

**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.

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.

**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, Koidem 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.  
Tempelman-Kluit, O.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  
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**CONTRACTORS**

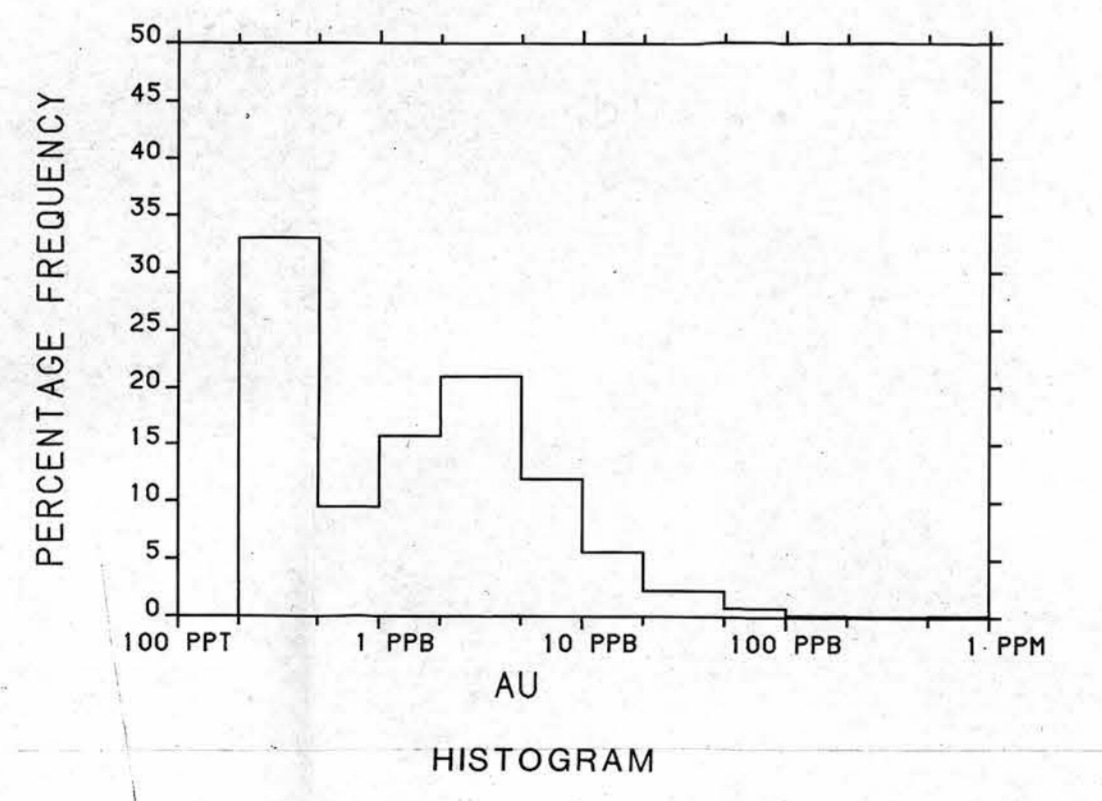
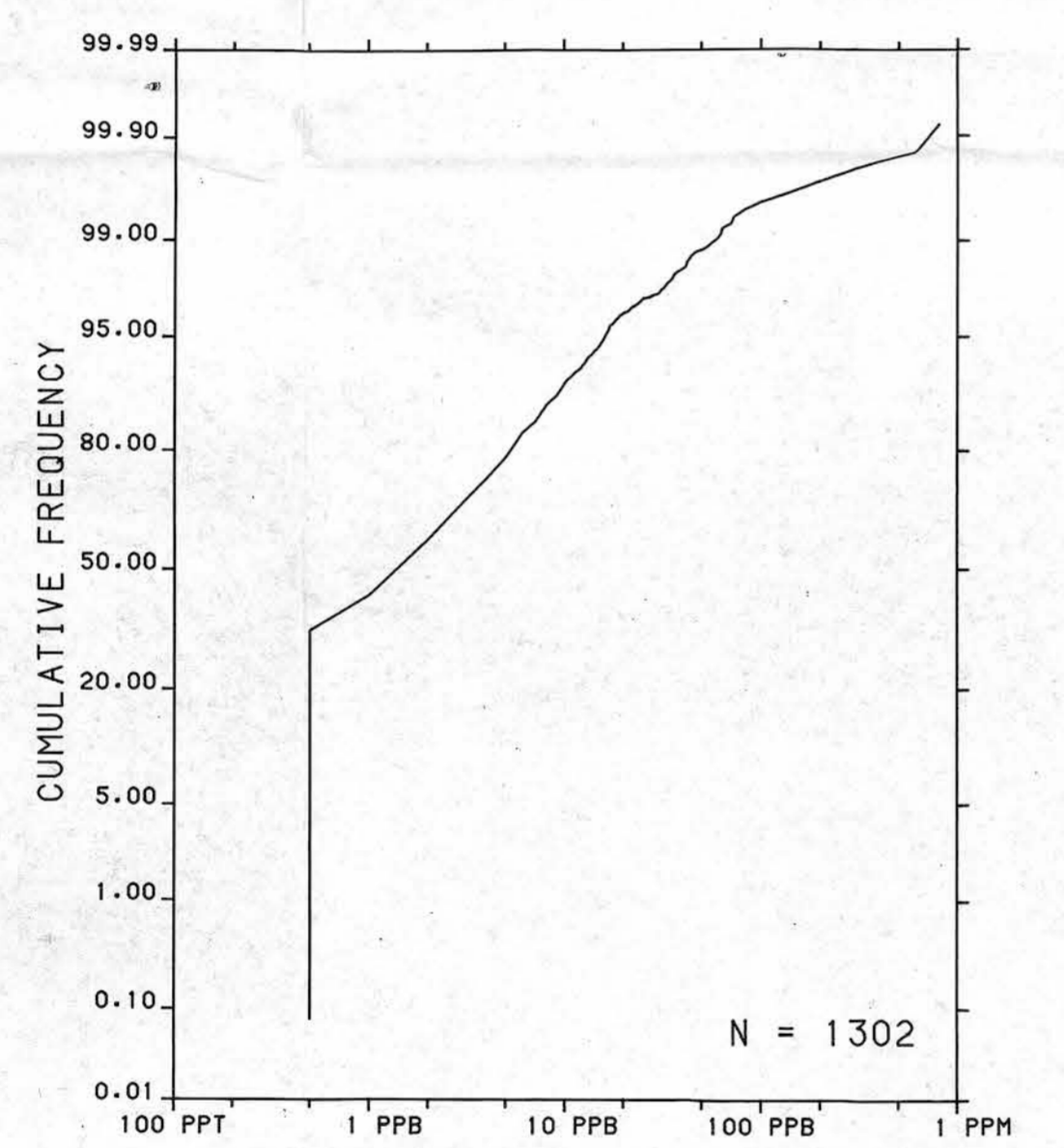
- Sample collection by Monaghan Delph Miller Limited, Don Mills, Ontario
- Sample preparation by Golder Associates, Ottawa
- Sediment chemical analyses by Bondar Clegg and Company Ltd., Ottawa, Ontario

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

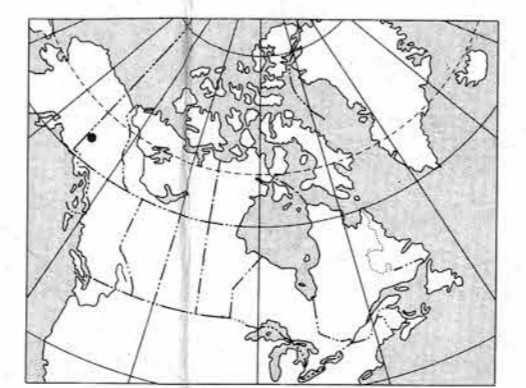
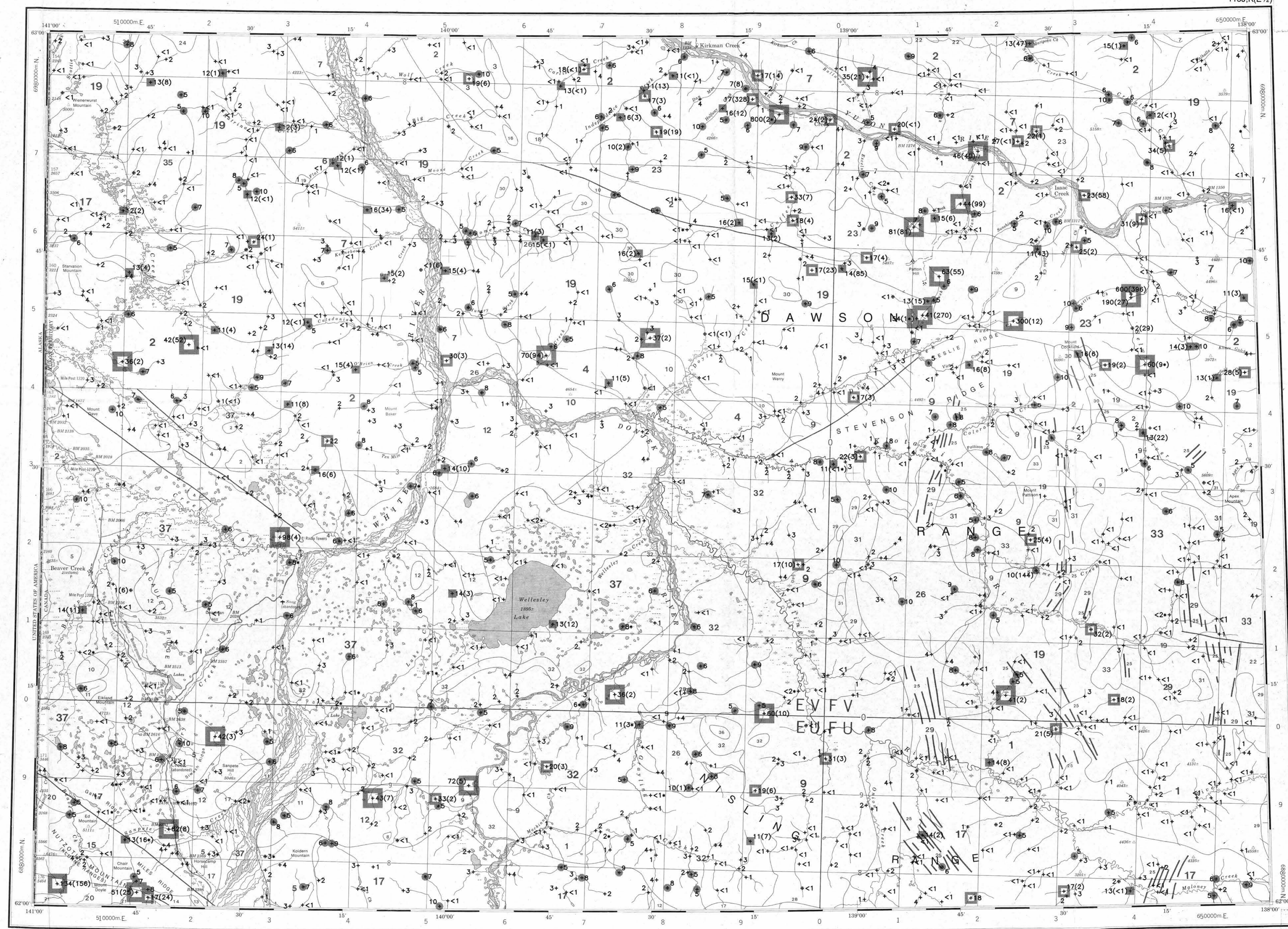
Copies of map material and listings of field observations, analytical data and methods, from which the open file was prepared, are available from:

K.G. Campbell Corporation  
880 Wellington St.  
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  
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CONCENTRATION	FREQUENCY
35 to 800	N = 26 (2.0%)
17 to 34	N = 37 (2.8%)
11 to 16	N = 54 (4.1%)
5 to 10	N = 216 (16.6%)
<1 to 4	N = 969 (74.4%)



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

**GOLD (ppb)**  
**STREAM SEDIMENTS**  
GSC OPEN FILE 1363  
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 - Echelle 1/250 000

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

Universal Transverse Mercator Projection  
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**LEGEND**

**QUATERNARY**

- 37 Q5 64+ Glacial and surficial deposits

**TERTIARY AND QUATERNARY**

- 36 PPV 63 Olivine basalt

**PLEISTOCENE AND RECENT**

- 31 EMN 59 Acid to intermediate tuff, breccia
- 30 TC 58 CASINO: Tuff, ignimbrite, breccia
- 29 TTP 58 Feldspar porphyry dykes, flow
- 28 TWD 58 Andesite, porphyritic basalt flows and dykes

**PLIOCENE AND PLEISTOCENE**

- 35 LTG 62 Rhyolite porphyry, granite, granodiorite

**OLIGOCENE AND MIOCENE**

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

**CANADIAN GROUP**

- 33 OMCV 61 Andesite, basalt, breccia
- 32 OMD 61 DONJER: Tuff, breccia

**Eocene**

- 31 EMN 59 Acid to intermediate tuff, breccia

**LOWER (?) TERTIARY**

- 27 ETG 57 Granodiorite, granite
- 26 ETGA 57 Alaskite, granite, quartz monzonite
- 25 FPPV 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 KGM 52 Granodiorite, quartz diorite, diorite, agnate complex

**JURASSIC AND CRETACEOUS**

- 20 JKD 51 Argillite, greywacke, conglomerate, volcanics

**TRIASSIC**

- 19 TGM 42 Foliated hornblende granodiorite, quartz

**MESOZOIC UNDIVIDED**

- 18 MM 41 Porphyritic quartz monzonite
- 17 MD 41 Granodiorite, quartz monzonite
- 16 MDI 41 Diorite

**PERMIAN AND TRIASSIC**

- 15 PTV 40 Greenstone, greywacke, shale, limestone
- 14 PTV 40 Greenstone, diorite
- 13 PTB 40 Pyroxenite, serpentinite

**PALEOZOIC AND MESOZOIC UNDIVIDED**

- 12 PW 40 Basic to intermediate volcanic rocks
- 11 PMS 40 Hornblende gabbro
- 10 PMU 40 Ultrabasic rocks

**PALEOZOIC UNDIVIDED**

- 9 PN 09 NASINA: Granitic quartzite, schist
- 8 PC 09 Limestone
- 7 PGM 09 PELY GNEISS: Foliated to gneissic granodiorite
- 6 PM 09 Amphibolite, schist, gneiss
- 5 PIP 09 Chert, argillite, quartzite
- 4 PY 09 Greenstone, amphibolite

**CARBONIFEROUS AND PERMIAN**

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

**HADRYNYAN AND CAMBRIAN**

- 1 HCSM 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: Gabrielle, R., Tempelman-Kluit, D.J., Blusson, S.L. and Campbell, R.B. (1980) Map 1368A, 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.

Au value (ppb)  
+17  
( ) denotes an analysis performed on a sample weight <10 g.  
( ) identifies Au values corresponding to repeat analyses.  
<n denotes a result less than detection level in (ppb).  
consult text for actual sample weight when Au values denoted by + or < detection level.  
Examples:  
+22.4 Au value of 21 ppb determined on sample weight <10 g.  
+36(27) Au value of 36 ppb on first analysis, Au value of 27 ppb on repeat analysis for sample weighing <10 g.  
+c4 Au value less than detection limit of 4 ppb.

Please refer to Open File text for discussion of gold presentation format and geochemical interpretation.