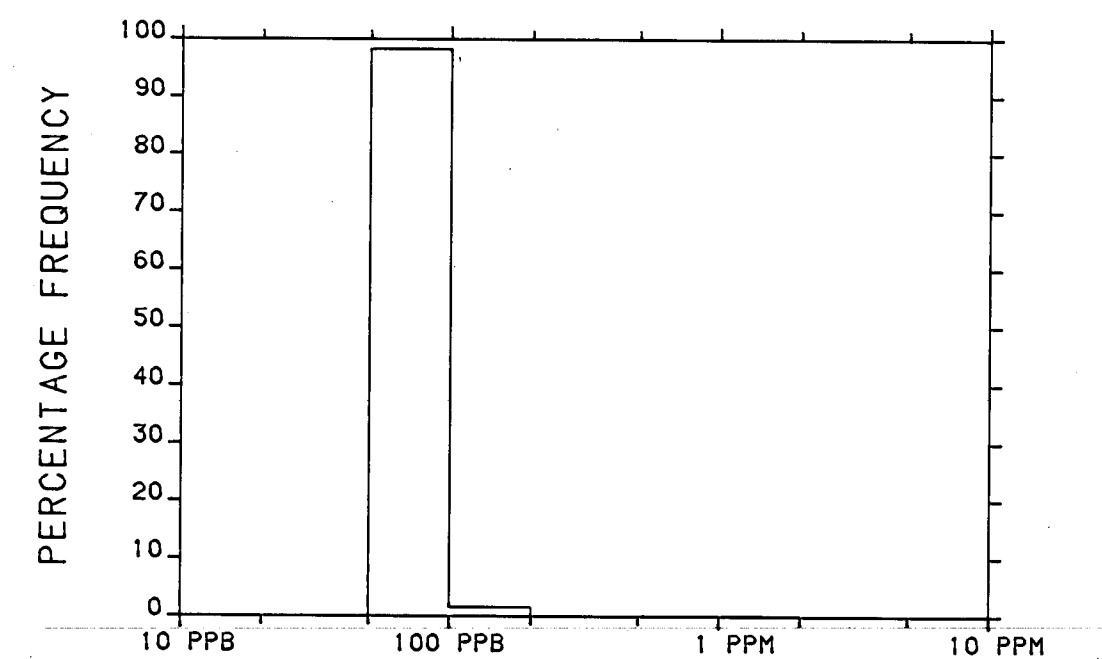
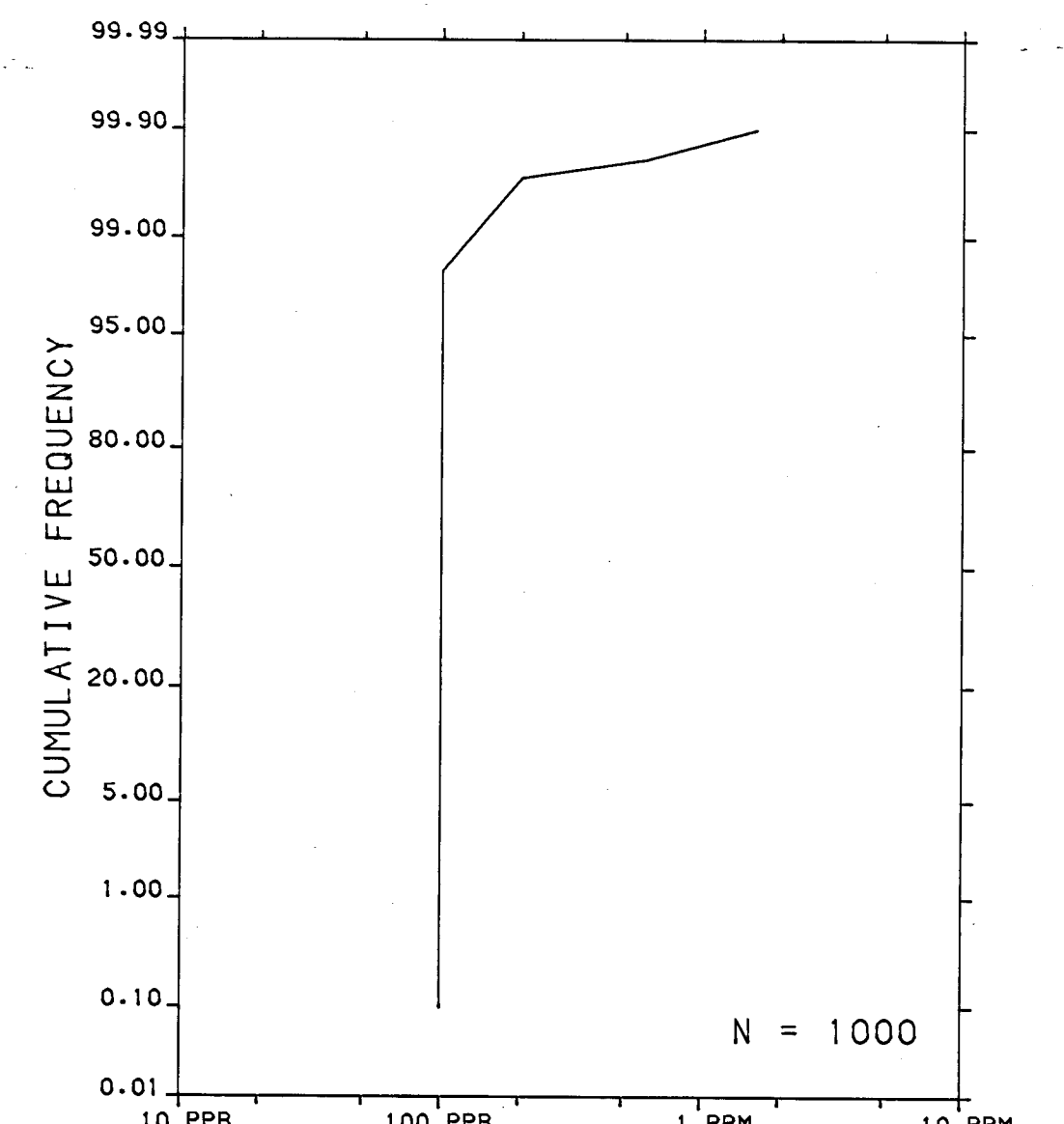


The regional geochemical trend map displayed above utilized a moving weighted average using an inverse distance function (1/d²) to filter out minor irregularities and emphasize broad-scale regional features. Single point anomalies may be suppressed or eliminated, however, geological units which are chemically enriched, or large metallic deposits undergoing weathering would be expected to produce identifiable anomalies.



CONCENTRATION FREQUENCY
 0.2 to 1.6 PPM N = 17 (1.7%)
 < 0.2 PPM N = 983 (98.3%)

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
 Bedrock

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 clayey till.

SYMBOLS
 Surficial geological boundary
 Striae
 Fluting, drumlin or drumlinoid ridge
 Esker, kame or kame complex

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

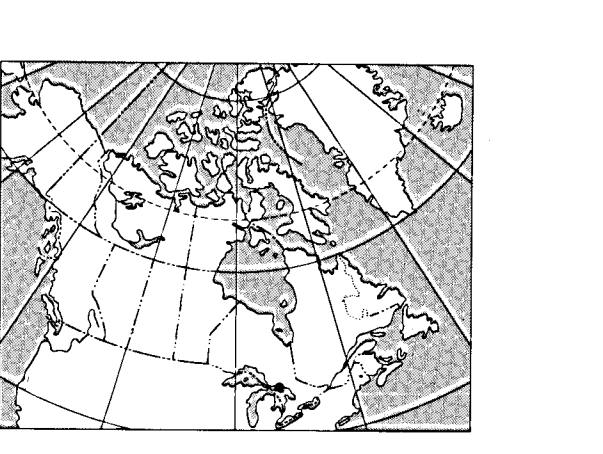
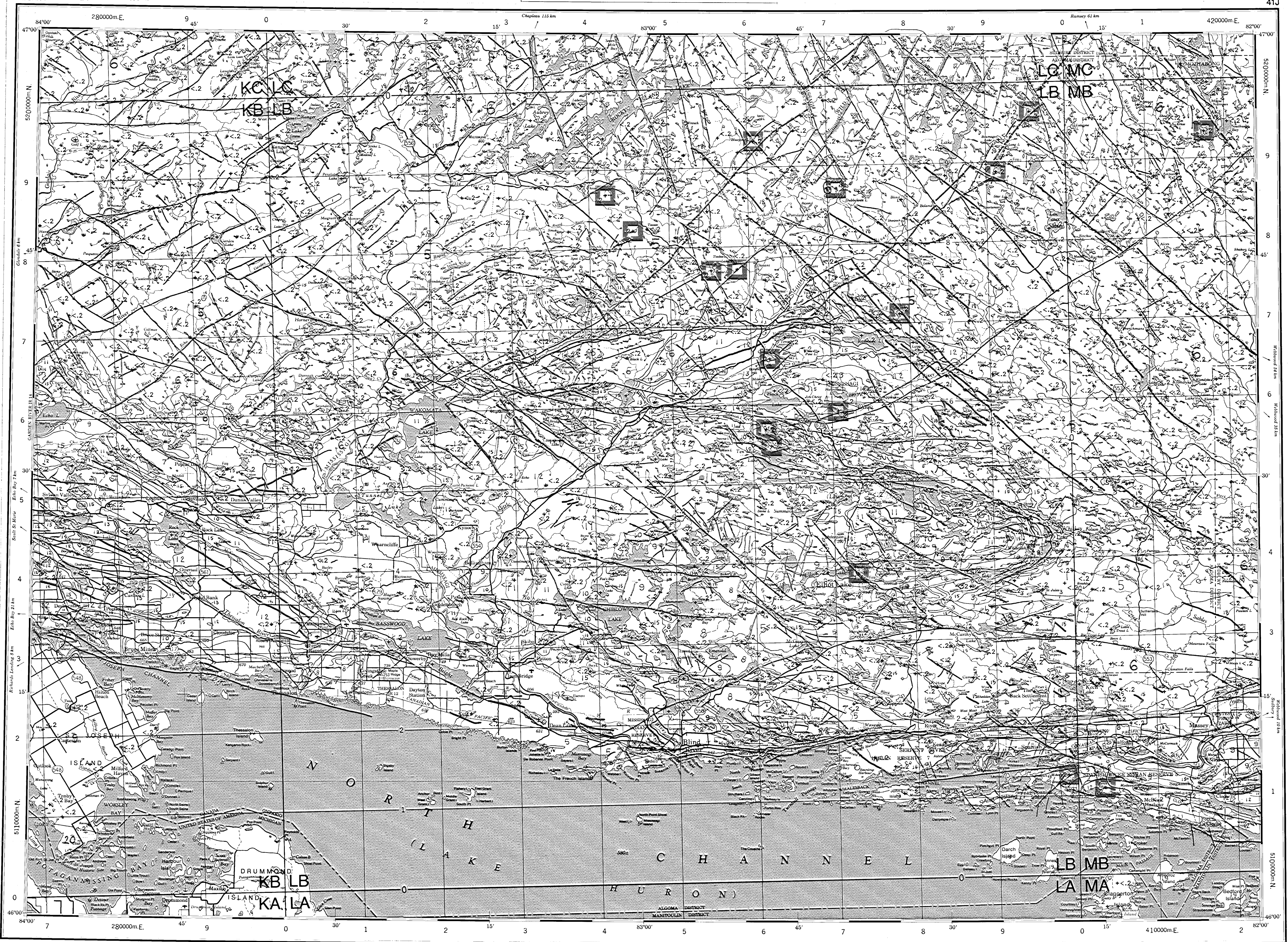
CONTRACTORS
 Sample collection by SIAL Geophysique Inc., Montreal
 Sample preparation by Golder Associates, Ottawa

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



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
 K1R 6K7

Digital data are available on IBM-PC compatible diskette from:
 Geological Survey of Canada
 Publications Distribution
 601 Booth St.
 Ottawa, Ontario K1A 0E8
 Tel: (613)995-4342

SILVER (ppm)
LAKE SEDIMENTS
 GSC OPEN FILE 1356
 REGIONAL GEOCHEMICAL RECONNAISSANCE MAP 92-1986
 CANADA - ONTARIO
 MINERAL DEVELOPMENT AGREEMENT (1986-1990)
 LAKE SEDIMENT AND WATER GEOCHEMICAL SURVEY
 CENTRAL ONTARIO, 1986

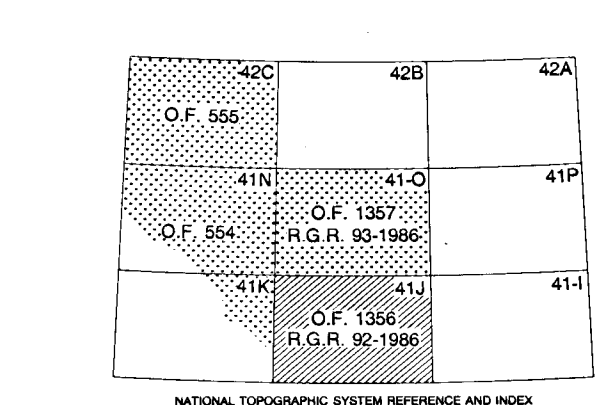
Scale 1:250 000 - Echelle 1/250 000

Universal Transverse Mercator Projection
 Projection Transverse Universelle de Méteor

Elevation in feet above mean sea level

Mean magnetic declination 1987, 7°48' West, increasing 10.6' annually. Readings vary from 8°33'W in the SE corner to 7°00'W in the NW corner of the map area

Base map at the same scale published by the Surveys and Mapping Branch in 1979



LEGEND

PALEOZOIC
SILURIAN
 20 SCP* Limestone, shale

UPPER CAMBRIAN AND ORDOVICIAN
 19 OCCS Limestone, shale, sandstone, includes Munising Formation; sandstone

PRECAMBRIAN AND ARCHEAN
 18 LPAD Diabase, gabbro, diorite

PRECAMBRIAN
LATE PRECAMBRIAN
 17 LPAC Fenite, ijolite, pyroxenite, carbonatite

MIDDLE TO LATE PRECAMBRIAN
 16 MPCC Craker Island Complex; granite, syenite, diorite, gabbro
 Outler Pluton; granite, quartz monzonite, granodiorite, trondjemite, pegmatite

MIDDLE PRECAMBRIAN
 15 MPND Nipissing Diabase; diabase, gabbro, metagabbro, granophyre

HURONIAN SUPERGROUP
COBALT GROUP
 14 MPBR Bar River Formation; quartzite
 13 MPGL Gordon Lake Formation; siltstone, argillite, quartzite
 12 MPL Lorrain Formation; quartzite, arkose, conglomerate
 11 MPG Gowganda Formation; conglomerate, argillite, greywacke, quartzite, siltstone

QUIRKE LAKE GROUP
 10 MPQL Serpent Formation; quartzite, conglomerate
 Espanola Formation; limestone, dolomite, calcareous siltstone
 Bruce Formation; conglomerate

HOUGH LAKE GROUP
 9 MPHIL Awenes Formation; conglomerate, arkose, quartzite
 Mississagi Formation; quartzite, conglomerate
 Pecora Formation; argillite, siltstone
 Ramsay Lake Formation; conglomerate

ELLIOT LAKE GROUP
 8 MPGL McKim Formation; siltstone, argillite, quartzite
 Matinenda Formation; quartzite, arkose, conglomerate, uraniumiferous conglomerate

7 MPVB Basalt, andesite, amphibolite, gabbro, anorthosite, ultramafic rocks and minor rhyolite

ARCHEAN
 6 AGM Massive felsic to intermediate plutonic rocks; granite, granodiorite, tonalite, quartz monzonite, monzoniorite, pegmatite
 5 AGH Foliated to gneissic felsic to intermediate plutonic rocks; granite, granodiorite, tonalite, quartz monzonite, diorite, migmatite
 4 AUB Gabbro, diorite
 3 ACSP Conglomerate, greywacke, arkose, quartzite, siltstone, argillite, chert
 2 AMWF Felsic to intermediate metavolcanics
 1 AMWB Mafic to intermediate metavolcanics; includes flows, minor mafic pyroclastics and interflow sediments.

IF Iron formation

*A mnemonic code assigned to rock types and recorded as part of field observations.

Geological boundary
 Fault
 No analytical results

The geology base and legend for these geochemical maps were derived from: Geology - Sault Ste. Marie - Elliot Lake, Map 2419 Geological Compilation Series, Ontario Department of Mines, 1:255 440.
 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.