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Highland Valley Copper

"Highland Valley Copper achieved its highest ever recovery rate in 1992."

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Copper and Molybdenum

Revenue and operating profit at Highland Valley Copper, in which Rio Algom holds a 33.6% partnership interest, increased over the 1991 levels by 9% and 33% respectively. This was due to the favourable impact of the US to Canadian dollar exchange rate and to a significant portion of final contract settlements occurring during periods of higher copper prices. The average London Metals Exchange (LME) spot price for copper in 1992 was US\$1.04 per pound compared to US\$1.06 per pound in 1991. The average realized price per pound attained by Highland Valley Copper was US\$1.05 compared to US\$0.99 per pound in 1991.

Operations

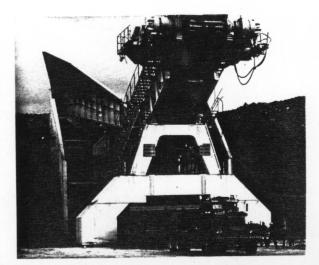
Copper production at Highland Valley Copper in 1992 was 377.0 million pounds compared to the record production achieved in 1991 of 378.4 million pounds. The 1992 production reflected lower tonnes milled of 44.1 million compared to 46.3 million tonnes in 1991; this was offset by a higher average copper head grade of 0.451% compared to 0.441% in 1991. Average mill processing rates declined from 126,827 tonnes per day to 120,394 tonnes per day, mainly due to the processing of harder ores at certain times during the year. Molybdenum by-product production increased in 1992 to 4.0 million pounds from 3.8 million pounds in 1991.

Copper & Molybdenum Revenue/ Operating Profit* \$ millions

34.7

*Rio Algom's share

Highland Valley Copper reduced ore haulage distances and costs in 1992 by relocating the two semi-mobile in-pit crushers.



Copper recovery at 89% was at an all time high as was the concentrate grade of 41.9%. These compare to the 1991 equivalent statistics of 87% and 40.3% respectively. The better recovery is due to improvements made to the flotation process as well as to the nature of the ore mined.

Net smelter and refining costs increased over 1991 levels due to excess copper concentrate supply which enabled smelters to increase charges. Other direct costs at Highland Valley Copper were held down to 1991 levels in part due to the relocation of the two inpit crushers which significantly lowered truck haulage costs. In addition, replacement of a key segment of the truck fleet with larger and more efficient vehicles reduced maintenance and manpower costs and increased haulage efficiency. Productivity was also enhanced by the overhaul of part of the shovel fleet in 1992.

Proven and probable reserves at Highland Valley Copper at year end were estimated to be 632.9 million tonnes grading 0.414% copper and 0.0068% molybdenum. At current rates of operation, this represents a mine life of approximately 15 years. The decrease of 58.8 million tonnes from 691.7 million tonnes in 1991 reflects the 1992 production of 44.3 million tonnes and a net 14.5 million tonnes resulting from changes in pit design and cutoff grade.

Markets

Copper

In 1992, consumption of copper remained steady in spite of widespread recession. Although strong consumption was registered in the United States, this was offset by a fall in Japanese consumption, slower growth rates in Asia and stagnant copper consumption in Europe. Production modestly outpaced consumption and the resulting rise in inventories fuelled a decline in prices by the end of the year.

World production of copper in concentrate continued to increase in 1992, but at a slower rate than the previous year. The largest increase again occurred in Chile, due to new capacity and improved performance of the state owned Codelco copper operations.

Highland Valley Copper has four copper concentrate contracts accounting for 77% of total sales. The largest single customer is a group of Japanese smelters that purchase approximately 50% of the production under a long-term contract.

Molybdenum

Molybdenum, which is primarily used in steel production, has continued in a state of oversupply since 1989. Despite cutbacks in production by the North American primary producers, demand for molybdenum and prices continued to decline in 1992 due to the protracted recession. Owing to the strong demand and firm prices for copper, by-product molybdenum production has, however, remained high.

The average molybdenum price in 1992 was US\$2.21 which was approximately 7% lower than the 1991 average of US\$2.38 per pound. The adverse impact of lower molybdenum prices was offset by the favourable effects of the U.S. to Canadian dollar exchange rate.



To improve efficiencies in 1992, Highland Valley Copper overhauled its 33 cubic yard shovels.