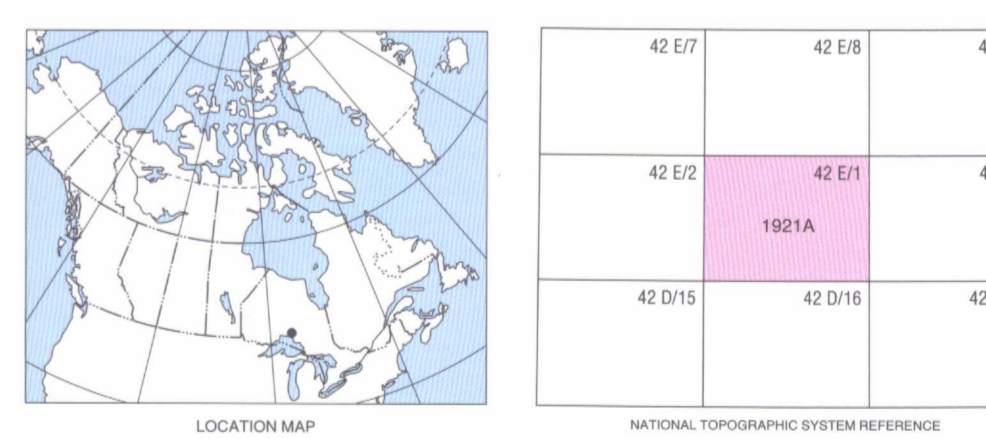


- ### LEGEND
- SURFICIAL DEPOSITS**
- QUATERNARY**
- 5** **ORGANIC DEPOSITS:** Muck and peat, 1 to 2 m thick; occurs in fens, marshes, bogs and swamps; accumulates mainly along modern floodplains
 - 4** **ALLUVIAL DEPOSITS:** Silt, sand, and gravel with minor organic material; 1-2 m thick; deposited on modern floodplains or deltas; surfaces commonly scarred by abandoned channels
 - 3** **PROGLACIAL AND GLACIAL DEPOSITS:**
 - GLACIAL LAKE DEPOSITS:** Silt, fine sand, and clay; may include pockets of coarse sand, gravel, and diamictic; laminated to massive, 1-75 m thick; deposited in the deep water, nearshore, littoral, or deltaic environments of a post-Minong glacial lake which occupied the Superior basin. Projected lake levels range from 320 m in the southwestern part to 340 m in the northeastern part of the map area; in some areas includes an overlying veneer of peat (<1 m thick) or eolian dunes developed on the deposit surface
 - GLACIAL FLUVIAL DEPOSITS:** Stratified sediments deposited at or near the glacial margin by meltwater streams
 - Ice contact glaciofluvial sediments:** Gravely sand, boulder and/or cobble gravel, sand, minor silt, and diamictic; 1-30 m thick; deposited in contact with or closely associated with glacial ice; deposits take the form of eskers, subaqueous fans, and kames
 - GLACIAL DEPOSITS:** Diamictic; gravely, sandy to clayey and matrix-supported; 1-20 m thick; includes minor lenses or stringers of sand or silt; deposited as till directly by or in close association with glacial ice
 - Till blanket:** Diamictic; generally silty to clayey; continuous cover more than 1 m thick which masks bedrock morphology; few outcrops; generally contains abundant clasts of Paleozoic limestone, dolostone, and sandstone (15-50%) and Proterozoic metasedimentary bedrock (10-30%); glacially transported from the Hudson Bay Lowlands. Where thickest (>5 m), till is commonly enriched in clasts of Paleozoic carbonate and Proterozoic metasedimentary rock and is noticeably finer grained
 - Till veneer:** Diamictic; generally sandy to gravely; discontinuous cover over bedrock which fails to mask bedrock morphology; average thickness of less than 1 m but may be thicker locally in small depressions and on the lee sides of bedrock knobs; may include pockets of sand, gravel, or clayey silt in low lying areas. Diamictic generally has low to moderate concentrations of clasts of Paleozoic carbonate (4-35%) and Proterozoic metasedimentary rock (5-20%) glacially transported from the Hudson Bay Lowlands; but in some areas they are especially clay rich and composed of materials derived mainly from the underlying or nearby Archean bedrock outcrops
 - R** **PRE-CAMBRIAN BEDROCK:** Archean crystalline bedrock, unfoliated; includes gneisses, migmatites, metasedimentary and metamorphic units, granites, diorites, and carbonates; the bedrock surface is irregular, scarred, and generally unweathered; may be overlain locally with a thin (<0.5 m) and discontinuous cover of surficial sediments

- Geological boundary** - - - - -
- Raised shoreline** - - - - -
- Dune (stabilized)** - - - - -
- Kettle** - - - - -
- Esker** - - - - -
- Crossing striae (1 = being the oldest)** - - - - -
- Glacial striae (direction known)** - - - - -
- Small rock outcrop** - - - - -
- Aggregate pit** - - - - -

Geology by I.M. Kettles, and V. Way Nee, 1997, 1992
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 Digital cartography by L.P. Renaud, Geoscience Information Division
 Electrostatic plot produced by the Geoscience Information Division
 Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada
 Digital base map from data compiled by Geomatics Canada, modified by the Geoscience Information Division
 Copies of topographic maps of this area may be obtained from the Canada Map Office, Natural Resources Canada, Ottawa, Ontario, K1A 0E9
 Magnetic declination 1997, 5°53'W, increasing 3.2' annually
 Elevations in feet above mean sea level

CANADA ONTARIO
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MAP 1921A
SURFICIAL GEOLOGY
VEIN LAKE
ONTARIO
 Scale 1:50 000 - Échelle 1/50 000
 Kilometres 1 2 3 4 Kilomètres
 Universal Transverse Mercator Projection / Projection transversale universelle de Mercator
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