

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 Nechako, >200 m thick along Blackwater.
- Meltwater or outwash channel deposits bounded by cutbanks or terraces
- UNDIVIDED GLACIOLACUSTRINE AND GLACIOFLUVIAL 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

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

Scale 1:1 000 000

Provincial Open File  
BC RGS-12-1984 (1936 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

CEANOZOIC  
QUATERNARY  
PLEISTOCENE AND RECENT  
[17] TILL, ALLUVIUM, SAND, SILT, ALLUVIUM  
TERTIARY  
MIOCENE AND PLEIOCENE  
[16] BELT 40 OLIVINE BASALT FLOWS, BRECCIA, AND TUFF  
[15] (S)S 40 SANDSTONE, SHALE, CONGLOMERATE, DIATOMITE, LIGNITE  
OLIGOCENE AND MIOCENE  
[14] LANS 40 ANDAGAP GROUP: ANDESITE, BASALT, DACITE  
PALEOCENE, EOCENE, OLILOCENE  
[13] (C)LM 40 CONGLOMERATE, SANDSTONE, SHALE, TUFF, BRECCIA  
MESOZOIC - CENOZOIC  
UPPER CRETACEOUS AND LOWER TERTIARY  
[12] (R)LT 40 DOTSIA LAKE GROUP: RHYOLITE, DACITE, TRACHYTE, SANDSTONE, SHALE, CONGLOMERATE  
CRETACEOUS  
[11] LANS 30 ANDSIT, TUFF, BRECCIA, ARGILLITE, ARKOSE, CONGLOMERATE  
[10] (C)LM 30 SZEENA GROUP: CONGLOMERATE, GREYWACKE, SHALE, COAL, VOLCANIC BRECCIA  
JURASSIC  
[9] MIDDLE JURASSIC LANS 20 HAZELTON GROUP (PART) UNDIVIDED: BASALT, ANDESITE, TUFF, BRECCIA, GREYWACKE, MUDSTONE, CONGLOMERATE  
[8] LOWER AND MIDDLE JURASSIC (S)HLE 20 SHALE, GREYWACKE, CONGLOMERATE  
[7] UPPER TRIASSIC AND LOWER JURASSIC (S)HLE 20 SANDSTONE, SHALE, LIMESTONE  
TRIASSIC  
[6] (P)LT 20 BLACK PHYLITE, SILTSTONE, LIMESTONE, QUARTZITE  
[5] (P)LT 20 BLACK PHYLITE, SILTSTONE, LIMESTONE, QUARTZITE  
PALEOZOIC  
PENNYNANIAN AND PERMIAN  
[4] (S)HLE 20 CACHO CREEK GROUP: RIBBON CHERT, BLACK ARGILLITE, LIMESTONE, CHERT  
MISSISSIPPIAN AND/OR YOUNGER  
[3] BELT 21 SLIDE MOUNTAIN GROUP: BASALT, BRECCIA, TUFF, CHERT, ARGILLITE, SANDSTONE, LIMESTONE, CONGLOMERATE  
CAMBRIAN  
[2] LOWER CAMBRIAN LANS 10 MORAY FORMATION: LIMESTONE (INCLUDES MAYFO FORMATION SILTSTONE, SANDSTONE)  
PROTEROZOIC  
HADRINIAN  
[1] (S)NS 04 KAZA GROUP: SANDSTONE, CONGLOMERATE, GAIT, PHYLITE, SCHIST, AMPHIBOLITE, MARBLE, GNEISS  
PLUTONIC ROCKS  
TERTIARY  
[5] (I)GR 40 GRANODIORITE, QUARTZ DIORITE, QUARTZ MONZONITE  
LOWER CRETACEOUS  
[4] (I)GN 30 NAVAR INTRUSIONS: QUARTZ MONZONITE, SYENITE, MONZONITE, GRANODIORITE, DIORITE  
UPPER TRIASSIC  
[3] (I)GR 20 TAKOMAKE BATHOLITH AND BODIES OF SIMILAR AGE AND LITHOLOGY: GRANODIORITE, QUARTZ DIORITE, QUARTZ MONZONITE  
PERMIAN AND/OR TRIASSIC  
[2] (I)SPH 20 TREMBLEUR INTRUSIONS AND SIMILAR BODIES: PERIODITE, 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

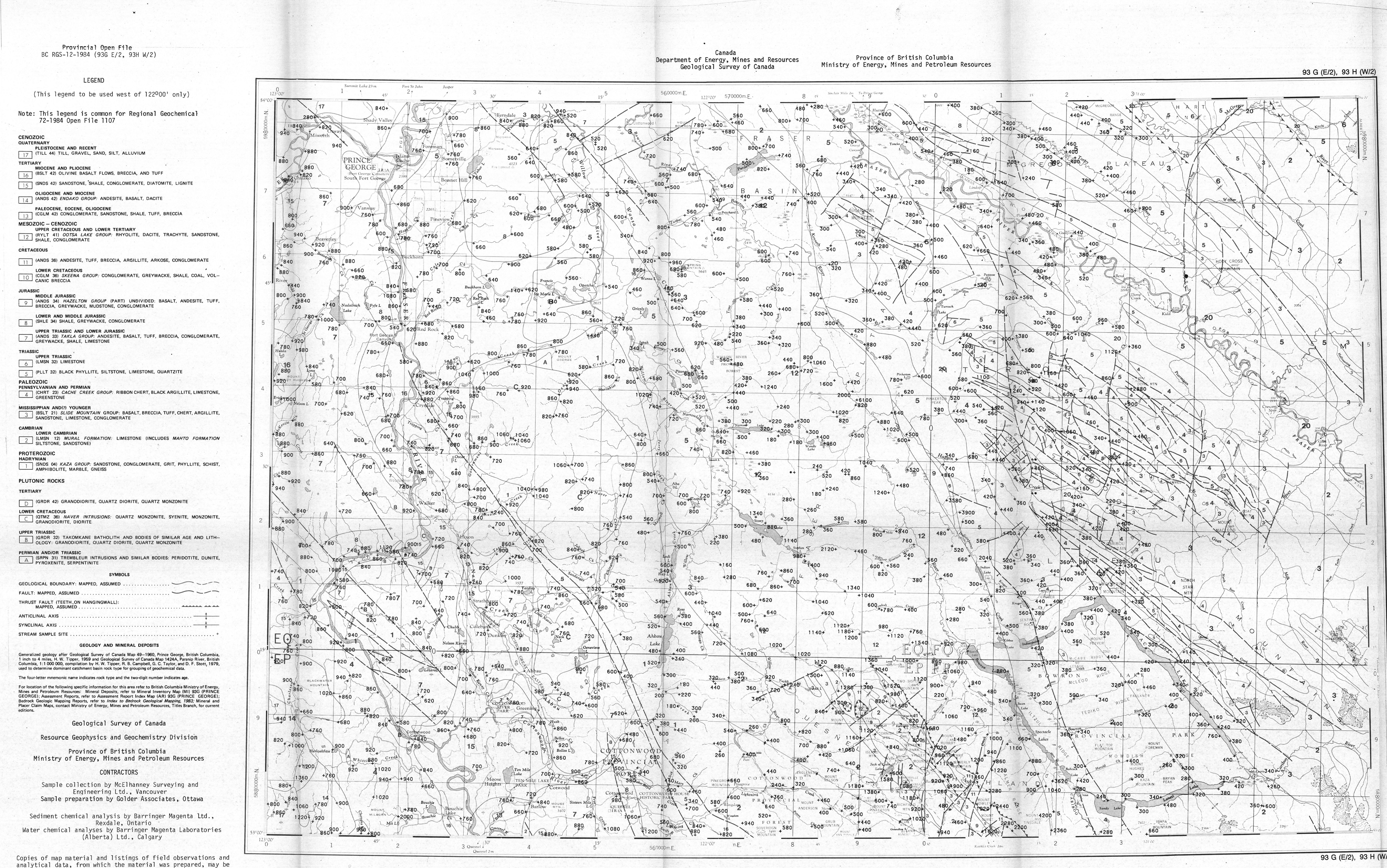
GEOLOGY AND MINERAL DEPOSITS  
Generated geology after Geological Survey of Canada Map 88-1980, Prince George, British Columbia, 1:500 000 scale, by R. W. Tipper, 1988 and Geological Survey of Canada Map 1024, Prince George, British Columbia, 1:1 000 000, compilation by R. W. Tipper, R. B. Campbell, G. C. Taylor, and D. F. Stott, 1979, used to determine stream catchment basin rock type for geochemical data.  
The four-letter mnemonic name indicates rock type and the two-digit number indicates age.

Geological Survey of Canada  
Resource Geophysics and Geochemistry Division  
Province of British Columbia  
Ministry of Energy, Mines and Petroleum Resources

CONTRACTORS  
Sample collection by McIlhenny Surveying and Engineering Ltd., Vancouver  
Sample preparation by Golder Associates, Ottawa

Sediment chemical analysis by Barringer Magenta Ltd., Rexdale, Ontario  
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:  
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Canada  
Department of Energy, Mines and Resources  
Geological Survey of Canada  
Province of British Columbia  
Ministry of Energy, Mines and Petroleum Resources

93 G (E/2), 93 H (W/2)

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, ALLUVIUM, SAND, SILT, ALLUVIUM  
CRETACEOUS ON TERTIARY  
UPPER CRETACEOUS OR PALEOCENE  
[16] (S)HLE 40 BROWN RIVER COAL BEDS: CONGLOMERATE, BRECCIA, SANDSTONE, SHALE, COAL  
UPPER JURASSIC AND LOWER CRETACEOUS  
[15] (S)NS 30 ANXANASSIN FORMATION: SANDSTONE, SILTY SHALE, SILTSTONE  
JURASSIC  
[14] (S)HLE 34 FERAE GROUP: SHALE, SILTY SHALE, SILTSTONE  
TRIASSIC  
UPPER TRIASSIC  
[10] (P)LT 20 PHYLITE, ARGILLITE, MINOR LIMESTONE, QUARTZITE  
MIDDLE AND LOWER TRIASSIC  
[9] LANS 20 GREAT RIVER GROUP: HYNTHORSE FORMATION: LIMESTONE AND OLIGOSTONE  
[8] LOWER AND MIDDLE TRIASSIC (S)HLE 20 SLOUPH MOUNTAIN FORMATION: SILTSTONE AND SILTY LIMESTONE  
MISSISSIPPIAN AND PERMIAN  
[13] LANS 20 RUNDLE GROUP: (S)HLE GROUP: BAUFF FORMATION: LIMESTONE, SANDSTONE, LIMY SHALE, DOLOMITE, CHERT  
MISSISSIPPIAN  
LOWER MISSISSIPPIAN AND/OR YOUNGER  
[12] (S)HLE 21 SLIDE MOUNTAIN GROUP: ANTLER FORMATION: FLOW BASALT, BRECCIA, TUFF, MINOR DIORITE AND GABBRO, CHERT, ARGILLITE, LITHIC SANDSTONE  
LOWER MISSISSIPPIAN AND/OR OLDER  
[11] (C)LM 30 SZEENA FORMATION: GREENBERY FORMATION: CONGLOMERATE, ARGILLITE, LITHIC SANDSTONE, CRINOIDAL LIMESTONE  
DEVONIAN  
UPPER AND MIDDLE DEVONIAN  
[10] LANS 10 FALLSBERG, SOUTHERN ALEXO, PERDIX MOUNT, HANK, FLUM FORMATIONS: LIMESTONE, SHALE, SANDSTONE, SILTSTONE  
LOWER DEVONIAN AND YOUNGER  
[7] (S)HLE 10 BLACK STUART FORMATION: BASALT, CHERT, CHERT DOLOMITE, BRECCIA, UPPER UNIT CHERT, ARGILLITE, PHYLITE, SANDY LIMESTONE  
SILURIAN  
LOWER SILURIAN  
[8] (S)HLE 20 WONGA FORMATION: ALL OR PART: DOLOMITE, LIMESTONE, QUARTZITE, SHALE, GREENSTONE FLOWS AND SILLS  
LOWER AND MIDDLE OROVICAN  
[6] (D)MVT 10 SPOKE, MOKEMAN, CHUGHINA FORMATIONS: DOLOMITE, LIMESTONE, SANDSTONE, SHALE, QUARTZITE  
CAMBRIAN  
[5] (S)HLE 10 EVAK, DOME CREEK, ACTONYS, WATERFLOW, NOTA-ADOLPHUS, TATE-CHESTANG, TITKAMA FORMATIONS: SHALE, SILTY LIMESTONE, DOLOMITE, SANDSTONE, SILTSTONE, ARGILLITE, PHYLITE  
LOWER CAMBRIAN AND HADRINIAN  
[4] (S)HLE 10 HADRIAN, MORAY, HAZELTON, MAUSGUTON, YAKS PEAK FORMATIONS: QUARTZITE, LIMESTONE, SHALE, SILTSTONE, PHYLITE, DOLOMITE, CONGLOMERATE  
HADRINIAN  
[3] (S)HLE 10 YAKER BELLE, CONINGHAM FORMATIONS: SHALE, LIMESTONE, SILTSTONE, DOLOMITE, PHYLITE  
[2] (P)LT 20 MLETTE GROUP: ISAC FORMATION: PHYLITE, ARGILLITE, SCHIST, SANDSTONE, LIMESTONE, CONGLOMERATE  
[1] (S)HLE 10 KAZA GROUP: SANDSTONE, MIDDLE MLETTE GROUP: FELSPATHIC SANDSTONE, GRANULE, CONGLOMERATE, SILTSTONE, ARGILLITE, PHYLITE, SCHIST, LIMESTONE, MARBLE  
[0] (S)HLE 10 LOWER MLETTE GROUP: ARGILLITE, PHYLITE, SANDSTONE, LIMESTONE  
INTRUSIVE ROCKS  
MISSISSIPPIAN OR YOUNGER  
[A] (S)HLE 20 SERPENTINITE

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

GEOLOGY AND MINERAL DEPOSITS  
Generated geology after Geological Survey of Canada, Map 1024 to accompany Paper 72-35, Geology of Middle Main Area, British Columbia, by R. B. Campbell, E. W. Murray, and F. C. Young, Geological Survey of Canada Map 1024, Prince George, British Columbia, 1:1 000 000, compilation by R. W. Tipper, R. B. Campbell, G. C. Taylor, and D. F. Stott, 1979, Paper 2, Geological Map of the Caribou River Area of the Caribou River Area, by A. Sutherland Brown, 1983, and Geological Survey of Canada Open File 78, British Geology of the Caribou River Area, by R. C. Bruck, 1981, used to determine stream catchment basin rock type for 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 101 (MIR101); Assessment Reports, refer to Assessment Report Index Map 101 (AIR101) PRINCE GEORGE; Bedrock Geology Mapping Reports, refer to Index to Bedrock Geology Mapping, 1982; Mineral and Placer Claim Maps, contact Ministry of Energy, Mines and Petroleum Resources, Tish Branch, for current editions.

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BARIUM (ppm)  
GSC OPEN FILE 1107  
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 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: 19 for stream sediment, 3 for stream water and 1 sample site location

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