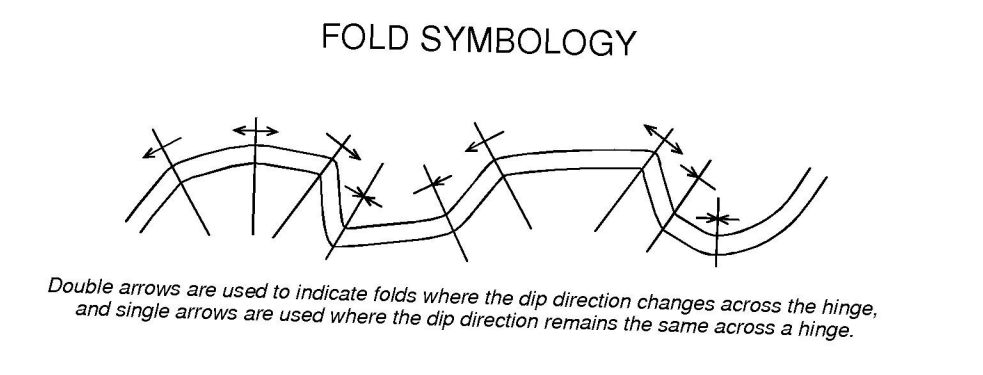


### LEGEND

|                            |  |  |
|----------------------------|--|--|
| MESOZOIC                   | CRETACEOUS   |  |
|                            | LOWER CRETACEOUS   |  |
|                            | FORT ST JOHN GROUP   |  |
|                            | KSc  | SCATTER FORMATION: Resistant, greenish-grey, glauconitic, laminated sandstone; medium- to thick-bedded; silty, concretionary mudstone common in middle part of unit.   |
|                            | KGr  | GARBUTT FORMATION: Grey shale and siltstone with sideritic concretions; minor thin-bedded, finely laminated sandstone; may include the Chinkik Formation where that unit is too thin to map separately.  |
|                            | KCh  | CHINKIK FORMATION: Chert-pebble conglomerate overlain by bioturbated quartz common.  |
|                            | TRIASSIC   |  |
|                            | DIABER GROUP   |  |
|                            | Tt   | TODD FORMATION: Grey, red, and green shale interbedded with thin- to thick-bedded brown sandstone; locally calcareous or phosphatic.   |
|                            | PALEOZOIC  | PERMIAN  |
| ISHBEL GROUP               |  |  |
| PF                         |  | FANTASQUE FORMATION: Dark grey to white, well bedded, spiculate chert; rusty weathering; rhythmically interbedded with minor shale and siliceous siltstone.  |
| PT                         |  | Tika map unit: Buff weathering, light to medium brown, silty and sandy limestone or dolomite grading into calcareous siltstone and sandstone; medium-bedded, massive to crossstratified; sparsely fossiliferous; rectilinear fracture pattern characteristic.  |
| LOWER CARBONIFEROUS        |  |  |
| MATTSON FORMATION          |  |  |
| CM-mu                      |  | MIDDLE AND UPPER MEMBERS UNDIVIDED: See Note 1   |
| CM-u                       |  | UPPER MEMBER: Light to medium grey, fine- to coarse-grained, locally calcareous or dolomitic quartz arenite and sub-chert arenite; subordinate fossiliferous limestone, dolomite, and grey to green shale; sandstone commonly shows large-scale crossbedding; fossils in the limestone are commonly silicified; may include Tika map unit. |
| CM-m                       |  | MIDDLE MEMBER: Grey to buff to brown, poorly- to well-indurated, fine-grained quartz arenite with subordinate siltstone and dark shale; sandstone shows fine- to large-scale crossbedding; typically forms sharp-based, thick-bedded, fining-up sequences.   |
| CM-l                       |  | LOWER MEMBER: Greyish-orange weathering, light grey or buff, well-indurated, fine- to very fine-grained quartz arenite interbedded with siltstone and dark grey shale; minor coal, dolomite, and lithoclast breccia; crossstratification and trace fossils common; typically thin- to medium-bedded with coarsening-up sequences.          |
| DEVONIAN AND CARBONIFEROUS |  |  |
| DCBR                       | BESA RIVER FORMATION: Dark grey to black shale, locally weathers buff; sparsely fossiliferous; minor interbedded greyish- orange weathering sandstone, siltstone, lithoclast breccia, dolomite and limestone increasing up section; scattered sideritic nodules. |  |

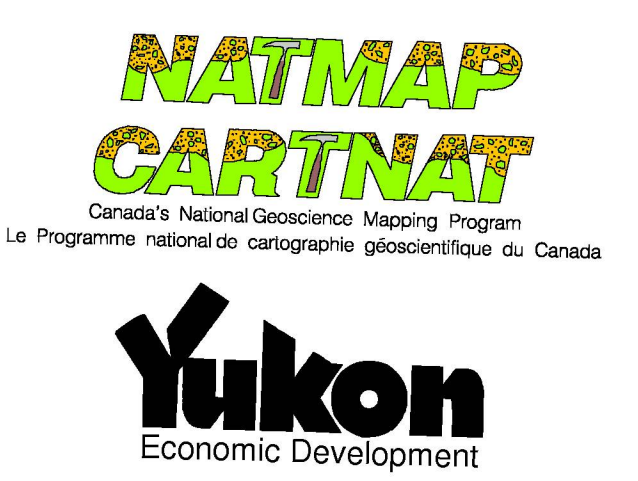
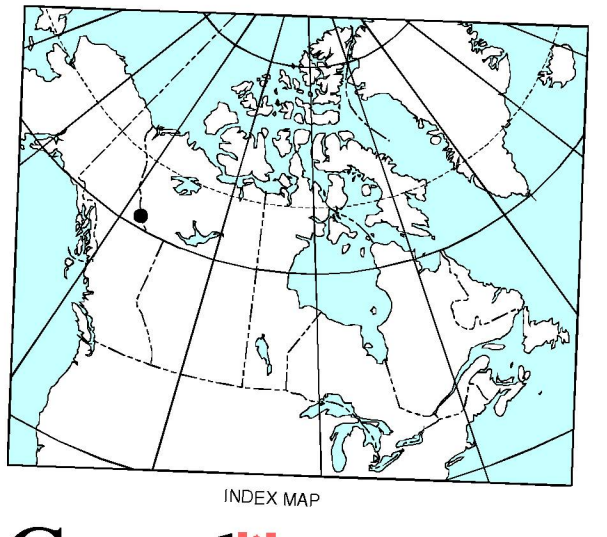
### MAP SYMBOLS

|   |  |
|---|--|
| Geological boundary (defined, approximate, assumed)   |  |
| Limestone marker beds   |  |
| Nomenclature change   |  |
| Outcrop stations  |  |
| Outcrop: observation by helicopter  |  |
| Bedding (inclined, horizontal); tops established by sedimentary structures and/or stratigraphic order |  |
| Fractures   |  |
| Joints  |  |
| 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)  |  |
| Fault, unknown type (defined) (U on upthrown side, D on downthrown side)                              |  |



- ### NOTES:
- Middle and Upper members of the Mattson Formation are not divided in the western part of the map area due to generally poor exposure.
  - Large bedrock slumps may lead to locally inaccurate structure orientations or buried contacts

Compilation by A. K. Khudoley based on fieldwork and studies of vertical air photographs 2001.  
 THIS MAP IS A PRODUCT OF THE CENTRAL FORELAND NATMAP PROJECT  
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 Geology from field work by A. K. Khudoley 2001, with contributions from K. Fallas  
 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



## PRELIMINARY GEOLOGY BROWN LAKE YUKON TERRITORY

Scale 1:50 000 Échelle 1/50 000



**OPEN FILE DOSSIER PUBLIC 4267**  
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 2002

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|                           |                         |                            |
|---------------------------|-------------------------|----------------------------|
| 95C/11<br>Whitefish River | 95C/10<br>Tika Creek    | 95C/09<br>Chinkik Creek    |
| 95C/06<br>Gold Pay Creek  | 95C/07<br>Brown Lake    | 95C/08<br>Babiche Mountain |
| 95C/03<br>Mooney Creek    | 95C/02<br>Mount Merrill | 95C/01<br>Mount Martin     |



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