GEOLOGICAL SURVEY OF CANADA COMMISSION GÉOLOGIQUE DU CANADA

DEPARTMENT OF ENERGY, MINES AND RESOURCES
MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES

LEGEND

CENOZOIC

QUATERNARY

Qu — *Drift-covered area*

HELIKIAN

Hdb — *Diabase and gabbro (northwest-trending Mackenzie Dykes)*

APHEBIAN

Ag — *Granite;* **Ag**p, *porphyritic fluorite-bearing granite;* **Ag**pr, *with rapakivi texture*

DUBAWNT GROUP (**A**D)

ADM — *MARTELL SYENITE: syenite, monzonite, minor alkali granite:* **A**DMd , *lamprophyre dykes, porphyritic syenite to syenodiorite dykes*

ADC — *CHRISTOPHER ISLAND FORMATION:* **A**DCm , *mafic trachyte;* **A**DCf , *felsic trachyte;* **A**DCr , *rhyolite;* **A**DCp , *pyroclastic rocks;* **A**DCpv , *pyroclastic rocks, vent breccia and agglomerate;* **A**DCv, *vent breccia and agglomerate;* **A**DCs , *volcaniclastic sedimentary rocks*

ADS — *SOUTH CHANNEL FORMATION: conglomerate; minor sandstone, siltstone, mudstone lenses*

ADA — *ANGIKUNI FORMATION: arkosic sandstone, thinly bedded siltstone, mudstone and sandstone*

Ay — *Hornblende syenite*

Aqm — *Quartz monzonite, granite, in past porphyritic; minor syenite, granodiorite and quartz diorite*

Ango — *Orthogneiss, largely biotite quartz-monzonite gneiss with potassium feldspar porphyroblasts; cut by up to 15 per cent dykes and stringers of quartz monzonite and granite pegmatite*

Ann — *Nebulitic and swirled gneiss, in part irregularly layered, predominantly biotite-bearing; contains up to 20 per cent dykes, stringers and irregular masses of quartz monzonite;* **A**nn1,*as* **A**nn *but with abundant potassium feldspar porphyroblasts and contains 20 to 25 per cent quartz monzonite that in past assimilates the gneiss*

Anl — *Layered gneiss to irregularly layered gneiss and agmatite, biotite and hornblende-bearing; some migmatized paragneiss; contains up to 20 per cent dykes, stringers and irregular masses of quartz monzonite;* **A**nl1, *as* **A**nl *but contains 20 to 50 per cent quartz monzonite that in past assimilates the gneiss*

HURWITZ GROUP (**A**H)

AHT — *TAVANI FORMATION: arkose, meta-arkose, impure quartzite, mica schists*

AHW — *WATTERSON FORMATION: dolomite, phyllite, argillite;* **A**HW1 , *calc-silicate rock and quartz-mica schist*

AHK — *KINGA FORMATION: orthoquartzite*

Adb — *Diabase and gabbro (east-trending Tulemalu Dykes)*

Adb — *Metagabbro (northeast-trending Kazan Dykes);* **A**db1, *hornblendite dykes*

Ab — *Gabbro, metagabbro;* **A**b1, *diorite*

Aqm — *Quartz monzonite to granodiorite, massive to slightly foliated*

Agg — *Granodiorite to quartz monzonite, massive to foliated; includes some* **A**ngo

Ang — *Granodiorite gneiss, tonalite gneiss; includes some orthogneiss, layered gneiss, swirled to nebulitic gneiss and amphibolite inclusions; minor quartz monzonite veins;* **A**ng1, *quartz diorite gneiss, minor quartz monzonite veins;***A**ngo, *granodiorite orthogneiss, minor quartz monzonite veins;***A**ngr, *pyroxene-bearing granodiorite gneiss and swirled to nebulitic gneiss; minor mafic-inch agmatite and layered gneiss;* **A**ngm, *granodiorite gneiss containing abundant amphibolite inclusions;* **A**nga, *augen gneiss, granodiorite to quartz monzonite composition;* **A**ngb, *as* **A**ng *but cut by dykes and irregular masses of gabbro and metagabbro (***A**b*)*

Anl — *Migmatite to irregularly layered, banded, or nebulitic gneiss; minor agmatite; includes minor* **A**ng *and* **A**mm*; commonly cut by dykes and sheets of quartz monzonite,* **A**qm *or pegmatite*

HENIK GROUP

Asn — *Migmatized paragneiss, with minor amphibolite and* **A**ng*; commonly cut by dykes and sheets of quartz monzonite (***A**qm*) or rarely* **A**qm. **A**sn1, *migmatized amphibolite with minor paragneiss, probably derived from basic to intermediate volcanic rocks;* **A**snt, *paragneiss, in past migmatized, with minor* **A**ng*, and amphibolite, probably derived from intermediate to felsic tuff;* **A**snr, *pyroxene-bearing migmatized paragneiss*

ARCHEAN

Amm — *Predominantly amphibolite; minor amphibolitic greenstone, amphibole schist and gneiss*

As — *Metagreywacke with some metatuff*

Acif — *Carbonate iron formation*

Amtp — *Chert-pyrite iron formation*

Amtm — *Chert-magnetite iron formation*

Alm — *Limestone*

Aq — *Arkose, quartzite, quartz pebble conglomerate; minor black slate*

Af — *Intermediate to felsic metavolcanics; tuff, agglomerate, and flows*

Amf — *Mixed basic and intermediate metavolcanics and gabbro*

Am — *Basic metavolcanics; massive or pillowed basaltic and andesitic flows, pyroclastics, tuff, and agglomerate; minor gabbro and intermediate to felsic flows and tuffs*

Rock outcrop; probable outcrop or observed from air

Geological boundary (defined, approximate, assumed)

Geological boundary (gradational)

Bedding, tops known (horizontal, inclined)

Bedding, tops unknown (inclined, vertical, dip unknown)

Pillows, tops known (inclined)

Pillows, tops unknown (inclined, vertical)

Schistosity, cleavage (inclined, vertical, dip unknown)

Gneissosity, foliation (horizontal, inclined, vertical, dip unknown)

Lineation, plunge

Minor fold axis, plunge

Fault (defined, approximate, assumed)

Jointing

Antiform

Synform

Locality where age determined isotopically (age in millions of years) — 2270 ± 100 hK

Method: potassium-argon, uranium-thorium-lead — K,U

Material: b, biotite; h, hornblende; m, muscovite; w, whole rock; z, zircon — b,h,m,w,z

*Mineral occurrence (***py***. pyrite;* **po***, pyrrhotite;* **cp***, chalcopyrite:* **gn***; galena).* — gn

Giant quartz vein

Geology by K.E. Eade and F.W. Chandler, 1973
K.E. Eade, 1975, 1976, and D.H. Blake, 1976

Geological cartography by J.A.Y. Pratt, Geological Survey of Canada

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

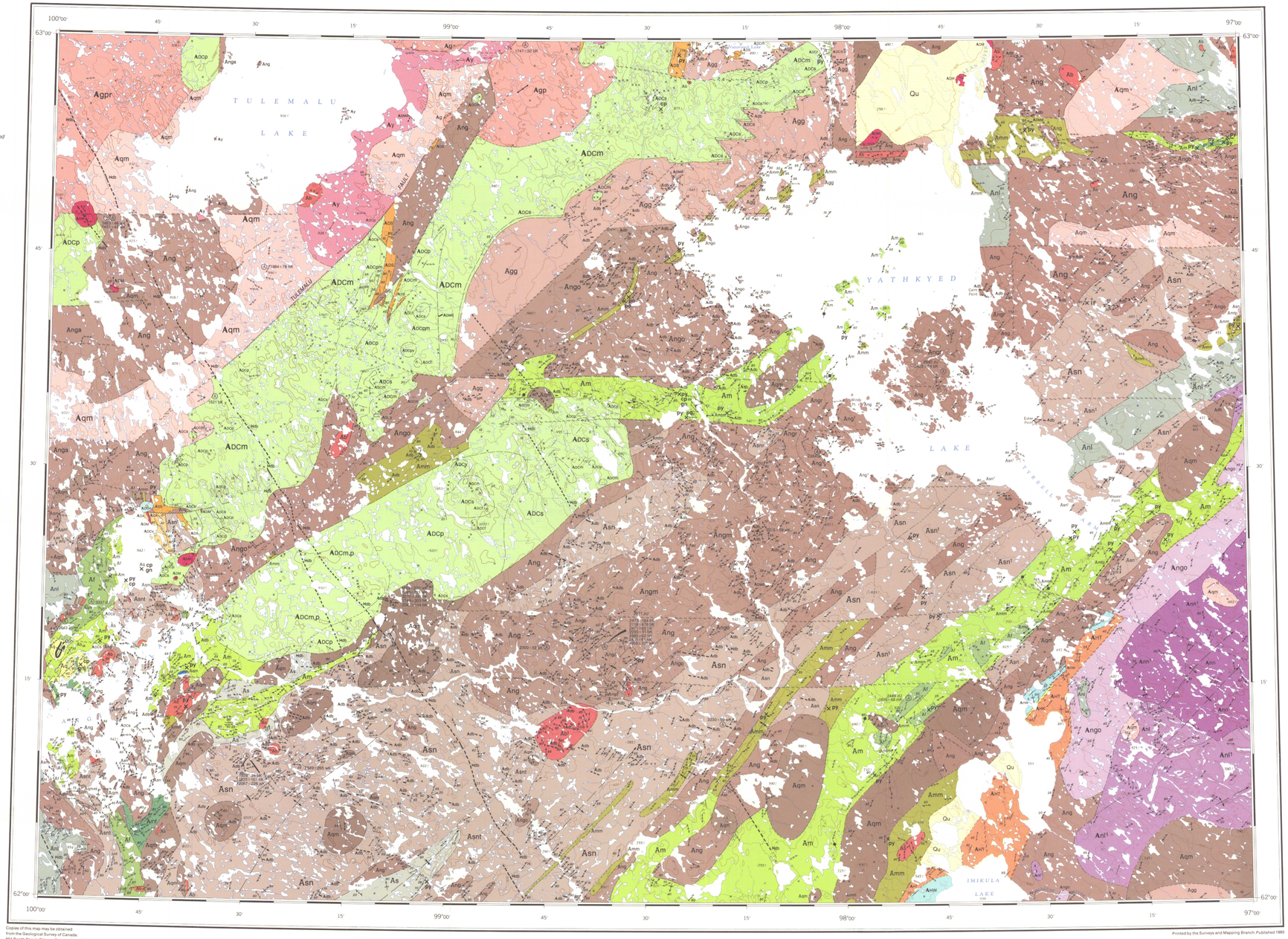
Base map assembled by the Geological Survey of Canada from maps published at the same scale by the Army Survey Establishment, R.C.E., in 1959, 1961

Copies of the Topographical editions of this map may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, Ontario, K1A 0E9

Mean magnetic declination 1983, 7°43.1' East, decreasing 21'3' annually. Readings vary from 2°50.0' in the SE corner to 12°35.0' in the NW corner of the map area

Elevations in feet above mean sea level

Recommended citation:
Eade, K.E.
1985: Geology, Tulemalu Lake - Yathkyed Lake, District of Keewatin, Northwest Territories; Geological Survey of Canada, Map 1604A, scale 1:250,000



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MAP 1604A

GEOLOGY

TULEMALU LAKE
YATHKYED LAKE AREA

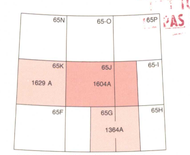
DISTRICT OF KEEWATIN

NORTHWEST TERRITORIES

Scale 1:250 000

Kilometres 5 0 5 10 15 20 Kilometres

Universal Transverse Mercator Projection



NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADJOINING GEOLOGICAL SURVEY OF CANADA MAPS

MAP 1604A
TULEMALU LAKE
YATHKYED LAKE AREA
DISTRICT OF KEEWATIN
NORTHWEST TERRITORIES

Canada