

**LEGEND**

**QUATERNARY**  
 PLISTOCENE AND RECENT  
 Qal Gravel, sand, silt, clay, till

**QUATERNARY**  
 SCENE AND (Y) YOUNGER  
 T1 Unnamed map unit T1: siltstone, mudstone, sandstone; granule conglomerate, minor coal

**CRETACEOUS AND TERTIARY**  
 UPPER CRETACEOUS AND PALEOCENE  
 KTs Sifton Formation: conglomerate, minor sandstone

**CRETACEOUS**  
 UPPER CRETACEOUS  
 KD DUVYGAN FORMATION: sandstone, shale, minor conglomerate  
 KCs FORT ST. JOHN GROUP (Ks-Kcs)  
 KRUSER FORMATION: dark grey, silty shale  
 LOWER CRETACEOUS  
 KGo GOODRICH FORMATION: sandstone, minor shale  
 KH HASLER FORMATION: dark grey, silty shale  
 KGHG GATES, HULGROSS AND BOULDER CREEK FORMATIONS: sandstone, shale, mudstone, coal conglomerate  
 KM MOOSEBAR FORMATION: dark grey, silty shale  
 KGB BULLHEAD GROUP (KGB-KG)  
 KGB GETTING FORMATION: sandstone, shale, conglomerate, coal  
 KGD CADOMY FORMATION: conglomerate, sandstone  
 KMB MINNES GROUP (KMB-KMB)  
 KMB MONACH AND BICKFORD FORMATIONS: sandstone, silty mudstone  
 KMB BEATTIE PEAKS FORMATION: silty mudstone, sandstone  
 JKMB JURASSIC AND CRETACEOUS  
 UPPER JURASSIC AND LOWER CRETACEOUS  
 JKMB MONTEVIE FORMATION: fine grained sandstone, minor shale  
 JKMB BEATTIE PEAKS (THOMACH AND (7) BICKFORD FORMATIONS: silty mudstone, sandstone  
 JKMB MONTEVIE AND BEATTIE PEAKS FORMATIONS: undivided  
 JKMB MINNES GROUP: undivided

**JURASSIC**  
 JP FERME FORMATION: shale, siltstone, minor sandstone

**TRIASSIC**  
 UPPER TRIASSIC  
 TP PARONNET FORMATION: carbonaceous-argillaceous limestone; calcareous and dolomitic siltstone; minor shale  
 TLU MIDDLE AND UPPER TRIASSIC  
 TLU LUDWIG FORMATION: dolomitic and calcareous siltstone; sandstone; silty dolomite  
 TLO LOWER AND MIDDLE TRIASSIC  
 TLO TAD and GRADING FORMATIONS: dolomitic and calcareous siltstone; silty shale, silty limestone; minor silty dolomite, and calcareous sandstone  
 TU TRIASSIC: undivided

**CARBONIFEROUS AND PERMIAN**  
 CP STODART GROUP, KINDLE AND FANTASQUE FORMATIONS: shale, sandstone, siltstone, limestone, chert

**CARBONIFEROUS**  
 LOWER CARBONIFEROUS  
 CP PROPHET FORMATION: limestone, shaly limestone; calcareous mudstone; siltstone; chert nodules in upper part

**DEVONIAN AND CARBONIFEROUS**  
 UPPER DEVONIAN AND LOWER CARBONIFEROUS  
 DCB BESSA RIVER FORMATION: dark grey argillite; calcareous shale; minor limestone, opacite

**DEVONIAN**  
 UPPER DEVONIAN  
 DSH MOUNT HAWK FORMATION: argillaceous limestone, nodular limestone; calcareous shale  
 DD MIDDLE DEVONIAN  
 DD DUNDY FORMATION: limestone, argillaceous limestone; massive secondary dolomite locally calcareous shale; shale; minor quartz sandstone at base  
 DL LOWER DEVONIAN  
 DL STONE FORMATION: silty dolomite; quartz sandstone; dolomite sandstone

**SILURIAN AND DEVONIAN**  
 LOWER AND UPPER SILURIAN AND LOWER DEVONIAN  
 SDN NINDA AND MUNCHO-MCCONNELL FORMATIONS: dolomite; silty, argillaceous, sandy dolomite

**ORDOVICIAN AND SILURIAN**  
 MIDDLE AND UPPER ORDOVICIAN, AND LOWER SILURIAN  
 OSB QUARTZ SANDSTONE (includes equivalent of limestone, dolomite and shale unit)

**ORDOVICIAN**  
 MIDDLE ORDOVICIAN  
 OS SKODI FORMATION: dolomite; oncolite dolomite; minor sandstone; local volcanic flows (north of Peace Arm)

**LOWER ORDOVICIAN**  
 KECHIKA GROUP (south of Peace Arm: Ok1-Ok3)  
 Ok3 Upper unit: argillaceous, silty, nodular to wavy-bedded limestone; minor calcareous argillite  
 Ok2 Middle unit: wavy bedded, silty limestone; minor quartz sandstone  
 Ok1 Lower unit: oolitic, argillaceous, silty limestone; nodular, silty limestone

**CAMBRIAN AND ORDOVICIAN**  
 UPPER CAMBRIAN AND LOWER ORDOVICIAN  
 CLK KECHIKA GROUP (south of Peace Arm): calcareous, argillaceous, calcareous, silty shale wavy bedded limestone; sandstone  
 CL LYWK FORMATION: undivided  
 CLS1 MIDDLE AND UPPER CAMBRIAN  
 CLS1 SHAKA INDIAN, TITKAMA, ARCTOMYS FORMATIONS: and lower unit of LYWK FORMATION: undivided  
 CLS2 LOWER CAMBRIAN  
 CLS2 SHAKA INDIAN, TITKAMA AND ARCTOMYS FORMATIONS: silty, sandy and argillaceous dolomite; varicoloured shale; dolomite; minor quartz sandstone  
 CLS3 LOWER CAMBRIAN  
 CLS3 GOS GROUP: quartzite; dolomite and argillaceous quartzite; shale; minor dolomite; rare pebbly conglomerate  
 CLS4 CAMBRIAN  
 CLS4 LOWER AND MIDDLE CAMBRIAN  
 CLS4 Dolomite; quartzite; siltstone; shale; calcareous shale

**UPPER PROTEROZOIC**  
 MESOPROTEROZOIC GROUP (Pm1-Pm3)  
 Pm3 Upper oolite unit: grey, silty argillite; quartzite; siltite  
 Pm2 Middle carbonate unit: limestone; dolomite; sandy limestone and dolomite; quartzite; minor argillite  
 Pm1 Lower oolite unit: phyllite; siltite; diamictite; feldspathic quartzite; minor carbonate

**PROTEROZOIC**

Rock outcrop  
 Geological boundary (defined, approximate, assumed)  
 Line of tectonic change (approximate)  
 Fault, strike slip or sense of displacement unknown (defined, approximate, assumed)  
 Fault, normal (defined, approximate, assumed; solid circle indicates downthrow side)  
 Fault, reverse or thrust (defined, approximate, assumed; teeth on upthrow side)  
 Anticline (defined, approximate)  
 Syncline (defined, approximate)  
 Anticline and syncline, overturned (defined, approximate)  
 Equislary well  
 Location of upper detachment zone (inferred; arrow indicates sense of relative motion)  
 Line of section

Geological compilation by M.E. McMechan, 1982, after D.F. Stott et al., 1983; R.L. Thompson, 1976; D.F. Stott, unpublished; and H.H. Beach and J. Spivak, 1944  
 To accompany GSC Paper 85-28 by M.E. McMechan

**EXPLORATORY WELLS**  
 1. Ousey et al. Dunlavy #4-1  
 2. CCS et al. Rulison #58-1  
 3. Ousey et al. Dunlavy #100 #1-2  
 4. Triad B.P. Bush Mountain #15-4  
 5. Triad B.P. Bush Mountain #23-4  
 6. F.P.C. Richfield Street Creek No. 3 6-23-G

Geological cartography by M.D. Willock, Institute of Sedimentary and Petrology Geology, Geological Survey of Canada  
 Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada  
 Base map from parts of the Halfway River and Macleod sheets at 1:250 000 scale published by the Army Survey Establishment (R.C.E. in 1954 (Halfway River) and the Map Production Division, Survey and Mapping Branch, Department of Lands, Forests and Water Resources in 1975 (Macleod)). Williston Lake was added to the Halfway River sheet by the Geological Survey of Canada for this figure only  
 Magnetic declination 1989 varies from 28°42' easterly at centre of west edge to 29°16' easterly at centre of east edge  
 Mean annual change 17.05' westerly  
 Elevations in feet above mean sea level

**NATIONAL TOPOGRAPHIC SYSTEM REFERENCE**

**INDEX MAP**

