## Geochemical Symbol and Data Presentation

The concentration of each element is represented by the actual value plotted adjacent to the sample site represented by a "+" symbol. In addition to enhance visual impact, values over the 75th percentile are designated by grey solid squares which are symmetrically arranged so that they increase in size from the 75th to the 99th percentile. The actual concentration range represented by each symbol is illustrated below with a histogram.

In addition to 25 geochemical maps, each Open File contains an appendix consisting of a short discussion of the geochemistry, survey and analytical methodologies, listing of field and analytical data, and statistical data. The statistical data is provided for the total data set as well as for data subsets grouped on the basis of major stratigraphic units.

> CONCENTRATION PERCENTILES 251. TO 470. SATH TO MAX. 98TH TO 99TH 201. TO 250. 132. TO 200. 95TH TO 98TH 103. TO 131. 67. TO 102. 🔳 75TH TO 90TH

## SELECTED MINERAL DEPOSITS AND OCCURRENCES

- Stratabound Zn-Pb (Lower Silurian Age)
- ▲ Stratabound Zn-Pb-Ba (Devonian Age)
- Stratabound Barite (Devonian Age)
- ◆ Replacement Zn, Pb (age unknown)
- Vein Zn, Pb, Ag, Au, Sb (age unknown)
- ▼ Skarn W, Zn (Cretaceous)

Note: Further information on each occurrence or deposit is given in the Appendix which accompanies this open

> Geochemistry by W.D. Goodfellow Geological Survey of Canada Resource Geophysics and Geochemistry Division

## CONTRACTORS

Sample collection by Marshall Macklin Monaghan Ltd., Toronto. Uranium in sediment chemical analysis by Nova Track Ltd., Vancouver. Other sediment chemical analysis by Bondar-Clegg and Company, Ottawa

This map forms one of wa series of 26 maps released by the Geological Survey of Canada on Open File 868. Each Open File consists of maps for 19 elements for stream sediments, 5 elements for stream waters, and 1 each for water pH and sample site location.

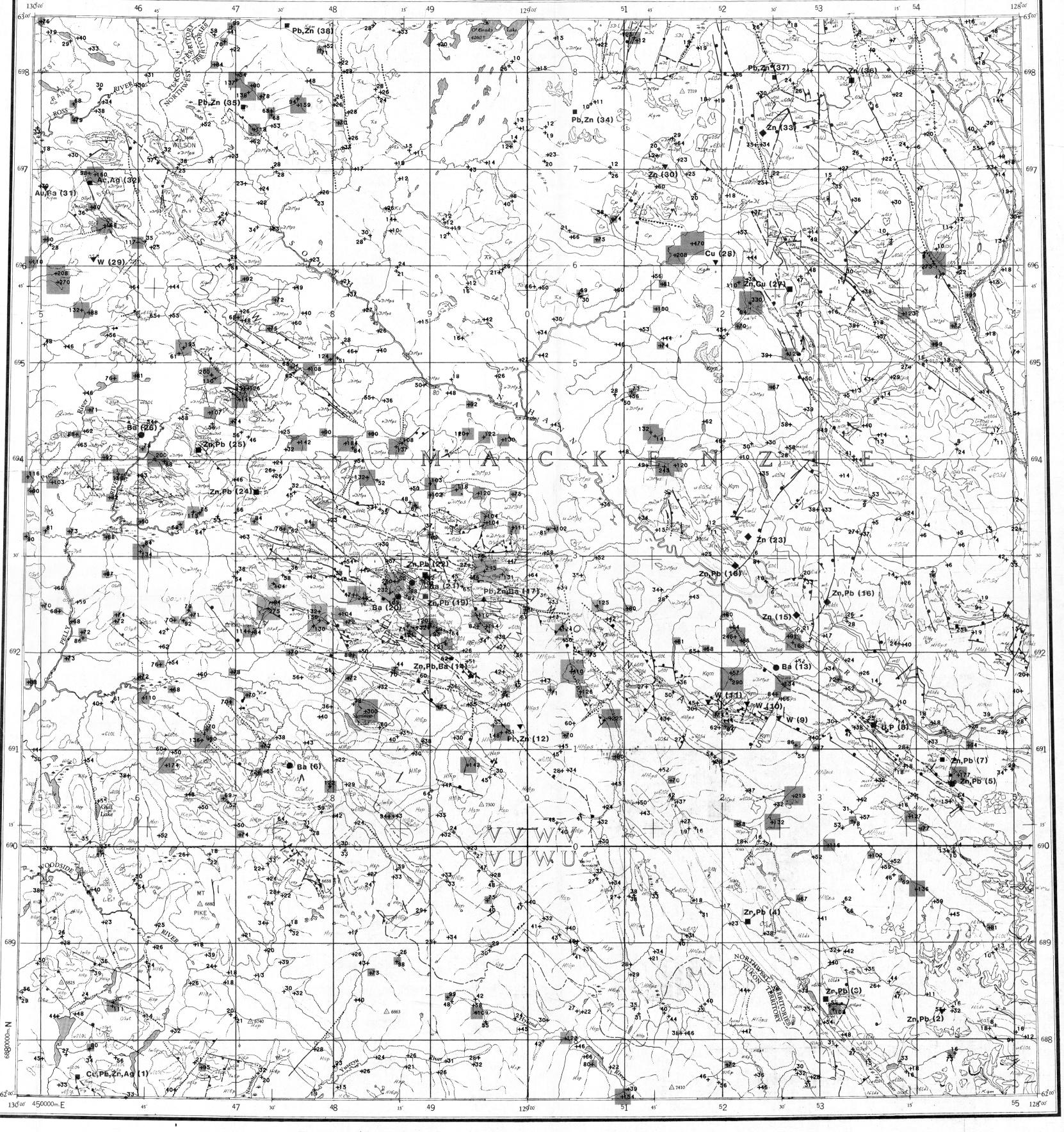
> The Director Geological Survey of Canada 601 Booth Street Ottawa, Ontario K1A 0E8

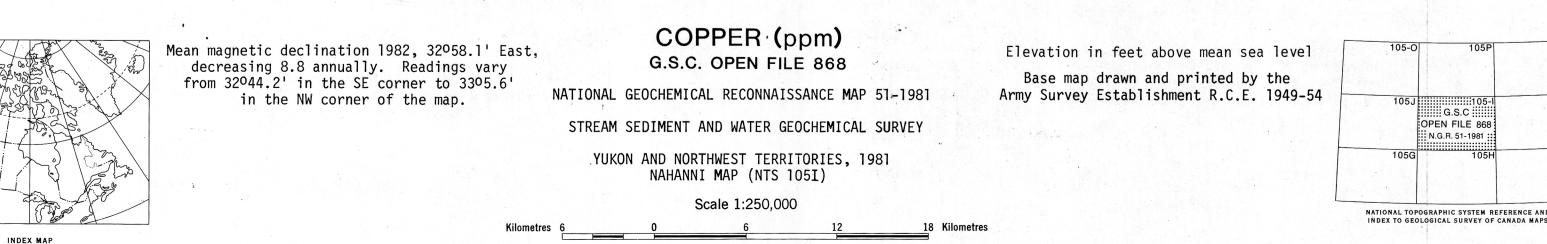
The data are also available in digital form. For further information please contact:

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



MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES





Universal Transverse Mercator Projection © Crown Copyrights reserved

Geology by S.P. GORDEY (1981), Geological Survey of Canada, Open File 780 COPPER (ppm) G.S.C. OPEN FILE 868 YUKON AND NORTHWEST TERRITORIES, 1981 NAHANNI MAP (NTS 1051)

LEGEND

Pelitic hornfels: red-rust to brown weathering, extremely well indurated, massive, fine grained

Tan weathering, thin bedded, ripple cross-laminated siltstone, fine grained sandstone, and shale

Grey weathering resistant, massive, fine-to medium-grained quartz arenite

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G.S.C ..... OPEN FILE 868

N.G.R. 51-1981

Grey weathering, resistant, medium-to coarse-grained, megacrystic (K-feldspar), biotite quartz monzonite

Carbonate hornfels: white to grey weathering, extremely well indurated, fine-to coarse crystalline; large tremolite porphyroblasts abundant in hornfelsed u60L

Orange to grey weathering, thin bedded, locally lenticular, pale green to blue-grey chert; minor dark dreen

Brown weathering, recessive, thin bedded, blue-grey shale, black laminated quartz siltstone, and pale green shale; minor fine- to medium-grained quartz arenite

Grey weathering, resistant, thin- to very thick-bedded, massive, chert pebble conglomerate, and medium- to coarse-grained, light- to dark-grey, chert-quartz arenate and wacke; minor brown weathering, blue-grey to

Brown weathering, recessive, thin bedded, laminated, blue-grey to black shale, siltstone, and slate; minor grey brown weathering, thin- to medium-bedded, fine- to medium-grained, chert-quartz arenite and wacke

Black to gun-blue weathering, massive, chert and shale clast granule to pebble conglomerate with mud matrix; contains minor quartz sand; clasts commonly matrix supported

Black, gun-blue or silvery white weathering, thin bedded, siliceous, black shale, chert, and slate; merges

Light grey weathering, resistant, thin- to thick-bedded, fine- to medium crystalline, dark grey limestone

Light grey weathering, resistant, thin- to thick-bedded, fine- to medium crystalline, dark grey limestone,

Orange-brown weathering, thin- to medium-bedded, finely crystalline, light- to dark-grey limestone

Dark grey weathering, recessive, thin bedded, platy, finely crystalline, black limestone; minor grey

Dark grey weathering, thick bedded, finely crystalline black dolomite; white dolomite filling veins and

Light grey weathering, medium bedded, fine- to medium crystalline light- to dark-grey dolomite; member in middle part of unit of dark grey weathering, medium-to thick-bedded, fine- to medium crystalline, in part crinoidal, dark grey dolomite; top of unit marked by alternating light and dark grey dolomite;

Blue-grey weathering, resistant. thin- to very thick-bedded, grey crinoidal limestone characterized by abundant crinoid stem fragments with twin axial canals; massive fine- to medium crystalline, grey

Tan, buff or dark grey weathering, recessive, thin bedded, laminated, argillaceous, finely crystalline, black limestone; in the northeast, black weathering, finely crystalline, black, crinoidal limestone with crinoid stem fragments having twin axial canals occurs near top of unit

Blue-grey weathering, thin bedded, finely crystalline, porcellaneous, black or dark blue-grey limestone

Black, gun-blue or silvery white weathering, recessive, black slate; minor thin interbeds of finely crystalline, black limestone and black chert; merges with OSt to southwest by increase in proportion

Black weathering, thin- to medium-bedded, dark grey to black chert; rare black siliceous shale; minor tan to brown weathering, recessive dark grey shale at base

White to grey weathering, thick- to very thick-bedded, massive, medium crystalline, grey dolomite, locally containing abundant nodules of black or grey chert

Grey to white weathering, medium- to thick-bedded, massive, fine- to medium crystalline, grey dolomite; in

Brick red weathering, thin- to thick-bedded, maroon mudstone; orange to grey weathering, thick bedded, fineto medium crystalline, light coloured dolomite; medium bedded, medium- to coarse-grained, dolomitic, grey quar

Rust-brown weathering, resistant, pyritic, amydgaloidal basalt; grey and rust-grey weathering, fissile,

Blue-grey weathering, thin bedded, finely crystalline, porcellaneous, black limestone, minor grey weathering,

Grey to white weathering, thick bedded, massive, fine- to medium crystalline, grey to black dolomite; local dolomite breccia with large blocks of finely crystalline, grey dolomite in matrix of coarsely crystalline,

White to buff weathering, laminated or thin bedded, finely crystalline, blue-grey limestone; includes in upper part northeast of Howard's Pass, thin bedded, finely crystalline, nodular, silty limestone; local thin bedded to massive, pale green, lapilli tuff

Tan to orange brown weathering, thin bedded, finely crystalline, blue-grey limestone, locally nodular; at base is minor thin bedded, fine grained, grey quartz arenite

Light grey weathering, resistant, thick bedded, massive, fine- to medium crystalline, grey dolomite

Orange weathering, thin- to thick-bedded, finely crystalline, locally sandy, cream, orange, or grey dolomite; minor medium- to thick-bedded, medium grained, white quartz arenite; minor purple weathering, thin bedded, purple siltstone

upper - bright orange weathering, thin- to thick-bedded, finely crystalline light coloured dolomite middle - purple weathering, recessive, thin- to thick-bedded, brown to purple siltstone and dolomitic

siltstone, minor thin bedded, orange weathering dolomite
lower - light orange to brown weathering, resistant, medium to thick-bedded, medium grained, grey quartz
arenite and interbedded brown siltstone; thin to thick interbeds of orange weathering dolomite towards top

Grey to buff weathering, thin bedded, locally wavy bedded and nodular, finely crystalline blue-grey to black limestone; minor limestone conglomerate with rounded to subangular clasts of blue-grey weathering grey limestone and oolitic limestone in orange weathering, locally sandy, limestone matrix; upper 1/3 of IGId is white weathering, massive, finely crystalline, grey dolomite

Tan weathering, resistant, medium bedded, variably calcareous and dolomitic, blue-grey siltstone and mudstone;

Brown to orange brown weathering, recessive, thin bedded, blue-grey slate and siltstone; minor fine grained

Lenticular bodies of white weathering limestone conglomerate and minor blue-grey finely crystalline limestone;

Dark brown to rust weathering, thin- to thick-bedded, greenish grey siltstone; very fine grained quartz arenite and/or subarkose; slate; southwest of South Nahanni River - dark brown weathering, pale green to blue-grey slate and siltstone, and minor greenish grey, very fine grained, quartz sandstone

Maroon, purple or green weathering, recessive slate, thin bedded or laminated in like colours; minor thin intervals of thin- to medium-bedded, fine grained, pale green, quartz arenite to subarkose and interbedded

Orange, grey or tan weathering, thin- to medium-bedded, fine grained, pale green, quartz arenite to subarkose and interbedded pale green to tan slate

Grey to brown weathering, thin- to thick-bedded, coarse grained, caicareous, grey quartz arenite and subarkose;

quartz pebble conglomerate; brown to pale green slate; minor thin bedded grey or white finely crystalline

limestone; sandstone contains conspicuous blue quartz, minor plagioclase and orthoclase

conglomerate clasts include fine grained blue-grey limestone, oolitic limestone, and archeocyatha; matrix is

Tan to brown weathering, recessive, thin bedded, finely crystalline, grey limestone

parallel lamination in grey to black disrupted to discontinuous wispy lamination :

orange to grey weathering, fine grained, locally sandy limestone

Geology by S.P. Gordey 1977, 1978, 1979, 1980 (with contributions from previous work by S.L. Blusson, J.A. Roddick, and L.H. Green (1967))

Geological boundary (defined, approximate, assumed or extrapolated

Fault, steeply dipping (defined, approximate, assumed or extrapolated beneath overburden; barb on downthrown side

Buff weathering massive dolomite

Buff to grey weathering, recessive, thin bedded, finely crystalline, dark grey to black limestone

of chert, and with upper part of ueOI to east by increase in proportion of limestone

Orange weathering, resistant, thick bedded, dolomitic, silty, grey mudstone characterized by discontinuous

Dark grey veathering, thin- to medium-bedded, finely crystalline, black limestone

Orange weathering, recessive, thin bedded, finely crystalline, dark blue-grey limestone

reathering, medium bedded, finely crystalline, grey limestone

wispy black lamination and locally by abundant small pyrite cube

upper part minor thick beds of medium crystalline. black dolomite

White to orange weathering, massive, fine- to medium crystalline, grey dolomite

arenite; thick bedded, finely crystalline, blue-grey limestone

thin bedded, finely crystalline, grey dolomite

imestone: minor limestone breccia

Black weathering, thin- to medium-bedded, black chert; minor black weathering, black, siliceous shale

No analytical result .....