



Legend

Missi group

- M1 Conglomerate, sandstone and derived gneisses
- M1a Polymictic conglomerate and sandstone
- M1b Polymictic conglomerate and sandstone, sillimanite zsmigmatite

Burntwood group

- B1 Graphitic greywacke, derived gneisses and migmatites
- B1a Mudstone, greywacke, z-graphite-sulphide zandalusite
- B1b Biotite-garnet pelite, zsmigmatite

Schist-Wekusko assemblage

- S2 Heterolithic trachyandesite, cobble- to boulder-conglomerate and minor andesite
- S1 Dacite tuff and lapilli tuff; massive dacite

Tectonites

- W6 Berry Creek shear zone

Intrusive rocks

- P3 Granite to tonalite
- P2 Quartz diorite to diorite
- P1 Gabbro
- P1a Gabbro with high magnetic intensity
- P1b Gabbro with low magnetic intensity

Juvenile arc rocks

- J4 Weak arc to N-MORB basalt and gabbro associated with juvenile arc rhyolite
- J3 Hypabyssal quartz-feldspar porphyry of probable arc affinity
- J2 Intermediate volcanioclastic rock
- J2a Andesite to rhyolite tuff and lapilli tuff
- J2b Andesite to rhyolite tuff, lapilli tuff and tuff breccia with minor basalt flows
- J1 Massive to pillowed basalt to andesite with minor tuff and lapilli tuff

Ocean floor rocks

- F2 E-MORB type rock
- F2a Mafic wacke, amphibolite
- F2b Amphibolite
- F1 N-MORB type rock
- F1a Basalt, massive to pillowed flows
- F1b Mafic wacke, amphibolite
- F1c Layered gabbro

Unknown geochemical affinity

- U1 Undivided volcanic and related intrusive rocks of unknown affinity

Symbols

- Drillholes – 2017
- Drillholes – 2017 (Gagné)
- Drillholes – 2016
- Drillholes – 2010 (Simard)
- VMS deposit
- Contact: approximate
- - - Fault: approximate
- - - Fault, dextral: approximate
- - - Fault, sinistral: approximate
- - - Axial trace: approximate
- Northern limit of Phanerozoic cover
- Lineament, magnetic high
- Highway
- Stream; shoreline

Scale 1:50 000

UTM Zone 14, NAD 83

Preliminary Map PMAP2018-1
Sub-Phanerozoic geology of the south Wekusko Lake–Mitishito River area, eastern Flin Flon belt, west-central Manitoba (parts of NTS 63J5, 12 and 63K8, 9)

Geological compilation by K.D. Reid (2016 and 2017)
 Geological Survey of Canada, Geological Survey of Canada, 2016
 Cartography by L. Chackovsky, K.D. Reid and S.K.Y. Lee
 Geological interpretation aided from total magnetic field intensity and vertical aeromagnetic maps (Assessment File 73859, Manitoba Growth, Enterprise and Trade, Winnipeg) as well as the aeromagnetic compilation of Keating et al. (2012). Geology from the exposed area of this map is compiled and simplified from Gilbert and Bailes (2005).

Suggested reference:
 Reid, K.D. 2018: Sub-Phanerozoic geology of the south Wekusko Lake–Mitishito River area, eastern Flin Flon belt, west-central Manitoba (parts of NTS 63J5, 12 and 63K8, 9); Manitoba Growth, Enterprise and Trade, Manitoba Geological Survey, Preliminary Map PMAP2018-1, scale 1:50 000.
 This map is a provisional summary of work carried out by the author during the 2016 and 2017 summer field seasons. It has been produced directly from the geologist manuscript and is not to be regarded as a final interpretation of the geology of the area.

Published by:
 Manitoba Growth, Enterprise and Trade
 Manitoba Geological Survey, 2018
 Copies of this map can be obtained from:
 Manitoba Growth, Enterprise and Trade
 Manitoba Geological Survey, Publication Sales
 360-1395 Ellice Avenue
 Winnipeg, MB R3G 3P2
 Phone: 204-945-6569
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Sources of geological information:
 Diamond-drill hole data was collected from drillcore observations at the following locations: HudBay Minerals – Channing core storage facility, Royal Nickel Corporation (formerly VMS Ventures) – Gogal Air storage area, and the Province of Manitoba – Resource Development Division's core storage facilities in The Pas. Summaries of these observations can be found in Reid and Gagné (2016), Reid (2017) and Simard et al. (2010). Geology from the exposed area of this map was compiled and simplified from Gilbert and Bailes (2005) and NATMAP geology (Leclair et al., 1997).

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