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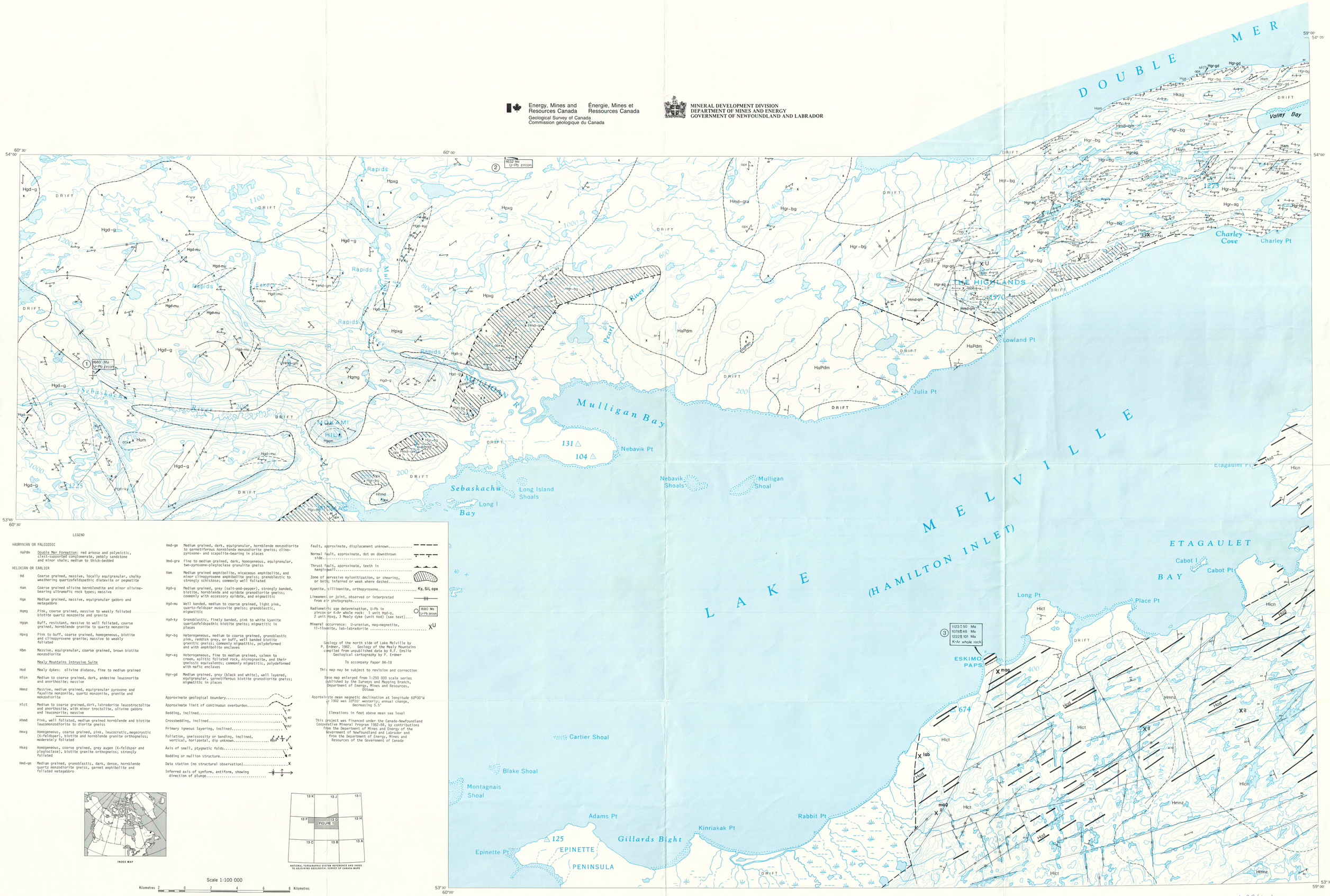
MINERAL DEVELOPMENT DIVISION
DEPARTMENT OF MINES AND ENERGY
GOVERNMENT OF NEWFOUNDLAND AND LABRADOR



LEGEND

HADRYNIAN OR PALEOZOIC

HaPdm — Double Mer Formation: red arkose and polymictic, clast-supported conglomerate, pebbly sandstone and minor shale; medium to thick-bedded

HELIKIAN OR EARLIER

Hd — Coarse grained, massive, locally equigranular, chalky weathering quartzofeldspathic diatexite or pegmatite

Hum — Coarse grained olivine hornblendite and minor olivine-bearing ultramafic rock types; massive

Hga — Medium grained, massive, equigranular gabbro and metagabbro

Hgmg — Pink, coarse grained, massive to weakly foliated biotite quartz monzonite and granite

Hgan — Buff, resistant, massive to well foliated, coarse grained, hornblende granite to quartz monzonite

Hpxg — Pink to buff, coarse grained, homogeneous, biotite and clinopyroxene granite; massive to weakly foliated

Hbm — Massive, equigranular, coarse grained, brown biotite monzodiorite

Mealy Mountains Intrusive Suite

Hod — Mealy dykes: olivine diabase, fine to medium grained

Hlcn — Medium to coarse grained, dark, andesine leuconorite and anorthosite; massive

Hmnz — Massive, medium grained, equigranular pyroxene and fayalite monzonite, quartz monzonite, granite and monzodiorite

Hlct — Medium to coarse grained, dark, labradorite leucotroctolite and anorthosite, with minor troctolite, olivine gabbro and leuconorite; massive

Hhmd — Pink, well foliated, medium grained hornblende and biotite leucomonzodiorite to diorite gneiss

Hmxg — Homogeneous, coarse grained, pink, leucocratic, megacrystic (K-feldspar), biotite and hornblende granite orthogneiss; moderately foliated

Hkag — Homogeneous, coarse grained, grey augen (K-feldspar and plagioclase), biotite granite orthogneiss; strongly foliated

Hmd-qm — Medium grained, granoblastic, dark, dense, hornblende quartz monzodiorite gneiss, garnet amphibolite and foliated metagabbro

Hmd-gm — Medium grained, dark, equigranular, hornblende monzodiorite to garnetiferous hornblende monzodiorite gneiss; clinopyroxene- and scapolite-bearing in places

Hmd-gra — Fine to medium grained, dark, homogeneous, equigranular, two-pyroxene-plagioclase granulite gneiss

Ham — Medium grained amphibolite, micaceous amphibolite, and minor clinopyroxene amphibolite gneiss; granoblastic to strongly schistose; commonly well foliated

Hgd-g — Medium grained, grey (salt-and-pepper), strongly banded, biotite, hornblende and epidote granodiorite gneiss; commonly with accessory epidote, and migmatitic

Hgd-mu — Well banded, medium to coarse grained, light pink, quartz-feldspar muscovite gneiss; granoblastic, migmatitic

Hgd-ky — Granoblastic, finely banded, pink to white kyanite quartzofeldspathic biotite gneiss; migmatitic in places

Hgr-bg — Heterogeneous, medium to coarse grained, granoblastic pink, reddish grey, or buff, well banded biotite granitic gneiss; commonly migmatitic, polydeformed and with amphibolite enclaves

Hgr-ag — Heterogeneous, fine to medium grained, salmon to cream, aplitic foliated rock, microgranite, and their gneissic equivalents; commonly migmatitic, polydeformed with mafic enclaves

Hgr-gd — Medium grained, grey (black and white), well layered, equigranular, garnetiferous biotite granodiorite gneiss; migmatitic in places

Approximate geological boundary

Approximate limit of continuous overburden

Bedding, inclined — 40

Crossbedding, inclined — 30

Primary igneous layering, inclined — 30

Foliation, gneissosity or banding, inclined, vertical, horizontal, dip unknown — 40

Axis of small, ptygmatic folds

Rodding or mullion structure — 15

Data station (no structural observation) — x

Inferred axis of synform, antiform, showing direction of plunge

Fault, approximate, displacement unknown

Normal fault, approximate, dot on downthrown side

Thrust fault, approximate, teeth in hangingwall

Zone of pervasive mylonitization, or shearing, or both; inferred or weak where dashed

Kyanite, sillimanite, orthopyroxene — Ky, Sil, opx

Lineament or joint, observed or interpreted from air photographs

Radiometric age determination, U-Pb in zircon or K-Ar whole rock: 1 unit Hgd-g, 2 unit Hpxg, 3 Mealy dyke (unit Hod) (see text) — 1680 Ma U-Pb zircon

Mineral occurrence: U-uranium, mag-magnetite, il-ilmenite, lab-labradorite — XU

Geology of the north side of Lake Melville by P. Erdmer, 1982. Geology of the Mealy Mountains compiled from unpublished data by R.F. Emslie
Geological cartography by P. Erdmer

To accompany Paper 84-18

This map may be subject to revision and correction

Base map enlarged from 1:250 000 scale series published by the Surveys and Mapping Branch, Department of Energy, Mines and Resources, Ottawa

Approximate mean magnetic declination at longitude 60°00'W in 1982 was 33°20' westerly; annual change, decreasing 5.5'

Elevations in feet above mean sea level

This project was financed under the Canada-Newfoundland Cooperative Mineral Program 1982-84, by contributions from the Department of Mines and Energy of the Government of Newfoundland and Labrador and from the Department of Energy, Mines and Resources of the Government of Canada

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

Scale 1:100 000

Kilometres 2 0 2 4 6 8 Kilometres

Universal Transverse Mercator Projection

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Figure 1. Geology of the Lake Melville-Double Mer area, Labrador

LAB (68)

FIGURE 1

GSC Paper 84-18