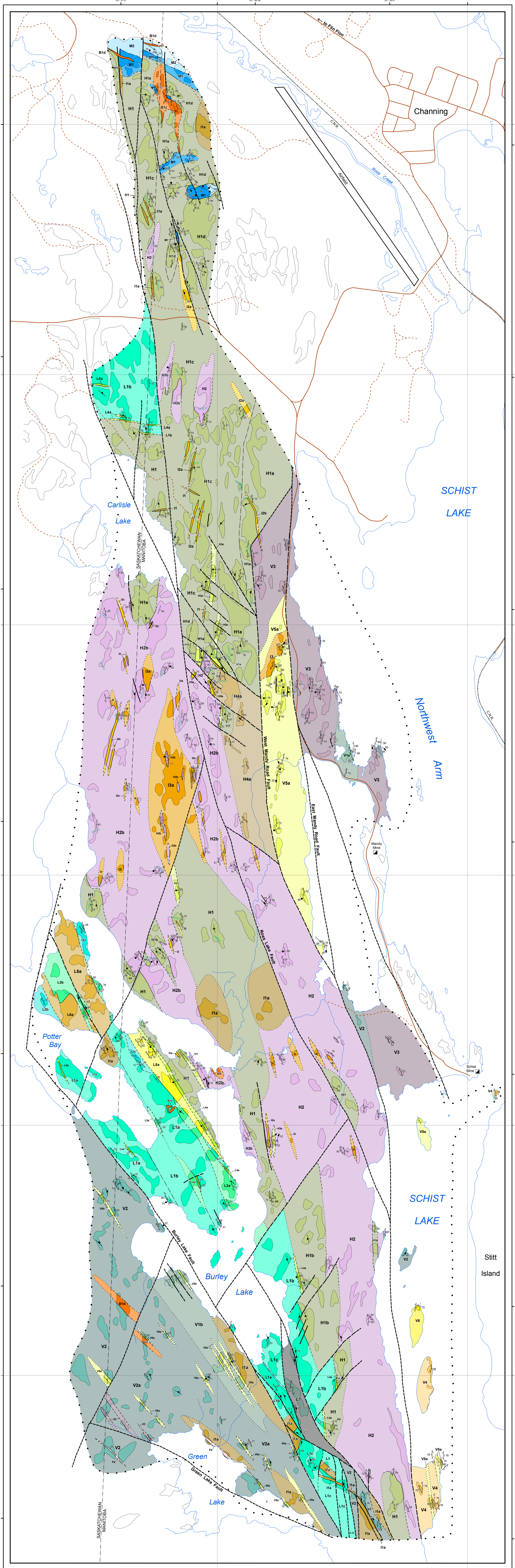




Geology of the Schist Lake – Mandy mines area, Flin Flon, Manitoba (part of NTS 63K12)



Legend

INTRUSIVE ROCKS (<1.845 GA)

- B1** Boundary intrusions
 - a) melagabbro, locally with various xenoliths
 - b) hornblende-leucogabbro, pegmatitic in places
 - c) fine- to medium-grained gabbro
 - d) metapyroxenite
- P** Phantom Lake intrusions
 - a) quartz-feldspar porphyry

MISSI GROUP

- M2** Medium to very coarse pebbly arkosic sandstone
- M1** Pebble to cobble conglomerate, with minor interbedded arkosic sandstone and pebbly arkosic sandstone

FLIN FLON ARC ASSEMBLAGE (>1.88 GA ROCKS)

Undivided intrusive rocks

- I3** Mafic dike complex
 - a) locally showing screens of the host rock(s)
- I2** Rhyolite dikes/intrusions
 - a) quartz-plagioclase-phyric
 - b) plagioclase-phyric
 - c) aphyric
- I1** Gabbro dikes/intrusions
 - a) fine to medium grained

Undivided volcanic rocks

- V6** Monolithic felsic breccia
- V5** Mafic volcanoclastic rocks
 - a) well-bedded mafic tuff
 - b) plagioclase-crystal-rich tuff
- V4** Heterolithic breccia composed of mafic and felsic volcanic clasts
- V3** Heterolithic mafic breccia
- V2** Plagioclase-phyric basaltic flows
 - a) massive to pillowed plagioclase-phyric flows, locally pyroxene-plagioclase-phyric or aphyric, locally interbedded with well-bedded mafic tuff
- V1** Aphyric to sparsely plagioclase-phyric basaltic flows
 - a) massive and pillowed flows
 - b) massive flows and mafic sills intercalated with thin intervals of well-bedded mafic tuff

Louis formation

- L7** Undivided mafic dikes/intrusions and massive coarse-grained mafic flows
- L6** Syn-volcanic mafic dikes/intrusions
 - a) medium- to coarse-grained gabbro, locally plagioclase- and/or pyroxene-phyric
- L5** Rhyolite
 - a) quartz-plagioclase-phyric
- L4** Mafic volcanoclastic rocks
 - a) well-bedded mafic tuff
- L3** Aphyric to sparsely plagioclase-phyric basaltic flows
 - a) massive and pillowed flows
 - b) massive flows
- L2** Plagioclase-phyric basaltic flows
 - a) massive and pillowed flows
 - b) pillowed flows
- L1** Plagioclase-pyroxene-phyric basaltic flows
 - a) thick coarse-grained massive flows with thin pillowed and/or amoeboid breccia top
 - b) massive and pillowed flows
 - c) mainly pillowed flows

Hidden formation

- H5** Syn-volcanic felsic dikes/intrusions
 - a) quartz-phyric
- H4** Syn-volcanic mafic dikes/intrusions
 - a) dike swarm with <10% screens of host rock(s)
- H3** Mafic volcanoclastic rocks
 - a) well-bedded mafic tuff, lapilli and breccia
- H2** Heterolithic mafic breccia
 - a) with core- clasts
 - b) plagioclase-crystal-rich matrix
- H1** Aphyric to sparsely plagioclase-phyric basaltic flows
 - a) mainly pillowed flows
 - b) massive and pillowed flows
 - c) massive and pillowed flows with abundant amoeboid pillow breccia
 - d) monolithic flow top breccia
 - e) massive flow showing columnar jointing

NOTE: Darker colours in the legend represent areas of outcrop; lighter colours, areas of overburden.

Symbols

Planar structure

- Bedding: tops - unknown, known, overturned
- Pillow: top known
- Foliation: generation - unknown, 1st, 2nd
- Flow contact: tops - unknown, known, overturned
- Shear zone: sense - unknown, dextral, sinistral
- Shear band: generation unknown, 2nd, sinistral
- Fault: sense - unknown, dextral, sinistral
- Fold axial plane
- Mafic dike
- Felsic dike

Lineations

- Fold axis: generation unknown
- Fold axis: generation unknown, symmetric
- Fold axis: generation unknown, S symmetry
- Fold axis: generation unknown, Z symmetry
- L-fabric: generation unknown
- Slicken striae

Geological contacts

- Defined
- Approximate
- Assumed
- Facies

Faults

- Defined
- Approximate
- Assumed

- Outcrop limit
- Limit of mapping
- Road
- Trail
- Bridge
- Railway

Geology by: R.-L. Simard (2006)

Cartography by: M.E. McFarlane

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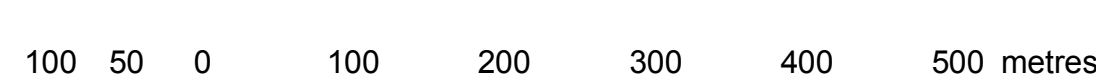
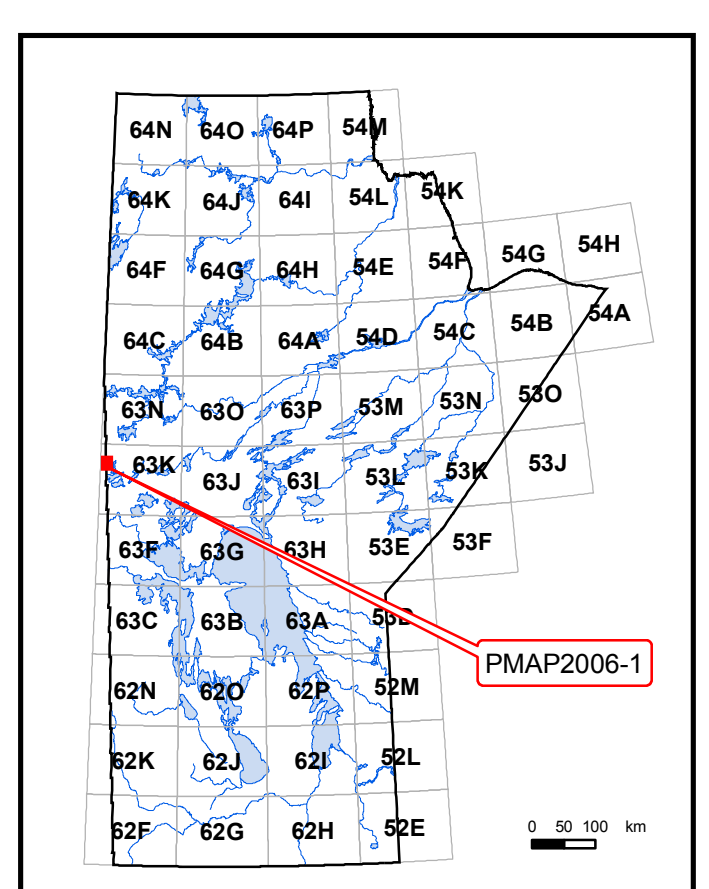
This map is a provisional summary of work carried out during the summer field season and is produced directly from the geologist's manuscript. It is not to be regarded as a final interpretation of the geology of the area.

SUGGESTED REFERENCE:

Simard, R.-L. 2006. Geology of the Schist Lake –Mandy mines area, Flin Flon, Manitoba (parts of NTS 63K12); Manitoba Science, Technology, Energy and Mines, Manitoba Geological Survey, Preliminary Map PMAP2006-1, scale 1:5000.

The third Targeted Geoscience Initiative (TGI) provides integrated geoscience knowledge pertaining to areas of high base metal potential, with the intent of stimulating private-sector resource exploration. The TGI project at Flin Flon is a collaboration of the Geological Survey of Canada, the Manitoba and Saskatchewan geological surveys, Hudson Bay Exploration and Development Company Ltd and Laurentian University.

INDEX MAP



1:5 000

