



### LEGEND

MESOZOIC	<b>CRETACEOUS</b>
	<b>LOWER CRETACEOUS</b>
	<b>FORT ST. JOHN GROUP</b>
	<b>SCATTER FORMATION:</b> Resistant, greenish-grey, glauconitic, laminated sandstone, medium- to thick-bedded; silty, concretionary mudstone common in middle part of unit.
<b>KGr</b>	<b>GARBUTT FORMATION:</b> Grey shale and siltstone with siltitic concretions; minor thin-bedded, finely laminated sandstone.
<b>KCh</b>	<b>CHINKEH FORMATION:</b> Chert-pebble conglomerate overlain by bedded quartz arenite with variable chert content, and argillaceous siltstone; woody or plant debris common.
PALEOZOIC	<b>PERMIAN</b>
	<b>ISHBEL GROUP</b>
	<b>FANTASQUE FORMATION:</b> Rusty weathering dark grey to white, well bedded, specific chert, rhythmically interbedded with minor shale and siliceous siltstone.
	<b>Tika map unit:</b> Buff weathering, light to medium brown, silty or sandy limestone or dolomite; medium-bedded, massive to cross-laminated, recumbent fracture pattern characteristic.
<b>LOWER CARBONIFEROUS</b>	
<b>MATTSON FORMATION</b>	
<b>CM-mu</b>	<b>MIDDLE AND UPPER MEMBERS UNDIVIDED:</b> see Note 1
<b>CM-u</b>	<b>UPPER MEMBER:</b> Light to medium grey, fine- to coarse-grained, locally calcareous or dolomitic quartz arenite and sub-chert-arenite; suborbinate fossiliferous limestone, dolomite, and grey to green shale; sandstone commonly shows large-scale crossbedding; may include Tika map unit.
<b>CM-m</b>	<b>MIDDLE MEMBER:</b> Grey to buff to brown, poorly- to well-indurated, fine-grained quartz arenite and subordinate sub-chert arenite with siltstone and dark shale; sandstone shows fine- to large-scale crossbedding; typically forms sharp-based, thick-bedded, fining-up sequences.
<b>CM-l</b>	<b>LOWER MEMBER:</b> Greyish-orange weathering, light grey or buff, well-indurated, fine- to very fine-grained quartz arenite interbedded with siltstone and dark grey shale; dolomite, and illicost breccia, cross-laminated and trace fossils common; typically thin- to medium-bedded with coarsening-up sequences.
<b>DEVONIAN AND CARBONIFEROUS</b>	
<b>DCBR</b>	<b>SESA RIVER FORMATION:</b> Dark grey to black shale, locally weathering buff; minor interbedded greyish- orange weathering sandstone, siltstone, illicost breccia, dolomite and limestone increasing up section; scattered siltitic nodules.

### MAP SYMBOLS

Geological boundary (defined, approximate, assumed)

Marker beds

Outcrop stations

Outcrop: observation by helicopter

Bedding (inclined, horizontal), tops established by sedimentary structures and/or stratigraphic order

Fractures

Joints

Crossbedding (dip direction and dip, uncorrected)

Anticline (defined, approximate, assumed)

Syncline (defined, approximate, assumed)

Anticlinal kink fold - (defined, approximate, assumed) (See diagram below)

Synclinal kink fold - (defined, approximate, assumed) (See diagram below)

Fault, thrust (defined, approximate, assumed)

Stratigraphic section (short, long)

Well (dry abandoned, gas abandoned)

### FOLD SYMBOLOGY

Cross-section view: double arrows are used to indicate folds where the dip direction changes across the hinge, and single arrows are used where the dip direction remains the same across a hinge (see Stockmal et al., 2002).

### LIST OF WELLS

UWID	FULL NAME	SFUD DATE	SURFACE LOCATION (Easting, Northing)
1 300F08604124302	CPOG ET AL LABICHE F-08	03-Aug-88	416806, 6721845
2 300C30604124300	FNX LA BICHE C-30	01-Mar-75	413652, 6725274

### STRATIGRAPHIC SECTIONS

SECTION	NOTES
1 76RAH1	Mattson Fm - B.C. Richards (Richards, 1989)
2 02RAH18	Tika map unit (continues from 76RAH1) - B.C. Richards (unpublished data, 2002)
3 02RAH20	Fantasque Fm - B.C. Richards (unpublished data, 2002)
4 L5	Chinkeh Fm - D.A. Leckie (Leckie et al., 1991)
5 L3	Chinkeh Fm - D.A. Leckie (Leckie et al., 1991)
6 L6	Chinkeh Fm - D.A. Leckie (Leckie et al., 1991)

**NOTES:**

- Middle and Upper members of the Mattson Formation are not subdivided in parts of the western half of the map area due to difficulties in delineating the characteristic carbonate beds of the Upper Mattson under heavy bush cover.
- Bedding orientations are shown at station locations; crossbedding and joint orientations are shown slightly offset from stations for clarity.

**References:**

- Leckie, D.A., Potocki, D.J., and Visser, K. 1991: The Lower Cretaceous Chinkeh Formation: A frontier-type play in the Liard Basin of Western Canada; *American Association of Petroleum Geologists Bulletin*, v.75 (8), pp.1324-1352.
- Richards, B.C. 1989: Uppermost Devonian and lower Carboniferous stratigraphy, sedimentation, and diagenesis, southwestern District of Mackenzie and southeastern Yukon Territory; *Geological Survey of Canada, Bulletin* 390, 135p.
- Stockmal, G.S., Kubli, T.E., Currie, L.D., and McDonough, M.R., 2002: Map symbology and analysis of box and polycinal folds, with examples from the Rocky Mountain Foothills of northeastern British Columbia and the Liard Ranges of southeastern Yukon Territory and southwestern Northwest Territories; *Canadian Journal of Earth Sciences*, vol. 39, p.145-155.

Compilation by A. K. Khudoley based on fieldwork and studies of vertical air photographs 2002.  
THIS MAP IS A PRODUCT OF THE CENTRAL FORELAND NATMAP PROJECT

Geology from field work by A. K. Khudoley 2002, with contributions from L.C. Pigape, K.M. Fallas, L.D. Currie, and L.S. Lane  
Geological cartography by 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 - CONTOUR INTERVAL: 100 FEET  
Elevations in Feet above Mean Sea Level

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**NATMAP CARTNAT**  
Canada's National Geoscience Mapping Program  
Le Programme national de cartographie géoscientifique du Canada

**GEOLOGY**  
**TIKA CREEK (95C/10)**  
YUKON TERRITORY AND NORTHWEST TERRITORIES

Scale 1:50 000 Echelle 1/50 000

Kilometres 1 0 1 2 3 Kilometres

Universal Transverse Mercator Projection  
North American Datum 1983  
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Projection transverse universelle de Mercator  
Système de référence géodésique nord-américain, 1983  
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GEOLOGICAL SURVEY OF CANADA  
COMMISSION GÉOLOGIQUE DU CANADA

2003

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no title	95C/14	95C/15	95C/16
Dendale Lake	GSC OF 1460	GSC OF 1460	GSC OF 1676
Whitefish River	95C/11	95C/10	95C/09
Gold Pay Creek	95C/06	95C/07	95C/08
Brown Lake	GSC OF 4267	GSC OF 4267	GSC OF 1563
Babiche Mountain			

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