



Cominco Ltd. 74th Annual Report 1979



### **General Information**

### The Company

Cominco is a Canadian company, incorporated January 9, 1906, with international operations whose principal business is zinc, lead and chemical fertilizers. Its involvement is fully integrated and ranges from mineral exploration through mining, smelting, refining and by-product production to international marketing. It also embraces related services including trade, wharfage and power. With head office in Vancouver, it is involved, directly or through subsidiary or associated companies, in Canada and in the United States, Greenland, Europe, Australia, India and Japan.

### **Annual Meeting**

Thursday, April 24, 1980 at 11:00 a.m.
Hotel Vancouver Vancouver, B.C.

#### **Share Valuation**

For Canadian capital gain tax purposes the valuation day value of Cominco Ltd. shares on December 22, 1971 as established by the Department of National Revenue was \$22.88.

#### In this report:

Tonnage figures are in short tons unless otherwise noted.

Dollars are Canadian unless otherwise noted.

### FRONT COVER

Top Left

Typical diamond drill set-up on an exploration project in southern British Columbia. In 1979, exploration for new deposits was largely concentrated in Canada, the United States, Australia and Europe.

Bottom Left

Flotation machines in the Sullivan concentrator. Lead and zinc are separated by differential flotation during the concentration process.

Top Right

Upper drill holes are bored by a twin-boom drill wagon preparatory to blasting in the newer sections of the Congold mine.

Bottom Right

CONTRACTOR OF THE

and year wilder

One of many beauty spots in the City of Trail, this park overlooks the metallurgical plants and the Columbia River.

### **Transfer Agents and Registrars**

THE ROYAL TRUST COMPANY
555 Burrard Street,
Vancouver, B.C. V6B 3R7
600 - 7th Avenue S.W.,
Calgary, Alberta T2P 0Y6
\*287 Broadway Avenue,
Winnipeg, Manitoba R3C 2M2
Toronto Dominion Centre,
Toronto, Ontario M5W 1P9
630 Dorchester Blvd. W.,
Montreal, Quebec H3B 1S6

\*\*One King Street, St. John, N.B. E2L 1G1

BANK OF MONTREAL TRUST COMPANY

\*\*2 Wall Street, New York, N.Y. 10005

### STOCK EXCHANGES

CANADA

Vancouver, Montreal, Toronto U.S.A.

\*\*American

\*Series A Preferred Shares only

\*\*Common Shares only

### Stock Holdings

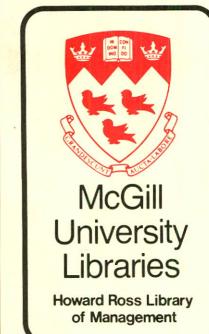
The number of registered holdings of voting stock at the last dividend record date was 26,958

The distribution of the voting rights was as follows:

Canada	91.5%
United States	7.9%
United Kingdom	0.1%
Other countries	0.5%
	100.0%

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## Highlights — 5 Year

(all dollar amounts in millions except per share figures)						
OPERATIONS	1979	1978		1977	1976	1975
Sales of products and services Net earnings — per common share Funds from operations — per common share Dividends on common shares — per common share Capital expenditures	203.7	\$ 901.2 67.4 3.59 142.2 7.99 34.0 2.00 87.4	\$	759.2 63.4 3.50 136.8 7.82 39.1 2.30 .80.8	\$ 675.3 49.3 2.75 110.3 6.35 34.0 2.00 139.8	\$ 664.6 75.5 4.45 148.6 8.75 50.9 3.00 121.8
FINANCIAL POSITION Assets: Working Capital Fixed assets (net) Investments and other assets	\$ 269.6 645.5 166.0	\$ 208.1 564.3 161.0	\$	163.3 556.9 151.6	\$ 206.1 532.4 104.5	\$ 201.3 442.2 91.2
	\$1,081.1	\$ 933.4	\$	871.8	\$ 843.0	\$ 734.7
Represented by: Long-term debt Income taxes not currently payable Minority interests Shareholders' equity	\$ 226.0 119.6 54.8 680.7	\$ 234.9 92.1 42.4 564.0	\$	249.5 84.5 51.4 486.4	\$ 253.5 73.5 50.1 465.9	\$ 212.2 69.0 49.2 404.3
	\$1,081.1	\$ 933.4	\$	871.8	\$ 843.0	\$ 734.7
Return on assets	23.7% 37.7%	9.4% 12.8%	•	9.0% 12.3%	9.2% 11.3%	14.8% 19.3%
Number of employees at year-end	\$ 278.5	\$ 10,539 239.7 34%		10,898 223.4 38%	\$ 10,696 200.0 41 <sup>3</sup> / <sub>4</sub>	10,887 184.6 35%
— Low		23	\$	275/8	321/8	243/4
1975 to 1978 figures restated. See Note 7 to the Financial Statements						

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Annual Report

# Cominco Ltd., 74th Annual Report 1979 Report of the Directors



G.H.D. Hobbs F.E. Burnet M.N. Anderson

Consolidated net earnings in 1979

were \$203.7 million or \$11.52 per

### To the Shareholders:

common share compared to \$67.4 million or \$3.59 per common share in 1978. Dividends of \$88.3 million were paid to shareholders; \$2.00 per share on Series A Preferred Shares; \$1.71 per share on Series C Preferred Shares: and \$4.75 per share on Common Shares which included a special dividend of \$1.50 per common share. In November the Company announced it would establish a policy of paving regular dividends on common shares quarterly, instead of semiannually as in the past. An initial quarterly dividend of \$1.10 per common share was declared in February 1980. Dividends will be paid in March, June, September and December in each

The year 1979 set new highs for sales and earnings. This record performance resulted from a combination of strong markets and an improvement in metal prices. As a substantial portion of Cominco's products are sold in U.S. dollars or in Sterling, the relationship of the Canadian dollar to these currencies also had a beneficial effect on earnings. Since mid 1976 the Canadian dollar has declined in value relative to the U.S. dollar reaching a low of approximately \$0.84 in relation to the U.S. dollar in 1979. A general strengthening of the Canadian dollar is expected during 1980.

The Company acquired the remaining 25 percent of the outstanding shares

of Arvik Mines Ltd., owner of the Polaris orebody on Little Cornwallis Island, from Bankeno Mines Limited for \$5 million in October, 1979. Under the arrangement, Bankeno has the option to acquire, for \$7.5 million, a royalty interest of 25 percent of the net proceeds of production from the Polaris mine and any other mines on the Arvik properties which are brought into production by the Company. In addition, the Company loaned Bankeno \$3 million.

On November 5, 1979, the Company announced its intention to bring the Polaris zinc-lead mine into production at a cost of approximately \$150 million, of which \$110 million is for development and \$40 million for working capital. Financing has been arranged with Canadian banks. The term of the financing is for 15 years with interest related to the prime Canadian rate. Production is scheduled to begin in 1982

In Australia, Aberfoyle Limited, owned 47 percent by the Company, commenced development of the Que River zinc-lead-silver deposit in Tasmania at a cost of over \$19 million. Production will begin in 1981.

In British Columbia, the expansion and modernization of the Trail metallurgical plants and the mechanization of the

Sullivan mine at Kimberley progressed well and by the end of the year over \$300 million had been committed for these projects.

In Saskatchewan the Company's potash operation became profitable. An agreement was reached with the provincial government for conditional settlement of the resource tax litigation. All potash producers in Saskatchewan have entered into resource payment agreements which became effective July 1, 1979. The province is accepting payment under these agreements in lieu of the resource taxes previously collected.

Cominco and five other fertilizer producers were found not guilty of an alleged unlawful combination to prevent, or lessen unduly competition in fertilizer sales in Western Canada. The trial, in the Supreme Court of Alberta, lasted some 150 days. In his Judgment, Mr. Justice Brennan found the Western Canadian fertilizer market to be highly competitive.

On March 14, 1980 Pine Point Mines Limited announced that drilling near the northerly boundary of the Pine Point property has located a separate ore zone estimated to contain 6 million tons of 10 percent to 12 percent zinclead ore. This new discovery has increased the contained metal in Pine Point's published ore reserves by approximately 25 percent. Further exploration work on this property is continuing.

At the 1979 Annual Meeting, William Moodie, after valued contribution to the Board, retired. P.A. Nepveu was elected to the Board. During the year, W.G. Wilson became Executive Vice-President, and K.H. Spurr, Vice-President, Metal Sales.

On behalf of the Board of Directors we wish to record our appreciation for the role played by all employees in 1979, the Company's most successful year.

F.E. BURNET
Chairman of the Executive Committee

532000 olk.

G.H.D. HOBBS
Chairman of the Company
March 19, 1980

# Report of the President and Chief Operating Officer

### Marketing

Record sales and earnings were attained in 1979. Sales of \$1,273.9 million were \$372.7 million greater than last year. The general improvement in markets, particularly for metals and concentrates, which began during the second half of 1978 continued into 1979. World consumption for virtually all of the Company's products increased, inventories declined and prices advanced. The combination of stronger markets with significantly improved metal prices, particularly for lead, silver, zinc and gold, resulted in increased earnings. Average prices for these refined metals for 1975 through 1979 are shown on page 4. The relationship of the Canadian dollar to other currencies continued to have a beneficial effect on earnings.

Sales of refined lead were 174,000 tons, and of refined zinc 280,400 tons. This compares to 170,000 tons and 307,400 tons respectively for 1978. Zinc and lead concentrate sales were 305,900 tons, compared to 264,300 tons in 1978. Metal and concentrate inventories of lead and zinc were at satisfactory working levels at year-end.

Sales of gold totalled 122,300 ounces and of silver 9,883,000 ounces. The impact of the dramatic increase in the price of gold in the fourth guarter was not fully reflected in earnings due to contractual commitments for the sale of part of the Company's production. The average price for gold in 1979 was \$337.35 per ounce compared to the Company's average realized price of \$305.62 per ounce. The increase in the price of silver from an average of \$6.25 per ounce in January to an average of \$21.79 per ounce in December had a significant favourable effect on earnings.

Demand for chemical and fertilizer products was stronger than in recent years and prices were generally higher than in 1978. Sales of fertilizers and chemicals amounted to 2,692,000 tons (including 877,000 tons of potash) compared to 2,622,000 tons (including 859,000 tons of potash) in 1978. While sales volumes exceed

levels of the previous year and prices improved, increased earnings were partly offset by rapidly escalating costs, particularly for natural gas. Earnings from fertilizer operations were still not sufficient to provide a satisfactory return on capital.

### Costs of Products and Services

The cost of products and services sold was \$676.6 million, an increase of \$116.9 million over 1978. The higher market prices for metals resulted in an increase of \$33.5 million in the cost of concentrates purchased for treatment. Higher sales volumes increased costs \$19.8 million and the remainder, \$63.6 million, reflects higher unit cost of production resulting from continued inflation in the cost of other raw materials, fuel and labour.

#### Metals

Total concentrate production was 948,200 tons compared to 981,000 tons in 1978. The Sullivan mine at Kimberley, British Columbia and the Pine Point mine in the Northwest Territories remain the main sources of supply of concentrates to the metallurgical operations at Trail, British Columbia. Lead concentrate from the Magmont mine and some zinc concentrate from the Black Angel and Pine Point mines were treated on a tolling basis in smelters of others and the metals received were sold by the Company.

Refined zinc production at Trail was greater than in 1978. The plants operated at full rates during the first half of the year but in response to some softening in demand, production was curtailed beginning in mid-September. Refined zinc production was 229,000 tons, compared to 216,000 tons in 1978. Production of refined lead at Trail was 140,000 tons compared to 147,000 tons the previous year.

Total gold production was 120,100 ounces down from 133,200 ounces the previous year because of mining through a section of lower grade ore at the Con mine. Silver production was 10,002,000 ounces of which 47 percent came from Cominco-owned

sources and 53 percent was purchased in concentrates which were treated at Trail. The profit margin on silver produced from Cominco-owned sources reflects the full impact of changes in the price of silver whereas the profit margin on silver from purchased concentrate is dependent on the payment terms for the silver content of the concentrate.

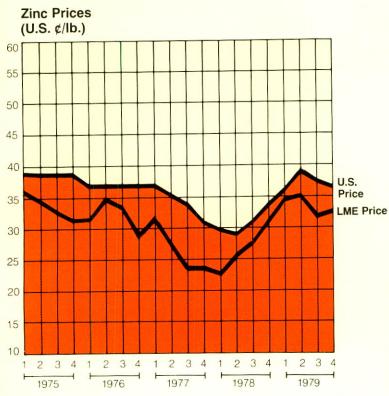
Substantial progress was made on the Company's major expansion and modernization programs at the Trail metallurgical plants and at the Sullivan mine at Kimberley.

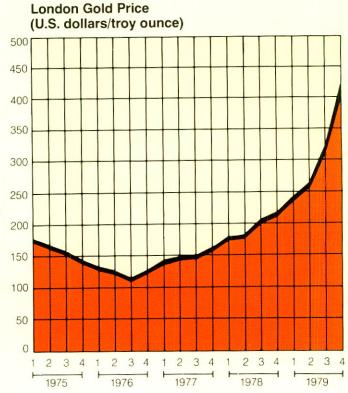
#### At Trail:

- In late 1979, two new major sections of the lead smelter were commissioned — the smelter feed plant, which improved the blending of the various raw materials, and a new blast furnace, of modified design, which will increase annual production by 20,000 tons.
- The construction program for the zinc electrolytic and melting plant was accelerated by two years and is now scheduled for completion by the end of 1982.
- The construction phase of the zinc concentrate pressure leach project using technology developed by Cominco and Sherritt Gordon, was well underway, with commissioning scheduled for 1980.

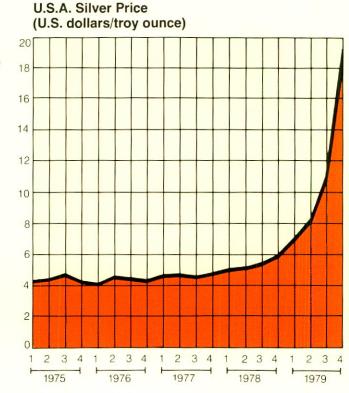
#### At the Sullivan mine:

- Conversion to mechanized mining continued and an underground repair shop and warehouse were put into operation.
- A new mine office and changeroom complex was under construction.
- A waste water treatment plant, incorporating technology developed by the Company, was commissioned to purify water prior to discharge.









Development of the Polaris zinc-lead ore deposit on Little Cornwallis Island in the Canadian High Arctic, at a cost of approximately \$150 million, was started late in the year. Production is scheduled to begin early in 1982 with the first shipment of concentrates to be made that summer. Ore reserves are approximately 25 million tons, and at an operating rate of 2,200 tons a day, the mine is expected to produce 187,000 tons of zinc concentrate and 42,000 tons of lead concentrate an-

nually. The world's most northerly mine, Polaris will be the eleventh largest zinc-lead producer in the western world.

In August 1979, Aberfoyle Limited began development of the zinc-lead-silver deposit at Que River in Northwest Tasmania, Australia. Approximately \$10 million has been spent on exploration and development and a further \$19 million will be expended before the mine is brought into production in 1981.

#### Production and Sales Statistics 1979 1978 Sales Production Sales Production Refined Metal Zinc Trail tons 228,000 229,000 254,000 216,000 Tolled - Pine Point 3,800 3,400 13,300 15,400 tons Black Angel tons 48,600 47,200 38,000 39,200 280,400 279,600 307,400 268,500 Lead 142,000 140,000 143,000 147,000 Trail tons Tolled - Magmont tons 32,000 34,000 27,000 28.000 174,000 174,000 170,000 175,000 9,883,000 10,002,000 10,015,000 10,117,000 Silver (1) ounces Gold 97,200 95,000 114,500 Con/Rycon ounces 112,200 25,100 18,700 18,700 25,100 Others ounces 122,300 120,100 130,900 133,200 Concentrates (2) Zinc Sullivan 143,000 131,000 tons H.B. tons 16,900 Magmont 9,300 9,300 10.500 10,300 tons Pine Point 73,700 288,000 56,900 302,000 tons Black Angel 101,400 167,000 54.900 158,000 tons 184,400 607,300 122,300 618,200 Lead Sullivan 160,000 150,000 tons H.B. 4,300 tons 57,900 Magmont 12,400 16,600 60.900 tons Pine Point 63,500 73,900 75.900 100,000 tons 45,600 49,100 Black Angel tons 49,500 47,600 121,500 340,900 142,000 362,800 Chemicals and Fertilizers 1,388,000 1.391.000 1,300,000 1.294.000 Canada tons United States tons 427,000 391,000 463,000 464,000 1,815,000 1,782,000 1,763,000 1,758,000 Potash tons 877,000 830,000 859,000 878,000

(1) Includes silver sold in concentrates and intermediate products.

### Fertilizers and Chemicals

The Company's fertilizer and chemical operations in Canada and the United States manufactured 2,612,000 tons of product compared to 2,636,000 tons for 1978.

The Carseland, Alberta ammonia plant produced 424,000 tons of ammonia compared to 398,000 tons in 1978. Of this amount, 137,000 tons were sold and the balance used in the production of 481,000 tons of urea compared to 456,000 tons last year. At Calgary, Alberta fertilizer and chemical production was 159,000 tons compared to 128,000 tons.

In British Columbia the plant at Trail produced 398,000 tons, compared to 364,000 tons in 1978, and at Kimberley 217,000 tons, compared to 207,000 tons.

Cominco American's plant at Borger, Texas produced 302,500 tons of ammonia, compared to 388,100 tons in 1978. Mechanical problems relating to delivery of gas into the plant and subsequent restart problems reduced production during the early part of the year. Of the total ammonia produced, 234,000 tons were sold and the balance delivered by an 850-mile pipeline and converted to 157,000 tons of ammonium nitrate at the company's Homestead plant at Beatrice, Nebraska. This compares to 135,000 tons of ammonium nitrate produced during 1978. Construction of an 85,000-tonper-year urea plant, adjacent to the Borger ammonia facility, progressed well with production scheduled by August of 1980.

The Vade mine near Saskatoon, Saskatchewan produced 830,000 tons of potash compared to 878,000 the previous year. Loss of production resulted from a strike early in the year.

<sup>(2)</sup> Sales tonnages exclude concentrates processed at Trail and tolled through other smelters.

### Other Products

Western Canada Steel, with plants in Vancouver, Calgary and Hawaii operated close to capacity throughout the year. Sales for the year were 37 percent higher than in 1978 as a result of increased volume and higher selling prices. The scrap steel shredding plant acquired in 1978 at Richmond, British Columbia performed well.

National Hardware Specialties, with a zinc diecasting plant and a plating plant in Ontario, had a three-month strike in 1979. Notwithstanding this, earnings were slightly higher than the previous year due to operating efficiencies achieved and higher prices received for products sold.

The Cominco electric generating plants on the Kootenay and Pendd'Oreille rivers operated at capacity during the year. Power surplus to the Company's industrial needs was offered for sale to West Kootenay Power and Light Company, Limited, B.C. Hydro and Power Authority and Calgary Power Ltd. When these utilities did not require the power for their needs, the surplus was offered for sale to United States consumers on an interruptible basis.

West Kootenay Power which supplies electrical energy to the south central portion of British Columbia, had a load growth of eight percent during 1979. During the year the company added 2,700 customers. Capital expenditures of \$9 million were made to improve the system and to serve new customers.

During 1979 West Kootenay Power had expected to obtain approval for rate increases from the British Columbia Energy Commission in order to restore its earnings to an appropriate level. This process has been delayed until approximately mid-1980. Cominco and West Kootenay Power have been working to put West Kootenay Power in a position to complete the regulatory review and finalize rate increases during 1980.

### **Associated Companies**

Associated companies are those in which Cominco owns 50 percent or less of the shares but in which it has significant influence. Associated companies include the following:

	Location	% Owne ship		ire of ings
			1979	1978
Aberfoyle Limited	Australia	47	\$ 3.2	\$ 1.5
The Canada Metal Company Limited	Canada	50	2.3	1.6
Exploración Minera Internacional España S.A. (EXMINESA)	Spain	47	( 0.9)	( 3.3)
Fording Coal Limited	Canada	40	5.7	7.8
Others (Cominco Bir Limited - India; Ma Limited - U.K.; Mits Cominco Smelting Limited - Japan)	izak subishi		0.4	1.9
			\$10.7	\$ 9.5

In 1979 Aberfoyle Limited had revenues of \$56.5 million, and net earnings of \$7.7 million, compared to \$44.5 million and \$5.9 million respectively for 1978. Total metal in concentrates produced was 13 percent higher than the previous year.

The Canada Metal Company's sales at \$110 million were 37 percent above

1978, almost entirely due to higher metal prices. Strikes at plants of major customers and a deteriorating automotive market held sales volumes to the level of the previous year.

Production at the Rubiales mine of Exminesa in Spain increased steadily during the year. This new mine produced 102,300 tons of zinc concentrate and 18,700 tons of lead concentrate. Sales were 101,000 tons of zinc concentrate and 18,600 tons of lead concentrate.

Fording Coal Limited, with operations near Elkford, British Columbia, produced 3,221,000 tons of clean coal compared to 3,076,000 tons in 1978. Sales were 3,363,000 tons, 216,000 tons more than in the previous year. Net earnings were \$14.2 million compared to \$19.5 million in 1978. Although sales volume increased substantially, earnings declined because of higher labour, material and maintenance costs while selling prices were unchanged.

### **ORE RESERVES**

B.C.

Phosphate

U.S.A.

Alta./Sask.

Coal

Pinchi Lake

Fording Coal

Douglas

O									
Operating Mi	nes			197	9			1978	
Measured and Indicate	ed	Ore (Tons) (Thousands)	% Pb	% Zn	Ag Oz./Ton	Ore (Tons) (Thousands)	% Pb	% Zn (	Ag Oz./Ton
Zinc-Lead B.C. N.W.T. U.S.A. Greenland Spain	Sullivan Pine Point Magmont Black Angel Rubiales	54,000 38,000 6,300 3,300 13,800	4.5 1.9 7.7 4.6 1.4	5.9 5.0 1.1 13.4 7.6	1.1  0.3 1.0 0.4	56,000 37,000 7,000 3,400 13,500	4.6 1.9 8.1 4.8 1.4	5.9 5.1 1.3 13.9 7.6	1.1 0.3 1.0 0.4
Gold N.W.T.	Con-Rycon	1,800	0:	.52	n	1,650	Oz	.57	n
Tin-Tungsten Australia	Aberfoyle	3,600	%	Sn WO:	ř.	2,900	%	<b>Sn WO</b> 3	i
Phosphate Rock U.S.A.	Warm Springs	7,600		% P <sub>2</sub> O <sub>5</sub> 30.0		7,300		% P <sub>2</sub> O <sub>5</sub> 30.0	
Potash Saskatchewan	Vade	105,000		% K₂O 26.3		108,000		% <b>K₂O</b> 26.3	
Coal B.C.	Fording Coal	65,000				63,000			
Potential Min	es								
Measured and Indicat	ed and Inferred	Ore (Tons) (Thousands)	% Pb	% Zn (	Ag Oz./Ton	Ore (Tons) (Thousands)	% Pb	% Zn C	Ag z./Ton
Zinc-Lead N.W.T. Australia U.S.A. Spain	Polaris (Arvik) Que River Magmont West La Troya	25,400 6,900 1,700 5,500	4.3 5.2 5.0 1.2	14.1 9.6 2.3 10.7	3.5 0.3 0.5	25,400 6,800 — 5,500	4.3 4.6 — 1.2	14.1 8.3 — 10.7	2.8
Copper Canada	Valley Copper	800,000		% Cu 0.475		800,000		<b>% Cu</b> 0.475	
Mercury			Lt	s. Hg/To	n		Lb	s. Hg/To	n

1,200

12,000

1,827,000

6.4

% P<sub>2</sub>O<sub>5</sub>

31.0

1,200

12,000

1,810,000

6.4

% P<sub>2</sub>O<sub>5</sub>

31.0

The investment in associated companies is carried on the balance sheet under the caption "Investments". These investments are carried at cost adjusted for the Company's share of earnings, losses and dividends. The assets and liabilities of associated companies are not included in the consolidated accounts. Set out below is a summary of financial information respecting associated companies:

	(millions)
Results of operations for 1979:	
Revenues	\$489.7
Costs and expenses	434.0
Earnings before the following	55.7
Income taxes Exchange losses on translation	25.1
of foreign companies	2.8
Total net earnings of associated	
companies	\$ 27.8
Cominco's share of net earnings	\$ 10.7
Dividends received by Comings	\$ 5.4
Dividends received by Cominco	Ф 5.4
Financial position of associated cor	•
•	•
Financial position of associated cor at December 31, 1979:	npanies
Financial position of associated cor at December 31, 1979: Working capital	npanies \$ 42.9
Financial position of associated cor at December 31, 1979: Working capital Fixed assets	* 42.9 216.9
Financial position of associated cor at December 31, 1979: Working capital Fixed assets	\$ 42.9 216.9 6.4
Financial position of associated cor at December 31, 1979: Working capital Fixed assets Other assets	\$ 42.9 216.9 6.4
Financial position of associated cor at December 31, 1979: Working capital Fixed assets Other assets	\$ 42.9 216.9 6.4 \$266.2
Financial position of associated cor at December 31, 1979: Working capital Fixed assets Other assets	\$ 42.9 216.9 6.4 \$266.2 \$ 43.5
Financial position of associated cor at December 31, 1979: Working capital Fixed assets Other assets  Less: Income taxes not currently payable Long-term debt	\$ 42.9 216.9 6.4 \$266.2 \$ 43.5 67.3

#### Other Companies

For those companies where Cominco does not exercise significant influence, the investment is carried at cost and only dividends received are included in income. The principal investments and the Company's share of ownership at December 31, 1979, were:

Bethlehem Copper	
Corporation	39.2%
Panarctic Oils Ltd.	8.0%
Tara Exploration and	
Develoment Company	
Limited	17.4%

During 1979 Bethlehem Copper Corporation, a copper and molybdenum producer operating in the Highland Valley of British Columbia, reported revenues of \$58.2 million and net earnings of \$13.7 million on shipments of

46,872,000 pounds of copper and 675,000 pounds of molybdenum. Cominco's porportional share of the earnings was \$5.4 million. Dividends received were \$2.0 million.

Panarctic Oils conducts exploration for oil and gas in the Eastern Arctic. Panarctic has no source of revenue and relies upon shareholders and exploration agreements with other companies for funds for drilling activity. To December 1978 Panarctic had discovered reserves estimated at 12.8 trillion cubic feet of gas, not yet sufficient to economically support a gas pipeline to markets. During 1979 the

company drilled nine holes. Cominco declined participation in exploration funding for the 1979 and 1980 drilling program; consequently its interest in Panarctic has been reduced to 8.0 percent.

Tara Exploration, which operates a major zinc-lead mine in the Republic of Ireland, reported revenues of \$101.3 million and net earnings of \$10.3 million on sales of 315,000 tons of zinc concentrate and 57,000 tons of lead concentrate. Cominco's proportional share of the earnings was \$1.8 million. No dividends were paid during the year.

Location  Zinc-Lead B.C.	Mine	Product	Ore	79 Concentrate	1978	,
Zinc-Lead		Product	7.00			1
			(tons) Grade	(tons)	Ore ( (tons) Grade	Concentrate (tons)
B.C.						
	Sullivan		2,257,000		2,324,000	101 000
		Zinc	3.79		3.3%	131,000
		Lead	5.0%	6 160,000	4.6%	16,900
	H.B. (Note 1)		_	-	223,000	50-50 AMAZO
		Zinc	_		4.6%	16,900
		Lead	_		0.9%	4,300
N.W.T.	Pine Point		3,291,000	)	3,290,000	
		Zinc	5.5%	288,000	5.9%	302,000
		Lead	1.99	73,900	2.6%	100,000
U.S.A.	Magmont (Note 2)	)	1,096,000	)	1,050,000	
	5 ,	Zinc	1.49	9,300	1.6%	10,300
		Lead	8.29	57,900	8.2%	60,900
		Copper	0.49		0.3%	4,500
Greenland	Black Angel	оорро.	706,00	-,	684,000	1,000
arcomana	Didok 7 kilger	Zinc	14.59		14.5%	158,000
		Lead	5.5%		5.8%	47,600
Spain	Rubiales (Note 3)		751,000		335,000	47,000
эран	nublales (Note 3)	Zinc	8.99		9.2%	46,200
		Lead	2.09		2.1%	8,500
Gold						
N.W.T.	Con/Rycon		217,000	)	220,000	
	oon in the own	Gold	.46 ozs		.55 ozs.	
Tin						
Australia	Aberfoyle/		48,00	0	40,000	
	Storeys Creek	Tin	0.49		0.4%	160
	0.0.0,0	Tungsten	0.49		0.5%	200
	Cleveland	rangeten	389,000		428,000	200
	Olovolaria	Tin	0.5%		0.5%	2.490
		Copper	0.29		0.2%	2,140
	Ardlethan	Copper	642,00		649.000	2,140
	Artietriair	Tin	0.5%		0.4%	3,770
Phanahata Paak			0.07	,,,,,,	0.170	0,770
Phosphate Rock	\\/ Ci		100.000		104.000	
U.S.A.	Warm Springs	5.0	192,000		184,000	
		P <sub>2</sub> O <sub>5</sub>	29.09	0	28.7%	
Coal (Clean)						
B.C.	Fording	Coal	3,221,000	)	3,076,000	
Potash	9		10		W	
	Vada		2,467,000	1	2,575,000	
Saskatchewan	vaue	K.O	25.29		25.2%	
		K <sub>2</sub> O	25.29	0	25.2%	

### Notes:

- Mine closed in August 1978.
- 2. Concentrate tonnages are Cominco American's 50% share.
- 3. Production from commencement of commercial operations July 1, 1978.

### Research and Development

The Technical Research Centre at Trail, British Columbia, devoted much of its effort during 1979 towards the design phase of the first commercial-scale zinc concentrate leach plant, now under construction at Trail. A laboratory research program is underway to make the process applicable to other concentrates.

Significant advances were made on effluent abatement techniques, and procedures were developed for operations at Trail, Kimberley and the Con and Black Angel mines.

The Product Research Centre at Sheridan Park, Ontario, provides technical assistance and support to Cominco customers, and carries out continuing programs to develop new and improved uses for lead and zinc. Of particular significance in 1979 was the design and production of commercial scale equipment to produce lead alloy grids for maintenance free automotive batteries. The new highspeed technology will enable the lead battery industry to reduce manufacturing costs and to upgrade environmental conditions in their manufacturing areas. The total cost of research and development in 1979 was \$4.3 million.

### Exploration

During 1979, additional ore was located at each of the mines operated by the Company and its subsidiary and associated companies. At the Con, Pine Point and Rubiales mines, additions to reserves were more than sufficient to replace production. An 800 square miles area was staked west of Hay River in the Northwest Territories and a drilling program was started.

Exploration for new deposits was largely concentrated in Canada, the United States, Australia and Europe. Newly found mineralization warranting further work was located on several properties in British Columbia, the Yukon and Northwest Territories, the United States, the United Kingdom,

and in Germany, France, Italy and Australia. These occurrences include zinc, lead, copper, gold, silver, molybdenum, tungsten, tin, uranium, diamonds and phosphate.

Exploration expenditures in 1979 to-talled \$32.6 million. Of this total, \$19.1 million was spent to investigate and to evaluate identified mineral properties. This amount was capitalized as Investments in Mineral Properties and will be amortized against future earnings. The remainder, \$13.5 million, was expended on general mineral exploration and charged to earnings in 1979.

### **Employee Relations**

The Company is concerned with maintaining a contemporary total compensation package for its employees — including both direct remuneration and a comprehensive group benefit program — as well as with providing the safest and cleanest practical physical conditions in the work environment.

Benefit programs designed to serve the needs of employees, in coordination with those provided by Government, are reviewed on a regular basis to ensure that they are modern and competitive. On January 1, 1979 a newly designed Retirement Plan for non-union staff went into effect. It includes a completely revamped basic coverage paid for by the Company, as well as a Retirement Income Savings Plan requiring contributions from employees. The result is a contemporary retirement plan which provides a basic lifetime pension related to salary and service and additional retirement income purchased by the employees' own contributions.

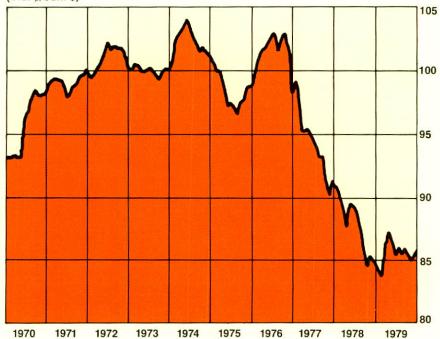
The Company continued active support of employee assistance programs in the areas of alcohol and drug abuse. During the year new co-operative arrangements were made with outside organizations which specialize in assistance to employees.

The Company continued to support post-secondary education for children of employees through its program of higher education awards. In 1979, 54 of these grants went to young people with high scholastic standing to assist them to pursue further studies.

Approximaely 7,400 of Cominco's employees are Union members. The Company places great importance on maintaining good industrial relations at its operations and on improving them wherever possible. There has been excellent co-operation from Union officers and members — especially in the area of safety and industrial hygiene.

The safety and industrial health of our employees continued to receive close attention at all of our plants and mines.

Canadian Dollar Monthly Average of N.Y. Noon Spot Rates (U.S. ¢/Cdn. \$)



### 1979 Quarterly Earnings

(Millions)

	1st	2nd	3rd	4th	Year Total
Revenue	\$279.7	\$362.2	\$268.1	\$381.8	\$1,291.8
Costs and expenses	215.1	259.6	191.7	275.6	942.0
Minority interests in net earnings of	24.0	40.4	31.0	37.7	133.1
subsidiary companies	4.3	8.4	3.2	7.2	23.1
Earnings before the following Equity in net earnings of associated	36.3	53.8	42.2	61.3	193.6
companies	2.1	1.0	3.1	4.5	10.7
accounts of foreign subsidiaries	0.3	0.4	(0.8)	(0.5)	(0.6)
Net earnings	\$ 38.7	\$ 55.2	\$ 44.5	\$ 65.3	\$ 203.7
Earnings per common share	\$ 2.17	\$ 3.13	\$ 2.50	\$ 3.72	\$ 11.52

Safety and on-the-job training programs were intensified during the year. Employees showed a positive interest in working with management to improve the safety and working conditions in our operations.

In 1979 nine labour agreements were negotiated, including those at Trail and Kimberley, covering 6,800 of Cominco's unionized employees. A strike of six weeks occurred at the potash mine in Saskatchewan and one of fourteen weeks at National Hardware. Most major agreements expire in 1981.

#### The Impact of Inflation

While it is well recognized that inflation erodes the purchasing power of individuals in our society, it may be less apparent to many that inflation similarly affects the purchasing power of corporations. The erosion of corporate financial strength due to inflation is of concern. During the past ten years costs to replace productive capacity or to bring on stream new mines have more than quadrupled. The cost of new mining projects is growing to such proportions that it is taxing the ability of corporations to finance them without jeopardizing their financial integrity. Yet there are segments of our society who will claim that earnings of corporations, particularly in 1979, are excessive. These allegations will be made notwithstanding that it is these earnings which are so critical to corporations if they are to create competitive productive capacity and employment opportunities.

To maintain its competitive position Cominco, at December, 1979, had outstanding commitments for new capital projects of \$344 million, equal to fifty percent of the total shareholder investment to that date. With these commitments and with plans for other projects in excess of \$1 billion during the next several years, Cominco's ability to successfully undertake this massive investment is dependent upon its ability to generate and to maintain a level of earnings similar to those experienced in 1979.

Existing accounting conventions require the reporting of revenues in today's dollars but the reporting of expenditures for major segments of costs, such as inventories, plants and equipment, are in historic dollars and disregard totally the costs of replacement or new productive capacities.

For a mining company, its most valuable assets are its orebodies and the infrastructure and facilities to process the ore. Yet the current value of these assets is not reflected on the balance sheet. In addition, as exploration programs continue the search for as yet undiscovered orebodies, activities are not only centered in more remote geographic locations but also mineralized areas are relatively more difficult to find. This results in an escalation in costs of exploration and development which, when coupled with the effect of inflation, compound the

problem of carrying a mining company's orebodies in historic dollars. No recognition is given to the increasing costs associated with the replacement of this source of earnings.

To indicate the effect of inflation on the Company's production facilities the estimated replacement cost compared to original historical cost is set out below:

out below.	19	79
	Replacement Estimate (milli	Cost
Buildings and	V.	,
Equipment	\$3,115	\$807
Depreciation	1,380	308
— Net	\$1,735	\$499
Depreciation for		
the Year		
<ul> <li>Allowed for</li> </ul>		
Taxation	72.2	
Purposes	44	44
<ul> <li>Not Allowed for Taxation</li> </ul>		
	60	
Purposes		
	\$ 104	\$ 44
Net Earnings		
— Reported		\$204
<ul> <li>Adjusted for</li> </ul>		
Depreciation on		
Replacement Basis	\$ 143	
Return on Investment		
— Historical		24%
<ul> <li>Adjusted on</li> </ul>		2470
Replacement Basis	8%	

Various techniques are used to arrive at estimated replacement values. Because of their subjectiveness the estimated replacement values and inflationary effect should be considered as a measure of magnitude only and not as absolute.

## **Summary of Significant Accounting Policies**

The accounts of Cominco Ltd. (the Company) are prepared using generally accepted accounting principles in Canada and on a basis consistent with the previous year. To facilitate review of the consolidated statements contained in this report, the significant accounting policies followed by the Company and its subsidiaries are summarized below.

### **Principles of Consolidation**

The accounts of the Company and its subsidiaries are consolidated in the financial statements. The differences between the cost of the investments and the underlying book values of the assets at the dates of acquisition have been allocated to fixed assets on consolidation and are being amortized accordingly. Inter-company items and transactions between consolidated companies are eliminated.

Investments in associated companies (those companies in which the Company owns 50% or less of the shares and over which it has significant influence) are accounted for by the equity method. Under this method the Company includes in its earnings its share of the earnings or losses of associated companies. In measuring the Company's share of earnings or losses, amortization of differences between the cost of the investments and underlying book values are taken into account.

### **Foreign Currency Translation**

The accounts of foreign subsidiaries are translated into Canadian dollars. Accounts included in the consolidated statement of earnings, except product inventories, depreciation and depletion, are translated at the weighted average rates of exchange prevailing during the year. Product inventories, depreciation and depletion are translated at the rates in effect when the related expenditures are made. Accounts included in the consolidated balance sheet are translated at rates of

exchange in effect at the end of the year, except that: a) inventories, investments, fixed assets and accumulated depreciation and depletion are at rates at dates of acquisition; b) deferred income taxes and retained earnings are at rates at dates of origin; and c) debts not maturing within one year and share capital are at rates at dates of issue. The resulting translation adjustments are included in the determination of consolidated earnings.

### **Inventories**

Finished goods, raw materials and partially processed materials are valued generally at the lower of cost (determined on the monthly average method) and net realizable value. Cost of certain inventories in the United States is determined on a last-in, first-out basis. Stores and operating supplies are valued at average cost less appropriate allowances for obsolescence.

### Land, Buildings and Equipment

Land, buildings and equipment are recorded at cost and include the cost of renewals and betterments. When assets are sold or abandoned, the recorded costs and related accumulated depreciation are removed from the accounts and any gains or losses are included in earnings. Repairs and maintenance are charged against earnings as incurred.

Depreciation is calculated on the straight-line method using rates based on the estimated service lives of the respective assets. In some integrated mining and manufacturing operations, assets are pooled and depreciated at composite rates. Depreciation is not provided on major additions until commencement of commercial production.

### Mineral Properties and Development

Expenditures on general mineral exploration are charged against earnings as incurred. Expenditures to investigate identified properties and to develop new mines are capitalized as mineral properties and development. Due to the uncertainty of the final out-

come, expenditures on investigation together with the cost of certain investments in mineral companies are amortized against earnings by charges for depletion. Abandoned properties are charged against earnings in the year of abandonment. Depletion on operating mines is provided on a units-of-production or on a time basis related to the mineral reserves position.

### Taxes on Income

Income tax laws in Canada and in some other countries permit the deduction of depreciation and other items from income to determine taxable income at times which do not coincide with those used for financial reporting purposes. These differences in timing of deductions result in taxes being provided which are not currently payable.

Tax savings from investment tax credits are reflected in earnings as they are realized.

Withholding taxes, where applicable, on earnings of foreign operations are provided in the accounts to the extent of dividends anticipated in the future.

### **Research and Product Development**

Research and product development costs are charged against earnings as incurred.

### Earnings per Share

Earnings per common share are calculated by dividing net earnings less preferred dividends paid and accrued, by the average number of shares outstanding during the year.

# Consolidated Statement of Earnings Year ended December 31, 1979

Revenue		<b>1979</b> (thou	sands	1978
Sales of products and services Income from investments	\$	1,273,903 17,858	\$9	901,177 7,062
		1,291,761	,	908,239
Costs and Expenses				
Cost of products and services		676,606		559,739
Distribution Selling		101,135		97,382
General and administrative		22,703 33,586		21,180 30,547
General mineral exploration		10,489		6.903
Long-term debt interest and expense		24,950		25,534
Depreciation, depletion and amortization		72,520		64,659
		941,989	8	305,944
Earnings Before the Following		349,772		02,295
Taxes on income including resource taxes (Note 7)				
Current		103,816		35,571
Not currently payable		29,269		8,406
		133,085		43,977
		216,687		58,318
Minority interests in net earnings of subsidiary companies		23,088		6,072
		193,599		52,246
Equity in net earnings of associated companies		10,670		9,470
foreign subsidiaries	(	618)		3,496
Extraordinary item		203,651		65,212 2,159
Net Earnings	\$	203,651	\$	67,371
Earnings Per Common Share				
Earnings before extraordinary item	\$	11.52	\$	3.46
Net earnings	\$	11.52	\$	3.59
Consolidated Statement of Earnings Reinvested in the Business				
Year ended December 31, 1979		1070		1070
		<b>1979</b> (thous		1978
Amount at Beginning of Year				
As previously reported  Adjustment of Saskatchewan resource taxes (Note 7)	\$	423,304 6,922	\$3	97,969 4,745
As restated		430,226 203,651		02,714
		633,877		70,085
Deduct		000,077		70,000
Costs incurred on issue of preferred shares		_		272
Preferred — Series A \$2.00 per share		4,000		4,000
— Series C \$1.71 per share (1978 - \$0.80)		3,418		1,594
Common \$4.75 per share (1978 — \$2.00)		80,905		33,993
		88,323		39,859
Amount at End of Year	\$	545,554	\$4	30,226

### Consolidated Balance Sheet at December 31, 1979

	1979	1978	
<b>ASSETS</b>	(thou	sands)	
Current Assets Cash and short-term investments Accounts receivable Inventories (Note 2) Prepaid expenses	\$ 92,706 188,967 274,055 3,982	\$ 61,769 128,234 190,289 7,344	
	559,710	387,636	
Investments (Note 3) Associated companies Other companies	73,701 78,302	67,142 80,314	
	152,003	147,456	
Fixed Assets Land, buildings and equipment Less accumulated depreciation	889,216 354,869	782,827 315,177	
	534,347	467,650	
Mineral properties and development	196,339 85,217	171,548 74,901	
	111,122	96,647	
	645,469	564,297	
Other Assets (Note 4)	13,999	13,521	
	\$1,371,181	\$1,112,910	
LIABILITIES AND SHAREHOLDERS' EQUITY			
Current Liabilities  Bank loans  Accounts payable and accrued liabilities  Income and resource taxes (Note 7)  Long-term debt due within one year	\$ 34,073 160,617 86,642 8,748 290,080	\$ 23,360 107,838 29,559 18,808	
Long-Term Debt (Note 5)	226,000	234,894	
Income Taxes Provided but not Currently Payable	119,618	92,082	
Minority Interests	54,795	42,370	
Shareholders' Equity Capital (Note 6)	135,134 545,554	133,773 430,226	
	680,688	563,999	
Commitments and Contingent Liabilities (Note 8)	\$1,371,181	\$1,112,910	

Approved by the Board:

ASBurnet. DIRECTOR 326 DOCoble. DIRECTOR

### Consolidated Statement of Changes in Financial Position

Year ended December 31, 1979

	<b>1979</b> (thous	1978 sands)
Source of Funds Funds provided from operations Proceeds from disposal of land, buildings,	\$323,875	\$142,154
equipment and investments  Additional long-term debt  Proceeds from issue of share capital	4,201 4,200	4,951 4,250
— preferred  — common	1,432 —	50,000 60 7,800 5,600
	\$333,708	\$214,815
Application of Funds Land, buildings and equipment Mineral properties and development Loan to Bankeno Mines Limited Investment in associated companies Investment in other companies Repayments on long-term debt Preferred shares purchased for cancellation Dividends — to shareholders — to minority shareholders of subsidiary companies Working capital of former subsidiaries removed from the consolidation Other  Increase in Working Capital	\$114,777 35,371 3,000 1,112 295 13,094 71 88,323 10,577 1,542 3,987 272,149 61,559	\$ 66,636 20,801 — 10,265 772 18,839 — 39,587 2,661 6,967 3,570 170,098 44,717
	\$333,708	\$214,815

THORNE RIDDELL

CHARTERED ACCOUNTANTS

## **Auditors' Report**

# To the Shareholders of Cominco Ltd.

We have examined the consolidated balance sheet of Cominco Ltd. as at December 31, 1979 and the consolidated statements of earnings, earnings reinvested in the business and changes in financial position for the year then ended. We also examined the statement of segmented information as at December 31, 1979 and for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the company as at December 31, 1979 and the results of its operations and the changes in its financial position for the year then ended, and the statement of segmented information presents fairly the information set forth therein, all in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Vancouver, Canada February 7, 1980 Thorne Riddel

Chartered Accountants

Statement of Segmented Information Year ended December 31, 1979 (Millions)

**By Industry Segment** 

			By Industry	Segment					
		g and ed Metals	Fertil & Che		Other Operations		Consc	solidated	
	1979	1978	1979	1978	1979	1978	1979	1978	
Revenue Sales to external									
customersSales to other segments	\$788.7 32.2	\$514.9 30.7	\$317.3 0.3	\$270.6 0.1	\$167.9 1.6	\$115.7 0.5	\$1,273.9	\$ 901.2	
	\$820.9	\$545.6	\$317.6	\$270.7	\$169.5	\$116.2			
Earnings Operating profit before income and resource taxes	\$312.1	\$102.3	\$ 50.3	\$ 31.0	\$ 17.9	\$ 5.9	\$ 380.3	\$ 139.2	
General mineral exploration Interest on long-term debt Corporate (net)							(10.5) (25.0) 5.0	( 6.9) (25.5) ( 4.5)	
Income and resource taxes							(133.1)	(44.0)	
Earnings before minority interest, gain on translation and equity in earnings of associates							\$ 216.7	\$ 58.3	
Identifiable Assets									
Segment assets  — Operating  — Undeveloped properties and	\$531.7	\$346.6	\$319.3	\$313.4	\$157.3	\$130.3	\$1,008.3	\$ 790.3	
construction in progress	134.2	104.7	14.0	0.9	3.6	5.7	151.8	111.3	
	\$665.9	\$451.3	\$333.3	\$314.3	\$160.9	\$136.0	\$1,160.1	\$ 901.6	
Corporate assets							59.1	63.9	
and other companies							152.0	147.4	
Total Assets					Settles of		\$1,371.2	\$1,112.9	
Depreciation, Depletion and Amortization	\$ 40.3	\$ 33.9	\$ 23.4	\$ 23.1	\$ 8.8	\$ 7.7	\$ 72.5	\$ 64.7	
Capital Expenditures	\$115.6	\$ 67.0	\$ 18.9	\$ 6.7	\$ 15.6	\$ 13.7	\$ 150.1	\$ 87.4	

### By Geographic Region

Car	nada	United	States	Other Countries		
1979	1978	1979	1978	1979	1978	
\$868.9 93.4	\$613.2 81.9	\$299.8 6.6	\$238.6 8.6	\$105.2 —	\$ 49.4 —	
\$962.3	\$695.1	\$306.4	\$247.2	\$105.2	\$ 49.4	
\$300.9	\$ 98.9	\$ 44.4	\$ 33.0	\$ 35.0	\$ 7.3	

\$775.1	\$588.6	\$105.5	\$ 98.8	\$127.7	\$102.9
118.4	94.1	32.7	15.7	0.7	1.5
\$893.5	\$682.7	\$138.2	\$114.5	\$128.4	\$104.4

	N. E.	10000			
\$ 50.4	\$ 48.2	\$ 13.7	\$ 10.1	\$ 8.4	\$ 6.4
\$114.1	\$ 71.5	\$ 31.6	\$ 12.2	\$ 4.4	\$ 3.7

### Notes to the Statement of Segmented Information

Year ended December 31, 1979

1. The Company operates in three industry segments:

Mining and Integrated Metals

Principally the mining, processing, smelting, and refining of lead, zinc, silver, and gold into concentrates and refined metal.

Fertilizers and Chemicals

Principally the production of potash, ammonia, urea, phosphates, nitrates and sulphuric acid.

Other Operations

Principally metal products and electric power distribution.

- 2. Sales to other segments are accounted for at prices which approximate market.
- Investment income and certain corporate expenditures and assets relating to the overall direction and management of the Company's activities are not allocated to industry segments.
- 4. Canadian export sales amounted to \$558.2 million (1978: \$404.6 million).
- Certain of the 1978 figures have been reclassified to conform to the 1979 presentation.

### Notes to Consolidated Financial Statements

Year ended December 31, 1979

1. Accounting Police	cies
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The significant accounting policies followed by the Company and its subsidiary companies are summarized under the caption "Summary of Significant Accounting Policies" on page 10.

### 2. Inventories

	<b>1979</b> (thou	1978 Isands)
Finished goods	\$112,292	\$103,558
processed materials Stores and operating supplies	112,030 49,733	46,260 40,471
	\$274,055	\$190,289

3.	Investments			
			1979	
			(tho	usands)
	Associated companies:	•	E2 OFF	\$ 51.943
	Shares at cost Equity in undistributed earnings .	9	53,055 20,646	15,199
	Equity in undistributed earnings .			
		\$	73,701	\$ 67,142
	Other companies:			
	Shares at cost			
	Bethlehem Copper			
	Corporation (39.2% owned)	•	41,313	\$ 41,313
	Panarctic Oils Ltd.	Ψ	41,010	\$ 41,010
	(8.0% owned;			
	1978 - 8.2%)		18,391	18,391
	Tara Exploration and			
	Development Company			
	Limited (17.4% owned)		26,903	26,903
	Other companies			
	Quoted market value			
	(1979 - \$3,722,000)			0.045
	(1978 - \$1,599,000)		3,238	2,915
	No quoted market value Other		1,665	1,971 485
	Other			
			91,974	91,978
	Less accumulated depletion of		10.070	11.001
	mineral investments		13,672	11,664
		\$	78,302	\$ 80,314

### Other Assets

Matana and a sala	1979 (thou	usand	1978 ds)
Mortgage receivable on sale of land, due 1981	\$ 3,150	\$	3,150
Debt financing costs     Pre-production costs     relating to new	2,682		2,923
fertilizer facilities Loan to Bankeno Mines Limited . Other	3,000 5,167		4,235 — 3,213
	\$ 13,999	\$	13,521

### 5. Long-Term Debt (excluding amount due within one year)

Long-Term Debt (excluding arriot	int due within	il olie year)
	1979	1978
	(thou	isands)
Cominco Ltd.	(11.00	iodinas,
10% Serial Notes due		
1982 to 1996,		
U.S. \$50,000,000	\$ 49,224	\$ 49,224
8½% Sinking Fund		
debentures due		
1991	56,876	58,952
10%% Sinking Fund		
debentures due		
1995	57,610	60,000
Bank loan due 1981 to 1983	37,010	00,000
with interest related		
to the Canadian		
prime bank rate	17,000	21,000
Export Import Bank of the		
United States 8% loan		
due 1981 to 1985,		
U.S. \$6,863,000	6,834	8,353
West Kootenay Power and		
Light Company, Limited		
53/4% First Mortgage bonds		
	6,248	6,458
due 1985	0,240	0,430
Bank loan due 1981 bearing		
interest at ½% above		
prime bank rate	26,400	22,200
Cominco American Incorporated		
51/8% and 63/4%		
Notes due 1980	_	972
7% Notes due		
1981 to 1984.		
U.S. \$5,370,000	5,800	7,236
Other Companies	8	499
Other Companies		
	\$226,000	\$234,894

Payments due in 1980 \$8,748,000; 1981 \$34,217,000; 1982 \$20,115,000; 1983 \$11,111,000; 1984 \$11,111,000.

If translated into Canadian dollars at year-end rates of exchange, long-term debt would increase by \$10,699,000 in 1979 and \$12,476,000 in 1978. This is not necessarily indicative of the amounts which will be repaid when the obligations are retired.

### 6. Capital

a) Authorized:

Preferred -

8,000,000 Preferred Shares with the par value of \$25 each issuable in series.

Common -

30,000,000 shares of no par value.

b) Issued and fully paid:	<b>1979</b> (tho	1978 usands)
Preferred — 1,997,150 (1978 — 2,000,000) — \$2.00 Tax Deferred Exchangeable Shares Series A (Note 6(e)) \$	49,929	\$ 50,000
2,000,000 — Floating Rate Preferred Shares Series C	50,000	50,000
Common — 17,050,003 shares (1978 — 16,999,353)	99,929	100,000
(Note 6(d))	35,205	33,773
\$1	135,134	\$133,773

c) Preferred Shares:

The Company has constituted the following Preferred Shares:

- 2,000,000 shares as "\$2.00 Tax Deferred Exchangeable Preferred Shares Series A"
- 2,000,000 shares as "\$2.4375 Preferred Shares Series B"
- 2,000,000 shares as "Floating Rate Preferred Shares Series C"

Each Series A Preferred Share is entitled to a fixed cumulative cash dividend of \$2.00 per annum payable semi-annually. The Series A Shares are exchangeable into Series B Preferred Shares after June 1, 1988. Each Series C Preferred Share is entitled to a cumulative cash dividend which is related to the prime rate of interest charged by certain Canadian banks, adjusted quarterly and payable semi-annually. The Series C Shares have a par value of \$25 and the holder may call for retraction on March 31, 1988.

- d) Shares issued during the year for cash: 50,650 Common Shares (Note 6(f)) . . . . \$1,432,000
- e) Shares purchased for cancellation: During 1979, the Company purchased for cancellation 2,850 Series A Preferred Shares with a par value of \$71,250 for \$71,108 cash.

f) The Company has reserved 200,000 Common Shares for stock option plans in favour of certain executives in the full-time employment of the Company or a subsidiary. To December 31, 1979, options (exercisable within five years of issue) have been granted for 143,650 shares at 90% of the market price on the day of granting the options.

Outstanding options are as follows:

G	ranted	Price	Outstanding Dec. 31, 1979	Exercised in 1979
1	974	\$25.42	nil	5,500
1	975	27.45	1,500	11,400
1	976	34.99	12,700	8,000
1	977	32.63	12,625	8,575
1	978	24.41	7,200	17,175
1	979	32.40	25,400	_
			59,425	50,650

### 7. Prior Period Adjustment

During the year, the Company concluded an agreement with the Government of Saskatchewan concerning Prorationing and Reserve Taxes. As a result, a portion of the provisions for taxes for 1974 to 1978 is no longer required. The amounts previously reported have been restated to show a reduction of \$6,922,000. Of this amount, \$2,177,000 (\$0.13 per share) is applicable to 1978; the remaining \$4,745,000 is applicable to previous years. The financial statements have been restated retroactively for these changes.

### 8. Commitments and Contingent Liabilities

a) The Company and its subsidiaries have pension plans covering substantially all employees. Pension costs for current service are charged to earnings in the year incurred. The liability for past service is being funded and charged to earnings over varying periods up to 15 years. The date of the most recent actuarial evaluation for most pension plans is December 31, 1978. At December 31, 1979, actuarial estimates of the unfunded liability for past service amount to \$89,000,000 of which \$74,000,000 remains to be charged to earnings, \$15,000,000 having been charged to earnings by provisions in 1979 and prior years. The vested portion of the unfunded liability for past service is \$79,000,000.

Total pension expense including past service costs was \$26,411,000 for 1979 and \$16,156,000 for 1978. During 1979, the Company granted increased pensions to retired employees. The estimated total cost of this adjustment, \$6,549,000, has been charged to earnings in the year. In addition, increased benefits were incorporated into certain of the pension plans at an annual cost of \$2,368,000.

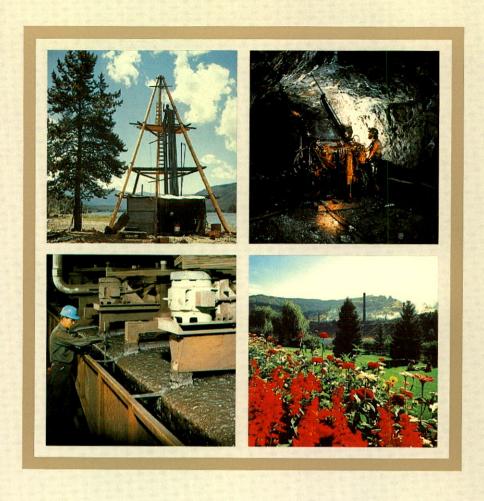
b) At December 31, 1979, guarantees and commitments were as follows:

Guarantees \$39,208,000 of which \$28,300,000 was for bank loans of an associated company.

Unexpended amounts remaining on approved major capital projects \$344,000,000.

### 9. Directors' and Officers' Remuneration

In 1979, total remuneration of \$149,000 was paid to fourteen (all) directors and \$1,173,000 to fifteen (all) officers of the Company, including relatively insignificant amounts paid to them by subsidiaries. There were five officers who were also directors.





## Cominco into the 80's

After many months of development planning by Company research and engineering staff Cominco announced in 1977 a multimillion dollar modernization program for the Sullivan mine at Kimberley and the metallurgical plants at Trail, British Columbia. Despite metal markets which at that time lacked obvious promise, the decision was taken to ensure the Company would have a strong position for the 1980's and beyond by harnessing the latest technology — including in-house developed processes — which will increase productivity and provide excellent working conditions. Already the world's largest lead-zinc production complex, by 1986 the Trail plants' capacity will have grown from 370,000 tons of lead and zinc in 1979 to an output of 500,000 tons of these metals. Renovated plants, combined with modern mining techniques at the Sullivan and other producing mines, will make Cominco a strong competitor in metal markets of the future.



### Lead and Zinc — A Solid Future

The decision to expand and modernize the Company's lead and zinc plants, and to develop new mines in arctic Canada and in Australia, was based on an analysis and projection of world supply and demand trends. A curtailment of exploration for minerals and slow growth in lead mine capacity by the industry during the 1970's is likely to result in tight supply during the 1980's. Lead and zinc consumption is expected to double in the next twenty years and to meet this demand by the turn of the century the world will need an additional seventy new mines of the capacity of Cominco's new Polaris mine in the Canadian High Arctic. Cominco's continuing commitment to

exploration costing over \$30 million per year will enable it to meet a portion of this demand as it arises. Early in 1980 diamond drilling near the northern boundary of the Pine Point property has increased the metal content of that company's reserves by 25 percent. Cominco has the reserves and potential reserves in Canada and other parts of the world to assure its customers of a continuing supply of its metal products.

Cominco is preparing for the years ahead. Lead and zinc deposits in Tasmania and the Canadian High Arctic will be in production in the early 1980's. Modernization and expansion of lead and zinc mining and processing capabilities at Kimberley and Trail demonstrate the Company's intention of participating fully in the growing demand for metals in the 80's and beyond.

### Trackless Mining at Sullivan

Modernization of the Sullivan mine started in 1977 and by 1979 twenty percent of the 2.4 million tons of ore mined was produced by mechanized mining methods. By 1982, eighty percent of annual ore extraction will be mined by these systems.

Gone are the days when only ore cars on rails travelled through the Sullivan mine. Today, some tunnels have been stripped of their rails, and rubber-tired drill jumbos, scoop trams and underground haulage trucks increase the mine's daily tonnage output and over-all efficiency. A ramp, driven from the surface of an open pit, inclines down to the underground working providing access mechanized mining equipment. Some distance away near the entrance to a second ramp, a new office building and a change house are being built.



A modern scoop tram loading ore in the Sullivan mine at Kimberley, B.C.



A rubber tired jumbo drill with three 20-foot booms is part of the mechanization mining program at the Sullivan mine.

#### Trail — New Plants for Old

The first major units in the Trail program were in the lead operations. A new continuous drossing furnace was completed in 1978; a \$26 million feed plant was completed last summer. The feed plant, with storage for 20,000 tons of lead concentrate, has computerized controlled mixing of the concentrates and fluxes used in preparing charge material for the lead blast furnaces.

Now under study is the possible use of a new "flash smelting" method for lead which may be incorporated into the rebuilding of the smelter. A decision on the feasibility of the process for inclusion in the modernization program will be made by the end of 1981. The rebuilding of the lead smelter, scheduled for completion by 1985, is aimed at increasing annual output from 160,000 to 200,000 tons.

The largest single project at Trail is a new \$210 million plant to process zinc concentrate into high analysis electrolytically refined zinc in its various marketable shapes, sizes and alloys. This huge facility, 1.050 feet long, will replace three existing electrolytic plants and zinc melting and casting operations. With start-up scheduled for 1981, and using unique "jumbo" electrolytic cells redesigned by Cominco engineers, this plant will produce 300,000 tons of zinc annually.

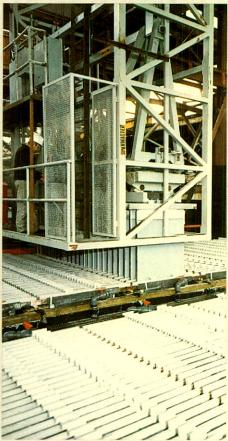
Modernization of the Trail metallurgical complex includes the world's first zinc pressure leaching plant and a new electrolytic and melting operation in a building longer than three football fields.

The zinc pressure leaching plant uses new technology to separate sulphur from zinc sulphide concentrate by chemical (hydrometallurgical) rather than roasting (pyrometallurgical) methods. The first pressure leach reaction vessel (autoclave) has been installed in the plant and will be the heart of the operation. Close study of this vessel will set process guidelines before installation of a second autoclave. This plant, the first stage to cost

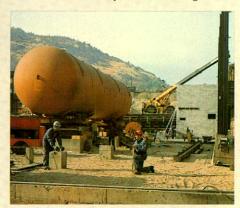


A continuous drossing furnace was the first step in the modernization of lead production.

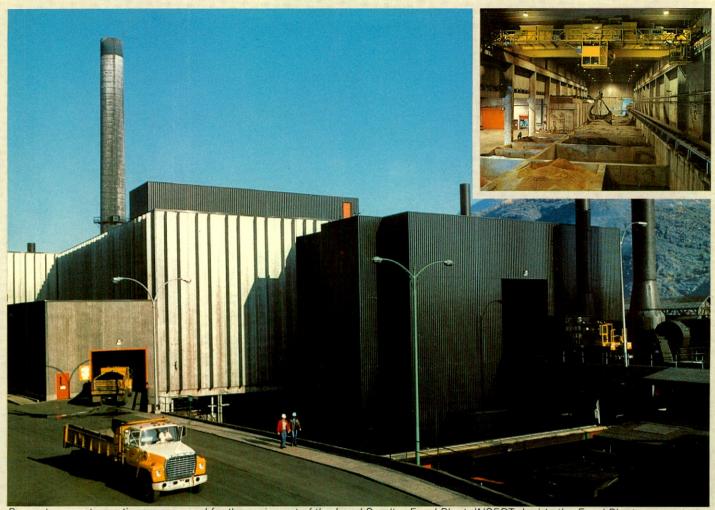
approximately \$19 million, will be the first zinc plant in the world to use hydrometallurgical sulphur removal on a commercial scale and will go into operation in 1981. In 1983, after the second autoclave is installed, this process will contribute 70,000 tons to the annual total of 300,000 tons of zinc production.



Jumbo electrolytic cells which will be used in new Zinc Electrolytic and Melting Plant.



The first autoclave for the Zinc Pressure Leaching Plant at the plant site in the summer of 1979.



Precast concrete sections were used for the main part of the Lead Smelter Feed Plant. INSERT: Inside the Feed Plant, concentrates are distributed to the bins via the conveyor at right; trucked material arrives at lower left.



The \$210 million Zinc Electrolytic and Melting Plant under construction. The largest single project in the overall modernization-expansion program at Trail, the plant will replace three existing electrolytic plants and zinc melting and casting operations.

## Polaris — Mining on Top of the World

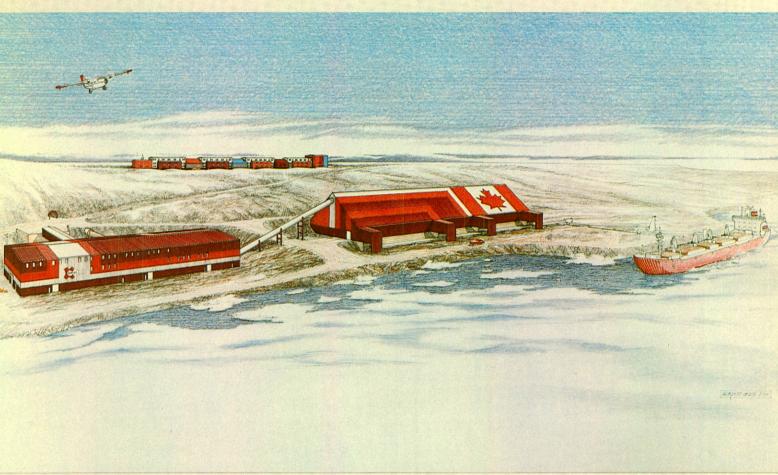
In 1982, production will begin from Cominco's Polaris lead-zinc mine on Little Cornwallis Island in the Canadian High Arctic. Only 90 miles southeast of the magnetic north pole at 75 degrees North Latitude, Polaris will be the most northerly mine in the world.

Polaris' mill, power and service

facilities will arrive at the mine ready made. Now under construction in southern Canada on a 100' x 400' barge, they will be towed to Little Cornwallis Island and floated into a prepared permanent position. Concentrate handling and storage facilities will be constructed on-site.

Housing, recreation and dining structures for some 250 employees will also be pre-cut and assembled on-site and special arrangements for amenities, such as satellite television reception, will be provided.

Cominco began developing the Polaris deposit in late 1979. The pro-



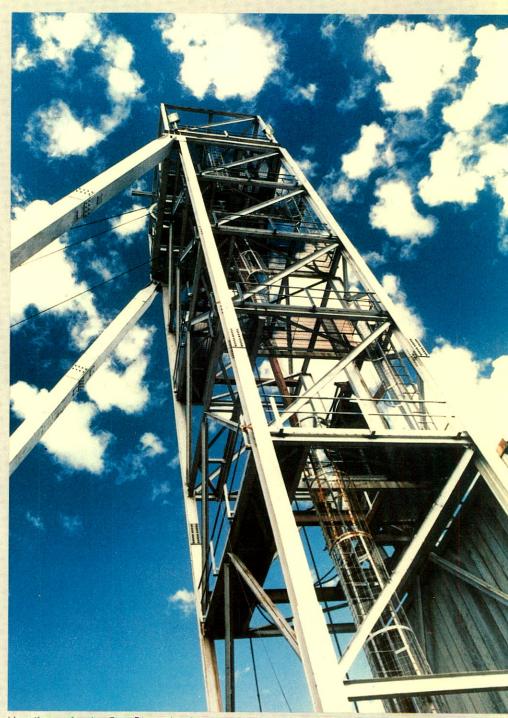
Artist's rendering of the Polaris project on Little Cornwallis Island in the Canadian High Arctic. When this zinc-lead mine starts production in 1982 it will be the most northerly mine in the world. ject is scheduled to be in production by early 1982 and will produce 187,000 tons of zinc and 42,000 tons of lead concentrates annually. Estimated ore reserves of 25 million tons (14.1 percent zinc, 4.3 percent lead) will allow the mine to operate at a rate of 2,200 tons per day into the next century.

Concentrates will be shipped in Canadian ice-strengthened vessels. Contracts have been signed for the treatment and sale of the mine's output.

Recognizing the unusual responsibilities entailed in northern development, Cominco has been working for several years with Settlement Councils of local residents in the north with the objective of bringing the most beneficial results to northern residents from this project. The experience and knowledge gained through continued liaison and cooperative effort during development of the Black Angel mine in Greenland several years ago has been of great value. Polaris will employ as many native persons as possible. and will provide ample opportunity for their participation including extensive training programs in the techniques of modern mining.

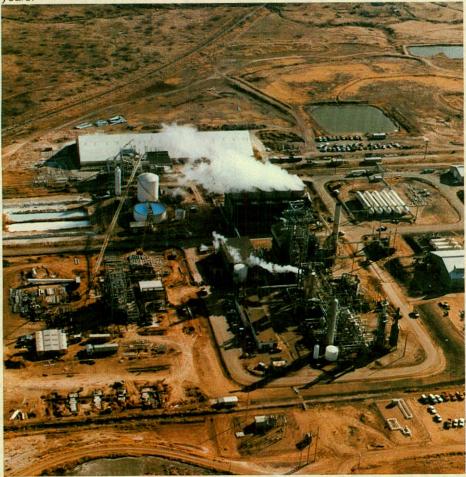
### Que River — Mining Down Under

Production from the zinc-lead-silver deposit will begin at the Que River mine in Northwest Tasmania in 1981. The mine is being developed by Aberfoyle Limited, an Australian company owned 47 percent by Cominco. A ten year contract for delivery of up to 250,000 tons annually of Que River ore has been negotiated with Electrolytic Zinc Company of Australasia Limited. The ore will be milled at that company's concentrator at Rosebery, about 24 miles from the Que River mine.



Headframe for the Que River zinc-lead-silver mine in Northwest Tasmania. Being developed by Aberfoyle Limited, the mine will be in production in 1981.

In 1968, Cominco American brought the Magmont lead mine in Missouri into production. The Magmont system is being extended into a new 7,500 acre property called "Magmont West". This new ore body will extend the life of the mine several years



A new urea plant (left centre) adjacent to Cominco American's ammonia plant at Borger, Texas, will use 48,000 tons of ammonia annually in the production of 85,000 tons of urea.

### Cominco American — Building for the Future

In the United States, two projects are under way: an extension to the Magmont lead-zinc-copper mine in Missouri, and a new 85,000 ton urea plant in Texas.

### "Magmont West"

The Magmont mine system is being extended into a new 7,500 acre property adjoining the mine by way of "drifting" from the existing underground workings and drilling a number of ventilation shafts. Diamond drills are now at work on the surface of the new property to extend the known ore reserves. Production from "Magmont West" will be integrated with existing mine production, beginning in 1983. The ore will be hoisted to the surface through the present production shaft. This new ore body will extend the life of the mine several years.

### **Borger Urea Plant**

Adjacent to its ammonia plant at Borger, Texas, Cominco American is building a new urea plant which will annually use 48,000 tons of ammonia in the production of 85,000 tons of urea. On-site storage capacity to hold up to 18,000 tons of the product is already in place.

Although the plant is designed to produce feed grade urea for cattle, built-in versatility will allow the entire production to be "prilled" for cattle feed or granulated for use as fertilizer. Adding the new urea plant will permit greater control of ammonia inventory as well as improve the system's over-all flexibility to meet market requirements.



\$10 million Drainage Water Treatment Plant at Kimberley removes metallics from drainage water out of the Sullivan mine and concentrator tailing ponds and discharges clear water into the Kootenay River system.



The new 30 cubic yard "walking" dragline at the Pine Point zinc-lead mine dwarfs every machine on the property, including this large tractor.

### Other Improvements

Several other Cominco operations are being improved by the addition of new equipment to reduce costs, conserve energy and increase productivity. At Pine Point in the Northwest Territories a new 30 cubic yard "walking" dragline has reduced the cost of removing overburden. A \$6 million modernization of the Pine Point concentrator flotation circuits will increase metal recovery and lower energy consumption.

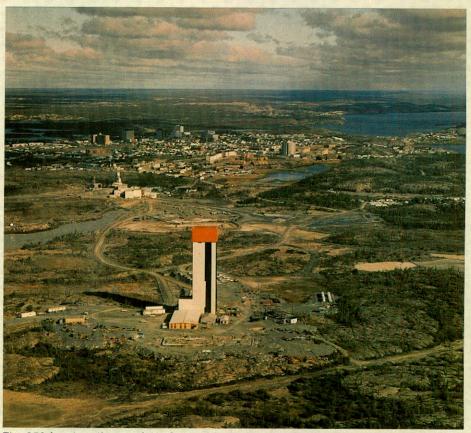
Western Canada Steel's Vancouver plant is undertaking a \$6.5 million modernization program that includes a continuous casting machine. When completed in the spring of 1981, the new equipment will increase the plant's ingot capacity by 50 percent. Even though there are a number of significant projects in progress at this time this should not be taken as a flurry of activity warranted by the promise of the 1980's. The Company has for a number of years been reinforcing its productive base. Among these the 250 foot high headframe housing the hoist mechanism for the 5,400 foot deep Robertson shaft at the Con mine in Yellowknife, completed in 1977, is now becoming a familiar landmark in Canada's north. This \$20 million project has fulfilled expectations of increased efficiency. Through its continuing exploration program, the Company has at least four ore bodies waiting for development — Valley Copper and Bathurst Norsemines in Canada, La Troya in Spain and Mataiva in French Polynesia.

### Environment — We Live Here Too

Cominco takes its environmental responsibilities seriously. The maintenance of a clean and safe working environment remains a priority at all operations — as does the protection of the environment that surrounds the mines and plants.

The modern processing plants now under construction at Trail demonstrate the Cominco commitment to environmental protection. More than \$60 million of the projected \$425 million expenditure on modernization is directly aimed at improving the work place and the environment in which operations are located.

At Kimberley, a \$10 million waste water treatment plant went into service in 1979, removing metallics from drainage water out of the Sullivan mine and concentrator tailing ponds, and discharging clean water into the Kootenay River system. A similar plant was into the first stage of construction at Trail in late 1979.



The 250 foot headframe of the Con gold mine is becoming a familiar landmark in Canada's North. Housing the hoisting mechanism for the 5,400 foot deep Robertson shaft, it provides an impressive addition to the skyline of the City of Yellowknife.



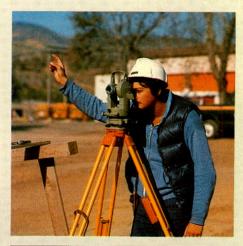


### Making Our Future Work

For almost 75 years, Cominco has based its growth on sound business planning and on applying the most modern technology available. The Company has steadily developed into a major participant in the world mining and processing community. Since its earliest days the objective has been to build a wide and diversified operational base. This combination of strength and flexibility has served the Company well for over seven decades. Cominco's current modernization and expansion program will enable the Company to enter the new decade well equipped for continued growth and prosperity.

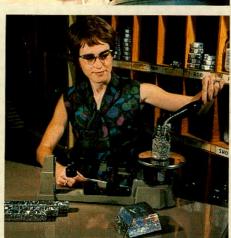


A wide range of skills complement the work performed in the Company's mines, metallurgical and chemical operations. Shown here are (top left) a researcher "pulling" indium crystals, (bottom left) a laboratory assistant weighing a sample in the Pure Metals plant, (above) an office employee admiring flowers growing beside a chemical fertilizer plant, (top right) a surveyor employed on modernization program and (bottom right) a welder working on the Robertson Shaft at Yellowknife.









## **Principal Subsidiaries and Associated Companies**

		Cominco Ownership		Head Office
The Canada Metal Company Limited		50%	D. F. Hutton President and Chief Executive Officer	Toronto, Ontario
Cominco American Incorporated		100%	L. D. Demand President and Chief Executive Officer	Spokane Washington, U.S.A.
Cominco Australian Pty. Ltd.		100%	G. N. Moore Chairman	Sydney Australia
Aberfoyle Limited		47%	N. A. Gilberthorpe Chairman and Chief Executive Officer	Melbourne Australia
Cominco Binani Zinc Limited		40%	G. Binani Chairman	Calcutta India
Cominco Holdings N.V.		100%	J.C. Beck A. J. van der Marel Managing Directors	Amsterdam Netherlands
Cominco Europe Limited		100%	P. Hansen President and Chief Executive Officer	London England
Exploración Minera Internacional España S.A. (Exminesa)		47%	F. Prugger	Villafranca del Bierzo
		17.70	Managing Director	Spain
Cominco GmbH		100%	R. J. Arend Managing Director	Dusseldorf Federal Republic of Germany
Cominco (U.K.) Limited		100%	D. M. Silver Managing Director	London England
Mazak Limited		50%	R. P. Wilson Chairman and Managing Director	Bristol England
Fording Coal Limited		40%	J. H. Morrish President and Chief Executive Officer	Calgary Alberta
Mitsubishi Cominco Smelting Company	Limited	45%	T. Nagano President	Tokyo Japan
National Hardware Specialties Limited		99%	M. C. D. Hobbs Chairman	Dresden Ontario
Pacific Coast Terminals Co. Ltd.		78%	W. W. Brown President and Chief Executive Officer	New Westminster British Columbia
Pine Point Mines Limited		69%	R. P. Douglas President and Chief Executive Officer	Pine Point N.W.T.
Valley Copper Mines Limited (N.P.L.)		82%	R. P. Taylor President	Vancouver British Columbia
Vestgron Mines Limited		63%	O. E. Owens President	Yellowknife N.W.T.
Greenex A/S		63%	E. Sprunk-Jansen Managing Director	Umanak Greenland
Western Canada Steel Limited		100%	M. C. D. Hobbs Chairman and Chief Executive Officer	Vancouver British Columbia
Hawaiian Western Steel Limited		51%	G. W. Hogue General Manager	Ewa <i>Hawaii</i>
West Kootenay Power and Light Company, Limited	Common Preferred	100% 30%	H. M. Lewis President and Chief Executive Officer	Trail British Columbia

### **Principal Offices**

**Head Office** 200 Granville Street.

Vancouver, British Columbia V6C 2R2

Group Offices

Canada

Vancouver, British Columbia Trail, British Columbia

Calgary, Alberta

Yellowknife, Northwest Territories

Europe

London, England

Research Centres Trail, British Columbia

Sheridan Park, Ontario

Sales Offices

CANADA Cominco Ltd.

Vancouver, British Columbia

Toronto, Ontario Calgary, Alberta Winnipeg, Manitoba

U.S.A.

Cominco American Incorporated

Spokane, Washington Chicago, Illinois Fargo, North Dakota Minneapolis, Minnesota Lincoln, Nebraska

EUROPE

Cominco (U.K.) Limited London, England Manchester, England Glasgow, Scotland

Cominco GmbH

Dusseldorf, Federal Republic of Germany

**Exploration Offices** 

CANADA Cominco Ltd.

Vancouver, British Columbia

Toronto, Ontario

U.S.A.

Cominco American Incorporated

Spokane, Washington

**EUROPE** 

Cominco S.A.

Brussels, Belgium

Cominco France S.A. Paris. France

Cominco Italia SpA Rome, Italy

AUSTRALIA

Aberfoyle Limited Melbourne

**MEXICO** 

Compañia Minera Constelación S.A. de C.V

Mexico City

BRAZIL

Mineração Cominco Ltda. Rio de Janeiro

**Operating Mines** 

Aberfoyle — Tasmania

Ardlethan - New South Wales Black Angel — Greenland Cleveland — Tasmania Con — Northwest Territories Fording Coal — British Columbia

Magmont — Missouri

Pine Point — Northwest Territories
Rubiales — Spain
Sullivan — British Columbia Vade - Saskatchewan Warm Springs - Montana

**Metal Production** 

Cominco Ltd. - British Columbia Cominco Binani Zinc Limited - India Hawaiian Western Steel Limited - Hawaii

Mazak Limited — England

Mitsubishi Cominco Smelting Company Limited — Japan Western Canada Steel Limited — British Columbia; Alberta

**Metal Fabrication** 

The Canada Metal Company Limited

Quebec Ontario Manitoba Alberta

British Columbia

Cominco American Incorporated — Washington National Hardware Specialties Limited — Ontario Western Canada Steel — British Columbia

Chemical and Fertilizer Production

Cominco Ltd. — British Columbia; Alberta Cominco American Incorporated —

Nebraska; Texas

Cominco Binani Zinc Limited - India

### **Directors and Officers**

#### **Directors**

\*M. N. ANDERSON

President and Chief Operating Officer

Cominco Ltd., Vancouver

\*W. J. BENNETT

Consultant
Iron Ore Company of Canada, Montreal

†H. C. BENTALL

Chairman and Chief Executive Officer
The Dominion Construction Co. Ltd.

Vancouver

\*F. S. BURBIDGE President Canadian Pacific Limited, Montreal

\*F. E. BURNET

Chairman of the Executive Committee

Cominco Ltd., Vancouver

R. W. CAMPBELL Chairman and Chief Executive Officer PanCanadian Petroleum Limited Calgary

\*H. T. FARGEY

Executive Vice-President, Toronto

Cominco Ltd., Toronto

\*G. H. D. HOBBS
Chairman of the Company
Cominco Ltd., Vancouver

R. A. MacKIMMIE, Q.C.

Partner

Law firm of MacKimmie Matthews

Calgary

†\*D. R. McMASTER, Q.C.

Partner

Law firm of McMaster Meighen

Montreal

P.A. NEPVEU Vice-Chairman Canadian Pacific Investments Limited Montreal

†S. E. NIXON Corporate Director Montreal

\*I. D. SINCLAIR, Q.C. Chairman and Chief Executive Officer Canadian Pacific Limited, Montreal

W. J. STENASON

President

Canadian Pacific Investments Limited

Montreal

\*Members of Executive Committee †Members of Audit Committee

#### Officers

F. E. BURNET Chairman of the Executive Committee

G. H. D. HOBBS Chairman of the Company

M. N. ANDERSON
President and Chief Operating Officer

H. T. FARGEY
Executive Vice-President, Toronto

W. G. WILSON
Executive Vice-President, Vancouver

I. D. SINCLAIR, Q.C. Vice-President R. P. DOUGLAS Group Vice-President at Yellowknife

A. V. MARCOLIN Group Vice-President at Trail

S. M. ROTHMAN Group Vice-President at Vancouver

J. F. ALLISON Vice-President, Employee Relations

K. H. SPURR Vice-President, Metal Sales

O.E. OWENS Vice-President, Exploration R. R. STONE Treasurer

A. D. MILLER Comptroller

P. A. MANSON General Counsel

P.C. STEWART Secretary



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