Natural Resources Canada   Ressources naturelles Canada

GEOLOGICAL SURVEY OF CANADA   COMMISSION GÉOLOGIQUE DU CANADA

TGI³ GC³ Cordillera Cordillère

REFERENCES

Read, P. B. and Wheeler, J. O.
1976: Geology of Lardeau W/2 (82K W/2). Geological Survey of Canada, Open File Map 432, 1: 125,000.

Reesor, J.E. and Moore, J.M. Jr.
1971: Petrology and structure of the Thor-Odin Gneiss Dome, Shuswap Metamorphic Complex, British Columbia. Geological Survey of Canada, Bulletin No. 195, 149p.

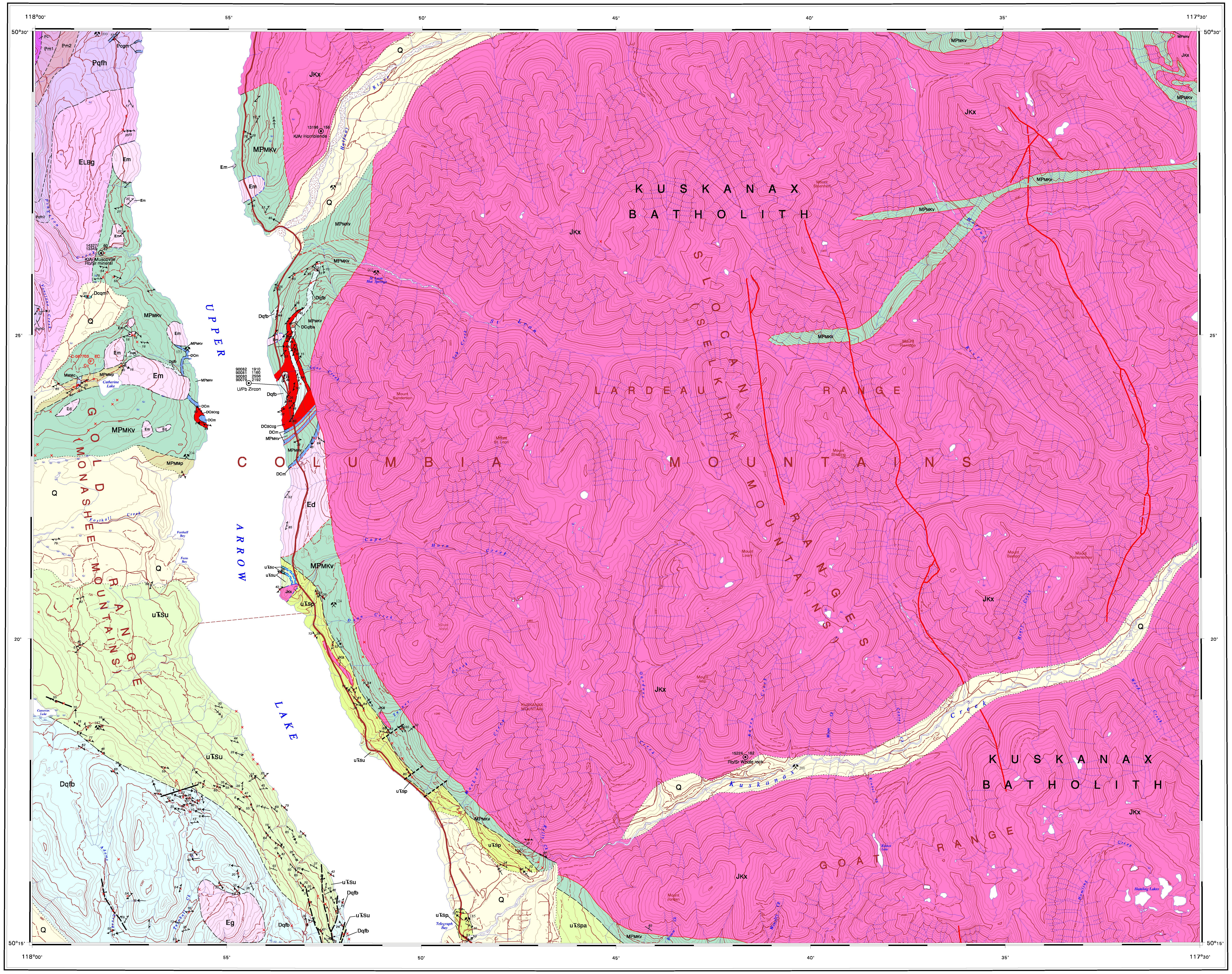
Canadian Geochronology Knowledgebase: http://gdr.nrcan.gc.ca/geochron/index_e.php

MINERAL OCCURRENCE INDEX

MINFILE NO	NAME	COMMODITY*
082KSW073	PINGSTON CREEK LIMESTONE	LS,MB,BS
082KSW099	PINGSTON	ZN,AG,PB,CU
082KSW124	CORNWALL	CU
082KSW185	PRINCE	PB,AG,AU
082KSW187	ANNIE	AG,PB,AU,CU
082KSW200	NAKUSP HOTSPRINGS	HS
082KSW202	ST. LEON HOTSPRINGS	HS
082KSW203	HALFWAY RIVER HOTSPRING	HS
082KSW204	FOSTHALL	HS

* Abbreviations for commodities: AG – silver; AU – gold; BS – building stone; CU - copper; HS - hot spring; LS - limestone; MB - marble; PB - lead; ZN - zinc

Source: British Columbia Ministry of Energy and Mines, MINFILE database available at: http://www.em.gov.bc.ca/Mining/Geolsurv/Minfile/



LEGEND

Cenozoic
Quaternary
PLEISTOCENE AND RECENT

Q	*Unconsolidated sediments; glacial deposits, colluvium and alluvium; few if any outcrops; probable subcrop unit within parentheses*

TERTIARY
LATE PALEOCENE TO MIDDLE EOCENE

ELBg	*LADYBIRD GRANITE INTRUSION: Granite to quartz monzonite having less than 10% biotite; subequal amounts of plagioclase, potassium feldspar and quartz; accessory muscovite, sillimanite and/or garnet may be present*
Eg	*Granite and quartz monzonite*
Em	*Monzonite and quartz monzonite*
Ed	*Diorite and quartz diorite*

JURASSIC
UPPER SINEMURIAN

JKx	*KUSKANAX BATHOLITH: Aegirine-augite leucogranite, syenite and leuco-quartz monzonite*

UPPER TRIASSIC
SLOCAN GROUP

uTSu	*Slocan Siliciclastic Rocks: Dark-grey argillite; biotite-schist, dark-grey calcareous argillite; dark-grey sooty phyllite; light- to medium-grey meta-siltstone; minor volcanic breccia, sandstone and agglomerate*
uTSpa	*Argillite, shale to siltstone, tuff*
uTSp	*Pelitic to silty phyllite and slate*
uTSc	*Grey to black limestone, marble*

Paleozoic
MISSISSIPPIAN AND PENNSYLVANIAN AND LOWER PERMIAN
MILFORD AND KASLO GROUPS (undivided)

MPMKv	*Amphibole metavolcanic rocks*
MPMMp	*Siliceous Argillite Member: Bedded grey siliceous argillite and chert; massive grey siliceous argillite; white siliceous argillite where bleached by intrusives; bedded grey calc-schist; chert pebble conglomerate*

MISSISSIPPIAN
UPPER MISSISSIPPIAN AND (?)OLDER

MMMc	*Carbonate Member: Mostly massive, locally bedded grey limestone; cream dolostone; medium- to coarse-grained white marble (unit 14 of Read west of the Spyglass Fault)*

DEVONIAN? AND CARBONIFEROUS
?SPA CREEK ASSEMBLAGE

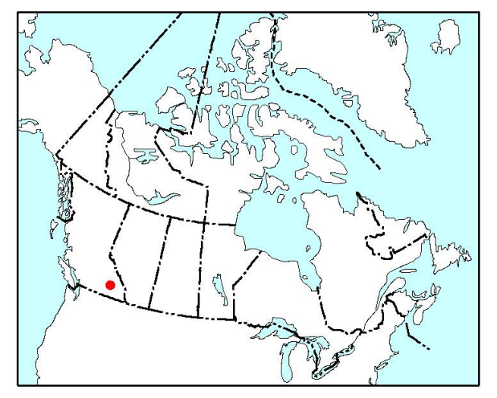
DCSCcg	*Conglomerate; quartzite pebble, granite pebble, carbonate pebble; gritty quartzite*
DCm	*Marble: Medium to coarsely crystalline, white to dark grey marble (map unit* Psc5 *of Read, 1979)*
Dqfb	*Silver Creek Schist: Quartz-feldspar-muscovite-biotite schist with or without garnet, staurolite and sillimanite; black carbonaceous schist; dark-grey to tan micaceous quartzite; minor white-to-grey marble; amphibolitic schist; minor amphibolite (map units* Psb4 and Psb6 of Read, 1979)
DCqfbs	*Silver Creek Staurolite Schist: Grey- and brown- weathering muscovite-biotite schist having a profusion of large staurolite porphyroblasts up to 2 cm in length (map unit* Psu5 *of Read, 1979)*
Dcqm?	*Calcareous Quartzite Marker (Chase Quartzite?) pitted, calcareous quartzite; diopside-bearing calcareous quartzite; quartzite; marble (equivalent to Milford Group)(units F3, S2 of Reesor)*

Mesoproterozoic(?)
MARA ASSEMBLAGE

Pqfh	*Tsuius schist: Biotite-quartz-feldspar schist (with or without sillimanite, garnet); feldspar-quartz-hornblende schist (with or without biotite); amphibolite; calc-silicate gneiss; micaceous quartzite (map units M and F of Reesor and Moore, 1971)*
Pqfh2	*Pegmatite greater than 50% containing inclusions and wisps of metasedimentary rocks and amphibolite (unit F2 of Reesor)*
Pcgm	*Marble (unit M7 of Reesor)*
Pm2	*Biotite-quartz-feldspar paragneiss characterized by lenses and boudins of garnetiferous amphibolite; extensive lenticular masses of pegmatite*
Pm1	*Biotite quartz-feldspar paragneiss; sillimanite-biotite-garnet schist; garnet-quartz-feldspar gneiss*
Pc1	*Garnet-biotite-plagioclase paragneiss (May be correlative with unit* Pc1 *core paragneiss of Reesor, 1974)*

SYMBOLS

Foliation (unclassified): inclined, horizontal, vertical 45
Foliation (1st generation): inclined, horizontal, vertical 45
Foliation (2nd generation): inclined, horizontal, vertical 45
Bedding: inclined, horizontal, vertical, overturned 45 45
Fold: axis plane (unknown generation)
s-verging, z-verging 45 45
Mineral lineation 45
Fold hinge: crenulation lineation 45
Lineation (1st generation) intersection 45
Lineation (2nd generation) intersection 45
Lineation (1st generation) 45
Outcrop . . . . . ×
Fossil locality . . . . . database no. Ⓕ period / fauna stage
Geochronology sample (http://gdr.nrcan.gc.ca/geochron/index_e.php) . . . . . database no. ⊙ age / isotopic sys. mineral
Mineral Occurrence . . . . . ⚒ database no.
Geological boundary (taken from Reesor, 1971):
defined, approximate, assumed . . . . .
Geological boundary (taken from Read and Wheeler, 1979):
defined, approximate, assumed . . . . .
Geological boundary (interpreted by compiler):
defined, approximate, assumed . . . . .
Geological boundary: arbitrary . . . . .
Quaternary limit . . . . .
Fault, extension (solid circles on downthrown side):
defined, approximate, assumed . . . . .
Fault, unclassified: defined, approximate, assumed . . . . .
Fault, unclassified, (taken from Read and Wheeler, 1979):
defined, approximate, assumed . . . . .


LOCATION MAP

Compilers: R.I. Thompson, Y. Lemieux, P. Glombick and P. Dhesi

Geology by J.E. Reesor and J.M. Moore Jr., 1971; P.B. Read and J.O. Wheeler, 1976; R.I. Thompson and P. Glombick, 2000; Y. Lemieux, 2002-2004.

Geological compilation by R.I. Thompson, 2002

Co-ordinated by R.I. Thompson through the auspices of the Targeted Geoscience Initiative 3 (TGI-3)

Digital cartography by P. Dhesi, Geological Survey of Canada, Pacific Division

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

OPEN FILE 6185

GEOLOGY

ST LEON CREEK

BRITISH COLUMBIA

Scale 1:50 000/Échelle 1/50 000

kilometres 1 0 1 2 3 4 kilomètres

Universal Transverse Mercator Projection
North American Datum 1983

Projection transverse universelle de Mercator
Système de référence géodésique nord-américain, 1983

Digital base map from data compiled by Geomatics Canada, modified by the Geological Survey of Canada - Pacific Division

Mean magnetic declination 2009, 16°52'E, increasing 13' annually.

Elevations in metres above mean sea level
Contour interval 40 metres

Universal Transverse Mercator Grid
North American Datum 1983
Zone 11

82 L/9 OF 4378	82 K/12	82 K/11
82 L/8 OF 4377	82 K/5 OF 6185	82 K/6 OF 6184
82 L/1 OF 4370	82 K/4 OF 6186	82 K/3 OF 6187

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE

OPEN FILE
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2009

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2009: Geology, St Leon Creek, British Columbia; Geological Survey of Canada, Open File 6185, scale 1:50 000.

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