

LEGEND	
CENOZOIC	QUATERNARY PLEISTOCENE AND RECENT Qd Till, gravel, sand, silt, alluvium (shown only where bedrock is extensively concealed)
	CRETACEOUS LOWER CRETACEOUS AND JURASSIC Jkk KOOTENAY FORMATION: grey and black carbonaceous and limonitic sandstone; grey and black siltstone; black carbonaceous shale and mudstone; coal
MESOZOIC	JURASSIC FERNIE GROUP Jf Dark grey to black shale; dark grey siltstone; dark grey, platy, silty, argillaceous limestone; brown limonitic quartz sandstone
	TRIASSIC SPRAY RIVER GROUP (Tsm-Twh) Twh WHITEHORSE FORMATION: light grey, dolomitic quartz siltstone and sandstone; red, green, and buff mudstone and siltstone; limestone and dolomite breccia Tsm SULPHUR MOUNTAIN FORMATION: dark grey, thin-bedded siltstone, silty mudstone and shale, dolomite siltstone, and silty dolomite
	PERMIAN AND PENNSYLVANIAN ROCKY MOUNTAIN GROUP Ppfr Light grey quartz sandstone, dolomitic sandstone; light grey dolomite, sandy and cherty dolomite; dark grey phosphatic siltstone, shale, limestone and chert; chert breccia
	MISSISSIPPIAN RUNDLE GROUP (Mlv-Met) Met ETHERINGTON FORMATION: light grey limestone, cherty limestone, and calcarenitic limestone; dolomite, cherty dolomite, green and red shale; siltstone; breccia Mmhu Upper Part: dense dark grey and black limestone, argillaceous limestone and dolomite, and calcareous and dolomitic shale Mmhl Lower Part: light grey skeletal calcarenite, calcarenitic limestone, cherty and silty dolomite Mmht MOUNT HEAD FORMATION: dense dark grey and black limestone and argillaceous dolomite; grey limestone and calcarenitic limestone; cherty and silty dolomite Mlv LIVINGSTONE FORMATION: light grey skeletal calcarenite, calcarenitic limestone; cherty limestone; dolomite Mblu Upper Part: dark grey argillaceous finely crystalline limestone, cherty limestone; calcarenitic limestone Mblm Middle Part: light to dark grey skeletal calcarenite and calcarenitic limestone; argillaceous limestone Mblh Lower Part: dark grey and dark brownish grey shale, calcareous shale, argillaceous limestone and cherty limestone Mblt EXSHAW AND BANFF FORMATIONS: dark grey finely crystalline, argillaceous thin-bedded limestone; dark brownish grey, thin-bedded to fissile shale and calcareous shale; argillaceous calcarenitic limestone; cherty limestone; dolomite
PALEOZOIC	DEVONIAN UPPER DEVONIAN Dps PALLISER FORMATION: thickly bedded and massive, mottled, dolomitic limestone, grey dense limestone, and grey-brown dolomite Dss SASSENACH FORMATION: light grey quartz sandstone, calcareous and argillaceous sandstone; medium to dark grey argillaceous siltstone and silty argillaceous limestone (up to 1100') Dsx ALEXO FORMATION: thin-bedded silty dolomite, dolomitic sandstone, light grey dolomite, breccia Dsh FAIRHOLME GROUP (Dse-Dsh) Dse SOUTHEK FORMATION: massive to thickly bedded, light to medium grey, finely to coarsely crystalline dolomite; some medium to dark brownish grey dolomite Dsh MOUNT HAWK FORMATION: medium to dark grey dense limestone and argillaceous limestone with corals and brachiopod fragments Dcn CAIRN FORMATION: massive, dark brownish grey and grey medium crystalline dolomite with Amphipora and stromatoporeid beds; dark grey (light grey weathering) limestone, dolomitic limestone and calcareous dolomite in the lower part; minor breccia and chert
	DEVONIAN SKOKI FORMATION: dolomite, mainly grey, finely and very finely crystalline, partly siliceous partly fossiliferous; minor chert masses TIPPERARY FORMATION: light grey to dark grey quartz sandstone, dolomitic sandstone, and dolomitic siltstone OUTRAM FORMATION: limestone, grey, dense, nodular, rhythmically bedded, with argillaceous and siliceous tracery; much chert; minor brown shale, (up to 400')
	ORDOVICIAN AND UPPER CAMBRIAN SURVEY PEAK FORMATION: interbedded shale, grey, calcareous, and limestone (partly dense, partly fragmental, partly algal masses); minor chert; basal shales: grey to olive, calcareous, weathering pale greenish grey; with minor limestone (mainly flat pebble conglomerate) and siltstone
	CAMBRIAN UPPER CAMBRIAN LYNX GROUP (Cet-Cn) Cm MISTAYA FORMATION: limestone, partly dense, partly fragmental; dolomitized equivalents; minor chert; prominent algal stromatolites Cbc BISON CREEK FORMATION: interbedded shale and mudstone, grey and greenish grey, calcareous; and limestone, partly fragmental, partly dense Cll LYELL FORMATION: limestone, partly dense, dolomite-mottled; partly dense, laminated; locally silty and sandy; massive; dolomitized equivalents Csu SULLIVAN FORMATION: interbedded shale, greenish grey to brown, calcareous; and limestone, mainly fragmental, partly oolitic; dense, algal masses
	MIDDLE AND UPPER CAMBRIAN WATERFOWL FORMATION: limestone, mainly dense, with dolomite mottling and liminae; partly silty and sandy, minor fragmental and oolitic limestone; derived secondary dolomite
	MIDDLE CAMBRIAN ARCTOMYS FORMATION: interbedded shale, purple-red, green, grey; and siltstone, yellow, dolomitic; minor dolomite, grey to yellow; mud-cracks, ripple marks, salt crystal casts Cpk PIKA FORMATION: limestone, dense, mainly flaggy, with dolomite partings and mottling; minor flat-pebble conglomerate and oolite; derived secondary dolomite; minor shale near the base Ccl ELDON FORMATION: limestone, mainly dense, dolomite-mottled, massive; dolomite, fine to coarse-crystalline, largely mottled, largely or entirely secondary Cst STEPHEN FORMATION: interbedded shale, grey to green; and limestone, partly dense, flaggy with dolomite partings, partly fragmental, minor oolite Cca CATHEDRAL FORMATION: limestone, mainly dense massive, dolomite mottled, dolomitized equivalents, mainly mottled Cmw MOUNT WHYTE FORMATION: interbedded shale, greenish grey; siltstone, green to grey; and limestone, mainly fragmental, partly oolitic
	LOWER CAMBRIAN AND EARLIER(?) GOG GROUP Ceg Mainly sandstone and quartzite, yellow-grey to white, thin to thick bedded, partly glauconitic; minor shale, grey, green, purple-red
	PROTEROZOIC WINDERMERE Emi NIETTE GROUP (HADRYNIAN) Grey slate, shale, and siltstone; poorly sorted grey and greenish grey feldspathic quartz sandstone and pebble and granule conglomerate; green and purple slate; dense limestone and sandy limestone conglomerate

Note 1: Undifferentiated Eldon, Pika, Arctomys, Waterfowl, Sullivan, Lyell, Bisson Creek, and Mistaya Formations
Note 2: Undifferentiated Rundle and Rocky Mountain Groups

Geological boundary (defined, approximate, assumed)
(assumed projection under younger deposits)
Bedding tops known (horizontal, inclined, vertical, overturned)
Bedding tops unknown (inclined)
Cleavage, schistosity (inclined)
Thrust fault (teeth on upthrust side; defined, approximate, assumed)
(assumed projection under younger deposits)
Other faults (defined, approximate, assumed)
(assumed projection under younger deposits)
Anticline (trace of axial surface; defined, approximate)
Syncline (trace of axial surface; defined, approximate)
Anticline, syncline (overturned)
Fossil locality
Stratigraphic section, locus of measurement (number refers to internal cataloguing system) studied by: J.D. Aitken AC, R.W. MacQueen MQ
E.W. Mountjoy M.J.D.J. McLaren MD

Geology by R.A. Price and E.W. Mountjoy based on studies of vertical air photographs, (1964-1969) ground and air observations by J.D. Aitken, H.U. Bielenstein, D.G. Cook, G.B. Leach, E.W. Mountjoy and R.A. Price (1964-1967), and published geological maps

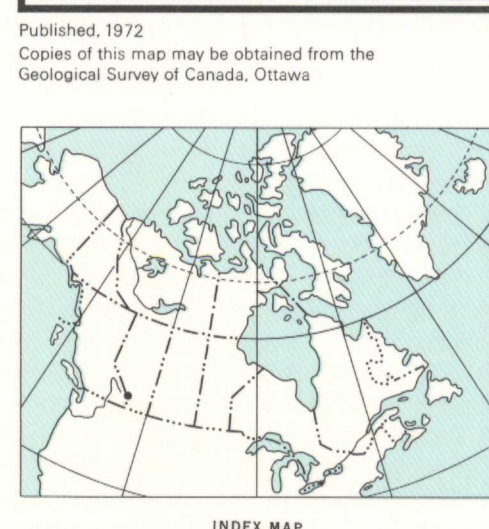
Geological cartography by the Geological Survey of Canada

Base-map at the same scale published by the Surveys and Mapping Branch in 1959

Copies of the topographical edition of this map may be obtained from the Map Distribution Office, Department of Energy, Mines and Resources, Ottawa

Approximate magnetic declination 1972, 22°07' east decreasing 2' annually

Elevations in feet above mean sea-level



ALTA.-B.C. BANFF (E3)
1:50,000
1972 194A

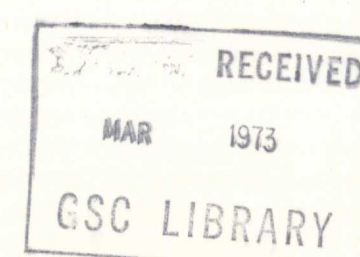
MAP 1294A
GEOLOGY
BANFF
(EAST HALF)
WEST OF FIFTH MERIDIAN
ALBERTA-BRITISH COLUMBIA
Scale 1:50,000

Miles 1 0 1 2
Metres 1000 0 1000 2000 3000

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



Map 1294A
BANFF
(East Half)
ALBERTA-BRITISH COLUMBIA

1294A