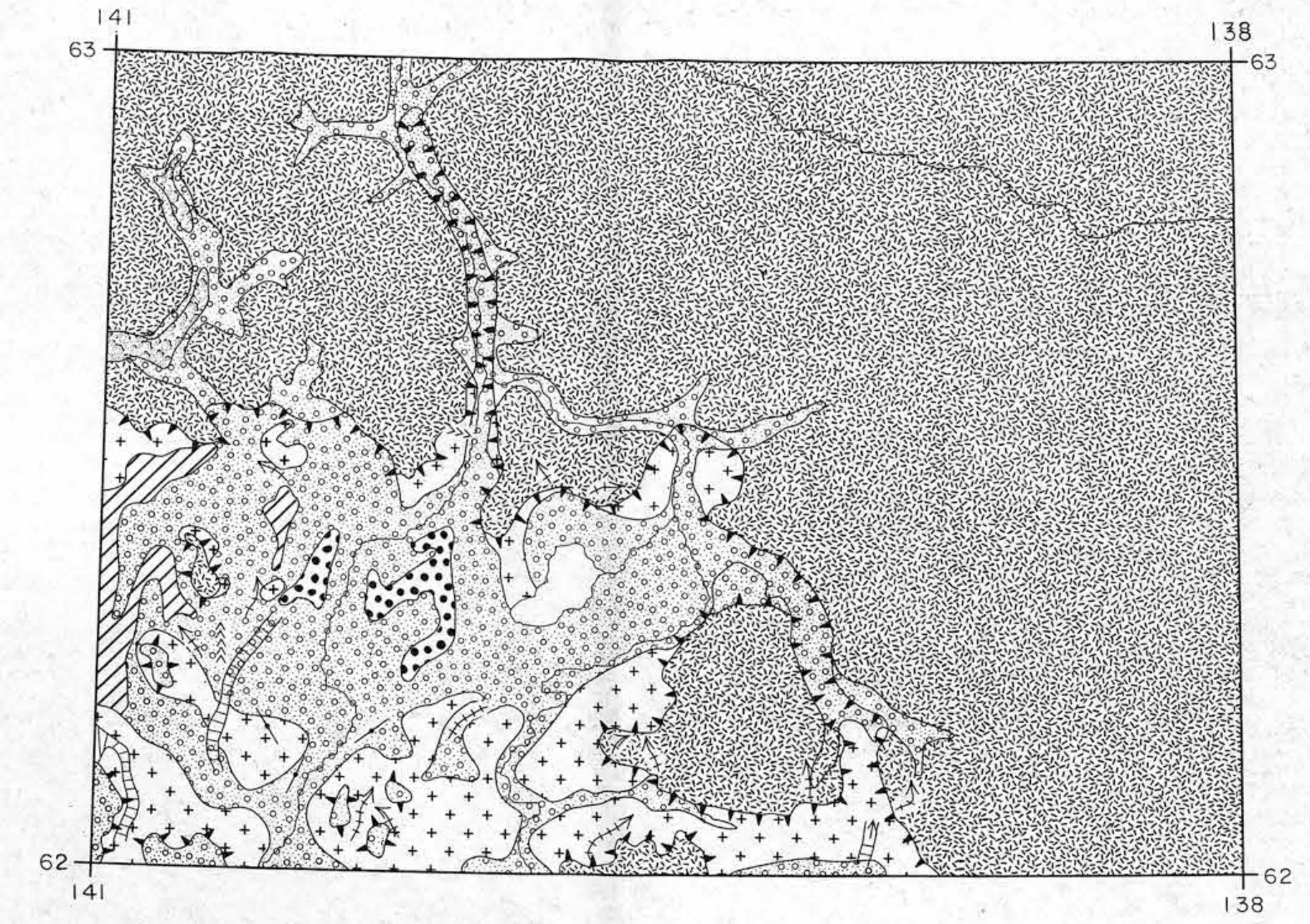
GEOLOGICAL SURVEY OF CANADA — COMMISSION GÉOLOGIQUE DU CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES — MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES

BARIUM (ppm)
STREAM SEDIMENTS
GSC OPEN FILE 1363
SOUTH-WEST YUKON, 1986



SURFICIAL GEOLOGY

- Thermokarst depression developed on alluvial floodplain
- Pits and kettles developed on gravelly glaciofluvial plain
- Organic deposits mantling lacustrine floodplain, glaciofluvial plain, or less commonly, moraine deposits
- Undivided surficial deposits; includes alluvium, glacial till, glaciofluvial and glaciolacustrine deposits, ice contact deposits, colluvium, volcanic ash, loess, and scattered bedrock exposures.
- Colluvium; poorly sorted blanket of rubble commonly <3 m thick overlying bedrock, ubiquitous in unglaciated terrain.
- Bedrock exposures; includes discontinuous veneer of undivided glacial drift, local alpine glaciation features.

Symbols

Surficial deposit boundary . . . .

Limit of Reid ice advance, maximum extent of glaciation . . . .

Major meltwater channels, outwash deposits, indicating direction of flow . . . .

Drumlinoid form; rock drumlin, crag and tail, fluted bedrock or till, direction of movement not inferred . . . .

Esker, direction of flow indicated . . . .

Sources of information:
Hughes, O.L., Campbell, R.B., Muller, J.E., and Wheeler, J.O. (1968) Glacial Map of Yukon Territory, Geological Survey of Canada, Map 6-1968, (1:1,000,000 scale) to accompany GSC Paper 68-34.
Prest, V.K., Grant, D.R., and Rampton, V.N. (1967) Glacial Map of Canada, Geological Survey of Canada (1:5,000,000 scale).
Rampton, V.N. (1977) Surficial Geology and Geomorphology, Koidern Mountain - Yukon Territory, Geological Survey of Canada, Map 5-1978, 1:100,000 scale.
(1977) Surficial Geology and Geomorphology, Mirror Creek - Yukon Territory, Geological Survey of Canada, Map 4-1978, 1:100,000 scale.
Templeman-Kluit, D.J. (1973) Geology, Snag - Yukon Territory, Geological Survey of Canada, Map 16-1973 (1:250,000 scale) to accompany GSC Paper 73-41.

Geological Survey of Canada
Mineral Resources Division
Exploration Geochemistry Subdivision

CONTRACTORS

Sample collection by Monaghan Delph Miller Limited, Don Mills, Ontario
Sample preparation by Golder Associates, Ottawa

Sediment chemical analyses by Bondar Clegg and Company Ltd., Ottawa, Ontario

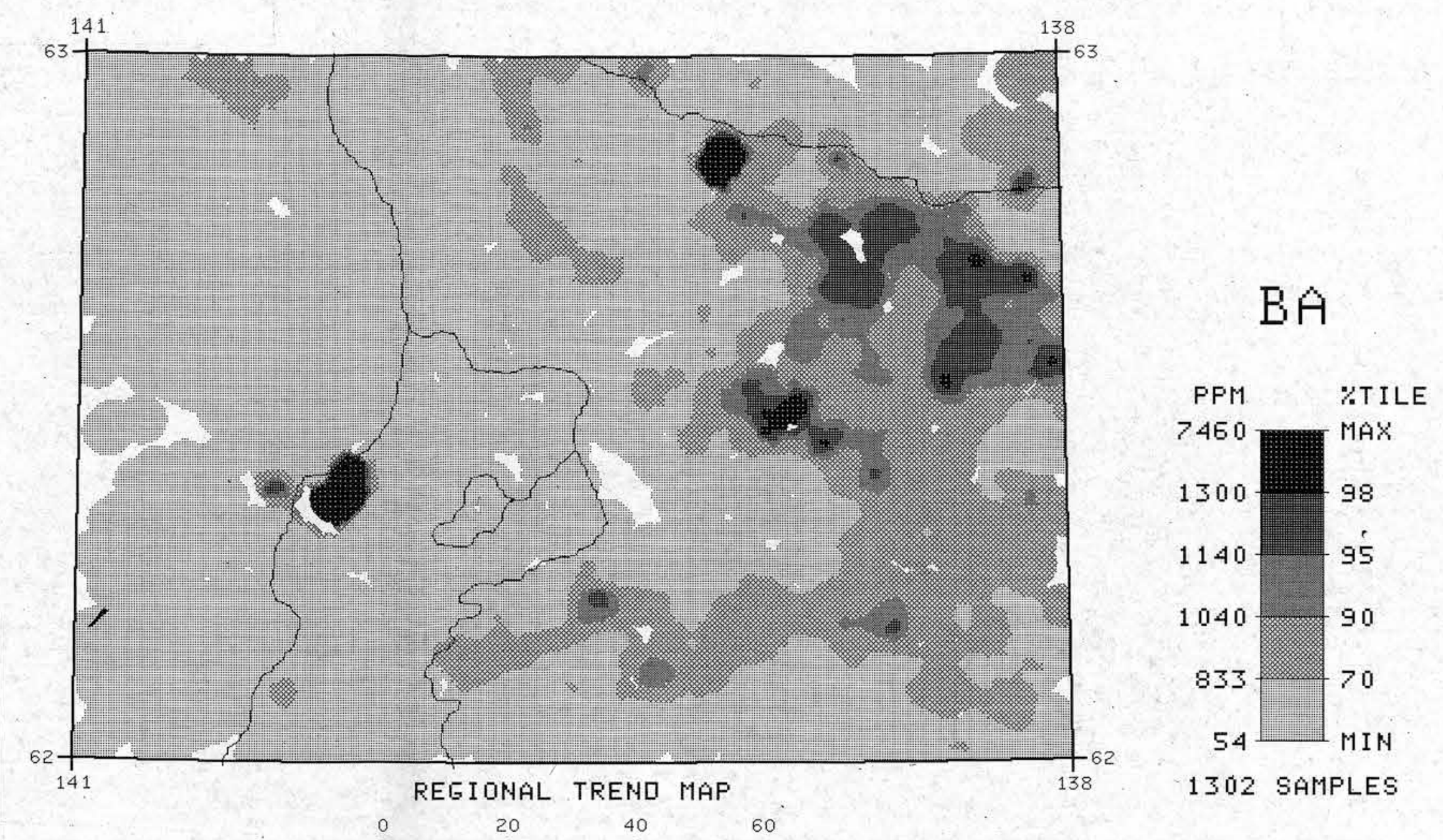
Au analyses by Chemex Labs Limited, Vancouver
Water chemical analyses by Barringer Magenta Laboratories (Alberta) Ltd., Calgary

Copies of map material and listings of field observations, analytical data and methods, from which the open file was prepared, are available from:

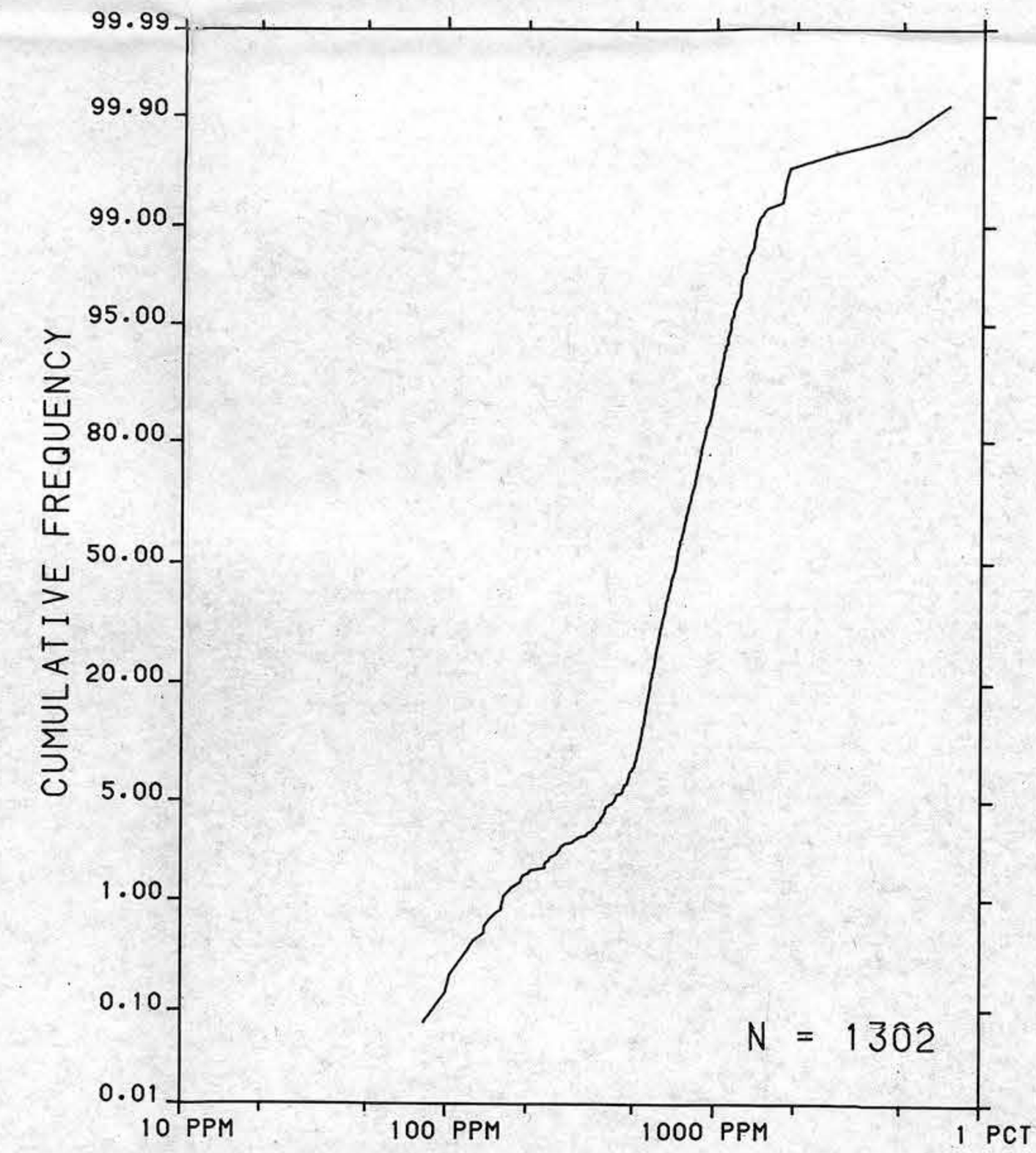
K.G. Campbell Corporation
880 Wellington St.
Bay 238
Ottawa, Ontario
K1R 6K7

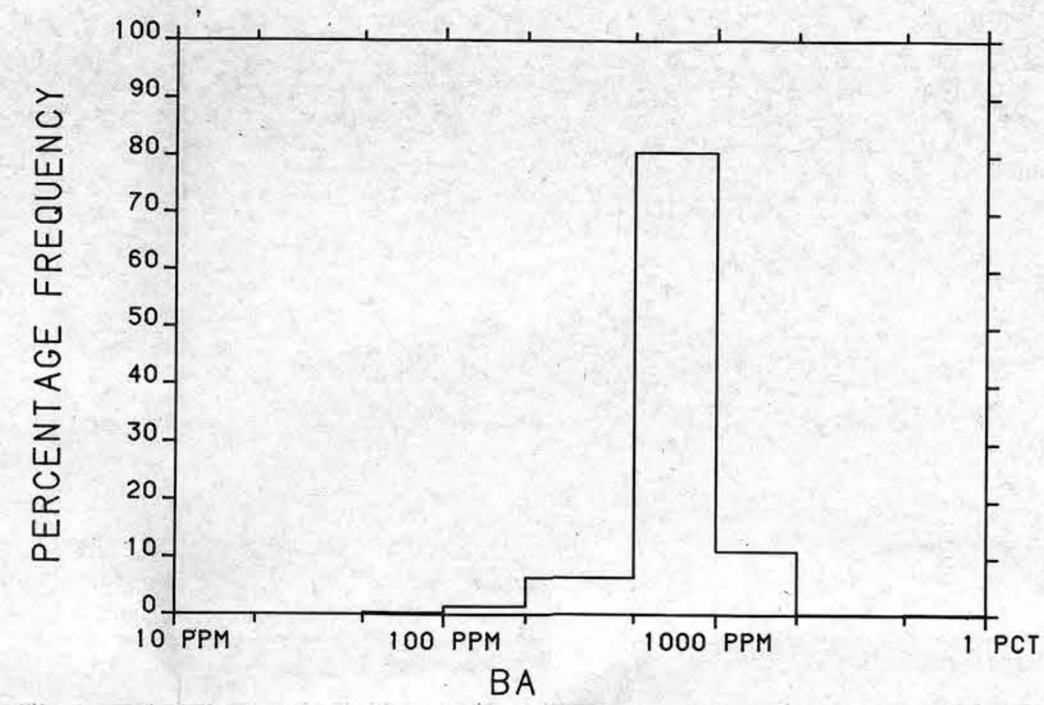
Digital data are available on IBM-PC compatible diskette from:

Geological Survey of Canada
Publications Distribution
601 Booth St.
Ottawa, Ontario K1A 0E8
Tel.: (613)995-4342



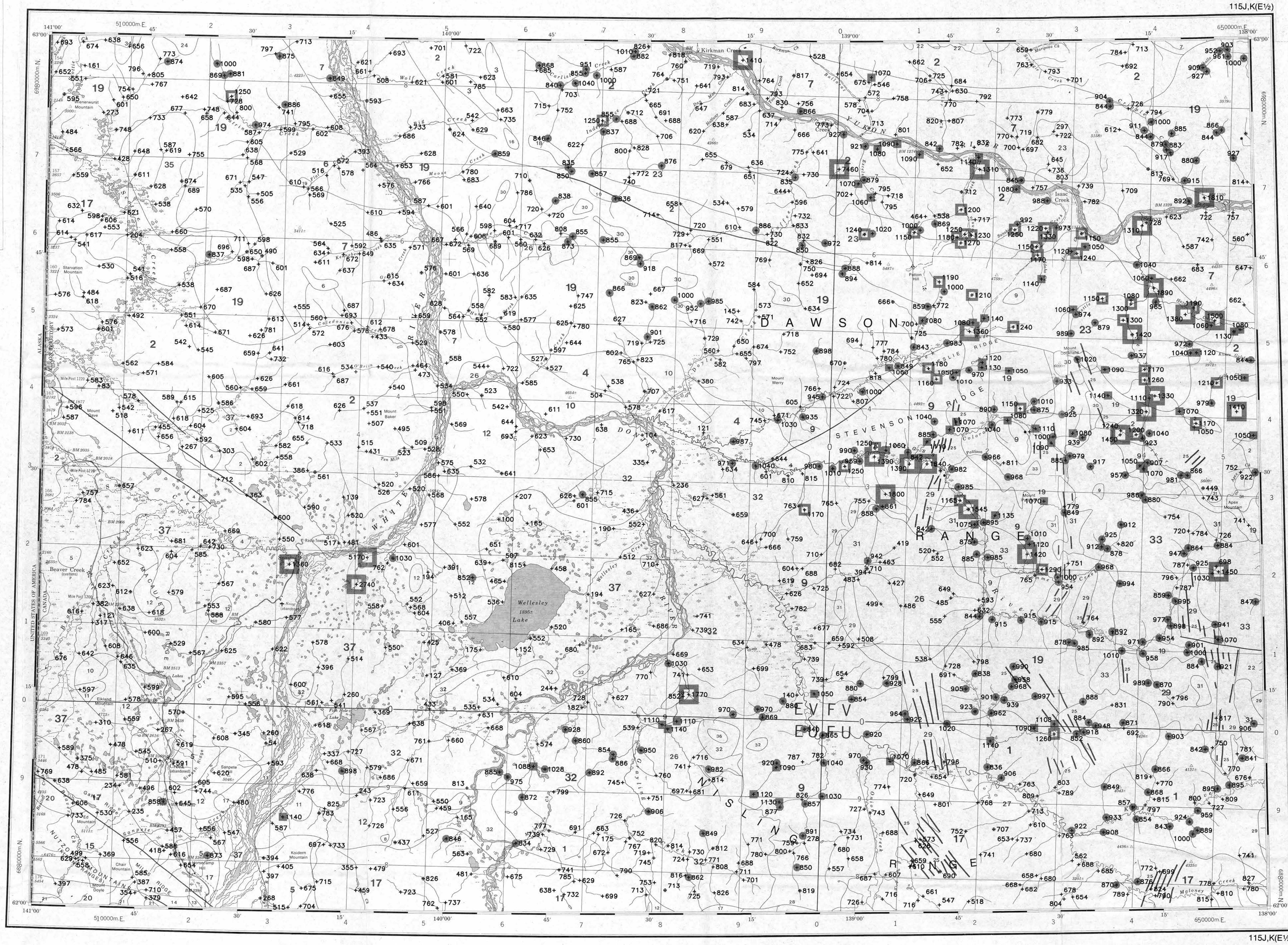
The regional geochemical trend map displayed above utilized a moving weighted average using an inverse distance function ($1/d^3$) to filter out minor irregularities and emphasize broad-scale regional features. Single point anomalies may be suppressed or eliminated, however, geological units which are chemically enriched, or large metallic deposits undergoing weathering would be expected to produce identifiable anomalies.





HISTOGRAM

CONCENTRATION	FREQUENCY
1301 to 7460	N= 26(2.0%)
1141 to 1300	N= 37(2.8%)
1041 to 1140	N= 61(4.7%)
834 to 1040	N= 267(20.5%)
54 to 833	N= 911(70.0%)



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REGIONAL GEOCHEMICAL RECONNAISSANCE MAP 99-1986

CANADA - YUKON
SUBSIDIARY AGREEMENT ON MINERAL RESOURCES (1985-1989)

STREAM SEDIMENT AND WATER GEOCHEMICAL SURVEY
SOUTH-WEST YUKON, 1986

Scale 1:250 000 - Échelle 1/250 000

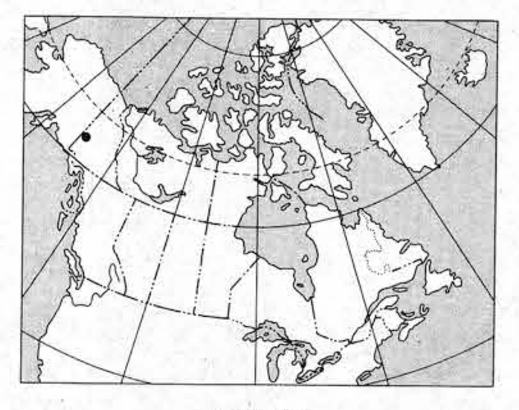
Kilometres 5 0 5 10 15 20 Kilomètres

Universal Transverse Mercator Projection — Projection transverse universelle de Mercator

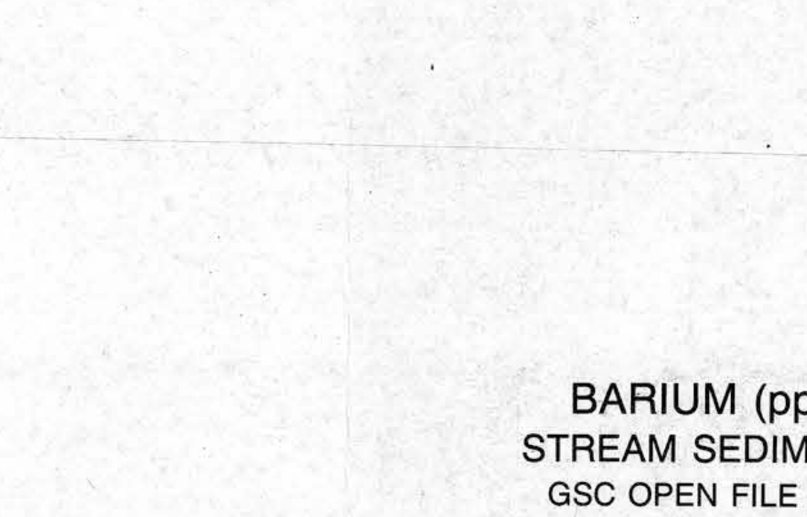
Elevation in feet above mean sea level

Mean magnetic declination 1987, 29°37' East, decreasing 13.4' annually. Readings vary from 29°37'E in the SE corner to 29°32'E in the NW corner of the map area

Base map at the same scale published by the Surveys and Mapping Branch in 1971



INDEX MAP



Contribution to the Canada/Yukon Subsidiary Agreement on Mineral Resources 1985-1989 under the Canada/Yukon Economic Development Agreement

Canada

Yukon Government

LEGEND

QUATERNARY

PLEISTOCENE AND RECENT

37	QS 64*	Glacial and surficial deposits

TERTIARY AND QUATERNARY

PLIOCENE AND PLEISTOCENE

36	PPV 63	Olivine basalt

TERTIARY

LATE TERITARY

35	LTG 62	Rhyolite porphyry, granite, granodiorite

OLIGOCENE AND MIOCENE

34	OMA 61	AMPHITHEATRE: Sandstone, conglomerate, shale, coal

CARMACKS GROUP

33	OMCV 61	Andesite, basalt, breccia
32	OMD 61	DONJEK: Tuff, breccia

EOCENE

MOUNT NANSEN GROUP

31	EMN 59	Acid to intermediate tuff, breccia

LOWER (?) TERTIARY

30	TC 58	CASINO: Tuff, ignimbrite, breccia
29	TFP 58	Feldspar porphyry dykes, flow
28	TVD 58	Andesite, porphyritic basalt flows and dykes

EARLY TERTIARY

27	ETG 57	Granodiorite, granite
26	ETGA 57	Alaskite, granite, quartz monzonite
25	FPPP 57	Feldspar porphyry dykes

CRETACEOUS

24	KY 52	Syenite, monzonite
23	KG 52	Granite
22	KQM 52	Quartz monzonite, granodiorite; CASSIAR quartz monzonite, alaskite
21	KGDN 52	Granodiorite, quartz diorite, diorite, agmatite complex

JURASSIC AND CRETACEOUS

DEZADEASH GROUP

20	JKD 51	Argillite, greywacke, conglomerate, volcanics

TRIASSIC

19	TGDN 42	Foliated hornblende granodiorite, quartz

MESOZOIC UNDIVIDED

18	MQM 41	Porphyritic quartz monzonite
17	MGD 41	Granodiorite, quartz monzonite
16	MDI 41	Diorite

PERMIAN AND TRIASSIC

15	PTSV 40	Greenstone, greywacke, shale, limestone
14	PTV 40	Greenstone, diorite
13	PTUB 40	Pyroxenite, serpentinite

PALEOZOIC AND MESOZOIC UNDIVIDED

12	PMV 40	Basic to intermediate volcanic rocks
11	PMB 40	Hornblende gabbro
10	PMUB 40	Ultramafic rocks

PALEOZOIC UNDIVIDED

9	PN 09	NASINA: Graphitic quartzite, schist
8	PC 09	Limestone
7	PGDN 09	PELLY GNEISS: Foliated to gneissic granodiorite
6	PM 09	Amphibolite, schist, gneiss
5	PTP 09	Chert, argillite, quartzite
4	PV 09	Greenstone, amphibolite

CARBONIFEROUS AND PERMIAN

3	CPS 35	Quartz-muscovite schist
2	CPSN 35	Schist, gneiss, includes BIG SALMON METAMORPHIC COMPLEX

HADRYNIAN AND CAMBRIAN

1	HCSN 08	Schist, gneiss, quartzite

*A mnemonic code assigned to rock types and recorded as part of field observations.

Geological boundary . . . .
Fault . . . .
No analytical result . . . . *
Field duplicate sample sites . . . . ⊕

Geological base and legend are derived from:
Gabrielse, H., Tempelman-Kluit, D.J., Blusson, S.L. and Campbell, R.B. (1980) Map 1398A, MacMillan River, Yukon - District of Mackenzie - Alaska, NTS Sheet 105, 115, Geological Survey of Canada, Energy, Mines and Resources Canada. 1:1 000 000 Scale.

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