

GAC CORDILLERAN SECTION

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Exploration Series Morning Talks

Tuesday, January 14, 2020

8:00 am: Registration – Networking

8:15 am: Presentation begins

Discovery Center, Geological Survey of Canada
1500 - 605 Robson Street, Vancouver, BC

Cost: \$5 – Pay at Door – Coffee & muffins provided

RSVP: space is limited; please pre-register by email at: talks@gac-cs.ca

American Creek West Project: an Unmapped Intrusion and New Mineralized Structures Add to the Precious Metal Story

**Discussion Leader: Lucia Theny, MSc,
Vice-President of Exploration, Mountain Boy Minerals Ltd.**

The American Creek West Project is located in the Coast Range Mountains ~ 20 km north of the town of Stewart, BC. The property is hosted in Mesozoic volcanic strata with associated intrusive and sedimentary units. Structurally the American Creek West Property is interpreted to reside in the western limb of the northwest plunging American Creek anticline. The anticline is interpreted to be cored by rocks of the Unuk River formation, overlain successively by younger rocks of the Betty Creek formation, which in turn are overlain by the Mount Dillworth formation; all three formations are part of the Lower Hazelton Group. These three units are unconformably overlain by the Upper Hazelton Group and Iskut River formation, formerly known as the Salmon River Formation (Gagnon et al., 2012). Paleogene mafic and felsic dykes are also common across the property, and are likely related to the bimodal Portland Canal dyke swarm (Green, Greig & Friedman, 1995). The strata have been variably deformed and undergone regional greenschist facies metamorphism.

The property is host to several minifile occurrences including the historic Mountain Boy mine, which was originally staked in 1902. The past producing vein system locally assayed very high-grade silver, lead and zinc. The style of alteration and the metal tenure of the veins mapped throughout the property suggest that the property hosts an intermediate sulphidation epithermal system. Interestingly, precious metal mineralization on the property was discovered this past field season as a second distinct style. The new style of mineralization appears to be controlled by steep structures that cross cut rocks of the Mount Dilworth formation and possibly the Iskut River formation.

Property-scale mapping by Mountain Boy Minerals made significant refinements to the local geology including the discovery of an unmapped intrusive unit that yielded an Early Jurassic U/Pb isotopic age. These rocks closely resemble the metallogenic Early Jurassic Premier Porphyry, which is documented as being related to the mineralization at the past producing Silbak-Premier epithermal deposit located 11 kilometres to the southwest. Lead isotope analysis of galena from mineralized epithermal veins that occur on the property are currently being conducted. The working hypothesis being that the igneous age of the newly mapped intrusive unit and the Pb isotope model age will reveal a spatial and temporal syngenetic relationship.

Lucia Theny is an exploration geologist with strong interests in structural geology and geochronology. Lucia has academic and field experience in multiple countries and regions, with several seasons focused in the Stewart camp of BC's Golden Triangle. Throughout her career she has worked on greenfields and brownfields exploration with junior and mid-tier companies on 'SEDEX', epithermal, porphyry and VHMS deposit types. Ms. Theny is focused on combining new scientific techniques with fundamental methodology for exploration, target generation, and project advancement. Lucia holds a B.Sc. (Honours) in Geology from the University of British Columbia and a M.Sc. in Geology from Simon Fraser University.