

NOTES

The Southern Ontario sheet includes parts of St. Lawrence Platform and the Southern and Grenville Provinces of the Canadian Shield, embracing an area of about 285,000 sq. kilometres, or 110,000 sq. miles.

More than two-thirds of the sheet is underlain by Paleozoic rocks of Michigan Basin, Allegheny Basin and the Ottawa Embayment, and extension of Quebec Basin lying to the east.

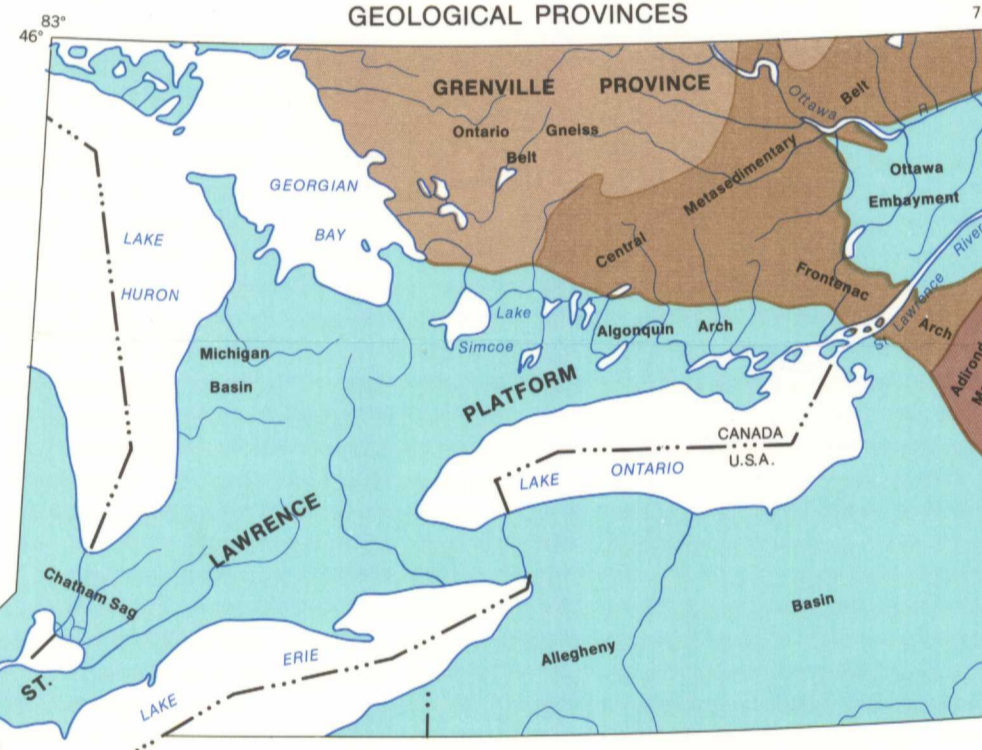
In Early Silurian time, rejuvenated tectonic lands intermittently shed grey and red, coarse clastics into Allegheny Basin which intertongued with shales and carbonates on Algonquin Arch and Michigan Basin.

Thick, fine and coarse sequences of Mississippian and Pennsylvanian age are preserved in Allegheny and Michigan Basins and probably covered part of Algonquin Arch, but were removed by erosion during the long hiatus that prevailed to the onset of the Quaternary.

Accounts of the geology of the Precambrian portion of the Southern Ontario sheet are given on adjacent and overlapping sheets.

The Great Lakes region has long been a major industrial region for both Canada and United States. The oil and gas fields of southern Ontario and Pennsylvania are the oldest in North America.

GEOLOGICAL PROVINCES



Province boundary
Subprovince boundary

Geological contact (mapped, assumed)
Fault (mapped, assumed)
Trend line

Locality of isotopic age determination
by the GSC
by other laboratories

igneous rock, metamorphic rock
Dike: gabbro, diabase (strike indicated by bar)
Pegmatite

Method:
Potassium-argon, rubidium-strontium (lambda = 1.42), uranium-thorium-lead

Material:
biotite, phlogopite, whole-rock isochron, lepidolite, amphibole, zircon, muscovite, whole rock, uraninite

Age in millions of years

Other Laboratories Designation
McGill University
California Institute of Technology
Carnegie Institution of Washington
Massachusetts Institute of Technology
Le Laboratoire de Clermont-Ferrand, France

Geological compilation by B.V. Sanford and A.J. Beer, 1971

Geology of the St. Lawrence Platform was compiled by B.V. Sanford from published maps of the Geological Survey of Canada, the Quebec Department of Natural Resources, and the Ontario Division of Mines and from the state geological maps of New York, Pennsylvania, Ohio and Michigan with contributions by G.D. Ellis.

Geology of the Canadian Shield was compiled by A.J. Beer from published and unpublished maps of the Geological Survey of Canada, the Quebec Department of Natural Resources and the Ontario Division of Mines, and from the state geological map of New York with contributions by Y.W. Isachsen.

Geological cartography by N.A. Grenier, Geological Survey of Canada

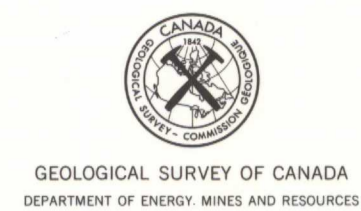
Computer-assisted and traditional cartographic techniques were used to produce the geological information portrayed on this map. Boundaries, faults, folds and isograds were digitized in the Computer Assisted Cartographic Unit of the Geological Survey.

Under a co-operative arrangement, the staff of the Geological Survey of Canada used data processing and plotting facilities provided by the Automated Cartography Unit of the Surveys and Mapping Branch to generate plot files and the final reproduction material for lithography.

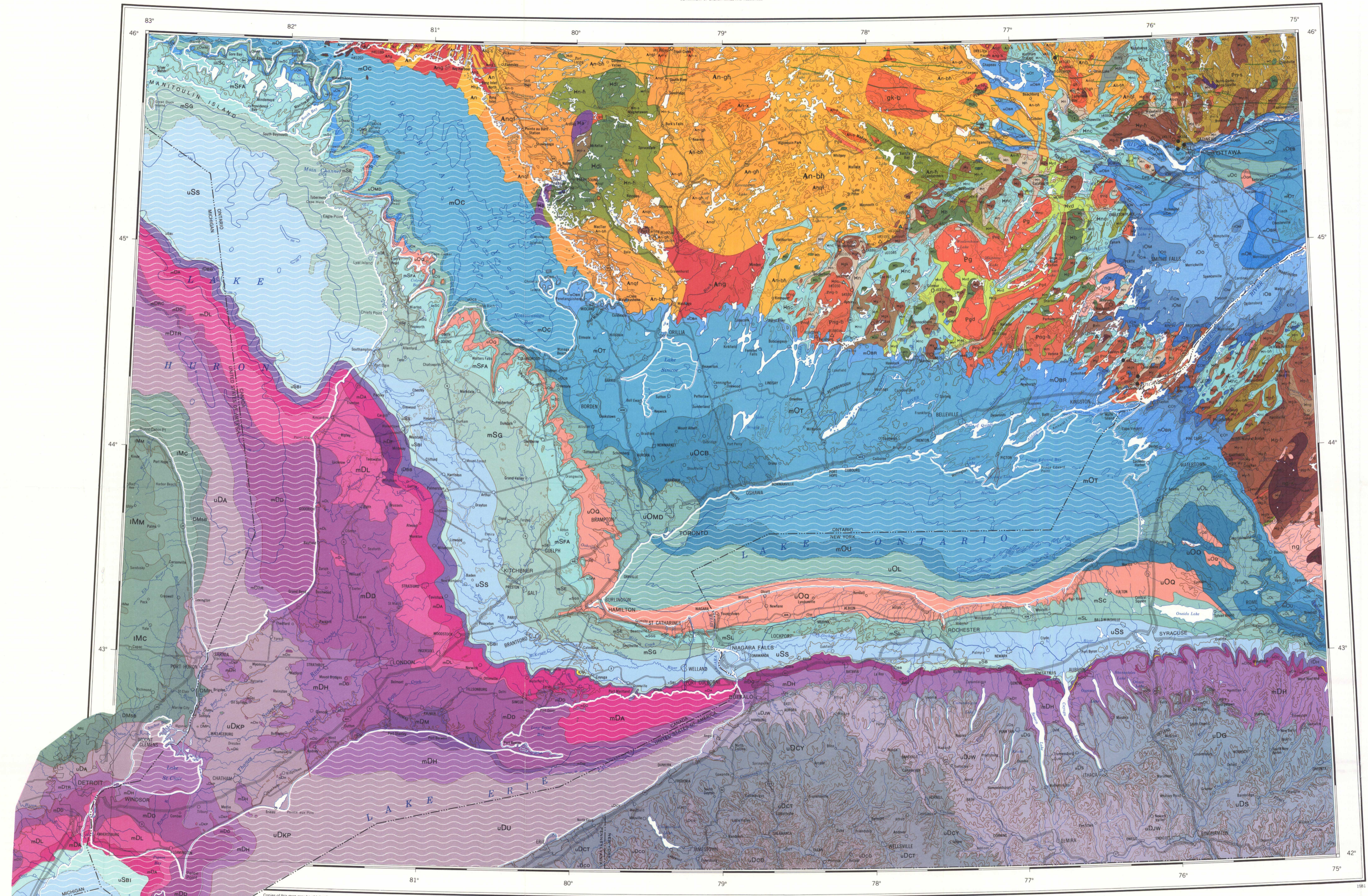
Base map assembled by the Geological Survey of Canada, from the IMV maps NL-17, NL-18, MK-17 and MK-18 published at the same scale by the Surveys and Mapping Branch in 1972, 1974, 1949 and 1961 respectively.

Roads were generalized by the Geological Survey of Canada

This map has been produced from a scanned version of the original map
Reproduction par numérisation d'une carte sur papier



GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES



MAP 1335A
SOUTHERN ONTARIO
ONTARIO - QUEBEC - U.S.A.
1:1,000,000 GEOLOGICAL ATLAS
SHEET 30S

GENERAL CO-ORDINATOR: R.W. DOUGLAS

Lambert Conformal Projection, standard parallels 42°40' and 45°20'

© Crown Copyrights reserved



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
100 West Pender Street, Vancouver, B.C. V6G 1M6

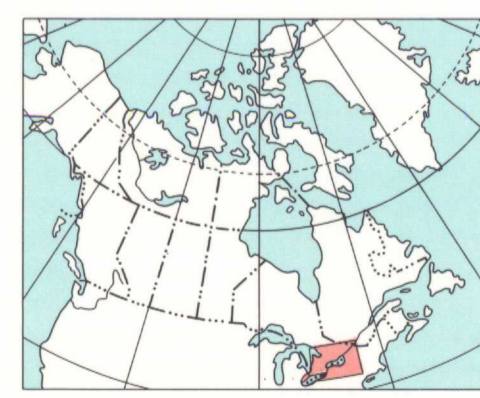


Table with 4 columns: Albany River, Broadback River, Saguenay River, Montreal River, St. John River, Bowdoin River. Shows sheet numbers 42, 52, 22, 41, 1335A, 31, 21, 1335A, 30S, 20.

INDEX TO GEOLOGICAL ATLAS SHEETS AND REFERENCE TO NATIONAL TOPOGRAPHIC SYSTEM

Legend for geological units and rock types. Includes sections for Lower Mississippian, Devonian and Mississippian, Devonian, Middle Devonian, Lower Devonian, Silurian, Middle Silurian, Lower and Middle Silurian, Lower Silurian, Ordovician, Middle Ordovician, Lower Ordovician, Upper Cambrian and/or Lower Ordovician, and Upper Cambrian or Younger. Lists various geological units with their corresponding symbols and colors.

NOT TO BE TAKEN FROM LIBRARY
NE PAS SORTIR DE LA BIBLIOTHÈQUE
SOUTHERN ONTARIO
1335A (E) (Sheet 1 of 2)