



Bedrock geology of south-central Knee Lake, Manitoba (parts of NTS 53L15, 53M2)

Legend

- Tectonite; uncertain precursor**
- 15 Tectonite
 - 15a Mylonite, phyllonite
- Late intrusions**
- 14 Carbonate dikes; dolomite-calcite
 - 14a Massive
 - 14b Layered
 - 13 Lamprophyre dikes
 - 13a Equigranular
 - 13b Porphyritic (phlogopite/biotite)
 - 12 Intermediate-felsic dikes
 - 12a Feldspar porphyry
 - 12b Quartz-feldspar porphyry
 - 11 Diabase dikes
 - 11a Equigranular
- Opischikona Narrows basin**
- Shallow-marine to subaerial sequence**
- 10 Sandstone, minor mudstone and pebble conglomerate
 - 10a Trough-crossbedded
 - 10b Planar-bedded; turbiditic
 - 9 Conglomerate, minor sandstone and mudstone
 - 9a Polymictic; pebble to boulder
 - 9b Polymictic; pebble to cobble; mainly chert clasts
- Angular unconformity**
- Marine sequence**
- 8 Gabbro, diorite; dikes and sills
 - 8a Equigranular
 - 8b Plagioclase-phyric
 - 8c Pyroxene-phyric
 - 7 Iron formation
 - 7a Banded chert and magnetite
 - 7b Bedded mudstone, magnetite and greywacke
 - 6 Feldspathic greywacke; turbiditic
 - 6a Planar-bedded greywacke, mudstone; minor pebble conglomerate
 - 6b Includes chert-pebble conglomerate
 - 5 Mafic volcanic rocks
 - 5a Massive basalt
 - 5b Includes breccia
- Conformity or disconformity**
- Hayes River group**
- 4 Ultramafic-mafic sills; locally layered
 - 4a Quartz diorite
 - 4b Mesogabbro, leucogabbro, quartz gabbro
 - 4c Pyroxenite, melagabbro
 - 4d Peridotite
 - 3 Volcanic and chemical sedimentary rocks
 - 3a Volcanic sandstone, minor mudstone
 - 3b Volcanic pebble conglomerate; heterolithic
 - 3c Iron formation; banded chert and magnetite
 - 3d Mafic volcanic sandstone, conglomerate
 - 2 Felsic volcanoclastic rocks
 - 2a Felsic breccia, tuff breccia, lapilli tuff and tuff
 - 1 Mafic volcanic rocks; pillowed to massive; minor breccia, hyaloclastite
 - 1a Basalt, basaltic-andesite, andesite; plagioclase-phyric
 - 1b Basalt, basaltic-andesite; aphyric, varioitic
 - 1c Basalt, basaltic-andesite; aphyric

- Structural symbols**
- Pillow: tops known, overturned
 - Bedding: tops unknown, known, overturned
 - Flow contact: tops unknown, known, overturned
 - Igneous layering
 - Dike
 - Shear zone: sense of movement unknown, dextral
 - Foliation: generation 1, 2, 3, 4
 - Fold axial plane: generation 2, 3, 4
 - L-fabric: generation 2/3
 - Fold axis (symmetrical): generation 2, 3, 4
 - Fold axis (S asymmetry): generation 3, 4
 - Fold axis (Z asymmetry): generation 3, 4
- Symbols**
- Geological contact: approximate
 - Geological contact: inferred
 - Fault (inferred)
 - Fault (defined; interpreted thrust)
 - Fault (inferred; interpreted thrust)
 - Unconformity (defined)
 - Unconformity (inferred)
 - Anticline
 - Syncline
 - Limit of mapping
 - Station location

Geology by S.D. Anderson (2016), E.C. Syme and M.T. Corkery (1997-1998)

Cartography by M.E. McFarlane

Recommended reference:
Anderson, S.D., Syme, E.C. and Corkery, M.T. 2016. Bedrock geology of south-central Knee Lake, Manitoba (parts of NTS 53L15, 53M2); Manitoba Growth, Enterprise and Trade, Manitoba Geological Survey, Preliminary Map PMAP2016-1, scale 1:15 000.

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.

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Location Map

384 000 386 000 388 000 390 000 392 000 394 000

6 094 000 6 092 000 6 090 000

NAD 1983 UTM Zone 18N

Scale 1:15 000

