Preliminary Map PMAP2010-3

Geology of the Snow Lake–Squall Lake–Herblet Lake area, Manitoba (parts of NTS 63K16, 63J13)

Legend

Post-Missi intrusive rocks

- 11 — Granitic pegmatite: homogeneous, massive, microcline-plagioclase-quartz-biotite-muscovite
- 10 — Gabbro dikes and sills: massive to foliated, equigranular, locally plagioclase porphyritic

Missi Group

- 9 — Arenite: trough crossbedded; biotitie-garnet; biotite-garnet-sillimanite

Burntwood Group

- 8 — Greywacke, mudstone: staurolite-garnet-biotite schist; garnet-biotite schist; biotite-garnet-sillimanite

Herblet gneiss dome

- 7 — Tonalitic to granodioritic gneiss: fine to medium grained, foliated, quartz-oligoclase-microcline-biotite±hornblende
- 6 — Felsic gneiss: fine- to medium-grained garnetiferous quartzofeldspathic gneiss, foliated
- 5 — Amphibolite: strongly foliated, medium grained, compositionally layered hornblende-plagioclase gneiss, commonly garnetiferous

Snow Lake arc assemblage

- 4 — Gabbro: fine grained, equigranular; weakly foliated with granoblastic texture
- 3 — Mafic volcanic rocks: aphyric to plagioclase-phyric pillowed basalt; massive basalt; minor volcaniclastic rocks
- 2c — Felsic- and intermediate- dominated heterolithic volcanic conglomerate
- 2b — Epiclastic volcanic sandstone: predominantly feldspathic volcanic sandstone; also contains pyroxene-phyric mafic tuff, heterolithic lapilli tuff and tuff breccia and heterolithic volcanic conglomerate
- 2a — Mafic volcanic and volcaniclastic rocks: pyroxene- and plagioclase-pyroxene-phyric mafic tuff; monolithic to heterolithic lapilli tuff and tuff breccia; local pyroxene-phyric pillowed basalt and basalt flows; contains locally abundant pyroxenite dikes
- 1 — Felsic volcanic and volcaniclastic rocks: amygdaloidal dacite; aphyric to K-feldspar-phyric tuff; heterolithic lapilli tuff and tuff breccia; minor quartz-phyric lapilli tuff; contains locally abundant pyroxenite dikes (unit 2a)

Symbols

Planar structures

- Bedding: tops unknown, upright, overturned
- Foliation: generation unknown,1, 2, 3, 4
- Flow contact: top unknown, known
- Crenulation cleavage: generation unknown
- Shear zone: sinistral
- Fault: sense unknown
- Shear band: generation 2, dextral
- Dike
- Vein
- Fold axial plane: generation unknown, 2, 3

Linear structures

- Fold axis: generation unknown, 2, 3, 4
- Fold axis: Z symmetry, generation 1, 2, 3
- Fold axis: S symmetry, generation 1, 2
- Fold axis: symmetric, generation 1
- Intersection lineation: generation unknown, 1, 2, 3
- L-fabric: generation unknown, 1, 2
- L-fabric: mineral lineation
- Slicken striae

- Fault
- Thrust
- Antiform: F_2,F_3
- Synform: F_1 , F_2 , F_3
- Approximate contact
- Limit of mapping
- Road
- Limited use road
- Trail
- Powerline
- Mine (past producing)
- Tower
- Swamp
- Tailings pond

Geology by: S. Gagné, and C.J. Beaumont-Smith

Includes compiled geology by Beaumont-Smith and Gagné (2008), Gagné (2009), Schledewitz (1997) and Galley, et al. (1988).

Cartography by: M.E. McFarlane

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

SUGGESTED REFERENCE:
Gagné, S. and Beaumont-Smith, C.J. 2010: Geology of the Snow Lake–Squall Lake–Herblet Lake area, Manitoba (parts of NTS 63K16, 63J13); Manitoba Innovation, Energy and Mines, Manitoba Geological Survey, Preliminary Map PMAP2010-3, scale 1:20 000.

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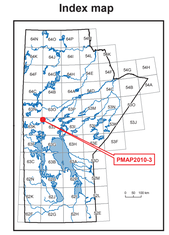
Gagné, S. 2009: Geology of the McLeod Road–Birch Lake allochthon, Herblet Lake (Southwest Bay), Snow Lake area, Manitoba (part of NTS 63J13); Manitoba Innovation, Energy and Mines, Manitoba Geological Survey, Preliminary Map PMAP2009-1, scale 1:10 000.
Galley, A.G., Ames, D.E. and Franklin, J.M. 1988: Geological setting of gold mineralization, Snow Lake, Manitoba; Geological Survey of Canada, Open File 1700, scale 1:5000.
Schledewitz, D.C.P. 1997: Compilation of the geology of the Squall Lake area (NTS 63K/16NE); Manitoba Energy and Mines, Preliminary Map 1997F-2, scale 1:20 000.
Beaumont-Smith, C.J. and Gagné, S. 2008: Structural geology of the Snow Lake–Squall Lake area, Manitoba (parts of NTS 63K16, 63J13); Manitoba Science, Technology, Energy and Mines, Manitoba Geological Survey, Preliminary Map PMAP2008-1, scale 1:20 000.

Index map



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