



- Legend**
- Intrusive rocks**
- 11 Granitic pegmatite; locally with garnet, cordierite and sillimanite
 - 10 Tonalite; local pockmarked texture; rare pods of carbonate alteration, locally pervasive
 - 9 Granodiorite; locally with abundant xenoliths
 - 8 Mafic dikes (not shown at this scale)
- Sickle group rocks**
- 7 Sillimanite-garnet arkose; magnetic; local porphyroblastic texture
 - 6 Sillimanite arkose; abundant sillimanite in foliation planes
 - 5 Biotite arkose; well bedded, magnetic; local calcisilicate layers and nodules
 - 4 Hornblende arkose; magnetic; coarse-grained
 - 3 Polymictic conglomerate, matrix- to clast-supported
- Burntwood group rocks**
- 2 Garnet-biotite greywacke; migmatized; alternating psammitic and pelitic beds
- Pre-Burntwood and Sickle group rocks**
- 1 Mafic volcanic rocks and associated sediments
 - a Massive basalt
 - b Pillowed basalt
 - c Quartzite with minor schistose layers
 - d Diopside gneiss and associated marble

Burntwood and Sickle group sedimentary rocks are interpreted to be coeval (e.g., Zwanzig and Bailes, 2010). The succession of units in the present legend therefore do not represent a true stratigraphic sequence. Refer to the stratigraphic column of Martins and Couëslan (2020) for interpretation. A magnetic anomaly map of Canada (Miles and Oneschuk, 2016) was used to help trace rock units. The preliminary maps of Baldwin (1974) and Zwanzig and Wielezyski (1975) were used to trace units in areas that were inaccessible. Geology in the Treaty Land Entitlement area is from Baldwin (1974).

- Symbols**
- ↖ ↗ Axial plane: crenulation; kink band, S-type; kink band, Z-type; symmetry unknown
 - Contact
 - ↖ ↗ Fold axial plane, generation 2
 - ↖ ↗ Fold axis, symmetry unknown
 - ↖ ↗ Fold axis, S-shaped, generation 2
 - ↖ ↗ Fold axis, Z-shaped, generation 1, 2
 - ↖ ↗ Fold hinge: symmetry unknown, U-crenulation
 - ↖ ↗ Foliation: generation 1, 2, unknown
 - ↖ ↗ Gneissosity
 - ↖ ↗ Intersection lineation: generation 2, unknown
 - ↖ ↗ Mineral lineation, generation 2
 - ↖ ↗ Rodding
 - ↖ ↗ Shear band, sinistral, generation unknown
 - ↖ ↗ Stretching lineation, generation 2
 - Station
 - - - Contact, approximate
 - - - Contact, underwater
 - ⋯ Limit of mapping
 - ↖ ↗ Shear
 - Trails
 - ▨ Treaty Land Entitlement

Preliminary Map PMAP2020-1
Bedrock geology of Russell Lake, northern arm, northwestern Manitoba (parts of NTS 64C5, 6)

Geology by T. Martins and C.G. Couëslan (2020)
 Cartography/GIS by A. Santucci

Suggested reference:
 Martins, T. and Couëslan, C.G. 2020: Bedrock geology of Russell Lake, northern arm, northwestern Manitoba (parts of NTS 64C5, 6); Manitoba Agriculture and Resource Development, Manitoba Geological Survey, Preliminary Map PMAP2020-1, scale 1:20 000.

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:
 Baldwin, D.A. 1974: Kadeniuk Lake; Manitoba Department of Mines, Resources and Environmental Management, Mineral Resources Division, Exploration and Geological Survey Branch, Preliminary Map 1974R, scale 1:31 680.
 Martins, T. and Couëslan, C.G. 2020: Preliminary results from bedrock mapping in the northern arm of Russell Lake, northwestern Manitoba (parts of NTS 64C5, 6); in Report of Activities 2020, Manitoba Agriculture and Resource Development, Manitoba Geological Survey, p. 31-40.
 Miles, W. and Oneschuk, D. 2016: Magnetic anomaly map, Canada / Carte des anomalies magnétiques, Canada; Geological Survey of Canada, Open File 7799, scale 1:7 500 000, URL <https://doi.org/10.4095/297337>.
 Zwanzig, H.V. and Bailes, A.H. 2010: Geology and geochemical evolution of the northern Flin Flon and southern Kiseynew domains, Kissinging-Fin lakes area, Manitoba (parts of NTS 63K, N); Manitoba Innovation, Energy and Mines, Manitoba Geological Survey, Geoscientific Report GR2010-1, 135 p.
 Zwanzig, H.V. and Wielezyski, P. 1975: Kamuchawie Lake; Manitoba Mines, Resources and Environmental Management, Mineral Resources Division, Exploration and Geological Survey Branch, Preliminary Map 1975R-1, scale 1:31 680.

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