

REFERENCES

Carr, S.D.
1982. Late Cretaceous early Tertiary tectonic evolution of the southern Cordillera Belt, Canadian Cordillera, unpublished Ph.D. thesis, Carleton University, 293 p.

Cook, P.A., Varnak, J.L., Clowes, R.M., Kenevitch, E.R., Spence, C.B., Parfitt, R.R., Brown, R.L., Carr, S.D., Johnson, B.A., and Ross, R.A.
1982. Lithoprobe: crustal/reflection structure of the southern Canadian Cordillera 1, 1 toward lead and thrust belt to Fraser River fault, British Columbia, v. 1, 1, 19-65.

Jones, A.S.
1959. Vernon map-area, British Columbia: Geological Survey of Canada, Memoir 286, 189 p.

LITHOPROBE
Lithoprobe reference data and other geophysical data pertaining to the Dyanne map area available online
http://www.its.lesguy.com/its/itsweb/itsweb_main.html

MINERAL OCCURRENCE INDEX

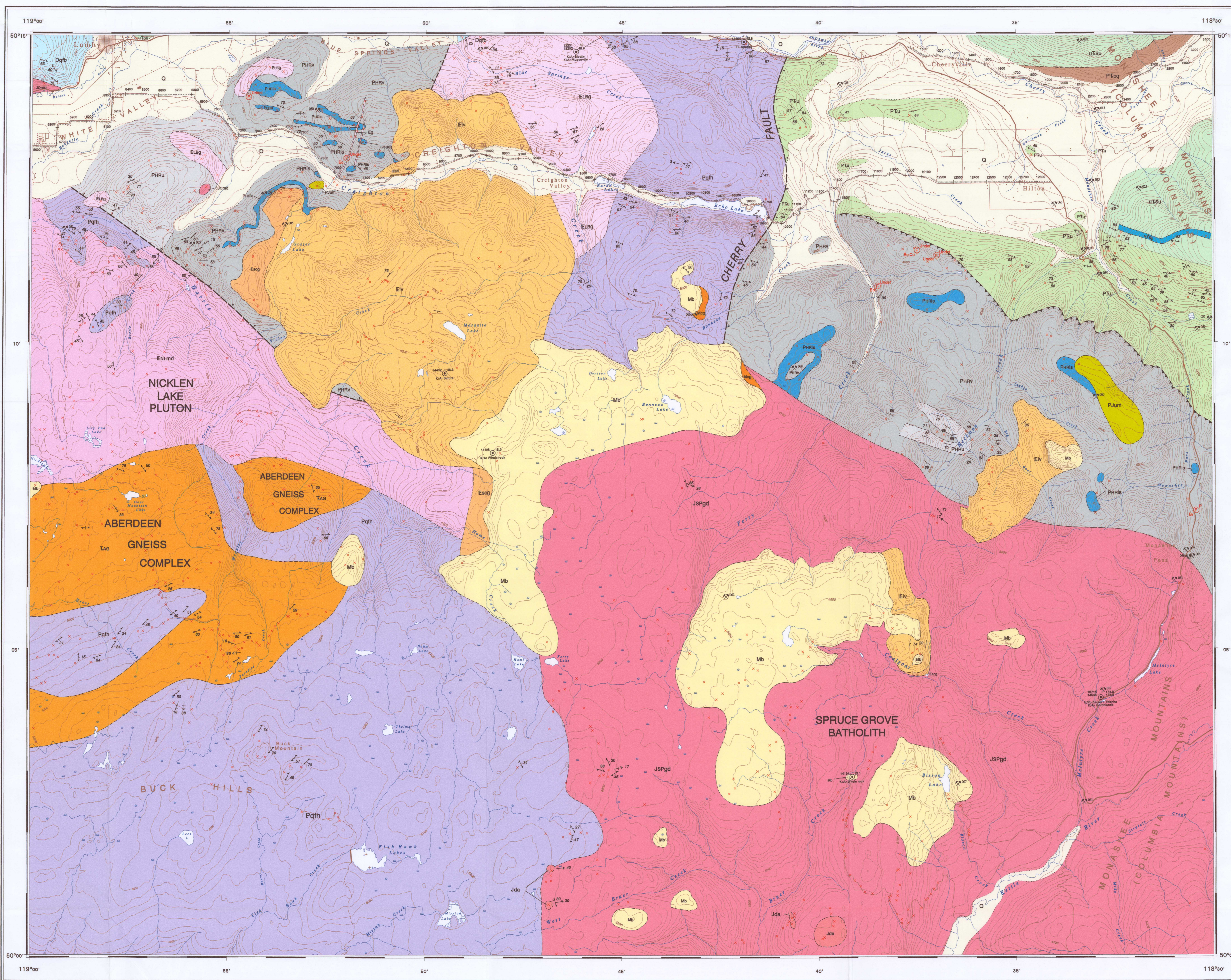
MINFILE NO	NAME	COMMODITY
062LSE015	BEARLOUP	PD, UR, TR, RS
062LSE016	BLUE CROUSE	ZN, PB
062LSE026	UNICORN	PB
062LSE050	CAMEL'S HUMP	LS
062LSE013	CHERRY CREEK PLACER	AU
062LSE058	CREIGHTON VALLEY	LS
062LSE035	TRUE BLUE	AG, ZN, AU, PB
062LSE025	EXCESSOR	PB, AG
062LSE063	MIDNIGHT NAILS 1,2	AU, AG, PB, ZN
062LSE001	HARRIS CREEK	AU
062LSE002	YAL	UR, ZN
062LSE003	BLUESIRD	AU, AG
062LSE003	HICKMAN CREEK	AU
062LSE004	OLD JOE	AU, AG, PB
062LSE066	ECHO 1	AU, AG
062LSE037	YICOWARD CREEK	AU
062LSE059	MONASHEE CREEK PLACER	AU
062LSE068	BONNIE 1	AU, AG
062LSE060	PITA 2	PB, CU, MA
062LSE009	MCPHAIL	AU, AG, PB, CU, ZN
062LSE001	MONASHEE	AG, AU, PB, ZN, CU
062LSE048	MONASHEE PASS	LS
062LSE061	PITA 29	AU
062LSE062	COAL 1	MO
062LSE017	TOP	AU, AG
062LSE007	BISSON LAKE	CU, MO
062LSE041	NIGHTYRE CREEK	AU

Source: British Columbia Ministry of Energy and Mines, MINFILE database available at: <http://www.em.gov.bc.ca/cfm/minfile/d40d.cfm>

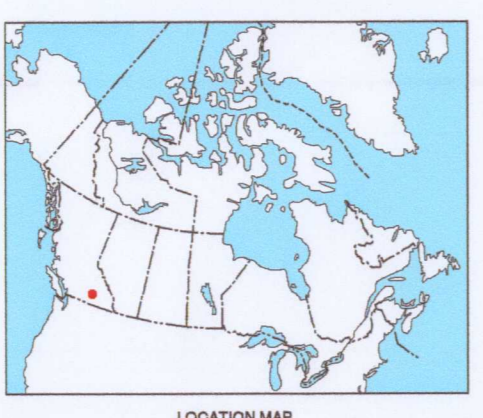
LEGEND

- QUATERNARY**
PLEISTOCENE AND HOLOCENE
Q Quaternary Unconsolidated sediments; glacial deposits, colluvium and alluvium; few if any outcrops; probable subcrop unit within parentheses
- TERTIARY**
MIOCENE
Mb Thompson Plateau basal: Aphyric to olivine-phyric basalt flows and vesicular basalt flows, commonly as columnar jointed dikes.
Mcq Clark Creek conglomerate: Clast-supported pebbles to cobbles, fluvialite conglomerate occurring as channels beneath Miocene flows.
EOCENE
Eiv Eocene andesitic volcanic facies: Aphanitic to porphyritic andesite to dacite flows; volcanic breccia; intercalations of sandstone and conglomerate.
Escq Eocene basal sandstone facies: Sandstone, siltstone, shale, conglomerate.
- LATE PALEOCENE TO MIDDLE EOCENE**
LADYBIRD PLUTONIC SUITE (~54-59 Ma)
ENLmd Nicklen Lake Pluton (~52 Ma): Unfoliated to weakly foliated, medium- to coarse-crystalline biotite and/or hornblende monzonite, quartz-monzonite, diorite, quartz-diorite, granodiorite, and granite.
ELBg 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.
- JURASSIC**
OKANAGAN PLUTONIC SUITE (~181 Ma; NELSON PLUTONIC SUITE)
Jomd Unfoliated to weakly foliated, medium- to coarse-crystalline biotite and/or hornblende monzonite, quartz-monzonite, quartz-diorite, granodiorite, and granite.
JSPgd Spruce Grove Batholith (~174 Ma): Unfoliated to weakly foliated, medium- to coarse-crystalline, hornblende-biotite granodiorite to leucogranite.
Jda Bruce Creek diorite: Medium to coarse crystalline hornblende-plagioclase-biotite diorite and amphibolite; massive to foliated and lineated.
- TRIASSIC**
UPPER TRIASSIC
SLOCAN GROUP
uTsu Slocan siliclastic rocks: Grey to black phyllite, argillite, quartzite, minor tuffaceous rocks.
uTsc Slocan carbonaceous limestone: Black to grey, fine-crystalline limestone, calcareous siltstone with shale interbeds.
TAG Aberdeen Gneiss Complex (~232 Ma): Veined hornblende-biotite granodiorite gneiss. On Thompson Plateau it is dominated by plagioclase-hornblende-quartz gneiss; feldspar-quartz-biotite gneiss; amphibolite; granite.
- PERMIAN and/or JURASSIC**
Pjum Calderan ultramafic rocks: Variably metamorphosed and altered ultramafic sills, dikes, lenses and stocks; fresh varieties include unfoliated, medium- to coarse-crystalline diorite, pyroxenite, amphibolite, harzburgite; altered varieties include serpentinite and chlorite schist; includes Old Dave intrusions of Jones (1959).
- PERMIAN and/or TRIASSIC**
PTpqa Black quartzite: Dark-grey, biotite-bearing pyritic quartzite; cherty quartzite; siliceous argillite.
PTu Permiian and/or Triassic siliclastic and volcanic rocks: Dark grey to black carbonaceous argillite, may be pyritic; greenstone, meta-andesite, volcanic breccia; black graphitic limestone; minor massive, fine-crystalline limestone.
- PERMIAN**
HARPER RANCH GROUP
PHRlu Harper Ranch siliclastic and volcanic rocks: Predominantly meta-volcanic rocks with intercalations of meta-sedimentary rocks; siltstone, sandstone, argillite, conglomerate, breccia, phyllite, quartzite, limestone, tuff, andesite, minor marble, hornfels, splan.
PHRls Harper Ranch crystalline limestone: Massive light to dark-grey crystalline limestone.
PHRlv Harper Ranch volcanic rocks: Andesitic flows and agglomerate; augite and/or plagioclase-phyric flows; volcanic breccia; lapilli tuff; cherty tuff; limestone blocks.
- DEVONIAN (and CARBONIFEROUS?)**
SILVER CREEK FORMATION (Jones, 1969)
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; amphibolite schist; minor amphibolite (map units F4b and F4b of Read, 1979a).
- Paleo- and/or Mesoproterozoic**
Pqfh Teelus 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).

- SYMBOLS**
- Foliation (unclassified): inclined, horizontal, vertical
Bedding, top unknown: inclined, vertical
Cleavage: 1st generation; 2nd generation
Mineral lineation
Fold hinge, oronulation lineation
Outcrop
Fossil locality (Localities with no database number taken from Okulich, 1979a)
Geochronology sample location
Mineral Occurrence
Southern Cordillera Lithoprobe transect lines 8 and 9 with shot point numbers
Geological boundary: defined, approximate, assumed
Geological boundary: notional (no geological control)
Quaternary limit
Fault, contraction (dash indicates upthrust side): defined, approximate, assumed
Fault, extension (solid circle indicates downthrust side): defined, approximate, assumed



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Geology by K.L. Daughy and Associates Ltd., 1978, 1982-83; R.I. Thompson, 1993, 1994; P. Gombick, 2000; K.R.G. Fiaz, 2000; M. Mylod, 2000
Geological compilation by P. Gombick and R.I. Thompson, 2002
Co-ordinated by R.I. Thompson through the auspices of the Ancient Pacific Margin NATMAP project
Digital cartography by R.F. MacLeod, 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 4371
GEOLOGY
CREIGHTON CREEK
BRITISH COLUMBIA
Scale 1:50 000/Echelle 1/50 000
Universal Transverse Mercator Projection
North American Datum 1983
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Digital base map from data compiled by Geomatics Canada, modified by the Geoscience Information Division
Mean magnetic declination 2004, 18°19'E, decreasing 0.3' annually.
Elevations in feet above mean sea level
Contour interval 100 feet

82106	82107	82108
OF 4376	OF 4378	OF 4377
82103	82102	82101
OF 4372	OF 4371	OF 4370
82114	82115	82116

Recommended citation:
Gombick, P. and Thompson, R.I.
2004: Geology, Creighton Creek, British Columbia; Geological Survey of Canada, Open File 4371, scale 1:50 000.
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