

**LEGEND**

Coloured legend blocks indicate map units that appear on this map

**SURFICIAL DEPOSITS**

**QUATERNARY**

**NONGLACIAL ENVIRONMENT**

**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 diamicton; 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 (1 = oldest) .....  
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, C.A. Kaszycki, and E. Neelsen, 1983, 1984, 1985.  
Geology of 64 C/14.15 is taken largely from O'Donnell, 1976a, b.

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, 1963

Copies of the topographical edition of this map may be obtained from the Canada Map Office, Department of Energy Mines and Resources, Ottawa, Ontario K1A 0E9

Mean magnetic declination 1989, 11°20' East, decreasing 11.6" annually.  
Readings vary from 10°02' E in the SE corner to 12°41' E in the NW corner of the map

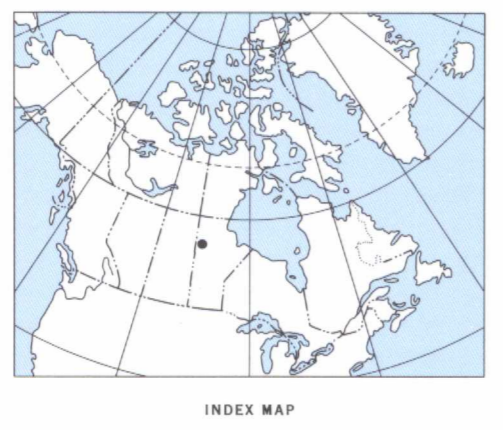
Elevations in feet above mean sea level

**REFERENCES**

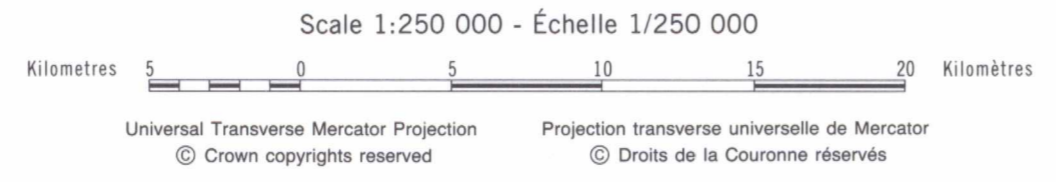
O'Donnell, N.D.  
1976a: Quaternary geology of the Lynn Lake area, Manitoba Department of Energy, Resources and Environmental Management, Mineral Resources Division, Preliminary Map 1976P-1.  
1976b: Quaternary geology of the Cockeram Lake area, Manitoba Department of Energy, Resources and Environmental Management, Mineral Resources Division, Preliminary Map 1976P-2.

Copies of this map may be obtained from the Geological Survey of Canada: 601 Booth Street, Ottawa, Ontario K1A 0E8; 3303-33rd Street, N.W., Calgary, Alberta T2L 2A7

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MAP 1759A  
SURFICIAL GEOLOGY  
**GRANVILLE LAKE**  
MANITOBA



|       |       |      |
|-------|-------|------|
| 64 F  | 64 G  | 64 H |
| 1760A | 1761A |      |
| 64 C  | 64 B  | 64 A |
| 1759A | 1758A |      |
| 63 N  | 63 O  | 63 P |
| 1757A |       |      |

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