

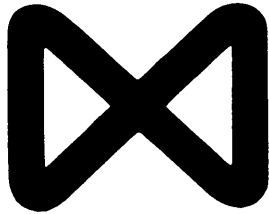
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Cominco Ltd.



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COMINCO LTD.

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COMINCO LTD.

SUMMARY AND RECOMMENDATION

Cominco is one of the largest lead and zinc producers in the world, the largest fertilizer producer in Canada and a major producer of smelter by-products such as silver and cadmium. In addition, the company has interests in coal, steel, copper, mercury, gold, tin, tungsten and potash. Cominco also has an indirect interest in oil and gas exploration in the Arctic Islands.

In 1965, Cominco's earnings were \$3.23 per share. Since then earnings have been lower each year and in 1971 were \$0.74 per share before extraordinary items. This decline can be accounted for largely by an increase in the costs of production and transportation without a commensurate increase in the prices of the majority of the company's products. In the case of some products, such as fertilizers and mercury, prices actually declined.

In projecting earnings between 1972 and 1974, we assume that costs will continue to rise. At the same time, however, we expect that the prices of most of Cominco's products will also rise. We foresee fairly substantial price increases from 1971 levels for lead, zinc, gold and silver and moderate increases for most of the other company's products, including fertilizers. We expect substantially higher earnings in 1972 and 1973 to be the net result.

The one operation which is seen as having a negative influence on the company's earnings is Fording Coal which is expected to operate at a loss for some time. We have not, however, been able to estimate quantitatively the losses anticipated and for this reason we have not taken Fording Coal into account in our earnings and cash flow estimates, which are as follows:

	---Actual---		-----Projected-----		
	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Earnings per share	\$1.45	0.74	1.16	1.29	1.23
Cash Flow per share (both before extraordinary items)	\$3.22	2.26	2.79	3.19	3.50

At the current price of \$25½, the multiples on estimated 1972, 1973 and 1974 earnings and cash flow are:

	<u>1972</u>	<u>1973</u>	<u>1974</u>
Price Multiple on Est'd Earnings	22.0	19.8	20.7
Price Multiple on Est'd Cash Flow	9.1	8.0	7.3

In the past five years the high and low multiples on earnings and cash flow before extraordinary items have been as follows:

	<u>Price/Earnings Ratio</u>		<u>Price/Cash Flow Ratio</u>	
	<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>
1971	34.3	24.2	11.2	7.9
1970	24.6	13.2	11.1	5.9
1969	26.8	18.3	12.7	8.7
1968	21.0	10.5	11.4	6.3
1967	<u>15.3</u>	<u>10.8</u>	<u>9.6</u>	<u>6.8</u>
Mean	24.4	15.4	11.2	7.1

In attempting to estimate future price ranges using multiples, cash flow multiples would appear to be better than earnings multiples as there has been more variability from the mean in the latter than in the former during the past five years.

It is clear that Cominco is currently trading at the lower end of its cash flow multiple range (using 1973 estimated cash flow).

Our 1973 cash flow however, does not reflect the anticipated losses of Fording Coal, which could be substantial. Because of the uncertainty which Fording Coal constitutes, we are not recommending the purchase of Cominco stock.

For holders of Cominco, we suggest a careful weighing of the following five factors which we consider could affect the near to medium term outlook for the price of the stock:

(1) The recent election of the New Democratic Party in British Columbia. This may dampen investor interest in companies located in that province. (In our judgment, however, Cominco's net earnings will not be materially affected. Our assumptions for this conclusion are discussed in Appendix IV.)

(2) The recent softening of lead prices in North America. This could have a slightly negative effect on the stock price.

(3) The widespread anticipation of further increases in zinc prices in the next one to six months. This should have a positive effect on the stock price.

(4) The possibility of an announcement by Cominco in the fairly near future of a decision to build a copper smelter at Kimberley. Such a smelter could add up to 20¢ per share to the company's earnings after 1974.

(5) The exploration activity of Panarctic Oils Limited, in which Cominco has a 9% interest. This will be at a peak in the coming months and could well exert an upward pressure on the stock price. (Arctic drilling activity may explain why, in the last four years, Cominco has risen in price from the beginning of October in one year to the end of January the following year by an average of about 20%).

Based on the above considerations we would recommend that current Cominco holders eliminate their positions should the shares advance into the high \$20 or low \$30 range on an announcement of a zinc price increase or on any significant discovery by Panarctic.

This recommendation assumes that Fording Coal will not be profitable and that projects like Valley Copper are still a long way from contributing to earnings. If, however, some of these uncertainties are resolved, our opinion on the outlook for Cominco will be reviewed.

LEAD AND ZINC

Approximately 50% of Cominco's gross revenue in 1971 was from the sale of lead and zinc, either as metal or in concentrate form. Operating profits from lead and zinc in 1971 accounted for 54% of Cominco's total operating profits. The latter figure is expected to decline to 53% in 1974.

Mine Production

Cominco has three lead and zinc mines which are currently operating and two lead and zinc properties which will be in production by 1974.

(1) The Sullivan, which commenced production in the 1890's, is located at Kimberley, British Columbia. Actual and projected production figures covering the 1969 to 1974 period are given in Table 1.

TABLE 1

SULLIVAN PRODUCTION 1969 - 1974

	-----Actual-----			----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Ore Milled 000 tons	2,158	2,121	1,980	2,170	2,170	2,170
tons per day	5,910	5,810	5,420	5,890	5,890	5,890
Grades						
% Lead	4.7	4.5	6.0	4.9	4.5	4.5
% Zinc	4.3	4.5	5.3	4.8	4.8	4.8
Est'd Recoveries						
Lead %	81	81	81	81	81	81
Zinc %	87	87	87	87	87	87
Recoverable Metal						
Lead - tons	76,000	72,000	89,000	80,000	73,000	73,000
Zinc - tons	75,000	66,000	82,000	74,000	67,000	67,000

Lead and zinc grades in 1971 were higher than in 1969 and 1970 as a result of mining operations moving into a relatively high grade zone. This zone is now close to being mined out and the grades have declined as shown in the table.

(2) Pine Point, which commenced production in 1965, is located near the southern shore of the Great Slave Lake in the Northwest Territories. Actual and projected production from 1969 to 1974 is summarized in Table 2. (Pine Point Mines Limited is 69.2% owned by Cominco.)*

* A detailed report on Pine Point, published in March 1972, is available upon request.

TABLE 2
PINE POINT PRODUCTION 1969 - 1974

	-----Actual-----			-----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Ore Milled 000 tons	3,605	3,860	3,892	3,800	3,850	3,850
tons per day	9,877	10,600	10,700	10,400	10,500	10,500
Grades						
% Lead	3.2	3.0	2.6	2.6	2.6	2.6
% Zinc	7.4	7.1	6.5	6.2	6.1	6.1
Est'd Recoveries						
Lead %	89.1	88.1	86.2	86.0	86.0	86.0
Zinc %	92.1	96.5	93.2	92.0	93.0	93.0
Recoverable Metal						
Lead - tons	96,000	107,000	81,000	79,000	80,000	80,000
Zinc - tons	220,000	244,000	211,000	195,000	196,000	196,000

(3) Magmont, which commenced production in 1968, is located in the "New Lead Belt" in Missouri. Production is summarized in Table 3. (Magmont mine is a 50:50 joint venture of Cominco American Inc. and Dresser Industries Ltd.)

TABLE 3
MAGMONT PRODUCTION 1969 - 1974

	-----Actual-----			-----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Ore Milled 000 tons	593	859	1,040	1,050	1,080	1,080
tons per day	1,624	2,353	2,849	2,876	2,958	2,958
Grades						
% Lead	10.9	10.6	7.7	7.6	7.4	7.4
% Zinc	1.3	1.3	0.8	0.7	0.7	0.7
Est'd Recoveries						
Lead %	90	90	90	90	90	90
Zinc %	90	90	90	90	90	90
Recoverable Metal						
Lead - tons	55,000	78,000	68,000	68,000	68,000	68,000
Zinc - tons	6,000	9,000	6,000	6,000	6,000	6,000

(4) The H. B. mine, located near Salmo, British Columbia, has been shut down since 1966. It will be brought back into production in the first quarter of 1973. Our production estimates are summarized in Table 4.

TABLE 4
PROJECTED H.B. PRODUCTION 1973 - 1974

	<u>1973</u>	<u>1974</u>
Ore Milled 000 tons	274	365
tons per day	1,000	1,000
Grades		
% Lead	1.0	1.0
% Zinc	4.5	4.5
Est'd Recoveries		
Lead %	85	85
Zinc %	90	90
Recoverable Metal		
Lead - tons	2,200	2,800
Zinc - tons	10,200	13,600

(5) In western Greenland a programme is underway to bring into production late in 1973 or early in 1974 the Black Angel property owned by Greenex A/S, in which Cominco has a 61.5% interest (through Vestgron Mines Ltd.). Our assumptions and production estimate for 1974 are given in Table 5.*

TABLE 5
PROJECTED BLACK ANGEL PRODUCTION - 1974

	<u>1974</u>
Ore Milled 000 tons	664
tons per day	1,820
Grades	
% Lead	7.0
% Zinc	15.0
Est'd Recoveries	
Lead %	85.0
Zinc %	85.0
Recoverable Metal tons	
Lead	37,500
Zinc	76,200

Note: The planned daily milling rate is 1,650 metric tons = 1,820 short tons.

Cominco's interest in actual and projected lead and zinc mine production from 1969 to 1974 is as shown in Table 6.

* See Appendix III for an estimate of earnings from this operation.

(We understand that sales contracts are in the process of being finalized.)

TABLE 6

TOTAL MINE PRODUCTION (COMINCO'S INTEREST) 1969 - 1974

	-----Actual-----			-----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
000 short tons						
Recoverable Metal:						
Lead in concentrate	178	194	188	169	164	189
Zinc in concentrate	231	251	242	212	216	267
	409	445	430	381	380	456
% Change	+14	+ 9	- 3	-11	-	+20

Note: The 1969 to 1971 figures include production from the Bluebell mine, which was shut down at the end of 1971 when ore reserves were exhausted.

Ore Reserves

The lead-zinc ore reserves at Cominco's operating mines and at the H.B. and Black Angel mines are given in Table 7.

TABLE 7

LEAD ZINC ORE RESERVES

	<u>Reserves</u> 000 tons	<u>Combined</u> <u>Grade</u> %	<u>%</u> <u>Lead</u>	<u>%</u> <u>Zinc</u>	<u>000 tons</u> <u>Contained Metal</u>		<u>Years</u> <u>of</u> <u>Production</u>
					<u>Lead</u>	<u>Zinc</u>	
Sullivan	63,500	10.8	4.9 E	5.9 E	3,110	3,750	30
Pine Point	41,900	8.4	2.4	6.0	1,010	2,510	11
Magmont	12,500	7.9	7.1 E	0.8 E	900	100	12
H.B.	1,500 E	5.5 E	1.0 E	4.5 E	20	70	4
Black Angel	4,000	22.0 E	7.0 E	15.0 E	300	600	6
					5,340	7,030	

Note: Sullivan reserve grades do not allow for dilution and are therefore higher than the average production grades given in Table 1.

Metal Production

All of the Sullivan and most of the Pine Point lead and zinc concentrates are treated at Trail, British Columbia. Cominco has had lead and zinc plants in operation at Trail since 1901 and 1916 respectively.

The lead smelter and refinery have an annual capacity of 190,000 tons but production is currently at the 165,000 ton level. In addition to concentrates from Pine Point and the Sullivan, the lead smelter treats concentrates purchased from other Canadian mines.

Production of lead at the Trail smelter and refinery between 1969 and 1971 with projections to 1974 are given in Table 8.

TABLE 8
PRODUCTION OF LEAD METAL 1969 - 1974

	-----Actual-----			----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Lead prod. 000 tons						
from own concentrate	153	149	150	131	126	127
from purchased	<u>17</u>	<u>36</u>	<u>13</u>	<u>34</u>	<u>39</u>	<u>48</u>
	170	185	163	165	165	175

Early in 1972 Cominco commissioned a pilot plant to test a unique oxygen smelting process that the company has been developing for some time. Should the process prove economic, Cominco might be expected to consider constructing a new lead plant at some future date.

The capacity of the zinc roasters at Trail was recently increased to 300,000 tons per year by the installation of two new fluid bed roasters. Over the next 18 months the electrolytic refinery will be expanded from 263,000 tons to 300,000 tons. Production of 300,000 tons of refined zinc is targeted for 1974.

Zinc metal produced at the Trail zinc plant between 1969 and 1971 with projections to 1974 are given in Table 9.

TABLE 9
PRODUCTION OF ZINC METAL 1969 - 1974

	-----Actual-----			----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Zinc Production						
000 tons	225	222	211	265	280	300

Marketing, Prices and Revenue

Cominco sells lead and zinc in both metal and concentrate form.

We estimate that of the lead produced at Trail, about 20% is sold in Canada, 35% in the United States and 45% overseas.

Of the zinc sold we estimate that in the 1969 to 1971 period approximately 30% was sold to Canadian markets, 37% in the United States and 33% overseas. The additional tonnages of zinc which will be produced at Trail in 1972 and thereafter we assume will be marketed in the United States where a shortage of this metal has developed. Our revenue projections for the years 1972 to 1974 are based on this assumption and our resulting estimates of zinc sales in the various marketing areas are as follows:

	<u>Canada</u>	<u>U.S.A.</u>	<u>Overseas</u>
1972	24%	50%	26%
1973	23%	53%	24%
1974	21%	56%	23%

Since Cominco will be producing progressively more zinc metal in 1972 and 1973, less zinc concentrate will be available for sale in those years compared with the preceding years. In 1974, Black Angel production will restore potential sales close to the former level. Our estimates of potential sales from 1969 to 1974 are given in Table 10.

TABLE 10

ESTIMATED ZINC CONCENTRATE SALES 1969 - 1974

	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Zinc in concentrate 000 tons	94	111	105	35	25	95

Sales of zinc concentrate are made to Japan, India and Europe on the basis of the European Producer Price.

Lead and zinc metal from Trail is sold at both European and North American prices, depending on the country of delivery. Estimated average annual prices received from 1969 to 1971 with projections to 1974 are given in Table 11.

TABLE 11ESTIMATED AVERAGE PRICES FOR LEAD AND ZINC FROM TRAIL 1969 - 1974

	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Lead U.S. ¢/lb	13.9	14.7	12.6	14.5	14.5	15.5
Zinc U.S. ¢/lb	14.5	15.5	16.6	19.6	21.1	21.1

The main assumptions used to derive these estimates are:

- (1) annual lead and zinc prices in Europe, the U.S.A. and Canada as given in Appendix I.*
- (2) sales in the various marketing areas as described above.
- (3) for zinc , an average premium of 0.8¢ per pound over prices for G.O.B zinc in Europe and Prime Western in the United States, in consideration of the fact that most of Cominco's zinc production is in the form of Special High Grade.

Magmont's lead and zinc production is sold on the basis of U.S. producer prices.

Operating Profit from Lead and Zinc Operations

Cominco's historical and projected profits from lead and zinc before deducting depreciation, minority interests and taxes in the period 1969 to 1974 are given in Table 12.

* The outlooks for lead and zinc, as we see them, have been discussed at length in our reports on the lead and zinc industries, published in February, 1972. These reports have been followed up by quarterly releases on the lead and zinc industries published in April and August, 1972.

TABLE 12
OPERATING PROFITS FROM LEAD AND ZINC OPERATIONS

1969 - 1974

\$000,000's	-----Historical-----			-----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Gross Revenue \$US	141.3	154.0	150.0	184.0	190.7	223.5
Less: US Import						
Duty	2.4	2.4	3.1	3.2	3.2	3.5
Transportat'n	<u>21.9</u>	<u>23.3</u>	<u>23.9</u>	<u>24.1</u>	<u>24.0</u>	<u>27.0</u>
Net Revenue US Funds	117.0	128.3	123.0	156.7	163.5	193.0
Exchange Rate (%)	93.0	96.5	98.5	101.1	102.0	102.0
Net Revenue Cdn						
Funds	125.8	133.0	124.9	155.0	160.3	189.2
Less: Operating Costs						
Sullivan	13.1	13.4	13.0	14.4	15.2	16.0
Pine Point	31.3	34.8	32.7	35.3	36.7	38.4
Bluebell (H.B. in 1973-74)	1.5	1.5	1.6	-	1.9	2.6
Magmont	2.8	4.2	5.3	5.6	6.0	6.2
Black Angel	-	-	-	-	-	13.3
Lead Plant	9.3	10.8	10.1	10.4	10.6	11.6
Zinc Plant	<u>19.2</u>	<u>19.8</u>	<u>19.6</u>	<u>25.2</u>	<u>27.2</u>	<u>29.7</u>
Total	77.2	84.5	82.3	90.9	97.6	116.6
Less: Purchased	48.6	48.5	42.6	64.1	62.7	72.6
lead conc.	6.2	6.5	5.5	7.5	7.9	9.1
Inventory						
decrease	-	- 9.0	- 2.0	+ 6.0	+ 4.0	+ 6.0
Exploration	8.4	5.5	6.6	5.6	6.0	6.0
Misc. (e.g. Research)	<u>0.4</u>	<u>1.7</u>	<u>2.1</u>	<u>2.1</u>	<u>2.1</u>	<u>2.1</u>
Total	15.0	4.7	12.2	21.2	20.0	23.2
Operating Profit						
Cdn. Funds	33.6	43.8	30.4	42.9	42.7	49.4

Notes: (1) All of the above figures are estimated except "Net Revenue Canadian Funds" in 1969 and 1970, which were reported in the April, 1971 Prospectus, and "Exploration" in 1969, 1970 and 1971.

(2) "Transportation" does not include the costs of shipping concentrates from Pine Point. These are included in Pine Point's operating costs.

- (3) "Cost of Purchased Lead Concentrate" does not include the cost of contained silver. This is accounted for later in this report.

Undeveloped Lead Zinc Properties

Cominco is investigating a number of lead zinc prospects in Canada and in foreign countries. Of these, the following are the most significant:

Rubiales (63% interest)

At the end of 1971 a detailed underground assessment was in progress on this medium size medium grade deposit located in Northern Spain. A production decision is expected by mid-1973.

Little Cornwallis Island (75% interest)

In 1971 a deposit grading in excess of 20% combined lead and zinc with an indicated potential of over 20 million tons was discovered on Little Cornwallis Island in the Canadian Arctic by Arvik Mines Ltd., in which Cominco has a 75% interest.* An incline is currently being driven into the deposit with the intention of proving up the inferred reserves. Cominco has undertaken to spend \$4,000,000 on this property.

Bathurst Norsemines (currently 19% but option for up to 54%)

Up to the end of 1971 Cominco had spent \$900,000 on an extensive silver-lead-zinc property belonging to Bathurst Norsemines and located at Hackett River in the Northwest Territories. By expending up to a total of \$6,000,000 for exploration on this prospect, Cominco may earn up to 6,500,000 of the 12,000,000 authorized shares.

It is most unlikely that production will commence at any of these properties before 1975.

* The other 25% is held by Bankeno Mines Ltd.

OTHER METALS AND METALLURGICAL PRODUCTS

Approximately 25% of Cominco's gross revenue in 1971 was from the sale of metals and metallurgical products other than lead and zinc. Operating profits from this group of products accounted for 31% of Cominco's total operating profits in 1971. The latter figure is expected to remain unchanged to 1974.

Cominco is the sole owner of Western Canada Steel Ltd. which has plants in Vancouver and Calgary producing steel forms for the construction industry.

Cominco operates a small copper mine in British Columbia and has a 70% interest in the extensive Valley Copper-Lake Zone orebody in the same province. The erection of a 70,000 ton per year copper smelter at Kimberley is currently being considered.

The company owns the only mercury mine in Canada, located in British Columbia, and produces gold from two mines in the Northwest Territories.

Substantial quantities of refined silver are produced at the Trail silver refinery from silver-lead drosses, which are a by-product of the smelting of lead concentrates. Also recovered as by-products are cadmium, gold, bismuth, indium, antimonial lead and tin concentrate.

Some of the by-products from Trail are used for the manufacture of high purity metal preforms which are sold to the electronics industry. Cominco also manufactures zinc die castings for the housing and automotive industries.

In 1971 Cominco acquired a 55% interest in Aberfoyle Limited, an Australian mining group producing substantial quantities of tin and tungsten and smaller amounts of other metals. Besides contributing revenue to Cominco, Aberfoyle has given the company a broad exploration base in Australia.

Iron and Steel

Western Canada Steel Ltd. operates a 100,000 ton per year plant in Vancouver producing rolled steel products and industrial fasteners and a 50,000 ton plant in Calgary producing reinforcing bars.

Output of steel products at Western Canada's two steel plants was close to capacity in 1969, 1970 and 1971 and in each of these years the entire production was sold - primarily in Canada. Our production estimates for 1972 to 1974, as given in Table 13, assume that production will continue to be close to capacity and will find ready markets. The sales projections shown are based on the assumption that the average price received for the steel products will increase at 4% annually.

TABLE 13STEEL PRODUCTION AND REVENUE 1969 - 1974

	-----Actual-----			----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Production - tons	143,100	145,600	146,000	146,000	146,000	146,000
Revenue Cdn. \$000	24,000	25,000	25,000	26,000	27,000	28,000

Copper(1) Coast Copper Company Limited

Cominco has a 95% interest in Coast Copper Company Limited which owns the Coast Copper and Benson Lake mines on Vancouver Island. The Coast Copper mine was closed in 1969 shortly after the Benson Lake mine came into operation. Production is milled at Benson Lake's 750 ton per day concentrator.

Ore reserves at the Benson Lake mine on December 31, 1971 were 830,000 tons averaging 1.6% copper.

Production and revenue figures from 1969 to 1971 are given in Table 14 together with our projections for 1972. As this mine is currently operating at a loss and the outlook is for progressively lower grades, we assume that it will be shut down at the end of the year.

TABLE 14COAST COPPER PRODUCTION AND REVENUE 1969 - 1972

	----Historical-----			Projected
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>
Ore Milled 000 tons	238	291	296	296
Average Grade %	1.37	2.0	2.0	1.8
Payable Copper in concentrate 000 lb.	8,300	11,500	11,500	9,900
Average LME price \$US	0.67	0.64	0.51	0.48
Gross Sales (E) US \$000's	5,600	7,400	4,600	4,800
Less: Marketing Costs (E)	900	1,300	900	800
Revenue US \$000's	4,700	6,100	4,700	4,000
Cdn. \$000's	4,900	6,300	4,800	3,900

Note: Coast Copper was consolidated with Cominco in mid-1969.

(2) Valley Copper

In 1968 Valley Copper Mines Limited, a company managed and controlled by Cominco (70% interest) discovered an orebody in British Columbia containing more than one billion tons grading approximately 0.48% copper.

This deposit, known as the Valley Copper - Lake Zone orebody, extends into the property where Bethlehem Copper Corporation is already conducting large scale copper mining operations. By an agreement between the two companies 80 % of the Lake Zone ore will be mined and milled by Valley Copper and 20% by Bethlehem.

Valley Copper has for some time been attempting to arrange its share of the financing and sales agreements that would be required for a 55,000 ton per day operation. There is, however, a world surplus of copper metal and concentrates and, as a result, no satisfactory arrangements for the sale of this production have been made.

World copper stocks are not expected to decline appreciably over the next 6 months and it is quite possible that at the end of 1972, a surplus will continue to be anticipated for some time to come. Therefore, although Valley Copper is attempting to conclude sales agreements in 1972, there remains a distinct possibility that a satisfactory arrangement will not be reached this year and that negotiations will continue into 1973.

If, however, sales and financing can be arranged by the end of 1972, the Valley Copper orebody could be in production by mid-1975. Given the assumptions outlined in our report on Bethlehem Copper Corporation Limited* (including the assumption of 50¢ copper) we estimate annual net earnings to Valley Copper of about \$6,700,000. This would be equivalent to \$4,700,000 or \$0.28 per share to Cominco.

(3) Copper Smelter

For some time Cominco has been studying the feasibility of using the larger of the two electrothermic iron furnaces at Kimberley as a copper smelter with an annual capacity of 70,000 tons.

Facilities already exist at Kimberley which, with some modification, could be utilized in a copper smelter complex. Construction at Kimberley would therefore be effected at a much lower initial capital cost than where these facilities do not exist.** Cominco will be provided with an additional incentive to build a smelter by financial assistance from the Federal Government amounting to \$1,500,000.

* Published in February 1972.

** We estimate that about \$15,000,000 will be required.

It is impossible at this stage to estimate with any reasonable degree of accuracy the earnings which a 70,000 ton per year copper smelter would contribute to Cominco's consolidated earnings. In very approximate figures however, we consider it most unlikely that operating profit would exceed 6¢ per pound of copper produced. After allowing for depreciation and taxes, net earnings from this operation would not, on this basis, exceed 20¢ per share.

A copper smelter at Kimberley however, is not significant only from the standpoint of contributing to Cominco's earnings. It is interesting that the 55,000 ton per day operation being considered for the Valley Copper deposit would be equivalent to approximately 70,000 tons of copper metal per year. Should financing be arranged for Valley Copper, it is reasonable to expect the mine's production to be treated at this smelter and sold as metal rather than to be sold in concentrate form to another smelter.

A smelter could therefore favourably affect the possibility of Valley Copper being brought in since forward sales of production could probably be arranged more readily in metal than in concentrate form.

Our 1974 earnings estimates do not include potential earnings from the smelter since production would be unlikely to commence before the last quarter of the year.

Silver

Refined silver is produced at the Trail silver refinery from Sullivan lead concentrate and from a number of purchased lead concentrates. The Bluebell mine was also a silver producer until it was closed at the end of 1971. In addition, smelter drosses containing silver are purchased periodically and the silver is extracted.

Annual production of silver from 1969 to 1971, with the percentage derived from Cominco's own concentrates, is given in Table 15. Projections to 1974 are also given, these being related to our projections of Sullivan lead concentrate production and lead metal production at Trail.

TABLE 15

SILVER PRODUCTION AND ESTIMATED REVENUE 1969 - 1974

	-----Actual-----			----Projected----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Silver Production						
000 oz	5,705	6,045	5,600	5,600	5,300	5,300
from Company mines	54%	60%	60%	55%	53%	53%
Average Price \$US*	1.69	1.67	1.44	1.50	1.70	1.90
Est'd Revenue						
\$000's US	9,600	10,100	8,100	8,400	9,000	10,100
\$000's Cdn	10,400	10,400	8,200	8,300	8,800	9,900

* Adjusted for marketing expenses.

Mercury - Pinchi Lake

Cominco's Pinchi Lake mercury mine was reopened in 1968 after being shut down for over 20 years. The mine operated at close to capacity in 1969 and 1970, but when prices of mercury fell in 1971 production was cut back. In the first half of 1972 production was further reduced.

The price of mercury which, in the United States, averaged \$510 per flask (76 lb. of mercury) in 1969, declined to reach a low of \$160 per flask in May, 1972. By the time of writing prices had recovered to the \$240 level - a result of two mines in the Free World being closed and others being cut back. Continued discipline on the part of producers should result in prices maintaining their upward trend. However, the fundamentally weak position which exists at present is expected to persist for some time due to the current concern over the polluting effects of mercury and recent legislation limiting its use. The price is therefore expected to remain considerably below its 1969 level for some years.

Table 16 gives actual production of mercury, prices and estimated revenue in the 1969 to 1971 period with our projections to 1974.

TABLE 16MERCURY PRODUCTION, PRICES AND REVENUE1969 - 1974

	-----Actual-----			----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Ore milled 000 tons	371	390	250	175	175	225
Est'd flasks produced 000's	19	20	13	9	9	11
Average Price \$/flask	510	418	290	220	260	300
Est'd Revenue \$ US 000's	9,400	8,100	3,600	1,900	2,200	3,100
\$ Cdn 000's	10,100	8,400	3,700	1,900	2,200	3,000

Cadmium

Cadmium is recovered from Sullivan and Pine Point zinc concentrates at Cominco's zinc plant and cadmium refinery. Production is expected to increase from the 1971 level reflecting the progressively larger quantities of zinc concentrates that will be treated at Trail.

The price of cadmium has historically been quite volatile as it is sensitive to a number of factors such as releases from the United States strategic stockpile, Russian and Japanese exports and North American car production. In 1971, cadmium prices were depressed and averaged \$1.90 per pound in the United States. In the first quarter of 1972 the list price in the United States was increased to \$2.60. This is still the official price, but discounting has been considerable.

Our cadmium production, price and revenue estimates for 1969 to 1974 are given in Table 17. It will be noted that our price estimates for 1973 and 1974 are the same as our 1972 estimate. This is because government legislation limiting the use of cadmium might be expected to offset an increase in consumption which normally accompanies an upswing in the world economies.

TABLE 17
CADMIUM PRODUCTION, PRICES AND REVENUE

	<u>1969 - 1974</u>					
	-----Actual-----			-----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Production 000 lb.	1,430	1,260	1,200	1,500	1,600	1,700
Average US price \$ US/lb	3.28	3.57	1.90	2.50	2.50	2.50
Est'd Revenue*						
\$ US 000's	3,100	3,000	1,500	2,500	2,700	2,800
\$Cdn 000's	3,200	3,100	1,600	2,500	2,600	2,700

Gold

The Con mine, which commenced production in 1938, is located near Yellowknife in the Northwest Territories. The mine is 100% owned by Cominco and accounts for most of the company's gold production (the balance being recovered from lead concentrates at Trail).

The Con mill, which has a capacity of 500 tons per day, treats ore from both the Con and from neighbouring mines, including the Rycon mine (76% owned by Cominco but classified as an Unconsolidated Subsidiary).

Cominco's gold production in the 1969 to 1971 period averaged 60,000 ounces annually (Rycon production excluded) but was 77,000 ounces in 1971. We have used 80,000 for 1972 to 1974, and, to derive our revenue projections as given in Table 19, we have assumed a gold price of \$55 per ounce in 1972 and \$60 in 1973 and 1974.

* Adjusted for marketing expenses.

Other By-Product Metals and Electronic Materials

The lead and zinc smelter complexes at Trail are equipped for the recovery of by-product metals of which silver and cadmium are the most important. The other by-products from Trail are bismuth, indium, and antimonial lead. Tin concentrate is recovered as a by-product at Kimberley. These by-products are either sold after highly-specialized further refining, or are used at Cominco American's Spokane, Washington plant for the manufacture of high purity metal preforms for the electronics industry.

We estimate that sales of this group of products have been totalling about \$6 million annually with electronic materials accounting for about \$3 million. Our projections in Table 16 show total sales in this group increasing to about \$8 million in 1974, reflecting the strong growth anticipated in the sales of electronic materials.

Zinc Die Castings

National Hardware Specialties Limited (99% owned) produces zinc die castings for the housing and automotive industries at two plants in Ontario, and also owns and operates a plating plant.

Sales in 1971 were \$3 million and our projections to 1974, as given in Table 19, assume an 8% per year growth rate. Demand for zinc die castings is expected to grow quite rapidly in Canada and the United States in the next few years.

Aberfoyle - Tin and Tungsten, Copper, Gold and Silver

Aberfoyle Limited, 55% owned by Cominco, operates five mines in Australia producing tin, tungsten, copper, gold and silver. Over 80% of gross sales are accounted for by tin and tungsten. In the 12 month period to June 30, 1972 (Aberfoyle's year-end) group production of tin concentrate was 3,400 metric tons, tungsten about 550 metric tons, copper about 970 metric tons and gold and silver 15,000 and 20,000 ounces respectively.

Prices of tin on the London Metal Exchange averaged £1505 per metric ton in 1970 and fell to £1440 in 1971. In the first half of 1972 prices strengthened somewhat. Our revenue projections assume a price for tin of £1500 per metric ton in 1972 and £1600 in 1973 and 1974.

Prices of tungsten are currently the lowest in several years. In 1970 tungsten ore sold at an average of £32.50 per metric ton unit of W03 in the United Kingdom. In 1971 the price averaged £21.80 and in the current year has so far been even weaker. It is unlikely however, that prices will continue at such depressed levels as demand for tungsten is showing signs of strengthening. For the projections given in Table 18, we have assumed prices of £18 in 1972 and £24 in 1973 and 1974.

TABLE 18

ESTIMATED REVENUE FROM ABERFOYLE 1971 - 1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Cdn. \$000,000's				
Estimated Revenue	4.0	14.9	17.0	18.0

Total Revenue from Other Metals and Metallurgical Products

Our estimates of revenue from each of the product groups in this category from 1969 to 1974 are given in Table 19.

TABLE 19

ESTIMATED REVENUE FROM "OTHER METALS AND METALLURGICAL PRODUCTS"1969 - 1974

Cdn. \$000,000's	-----Historical-----			-----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Steel	24.0	25.0	25.0	26.0	27.0	28.0
Copper	2.5	6.3	4.8	3.9	-	-
Silver	10.4	10.4	8.2	8.3	8.8	9.9
Mercury	10.1	8.4	3.7	1.9	2.2	3.0
Cadmium	3.2	3.1	1.6	2.5	2.6	2.7
Gold	1.8	2.0	3.2	4.4	4.8	4.8
By-products, etc.	6.5	6.8	5.7	7.0	7.5	8.0
Die Castings	2.7	2.4	3.0	3.2	3.5	3.8
Sub Total	<u>61.2</u>	<u>64.4</u>	<u>55.2</u>	<u>57.2</u>	<u>56.4</u>	<u>60.2</u>
Aberfoyle	-	-	4.0	14.9	17.0	18.0
Total	<u>61.2</u>	<u>64.4</u>	<u>59.2</u>	<u>72.1</u>	<u>73.4</u>	<u>78.2</u>
Reported Total	73.2	74.1	64.1 E	76.1 E	77.4 E	82.2 E
Balance	12.0	9.7	4.9	4.0	4.0	4.0

- Notes: (1) The figures shown represent revenue after deduction of marketing expenses.
- (2) "By-products etc." includes bismuth, indium, antimonial lead, tin concentrate and electronic materials.
- (3) Aberfoyle was purchased and consolidated with Cominco in September, 1971.
- (4) Total sales for this group of products were reported for 1969 and 1970 in the Prospectus issued in April, 1971.

- (5) "Balance" represents material purchased for resale such as lead and zinc. While our estimate of \$4,000,000 in the 1972 to 1974 period could prove to be substantially under or over-estimated in any or all of these years, net earnings would reflect only the mark-up on the purchased material and therefore would not be seriously affected.

Operating profit from "Other Metals and Metallurgical Products"

Cominco's estimated profits from the sale of products in this group before deducting depreciation, minority interests and taxes in the period 1969 to 1974 are given in Table 20.

TABLE 20

OPERATING PROFITS FROM "OTHER METALS AND METALLURGICAL PRODUCTS" 1969 - 1974

Cdn. \$000,000's	-----Historical-----			-----Projected-----		
	1969	1970	1971	1972	1973	1974
Total Revenue	73.2	74.1	64.1	76.1	77.4	82.2
Less: Operating Costs:						
Iron & Steel	18.0	19.0	20.0	21.0	22.0	23.0
Coast Copper	1.7	3.6	3.9	4.1	-	-
Pinchi Lake	2.7	3.0	2.0	1.5	1.6	2.2
Con Mine	2.2	2.3	2.7	2.8	2.9	3.0
National						
Hardware	2.3	2.4	2.5	2.8	3.1	3.4
By-products	1.0	1.0	1.0	1.0	1.0	1.0
Elect.Mat.	1.0	1.1	1.2	1.4	1.6	1.8
Aberfoyle	-	-	3.1	11.0	11.4	11.5
Total	<u>28.9</u>	<u>32.4</u>	<u>36.4</u>	<u>45.6</u>	<u>43.6</u>	<u>45.9</u>
	44.3	41.7	27.7	30.5	33.8	36.3
Less: Purchased						
Silver	5.2	3.7	3.0	3.4	3.7	4.2
Other Pur-						
chased Mat.	12.6	8.9	4.0	3.4	3.4	3.4
Inventory						
Decrease	<u>- 6.7</u>	<u>+ 7.0</u>	<u>+ 3.0</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total	<u>11.1</u>	<u>19.6</u>	<u>10.0</u>	<u>6.8</u>	<u>7.1</u>	<u>7.6</u>
Operating Profit	33.2	22.1	17.7	23.7	26.7	28.7

Note: All the above figures are estimated except "Total Revenue" in 1969 and 1970.

FERTILIZERS, CHEMICALS AND POTASH

Approximately 25% of Cominco's gross revenue in 1971 was from the sale of fertilizers, chemicals and potash. Operating profits from this group of products accounted for 3% of Cominco's total operating profits in 1971. The latter figure is expected to rise to 9% in 1974.+

Cominco has been producing fertilizers for about 40 years, mainly in conjunction with its production of metals at Trail and Kimberley.

In the 1960's the Company's sale of chemicals became substantial, reflecting the rapid growth in demand for ammonium nitrate for use in explosives.

In 1969 Cominco entered the potash industry with the opening of a mine in Saskatchewan.

Fertilizers

Cominco's first fertilizer plants were built at Trail in 1931. Since then the company's fertilizer operations have been extended to Kimberley, Calgary and into the United States and have been expanded to include production of phosphates, nitrates, sulphates, urea and minor quantities of other fertilizers.

Production of fertilizers at Cominco's Canadian plants has been reduced progressively since 1968, reflecting the drastic decline in prices from the levels of the mid-1960's. Production will be further reduced this year with the result that Cominco's production in Canada will be at about 75% of the 1969 level.*

In the United States however, production has been increasing. By 1971, production at Cominco's ammonium nitrate plant was substantially at capacity and at the ammonia plant of Hill Chemicals, Inc. (94% owned by Cominco American) production was considerably above rated capacity.

The average price per ton of fertilizer sold by Cominco bottomed in 1970. In 1971 there was some recovery due primarily to a firming in the price of ammonium phosphate, which accounts for one half of Cominco's total fertilizer production in Canada. We expect prices to continue to advance steadily, reflecting a gradual improvement in the imbalance between world production capacity and demand.

Our estimates of production, prices and revenue from 1969 to 1974 are given in Table 21.

* About 80% of Cominco's fertilizers produced in Canada are sold in the U.S.

+ After depreciation, however, the increase in profits will not be as great.

TABLE 21
FERTILIZER PRODUCTION, PRICES AND REVENUE 1969 - 1974

	-----Actual-----			-----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Production 000 tons						
Ammonia USA	-	366	399	399	399	399
Ammonium Nitrate USA	<u>154</u>	<u>163</u>	<u>171</u>	<u>171</u>	<u>171</u>	<u>171</u>
Total USA	154	529	570	570	570	570
Total Canada	<u>645</u>	<u>645</u>	<u>519</u>	<u>500</u>	<u>470</u>	<u>470</u>
TOTAL	799	1,074	1,089	1,070	1,040	1,040
Sales	771	1,141	1,119	1,070	1,040	1,040
Average Net Price						
Cdn \$/ton	55.90	41.40	44.40	46.00	48.00	50.00
Revenue Cdn \$000	43,100	47,200	49,700	49,200	49,900	52,000

Cominco is currently implementing a \$5 million programme to reduce costs at its fertilizer operations. In addition, the company's electrolytic hydrogen plant and ammonium nitrate plant at Trail have recently been shut down.

We do not, however, expect that Cominco's overall production costs will decline since labour costs will continue to increase and prices for phosphate rock and natural gas - which as raw materials in fertilizer production cost the company in excess of \$10 million annually - are expected to rise.

Our estimates of operating costs for fertilizer production from 1969 to 1974 are given in Table 22.

Chemicals

A substantial part of Cominco's ammonium nitrate production is sold as a chemical for industrial purposes - primarily to the mining industry for use in explosives. In 1971 sales totalled an estimated \$5 million.

Cominco's chemical sales in 1971 were higher in both volume and price than in 1970. With ammonium nitrate prices trending steadily upward and the mining industry in Western Canada continuing to expand, we anticipate continued growth in dollar value of sales and have applied a growth rate of 10% per year to obtain the revenue projections given in Table 22.

Potash

Cominco's Vade potash mine, which opened in 1969, operated satisfactorily until mid-1970 when a breach occurred in one of the shafts, resulting in a complete production shutdown. Cominco was able, however, to continue its potash sales programme through purchase and resale agreements with other potash producers.

Rehabilitation of the Vade mine has proceeded since the shut-down and it is planned that production will resume in the latter part of 1972.

During the 1960's there was a rapid increase in world potash production which resulted in a large oversupply toward the end of the decade. In consequence, prices dropped to a point where the Canadian industry was operating at a substantial loss. To rectify this situation the Government of Saskatchewan implemented, at the end of 1969, a prorationing scheme whereby production at the mines was limited to an average of 43% of capacity. A floor price of 33.75¢ per unit of potassium oxide equivalent was also set. As a result the world supply demand balance for potash improved and in 1971 the industry was operating at a marginal profit.

World potash production capacity, however, is expected to continue substantially above consumption throughout the 1970's. We therefore assume that prices will remain at current levels to 1974.

Cominco's potash sales volume, however, should be substantially higher in 1972 than in 1971 as, effective July 1, 1972 the Saskatchewan government revamped the prorationing formula to provide for a 49.2% capacity utilization applicable to each producer. As a result, Cominco's production quota in the 1972/1973 year is 391,000 short tons of potassium oxide equivalent, up from 264,000 tons in 1971/1972. For our sales projections, given in Table 22, we assume that total Canadian production, including that of the Vade mine, will increase at 6% annually and thereby maintain its share of world markets which are growing at about this rate.

Operating Profit from Fertilizers, Chemicals and Potash

Cominco's historical and projected earnings from fertilizers, chemicals and potash before depreciation and taxes, for the period 1969 to 1974 are given in Table 22.

TABLE 22

OPERATING PROFITS FROM FERTILIZERS, CHEMICALS AND POTASH 1969 - 1974

Cdn. \$000,000's	----Historical-----			-----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Revenue:						
Fertilizers	43.1 A	47.2 A	49.7	49.2	49.9	52.0
Chemicals	3.5 }A	3.5 }A	4.3	4.7	5.2	5.7
Potash	5.0 }A	6.7 }A	8.7	11.1	13.5	14.2
Total	51.6 A	57.4 A	62.7	65.0	68.6	71.9
Less:						
Operating Costs:						
Fertilizers	38.0	50.0	50.0	49.5	50.0	51.5
Chemicals	2.8	3.0	3.2	3.4	3.6	3.8
Potash	2.0	1.8	-	-	7.7	8.3
Total	42.8	54.8	53.2	52.9	61.3	63.6
	8.8	2.6	9.5	12.1	7.3	8.3
Less:						
Purchased Material	10.0	2.9	7.9	10.1	-	-
Operating Profit	(1.2)	(0.3)	1.6	2.0	7.3	8.3

Note: All figures are estimated except those marked "A".

COAL

Fording Coal Ltd., managed and 40% owned by Cominco and 60% owned by Canadian Pacific Investments, commenced production in March, 1972 at its coal deposits situated at Fording River in the Crowsnest area of British Columbia. Production is committed to Japan for fifteen years at the rate of 3 million long tons per year after the first year when Fording elected to ship 2½ million tons.+

In May, 1972 Fording Coal advised its Japanese clients that production in 1972* would total about 1.83 million tons, thus falling short of the contracted tonnage. The shortfall was said to be a result of (1) the change in mining method at one of the pits from dragline to truck and shovel and (2) delay in the operation of the pits and the coal washing equipment at the intended capacity.

Since May, however, a number of difficulties affecting production have been encountered, and it is most unlikely that production will reach the figure indicated at that time.

* i.e. Japan's fiscal year: April 1, 1972 to March 31, 1973

+ Financing of the project has been: \$70 million from bank loans and \$16 million from equity. Cominco has guaranteed 40% of the loans.

The base price of the Fording Coal contract is \$14.89 U.S. per long ton with an escalator of \$0.30 every two years for increases in operating costs and an escalator reflecting rail freight increases. At this price Fording would realize in 1972 a substantial loss on its operation even if the 1.83 million tons were shipped.

It is clear that the Fording Coal operation will resemble in some respects those of other coal producers in Western Canada, in particular Kaiser Resources and McIntyre Porcupine. Shipments to Japan from these producers fell far short of the contractual tonnages in the initial years of operation and while production has now improved, both operations continue to run at a loss in spite of substantial increases in the contract prices.

It is not unreasonable to assume that Fording Coal will gradually overcome the difficulties which are currently restricting output and that eventually the Japanese will agree to a price increase. It should be remembered, however, that coal supplies in the Free World are increasing, and that competition to supply the Japanese steel mills might well constitute a restraint on the size of the price increase that the Japanese would concede.

It is therefore our opinion that Fording Coal will not operate profitably in the foreseeable future and that, over the period of our projections, the company will be a liability to Cominco rather than an asset. However, because of the large number of unknown factors affecting the Fording operation, we have not attempted to put a figure on the annual losses anticipated. Our estimate of consolidated earnings for Cominco has therefore not taken Fording Coal into account.

In 1972, the Fording operation is being capitalized so that the loss anticipated will not be reflected in Cominco's reported earnings. In 1973 and future years Cominco will account for Fording Coal on an equity basis, assuming production is at least 60% of the planned production rate.

OIL AND GAS

Cominco has a 9% interest in Panarctic Oils Limited which by the end of 1971 had spent \$70 million in exploring for oil and gas in the Arctic. A further \$26 million has been budgeted for 1972.

Panarctic has so far made three significant gas discoveries. At the present time, however, these discoveries have limited value as it is some years before production can commence.

Panarctic's oil discovery potential is no doubt reflected to some extent in the price of Cominco's shares. The following exercise computes the value per Cominco share of a discovery of 5 billion barrels of oil or gas equivalent using a present value of \$0.10 per barrel. It is our judgement that this size of discovery is the most that the market is going to discount.

Present Value to Panarctic of 5 billion barrels @ \$0.10	= \$500,000,000
Cominco's Interest (9%)	= \$ 45,000,000
Present Value per Cominco Share	= \$ 45,000,000 ÷ 16,970,000
	= \$ 2.65

ESTIMATE OF CONSOLIDATED EARNINGS

Other Revenue

Cominco derives revenue, other than that from the sale of its products, from rents and royalties and also from the sale of electric power.

The company owns five hydroelectric plants in southeastern British Columbia, the total output of which has been about 4 billion kilowatt hours annually in recent years. Most of the energy generated is consumed by Cominco's operations at Trail and Kimberley. The balance is sold when markets are available. In August, 1972 the electrolytic hydrogen plant at Trail was closed, freeing up energy worth between \$500,000 and \$1 million.

Table 23 gives the reported figures for revenue in this category from 1969 to 1971 with our projections to 1974.

TABLE 23

OTHER REVENUE 1969 - 1974

Cdn. \$000,000's	-----Actual-----			-----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Other Revenue	5.7	5.4	6.5	6.8	7.3	7.5

Interest Expense

Table 24 gives Cominco's interest on long-term debt from 1969 to 1971 with our estimates to 1974.

At the end of 1971 the company's long-term debt stood at \$96.4 million. Of this, \$65 million was in the form of 8½% sinking fund debentures issued in April, 1971. Details of the other debt vehicles are given in Cominco's 1971 Annual Report.

Our 1972 to 1974 estimates of interest expense take into account the U.S. \$41,000,000 (8%)*loan which was recently arranged for Greenex A/S's Black Angel mine. Interest on this debt will become payable when the mine is in production, i.e. in 1974.

TABLE 24

INTEREST EXPENSE 1969 - 1974

Interest Expense	-----Projected-----					
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
\$000,000's	3.7	4.9	6.6	7.3	7.1	10.1

Income from Investments

Dividends from Rycon Mines Limited, West Kootenay Power and Light Company, Limited and The Canada Metal Company Limited (all of which are subsidiary or affiliated companies of Cominco) accounted for one third of Cominco's income from investments in 1971. The remaining two thirds came from sundry unspecified investments.

Table 25 gives actual income from investments from 1969 to 1971, and for 1972 to 1974 the figures which we have used in estimating consolidated earnings for those years.

TABLE 25

INCOME FROM INVESTMENTS 1969 - 1974

\$000,000's	-----Actual-----			-----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Income from Investments	4.8	4.3	3.2	4.0	4.5	4.5

* Our estimate; no rate has yet been announced.

Depreciation, Depletion and Amortization

Cominco and its consolidated Canadian subsidiaries depreciate net plant expenditures (including land) evenly over thirteen years, with the exception of the Vade potash mine which is depreciated over twenty years. The consolidated subsidiaries in the United States compute depreciation over the originally estimated lives of the individual facilities.

Depletion is provided to absorb the cost of mining properties and investments systematically over the estimated economic lives of these properties and investments.

Mine preproduction expenses are amortized for a given mine and in a given year to reflect tonnage produced in that year.

The actual depreciation, depletion and amortization figures for the years 1969 to 1971 are given in Table 26 together with our estimates to 1974. Our depreciation estimates take into account (i) the purchase of Aberfoyle in September, 1971, (ii) the fact that when the Vade potash mine reopens depreciation on the \$75 million expended will be resumed (iii) the fact that depreciation on the Black Angel mine will commence in 1974 when that mine is in production. Our estimates of depletion and amortization in 1972 and 1973 are the same as the figures reported for 1971. In 1974 we assume that both will increase with the opening of the Black Angel mine.

TABLE 26

DEPRECIATION, DEPLETION, AND AMORTIZATION

1969 - 1974

\$000,000's	-----Actual-----			-----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Depreciation	20.7	22.6	22.0	23.8	28.3	30.7
Depletion	4.9	5.7	7.2	7.2	7.2	8.0
Amortization	<u>1.3</u>	<u>1.6</u>	<u>1.7</u>	<u>1.7</u>	<u>1.7</u>	<u>2.4</u>
Total	26.9	29.9	30.9	32.7	37.2	41.1

Provision for Income Taxes (See also Appendix IV)

Cominco's indicated tax rate, which was 26% in 1971, will increase to an estimated 35% in 1972 and 1973 as a result of Pine Point becoming fully taxable for the first time in 1972.

Pine Point's income taxes and royalties, taxes on Cominco's other operations and deferred taxes from 1969 to 1971 are given in Table 27 together with our estimates to 1974. Also shown in the table are actual and estimated profits before taxes and the corresponding tax rates.

TABLE 27
PROVISION FOR INCOME TAXES 1969 - 1974

	-----Actual-----			---Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Pine Point	4.6	4.1	2.2	7.2	7.9	8.9
Other	3.4	6.0	5.4	11.6	12.6	11.5
Deferred	<u>4.3</u>	<u>(0.2)</u>	<u>(2.0)</u>	<u>(5.0)</u>	<u>(5.0)</u>	<u>(2.5)</u>
Total	12.3	9.9	5.6	13.8	15.5	17.9
Profits before taxes	45.6	40.6	21.9	39.4	44.2	47.2
Tax Rate	27%	24%	26%	35%	35%	38%

Minority Interests

The figures representing minority interests in net earnings of consolidated subsidiaries from 1969 to 1971 and our estimates to 1974 are as shown in Table 28.

TABLE 28
MINORITY INTERESTS 1969 - 1974

				-----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Pine Point	5.5	6.5	3.9	4.7	5.4	5.4
Aberfoyle	-	-	0.2	1.1	1.3	1.2
Black Angel	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1.8</u>
Total	5.5	6.5	4.1	5.8	6.7	8.4

Extraordinary Items

Cominco's income in 1969, 1970 and 1971 was augmented by revenue from extraordinary items, as follows:

- 1969: \$3.1 million representing a gain in the sale of property and investments and \$1.4 million from a reduction in the income taxes of consolidated subsidiaries.
- 1970: \$0.1 million from a reduction in the income taxes of consolidated subsidiaries.
- 1971: \$2.7 million arising from the granting to British Columbia Hydro and Power Authority of certain river improvement and water storage rights; \$0.2 million representing a gain in the sale of an investment; \$0.4 million from a reduction in income taxes.

1972: first half - Net loss of \$900,000 from gain of \$100,000 from reduction in income taxes and loss of \$1,000,000 on disposal of assets.

Estimate of Consolidated Earnings

Table 29 outlines Cominco's actual earnings for the years 1969 to 1971 with our estimates to 1974. It will be observed that in 1973 and 1974 we have used an exchange rate (\$Cdn/U.S.) of 102%, and it should be noted that a change of one percentage point in the rate affects Cominco's earnings per share by \$0.08.

Dividends

In 1971 an annual dividend rate of \$0.70 per share was established. Prior to that the rates were as given in Appendix II. Dividend payments are made semi-annually, in June and December.

We do not expect an increase from Cominco's current dividend rate in the foreseeable future because of the company's anticipated need for capital to finance new projects.

FINANCIAL POSITION

Cominco's long-term debt at the end of the years 1969 to 1971 was as shown in Table 30. Also shown are our estimates for 1972 to 1974.

TABLE 30

LONG-TERM DEBT 1969 - 1974

	-----Actual-----			-----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1973</u>
Year-end Debt Position \$000,000's	56,800	73,800	96,400	84,200	121,400	118,600

Our 1973 and 1974 estimates are based on the calculations in Appendix II. This appendix also shows Cominco's historical and projected working capital position.

TABLE 29

ESTIMATE OF CONSOLIDATED EARNINGS 1969 - 1974

Cdn. \$000,000's	-----Actual-----			-----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Operating Profits:						
Lead and Zinc	33.6	43.8	30.4	42.9	42.7	49.4
Other Metals, etc.	33.2	22.1	17.7	23.7	26.7	28.7
Fertilizers, etc.	(1.2)	(0.3)	1.6	2.0	7.3	8.3
Other Revenue	<u>5.7</u>	<u>5.4</u>	<u>6.5</u>	<u>6.8</u>	<u>7.3</u>	<u>7.5</u>
Total	71.3	71.0	56.2	75.4	84.0	93.9
Less Interest Expense	<u>3.7</u>	<u>4.9</u>	<u>6.6</u>	<u>7.3</u>	<u>7.1</u>	<u>10.1</u>
	67.6	66.1	49.6	68.1	76.9	83.8
Income from Investments	<u>4.8</u>	<u>4.3</u>	<u>3.2</u>	<u>4.0</u>	<u>4.5</u>	<u>4.5</u>
	72.4	70.4	52.8	72.1	81.4	88.3
Less: Depreciation Depletion, Amort.	<u>26.8</u>	<u>29.8</u>	<u>30.9</u>	<u>32.7</u>	<u>37.2</u>	<u>41.1</u>
	45.6	40.6	21.9	39.4	44.2	47.2
Less: Provision for Income Taxes	<u>12.3</u>	<u>9.9</u>	<u>5.6</u>	<u>13.8</u>	<u>15.5</u>	<u>17.9</u>
	33.3	30.7	16.3	25.6	28.7	29.3
Less: Minority Interest	<u>5.5</u>	<u>6.5</u>	<u>4.0</u>	<u>5.8</u>	<u>6.7</u>	<u>8.4</u>
	27.8	24.2	12.3	19.8	22.0	20.9
Less: Equity in loss of Hill Chemicals	<u>2.0</u>	-	-	-	-	-
Earnings before Extraordinary items	25.8	24.2	12.3	19.8	22.0	20.9
per share	\$ 1.54	1.45	0.74	1.16	1.29	1.23
Add Extraordinary items	4.5	0.1	3.4	(0.9)	-	-
Net Earnings	30.3	24.3	15.7	18.9	22.0	20.9
Net Earnings per share	\$ 1.81	1.45	0.94	1.11	1.29	1.23
Cash Flow	58.8	53.8	41.2	46.6	54.2	59.5
Cash Flow per share	\$ 3.52	3.22	2.47	2.74	3.19	3.50
Cash Flow before extraordinary items (per share)	\$ 3.25	3.22	2.26	2.79	3.19	3.50
Effect on Earnings/Cash Flow of: 1¢/lb. change in price of:						
-Lead				14¢	14¢	17¢
-Zinc				17¢	17¢	20¢

COMINCO LTD.

APPENDIX I

ANNUAL LEAD AND ZINC PRICES 1969 - 1974

	-----Actual-----			-----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
<u>LEAD</u>						
London Metal Exchange £/MT	121	126	104	113	117	126
U.S. ¢/lb	13.1	13.8	11.4	13.6	13.5	14.0
U.S. Producer Price U.S. ¢/lb	14.9	15.6	13.8	15.3	15.3	16.0
Canadian Producer Price U.S. ¢/lb	14.1	15.3	13.3	15.5	15.5	16.3
Estimated Cominco Realized* Price U.S. ¢/lb	13.9	14.7	12.6	14.5	14.5	15.1
<u>ZINC</u>						
European Producer Price £/MT	120	128	140	155	180	180
U.S. ¢/lb	13.0	13.9	15.5	18.1	20.0	20.0
U.S. Producer Price U.S. ¢/lb+	14.6	15.3	16.1			
Canadian Producer Price U.S. ¢/lb	13.6	14.8	15.9	19.0	20.4	20.4
Estimated Cominco Realized* Price before premiums U.S. ¢/lb	13.7	14.7	15.8	18.8	20.3	20.3
Estimated Cominco Realized Price* including premiums U.S. ¢/lb	14.5	15.5	16.6	19.6	21.1	21.1

* On sales from Trail production.

+ Until 1972, Cominco's zinc sales in the United States were at the U.S. Producer Price. Commencing this year Canadian zinc producers have sold in the U.S. at the Canadian Producer Price level.

COMINCO LTD.

APPENDIX II

SOURCE AND APPLICATION OF FUNDS

WORKING CAPITAL 1969 - 1974

\$000's <u>SOURCE</u>	-----Actual-----			----Projected-----		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Funds from Operations	58,800	53,800	41,200	46,600	54,200	59,300
Net Increase (Decrease) in long-term debt	(1,600)	(3,100)	21,700	(12,200)	37,200	(2,800)
Other	5,400	100	9,100	1,000	-	-
	<u>62,600</u>	<u>50,800</u>	<u>72,000</u>	<u>35,400</u>	<u>91,400</u>	<u>56,500</u>
<u>APPLICATION</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Dividends	23,400	23,400	11,700	11,900	11,900	11,900
Capital Expenditures						
Investments	7,000	15,300	9,000	-	-	-
Land Buildings & Equipment	16,200	18,800	18,000	11,000	21,000	16,000
Mining Properties	3,600	3,500	4,400	14,000	44,000	4,000
Potash Rehabilitation	-	2,000	3,900	4,000	-	-
Aberfoyle Purchase	-	-	11,100	-	-	-
Other	4,000	8,100	2,700	-	-	-
	<u>54,200</u>	<u>71,100</u>	<u>60,800</u>	<u>40,900</u>	<u>76,900</u>	<u>31,900</u>
Increase (Decrease) in working Capital	8,400	(20,300)	11,200	(5,500)	14,500	24,600
<u>WORKING CAPITAL</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Year end	105,900	85,600	96,800	91,300	105,800	130,400

Note: Under "Land, Buildings and Equipment" we have assumed copper smelter expenditures of \$10,000,000 in 1973 and \$5,000,000 in 1974.

Under "Mining Properties" we have assumed Black Angel expenditures of \$10,000,000 in 1972 and \$40,000,000 in 1973.

COMINCO LTD.

APPENDIX III

ESTIMATE OF EARNINGS FROM BLACK

ANGEL MINE 1974

REVENUE FROM LEAD CONCENTRATE

Recoverable Lead	=	37,500 S.T.
Price (L.M.E.)	=	14¢/1b
Gross Revenue	=	\$10,500,000
Less: Treatment Charge of 3¢/1b.	=	<u>\$ 2,300,000</u>
Net Revenue		\$ 8,200,000

REVENUE FROM ZINC CONCENTRATE

Recoverable Zinc	=	76,200 S.T.
Price (E.P.P.)	=	20¢/1b
Gross Revenue	=	\$30,500,000
Less: Treatment Charge of 6 1/2¢/1b.	=	<u>\$ 9,900,000</u>
		\$20,600,000
Total Lead and Zinc U.S.		\$28,800,000
Cdn.		\$28,200,000

EARNINGS

		<u>Cdn. \$000's</u>
Revenue	=	28,200
Less: Operating Costs (\$20 per ton)	=	<u>13,300</u>
		14,900
Transportation Costs	=	<u>3,000</u>
		11,900
Debt Interest	=	<u>3,200</u>
		8,700
Depreciation	=	<u>3,900</u>
Earnings before Taxes	=	4,800
Minority Interest (38.5%)	=	1,800
Cominco's Interest (61.5%) -per share	=	3,000 18¢

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APPENDIX IV

IMPLICATIONS OF THE B.C. GOVERNMENT'S INTENT TO AMEND THE
MINING TAX ACT

The recently elected government of British Columbia announced in early October that an amendment to the Mining Tax Act would be introduced in the provincial legislature in the Spring of 1973. The government intends to tax mining companies at three levels, as follows:

- the first level, representing the heaviest taxation, will be on the profits of companies producing concentrate that is shipped out of the province for treatment and refining.
- the second level will be on producers which refine their mine production to the metal stage in the province.
- the third level, representing the lightest taxation, will be on companies which mine, refine and fabricate in British Columbia.

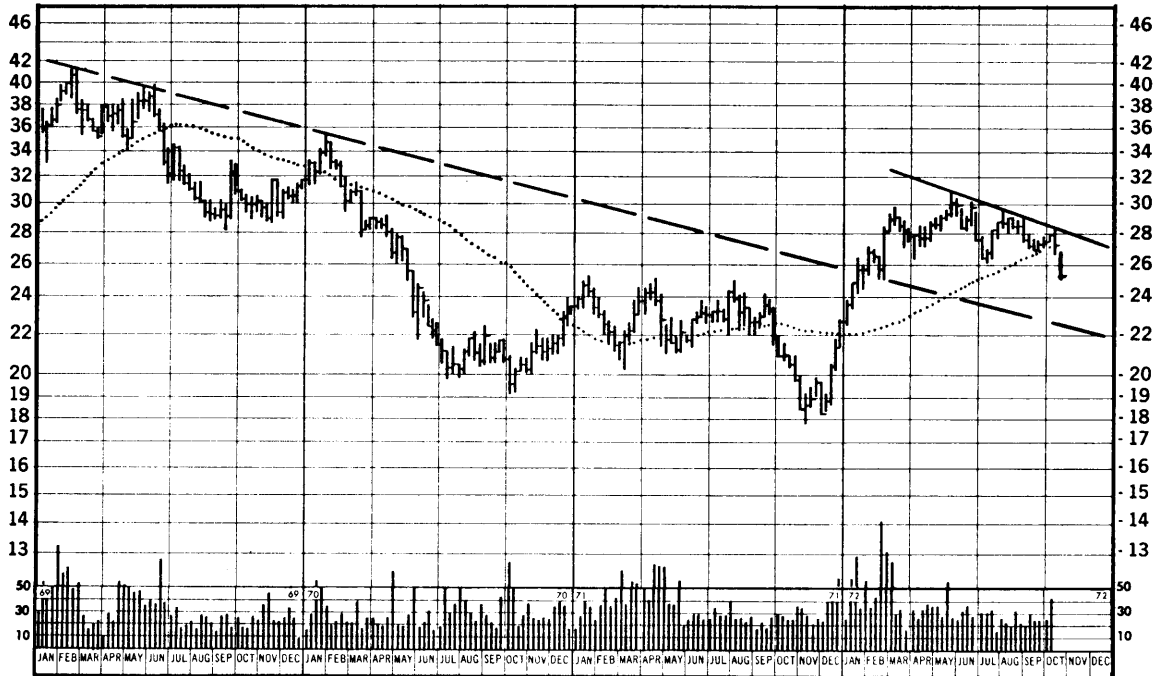
For the following two reasons we do not expect that the proposed changes will seriously affect Cominco's tax rate- (1) royalties on the company's mining operations in British Columbia will be levied at the second level of taxation and will therefore be lighter than the royalties on all other mining companies in the province (Cominco is the only mining company in British Columbia which treats and refines its mine production) - (2) operating profits from the company's B.C. mines in 1973 are estimated at only 20% of the company's total operating profits.

Should the mining tax rate be increased from the present 15% for all mining companies to 25% for companies qualifying for second level taxation, (and it is most unlikely that this figure would be exceeded), the effect would be to increase Cominco's corporate tax rate by only 2 percentage points, reducing the company's earnings and cash flow by only \$0.05 in 1973.

COMINCO LTD. (\$25½)

APPENDIX V

TECHNICAL OPINION



In very general terms, Cominco has established two broad ranges of support on the downside, and two ranges of resistance on the upside over the past five years.

The outer limits for the stock would appear to be 35/40 for substantial upside resistance; and 25/20 for substantial downside support. Within these rather broad parameters, narrower bands have been created; viz. 28/30 for resistance and 22/24 for support. These latter levels appear the more meaningful for other than the long term picture.

Price movements over the past five months have been downward, and a test of the support levels appears in progress. Support in the 24/22 range should be quite significant.

The 1969 - 1971 Downtrend was broken at the beginning of 1972, which prompts the judgement that the entire trading period between July 1970 and December 1971 may be viewed as a huge cyclical base formation. In this vein, the action of the past five months can then be interpreted as a pullback to the downtrend line in the wake of the breakout. This implies that the 24/22 range could become an important base area for this downswing. While the current momentum is downward, the risk/reward ratio implied by the major support and resistance levels detailed above prompts a more favourable attitude for the longer term investor.

COMINCO LTD.

APPENDIX VI

SHARE PRICES AND OTHER STATISTICS

Current Price: \$25½ Dividend: \$0.70 Yield: 2.7%

Price Range 1970: \$19 1/8 - \$35 ½
 1971: \$17 7/8 - \$25 3/8
 1972 to date: \$22 5/8 - \$30 3/4

	<u>1972</u>	<u>1973</u>	<u>1974</u>
Estimate of Earnings per share	\$ 1.16	1.29	1.23
P/E ratio on estimated EPS	22.0	19.8	20.7
Estimate of Cash Flow per share	\$ 2.79	3.19	3.50
P/CF ratio on estimated CFPS	9.1	8.0	7.3

Capital Structure (Dec.31, 1971)

Marketability

	<u>\$000's</u>		<u>000's</u>
Long-term debt	96,413	Shares Outstanding	16,970
Deferred Taxes	28,668	Less: Canadian Pacific	<u>9,151</u>
Common Equity	<u>306,588</u>	Investment (53.9%)	
	431,669	Floating Supply	7,819
		Trading Volume (1971)	1,286

FIVE YEAR SUMMARY

<u>YEAR</u>	<u>PRICE RANGE</u>		<u>EARNINGS* PER SHARE</u>	<u>PRICE/EARNINGS RATIO</u>		<u>CF PER SHARE*</u>	<u>PRICE/CFPS RATIO</u>		<u>DIVID- ENDS PAID</u>	<u>YIELD</u>	
	<u>HIGH</u>	<u>LOW</u>		<u>HIGH</u>	<u>LOW</u>		<u>HIGH</u>	<u>LOW</u>		<u>HIGH</u>	<u>LOW</u>
1971	25 3/8	17 7/8	0.74	34.3	24.2	2.26	11.2	7.9	0.70	2.8	3.9
1970	35 5/8	19 1/8	1.45	24.6	13.2	3.22	11.1	5.9	1.40	3.9	7.3
1969	41 ¼	28 1/8	1.54	26.8	18.3	3.25	12.7	8.7	1.40	3.4	5.0
1968	39 7/8	22	1.90	21.0	10.5	3.50	11.4	6.3	1.40	3.5	6.4
1967	35 ½	25 1/8	2.32	<u>15.3</u>	<u>10.8</u>	3.70	<u>9.6</u>	<u>6.8</u>	1.50	4.2	6.0
				24.4	15.4		11.2	7.1			

* Before extraordinary items