



LEGEND

- CRETACEOUS**
LOWER CRETACEOUS
FORT ST. JOHN GROUP
KB BUCKINGHORSE FORMATION - Shale, black; scattered brown-weathering sideritic nodules common in middle and upper parts; minor sandstone.
- JURASSIC AND CRETACEOUS**
JKm-b MINNES AND BULLHEAD GROUPS (Undivided) - Quartz arenite, massive white, or fine grained grey; interbedded, fine grained sandstone and shale; argillaceous quartz arenite; massive chert pebble conglomerate, conglomeratic sandstone; minor coal. May include underlying Fernie Fm., where it is too thin to show at 1:50 000 scale.
- JURASSIC**
JF FERNIE FORMATION - Shale, black rusty; and shale, calcareous, grey.
- TRIASIC**
SCHOOLER CREEK GROUP
TP PARDONET FORMATION - Limestone, recessive flaggy, fossiliferous, shaly and silty; abundant Monotis pelecypods are a characteristic feature; bivalves, brachiopods and lictheosaur bones are locally preserved.
- TP-B** BALDONNEL AND PARDONET FORMATIONS (Undivided)
- TB** BALDONNEL FORMATION - Limestone, massive grey cliff forming, fossiliferous; with minor shale; siltstone; quartz arenite; and argillaceous limestone.
- TC** CHARLIE LAKE FORMATION - Siltstone, calcareous, dolomitic, orange-weathering; sandy limestone; shale; quartz arenite; breccia.
- TL** LIARD FORMATION (Halfway Fm. - subsurface) Quartz arenite, massive to cross-bedded, fine to very fine grained, forming metre-scale thick units; interstratified with calcareous and dolomitic siltstone; limestone.
- DIABER GROUP**
TGT TOAD - GRAYLING FORMATION (Doig and Montney fms. - subsurface) Shale, calcareous, brown-gray weathering, laminated with units of very shaly, brown-weathering fine grained limestone. More calcareous in the lower part. More phosphatic in the lower part.
- CARBONIFEROUS AND PERMIAN**
RUNDLE, STODDART, AND ISHBEL GROUPS
CP-C PROPHEAT FORMATION, MEMBER 'C' PLUS PERMIAN FANTASQUE FORMATION Limestone, grey, fossiliferous, silicified, well bedded; slightly more recessive than Member B. Includes chert of the overlying Fantasque Fm. and may include thin units of Stoddart and Ishbel groups.
- CP-B** PROPHEAT FORMATION, MEMBER 'B' Chert, black; spicular limestone, bioturbated; massive to irregularly bedded; resistant, forming conspicuous dark grey cliffs.
- CP-A** PROPHEAT FORMATION, MEMBER 'A' Spiculite, radiolarite, lime-wackestone, shale, minor siltstone; thin-bedded; orange-brown to dark grey; slightly recessive.
- DEVONIAN AND CARBONIFEROUS**
DCBR BESA RIVER FORMATION - Black siliceous shale, minor siltstone (marine) calcareous siltstone; silty limestone; and limestone.

MAP SYMBOLS

- Outcrop (small, large, scattered, debris)
- Note: Small outcrop symbol, X, denotes exact location of structural measurements. Associated structural symbols are positioned for clarity adjacent to outcrop symbols.
- Geological boundary (defined, approximate, assumed)
- LOCAL STRUCTURES**
PLANAR STRUCTURES
 Bedding, tops known (horizontal, inclined, overturned)
- Cleavage, first phase (inclined)
- Minor normal fault
- LINEAR STRUCTURES**
 Fault striation
- REGIONAL STRUCTURES**
 Thrust fault (teeth indicate dip direction; defined, approximate, assumed)
- Fault, sense uncertain (certain, assumed)
- Anticline (defined, approximate, assumed)
- Syncline (defined, approximate, assumed)
- Anticline - limbs dip in same direction, arrow on steeper limb (certain, approximate, assumed)
- Syncline - limbs dip in same direction, arrow on steeper limb (certain, approximate, assumed)
- Overtured anticline (defined, approximate, assumed)
- Overtured syncline (defined, approximate, assumed)
- Overtured anticline - limbs dip in opposite direction (certain, approximate, assumed)
- Overtured syncline - limbs dip in opposite direction (certain, approximate, assumed)
- OTHERS**
 Fossil locality

OPEN FILE
 DOSSIER PUBLIC
 3733
 GEOLOGICAL SURVEY
 COMMISSION GÉOLOGIQUE
 OTTAWA
 JUNE 1999

Although every effort has been made to ensure accuracy, this Open File Report has not been edited for conformity with Geological Survey of Canada standards.

Geology by G. S. Stockmal based on fieldwork and studies of vertical air photographs 1998.
 THIS MAP IS A PRODUCT OF THE CENTRAL FORELAND NATMAP PROJECT

Acknowledgements
 Geology from field work by G.S. Stockmal 1998. With contributions from: Ann Ceccanese and Paul Mortensen (Crestar Energy).

Geological cartography by G. S. Stockmal and S. J. Hinds

Any revisions or additional geological information from the user would be welcomed by the Geological Survey of Canada
 Base map at the same scale published Surveys and Mapping Branch in 1971

NOTES:
 Base map and geology have been transformed from NAD27 (North American Datum 1927) to NAD83.
 Although every effort has been made to ensure accuracy, this Open File Report has not been edited for conformity with Geological Survey of Canada Standards.

94F/16	94G/13	94G/14
x	Kluachesi Lake	Bunch Creek
94F/09	94G/12W	94G/12E
x	Richards Creek OSF 3733	Minaker River OSF 3735
94F/08	94G/05W	94G/05E
x	Redfern Lake OSF 3734	Mount Withrow OSF 3737

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADJOINING GEOLOGICAL SURVEY OF CANADA MAPS

This map has been reprinted from a scanned version of the original map
 Reproduction par numérisation d'une carte sur papier

Recommended citation:
 Stockmal G. S.,
 1999: Preliminary Geology - Richards Creek (East Half), British Columbia (94G/12); Geological Survey of Canada, Open File map 3733, scale 1:50 000.

CONTOUR INTERVAL 100 FEET
 Elevations in Feet above Mean Sea Level
 North American Datum 1983
 Transverse Mercator Projection

PRELIMINARY GEOLOGY
RICHARDS CREEK
 PEACE RIVER DISTRICT
 (EAST HALF)
 BRITISH COLUMBIA

Scale 1:50 000 Échelle 1/50 000
 Kilometres 1 0 1 2 3 Kilometres

Universal Transverse Mercator Projection
 © Her Majesty the Queen in Right of Canada, 1999
 Projection transverse universelle de Mercator
 © Sa Majesté la Reine du chef du Canada, 1999

