



PROTEROZOIC

NEOHELIXIAN

Flowers River Igneous Suite (18, 19)

- 19 Apatite granite, 18a, medium to coarse grained equigranular phase; 18b, aphanitic to fine grained porphyritic phase.
- 18 Felsic volcanic rocks; 18b, quartz and quartz feldspar porphyry; 18c, massive to flow-banded felsic, locally containing a few quartz phenocrysts; 18d, welded ash-flow tuff; 18e, volcanic breccia and agglomerate.
- 17 Olivine diorite dikes, may be equivalent to the Harp dikes.

PALEOHELIXIAN

Main Igneous Complex (14 to 16)

- 16 Pyroxene-amphibole-biotite gabbro; 16a, medium grained granite and minor granodiorite; 16b, medium grained quartz syenite, quartz monzonite; 16c, fine grained porphyritic equivalents of Units 16a and 16b; 16d, hornblende-biotite and biotite granite, granodiorite.
- 15 Intermediate phases; 15a, diorite, monzonite, quartz monzonite; 15b, monzonite, quartz monzonite; 15c, syenite, quartz syenite; 15d, altered plagioclase cumulate.
- 14 Gabbroic phases; 14a, Outer Border Zone - plagioclase-olivine gabbro, gabbro-norite, monzonite; 14b, Inner Border Zone - olivine leucogabbro; 14c to 14d, Cumulate Zone - cumulus phases are: plagioclase (14a), plagioclase-olivine (14b), plagioclase-olivine-cumulus (14c), plagioclase-orthopyroxene (14d), orthopyroxene (14e), plagioclase-orthopyroxene (14f), 14g, monzonitic gabbro and syenite dikes and sills.

APHEBIAN (and older?)

Churchill Structural Province (8 to 13)

- 13 Altered diorite dikes, may be early Paleohelikian in age.
- 12 Metatonalite, metagranodiorite.
- 11 Meta-anorthosite.
- 10 Leucocratic biotite-hornblende granite and granodiorite orthogneiss; 10a, medium to coarse grained granite to granodiorite upper gneiss; 10b, fine to medium grained mylonitic granite to granodiorite gneiss; 10c, medium grained mylonitic biotite-muscovite granite gneiss.
- 9 Leucocratic biotite-garnet tonalite to granite orthogneiss; 9a, coarse grained biotite-garnet tonalite to granite augen gneiss; 9b, fine to medium grained biotite-garnet granite gneiss.
- 8 Banded tonalite gneiss; 8a, biotite-garnet tonalite gneiss, contains minor thin bands of quartzite and biotite schist; 8b, biotite-hornblende tonalite gneiss, contains bands of amphibolite, diorite schist and minor marble; 8c, medium grained unbanding tonalite to granodiorite gneiss.
- 7 Diorite to quartz diorite gneiss and schist, includes bands of tonalite gneiss and amphibolite.
- 6 Amphibolite, includes minor bands of diorite and tonalite gneiss and schist.
- 5 Banded and whitish migmatite, formed by syntectonic injection of numerous dikes and stringers of leucogranite (correlated with Units 9 and 10) into Units 6 to 8.

ARCHEAN

Main Structural Province (1 to 5)

- 5 Diorite dikes, includes dikes of Achean age and younger.
- 4 Metagabbro and metagranodiorite.
- 3 Banded pyroxene-hornblende-biotite tonalite gneiss, locally grading to granite gneiss. Typically intruded by dikes and lenses of leucogranite pegmatite; 3a, tonalite gneiss without inclusions of mafic gneiss; 3b, tonalite gneiss containing numerous mafic and inclusion trails of mafic gneiss.
- 2 Amphibolite, locally intruded by leucogranite pegmatite.
- 1 Finely banded, fine grained gabbro to tonalite gneiss; 1a, pyroxene-hornblende-biotite gabbro to diorite gneiss; 1b, pyroxene-hornblende-biotite tonalite gneiss, locally containing bands of Unit 1a. May be in part equivalent to Unit 3a; 1c, biotite-garnet tonalite gneiss, intruded by biotite-garnet leucogranite.

NOTE: THIS IS A COMPOSITE LEGEND FOR MAPS 81-136 AND 81-137 AND ALL UNITS DO NOT APPEAR ON EACH MAP.

- Geologic boundary (taberned, approximate, assumed) - - - - -
- Mineral occurrence - - - - - x
- Drift covered area - - - - -
- Striae (direction known, unknown) relative age shown by numbers - - - - -

Abbreviations

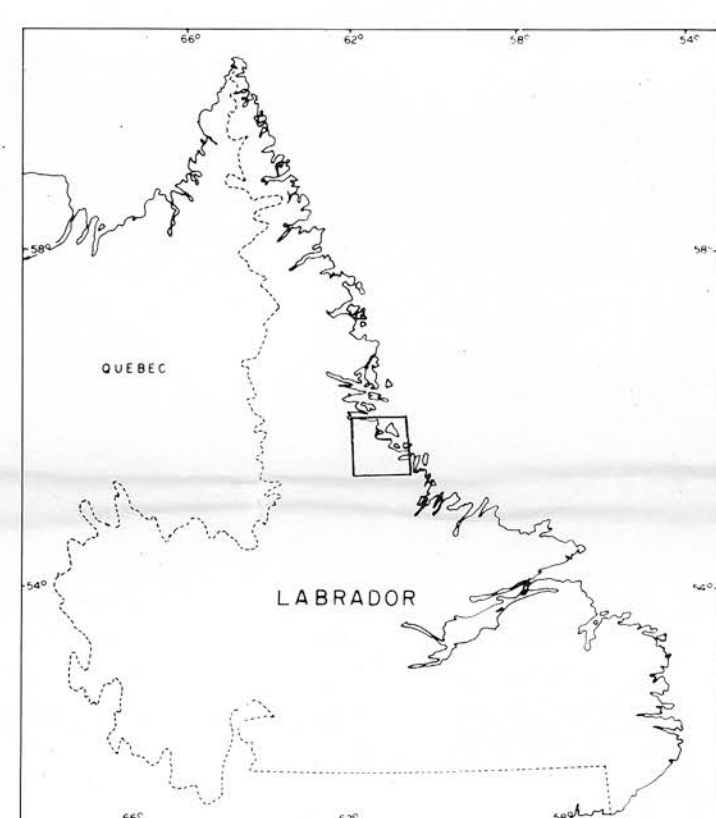
- uranium - - - - - u
- molybdenite - - - - - mo
- fluorite - - - - - fl
- chalcocite - - - - - cc
- galena - - - - - ga
- apatite - - - - - ap
- pyrite - - - - - py
- pyrrhotite - - - - - pr
- total count scintillometer anomaly - - - - - sa

TILL GEOCHEMISTRY,
FLOWERS RIVER AREA, LABRADOR
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F. J. THOMPSON, 1984-1985

SAMPLE LOCATIONS

Scale 1:100 000

Kilometres 0 1 2 3 4 5 6 Kilometres

Universal Transverse Mercator Projection
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INDEX MAP

Geology modified from Map 81-136

Hill, J.D.: Geology of the Flowers River-Notakwanon
River area, Labrador;
Department of Mines and Energy,
Government of Newfoundland and Labrador,
Report 82-6, 138 p.

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