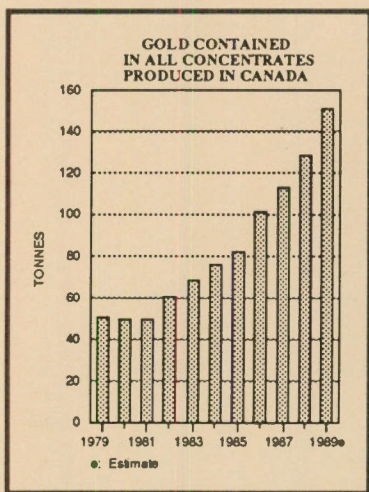


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CANADIAN MINERAL INDUSTRY



Energy, Mines and
Resources Canada

Hon. Jake Epp
Minister

Energie, Mines et
Ressources Canada

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Ministre

Canada

THE ENERGY OF OUR RESOURCES

THE POWER OF OUR IDEAS

ISSN 0229-1908

CANADIAN MINERAL INDUSTRY

MONTHLY REPORT



Energy, Mines and
Resources Canada

Énergie, mines et
Ressources Canada

PREFACE

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

Mineral Policy Sector
Department of Energy, Mines and Resources
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THE CANADIAN MINERAL INDUSTRY FOR MAY

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

ECONOMIC TRENDS

Table 1 provides a comparison of the volume of production of Canada's leading minerals for the months of February and March 1990, the corresponding months a year ago and the year-to-date totals.

Table 2 provides information on Canada's Gross Domestic Product at factor cost by industry at 1981 prices. The data are also annualized and seasonally adjusted.

The annual rate shown for any given month is calculated by multiplying the figure for that month by twelve. It is important to note, however, that if a particular month has been influenced by special factors such as a strike, the annualized data will reflect this bias.

Factor cost refers to output that is valued exclusive of excise taxes and duties, and provincial and municipal sales taxes. Factor cost does, however, include subsidies and other taxes that are not a function of the level of output or sale.

Seasonally adjusted data represent time-series data from which the effects of repetitive and clearly defined seasonal fluctuations have been removed. Such a practice permits the isolation of trends in the economy that might otherwise be obscured. Seasonal factors include such items as climate, trade practices and social institutions such as Christmas and Easter.

The GDP data are subject to ongoing revision.

Gross Domestic Product at factor cost, at 1981 prices, rose 0.1% in March following a similar gain in February and a decline of 0.1% in January. Output of goods advanced 0.2% in March, while production of services was unchanged. GDP edged ahead 0.2% in the first quarter of 1990, following gains of 0.8% and 0.4% in the third and fourth quarters of 1989, respectively.

Table 3 shows the prices of selected metals for January, February and March, 1990.

Table 4 shows the prices of selected metals for 1989 on an annual average basis.

Tables 5 and 6 show the average annual prices of selected minerals over the period 1983-89. Table 5 provides prices in U.S. dollars and imperial units, except where noted. Table 6 provides prices in Canadian currency and metric units.

Tables 7 and 8 provide data on the selling price indexes for the mineral products industries and for mineral raw materials for the period 1983-89.

Tables 9 and 10, provide the principal statistics of the mineral manufacturing industries for the year 1987, by industry group and by region. Principal statistics include such data as the number of establishments, number of employees, value of shipments and production costs. Costs shown include

salaries and wages, materials and supplies, and fuel and electricity. Table 9 incorporates data revisions to this table which first appeared (as Table 20) in the April 1990 issue of this report.

Table 11 shows the principal statistics of the mineral manufacturing industries for the period 1980-87.

Table 12 provides data on employment and wages in the mineral manufacturing industries for the period 1981-87.

Tables 13 through 18 provide data on capital and repair expenditures by region and by commodity group. Detail is provided for recent years, as well as the investment intentions for 1990.

TABLE 1. CANADA, PRODUCTION OF LEADING MINERALS

| | | 1989 | | | 1990 | | | Percentage Changes | | |
|---------------------------------|------------------------|-----------------------|-----------------------|-----------------------|----------|----------|----------------|--------------------------|-----------------------------|--------------------------|
| | | February | March | Total 3 Months | February | March | Total 3 Months | March 1990 March 1989 | March 1990 February 1990 | 3 months 1990 1989 |
| (000 tonnes except where noted) | | | | | | | | | | |
| Metals | | | | | | | | | | |
| Copper | | 59.1 ^r | 62.6 ^r | 184.8 ^r | 64.2 | 75.6 | 205.7 | 20.7 | 17.8 | 11.3 |
| Gold | kg | 10 670.1 ^r | 12 252.8 ^r | 33 644.1 ^r | 12 225.3 | 13 599.6 | 38 832.9 | 11.0 | 11.2 | 15.4 |
| Iron ore | | 2 570.5 | 1 665.8 | 6 008.0 | 1 125.4 | 1 365.7 | 3 749.1 | -18.0 | 21.3 | -37.6 |
| Lead | | 25.4 ^r | 22.5 ^r | 67.0 ^r | 16.2 | 21.6 | 55.5 | -4.1 | 32.9 | -17.2 |
| Molybdenum | t | 950.0 ^r | 1 297.3 ^r | 3 454.0 ^r | 1 232.5 | 1 115.9 | 3 687.4 | -14.0 | -9.5 | 6.8 |
| Nickel | | 18.5 | 17.8 | 52.7 | 16.8 | 17.8 | 51.5 | -0.3 | 6.0 | -2.3 |
| Silver | t | 98.5 ^r | 119.7 ^r | 313.6 ^r | 133.4 | 119.0 | 355.2 | -0.5 | -10.8 | 13.3 |
| Uranium ¹ | t | 871.3 | 1 249.5 | 3 154.6 | 898.9 | 1 619.5 | 3 852.5 | 29.6 | 80.2 | 22.1 |
| Zinc | | 80.2 | 91.4 | 240.1 ^r | 79.4 | 128.9 | 330.3 | 41.1 | 62.2 | 37.6 |
| Nonmetals | | | | | | | | | | |
| Asbestos | | 56.7 | 58.5 | 161.7 | 47.6 | 49.0 | 152.4 | -16.2 | 3.0 | -5.7 |
| Clay products | \$000 | 8 934.1 | 12 149.9 | 31 511.4 | 8 457.7 | 10 407.7 | 29 081.4 | -14.3 | 23.1 | -7.7 |
| Gypsum | | 575.1 | 722.9 ^r | 1 865.4 ^r | 591.7 | 670.3 | 1 976.9 | -7.3 | 13.3 | 6.0 |
| Potash K ₂ O | | 544.9 | 743.6 | 1 856.1 | 553.8 | 710.7 | 1 832.6 | -4.4 | 28.3 | -1.3 |
| Cement | | 444.2 | 772.1 ^r | 1 689.7 | 526.4 | 767.2 | 1 778.5 | -0.6 | 45.8 | 5.3 |
| Lime | | 202.7 | 226.6 ^r | 642.1 ^r | 194.6 | 210.5 | 614.3 | -7.1 | 8.1 | -4.3 |
| Salt | | 947.0 ^r | 798.2 ^r | 2 843.0 ^r | 807.6 | 581.9 | 2 450.6 | -27.1 | -27.9 | -13.8 |
| Fuels | | | | | | | | | | |
| Coal | | 5 477.8 ^r | 6 339.9 | 17 852.7 | 5 387.3 | .. | .. | .. | .. | .. |
| Natural gas | million m ³ | 10 453.0 ^r | 10 965.0 ^r | 32 483.0 | .. | .. | .. | .. | .. | .. |
| Crude oil and equivalent | 000 m ³ | 7 576.0 ^r | 8 195.0 ^r | 24 154.0 ^r | .. | .. | .. | .. | .. | .. |

¹ Tonnes uranium (1 tonne U = 1.2999 short tons U₃O₈).

^r Revised; .. Not available.

Note: Percentage changes are calculated on the basis of actual production figures as opposed to the rounded figures as shown.

TABLE 2. CANADA, REAL GROSS DOMESTIC PRODUCT AT FACTOR COST BY INDUSTRY, IN 1981 PRICES, MONTHLY (SEASONALLY ADJUSTED AT ANNUAL RATES)

| Industry Sector | 1989 | 1990 | | | Percentage Change March 1990 March 1989 |
|--|--------------|-----------|-----------|-----------|---|
| | March | January | February | March | |
| | (\$ million) | | | | |
| Total Economy | 408 237.6 | 415 545.1 | 415 925.8 | 416 378.7 | 2.0 |
| Primary Industries | | | | | |
| Agriculture | 9 201.2 | 10 000.6 | 10 010.2 | 10 020.6 | 8.9 |
| Forestry | 2 738.3 | 2 792.4 | 2 780.4 | 2 787.6 | 1.8 |
| Fishing and Trapping | 724.8 | 620.0 | 630.6 | 642.0 | -11.4 |
| Mines, Quarries and Oil Wells | 23 441.1 | 23 118.0 | 23 026.8 | 23 232.0 | -0.9 |
| Mining Industries | 8 223.9 | 8 386.8 | 8 401.2 | 8 316.0 | 1.1 |
| Gold Mines | 1 808.3 | 1 930.8 | 1 926.0 | 1 857.6 | 2.7 |
| Iron Mines | 624.5 | 614.4 | 602.4 | 604.8 | -3.2 |
| Other Metal Mines | 3 531.9 | 3 597.6 | 3 676.8 | 3 643.2 | 3.2 |
| Nonmetal Mines | 811.2 | 796.8 | 772.8 | 787.2 | -3.0 |
| Asbestos Mines | 213.4 | 232.8 | 226.8 | 228.0 | 6.8 |
| Mineral Fuels | | | | | |
| Coal Mines | 1 108.0 | 1 075.2 | 1 042.8 | 1 053.6 | -4.9 |
| Crude Petroleum and Natural Gas | 13 190.3 | 12 800.4 | 12 729.6 | 13 003.2 | -1.4 |
| Secondary Industries | | | | | |
| Manufacturing | 78 144.4 | 77 633.4 | 77 803.1 | 77 755.4 | -0.5 |
| Non-durable Manufacturing | 33 206.0 | 33 406.4 | 33 203.7 | 33 087.8 | -0.4 |
| Durable Manufacturing | 44 938.8 | 44 227.0 | 44 599.4 | 44 667.6 | -0.6 |
| Primary Metal Industries | 6 281.5 | 5 890.0 | 5 950.7 | 5 963.3 | -5.1 |
| Primary Steel Industries | 2 393.4 | 2 224.8 | 2 190.0 | 2 175.6 | -9.1 |
| Steel, Pipe and Tube Industry | 467.7 | 504.0 | 520.8 | 507.6 | 8.5 |
| Iron Foundries | 435.3 | 338.9 | 344.1 | 343.1 | -21.2 |
| Smelting and Refining | 2 261.6 | 2 174.4 | 2 253.6 | 2 283.6 | 1.0 |
| Nonmetallic Mineral Products | 2 347.0 | 2 314.5 | 2 320.9 | 2 302.3 | -1.9 |
| Clay Products Industry | 119.5 | 120.4 | 114.9 | 110.2 | -7.8 |
| Cement Industry | 310.5 | 306.0 | 315.6 | 307.2 | -1.1 |
| Ready-mix Concrete Industry | 444.4 | 408.3 | 400.2 | 420.1 | -5.5 |
| Construction Industry | 31 806.8 | 32 870.4 | 33 532.8 | 33 860.4 | 6.5 |
| Transportation and Storage | 19 199.4 | 19 585.6 | 19 334.7 | 19 574.6 | 2.0 |
| Communications | 13 543.5 | 14 792.4 | 14 804.4 | 14 835.6 | 9.5 |
| Other Utilities | 11 580.1 | 11 293.2 | 11 064.0 | 10 863.6 | -6.2 |
| Wholesale Trade | 25 374.5 | 25 456.4 | 25 769.4 | 25 616.5 | 1.0 |
| Retail Trade | 26 060.1 | 26 664.4 | 26 477.8 | 26 477.8 | 1.6 |
| Finance, Insurance and Real Estate | 59 413.1 | 61 501.2 | 61 341.6 | 61 125.6 | 2.9 |
| Community, Business and Personal Service | 41 895.0 | 43 184.7 | 43 180.0 | 43 279.8 | 3.3 |

Note: Items might not add to totals given since all components are not shown.

TABLE 3. METAL PRICES 1990

| | January | February | March |
|---|---------|----------|---------|
| Copper | | | |
| Electrolytic, U.S. producer f.o.b. refinery, cents (U.S.) | 107.244 | 109.816 | 127.014 |
| Electrolytic, COMEX, 1st pos. plus 5¢, cents (C.) | 109.364 | 112.347 | 129.236 |
| Electrolytic, LME Grade A Settlement, cents (U.S.) | 107.349 | 107.055 | 119.096 |
| Lead | | | |
| New York, cents (U.S.) | 39.600 | 42.250 | 55.250 |
| Montreal, cents (C.) | 45.400 | 49.875 | 61.750 |
| LME cash, cents (U.S.) | 32.077 | 35.314 | 48.047 |
| Silver | | | |
| New York, cents (U.S.) per troy oz. | 524.295 | 527.842 | 506.182 |
| Toronto, cents (C.) per troy oz. | 616.323 | 633.489 | 599.941 |
| Zinc | | | |
| St. Louis, H.G., cents (U.S.) | 67.631 | 64.748 | 73.781 |
| Montreal, Electrolytic, cents (C.) | 79.300 | 79.375 | 91.000 |
| LME cash, cents (U.S.) | 58.685 | 63.322 | 72.676 |
| Tin | | | |
| New York, dealers, cents (U.S.) | 306.889 | 287.125 | 297.222 |
| Metals Week, composite, cents (U.S.) | 402.865 | 380.403 | 387.713 |
| Gold | | | |
| London, p.m., US\$ per troy oz. | 410.109 | 416.810 | 393.059 |
| Mercury | | | |
| New York, dealers, US\$ per flask | 290.000 | 290.000 | 285.455 |
| Nickel | | | |
| New York, dealers, cathode US\$ | 3.169 | 3.068 | 4.136 |
| LME cash, US\$ | 3.201 | 3.165 | 4.203 |
| Antimony | | | |
| New York, dealers, cents (U.S.) | 83.667 | 85.474 | 84.000 |
| Platinum | | | |
| New York, refined, US\$ per troy oz. | 600.000 | 600.000 | 600.000 |
| Cadmium | | | |
| New York, dealers, US\$ | 5.155 | 4.787 | 4.509 |
| Aluminum | | | |
| LME cash, cents (C.) | 81.201 | 78.927 | 83.878 |
| LME cash, cents (U.S.) | 69.320 | 65.965 | 71.095 |
| Cobalt | | | |
| Shot/cathode/250 kg., US\$ | 8.400 | 8.400 | 8.400 |
| U.S. spot cathode, US\$ | 7.500 | 7.625 | 7.938 |
| Tungsten | | | |
| LMB ore, low, US\$/MTU | 41.200 | 39.500 | 38.000 |
| Molybdenum | | | |
| M.W. dealer oxide, US\$ | 2.573 | 2.625 | 3.098 |
| Uranium | | | |
| Nuexco, US\$ U ₃ O ₈ | 9.120 | 8.925 | 8.850 |

Average U.S. Exchange Rate for January = 1.1714; February = 1.1965; March = 1.1798.

Note: Prices are per pound unless otherwise stated.

TABLE 4. METAL PRICES - 1989

| Commodity | Unit | U.S. Funds | Canadian Funds | Canadian Funds | Metric |
|---|-----------|------------|----------------|----------------|---------|
| Antimony | \$/lb. | 0.943 | 1.117 | 2.462 | \$/kg |
| Bismuth | \$/lb. | 5.657 | 6.699 | 14.768 | \$/kg |
| Cadmium | \$/lb. | 6.277 | 7.433 | 16.387 | \$/kg |
| Calcium | \$/lb. | 3.850 | 4.559 | 10.051 | \$/kg |
| Cobalt, shot/cathode | \$/lb. | 8.400 | 9.947 | 21.930 | \$/kg |
| Cobalt, U.S. spot cathode | \$/lb. | 7.563 | 8.956 | 19.746 | \$/kg |
| Columbium ¹ | \$/lb. | | | | \$/kg |
| Copper ² | ¢/lb. | 129.454 | 153.299 | 337.967 | ¢/kg |
| Gold, London, p.m. | \$/tr.oz. | 381.431 | 451.691 | 14.522 | \$/gram |
| Indium | \$/tr.oz. | 9.016 | 10.677 | 0.343 | ¢/gram |
| Iridium | \$/tr.oz. | 302.854 | 358.640 | 11.531 | \$/gram |
| Iron ore pellets ³ | ¢/mtu | 72.450 | 85.795 | 84.440 | \$/mtu |
| Lead ⁴ | ¢/lb. | 39.834 | 47.171 | 1.040 | \$/kg |
| Magnesium | \$/lb. | 1.630 | 1.930 | 4.255 | \$/kg |
| Mercury ⁵ | \$/flask | 287.722 | 340.720 | n.a. | |
| Molybdenum (oxide) | \$/lb. | 3.341 | 3.956 | 8.722 | \$/kg |
| Nickel, metal ⁶ | \$/lb. | 6.036 | 7.148 | 15.758 | \$/kg |
| Osmium | \$/tr.oz. | 547.917 | 648.843 | 20.861 | \$/gram |
| Palladium | \$/tr.oz. | 150.000 | 177.630 | 5.711 | \$/gram |
| Platinum | \$/tr.oz. | 600.000 | 710.520 | 22.844 | \$/gram |
| Rhodium | \$/tr.oz. | 1275.000 | 1509.855 | 48.543 | \$/gram |
| Ruthenium | \$/tr.oz. | 62.258 | 73.726 | 2.370 | \$/gram |
| Selenium | \$/lb. | 7.451 | 8.823 | 19.452 | \$/kg |
| Silver ⁴ | \$/tr.oz. | 5.499 | 6.512 | 209.369 | \$/kg |
| Tantalum | \$/lb. | 35.302 | 41.805 | 92.164 | \$/kg |
| Tellurium ¹ | \$/lb. | | | | \$/kg |
| Tin | \$/lb. | 3.973 | 4.705 | 10.372 | \$/kg |
| Titanium ore (ilmenite) ¹ | \$/t. | | | | \$/t |
| Titanium ore (slag) | \$/mtu | n.a. | n.a. | n.a. | \$/mtu |
| Tungsten LMB ore | \$/mtu | 50.356 | 59.631 | 59.631 | \$/mtu |
| Uranium (U ₃ O ₈) ⁷ | \$/lb. | 10.258 | 12.148 | 26.782 | \$/kg |
| Zinc ⁴ | ¢/lb. | 82.366 | 97.538 | 2.150 | \$/kg |

Sources: "Metals Week", "The Northern Miner", Energy, Mines and Resources Canada.

¹ List price suspended. ² The copper price is an average of the COMEX 1st position and the LME grade A settlement.

³ One iron unit equals 1% of a tonne. Hence iron ore pellets with a grade of 65% iron would contain 65 iron units/tonne.

⁴ Handy & Harman, Metals Week. ⁵ One flask equals 76 pounds (34.473 kg). ⁶ Nickel price quoted for 1989 is the LME Cash. Nickel price for 1988 was based on the LME THR-MTH Futures. ⁷ Nuexco, US\$, Northern Miner.

n.a. Not available.

Note: The iridium price reported since January 1, 1989 is the N.Y. dealer price and not the Impala Producer price which is no longer reported by Metals Week. The indium price reported since January 1, 1989 is the U.S. Producer Cominco Ltd. price and not the U.S. ingots price which is no longer reported by Metals Week. Tungsten is now listed as LMB ore. This is a change to name only, and does not affect prices quoted.

1989 average U.S. exchange rate = \$1.1842.

TABLE 5. AVERAGE ANNUAL PRICES¹ OF SELECTED MINERALS, 1983-89

| | Unit of Measure | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |
|--|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-----------|
| Aluminum, London Metal Exchange | ¢/lb. | 65.342 | 56.526 | 47.850 | 52.179 | 71.004 | 115.394 | 88.242 |
| Antimony, New York dealer | \$/lb. | 0.913 | 1.512 | 1.311 | 1.219 | 1.116 | 1.039 | 0.943 |
| Asbestos, No. 4T cement fibre | C\$/t | 1 083.000 | 1 083.000 | 1 083.000 | 1 083.000 | 1 083.000 | 1 080.000 | .. |
| Bismuth, New York dealer | \$/lb. | 1.653 | 4.132 | 4.932 | 3.017 | 3.629 | 5.726 | 5.657 |
| Cadmium, New York dealer ² | \$/lb. | 1.129 | 1.693 | 1.208 | 1.248 | 1.768 | 7.031 | 6.277 |
| Calcium, metal crowns (Producer Price List) | \$/lb. | 3.050 | 3.099 | 3.504 | 3.920 | 3.850 | 3.850 | 3.850 |
| Chrome, U.S. metal, 9% carbon | \$/lb. | 4.450 | 4.450 | 4.450 | 3.021 | 2.700 | 2.700 | 3.621 |
| Cobalt, metal, shot/cathode/250 kg | \$/lb. | 12.500 | 12.417 | 11.700 | 11.242 | 7.000 | 7.532 | 8.400 |
| Columbium, pyrochlore | \$/lb. | 3.250 | 3.250 | 3.209 | 2.600 | 3.250 | 2.600 | .. |
| Copper, electrolytic cathode, COMEX | ¢/lb. | 71.902 | 61.320 | 60.988 | 61.649 | 77.837 | 119.183 | 129.454 |
| Gold, London ³ | C\$/troy oz. | 520.792 | 466.781 | 433.227 | 510.628 | 592.011 | 538.024 | 451.691 |
| Iridium, Impala producer | \$/troy oz. | 600.000 | 600.000 | 600.000 | 600.000 | 513.750 | 420.000 | .. |
| Iron ore, taconite pellets | ¢/ltu | 80.500 | 80.500 | 80.500 | 80.500 | 77.548 | 72.441 | 72.450 |
| Lead, producer | C¢/lb. | 26.770 | 33.517 | 26.179 | 30.885 | 47.985 | 46.013 | 47.171 |
| Magnesium, U.S. primary ingot (Producer Price List) | \$/lb. | 1.365 | 1.455 | 1.480 | 1.530 | 1.530 | 1.563 | 1.630 |
| Manganese, U.S. metal, regular | ¢/lb. | 67.583 | 73.542 | 80.000 | 79.450 | 80.687 | 86.417 | 91.000 |
| Mercury, New York dealer | \$/flask (76 lb.) | 322.443 | 314.381 | 310.957 | 232.785 | 295.503 | 335.517 | 287.722 |
| Molybdenum, dealer, oxide | \$/lb. | 3.635 | 3.557 | 3.247 | 2.871 | 2.899 | 3.449 | 3.341 |
| Nickel, New York dealer, cathode | \$/lb. | 2.810 | 2.221 | 2.260 | 1.855 | 2.278 | 6.122 | 5.982 |
| Osmium, New York dealer | \$/troy oz. | 133.113 | 466.479 | 913.125 | 698.854 | 632.458 | 588.750 | 547.917 |
| Palladium, Impala producer | \$/troy oz. | 130.000 | 14.667 | 126.905 | 130.595 | 150.000 | 150.000 | 150.000 |
| Platinum, Impala producer | \$/troy oz. | 475.000 | 475.000 | 475.000 | 519.147 | 600.000 | 600.000 | 600.000 |
| Potash, coarse, major producer, 60% contained, K ₂ O ⁴ | \$/st | 71.500 | 65.000 | 55.729 | 46.750 | 68.000 | 86.000 | .. |
| Rhodium, Impala producer | \$/troy oz. | 600.000 | 627.500 | 892.708 | 1 194.583 | 1 240.000 | 1 275.000 | 1 275.000 |
| Ruthenium, New York dealer | \$/troy oz. | 28.529 | 104.183 | 100.269 | 73.423 | 69.796 | 62.204 | 62.258 |
| Selenium, New York dealer | \$/lb. | 3.722 | 8.995 | 7.248 | 5.596 | 6.479 | 10.085 | 7.451 |
| Silver, Handy & Harman, Toronto | C\$/troy oz. | 11.421 ^r | 8.141 ^r | 6.142 ^r | 5.470 ^r | 7.009 ^r | 6.535 ^r | 5.499 |
| Sulphur, elemental, North American deliveries | C\$/t | 60.170 | 69.222 | 100.775 | 107.959 | 88.234 | 71.050 | .. |
| Tantalum, tantalite ore, spot | \$/lb. | 23.146 | 29.438 | 26.292 | 18.008 | 20.542 | 37.700 | 35.302 |
| Tellurium, major producer, slab | \$/lb. | 9.000 | 11.000 | 11.000 | 10.000 | 10.006 | 14.250 [•] | .. |
| Tin, New York dealer | \$/lb. | 6.013 | 5.678 | 5.279 | 2.941 | 3.156 | 3.309 | 3.973 |
| Titanium, slag | \$/lt | 150.000 | 150.000 | 150.000 | 150.000 | 150.000 | 215.838 | .. |
| Tungsten, London Metal Bulletin - ore | \$/mtu | 79.029 | 79.146 | 64.925 | 42.554 | 44.492 | 52.015 | 50.356 |
| Uranium, U ₃ O ₈ ⁵ | C\$/lb. | 31.212 ^r | 27.000 ^r | 26.000 ^r | 25.000 ^r | 23.000 ^r | 25.000 ^r | 24.000 |
| Vanadium, pentoxide, metallurgical | \$/lb. | 3.350 | 3.350 | 3.350 | 3.350 | 3.350 | 3.350 | .. |
| Zinc, special high grade | C¢/lb. | 52.632 | 63.823 | 56.876 | 55.129 | 57.794 | 74.988 | 97.538 |

Sources: Alberta Energy Resource Industries Monthly Statistics (Sulphur); "Engineering and Mining Journal" (Asbestos); "Metals Week"; "Northern Miner"; Energy, Mines and Resources Canada.

¹ Prices, except where noted, are in United States currency. ² U.S. producer price is used for 1983-86; New York dealer price is used for 1987-89. ³ Average afternoon fixings of London bullion dealers, converted to Canadian dollars. ⁴ Annual average not available, indicative price given. ⁵ From EMR publications on assessment of Canada's uranium supply and demand.

^r Revised; .. Not available; • Estimate.

TABLE 6. CANADIAN AVERAGE ANNUAL PRICES OF SELECTED MINERALS, 1983-89

| | Unit of Measure | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |
|--|-----------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------|
| Aluminum, London Metal Exchange | \$/kg | 1.775 | 1.614 | 1.440 | 1.598 | 2.076 | 3.131 | 2.304 |
| Antimony, New York dealer | \$/kg | 2.481 | 4.316 | 3.947 | 3.734 | 3.262 | 2.819 | 2.462 |
| Asbestos, No. 4T cement fibre | \$/t | 1 083.000 | 1 083.000 | 1 083.000 | 1 083.000 | 1 083.000 | 1 080.000 | .. |
| Bismuth, New York dealer | \$/kg | 4.491 | 11.795 | 14.847 | 9.241 | 10.609 | 15.538 | 14.768 |
| Cadmium, New York dealer ¹ | \$/kg | 3.067 | 4.833 | 3.637 | 3.823 | 5.168 | 19.079 | 16.387 |
| Calcium, metal crowns (Producer Price List) | \$/kg | 8.286 | 8.846 | 10.549 | 12.007 | 11.255 | 10.447 | 10.051 |
| Chrome, U.S. metal, 9% carbon | \$/kg | 12.090 | 12.703 | 13.396 | 9.254 | 7.893 | 7.327 | 9.453 |
| Cobalt, metal, shot/cathode/250 kg | \$/kg | 33.961 | 35.446 | 35.222 | 34.436 | 20.463 | 20.439 | 21.930 |
| Columbium, pyrochlore | \$/kg | 8.830 | 9.278 | 9.660 | 7.964 | 9.501 | 7.055 | .. |
| Copper, electrolytic cathode, COMEX | \$/kg | 1.953 | 1.750 | 1.836 | 1.888 | 2.275 | 3.234 | 3.380 |
| Gold, London ² | \$/g | 16.744 | 15.007 | 13.929 | 16.417 | 19.034 | 17.298 | 14.522 |
| Iridium, Impala producer | \$/g | 23.773 | 24.978 | 26.341 | 26.802 | 21.902 | 16.621 | .. |
| Iron ore, taconite pellets | c/mtu | 97.638 | 102.588 | 108.187 | 110.082 | 101.204 | 87.757 | 84.440 |
| Lead, producer | c/kg | 59.018 | 73.892 | 57.715 | 68.090 | 105.789 | 101.441 | 103.994 |
| Magnesium, U.S. primary ingot (Producer Price List) | \$/kg | 3.709 | 4.153 | 4.455 | 4.687 | 4.473 | 4.241 | 4.255 |
| Manganese, U.S. metal, regular | \$/kg | 1.836 | 2.099 | 2.408 | 2.434 | 2.359 | 2.345 | 2.376 |
| Mercury, New York dealer | \$/kg | 11.527 | 11.808 | 12.317 | 9.382 | 11.366 | 11.980 | 9.884 |
| Molybdenum, dealer, oxide | \$/kg | 9.876 | 10.154 | 9.775 | 8.794 | 8.475 | 9.359 | 8.722 |
| Nickel, New York dealer, cathode | \$/kg | 5.923 | 6.340 | 6.804 | 5.682 | 6.659 | 16.613 | 15.617 |
| Osmium, New York dealer | \$/g | 5.274 | 19.419 | 40.088 | 31.218 | 26.963 | 23.299 | 20.861 |
| Palladium, Impala producer | \$/g | 5.151 | 6.106 | 5.571 | 5.834 | 6.395 | 5.936 | 5.711 |
| Platinum, Impala producer | \$/g | 18.820 | 19.774 | 20.853 | 23.191 | 25.579 | 23.744 | 22.844 |
| Potash, coarse, major producer, 60% contained, K ₂ O ³ | \$/t | 97.128 | 92.775 | 83.884 | 71.601 | 99.392 | 116.685 | .. |
| Rhodium, Impala producer | \$/g | 23.773 | 26.123 | 39.192 | 53.363 | 52.863 | 50.456 | 48.543 |
| Ruthenium, New York dealer | \$/g | 1.130 | 4.337 | 4.402 | 3.280 | 2.976 | 2.462 | 2.370 |
| Selenium, New York dealer | \$/kg | 10.112 | 25.677 | 21.820 | 17.142 | 18.940 | 27.367 | 19.452 |
| Silver, Handy & Harman, Toronto | \$/kg | 452.512 | 338.909 | 269.646 | 244.349 | 298.804 | 258.611 | 209.369 |
| Sulphur, elemental, North American deliveries | \$/t | 60.170 | 69.222 | 100.775 | 107.959 | 88.234 | 71.050 | .. |
| Tantalum, tantalite ore, spot | \$/kg | 62.885 | 84.034 | 79.150 | 55.161 | 60.050 | 102.302* | 92.164 |
| Tellurium, major producer, slab | \$/kg | 24.452 | 31.401 | 33.115 | 30.631 | 29.250 | 38.669 | .. |
| Tin, New York dealer | \$/kg | 16.337 | 16.209 | 15.892 | 9.009 | 9.226 | 8.979 | 10.372 |
| Titanium, slag | \$/t | 181.933 | 191.158 | 201.591 | 205.121 | 195.757 | 261.472 | .. |
| Tungsten, London Metal Bulletin - ore | \$/mtu | 97.392 | 102.481 | 88.656 | 59.125 | 58.996 | 64.024 | 59.631 |
| Uranium, U ⁴ | \$/kg | 100.000 ^r | 90.000 ^r | 91.000 ^r | 89.000 ^r | 79.000 ^r | 79.000 ^r | 74.000 |
| Vanadium, pentoxide, metallurgical | \$/kg | 9.102 | 9.563 | 10.085 | 10.262 | 9.793 | 9.091 | .. |
| Zinc, special high grade | \$/kg | 1.160 | 1.407 | 1.254 | 1.215 | 1.274 | 1.653 | 2.150 |

Sources: Alberta Energy Resource Industries Monthly Statistics (Sulphur); "Engineering and Mining Journal" (Asbestos); "Metals Week"; "Northern Miner"; Energy, Mines and Resources Canada.

¹ U.S. producer price for 1983-86; New York dealer price for 1987-89. ² Average afternoon fixings of London bullion dealers, converted to Canadian dollars. ³ Annual average not available, indicative price given. ⁴ From EMR publications on assessment of Canada's uranium supply and demand.

^r Revised; .. Not available; * Estimate.

TABLE 7. CANADA, MINERAL PRODUCTS INDUSTRIES, SELLING PRICE INDEXES, 1983-89

| Base (1981=100) | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 ^p |
|---|-------|-------|-------|-------|-------|-------|-------------------|
| Iron and Steel Products Industries | | | | | | | |
| Ferro-alloy and steel foundry industries | 104.1 | 110.5 | 113.3 | 114.7 | 113.3 | 116.8 | 123.3 |
| Iron foundries | 109.0 | 112.2 | 116.6 | 119.8 | 121.9 | 125.6 | 129.8 |
| Primary steel industries | 109.9 | 113.5 | 115.7 | 116.9 | 118.4 | 125.2 | 127.9 |
| Steel pipe and tube industry | 108.9 | 111.0 | 112.1 | 112.4 | 113.0 | 119.2 | 121.7 |
| Nonferrous Primary Metal Products Industries | | | | | | | |
| Aluminum rolling, casting and extruding industry | 103.6 | 116.2 | 111.2 | 114.4 | 117.7 | 138.0 | 131.7 |
| Copper rolling, casting and extruding industry | 99.2 | 91.4 | 93.0 | 95.9 | 108.6 | 144.3 | 157.3 |
| Jewellery and precious metals industries | 99.9 | 90.6 | 87.7 | 94.9 | 99.9 | 94.6 | 86.3 |
| Other rolling casting and extruding industry | 99.7 | 106.6 | 100.9 | 102.3 | 108.6 | 125.7 | 128.7 |
| Nonferrous metal smelting and refining industries | 95.6 | 98.1 | 91.7 | 95.2 | 106.5 | 143.8 | 139.6 |
| Nonmetallic Mineral Products Industries | | | | | | | |
| Agricultural chemicals industries | 100.2 | 103.8 | 104.2 | 101.7 | 102.1 | 108.6 | 109.0 |
| Hydraulic cement industry | 123.7 | 128.0 | 133.9 | 137.3 | 138.4 | 139.9 | 143.7 |
| Clay products industry (from domestic clay) | 120.5 | 130.7 | 143.0 | 152.6 | 164.4 | 169.5 | 179.5 |
| Clay products industry (from imported clay) | 115.5 | 118.1 | 121.5 | 128.1 | 135.2 | 143.2 | 153.2 |
| Concrete products industries | 115.0 | 113.8 | 114.0 | 120.5 | 126.5 | 136.5 | 140.0 |
| Glass and glass products industries | 114.5 | 119.0 | 121.1 | 126.0 | 131.0 | 138.0 | 139.3 |
| Nonmetallic mineral insulating materials industry | 112.7 | 113.4 | 120.8 | 121.8 | 127.3 | 133.5 | 139.0 |
| Refined petroleum and coal products industries | 121.8 | 127.1 | 133.5 | 107.2 | 101.9 | 95.3 | 97.0 |
| Fabricated Metal Products Industries | | | | | | | |
| Agricultural implement industry | 119.7 | 125.3 | 130.3 | 133.3 | 135.7 | 137.7 | 140.6 |
| Miscellaneous fabricated structural metal products | 108.5 | 110.8 | 115.3 | 118.0 | 120.6 | 128.3 | 134.1 |
| Hardware, tool and cutlery industries | 115.7 | 121.6 | 128.0 | 132.5 | 137.5 | 144.9 | 151.3 |
| Heating equipment industry | 117.5 | 121.9 | 127.2 | 129.6 | 132.9 | 137.9 | 143.0 |
| Other metal fabricating industries | 109.5 | 114.6 | 119.1 | 123.5 | 126.5 | 133.2 | 139.9 |
| Power boiler and heat exchanger industry | 110.7 | 114.2 | 120.0 | 130.0 | 141.5 | 149.2 | 157.8 |
| Stamped, pressed and coated metal products industries | 112.5 | 115.8 | 118.4 | 123.2 | 127.1 | 131.5 | 133.8 |
| Wire and wire products industries | 107.2 | 113.0 | 115.5 | 116.4 | 118.1 | 124.4 | 129.6 |

Source: Statistics Canada, 62-011.

^p Preliminary.

TABLE 8. CANADA, SELLING PRICE INDEXES OF MINERAL RAW MATERIALS, 1983-89

| Base (1981=100) | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989P |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|
| Metallic Minerals | | | | | | | |
| Copper concentrates | 92.4 | 80.8 | 86.6 | 89.5 | 106.3 | 142.1 | 148.0 |
| Iron ore | 105.2 | 109.5 | 114.0 | 115.5 | 111.4 | 105.2 | 98.7 |
| Lead concentrates | 57.5 | 73.1 | 56.7 | 67.7 | 106.2 | 102.8 | 104.3 |
| Nickel concentrates | 84.5 | 92.8 | 99.4 | 87.2 | 97.0 | 229.7 | 219.5 |
| Other base metals | 95.3 | 104.8 | 94.8 | 96.8 | 103.6 | 126.1 | 117.8 |
| Precious metals | 99.0 | 84.9 | 77.2 | 86.6 | 99.2 | 90.0 | 76.1 |
| Gold and alloys in primary form | 98.0 | 85.0 | 78.2 | 88.1 | 100.5 | 91.5 | 77.3 |
| Platinum | 99.6 | 87.5 | 74.1 | 119.3 | 139.0 | 121.4 | 113.9 |
| Silver | 111.2 | 82.1 | 65.8 | 59.8 | 72.9 | 63.5 | 51.7 |
| Radio-active concentrates | 98.5 | 95.1 | 91.9 | 91.1 | 89.2 | 79.1 | 54.7 |
| Zinc concentrates | 96.3 | 118.4 | 105.0 | 101.7 | 108.0 | 141.1 | 187.9 |
| Nonmetal Materials | | | | | | | |
| Asbestos fibres | 110.9 | 110.4 | 108.0 | 107.7 | 107.8 | 108.7 | 115.4 |
| Other crude minerals | 110.1 | 114.3 | 116.0 | 117.5 | 117.8 | 122.9 | 122.2 |
| Potash (muriate) | 91.8 | 99.5 | 93.5 | 92.0 | 99.0 | 133.7 | 129.6 |
| Sand and gravel | 108.8 | 108.2 | 109.4 | 112.1 | 117.3 | 128.0 | 140.4 |
| Quartz and silica sand | 117.2 | 114.6 | 118.4 | 122.1 | 122.6 | 131.4 | 130.4 |
| Stone | 123.6 | 127.5 | 133.8 | 138.9 | 143.4 | 149.8 | 153.0 |
| Building | 123.2 | 127.6 | 132.9 | 136.5 | 141.3 | 145.3 | 152.0 |
| Crushed | 127.6 | 134.6 | 143.3 | 151.0 | 157.3 | 164.7 | 166.8 |
| Other | 123.2 | 127.6 | 132.9 | 136.5 | 141.3 | 145.3 | 152.0 |
| Sulphur | 98.9 | 114.4 | 167.2 | 179.1 | 145.9 | 117.9 | 118.0 |
| Mineral Fuels | | | | | | | |
| Coal (thermal) | 111.0 | 118.6 | 119.5 | 119.3 | 120.2 | 107.0 | 107.3 |
| Natural gas | 134.3 | 131.4 | 131.6 | 129.2 | 124.9 | 115.1 | 109.9 |
| Crude mineral oil | 130.0 | 131.8 | 138.9 | 80.1 | 88.6 | 69.3 | 79.2 |

Source: Statistics Canada, 62-011.

P Preliminary.

TABLE 9. CANADA, PRINCIPAL STATISTICS OF THE MINERAL MANUFACTURING INDUSTRIES, 1987

| | Mineral Manufacturing Activity | | | | | | | | | |
|--|--------------------------------|-----------|-----------------------|-----------|-------------------------|---------------------------|-----------------------|----------------|-----------------------------|-----------------------|
| | Production and Related Workers | | | | Costs | | | | Total Activity ¹ | |
| | Establish- ments | Employees | Person- hours Paid | Wages | Fuel and Electricity | Materials and Supplies | Value of Shipments | Value Added | Employees | Salaries and Wages |
| | (number) | (number) | (000) | (\$000) | (\$000) | (\$000) | (\$000) | (\$000) | (number) | (\$000) |
| Primary Metal Industries | | | | | | | | | | |
| Primary steel | 60 | .. | .. | .. | 485 392 | 4 456 810 | 8 415 637 | .. | 46 493 | 1 793 886 |
| Smelting and refining | 34 | 20 654 | .. | 756 156 | 446 242 | 2 220 129r | 5 763 398r | 3 028 517 | 29 397 | 1 149 582 |
| Wire and wire products industries ² | 302 | .. | .. | .. | 39 415 | 1 150 215 | 2 001 941 | .. | 15 284 | 406 338 |
| Aluminum rolling, casting and extruding | 71 | .. | .. | .. | 33 449 | 1 169 431 | 1 701 916 | .. | 6 143 | 215 473 |
| Iron foundries | 91 | .. | .. | .. | 44 175 | 347 018 | 871 450 | .. | 7 860 | 242 477 |
| Metal rolling, casting and extruding n.e.s. | 96 | .. | .. | .. | 28 304 | 547 807 | 1 005 297 | .. | 6 403r | 183 586 |
| Steel pipe and tube | 36 | .. | .. | .. | 22 260 | 806 033 | 1 233 548 | .. | 4 964r | 170 371 |
| Copper and alloy rolling, casting and extruding | 39 | .. | .. | .. | 15 298 | 466 060 | 607 483 | .. | 2 828 | 83 237 |
| Total | 729 | .. | .. | .. | 1 114 535 | 11 163 503r | 21 600 670r | .. | 119 372r | 4 244 950 |
| Nonmetallic Mineral Products Industries | | | | | | | | | | |
| Ready-mix concrete | 587 | 10 124 | .. | 284 846 | 59 474 | 1 035 871r | 1 843 392r | 730 174 | 11 910 | 343 436 |
| Cement | 24 | 2 294 | .. | 87 173 | 162 830 | 246 252r | 980 231r | 546 169 | 3 646 | 143 154 |
| Primary glass and glass containers | 23 | 5 751 | .. | 171 795 | 60 477 | 280 503r | 875 827r | 531 144 | 7 584 | 244 603 |
| Glass products | 153 | 5 162 | .. | 131 212 | 14 876 | 339 711r | 688 081r | 327 418 | 6 021 | 161 356 |
| Gypsum products | 30 | 1 667 | .. | 49 873 | 33 881 | 287 614r | 642 618r | 309 680 | 2 375 | 74 702 |
| Mineral insulating products | 43 | 2 228 | .. | 67 089 | 35 562 | 465 546r | 816 488r | 188 780 | 3 444 | 117 067 |
| Other concrete products | 248 | 4 880 | .. | 107 529 | 15 918 | 235 739r | 537 354r | 282 644 | 5 403 | 129 528 |
| Structural concrete products | 64 | 2 496 | .. | 70 160 | 5 155 | 133 247r | 305 321r | 1 365 819 | 3 006 | 87 788 |
| Clay products (domestic) | 34 | 1 250 | .. | 35 020 | 26 293 | 49 305r | 223 455r | 143 341 | 1 738 | 54 457 |
| Other nonmetallic mineral products | 153 | 2 384 | .. | 53 719 | 10 638 | 129 148r | 281 914r | 136 147 | 2 707 | 64 298 |
| Concrete pipe | 50 | 1 581 | .. | 42 939 | 5 970 | 105 054r | 242 111r | 133 127 | 1 900 | 56 655 |
| Clay products (imported) | 56 | 1 700 | .. | 38 691 | 7 558 | 52 630r | 189 821r | 128 400 | 2 192 | 52 927 |
| Refractory products | 29 | 1 291 | .. | 31 462 | 7 019 | 131 546r | 256 599r | 109 285 | 1 772 | 47 056r |
| Abrasives | 29 | 1 265 | .. | 32 494 | 34 589 | 132 456r | 276 700r | 102 183 | 1 693 | 48 326 |
| Lime | 14 | 595 | .. | 20 803 | 38 470 | 31 410r | 156 129r | 86 904 | 784 | 28 587 |
| Asbestos products industry | 10 | 490 | .. | 10 137 | 2 037 | 32 927r | 59 355r | 23 151 | 647 | 14 929 |
| Total | 1 547 | 45 158 | .. | 1 234 942 | 520 747 | 3 688 959r | 8 375 396r | 5 144 366 | 56 822 | 1 668 869r |

TABLE 9. (cont'd)

| | Mineral Manufacturing Activity | | | | | | | | | |
|--|--------------------------------|-----------|-----------------------|---------|-------------------------|---------------------------|-------------------------|----------------|-----------------------------|-------------------------|
| | Production and Related Workers | | | | Costs | | | | Total Activity ¹ | |
| | Establish- ments | Employees | Person- hours Paid | Wages | Fuel and Electricity | Materials and Supplies | Value of Shipments | Value Added | Employees | Salaries and Wages |
| | (number) | (number) | (000) | (\$000) | (\$000) | (\$000) | (\$000) | (\$000) | (number) | (\$000) |
| Fabricated Metal Products Industries | | | | | | | | | | |
| Stamped and pressed metal products industries | 971 | .. | .. | .. | 75 267 | 3 740 056 | 5 610 044 | .. | 35 329 ^r | 887 398 |
| Fabricated structural metal products industries | 396 | .. | .. | .. | 28 878 | 1 263 621 | 2 477 554 | .. | 18 615 | 501 785 |
| Hardware, tool and cutlery industry | 855 | .. | .. | .. | 24 738 | 747 123 | 1 794 817 | .. | 22 129 | 573 057 |
| Other metal fabricating industries | 538 | .. | .. | .. | 31 554 | 913 311 | 1 786 377 | .. | 16 358 | 418 340 |
| Ornamental and architectural metal products industries | 766 | .. | .. | .. | 22 700 | 1 008 568 | 1 836 938 | .. | 19 770 | 446 010 |
| Machine shop industry | 1 464 | .. | .. | .. | 19 254 | 483 560 | 1 194 506 | .. | 18 398 | 436 311 |
| Power boiler and heat exchanger industry | 43 | .. | .. | .. | 4 715 | 240 407 | 652 833 ^r | .. | 4 816 | 148 645 |
| Heating equipment industry | 163 | .. | .. | .. | 5 636 | 317 251 | 595 940 | .. | 6 252 | 136 408 |
| Total | 5 196 | .. | .. | .. | 212 742 | 8 443 897 | 15 949 009 ^r | .. | 141 667 ^r | 3 547 954 |
| Petroleum and Coal Products Industries | | | | | | | | | | |
| Petroleum refining products | 30 | .. | .. | .. | 290 139 | 15 018 518 | 16 958 489 | .. | 13 252 | 647 779 |
| Other petroleum and coal products | 62 | .. | .. | .. | 12 290 | 260 099 | 376 200 | .. | 894 | 28 053 |
| Lubricating oils and greases | 34 | .. | .. | .. | 5 052 | 245 136 | 347 590 | .. | 1 002 | 32 476 |
| Total | 126 | .. | .. | .. | 307 481 | 15 523 753 | 17 682 279 | .. | 15 148 | 708 308 |
| Total mineral manufacturing industries | 7 598 | .. | .. | .. | 2 155 505 | 38 820 112 ^r | 63 607 354 ^r | .. | 333 009 ^r | 10 170 081 ^r |

Source: Statistics Canada.

¹ Total activity includes sales and head offices. ² Wire and wire products have been included in the primary metal industries group.n.e.s. Not elsewhere specified; .. Not available; ^r Revised.

Note: Totals may not add due to rounding.

TABLE 10. CANADA, PRINCIPAL STATISTICS OF THE MINERAL MANUFACTURING INDUSTRY BY REGION, 1987

| | Mineral Manufacturing Activity | | | | | | | | | |
|---|--------------------------------|-----------|-----------------------|---------|-------------------------|---------------------------|-------------------------|----------------|-----------------------------|------------------------|
| | Production and Related Workers | | | | Costs | | | | Total Activity ¹ | |
| | Establish- ments | Employees | Person- hours Paid | Wages | Fuel and Electricity | Materials and Supplies | Value of Shipments | Value Added | Employees | Salaries and Wages |
| | (number) | (number) | (000) | (\$000) | (\$000) | (\$000) | (\$000) | (\$000) | (number) | (\$000) |
| Primary Metals Industry | | | | | | | | | | |
| Atlantic Provinces | 6 | .. | .. | .. | x | x | x | .. | x | x |
| Quebec | 117 | .. | .. | .. | 421 808 | 2 984 396 | 6 223 122 | .. | 27 020 | 1 020 157 |
| Ontario | 216 | .. | .. | .. | 508 951 | 5 731 198 | 10 707 854 | .. | 62 230 | 2 325 932 |
| Prairie Provinces | 49 | .. | .. | .. | x | x | x | .. | x | x |
| British Columbia | 39 | .. | .. | .. | 12 398 | 375 003 | 950 198 | .. | 6 446 | 218 621 |
| Yukon and Northwest Territories | - | .. | .. | .. | - | - | - | .. | - | - |
| Canada | 427 | .. | .. | .. | 1 075 121 | 10 013 289 ^r | 19 598 730 ^r | .. | 104 088 ^r | 3 838 613 |
| | | | | | | | | | | 8 398 472 ^r |
| Nonmetallic Mineral Products Industry | | | | | | | | | | |
| Atlantic Provinces | 115 | .. | .. | .. | x | x | x | .. | x | x |
| Quebec | 398 | .. | .. | .. | 134 159 | 809 324 | 1 865 522 | .. | 14 409 | 389 809 |
| Ontario | 548 | .. | .. | .. | 267 012 | 2 003 071 | 4 605 150 | .. | 28 555 | 869 953 |
| Prairie Provinces | 311 | .. | .. | .. | 61 399 | 495 105 | 1 052 365 | .. | 7 305 | 209 696 |
| British Columbia | 175 | .. | .. | .. | 36 433 | 270 410 | 588 116 | .. | 3 991 | 136 216 |
| Yukon and Northwest Territories | - | .. | .. | .. | - | - | - | .. | - | - |
| Canada | 1 547 | .. | .. | .. | 520 748 | 3 688 957 ^r | 8 375 397 ^r | .. | 56 822 | 1 668 869 ^r |
| | | | | | | | | | | 4 163 025 ^r |
| Fabricated Metal Products Industry² | | | | | | | | | | |
| Atlantic Provinces | 167 | .. | .. | .. | 4 550 | 189 749 | 331 893 | .. | 3 183 | 72 793 |
| Quebec | 1 282 | .. | .. | .. | 59 927 | 1 975 807 | 3 810 157 | .. | 35 943 | 877 107 |
| Ontario | 2 850 | .. | .. | .. | 153 990 | 6 084 492 | 11 235 012 | .. | 94 119 | 2 392 174 |
| Prairie Provinces | 655 | .. | .. | .. | 18 160 | 725 060 | 1 409 958 | .. | 14 018 | 331 644 |
| British Columbia | 544 | .. | .. | .. | 15 529 | 619 003 | 1 163 933 | .. | 9 688 | 280 572 |
| Yukon and Northwest Territories | - | .. | .. | .. | - | - | - | .. | - | - |
| Canada | 5 498 | .. | .. | .. | 252 156 | 9 594 112 | 17 950 952 ^r | .. | 156 951 ^r | 3 954 291 |
| | | | | | | | | | | 8 132 919 |

TABLE 10. (cont'd)

| | Mineral Manufacturing Activity | | | | | | | | | | |
|---|--------------------------------|-----------|-----------------------|---------|-------------------------|---------------------------|-------------------------|----------------|-----------------------------|-------------------------|-------------------------|
| | Production and Related Workers | | | | Costs | | | | Total Activity ¹ | | |
| | Establish- ments | Employees | Person- hours Paid | Wages | Fuel and Electricity | Materials and Supplies | Value of Shipments | Value Added | Employees | Salaries and Wages | Value Added |
| | (number) | (number) | (000) | (\$000) | (\$000) | (\$000) | (\$000) | (\$000) | (number) | (\$000) | (\$000) |
| Petroleum and Coal Products Industry | | | | | | | | | | | |
| Atlantic Provinces | 8 | .. | .. | .. | x | x | x | .. | x | x | x |
| Quebec | 25 | .. | .. | .. | 92 738 | 3 316 671 | 3 547 825 | .. | 1 437 | 63 561 | 120 863 |
| Ontario | 48 | .. | .. | .. | 113 978 | 5 441 724 | 6 372 264 | .. | 7 654 | 354 255 | 919 861 |
| Prairie Provinces | 31 | .. | .. | .. | x | x | x | .. | x | x | x |
| British Columbia | 13 | .. | .. | .. | 20 575 | 1 439 438 | 1 640 981 | .. | 957 | 49 026 | 192 975 |
| Yukon and Northwest Territories | 1 | .. | .. | .. | x | x | x | .. | x | x | x |
| Canada | 126 | .. | .. | .. | 307 481 | 15 523 753 | 17 682 278 | .. | 15 148 | 708 309 | 2 066 515 |
| Total Mineral Manufactur- ing Industry | | | | | | | | | | | |
| Atlantic Provinces | 296 | .. | .. | .. | x | x | x | .. | x | x | x |
| Quebec | 1 822 | .. | .. | .. | 708 632 | 9 086 198 | 15 446 626 | .. | 78 809 | 2 350 634 | 5 595 509 |
| Ontario | 3 662 | .. | .. | .. | 1 043 931 | 19 260 485 | 32 920 280 | .. | 192 558 | 5 942 314 | 12 680 903 |
| Prairie Provinces | 1 046 | .. | .. | .. | x | x | x | .. | x | x | x |
| British Columbia | 771 | .. | .. | .. | 84 935 | 2 703 854 | 4 343 228 | .. | 21 082 | 684 435 | 1 564 517 |
| Yukon and Northwest Territories | 1 | .. | .. | .. | x | x | x | .. | x | x | x |
| Canada | 7 598 | .. | .. | .. | 2 155 505 | 38 820 112 ^r | 63 607 354 ^r | .. | 333 009 ^r | 10 170 081 ^r | 22 760 931 ^r |

Source: Statistics Canada, 31-203.

¹ Total activity includes sales and head offices. ² For reasons of confidentiality, SIC 305 (Wire and wire products), normally included in Primary Metals is included in Fabricated Metal Products.x Confidential; .. Not available; ^r Revised; - Nil.

TABLE 11. CANADA, PRINCIPAL STATISTICS OF THE MINERAL MANUFACTURING INDUSTRIES¹, 1980-87

| | Mineral Manufacturing Activity | | | | | | | | Total Activity ² | | |
|------|--------------------------------|-----------|----------------------|-----------|-------------------------|---------------------------|-------------------------|----------------|-----------------------------|-------------------------|-------------------------|
| | Production and Related Workers | | | | Costs | | | | | | |
| | Establish- ments | Employees | Person-hours Paid | Wages | Fuel and Electricity | Materials and Supplies | Value of Shipments | Value Added | Employees | Salaries and Wages | Value Added |
| | (number) | (number) | (000) | (\$000) | (\$000) | (\$000) | (\$000) | (\$000) | (number) | (\$000) | (\$000) |
| 1980 | 7 229 | 270 529 | 565 988 | 4 991 451 | 1 411 101 | 28 394 177 | 43 895 507 | 14 758 224 | 366 120 | 7 262 688 | 15 160 467 |
| 1981 | 7 196 | 261 364 | 546 732 | 5 393 636 | 1 720 151 | 34 570 420 | 51 870 979 | 16 791 049 | 361 883 | 8 076 300 | 17 200 686 |
| 1982 | 5 687 | 229 518 | 475 378 | 5 333 201 | 1 728 740 | 34 241 605 | 50 045 037 | 14 497 245 | 321 785 | 8 126 238 | 14 823 990 |
| 1983 | 7 370 | 216 944 | 447 947 | 5 420 307 | 1 905 777 | 34 720 416 | 52 773 875 | 15 861 491 | 301 112 | 8 143 674 | 16 196 749 |
| 1984 | 7 511 | 223 816 | 470 367 | 5 948 626 | 2 125 032 | 37 738 117 | 57 207 764 | 17 980 271 | 304 309 | 8 719 151 | 18 265 131 |
| 1985 | 7 625 | 238 544 | 506 377 | 6 507 081 | 2 229 270 | 39 497 925 | 61 241 939 | 19 305 730 | 313 850 | 9 271 447 | 19 646 938 |
| 1986 | 7 841 | 248 039 | 524 184 | 6 829 899 | 2 096 145 | 31 806 478 | 54 521 641 | 19 788 464 | 319 950 | 9 563 918 | 20 124 687 |
| 1987 | 7 598 | .. | .. | .. | 2 155 505 | 38 820 112 ^r | 63 607 354 ^r | .. | 333 009 ^r | 10 170 081 ^r | 22 760 931 ^r |

Source: Statistics Canada.

¹ Includes the following industries: Primary Metals; Nonmetallic Mineral Products; Fabricated Metal Products; and Refined Petroleum and Coal Products. ² Total Activity includes sales and head offices.

.. Not available; ^r Revised.

TABLE 12. CANADA, EMPLOYMENT, SALARIES AND WAGES IN THE MINERAL MANUFACTURING INDUSTRIES, 1981-87

| | Unit | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|--|--------|-----------|-----------|-----------|-----------|-----------|-----------|------------------------|
| Primary Metal Industries | | | | | | | | |
| Production and related workers | Number | 105 518 | 92 621 | 87 769 | 92 336 | 92 695 | 90 035 | .. |
| Salaries and wages | \$000 | 2 355 537 | 2 368 939 | 2 445 267 | 2 818 413 | 2 940 777 | 2 924 986 | .. |
| Annual average salary and wage | \$ | 22 324 | 25 577 | 27 860 | 30 523 | 31 725 | 32 487 | .. |
| Administrative and office workers | Number | 36 959 | 34 563 | 31 076 | 30 826 | 29 467 | 28 738 | .. |
| Salaries and wages | \$000 | 1 039 467 | 1 104 327 | 1 055 120 | 1 131 842 | 1 159 060 | 1 182 287 | .. |
| Annual average salary and wage | \$ | 28 125 | 31 951 | 33 953 | 36 717 | 39 334 | 41 140 | .. |
| Total primary metal industries ¹ | | | | | | | | |
| Employees | Number | 142 477 | 127 184 | 118 845 | 123 162 | 122 162 | 118 773 | 119 372 ^r |
| Salaries and wages | \$000 | 3 395 004 | 3 473 266 | 3 500 387 | 3 950 387 | 4 099 837 | 4 107 273 | 4 244 950 |
| Annual average salary and wage | \$ | 23 828 | 27 309 | 29 453 | 32 074 | 33 561 | 34 581 | 35 561 ^r |
| Nonmetallic Mineral Products Industries | | | | | | | | |
| Production and related workers | Number | 40 145 | 33 997 | 34 097 | 36 155 | 38 763 | 42 011 | 45 158 |
| Salaries and wages | \$000 | 818 566 | 751 915 | 800 755 | 883 604 | 1 001 780 | 1 121 460 | 1 234 942 |
| Annual average salary and wage | \$ | 20 390 | 22 117 | 23 485 | 24 439 | 25 844 | 26 694 | 27 347 |
| Administrative and office workers | Number | 15 124 | 13 952 | 13 353 | 12 738 | 11 842 | 11 479 | 11 664 |
| Salaries and wages | \$000 | 369 889 | 383 405 | 391 901 | 394 620 | 397 131 | 406 427 | 433 927 |
| Annual average salary and wage | \$ | 24 457 | 27 480 | 29 349 | 30 980 | 33 536 | 35 406 | 37 202 |
| Total nonmetallic mineral products | | | | | | | | |
| Employees | Number | 55 269 | 47 949 | 47 450 | 48 893 | 50 605 | 53 490 | 56 822 |
| Salaries and wages | \$000 | 1 188 455 | 1 135 320 | 1 192 656 | 1 278 224 | 1 398 911 | 1 527 887 | 1 668 869 ^r |
| Annual average salary and wage | \$ | 21 503 | 23 678 | 25 135 | 26 143 | 27 644 | 28 564 | 29 370 ^r |
| Fabricated Metal Products Industries | | | | | | | | |
| Production and related workers | Number | 107 269 | 94 779 | 87 661 | 88 787 | 100 650 | 109 634 | .. |
| Salaries and wages | \$000 | 1 970 334 | 1 946 325 | 1 910 181 | 1 983 782 | 2 298 665 | 2 518 297 | .. |
| Annual average salary and wage | \$ | 18 368 | 20 535 | 21 791 | 22 343 | 22 838 | 22 970 | .. |
| Administrative and officer workers | Number | 34 254 | 30 372 | 28 239 | 26 203 | 23 694 | 22 987 | .. |
| Salaries and wages | \$000 | 836 878 | 803 920 | 785 881 | 778 057 | 751 973 | 746 041 | .. |
| Annual average salary and wage | \$ | 24 432 | 26 469 | 27 830 | 29 693 | 31 737 | 32 455 | .. |
| Total fabricated metal products industries | | | | | | | | |
| Employees | Number | 141 523 | 125 151 | 115 900 | 114 990 | 124 344 | 132 621 | 141 667 ^r |
| Salaries and wages | \$000 | 2 807 212 | 2 750 245 | 2 696 062 | 2 761 839 | 3 050 638 | 3 264 338 | 3 547 954 |
| Annual average salary and wage | \$ | 19 836 | 21 975 | 23 262 | 24 018 | 24 534 | 24 614 | 25 044 ^r |

Petroleum and Coal Products Industries

| | | | | | | | | |
|-----------------------------------|--------|---------|---------|---------|---------|---------|---------|----|
| Production and related workers | Number | 8 432 | 8 121 | 7 417 | 6 538 | 6 436 | 6 359 | .. |
| Salaries and wages | \$000 | 249 199 | 266 022 | 264 104 | 262 827 | 265 859 | 265 156 | .. |
| Annual average salary and wage | \$ | 29 554 | 32 757 | 35 608 | 40 200 | 41 308 | 41 698 | .. |
| Administrative and office workers | Number | 14 182 | 13 380 | 11 500 | 10 726 | 10 303 | 8 707 | .. |
| Salaries and wages | \$000 | 436 430 | 501 385 | 490 465 | 466 006 | 456 202 | 399 264 | .. |
| Annual average salary and wage | \$ | 30 774 | 37 473 | 42 649 | 43 446 | 44 279 | 45 856 | .. |

| | | | | | | | | |
|---|--------|---------|---------|---------|---------|---------|---------|---------|
| Total petroleum and coal products Employees | Number | 22 614 | 21 501 | 18 917 | 17 264 | 16 739 | 15 066 | 15 148 |
| Salaries and wages | \$000 | 685 629 | 767 407 | 754 569 | 728 833 | 722 061 | 664 420 | 708 308 |
| Annual average salary and wage | \$ | 30 319 | 35 692 | 39 888 | 42 217 | 43 136 | 44 101 | 46 759 |

Total Mineral Manufacturing

| | | | | | | | | |
|-----------------------------------|--------|-----------|-----------|-----------|-----------|-----------|-----------|----|
| Production and related workers | Number | 261 364 | 229 518 | 216 944 | 223 816 | 238 544 | 248 039 | .. |
| Salaries and wages | \$000 | 5 393 636 | 5 333 201 | 5 420 307 | 5 948 626 | 6 507 081 | 6 829 899 | .. |
| Annual average salary and wage | \$ | 20 636 | 23 237 | 24 985 | 26 578 | 27 278 | 27 536 | .. |
| Administrative and office workers | Number | 100 519 | 92 267 | 84 168 | 80 493 | 75 306 | 71 911 | .. |
| Salaries and wages | \$000 | 2 682 664 | 2 793 037 | 2 723 367 | 2 770 525 | 2 764 366 | 2 734 019 | .. |
| Annual average salary and wage | \$ | 26 688 | 30 271 | 32 356 | 34 419 | 36 708 | 38 019 | .. |

| | | | | | | | | |
|--|--------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| Total mineral manufacturing industries Employees | Number | 361 883 | 321 785 | 301 112 | 304 309 | 313 850 | 319 950 | 333 009r |
| Salaries and wages | \$000 | 8 076 300 | 8 126 238 | 8 143 674 | 8 719 151 | 9 271 447 | 9 563 918 | 10 170 081r |
| Annual average salary and wage | \$ | 22 317 | 25 254 | 27 045 | 28 652 | 29 541 | 29 892 | 30 540r |

Source: Statistics Canada.

1 Wire and Wire Products have been included in the primary metal industries group.

.. Not available; r Revised.

TABLE 13. CANADA, EXPLORATION AND CAPITAL EXPENDITURES IN THE MINING INDUSTRY¹ BY PROVINCES AND TERRITORIES, 1988-90

| | | Capital | | | | | | | | | | Total Capital and Repair | Outside or General Exploration | Total, all Expendi- tures |
|-------------------------|-------|-------------------------------------|-------------------------------------|------------|---------------|-------------------------------|------------------|-------------------|-------------------------------|-----------------|---------|-----------------------------------|--------------------------------------|---------------------------------|
| | | Construction | | | | | Repair | | | | | | | |
| | | On- property Explora- tion | On- property Develop- ment | Structures | Sub- total | Machinery and Equipment | Total Capital | Construc- tion | Machinery and Equipment | Total Repair | | | | |
| (\$ million) | | | | | | | | | | | | | | |
| Newfoundland | 1988 | x | 35.8 | x | 102.4 | 18.4 | 120.8 | x | x | 153.0 | 273.8 | .. | 273.8 | |
| | 1989p | — | 43.0 | 10.2 | 53.2 | 38.2 | 91.4 | x | x | 155.6 | 247.0 | .. | 247.0 | |
| | 1990l | — | 37.2 | 7.4 | 44.6 | 31.0 | 75.6 | x | x | 151.3 | 226.9 | .. | 226.9 | |
| Prince Edward Island | 1988 | — | — | — | — | — | — | — | — | — | — | .. | — | |
| | 1989p | — | — | — | — | — | — | — | — | — | — | .. | — | |
| | 1990l | — | — | — | — | — | — | — | — | — | — | .. | — | |
| Nova Scotia | 1988 | 1.2 | 16.7 | 8.3 | 26.2 | 46.6 | 72.8 | 2.5 | 37.2 | 39.7 | 112.5 | .. | 112.5 | |
| | 1989p | x | 21.8 | x | 26.0 | 33.8 | 59.8 | 1.2 | 37.1 | 38.3 | 98.1 | .. | 98.1 | |
| | 1990l | x | 50.9 | x | 60.3 | 86.2 | 146.5 | 2.0 | 38.1 | 40.1 | 186.6 | .. | 186.6 | |
| New Brunswick | 1988 | 0.8 | 32.7 | 14.3 | 47.8 | 41.6 | 89.4 | 8.0 | 76.7 | 84.7 | 174.1 | .. | 174.1 | |
| | 1989p | x | 26.9 | x | 41.0 | 72.9 | 113.9 | 9.4 | 88.6 | 98.0 | 211.9 | .. | 211.9 | |
| | 1990l | 2.6 | 30.3 | 12.1 | 45.0 | 67.7 | 112.7 | 10.3 | 87.0 | 97.3 | 210.0 | .. | 210.0 | |
| Quebec | 1988 | 33.6 | 207.8 | 110.3 | 351.7 | 109.1 | 460.8 | 17.7 | 219.7 | 237.4 | 698.2 | .. | 698.2 | |
| | 1989p | 49.9 | 251.9 | 53.0 | 354.8 | 140.4 | 495.2 | 25.8 | 259.6 | 285.4 | 780.6 | .. | 780.6 | |
| | 1990l | 24.5 | 183.0 | 24.1 | 231.6 | 114.1 | 345.7 | 27.0 | 265.2 | 292.2 | 637.9 | .. | 637.9 | |
| Ontario | 1988 | 67.0 | 361.2 | 192.2 | 620.4 | 339.1 | 959.5 | 75.4 | 433.4 | 508.8 | 1 468.3 | .. | 1 468.3 | |
| | 1989p | 37.8 | 281.8 | 80.5 | 400.1 | 280.0 | 680.1 | 54.4 | 447.6 | 502.0 | 1 182.1 | .. | 1 182.1 | |
| | 1990l | 45.4 | 282.7 | 70.6 | 398.7 | 253.0 | 651.7 | 56.2 | 453.9 | 510.1 | 1 161.8 | .. | 1 161.8 | |
| Manitoba | 1988 | 9.4 | 33.6 | 69.2 | 112.2 | 45.1 | 157.3 | 8.1 | 56.1 | 64.2 | 221.5 | .. | 221.5 | |
| | 1989p | x | 49.4 | x | 88.6 | 37.9 | 126.5 | 1.8 | 57.1 | 58.9 | 185.4 | .. | 185.4 | |
| | 1990l | x | x | x | 61.5 | 34.3 | 95.8 | 1.9 | 50.8 | 52.7 | 148.5 | .. | 148.5 | |
| Saskatchewan | 1988 | 13.5 | 114.4 | 26.0 | 153.9 | 65.9 | 219.8 | 8.4 | 138.2 | 146.6 | 366.4 | .. | 366.4 | |
| | 1989p | 13.8 | 58.1 | 32.5 | 104.4 | 70.8 | 175.2 | 14.1 | 136.9 | 151.0 | 326.2 | .. | 326.2 | |
| | 1990l | 56.0 | 55.2 | 21.8 | 133.0 | 64.3 | 197.3 | 14.0 | 139.9 | 153.9 | 351.2 | .. | 351.2 | |
| Alberta | 1988 | 1.0 | 14.2 | 10.1 | 25.3 | 33.9 | 59.2 | 1.1 | 104.0 | 105.1 | 164.3 | .. | 164.3 | |
| | 1989p | x | 15.8 | x | 17.9 | 26.1 | 44.0 | 0.5 | 115.8 | 116.3 | 160.3 | .. | 160.3 | |
| | 1990l | x | 19.1 | x | 23.8 | 63.1 | 86.9 | 1.1 | 120.7 | 121.8 | 208.7 | .. | 208.7 | |
| British Columbia | 1988 | 12.0 | 330.9 | 147.6 | 490.5 | 101.8 | 592.3 | 29.7 | 406.8 | 436.5 | 1 028.8 | .. | 1 028.8 | |
| | 1989p | 30.1 | 287.2 | 114.5 | 431.8 | 139.3 | 571.1 | 22.5 | 428.8 | 451.3 | 1 022.4 | .. | 1 022.4 | |
| | 1990l | 15.8 | 277.5 | 42.9 | 336.2 | 111.0 | 447.2 | 22.5 | 449.1 | 471.6 | 918.8 | .. | 918.8 | |

| | | | | | | | | | | | | | |
|-----------------------|-------------------|-------|---------|-------|---------|-------|---------|-------|---------|---------|---------|----|---------|
| Yukon | 1988 | x | 24.2 | x | 35.4 | 3.9 | 39.2 | x | x | 3.2 | 42.4 | .. | 42.4 |
| | 1989 ^p | x | 13.6 | x | 18.7 | 4.9 | 23.6 | x | x | 21.6 | 45.2 | .. | 45.2 |
| | 1990 ^l | x | x | x | 28.5 | 5.6 | 34.1 | x | x | 31.2 | 65.3 | .. | 65.3 |
| Northwest Territories | 1988 | 1.4 | 38.3 | 36.1 | 75.8 | 20.6 | 96.4 | 3.9 | 42.1 | 46.0 | 142.4 | .. | 142.4 |
| | 1989 ^p | 1.8 | 40.3 | 86.5 | 128.6 | 83.8 | 212.4 | 1.7 | 32.0 | 33.7 | 246.1 | .. | 246.1 |
| | 1990 ^l | 2.4 | 39.4 | 26.1 | 67.9 | 14.4 | 82.3 | 1.2 | 31.8 | 33.0 | 115.3 | .. | 115.3 |
| Canada | 1988 | 143.4 | 1 229.7 | 668.3 | 2 041.4 | 825.8 | 2 867.2 | 161.6 | 1 663.3 | 1 824.9 | 4 692.1 | .. | 4 692.1 |
| | 1989 ^p | 146.3 | 1 089.7 | 429.1 | 1 665.1 | 928.1 | 2 593.2 | 140.6 | 1 771.4 | 1 912.0 | 4 505.2 | .. | 4 505.2 |
| | 1990 ^l | 153.8 | 1 046.1 | 231.3 | 1 431.2 | 844.6 | 2 775.8 | 145.1 | 1 810.0 | 1 955.1 | 4 230.9 | .. | 4 230.9 |

Sources: Statistics Canada; Energy, Mines and Resources Canada.

¹ Excludes crude oil and natural gas industries.

^p Preliminary; ^l Intentions; .. Not available; — Nil; x Confidential, included in total.

Note: Totals may not add due to rounding.

TABLE 14. CANADA, EXPLORATION AND CAPITAL EXPENDITURES¹ IN THE MINING INDUSTRY BY TYPE OF MINING, 1988-90

| TABLE 14: CANADA, EXPLORATION AND CAPITAL EXPENDITURES IN THE MINING INDUSTRY BY TYPE OF MINING, 1988-93 | | | | | | | | | | | | | | | | | | |
|--|-------------------|-------------------------------------|-------------------------------------|------------|---------------|-------------------------------|------------------|-------------------|-------------------------------|-----------------|-----------------------------------|--------------------------------------|---------------------------------|--|--|--|--|--|
| | | Capital | | | | | | | | | Total Capital and Repair | Outside or General Exploration | Total, all Expendi- tures | | | | | |
| | | Construction | | | | Machinery and Equipment | Total Capital | Repair | | | | | | | | | | |
| | | On- property Explora- tion | On- property Develop- ment | Structures | Sub- total | | | Construc- tion | Machinery and Equipment | Total Repair | | | | | | | | |
| (\$ million) | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| Metal Mines | | | | | | | | | | | | | | | | | | |
| Copper-gold- silver | 1988 | 27.4 | 130.3 | 129.0 | 286.7 | 84.9 | 371.6 | 18.1 | 260.8 | 278.9 | 650.5 | .. | 650.6 | | | | | |
| | 1989 ^P | 22.6 | 91.1 | 85.4 | 199.1 | 109.4 | 308.5 | 19.9 | 279.3 | 299.2 | 607.7 | .. | 607.7 | | | | | |
| | 1990 ^I | 18.9 | 85.9 | 47.5 | 152.3 | 62.4 | 214.7 | 22.3 | 283.4 | 305.7 | 520.4 | .. | 520.4 | | | | | |
| Gold | 1988 | 86.0 | 416.8 | 362.5 | 865.3 | 291.7 | 1 157.0 | 48.0 | 177.2 | 225.2 | 1 382.2 | .. | 1 382.2 | | | | | |
| | 1989 ^P | 78.0 | 328.9 | 226.7 | 633.6 | 218.3 | 851.9 | 28.4 | 208.2 | 236.6 | 1 088.5 | .. | 1 088.5 | | | | | |
| | 1990 ^I | 47.7 | 232.8 | 89.1 | 369.6 | 95.0 | 464.6 | 29.5 | 214.1 | 243.6 | 708.2 | .. | 708.2 | | | | | |
| Iron | 1988 | x | 66.0 | x | 70.2 | 13.2 | 83.4 | 8.8 | 234.6 | 243.4 | 326.8 | .. | 326.8 | | | | | |
| | 1989 ^P | x | x | x | 74.6 | 48.7 | 123.3 | 12.8 | 232.0 | 244.8 | 368.1 | .. | 368.1 | | | | | |
| | 1990 ^I | x | 76.9 | x | 81.8 | 79.2 | 161.0 | 12.8 | 213.7 | 226.5 | 387.5 | .. | 387.5 | | | | | |
| Silver-lead- zinc | 1988 | 7.7 | 80.8 | 25.9 | 114.4 | 40.4 | 154.8 | 11.2 | 80.9 | 92.1 | 246.9 | .. | 246.9 | | | | | |
| | 1989 ^P | 7.9 | 89.2 | 17.9 | 115.0 | 70.8 | 185.8 | 10.9 | 107.8 | 118.7 | 304.5 | .. | 304.5 | | | | | |
| | 1990 ^I | 7.3 | 73.4 | 15.0 | 95.7 | 51.1 | 146.8 | 11.1 | 115.7 | 126.8 | 273.6 | .. | 273.6 | | | | | |
| Uranium | 1988 | x | 93.1 | x | 112.7 | 26.7 | 139.4 | 8.1 | 129.5 | 137.6 | 277.0 | .. | 277.0 | | | | | |
| | 1989 ^P | x | x | x | 72.6 | 28.9 | 101.5 | 9.5 | 119.5 | 129.0 | 230.5 | .. | 230.5 | | | | | |
| | 1990 ^I | x | 58.3 | x | 114.1 | 24.6 | 138.7 | 8.9 | 125.7 | 134.6 | 273.3 | .. | 273.3 | | | | | |
| Other metal mining ² | 1988 | 12.5 | 104.2 | 42.6 | 159.3 | 105.3 | 264.6 | 28.9 | 145.6 | 174.5 | 439.1 | .. | 439.1 | | | | | |
| | 1989 ^P | 19.4 | 143.2 | 40.1 | 202.7 | 143.1 | 345.8 | 30.3 | 153.7 | 184.0 | 529.8 | .. | 529.8 | | | | | |
| | 1990 ^I | x | 151.1 | x | 207.9 | 172.5 | 380.4 | 32.5 | 164.7 | 197.2 | 577.6 | .. | 577.6 | | | | | |
| Total metal mining | 1988 | 139.3 | 891.2 | 578.1 | 1 608.6 | 562.3 | 2 170.9 | 123.2 | 1 028.6 | 1 151.8 | 3 322.7 | .. | 3 322.7 | | | | | |
| | 1989 ^P | 132.3 | 780.6 | 384.5 | 1 297.4 | 619.2 | 1 916.6 | 111.9 | 1 100.6 | 1 212.5 | 3 129.1 | .. | 3 129.1 | | | | | |
| | 1990 ^I | 135.2 | 678.5 | 207.9 | 1 021.6 | 484.8 | 1 506.4 | 117.1 | 1 117.5 | 1 234.6 | 2 741.0 | .. | 2 741.0 | | | | | |
| Nonmetal Mines | | | | | | | | | | | | | | | | | | |
| Asbestos | 1988 | x | 55.2 | x | 56.0 | 3.1 | 59.1 | 2.1 | 40.6 | 42.7 | 101.8 | .. | 101.8 | | | | | |
| | 1989 ^P | x | 51.4 | x | 52.6 | 1.3 | 53.9 | 5.5 | 53.1 | 58.6 | 112.5 | .. | 112.5 | | | | | |
| | 1990 ^I | x | 46.0 | x | 47.2 | 2.3 | 49.5 | 4.6 | 46.2 | 50.8 | 100.3 | .. | 100.3 | | | | | |
| Coal | 1988 | x | 189.1 | x | 214.9 | 115.6 | 330.5 | 21.1 | 353.1 | 374.2 | 704.7 | .. | 704.7 | | | | | |
| | 1989 ^P | x | 183.7 | x | 200.0 | 115.6 | 315.6 | 8.3 | 368.3 | 376.6 | 692.2 | .. | 692.2 | | | | | |
| | 1990 ^I | 3.2 | 247.9 | 12.5 | 263.6 | 182.7 | 446.3 | 7.7 | 396.6 | 404.3 | 850.6 | .. | 850.6 | | | | | |

| | | | | | | | | | | | | | |
|---|-------------------|-------|---------|-------|---------|-------|---------|-------|---------|---------|---------|----|---------|
| Other nonmetal mining ³ | 1988 | 2.4 | 94.1 | 65.3 | 161.8 | 144.9 | 306.7 | 15.3 | 241.0 | 256.3 | 563.0 | .. | 563.0 |
| | 1989 ^P | 11.0 | 74.0 | 30.2 | 115.2 | 192.0 | 307.2 | 15.0 | 249.4 | 264.4 | 571.6 | .. | 571.6 |
| | 1990 ^I | x | 73.7 | x | 98.8 | 174.8 | 273.6 | 15.6 | 249.7 | 265.3 | 538.9 | .. | 538.9 |
| Total nonmetal mining | 1988 | 4.1 | 338.5 | 90.3 | 432.9 | 263.5 | 696.4 | 38.5 | 634.7 | 673.2 | 1 369.6 | .. | 1 369.6 |
| | 1989 ^P | 14.1 | 309.1 | 44.6 | 367.8 | 308.9 | 676.7 | 28.7 | 670.9 | 699.6 | 1 376.3 | .. | 1 376.3 |
| | 1990 ^I | 18.7 | 367.6 | 23.4 | 409.7 | 359.8 | 769.5 | 28.0 | 692.5 | 720.5 | 1 490.0 | .. | 1 490.0 |
| Metal and Nonmetal Exploration Companies | 1988 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | 1989 ^P | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | 1990 ^I | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Total mining | 1988 | 143.4 | 1 229.7 | 668.3 | 2 041.4 | 825.8 | 2 867.2 | 161.6 | 1 663.3 | 1 824.9 | 4 692.1 | .. | 4 692.1 |
| | 1989 ^P | 146.3 | 1 089.7 | 429.1 | 1 665.1 | 928.1 | 2 593.2 | 140.6 | 1 771.4 | 1 912.0 | 4 505.2 | .. | 4 505.2 |
| | 1990 ^I | 153.8 | 1 046.1 | 231.3 | 1 431.2 | 844.6 | 2 275.8 | 145.1 | 1 810.0 | 1 955.1 | 4 230.9 | .. | 4 230.9 |

Sources: Statistics Canada; Energy, Mines and Resources Canada.

¹ Excludes expenditures in the petroleum and natural gas industries. ² Includes nickel-copper mines, silver-cobalt mines and other metal mines. ³ Includes gypsum mines, salt mines, potash mines, quarries, sand and gravel pits and other nonmetal mines.

^P Preliminary; ^I Intentions; .. Not available; x Confidential, included in total.

Note: Totals may not add due to rounding.

TABLE 15. CANADA, CAPITAL AND REPAIR EXPENDITURES BY SELECTED INDUSTRIAL SECTOR, 1988-90

| | | Capital Expenditures | | | Repair Expenditures | | | Capital and Repair Expenditures | | |
|---------------------------------|-------------------|----------------------|-------------------------|-----------|---------------------|-------------------------|----------|---------------------------------|-------------------------|-----------|
| | | Construction | Machinery and Equipment | Total | Construction | Machinery and Equipment | Total | Construction | Machinery and Equipment | Total |
| | | (\$ million) | | | | | | | | |
| Agriculture | 1988 | 1 128.5 | 2 032.5 | 3 161.0 | 448.3 | 1 329.3 | 1 777.6 | 1 576.8 | 3 361.8 | 4 938.6 |
| | 1989 ^p | 1 163.2 | 2 120.9 | 3 284.1 | 498.7 | 1 444.9 | 1 943.6 | 1 661.9 | 3 565.8 | 5 227.7 |
| | 1990 ⁱ | 1 151.6 | 2 101.2 | 3 252.8 | 519.6 | 1 507.0 | 2 026.6 | 1 671.2 | 3 608.2 | 5 279.4 |
| Construction | 1988 | 354.6 | 1 505.3 | 1 859.9 | 65.0 | 1 803.6 | 1 148.6 | 419.6 | 2 588.9 | 3 008.5 |
| | 1989 ^p | 400.5 | 1 699.7 | 2 100.2 | 69.5 | 1 157.8 | 1 227.3 | 470.0 | 2 857.5 | 3 327.5 |
| | 1990 ⁱ | 426.5 | 1 811.6 | 2 238.1 | 74.1 | 1 234.1 | 1 308.2 | 500.6 | 3 045.7 | 3 546.3 |
| Forestry | 1988 | 137.6 | 133.3 | 270.9 | 64.5 | 266.6 | 331.1 | 202.1 | 399.9 | 602.0 |
| | 1989 ^p | 122.6 | 150.3 | 272.9 | 92.3 | 247.0 | 339.3 | 214.9 | 397.3 | 612.2 |
| | 1990 ⁱ | 152.8 | 170.0 | 322.8 | 96.9 | 250.7 | 347.6 | 249.7 | 420.7 | 670.4 |
| Housing | 1988 | 34 916.9 | — | 34 916.9 | 4 019.0 | — | 4 019.0 | 38 935.9 | — | 38 935.9 |
| | 1989 ^p | 38 681.8 | — | 38 681.8 | 4 440.0 | — | 4 440.0 | 43 121.8 | — | 43 121.8 |
| | 1990 ⁱ | 40 057.5 | — | 40 057.5 | 4 905.5 | — | 4 905.5 | 44 963.0 | — | 44 963.0 |
| Manufacturing | 1988 | 3 233.9 | 14 427.9 | 17 661.8 | 1 024.7 | 6 973.6 | 7 998.3 | 4 258.6 | 21 401.5 | 25 660.1 |
| | 1989 ^p | 3 754.5 | 16 547.3 | 20 301.8 | 1 054.8 | 7 107.1 | 8 161.9 | 4 809.3 | 23 654.4 | 28 463.7 |
| | 1990 ⁱ | 4 054.4 | 18 475.3 | 22 529.7 | 1 101.4 | 7 299.7 | 8 401.1 | 5 155.8 | 25 775.0 | 30 930.8 |
| Mining ¹ | 1988 | 7 176.3 | 1 574.1 | 8 750.4 | 403.3 | 2 429.7 | 2 833.0 | 7 579.6 | 4 003.8 | 11 583.4 |
| | 1989 ^p | 6 071.1 | 1 235.8 | 7 306.9 | 376.5 | 2 562.6 | 2 939.1 | 6 447.6 | 3 798.4 | 10 246.0 |
| | 1990 ⁱ | 6 473.0 | 1 278.3 | 7 751.3 | 466.3 | 2 592.8 | 3 059.1 | 6 939.3 | 3 871.1 | 10 810.4 |
| Trade | 1988 | 940.1 | 2 205.1 | 3 145.2 | 330.8 | 520.4 | 851.2 | 1 270.9 | 2 725.5 | 3 996.4 |
| | 1989 ^p | 1 144.4 | 2 185.4 | 3 329.8 | 379.4 | 478.1 | 857.5 | 1 523.8 | 2 663.5 | 4 187.3 |
| | 1990 ⁱ | 1 287.0 | 2 458.8 | 3 745.8 | 396.7 | 500.6 | 897.3 | 1 683.7 | 2 959.4 | 4 643.1 |
| Utilities | 1988 | 7 757.0 | 9 793.3 | 17 550.3 | 2 149.0 | 5 945.6 | 8 094.6 | 9 906.0 | 15 738.9 | 25 644.9 |
| | 1989 ^p | 9 650.8 | 10 595.4 | 20 246.2 | 2 300.0 | 5 825.8 | 8 125.8 | 11 950.8 | 16 421.2 | 28 372.0 |
| | 1990 ⁱ | 11 595.5 | 12 273.7 | 23 869.2 | 2 419.6 | 6 025.1 | 8 444.7 | 14 015.1 | 18 298.8 | 32 313.9 |
| Other ² | 1988 | 21 706.7 | 13 911.4 | 35 618.1 | 5 013.5 | 2 066.4 | 7 079.9 | 26 720.2 | 15 977.8 | 42 698.0 |
| | 1989 ^p | 24 538.5 | 14 285.0 | 38 823.5 | 5 325.2 | 2 213.5 | 7 538.7 | 29 863.7 | 16 498.5 | 46 362.2 |
| | 1990 ⁱ | 25 356.0 | 15 162.0 | 40 518.0 | 5 451.7 | 2 311.3 | 7 763.0 | 30 807.7 | 17 473.3 | 48 281.0 |
| Total | 1988 | 77 351.6 | 45 582.9 | 122 934.5 | 13 518.1 | 20 615.2 | 34 133.3 | 90 869.7 | 66 198.1 | 157 067.8 |
| | 1989 ^p | 85 527.4 | 48 819.8 | 134 347.2 | 14 536.4 | 21 036.8 | 35 573.2 | 100 063.8 | 69 856.6 | 169 920.4 |
| | 1990 ⁱ | 90 554.3 | 53 730.9 | 144 285.2 | 15 431.8 | 21 721.3 | 37 153.1 | 105 986.1 | 75 452.2 | 181 438.3 |
| Mining as a percentage of total | 1988 | 9.3 | 3.5 | 7.1 | 3.0 | 11.8 | 8.3 | 8.3 | 6.0 | 7.4 |
| | 1989 ^p | 7.1 | 2.5 | 5.4 | 2.6 | 12.2 | 8.3 | 6.4 | 5.4 | 6.0 |
| | 1990 ⁱ | 7.1 | 2.4 | 5.4 | 3.0 | 11.9 | 8.2 | 6.5 | 5.1 | 6.0 |

Source: Statistics Canada.

¹ Includes mines, quarries and oil wells. ² Includes finance, real estate, insurance, commercial services, institutions and government departments.

^p Preliminary; ⁱ Intentions; — Nil.

Note: Totals may not add due to rounding.

TABLE 16. CANADA, CAPITAL AND REPAIR EXPENDITURES IN MINING¹ BY GEOGRAPHICAL REGION, 1988-90

| | | Capital Expenditures | | | Repair Expenditures | | | Capital and Repair Expenditures | | |
|---------------------------------|-------------------|----------------------|-------------------------|---------|---------------------|-------------------------|---------|---------------------------------|-------------------------|----------|
| | | Construction | Machinery and Equipment | Total | Construction | Machinery and Equipment | Total | Construction | Machinery and Equipment | Total |
| | | (\$ million) | | | | | | | | |
| Atlantic Region | 1988 | 392.7 | 113.9 | 506.6 | 17.0 | 260.6 | 277.6 | 409.7 | 374.5 | 784.2 |
| | 1989 ^p | 226.5 | 144.8 | 371.3 | 19.5 | 272.1 | 291.6 | 246.0 | 416.9 | 662.9 |
| | 1990 ⁱ | 366.7 | 184.7 | 551.4 | 21.0 | 267.8 | 288.8 | 387.7 | 425.5 | 840.2 |
| Quebec | 1988 | 351.8 | 108.9 | 460.7 | 17.6 | 219.7 | 237.3 | 369.4 | 328.6 | 698.0 |
| | 1989 ^p | 355.0 | 140.3 | 495.3 | 25.7 | 259.6 | 285.3 | 380.7 | 399.9 | 780.6 |
| | 1990 ⁱ | 232.0 | 114.2 | 346.2 | 27.1 | 265.3 | 292.4 | 259.1 | 379.5 | 638.6 |
| Ontario | 1988 | 653.2 | 341.6 | 994.8 | 77.4 | 435.7 | 513.1 | 730.6 | 777.3 | 1 507.9 |
| | 1989 ^p | 412.9 | 287.3 | 700.2 | 55.1 | 448.3 | 503.4 | 468.0 | 735.6 | 1 203.6 |
| | 1990 ⁱ | 423.4 | 273.0 | 696.4 | 56.9 | 454.6 | 511.5 | 480.3 | 727.6 | 1 207.9 |
| Prairie Region | 1988 | 4 661.4 | 877.6 | 5 539.0 | 240.4 | 1 028.8 | 1 269.2 | 4 901.8 | 1 906.4 | 6 808.2 |
| | 1989 ^p | 3 887.6 | 420.9 | 4 308.5 | 217.7 | 1 077.3 | 1 295.0 | 4 105.3 | 1 498.2 | 5 603.5 |
| | 1990 ⁱ | 4 446.5 | 558.6 | 5 005.1 | 297.2 | 1 070.7 | 1 367.9 | 4 743.7 | 1 629.3 | 6 373.0 |
| British Columbia | 1988 | 772.0 | 105.2 | 877.2 | 46.5 | 439.1 | 485.6 | 818.5 | 544.3 | 1 362.8 |
| | 1989 ^p | 802.3 | 151.8 | 954.1 | 56.7 | 451.6 | 508.3 | 859.0 | 603.4 | 1 462.4 |
| | 1990 ⁱ | 792.0 | 124.6 | 916.6 | 62.8 | 471.2 | 534.0 | 854.8 | 595.8 | 1 450.6 |
| Yukon and Northwest Territories | 1988 | 345.2 | 26.9 | 372.1 | 4.4 | 45.8 | 50.2 | 349.6 | 72.7 | 422.3 |
| | 1989 ^p | 386.8 | 90.7 | 477.5 | 1.8 | 53.7 | 55.5 | 388.6 | 144.4 | 533.0 |
| | 1990 ⁱ | 212.4 | 23.2 | 235.6 | 1.3 | 63.2 | 64.5 | 213.7 | 86.4 | 300.1 |
| Total | 1988 | 7 176.3 | 1 574.1 | 8 750.4 | 403.3 | 2 429.7 | 2 833.0 | 7 579.6 | 4 003.8 | 11 583.4 |
| | 1989 ^p | 6 071.1 | 1 235.8 | 7 306.9 | 376.5 | 2 562.6 | 2 939.1 | 6 447.6 | 3 798.4 | 10 246.0 |
| | 1990 ⁱ | 6 473.0 | 1 278.3 | 7 751.3 | 466.3 | 2 592.8 | 3 059.1 | 6 939.3 | 3 871.1 | 10 810.4 |

Source: Statistics Canada.

¹ Includes mines, quarries and oil wells.

^p Preliminary; ⁱ Intentions.

Note: Totals may not add due to rounding.

TABLE 17. CANADA, CAPITAL AND REPAIR EXPENDITURES IN THE MINING INDUSTRY¹, 1984-90

| | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 ^p | 1990 ⁱ |
|-----------------------------------|--------------|----------|----------|---------|----------|-------------------|-------------------|
| | (\$ million) | | | | | | |
| Metal Mines | | | | | | | |
| Capital | | | | | | | |
| Construction | 942.2 | 1 053.5 | 979.7 | 1 328.2 | 1 609.0 | 1 297.3 | 1 021.4 |
| Machinery | 372.7 | 322.4 | 319.4 | 372.9 | 566.5 | 619.2 | 484.7 |
| Total | 1 314.9 | 1 375.9 | 1299.1 | 1 701.1 | 2 175.5 | 1 916.5 | 1 506.1 |
| Repair | | | | | | | |
| Construction | 99.6 | 104.5 | 99.6 | 109.8 | 123.2 | 111.7 | 117.2 |
| Machinery | 861.1 | 846.4 | 811.3 | 880.8 | 1 033.6 | 1 100.2 | 1 117.5 |
| Total | 960.7 | 950.9 | 910.9 | 990.6 | 1 156.8 | 1 211.9 | 1 234.7 |
| Total capital and repair | 2 275.6 | 2 326.8 | 2 210.0 | 2 691.7 | 3 332.3 | 3 128.4 | 2 740.8 |
| Nonmetal Mines² | | | | | | | |
| Capital | | | | | | | |
| Construction | 658.6 | 573.6 | 502.4 | 421.7 | 432.9 | 367.6 | 409.8 |
| Machinery | 571.7 | 350.1 | 256.6 | 251.6 | 263.4 | 308.9 | 359.7 |
| Total | 1 230.3 | 923.7 | 759.0 | 673.3 | 696.3 | 676.5 | 769.5 |
| Repair | | | | | | | |
| Construction | 47.2 | 39.3 | 31.2 | 23.2 | 38.3 | 28.5 | 27.9 |
| Machinery | 454.8 | 529.5 | 565.4 | 608.8 | 634.6 | 670.7 | 692.5 |
| Total | 502.0 | 568.8 | 596.6 | 632.0 | 672.9 | 699.2 | 720.4 |
| Total capital and repair | 1 732.3 | 1 492.5 | 1 355.6 | 1 305.3 | 1 369.2 | 1 375.7 | 1 489.9 |
| Mineral Fuels | | | | | | | |
| Capital | | | | | | | |
| Construction | 6 643.5 | 7 645.9 | 5 142.4 | 4 096.0 | 5 134.4 | 4 406.2 | 5 041.8 |
| Machinery | 686.7 | 959.7 | 496.4 | 505.8 | 744.2 | 307.7 | 433.9 |
| Total | 7 330.2 | 8 605.6 | 5 638.8 | 4 601.8 | 5 878.6 | 4 713.9 | 5 475.7 |
| Repair | | | | | | | |
| Construction | 283.4 | 374.3 | 316.5 | 307.0 | 241.8 | 236.3 | 321.2 |
| Machinery | 709.5 | 761.3 | 705.5 | 673.9 | 761.5 | 791.7 | 782.8 |
| Total | 992.9 | 1 135.6 | 1 022.0 | 980.9 | 1 003.3 | 1 028.0 | 1 104.0 |
| Total capital and repair | 8 323.1 | 9 741.2 | 6 660.8 | 5 582.7 | 6 881.9 | 5 741.9 | 6 579.7 |
| Total Mining | | | | | | | |
| Capital | | | | | | | |
| Construction | 8 244.3 | 9 273.0 | 6 624.5 | 5 845.9 | 7 176.3 | 6 071.1 | 6 473.0 |
| Machinery | 1 631.1 | 1 632.2 | 1 072.4 | 1 130.3 | 1 574.1 | 1 235.8 | 1 278.3 |
| Total | 9 875.4 | 10 905.2 | 7 696.9 | 6 976.2 | 8 750.4 | 7 306.9 | 7 751.3 |
| Repair | | | | | | | |
| Construction | 430.2 | 518.1 | 447.3 | 440.0 | 403.3 | 376.5 | 466.3 |
| Machinery | 2 025.4 | 2 137.2 | 2 082.2 | 2 163.5 | 2 429.7 | 2 562.6 | 2 592.8 |
| Total | 2 455.6 | 2 655.3 | 2 529.5 | 2 603.5 | 2 833.0 | 2 939.1 | 3 059.1 |
| Total capital and repair | 12 331.0 | 13 560.5 | 10 226.4 | 9 579.7 | 11 583.4 | 10 246.0 | 10 810.4 |

Source: Statistics Canada.

¹ Does not include cement, lime and clay products (domestic clays) manufacturing, smelting and refining. ² Includes coal mines, asbestos, gypsum, salt, potash, miscellaneous nonmetals, quarrying and sand pits.

^p Preliminary; ⁱ Intentions.

Note: Totals may not add due to rounding.

TABLE 18. CANADA, CAPITAL EXPENDITURES IN THE PETROLEUM, NATURAL GAS AND ALLIED INDUSTRIES¹, 1981-90

| | Petroleum and Natural Gas Extraction | Transportation (Pipelines) | Marketing (Chiefly Outlets of Oil Companies) | Natural Gas Distribution | Petroleum and Coal Products Industries | Natural Gas Processing Plants | Oil and Gas Drilling Contractors | Total Capital Expenditures |
|-------------------|--|-------------------------------|---|-----------------------------|--|-------------------------------------|--|-------------------------------|
| 1981 | 6 444.9 | 1 745.7 | 264.1 | 408.7 | 844.9 | 311.6 | 274.9 | 10 294.8 |
| 1982 | 6 743.4 | 1 994.3 | 320.5 | 517.6 | 1 224.5 | 522.8 | 173.5 | 11 496.6 |
| 1983 | 6 563.5 | 660.5 | 374.5 | 516.8 | 840.8 | 195.8 | 155.4 | 9 307.3 |
| 1984 | 6 946.4 | 795.4 | 422.9 | 604.1 | 432.4 | 340.0 | 43.8 | 9 585.0 |
| 1985 | 8 187.6 | 664.2 | 356.8 | 603.5 | 335.7 | 337.7 | 80.1 | 10 565.6 |
| 1986 | 5 401.1 | 586.9 | 344.9 | 573.9 | 398.2 | 207.8 | 29.9 | 7 542.7 |
| 1987 | 4 414.6 | 503.0 | 412.4 | 571.8 | 669.9 | 174.1 | 13.1 | 6 758.9 |
| 1988 | 5 589.9 | 828.9 | 478.4 | 602.8 | 698.9 | 271.8 | 16.9 | 8 487.6 |
| 1989 ^P | 4 349.1 | 1 539.7 | 489.3 | 587.8 | 869.9 | 351.2 | 13.8 | 8 200.8 |
| 1990 ^I | 4 998.1 | 1 850.8 | 560.0 | 680.1 | 1 318.5 | 466.2 | 11.4 | 9 885.1 |

Source: Statistics Canada.

¹ The petroleum and natural gas industries in this table include all companies engaged in whole or part in oil and gas activities.

^P Preliminary; ^I Intentions.

Note: Totals may not add due to rounding.

METALLIC MINERALS AND PRODUCTS

Nonferrous and Precious Metals Prices

NONFERROUS AND PRECIOUS METALS PRICES¹

| | 1980s Extremes | | | | May 1990 | | |
|----------|-----------------|----------|-----------------|----------|-----------------|--------|---------|
| | Low | | High | | Low | High | Average |
| | (US\$/lb.) | | (US\$/lb.) | | (US\$/lb.) | | |
| Aluminum | 0.41 | 03/06/82 | 1.95 | 13/06/88 | 0.68 | 0.71 | 0.69 |
| Copper | 0.56 | 18/10/84 | 1.68 | 08/12/88 | 1.19 | 1.33 | 1.24 |
| Lead | 0.15 | 18/03/86 | 0.35 | 20/05/87 | 0.36 | 0.39 | 0.38 |
| Nickel | 1.42 | 26/11/82 | 10.84 | 28/03/88 | 3.77 | 4.31 | 3.95 |
| Zinc | 0.25 | 31/10/85 | 0.97 | 02/03/89 | 0.78 | 0.85 | 0.81 |
| | (US\$/troy oz.) | | (US\$/troy oz.) | | (US\$/troy oz.) | | |
| | | | | | | | |
| | | | | | | | |
| Gold | 285.00 | 26/02/85 | 502.75 | 14/12/87 | 363.70 | 373.40 | 368.85 |
| Silver | 4.86 | 20/05/86 | 10.92 | 27/04/87 | 4.95 | 5.24 | 5.07 |

Source: Nonferrous Division, Mineral Policy Sector.

¹ Prices used are the London Metal Exchange (LME) settlement prices for the nonferrous metals and the London Bullion Market Association (LBMA) morning fix for the precious metals.

SPECIAL ITEM

Canadian Gold and Base-Metal Mines: Openings, Closures and Suspensions In 1989

by
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During 1989, 23 gold and base metal mining operations came into production; 11 of them gold mines and 12 of them base-metal mines, reversing the trend dominated by gold mines in recent years. Of the 23 operations, 18 were new mines. The other 5 were reopenings, all base metal mines. Of the 21 mines closed, 13 were gold mines, 7 were silver mines and one was a base-metal mine. Ore depletion and declines in gold and silver prices triggered the precious metal mine closures, while the base-metal mine closed because of ore depletion. Almost all Canadian production of silver is now a by-product of base-metal or gold mining operations.

Quebec and Ontario, each with 6 new or reopened mines, had the largest share of the 23 mine openings in 1989, followed by New Brunswick and British Columbia with 4 mine openings each. Manitoba added 2 operations and Saskatchewan added one mine.

In 1988, 23 new mines commenced production; 18 were gold mines and 5 were base-metal mines. In addition, 2 gold mines and one base-metal mine reopened, giving a total of 26 Canadian mine openings for the year. Of the 17 mines closed, 14 were precious metal mines and 3 were base-metal mines.

New Production Capacities

Planned production capacities for new mining operations that came on-stream in 1989 ranged from 270 t/d at the Redstone nickel mine to 40 000 t/d at the Timmins gold tailings operation, both located in the Timmins district of Ontario. In 1989, new and reopened operations contributed some 75 000 t/d to total Canadian ore and tailings retreatment production capacity. Nearly 50 000 t/d of this was at gold-producing operations and more than 25 000 t/d at base-metal-producing operations.

For the year 1989 as a whole, the net change in ore-production capacity from mine openings and closures was an increase of 65 000 t/d (40 000 t/d at precious metal operations and 25 000 t/d at base-metal operations). This figure includes an important new addition of capacity at the Timmins tailings plant. In contrast, the total net capacity increase in 1988 was 17 000 t/d (despite a 36 000 t/d addition from new mines). This was because some of the mines that closed in 1988 were of above-average size.

Impact on Employment

The following table shows that in 1989, nearly 3300 jobs were created at the 23 new or reopened mines, some 1830 at new mines and some 1460 at reopened mines. Prior to their closure, some 1400 people were employed at the 21 mines that closed or suspended operations in the year. Only a relatively small number of these were likely to have been retained to carry out standby operations. Losses in employment in one location may, however, be offset if a company reallocates employees to its other operations, as had been the case with Falconbridge Limited's Falconbridge crown pillar operations in 1989. There was thus a net overall employment gain of approximately 1950 jobs. Total employment in Canadian base-metal, gold and silver mines in 1989 was estimated to have been about 36 000.

CANADIAN GOLD AND BASE-METAL MINING OPERATIONS THAT WERE OPENED, CLOSED OR SUSPENDED DURING 1989

| Operation | Province | Capacity (t/d) | Employment | Company | Main Metals | Date | Remarks |
|------------------------|----------|-------------------|------------|---|-------------|-----------|--|
| NEW OPERATIONS | | | | | | | |
| Precious Metals | | | | | | | |
| Pierre Beauchemin | Que. | 1 020 | 30 | Cambior inc. | Au,Ag | January 1 | Started commercial production January 1, 1989. Will use 60% of Vezina mill capacity. |
| Jolu | Sask. | 400 | 100 | International Mahogany Corp. and Corona Corporation | Au,Ag | January 1 | Produced considerably more than the scheduled 60 000 oz. of gold in 1989. |
| Timmins tailings | Ont. | 40 000 | 54 | ERG Resources Inc. | Au,Ag | January | Preproduction in 1988. Commercial production in 1989 but has not reached planned production level because of lower than expected head grade and mill recovery. |
| Lawyers | B.C. | 500 | 155 | Cheni Gold Mines Inc. | Au,Ag | March 1 | Production exceeded 48 500 oz. of gold and 918 000 oz. of silver in 1989. |
| Premier Gold | B.C. | 2 000 | 120 | Westmin Resources Limited, Pioneer Metals Corporation and Canacord Resources Inc. | Au,Ag | May | Open pit mine. The new mining operation includes the former Silbak and Big Missouri mines. Ore is treated at a single mill. |
| Dona Lake | Ont. | 500 | 120 | Placer Dome Inc. | Au,Ag | June 16 | Mill throughput has exceeded design capacity by 10% since August 1, 1989. |
| Magnacon | Ont. | 550 | 150 | Flanagan McAdam Resources Inc., Muscocho Explorations Ltd. and Windarra Minerals Ltd. | Au,Ag | June 23 | Ore reserve grade has proved to be lower and mining cost higher than originally predicted. |
| Montauban tailings | Que. | 550 | 10 | Aurtec Mining Development Inc. | Au,Ag | June | Seasonal heap leach operation. |
| Stock Township | Ont. | 450 | 95 | St. Andrew Goldfields Ltd. | Au,Ag | June | Plans to expand mill capacity to 900 t/d in 1990. |
| Murray Brook | N.B. | 900 | 25 | NovaGold Resources Incorporated | Au,Ag,Cu | September | Processing of the precious metal-bearing gossan is accomplished by indoor vat leaching on a year-round basis. |
| Lucien C. Beliveau | Que. | 1 100 | 60 | Cambior inc. | Au,Ag | September | Gold-pyrite concentrate shipped to Vezina mill for further recovery; mine name changed from Pascalis in September 1989. |

Base Metals

| | | | | | | | |
|----------------------|------|-------|-----|--|----------------|----------|--|
| Caribou | N.B. | 2 000 | 170 | Bathurst Base Metals (Ontario) Corporation | Zn,Pb,Ag,Au | January | Designed to produce 125 000 t/y of bulk Pb/Zn concentrate. Mine temporarily closed in July 1989 due to a shortage of funds but reopened early 1990. Mine capacity is scheduled to increase to 2700 t/d by the end of 1990. |
| Chisel Lake open pit | Man. | 900 | 89 | Hudson Bay Mining and Smelting Co., Limited (HBMS) | Zn,Cu,Au,Ag,Pb | January | Mining the crown pillar of Chisel Lake mine. |
| Redstone | Ont. | 270 | 70 | Timmins Nickel Inc. and BHP-Utah Mines Ltd. | Ni,Cu | May | Ore milled at Giant Yellowknife Mines Limited's GoMill at Timmins, Ont. Production cut back planned for 1990 because of lower than anticipated nickel price. The mine is operating with 45 employees in May 1990. |
| Ajax | B.C. | 9 000 | 200 | Teck Corporation | Cu,Au | Mid-1989 | Mill capacity to be increased to 11 000 t/d in the 1990/91 period. |
| Stratmat | N.B. | 800 | 75 | Noranda Inc. | Zn,Pb,Cu | July | Open pit and underground mining. Ore processed at the Heath Steele concentrator. Mine capacity to increase to 1000 t/d in 1990. Open pit will be exhausted in early 1991. |
| Ansil | Que. | 1 540 | 200 | Minnova Inc. | Cu,Zn,Au,Ag | July | Full ore throughput rate 450 000 t/y; milling at Norbec mill. |
| Samatosum | B.C. | 450 | 105 | Minnova Inc. and Rea Gold Corporation | Ag,Zn,Cu,Pb,Au | July | Commercial and full production began July 1989. Mill throughput exceeded design capacity in early 1990. |

REOPENINGS

Base Metals

| | | | | | | | |
|-------------------------------|------|-------|-----|-----------------------|-------------|--------|---|
| Gaspé "E" Zone (Murdochville) | Que. | 3 000 | 850 | Noranda Inc. | Cu,Mo,Au,Ag | April | Closed in 1987 due to a fire. |
| Shebandowan | Ont. | 2 270 | 200 | Inco Limited | Ni,Cu,Au,Ag | April | Was on standby since early 1986. |
| Birchtree | Man. | 3 000 | 85 | Inco Limited | Ni,Cu,Au,Ag | May 16 | Was on standby since 1977. Resumed production with new equipment and technology to increase productivity by 100%. |
| Heath Steele | N.B. | 2 150 | 172 | Noranda Inc. | Zn,Pb,Cu | June | Mine production resumed at the reconditioned B mine. Increasing mine capacity to 2400 t/d by mid-1990. |
| Mobrun | Que. | 1 000 | 155 | Audrey Resources Inc. | Cu,Zn,Au,Ag | July | Closed from July 1988 to August 1989 for underground development and construction of a new mill. |

CANADIAN GOLD AND BASE-METAL MINING OPERATIONS THAT WERE OPENED, CLOSED OR SUSPENDED DURING 1989 (cont'd)

| Operation | Province | Capacity | Employment | Company | Main Metals | Date | Remarks |
|---------------------------|----------|----------|------------|---|-------------|-----------|--|
| (t/d) | | | | | | | |
| SUSPENSIONS AND CLOSURES | | | | | | | |
| Precious Metals | | | | | | | |
| Elsa operations (6 mines) | Y.T. | 450 | 170 | United Keno Hill Mines Limited | Ag | January 6 | All mining operations suspended pending higher silver price. At the time of the temporary shut down, Husky Southwest, Bellekeno, Silver King and the Onek, Calumet 1-15 and the Calumet 3-4 mines were in operation. |
| Beaver Dam | N.S. | 100 | 15 | Westminer Canada Limited | Au,Ag | February | Insufficient ore left to justify mining. Company considers it closed permanently. Ore was milled at Gays River mill. |
| Puffy Lake | Man. | 1 000 | 125 | Pioneer Metals Corporation | Au,Ag | March 21 | Closed pending development of a mining plan to overcome ore dilution and operating losses. Mine plant damaged by a forest fire in July 1989. |
| Star Lake | Sask. | 200 | 35 | Cameco - A Canadian Mining & Energy Corporation | Au,Ag | March | Ore reserves depleted. Mill continued to treat stockpiled ore in 1989 and will start to process ore from the Jasper mine in 1990. |
| Union tailings | B.C. | 270 | n.a. | Sumac Ventures Inc. | Au,Ag | April 14 | Operation suspended due to pollution problem from tailing discharge. |
| O.B. | B.C. | 408 | 29 | Skylark Resources Ltd. | Ag | April 30 | Mining of H zone suspended pending higher silver price. |
| Kerr Addison | Ont. | 1 225 | 320 | Golden Shield Resources Ltd. | Au,Ag | June 29 | Operation suspended. Company became insolvent in 1989. Deak Resources Corporation and GSR Mining Corporation took over the mine and mill in March 1990 and operations will soon resume. |
| Cape Spencer | N.B. | 650 | 20 | Gordex Minerals Limited | Au,Ag | June | Closed because of low gold price. |
| Bachelor Lake | Que. | 450 | 115 | Bachelor Lake Gold Mines Inc. | Au,Ag | August | Closed because of low gold price and high ore dilution. |
| Remnor | Que. | 100 | 125 | Noranda Inc. | Au,Ag | August | Ore exhausted. Continued to process stockpiled ore at the Horne mill, October 1989. |
| Forest Hill | N.S. | 150 | 70 | Westminer Canada Limited | Au,Ag | October | Insufficient ore left to justify mining. Company considers it closed permanently. Ore was milled at Gays River mill. |

| | | | | | | | |
|---------------------------|------|-------|-----|--------------------------------------|-------------|-------------|--|
| Cooke | Que. | 250 | 30 | Minnova Inc. | Au,Cu,Ag | October | Ore exhausted. |
| Tartan Lake | Man. | 400 | 87 | Granges Inc. and Abermin Corporation | Au,Ag | November 4 | Closed because of ore depletion. |
| MacLellan | Man. | 1 100 | 225 | LynnGold Resources Inc. | Au,Ag | November | Company insolvent. |
| Owl Creek open pit | Ont. | ,760 | 15 | Falconbridge Gold Corporation | Au,Ag | December | Open pit mining ceased, but ore stockpile will sustain current level of gold production for several years. An underground mine is under development. |
| Base Metals | | | | | | | |
| Falconbridge crown pillar | Ont. | 1 200 | 8 | Falconbridge Limited | Ni,Cu,Au,Ag | 1st Quarter | Open pit closed due to ore depletion. Employees previously reallocated to other operations. |

Source: Energy, Mines and Resources Canada.
n.a. Not available.

Note: Although its underground operations began in 1989, the Hope Brook mine in Newfoundland is not considered to be a new mine but rather a continuation of a former open pit operation which was mined out in 1989.

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