



LEGEND
Formal names capitalized

QUATERNARY
PLEISTOCENE AND RECENT
Thick drift: alluvium, glaciofluvial and lacustrine deposits, till, colluvium, landslides
PRV "Valley basalts", vesicular olivine basalt; local felsic to intermediate dacite in Coast Mountains

TIERTARY
MIOCENE AND PLEIOCENE
MPV "Plateau basalt"; basalt, olivine basalt, minor tuff
MPD DEADMAN RIVER FORMATION: poorly consolidated tuff, breccia, diatomite, sandstone, conglomerate
MIOCENE (?) AND/OR OLDER
MvV Olivine basalt near Bridge Lake
TJd Small intrusions of mainly intermediate composition
Tgd Granodiorite; felsic intrusions, in part Eocene

Eocene
KAMLOOPS GROUP
EK Mainly basalt and andesite; local rhyolite, breccia, tuff and sandstone
PRINCETON GROUP
EP Intermediate, locally mafic and felsic flows; volcanics, characterized by feldspar needles
ES Sandstone, conglomerate, argillite, coal; includes Coldwater beds, Hat Creek beds, sandstone, conglomerate near Fraser River
Egd Granodiorite, quartz monzonite; NICOLA BATHOLITH probably contains early Mesozoic components; Mt. Lytton Pluton contains locally abundant saps and slices of metametamorphic rock

CRETACEOUS
LATE CRETACEOUS
IKgdm Granodiorite (gd), quartz monzonite (gm)
IKs Shale, sandstone, coal
MIDDLE AND LATE CRETACEOUS
SPENCES BRIDGE GROUP
KSB Intermediate, locally felsic and mafic flows and pyroclastics; sandstone, shale, conglomerate
KSBs SPIUS CREEK FORMATION OF SPENCES BRIDGE GROUP; mafic volcanics
KS Chert-grain sandstone and conglomerate, minor shale; possibly correlative with part of PASAYTEN GROUP
EARLY AND MIDDLE CRETACEOUS
JACKASS MOUNTAIN GROUP
JKJ Sandstone, argillite, conglomerate

JURASSIC AND CRETACEOUS
RELAY MOUNTAIN GROUP (JKm-JKs)
JKR Argillite, siltstone, sandstone, local conglomerate
JKm Phyllite, semischist, local conglomerate
IKgd, gm Granodiorite, quartz monzonite, local diorite (MOUNT MARTLEY, TITBY CREEK STOCKS)

MIDDLE AND EARLY JURASSIC
JA ASHCROFT FORMATION: argillite, siltstone, sandstone, conglomerate and local, minor, carbonate
LADNER GROUP
JL Argillite, slate, phyllite, tuff

TRIASSIC AND/OR JURASSIC
TJgd, gm Granodiorite, quartz monzonite (GUICHON CREEK, PENNASK, WILD HORSE CREEK BATHOLITHS, DOUGLAS LAKE STOCK, granodiorite of MOUNT LYTTON COMPLEX)
TJgd, gbs, u Diorite, gabbro, syenite, granite and local ultramafic rock of IRON MASK BATHOLITH and similar, probably related, alkaline intrusions
TJm Layered quartzdioritic rock, amphibole and mylonite of MOUNT LYTTON COMPLEX; similar rocks on west side of NICOLA BATHOLITH

LATE TRIASSIC
NICOLA GROUP
TNv Volcanics, undifferentiated mafic to felsic volcanics
TNw Western volcanic facies of NICOLA GROUP; mafic to felsic pyroclastics, argillite, sandstone, local carbonate
TNc Central volcanic facies of NICOLA GROUP; intermediate, plagioclase, augite plagioclase porphyry pyroclastics, local pillowed and plagioclase porphyry flows
TNs Eastern volcanic facies of NICOLA GROUP; mafic, augite and hornblende porphyry bearing breccia and tuff, local intercalated argillite
TNr Sedimentary facies of NICOLA GROUP; argillite, sandstone, tuff; local chert-carbonate-volcanic conglomerate
TNm Amphibolite, foliated diorite, mylonite and chlorite schist derived from NICOLA GROUP

PERMIAN TO JURASSIC
BRIDGE RIVER COMPLEX
PJBRC Radiolarian chert, argillite, basalt, pillow basalt, local carbonate, gabbro and serpentinite, typically disrupted with broken formation
PJBRCm Lower greenochert facies part of BRIDGE RIVER COMPLEX, phyllite, quartzite, phyllite, siliceous and chert
PJBRCu Upper greenochert-lower amphibolite part of BRIDGE RIVER COMPLEX, siliceous schist, actinolite schist, local biotite-garnet schist, commonly containing concordant and cross-cutting Eocene felsic dykes and sills
PJBRCu Ultramafic rock, local gabbro

CARBONIFEROUS TO JURASSIC
CACHE CREEK COMPLEX
PTCu Ultramafic rock, local gabbro
MIDDLE PERMIAN TO MIDDLE(?) JURASSIC
PJCw Western belt of CACHE CREEK COMPLEX; argillite, siltstone, chert, minor carbonate; as well as volcanoclastic "Pavilion beds"
MIDDLE PERMIAN TO LATE TRIASSIC
PJCc Central belt of CACHE CREEK COMPLEX; massive carbonate of MARBLE CANYON FORMATION, local thin bedded carbonate, argillite, tuff, minor basalt and chert
MIDDLE PENNSYLVANIAN TO LATE TRIASSIC
PJCe Eastern belt of CACHE CREEK COMPLEX; melange, with radiolarian chert and chert-argillite matrix, lobes of limestone, chert, basalt, local ultramafics, and rare felsic volcanics, similar to those in western NICOLA GROUP; basalt, pillow basalt, gabbro

CARBONIFEROUS TO TRIASSIC
NICOLA AND/OR HARPER RANCH GROUPS
DTM Meta-sulphide porphyry, chlorite schist (v), argillite, phyllite, volcanic sandstone, semischist; local carbonate of both Triassic and Carboniferous ages

DEVONIAN TO PERMIAN
HARPER RANCH GROUP
DPH Argillite, cherty argillite, siltstone, volcanic and chert grain sandstone, chert pebble conglomerate, volcanoclastics of mafic to felsic composition; minor carbonate
PC, CC Carbonate; where age is known, indicated (e.g. Pq)

Geological mapping by J.W.H. Monger, Geological Survey of Canada (1960-82) and by W.J. McMillan, British Columbia Ministry of Energy, Mines and Petroleum Resources (1969-75 and 1977-83). In addition, this compilation includes material from numerous sources (published reports by G.S.C. and B.C. Geological Survey, these mainly at the University of British Columbia, and recent mapping by P.B. Reed on Tertiary rocks in the northwestern part of the area, and N. Mortimer on the Cache Creek Complex). Map first issued as G.S.C. Open File 980 in 1984; additional data incorporated and scale changes made so as to be compatible with Hope (92 H) map area, to the south.

Geological cartography by the Geological Survey of Canada

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Colour separations were obtained by camera from author's hand coloured manuscript map; colours of some units may appear similar

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

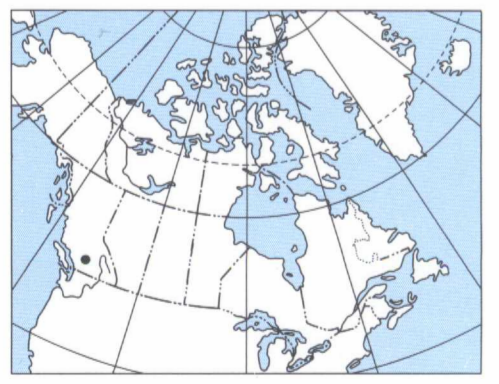
Base map at the same scale published by the Surveys and Mapping Branch in 1987. Road modifications by the Geological Survey of Canada

Copies of the topographical edition of this map may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, Ontario, K1A 0E9

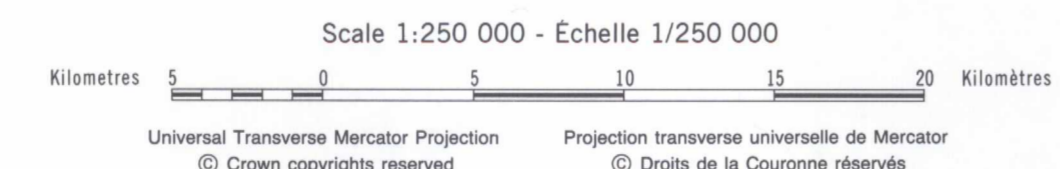
Mean magnetic declination 1989, 21°12' East, decreasing 8.8' annually. Readings vary from 20°42'E in the SE corner to 21°42'E in the NW corner of the map

Elevations in feet above mean sea level

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MAP 42-1989
SHEET 1
GEOLOGY
ASHCROFT
BRITISH COLUMBIA



29-1963	92 O	92 P	82 M
	1278A	46-1963	
13-1973	92 J	92 L	82 L
	42-1989	1059A	
	1010A	886A	
42-1963	92 G	92 H	82 E
	1151A	41-1989	1736A
		737A	886A
		538A	6-1957

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1989: Geology, Ashcroft, British Columbia; Geological Survey of Canada, Map 42-1989, sheet 1, scale 1:250 000