

THESE TERMS GOVERN YOUR USE OF THIS DOCUMENT

Your use of this Ontario Geological Survey document (the “Content”) is governed by the terms set out on this page (“Terms of Use”). By downloading this Content, you (the “User”) have accepted, and have agreed to be bound by, the Terms of Use.

Content: This Content is offered by the Province of Ontario’s *Ministry of Northern Development and Mines* (MNDM) as a public service, on an “as-is” basis. Recommendations and statements of opinion expressed in the Content are those of the author or authors and are not to be construed as statement of government policy. You are solely responsible for your use of the Content. You should not rely on the Content for legal advice nor as authoritative in your particular circumstances. Users should verify the accuracy and applicability of any Content before acting on it. MNDM does not guarantee, or make any warranty express or implied, that the Content is current, accurate, complete or reliable. MNDM is not responsible for any damage however caused, which results, directly or indirectly, from your use of the Content. MNDM assumes no legal liability or responsibility for the Content whatsoever.

Links to Other Web Sites: This Content may contain links, to Web sites that are not operated by MNDM. Linked Web sites may not be available in French. MNDM neither endorses nor assumes any responsibility for the safety, accuracy or availability of linked Web sites or the information contained on them. The linked Web sites, their operation and content are the responsibility of the person or entity for which they were created or maintained (the “Owner”). Both your use of a linked Web site, and your right to use or reproduce information or materials from a linked Web site, are subject to the terms of use governing that particular Web site. Any comments or inquiries regarding a linked Web site must be directed to its Owner.

Copyright: Canadian and international intellectual property laws protect the Content. Unless otherwise indicated, copyright is held by the Queen’s Printer for Ontario.

It is recommended that reference to the Content be made in the following form: <Author’s last name>, <Initials> <year of publication>. <Content title>; Ontario Geological Survey, <Content publication series and number>, <total number of pages>p.

Use and Reproduction of Content: The Content may be used and reproduced only in accordance with applicable intellectual property laws. *Non-commercial* use of unsubstantial excerpts of the Content is permitted provided that appropriate credit is given and Crown copyright is acknowledged. Any substantial reproduction of the Content or any *commercial* use of all or part of the Content is prohibited without the prior written permission of MNDM. Substantial reproduction includes the reproduction of any illustration or figure, such as, but not limited to graphs, charts and maps. Commercial use includes commercial distribution of the Content, the reproduction of multiple copies of the Content for any purpose whether or not commercial, use of the Content in commercial publications, and the creation of value-added products using the Content.

Contact:

FOR FURTHER INFORMATION ON	PLEASE CONTACT:	BY TELEPHONE:	BY E-MAIL:
The Reproduction of Content	MNDM Publication Services	Local: (705) 670-5691 Toll Free: 1-888-415-9845, ext. 5691 (inside Canada, United States)	Pubsales@ndm.gov.on.ca
The Purchase of MNDM Publications	MNDM Publication Sales	Local: (705) 670-5691 Toll Free: 1-888-415-9845, ext. 5691 (inside Canada, United States)	Pubsales@ndm.gov.on.ca
Crown Copyright	Queen’s Printer	Local: (416) 326-2678 Toll Free: 1-800-668-9938 (inside Canada, United States)	Copyright@gov.on.ca

LES CONDITIONS CI-DESSOUS RÉGISSENT L'UTILISATION DU PRÉSENT DOCUMENT.

Votre utilisation de ce document de la Commission géologique de l'Ontario (le « contenu ») est régie par les conditions décrites sur cette page (« conditions d'utilisation »). En téléchargeant ce contenu, vous (l'« utilisateur ») signifiez que vous avez accepté d'être lié par les présentes conditions d'utilisation.

Contenu : Ce contenu est offert en l'état comme service public par le *ministère du Développement du Nord et des Mines* (MDNM) de la province de l'Ontario. Les recommandations et les opinions exprimées dans le contenu sont celles de l'auteur ou des auteurs et ne doivent pas être interprétées comme des énoncés officiels de politique gouvernementale. Vous êtes entièrement responsable de l'utilisation que vous en faites. Le contenu ne constitue pas une source fiable de conseils juridiques et ne peut en aucun cas faire autorité dans votre situation particulière. Les utilisateurs sont tenus de vérifier l'exactitude et l'applicabilité de tout contenu avant de l'utiliser. Le MDNM n'offre aucune garantie expresse ou implicite relativement à la mise à jour, à l'exactitude, à l'intégralité ou à la fiabilité du contenu. Le MDNM ne peut être tenu responsable de tout dommage, quelle qu'en soit la cause, résultant directement ou indirectement de l'utilisation du contenu. Le MDNM n'assume aucune responsabilité légale de quelque nature que ce soit en ce qui a trait au contenu.

Liens vers d'autres sites Web : Ce contenu peut comporter des liens vers des sites Web qui ne sont pas exploités par le MDNM. Certains de ces sites pourraient ne pas être offerts en français. Le MDNM se dégage de toute responsabilité quant à la sûreté, à l'exactitude ou à la disponibilité des sites Web ainsi reliés ou à l'information qu'ils contiennent. La responsabilité des sites Web ainsi reliés, de leur exploitation et de leur contenu incombe à la personne ou à l'entité pour lesquelles ils ont été créés ou sont entretenus (le « propriétaire »). Votre utilisation de ces sites Web ainsi que votre droit d'utiliser ou de reproduire leur contenu sont assujettis aux conditions d'utilisation propres à chacun de ces sites. Tout commentaire ou toute question concernant l'un de ces sites doivent être adressés au propriétaire du site.

Droits d'auteur : Le contenu est protégé par les lois canadiennes et internationales sur la propriété intellectuelle. Sauf indication contraire, les droits d'auteurs appartiennent à l'Imprimeur de la Reine pour l'Ontario.

Nous recommandons de faire paraître ainsi toute référence au contenu : nom de famille de l'auteur, initiales, année de publication, titre du document, Commission géologique de l'Ontario, série et numéro de publication, nombre de pages.

Utilisation et reproduction du contenu : Le contenu ne peut être utilisé et reproduit qu'en conformité avec les lois sur la propriété intellectuelle applicables. L'utilisation de courts extraits du contenu à des fins *non commerciales* est autorisée, à condition de faire une mention de source appropriée reconnaissant les droits d'auteurs de la Couronne. Toute reproduction importante du contenu ou toute utilisation, en tout ou en partie, du contenu à des fins *commerciales* est interdite sans l'autorisation écrite préalable du MDNM. Une reproduction jugée importante comprend la reproduction de toute illustration ou figure comme les graphiques, les diagrammes, les cartes, etc. L'utilisation commerciale comprend la distribution du contenu à des fins commerciales, la reproduction de copies multiples du contenu à des fins commerciales ou non, l'utilisation du contenu dans des publications commerciales et la création de produits à valeur ajoutée à l'aide du contenu.

Renseignements :

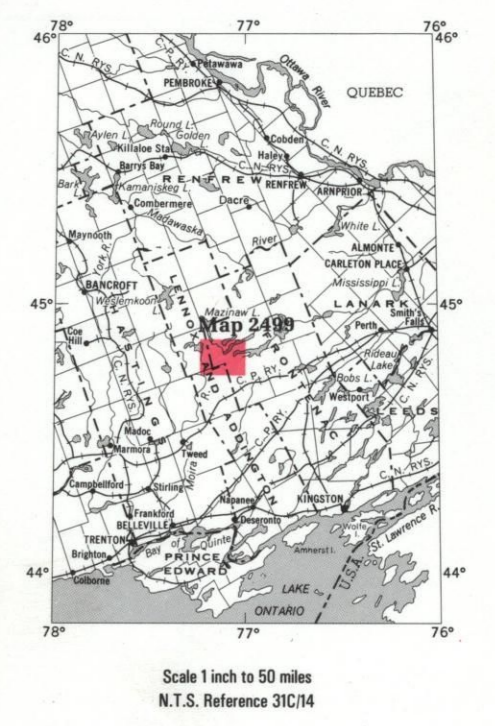
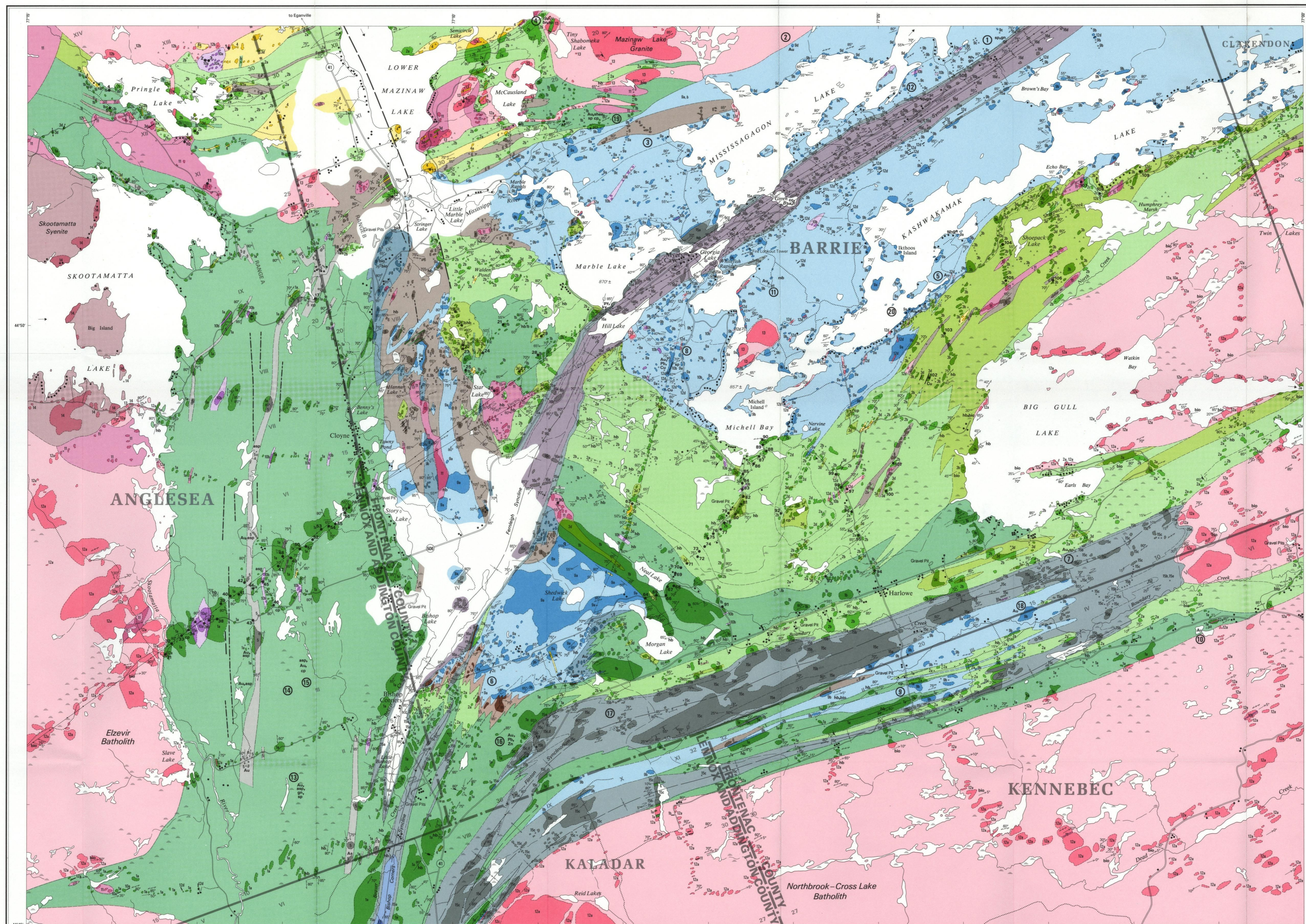
POUR PLUS DE RENSEIGNEMENTS SUR	VEUILLEZ VOUS ADRESSER À :	PAR TÉLÉPHONE :	PAR COURRIEL :
la reproduction du contenu	Services de publication du MDNM	Local : (705) 670-5691 Numéro sans frais : 1 888 415-9845, poste 5691 (au Canada et aux États-Unis)	Pubsales@ndm.gov.on.ca
l'achat des publications du MDNM	Vente de publications du MDNM	Local : (705) 670-5691 Numéro sans frais : 1 888 415-9845, poste 5691 (au Canada et aux États-Unis)	Pubsales@ndm.gov.on.ca
les droits d'auteurs de la Couronne	Imprimeur de la Reine	Local : 416 326-2678 Numéro sans frais : 1 800 668-9938 (au Canada et aux États-Unis)	Copyright@gov.on.ca

LEGEND

- PHANEROZOIC**
- CENOZOIC***
- QUATERNARY**
- PLEISTOCENE AND RECENT**
- Till, gravel, sand, organic deposits, alluvium.
- UNCONFORMITY**
- PRECAMBRIAN***
- LATE PRECAMBRIAN***
- LATE METASEDIMENTS**
- FLINTON GROUP**
- LESSARD FORMATION#**
- 17 Calcareous, feldspathic quartzite.
- MYER CAVE FORMATION#**
- 16a Dolomitic marble.
16b Graphitic schist, biotite-carbonate schist, minor graphitic marble.
16c Carbonate-pebble conglomerate, graphitic schist, pelite, marble.
16d Interspersed dolomitic and calcitic marble.
- BISHOP CORNERS FORMATION**
- 15a Muscovite schist, garnet-biotite schist, quartzite.
15b Quartzite.
15c Quartzite-pebble conglomerate, intercalated quartzite, pebbly quartzite, micaceous quartzite.
15d Polymict conglomerate.
15e Impure calcitic marble, calcareous quartzite.
- FELSIC TO INTERMEDIATE INTRUSIVE ROCKS**
- SKOOTAMATTA STOCK†**
- 14 Monzonite, syenite, quartz syenite, porphyritic syenite.
- MAZINAW LAKE GRANITE AND SMALL POTASSIC INTRUSIONS**
- 13 Granite, granite porphyry.
- ELZEVR AND NORTHBROOK BATHOLITHS AND SMALL SODIC INTRUSIONS**
- 12a Granodiorite, trondhjemite.
12b Quartz monzonite.
12c Feldspar and quartz-feldspar porphyry dikes, felsite dikes.
- INTRUSIVE CONTACT**
- INTERMEDIATE INTRUSIVE ROCKS#**
- 11 Diorite, quartz diorite, diorite intrusives.
- MAFIC AND ULTRAMAFIC INTRUSIVE ROCKS#**
- 10a Gabbro, peridotite, hornblende schist.
10b Mafic and intermediate dikes.
- EARLY METASEDIMENTS***
- CARBONATE METASEDIMENTS**
- 9a Dolomitic marble, typically massive.
9b Calcitic and subordinate, intercalated dolomitic marble, thin-layered minor siltstone, wacke.
9c Layered marble with numerous mafic and intermediate sills and dikes.
9d Interspersed marble and wacke.
- CARBONATE AND CLASTIC METASEDIMENTS**
- 8 Intercalated dolomitic marble, dolomitic siltstone, carbonate wacke, wacke, minor calcitic marble.
- SULPHIDE-GRAPHITE METASEDIMENTS**
- 7 Pyrite, and/or pyrrhotite-bearing, graphitic schist, black chert.
- CLASTIC INTERMEDIATE TO FELSIC METASEDIMENTS**
- 6 Volcanic wacke, siltstone, tuffaceous wacke, minor volcanic conglomerate.
- CLASTIC MAFIC METASEDIMENTS**
- 5 Interflow metasediments in basaltic rocks.
- METAVOLCANICS***
- RHYOLITIC METAVOLCANICS**
- 4 Rhyolite lapilli-tuff, tuff-breccia, ash-flow tuff, rhyolite porphyry and granite porphyry dikes and sills.
- DACITIC METAVOLCANICS**
- 3a Dacite flows, flow breccia.
3b Dacite lapilli-tuff, tuff-breccia, layered tuff.
3c Carbonate volcanic breccia.
3d Dacite, dacite porphyry dikes, sills, small intrusions.
- ANDESITIC METAVOLCANICS**
- 2a Andesite flows, flow breccia, auto-clastic breccia.
2b Andesite tuff, breccia, lapilli-tuff, mass flow deposits.
2c Andesite, andesite porphyry dikes, sills.
2d Andesite agglomerate, tuff breccia.
- BASALTIC METAVOLCANICS**
- 1a Basalt flows, pillow lavas, flow and pillow breccia, auto-clastic breccia, amphibolite, hornblende schist.
1b Basalt, basaltic andesite flows, breccia, pillowed in part, typically plagioclase-phyric, amphibolite.
1c Diabase, amphibolite dikes and sills, small gabbroic intrusions.

- As Arsenic.
asp Arsenopyrite.
Au Gold.
ba Barite.
bto Biotite.
bn Bornite.
cc Chalcocite.
cp Chalcopyrite.
Cu Copper.
fl Fluorite.
gt Garnet.
hb Hornblende.
ky Kyanite.
mb Marble.
mi Mica.
Pb Lead.
py Pyrite.
q Quartz.
sche Scheelite.
sp Sphalerite.
Zn Zinc.

Published 1985.
*Unconsolidated deposits. Cenozoic deposits are represented by the lighter coloured and uncoloured parts of the map.
#Bedrock geology. Outcrops and inferred extensions of each rock map unit are shown respectively in deep and light tones of the same colour. Where in places a formation is too narrow to show colour and must be represented in black, a short black bar appears in the appropriate block.
†All rock units, with possible exception of Skootamatta Syenite, have undergone low-to middle-grade metamorphism and concordant deformation, with substantially complete recrystallization. Primary lithologic names are used where identification is reasonably certain, and where metamorphic nomenclature is cumbersome.
*Lessard and Myer Cave Formations are considered to be laterally equivalent.
#Listing of members within formations implies stratigraphic succession only in part.
†Age relative to Flinton Group and Mazinaw Lake Granite not directly established.
#Relative ages of dioritic and more mafic intrusions are not established; probably include subvolcanic intrusions.
*Order of metasediments and metavolcanics only in part stratigraphic; lithologic subdivisions include two major metasedimentary, and three metavolcanic assemblages.
#Includes related intrusive rocks.

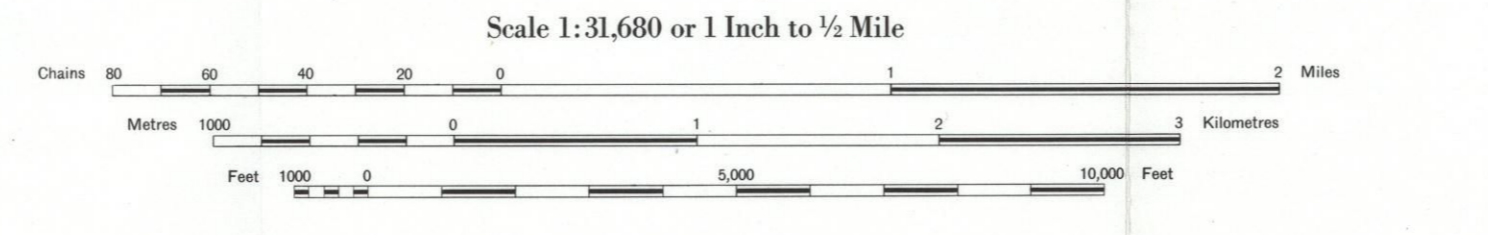


- SYMBOLS**
- Glacial striae: Glacial fluting or drumlin.
 - Esker.
 - Bedrock (small outcrop, area of outcrop).
 - Bedding, horizontal.
 - Bedding, top unknown; (inclined, vertical).
 - Bedding, top indicated by arrow; (inclined, vertical, overturned).
 - Bedding, top (arrow) from grain gradation; (inclined, vertical, overturned).
 - Bedding, top (arrow) from cross bedding; (inclined, vertical, overturned).
 - Bedding, top (arrow) from relationship of cleavage and bedding; (inclined, overturned).
 - Lava flow; top (arrow) from pillow shape and packing. Lava flow; top in direction of flow.
 - Direction of paleocurrent.
 - Schistosity; (horizontal, inclined, vertical).
 - Gneissosity; (horizontal, inclined, vertical).
 - Foliation; (horizontal, inclined, vertical).
 - Banding; (horizontal, inclined, vertical).
 - Lineation with plunge.
 - Geological boundary; (observed, position interpreted, deduced from geophysical).
 - Magnetic contour value in gammas. Magnetic attraction.
 - Fault; (observed, assumed). Spot indicates down throw side, arrows indicate horizontal movement.
 - Lineament.
 - Jointing; (horizontal, inclined, vertical).
 - Drag folds with plunge.
 - Anticline, syncline, with plunge.
 - Drill hole; (vertical, inclined, projected vertically, projected up dip). Overburden shown.
 - Location of sample.
 - Vein, vein network. Width in inches, feet or metres.
 - RA Radioactivity.
 - Swamp.
 - Motor road. Provincial highway number enclosed where applicable.
 - Other road.
 - Trail, portage, winter road.
 - International or Provincial boundary.
 - County, District, Regional or District Municipal Boundary, with mile post.
 - Municipal Boundary, (City, Town, Incorporated District, Incorporated Township), with milepost.
 - Township, Indian Reserve, Meridian, Base Line, Provincial Park, with milepost, (surveyed, unsurveyed).
 - Mining property, surveyed. Mine deposit or mining property, unsurveyed.
 - Surveyed line.
 - Unsurveyed line.
- All boundary and survey lines are approximate position only.
Some symbols may not occur on this map.

SOURCES OF INFORMATION

Geology by J.M. Moore Jr., R.L. Morton and assistants, Ontario Geological Survey, 1976.
Geology is not tied to surveyed lines.
Further information from field work of J.M. Moore Jr. (1961, 1962, 1964, 1966), K. Sethuraman (1966-68), I.E. Hutchinson (1969), P.H. Thompson (1969-71), and J.F. Chappell (1974). Inferred contacts along northern boundary west of Lower Mazinaw Lake, and western boundary north of Skootamatta Lake, in part from J.A. Ayer (1979) and R. Snyder, Graduate Student, State University of New York at Albany, personal communication, 1978. Elzevir Batholith contact at southwest corner based on J.M. Wolff (1970). Regional Geologist's Files, Ministry of Natural Resources, Kemptonville.
Aeromagnetic map 97G, Geological Survey of Canada. Preliminary maps (COS) P1563 Kaladar Area (1978), P2278 Clarendon Lake Area (1980). Scale 1 inch to 1/4 mile.
Cartography by J.D. Holweg and assistants, Surveys and Mapping Branch, 1984.
Basemap derived from Ontario Base Resources Inventory maps, Surveys and Mapping Branch, Ministry of Natural Resources.
Magnetic declination in the area was approximately 10°30' W in 1976.
Parts of this publication may be quoted if credit is given. It is recommended that reference to this map be made in the following form:
Moore, J.M. Jr., and Morton, R.L., 1985: Marble Lake, Ontario Geological Survey Map 2499, Precambrian Geology Series, scale 1 inch to 1/4 mile, geology 1976.
Information current to 31 December, 1976.
Former properties on ground now open for staking are only shown where exploration information is available. For further information see report.

Ontario Geological Survey
Map 2499
MARBLE LAKE
SOUTHERN ONTARIO
Scale 1:31,680 or 1 Inch to 1/2 Mile



- PROPERTIES, MINERAL DEPOSITS**
- Barrie Syncline.
 - Big Dipper occurrence.
 - Backdoor occurrence.
 - Balfour occurrence.
 - Campar (Kashwakamak) occurrence.
 - Campar (Mills Claims) occurrence.
 - Cook's Frontage occurrence.
 - Cook occurrence.
 - Dome occurrence.
 - Gold Base occurrence.
 - Helena occurrence.
 - Mazinaw Base Metals.
 - O'Donnell I.
 - O'Donnell II.
 - O'Donnell III.
 - Ore Chimney Mine.
 - Ore Mountain occurrence.
 - Pay Rock Gold.
 - Star Gold Mine.
 - Shaw occurrence.