

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

DENDALE LAKE N TERRITORY - NORTHWEST TERRITORIES

YUKON TERRITORY - NORTHWEST TERRITORIES

Scale 1:50 000 Échelle 1/50 000

Iometres 1 0 1 2 3 Kilomètres

Universal Transverse Mercator Projection
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95F/03	95F/02	95F/01
no title	no title	Clausen Creek
95C/14	95C/15	95C/16
no title	Dendale Lake	Etanda Lakes
	GSC OF 1460	GSC OF XXXX
95C/11	95C/10	95C/09
Whitefish River	Tika Creek	Chinkeh Creek
	GSC OF XXXX	GSC OF 3845

124°30'

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

LEGEND

CRETACEOUS
LOWER CRETACEOUS
FORT ST. JOHN GROUP

LEPINE FORMATION: Dark grey mudstone with concretions, silty shale, and black fissile shale; lower part of unit abundantly fossiliferous.

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 this hodded, fingly laminated condetens.

GARBUTT FORMATION: Grey shale and siltstone with sideritic concretions; minor thin-bedded, finely laminated sandstone.

CHINKEH FORMATION: Chert-pebble conglomerate overlain by bioturbated quartz arenite with variable chert content, and argillaceous siltstone; woody or

PERMIAN
ISHBEL GROUP
Tika map unit: Bu

LOWER CARBONIFEROUS

plant debris common.

ISHBEL GROUP

Tika map unit: Buff weathering, light to medium brown, silty or sandy limestone or dolostone; medium-bedded, massive to crosslaminated; rectilinear fracture pattern characteristic.

MATTSON FORMATION

MIDDLE AND UPPER MEMBERS UNDIVIDED: see Note 1

UPPER MEMBER: Light to medium grey, fine- to coarse-grained, locally calcareous or dolomitic quartz arenite and sub-chert-arenite; subordinate fossiliferous limestone, dolostone, and grey to green shale; sandstone commonly shows large-scale crossbedding.

MIDDLE MEMBER: 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.

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; dolostone, and lithoclast breccia; crosslaminae and trace fossils common; typically thin- to medium-bedded with coarsening-up sequences.

DEVONIAN AND CARBONIFEROUS

BESA RIVER FORMATION: Dark grey to black shale, locally weathers buff; minor interbedded greyish - orange weathering sandstone and siltstone; scattered sideritic nodules.

MAP SYMBOLS

Geological contact (defined, approximate, assumed)	_		
Outcrop stations		×	
Outcrop; observation by helicopter		8	
Bedding (inclined, overturned); tops established		/ X ₅	
by sedimentary structures and/or stratigraphic order		60 45	
Shear fractures		60	
Joints		160	
Crossbedding (dip direction, dip)		2715	
(uncorrected for bedding orientation)			
Anticline (defined, approximate, assumed)			\$-
Syncline (defined, approximate, assumed)	*	-*-	*
Overturned anticline (approximate)		$ \Re$ $-$	
Overturned syncline (approximate)		- ++ -	
Anticlinal kink fold (defined, approximate, assumed) (See diagram below)		$-\uparrow$	
Synclinal kink fold (defined, approximate, assumed) (See diagram below)	+	-+-	-+
Fault, thrust (defined, approximate, assumed) (teeth on upper plate)	-	**	4 * *
Fault, type unspecified (defined, approximate) (U,D indicate upthrown and downthrown sides respectively)	D U		
Measured section		•	

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.

STRATIGRAPHIC SECTIONS

SECTION NOTES

1 L14 Chinkeh Fm (type section) - D.A. Leckie (Leckie et al., 1991)

NOTES:

- 1. Middle and Upper members of the Mattson Formation are not divided in parts of the map area due to difficulties in delineating the characteristic carbonate beds of the Upper Mattson where exposure is limited or poor quality.
- 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.

Compilation by K.M. Fallas based on fieldwork and studies of vertical air photographs 2002.

THIS MAP IS A PRODUCT OF THE CENTRAL FORELAND NATMAP PROJECT

Geology from fieldwork by K.M. Fallas 2002, with contributions from L.C. Pigage, I.R. Smith, G.F. Hynes, 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

Recommended citation: Fallas, K. M.

2002: Geology of Dendale Lake (95C/15), Yukon Territory and Northwest
Territories; Geological Survey of Canada, Open File map 1460, scale 1:50 000.

125°00'