



Occurrence Details

Occurrence Number: 106C 013

Occurrence Name: Porphyry

Occurrence Type: Hard-rock

Status: Prospect

Date printed: 4/29/2025 9:44:29 PM

General Information

Secondary Commodities: copper, silver

Deposit Type(s): Iron Oxide Breccias & Veins (Wernecke Breccias)

Location(s): 64°55'26" N - -133°15'45" W

NTS Mapsheet(s): 106C14

Location Comments: .5 Kilometres

Hand Samples Available: No

Last Reviewed:

Capsule

Work History

Discovered in 1967 by Nordex Exploration Ltd during exploration of Mammoth cl 1-108 (Y6719), which were transferred to a new company, Bonnet Plume River Mines Ltd in 1968. Exploration consisted of soil geochemistry and ground magnetic surveying in 1967, road building in 1968 and detailed mapping, additional geochemical sampling and 7 drill holes (609.9 m) in 1969.

Restaked as Gollum 1-2 (YA63416) and Iota cl 1-128 (YA63419) in Oct/81 by Texaco Canada Resources Ltd, which carried out geological mapping, prospecting, geochem sampling and geophysical surveying in 1982 and 1983. The property was optioned in 1987 by Silverquest Resources Ltd, which carried out geological mapping and geochemical sampling, and in 1988 by Cyprus (Canadian) Ltd, which carried out trenching.

Restaked Oct/92 by Pamicon Developments Ltd and Equity Engineering Ltd as part of a block of Dolores cl 1-48 (YB29240). The claims were optioned to International Prism Explorations Ltd in the spring of 1993, with Equity and Pamicon retained to supervise the 1993 work program. In Aug/93 the Dolores cl 49-78 (YB2529) were added to the claim block. In Jul/95 the claims were transferred to Newmont Mines Ltd which carried out soil and rock geochemical sampling and detailed geological mapping. In 1997 Newmont drilled 3 holes (337.4 m) in the southwestern part of the property.

Capsule Geology

The region is underlain by a metamorphosed and altered sequence of Early Proterozoic Wernecke Supergroup clastic and carbonate rocks (Fairchild Lake Group, Quartet Group and Gillespie Lake Group, from oldest to youngest) that are intruded by Early to Middle Proterozoic mafic sills and dykes, and cut by Middle Proterozoic Wernecke Breccia. To the east, Wernecke Supergroup rocks are unconformably overlain by Middle Proterozoic Pinguicula Group rocks. According to Thorkelson (2000), Wernecke Breccia development is best modeled as a set of hydrothermal and/or phreatic breccias; brecciation being caused by explosive expansion of volatile-rich fluids. Hunt (2005) attributed Wernecke Breccia formation to periodic overpressuring of dominantly basinal fluids, which lead to repeated brecciation of host strata and mineral precipitation.

The original Dolores claims are underlain by extensively folded and faulted strata of Gillespie Lake and Fairchild Lake group rocks intruded by Wernecke Breccia and diorite and syenite stocks. Faults including strike-slip faults with multiple generations of low angle slickensides juxtapose lithological units against one other.

Intrusive rocks found within and near the breccia have locally enhanced copper mineralization. Disseminated chalcopyrite is concentrated in a Bonnet Plume River Intrusion quartz syenite stock altered by sodic and ferric metasomatism. The stock is almost completely surrounded by Wernecke Breccia. Mineralization may be related to emplacement of the stock, development of the adjacent breccia zone, or both (Thorkelson, 2000).

Bonnet Plume River Mines described a lens-shaped zone of feldspathization (albite) mineralized with disseminated chalcopyrite, pyrite, chromite, magnetite and up to 40% hematite. The lens has an outcrop area of 46 by 9 m but magnetic surveys suggested it could be larger. Chip samples averaged 0.3% copper. The best drill assays were 0.75% Cu over 19.5 m in hole 2 and 0.5% Cu over 7.9 m in Hole 4.

A narrow siderite vein was located on the Gollum cl in 1982, along with tetrahedrite-bearing siderite float.

The 1997 drilling tested a series of syenite outcrops, magnetic and geochemical anomalies, southwest of 1969 hole 2. Copper mineralization was generally below detection with the exception of two weakly anomalous results in hole DL97-3. Hole DL97-1 intersected syenite that was weakly mineralized with trace to 0.5% Cu (chalcopyrite) +/- pyrite, hole DL97-2 intersected altered sediments that were unmineralized and hole DL97-3 intersected altered siltstone, diorite and breccia that contained minor chalcopyrite +/- pyrite in late iron carbonate veins.

References

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- BROWN, L.J. and PROCTOR, L.I., Jun/68. Assessment Report *#019050 by C.D.N. Taylor.
- FINDLAY, D.C., 1968. The Mineral Industry of Yukon Territory and southwestern District of Mackenzie, 1967, Geological Survey of Canada, Paper 68-68, p. 30-31.
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- HUNT, J., 2005. The geology and genesis of iron oxide-copper-gold mineralisation associated with Wernecke Breccia, Yukon Canada, PhD thesis, James Cook University, Australia, 2 volumes, 120 p.
- INTERNATIONAL PRISM EXPLORATION LTD, Feb/94. Assessment Report #093182 by D. Caulfield et al.
- LAZNICKA, P., 1977, Geology and mineralization in the Dolores Creek area, Bonnet Plume Range, Yukon. Geological Survey of Canada, Paper 77-1A, p. 435-439.
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NEWMONT EXPLORATION LTD, Dec/95. Assessment Report #093370 by K.A. Owerko.

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THORKELOSON, D.J. AND WALLACE, C.A., 2000. Geology and mineral occurrences of the Slat Creek, Fairchild Lake and "Dolores Creek" areas, Wernecke Mountains, Yukon (106D/16, 106C/13, 106C/14). Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, Bulletin 10, 73 p.

YUKON EXPLORATION AND GEOLOGY 1983, p. 228-229.

Work History

Date	Work Type	Comment
12/31/1995	Geochemistry	
12/31/1995	Geology	
12/31/1995	Geochemistry	
12/31/1988	Trenching	
12/31/1987	Geology	
12/31/1987	Geochemistry	Also rock sampling.
12/31/1982	Geology	
12/31/1982	Other	
12/31/1969	Drilling	Seven holes, 610 m.
12/31/1969	Geology	
12/31/1969	Geochemistry	
12/31/1967	Geochemistry	
12/31/1967	Ground Geophysics	
12/13/1982	Ground Geophysics	
12/13/1982	Geochemistry	Also silt sampling.
12/13/1968	Development, Surface	

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
095634	2007	YUP February Internal Technical Report, Season 2007 Describing Mapping, Prospecting and Diamond Drilling at the Lumina Property	Gamma-Ray Spectrometry - Airborne Geophysics, Diamond - Drilling, Drill Core - Geochemistry, Rock - Geochemistry, Detailed Bedrock Mapping - Geology, Regional Bedrock Mapping - Geology, Scintillometer - Ground Geophysics, Prospecting - Other	15	4367.20
095241	2006	Assessment Report Describing Airborne Geophysics, Mapping and Prosopecting at the Dolores Property	Gamma-Ray Spectrometry - Airborne Geophysics, Magnetic - Airborne Geophysics, Rock - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		
094953	2006	Assessment Report Describing Airborne Geophysics, Mapping, Prospecting and Diamond Drilling	Gamma-Ray Spectrometry - Airborne Geophysics, Magnetic - Airborne Geophysics, Diamond - Drilling, Drill Core - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other	22	2602.89
093370	1995	1995 Geological and Geochemical Assessment Report on the Dolores 1-78 Claims	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology		
093182	1993	Geological and Geochemical Assessment Report on the Dolores 1-48 Claim Group	Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Line Cutting - Other, Prospecting - Other		
091456	1983	Exploration, 1982, Gold, Silver and Uranium Deposits, Glacier Lake Region	Rock - Geochemistry, Silt - Geochemistry, Detailed Bedrock Mapping - Geology, EM - Ground Geophysics, Scintillometer - Ground Geophysics, Petrographic - Lab Work/Physical Studies, Prospecting - Other, Hand - Trenching		
090895	1981	1980-1981 Assessment Report Dolores Creek Arae	Rock - Geochemistry, Prospecting - Other, Hand - Trenching		
019050	1976	Report on the Mammoth Copper Property	Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Magnetics - Ground Geophysics, Prospecting - Other		

Drill core at YGS core library					
Number	Property	Year Drilled	Core Size	Photos	Data
Hole-1	Porphyry	1969		0	0
Hole-2	Porphyry	1969		0	0
Hole-3	Porphyry	1969		0	0