

Location/Identification

MINFILE Number:	104B 325		
Name(s):	<u>BURGUNDY RIDGE</u> RIDGE, NEWMONT LAKE, DIRK, AU		
Status:	Prospect	Mining Division:	Liard
		Electoral District:	Stikine
Regions:	British Columbia	Resource District:	Skeena Stikine Natural Resource District
BCGS Map:	104B085		
NTS Map:	104B14E	UTM Zone:	09 (NAD 83)
Latitude:	56 51 29 N	Northing:	6303485
Longitude:	131 03 25 W	Easting:	374580
Elevation:	1840 metres		
Location Accuracy:	Within 100M		
Comments:	The Ridge showing is exposed along a rounded ridge located about 700 metres southeast of the Tlena Zone between two icefields (Figure 3, Assessment Report 31250).		

Mineral Occurrence

Commodities:	Copper, Gold, Silver, Zinc		
Minerals	Significant:	Chalcopyrite, Bornite, Chalcedony, Malachite, Azurite, Tenorite, Freibergite, Tetrahedrite	
	Associated:	Magnetite, Wollastonite	
	Alteration:	Epidote, Chlorite, Garnet, Diopside, Grossularite, Forsterite, Actinolite, K-Feldspar	
	Alteration Type:	Skarn, Hematite, Carbonate, Potassic	
Deposit	Character:	Disseminated, Podiform, Massive, Breccia	
	Classification:	Skarn, Porphyry	
	Type:	K01: Cu skarn, L03: Alkalic porphyry Cu-Au	

Host Rock

Dominant Host Rock:	Metamorphic		
Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other
Devonian-Mississipp.	Stikine Assemblage	-----	-----
Isotopic Age	Dating Method	Material Dated	
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Lithology:	Syenite, Calc-silicate, Skarn, Limestone, Syenite Porphyry, Biotite Syenite Dike		
Comments:	Devonian to Permian. Recrystallized limestone and intrusive syenite		

Geological Setting

Tectonic Belt:	Intermontane	Physiographic Area:	Boundary Ranges
Terrane:	Stikine, Plutonic Rocks		
Metamorphic Type:	Contact, Regional		
Grade:	Hornfels		

Inventory

Ore Zone: DRILLHOLE
Category: Assay/analysis

Year: 2018
Report On: Y
NI 43-101: N

Sample Type: Drill Core

Commodity	Grade
Silver	2.70 grams per tonne
Gold	0.32 grams per tonne
Copper	0.14 per cent

Comments: BRRC18-001
Reference: Assessment Report 38286

Ore Zone: DRILLHOLE
Category: Assay/analysis

Year: 2018
Report On: Y
NI 43-101: N

Sample Type: Drill Core

Commodity	Grade
Silver	1.41 grams per tonne
Gold	0.27 grams per tonne
Copper	0.31 per cent

Comments: BRRC18-004
Reference: Assessment Report 38286

Ore Zone: SKARN
Category: Assay/analysis

Year: 2018
Report On: N
NI 43-101: N

Sample Type: Chip

Commodity	Grade
Silver	5 grams per tonne
Gold	0.13 grams per tonne
Copper	1.33 per cent

Comments: over 4.3 metres
Reference: Boyd, T. (2019-02-04): Independent Technical Report - Newmont Lake Property

Capsule Geology

The Burgundy Ridge is located in steep mountainous terrain 19.5 kilometres north of the Bronson Airstrip on Iskut River and 50 kilometres southwest of Bob Quinn Lake on Highway 37.

The Burgundy Ridge (formerly Ridge) area is underlain by Upper Paleozoic marine sedimentary and volcanic rocks of the Stikine Assemblage. Exposed rocks at the showing include limestone, skarns and porphyries. A syenite breccia zone is developed in the contact zone. The limestone is completely replaced with a mineral assemblage of calcite, diopside, forsterite and grossularite. Syenitic porphyries are thought to have intruded as lopoliths along the upper contact of the Upper Paleozoic limestone.

Mineralization along the Burgundy Ridge trend (Burgundy Ridge zone (104B 325), Telena 104B 428), 72 (Dirk 104B 114)) contains concentrated veinlets, clotty masses, and disseminations of chalcopyrite, bornite, and tenorite sulphides near the contacts of marble and various orthoclase-porphyritic syenite intrusions. Northeast trending swarms of orthoclase-porphyritic syenites cut or control mineralization in the area, often exhibiting megacrystic, trachytic, and/or crowded textures. Biotite syenite dikes and plugs are also present in the 72 Zone area and at Burgundy Ridge (formerly Ridge).

Exoskarn zones are developed on the margins of the limestone where some igneous bodies have silicified them. The exoskarn assemblage consists of epidote, garnet and actinolite and gets progressively weaker grading into dolomite away from the limestone-pluton contact. This alteration is mirrored

within plutons, where an endoskarn assemblage of epidote, diopside, and garnet. Mineralization is concentrated within skarn breccia bodies and some porphyry bodies. Within breccia bodies, copper minerals include chalcopyrite, bornite, malachite/azurite, and chalcocite. Within the porphyries and the silicified sediments, chalcopyrite is the dominant copper mineral.

Chalcopyrite is found as disseminations in both the altered limestone and syenite porphyries. Magnetite, epidote, chlorite and garnet form gangue in a mottled texture within the skarn alteration.

Within the Burgundy Ridge trend, numerous additional alteration products are wildly variable and often discrete. Silicification of carbonate country rock and carbonate alteration of the intrusions (skarn alteration) is locally well developed. Hematitic and potassic alteration are well-developed within early intrusions. The limestones are recrystallized and intensely altered along the contacts with plutonic bodies. Often, black, white, or green-colored garnet occur with epidote, dolomite and wollastonite within these contact margins, along with centimetre-scale pods of magnetite.

There are three different styles of mineralization at the Burgundy Ridge: disseminated copper sulphides in mineralized porphyry dikes; clots and pod-like sulphides in skarn-breccia bodies on the margins of carbonate blocks; and disseminated chalcopyrite in dolomitic breccias on the immediate margins of and invading into zones of limestone. The primary sulphide mineral in the system is chalcopyrite. In the skarn breccia bodies the mineralization is comprised of chalcopyrite, fribergite and tetrahedrite with bornite. Pyrite is not that common at the Burgundy Ridge system.

It was found that the largest 2013 total field magnetic RTP anomaly is centred directly over a large syenitic pluton and surrounding limestones that host the 72, Telena, Burgundy Ridge and Birthday Jim showing to the northwest (Figure 5a, Assessment Report 35016). 2D ZTEM inversion results over the known porphyry and skarn occurrences (72 Zone, Telena, Birthday Jim, Ridge, Ken, 2Bad and Mom's Peak) shows that there is consistent agreement between these zones and horst-like, layered ZTEM resistivity signatures.

In 2014 at Burgundy Ridge (Ridge), 173 chip samples were taken across eleven chip lines covering zones of mineralization where outcrop and terrain permitted. The chip length was typically 1.5 metres, though some samples were taken up to three-metre widths where appropriate. The results demonstrate significant low-grade continuous copper-gold-silver mineralization at Burgundy Ridge as well as localized high-grade mineralized core within the low-grade copper-gold-silver mineralized envelope. The chip results show a zone approximately 300 metres by 300 metres of consistent copper-silver (gold) mineralization. High-grade mineralization grading 28.9 grams per tonne gold, 89.65 grams per tonne silver and 5.12 per cent copper over 3.0 metres was discovered near the centre of the low-grade copper-gold-silver envelope (Assessment Report 35016). The high-grade 3-metre sample was part of Chip Line 14 which graded 1.15 per cent copper, 6.11 grams per tonne gold and 19.75 grams per tonne silver over 15 metres (Assessment Report 35016, page 12).

Crystal Lake announced in August 2, 2019 the start of diamond drilling in the area of the recently completed reverse circulation drilling. On August 12 they reported that shallow mineralization encountered in the previous reverse circulation drilling extended well beyond a copper-gold enriched limestone body as diamond drilling continued. Multiple intrusive phases, breccias, alteration and mineralization styles were intersected in each of the three holes first completed. Intensity of mineralization increased downhole in a hydrothermal breccia.

Work History

In 1972, Newmont Mining Corporation constructed a grid over the Ridge showing and followed with mapping and ground magnetic surveying. Reporting on the Ridge was done in 1988 and 2009, but no new work was done.

Over the 2010 season, mapping, prospecting and geochemical rock sampling were completed over the Dirk, Ridge and Telena showings. In total, 62 grab and chip samples of bornite and chalcopyrite bearing copper-gold mineralization were collected. Assessment Report 32050).

In 2011, Romios completed four diamond drill holes on the Dirk property totalling 743 metres (Press Release, Romios Gold Resources Inc, Sept. 9 and Oct. 19, 2011). Drilling at both the 72 (3 holes) (Dirk) (104B 114), and Telena (1 hole)(104B 428), zones encountered copper, gold and silver-bearing sulphides near surface in all of the drill holes within breccias and intrusions that appear to be genetically related to syenitic intrusions.

In 2012, 14 holes in total tested the 72 (Dirk) (104B 114), Ken (104B 027) and Northwest (104B 281) zones (Assessment Report 33620). During July and August of 2012, Romios drilled six holes at the Ken zone, which totalled 804.5 metres in length.

In 2013 Geotech Ltd. carried out a helicopter-borne electromagnetic (ZTEM) and aeromagnetic geophysical survey for Romios Gold Resources Inc over the Newmont Lake Block, comprising parts of the Newmont Lake property (Geophysics Report, Assessment Report 35016, Appendix VI). Twenty-one mineral occurrences were covered by this survey including Burgundy Ridge prospects. At Burgundy Ridge 137 rock samples were taken as grabs and in a grid pattern. This new porphyry/skarn target returned grades up to 21.90 per cent Cu, 7.38 grams per tonne Au, and 51.1 grams per tonne Ag, and had elevated copper, gold, silver, and zinc concentrations over an area 200 by 200 metres (Assessment Report 34623).

In 2014, Romios Gold Resources Inc. conducted a prospecting and sampling program that included the evaluation of various showings and mineralized occurrences on the Newmont Lake and Trek Properties including Burgundy Ridge (Assessment Report 35016). A total of 314 rock chip samples and reconnaissance rock samples were taken, and 26 stream silt samples were also collected at various locations. At the Telena Zone, one chip line was taken across a zone of known mineralization that lies to the northeast of the of the drill pad for TZ11-01.

In 2015, Romios Gold reported that a program of additional prospecting and sampling was carried out on the Burgundy Ridge discovery.

In 2018, Romios Gold Resources Inc successfully completed an airborne magnetic and VTEM-Terrain Time Domain electromagnetic survey over three of the Company's most prospective exploration targets on its Newmont Lake property. The three survey blocks covered are referred to as the Northwest Zone, Ken Zone and the Dirk claims. The Dirk block covers nearby Burgundy Ridge (104B 325) and 72 (Dirk) (104B 114) and Telena (104B 428). These three occurrences are located on or near high magnetic centres with 72 being the most significant in area.

In 2018, Crystal Lake Mining Corp. completed four shallow reverse circulation (RC) holes totaling 550 metres from one set-up at the top of Burgundy Ridge as restrictive winter conditions set in at an elevation of approximately 1900 metres. The initial hole (BRRRC18-001) intersected significant mineralization from surface to approximately 25 metres, defining the contact of syenite and skarn with returns of 0.41 per cent Cu, 0.32 gram per tonne Au and 2.70 grams per tonne Ag over 10.7 metres (from 5.2 to 15.9 metres). The second interval of Cu-Au mineralization is associated with a possible grey diorite or andesite dike between 49.4 metres and 55.5 metres assaying 0.68 percent Cu, 0.22 gram per tonne Au, 3.97 grams per tonne Ag and 1.55 per cent Zn. The final hole of program (BRRRC18-004) cut 58 metres at 0.31 per cent copper and 0.27 gram per tonne gold starting from surface, followed by a 1.5-metre interval grading 2.60 per cent copper from 118 metres to 119.5 metres (News Release, Crystal Lake Mining Corp., March 7, 2019). Each hole intersected copper-rich mineralization, with gold and silver, associated with intense and widespread "skarn style" alteration of the multi-phase intrusions and immediate host rocks. Evidence suggested that mineralization strengthens with depth.

Also in 2018, mapping and sampling identified a homogenous copper-bearing dolomitic marble intermittently exposed over 25 to 30 metres located near the boundary of the skarn (boulder) field with the unaltered limestone and yielded up to 1.33 per cent copper, 2.85 per cent zinc, 5 grams per tonne silver and 0.13 gram per tonne gold over 4.3 metres, while other chip samples (B068475) yielded up to 3.05 per cent copper, 0.10 per cent zinc, 48.6 grams per tonne silver and 2.11 grams per tonne gold over 2.0 metres (Boyd, T. (2019-02-04): Independent Technical Report - Newmont Lake Property).

In December 2018, Crystal Lake Mining announced that it had acquired a 100 per cent interest in the 436 square kilometre Newmont Lake Project from Romios Gold.

In 2019, Crystal Lake conducted a drill program, on the Burgundy Ridge prospect area and the Northwest deposit 104B 281). They also conducted extensive grassroots exploration, especially in the Chochi area (104B 461) and Cuba South (104B 334).

See 72 (Dirk) (104B 114) for details of a related geology and work history.

Also see Northwest (104B 281) for a more comprehensive discussion of the Newmont Lake property work history.

Bibliography

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EMPR FIELDWORK 2010-54
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GEOSCIENCE BC RPT 2013-05
GSC MAP 9-1957; 1418A; 7780G
GSC MEM 246
GSC P 89-1E, pp. 145-154
CJES 49 PP 1027-1052
PR REL Romios Gold Resources Inc. Nov.26, 2004; Nov.11, 2005; Apr.5, Mar.7, Sep.*27,2006; Mar.*27, 2007; Nov.11, 2009; Feb.9, Jun.6, Sep.9, *Oct.19, 2011, Aug.*9, Oct.*10,*25, Nov.*13, 2012; Sep.4, Oct.*7, 2013; Apr.16, Sep.*23, 2014; Sep.*10, Nov.*12, 2015; Jan.31, Feb.26, 2018; Crystal Lake Mining Corporation Sep.24, Nov.2, Dec.3, 2018; Jun.2,*12,20,24, Jul.16, Aug.2,*12, Sep.*4,10,*18,*19, Oct.*9,*10
<http://www.romios.com>
Boyd, T. (2019-02-04): Independent Technical Report - Newmont Lake Property

Date Coded:	2011/10/21	Coded By:	Ted Fuller (TAF)	Field Check:	N
Date Revised:	2020/11/30	Revised By:	Del Ferguson (DF)	Field Check:	N