

PALAEOZOIC

PRECAMBRIAN

LEGEND

CAMBRIAN OR ORDOVICIAN

- 11 POTSDAM OR NEPEAN FORMATION: sandstone, conglomerate

MIDDLE PROTEROZOIC (?) (HELIKIAN?)

- 10 White or pink pegmatite and lime-silicates associated with marble (1); 10a, white granite; 10b, white diorite

- 9 Pink, leucocratic, homogeneous, medium-grained, biotite granite (alaskite)

- 8 Migmatite: poorly foliated intermixed granitic rocks (9, A) and metamorphic rocks (4, 5, 6)

GRENVILLE SERIES

- 7 Granulite: dark-coloured, fine-grained, leucocratic, poorly layered, clinopyroxene-oligoclase-quartz rock

- 6 Dark-green pyroxene gneiss, pyroxene-hornblende gneiss, and amphibolite, locally garnetiferous

- 5 Well-layered quartz-biotite-feldspar gneiss, locally containing cordierite, hypersthene, or sillimanite

- 4 Well-layered quartz-biotite-garnet-feldspar gneiss, locally containing cordierite, hypersthene, or sillimanite

- 3 White, homogeneous, massive quartzite

- 2 Interlayered quartzite, marble, and lime-silicate rocks

- 1 White marble (crystalline limestone), some lime-silicates; includes layers and fragments of rusty, pyritic, and graphitic gneisses, white pegmatite (10), garnet gneiss (4), and pyroxene-hornblende gneiss (6)

PRE-MIDDLE PROTEROZOIC (?) (PRE-HELIKIAN?)

- A Coarse-grained, pink to brownish-grey monzonite, syenite, quartz monzonite, granodiorite and syenodiorite (Frontenac type)

- B Massive to gneissic hornblende-biotite diorite or dioritic granulite, quartz-bearing in places

- C Coarse-grained gabbro, anorthositic gabbro, and gabbroic anorthosite, associated medium- to fine-grained, dark, biotite-hornblende metagabbro

- D Streaky, leucocratic, medium-grained, homogeneous quartzfeldspathic gneisses with hypersthene or hornblende and biotite and containing numerous inclusions of pyroxene-amphibolite: Da, grey quartz-oligoclase gneiss; Db, garnet-bearing varieties; Dc, pink to grey quartz-oligoclase-microperthite gneiss

- Geological boundary (defined, approximate)
- Gneissosity (inclined, vertical, dip unknown)
- Stratiform foliation, parallel to bedding (inclined, vertical, dip unknown)
- Mylonite lamination (inclined)
- Lineation (direction and plunge)
- Lineament (from air photographs)
- Fault (defined, approximate)
- Anticline (defined, approximate)
- Syncline
- Sand and gravel
- Quarry or mineral prospect
- Mine (abandoned)

Minerals

Apatite ap	Lead Pb
Barite ba	Magnetite mag
Corundum cor	Mica mi
Feldspar fel	Molybdenum Mo
Garnet gt	Pyrite py
Graphite gf	Stone (building) B.st
Gravel and sand gs	Strontium Sr
Iron Fe	Zinc Zn

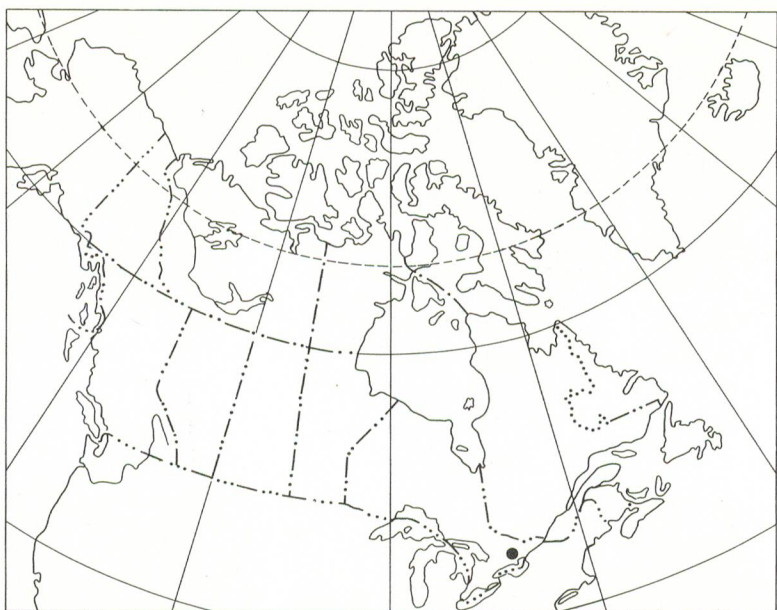
Geology by H. R. Wynne-Edwards, assisted by C. A. Giovannella, 1963
Compiled by H. R. Wynne-Edwards, 1964

Geological cartography by the Geological Survey of Canada, 1965

- Road, all weather
- Other roads
- Trail
- Railway
- Post Office
- County boundary
- Township boundary
- Marsh
- Contours (interval 25 feet)
- Height in feet above mean sea-level

Base-map compiled and drawn by the Army Survey Establishment, R. C. E.,
Department of National Defence, 1946-48

Approximate magnetic declination, 11° 52' West, decreasing 0.3' annually



INDEX MAP

PRELIMINARY SERIES



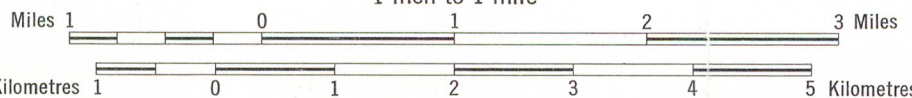
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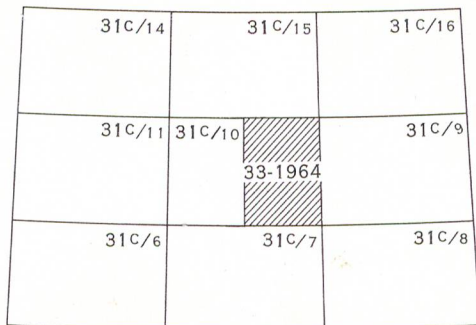
GEOLOGICAL SURVEY OF CANADA
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MAP 33-1964
PAPER 64-56
GEOLOGY
TICHBORNE
ONTARIO

Scale 1:63,360
1 inch to 1 mile



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