LEGEND

Note: This legend is common to National Geochemical Reconnaissance Map 12-1976, Open File 416 Map 13-1976, Open File 417

HADRYNIAN (UPPER PROTEROZOIC)

Shdy Shu, gabbro and diabasic gabbro dykes [GSNB]

HELIKIAN (MIDDLE PROTEROZOIC)

DUBAWNT GROUP (10-22)

21 Conglomerate, pebble sandstone, some intercalated sandstone. In part, may be older than 20 or 18 [GSLM]

20 Mainly porphyritic (quartz and/or feldspar, biotite and/or pyroxene) tyrogenic rocks; probably mainly extrusive, but in part intrusive; some breccia, tuff, agglomeratic; minor sub-porphyritic syenitic rocks [GSYP]

19 Sandstone and pebbly sandstone, grit, arkose; siltstone and minor breccia, probably includes some undifferentiated conglomerate (18 and/or 21) [GNSS]

18 Conglomerate; intercalated gritty sandstone [GSLM]

ARCHEAN (LOWER PROTEROZOIC)

13 Granite, granodiorite and allied rocks: in large part gneissic and impure, with many bands of partly assimilated schist, gneiss, amphibolite; stratiform granite-gneiss; mylonitic gneisses of granitic composition; some pyroxene granulite. In part probably older than 9 and, possibly, 7 [GGNT]

12 Gneiss, schist, amphibolite, and granulite derived mainly from sedimentary and volcanic rocks of Archaean and/or Lower Proterozoic (Aphebian) age; some impure quartzite and greywacke; commonly with some granitic material [GNSS]

3 Intermediate to basic volcanic rocks (greenstones) and derived amphibole schist and gneiss; in part includes muck schistose greywacke (lower Twelve Mile) sediments [GVSM]; in part probably younger than 4 and/or 5

2 Migmatite-gneiss-formation (Southern Baffinland); undifferentiated basic intrusions. May be younger in part (Nunvitz) [VVSK]

B Diorite and gabbro in granitic and gneissic terranes [BGNT]

P Basic syenites, diorites, gabbros [GBNN]

Geological contact.....

Faults.....

Mineral prospect.....

Geological cartography by the Geological Survey of Canada

Legend and geology for the geochemical map by R.G. Garrett, from map 1216A of G.S.C. Memo'r 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 1977, 0°03' East increasing 0.3' annually. Readings vary from 0°34.3' in the SE corner to 1°06' in the NW corner of the map area

Elevations in feet above mean sea-level

Geochemical Symbol and Data Presentation

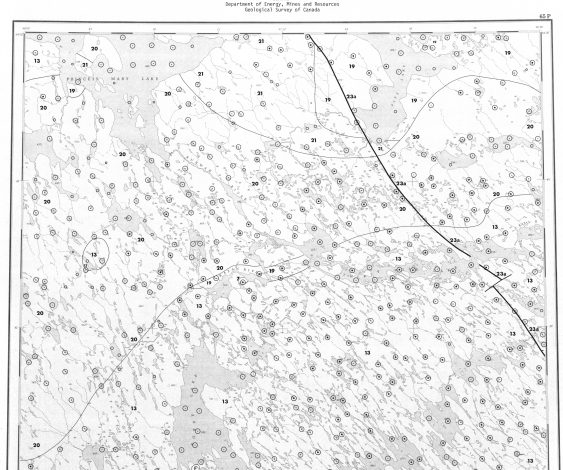
The concentration of an element at a sample site is graphically represented as one of 15 symbols, if a sample was collected but there is no data available a dot is plotted. The symbols are symmetrically arranged so that they first increase in size to the eighth symbol and then increase in blackness to the fifteenth. The first symbol represents the lowest 10 percent of the data and usually contains 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 covered 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. The eighth symbol is used for the model group as defined by the histogram and cumulative frequency plot. Some, or all, of the remaining 14 symbols 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 the choice of field sample media, analytical method, size fraction, and superficial geology, and other environmental factors. Therefore, the data base symbol maps are only intended to assist the rapid inspection of the data for gross regional features. To fulfil the needs of a more specific and thematic interpretation, the raw symbol maps should be modified using the field and analytical data available. This is a task for the user and requires knowledge of the region and the appraisal and modification of the data in terms of the symbol map bedrock geology, a table of summary statistics and proposed threshold values for drainage samples dominantly derived from each mapped bedrock unit, or lithologic unit, again based on the total survey data, is presented below the histogram. This table can be modified by the user, according to his knowledge of the region, in order 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 dependence of mean geochemical levels on bedrock types. It may also be observed that whilst the total data appears to approximate a log-normal distribution the data from individual rock units frequently departs from a log-normal distribution. The proposed thresholds presented are believed to be useful in interpreting the data from a mineral exploration viewpoint. Locations of samples with concentrations in excess of the threshold for the rock unit they appear to be derived from, should be studied carefully. The above threshold concentration may be due to a variety of causes, including mineralization. Evidence for these could be the presence of abnormal concentrations of the element in a form of interest to the mineral exploration1ist.

To comprehensively study an area, all available geological, environmental and recorded data should be utilized. The data separation by bedrock type can be further refined by computer techniques to produce more local thresholds 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 95 of all lakes sampled it can be stated that there is a 95% chance that the true value of the element concentration at the sample site will be within what are used the raw value will lie between X ÷ RF and X x RF 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.



NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 12-1976

NICKEL IN LAKE SEDIMENTS

URANIUM RECONNAISSANCE PROGRAM

Scale 1:250,000

Kilometers 0 5 10 15 Kilometers

Miles 4 0 4 8 Miles

Universal Transverse Mercator Projection

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This map has been reproduced from a scanned version of the original map. Some cartographic and typographical errors (white text blocks) may be present.

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 12-1976
OPEN FILE 416
BAKER LAKE N.W.T., 1976
NICKEL

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100 WEST PENDER ST.
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V6B 1R8

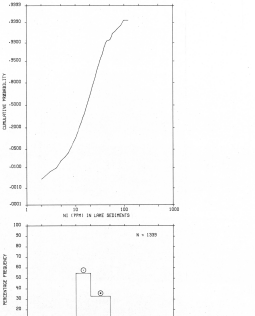

Table of Thresholds by Major Geological Units

Lithology	No. of Samples	Mean	S.D.	C.V.%	Threshold
GSLM	43	14	5.6	39	50
GSYP	226	14	6.0	37	50
GNSS	110	13	5.3	40	40
GGNT	664	10	8.7	43	60
GNSS	54	20	9.0	46	60
GVSM	57	19	14.2	76	90
BGNT	14	7	3.1	43	30
GBNN	14	25	8.4	33	70

Data units are ppm Reliability Factor = 1.24

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 12-1976
OPEN FILE 416

Resource Geophysics and Geochemistry Division

Geological Survey of Canada, Ottawa

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Analytical Chemistry by J.C. Lynch
Data monitoring by R.G. Garrett, N.G. Lund and D.J. Chi'wood

Contractors

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

This map forms one of a series of 20 sheets released under Geological Survey Open File numbers 416 and 417. The Open Files consists of data for 11 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:

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