GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF MINES AND TECHNICAL SURVEYS

PRELIMINARY SERIES

LEGEND

PALAEOZOIC

CAMBRIAN OR ORDOVICIAN

11	POTSDAM OR NEPEAN FORMATION: sandstone, conglomerate

PRECAMBRIAN

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 quartzofeldspathic 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

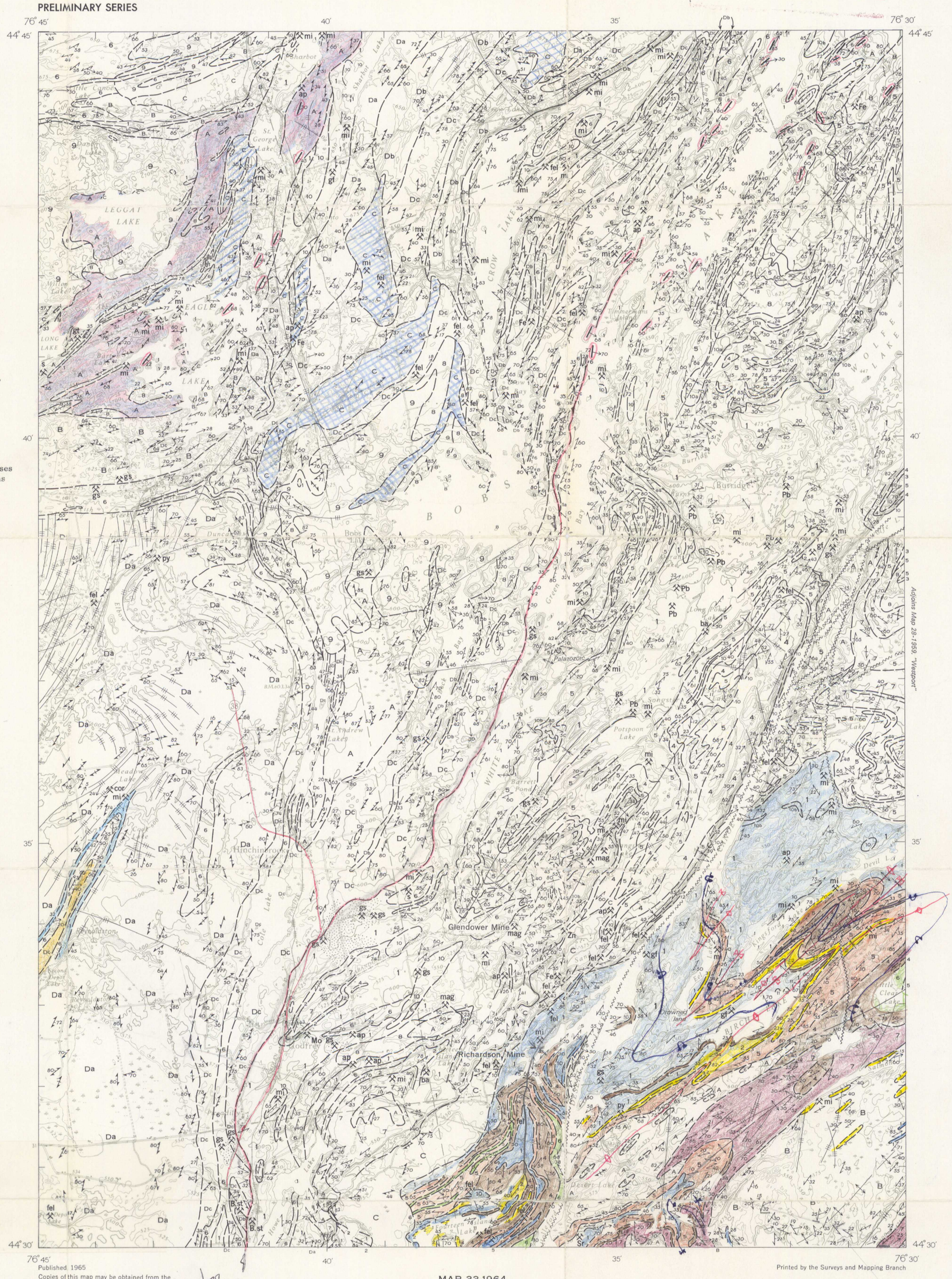
Geology by H. R. Wynne-Edwards, assisted by C. A. Giovanella, 1963
Compiled by H. R. Wynne-Edwards, 1964

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

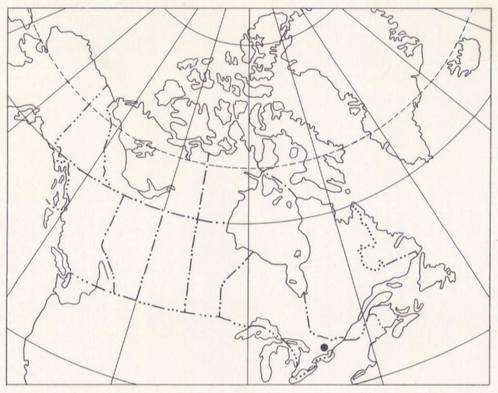
Base-map compiled and drawn by the Army Survey Establishment, R. C. E., Department of National Defence, 1946-48

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



Published 1965
Copies of this map may be obtained from the Director, Geological Survey of Canada, Ottawa

Printed by the Surveys and Mapping Branch



INDEX MAP

MAP 33-1964
PAPER 64-56

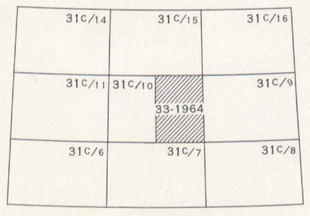
GEOLOGY

TICHBORNE

ONTARIO

Scale 1:63,360
1 inch to 1 mile

Miles 1 0 1 2 3 Miles
Kilometres 1 0 1 2 3 4 5 Kilometres



TICHBORNE
ONTARIO