0 20 40 60

KILOMETERS- SCALE 1:1000000

SURFICIAL GEOLOGY

This legend is common to Open Files 1356 and 1357

PROGLACIAL AND GLACIAL ENVIRONMENTS

Glaciolacustrine Deposits:

Varved or massive clay and silt

Fine Sands, sands, and deltaic sand Glaciofluvial and Ice Contact Deposits:

Outwash sands and gravel

End moraine, interlobate moraine; sand, gravel and boulders

Esker or kame complex; sand, gravel, boulders

Glacial Deposits:

Predominantly clayey till

Predominantly silty to sandy till

NONGLACIAL ENVIRONMENT

Complexes: when two or more types of glacial or non-glacial environment are interspersed in a mosaic or repeating pattern, the relative dominant/subordinate amount of each type is indicated by sequential order. For example, 2/1 indicates predominantly silty to sandy till with lesser

SYMBO

Surficial geology derived from:
Boissonneau, A.N. (1965), Map S465, Ontario Department of Lands,
Forests.
Prest, V.K., Grant, D.R., and Rampton, V.N. (1969), Glacial Map of
Canada, Geological Survey of Canada, Map 1253A (Scale: 1:5 000 000).

Geological Survey of Canada
Mineral Resources Division
Exploration Geochemistry Subdivision

CONTRACTORS

Sample collection by SIAL Geophysique Inc., Montreal Sample preparation by Golder Associates, Ottawa

Sediment chemical analyses by Barringer Magenta Ltd., Rexdale, Ontario

Au analyses by Chemex Labs Limited, Vancouver Water chemical analyses by Barringer Magenta Laboratories (Alberta) Ltd., Calgary

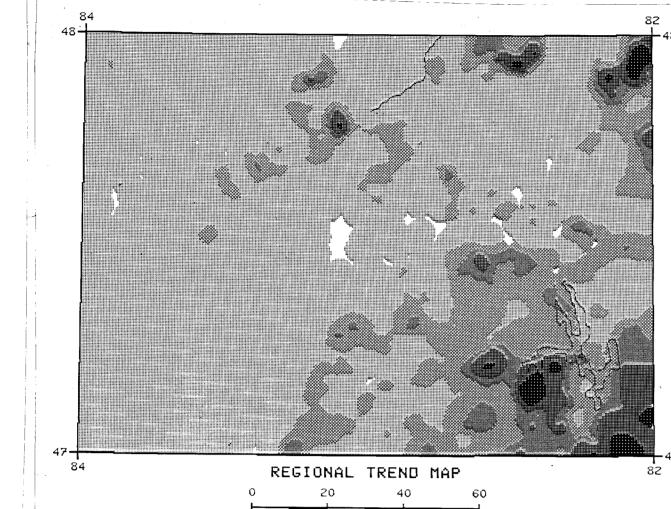
Contribution to Canada - Ontario Mineral Development Agreement 1986 - 1990, a subsidiary agreement under the Economic and Regional Development Agreement. Project funded by the Geological Survey of Canada.

Ministry of Northern Development and Mines

Energy, Mines and Resources Canada Energie, Mines et Ressources Canada

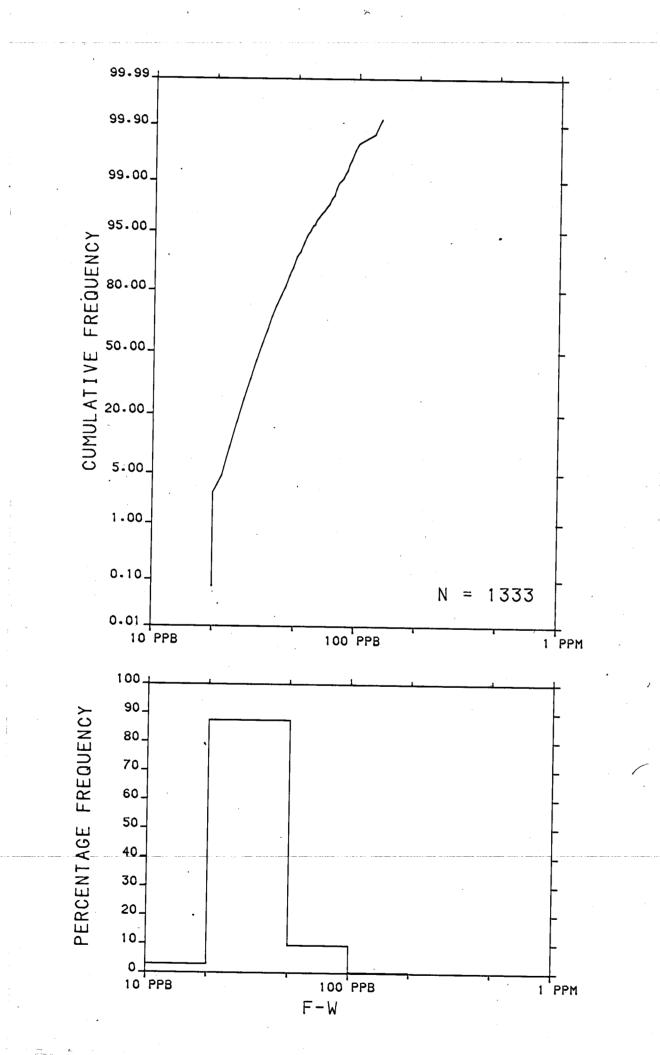
Canadä





KILOMETERS- SCALE 1:1000000

The regional geochemical trend map displayed above utilized a moving weighted average using an inverse distance function $(1/d^3)$ to filter out minor irregularities and emphasize broad-scale regional features. Single point anomalies may be suppressed or eliminated, however, geological units which are chemically enriched, or large metallic deposits undergoing weathering would be expected to produce identifiable anomalies.



CONCENTRATION

75 to 130

+ N= 23(1.7%)

59 to 74

↑ N= 42(3.2%)

51 to 58

N= 63(4.7%)

41 to 50

N= 218(16.4%)

20 to 40

+ N= 987(74.0%)



FLUORIDE (ppb)

LAKE WATERS

GSC OPEN FILE 1357

REGIONAL GEOCHEMICAL RECONNAISSANCE MAP 93-1986

CANADA - ONTARIO

MINERAL DEVELOPMENT AGREEMENT (1986-1990)

LAKE SEDIMENT AND WATER GEOCHEMICAL SURVEY CENTRAL ONTARIO, 1986

Scale 1:250 000 - Échelle 1/250 000

Kilometres 5 0 5 10 15 20 Kilomètres

Universal Transverse Mercator Projection Projection transverse universelle de Mercator

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Elevation in feet above mean sea level

Mean magnetic declination 1987, 8°20' West, increasing 10.9' annually. Readings vary from 9°07'W in the SE corner

to 7°30'W in the NW corner of the map area

FLUORIDE (ppb)
LAKE WATERS
GSC OPEN FILE 1357
CENTRAL ONTARIO, 1986

LEG

PRECAMBRIAN LATE PRECAMBRIAN Carbonatite - alkalic complexes; alkalic syenite syenite, sovite, magnetite-apatite rock, urtite, ijolite, melteigite EARLY TO MIDDLE PRECAMBRIAN EARLY PRECAMBRIAN (ARCHEAN) Shawmere Anorthosite Complex; anorthosite to gabbro, gneissic to flaser-textured tonalite and monzonite Kapuskasing structural zone rocks; meta-igneous rocks, melanocratic granulite, pelitic and psammitic granulites, metasedimentary gneiss and arkosic metasediments Massive felsic to intermediate plutonic rocks; granite, granodiorite, tonalite, quartz monzonite, monzodiorite, pegmatite Foliated to gneissic felsic to intermediate plutonic rocks; granite, granodiorite, tonalite, quartz monzonite, diorite, migmatite Mafic and ultramafic intrusive rocks, including gabbro, diorite and serpentinized ultramafics Paragneiss, orthogneiss and migmatite Metasediments; greywacke, arkose, quartzite. conglomerate, argillaceous and migmatized metasediments, biotite-quartz-feldspar schist and gneiss Felsic to intermediate metavolcanics; rhyolite to dacite flows and fragmentals, tuff, lapilli-tuff, agglomerate, breccia, porphyritic flows Mafic to intermediate metavolcanics; basalt to andesite flows, porphyritic flows, and pillow lavas, mafic pyroclastics, layered amphibolite, diorite, gabbro, migmatized mafic metavolcanics Iron formation *A mnemonic code assigned to rock types and recorded as part of field observations.

The geology base and legend for these geochemical maps were derived from: Geology - Chapleau - Foleyet, Map 2221 Geological Compilation Series, Ontario Department of Mines, 1:253 400. McCrank, G.F.D., Misiura, J.D., and Brown, P.A. (1979), Geology - Plutonic Rocks in Ontario, Geological Survey of Canada Map 1533A, to accompany GSC Paper 80-23.

Copies of map material and listings of field observations, analytical data and methods, from which the open file was prepared, are available from:

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

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O.F. 554 R.G.R. 93-1986

:R.G.R. 92-1986:

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

Base map at the same scale published by

the Surveys and Mapping Branch in 1979

Digital data are available on IBM-PC compatible diskette from:

Geological Survey of Canada Publications Distribution 601 Booth St. Ottawa, Ontario K1A OE8 Tel: (613)995-4342

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FLUORIDE (ppb)
LAKE WATERS
GSC OPEN FILE 1357
CENTRAL ONTARIO, 1986