87	<10	20	40	220
C796182		0.92			0.08	1	6.38	<50	200	<10	<20	2.69	<10	40	40	90
C796183		1.07			0.63	10	5.41	<50	50	<10	<20	4.37	<10	40	30	3670
C796184		1.33			0.04	1	6.16	<50	100	<10	<20	5.06	<10	40	40	130
C796185		1.02			0.34	1	2.07	<50	120	<10	20	2.00	<10	40	40	300
C796186		1.54			0.03	1	1.07	<50	<50	<10	<20	0.29	<10	20	40	130
C796187		0.92			0.09	1	6.40	<50	60	<10	<20	4.60	<10	40	40	190
C796188		1.31			0.05	2	3.68	<50	80	<10	<20	4.52	<10	20	30	190
C796189		0.74			0.09	1	3.43	<50	210	<10	<20	6.47	<10	60	800	10
C796190		1.38			0.09	1	4.94	<50	290	<10	<20	4.19	<10	30	230	40
C796191		1.38			0.32	2	2.81	<50	90	<10	<20	10.00	<10	40	1110	10
C796192		0.73			0.25	2	5.70	<50	100	<10	<20	7.44	<10	30	150	100
C796193		1.52			0.21	1	6.95	<50	110	<10	<20	8.94	<10	40	190	60
C796194		0.83			0.38	1	2.26	<50	160	<10	<20	8.91	<10	40	1030	10
C796195		1.23			0.32	2	4.29	<50	200	<10	<20	3.17	<10	30	200	30
C796196		1.15			0.06	<1	1.37	<50	<50	<10	<20	3.28	<10	10	100	10
C796197		0.73			0.13	1	6.49	<50	100	<10	<20	6.75	<10	40	160	110
C796198		0.66			0.60	1	3.06	180	370	<10	<20	3.96	<10	20	30	10
C796199		1.03			0.01	1	5.43	<50	330	<10	<20	1.20	<10	10	30	10
C796200		0.09			<0.01	<1	0.24	<50	<50	<10	<20	0.06	<10	<10	10	<10
C796301		0.65	97.5		<0.01	1	0.83	<50	<50	<10	<20	0.28	<10	10	30	10
C796302		0.63	95.8	96.5	<0.01	1	6.71	<50	<50	<10	<20	4.50	<10	40	40	120



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 25 ADELAIDE STREET EAST
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Project: Sylvanite Gold

CERTIFICATE OF ANALYSIS SD21158308

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Fe	Ga	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
		%	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
		0.05	50	0.1	50	0.05	10	10	0.05	10	50	20	0.05	50	10	10
C796163		7.56	<50	0.2	<50	6.87	1200	10	0.43	530	<50	<20	3.46	<50	20	120
C796164		6.47	<50	0.7	<50	2.85	1270	<10	3.02	30	220	<20	2.05	<50	40	80
C796165		6.24	<50	0.8	<50	2.03	1240	<10	3.22	40	130	<20	1.67	<50	30	80
C796166		6.12	<50	0.1	<50	8.06	1250	<10	0.07	650	<50	<20	<0.05	<50	20	110
C796167		11.20	<50	0.1	<50	2.74	1440	<10	2.35	40	470	<20	0.06	<50	40	90
C796168		9.45	<50	0.1	<50	3.65	1250	<10	2.15	50	310	<20	1.09	<50	30	70
C796169		8.56	<50	0.5	<50	1.36	1260	<10	1.81	30	360	<20	3.00	<50	20	100
C796170		18.35	<50	0.2	<50	1.34	520	30	3.72	20	730	<20	1.86	<50	10	60
C796171		4.39	<50	0.4	<50	1.47	2380	<10	0.81	30	230	<20	0.14	<50	20	320
C796172		7.97	<50	0.7	<50	2.99	2150	10	2.19	90	490	<20	0.34	<50	30	240
C796173		10.70	<50	1.2	<50	4.32	1650	<10	2.09	130	380	<20	0.53	<50	30	120
C796174		3.36	<50	0.1	<50	0.40	450	<10	1.26	10	130	<20	0.98	<50	10	30
C796175		4.03	<50	2.7	<50	1.56	360	<10	0.77	60	570	20	0.11	460	10	110
C796176		11.00	<50	0.5	<50	3.51	1650	<10	2.31	30	350	<20	1.09	<50	30	100
C796177		6.21	<50	0.1	<50	0.98	500	<10	1.08	10	170	<20	3.46	<50	10	50
C796178		2.01	<50	<0.1	<50	0.26	290	<10	0.52	10	50	<20	0.30	<50	<10	20
C796179		10.55	<50	0.8	<50	2.63	1240	<10	3.65	30	390	<20	1.29	<50	40	140
C796180		4.46	<50	0.4	<50	0.92	1100	<10	1.43	10	220	<20	1.30	<50	20	120
C796181		7.79	<50	0.6	<50	1.78	750	10	3.24	30	290	<20	1.88	<50	20	100
C796182		12.20	<50	0.8	<50	2.32	1000	<10	3.74	40	440	<20	1.93	<50	40	110
C796183		11.10	<50	0.6	<50	2.39	1360	<10	3.43	30	360	<20	3.18	<50	30	120
C796184		9.83	<50	0.5	<50	2.53	1430	<10	3.51	40	370	<20	0.84	<50	30	140
C796185		6.55	<50	0.3	<50	0.28	910	<10	1.94	20	290	<20	2.68	<50	10	50
C796186		2.36	<50	0.1	<50	<0.05	450	10	0.94	<10	140	<20	0.86	<50	<10	20
C796187		10.35	<50	0.5	<50	2.32	1310	<10	3.71	30	420	<20	0.80	<50	40	120
C796188		7.00	<50	0.5	<50	1.57	1290	<10	2.08	20	280	<20	1.15	<50	20	100
C796189		5.75	<50	1.0	<50	8.76	1380	<10	0.25	370	<50	<20	1.05	<50	20	180
C796190		4.97	<50	0.8	<50	3.31	950	<10	2.19	50	160	<20	1.21	<50	30	100
C796191		6.20	<50	0.9	<50	8.50	3190	<10	0.19	580	<50	<20	2.62	<50	20	280
C796192		7.16	<50	1.0	<50	3.26	1330	<10	1.81	80	230	<20	2.37	<50	30	200
C796193		8.88	<50	0.9	<50	4.15	1690	<10	2.48	100	290	<20	1.57	<50	40	270
C796194		4.57	<50	0.7	<50	6.64	1560	<10	0.23	530	<50	<20	1.78	<50	10	280
C796195		4.67	<50	0.7	<50	3.36	730	<10	2.34	60	420	<20	1.51	<50	20	120
C796196		1.97	<50	0.1	<50	1.34	620	10	0.97	10	1930	<20	0.92	<50	10	110
C796197		7.55	<50	0.7	<50	3.54	1390	<10	2.97	90	250	<20	2.30	<50	30	190
C796198		4.92	<50	1.0	<50	1.40	1250	<10	0.75	20	140	<20	2.51	<50	20	210
C796199		2.03	<50	0.6	<50	0.68	440	<10	5.25	20	690	<20	0.07	<50	<10	330
C796200		2.39	<50	<0.1	<50	<0.05	320	<10	0.08	<10	<50	<20	<0.05	<50	<10	20
C796301		2.96	<50	0.1	<50	0.62	520	<10	0.19	10	<50	<20	0.71	<50	10	10
C796302		11.45	<50	0.1	<50	3.01	1710	<10	2.88	40	480	<20	0.11	<50	40	110



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CERTIFICATE OF ANALYSIS SD21158308

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C796163		<50	0.06	<50	<50	130	<50	100
C796164		<50	0.16	<50	<50	210	<50	50
C796165		<50	0.10	<50	<50	200	<50	70
C796166		<50	0.07	<50	<50	100	<50	110
C796167		<50	0.78	<50	<50	370	<50	100
C796168		<50	0.65	<50	<50	280	<50	140
C796169		<50	0.40	<50	<50	180	<50	50
C796170		<50	0.36	<50	<50	170	<50	60
C796171		<50	0.14	<50	50	150	<50	80
C796172		<50	0.59	<50	<50	230	<50	150
C796173		<50	0.62	<50	<50	340	<50	150
C796174		<50	0.10	<50	<50	70	<50	50
C796175		<50	0.50	<50	<50	120	<50	110
C796176		<50	0.60	<50	<50	310	<50	180
C796177		<50	0.18	<50	<50	100	<50	60
C796178		<50	<0.05	<50	<50	40	<50	40
C796179		<50	0.22	<50	<50	340	<50	120
C796180		<50	0.16	<50	<50	120	<50	50
C796181		<50	0.20	<50	<50	190	<50	100
C796182		<50	0.17	<50	<50	340	<50	140
C796183		<50	0.62	<50	<50	300	<50	130
C796184		<50	0.65	<50	<50	280	<50	120
C796185		<50	0.27	<50	<50	140	<50	40
C796186		<50	<0.05	<50	<50	20	<50	<20
C796187		<50	0.73	<50	<50	340	<50	120
C796188		<50	0.45	<50	<50	220	<50	70
C796189		<50	0.06	<50	<50	120	<50	80
C796190		<50	0.08	<50	<50	130	140	90
C796191		<50	<0.05	<50	<50	130	<50	100
C796192		<50	0.22	<50	<50	200	170	50
C796193		<50	0.25	<50	<50	260	<50	70
C796194		<50	<0.05	<50	<50	100	<50	60
C796195		<50	0.08	<50	<50	110	<50	60
C796196		<50	<0.05	<50	<50	30	6490	20
C796197		<50	0.23	<50	<50	190	<50	70
C796198		<50	0.37	<50	<50	200	<50	50
C796199		<50	0.15	<50	<50	40	<50	80
C796200		<50	<0.05	<50	<50	<10	<50	<20
C796301		<50	0.15	<50	<50	60	<50	20
C796302		<50	0.90	<50	<50	390	<50	100



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CERTIFICATE OF ANALYSIS SD21158308

Sample Description	Method Analyte Units LOD	WEI-21	PUL-QC	CRU-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass75um %	Pass2mm %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
C796303		1.11			0.01	1	1.75	<50	<50	<10	<20	18.00	<10	10	20	20
C796304		1.96			0.02	2	4.78	<50	400	<10	<20	5.96	<10	50	20	630
C796305		1.36			0.01	1	5.48	<50	50	<10	<20	6.66	<10	50	40	380
C796306		0.97			0.01	1	0.93	<50	<50	<10	20	0.96	<10	10	30	10
C796307		0.91			<0.01	<1	6.23	<50	380	<10	<20	3.04	<10	60	30	160
C796308		0.88			<0.01	<1	4.86	<50	660	<10	<20	1.77	<10	10	20	<10
C796309		0.99	91.4		<0.01	<1	6.17	<50	370	<10	<20	4.89	<10	40	20	110
C796310		1.12	92.3		<0.01	<1	6.01	<50	580	<10	<20	1.46	<10	10	60	10
C796311		0.67			<0.01	<1	4.41	<50	560	<10	<20	1.20	<10	30	300	70
C796312		0.79			<0.01	<1	5.36	<50	430	<10	<20	1.14	<10	<10	30	20
C796313		0.61			<0.01	<1	5.65	<50	1610	<10	<20	1.62	<10	<10	10	90
C796314		0.90			0.02	<1	4.47	<50	950	<10	<20	1.91	<10	<10	10	10
C796315		0.91			0.01	<1	3.52	<50	970	<10	<20	0.90	<10	<10	10	10
C796316		0.93			0.01	1	4.79	<50	860	<10	<20	1.70	<10	<10	10	<10
C796317		1.75			0.01	<1	5.31	<50	890	<10	<20	1.91	<10	<10	10	10
C796318		1.08			0.02	<1	3.52	<50	390	<10	<20	8.62	<10	30	10	110
C796319		0.88			0.02	<1	5.85	<50	370	<10	<20	5.70	<10	40	20	90
C796320		0.82			0.03	1	3.54	<50	590	<10	<20	6.88	<10	30	20	60
C796321		0.88			0.01	<1	5.57	<50	850	<10	<20	6.94	<10	40	20	110
C796322		0.91			0.01	<1	5.68	<50	520	<10	<20	1.57	<10	<10	30	10
C796323		1.15			0.01	<1	6.66	<50	360	<10	<20	5.64	<10	50	30	40
C796324		0.95			0.24	<1	5.01	<50	560	<10	<20	2.07	<10	10	30	10
C796325		0.07			2.22	<1	3.44	470	580	<10	<20	0.54	<10	10	130	30
C796326		0.88	94.6		1.55	<1	4.82	90	590	<10	<20	8.70	<10	50	20	210
C796327		1.30	89.4		0.11	1	5.79	<50	330	<10	<20	7.16	<10	40	20	70
C796328		0.68			<0.01	<1	4.79	<50	230	<10	<20	2.36	<10	30	240	70
C796329		0.73			<0.01	<1	4.25	<50	70	<10	<20	1.08	<10	10	30	20
C796330		0.67			<0.01	<1	6.38	60	430	<10	<20	0.15	<10	40	240	80
C796331		0.74			4.32	1	2.76	130	100	<10	<20	0.09	<10	40	40	300
C796332		0.84			0.67	1	4.62	120	150	<10	<20	0.11	<10	50	90	440
C796333		0.89			<0.01	<1	1.31	80	<50	<10	<20	4.47	<10	90	3590	<10
C796334		0.92			0.06	<1	0.73	<50	<50	<10	<20	1.26	<10	10	40	910
C796335		0.71			<0.01	<1	3.72	<50	180	<10	<20	2.78	<10	10	30	120
C796336		0.69			<0.01	<1	3.72	<50	120	<10	<20	1.41	<10	10	30	20
C796337		0.92			<0.01	<1	6.22	<50	210	<10	<20	3.17	<10	20	90	30
C796338		0.75			<0.01	<1	3.26	<50	430	<10	<20	0.20	<10	20	80	40
C796339		0.71			<0.01	1	4.09	<50	660	<10	<20	0.73	<10	10	50	60
C796340		0.89			0.01	1	4.78	<50	<50	<10	<20	4.86	<10	50	10	370
C796341		0.90			0.08	1	5.29	80	470	<10	<20	8.66	<10	30	190	50
C796342		0.85	85.0	73.8	<0.01	1	7.04	<50	<50	<10	<20	7.62	<10	60	50	260



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Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Fe	Ga	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
		%	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
		0.05	50	0.1	50	0.05	10	10	0.05	10	50	20	0.05	50	10	10
C796303		2.93	<50	<0.1	<50	0.54	2190	10	1.09	<10	110	<20	1.15	<50	20	260
C796304		16.75	<50	1.0	<50	1.66	2440	10	2.45	30	410	<20	5.95	<50	30	130
C796305		14.85	<50	0.1	<50	1.65	3710	<10	3.04	40	390	<20	2.35	<50	30	80
C796306		2.59	<50	<0.1	<50	0.09	570	<10	0.82	10	<50	<20	0.94	<50	<10	30
C796307		15.45	<50	0.8	<50	1.80	2060	<10	1.69	50	460	20	0.73	<50	40	130
C796308		2.27	<50	1.1	<50	0.46	540	<10	4.16	20	650	<20	0.53	<50	<10	300
C796309		10.15	<50	1.3	<50	1.87	1210	<10	1.54	40	570	20	0.23	<50	40	300
C796310		2.16	<50	1.9	<50	0.77	480	<10	2.72	50	590	<20	0.24	<50	10	200
C796311		3.58	<50	1.5	<50	1.59	450	<10	1.49	150	510	<20	0.14	<50	10	160
C796312		1.57	<50	1.1	<50	0.42	320	<10	4.14	10	400	<20	0.06	<50	<10	510
C796313		2.55	<50	2.5	50	0.43	670	<10	2.79	10	790	<20	<0.05	<50	<10	550
C796314		1.79	<50	2.1	50	0.18	630	<10	2.08	<10	750	<20	0.07	<50	<10	320
C796315		1.96	<50	1.7	50	0.25	630	<10	3.37	10	730	30	0.40	<50	<10	500
C796316		2.12	<50	1.5	50	0.39	690	<10	3.73	10	750	50	0.36	<50	<10	670
C796317		2.25	<50	1.6	50	0.43	750	<10	3.49	10	710	40	0.42	<50	<10	710
C796318		8.16	<50	1.2	<50	1.79	1680	40	0.14	40	820	<20	0.43	<50	20	360
C796319		9.52	<50	0.9	<50	2.40	2060	<10	1.42	40	570	<20	0.12	<50	40	160
C796320		8.15	<50	1.2	<50	2.03	2230	<10	0.05	20	560	20	0.42	<50	20	250
C796321		10.40	<50	1.7	<50	2.39	2560	<10	0.05	40	500	<20	0.61	<50	40	230
C796322		2.04	<50	0.9	<50	0.65	430	<10	4.73	20	670	<20	0.14	<50	<10	300
C796323		11.90	<50	1.0	<50	3.20	2040	<10	1.03	60	500	<20	0.32	<50	40	230
C796324		2.81	<50	0.9	<50	0.53	630	<10	4.01	20	600	<20	0.74	<50	10	280
C796325		3.32	<50	2.3	<50	1.18	300	<10	0.66	60	510	20	0.09	430	10	70
C796326		10.60	<50	1.4	<50	3.12	2730	40	0.39	40	860	<20	3.11	<50	30	340
C796327		10.25	<50	0.7	<50	2.25	2340	<10	2.29	40	510	<20	0.44	<50	40	330
C796328		3.98	<50	1.6	<50	2.33	940	<10	0.66	80	130	<20	<0.05	<50	20	80
C796329		1.48	<50	0.4	<50	0.51	300	<10	4.31	20	230	<20	0.12	<50	<10	150
C796330		6.46	<50	2.5	<50	1.76	870	<10	1.07	210	420	<20	<0.05	<50	20	40
C796331		9.60	<50	0.7	<50	1.05	220	<10	0.07	30	520	<20	5.42	<50	<10	<10
C796332		11.80	<50	0.8	<50	2.15	420	<10	0.08	50	700	<20	4.40	<50	10	10
C796333		5.51	<50	0.2	<50	13.25	930	<10	<0.05	1610	<50	<20	<0.05	<50	10	210
C796334		1.45	<50	0.1	<50	0.52	280	<10	0.36	20	260	<20	0.19	<50	<10	50
C796335		6.06	<50	0.4	<50	0.63	670	<10	2.56	10	280	20	0.89	<50	10	230
C796336		4.74	<50	0.3	<50	0.57	340	<10	2.09	10	630	<20	0.21	<50	<10	250
C796337		4.50	<50	0.7	<50	2.43	730	<10	3.57	100	520	<20	0.32	<50	10	330
C796338		4.14	<50	1.0	<50	1.12	520	<10	1.49	40	530	<20	<0.05	<50	10	110
C796339		2.51	<50	0.4	<50	1.29	370	<10	2.24	30	960	<20	<0.05	<50	<10	820
C796340		8.55	<50	<0.1	<50	2.37	810	<10	1.93	40	900	<20	2.87	<50	30	70
C796341		4.99	<50	1.6	<50	3.64	1240	<10	0.12	120	70	<20	<0.05	<50	30	70
C796342		8.29	<50	0.1	<50	4.77	1210	<10	1.93	100	300	<20	0.51	<50	40	180



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Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C796303		<50	0.14	<50	<50	50	<50	20
C796304		<50	0.28	<50	<50	290	<50	650
C796305		<50	0.63	<50	<50	310	<50	230
C796306		<50	0.06	<50	<50	30	<50	20
C796307		<50	0.22	<50	<50	420	<50	190
C796308		<50	0.16	<50	<50	60	<50	30
C796309		<50	0.82	<50	<50	440	<50	140
C796310		<50	0.15	<50	<50	50	<50	80
C796311		<50	0.26	<50	<50	100	<50	70
C796312		<50	0.12	<50	<50	30	<50	40
C796313		<50	0.16	<50	<50	50	<50	60
C796314		<50	0.13	<50	<50	40	<50	40
C796315		<50	0.13	<50	<50	40	<50	70
C796316		<50	0.15	<50	<50	40	<50	100
C796317		<50	0.14	<50	<50	40	<50	60
C796318		<50	0.33	<50	<50	210	<50	130
C796319		<50	0.60	<50	<50	380	<50	190
C796320		<50	0.45	<50	<50	220	<50	150
C796321		<50	0.72	<50	<50	370	<50	210
C796322		<50	0.14	<50	<50	50	<50	50
C796323		<50	0.55	<50	<50	440	<50	300
C796324		<50	0.19	<50	<50	100	<50	30
C796325		<50	0.44	<50	<50	110	<50	100
C796326		<50	0.52	<50	<50	310	<50	130
C796327		<50	0.68	<50	<50	370	<50	170
C796328		<50	0.09	<50	<50	150	<50	40
C796329		<50	0.06	<50	<50	20	<50	<20
C796330		<50	0.13	<50	<50	210	<50	80
C796331		<50	0.05	<50	<50	50	<50	80
C796332		<50	0.08	<50	<50	90	<50	160
C796333		<50	<0.05	<50	<50	60	<50	610
C796334		<50	<0.05	<50	<50	10	<50	<20
C796335		<50	0.36	<50	<50	130	<50	340
C796336		<50	0.20	<50	<50	50	<50	100
C796337		<50	0.36	<50	<50	110	<50	90
C796338		<50	0.24	<50	<50	100	<50	70
C796339		<50	0.20	<50	<50	60	<50	50
C796340		<50	0.74	<50	<50	160	<50	40
C796341		<50	0.18	<50	<50	160	<50	40
C796342		<50	0.54	<50	<50	310	<50	60



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Sample Description	Method Analyte Units LOD	WEI-21	PUL-QC	CRU-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass75um %	Pass2mm %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
C796343		0.96			0.01	1	2.54	<50	1480	<10	<20	2.21	<10	<10	20	20
C796344		0.94			0.01	<1	6.81	<50	90	<10	<20	7.54	<10	50	110	120
C796345		0.94			0.01	<1	5.76	60	680	<10	<20	1.09	<10	30	160	50
C796346		0.62			0.01	<1	5.23	80	730	<10	<20	2.92	<10	30	130	70
C796347		1.03			0.02	<1	4.17	<50	240	<10	<20	5.37	<10	30	180	80
C796348		0.60			0.06	<1	4.90	70	1110	<10	<20	0.19	<10	20	<10	60
C796349		1.23			0.02	1	2.21	<50	1000	<10	<20	0.10	<10	10	<10	50
C796350		0.10			0.01	<1	0.16	<50	<50	<10	<20	<0.05	<10	<10	10	<10
C796351		0.87			4.20	2	3.11	<50	600	<10	<20	0.37	<10	10	30	10
C796352		0.96			0.08	<1	4.55	<50	430	<10	<20	0.84	<10	<10	30	20
C796353		1.19			0.44	<1	5.29	<50	620	<10	<20	1.63	<10	20	30	590
C796354		0.68			6.90	1	5.67	370	460	<10	<20	7.12	<10	40	20	90
C796355		0.90			<0.01	<1	2.49	<50	110	<10	<20	1.23	<10	<10	20	<10
C796356		0.95			0.01	<1	4.89	<50	410	<10	<20	0.96	<10	10	30	10
C796357		0.93			<0.01	<1	6.12	<50	<50	<10	<20	7.38	<10	50	20	130
C796358		1.40			1.12	<1	4.75	120	340	<10	<20	4.74	<10	30	30	120
C796359		0.91			0.19	<1	3.82	<50	500	<10	<20	1.35	<10	10	20	10
C796360		0.82			1.75	<1	1.97	50	120	<10	<20	0.86	<10	20	20	<10
C796361		0.69			0.01	1	3.40	<50	70	<10	<20	2.79	<10	20	90	360
C796362		0.78			0.06	<1	2.02	<50	<50	<10	<20	5.31	<10	10	10	30
C796363		0.81			<0.01	<1	0.90	<50	<50	<10	<20	2.97	<10	10	180	<10
C796364		0.62			0.01	1	1.62	50	60	<10	<20	3.34	<10	50	1080	<10
C796365		0.73			<0.01	<1	3.28	<50	<50	<10	<20	0.49	<10	<10	10	10
C796366		1.12			<0.01	<1	0.80	<50	<50	<10	<20	0.16	<10	<10	20	<10
C796367		1.06			<0.01	1	2.90	<50	<50	<10	<20	2.21	<10	10	50	210
C796368		1.04			<0.01	<1	5.91	<50	<50	<10	<20	6.51	<10	50	460	70
C796369		0.66			<0.01	<1	7.39	<50	50	<10	<20	1.47	<10	60	220	90
C796370		0.86			0.04	<1	0.23	<50	<50	<10	<20	0.33	<10	<10	10	20
C796371		0.60			0.53	7	0.51	90	<50	<10	<20	1.09	<10	<10	10	80
C796372		0.81			0.41	6	1.13	50	<50	<10	<20	1.04	<10	<10	10	140
C796373		0.78			0.04	<1	6.55	<50	190	<10	<20	6.49	<10	80	90	330
C796374		1.23			0.11	<1	6.23	<50	320	<10	<20	5.01	<10	80	100	20
C796375		0.07			2.22	1	6.07	490	670	<10	<20	0.74	<10	10	140	30
C796376		0.93			<0.01	<1	7.23	<50	<50	<10	<20	8.30	<10	60	220	130
C796377		1.47			<0.01	<1	0.15	<50	<50	<10	<20	2.67	<10	<10	10	30
C796378		0.80			<0.01	<1	0.20	<50	<50	<10	<20	0.40	<10	<10	20	10
C796379		0.76			0.07	1	0.36	<50	60	<10	<20	1.50	<10	<10	10	60
C796380		1.21			0.07	2	0.70	<50	<50	<10	<20	0.71	<10	<10	10	100
C796381		0.53	94.2		0.13	1	1.18	1140	<50	<10	<20	0.18	<10	30	10	160
C796382		0.93	90.9	74.5	1.09	<1	2.24	<50	50	<10	<20	6.56	<10	30	20	50



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		Fe	Ga	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
		%	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
C796343	1.99	<50	1.3	<50	0.59	370	<10	1.73	20	300	40	<0.05	<50	<10	510	
C796344	8.28	<50	0.1	<50	3.29	2430	<10	2.08	80	300	<20	0.31	<50	40	330	
C796345	4.07	<50	1.8	<50	1.04	900	<10	2.12	100	520	20	0.14	<50	10	450	
C796346	5.33	<50	1.3	<50	2.02	1300	<10	1.91	100	1390	<20	0.33	<50	10	550	
C796347	6.30	<50	0.4	<50	1.42	1650	<10	1.15	110	180	<20	0.13	<50	20	100	
C796348	5.48	<50	1.3	<50	0.17	130	<10	4.72	<10	670	<20	1.41	<50	<10	300	
C796349	2.03	<50	1.2	<50	0.13	200	<10	5.63	<10	740	20	0.46	<50	<10	190	
C796350	2.94	<50	<0.1	<50	<0.05	340	<10	0.05	<10	<50	<20	<0.05	<50	<10	10	
C796351	2.40	<50	1.1	<50	0.33	370	<10	2.66	30	690	20	0.87	<50	<10	150	
C796352	1.98	<50	1.1	<50	0.42	400	<10	4.17	20	650	<20	0.56	<50	<10	260	
C796353	2.79	<50	1.2	<50	0.59	500	<10	3.28	20	510	<20	1.23	<50	10	280	
C796354	10.00	<50	1.0	<50	2.55	2100	<10	2.41	40	380	40	5.84	<50	40	510	
C796355	2.13	<50	0.2	<50	0.21	690	<10	2.13	10	330	<20	<0.05	<50	<10	130	
C796356	1.88	<50	1.1	<50	0.32	560	<10	4.18	20	660	<20	0.29	<50	<10	230	
C796357	11.50	<50	<0.1	<50	2.52	2150	<10	1.17	40	490	<20	0.15	<50	40	120	
C796358	6.87	<50	0.7	<50	1.69	1550	<10	3.39	30	600	20	2.07	<50	20	320	
C796359	1.81	<50	1.0	<50	0.48	470	<10	4.04	20	540	<20	0.67	<50	<10	300	
C796360	2.69	<50	0.3	<50	0.26	310	<10	1.86	20	110	20	1.73	<50	<10	130	
C796361	3.22	<50	0.4	<50	1.36	590	<10	1.87	40	320	<20	0.07	<50	10	140	
C796362	3.52	<50	0.4	<50	2.16	1170	<10	0.69	20	240	<20	0.08	<50	20	110	
C796363	2.01	<50	0.2	<50	1.73	660	<10	<0.05	60	50	<20	<0.05	<50	10	50	
C796364	4.09	<50	0.4	<50	6.61	730	<10	0.05	620	<50	<20	<0.05	<50	10	110	
C796365	0.78	<50	0.2	<50	0.07	90	<10	4.61	<10	<50	20	0.06	<50	<10	50	
C796366	0.90	<50	0.1	<50	0.06	110	<10	0.45	<10	<50	<20	<0.05	<50	<10	20	
C796367	3.42	<50	0.2	<50	1.09	600	<10	1.46	20	250	<20	0.06	<50	10	130	
C796368	7.67	<50	0.1	<50	4.47	1450	<10	1.13	190	250	<20	0.06	<50	30	140	
C796369	10.25	<50	0.2	<50	3.24	2380	<10	1.38	130	310	<20	0.18	<50	40	90	
C796370	24.8	<50	<0.1	<50	0.39	300	<10	<0.05	<10	490	<20	0.08	<50	<10	10	
C796371	16.40	<50	<0.1	<50	0.97	890	<10	<0.05	<10	350	<20	2.93	<50	<10	20	
C796372	28.9	<50	<0.1	<50	1.55	1360	<10	<0.05	10	490	<20	6.48	<50	<10	10	
C796373	8.46	<50	0.7	<50	3.66	1650	<10	1.10	90	260	<20	0.41	<50	30	200	
C796374	12.40	<50	0.8	220	2.98	1520	<10	2.15	80	470	<20	3.00	<50	30	480	
C796375	3.84	<50	2.1	<50	1.41	340	<10	0.70	60	570	30	0.11	460	10	100	
C796376	8.34	<50	<0.1	<50	3.49	1700	<10	1.90	160	250	40	0.15	<50	30	160	
C796377	24.8	<50	<0.1	<50	1.73	940	<10	<0.05	<10	630	<20	0.31	<50	<10	30	
C796378	14.40	<50	<0.1	<50	0.48	920	<10	<0.05	<10	430	<20	0.11	<50	<10	10	
C796379	15.60	<50	<0.1	<50	0.71	670	<10	0.07	10	390	<20	1.94	<50	<10	50	
C796380	31.8	<50	<0.1	<50	1.09	1120	<10	0.12	10	550	<20	3.08	<50	<10	30	
C796381	31.2	<50	0.1	<50	0.60	4650	10	<0.05	90	220	50	>10.0	70	<10	<10	
C796382	3.08	<50	0.2	<50	0.73	1340	<10	1.60	20	230	<20	0.71	<50	10	140	



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 25 ADELAIDE STREET EAST
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Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C796343		<50	0.12	<50	<50	30	<50	100
C796344		<50	0.56	<50	<50	300	<50	80
C796345		<50	0.33	<50	<50	140	<50	60
C796346		<50	0.52	<50	<50	150	<50	120
C796347		<50	0.35	<50	<50	230	<50	80
C796348		<50	0.09	<50	<50	30	<50	<20
C796349		<50	0.13	<50	<50	40	<50	40
C796350		<50	<0.05	<50	<50	<10	<50	<20
C796351		<50	0.12	<50	<50	70	<50	80
C796352		<50	0.13	<50	<50	50	<50	40
C796353		<50	0.12	<50	<50	120	<50	30
C796354		<50	0.70	<50	<50	390	<50	90
C796355		<50	<0.05	<50	<50	10	<50	30
C796356		<50	0.14	<50	<50	40	<50	40
C796357		<50	0.56	<50	<50	430	<50	140
C796358		<50	0.46	<50	<50	250	<50	110
C796359		<50	0.12	<50	<50	50	<50	20
C796360		<50	0.06	<50	<50	40	<50	20
C796361		<50	0.26	<50	<50	110	<50	50
C796362		<50	0.06	<50	<50	60	<50	<20
C796363		<50	<0.05	<50	<50	40	<50	<20
C796364		<50	<0.05	<50	<50	60	<50	100
C796365		<50	<0.05	<50	<50	10	<50	<20
C796366		<50	<0.05	<50	<50	<10	<50	<20
C796367		<50	0.23	<50	<50	90	<50	40
C796368		<50	0.19	<50	<50	200	<50	80
C796369		<50	0.56	<50	<50	320	<50	120
C796370		<50	<0.05	<50	<50	10	<50	50
C796371		<50	<0.05	<50	<50	20	<50	40
C796372		<50	<0.05	<50	<50	30	<50	80
C796373		<50	0.48	<50	<50	240	<50	70
C796374		<50	0.49	<50	<50	280	<50	40
C796375		<50	0.47	<50	<50	110	<50	100
C796376		<50	0.44	<50	<50	260	<50	160
C796377		<50	<0.05	<50	<50	<10	<50	160
C796378		<50	<0.05	<50	<50	10	<50	110
C796379		<50	<0.05	<50	<50	10	<50	100
C796380		<50	<0.05	<50	<50	20	<50	130
C796381		<50	<0.05	<50	<50	10	<50	50
C796382		<50	0.21	<50	<50	70	<50	20



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Sample Description	Method Analyte Units LOD	WEI-21	PUL-QC	CRU-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass75um %	Pass2mm %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
C796383		0.83			0.03	<1	4.54	<50	<50	<10	<20	10.65	<10	40	10	40
C796384		0.52			0.01	1	2.52	<50	270	<10	<20	2.88	<10	10	20	50
C796385		0.84			<0.01	<1	5.41	<50	250	<10	<20	5.90	<10	40	<10	70
C796401		0.41			0.01	<1	3.36	<50	<50	<10	<20	0.56	<10	20	50	20
C796402		0.89			0.01	1	5.80	<50	270	<10	<20	6.78	<10	30	320	50
C796403		0.90			0.24	1	4.26	<50	<50	<10	<20	2.14	<10	20	110	10
C796404		1.25			0.01	<1	2.72	<50	80	<10	<20	4.69	<10	10	130	40
C796405		1.52			0.10	<1	0.25	<50	<50	<10	<20	<0.05	<10	<10	10	160
C796406		1.20			0.03	<1	3.67	<50	<50	<10	<20	<0.05	<10	10	20	280
C796407		0.87			0.77	3	1.88	<50	460	<10	<20	0.07	<10	10	120	10
C796408		1.10			0.03	1	2.08	100	<50	<10	<20	2.75	<10	30	20	440
C796409		1.10			0.01	1	4.38	70	290	<10	<20	<0.05	<10	30	120	180
C796410		1.09			0.06	<1	3.88	150	360	<10	<20	5.32	<10	40	<10	30
C796411		0.75			0.03	1	5.57	<50	<50	<10	<20	7.27	<10	40	10	50
C796412		0.96			0.02	<1	6.47	<50	90	<10	<20	6.34	<10	60	10	250
C796413		0.98			0.11	<1	4.37	<50	100	<10	<20	7.90	<10	40	10	130
C796414		0.81			0.05	1	2.60	<50	<50	<10	<20	11.40	<10	80	10	110
C796415		0.83			0.08	1	5.94	<50	100	<10	<20	7.49	<10	50	10	130
C796416		1.00			0.07	1	4.28	<50	50	<10	<20	8.59	<10	30	10	160
C797532		1.60			<0.01	<1	5.80	<50	1320	<10	<20	7.59	<10	20	80	10
C797533		1.15			<0.01	1	2.90	<50	230	<10	<20	4.56	<10	10	40	10
C797534		0.97			<0.01	1	7.16	<50	<50	<10	<20	7.19	<10	60	230	90
C797535		1.11			<0.01	<1	0.95	<50	<50	<10	<20	2.92	<10	80	1770	<10
C797536		2.69			0.02	<1	3.32	<50	<50	<10	<20	7.01	<10	10	20	10
C797538		1.45			<0.01	<1	3.47	<50	<50	<10	<20	0.96	<10	20	30	20
C797539		1.63			<0.01	1	5.12	<50	90	<10	<20	3.72	<10	40	40	110
C797540		1.43			<0.01	1	4.67	<50	<50	<10	<20	2.23	<10	30	60	50
C797541		0.99			<0.01	1	2.25	<50	<50	<10	<20	1.56	<10	10	170	10
C797542		0.80			<0.01	<1	1.33	<50	<50	<10	<20	2.42	<10	10	50	10
C797651		1.18			<0.01	1	6.12	<50	50	<10	<20	7.17	<10	20	130	210
C797652		2.14			<0.01	<1	4.18	<50	50	<10	<20	6.01	<10	20	800	430
C797653		1.31			<0.01	1	7.18	<50	200	<10	<20	3.72	<10	50	260	90
C797654		1.51			0.01	1	5.92	<50	<50	<10	<20	6.82	<10	110	150	460
C797655		1.28			<0.01	2	4.63	<50	<50	<10	<20	7.22	<10	40	180	320
C797656		2.05			<0.01	<1	0.14	<50	<50	<10	<20	<0.05	<10	<10	30	20
C797657		1.04			<0.01	2	5.89	<50	<50	<10	<20	4.29	<10	30	20	130
C797658		2.52			<0.01	<1	0.07	<50	<50	<10	<20	<0.05	<10	<10	40	<10
C797659		1.78			<0.01	1	6.52	<50	50	<10	<20	5.27	<10	40	10	260
C797851		2.82	89.7		0.01	<1	1.90	<50	<50	<10	<20	6.17	<10	10	10	10
C797852		1.17	91.0	76.0	<0.01	1	2.46	<50	<50	<10	<20	4.36	<10	10	20	10



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 25 ADELAIDE STREET EAST
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Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Fe	Ga	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
		%	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
		0.05	50	0.1	50	0.05	10	10	0.05	10	50	20	0.05	50	10	10
C796383		8.80	<50	0.1	<50	1.45	2110	<10	3.36	20	620	<20	0.69	<50	30	240
C796384		2.01	<50	0.9	<50	0.23	570	<10	4.51	10	290	<20	0.23	<50	<10	260
C796385		10.95	<50	1.0	<50	1.59	1800	<10	0.98	20	780	<20	0.08	<50	30	130
C796401		4.99	<50	<0.1	<50	1.68	720	<10	1.38	30	200	<20	0.30	<50	20	20
C796402		5.61	<50	0.5	<50	1.88	960	<10	3.05	50	260	<20	0.50	<50	10	120
C796403		4.76	<50	<0.1	<50	2.12	940	<10	1.98	40	190	<20	0.44	<50	20	30
C796404		3.51	<50	0.7	<50	1.37	690	<10	0.15	20	120	<20	0.11	<50	10	60
C796405		7.19	<50	<0.1	<50	0.05	150	<10	<0.05	<10	170	<20	0.07	<50	<10	<10
C796406		20.4	<50	<0.1	<50	1.13	530	<10	<0.05	10	480	<20	0.05	<50	<10	<10
C796407		4.99	<50	1.1	<50	0.20	360	<10	0.89	10	120	<20	0.24	<50	10	20
C796408		13.55	<50	<0.1	<50	0.77	2200	<10	<0.05	40	230	<20	3.86	<50	10	30
C796409		8.02	<50	2.1	<50	0.41	250	<10	0.14	60	480	<20	2.50	<50	10	20
C796410		8.77	<50	1.6	<50	0.74	2120	<10	1.62	20	730	<20	2.02	<50	20	260
C796411		10.05	<50	0.1	<50	1.96	2050	<10	3.59	20	520	<20	0.67	<50	30	180
C796412		10.70	<50	0.4	<50	1.55	2640	<10	2.97	40	670	<20	0.53	<50	40	100
C796413		6.54	<50	0.4	<50	1.17	2230	<10	3.09	40	520	<20	0.57	<50	30	170
C796414		16.10	<50	0.1	<50	1.60	7640	<10	<0.05	80	270	<20	0.92	<50	50	110
C796415		10.60	<50	0.4	<50	1.81	2540	<10	2.74	30	610	<20	0.68	<50	40	120
C796416		6.98	<50	0.1	<50	1.00	2270	<10	3.46	20	490	<20	0.68	<50	20	160
C797532		4.44	<50	1.2	70	2.38	1190	<10	2.86	60	1600	<20	0.12	<50	10	1760
C797533		3.79	<50	0.4	<50	1.16	1130	<10	3.10	30	920	20	<0.05	<50	<10	1190
C797534		8.23	<50	<0.1	<50	5.09	1390	<10	1.16	220	190	<20	0.09	<50	30	150
C797535		5.28	<50	<0.1	<50	14.45	830	<10	<0.05	1220	<50	<20	<0.05	<50	10	60
C797536		20.6	<50	0.1	<50	2.97	10950	<10	0.14	30	240	<20	0.59	<50	10	70
C797538		4.70	<50	<0.1	<50	1.71	820	<10	1.49	20	380	<20	<0.05	<50	20	30
C797539		9.00	<50	0.1	<50	1.59	1740	<10	2.50	40	330	<20	0.25	<50	20	50
C797540		6.09	<50	<0.1	<50	2.35	920	<10	1.53	40	340	<20	<0.05	<50	20	40
C797541		2.86	<50	0.1	<50	1.63	440	<10	0.27	20	<50	<20	<0.05	<50	10	20
C797542		2.33	<50	0.1	<50	0.87	320	<10	0.19	10	60	<20	<0.05	<50	10	10
C797651		14.75	<50	0.4	<50	3.03	3070	<10	1.08	40	260	<20	0.40	<50	30	40
C797652		17.50	<50	0.2	<50	1.98	4020	<10	0.46	110	300	<20	1.81	<50	20	20
C797653		8.14	<50	1.8	<50	4.95	1710	<10	2.07	140	240	20	<0.05	<50	30	90
C797654		16.75	<50	0.2	<50	3.21	1470	<10	1.88	80	320	<20	9.25	<50	30	160
C797655		23.3	<50	0.3	<50	3.74	1730	<10	0.68	90	280	<20	3.65	<50	20	60
C797656		1.10	<50	<0.1	<50	<0.05	90	<10	0.09	<10	<50	<20	0.11	<50	<10	10
C797657		11.05	<50	0.1	<50	2.60	1460	<10	2.82	20	450	40	0.37	<50	30	80
C797658		0.54	<50	<0.1	<50	<0.05	60	<10	0.05	<10	<50	<20	<0.05	<50	<10	10
C797659		13.35	<50	0.2	<50	2.71	1590	<10	3.49	20	550	<20	0.75	<50	40	90
C797851		20.5	<50	0.1	<50	2.46	12400	30	0.16	20	160	<20	1.21	<50	20	70
C797852		12.65	<50	0.1	<50	1.49	7440	10	0.19	20	250	<20	0.07	<50	10	60



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		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C796383		<50	0.71	<50	<50	410	<50	30
C796384		<50	0.18	<50	<50	70	<50	20
C796385		<50	0.65	<50	<50	340	<50	100
C796401		<50	0.32	<50	<50	170	<50	50
C796402		<50	0.42	<50	<50	220	<50	80
C796403		<50	0.23	<50	<50	150	<50	50
C796404		<50	0.12	<50	<50	80	<50	240
C796405		<50	<0.05	<50	<50	10	<50	<20
C796406		<50	0.14	<50	<50	60	<50	130
C796407		<50	0.14	<50	<50	140	<50	<20
C796408		<50	<0.05	<50	<50	40	<50	70
C796409		<50	0.07	<50	<50	100	<50	190
C796410		<50	0.82	<50	<50	250	<50	70
C796411		<50	0.82	<50	<50	390	<50	60
C796412		<50	0.89	<50	<50	450	<50	110
C796413		<50	0.72	<50	<50	280	<50	40
C796414		<50	0.35	<50	<50	410	<50	70
C796415		<50	0.89	<50	<50	410	<50	100
C796416		<50	0.71	<50	<50	320	<50	50
C797532		<50	0.26	<50	<50	90	<50	70
C797533		<50	0.12	<50	<50	40	<50	90
C797534		<50	0.36	<50	<50	220	<50	80
C797535		<50	<0.05	<50	<50	40	<50	60
C797536		<50	0.09	<50	<50	50	<50	140
C797538		<50	0.41	<50	<50	160	<50	50
C797539		<50	0.29	<50	<50	280	<50	150
C797540		<50	0.22	<50	<50	180	<50	70
C797541		<50	0.09	<50	<50	80	<50	20
C797542		<50	0.09	<50	<50	80	<50	20
C797651		<50	0.65	<50	<50	290	<50	180
C797652		<50	0.19	<50	<50	150	<50	460
C797653		<50	0.44	<50	<50	250	<50	210
C797654		<50	0.40	<50	<50	240	<50	170
C797655		<50	0.38	<50	<50	290	<50	490
C797656		<50	<0.05	<50	<50	<10	<50	<20
C797657		<50	0.87	<50	<50	380	<50	190
C797658		<50	<0.05	<50	<50	<10	<50	<20
C797659		<50	0.93	<50	<50	370	<50	140
C797851		<50	0.06	<50	<50	50	<50	90
C797852		<50	0.08	<50	<50	40	<50	90



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 25 ADELAIDE STREET EAST
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Project: Sylvanite Gold

CERTIFICATE OF ANALYSIS SD21158308

Sample Description	Method Analyte Units LOD	WEI-21	PUL-QC	CRU-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass75um %	Pass2mm %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
C797853		1.33			<0.01	1	3.70	<50	100	<10	<20	3.26	<10	30	70	150
C797854		0.94			0.82	8	4.12	<50	430	<10	60	0.83	<10	120	10	270
C797855		0.86			0.12	1	5.05	<50	700	<10	20	1.15	<10	10	10	130
C797856		0.89			0.01	1	3.27	<50	170	<10	20	0.29	<10	20	20	240
C797857		0.66			<0.01	1	5.56	<50	60	<10	<20	2.53	<10	30	30	50
C797858		1.04			<0.01	<1	5.51	<50	180	<10	<20	2.36	<10	30	20	50
C797859		2.07			<0.01	1	2.75	<50	580	<10	20	0.40	<10	10	20	40
C797860		1.19			<0.01	<1	1.57	<50	170	<10	<20	0.19	<10	<10	20	10
C797861		1.44			0.02	1	5.33	<50	110	<10	<20	3.06	<10	30	30	120
C797862		1.26			<0.01	<1	4.05	<50	590	<10	<20	1.10	<10	<10	30	<10
C797863		0.92			<0.01	<1	3.23	<50	700	<10	<20	1.67	<10	10	30	10
C797864		1.79			<0.01	<1	1.81	<50	<50	<10	<20	1.64	<10	20	20	150
C797865		1.24			0.15	1	4.68	230	140	<10	<20	0.27	<10	40	40	250
C797866		1.21		73.8	<0.01	<1	<0.05	<50	<50	<10	<20	<0.05	<10	<10	40	<10
C797867		0.68			<0.01	<1	0.14	<50	<50	<10	<20	<0.05	<10	<10	50	50
C797868		1.45			<0.01	1	0.40	<50	<50	<10	20	0.19	<10	10	170	<10
C797869		0.32			<0.01	<1	0.37	<50	<50	<10	<20	0.09	<10	<10	170	<10
C797870		0.36			<0.01	<1	0.40	<50	<50	<10	<20	0.20	<10	10	150	10
C797871		0.69			<0.01	<1	2.38	<50	270	<10	20	0.42	<10	10	70	10
C797872		0.64			<0.01	<1	2.33	<50	190	<10	20	0.37	<10	10	70	20
C797873		0.53			0.01	1	0.70	<50	50	<10	<20	<0.05	<10	<10	40	<10
C797874		1.05			<0.01	1	2.40	<50	50	<10	<20	4.86	<10	10	70	50
C797936		0.63			<0.01	1	3.55	<50	560	<10	<20	3.81	<10	20	120	20
C797937		1.79			<0.01	2	2.31	<50	130	<10	<20	13.00	<10	<10	20	<10
C797938		1.46			<0.01	<1	2.34	50	420	<10	<20	3.13	<10	10	90	40
C797939		1.33			<0.01	1	1.75	<50	760	<10	<20	2.12	<10	10	100	40
C797940		1.84			<0.01	<1	1.83	<50	50	<10	<20	1.77	<10	10	140	10
C797941		1.90			<0.01	1	2.00	<50	60	<10	<20	2.88	<10	<10	40	<10
C797942		1.59			<0.01	1	2.15	70	180	<10	<20	2.92	<10	10	100	100
C797943		1.73			<0.01	1	1.15	<50	70	<10	<20	0.78	<10	<10	50	10
C797944		1.50			<0.01	1	1.01	<50	<50	<10	<20	2.64	<10	80	1470	<10
C797945		0.71			<0.01	<1	5.06	<50	130	<10	<20	4.20	<10	50	240	90
C797946		1.59			<0.01	<1	0.99	<50	<50	<10	<20	0.39	<10	10	40	10
C797947		1.07			<0.01	2	5.12	<50	250	<10	<20	7.66	<10	40	50	90
C797948		0.96			<0.01	2	3.80	<50	150	<10	<20	5.97	<10	30	50	90
C797949		1.05			<0.01	<1	3.05	<50	60	<10	<20	3.17	<10	30	30	70



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 25 ADELAIDE STREET EAST
 SUITE 1400
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Project: Sylvanite Gold

CERTIFICATE OF ANALYSIS SD21158308

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Fe	Ga	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
		%	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
		0.05	50	0.1	50	0.05	10	10	0.05	10	50	20	0.05	50	10	10
C797853		8.97	<50	0.4	<50	1.06	2580	<10	0.60	40	170	<20	0.40	<50	10	60
C797854		14.90	<50	1.9	<50	0.81	790	10	0.14	40	990	40	9.36	<50	10	70
C797855		7.27	<50	2.3	<50	0.98	830	<10	0.61	10	940	40	0.95	<50	10	60
C797856		5.69	<50	0.6	<50	1.08	560	<10	1.44	10	330	<20	0.65	<50	10	30
C797857		7.70	<50	0.1	<50	2.22	1250	<10	3.73	30	510	<20	0.23	<50	20	190
C797858		7.39	<50	0.5	<50	2.74	1210	<10	2.88	30	480	<20	0.07	<50	20	200
C797859		2.27	<50	1.3	<50	0.43	500	<10	4.06	10	590	<20	0.11	<50	<10	230
C797860		1.12	<50	0.4	<50	0.10	440	<10	3.10	<10	240	<20	0.05	<50	<10	150
C797861		10.40	<50	0.3	<50	1.69	1580	<10	3.54	40	560	<20	1.85	<50	40	110
C797862		2.06	<50	1.6	<50	0.39	320	<10	2.68	20	530	<20	<0.05	<50	<10	190
C797863		1.86	<50	2.1	<50	0.51	370	<10	2.70	20	610	<20	0.13	<50	<10	180
C797864		7.96	<50	0.1	<50	0.65	1870	<10	0.18	20	260	<20	1.40	<50	<10	30
C797865		16.05	<50	1.2	<50	1.15	830	<10	0.33	60	520	40	>10.0	<50	10	40
C797866		0.65	<50	<0.1	<50	<0.05	80	<10	<0.05	<10	<50	<20	<0.05	<50	<10	10
C797867		0.75	<50	<0.1	<50	<0.05	100	<10	<0.05	10	<50	<20	<0.05	<50	<10	10
C797868		0.95	<50	0.2	<50	0.15	190	<10	<0.05	70	<50	<20	<0.05	<50	<10	30
C797869		1.37	<50	0.2	<50	0.20	230	<10	0.08	50	<50	<20	<0.05	<50	<10	30
C797870		1.51	<50	0.2	<50	0.36	280	<10	0.05	80	<50	<20	<0.05	<50	<10	40
C797871		3.24	<50	0.8	<50	0.77	550	<10	0.32	20	220	<20	<0.05	<50	10	60
C797872		2.95	<50	0.6	<50	0.78	560	<10	1.08	30	300	<20	<0.05	<50	10	90
C797873		1.36	<50	0.2	<50	0.18	220	<10	0.13	10	80	<20	<0.05	<50	<10	30
C797874		2.02	<50	0.1	<50	1.08	520	<10	0.65	40	510	<20	<0.05	<50	<10	190
C797936		3.52	<50	2.0	<50	1.42	710	<10	2.33	60	740	<20	0.07	<50	10	450
C797937		4.11	<50	0.3	<50	6.07	1300	<10	1.81	10	740	<20	<0.05	<50	<10	1000
C797938		2.99	<50	1.2	<50	1.09	680	<10	1.34	30	1150	20	<0.05	<50	10	530
C797939		3.04	<50	2.1	<50	0.63	930	<10	1.83	40	1720	<20	<0.05	<50	<10	270
C797940		2.37	<50	0.1	<50	0.84	490	<10	1.15	40	500	<20	<0.05	<50	<10	520
C797941		2.11	<50	0.2	<50	1.09	520	<10	1.54	10	290	<20	<0.05	<50	<10	330
C797942		2.93	<50	0.6	<50	0.90	720	<10	3.77	100	630	20	0.13	<50	<10	470
C797943		2.02	<50	0.2	<50	0.23	490	<10	1.44	10	240	40	<0.05	<50	<10	160
C797944		5.33	<50	<0.1	<50	12.40	810	<10	<0.05	1080	<50	<20	<0.05	<50	10	70
C797945		7.13	<50	0.2	<50	2.22	1300	<10	1.33	100	220	<20	0.07	<50	30	130
C797946		4.40	<50	0.1	<50	0.13	1090	<10	0.42	10	60	<20	<0.05	<50	10	30
C797947		9.81	<50	0.4	<50	1.42	1690	<10	1.15	40	370	<20	<0.05	<50	30	130
C797948		8.61	<50	0.2	<50	1.23	1410	<10	0.99	30	380	<20	<0.05	<50	20	110
C797949		8.56	<50	0.2	<50	1.05	1500	<10	0.85	20	180	<20	<0.05	<50	10	60



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CERTIFICATE OF ANALYSIS SD21158308

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C797853		<50	0.12	<50	<50	130	<50	210
C797854		<50	0.34	<50	<50	30	<50	120
C797855		<50	0.46	<50	<50	80	<50	80
C797856		<50	0.33	<50	<50	100	<50	80
C797857		<50	0.67	<50	<50	230	<50	140
C797858		<50	0.66	<50	<50	230	<50	160
C797859		<50	0.15	<50	<50	40	<50	80
C797860		<50	0.07	<50	<50	20	<50	40
C797861		<50	1.10	<50	<50	480	<50	170
C797862		<50	0.16	<50	<50	40	<50	50
C797863		<50	0.17	<50	<50	50	<50	40
C797864		<50	0.10	<50	<50	20	<50	560
C797865		<50	0.32	<50	<50	70	<50	1760
C797866		<50	<0.05	<50	<50	<10	<50	<20
C797867		<50	<0.05	<50	<50	<10	<50	<20
C797868		<50	<0.05	<50	<50	10	<50	<20
C797869		<50	<0.05	<50	<50	10	<50	<20
C797870		<50	<0.05	<50	<50	10	<50	20
C797871		<50	0.14	<50	<50	80	<50	40
C797872		<50	0.20	<50	<50	80	<50	40
C797873		<50	0.05	<50	<50	20	<50	<20
C797874		<50	0.10	<50	<50	80	<50	20
C797936		<50	0.16	<50	<50	100	<50	70
C797937		<50	0.06	<50	<50	40	<50	80
C797938		<50	0.11	<50	<50	60	<50	40
C797939		<50	0.17	<50	<50	80	<50	40
C797940		<50	0.05	<50	<50	50	<50	40
C797941		<50	<0.05	<50	<50	20	<50	20
C797942		<50	0.13	<50	<50	60	<50	70
C797943		<50	<0.05	<50	<50	20	<50	20
C797944		<50	<0.05	<50	<50	40	<50	50
C797945		<50	0.25	<50	<50	240	<50	80
C797946		<50	0.05	<50	<50	40	<50	20
C797947		<50	0.54	<50	<50	260	<50	90
C797948		<50	0.38	<50	<50	220	<50	60
C797949		<50	0.16	<50	<50	170	<50	110



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CERTIFICATE OF ANALYSIS SD21158308

	CERTIFICATE COMMENTS								
	LABORATORY ADDRESSES								
Applies to Method:	<p>Processed at ALS Sudbury located at 1351-B Kelly Lake Road, Unit #1, Sudbury, ON, Canada.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">CRU-31</td> <td style="width: 33%;">CRU-QC</td> <td style="width: 33%;">LOG-21</td> <td style="width: 17%;">LOG-23</td> </tr> <tr> <td>PUL-32</td> <td>PUL-QC</td> <td>SPL-21</td> <td>WEI-21</td> </tr> </table>	CRU-31	CRU-QC	LOG-21	LOG-23	PUL-32	PUL-QC	SPL-21	WEI-21
CRU-31	CRU-QC	LOG-21	LOG-23						
PUL-32	PUL-QC	SPL-21	WEI-21						
Applies to Method:	<p>Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">Au-AA26</td> <td style="width: 67%;">ME-ICP61a</td> </tr> </table>	Au-AA26	ME-ICP61a						
Au-AA26	ME-ICP61a								



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 This copy reported on 7-JUL-2021
 Account: CGAKUT

CERTIFICATE SD21134500

Project: SYLVANITE GOLD

This report is for 278 samples of Rock submitted to our lab in Sudbury, ON, Canada on 28-MAY-2021.

The following have access to data associated with this certificate:

JOSHUA BAILEY
 SYDNEY RAMNATH

KYLIE COVENTRY

ROB JONES

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-23	Pulp Login - Rcvd with Barcode
LOG-21	Sample logging - ClientBarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-32	Pulverize 1000g to 85% < 75 um
PUL-QC	Pulverizing QC Test
CRU-QC	Crushing QC Test

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP61a	High Grade Four Acid ICP-AES	ICP-AES
Au-AA26	Ore Grade Au 50g FA AA finish	AAS

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Saa Traxler, General Manager, North Vancouver



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Project: SYLVANITE GOLD

CERTIFICATE OF ANALYSIS SD21134500

Sample Description	Method Analyte Units LOD	WEI-21	PUL-QC	CRU-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass75um %	Pass2mm %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
C797501		1.04	91.8	91.8	0.10	<1	6.16	<50	190	<10	<20	5.43	<10	40	210	190
C797502		0.74	87.9		0.39	<1	1.88	<50	<50	<10	<20	0.25	<10	10	60	<10
C797503		1.41			<0.01	<1	3.88	<50	80	<10	<20	5.78	<10	20	60	60
C797504		1.31			0.01	<1	0.44	<50	<50	<10	<20	5.04	<10	10	50	40
C797505		0.42			<0.01	<1	0.67	<50	90	<10	<20	1.56	<10	<10	10	30
C797506		1.05			<0.01	<1	0.97	<50	<50	<10	<20	7.79	<10	10	50	60
C797507		0.62			<0.01	<1	0.96	<50	<50	<10	<20	7.53	<10	<10	50	10
C797508		0.66			<0.01	<1	4.90	<50	120	<10	<20	3.32	<10	20	150	140
C797509		1.14			0.01	<1	0.06	<50	<50	<10	<20	3.10	<10	<10	10	10
C797510		1.29			0.01	<1	6.33	<50	<50	<10	<20	5.15	<10	40	360	90
C797511		2.28			<0.01	1	7.51	<50	100	<10	<20	5.16	<10	70	100	120
C797512		1.12			<0.01	<1	2.83	<50	130	<10	<20	0.96	<10	10	80	<10
C797513		1.55			<0.01	<1	1.07	<50	<50	<10	<20	1.93	<10	10	90	10
C797514		0.51			0.01	<1	0.59	<50	<50	<10	<20	0.08	<10	10	70	350
C797515		1.58			<0.01	<1	6.94	<50	90	<10	<20	8.59	<10	40	100	130
C797516		1.04			<0.01	1	7.49	<50	<50	<10	<20	7.80	<10	30	120	60
C797517		1.97			<0.01	<1	8.48	<50	<50	<10	<20	6.63	<10	50	220	90
C797518		2.87			<0.01	<1	7.10	<50	170	<10	<20	6.55	<10	50	120	150
C797519		1.95			0.12	<1	1.44	<50	130	<10	<20	0.24	<10	<10	60	10
C797520		1.80			0.61	1	4.66	120	510	<10	<20	0.95	<10	10	60	1060
C797521		1.96			0.01	<1	3.32	<50	630	<10	<20	2.07	<10	<10	50	<10
C797522		2.03			<0.01	<1	4.87	<50	1200	<10	<20	1.99	<10	<10	10	10
C797523		1.45			<0.01	<1	5.41	<50	520	<10	<20	1.30	<10	10	30	<10
C797524		2.16			<0.01	<1	5.11	<50	450	<10	<20	0.83	<10	10	40	<10
C797525		0.08			<0.01	<1	0.21	<50	<50	<10	<20	<0.05	<10	<10	20	<10
C797526		1.05			<0.01	<1	5.71	<50	630	<10	<20	2.10	<10	10	40	<10
C797527		2.36			0.05	<1	5.05	<50	840	<10	<20	2.54	<10	10	30	<10
C797528		2.52			0.84	<1	6.82	<50	690	<10	<20	1.41	<10	10	40	10
C797529		2.61			<0.01	<1	3.47	<50	310	<10	<20	0.84	<10	<10	40	10
C797530		1.35			<0.01	1	7.18	<50	100	<10	<20	1.38	<10	60	50	60
C797531		1.53			<0.01	<1	6.28	<50	240	<10	<20	4.42	<10	40	40	60
C797551		2.35			0.23	1	5.56	<50	360	<10	<20	2.65	<10	70	1770	<10
C797552		0.65			<0.01	<1	0.33	<50	<50	<10	<20	0.17	<10	<10	70	<10
C797553		1.23			0.01	<1	7.13	<50	320	<10	<20	4.55	<10	60	120	150
C797554		1.24			0.04	<1	6.39	<50	800	<10	<20	5.73	<10	10	200	320
C797555		1.51			0.01	<1	6.00	<50	990	<10	<20	2.23	<10	10	30	30
C797556		0.50			<0.01	<1	3.07	<50	300	<10	<20	10.40	<10	40	390	20
C797557		1.69			<0.01	1	1.91	<50	210	<10	<20	10.10	<10	70	500	70
C797558		1.14			0.05	<1	2.72	<50	<50	<10	<20	15.05	<10	30	110	70
C797559		0.71	91.1	86.6	0.01	<1	6.23	50	120	<10	<20	3.94	<10	40	100	170



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 25 ADELAIDE STREET EAST
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Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm
C797501		6.03	<50	0.6	<50	3.77	940	<10	3.82	60	160	<20	2.20	<50	30	160
C797502		2.62	<50	<0.1	<50	0.74	290	<10	0.22	20	<50	<20	<0.05	<50	<10	100
C797503		3.29	<50	0.3	<50	1.46	660	<10	1.17	30	410	<20	<0.05	<50	10	420
C797504		7.73	<50	<0.1	<50	0.65	2830	<10	0.05	20	110	<20	0.44	<50	10	40
C797505		32.9	<50	<0.1	<50	0.49	17300	<10	<0.05	20	<50	<20	0.27	<50	<10	10
C797506		8.40	<50	<0.1	<50	0.64	4090	<10	0.08	10	150	<20	0.23	<50	10	60
C797507		5.62	<50	0.1	<50	0.51	3090	<10	0.21	10	140	<20	<0.05	<50	10	50
C797508		3.18	<50	0.4	<50	0.22	950	<10	1.70	30	490	<20	<0.05	<50	10	160
C797509		27.9	<50	<0.1	<50	1.44	14850	<10	<0.05	10	<50	<20	0.66	<50	<10	10
C797510		6.96	<50	0.3	<50	4.49	1220	<10	2.09	100	270	<20	0.08	<50	30	70
C797511		12.00	<50	0.3	<50	4.19	1760	<10	1.49	100	430	<20	0.12	<50	40	140
C797512		2.43	<50	0.3	<50	1.08	340	10	0.71	30	130	<20	<0.05	<50	10	40
C797513		1.82	<50	0.1	<50	0.58	370	10	0.23	20	60	<20	<0.05	<50	10	20
C797514		1.46	<50	0.1	<50	<0.05	130	10	0.38	10	<50	<20	0.25	<50	<10	10
C797515		10.85	<50	0.3	<50	3.57	2710	<10	0.53	70	300	<20	0.22	<50	40	200
C797516		7.99	<50	0.1	<50	1.91	1730	<10	0.68	60	310	20	<0.05	<50	40	250
C797517		6.85	<50	0.1	<50	2.00	1360	<10	1.78	130	330	<20	0.98	<50	40	160
C797518		8.19	<50	0.2	<50	2.80	1600	<10	1.62	70	350	<20	0.06	<50	50	170
C797519		1.41	<50	0.3	<50	0.15	210	<10	1.32	20	140	20	0.38	<50	<10	80
C797520		4.54	<50	1.2	<50	0.47	320	<10	3.20	30	390	<20	3.62	<50	<10	240
C797521		1.06	<50	1.3	<50	0.17	270	<10	2.96	10	370	<20	<0.05	<50	<10	310
C797522		1.93	<50	1.7	<50	0.50	740	<10	3.09	<10	710	<20	0.18	<50	<10	560
C797523		1.91	<50	1.1	<50	0.64	260	<10	3.63	20	650	<20	0.11	<50	<10	370
C797524		1.68	<50	1.2	<50	0.52	180	<10	3.90	30	690	<20	<0.05	<50	<10	290
C797525		0.60	<50	0.1	<50	<0.05	70	<10	0.05	<10	<50	<20	<0.05	<50	<10	<10
C797526		2.03	<50	1.1	<50	0.56	280	<10	3.40	20	610	<20	0.05	<50	<10	330
C797527		2.22	<50	1.6	<50	0.53	260	<10	2.35	20	630	<20	0.33	<50	<10	290
C797528		2.30	<50	1.4	<50	0.53	260	<10	3.62	20	680	<20	0.76	<50	<10	460
C797529		1.41	<50	0.6	<50	0.47	280	<10	3.11	10	430	<20	0.11	<50	<10	390
C797530		11.50	<50	0.2	<50	2.97	1310	<10	2.75	80	660	<20	<0.05	<50	40	70
C797531		7.69	<50	0.4	<50	2.56	1620	<10	2.96	50	590	<20	0.22	<50	40	80
C797551		7.87	<50	2.1	<50	11.25	1200	<10	<0.05	910	120	<20	0.58	<50	20	80
C797552		1.08	<50	<0.1	<50	0.22	170	10	0.05	10	<50	<20	<0.05	<50	<10	20
C797553		9.95	<50	0.5	<50	3.07	1760	<10	2.28	100	300	<20	0.30	<50	40	380
C797554		6.08	<50	1.0	<50	1.35	500	<10	4.68	120	240	<20	0.21	<50	30	270
C797555		1.60	<50	2.5	<50	0.31	200	<10	3.16	20	480	<20	0.24	<50	<10	190
C797556		8.62	<50	1.9	80	6.24	1590	<10	0.96	360	2560	20	0.06	<50	20	620
C797557		5.35	<50	0.5	<50	5.14	1140	<10	0.78	380	1490	<20	0.11	<50	20	1480
C797558		7.68	<50	0.1	<50	5.27	1830	<10	2.05	80	400	<20	0.54	<50	20	840
C797559		7.70	<50	0.7	<50	2.15	1360	<10	2.52	70	640	30	0.64	<50	30	150



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Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C797501		<50	0.16	<50	<50	180	<50	70
C797502		<50	<0.05	<50	<50	110	<50	20
C797503		<50	0.22	<50	<50	80	<50	50
C797504		<50	<0.05	<50	<50	30	<50	50
C797505		<50	<0.05	<50	<50	40	<50	70
C797506		<50	<0.05	<50	<50	30	<50	40
C797507		<50	<0.05	<50	<50	20	<50	30
C797508		<50	0.28	<50	<50	150	<50	30
C797509		<50	<0.05	<50	<50	10	<50	50
C797510		<50	0.20	<50	<50	200	<50	90
C797511		<50	0.89	<50	<50	330	<50	130
C797512		<50	0.14	<50	<50	50	<50	30
C797513		<50	0.10	<50	<50	40	<50	20
C797514		<50	<0.05	<50	<50	10	<50	<20
C797515		<50	0.53	<50	<50	280	<50	100
C797516		<50	0.53	<50	<50	290	<50	100
C797517		<50	0.52	<50	<50	250	<50	130
C797518		<50	0.66	<50	<50	340	<50	110
C797519		<50	0.05	<50	<50	10	<50	600
C797520		<50	0.08	<50	<50	40	<50	50
C797521		<50	0.18	<50	<50	40	<50	20
C797522		<50	0.13	<50	<50	40	<50	20
C797523		<50	0.19	<50	<50	40	<50	50
C797524		<50	0.20	<50	<50	50	<50	40
C797525		<50	<0.05	<50	<50	<10	<50	<20
C797526		<50	0.16	<50	<50	40	<50	30
C797527		<50	0.18	<50	<50	50	<50	30
C797528		<50	0.19	<50	<50	50	<50	40
C797529		<50	0.13	<50	<50	30	<50	30
C797530		<50	1.03	<50	<50	460	<50	170
C797531		<50	1.00	<50	<50	440	<50	120
C797551		<50	0.11	<50	<50	170	<50	170
C797552		<50	<0.05	<50	<50	10	<50	<20
C797553		<50	0.58	<50	<50	310	<50	100
C797554		<50	0.23	<50	<50	230	<50	30
C797555		<50	0.14	<50	<50	40	<50	30
C797556		<50	1.96	<50	<50	210	<50	120
C797557		<50	1.43	<50	<50	180	<50	60
C797558		<50	0.44	<50	<50	160	<50	180
C797559		<50	0.75	<50	<50	250	<50	220



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Sample Description	Method Analyte Units LOD	WEI-21	PUL-QC	CRU-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass75um %	Pass2mm %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
C797560		0.67	94.7		<0.01	<1	3.39	<50	100	<10	<20	1.91	<10	<10	50	10
C797561		1.69	91.8		0.01	<1	6.64	<50	390	<10	<20	2.07	<10	20	130	40
C797562		1.52			<0.01	<1	7.12	<50	90	<10	<20	2.26	<10	30	150	160
C797563		1.30			0.80	1	6.80	<50	160	<10	<20	1.94	<10	30	160	90
C797564		1.61			<0.01	<1	5.89	<50	310	<10	<20	1.29	<10	10	60	10
C797565		1.32			<0.01	1	6.42	<50	370	<10	<20	3.04	<10	20	90	40
C797566		2.79			<0.01	<1	6.22	<50	80	<10	<20	5.63	<10	50	10	50
C797567		1.16			<0.01	<1	6.45	<50	490	<10	<20	1.15	<10	10	40	10
C797568		4.40			<0.01	<1	5.48	<50	190	<10	<20	5.79	<10	40	20	80
C797569		2.62			<0.01	<1	4.35	<50	770	<10	<20	9.63	<10	20	280	<10
C797570		1.31			<0.01	<1	2.92	<50	1330	<10	<20	0.09	<10	10	20	<10
C797951		1.01			<0.01	<1	7.05	<50	100	<10	<20	3.73	<10	50	210	240
C797952		1.44			<0.01	<1	7.94	<50	70	<10	<20	4.58	<10	50	60	130
C797953		2.13			<0.01	<1	6.83	<50	<50	<10	<20	5.53	<10	50	70	100
C797954		1.41			<0.01	<1	7.22	<50	60	<10	<20	5.37	<10	60	70	130
C797955		2.95			<0.01	<1	4.23	<50	240	<10	<20	8.60	<10	30	50	10
C797956		0.87			<0.01	<1	6.99	<50	50	<10	<20	3.44	<10	50	70	160
C797957		2.07			<0.01	<1	6.63	<50	120	<10	<20	5.72	<10	50	190	110
C797958		1.65			<0.01	<1	7.01	<50	90	<10	<20	4.94	<10	40	60	70
C797959		1.14			0.01	<1	3.29	<50	<50	<10	<20	0.11	<10	40	210	120
C797960		1.08			0.02	<1	0.22	<50	<50	<10	<20	<0.05	<10	<10	20	130
C796001		0.67			<0.01	<1	6.80	<50	<50	<10	<20	4.99	<10	50	40	140
C796002		0.94			0.04	2	6.43	50	50	<10	<20	3.21	<10	70	390	2290
C796003		1.15			0.06	<1	6.55	<50	270	<10	<20	3.45	<10	40	10	210
C796004		0.69			0.01	<1	1.77	<50	70	<10	<20	4.17	<10	90	2650	20
C796005		0.81			0.98	<1	3.79	<50	130	<10	<20	8.59	<10	40	300	40
C796006		0.54			0.15	<1	2.07	<50	90	<10	<20	0.69	<10	20	30	180
C796007		1.01			0.26	<1	4.62	<50	350	<10	<20	2.65	<10	60	1200	20
C796008		0.58			0.03	<1	2.40	<50	220	<10	<20	1.02	<10	20	220	20
C796009		1.46			<0.01	<1	3.63	<50	<50	<10	<20	2.44	<10	60	40	70
C796010		0.47			<0.01	1	7.53	<50	<50	<10	<20	6.27	<10	70	440	30
C796011		0.54			<0.01	<1	5.84	<50	50	<10	<20	4.67	<10	30	40	40
C796012		0.73			0.01	1	8.03	<50	<50	<10	<20	8.33	<10	30	280	330
C796013		0.42			<0.01	<1	1.44	<50	<50	<10	<20	1.01	<10	10	50	10
C796014		0.75			<0.01	<1	2.71	<50	170	<10	<20	7.42	<10	10	30	20
C796015		0.47			<0.01	<1	7.36	<50	<50	<10	<20	4.07	<10	60	30	190
C796016		0.20			<0.01	<1	5.01	<50	80	<10	<20	3.15	<10	30	40	30
C796017		1.10			<0.01	<1	5.64	<50	110	<10	<20	3.57	<10	20	50	20
C796018		0.63	89.4		<0.01	<1	0.30	<50	<50	<10	<20	0.11	<10	<10	80	10
C796019		0.77	91.5	91.6	0.05	<1	4.59	<50	60	<10	<20	4.58	<10	70	1290	60



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		Fe	Ga	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
		%	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
		0.05	50	0.1	50	0.05	10	10	0.05	10	50	20	0.05	50	10	10
C797560		2.05	<50	0.3	<50	0.66	220	<10	1.41	10	490	20	<0.05	<50	<10	440
C797561		4.71	<50	0.9	<50	1.55	960	<10	3.03	50	1000	<20	<0.05	<50	10	380
C797562		5.78	<50	0.6	<50	4.12	810	<10	2.92	110	570	<20	<0.05	<50	20	120
C797563		5.54	<50	0.2	<50	2.69	610	<10	3.30	140	540	<20	<0.05	<50	10	420
C797564		2.42	<50	0.8	<50	1.25	390	<10	4.11	40	680	<20	<0.05	<50	10	380
C797565		5.25	<50	1.6	<50	1.33	1020	<10	2.32	70	520	<20	0.74	<50	10	130
C797566		10.80	<50	0.1	<50	1.86	1500	<10	1.72	50	660	<20	0.18	<50	40	120
C797567		1.75	<50	1.4	<50	0.56	330	<10	4.21	20	430	<20	<0.05	<50	<10	400
C797568		9.76	<50	0.5	<50	1.70	2000	<10	3.09	40	520	<20	0.40	<50	40	200
C797569		4.37	<50	2.0	70	3.73	1550	<10	0.92	100	3390	<20	<0.05	<50	10	2720
C797570		1.63	<50	3.3	<50	0.25	180	<10	3.34	<10	520	<20	<0.05	<50	<10	320
C797951		8.35	<50	0.3	<50	3.50	1250	<10	2.18	130	270	<20	0.28	<50	30	70
C797952		11.35	<50	0.3	<50	2.55	2020	<10	2.11	50	350	<20	0.17	<50	50	80
C797953		10.75	<50	0.1	<50	2.81	2200	<10	0.40	50	350	<20	0.69	<50	40	100
C797954		10.90	<50	0.1	<50	3.68	1670	<10	0.92	50	470	<20	0.09	<50	50	140
C797955		6.90	<50	0.3	<50	2.36	2020	<10	0.31	30	310	<20	<0.05	<50	30	110
C797956		11.00	<50	0.1	<50	3.57	1700	<10	1.62	50	560	<20	0.11	<50	40	60
C797957		7.57	<50	0.5	<50	3.64	1410	<10	2.41	120	240	<20	1.15	<50	30	70
C797958		9.69	<50	0.2	<50	3.01	1530	<10	2.64	50	410	<20	0.13	<50	40	80
C797959		11.00	<50	0.3	<50	1.17	1910	<10	<0.05	70	190	<20	0.90	<50	20	<10
C797960		11.00	<50	<0.1	<50	<0.05	90	20	0.11	10	70	30	1.47	<50	<10	<10
C796001		10.45	<50	0.1	<50	3.40	1640	<10	1.85	40	500	<20	<0.05	<50	40	110
C796002		8.86	<50	0.3	<50	5.99	850	<10	1.21	140	270	<20	0.88	<50	30	70
C796003		8.44	<50	2.7	<50	3.81	1270	<10	1.38	50	390	<20	1.67	<50	30	130
C796004		6.01	<50	0.5	<50	13.05	1140	<10	0.10	1140	<50	<20	0.21	<50	10	90
C796005		6.00	<50	0.7	<50	4.27	1550	<10	0.98	120	140	<20	1.41	<50	30	100
C796006		23.4	<50	0.7	<50	0.80	750	10	0.48	20	760	<20	3.38	<50	<10	30
C796007		6.79	<50	1.4	<50	7.66	1270	<10	0.06	670	110	<20	1.60	<50	20	80
C796008		3.56	<50	0.7	<50	0.63	590	10	1.27	40	80	<20	1.14	<50	10	40
C796009		2.60	<50	0.1	<50	2.09	340	<10	2.89	1930	<50	<20	0.25	<50	10	10
C796010		7.36	<50	0.1	<50	8.36	1300	<10	0.58	230	90	<20	<0.05	<50	30	50
C796011		7.15	<50	0.1	<50	3.02	1330	<10	2.32	30	180	<20	<0.05	<50	40	90
C796012		10.10	<50	0.1	<50	5.64	1430	<10	0.31	40	520	<20	0.08	<50	50	70
C796013		2.70	<50	<0.1	<50	1.05	430	<10	0.07	10	<50	<20	<0.05	<50	<10	10
C796014		2.01	<50	0.2	<50	0.53	710	<10	1.38	10	350	<20	<0.05	<50	10	30
C796015		12.15	<50	0.1	<50	3.94	1680	<10	1.72	50	340	<20	0.15	<50	50	20
C796016		8.93	<50	0.3	<50	2.01	1110	<10	2.04	30	360	<20	0.14	<50	30	50
C796017		7.17	<50	0.2	<50	2.02	1090	10	3.30	30	420	<20	1.19	<50	20	100
C796018		1.25	<50	<0.1	<50	<0.05	240	10	0.17	<10	70	<20	0.14	<50	<10	10
C796019		7.87	<50	0.6	<50	4.00	1220	20	0.80	620	130	<20	1.19	<50	20	90



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Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C797560		<50	0.12	<50	<50	40	<50	50
C797561		<50	0.37	<50	<50	130	<50	80
C797562		<50	0.42	<50	<50	150	<50	110
C797563		<50	0.31	<50	<50	90	<50	50
C797564		<50	0.24	<50	<50	60	<50	70
C797565		<50	0.20	<50	<50	150	<50	80
C797566		<50	1.09	<50	<50	450	<50	110
C797567		<50	0.12	<50	<50	40	<50	60
C797568		<50	0.53	<50	<50	370	<50	120
C797569		<50	0.16	<50	<50	70	<50	90
C797570		<50	0.18	<50	<50	50	<50	50
C797951		<50	0.52	<50	<50	230	<50	90
C797952		<50	0.65	<50	<50	320	<50	130
C797953		<50	0.60	<50	<50	300	<50	150
C797954		<50	0.80	<50	<50	360	<50	130
C797955		<50	0.44	<50	<50	200	<50	80
C797956		<50	0.82	<50	<50	350	<50	140
C797957		<50	0.43	<50	<50	220	<50	80
C797958		<50	0.78	<50	<50	340	<50	110
C797959		<50	0.18	<50	<50	100	<50	260
C797960		<50	<0.05	<50	<50	10	<50	40
C796001		<50	0.86	<50	<50	360	<50	150
C796002		<50	0.13	<50	<50	200	<50	440
C796003		<50	0.24	<50	<50	230	<50	50
C796004		<50	<0.05	<50	<50	70	<50	310
C796005		<50	0.08	<50	<50	120	<50	50
C796006		<50	0.07	<50	<50	80	<50	220
C796007		<50	0.07	<50	<50	130	<50	140
C796008		<50	<0.05	<50	<50	80	<50	40
C796009		<50	0.21	<50	<50	100	<50	20
C796010		<50	0.17	<50	<50	150	<50	70
C796011		<50	0.36	<50	<50	260	<50	80
C796012		<50	0.27	<50	<50	260	<50	70
C796013		<50	<0.05	<50	<50	70	<50	40
C796014		<50	0.07	<50	<50	50	<50	20
C796015		<50	0.89	<50	<50	380	<50	170
C796016		<50	0.60	<50	<50	280	<50	80
C796017		<50	0.58	<50	<50	180	<50	100
C796018		<50	<0.05	<50	<50	10	<50	<20
C796019		<50	0.09	<50	<50	180	<50	150



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Sample Description	Method Analyte Units LOD	WEI-21	PUL-QC	CRU-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass75um %	Pass2mm %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
C796020		0.74			<0.01	<1	1.90	<50	80	<10	<20	0.14	<10	10	140	180
C796021		0.97			<0.01	<1	0.48	<50	<50	<10	<20	2.32	<10	10	10	170
C796022		0.76			<0.01	1	7.34	<50	<50	<10	<20	4.57	<10	50	240	130
C796023		0.63			<0.01	<1	6.47	<50	50	<10	<20	2.58	<10	40	200	10
C796024		0.60			<0.01	1	1.15	<50	<50	<10	<20	0.97	<10	10	60	10
C796025		0.08			2.26	1	6.52	460	670	<10	<20	0.67	<10	10	130	30
C796026		0.56			0.04	1	6.65	<50	140	<10	<20	3.66	<10	40	230	80
C796027		0.91			0.08	1	5.72	<50	110	<10	<20	6.03	<10	50	360	50
C796028		0.56			<0.01	1	7.25	<50	100	<10	<20	9.52	<10	50	270	160
C796029		0.56			<0.01	1	6.27	<50	<50	<10	<20	9.29	<10	40	220	120
C796030		1.01			<0.01	1	6.76	<50	<50	<10	<20	6.20	<10	50	290	100
C796031		1.27			<0.01	1	6.79	<50	<50	<10	<20	7.65	<10	50	260	120
C796032		0.56			<0.01	1	6.27	<50	<50	<10	<20	7.27	<10	50	240	90
C796033		0.43			<0.01	1	0.42	<50	<50	<10	<20	1.85	<10	<10	10	<10
C796034		0.92			<0.01	1	5.83	<50	50	<10	<20	5.20	<10	50	100	120
C796035		1.32		90.8	<0.01	1	3.11	<50	180	<10	<20	0.81	<10	10	70	20
C796036		1.19			<0.01	<1	0.23	50	<50	<10	<20	<0.05	<10	120	2680	<10
C796037		0.92			<0.01	<1	4.85	<50	80	<10	<20	4.73	<10	20	30	40
C796038		1.55			0.02	1	3.01	<50	<50	<10	<20	2.92	<10	390	20	2640
C796039		0.83			0.03	2	6.42	70	<50	<10	<20	3.13	<10	150	10	3310
C796040		0.94			<0.01	1	5.75	<50	<50	<10	<20	2.04	<10	190	50	650
C796041		0.69			<0.01	1	6.90	<50	<50	<10	<20	7.08	<10	40	90	50
C796042		0.78			<0.01	1	3.39	<50	<50	<10	<20	5.80	<10	10	40	10
C796043		0.60			<0.01	1	3.53	<50	140	<10	<20	6.18	<10	20	20	40
C796044		0.82			<0.01	<1	4.78	<50	<50	<10	<20	0.79	<10	10	10	10
C796045		0.76			<0.01	1	0.09	<50	<50	<10	<20	<0.05	<10	<10	100	<10
C796046		0.82	95.7		0.03	1	2.99	<50	420	<10	<20	0.25	<10	10	30	10
C796047		1.10	90.8		0.03	4	0.21	<50	<50	<10	<20	<0.05	<10	<10	100	<10
C796048		0.52			<0.01	1	0.86	<50	60	<10	<20	0.08	<10	<10	70	30
C796049		0.88			<0.01	1	8.08	<50	60	<10	<20	7.08	<10	40	530	100
C796050		0.09			<0.01	1	0.22	<50	<50	<10	<20	0.07	<10	<10	50	<10
C796051		1.03			<0.01	1	5.49	<50	<50	<10	<20	6.97	<10	30	100	50
C796052		0.97			<0.01	1	5.51	<50	520	<10	<20	0.86	<10	10	30	10
C796053		0.78			<0.01	<1	7.19	<50	70	<10	<20	11.15	<10	40	70	70
C796054		0.89			<0.01	2	1.96	<50	<50	<10	<20	6.30	<10	10	50	60
C796055		1.01			<0.01	1	6.47	<50	<50	<10	<20	3.47	<10	30	40	40
C796056		0.68			<0.01	1	7.02	<50	<50	<10	<20	5.01	<10	50	20	60
C796057		0.74			<0.01	1	6.48	<50	<50	<10	<20	2.20	<10	60	20	100
C796058		1.21	94.9		<0.01	<1	3.94	<50	80	<10	<20	5.16	<10	10	20	40
C796059		1.00	97.1	76.3	<0.01	<1	6.49	<50	190	<10	<20	4.89	<10	30	10	20



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		Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm
C796020		6.41	<50	<0.1	<50	1.61	390	<10	0.09	40	230	<20	0.79	<50	10	<10
C796021		24.5	<50	0.2	<50	1.79	520	<10	0.05	10	930	<20	0.49	<50	<10	10
C796022		7.91	<50	<0.1	<50	4.32	1360	<10	1.90	60	180	<20	<0.05	<50	40	60
C796023		6.15	<50	0.3	<50	4.32	1020	<10	1.72	50	110	<20	<0.05	<50	40	50
C796024		1.90	<50	<0.1	<50	0.63	340	10	0.35	10	80	<20	<0.05	<50	10	10
C796025		3.76	<50	2.3	<50	1.46	330	<10	0.68	60	570	20	0.11	430	10	90
C796026		6.68	<50	0.7	<50	3.24	1700	<10	2.60	60	240	<20	0.35	<50	40	50
C796027		6.96	<50	0.8	<50	3.56	1820	<10	1.55	160	310	<20	1.07	<50	30	60
C796028		9.85	<50	0.2	<50	3.65	1840	<10	0.24	120	230	<20	0.11	<50	40	470
C796029		6.71	<50	<0.1	<50	3.33	1510	<10	0.27	100	200	<20	0.08	<50	30	200
C796030		8.11	<50	<0.1	<50	4.21	1830	<10	2.15	140	260	<20	<0.05	<50	40	160
C796031		7.79	<50	<0.1	<50	3.64	1670	<10	1.30	130	220	<20	0.07	<50	40	150
C796032		7.23	<50	<0.1	<50	4.97	1350	<10	0.29	200	170	<20	0.16	<50	30	420
C796033		26.3	<50	0.2	<50	0.85	3040	<10	<0.05	10	430	<20	<0.05	<50	<10	20
C796034		9.95	<50	0.2	<50	2.85	1500	<10	1.29	90	400	<20	<0.05	<50	30	220
C796035		1.28	<50	0.8	<50	0.75	190	<10	2.85	50	330	<20	0.12	<50	<10	100
C796036		8.04	<50	<0.1	<50	22.9	1290	<10	<0.05	2430	<50	<20	0.08	<50	<10	<10
C796037		4.62	<50	0.3	<50	1.30	1260	<10	2.84	50	590	<20	<0.05	<50	10	280
C796038		6.02	<50	<0.1	<50	0.76	150	<10	4.38	1760	2570	<20	4.30	<50	<10	40
C796039		4.35	<50	0.1	<50	2.89	180	<10	4.78	960	2720	<20	1.53	<50	10	100
C796040		5.02	<50	<0.1	<50	2.21	190	<10	4.94	3720	50	<20	1.64	<50	10	80
C796041		8.35	<50	0.1	<50	3.76	1350	10	1.79	70	280	<20	<0.05	<50	40	160
C796042		3.59	<50	<0.1	<50	0.29	1300	<10	0.86	10	50	<20	<0.05	<50	<10	120
C796043		3.44	<50	0.4	<50	0.57	1370	<10	3.82	40	500	<20	<0.05	<50	10	240
C796044		4.68	<50	0.1	<50	1.08	330	<10	2.79	<10	500	<20	0.14	<50	10	60
C796045		0.51	<50	<0.1	<50	<0.05	60	10	0.06	<10	<50	20	<0.05	<50	<10	<10
C796046		1.12	<50	1.4	<50	0.21	190	10	4.78	10	560	30	0.14	<50	<10	200
C796047		0.94	<50	<0.1	<50	<0.05	80	10	0.15	<10	<50	410	0.14	<50	<10	10
C796048		1.12	<50	0.1	<50	0.06	110	10	0.72	<10	60	40	0.07	<50	<10	50
C796049		6.73	<50	0.1	<50	4.44	1180	<10	2.15	130	140	<20	<0.05	<50	40	210
C796050		2.08	<50	<0.1	<50	0.05	230	<10	0.05	10	<50	<20	<0.05	<50	<10	10
C796051		6.50	<50	0.2	<50	2.83	1290	<10	1.21	50	180	<20	<0.05	<50	30	120
C796052		1.71	<50	1.2	<50	0.50	200	<10	4.24	10	420	<20	0.06	<50	<10	520
C796053		6.92	<50	0.2	<50	2.39	1260	<10	0.67	60	230	<20	<0.05	<50	30	240
C796054		3.58	<50	<0.1	<50	2.06	1270	<10	0.14	20	80	<20	<0.05	<50	10	20
C796055		6.90	<50	0.1	<50	2.98	1080	<10	2.80	30	260	<20	0.09	<50	20	120
C796056		11.85	<50	<0.1	<50	1.79	1450	<10	1.95	50	460	<20	0.07	<50	40	200
C796057		11.15	<50	0.1	<50	3.31	1570	<10	1.80	60	480	<20	0.08	<50	30	140
C796058		6.77	<50	0.4	<50	0.58	1530	<10	0.57	<10	690	<20	0.05	<50	10	200
C796059		13.35	<50	0.5	<50	2.29	8310	<10	1.37	30	260	<20	<0.05	<50	20	120



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 25 ADELAIDE STREET EAST
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CERTIFICATE OF ANALYSIS SD21134500

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C796020		<50	0.10	<50	<50	50	<50	130
C796021		<50	<0.05	<50	<50	10	<50	60
C796022		<50	0.34	<50	<50	280	<50	100
C796023		<50	0.14	<50	<50	210	<50	60
C796024		<50	<0.05	<50	<50	50	<50	20
C796025		<50	0.47	<50	<50	110	<50	100
C796026		<50	0.16	<50	<50	230	<50	120
C796027		<50	0.10	<50	<50	200	<50	150
C796028		<50	0.42	<50	<50	280	<50	90
C796029		<50	0.34	<50	<50	220	<50	70
C796030		<50	0.44	<50	<50	280	<50	90
C796031		<50	0.42	<50	<50	270	<50	80
C796032		<50	0.32	<50	<50	210	<50	80
C796033		<50	<0.05	<50	<50	10	<50	120
C796034		<50	0.68	<50	<50	340	<50	150
C796035		<50	0.08	<50	<50	30	<50	<20
C796036		<50	<0.05	<50	<50	20	<50	100
C796037		<50	0.41	<50	<50	140	<50	90
C796038		<50	0.30	<50	<50	60	<50	30
C796039		<50	0.30	<50	<50	80	<50	20
C796040		<50	0.31	<50	<50	140	<50	100
C796041		<50	0.50	<50	<50	270	<50	90
C796042		<50	<0.05	<50	<50	180	<50	30
C796043		<50	0.43	<50	<50	160	<50	90
C796044		<50	0.24	<50	<50	10	<50	20
C796045		<50	<0.05	<50	<50	<10	<50	<20
C796046		<50	0.13	<50	<50	30	<50	30
C796047		<50	<0.05	<50	<50	<10	<50	<20
C796048		<50	<0.05	<50	<50	<10	<50	<20
C796049		<50	0.35	<50	<50	240	<50	70
C796050		<50	<0.05	<50	<50	<10	<50	<20
C796051		<50	0.35	<50	<50	200	<50	70
C796052		<50	0.17	<50	<50	40	<50	60
C796053		<50	0.35	<50	<50	180	<50	70
C796054		<50	0.13	<50	<50	70	<50	30
C796055		<50	0.41	<50	<50	200	<50	70
C796056		<50	0.88	<50	<50	380	<50	130
C796057		<50	0.82	<50	<50	330	<50	140
C796058		<50	0.48	<50	<50	20	<50	110
C796059		<50	0.06	<50	<50	130	<50	200



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CERTIFICATE OF ANALYSIS SD21134500

Sample Description	Method Analyte Units LOD	WEI-21	PUL-QC	CRU-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass75um %	Pass2mm %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
C796060		0.61			<0.01	<1	11.55	<50	600	<10	<20	1.65	<10	<10	10	40
C796061		1.51			<0.01	<1	8.08	<50	390	<10	<20	0.28	<10	30	190	80
C796062		0.67			<0.01	<1	6.05	<50	180	<10	<20	5.13	<10	40	340	80
C796063		0.88			<0.01	<1	7.39	<50	<50	<10	<20	9.52	<10	40	170	160
C796064		1.40			<0.01	<1	7.16	<50	<50	<10	<20	7.79	<10	50	200	100
C796065		0.70			<0.01	<1	4.56	<50	<50	<10	<20	3.78	<10	50	140	290
C796066		1.14			<0.01	1	7.10	<50	<50	<10	<20	11.70	<10	10	60	<10
C796067		0.76			<0.01	<1	7.22	<50	210	<10	<20	6.29	<10	40	160	110
C796068		1.13			0.03	1	8.13	<50	190	<10	<20	4.55	<10	90	120	1120
C796069		1.35			<0.01	<1	6.45	<50	300	<10	<20	3.79	<10	20	120	30
C796070		0.79			0.04	<1	6.49	<50	520	<10	<20	2.57	<10	20	120	60
C796071		1.03			<0.01	<1	3.88	<50	170	<10	<20	0.45	<10	30	130	30
C796072		1.32			0.01	<1	4.79	<50	160	<10	<20	0.49	<10	10	20	20
C796073		0.48			<0.01	1	1.98	<50	190	<10	<20	0.15	<10	10	60	20
C796074		0.70			<0.01	<1	8.85	<50	280	<10	<20	1.34	<10	20	100	40
C796075		0.07			2.28	<1	7.83	470	690	<10	<20	0.77	<10	10	130	30
C796076		1.05			<0.01	<1	7.87	<50	400	<10	<20	1.39	<10	10	120	30
C796077		0.86			<0.01	<1	6.90	<50	530	<10	<20	3.07	<10	30	120	70
C796078		0.85			<0.01	<1	6.61	<50	50	<10	<20	3.82	<10	50	260	30
C796079		1.77			<0.01	<1	6.72	<50	<50	<10	<20	6.66	<10	50	240	100
C796080		0.63			<0.01	<1	6.60	<50	650	<10	<20	2.15	<10	20	90	40
C796081		1.34			<0.01	<1	6.42	<50	240	<10	<20	2.04	<10	20	120	50
C796082		0.49			<0.01	<1	6.40	<50	410	<10	<20	1.48	<10	30	100	40
C796083		0.48			<0.01	<1	5.45	<50	730	<10	<20	2.15	<10	10	30	10
C796084		0.62			<0.01	<1	6.44	<50	<50	<10	<20	7.48	<10	50	250	<10
C796085		0.70			<0.01	1	5.82	<50	<50	<10	<20	4.21	<10	50	30	120
C796086		0.56			0.02	<1	9.34	<50	640	<10	<20	0.85	<10	10	30	10
C796087		0.75			<0.01	<1	5.30	<50	710	<10	<20	0.35	<10	10	30	<10
C796088		0.87			<0.01	<1	6.16	<50	<50	<10	<20	4.24	<10	40	40	80
C796089		0.71			<0.01	<1	5.93	<50	280	<10	<20	5.11	<10	40	30	90
C796090		0.49			<0.01	<1	2.36	<50	130	<10	<20	2.83	<10	10	50	60
C796091		0.84			<0.01	<1	7.47	<50	340	<10	<20	2.30	<10	50	60	90
C796092		0.76			0.57	<1	4.54	80	90	<10	<20	3.45	<10	30	180	100
C796093		0.66			0.01	<1	5.14	<50	410	<10	<20	2.37	<10	10	50	10
C796094		0.96			<0.01	<1	6.97	<50	140	<10	<20	4.66	<10	50	190	110
C796095		0.69			<0.01	<1	7.67	<50	510	<10	<20	1.43	<10	10	50	40
C796096		0.52			<0.01	<1	2.91	<50	290	<10	<20	0.90	<10	20	30	20
C796097		0.71			0.01	<1	3.22	<50	280	<10	<20	7.00	<10	20	30	70
C796098		2.07	96.6		3.05	1	4.39	330	550	<10	<20	5.16	<10	40	20	100
C796099		1.15	92.7	77.0	0.87	1	4.69	70	880	<10	<20	6.22	<10	40	30	290



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CERTIFICATE OF ANALYSIS SD21134500

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm
C796060		2.02	<50	1.4	<50	0.37	1400	<10	3.61	10	410	<20	<0.05	<50	10	220
C796061		5.41	<50	1.4	<50	1.39	420	<10	1.98	110	340	<20	0.13	<50	30	200
C796062		7.18	<50	0.8	<50	4.21	1160	<10	1.19	80	290	<20	0.05	<50	30	50
C796063		5.93	<50	<0.1	<50	5.27	1110	<10	1.21	170	120	<20	<0.05	<50	40	120
C796064		7.91	<50	<0.1	<50	4.04	1410	<10	1.61	150	230	<20	0.10	<50	30	160
C796065		8.74	<50	<0.1	<50	1.68	850	10	<0.05	150	200	<20	1.36	<50	10	110
C796066		3.79	<50	<0.1	<50	1.15	800	<10	0.05	50	120	<20	<0.05	<50	10	240
C796067		6.48	<50	0.5	<50	2.13	1430	<10	1.84	90	500	<20	0.20	<50	30	430
C796068		14.15	<50	0.6	<50	3.05	2000	<10	1.08	100	510	<20	4.19	<50	50	540
C796069		5.66	<50	0.7	<50	1.77	1240	<10	2.52	60	820	<20	0.17	<50	20	460
C796070		5.78	<50	1.2	<50	1.67	1180	<10	2.28	50	680	<20	0.06	<50	20	490
C796071		5.21	<50	0.9	<50	1.25	1150	<10	<0.05	60	250	<20	<0.05	<50	20	20
C796072		1.59	<50	0.4	<50	0.56	280	<10	4.91	10	370	<20	<0.05	<50	<10	90
C796073		2.88	<50	0.6	<50	0.63	620	<10	0.08	20	380	<20	<0.05	<50	<10	70
C796074		3.88	<50	1.0	<50	1.34	710	<10	2.12	70	440	<20	0.20	<50	20	290
C796075		3.94	<50	2.8	<50	1.55	340	<10	0.69	60	570	20	0.11	440	10	100
C796076		2.92	<50	0.5	<50	1.29	420	<10	4.15	50	590	<20	0.06	<50	10	840
C796077		5.59	<50	1.1	<50	1.63	1120	<10	2.53	60	700	<20	0.24	<50	20	560
C796078		7.13	<50	0.1	<50	5.37	1210	<10	1.41	140	200	<20	0.05	<50	40	80
C796079		7.39	<50	0.1	<50	3.92	1530	<10	2.20	110	200	<20	0.13	<50	40	100
C796080		4.04	<50	1.5	<50	1.45	890	<10	3.05	50	740	<20	<0.05	<50	10	420
C796081		5.01	<50	0.4	<50	1.68	1070	<10	2.94	60	540	<20	0.06	<50	20	350
C796082		6.23	<50	1.0	<50	2.04	1230	<10	2.26	60	600	<20	0.09	<50	20	340
C796083		1.51	<50	1.2	<50	0.51	130	<10	3.07	10	380	<20	<0.05	<50	<10	480
C796084		6.72	<50	0.1	<50	7.49	1200	<10	0.68	200	110	<20	<0.05	<50	30	40
C796085		10.20	<50	0.1	<50	2.86	1320	<10	2.30	60	410	<20	0.14	<50	40	140
C796086		2.86	<50	1.8	<50	0.29	440	<10	3.47	20	1070	<20	0.41	<50	10	440
C796087		1.70	<50	1.8	<50	0.23	180	<10	3.77	20	550	<20	0.06	<50	<10	360
C796088		8.93	<50	<0.1	<50	2.13	1550	<10	2.22	50	590	<20	0.12	<50	30	70
C796089		8.98	<50	0.4	<50	2.21	1740	<10	2.05	50	570	<20	0.11	<50	30	70
C796090		3.94	<50	0.2	<50	0.86	1260	<10	3.17	10	670	<20	<0.05	<50	<10	170
C796091		10.60	<50	0.6	<50	2.34	1040	<10	3.06	60	750	<20	0.09	<50	40	180
C796092		5.32	<50	0.5	<50	1.14	1170	<10	0.79	80	160	<20	0.75	<50	20	40
C796093		1.86	<50	2.3	<50	0.45	410	<10	1.97	30	430	<20	0.06	<50	<10	120
C796094		9.78	<50	1.1	<50	3.21	1730	<10	0.42	110	260	<20	0.11	<50	40	70
C796095		2.01	<50	1.3	<50	0.55	460	<10	4.31	30	540	<20	0.17	<50	10	410
C796096		6.01	<50	0.4	<50	0.68	1450	<10	0.96	20	440	<20	<0.05	<50	20	50
C796097		7.73	<50	1.1	<50	1.64	2130	40	0.14	30	420	<20	0.22	<50	20	140
C796098		8.63	<50	1.6	<50	1.65	1650	<10	0.95	40	410	20	4.83	<50	30	250
C796099		7.87	<50	1.8	<50	2.19	1800	<10	0.20	40	640	<20	1.21	<50	30	410



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		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C796060		<50	0.10	<50	<50	40	<50	20
C796061		<50	0.24	<50	<50	220	<50	110
C796062		<50	0.23	<50	<50	200	<50	80
C796063		<50	0.23	<50	<50	190	<50	60
C796064		<50	0.40	<50	<50	220	<50	80
C796065		<50	0.19	<50	<50	120	<50	320
C796066		<50	0.14	<50	<50	160	<50	50
C796067		<50	0.44	<50	<50	200	<50	90
C796068		<50	0.68	<50	<50	380	<50	140
C796069		<50	0.41	<50	<50	160	<50	90
C796070		<50	0.43	<50	<50	170	<50	90
C796071		<50	0.35	<50	<50	170	<50	70
C796072		<50	0.19	<50	<50	40	<50	60
C796073		<50	0.09	<50	<50	50	<50	40
C796074		<50	0.12	<50	<50	110	<50	90
C796075		<50	0.47	<50	<50	110	<50	100
C796076		<50	0.31	<50	<50	70	<50	90
C796077		<50	0.40	<50	<50	150	<50	90
C796078		<50	0.40	<50	<50	290	<50	100
C796079		<50	0.39	<50	<50	250	<50	80
C796080		<50	0.33	<50	<50	110	<50	80
C796081		<50	0.36	<50	<50	140	<50	100
C796082		<50	0.44	<50	<50	170	<50	90
C796083		<50	0.24	<50	<50	40	<50	40
C796084		<50	0.21	<50	<50	180	<50	60
C796085		<50	0.68	<50	<50	520	<50	110
C796086		<50	0.19	<50	<50	60	<50	40
C796087		<50	0.17	<50	<50	50	<50	50
C796088		<50	0.50	<50	<50	380	<50	120
C796089		<50	0.39	<50	<50	370	<50	120
C796090		<50	0.12	<50	<50	50	<50	40
C796091		<50	0.39	<50	<50	400	<50	150
C796092		<50	0.15	<50	<50	170	<50	40
C796093		<50	0.16	<50	<50	40	<50	40
C796094		<50	0.40	<50	<50	310	<50	100
C796095		<50	0.16	<50	<50	50	<50	40
C796096		<50	0.12	<50	<50	150	<50	90
C796097		<50	0.32	<50	<50	240	<50	80
C796098		<50	0.62	<50	<50	300	<50	60
C796099		<50	0.36	<50	<50	270	<50	130



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Sample Description	Method Analyte Units LOD	WEI-21	PUL-QC	CRU-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass75um %	Pass2mm %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
C796100		0.10			<0.01	<1	0.21	<50	<50	<10	<20	0.09	<10	<10	50	10
C796101		0.53			0.04	<1	3.58	<50	50	<10	<20	0.17	<10	40	170	70
C796102		0.58	98.0		0.39	1	7.05	<50	150	<10	<20	3.73	<10	20	130	120
C796103		0.88			0.12	1	6.71	<50	110	<10	<20	5.40	<10	30	190	50
C796104		0.67			<0.01	<1	6.61	<50	50	<10	<20	8.64	<10	40	240	80
C796105		0.19			<0.01	1	5.93	<50	<50	<10	<20	7.45	<10	270	20	710
C796106		0.40			<0.01	<1	6.98	<50	70	<10	<20	6.26	<10	50	260	120
C796107		0.41			<0.01	<1	6.58	<50	430	<10	<20	1.76	<10	40	220	80
C796108		0.26			0.45	<1	5.75	50	320	<10	<20	3.58	<10	30	110	210
C796109		0.70			0.09	1	6.45	<50	60	<10	<20	1.46	<10	30	30	2800
C796110		0.63			0.04	2	4.14	<50	<50	<10	<20	8.71	<10	180	10	4810
C796111		0.34			<0.01	<1	4.83	<50	<50	<10	<20	8.37	<10	170	10	450
C796151		1.30			0.51	1	3.63	90	600	<10	<20	6.21	<10	30	20	120
C796153		1.59			0.01	<1	6.02	<50	590	<10	<20	0.67	<10	10	40	10
C796154		1.07			0.19	<1	2.12	<50	360	<10	<20	1.15	<10	<10	40	<10
C796155		1.11			2.15	<1	1.75	<50	230	<10	<20	0.98	<10	10	50	<10
C796157		1.35			1.69	<1	5.61	120	270	<10	<20	5.13	<10	40	20	70
C796159		1.31			<0.01	<1	6.41	<50	420	<10	<20	4.51	<10	50	40	130
C796160		1.25			<0.01	<1	6.26	<50	730	<10	<20	0.63	<10	10	40	10
C796161		1.55			<0.01	<1	7.74	<50	720	<10	<20	1.70	<10	10	30	<10
C796162		1.20			<0.01	<1	6.74	<50	530	<10	<20	5.39	<10	50	50	140
C796201		1.28			<0.01	<1	6.60	<50	<50	<10	<20	5.40	<10	50	230	40
C796202		0.49			<0.01	<1	4.91	<50	90	<10	<20	0.47	<10	<10	20	<10
C796203		0.57			<0.01	<1	5.83	<50	<50	<10	<20	6.12	<10	30	10	70
C796204		0.51			<0.01	<1	5.09	<50	410	<10	<20	0.64	<10	10	90	20
C796205		0.66			<0.01	<1	8.01	<50	620	<10	<20	5.63	<10	50	70	70
C796206		0.44			<0.01	<1	7.81	<50	<50	<10	<20	10.80	<10	30	230	<10
C796207		0.44			0.82	<1	3.78	<50	70	<10	<20	7.44	<10	30	190	50
C796208		0.87			0.51	1	5.00	<50	70	<10	<20	5.84	<10	40	330	80
C796209		0.80			0.01	<1	6.02	<50	60	<10	<20	6.32	<10	40	360	80
C796210		0.93			0.39	<1	4.28	<50	110	<10	<20	6.18	<10	30	230	30
C796211		1.03			1.17	1	4.37	<50	170	<10	<20	5.92	<10	40	330	50
C796212		1.55			0.14	<1	4.41	<50	100	<10	<20	0.60	<10	20	20	30
C796213		1.03			0.40	1	2.07	<50	80	<10	<20	0.07	<10	10	80	250
C796214		0.70			1.58	3	2.56	<50	<50	<10	<20	<0.05	<10	100	290	360
C796215		0.74			0.39	<1	2.34	<50	100	<10	<20	1.51	<10	30	290	110
C796216		0.91			3.16	1	5.56	<50	130	<10	<20	5.19	<10	30	260	50
C796217		0.94			0.51	<1	4.53	<50	420	<10	<20	2.25	<10	10	60	90
C796218		0.87			0.07	<1	3.73	<50	<50	<10	<20	0.24	<10	60	180	420
C796219		0.86	96.6	80.9	1.06	<1	3.42	<50	80	<10	<20	7.14	<10	30	220	110



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Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm
C796100		1.15	<50	0.1	<50	<0.05	140	<10	<0.05	10	<50	<20	<0.05	<50	<10	10
C796101		5.13	<50	0.5	<50	2.62	470	<10	0.72	70	110	<20	1.69	<50	20	20
C796102		4.45	<50	0.9	<50	3.38	1330	<10	4.58	40	130	<20	1.80	<50	20	130
C796103		6.05	<50	1.3	<50	2.85	1110	<10	3.54	40	160	<20	0.94	<50	40	110
C796104		7.94	<50	0.1	<50	4.23	1400	<10	0.95	120	200	<20	<0.05	<50	40	170
C796105		6.35	<50	0.1	<50	4.54	500	<10	2.65	9870	120	<20	2.47	<50	10	110
C796106		8.64	<50	0.6	<50	4.26	1050	<10	2.00	120	280	<20	0.07	<50	40	120
C796107		7.28	<50	0.8	<50	3.66	1070	<10	1.43	120	250	<20	<0.05	<50	30	50
C796108		6.02	<50	1.0	<50	1.95	1130	<10	2.16	160	440	<20	0.94	<50	20	190
C796109		2.47	<50	0.6	<50	0.90	200	<10	5.51	20	560	<20	0.25	<50	10	50
C796110		7.04	<50	0.2	<50	6.47	470	<10	1.30	5580	1850	<20	2.26	<50	10	160
C796111		6.13	<50	0.2	<50	5.99	400	<10	1.77	6350	120	<20	1.84	<50	10	180
C796151		7.53	<50	1.3	<50	2.02	1950	10	0.47	50	410	<20	1.95	<50	20	360
C796153		1.74	<50	1.2	<50	0.28	440	<10	4.24	20	670	<20	0.31	<50	<10	260
C796154		1.57	<50	0.8	<50	0.36	350	<10	1.72	10	320	<20	0.37	<50	<10	150
C796155		2.00	<50	0.6	<50	0.25	530	10	1.20	10	230	<20	0.58	<50	<10	140
C796157		10.85	<50	0.7	<50	2.64	1880	<10	1.76	50	480	<20	2.46	<50	40	260
C796159		11.05	<50	1.3	<50	2.28	1530	<10	1.96	70	1030	<20	0.07	<50	30	220
C796160		2.39	<50	1.9	<50	0.31	430	<10	3.01	20	550	20	0.15	<50	<10	310
C796161		2.18	<50	1.0	<50	0.76	310	<10	4.06	20	640	<20	0.17	<50	10	390
C796162		11.40	<50	0.9	<50	2.33	1560	<10	2.25	70	1100	20	0.13	<50	30	370
C796201		7.88	<50	0.1	<50	4.80	1650	<10	3.00	60	210	<20	<0.05	<50	40	80
C796202		1.64	<50	0.3	<50	0.48	410	<10	4.78	10	400	<20	<0.05	<50	<10	60
C796203		7.83	<50	0.2	<50	2.16	1310	<10	0.81	20	290	<20	<0.05	<50	40	180
C796204		2.13	<50	1.3	<50	1.21	400	<10	2.90	30	170	<20	<0.05	<50	10	40
C796205		11.80	<50	0.8	<50	2.92	1580	<10	2.63	60	2690	<20	<0.05	<50	20	450
C796206		7.74	<50	0.1	<50	3.62	1270	20	0.85	80	190	<20	<0.05	<50	30	230
C796207		4.59	<50	0.5	<50	3.42	1270	<10	1.77	70	170	<20	1.11	<50	20	90
C796208		5.59	<50	0.5	<50	3.68	980	<10	2.10	110	200	<20	1.15	<50	30	80
C796209		7.16	<50	0.7	<50	4.78	1120	<10	1.24	130	250	<20	0.34	<50	30	90
C796210		5.41	<50	0.7	<50	3.59	1050	<10	1.00	70	190	<20	0.51	<50	20	80
C796211		5.15	<50	0.7	<50	3.78	1090	<10	2.00	150	50	<20	1.84	<50	20	170
C796212		2.23	<50	0.1	<50	0.46	330	<10	7.24	20	710	<20	1.58	<50	<10	180
C796213		1.38	<50	0.1	<50	0.59	320	130	6.54	40	240	<20	0.26	<50	<10	100
C796214		17.50	<50	0.1	<50	2.05	180	30	0.16	170	270	<20	9.35	<50	10	10
C796215		3.83	<50	0.3	<50	1.86	580	50	0.54	100	120	<20	1.23	<50	10	50
C796216		6.13	<50	0.7	<50	3.98	880	<10	2.00	90	380	<20	2.58	<50	30	120
C796217		2.43	<50	0.7	<50	1.04	360	<10	5.89	30	670	<20	1.48	<50	<10	240
C796218		10.25	<50	0.1	<50	3.67	630	<10	0.11	140	430	<20	3.22	<50	10	10
C796219		4.92	<50	0.6	<50	3.94	1180	<10	1.23	80	200	<20	1.57	<50	20	100



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Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C796100		<50	<0.05	<50	<50	10	<50	<20
C796101		<50	0.07	<50	<50	120	<50	150
C796102		<50	0.08	<50	<50	90	<50	60
C796103		<50	0.11	<50	<50	210	<50	90
C796104		<50	0.38	<50	<50	250	<50	80
C796105		<50	0.45	<50	<50	190	<50	40
C796106		<50	0.49	<50	<50	270	<50	50
C796107		<50	0.39	<50	<50	220	<50	70
C796108		<50	0.31	<50	<50	190	<50	80
C796109		<50	0.33	<50	<50	40	<50	40
C796110		<50	0.22	<50	<50	250	<50	60
C796111		<50	0.20	<50	<50	230	<50	50
C796151		<50	0.41	<50	<50	190	<50	120
C796153		<50	0.15	<50	<50	50	<50	40
C796154		<50	0.06	<50	<50	30	<50	20
C796155		<50	0.11	<50	<50	60	<50	20
C796157		<50	0.49	<50	<50	380	<50	240
C796159		<50	1.21	<50	<50	380	<50	160
C796160		<50	0.13	<50	<50	50	<50	60
C796161		<50	0.17	<50	<50	40	<50	40
C796162		<50	1.19	<50	<50	370	<50	150
C796201		<50	0.27	<50	<50	180	<50	80
C796202		<50	0.17	<50	<50	40	<50	30
C796203		<50	0.47	<50	<50	330	<50	60
C796204		<50	0.12	<50	<50	60	<50	40
C796205		<50	1.90	<50	<50	300	<50	150
C796206		<50	0.34	<50	<50	400	<50	70
C796207		<50	0.08	<50	<50	120	<50	40
C796208		<50	0.11	<50	<50	150	<50	120
C796209		<50	0.12	<50	<50	200	<50	190
C796210		<50	0.10	<50	<50	150	<50	50
C796211		<50	0.10	<50	<50	160	<50	80
C796212		<50	0.12	<50	<50	20	<50	<20
C796213		<50	0.09	<50	<50	40	<50	40
C796214		<50	<0.05	<50	<50	90	<50	110
C796215		<50	0.05	<50	<50	80	<50	60
C796216		<50	0.11	<50	<50	150	<50	80
C796217		<50	0.15	<50	<50	60	<50	30
C796218		<50	0.10	<50	<50	70	<50	90
C796219		<50	0.06	<50	<50	100	70	60



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Sample Description	Method Analyte Units LOD	WEI-21	PUL-QC	CRU-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass75um %	Pass2mm %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
C796220		1.05	94.1	92.3	<0.01	<1	8.07	<50	760	<10	<20	5.86	<10	50	80	60
C796221		0.81			<0.01	<1	0.27	<50	<50	<10	<20	<0.05	<10	160	8450	10
C796222		1.11			0.01	<1	0.25	360	<50	<10	<20	0.72	<10	90	4590	60
C796223		0.88			0.01	2	5.86	<50	210	<10	<20	2.96	<10	50	100	2830
C796224		1.45			<0.01	<1	5.86	<50	<50	<10	<20	6.89	<10	20	50	60
C796225		0.08			2.18	<1	4.98	470	640	<10	<20	0.69	<10	10	140	30
C796226		0.79			0.01	<1	6.57	<50	240	<10	<20	8.16	<10	40	20	140
C796227		0.97			<0.01	<1	3.78	<50	420	<10	<20	1.02	<10	10	20	10
C796228		0.75			0.01	17	4.48	<50	50	<10	210	3.13	<10	40	20	130
C796229		1.25			<0.01	2	0.58	<50	110	<10	<20	0.64	<10	<10	60	10
C796230		0.98			<0.01	<1	3.33	<50	370	<10	<20	0.40	<10	10	20	40
C796231		0.65			<0.01	<1	3.34	<50	130	<10	<20	0.38	<10	10	20	<10
C796232		0.71			0.03	<1	4.07	<50	120	<10	<20	0.46	<10	10	20	<10
C796233		0.96			0.01	<1	2.36	<50	140	<10	<20	0.21	<10	<10	30	10
C796234		0.82			0.04	<1	3.49	<50	90	<10	<20	0.49	<10	20	30	<10
C796235		1.00			0.03	<1	3.37	<50	80	<10	<20	0.96	<10	10	30	<10
C796236		0.70			0.03	<1	4.65	<50	410	<10	<20	4.23	<10	30	50	30
C796237		0.71			<0.01	<1	1.23	<50	<50	<10	<20	1.92	<10	10	60	10
C796238		1.20			<0.01	<1	3.45	<50	600	<10	<20	1.89	<10	10	40	10
C796239		1.70			<0.01	<1	0.97	<50	<50	<10	<20	1.43	<10	10	70	<10
C796240		0.91			0.01	<1	5.20	<50	150	<10	<20	2.85	<10	60	60	120
C796241		0.69			0.05	2	5.55	<50	230	<10	<20	0.80	<10	90	60	30
C796242		0.96			<0.01	<1	5.02	<50	<50	<10	<20	5.63	<10	30	120	10
C796243		0.56			<0.01	<1	2.02	<50	70	<10	<20	0.13	<10	<10	20	<10
C796244		1.26			<0.01	1	4.00	<50	380	<10	<20	16.25	<10	20	120	60
C796245		0.89			<0.01	<1	4.90	<50	300	<10	<20	5.30	<10	20	90	60
C796246		0.38			0.13	<1	4.39	<50	480	<10	<20	1.16	<10	10	80	50
C796247		1.29			<0.01	<1	4.07	<50	550	<10	<20	1.65	<10	10	40	20
C796248		0.91			<0.01	<1	6.60	<50	100	<10	<20	1.12	<10	40	100	90
C796249		0.93			0.14	<1	5.04	<50	200	<10	<20	0.52	<10	30	130	30
C796250		0.12			<0.01	<1	0.17	<50	<50	<10	<20	<0.05	<10	<10	20	<10
C796251		0.85			<0.01	<1	2.09	<50	340	<10	<20	1.37	<10	<10	40	<10
C796252		0.79			<0.01	<1	3.96	<50	600	<10	<20	1.37	<10	10	30	10
C796253		0.95			<0.01	<1	6.55	<50	80	<10	<20	9.61	<10	40	230	130
C796254		1.05			<0.01	<1	5.00	<50	420	<10	<20	4.00	<10	20	80	60
C796255		1.10			<0.01	<1	1.14	<50	<50	<10	<20	0.48	<10	10	60	<10
C796256		1.01			<0.01	<1	5.58	<50	160	<10	<20	3.61	<10	30	150	80
C796257		0.91			<0.01	<1	7.25	<50	<50	<10	<20	2.98	<10	50	250	100
C796258		0.82			<0.01	<1	3.01	<50	100	<10	<20	6.55	<10	20	110	50
C796259		0.64	90.4	86.6	<0.01	<1	0.17	<50	<50	<10	<20	0.71	<10	<10	60	<10



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CERTIFICATE OF ANALYSIS SD21134500

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Fe	Ga	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
		%	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
		0.05	50	0.1	50	0.05	10	10	0.05	10	50	20	0.05	50	10	10
C796220		11.55	<50	0.8	<50	3.51	1620	<10	2.61	80	2960	<20	0.06	<50	30	500
C796221		6.09	<50	<0.1	<50	24.0	810	<10	<0.05	2070	<50	<20	<0.05	<50	<10	10
C796222		4.00	<50	<0.1	<50	23.5	990	<10	<0.05	2490	<50	<20	0.10	<50	<10	90
C796223		6.92	<50	0.5	<50	2.87	890	<10	1.75	100	610	<20	0.51	<50	10	230
C796224		3.91	<50	0.1	<50	1.81	1270	<10	4.17	40	590	<20	0.52	<50	20	240
C796225		3.80	<50	2.4	<50	1.31	340	<10	0.69	60	560	20	0.10	450	10	80
C796226		10.45	<50	1.1	<50	2.58	2800	<10	1.07	30	480	<20	0.10	<50	30	130
C796227		1.57	<50	1.0	<50	0.46	250	<10	4.30	10	360	<20	0.19	<50	<10	400
C796228		8.79	<50	0.1	<50	1.81	1540	<10	2.11	20	380	440	0.17	<50	20	100
C796229		0.81	<50	<0.1	<50	0.06	160	10	0.39	<10	<50	20	<0.05	<50	<10	30
C796230		1.35	<50	0.9	<50	0.47	160	<10	5.56	10	420	<20	0.18	<50	<10	270
C796231		1.67	<50	0.3	<50	0.15	290	<10	7.25	10	650	<20	1.23	<50	<10	200
C796232		2.94	<50	0.2	<50	0.15	470	40	6.85	10	530	<20	1.47	<50	<10	170
C796233		1.53	<50	0.2	<50	0.09	300	<10	4.60	<10	470	<20	0.55	<50	<10	130
C796234		4.09	<50	0.1	<50	0.09	190	<10	5.39	10	530	<20	3.88	<50	<10	190
C796235		1.90	<50	0.1	<50	0.11	330	10	5.35	10	550	<20	1.25	<50	<10	180
C796236		9.82	<50	0.8	<50	1.78	2490	<10	0.43	20	1640	<20	0.68	<50	30	130
C796237		2.33	<50	<0.1	<50	0.30	430	<10	0.31	10	90	<20	<0.05	<50	<10	70
C796238		2.23	<50	1.0	<50	0.84	390	<10	3.97	30	830	<20	0.06	<50	<10	560
C796239		1.81	<50	<0.1	<50	0.64	370	<10	0.24	20	<50	<20	<0.05	<50	<10	20
C796240		21.0	<50	0.1	<50	1.50	2370	<10	0.23	50	430	<20	4.29	<50	30	160
C796241		13.70	<50	2.4	<50	0.54	1200	<10	1.23	70	420	80	>10.0	<50	10	50
C796242		5.17	<50	0.2	<50	2.75	990	50	1.40	40	190	<20	0.15	<50	30	80
C796243		0.99	<50	0.2	<50	0.15	260	<10	4.43	10	170	<20	<0.05	<50	<10	70
C796244		4.67	<50	0.6	<50	2.17	1540	<10	0.19	60	120	<20	<0.05	<50	20	50
C796245		5.38	<50	0.7	<50	1.56	1380	<10	2.04	60	580	<20	0.05	<50	10	410
C796246		5.98	<50	0.8	<50	1.19	840	<10	1.61	40	590	<20	0.07	<50	10	300
C796247		2.29	<50	1.0	<50	0.60	520	<10	3.58	20	320	<20	0.05	<50	<10	270
C796248		11.45	<50	0.2	<50	3.00	1690	<10	1.17	60	690	20	0.56	<50	40	100
C796249		7.04	<50	0.5	<50	1.84	1240	<10	2.35	50	590	<20	<0.05	<50	20	140
C796250		0.42	<50	<0.1	<50	<0.05	60	<10	<0.05	<10	<50	<20	<0.05	<50	<10	<10
C796251		1.40	<50	0.7	<50	0.13	320	<10	0.86	<10	110	<20	<0.05	<50	<10	210
C796252		1.81	<50	0.9	<50	0.56	280	<10	4.05	20	450	<20	<0.05	<50	<10	480
C796253		7.12	<50	0.1	<50	2.96	1580	<10	1.46	110	200	<20	0.09	<50	40	110
C796254		5.00	<50	0.5	<50	1.52	1210	<10	3.02	50	590	<20	0.07	<50	10	490
C796255		2.20	<50	<0.1	<50	0.60	570	<10	0.60	20	<50	<20	<0.05	<50	<10	20
C796256		6.42	<50	0.1	<50	2.04	1380	<10	3.05	80	720	<20	0.34	<50	10	600
C796257		9.22	<50	0.1	<50	3.44	1900	<10	1.92	150	230	<20	0.05	<50	30	120
C796258		3.99	<50	0.4	<50	0.86	1250	<10	0.12	50	120	<20	0.05	<50	20	80
C796259		1.22	<50	<0.1	<50	0.08	300	10	<0.05	<10	<50	<20	<0.05	<50	<10	30



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To: EXIRO MINERALS
 25 ADELAIDE STREET EAST
 SUITE 1400
 TORONTO ON M5C 3A1

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CERTIFICATE OF ANALYSIS SD21134500

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C796220		<50	1.66	<50	<50	230	<50	140
C796221		<50	<0.05	<50	<50	30	<50	60
C796222		<50	<0.05	<50	<50	20	<50	60
C796223		<50	0.35	<50	<50	120	<50	310
C796224		<50	0.45	<50	<50	170	<50	80
C796225		<50	0.46	<50	<50	110	<50	100
C796226		<50	0.73	<50	<50	340	<50	100
C796227		<50	0.17	<50	<50	40	<50	60
C796228		<50	0.62	<50	<50	270	<50	120
C796229		<50	<0.05	<50	<50	10	<50	<20
C796230		<50	0.19	<50	<50	50	<50	50
C796231		<50	0.15	<50	<50	30	<50	30
C796232		<50	0.07	<50	<50	20	<50	40
C796233		<50	0.10	<50	<50	30	<50	70
C796234		<50	0.08	<50	<50	20	<50	40
C796235		<50	0.11	<50	<50	20	<50	60
C796236		<50	0.71	<50	<50	210	<50	160
C796237		<50	0.10	<50	<50	60	<50	20
C796238		<50	0.29	<50	<50	50	<50	60
C796239		<50	<0.05	<50	<50	30	<50	30
C796240		<50	0.90	<50	<50	290	<50	320
C796241		<50	0.87	<50	<50	210	<50	140
C796242		<50	0.24	<50	<50	210	<50	60
C796243		<50	0.11	<50	<50	40	<50	20
C796244		<50	0.18	<50	<50	140	<50	60
C796245		<50	0.34	<50	<50	140	<50	70
C796246		<50	0.28	<50	<50	110	<50	70
C796247		<50	0.18	<50	<50	50	<50	50
C796248		<50	0.81	<50	<50	310	<50	120
C796249		<50	0.49	<50	<50	170	<50	100
C796250		<50	<0.05	<50	<50	<10	<50	<20
C796251		<50	0.06	<50	<50	20	<50	20
C796252		<50	0.20	<50	<50	50	<50	50
C796253		<50	0.38	<50	<50	240	<50	70
C796254		<50	0.15	<50	<50	140	<50	80
C796255		<50	<0.05	<50	<50	20	<50	<20
C796256		<50	0.44	<50	<50	180	<50	480
C796257		<50	0.51	<50	<50	290	<50	130
C796258		<50	0.12	<50	<50	100	<50	40
C796259		<50	<0.05	<50	<50	10	<50	<20



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CERTIFICATE OF ANALYSIS SD21134500

Sample Description	Method Analyte Units LOD	WEI-21	PUL-QC	CRU-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass75um %	Pass2mm %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
C796260		1.41		79.9	0.02	<1	5.76	<50	50	<10	<20	2.12	<10	60	270	180
C796261		0.82			<0.01	<1	1.74	<50	<50	<10	<20	12.30	<10	10	60	<10
C796262		1.04			<0.01	<1	4.08	<50	640	<10	<20	2.90	<10	20	50	20
C796263		1.07			<0.01	<1	5.56	<50	260	<10	<20	4.14	<10	40	240	60
C796264		0.92			<0.01	<1	3.67	<50	490	<10	<20	2.38	<10	10	40	10
C796265		0.91			<0.01	<1	3.36	<50	840	<10	<20	3.47	<10	10	30	20
C796266		1.22			0.06	<1	1.14	<50	70	<10	<20	3.13	<10	<10	70	<10
C796267		0.73			0.74	<1	3.33	<50	120	<10	<20	9.04	<10	20	200	10
C796268		0.79			0.01	<1	5.74	<50	570	<10	<20	3.94	<10	40	250	60
C796269		1.16			<0.01	<1	5.08	<50	460	<10	<20	2.45	<10	40	280	60
C796270		1.06			<0.01	<1	5.53	<50	800	<10	<20	3.62	<10	30	170	50
C796271		1.02	93.8		0.01	<1	5.84	<50	700	<10	<20	4.82	<10	50	460	70
C796272		0.89			<0.01	<1	4.56	<50	500	<10	<20	1.15	<10	20	240	60
C796273		1.15	92.1		<0.01	<1	2.54	<50	1030	<10	<20	6.09	<10	10	110	<10
C796274		1.67			0.03	<1	5.99	<50	1370	<10	<20	0.17	<10	60	420	60
C796275		0.08			2.29	<1	3.33	470	600	<10	<20	0.51	<10	10	130	30
C796276		1.00			<0.01	<1	6.76	<50	80	<10	<20	7.58	<10	40	140	80
C796277		1.46			<0.01	<1	6.42	<50	70	<10	<20	6.70	<10	40	180	30
C796278		1.39			<0.01	<1	6.47	<50	110	<10	<20	7.04	<10	50	10	260
C796279		0.83			0.01	<1	5.31	<50	140	<10	<20	4.86	<10	30	30	100
C796280		1.52			<0.01	<1	6.87	<50	60	<10	<20	7.98	<10	50	170	160
C796281		0.80			<0.01	<1	2.27	<50	60	<10	<20	1.93	<10	10	50	50
C796282		1.30			<0.01	<1	1.65	<50	<50	<10	<20	1.97	<10	20	70	200
C796283		1.12			<0.01	<1	6.69	<50	<50	<10	<20	7.89	<10	50	120	60
C796284		1.04			<0.01	<1	5.70	<50	60	<10	<20	6.58	<10	40	150	90
C796286		1.36			<0.01	<1	1.37	<50	<50	<10	<20	1.64	<10	20	40	100
C796287		1.28			<0.01	<1	5.47	<50	50	<10	<20	5.36	<10	30	10	80
C796289		1.02			<0.01	<1	3.58	<50	<50	<10	<20	3.46	<10	20	30	30
C796290		1.09			<0.01	<1	3.70	<50	50	<10	<20	2.48	<10	10	20	20
C796291		1.48			<0.01	<1	5.81	<50	<50	<10	<20	4.29	<10	30	10	60
C796292		3.68			<0.01	<1	2.83	<50	600	<10	<20	0.63	<10	10	60	20
C796293		1.26			<0.01	<1	1.26	<50	110	<10	<20	1.70	<10	10	50	<10
C796295		1.10			0.02	<1	2.55	<50	280	<10	<20	0.38	<10	10	60	20
C796296		2.39			<0.01	<1	2.36	<50	220	<10	<20	1.22	<10	<10	60	20
C796297		1.39			<0.01	<1	0.87	<50	90	<10	<20	0.61	<10	<10	40	20
C796298		2.54			<0.01	<1	2.67	<50	570	<10	<20	2.11	<10	10	40	<10
C796299		1.28			<0.01	<1	2.98	<50	950	<10	<20	1.92	<10	10	50	<10
C796300		0.09			<0.01	<1	0.31	<50	<50	<10	<20	<0.05	<10	<10	20	<10



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CERTIFICATE OF ANALYSIS SD21134500

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Fe	Ga	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
		%	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
C796260		9.14	<50	0.2	<50	2.23	1540	<10	2.16	150	390	30	1.21	<50	30	240
C796261		2.38	<50	<0.1	<50	0.91	1160	<10	0.32	20	170	<20	<0.05	<50	<10	170
C796262		3.96	<50	1.4	<50	1.31	810	<10	2.29	40	520	<20	<0.05	<50	10	350
C796263		6.59	<50	0.6	<50	2.51	1430	<10	1.84	150	450	<20	0.15	<50	10	640
C796264		2.32	<50	0.7	<50	0.68	800	<10	3.75	30	480	<20	<0.05	<50	<10	190
C796265		2.26	<50	1.1	<50	0.55	670	<10	4.06	10	560	30	0.12	<50	<10	380
C796266		2.65	<50	0.2	<50	0.78	1370	<10	0.11	10	120	<20	0.13	<50	10	230
C796267		5.46	<50	0.4	<50	2.01	2710	<10	0.27	60	350	<20	0.53	<50	20	730
C796268		7.15	<50	0.3	<50	2.72	1700	<10	2.04	170	420	<20	0.12	<50	20	540
C796269		6.03	<50	1.0	<50	1.56	1440	<10	1.11	160	500	<20	0.08	<50	20	430
C796270		4.90	<50	0.9	<50	2.05	1290	<10	2.65	100	430	<20	0.34	<50	10	470
C796271		7.69	<50	1.0	<50	2.52	2570	<10	1.43	250	420	<20	0.29	<50	20	360
C796272		4.52	<50	1.6	<50	1.25	840	<10	0.14	130	280	<20	<0.05	<50	20	160
C796273		2.18	<50	0.9	<50	0.56	970	<10	0.15	30	630	20	<0.05	<50	<10	740
C796274		7.52	<50	2.1	<50	1.84	380	<10	0.98	210	610	20	1.27	<50	20	180
C796275		3.45	<50	2.1	<50	1.23	310	<10	0.67	60	540	20	0.09	440	10	70
C796276		8.04	<50	0.4	<50	2.38	1540	<10	1.86	70	400	<20	0.21	<50	30	190
C796277		9.12	<50	0.2	<50	2.91	1740	<10	1.65	60	380	<20	<0.05	<50	40	110
C796278		11.70	<50	0.6	<50	1.82	1670	<10	1.53	10	860	<20	1.33	<50	40	230
C796279		9.86	<50	0.5	<50	2.75	1450	<10	0.91	20	550	<20	0.05	<50	30	100
C796280		8.85	<50	0.4	<50	2.79	1600	<10	1.80	90	340	<20	0.18	<50	40	120
C796281		5.01	<50	0.2	<50	1.03	870	<10	0.35	10	250	<20	0.11	<50	10	40
C796282		3.09	<50	0.2	<50	0.71	450	<10	1.00	40	140	<20	0.31	<50	<10	100
C796283		10.70	<50	0.2	<50	3.36	1790	<10	1.82	70	250	<20	0.11	<50	40	140
C796284		7.70	<50	0.3	<50	2.86	1460	<10	1.59	90	320	<20	0.07	<50	30	100
C796286		4.97	<50	0.1	<50	0.43	760	<10	0.90	<10	1090	<20	0.84	<50	10	70
C796287		12.15	<50	0.2	<50	1.60	2140	<10	2.23	10	1320	<20	0.55	<50	30	150
C796289		8.54	<50	0.1	<50	1.27	1450	<10	1.68	10	790	<20	0.05	<50	20	70
C796290		7.69	<50	0.2	<50	1.32	1130	<10	1.61	10	560	<20	<0.05	<50	20	70
C796291		12.90	<50	0.2	<50	2.28	1930	<10	2.50	20	950	<20	0.30	<50	30	90
C796292		2.49	<50	2.5	<50	0.09	580	<10	1.06	20	620	<20	0.08	<50	<10	130
C796293		1.67	<50	0.5	<50	0.29	440	<10	0.11	10	260	<20	0.12	<50	<10	80
C796295		3.53	<50	1.2	<50	0.13	1140	10	0.41	30	330	<20	0.23	<50	<10	80
C796296		2.10	<50	0.9	<50	0.17	530	<10	0.23	20	290	<20	<0.05	<50	<10	80
C796297		0.88	<50	0.2	<50	<0.05	170	<10	0.26	<10	130	<20	<0.05	<50	<10	40
C796298		2.00	<50	0.7	<50	0.74	410	<10	3.85	20	590	<20	0.11	<50	<10	300
C796299		2.26	<50	1.3	<50	0.85	430	<10	4.09	20	670	<20	<0.05	<50	<10	440
C796300		1.08	<50	0.1	<50	<0.05	130	<10	0.08	<10	<50	<20	<0.05	<50	<10	<10



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 Account: CGAKUT

Project: SYLVANITE GOLD

CERTIFICATE OF ANALYSIS SD21134500

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C796260		<50	0.09	<50	<50	290	<50	220
C796261		<50	<0.05	<50	<50	40	<50	40
C796262		<50	0.14	<50	<50	100	<50	60
C796263		<50	0.40	<50	<50	180	<50	90
C796264		<50	0.18	<50	<50	50	<50	50
C796265		<50	0.18	<50	<50	60	<50	60
C796266		<50	<0.05	<50	<50	30	<50	20
C796267		<50	0.12	<50	<50	90	<50	40
C796268		<50	0.42	<50	<50	200	<50	100
C796269		<50	0.19	<50	<50	180	<50	90
C796270		<50	0.37	<50	<50	150	<50	70
C796271		<50	0.44	<50	<50	200	<50	100
C796272		<50	0.13	<50	<50	160	<50	60
C796273		<50	0.12	<50	<50	70	<50	30
C796274		<50	0.15	<50	<50	240	<50	140
C796275		<50	0.45	<50	<50	110	<50	100
C796276		<50	0.70	<50	<50	310	<50	100
C796277		<50	0.69	<50	<50	300	<50	110
C796278		<50	1.07	<50	<50	300	<50	70
C796279		<50	0.78	<50	<50	320	<50	110
C796280		<50	0.60	<50	<50	310	<50	120
C796281		<50	0.40	<50	<50	130	<50	50
C796282		<50	0.21	<50	<50	80	<50	40
C796283		<50	0.90	<50	<50	480	<50	130
C796284		<50	0.51	<50	<50	270	<50	90
C796286		<50	0.30	<50	<50	10	<50	50
C796287		<50	1.06	<50	<50	90	<50	160
C796289		<50	0.72	<50	<50	100	<50	100
C796290		<50	0.61	<50	<50	150	<50	80
C796291		<50	1.21	<50	<50	250	<50	140
C796292		<50	0.10	<50	<50	60	<50	60
C796293		<50	<0.05	<50	<50	10	<50	30
C796295		<50	<0.05	<50	<50	30	<50	70
C796296		<50	<0.05	<50	<50	20	<50	40
C796297		<50	<0.05	<50	<50	10	<50	<20
C796298		<50	0.14	<50	<50	40	<50	40
C796299		<50	0.20	<50	<50	60	<50	50
C796300		<50	<0.05	<50	<50	<10	<50	<20



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 Account: CGAKUT

Project: SYLVANITE GOLD

CERTIFICATE OF ANALYSIS SD21134500

	CERTIFICATE COMMENTS								
	LABORATORY ADDRESSES								
Applies to Method:	<p>Processed at ALS Sudbury located at 1351-B Kelly Lake Road, Unit #1, Sudbury, ON, Canada.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">CRU-31</td> <td style="width: 33%;">CRU-QC</td> <td style="width: 33%;">LOG-21</td> <td style="width: 33%;">LOG-23</td> </tr> <tr> <td>PUL-32</td> <td>PUL-QC</td> <td>SPL-21</td> <td>WEI-21</td> </tr> </table>	CRU-31	CRU-QC	LOG-21	LOG-23	PUL-32	PUL-QC	SPL-21	WEI-21
CRU-31	CRU-QC	LOG-21	LOG-23						
PUL-32	PUL-QC	SPL-21	WEI-21						
Applies to Method:	<p>Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">Au-AA26</td> <td style="width: 33%;">ME-ICP61a</td> <td style="width: 33%;"></td> <td style="width: 33%;"></td> </tr> </table>	Au-AA26	ME-ICP61a						
Au-AA26	ME-ICP61a								



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Finalized Date: 10-JUN-2021
Account: CGAKUT

CERTIFICATE SD21134441

Project: Sylvanite Gold

This report is for 6 samples of Rock submitted to our lab in Sudbury, ON, Canada on 28-MAY-2021.

The following have access to data associated with this certificate:

JOSHUA BAILEY

KYLIE COVENTRY

ROB JONES

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
CRU-QC	Crushing QC Test
LOG-21	Sample logging - ClientBarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-32	Pulverize 1000g to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP61a	High Grade Four Acid ICP-AES	ICP-AES
Au-AA26	Ore Grade Au 50g FA AA finish	AAS

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Saa Traxler, General Manager, North Vancouver



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 Account: CGAKUT

Project: Sylvanite Gold

CERTIFICATE OF ANALYSIS SD21134441

Sample Description	Method Analyte Units LOD	WEI-21	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Recvd Wt. kg	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm
		0.02	0.01	1	0.05	50	50	10	20	0.05	10	10	10	0.05	50	
C796152		0.80	0.20	<1	5.24	<50	760	<10	<20	5.88	<10	40	20	110	10.50	<50
C796156		1.17	1.79	<1	2.95	110	280	<10	<20	4.93	<10	20	30	50	5.11	<50
C796158		1.12	19.30	3	4.81	550	480	<10	<20	4.39	<10	40	20	70	13.05	<50
C796285		0.90	0.06	<1	1.43	<50	<50	<10	<20	1.34	<10	30	20	260	6.87	<50
C796288		1.28	0.01	<1	6.42	<50	50	<10	<20	5.46	<10	30	10	110	12.70	<50
C796294		1.39	0.01	<1	2.89	<50	660	<10	<20	5.53	<10	10	60	20	2.35	<50

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Project: Sylvanite Gold

CERTIFICATE OF ANALYSIS SD21134441

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %
		0.1	50	0.05	10	10	0.05	10	50	20	0.05	50	10	10	50	0.05
C796152		1.9	<50	2.22	2510	<10	0.23	40	470	<20	2.85	<50	40	160	<50	0.45
C796156		0.7	<50	1.44	1180	<10	2.12	30	670	<20	1.84	<50	10	320	<50	0.24
C796158		1.3	<50	1.39	1390	<10	2.02	40	470	110	9.05	<50	30	290	<50	0.47
C796285		0.1	<50	0.48	760	<10	0.94	<10	880	<20	2.08	<50	10	50	<50	0.29
C796288		0.2	<50	1.59	2040	<10	2.59	<10	2450	<20	0.79	<50	40	170	<50	1.04
C796294		3.0	<50	0.19	730	<10	1.11	30	630	<20	0.08	<50	<10	270	<50	0.16

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Project: Sylvanite Gold

CERTIFICATE OF ANALYSIS SD21134441

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	PUL-QC	CRU-QC
		Tl	U	V	W	Zn	Pass75um	Pass2mm
		ppm	ppm	ppm	ppm	ppm	%	%
		50	50	10	50	20	0.01	0.01
C796152		<50	<50	400	<50	340	97.4	78.9
C796156		<50	<50	100	<50	60		
C796158		<50	<50	340	<50	80		
C796285		<50	<50	20	<50	60		
C796288		<50	<50	70	<50	170		
C796294		<50	<50	60	<50	70		



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Project: Sylvanite Gold

CERTIFICATE OF ANALYSIS SD21134441

	CERTIFICATE COMMENTS								
	LABORATORY ADDRESSES								
Applies to Method:	<p>Processed at ALS Sudbury located at 1351-B Kelly Lake Road, Unit #1, Sudbury, ON, Canada.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">CRU-31</td> <td style="width: 33%;">CRU-QC</td> <td style="width: 33%;">LOG-21</td> <td style="width: 33%;">LOG-22</td> </tr> <tr> <td>PUL-32</td> <td>PUL-QC</td> <td>SPL-21</td> <td>WEI-21</td> </tr> </table>	CRU-31	CRU-QC	LOG-21	LOG-22	PUL-32	PUL-QC	SPL-21	WEI-21
CRU-31	CRU-QC	LOG-21	LOG-22						
PUL-32	PUL-QC	SPL-21	WEI-21						
Applies to Method:	<p>Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">Au-AA26</td> <td style="width: 33%;">ME-ICP61a</td> <td style="width: 33%;"></td> <td style="width: 33%;"></td> </tr> </table>	Au-AA26	ME-ICP61a						
Au-AA26	ME-ICP61a								



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CERTIFICATE SD21308465

Project: Sylvanite Gold

This report is for 4 samples of Rock submitted to our lab in Sudbury, ON, Canada on 12-NOV-2021.

The following have access to data associated with this certificate:

JOSHUA BAILEY	SYDNEY RAMNATH
---------------	----------------

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-21	Sample logging - ClientBarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-32	Pulverize 1000g to 85% < 75 um
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP61a	High Grade Four Acid ICP-AES	ICP-AES
Au-AA26	Ore Grade Au 50g FA AA finish	AAS

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.
 ***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Saa Traxler, General Manager, North Vancouver



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 Account: CGAKUT

Project: Sylvanite Gold

CERTIFICATE OF ANALYSIS SD21308465

Sample Description	Method Analyte Units LOD	WEI-21	CRU-QC	PUL-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Recvd Wt. kg	Pass2mm %	Pass75um %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	
C796451		0.95	87.0	95.9	0.01	<1	2.52	<50	60	<10	<20	6.05	<10	70	1220	20
C796452		1.32		88.8	0.01	<1	4.36	<50	<50	10	<20	8.09	<10	10	50	10
C796453		2.42			0.01	<1	1.52	710	<50	<10	<20	2.50	<10	60	1210	10
C796454		2.88			<0.01	<1	4.66	<50	190	<10	<20	2.10	<10	30	180	40

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Project: Sylvanite Gold

CERTIFICATE OF ANALYSIS SD21308465

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Fe	Ga	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
		%	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
		0.05	50	0.1	50	0.05	10	10	0.05	10	50	20	0.05	50	10	10
C796451		5.47	<50	0.5	<50	9.04	1050	<10	<0.05	780	<50	<20	<0.05	<50	20	170
C796452		3.82	<50	<0.1	<50	0.97	10400	<10	0.05	20	100	<20	<0.05	<50	10	10
C796453		4.44	<50	0.1	<50	10.95	720	<10	0.25	960	<50	<20	<0.05	<50	10	100
C796454		3.81	<50	1.1	<50	1.87	950	<10	4.30	100	280	<20	0.12	<50	10	190



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Project: Sylvanite Gold

CERTIFICATE OF ANALYSIS SD21308465

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
C796451		<50	<0.05	<50	<50	90	<50	40
C796452		<50	0.10	<50	<50	90	<50	110
C796453		<50	<0.05	<50	<50	40	<50	40
C796454		<50	0.35	<50	<50	140	<50	90



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Account: CGAKUT

CERTIFICATE SD21222933

Project: Sylvanite Gold

This report is for 39 samples of Rock submitted to our lab in Sudbury, ON, Canada on 24-AUG-2021.

The following have access to data associated with this certificate:

JOSHUA BAILEY

SYDNEY RAMNATH

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-21	Sample logging - ClientBarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-32	Pulverize 1000g to 85% < 75 um
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP61a	High Grade Four Acid ICP-AES	ICP-AES
Au-AA26	Ore Grade Au 50g FA AA finish	AAS

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Saa Traxler, General Manager, North Vancouver



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 Account: CGAKUT

Project: Sylvanite Gold

CERTIFICATE OF ANALYSIS SD21222933

Sample Description	Method Analyte Units LOD	WEI-21	CRU-QC	PUL-QC	Au-AA26	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Recvd Wt. kg	Pass2mm %	Pass75um %	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.01	0.01	0.01	1	0.05	50	50	10	20	0.05	10	10	10	10
B0159501		1.28	87.2	91.9	0.01	1	6.48	<50	150	<10	<20	4.04	<10	50	100	110
B0159502		1.00		94.7	<0.01	1	1.08	<50	<50	<10	<20	1.75	<10	10	40	<10
B0159503		0.71			0.17	1	4.17	<50	260	<10	<20	5.11	<10	10	80	4000
B0159504		0.38			0.19	1	6.05	<50	310	<10	<20	3.43	<10	20	90	4250
B0159505		1.25			0.05	1	3.42	<50	240	<10	<20	2.90	<10	<10	20	30
B0159506		0.87			0.04	1	4.36	<50	360	<10	<20	5.71	<10	20	80	2800
B0159507		0.95			0.04	1	2.58	<50	90	<10	<20	3.87	<10	80	1200	20
B0159508		1.64			0.29	1	6.21	<50	270	<10	<20	4.22	<10	40	250	70
B0159509		1.09			0.09	1	6.07	<50	90	<10	<20	5.40	<10	40	210	60
B0159510		1.25			0.21	2	5.62	<50	210	<10	<20	2.80	<10	30	190	50
B0159511		1.78			0.09	2	2.95	<50	90	<10	<20	8.00	<10	50	1160	<10
B0159512		1.88			0.17	1	3.46	<50	100	<10	<20	7.76	<10	50	1390	10
B0159513		2.20			0.08	1	3.04	<50	100	<10	<20	8.08	<10	50	1330	20
B0159514		1.06			0.10	1	5.90	<50	110	<10	<20	6.14	<10	50	310	10
B0159515		1.24			0.16	2	5.40	<50	200	<10	<20	2.20	<10	40	250	70
B0159516		1.20			0.16	2	3.48	<50	130	<10	<20	3.70	<10	80	1530	30
B0159517		1.04			<0.01	1	6.06	<50	110	<10	<20	5.93	<10	30	30	100
B0159518		0.95			<0.01	2	3.45	<50	580	<10	<20	0.52	<10	10	20	120
B0159519		2.37			<0.01	1	0.31	80	<50	<10	<20	0.58	<10	10	460	<10
B0159520		2.00			0.04	1	1.25	210	<50	<10	<20	2.94	<10	70	1310	<10
B0159521		2.15			0.01	1	1.55	90	50	<10	<20	1.16	<10	20	370	<10
B0159522		1.30		93.3	0.24	1	6.69	<50	240	<10	<20	2.27	<10	50	20	180
B0159523		1.43		94.6	<0.01	1	6.73	<50	210	<10	<20	4.37	<10	50	210	70
B0159551		2.17			0.05	1	6.66	<50	90	<10	<20	6.01	<10	40	100	120
B0159552		1.30			0.02	1	3.14	<50	90	<10	<20	5.29	<10	20	60	70
B0159553		1.09			0.42	3	4.24	<50	60	<10	<20	1.52	<10	40	30	50
B0159554		1.16			0.02	<1	3.04	<50	60	<10	<20	4.68	<10	20	40	50
B0159555		1.67			0.03	1	6.40	<50	150	<10	<20	7.17	<10	50	110	130
B0159556		1.26			0.02	1	6.72	<50	70	<10	<20	7.26	<10	40	100	110
B0159557		2.78			0.06	1	3.91	<50	860	<10	<20	1.84	<10	10	10	10
B0159558		1.54			0.02	1	0.89	200	<50	<10	<20	2.03	<10	40	930	<10
B0159559		1.64			0.01	<1	0.38	90	<50	<10	<20	0.76	<10	20	490	<10
B0159560		0.82			0.01	1	0.62	140	<50	<10	<20	0.91	<10	20	750	<10
B0159561		0.74			<0.01	1	2.87	300	130	<10	<20	0.41	<10	80	2150	10
B0159562		1.26			0.18	2	5.21	90	50	<10	<20	0.86	<10	940	70	2480
B0159563		2.07			0.11	1	5.36	<50	150	<10	<20	2.28	<10	140	60	310
C797571		2.28			<0.01	1	6.88	<50	70	<10	<20	7.49	<10	50	60	110
C797572		1.14			0.01	2	1.72	130	90	<10	<20	15.05	<10	30	720	30
C797573		2.10			0.01	2	0.14	50	<50	<10	<20	13.55	<10	<10	10	20



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CERTIFICATE OF ANALYSIS SD21222933

Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm
B0159501		9.12	<50	0.6	<50	3.57	1320	<10	0.93	110	540	<20	0.05	<50	30	30
B0159502		2.44	<50	0.1	<50	0.68	380	<10	0.11	30	<50	<20	<0.05	<50	10	10
B0159503		3.64	<50	1.2	<50	0.94	680	10	1.55	50	430	<20	0.36	<50	10	150
B0159504		4.89	<50	1.3	<50	1.46	590	10	2.02	60	550	<20	0.38	<50	10	120
B0159505		1.00	<50	0.9	<50	0.10	300	<10	3.15	10	170	<20	0.05	<50	<10	120
B0159506		4.03	<50	1.4	<50	1.12	930	20	1.41	60	530	<20	0.23	<50	10	140
B0159507		6.57	<50	0.1	<50	10.75	1020	<10	0.33	640	70	<20	0.68	<50	20	100
B0159508		6.81	<50	1.1	<50	4.12	1250	<10	2.60	90	70	<20	3.02	<50	30	110
B0159509		6.19	<50	0.9	<50	3.93	1240	<10	3.14	70	150	<20	2.54	<50	30	100
B0159510		5.79	<50	1.2	<50	3.82	1060	<10	2.35	60	<50	<20	2.08	<50	30	70
B0159511		5.08	<50	0.6	<50	7.21	2380	<10	0.60	620	<50	<20	1.22	<50	20	230
B0159512		5.65	<50	0.9	<50	7.55	2480	10	0.42	760	<50	<20	1.60	<50	20	220
B0159513		5.51	<50	0.8	<50	8.21	2590	10	0.09	790	<50	<20	1.07	<50	20	230
B0159514		6.60	<50	1.3	<50	4.19	1290	<10	1.43	130	120	<20	1.65	<50	30	100
B0159515		6.85	<50	1.2	<50	4.77	1190	<10	2.13	100	80	<20	1.85	<50	30	70
B0159516		7.04	<50	1.1	<50	7.42	1460	<10	0.13	920	<50	<20	1.77	<50	20	130
B0159517		13.60	<50	0.5	<50	2.03	3080	<10	1.56	20	860	<20	0.37	<50	40	110
B0159518		1.26	<50	1.4	<50	0.35	180	<10	4.11	10	340	<20	0.14	<50	<10	230
B0159519		1.87	<50	0.1	<50	2.57	260	<10	<0.05	230	<50	<20	<0.05	<50	<10	20
B0159520		4.40	<50	<0.1	<50	12.50	710	<10	<0.05	1240	<50	<20	<0.05	<50	10	110
B0159521		2.69	<50	0.3	<50	2.47	400	<10	0.72	210	<50	<20	<0.05	<50	10	40
B0159522		10.20	<50	1.2	<50	2.15	1570	<10	2.17	20	310	<20	2.72	<50	50	80
B0159523		8.15	<50	0.5	<50	3.77	1490	<10	2.26	120	510	<20	0.14	<50	30	130
B0159551		6.93	<50	0.8	<50	3.32	1060	<10	2.30	30	160	<20	0.43	<50	50	60
B0159552		4.06	<50	0.6	<50	2.01	860	<10	1.08	20	90	<20	1.02	<50	20	60
B0159553		9.76	<50	0.1	<50	1.67	930	20	2.75	30	320	<20	5.87	<50	20	40
B0159554		5.22	<50	0.3	<50	1.27	1080	<10	1.22	20	190	<20	0.84	<50	20	100
B0159555		10.35	<50	0.5	<50	2.35	1330	<10	1.42	90	290	<20	0.49	<50	30	420
B0159556		9.84	<50	0.2	<50	2.52	1520	<10	1.89	70	270	<20	0.40	<50	30	340
B0159557		2.40	<50	1.9	<50	0.21	130	<10	4.63	10	750	<20	1.98	<50	<10	140
B0159558		3.30	<50	0.1	<50	7.06	520	<10	<0.05	660	<50	<20	<0.05	<50	10	70
B0159559		1.63	<50	0.1	<50	2.70	260	<10	<0.05	290	<50	<20	<0.05	<50	<10	20
B0159560		2.55	<50	0.2	<50	4.13	370	<10	<0.05	390	<50	<20	<0.05	<50	<10	30
B0159561		6.05	<50	0.7	<50	15.90	700	<10	<0.05	1360	<50	<20	<0.05	<50	10	20
B0159562		15.90	<50	0.6	<50	0.51	190	<10	4.09	740	1250	<20	>10.0	<50	10	30
B0159563		4.03	<50	0.8	<50	1.60	280	<10	4.57	320	480	<20	1.59	<50	<10	100
C797571		9.42	<50	0.2	<50	3.94	1280	<10	1.14	80	150	<20	<0.05	<50	40	110
C797572		4.82	<50	0.4	<50	5.04	2470	<10	0.21	210	50	<20	0.09	<50	20	80
C797573		11.15	<50	<0.1	<50	6.40	2190	<10	<0.05	110	440	<20	0.23	<50	<10	50



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Sample Description	Method Analyte Units LOD	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		50	0.05	50	50	10	50	20
B0159501		<50	0.20	<50	<50	270	<50	100
B0159502		<50	0.06	<50	<50	50	<50	20
B0159503		<50	0.22	<50	<50	100	<50	60
B0159504		<50	0.25	<50	<50	100	<50	70
B0159505		<50	0.07	<50	<50	20	<50	20
B0159506		<50	0.25	<50	<50	90	<50	70
B0159507		<50	0.07	<50	<50	110	<50	100
B0159508		<50	0.10	<50	<50	170	<50	70
B0159509		<50	0.12	<50	<50	160	<50	60
B0159510		<50	0.09	<50	<50	150	<50	60
B0159511		<50	<0.05	<50	<50	110	<50	120
B0159512		<50	<0.05	<50	<50	140	<50	140
B0159513		<50	<0.05	<50	<50	120	<50	130
B0159514		<50	0.09	<50	<50	180	<50	80
B0159515		<50	0.10	<50	<50	180	<50	90
B0159516		<50	<0.05	<50	<50	150	<50	190
B0159517		<50	0.93	<50	<50	230	<50	260
B0159518		<50	0.17	<50	<50	20	<50	<20
B0159519		<50	<0.05	<50	<50	10	<50	<20
B0159520		<50	<0.05	<50	<50	50	<50	60
B0159521		<50	<0.05	<50	<50	30	<50	<20
B0159522		<50	0.22	<50	<50	370	<50	70
B0159523		<50	0.50	<50	<50	250	<50	90
B0159551		<50	0.15	<50	<50	250	<50	80
B0159552		<50	0.08	<50	<50	130	<50	30
B0159553		<50	0.58	<50	<50	160	<50	70
B0159554		<50	0.33	<50	<50	160	<50	60
B0159555		<50	0.53	<50	<50	270	<50	50
B0159556		<50	0.51	<50	<50	280	<50	40
B0159557		<50	0.13	<50	<50	30	<50	<20
B0159558		<50	<0.05	<50	<50	30	<50	30
B0159559		<50	<0.05	<50	<50	20	<50	20
B0159560		<50	<0.05	<50	<50	30	<50	30
B0159561		<50	<0.05	<50	<50	60	<50	70
B0159562		<50	0.07	<50	<50	90	<50	30
B0159563		<50	0.14	<50	<50	80	<50	20
C797571		<50	0.33	<50	<50	270	<50	90
C797572		<50	0.06	<50	<50	70	<50	90
C797573		<50	<0.05	<50	<50	10	<50	120

LITHOGEOCHEMISTRY FOR THE EXIRO SYLVANITE PROJECT:

DETAILED METHODOLOGY AND RESULTS

Györgyi Tuba, PhD

March 15, 2022

WORKFLOW

I. **Identify main geochemical signatures in in situ host:** lithochemistry, alteration and mineralization

Available datasets:

- Exiro 2021 surface grab samples, n = 609, with Au and ICP61.
- Teck 2017 surface grab samples, n = 68, with Au fire assay and 4-acid ICP similar to ALS MS61.
- Teck 2014 surface grab samples, n = 131, with Au fire assay and 4-acid ICPMS

LITHOGEOCHEMISTRY: Methods and available datasets

General limitations of using four-acid ICP data for geochemical classification:

- Because the samples are strongly altered, immobile trace elements (e.g., Zr, Y, Ti, etc) are used to identify rock types. Some critical accessory minerals (e.g., zircon, monazite, rutile, etc) are only partially dissolved with the four-acid digestion method, therefore critical immobile trace elements may be underreported to various degrees.
- Some trace elements used for rock type discrimination may not be routinely analyzed or have inadequate precision (Yb, Nb, Ta).
- Alteration affects absolute element concentrations. This effect is minimized by using bivariate plots where the classification is based on where the data plot along trends with constant element ratios, or by using element ratios directly. These trends, however, are also affected by a number of other factors (physical mixing of lithologies in sediments, fractionation, etc) that may cause shifts along the same trends. Because these samples are all highly altered and the four-acid data does not report LOI, CO₂ and H₂O⁺ values, it is not possible to assess and take into consideration the degree of alteration.
- Samples with small amounts of host rock (i.e., quartz vein samples) plot close to the origin of biplots and is not possible to resolve their litho geochemical signature. Because SiO₂ is not reported with this method, the amount of quartz veins in the sample cannot be assessed, and so these samples cannot be screened for unless their description clearly states that these are vein samples.
- Al and K may be retained in the test vessel after digestion and thus may be underreported, which can affect the interpretation of both litho geochemistry and alteration signatures. This, though, does not routinely happen in high-quality labs and can be checked for during QC.

Specific limitations in the Teck and Exiro datasets:

- Exiro 2021 dataset: Uses a 4-acid ICP61 method that has very high detection limits and a limited analyte list. Most of the usual litho geochemical classification plots cannot be used in this dataset.
 - Missing elements critical for litho geochemical classification: Zr, Hf, Y
 - Elements with high DL and/or poor precision: Th (LDL = 50 ppm), Sc (poor precision), As (LDL = 50 ppm, quite high) Bi (LDL = 20 ppm), Sb (LDL = 50 ppm)
- Teck 2017 dataset: Uses ultra-trace 4-acid ICP-ES/MS with an extensive analyte set (59 elements). High-quality four-acid data, can be used for litho geochemistry.
- Teck 2014 dataset: Method not specified, but very good quality four-acid ICP data with an extensive analyte set and sufficiently low detection limits. No rock type descriptions in the field data.

Workflow for litho geochemical classification and verification

1) *Identifying geochemical groups*

The goal is to merge the observed rock types into groups with geochemical signatures as well defined as possible.

Discrimination diagrams used for the Teck 2014 and 2017 datasets (see slides 5 to 7 for details):

Cr vs Ti: distinguishes ultramafic and mafic rocks from other rock types

Al₂O₃ vs Sc: distinguishes between felsic vs mafic-ultramafic

Zr vs TiO₂, Cr/Ti vs Th/Al₂O₃: distinguishes all main rock types

Y vs Zr: distinguishes magmatic affinity, but Y tends to be highly affected by incomplete digestion, so this diagram has to be used with caution

biplots of Ni, Co, V: occasionally used for verifying ultramafic affinity

Elements and element ratios used in combination for the Exiro dataset (see slides 10 and 11 for details):

Mg/(Mg+Fe): identifies ultramafic rocks

Cr/Ti and Ti/(Ti+Cr): identifies ultramafic rocks and moderate distinction between mafic and other rock types

Na/(Na+Ca): separates felsic from other rock types; the caveat is that both Na and Ca are fluid mobile, but the reasoning is that sodic alteration will be stronger and will produce less Ca residue in felsic rocks than in mafic. Potassium is not added here, because (1) potassic alteration may be present in all rock types, and (2) the precision of K is not very good.

Sc: immobile element, substitutes for Si in non-oxide minerals, therefore the more felsic the rock the lower the Sc is. The precision is quite poor with this method, so this has to use with caution.

Al: separates felsic from mafic

2) *Merging field data with geochemical signature*

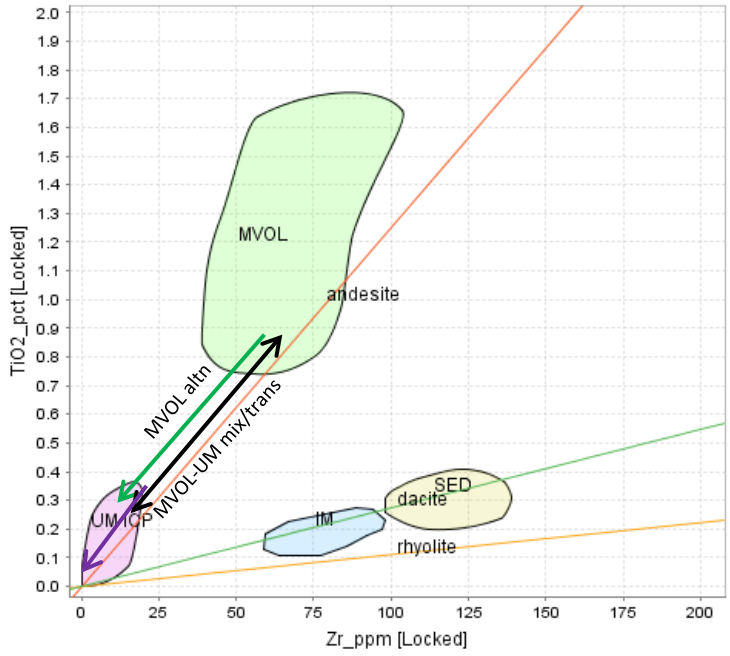
The geochemical groups can be further refined by incorporating field descriptions for easily identifiable units. Vein samples are distinguished because the geochemical signature of the host may be weak. Also, the dominant geochemical signature of sediments comes from the contained lithologies, so it is difficult to distinguish between a felsic magmatic unit and a mature clastic sediment with these analyses. Field descriptions added to geochemistry can resolve this,

2) *Verifying geochemical groups against mapped lithostratigraphic units*

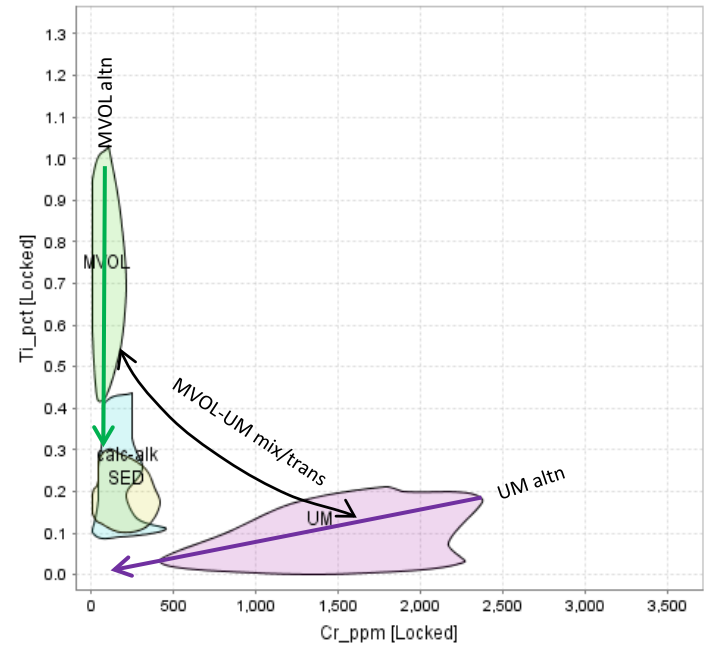
Identifying discrepancies between geochemical signature and interpreted geology and assessing what may cause them (i.e., uncertainty in geochemical classification, unmapped units, etc).

Discrimination diagrams used for geochemical classification – Teck 2014 and 2017 datasets

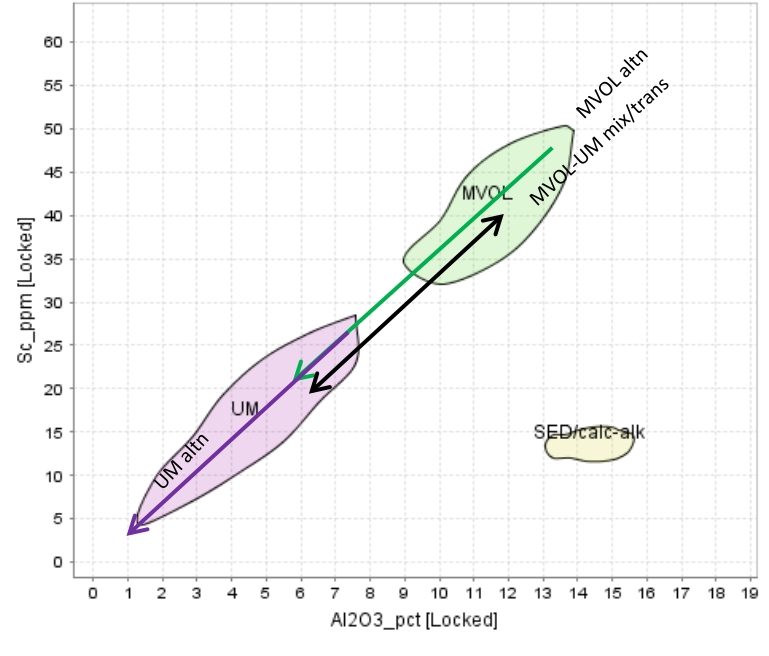
Zr vs TiO₂



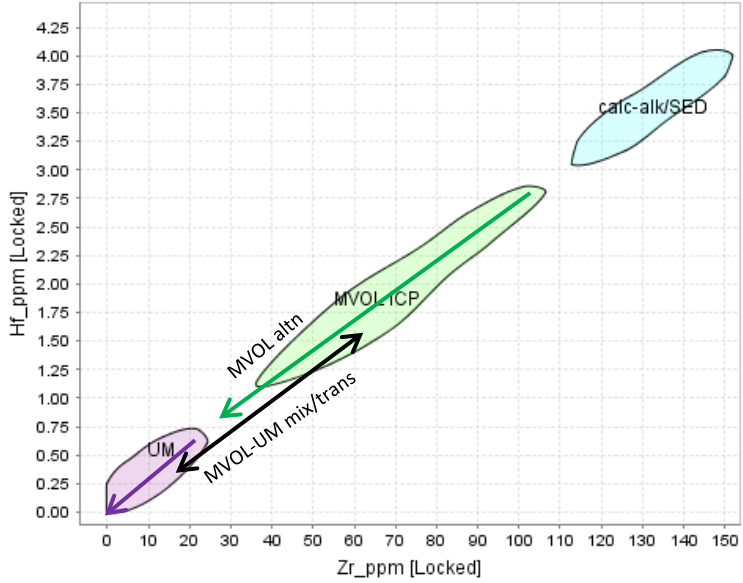
Cr vs Ti



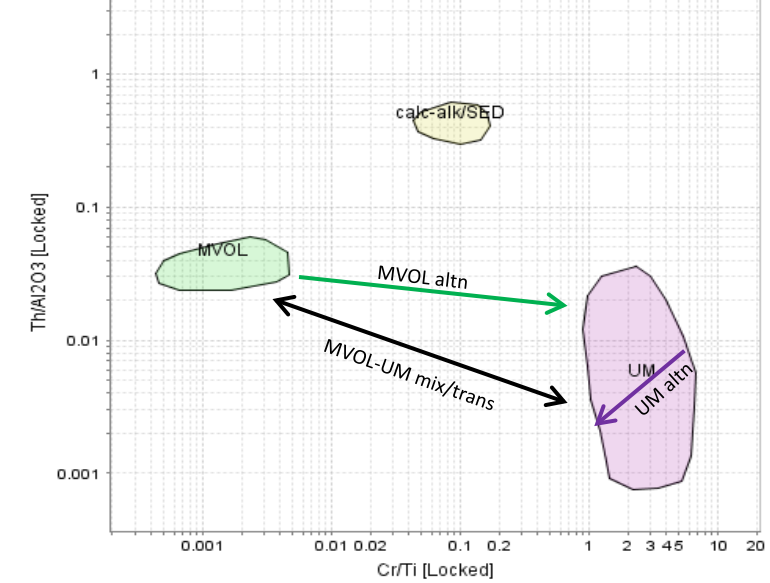
Al₂O₃ vs Sc



Zr vs Hf



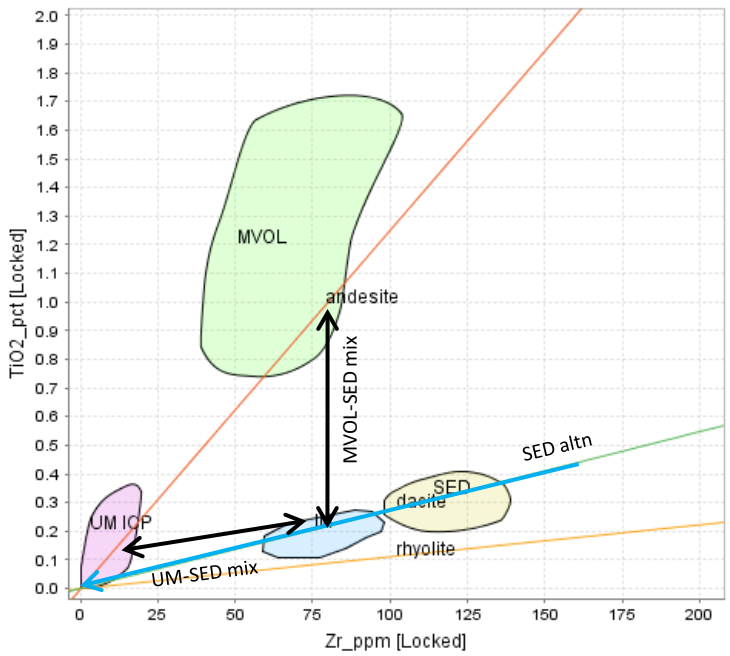
Cr/Ti vs Th/Al₂O₃



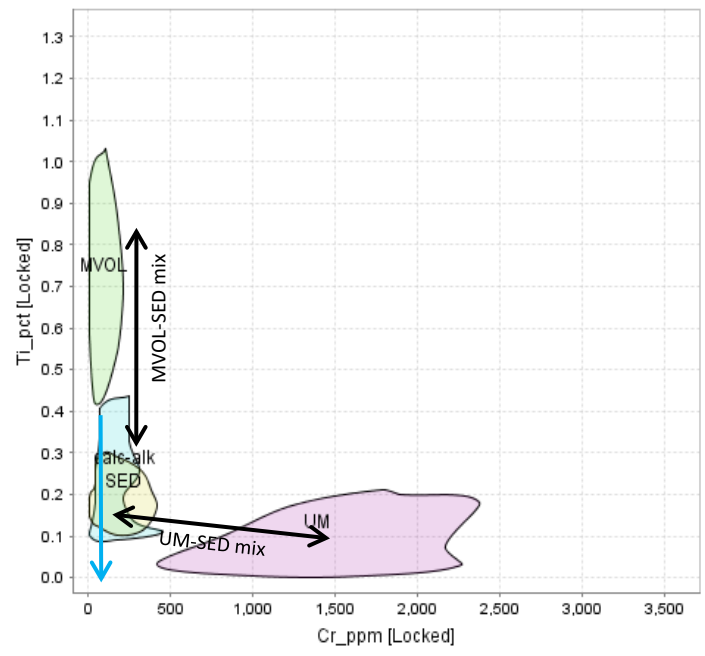
- Fields and “andesite”, “dacite” and “rhyolite” trends are based on a different dataset and thus are for reference only.
- The diagrams cannot discriminate between sediments of a dominantly felsic composition and felsic magmatic units.
- Extremely altered samples and those with very little host rock (i.e., quartz vein samples) plot at the origin of all diagrams except for Cr/Ti vs Th/Al₂O₃: these samples cannot be chemically distinguished from each other.
- Plots need to be used simultaneously to establish litho geochemical groups, as shifting from the “ideal” composition can be caused by both variable degrees of alteration and mixing of units, and these trends can overlap

Discrimination diagrams used for geochemical classification – Teck 2014 and 2017 datasets

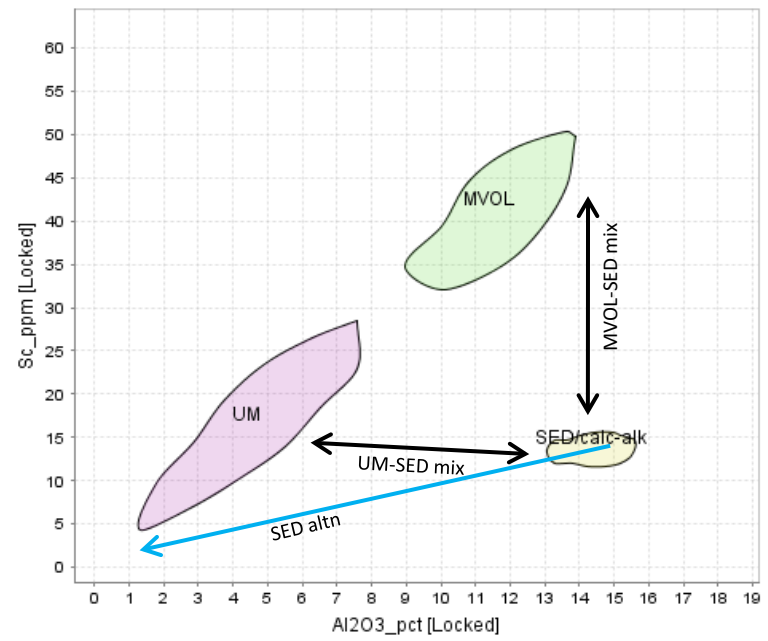
Zr vs TiO2



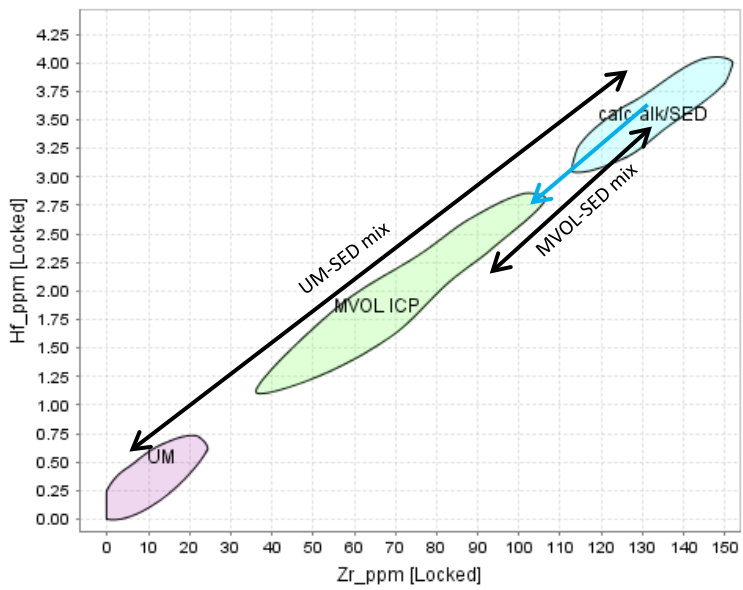
Cr vs Ti



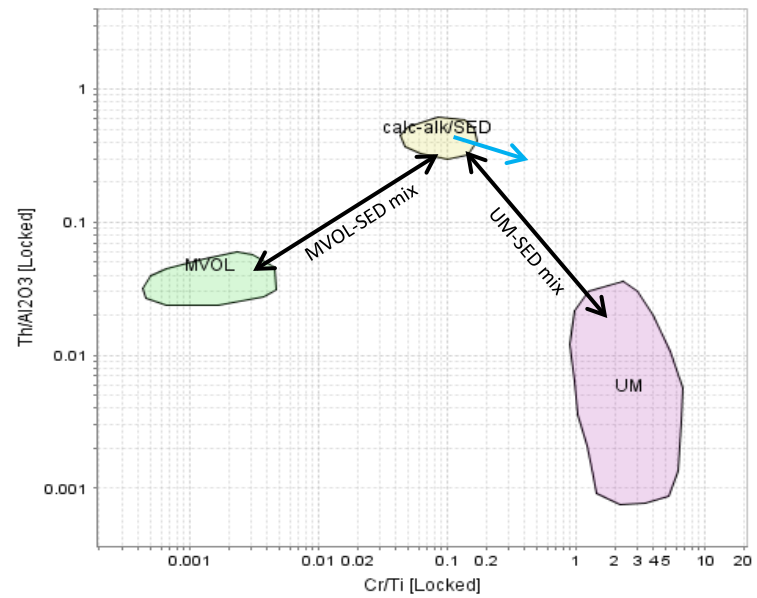
Al2O3 vs Sc



Zr vs Hf



Cr/Ti vs Th/Al2O3



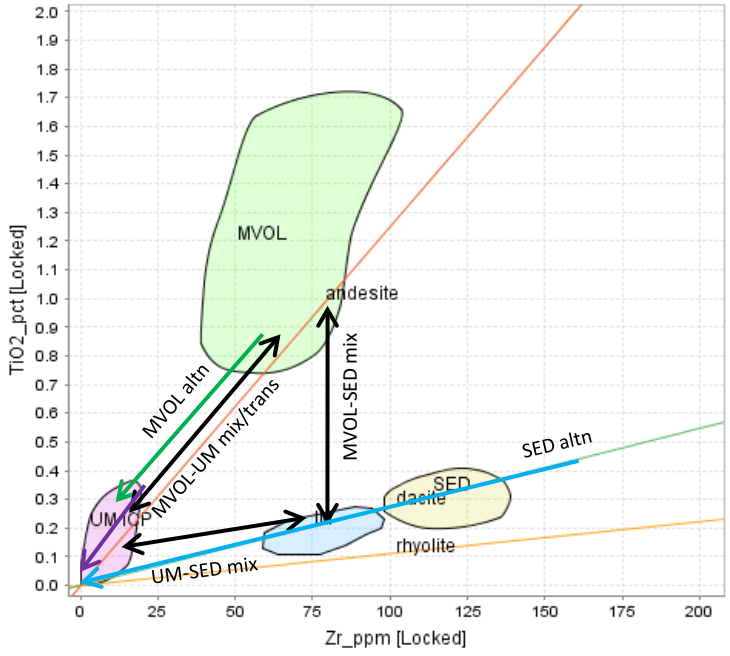
alteration trends: data moves towards origin due to decreasing absolute concentration of rock-forming elements with increasing alteration intensity

“mixing” trends:

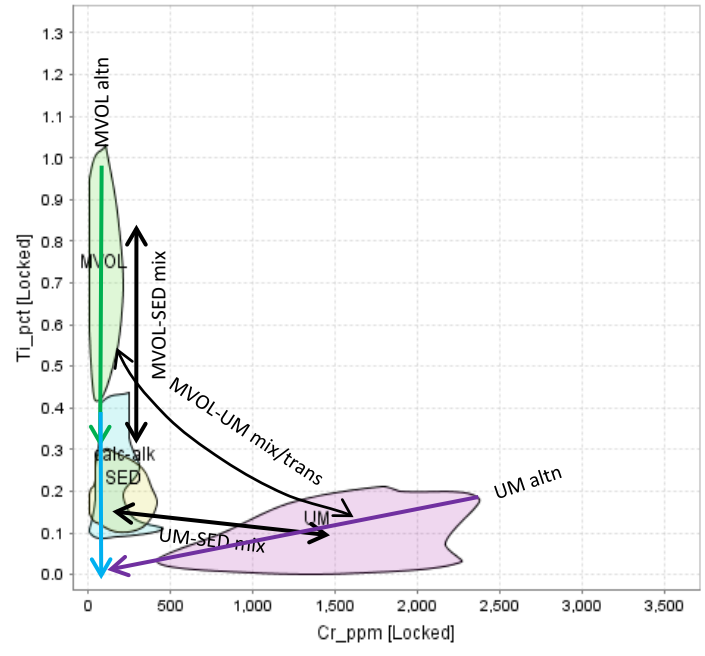
- physical mixing of two lithologies due to sampling (e.g., contact at low angle to core axis in drill core, composite sample from multiple rock units)
- physical mixing due to lithological reasons (e.g., mafic component in clastic sediment)
- chemical trend in primary lithology (e.g., fractionation trend between ultramafic and mafic rocks)
- chemical assimilation of pre-existing lithology (e.g., dikes with xenoliths)

Discrimination diagrams used for geochemical classification – Teck 2014 and 2017 datasets

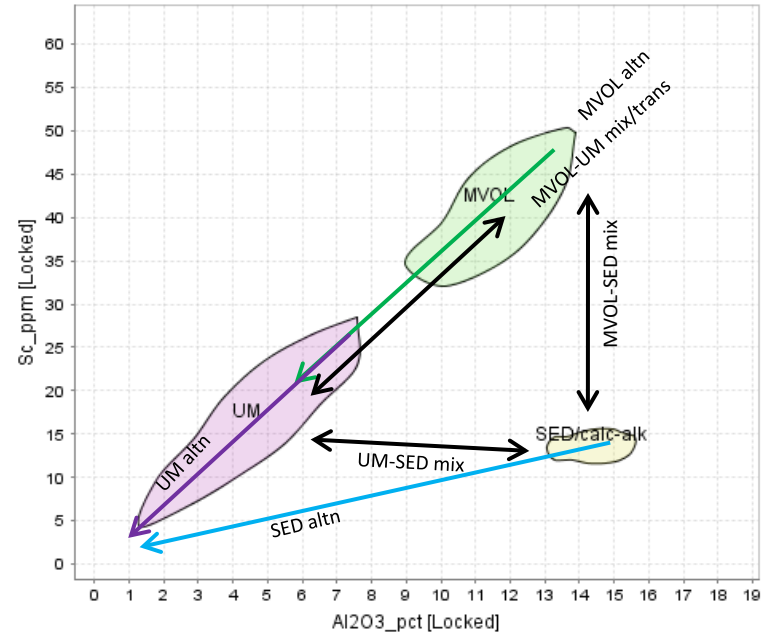
Zr vs TiO₂



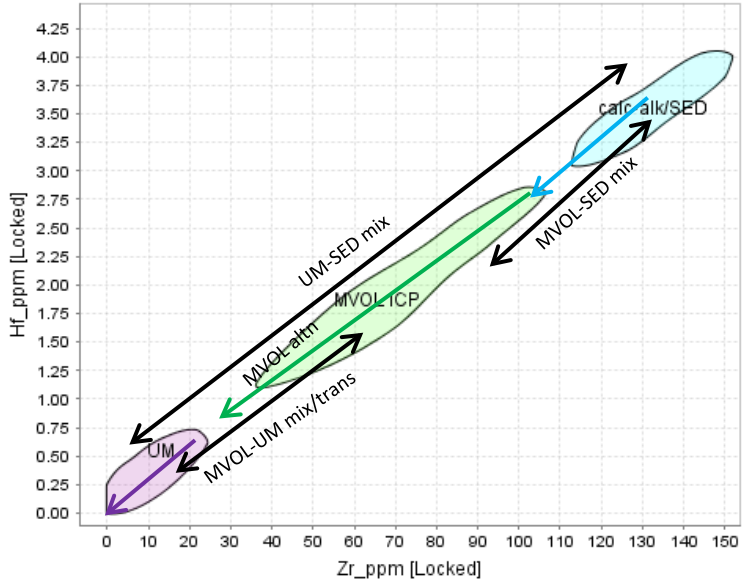
Cr vs Ti



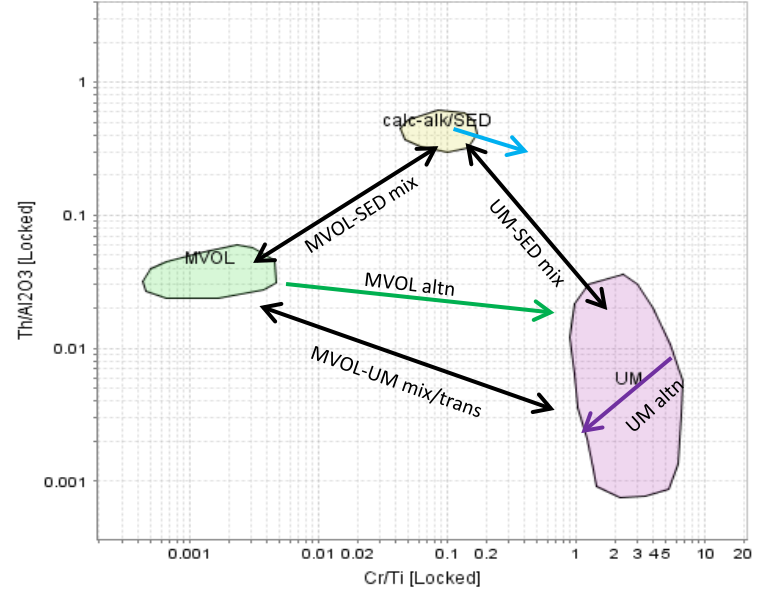
Al₂O₃ vs Sc



Zr vs Hf

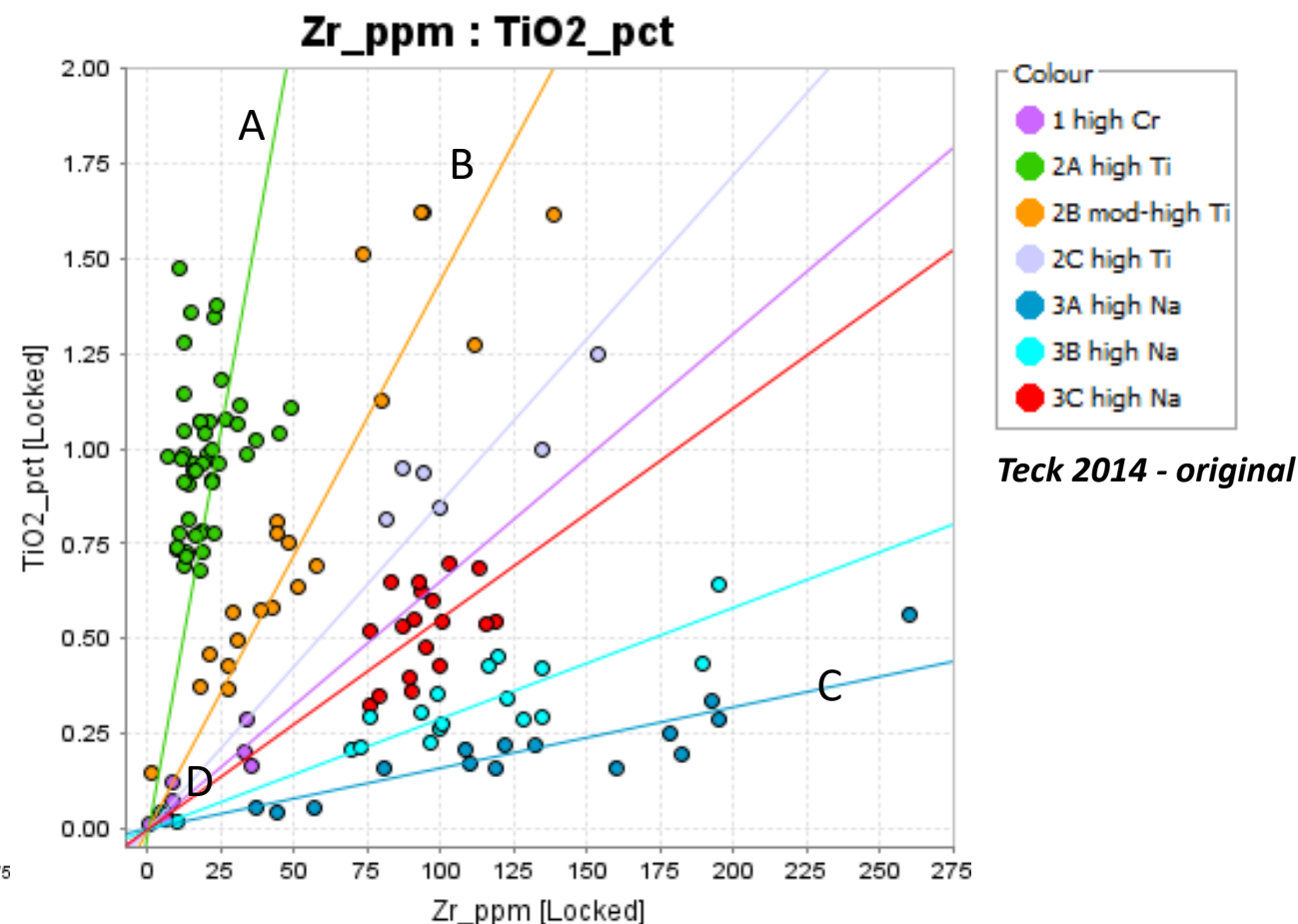
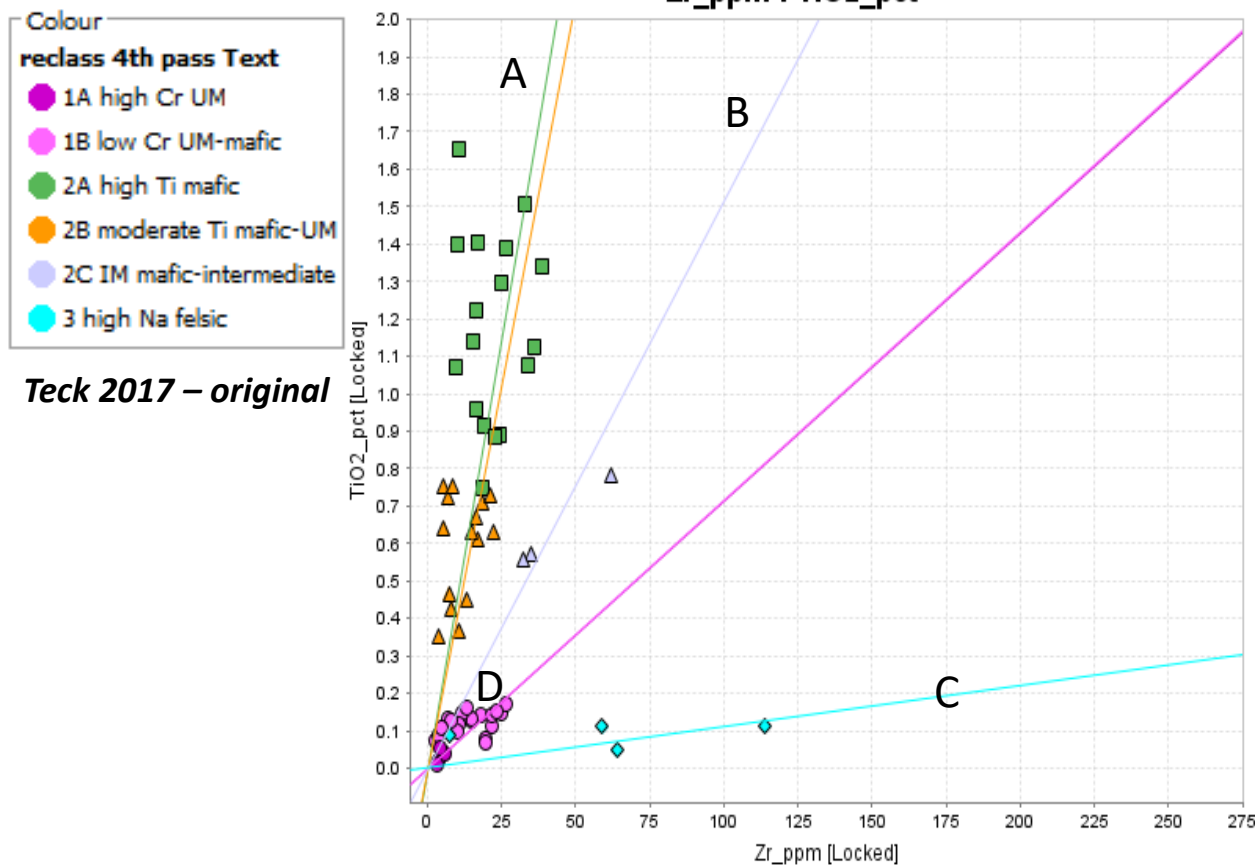


Cr/Ti vs Th/Al₂O₃



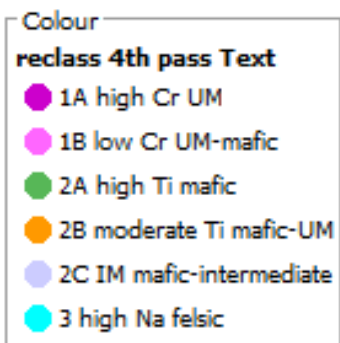
- ➔ mafic volcanic alteration trend
- ➔ ultramafic alteration trend
- ➔ clastic sediment alteration trend
- ↔ mixing trend between specific units (labelled accordingly)

Correlating the lithochem groups in the 2014 vs 2017 Teck datasets

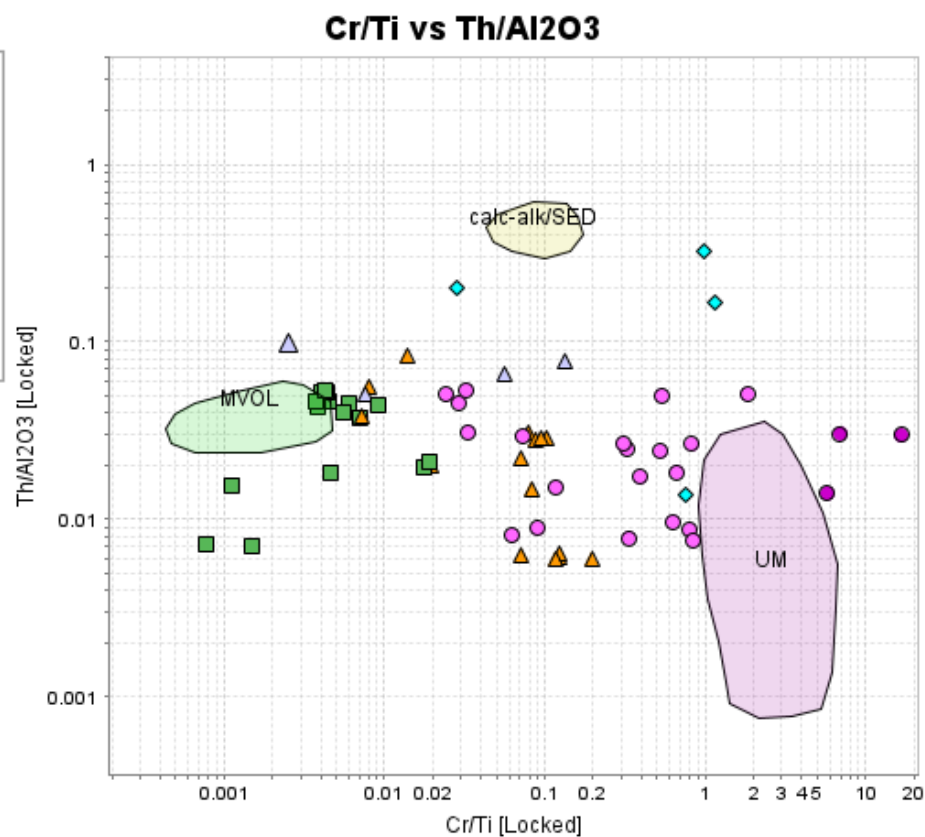


Comparing the geochemical classes in the Teck 2014 dataset vs Teck 2017: very good agreement between the independently identified groups in the two sample sets. Apparent in all used discrimination diagrams.

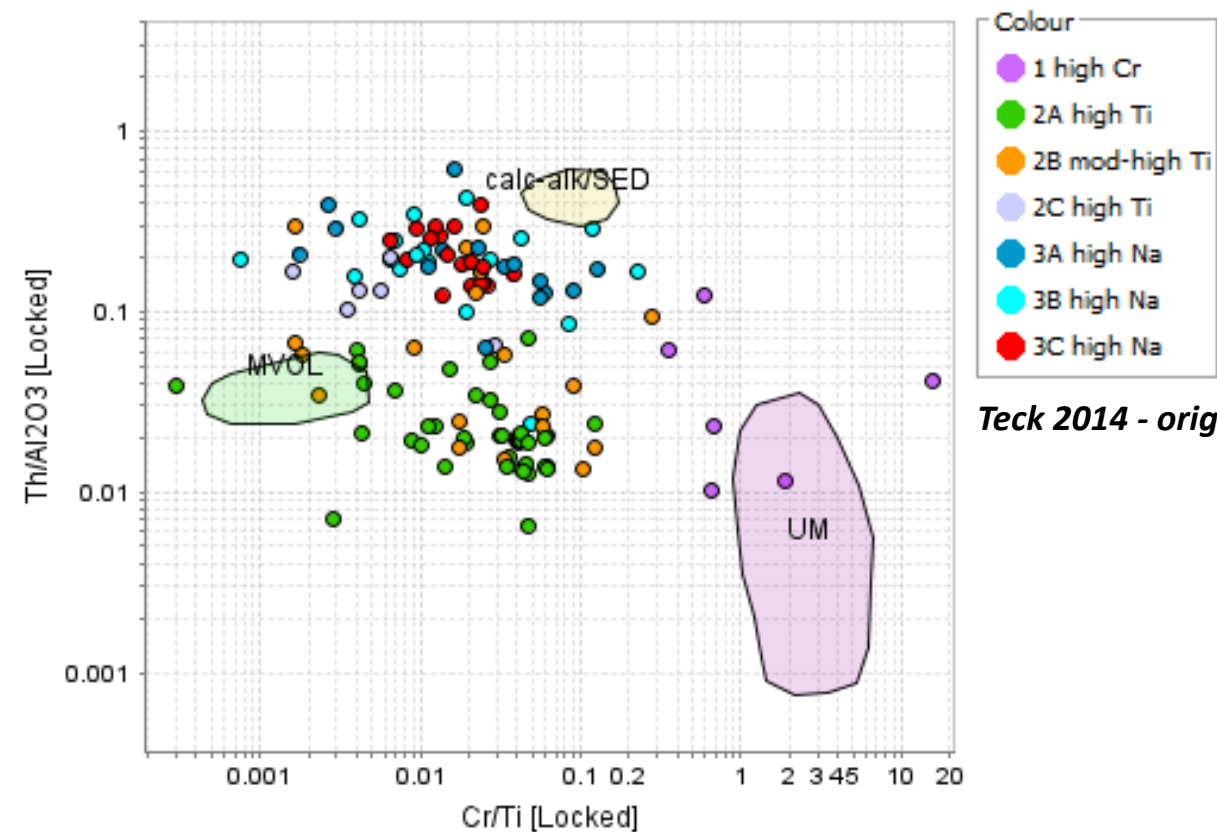
Correlating the lithogeochemical groups in the 2014 vs 2017 Teck datasets



Teck 2017 - original



Cr/Ti vs Th/Al₂O₃



Teck 2014 - original

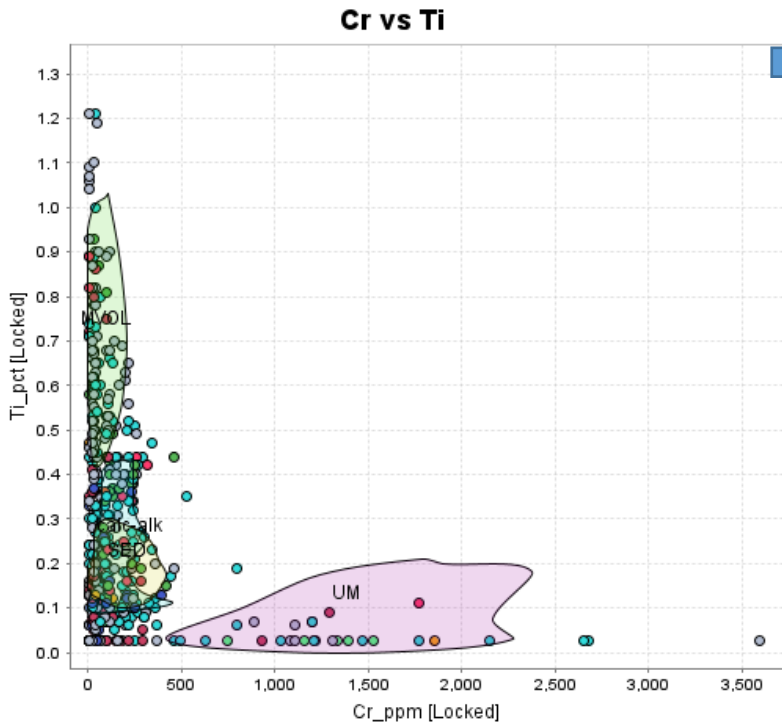
Comparing the geochemical classes in the Teck 2014 dataset vs Teck 2017: very good agreement between the independently identified groups in the two sample sets. Apparent in all used discrimination diagrams.

Diagrams used for geochemical classification – Exiro 2021 dataset

The Exiro dataset needed several steps to identify what element combinations/ratios can be used to extract meaningful geochemical groups.

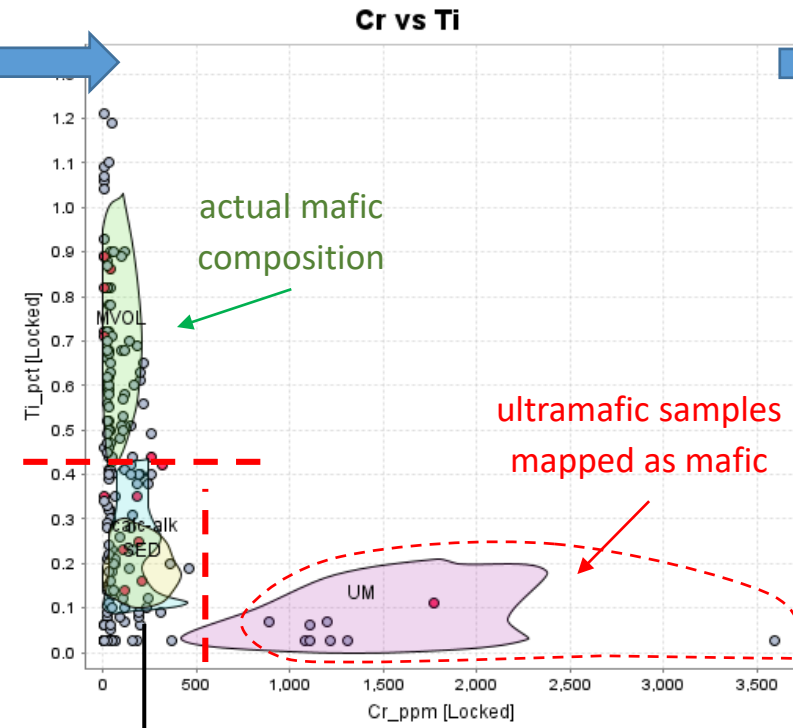
Step 1. Identify groups with high confidence for control: ultramafic vs mafic based on Cr and Ti values, felsic based on field descriptions

Unprocessed data (all Exiro 2021 samples)



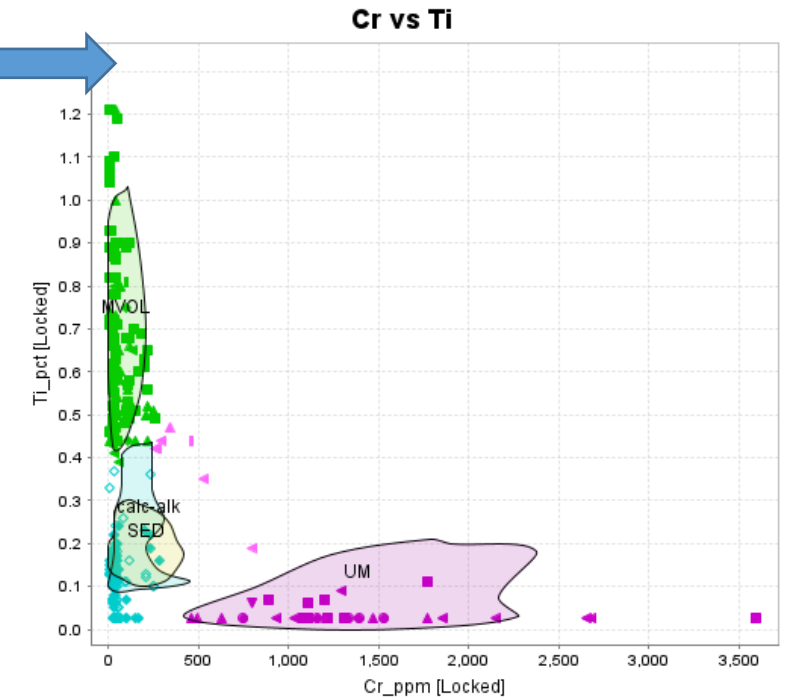
Samples colour-coded for rock type (20+ field categories)

Example for reclassifying rock types: samples mapped as mafic volcanic or mafic intrusive



- samples with little host rock (e.g., qtz veins)
- extremely altered rocks of all kinds
- felsic and intermediate rocks

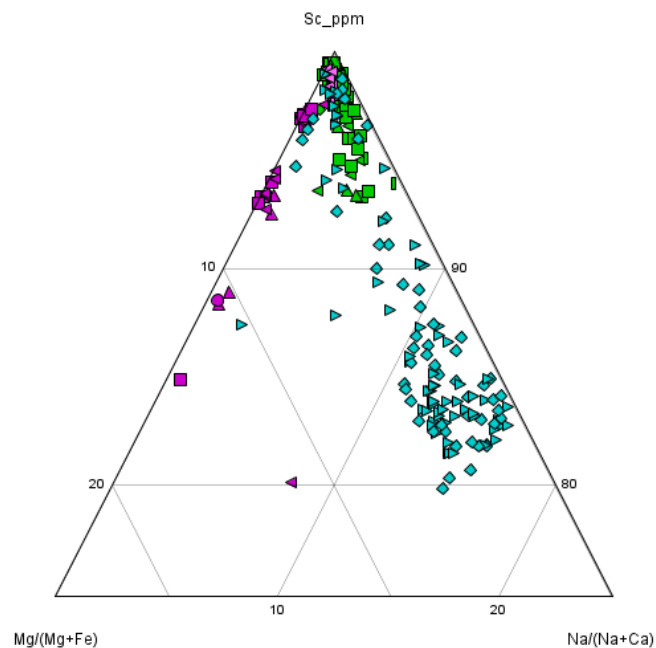
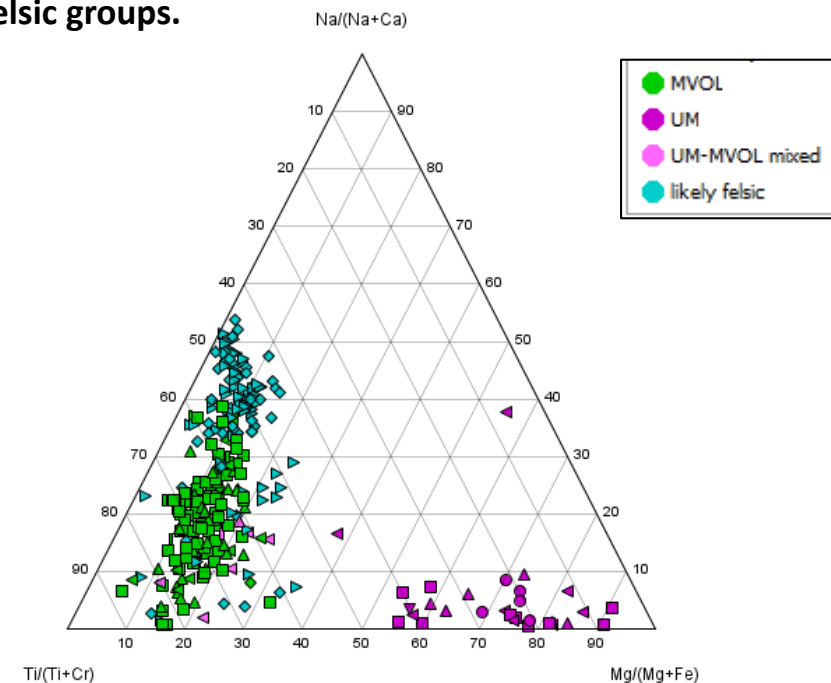
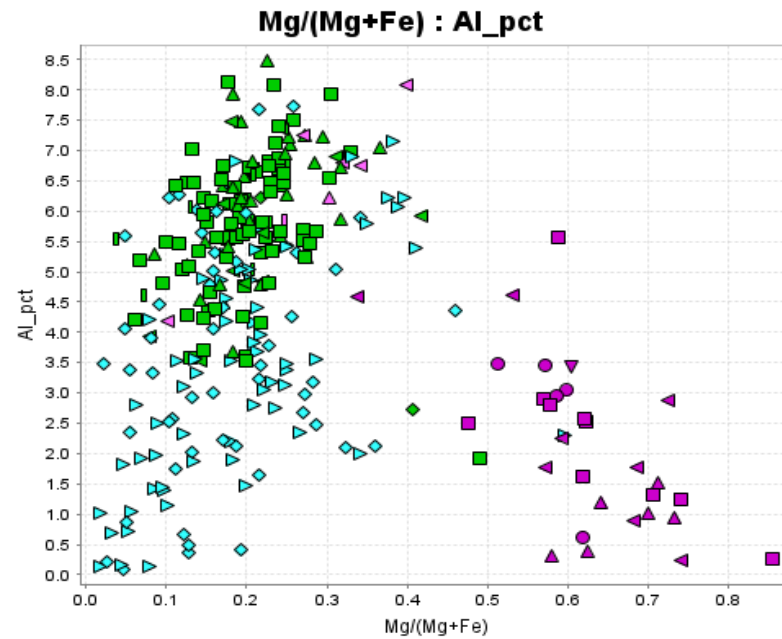
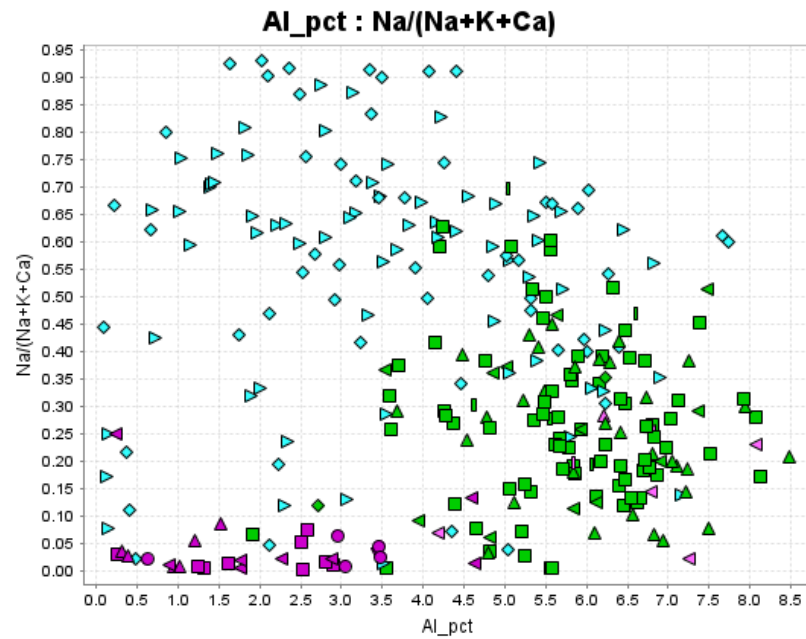
Reassigned geochemical rock types



● MVOL	} based on geochem
● UM	
▲ UM-MVOL mixed	} based on field observations
● likely felsic	

Diagrams used for geochemical classification – Exiro 2021 dataset

Step 2. Find discriminative elements ratios based on well-defined samples of the ultramafic, mafic and felsic groups.

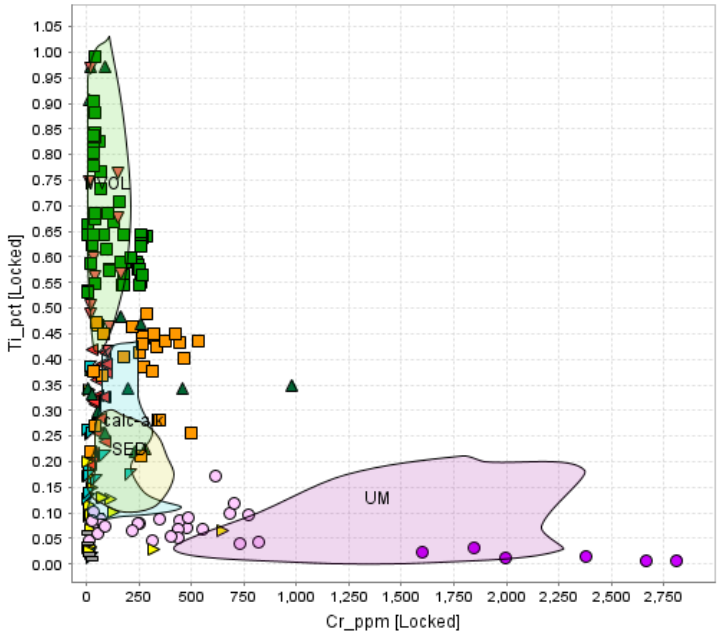


The three main groups established by Cr vs Ti diagram and field data cluster reasonably well in these diagrams.

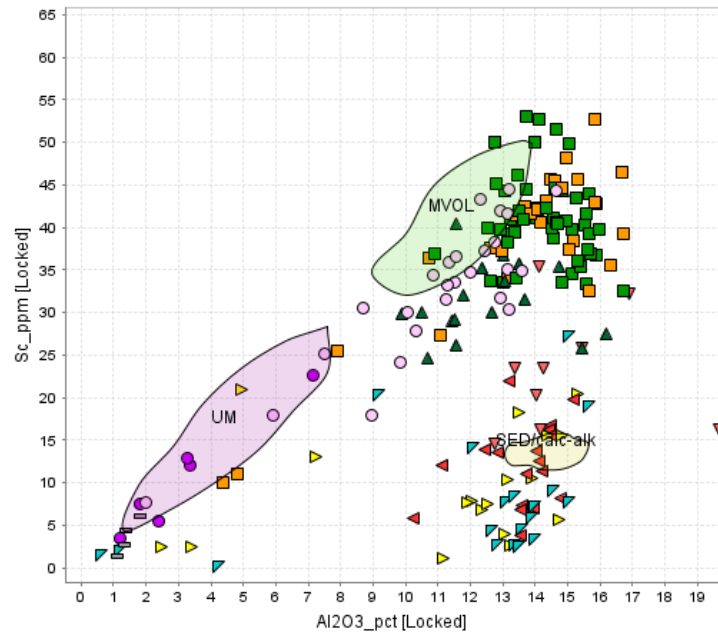
Step 3. Assign rest of the samples into groups based on these fields.

Plotted lithochem data – merged Teck dataset

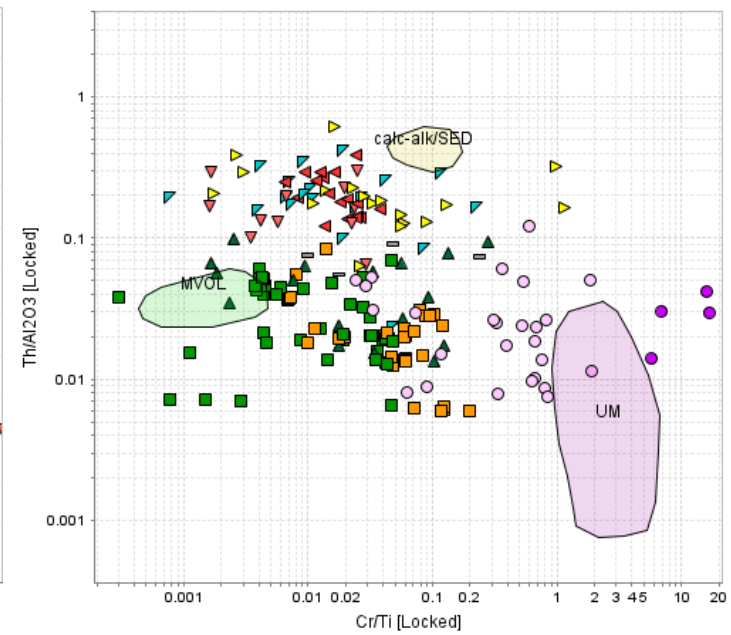
Cr vs Ti



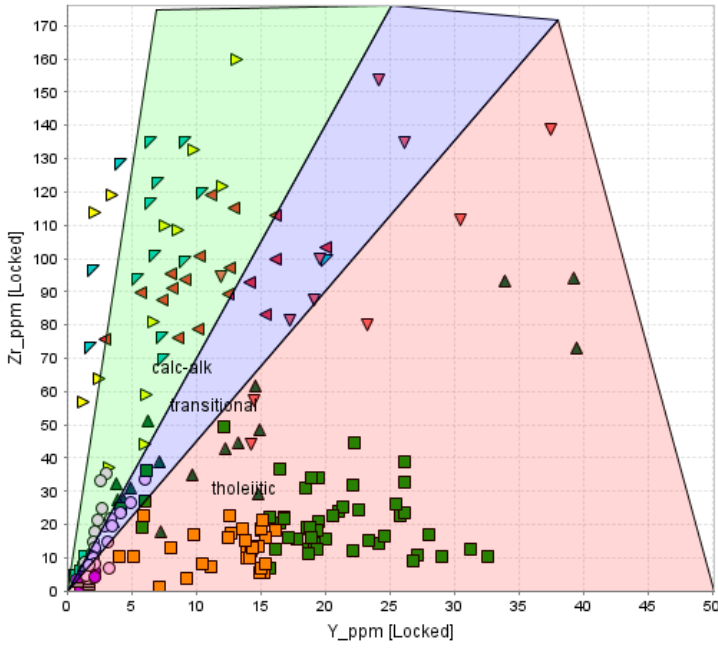
Al2O3 vs Sc



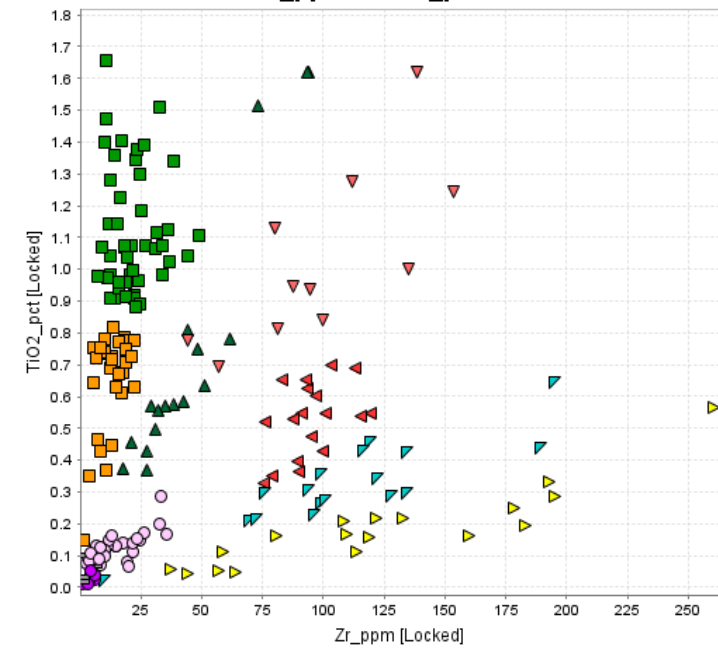
Cr/Ti vs Th/Al2O3



Y vs Zr



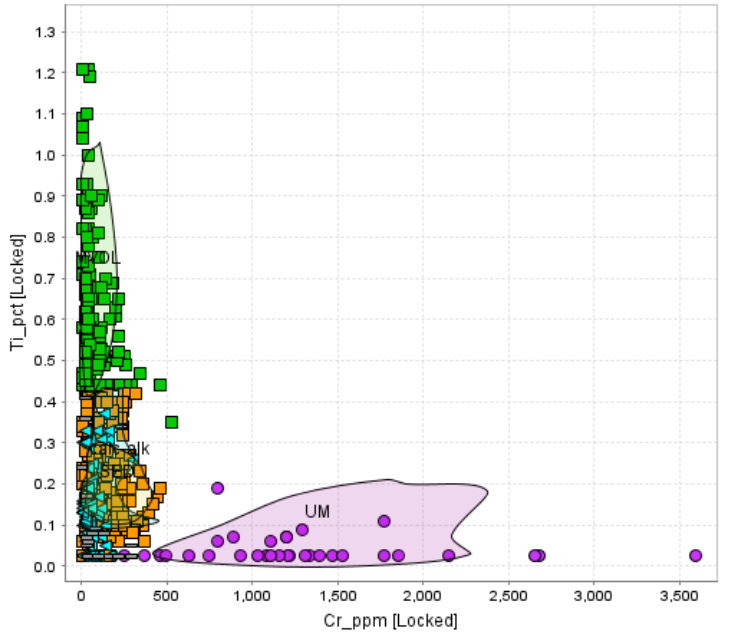
Zr_ppm : TiO2_pct



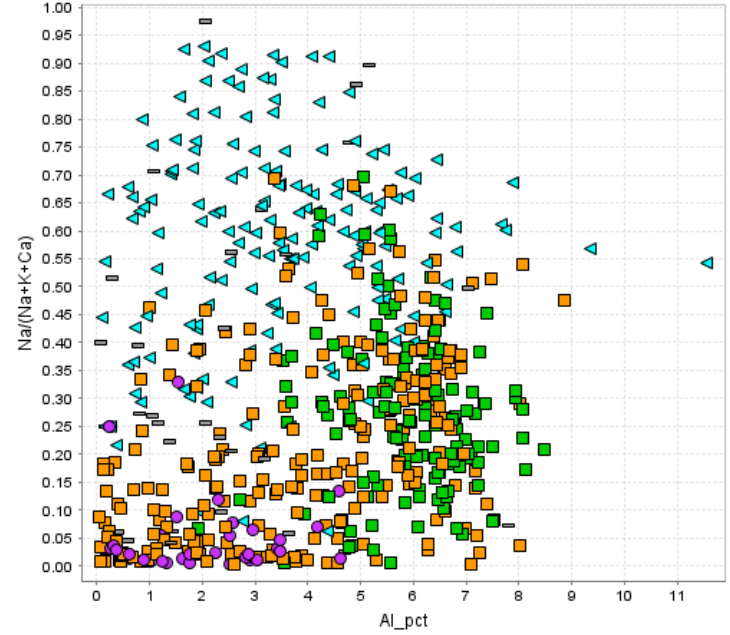
Colour	Shape
● 1A high Cr	● 1A high Cr
● 1B moderate Cr	● 1B moderate Cr
● 2A high Ti	■ 2A high Ti
● 2B moderate Ti	■ 2B moderate Ti
● 2C moderate to high Ti	▲ 2C moderate to high Ti
● 2D high Ti transitional	▼ 2D high Ti transitional
● 3A Na-enriched	◄ 3A Na-enriched
● 3B Na-enriched	◄ 3B Na-enriched
● 3C Na-enriched	◄ 3C Na-enriched
● Vein	— Vein

Plotted lithochem data – Exiro dataset

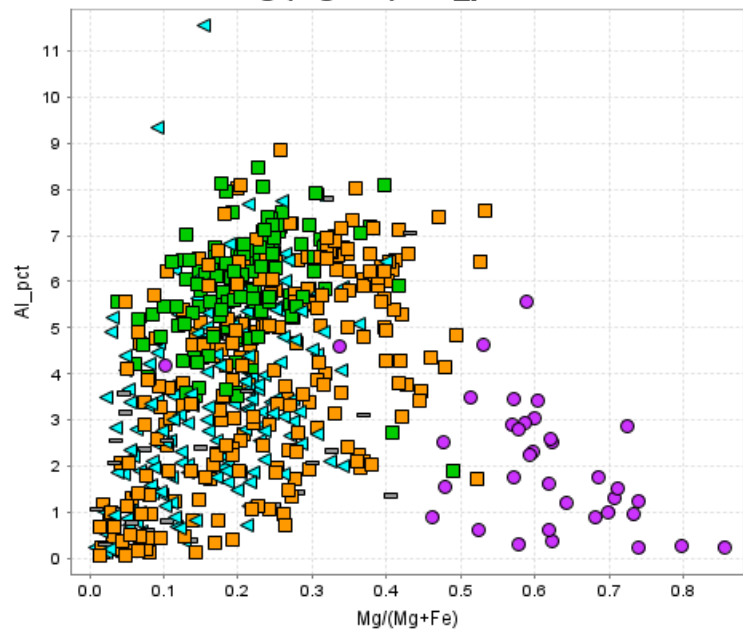
Cr vs Ti



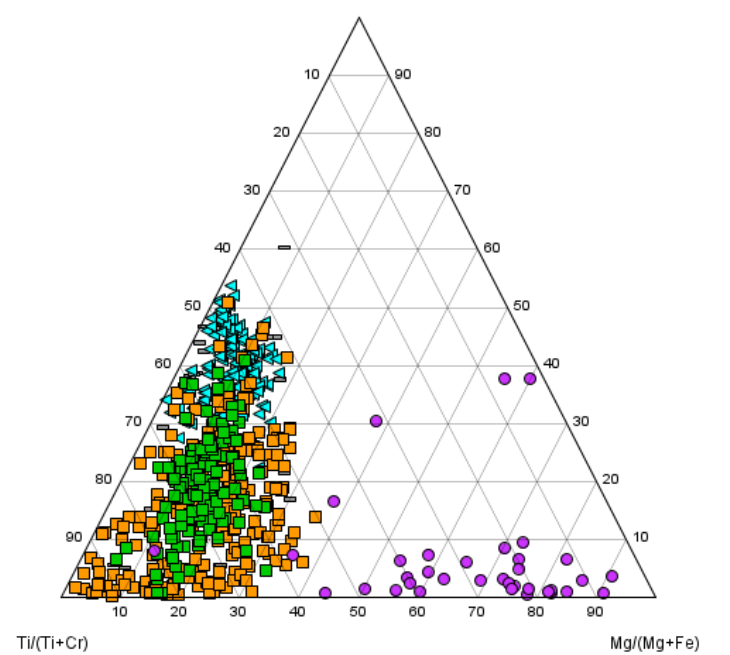
Al_pct : Na/(Na+K+Ca)



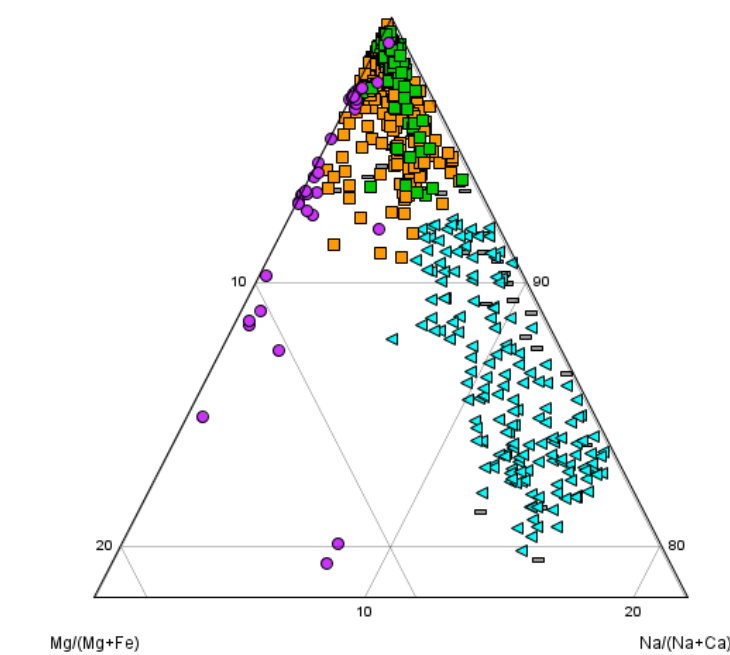
Mg/(Mg+Fe) : Al_pct



Na/(Na+Ca)



Sc_ppm



Colour

reclass FINAL Text

- 1 high Cr
- 2A high Ti
- 2B moderate Ti
- 3 Na-enriched
- Vein

Shape

reclass FINAL Text

- 1 high Cr
- 2A high Ti
- 2B moderate Ti
- ▲ 3 Na-enriched
- Vein

Code		Group name	Distinguishing geochem features	Interpreted lithology	Confidence	Comments
Teck	Exiro					
1A	1	high Cr	high Cr, low Ti, overall low immobile trace elements, high Mg#	ultramafic	high	Very clear geochemical group.
1B	2B	moderate Cr	low to elevated Cr, low Ti, overall low immobile trace elements, moderate Mg#	strongly altered ultramafic; clastic sediment with dominantly ultramafic source	moderate	The group plots very close to the origin in all diagrams, which makes classification difficult. Some samples with very low Cr are marked as uncertain for this reason. The elevated Cr in most of these samples suggests an ultramafic composition where Cr was “diluted” by strong alteration. A portion of the samples fall onto the trend towards conglomerate (3A group), indicating a more alkaline component: these may be locally sourced clastic sediments, but were grouped into 1B because of the elevated Cr.
2A	2A	high Ti	high Ti, high TiO ₂ /Zr, high Y/Zr, low Cr/Ti, high Sc and Al ₂ O ₃ , low Mg#	mafic	high	Very clear geochemical group.
2B	2B	moderate Ti	moderate Ti, low to moderate Cr/Ti, moderate TiO ₂ /Zr and Y/Zr, high Sc and Al ₂ O ₃ , low Mg#	strongly altered mafic; komatiitic basalt	high	Very similar to 2A, but with lower Ti and occasionally elevated Cr. Plots on the same TiO ₂ /Zr trend as 2A, which suggests that the two groups are genetically linked, either by fractionation or alteration. Some samples have elevated Cr and plot at the mafic end of the ultramafic-mafic mixing line in the Cr vs Ti diagram, which may suggest a slightly komatiitic composition (i.e., komatiitic basalt). The lower Ti and TiO/Zr compared to 2A can also be caused by strong alteration, which would make the 2B group the more altered equivalent of the 2A mafics.
2C	2A and 2B	moderate to high Ti	moderate to high Ti, low to elevated Cr, high TiO ₂ /Zr	mafic (intrusive?); komatiitic basalt	moderate	Similar features to 2A and 2B, but lies on a different, slightly more intermediate TiO ₂ /Zr trend. Likely a mafic unit that is a different litho unit than 2A. Most of the samples plot along, or very close to, mapped mafic intrusives. The confidence level for classification in some of these samples is low. 2C is considered to be a mafic unit that is geochemically different from 2A.
2D	2A	high Ti transitional	high Ti, low Cr, moderate TiO/Zr, high Th/Al ₂ O ₃	intermediate; mafic sediment	low	A few samples that plot on a more intermediate TiO ₂ /Zr trend and have a more alkaline Th/Al ₂ O ₃ and Sc/Al ₂ O ₃ signature than 2C. Generally intermediate signature. Quite significant scatter of the data makes this group low in confidence. Zr, Th and Sc values suggest a more felsic composition than any of the above groups, but Ti is high in the range of 2A. The group forms a sort of mixing trend towards the sediments in all diagrams, so there is a chance that this is a transitional group, representing a sediment with variable ratios of mafic component. Some of the samples do plot in and around the main mapped sedimentary packages, but sample descriptions are missing.

Code		Group name	Distinguishing geochem features	Interpreted lithology	Confidence	Comments
Teck	Exiro					
3A	3	Na-enriched	moderate Ti, moderate TiO ₂ /Zr, low Sc, high Th/Al ₂ O ₃ and Zr/Y, relatively high Na/(Na+Ca)	conglomerate with significant mafic source; intermediate	high	Group of samples cluster nicely and outline the mapped conglomerate unit. Elevated Ti and intermediate TiO ₂ /Zr trend suggest significant mafic source.
3B	3	Na-enriched	low Ti, low TiO ₂ /Zr and Sc, high Th/Al ₂ O ₃ and Zr/Y, relatively high Na/(Na+Ca)	felsic-intermediate intrusive, clastic sediment	moderate	Plots along a TiO ₂ /Zr trend between 3A and 3C. Mature clastic sediments and felsic/intermediate magmatic units cannot be distinguished with these geochem packages, and the Teck 2014 dataset did not come with field descriptions. On the map, the group plots close to, but outside of, the clastic sed, in an area that also contains felsic-intermediate volcanics. Geochemically, this group can be either, and it could be lumped into 3C. Some samples classified in this group are strongly depleted in all elements and plot basically in the origin and can be literally anything – these are marked as uncertain.
3C	3	Na-enriched	low Ti, low TiO ₂ /Zr and Sc, high Th/Al ₂ O ₃ and Zr/Y, relatively high Na/(Na+Ca)	clastic sediments (felsic volcanics)	high	Felsic signature, the group lines up well with clastic sediments on the map. Geochemically it could also be felsic volcanic. A couple of samples have elevated Cr content that may suggest an ultramafic component in the sed.
Vein	Vein	Vein	General low trace element content	Veins	high	Few vein samples. Not enough host rock in sample to identify geochemically, all samples plot in the origin. These come from the 2017 dataset that had sample descriptions; other datapoints plotting in the origin from the 2014 dataset (marked as uncertain) may be vein samples too.

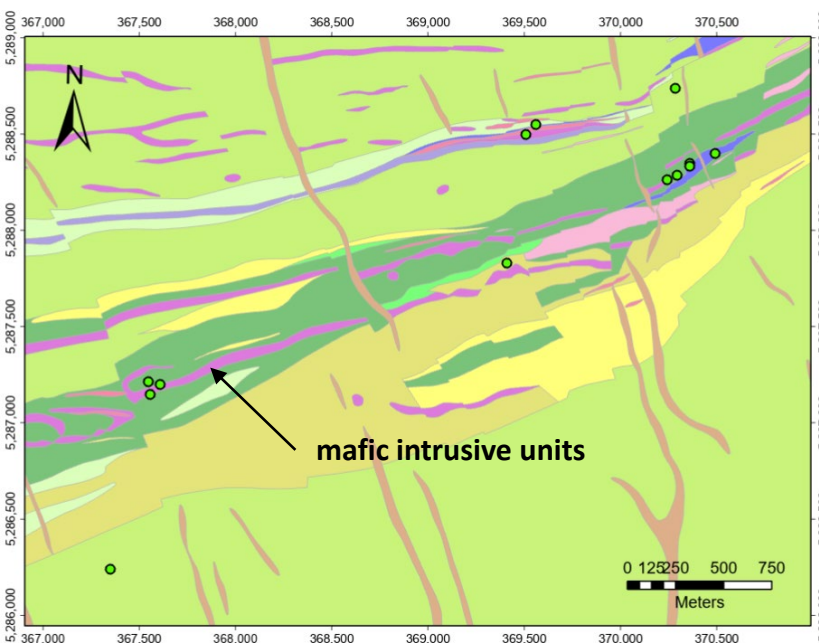
Unified lithogeochemical groups for the three datasets:

- 1) Variably altered ultramafic unit
- 2) Variably altered mafic units, including two separate mafic suite and a possible intermediate unit
- 3) Clastic sediments with intermediate-felsic average composition and felsic magmatic units

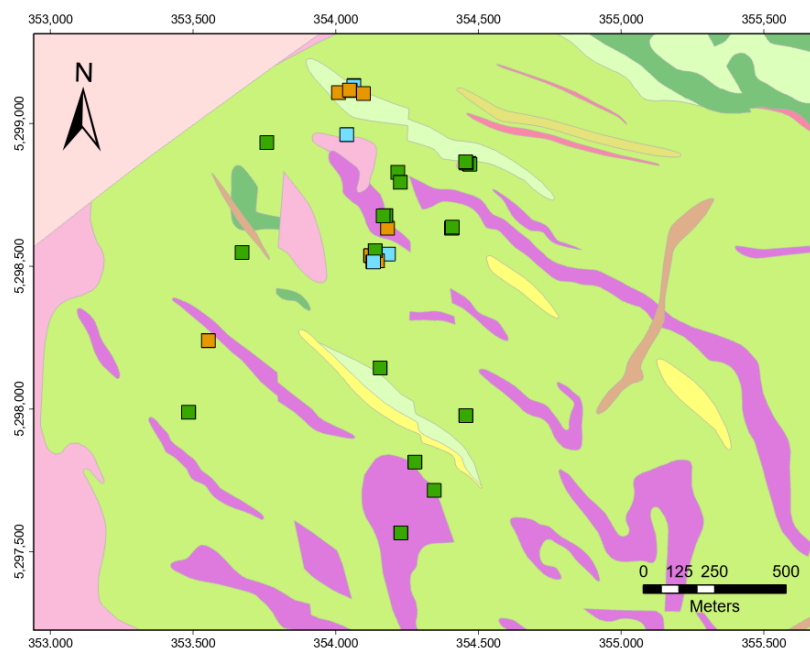
Confidence level is variable among groups and among samples within groups. Subgroups cannot be distinguished in the Exiro dataset because of the sub-ideal analytical package used.

Comparison of lithogeochemical data with mapped lithostratigraphic units

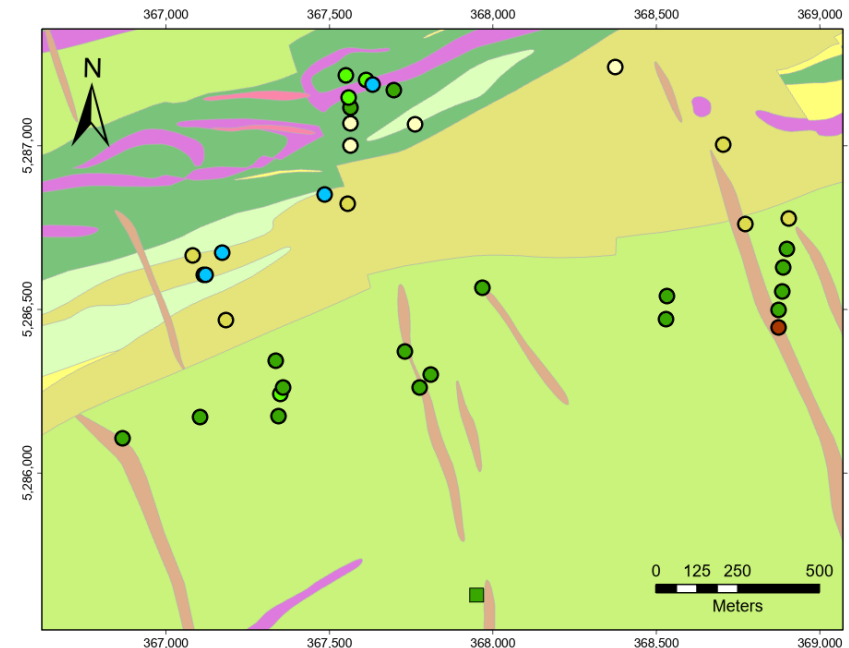
- Overall good correlation between defined classes and mapped geology
- Fine-grained clastic metasediments have an overall felsic signature which is common for the Timiskaming assemblage. Conglomerate units have an intermediate to felsic average composition with occasional mafic samples, which is in agreement with shorter transport distances and a more local source compared to mature sandstones and mudstones.
- Two main mafic units can be distinguished: the 2A high Ti group (together with some of the 2B moderate Ti group) vs the 2C moderate to high Ti group. The 2C group appears at or in the vicinity of intrusive mafic units in the E part of the property. In the W part, intrusive mafic units are distinguished by their high Ti signature in the mafic-intermediate package: these samples may in fact belong to the 2C group, but it is not possible to distinguish the 2C group in the Exiro dataset.
- Samples highlight unmapped mafic volcanic packages in mafic-intermediate volcanic units in the E and W part of the property.



2C samples line up with mafic intrusions



2A samples (dark green) of the Exiro dataset in this area could indicate mafic intrusions



2A samples (dark green) highlight a mafic horizon in mafic-intermediate volcanics (light green map unit)

Additional notes on lithogeochemistry:

- Because the 3 datasets were acquired at different labs and with different methods, they had to be processed separately. The Teck datasets were later merged on account of the overall similarity in detection limits and analytical methods. The geochemical groups in the individual datasets were correlated and merged into a unified classification.
- The overall confidence in the Exiro geochemical groups is much lower than those of the Teck datasets because of the insufficient quality of the analytical data. The high Cr and high Ti groups are well established, but the 2B group cannot be further divided and may include a variety of rock types from strongly altered mafic to intermediate units.
- Because these are not research-quality analyses, the datasets are only internally consistent (assuming that the error coming from partial digestion of minerals is systematic within rock types). This means that the fields where specific lithologies cluster in the diagrams may not be exactly the same for a different dataset. (Cf. the predefined fields vs the cluster of data in the diagrams on slides 5 to 7.) The overall topology of the diagrams will be the same, though, in each dataset (i.e., the relative position of mafic, ultramafic and felsic data will be the same).

ALTERATION AND PATHFINDERS

Correlation matrices were used to get an insight into what element associations are characteristic to specific rock types/lithogeochemical classes, alteration features and gold mineralization. The Exiro and Teck datasets were handled separately because of the different analytical methods, analyte suites and detection limits.

Correlation matrices are a good first step, but limitations have to be considered:

- Low sample numbers skew the results.
- Elements with concentrations around or below detection limit, as well as those that only have a few datapoints well above detection limit skew the data. This is especially important when looking at correlations with Au and pathfinders.
- The Exiro dataset includes samples from the whole property, and so it is geologically diverse and geographically extensive. Teck datasets are spatially more confined, but also sample an array of lithologies. Trends specific to rock types or local occurrences can be masked and correlations significantly lowered by this diversity.
- If an element is part of several different element associations and/or minerals, its correlation coefficients with the individual elements will be lowered. (e.g., S will show low coefficients with As, Fe, Cu, Sb, etc, if these elements form separate, chemically different phases with S) Consequently, if a correlation is very high, it suggests that the elements in question occur in the same mineral phase or environment exclusively (e.g., >0.9 correlation of Cr and Ni indicates that Ni primarily comes from ultramafic rocks)

Element associations suggested by correlation coefficients:

- Strong Cr-Ni correlation in ultramafic units
- Au-Ag have weak to no correlation with S and As in ultramafic units, but correlate with K
- Au-Ag correlate with K, Na and S in mafic groups, and with As in the Exiro dataset. Bi tends to be associated with Au-Ag as well as with Mo and S.
- As-Sb correlate, and As has a weak correlation with ultramafic elements Cr, Ni and Te.

Element associations in geochemical data

Teck 2017 dataset element correlations (all data)

Correlation...	Ag_ppm	As_ppm	Au_ppm	Bi_ppm	Co_ppm	Cr_ppm	Cu_ppm	K_pct	Mo_ppm	Na_pct	Ni_ppm	Pb_ppm	S_pct	Sb_ppm	Se_ppm	Sn_ppm	Te_ppm	Ti_ppm	W_ppm	Zn_ppm
Ag_ppm	1	0.074	0.77	0.34	-0.1	-0.097	0.66	0.15	0.12	0.19	-0.058	0.22	0.55	-0.18	0.21	-0.094	0.27	-0.22	0.013	-0.045
As_ppm	0.074	1	0.21	0.68	0.25	0.0029	0.054	-0.14	0.52	-0.2	-0.0088	0.26	0.57	0.18	0.78	0.24	0.16	-0.07	-7.85E-4	0.19
Au_ppm	0.77	0.21	1	0.4	-0.022	-0.053	0.19	0.21	0.19	0.19	-0.031	0.31	0.6	-0.16	0.27	-0.099	0.31	-0.29	0.27	-0.12
Bi_ppm	0.34	0.68	0.4	1	0.26	0.061	0.15	0.05	0.81	-0.13	0.091	0.51	0.88	-0.082	0.88	0.17	0.37	-0.26	0.0078	0.18
Co_ppm	-0.1	0.25	-0.022	0.26	1	0.5	-0.12	0.1	0.14	-0.17	0.56	0.41	0.23	-0.22	0.29	0.19	0.49	0.19	-0.21	0.62
Cr_ppm	-0.097	0.0029	-0.053	0.061	0.5	1	-0.22	0.079	0.031	-0.37	0.95	0.36	-0.0053	-0.19	-0.048	-0.31	0.65	-0.34	-0.054	0.26
Cu_ppm	0.66	0.054	0.19	0.15	-0.12	-0.22	1	0.013	0.038	0.14	-0.18	0.049	0.24	-0.17	0.18	0.086	-0.017	0.033	-0.07	0.11
K_pct	0.15	-0.14	0.21	0.05	0.1	0.079	0.013	1	0.0039	0.15	0.041	0.19	0.17	-0.38	-0.068	-0.18	0.25	-0.29	0.13	0.033
Mo_ppm	0.12	0.52	0.19	0.81	0.14	0.031	0.038	0.0039	1	0.013	0.078	0.47	0.56	0.0053	0.64	0.2	0.18	-0.19	-0.025	0.05
Na_pct	0.19	-0.2	0.19	-0.13	-0.17	-0.37	0.14	0.15	0.013	1	-0.37	0.14	0.034	-0.14	-0.14	0.077	-0.22	0.12	0.0085	-0.17
Ni_ppm	-0.058	-0.0088	-0.031	0.091	0.56	0.95	-0.18	0.041	0.078	-0.37	1	0.4	0.033	-0.19	-0.023	-0.25	0.64	-0.28	-0.062	0.29
Pb_ppm	0.22	0.26	0.31	0.51	0.41	0.36	0.049	0.19	0.47	0.14	0.4	1	0.51	-0.27	0.4	0.098	0.31	-0.17	0.015	0.29
S_pct	0.55	0.57	0.6	0.88	0.23	-0.0053	0.24	0.17	0.56	0.034	0.033	0.51	1	-0.16	0.81	0.086	0.39	-0.31	0.067	0.13
Sb_ppm	-0.18	0.18	-0.16	-0.082	-0.22	-0.19	-0.17	-0.38	0.0053	-0.14	-0.19	-0.27	-0.16	1	-0.033	0.076	-0.19	0.11	0.14	-0.35
Se_ppm	0.21	0.78	0.27	0.88	0.29	-0.048	0.18	-0.068	0.64	-0.14	-0.023	0.4	0.81	-0.033	1	0.29	0.19	-0.061	-0.059	0.24
Sn_ppm	-0.094	0.24	-0.099	0.17	0.19	-0.31	0.086	-0.18	0.2	0.077	-0.25	0.098	0.086	0.076	0.29	1	-0.17	0.79	-0.097	0.4
Te_ppm	0.27	0.16	0.31	0.37	0.49	0.65	-0.017	0.25	0.18	-0.22	0.64	0.31	0.39	-0.19	0.19	-0.17	1	-0.32	-0.026	0.29
Ti_ppm	-0.22	-0.07	-0.29	-0.26	0.19	-0.34	0.033	-0.29	-0.19	0.12	-0.28	-0.17	-0.31	0.11	-0.061	0.79	-0.32	1	-0.23	0.33
W_ppm	0.013	-7.85E-4	0.27	0.0078	-0.21	-0.054	-0.07	0.13	-0.025	0.0085	-0.062	0.015	0.067	0.14	-0.059	-0.097	-0.026	-0.23	1	-0.24
Zn_ppm	-0.045	0.19	-0.12	0.18	0.62	0.26	0.11	0.033	0.05	-0.17	0.29	0.29	0.13	-0.35	0.24	0.4	0.29	0.33	-0.24	1

Au-Ag correlation = 0.77 May suggest contrasting mineralization styles (disseminated sulphide-associated vs vein type) and/or variable purity of gold within a single mineralized setting (e.g., small-scale remobilization).

Au and Ag are weakly correlated with S and do not correlate with As. This suggests that the main mineralization style in the area is vein-type, and not associated with disseminated py-apy.

Strongest associations based on correlation are Bi-Se-S, Bi-Mo, As-Se-Bi, Cr-Ni (lithological), Zn-Co (lithological), Ti-Sn (lithological)

There are no significant differences when the geochemical groups are looked at separately, except that Ag and Au weakly correlate with Na and K (0.62, 0.55) in the high Ti group (2A). (Correlation matrices for the individual groups not shown.)

Note: Se, Sn and Sb are mostly below and around DL, so the correlation coefficients may be overestimated.

Element associations in geochemical data

Teck 2014 dataset element correlations (all data, n = 131)

Correlation ...	Ag_ppm	As_ppm	Au_ppm	Bi_ppm	Co_ppm	Cr_ppm	Cu_ppm	K_pct	Mo_ppm	Na_pct	Ni_ppm	Pb_ppm	S_pct	Sb_ppm	Se_ppm	Sn_ppm	Te_ppm	Ti_ppm	W_ppm	Zn_ppm
Ag_ppm	1	0.047	0.93	0.91	0.044	0.012	0.14	0.25	0.25	-0.2	0.11	0.4	0.28	-0.0088	0.28	0.026	0.28	-0.23	0.15	-0.14
As_ppm	0.047	1	-0.0075	0.048	0.12	0.59	-0.03	-5.38E-4	-0.032	-0.16	0.26	-0.017	-0.02	0.49	0.0043	-0.14	0.53	-0.15	0.43	0.077
Au_ppm	0.93	-0.0075	1	0.86	-0.095	-0.048	-0.037	0.17	0.13	-0.2	-0.037	0.34	0.071	-0.035	0.13	-0.026	0.14	-0.19	0.061	-0.17
Bi_ppm	0.91	0.048	0.86	1	-0.031	-0.023	-0.0069	0.27	0.25	-0.22	0.027	0.44	0.19	0.001	0.21	0.0043	0.21	-0.26	0.14	-0.13
Co_ppm	0.044	0.12	-0.095	-0.031	1	0.16	0.68	-0.28	0.0064	-0.0078	0.81	-0.068	0.76	0.11	0.86	0.056	0.43	0.17	0.046	-0.01
Cr_ppm	0.012	0.59	-0.048	-0.023	0.16	1	-0.087	-0.1	0.054	-0.37	0.29	-0.19	-0.043	0.25	-0.086	-0.31	0.67	-0.18	0.36	0.047
Cu_ppm	0.14	-0.03	-0.037	-0.0069	0.68	-0.087	1	-0.21	0.021	0.2	0.7	-0.082	0.69	-0.036	0.77	0.24	0.26	0.12	-0.059	-0.11
K_pct	0.25	-5.38E-4	0.17	0.27	-0.28	-0.1	-0.21	1	0.18	0.17	-0.14	0.42	-0.042	-0.024	-0.11	0.38	-0.021	-0.32	0.16	-0.12
Mo_ppm	0.25	-0.032	0.13	0.25	0.0064	0.054	0.021	0.18	1	-0.17	0.0077	0.078	0.39	0.044	0.02	0.023	0.27	-0.085	0.18	0.32
Na_pct	-0.2	-0.16	-0.2	-0.22	-0.0078	-0.37	0.2	0.17	-0.17	1	0.038	0.24	0.18	-0.23	0.22	0.29	-0.3	-0.14	-0.091	-0.33
Ni_ppm	0.11	0.26	-0.037	0.027	0.81	0.29	0.7	-0.14	0.0077	0.038	1	-0.072	0.67	0.11	0.78	6.67E-4	0.56	-0.038	0.13	-0.16
Pb_ppm	0.4	-0.017	0.34	0.44	-0.068	-0.19	-0.082	0.42	0.078	0.24	-0.072	1	0.11	0.075	0.13	0.27	-0.11	-0.19	0.048	-0.1
S_pct	0.28	-0.02	0.071	0.19	0.76	-0.043	0.69	-0.042	0.39	0.18	0.67	0.11	1	0.098	0.89	0.059	0.34	-0.1	0.086	-0.11
Sb_ppm	-0.0088	0.49	-0.035	0.001	0.11	0.25	-0.036	-0.024	0.044	-0.23	0.11	0.075	0.098	1	0.075	-0.17	0.2	-0.19	0.14	-0.091
Se_ppm	0.28	0.0043	0.13	0.21	0.86	-0.086	0.77	-0.11	0.02	0.22	0.78	0.13	0.89	0.075	1	0.12	0.28	-0.015	-0.0056	-0.23
Sn_ppm	0.026	-0.14	-0.026	0.0043	0.056	-0.31	0.24	0.38	0.023	0.29	6.67E-4	0.27	0.059	-0.17	0.12	1	-0.17	0.36	-0.049	0.13
Te_ppm	0.28	0.53	0.14	0.21	0.43	0.67	0.26	-0.021	0.27	-0.3	0.56	-0.11	0.34	0.2	0.28	-0.17	1	-0.16	0.42	0.0053
Ti_ppm	-0.23	-0.15	-0.19	-0.26	0.17	-0.18	0.12	-0.32	-0.085	-0.14	-0.038	-0.19	-0.1	-0.19	-0.015	0.36	-0.16	1	0.017	0.56
W_ppm	0.15	0.43	0.061	0.14	0.046	0.36	-0.059	0.16	0.18	-0.091	0.13	0.048	0.086	0.14	-0.0056	-0.049	0.42	0.017	1	0.14
Zn_ppm	-0.14	0.077	-0.17	-0.13	-0.01	0.047	-0.11	-0.12	0.32	-0.33	-0.16	-0.1	-0.11	-0.091	-0.23	0.13	0.0053	0.56	0.14	1

Strong correlation between Au and Ag as well as Bi. No correlation with As and S. As correlates weakly with Cr and Te, which shows an affinity to ultramafic rocks. All other correlation are lithological.

Note: there are only 4 samples >0.1 ppm Au in this dataset, they come from quartz veins hosted by altered mafic volcanics (2B group).

Element associations in geochemical data

Merged Teck dataset element correlations

Group 1: high and moderate Cr (ultramafic and strongly altered ultramafic), n = 32

Correlation...	Ag_ppm	As_ppm	Au_ppm	Bi_ppm	Co_ppm	Cr_ppm	Cu_ppm	K_pct	Mo_ppm	Na_pct	Ni_ppm	Pb_ppm	S_pct	Sb_ppm	Se_ppm	Sn_ppm	Te_ppm	Ti_ppm	W_ppm	Zn_ppm
Ag_ppm	1	-0.042	0.87	0.35	-0.27	-0.23	0.43	-0.015	-0.03	0.33	-0.18	0.093	0.68	-0.045	0.22	-0.053	0.081	-0.092	-0.03	-0.22
As_ppm	-0.042	1	-0.1	-0.051	0.49	0.38	-0.15	-0.097	-0.066	-0.26	0.56	-0.084	-0.17	1	0.09	-0.3	0.55	-0.24	-0.053	0.12
Au_ppm	0.87	-0.1	1	0.26	-0.29	-0.28	0.29	0.0062	-0.073	0.43	-0.25	0.14	0.6	-0.1	0.095	0.1	-0.035	0.011	0.33	-0.32
Bi_ppm	0.35	-0.051	0.26	1	0.029	-0.088	-0.029	0.052	0.65	-0.0082	-0.055	0.28	0.65	-0.047	0.43	0.39	0.16	-0.027	-0.04	0.18
Co_ppm	-0.27	0.49	-0.29	0.029	1	0.81	-0.62	-0.26	-0.015	-0.62	0.86	0.14	-0.18	0.48	-0.074	-0.44	0.7	-0.48	-0.21	0.31
Cr_ppm	-0.23	0.38	-0.28	-0.088	0.81	1	-0.49	-0.34	-0.037	-0.71	0.96	0.18	-0.33	0.38	-0.21	-0.55	0.67	-0.64	-0.19	0.28
Cu_ppm	0.43	-0.15	0.29	-0.029	-0.62	-0.49	1	-0.06	-0.065	0.2	-0.43	-0.21	0.16	-0.15	0.24	0.16	-0.28	0.1	-0.0086	-0.21
K_pct	-0.015	-0.097	0.0062	0.052	-0.26	-0.34	-0.06	1	0.077	0.23	-0.37	-0.019	0.11	-0.095	-0.0038	0.17	-0.026	0.12	0.054	-0.014
Mo_ppm	-0.03	-0.066	-0.073	0.65	-0.015	-0.037	-0.065	0.077	1	-0.1	-0.0088	0.13	0.048	-0.061	-0.036	0.46	0.052	0.062	-0.085	0.085
Na_pct	0.33	-0.26	0.43	-0.0082	-0.62	-0.71	0.2	0.23	-0.1	1	-0.69	-0.049	0.36	-0.26	-0.063	0.29	-0.52	0.52	0.26	-0.42
Ni_ppm	-0.18	0.56	-0.25	-0.055	0.86	0.96	-0.43	-0.37	-0.0088	-0.69	1	0.11	-0.29	0.56	-0.13	-0.55	0.72	-0.64	-0.19	0.23
Pb_ppm	0.093	-0.084	0.14	0.28	0.14	0.18	-0.21	-0.019	0.13	-0.049	0.11	1	0.22	-0.086	-0.11	-0.045	-0.073	-0.24	0.057	0.079
S_pct	0.68	-0.17	0.6	0.65	-0.18	-0.33	0.16	0.11	0.048	0.36	-0.29	0.22	1	-0.18	0.51	0.24	0.041	-0.062	0.084	-0.018
Sb_ppm	-0.045	1	-0.1	-0.047	0.48	0.38	-0.15	-0.095	-0.061	-0.26	0.56	-0.086	-0.18	1	0.086	-0.3	0.54	-0.23	-0.051	0.11
Se_ppm	0.22	0.09	0.095	0.43	-0.074	-0.21	0.24	-0.0038	-0.036	-0.063	-0.13	-0.11	0.51	0.086	1	0.18	0.043	-0.0065	-0.14	0.21
Sn_ppm	-0.053	-0.3	0.1	0.39	-0.44	-0.55	0.16	0.17	0.46	0.29	-0.55	-0.045	0.24	-0.3	0.18	1	-0.35	0.48	0.28	-0.097
Te_ppm	0.081	0.55	-0.035	0.16	0.7	0.67	-0.28	-0.026	0.052	-0.52	0.72	-0.073	0.041	0.54	0.043	-0.35	1	-0.46	-0.17	0.4
Ti_ppm	-0.092	-0.24	0.011	-0.027	-0.48	-0.64	0.1	0.12	0.062	0.52	-0.64	-0.24	-0.062	-0.23	-0.0065	0.48	-0.46	1	0.1	-0.18
W_ppm	-0.03	-0.053	0.33	-0.04	-0.21	-0.19	-0.0086	0.054	-0.085	0.26	-0.19	0.057	0.084	-0.051	-0.14	0.28	-0.17	0.1	1	-0.27
Zn_ppm	-0.22	0.12	-0.32	0.18	0.31	0.28	-0.21	-0.014	0.085	-0.42	0.23	0.079	-0.018	0.11	0.21	-0.097	0.4	-0.18	-0.27	1

Strong Au-Ag correlation, weak correlation with S, no correlation with As.

As correlates with Sb (but that high coefficient is likely because of the small number of samples above DL).

Strong Cr-Ni correlation (lithological).

Merged Teck dataset element correlations

Group 2B: moderate Ti (strongly altered mafic), n = 30

Correlation ...	Ag_ppm	As_ppm	Au_ppm	Bi_ppm	Co_ppm	Cr_ppm	Cu_ppm	K_pct	Mo_ppm	Na_pct	Ni_ppm	Pb_ppm	S_pct	Sb_ppm	Se_ppm	Sn_ppm	Te_ppm	Ti_ppm	W_ppm	Zn_ppm
Ag_ppm	1	-0.13	0.99	0.68	-0.36	-0.35	0.86	0.76	0.11	0.17	-0.35	0.47	0.98	-0.2	0.25	0.21	-0.11	-0.27	0.84	0.23
As_ppm	-0.13	1	-0.18	-0.23	0.31	0.31	-0.036	-0.36	-0.38	-0.27	0.42	-0.41	-0.18	0.59	-0.15	0.38	0.45	0.4	-0.019	0.26
Au_ppm	0.99	-0.18	1	0.7	-0.39	-0.38	0.82	0.79	0.15	0.2	-0.38	0.49	0.99	-0.23	0.24	0.19	-0.16	-0.31	0.83	0.18
Bi_ppm	0.68	-0.23	0.7	1	-0.32	-0.097	0.58	0.74	0.32	0.22	-0.41	0.51	0.71	-0.24	0.18	0.072	-0.18	-0.4	0.6	0.035
Co_ppm	-0.36	0.31	-0.39	-0.32	1	0.55	-0.19	-0.34	-0.32	-0.02	0.82	-0.21	-0.44	0.23	-0.18	0.032	0.33	0.59	-0.23	0.41
Cr_ppm	-0.35	0.31	-0.38	-0.097	0.55	1	-0.3	-0.24	-0.3	-0.21	0.64	-0.063	-0.41	0.21	-0.43	0.022	0.23	0.22	-0.29	0.0079
Cu_ppm	0.86	-0.036	0.82	0.58	-0.19	-0.3	1	0.61	-0.02	0.16	-0.24	0.5	0.84	-0.078	0.46	0.33	-0.16	-0.0082	0.82	0.38
K_pct	0.76	-0.36	0.79	0.74	-0.34	-0.24	0.61	1	0.48	0.37	-0.36	0.69	0.81	-0.45	0.13	0.052	-0.29	-0.45	0.65	-0.097
Mo_ppm	0.11	-0.38	0.15	0.32	-0.32	-0.3	-0.02	0.48	1	0.7	-0.41	0.43	0.18	-0.44	-0.033	0.19	-0.21	-0.14	0.1	-0.31
Na_pct	0.17	-0.27	0.2	0.22	-0.02	-0.21	0.16	0.37	0.7	1	-0.34	0.58	0.19	-0.49	0.22	0.22	-0.37	0.29	0.14	0.12
Ni_ppm	-0.35	0.42	-0.38	-0.41	0.82	0.64	-0.24	-0.36	-0.41	-0.34	1	-0.31	-0.43	0.43	-0.46	0.026	0.51	0.34	-0.19	0.14
Pb_ppm	0.47	-0.41	0.49	0.51	-0.21	-0.063	0.5	0.69	0.43	0.58	-0.31	1	0.48	-0.4	0.13	0.026	-0.34	-0.14	0.45	-0.047
S_pct	0.98	-0.18	0.99	0.71	-0.44	-0.41	0.84	0.81	0.18	0.19	-0.43	0.48	1	-0.25	0.29	0.23	-0.2	-0.32	0.82	0.17
Sb_ppm	-0.2	0.59	-0.23	-0.24	0.23	0.21	-0.078	-0.45	-0.44	-0.49	0.43	-0.4	-0.25	1	-0.15	0.062	0.53	0.2	-0.052	0.094
Se_ppm	0.25	-0.15	0.24	0.18	-0.18	-0.43	0.46	0.13	-0.033	0.22	-0.46	0.13	0.29	-0.15	1	-0.028	-0.39	0.15	0.19	0.29
Sn_ppm	0.21	0.38	0.19	0.072	0.032	0.022	0.33	0.052	0.19	0.22	0.026	0.026	0.23	0.062	-0.028	1	0.034	0.48	0.3	0.43
Te_ppm	-0.11	0.45	-0.16	-0.18	0.33	0.23	-0.16	-0.29	-0.21	-0.37	0.51	-0.34	-0.2	0.53	-0.39	0.034	1	0.06	0.15	-0.015
Ti_ppm	-0.27	0.4	-0.31	-0.4	0.59	0.22	-0.0082	-0.45	-0.14	0.29	0.34	-0.14	-0.32	0.2	0.15	0.48	0.06	1	-0.12	0.54
W_ppm	0.84	-0.019	0.83	0.6	-0.23	-0.29	0.82	0.65	0.1	0.14	-0.19	0.45	0.82	-0.052	0.19	0.3	0.15	-0.12	1	0.24
Zn_ppm	0.23	0.26	0.18	0.035	0.41	0.0079	0.38	-0.097	-0.31	0.12	0.14	-0.047	0.17	0.094	0.29	0.43	-0.015	0.54	0.24	1

Strong Au-Ag correlation, moderate to strong correlation with Cu, K, W, very strong with S, none with As.

Element associations in geochemical data

Merged Teck dataset element correlations

Group 3: Na-enriched (sediments and felsic magmatic rocks, undivided), n = 55

Correlation ...	Ag_ppm	As_ppm	Au_ppm	Bi_ppm	Co_ppm	Cr_ppm	Cu_ppm	K_pct	Mo_ppm	Na_pct	Ni_ppm	Pb_ppm	S_pct	Sb_ppm	Se_ppm	Sn_ppm	Te_ppm	Ti_ppm	W_ppm	Zn_ppm
Ag_ppm	1	0.12	0.94	0.68	0.081	0.017	0.15	0.12	0.3	-0.41	0.079	0.49	0.34	-0.057	0.4	0.08	0.7	-0.25	0.15	-0.0077
As_ppm	0.12	1	0.065	0.087	0.11	0.066	0.1	-0.11	0.045	0.039	0.021	0.12	0.1	0.1	0.095	0.063	0.15	0.16	0.0053	0.038
Au_ppm	0.94	0.065	1	0.56	-0.06	-0.017	-0.029	0.098	0.2	-0.37	-0.049	0.42	0.17	-0.057	0.21	-0.032	0.56	-0.29	0.15	-0.11
Bi_ppm	0.68	0.087	0.56	1	0.076	0.28	0.061	-0.07	0.81	-0.38	-0.03	0.36	0.79	-0.059	0.67	0.11	0.64	-0.33	0.26	0.24
Co_ppm	0.081	0.11	-0.06	0.076	1	0.012	0.69	-0.31	0.088	0.16	0.74	0.079	0.53	0.13	0.75	0.16	0.43	0.26	-0.051	-0.079
Cr_ppm	0.017	0.066	-0.017	0.28	0.012	1	-0.023	-0.19	0.29	-0.41	-0.04	-0.14	0.27	-0.087	0.19	-0.17	0.21	-0.11	-0.041	0.22
Cu_ppm	0.15	0.1	-0.029	0.061	0.69	-0.023	1	-0.33	0.073	0.2	0.79	-0.12	0.42	-0.024	0.6	0.36	0.64	0.35	-0.059	-0.093
K_pct	0.12	-0.11	0.098	-0.07	-0.31	-0.19	-0.33	1	-0.26	-0.089	-0.27	0.34	-0.33	-0.084	-0.32	0.27	-0.17	0.22	0.079	0.26
Mo_ppm	0.3	0.045	0.2	0.81	0.088	0.29	0.073	-0.26	1	-0.14	-0.016	0.17	0.84	-0.012	0.61	0.071	0.44	-0.29	0.45	0.28
Na_pct	-0.41	0.039	-0.37	-0.38	0.16	-0.41	0.2	-0.089	-0.14	1	0.16	-0.015	-0.11	-0.25	-0.055	0.26	-0.23	0.31	0.26	-0.3
Ni_ppm	0.079	0.021	-0.049	-0.03	0.74	-0.04	0.79	-0.27	-0.016	0.16	1	-0.12	0.36	7.41E-4	0.57	0.11	0.47	0.34	-0.051	-0.15
Pb_ppm	0.49	0.12	0.42	0.36	0.079	-0.14	-0.12	0.34	0.17	-0.015	-0.12	1	0.17	0.061	0.19	0.13	0.23	-0.11	0.22	-0.028
S_pct	0.34	0.1	0.17	0.79	0.53	0.27	0.42	-0.33	0.84	-0.11	0.36	0.17	1	0.04	0.93	0.19	0.63	-0.11	0.21	0.24
Sb_ppm	-0.057	0.1	-0.057	-0.059	0.13	-0.087	-0.024	-0.084	-0.012	-0.25	7.41E-4	0.061	0.04	1	0.046	-0.17	-0.063	-0.18	-0.1	-0.16
Se_ppm	0.4	0.095	0.21	0.67	0.75	0.19	0.6	-0.32	0.61	-0.055	0.57	0.19	0.93	0.046	1	0.25	0.7	0.014	0.098	0.11
Sn_ppm	0.08	0.063	-0.032	0.11	0.16	-0.17	0.36	0.27	0.071	0.26	0.11	0.13	0.19	-0.17	0.25	1	0.27	0.48	0.038	0.17
Te_ppm	0.7	0.15	0.56	0.64	0.43	0.21	0.64	-0.17	0.44	-0.23	0.47	0.23	0.63	-0.063	0.7	0.27	1	-0.018	0.13	0.053
Ti_ppm	-0.25	0.16	-0.29	-0.33	0.26	-0.11	0.35	0.22	-0.29	0.31	0.34	-0.11	-0.11	-0.18	0.014	0.48	-0.018	1	-0.064	0.17
W_ppm	0.15	0.0053	0.15	0.26	-0.051	-0.041	-0.059	0.079	0.45	0.26	-0.051	0.22	0.21	-0.1	0.098	0.038	0.13	-0.064	1	-0.12
Zn_ppm	-0.0077	0.038	-0.11	0.24	-0.079	0.22	-0.093	0.26	0.28	-0.3	-0.15	-0.028	0.24	-0.16	0.11	0.17	0.053	0.17	-0.12	1

Au-Ag, weak correlation with Bi, moderate with Te. (Note that very few samples have Au!)

The other groups have either low sample numbers or no meaningful correlation (2A).

Element associations in geochemical data

Exiro 2021 dataset element correlations (all data, n = 199)

Correlation - 199 rows...	Au_ppm	Ag_ppm	As_ppm	Bi_ppm	Co_ppm	Cr_ppm	Cu_ppm	Fe_pct	K_pct	Mo_ppm	Na_pct	Ni_ppm	S_pct	Sb_ppm	Ti_pct	Zn_ppm
Au_ppm	1	0.16	0.46	0.014	0.022	-0.048	0.0033	0.05	0.2	0.015	0.043	-0.042	0.43	-0.0068	4.05E-4	-0.027
Ag_ppm	0.16	1	0.14	0.44	0.33	-0.02	0.46	0.2	0.097	0.031	-0.056	0.046	0.44	0.0021	-0.093	-0.0014
As_ppm	0.46	0.14	1	-0.035	0.092	0.14	0.1	0.24	0.08	0.046	-0.1	0.18	0.54	0.78	-0.072	0.068
Bi_ppm	0.014	0.44	-0.035	1	0.12	-0.051	0.041	0.011	0.22	0.058	-0.063	-0.051	0.28	-0.011	-0.04	-0.02
Co_ppm	0.022	0.33	0.092	0.12	1	0.3	0.64	0.082	0.16	-0.04	0.17	0.4	0.21	-0.019	0.3	0.14
Cr_ppm	-0.048	-0.02	0.14	-0.051	0.3	1	-0.088	-0.17	0.034	-0.027	-0.24	0.97	-0.074	-0.027	-0.16	0.095
Cu_ppm	0.0033	0.46	0.1	0.041	0.64	-0.088	1	0.12	0.022	-0.022	0.12	0.0055	0.22	0.007	0.091	0.079
Fe_pct	0.05	0.2	0.24	0.011	0.082	-0.17	0.12	1	-0.038	0.07	-0.12	-0.15	0.42	0.28	0.16	0.3
K_pct	0.2	0.097	0.08	0.22	0.16	0.034	0.022	-0.038	1	0.11	0.021	0.041	0.24	-0.052	0.12	0.21
Mo_ppm	0.015	0.031	0.046	0.058	-0.04	-0.027	-0.022	0.07	0.11	1	-0.15	-0.024	0.14	0.07	-0.064	0.0028
Na_pct	0.043	-0.056	-0.1	-0.063	0.17	-0.24	0.12	-0.12	0.021	-0.15	1	-0.22	-0.058	-0.086	0.42	-0.055
Ni_ppm	-0.042	0.046	0.18	-0.051	0.4	0.97	0.0055	-0.15	0.041	-0.024	-0.22	1	-0.056	-0.0086	-0.13	0.083
S_pct	0.43	0.44	0.54	0.28	0.21	-0.074	0.22	0.42	0.24	0.14	-0.058	-0.056	1	0.34	-0.092	0.37
Sb_ppm	-0.0068	0.0021	0.78	-0.011	-0.019	-0.027	0.007	0.28	-0.052	0.07	-0.086	-0.0086	0.34	1	-0.067	-0.03
Ti_pct	4.05E-4	-0.093	-0.072	-0.04	0.3	-0.16	0.091	0.16	0.12	-0.064	0.42	-0.13	-0.092	-0.067	1	0.1
Zn_ppm	-0.027	-0.0014	0.068	-0.02	0.14	0.095	0.079	0.3	0.21	0.0028	-0.055	0.083	0.37	-0.03	0.1	1

Most of the traces are below or around DL in this dataset, including Au, Ag, Ag – this is because the DL with this method is very high. The correlations may offer some insight, but the confidence level is low.

Low general correlation: can be due to data quality and/or sample variability over a large geographic area.

Moderate to strong correlation for Cu-Co and Cr-Ni are lithological. Correlation of As-Sb is common for orogenic deposits.

Element associations in geochemical data

Exiro 2021 dataset element correlations: High Cr (ultramafic) group (n = 17)

Correlation - 17 rows ...	Au_ppm	Ag_ppm	As_ppm	Bi_ppm	Co_ppm	Cr_ppm	Cu_ppm	Fe_pct	K_pct	Mo_ppm	Na_pct	Ni_ppm	S_pct	Sb_ppm	Ti_pct	Zn_ppm
Au_ppm	1	0.67	-0.32		0.055	-0.051	-0.063	0.53	0.78	0.12	0.082	-0.071	0.59		0.21	0.058
Ag_ppm	0.67	1	-0.29		-0.038	-0.24	-0.08	0.3	0.42	-0.027	0.4	-0.23	0.59		-0.14	-0.059
As_ppm	-0.32	-0.29	1		0.28	0.63	0.56	-0.41	-0.4	-0.24	-0.25	0.73	-0.37		-0.27	-0.12
Bi_ppm																
Co_ppm	0.055	-0.038	0.28		1	0.75	0.54	0.59	0.11	-0.039	-0.24	0.78	0.065		0.19	0.52
Cr_ppm	-0.051	-0.24	0.63		0.75	1	0.64	0.17	-0.042	-0.075	-0.32	0.96	-0.12		-0.047	0.54
Cu_ppm	-0.063	-0.08	0.56		0.54	0.64	1	0.13	-0.11	0.095	-0.14	0.67	0.13		-0.11	-0.11
Fe_pct	0.53	0.3	-0.41		0.59	0.17	0.13	1	0.52	0.29	0.023	0.15	0.6		0.61	0.35
K_pct	0.78	0.42	-0.4		0.11	-0.042	-0.11	0.52	1	0.11	-0.038	-0.083	0.29		0.41	0.12
Mo_ppm	0.12	-0.027	-0.24		-0.039	-0.075	0.095	0.29	0.11	1	0.26	-0.1	0.57		-0.013	0.0034
Na_pct	0.082	0.4	-0.25		-0.24	-0.32	-0.14	0.023	-0.038	0.26	1	-0.37	0.39		-0.049	-0.17
Ni_ppm	-0.071	-0.23	0.73		0.78	0.96	0.67	0.15	-0.083	-0.1	-0.37	1	-0.18		-0.074	0.4
S_pct	0.59	0.59	-0.37		0.065	-0.12	0.13	0.6	0.29	0.57	0.39	-0.18	1		0.091	0.01
Sb_ppm																
Ti_pct	0.21	-0.14	-0.27		0.19	-0.047	-0.11	0.61	0.41	-0.013	-0.049	-0.074	0.091		1	0.032
Zn_ppm	0.058	-0.059	-0.12		0.52	0.54	-0.11	0.35	0.12	0.0034	-0.17	0.4	0.01		0.032	1

Au correlation with Ag, K, S (weak). As correlation with Cr, Ni.

Two different mineralization styles?

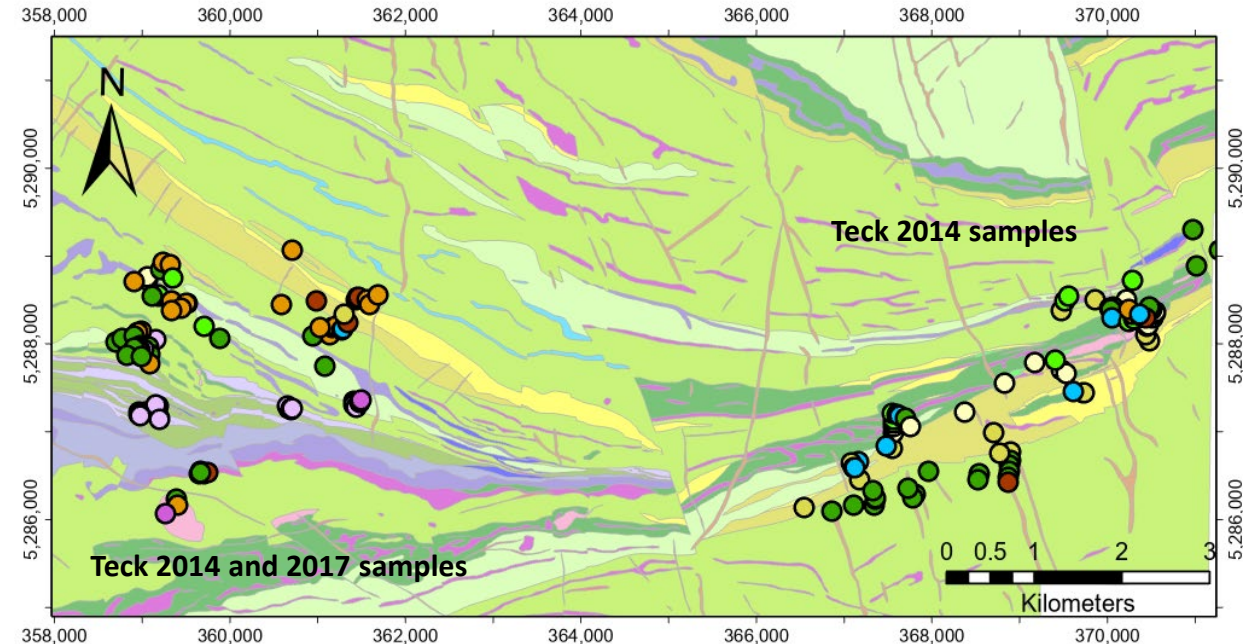
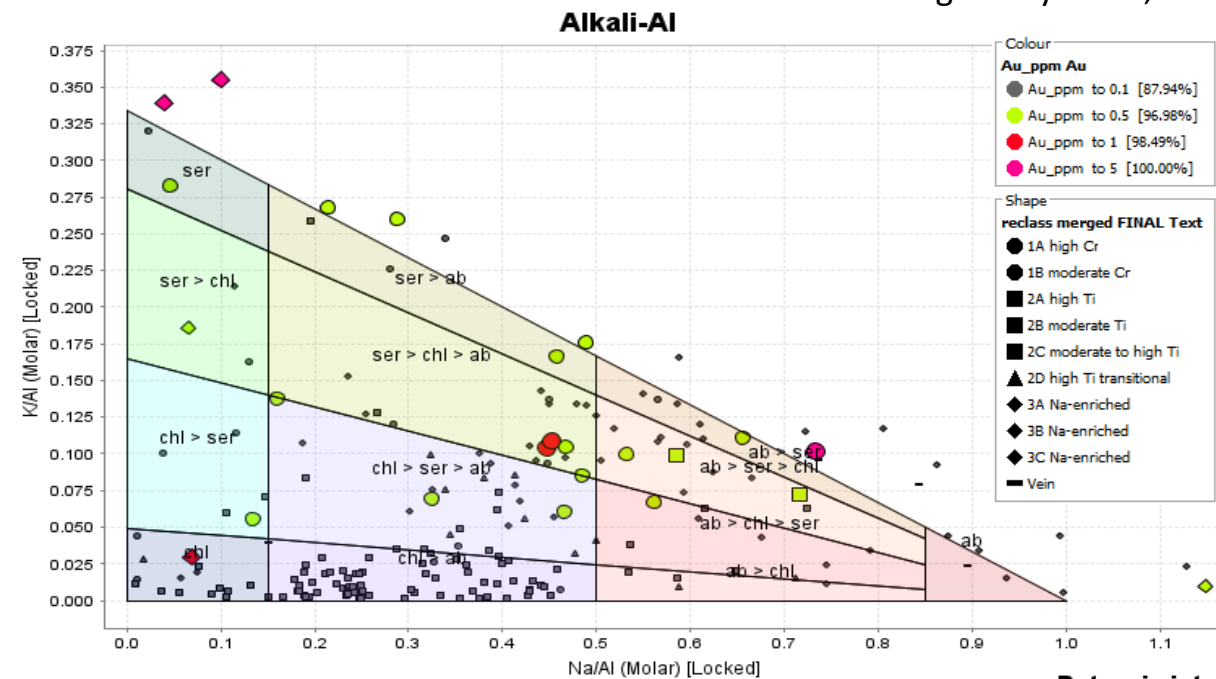
Exiro 2021 dataset element correlations: High Ti (mafic) group (n = 80)

Correlation - 80 rows ...	Au_ppm	Ag_ppm	As_ppm	Bi_ppm	Co_ppm	Cr_ppm	Cu_ppm	Fe_pct	K_pct	Mo_ppm	Na_pct	Ni_ppm	S_pct	Sb_ppm	Ti_pct	Zn_ppm
Au_ppm	1	0.22	0.89	-0.026	-0.033	-0.097	-0.034	0.12	0.25	0.043	0.011	-0.063	0.73		-0.11	-0.12
Ag_ppm	0.22	1	0.4	-0.025	0.64	2.56E-4	0.71	0.042	-0.017	0.054	0.11	0.56	0.35		-0.11	-0.2
As_ppm	0.89	0.4	1	-0.044	0.13	-0.096	0.16	0.067	0.28	0.035	-9.72E-4	0.084	0.77		-0.13	-0.18
Bi_ppm	-0.026	-0.025	-0.044	1	-0.12	-0.076	-7.7E-4	-0.11	0.21	-0.028	-0.1	-0.083	0.01		-0.079	-0.049
Co_ppm	-0.033	0.64	0.13	-0.12	1	0.34	0.86	0.24	-0.12	-0.02	-0.034	0.75	0.13		0.16	-0.057
Cr_ppm	-0.097	2.56E-4	-0.096	-0.076	0.34	1	0.059	-0.03	-0.1	-0.085	-0.086	0.74	-0.17		0.53	-0.12
Cu_ppm	-0.034	0.71	0.16	-7.7E-4	0.86	0.059	1	0.089	-0.059	-0.022	0.021	0.52	0.16		-0.1	-0.12
Fe_pct	0.12	0.042	0.067	-0.11	0.24	-0.03	0.089	1	-0.21	-0.017	-0.057	-0.028	0.32		0.34	0.49
K_pct	0.25	-0.017	0.28	0.21	-0.12	-0.1	-0.059	-0.21	1	0.15	-0.42	-0.048	0.26		-0.24	0.22
Mo_ppm	0.043	0.054	0.035	-0.028	-0.02	-0.085	-0.022	-0.017	0.15	1	-0.13	-0.064	0.27		-0.094	-0.032
Na_pct	0.011	0.11	-9.72E-4	-0.1	-0.034	-0.086	0.021	-0.057	-0.42	-0.13	1	-0.072	-0.054		0.24	-0.22
Ni_ppm	-0.063	0.56	0.084	-0.083	0.75	0.74	0.52	-0.028	-0.048	-0.064	-0.072	1	-0.033		0.34	-0.16
S_pct	0.73	0.35	0.77	0.01	0.13	-0.17	0.16	0.32	0.26	0.27	-0.054	-0.033	1		-0.14	0.052
Sb_ppm																
Ti_pct	-0.11	-0.11	-0.13	-0.079	0.16	0.53	-0.1	0.34	-0.24	-0.094	0.24	0.34	-0.14		1	0.05
Zn_ppm	-0.12	-0.2	-0.18	-0.049	-0.057	-0.12	-0.12	0.49	0.22	-0.032	-0.22	-0.16	0.052		0.05	1

Au correlation with As, S. Ag correlation with Co, Cu, Ni

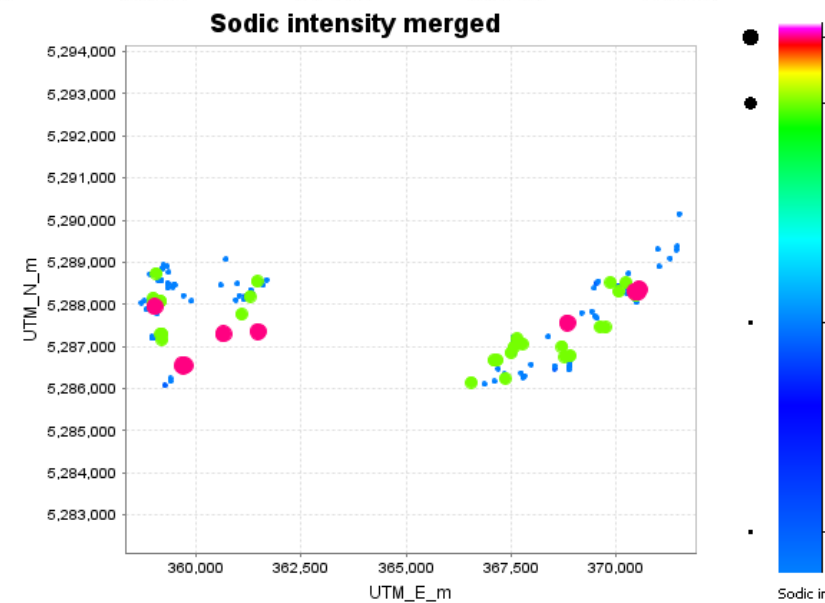
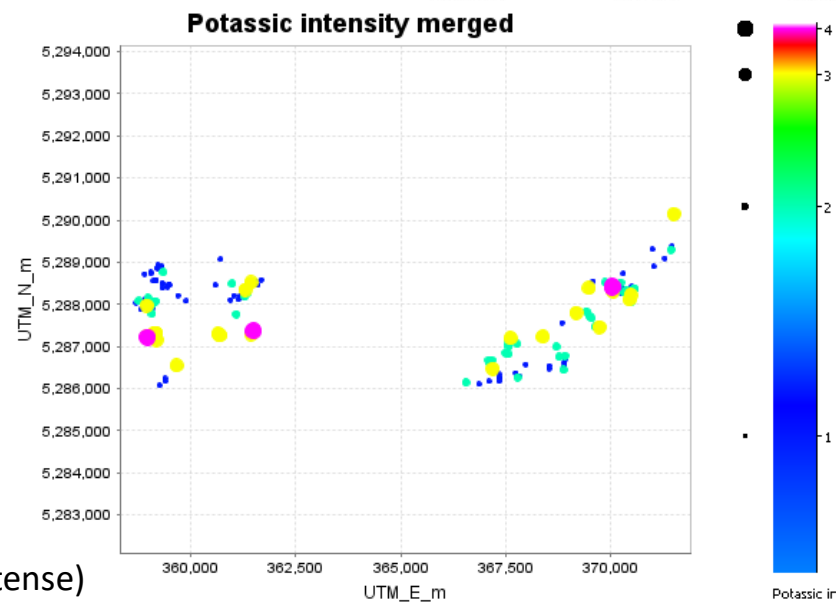
Alteration distribution – Merged Teck dataset

Samples are plotted on an alkali-AI diagram to assess the intensity of potassic vs sodic vs chlorite alteration. Potassic alteration in ultramafic rocks as well as potassic and advanced sodic alteration in mafic units are linked to orogenic systems; chlorite alteration represents the background greenschist facies.



(Above) Data colour-coded based on Au content. Samples above 0.1 ppm Au show weak to intense potassic alteration with or without advanced sodic alteration.

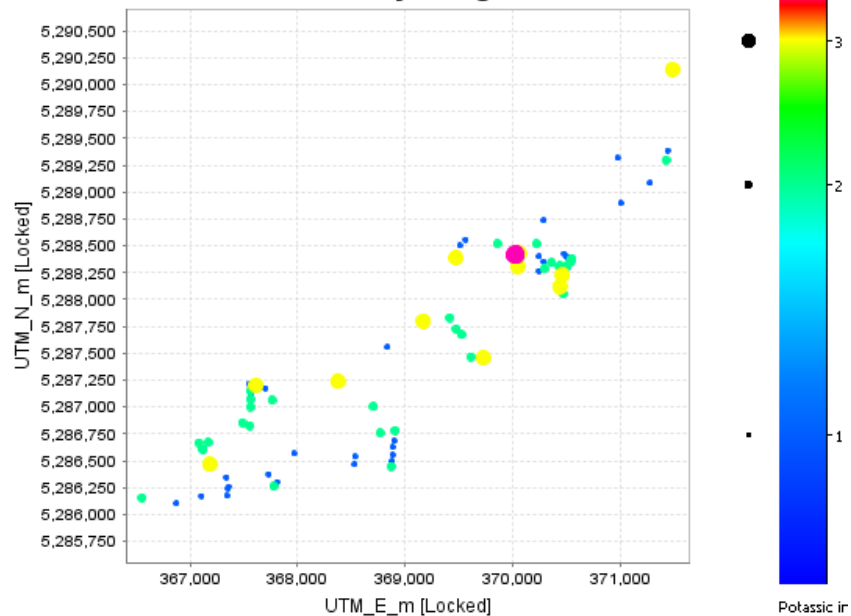
Potassic altn is much more common in the UM units (1A and 1B), and is generally (but not exclusively) associated with anomalous gold.



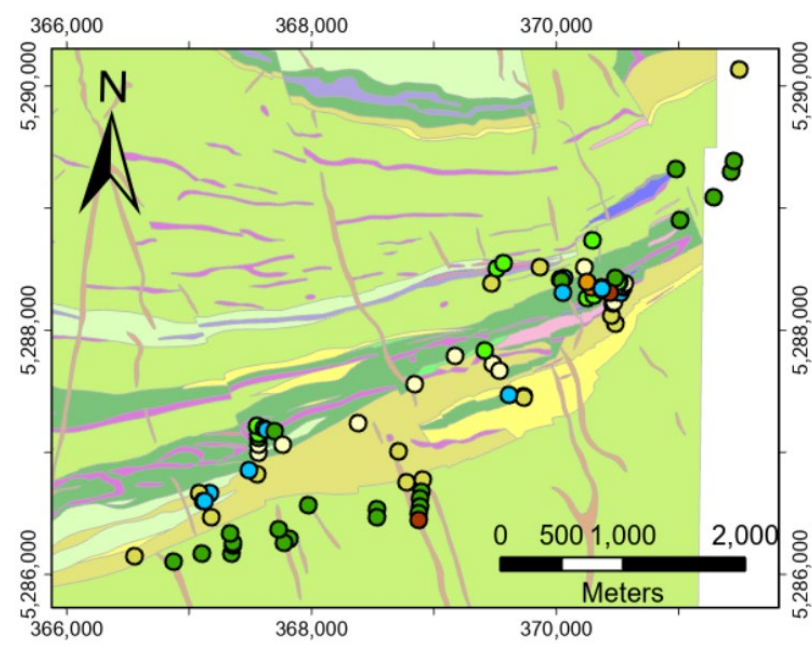
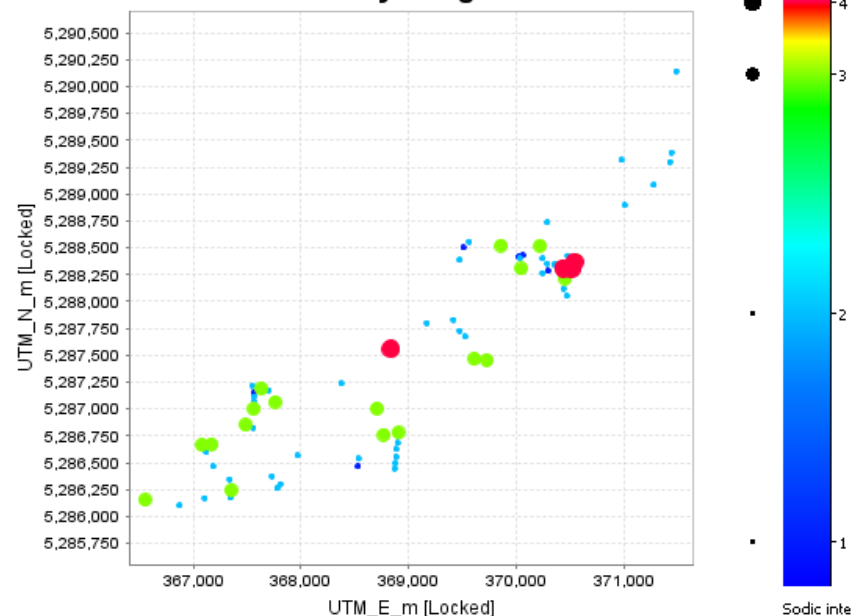
Thematic maps of potassic and sodic alteration intensity (1 = none to 4 = intense)

Alteration distribution – Merged Teck dataset

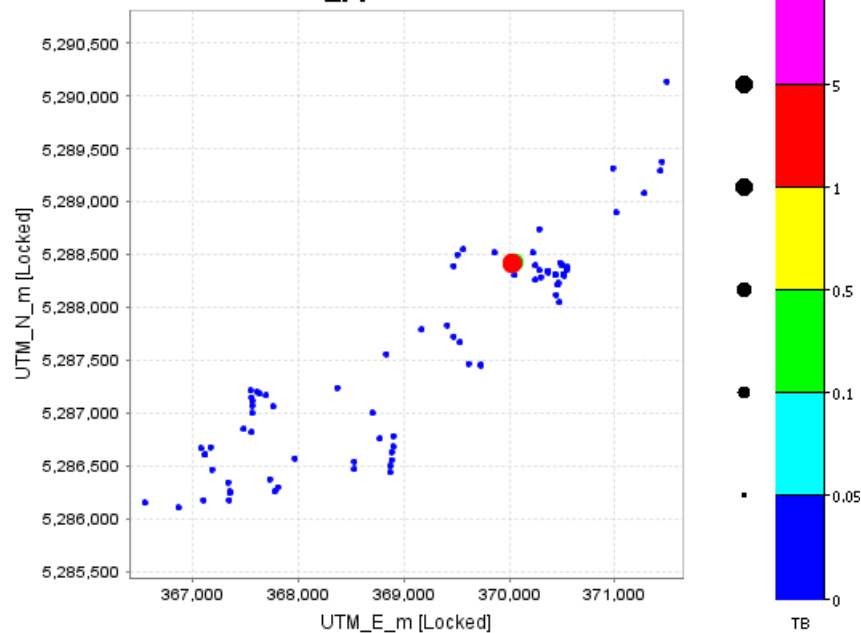
Potassic intensity merged



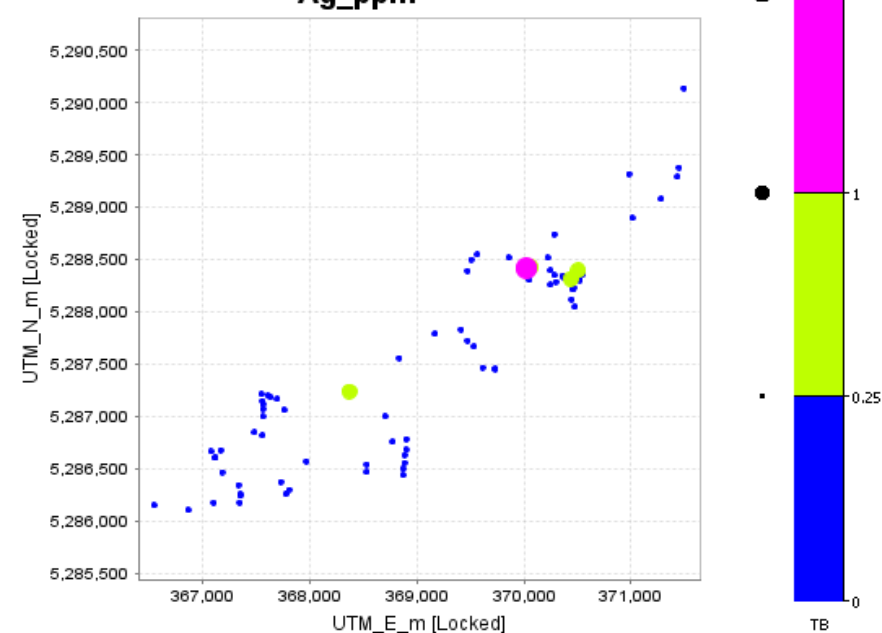
Sodic intensity merged



Au_ppm



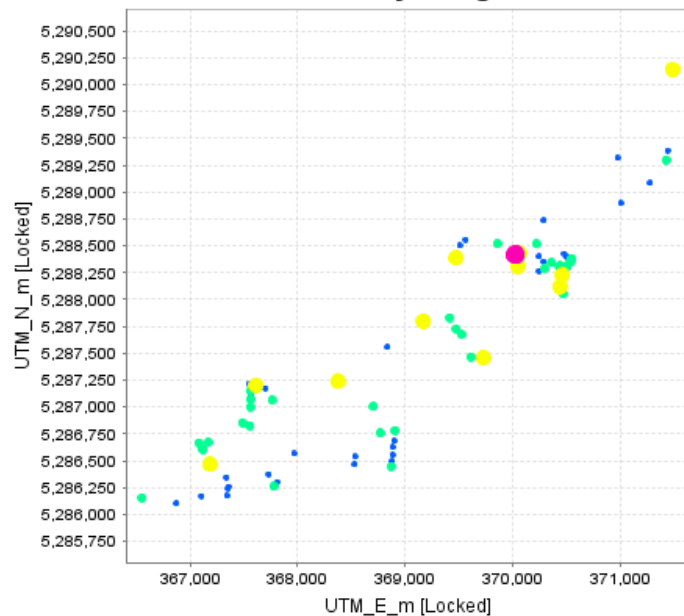
Ag_ppm



Area of most intense potassic alteration also has anomalous Au and Ag and advanced sodic alteration. The most intense sodic alteration has anomalous Ag and Bi, not always with gold. Arsenic, Sb and S are elevated in these general areas, especially where sodic alteration is strongest.

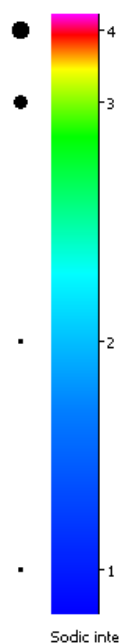
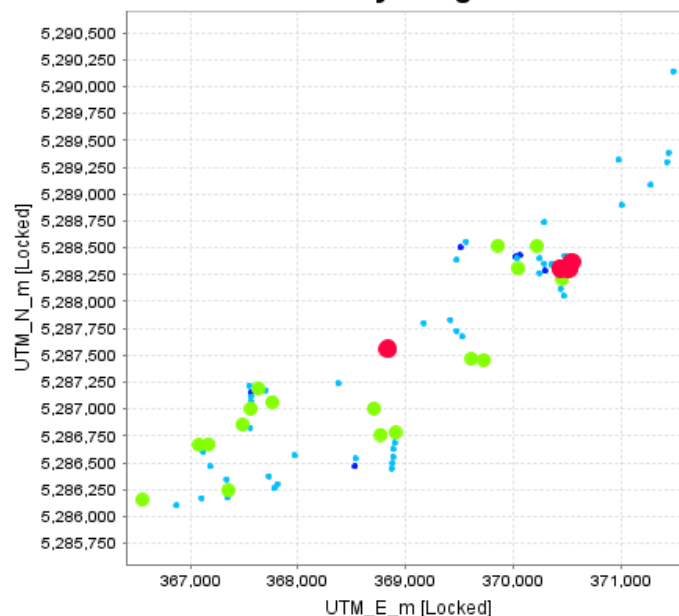
Alteration distribution – Merged Teck dataset

Potassic intensity merged

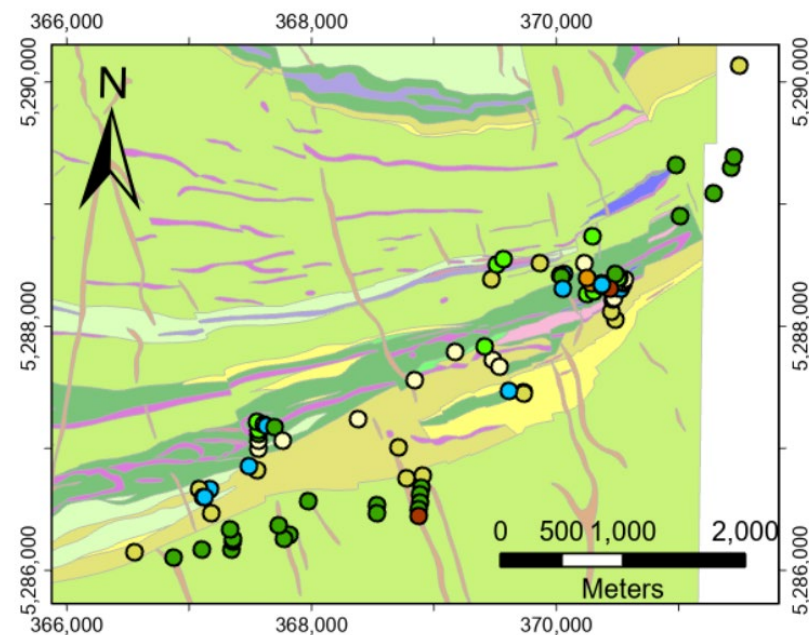


Potassic ir

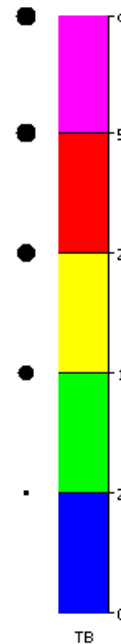
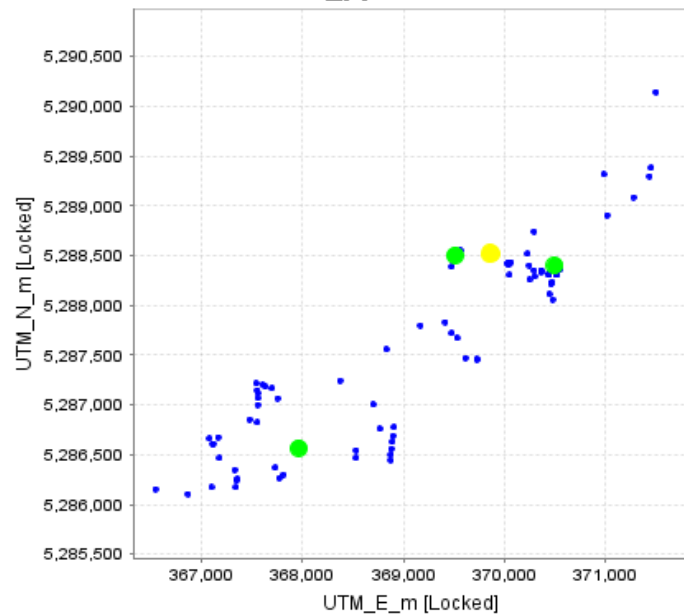
Sodic intensity merged



Sodic inte

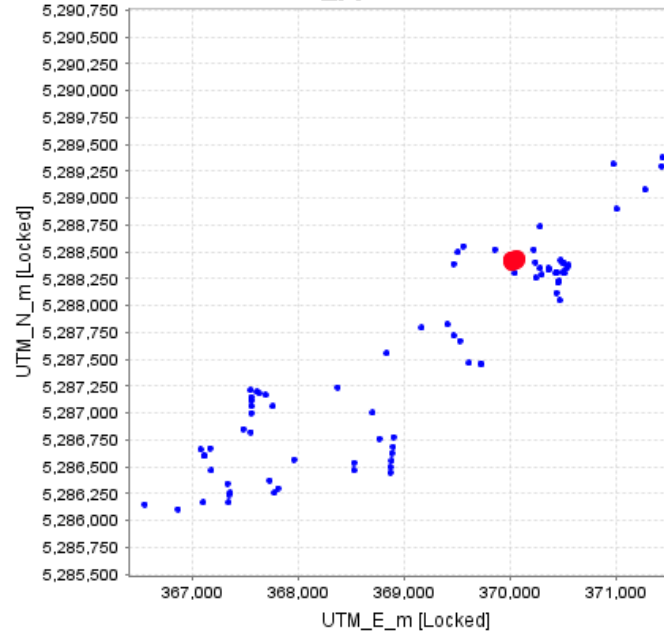


As_ppm



TB

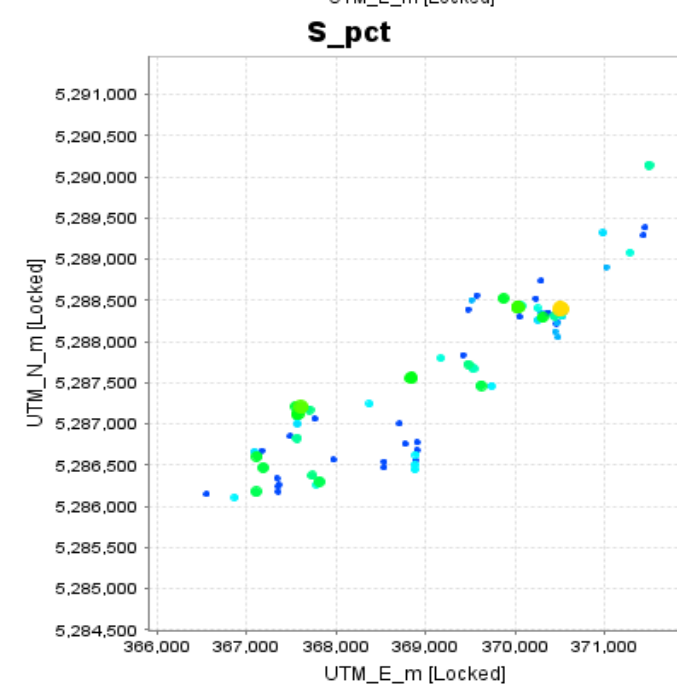
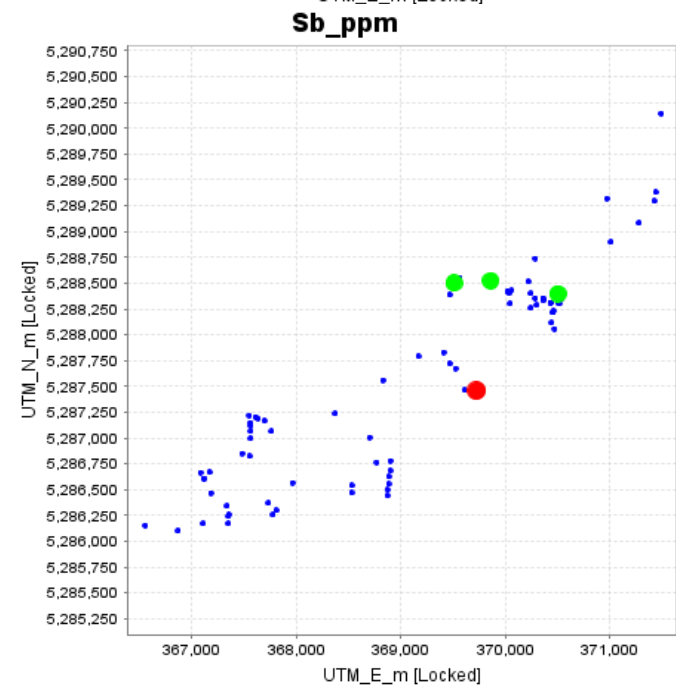
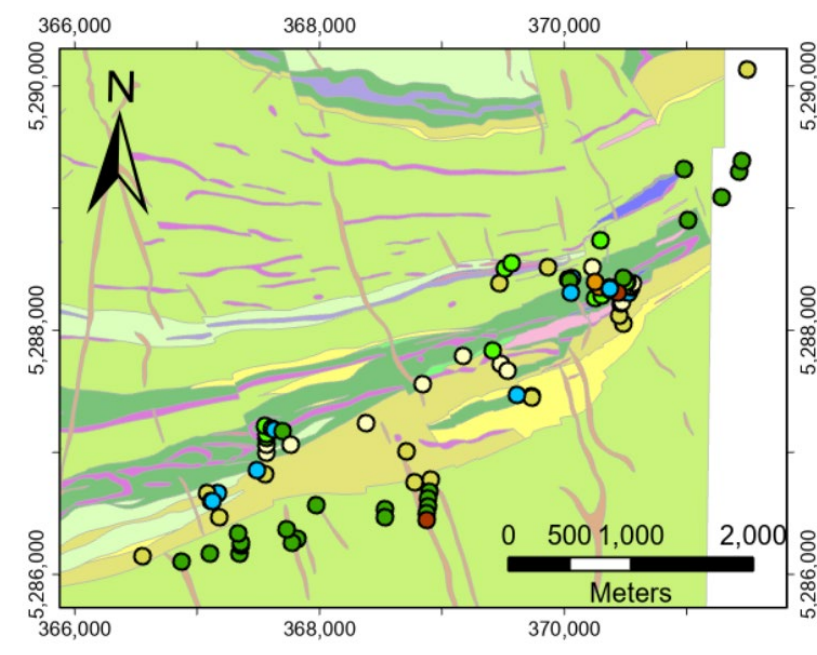
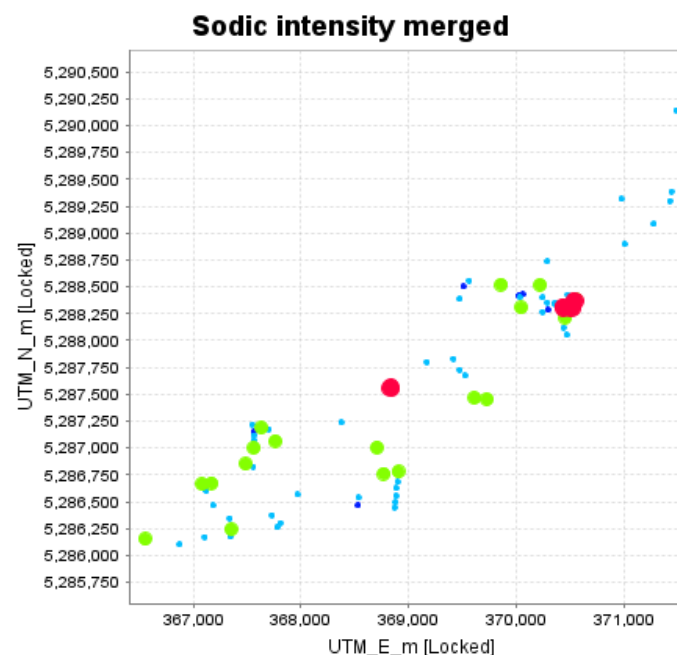
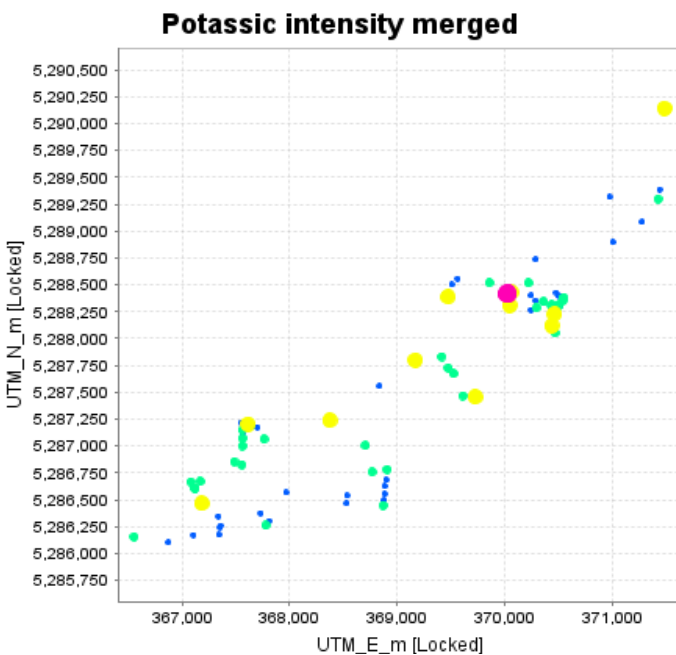
Bi_ppm



TB

Area of most intense potassic alteration also has anomalous Au and Ag and advanced sodic alteration. The most intense sodic alteration has anomalous Ag and Bi, not always with gold. Arsenic, Sb and S are elevated in these general areas, especially where sodic alteration is strongest.

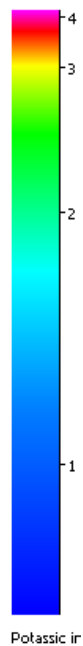
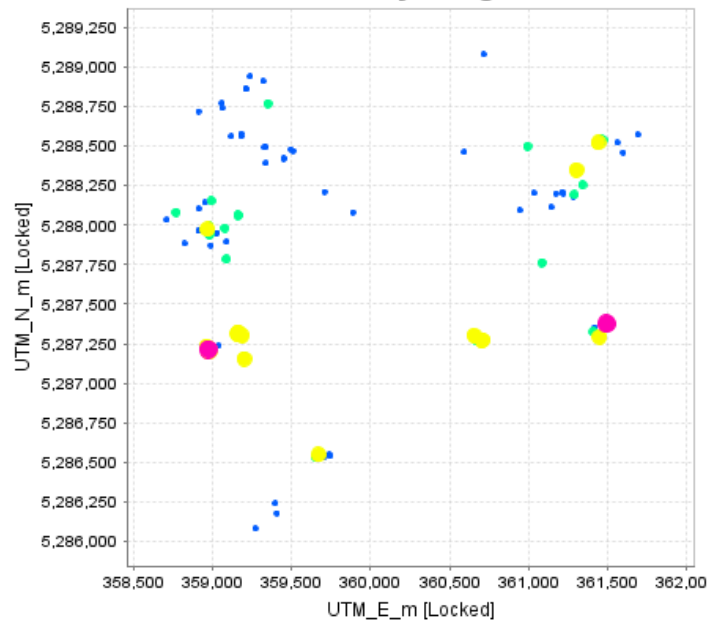
Alteration distribution – Merged Teck dataset



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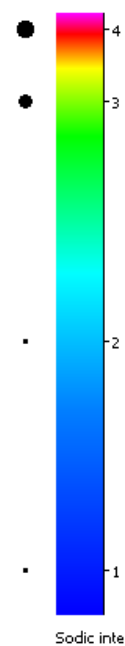
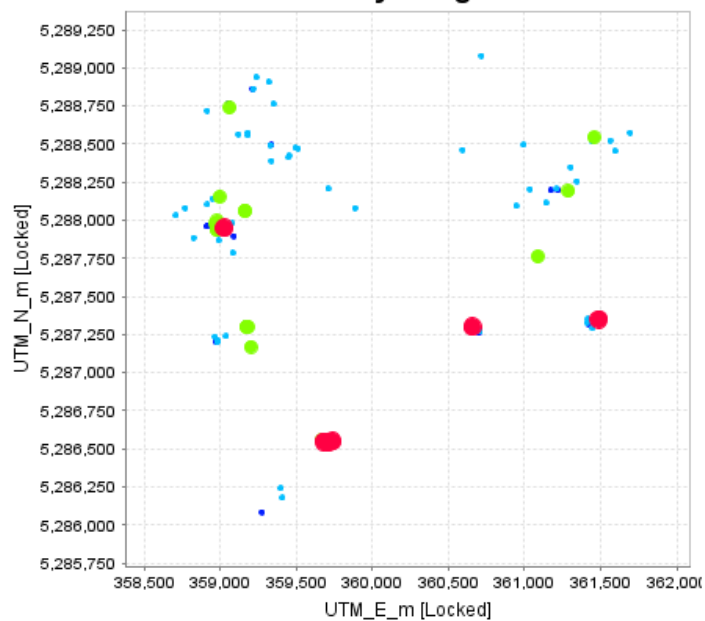
Alteration distribution – Merged Teck dataset

Potassic intensity merged

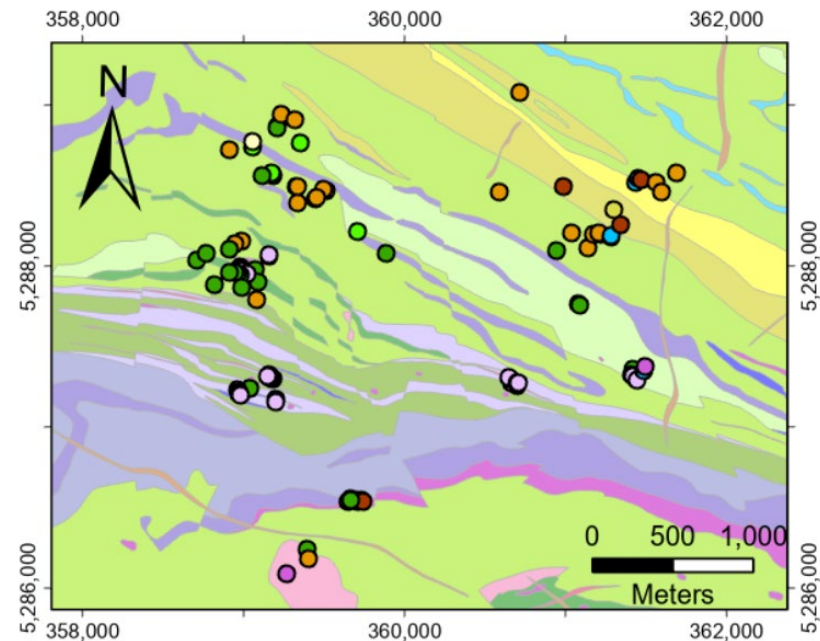


Potassic ir

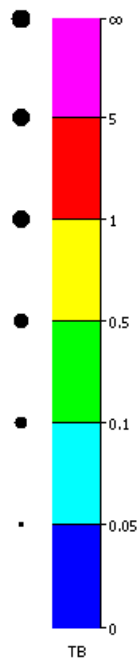
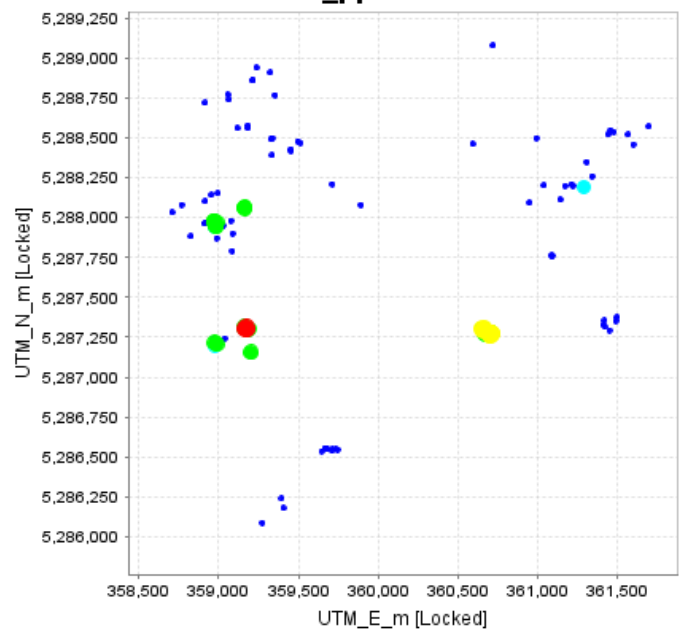
Sodic intensity merged



Sodic inte

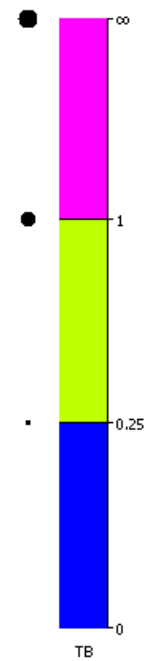
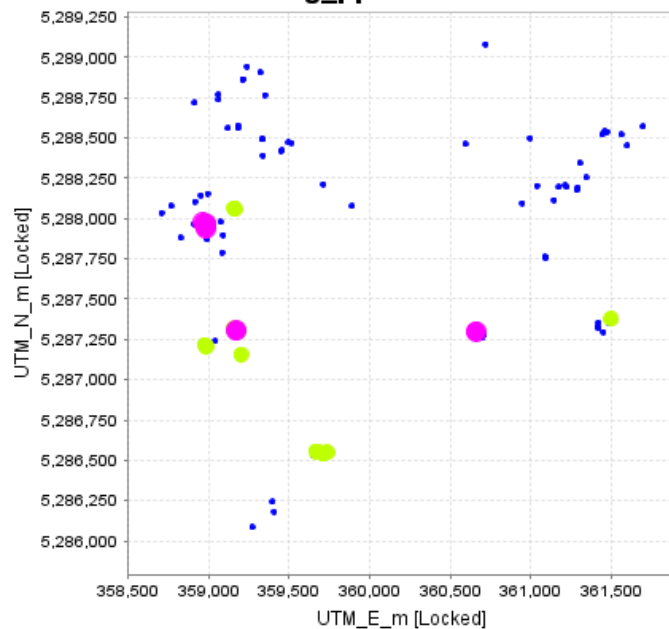


Au_ppm



TB

Ag_ppm

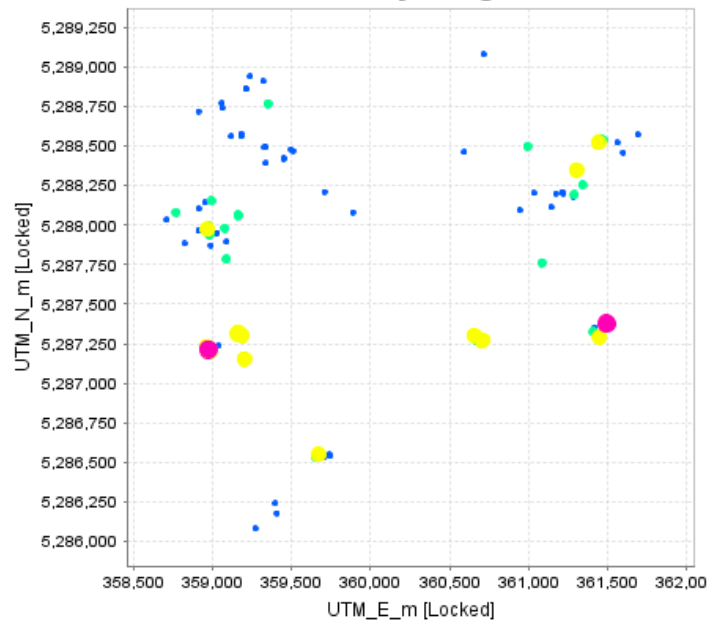


TB

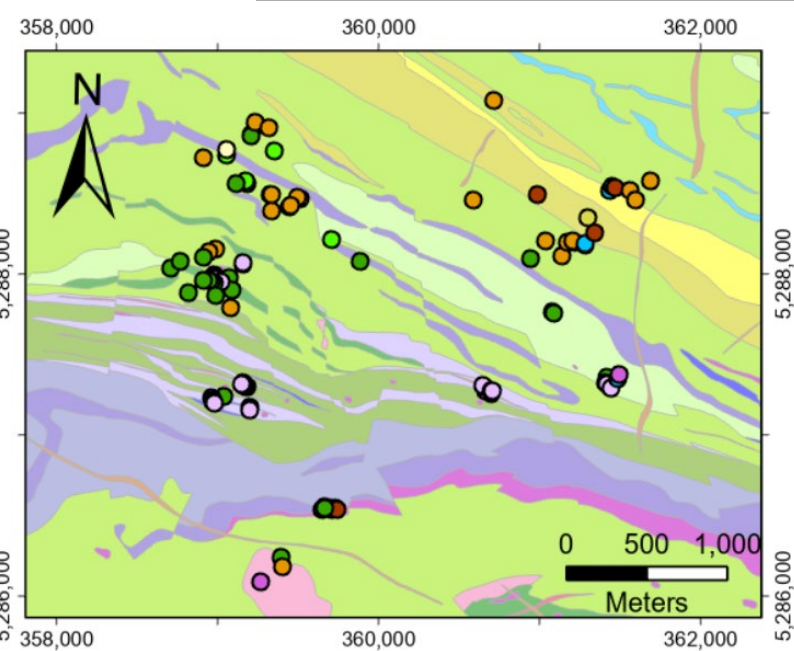
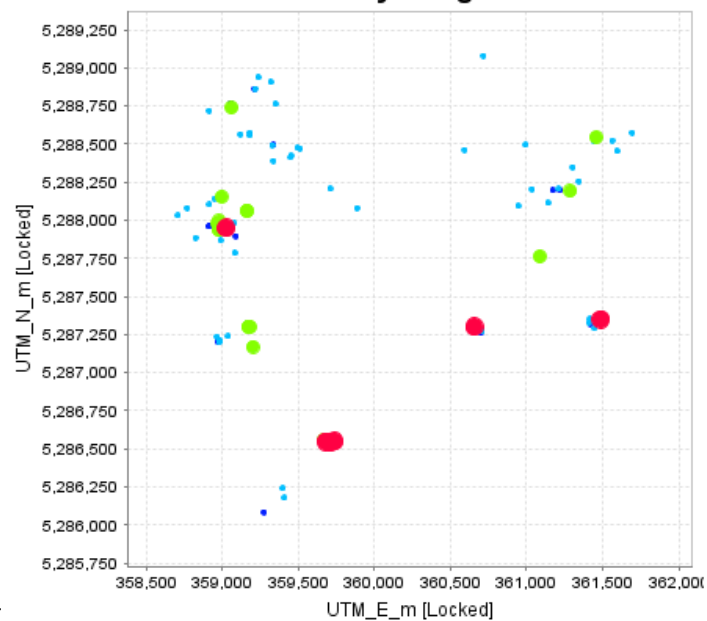
Area of most intense potassic alteration also has anomalous Au and Ag and advanced sodic alteration. The most intense sodic alteration has anomalous Ag and Bi, not always with gold. Arsenic, Sb and S are elevated in these general areas, especially where sodic alteration is strongest.

Alteration distribution – Merged Teck dataset

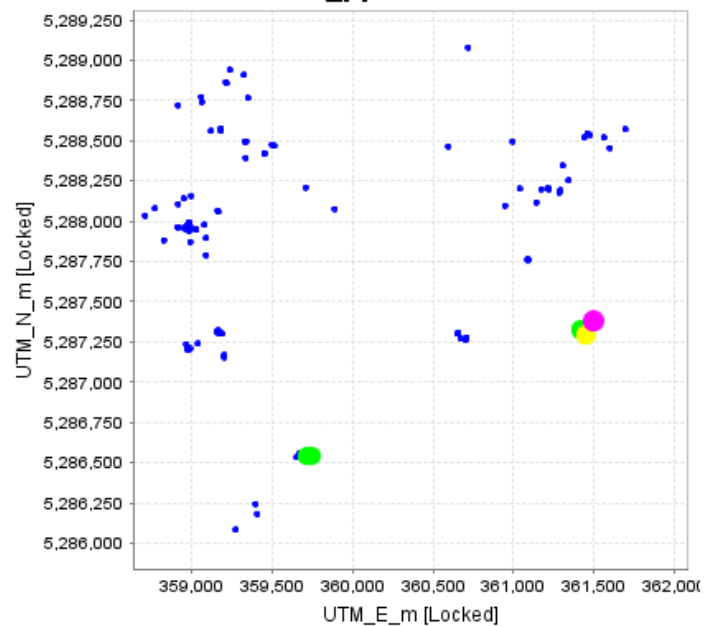
Potassic intensity merged



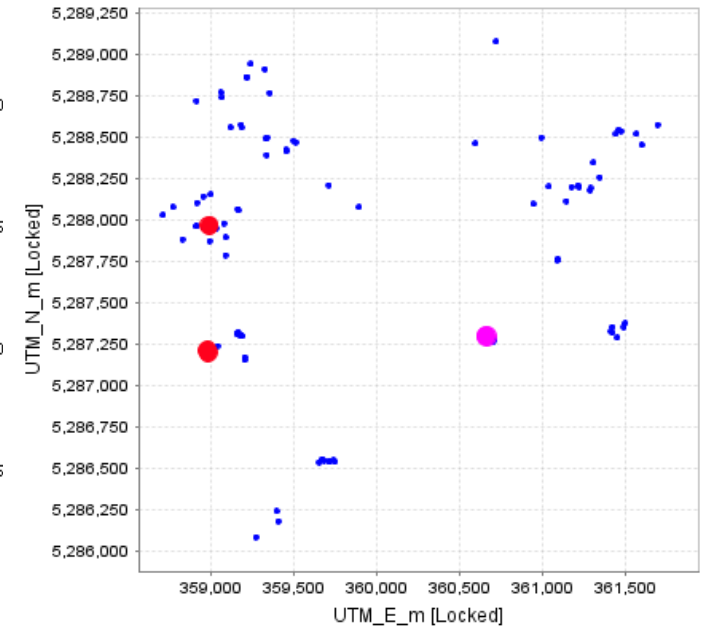
Sodic intensity merged



As_ppm

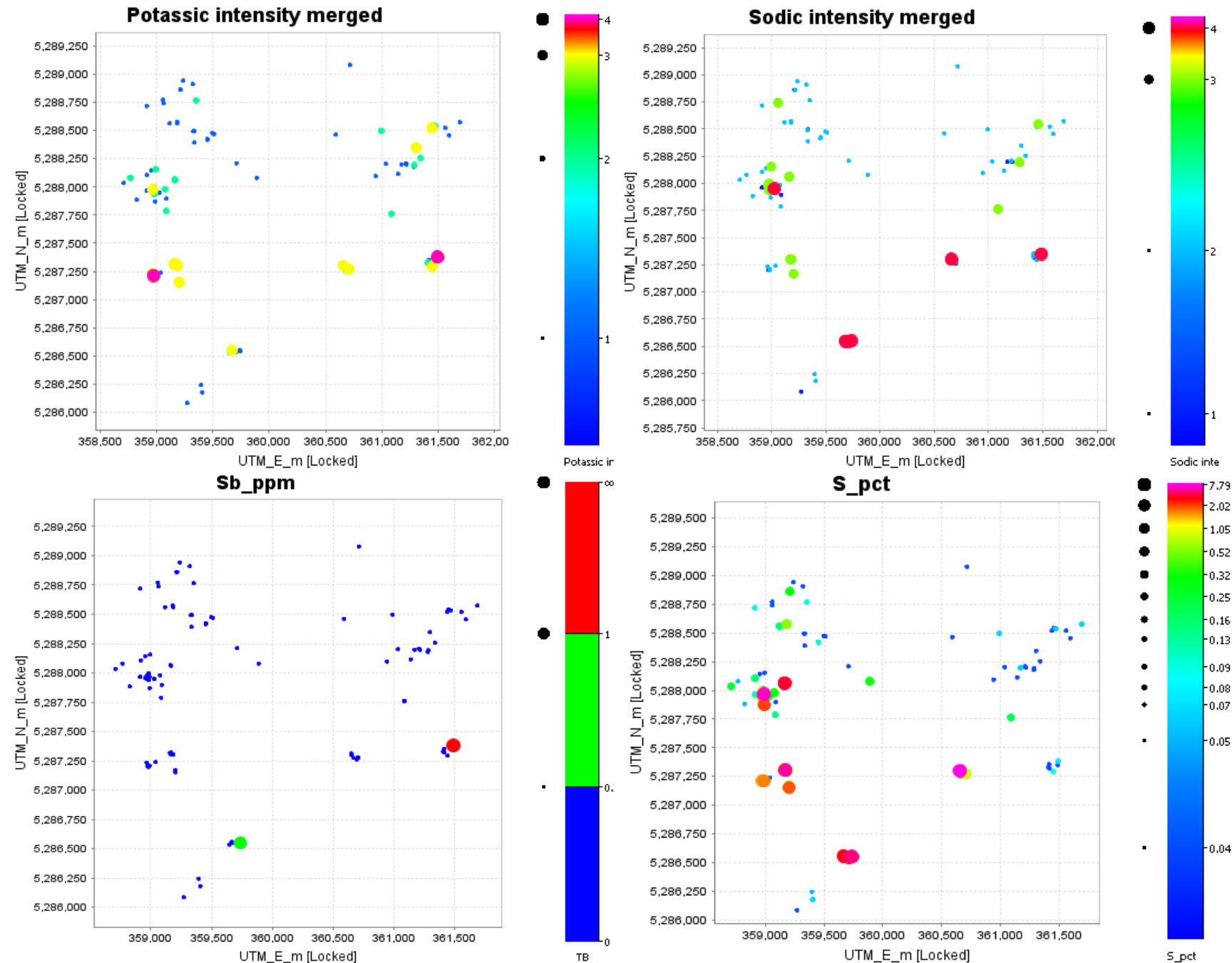


Bi_ppm

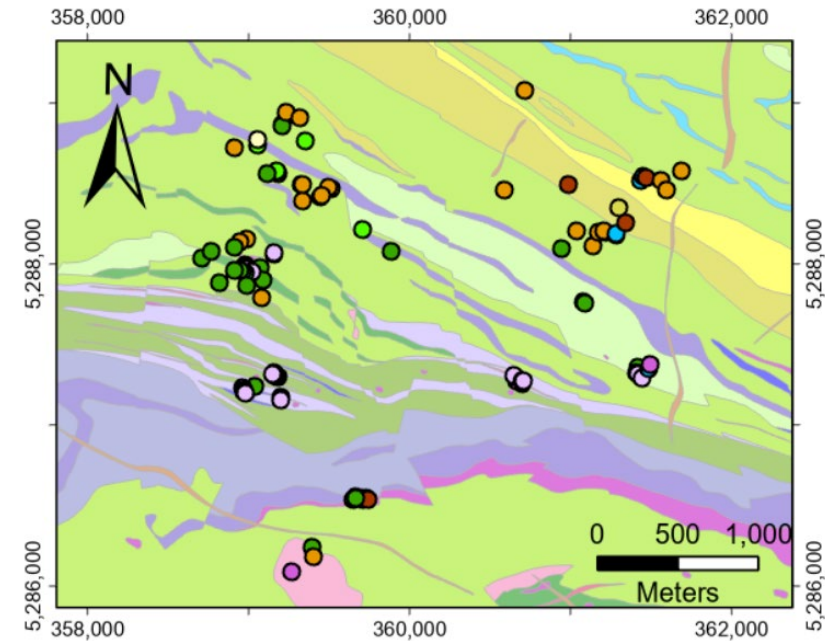


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Alteration distribution – Merged Teck dataset



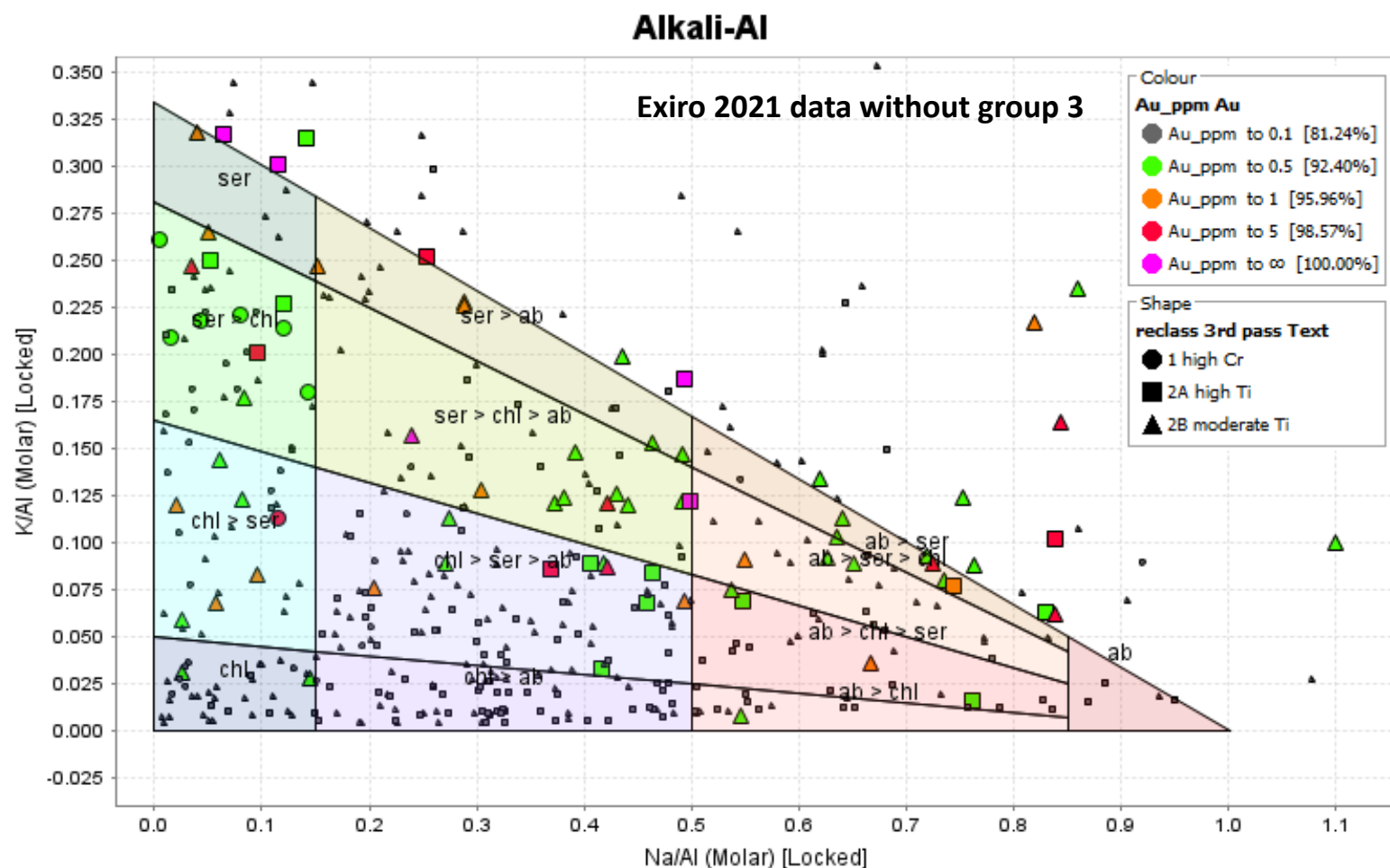
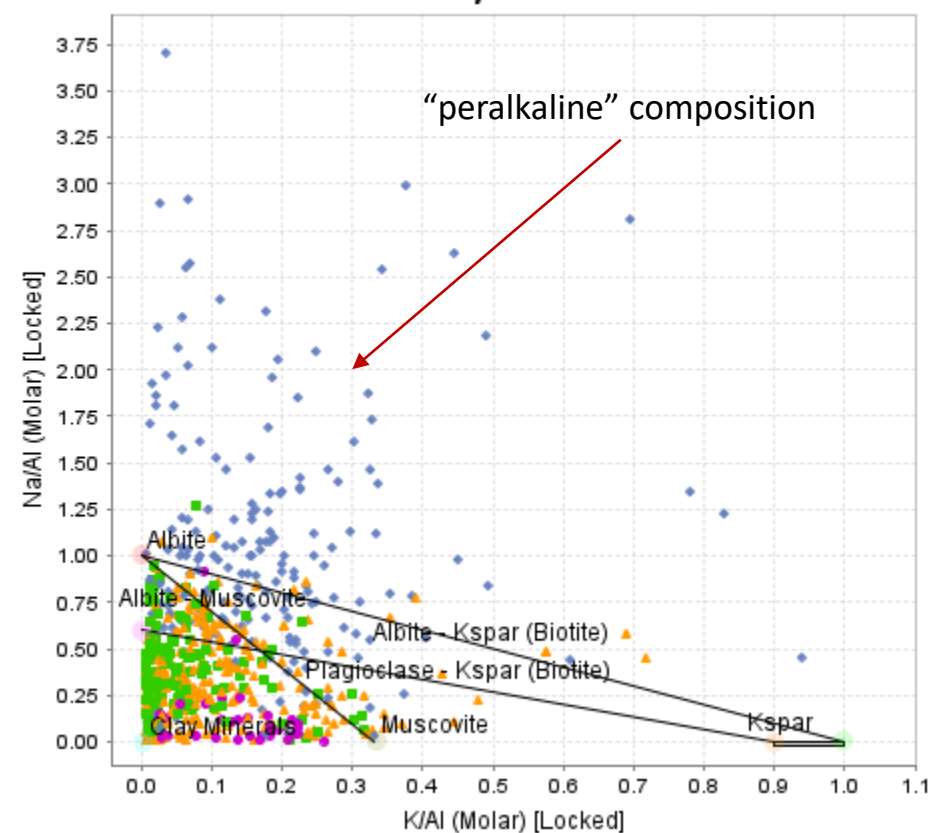
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Alteration distribution – Exiro 2021 dataset

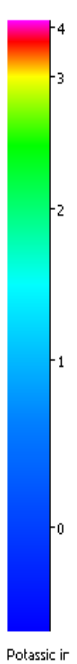
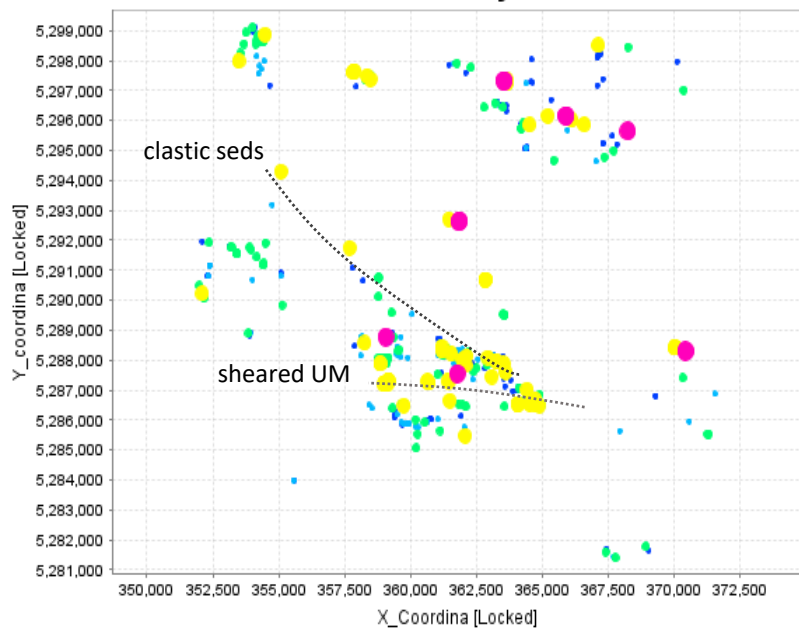
Note on group 3: most of the felsic and porphyry data points have very high Na/Al molar ratios, so much so that chemically they plot peralkaline. The Al numbers are realistic here and I can't think of either an alteration process or an analytical artifact that would cause this. Either way, the alkali-alumina diagram cannot be used for these rocks, so they were not evaluated for potassic/sodic alteration.

Data colour-coded for Au content shows that the vast majority of samples elevated in Au have weak to intense potassic and/or sodic alteration.

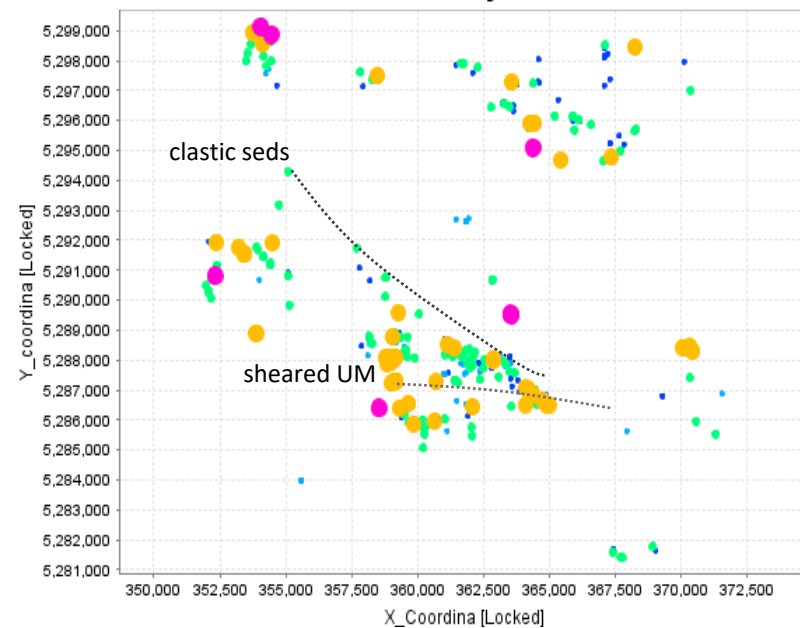
Na/Al vs K/Al Molar Ratio Diagram (modified from Davies & Whitehead 2006)


Alteration distribution – Exiro 2021 dataset

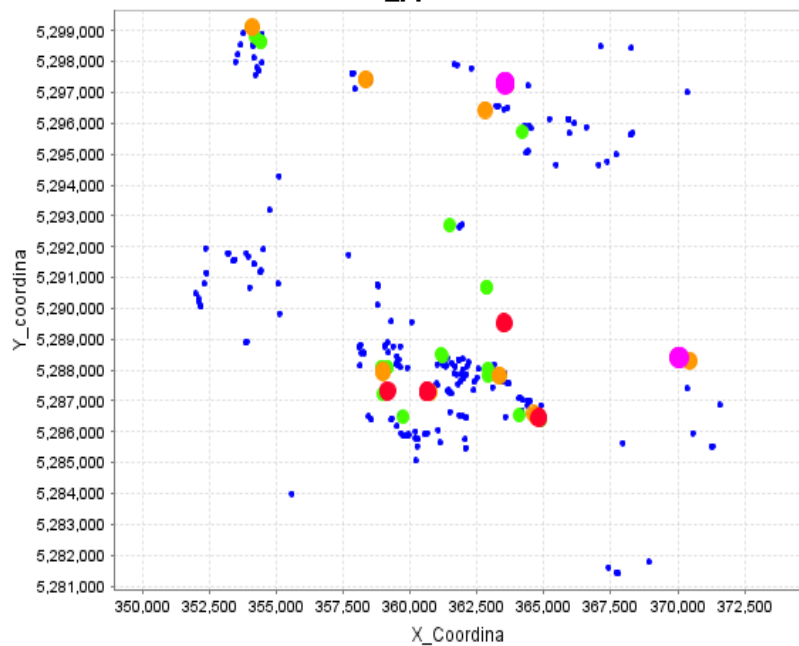
Potassic intensity



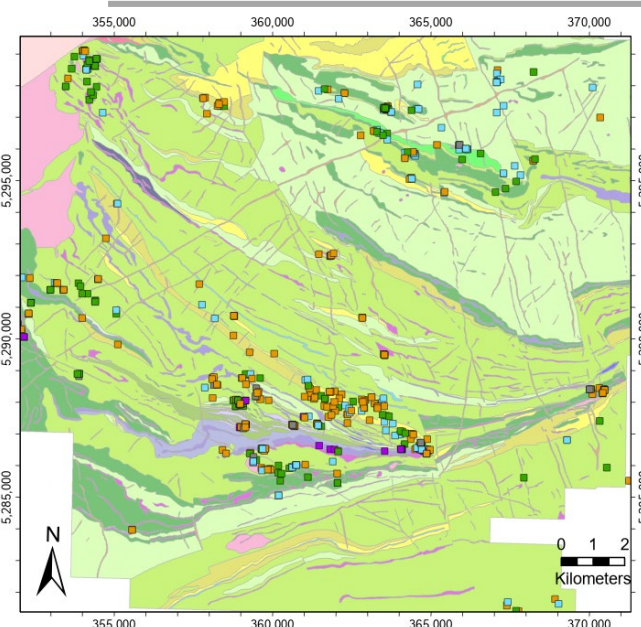
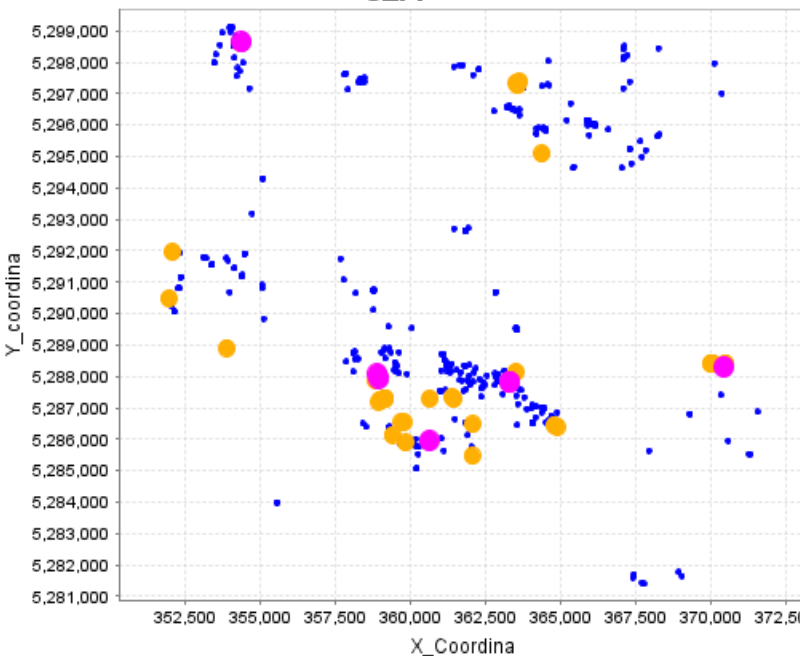
Sodic intensity



Au_ppm



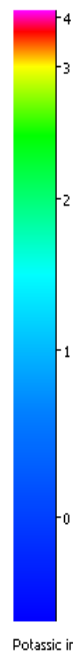
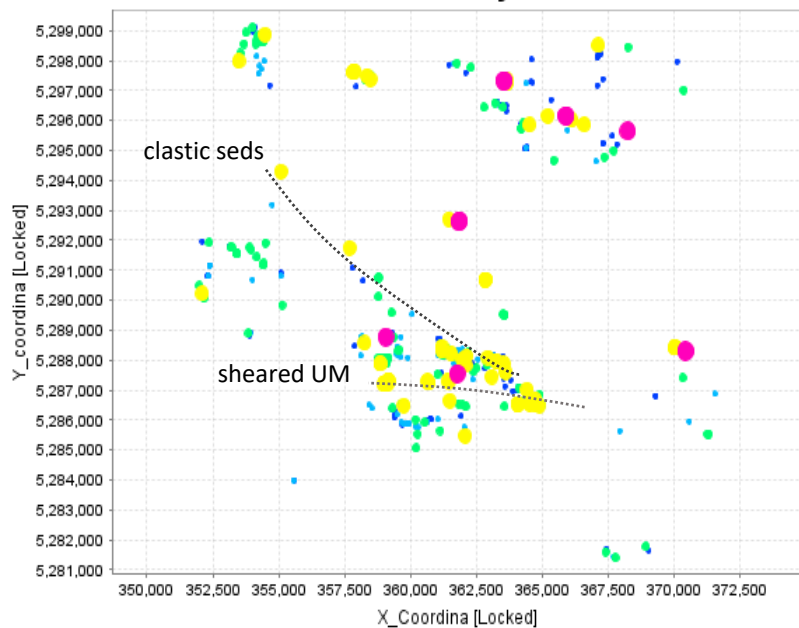
Ag_ppm



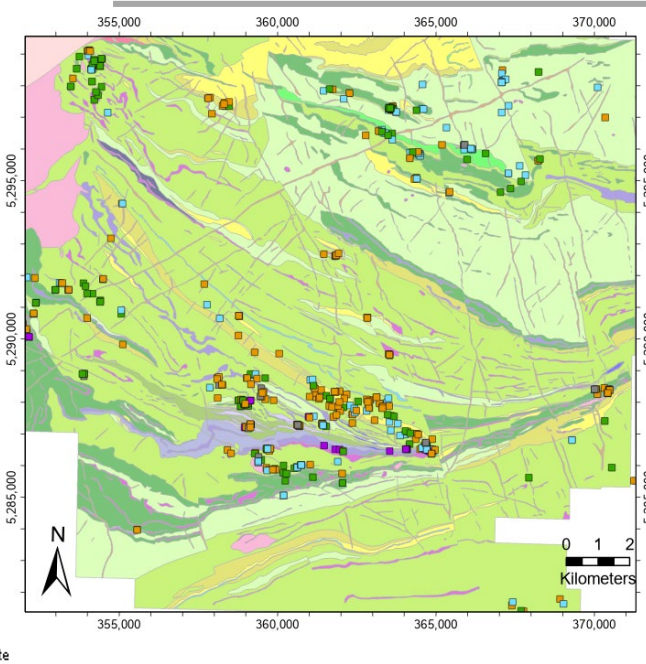
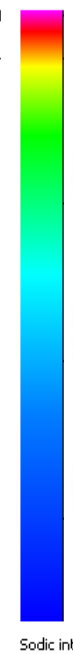
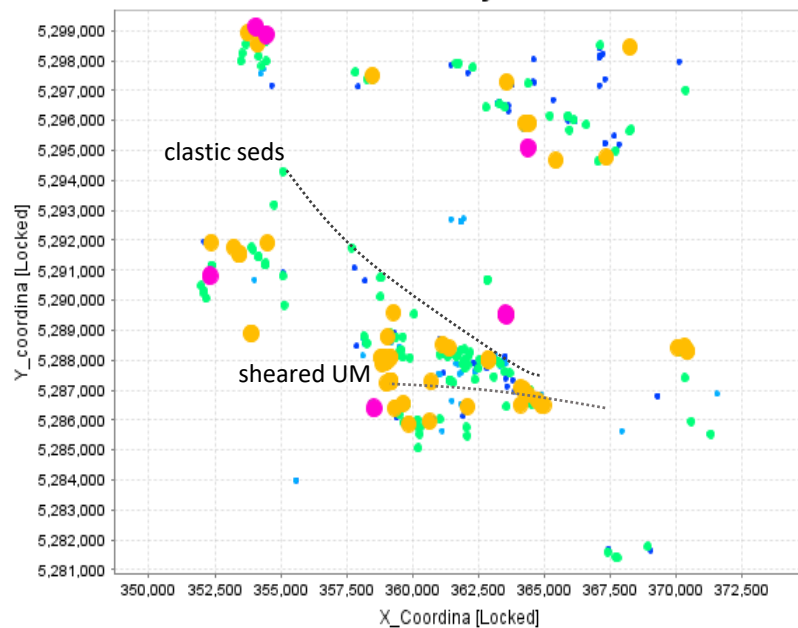
Au and Ag are linked to strong potassic and/or sodic alteration. Arsenic is elevated in these areas, especially where sodic alteration is stronger. Sulphur is somewhat sporadic, but it is generally higher in the Toomstone area.

Alteration distribution – Exiro 2021 dataset

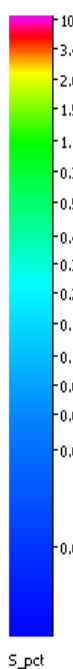
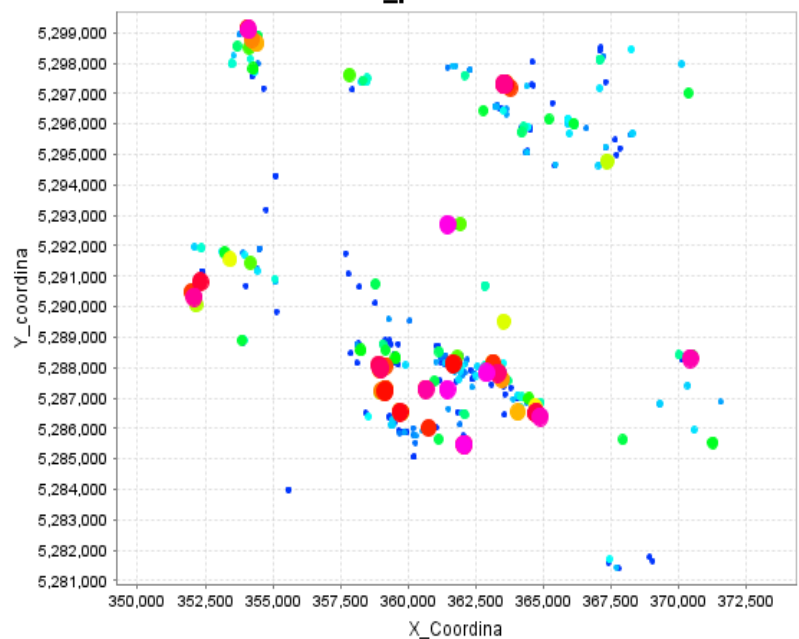
Potassic intensity



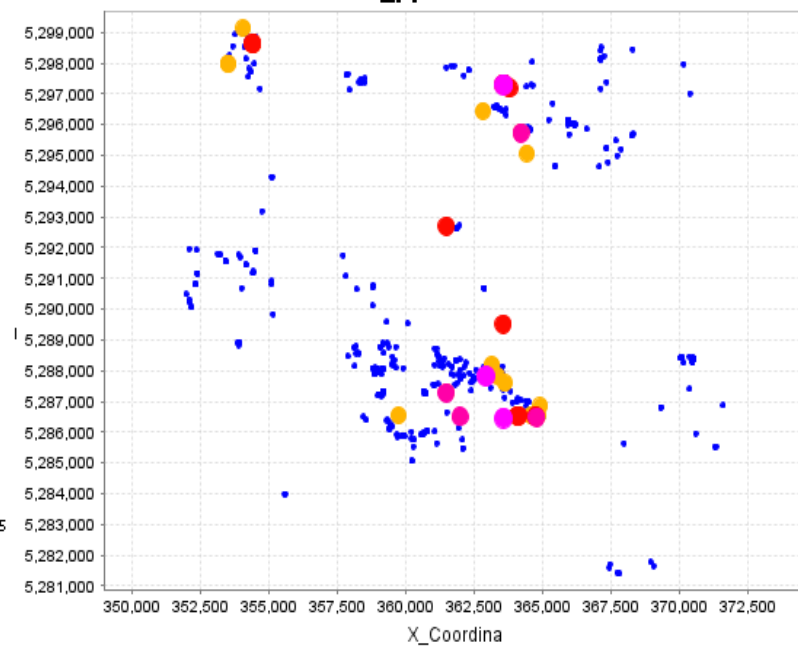
Sodic intensity



S_pct



As_ppm



Au and Ag are linked to strong potassic and/or sodic alteration. Arsenic is elevated in these areas, especially where sodic alteration is stronger. Sulphur is somewhat sporadic, but it is generally higher in the Toomstone area.