

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, Mines and Forestry* (MNDMF) 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. MNDMF does not guarantee, or make any warranty express or implied, that the Content is current, accurate, complete or reliable. MNDMF is not responsible for any damage however caused, which results, directly or indirectly, from your use of the Content. MNDMF 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 MNDMF. Linked Web sites may not be available in French. MNDMF 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>, <scale>.

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 MNDMF. 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	MNDMF Publication Services	Local: (705) 670-5691 Toll Free: 1-888-415-9845, ext. 5691 (inside Canada, United States)	pubsales.ndm@ontario.ca
The Purchase of MNDMF Publications	MNDMF Publication Sales	Local: (705) 670-5691 Toll Free: 1-888-415-9845, ext. 5691 (inside Canada, United States)	pubsales.ndm@ontario.ca
Crown Copyright	Queen’s Printer	Local: (416) 326-2678 Toll Free: 1-800-668-9938 (inside Canada, United States)	copyright@gov.on.ca

MINERAL OCCURRENCES REFERENCE

Ag.....Silver	Ni.....Nickel
Au.....Gold	Pb.....Lead
Co.....Cobalt	py.....Pyrite
Cu.....Copper	si.....Silica
Fe.....Iron	st.....Stone
Mo.....Molybdenum	Zn.....Zinc

PRODUCERS

1 Agnico Mines Ltd.	Ag, Co
2 Cart Lake mine.....	Ag, Co
3 Christopher mine.....	Ag, Co
4 Cobalt Lode mine.....	Ag, Co
5 Nipissing 407.....	Ag, Co
6 O'Brien mine.....	Ag, Co
7 Canadian Keeley Mines Ltd., Frontier mine.....	Ag, Co
8 Cliffs of Canada Ltd., Sherman mine (in 1966).....	Fe
9 Deer Horn Mines Ltd. (includes Cross Lake O'Brien).....	Ag, Co
10 Farr's Quarry.....	st
11 Glen Lake Silver Mines, Ltd. (Bailey).....	Ag, Co
12 Hiho Silver Mines Ltd. (University mine).....	Ag, Co
13 Silverfields Mining Corp. Ltd.....	Ag, Co
14 Silver Miller Mines Ltd., Conisil mine.....	Ag, Co

PAST PRODUCERS

14 Agnico Mines Ltd.	Ag, Co
15 Agaunico mine.....	Ag, Co
16 Beaver mine.....	Ag, Co
17 Buffalo mine.....	Ag, Co
18 Colonial mine.....	Ag, Co
19 Crown Reserve mine.....	Ag, Co
20 Curry mine.....	Ag, Co
21 Gilgreer mine.....	Ag
22 McKinley-Darragh mine.....	Ag, Co
23 Nipissing mine.....	Ag, Co
24 Penn Cobalt mine (Penn Canadian, Foster).....	Ag, Co, Zn, Pb, Cu
25 Temiskaming mine.....	Ag, Co
26 Townsite mine.....	Ag, Co
27 Violet mine.....	Ag, Co
28 Wettlaufer mine.....	Ag, Co
29 Ajax Minerals Ltd. (Ontario Nickel Corp Ltd.).....	Cu, Ni
30 Big Dan property. (United Reef Petroleum Ltd.).....	As
31 Canadian Keeley Mines Ltd., Keeley mine.....	Ag, Co
32 Coballoy Mines and Refiners Ltd	
33 Juno Metals mine.....	Ag, Co
34 Nova Scotia mine.....	Ag, Co
35 Cob-Sil Ore Mines Ltd. (Cobnor).....	Co, Ag
36 Drummond mine.....	Ag, Co
37 Green Meehan Mining Co. Ltd.	Ag, Co
38 Hudson Bay Mines Ltd., Coleman township property.....	Ag, Co
39 Lakeleaf Silver Mining Co. (Silver Leaf).....	Ag, Co
40 Little Dan property. (Penrose Gold Mines Ltd.).....	As
41 Miller Lorrain Mines Ltd.....	Ag, Co
42 Nipissing-Lorrain.....	Ag, Co
43 Pittsonto Mines (Harrison Hibbert).....	Ag, Co, Cu
44 Price, J. (Bellellen mine).....	Ag, Co
45 Ramardo Mines Ltd. (Trout Lake).....	Ag, Co
46 Rix-Athabasca Uranium Mines Ltd.	
47 King Edward mine.....	Ag, Co
48 Silver Leaf mine.....	Ag, Co
49 Silver Dollar Mines Ltd. (Cochrane).....	Ag, Co
50 Silver-Miller Mines Ltd.	
51 Brady Lake mine.....	Ag, Co
52 Chambers-Ferland mine.....	Ag, Co
53 Hargrave mine.....	Ag, Co
54 Kerr Lake mine.....	Ag, Co
55 La Rose mine.....	Ag, Co
56 Lawson mine.....	Ag, Co
57 Princess mine.....	Ag, Co
58 Silver Regent Mines Ltd. (Genesee).....	Ag, Co
59 Silver Summit Mines Ltd. (Mensilvo mine, Silver Bar).....	Co, Ag
60 Silver Town Mines Ltd. (Peterson Lake Silver Cobalt Mining Co.).....	Ag, Co
61 Slutsky, R.L. (Harris mine).....	Ag, Co
62 Byberg, A. (Silver Eagle mine).....	Ag, Co

SOURCES OF INFORMATION

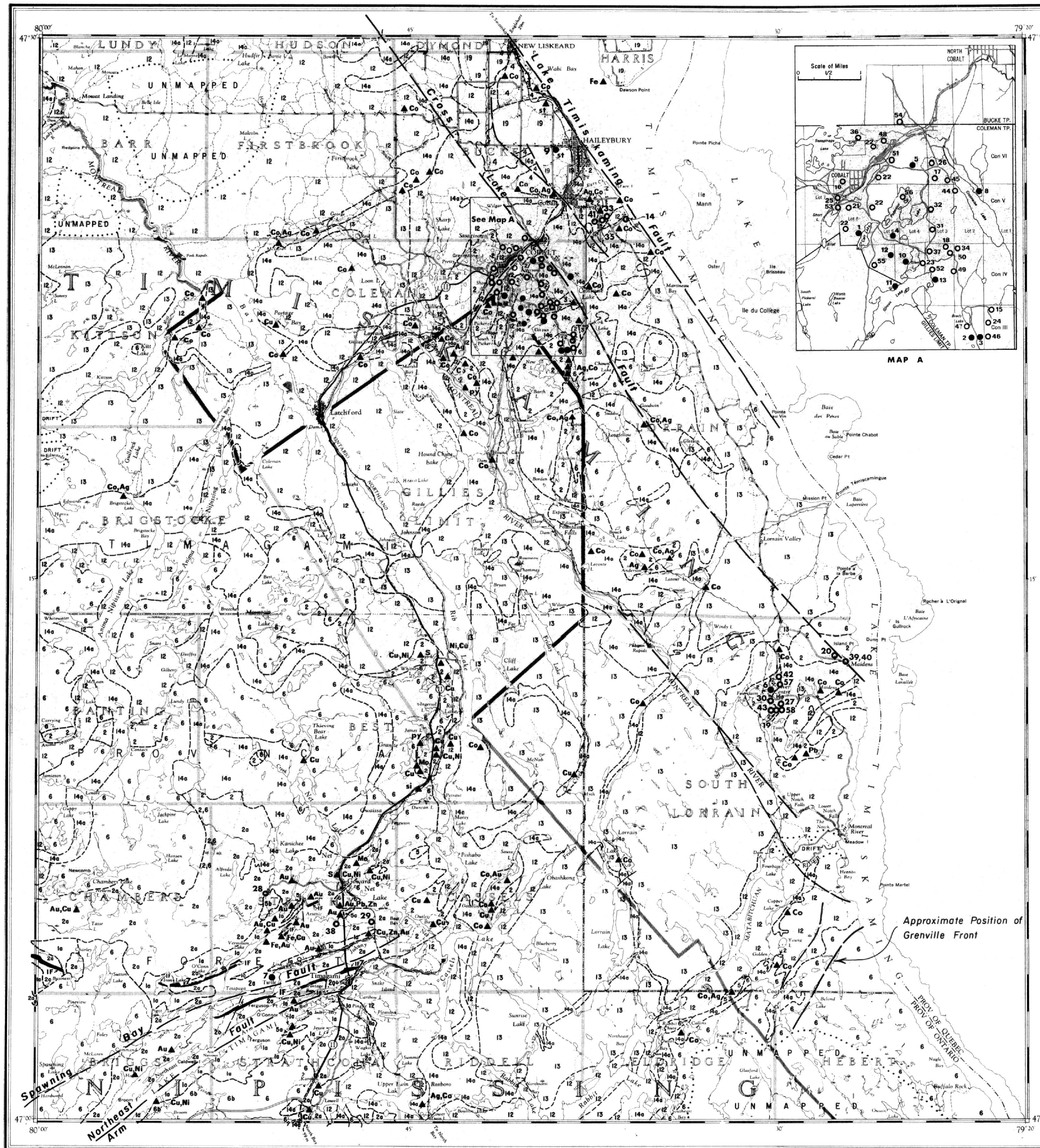
Geological compilation by Robert Thomson, Resident Geologist, Cobalt, and W. S. Savage, Resident Geologist, Kirkland Lake, 1965.

Geology from published maps of Ontario Department of Mines and Geological Survey of Canada.

Records of assessment work on file at Resident Geologist's offices, Cobalt and Kirkland Lake.

Base map from National Topographic Series, Sheet 31 M/SW.

Issued 1965.



ONTARIO DEPARTMENT OF MINES
 PRELIMINARY GEOLOGICAL MAP No. P. 321
HAILEYBURY SHEET
 DISTRICTS OF TIMISKAMING AND NIPISSING
 Geological Compilation Series
 Scale 1 inch to 2 miles
 N.T.S. Reference 31 M/SW
 G. S. C. Aeromagnetic Maps: 1481G, 1482G, 1491G, 1492G

LEGEND

CENOZOIC

PLEISTOCENE AND RECENT

Sand, gravel, clay (larger areas only)

UNCONFORMITY

PALEOZOIC

ORDOVICIAN AND SILURIAN

19 Guelph, Lockport
 Clinton, Cataract
 Queenston, Wewakonsing
 Dolomite, limestone, shale

UNCONFORMITY

PRECAMBRIAN

PROTEROZOIC

KEWENAWAN AND MATACHEWAN

18 Diabase^a

INTRUSIVE CONTACT

MAFIC INTRUSIVE ROCKS^b

14 14a Gabbro, diabase (Nipissing diabase)
 INTRUSIVE CONTACT

HURONIAN SYSTEM

COBALT GROUP

Lorrain Formation

13 13 Quartzite, arkose, siltstone, conglomerate

Gowanda Formation

12 12 Conglomerate, argillite, arkose

UNCONFORMITY

ARCHEAN

SILICIC INTRUSIVE ROCKS (ALGOMAN)

6 6 Undifferentiated
 6a Granite, syenite
 6b Quartz monzonite, granodiorite

MAFIC AND ULTRAMAFIC INTRUSIVE ROCKS (HAILEYBURIAN)

5 5 Undifferentiated
 5a Gabbro, diorite
 5b Peridotite, dunite, pyroxenite, altered equivalents

INTRUSIVE CONTACT

SEDIMENTARY ROCKS (TIMISKAMING)

4 4a Conglomerate, greywacke, slate

UNCONFORMITY

SEDIMENTARY ROCKS (KEWATIN)

3 3 Conglomerate, greywacke, tuff, amphibolite

MAFIC VOLCANIC ROCKS (KEWATIN)

2 2 Undifferentiated
 2a Andesite, basalt

1P Iron formation

SILICIC AND INTERMEDIATE VOLCANIC ROCKS (KEWATIN)

1 1a Rhyolite, trachyte, pyroclastic rocks

NOTES:

a. Not shown.
 b. May include some Archean mafic intrusions

SYMBOLS

	6 Location of mining property.
	7 Producing mine.
	8 Past producing mine.
	9 Mineral occurrence.