KIGLAPAIT LAYERED INTRUSION

COAST OF LABRADOR, CANADA

Radial line plot of US Navy aphotos flown August, 1949, at 20,000 ft., having average scale 1:40,000. No ground control.

Graticule position and orientation adjusted from British Admiralty Chart No. BA 265, US Hydrographic Office Chart No. HO 545, Canadian Topographic Series Nain-Nutak Sheet, and surveys by E. P. Wheeler II.

Spot elevations by pocket aneroid altimeter to within 50 ft.

Geology by S. A. Morse, assisted by J. F. Pestrak (1967), E. Baker (1958), D. U. Wise (1963), H. E. Belkin and W. L. Newell (1964), and E. E. Foord (1968).

SPECIAL SYMBOLS

Ridge — Summit — Marsh or muskeg

Shoal — Airphoto center — 1275 Elevation in feet.

38°

SCALE 1:50,000

0 1 2 3 4 5 km

LEGEND

UNCONSOLIDATED

p — Pleistocene and recent. Largely drift and moraine material; some marine, fluvial, and residual deposits.

INTRUSIVE IGNEOUS ROCKS

Dolerite and diabase dikes.

mg — Manvers granite. Pink (rarely white) massive subsolvus granite, pegmatite, or granophyre, locally with fluorite, topaz, and green microcline perthite. (Many dikes too small to be shown.)

ign — Intermediate gneiss; strongly foliated dioritic or adamellitic gneiss.

KIGLAPAIT INTRUSION

UBZ α/αx gg — UPPER BORDER ZONE
α: Medium-grained, massive troctolite to olivine gabbro.
β: Gray gabbro; fine-grained, massive olivine gabbro and ferrodiorite with buff weathered surface.

LAYERED SERIES

UZ og y A x — UPPER ZONE
Layered and laminated olivine gabbro (base) through ferrodiorite to ferrosyenite (top). (A): anorthosite lens. (x): Whalear Lake transgressive zone; coarse-grained anorthosite, gabbroic anorthosite, and gabbro, with rare olivine. (y): Fine-grained facies, ferrodiorite to ferrosyenite.

LZ LZ' A — LOWER ZONE
Layered and laminated medium to coarse-grained troctolite, including dunite and leucotroctolite. Pyroxenite lenses common near base; anorthosite pods common throughout (A). (LZ'): zone approaching Upper Zone, with 2-cm. clinopyroxene clots, commonly in bases of layers.

IBZ bg — INNER BORDER ZONE
Massive, medium to coarse grained subophitic olivine gabbro (border gabbro).

OBZ bbg — OUTER BORDER ZONE
Fine to medium grained, granular, banded border gabbro, olivine gabbro, and pyroxenite, locally with brown hornblende near Snyder group metasediments.

A — Anorthosite; coarse to extremely coarse, medium to dark gray sodic labradorite, locally iridescent, with minor olivine and pyroxene. (Dark facies of Wheeler.)

PRECAMBRIAN

MAINLY METASEDIMENTARY AND MIXED ROCKS

sg — Snyder group: boulder conglomerate, tuff, white quartzite and feldspathic quarzite, and pelitic gneisses. (Schistose basic dikes cutting these rocks not shown).

UNCONFORMITY

Ultramafic rocks; altered peridotite. (E. P. Wheeler, written communication, 1957.)

hy — Hybrid rocks: Topaz Pt. complex of gabbroic, syenitic, and metasedimentary rocks. Gabbroic members probably contemporaneous with Kiglapait intrusion.

m — Migmatites (basement complex); gneissic tonalite and amphibolite.

STRUCTURAL SYMBOLS

Geologic contact; dashed where indefinite, dotted where inferred.

Main Fe-Ti oxide layer ("main ore band"), 0.5 to 1 meter thick.

Strike and dip of bedding, layering, foliation or igneous lamination.

Horizontal and vertical foliation.

Synclinal and anticlinal axes, with plunge.

Strike and dip of fracture cleavage

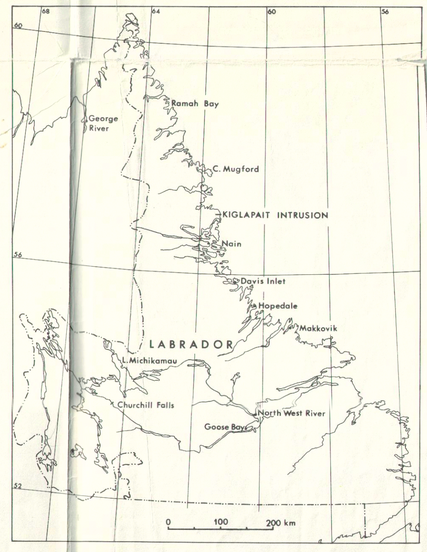
Strike and plunge of lineation

Shear zone

Observed outcrops, 1957-1958 only.

Percent solidified contour

INDEX MAP



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MORSE, PLATE 1
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