

Government of Newfoundland and Labrador  
Newfoundland Department of Mines and Energy  
Provincial Open File 13L (59)

Geological Survey of Canada  
Resource Geophysics and Geochemistry Division  
and  
Newfoundland Department of Mines and Energy

#### CONTRACTORS

Sample collection by Marshall Macklin Monaghan Ltd.  
Sample preparation by Golder Associates

1978 samples  
Uranium in sediment analyses Atomic Energy of Canada Ltd.  
Other sediment chemical analyses by Chemex Labs Ltd.  
Water chemical analyses by Barringer Research Ltd.

1982, 1983 samples  
Sediment chemical analysis by Chemex Lab Ltd.  
Water chemical analyses by Acme Analytical Laboratories Ltd.

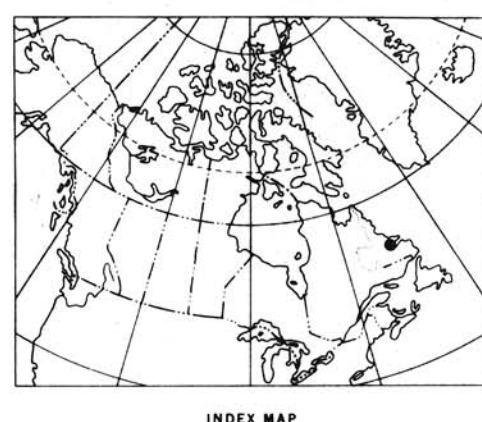
This map forms one of a series of maps released by the Geological Survey of Canada, Open Files 995 to 998. These Open File consists of maps of various geochemical variables: 16 for lake sediment, 3 for lake water and 1 sample site location

Copies of map material and listings of field observations and analytical data, from which the material was prepared, may be available at users expense by application to:

K.G. Campbell Corporation  
880 Wellington St.  
Bay 238  
Ottawa, Ontario  
K1R 6K7

That data are also available in digital form. For further information please contact:

The Director  
Computer Science Center  
Department of Energy, Mines and Resources  
Ottawa, Ontario  
K1A 0E4



Elevation in feet above mean sea level

Mean magnetic declination 1984, 29°09.5' West,  
decreasing 13.0' annually. Readings vary  
from 28°54.8' in the SE corner to 29°21.4' in  
the NW corner of the map-area

#### COBALT (ppm) OPEN FILE 998

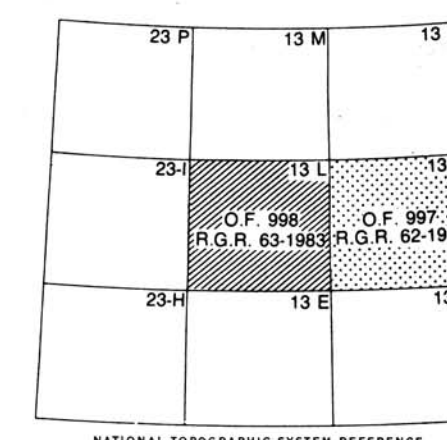
REGIONAL GEOCHEMICAL RECONNAISSANCE MAP 63-1983  
CANADA - NEWFOUNDLAND  
CO-OPERATIVE MINERAL PROGRAM 1982-84  
LAKE SEDIMENT AND WATER GEOCHEMICAL SURVEY  
CENTRAL AND SOUTHERN LABRADOR, 1983

Scale 1:250 000

Kilometres 6 0 6 12 18 Kilometres

Universal Transverse Mercator: Projection  
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Base-map assembled by the Geological Cartography  
Unit from maps published at the same scale by  
the Surveys and Mapping Branch in 1967,  
1968, 1972



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carte sur papier

#### COBALT (ppm) OPEN FILE 998

CENTRAL AND SOUTHERN LABRADOR

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Canada  
Department of Energy, Mines and Resources  
Geological Survey of Canada

#### LEGEND

Note: This legend is common for Regional Geochemical Reconnaissance Map  
60-1983, Open File 995; 61-1983, Open File 996; 62-1983, Open File 997;  
63-1983, Open File 998.

#### SEDIMENTARY, VOLCANIC AND METAMORPHIC ROCKS

##### HADRYNIAN

28 HDEF\* Red conglomerate, arkose, sandstone and shale: DOUBLE HER FORMATION  
GREENVILLE PROVINCE

##### HELIKIAN AND/OR APHEBIAN

27 HAGS, VHAG Metagranite, schistose grit and conglomerate, sheared felsic  
porphyry ...

26 HAGP Mainly garnetiferous biotite-quartz-feldspar paragneiss ...

##### HELIKIAN AND EARLIER(?)

25 HUGP Paragneisses, granitoid gneisses of probable sedimentary origin,  
minor quartzite and marble ...

24 HUGN Sillimanite gneiss, commonly migmatitic. Minor amphibolite

23 HUGG Granitic gneiss, mainly pink quartz-feldspathic gneisses, commonly  
banded and migmatitic ...

22 HUGB Intermediate to basic gneiss, amphibolite

##### ARCHEAN

21 ARCG Granitic gneiss, amphibolite, unseparated massive acidic intrusives

#### CHURCHILL PROVINCE

##### HELIKIAN

##### NEOHELIKIAN

20 NHWS, VNH, NHWK, (SMRK)\*\* Quartzite, conglomerate, arkose, shale ...  
NHWS - unseparated BESSIE LAKE ... FORMATION; NHWK - SHIPISKAN  
FORMATION (possibly younger)

##### PALEOHELIKIAN

19 UPHW Quartzite, grit conglomerate, acidic volcanics ... LETITIA GROUP  
18 PHAW, PAWP Greywacke, quartzite, arkose, slate, ... PAWP - PETSCHISKIAN  
GROUP

##### APHEBIAN AND EARLIER(?)

17 AUMR, (GRNL) Granulite, pyroxene gneiss, charnockite; minor granitic  
gneiss ...

16 AUMP, (PRGS) Paragneisses; includes biotite-quartz-feldspar gneiss,  
garnet-biotite-quartz-feldspar gneiss ...

#### NAIN PROVINCE

##### PALEOHELIKIAN

15 PHLE, UPHE Intermediate to acidic volcanics (mainly porphyritic flows),  
feldspathic quartzite ...

##### APHEBIAN

14 APE3 Conglomerate, quartzite, slate, siliceous dolomite, chert and  
arkose of MIDDLE CROTEAU GROUP

13 APE2, VAE2 Felspathic quartzite, conglomerate, argillite, basic volcanic  
rocks, and metamorphic equivalents of AILIK GROUP

12 APE1, VAE1, (SLTE) Slate, argillite, siltstone, quartzite, greywacke,  
dolomite and basalt of LOWER CROTEAU GROUP

##### ARCHEAN

11 AREV, (SCST) Mafic schistose rocks, greenstone, metasedimentary rocks,  
amphibolite, minor ultra-basic intrusives

10 AREG Granitic and granodioritic gneiss, migmatite, granulite,  
amphibolite ...

#### INTRUSIVE ROCKS

##### HELIKIAN

##### NEOHELIKIAN

9 NH17 Diabasic olivine gabbro, intermediate and ultramafic intrusive  
rocks ...

##### NEOHELIKIAN AND EARLIER(?)

8 NH16 Gabbro, norite, and diabase sills

7 NH15 Granite to granodiorite, massive to poorly foliated, porphyritic  
in part ...

##### PALEOHELIKIAN

6 PH14, (GRNT) Granite, quartz monzonite, granodiorite, quartz diorite,  
syenite ...

5 PH13, (QZM2) Adamellite suite: adamellite, monzonite, syenite,  
granodiorite, granite ...

4 PH11, (ANRS) Anorthosite suite: anorthosite, anorthositic gabbro,  
leucotroctolite ...

3 PH10, (UMFC) Gabbro, norite, anorthositic gabbro, troctolite, diorite ...

##### APHEBIAN

2 APH7, (GRNT) Granite, quartz monzonite, granodiorite, quartz diorite ...  
1 APH5 Well foliated feldspar-quartz-hornblende-biotite granitic gneiss ...

\* A four letter mnemonic name recorded as rock type as part of 1982 and  
1983 field observations

\*\* A four letter mnemonic name recorded as rock types as part of 1978 field  
observations.

Geological boundary.....

Fault.....

Mainly acidic volcanic rocks.....

Mainly basic volcanic rocks.....

No analytical result.....

This legend was modified and the geology derived for these geochemical maps  
from Geology Map of Labrador, Mineral Resources Division, Department of Mines,  
Agriculture and Resources, Province of Newfoundland and Labrador