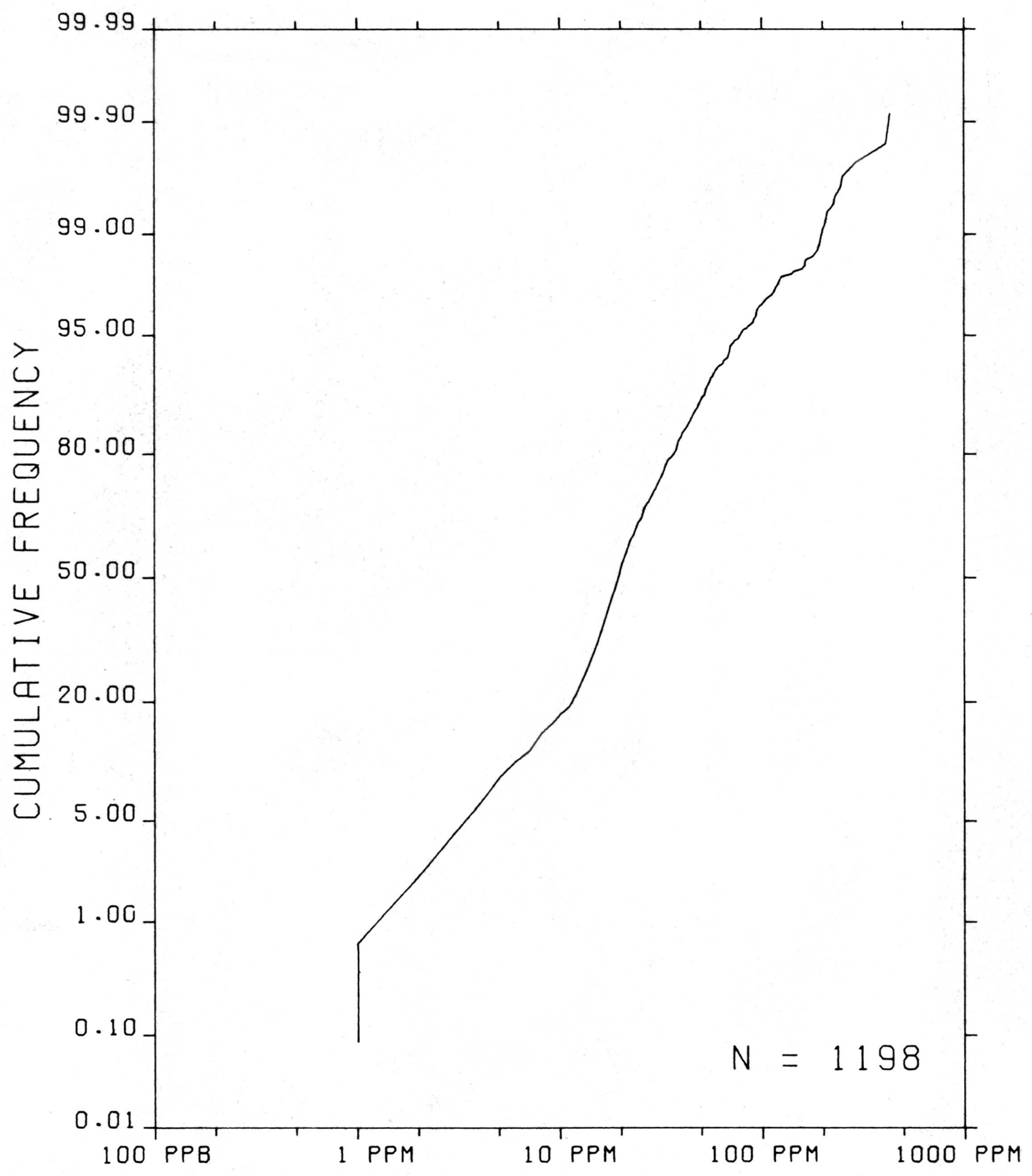
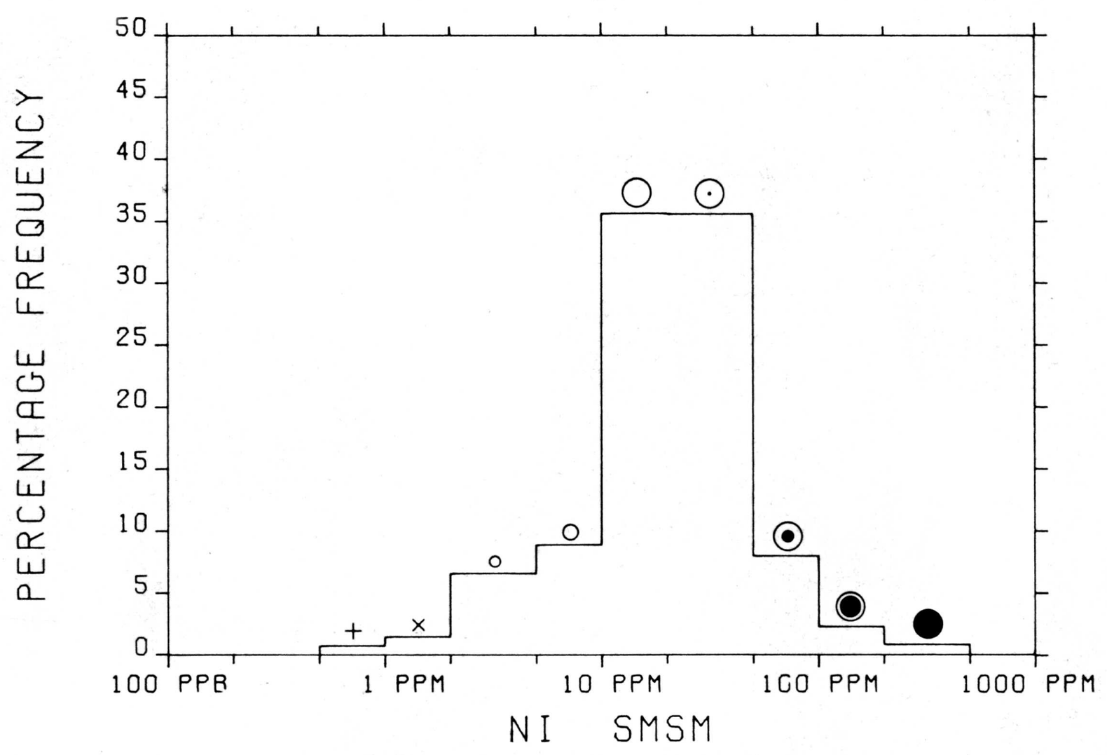
Canada
Department of Energy, Mines and Resources
Geological Survey of Canada

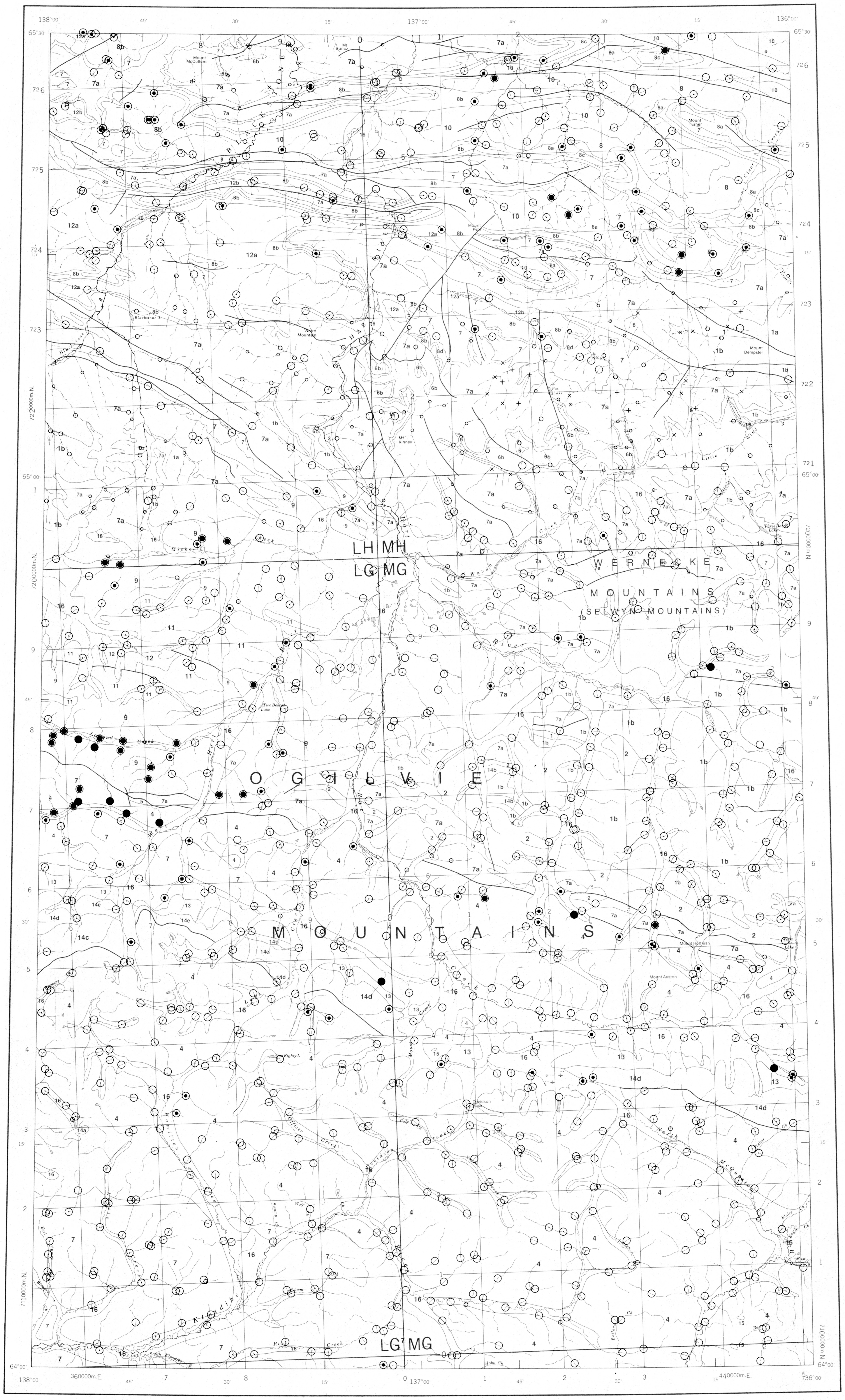
NICKEL (ppm)

OPEN FILE 519

CENTRAL YUKON 1977







Geochemical Symbol and Data Presentation

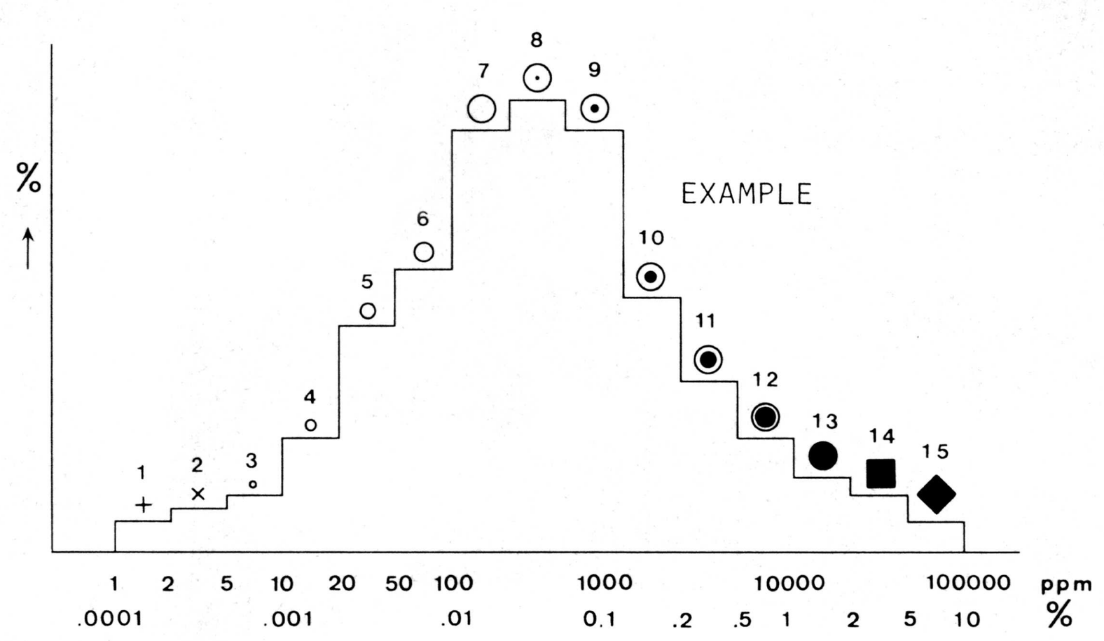
The concentration of an element at a sample site is graphically represented as one of 15 symbols. If a sample was collected but there is no data available a dot is plotted. The symbols are symmetrically arranged so that they first increase in size to the eighth symbol and then increase in blackness to the fifteenth. The two small crosses at the low end of the scale are used to respectively denote concentrations below the analytical detection limit, or, in the data group containing the detection limit. The data are grouped on a semi-logarithmic scale, i.e. 1,2,5,10,20,50,100 etc. Five decades can be spanned and this arbitrary division has been chosen for the continuing Canada wide series of maps constituting the National Geochemical Reconnaissance.

The choice of symbols and the data groups they represent for any specific element is based on the histogram and cumulative frequency plot for the total survey data from one, or more contiguous, open file sheets covered in one field season (above). The eighth symbol is used for the model group as defined by the histogram. This group usually includes the median of the data as defined by the 0.5 (50%) point on the cumulative frequency plot. Some, or all, of the remaining 14 symbols are chosen so as to achieve an appropriate graphical impact. An example of all 15 symbols is given below.

The symbol maps, being based on the total survey data distributions, are unaffected by tha availability of ever increasing levels of knowledge in bedrock and surficial geology, and other environmental factors. Therefore, the raw data symbol maps are only intended to assist the rapid inspection of the data for gross regional features. To fulfill the needs of a more specific and thorough interpretation, the raw symbol maps should be modified using the field and analytical data provided in the data listings and any other knowledge available.

The data listings contain notes on survey and analytical methods, raw data listing with legend and statistics for total data as well as for data grouped on the basis of rock type.

To comprehensively study an area, all available geological, environmental and recorded data should be utilized. The data separation by bedrock type can often be improved by constructing new data subsets and deriving local threshold levels based on the most detailed and up-to-date knowledge available."



LEGEND

QUATERNARY

16 Unconsolidated glacial and alluvial deposits

TERTIARY

15 Quartz porphyry

CRETACEOUS

14 Biotite granodiorite and quartz monzonite; 14a, hornblende/biotite syenite and minor diorite; 14b, diorite and gabbro; 14c, green and maroon shale and brown siltstone; 14d, Keno Hill quartzite and minor shale and phyllite; 14e, quartzite, graphitic and chloritic slate and phyllite; minor limestone; 14f, similar to 14d but may be older.

JURASSIC

13 Lower Schist division: argillite, slate, phyllite and quartzite

PERMIAN

12 Tahkandit Formation: chert, cherty limestone and limestone; 12a, undivided clastics and carbonates; 12b, Jungle Creek Formation: shale

PERMIAN AND CARBONIFEROUS

11 Limestone, black shale, chert and chert-pebble conglomerate; 11a, dark shale, limestone, sandstone, minor conglomerate; 11b, shale, slate, minor limestone and sandstone.

CARBONIFEROUS

10 Hart River Formation: siltstone, shale and limestone.

DEVONIAN TO CARBONIFEROUS

9 Black shale, argillite, slate, limestone, chert, conglomerate and quartzite; 9a, Nation River Formation: chert-pebble conglomerate and sandstone.

DEVONIAN

8 Undivided clastics; 8a, Canol Formation: black siliceous shale; 8b, Ogilvie Formation: limestone, 8c, Cranswick Formation: limestone; 8d, Michelle Formation: limestone and shale.

CAMBRIAN, ORDOVICIAN AND SILURIAN

7 Road River Formation: shale and limestone; 7a, unnamed carbonates, 7b, dark volcanic rocks, tuff, argillite and limestone; 7c, carbonate debris flow.

CAMBRIAN

6 Unnamed clastics; 6a, unnamed carbonates and clastics; 6b, unnamed carbonates and clastics.

PRECAMBRIAN AND/OR LATER

5 Dark green volcanic rocks, breccia, tuff and agglomerate; minor shale, chert, siltstone and limestone; 5a, dark green volcanic rocks, breccia, tuff and agglomerate; 5b, dark green andesite.

4 Quartzite, sandstone, quartz-pebble conglomerate, shale and slate; quartz-chlorite schist, quartz-mica schist and phyllite; minor limestone and chert; 4a, limestone.

HELIKIAN

3 Unnamed carbonates, shale and gypsum.

HADRYNIAN AND HELIKIAN

2 Orange-weathering dolomite, slate, minor phyllite and quartzite; 2a, pink-, orange - and grey-weathering dolomite, shale, quartzite, conglomerate and limestone; 2b, buff and orange dolomite, slate, quartzite, limestone and conglomerate; 2c, grey dolomite, shale and quartzite; 2d, dolomite-boulder conglomerate; 2e, shale, argillite, siltstone and dolomite.

HELIKIAN AND (?) APHEBIAN

1 Unnamed orange dolomite; 1a, unnamed orange and grey dolomite; 1b, phyllitic argillites and quartzite; minor slate, dolomite and conglomerate.

GEOLOGICAL BOUNDARY..

FAULT..

The legend modified and geology derived for this geochemical map from G.S.C. map 1283A and Open File 279.

Geological Survey of Canada
Resource Geophysics and Geochemistry Division

CONTRACTORS

Sample collection by Semco
Sample preparation by Golder Associates
Uranium in sediment chemical analyses by Atomic Energy of Canada Ltd.
Other sediment chemical analyses by Chemex Labs Ltd.
Water chemical analysis by Bondar-Clegg & Co. Ltd.

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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880 Wellington Street
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Ottawa, Ontario
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The data is also available in digital form. For further information please contact:

The Director
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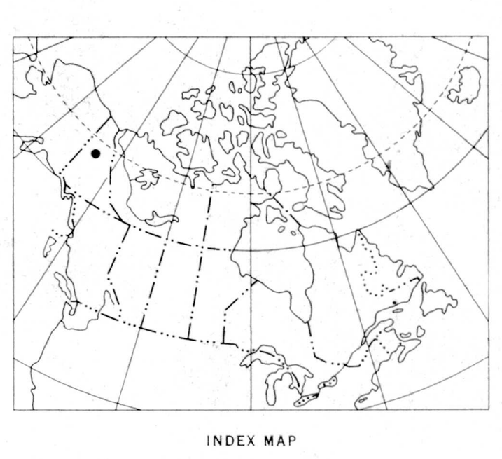


INDEX MAP

Elevations in feet above mean sea level

Mean magnetic declination 1978, 33°55.8' East, decreasing 2.3' annually. Readings vary from 33°37.2' in the SE corner to 34°13.5' in the NW corner of the map-area

NICKEL (ppm)

OPEN FILE 519

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 30-1977

URANIUM RECONNAISSANCE PROGRAM

CENTRAL YUKON 1977

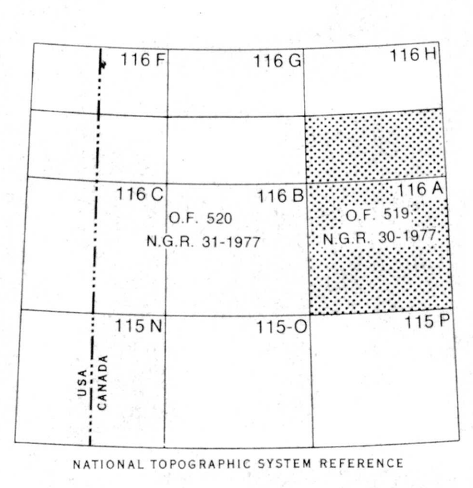
Scale 1:250,000

Kilometres 6 0 6 12 18 Kilometres

Miles 4 0 4 8 Miles

Universal Transverse Mercator Projection

Base-map assembled by the Geological Cartography Unit from maps published at the same scale by the Surveys and Mapping Branch in the Army Survey Establishment, R.C.E., Department of National Defence 1954, 1955



NATIONAL TOPOGRAPHIC SYSTEM REFERENCE

This map forms one of a series of 42 sheets released under the Geological Survey of Canada. Open Files 518, 519, 520. The Open Files consist of maps for 11 elements, each for stream sediments, 2 elements for stream waters and sample site locations.

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