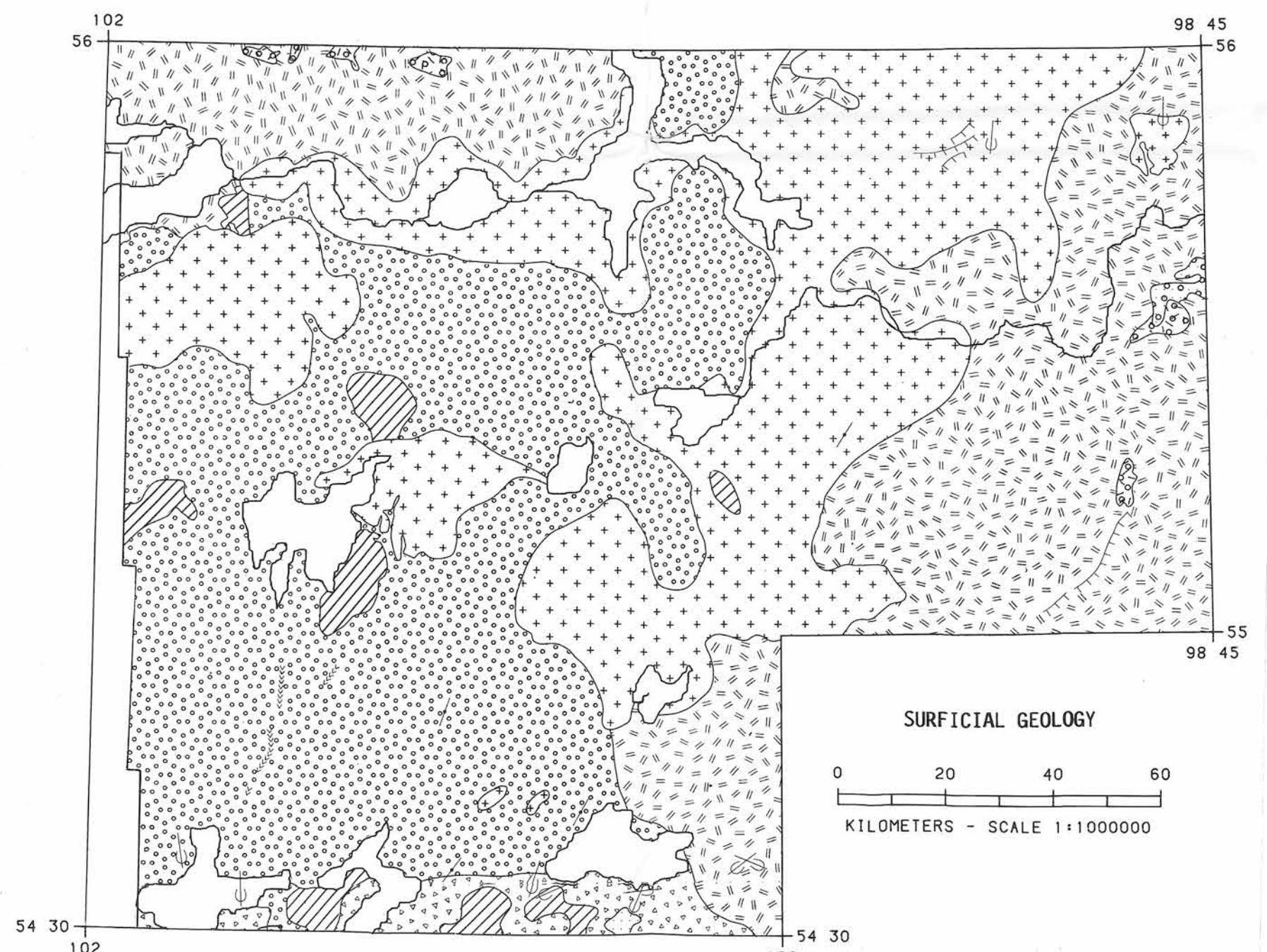


The regional geochemical trend map displayed above utilized a moving weighted average using an inverse distance function (1/r²) to filter out minor irregularities and emphasize broad-scale regional features. Single point anomalies may be suppressed or eliminated, however, geological units which are chemically enriched, or large metallic deposits undergoing weathering would be expected to produce identifiable anomalies.



NONGLACIAL ENVIRONMENT

ORGANIC DEPOSITS: marsh, fen, bog and swamp deposits up to 6 m thick, seasonally flooded, commonly overlying fine textured proglacial lake and glacial till deposits

PROGLACIAL AND GLACIAL ENVIRONMENT

GLACIOLACUSTRINE DEPOSITS: Clay silt, sand and minor gravel, 1 - 30 m thick, deposited in proglacial lakes

Beach and nearshore deposits: sand and gravel 1 - 4 m; sand blanket 0 - 1 m thick; includes areas of wave washed till and exposed bedrock

Deep basin deposits: silt, clay and sand, 1 - 30 m thick, forming extensive lake plains and discontinuous veneer reflecting underlying topography; may include areas of iceberg scouring, thin alluvium, wave washed till and exposed bedrock

GLACIOFLUVIAL DEPOSITS: gravel, sand and silt 1 - 100 m thick, deposited in an ice-marginal environment; includes subsequent outwash deposited in glacial lakes, and some late glacial valley fill

GLACIAL ENVIRONMENT

GLACIAL DEPOSITS: unsorted glacial debris, 1 - 10 m thick, reflecting composition of underlying bedrock; predominantly lodgment till; also includes extensive areas of hummocky stagnation moraine, ribbed moraine and water deposited till

Till: 1 - 10 m thick, highly calcareous, derived primarily from Paleozoic carbonate rock; typical composition: silt - 40%, sand - 25%, clay - 10%, gravel - 10%; includes bedrock exposures, evidence of wave-washing

Till: 1 - 5 m thick, derived primarily from Precambrian bedrock; typical composition: sand - 40%, gravel - 20%, silt - 25%, clay - 15%; includes extensive areas of bedrock outcrop, surface reflects form of underlying bedrock surface

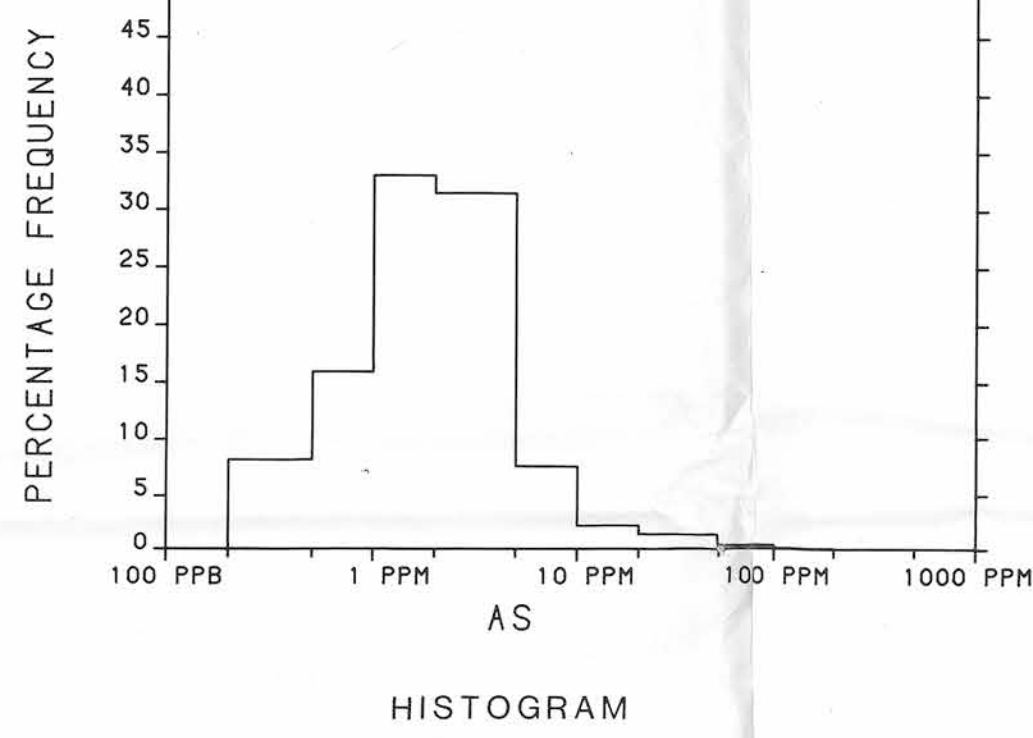
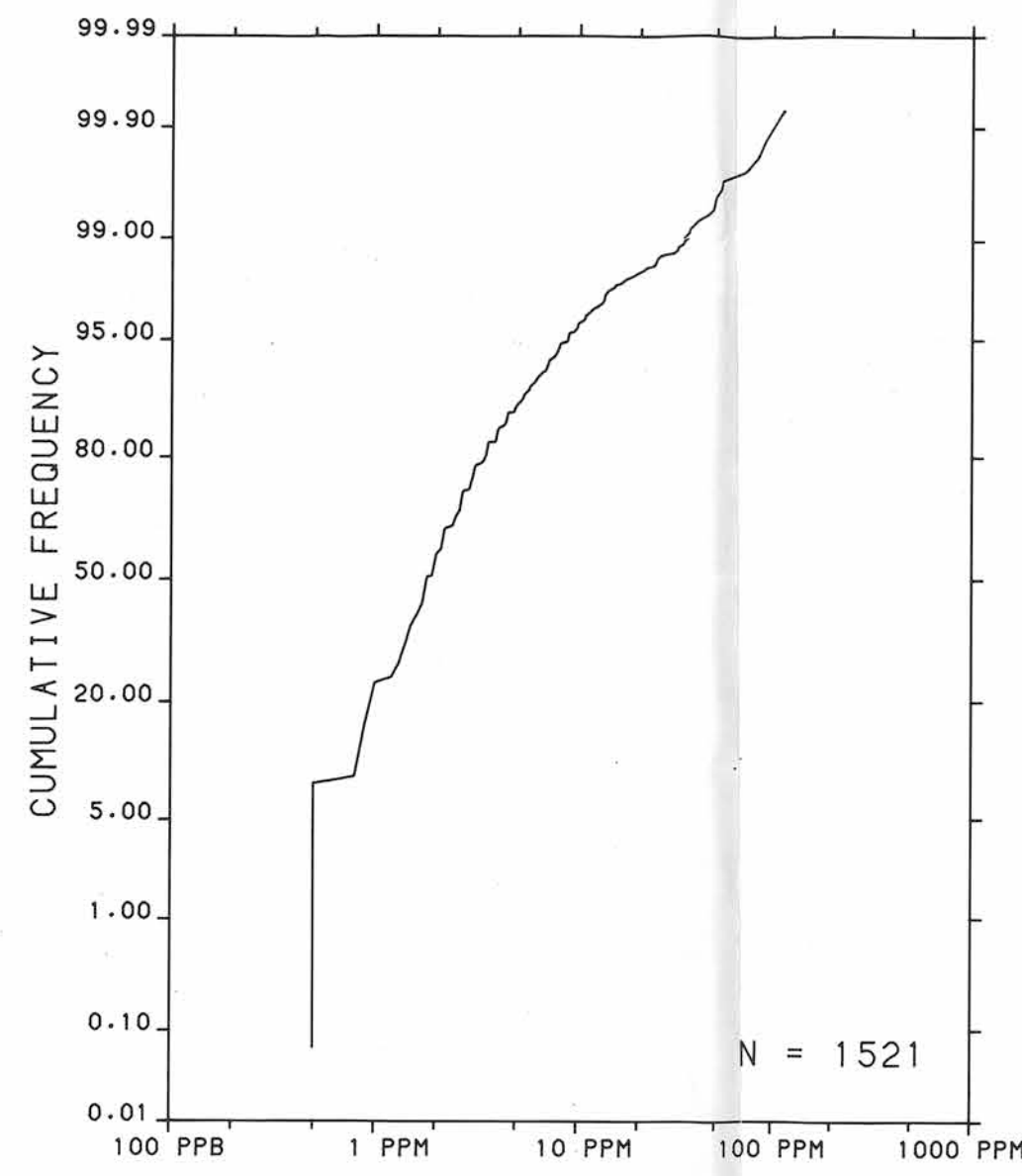
NONGLACIAL ENVIRONMENT

BEDROCK: Precambrian, Paleozoic and Mesozoic bedrock of various lithologies. Detailed geological legend at right

SYMBOLS

Surficial geological boundary
Striae
Flutings, drumlins and drumlinoid ridges
Moraines (including end, interlobate and recessional)
Beach ridges, bars and strandlines
Esker

Surficial geology derived from:
Nelson, S. et al. (1961) Surficial Geological Map of Manitoba, Aggregate Resources Section, Manitoba Mineral Resources Division, Map 81-1 (1:1,000,000 scale)



LEGEND

CEANOZOIC

10 OVB0 44* Overburden; mainly glacial till and glaciolacustrine deposits

PALEOZOIC

ORDOVICIAN

9 DMLN 14 RED RIVER FORMATION: Mottled dolomitic limestone to dolomite, in part cherty and calcareous

PROTEROZOIC

8 ACIV 04 Felsic to intermediate plutonic rocks

7 IMIV 04 Intermediate plutonic rocks

6 BCIV 04 Maric to intermediate plutonic rocks. Includes ultramafic rocks

5 AMPS 04 Amphibolite. Includes chert, marble

4 MARK 04 Meta-arkose and quartz-feldspathic gneiss

3 MUCK 04 Meta-greywacke and quartz-biotite gneiss

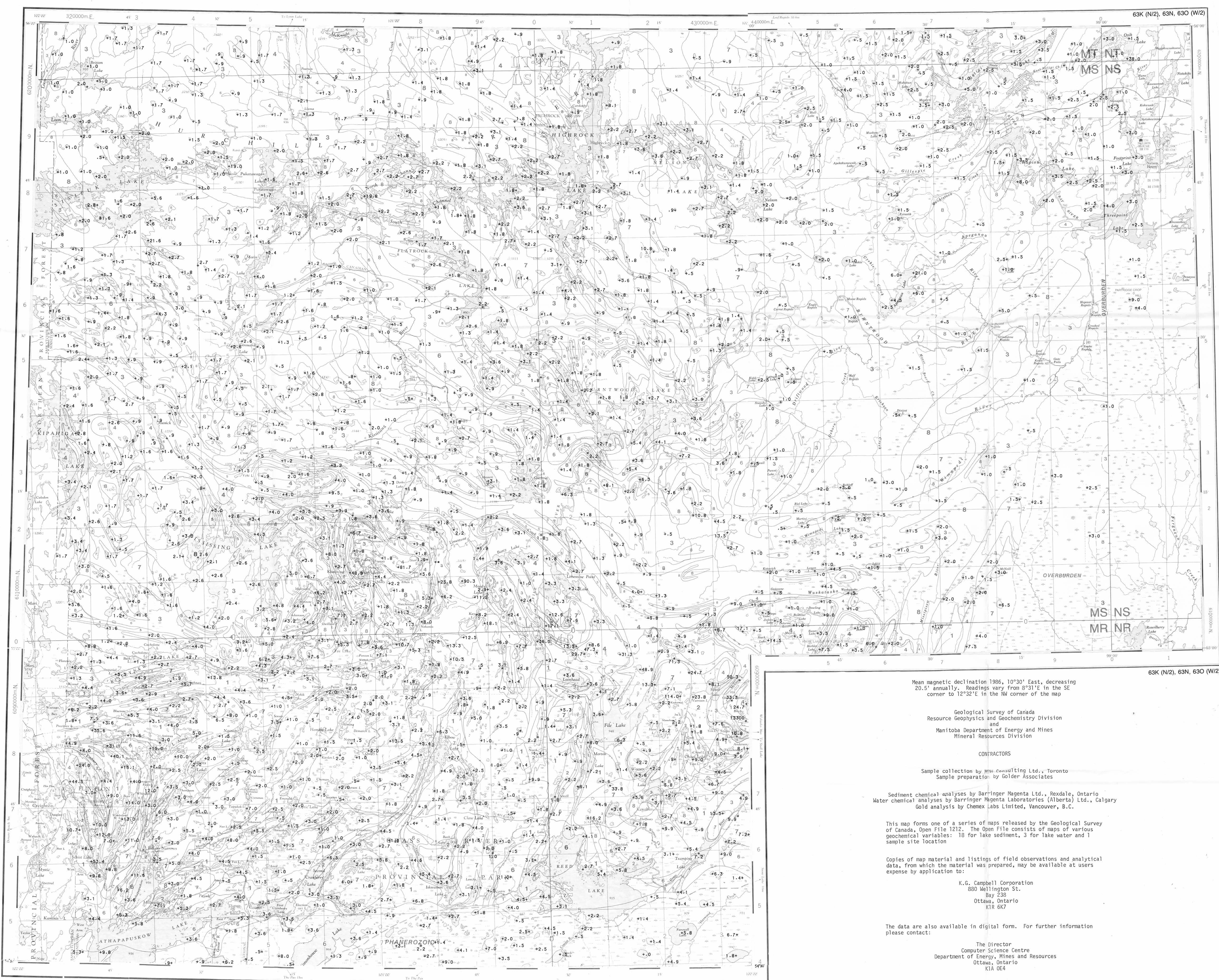
2 IEXV 04 Intermediate to felsic volcanic rocks

1 BCIV 04 Maric to intermediate volcanic rocks

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

Geological boundary
Surficial deposit boundary
No analytical results

Provisional Synoptic Geological Compilation at 1:250,000 scale, by S. Parker, Geological Services, Manitoba Energy and Mines, 1985



Contribution to Canada-Manitoba Mineral Development Agreement 1984-89, a subsidiary agreement under the Economic and Regional Development Agreement. Project funded by the Geological Survey of Canada

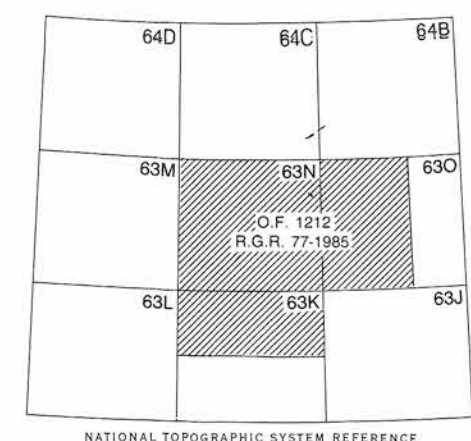
Manitoba Energy and Mines

Energy, Mines and Resources Canada

Canada



ARSENIC (ppm)
GSC OPEN FILE 1212
REGIONAL GEOCHEMICAL RECONNAISSANCE MAP 77-1985
CANADA-MANITOBA
MINERAL DEVELOPMENT AGREEMENT (1984-89)
LAKE SEDIMENT AND WATER GEOCHEMICAL SURVEY
WEST-CENTRAL MANITOBA, 1985
Scale 1:250 000
Universal Transverse Mercator Projection
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ARSENIC (ppm)
GSC OPEN FILE 1212
WEST-CENTRAL MANITOBA, 1985

Mean magnetic declination 1986, 10°30' East, decreasing 20.5' annually. Readings vary from 8°31'E in the SE corner to 12°32'E in the NW corner of the map

Geological Survey of Canada
Resource Geophysics and Geochemistry Division
and
Manitoba Department of Energy and Mines
Mineral Resources Division

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Sample collection by M.W. Consulting Ltd., Toronto
Sample preparation by Goldier Associates

Sediment chemical analyses by Barringer Magma Ltd., Rexdale, Ontario
Water chemical analyses by Barringer Magma Laboratories (Alberta) Ltd., Calgary
Gold analysis by Chemex Labs Limited, Vancouver, B.C.

This map forms one of a series of maps released by the Geological Survey of Canada, Open File 1212. The Open File consists of maps of various geochemical variables: 18 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:

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

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ARSENIC (ppm)
GSC OPEN FILE 1212
WEST-CENTRAL MANITOBA, 1985