

EXPLANATORY NOTES

The Oak Ridges Moraine and environs NATMAP project (NTS 30M15) is one in a series of new map products to be released as part of the Oak Ridges Moraine (ORM) and environs NATMAP project. NATMAP is a program of the Geological Survey of Canada to increase the level of geological mapping in Canada for both traditional and environmental purposes. The program includes multiagency/multidisciplinary projects aimed at reducing operating costs and duplication of effort, and providing integrated, digital products. The ORM and environs NATMAP project developed in response to increasing concern over the management and protection of groundwater and resources associated with the ORM.

Oshawa Preliminary Surficial Geology Site Attributes

Surficial geological attributes for 738 field sites, supplemented by 20 archival borehole records, are presented as colored circles (filled circles and squares (boreholes) superimposed on the existing surficial geology map. Fieldwork was completed in the summer of 1993. Field sites include 71 sections, 160 rail and road cuts, and 507 auger and probe holes. Archival borehole records are taken from Ontario Ministry of Transportation foundation reports (1972-1989).

Circle size and order correspond to the stratigraphically ordered map unit legend; the largest, lowest circle represents the oldest surficial material. This convention allows for complete data representation, even where sites are closely spaced. Surficial geological attributes were assigned on the basis of geological characteristics at 1 m depth below the land surface.

Attribute data, in combination with air photograph interpretation, will form the basis of a new 1:50,000 surficial geology map of the Oshawa area (NTS 30M15) to be released by the ORM and environs NATMAP project. Not all anomalous site data will be assigned a new map unit. Attribute 3.4 will be rationalized to 4b or 3a during data analysis and air photograph interpretation.

This digitally produced compilation allows rapid cross-checking of the existing surficial geology map, and highlights areas of conflict with existing map units. Site attributes suggest that the Halton drift dominates the surficial geology north of the Glacial Lake Iroquois shoreline, whereas the Newmarket Till is exposed south of that shoreline.

USER NOTES

Map notes compiled from source maps which were at a variety of scales. Consequently, accuracy and detail are not the same in all areas. Map unit legend is a composite for the Greater Toronto and ORM NATMAP areas; not all units or symbols appear on this 1:50,000 map. Base heights are registered to the EMR base (1985). Some alluvial units have been adjusted to fit the 1985 base. Till units are arranged in stratigraphic order.

REFERENCES

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Olding, A.B., Wicklund, R.E., and Richards, N.R., 1956: Soil survey of Ontario County: Ontario Soil Survey, report 23, 60 p., map scale 1:63,300.
Ontario Geological Survey Aggregate Resource Inventory, 1981: City of Oshawa, Regional Municipality of Durham, ARIP report 40, map scale 1:50,000.
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Webber, L.R., Marmick, F.F., and Richards, N.R., 1946: Soil survey of Durham County, Ontario Soil Survey, report 9, 68 p., map scale 1:126,720.

Field survey by T. A. Bremand, 1993.
Field assistance by T. Shaw and C. Miller, 1993.
Compilation and editing of surficial geology map by D.R. Sharpe and W.D. Finley, 1993.
Contribution of the NATMAP and Oak Ridges Moraine project.
Archival borehole records from Ontario Ministry of Transportation foundation reports, 1972-1989.
Digital cartographic production by Northwood Geoscience Ltd., Ottawa.

CREDITS

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RECOMMENDED CITATION:

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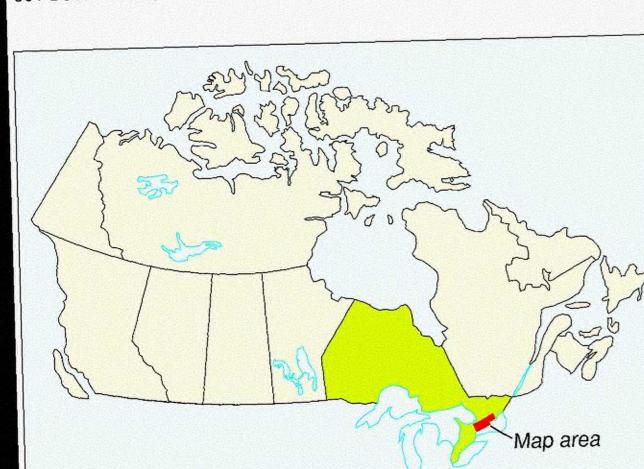
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2877
GEOLOGICAL SURVEY OF CANADA
COMMISSION GÉOLOGIQUE DU CANADA
OTTAWA
1994

May 1994

PRELIMINARY SURFICIAL GEOLOGY SITE ATTRIBUTES OSHAWA AREA ONTARIO

Scale 1:50,000 - Échelle 1/50 000
Miles 1 0 1 2 3 Miles
Metres 1000 0 1000 2000 3000 4000 Metres
Universal Transverse Mercator Projection
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Copies of this map may be obtained
from the Geological Survey of Canada
601 Booth Street, Ottawa, Ontario K1A 0E6



Mean magnetic declination 1971 varies from 08°18' westerly
at centre of west edge to 10°28' westerly at centre of east
edge. Mean annual change 0.7' westerly.

Digital base map from Surveys, Mapping and Remote
Sensing published at 1:250,000 scale.
North American Datum 1957

Canada