

# **Occurrence Details**

Occurrence Number: 105G 125 Occurrence Name: Goon Occurrence Type: Hard-rock

**Status:** Prospect

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# **General Information**

Secondary Commodities: copper, gold, lead, silver, zinc

Deposit Type(s): Skarn Pb-Zn

Location(s): 61°23'34" N - -130°31'43" W

NTS Mapsheet(s): 105G07 Location Comments: .5 Kilometres Hand Samples Available: No

Last Reviewed:

# Capsule

#### Work History

Staked as Goon cl 1-136 (YB76681) in Feb/96 by Expatriate Resources Ltd. The claims comprise part of Expatriate¿s larger Goal Net property.

In the spring of 1996 Expatriate flew a helicopter-borne electromagnetic/magnetic geophysical survey over its entire Goal Net property including the Goon claims. The company carried out reconnaissance scale geological mapping, prospecting and soil sampling programs on the Goon claims later in the year. In 1997 the company carried out more detailed exploration on targets identified from earlier exploration programs.

In 1998 Expatriate continued prospecting the claims and dug several hand trenches in the vicinity of target B and several hand pits on target I2. the company also carried out an Induced Polarization survey over target I2.

In 2000 Expatriate drilled four diamond drill holes (544.6 m) to test target I2. Halfway through the drilling program the company carried out an UTEM and magnetics geophysical program over the target area.

### Capsule Geology

Geological mapping (Murphy et al., 2001) indicates that the area is predominantly underlain by a sequence of Devonian to Early Mississippian metavolcanic and metasedimentary rocks of the Grass Lakes succession. The oldest member of the sequence, unit Dq, consists of biotite-muscovite-feldspar-quartz schist, micaceous quartzite, psammite and marble. Unit Dq is overlain by mafic volcanic rocks belonging to the Fire Lake metavolcanic unit (DF) which are in turn overlain by Kudz Ze Kayah felsic metavolcanic rocks (DK).

To the west, the sequence is intruded by Late Devonian foliated hornblende-biotite meta-diorite (unit DNd), and granitic to monzonitic metaplutonic rocks belonging to the Early Mississippian Grass Lakes Plutonic Suite (unit MGg). These rocks, which Murphy and Piercey interpreted to be sills, intrude the lower part of unit Dq. To the east, the sequence is intruded by a Cretaceous granitic intrusion. To the south the sequence is intruded by variably sepentinized ultramafic (unit Dum) which is inferred to be in intrusive contact with unit DF. Soil sampling, prospecting and geological mapping delineated three main targets of interest; targets A, B, and I2. Target A covers a west facing cirque and upland plateau in the North Lakes area. Reconnaissance soil sampling and prospecting along contour lines identified two areas of interest, target A1 located in a cirque (this occurrence) and target A2 located 800 m to the northwest on a plateau.

Contour soil samples collected overtop target A1 generally returned low values even though massive and semi-massive pyrrhotite, pyrite and chalcopyrite skarn mineralization in talus was found at several locations. A grab sample collected in 1996 returned 0.51% copper, 2.2 g/t silver, 550 ppm cobalt and 443 ppm nickel. Follow-up prospecting and sampling in 1997 identified several other talus showings. A specimen consisting of massive sulphide returned 45.0 g/t silver, 3.5% copper, 0.09% zinc and 430 ppm cobalt. Two chip (?) samples collected from 10 cm thick liminitic lenses exposed in skarn outcrops on a cliff returned up to 8.4 g/t silver, 1.1 g/t gold, >1% copper and 166 ppm cobalt. The lenses were described as strongly contorted and limited in extent, i.e. >5 m long.

Target A2 is delineated by a 800 by 800 m area of coincident moderately to strongly anomalous zinc-copper values. The strongest values were returned by a 500 by 300 m core lying overtop a 50 by 20 m kill zone, containing mineralized float. Peak soil values for zinc and copper were 6 790 and 2 160 ppm respectively. Foliform disseminated galena, sphalerite and chalcopyrite mineralization in biotite-chlorite-garnet +/-quartz schist was found within a small outcrop near the head of the geochemical anomaly. A sample of this material returned 103.0 g/t silver, 2.59% lead, 2.51% zinc and 840 ppm copper. Abundant strongly pitted, chalcopyrite rich quartz-carbonate float is scattered throughout the kill zone.

Target B lies approximately 3.5 km to the southwest from target A1 near the claim boundary with the adjoining NHL claims (Minfile Occurrence #105G 149). It consists of a 1200 by 1000 m area of anomalous copper response (up to 656 ppm) centred over a alteration zone located at the head of a cirque. The strongest part of the anomaly is situated immediately below a saddle and it appears much of the anomaly is due to down slope or glacial dispersion. Surcrosic muscovite quartzite float containing foliaform disseminated sphalerite and galena was located near the base of the cliffs within the cirque. A sample returned 6.0 g/t silver, 0.75% lead and 1.02% zinc.

Target I2 is located 4.5 km northeast of target A1, near the northeastern end of the Goon claim block. It is associated with 3 other targets; I1, I3 and I4, all of which are located to the south on the adjoining NHL claims (Minfile Occurrence #105G 149). Target I2 consists of a 650 by 200 m north-northeast trending soil anomaly which returned peak values of 3 060 ppm lead, 1015 ppm zinc and 86 ppm copper. Follow-up prospecting discovered a piece of strongly pitted and hematite stained quartz-muscovite schist float which returned 18.2 g/t silver, 0.89% lead and 0.15% zinc. The soil anomaly roughly coincides with a strong magnetic anomaly.

In 1998, Expatriate dug a series of hand trenches in the general vicinity of target B to test widespread massive and semi-massive pyrrhotite float containing variable amounts of disseminated galena and chalcopyrite. Two of the trenches encountered mineralization consisting of tightly folded pyrrhotite- and chalcopyrite-bearing cal-silcate interlayed with massive or semi-massive pyrrhotite. A 60 cm chip sample from one trench returned 18.0 g/t silver, 2170 ppm copper, 3570 ppm lead and 85 ppm zinc. Hand trenching also located stratabound sphalerite mineralization in the area. The sphalerite occurs as thin foliaform laminae within a sucrosic, white metarrhyolite belonging to unit DF. A 9 cm chip sample taken across the thickest exposure returned 1.0 g/t silver, 55 ppm copper, 440 ppm lead and 4.53% zinc. The horizon was traced for 15 m before it pinches to <1 cm thickness at both ends. This showing is located near a ridge top and this, coupled with its flat dip, indicated limited exploration potential.

Prospecting in the vicinity of the most anomalous soil sample site at target I2 uncovered abundant quartz rich, orange weathering box work limonite fragments, most of which were moderately anomalous for silver and lead and contained minor amounts of copper and zinc. The best specimen returned 32.0 g/t silver and 1 464 ppm zinc. Hand pits dug above the limonite float train intersected a distinctive orange-yellow, strongly micaceous clay horizon in two places. Samples collected from the horizon returned up to 65.9 g/t silver and 1 464 ppm zinc. The horizon likely represents solifluction from a nearby bedrock source. The Induced Polarization survey outlined 3 horizontal chargeable highs centred over target I2. At the end of 1998 Expatriate decided to concentrate its exploration efforts on target I2 and adjoining targets A1 and A3 because the targets covered the thickest section of Kudz Ze Kayah equivalent stratigraphy identified in the North Lakes Area. Targets A and B were assigned a low priority because their aerial extent was too small and because the geochemical anomalies are at least in part due to skarn mineralization developed peripheral to granitic stocks.

The 2000 diamond drill program was conducted in two parts. The company drilled two holes and then carried out the ground UTEM and magnetics surveys before drilling the last two holes. The holes were designed to test a strong lead-zinc soil geochemical anomaly and associated geophysical conductors. Three of the holes reached bedrock and 2 holes intersected sulphide mineralization in quartz-porphyritic metarhyolite that is similar to the felsic metavolcanic strata that hosts the GP4F deposit (Minfile Occurrence #105G 143) located approximately 6 km to the northwest. The best intersection returned 63.0 g/t silver, 1 360 ppm copper, 1.84% lead, 3.01% zinc and 2.20 g/t gold across 0.73 m. Deleterious elements such as arsenic, antimony, mercury and selenium were all below the analytical limits. Expatriate used the drill core to refine the stratigraphy on its adjoining claim groups.

#### References

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# **Work History**

Date	Work Type	Comment	
12/31/2000	Drilling	Four holes, 544.6 m. Work carried out on target I2.	
12/31/2000	Ground Geophysics	Also UTEM survey. Work carried out on target I2.	
12/31/1998	Geochemistry		
12/31/1998	Trenching		
12/31/1998	Other		
12/31/1997	Geochemistry		
12/31/1997	Geology		
12/31/1997	Geochemistry		
12/31/1996	Geology		
12/31/1996	Geochemistry		
12/31/1996	Airborne Geophysics	Also magnetic survey.	
12/31/1996	Other		

# **Assessment Reports that overlap occurrence**

Report	Voor	Title	Worktypes	Holes	Meters	
Number	Year			Drilled	Drilled	

<u>094526</u>	2003	Geological and Geochemical Report on the Goal Net Claim Block	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology
<u>094016</u>	1998	Assessment Report Describing Geological Mapping, Prospecting, and Soil Geochemistry on the Goal Net Property	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Backhoe - Trenching
093788	1997	Assessment Report Describing Geological Mapping, Prospecting, and Soil Geochemistry on the Goal Net Property	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Bedrock Mapping - Geology, Prospecting - Other, Backhoe - Trenching, Hand - Trenching
093573	1996	Assessment Report Describing Geological Mapping, Prospecting, and Soil Geochemistry and Geophysical Surveys on the Goal Net Property	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics, Soil - Geochemistry , Bedrock Mapping - Geology , Prospecting - Other
<u>093655</u>	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
<u>090734</u>	1981	Report on Reconnaissance Proton Magnetomoter Survey , Lena 1-42 Claims	Magnetics - Ground Geophysics