## pH in water

G.S.C. OPEN FILE 868 YUKON AND NORTHWEST TERRITORIES, 1981 NAHANNI MAP (NTS 1051)

## 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.

CONCE	PERCENTILES				
7.61	TO	800	3371	TO	SITH
7.21	TO	7.60	21TH	TO	
6.81	TO	7.20	15TH	TO	21TH
6.41	TO	6.80	STH	TO	1571
6:01	TO	5.40	ВТН	TO	STH
5.51	TC	6.00	714	TO	8TH
3 41		5.60	MIN.	TQ	7 T H

## 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 file.

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 a 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.

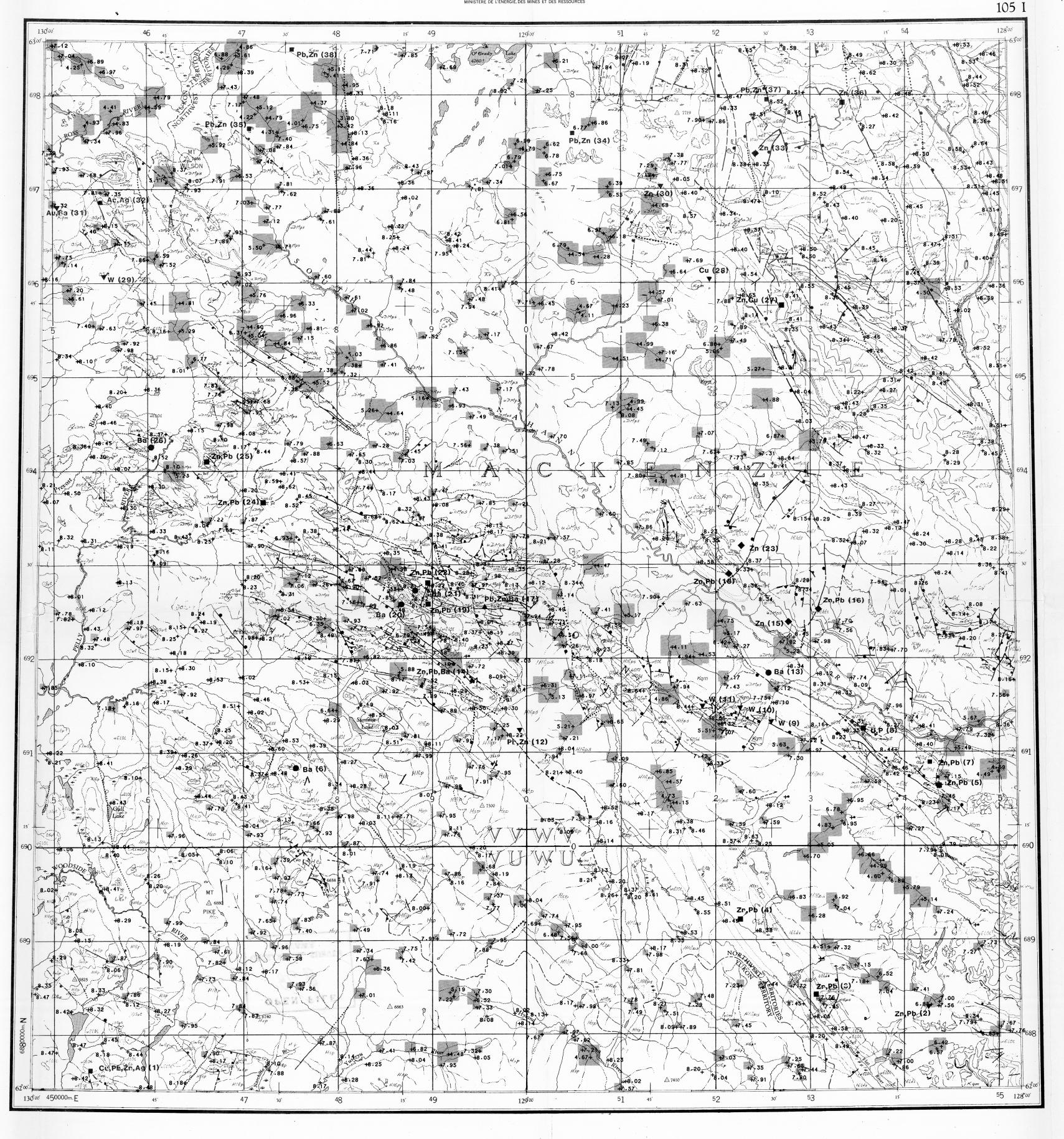
> The Director Geological Survey of Canada 601 Booth Street Ottawa, Ontario K1A OE8

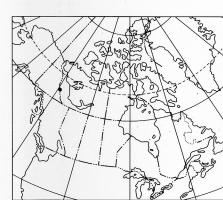
The data are also available in digital form. For further information please contact:

The Director Computer Science Centre
Department of Energy, Mines and Resources
Ottawa, Ontario
KIA OE4



MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES

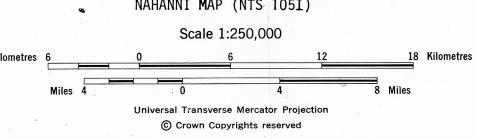




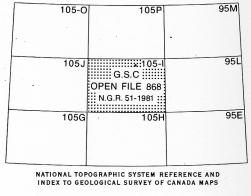
INDEX MAP -

Mean magnetic declination 1982, 32°58.1' East, decreasing 8.8 annually. Readings vary from 32°44.2' in the SE corner to 33°5.6' in the NW corner of the map.

pH in water G.S.C. OPEN FILE 868 NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 51-1981 STREAM SEDIMENT AND WATER GEOCHEMICAL SURVEY YUKON AND NORTHWEST TERRITORIES, 1981 NAHANNI MAP (NTS-105I)



Elevation in feet above mean sea level Base map drawn and printed by the Army Survey Establishment R.C.E. 1949-54



CRETACEOUS	_Kqm	Grey weathering, resistant, medium-to coarse-grained, megacrystic (K-feldspar), biotite quartz monzonite  Pelitic hornfels: red-rust to brown weathering, extremely well indurated, massive, fine grained
CRE		Carbonate hornfels: white to grey weathering, extremely well indurated, fine-to coarse crystalline; large tremolite porphyroblasts abundant in hornfelsed u6OL
SSIC <	Ts .	Tan weathering, thin bedded, ripple cross-laminated siltstone, fine grained sandstone, and shale  Orange to grey weathering, thin bedded, locally lenticular, pale green to blue-grey chert; minor dark dreen
CARBONIFEROUS Z	( Pt	to brown weathering, pale green, splintery shale  Brown weathering, recessive, thin bedded, blue-grey shale, black laminated quartz siltstone, and pale green
	Cp	shale; minor fine- to medium-grained quartz arenite  Grey weathering resistant, massive, fine-to medium-grained quartz arenite
	UDMps uDMps	Grey weathering, resistant, thin- to very thick-bedded, massive, chert pebble conglomerate, and medium- to coarse-grained, light- to dark-grey, chert-quartz arenite and wacke; minor brown weathering, blue-grey to black shale, siltstone, and slate
DEVONIAN, SILURIAN AND ORDOVICIAN		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
	muDpt	Black weathering, thin- to medium-bedded, black chert; minor black weathering, black, siliceous shale  Black, gun-blue or silvery white weathering, thin bedded, siliceous, black shale, chert, and slate; merges with muDt to southwest by increase in proportion of chert
	mmDI2	Light grey weathering, resistant, thin- to thick-bedded, fine- to medium crystalline, dark grey limestone
	mDI	Orange weathering, recessive, thin bedded, finely crystalline, dark blue-grey limestone
	mmDI1	Orange-brown weathering, thin- to medium-bedded, finely crystalline, light- to dark-grey limestone  Light grey weathering, resistant, thin- to thick-bedded, fine- to medium crystalline, dark grey limestone,
	IDI	in part crinoidal  Dark grey weathering, recessive, thin bedded, platy, finely crystalline, black limestone; minor grey
	mIDd	weathering, medium bedded, finely crystalline, grey limestone  Dark grey weathering, thick bedded, finely crystalline black dolomite; white dolomite filling veins and
	IDd.	vugs; sparse chert nodules  Light grey weathering, medium bedded, ≤ine- 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;
	<u>u</u> IDI	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 limestone; minor limestone breccia
	SDI	Dark grey veathering, thin- to medium-bedded, finely crystalline, black limestone
		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  Orange weathering, resistant, thick bedded, dolomitic, silty, grey mudstone characterized by discontinuous
	OSpt	wispy black lamination and locally by abundant small pyrite cubes  Black, qun-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 of chert, and with upper part of ueOl to east by increase in proportion of limestone
		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
	uOSd	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
	ueosd	upper part minor thick beds of medium crystalline, black dolomite  Brick red weathering, thin- to thick-bedded, maroon mudstone; orange to grey weathering, thick bedded, fine-
CAMBRIAN		to medium crystalline, light coloured dolomite; medium bedded, medium- to coarse-grained, dolomitic, grey quar arenite; thick bedded, finely crystalline, blue-grey limestone
AND	u60d	White to orange weathering, massive, fine- to medium crystalline, grey dolomite  Rust-brown weathering, resistant, pyritic, amydgaloidal basalt; grey and rust-grey weathering, fissile,
	ueoI	green tuff; minor dolomite  Buff to grey weathering, recessive, thin bedded, finely crystalline, dark grey to black limestone
Z, ORDC	u60d1	Blue-grey weathering, thin bedded, finely crystalline, porcellaneous, black limestone, minor grey weathering, thin bedded, finely crystalline, grey dolomite
SILURIAN, ORDOVICIAN		Grey to white weathering, thick bedded, massive, fine- to medium crystalline, grey to black dolomite; local odlomite breccia with large blocks of finely crystalline, grey dolomite in matrix of coarsely crystalline, white dolomite
	nelol	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
	ue I	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
	mEd	Light grey weathering, resistant, thick bedded, massive, fine- to medium crystalline, grey dolomite
	m <b>G</b> I	Tan to brown weathering, recessive, thin bedded, finely crystalline, grey limestone
CAMBRIAN AND HADRYNIAN	IEIds	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
	Im€p	Tan weathering, resistant, medium bedded, variably calcareous and dolomitic, blue-grey siltstone and mudstone; parallel lamination in grey to black disrupted to discontinuous wispy lamination
		Brown to orange brown weathering, recessive, thin bedded, blue-grey slate and siltstone; minor fine grained subarkose to quartz arenite
		Lenticular bodies of white weathering limestone conglomerate and minor blue-grey finely crystalline limestone; conglomerate clasts include fine grained blue-grey limestone, colitic limestone, and archeocyatha; matrix is orange to grey weathering, fine grained, locally sandy limestone
	HI€ps	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  Buff weathering massive dolomite
	HIEp	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 pale green to tan slate
		Orange, grey or tan weathering, thin- to medium-bedded, fine grained, pale green, quartz arenite to subarkose and interbedded pale green to tan slate
	Hsp	Grey to brown weathering, thin- to thick-bedded, coarse grained, calcareous, 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
	by S.L. Blu Limit of ou Geological	S.P. Gordey 1977, 1978, 1979, 1980 (with contributions from previous work isson, J.A. Roddick, and L.H. Green (1967))  atcrop
	Fault, stee	vtical result

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Geology by S.P. GORDEY (1981), Geological Survey of Canada, Open File 780

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