



Occurrence Details

Occurrence Number: 115I 041

Occurrence Name: Carmacks Copper Zone 3

Occurrence Type: Hard-rock

Status: Prospect

Date printed: 4/28/2025 7:57:13 PM

General Information

Secondary Commodities: copper, gold, silver

Aliases: Carmacks Cu Zone 3

Deposit Type(s): Porphyry Alkalic Cu-Au

Location(s): 62°21'36.62" N - -136°45'6.93" W

NTS Mapsheet(s): 115I07

Location Comments: Location from georeferenced maps and google earth

Hand Samples Available: No

Last Reviewed:

Capsule

Work History

Staked as Boy cl 1-150 (Y51099) in Mar/70 by A. Arsenault & G. Wing and optioned in July by Dawson Range Joint Venture (Straus Exploration Inc, Great Plains Development Corporation, Marietta Resources International Ltd, Molybdenum Corporation of America and Trojan Consolidated Mines Ltd).

The main showing of the Carmacks Copper property (No. 1 zone) was discovered by prospecting by the Dawson Range Joint Venture (DRJV) in Aug/70. The No. 3 zone was discovered by a soil sampling program conducted later that year.

In 1971, the DRJV constructed a road to the site and completed line cutting, VLF-EM and ground magnetic surveys over much of the property and drilled 4 shallow holes at the No. 3 zone.

In 1981, United Keno Hill Mines Ltd conducted a large soil sampling program on the Noon property that partially covered the No. 3 zone.

In 2006, the property was restaked as the Copper claims by prospector Shawn Ryan and a soil sampling survey was performed with the samples being analysed by conventional ICP and MMI analyses.

In 2007 and 2008, BC Gold Corp performed soil sampling and MMI analyses on the area and in 2009 they performed line cutting and IP geophysical surveying.

Capsule Geology

The Carmacks-Minto belt hosts of a series of mineralized zones that are metamorphosed copper deposits which occur along the boundary between the Yukon Tanana and Northern Stikine terranes. The mineralized zones/deposits include the Carmacks Copper deposit (Minfile occurrence 115I 008), the Stu (Minfile Occurrence #115I 011), Def (Minfile Occurrence #115I 021) and Minto (Minfile Occurrence #115I 022). A study by N. Kovacs, et. al. (2016) on the Carmacks Copper deposit provides new insight into the paragenesis of these occurrences.

According to Kovacs, et. al., Carmacks Copper and the associated occurrences are hosted in compositionally heterogeneous, foliated and folded, and variably migmatitic metamorphic rocks, which occur as elongate, NNW-trending inliers in Early Jurassic granitoids of the Granite Mountain batholith. Hypogene copper mineralization is restricted to metamorphic host rocks, and occurs both as foliation-parallel chalcopyrite-dominant stringers in schistose rocks, and as net-textured bornite-chalcopyrite-dominant sulphides in the migmatitic rocks prevalent along the eastern margin of the metamorphic inlier. The latter style of mineralization is interpreted to form from a sulphide melt phase generated during partial melting of a previously mineralized protolith, during emplacement of the Granite Mountain batholith.

At the No. 3 zone outcrop is scarce (< 5%) and normally confined to rounded ridge tops and stream cuts. From what is known from the limited geological mapping and 4 drill holes, the occurrence is underlain primarily by foliated to non-foliated hornblende-biotite granodiorite with aplite dykes. Traces of malachite, magnetite and 1-2% epidote were noted in a number of locations.

Work History

Date	Work Type	Comment
12/13/2009	Other	
12/13/2009	Ground Geophysics	
12/13/2008	Geochemistry	
12/13/2007	Geochemistry	
12/13/2006	Geochemistry	
12/13/1981	Geochemistry	
12/13/1971	Drilling	4 holes of unknown depth.
12/13/1971	Geochemistry	
12/13/1971	Ground Geophysics	

12/13/1971	Ground Geophysics	
12/13/1971	Development, Surface	

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
095198	2008	2009 Geophysical Report on the COPPER Property	IP - Ground Geophysics, Line Cutting - Other		
094839	2006	Geochemical Report COPPER 1-22	Soil - Geochemistry		
093083	1992	Biophysical Assessment Report of Williams Creek	Silt - Geochemistry, Water - Geochemistry, Data Compilation - Pre-existing Data, Biophysical Mapping - Studies, Environmental Assessment/Impact - Studies, Heritage/Archeological - Studies		
090929	1981	1981 Geological and Geochemical Report on the NOON Claim Group	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics, Soil - Geochemistry, Regional Bedrock Mapping - Geology, Petrographic - Lab Work/Physical Studies, Line Cutting - Other		
060114	1972	Report on 1972 Geochemical Diamond Drilling and Trenching Program-WILLIAMS CREEK Property	Interpretation - Airphotography, Diamond - Drilling, Drill Core - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Line Cutting - Other, Mechanical - Trenching	8	1530.71