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THE CANADIAN MINERAL INDUSTRY

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MONTHLY REPORT

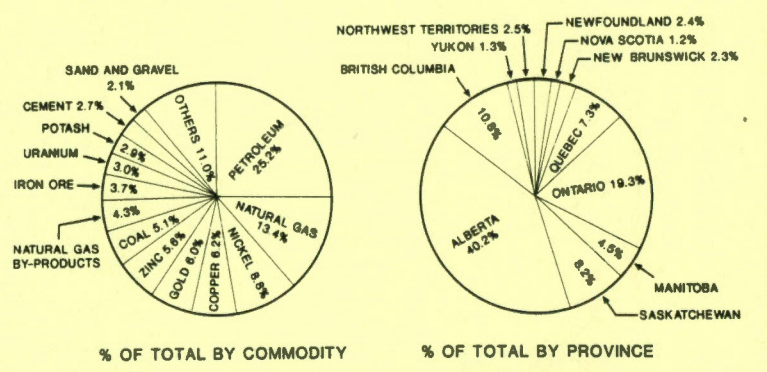
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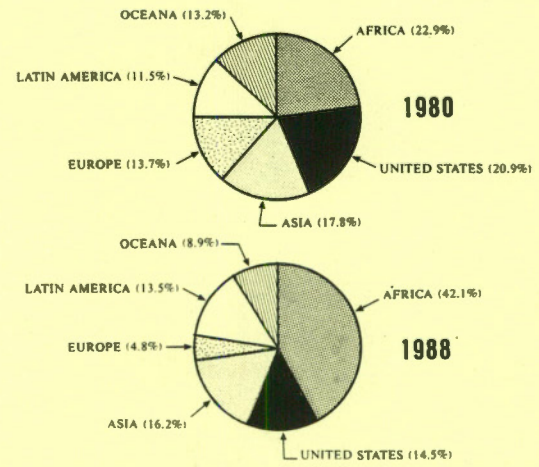
TABLE 3. METAL PRICES - 1988

	October	November
Copper		
Electrolytic, U.S. producer f.o.b. refinery, cents (U.S.)	136.648	150.920
Electrolytic, COMEX, 1st pos. plus 5¢, cents (C.)	166.904	185.133
Electrolytic, Standard, LME cash, cents (U.S.)	127.646	143.821
Lead		
New York, cents (U.S.)		
Montreal, cents (C.)		
LME cash, cents (U.S.)		
Silver		
New York, cents (U.S.) per troy oz.		
Toronto, cents (C.) per troy oz.		
LME cash, cents (U.S.) per troy oz.		
Zinc		
St. Louis, H.G., cents (U.S.)		
Montreal, Electrolytic, cents (C.)		
LME cash, cents (U.S.)		
Tin		
New York, dealers, cents (U.S.)		
Metals Week, composite, cents (U.S.)		
Gold		
London, p.m., US\$ per troy oz.		
Average, (Sharps Pixley) US\$ per troy oz.		
High, (Sharps Pixley) US\$ per troy oz.		
Low, (Sharps Pixley) US\$ per troy oz.		
Mercury		
New York, dealers, US\$ per flask		
Nickel		
New York, dealers, cathode (U.S.)		
LME cash, US\$		
Antimony		
New York, dealers, cents (U.S.)		


CANADA, VALUE OF MINERAL PRODUCTION, 1988



CANADA ELEMENTAL SULPHUR EXPORTS
% DISTRIBUTION



600.000
7.010
131.520
108.035
8.400
7.300
55.000
3.429
13.150
8.

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ISSN 0229-1908

THE 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
460 O'Connor Street
Ottawa, Ontario K1A 5H3

NOTICE TO SUBSCRIBERS

The Canadian Mineral Industry Monthly Report was not produced in October and November 1989. During this period the Mineral Policy Sector assumed responsibility for the administration of the Canadian Exploration Incentive Program (CEIP) and was relocated within the National Capital Region. Our new address effective November 14 is:

Mineral Policy Sector
460 O'Connor Street
Ottawa, Ontario
K1A 5H3

Telephone: (613) 995-1118
Fax: (613) 992-5893

For inquiries related to publications distribution, please phone (613) 992-1108.

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THE CANADIAN MINERAL INDUSTRY FOR DECEMBER

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

ECONOMIC TRENDS

Table 1 provides a comparison of the volume of production of Canada's leading minerals for the months of September and October 1989, 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 is 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 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 which is valued exclusive of excise taxes and duties, and provincial and municipal sales tax. Factor cost does, however, include subsidies and other taxes which 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 which 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, declined 0.3% in October following increases of 0.4% in September and August. This is the first monthly decline in economic activity since last March. Production has advanced 1.0% to date in 1989 and 2.0% since October of last year. Goods producing industries declined 0.9% in October, the largest monthly decrease in over three years. Services producing industries recorded no growth following a gain of 0.4% in September.

Table 3 shows the prices of selected metals for September, October and November, 1989.

Table 4 provides historical data for a number of important national economic indicators for the period 1974 to 1988.

Tables 5 and 6 provide information on Gross Domestic Product for the major industries including mining and mineral manufacturing for the years 1982 to 1988. Note that the values are calculated on the basis of 1981 prices.

Tables 7, 8 and 9 deal with industrial fatality statistics by industry group.

Tables 10 and 11 show research and development expenditures for mining-related industries from 1983 to 1989 inclusive.

Tables 12 through 18 provide employment data for the mineral industry from 1961 to 1989. The employment data are disaggregated into four stages as follows: Stage I, Mineral Extraction and Millings; Stage II, Smelting and Refining; Stage III, Semi-Fabrication and Stage IV, Manufacturing.

TABLE 1. CANADA, PRODUCTION OF LEADING MINERALS

			1988			1989			Percentage Changes		
			September	October	Total 10 Months	September	October	Total 10 Months	October 1989 October 1988	October 1989 September 1989	10 months 1989 1988
(000 tonnes except where noted)											
Metals											
Copper			56.0	66.4 ^r	622.0 ^r	52.2 ^r	56.1	566.9	-15.6	7.5	-8.9
Gold	kg		11 429.9 ^r	11 456.3 ^r	106 511.1 ^r	13 858.8	14 482.0	129 187.7	26.4	4.5	21.3
Iron ore			3 376.9	3 851.7	32 230.3	3 660.5	3 395.9	31 988.9	-11.8	-7.2	-0.7
Lead			39.4 ^r	32.6	303.6	27.4	27.9	243.1	-14.5	1.8	-19.9
Molybdenum	t		1 032.6 ^r	1 033.2	10 764.7	984.4 ^r	1 184.8	11 446.3	14.7	20.4	6.3
Nickel			17.8	20.0	160.1	17.9	18.3	160.4	-8.4	2.3	0.2
Silver	t		114.8 ^r	100.7 ^r	1 147.3 ^r	97.0	97.0	1 043.4	-3.7	0.0	-9.0
Uranium ¹	t		1 137.9	1 209.3	10 233.8	1 010.8	487.1	9 444.2	-59.7	-51.8	-7.7
Zinc			151.4 ^r	112.0	1 114.0	137.9	121.2	1 123.4	8.3	-12.1	0.8
Nonmetals											
Asbestos			60.9	64.6	590.9	69.0	60.3	591.5	-6.7	-12.6	0.1
Clay products	\$000		18 140.6 ^r	22 090.0 ^r	159 974.8 ^r	18 847.2 ^r	21 618.7	172 411.1	-2.1	14.7	7.8
Gypsum			845.9	872.6	7 410.3	818.8 ^r	834.8	7 176.2	-4.3	2.0	-3.2
Potash K ₂ O			638.6	639.4	6 815.3	455.6	647.4	5 908.0	1.3	42.1	-13.3
Cement			1 307.0	1 204.0 ^r	10 257.8 ^r	1 269.2	1 252.2	10 150.2	4.0	-1.3	-1.0
Lime			215.7	202.0 ^r	2 061.7 ^r	208.5	207.4	2 153.2	2.7	-0.5	4.4
Salt			868.7	1 037.5	8 558.9	850.5	1 124.9	8 999.9	8.4	32.3	5.2
Fuels											
Coal			5 614.9 ^r	6 004.8 ^r	58 271.8 ^r	..	..	..	..	..	..
Natural gas	million m ³		8 551.0 ^r	9 391.0 ^r	92 271.0 ^r	..	..	..	..	..	..
Crude oil and equivalent	000 m ³		8 163.0 ^r	8 597.0 ^r	83 335.0 ^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	1988	1989			Percentage Change October 1989 October 1988
	October	August	September	October	
	(\$ million)				
Total Economy	404 165.5	412 234.4	413 730.0	412 362.7	2.0
Primary Industries					
Agriculture	8 325.3	9 726.3	9 959.7	9 748.2	17.1
Forestry	2 705.3	2 719.2	2 757.6	2 703.6	-0.1
Fishing and Trapping	891.3	556.8	584.4	531.6	-40.4
Mines, Quarries and Oil Wells	23 072.5	22 922.4	23 436.5	22 863.7	-0.9
Mining Industries	7 976.1	8 490.0	8 377.2	8 287.2	3.9
Gold Mines	1 505.3	1 933.2	1 892.4	1 986.0	31.9
Iron Mines	605.3	625.2	652.8	632.4	4.5
Other Metal Mines	3 640.1	3 676.8	3 580.8	3 482.4	-4.3
Nonmetal Mines	854.7	800.4	788.4	783.6	-8.3
Asbestos Mines	214.8	243.6	232.8	226.8	5.6
Mineral Fuels					
Coal Mines	1 029.5	1 093.2	1 113.6	1 054.8	2.5
Crude Petroleum and Natural Gas	13 165.1	12 849.6	13 486.1	13 002.1	-1.2
Secondary Industries					
Manufacturing	78 088.0	79 018.1	78 708.5	78 096.3	0.01
Non-durable Manufacturing	33 173.8	33 428.4	33 398.4	33 424.8	0.8
Durable Manufacturing	44 914.2	45 589.7	45 310.1	44 671.5	-0.5
Primary Metal Industries	6 223.7	6 330.0	6 313.2	6 194.4	-0.5
Primary Steel Industries	2 317.4	2 378.4	2 395.2	2 368.8	2.2
Steel, Pipe and Tube Industry	439.0	490.8	482.4	481.2	9.6
Iron Foundries	433.3	396.0	394.8	386.4	-10.8
Smelting and Refining	2 339.1	2 362.8	2 329.2	2 244.0	-4.1
Nonmetallic Mineral Products	2 343.6	2 347.2	2 366.4	2 324.4	-0.8
Clay Products Industry	135.4	97.2	94.8	93.6	-30.9
Cement Industry	290.2	303.6	312.0	307.2	5.9
Ready-mix Concrete Industry	444.1	444.0	456.0	433.2	-2.5
Construction Industry	31 248.0	32 689.2	32 691.6	32 888.4	5.3
Transportation and Storage	19 364.8	19 557.6	19 747.2	19 500.0	0.7
Communications	12 675.0	14 019.6	14 073.6	14 309.0	12.9
Other Utilities	11 648.9	11 337.6	11 367.6	11 178.0	-4.0
Wholesale Trade	24 881.7	25 520.4	25 377.6	25 052.4	0.7
Retail Trade	26 119.5	25 769.5	26 207.5	25 861.2	-1.0
Finance, Insurance and Real Estate	59 074.6	60 834.0	61 303.2	61 550.4	4.2
Community, Business and Personal Service	41 511.9	41 999.3	42 206.2	42 393.1	2.1

TABLE 3. METAL PRICES - 1989

	September	October	November
Copper			
Electrolytic, U.S. producer f.o.b. refinery, cents (U.S.)	137.039	130.259	116.709
Electrolytic, COMEX, 1st pos. plus 5¢, cents (C.)	136.973	130.532	111.450
Electrolytic, LME Grade A Settlement, cents (U.S.)	130.836	129.790	117.538
Lead			
New York, cents (U.S.)	42.000	41.800	40.250
Montreal, cents (C.)	51.500	51.500	48.000
LME cash, cents (U.S.)	32.995	34.072	31.385
Silver			
New York, cents (U.S.) per troy oz.	517.935	513.273	642.595
Toronto, cents (C.) per troy oz.	611.214	605.710	548.310
Zinc			
St. Louis, H.G., cents (U.S.)	81.076	79.948	76.922
Montreal, Electrolytic, cents (C.)	95.875	94.500	90.000
LME cash, cents (U.S.)	73.766	71.789	65.103
Tin			
New York, dealers, cents (U.S.)	383.250	371.611	319.111
Metals Week, composite, cents (U.S.)	453.574	477.136	418.800
Gold			
London, p.m., US\$ per troy oz.	364.745	366.884	394.261
Mercury			
New York, dealers, US\$ per flask	261.400	267.619	285.714
Nickel			
New York, dealers, cathode (U.S.)	5.063	4.701	4.445
LME cash, US\$	5.090	4.729	4.442
Antimony			
New York, dealers, cents (U.S.)	93.000	94.000	85.524
Platinum			
New York, refined, US\$ per troy oz.	600.000	600.000	600.000
Cadmium			
New York, dealers, US\$	5.488	5.810	5.267
Aluminum			
LME cash, cents (C.)	92.161	96.878	91.678
LME cash, cents (U.S.)	77.924	82.555	78.748
Cobalt			
Shot/cathode/250 kg., US\$	8.400	8.400	8.400
U.S. spot cathode, US\$	7.625	7.670	7.517
Tungsten			
LMB ore, low, US\$/MTU	48.000	46.000	44.000
Molybdenum			
M.W. dealer oxide, US\$	3.259	3.091	2.739
Uranium			
Nuexco, US\$ U ₃ O ₈	9.700	9.600	9.550

Average U.S. Exchange Rate for September = 1.1827, October = 1.1735, November = 1.1642.

Note: Prices are per pound unless otherwise stated.

TABLE 4. CANADA, GENERAL ECONOMIC INDICATORS, 1974-88

		1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988P
Gross domestic product, current dollars	\$ million	152 111	171 540	197 924	217 879	241 604	276 069	309 891	355 994	374 750	405 425	444 735	479 988 ^r	504 631 ^r	550 334	601 508
Gross domestic product, constant dollars (1981 = 100)	"	276 006	283 187	300 638	311 347	325 751	338 362	343 384	355 994	344 082	354 780	377 865	395 878 ^r	408 143 ^r	426 411	447 779
Mining's gross domestic product (1981 = 100)	"	23 776	19 521	19 586	18 894	17 879	20 215	19 660	17 453	16 463	17 019	20 606 ^r	21 516 ^r	20 388 ^r	21 554 ^r	23 451 ^r
Manufacturing's gross domestic product (1981 = 100)	"	55 294	51 601	55 382	57 391	60 006	62 254	59 461	61 648	54 844	57 954	64 598 ^r	68 235 ^r	69 016 ^r	73 000 ^r	77 428 ^r
Industrial production's gross domestic product (1981 = 100)	"	81 135	75 171	80 223	82 920	85 799	89 491	86 880	88 675	80 910	84 982	95 499 ^r	100 811 ^r	100 732 ^r	106 421 ^r	112 991 ^r
Value of manufacturing industry shipments	"	82 455	88 427	98 076	109 747	129 019	152 133	165 985	190 851	183 652	200 155	229 848	248 673 ^r	253 343 ^r	268 536	288 549
Value of mineral production	"	11 754	13 347	15 693	18 473	20 319	26 135	31 926	32 420	33 831	38 540	43 789	44 730	32 446	36 361 ^r	37 080
Merchandise exports	"	32 738	33 616	38 166	44 495	53 361	65 582	76 681	84 432	84 560	90 700	112 219	120 258	119 889	126 120	137 294
Merchandise imports	"	30 903	33 962	36 606	41 523	49 048	61 157	67 903	77 140	66 739	73 054	91 493	102 783	110 079	114 767	127 486
Balance of payments, current account	"	-1 299	-4 631	-4 096	-4 322	-4 903	-4 864	-1 130	-6 131	2 906	2 942	2 695	-1 991 ^r	-10 578 ^r	-9 360	-10 316
Corporation profits before taxes	"	20 062	19 663	19 985	21 090	25 360	34 884	36 456	32 638	21 110	32 684	45 855	49 490 ^r	45 199 ^r	56 270	62 268
Business investment, current dollars	"	30 370	35 602	40 462	43 485	47 496	56 096	64 065	76 672	71 067	70 862	73 309	81 312 ^r	88 792 ^r	102 292	117 679
Business investment, constant dollars (1981 = 100)	"	46 555	49 418	52 453	53 587	55 638	61 399	68 103	76 672	67 088	65 972	67 635	73 870 ^r	78 949 ^r	89 052	101 672
Population	000s	22 364	22 697	22 993	23 258	23 476	23 671	23 936	24 342	24 634	24 886	25 124	25 360	25 353	25 617	25 912
Labour force	"	9 639	9 974	10 203	10 500	10 895	11 231	11 573	11 904	11 958	12 183	12 399	12 639	12 870	13 011	13 275
Employed	"	9 125	9 284	9 477	9 651	9 987	10 395	10 708	11 006	10 644	10 734	11 000	11 311	11 634	11 861	12 244
Unemployed	"	514	690	726	849	908	836	865	898	1 314	1 448	1 399	1 328	1 236	1 150	1 031
Unemployment rate	percent	5.3	6.9	7.1	8.1	8.3	7.4	7.5	7.5	11.0	11.9	11.3	10.5	9.6	8.8	7.8
Labour income	\$ million	81 656	95 277	110 419	122 476	133 383	150 172	169 736	196 002	209 449	219 352	236 257 ^r	254 777 ^r	271 809 ^r	296 002	322 717
Consumer price index	1981 = 100	52.8	58.5	62.9	67.9	73.9	80.7	88.9	100.0	110.8	117.2	121.0 ^r	126.3 ^r	131.0 ^r	136.3	141.4

P Preliminary; ^r Revised

TABLE 5. CANADA, GROSS DOMESTIC PRODUCT OF INDUSTRIAL PRODUCTION, MINING AND MINERAL MANUFACTURING AT FACTOR COST, 1981-88

(1981 = 100)	1981	1982 ^p	1983 ^p	1984 ^p	1985 ^p	1986 ^p	1987	1988 ^p
	(\$ million)							
Total industrial production	88 675.3	79 997.7	85 158.2	95 499.1	100 811.3	100 731.1	106 420.6	112 990.8
Total mining	17 453.4 ^p	16 958.6	18 057.9	20 555.6	21 465.6	20 338.0	21 499.2	23 382.2
Metals								
Gold mines	487.0	726.4	759.9	845.9	921.8	1 098.5	1 263.5	1 452.9
Other metal mines	2 514.6	2 327.9	2 528.3	3 611.1	3 418.7	3 361.0	3 682.1	3 730.7
Iron mines	820.7	556.6	409.1	479.2	631.4	562.1	554.9	611.2
Fuels								
Crude oil and natural gas	9 786.9 ^p	10 008.4	10 881.6	11 235.6	12 024.0	11 408.3	11 983.0	13 085.7
Nonmetals								
Asbestos	358.3	221.0	186.9	224.6	198.2	185.1	189.7	200.9
All nonmetals	751.3	531.9	635.8	824.4	718.7	724.6	763.6	854.3
Salt	71.0	77.7	86.3	106.7	104.5	125.7	121.0	125.2
Coal	466.3	491.7	576.0	920.0	939.9	834.6	908.5	1 052.5
Quarry and sand pits	314.6	246.3	278.4	321.5	369.7	445.8	545.8	595.7
Services related to mining	1 882.7	1 770.7	1 715.6	1 986.6	2 138.7	1 592.3	1 487.1	1 673.1
Mineral manufacturing								
Primary metals	5 101.0	3 832.3	4 325.4	5 289.2	5 595.5	5 424.7	5 898.8	6 322.1
Primary steel	2 378.2	1 518.8	1 863.7	2 118.0	2 183.7	2 080.4	2 241.8	2 359.1
Steel pipe and tube mills	322.4	193.2	166.6	327.8	367.4	299.7	395.0	496.1
Iron foundries	238.8	209.5	247.6	342.8	345.7	356.4	404.5	430.1
Nonferrous smelting and refining	1 610.0	1 509.7	1 599.8	1 929.6	2 068.9	2 038.7	2 192.4	2 345.0
Nonmetallic mineral products	2 015.7	1 543.9	1 710.0	1 871.7	2 042.2	2 136.3	2 278.7	2 333.3
Cement	318.5	220.6	240.5	239.5	261.6	262.5	299.3	301.4
Concrete products	311.6	257.3	245.0	267.6	322.7	342.0	380.1	438.1
Ready-mix concrete	350.8	248.2	264.3	286.7	327.3	371.3	444.8	438.3
Glass and glass products	422.0	364.8	446.9	507.8	541.0	508.7	476.5	465.3
Miscellaneous nonmetallic products	505.2	392.5	438.0	496.6	516.0	526.2	543.3	558.2
Petroleum and coal products	858.8	796.0	792.1	799.0	778.1	747.4	767.3	806.3

^p Preliminary; ^r Revised.

TABLE 6. CANADA, GROSS DOMESTIC PRODUCT BY INDUSTRIES AT FACTOR COST, 1981-88

(1981 = 100)	1981	1982'	1983'	1984'	1985'	1986'	1987	1988P
	(\$ million)							
Gross domestic product, all industries	319 538.1'	307 863.5	317 858.6	336 941.4	352 821.1	364 365.7	381 794.5	400 142.9
Agriculture	10 611.2	11 277.0	10 951.0	10 597.1	10 154.3	11 841.8	10 903.2	8 761.0
Fishing and trapping	565.3	609.9	577.7	526.4	640.6	663.9	632.2	671.4
Forestry	2 045.0	1 708.9	2 254.4	2 534.2	2 455.2	2 485.9	2 748.1	2 762.9
Mines (including milling), quarries and oil wells	17 453.4'	16 958.6	18 057.9	20 555.6	21 465.6	20 338.0	21 499.2	23 382.2
Manufacturing	61 648.0'	53 702.2	57 168.7	64 541.4	68 180.8	68 968.2	72 951.8	77 379.8
Construction	25 094.0'	25 108.7	24 666.6	23 111.4	24 904.1	25 721.4	27 827.0	30 139.8
Transportation and storage	14 428.6	13 617.0	14 631.4	16 355.2	16 699.1	17 183.6	18 065.9	19 321.6
Communications	8 728.3	8 719.7	8 942.9	9 376.3	9 910.2	10 371.4	11 283.7	12 383.5
Electric power, gas and water utilities	8 950.3	8 666.9	9 284.5	9 758.1	10 530.2	10 788.8	11 320.4	11 555.9
Trade, wholesale	15 413.6	14 134.3	15 406.7	16 620.3	18 687.5	19 882.3	22 498.4	24 708.2
Trade, retail	19 661.3	18 973.9	19 969.0	21 147.3	22 280.9	23 231.7	24 583.7	25 780.5
Finance, insurance and real estate	44 155.3	43 087.3	44 140.4	46 977.3	49 988.9	52 835.5	55 584.8	58 205.3
Community, business and personal services	32 911.2'	32 449.0	31 990.5	33 862.5	35 172.6	37 433.2	38 573.5	40 805.5
Government service	21 714.9	22 325.6	22 658.7	23 011.6	23 146.9	23 473.6	23 675.2	23 948.9

P Preliminary; ' Revised.

TABLE 7. CANADA, INDUSTRIAL FATALITIES PER THOUSAND WORKERS¹ BY INDUSTRY GROUPS, 1986-88

	Fatalities			Number of Workers			Rate per 1000 Workers		
	1986	1987	1988P	1986	1987	1988P	1986	1987	1988P
	(number)			(000)					
Agriculture	9	12	9	172	179	164	0.05	0.07	0.05
Forestry	55	61	60	61	62	65	0.90	0.98	0.92
Fishing ²	14	24	13	14	15	18	1.00	1.60	0.72
Mining ³	108	114	82	183	181	185	0.59	0.63	0.44
Manufacturing ⁴	111	112	125	1 985	2 017	2 097	0.06	0.06	0.06
Construction	141	121	119	522	565	613	0.27	0.21	0.19
Transportation ⁵	122	113	101	842	848	860	0.14	0.13	0.12
Trade	59	40	42	1 881	1 928	1 997	0.03	0.02	0.02
Finance ⁶	6	5	8	628	661	691	0.01	0.01	0.01
Service ⁷	39	40	46	3 383	3 501	3 631	0.01	0.01	0.01
Public Administration ⁸	55	38	35	800	814	820	0.07	0.05	0.04
Unknown	3	10	7	..	..	..	..	..	..
Total	722	690	647	10 471	10 771	11 141	0.07	0.06	0.06

¹ Includes fatalities resulting from occupational chest illnesses such as silicosis, lung cancer, etc. Excludes the province of Quebec for which data is unavailable. ² Includes trapping and hunting. ³ Includes quarrying and oil wells. ⁴ Includes deaths of workers who were on pension for an earlier disabling injury. ⁵ Includes storage, communication, electric power and water utilities and highway maintenance. ⁶ Includes insurance and real estate. ⁷ Includes community, business and personal services. ⁸ Includes defence.

.. Not available; P Preliminary.

TABLE 8. CANADA, RATE OF INDUSTRIAL FATALITIES PER THOUSAND WORKERS BY INDUSTRY GROUPS,¹ 1982-88

	1982	1983	1984	1985	1986	1987	1988p ²
Agriculture	0.13	0.13	0.13	0.12	0.05	0.07	0.05
Forestry	1.22	0.97	0.88	1.08	0.90	0.98	0.92
Fishing ³	1.58	1.07	1.93	2.17	1.00	1.60	0.72
Mining ⁴	0.96	0.63	0.57	0.69	0.59	0.63	0.44
Manufacturing ⁵	0.11	0.08	0.07	0.07	0.06	0.06	0.06
Construction	0.35	0.25	0.31	0.28	0.27	0.21	0.19
Transportation ⁶	0.22	0.17	0.15	0.16	0.14	0.13	0.12
Trade	0.04	0.03	0.03	0.04	0.03	0.02	0.02
Finance ⁷	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Service ⁸	0.03	0.03	0.02	0.02	0.01	0.01	0.01
Public Administration ⁹	0.08	0.07	0.08	0.07	0.07	0.05	0.04
Total	0.11	0.08	0.08	0.09	0.07	0.06	0.06

¹ Includes fatalities resulting from occupational chest illnesses such as silicosis, lung cancer, etc. Excludes the province of Quebec for which data is unavailable. ² Prior to 1983, the rates may be understated because only 80 percent of workers in the Statistics Canada employment estimates are covered by workers' compensation, beginning 1983, the rates include 100 percent of workers. ³ Includes trapping and hunting. ⁴ Includes quarrying and oil wells. ⁵ Includes deaths of workers who were on pension for an earlier disabling injury. ⁶ Includes storage, communication, electric power and water utilities and highway maintenance. ⁷ Includes insurance and real estate. ⁸ Includes community, business and personal services. ⁹ Includes defence.

p Preliminary.

TABLE 9. CANADA, INDUSTRIAL FATALITIES BY OCCUPATIONAL INJURIES AND ILLNESSES,¹ 1986-88

	Occupational Injuries			Occupational Illnesses			Total		
	1986	1987	1988 ^P	1986	1987	1988 ^P	1986	1987	1988 ^P
Agriculture	9	12	9	0	0	0	9	12	9
Forestry	55	61	60	0	0	0	55	61	60
Fishing ²	14	24	13	0	0	0	14	24	13
Mining ³	57	63	50	51	51	32	108	114	82
Manufacturing ⁴	87	72	92	24	40	33	111	112	125
Construction	113	102	90	28	19	29	141	121	119
Transportation ⁵	118	111	98	4	2	3	122	113	101
Trade	56	37	37	3	3	5	59	40	42
Finance ⁶	6	5	7	0	0	1	6	5	8
Service ⁷	37	40	45	2	0	1	39	40	46
Public Administration ⁸	50	31	32	5	7	3	55	38	35
Unknown	0	8	5	0	2	2	0	10	7
Total	602	566	538	117	124	109	719	690	647

¹ Includes fatalities resulting from occupational chest illness such as silicosis, lung cancer, etc. Excludes the province of Quebec for which data is unavailable. ² Includes trapping and hunting. ³ Includes quarrying and oil wells. ⁴ Includes deaths of workers who were on pension for an earlier disabling injury. ⁵ Includes storage, communication, electric power and water utilities and highway maintenance. ⁶ Includes insurance and real estate. ⁷ Includes community, business and personal services. ⁸ Includes defence.

^P Preliminary.

TABLE 10. CANADA, TOTAL INTRAMURAL RESEARCH AND DEVELOPMENT EXPENDITURES FOR MINING-RELATED INDUSTRIES IN CURRENT AND CONSTANT (1981) DOLLARS, 1983-89

	1983	1984	1985	1986	1987	1988 ^p	1989 ^f
	(\$ million)						
Current dollars							
Mining industry	92	115	119	90 ^r	76	86	88
Mines	43	48	51	52 ^r	47	53	59
Oil and gas wells	49	67	69	38 ^r	29	33	29
Mineral manufacturing	298	356	342 ^r	279 ^r	274	308	330
Ferrous primary metals	22	26	26 ^r	27	30	32	32
Nonferrous primary metals	82	95	92 ^r	88	111	125	130
Nonmetallic mineral products	10	17	19	16	15	14	16
Petroleum products	184	218	205	148 ^r	118	137	152
Constant dollars							
Mining industry	81	98 ^r	99 ^r	72 ^r	59	64	62
Mines	38	40	42	41 ^r	37	40	41
Oil and gas wells	43	57	57 ^r	31 ^r	22	25	20
Mineral manufacturing	261	303	283 ^r	225 ^r	210	228	232
Ferrous primary metals	19	22	22	22 ^r	23	24	22
Nonferrous primary metals	72	81 ^r	76	71 ^r	85	92	91
Nonmetallic mineral products	9	14	16	13 ^r	11	11	11
Petroleum products	161	186 ^r	169 ^r	119 ^r	91	101	107

^p Preliminary; ^f Forecast; ^r Revised.

Note: Totals may not add due to rounding.

TABLE 11. CANADA, CURRENT AND CAPITAL INTRAMURAL RESEARCH AND DEVELOPMENT EXPENDITURES FOR MINING-RELATED INDUSTRIES, 1983-89

	1983	1984	1985	1986	1987	1988 ^p	1989 ^f
	(\$ million)						
Capital expenditures							
Mining industry	21	21	27	11 ^r	7	9	11
Mines	5	5	4	8 ^r	4	4	7
Oil and gas wells	16	16	23	3	3	5	3
Mineral manufacturing	48	97	82	30	34	40	53
Ferrous primary metals	1	1	3	3	4	5	4
Nonferrous primary metals	5	9	5	7	15	12	13
Nonmetallic mineral products	1	6	6	3	2	1	2
Petroleum products	41	81	68	17	13	22	34
Current expenditures							
Mining industry	71	94	92	79 ^r	69	77	77
Mines	38	43	47	44	43	49	52
Oil and gas wells	33	51	46	35 ^r	26	28	26
Mineral manufacturing	250	259	260	249 ^r	240	268	277
Ferrous primary metals	21	25	23	24	26	27	28
Nonferrous primary metals	77	86	87	81 ^r	96	113	117
Nonmetallic mineral products	9	11	13	13 ^r	13	13	14
Petroleum products	143	137	137	131	105	115	118
Total expenditures							
Mining industry	92	115	119 ^r	90 ^r	76	86	88
Mines	43	48	51	52	47	53	59
Oil and gas wells	49	67	69	38 ^r	29	33	29
Mineral manufacturing	298 ^r	356	342 ^r	279 ^r	274	308	330
Ferrous primary metals	22 ^r	26	26 ^r	27	30	32	32
Nonferrous primary metals	82	95	92 ^r	88 ^r	111	125	130
Nonmetallic mineral products	10	17	19	16 ^r	15	14	16
Petroleum products	184	218	205	148	118	137	152

^p Preliminary; ^f Forecast; ^r Revised.

Note: Totals may not add due to rounding.

TABLE 12. EMPLOYMENT¹ IN THE MINERAL INDUSTRY, STAGE 1 - MINERAL EXTRACTION AND MILLING (total activity)²

	Metal Mines	Nonmetals Mines	Structural Materials	Nonfuel Mining	Coal	Crude Oil and Natural Gas	Total Nonfuel and Fuel
SIC#	061	062	081, 082	061, 062 081, 082	063	071	
				(number)			
1961	58 591	11 003	5 235	74 829	10 302	11 184	96 315
1962	58 243	11 408	5 514	75 165	9 897	11 232	96 294
1963	57 119	11 661	5 686	74 466	9 828	11 237	95 531
1964	57 648	11 727	6 044	75 419	9 796	11 242	96 457
1965	60 942	12 116	6 248	79 306	9 697	11 817	100 820
1966	61 670	12 422	6 312	80 404	9 281	12 378	102 063
1967	61 728	13 077	5 779	80 584	8 981	13 113	102 678
1968	63 369	13 673	5 836	82 878	8 427	13 611	104 916
1969	60 550	14 322	5 692	80 564	7 371	14 153	102 088
1970	66 590	15 150	5 510	87 250	7 874	14 970	110 094
1971	66 012	15 105	5 328	86 445	8 069	15 896	110 410
1972	61 994	14 866	5 154	82 014	8 704	16 604	107 322
1973	66 134	15 391	5 276	86 801	7 856	16 786	111 443
1974	70 038	16 198	6 197	92 433	8 142	18 155	118 730
1975	69 161	13 703	6 382	89 246	8 416	18 053	115 715
1976	68 269	15 649	5 685	89 603	8 995	19 096	117 694
1977	67 242	16 608	5 190	89 040	9 781	20 240	119 061
1978	56 447	16 035	4 847	77 329	10 574	22 045	109 948
1979	58 960	16 770	4 692	80 422	10 269	24 554	115 245
1980	66 118	16 979	4 461	87 558	11 416	27 448	126 422
1981	68 712	16 391	4 183	89 286	11 182	28 783	129 251
1982	61 503	13 680	3 491	78 674	13 113	31 699	123 486
1983	52 194	13 170	3 403	68 767	11 646	33 418	113 831
1984	52 683	13 698	3 560	69 941	11 905	33 944	115 790
1985	48 672	12 974	3 941	65 587	12 076 ^r	39 498 ^r	117 161 ^r
1986	46 487	12 376	4 887	63 750	10 745	36 966	111 461
1987 ^p	46 188	12 241	5 698	64 127	11 000	36 300	111 427
1988 ^f	47 550	12 275	5 900	65 725	10 900	39 500	116 125

Sources: Annual Census of Mines, Quarries and Sand Pits, Census of Coal Mines and Survey of the Crude Petroleum and Natural Gas Industry and Information Systems Division, Energy, Mines and Resources (for forecasts).

SIC: 1980 Standard Industrial Classification.

¹ Number shown for any given year may be an average derived from monthly data for full-time employees. ² Total activity includes sales and head offices.

^p Preliminary; ^f Forecast; ^r Revised.

TABLE 13. EMPLOYMENT IN THE NONFUEL MINERAL INDUSTRY, STAGE I - MINERAL EXTRACTION AND MILLING (total activity)¹

SIC #	Gold 0611	Uranium 0616	Iron 0617	Nickel, Copper, Zinc 0612,0613	Silver, Lead, Zinc 0614	Other Non- ferrous 0615,0619	Asbestos 0621	Peat 0622	Gypsum 0623	Potash 0624	Other Nonmetal 0625,0629	Stone Quarries 081	Sand and Gravel 082	Total Nonfuel Mining
	(number)													
1961	15 994	(2)	8 446	23 351	4 524	6 276	6 773	1 207	599	(3)	2 424	3 173	2 062	74 829
1962	15 425	(2)	9 181	23 383	4 669	5 585	6 936	1 220	594	(3)	2 658	3 221	2 293	75 165
1963	14 639	(2)	9 608	22 703	5 163	5 006	6 828	1 303	677	(3)	2 853	3 477	2 209	74 466
1964	14 012	(2)	9 544	23 848	5 898	4 346	6 544	1 290	710	(3)	3 183	3 718	2 326	75 419
1965	13 155	(2)	11 739	25 892	6 121	4 035	6 536	1 201	646	1 050	2 683	3 511	2 737	79 306
1966	11 656	(2)	11 464	27 651	6 356	4 543	6 736	1 254	585	1 195	2 652	3 701	2 611	80 404
1967	10 355	(2)	10 899	29 288	6 030	5 156	6 931	1 261	505	1 724	2 656	3 381	2 398	80 584
1968	9 001	(2)	11 342	30 557	6 320	6 149	7 213	1 306	489	2 086	2 579	3 340	2 496	82 878
1969	8 221	(2)	10 490	28 679	6 467	6 693	7 242	1 156	657	2 713	2 554	3 252	2 440	80 564
1970	7 185	(2)	11 336	36 253	7 103	4 713	7 664	1 195	671	2 837	2 783	3 023	2 487	87 250
1971	6 148	(2)	11 524	37 713	6 506	4 121	8 101	1 269	603	2 519	2 613	2 832	2 496	86 445
1972	5 579	(2)	10 842	36 012	6 057	3 504	7 843	1 114	670	2 440	2 799	2 803	2 351	82 014
1973	5 603	(2)	13 395	37 602	6 112	3 422	8 027	1 236	676	2 684	2 768	3 097	2 179	86 801
1974	5 665	(2)	15 019	38 876	6 722	3 756	8 131	1 288	671	3 224	2 884	3 458	2 739	92 433
1975	5 798	(2)	16 155	35 538	7 362	4 308	6 042	1 303	576	3 351	2 431	3 544	2 838	89 246
1976	5 051	3 430	16 765	34 049	7 351	1 623	7 900	1 168	591	3 270	2 720	3 217	2 468	89 603
1977	4 643	4 140	15 550	33 703	7 512	1 694	8 302	1 244	652	3 628	2 782	3 004	2 186	89 040
1978	4 943	4 965	12 103	25 610	7 073	1 753	7 752	1 295	683	3 708	2 597	2 876	1 971	77 329
1979	5 013	5 858	14 563	25 116	7 081	1 329	8 067	1 372	738	3 905	2 688	2 860	1 832	80 422
1980	5 839	6 304	13 753	31 063	7 349	1 810	8 055	1 308	715	4 160	2 741	2 660	1 801	87 558
1981	6 809	6 869	12 397	33 246	7 740	1 651	6 829	1 441	711	4 661	2 749	2 418	1 765	89 286
1982	7 350	6 035	10 676	28 851	6 837	1 754	4 973	1 323	614	4 076	2 694	2 028	1 463	78 674
1983	7 956	5 390	8 236	24 953	5 073	586	4 617	1 301	682	3 696	2 874	1 980	1 423	68 767
1984	8 450	6 249	7 843	24 000	5 165	976	4 177	1 369	770	4 508	2 874	2 256	1 304	69 941
1985	7 862	5 989	7 077	22 073	4 724	947	3 569	1 363	753	4 488	2 801	2 340	1 601	65 587
1986	8 562	5 608	6 379	20 616	4 162	1 160	2 766	1 468	990	4 315	2 837	2 627	2 260	63 750
1987	9 757	5 289	6 039	18 979	4 372	1 060	2 858	1 510	929	4 094	2 790	2 911	2 827	63 415
1988 ^p	12 068	4 989	6 174	18 682	4 414	1 160	2 592	1 567	937	3 914	2 450	2 886	3 172	65 005
1989 ^f	11 000	5 231	6 305	19 399	4 583	1 205	2 926	1 281	819	4 111	2 574	2 972	2 682	65 088

Sources: Annual Census of Mines, Quarries, Sand Pits and Information Systems Division, Energy, Mines and Resources (forecasts).

SIC: 1980 Standard Industrial Classification.

¹ Total activity includes sales and head offices. (2) Included in "Other Nonferrous". (3) Included in "Other Nonmetal".^p Preliminary; ^f Forecast

TABLE 14. EMPLOYMENT IN THE MINERAL INDUSTRY, STAGE II - SMELTING AND REFINING (total activity)¹

	Smelting/ Refining	Iron and Steel Mills	Total Primary Metals	Petroleum Refineries	Total Smelting and Refining
SIC #	295	291	291, 295 (number)	3611	
1961	29 938	34 749	64 687	10 660	75 347
1962	29 693	36 593	66 286	10 184	76 470
1963	28 516	38 196	66 712	9 734	76 446
1964	30 153	41 505	71 658	9 547	81 205
1965	31 835	44 274	76 109	8 976	85 085
1966	34 237	45 999	80 236	8 996	89 232
1967	34 764	44 203	78 967	9 147	88 114
1968	34 710	44 634	79 344	9 091	88 435
1969	33 376	42 954	76 330	8 765	85 095
1970	37 298	49 169	86 467	14 725	101 192
1971	36 445	49 601	86 046	14 506	100 552
1972	33 829	49 758	83 587	14 376	97 963
1973	32 396	53 008	85 404	14 843	100 247
1974	35 249	54 253	89 502	15 967	105 469
1975	35 577	54 003	89 580	15 624	105 204
1976	34 246	51 978	86 224	15 105	101 329
1977	35 647	52 709	88 356	16 464	104 820
1978	32 652	56 669	89 321	18 958	108 279
1979	32 869	59 167	92 036	18 037	110 073
1980	36 137	61 238	97 375	18 743	116 118
1981	38 011	56 543	94 554	21 325	115 879
1982	33 215	52 330	85 545	20 155	105 700
1983	31 788	47 693	79 481	17 557	97 038
1984	31 752	48 899	80 651	15 847	96 498
1985	30 567	47 685	78 252	15 326	93 578
1986	29 058	46 461	75 519	13 287 ^r	88 806 ^r
1987	29 397	46 493	75 890	13 252	89 142
1988 ^p	29 537	45 170	74 707	12 504	87 211
1989 ^f	30 462	45 279	75 741	12 171	87 912

Source: Annual Census of Manufacturers.

SIC: 1980 Standard Industrial Classification.

¹ Total activity includes sales and head offices.^p Preliminary; ^f Forecast; ^r Revised.

TABLE 15. EMPLOYMENT IN THE MINERAL INDUSTRY¹, STAGE III – SEMI-FABRICATION (total activity)²

SIC#	Total Nonfuel Semi-fabrication	Miscellaneous Petroleum and Coal Products	Lubricating Oil and Greases	Total Semi-fabrication
		369 (number)	3612	
1961	77 063	581	331	77 975
1962	80 606	608	352	81 566
1963	82 420	635	354	83 409
1964	87 843	726	373	88 942
1965	93 912	531	408	94 851
1966	98 602	585	424	99 611
1967	96 033	546	407	96 986
1968	96 375	518	397	97 290
1969	99 438	532	438	100 408
1970	96 144	499	423	97 066
1971	95 831	561	450	96 842
1972	101 109	555	478	102 142
1973	105 884	757	487	107 128
1974	109 818	954	514	111 286
1975	104 296	984	656	105 936
1976	103 411	982	602	104 995
1977	101 257	716	669	102 642
1978	107 234	683	712	108 629
1979	111 231	461	695	112 387
1980	105 902	532	798	107 232
1981	103 192	584	729	104 505
1982	90 194	571	792	91 557
1983	86 814	503	857	88 174
1984	91 405 ^r	521	896	92 822 ^r
1985	94 515 ^r	513	900	95 928 ^r
1986	96 744 ^r	778 ^r	1 001	98 523 ^r
1987 ^e	93 770	604	932	95 306
1988 ^p	102 769	927	1 374	105 070
1989 ^f	99 442	785	1 162	101 389

Source: Annual Census of Manufacturers.

SIC: 1980 Standard Industrial Classification.

¹ 1970 SIC for years 1961–82. ² Total activity includes sales and head offices.^p Preliminary; ^f Forecast; ^r Revised; ^e Estimate.

TABLE 16. EMPLOYMENT IN THE MINERAL INDUSTRY¹, STAGE III - NONFUEL SEMI-FABRICATION (total activity)²

SIC #	Steel Pipe and Tube	Iron Foundries	Aluminum Rolling, Casting Extruding	Copper Rolling, Casting Extruding	Other Rolling, Casting Extruding	Wire and Wire Products	Clay and Clay Products	Cement	Concrete Products	Ready- mix Concrete	Glass and Glass Products ³	Abrasives	Lime	Other Non- metallic Products	Total Nonfuel Semi- fabrication
	292	294	296	297	299	305	351	352 (number)	354	355	356	357	358	359	
1961	3 407	8 178	5 095	3 482	2 731	12 227	5 327	3 590	8 503	4 232	9 802	2 481	847	7 161	77 063
1962	3 676	8 546	5 118	3 492	2 770	13 045	5 468	3 679	9 156	4 886	10 042	2 577	949	7 202	80 606
1963	3 840	8 216	5 164	3 651	3 038	13 743	5 376	3 566	9 317	5 411	10 346	2 464	886	7 402	82 420
1964	4 437	9 620	4 834	3 849	3 382	14 850	5 582	3 592	10 225	6 171	10 362	2 580	815	7 544	87 843
1965	4 799	11 714	4 654	3 620	3 736	16 099	5 675	3 837	10 988	6 559	10 873	2 821	800	7 737	93 912
1966	4 795	13 027	4 943	4 199	4 103	16 391	5 876	4 053	11 090	7 349	11 248	3 044	785	7 699	98 602
1967	5 012	11 970	5 468	4 027	4 287	16 060	5 559	3 972	10 321	7 137	11 388	2 734	724	7 374	96 033
1968	5 441	11 131	5 491	3 947	4 585	16 082	5 515	3 747	10 166	7 440	11 992	2 617	662	7 559	96 375
1969	5 146	11 582	6 028	3 922	4 856	17 014	5 383	3 778	11 011	7 509	12 031	2 697	707	7 774	99 438
1970	5 314	10 663	6 297	3 744	4 060	16 598	4 938	3 887	9 562	7 340	11 654	2 559	660	8 868	96 144
1971	5 306	9 897	5 612	3 608	3 845	16 272	4 682	3 954	10 719	7 997	11 672	2 310	670	9 287	95 831
1972	6 268	9 948	6 200	3 740	4 215	17 651	4 695	4 732	10 817	8 240	12 045	2 367	651	9 540	101 109
1973	5 288	10 965	6 206	3 736	4 863	18 877	5 001	4 871	10 790	9 233	12 840	2 555	724	9 935	105 884
1974	5 845	12 054	6 162	3 779	4 877	19 535	5 289	4 666	11 602	9 219	12 915	2 676	840	10 359	109 818
1975	5 785	11 480	5 672	3 240	4 573	17 614	5 042	4 577	11 201	9 541	11 779	2 318	790	10 684	104 296
1976	5 546	10 365	6 255	3 297	5 354	17 573	4 791	4 517	10 773	9 128	11 836	2 535	804	10 637	103 411
1977	5 634	10 459	6 884	3 183	4 703	17 886	4 553	4 265	10 001	8 521	11 204	2 557	828	10 579	101 257
1978	6 289	10 472	7 060	3 586	5 268	18 823	4 366	4 520	10 486	9 520	11 595	2 678	784	11 787	107 234
1979	6 480	10 520	7 698	3 728	6 292	19 765	4 947	4 828	9 766	9 332	11 835	2 660	925	12 455	111 231
1980	6 514	9 245	6 627	3 230	5 749	18 529	4 875	4 791	9 280	9 348	11 967	2 628	1 003	12 116	105 902
1981	7 531	8 358	6 512	3 031	5 182	17 309	4 145	4 726	9 121	10 053	12 003	2 571	968	11 682	103 192
1982	6 017	8 163	6 255	2 541	4 694	14 575	3 004	4 317	8 245	8 034	11 016	2 170	895	10 268	90 194
1983	4 521	7 364	6 415	2 744	4 827	13 493	3 008	4 057	7 286	8 390	11 896	1 852	862	10 099	86 814
1984	5 482	7 911	6 661	2 971	5 274	14 212 ^r	3 070	3 771	7 657	8 802 ^r	12 754	1 949	876	10 015	91 405 ^r
1985	5 978	7 750	6 196	3 012	5 620	15 354	2 727	3 533	8 336	9 210	12 872	1 895	783	11 249 ^r	94 515 ^r
1986	4 829	7 547	6 200 ^r	3 059 ^r	6 357	15 262	3 770	3 514	9 174 ^r	10 422 ^r	13 448 ^r	1 827 ^r	778	10 557 ^r	96 744 ^r
1987	4 967	7 736 ^e	6 352 ^e	3 014 ^e	5 750 ^e	14 943 ^e	3 189 ^e	3 646	8 389 ^e	9 478 ^e	13 025 ^e	1 890 ^e	784	10 607 ^e	93 770 ^e
1988 ^p	6 033	8 082	6 075	3 004	6 978	14 701	3 716	3 485	10 108	11 713	14 421	2 122	1 051	11 280	102 769
1989 ^f	5 466	7 707	6 133	2 912	7 136	14 409	3 333	3 201	9 933	11 555	13 537	2 272	1 126	10 722	99 442

Source: Annual Census of Manufacturers.

SIC: 1980 Standard Industrial Classification.

¹ 1970 SIC for years 1961-82 ² Total activity includes sales and head offices. ³ Includes sealed window manufacturers until 1969; thereafter these are included in Stage IV - Ornamental Metal Productsp Preliminary; ^r Forecast; ^r Revised; ^e Estimate.

TABLE 17. EMPLOYMENT IN THE MINERAL INDUSTRY¹, STAGE IV – METALLIC MINERAL MANUFACTURING (total activity)²

	Boilers	Structural Metal Products	Ornamental Metal Products	Stamped, Pressed and Coated Products	Hardware Tool and Cutlery	Heating Equipment	Machine Parts	Other Metal Fabricating	Total Mineral Manufacturing
SIC#	301	302	303	304	306	307	308	309	
	(number)								
1961	4 709	14 231	10 641	21 156	9 135	5 137	7 756	15 249	88 014
1962	4 886	14 802	11 640	23 606	10 223	5 349	8 603	16 283	95 392
1963	5 350	14 212	12 459	24 024	11 112	5 586	9 179	16 627	98 549
1964	5 429	14 602	12 808	25 192	13 110	5 673	10 137	18 088	105 039
1965	6 496	18 072	13 439	27 925	13 570	5 711	11 618	20 017	116 848
1966	7 239	21 038	13 488	29 577	14 326	5 464	13 235	21 431	125 798
1967	6 622	18 547	12 994	29 830	14 056	5 461	13 810	21 007	122 327
1968	7 962	17 150	12 664	29 560	14 166	4 930	13 501	20 825	120 758
1969	7 494	18 203	12 784	30 463	14 401	5 059	14 517	20 895	123 816
1970	7 661	19 104	12 417	29 709	15 241	4 670	14 221	20 543	123 566
1971	7 847	17 556	12 614	28 710	14 920	4 749	13 097	20 755	120 248
1972	8 136	17 113	13 611	27 939	16 386	4 238	11 731	21 504	120 658
1973	8 013	18 164	13 937	30 026	18 819	4 453	10 138	22 494	126 044
1974	8 681	20 020	14 470	31 276	20 234	4 930	10 936	23 663	134 210
1975	10 211	19 101	15 241	30 273	18 990	4 717	10 922	23 810	133 265
1976	10 704	18 056	15 541	31 487	19 316	4 977	10 764	23 704	134 549
1977	9 660	17 209	14 800	30 888	17 867	4 538	10 762	23 298	129 022
1978	9 124	16 759	16 753	34 181	18 856	5 086	12 029	24 904	137 692
1979	9 477	18 676	18 018	33 548	21 090	5 818	13 081	23 705	143 413
1980	10 374	17 700	17 890	32 266	20 830	5 993	13 449	24 217	142 719
1981	11 215	18 445	17 603	32 459	19 575	5 806	14 297	22 123	141 523
1982	10 965	17 021	15 228	29 865	17 342	5 317	13 083	18 167	126 988
1983	5 413	18 437	13 537	27 947	16 609	5 032	12 881	16 044	115 900
1984	4 548	17 162	13 538	27 758r	17 308	4 220	14 200	16 256	114 990r
1985	4 455	18 083	15 598	31 021	19 297r	5 607	15 356	14 927	124 344r
1986r	4 990	19 213	17 462	31 584	21 164	5 779	17 259	15 170	132 621
1987e	4 664	18 153	15 533	30 121	19 256	5 202	15 605	15 451	123 985
1988p	6 079	21 813	16 901	34 258	20 702	7 204	18 811	15 401	141 169
1989f	6 329	22 647	16 218	33 525	18 210	7 104	17 878	15 943	137 854

Source: Annual Census of Manufacturers.

SIC; 1980 Standard Industrial Classification.

¹ 1970 SIC for years 1961–82. ² Total activity includes sales and head offices.

p Preliminary; f Forecast; r Revised; e Estimate.

TABLE 18. EMPLOYMENT FOR SERVICES INCIDENTAL TO MINES, QUARRIES AND OIL WELLS

	Petroleum and Natural Gas Contract Drilling ¹	Mining Diamond Drilling ²	Other Services Incidental to Mines, Quarries and Oil Wells ³	Total ⁴
	(number)			
1961	4 144	2 025	1 409	7 578
1962	3 800	1 926	1 720	7 446
1963	4 179	2 201	1 491	7 871
1964	4 158	2 401	2 077	8 636
1965	4 648	2 776	3 137	10 561
1966	4 428	2 887	4 317	11 632
1967	4 249	2 669	5 425	12 343
1968	4 434	2 985	6 350	13 769
1969	4 821	3 109	6 967	14 897
1970	4 267	3 207	7 894	15 368
1971	4 093	2 514	7 710	14 317
1972	4 817	2 083	6 139	13 039
1973	5 680	2 123	5 193	12 996
1974	5 054	2 317	5 017	12 388
1975	5 096	1 899	4 139	11 134
1976	5 486	1 548	5 043	12 077
1977	6 054	1 682	5 723	13 459
1978	7 419	1 681	7 492	16 592
1979	9 076	2 420	8 436	19 932
1980	11 097	2 959	9 327	23 383
1981	8 448	2 721	9 856	21 025
1982	6 882	1 880	7 752	16 514
1983	12 032	1 575	12 254	25 861
1984	13 803	1 684	12 698	28 185
1985	18 178	1 625 ^r	15 781	35 584 ^r
1986	17 703 ^r	2 198	16 623 ^r	36 524 ^r
1987	16 561 ^e	3 353	15 124 ^e	35 038 ^e
1988 ^p	15 699	3 057	19 011	37 767
1989 ^f	13 207	2 850	18 169	34 226

¹ Statistics Canada Annual Census to 1976, Labour Force Survey or estimate thereafter.

² Energy, Mines and Resources' Annual Census. ³ Statistics Canada's Labour Force Survey, predominantly servicing the Energy Sector, estimates by EMR/MPS from 1983 onwards.

⁴ Statistics Canada's Labour Force Survey, estimated by EMR/MPS from 1983 onwards.

^p Preliminary; ^f Forecast; ^r Revised; ^e Estimated.

METALLIC MINERALS AND PRODUCTS

Nonferrous and Precious Metals Prices

NONFERROUS AND PRECIOUS METALS PRICES¹

	1980s Extremes					December 1989		
	Low		High			Low	High	Average
	(US\$/lb.)		(US\$/lb.)			(US\$/lb.)		
Aluminum	0.41	03/06/82	1.95	13/06/88		0.72	0.77	0.74
Copper	0.56	18/10/84	1.68	08/12/88		1.07	1.14	1.10
Lead	0.15	18/03/86	0.35	20/05/87		0.30	0.34	0.32
Nickel	1.42	26/11/82	10.84	28/03/88		3.76	4.31	4.00
Zinc	0.25	31/10/85	0.97	02/03/89		0.61	0.74	0.68
	(US\$/troy oz.)		(US\$/troy oz.)			(US\$/troy oz.)		
Gold	285.00	26/02/85	502.75	14/12/87		400.40	417.10	409.71
Silver	4.86	20/05/86	10.92	27/04/87		5.22	5.71	5.57

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.

