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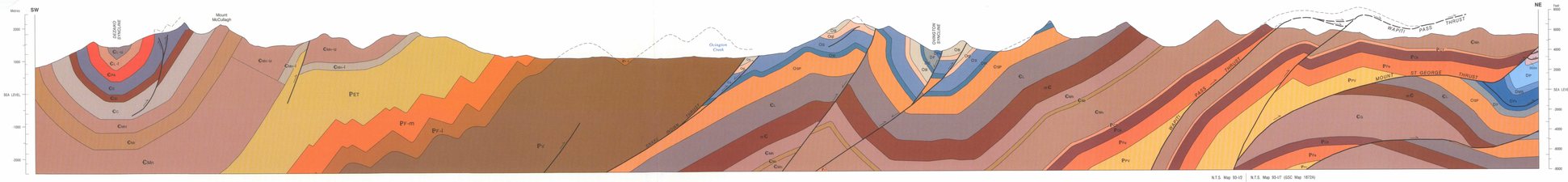
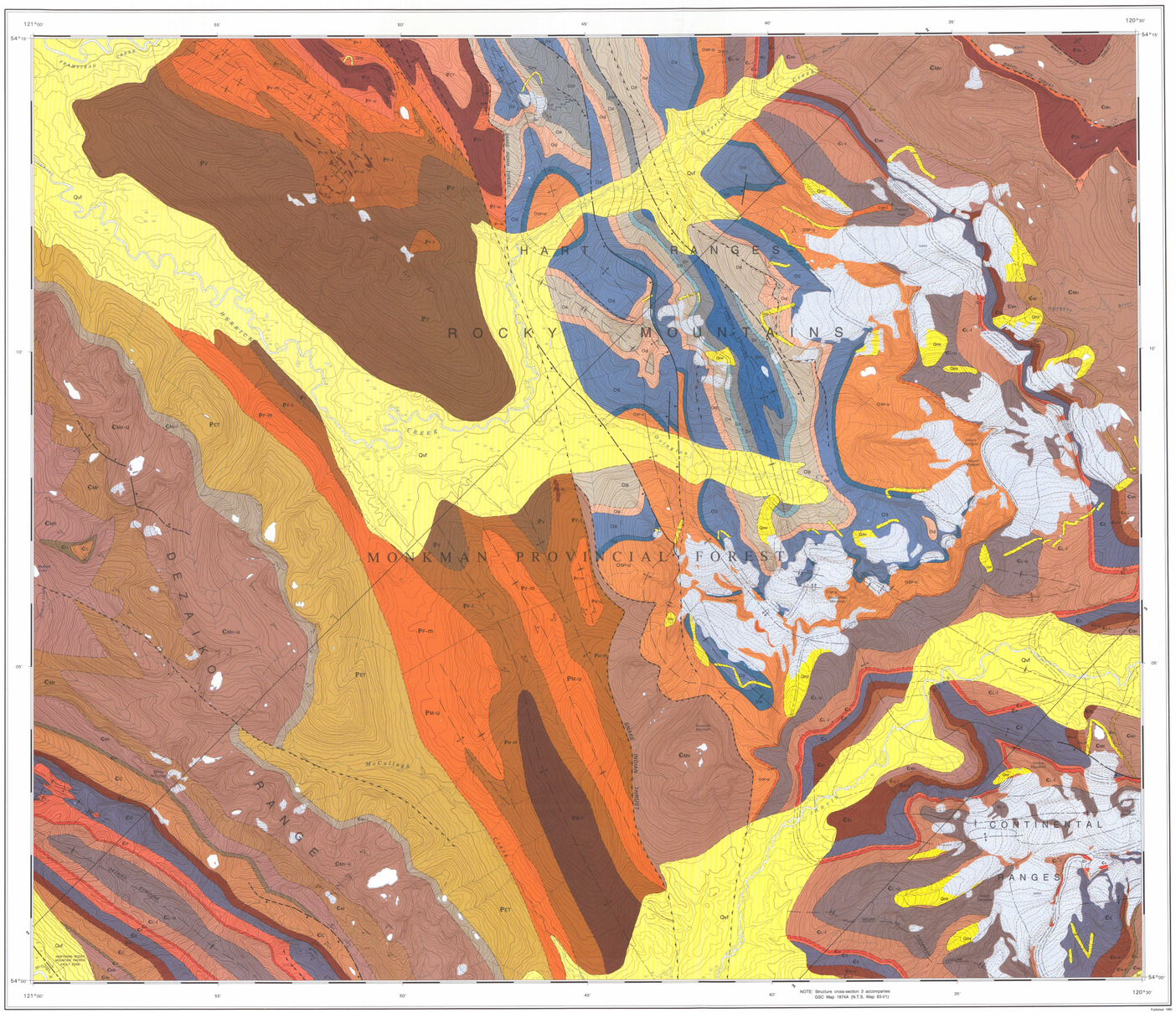


Structure cross-section 2

N.T.S. Map 93-I/2 | N.T.S. Map 93-I/7 (GSC Map 1872A)



NOTE: Structure cross-section 3 accompanies GSC Map 1874A (N.T.S. Map 93-I/7)

Published 1996
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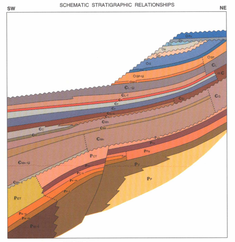
SCHEMATIC STRATIGRAPHIC RELATIONSHIPS



Geological boundary (defined, approximate, assumed)
Geological boundary (projected under cover)
Bedding, tops known (inclined, overturned)
Cleavage (inclined)
Diagrammatic profiles of sets of minor folds (5 to 15m wavelength) viewed to the northwest. Dotted axial trace indicates observed extent of structure
Fault, thrust or reverse (defined, approximate, assumed)
Fault, thrust or reverse (projected under cover)
Fault, extension or normal (solid circle on downdropped side; defined, approximate, assumed)
Fault, extension or normal (solid circle on downdropped side; projected under cover)
Anticline (defined, approximate, assumed)
Anticline (overturned; projected under cover)
Syncline (defined, approximate, assumed)
Syncline (overturned; projected under cover)
Limit of mappable unit; dotted line denotes amalgamation of stratigraphic subdivisions or changes in stratigraphic nomenclature
Line of section — 3 — 3

Geological interpretation by M.E. McMechan and R.I. Thompson, based on ground and air observation by M.E. McMechan (1981-83, 1985, 1990) and R.I. Thompson (1978-79). Schematic stratigraphic relationships, and structure cross-section by M.E. McMechan (1991)

Digital cartography by E. Macey, Geological Survey of Canada (Calgary)

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 from Geomatics Canada, Department of Natural Resources, modified for publication by the Geological Survey of Canada

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

Approximate magnetic declination 1995, 27°31' East, decreasing 9.3' annually

Elevations in feet above mean sea level

WEST OF SNAKE INDIAN FAULT

CAMBRIAN
UPPER CAMBRIAN

LYNX FORMATION (**Cl-l** - **Cl-u**)

Cl-u — *Upper part: limestone; argillaceous, silty, nodular to wavy bedded, tan-grey to medium-grey weathering, commonly cleaved, with interbeds of more resistant, light grey weathering, fossiliferous limestone. Calcareous argillite with limestone nodules forms a relatively recessive interval at base. Darker weathering unit between lower Lynx and lower Survey Peak strata*

Cl-l — *Lower part: limestone; medium bedded, blue-grey weathering. Interbedded with lesser amounts of tan weathering limestone or dolomite, commonly laminated, and minor sandstone to sandy limestone. Resistant unit characterized by well defined colour banding and bedding*

MIDDLE CAMBRIAN

Ca — *ARCTOMYS FORMATION: argillite; red, green, silty. Minor interbeds of tan dolostone and quartz sandstone lenses. Dolostone; tan weathering with green or red argillite interbeds; interlaminated argillaceous dolostone and dolomitic pale green argillite. Recessive weathering unit*

Cp — *PIKA FORMATION: dolostone; tan weathering with green or grey argillite or dolomitic argillite interbeds. Limestone; interbedded blue-grey weathering and tan weathering, laminated dolostone or limestone. Argillite; red or green, dolomitic argillite and argillaceous dolostone. Colour banded, ribbed weathering unit*

Cpa — *PIKA AND ARCTOMYS FORMATIONS, undivided. Subsurface only*

Ce — *ELDON FORMATION: limestone; oolitic, blue-grey weathering, in cycles capped by white weathering, locally dolomitic, laminated limestone (lower part). Some other limestones are burrow mottled, commonly argillaceous, and blue-grey weathering. Resistant weathering unit*

Csi — *SNAKE INDIAN FORMATION: limestone; grey weathering, commonly burrow mottled, oolitic or wavy bedded. Argillite; green, commonly calcareous, less red argillite. Relatively resistant unit with a pronounced recessive interval at top*

Cc — *CHANCELLOR FORMATION: phyllite; blue-grey, faintly laminated, locally rusty weathering. Calcareous argillite to argillaceous limestone, laminated calcareous siltstone and limestone. Limestone; wavy bedded, laminated or intraclast conglomerate, blue-grey weathering, forms resistant traceable units 5-30m thick. Basal part of unit is resistant laminated, grey or green siltstone and argillaceous siltstone. Recessive weathering unit with a few resistant ribs in upper part and a relatively resistant base*

LOWER CAMBRIAN
GOG GROUP (**Cmn-l** - **Cmr**)

Ch — *HOTA FORMATION: limestone; sandy limestone, calcareous shale. Resistant weathering unit*

Cmh — *MAHTO FORMATION: quartzite; white, fine to medium grained; locally interbedded with laminated siltstone and argillite, and lesser amounts of tan weathering, dolomitic quartz sandstone and siltstone. A few intervals of nodular limestone and/or sandy shale. Resistant unit*

Cmr — *MURAL FORMATION: brown weathering dolostone, blue-grey limestone commonly oolitic or bioclastic), calcareous, green-grey, silty argillite with sandy limestone nodules; argillite and siltstone (grey, rusty weathering or calcareous). Ribbed weathering unit*

Cmn — *McNAUGHTON FORMATION* (**Cmn-l** - **Cmn-u**)

Cmn-u — *Upper part: quartzite; white, greenish grey, very fine to medium grained with locally abundant grey rusty weathering argillite partings and interbeds. Dark weathering siltstone and argillite. Resistant weathering unit*

Cmn-l — *Lower part: feldspathic quartzite to pebble conglomerate interbedded with grey, rusty weathering, laminated argillite. Ribbed weathering unit*

Cmh — *MAHTO AND HOTA FORMATIONS, undivided. Subsurface only*

Cmn — *McNAUGHTON FORMATION; undivided. Subsurface only*

UPPER PROTEROZOIC
MISHECHINKA GROUP (**Pr** - **Pct**)

Pct — *CUT THUMB FORMATION: argillite; medium to dark grey, rusty weathering with thin, light grey siltstone laminae. Recessive, rusty weathering unit*

Pch — *CHOWIKA FORMATION: dolostone; grey, fine to coarse crystalline, tan to orange-brown weathering, locally stromatolitic. Minor interbeds of dark grey weathering argillite, quartz sandstone (locally dolomite sedimented), dolostone breccia and blue-grey weathering limestone. Resistant, light weathering unit*

Pf-u — *FRAMSTEAD FORMATION* (**Pf-l** - **Pf-u**)
Upper part: argillite; medium grey, rusty weathering with light grey siltstone laminae. Recessive, rusty weathering unit

Pf-m — *Middle part: sandstone to pebble conglomerate; feldspathic, argillaceous, commonly graded, light grey or orange-brown weathering, resistant. Interbedded with medium grey, rusty weathering argillite that contains light grey siltstone laminae. Also some minor grey argillaceous siltstone. Ribbed weathering unit*

Pf-l — *Lower part: argillite; medium and dark grey, locally green, rusty weathering, with thin siltstone laminae. Carbonate olistostrome blocks occur near base; dominantly grey or tan weathering dolostone; larger blocks labelled Pf to, on map. Rare lenses of sandy dolomite or mud-supported dolostone breccia, near base. Dark, recessive weathering unit with light weathering carbonate blocks*

Pv — *VREELAND FORMATION: diamictite, granule to boulder sized clasts floating in a brown weathering, sandy, argillaceous matrix. Minor interbeds of laminated green argillite, green siltstone and feldspathic sandstone. Massive weathering unit*

EAST OF SNAKE INDIAN FAULT

DEVONIAN AND CARBONIFEROUS
UPPER DEVONIAN AND LOWER CARBONIFEROUS

DCEB — *EXSHAW AND BANFF FORMATIONS: black shale and limestone. Subsurface only*

DEVONIAN
UPPER DEVONIAN

Dp — *PALLISER FORMATION: limestone. Subsurface only*

Dms — *MOUNT HAWK AND SIMLA FORMATIONS: limestone and argillaceous limestone. Subsurface only*

Dpv — *PERDRIX FORMATION: shale, siltstone and calcareous shale; dark grey to grey-green, locally laminated, minor yellowish weathering, dolomitic micrite near base and oolitic limestone near top. Dark, recessive marker unit*

Df — *FLUME FORMATION: stromatoporoid biostrome underlain by recessive unit of calcareous shale with discontinuous limestone beds containing locally abundant brachiopods. Quartz sandstone at base and overlain by dark grey argillaceous limestone. Stromatoporoid biostromes form a resistant band between relatively recessive strata*

Ddf — *DUNEDIN AND FLUME FORMATIONS, undivided.*

MIDDLE DEVONIAN

Dd — *DUNEDIN FORMATION: siltstone to coarse-grained sandstone; quartrose, cross-bedded, with thin limestone or dolostone interbeds (lower part); resistant, well bedded, yellow-grey weathering limestone (upper part). Local conglomerate at base of formation; pebble to boulder, clast supported in sandy limestone matrix*

ORDOVICIAN
UPPER ORDOVICIAN

Ob — *BEAVERFOOT FORMATION: dolostone; grey, finely crystalline, thick bedded fossiliferous, light brown-grey weathering, local chert nodules and quartz blebs Tan weathering, sandy dolostone and dolomitic quartz sandstone at base. Resistant weathering unit*

MIDDLE ORDOVICIAN

Osjl — *Unnamed dolostone, quartzite and limestone unit: dolostone and sandy dolostone; medium grey, very finely crystalline, medium to thick bedded, tan weathering. Minor interbeds of quartz sandstone and quartzite (upper part); limestone (rare interbeds (thick lower part). Limestone; argillaceous, sandy, fossiliferous, wavy bedded, blue-grey weathering, local chert nodules; recessive interval at top of unit. Most of unit is a distinct, tan weathering, well bedded, resistant marker unit*

Os — *SKOKI FORMATION: limestone; nodular to wavy bedded. Dolostone; medium bedded with gastropods, rare stromatolites, mudcracks (lower part). Dolostone; medium grey, medium to thick bedded, grey weathering with rare chert nodules; minor sandy dolostone or dark argillaceous partings (upper part). Resistant unit*

LOWER ORDOVICIAN

Osl — *MONKMAN QUARTZITE: quartzite; very fine to medium grained, silica or dolomite cement, light grey to brown weathering. Resistant marker unit*

Osp-u — *SURVEY PEAK FORMATION* (**Osp-l** - **Psp-u**)
Upper part: limestone, silty, nodular to wavy bedded, brown-grey weathering, local bioturbation, partial dolomitization, rare chert nodules. Minor interbedded calcareous siltstone to very fine-grained sandstone, locally with limestone nodules. Resistant unit

Osp — *SURVEY PEAK FORMATION, undivided. Structure cross-section only*

CAMBRIAN AND ORDOVICIAN

Osp-l — *Lower part: calcareous shale and shaly limestone; planar to nodular, with silty laminae, minor flat-pebble conglomerate near base, light greenish grey weathering. Recessive marker unit*

CAMBRIAN
UPPER CAMBRIAN

LYNX FORMATION (**Cl-l** - **Cl-u**)

Cl-u — *Upper part: limestone; argillaceous, silty, nodular to wavy bedded, tan-grey to medium-grey weathering, commonly cleaved, with interbeds of more resistant, light grey weathering, fossiliferous limestone. Calcareous argillite with limestone nodules forms a relatively recessive interval at base. Darker weathering unit between lower Lynx and lower Survey Peak strata*

Cl-l — *Lower part: dolostone; finely crystalline, medium bedded, light and dark grey weathering quartz- and/or calcite-filled vugs common. Minor interbedded blue-grey weathering limestone and quartz sandstone to sandy dolostone (more common near base), and very finely crystalline, tan weathering dolostone with grey argillite partings. Resistant cliff-forming unit characterized by well defined colour banding and bedding*

Cl — *LYNX FORMATION, undivided*

MIDDLE CAMBRIAN

Ca — *ARCTOMYS FORMATION: shale and silty shale; red, minor green, dolomitic. Dolomite; tan weathering with mudcracked red or green shale partings (more common in upper part), and minor dolomitic quartz sandstone. Distinctive, brightly coloured recessive unit*

Cp — *PIKA FORMATION: North of Mount Ovington - dolostone; tan or light green weathering with common mudcracked green shale partings and minor fine-grained sandstone, interbedded with dominantly green, commonly dolomitic, silty shale. South of Mount Ovington - limestone; wavy bedded, thin to medium bedded, grey weathering, locally with dolomitic burrow mottling. Interbedded with grey shale and yellow-brown weathering dolostone, locally containing black argillite partings. A ribbed weathering unit above massive weathering Eldon limestones*

Ce — *ELDON FORMATION: limestone; wavy bedded to nodular, common dolomitized burrow mottling, dark grey weathering; rare lenses of orange-yellow weathering silty dolostone. Resistant, dark weathering, marker unit*

Csi-u — *SNAKE INDIAN FORMATION* (**Csi-l** - **Csi-u**)
Upper part: limestone; wavy bedded to nodular, grey weathering with common dolomitized burrow mottling, dark grey weathering. Minor shale, dark grey, laminated, commonly dolomitic; interbedded with tan weathering, laminated dolostone. Ribbed weathering unit

Csi-l — *Lower part: shale and siltsne; green, red, grey, laminated, also dolomitic interbedded with tan weathering dolostone, silty limestone and minor quartz sandstone*

Csi — *SNAKE INDIAN FORMATION, undivided.*

cEC — *SNAKE INDIAN, ELDON, PIKA AND ARCTOMYS FORMATIONS, undivided. Structure cross-section only*

LOWER CAMBRIAN
GOG GROUP (**Cmn** - **Cmr**)

Ch — *HOTA FORMATION: limestone; sandy limestone, calcareous shale. Resistant weathering unit*

Cmh — *MAHTO FORMATION: quartzite; white, fine to medium grained; some tan weathering, dolomitic quartz sandstone and siltstone and a few intervals of nodular limestone and/or sandy shale. Resistant weathering*

Cmr — *MURAL FORMATION: interbedded dolomitic quartzite, silty and sandy dolostone, grey shale, siliceous quartzite; minor dolostone or limestone*

Cmn — *McNAUGHTON FORMATION: quartzite; white, very fine to very coarse grained, light grey to tan weathering, common crossbeds. Conglomeratic quartzite to conglomerate, quartzite pebbles in feldspathic granule to sand-sized matrix, common in lower part; uncommon argillite partings in upper part. Resistant unit*

CG — *McNAUGHTON, MURAL AND MAHTO FORMATIONS, undivided. Subsurface only*

UPPER PROTEROZOIC
MISHECHINKA GROUP (**Pr** - **Pct**)

Pct — *CUT THUMB FORMATION: argillite; medium to dark grey, rusty weathering, with thin, light grey, siltstone laminae. Recessive, rusty weathering unit*

Pch — *CHOWIKA FORMATION: dolostone; grey, finely to coarsely crystalline, tan to orange-brown weathering, locally stromatolitic. Minor interbeds of dark grey weathering argillite and quartz sandstone (locally dolomite sedimented), dolostone breccia and blue-grey weathering limestone. Resistant, light weathering unit*

Pfe — *FRAMSTEAD FORMATION: sandstone; green, grey, feldspathic, commonly graded, brown or grey weathering, locally with argillite rip up clasts or pebble size quartz clasts. Interbedded with dark argillite (lower part); grey, rusty weathering with siltstone laminae. Two horizons contain carbonate olistostrome blocks; dominantly tan to orange weathering dolostone. Minor quartz, feldspar granule-conglomerate; rare lenses of sugrotite, carbonate and volcanic pebble to cobble-conglomerate. Darker weathering unit with light weathering carbonate blocks*

Pv — *VREELAND FORMATION: diamictite. Schematic only*

Pp — *PAKSUMO FORMATION: siltstone, calcareous siltstone, minor feldspathic sandstone, rare feldspathic pebble-conglomerate. Schematic only*

PPV — *PAKSUMO AND VREELAND FORMATIONS, undivided. Subsurface only*

PALEOZOIC

PROTEROZOIC

MAP 1873A

GEOLOGY

OVINGTON CREEK

WEST OF SIXTH MERIDIAN

BRITISH COLUMBIA

Scale 1:50 000 - Échelle 1/50 000

Kilometres 0 1 2 3 Kilomètres

Universal Transverse Mercator Projection
Projection transverse universelle de Mercator

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93-I/5	93-I/7	93-I/8
	1872A	1868A
93-I/3	93-I/2	93-I/1
	1873A	1874A
93-H/14	93-H/15	93-H/16
	1839A	OF-1229

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

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1996 Geology and structure cross-section, Ovington Creek, British Columbia; Geological Survey of Canada, Map 1873A, scale 1:50 000

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1873A

Canada

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