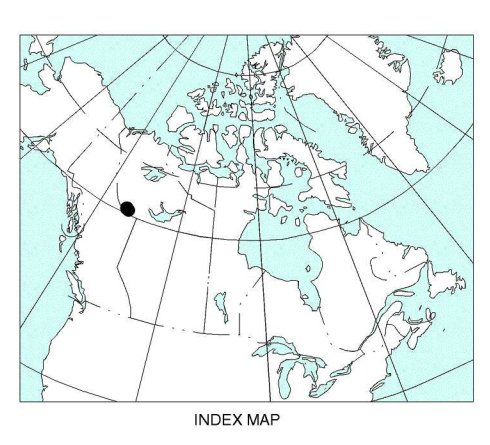


- LEGEND**
- Coloured legend blocks indicate map units that appear on this map
- QUATERNARY**
- SURFICIAL DEPOSITS**
- POST LAST GLACIATION**
- NONGLACIAL ENVIRONMENTS**
- ORGANIC DEPOSITS:** peat, 1 to 2 m thick; formed by the accumulation of vegetation in poorly drained depressions (swamps and bogs); produces flat, wet terrain
- O'** Bog peat: Sphagnum or forest peat formed in an ombrotrophic environment; may be treeless or treeless with a cover of ericaceous shrubs; hummocky, wet terrain, in places underlain by ground ice, O'h; undifferentiated bog and fen deposits, O; undifferentiated hummocky bog and fen deposits, O'h
- O'** Fen peat: peat derived from sedges and partially decayed shrubs in a eutrophic environment; forms relatively open peatlands with a mineral rich water table that persists seasonally near the surface; often covered with low shrubs and sometimes a sparse tree cover
- C** COLLUVIAL DEPOSITS: mass wasting debris <1-100 m thick; nonsorted to poorly sorted, massive to stratified debris deposited by direct, gravity-induced movement
- C** Landslide and slump debris: active and inactive landslides
- ALLUVIAL DEPOSITS:** sorted gravel, sand, and organic detritus deposited by flowing water
- A** Fluvial deposits: sorted gravel and sand >1 m thick; forming active flood plains with meander channels and scroll marks, Ap; alluvial fan deposits, poorly sorted gravel and sand >1 m thick, Af; undifferentiated, A
- Ac** Fluvial channels: numerous subparallel alluvial channels covering gentle to moderate slopes, Ac
- At** Fluvial terraces: low, inactive terraces immediately above the Muskeg River and its northern tributary
- L'** LACUSTRINE DEPOSITS: sand, silt and minor clay deposited in a former lake; generally overlain by organic deposits; exposed by recent fluctuations in lake levels
- E** EOLIAN DEPOSITS: wind deposited sand forming small dune ridges a few tens of metres long, Er
- POSTGLACIAL OR LATE WISCONSINAN**
- PROGLACIAL AND GLACIAL ENVIRONMENTS**
- GLACIOLACUSTRINE DEPOSITS:** fine sand, silt, and clay, deposited in glacially-dammed lakes in valleys or along margins of the retreating Laurentide Ice Sheet
- L** Glaciolacustrine deposits: sediment > 1 m thick level topography; usually overlain by organic deposits in lowlands; hummocky topography, Lh
- G** GLACIOFLUVIAL DEPOSITS: proglacial outwash, gravel and sand with minor diamictons deposited in front of the ice margin, usually 1-10 m thick; forming distal outwash terraces Gt; ice-contact ridges, Gr; undifferentiated, G
- TILL:** nonsorted debris deposited directly by glaciers; matrix is sandy to clayey and contains striated clasts of various lithologies, including many Canadian Shield erratics
- Tb** Till blanket: > 1 m thick; forming undulating topography; extensively fluted and drumlinized till blanket, Td; hummocky moraine, Th; rolling topography, Tm
- Tr** Ridged moraine: moraines or crevasse fillings forming a ridged topography

- NOTE:** In areas where the surficial cover forms a complex pattern, the area is coloured according to the dominant unit and labelled in descending order of cover; slash between two units indicates that the former unit overlies the latter
- Geological boundary (defined, gradational)
- River meander scar
- Small swamp or bog
- Landslide (arrow indicates the direction of movement)
- Abandoned meltwater channel or channel occupied by an underfit stream (large, small and direction of flow inferred, small and direction of flow not inferred)
- Esker (flow direction inferred)
- Escarpment
- End moraine
- Minor moraine or crevasse filling
- Ice moulded form in till (direction of flow inferred, not inferred; broader forms have middle dots)
- Furrows and troughs related to glacial flow, likely formed subglacially
- Bedrock outcrop

NOTES ON GLACIAL HISTORY:

NTS 95B8 map area was glaciated during the Late Wisconsinan glaciation (ca. 25 000-10 000 years ago). The continental Laurentide Ice Sheet, which covered the area, generally flowed from northeast to southwest, as indicated by glacial flutings in the map area. West of this map area, the Laurentide Ice Sheet encountered Cordilleran ice and was forced to flow northward. During deglaciation, the regional drainage through the Land River system was blocked by the Laurentide Ice Sheet as it retreated eastward. Glacial Lake Liard formed within the main Land River valley, whereas, smaller, short-lived glacial lakes were created in many depressions east of the river. As the ice margin retreated northeast across this map area, many ice-contact glaciofluvial features were deposited by meltwater issuing from the glacier. The map area has several esker systems, and although they are up to several kilometres long, they contain only small volumes of material of poor aggregate quality. In the early stages of deglaciation, the Muskeg River and some of the larger tributaries were probably tunnel valleys, bounded by the ice sheet. As the ice margin retreated to a position northeast of here, these valleys drained glacial lakes, especially a larger glacial lake around present-day Trout Lake, northeast of here. Extensive muskeg covers the flat lying areas of this area, which probably contain significant amounts of ground ice, as seen by hummocky peatlands.

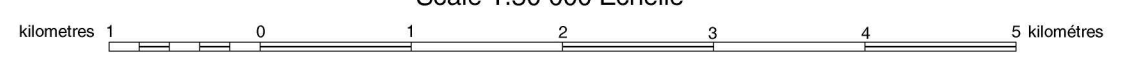


CONTOUR INTERVAL, 100 FEET
Elevations in Feet above Mean Sea Level

Digital Topographic Data provided by Geomatics Canada, Natural Resources Canada and adjusted to conform to Landsat Geoscan image by the author.

OPEN FILE 1753
SURFICIAL GEOLOGY
MUSKEG RIVER
NORTHWEST TERRITORIES

Scale 1:50 000 Échelle



Universal Transverse Mercator Projection
North American Datum 1983
© Her Majesty the Queen in Right of Canada, 2003

Projection transverse universelle de Mercator
Système de référence géodésique nord-américain, 1983
© Sa Majesté la Reine en chef du Canada, 2003

Geology by J. Bednarski, 2000, 2001, 2002
Geological compilation and digital cartography by J. Bednarski, 2002

This is a product of the Central Foreland NATMAP Project
Any revisions or additional geological information from the user would be welcomed by the Geological Survey of Canada

95 B/10 Arrowhead River	95 B/9 No Title	95 A/12 No Title
95 B/7 No Title	95 B/8 Muskeg River GSC OF 1753	95 A/5 No Title
95 B/2 Lake Bovie	95 B/1 Collibeta Lake	95 A/4 No Title
GSC OF 1760	GSC OF 1761	

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADJOINING GEOLOGICAL SURVEY OF CANADA MAPS

OPEN FILE
DOSSIER PUBLIC
1753
GEOLOGICAL SURVEY OF CANADA
COMMISSION GÉOLOGIQUE DU CANADA
2003

Open file products that have not gone through the GSC formal publication process
Les dossiers publics sont des produits qui n'ont pas été soumis au processus officiel de publication de la GSC.

Recommended citation:
Bednarski, J.M.
2003. Surficial geology, Muskeg River, Northwest Territories (95B8). Geological Survey of Canada, Open File 1753, 1 map, scale 1:50 000.