**TECK CORPORATION** ANNUAL REPORT 1985



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# **Mining Operations**



Teck's share of mine operating profits in the fiscal year was \$61 million, up from \$36.5 million last year and \$9.1 million in 1983. Net earnings from mining after tax but before exploration expenses were \$10.5 million, compared with a net loss of \$3.1 million in 1984. All figures exclude earnings from Lornex.

The improvement was the result of a full year's production at the Bullmoose coal mine, the shutdown of the Highmont mine, higher grade ore at Afton and continuing efforts to control costs and improve productivity.

### AFTON (copper, gold)

The Afton mine is a joint venture between Teck (73%) and an affiliate of Metallgesellschaft Canada Limited. It is an open pit copper mine with byproduct gold production, located just west of Kamloops, British Columbia.

Afton produced 49.3 million pounds of copper and 48,600 ounces of gold, up from 33 million pounds and 29,600 ounces last year. The average grade of ore treated in the concentrator was 0,98% copper, compared with 0.68% in 1984. Teck's share of net earnings was \$4.9 million, compared with a net loss of \$3.2 million the previous year.

Ore reserves at year end were 9.2 million tons grading 0.69% copper and 0.013 ounces of gold per ton. This includes 5.7 million tons grading 0.94% copper in place, and 3.5 million tons at 0.3% copper in low grade stockpiles. Additional reserves beneath the open pit are estimated to be 10.5 million tons grading 1.5% copper and 0.03 ounces of gold per ton.

	1985	1984
Tons milled	2,922,538	2,909,090
per day	8,007	7,950
Grade (% Cu)	.98	.68
Recovery (%)	86.3	84.0
Production: Ibs Cu	49,307,444	33.039.120
oz Au	48,559	29,621
Operating cost/ton	\$8.72	\$10.02
Average price: Cu	\$0.84	\$0.78
Au	\$431.00	\$465.00
Teck's share of net		
earnings (73%)	\$4,910,000	\$ (3.229,000)

### **BEAVERDELL** (silver)

The Beaverdell mine is located 40 miles south of Kelowna, British Columbia. It first produced direct shipping ore in 1898 and has been in continuous production since 1900.

Silver production in 1985 was 336,000 ounces, compared with 376,000 ounces the previous year.

The price of silver was substantially lower, averaging \$8.81 per ounce compared with \$11.18 in 1984. As a result Beaverdell reported a net loss of \$61,000, the first loss at this mine in 15 years.

	1985	1984
Tons milled per day	41,105 115	40.235
Grade (oz Ag/ton) Recovery (%)	9.3 88.2	10.5
Production oz Ag	336,426	375.709
Operating cost/ton	\$61.12	\$67.01
Average price Ag	\$8.81	\$11.18
Net earnings (loss)	\$ (61,000)	\$344.000
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BULLMOOSE (coal) Grand and a coal mine is The Bullmoose open pit coal mine is located 20 miles northwest of Tumbler Ridge in northeastern British Columbia. Ownership is 51% Teck Corporation, 39% Lornex Mining Corporation and 10% Nissho-Iwai Canada Limited. Teck has a 22% share interest in Lornex, making the company's net interest in Bullmoose (59.5%)

The mine was placed in production as of January 1, 1984, and fiscal 1985 marks the first full year of production.

The mine, washing plant, trucking, rail and port operations all performed extremely well during the year.

13.6 million bank cubic metres of waste were moved and 2.9 million tonnes of coal were delivered to the plant. This resulted in 2.2 million tonnes of clean coal, for a plant yield of 75%. Net earnings attributable to Teck's direct 51% interest were \$6.6 million.

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The coal is sold under long term contracts to a group of Japanese steel mills, with the price established according to a formula until March 31, 1989. The contracted tonnage is 1.7 million tonnes per year, plus or minus 5% at the buyer's option. The contract was amended early in the fiscal year to provide for a tonnage increase to 2.0 million tonnes per year and a price reduction of \$10 per tonne for the period April, 1984 through March, 1986, after which the original terms again take effect.

Reserves at year end were 51,000,000 tonnes of saleable metallurgical coal, compared with 53,000,000 tonnes the previous year.

	1985	1984
Tonnes washed per day Recovery (%)	2,904,000 7,956 75	1,950,000 7,143 73
Production tonnes coal	2,172,000	1.424,000
Teck's direct share of net earnings (51%)	\$6,555,000	\$5.011.000

#### HEMLO (gold)

Teck has a 55% joint venture interest in the new Teck-Corona gold mine near Marathon, Ontario. The remaining 45% is held by International Corona Resources, the discoverer of the Hemlo gold camp.

Construction of the processing plant was essentially completed in April and, after a short tune-up period, the first gold was poured on May 29, 1985. The capital cost to the start of production was \$80 million, or \$10 million under budget.

The shaft had reached a depth of 3.528 feet by the fiscal year end, and will reach the final depth of 3,800 feet in December. In the meantime, the upper three levels of the mine have been developed to provide production while the shaft, ore and waste pass systems and underground crushing facilities are being completed. The mill has a rated capacity of 1,000 tonnes per day. The production schedule in the feasibility study calls for 750 tonnes per day over the next fiscal year while mine development con-

tinues on the lower levels, but it is expected that this will be improved upon as crews are trained and additional stopes brought into production.

To September 30, 97,800 tonnes were milled with a grade of 0.22 ounces per tonne and recovery of 96%, for production of 20,989 ounces of gold. Most of the production has been from development ore with relatively high dilution, and grade will improve once initial stope preparation has been completed.

In addition to the main operation, Teck and Corona share a 50% net profits interest in a quarter claim optioned to the Noranda Group, which is developing an adjoining property. Noranda's latest schedule predicts that production from the quarter claim will begin in mid 1986.

Mineable reserves at year end were 6,200,000 tonnes grading 0.35 oz/tonne. In addition, the quarter claim geological reserves are 2,100,000 tonnes grading 0.32 oz/tonne.

Ongoing mine development expenditures are being financed partly out of operating profits and partly under the



Robert E. Hallbauer, Senior Vice-President

financing line of credit. The project will be put on stream for accounting purposes as of January 1, 1986.

	1985
Tonnes milled	97,800
per day	670
Grade (oz/tonne)	.224
Recovery (%)	96
Production oz Au	20,989

