

FOG 2018

Mitchi property, a visit into peculiar copper mineralization in the Grenville Province.

The Mitchi property is a unique geological site in the Grenville Province for its variety of deposit types and atypical mineral assemblages. The property is located 100km north of Mont-Laurier, Quebec. Geologically, the property is located in the northern part of the central metasedimentary belt within the supracrustal sequences of the marble domain. Kintavar Exploration Inc. is currently expanding since its recent work on the Watson and Sherlock Copper Indices shows great mining potential. These cup-shaped mineralizations contained in marble sequences have long been interpreted as copper skarns (Noranda, 1972). They have recently been reinterpreted as gites sedimentary stratiforms (Gauthier, 2015). On the property, other indices show a great diversity of deposits with affinities with Cu-Mo-W-Au cuprous porphyries, Fe-Cu-Au magnetite breccia, magmatic sulphide cumulates of Ni-Cu-Co as well as U-Th-PF apatite pegmatites.

The description of the Pump Lake Seed Indications by Davy (2009), Renou (2009), Gauthier (2015) and Pelletier (2017) leads to the conclusion that there is a mineralized system with affinities with the IOCG lodgings. This assumption is based on the fact that the indices are associated with (1) alkaline intrusion LeSueur, (2) rocks rich in magnetite, (3) gaps intensely hematized, and (4) of the mineralized zones polymetallic Cu - Au - Ag - W - ETR. The copper-bearing stratiform deposits are interpreted as Mesoproterozoic, while the other deposits would be late Proterozoic. This sector seems to hold the evidence of the presence of an IOCG-IOA system in agreement with Corriveau et al. (2017, see Quebec Mines abstract) in this sector of the Grenville Province.

The Mitchi property is a unique geological site in the Grenville Province for its variety of polymetallic prospects with an exotic mineralogy. The property is located 100km north of Mont-Laurier, Quebec. Geologically the property is located in the northern part of the Central Metasedimentary Belt within the marble domain. The company Kintavar Exploartion Inc. is currently significantly expanding their recent exploration of the copper occurrences. Watson and Sherlock, have uncovered significant mineral potential. The copper mineralization is hosted in marble and were long interpreted as copper skarns (Noranda, 1972). They are now interpreted as sedimentary stratiform copper mineralization (Gauthier, 2015). On the property, other mineralized occurrences display affinities with Cu-Mo-W-Au porphyry copper, Fe-Cu-Au magnetite breccias, magmatic Ni-Cu-Co sulphides cumulates, and apatite-rich exotic U-Th-P-F-

REE pegmatites. Description of mineralized occurrences of the Pump Lake project sector let Davy (2009), Renou (2009), Gauthier (2015) and Pelletier (2017) to propose an IOCG model based on association of the mineral occurrences with (1) the LeSueur alkaline intrusive suite, (2) magnetite-rich metasomatic rocks, (3) intensely hematized breccias and (4) common Cu-Au-Ag-REE mineralisation. Mineralization of the Sedimentary Stratiform Copper deposit type is interpreted as Mesoproterozoic in age while the other occurrences are interpreted as Late Proterozoic. This sector display characteristics of an IOCG-IOA system, which is consistent with the hypotheses Corriveau et al. (2017; Québec Mines abstract) in this sector of the Grenville Province.