

LEGEND

- CENOZOIC**
- PLEISTOCENE AND RECENT
    - Sand, gravel
  - 12 Diabase, gabbro (sills, dykes)
  - GOULBURN GROUP (8-11)
    - Includes units 8, 9, and 10 and younger rocks at the north end of Contwoyto Lake
  - 11 Purple, buff, pink, white, or greenish quartzite with local thin quartz jasper pebble conglomerate; minor carbonate; interbedded greenish greywacke and argillite near the top
  - 10 Purple to green argillite, concretionary with minor carbonate near the top
  - 9 Interbedded yellow-green argillite and white, green, or brown, mottled quartzite; local conglomerate with carbonate cement near the base, minor carbonate rocks
  - 8 Intermediate aphanitic dyke
  - 7
  - YELLOWKNIFE GROUP
    - 6a, schist, greywacke, phyllite with minor greenschist and amphibolite (may include some unit 2 near Kaye Lake); 6b, slate, argillite, greywacke, siltstone with minor greenschist, quartzite and carbonate rocks
    - 3a, schist, greywacke, phyllite with minor greenschist; interlensed amphibolite accompanied by gossan; 3b, slate, argillite, greywacke, siltstone with minor greenschist; interlensed amphibolite accompanied by gossan
    - 2a, amphibolite, some pillowed basic volcanic rocks and quartz-amphibole and quartz-biotite gneiss, minor agglomerate; 2b, quartz-biotite and quartz-amphibole gneiss, some marble and calc-silicate rocks; 2c, schist, amphibolite (may be in part equivalent to unit 6); 2d, interlensed greenstone and acid volcanic rocks, buff, quartz-amphibole and quartz-biotite gneiss, minor agglomerate; 2e, diorite gneiss; some amphibolite and diorite; 2f, anthophyllite-cordierite-garnet gneiss, amphibolite, some garnetiferous granitoid gneiss in part with amphibole and carbonate; 2g, pillowed basic volcanic rocks, greenstone; some greenschist; minor felsite?, quartzite and biotite schist
    - 1 SILICEOUS GNEISSES - PRE-YELLOWKNIFE GROUP (?)
      - 1a, eastern unit, leucocratic biotite-quartz and some amphibole-quartz gneiss, granitic gneiss, granite, quartz monzonite, minor calc-silicate rocks; 1b, western unit, quartzite, dark siltstone, banded siliceous rocks, phyllite, some slate, argillite, gneiss, schist and amphibolite
- ARCHAEAN**
- 5 Amphibolite, gabbro, greenschist (possibly equivalent to 2)
  - 4 Conglomerate composed chiefly of granitic and quartzite boulders, cobbles and pebbles in a soft green schistose matrix

PLUTONIC ROCKS

- A Hybrid rocks; Aa, granitic rocks containing few to many schlieren, inclusions or bands of biotite schist or gneiss (with garnet amphibolite gossan remnants in the north only); Ab, lit-par-lit gneiss; Ac, schist and gneiss containing numerous pegmatite or quartz monzonite dykes; Ad, south of Olga Lake chiefly diorite, granodiorite, amphibolite, some greenstone and hornblende gneiss intruded by leucocratic granitic rocks; elsewhere includes in addition some felsite? quartzite, and greenschist intruded by leucocratic granitic rocks; Ae, greenstone and quartz biotite gneiss intruded by quartz monzonite; Af, sheared mesocratic chloritite rock
- B Melanocratic Plutonic rocks; Ba, hornblende diorite, hornblende-biotite granodiorite, hornblende, some altered gabbro and pyroxenite; Bb, coarse-grained hornblende syenite; Bc, biotite- and hornblende-biotite-augen-gneiss
- C Leucocratic Plutonic rocks; biotite-quartz monzonite, biotite granodiorite, minor granite

- Geological boundary (defined or approximate, assumed) .....
- Limit of geological mapping .....
- Bedding, tops known (inclined, vertical, overturned, tops determined from pillow lava) .....
- Bedding, tops unknown (horizontal, inclined, vertical, dip unknown) .....
- Schistosity, gneissosity, foliation (inclined, vertical, dip unknown) .....
- Fault (approximate, assumed) .....
- Anticline (approximate) .....
- Syncline (approximate) .....
- Glacial striae (direction of ice-movement known, unknown) .....
- K-Ar age determination locality, in million years ..... 1555 m.y. @
- Mineralized zone .....
- Mineralized float .....

MINERALS

- Arsenopyrite ..... asp
- Chalcopyrite ..... cp
- Gold ..... Au

Geology by H. H. Bostock, 1964, 1965, and L. P. Tremblay, 1964, 1965 on latitude 65° 30' N to 66° 00' N and longitude 111° 00' W to 111° 30' W

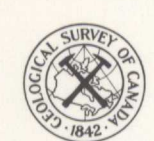
To accompany GSC Paper 66-24 by H. H. Bostock

Geological cartography by the Geological Survey of Canada, 1966

Base-map from 1/250,000 scale maps (Point Lake, East Half and Contwoyto Lake, West Half) compiled and drawn by the Army Survey Establishment, R. C. E., 1959-60 and 1963 respectively

Geographical names subject to revision

612 caq c



GEOLOGICAL SURVEY OF CANADA  
DEPARTMENT OF ENERGY, MINES AND RESOURCES

PRELIMINARY SERIES

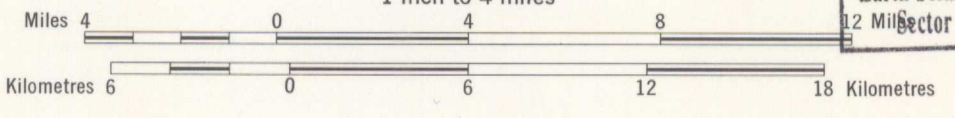


Published 1967, the Centennial of Canadian Confederation 1867/1967

MAP 8-1966  
PAPER 66-24  
GEOLOGY

ITCHEN LAKE  
DISTRICT OF MACKENZIE

Scale 1:253,440  
1 inch to 4 miles



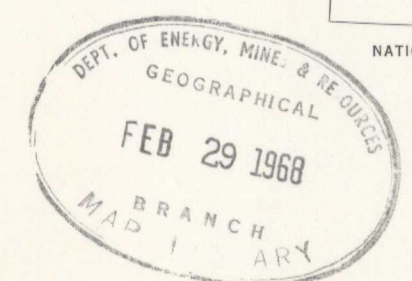
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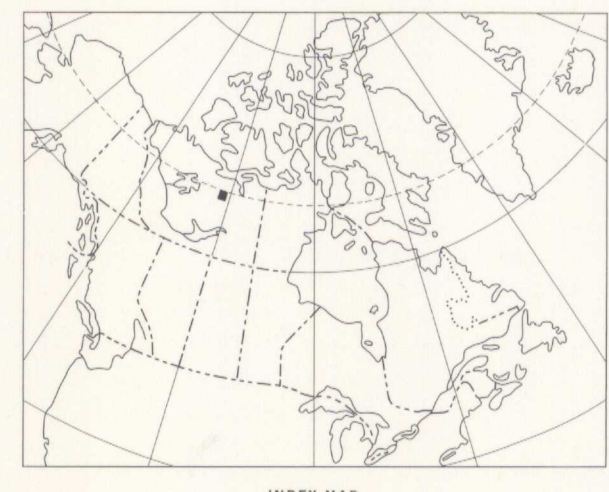
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86 I	76 L	76 K
86 H	76 E	76 F
86 A	76 D	76 C

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE  
ITCHEN LAKE  
DISTRICT OF MACKENZIE



Magnetic declination 1966 varies from 35° 25' easterly at centre of west edge to 33° 40' easterly at centre of east edge. Mean annual change 8.5' westerly



P-966  
C-2