LEGEND

Note: This legend is common to National Geochemical Reconnaissance Map 12-1976, Open File 416/ Map 14-1976, Open File 417

HUDSONIAN (UPPER PROTEROZOIC)

- 22a — 22a, gabbro and diabasic gabbro dykes [GDBR]

HELIKIAN (MIDDLE PROTEROZOIC)

DUBAWNT GROUP (19-22)

- 21 — Conglomerate, pebble sandstone, some intercalated sandstone. In part, may be older than 20 or 19 [CGLM]
- 20 — Mainly porphyritic (quartz and/or feldspar, biotite and/or pyroxene) igneous rocks; probably mainly extrusive, but in part intrusive; some breccia, tuff, agglomerate; minor sub-porphyritic syenitic rocks [SDYP]
- 19 — Sandstone and pebbly sandstone, grit, arkose; siltstone and minor breccia, probably includes some redifferentiated conglomerate (18 and/or 21) [SNDS]
- 18 — Conglomerate; intercalated gritty sandstone [CGLM]

ARCHEAN (LOWER PROTEROZOIC)

- 13 — Granitic, granodioritic and allied rocks; in large part gneissic and impure, with many bands of partly assimilated schist, gneiss, amphibolites; stratiform granite-gneiss; epizonitic gneisses of granitic composition; some pyroxene granulite. In part probably older than 9 and, possibly, 7 [GRNT]
- 12 — Gneiss, schist, amphibolite, and granulite derived mainly from sedimentary and volcanic rocks of Archaean and/or Lower Proterozoic (Aphebian) age; impure quartzite and greywacke; commonly with some granitic material [GNIS]
- 3 — Intermediate to basic volcanic rocks (greenstones) and derived amphibole schist and gneiss; in part includes mach schistose greywacke (Tower Helton belt); some rhyolite, tuff, agglomerate; minor quartz-mica schist and magnetite iron-formation (Southern Keewatin); undifferentiated basic intrusions. May be younger in part [KWWTK] [TRCH]
- m — Diorite and gabbro in granitic and gneissic terranes [DORT]
- r — Basic syenites, diorites, gabbros [GDBR]

Geological contact
Fault
Mineral prospect

Geological cartography by the Geological Survey of Canada

Legend and geology for the geochemical map by R.E.G. Garrett, from map 1216A of G.S.C. Memoir 350 by G.M. Wright

Base-map at the same scale published by the Mapping and Charting Establishment, M.C.E., 1966

Mean magnetic declination 1972, 0°00' East increasing 0.3' annually. Readings vary from 0°34.3' to the SE corner to 1°00' 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 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, and then increase in the number of segments as the value increases. 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 of the data is consistent throughout 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. The eighth symbol is used for the mode (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. Groups 1 and 2 and 14 and 15 are rarely used, are chosen so as to achieve an appropriate graphical layout for maps at 1:1M

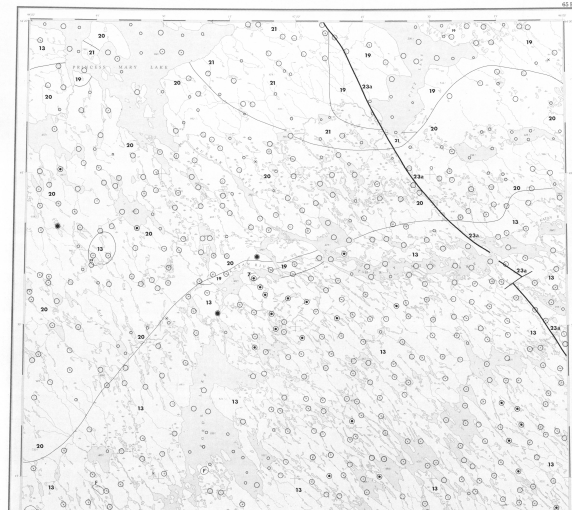
15 symbols is given below.

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, mineral occurrences, geochemistry, and geophysics. The regional 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. To assist in the modification and manipulation of the data in terms of the symbol map bedrock geology, a table of summary statistics and proposed threshold values for drainage samples from each bedrock unit is presented below the histogram. This table can be used, based on the total survey data, to presented below the histogram. This table can be used along, or in conjunction, with the sample location map and data listings to indicate above threshold samples where they occur on the map. In many instances, the table will also illustrate, more clearly than the map, the dependency of element concentrations on bedrock geology. The threshold values quoted that whilst the total data appears to approximate a log-normal distribution the data for individual map or lithologic units appears to approximate a normal distribution. The proposed thresholds presented are best used to be cautious in interpreting the data from a mineral exploration viewpoint. Locations of samples containing above threshold values, and clusters of such samples, are suggested to be derived from, should be studied carefully. The above threshold concentration can be due to a wide range of geological and environmental factors, but one of these could be the presence of abnormal concentrations of the element in a form of interest to the mineral explorationist!

Before any conclusions are drawn, all available geological, environmental and recorded data should be utilized. No data segregation by bedrock type can often be imposed 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 sampling 02 of all lakes sampled it can be stated that there is a 95% chance that the true value of a determination will be within a factor of 2 of the original value if are used the new value will lie between X ÷ R2 and X x R where X is the original value obtained. This factor takes into account variability due to both heterogeneity of the centre-lake bottom sediments and sample preparation and analytical causes.

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



NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 12-1976
COPPER IN LAKE SEDIMENTS
URANIUM RECONNAISSANCE PROGRAM

Scale 1:250,000

Kilometres 0 5 10 15 Kilometres
Miles 0 5 10 Miles

Universal Transverse Mercator Projection
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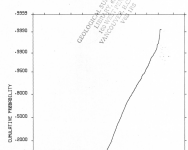

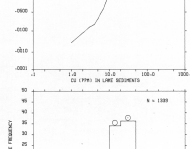

Table of Thresholds by Major Geological Units

Lithology	No. of Samples	Mean	S.D.	C.V.%	Threshold
CGLM	43	17	5	41	50
SDYP	240	12	15	125	60
SNDS	110	12	7	58	60
GRNT	844	35	31	90	140
GNIS	54	39	29	75	130
VRCK	44	47	48	101	200
DORT	4	14	11	79	50
GBBR	14	27	21	78	150

Data units are ppm — Reliability Factor =1.50

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 12-1976
OPEN FILE 416

Resource Geophysics and Geochemistry Division

Geological Survey of Canada, Ottawa

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

Contractors

Sample collection by Teiga, Woolfett & Associates Ltd.
Sample preparation by Bondar-Clegg
Chemical analyses by Chemex Labs Ltd.

This map forms one of a series of 28 sheets released under Geological Survey of Canada, Open Files 416-417. The Open Files consists of data for 51 elements each for lake sediments, percent loss on ignition, uranium in lake waters and sample site location

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

The Director
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Ottawa, Ontario K1A 0E9

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 12-1976
OPEN FILE 416
BAKER LAKE (part), 1976
COPPER