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# The Canadian Mineral Industry Monthly Report

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Resources Canada

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Minerals

Minéraux

## PREFACE

This report is prepared in the Mineral Policy Sector of the Department of Energy, Mines and Resources. It is prepared from the best information available to us from many sources, but it is only intended to be a general review of the more important current developments in the Canadian mineral industry and of developments elsewhere that affect, or may affect, the Canadian industry. It should not be considered an authority for exact quotation or an expression of official Government of Canada views.

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## PRÉFACE

Ce rapport a été rédigé par le Secteur de la Politique Minérale du Ministère de l'Énergie, des Mines et des Ressources. Bien que nous ayons eu recours à de nombreuses sources pour vous fournir les meilleurs renseignements possibles, cet exposé n'a pour objet que de passer en revue les développements actuels les plus importants de l'industrie minière canadienne, de même que les progrès accomplis ailleurs qui peuvent intéresser l'industrie canadienne. On ne doit pas considérer cet exposé comme une source de renseignements précis ou comme l'expression des vues du Gouvernement canadien.

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## THE CANADIAN MINERAL INDUSTRY FOR DECEMBER

### L'INDUSTRIE MINÉRALE DU CANADA - DÉCEMBRE

The following constitutes a brief summary of the Canadian mineral industry based upon information that became available in December.

Ceci constitue un résumé des événements survenus dans l'industrie minérale du Canada, selon les renseignements disponibles en décembre.

#### HIGHLIGHTS

1. The overall index of Real Domestic Product was 140.8 in October, down significantly from 161.7 the previous month.
2. The index for Mines, Quarries and Oil Wells increased slightly from 116.5 in September to 116.6 in October.
3. Pechiney Ugine Kuhlmann Corporation, the French aluminum and chemical group is looking into the possibility of building an aluminum smelter in Bécancour, Québec.
4. The average gold price for 1980 of the afternoon fixings on the London Gold Market was \$U.S. 612.60 per ounce (\$715.91 Cdn.).
5. Société Métallurgique Le Nickel announced in early December that production at one of its three 33 000 kilowatt smelting units in New Caledonia would be stopped.

#### FAITS SAILLANTS

1. L'indice général du produit intérieur réel était de 140,8 en octobre, soit une baisse importante par rapport au mois précédent, où il s'élevait à 161,7.
2. En octobre, l'indice des mines, carrières et puits de pétrole était de 116,6, soit une légère augmentation par rapport au niveau de 116,5, en septembre.
3. La société Pechiney Ugine Kuhlmann, groupe français d'alumineries et de produits chimiques, étudie la possibilité de construire une usine d'aluminium à Bécancour au Québec.
4. En 1980, le prix moyen de l'or calculé d'après les fixings de l'après-midi sur le marché de l'or à Londres était de \$É.-U. 612,60 l'once, soit \$Can. 715,91.
5. La Société Métallurgique Le Nickel a annoncé au début de décembre qu'elle avait l'intention de cesser la production à l'une de ses trois fonderies de Nouvelle-Calédonie, d'une puissance de 33 000 kilowatts.

6. The price of platinum on the London Metal Market was fixed below the price of gold in December, for the first time since early 1978.
7. Over 8 000 law suits are pending against the asbestos industry in the United States, 25 per cent of which are in California.
6. Le prix du platine à la Bourse des métaux de Londres a été inférieur au prix de l'or en décembre; cela ne s'était pas produit depuis le début de 1978.
7. Aux États-Unis, plus de 8 000 poursuites ont été intentées contre l'industrie de l'amiante, dont 25 % ont été enregistrées en Californie.

## ECONOMIC TRENDS

### Review of the Mineral Industry in 1980

In an environment of economic uncertainty, the mineral industry showed another year of strong performance. Demand was sluggish throughout most of 1980 and the effects of a recession, predicted to hit the United States by mid-year, filtered into Canada by early fall. Some sectors of the economy were hit harder than others. Manufacturing showed a negative growth rate of about 2.5 per cent and forestry showed little or no growth during the year. Agricultural production declined approximately 5 per cent, causing farm net incomes to drop considerably. However, mining entered the recession on a high note. Strong consumer demand in 1979 and record high prices in most base metals provided a strong financial base. Throughout 1980 high precious metal prices and the lower Canadian dollar managed to cushion the effects on profits and the industry enjoyed modest growth.

Canadian mineral industry, production 1979 and 1980P

	1979 (millions of current dollars)	1980P	Change (%)
Metals	7 951	9 686	21.8
Nonmetals (ex. coal)	1 868	2 480	32.8
Structural materials	1 646	1 725	4.8
<b>Total</b>	<b>11 465</b>	<b>13 891</b>	<b>26.2</b>
Fuels	14 617	18 478	26.4
<b>Total</b>	<b>26 082</b>	<b>32 369</b>	<b>24.1</b>

P Preliminary.

In 1980, total value of mineral production reached \$32 billion, 11.4 per cent of GNP; up from 10.0 per cent in 1979. The value of the nonfuel mineral industry increased 21.2 per cent over the previous year with the nonmetallic sector showing the greatest change. Value of fuel production including coal, natural gas and



petroleum increased 26.4 per cent from \$14.6 billion in 1979 to \$18.5 billion in 1980. On a commodity basis, gold and silver changed most significantly. For both precious metals, volume of output declined but value of output showed increases of 72.7 per cent and 71.0 per cent respectively. Nickel showed a 54.1 per cent increase in volume and a 102.6 per cent increase in value. Of the major non-metals and structural materials, only clay products showed a decline in value (5.9 per cent). Generally, changes in value were not as significant as in the previous year, as reflected in the industry selling price indexes. The indexes (based on 1971=100), particularly in the ferrous and nonferrous metals sectors, were up in 1980 over 1979, but by a much lower rate than that experienced in the previous year. The index for metal rolling, casting and extruding increased 29.4 per cent in 1979 over that of 1978, but only 5.6 per cent in 1980, revealing an overall downward trend in prices by the end of the year.

Copper, a key industrial metal and considered a benchmark for prices in nonferrous metal markets, did not show wide fluctuations and record highs experienced in 1979 and early 1980. Labour disputes in the US copper industry caused extended shutdowns of much of that country's production facilities, but even still, inventories were increasing. Demand for copper products including wire, cable and brass mill products was strongly affected by the severe slowdowns in the housing and automotive industries.

Similar conditions existed in molybdenum markets. Produced mainly as a byproduct of copper mining, it is used primarily as an additive in special steels such as stainless steel and machine tool steel. Soft markets and declining prices caused by recession in the US and Canada were further aggravated by increases in the supply of the metal from new sources. The reverse was true in earlier years, when, if supplies were tight and prices strong, these factors led to exploration and a surge in new developments. New developments to come on stream in the next year will cause a position of world oversupply and keep prices depressed, at least until the economic picture starts to improve.

Markets for precious metals cooled off considerably during 1980. Price strength in gold, though still apparent, was not as dramatic as in the previous year. In reaction to record-high interest rates prices nosedived in the latter part of the year, hitting \$US 558 an ounce on December 11 on the London market. Some concern was expressed when the Soviet Union began to sell on the open market, reportedly to purchase grain after a devastating harvest. However, the volume of sales was conservative and did not cause any real downward pressure on price. To help spur demand the South African government

introduced smaller coins than the one ounce Krugerrand, thereby making gold more obtainable to the general public. However, sales of the larger coins peaked near the year-end while sales of the mini-coins were disappointing, perhaps due to higher premiums on the latter.

Silver, after following the price lead of gold and reaching heights of \$US 40-50 an ounce in the first quarter of 1980, plunged deeply in April. By year-end, it was trading at a level of \$US 15-18 an ounce. Other precious metals including platinum, palladium and rhodium all experienced falling prices as the year drew to a close.

Output of nickel reached 194 900 tonnes in 1980, up from 126 500 in 1979. The 54 per cent increase was an encouraging recovery from the cutbacks experienced in 1978 and 1979 but was still far below levels achieved in 1976 and 1977. Production at that time was 240 825 t and 232 512 t respectively. Producers, perhaps to avoid a recurring situation of over-supply and high inventories, were cutting back production by the end of the year.

The lead market faced a year of weak demand although there was some improvement in the fall as battery sales rose. Despite a cutback in production of almost 12 per cent, inventories had started to build. A similar situation existed with zinc. A strike at Brunswick Mining and Smelting Corporation Limited that began in late May and was not settled until the end of September kept production down but demand fell about 8 per cent at the same time, forcing prices to remain low.

Conversely, aluminum producers operated at over 90 per cent of capacity as the price of primary ingot reached a record high of US 76 cents versus US 66 cents a pound at the beginning of the year.

World markets for potash were also buoyant and the Potash Corporation of Saskatchewan (PCS) experienced a year of high sales and profits as weaker North American markets were compensated by high offshore exports. In November, PCS announced a major expansion program, substantially increasing capacity levels to ensure its future market share.

The outlook for asbestos was not quite as bright as the industry continued to face pressures from safety and environmental groups. Declining sales and production cutbacks plagued asbestos producers in an already soft market. Reduced demand from a depressed construction industry in both North America and Europe contributed to an almost 11 per cent drop in output.

Canadian iron ore producers did not enjoy a boom year either. Dependent on export markets, the producers faced fierce competition as the economic slowdown reduced consumption to record-low levels. The US steel industry, depressed due to sluggish automobile and construction markets, did not foresee any significant improvement in the short term. As a result, little exploration activity or new mine developments took place during the year. This is reflected in the trade figures for the first nine months of 1980. Crude ferrous exports declined 7.6 per cent in 1980 compared with the first nine months of 1979.

At the same time crude nonferrous and nonmetallic minerals and fuels exports increased substantially. Total crude mineral exports reached \$10.8 billion for the first nine months of 1980, a 31.3 per cent increase over the same period the previous year. Total fabricated mineral exports showed a 41.4 per cent increase, with fuels reaching \$1.7 billion. Total crude and fabricated minerals in 1980 represented over 35 per cent of total domestic exports, up from 30.2 per cent the previous year. On a commodity basis, some minerals fared better than others. In terms of both volume and value, primary aluminum, refined copper, silver bullion and nickel oxide all showed substantial increases causing fabricated minerals to increase their share of total exports. Crude minerals represented 58.7 per cent of total mineral exports for the first nine months of 1979, and dropped to 56.9 per cent in 1980 perhaps indicating a growing pressure to process Canadian ores within the country. Final 1980 figures might not confirm such a premise but studies have shown that significant economic benefits are lost to Canadians through excessive shipments of unprocessed minerals. Increased research and development expenditures to develop new and more efficient processing techniques would make Canadian fabricated minerals more attractive in a very competitive world market.

An encouraging sign was the increase in overall capital spending by the mining industry in 1980 despite recession in most of the world. New government programs were also announced during the year to spur mine developments. The Ontario government introduced the Ontario Mineral Exploration Program in September offering a 25 per cent refundable tax credit to eligible junior exploration companies and an income tax credit equal to 25 per cent of exploration expenditures for non-mining companies.

Overall, the mining industry though cyclical in nature did enjoy another healthy year. How long this upward cycle will last cannot be determined but if today's profits continue to be reinvested in new developments and projects the future could be promising.

### Indexes of Industrial Production

Table 1 shows Canada's unadjusted indexes of Real Domestic Product (RDP). The overall index in October was 140.8, down 12.9 per cent from the previous month.

The index for Mines, Quarries and Oil Wells showed a modest increase over the month of 0.1 per cent. Placer and gold quartz mines increased 10.5 per cent from 53.1 in September to 58.7 in October. On the manufacturing side, primary metal industries increased 5.1 per cent during the month and steel pipe and tube mills showed a strong increase of 17.8 per cent.

Table 2 compares volume of production in leading Canadian minerals. Significant increases in output were recorded from September to October in iron ore (17.2 per cent), lead (115.6 per cent), zinc (102.8 per cent), and gypsum (27.4 per cent).

TABLE A

## Canada, Production of Leading Minerals, 1979-80

		1979	1980P	% Change 1980/1979	1979	1980P	% Change 1980/1979
		(000 tonnes except where noted)			(\$ million)		
<b>Metals</b>							
Copper		636.4	708.4	+11.3	1 511.2	1 856.0	+22.8
Gold	kg	51 142.4	48 284.0	-5.6	590.8	1 020.2	+72.7
Iron ore		59 617.3	50 866.0	-14.7	1 807.4	1 722.8	-4.7
Lead		310.7	273.8	-11.9	410.5	299.1	-27.1
Molybdenum	t	11 174.6	12 198.0	+9.2	332.0	315.4	-5.0
Nickel		126.5	194.9	+54.1	828.6	1 678.6	+102.6
Silver	t	1 146.9	1 037.0	-9.6	478.4	818.0	+71.0
Uranium U	t	6 530.4	6 368.0	-2.5	616.2	637.7	+3.5
Zinc		1 099.9	894.6	-18.7	1 060.1	859.9	-18.9
<b>Nonmetals</b>							
Asbestos		1 492.7	1 335.0	-10.6	607.5	641.7	+5.6
Gypsum		8 098.2	7 209.0	-11.0	41.1	43.7	+6.3
Potash K <sub>2</sub> O		7 074.4	7 532.0	+6.5	735.2	986.2	+34.1
Salt		6 881.1	7 029.0	+2.2	109.8	125.8	+14.6
Cement		11 765.2	10 497.0	-10.8	653.9	657.4	+0.5
Clay products		..	..	..	121.5	114.3	-5.9
Lime		1 859.3	2 063.0	+11.0	82.8	102.8	+24.2
<b>Fuels</b>							
Coal		33 200.0	36 500.0	+9.9	860.0	946.0	+10.0
Natural gas	000 m <sup>3</sup>	94 426 000.0	84 402 000.0	-10.6	4 855.8	6 692.2	+37.8
Petroleum	000 m <sup>3</sup>	86 910.0	84 198.0	-3.1	7 451.8	9 098.1	+22.1

Source: Mineral Policy Sector, Energy, Mines and Resources, Canada.  
P Preliminary; .. Not available.

TABLE B

## Canada, Nonfuel Mineral Industry Production, 1979-80

	1979	1980P	Change
	(millions of current dollars)		(%)
Metals	7 951	9 686	+21.8
Nonmetals (ex. coal)	1 868	2 480	+32.8
Structural materials	1 646	1 725	+ 4.8
<b>Total</b>	<b>11 465</b>	<b>13 891</b>	<b>+21.2</b>

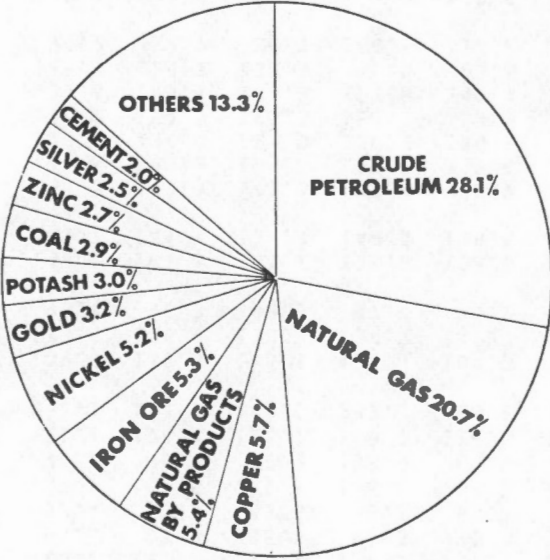
P Preliminary.

TABLE C  
Canada, Exports of Minerals, Crude and Fabricated

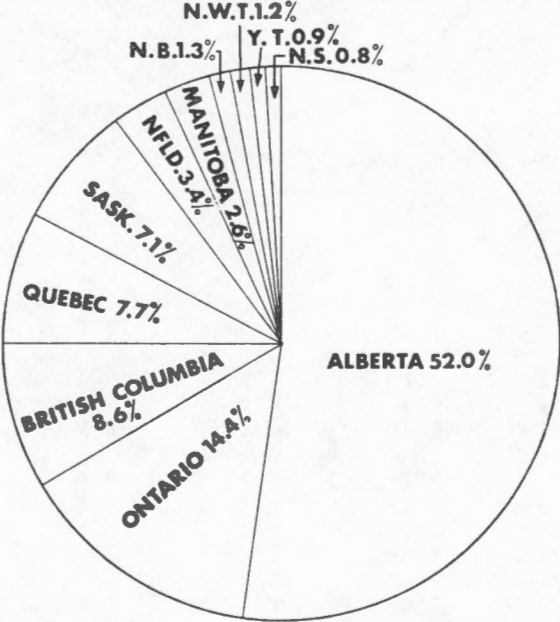
	Year	Year	Year	1st 9 months		% Changes
	1969	1974	1979	1979	1980	1st 9 months 1980 1st 9 months 1979
	(\$ million)					
<b>Crude</b>						
Ferrous	363.5	574.0	1 469.5	1 094.9	1 011.5	-7.6
Nonferrous	775.2	1 801.8	2 419.4	1 714.2	2 231.8	+30.2
Nonmetallic	427.3	799.0	1 715.4	1 115.8	1 638.9	+46.9
Fuels	711.7	4 232.6	6 128.9	4 326.4	5 952.2	+37.6
Total	2 277.7	7 407.4	11 733.2	8 251.3	10 834.4	+31.3
<b>Fabricated</b>						
Ferrous	352.9	917.7	1 948.3	1 460.5	1 662.8	+13.8
Nonferrous	1 286.2	2 102.7	3 805.3	2 557.6	4 576.6	+78.9
Nonmetallic	87.9	178.4	484.0	334.3	306.5	-8.3
Fuels	58.9	611.3	1 883.7	756.8	1 657.1	+118.9
Total	1 785.9	3 810.1	8 121.3	5 109.2	8 203.0	+60.6
<b>Total crude and fabricated minerals</b>						
Ferrous	716.4	1 491.7	3 417.8	2 555.4	2 674.3	+4.6
Nonferrous	2 061.4	3 904.5	6 224.7	4 271.8	6 808.4	+59.4
Nonmetallic	515.2	977.4	2 199.4	1 450.1	1 945.4	+34.2
Fuels	770.6	4 843.9	8 012.6	5 083.2	7 609.3	+49.7
Total	4 063.6	11 217.5	19 854.5	13 360.5	19 037.4	+42.5
<b>Total domestic exports all products</b>						
	14 890.0	31 739.5	64 190.3	46 578.0	53 719.9	
<b>Crude minerals as % of exports, all products</b>						
	15.3	23.3	18.2	17.7	20.2	
<b>Crude and fabricated minerals as % of exports, all products</b>						
	27.3	35.3	30.9	28.7	35.4	
<b>Crude mineral exports as % of mineral exports</b>						
	56.1	66.0	59.1	61.8	56.9	

Source: Statistics Canada.

# CANADA, MINERAL PRODUCTION, 1980



% OF TOTAL BY COMMODITY



% OF TOTAL BY PROVINCE



TABLE 1

Canada, Indexes of Real Domestic Product, by Industries Unadjusted (1971=100)

Industry or Industry Group	1979			1980			Percentage Changes			
	Sept	Oct	Average	Sept	Oct	Average	Sept 1980	Oct 1980	Oct 1980	1st 10
			1st 10 Months			1st 10 Months	Sept 1979	Oct 1979	Sept 1980	Months 1980 1979
Real Domestic Product	162.9	140.8	138.6	161.7	140.8	138.8	-0.7	0.0	-12.9	0.1
Primary Industries										
Agriculture	659.7	31.1	122.0	657.1	31.7	126.5	-0.4	1.9	-95.2	3.7
Forestry	137.9	130.0	120.6	127.1	135.8	109.2	-7.8	4.5	6.8	-9.4
Fishing and Trapping	115.9	119.3	141.3	98.4	101.2	121.3	-15.1	-15.2	2.8	-14.2
Mines, Quarries and Oil Wells	120.5	122.2	115.1	116.5	116.6	117.8	-3.3	-4.6	0.1	2.3
Metal Mines	98.5	97.3	88.0	91.3	91.2	94.2	-7.3	-6.3	-0.1	7.0
Placer and Gold Quartz Mines	52.4	63.3	57.5	53.1	58.7	54.4	1.3	-7.3	10.5	-5.4
Iron Mines	137.7	106.5	117.8	108.6	103.1	104.6	-21.1	-3.2	-5.1	-11.2
Other Metal Mines	91.1	96.7	82.2	88.8	89.9	93.6	-2.5	-7.0	1.2	13.9
Mineral Fuels	121.1	128.4	125.2	118.7	116.5	121.6	-2.0	-9.3	-1.9	-2.9
Coal Mines	262.1	252.3	244.5	287.3	266.1	259.4	9.6	5.5	-7.4	6.1
Crude Petroleum and Natural Gas	109.6	118.3	115.5	104.9	104.3	110.4	-4.3	-11.8	-0.6	-4.4
Nonmetal Mines	143.6	136.9	130.0	134.2	142.7	134.3	-6.5	4.2	6.3	3.3
Asbestos Mines	96.4	95.3	93.9	97.4	99.2	90.9	1.0	4.1	1.8	-3.2
Secondary Industries										
Manufacturing	144.1	141.8	134.7	138.6	138.0	130.7	-3.8	-2.7	-0.4	-2.9
Nondurable Manufacturing	143.7	141.4	134.3	140.4	138.5	133.1	-2.3	-2.1	-1.4	-0.9
Petroleum and Coal Products Industries	138.3	142.9	141.0	127.9	135.7	141.2	-7.5	-5.0	6.1	0.1
Durable Manufacturing	144.6	142.2	135.0	136.8	137.4	128.4	-5.4	-3.4	0.4	-4.9
Primary Metal Industries	122.6	134.0	124.0	129.3	135.9	127.0	5.5	1.4	5.1	2.4
Iron and Steel Mills	150.2	154.5	145.3	153.3	158.3	144.0	2.1	2.5	3.3	-0.9
Steel Pipe and Tube Mills	139.8	148.9	124.8	126.8	149.4	122.2	-9.3	0.3	17.8	-2.1
Iron Foundries	115.9	124.2	121.3	95.9	103.5	97.8	-17.3	-16.7	7.9	-19.4
Smelting and Refining	76.2	98.2	86.7	106.5	111.8	110.4	39.8	13.8	5.0	27.3
Nonmetallic Mineral Products Industries	147.0	140.6	123.2	134.3	135.0	113.7	-8.6	-4.0	0.5	-7.7
Cement Manufacturers	191.0	189.9	149.7	164.0	175.7	136.1	-14.1	-7.5	7.1	-9.0
Ready-mix Concrete Manufacturers	161.4	151.3	112.6	140.9	152.4	105.0	-12.7	0.7	8.2	-6.8
Construction Industry	147.1	142.1	124.7	133.2	132.0	115.0	-9.4	-7.1	-0.9	-7.8
Transportation, Storage, Communication	162.7	161.2	156.8	167.7	165.7	162.2	3.1	2.8	-1.2	3.4
Electric Power, Gas and Water Utilities	147.0	159.2	165.4	150.3	165.2	167.8	2.2	3.8	9.9	1.5
Trade	150.6	149.0	141.9	146.1	147.3	138.4	-3.0	-1.1	0.8	-2.4
Finance, Insurance, Real Estate	156.0	156.2	152.9	160.9	161.8	159.5	3.1	3.6	0.6	4.3
Community, Business and Personal Service	140.7	141.7	137.3	144.5	144.9	141.0	2.7	2.3	0.3	2.7
Public Administration and Defence	129.6	126.1	129.3	130.0	127.8	129.1	0.3	1.3	-1.7	-0.1

TABLE 2

Canada, Production of Leading Minerals  
( '000 tonnes except where noted)

	1979			1980			Percentage Changes		
	September	October	Total 10 months	September	October	Total 10 months	October 80 October 79	October 80 September 80	1st 10 months
									1980 1979
<b>Metals</b>									
Copper	58.4	62.5 <sup>r</sup>	512.0 <sup>r</sup>	58.8	50.0	591.6	-20.0	-13.8	+15.5
Gold	3 851.6	4 267.7 <sup>r</sup>	40 133.5 <sup>r</sup>	4 148.2	4 117.2	40 472.4	-3.5	-0.8	+0.8
Iron ore	6 210.7	4 437.0	49 644.0	4 156.2	4 869.1	41 611.2	+9.7	+17.2	-16.2
Lead	38.1	17.2	256.3	14.7	31.7	223.8	+84.3	+115.6	-12.7
Molybdenum	930.6	668.6	9 662.5	999.0	1 204.9	10 575.1	+80.2	+20.6	+9.4
Nickel	12.8	15.4	99.8	14.1	15.0	157.1	-2.6	+6.4	+57.4
Silver	114.7	94.4 <sup>r</sup>	974.1 <sup>r</sup>	77.2	83.2	914.0	-11.9	+7.8	-6.2
Uranium <sup>1</sup>	581.8	518.4	5 070.0	480.2	418.7	4 856.7	-19.2	-12.8	-4.2
Zinc	144.5	86.0	995.4	46.4	94.1	688.8	+9.4	+102.8	-30.8
<b>Nonmetals</b>									
Asbestos	135.6	137.6	1 229.2	137.0	114.6	1 072.5	-16.7	-13.4	-12.7
Clay products	..	..	..	12 063.3	13 277.6	94 503.8	..	+10.1	..
Gypsum	791.3	779.1	6 655.6	624.4 <sup>r</sup>	795.6	6 072.5	+2.1	+27.4	-8.8
Potash K <sub>2</sub> O	600.1	591.7	5 881.4	632.0	602.5	5 894.4	+1.8	-4.7	+0.2
Cement	1 226.3	1 267.0	9 691.6	1 134.4	1 279.3	8 893.6	+1.0	+12.8	-8.2
Lime	..	..	..	174.8	187.2	1 719.1	..	+7.1	..
Salt	581.8	629.7	5 438.6	588.1	634.7	5 682.4	+0.8	+7.9	+4.5
<b>Fuels</b>									
Coal	2 801.6	3 012.5	27 427.7	3 147.0	3 155.2	29 870.0	+4.7	+0.3	+8.9
Natural gas	6 597.7	7 130.3	76 090.7	6 853.6	6 989.0	70 942.3	-2.0	+2.0	-6.8
Crude oil and equivalent	7 484.0	8 101.6	77 098.6	6 952.9	7 418.4	74 640.6	-8.4	+6.7	-3.2

<sup>1</sup> Tonnes uranium (1 tonne U = 1.299 9 short tons U<sub>3</sub>O<sub>8</sub>).<sup>r</sup> Revised; .. Not available.

## REGIONAL PROFILES

## British Columbia

British Columbia is third in the value of mineral production in Canada at \$2,792.5 million, with metals and fuels accounting for nearly 90 per cent of the total. It is Canada's leading producer of copper, molybdenum and coal, and a major contributor of natural gas, asbestos, lead, silver and gold. In 1980, the total value of production increased marginally over 1979, almost entirely because of higher unit prices for copper, petroleum, silver and gold.

British Columbia, Principal Mineral Production, 1980<sup>P</sup>

Commodity	\$ Value ( <sup>000,000</sup> )	Change 1979-1980 (per cent)	Proportion of Canada
Copper	723.7	12.1	39.0
Coal	464.8	-4.8	49.1
Natural gas	318.6	-8.6	4.8
Molybdenum	296.9	-7.6	94.1
Crude petroleum	192.0	11.7	2.1
Gold	153.5	60.5	15.0
Silver	148.5	66.2	18.2
Asbestos	84.1	28.4	11.3
Cement	83.5	-4.0	12.7
Sand and gravel	81.9	17.3	16.0
Lead	78.1	-30.0	26.1
Zinc	60.0	-29.5	7.0
Metallics	1,479.7	8.2	15.3
Nonmetallics	109.4	27.3	4.4
Fuels	1,006.2	-3.0	5.4
Structural materials	197.2	6.5	11.4
Total, all minerals	2,792.5	4.3	8.6

<sup>P</sup> Preliminary.

### British Columbia, Socio-Economic Indicators

		Amount	Change from Previous Year (per cent)	Proportion of Canada
Population				
July 1, 1980	'000	2,642	2.7	11.0
Labour Force, seas. adj.				
August, 1980	'000	1,271	3.7	11.0
Employment, seas. adj.				
August, 1980	'000	1,193	5.1	11.2
Unemployment, seas. adj.				
August, 1980	'000	78	-14.3	8.8
Employment in Mining*				
May, 1980	'000	15.8	15.3	10.3
Average Weekly Wages*				
May, 1980	\$	467	8.9	101.3
Gross Provincial Product, 1978	\$000,000	27,891	9.6	11.8

Source: Statistics Canada.

\* Mines, quarries and oil wells, including milling for firms of 20 or more employees only, SIC 050-099.

### Mine Developments

Valley Copper Mines Limited and Bethlehem Copper Corporation are conducting studies to determine the initial design and capital and operating cost estimates to develop their jointly owned (80 per cent Valley and 20 per cent Bethlehem) Lake Zone copper deposit in the Highland Valley. The companies envisage an open pit mine that would produce 102 000 tonnes of ore a day, of which 77 000 tonnes would be treated at a Valley Copper concentrator to be constructed, and 25 000 tonnes at an expanded Bethlehem concentrator. The project has been estimated to cost over \$600 million, would take about two and half years to complete, and would be the largest single copper mine in Canada. Cominco Ltd. has controlling interest in the property through its 81 per cent ownership of Valley Copper and 65 per cent ownership of Bethlehem.

Construction of the Highmont Mining Corporation copper-molybdenum mine in the Highland Valley has been completed and will be phased into production in early 1981. Annual output at the \$150 million project is estimated at 20 million kilograms of copper and two million kilograms of molybdenum.

The expansion of the Lornex Mining Corporation Ltd. copper-molybdenum mine in the Highland Valley is scheduled for completion in mid-1981 at a cost of \$160 million. Capacity will be increased 68 per cent to about 70 000 tonnes of ore a day. Included in the project is a molybdenum leaching plant capable of removing copper impurities in the molybdenum concentrate to produce a higher quality product.

Equity Silver Mines Limited's Sam Goosly silver mine began production of unleached concentrate in September. Re-design of the leaching section of the plant, to remove antimony and arsenic from the concentrates, has increased original construction costs of \$107 million and will delay production of the higher value leached product until mid-1981. At full production of 4 500 tonnes of ore a day, the mine will be one of the largest silver producers in Canada, at about 177 000 kilograms annually.

## REGIONAL PROFILES

## Saskatchewan

## Value of Mineral Production

Saskatchewan is fifth among all provinces in the value of mineral production at \$2,290.3 million. It is Canada's only producer of potash and the principal producer of sodium sulphate, and accounts for 35 per cent of uranium production. In 1980, increases mainly in unit price for potash and petroleum caused a 12 per cent gain in the total value of mineral production over 1979, although uranium decreased by nearly 7 per cent because of the lower quantity produced.

Saskatchewan, Principal Mineral Production, 1980<sup>P</sup>

Commodity	\$ Value ( <sup>1</sup> 000,000)	Change 1979-1980 (per cent)	Proportion of Canada
Potash	986.2	34.1	100.0
Crude petroleum	880.5	20.8	9.7
Uranium	224.2	-6.7	35.2
Cement	30.9	1.2	4.7
Coal	30.8	30.0	3.3
Sodium sulphate	26.2	13.2	90.6
Natural gas	21.8	21.8	0.4
Metallics	254.6	-4.3	2.6
Nonmetallics	1,028.0	33.4	41.4
Fuels	951.7	20.9	5.1
Structural materials	56.1	11.1	3.2
Total, all minerals	2,290.3	12.2	7.1

<sup>P</sup> Preliminary.

### Saskatchewan, Socio-Economic Indicators

		Amount	Change from Previous Year (per cent)	Proportion of Canada
Population				
July 1, 1980	'000	970	1.1	4.1
Labour Force, seas. adj.				
August, 1980	'000	443	2.8	3.8
Employment, seas. adj.				
August, 1980	'000	423	1.7	4.0
Unemployment, seas. adj.				
August, 1980	'000	20	33.3	2.3
Employment in Mining*				
May, 1980	'000	8.0	11.1	5.2
Average Weekly Wages*				
May, 1980	\$	451	15.1	97.8
Gross Provincial Product, 1978	\$000,000	9,661	14.2	4.1

Source: Statistics Canada.

\* Mines, quarries and oil wells, including milling for firms of 20 or more employees only, SIC 050-099.

### Mine Developments

Potash Corporation of Saskatchewan (PCS) has begun field work near Bradenbury in preparation for construction of a mine and refinery with a capacity of 3.27 million tonnes of product (KCl). The field studies, to be completed in mid-1981, are intended to determine the shaft location, the grade of potash over the area to be mined, and surface and subsurface water conditions, and to provide information for preventing adverse environmental impacts. The project could be completed by 1986 if the field studies are favourable.

PCS has begun to triple capacity of its Lanigan mine by 1983 from 1.0 to 2.9 million tonnes of product at a cost of \$430 million. With this and other expansions and the Bradenbury mine, PCS will increase its output of product from 4.3 million tonnes in 1979 to 11.3 million tonnes over a 10-year period, at a cost of \$2.5 billion.

### **Exploration Activities**

Asamera Oil Corporation Ltd. has discovered a fourth uranium mineralized zone on its Dawn Lake property near Gulf Minerals Canada Limited's Rabbit Lake mine. Nearby, at McClean Lake, Canadian Occidental Petroleum Ltd. and Inco Metals Company have delineated an estimated 6.3 million kilograms of uranium oxide and are studying mining methods. In the same area and to the west lies the Midwest Lake deposit of Esso Minerals Canada, which is preparing an environmental impact statement for the provincial government on mine development.

### **Policy Developments**

Eldorado Nuclear Limited has dropped its option to purchase land at Warman, about 20 kilometres northeast of Saskatoon, for a site to build a \$100 million uranium refinery, primarily because of opposition from area residents and organizations with varied interests. The province is in favour of construction of a refinery in the Saskatoon area to process the ever increasing amounts of uranium that will be produced from northern mines provided that social and environmental impacts are satisfactory.

### **Other Highlights**

Further progress was made in diversifying and expanding Saskatchewan potash markets with the signing of an agreement between Canpotex Limited, the producer export agency, and the People's Republic of China, for shipments of approximately 650 000 tonnes of product a year, effective January 1, 1981.



## METALLIC MINERALS AND PRODUCTS

### Aluminum

Alcan's new Grand Baie, Quebec smelter started operations in mid-December with 26 of a total of 128 pots going on-power. Full production of the 57 000 tonne a year potline is expected by mid 1981. Two more potlines, each of the same production capacity, are under construction and are scheduled to begin production in 1981 and 1982. When fully operational, the smelter will have an annual capacity of 171 000 tonnes of aluminum raising Alcan's total Canadian capacity to 1 075 000 tonnes.

Pechiney Ugine Kuhlmann Corporation, the French aluminum and chemical group, is looking into the possibility of building an aluminum smelter in Bécancour, Quebec, where they have an option on a 500 acre industrial site. Pechiney is negotiating with Hydro-Quebec for an electric power supply. If a satisfactory power contract is assured they will begin a feasibility study for a 200 000 to 300 000 tonne a year smelter which is estimated will cost between \$500 million and \$600 million.

New Zealand's second aluminum smelter is to be built by a local consortium at a cost of 650 million New Zealand dollars. It is anticipated that the first of two potlines will be in production by mid-1984, and the second in 1986. The consortium represents Fletcher Aluminium Ltd., Swiss Aluminium Australia Ltd. and Gove Alumina Ltd.

Under a joint venture program agreed upon last year, Aluminum Company of America's (Alcoa) Clarendon alumina refinery in southern Jamaica is to be expanded from the present 0.5 million tonnes to over 1 million tonnes at a cost of \$350 million. Alcoa will complete a feasibility study by January. In November, an interim report was submitted to Jamaica and Norway, the two countries involved in the study, but there are still some details to be settled.

In December, a three day conference of the International Bauxite Association (IBA), was held in Jamaica. The meeting was also attended by invited representatives of some international aluminum producers. Little information has been reported out of this meeting other than the following: The IBA members made the recommendation that future smelters be located near bauxite sources, particularly those countries with access to cheap energy.

At an IBA Ministerial Meeting just before the conference, Ministers recommended a 1981 bauxite price of \$30 a tonne instead of the present \$26 a tonne and also recommended that the cif price for alumina during 1981 should be increased from 14-16 per cent to 16-19 per cent of the America Metal Market list price for 99.5 per cent aluminum ingot.

### Copper

The copper price for wirebar on the London Metal Exchange fell from a high of 90 (U.S.) cents a pound on December 1 to a low of 81.1 cents on December 16 and then recovered somewhat during the second half of the month. It was 85.7 cents at month end. The Canadian producer price for wirebar dropped from \$1.12625 a pound on December 1 to \$.98625 a pound on December 12, and was about \$1.05 a pound at the end of the month. Copper stocks at COMEX and LME warehouses at the end of December were 163 085 tonnes and 122 600 tonnes, respectively (total 285 685 tonnes), compared with 155 063 tonnes and 122 875 tonnes, respectively (total 277 938 tonnes), at the end of November.

Esso Minerals Canada completed plant and mine rehabilitation at the former Granduc mine, near Stewart, British Columbia and commenced copper production in the early fall of 1980. The concentrator is expected to treat about 3 600 tonnes of ore a day.

Anaconda Copper Company signed a 7-year contract with Nippon Mining Co. Ltd. and C. Itoh & Co. Ltd. to supply seven Japanese copper smelters with copper concentrates. Nippon signed the contract on behalf of seven smelting companies, which will jointly take delivery of 390 000 tonnes of copper concentrates (approximately 100 000 tonnes of contained copper) in 1981 and 1982, with deliveries to increase to 500 000 tonnes of concentrate a year in the following five years to the end of 1987. Some of the material will be treated on a toll basis, but more than half will be bought by the smelters. The smelters can increase the amount bought for their own needs, provided they notify Anaconda in advance. The six other Japanese smelting companies involved are Mitsui Mining & Smelting Co. Ltd., Mitsubishi Metal Corporation, Sumitomo Metal Mining Co. Ltd., Furukawa Co. Ltd., Dowa Mining Co. Ltd. and Nittetsu Mining Co. Ltd. The Japanese copper smelters expect to operate at higher and more profitable operating rates because of the Anaconda concentrate contract. At least one of the smelters can be expanded substantially with only relatively low-cost auxiliary facilities.

ASARCO Incorporated has announced that it will permanently shut the copper refinery at its plant in Tacoma, Washington. The refinery has been on standby since January, 1979. ASARCO will continue to operate its copper smelter and by-product production facilities at Tacoma.

The strike at the Cuajone copper mine of Southern Peru Copper Corporation, which had begun on November 12 and idled almost half of Peru's total copper production capacity was settled and operations at the property resumed on December 11. The company had declared **force majeure** on its December copper shipments because of the strike.

Hernando Labarthe, chairman of Empresa Estatal Minería Asociada Tintaya SA announced on December 23 that Peru is to obtain a \$250 million loan from Canada's Export Development Corporation and a banking syndicate to finance the Tintaya copper mine project. The 15-year loan is at a fixed interest rate of 9½ per cent. The loan agreement is to be signed with the Peruvian government in January 1981. The mine is expected to start production late in 1983 or early in 1984 and will produce 55 000 tonnes of copper a year. Proven reserves are sufficient for 16 years, but it may be possible to increase the life of the mine to 25 years.

### Gold

The monthly average for December 1980 of the afternoon fixing gold prices on the London Gold Market was \$595.04 (U.S.) (\$712.08 Cdn.) per ounce of gold, compared with an average price of \$623.46 (U.S.) (\$739.42 Cdn.) for November, 1980.

The gold price weakness displayed in November continued in December, due in part to the persistence of record high interest rates which increased the cost of holding non-interest-bearing gold. Moreover, as the Christmas-New Year holiday period approached, trading on gold markets became extremely thin. Analysts appear to feel that the gold price is now balanced on a knife edge; stronger political leadership and signs of economic stability in the developed countries, particularly in the United States, could result in lower prices while political weakness or new outbreaks of international tension could set off a renewed buying spree thereby forcing the gold price upward.

The average gold price for 1980 of the afternoon fixings on the London Gold Market was \$612.60 (U.S.) per ounce (\$715.91

Cdn.). This is almost exactly double the average price for 1979 which was \$306.70 (U.S.) per ounce. The high price for 1980 was \$850 (U.S.) per ounce at the afternoon fixing on January 21 and the low price was \$474 at the morning fixing on March 18. Gold trading during 1980 was characterized by volatility, with price changes of \$20.00 per ounce in the course of one day being common. Prices were sustained by high levels of international tension, substantial purchases by banks and central governments, withholding of some output by the Republic of South Africa and sharply lower sales from the Soviet Union. The International Monetary Fund contributed only 69 tonnes in five auctions, thus completing its sales program. There were no sales by the U.S. Treasury. Despite these factors, there apparently has been no shortage of gold in the market. This is attributed to dishoarding by investors who had bought gold at the much lower prices prevailing during 1978 and 1979. This dishoarding is estimated by Consolidated Gold Fields Limited analyst David Potts as amounting to between 300 and 400 tonnes which has quite handily offset the termination of official agency sales. Almost the only country to sell gold from official reserves was Canada, which sold 2 million ounces.

Canada's gold production for 1980 was 48 284 000 grams (preliminary) compared to 51 142 359 grams in 1979. No mines closed during the year; the reduced output is attributed to established mines being able to profitably mill lower grade ore. Six gold mines began production in 1980, three in Quebec, two (quite small ones) in British Columbia and one in the Northwest Territories. A number of companies announced that properties were being prepared for production to commence in 1981 or 1982. Most gold mining companies reported excellent profits during 1980. They have now rebuilt capital to the point where renewed exploration, modernization and expansion plans are feasible. 1981 should see a substantial increase in gold ore handling capacity.

### **Iron Ore**

On December 5 a destructive ice storm accompanied by high winds caused extensive damage to power lines in the Port Cartier - Sept Iles area. Power was suspended at most operations in the region for several hours and a few were without power for a week and longer.

The pellet plant owned by Wabush Mines at Pointe Noire was shut down from December 5 to December 20 because of the power failure. Mining and concentrating operations continued at

Wabush, but production at this facility had to be suspended on December 12 until the pellet plant could resume operations.

A power failure occurred at Port Cartier, and Quebec Cartier Mining Company had to close the port facilities at this location for four days. The port of Sept Iles also experienced short power interruptions.

### Lead

On December 1, ASARCO Incorporated reduced its primary lead price by 4 cents to 39 cents a pound. By December 10, other producers had followed ASARCO's lead. Canadian producers lowered their U.S. lead price to 39 cents and their Canadian price to 45.5 cents. In November U.S. lead prices had been lowered 2 cents to 43 cents a pound and the Canadian price 3.5 cents to 49.5 cents. While most of the deterioration of the lead market is attributed to the drop in demand from tetraethyl lead (TEL) manufacturers, battery manufacturers have not increased battery production as had been anticipated. TEL demand in the United States is expected to drop to around 100 000 tonnes in 1980 compared with about 187 500 tonnes in 1979. The reduction in TEL consumption is the result of EPA regulations forcing gasoline refiners to reduce the total amount of lead per gallon from 0.8 gm to 0.5 gm, and reduced driving by residents of the United States.

### Nickel

Société Metallurgique Le Nickel announced in early December that production at one of its three 33,000 kilowatt smelting units in New Caledonia would be stopped and any decision to resume production would depend on world demand for nickel. A halt in production at five of its eight 11,000 kilowatt smelting units in New Caledonia had previously been implemented. The company, which has a production capacity of 75 000 tonnes, forecasts 1981 production at below 43 000 tonnes compared with about 45 000 tonnes in 1980.

In Guatemala, major proposed tax changes which would have affected the nickel industry, were not enacted before the government's December 15 constitutional deadline. The only tax

change implemented was an increase in the stamp tax which would effectively add \$1 million to Exploraciones y Explotaciones Mineras Izabal, S.A. (Exmibal) annual operating costs, if the mine and plant were in operation. Exmibal estimated that the proposed taxes would have added \$20 million a year to its operating costs.

### Platinum Group Metals

The general price weakness in precious metals has affected the platinum group metals. In December the price of platinum on the London Metal Market was fixed below the price of gold, the first time this situation has occurred since early 1978. The free market platinum price in the \$560-580 U.S. range remains well above the producer price of \$465 (U.S.) per ounce. Speculative activity in platinum group metals is being affected by high interest rates. In industry, the decline in demand for platinum jewellery and in production of platinum-palladium catalysts for automobiles is somewhat offset by increased use of platinum group metals in catalytic reforming of unleaded gasoline.

Palladium continues in oversupply. On December 4, Johnson Matthey, Inc. announced that Rustenburg Platinum Holdings Limited producer price for palladium was cut to \$200 (U.S.) from \$225 per ounce. Impala Platinum Limited announced an identical price cut on December 5. Free market palladium prices in December were reported in the \$150 per ounce range.

Canadian production of platinum group metals in 1980 was 12 584 000 grams valued at \$155,480,000 (preliminary) compared to 6 156 716 grams valued at \$56,333,561 in 1979. The low figure for 1979 reflects six months of lost production due to a strike at Inco Limited's Sudbury operations.

### Silver

The silver price trend in December 1980 was downwards. The opening and high price for the month as quoted by Handy & Harman was \$18.85 (U.S.) per ounce. The low of \$14.32 was recorded on December 11. The price recovered from this low to close for the year 1980 at \$15.65. There was a general lack of interest in silver trading during the month.

The monthly average silver price for December 1980 as quoted by Handy & Harman of New York was \$16.39 (U.S.) per ounce compared with \$18.65 in November. The average silver price in Canadian dollars (Handy & Harman) for the month of December was \$630.94 per kilogram (\$19.62 per ounce) compared with \$713.61 per kilogram (\$22.20 per ounce) for November.

### **Tin**

The fifth International Tin Agreement is scheduled to expire in June 1981. The first conference to negotiate a sixth agreement, held in Geneva in April-May 1980, failed to achieve consensus on several key points. A second session held in December made some progress but substantive disagreements remained on such important questions as buffer stock form, size and financing, and conditions under which tin export controls may be imposed.

The fifth agreement, in which United States participated for the first time, provided for a producer-financed buffer stock of up to 20 000 tonnes of tin metal plus additional, voluntary contributions from consumed members up to a total of 20 000 tonnes of tin metal, and the implementation of export controls at a point when the buffer stock contained at least 10 000 tonnes of tin metal.

In proposals for the sixth agreement, the United States delegation in particular has been pressing for greater reliance for market stabilization purposes on a much larger buffer stock financed equally by producers and consumers, with the use of export controls as a measure of last resort designed to prevent a general market collapse. Many delegations support an increased buffer stock size compared to that of the fifth agreement and support the concept of joint producer-consumer financing of this stock. Within a package proposed by the negotiating conference chairman, the buffer stock would consist of 30 000 tonnes jointly financed plus an additional stock of up to 20 000 tonnes to be financed by borrowings using tin warrants as collateral or - if necessary - government guarantees, and greater limitations on the implementation of export controls. This compromise package was not accepted universally so a third negotiating session is scheduled for March, 1981.

It is anticipated that the International Tin Council will recommend at its January meeting that the term of the fifth agreement be extended to June 30, 1982, to allow completion of negotiations on, and ratification of the sixth agreement.

## INDUSTRIAL MINERALS AND PRODUCTS

### Asbestos

Asbestos and health-related lawsuits continue to be an important issue and there are over 8,000 lawsuits pending against the asbestos industry in the United States, 25 per cent of which are in California. In a landmark lawsuit which claims that smoking, and not asbestos is the primary cause of lung disease among asbestos workers, Standard Asbestos Manufacturing and Insulation Company, Kansas City, Missouri, has sued six major tobacco companies. The action is an attempt to bring the tobacco industry into existing lawsuits and the cross-complaints were filed in about ten cases in California involving a large number of asbestos workers seeking damages for occupational disease.

Industry layoffs during the second half of 1980 and extending into 1981 affected about 530 employees in Quebec. Additional layoffs are expected in early 1981 because demand for most grades of asbestos remains weak. Market weakness is expected to continue throughout the first half of 1981.

### Calcium Carbonate

Steep Rock Iron Mines Limited announced December 18, 1980 that it has reached an agreement with William R. Barnes Co. Limited to purchase the Perth Division of that company. This division has been involved in the quarrying of high grade calcium carbonate at Tatlock, Ontario 24 miles north of Perth, Ontario, and processing the material at a modern plant at Perth. Various calcium carbonate products are sold in bag and bulk form to a variety of industries mainly in Ontario, Quebec and in the United States states close to the Great Lakes. It is the intention of Steep Rock to continue the present operation and to offer quality products and service to all customers of the Perth Division. An offer of employment will be made to all of the current employees. The closing date of the transaction will be December 31, 1980. The purchase price is \$10 million.

William R. Barnes Co. Limited will continue to supply its foundry and steel products throughout Canada.



Steep Rock completed its iron ore mining and pelletizing operations at Atikokan, Ontario in 1979. The company had previously announced that it was investigating opportunities in the Industrial Minerals industry. The agreement with Barnes is the result of this investigation. Other opportunities are being examined.

Steep Rock still holds significant iron ore reserves in northwestern Ontario. These reserves could be developed when there is an improvement in the iron ore market in the Great Lakes area.

### Salt

Sifto Salt Division of the Domtar Chemicals Group, a subsidiary of Domtar Inc. of Montreal, has awarded a contract valued at more than \$7 million to The Cementation Company (Canada) Limited of Brampton, Ontario, to sink a new production shaft at the Sifto Salt mine in Goderich. The 6.7 metre diameter (22 foot) shaft will be the third at the salt mine site and, when completed by February 1983, is expected to increase production of mined rock salt to 3.1 million tonnes from two million tonnes. Employment at the mine is expected to increase to 300 from the present level of 210. The new shaft is part of a \$37 million expansion program which will include construction of a new office building and additional storage facilities.

## MINERAL FUELS AND PRODUCTS

### Uranium

As a result of continued drilling efforts carried out until mid-September at their jointly-owned McClean Lake uranium property in northern Saskatchewan, Canadian Occidental Petroleum Ltd. and Inco Metals Company have reported drill indicated resources of some 5 380 tonnes U. The McClean Lake deposit, located about 11 kilometres northwest of Rabbit Lake, lies beneath

150 metres of sandstone; studies are underway to determine the best mining method.

In the United States, Union Carbide Corporation announced that it will close its uranium processing mill at Uravan, southwestern Colorado, because of the depressed uranium market. Operations at the mill, which has been processing about 654 tonnes U annually, will be shut down early in the year for at least six months. Production will also be curtailed at three Union Carbide mines in the area that supply the mill, although the company has reportedly considered toll milling its ore at the Blanding, Utah mill of Energy Fuels Nuclear.

### NEW PUBLICATIONS

The following publications were prepared in the Mineral Policy Sector, Department of Energy, Mines and Resources and released for distribution in December:

MRI 80/17F L'industrie des minéraux non combustibles jusqu'en 1990: Une perspective quantitative.

MRI 80/20: Challenge of Mining in the 80's by W.G. Jeffery.

MRI 80/21: Non-fuel Mineral Exploration in Canada to 1985 by W.H. Laughlin.

These publications are available in microfiche and hard copy form by Micromedia Limited, 144 Front St. West, Toronto, Ontario, M5J 1G2.

### NOUVELLES PUBLICATIONS

Les publications suivantes ont été préparées par le Secteur de la politique minérale du ministère de l'Énergie, des Mines et des Ressources et diffusées pour distribution au cours du mois de décembre.

On peut se procurer ces publications sur microfiches ou sous forme de photocopies en s'adressant à: Micromedia Limited, 144, rue Front ouest, Toronto (Ontario) M5J 1G2.

