

NOTE: This legend is common to Open File 405, 406

MIDDLE ORDOVICIAN		ARCHAIC OR PROTODIABOLIC	
35	TRENON GROUP: limestone	10	16a Granodiorite
34	BLACK RIVER GROUP: limestone	15	15a Migmatite
33	ROCKLIFFE: sandstone, shale, limestone	15b	Biotitic migmatite
LOWER ORDOVICIAN		15c	Biotitic quartzofeldspathic gneiss
32	OXFORD: dolomite	14	Quartzofeldspathic gneiss, leucogranulite
31	MARCH: sandstone, dolomite	ARCHAIC	
30	NEPEAN: sandstone	13	13a Biotite gneiss
CAMBRIAN		12	12b Hornblende-biotite gneiss
UPPER CAMBRIAN		11	11a Sillimanite-garnet-biotite gneiss
29	TERESA: sandstone, dolomite	10	10b Hornblende gneiss
HELIKIAN		9	9a Biotitic quartzofeldspathic gneiss
28	28a Syenite	8	8a Biotitic migmatite
27	27a Granite	7	7a Amphibole-hypersthene gneiss
26	26a Gabbro	6	6a Potassic granite
25	25a Amphibolite	5	5a Gabbro
24	24a Marble	4	4a Paragneiss
23	23a Conglomerate	3	3a Hornblende gneiss
22	22a Andesite	2	2a Migmatite, granitic gneiss
21	21a Rhyolite	1	1a Amphibole-hypersthene gneiss
20	20a Amphibolite		
19	19a Paragneiss		
18	18a Migmatite, granitic gneiss		
17	17a Amphibole-pyroxene gneiss		

Geological contact.....  
 Fault.....  
 Dyke.....

Geology derived from the map 1334-A, Rivière Gatineau at the scale of 1:1,000,000. Compiled by A.J. Bear, W.H. Poole and B.V. Sandford, 1971

Geological cartography by the Geological Survey of Canada

Base-map at the same scale published by the Mapping and Charting Establishment, M.C.E. 1958-61

Mean magnetic declination 1977, 11043.8' West decreasing 0.1' annually. Readings vary from 12033' in the S.E. corner to 10058.8' in the NW corner of the map area

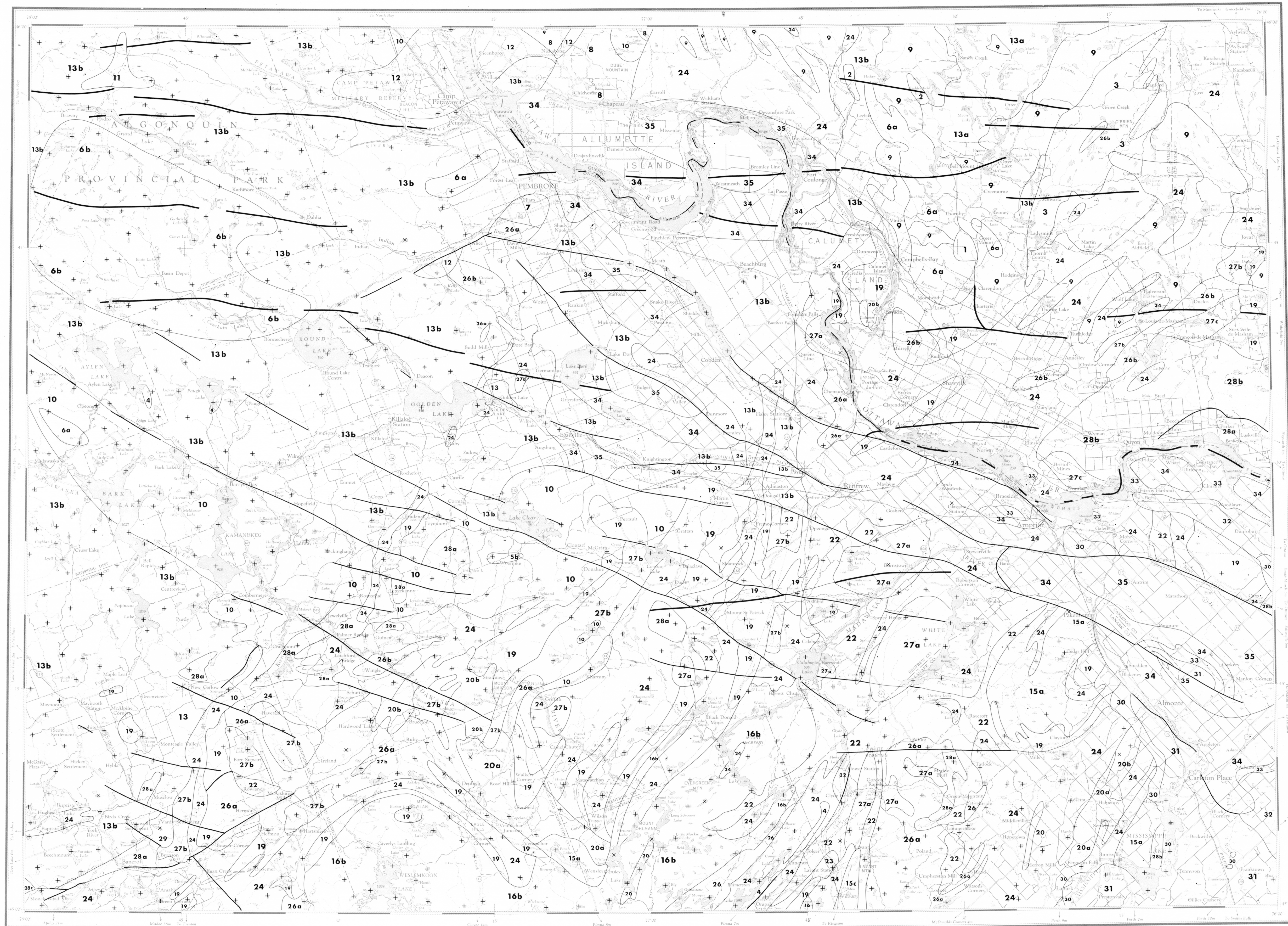
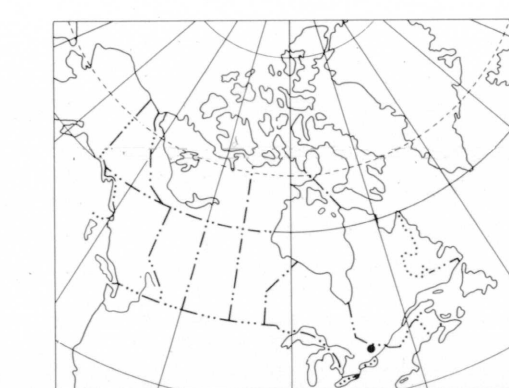
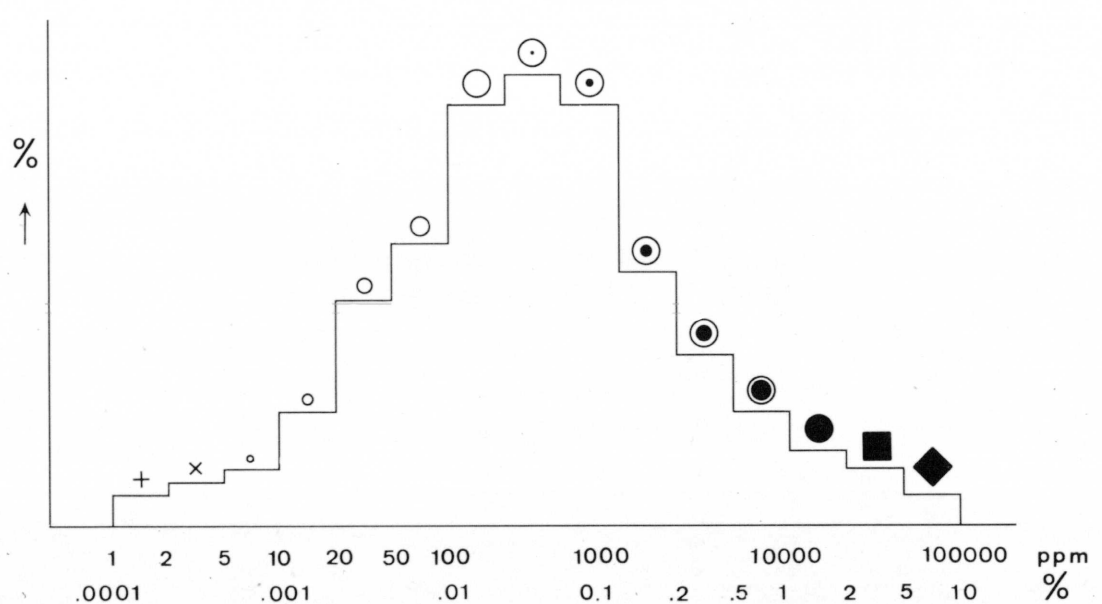
Elevation in feet above mean sea-level

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 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. 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 the 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 fulfil 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 appraisal and modification of the data in terms of the symbol map bedrock geology, a table of summary statistics and proposed threshold values for each mapped bedrock unit, or broad lithologic unit, again based on the total survey data, is presented below the histogram. This table can be used along with the symbol 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 dependence of mean geochemical levels on bedrock type. It may often be also observed 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 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 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.

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. 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 5% 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 X + RF and 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 2-1976  
 SILVER IN LAKE SEDIMENTS  
 CANADA-ONTARIO SUBSIDIARY AGREEMENT ON MINERAL EXPLORATION AND DEVELOPMENT  
 Scale 1:250,000  
 Kilometres 0 6 12 18 Kilometres  
 Miles 0 4 8 Miles  
 Universal Transverse Mercator Projection  
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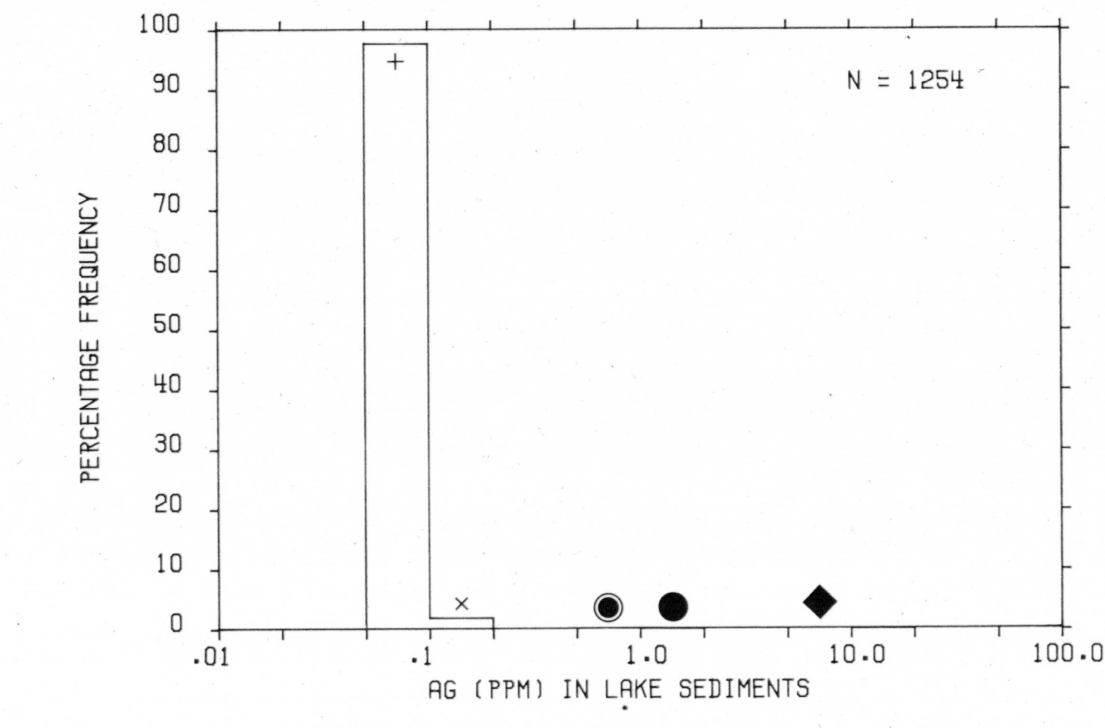
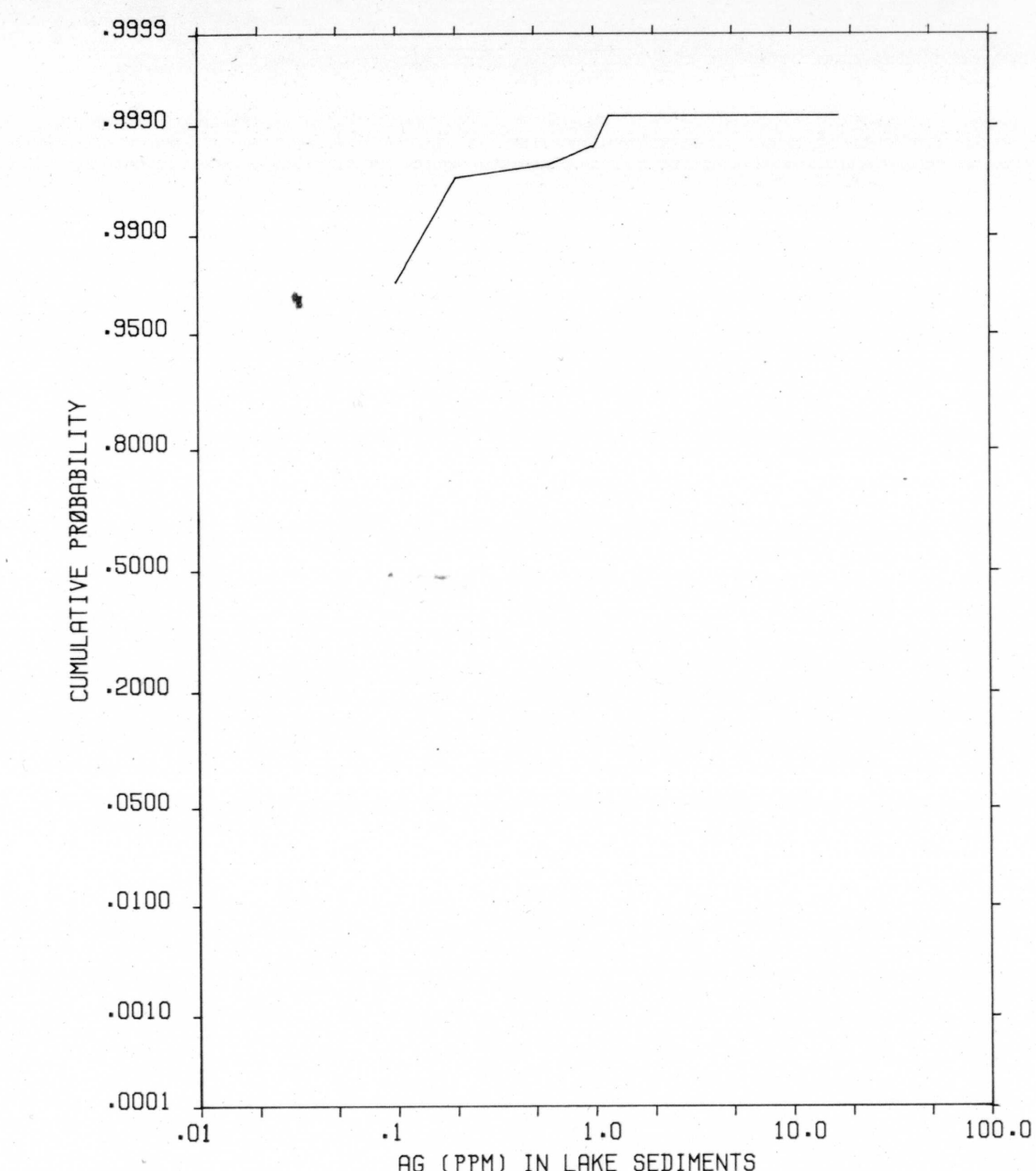
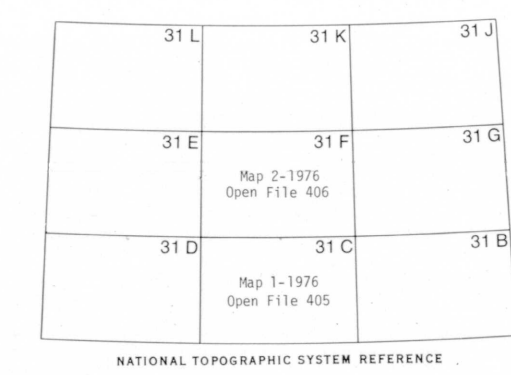


Table of Thresholds for Major Geological Units

Lithology	No. of Samples	Mean	S.D.	C.V.%	Threshold
Limestone	13	0.11	0.03	26	0.5
Sandstone	27	0.10	0.00	0	0.5
Dolomite	2	0.10	0.00	0	0.5
Slate	21	0.10	0.00	0	0.5
Marble	263	0.10	0.06	54	0.5
Conglomerate	3	0.10	0.00	0	0.5
Andesite	79	0.10	0.02	15	0.5
Rhyolite	2	0.10	0.00	0	0.5
Syenite	29	0.70	3.23	459	0.5
Granite	187	0.10	0.00	0	0.5
Granodiorite	47	0.10	0.00	0	0.5
Gabbro	51	0.11	0.02	22	0.5
Diorite	5	0.10	0.00	0	0.5
Amphibolite	43	0.10	0.02	20	0.5
Gneiss	307	0.10	0.01	12	0.5
Paragneiss	71	0.10	0.02	19	0.5
Migmatite	93	0.11	0.11	101	0.5
Unknown	8	0.10	0.00	0	0.5

Data units are ppm Reliability Factor = 1.18

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 2-1976  
 OPEN FILE 406  
 Resource Geophysics and Geochemistry Division  
 Geological Survey of Canada, Ottawa  
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 Field operation supervised by C.C. Durham  
 Analytical chemistry by J.J. Lynch  
 Data monitoring by R.G. Garrett, N.G. Lund and D. Ellwood  
 Ontario Geological Branch  
 Federal-Provincial coordination by K.D. Card  
 Contractors  
 Sample preparation by Golder Associates  
 Chemical analyses by Chemex Labs Ltd.

This map forms one of a series of 28 sheets released under Geological Survey of Canada, Open Files 405-406. The open files consist of data for 12 elements each, per cent loss on ignition and sample site location.

The data are also available in digital form. For further information please contact:  
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 Department of Energy, Mines and Resources,  
 Ottawa, Ontario K1A 0E8

NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 2-1976  
 OPEN FILE 406  
 SOUTHEASTERN ONTARIO, 1976  
 SILVER