

**SURFICIAL GEOLOGY**

- Thermokarst depression developed on alluvial floodplain
- Organic deposits mantling lacustrine floodplain of silt and clay, or less commonly, moraine or eolian deposits
- Undivided surficial deposits; includes alluvium, glacial till, glacioluvial and glaciolacustrine deposits, ice contact deposits, colluvium, volcanic ash, loess, and scattered bedrock exposures.
- Glacial ice, snow, and firn veneer with seasonal bedrock exposures.
- Bedrock exposures; includes discontinuous veneer of undivided glacial drift, local alpine glaciation features.

**Symbols**

- Surficial deposit boundary
- Major meltwater channels, outwash deposits, indicating direction of flow
- Glacial lineation parallel to ice flow direction, includes fluting, crag and tail, roches moutonnées and drumlinoid forms, direction of flow indicated
- Drumlinoid form; rock drumlin, crag and tail, fluted bedrock or till, direction of movement inferred, 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.
- Muller, J.E. (1966) Geology Klunne Lake - Yukon Territory, Geological Survey of Canada Map 1177A, (1:253 440 scale), to accompany GSC Memoir 340.
- Prest, V.K., Grant, D.P., 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, Burwash Creek - Yukon Territory, Geological Survey of Canada, Map 6-1978, 1:100 000 scale.
- Surficial Geology and Geomorphology, Generc River - Yukon Territory, Geological Survey of Canada, Map 7-1978, 1:100 000 scale.
- Surficial Geology and Geomorphology, Longdon Creek - Yukon Territory, Geological Survey of Canada, Map 8-1978, 1:100 000 scale.

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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

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:

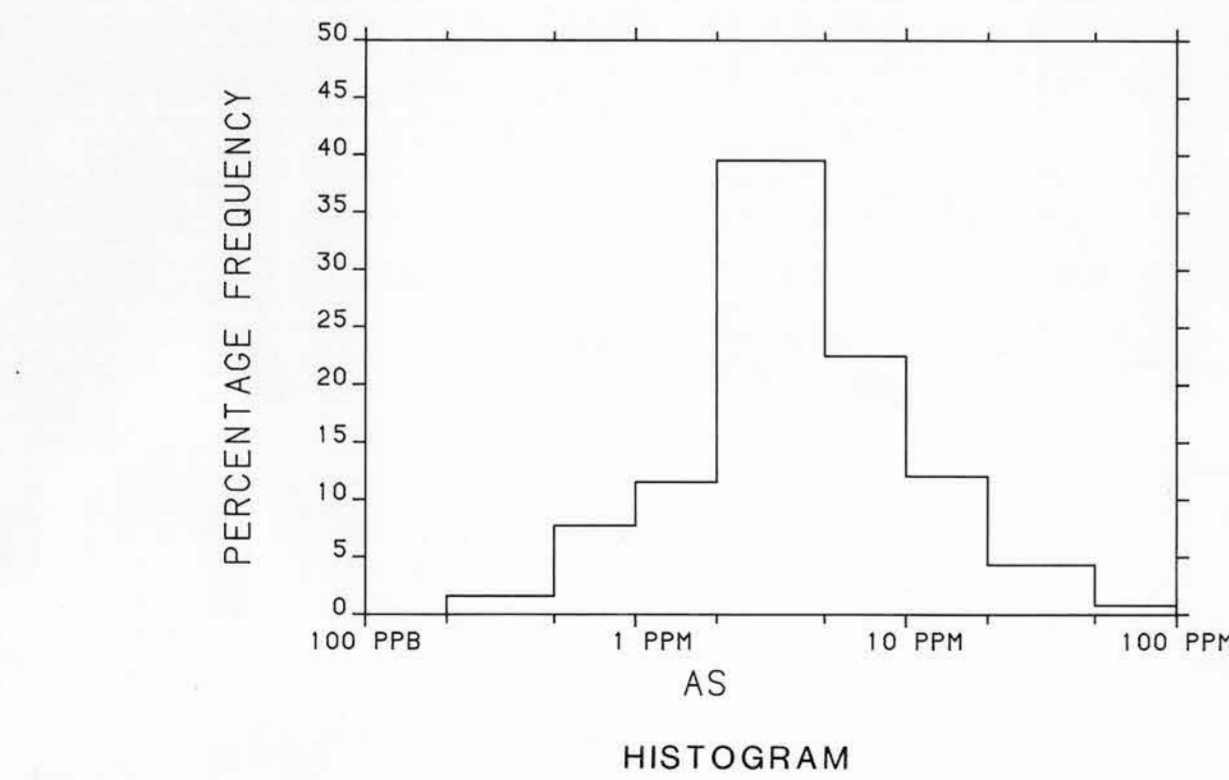
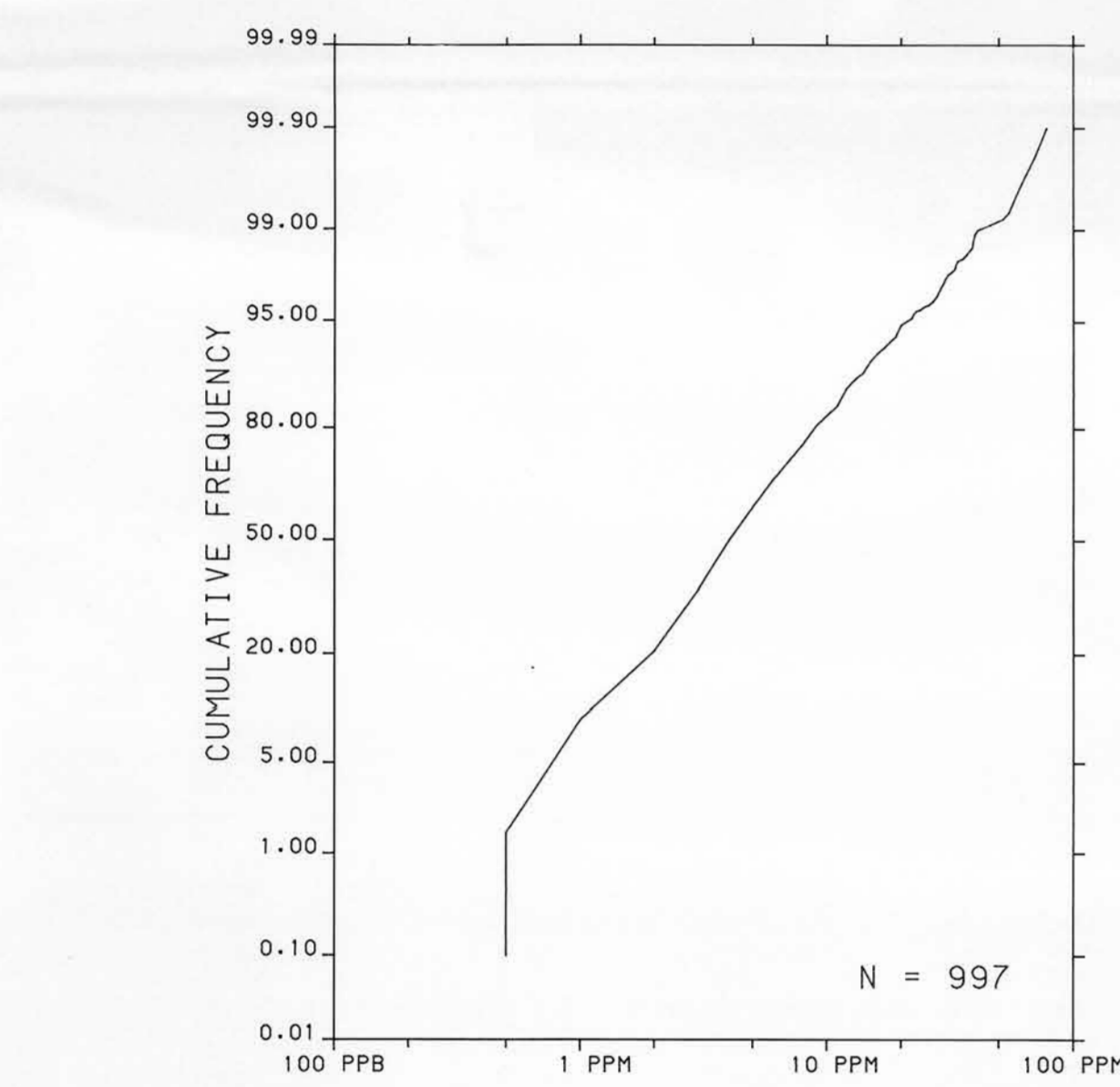
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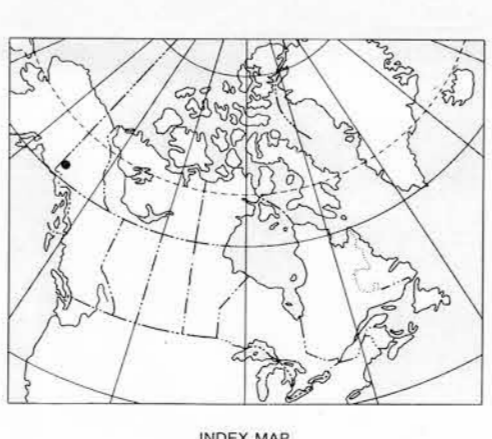
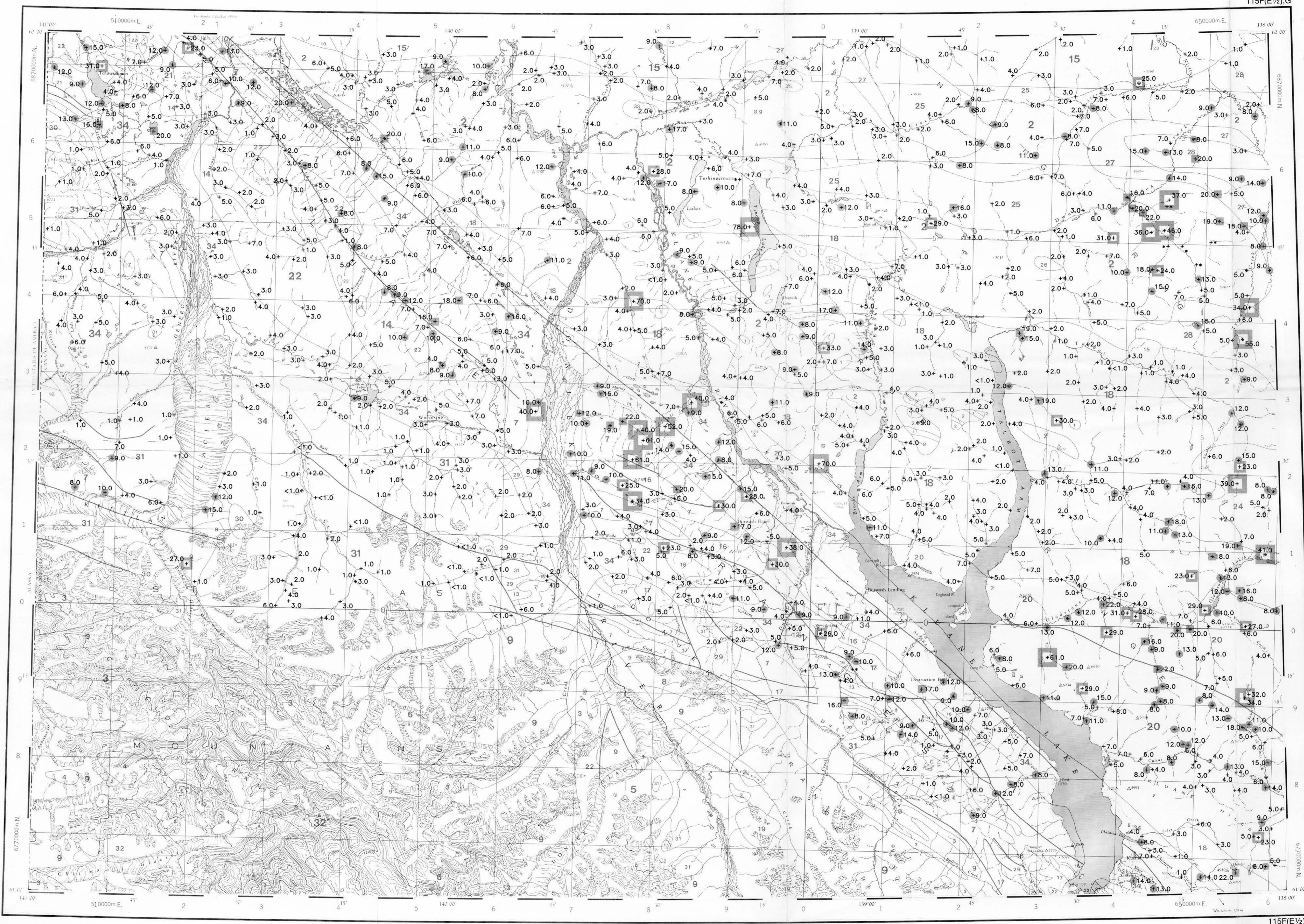
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Contribution to the Canada/Yukon Subsidiary Agreement on Mineral Resources 1985-1989 under the Canada/Yukon Economic Development Agreement

The regional geochemical trend map displayed above utilized a moving weighted average using an inverse distance function (1/d<sup>2</sup>) 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.



CONCENTRATION	FREQUENCY	N =	%
33.1 to 78.0	+	20	2.0%
22.1 to 33.0	•	26	2.6%
15.1 to 22.0	■	41	4.1%
7.1 to 15.0	●	185	18.6%
<1.0 to 7.0	+	725	72.7%



Elevation in feet above mean sea level

Mean magnetic declination 1987, 28°52' East, decreasing 13.3' annually. Readings vary from 28°52' E in the SE corner to 28°46' E in the NW corner of the map area

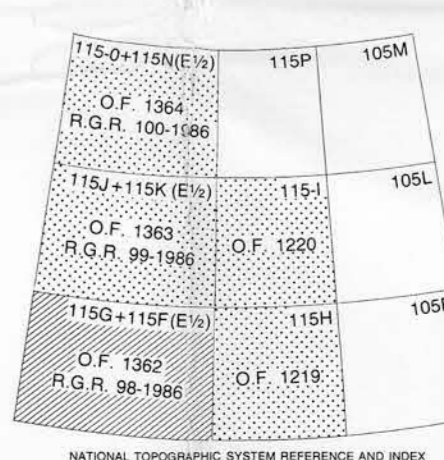
**ARSENIC (ppm)**  
**STREAM SEDIMENTS**  
GSC OPEN FILE 1362  
REGIONAL GEOCHEMICAL RECONNAISSANCE MAP 98-1986  
CANADA - YUKON  
SUBSIDIARY AGREEMENT ON MINERAL RESOURCES (1985-1989)  
STREAM SEDIMENT AND WATER GEOCHEMICAL SURVEY  
SOUTH-WEST YUKON, 1986

Scale 1:250 000 - Échelle 1/250 000

Kilometers 0 5 10 15 20 Kilomètres

Universal Transverse Mercator Projection  
Projection transverse universelle de Mercator  
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Base map at the same scale published by the Surveys and Mapping Branch in 1961



**LEGEND**

**QUATERNARY**

PLEISTOCENE AND RECENT

- 34 Q5 64\* Glacial and surficial deposits

**TERTIARY**

- 33 TQM 57 Quartz monzonite, granodiorite
- 32 TQD 57 Quartz diorite, granodiorite

**MIOCENE AND PLEIOCENE**

- 31 MPV 62 WIRANGELL: Basalt, andesite pyroclastics, sediments

**LATE TERTIARY**

- 30 LTF 62 Felsite, granite porphyry

**OLIGOCENE AND MIOCENE**

- 29 OMA 61 AMPHITHEATRE: Sandstone, conglomerate, shale, coal

**LOWER (?) TERTIARY**

- 28 TTP 58 Feldspar porphyry dykes, flows
- 27 TTD 58 Andesite, porphyritic basalt flows, dykes

**EARLY TERTIARY**

- 26 ETG 57 Granodiorite, granite
- 25 ETGA 57 Alaskite, granite, quartz monzonite
- 24 ETM 57 Granite, quartz monzonite
- 23 FPPP 57 Feldspar porphyry dykes

**CRETACEOUS**

- 22 KGM 52 Granodiorite, quartz diorite, diorite, agmatite complex

**JURASSIC AND CRETACEOUS**

**DEADENDASH GROUP**

- 21 JKD 51 Argillite, greywacke, conglomerate, volcanics
- 20 JKL 51 KLUNNE: Sericitic, biotitic schist, gneiss, amphibolite
- 19 JGD 51 Granodiorite, quartz diorite, quartz monzonite, diorite

**TRIASSIC**

- 18 TTD 42 RUBY RANGE: Granodiorite

**UPPER TRIASSIC**

- 17 UTS 45 CHITISONE, MCCARTHY: Limestone, dolomite, shale
- 16 UNT 45 NIKOLAI: Greenstone, basalt, andesite, limestone

**MESOZOIC UNDIVIDED**

- 15 MGD 41 Granodiorite, quartz monzonite

**PERMIAN AND TRIASSIC**

- 14 PTV 40 Greenstone, diorite
- 13 PTB 40 Pyroxenite, serpentinite

**PALEOZOIC AND MESOZOIC UNDIVIDED**

- 12 PWV 40 Basic to intermediate volcanic rocks

**PALEOZOIC UNDIVIDED**

- 11 PN 09 NASINA: Graphitic quartzite, schist
- 10 PTP 09 Chert, argillite, quartzite
- 9 PS 09 Greywacke, argillite, limestone; local basalt, andesite, volcanoclastic sediments

**EARLY PALEOZOIC**

- 8 EPUB 09 Gabro complex

**PERMIAN**

**SKOLAI GROUP**

- 7 PS 36 Andesite, basalt, ultramafics, pyroclastics, phyllite, chert, limestone, conglomerate

**PENNSYLVANIAN AND PERMIAN**

- 6 PPM 35 Quartz monzonite
- 5 PPGD 35 Granodiorite, diorite, agmatite complex
- 4 PPD 35 Quartz diorite, diorite, granodiorite

**DEVONIAN**

- 3 DC 25 Limestone, marble

**HADRYNTIAN AND CAMBRIAN**

- 2 HCSM 08 Schist, gneiss, quartzite

**HADRYNTIAN**

- 1 HC 07 Crystalline limestone

\*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: Gabrielle, R., Tempo-Baker-Clift, D., & Blaxson, 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.