

Geofile 2004-11

SIGNIFICANT BRITISH COLUMBIA PORPHYRY CU-AU RESOURCES

June 2004

**By Tom Schroeter, Jamie Pardy and Mike Cathro
BC Ministry of Energy and Mines**

Introduction

The exploration for porphyry deposits during the 1960s and 1970s led to the discovery of numerous major deposits. A number of these were developed, particularly in the southern and central parts of the province. For example, the Lornex and Bethlehem mines, in the Highland Valley opened. Many of these mines were started to extract copper and molybdenum, but also have produced significant quantities of precious metals.

During the late 1980s another phase of exploration began, which led to better definition of the precious metal values of a number of known deposits and eventually the opening of the Mount Polley and Huckleberry in 1997 and Kemess South in 1998.

In the last 18 months a significant increase in copper and gold prices, the increased investor confidence in the mining markets, and attractive government programs in British Columbia, including the super flow-through share incentive program, have resulted in more exploration and interest for porphyry deposits. The discovery of significant, higher-grades of copper-gold-silver mineralization at the Northeast zone at Mount Polley has served to highlight (once again) British Columbia's significant potential for porphyry deposits.

Cordilleran porphyry deposits show the full range of morphological and depth attributes found in deposits worldwide. Copper-gold porphyries belong to two major types - calc-alkalic and alkalic. The younger, Late Mesozoic to Cenozoic, post-accretionary calc-alkalic porphyry copper-gold deposits like Bell, Prosperity and Huckleberry formed in an intracontinental setting after the outboard host arc and related terranes accreted to the western margin of North America. Early Mesozoic pre-accretionary calc-alkalic varieties include the Island Copper, Highland Valley Copper and Kemess South and North deposits. Numerous older (Early Mesozoic) alkalic copper-gold porphyry deposits, like Red Chris, Galore Creek, Mt. Milligan, Mount Polley and Similco, which are relatively rare elsewhere, display distinctive petrology, alteration and mineralization. They form a favourable belt in the shape of a shepherd's crook that extends from near Princeton at the United States/British Columbia border in the south, north-northwesterly to the Toadoggon Mining Camp then turns to the west towards the Stikine River country.

Listing of Significant British Columbia Porphyry Copper-Gold Deposits

Geofile 2004-11 is a table listing significant porphyry copper-gold **resources** in British Columbia. It includes information on the owner/operator of specific projects, mine production, current resources, contained copper and gold, the deposit type, references, as well as a brief listing of active, significant exploration projects for porphyry Cu-Au targets that currently do not have known resources. The table is presented in pdf and Excel format. This compilation includes past producers for which some resources remain (e.g. Afton, Bell and Similco), but does not include past producers (e.g. Island Copper). Additional information on these deposits is available in the MINFILE database (www.em.gov.bc.ca/Mining/Geolsurv/Minfile/) and in Mineral Deposits Profiles (www.em.gov.bc.ca/Mining/Geolsurv/MetallicMinerals/MineralDepositProfiles). Regional offices of the British Columbia Ministry of Energy and Mines in Vancouver, Kamloops, Cranbrook, Prince George and Smithers also have photographs and rock specimens of principal deposits. The compilation is from data released from a variety of sources; therefore, these figures typically do not conform to National Instrument 43-101 standards.

Fourteen alkalic porphyry deposits and/or camps have yielded 51.5 million grams (1.7 million ounces) of gold, 98.4 million grams (3.2 million ounces) of silver and 325.5 million kilograms of copper. They are also a significant component of British Columbia's gold resources totaling 590.7 million grams (19 million ounces). Significant examples are the Similco, Afton, Mount Polley, Galore Creek, Mt. Milligan, Red Chris and Lorraine deposits.

Twenty-nine calc-alkaline deposits and/or camps have yielded 109.6 million grams (3.5 million ounces) of gold, 2.1 billion grams (67.5 million ounces) of silver and 7.6 billion kilograms of copper. The undeveloped gold resources for this type of porphyry deposit total just over 1 billion grams (33.8 million ounces). Significant examples include: the Kemess, Prosperity, Schaft Creek, Bell, Granisle, Morrison, Island Copper, Highland Valley Copper and Huckleberry deposits.

SIGNIFICANT B.C. PORPHYRY CU-AUREOURCES (incl past production 1890-2003) *																	
Owner/Operator (Contact)	CAMP / DEPOSIT / ZONE (# of deposits in camp)	MINFILE NUMBER	PRODUCTION				RESOURCES					TOTAL GOLD (Prod. + Resource) (grams)	TOTAL COPPER (Prod + Resource) (Kg)	DEPOSIT TYPE (BC Model #)	REFERENCE		
			YEARS (*producing)	TONNES MINED OR MILLED	GOLD (grams)	SILVER (grams)	COPPER (kg) (other metals)	TONNES-ALL CATEGORIES	Au GRADE (g/t)	Cu GRADE (%)	GOLD (grams)					COPPER (kilograms)	(other commodities)
DRC Resources Corp. John Kruzick, Pres., 604 687-1629 www.drcresources.com	AFTON (IRON MASK) CAMP (10)			41 579 280	17 121 049	90 461 156	264 487 406	97 836 475			70 333 079	999 694 221		87 454 128	1 264 181 627	Porphyry Alkalic (L03)	CIM SV 46 (1995), pp. 537-608 PR June 3/03
	A) AFTON MINE (Teck) (incl Pothook&Crescent pits)	092INE023	1899, 1977-1991	33 537 568	14 826 173	85 786 171	232 190 029							14 826 173	232 190 029		
	AFTON MAIN ZONE EXTENSION (below Afton Pit)					Afton Main zone extension totals:		68 700 000			64 789 500	822 963 000		64 789 500	823 261 000		DRC NR 12/18/03
							Measured (@0.7% Cu Eq cut-off)	9 540 000	0.95	1.29	9 015 300	122 970 600	3.438 g/t Ag, 0.117 g/t Pd	9 015 300	122 970 600		
							Indicated (@0.7% Cu Eq cut-off)	59 160 000	0.83	1.05	49 043 640	620 588 400	2.487 g/t Ag, 0.119 g/t Pd	49 043 640	620 588 400		
							Inferred (@0.7% Cu Eq cut-off)	7 450 000	0.78	0.92	5 811 000	68 540 000		5 811 000	68 540 000		
	AFTON NORTHEAST ZONE						Measured + indicated(@0.7% Cu Eq cut-off)	970 000	0.948	1.12	919 560	10 864 000	6.396g/t Ag, 0.096g/t Pd	919 560	10 864 000		
Abacus Mining & Exploration Corp Doug Fulcher, Pres., 604 682-0301 www.amemining.com	B) AJAX WEST C) AJAX EAST	092INE012 092INE013	1989-91 and 1995-97 1994-1997	4 053 706 3 854 888	1 264 326 905 795	2 466 644 1 731 469	16 906 654 12 933 120	1 217	0.34	0.49	413 780	5 963		1 678 106 905 795	16 912 617 12 933 120	MINFILE MINFILE	
Abacus Mining & Exploration Corp Comet Industries (private)	D) IRON MASK E) IRON CAP	092INE010 092INE018	1901-1928 1938, 1940	132 806 234	118 005 6 501	461 662 13 499	2 445 177 4 800	2 400 000	0.40	0.84	960 000	20 160 000		1 078 005 6 501	22 605 177 4 800	MINFILE MINFILE	
Abacus Mining & Exploration Corp Abacus Mining & Exploration Corp	F) BIG ONION G) GALAXY	092INE011 092INE007	1929 1916-1917	30 48	249	809 902	2 897 2 552	3 266 000 3 200 000	0.44 0.34	0.71 0.65	1 437 040 1 088 000	23 188 600 20 800 000		1 437 289 1 088 000	23 191 497 20 802 552	GCNL Aug. 20, 1997 Info. Circ. 1997-1.p.19	
Abacus Mining & Exploration Corp Abacus Mining & Exploration Corp DRC Resources Corp. (?)	H) DM I) RAINBOW J) PYTHON (+Copperhead , Noonday)	092INE030 092INE028 092INE002						2 685 000 15 860 000 754 258	0.27 0.53 1.03	0.38 0.53	725 199	10 203 000 83 740 800 7 768 857		725 199	10 203 000 83 740 800 7 771 034	GCNL Aug. 20, 1997 various SMF - see MINFILE	
Bearclaw Capital Corp. John Ross, Pres., 604 263-5147	AXE A) SOUTH B) PRIMER (NORTH) C) WEST D) ADIT	092HNE04C 092HNE05E 092HNE10C 092HNE14C						72 096 540				287 792 848			287 792 848	Porphyry Alkalic (L03)	NM Sept 6, 1973 CIM SV 15, Table 1 NM Sept 6, 1973 SW-May31/04
Crown Grants	BANBURY PORPHYRY	92HSE177						3 610 000	1.57		5 667 700			5 667 700		Porphyry- related (L02) and skarn (K04)	AR 17631
Noranda Inc. Paul Severin, Senior VP, 416 982-742C www.noranda.com	BELL (NEWMAN)	093M 001	1972-1982, 1985-1992	77 165 645	12 885 964	38 319 730	304 795 539	296 000 000	0.20	0.46	59 200 000	1 361 600 000		72 085 964	1 666 395 539	Porphyry Calcalkalic (L04)	CIM SV 46 (1995), pp. 256-289
Christopher James Gold Corp 250-374-3737	BIG KID (BIG SIOUX)	092HNE07C 092HNE074 092HNE07E	1918	44		2 986	4 301	122 400 000	0.33	0.15	40 392 000	183 600 000		40 392 000	183 604 301	Porphyry Alkalic (L03)	SW-June1/04 MINFILE
Jack Hemmelspeck Telkwa, BC	BIG ONION	093L 124						94 380 000	0.08	0.42	7 550 400	396 396 000	0.02% MoS ₂	7 550 400	396 396 000	Porphyry Calcalkalic (L04)	CIM SV 46 (1995), pp. 410-415
Skyline Gold Corp. 604-683-6049	BRONSON SLOPE	104B 077						79 000 000	0.48	0.17	37 920 000	134 300 000	2.7g/t Ag 0.006% Mo	37 920 000	134 300 000	Porphyry Calcalkalic (L04)	Info. Circ. 1991-1, p.11. CIM SV 46(1995), pp. 838-850
Doublestar Resources Ltd. Alan Savage, Pres., 604 922-7377 www.doublestar.net	CATFACE	092F 120						124 259 000	0.069	0.46	8 573 871	571 591 400	0.006% Mo Cliff Zone	8 573 871	571 591 400	Porphyry Calcalkalic (L04)	CIM SV 46 (1995), pp.332-326
Lorne Warren & John Mirko 250 847-3612 & 604 986-4821	CHUCHI LAKE	093N 159						50 000 000	0.21	0.21	10 500 000	105 000 000		10 500 000	105 000 000	Porphyry Alkalic (L03)	Digger Res., Oct. 17, 1991
SpectrumGold Inc. Rick Van Nieuwenhuysse, Pres. 604-669-6227 www.spectrumgold.net	COPPER CANYON	104G 017					Central zone	32 400 000	1.17	0.75	37 908 000	243 000 000	17.1g/t Ag	37 908 000	243 000 000	Porphyry Alkalic (L03)	CIM SV 46 (1995), pp.645-649
Chris Poloni, Delta, BC Box 1101, V4M 3T2	EAGLEHEAD (JOY)	104I 008						30 000 000	0.20	0.41	6 000 000	123 000 000	0.01% Mo, 2.71 g/t Ag	6 000 000	123 000 000	Porphyry Calcalkalic (L04)	CIM SV 37, p.187
SpectrumGold Inc. Rick Van Nieuwenhuysse, Pres. 604 669-6227 www.spectrumgold.net	GALORE CREEK CAMP (STIKINE COPPER) (3)	104G 090 104G 095	Central Zone Southwest Zone				Indicated Inferred	384 700 000 285 900 000 98 800 000			162 352 000 125 796 000 36 556 000	2 620 590 000 2 087 070 000 533 520 000		162 352 000 125 796 000 36 556 000	2 620 590 000 2 087 070 000 533 520 000	Porphyry Alkalic (L03)	NovaGold PR May 5/04

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			YEARS (*=producing)	TONNES MINED OR MILLED	GOLD (grams)	SILVER (grams)	COPPER (kg) (other metals)	TONNES-ALL CATEGORIES	Au GRADE (g/t)	Cu GRADE (%)	GOLD (grams)	COPPER (kilograms)					(other commodities)
Imperial Metals Corp. Brian Kynoch, Pres., 604 669-8959 www.imperialmetals.com	GIANT COPPER CAMP (2) A) AM B) INVERMAY	092HSW001 092HSW002		94	716		313 020	45 373 026			17 241 750	213 253 222		17 242 466	213 253 222	Porphyry Calcalkalic (L04)	Info. Circ. 1999-1 p.11 MINFILE
			Combined resource for AM and Invermay zone: 1936-1947	94	716		313 020 (Pb, Zn)	45 373 026	0.38	0.47	17 241 750	213 253 222	11.19g/t Ag	17 241 750 716	213 253 222		
Getty Copper Corp. Vic Preto, Director, 604-682-2205 www.gettycopper.com	GETTY CAMP (2) A) GETTY NORTH B) GETTY SOUTH	92INE038 92INE043						108 093 000				392 688 300			392 688 300	Porphyry Calcalkalic (L04)	Getty Copper, 2004
								72 093 000 36 000 000		0.31 0.47		223 488 300 169 200 000			223 488 300 169 200 000		
Taseko Mines Limited Hunter Dickinson Inc 604-684-6365, www.hdgold.com	GIBRALTAR	093B 012	1972-1998 2004-	305 846 091	143 368	105 478 052	876 712 378	189 000 000	0.007	0.31	1 323 000	585 900 000	0.01% Mo	1 466 368	1 462 612 378	Porphyry Calcalkalic (L04)	Taseko, 2004 CIM SV 46 (1995), pp. 201-213
Noranda Inc. Paul Severin, Senior VP, 416 982-7420 www.noranda.com	GRANISLE	093L 146	1966-1982	52 700 000	6 832 716	69 752 525	214 299 455 (6582 kg Mo)	119 000 000	0.15	0.41	17 850 000	487 900 000		24 682 716	702 199 455	Porphyry Calcalkalic (L04)	CIM SV 46 (1995), pp.256-289
Pacific Booker Minerals Chris Sampson, Pres., 604 681-8556 www.pacificbooker.com	HEARNE HILL	093M 006						14 230 000	0.19	0.60	2 646 780	85 380 000		2 646 780	85 380 000	Porphyry Calcalkalic (L04)	Info Circ. 1999-1, p. 11 CIM SV 46(1995), pp.290-303
Teck Cominco Limited 604-687-1117 www.teckcominco.com	HIGHLAND VALLEY COPPER CAMP (3) A) HIGHLAND VALLEY COPPER (HVC) amalgamation of Lornex and Valley in 1996 B) BETHLEHEM COPPER C) LORNEX	092ISW012 092ISE001-006 092ISW045	1986-2003* 1963-1982 1972-1986	1 151 623 936 787 223 286 92 834 841 271 565 809	8 749 663 7 371 659 1 279 833 98 171	1 393 803 763 1 024 836 013 99 826 893 269 140 857	4 306 327 921 2 937 134 225 398 112 545 971 081 151	252 300 000 252 300 000			7 569 000 7 569 000	1 059 660 000 1 059 660 000	0.081% Mo	16 318 663 14 940 659	5 365 987 921 3 996 794 225	Porphyry Calcalkalic (L04)	CIM SV 46 (1995), pp. 161-191
														1 279 833 98 171	398 112 545 971 081 151		
Lumina Copper Corp. Anthony Floyd, Pres. 604 687-0407 www.luminacopper.com	HOLBERG INLET CAMP (2) A) HUSHAMU (EXPO)	092L 240	Hushamu totals: Meas + Ind (@ 0.2% Cu cut-off) Inf (@ 0.2% Cu cut-off)					308 700 000 283 700 000 230 900 000 52 800 000			102 253 700 91 253 700 71 348 100 19 905 600	881 860 000 794 360 000 646 520 000 147 840 000	0.009% Mo	102 253 700 91 253 700	881 860 000 794 360 000	Porphyry Calcalkalic (L04)	Lumina AR - '03
	B) RED DOG	092L 200						25 000 000	0.44	0.35	11 000 000	87 500 000	0.006% Mo	11 000 000	87 500 000		CIM SV 46 (1995), pp. 367-376
Imperial Metals Corp. Brian Kynoch, Pres., 604 669-8959 www.imperialmetals.com	HUCKLEBERRY	093E 037	1997-2003*	43 424 714	1 213 460	34 038 000	217 912 872 (Mo)	25 018 000	0.056	0.51	1 501 080	127 591 800	3 g/t Ag, 0.13% Mo	2 714 540	345 504 672	Porphyry Calcalkalic (L04)	Imperial Metals, 2003 CIM SV 46 (1995), pp.313-321
ETV Technology Inc. David Martin Smith	KATIE	082FSW291						200 000 000 (geological potential)	0.17 est.	0.17 est.	34 000 000	340 000 000		34 000 000	340 000 000	Porphyry Alkalic (L03)	SW Mar. 12, 1991 CIM SV 46 (1995), pp. 666-673
Northgate Minerals Corp. Ken Stowe, Pres., 604 688-4436 www.northgateexploration.ca	KEMESS CAMP (2) A) KEMESS SOUTH B) KEMESS NORTH	094E 094 094E 021	1998-2003*	81 374 000 81 374 000	42 213 818 42 213 818	50 626 000 50 626 000	150 526 163 150 526 163	505 715 448 91 715 448 414 000 000			192 449 098 64 109 098 128 340 000	877 014 148 214 614 148 662 400 000		234 662 916 106 322 916 128 340 000	1 027 540 311 365 140 311 662 400 000	Porphyry Calcalkalic (L04)	Northgate AR 2003
Noranda Inc. & Seabridge Gold Inc. Paul Severin, Senior VP, 416 982-7420 www.noranda.com	KERR	104B 191						140 800 000	0.36	0.75	50 688 000	1 056 000 000	Ag	50 688 000	1 056 000 000	Porphyry Calcalkalic (L04)	Seabridge NR 06/14/01 CIM SV 46(1995), pp. 509-523
Glengarry Developments Inc. 604-209-6565	LLOYD-NORDIK (2 km north of Mt. Polley Mine)	093A 160						2 930 000	0.40	0.531	1 174 930	15 558 300		1 174 930	15 558 300	Porphyry Alkalic (L03)	GCNL Mar. 25, 1996
Eastfield Resources Ltd. Bill Morton, Pres. 604 681-7913 www.eastfieldgroup.com	LORRAINE	093N 002						31 940 000	0.17	0.66	5 429 800	210 804 000	4.7g/t Ag	5 429 800	210 804 000	Porphyry Alkalic (L03)	SW Mar. 31, 1998

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			YEARS (*=producing)	TONNES MINED OR MILLED	GOLD (grams)	SILVER (grams)	COPPER (kg) (other metals)	TONNES-ALL CATEGORIES	Au GRADE (g/t)	Cu GRADE (%)	GOLD (grams)	COPPER (kilograms)					(other commodities)
Firestone Ventures Inc. Ken Powell, Pres., 780 435-5576 www.firestoneventures.com	LOUISE LAKE	093L 079						50 000 000	0.31	0.30	15 500 000	150 000 000	0.02% Mo	15 500 000	150 000 000	Porphyry Calcaikalic (L04)	SW May 5, 1992 CIM SV 46 (1995), pp. 416-421
Pacific Booker Minerals Chris Sampson, Pres., 604 681-8556 www.pacificbooker.com	MORRISON	093M 007					Measured Indicated Inferred	71 000 000			15 531 000	331 940 000		15 531 000	331 940 000	Porphyry Calcaikalic (L04)	Pacific Booker Match '04
								43 700 000	0.22	0.46	9 614 000	201 020 000		9 614 000	201 020 000		
								18 400 000	0.22	0.46	4 048 000	84 640 000		4 048 000	84 640 000		
								8 900 000	0.21	0.52	1 869 000	46 280 000		1 869 000	46 280 000		
Imperial Metals Corp. Brian Kynoch, Pres., 604 669-8959 www.imperialmetals.com	MOUNT POLLEY (CARIBOO-BELL)	093A 008	1997- 2001	27 700 000	11 530 067	7 905 000	61 039 958	31 909 000	0.34	0.356	10 753 333	113 596 040		22 283 400	174 635 998	Porphyry Alkalic (L03)	Imperial Metals, 2002
Placer Dome Inc. Rob Pease 404-682-7082 www.placerdome.com	MT. MILLIGAN (PHIL, HEIDI)	093N 194						275 155 770	0.51	0.24	140 329 443	660 373 848		140 329 443	660 373 848	Porphyry Alkalic (L03)	CIM SV 46 (1995), pp.650-665
Medallion Resources Ltd. Robert Blakestad, Pres., 604 681-9558	NAK	093M 010									22 180 000	634 300 000		22 180 000	634 300 000	Porphyry Calcaikalic (L04)	Fieldwork 1997, p.2-14
	NORTH SOUTH							217 000 000	0.04	0.25	8 680 000	542 500 000		8 680 000	542 500 000		
								54 000 000	0.25	0.17	13 500 000	91 800 000		13 500 000	91 800 000		
Amarc Resources Ltd. Hunter Dickinson Inc Dave Yeager, 604-684-6365 www.hdgcid.com	NANIKA (NEW NANIK)	093E 055						16 458 422	0.20 est.	0.44	3 291 684	71 923 304	0.009% Mo 0.38g/t Ag	3 291 684	71 923 304	Porphrvy Calcaikalic (L04)	GCNL Jan. 14, 1992
Stealth Minerals Ltd. Brad Jones, Pres., 416-510-8397 www.stealthminerals.com	PINE	094E 016						70 000 000	0.57	0.15	39 900 000	105 000 000		39 900 000	105 000 000	Porphyry Calcaikalic (L04)	Info. Circ. 1999-1, p.15
Barrick Gold Corp. 1-800-720-7415 www.barrick.com	POISON MOUNTAIN	092O 046						298 580 000			41 579 000	787 530 000		41 579 000	787 530 000	Porphrvy Calcaikalic (L04)	Imperial Metals,1995 CIM SV 46 (1995), pp. 343-351
	COPPER CREEK FENTON CREEK						Copper Ck. Fenton Ck.	280 000 000	0.14	0.26	39 200 000	730 800 000	0.51g/t Ag, .007% Mo	39 200 000	730 800 000		GCNL Oct. 28, 1993
								18 300 000	0.13	0.31	2 379 000	56 730 000		2 379 000	56 730 000		
Hathor Exploration Ltd. Matthew Mason 604 684-6707 www.hathor.ca	POPLAR	093L 239						144 117 000	0.10 est.	0.368	14 411 700	530 350 560	0.011% Mo, 6.86 q/t Ag	14 411 700	530 350 560	Porphrvy Calcaikalic (L04)	GCNL Jan. 14, 1992 CIM SV 46 (1995), pp.397-400
Taseko Mines Ltd. Robert Hunter, Pres., 604 684-6365 www.tasekomines.com	PROSPERITY (FISH LK.)	092O 041						490 800 000	0.43	0.22	211 044 000	1 079 760 000		211 044 000	1 079 760 000	Porphyry Calcaikalic (L04)	Canaccord Rpt Mar '04
bcMetals Corp. Carl Zuber, CEO 604 683-0140 http://www.bcmetalscorp.com/	RED-CHRIS	104H 005					(@ 0.5% Cu cut-off) Measured Indicated	60 200 000			35 780 000	423 960 000		35 780 000	423 960 000	Porphrvy Alkalic (L03)	bcMetals NR 1/19/04
								29 800 000	0.66	0.78	19 668 000	232 440 000		70 350 000	854 250 000		
								30 400 000	0.53	0.63	16 112 000	191 520 000		43 776 000	510 720 000		
955528 Alberta Ltd Guy Salazar, Calgary 403 281-6889	SCHAFT CREEK (LIARD COPPER)	104G 015					(@ 0.4% Cu Eq. cut-off)	464 700 000	0.25	0.359	116 175 000	1 668 273 000	2.18g/t Ag, 0.045% MoS ₂ (+Re)	116 175 000	1 668 273 000	Porphyry Calcaikalic (L04)	CIM SV 46 (1995), pp.239-246 Feb. '04 Rpt.
Envirogreen Technologies Ltd. 604-689-5336	SIMILCO CAMP (3)		Totals:	185 496 551	22 841 418	294 238 155	804 820 665	158 383 534			24 968 838	611 777 908		47 810 256	1 416 598 573	Porphyry Alkalic (L03)	MINFILE
	A) SIMILCO (COPPER MTN.)	092HSE001	1980-1996	142 389 861	15 538 366	264 451 587	648 183 434	129 163 140	0.155	0.393	20 020 287	507 611 140	1.576q/t Ag	35 558 653	1 155 794 574		Info Circ. 1991-1
	B) INGERBELLE	092HSE004	& 1917-1962	43 106 626	7 302 598	29 782 556	156 628 776										MINFILE
	C) RED BUCK	092HSE006	1972-1979	64	454	4 012	8 455										
	D) ALABAMA	092HSE013	1910, 1939					29 000 000	0.16	0.35	4 640 000	101 500 000		454	8 455		T. Schroeter, pers. Comm.;
	E) VOIGHT	092HSE020						220 394	1.40	1.21	308 552	2 666 767		4 640 000	101 500 000		SMF Aug 17, 1973,
	F) ORIOLE	092HSE024	1955	30 800										308 552	2 666 767		Cumont Mines Ltd.;
	G) VIRGINIA	092HSE242	1991, 92, 93														Princeton M. Corp 1996 AR
Resource for A) Similco includes resources of B) Ingerbelle, F) Oriole and G) Virginia deposit																	

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(incl past production 1890-2003) *																	
Owner/Operator (Contact)	CAMP / DEPOSIT / ZONE (# of deposits in camp)	MINFILE NUMBER	PRODUCTION				RESOURCES					TOTAL GOLD (Prod. + Resource) (grams)	TOTAL COPPER (Prod + Resource) (Kg)	DEPOSIT TYPE (BC Model #)	REFERENCE		
			YEARS (*=-producing)	TONNES MINED OR MILLED	GOLD (grams)	SILVER (grams)	COPPER (ka) (other metals)	TONNES-ALL CATEGORIES	Au GRADE (g/t)	Cu GRADE (%)	GOLD (grams)					COPPER (kilograms)	(other commodities)
Silver Standard Res. Inc. Robert Quartermain, Pres., 604-689-3846 Noranda Inc. & Seabridge Gold Inc. Paul Severin, Senior VP, 416 982-7420 www.noranda.com	SULPHURETS CAMP (4)	Totals:		300	309		74 754 000			112 764 900	175 360 000		112 765 209	175 360 000		CIM SV 46 (1995), pp. 373 - 499 GCNL Aug. 24, 1989	
	B) SNOWFIELD	104B 179					19 954 000	2.85		56 868 900			56 868 900		Porphyry (L02)		
	C) SULPHURETS GOLD	104B 182					54 800 000	1.02	0.32	55 896 000	175 360 000		55 896 000	175 360 000	Porphyry (L04)	Seabridge NR 06/14/01	
Lorne Warren 250 847-3612	TAM	093N 093					7 200 000	4.11	0.55	29 592 000	39 600 000	Boundary Zone	29 592 000	39 600 000	Porphyry Alkalic (L03)	1991 Roundup Snapshot	
Great Quest Metals Ltd. Willis Osborne, Pres., 604-687-3520 www.greatquest.com	TASEKO	092O 033					16 767 000			13 459 105	110 394 300		13 459 105	110 394 300	Porphyry Calcalkalic (L04)	CIM SV 46 (1995), p. 442 MINFILE	
	EMPRESS AREA ZONES (3) LOWER NORTH ZONE					(@ 0.4% Cu cut-off) (@ 0.15% Cu cut-off)	10 004 000 6 763 000	0.789 0.823	0.61 0.73	7 893 156 5 565 949	61 024 400 49 369 900	1.71g/t Ag	7 893 156 5 565 949	61 024 400 49 369 900			
Orphan Boy Resources Inc. Ron Coombes, Pres., 604 687-3520 www.orphanboy.com	WILLA (ALWYN)	082FNW071	1899, 1988	495	2 873	7 883	4 418 (Pb,Zn)	996 000	6.30	0.80	6 274 800	7 968 000	10.8 g/t Ag	6 277 673	7 972 418	Porphyry Calcalkalic (L04)	SW April 1, 2003
Fiordland Expl. Inc. & Wildrose Res. Ltd. Vic Tanaka, Pres., Fiordland, 604 893-8365 www.fiordlandex.com	WOODJAM (MEGABUCKS)	093A 078					2 056 000	0.93	0.13	1 912 080	2 672 800		1 912 080	2 672 800	Porphyry Alkalic (L03)	SW Mar. 26, 1990	
TOTALS:				Gold Production (grams)		Copper Production (kg)				Gold Resources (grams)	Copper Resources (kg)		Total gold, production + resources (grams)	Total copper, production + resources (kg)			
				123 535 421		7 200 931 076				1 735 971 071	20 864 953 999		1 859 506 492	28 065 885 075			

SIGNIFICANT B.C. PORPHYRY CU-AU RESOURCES																															
(incl past production 1890-2003) *																															
Owner/Operator (Contact)	CAMP / DEPOSIT / ZONE (# of deposits in camp)	MINFILE NUMBER	PRODUCTION					RESOURCES					TOTAL GOLD (Prod. + Resource) (grams)	TOTAL COPPER (Prod + Resource) (Kg)	DEPOSIT TYPE (BC Model #)	REFERENCE															
			YEARS (*=producing)	TONNES MINED OR MILLED	GOLD (grams)	SILVER (grams)	COPPER (kg) (other metals)	TONNES-ALL CATEGORIES	Au GRADE (g/t)	Cu GRADE (%)	GOLD (grams)	COPPER (kilograms)					(other commodities)														
Other Active (2004) Porphyry Cu-Au Exploration Projects																															
Project	MINFILE Number																														
ATTY	94E 022																														
AXE	92HNE040, 142, 143																														
BEAR	93M 097																														
BOB CREEK	94E 147																														
BRENDA	94E 147																														
CAT (OSILINKA)	94C 069																														
CLAW (COL)	93N 101																														
COPPER CREEK	104J 005, 018, 135																														
FRIENDLY LAKE	92P 006, 007, 134																														
GETTY - WEST	92INW004, 011																														
INDATA	93N 092																														
IXL	82ENE033																														
KENA	82FSW237, 331, 332																														
KINISKAN	104G 034, 086, 171, 177																														
LAC LA HACHE (Ann North)	92P 115	Further MINFILE information available at: www.em.gov.bc.ca/Mining/Geolsurv/Minfile																													
PIL NORTH	94E 029, 083, 213, 216																														
RABBIT NORTH	92INE045																														
RYAN & FORD	none																														
WOLVERINE (GBR)	104J 059																														
* Notes: Information obtained in this Open File including tonnages and grades are from data released from individual project owners or operators; these figures may or may not conform to National Instrument 43-101 Standards of Disclosure for Mineral Projects. The BC Ministry of Energy and Mines makes every effort to accurately report this information, however, the Ministry is not responsible for errors or omissions. All information should be checked and verified before use. Abbreviations: Cdn = Canadian; CIM SV = Canadian Institute of Mining, Metallurgy and Petroleum Special Volume; Conf Rpt = Confidential report; Cons = Consultants; EMPR = BC Ministry of Energy, Mines and Petroleum Resources; EMR = Energy, Mines and Resources Canada (Geological Survey of Canada); est = estimate; Eq = equivalent; Expl'n = Exploration; g/t = grams per tonne; GCNL = George Cross Newsletter; Geo Fldwk = Geological Fieldwork; MEM = BC Ministry of Energy and Mines; Info Circ = Information Circular (MEM); Int'l = International; Mag = Magnetite; MDAP = Mine Development Assessment Process; MEG = (Vancouver) Mining Exploration Group; NM = Northern Miner; o/p = open pit; p/pp = pages; Pers Com = Personal Communication; PR = Press Release; Prod = Production; Res = Resources; Rpt = Report; SMF = Statement of Material Facts; SW - Canada Stockwatch; u/g = underground; Van = Vancouver																															