

GEOLOGY OF THE SQUALL LAKE - VARNSON LAKES AREA

Legend

PALEOPROTEROZOIC

< 1.84 Ga INTRUSIVE ROCKS

- 14 Granite pegmatite
- 13 Ham Lake pluton: foliated medium to coarse-grained biotite-hornblende granodiorite and tonalite
- 12 Chisel Lake layered ultramafic intrusion: undivided peridotite, pyroxenite, gabbro

BURNTWOOD GROUP (1.85-1.84 Ga TURBIDITES)

- 11 Staurolite-garnet-biotite-bearing paragneisses

SNOW LAKE ARC ASSEMBLAGE (>1.88 Ga ROCKS)

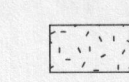

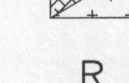
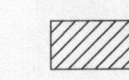
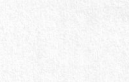
Synvolcanic intrusive rocks (may include rocks as young as 1.84 Ga)

- 10 Quartz porphyry, quartz-plagioclase porphyry, derived gneisses
 - a) prominent phenocrysts
 - b) aphyric to sparsely quartz phyrlic
- 9 Gabbro, diorite, quartz diorite, derived amphibolite
 - a) fine to medium grained
 - b) medium to coarse grained
 - c) plagioclase phyrlic
 - d) pyroxene phyrlic, pyroxene-plagioclase phyrlic
 - e) amphibolite
- 8 Fractionated gabbro sill
 - a) medium grained equigranular gabbro
 - b) coarse grained gabbro with large amphibole crystals
 - c) quartz diorite with large amphibole crystals
- 7 Pyroxenite, melagabbro and gabbro

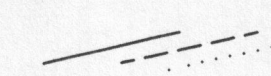


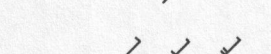
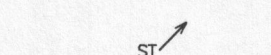




Supracrustal rocks

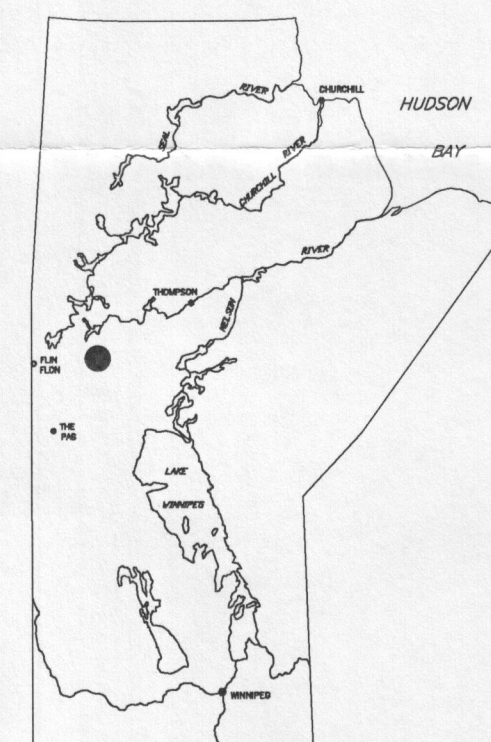
- 6 Mafic volcanic breccia, gneiss/recrystallized
 - a) heterolithic mafic breccia
 - b) mixed mafic and felsic breccia
 - c) mafic volcanic wacke
- 5 Rhyodacite tuff, lapilli tuff
- 4 Felsic gneiss, local amygdalites
 - a) aphyric to sparsely quartz phyrlic
 - b) completely recrystallized, locally granitoid texture
- 3 Photo Lake rhyolite
- 2 Aphyric mafic flows (mainly massive), mafic gneiss and amphibolite
 - a) massive flows, locally amygdaloidal, rare pillows
 - b) fine grained mafic gneiss
 - c) amphibolite
- 1 Porphyritic basalt flows (commonly pillowed)
 - a) porphyritic
 - b) sparsely porphyritic

Altered rocks

-  Quartz+plagioclase-rich rocks derived from a mafic protolith (10-50% quartz+albite-epidote set in a matrix of 5-15% garnet, and 30-50% actinolite)
-  Chlorite+garnet+biotite rich rocks
-  Amphibole-rich rocks (10-20% fine grained actinolite+garnet; 10-40% coarse grained amphibole+garnet)
-  R Rusty weathering, disseminated sulphides
-  Carbonate-rich rocks (iron carbonate-filled fractures related to late, brittle-ductile faulting)

Symbols

-  Geological contact: approximate, assumed, under water
-  Fault
-  Bedding: top unknown, known
-  Pillow flattening: top known
-  Schistosity: generation unknown, 1st, 2nd
-  Lineation: ST-stretch, ML-mineral, MC-microcrenulation
-  Mineral occurrence: Tungsten, Copper
-  Limit of mapping
-  Hydro power line



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This map is a provisional summary of work carried out during the summer field season and is printed directly from the geologist's manuscript. It is not to be regarded as a final interpretation of the geology of the area.

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Scale 1: 20 000

