REGIONAL GEOLOGICAL MAPPING OF THE AILLIK DOMAIN, MAKKOVIK PROVINCE, LABRADOR.

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The 2008 field season saw the completion of the 1:50,000-scale, bedrock mapping of the Monkey Hill map area (NTS map sheet 13J/14). The area comprised largely Paleoproterozoic volcano-sedimentary rocks of the Aillik Group and Paleoproterozoic intrusive suites. Geological mapping further constrained the lithological variation and geographical extent of the Aillik Group, which underlies most of the northern portion of the Monkey Hill map area. The southern portion of the map area, principally comprised weakly foliated, coarse-grained plutonic rocks, and likely represents an exhumed deeper crustal section relative to the rocks in the north. The entire map area was affected by late brittle faulting, which further complicated the geology of the area.

Within the Monkey Hill and Makkovik (NTS 13/03) map areas, the Aillik Group hosts numerous uranium and molybdenum showings and also some copper, lead and pyrite showings. Some new radioactively anomalous and molybdenum-bearing occurrences were found within the Aillik Group in the Monkey Hill map area. Much of the area mapped is currently Exempt Mineral Land (EML) or Labrador Inuit Land (LIL) which may eventually be available for exploration. All of the remaining ground is currently held by various exploration companies.

Landscape photograph of the Monkey Hill Map area (NTS13J/14), looking to the Northwest. The prominent hill is Monkey Hill.

Late sinistral brittle fault in a fine-grained, undeformed gabbro intrusion.

A felsic tuff of the Aillik Group containing flattened crystal fragments of quartz and plagioclase (0.5 - 2.0 mm). Cm card scale.

Moderately foliated, polymictic conglomerate from the Aillik Group. Clasts range is size from 2 to 10 cm, are poorly sorted and comprise various lithologies but are dominatly sandstone, tuffaceous sandstone and felsic tuff, with minor, rounded clasts of quartzite and mafic tuff.

Molybdenite mineralization in foliated, recrystallized, epidote-altered, metabasaltic tuff of the Aillik Group.

A preserved pillow in a metabasalt from the Aillik Group. The pillow is epidotized and surrounded by a quartz–feldspar-rich rim. Pencil is 15 cm long.

Coarse-grained, magnetite-biotite monzogranite from the Big River Granite (ca. 1800 Ma). The granite contains plagioclase phenocrysts (2 - 6 mm long) that are rimmed by K-feldspar.