

**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 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

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 RS-12-1984 (93G E/2, 93H W/2)

**LEGEND**  
(This legend to be used west of 122°00' on W)

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
- TERTIARY**
- MIOCENE AND PLEISTOCENE  
[16] SANDS 42) OLIVINE BASALT FLUIDS, BRECCIA, AND TUFF  
[15] SANDS 42) OLIVINE BASALT FLUIDS, BRECCIA, AND TUFF
- OLIGOCENE AND MIOCENE  
[14] SANDS 42) ENDKAO GROUP, ANDESITE, BASALT, DACITE
- PALEOCENE, EOCENE, OLILOCENE  
[13] SANDS 42) CONGLOMERATE, SANDSTONE, SHALE, TUFF, BRECCIA
- MESOZOIC - CENOZOIC  
[12] UPPER CRETACEOUS AND LOWER TERTIARY  
[11] TUFF 41) OOLITE LAKES GROUP, RHODITE, DACITE, TRACHYTE, SANDSTONE, SHALE, CONGLOMERATE
- CRETACEOUS**
- [11] SANDS 36) ANDESITE, TUFF, BRECCIA, ARGILLITE, ARKOSE, CONGLOMERATE
- LOWER CRETACEOUS  
[10] SANDS 36) SKEENA GROUP, CONGLOMERATE, GREYWACKE, SHALE, COAL, VOLCANIC BRECCIA
- JURASSIC**
- MIDDLE JURASSIC  
[9] SANDS 34) MAZZON TUFF (PART) UNDIVIDED, BASALT, ANDESITE, TUFF, BRECCIA, GREYWACKE, MUDSTONE, CONGLOMERATE
- LOWER AND MIDDLE JURASSIC  
[8] SHALE 34) SHALE, GREYWACKE, CONGLOMERATE
- UPPER TRIASSIC AND LOWER JURASSIC  
[7] SANDS 33) TALLA GROUP, ANDESITE, BASALT, TUFF, BRECCIA, CONGLOMERATE, GREYWACKE, SHALE, LIMESTONE
- TRIASSIC**
- UPPER TRIASSIC  
[6] LIMSTN 23) LIMESTONE
- [5] PLYT 23) BLACK PHYLITE, SILTSTONE, LIMESTONE, QUARTZITE
- [4] PLYT 23) BLACK PHYLITE, SILTSTONE, LIMESTONE, QUARTZITE
- PALEOZOIC AND PERMIAN**
- [3] COHST 23) CACHE CREEK GROUP, RIBBON CHERT, BLACK ARGILLITE, LIMESTONE, GREENSTONE
- MISSISSIPPIAN AND/ OR YOUNGER**
- [2] BELT 21) BELT GROUP, BASALT, BRECCIA, TUFF, CHERT, ARGILLITE, SANDSTONE, LIMESTONE, CONGLOMERATE
- CAMBRIAN**
- LOWER CAMBRIAN  
[1] LIMSN 23) MURAL FORMATION, LIMESTONE (INCLUDES MARHO FORMATION SANDSTONE, SHALE, QUARTZITE)
- PROTEROZOIC**
- HADRYAN  
[1] SANDS 30) KAZA GROUP, SANDSTONE, CONGLOMERATE, GRIT, PHYLITE, SCHIST, AMPHIBOLITE, MARBLE, GNEISS
- PLUTONIC ROCKS**
- TERTIARY  
[D] IGORR 42) GRANODIORITE, QUARTZ DIORITE, QUARTZ MONZONITE
- LOWER CRETACEOUS  
[C] OTMAY 30) MAYER INTRUSIONS, QUARTZ MONZONITE, SYENITE, MONZONITE, GRANODIORITE, DIORITE
- UPPER TRIASSIC  
[B] IGORR 32) TAKOMKANE BATHOLIT AND BODIES OF SIMILAR AGE AND LITHOLOGY, GRANODIORITE, QUARTZ DIORITE, QUARTZ MONZONITE
- PERMIAN AND/ OR TRIASSIC  
[A] IGORR 23) TREMULEN INTRUSIONS AND SIMILAR BODIES, PERIDOTITE, DUINITE, 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**

Generalized geology after Geological Survey of Canada Map 49-1980, Prince George, British Columbia, 1 inch to 4 miles, W. Tipper, 1989 and Geological Survey of Canada Map 1424A, Parsnip River, British Columbia, 1:1 000 000, compiled by H.W. Tipper, R.B. Campbell, G.C. Taylor, and D.F. Stott, 1979, used to determine dominant 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 1801 9300 (PFR/DEI) and Mineral Deposits, refer to Assessment Report Index Map 1400 (PFR/DEI) (British Columbia Assessment Reports, refer to Index to British Geological Mapping, 1982, Mineral and Water Claims Maps, contact Ministry of Energy, Mines and Petroleum Resources, Titles Branch, for current editions).

**Geological Survey of Canada**

Resource Geophysics and Geochemistry Division

Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

**CONTRACTORS**

Sample collection by McElhaney Surveying and Engineering Ltd., Vancouver

Sample preparation by Golder Associates, Ottawa

Sediment chemical analysis by Barringer Magenta Ltd., Rexdale, Ontario

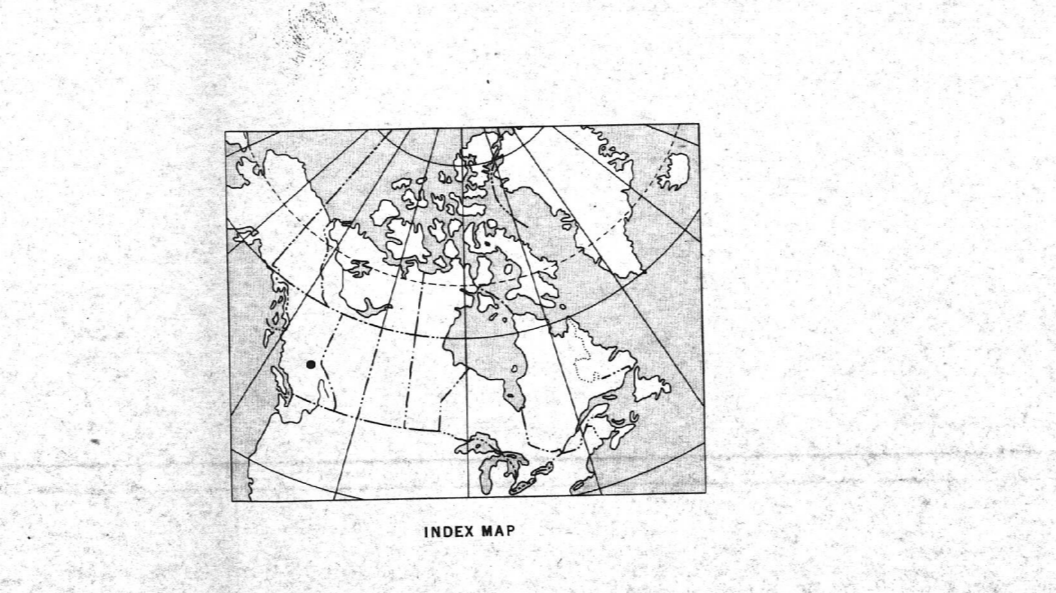
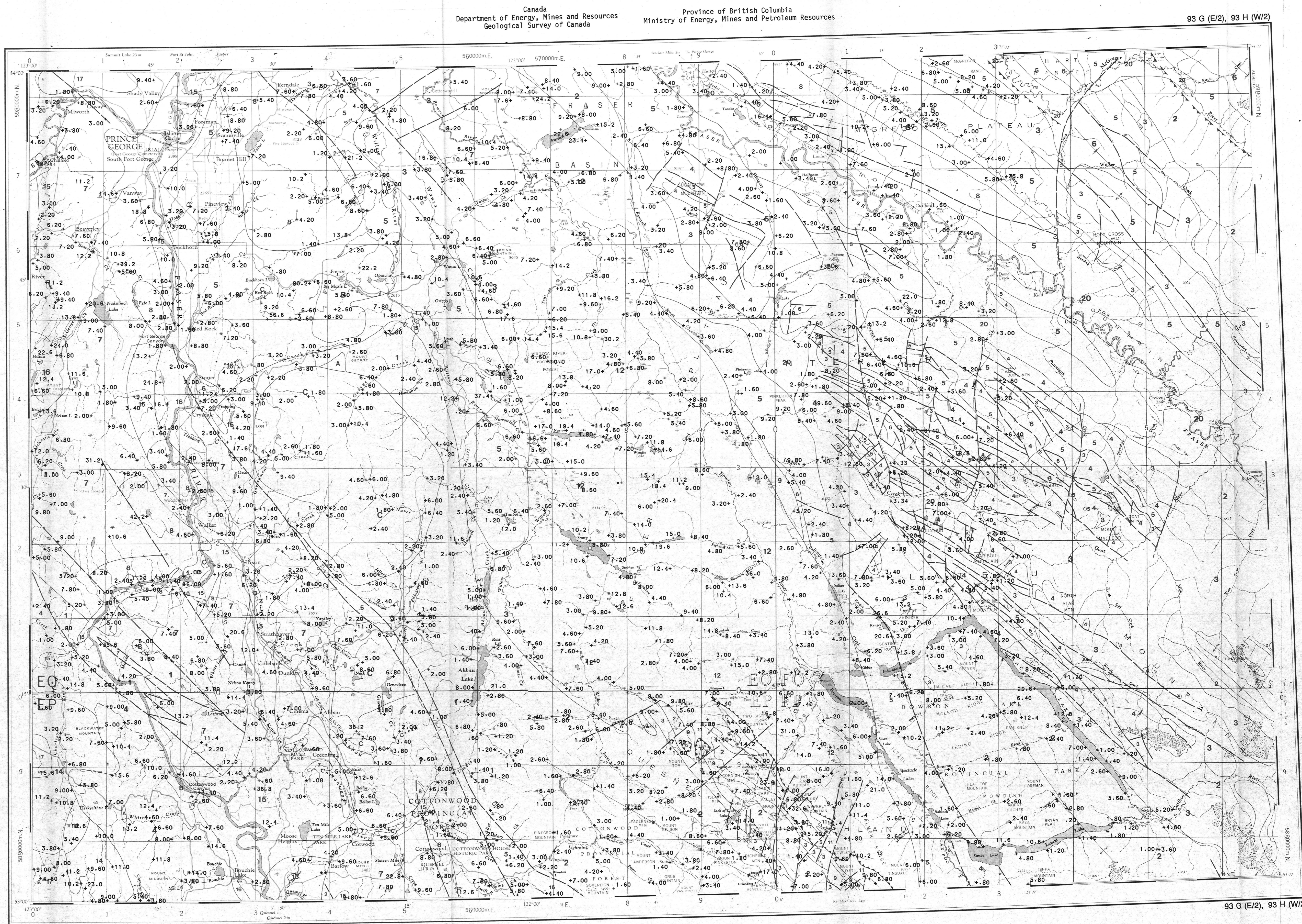
Water chemical analyses by Barringer Magenta Laboratories (Alberta) Ltd., Calgary

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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The data are also available in digital form. For further information please contact:

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Elevation in feet above mean sea level

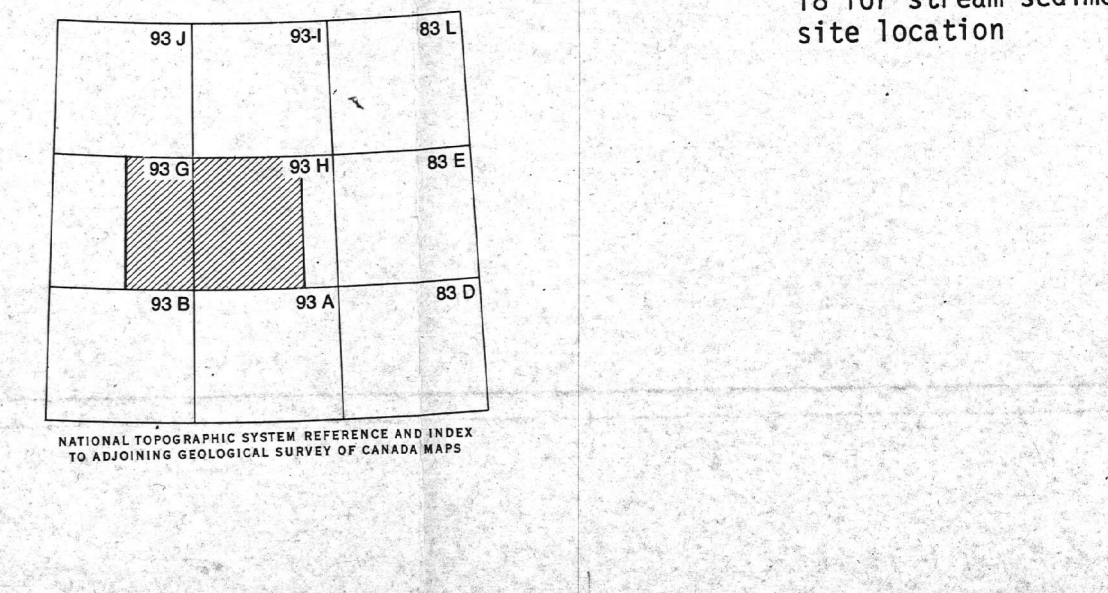
Mean magnetic declination 1985, 27934' West, decreasing 9.9' annually. Readings vary from 26041' in the SW corner to 26927' in the NE corner of the map area

**LOSS ON IGNITION (%)**  
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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**LOSS ON IGNITION (%)**  
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EAST-CENTRAL BRITISH COLUMBIA

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