



Legend

Late intrusive rocks

- L2 Quartz-feldspar-phyrlic granodiorite
- G1 Diorite to gabbro, dike

Successor-arc intrusive rocks

- P1b Granodiorite (Stuart Lake)
- P1a Granite (Monette Lake)
- P2 Quartz diorite (Stuart Lake)
- G1 Gabbro

Successor-arc deposits

Herb Lake fault block

- MV11 Hypabyssal/volcanic rhyolite, quartz-feldspar porphyritic
- MV9 Basalt, massive aphyric with local mafic lapilli tuff
- MV9 Rhyolite, massive matrix-supported lapilli tuff (1836 ±1 Ma; Ansdell et al., 1999)
- MV7 Basalt, massive aphyric flows locally amygdaloidal; minor bedded mafic conglomerate near top of unit
- MV7 Dacite, massive with local beds of fine ash tuff
- MV6 Volcanic feldspar sandstone, thin to thick bedded, locally contains pebbly conglomerate and rhyolite tuff
- MV5 Andesite, feldspar-pyroxene-phyrlic; becomes brecciated and amygdaloidal near flow tops
- MV4c Heterolithic volcanic conglomerate, very thick bedded, intermediate composition
- MV4b Andesite, feldspar-phyrlic tuff breccia to volcanic agglomerate
- MV4a Andesite, pyroxene porphyritic, massive to thick-bedded volcanic conglomerate
- MV3a Dacite, medium- to thick-bedded monolithic lapillistone/volcanic conglomerate
- MV3a Dacite, massive monolithic lapillistone

Western Missi fault block

- W020 Feldspathic arenite, tabular to trough crossbedded with minor conglomerate layers
- W020a Heterolithic pebbly conglomerate and sandstone interbedded with intermediate to felsic volcanic rocks
- W01 Massive to flow-banded, spherulitic rhyodacite and rhyolite

Eastern Missi fault block

- EM1 Feldspathic arenite to feldspathic rhyodacite, locally contains subrounded mafic lithic clasts
- EM2 Feldspathic arenite, trough crossbedded
- EM3 Heterolithic conglomerate, polyimitic

Central Wekusko fault block

- B1 Greywacke and mudstone, thin- to thick-bedded turbidites

McCafferty Liferover fault block

- S4b Dacite and/or rhyodacite, massive, feldspar porphyritic (1876 ±2 Ma; Ansdell et al., 1999)
- S4a Heterolithic volcanic conglomerate with feldspar-phyrlic andesite and scoria-rich clasts in dacite matrix
- S3 Andesite, feldspar-crystal-rich turbidite
- S2 Andesite, massive, locally amygdaloidal, possibly intrusive (underwater)
- S1 Andesite, plagioclase-phyrlic cobble and boulder conglomerate, clast-supported, minor tuff breccia

Mafic rocks of probable ocean-floor/back-arc affinity

- C1 Basalt, plagioclase- and pyroxene-phyrlic flows and pillows

Volcaniclastic rocks of uncertain age

- U1 Dacite, conglomerate (with minor andesite)

Symbols

- Fold axial plane: generation 2, unknown
- Mineral lineation
- Stretching lineation
- Cleavage: generation 2, 3, 4
- Crenulation cleavage, sense unknown, generation 2
- Foliation: generation 2, 3, 4
- Spaced cleavage: generation 2, 3, 4
- Clast lineation
- Joint, dip known
- Bedding: facing known, unknown, overturned
- Dike, dip known
- Igneous layering, facing unknown
- Pillow: facing known, overturned
- Vein, dip unknown
- Shear band, dextral, generation 3
- Shear band, sense unknown
- Shear band, sinistral, generation 3, 4
- Stations
- Quartz vein
- Fault, contact, approximate
- Fault, dextral, approximate
- Fault, minor, approximate
- Anticline, generation 2, defined
- Syncline, generation 2, defined
- Trail

Quartz vein index (Stockwell, 1937)

- Gold Dust: 20
- Lieury: 21
- Orcadian: 22
- Elizabeth-Dauphin: 28, 29
- LeRoy: 30, 31
- Bingo: 32
- Rex Group: 33
- Moose Horn: 34
- Ballast: 35
- Kiski-Wekusko: 36, 37, 38, 39

Preliminary Map PMAP2021-1
Bedrock geology of the Stuart Bay-Chickadee Lake area (east of Wekusko Lake), north-central Manitoba (parts of NTS 63J12, 13)

Geology by K.D. Reid (2021)
 Cartography/GIS by A. Santucci

Suggested reference:
 Reid, K.D. 2021. Bedrock geology of the Stuart Bay-Chickadee Lake area (east of Wekusko Lake), north-central Manitoba (parts of NTS 63J12, 13); Manitoba Agriculture and Resource Development, Manitoba Geological Survey, Preliminary Map PMAP2021-1, 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.

References:
 Ansdell, K.M., Connors, K.A., Stern, R.A. and Lucas, S.B. 1999: Coeval sedimentation, magmatism, and fold-thrust domain development in the Trans-Hudson orogen: geochronological evidence from the Wekusko Lake area, Manitoba, Canada; Canadian Journal of Earth Sciences, v. 36, p. 293-312.
 Gilbert, H.P. and Bailes, A.H. 2005: Geology of the southern Wekusko Lake area, Manitoba (NTS 63J12NW); Manitoba Industry, Economic Development and Mines, Manitoba Geological Survey, Geoscientific Map MAP2005-2, scale 1:20 000, URL <https://www.manitoba.ca/rem/info/libman/Map2005-2.pdf> [October 2021].
 Stockwell, C.H. 1937: Gold deposits of Herb Lake area, northern Manitoba; Geological Survey of Canada, Memoir 208, 46 p., URL <https://doi.org/10.4095/101640>.

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