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GEOLOGICAL SURVEY OF CANADA | COMMISSION GÉOLOGIQUE DU CANADA

LEGEND

CENOZOIC

QUATERNARY
PLEISTOCENE AND RECENT

- Qa — *Till, alluvium, colluvium*

MESOZOIC

CRETACEOUS
UPPER CRETACEOUS

- KW — *WAPITI FORMATION: sandstone, carbonaceous shale, conglomerate*

SMOKY GROUP (KK - K P)
PUSKWASKAU FORMATION (KK-I - K P-C)

- KP-C — *Chungo Member: sandstone, coal*
- KP-I — *Dowling, Thistle and Hanson Members: dark grey shale, calcareous shale, siltstone; includes Muskiki Member - northeast of mappable limit of Marshybank Sandstones*
- KMa — *MARSHYBANK FORMATION: sandstone, carbonaceous shale*
- KMu — *MUSKIKI FORMATION: dark grey shale, silty shale, sandstone*
- KCa — *CARDIUM FORMATION: sandstone, carbonaceous shale, conglomerate*

KASKAPAU FORMATION (KK-W - K K)

- KK — *Dark grey shale, locally calcareous sandstone; KK-T - Tuskoola Sandstone*
- KK-W — *Wartenbe Sandstone: sandstone, conglomerate*
- KD — *DUNVEGAN FORMATION: sandstone, shale, siltstone; minor conglomerate*

FORT ST. JOHN GROUP (Kol - K Cr)

- KCr — *CRUISER FORMATION: dark grey, sideritic shale*

LOWER CRETACEOUS

- KGo — *GOODRICH FORMATION: sandstone; minor shale*
- KHa — *HASLER FORMATION: dark grey, sideritic shale*

KHG — *HASLER AND GOODRICH FORMATIONS, undivided. Subsurface only*

KS — *SHAFTESBURY FORMATION: dark grey, sideritic shale*

- KBC — *BOULDER CREEK FORMATION: sandstone, conglomerate, shale*
- KH — *HULCROSS FORMATION: dark grey, sideritic shale*
- KG — *GATES FORMATION: sandstone, shale, coal, siltstone, mudstone*
- KM — *MOOSEBAR FORMATION: dark grey, sideritic shale*

KMB | KSP — KMB - *MOOSEBAR, GATES, HULCROSS AND BOULDER CREEK FORMATIONS, undivided. Subsurface only*; KSP - *SPIRIT RIVER AND PEACE RIVER FORMATIONS: shale, sandstone, siltstone, coal. Schematic only*

KCP — *CADOMIN, GETHING, SPIRIT RIVER AND PEACE RIVER FORMATIONS, undivided. Subsurface only*

BULLHEAD GROUP (KC - K Ga)

- KGe — *GETHING FORMATION: sandstone, shale, conglomerate, coal*
- KC — *CADOMIN FORMATION: conglomerate, sandstone*

KBH — *BULLHEAD GROUP, undivided. Subsurface only*

JURASSIC AND CRETACEOUS
UPPER JURASSIC AND LOWER CRETACEOUS

- JKM — *MINNES GROUP: sandstone, siltstone, shale, coal*

JURASSIC

- JF — *FERNIE FORMATION: shale, siltstone; minor sandstone*

JKFM — *FERNIE FORMATION AND MINNES GROUP, undivided. Subsurface only*

TRIASSIC

SPRAY RIVER GROUP (TSM - TW)

- TW — *WHITEHORSE FORMATION: limestone, dolostone; minor sandstone, siltstone, gypsum*
- TSM — *SULPHUR MOUNTAIN FORMATION: dolomitic and calcareous siltstone; minor limestone, dolostone, shale, sandstone*

TSC — *SCHOOLER CREEK GROUP: limestone, dolostone, sandstone, shale, anhydrite*

TD — *DAIBER GROUP: siltstone, shale, calcareous and dolomitic siltstone*

T — *Undivided. Subsurface only*

PALEOZOIC

PERMIAN

- PBF — *BELCOURT, Unnamed AND FANTASQUE FORMATIONS: limestone, chert; minor phosphatic dolostone, siltstone*

CARBONIFEROUS AND PERMIAN
UPPER CARBONIFEROUS AND PERMIAN

- CP — *STODDART GROUP AND BELLOY FORMATION: sandstone, shale, siltstone, limestone, dolostone. Subsurface only*

CARBONIFEROUS
LOWER CARBONIFEROUS

- CR — *RUNDLE GROUP: limestone, dolostone, calcareous shale*
- CB — *BANFF FORMATION: brown calcareous shale, limestone, black shale*

C — *BANFF FORMATION AND RUNDLE GROUP, undivided. Subsurface only*

DCEB — *EXSHAW AND BANFF FORMATIONS, undivided. Schematic only*

DC — *EXSHAW AND BANFF FORMATIONS AND RUNDLE GROUP, undivided. Schematic only*

DEVONIAN AND CARBONIFEROUS
UPPER DEVONIAN AND CARBONIFEROUS

- DCE — *EXSHAW FORMATION: black shale, siltstone. Subsurface only, not mapped*
- DCBR — *BESA RIVER FORMATION: black shale, sandstone*

DEVONIAN
UPPER DEVONIAN

- DMH — *MOUNT HAWK FORMATION: argillaceous limestone, limestone*
- DPx — *PERDRIX FORMATION: shale, calcareous shale*

DPM — *PERDRIX AND MOUNT HAWK FORMATIONS, undivided. Subsurface only*

MIDDLE DEVONIAN

- DD — *DUNEDIN FORMATION: limestone, argillaceous limestone, calcareous shale, shale; minor sandstone at base. Schematic only*
- DS — *STONE FORMATION: silty dolostone, quartz sandstone, dolostone. Schematic only*

DSD — *STONE AND DUNEDIN FORMATIONS, undivided. Subsurface only*

D — *BEAVERHILL, WOODBEND AND WINTERBURN GROUPS AND WABAMUN FORMATION: dolostone, limestone, shale, calcareous shale. Subsurface only*

ORDOVICIAN
UPPER ORDOVICIAN

- OB — *BEAVERFOOT FORMATION: dolostone, quartz sandstone at base*

MIDDLE ORDOVICIAN

- OSR — *SKOKI AND ROAD RIVER FORMATIONS: dolostone, sandstone, calcareous sandstone, dark shale, calcareous shale.*

LOWER ORDOVICIAN

- OM — *Monkman Quartzite: quartz sandstone*
- OSP — *SURVEY PEAK FORMATION: limestone, argillaceous limestone, calcareous shale, shale*

ORDOVICIAN

O — *Undivided. Subsurface only*

CAMBRIAN
UPPER CAMBRIAN

- €L — *LYNX FORMATION: limestone, dolostone, calcareous shale, shale*

MIDDLE CAMBRIAN

- m€ — *SNAKE INDIAN, ELDON AND ARCTOMYS FORMATIONS: dolomitic siltstone, shale, dolostone; minor sandy dolostone*

LOWER CAMBRIAN
GOG GROUP (€Mn - €Mh)

- €Mh — *MANTO FORMATION: quartzite; minor dolomitic quartzite, dolomite*
- €Mr — *MURAL FORMATION: dolomitic quartzite, dolomite, sandy dolomite, quartzite, argillite*
- €Mn — *McNAUGHTON FORMATION: quartzite, argillaceous quartzite, siltstone, argillite, pebbly sandstone at base*

€ — *Undivided. Subsurface only*

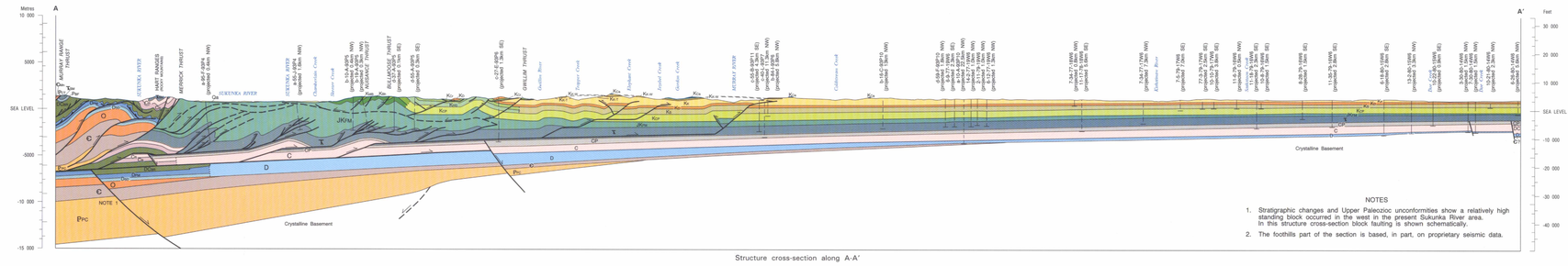
PROTEROZOIC

UPPER PROTEROZOIC

MISINCHINKA GROUP (PPC - P CT)

- PCT — *CUT THUMB FORMATION: argillite; minor sandstone*
- PPC — *PAKSUMO, VREELAND, FRAMSTEAD AND CHOWIKA FORMATIONS: dlamictite, siltstone, argillite, sandstone, granule conglomerate, dolomite. Subsurface only*

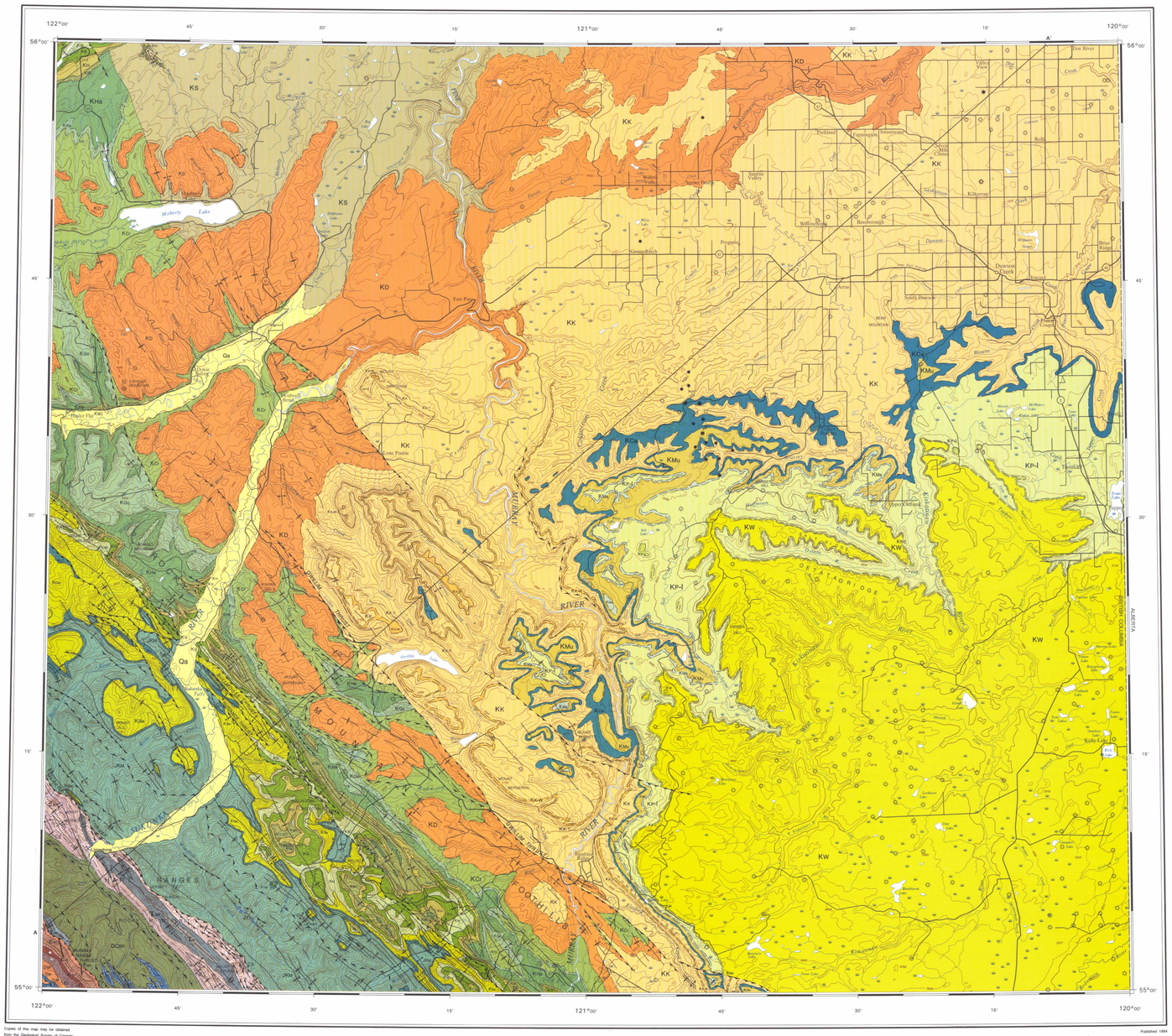
Canada



Structure cross-section along A-A'

NOTES

1. Stratigraphic changes and Upper Paleozoic unconformities show a relatively high standing block occurred in the west in the present Sukunka River area. In this structure cross-section block faulting is shown schematically.
2. The foothills part of the section is based, in part, on proprietary seismic data.



Geological boundary (defined, approximate, assumed)
Fault, thrust or reverse (defined, approximate, assumed)
Fault, transverse
Anticline (overturned; defined, approximate)
Syncline (overturned; defined, approximate)
Lateral change in lithofacies
Limit of mappable unit; dotted line denotes amalgamation of stratigraphic subdivisions or changes in stratigraphic nomenclature
Line of section
Quarry
Limit of coal mine
Well (from B.C. Ministry of Energy, Mines and Petroleum Resources, 1994; oil, gas, oil and gas, dry and abandoned, injection, status unknown).

Geological interpretation and digital compilation by M.E. McMechan 1992-93, based on published and unpublished sources indicated

Digital cartography by E. Macey, Institute of Sedimentary and Petroleum 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 at the same scale published by the Surveys and Mapping Branch in 1984

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

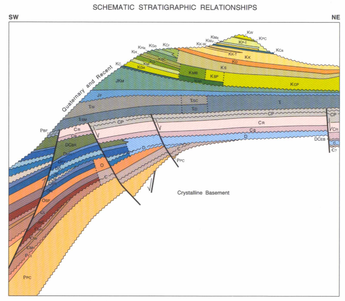
Approximate magnetic declination 1994, 23°40' East, decreasing 10.0' annually

Elevations in feet above mean sea level

SOURCES OF INFORMATION

1. Ground and air observations, air photo interpretation by D.F. Stott (1959-1986) and M.E. McMechan (1992); and Stott, D.F. 1961; Geological Survey of Canada Map 19-1961.
2. Hunter, D.J. and Cunningham, J.M., 1991; British Columbia Ministry of Energy, Mines and Petroleum Resources, Geological Survey Branch, Open File Map 1991-4.
3. Kilby, W.E. and Wrightson, C.B., 1987; British Columbia Ministry of Energy, Mines and Petroleum Resources, Geological Survey Branch, Open File Map 1987-6.
4. Kilby, W.E. and Wrightson, C.B., 1987; British Columbia Ministry of Energy, Mines and Petroleum Resources, Geological Survey Branch, Open File Map 1987-7.
5. Ground and air observations by M.E. McMechan, 1992.

SCHEMATIC STRATIGRAPHIC RELATIONSHIPS



Unconformity

Copies of this map may be obtained from the Geological Survey of Canada:
601 Booth Street, Ottawa, Ontario K1A 0E8
3303-33rd Street, N.W., Calgary, Alberta T2L 2A7
100 West Pender Street, Vancouver, B.C. V6B 1R8

LOCATION MAP

MAP 1858A

GEOLOGY

DAWSON CREEK

WEST OF SIXTH MERIDIAN

BRITISH COLUMBIA

Scale 1:250 000 - Échelle 1/250 000

Kilometres 5 0 5 10 15 20 Kilometres

Universal Transverse Mercator Projection
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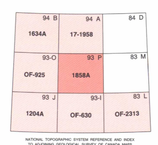

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ACADEMIC GEOLOGICAL SURVEY OF CANADA MAPS

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1858A