



EXPLORATION AND MINING in British Columbia 2003



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COLUMBIA

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Helicopter-supported drilling of copper-gold porphyry mineralization on the Big Bulk prospect in the Kitsault area by Canadian Empire Exploration Corp.

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FOREWORD

This volume provides details of mining and exploration activity in British Columbia during 2003. Regional geologists in Mining Division offices in Cranbrook, Kamloops, Prince George and Smithers prepared reviews of activity. The year 2003 witnessed the beginning of a significant upturn in the mining industry in British Columbia. Several factors contributed to the turnaround: (1) rising prices for coal, base and precious metals, (2) a strongly renewed flow of risk capital to the mining sector that rejuvenated junior companies, and (3) new government policy on issues that affect the industry. Exploration expenditure is the traditional measure of industry health; this figure climbed to an estimated \$55 million, an increase of \$15 million over 2002.

British Columbia produces a variety of solid mineral commodities. The value of production is forecast at \$2.96 billion, the most important commodities are coal (35%), copper (20%), construction aggregates (19%), gold (12%), silver (5%), molybdenum (4.5%), zinc (2.6%) and lesser amounts of other metals and industrial minerals. Five metallurgical coalmines in the Southeast coalfield, Fording River, Greenhills, Line Creek, Elkview and Coal Mountain, were consolidated under one owner. Bullmoose, in the Peace River coalfield, closed after 20 years of operation. Thermal coal is produced from Quinsam on Vancouver Island and from Basin Coal, a new mine near Princeton. The six metal mines in the province improved in profitability in 2003. Valley Copper, a huge porphyry deposit near Kamloops, is the largest copper producer in Canada. The large Kemess open pit mine and the contrasting Eskay Creek underground mine, small but of exceptional grade, are among the largest gold producers in the country. Eskay Creek has the added distinction of being the fifth largest silver producer in the world. Endako mine is Canada's largest supplier of molybdenum. Myra Falls, on Vancouver Island, produces copper, zinc, silver and gold. Copper is produced at the Huckleberry mine in northwest British Columbia. In addition, there are some 32 industrial mineral quarries and mines.

Strengthening prices for commodities in addition to gold, which began to rise a year earlier, prompted a diversification in exploration activity. Copper and coal are of particular note because these are commodities in which the Province is well endowed. Junior and mid-size companies led the upsurge in activity. Gibraltar and Mount Polley open pit copper mines are poised to re-open. Mount Polley is augmented by the most significant discovery in 2003, the Wishbone porphyry copper-gold zone. Feasibility studies (or updates) or economic scoping studies began on many other copper and/or gold projects: Kemess North, Red Chris, Morrison-Hearne Hill, Afton, Willa, Galore Creek, Sustut, Tulsequah Chief, J&L, Kutcho Creek and New Polaris. The first three of these projects entered government's Environmental Assessment process to attain Mine Development Certificates. Among coal projects, Willow Creek may begin production in 2004 and Perry Creek submitted a revised development plan to the Environmental Assessment Office.

In 2003 there were 85 exploration projects in the province with expenditures in excess of \$100 000, an increase from 75 in 2002. Total drilling is estimated to be 323 000 metres, up substantially from 215 000 metres in the previous year. The most significant exploration programs were:

- In the Northwest region; large drilling programs at Red Chris, Galore Creek, both copper-gold projects, and the Tulsequah Chief copper-zinc-silver-gold project, and encouraging results from the early stage work at the Thorn silver-gold, Nak copper and Foremore polymetallic projects
- In the Northeast-Central region; large drilling programs at the closed Mount Polley copper-gold and Gibraltar copper mines, the underground bulk sample extracted from the Bonanza Ledge gold deposit, the advance of several coal deposits toward production and promising results from Pine and 3Ts, both gold-silver projects
- In the Kootenay region; the Lexington copper, Kena gold and Willa copper-silver projects
- In the South-Central region; the continued delineation of copper resources below the closed Afton open pit, drilling at the Elk gold-silver project and advanced exploration at Bralorne, a major past-producer of gold
- In the Southwest region; the resumption of exploration drilling at Myra Falls and the extraction of a bulk sample of alumina-silica rock from the Apple Bay project.

Unlike previous issues of this publication, this volume contains only an abbreviated report for Southwest region where there is no regional geologist. Also, there are no papers describing specific projects, that comprised previous editions of this volume (as Part B) and normally written by a combination of government and industry geoscientists. We would like to acknowledge the work of David Terry, who resigned his position as regional geologist in Cranbrook early in 2004. We wish him well in his return to industry; his contribution will be missed. We sincerely thank W.J. (Bill) McMillan, who critically reviewed all papers, and Bob Lane, regional geologist, who performed the desktop publishing of the volume.

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