

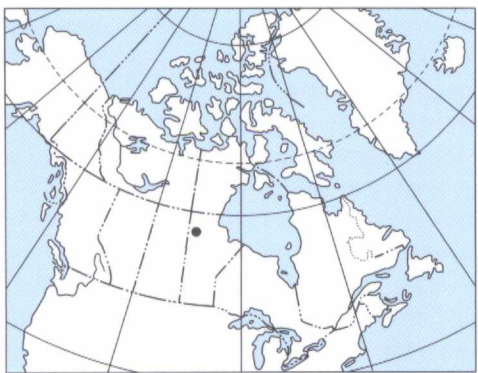
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Contribution to Canada-Manitoba Mineral Development Agreement 1984-1989, a subsidiary agreement under the Economic and Regional Development Agreement. Project funded by the Geological Survey of Canada

Manitoba  
Energy and Mines



Canada



INDEX MAP

MAP 1760A  
SURFICIAL GEOLOGY  
**BROCHET**  
MANITOBA

Scale 1:250 000 - Échelle 1/250 000

Kilometres 5 0 5 10 15 20 Kilomètres  
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64 F 1760A	64 G 1761A	64 H
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63 N 1757A	63 O	63 P

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX  
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Recommended citation:  
Kaszycki, C.A. and Way Nee, V.J. (compilers)  
1990: Surficial geology, Brochet, Manitoba; Geological Survey of Canada, Map 1760A, scale 1:250 000

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1760 A

LEGEND

Coloured legend blocks indicate map units that appear on this map

SURFICIAL DEPOSITS  
QUATERNARY

**6** ORGANIC DEPOSITS: variable proportions of lichen-moss, sedge, and woody peat; thickness variable; includes bog peat and fen peat; irregular thermokarst depressions are common; occupies most topographic lows

**5** ALLUVIAL DEPOSITS: variable proportions of silt, sand, and rounded gravel, commonly terraced; thickness ranges from a thin veneer to several metres

PROGLACIAL ENVIRONMENT

GLACIOLACUSTRINE DEPOSITS: massive to laminated sand, silt, and clay; deposited in glacial Lake Agassiz; thickness ranges from a thin veneer to thick sequences forming planar surfaces; commonly mantled with peat

**4b** NEARSHORE AND LITTORAL SEDIMENTS: well sorted sand, gravel, and cobbles occurring as a blanket grading basinward into undifferentiated silt and clay, or as one or a series of ridges, 1 to 4 m in height (includes beaches, bars, and spits) commonly well developed on wave washed glaciofluvial deposits

**4a** OFFSHORE SEDIMENTS: laminated silt, clay and sand; thickness ranges from a veneer to tens of metres; thick accumulations form planar surfaces characterized by extensive peat cover

GLACIAL ENVIRONMENT

**3** ICE CONTACT GLACIOFLUVIAL DEPOSITS: interstratified sand, gravel, cobbles, and diamict; deposited by meltwater flowing in contact with or proximal to glacier ice; thickness ranges from 5 to 50 m; forming eskers, kames, crevasse fillings, ice contact deltas, and recessional, end, and interlobate moraines

GLACIAL DEPOSITS: till and related sediments, comprising unsorted to poorly sorted debris deposited at the front of or beneath glaciers, or under ice shelves. Glacial deposits in the western part of the study area (NTS 63N, 64C, and 64F) are sandy and contain a large proportion of debris derived from crystalline shield lithologies. Matrix carbonate composition of sandy till is generally 0% but may reach 5%. Farther east (NTS 64B and 64G), glacial deposits are silty and contain a large proportion of calcareous debris derived from Paleozoic carbonate lithologies flooring Hudson Bay and adjacent lowlands. Matrix carbonate content ranges from 5 to 35%. Sediment may be leached of carbonate to a depth of 2.5 m, particularly in areas of thin drift where drainage is controlled by bedrock topography and clay cover is minimal

**2a 2b** Till blanket: forms a continuous cover, 1 to several metres in thickness, masking underlying bedrock topography; surface commonly fluted and may be covered by a veneer of Lake Agassiz clay; **2a** - Sandy till; **2b** - Silty till

**1a 1b** Till veneer: forms a discontinuous cover, ranging from 0 to 3 m in thickness; thicker deposits may fill isolated bedrock depressions; surface morphology reflects underlying bedrock structure; **1a** - Sandy till; **1b** - Silty till

BEDROCK  
PRE-QUATERNARY

**R** PRECAMBRIAN ROCK: glacially scoured metasedimentary and metavolcanic rocks and associated felsic to mafic intrusive lithologies

Geological boundary (defined) .....  
Small bedrock outcrop .....  
Striae (ice flow direction known, unknown; poorly defined) .....  
Crossed striae .....  
Fluting .....  
Crag and tail (direction of ice flow known) .....  
Recessional, end or interlobate moraine .....  
Esker (direction of flow known, unknown) .....  
Meltwater channel (large, small) .....  
Beach ridge .....  
Dunes .....  
Ice contact delta .....

Geology by R.N.W. DiLabio, and C.A. Kaszycki, 1984

Compiled by C.A. Kaszycki and V.J. Way Nee, 1985

Geological cartography by the Geological Survey of Canada

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Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Base map at 1:250 000 published by the Surveys and Mapping Branch, 1988

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Mean magnetic declination 1989, 11°29' East, decreasing 12.5' annually. Readings vary from 10°06' E in the SE corner to 12°55' E in the NW corner of the map

Elevations in feet above mean sea level