

**SURFICIAL GEOLOGY**

**COLLUVIUM**  
**C** Material transported by gravity or material on gentle slopes derived from physical weathering of bedrock. Includes talus, landslide debris, debris flow deposits and weathered cones.

**FLUVIAL DEPOSITS**  
**F** Gravels, sands and silts deposited by streams and rivers, includes alluvial fans and river terraces.

**ICE**  
**I** Permanent snow and ice, glaciers and snowfields.

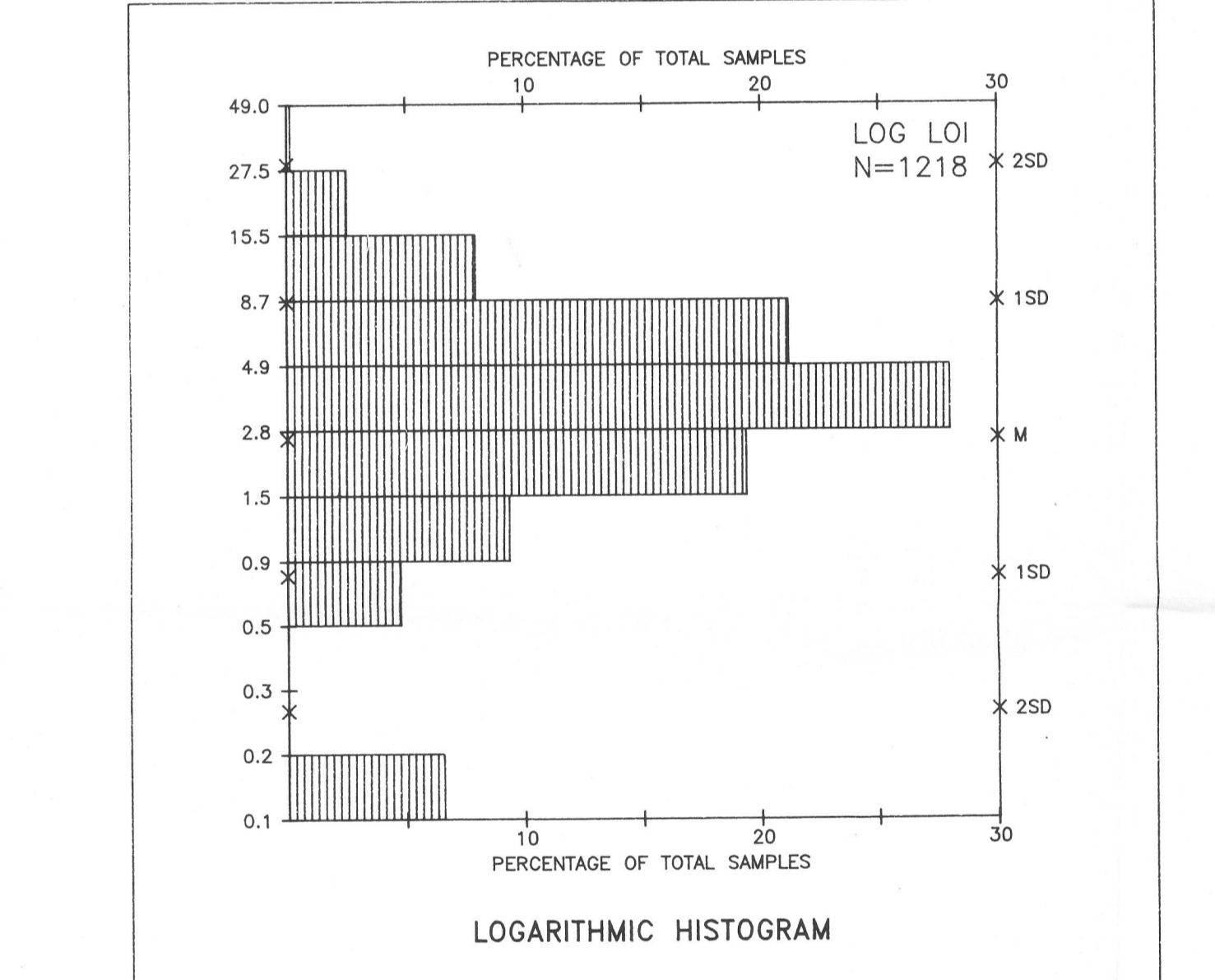
**GLACIAL DEPOSITS**  
**M** Clay, sand and rock fragments deposited by glaciers, includes Fraser Glaciation till and recent moraines. This unit includes small areas of colluvium, bedrock, glaciolacustrine and eolian deposits.

**BEDROCK**  
**R** Outcrops and rock covered by a few centimetres of surficial material, includes up to 30% colluvium by area.

**VOLCANIC DEPOSITS**  
**V** Unconsolidated volcanic ash, cinder and coarse ejecta and lava flows younger than Fraser Glaciation.

**SYMBOLS**  
 Meander channel  
 Glacial station, direction of flow known, unknown  
 Drumlin, direction of flow known

Source of Information:  
 Ryder, J.M. (1984) Inventory for the Skeena-Iskut Area (NTS 104F, 104G, and parts of 104B and 104H), British Columbia Ministry of Environment, Technical Report 11.



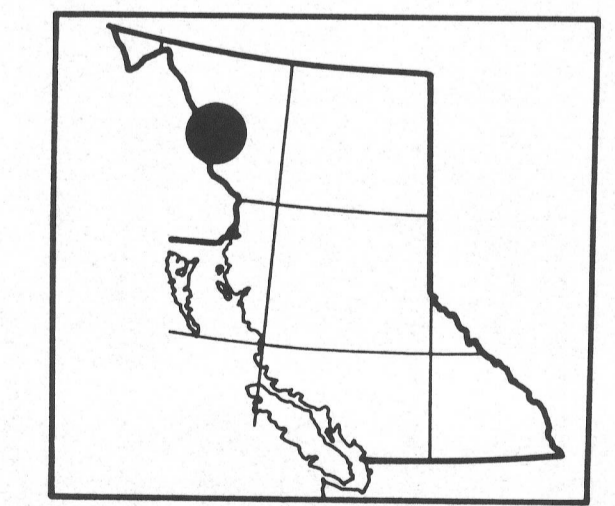
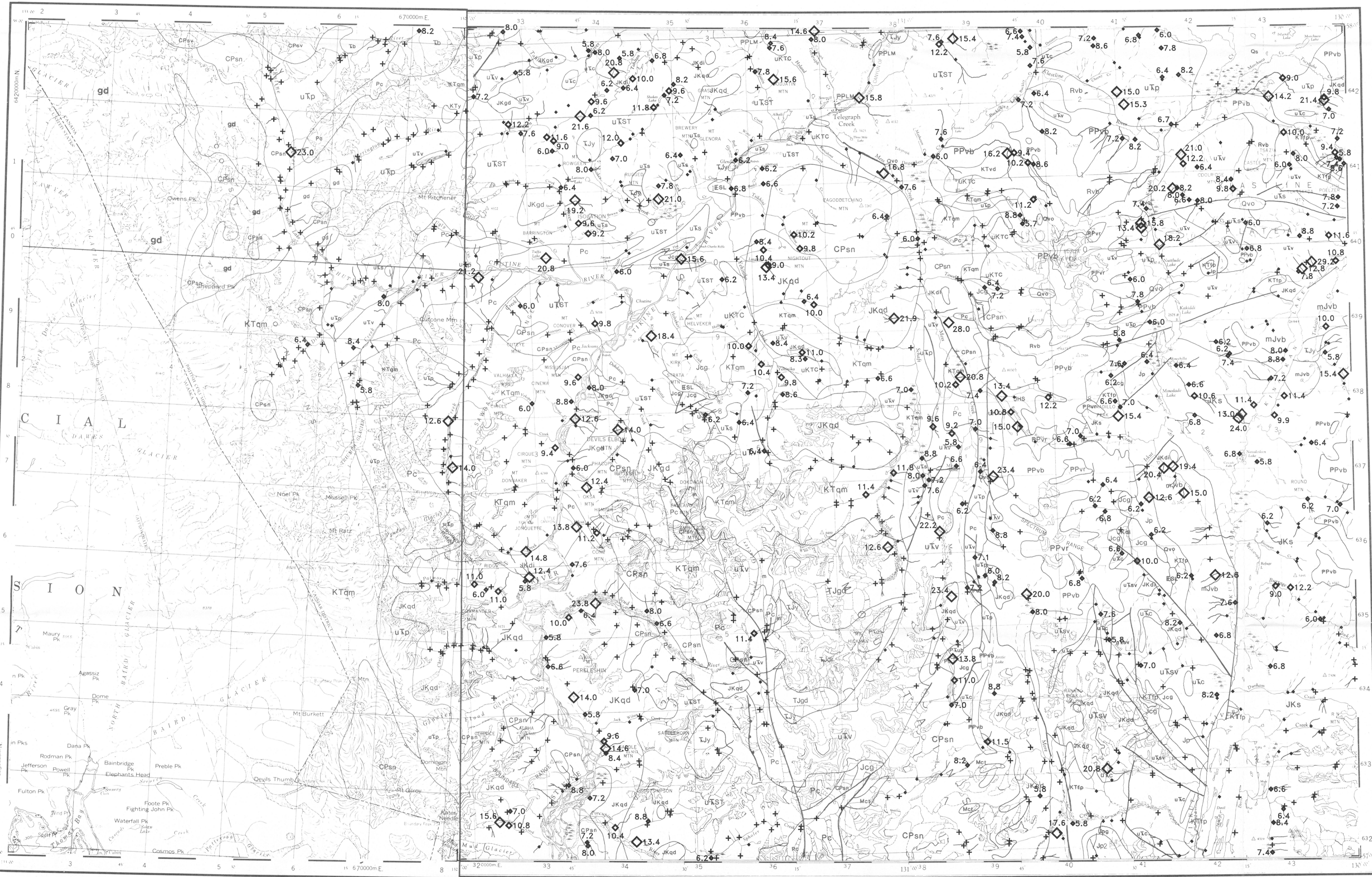
CONCENTRATION	FREQUENCY
12.3 - 29.2	◇ N = 62 (5.1%)
8.9 - 12.2	◆ N = 59 (4.8%)
5.7 - 8.8	♦ N = 185 (15.2%)
3.5 - 5.6	• N = 301 (24.7%)
0.1 - 3.4	+ N = 611 (50.2%)

**CONTRACTORS - 104F**  
 Sample collection by McElhenny Engineering Services Limited, Vancouver, B.C.  
 Sample preparation by Kamlopa Research and Assay Lab, Kamlopa, B.C.  
 Sediment chemical analyses by Bondar Clegg and Company Limited, North Vancouver, B.C.  
 Water chemical analyses by Baringer Magenta, Calgary, Alta.

**CONTRACTORS - 104G**  
 Sample collection by McElhenny Engineering Services Limited, Vancouver, B.C.  
 Sample preparation by Golder Associates, Ottawa, Ont.  
 Sediment chemical analyses by Bondar Clegg and Company Limited, Ottawa, Ont.  
 Water chemical analyses by Chemex Labs, North Vancouver, B.C.

**OPEN FILE PRODUCTION**  
 British Columbia  
 Ministry of Energy, Mines and Petroleum Resources  
 Geological Survey Branch  
 Applied Geochemistry

104F (Zone 8) & 104G (Zone 9)



This map forms one of a series of open file maps (B.C. RGS 18-20) released in 1988 by the British Columbia Geological Survey in cooperation with the Geological Survey of Canada. Open File RGS 19 consists of sample location maps at 1:100 000 and 1:250 000 scale, and value maps for 20 elements in stream sediments and 2 elements in stream waters, a current mineral inventory map, listings of field and analytical results and a statistical summary. Copies of map material and listings of field observations, analytical data and methods, from which the open file was prepared are available for reference at:  
 Ministry Library in Victoria  
 Libraries of the Geological Survey of Canada  
 Map Library at the University of British Columbia, Vancouver  
 For purchase at:  
 Map Library  
 525 Superior Street  
 Victoria, B.C.  
 V8V 1X5  
 (604) 387-1441  
 The data are also available in digital form on MS-DOS 5 1/4" diskettes. For further information please contact:  
 Applied Geochemistry Subsection  
 Geological Survey Branch  
 Ministry of Energy, Mines and Petroleum Resources  
 Parliament Building  
 Victoria, British Columbia, V8V 1X4  
 (604) 387-3234

**LOSS ON IGNITION (%)**  
**STREAM SEDIMENTS**  
 B.C. RGS 19  
 GSC OPEN FILE 1646  
 NATIONAL GEOCHEMICAL RECONNAISSANCE MAP 111  
 CANADA-BRITISH COLUMBIA  
 MINERAL DEVELOPMENT AGREEMENT (1985-1989)  
 STREAM SEDIMENT AND WATER GEOCHEMICAL SURVEY  
 NORTHWESTERN BRITISH COLUMBIA, 1987  
 SCALE 1 : 250,000

Elevation in feet above mean sea level  
 104G : Mean magnetic declination 1954, 30915' East in centre of map area, decreasing 4.0' annually  
 104F : Mean magnetic declination 1966, 28945' East in centre west edge of map area, increasing 3.6' annually

Province of British Columbia  
 Ministry of Energy, Mines and Petroleum Resources  
 Energy, Mines and Petroleum Resources Canada  
 Energy, Mines and Petroleum Resources Canada

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**LOSS ON IGNITION (%)**  
**STREAM SEDIMENTS**  
 B.C. RGS 19  
 GSC OPEN FILE 1646  
 104F - SUMDUM / 104G - TELEGRAPH CREEK  
 NORTHWESTERN BRITISH COLUMBIA, 1987

**LEGEND**  
**STRATIFIED ROCKS**

**QUATERNARY**  
 RECENT  
**Rvb** (BSLT 64) Basalts, cinder, ash  
 PLEISTOCENE AND RECENT  
**Os** (TILL 64) Surficial clastic sediments and glacial deposits  
**Ovo** (OLVB 64) Olivine basalt

**TERTIARY AND QUATERNARY**  
 PLEISTOCENE AND PLEISTOCENE  
**PPLM** (BSLT 63) LEVEL MOUNTAIN GROUP: basalt  
**PPvb** (BTRT 63) Basalt, rhyolite, olivine, basalt  
**PPvt** (PVLTS 63) Rhyolite, trachyte, tuff

**TERTIARY**  
 EOCENE  
**ESL** (PVLTS 59) SLOKO GROUP: rhyolite, trachyte, andesite, basalt

**CRETACEOUS AND TERTIARY**  
**KTvd** (ANDS 56) Andesite

**CRETACEOUS**  
**UKTC** (SND5 55) TANGO CREEK: sandstone, siltstone, coal

**JURASSIC AND CRETACEOUS**  
**JKS** (SLSN 51) Siltstone, gneiss, conglomerate, shale (upper HAZELTON GROUP in part)

**JURASSIC**  
**JHS** (SLSN 50) HAZELTON GROUP: siltstone, greywacke, sandstone, tuff  
**mJvb** (BSLT 49) Basalt, pillow lava, tuff, volcaniclastic rocks  
**Jp** (SHLE 49) Shale  
**JT** (CGLM 49) TAWAHONI: conglomerate, grit, greywacke  
**Jcg** (CGDK 49) Conglomerate, grit, greywacke

**TRIASSIC**  
**UPL** (PLIT 45) Phyllite, argillite, siltstone, greywacke, limestone  
**USL** (SLSN 45) Siltstone, chert, sandstone, tuff  
**USv** (ANDV 45) Undifferentiated andesitic volcanic and clastic-intrusive rocks  
**UST** (VLRK 45) STUHLNI GROUP: undifferentiated volcanic and sedimentary rocks  
**UV** (ANB 45) Andesite, basalt  
**UVd** (ANDS 45) Andesite, pyroclastic rocks, greenstone

**PERMIAN**  
**Pc** (AMSH 36) Limestone, minor calcareous shale

**CARBONIFEROUS AND PERMIAN**  
**CPsn** (BCST 35) Schist, gneiss  
**CPsv** (GRNS 35) Greenstone, limestone, shale, clastic sedimentary rocks

**MISSISSIPPIAN**  
**Mct** (LMTF 34) Limestone, tuff, chert

**PLUTONIC ROCKS**  
**KTfp** (FLSP 56) Felsite, felspar porphyry  
**KTqm** (QTMZ 56) Quartz monzonite  
**KTy** (LEYN 56) Leucocratic syenite

**JURASSIC AND CRETACEOUS**  
**JKgd** (GRDR 51) Granodiorite  
**JKqd** (GRZD 51) Quartz diorite  
**JKdi** (DORT 51) Diorite

**TRIASSIC AND JURASSIC**  
**JJgd** (GRDR 46) Granodiorite  
**JJdi** (GRZD 46) Quartz diorite, diorite, amphibolite  
**JJy** (SYNT 46) Syenite, monzonite

**TRIASSIC**  
**Tb** (DORT 42) Diorite, gabbro  
**td** (DORT 42) Diorite, monzonite

**PERMIAN AND TRIASSIC**  
**Pub** (UMFC 40) Ultramafic rocks, serpentinite

**AGE UNKNOWN**  
**gd** (GRDR 65) Granodiorite  
**m** (AMPH 65) Amphibolite, gneiss, migmatite

**SYMBOLS**  
 Geological boundary  
 Fault  
 Thrust fault  
 Glaciers  
 Field duplicate sample sites

**GEOLOGY AND MINERAL DEPOSITS**  
 Geological base and legend are derived from:  
 Southern, J.G., Bess, D.A. and Clouth, A.V. (compilers) (1979) Iskut River, Geological Survey of Canada, Map 1418A.  
 \*A mnemonic code assigned to rock types and recorded as part of field observations.  
 For location of the following specific information for this area refer to British Columbia Ministry of Energy, Mines and Petroleum Resources, mineral deposits refer to Mineral Inventory Map, M 104F - SUMDUM and M 104G - TELEGRAPH CREEK; assessment reports refer to Assessment Report Index Map, AR 104F - SUMDUM and AR 104G - TELEGRAPH CREEK; bedrock geological mapping refer to Index of Bedrock Mapping, 1983; for mineral and placer claim maps contact the Ministry of Energy, Mines and Petroleum Resources, Mineral Titles Branch, Victoria, for current editions and status.

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