



## Legend

### Line Features

- |                  |                  |
|------------------|------------------|
| — esker          | — Roads          |
| — kettle         | — Rivers         |
| — meltwater flow | — Lakes          |
| — moraine crest  | — Wetlands       |
| — terrace        | — Study Boundary |

### Quaternary Geology

- 21: Man-made deposits: mine tailings, aggregate, stock piles, waste rock, and wood chips
- 20: Organic deposits: includes swamp, peat and muck
- 19: Modern Alluvium: medium and fine sand
- 18: Colluvial Deposits
- 12: Older Alluvium: Coarse, medium and fine sand
- 9: Lacustrine Deposits: Very Fine, fine to medium sand, sand and gravel, boulders
- 8: Glaciolacustrine Deep Water Deposits: Varied Silt and Clay
- 7: Glaciofluvial outwash: Sand and Gravel, and delta top set facies
- 6: Glaciofluvial ice-contact Stratified Drift: Massive silt and clay, sand, gravel and boulders
- 5: Till: Sand to sandy silt with rare clayey-silt lenses
- 2: Precambrian bedrock-drift complex
- 1: Precambrian bedrock

NOTE: Base map is the hillshaded DEM with the sun angle set at 45 degrees.

Sault Ste. Marie, Ontario,  
Canada

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## Contact

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## Software

ArcInfo 8.1, ArcView 3.2,  
and Windows 2000

Professional

## Hardware

Dell Pentium 4

## Printer

HP Designjet 1055cm

## Data Source(s)

Corporation of the  
Township of Michipicoten,  
Ontario Ministry of  
Environment, Ontario  
Ministry of Natural  
Resources, and Ontario  
Ministry of Northern  
Development and Mines

The Township of Michipicoten is one of 31 communities participating in the Ontario Ministry of Environment's Municipal Groundwater Studies. These studies were initiated in August 2001, following the Walkerton, Ontario, water contamination in May 2000.

Approximately three million Ontario residents, comprising more than 200 communities, rely on municipal groundwater-based systems to provide safe drinking water to service the residential, industrial, commercial, and institutional sectors. Of the rural population, approximately 90 percent rely on groundwater for drinking and other uses. The provincial Clean Water initiative characterizes hydrogeological conditions, of which quaternary geology is one component. Quaternary geology consists of rock formations from the beginning of the last ice age two million years ago to the present. The initiative will also focus on the development of immediate and long-term groundwater protection plans for municipalities across Ontario using groundwater as their water supply source.

The quaternary geology polygon layer for this map was obtained from the Ontario Ministry of Northern Development and Mines CAD format files. Where data was not available at 1:50,000 scale, a clip of the provincial quaternary geology at a 1:1 million scale was incorporated into the extracted shapefile (southern portion of the study area). David Sawicki, professional engineer and senior geological engineer of Morrison Environmental Limited, performed the verification of quaternary geological unit identification and legend description.

The quaternary geology information for the Township of Michipicoten Municipal Groundwater Studies Report, with other municipal groundwater study reports, will generate a provincial image to assist in the development of future environmental policies and effective groundwater protection strategies.