



LEGEND

This legend is common to GSC maps 2049A–2060A, and MGS geoscientific maps MAP2003-1–MAP2003-12. Coloured legend blocks indicate map units that appear on this map. Not all map symbols shown in the legend necessarily appear on this map.

QUATERNARY

NONGLACIAL DEPOSITS

O Organic deposits: peat, muck, <1–5 m thick; very low relief wetland deposits; accumulated in fen, bog, swamp, and marsh settings.

E Eolian sediments: fine sand; 1–5 m thick; dunes; formed by wind prior to stabilization by vegetation, in most cases on subaqueous outwash sand.

Lm Shoreline sediments: sand and gravel; 1–2 m thick; beaches; formed by waves at the margins of modern lakes.

ALLUVIAL SEDIMENTS: sand and gravel, sand, silt, clay, organic detritus; 1–20 m thick; channel and overbank sediments; deposited by postglacial rivers.

Ap Overbank deposits.

Ac Channel deposits.

GLACIOACUSTRINE DEPOSITS

GLACIAL LAKE SHORELINE SEDIMENTS: sand and gravel; 1–20 m thick; beach ridges, spits, bars, littoral sand and gravel; formed by waves at the margin of glacial Lake Agassiz.

Ls Shoreline deposits.

Li Littoral deposits.

OFFSHORE GLACIOACUSTRINE SEDIMENTS: clay, silt, minor sand; 1–20 m thick; very low relief massive and laminated deposits; deposited from suspension in offshore, deep water of glacial Lake Agassiz, commonly scoured and homogenized by icebergs.

Lz Clayey to sandy silt.

Lc Clay to silty clay.

GLACIOFLUVIAL DEPOSITS

Gs Subaqueous outwash: fine sand, minor gravel, thin silt and clay interbeds; 1–75 m thick; subaqueous outwash fans; deposited near the ice margin in glacial Lake Agassiz by meltwater turbidity currents, commonly reshaped by wave erosion and reworked by wind.

Ice-contact glaciofluvial sediments: sand and gravel; 1–20 m thick; complex deposits, belts with single or multiple esker ridges and kames, as well as thin, low-relief deposits; deposited in contact with glacial ice by meltwater.

Gc Predominantly derived from carbonate rocks.

Gp Predominantly derived from igneous and metamorphic rocks.

GLACIAL DEPOSITS

T Till: calcareous silt diamiction; 1–75 m thick; low-relief, commonly streamlined deposits; subglacial deposits; largely derived from carbonate rocks; thicker sequences consist of multiple units of varying texture, commonly scoured by icebergs; covered discontinuously by thin veneers (<1 m) of glacioacustrine and glaciofluvial sediments.

DISCONTINUOUS TILL AND ASSOCIATED GLACIOFLUVIAL SEDIMENTS: gravelly silt to sand diamiction, sand and gravel; 1–30 m thick; low-relief deposits between bedrock outcrops making up 25–75% of the area; sandy silt interbedded and interspersed with nearly equal and often greater amounts of sandy glaciofluvial sediments, as well as minor glacioacustrine sediments.

Tc Predominantly derived from carbonate rocks.

Tp Predominantly derived from igneous and metamorphic rocks.

PRE-QUATERNARY

ROCK: >75% bedrock outcrop; Paleozoic carbonate-dominated rocks in areas west and south of Lake Winnipeg, exposed typically as glacially striated, low-relief surfaces; in Precambrian terranes, generally unweathered intrusive, metasedimentary, and metavolcanic rocks having a glacially scoured irregular surface with high local relief; includes patches of thin glacial sediments and organic material.

Rc Paleozoic sedimentary rocks.

Rp Precambrian igneous and metamorphic rocks.

Geological boundary (approximate)

Built-up area (map GSC 2055A / MGS MAP2003-7 only)

Mine waste

Peat-extraction area

Gravel pit

Mine or bedrock quarry

Stabilized dunes

Abandoned channel

Minor beach ridge

Wave-cut scarp

Groundwater seeping channel

Piping depression

Iceberg scour

Tunnel valley

Esker (direction of flow indicated)

Streamlined landform

Glacial stria

Crossed stria (numbers indicate relative age, 1 being the oldest)

Small bedrock outcrop

Copies of this map may be obtained from the Geological Survey of Canada, 611 Booth Street, Ottawa, Ontario K1S 5B2, 3505 33rd Street, N.W., Calgary, Alberta T2L 2A7, 101-600 Robson Street, Vancouver, B.C. V6B 2J2.

Manitoba Industry, Economic Development and Mines, Manitoba Geological Survey, Publication Sales, 360-1060 Elbow Avenue, Winnipeg, Manitoba R2G 3P2.

Geology by J.D. Mann, University of Manitoba, 1997.

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Digital cartography by P.A. Melbourne, Earth Sciences Sector Information Division (ESS Info).

This map was produced from processes that conform to the ESS Info Publishing Services Subdivision Quality Management System, registered to the ISO 9001:2000 standard.



GSC MAP 2054A
MGS GEOSCIENTIFIC MAP MAP2003-6
SURFICIAL GEOLOGY
BIG WHITESHELL LAKE
MANITOBA-ONTARIO
Scale 1:100 000/Échelle 1/100 000
kilometres 0 2 4 6 8
kilomètres
Universal Transverse Mercator Projection
North American Datum 1983
© Her Majesty the Queen in Right of Canada 2004
Projection transversale universelle du Mercator
Système de référence géodésique nord-américain, 1983
© Sa Majesté la Reine du chef du Canada 2004

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

Digital base map from data compiled by Geomatics Canada, modified by ESS Info.

Mean magnetic declination 2004, 2°57' E, decreasing 5.6' annually. Readings vary from 3°30' E in the SW corner to 2°24' E in the NE corner of the map.

Elevations in feet above mean sea level

GSC 2049A	GSC 2050A	GSC 2051A
MGS MAP2003-1	MGS MAP2003-2	MGS MAP2003-3
GSC 2052A	GSC 2053A	GSC 2054A
MGS MAP2003-4	MGS MAP2003-5	MGS MAP2003-6
GSC 2055A	GSC 2056A	GSC 2057A
MGS MAP2003-7	MGS MAP2003-8	MGS MAP2003-9
GSC 2058A	GSC 2059A	GSC 2060A
MGS MAP2003-10	MGS MAP2003-11	MGS MAP2003-12

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

Recommended citation:
Mann, J.D.
2004: Surficial geology, Big Whiteshell Lake, Manitoba-Ontario; Geological Survey of Canada, Map 2054A; Manitoba Industry, Economic Development and Mines, Manitoba Geological Survey, Geoscientific Map MAP2003-6, scale 1:100 000.