



Ministry of Energy, Mines & Petroleum Resources
Mining & Minerals Division
BC Geological Survey



Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Prospecting, Geochemical

TOTAL COST: \$25,333.72

AUTHOR(S): Doug Warkentin, Tim Johnson

SIGNATURE(S): 

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STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5514980, July 29, 2014

PROPERTY NAME: Porphyry Creek

CLAIM NAME(S) (on which the work was done): Brunswick, Red Rose, Sultana

COMMODITIES SOUGHT: Au, Ag, Cu, Mo, W

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 093M 058, 059, 060, 061, 062, 063, 064, 065, 066, 068 and 115.

MINING DIVISION: Omenica

NTS/BCGS: NTS Map 093M04E

LATITUDE: 55 ° 07 ' 40 " LONGITUDE: 127 ° 36 ' 03 " (at centre of work)

OWNER(S):

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PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Jurassic-Cretaceous, Bowser Lake Group, Kasalka Group, Stocks, Porphyritic granodiorites, Hornfels, Stockwork, Molybdenite, Chalcopyrite, Pyrite

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 00092, 01134, 02855, 04839, 06849, 08332, 09587, 12712, 13340, 14632, 16012, 16455, 29082, 29502, 30096, 30431, 31728, 32516, 32636

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TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil 26 samples, ICP analysis		Sultana	7156.10
Silt			
Rock 16 samples, ICP analysis		Brunswick, Red Rose	5436.11
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying 42 samples, ICP		Sultana, Brunswick, Red Rose	808.63
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area) 1:5000, 20 Ha		Brunswick, Red Rose	6972.88
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other Site Reclamation		Sultana	4960.00
		TOTAL COST:	25333.72

2014 Surface Exploration and Site Reclamation Assessment Report

on the

Porphyry Creek Property

Omineca Mining Division, British Columbia

NTS Map Sheet 93M/04

Project Centre: UTM NAD 83, Zone 9,
590000 West, 6109000 North

**Registered Owners: Kyler Hardy, Tim Johnson, Doug Warkentin.
Operators: Kyler Hardy, Tim Johnson, Crucible Resources Ltd.**

***Project Tenure Numbers: 532096, 532103, 532105, 535639, 542244, 542246, 542247, 542254,
547139, 549610, 556426, 567326, 567334, 574185, 577335, 577338, 577340, 606970, 622463,
622466, 622503, 659243, 764883, 831318.***

SOW Event Number: 5514980

Prepared By:

Doug Warkentin, PEng

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Submitted: November 24, 2014

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Summary

In July of 2014 an exploration program was conducted by the owners on the Porphyry Creek Property near Hazelton, BC. Work was carried out in two areas of the property, including rock sampling, mapping and prospecting in the Brunswick area, and soil sampling and site reclamation work in the Sultana area.

In the area surrounding the historical Brunswick adit a total of 16 rock samples were collected while visiting historical workings and surrounding areas. Most of the mineralized areas sampled showed relatively low levels of valuable metals, but some anomalous gold and copper values were found, and two samples showed strong molybdenum values. Quartz float samples near an old adit also showed significant gold values. Some attempt was made to trace the source of the quartz float through talus fields on the steep slopes, but no new outcrops were found.

In the Sultana area a total of 26 soil samples were collected in an area to the east of recent soil sampling and drilling, and generally to the east of historical workings that tested a high grade silver vein. Results showed a few very high values for lead and silver, mainly near the old workings, and more significant anomalous areas of copper and molybdenum in soil. These results showed a strongly anomalous zone of copper and molybdenum over a 200 m length of the north soil line, which also appeared to extend to the soil line 100 meters to the south. A secondary anomalous zone was also seen 300 meters to the southeast, covering at least 150 meters along the southeastern soil line.

Also in the Sultana area some necessary reclamation work was completed, consisting of the dismantling of drilling platforms constructed during recent drilling by a previous property optionor.

Overall, this work program was limited in scope, but the results continued to support the growing base of data showing significant multi-element mineralization in a number of areas of the property. In particular it supported the concept that the large low-grade copper-moly porphyry system identified by recent drilling at the Sultana prospect is part of a larger mineralized system that has not been fully tested, and which could include higher grade zones with greater economic potential.

1 Introduction

This report outlines exploration work conducted on the Porphyry Creek Property in the Hazelton Mountains, British Columbia, Canada, during July of 2014 by the property owners.

The program consisted of site visits for prospecting, mapping and rock sampling in the Brunswick-Red Rose Creek area, an area known to host vein deposits carrying strong base and precious metal mineralization, and follow-up work to previous exploration in the Sultana-Boulder Creek area of the property. At the Sultana prospect a small geochemical soil sampling program was carried out to extend the coverage of previous work, drilling platforms left by a previous operator were dismantled and drill core was re-examined to evaluate the tungsten potential in this area. A total of 16 rock samples and 26 soil samples were collected.

Site work was carried out over the period of July 23rd and July 30th.

1.1 Location and Access

The property lies within NTS map sheet 93M/04 with its geographic center at approximately Longitude 127°35'19" West, Latitude 55°07'10" North. It is located 10 km south of New Hazelton, and 40 km northwest of Smithers, which was used as a base of operations for the 2014 exploration program.



Figure 1 - Porphyry Creek Location Map

The Porphyry Creek project is a mineral property located along the rugged Rocher Debole Mountain Range, south of New Hazelton, British Columbia. Direct road access into the area is limited, but services are readily available within 10 km of the property in New Hazelton and, about 40 km away, from Smithers. Parts of the property have limited ground access via poorly maintained 4WD roads and rough trails, but much of it is only accessible by helicopter. Past producing mines in the area are at high elevation, and glaciers cover some of the peaks.

The main road accessing the property is the old Rocher Deboule mine road, with branches accessing the Red Rose Mine and the Armagosa workings. This road follows Juniper Creek northeast from Skeena Crossing on the Yellowhead highway about 10 km south of New Hazelton. This road is presently washed out in several locations, and is only passable by 4WD for about five kilometres beyond the highway intersection. Beyond that it is seasonally passable by All-Terrain Vehicle (ATV). A newer, active forestry road accesses the southeast side of Juniper Creek and touches the extreme southwest corner of the property. An old exploration road provides ATV access to the Sultana area from the east, along Boulder Creek, in the south-eastern portion of the property.

1.2 Mineral Tenure

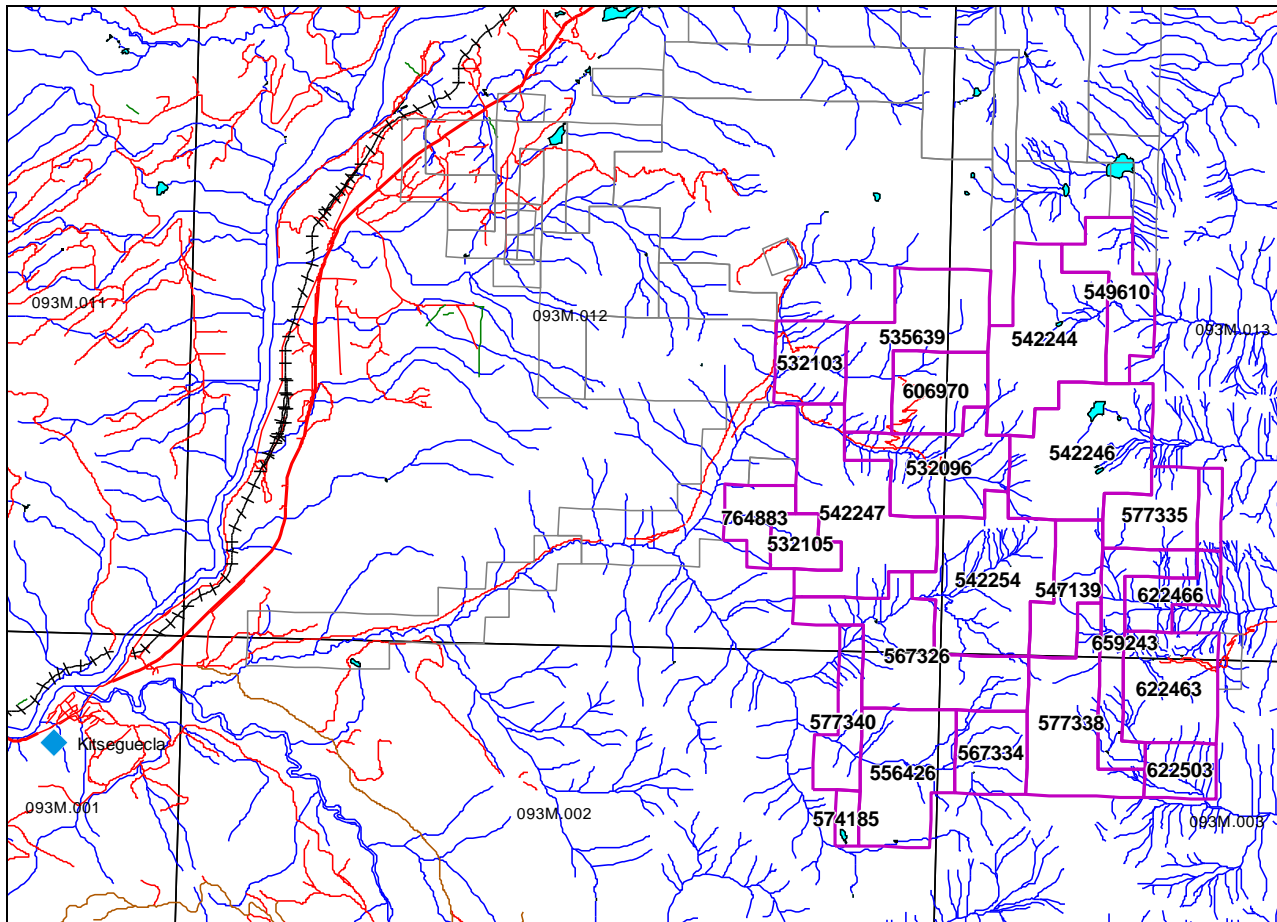


Figure 2 – Porphyry Creek Project Tenures

The Porphyry Creek project consists of 24 MTO claims covering an area of 5,995 hectares located within the Omineca Mining Division of northwest British Columbia. These claims are tabulated in Table 1 and graphically outlined in Figure 2. The tenures are held jointly by the authors and a third partner, Kyler Hardy. Two additional partners have an agreement to acquire an equal interest in the portion of the claims owned by Doug Warkentin. The MTO claims that make up the property overlap a small group of active crown-granted mineral claims that surround the past-producing Red Rose tungsten mine. This group consists of 15 crown granted claims and fractional claims covering 182 hectares roughly within the area of overlying MTO claim 606970. The exact suite of minerals granted with these claims has not been investigated, and it is assumed that this area is fully excluded from the property.

Table 1: Porphyry Creek Project Mineral Claims

Tenure Number	Claim Name	Issue Date	Good To Date	Area (ha)
532096	BRUNSWICK	2006/apr/14	2015/aug/30	314.46
532103	ARMAGOSA	2006/apr/14	2015/aug/30	166.40
532105	SLATER	2006/apr/14	2015/aug/30	92.52
535639	OHIO EAST	2006/jun/14	2015/aug/30	369.75
542244	PORPHYRY	2006/oct/01	2015/aug/30	462.20
542246	TINA	2006/oct/01	2015/aug/30	462.39
542247	RIDGE	2006/oct/01	2015/aug/30	462.53
542254	JUPITER	2006/oct/01	2015/aug/30	462.65
547139	TILTUSHA	2006/dec/11	2015/aug/30	185.05
549610	PORPHYRY WEST	2007/jan/16	2015/aug/30	221.81
556426	BRIAN BORU	2007/apr/15	2015/aug/30	333.34
567326	SLATE CREEK	2007/oct/03	2015/aug/30	444.29
567334	BORU EAST	2007/oct/03	2015/aug/30	166.65
574185	KILLARNEY	2008/jan/21	2015/aug/30	37.04
577335	PORPHYRY EAST	2008/feb/27	2015/aug/30	185.00
577338	BORU GLACIER	2008/feb/27	2015/aug/30	351.74
577340	SLATER	2008/feb/27	2015/aug/30	148.13
606970	RED ROSE	2009/jul/03	2015/aug/30	203.41
622463	SULTANA	2009/aug/21	2015/aug/30	296.19
622466	SULTANA NORTH	2009/aug/21	2015/aug/30	129.54
622503	MT	2009/aug/21	2015/aug/30	111.09
659243	SE FRINGE	2009/oct/25	2015/aug/30	222.10
764883	CENTER WEST	2010/may/01	2015/aug/30	111.01
831318	PORPHYRY EAST	2010/aug/10	2015/aug/30	55.50
Total				5994.8

1.3 Climate and Physiography

The property includes many high elevation peaks, steep ridges and talus slopes that are free of forest cover; valleys and lower slopes are generally heavily forested. The relief is very mountainous, with elevations ranging from below 900 m to almost 2,400 m above sea level.

The Rocher Deboule Range is located on the eastern edge of the much larger Coast Mountain Range resulting in a mix of coastal and interior British Columbia weather patterns. Climate in the Hazelton area is reported as semi-arid and annual precipitation is less than 51 centimetres per year. However, the core of the Porphyry Creek property is significantly higher, and correspondingly experiences far more dramatic and inclement weather patterns.

Since there are heavy snow accumulations in winter, the recommended exploration work season for high elevations is between July and September. Lower elevation zones can be explored from May through October. It should be noted that accumulation of deep snow at higher elevations could result in a heavy spring runoff. With the onset of summer, snow melting is rapid and by July most of the property is snow free, apart from isolated areas of permanent snowfield. The summer months tend to be dry and hot, though pacific coastal storms do occasionally reach inland.

1.4 Property History

The area has had a long history of exploration and development, dating back to at least 1910. Between 1915 and 1954 the area saw substantial production from the Rocher Deboule and Red Rose mines, as well as lesser production from the Victoria, Cap, Highland Boy and Brunswick mines (Sutherland Brown, 1960). Exploration has been intermittent since the closing of these mines, with the most substantial work occurring in the 1980's on the Rocher Deboule/Victoria, Red Rose and Killarney/Jones prospects. For a detailed breakdown of the exploration history, see Figure 7.

Table 1 - Summary of BC Minfile Occurrences on the Property

Occurrence	Status	Commodities	Production	
			(tonnes)	Best Historical Grades (Date)
Armagosa	Showing	Cu, W		
Balsam	Showing	Cu		
Big Thing	Showing	Cu, Mo		
Black Pilot	Showing	Zn		
Brian Boru	Showing	Ag, Zn, Pb		220.5g/t Ag, 1.84% Pb, 11.27% Zn (1954)
Brunswick	Past Producer	Ag, Zn, Pb, Au, Cu	?	3802g/t Ag, 1g/t Au, 1.9% Cu, 17.3% Pb, 28.4% Zn (1954)
Jupiter	Showing	Cu, Mo		
MT	Showing	Cu, Mo		
Porphyry Crk N.	Showing	Mo		
Sultana	Prospect	Cu, Mo, Ag, Au		112oz/t Ag, 16% Cu, 0.06oz/t Au (1922)
Tina	Showing	Mo		

BC's Minfile database lists 11 separate occurrences on the Porphyry Creek property. Other occurrences are mentioned briefly by other sources (Ministry of Mines, 1914), but have not yet been confirmed by ground work. A summary of the listed occurrences is given in Table 2. One of these occurrences, the Brunswick Mine, is listed as a prospect, but apparently had some minor production from two adits, driven to 20 and 52 meters and possibly from open cuts, prior to 1950. Development occurred mainly in the 1920's, and the total amount of ore produced is unknown, but 'thirty bags' of handpicked ore are reported from a later operator in 1954 (Kindle, 1954). Other occurrences that are reported to have some old development workings include the Armagosa, Black Pilot, Brian Boru, Jones and Killarney, consisting mostly of small open cuts or short adits. The Sultana prospect has had more extensive past exploration, including substantial trenching (essentially small-scale mining) and limited drilling on a high grade silver vein (Campbell and Saunders, 1969 and 1970). This prospect was the main focus of an exploration and drilling program in 2010 and 2011 that identified extensive low grade copper and molybdenum mineralization below and to the northwest of the historical workings.

Beginning in 2008 Duncastle Gold Corp carried out geochemical and geophysical surveys over wider areas of the property, in addition to the drilling in the Sultana area. Areas on the west side of the property were prospected and a stream sediment geochemical survey was conducted. A property-wide airborne geophysical survey was carried out that included magnetic, electromagnetic and radiometric measurements. Site visits were also made to the MT showing, the Big Thing showing and various areas of geophysical interest around the Tina showing.

Other occurrences are alluded to in old reports which are not listed in Minfile and which have not yet been confirmed by site visits. These include Ag-Pb-Zn veins near the headwaters of Red Rose Creek (referred to as the Kaslo and Betty veins, ARIS 16012) upslope and to the east of the Brunswick Mine, and an Ag-Pb-Au vein (referred to as the Slate or Slater vein) south of Red Rose Creek near the divide between the Red Rose and Brian Boru basins (Ministry of Mines, 1914).

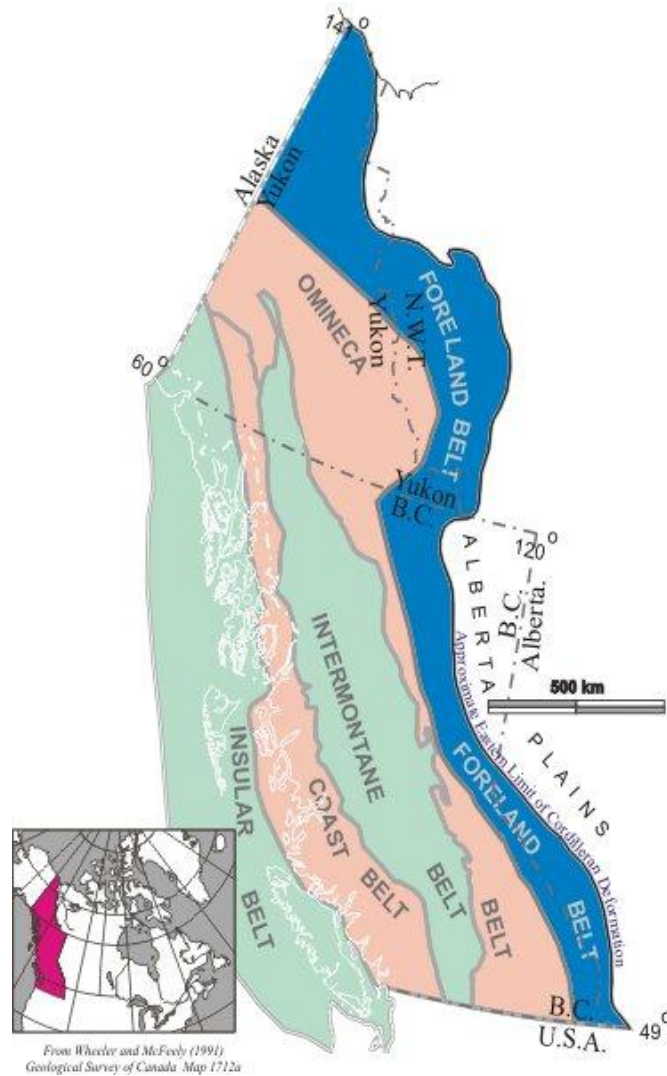
2 Geology

2.1 Regional Geology

British Columbia can be subdivided into five belts running roughly parallel with the north-westerly grain of the Cordillera. These five belts, from west to east, today are called the Insular, Coast, Intermontane, Omineca and Foreland belts accreted to North America (Figure 3). The most easterly of these, the Foreland Belt, is the youngest, being formed when Proterozoic and Paleozoic sedimentary rocks were thrust up onto the continental margin to form the Rocky Mountains. The Omineca Belt is composed primarily of Devonian-Mississippian magmatic island arc sequences formed on the edge of North America. The intermontane belt is a complex assemblage of Carboniferous to early Jurassic aged rocks which are largely arc-related. Younger arc-related magmatic activity continued into the Tertiary. The Coastal Belt which is composed of plutonic and metamorphic rocks forms the suture zone between the Intermontane Belt and the exotically derived Insular Belt (Campbell, 2010).

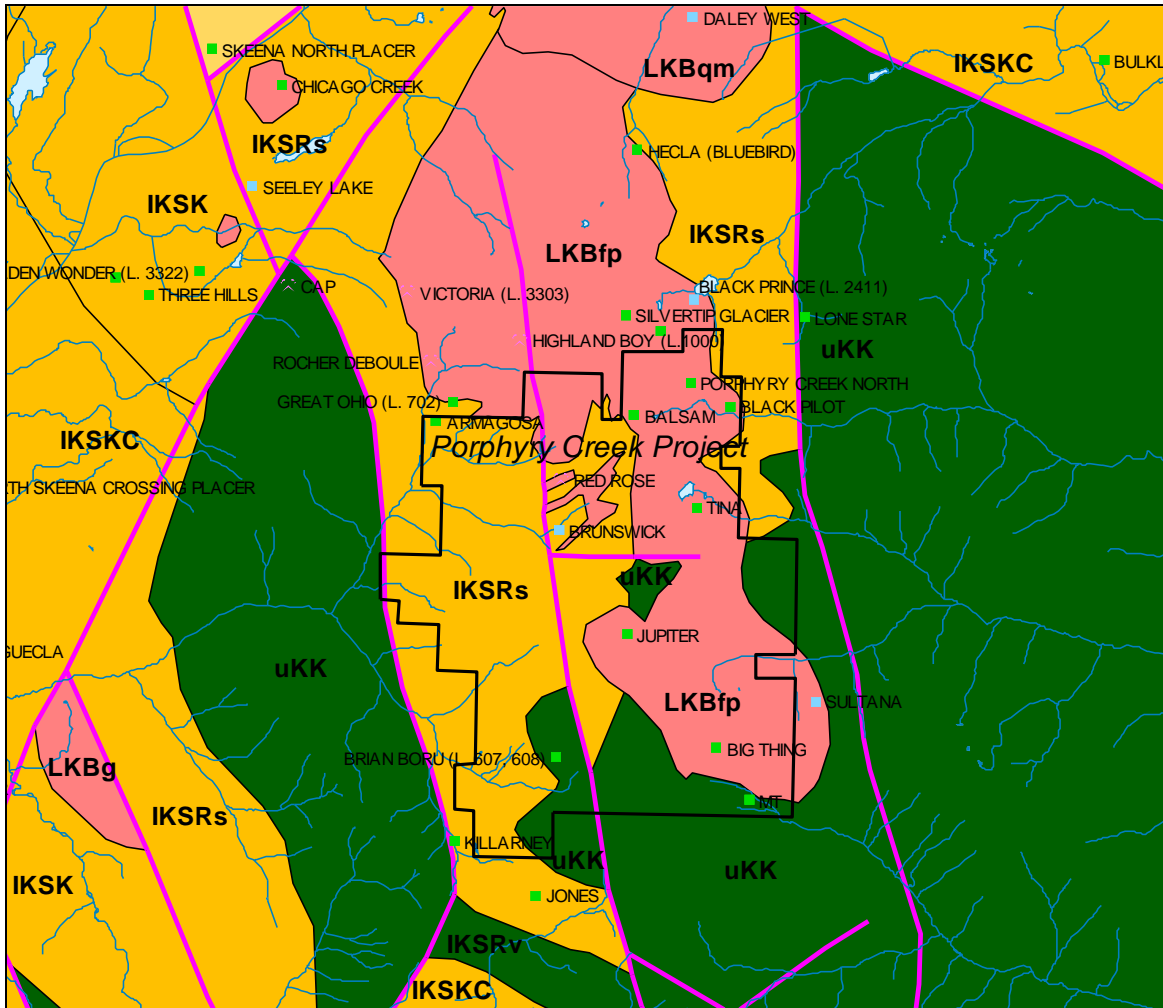
The arc-related and complex nature of the rocks in the Intermontane Belt (in which the Porphyry Creek property lays) means that it hosts many economic porphyry deposits, including Red Chris and Huckleberry. The country rocks in the Porphyry Creek area are early Jurassic in age and are intruded by the Cretaceous Rocher Debole stock. This is the right timeframe for intense hydrothermal arc-related activity, making the prospects of discovering another mineral deposit very favourable.

Warkentin and Young (2008) report that the western part of the project area is underlain by the Lower Cretaceous Skeena Group - Red Rose Formation clastic sediments, and the Cretaceous Kasalka Group - Brian Boru Formation andesitic volcanics, while the eastern portion is underlain by Late Cretaceous Bulkley intrusives (the Rocher Debole stock), which forms a massive, prominently jointed body of porphyritic (biotite and K-Spar phenocrysts) diorite. Aplite, pegmatite, porphyritic andesite, felsite, lamprophyre and granitoid dykes/sills are common throughout the pluton and extend into the surrounding country rock. NNW trending steeply dipping joint structures are prominent in the contact zone of the Cretaceous pluton and Jurassic volcanics/sediments. This NNW trending joint set parallels the contact, and there is a subsidiary set of joints perpendicular to the contact, which roughly traces the main mineral trend (i.e., 070° strike, moderate to steep N dip) of some of the historical deposits in the area.



**Figure 3 - Five Belt Framework of the Canadian Cordillera
(Geological Survey of Canada)**

Several prominent faults traverse the area, including the N–S trending Cap, Chicago Creek and Pangea faults (Warkentin and Young, 2008). The east side of the Chicago Creek fault has been uplifted and displaced several hundred meters to the south. There is also at least one prominent cross fault, the Mill fault, which lies to the south of the Red Rose Mine on the east side of the Chicago Creek fault and likely follows Red Rose Creek on the west side. The regional geology of the claim area is shown below on Figure 4 (Campbell, 2010).



LKBfp – Late Cretaceous Bulkley Plutonic Suite: feldspar porphyry intrusive rocks
 LKBg – Late Cretaceous Bulkley Plutonic Suite: undivided intrusive rocks
 LKBqm – Late Cretaceous Bulkley Plutonic Suite: quartz monzonite intrusive rocks
 IKSK – Lower Cretaceous Skeena Group: Kitsumkalum Shale, mudstone, siltstone, shale fine clastic sedimentary rocks
 IKSKC – Lower Cretaceous Skeena Group: Kitsuns Creek Formation, coarse clastic sedimentary rocks
 IKSRs – Lower Cretaceous Skeena Group: Red Rose Formation, coarse clastic sedimentary rocks
 IKSRv – Lower Cretaceous Skeena Group: Rocky Ridge Formation, alkaline volcanic rocks
 uKK - Cretaceous Kasalka Group: andesitic volcanic rocks

Figure 4 - Regional Geology of the Porphyry Creek Area

2.2 Local Geology

The Porphyry Creek project area is primarily underlain by argillites and greywacke of the Red Rose formation, and by andesitic volcanics of the Kasalka Group. The Red Rose sediments strike northeast and dip 45° southeast and have been altered to hornfels in the vicinity of the porphyrytic intrusives (Rocher Deboule stock) that are found in the east-central part of the project area. Dioritic intrusions occur in the area of the Brunswick prospect (see Figure 4).

Several major faults cross the area, two of which appear to intersect west of the Brunswick prospect. The Chicago Creek fault is a major north-south normal fault with an estimated displacement of 600 to 900 meters. It has been traced over a total length of nearly 35 kilometres. The Mill fault trends east-southeast, following Red Rose creek. It appears to have been displaced several hundred meters to the south by the Chicago creek fault. The Cap fault, which is another major north-south fault, lies along the western boundary of the project area. Finally, the Pangea

fault is another fault with a large displacement that runs N-S near the eastern boundary of the property (Sutherland Brown, 1960).

A smaller fault zone known as the Red Rose Shear runs roughly parallel to, and is likely subsidiary to, the Chicago creek fault in the area around the Red Rose mine. The Red Rose tungsten vein occurs where this shear passes through an intrusive tongue of diorite. Outside the diorite the shear is mainly a narrow seam. The full extent of this shear is unknown, but its trend projects towards additional diorite tongues to the south of the mine. This diorite is distinct from the much larger granodiorite intrusive and significant bodies have only been mapped at the Red Rose mine and around the headwaters of Red Rose creek (Sutherland Brown, 1960).

Known mineralization in the area occurs as base and precious metals in quartz veins located in fractures and shears related to northeast or northwest trending fault sets. Most of the known mineral occurrences (aside from the southern Brian Boru showings) lie within 1,000 meters of the contact of the Rocher Debole intrusive stock with the surrounding country rock (Sutherland Brown, 1960). Significant historical production from the neighbouring Rocher Debole and Red Rose mines was principally for copper and tungsten, but small quantities of gold, silver, cobalt, molybdenum, lead and zinc have also been recovered from these and other smaller deposits (Kindle, 1954). In 2010, the Rocher Debole intrusive stock itself was confirmed to be mineralized around the **Sultana** prospect, (Cu and Mo in quartz-carbonate veinlets and rarely as disseminate blebs in the stock).

Veins can vary widely in their mineralization. At the Red Rose mine the upper part of the vein contained mainly scheelite with minor amounts of chalcopyrite. At lower levels, chalcopyrite was much more abundant and there were values in gold and molybdenite (Sutherland Brown, 1960). At the Rocher Debole mine, just outside the project boundary to the north, chalcopyrite was the principal economic mineral, with significant gold and silver values. At the Victoria mine, a short distance to the north, mineralization is primarily cobalt sulpharsenides with high gold values (occurring as small specks scattered throughout the sulpharsenides), and minor molybdenite (Kindle, 1954). At the **Brunswick** mine, which is located on the Porphyry Creek property, the quartz veins are mineralised mainly with galena, sphalerite and tetrahedrite, with lesser amounts of chalcopyrite (Holland, 1987).

In the **Brian Boru** Creek area, semi-massive to massive sulphide mineralization reportedly occurs at or near the contact between andesitic and rhyolitic volcanics and also in narrow veins containing base metal sulphides. Mineralization is primarily massive sphalerite and pyrrhotite with significant amounts of galena and chalcopyrite in some of the smaller veins (Warkentin and Young, 2008).

At the **Sultana** prospect the historic target was a silver-rich “stockwork” that was exposed at surface and had been trenched and sampled (Campbell and Saunders, 1969 and 1970). The underlying rock in this area is mostly weakly Cu-Mo mineralized diorite which is intruded by dyke swarms of varying composition. Silicified andesite dykes intrude parallel to the main mineralized trend and close to the silver rich vein stockwork. Also in the area, aplite, pegmatite, granite porphyry and hornblende dykes intrude the stock. These dykes are also mineralized with Cu-Mo and magnetite to varying degrees (ARIS report 2855).

The MT showing is located at the southern boundary of the Rocher Debole stock. This was mapped in detail in 1967 (ARIS report 01134) as an extensively pyritized zone projecting southward from the stock into the Brian Boru formation volcanics. Country rock in this location varies from andesites to dacites with interstitial tuffs and agglomerates. Intruding into this volcanic sequence are three dyke swarms: altered feldspar porphyry, diorite and basalt.

2.3 Exploration Models

Two genetic models have been used to establish a framework or strategy for exploration on the project.

Initial work on the property by the present owners (detailed in Warkentin, 2006) suggests a potential IOCG or skarn target in the volcanic-sedimentary stratigraphy on the western side of the property based on government RGS data and later stream sediment sampling, reconnaissance sampling of known occurrences and airborne geophysical data.

Most recent work on the project focused on the eastern side of the property and Cu-Mo mineralization associated with granodiorite to diorite intrusions which may show a closer genetic relationship with a porphyry system.

2.3.1 Porphyry Exploration Model

The conceptual target is a zoned porphyry mineral system related to the intrusion of the Rocher Debole stock, a large composite intrusion of granodiorite to quartz monzonite composition. Mineral occurrences include “proximal” intrusion-hosted, bulk tonnage Cu-Mo deposits and “distal” polymetallic veins and shears within the adjacent volcano-stratigraphy. In regional surveys the intrusion appears as a broad, 10 kilometre long aeromagnetic anomaly associated with the access of the stock. Mineral occurrences are distributed around the margins of the aeromagnetic anomaly.

A very concise description of possible porphyry systems is further provided by Rogers in his 2010 paper: “...*fracture-controlled quartz-sulphide veinlets and veins, and sulphide disseminations in fractures hosted by, or proximal to, high-level, calc-alkaline, intermediate to felsic, porphyritic intrusions. There may be a spatial and genetic relationship to high-level (epizonal), calc-alkaline, intermediate to felsic stocks, dykes, sills, and breccia pipes, with porphyritic phases, that are intrusive into volcanic and sedimentary rocks. These commonly occur as subvolcanic intrusions to volcanic complexes. The porphyritic intrusions and/or the surrounding country rocks may host the mineralization. Multiple intrusive phases and brecciation are common. Typical general associations are: quartz monzonite to alkali feldspar granite: Mo-W; granodiorite to quartz monzonite: Cu-Mo; and diorite-quartz diorite-tonalite: Cu-Au-(Mo).*”

Individual mineral occurrences may be associated with smaller intrusive bodies and dykes either within or on the margins of the main stock. An example of this may be the Sultana prospect where airborne geophysics has identified an aeromagnetic high located on the eastern margin of the stock. The magnetic high is surrounded by an arcuate magnetic low which grades into background magnetics. This magnetic low may be caused by the destruction of primary magnetite in the host rock by hydrothermal fluids mobilized by the heat of intrusion. Sulphide mineralization is localized within the altered area around the barren core. Figure 5 shows a map of the magnetic intensity in the Sultana area. This is also coincidental with a large EM anomaly (see Figure 6), which indicates potential for significant sulphide mineralization. Figure 5 also shows the 2010 and 2011 drillhole locations.

The host rock in the Sultana area is predominantly hornblende-granodiorite of the Rocher Debole Stock. As described in section 2.2, several types of dykes intrude the stock at this location as well. These two factors correspond to Rogers’ description (above), which adds more evidence for a Cu-Mo porphyry system in the Sultana area.

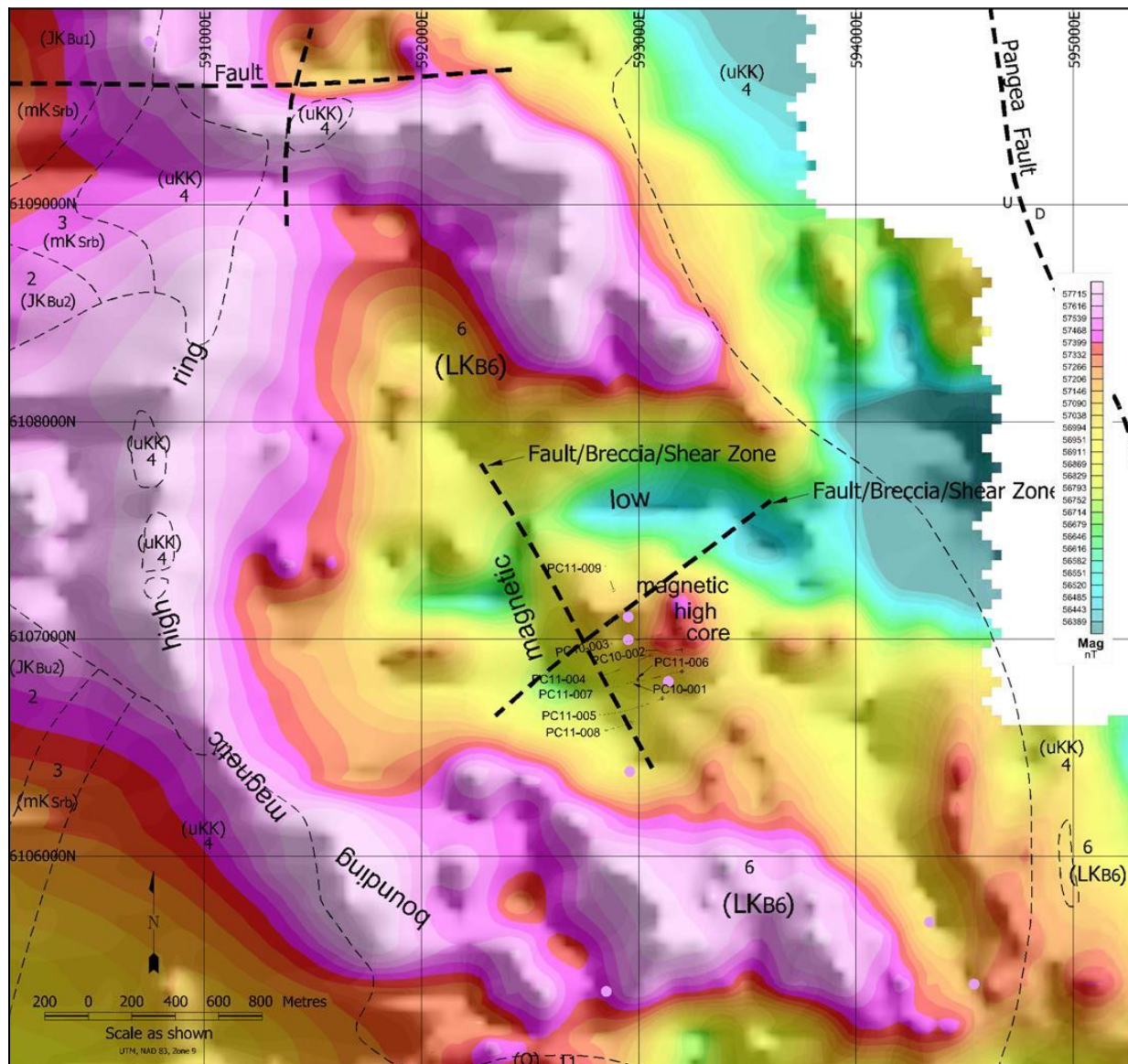


Figure 5 - Magnetic Intensity Map for the Sultana Area

The 2010 and 2011 drilling (9 NQ drillholes, 3,925 m) cut weak to moderately sericite-chlorite+/-epidote altered medium grained granodiorite indicative of the phyllic-propylitic alteration zone surrounding a porphyry style deposit. Fracturing and vein density encountered in the drilling appeared to be insufficient to produce Cu-Mo grades above the 0.1% range over significant lengths in drill core. The holes drilled to date have shown pervasive low grade copper and molybdenum mineralization over an area of approximately 200 by 300 meters, and extending to depths of more than 400 meters. Average grades are sub-economic, in the range of 0.03 to 0.05% Cu and .002 to .003% Mo, although there are sections showing significantly higher grades. All drilling to date has been to the west of the central magnetic high core feature.

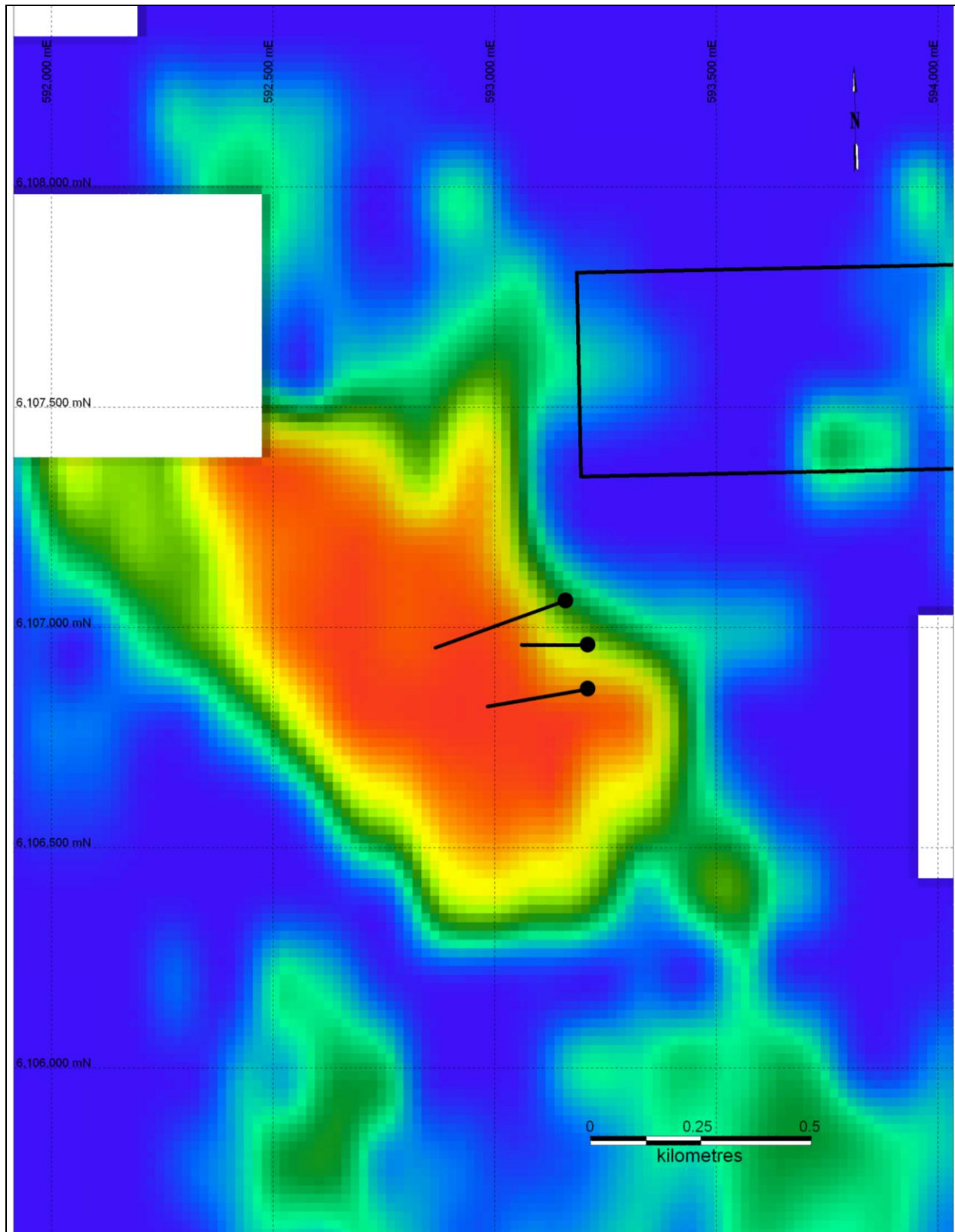


Figure 6 - Apparent Resistivity at 7200hz Coplanar in the Sultana Area

In addition to the Sultana prospect, there are several other areas on the east side of the property showing a positive response to the airborne geophysical surveys. These represent additional possible porphyry targets that have yet to be explored in any meaningful way. These areas are indicated in Figure 7.

2.3.2 IOCG or Polymetallic Skarn Exploration Potential

The BC government regional geochemical survey (RGS) database indicates that stream sediment sample 93M831097, taken from the lower part of Red Rose Creek, carried values greater than the 95th percentile for Cu, Au, Fe and La. These are important indicator elements for IOCG systems and make it one of the highest ranked samples for IOCG indicator elements in BC. While this sample could be affected by its location downstream from a former tungsten mine, the values for these metals as well as for secondary IOCG indicators are very high (generally greater than 99th percentile), and these elements are also elevated in other streams draining the north western part of the property that are not affected by past mining, including 93M831390 and 93M831391. In addition to these primary indicators these same samples show elevated levels of other IOCG indicator minerals such as cobalt, uranium and other REEs besides lanthanum.

These values indicate the presence of a significant source of polymetallic mineralization in this part of the property large enough to affect several drainages. The overall geochemical signature is suggestive of IOCG as a possible source, although geologically the area does not contain older continental rocks usually associated with the conventional IOCG model. There are, however, also examples of IOCG-type deposits occurring in younger Cordilleran rocks in South America, and this is one possible model as the source of this polymetallic geochemical anomaly.

IOCG systems are similar structurally to porphyry systems (i.e. deep intrusion related hydrothermal systems, with similar zones of alteration). They generally form at a greater depth than porphyries and can have large breccia pipes/zones associated with the magma conduits. These systems also often have associated epithermal-style veins at some distance from the main centres.

The overall structure of an IOCG system can be 1-6 km long by 100-500 m wide, with individual deposits up to 1 km long and 100-200 m wide, and there are often multiple deposits in a single system. Deposits tend to occur in association with major faults, and especially at fault intersections and contact zones. Caldera collapse structures may also be evident. Geophysical signatures include discreet magnetic and gravity highs and conductive breccia cores, with the magnetic highs offset from the principal zones of mineralization. The mineralogy varies depending on the type of IOCG, but these deposits are generally highly polymetallic, providing both geochemical and radiometric responses as tools for exploration.

Geophysical work conducted to date does not include gravity data, but there are distinct magnetic highs on the west side of the Porphyry Creek property, some of which show a linear structure suggestive of fault zone associations. There are also several areas with fairly strong bedrock EM anomalies that could represent conductive breccia zones, as well as coincident areas of low resistivity. Assuming the presence of an IOCG system elevated in uranium, radiometrics can be a useful exploration tool. There should be strong potassic alteration around these deposits as well, while Thorium should represent a relatively constant background, so that areas of coincident high K/Th and U/Th would be strong targets. Analysis of the 2010 airborne data does show a wide area in the northwest part of the property with high K/Th values as well as an elevated U response in the same area.

Other important indicator elements include Co, the suite of REEs, U and possibly Rn, Bi and V. Sulpharsenide minerals are described in some IOCG ores and arsenic may also be present. Furthermore, skarn mineralization may also be associated with IOCG deposits resulting in elevated Pb, Zn, Ag, W and Mo. There is currently limited geochemical data available for the northwest part of the property, but stream sediments in the area do show elevated levels of many of these elements, and known Pb-Zn-Ag mineralization occurs at the Brunswick prospect while

W and Mo were found at the Red Rose mine, both of which lie on the eastern margin of the area of strongest geophysical response.

Based on the above indications, a broad target zone has been identified that is believed to be prospective for IOCG or other polymetallic mineralization. Within this zone, several targets have been identified for further investigation with the strongest one being in the lower Red Rose Creek valley, including part of the ridge between Red Rose and Armagosa Creeks. Other targets are on the ridge to the south of Red Rose Creek and above Slater Creek. An important next step in site exploration will be to carry out geochemical sampling in target areas, along with prospecting and mapping.

3 Exploration History

3.1 Introduction

Exploration in the area was intermittent prior to the acquisition and consolidation of the area by the current owners beginning in 2006. Table 3 provides a brief summary of the exploration history for the three most developed areas on the property.

Duncastle Gold optioned the property in 2008 and carried out a major exploration program, including a significant drill program at the Sultana prospect. Previous work on the property by the current owners (Warkentin, 2006 and 2007) included compilation of the historic database and limited surface sampling in several high-grade target areas located within the claim boundary at that time, being the western portion of the property. Field programs by Duncastle in 2008 continued to follow-up initial targets identified by the owners in the western portion of the property. Following significant additions to the eastern portion of the property by staking in 2009, additional historical data compilation was conducted in the winter of 2010 which identified several potential targets on the newer claims in the southeast. A 495 line-kilometre airborne geophysical survey was conducted over the newly consolidated property in 2010 (Campbell 2010) which accelerated target definition and identified multiple additional targets as summarized in section 3.2.

Sultana Prospect

- First acquired by the Brewer Brothers in 1912, where considerable surface work was performed
- Abandoned, then restaked in 1921 by Messrs. Macdonald and Hicks, who expanded on the surface work and found 'ore' from 4 to 20 feet wide over a length of 125 feet.
- Optioned in 1923 to Granby Consolidated Mining and Milling Co. Ltd, who drilled one hole and then dropped the property.
- Restaked in 1939 by G. Christensen of Hazelton who did a small amount of surface work.
- Restaked again by G. Parent and associated of Hazelton in 1951.
- Work done by C.H.Macdonald in 1953, when the property was under option to Northern BC Mining Co. Ltd., who sampled several quartz-silver outcrops in the trenches.
- Property restaked in 1956 by J.W.Bryand and Bert Spisak for Canusa Mining Corp and renamed Snowshoe 1 to 8. Several short holes were drilled.
- Split into Silver Tip claims, staked in 1966/67 by C.E.Calson and Victor Bartell, and the 'S' claims staked in 1970 for Sultana Silver Mines Ltd., Sultana Silver drilled 5 short holes in 1968 and 3 deeper holes in 1969 (this group of claims included the MT Minfile occurrence).
- Detailed I.P., Geological and Geochemical survey conducted by Sultana Silver Mines in 1970.

- Acquired in 2009 by Duncastle Gold Corp, drilled a total of 3925 meters in 9 holes, conducted airborne electromagnetic, magnetic and radiometric surveys and soil geochemistry.

Brian Boru Prospect

- Brian Boru first discovered in 1914-15 as a series of irregular sphalerite-pyrite veins containing variable amounts of lead, zinc, arsenic and gold.
- GAM claims staked in 1979 by Asarco Inc. Who mapped it in 1980 at 1:5000 and conducted a soil sampling program and magnetometer survey. In 1981 this was followed up by VLF, IP and magnetic studies and a soil grid.
- Further geological and geochemical surveys were done in 1984, 1985 and 1987 by Noranda.
- Optioned in 2008 by Duncastle Gold Corp as part of Porphyry Creek property. An airborne geophysical survey was conducted.

Brunswick Prospect

- Originally located in 1912 by J.Miller and sporadic work (locating veins, driving two small adits and possibly making small shipments of selected ore) was conducted prior to 1950.
- Acquired in 1950 by Skeena Silver Mines Ltd., who rehabilitated and extended old workings, drilled 4 holes and carried out additional prospecting. Additional small ore shipments were also made.
- Restaked in the early 1960's by J.T.Williamson, who conducted further geological mapping and sampling.
- Lower drift was advanced to 98 meters by Arcadia Exploration in 1972-73 under option.
- Staked in 1984 by R.Holland who prospected the surrounding area, finding an additional four mineralized vein systems.
- Optioned in 2008 by Duncastle Gold Corp. as part of the Porphyry Creek property. Prospecting and a stream sediment survey were conducted. An airborne geophysical survey was completed in 2010.

Table 3: Summary of Historical Exploration for the Sultana, Brian Boru and Brunswick Areas of the Porphyry Creek Project

3.2 2010 Airborne Geophysical Survey

The 2010 exploration program was designed to further investigate the geophysical anomalies identified by Kit Campbell in his 2010 report. A total of six anomalous conductive zones are identified and mapped by his interpretation. In addition, two singular magnetic high zones and nine potentially-enhanced K% 'target zones' are additionally identified as 'Areas of Interest' for follow-up (Campbell 2010). Figure 8 summarizes the priority anomalies with apparent resistivity in the background.

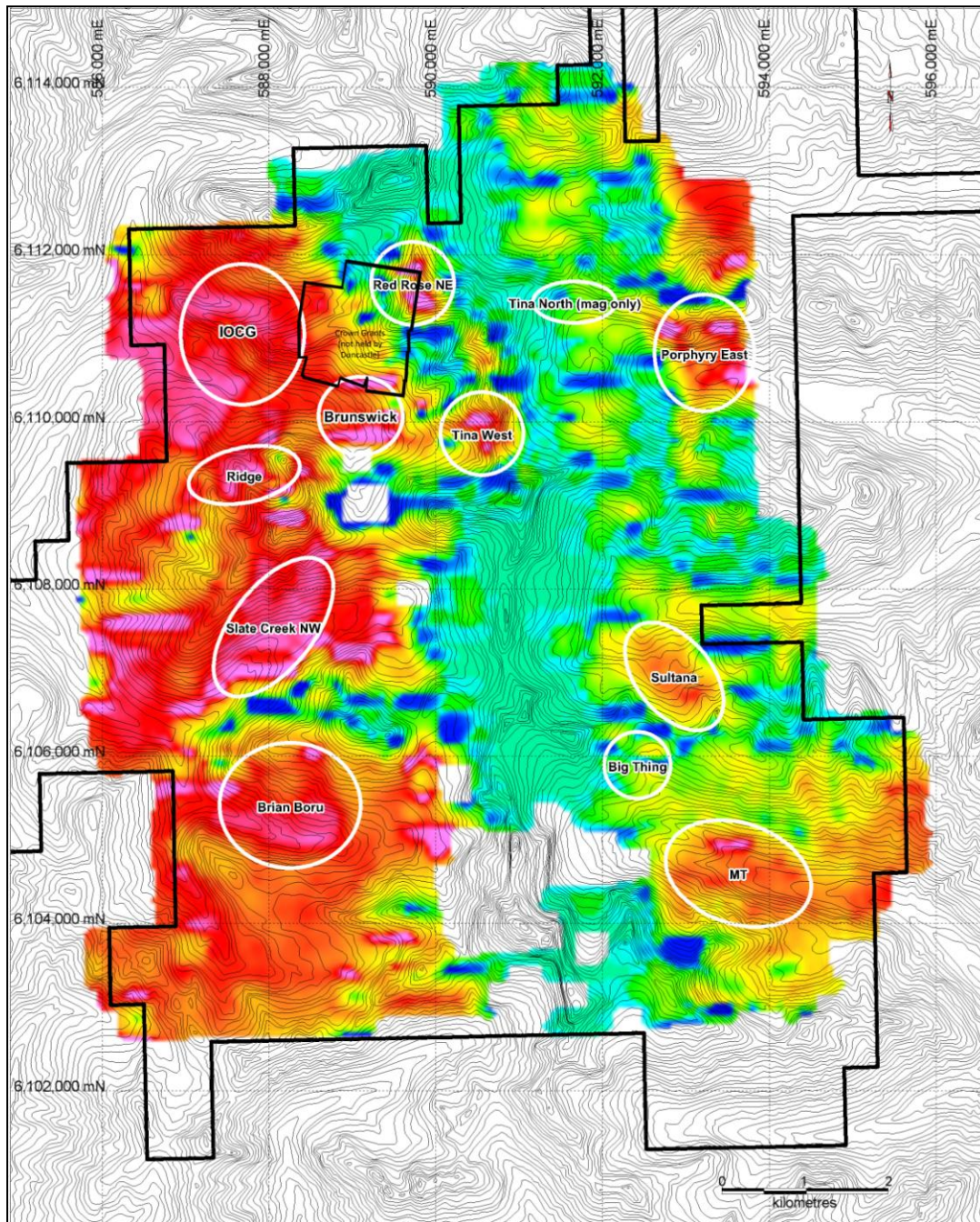


Figure 7 – Resistivity Map from 2010 Aiborne Survey, showing Priority Geophysical Anomalies

These geophysical areas of interest were prioritized using geological, structural, geochemical and logistical criteria (some of the anomalies were very hard to access). Six of the priority sites were visited by the Ranex staff between August 9th and August 18th, 2010: Sultana, MT, Big Thing, Tina West and Porphyry East A and B. The anomalies that were visited are described in Section 3.3.

3.3 2010 and 2011 Sultana Geochemical and Drilling Programs

During the 2010 field season, six prospects were visited by the Ranex staff. Each locality is described below.

3.3.1 Geochemistry

Geological and structural mapping and soil sampling was conducted at the Sultana prospect as part of the 2010 exploration program. Hydrothermal argillic and sericitic alteration were evident within the Sultana showing. Chalcopyrite, pyrite, tennantite/tetrahedrite, and molybdenite were found on fracture surfaces in outcrop and had also been reported in the historic drill hole logs from this area. Rock samples of quartz veins taken in the Sultana area assayed up to 18.25g/t Au, 865g/t Ag, 17.87% Cu, 0.57% Zn and 1.08% Mo.

As a result of the encouraging preliminary surface evaluation and historical information the Sultana occurrence was targeted for further work. A follow-up soil sampling program was conducted on the Sultana prospect which totalled 480 samples. The samples were taken 5 to 10 meters apart along several lines spaced 25 to 50 meters apart. The short sample intervals were chosen due to the close spacing of quartz veins carrying pyrite and chalcopyrite observed at the Sultana showing. The sampled area is shown in Figure 8, which also shows the historical Sultana trenches. The program covered a total area of about 250 x 400 meters (Westphal, 2010c).

The results of the soil sampling were extremely encouraging, returning values up to 3363 ppm for copper and 834 ppm for molybdenum, with anomalous values over much of the grid. There were also intermittent high lead, silver and gold values. The mean and maximum value for both Cu and Mo were unusually high, suggesting high-grade mineralization close to the surface. Rock samples taken in the area confirmed this, with values up to 1.08% Mo. Because of the excellent soil results, a three-hole drill program was conducted, the results of which are discussed in Section 3.3.1.

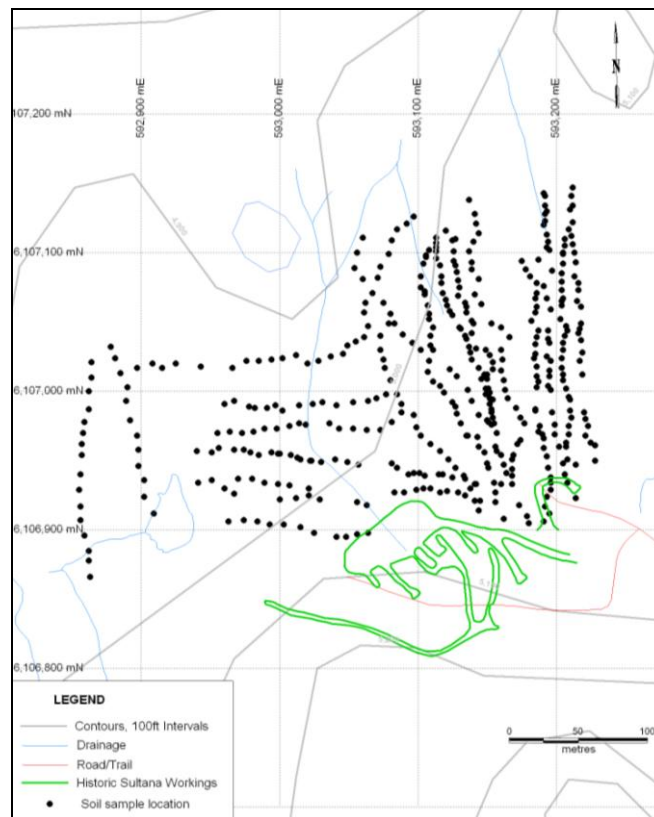


Figure 8 - Map Showing 2010 Soil Sample Locations and Historic Workings

3.3.2 Drilling

A three hole drill program was conducted in the Sultana area in the fall of 2010, totalling 1,330m. Drill sites were chosen based on precious and base metal soil anomalies and geophysics. All three holes showed widespread low grade Cu-Mo mineralization with occasional higher grade intervals. Hole PC10-01 gave the best results, and ended with 40 meters of some of the highest grade intervals. Results are summarized in Table 4.

Table 2 - Select Drill Results from the 2010 Porphyry Creek Drill Program

interval (m)	width (m)	Au	Mo	Cu	Pb	Zn	Ag
PC10-01		PPB	PPM	PPM	PPM	PPM	PPM
0-444	444	4.8	70	547	24	37	0.7
111-117	6.0	162.0	2985	2988	876	913	13.9
339-444	105	4.1	107	1036	5	27	0.9
405-444	39	4.1	41	1673	8	35	1.7
PC10-02							
0-303	303	2.2	18	369	4	32	0.4
111-117	6.0	2.0	37	526	3	23	0.7
201-204	3.0	11.0	11	3439	7	49	9.6
PC10-03							
0-582	582	1.9	24	330	3	21	0.3
186-204	18	2.8	16	597	5	22	0.6
516-576	60	2.9	32	555	2	24	0.5

These results encouraged a follow up program in the summer of 2011. The 2011 drilling consisted of 6 NQ drill-holes totalling 2,594 meters. As noted these holes mainly cut altered medium grained granodiorite typical of the phyllic-propylitic zone of a porphyry system. All the holes were mineralized throughout their entire length, but mostly the grades returned were sub-economic. The average grades for each hole are shown in Table 5, along with some of the zones showing better grades. Weighted average grades for holes PC11-04 to -08 ranged from 0.046% Cu and 0.007% Mo in hole PC11-08 to 0.074% Cu and 0.009% Mo in hole PC11-04. The latter hole was over a total length of over 600 meters.

Significant higher grade zones were encountered in holes PC11-04 to PC11-07, with zones of 25 to 50 meters grading significantly above 0.10% Cu and up to 0.029% Mo. Hole PC11-09 was drilled to the north, away from the zone targeted by the other holes, and returned significantly lower grades.

Results of the 2011 drilling expanded the moderately anomalous porphyry style Cu-Mo zone to some 300m in strike length (N-S) and up to 200m wide (E-W). Interpretations of metal gradients and previous geophysics based on these drill results led to a recommendation for further surface geochemistry and ground-based geophysics to better identify likely higher grade portions of the porphyry system, which appears to occupy a much larger area than that drilled.

Table 5 - Select Drill Results from the 2011 Porphyry Creek Drill Program

interval (m)	width (m)	Au	Mo	Cu	Ag	W
PC11-04		PPB	PPM	PPM	PPM	PPM
5-617	612	4.4	92	741	0.6	19
324-375	51	6.0	210	1149	1.0	21
479-488	9.0	7.6	331	1673	1.1	21
586-594	8.0	4.1	172	1396	0.9	82
611-617	5.7	9.3	394	1686	1.2	97
PC11-05						
4-588	584	6.8	59	620	0.8	13
388-424	36	9.0	293	1140	1.5	20
PC11-06						
4-469	465	4.9	79	713	0.7	25
141-170	29	10.2	220	1406	0.8	82
247-294	47	9.9	146	1189	2.7	37
PC11-07						
5-402	397	4.6	82	553	0.5	15
318-343	25	6.5	25	1410	1.2	35
PC11-08						
4-271	267	3.8	71	460	0.4	9.1
241-246	5.0	3.2	811	646	0.4	5.7
PC11-09						
5-248	243	3.6	25	293	0.3	9
114-120	6.0	8.5	4.5	911	1.08	22
144-146	2.0	9.5	2	1687	1	44

4 2014 Exploration Program

At the end of June, 2014, Duncastle Gold Corp relinquished its option on the property, returning 100% ownership to the original owners. In July a limited work program was carried out to follow up on recent exploration by Duncastle and to begin to develop other potential exploration targets. Site work was carried out between July 23rd and July 30th, 2014, and consisted of prospecting and mapping in the area of the Brunswick prospect, examining Sultana area drill core, carrying out a limited extension of the soil geochemical sampling in the Sultana area, and reclaiming drill sites left from recent drilling in the Sultana area. A total of 16 rock samples and 26 soil samples were collected. All rock samples were collected from the Brunswick area and all soil samples were collected from the Sultana area.

Rock samples were crushed and split to produce a 250 gram fraction which was pulverized to minus 200 mesh. For gold analysis a 15 gram subsample was ignited at 550°C and then digested in aqua regia before being analyzed by ICP-MS. For other elements a 0.5 gram subsample was digested in hot aqua regia and analyzed by ICP-ES for 33 elements. Soil samples were dried and screened at 80 mesh. A 0.5 gram subsample of the minus 80 mesh fraction was digested in hot aqua regia and analyzed by ICP-ES for 33 elements. All samples were analyzed by Acme Labs in Vancouver after being prepared at their Smithers preparation facility.

Table 6: 2014 Rock Sample Descriptions

Sample #	Date	UTM East	UTM North	Description	Wgt KG	Au PPB	Mo PPM	Cu PPM	Pb PPM
G066551	23-Jul-14	589115	6110045	Fine grained black sed, Argillite with 10-20% pyrite	0.78	7.7	<1	429	20
G066552	23-Jul-14	589205	6110170	Hornsfelsed seds? Drk sulfide veinlets, sphal? Q diorite cut by 3cm quartz veins. No visible sulfide in quartz, Py on selvages. Veins strike 140 deg and dip 80 deg north. Veins are 1-2m apart	1.13	0.7	<1	50	8
G066553	23-Jul-14	589194	6110197	Same location as last sample. Quartz, no visible sulphide	0.76	4.6	<1	55	10
G066554	23-Jul-14	589195	6110193	Abundant bull quartz veins up to 10cm width but most <5cm. Veins strike 300-340 deg and dip 40-60 NE.	0.52	79.9	3	403	13
G066555	26-Jul-14	589533	6109912	Veins are hosted in hornsfelsed seds Same location as last sample. Wall rock (footwall)	0.7	2.8	<1	31	<3
G066556	26-Jul-14	589533	6109912	mineralized with trace py	0.67	1.3	2	56	<3
G066557	26-Jul-14	589550	6109916	Quartz with trace sphal and minor malachite	0.7	<0.5	94	49	5
G066558	26-Jul-14	589550	6109916	Wallrock of previous sample trace sphal and abundant large amphibole crystals – pegmatite texture	0.81	<0.5	4	49	<3
G066559	26-Jul-14	589648	6109980	Hornsfelsed seds with stockwork like stringers of PY	0.57	0.9	4	204	<3
G066560	26-Jul-14	589648	6109980	second sample same site Diorite (Dyke?) mineralized with 1-2cm x cutting veins of amphibole and Moly + Trace Spal. Veins approaching stockwork like density	0.98	1.2	1	76	5
G066561	26-Jul-14	589628	6110067	Diorite talus with abundant Quartz fragments mineralized with 1-2cm Moly veins	1.25	2.6	1998	404	9
G066562	26-Jul-14	589612	6110093	mineralized with 1-2cm Moly veins	0.68	6.3	>2000	68	7
G066563	26-Jul-14	589672	6110213	Diorite with diss py and trace cpy Talus field. Talus is horsfelsed seds with large boulders of Quartz material bolders are up to 1m in width and very angular. Mineralized with occasional sphal and galena	0.31	<0.5	19	155	<3
G066564	26-Jul-14	589416	6110451	Angular material adjacent to adit. Adit strikes 22 deg	0.55	2053.2	16	437	10
G066565	26-Jul-14	589346	6110545	Angular float vein material with abundant sphla and galena. Distribution of Q fragments in talus indicates source vein probably strikes E/W with A 10-20 cm width at this location	1.09	5327.4	33	2135	25
G066567	26-Jul-14	589359	6110549		0.69	333.2	25	9236	8

Table 6 (cont): 2014 Rock Sample Descriptions

Sample #	Date	UTM East	UTM North	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	La PPM	W PPM
G066551	23-Jul-14	589115	6110045	272	2	30	44	292	9.56	5	7	<2
G066552	23-Jul-14	589205	6110170	51	<0.3	15	10	336	3.22	122	7	<2
G066553	23-Jul-14	589194	6110197	29	<0.3	13	19	190	2.68	94	8	<2
G066554	23-Jul-14	589195	6110193	46	<0.3	60	55	366	5.97	4293	7	<2
G066555	26-Jul-14	589533	6109912	3	<0.3	1	<1	34	0.3	17	<1	<2
G066556	26-Jul-14	589533	6109912	51	<0.3	19	18	414	5.02	57	9	<2
G066557	26-Jul-14	589550	6109916	26	<0.3	6	10	253	3.24	7	3	<2
G066558	26-Jul-14	589550	6109916	63	<0.3	10	20	535	7.6	<2	4	<2
G066559	26-Jul-14	589648	6109980	45	<0.3	2	5	117	3.16	12	8	<2
G066560	26-Jul-14	589648	6109980	135	<0.3	82	21	274	4.86	8	4	<2
G066561	26-Jul-14	589628	6110067	58	<0.3	15	22	531	6.6	5	8	<2
G066562	26-Jul-14	589612	6110093	13	0.8	<1	1	94	1.55	<2	5	<2
G066563	26-Jul-14	589672	6110213	48	<0.3	11	19	497	5.67	3	15	<2
G066564	26-Jul-14	589416	6110451	13	1.5	20	743	62	1.77	9048	527	6
G066565	26-Jul-14	589346	6110545	139	2.9	118	>2000	723	7.67	>10000	193	8
G066567	26-Jul-14	589359	6110549	174	6.6	10	241	141	2.48	3221	475	<2

Rock sample information is summarized in Table 6. Sample locations and analytical results are also shown on the Brunswick area map in Appendix 1. Soil sample locations and key analytical values are shown on the Sultana area map in Appendix 1. Full analytical reports for all samples are provided in Appendix 2.

4.1 Surface Exploration – Brunswick Area

The Brunswick area was visited twice during the work program. The first visit was on July 23rd, 2014 when the area was accessed on foot via the old Red Rose mine road. Four samples were collected, which included one sample of pyritic sediments along the Brunswick access road, and three samples collected from the vicinity of the upper Brunswick adit. The adit itself was not located, but narrow parallel quartz veins in diorite were found. Two of the samples were collected from these veins, which carried minimal visible sulphides.

On July 26th the upper Red Rose Creek valley was again visited, this time being accessed by helicopter. A traverse was run from the helicopter landing site approximately 500 meters east of the Brunswick adits to the north and then northwest along the steep talus slopes on the north side of the valley. A total of twelve samples were collected from mineralized outcrop and talus float.



Figure 9 – Narrow quartz vein with molybdenite, sample location G066561

Near the landing site numerous quartz veins were found, hosted in hornfelsed sediments. The veins were bull quartz with minor sulphides, including pyrite in the wall-rock. Samples of both vein material and wall-rock were collected. Upslope to the northeast an area of hornfelsed sediments containing abundant veinlets of pyrite was sampled. Along the slope contour to the northwest the sediment is intruded by a band of diorite approximately 150 meters wide. Mineralized quartz stringer veins carrying molybdenite were found in the diorite. Multiple 1-2 cm veins approaching stockwork density were seen, and a sample of vein material was collected (Figure 9). Further to the northwest, still within the diorite band, coarse talus showed numerous fragments of 1-2 cm quartz veins with molybdenite hosted in diorite. A further sample was collected of this vein material (Figure 10). Further upslope within this diorite band another sample was collected of diorite showing disseminated pyrite with possible minor chalcopyrite.



Figure 10 – Quartz with molybdenite, sample location G066562

Back along the slope contour approximately 500 meters to the northwest evidence was found of previous workings and mineralized vein material in talus. Three samples of angular quartz carrying variable amounts of sulphide mineralization were collected.

4.2 Soil Sampling and Core Analysis – Sultana Area

Part of the Sultana area was covered by a soil sampling program in 2010. While a large number of samples were collected, spacing was close so only a portion of the target area was covered. Part of the 2014 program involve a visit to the Sultana area for reclamation work, and the opportunity was therefore taken to carry out a small soil sampling campaign to cover some of the area left out of the previous work. As shown on the accompanying location map, samples were collected at 50 meter intervals along three east-west grid lines where terrain allowed. The sample lines were 100 meters apart. These samples were generally collected to the east and south-east of the previous sample grids. The two western-most samples on the north sample line (sample #'s 16744 and 16745) overlapped with the south east corner of the 2010 grid, and the two samples at the western end of the middle line were located along the southern boundary of the 2010 grid (sample #'s 16746 and 16747). These last two samples were also in an area affected by historical trenching of high grade veins, which is reflected in the very high values seen in the analytical results for these samples.

A secondary activity to follow-up on recent work at Sultana was a re-examination of sections of drillcore that returned over-limit assays for tungsten. Two of the owners spent a day examining drill core stored at a site near Smithers BC. The sections with reported over-limits for tungsten were primarily in holes PC11-04 and PC11-05. In most cases tungsten mineralization appears to occur on fractures and mainly appeared as fine scheelite crystals, although possible wolframite was also seen in at least one section. Where copper and or molybdenum mineralization are present the apparent tungsten mineralization appears to cross cut that mineralization, indicating a later event.

4.3 Site Reclamation Work – Sultana Area

The drilling carried out at Sultana in 2010 and 2011 by the property optionor, Duncastle Gold Corp., were helicopter-supported programs that included the construction of timber drill-pads. Due to scheduling and weather constraints the timber pads had been left in the field, and upon the return of the property to the current owners completion of the drill site reclamation was made a priority. Consultation with the local Ministry of Energy and Mines office indicated that complete pad disassembly and collection of timbers would be suitable reclamation, as all other equipment had previously been removed from the site. A two-person crew went to the site for two days at the end of July, 2014 to complete the reclamation, in addition to collecting soil samples (see above). Figure 11 shows an example of the disassembly and timber stacking that was completed.



Figure 11 – Sultana drill pad reclamation – before and after photos

As the drill programs were completely helicopter supported, there was minimal ground disturbance beyond the drill pads. In addition, during the 2010 and 2011 program some clean-up had also been carried out to remove metal debris remaining from historical work carried out in the 1960's or earlier.

5 Interpretations and Conclusions

The 2014 Porphyry Creek exploration program was a very limited follow-up to larger exploration programs recently carried out by property optionors. The work near the Brunswick prospect returned some interesting results from this underexplored area. Generally sediments and diorite carrying varying amounts of pyrite showed little in the way of economic values, but several of the quartz vein systems seen gave positive results. In general, those quartz veins showing little or no sulphides returned very low grades, although one vein sample collected in the vicinity of the upper Brunswick adit returned anomalous gold values and high arsenic, which is commonly associated with gold in this camp.

A small intrusive body of diorite consists of a number of elongated zones and dikes throughout the upper red Rose Creek basin. One of these bands was the host of the historical Red Rose tungsten mine, and a lower band also appears to host a known gold occurrence much lower down the mountain, to the south of the mine. A wide band of this rock was seen east of the Brunswick and it was found to host molybdenum-bearing quartz veinlets. The molybdenum grades of the samples collected were good, but the extent of the mineralization is uncertain.

To the north of the Brunswick workings, mineralized quartz collected from talus and from near historical workings returned strong values for gold, copper, cobalt and arsenic, with the size of the float indicating a vein source up to a meter in width. Vein float in the talus was sufficiently abundant to define a general east-west trend to the likely bedrock source. The old workings seen lie just within active crown grants that are not part of the property, but there is potential for the vein to persist onto the property. The mineral suite apparent from the analysis is suggestive of cobalt sulpharsenides. This mineralization is common at the Victoria mine, a small high-grade past producing mine about 5 kilometers to the northwest, and may represent a similar mineralizing event. Both are hosted in shear zones that appear to be associated with the north-south trending Chicago Creek fault, which cuts the entire Rocher Deboule Range.

Diorite bands are likely a good target in this area, as at the Red Rose mine the mineralized shear widens and becomes extensively mineralized within this rock. Beside the band mapped to the east, past reports indicate that a similar body is exposed within the Brunswick workings, and may indeed be the primary host rock. Possible intersections with surface veins, and especially with the Red Rose shear should be considered primary targets. Extensive high grade values in stream sediments in this area (copper, gold, silver, lead and zinc) are not fully explained by the known mineral occurrences, so there does appear to be additional potential in this area.

At the Sultana prospect previous drill results have been of great interest due to the extensive mineralization, but disappointing in terms of grade. Some very high values have been seen in historical reports as well as in 2010 soil sampling. The wider spaced soil samples taken in 2014 continue to return high values, especially for molybdenum and copper. In particular, strongly anomalous sections are seen between lower grade sections extending well to the east of previously known mineralized zones. The zoning may indicate narrower high grade sources, such as mineralized shears or veins. While the grid was very limited, a roughly north-south orientation appears to fit the patterns seen in the data.

Drill core examination indicated that there may have been more than one mineralizing event in the area, potentially carrying different suites of minerals. As the area is known for high

grade vein mineralization in addition to the pervasive low grade copper-moly mineralization, further examination and modeling of known high grade zones and possible controlling structures may be a fruitful area of investigation. In addition to the relatively narrow zones of tungsten mineralization, there were also a small number of high grade molybdenum zones intersected in the drilling. Surface work has also identified narrow gold-bearing quartz veins, in addition to the larger silver vein that was the original historical exploration target at the site.

5.1 Recommendations

The Porphyry Creek property covers a large area of varied geology that appears to be extensively mineralized and underexplored. Many targets remain that have seen little or no exploration, but which have shown good responses from regional geochemical sampling and/or airborne geophysical surveys. Prospecting and more detailed geochemical sampling would be justified for many of these areas, although in many cases access can be challenging in this rugged mountain terrain.

Based on the work carried out in 2014, additional work would be justified in both of the areas visited. At the Brunswick, additional prospecting and mapping would be of benefit in better defining prospective zones in diorite, and particularly in mapping crosscutting vein and shear structures. Historical reports indicate more mineralized veins than those sampled to date, and geochemistry and geophysics both point to possible additional undiscovered zones. Work should include a focus on the area between the Red Rose shear, the Chicago Creek fault and the Brunswick workings and down slope as far as the crosscutting Mill fault. The diorite band mapped to the east should also be further explored to define the extent of molybdenum mineralization as well as to identify any significant structures in the area that could host mineralization. In addition to prospecting, soil and/or talus-fines geochemical sampling would be a good tool to follow up on the strong stream sediment anomalies found in this area.

At the Sultana prospect the targets need to be redefined if an economic ore body is still to be found in the area. The emphasis needs to be in identifying higher grade areas, either extensive higher grade porphyry-style zones in different parts of the system or associated high grade vein-type deposits in areas of more developed hydrothermal alteration. A ground-based IP survey would be a useful tool in better defining the shape of the system. In addition, wider geochemical survey coverage is needed, initially using wider spacing and including talus fines and stream silt sampling where appropriate. The small 2014 program was a useful first step, which demonstrated the strength of the geochemical response in areas outside of those already explored.

6 Certificates of Qualifications

Doug Warkentin P.Eng

I, Douglas Warkentin, P.Eng., a professional engineer with a business address at 745 East 30th Ave., Vancouver, B.C., certify that:

I have been a Registered Member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia since 1992.

I am a graduate of the University of British Columbia, Vancouver, B.C. and hold a degree of Bachelor of Applied Science in Mining and Mineral Process Engineering.

I have practiced my profession as a Metallurgist and Mineral Process Engineer for 26 years.

I am currently employed as a Metallurgical Engineer by Kemetco Research Inc., Vancouver B.C., and have previously been employed as a Mineral Process Engineer by Vista Mines Inc., Coastech Research Inc., NTBC Research Corp., Biomet Mining Ltd., Blue Sky Mines Ltd., and Vizon Scitec Inc. I have also served as a Director of Duncastle Gold Corp., a TSX-Venture listed company.

Since 2001 I have also acted as an independent engineering consultant for a number of mining clients.

I am a qualified person for the purposes of National Instrument 43-101 in relation to metallurgical testing and evaluation programs.

Dated at Vancouver, B.C., this 24th day of November 2014.

Doug Warkentin, PEng.
Metallurgical Engineer

Timothy Johnson

I, Timothy Johnson, with business address at 2674 Pylades Drive, Ladysmith, British Columbia V9G 1E5, hereby certify that:

I have completed the BCIT/Chamber of Mines advanced prospecting course at Oliver BC 2005.

I have worked as a prospector, geologist assistant and general explorations for various companies from 1984 to 1992.

I have worked as a prospector, geologist assistant and general explorations from 2005 to present.

I have a 20% interest in the claims for which this report is written

I personally visited the property, took samples and supervised the work completed on the property as outlined in this report

Dated at Vancouver, British Columbia, this 18th day of November, 2014.

Signed "*Timothy Johnson*"

7 Statement of Costs

July 19 to 22		
Kyler Hardy – Trail Clearing/Pad Reclamation	4 days @ 550/day	2200.00
Tara Homes – Trail Clearing/Pad reclamation	4 days @ 450/day	1800.00
July 23 rd to July 26		
Mike Rowley - Prospector	4 days @ 550/day	2200.00
Tim Johnson – Prospector	4 days @ 550/day	2200.00
Nicole Busby – Assistant	2 Days @ 450/day	900.00
Sara Rowley – Assistant	2 Days @ 450/day	900.00
Kyler Hardy – Prospector/Sampler	4 days @ 550/day	2200.00
Tara Homes – Assistant/Sampler	4 days @ 450/day	1800.00
July 27		
Tim Johnson – Core Log	1 Day @ 550/Day	550.00
Mike Rowley – Assistant	1 Day @ 550/day	550.00
	Total labour	15,300.00
Travel		
Mike Rowley – Return air fare Smithers –Vancouver		590.36
Tim Johnson – 2302 km @ .45/km		1035.90
BC Ferries – Vancouver-Nanaimo and return		69.50
Hotel		170.00
	Total Travel	1865.76
Helicopter – July 25 th		1569.33
Quad rental 7 days @ 120		840.00
Truck Rental 10 days @ 85		850.00
Fuel (truck and quad)		150.00
Equipment rental (radios and chainsaw)		330.00
Camp 16 man days @ 120/day all found		1920.00
	Total Equipment and Camp	5659.33
Assays		808.63
Plotting		200.00
Report		1500.00
	Total Report	2508.63
	Total	25,333.72

8 Selected Bibliography

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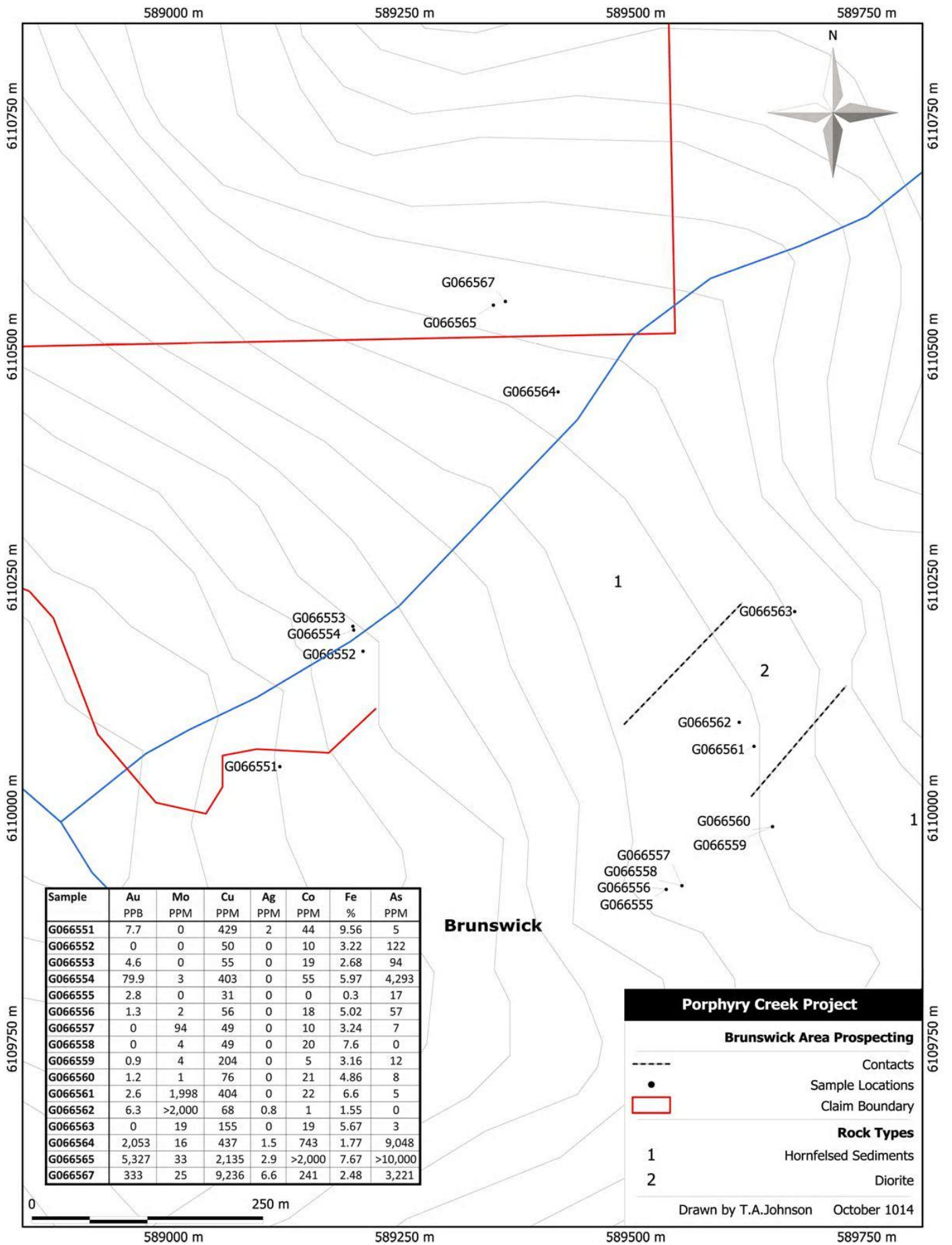
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Appendix 1 – Sample Location Maps



Sample	Au PPB	Mo PPM	Cu PPM	Ag PPM	Co PPM	Fe %	As PPM
G066551	7.7	0	429	2	44	9.56	5
G066552	0	0	50	0	10	3.22	122
G066553	4.6	0	55	0	19	2.68	94
G066554	79.9	3	403	0	55	5.97	4,293
G066555	2.8	0	31	0	0	0.3	17
G066556	1.3	2	56	0	18	5.02	57
G066557	0	94	49	0	10	3.24	7
G066558	0	4	49	0	20	7.6	0
G066559	0.9	4	204	0	5	3.16	12
G066560	1.2	1	76	0	21	4.86	8
G066561	2.6	1,998	404	0	22	6.6	5
G066562	6.3	>2,000	68	0.8	1	1.55	0
G066563	0	19	155	0	19	5.67	3
G066564	2,053	16	437	1.5	743	1.77	9,048
G066565	5,327	33	2,135	2.9	>2,000	7.67	>10,000
G066567	333	25	9,236	6.6	241	2.48	3,221

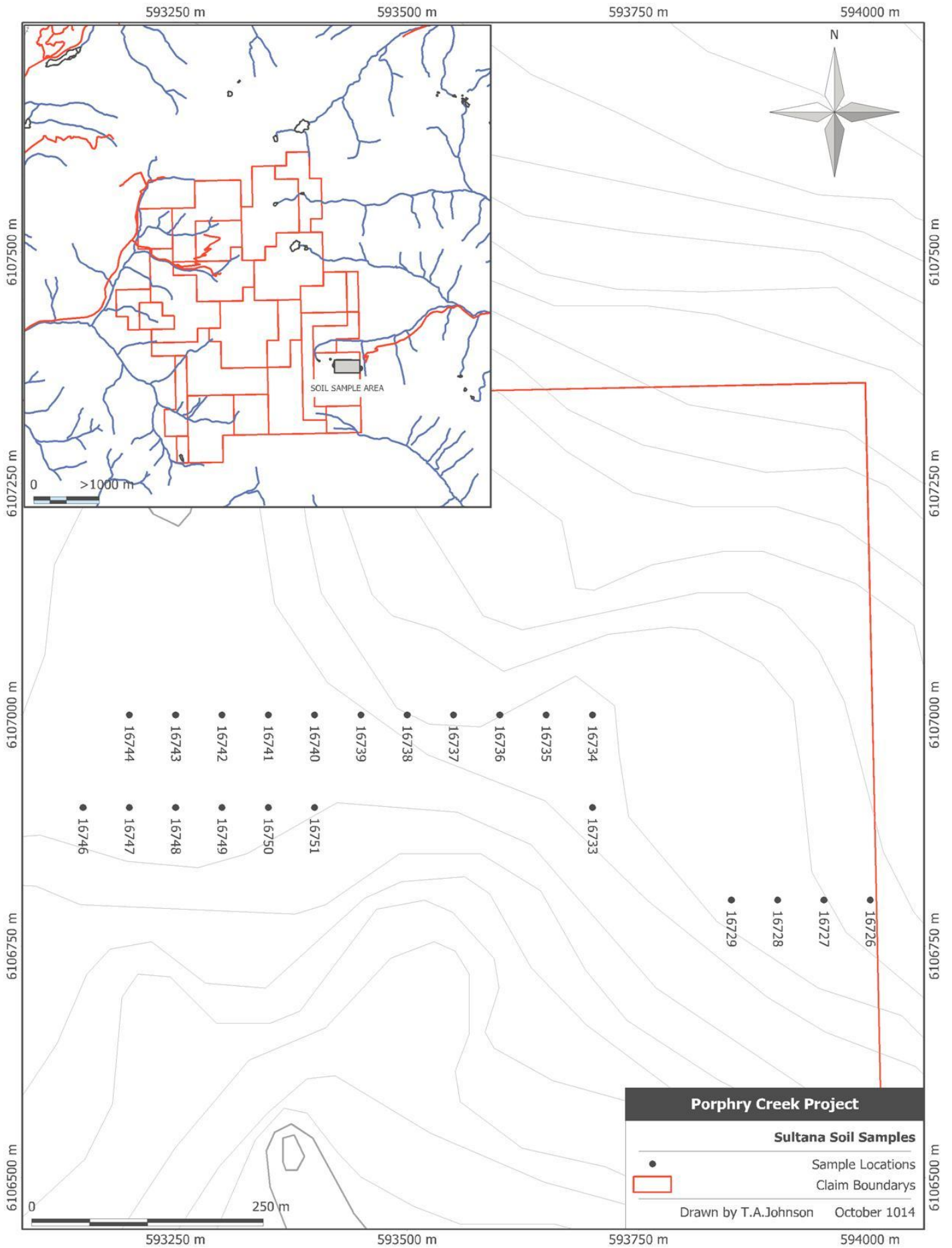
Porphry Creek Project

Brunswick Area Prospecting

--- Contacts
 • Sample Locations
 □ Claim Boundary

Rock Types
 1 Hornfelsed Sediments
 2 Diorite

Drawn by T.A.Johnson October 1014



593250 m

593500 m

593750 m

594000 m

6107500 m

6107500 m

6107250 m

6107250 m

6107000 m

6107000 m

6106750 m

6106750 m

6106500 m

6106500 m

593250 m

593500 m

593750 m

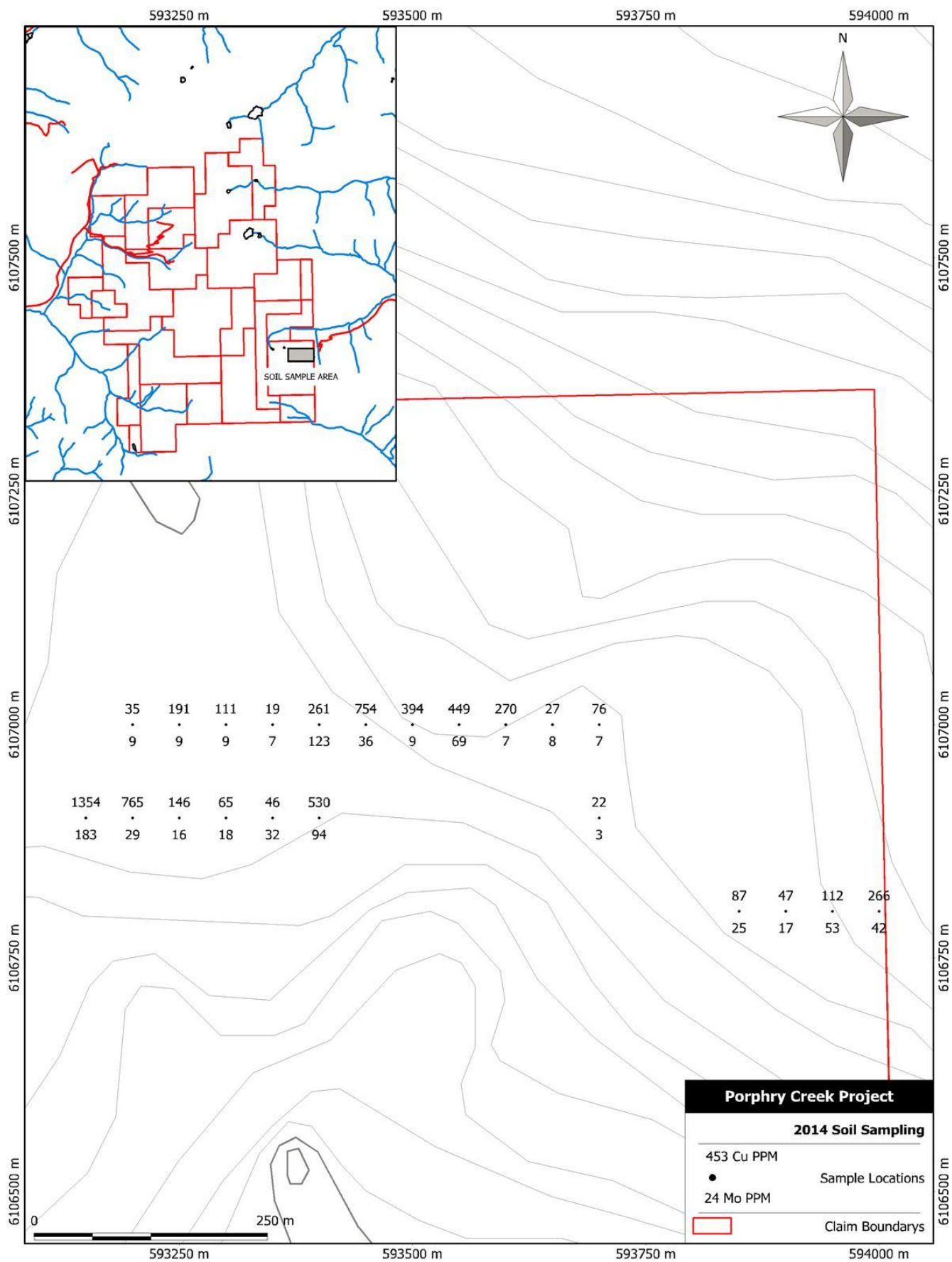
594000 m

SOIL SAMPLE AREA

0 >1000 m

0 250 m

N



35	191	111	19	261	754	394	449	270	27	76
•	•	•	•	•	•	•	•	•	•	•
9	9	9	7	123	36	9	69	7	8	7

1354	765	146	65	46	530				22	
•	•	•	•	•	•				•	
183	29	16	18	32	94				3	

87	47	112	266
•	•	•	•
25	17	53	42

Porphyry Creek Project

2014 Soil Sampling

- 453 Cu PPM
- Sample Locations
- 24 Mo PPM
- Claim Boundaries

Appendix 2 – Assay Reports



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

Client: **Ranex Exploration**
Box 4200
Smithers BC V0J 2N0 CANADA

Submitted By: Tim Johnson
Receiving Lab: Canada-Smithers
Received: August 01, 2014
Report Date: October 24, 2014
Page: 1 of 2

CERTIFICATE OF ANALYSIS

SMI14000416.1

CLIENT JOB INFORMATION

Project: PC
Shipment ID:
P.O. Number
Number of Samples: 16

SAMPLE DISPOSAL

PICKUP-PLP Client to Pickup Pulps
DISP-RJT Dispose of Reject After 90 days

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

Invoice To: **Ranex Exploration**
Box 4200
Smithers BC V0J 2N0
CANADA

CC: Mike Rowley

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	16	Crush, split and pulverize 250 g rock to 200 mesh			SMI
AQ115-IGN	16	Ignite samples, acid digest, Au by ICP-MS	15	Completed	VAN
AQ300	16	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN

ADDITIONAL COMMENTS





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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA

PHONE (604) 253-3158

Client: **Ranex Exploration**
Box 4200
Smithers BC V0J 2N0 CANADA

Project: PC
Report Date: October 24, 2014

Page: 2 of 2

Part: 1 of 2

CERTIFICATE OF ANALYSIS

SMI14000416.1

Method	Analyte	WGHT	AQ115	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	
		kg	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca	P	Unit	MDL
			ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
G066551	Rock	0.78	7.7	<1	429	20	272	2.0	30	44	292	9.56	5	<2	217	2.6	<3	<3	143	3.33	1.268		
G066552	Rock	1.13	0.7	<1	50	8	51	<0.3	15	10	336	3.22	122	<2	11	<0.5	<3	<3	60	0.09	0.021		
G066553	Rock	0.76	4.6	<1	55	10	29	<0.3	13	19	190	2.68	94	<2	22	<0.5	<3	<3	63	0.32	0.073		
G066554	Rock	0.52	79.9	3	403	13	46	<0.3	60	55	366	5.97	4293	<2	38	0.7	<3	<3	163	0.57	0.162		
G066555	Rock	0.70	2.8	<1	31	<3	3	<0.3	1	<1	34	0.30	17	<2	30	<0.5	<3	<3	<1	0.02	<0.001		
G066556	Rock	0.67	1.3	2	56	<3	51	<0.3	19	18	414	5.02	57	<2	77	0.6	<3	<3	170	1.08	0.215		
G066557	Rock	0.70	<0.5	94	49	5	26	<0.3	6	10	253	3.24	7	<2	25	<0.5	<3	<3	96	0.37	0.084		
G066558	Rock	0.81	<0.5	4	49	<3	63	<0.3	10	20	535	7.60	<2	<2	59	0.5	<3	<3	264	0.93	0.186		
G066559	Rock	0.57	0.9	4	204	<3	45	<0.3	2	5	117	3.16	12	3	9	<0.5	<3	<3	7	0.35	0.073		
G066560	Rock	0.98	1.2	1	76	5	135	<0.3	82	21	274	4.86	8	<2	9	<0.5	<3	<3	152	0.10	0.045		
G066561	Rock	1.25	2.6	1998	404	9	58	<0.3	15	22	531	6.60	5	3	39	<0.5	<3	<3	187	0.74	0.162		
G066562	Rock	0.68	6.3	>2000	68	7	13	0.8	<1	1	94	1.55	<2	<2	26	<0.5	4	<3	29	0.29	0.103		
G066563	Rock	0.31	<0.5	19	155	<3	48	<0.3	11	19	497	5.67	3	<2	59	<0.5	<3	<3	146	1.33	0.241		
G066564	Rock	0.55	2053.2	16	437	10	13	1.5	20	743	62	1.77	9048	6	10	<0.5	6	22	8	0.18	0.113		
G066565	Rock	1.09	5327.4	33	2135	25	139	2.9	118	>2000	723	7.67	>10000	2	14	1.1	19	56	18	0.55	0.234		
G066567	Rock	0.69	333.2	25	9236	8	174	6.6	10	241	141	2.48	3221	5	6	2.2	3	<3	7	0.18	0.086		



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 Smithers BC V0J 2N0 CANADA

Project: PC
 Report Date: October 24, 2014

Page: 2 of 2

Part: 2 of 2

CERTIFICATE OF ANALYSIS

SMI14000416.1

Method	Analyte	AQ300															
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	
Unit		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	
MDL		1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	
G066551	Rock	7	26	0.67	137	0.085	<20	4.55	0.31	0.26	<2	4.35	<1	<5	15	6	
G066552	Rock	7	19	0.79	170	0.031	<20	1.75	0.05	0.30	<2	0.09	<1	<5	7	7	
G066553	Rock	8	42	0.83	233	0.228	<20	1.34	0.10	1.01	<2	<0.05	<1	<5	6	<5	
G066554	Rock	7	130	2.22	639	0.545	<20	3.21	0.17	2.61	<2	0.27	<1	<5	15	10	
G066555	Rock	<1	10	<0.01	12	0.002	<20	0.03	0.01	0.02	<2	<0.05	<1	<5	<5	<5	
G066556	Rock	9	30	1.70	657	0.591	<20	3.55	0.29	2.35	<2	<0.05	<1	<5	15	6	
G066557	Rock	3	15	1.08	217	0.201	<20	1.86	0.10	0.90	<2	<0.05	<1	<5	8	8	
G066558	Rock	4	23	2.85	811	0.756	<20	4.81	0.27	3.59	<2	<0.05	<1	<5	15	23	
G066559	Rock	8	4	0.39	43	0.073	<20	0.85	0.07	0.13	<2	1.38	<1	<5	<5	<5	
G066560	Rock	4	106	1.46	119	0.083	<20	2.51	0.04	0.74	<2	1.56	<1	<5	10	13	
G066561	Rock	8	22	1.62	562	0.642	<20	3.11	0.19	2.25	<2	0.29	<1	<5	16	6	
G066562	Rock	5	4	0.27	132	0.116	<20	0.64	0.12	0.37	<2	1.05	<1	<5	<5	<5	
G066563	Rock	15	18	1.87	444	0.474	<20	2.80	0.20	1.55	<2	0.64	<1	<5	10	7	
G066564	Rock	527	14	0.05	8	0.004	<20	0.23	0.01	0.06	6	0.34	<1	<5	<5	<5	
G066565	Rock	193	9	0.40	17	0.003	<20	0.46	<0.01	0.13	8	1.76	<1	<5	<5	<5	
G066567	Rock	475	12	0.05	7	0.001	<20	0.19	0.01	0.05	<2	1.17	<1	<5	<5	<5	



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 Box 4200
 Smithers BC V0J 2N0 CANADA

Project: PC
 Report Date: October 24, 2014

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QUALITY CONTROL REPORT SMI14000416.1

Method	WGHT	AQ115	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	
Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.5	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01	0.001	
Pulp Duplicates																					
G066558	Rock	0.81	<0.5	4	49	<3	63	<0.3	10	20	535	7.60	<2	<2	59	0.5	<3	<3	264	0.93	0.186
REP G066558	QC			4	49	<3	64	<0.3	10	22	528	7.37	<2	<2	56	0.6	<3	<3	268	0.92	0.187
G066567	Rock	0.69	333.2	25	9236	8	174	6.6	10	241	141	2.48	3221	5	6	2.2	3	<3	7	0.18	0.086
REP G066567	QC		318.2																		
Core Reject Duplicates																					
G066556	Rock	0.67	1.3	2	56	<3	51	<0.3	19	18	414	5.02	57	<2	77	0.6	<3	<3	170	1.08	0.215
DUP G066556	QC		1.1	2	58	9	52	<0.3	19	17	426	5.18	54	<2	75	0.6	<3	<3	173	1.05	0.219
Reference Materials																					
STD DS10	Standard			14	158	147	360	2.1	77	12	882	2.70	47	6	67	2.6	8	10	44	1.07	0.076
STD OREAS45EA	Standard			2	713	17	34	<0.3	405	48	433	25.21	16	6	3	1.8	<3	<3	308	0.04	0.031
STD OREAS901	Standard		377.6																		
STD DS10 Expected				14.69	154.61	150.55	370	2.02	74.6	12.9	875	2.7188	43.7	7.5	67.1	2.49	8.23	11.65	43	1.0625	0.073
STD OREAS45EA Expected				1.39	709	14.3	28.9	0.26	381	52	400	23.51	9	10.7	3.5				303	0.036	0.029
STD OREAS901 Expected			363																		
BLK	Blank			<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01	<0.001
BLK	Blank		1.2																		
Prep Wash																					
G1-SMI	Prep Blank		<0.5	<1	4	3	45	<0.3	2	3	567	1.83	<2	5	52	<0.5	<3	<3	37	0.47	0.074
G1-SMI	Prep Blank		<0.5	<1	4	<3	44	<0.3	2	3	565	1.85	<2	5	51	<0.5	<3	<3	36	0.47	0.076



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Box 4200
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Project: PC
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QUALITY CONTROL REPORT

SMI14000416.1

Method	Analyte	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
Unit		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
MDL		1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
Pulp Duplicates																
G066558	Rock	4	23	2.85	811	0.756	<20	4.81	0.27	3.59	<2	<0.05	<1	<5	15	23
REP G066558	QC	4	23	2.82	800	0.742	<20	4.73	0.26	3.55	<2	<0.05	<1	<5	18	22
G066567	Rock	475	12	0.05	7	0.001	<20	0.19	0.01	0.05	<2	1.17	<1	<5	<5	<5
REP G066567	QC															
Core Reject Duplicates																
G066556	Rock	9	30	1.70	657	0.591	<20	3.55	0.29	2.35	<2	<0.05	<1	<5	15	6
DUP G066556	QC	8	31	1.74	689	0.613	<20	3.55	0.28	2.39	<2	<0.05	<1	<5	15	6
Reference Materials																
STD DS10	Standard	17	56	0.77	426	0.075	<20	1.04	0.07	0.33	3	0.29	<1	<5	5	<5
STD OREAS45EA	Standard	8	926	0.10	149	0.100	<20	3.36	0.03	0.06	<2	<0.05	<1	<5	16	85
STD OREAS901	Standard															
STD DS10 Expected		17.5	54.6	0.775	359	0.0817		1.0259	0.067	0.338	3.32	0.29	0.3	5.1	4.3	2.8
STD OREAS45EA Expected		6.57	849	0.095	148	0.0875		3.13	0.02	0.053		0.036			11.7	78
STD OREAS901 Expected																
BLK	Blank	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank															
Prep Wash																
G1-SMI	Prep Blank	12	7	0.49	159	0.124	<20	0.91	0.09	0.49	<2	<0.05	<1	<5	6	<5
G1-SMI	Prep Blank	12	7	0.48	153	0.122	<20	0.90	0.08	0.47	<2	<0.05	<1	<5	<5	<5



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Client: **Ranex Exploration**
Box 4200
Smithers BC V0J 2N0 CANADA

Submitted By: Tim Johnson
Receiving Lab: Canada-Smithers
Received: September 29, 2014
Report Date: October 24, 2014
Page: 1 of 2

CERTIFICATE OF ANALYSIS

SMI14000719.1

CLIENT JOB INFORMATION

Project: PC
Shipment ID:
P.O. Number
Number of Samples: 26

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	26	Dry at 60C			SMI
SS80	26	Dry at 60C sieve 100g to -80 mesh			SMI
AQ300	26	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN

SAMPLE DISPOSAL

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

ADDITIONAL COMMENTS

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

Invoice To: **Ranex Exploration**
Box 4200
Smithers BC V0J 2N0
CANADA

CC: Mike Rowley



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



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Project: PC
 Report Date: October 24, 2014

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CERTIFICATE OF ANALYSIS

SMI14000719.1

Method	Analyte	AQ300																			
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm
MDL		1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01	0.001	1	1
16726	Soil	42	266	29	117	1.0	9	10	652	2.95	50	<2	82	1.2	9	<3	47	0.72	0.113	13	16
16727	Soil	53	112	27	119	0.6	8	12	875	3.87	56	<2	39	0.8	7	4	57	0.38	0.132	15	15
16728	Soil	17	47	22	59	<0.3	14	10	732	4.98	10	<2	28	<0.5	<3	<3	83	0.27	0.063	9	26
16729	Soil	25	87	35	43	1.2	9	5	263	3.79	12	<2	25	<0.5	<3	<3	52	0.23	0.077	10	19
16730	Soil	9	156	14	67	<0.3	8	13	991	3.24	14	<2	11	<0.5	4	<3	51	0.18	0.119	11	13
16731	Soil	12	33	19	23	0.6	6	3	75	1.67	9	<2	10	<0.5	<3	<3	49	0.05	0.090	6	15
16732	Soil	2	6	7	8	<0.3	1	1	55	0.90	<2	<2	5	<0.5	<3	<3	33	0.03	0.026	2	8
16733	Soil	3	22	9	6	<0.3	1	<1	26	0.54	3	<2	6	<0.5	<3	<3	23	0.03	0.032	3	6
16734	Soil	7	76	29	33	0.7	11	5	261	2.73	13	<2	10	<0.5	<3	<3	68	0.05	0.067	7	22
16735	Soil	8	27	15	41	0.5	9	5	365	4.70	12	<2	7	<0.5	<3	<3	70	0.03	0.114	8	17
16736	Soil	7	270	19	93	<0.3	13	14	659	3.69	17	<2	15	<0.5	3	<3	69	0.13	0.155	11	20
16737	Soil	69	449	31	116	<0.3	9	13	691	4.76	58	<2	88	<0.5	10	3	68	0.57	0.123	10	22
16738	Soil	9	394	24	60	<0.3	11	16	475	4.24	31	4	10	<0.5	6	4	74	0.23	0.132	13	26
16739	Soil	36	754	201	229	2.5	13	26	909	4.27	111	7	13	0.7	45	3	56	0.25	0.151	15	18
16740	Soil	123	261	31	103	1.1	7	14	564	5.60	41	<2	76	1.1	10	<3	85	0.70	0.168	13	20
16741	Soil	7	19	6	6	<0.3	2	3	20	1.28	<2	<2	5	<0.5	<3	<3	46	0.02	0.019	5	12
16742	Soil	9	111	56	46	0.8	7	4	287	3.05	20	<2	9	<0.5	4	<3	49	0.04	0.067	8	16
16743	Soil	9	191	74	105	<0.3	6	9	185	2.57	49	<2	11	<0.5	13	<3	45	0.16	0.111	13	13
16744	Soil	9	35	10	35	<0.3	6	4	310	2.07	10	<2	7	<0.5	<3	<3	41	0.04	0.070	6	13
16745	Soil	10	95	17	32	<0.3	8	5	154	2.41	9	<2	7	<0.5	<3	<3	50	0.06	0.069	7	20
16746	Soil	183	1354	1218	130	>100	5	5	150	9.61	4024	6	27	2.7	>2000	543	27	0.08	0.103	8	7
16747	Soil	29	765	145	143	8.5	10	25	581	4.48	172	<2	12	0.6	122	4	47	0.13	0.107	14	14
16748	Soil	16	146	58	58	2.7	6	6	212	2.99	57	<2	7	<0.5	43	<3	52	0.07	0.075	11	12
16749	Soil	18	65	21	51	0.5	7	7	314	3.24	14	<2	5	<0.5	5	<3	69	0.14	0.118	14	19
16750	Soil	32	46	15	27	<0.3	5	4	177	2.15	12	<2	16	<0.5	<3	<3	55	0.13	0.043	7	15
16751	Soil	94	530	25	70	<0.3	14	13	475	3.45	47	<2	30	<0.5	10	<3	49	0.24	0.088	10	20



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Project: PC
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CERTIFICATE OF ANALYSIS

SMI14000719.1

Method	Analyte	AQ300													
		Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	
Unit		%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	
MDL		0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	
16726	Soil	0.40	320	0.025	<20	1.70	<0.01	0.10	3	0.09	<1	<5	5	<5	
16727	Soil	0.36	341	0.023	<20	1.96	<0.01	0.10	<2	0.06	<1	<5	6	<5	
16728	Soil	0.71	186	0.154	<20	2.56	0.01	0.18	<2	<0.05	<1	<5	13	<5	
16729	Soil	0.36	80	0.061	<20	3.37	0.01	0.09	<2	0.07	<1	<5	11	<5	
16730	Soil	0.35	152	0.023	<20	1.80	<0.01	0.08	<2	<0.05	<1	<5	<5	<5	
16731	Soil	0.16	37	0.043	<20	1.61	<0.01	0.06	<2	0.05	<1	<5	12	<5	
16732	Soil	0.07	17	0.040	<20	0.43	<0.01	0.02	<2	<0.05	<1	<5	5	<5	
16733	Soil	0.06	21	0.050	<20	0.66	<0.01	0.02	<2	<0.05	<1	<5	6	<5	
16734	Soil	0.36	48	0.093	<20	1.94	<0.01	0.07	<2	0.05	<1	<5	10	<5	
16735	Soil	0.18	57	0.015	<20	1.90	<0.01	0.07	<2	<0.05	<1	<5	10	<5	
16736	Soil	0.65	75	0.025	<20	2.61	<0.01	0.08	<2	<0.05	<1	<5	8	<5	
16737	Soil	0.65	151	0.033	<20	1.88	<0.01	0.08	4	0.07	<1	<5	8	<5	
16738	Soil	0.73	69	0.069	<20	2.75	<0.01	0.10	4	<0.05	<1	<5	7	<5	
16739	Soil	0.58	116	0.040	<20	1.80	<0.01	0.11	4	<0.05	<1	<5	<5	<5	
16740	Soil	0.37	160	0.032	<20	2.76	<0.01	0.05	2	0.13	<1	<5	15	<5	
16741	Soil	0.05	25	0.023	<20	0.42	<0.01	0.03	<2	<0.05	<1	<5	6	<5	
16742	Soil	0.22	43	0.023	<20	2.77	<0.01	0.04	<2	0.07	<1	<5	11	<5	
16743	Soil	0.33	59	0.015	<20	2.17	<0.01	0.05	5	<0.05	<1	<5	7	<5	
16744	Soil	0.16	43	0.032	<20	1.19	<0.01	0.06	<2	0.06	<1	<5	8	<5	
16745	Soil	0.34	41	0.043	<20	1.98	<0.01	0.06	6	0.05	<1	<5	9	<5	
16746	Soil	0.25	514	0.019	<20	0.57	0.02	0.25	<2	0.57	35	<5	<5	<5	
16747	Soil	0.41	84	0.022	<20	2.15	<0.01	0.10	5	<0.05	<1	<5	6	<5	
16748	Soil	0.21	60	0.017	<20	1.47	<0.01	0.05	<2	<0.05	<1	<5	10	<5	
16749	Soil	0.35	58	0.024	<20	2.01	<0.01	0.08	3	0.06	<1	<5	8	<5	
16750	Soil	0.20	66	0.057	<20	1.06	<0.01	0.08	<2	<0.05	<1	<5	9	<5	
16751	Soil	0.57	118	0.026	<20	2.06	<0.01	0.07	3	0.06	<1	<5	9	<5	



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Project: PC
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QUALITY CONTROL REPORT

SMI14000719.1

Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr		
Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm		
MDL	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01	0.001	1	1		
Pulp Duplicates																						
16747	Soil	29	765	145	143	8.5	10	25	581	4.48	172	<2	12	0.6	122	4	47	0.13	0.107	14	14	
REP 16747	QC	30	768	150	148	9.0	10	26	588	4.47	174	<2	13	0.5	119	4	48	0.13	0.110	14	14	
Reference Materials																						
STD DS10	Standard	13	159	158	391	2.1	78	13	913	2.95	49	7	68	2.5	8	12	45	1.09	0.078	16	55	
STD OREAS45EA	Standard	2	691	18	32	<0.3	383	47	416	24.48	12	6	4	<0.5	<3	<3	299	0.03	0.029	8	875	
STD DS10 Expected		14.69	154.61	150.55	370	2.02	74.6	12.9	875	2.7188	43.7	7.5	67.1	2.49	8.23	11.65	43	1.0625	0.073	17.5	54.6	
STD OREAS45EA Expected		1.39	709	14.3	28.9	0.26	381	52	400	23.51	9	10.7	3.5				303	0.036	0.029	6.57	849	
BLK	Blank	<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01	<0.001	<1	<1	



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QUALITY CONTROL REPORT

SMI14000719.1

Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
Analyte	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	
Unit	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	
MDL	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	
Pulp Duplicates														
16747	Soil	0.41	84	0.022	<20	2.15	<0.01	0.10	5	<0.05	<1	<5	6	<5
REP 16747	QC	0.42	87	0.021	<20	2.22	<0.01	0.10	4	<0.05	<1	<5	6	<5
Reference Materials														
STD DS10	Standard	0.80	437	0.072	<20	1.02	0.07	0.34	3	0.30	<1	<5	<5	<5
STD OREAS45EA	Standard	0.09	147	0.091	<20	3.01	0.02	0.05	<2	<0.05	<1	<5	8	81
STD DS10 Expected		0.775	359	0.0817		1.0259	0.067	0.338	3.32	0.29	0.3	5.1	4.3	2.8
STD OREAS45EA Expected		0.095	148	0.0875		3.13	0.02	0.053		0.036			11.7	78
BLK	Blank	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5