

QUATERNARY GEOLOGY

NONGLACIAL ENVIRONMENT

- O Organic deposits, undifferentiated: peat and muck up to 2 m thick, formed in depressions by the accumulation of organic material in logs, occurs in depressions, poorly drained areas and along valley.
- E Eolian sediments, undifferentiated: fine to medium sand, undifferentiated to well-sorted, 1 to 15 m in thickness, may contain stipes and subtidal dunes and beach ridges.
- C Colluvial deposits, undifferentiated: angular pebbles, cobbles to boulders, minor silts, massive to stratified, up to 10 m thick, apex and talus some deposits, formed predominantly from weathering and fluvial reworking of bedrock along escarpments; may include colluvial glauconitic sediments and bedrock.
- Ar Alluvial fan sediments: sand and gravel, variable thickness, deposited in fan shape.
- Ar Alluvial floodplain sediments: silt to gravel, massive to stratified, 1 m to at least 3 m thick, occurs on floodplains deposited by modern streams and rivers.
- Ar Alluvial terrace sediments: sand and gravel, variable thickness, surface commonly polished and channelled, occur above the floodplain as a result of down cutting by the river.
- A Alluvial sediments, undifferentiated: silt to gravel, massive to stratified, 1 m to at least 2 m thick, deposited by modern streams and rivers, may include floodplains and alluvial fans in treated and meandering rivers.

LAST GLACIATION (WEICONGIAN)

PROGLACIAL AND GLACIAL ENVIRONMENT

- GL1 Glaciolacustrine beach sediments: sand and gravel, ridge, terraced, variable thickness, formed along the margins of a glacial lake and during postglacial uplift.
- GL2 Glaciolacustrine deltaic sediments: sand, gravel and cobbles, massive to cross-stratified, up to 3 m or more thick, associated with glacial lakes near maximum elevations, may exhibit kettle lakes, braided paleochannels, kame-and-pit patterns and beach ridges, may contain massive ground ice.
- GL3 Glaciolacustrine sediments, undifferentiated: fine grained sediments, commonly with lenticular patterns, deposited by meltwater during deglaciation; may include postglacial lacustrine sediments.
- GFP Glaciolacustrine plain sediments: sand and gravel, massive to cross-stratified, 2 m to at least 10 m thick, occur on terraces deposited by glacial meltwater.
- GFI Glaciolacustrine fan sediments: sand and gravel, massive to cross-stratified, 1 m to at least 10 m thick, fan shaped to irregular hummocky topography, may include small eskers deposited in contact with retreating glaciers or melting ice.
- GF2 Glaciolacustrine silt sediments: sand, gravel, cobbles and small boulders, in both sharp creased and flat topped segments up to 20 m long, and 10 to 200 m wide with rounded and beaking apices, deposited at or behind the ice margin, formed subglacially or in subglacially exposed low-angled channels, may be associated with zones of sorted rock and fill cones, boulder lag, isolated kame deposits, and small transverse gravel ridges.
- GF3 Glaciolacustrine sediments, undifferentiated: sand and gravel, variable thickness, may include beach ridges, associated sediments, eskers, kames.

GLACIAL ENVIRONMENT

- Tv Till veneer: diamictic, low compaction, less than 1 to 2 m thick, occurs as a thin veneer on bedrock, may include surface erosion by streams, and small isolated units of glaciolacustrine sediments and till blankets.
- Ts Till blanket: diamictic, moderately compact, from 2 to 5 m thick, occurs as fill plains mimicking bedrock topography and an extensive discontinuous field with various streamlined landforms shown by symbols, may contain small areas of ice.

PRE-QUATERNARY

- R Bedrock, undifferentiated: sedimentary, volcanic, plutonic and metamorphic rocks, rock types extend range of weathering, from well preserved to low features to surfaces which have undergone gradation and chemical disintegration of 2 cm or more; may include patches of veneer and glaciolacustrine sediments, areas of eroded first bedrock and meltwater scars are shown by symbols.

SYMBOLS

- Felsenmeer
- Washed scoured lag
- Geological contact, defined
- Geological contact, approximate
- Terrace scarp
- Terrace scarp, faulted
- Terrace scarp, glaciolacustrine
- Beach crest
- Limit of glaciolacustrine submergence, approximate
- Minor meltwater channel, some known
- Minor moraine ridge, other specified
- Esker, some known
- Drumlin
- Crag-and-tail
- Fluted bedrock, some unknown
- Fluted bedrock (rock-mountain), some known
- Thalweg depression
- Patterned ground (low-angle polygons)
- Kame
- Station, some known, poorly defined
- Station, some known
- Ice-flow measurement - crossed strata
- Small scarp
- Sample location

REFERENCES

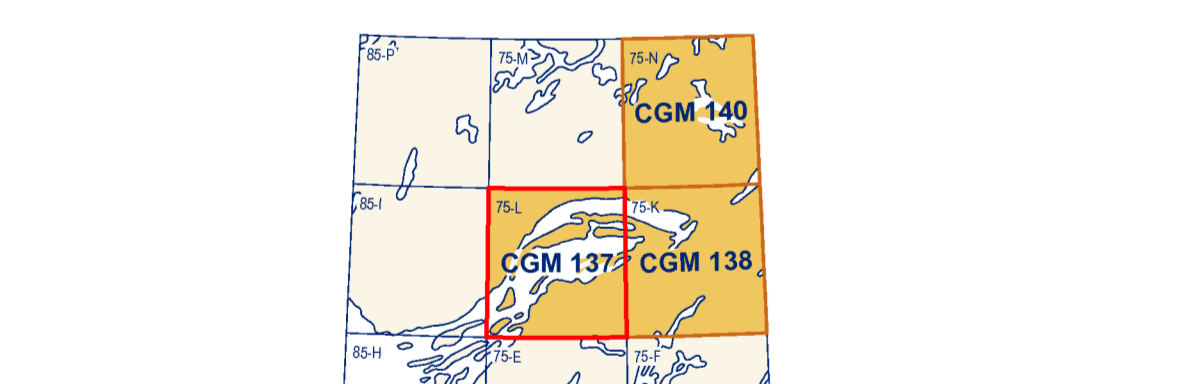
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Geology conforms to Surficial Data Model v.1.2

Abstract
 The Snowdrift map area is characterized by prominently glacially reworked and washed bedrock terrain. The more elevated areas north and south of the East Arm have isolated deposits of till veneer and blankets. Within the East Arm, some low lying glaciolacustrine deposits are covered by glaciolacustrine sediments, with various colluvial deposits covering the steep slopes. Glaciolacustrine sediments consisting of silts, coarse sand and outwash, based southward in the north and westward in the southern most areas. The Snowdrift River valley and its tributaries are predominantly filled by terraced and floodplain alluvial sediments, and rugged and outwash glaciolacustrine sediments, some with active dunes. The last ice flow reworked by glacial sites, fluted bedrock and crag-and-tails, was generally southward to westward, in the extreme southeast region of the map area. At various elevations, evidence of glacial Lake McConnell is found, including glaciolacustrine deltas at 320 m, 326 m, 327 m, 274 m, 242 m, and several terraces at 325 m, 323 m, 324 m, 285 m, 228 m, 213 m, 200 m, 183 m and 168 m a.s.l.

Résumé
 La région de la carte Snowdrift est caractérisée par un terrain rocheux glaciaire déposé et altéré. Dans les zones plus élevées au nord et au sud du Bras Est, se trouvent des dépôts isolés de till veneer et de dépôts de lit. Dans le Bras Est, certains dépôts de till aplatis, ainsi que des dépôts glaciolacustres, sont couverts de sédiments glaciolacustres, tandis que divers dépôts colluviaux couvrent les pentes les plus abruptes. Des sédiments glaciolacustres comprenant des sables, des sables fins et des sables fins à grossiers, des sédiments de contact glaciaire et des dépôts d'écoulement fluviaux ont une orientation vers le sud-ouest dans la partie nord de la région de la carte, et vers l'ouest dans la partie sud. La vallée de la rivière Snowdrift et ses vallées affluentes sont surtout occupées par des sédiments alluviaux de plaines d'inondation et en terrasses, ainsi que par des sites de sédiments et des sédiments d'épave fluviaux. Certaines caractéristiques de dunes vivantes. La preuve de lacs glaciolacustres, dont le lac McConnell, est trouvée à divers niveaux de la région de la carte. À diverses hauteurs se trouvent des indices de la présence de lacs glaciaires McConnell: des deltas glaciolacustres à 320 m, 326 m, 327 m, 274 m, 242 m, et plusieurs terrasses à 325 m, 323 m, 324 m, 285 m, 228 m, 213 m, 200 m, 183 m et 168 m a.s.l.



Cover Illustration:
 Bedrock escarpment, McLeod Bay, Great Slave Lake. Photograph by R.D. Knight, 2013-206.

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Preliminary publications in this series have not been scientifically edited.