MINERAL DEVELOPMENT DIVISION
DEPARTMENT OF MINES AND ENERGY
GOVERNMENT OF NEWFOUNDLAND AND LABRADOR

LEGEND

HADRYNIAN (?) TO PALEOHELIKIAN

MICHAEL GABBRO AND OTHER MAFIC INTRUSIONS

- 33 *Rectiplanar mafic dikes*
- 32 *Net-veined mafic dikes*
- 31 *Undifferentiated mafic rocks. Mostly olivine gabbro but ranging from leucogabbro to peridotite. Includes Michael Gabbro*

HELIKIAN AND OLDER

PALAEOHELIKIAN AND OLDER ROCKS REWORKED DURING GRENVILLIAN OROGENY

- 30 *Supracrustal remnants (metasediments and felsic volcanic rocks). Possibly equivalent to Aillik Group*
- 29 *Well banded quartzofeldspathic gneiss. Possibly more deformed and metamorphosed equivalent of Units 27 and 28*
- 28 *Foliated to gneissic megacrystic (K-feldspar) granodiorite. Possibly equivalent in part to Unit 19.*
- 27 *Foliated to gneissic granodiorite. Possibly equivalent in part to Unit 18.*

PALEOHELIKIAN

BENEDICT MOUNTAINS INTRUSIVE SUITE

- 26 *Fine to medium grained saccharoidal leucogranite*
- 25 *Mafic-rich syenite to monzonite with a strongly foliated to mylonitic fabric*
- 24 *Coarse grained amphibole alkali feldspar syenite, clinopyroxene-bearing in places*
- 23 *Coarse grained biotite alkali feldspar granite; locally aegerine or riebeckite-bearing*
- 22 *Coarse grained hornblende-biotite quartz syenite to quartz monzonite, pseudorapakivi textures*
- 21 *Medium to coarse grained syenite, grades into alkali feldspar syenite or monzonite; quartz prefix applies locally*
- 20 *Coarse grained biotite-hornblende granodiorite to quartz monzonite with very large (4-7 cm) K-feldspar megacrysts*
- 19 *Coarse grained hornblende-biotite granodiorite to quartz monzonite with seriate to megacrystic (K-feldspar) texture*
- 18 *Coarse grained hornblende-biotite granodiorite to granite*
- 17 *Coarse grained biotite-chlorite granite; fluorite-bearing*
- 16 *Agmatite comprising Adlavik Intrusive Suite and Benedict Mountains Intrusive Suite, especially Unit 15*
- 15 *Coarse grained biotite-hornblende monzonite to quartz monzonite*

ADLAVIK INTRUSIVE SUITE AND PROBABLE CORRELATIVES

- 14 *Diorite, leucodiorite; grades into monzodiorite and rare quartz monzonite*
- 13 *Granophyric leucogabbro; minor olivine gabbro and pyroxenite*

APHEBIAN TO EARLY PALEOHELIKIAN

AILLIK GROUP AND PROBABLE CORRELATIVES

- 12 *Fine grained, dark weathering, schistose amphibolite with abundant epidote lenses*
- 11 *Well bedded quartz-rich metasediments with some calcareous layers*
- 10 *Rhyolitic and dacitic rocks with a streaky or gneissic fabric. Possibly equivalent to Unit 5*
- 9 *Arkose/quartzite, cross bedded in places; siltstones/fine grained volcaniclastites locally present*
- 8 *Massive, structureless quartz and/or feldspar porphyry*
- 7 *Fine grained rhyolitic crystal-lithic tuffs with subsidiary rhyolitic lavas*
- 6 *Felsic agglomerates. Fragments mainly subrounded rhyolite to rhyodacite*

ARCHEAN OR APHEBIAN

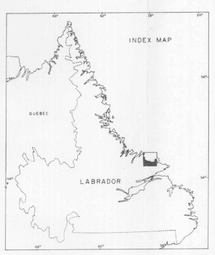
CAPE HARRISON METAMORPHIC SUITE

- 5 *Fine grained felsic and siliceous (? metavolcanic) rocks with a lensy, streaky or gneissic fabric*
- 4 *Fine to medium grained amphibolite*
- 3 *Medium to coarse grained quartz metadiorite to quartz metamonzodiorite; strongly foliated*
- 2 *Medium to coarse grained metagranodiorite, locally with K-feldspar megacrysts; foliated to gneissic*
- 1 *Medium grained metatonalite; foliated to gneissic. Incipient porphyroblastic texture in places*

NOTE: 1. Granitoid terminology follows IUGS recommendations (Streckeisen, 1976).
2. Age relationships are not necessarily implied by the order units are presented within each group.
3. This is a combined legend for map areas 13J NE and 13I NW.

SYMBOLS

- *Geological contact (approximate, assumed)*
- *Fault (approximate, assumed)*
- *Bedding, tops unknown (vertical, inclined)*
- *Syncline, anticline (plunging)*
- *Gneissosity (vertical, inclined)*
- *Foliation (vertical, inclined, dip unknown)*
- *Lineation*
- *Primary igneous layering (vertical, inclined)*
- *Shear zone (approximate)*
- *Thrust (defined)*
- *Glacial striae*
- *Area of thick overburden*
- *Esker*
- *Topographic lineament from aerial photographs*
- *Mineral occurrence* (× po)
- *Data station* (×)
- *Orientation of enclaves*
- *Dikes*
- *Geochronology data point* (1580 ± 50 Ma (K-Ar, biot.))



ABBREVIATIONS

- *Chalcopyrite* . . . . . cp
- *Fluorite* . . . . . fl
- *Galena* . . . . . gn
- *Molybdenite* . . . . . mo
- *Pyrite* . . . . . py
- *Pyrrhotite* . . . . . po

Geology east of latitude 58° 45' by C.F. Gower, 1979 with contributions from D.G. Bailey and R.A. Doherty, especially in areas of felsic volcanic rocks; geology of Adlavik Islands by R.A. Doherty; geology of mainland west of latitude 58° 45' by A. Lalonde; compiled by C.F. Gower, 1979.

To accompany report 81-3.

This preliminary map may be subject to revision and correction.

Geological cartography by Mineral Development Division, Department of Mines and Energy, Newfoundland and Labrador.

Copies of this map may be obtained from the Publications and Information Section, Mineral Development Division Department of Mines and Energy, P.O. Box 4750, St. John's, Newfoundland, A1C 5T7.

Base maps at scale 1:50,000 published by Surveys and Mapping Branch, Department of Energy, Mines and Resources, Ottawa.

Approximate magnetic declination, 1980, at centre of map, 32° 40' west; annual magnetic change 4' easterly.

Elevation in metres above mean sea level.

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MOUNT BENEDICT

MAP 80298

SCALE 1:100,000 ÉCHELLE

Miles 1 0 1 2 3 4 5 Milles

Kilometres 1 0 1 2 3 4 5 6 Kilomètres

Ground traverses.

Helicopter supported reconnaissance, also coastline boat traverses; data stations at approximate 5 km. intervals.