2010 Surface Exploration and Diamond Drilling Assessment Report

on the

BC Geological Survey Assessment Report 32516a

Porphyry Creek Property

Omineca Mining Division, British Columbia

NTS Map Sheets 93M/03 and 93M/04 Project Centre: UTM NAD 83, Zone 9, 589000 West, 6108000 North

Prepared for

DUNCASTLE GOLD CORP.

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Submitted: November 18, 2011

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Summary

In the summer/fall of 2010, an exploration program was conducted on the Porphyry Creek Property by Ranex Exploration Inc. on behalf of Duncastle Gold Corp. Several sites were visited and some rock samples were taken to follow up on previously identified geophysical anomalies. A soil grid was also conducted in the Sultana area followed by a three hole, 1330.5m drill program.

It was confirmed that the magnetic and EM geophysical anomaly at Sultana corresponded with Cu-Mo mineralization occurring as chalcopyrite and molybdenite bearing veins on surface with rare disseminate chalcopyrite and molybdenite within the Rocher Deboule Stock.

Drilling then confirmed this mineralization to depth. Molybdenum mineralization was sporadic, while still reaching values up to 0.3% over six metres. Copper mineralization, however, was more encouraging, with the entire 1330.5 metres of drill core averaging approximately 0.04%. Hole PC10-01 bottomed in 30m of 0.2% copper as it drilled out of the magnetic high. This is very encouraging and supports the interpretation that the drilling encountered the "barren" core of a porphyry Cu-Mo system.

Exploration in the other areas of the property was less productive. Anomalous pathfinder elements were found in the Big Thing area but more work needs to be done to zero in on potential drill targets. The entire area at the southern end of the Rocher Deboule Stock has seen minimal exploration and presents an attractive exploration target. There are also attractive exploration targets on the western side of the property, based on the 2010 geophysical survey and stream sediment and rock samples collected in a 2008 program that are highly anomalous in Cu, Au, Ag, Mo and other base metals, but have not yet been followed up on. Aggressive prospecting and Phase II exploration is recommended for these areas in 2011.

In conclusion, rock and soil sampling and drilling in the Sultana Area have potentially identified a porphyry Cu-Mo system that should be followed up with an aggressive exploration and definition drill program in 2011. Also, additional surface work needs to be done on the other parts of the property as several geochemical and geophysical anomalies remain untested and need to be explained.

1 Introduction

This report outlines the exploration program that has been conducted on the eastern part of the Porphyry Creek Property in the Hazelton Mountains, British Columbia, Canada, during Summer/Fall 2010 by Ranex Exploration Inc., Smithers, British Columbia on behalf of Duncastle Gold Corp.

The program consisted of site visits and outcrop sampling in areas identified through data compilation, analysis of historical data, and targets areas identified in an Airborne Dighem geophysical survey conducted over the property by Duncastle earlier in 2010 (Campbell, 2010). Follow-up work including detailed mapping and soil sampling in the Sultana area provided encouraging results and led to a small drill program of three holes totaling 1330.5m.

Site work was carried out over two separate periods. The first was between the dates of August 9th 2010 and August 18th 2010, at which time the soil and rock samples were taken and the second was between the dates of September 28th and October 14th, 2010, at which time the three drill holes were drilled.

1.1 Location and Access

The property lies within NTS map sheets 93M/03 and 93M/04 with its geographic center at approximately Longitude 127°35'04" West, Latitude 55°06'37" 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 2010 exploration program.



Figure 1 - Porphyry Creek Location Map

The Porphyry Creek project is a mineral property located along the rugged Rocher Deboule 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 Claims

| | Table 1 - Summary of Mineral Claims | | | | | | | | |
|----|-------------------------------------|---------------|------------|-------|--|--|--|--|--|
| | Tenure No. | Claim Name | Expiry | Area | | | | | |
| 1 | 532096 | BRUNSWICK | 2014-07-30 | 314.5 | | | | | |
| 2 | 532103 | ARMAGOSA | 2014-07-30 | 166.4 | | | | | |
| 3 | 532105 | SLATER | 2014-07-30 | 92.5 | | | | | |
| 4 | 535639 | OHIO EAST | 2014-07-30 | 369.7 | | | | | |
| 5 | 542244 | PORPHYRY | 2014-07-30 | 462.2 | | | | | |
| 6 | 542246 | TINA | 2014-07-30 | 462.4 | | | | | |
| 7 | 542247 | RIDGE | 2014-07-30 | 462.5 | | | | | |
| 8 | 542254 | JUPITER | 2014-07-30 | 462.7 | | | | | |
| 9 | 547139 | TILTUSHA | 2014-07-30 | 185.1 | | | | | |
| 10 | 549610 | PORPHYRY WEST | 2014-07-30 | 258.8 | | | | | |
| 11 | 556426 | BRIAN BORU | 2014-07-30 | 333.3 | | | | | |
| 12 | 567326 | SLATE CREEK | 2014-07-30 | 444.3 | | | | | |
| 13 | 567334 | BORU EAST | 2014-07-30 | 463.0 | | | | | |
| 14 | 574185 | KILLARNEY | 2014-07-30 | 259.3 | | | | | |
| 15 | 577335 | PORPHYRY EAST | 2014-07-30 | 425.4 | | | | | |
| 16 | 577338 | BORU GLACIER | 2014-07-30 | 462.8 | | | | | |
| 17 | 577340 | SLATER | 2014-07-30 | 462.8 | | | | | |
| 18 | 577343 | SOUTH CAP | 2014-07-30 | 203.8 | | | | | |
| 19 | 577348 | RIDGE | 2014-07-30 | 462.7 | | | | | |
| 20 | 577353 | SOUTH RIDGE | 2014-07-30 | 203.7 | | | | | |
| 21 | 581191 | SW1 | 2014-07-30 | 111.1 | | | | | |
| 22 | 606970 | RED ROSE | 2014-07-30 | 203.4 | | | | | |
| 23 | 622463 | SULTANA | 2014-07-30 | 370.2 | | | | | |
| 24 | 622466 | SULTANA NORTH | 2014-07-30 | 166.5 | | | | | |
| 25 | 622503 | MT | 2014-07-30 | 277.7 | | | | | |
| 26 | 659243 | SE FRINGE | 2014-07-30 | 222.1 | | | | | |
| 27 | 705527 | MT SW | 2014-07-30 | 333.3 | | | | | |
| 28 | 705528 | MT SE | 2014-07-30 | 314.8 | | | | | |
| 29 | 705529 | SULTANA SE | 2014-07-30 | 111.1 | | | | | |

| | | | Total | 13.560 |
|----|--------|--------------------|------------|--------|
| 42 | 849104 | MT1 | 2014-07-30 | 463.1 |
| 41 | 833729 | NE 4 | 2014-07-30 | 221.6 |
| 40 | 833728 | NE 3 | 2014-07-30 | 332.4 |
| 39 | 833727 | NE 2 | 2014-07-30 | 332.5 |
| 38 | 833726 | NE 1 | 2014-07-30 | 332.7 |
| 37 | 831318 | PORPHYRY EAST | 2014-07-30 | 295.9 |
| 36 | 785962 | PORPHYRY CREEK TIE | 2014-07-30 | 184.9 |
| 35 | 785942 | CHINA PORPHYRY 3 | 2014-07-30 | 443.6 |
| 34 | 785922 | CHINA PORPHYRY 2 | 2014-07-30 | 443.5 |
| 33 | 785902 | CHINA PORPHYRY N | 2014-07-30 | 443.4 |
| 32 | 785882 | CHINA CREEK 1 | 2014-07-30 | 443.3 |
| 31 | 764942 | CENTER WEST 2 | 2014-07-30 | 111.0 |
| 30 | 764883 | CENTER WEST | 2014-07-30 | 444.1 |

The Porphyry Creek project includes 42 claims (13,560 hectares) and is located within the Omineca Mining Division of northwest British Columbia. These claims are tabulated in Table 1 and graphically outlined in Figure 2.



Figure 2 - Project Tenure Outline

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 2 - Summary of BC Minfile Occurrences on the Property | | | | | | | |
|-----------------|-------------------------------------------------------------|------------------------|----------|---------------------------------------------------------|--|--|--|--|
| | Production | | | | | | | |
| Occurrence | Status | Commodities | (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 Produ | cer Ag, Zn, Pb, Au, Cu | ? | 3802g/t Ag, 1g/t Au, 1.9% Cu, 17.3% Pb, 28.4% Zn (1954) | | | | |
| Lone Star | Showing | Fe | | | | | | |
| Jones | Showing | Cu, Zn | | | | | | |
| Jupiter | Showing | Cu, Mo | | | | | | |
| Killarney | Showing | Ag, Zn, Pb, Sn | | 19.9g/t Ag, 0.19% Pb, 0.11% Sn, 1.04% Zn (1984) | | | | |
| МТ | Showing | Cu, Mo | | | | | | |
| Porphyry Crk N. | Showing | Мо | | | | | | |
| Sultana | Prospect | Cu, Mo, Ag, Au | | 112oz/t Ag, 16% Cu, 0.06oz/t Au (1922) | | | | |
| Tina | Showing | Мо | | | | | | |

BC's Minfile database lists 14 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 past producer, but had only minor production from two adits, 20 and 52 meters long, as well as several open cuts. 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 the 2010 exploration and drilling program. 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 Deboule 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 Deboule stock), which forms a massive, prominently jointed body of porphyritic (biotite and K-Spar phenocrysts) diorite. Alpite, 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).



Figure 4 - Regional Geology (after Sutherland Brown, 1960, and MacIntyre, 2006)

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, crosses the western part of the main project area. Finally, the Pangea fault is another fault with a large displacement that runs N-S along the eastern boundary of the property (Sutherland Brown, 1960).

A 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. The 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 Jones-Killarney-Brian Boru showings) lie within 1,000 meters of the contact of the Rocher Deboule intrusive stock with the surrounding country rock (Sutherland Brown, 1960). Significant historical production from the neighbouring Rocher Deboule and Red Rose mines was principally for copper and tungsten, but small qualities of gold, silver, cobalt, molybdenum, lead and zinc have also been recovered from these and other smaller deposits (Kindle, 1954). In 2010, the Rocher Deboule 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 Deboule 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, as 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, where most of the 2010 work was done, 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 Deboule 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 Model

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

Initial work on the property by the vendors (detailed in Warkentin, 2006) suggests a potential IOCG target in the volcano-sedimentary stratigraphy on the western side of the property based primarily on government RGS data and reconnaissance sampling of several occurrences.

Subsequent 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 Deboule 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 shows excellent potential for economic sulphides. Figure 5 and 6 also show the three 2010 drillholes (in black), which will be discussed later.

An excellent review of the relationships between the geological model and exploration techniques for porphyry $Cu \pm Au$ deposits is provided by Holliday and Cooke in their 2007 paper: "... Copper \pm gold \pm molybdenum porphyry deposits are large tonnage, low-grade hypogene resources. The deposit class is unified by a close spatial, temporal and genetic association between subvolcanic porphyritic intrusive complexes (the 'porphyry') and hypogene mineralization and hydrothermal alteration mineral assemblages that occur in and around them."



Figure 5 - Magnetic Intensity Map for the Sultana Area



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

The host rock in the Sultana area is predominantly hornblende-granodiorite of the Rocher Deboule 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.

2.3.2 IOCG 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 give a strong indication of pervasive polymetallic mineralization in this part of the property, with the overall geochemical signature being suggestive of IOCG as the possible source. Geologically the area does not contain older continental rocks usually associated with the conventional IOCG model, but there are also examples of IOCG-type deposits occurring in younger Cordilleran rocks in South America, and this is one possible model being considered 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 IOCG 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. 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 Duncastle's acquisition and consolidation of the area. Figure 7 provides a brief summary of the exploration history for three of the significant areas on the property.

Duncastle Gold acquired the property in 2008. Previous work on the property by the vendors (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 vendors in the western portion of the property by direct staking in 2009, additional historical data compilation was conducted in the winter of 2010 which identified several potential targets on the newer claims to the east. 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
- Dropped again and restaked by G.Parent and associates of Hazelton, BC. 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 multiple Oz Ag outcrops in the trenches
- Property relocated in 1956 by J.W. Bryand and Bert Spisak for Canusa Mining Corp and renamed Snowshoe 1 to 8. They drilled several short holes
- Split into Silver Tip claims located in 1966 and 1967 by C.E.Carlson and Victor Bartell and the "S" Claims in 1970 by T.D.Wilkinson for Sultana Silver Mines Ltd. Sultana Silver drilled 5 short holes in 1968 and three deeper holes in 1969. (Of note, this group of claims included the present day M.T. minfile occurrence)
- Detailed I.P., Geological and Geochemical survey conducted by Sultana Silver Mines in 1970
- Acquired in 2009 by Duncastle Gold Corp and 3 holes drilled for a total of 1330 metres in 2010.

Brian Boru and Killarney Prospects

- Brian Boru first discovered in 1914-15 as a series of irregular sphalerite-pyrite veins containing variable amounts of lead, zinc, arsenic and gold.
- Killarney discovered in 1926 and several open pits and one adit dug
- 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.
- Acquired in 2008 by Duncastle Gold Corp. as part of the Porphyry Creek Property

Brunswick Prospect

- Originally located in 1912 by J.Miller and sporadic work, (locating veins and driving small adits etc.) was done until 1950
- Dropped in 1950 and acquired by Skeena Silver Mines Ltd., who rehabilitated the old workings, drilled 4 holes and carried out additional prospecting.
- Staked again in the early 1960's by J.T.Williamson who conducted further geological mapping and sampling.
- Lower drift was advanced to 98 metres by Arcadia Exploration in 1972-3 under option.
- Staked again in 1984 to cover the whole area by R.Holland

Figure 7: Summary of Historical Exploration for the Sultana, Brian Boru, Killarney and Brunswick Areas of the Porphyry Creek Project

3.2 2010 Airborne Geophysical Targets

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 8 - Priority Geophysical Anomalies With Apparent Resistivity at 7200hz in the Background

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 Geological and Structural Mapping and Reconnaissance

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

3.3.1 Sultana

Detailed geological and structural mapping and soil sampling was conducted at the Sultana prospect as part of the 2010 exploration program. The study area is underlain by light grey, fine to medium grained hornblende-granodiorite cut by andesite and quartz porphyry dikes. The dykes are oriented along a northwest-southeast trend which is parallel to a dominant fracture system which cross-cuts the prospect and hosts quartz-stockworks with elevated base and precious metal values. Other major occurrences on the property are localized within this same trend including the Red Rose tungsten mine located on the west side of property. The Sultana showing appears as a quartz vein stockwork oriented roughly parallel to the northwest directed fracture system. A second conjugate fracture system trending northeast-southwest has also been mapped on the showing and appears to carry mineralization (Westphal, 2010a).

Hydrothermal argillic and sericitic alteration are localized within the Sultana showing. Chalcopyrite, pyrite, tennanite/tetrahedrite, and molybdenite are found on fracture surfaces in outcrop and reported in the historic drill hole logs from this area. Figure 10 presents a series of equal angle plots containing the orientation of the mapped structures in the area (Westphal, 2010c).

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. Four samples were also taken from piles of old drill core, which confirmed the presence of anomalous copper mineralization in the unsampled parts of the historic drill core. For additional elements and detailed sample location maps, refer to the appendices at the back of this report.

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 from August 11 to 13, 2010. In total 480 samples were taken. 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. About half of the samples were taken in the lower plateau north of the Sultana showing with the remainder collected on the upper plateau northeast of the showing. The program covered a total area of about 250 x 400 meters (Westphal, 2010c).

| | | | | | | | 0 | | | |
|---------|--------|---------|--------|--------|-------|---------|--------|-------|-------|-------|
| | Мо | Cu | Pb | Zn | Ag | As | Au | Sb | Bi | W |
| | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppb) | (ppm) | (ppm) | (ppm) |
| Mean | 22.86 | 168.30 | 26.66 | 30.82 | 1.02 | 22.01 | 8.38 | 12.53 | 1.04 | 3.14 |
| Median | 9.20 | 67.95 | 12.70 | 20.00 | 0.50 | 9.95 | 5.40 | 2.50 | 0.70 | 1.70 |
| Mode | 4.50 | 12.90 | 13.90 | 10.00 | 0.30 | 8.50 | 3.40 | 1.20 | 0.50 | 0.90 |
| Minimum | 0.50 | 3.50 | 1.60 | 3.00 | 0.05 | 0.25 | 0.25 | 0.05 | 0.05 | 0.05 |
| Maximum | 834.20 | 3363.20 | 883.20 | 337.00 | 93.70 | 1160.30 | 351.90 | >2000 | 58.20 | >100 |

Table 3 - Geochemical Statistics from the Soil Sampling for Select Elements

The results of the soil sampling were extremely encouraging. Table 3 shows the statistics for select element assays from the 2010 soil sampling. The values highlighted in bold are of particular interest. The mean and maximum value for both Cu and Mo are unusually high. Normally the average Cu level would be around the level that Pb and Zn are at in the table above, so it is around six times above commonly seen concentrations. The levels of Mo are also around six times or more above normal. The maximum value of 834.2ppm is extremely high for a soil sample and suggests high-grade Mo mineralization close to the surface. Rock samples taken in the area confirmed this, as values up to 1.08% Mo were recorded (see appendix C for a complete list of rock samples). Because of the excellent soil results, a three-hole drill program was conducted, the results of which are discussed in Section 4.

Figure 9 shows the location of all of the soil samples with respect to the old workings and demonstrates the closely spaced nature of the soil sampling. Maps with sample numbers and copper and molybdenum assays are included in Appendix B.



Figure 9 - Map Showing 2010 Soil Sample Locations and Historic Workings

3.3.2 Tina West

An initial reconnaissance and prospecting program was carried out at Tina West, which lies on the ridge that runs N-S up the centre of the property (see Figure 8 for location). Five representative samples were taken from the talus. Four of the five samples were taken from a tuff varying in colour from light to dark grey containing disseminated pyrite. One of these samples also contained feldspar and hornblende laths. The fifth sample was of a dark dyke with pyrite bearing quartz veins (Westphal, 2010c). None of the samples contained anomalous values, thus follow up is considered a low priority.

3.3.3 Big Thing

The Big Thing area of interest lies close to the margin of the Rocher Deboule Stock to the SW of Sultana (Figure 8). Three samples were taken from this prospect. The lithologies are almost identical to those described at Tina west, although chalcopyrite bearing veinlets are described in sample MWPC10-02B (Westphal, 2010c). Sample MWPC10-02A was anomalous in Au, Ag and As but the values are well below economic levels. This is also a fairly low priority for follow-up prospecting and sampling.

3.3.4 MT

The MT area of interest lies to the south of Sultana and is a large EM anomaly along the southern fringe of the Rocher Deboule Stock. The site was visited in a day and two samples were taken from a gossanous outcrop on a cliff face on the south side of the north fork of Corya Creek. Sample MWPC10-03A was an aplitic intrusive with disseminate pyrite and sample MWPC10-03B was a grey tuff with disseminate pyrite (Westphal, 2010c). Neither of these two samples contained any anomalous base or precious metals or pathfinder elements. Nevertheless, this area requires further follow up work because AR01134 shows the MT showing as being on the south fork of Corya Creek, around 1km to the south of the area that was visited, which has since been staked by Duncastle Gold Corporation. The source of the anomalously high and widespread EM anomaly in the area also requires further investigation. There is potential that the Rocher Deboule Stock extends further south than the government mapping suggests.



Figure 10 - Structural Data from Sultana. Top: Fault Zone in the Showing. Middle: Qtz-Cpy-Mo Veins in the Showing. Bottom: Qtz-Cpy+/-Au Veins from the Upper Plateau. Data is in phi and rho (after Westphal, 2010c)

3.3.5 Porphyry East A and B

This area lies close to the eastern boundary of the claims and contains the eastern margin of the Rocher Deboule Stock as mapped by the BC government. The topography is steep in this area, so detailed mapping was challenging. It was divided into two areas – Porphyry East A and Porphyry East B - which were two gossanous areas on either side of a saddle at the top of a ridge that trends E-W. Twelve samples were taken in total from Porphyry Creek East - three from the Porphyry East B (MWPC10-04 A-C), four from the saddle between Porphyry East A and B (MWPC10-04 D-G), two from the hump in Porphyry East A (MWPC10-05 and -06), and three from the talus of Porphyry East A (Westphal, 2010c).

Samples ranged in lithology from purple and gray tuffs with pyrite on fractures to granodiorite with biotite and pyrite on fractures and reddish, sericite pyrite altered porphyries (Westphal, 2010c). The Granodiorite with biotite and pyrite is encouraging because this is a similar lithology to that which was drilled in the Sultana drill program. In terms of assays, one sample, MWPC10-05, returned anomalous values for Cu and Fe. Due to the steep nature of the topography and the lack of encouraging sample data, follow-up exploration in this area is a low priority.

4 Drilling

A three hole drill program was conducted in the Sultana area between September 28th 2010 and October 14th 2010 for a total of 1,330m of drill core in three NQ sized holes.

4.1 Overview

Drill sites were chosen based on precious and base metal soil anomalies and geophysics. See Appendices A and B for detailed soil sampling maps. Pad#1 was built 50 m east of the Sultana showing; Pad#2 was located 100m north of #1 and Pad#3 was located approximately 100m north of #2.

Hy-Tech Drilling from Smithers, BC was contracted. Drill mobilization, lining and start up occurred on September 28, 2010. Due to weather conditions and logistics, drilling started on pad # 2 with hole PC10-02. After this PC10-01 and PC10-03 were drilled. Figure 11 shows the location of the three holes drilled. For larger versions and detailed thematic maps, see Appendix A.

4.2 Discussion of Results

The text and table in this section is taken from Westphal 2010b. A compilation of interval sections of the three drill holes from 2010 at the Sultana showing are presented in table 4. The holes were drilled at -60 degrees dipping WSW (PC10-01 and 03) and W (PC10-02). True thicknesses are not known at this time.



Figure 11 - Drill Plan Map Showing Downhole Copper Assays

Au and Ag values are low except for where Cu is higher, where they increase slightly. Pb and Zn values are shown for general trends since the values are subeconomic. Mo values are above background, but below economic levels, except for some sections in PC10-01. The intervals for 0 to 69m and 0 to 303m are identical for the Cu values from PC10-01 and -02. The same intervals at PC10-03 show 25% less Cu content. Since PC10-02 ended at 304.5m, no further comparison can be made to depth. When comparing PC10-01 and 03 the latter shows 40% less content down to 444m, the final depth of PC10-01. Cu values significantly increase with depth in PC10-01 from an average of 389ppm up to 303m to an average of 547ppm for the entire hole. A section over the last 100m shows an average of 0.1% Cu which includes 40m at the bottom of the hole of 0.167% Cu. Mo shows increased values in the upper 60m of the final 100m section, which averages at 0.01% Mo over the whole interval.

The alteration pattern indicates that an increase in sericite and clay alteration coincides with the increased mineralization values and points towards the possible center of a porphyry system.

The Cu values in PC10-03 increase to depth as well, from an average of 294ppm down to 444m, to 330ppm down to 582m. The section from 444 to 582m shows 444ppm Cu with a section of 60m at the bottom reporting 555ppm. Since the hole is angled at -60 degrees, the increase is not only with depth but also to the west.

The section between 111 and 117m of PC10-01 is located 75m below the Sultana showing, since the drill pad is located 50m east of the showing. This 6m section is equivalent to a 4.5m vertical and 3m horizontal projection of the high grade interval. Intervals at the similar depth at PC10-02 and 03 show 20 to 30% higher Cu values than average. The 3m high grade Cu interval at PC10-02 at about 200m cannot be seen at PC10-01, but at PC10-03 the Cu values double at this interval. The comparison of the data from the three holes indicates some structural relations and a strong potential for increased mineralization both to the west and at depth.

| PC10-01 | Au | Мо | Cu | Pb | Zn | Ag |
|--------------|-------|------|------|-----|-----|------|
| interval [m] | PPB | PPM | PPM | PPM | PPM | PPM |
| 0-69 | 1.2 | 39 | 397 | 62 | 39 | 0.6 |
| 0-303 | 5.3 | 62 | 389 | 33 | 42 | 0.6 |
| 0-444 | 4.8 | 70 | 547 | 24 | 37 | 0.7 |
| 111-117 | 162.0 | 2985 | 2988 | 876 | 913 | 13.9 |
| 192-219 | 2.0 | 22 | 597 | 2 | 20 | 0.5 |
| 339-444 | 4.1 | 107 | 1036 | 5 | 27 | 0.9 |
| 405-444 | 4.1 | 41 | 1673 | 8 | 35 | 1.7 |
| PC10-02 | | | | | | |
| 0-69 | 2.3 | 27 | 398 | 8 | 77 | 0.3 |
| 0-303 | 2.2 | 18 | 369 | 4 | 32 | 0.4 |
| 111-117 | 2.0 | 37 | 526 | 3 | 23 | 0.7 |
| 201-204 | 11.0 | 11 | 3439 | 7 | 49 | 9.6 |
| PC10-03 | | | | | | |
| 0-69 | 1.6 | 17 | 262 | 2 | 26 | 0.2 |
| 0-303 | 1.6 | 20 | 283 | 4 | 22 | 0.3 |
| 0-444 | 1.5 | 25 | 294 | 3 | 21 | 0.3 |
| 0-582 | 1.9 | 24 | 330 | 3 | 21 | 0.3 |
| 105-117 | 2.3 | 33 | 344 | 2 | 17 | 0.3 |
| 186-204 | 2.8 | 16 | 597 | 5 | 22 | 0.6 |
| 444-582 | 3.2 | 22 | 444 | 2 | 21 | 0.4 |
| 516-576 | 2.9 | 32 | 555 | 2 | 24 | 0.5 |

Table 4 - Select Drill Results from the 2010 Porphyry Creek Drill Program

4.3 Sampling Method and Approach

Soil samples taken during the 2010 exploration program were collected at 5 to 10 meters intervals in wet proofed kraft paper bags and shipped directly to the Acme Labs prep facility in Smithers. The short sample intervals were chosen due to the close spacing of quartz veins carrying pyrite and chalcopyrite in the Sultana showing.

Three meter sampling was chosen for the drill core due to the observed homogeneity of the mineralization in both the vein mineralization in the upper part of the drill holes, and the high grade porphyry mineralization with veining and disseminated chalcopyrite and molybdenite in the lower part of the drillholes. Splitting was performed by manual core splitters at a road-accessible core shack between the Sultana site and Smithers. Samples were bagged and shipped directly to the Acme Labs prep facility in Smithers.

5 Sample Preparation, Analyses and Security

An assay package of 32 elements applied by the 1DX15 procedure was used for soil samples. Samples were dried and screened at 80 mesh. Splits of 0.5g are leached in hot (95°C) Aqua Regia followed by ICP-MS analysis. Sample minimum size is 1g pulp.

Analytical package GEO-2 was used for assaying drill core and rock samples, including 36 elements Group 1DX (Aqua Regia/ICP-MS 0.5g) + Group 3B (fire geochem Au). A gravimetric finish was applied for gold samples over 10g/t and silver samples over 200g/t. Also, for copper samples >1% and molybdenum samples >0.4%, a 7TD analysis was conducted, where the sample was dissolved in four acid solution and the percentage determined by ICP-ES. A standard, blank, or duplicate was inserted every 20 samples. The standard was CDN CM-2 from CDN Resource Laboratories, and landscape quartzite was used as blank.

For a total of 465 samples, eight blanks, nine standards and seven duplicates were inserted. The duplicates were prepared using quarter splits of the core interval concerned. All of the blanks passed and the duplicates contained similar numbers. The standard used was analysed for Au, Cu and Mo. The Au assays were all within limits. The copper values were erratic and the molybdenum values were all well below the expected values. This can be explained by the fact that aqua regia digestion was used, which has incomplete digestion of molybdenum and possibly copper as well, although not to the same extent. It is recommended that next year, the QA/QC ratio be increased to 1 in every 10 samples - ideally a blank and a standard or duplicate for every 20 samples - and that four acid digestion is used instead of aqua regia, to get more accurate base metal assays.

6 Interpretations and Conclusions

The 2010 porphyry creek exploration program was designed to expand on very encouraging initial reconnaissance rock, soil and stream geochemical sampling programs conducted between 2006 and 2008, and on the 2010 geophysical program which identified multiple areas of interest (see Figure 8). Site visits were made to the best anomalies and it was decided that Sultana was the most prospective. A closely spaced soil grid was conducted, which showed a 300x200m Cu-Mo anomaly to the north of the

historic trenches which remains open to the SE, to the S, to the N and to the SW and has anomalous samples in other directions. A drill program was conducted over this anomaly and all drill holes contained above average Mo and anomalous levels of Cu throughout (see section 4). This section will discuss the interpretations and then summarize the conclusions with a focus on Sultana because other anomalies and targets were only briefly visited and hence only limited conclusions can be drawn from them.

6.1 Surface Sampling Interpretations

Both the soil and the rock samples taken from the Sultana area contained not only anomalous Cu and Mo but also isolated high precious metals (up to 18.25g/t Au and 865g/t Ag in rock sample MWS10-07). The soil samples were closely spaced because they were targeting closely spaced chalcopyrite bearing quartz veins as mapped at the historic trenches. If there was an individual vein present, or even a series of closely spaced en-echelon veinlets, a distinct linear pattern in the soil anomaly would be expected. See Appendices A and B for detailed maps of the location of the soil samples. The size of the soil anomaly with such close spacing is encouraging. It points to a larger-scale system of Cu-bearing veins, which may be part of a larger mineralized porphyry system, as opposed to an isolated set of veins. Also, the fact that sampling of some of the individual veins retrieved such high-grade values points to the possibility that larger areas underlying the Sultana showing may contain economic Cu, Mo +/- precious metal mineralization. Historic systematic rock outcrop sampling assayed up to 0.42% Cu in the diorite stock itself (not within a vein), which is also encouraging (AR02855).

6.2 Drilling Interpretations

Three holes were drilled under the soil anomaly and the historic workings as shown in Section 4. All holes contained anomalous Cu and Mo throughout as well as small intervals of anomalous precious metals.

The geology was uniform throughout the three holes. Medium grained massive diorite with abundant biotite, magnetite and feldspar phenocrysts and interstitial quartz was logged from the collar to the EOH (see appendix D). Alteration was also logged throughout all three holes. The primary alteration appears to be potassic, manifesting itself in the form of (possibly secondary) biotite phenocrysts and "pinking" of felsdpar phenocrysts. Two other alteration patterns are logged intermittently throughout all three holes. The first is propylitic alteration and the second is (possibly phyllic) sericite, pyrite and clay alteration that mostly appears as alteration halos around veinlets in the core. This type of alteration increases with the up-tick in copper towards the end of hole PC10-01, suggesting that the hole may have moved into the phyllic alteration zone of a mineralized porphyry system.

6.3 Conclusions

The Cu-Mo mineralization in the surface sampling at Sultana was confirmed to depth in the three drillholes that were drilled. Although the Cu grade - except for the last part of PC10-01 - is subeconomic overall, the average Cu grade of over 400ppm is nonetheless five times stronger than background levels on average for a diorite intrusion.

The massive nature of the diorite seen in the core, and the nearly uniform concentrations of copper reported throughout the three drillholes, lead to the conclusion that the holes were collared in the centre or core of a porphyry copper-molybdenum system. The values encountered are consistent with values observed in the "barren" cores of porphyry copper deposits (Ogryzlo 2011).

There are now three pieces of evidence for a potentially economic porphyry copper molybdenum deposit: the magnetic and EM signature, the highly anomalous Cu and Mo in soils, and the Cu and Mo mineralization throughout the drill core. The fact that mineralization increased where it was predicted to increase from analysis of the geophysical survey is highly encouraging and suggests that the 2010 drill program, short and preliminary in nature, was successful in beginning to identify a potentially significant mineralized porphyry system.

Of the several other geophysical targets, many remain to be tested and those that were visited require further work to determine the source of the observed geophysical anomalies. The Big Thing geophysical anomaly, which is the second most prospective of the east side porphyry targets, requires follow-up mapping and sampling, as the sample taken there was anomalous in precious metals and highly anomalous in some pathfinder elements.

7 Recommendations

Mineralization encountered in the 2010 drill program should be further pursued. This should be done in the form of a multi-phase exploration program with each phase contingent on the success of the last phase. Phase I should consist of the following:

- A 2,400 metre, wide-spaced drill program at Sultana.
- Further evaluation and surface mapping of the geophysical anomalies visited in 2010.
- Surface mapping, sampling and prospecting of the other geophysical anomalies not visited in 2010.
- A deep penetrating IP survey over the entire Sultana area to help delineate potential economic mineralization and define additional targets.
- Follow-up and schematic mapping and sampling of the geochemical and geophysical anomalies discovered in 2008 on the western side of the property.

Contingent on the results of the above first phase of drilling and exploration, a Phase II exploration program is also proposed. This would consist of the following:

- If other drill targets are sufficiently defined, approximately 1,000m of exploration drilling.
- Systematic drilling at Sultana with approximately 100m spacing, with as many metres as the budget allows for.

8 Certificates of Professional Qualifications

Colin J. Hamilton B.Sc. (Hons)

I, Colin J Hamilton of 507-1270 Robson Street in the City of Vancouver, in the Province of British Columbia certify that:

I am a graduate of the University of Edinburgh with a Bachelor of Science degree with honours in Geology and Physical Geography (2006)

I am a Geologist and Geological Data Analyst at Manex Resource Group. My office address is Suite 1100, 1199 West Hastings Street, Vancouver, British Columbia, V6E3T5.

I have practiced my profession as a Geologist and Geological Data Analyst since May 2007.

I am responsible for the overall preparation and compilation of the majority of this report and all the data within it.

Dated at Vancouver, British Columbia this 17th day of November, 2011

Colin J. Hamilton B.Sc. (Hons) Geologist and Geological Data Analyst

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 23 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 also serve 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 17th day of November 2011.

Doug Warkentin, PEng. Metallurgical Engineer

Robert W.J. Macdonald, M.Sc, P. Geo

I, Robert W. J. Macdonald, with business address 1100-1199 West Hastings Street, Vancouver, British Columbia V6E 3T5, hereby certify that:

I am a graduate (1990) of the Memorial University of Newfoundland, with a Bachelor of Science degree in Earth Sciences (Honours), Geology.

I am a graduate (1999) of the University of British Columbia, with a Master of Science in Geology

I am a registered member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia.

I have practiced my profession continuously since graduation.

I was involved in the planning of the program herein described, oversaw the execution of the program and completed detailed edits of the writing of the report.

This report is an accurate account of the 2010 Surface Exploration and Drilling Program conducted by Ranex Ltd. on the Porphyry Creek Project, Northwest British Columbia.

Dated at Vancouver, British Columbia, this 17th day of November, 2011.

5 glawlell

Robert W.J. Macdonald, M.Sc., P.Geo.

9 Statement of Costs

| Personnel - Field | | | |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------|-----------------------|
| Mathias Westphal, Field Geologist | Aug 9 - Oct 16, 2011: 205 hrs @ \$75/hr | \$ | 15,375.00 |
| Geological Assistant (Ranex Exploration) | Aug 9 - 18, 2011: 7 days @ \$200/day | \$ | 1,400.00 |
| Personnel - Office | | | |
| Peter Ogryzlo, Senior Consulting Geo. Rob MacDonald, Senior Geologist | 47 hrs @ \$85/hr 94.5 hrs @ \$85/hr 23 5 hrs @ \$40/hr | \$ \$ \$ | 3,995.00 8,032.50 |
| Reyna Brown, Geologist Colin Hamilton, Geologist | 23.5 m's @ \$40/m 55.5 days @ \$350/day 42 hrs @ \$70/hr | \$ \$ \$ | 19,425.00 2,940.00 |
| Food & Accomodation | | | |
| | Hotels, meals, site food | \$ | 2,221.77 |
| Drilling | | | |
| Hy-Tech Drill | Diamond drilling, NQ, 3 holes, 1,330.5m total including move, surveys, mobe/de-mobe | \$ | 168,882.95 |
| Treeline Wood | core boxes | \$ | 4,627.80 |
| Assays | | | |
| Acme Analytical | 466 samples for Group 1DX and Group 3B at \$24.75/ea | \$ | 16,760.09 |
| Acme Analytical | 480 soil samples screened, 454 soil samples ICP-MS | \$ | 8,236.74 |
| Acme Analytical | 33 fire assay plus four acid digestion at \$27.41/ea plus prep and disposal | \$ | 1,110.89 |
| Acme Analytical | 3 four acid digestion, single element ICP-ES at \$10.20 | \$ | 30.60 |
| Acme Analytical | 1 Group 6, gravimetric finish | \$ | 15.72 |
| Acme Analytical | Sample storage | \$ | 164.16 |
| Transportation | | | |
| Helicopter | Ground work and drilling support | \$ | 99,936.20 |
| Fuel - Helicopter | | \$ | 12,810.02 |
| Fuel - Ranex Exploration | Vehicle | \$ | 1,863.08 |
| Vehicle Expense | Vehicle expense - Michael Rowley, Peter Ogrzylo (car rental, taxi, gas) | \$ | 1,846.59 |
| Airfare | Airfares - Robert Macdonald, Michael Rowley, Peter Ogryzlo | \$ | 6,461.64 |
| Arctic Cat Rental | Rental for \$675 plus delivery | \$ | 1,713.14 |

Reporting

| TOTAL | \$ | 436,340.15 |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Timber, supplies | \$ | 4,697.40 |
| \$311,667.07 | | |
| Ranex Exploration - 15% on | \$ | 46,750.06 |
| hrs at \$63/hr | | |
| Ranex Exploration office staff, 10.5 | \$ | 661.50 |
| standards | \$ | 157.90 |
| Property map | \$ | 59.40 |
| | | |
| 5 hrs @ \$85/hr | \$ | 425.00 |
| 20 hrs @ \$40/ hr | \$ | 2,000.00 |
| 40 hrs @ \$70/hr | \$ | 2,800.00 |
| | 40 hrs @ \$70/hr 20 hrs @ \$40/ hr 5 hrs @ \$85/hr Property map standards Ranex Exploration office staff, 10.5 hrs at \$63/hr Ranex Exploration - 15% on \$311,667.07 Timber, supplies TOTAL | 40 hrs @ \$70/hr\$20 hrs @ \$40/ hr\$5 hrs @ \$85/hr\$Property map\$standards\$Ranex Exploration office staff, 10.5\$hrs at \$63/hr\$Ranex Exploration - 15% on\$\$311,667.07\$Timber, supplies\$ TOTAL \$ |

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