



Occurrence Details

Occurrence Number: 105G 038
Occurrence Name: North River
Occurrence Type: Hard-rock
Status: Showing
Date printed: 6/14/2025 5:04:32 PM

General Information

Secondary Commodities: copper, lead, silver, zinc
Deposit Type(s): Skarn Cu
Location(s): 61°11'52" N - -130°24'22" W
NTS Mapsheet(s): 105G01
Location Comments: .5 Kilometres
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

Staked as MM cl (75349) in Sep/60 by Cassiar Asbestos Corporation Ltd, which carried out only prospecting and limited sampling. Restaked as Shutout cl 1-108 (YB58953) in Mar/95 by Expatriate Resources Ltd who completed a program of grid establishment, prospecting, and soil sampling in 1995 and flew combined EM and magnetic surveys in 1996. In Mar/96 the company staked Shutout cl 109-158 (YB77893). Additional geological mapping, prospecting, trenching, soil sampling, and claim surveys were carried out during the 1996 summer field season. In 1997 Expatriate's exploration program continued with detailed geological mapping, prospecting, soil sampling and minor hand trenching.

Capsule Geology

The occurrence is located in the Finlayson Lake district of the Yukon Tanana Terrane. Mapping completed by Murphy and Piercey (1999, map; 2001 map), shows that the area is located in the footwall of the Money Creek Thrust and is underlain by a sequence of layered metamorphic rocks. The oldest unit in the area is Murphy's unit Dq. The unit is thought to be Upper Devonian or older (?) in age and consists of biotite-muscovite-feldspar-quartz schist, micaceous quartzite and psammite. Unit Dq is overlain by the Upper Devonian to Lower Mississippian Fire Lake metavolcanic unit, (unit DF) which is comprised of massive to subtly layered biotite-plagioclase-actinolite-chlorite schist and lesser carbonaceous phyllite and quartzite and marble. Unit CI, a medium grey to white, massive to foliated limestone, locally containing crinoid and fossil fragments occurs above unit DF. The sequence is intruded to the south by voluminous granite meta-plutonic rocks of the Simpson Range Plutonic suite (units MSg and MSgs). In the occurrence area, the suite comprises variable foliated, medium to coarse-grained, equigranular granite to quartz-monzonite. To the north, in the hanging wall of the Money Creek Thrust, the area is intruded by units MSg and a Devonian to Mississippian gabbroic unit (unit DMgo). The occurrence consists of small pods and lenses of chalcopyrite and pyrrhotite found to occur in skarn at the contact between Carboniferous limestone (unit CI) and a small granitic stock (unit MSg). Following the discovery of the Kudzu Ze Kayah volcanogenic massive sulphide (VMS) deposit (Minfile Occurrence #105G 117) 30 km to the northwest, the region was re-examined for its VMS potential. Six mineral showings have been discovered in various structural and stratigraphic settings on the property. Foliation sulphide mineralization has been discovered in three areas within the quartzite and greenstone rocks (Templeman-Kluit, Pigage and Owerko Showings). The other showings are intrusive hosted (Sax Showing), skarn related (Bell Showing) and fracture controlled (Downs Showing). In many instances pyrite present in the showings weathers to form large distinct orange to rust brown gossans. All showings are within 5 kilometres and to the east of original Minfile Occurrence # 105G 038 (this occurrence). Work during Expatriate's 1995 soil sampling program delineated several anomalous areas, located in the east, central and west portions of the property. All anomalies are coincident copper and molybdenum with elevated responses in other elements. The 1996 airborne geophysical survey outlined 4 potential EM targets, that although did not exhibit good conductivity attributes, did have magnetic correlations. 4 Target 3E, although not coincident with any of the above showings, was considered the best exploration target because it is coincident with an isolated magnetic response and is located downhill of a soil anomaly which is moderately to strongly anomalous in As (50-100 ppm), Mo(>10 ppm), Pb(>100 ppm), Ag (>2.0 to 7.8 max ppm), Cu(>200 ppm), and Zn(>1000 ppm). Target 3 is approximately 4 km east-southeast of this minfile occurrence. Work during the 1996 summer field season was also carried out on the Bell and Sax showings. The Bell Showing consists of sphalerite with lesser pyrite and trace galena occurring as disseminations and bands within a series of small diopside-garnet skarn zones. Peak assay values were 15.6% Zn, 3 890 ppm Pb, and 57.4 g/t Ag. The Sax Showing was hand trenched exposing gossanous felsic volcanic rocks with disseminated and banded pyrite, galena and red sphalerite. An averaged rock chip sample taken in the trench returned 1.34% Pb and 0.53% Pb over 5.6 m. Work during the 1997 summer field season included hand trenching (6 trenches), mapping, and soil sampling which outlined 4 large (up to 800 by 2400 m) copper multi-element anomalies scattered across the property. Best trench samples bottomed out in oxidized soils and returned up to 1 885 ppm Cu, 3.5 % Pb, 4 120 ppm Zn, 115 ppm Ag and 1 145 ppb Au (no widths given). A float locale named 4Owerko Showing contained a yellow-red limonite boxwork textured cobble 10 cm in diameter that returned 1 575 ppm Cu, 8 650 ppm Pb and 345 g/t Ag.

References

EXPATRIATE RESOURCES Ltd, Aug/96. Assessment Report #093490 by W.A. Wengzynowski.
EXPATRIATE RESOURCES Ltd, Feb/97. Assessment Report #093655 by R.W. Woolham.
EXPATRIATE RESOURCES Ltd, Jun/97. Assessment Report #093673 by A. Burget.
EXPATRIATE RESOURCES Ltd, Sep/98. Assessment Report #093891 by W.D. Eaton.
EXPATRIATE RESOURCES Ltd, 1999. Assessment Report #093992 by W.A. Wengzynowski.
MURPHY, D.C., 1998. Stratigraphic framework for syngenetic mineral occurrences, Yukon Tanana Terrane south of Finlayson Lake: A Progress Report. In: Yukon Exploration and Geology 1997, Exploration and Geological Services Division, Indian and Northern Affairs Canada, p.51-58.
MURPHY, D.C., AND PIERCEY, S.J., 1999. Finlayson project: Geological evolution of Yukon-Tanana Terrane and its relationship to Campbell Range belt, northern Wolverine Lake map area, southeastern Yukon. In: Yukon Exploration and Geology 1998, C.F. Roots and D.S. Emond (eds.), Exploration and Geological Services Division, Indian and Northern Affairs Canada, p.47-62.

MURPHY, D.C. and PIERCEY, S.J., 1999. Geological map of parts of Finlayson Lake (105G/7, 8 and parts of 1, 2, and 9) and Frances Lake (parts of 105H/5 and 12) map areas, southeastern Yukon (1:100 000-scale). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open File 1999-4.

PIERCEY, S.J., HUNT, J.A. and MURPHY, D.C., 1999. Lithogeochemistry of meta-volcanic rocks from Yukon-Tanana Terrane, Finlayson Lake region, Yukon: Preliminary results. In: Yukon Exploration and Geology 1998, C.F. Roots and D.S. Emond (eds.), Exploration and Geological Services Division, Indian and Northern Affairs Canada, p.125-138.

MURPHY, D.C. AND PIERCEY, S.J., 2000. Syn-mineralization faults and their re-activation, Finlayson Lake massive sulphide district, Yukon-Tanana Terrane, southeastern Yukon. In: Yukon Exploration and Geology 1999, D.S. Emond and L.H. Weston (eds.), Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 55-66.

MURPHY D.C. et al, 2001. Preliminary Bedrock Geological Map of Northern Finlayson Lake Area (NTS 105G) Yukon Territory (100 000 scale), Open File 2001-33.

MURPHY et al., 2001. Finlayson Lake Targeted Geoscience Initiative (southeastern Yukon), Part 1: Bedrock Geology. In Yukon Exploration and Geology, 2001, Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 189-207.

YUKON EXPLORATION & GEOLOGY 1995, p. 12, 16; 1996, p. 17, 30, 32.

Work History

Date	Work Type	Comment
12/31/1997	Geology	
12/31/1997	Geochemistry	
12/31/1997	Trenching	
12/31/1996	Geology	
12/31/1996	Geochemistry	
12/31/1996	Trenching	
12/31/1996	Airborne Geophysics	Also magnetic survey.
12/31/1995	Geochemistry	
12/31/1995	Other	
12/31/1960	Other	
12/13/1996	Other	
12/13/1996	Other	Surveyed claims.
12/13/1960	Geochemistry	

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
095585	2011	Rock Sampling and Geochemistry Work Completed on the Shutout Property	Rock - Geochemistry, Detailed Bedrock Mapping - Geology, EM - Ground Geophysics, Magnetics - Ground Geophysics, Prospecting - Other, Digitizing Data - Pre-existing Data		
095433	2010	Assessment Report of Geology, Geochemistry and Geophysics Work Completed on the Shutout Property Yukon Territory, Canada	Rock - Geochemistry, Detailed Bedrock Mapping - Geology, EM - Ground Geophysics, Magnetics - Ground Geophysics, Prospecting - Other		
094584	2005	Assessment Report Describing Prospecting on the Shutout Property	Soil - Geochemistry, Prospecting - Other		
093992	1998	Assessment Report Describing Geological Mapping and Prospecting on the Shutout Property	Rock - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other, Hand - Trenching		
093891	1997	Assessment Report Describing Geological Mapping, Prospecting and Soil Geochemistry on the Shutout Property	Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Prospecting - Other, Hand - Trenching		
093673	1996	Assessment Report Describing Geological Mapping, Prospecting, Soil Geochemistry, Airborne Geophysics and Claim Surveys on the Shutout Property	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		
093655	1996	Report on a Combined Helicopter-Borne Electromagnetic and Magnetic Survey, Goal Net, Hat Trick, League, Offside, Power Play, Shutout and Slapshot Properties	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics		
093490	1995	Assessment Report Describing Prospecting and Geochemical Surveys on the Shutout Property	Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		