

The British Columbia Geological Survey's MINFILE database lists over 7,800 copper-bearing occurrences in the province; 4,057 of these list copper as the primary commodity.

- ▶ 8 Current producers
- ▶ One mine on temporary suspension (Myra Falls)
- ▶ Total copper in the reserves of producing mines more than 7 Mt
- ▶ Total recorded copper production (1894-2014) is approximately 13 Mt
- ▶ Over 90% of the total production comes from 15 deposits, mainly calcalkalic porphyries, alkalic porphyries, and VMS deposits

www.empr.gov.bc.ca/mining/geoscience/minfile

Top 10 BC Copper Producers/Camps

Mine/Camp	Milled t(x10 ⁶)	Cu t(x10 ³)	Mo t(x10 ³)	Au (t)	Ag (t)
Highland Valley Camp ⁺	1,659	4,921	72.8	8.4	1,371.6
Gibraltar	448	1,244	13.6	0.1	105.5
Island Copper*	367	1,227	32.0	35.3	294.0
Similco Camp ⁺	216	897		24.6	328.0
Britannia*	47	517		15.4	181.0
Huckleberry	111	465	3.7	1.8	81.4
Myra Falls Camp ⁺	30	424		36.0	1,108.0
Craigmont*	35	403		0.1	0.2
Kemess South*	232	358		92.4	4.9
Anyox Camp*	20	336		3.9	215.0

* Past Producer

⁺ Multiple Ore Bodies

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Cover photo (large) courtesy of Teck Resources Limited



Highland Valley Copper

- ▶ Owned (97.5%) and operated by Teck Resources Limited
- ▶ Life of mine to 2027 (2015 estimate)
- ▶ Exploration and mill upgrades result in throughput of 140,000 tonnes per day



Gibraltar

- ▶ Owned (75%) and operated by Taseko Mines Limited
- ▶ Mine life of 25 years (2012 estimate)
- ▶ 2014 production: 61,915 tonnes of copper
- ▶ Recent mill expansion to 85,000 tonnes per day



Red Chris

- ▶ Owned and operated by Imperial Metals Corporation
- ▶ First load of copper concentrate shipped April 11, 2015
- ▶ Project life of 28 years at milling rate of 30,000 tonnes per day (2012 estimate)
- ▶ Recovered metal in concentrate projected to be 2.08 billion lbs of copper

Copper in British Columbia

British Columbia Geological Survey
 Information Circular 2015-5



Ministry of
 Energy and Mines

Updated September, 2015

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Selected Copper Deposits in British Columbia

B.C. Copper Deposit Types

Porphyry

Cu±Mo±Au:

Calcalcalkic
Mainly Triassic-Cretaceous and Cretaceous/Tertiary (85-45 Ma). Deposits from 50 Mt to > 1 Bt grading 0.2 to 1% Cu, <0.1 to 0.6 g/t Au, 1 to 3 g/t Ag and up to 0.04% Mo (e.g. Highland Valley Copper, Gibraltar).

Porphyry Cu-Au: Alkalic

Mainly restricted to the Late Triassic-Early Jurassic (215-180 Ma) and mainly in Stikine and Quesnel terranes. Deposits: 10 to >300 Mt grading 0.2 to 1.5% Cu, 0.2 to 0.6 g/t Au and >2 g/t Ag (e.g. Mount Polley, Mount Milligan, Copper Mountain).

Porphyry-epithermal Cu-Au±Ag:

Subvolcanic/Transitional
Mainly Cretaceous and Tertiary. Deposits transitional between porphyry and epithermal environments. Deposits: >30 Mt grading 0.25% Cu, 86 g/t Ag and 1 g/t Au (e.g. Equity Silver).

Massive Sulphide Cu-Zn: Besshi

Mainly Cambrian and Late Triassic. Deposits: <1 to 113 Mt (e.g. Windy Craggy).

Massive Sulphide Cu (Zn): Cyprus

Primarily Mississippian-Permian and Late Triassic-Jurassic. Deposits: 0.7 to 23.7 Mt, grading up to 3% Cu, 1 g/t Au, 10 g/t Ag and 0.5% Zn (e.g. Anyox).

Massive Sulphide Cu-Zn: Kuroko/Noranda

Any age. Mostly Paleozoic, but also significant Mesozoic examples. Deposits: <2 to 10 Mt, with grades up to 2% Cu, up to 7% Zn, 3.5% Pb, 30.4 g/t Ag and 2.1 g/t Au (e.g. Myra Falls).

Skarn Cu:

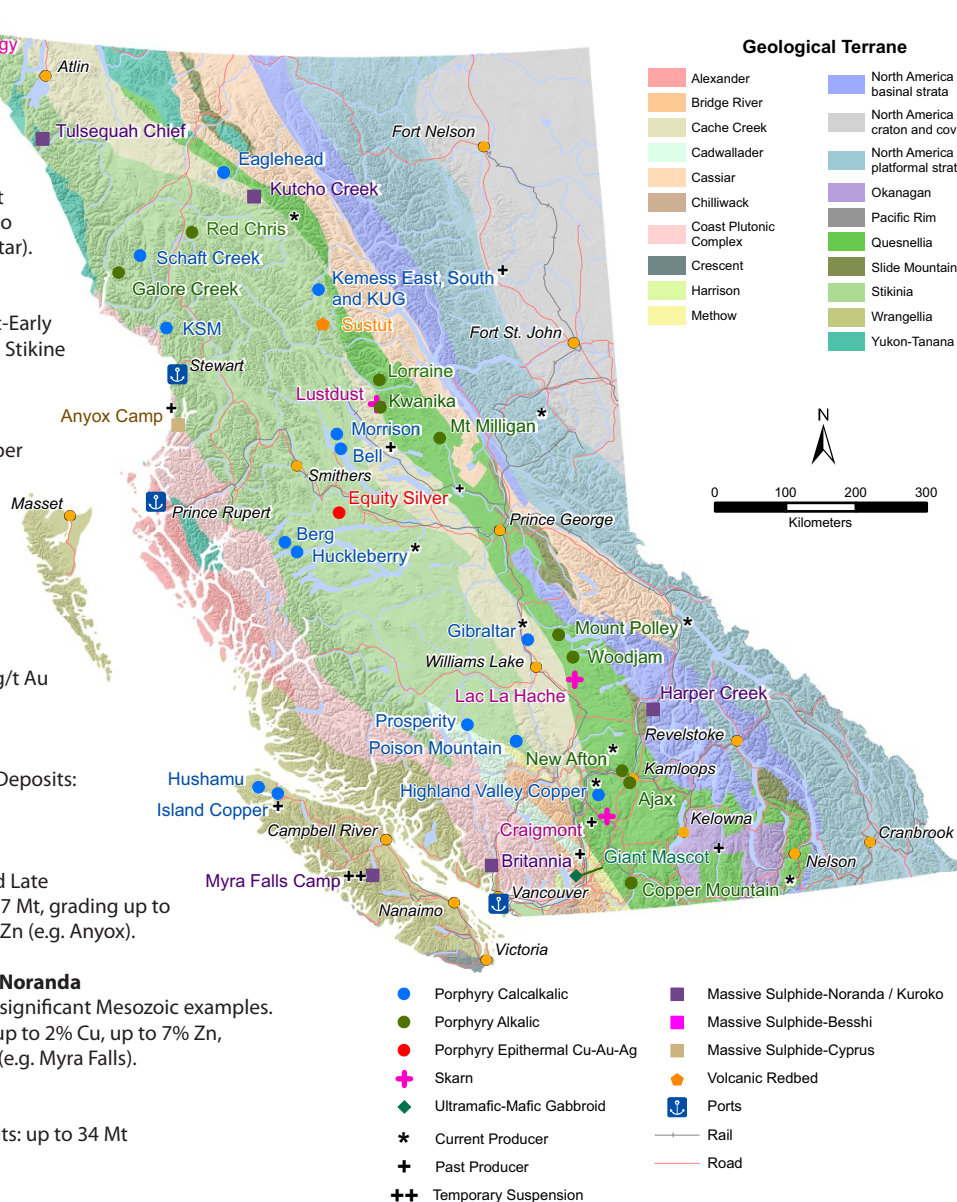
Mainly Early to Mid-Jurassic. Deposits: up to 34 Mt grading 1.3% Cu (e.g. Craigmont).

Ultramafic-Mafic Ni-Cu: Gabbroid

Worldwide mainly Archean to Proterozoic but younger in B.C. Deposits: up to 30 Mt grading 0.77% Ni and 0.47% Cu, but can be much higher in grade (e.g. Giant Mascot).

Volcanic Redbed Cu:

Triassic. Up to 5 Mt grading 1.5% Cu (e.g. Sustut).



Selected B.C. Copper Deposits Ranked By Contained Copper

Deposit	Estimated Tonnage t(x10 ⁶)	Grades				Contained Cu t(x 10 ³)
		%Cu	%Mo	g/t Au	g/t Ag	
KSM*	M+Ind. 2779.9 Inf. 1127.2	0.21 0.17	0.006 0.005	0.55 0.41	2.9 3.0	5,768 1,892
Red Chris	M+Ind. 1260.3 Inf. 1658.9	0.32 0.22		0.32 0.24	1.1 0.9	4,035 3,615
Galore Creek	M+Ind. 814.7 Inf. 346.6	0.50 0.42		0.31 0.24	5.2 4.3	4,074 1,456
Schaft Creek	M+Ind. 1228.6 Inf. 597.2	0.26 0.22	0.017 0.016	0.19 0.17	1.7 1.7	3,223 1,303
Deep Kerr (KSM)	Inf. 782	0.54	0.003	0.33	1.9	4,223
Windy Craggy	M. 297.4	1.38		0.20	3.8	4,104
Harper Creek	M+Ind. 1300.2 Inf. 119.7	0.25 0.25		0.03 0.03	1.2 1.2	3,290 299
Highland Valley Copper	M+Ind. 1008.2 Inf. 303.0	0.26 0.20	0.010 0.009			2,621 606
Kemess Underground	M+Ind. 165.8 Inf. 10.0	0.50 0.21		0.26 0.39	1.9 1.6	2,659 21
Gibraltar	M+Ind. 816	0.30	0.008			2,623
Prosperity	M+Ind. 1010.5	0.24		0.41		2,425
Berg	M+Ind. 506 Inf. 144.6	0.30 0.23	0.037 0.033		3.8 2.3	1,518 333
Copper Mountain	M+Ind. 265 Inf. 297	0.33 0.28		0.11 0.07	1.33 0.61	875 832
Bell	M+Ind. 257 Inf. 100	0.40 0.40		0.20 0.20		1,028 300
Mt. Milligan	M+Ind. 664.4 Inf. 10.1	0.19 0.15		0.35 0.34		1,280 15
Mt. Polley	M+Ind. 411.2 Inf. 39.7	0.28 0.18		0.29 0.24	0.8 0.6	1,153 73
Kwanika	Ind. 243.6 Inf. 295.1	0.23 0.19	0.006 0.006	0.21 0.10	0.7 1.3	560 560
Morrison	M+Ind. 208.3 Inf. 62.8	0.39 0.38	0.005 0.005	0.19 0.19		812 239
New Afton	M+Ind. 115.1 Inf. 14.1	0.85 0.46		0.68 0.43	2.3 1.4	978 64
Hushamu	M+Ind. 304.27 Inf. 205.62	0.21 0.18	0.010 0.008	0.29 0.26		635 363
Woodjam	Inf. 269	0.30				796
Kemess East	Ind. 55.9 Inf. 117.2	0.41 0.34		0.52 0.38	2.0 1.8	228 395

* KSM value Includes Mitchell, Kerr, Sulphurets, and Iron Cap deposits



For more information on B.C. mineral deposit profiles, visit:
www.empr.gov.bc.ca/Mining/Geoscience/MineralDepositProfiles