

References and additional stration data:

Aylworth, J.M., Boydell, A.N., Cunningham, C.M., and Shih, W.W., 1981. Surficial geology, Macquoid Lake, District of Keweenaw, Northwest Territories. Geological Survey of Canada, Preliminary Map 11-1980, scale 1:125 000, doi:10.4095/10894

Coxing, R.B., Dabrowski, C., Kerr, D.E., Carswell, J.E., Engler, S., Everett, D., Hartley, D.J., Inglis, E., Lawless, A., Parent, M., Phipps, A., Robertson, L., St-Onge, D.A., and Weatherston, A., 2015. Surficial Data Model, version 2.1.0. Revision 1.0. In: National Catalogue of the Integrated Geospatial Survey of Canada data model for surficial geology maps. Geological Survey of Canada, Open File 7741, 276 p. doi:10.4095/296568

Molnar, I. and Henderson, P.J., 2004. Ice flow history and glacial stratigraphy, Kivallik Region, Nunavut. NTS 55 J, K, 1:100 000. In: D. G. and P. J., complete datasets, maps and photographs from the Western Canadian NATMAP Project. Geological Survey of Canada, Open File 4595, doi:10.4095/15055

Wright, G.M., 1955. Geological notes on central District of Keweenaw, Northwest Territories. Geological Survey of Canada, Paper 55-17, doi:10.4095/101284

Wright, G.M., 1987. Surficial geology, southeastern Barren Grounds, District of Keweenaw and District of Mackenzie. Geological Survey of Canada, Map 1217A, scale 1:1 000 000, doi:10.4095/108855

Abstract

This new surficial geology map product represents the conversion of Preliminary Map 11-1980 and is based on the conversion of the Geological Survey of Canada's Surface Data Model (SDM) version 2.1 which can be found in Open File 7741. All geoscientific knowledge and information from Preliminary Map 11-1980 that conformed to the current SDM were maintained during the conversion process. The purpose of converting legacy map data to a current science language and format is to ensure the accuracy and facilitate the efficient digital compilation, interpretation, management and dissemination of geologic map information in a structured and consistent manner. This provides an effective knowledge management tool designed around a geo-database which can expand following the type of information to appear on new surficial geology maps.

Résumé

Ce nouveau produit cartographique de la géologie des formations superficielles correspond uniquement à la conversion de la Carte préliminaire 11-1980 et de sa légende, en se basant du Modèle de données pour les formations superficielles (MDFS) version 2.1 de la Commission géologique du Canada, lequel peut être consulté dans le Dossier public 7741. Toutes les connaissances et l'information de la carte préliminaire 11-1980 ont été maintenues pendant la conversion. Le but de cette conversion de cartes publiques antérieurement publiées est de permettre et de faciliter la compilation, l'interprétation, la gestion et la diffusion efficace de l'information géologique cartographique en mode numérique de façon structurée et cohérente. Cette façon de faire offre un outil efficace de gestion des connaissances géologiques à l'aide d'une géobase qui pourra évoluer suivant le type d'information à paraître sur les nouvelles cartes des formations superficielles.

Canadian Geoscience Map 225

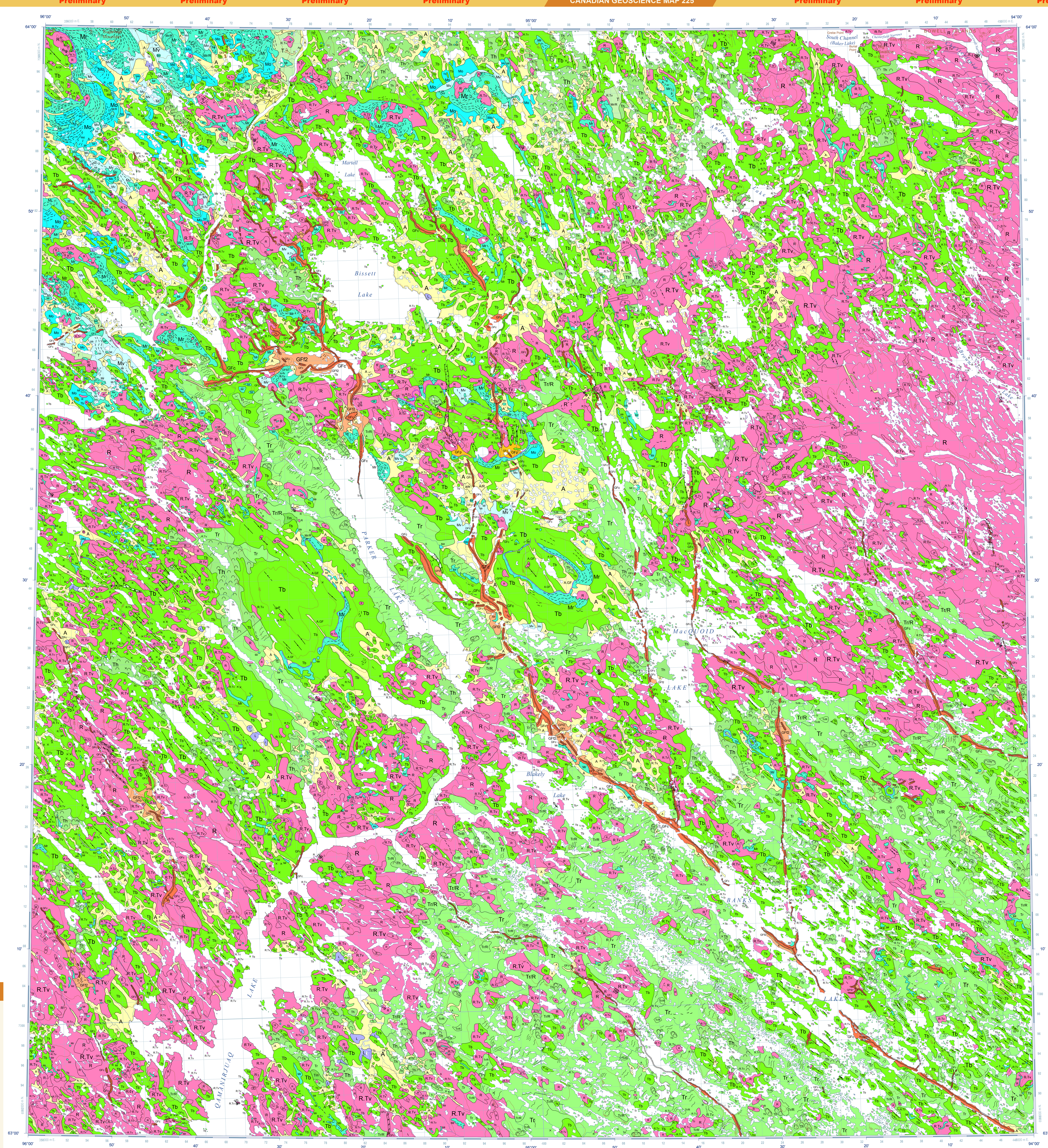
Reconnaissance surficial geology

MacQUOID LAKE

Nunavut
NTS 55-M
1:125 000

Geological Survey of Canada
Canadian Geoscience Maps

Canada



QUATERNARY

ALLUVIAL SEDIMENTS: unsorted deposited material within active active systems; "modern" is defined as the period since retreat of the sea, postglacial lakes, or glacial ice.

Ap Alluvial floodplain sediments; silt, sand, and gravel; variable thickness; deposited in channels and on floodplains; may include alluvial sediments in basins which formed as streams cut to present level in glacial and marine sedimentary fill.

A Alluvial sediments, undifferentiated; modern alluvium mixed with silt and sand; variable thickness; material washed from slopes by wave action or deposited in the sea by meltwater streams; surface generally covered by 40 cm to more than 1 m of brown peat or which includes scirpus, and grasses grow; surface characterized by frost polygons and wave ponds related to vertical ice wedge extending to a depth of 2 to 3 m.

L Lacustrine sediments, undifferentiated; silt; variable thickness; associated with permanently drained postglacial lake basins; may include up to 15% organic carbon.

MAINE SEDIMENTS: materials deposited in the Tyndal Sea and glacial deposits modified by marine processes.

M Beach sediments; sand, gravel, cobbles, or boulders; variable thickness; generally well sorted; deposited as beaches, bars, spits, and ice-pushed ridges in littoral and nearshore environments; surface characterized by sparse vegetation and orthogonal frost cracks.

Mo Outwash sediments; poorly sorted sand and gravel; variable thickness; deposited in the Tyndal Sea by glacial streams, and during regression by glacial meltwater; surface may be characterized by sparse vegetation and polygonal frost cracks.

Mo Offshore sediments; clay, silt, and silty sand; variable thickness; deposited in a deep water environment; may occur anywhere below marine limit but distribution is patchy above 60 m a.s.l.; thickest deposits generally are found in major outer valleys or valleys with major esters; may include prominent striped or mottled pattern on aerial photos; difficult to differentiate on airphotos from silt surface vegetation is dominantly striated in part around mudflats; striped pattern consists of dark and light stripes, 10 to 20 m wide, running down-slope and reflects vegetation differences; mottled pattern may be due to shingle and mudstone coverings, 5 to 10 m in diameter and less than 0.5 m high, surrounded by light-colored grass sedge vegetation; likely has high ground ice content.

Mv Marine veneer; clay, silty sand; less than 1-2 m thick.

GLACIAL ENVIRONMENT

GLACIOFLUVIAL SEDIMENTS: water-sorted sediments deposited in, or around, or near a glacier, largely as a result of meltwater stream flow.

GFp Outwash plain sediments; sand, silt, and gravel; variable thickness; terraced, hummocky, and knotted surfaces; deposited by subglacial meltwater streams exiting to the outer edge and valleys; deposited in areas above marine limit includes outwash fans and materials on the floor or at the mouth of meltwater channels; sparsely vegetated.

GF2 Subaqueous outwash fan sediments; silt, sand, fine gravel; variable thickness; terraced, hummocky, and knotted surfaces; distal sediment discharging from the subglacial mouth of an ice lobe into the sea; surface characterized by frost polygons and sand and silt polygons; difficult to differentiate on aerial photos from unit A.

GFc Ice-contact sediments; sand and gravel; variable thickness; stratified, cross-bedded, and knotted surfaces; deposited in areas above marine limit as eskers but includes related hummocky deposits of uncertain origin; many eskers are bedded or interrupted at irregular intervals by major ridges marking positions where deltaic or subaqueous fan deposition occurred during periods of closed ice retreat.

GF Glaciofluvial sediments, undifferentiated; silt, sand, and gravel; variable thickness; deposited in meltwater channels; may occur as flat areas in stream valleys or abandoned channels above marine limit; occurs only as secondary unit.

GLACIAL SEDIMENTS (TLL): poorly sorted silt (diamict) with distinctive hummocky silt; silt; variable thickness; without significant boulder cover occurring as hummocks; includes ridges of silt that are minor and moraine or erosion remnants between subglacial meltwater channels; extensive areas are present in the region of the Keweenaw Peninsula and some places adjacent to areas of ridged moraines (Tr); exact origin unknown; may have been deposited in a meltwater channel and in some places from debris of silt surfaces by streams in anastomosing meltwater channels; vegetation and periglacial features similar to those in Tr (see Tr).

Tr Moraine complex; silt, sand, and gravel; variable thickness; undifferentiated degradation moraine; occurs as short ridges or hummocks; thought to be deposited in holes and cross-ice in adjacent ice; ridge orientation may form a reticulate pattern; sparsely vegetated; periglacial features vary from mudflats in silt to frost cracks in sorted sediments.

Tr Ridged moraine; generally bouldery fill, in places sand and gravel; variable thickness; ridged moraine; terraced hummocky and straight to sinuous ridges, generally less than 1 m long and 2 to 10 m high; ridges generally oriented at right angles and form bands parallel to direction of ice flow; individual ridges may be asymmetric in cross section with steep side facing down-slope; bases of the ridges laterally into hummocky fields and may be diminished in the transition zone; surfaces have sparse vegetation and generally a heavy cover of large boulders and mudflats where composed of silt, and are marked by frost cracks where composed of gravel.

Tv Till veneer; generally sandy, silty diamict; less than 1 m thick, occurs only as secondary unit.

Tb Till blanket; generally sandy, silty silt with less than 20% clay-sized particles; noncalcareous; gray; variable thickness; forms flat plains; includes areas of clay-rich red till; vegetation includes sedge, grasses; grows in developed peaty rings around bare or silt-covered mudflats < 2 m diameter; may exhibit striped pattern on clay-rich red till as observed on aerial photos.

T Till, undifferentiated; diamict; variable thickness; associated with complex map units of silt-covered landforms blanketed by marine sediments, based solely on aerial photo interpretation.

PRE-QUATERNARY

R Bedrock, undifferentiated; Precambrian intrusive gneiss and metamorphic rocks; red volcanic rocks, and unmetamorphosed sediments; surface composed mostly of silt; vegetation includes sedge, grasses; grows in developed peaty rings around bare or silt-covered mudflats < 2 m diameter; may exhibit striped pattern on clay-rich red till as observed on aerial photos.

Where the surficial cover forms a complex pattern and the map units are too small to be mapped individually, it constitutes a significant detail extent of the total polygon, a dot (•) represents the first dominant map unit designating from the less abundant secondary unit (e.g. R.Tv designates an area of bedrock with numerous small deposits of till veneer). A stratigraphic relationship is shown with a maximum of two map unit designations separated by a dash (—) (e.g. Rb—Tb designates marine beach sediments overlying bedrock).

Geological contact, defined

Terrace scarp

Beach crest, bar, or ice-strewn ridge

Limit of marine submergence

Major meltwater channel, direction unknown

Minor moraine ridge, unspecified, De Gase

Esker, direction known

Buried or obscured drumhead ridge, ice flow feature

Drumhead

Crag-and-tail

Fluted bedrock (roche moutonnée)

Hummock (hummocky moraine)

Stratification, poorly defined, direction unknown

Stratification, poorly defined, direction known

Stratification, well defined, direction unknown

Stratification, well defined, direction known

Crossed stratifications, 1 = older, 3 = younger

Small bedrock outcrop