## PROJECTS RELATED TO PRECIOUS METALS (Au, Ag)

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## Precious metal mineralization in central Newfoundland: ongoing research

Field investigations on precious metal mineralization continued in central Newfoundland. This work incorporated the examination of regional bedrock outcrops and visiting of historical exploration trenches at known mineralization sites in the Glenwood area and north northeastwards along the Dog Bay Fault to the Gander Bay coast. The historical mineralized zones included: the Clydesdale, T-Rex, Blue Peter, Lachlan, Bullet and Lucky Moose showings as well as a new showing termed Logan that is proximal to Lachlan. Late in August, in a joint project with the Geological Survey of Canada (GSC), a week was spent undertaking detailed structural mapping and lithogeochemical and U-Pb sample collection on the Antler Gold, Wilding Lake property in central Newfoundland. This study on the structural evolution of the quartz vein systems at the property will form the body of the postdoctoral fellowship of Dr. Ian Honsberger.





Previously unrecognized, cleaved, poorlysorted, matrix-supported cobble conglomerate unconformably overlying manganiferous and sulphidic black shale, likely of Sandbian age. Immediately North side of highway 1, Appleton.

A) View looking southwest along the Elm quartz vein at the Antler Gold, Wilding Lake property. B) Photograph of a cut-slab from a chalcopyrite- and malachite-rich section of the vein.

## Precious metal mineralization in the Hopedale map sheet (NTS 13N), Labrador

In 2017, under the auspices of the Geo-mapping for Energy and Minerals (GEM) II project, the GSC undertook data acquisition and production of a new, detailed, 1:250,000 aeromagnetic map (with 200 m line spacing) of the Hopedale (NTS 13N) map sheet. In July 2018, a team of 5 individuals from the Geological Survey Division of the Department of Natural Resources, Newfoundland and Labrador, collaborated with a GSC field party in order to reexamine the bedrock geology and regional mineral showings in light of the new aeromagnetic data. The NL Geological Survey team spent 22 days undertaking geological mapping and sample collection while ground-truthing the soon to be released, aeromagnetic map of the Hopedale sheet. This bedrock work occurred in conjunction with regional till and heavymineral-indicator sampling as well as surficial mapping. The Hopedale team also undertook follow-up examination of bedrock exposures that are proximal to historical, gold-inlake sediment and till anomalies. The data from these investigations will be made available to the public in the future.



Sulphidized amphibolite of the Hunt River greenstone belt, Hopedale block, Labrador. Alex Bugden (assistant) for scale.

Wind sculpted erratic of medium to coarse-grained anorthosite of the Nain Plutonic Suite.

