



## GAC Cordilleran Section Exploration Breakfast Series

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## “Frog River Pb-Zn-Ag prospect: a porphyry target?”

Tuesday November 1st

Registration and networking: 8:00 am

Talk commences: 8:20 am

Geological Survey of Canada Discovery Centre

15th Floor, 605 Robson Street, Vancouver, BC

[\(click here for map\)](#)

Admission is \$5 paid on the door, coffee and muffins will be provided  
Space is limited, please RSVP to [talks@gac-cs.ca](mailto:talks@gac-cs.ca) to reserve your place

**Abstract:** The Frog property in northern BC is located about 170 km east of Dease Lake and about 70 kms east of the Kutcho Creek copper-zinc deposit of Capstone Mining. The exploration history of the Frog property dates back to the 1950's when numerous angular pieces and blocks of massive sulfides of galena and sphalerite and lesser chalcopyrite and rhodochrosite/rhodonite were discovered in felsenmeer on the floor of a cirque west of Frog River. The property was held by Conwest Mining from the early 1960's until the early 1970's and subsequently by Cominco until 1989. It was recently restaked by Chris Graf and Ted Muraro.

Sampling of a number of blocks of high grade material by Conwest and Cominco averaged 29.7% Pb, 6.8% Zn, 0.6% Cu, 16.6 oz/t Ag, and 0.01 oz/t Au. The pieces of sulfide rich breccia of quartz and carbonate are mixed with similar shapes of metamorphosed siliciclastics of the Upper Proterozoic Ingenika Group. Black manganese oxide is widespread. Extensive sericitic alteration extends to the top of the ridge to the

west. Granitic intrusive is exposed on the ridge to the south. Several samples assayed over 2% Cu.

A number of ground surveys were conducted on the property attempting to locate the source of the massive sulfide blocks, including soil geochem, sluice trenching, HLEM, VLF, IP, magnetics and gravity. In 1971, Conwest reportedly conducted a small drill program to test several IP Metal Factor anomalies but did not intersect any high grade mineralization. Cominco geologists later concluded that the holes were oriented in the wrong direction. In the historical documents, a record of recommended drill holes has been found, but no drill hole logs have been found, nor a record of actual collar locations, however it is assumed the holes were collared on IP metal factor targets recommended by McPhar Geophysics but field investigation has not located any disturbance indicating drill holes.

The soil survey outlined a large area of anomalous lead, zinc, and manganese measuring about 2 x 2 km, however the samples were not analyzed for copper. It remains open to the southeast. The HLEM did not generate significant anomalies and VLF outlined a small anomaly attributed to a fault. The ground magnetic survey showed a regional trend in concert with the later aeromag. An interesting gravity response initially generated interest but was later attributed to terrain effects and discounted. A recent review of the IP data shows that the actual chargeability responses in two areas are significantly high and quite different from the metal factor responses in the areas which were likely drill targeted.

The property is located on a large 12 x 12 km magnetic anomaly that was outlined by a mid-1990's GSC high level aeromagnetic survey. This can be explained by a large intrusive body at depth. Of particular interest is a shorter wavelength dipolar magnetic response of about 4 x 4 km superimposed on the larger magnetic anomaly that can only be explained by a shallower source like an intrusive pipe which could be a pulse up from the deeper intrusive body or a magnetic mineralized zone. It is centered about 1 km southeast of the high grade boulders and within the multi element soil anomaly.

The aeromagnetic responses in conjunction with the large geochemical anomaly suggests that a large porphyry copper deposit could lie below the higher level lead-zinc-copper-manganese mineralization and the untested IP chargeability anomalies upslope from the massive sulfide boulder field could be the location of their bedrock source which could be a Silvertip/Midway type of deposit.