LEGEND

Note: This legend is common to National Geochemical Reconnaissance Map 5-1976, Open File 413; Map 6-1976, Open File 414 and Map 13-1976, Open File 415

MESOZOIC

[illegible] Gabbro, meta-gabbro and diabase dykes [GDBR]

[illegible] Granite, quartz monzonite and granodiorite (Nueltin lake granite) [GRNT]

APHELOIN

[illegible] Granite, quartz monzonite and granodiorite [GRNT]

[illegible] Lifts proposable to subgroupwide [LPSU]

[illegible] Conglomerate [CGLM]

[illegible] Arkose to subgroupwide [ARKS]

[illegible] Lutite, quartz lutite,tuffite and tuff [SLTT]

[illegible] Paragenic, parasitic, salt-siliceous bands derived from SC [SMBS]

[illegible] Undivided FL,SC and CL [UMBS]

[illegible] Dolomite, limestone and minor argillite, phyllite [DMBS]

[illegible] Gabbro sills [GBSS]

[illegible] Argillite, phyllite, greywacke, some minor dolomite [AMBS]

[illegible] Quartzite, orthoquartzite [ORQZ]

[illegible] Proposable conglomerate, greywacke, proposquartzite [LCAS]

ARCHAEAN

[illegible] Meta-gabbro dykes [MGBS]

[illegible] Quartz monzonite, granodiorite and granite; massive to foliated [GIMS]

[illegible] Diorite and gabbro [DIOR]

[illegible] Grey biotite granodiorite gneiss [GGBG]

[illegible] Paragneiss, other parasitic [PMGS]

[illegible] Quartzofeldspathic gneiss [QMBS]

[illegible] Greywacke, greywacke-conglomerate, argillite, phyllite, minor tuff [GMCS]

[illegible] Meta-volcanic rocks [MVCC]

Drift covered area.....
Geological contact.....
Fault.....
Limit of geological mapping.....
Esker (direction of flow known).....
Mineral occurence.....

Legend modified and geology derived for the geochemical map by D.G. Garrett from maps 24-1970, 27-1972 and 4-1972 and G.S.C. Paper 74-56 Pt. 8 Scale 1:250,000

Geological cartography by the Geological Survey of Canada

Base-map at the same scale published by the Mapping and Charting Establishment, M.C.I., 1963

Mean magnetic declination 1977, 34°25.5'E decreasing 6.0' annually. Readings vary from 34°05.4' in the SE corner to 38°22.2' in the NW corner of the map area

Elevation in feet above mean sea-level

Geochemical Symbol and Data Presentation

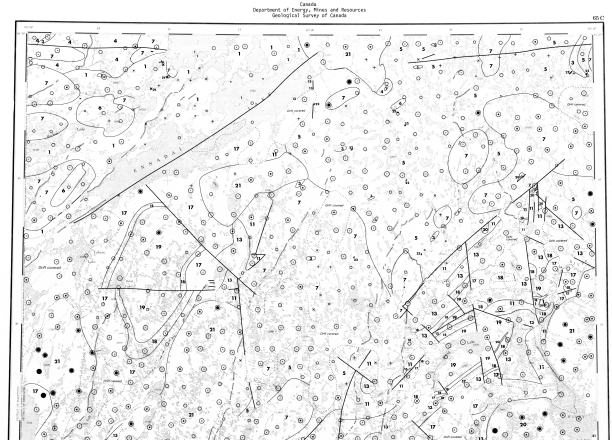
The concentration of an element at a sample site is graphically represented as one of 15 symbols. Up to 3 samples was collected but there no data available a decay glitch. The symbol for the highest concentration is the largest, with decrease in size to the eighth symbol and then increase in blackness to the fifteenth. The ten 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 centering the detection limit. The data are grouped on a semi-logarithmic scale. The ratio of the upper limit of any data group to the lower limit is 2.5. This division has been chosen for the continuing Canada wide series of maps contributing the National Geochemical Reconnaissance.

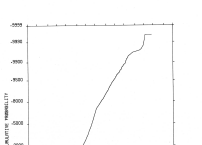
The number of symbols and the data groups they represent for any specific element is based on the histogram and cumulative frequency plot for the total survey data. Occasionally, however, some sub-populations show up on one field session. The eighth symbol is used for the modal group as defined by the histogram; this group usually includes the median of the data as defined by the G.S. (SOC) cumulative frequency histogram 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 the availability of ever increasing levels of knowledge in bedrock geology and mineral deposits. Interpretations of geochemical patterns on these 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 interpretative, the symbol maps should be modified using the field and analytical data provided in the data listings and any other knowledge available. To assist in the preparation of modified maps, the data listing includes the recommended threshold, a table of summary statistics and proposed threshold values for drainage samples dominantly derived from each mapped bedrock unit, or broad lithologic unit, again based on the total survey data. Its presented below the histogram. This table can be used along, or in conjunction, with the sample location map and data listings to prepare modified maps. Although the table can be used in many circumstances, the table will also illustrate, more clearly than the map, the dependence of mean geochemical levels on bedrock type. It may often be also observed that within the total data appears to approximate a log-normal distribution the data for individual map or lithologic units appears to approximate a normal distribution. Such observations are important when using the data for the interpreting the data for a mineral exploration viewpoint. Locations of samples with concentrations in excess of the threshold for the rock unit they appear to be in, for example, should be studied carefully. The above threshold concentrations can be due to a wide range of geological and environmental factors, but one of the factors is the mineral potential of the underlying rock unit, in the case of interest to the mineral exploratonist.

To comprehensively study an area, all available geological, environmental and geochemical data should be used. The above threshold concentrations 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.

The term reliability factor and value that appears below the table is an estimate of the reliability of the geochemical map. On the basis of duplicate samples, the G.S.C. has found that the data should be used with caution if any loss is recognized and identical methods of sample preparation and analysis are used the new value will lie between 1 = RF and 3 x RF where 3 is the original value obtained. This factor takes into account variability due to both heterogeneity of the centre-take bottom sediments and sample preparation and analytical change.





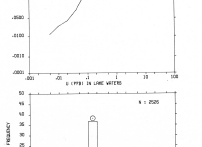


Table of Thresholds by Major Geological Units

Lithology	No. of Samples	Mean	S.D.	C.V.%	Threshold
GBBR	2	0.05	0.02	47	-
GBNT	336	0.20	0.37	193	1.5
GIMS	619	0.38	0.63	214	2.0
GGBG	14	0.38	0.26	69	1.0
QMBS	14	0.54	0.20	39	1.0
GMCS	70	0.17	0.26	154	1.0
CMBS	167	0.19	0.18	94	1.0
CGOZ	35	0.11	0.09	88	1.0
CGLM	2	0.05	0.00	0	-
SMBS	6	0.08	0.06	86	-
GDBS	422	0.28	0.67	330	1.0
PMBS	195	0.27	0.30	104	1.0
AMBS	33	0.15	0.13	86	1.0
DMBS	14	0.08	0.04	50	1.0
MVCC	34	0.08	0.06	70	1.0
Unknown	581	0.38	0.98	257	2.0

Data units are ppb Reliability factor = 3.20

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 11-1976
OPEN FILE 415

Resource Geophysics and Geochemistry Division

Geological Survey of Canada, Ottawa

Geochemistry by E.H.W. Hornbrook
Analytical chemistry by J.J. Lynch
Data monitoring by R.G. Garrett, K.G. Lund and D.J. Ellwood

Contractors

Sample collection by Trigg, Woollett & Associates Ltd.
Sample preparation by Golder Associates
Uranium in water by Fission track analysis, Dondar-Clegg and Co. Ltd.

This map forms one of a series of 46 sheets released under Geological Survey of Canada, Open Files 413, 414, 415. The Open Files consists of data for 11 elements each for lake sediments, percent loss on ignition, two elements for lake waters and sample site location

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

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

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 11-1976
OPEN FILE 415
SOUTHERN DISTRICT OF KEEWATIN N.W.T., 1976
URANIUM

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 11-1976

URANIUM IN LAKE WATERS

URANIUM RECONNAISSANCE PROGRAM

Scale 1:250,000

Kilometers 0 5 10 15 20 Kilometers

Miles 0 5 10 15 Miles

Universal Transverse Mercator Projection

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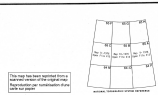
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