Province of Manitoba
Department of Mines, Resources and Environmental Management
Mineral Resources Division

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

LEGEND

PRECAMBRIAN

7 Granite, granodiorite, quartz diorite; largely massive, in part gneissic; undivided granitic rocks; may contain areas of older rocks; in part overlain by rocks of map-unit 3

5 Complex of granitized sedimentary gneiss and schist; injection gneiss, migmatite. Includes granitized parts of the Kisseynew complex, gneisses derived from Sickle, Wasekwan, Rice Lake, Hayes River, Oxford, Cross Lake, and Pre-Assean sediments. Includes some metamorphosed and granitized volcanic rocks

4 Sedimentary gneiss and schist containing subordinate granitic material. Includes non-granitized Kisseynew gneisses and similar gneisses within the Churchill geologic province

2 Greywacke, sub-greywacke, argillite, slate, quartzite, tuff, iron-formation; in part altered to schist and gneiss. Includes Missi series and sedimentary rocks of the Rice Lake group, Hayes River series and Wasekwan series, subordinate volcanic rocks

Geological contact ....

Limit of geological mapping ....

Geology derived from the 1:1,267,200
Geological Map of Manitoba

Geological cartography by the Geological Survey of Canada

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Base-map assembled by the Geological Cartography Unit from maps published at the same scale by the Army Survey Establishment, R.C.E. in 1963

Copies of the topographical maps covering this map-area may be obtained from the Canada Map Office

Mean magnetic declination 1976, 15°56.7' East, decreasing 5.1' annually. Readings vary from 14°15.6' in the SE corner to 19°04.2' in the NW corner of the map-area

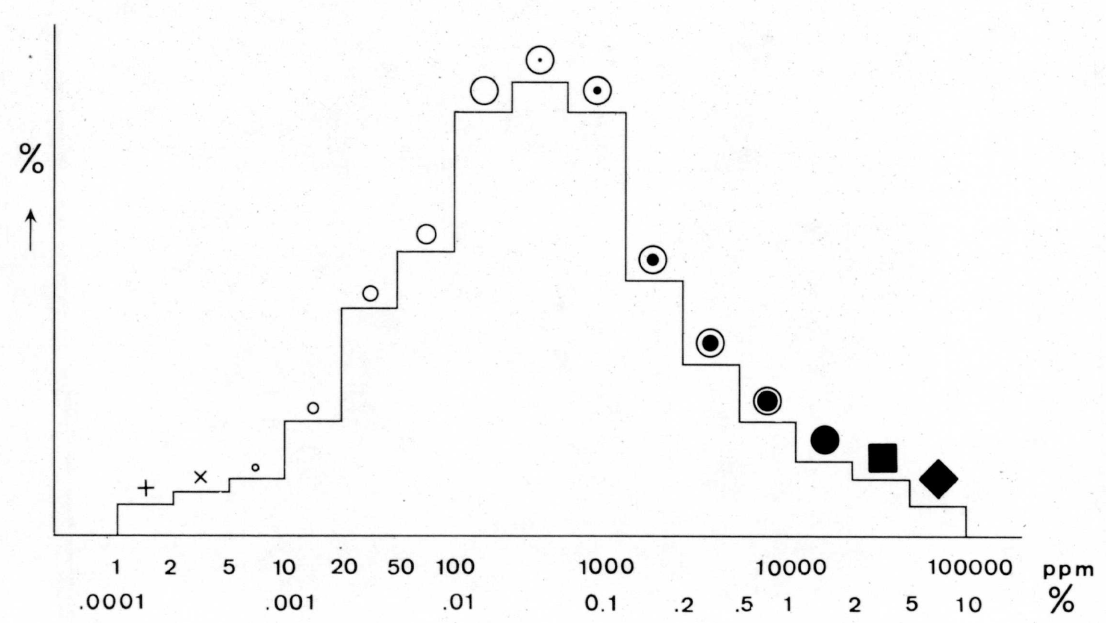
Elevations in feet above mean sea-level

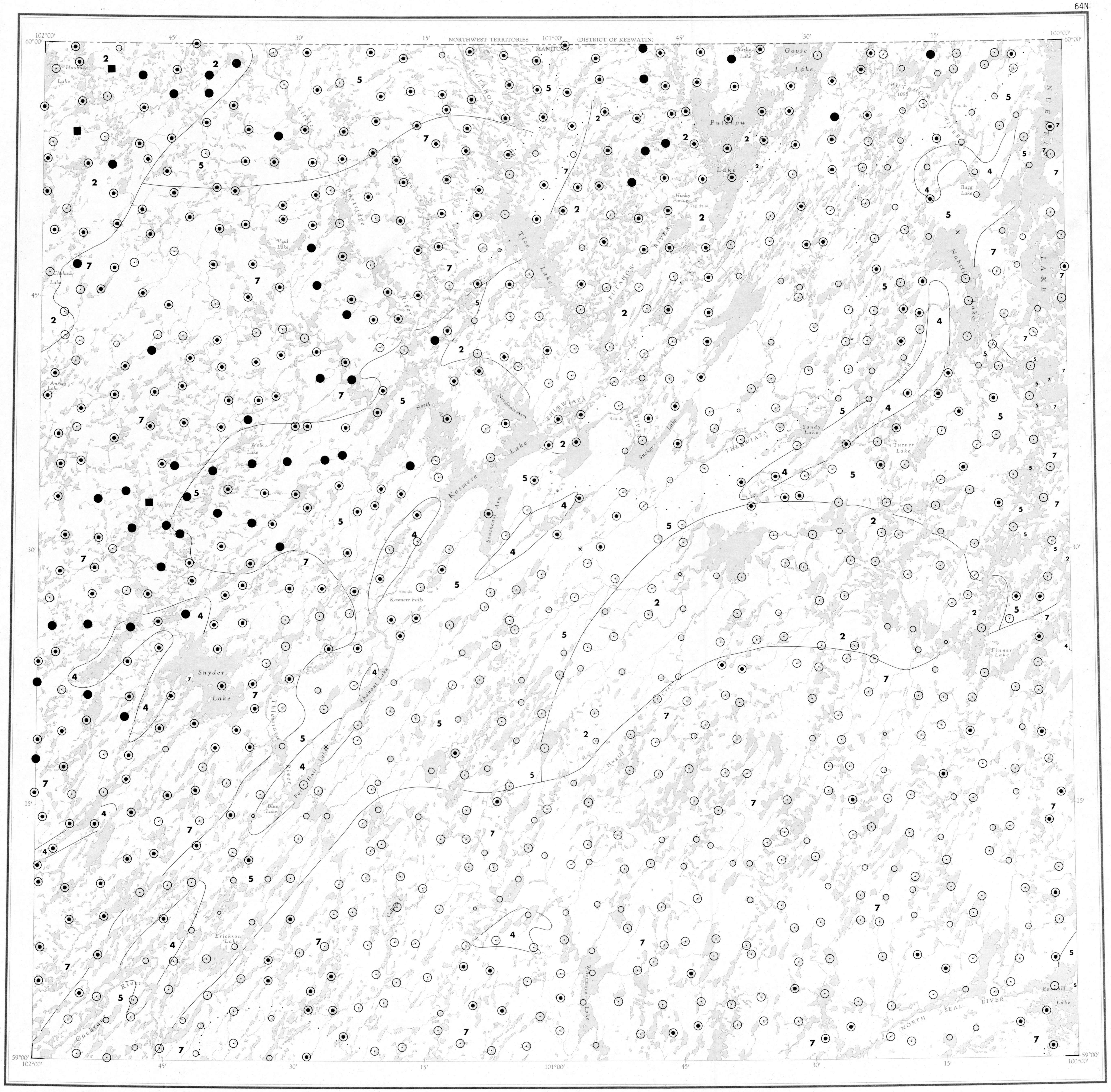
Geochemical Symbol and Data Presentation

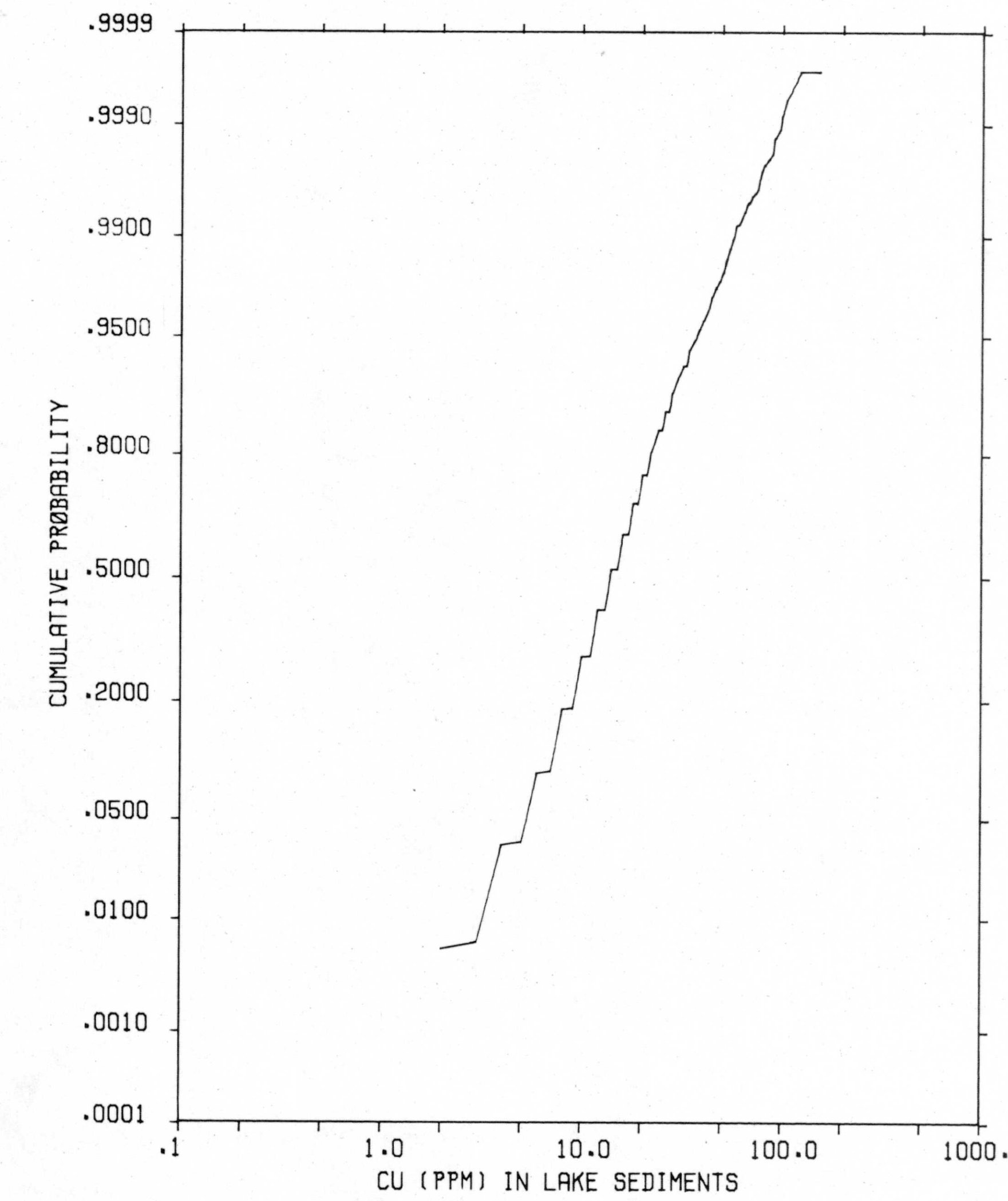
The concentration of an element at a sample site is graphically presented by using one of 15 symbols, if a sample was collected but no relevant data is available a dot is plotted. The symbols are divided into 2 groups of 7 respectively, and one additional symbol. The first 7 increase in size from a small cross to a large open circle. The eighth symbol, the additional one, consists of the large open circle with a dot at its centre. In the last 7 symbols the dot becomes progressively larger until a solid black circle is reached, a circumscribed square in solid black is used for the last symbols. Thus the overall impression is of increasing size and blackness as samples display from low to high elemental content.

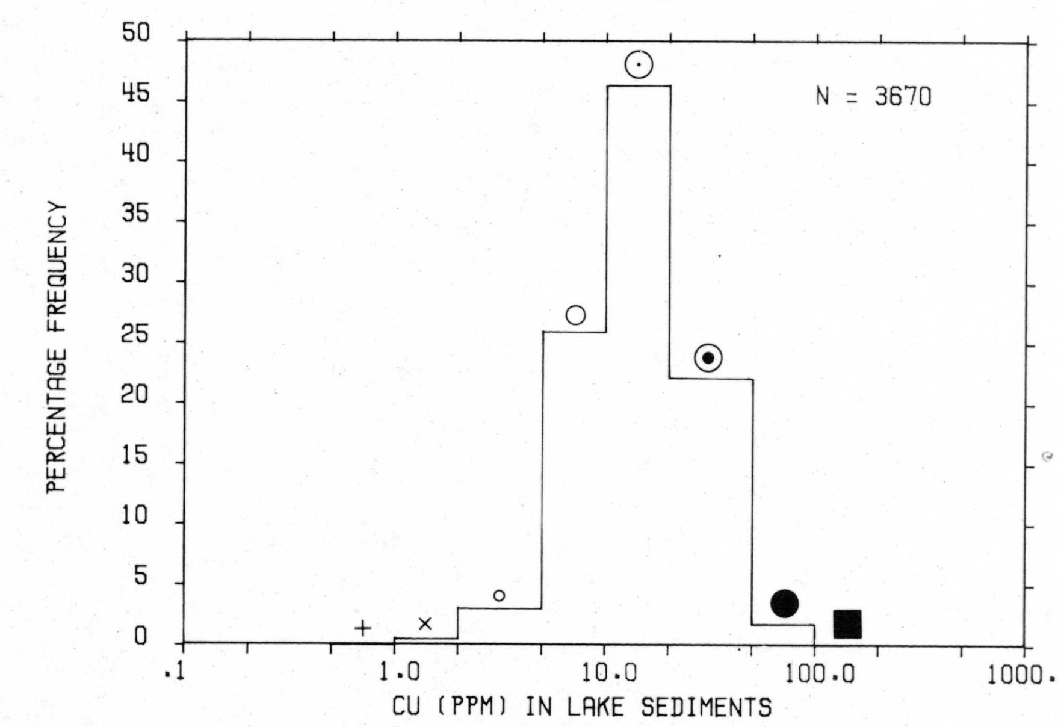
The data distributions are depicted using both a cumulative probability plot and a histogram. It should be noted that if the survey covers several map sheets the distribution displays are for the total survey data, not the single sheet being studied. The data intervals used for the histogram are semi-logarithmic, e.g. 1,2,5,10,20,50,100 etc., due to the apparent log-normal characteristic of most trace element distributions. The symbols cover 5 decades, e.g. 1 ppm to 10%, using the above data intervals. As this map is part of a Canada wide series these arbitrary intervals have been chosen to preserve some long-term continuity, however, based on experience at the Geological Survey, we believe them to be an appropriate compromise.

For any particular element the eighth, central, symbol is ascribed to the histogram mode. The median of the data distribution, as defined by the 50% (0.5) point on the cumulative probability plot, usually falls within the mode interval of the histogram. The symbols (+) and (x) are respectively used to display concentrations below and at the analytical detection limit. To illustrate the use of the symbols an example is given below. If the actual data distribution does not require all 15 symbols some are selectively dropped so that maximum overall graphic impact is maintained.









OPEN FILE 322
by
E.H.W. Hornbrook, R.G. Garrett, J.J. Lynch

Geological Survey of Canada

Geochemistry and Federal-Provincial coordination by E.H.W. Hornbrook
Analytical chemistry by J.J. Lynch
Data monitoring and compilation by R.G. Garrett and N.G. Lund
Cartography and base compilation by Geological Cartography Section

Manitoba, Mineral Resources Division

Federal-Provincial coordination by J.F. Stephenson
Geological Base Map, Geological Map of Manitoba - Map 65-1

Contractors

Sample collection by Trigg, Woollett & Associates Ltd.
Chemical analyses by Chemex Labs Ltd.

This map forms one of a series of 14 sheets released under Geological Survey of Canada Open File 322. The open file consists of data for 12 elements, percent loss on ignition and sample site location.

The data is also available in digital form from the Computer Science Centre of the Department of Energy, Mines and Resources. For further information please contact:

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

COPPER IN LAKE SEDIMENTS

CANADA - MANITOBA SUBSIDIARY AGREEMENT ON MINERAL EXPLORATION AND DEVELOPMENT

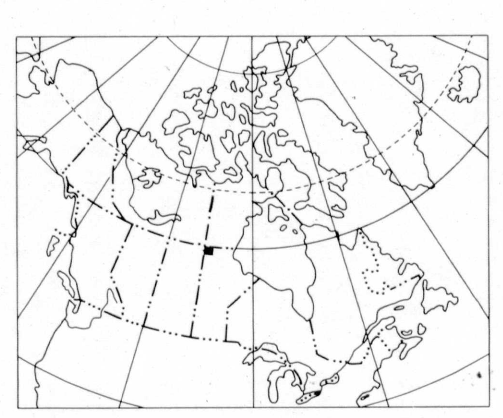
NATIONAL GEOCHEMICAL RECONNAISSANCE

Scale 1:250,000

Kilometres 6 0 6 12 18 Kilometres

Miles 4 0 4 8 Miles

Universal Transverse Mercator Projection



64 N O.F. 322	64-O O.F. 323	64 P
64 K O.F. 321	64 J O.F. 320	64 I
64 F	64 G	64 H

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE

OPEN FILE 322
COPPER
NATIONAL GEOCHEMICAL RECONNAISSANCE
MANITOBA 1975