LEGEND

Note: This legend is common to National Geochemical Reconnaissance Map 6-1976, Open File 411, Map13-1976, Open File 414 and Map15-1976, Open File 416

PRECAMBRIAN

- 42 Gabbro, meta-gabbro and diabase dykes [GABDR]
- 39 Granite, quartz monzonite and granodiorite [Seattle lake granite] [GRNT] MYSTERIOUS
- 39 Granite, quartz monzonite and granodiorite [GRNT]
- 38 Tillite; greywacke to subgreywacke [GRAU]
- 46 Conglomerate [CONG]
- 37 Arkose to subgreywacke [ARKO]
- 36 Lavites, quartz latite, dacite and tuff [DCIT]
- 35 Pyroxenitic, peridotitic, calc-silicate bands derived from 34 [ORBA]
- 34 Interlaid 33, 32 and 31 [ORBA]
- 33 Dolomite, limestone and other argillite, phyllite [ORBA]
- 44 Gabbro sills [GABDR]
- 32 Argillite, phyllite, greywacke, some minor dolomite [ORBA]
- 30 Quartzite, orthoquartzite [QRQZ]
- 31 Greywacke-conglomerate, greywacke, pyroxenquartzite [LCAR]

ARCHEAN

- 45 Meta-gabbro-dykes [MGBD]
- 7 Quartz monzonite, granodiorite and granitic massive to foliated [GLMG]
- 6 Diorite and gabbro [DIOR]
- 5 Grey biotite-granodiorite gneiss [GBNG]
- 4 Hornpegmatic, minor paraschist [PMSG]
- 3 Amphibolite, amphibolite gneiss [AMPH]
- 2 Greywacke, greywacke-conglomerate, argillite, phyllite, minor tuff [GRCX]
- 1 Meta-volcanic rocks [MGCX]

Drift covered areas.....
Geological contacts.....
Faults.....
Limit of geological mapping.....
Lakers (direction of flow known).....
Mineral occurrence.....

Legend modified and geology derived for the geochemical map by R.G. Garrett from maps 24-1970, 1-1972 and 4-1972 and G.S.C. Paper 74-58 Pt. 4:4, Cole

Geological cartography by the Geological Survey of Canada

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

Mean magnetic declination 1977, 19°06.9'E decreasing 3.6' annually. Readings vary from 19°10.2' in the SE corner to 19°06.6' in the NW corner of the map area

Elevation in feet above mean sea-level

Geochemical Symbol and Data Presentation

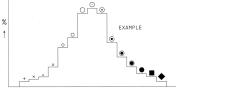
The concentration of an element at a sample site is graphically represented as one of 15 symbols, if a sample was collected but there is no data available a dot is plotted. The symbols are symmetrically arranged so that they first increase in size to the eighth symbol and then increase in blackness to the fifteenth. The first symbol is used for the lowest 10 percent of the values, usually those 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 to cover the continuing Canada wide series of maps constituting the National Geochemical Reconnaissance Programme.

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 modal group as defined by the histogram. The boundaries between symbols 7 and 8, 9 and 10, and 14 and 15 (50%) point on the cumulative frequency plot. Some, or all of the remaining 14 symbols are chosen so as to achieve as appropriate graphical impact. An example of all 15 symbols is given below.

The choice of symbols based on the total survey data distributions, is unaffected by the availability of ever increasing levels of knowledge of 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 fully exploit the data a detailed and thorough interpretation, the raw symbol maps should be modified using the Fletcher overlays provided in the data listings and any other knowledge available. The assistance in 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 collected from within each mapped bedrock unit, or broad lithologic unit, again based on the total survey data, are presented on the following page. The table can be used along, or in conjunction with the symbol maps 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 dependence of background levels on bedrock geology. It may often be also observed that within the total survey boundaries the approximate 2 standard deviation data for individual map or lithologic units appears to approximate a normal distribution. The proposed thresholds presented are believed to be useful in interpreting the data from a mineral exploration viewpoint. Locations of samples containing values above the proposed thresholds, or the 95 percentile, are suggested to be derived that should be studied carefully. The above threshold recognition can be due to a wide range of geological and environmental factors, but one of these could be the occurence of abnormal concentrations of the element in a form of interest to the mineral exploration.

The proposed thresholds are based on all available geological, environmental and recorded data should be utilized. The data separation 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 accuracy of the proposed thresholds. For a factor of 1.32 and sampling 57 of all lakes sampled it can be stated that there is a 95% chance that if any lake is resampled and identical methods of sample preparation and analysis are used the new value will lie between 1 ÷ 8F and 1 x 8 F where F 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.



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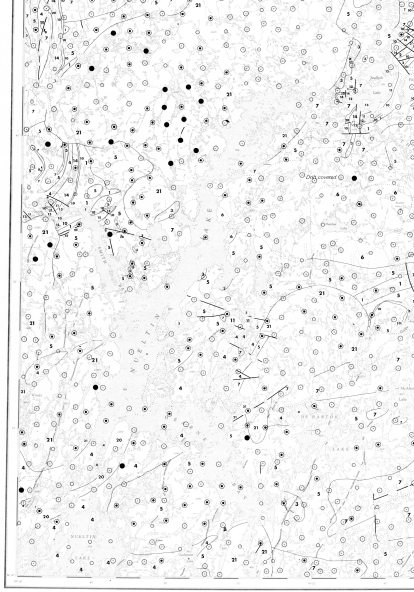
Drift covered
Drift covered
Drift covered