

LEGEND

STRATIFIED ROCKS

WEST OF NORTHERN ROCKY MOUNTAIN TRENCH

EAST OF NORTHERN ROCKY MOUNTAIN TRENCH

TERTIARY	QUATERNARY PLEISTOCENE AND RECENT	Unconsolidated glacial, fluvioglacial and alluvial deposits
	CRETACEOUS AND TERTIARY UPPER CRETACEOUS TO(?) EOCENE	
	<b>KTs</b>	SIFTON FORMATION: Conglomerate, shale, siltstone, coal; dacitic volcanics
MESOZOIC	<b>eTbP</b>	BROTHERS PEAK FORMATION: Conglomerate, tuff, siltstone, shale, sandstone
	<b>UKT</b>	TANGO CREEK FORMATION: Conglomerate, shale, siltstone, sandstone minor fetid limestone; nonmarine
	JURASSIC MIDDLE AND UPPER JURASSIC	
	<b>JBL</b>	BOWSER LAKE GROUP Shale, siltstone, pebble conglomerate
	<b>JRT</b>	'TOODOGGONE' volcanic rocks Dacite, latite, rhyolite, tuff, breccia, flows; local maroon weathering conglomerate, includes local intrusive equivalents
	LOWER JURASSIC	
	<b>LRH</b>	HAZELTON GROUP Volcanic conglomerate, breccia, lahar; abundant pink feldspar porphyry dykes and sills probably related to <b>JRT</b> ; may include some <b>JRT</b> and <b>URT</b>
	TRIASSIC	
	<b>URT</b>	TAKLA GROUP Coarse-bladed plagioclase porphyry, augite porphyry, tuff, agglomerate; <b>URTe</b> , limestone; <b>URTS</b> , tuff
	PERMIAN	
<b>PA</b>	ASITKA GROUP(?) Chert, argillite, limestone, greenstone; <b>PAm</b> , sericite and chlorite phyllite, foliated chloritic greenstone, grit, acidic tuff(?), minor red chert; chlorite schist, grit, amphibolite, limestone; <b>PAC</b> , marble	
PENNSYLVANIAN AND PERMIAN		
<b>PPL</b>	'LAY RANGE ASSEMBLAGE' Tuff, limestone	
CAMBRIAN AND ORDOVICIAN		
<b>EOk</b>	KECHIKA GROUP Limestone, phyllitic; calcareous shale, limestone, phyllite	
CAMBRIAN LOWER CAMBRIAN		
<b>ICAC</b>	ATAN GROUP Limestone, siltstone, dolomite	
<b>ICAS</b>	Impure quartzite, shale, local sandstone, conglomerate	
<b>ICAQ</b>	Quartzite, minor pebble conglomerate	
PROTEROZOIC AND LOWER CAMBRIAN (UNDIVIDED)		
<b>HIEm</b>	Mica schist and phyllite, garnet-kyanite-mica schist, quartzite; <b>HIc</b> , crystalline limestone	
PROTEROZOIC UPPER PROTEROZOIC		
<b>Hla</b>	Amphibolite, quartzite; <b>Hlc</b> , crystalline limestone; <b>Hlg</b> , augen gneiss; age uncertain	
<b>Hlst</b>	STELKUZ FORMATION Siltstone and shale, green and maroon; sandstone, limestone, locally pisolitic	
<b>HIE</b>	ESPEE FORMATION Limestone, locally oolitic and pisolitic; dolostone in Cormier Range	
<b>Hlr</b>	TSAYDIZ FORMATION Phyllite, sericitic; minor calcareous phyllite	
<b>HIS</b>	SWANNELL FORMATION Quartz-feldspar gritty sandstone, siltstone, shale, conglomerate; minor limestone; metamorphic equivalents from chlorite to kyanite grade; <b>HISc</b> , limestone, sandy	

CENOZOIC	QUATERNARY PLEISTOCENE AND RECENT	Unconsolidated glacial, fluvioglacial and alluvial deposits
	CRETACEOUS(?) AND TERTIARY UPPER CRETACEOUS(?) TO EOCENE(?)	
	<b>KTs</b>	SIFTON FORMATION Conglomerate, sandstone, shale, coal
MESOZOIC	TRIASSIC UPPER TRIASSIC	
	<b>UR</b>	Siltstone, calcareous; silty limestone
	DEVONIAN AND MISSISSIPPIAN UPPER DEVONIAN AND LOWER MISSISSIPPIAN	
	<b>DM</b>	Argillite, slate, shale, locally carbonaceous and pyritic; chert arenite and pebble conglomerate, polymictic conglomerate; limestone, Lower Mississippian; <b>DMcq</b> coarse, polymictic conglomerate
	DEVONIAN MIDDLE DEVONIAN	
	<b>mDd</b>	DUNEDIN FORMATION Limestone, dark grey, argillaceous
	LOWER DEVONIAN	
	<b>IDs</b>	Sandstone, dolomitic; sandy dolomite, sedimentary breccia
	ORDOVICIAN, SILURIAN AND DEVONIAN	
	<b>OSDRR</b>	ROAD RIVER FORMATION Shale, black, graptolitic, mainly Ordovician; siltstone, tan, platy, mainly Silurian; sandstone, calcareous shale
CAMBRIAN AND ORDOVICIAN UPPER CAMBRIAN AND LOWER ORDOVICIAN		
<b>EOk</b>	KECHIKA GROUP Limestone, wavy banded, silty, nodular; argillaceous limestone; calcareous shale, includes thin, basal unit of shale and thin-bedded limestone in Mount Lloyd George area	
CAMBRIAN MIDDLE CAMBRIAN(?)		
<b>mCc</b>	Limestone, thick-bedded to massive, cryptocrystalline to coarse grained, in part oolitic	
LOWER CAMBRIAN		
<b>ICAC</b>	ATAN GROUP Limestone, thick-bedded to massive, locally oolitic and sandy	
<b>ICAQ</b>	Sandstone, quartzitic, locally calcareous; siltstone, shale; minor quartz-pebble conglomerate	
PROTEROZOIC AND CAMBRIAN UPPER PROTEROZOIC AND LOWER CAMBRIAN		
<b>HIM</b>	MISINCHINKA GROUP Slate, phyllitic; chloritic phyllite and schist; garnet-mica schist; calcareous sericite schist; schistose siltstone, grit, pebble conglomerate; <b>HIMc</b> , limestone	
<b>Hlcq</b>	Diamictite	
<b>HIG</b>	GATAGA FORMATION Mudstone, siltstone, dark grey to olive grey, slaty, minor brown sandstone	

GRANITIC ROCKS

TERTIARY EOCENE	<b>eTd</b>	Dacite dyke
	<b>eTg</b>	Granite, quartz monzonite <b>eTm</b> , migmatite, gneiss <b>eTgd</b> , granodiorite
CRETACEOUS	<b>Kqm</b>	Quartz monzonite, mainly foliated; <b>Kqm</b> ; migmatite and gneiss
JURASSIC MIDDLE JURASSIC(?)	<b>mkgd</b>	Granodiorite, leucocratic, pink; fine to medium grained
LOWER JURASSIC	<b>LRqm</b>	Quartz monzonite and granodiorite, locally megacrystic <b>LRqm</b> , migmatite, gneiss
	<b>LRd</b>	Hornblende-quartz diorite and granodiorite; commonly contains biotite; foliated

ULTRABASIC ROCKS

TRIASSIC(?) UPPER TRIASSIC(?)	<b>UR</b>	<b>URp</b> dunite and peridotite; <b>URg</b> , hornblende gabbro; <b>URpx</b> , clinopyroxenite; <b>URopx</b> , olivine clinopyroxenite
----------------------------------	-----------	---

SYMBOLS

-----	geological boundary
.....	limit of geological mapping
~~~~~	fault
▲▲▲▲	thrust fault
○-○-○-○	chlorite isograd
●-●-●-●	biotite isograd
■-■-■-■	garnet isograd
×-×-×-×	kyanite isograd

GEOLOGY BY

H. Gabrielse, C.J. Dodds and J.L. Mansy, 1971-1975; G.H. Eissbacher, 1969-1971

GEOLOGY OF

TOODOGGONE RIVER (94 E) AND WARE WEST-HALF (94 F)

SHEET 3 OF 3

O.F. 483