

BRITISH COLUMBIA SURFICIAL DEPOSITS

PROGLACIAL DEPOSITS

- LACUSTRINE DEPOSITS: Varved silt, clay, and sand, locally drumlinized and fluted through minor ice re-advance, fringed by beach deposits. Deposits up to 120 m thick along beach, >200 m thick along black-water.
- Meltwater or outwash channel deposits bounded by cutbanks or terraces
- UNDIVIDED GLACIOLACUSTRINE AND GLACIOLUVIAL DEPOSITS: Sand, silt and clay with local accumulations up to 70 m thick along valley bottoms

GLACIAL DEPOSITS

- Undivided glacial till and ground moraine. Areas of low relief include abundant drumlins, rock drumlins, fluting, and esker complexes. Bedrock exposures predominate above 1700 m elevation

MO

Outwash channel cutbank or terrace
Small meltwater or abandoned stream channel indicating direction of flow
Fluting or glacial striation
Drumlin, direction of flow known
Eskers and esker complexes
Kettled and pitted terrain

Note: Glacial deposits and features within NTS 93H are unmapped

Sources of information:
Geological Survey of Canada
1938: Geology of Willow River Sheet, Map 335 A, West Half; Map 336 A, East Half
Tipper, H.W.
1971: Glacial Geomorphology and Pleistocene History of Central British Columbia; Geological Survey of Canada, Bulletin 196, 89p. (esp. Map 1288A, scale 1:250 000)
Tipper, H.W., Campbell, R.B., Taylor, G.C. and Stott, D.F.
1979: Parsnip River, British Columbia; Geological Survey of Canada, Map 1424A, scale 1:1 000 000

Provincial Open File
BC 85-12-1984 (336 E/2, 93H W/2)

LEGEND
(This legend to be used west of 122°00' only.)

Note: This legend is common for Regional Geochemical 72-1984 Open File 1107

CENOZOIC

QUATERNARY
PLEISTOCENE AND RECENT
[17] TILL 44) TILL, GRAVEL, SAND, SILT, ALLUVIUM

TERTIARY
MIOCENE AND PLEISTOCENE
[15] ISBLS 42) OLIVINE BASALT FLOWS, BRECCIA, AND TUFF
[15] ISBDS 42) SANDSTONE, SHALE, CONGLOMERATE, DIATOMITE, LIGNITE
[14] OLIGOCENE AND MIOCENE
[14] ISBLS 42) ANDREITE, TUFF, BRECCIA, ARGILLITE, ANDREITE, BASALT, DACITE
[13] PALEOCENE, EOCENE, OLILOCENE
[13] ISGLM 42) CONGLOMERATE, SANDSTONE, SHALE, TUFF, BRECCIA

MESOZOIC - CENOZOIC
UPPER CRETACEOUS AND LOWER TERTIARY
[12] ISBVL 41) DOTS LAKE GROUP, RHYOLITE, DACITE, TRACHYTE, SANDSTONE, SHALE, CONGLOMERATE

CRETACEOUS
[11] ISANDS 36) ANDREITE, TUFF, BRECCIA, ARGILLITE, AIKHOSE, CONGLOMERATE
[10] ISGLM 36) SKYEMO GROUP, CONGLOMERATE, GREYWACKE, SHALE, COAL, VOLCANIC BRECCIA

JURASSIC
[9] ISMID 34) MIDDLE JURASSIC (PART) UNDIVIDED, BASALT, ANDREITE, TUFF, BRECCIA, GREYWACKE, MUDSTONE, CONGLOMERATE
[8] ISL 34) SHALE, GREYWACKE, CONGLOMERATE
[7] ISUP 34) UPPER JURASSIC AND LOWER JURASSIC
[7] ISANDS 33) TALLA GROUP, ANDREITE, BASALT, TUFF, BRECCIA, CONGLOMERATE, GREYWACKE, SHALE, LIMESTONE

TRIASSIC
[6] ISUP 32) BLACK PHYLLITE, SILTSTONE, LIMESTONE, QUARTZITE
[5] ISUP 32) BLACK PHYLLITE, SILTSTONE, LIMESTONE, QUARTZITE

PERMIAN AND/OR YOUNGER
[4] ISBLS 21) SLIDE MOUNTAIN GROUP, BASALT, BRECCIA, TUFF, CHERT, ARGILLITE, SANDSTONE, LIMESTONE, CONGLOMERATE
[3] ISL 21) MURAL FORMATION, LIMESTONE INCLUDES MANTO FORMATION (SILTSTONE, SANDSTONE)

PROTEROZOIC
[2] ISBLS 04) KAZA GROUP, SANDSTONE, CONGLOMERATE, GRIT, PHYLLITE, SCHIST, AMPHIBOLITE, MARBLE, GNEISS

PLUTONIC ROCKS
[1] ISGR 42) GRANODIORITE, QUARTZ DIORITE, QUARTZ MONZONITE
[1] ISGR 30) NAVER INTRUSIONS, QUARTZ MONZONITE, SYENITE, MONZONITE, GRANODIORITE, DIORITE

UPPER TRIASSIC
[8] ISGR 32) TAKOMAKI BATHOLITH AND BODIES OF SIMILAR AGE AND LITHOLOGY, GRANODIORITE, QUARTZ DIORITE, QUARTZ MONZONITE

PERMIAN AND/OR TRIASSIC
[4] ISGR 33) TREMBLEUR INTRUSIONS AND SIMILAR BODIES, PERIDOTITE, DUNITE, PYROXENITE, SERPENTINITE

SYMBOLS

GEOLOGICAL BOUNDARY: MAPPED, ASSUMED
FAULT: MAPPED, ASSUMED
THRUST FAULT (TEETH ON HANGINGWALL): MAPPED, ASSUMED
ANTICLINAL AXIS
SYNCLINAL AXIS
STREAM SAMPLE SITE

GEOLGY AND MINERAL DEPOSITS

Generalized geology after Geological Survey of Canada Map 49-1960, Prince George, British Columbia, 1:1 000 000, compilation by H. W. Tipper, R. B. Campbell, G. C. Taylor, and D. F. Stott, 1979, used to determine stream sediment basin rock type for grouping of geochemical data.

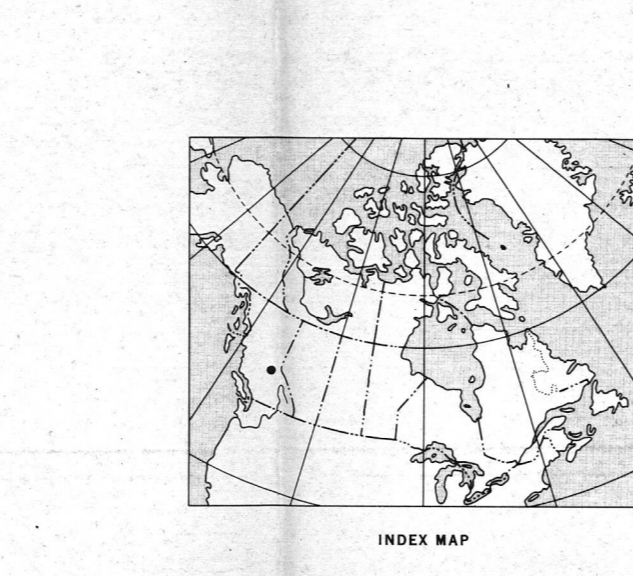
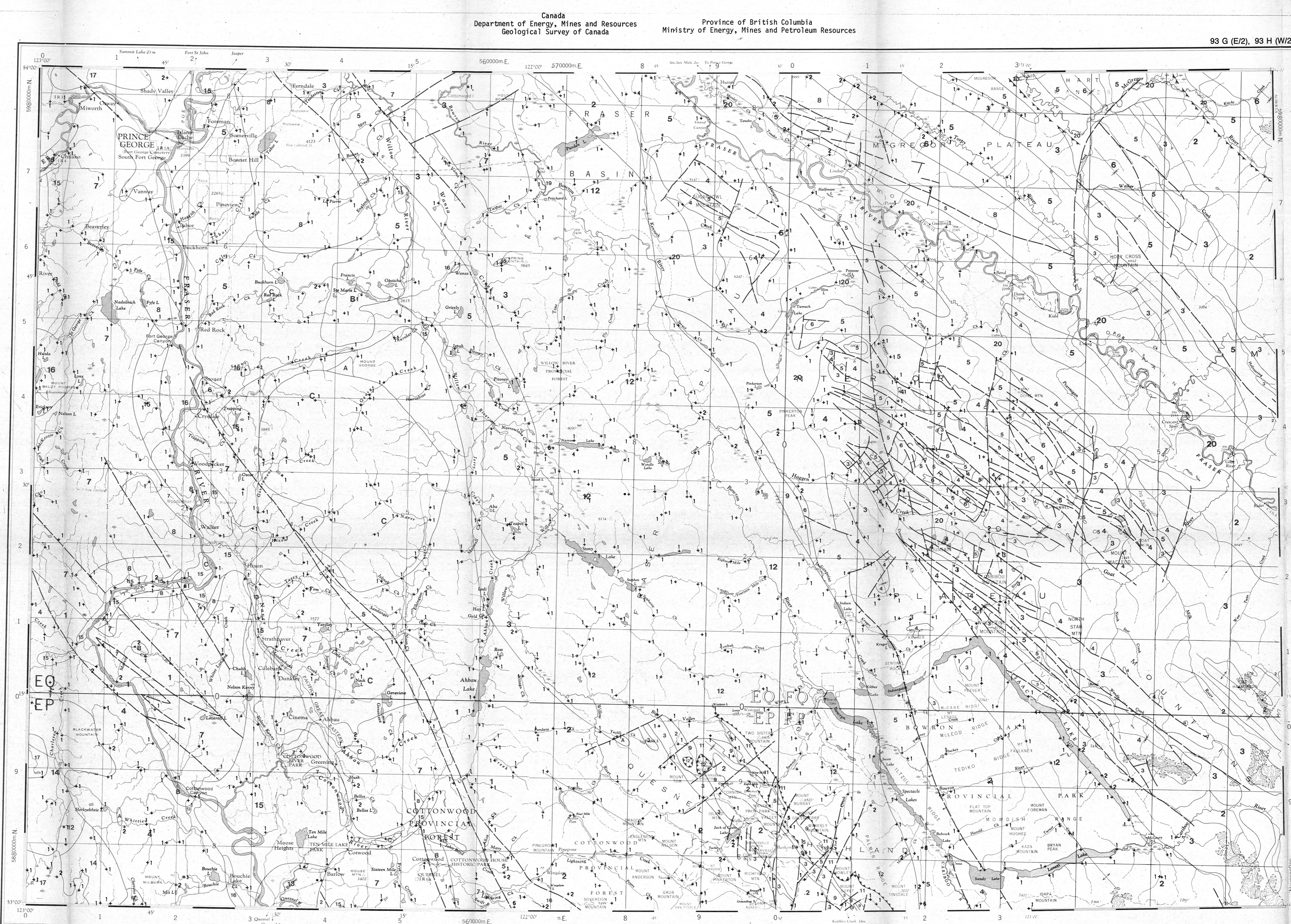
The four-letter mnemonic name indicates rock type and the two-digit number indicates age.

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) 330 (PRINCE GEORGE); Assessment Reports, refer to Assessment Report Index Map (AR) 850 (PRINCE GEORGE); Geologic Geology, refer to Index to Bedrock Geological Mapping, 1982; Mineral and Placer Claims Maps, contact Ministry of Energy, Mines and Petroleum Resources, Title Branch, for current status.

Geological Survey of Canada
Resource Geophysics and Geochemistry Division
Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources
CONTRACTORS
Sample collection by McInnes Surveying and
Engineering Ltd., Vancouver
Sample preparation by Golder Associates, Ottawa
Sediment chemical analysis by Barringer Magenta Ltd.,
Ottawa
Water chemical analyses by Barringer Magenta Laboratories
(Alberta) Ltd., Calgary

Copies of map material and listings of field observations and analytical data, from which the material was prepared, may be available at users expense by application to:
K.G. Campbell Corporation
880 Wellington St.
Bay 238
Ottawa, Ontario
K1R 6K7

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
K1A 0E4



Elevation in feet above mean sea level

Mean magnetic declination 1985, 27°34' West, decreasing 9.3' annually. Readings vary from 26°41' in the SW corner to 28°27' in the NE corner of the map area

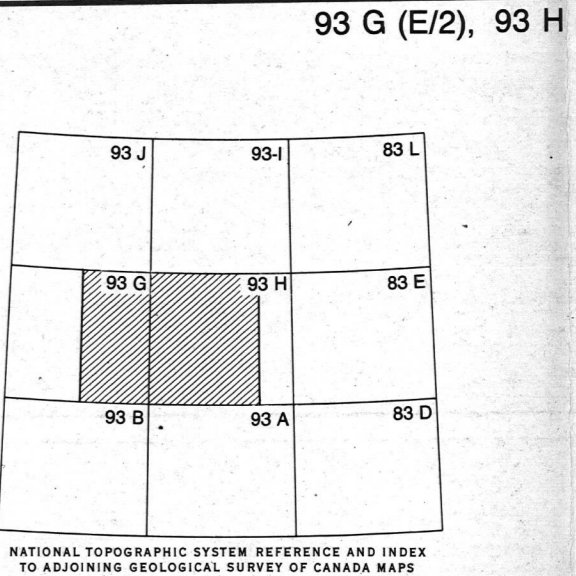
MOLYBDENUM (ppm)
GSC OPEN FILE 1107
REGIONAL GEOCHEMICAL RECONNAISSANCE MAP 72-1984
JOINT CANADA/BRITISH COLUMBIA PROGRAM
STREAM SEDIMENT AND WATER GEOCHEMICAL SURVEY
EAST-CENTRAL BRITISH COLUMBIA

Scale 1:250 000

Universal Transverse Mercator Projection
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Base map assembled by the Geological Cartography Unit from maps published at the same scale by the Surveys and Mapping Branch in 1969, 1970

This map has been reprinted from a 1985 version of the original map.
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This map forms one of a series of maps released by the Geological Survey of Canada, Open File 1107. The Open File consists of maps of various geochemical variables: 15 for stream sediment, 3 for stream water and 1 sample site location

MOLYBDENUM (ppm)
GSC OPEN FILE 1107
EAST-CENTRAL BRITISH COLUMBIA

MOLYBDENUM (ppm)
GSC OPEN FILE 1107
EAST-CENTRAL BRITISH COLUMBIA

LEGEND
(This legend to be used east of 122°00' only.)

Note: This legend is common for Regional Geochemical 72-1984 Open File 1107

QUATERNARY
PLEISTOCENE AND RECENT
[17] TILL 44) TILL, GRAVEL, SAND, SILT, ALLUVIUM

CRETACEOUS OR TERTIARY
UPPER CRETACEOUS OR PALEOCENE
[15] ISBLS 41) BROWN RIVER COAL BEDS, CONGLOMERATE, BRECCIA, SANDSTONE, SHALE, COAL
[15] ISBLS 36) SKYEMO FORMATION, SANDSTONE, SILTY SHALE, SILTSTONE
[14] ISL 34) FERRIS GROUP, SHALE, SILTY SHALE, SILTSTONE
[13] ISUP 34) UPPER JURASSIC
[13] ISL 34) PHYLITE, ARGILLITE, MINOR LIMESTONE, QUARTZITE

TRIASSIC
[6] ISUP 32) BLACK PHYLLITE, SILTSTONE, LIMESTONE, QUARTZITE
[5] ISUP 32) BLACK PHYLLITE, SILTSTONE, LIMESTONE, QUARTZITE

MIDDLE AND UPPER TRIASSIC
[13] ISL 32) SPRAY RIVER GROUP, WHITEHOUSE FORMATION, LIMESTONE AND DOLOMITE

LOWER AND MIDDLE TRIASSIC
[14] ISL 32) SULPHUR MOUNTAIN FORMATION, SILTSTONE AND SILTY LIMESTONE

MISSISSIPPIAN AND PERMIAN
[12] ISL 21) SLIDE MOUNTAIN GROUP, JANTER FORMATION, PILLOW BASALT, BRECCIA, TUFF, MINOR GCHERT, AND GARNET, CHERT, ARGILLITE, LITHIC SANDSTONE
[12] ISL 21) SLIDE MOUNTAIN GROUP, JANTER FORMATION, PILLOW BASALT, BRECCIA, TUFF, MINOR GCHERT, AND GARNET, CHERT, ARGILLITE, LITHIC SANDSTONE

MISSISSIPPIAN AND/OR YOUNGER
[17] ISBLS 21) SLIDE MOUNTAIN GROUP, JANTER FORMATION, PILLOW BASALT, BRECCIA, TUFF, MINOR GCHERT, AND GARNET, CHERT, ARGILLITE, LITHIC SANDSTONE

LOWER MISSISSIPPIAN AND/OR OLDER
[11] ISL 21) SLIDE MOUNTAIN GROUP, JANTER FORMATION, PILLOW BASALT, BRECCIA, TUFF, MINOR GCHERT, AND GARNET, CHERT, ARGILLITE, LITHIC SANDSTONE, CRINOIDAL LIMESTONE

DEVONIAN
[10] ISL 21) SLIDE MOUNTAIN GROUP, JANTER FORMATION, PILLOW BASALT, BRECCIA, TUFF, MINOR GCHERT, AND GARNET, CHERT, ARGILLITE, LITHIC SANDSTONE, CRINOIDAL LIMESTONE

UPPER AND MIDDLE DEVONIAN
[10] ISL 21) SLIDE MOUNTAIN GROUP, JANTER FORMATION, PILLOW BASALT, BRECCIA, TUFF, MINOR GCHERT, AND GARNET, CHERT, ARGILLITE, LITHIC SANDSTONE, CRINOIDAL LIMESTONE

LOWER DEVONIAN AND YOUNGER
[2] ISL 18) BLACK STARBUCK FORMATION, BASALT, CHERT, BRECCIA, DOLOMITE, LIMESTONE, SHALE, SANDSTONE, SILTSTONE

LOWER SILURIAN
[2] ISL 18) BLACK STARBUCK FORMATION, BASALT, CHERT, BRECCIA, DOLOMITE, LIMESTONE, SHALE, SANDSTONE, SILTSTONE

SILURIAN
[2] ISL 18) BLACK STARBUCK FORMATION, BASALT, CHERT, BRECCIA, DOLOMITE, LIMESTONE, SHALE, SANDSTONE, SILTSTONE

ORDOVICIAN
[2] ISL 18) BLACK STARBUCK FORMATION, BASALT, CHERT, BRECCIA, DOLOMITE, LIMESTONE, SHALE, SANDSTONE, SILTSTONE

LOWER AND MIDDLE ORDOVICIAN
[2] ISL 18) BLACK STARBUCK FORMATION, BASALT, CHERT, BRECCIA, DOLOMITE, LIMESTONE, SHALE, SANDSTONE, SILTSTONE

CAMBRIAN
[2] ISL 12) LYNAK, DOME CREEK, ARCTOMYS, WATERLOO, MOTA-ADOLPHUS, YATE-OWEN, TITKANA FORMATIONS, SHALE, SILTY LIMESTONE, DOLOMITE, SANDSTONE, SILTSTONE, ARGILLITE, PHYLLITE

LOWER CAMBRIAN AND HADRYANIAN
[2] ISL 12) LYNAK, DOME CREEK, ARCTOMYS, WATERLOO, MOTA-ADOLPHUS, YATE-OWEN, TITKANA FORMATIONS, SHALE, SILTY LIMESTONE, DOLOMITE, SANDSTONE, SILTSTONE, ARGILLITE, PHYLLITE

HADRYANIAN
[2] ISL 04) YANKEE BELLE, CUNNINGHAM FORMATIONS, SHALE, LIMESTONE, SILTSTONE, DOLOMITE, PHYLLITE

PHYLLITE, ARGILLITE, SCHIST, SANDSTONE, LIMESTONE, CONGLOMERATE
[2] ISL 04) YANKEE BELLE, CUNNINGHAM FORMATIONS, SHALE, LIMESTONE, SILTSTONE, DOLOMITE, PHYLLITE

TRIPCA 04) KAZA GROUP, SNOWSHOE FORMATION, MIDDLE MIETTE GROUP, FELDSPATHIC SANDSTONE, GRANULITE, CONGLOMERATE, SILTSTONE, ARGILLITE, PHYLLITE, SCHIST, LIMESTONE, MARBLE
[2] ISL 04) YANKEE BELLE, CUNNINGHAM FORMATIONS, SHALE, LIMESTONE, SILTSTONE, DOLOMITE, PHYLLITE

LARGO 04) LOWER MIETTE GROUP, ARGILLITE, PHYLLITE, SANDSTONE, LIMESTONE
[2] ISL 04) YANKEE BELLE, CUNNINGHAM FORMATIONS, SHALE, LIMESTONE, SILTSTONE, DOLOMITE, PHYLLITE

INTRUSIVE ROCKS
MISSISSIPPIAN OR YOUNGER
[4] ISGR 33) SERPENTINITE

SYMBOLS

GEOLOGICAL BOUNDARY: MAPPED, ASSUMED
FAULT (DOT ON DOWNSHOWN SIDE): MAPPED, ASSUMED
THRUST FAULT (TEETH ON HANGINGWALL): MAPPED, ASSUMED
ANTICLINAL AXIS
SYNCLINAL AXIS
STREAM SAMPLE SITE

GEOLGY AND MINERAL DEPOSITS

Generalized geology after Geological Survey of Canada, Map 196A to accompany Paper 72-35, Geology of British Columbia, Province of British Columbia, by R. B. Campbell, E. W. Mosley, and G. C. Taylor, Geological Survey of Canada Map 196A, Prince River, British Columbia, 1:1 000 000, compilation by H. W. Tipper, R. B. Campbell, G. C. Taylor, and D. F. Stott, 1979, Figure 2, Geological Map of the Carboniferous Area of the Carboniferous Area, by A. Sutherland, 1962, and Geological Survey of Canada Open File 78, Bedrock Geology of British Columbia, Area C, by L. C. Stott, 1981, used to determine stream sediment basin rock type for grouping of geochemical data.

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