

## **Occurrence Details**

Occurrence Number: 115I 157 Occurrence Name: Kelly South Occurrence Type: Hard-rock

Status: Prospect

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## **General Information**

Secondary Commodities: copper, gold, molybdenum

Deposit Type(s): Porphyry Cu-Mo-Au

Location(s): 62°5'37.85" N - -137°13'27.74" W

NTS Mapsheet(s): 115I03

Location Comments: Location provided by Rockhaven Resources 2019

Hand Samples Available: No

Last Reviewed:

### **Capsule**

#### **Work History**

Porphyry potential in the area was first recognized in late 1969 by several exploration groups while most of it lay within the large claim block surrounding the Mt Nansen vein property. The claims were optioned from Mount Nansen Mines Ltd. from 1971-1975 by Area Exploration Company, a Cyprus Exploration Corporation Ltd. subsidiary.

G. Dickson re-staked the areas around the Kelly South occurrence as Etzel cl 1-50 (YA86336) and LD 1-14 in 1984. The LD claims were re-staked as the Swiss cl 1-62 ion 1979. In 1983, G. Dickson re-staked the Swiss claims as J. Bill cl 1-32 and added the Rat cl 1-24 to the south and Bull cl 1-8. Pearl Resources optioned the Etzel claims in 1986.

In March 1995 the J. Bill, Rat, Etzel and Bull claims were transferred to Aurchem Exploration Ltd. and combined with the company's other claim holdings in the area, which collectively became known as the Discovery Creek project.

In July 1996, BYG Natural Resources Inc. signed a letter of intent to explore Aurchem's claims in the Mount Nansen area. Subsequently in September 1997, BYG entered into an agreement with Trumpeter Yukon Gold Inc. (a wholly owned subsidiary of BYG) whereby Trumpeter would be entitled to earn a 60% interest in the Aurchem claims by assuming a portion of the financial obligations outlined in the original agreement. As of December 1997, BYG and Trumpeter had not completed the terms outlined in the original letter of intent and negotiated a restructuring of the terms with Aurchem. In February 1999, BYG announced plans to temporarily shut down the Mount Nansen Mine to the south of the Kelly South occurrence. In March 1999, BYG was placed in receivership and the Nansen mine became a Type II Minesite.

The Etzel, J. Bill, Rat and Bull claims reverted to Aurchem after the federal government took over maintenance of the adjoining Mount Nansen mine site in July 1999. In 2007, Aurchem performed trenching, geological mapping and sampling over the Kelly South occurrence.

In 2009, 101073531 Saskatchewan Corp. flew a regional airborne and magnetic survey that included the Kelly South occurrence. In 2011, Ansell Capital Corp optioned Etzel claims, including the Kelly South occurrence, from Aurchem Exploration. In June 2011, Ansell Capital Corp. (Ansell) purchased the Etzel claims from Aurchem and optioned them to Great Bear Resources Ltd. (Great Bear).

In 2012, Rockhaven purchased the Etzel claims from Ansell and the VG, VIC, J. Bill, D, Bull, JBF and Jon-Wedge claims from Aurchem. These claims now form the eastern edge of the Klaza Property. In 2014, Rockhaven carried out a ground magnetic survey and bedrock mapping over the Etzel claims, including the Kelly South occurrence. In 2016, they carried out rock and soil sampling with follow-up hand trenching and sampling in 2017.

# Regional & Property Geology

The occurrence is located in the Dawson Range within Yukon-Tanana Terrane (YTT). The rocks of the YTT in this region consist of Early Mississipian metamorphic rocks separated into meta-sedimentary and meta-igneous suites (Stroshein, 1998). The meta-sedimentary suite consists of micaceous quartz-feldspar gneiss, schist and quartzite of the Nasina Assemblage. The meta-igneous package is comprised of biotite-hornblende feldspar gneiss and coarse-grained granodiorite orthogneiss with lesser amphibolite.

Four rock types dominate the geology surrounding the occurrence and are comprised of:

- 1. Paleozoic metamorphic Yukon-Tanana gneiss, quartzite, and amphibolite to the south;
- $2.\ {\it Triassic\ to\ Jurassic\ metamorphosed\ alkali-feldspar-rich\ plutonic\ suites;}$
- 3. Mid-Cretaceous Mount Nansen Suite andesite, felsic lapilli tuffs, basaltic to latite volcanic rocks; and quartz feldspar porphyry, dacite, latite, and quartz monzonite porphyritic hypabyssal rocks; and
- 4. Mid-Cretaceous Whitehorse granodiorite.

The Kelly South is part of one of two porphyry porphyry copper-molybdenum complexes, the other being Cyprus (MINFILE occurrence 115I 066), with argillic and propylitic alteration haloes covering the remainder. The porphyry complex occurs at the intersection between a major northwest structure and an east-west fault. Copper and molybdenum ± gold and silver occur in a porphyry stock and phyllic-altered granodiorite. Surface leaching and oxidation is variable, but can reach considerable depths. A steeply dipping, northwest-striking epithermal vein system which formed peripheral to the porphyry migrated inward during cooling and collapsed, creating a complex system of overlapping mineralization including: porphyry Cu-Mo-Au-Ag; northwest striking mesothermal quartz-pyrite-gold veins; and northwest striking epithermal quartz-Au-Ag-Pb-Zn-Cu veins.

### **Mineralization & Results**

The Kelly South occurrence is hosted in granodiorite and quartz-feldspar porphyry. Gold values are associated are associated with a pyrite shell in a phyllic-altered zone peripheral to the potassic zone of the porphyry.

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Date W	ork Type	Comment
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12/13/2017	Geochemistry	
12/13/2017	Trenching	
12/13/2016	Geochemistry	
12/13/2016	Geochemistry	
12/13/2014	Geology	
12/13/2014	Ground Geophysics	And EM.
12/13/2009	Airborne Geophysics	And EM.
12/13/2007	Trenching	
12/13/2007	Geochemistry	
12/13/2007	Geology	

Related	References		

Number	Title	Page(s)	Reference Type	Document Type
	A summary report on the geology of the Brown-McDade gold-silver deposit, Mount Nansen mine area, Yukon		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report Paper
<u>YEG1997</u> <u>14</u>	Geology and mineral deposits of the Mount Nansen camp, Yukon		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report Paper