



Universal Transverse Mercator, zone 15, North American Datum 1983

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Preliminary Map: PMAP2003-4

Geology of the western Sharpe Lake area, Manitoba (NTS 53K5)

Legend

Felsic plutonic rocks

- 12 Graphic granite, pegmatite, aplite
- 11 Hornblende granodiorite: potassium feldspar megacrystic, beige to pale pink weathering, grey buff; weakly foliated; coarse grained
- 10 Biotite tonalite dikes: leucocratic, plagioclase phyrlic; white to light grey weathering, grey; fine grained
- 9 Biotite tonalite: leucocratic, white weathering, white; weakly foliated; medium grained

Cross Lake assemblage

- Meta-arenite and conglomerate:
- 8a) Meta-arenite
- 8b) Polymictic conglomerate; polymictic clast support; tonalite clast dominant

Pre-Cross Lake intrusive rocks

- 7 Tonalite: leucocratic; white weathering; fine grained

Oxford Lake assemblage

- Metagreywacke, pebbly metagreywacke:
- 6a) Feldspathic metagreywacke; biotite garnet bearing; sandstone with minor siltstone interbeds
- 6b) Polymictic conglomerate; pebble, cobble bearing; matrix and clast support; volcanic derived felsic to intermediate composition, clasts dominant

Stull assemblage

- 5 Gabbro, diorite: includes post-Oxford Lake assemblage

- Basalt: aphyric to sparsely plagioclase phyrlic; mafic tectonite; amphibolite:
- 4a) Basalt: pillowed and massive flows; pale green to green weathering, green to grey; aphyric to sparsely plagioclase phyrlic
- 4b) Basalt: pillowed and massive flows; pale green to green weathering, green to grey; aphyric; variolitic, 2 to 5 mm spherical epidolitized domains typically near margins of pillows
- 4c) Basalt: pillowed and massive flows; dark grey to black weathering, black; aphyric
- 4d) Mafic tectonite: pale green weathering, green to grey; derived chiefly from basalt and gabbro

Richardson Arm gneiss complex

- Granodiorite gneiss:
- 3a) Granodiorite gneiss: biotite bearing; beige to pink weathering, grey to pale pink; moderately to strongly foliated, weakly layered; contains variable percentages of units 1 and 2
- 3b) Augen granodiorite gneiss: tectonized granodiorite gneiss (3a)
- Tonalite gneiss:
- 2a) Hornblende tonalite: white to light grey weathering, light grey; weakly to moderately foliated; medium to coarse grained; forms the major injection in the tonalite gneisses
- 2b) Hornblende tonalite gneiss: locally hornblende biotite bearing; white to light grey weathering, grey; moderately to strongly foliated, moderately to strongly layered; contains 5 to 50% xenoliths of unit 1
- 2c) Schollen to stromatic hornblende tonalite gneiss: strongly foliated and parallel layered gneiss containing oriented, variably assimilated rafts of unit 1

- Mafic to intermediate orthogneiss:
- 1a) Layered amphibolite: grey to black weathering, dark grey to black; granoblastic to weakly foliated, compositionally layered
- 1b) Mafic granulite: orthopyroxene and clinopyroxene bearing; granoblastic to weakly foliated, variably retrograded to garnet amphibolite

Symbols

	Mineral occurrences	Alteration
--- Geological contact	● pyrrhotite	▲ chlorite, calcite
--- Underwater contact	● pyrite	▲ sericite
--- Fault	● pyrite, malachite	▲ sericite, ankerite
... Limit of mapping		▲ sericite, ankerite, fuschite
	Veins	▲ sericite, ankerite, fuschite, silicification
	⚡ quartz vein	▲ silicification
	⚡ calcite vein	
	⚡ ankerite vein	

Geology by: M.T. Corkery, C.J. Beaumont-Smith, S.D. Anderson and A.H. Bailes (2003)

with additional geology by:
Martin, B. 1973. Sharpe Lake (west half); Manitoba Department of Mines,
Resources and Environmental Management, Mines Branch, Preliminary
Map 1973 H-14, scale 1:50 000.

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

Corkery, M.T., Beaumont-Smith, C.J., Anderson, S.D. and Bailes, A.H. 2003: Geology of the western Sharpe Lake area, Manitoba (NTS 53K5); Manitoba Industry, Economic Development and Mines, Manitoba Geological Survey, Preliminary Map PMAP2003-4, scale 1:50 000.

Layering

- Bedding: top known
- Pillow: top known
- Pillow: top unknown

Foliation

- generation unknown
- generation 1
- generation 2
- generation 3 (retrograde shear fabric)
- generation 4

Gneissosity

- generation unknown
- generation 1
- generation 2
- generation 3
- generation 4 (retrograde shear fabric)
- generation 5 (fracture cleavage)

Faults and shears

- Fault: generation unknown
- Shear: sense unknown
- Shear: sense dextral

Lineation

- Stretching: generation unknown
- Stretching: generation 1
- Stretching: generation 2
- Stretching: generation 3
- Stretching: generation 4
- Fold axis: generation unknown
- Fold axis: generation 2
- Fold axis: generation 3
- Fold axis: generation 4
- Intersection: generation 3
- Intersection: generation 4

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