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CANADA—DEPARTMENT OF TRADE AND COMMERCE  
DOMINION BUREAU OF STATISTICS  
MINING, METALLURGICAL AND CHEMICAL BRANCH

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PRELIMINARY REPORT

ON THE

MINERAL PRODUCTION OF  
CANADA

DURING THE CALENDAR YEAR

1935

Published by Authority of the Hon. W. D. Euler, M.P.,  
Minister of Trade and Commerce



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# LIST OF PUBLICATIONS

PREPARED IN THE  
MINING, METALLURGICAL AND CHEMICAL BRANCH  
DOMINION BUREAU OF STATISTICS.

## MINERAL PRODUCTION (Mining and Metallurgy).

### GENERAL REPORTS

**Preliminary Reports (semi-annual) on the Mineral Production of Canada.**

**Monthly Reports on Canada's Leading Mineral Products.**

**Annual Report on the Mineral Production of Canada. (In one volume).**

A comprehensive record of the mining industry embodying historical and world data, detailed information on mineral production, imports and exports for Canada and general statistics relative to the mining industry on capital investment, employment, fuel consumption and power equipment arranged in 9 chapters each dealing with a particular branch of the industry. Statistics on production and trade in mineral products appear in detail in the appropriate chapters. Fully indexed. Chapter titles are: Canada—The Gold Mining Industry—The Silver Mining Industry—The Nickel-Copper Industry—Miscellaneous Metal Mining Industries—The Non-Ferrous Smelting and Refining Industry—The Coal Mining, Coke, Natural Gas, Peat and Petroleum Industries—Non-Metal Mining, Industries (Other than Fuels)—The Clay Products and Other Structural Materials Industries—Notes on the Methods of Computing Values—Directory—Index.

### COAL—

**Monthly and Quarterly Reports on Coal and Coke Statistics for Canada.**

A condensed report on production, imports and exports of coal and coke is issued monthly, publication being made about the twentieth of the next following month.

A more general review is published quarterly, showing statistics for each month, for the quarter, and for the year to date on the output by coal-mining districts and by provinces, imports and exports by ports and by kinds of coal, employment in coal-mining, and tonnage lost. There is also a section on coke showing production, imports, exports, distribution and consumption by months and by provincial groups.

**Annual Report on Coal Statistics for Canada.**

Text and tables showing for Canada, and for each of the coal-producing provinces, historical and current data on output, tonnage lost, disposition of coal from the mines, domestic and foreign shipments, exports and imports by ports, consumption of coal, prices, employment, salaries and wages paid, power equipment, capital investment, etc.

### ANNUAL BULLETINS—

**Metals—**The Gold Mining Industry in Canada which includes Alluvial Gold Mining, Auriferous Quartz Mining, Copper-Gold-Silver Mining, and tables showing Canadian and world production of Gold.—The Silver Mining Industry in Canada, which includes Silver-Cobalt-Arsenic Mining, Silver-Lead-Zinc Mining, and tables showing Canadian and world production of Arsenic, Cobalt, Lead, Silver and Zinc.—The Nickel-Copper Mining, Smelting and Refining Industry, which includes Canadian and world production of Nickel.—The Canadian and World Production of Copper.—Metals of the Platinum Group.—The production of Miscellaneous Metals including Antimony, Beryl, Bismuth, Cadmium, Chromite, Lithium, Manganese, Mercury, Molybdenite, Radium, Selenium, Tin, Titanium, Tungsten, Vanadium.—The Non-Ferrous Smelting and Refining Industry.

**Non-Metals.**—Abrasives—Asbestos—Coal—Feldspar—Gypsum—Iron Oxides—Mica—Natural Gas—Petroleum—Quartz—Salt—Talc and Soapstone—Miscellaneous, Non-Metallic Minerals, including Actinolite, Barytes, Bituminous Sands, Fluorspar, Graphite, Magnesitic-dolomite, Magnesium Sulphate, Bog Manganese, Mineral Waters, Phosphate, Silica Brick, Sodium Carbonate, Sodium Sulphate, Sulphur (Pyrites).

**Structural Materials.**—Cement—Clay and Clay Products—Lime—Sand and Gravel—Stone.

SEE INSIDE BACK COVER FOR PUBLICATIONS ON MANUFACTURES BASED CHIEFLY ON MINERALS

## PREFACE

The present statistical report on Canada's mineral production is issued annually in time for presentation at the Annual Meeting of the Canadian Institute of Mining and Metallurgy. It contains the first detailed figures of production for 1935 and is designed to supplement the estimate issued, in bulletin form, by the Bureau on January 1st.

Outstanding features of this report are: the increase in gold production and the increase in the number of operating gold mines and mills over the preceding year; new output records for gold, copper, nickel and zinc, and the strengthening of prices for base metals.

As in former years, the Bureau has continued to co-operate with the provinces of Nova Scotia, New Brunswick, Saskatchewan, Alberta and British Columbia in the collection of coal statistics.

For several years the Bureau has co-operated with the Mines Departments of Quebec, Ontario, Manitoba, and British Columbia, whereby the Bureau and the provinces use joint forms for collection of mineral statistics. Similar arrangements were made this year with the Department of Public Works and Mines for Nova Scotia. By this system the operators are required to file only one form.

The cordial thanks of the Bureau are tendered to mine and smelter operators, to the Department of the Interior, to the federal Department of Mines, and to the Royal Canadian Mint for assistance given and information made available. The railway and other transportation companies, as well as smelter operators outside of Canada, have also furnished data, the receipt of which is gratefully acknowledged.

This report has been prepared under the direction of Mr. W. H. Losce, B.Sc., Chief of the Mining, Metallurgical and Chemical Branch, by Mr. R. J. McDowall, B.Sc., and Mr. B. R. Hayden of the mineral division staff.

R. H. COATS,  
Dominion Statistician.

DOMINION BUREAU OF STATISTICS,  
OTTAWA, March 10, 1936.

## Quantities and Values of Mineral Products from Canadian Sources, 1934 and 1935

	1934		1935		Per cent Increase (+) or Decrease (-)	
	Quantity	Value	Quantity	Value	Quantity	Value
<b>METALLICS</b>						
		\$		\$		\$
Arsenic (As <sub>2</sub> O <sub>3</sub> )..... lb.	1,647,513	56,412	2,558,789	75,326	+ 55.3	+ 33.5
Bismuth..... lb.	253,644	301,215	13,797	13,245	- 94.6	- 95.6
Cadmium..... "	-	95,665	-	441,203	-	+ 361.2
Chromite..... "	-	1,578	-	14,947	-	+ 847.2
Cobalt..... lb.	594,671	592,497	679,943	512,224	+ 14.3	- 13.5
Copper..... lb.	364,761,082	26,671,438	419,874,920	32,380,343	+ 15.1	+ 21.4
Gold valued at standard rate..... fine oz.	2,972,074	61,438,220	3,283,121	67,868,132	+ 10.5	+ 10.5
Estimated exchange equalization on gold produced..... "	-	41,098,333	-	47,664,895	-	+ 16.0
Lead..... lb.	346,275,570	8,339,658	339,089,290	10,624,278	- 2.1	+ 25.9
Nickel..... lb.	129,687,340	32,139,425	138,516,240	35,345,103	+ 7.6	+ 10.0
Palladium, rhodium, iridium, etc..... fine oz.	83,932	1,699,282	84,772	1,962,943	+ 1.0	+ 15.5
Platinum..... fine oz.	116,230	4,490,763	105,355	3,445,109	- 9.4	- 23.3
Uranium and Uranium Products.....	data not available for publication		-			
Selenium..... lb.	104,924	171,311	345,150	662,705	+ 229.0	+ 286.8
Silver..... fine oz.	18,415,282	7,790,840	16,624,426	10,770,950	+ 1.3	+ 38.3
Tellurium..... lb.	5,130	25,599	14,375	65,550	+ 180.2	+ 156.1
Titanium ore..... tons	2,023	14,161	2,288	18,016	+ 13.1	+ 13.1
Zinc..... lb.	298,579,683	9,087,571	320,558,659	9,934,081	+ 7.4	+ 9.3
<b>Total.....</b>	-	<b>194,110,968</b>	-	<b>221,797,656</b>	-	<b>+ 14.3</b>
<b>Non-Metallics</b>						
<b>Fuels</b>						
Coal..... tons	13,810,193	42,045,942	13,864,577	41,888,528	+ 0.4	- 0.4
Natural gas..... M cu. ft.	23,162,324	8,759,652	24,191,612	9,096,619	+ 4.4	+ 3.8
Peat..... tons	1,878	7,343	1,340	5,761	- 28.6	- 21.5
Petroleum, crude..... brls.	1,410,805	3,449,162	1,429,386	3,476,730	+ 1.3	+ 0.8
<b>Total.....</b>	-	<b>54,262,099</b>	-	<b>54,467,638</b>	-	<b>+ 0.4</b>
<b>Other Non-Metallics</b>						
Actinolite..... tons	30	365	-	-	-	-
Asbestos..... tons	155,980	4,936,326	210,467	7,054,614	+ 34.9	+ 42.9
Bituminous sands..... tons	862	3,449	40	160	- 95.4	- 95.4
Diatomite..... tons	1,372	54,910	823	33,140	- 40.0	- 39.6
Feldspar..... tons	18,302	147,281	18,477	149,588	+ 1.0	+ 1.6
Fluorspar..... tons	150	2,100	225	2,700	+ 50.0	+ 28.6
Graphite..... "	-	71,424	-	79,500	-	+ 9.9
Grindstones..... tons	987	46,478	708	34,010	- 28.3	- 26.8
Gypsum..... tons	461,237	863,778	541,864	932,203	+ 17.5	+ 7.9
Iron oxides (ochre)..... tons	4,959	66,166	5,396	76,745	+ 8.8	+ 16.0
Magnesitic-dolomite..... "	-	382,927	-	628,558	-	+ 64.1
Magnesium sulphate..... tons	42	1,100	340	7,965	+ 709.5	+ 624.1
Mica..... tons	998	97,071	628	82,038	- 37.1	- 15.5
Mineral waters..... Imp. gals	97,440	17,738	145,110	10,540	+ 48.9	- 6.8
Phosphate..... tons	81	683	186	1,103	+ 129.6	+ 61.5
Quartz..... tons	272,503	482,265	229,848	423,968	- 15.7	- 12.1
Salt..... tons	321,753	1,954,953	360,343	1,880,978	+ 12.0	+ 3.8
Silica brick..... M	2,528	85,945	2,461	96,194	- 2.7	+ 11.9
Soapstone..... "	-	44,297	-	32,053	-	- 27.6
Sodium carbonate..... tons	244	1,820	242	2,430	- 0.8	+ 26.6
Sodium sulphate..... tons	66,821	587,986	44,817	343,704	- 32.9	- 41.5
Sulphur..... tons	51,537	515,502	67,446	634,255	+ 30.9	+ 23.0
Talc..... tons	13,959	136,480	13,803	139,550	+ 1.1	+ 2.3
Volcanic dust..... tons	31	620	-	-	-	-
<b>Total.....</b>	-	<b>10,561,762</b>	-	<b>12,651,642</b>	-	<b>+ 20.5</b>

**Quantities and Values of Mineral Products from Canadian Sources,  
1934 and 1935—concluded**

	1934		1935		Per cent Increase (+) or Decrease (-)		
	Quantity	Value	Quantity	Value	Quantity	Value	
		\$		\$		\$	
<b>CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS</b>							
Clay Products							
Brick—Soft mud process	Face..... M	4,904	76,247	6,594	115,727	+ 34.5	+ 51.8
	Common..... M	14,256	183,585	17,353	206,772	+ 21.7	+ 12.6
Stiff mud process	Face..... M	23,800	494,341	25,786	511,572	+ 8.3	+ 3.5
(wire cut)	Common..... M	30,317	424,131	35,134	486,473	+ 15.9	+ 14.7
Dry press.....	Face..... M	6,005	130,392	7,778	160,355	+ 29.5	+ 23.0
	Common..... M	6,440	66,414	5,000	47,177	- 22.4	- 29.2
Fancy or ornamental brick.....	M	43	2,625	13	728	- 69.8	- 72.3
Sewer brick.....	M	307	5,092	175	5,236	- 43.0	- 12.6
Paving brick.....	M	10	382	15	627	+ 50.0	+ 64.1
Firebrick.....	M	2,109	101,219	1,816	90,075	- 13.9	- 11.0
Fireclay and other clay.....	tons	1,043	12,598	2,272	15,574	+ 117.8	+ 23.6
Bentonite.....	tons	63	1,578	41	791	- 34.9	- 50.5
Kaolin.....	tons	48	504	170	1,520	+ 264.2	+ 201.6
Fireclay blocks and shapes.....		-	62,388	-	71,344	+ 14.4	-
Structural Tile—Hollow blocks.....	tons	31,130	244,122	44,251	327,058	+ 42.1	+ 34.0
Roofing tile.....	No.	44,115	1,852	82,018	3,669	+ 85.0	+ 98.1
Floor tile (quarries).....	sq. ft.	80,356	17,491	51,765	7,029	- 35.6	- 56.4
Ceramic tile.....		-	-	-	618	-	-
Drain tile.....	M	7,325	180,553	6,260	177,852	- 14.5	- 1.5
Sewer pipe, copings, flue linings, etc.....		-	436,433	-	481,239	-	+ 10.3
Pottery, glazed or unglazed.....		-	223,733	-	221,711	-	- 0.9
Other clay products.....		-	13,628	-	13,173	-	- 3.3
<b>Total.....</b>		-	<b>2,680,410</b>	-	<b>2,946,907</b>	-	+ <b>9.9</b>
Other Structural Materials							
Cement.....	brls.	3,783,226	5,667,946	3,648,086	5,580,043	- 3.6	- 1.6
Lime.....	tons	368,113	2,745,797	406,225	2,932,182	+ 10.4	+ 6.8
Sand and gravel.....	tons	14,854,159	4,035,477	17,734,078	4,972,028	+ 19.4	+ 23.2
Slate.....	tons	738	4,802	1,129	4,329	+ 53.0	- 9.9
Stone.....	tons	4,077,016	4,152,329	4,010,081	4,811,236	+ 1.6	+ 15.9
<b>Total.....</b>		-	<b>16,665,351</b>	-	<b>18,299,818</b>	-	+ <b>10.2</b>
<b>Grand Total In Canadian Funds.....</b>		-	<b>278,161,590</b>	-	<b>310,162,455</b>	-	+ <b>11.5</b>

\*Sulphur content of pyrites shipped and estimated sulphur contained in sulphuric acid made from waste smelter gases.  
 Note.—Since going to press it was reported that 100 tons of manganese ore valued at \$900 were produced in New Brunswick in 1935.



# DOMINION BUREAU OF STATISTICS

R. H. COATS, LL.D., F.R.S.C., F.S.S., (Hon.), Dominion Statistician

W. H. LOSEE, B.Sc., Chief of the Mining, Metallurgical and Chemical Branch

## PRELIMINARY REPORT ON THE MINERAL PRODUCTION OF CANADA

DURING THE CALENDAR YEAR, 1935

Canada's mineral production was valued at \$310,162,455 in 1935. This was an increase of 11.5 per cent over 1934 and was exceeded only once before and that was in the peak year of 1929 when the mineral output of the country was valued at \$310,850,246.

Gains over 1934 were established in all groups—metals, fuels, non-metals other than fuels, and structural materials. The greatest gain was in the value of metal production which, at \$221,797,050, marked an increase of 14.3 per cent over 1934, the previous record year, and represented 71.5 per cent of the total value of the mineral production of the country. New high points in quantity output were established for gold, copper, nickel, zinc, selenium and tellurium.

Fuels, including coal, natural gas, crude petroleum and peat, were valued at \$54,467,638 as against \$54,262,099 in 1934. Output from the coal mines of Nova Scotia and British Columbia registered decreases but New Brunswick, Saskatchewan and Alberta mines produced more coal than in the preceding year. Natural gas and crude petroleum outputs showed small increases. Peat production was lower.

Non-metallic minerals, other than fuels, were valued at \$12,651,042, an increase of 20.5 per cent. The outputs of asbestos and gypsum, which are exported from Canada in large quantities, showed considerable improvement; new production records were established for salt and sulphur; gains were recorded in many of the other important items in this group.

Structural materials at \$21,246,725 increased 10 per cent over 1934 and gains were noted for clay products, lime, and sand and gravel. The value of stone production was higher by 16 per cent, but the tonnage showed a slight reduction from that of 1934. Cement production was also a little lower in both quantity and value.

**Values of Mineral Production of Canada by Classes 1926-1935**

Year	Metallics*	Coal, natural gas, peat and crude petroleum	Other non- metallics	Clay products and other structural materials	Total
	\$	\$	\$	\$	\$
1926.....	115,237,581	68,743,933	16,496,211	30,950,398	240,437,123
1927.....	113,591,030	71,420,516	17,550,730	44,809,419	247,356,695
1928.....	132,012,454	74,413,160	18,826,692	49,737,181	274,989,487
1929.....	154,454,056	76,787,397	21,073,959	58,534,834	310,850,246
1930.....	142,743,764	68,194,485	15,217,864	53,727,465	279,873,578
1931.....	129,930,147	54,453,143	10,893,141	44,158,295	239,434,726
1932.....	112,041,763	49,047,342	7,740,837	22,398,283	191,228,225
1933.....	147,016,593	47,778,436	10,064,537	16,696,687	221,495,253
1934.....	194,110,968	54,262,099	10,591,762	19,280,761	278,161,590
1935.....	221,797,050	54,467,638	12,651,042	21,246,725	310,162,455

\*Beginning with 1931 the estimated exchange equalization on gold produced is included.

The production of gold in Canada at 3,283,121 fine ounces worth \$115,533,027 in Canadian funds, was the greatest on record, exceeding the quantity produced in 1932, the previous high year. From point of value gold is Canada's most important mineral product and the advance

in price has placed Canada in an entirely new perspective as a source of gold. Deposits which formerly could not be economically worked are now profitable mines and many new properties have been discovered and brought to the production stage. Throughout the length and breadth of the land, where favourable localities are known, prospecting is rapidly being carried on.

Owing to the improvement in the average price of silver the value of the output increased over 1934 though the quantity remained about the same. British Columbia is Canada's principal silver producing province and the Sullivan silver-lead-zinc deposit the greatest single known source. Production from the once famous Cobalt camp was less than in the preceding year. The nickel-copper ores of the Sudbury district accounted for 43 per cent of the total Ontario output.

Lead production in 1935 was slightly less than in 1934 but owing to the increase in price the total value of the output was greater by 26 per cent. Zinc registered an increase in both quantity and value. British Columbia mines account for 99 per cent of the total Canadian production of lead and 80 per cent of the total for zinc. Flin Flon ores are responsible for 19 per cent of the total. The Tetreault mine in Quebec recommenced the export of lead and zinc concentrates during the year.

Copper production at 419,874,920 pounds was a record, exceeding 1934 by 15 per cent. The average price for copper during the year, on the London market, was 7.79542 cents per pound against an average of 7.4193 cents per pound in 1934. Britannia is the only copper mine now producing in British Columbia, the Granby having ceased production in August. Manitoba and Saskatchewan production comes from Flin Flon ores; the nickel-copper mines account for the Ontario production and Noranda and Eustis are the sources in Quebec.

Nickel production at 138,516,240 pounds was also a record. A recent announcement by the largest Canadian producer that \$6,000,000 is to be spent in the construction of six converters and two reverberatory furnaces is in conformity with this company's policy of keeping its capacity well ahead of requirements. The Falconbridge Nickel Mines ship their matte to Norway for refining and it was announced late in 1935 that nickel-steel is to be made at Orillia, Ontario, by a company backed by Ventures and Falconbridge.

Production of the platinum group metals decreased 5 per cent from the output of 1934. These precious metals are recovered as by-products in the metallurgical treatment of the nickel-copper ores. A small amount of platinum is recovered from placer mining operations in British Columbia.

Cobalt, including cobalt metal, cobalt oxide and cobalt in ores exported, was higher. Selenium produced at the Montreal East and Copper Cliff refineries recorded an increase. Cadmium is recovered from zinc ores at Trail, and it has just recently been announced that cadmium will also be recovered at Flin Flon. Bismuth metal is produced at Trail. Radium and uranium salts production was continued at the Port Hope refinery from the pitchblende ores of Great Bear Lake but figures of production are not available for publication.

Total coal production at 13,864,577 tons showed little change from 1934. During the year 2,124,748 tons of Canadian coal were moved under Dominion Government assistance as compared with 2,368,803 tons in 1934. Canadian imports of coal totalled 13,009,098 tons. Imports of anthracite coal from the United States totalled 1,664,094 tons, from Great Britain, 1,456,832 tons and from Germany, Belgium and French Indo-China, 326,712 tons. United States shippers exported 9,175,185 tons of bituminous coal to Canada and 380,645 tons of bituminous coal were received from Great Britain. Natural gas production was recorded at 24,191,612 thousand cubic feet of which 65 per cent came from Alberta wells, 32 per cent from Ontario wells, and 3 per cent from New Brunswick. Crude petroleum totalled 1,429,386 barrels, a slight increase over 1934. Production from Ontario and New Brunswick wells was higher, while Alberta contributed about the same as in the preceding year.

The 1935 value of production of the non-metallic minerals, other than fuels, totalled \$12,651,042, an increase of 20.5 per cent over 1934. Canada exports large quantities of these minerals, the most important of which are asbestos, gypsum, mica, feldspar, talc, graphite, pyrites and magnesitic-dolomite. Other non-metallics produced in Canada and consumed largely in the home market are salt, sodium sulphate, quartz, sulphur in the form of sulphuric acid, and diatomite.

The value of production of structural materials such as clay products, lime, sand and gravel and stone showed an improvement over 1934. The production of cement was lower.



The value of the Canadian mining industry to other Canadian industries is reflected in the survey made in 1935 of purchases of supplies used by our mines. This survey is not absolutely complete since it was not found possible to secure returns from syndicates and prospectors but it totalled up to \$76,000,000 and included such items as lumber, steel, chemicals, electrical equipment, fuel and electricity, etc. The large sums spent in this way along with an annual outlay of some \$90,000,000 for salaries and wages reflects to some extent the part the mining industry is playing in the industrial life of Canada.

### Mineral Production in Canada, by Provinces, 1934-1935

Province	1934		1935	
	Value of production	Per cent of total	Value of production	Per cent of total
	\$		\$	
Nova Scotia .....	23,310,729	8.38	22,851,512	7.37
New Brunswick .....	2,150,151	0.78	2,271,002	0.73
Quebec .....	31,269,945	11.24	38,897,127	12.54
Ontario .....	145,565,871	52.33	158,136,520	50.98
Manitoba .....	9,776,934	3.51	12,091,926	3.90
Saskatchewan .....	2,977,061	1.07	3,671,967	1.19
Alberta .....	20,228,851	7.27	22,292,038	7.19
British Columbia .....	41,206,965	14.82	48,512,059	15.64
Yukon and Northwest Territories .....	1,669,083	0.60	1,430,304	0.46
<b>Total</b> .....	<b>278,161,590</b>	<b>100.00</b>	<b>310,162,455</b>	<b>100.00</b>

### Mineral Production in Canada, by Provinces, 1935

	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and Northwest Territories
<b>METALLICS</b>									
Arsenic (As <sup>2</sup> O <sup>3</sup> ).....lb.	-	-	-	2,558,789	-	-	-	-	-
\$	-	-	-	75,326	-	-	-	-	-
Bismuth.....lb.	-	-	-	7,079	-	-	-	6,718	-
\$	-	-	-	6,796	-	-	-	6,449	-
Cadmium.....\$	-	-	-	-	-	-	-	441,203	-
Chromite.....tons	-	-	346	-	-	-	-	-	-
\$	-	-	5,371	9,576	-	-	-	-	-
Cobalt.....lb.	-	-	-	679,943	-	-	-	-	-
\$	-	-	-	512,224	-	-	-	-	-
Copper.....lb.	-	-	79,050,906	252,027,928	37,477,000	12,161,500	-	39,157,586	-
\$	-	-	6,162,350	19,295,965	2,921,490	948,040	-	3,052,468	-
Gold.....fine oz.	9,328	-	470,471	2,220,171	145,469	11,934	150	389,680	35,908
\$	192,827	-	9,725,498	45,895,006	3,007,111	246,698	3,101	8,055,607	742,284
Estimated exchange equalization on gold produced.....\$	135,425	-	6,830,376	32,232,811	2,111,943	173,259	2,178	5,657,584	521,319
Lead.....lb.	-	-	2,047,624	22,532	19,179	-	-	336,768,543	231,418
\$	-	-	64,156	706	601	-	-	10,551,565	7,250
Nickel.....lb.	-	-	-	138,516,240	-	-	-	-	-
\$	-	-	-	35,345,103	-	-	-	-	-
Palladium, Rhodium, Iridium, etc.....fine oz.	-	-	-	84,772	-	-	-	-	-
\$	-	-	-	1,962,943	-	-	-	-	-
Platinum.....fine oz.	-	-	-	105,335	-	-	-	-	20
\$	-	-	-	3,444,455	-	-	-	654	-
Radium, uranium (products).....lb.	-	data	not available	not available	not available	not available	not available	not available	not available
\$	-	-	202,347	75,363	67,449	-	-	-	-
Selenium.....lb.	-	-	388,506	144,697	129,502	-	-	-	-
\$	-	-	868,821	5,159,307	1,252,901	174,000	16	9,167,751	201,258
Silver.....fine oz.	372	-	433,328	3,342,710	811,754	112,734	10	5,939,778	130,395
\$	241	-	75	14,275	25	-	-	-	-
Tellurium.....lb.	-	-	342	65,094	114	-	-	-	-
\$	-	-	2,288	-	-	-	-	-	-
Titanium ore.....tons	-	-	16,016	-	-	-	-	-	-
\$	-	-	5,322,844	-	52,511,500	7,502,000	-	255,222,315	-
Zinc.....lb.	-	-	164,954	-	1,627,326	232,487	-	7,909,314	-
\$	-	-	-	-	-	-	-	-	-
<b>Total</b> .....\$	<b>328,493</b>	<b>-</b>	<b>23,796,897</b>	<b>142,333,412</b>	<b>10,609,841</b>	<b>1,713,218</b>	<b>5,289</b>	<b>41,614,652</b>	<b>1,401,248</b>

## Mineral Production in Canada, by Provinces, 1935—Continued

	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and North-west Territories
<b>NON-METALLICS</b>									
<b>Fuels</b>									
Coal.....tons	5,808,420	342,333	-	-	3,106	919,477	5,461,027	1,329,379	835
\$	20,350,404	1,119,655	-	-	7,408	1,281,005	14,086,764	5,039,809	3,483
Natural gas... M cu.ft.	-	615,454	-	7,800,000	600	75,558	15,700,000	-	-
\$	-	303,884	-	4,680,000	180	7,555	4,105,000	-	-
Peat.....tons	-	-	-	1,340	-	-	-	-	-
\$	-	-	-	5,761	-	-	-	-	-
Petroleum, crude... brls.	-	13,359	-	165,041	-	-	1,245,871	-	5,115
\$	-	26,718	-	346,156	-	-	3,078,283	-	25,573
<b>Total..... \$</b>	<b>20,350,404</b>	<b>1,450,257</b>	<b>-</b>	<b>5,831,917</b>	<b>7,588</b>	<b>1,288,560</b>	<b>21,270,047</b>	<b>5,039,809</b>	<b>29,056</b>
<b>Other Non-Metallies</b>									
Asbestos.....tons	-	-	210,467	-	-	-	-	-	-
\$	-	-	7,054,614	-	-	-	-	-	-
Barytes.....tons	-	-	-	-	-	-	-	-	-
\$	-	-	-	-	-	-	-	-	-
Bituminous sands... tons	-	-	-	-	-	-	40	-	-
\$	-	-	-	-	-	-	160	-	-
Diatomite.....tons	666	-	-	100	-	-	-	57	-
\$	26,660	-	-	4,800	-	-	-	1,880	-
Feldspar.....tons	-	-	7,899	8,656	1,922	-	-	-	-
\$	-	-	67,376	75,003	7,207	-	-	-	-
Fluorspar..... tons	-	-	-	225	-	-	-	-	-
\$	-	-	-	2,700	-	-	-	-	-
Graphite..... tons	-	-	-	78,500	-	-	-	-	-
\$	-	-	-	-	-	-	-	-	-
Grindstones..... tons	50	456	-	-	-	-	-	202	-
\$	2,006	21,175	-	-	-	-	-	10,829	-
Gypsum.....tons	454,703	30,796	-	38,247	10,500	-	-	7,618	-
\$	523,216	105,960	-	164,807	85,885	-	-	52,335	-
Iron oxides (ochre)... tons	-	-	5,237	-	-	-	-	159	-
\$	-	-	75,058	-	-	-	-	1,687	-
Magnesitic-dolomite \$	-	-	628,558	-	-	-	-	-	-
Magnesium sulphate tons	-	-	-	-	-	-	-	340	-
\$	-	-	-	-	-	-	-	7,965	-
Mica.....tons	-	-	373	255	-	-	-	-	-
\$	-	-	74,894	7,144	-	-	-	-	-
Mineral waters Imp. gal.	-	-	125,216	19,900	-	-	-	-	-
\$	-	-	15,063	1,477	-	-	-	-	-
Phosphate.....tons	-	-	116	70	-	-	-	-	-
\$	-	-	1,043	60	-	-	-	-	-
Quartz.....tons	9,640	-	49,938	83,034	86	78,150	-	9,000	-
\$	13,978	-	222,690	120,005	86	62,700	-	4,500	-
Salt.....tons	38,701	-	-	320,003	1,538	101	-	-	-
\$	161,659	-	-	1,698,508	18,765	2,046	-	-	-
Silica brick..... M	1,968	-	-	493	-	-	-	-	-
\$	73,218	-	-	22,976	-	-	-	-	-
Soapstone..... \$	-	-	32,053	-	-	-	-	-	-
Sodium carbonate... tons	-	-	-	-	-	-	-	242	-
\$	-	-	-	-	-	-	-	2,430	-
Sodium sulphate... tons	-	-	-	-	-	44,817	-	-	-
\$	-	-	-	-	-	343,764	-	-	-
Sulphur*.....tons	-	-	7,370	13,292	-	-	-	46,784	-
\$	-	-	47,779	132,920	-	-	-	453,536	-
Talc.....tons	-	-	-	13,710	-	-	-	93	-
\$	-	-	-	138,161	-	-	-	1,395	-
<b>Total..... \$</b>	<b>800,737</b>	<b>127,135</b>	<b>8,219,139</b>	<b>2,446,861</b>	<b>111,943</b>	<b>498,510</b>	<b>160</b>	<b>536,557</b>	<b>-</b>

\*Sulphur content of pyrites shipped and estimated sulphur contained in sulphuric acid made from waste smelter gases.

## Mineral Production in Canada, by Provinces, 1935—Concluded

	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and North-west Territories
<b>CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS</b>									
<b>Clay Products</b>									
Brick—Soft mud process—									
Face.....	M \$ 50	-	225	5,503	600	-	216	-	-
	\$ 700	-	2,025	99,031	8,571	-	5,400	-	-
Common.....	M \$ 450	1,202	1,472	6,875	2,071	120	3,087	1,176	-
	\$ 5,000	20,101	10,370	81,928	42,635	1,560	29,643	15,535	-
Stiff mud process (wire cut) Face.									
Common.....	M \$ 735	104	6,801	17,606	192	37	-	311	-
	\$ 17,313	2,777	134,491	341,368	5,001	1,076	-	9,548	-
Common.....	M \$ 3,050	383	18,102	11,460	-	503	704	872	-
	\$ 38,208	4,840	254,848	165,110	-	5,560	6,482	11,425	-
Dry press—									
Face.....	M \$ -	-	1,424	5,315	-	7	838	194	-
	\$ -	-	35,559	105,520	-	265	11,881	7,130	-
Common.....	M \$ -	-	-	1,563	-	11	3,426	-	-
	\$ -	-	-	22,071	-	203	24,903	-	-
Fancy or ornamental brick.....	M \$ -	-	-	13	-	-	-	-	-
	\$ -	-	-	728	-	-	-	-	-
Sewer brick.....	M \$ -	-	-	60	-	-	-	115	-
	\$ -	-	-	970	-	-	-	4,266	-
Paving brick.....	M \$ -	-	-	-	-	-	-	15	-
	\$ -	-	-	-	-	-	-	627	-
Firebrick.....	M \$ -	-	-	-	-	271	51	1,494	-
	\$ -	-	-	-	-	18,040	2,476	69,559	-
Fireclay.....	tons \$ 1,065	-	-	-	-	670	14	523	-
	\$ 3,541	-	-	-	-	4,683	213	7,137	-
Fireclay blocks and shapes.....	\$ 488	1,956	-	-	-	57,055	-	11,845	-
Structural tile—									
Hollow blocks.....	tons \$ 3,558	410	11,850	20,743	1,098	1,000	3,779	1,204	-
	\$ 23,914	3,640	87,155	144,855	15,002	8,000	33,599	10,893	-
Roofing tile.....	No. \$ -	-	-	82,015	-	-	-	-	-
	\$ -	-	-	3,669	-	-	-	-	-
Floor tile (quarries).....	Sq.ft. \$ -	-	-	48,923	-	-	1,567	1,275	-
	\$ -	-	-	7,142	-	-	314	173	-
Ceramic tile.....	\$ 729	4	540	615	-	-	52	650	-
Drain tile.....	M \$ 33,539	160	15,805	98,939	3,546	-	2,176	23,597	-
Sewer pipe, copings, flue linings, etc.....	\$ 146,962	-	49,449	196,647	-	-	63,600	24,581	-
Pottery, glazed or unglazed.....	\$ -	28,555	-	51,000	-	-	138,648	3,508	-
Bentonite.....	tons \$ -	-	-	-	-	-	-	41	-
	\$ -	-	-	-	-	-	-	781	-
Kaolin.....	tons \$ -	-	170	-	-	-	-	-	-
	\$ -	-	1,520	-	-	-	-	-	-
Other clay products.....	\$ 813	449	-	7,093	-	1,559	-	3,259	-
<b>Total.....</b>	<b>\$ 270,478</b>	<b>62,478</b>	<b>591,312</b>	<b>1,326,684</b>	<b>74,755</b>	<b>94,001</b>	<b>319,335</b>	<b>263,844</b>	<b>-</b>
<b>Other Structural Materials</b>									
Cement.....	brls. \$ -	-	1,751,012	1,243,836	266,457	-	219,555	167,226	-
	\$ -	-	2,472,008	1,752,148	604,857	-	436,914	314,116	-
Lime.....	tons \$ 11,331	16,232	116,287	221,172	18,615	-	6,584	16,004	-
	\$ 82,698	125,993	677,005	1,703,701	185,717	-	57,108	99,960	-
Sands and gravel.....	tons \$ 1,397,824	589,017	4,703,284	7,958,917	843,649	539,534	591,084	1,110,769	-
	\$ 683,984	324,715	1,157,923	1,790,283	307,469	171,678	196,204	339,772	-
Slate.....	tons \$ -	-	819	-	-	-	-	310	-
	\$ -	-	1,229	-	-	-	-	3,100	-
Stone.....	tons \$ 185,658	38,717	1,342,633	1,977,695	146,614	-	2,242	316,522	-
	\$ 334,718	180,424	1,987,614	1,751,514	189,756	-	6,981	360,229	-
<b>Total.....</b>	<b>\$ 1,101,400</b>	<b>631,132</b>	<b>6,295,779</b>	<b>6,997,646</b>	<b>1,287,799</b>	<b>171,678</b>	<b>697,207</b>	<b>1,117,177</b>	<b>-</b>
<b>Grand Total in Canadian Funds.....</b>	<b>\$ 22,851,512</b>	<b>2,271,002</b>	<b>38,897,127</b>	<b>158,136,520</b>	<b>12,091,926</b>	<b>3,679,967</b>	<b>22,292,038</b>	<b>48,512,059</b>	<b>1,430,304</b>

## Monthly Production of Principal Minerals in Canada, 1935\*

—	Asbestos	Cement	Clay Products	Coal	Copper	Feldspar	Gold	Gypsum
	tons	barrels	§	tons	pounds	tons	fine oz.	tons
January.....	10,506	53,479	79,976	1,519,118	33,480,418	730	238,651	3,500
February.....	11,844	70,776	88,873	1,016,868	33,467,044	566	229,340	3,289
March.....	11,816	130,747	137,000	1,037,909	37,828,906	778	249,479	4,453
April.....	14,702	244,174	190,938	892,074	38,847,833	492	245,697	26,518
May.....	18,562	387,684	259,689	924,960	35,772,440	1,013	269,238	58,312
June.....	15,316	430,884	287,705	929,066	35,613,851	1,700	285,772	75,525
July.....	15,398	453,155	316,601	980,249	30,965,129	2,371	285,372	91,484
August.....	23,119	475,187	311,496	986,746	32,603,557	1,714	294,361	81,228
September.....	20,344	476,617	310,679	1,117,269	33,941,168	1,042	280,362	48,058
October.....	27,105	512,671	339,709	1,555,271	35,434,829	1,517	301,712	59,257
November.....	25,528	264,004	245,770	1,618,058	34,539,762	2,822	293,160	67,722
December.....	15,924	116,632	164,632	1,287,189	36,556,119	1,072	307,326	21,216
<b>Calendar year.....</b>	<b>210,164</b>	<b>3,616,010</b>	<b>2,733,068</b>	<b>13,864,577</b>	<b>419,051,056</b>	<b>15,817</b>	<b>3,280,470</b>	<b>540,562</b>
	Lead	Lime	Natural Gas	Nickel	Petroleum	Salt †	Silver	Zinc
	pounds	tons	M cu. ft.	pounds	barrels	tons	fine oz.	pounds
January.....	22,672,565	28,873	3,561,990	9,390,437	124,654	11,136	1,243,545	24,847,485
February.....	27,378,211	29,018	2,585,258	8,790,996	111,545	10,853	1,018,743	20,612,690
March.....	31,571,048	32,616	2,665,693	10,618,462	120,537	13,794	1,278,930	26,935,011
April.....	24,811,329	35,149	2,281,805	11,836,091	113,685	21,407	1,013,805	23,611,883
May.....	26,777,539	34,214	1,665,967	11,330,388	123,801	22,748	1,613,002	27,387,675
June.....	27,354,305	32,451	1,177,593	11,665,597	120,119	16,432	1,504,821	28,163,152
July.....	29,104,210	33,126	997,731	10,189,261	118,812	23,728	1,162,907	27,568,983
August.....	26,470,373	32,597	1,019,581	10,869,647	117,652	15,711	1,585,144	28,837,006
September.....	26,322,577	34,471	1,176,114	12,896,865	123,918	18,139	1,311,911	27,038,147
October.....	32,800,950	38,263	1,830,443	13,357,653	122,525	20,303	1,299,849	27,486,985
November.....	32,362,403	36,846	2,246,830	12,144,249	116,756	26,379	1,614,085	28,817,952
December.....	30,567,168	32,338	2,942,607	14,998,225	125,658	13,260	1,700,236	28,310,720
<b>Calendar year.....</b>	<b>338,192,678</b>	<b>399,962</b>	<b>21,191,612</b>	<b>136,687,781</b>	<b>1,439,662</b>	<b>213,890</b>	<b>16,346,978</b>	<b>319,617,699</b>

\*This information was compiled from monthly reports received from principal operators. The totals for the calendar year do not therefore necessarily agree with those shown in the first table of this report.

†Commercial salt only.

## World Production\* of Copper, Gold, Silver, Lead and Zinc, by Countries, during 1935

(Source—American Bureau of Metal Statistics)

	1935				
	Copper	Gold	Silver	Lead (Refined)	Zinc (d) (Refined)
	(short tons)	(fine ounces)	(fine ounces)	(short tons)	(short tons)
United States.....	363,500	(a) 3,619,000	38,322,000	(a) 376,646	(d) 431,085
Canada.....	209,400	3,290,000	15,763,000	182,992	149,478
Mexico.....	45,000	682,000	75,606,000	198,077	-
Colombia.....	-	337,000	-	-	-
Peru.....	32,200	-	15,798,000	-	-
Chile.....	285,000	258,000	-	-	-
British India.....	-	(c) 325,000	-	-	-
Japan.....	66,500	(c) 568,000	8,037,000	-	-
Other Asia.....	-	685,000	3,035,000	-	-
New Zealand.....	-	159,000	-	-	-
Other Australia and New Guiana.....	-	384,000	-	-	-
Queensland.....	-	105,000	-	-	-
Western Australia.....	-	649,000	-	-	-
Anglo-Australian.....	-	-	-	-	142,881
Other Australasia.....	-	-	(a) 12,310,000	(c) 245,052	-
South Africa.....	-	10,773,000	1,047,000	-	-
Rhodesia.....	-	728,000	-	-	23,103
Belgian Congo.....	-	370,000	-	-	-
British West Africa.....	-	456,000	-	-	-
Tunis.....	-	-	-	27,288	-
Africa.....	288,000	(d) 277,000	(b) 380,000	-	-
Belgium.....	-	-	-	-	-
France.....	-	-	-	-	57,416
Germany.....	25,000	-	-	142,535	136,806
Italy.....	-	-	-	39,477	28,950
Netherlands.....	-	-	-	-	(a) 217,244
Poland.....	-	-	-	-	-
Russia.....	80,000	(e) 5,500,000	-	-	-
Spain.....	-	-	-	76,893	8,430
Other Europe.....	126,000	-	-	(b) 183,900	-
Other America.....	-	701,000	11,820,000	-	(r) 42,116
Europe.....	-	(b) 672,000	16,125,000	-	-
Burma (Refined).....	-	-	5,831,000	80,710	-
Elsewhere.....	65,000	-	-	(d) 36,100	(h) 227,700
<b>Total.....</b>	<b>1,585,600</b>	<b>30,528,000</b>	<b>204,074,000</b>	<b>1,569,670</b>	<b>1,465,299</b>

**Reference Copper:** Statistics are based on blister copper, referred to countries wherein ore originated. Estimated by "Engineering and Mining Journal," New York.

**Reference Gold:** (a) Includes Philippines. (b) Exclusive of Russia, accounts chiefly for Sweden and Rumania. (c) Principal mines only, but nearly complete. (d) Other Africa. (e) Chiefly Siberia; estimated at average rate of 1935.

**Reference Silver:** (a) Includes Australia refined, other Australian and New Zealand. (b) Other Africa exclusive of the production of Katanga which in 1934 amounted to 3,369,300 oz.

**Reference Lead:** (a) From domestic material only. (b) Includes Belgium, Russia, Great Britain, Poland, France, Austria, Czechoslovakia and Yugoslavia; partly estimated. (c) Includes Australian lead refined in Great Britain. (d) Includes Argentina, Peru, Japan and the product of foreign ore smelted in U.S.A.; partly estimated.

**Reference Zinc:** (a) Belgium and Netherlands, partly estimated. (b) Includes Norway, Poland, Japan and Indo-China together with estimates for Czechoslovakia, Yugoslavia and Russia, the quantities of which are small. (c) Other North America. (d) The figures include zinc derived from dross and ashes at primary works in the United States, Belgium, France and Germany.

\*Subject to revision.

## Metal Prices, 1931-1935

Metal	Market	Unit	1931	1932	1933	1934	1935
			\$	\$	\$	\$	\$
Antimony (ordinaries)	New York	Pound	0-06720	0-05592	0-06528	0-08901	0-13616
Arsenic, white	New York	Pound	0-045	0-04	0-04	0-04	0-035
Cobalt	New York	Pound	2-50	2-50	2-50	2-50	2-50
Cobalt Oxide	New York	Pound	1-75	1-35	1-35	1-35	1-37
Copper	New York	Pound	0-08116	0-05555	0-07025	0-08428	0-08649
	Montreal	Pound	0-10006	0-07516	0-08684	0-0822	0-08488
	London	Long ton	42-093	35-962	36-359	33-319	35-430
Gold (in Canadian funds)		Fine oz.	21-55	23-47	28-60	34-50	35-19
	New York	Pound	0-04243	0-03180	0-03869	0-03800	0-04065
Lead	Montreal	Pound	0-4168	0-03511	1-03705	0-04488	0-03925
	London	Long ton	12-958	11-913	11-670	10-935	14-238
Nickel	New York	Pound	0-36	0-35	0-35	0-35	0-35
Platinum	New York	Fine oz.	35-665	10-104*	*7-630	*7-75	*7-325
Silver	New York	Fine oz.	0-287	0-27892	0-34727	0-47973	0-64273
Tin	New York	Pound	0-24467	0-22017	0-39110	0-52191	0-50420
	St. Louis	Pound	0-0364	0-02876	0-04029	0-04158	0-04328
Zinc	Montreal	Pound	0-03961	0-03724	0-04488	0-04059	0-03992
	London	Long ton	12-215	13-545	15-666	13-657	14-082

Nore.—All prices in dollars per unit excepting London copper, lead and zinc prices which are quoted in pounds sterling per long ton.

\*Beginning with 1932 prices for platinum are quoted in pounds sterling per fine ounce.

## Metal Prices by Months, 1934-1935

Month	Copper (Electrolytic)				Pig Lead					
	New York (In cents per pound)		London (In £ sterling per long ton)		Montreal (In cents per pound)		New York (In cents per pound)		London (In £ sterling per long ton)	
	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935
January	7-890	8-775	35-614	31-261	3-924	3-250	4-000	3-692	11-304	10-321
February	7-777	8-775	35-969	30-244	3-985	3-250	4-000	3-528	11-634	10-216
March	7-775	8-775	35-512	31-907	4-152	3-321	4-000	3-579	11-545	11-012
April	8-173	8-775	30-038	34-763	4-139	3-426	4-179	3-692	11-500	12-211
May	8-275	8-775	35-756	36-733	4-294	3-086	4-140	3-962	11-051	13-861
June	8-594	8-634	35-339	34-039	4-637	3-711	3-975	4-020	11-054	13-776
July	8-775	7-775	32-778	34-261	5-095	3-882	3-772	4-123	10-813	14-451
August	8-775	7-979	31-483	35-976	4-809	4-164	3-747	4-254	10-821	15-774
September	8-775	8-504	30-556	37-952	4-802	4-298	3-685	4-413	10-388	16-262
October	8-775	8-967	20-478	39-609	4-657	4-716	3-654	4-512	10-359	18-209
November	8-775	9-025	30-222	39-396	4-643	4-740	3-507	4-500	10-432	17-938
December	8-775	9-025	31-086	39-313	4-720	4-655	3-604	4-500	10-316	16-803
<b>Average</b>	<b>8-428</b>	<b>8-649</b>	<b>33-310</b>	<b>35-430</b>	<b>4-488</b>	<b>3-925</b>	<b>3-869</b>	<b>4-065</b>	<b>10-935</b>	<b>14-238</b>

Transposed into Canadian funds the average price of copper, based on the London market, was 7-4193 cents per pound in 1934 and 7-79542 cents in 1935; the average price of lead, based on the same market, was 2-4364 cents per pound in 1934 and 3-13318 cents in 1935.

## Metal Prices by Months, 1934-1935

Month	Silver				Zinc					
	New York (In cents per oz. .999 fine)		London (In pence per oz. .925 fine)		Montreal (In cents per pound)		St. Louis (In cents per pound)		London (In £ sterling per long ton)	
	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935
January	44-188	54-418	19-382	24-594	4-750	3-650	4-271	3-730	14-688	11-994
February	45-223	54-602	20-073	24-818	4-658	3-640	4-384	3-714	14-844	11-819
March	45-875	50-048	20-278	27-380	4-498	3-636	4-368	3-894	14-735	12-095
April	45-180	67-788	19-740	30-986	4-367	3-690	4-370	4-010	14-015	12-891
May	44-226	74-356	10-276	33-865	4-174	3-943	4-346	4-220	14-722	14-534
June	45-173	71-940	10-981	32-340	4-010	3-816	4-240	4-299	14-241	13-734
July	46-310	68-216	20-512	30-500	3-850	3-905	4-317	4-325	13-466	14-065
August	49-086	66-366	21-377	29-470	3-824	4-080	4-281	4-535	13-682	14-714
September	49-854	65-375	21-888	29-255	3-700	4-224	4-049	4-669	12-644	15-414
October	52-375	65-375	23-581	29-308	3-580	4-467	3-832	4-825	12-217	16-440
November	54-255	65-375	24-257	29-284	3-627	4-499	3-732	4-850	12-000	16-193
December	54-390	58-420	24-404	25-563	3-665	4-304	3-711	4-850	11-730	15-091
<b>Average</b>	<b>47-973</b>	<b>64-273</b>	<b>21-229</b>	<b>28-952</b>	<b>4-659</b>	<b>3-992</b>	<b>4-158</b>	<b>4-325</b>	<b>13-657</b>	<b>14-082</b>

The average price of silver in Canadian funds based on the New York market in 1934 was 47-4609 cents per fine ounce and in 1935 it was 64-78991 cents.

The average price of zinc in Canadian funds based on the London market in 1934 was 3-0436 cents per pound and in 1935 it was 3-09899 cents.

Table showing the amount paid in Canadian dollars for one £ Sterling and one United States dollar, by months, 1934-1935

	London		New York	
	1934	1935	1934	1935
January.....	5-070	4-887	1-005	0-999
February.....	5-078	4-883	1-008	1-001
March.....	5-107	4-825	1-002	1-010
April.....	5-148	4-862	0-998	1-005
May.....	5-100	4-896	0-998	1-002
June.....	5-012	4-943	0-992	1-001
July.....	4-985	4-907	0-988	1-002
August.....	4-951	4-985	0-977	1-003
September.....	4-855	4-970	0-971	1-008
October.....	4-843	4-978	0-979	1-014
November.....	4-872	4-978	0-976	1-011
December.....	4-887	4-976	0-983	1-009
<b>Average.....</b>	<b>4-953</b>	<b>4-929</b>	<b>0-990</b>	<b>1-005</b>

## General Statistics on the Mineral Producing Industries in Canada, 1934

INDUSTRIES	No. of mines, quarries, smelters, gas wells, etc.	Capital employed	No. of employees	Salaries and wages	Income from sales
		\$		\$	\$
<b>Metal Mining—</b>					
Alluvial gold.....	93	14,315,701	615	1,027,569	1,260,483
Auriferous quartz.....	416	214,068,359	17,762	27,156,887	83,761,440
Copper-gold-silver.....	23	39,892,387	3,169	4,869,801	8,205,071
Silver-cobalt.....	16	5,102,491	286	361,726	1,380,318
Silver-lead-zinc.....	60	12,923,827	1,292	1,935,284	8,885,081
Nickel-copper.....	7	31,685,426	2,677	4,375,702	11,606,713
Miscellaneous.....	7	1,548,295	44	32,273	15,739
Smelting and refining.....	14	146,047,422	8,298	11,059,206	*71,610,687
<b>Total.....</b>	<b>636</b>	<b>465,583,818</b>	<b>31,143</b>	<b>50,818,448</b>	<b>186,785,532</b>
<b>Non-Metal Mining, including Fuels—</b>					
Coal.....	534	118,274,406	25,961	25,662,591	39,394,294
Natural gas.....	3,053	70,767,123	1,553	1,780,811	7,569,935
Petroleum.....	2,219	35,408,801	944	1,072,617	3,622,722
Abrasives.....	12	234,776	34	20,580	102,008
Asbestos.....	8	21,816,350	1,855	1,608,812	4,936,326
Feldspar and quartz.....	51	1,310,182	312	205,508	629,540
Gypsum.....	14	7,352,562	428	324,731	863,776
Iron oxides (ochre).....	4	172,730	32	24,980	66,166
Mica.....	16	139,716	102	50,391	97,071
Salt.....	9	3,711,598	469	551,968	1,954,053
Tale and soapstone.....	8	640,194	112	79,711	180,777
Miscellaneous.....	48	3,291,842	393	371,762	1,162,980
<b>Total.....</b>	<b>5,976</b>	<b>263,120,290</b>	<b>32,195</b>	<b>31,763,492</b>	<b>60,580,554</b>
<b>Clay Products and Other Structural Materials—</b>					
Brick, tile and sewer pipe.....	144	22,633,285	1,444	1,165,740	2,458,826
Stoneware and pottery.....	5	413,522	128	97,237	221,584
Cement.....	11	53,411,000	860	1,009,686	5,667,946
Lime.....	58	8,497,845	737	535,492	2,745,797
Sand and gravel.....	4,768	4,377,651	1,911	1,236,819	4,035,477
Stone.....	425	12,983,836	2,087	1,499,272	4,157,131
<b>Total.....</b>	<b>5,411</b>	<b>102,319,689</b>	<b>7,167</b>	<b>5,514,216</b>	<b>19,286,761</b>
<b>Grand total.....</b>	<b>12,023</b>	<b>831,023,187</b>	<b>73,505</b>	<b>88,126,186</b>	<b>266,652,847</b>
<b>PROVINCES</b>					
Nova Scotia.....	171	55,799,825	13,500	13,694,114	21,773,899
New Brunswick.....	418	5,090,927	1,722	1,276,770	2,137,835
Quebec.....	3,587	132,819,808	10,362	10,492,169	35,322,932
Ontario.....	5,891	323,309,378	22,033	32,619,846	140,857,001
Manitoba.....	128	36,329,062	1,948	2,796,454	8,086,985
Saskatchewan.....	180	11,107,998	1,401	1,257,282	3,055,611
Alberta.....	588	108,786,069	9,843	9,702,297	19,050,775
British Columbia.....	1,043	144,025,741	12,270	15,482,102	34,661,029
Yukon and Northwest Territories.....	14	13,754,379	360	815,152	1,090,780
<b>Canada.....</b>	<b>12,023</b>	<b>831,023,187</b>	<b>73,505</b>	<b>88,126,186</b>	<b>266,652,847</b>

NOTE.—Similar data for 1935 not yet available.

\*Value added by smelting.

### Antimony

No production of antimony was reported for 1935. Minerals containing antimony occur in Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba and British Columbia, also in the Yukon. The greater part of the Canadian output of refined antimony was produced at Trail, B.C., in the years 1907, 1909, 1915 and 1916 by the Consolidated Mining and Smelting Company, Limited, the metal being recovered as a by-product in the treatment of silver-lead ores. Antimony is sometimes contained in the silver-lead-bismuth bullion made at Deloro, Ontario, in the refining of silver-cobalt ores. A small amount has also been recovered in the past from deposits in Nova Scotia and New Brunswick.

Imports of antimony, or regulus of, not ground, totalled 926,959 pounds valued at \$113,072 in 1935 as compared with 625,452 pounds valued at \$45,124 in 1934. Antimony and titanium oxide totalled 2,870,491 pounds worth \$310,083 and antimony salts, namely—tartar emetic, chloride and lactate (antimonine) totalled 48,516 pounds valued at \$7,907 in 1935.

### Arsenic

Almost the entire production of arsenic in Canada comes from the treatment of cobalt-silver-arsenic ores by the Deloro Smelting and Refining Co. Ltd., Deloro, Ontario. Production is in the form of white arsenic,  $As_2O_3$ . In 1934, for the first time in some years, arsenical gold concentrates were exported from Nova Scotia. These went to European plants for metallurgical treatment. At the O'Brien gold mine in northwestern Quebec a roasting and bag house plant has been completed and started to operate in the latter part of October, 1935. The roasting is for the purpose of removing the arsenic which will be recovered as white arsenic and the calcines will be amenable to cyanidation. The chief uses of arsenic are in the manufacture of Paris green, lead arsenate, lime arsenate, weed killer, cattle dips and in the manufacture of glass.

The consumption of arsenic acid and arsenious acid in the production of insecticides in Canada during 1934 amounted to 2,984,443 pounds valued at \$99,185 as compared with 3,116,401 pounds at \$110,011 in 1933. The consumption of calcium arsenate in the same industry during 1934 totalled 128,273 pounds worth \$7,786 as against 40,879 pounds valued at \$2,522 in 1933.

#### Production in Canada, Imports and Exports of Arsenic, 1934 and 1935

	1934		1935	
	Quantity	Value	Quantity	Value
	lb.	\$	lb.	\$
<b>PRODUCTION—</b>				
White arsenic and arsenic in other forms..... <b>Total</b> .....	<b>1,647,513</b>	<b>56,412</b>	<b>2,538,789</b>	<b>75,326</b>
<b>IMPORTS—</b>				
White arsenic (arsenious oxide).....	1,637,382	41,688	11,759	546
Sulphide of arsenic.....	33,986	4,264	27,777	3,396
Soda, arseniate, bisarseniate and stannate of.....	638	211	2,128	666
Arsenate of lead.....	450,748	37,788	321,328	26,388
Arsenate of lime.....	165,077	9,123	144,023	7,786
<b>Total</b> .....		<b>93,074</b>		<b>33,782</b>
<b>EXPORTS—</b>				
Arsenic, n.o.p..... <b>Total</b> .....	<b>1,291,900</b>	<b>45,012</b>	<b>2,230,600</b>	<b>69,866</b>

### Bismuth

Production of bismuth in Canada in 1935 totalled 13,797 pounds valued at \$13,245 as compared with 253,644 pounds valued at \$301,215 in 1934. Production consists of the metal contained in silver-lead-bismuth bullion exported by the Deloro Smelting and Refining Company, Limited, Deloro, Ontario, and metallic bismuth produced at Trail, B.C., by the Consolidated Mining and Smelting Company, Limited. Bismuth is utilized in the manufacture of various low melting alloys, including some solders, and in the production of astringents and various chemical products. The chief bismuth producing countries are the United States, Bolivia and Spain. In Bolivia and Spain the ores are mined; in the other countries the metal is recovered as a by-product in the refining of the ores. Imports of metallic bismuth in 1935 totalled 2,048 pounds valued at \$1,675.



## Cadmium

Cadmium production in Canada in 1935 was valued at \$441,203 compared with \$95,665 in 1934. The output in both years originated entirely in the zinc refining operations of the Consolidated Mining and Smelting Company of Trail, B.C. A production will be reported from the Flin Flon mine, Manitoba, in 1936, as it is understood the precipitate resulting from the treatment of the zinc ores by the Hudson Bay Mining and Smelting Company Limited is now being treated for the recovery of cadmium.

## Cobalt

The world's requirements of cobalt are supplied chiefly by deposits of the Belgian Congo, Rhodesia, Morocco, Sweden and Canada. Cobalt metal and cobalt oxide are produced in Canada by the Deloro Smelting and Refining Company, Deloro, Ontario, from the ores of the Cobalt and Gowganda districts. Cobalt is used to a considerable extent in the ceramic industry. It is also used in the manufacture of "stellite", a cobalt-chromium-tungsten alloy that has found much favour as a cutting tool in lathe operations and in other ways where hardness and resistance to wear are of prime importance.

## Production in Canada and Exports of Cobalt, 1934 and 1935

	1934		1935	
	Pounds	\$	Pounds	\$
<b>PRODUCTION—</b>				
Cobalt, computed as cobalt in metal, in oxides sold and in ores and residues exported.....				
<b>Total</b>	<b>584,671</b>	<b>592,497</b>	<b>679,943</b>	<b>512,224</b>
<b>EXPORTS—</b>				
Cobalt, alloys, cobalt metallic, cobalt oxides, cobalt salts and cobalt ores.....				
<b>Total</b>	<b>-</b>	<b>614,364</b>	<b>-</b>	<b>497,692</b>

## Copper

Copper production, the largest ever recorded, which includes copper in matte and in concentrates exported and copper in blister copper produced at Canadian smelters, totalled 419,874,920 pounds valued at \$32,380,343 as compared with a production of 364,761,062 pounds worth \$26,671,438 in 1934. Owing to the cessation of operations at the Granby property, production from British Columbia was less than in 1934. The Britannia mine on Howe Sound is the principal producer of copper in that province at the present time. Concentrates from this mine are shipped to Tacoma, Washington, U.S.A., for treatment.

Production from Manitoba and Saskatchewan originates entirely from the ores of the Flin Flon mine, which lies on the boundary between the two provinces. Blister copper is shipped by the Hudson Bay Mining and Smelting Company, Limited, to the Canadian Copper Refiners at Montreal East, Quebec.

Ontario produced more copper than any other province; output comes entirely from nickel-copper ores. Copper-nickel matte is exported by Falconbridge and International Nickel and the converter copper produced at Copper Cliff is treated by the Ontario Refining Company Limited at Copper Cliff.

The outstanding copper producer in Quebec is the Noranda. Anode copper made there is shipped to the Canadian Copper Refiners for treatment. The Eustis mine, owned by the Consolidated Copper and Sulphur Company, Limited, is the other producer; concentrates from this property are shipped to United States smelters.

Copper prices strengthened during the year. The average price in January, based on London and transposed to Canadian funds, was 6.82 cents per pound; the price rose to 8.028 cents in May, fell off about a half cent in June, and then rose gradually to 8.802 cents in October. The average price for the whole year was 7.79542 cents.

## Production in Canada, Imports and Exports of Copper, 1934 and 1935

	1934		1935	
	Pounds	Value	Pounds	Value
<b>PRODUCTION—</b>		\$		\$
By Provinces—				
Quebec.....	73,968,545	5,487,948	79,050,906	6,162,350
Ontario.....	205,059,539	14,822,704	252,027,928	19,295,965
Manitoba.....	30,867,141	2,290,126	37,477,000	2,021,490
Saskatchewan.....	6,618,913	491,077	12,161,500	948,040
British Columbia.....	48,246,924	3,570,583	39,157,586	3,052,498
<b>Total</b> .....	<b>364,761,062</b>	<b>26,671,438</b>	<b>419,874,920</b>	<b>32,380,343</b>
By Sources—				
In blister and anode copper produced.....	334,703,227	24,832,061	387,779,501	30,229,041
In ores, concentrates and copper matte exported.....	10,674,356	1,237,120	19,550,980	1,524,080
In nickel-copper matte exported.....	13,383,479	602,257	12,544,439	627,222
<b>Total</b> .....	<b>364,761,062</b>	<b>26,671,438</b>	<b>419,874,920</b>	<b>32,380,343</b>
<b>IMPORTS—</b>				
Copper in bars or rods, when imported by manufacturers of trolley, telegraph and telephone wires and electric cables for use only in the manufacture of such articles in their own factories.....	410,300	49,228	611,500	72,117
Copper bars for use only in the manufacture of rods to be used exclusively in the manufacture of electrical conductors, and copper rods for such manufacture, individual units of conductors not to exceed area of No. 7-0 gauge conductor.....	64,800	5,624	6,600	700
Copper in bars or rods, in coil or otherwise, in lengths of not less than 6 feet, unmanufactured.....	242,200	31,097	120,800	20,435
Copper in blocks, pigs or ingots.....	34,700	3,693	37,200	3,719
Copper, old and scrap.....	26,700	1,256	16,300	1,416
Copper in strips, sheets or plates not polished or coated.....	223,700	37,707	324,300	60,044
Copper tubing in lengths of not less than 6 feet, and not polished, bent or otherwise manufactured.....	329,275	74,887	362,778	81,193
Copper wire.....	72,515	18,011	16,271	3,566
Copper wire cloth, or woven wire of copper.....	-	1,803	-	3,242
Copper, all other, manufactures of, n.o.p.....	-	287,429	-	352,901
Copper, precipitate of, crude.....	704	113	4,420	486
Anodes of nickel, zinc, copper, silver or gold.....	-	1,067	-	-
Copper, sub-acetate of, or verdigris, dry.....	2,844	554	6,613	1,062
Copper, sulphate of (blue vitriol).....	5,277,499	170,303	5,518,899	161,092
Copper rollers adapted for use in calico printing.....	-	53,222	-	71,836
Copper, sulphate of, dehydrated, for agricultural or spraying purposes.....	42,050	3,205	32,100	2,747
<b>Total</b> .....	-	<b>739,289</b>	-	<b>836,616</b>
<b>EXPORTS—</b>				
Copper, fine, contained in ore, matte, regulus, etc.....	35,145,200	1,055,936	38,702,700	1,870,542
Copper blister.....	26,962,200	2,113,200	73,356,200	5,589,624
Copper, old and scrap.....	3,888,200	222,909	6,327,400	360,000
Copper in ingots, bars, cakes, slabs and billets.....	187,554,000	13,943,724	243,535,200	18,061,278
Copper in rods, strips, sheets, plates and tubing.....	57,903,100	4,801,979	36,516,100	3,065,480
Copper wire and cable.....	-	323,683	-	469,552
Copper manufactures, n.o.p.....	-	252,331	-	245,221
<b>Total</b> .....	-	<b>23,313,762</b>	-	<b>29,661,697</b>
Copper coin, foreign.....	-	1,932	-	1,596
Copper coin, Canadian.....	-	43	-	93

## Chromite

Relatively few tons of chromite are produced from the Thetford-Black Lake area of the Eastern Townships of Quebec. Chromite is now mined near Obonga Lake, 25 miles south of Collins Station on the Canadian National Railway, northwestern Ontario. The ore will be furnaced in a new plant at Sault Ste. Marie. Total Canadian production for the year was valued at \$14,947.

## Gold

The mines of Canada produced 3,283,121 fine ounces of gold during 1935, an all-time high record for the Canadian mining industry. This output, when valued at \$35.19 per fine ounce, the average price of gold for the year in Canadian funds, amounted to \$115,533,027. Production

in 1934 totaled 2,972,074 fine ounces with a value of \$102,536,553; the 1935 output, compared with that of the preceding year, represents an increase of 10.5 per cent in quantity and 12.6 per cent in value. The previous record year in the quantity of gold produced was 1932 in which year Canadian mines yielded 3,044,387 fine ounces.

Preliminary figures representing the production of the leading gold producing countries of the world during 1935 would indicate that Canada retains a position as the world's third largest gold producer, being surpassed in order of their importance by South Africa and Russia. The United States closely follows Canada with a mine output of 3,166,272 fine ounces as compared with 2,778,789 ounces in 1934. South Africa's production is reported, subject to revision, at 10,773,000 fine ounces representing a relatively small increase over the output of 10,479,857 fine ounces in 1934. Increased activity throughout the gold-bearing districts of Russia during recent years is reflected in an increased production of gold from 1,300,000 fine ounces in 1930 to 5,500,000 in 1935. The American Bureau of Metal Statistics preliminary report of world production estimates the total gold production of the world at 30,528,000 fine ounces as against 27,339,233 fine ounces in 1934.

Exports of Canadian gold bullion in 1935 were appraised at \$95,990,234 as compared with \$91,015,001 in 1934, the metal content of the 1935 exports was estimated at 2,746,411 fine ounces. In 1935 exports of gold-bearing quartz, dust, nuggets, etc., were evaluated at \$4,316,421 as against \$3,997,992 in 1934.

The increasing contribution of lode gold mines to the economic welfare of the nation is emphasized in the payment by this industry in 1935 of \$30,232,056 in salaries and wages to 18,757 employees (preliminary figures) as compared with \$27,156,887 to 17,762 employees in 1934; also reflecting the importance in Canada of this great developer of natural resources was an expenditure in 1934 by the gold mining industry of \$23,994,000 for explosives, lumber, chemicals, and other diversified consumable stores together with freight and hydro power.

Probably never in the history of the Canadian gold mining industry has the search for and the development of gold-bearing properties been as intensive and widespread as in 1935. In Nova Scotia numerous mines were investigated as to their economic importance and development work on possible future producers was extensive; returns from producers were also more numerous than for some years past and the gold output for the province revealed a decided increase.

In Quebec prospecting for gold was general throughout areas favourable for gold deposition. Extensive development programmes were conducted on properties in the Chibougamou, Mud Lake, Rouyn and other areas and the year was featured by the bringing into production of the Arnfield, Lamaque and Canadian Malartic gold mines; additional producers are expected for 1936. Output of gold for the province in 1935 at 470,471 fine ounces represents a 20.6 per cent increase over the 1934 production of 390,097 fine ounces.

The Ontario Department of Mines reports that old and abandoned areas are being revived in Eastern Ontario and Lake of the Woods where gold mining existed decades ago. The established fields are expanding early-stage properties. A notable example of this is found in the township of Whitney where three mines, long idle, have been united under the Pamour-Porcupine Gold Mines Ltd. The predominating camps are Porcupine and Kirkland Lake, both of which are enlarging their borders and bringing new mines into view while new fields such as Little Long Lac, Red Lake, and Albany River are rapidly developing. Gold production for the province totalled 2,220,171 fine ounces as compared with 2,105,339 fine ounces in 1934.

In Manitoba, development and exploration of gold properties was conducted in the Rice Lake, Beresford Lake, Herb Lake, God's Lake and other gold-bearing areas of the province and the year under review witnessed the bringing into production of the God's Lake Gold Mine, God's Lake. Gold production in Manitoba amounted to 145,469 fine ounces as compared with 132,321 fine ounces in the preceding year. Gold mining activities in Saskatchewan increased greatly in 1935 with interest focussed chiefly on recent discoveries in the Lake Athabaska district. In the Northwest Territories an interesting event was the recording of gold ore shipments from the Great Slave Lake district.

Gold output in British Columbia during 1935 at 389,690 fine ounces represents a 31.6 per cent gain over 1934 and constitutes a good index of the general expansion experienced in gold mining throughout this western province. On the islands, including Vancouver Island, a growing amount of attention was given to various properties; in the Bridge river district the operations

of the Pioneer and Bralorne mines were outstanding. In the Portland Canal area important development work was completed at the Big Missouri and the famous Premier mine continued in production. The southern part of the province witnessed increased gold mining operations, outstanding of which was the renewal of production in the Hedley section. Mining operations were also extensive in the Cariboo and Atlin districts.

Gold production in the Yukon Territory showed relatively little change from that of the preceding year and the output at 35,708 fine ounces largely represents the recoveries made by the larger operators, including the Yukon Consolidated Gold Corporation.

### Production of New Gold in Canada, by Provinces and Sources, 1934 and 1935

(Gold at \$20.671834 per fine ounce)

	1934		1935	
	Fine troy oz.	\$	Fine troy oz.	\$
<b>Nova Scotia—</b>				
In gold bullion and ores exported.....	3,525	72,868	9,328	192,827
Estimated exchange equalization on gold produced.....	-	48,745	-	135,425
<b>Quebec—</b>				
In blister copper, in ores shipped and in gold bullion.....	390,097	8,064,020	470,471	9,725,498
Estimated exchange equalization on gold produced.....	-	5,394,327	-	6,830,376
<b>Ontario—</b>				
*Porcupine area—In gold bullion.....	949,799	19,634,087	968,436	20,019,348
*Kirkland Lake—In gold bullion.....	988,046	20,424,723	948,020	19,597,312
*Other gold mines—In gold bullion.....	107,120	2,214,367	234,515	4,847,855
Copper-Nickel and other ores.....	60,374	1,248,041	69,200	1,430,491
<b>Total.....</b>	<b>2,105,339</b>	<b>43,521,218</b>	<b>2,229,171</b>	<b>45,895,006</b>
Estimated exchange equalization on gold produced.....	-	29,112,977	-	32,232,811
<b>Manitoba—</b>				
In gold bullion, ores shipped and in blister copper.....	132,321	2,735,318	145,469	3,007,111
Estimated exchange equalization on gold produced.....	-	1,829,757	-	2,111,943
<b>Saskatchewan—</b>				
In ores shipped to Canadian smelters and crude gold to Royal Canadian Mint.....	5,405	111,731	11,934	246,698
Estimated exchange equalization on gold produced.....	-	74,741	-	173,259
<b>Alberta—</b>				
In alluvial gold.....	393	8,124	150	3,101
Estimated exchange equalization on gold produced.....	-	5,434	-	2,178
<b>British Columbia—</b>				
In alluvial gold.....	20,145	416,434	23,400	483,721
In gold bullion.....	153,173	3,166,367	181,812	3,758,387
In blister copper.....	6,093	125,333	5,267	108,879
In base bullion and in matte and ores exported.....	116,815	2,414,781	179,211	3,704,620
<b>Total.....</b>	<b>296,196</b>	<b>6,122,915</b>	<b>389,690</b>	<b>8,655,607</b>
Estimated exchange equalization on gold produced.....	-	4,005,847	-	5,657,584
<b>Yukon and N.W.T.—</b>				
In alluvial gold.....	38,703	800,062	35,705	738,088
In ores shipped.....	95	1,964	203	4,196
<b>Total.....</b>	<b>38,798</b>	<b>802,026</b>	<b>35,908</b>	<b>742,284</b>
Estimated exchange equalization on gold produced.....	-	536,505	-	521,319
<b>Total for Canada.....</b>	<b>2,972,074</b>	<b>61,438,220</b>	<b>3,283,121</b>	<b>67,868,132</b>
<b>Total estimated exchange equalization on gold produced.....</b>	<b>-</b>	<b>41,098,333</b>	<b>-</b>	<b>47,664,805</b>
<b>Grand total value including exchange.....</b>	<b>-</b>	<b>102,536,553</b>	<b>-</b>	<b>115,533,027</b>

In 1934 the estimated average price of a troy ounce of fine gold in Canadian funds was \$34.50, in 1935 the corresponding price was \$35.19.

\* Includes relatively small amounts of gold contained in slugs, and ore shipped.

## Imports into Canada and Exports of Gold, 1934 and 1935

	1934	1935
	\$	\$
<b>IMPORTS—</b>		
<b>Coins and bullion—</b>		
Coins, British, Canadian and foreign gold coins .....	708,010	847,123
Gold bullion in bars, blocks, ingots, drops, sheets or plates, unmanufactured .....	56,343	366,750
<b>Total</b> .....	<b>764,353</b>	<b>1,213,873</b>
<b>Gold, other—</b>		
Bullion or gold fringe .....	8,456	15,771
<b>Manufactures of gold and silver—</b>		
Lust .....	61,908	62,430
Sweepings .....	140	—
Manufactures, n.o.p. ....	23,860	24,285
Electroplated ware .....	384,400	439,613
Gold, unmanufactured, for commercial purposes .....	157,691	137,427
<b>Total</b> .....	<b>636,455</b>	<b>679,526</b>
<b>EXPORTS—</b>		
<b>Coin and bullion—</b>		
<b>Gold coin—</b>		
Canadian .....	—	—
Foreign .....	83,484	9,601,367
<b>Gold bullion—</b>		
†Canadian .....	91,015,001	95,990,234
Foreign .....	—	—
<b>Total—Canadian</b> .....	<b>91,015,001</b>	<b>95,990,234</b>
<b>Foreign</b> .....	<b>83,484</b>	<b>9,601,367</b>
<b>Total coin and fine gold bullion</b> .....	<b>91,098,485</b>	<b>105,591,601</b>
*Gold-bearing quartz, dust, nuggets and crude bullion obtained direct from mining operations .....	3,997,992	4,316,421
Jewellers' sweepings (gold, silver and platinum) .....	520,067	772,725
<b>Total</b> .....	<b>4,518,059</b>	<b>5,089,146</b>

\* Metal content in 1935—125,434 fine ounces of gold.

† Metal content in 1935—2,746,411 fine ounces of gold.

## Fine Gold and Fine Silver Shipped to the Royal Canadian Mint, Ottawa, Canada, by Sources, 1935

	Gold	Silver
	Fine ounces	Fine ounces
British Columbia .....	248,111-607	39,018-53
Alberta sundries .....	150-334	15-74
Saskatchewan sundries .....	9-148	0-45
Manitoba .....	52,085-201	7,562-47
Ontario .....	2,219,897-110	314,031-80
Quebec .....	541,461-912	30,378-42
Nova Scotia .....	9,092-110	371-88
Jewellery and scrap .....	44,932-037	12,232-10
Vancouver Assay Office .....	65,508-547	14,186-48
Yukon sundries .....	2,030-129	534-09
<b>Total</b> .....	<b>3,183,278-139</b>	<b>418,332-56</b>

## Pig Iron, Steel Ingots and Castings

Canada has witnessed an annual improvement in the production of iron and steel since 1932, the low point of recent years. In 1935 pig iron and ferro-alloy figures advanced 51 per cent from the 1934 level to 656,695 tons and primary steel rose 23 per cent to 935,682 tons. Though the gains made in 1935 were encouraging, the tonnage for pig iron and ferro-alloys was but 51 per cent of the total reported for 1929, and steel figures but 64 per cent. Gains made in 1935 were more noticeable after the half-year mark was passed, due probably to orders received from the automotive trades for the earlier introduction of their new models. Support to this primary industry was also afforded throughout the year by forward purchases in anticipation of higher

prices, by an improvement in the demand for agricultural implements, by an increase in the volume of construction work undertaken, greater purchases by the railways, by the continued high rate of mining operations, and by a better export market.

Over 96 per cent of Canada's primary steel production in 1935 consisted of steel ingots for further processing by the producers, the balance or 3 per cent being direct steel castings. Iron furnaces in blast in January represented 34 per cent of the total Canadian capacity but this was increased to 37 per cent in February and again to 45 per cent in June. The maximum of 52 per cent was attained in November and the year closed at 45 per cent in December.

### Production of Pig Iron and Ferro-Alloys in Canada, 1934 and 1935

(Tons of 2,240 pounds)

Item	1934			1935		
	For own use	For sale	Total	For own use	For sale	Total
<b>IN BLAST FURNACE—</b>						
Basic.....	301,733	8,898	310,631	447,832	20,331	468,163
Foundry.....	49	50,874	50,923	-	62,294	62,294
Malleable.....	-	43,441	43,441	-	69,337	69,337
<b>Total.....</b>	<b>301,782</b>	<b>103,213</b>	<b>404,995</b>	<b>447,832</b>	<b>151,962</b>	<b>599,794</b>
Ferro-alloys.....	-	29,940	29,940	-	56,901	56,901

### Production of Steel Ingots and Castings in Canada, 1934 and 1935

(Tons of 2,240 pounds)

Item	1934			1935		
	For own use	For sale	Total	For own use	For sale	Total
<b>STEEL INGOTS—</b>						
Open hearth—Basic.....	712,960	267	713,227	871,956	763	872,719
Acid.....	-	-	-	-	-	-
Electric.....	23,551	340	23,891	31,461	-	31,461
Other.....	-	-	-	-	-	-
<b>Total Steel Ingots.....</b>	<b>736,511</b>	<b>607</b>	<b>737,118</b>	<b>903,417</b>	<b>763</b>	<b>904,180</b>
<b>STEEL CASTINGS—</b>						
Open hearth—Basic.....	1,488	4,969	6,457	1,591	7,504	9,095
Acid.....	-	-	-	-	-	-
Bessemer.....	-	507	507	-	574	574
Electric.....	734	12,966	13,700	3,251	19,582	21,833
<b>Total Direct Steel Castings.....</b>	<b>2,222</b>	<b>18,442</b>	<b>20,664</b>	<b>4,842</b>	<b>26,660</b>	<b>31,502</b>
<b>Grand Total.....</b>	<b>738,733</b>	<b>19,049</b>	<b>757,782</b>	<b>908,259</b>	<b>27,423</b>	<b>935,682</b>

### Lead

About 99 per cent of Canada's lead production is obtained from the province of British Columbia and the famous Sullivan mine, Kimberley, B.C., is the chief source. Ore from this mine is separated into a lead and zinc concentrate at Chapman camp about two miles below the mine before it is shipped to Trail for treatment. During the year the Monarch mine at Field, B.C., exported a high grade lead concentrate to Belgium. This property ceased productive operations late in the year. Lead also occurs with the gold-silver ores of the Premier mine and with the ores of the Britannia mine. Exports of silver-lead concentrates from the Mayo camp of the Yukon were considerably less than in preceding year. The Tetreault mine in Quebec recommenced in June, 1935, to export lead concentrates to Europe for treatment and the British Metal Corporation resumed operations at the Stirling mine, Richmond county, Nova Scotia.

The average price of lead in Canadian funds, based on the London market, was 3.13318 cents per pound in 1935 as against 2.4634 cents in 1934. Prices rose from a January average of 2.25173 cents to over 4 cents in October. A slight reduction followed, the average for December being 3.73 cents per pound.

## Production in Canada, Imports and Exports of Lead, 1934 and 1935

	1934		1935	
	Pounds	Value	Pounds	Value
		\$		\$
<b>PRODUCTION—</b>				
Quebec.....	—	—	2,047,624	64,156
Ontario.....	21,558	525	22,532	706
Manitoba.....	—	—	19,179	601
British Columbia.....	344,467,138	8,392,597	336,768,543	10,551,565
Yukon and North West Territories.....	1,786,880	43,536	231,418	7,250
<b>Total.....</b>	<b>316,275,576</b>	<b>8,436,653</b>	<b>339,089,296</b>	<b>10,624,278</b>
<b>IMPORTS—</b>				
Old and scrap, pig and block.....	102,294	3,921	108,863	5,472
Bars and sheets.....	59,877	2,500	69,794	2,959
Litharge.....	1,689,100	91,975	1,750,400	100,689
Acetate of lead.....	151,635	11,860	216,600	16,504
Nitrate of lead.....	243,110	12,504	201,160	11,447
Other manufactures.....	—	78,064	—	70,988
Pipe lead.....	7,254	336	4,022	301
Shots and bullets.....	14,187	939	9,824	896
Tea lead.....	—	—	3,410	252
Lead arsenate.....	450,748	37,788	324,328	26,388
Lead tetraethyl, compounds of.....	1,821,083	1,053,503	2,381,734	1,249,477
Lead capsules for bottles.....	—	34,306	—	44,905
Lead pigments—				
Dry white lead.....	152,409	9,827	16,196	1,089
White lead, ground in oil.....	16,258	1,706	16,788	1,424
Dry red lead and orange mineral.....	544,597	32,397	595,584	35,392
<b>Total.....</b>	<b>—</b>	<b>1,371,686</b>	<b>—</b>	<b>1,568,043</b>
<b>EXPORTS—</b>				
Lead, contained in ore.....	23,644,800	509,506	11,305,100	289,955
Pig lead.....	283,150,000	5,238,203	282,913,500	6,871,449
<b>Total.....</b>	<b>306,803,800</b>	<b>5,747,709</b>	<b>294,218,600</b>	<b>7,161,424</b>

## Manganese

Production of manganese ore amounted to 100 tons valued at \$800, which came from a mine in New Brunswick. This information was received too late to be included in the production tables at the front of this report. Manganese ores which have been mined in Eastern Canada are pyrolusite, manganite, psilomelane and bog manganese. The world's chief sources of manganese are Russia, Southern and Central India, Brazil, the Gold Coast of Africa, Union of South Africa, Egypt and Czechoslovakia. Of the total production a large part is consumed in the manufacture of manganese-iron alloys (spiegeleisen and ferro-manganese) which are used in the production of special steels.

## Molybdenite

No molybdenite ores or concentrates have been shipped from Canadian mines since 1931. The mineral occurs in Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, and British Columbia and deposits in Ontario and Quebec have yielded a considerable output during past years. The mine of the Phoenix Molybdenite Corporation, Limited, located in Bagot township, Renfrew county, Ontario, conducted both surface and underground operations from May until the end of the year.

## Nickel

Nickel production from Canadian mines in 1935 was the greatest ever recorded and exceeded the output for 1934 by 7.6 per cent. In 1934 the number of converters at the International Nickel Company's Copper Cliff smelter was increased from eight to twelve. Toward the close of 1935 the same company announced that it would spend upwards of \$6,000,000 in the construction of two reverberatory furnaces and six converters.

The annual report of the Falconbridge Nickel Mines, Limited, indicates that that company enjoyed a very successful year. The Company acquired some new acreage on the nickel belt which brought their holdings, including the parent property, up to 40,000 acres. A programme of expansion is in progress at their plant in Canada and in Norway where the nickel-copper matte is exported for treatment.

The British Columbia Nickel Mines, Limited, continued extensive development work during the year.

### Production in Canada, Imports and Exports of Nickel, 1934 and 1935

	1934		1935	
	Quantity	Value	Quantity	Value
	Lb.	\$	Lb.	\$
<b>PRODUCTION—</b>				
Nickel in matte and speiss exported.....				
Refined and electrolytic nickel produced.....				
Nickel in oxides and salts sold.....				
	<b>128,687,349</b>	<b>32,139,425</b>	<b>133,516,240</b>	<b>35,345,103</b>
<b>IMPORTS—</b>				
Nickel, nickel silver and German silver in ingots or block, n.o.p....	2,646	771	3,643	959
Nickel in bars and rods, strips, sheets and plates.....	591,466	197,230	445,112	191,330
Nickel silver and German silver in bars, rods, strips, sheets, plates or anodes.....	48,359	14,187	79,978	19,615
Nickel chromium in bars or rods, etc.....	48,413	45,114	43,434	41,381
German, Nevada and nickel silver, manufactures of, not plated....	-	140,682	-	127,831
Nickel-plated household hollow-ware.....	-	9,075	-	3,736
Nickel kitchenware.....	-	872	-	149
Nickel-plated ware, n.o.p.....	-	753,421	-	814,456
<b>Total nickel and its products.....</b>	<b>-</b>	<b>1,161,352</b>	<b>-</b>	<b>1,199,457</b>
<b>EXPORTS—</b>				
<b>Total.....</b>	<b>118,152,100</b>	<b>28,913,230</b>	<b>142,726,500</b>	<b>36,285,482</b>

### Output from Canadian Nickel-Copper Mines and Smelters, 1932-1935

	Unit	1932	1933	1934	1935
Ore and concentrates treated.....	tons	793,552	1,523,814	2,896,959	3,616,223
Refined nickel(*) produced in Ontario.....	"	7,063	20,748	35,487	40,191
Blister copper produced in Ontario.....	"	30,020	61,385	97,611	121,574
Matte exported.....	"	21,778	43,315	46,755	48,371
Nickel content of matte.....	"	8,068	20,811	28,771	28,949
Copper content of matte.....	"	8,825	12,323	6,692	6,272

(\*) Includes nickel in salts and oxides.

### Platinum Group Metals

Metals of the platinum group, produced from Canadian sources, include platinum, palladium, rhodium, iridium, etc., and nearly all the Canadian output is recovered in refining nickel-copper matte from the Sudbury district of Ontario. A minor amount of stream platinum is yielded by British Columbia placers and platinum and palladium are sometimes obtained in small quantities in the smelting operations at Trail, B.C. Russia, Colombia and South Africa are also important producers of these metals. Residues obtained in the metallurgical treatment of the nickel-copper matte are refined by the International Nickel Co., Ltd., at their refinery at Acton, England. This refinery has a capacity of 300,000 ounces per year of platinum group metals. In 1934 Canada was the largest producer of platinum metals in the world. World figures for 1935 are not yet available.

### Production of Platinum Group Metals, Canada, 1934 and 1935

		1934		1935	
		Platinum	Palladium, Rhodium, etc.	Platinum	Palladium, Rhodium, etc.
Produced from Canadian ores.....	Oz.	116,177	83,932	105,355	84,772
Recovered from alluvial sands.....	\$	4,488,712	1,699,282	3,444,455	1,962,943
	Oz.	53	-	20	-
	\$	2,051	-	654	-
<b>Total.....</b>	<b>Oz.</b>	<b>116,230</b>	<b>83,932</b>	<b>105,355</b>	<b>84,772</b>
	<b>\$</b>	<b>4,490,763</b>	<b>1,699,282</b>	<b>3,445,109</b>	<b>1,962,943</b>



## Imports into Canada and Exports of Platinum, 1934 and 1935

	1934		1935	
	Os.	Value	Os.	Value
<b>IMPORTS—</b>		\$		\$
Platinum retorts, pans, condensers, tubing and pipe.....	-	1,029	-	14,355
Platinum wire and bars, strips, sheets or plates, also platinum, palladium, iridium, osmium, ruthenium and rhodium in lumps, ingots, powder, sponge or scrap.....	-	51,530	-	55,878
Platinum crucibles.....	-	11,464	-	7,665
<b>Total.....</b>	-	<b>64,023</b>	-	<b>77,898</b>
<b>EXPORTS—</b>				
Platinum, and metals of the platinum group contained in concentrates.....	-	5,186,489	-	5,055,901
Platinum, old and scrap.....	410	12,202	618	25,617
<b>Total.....</b>	-	<b>5,198,691</b>	-	<b>5,081,518</b>

## Radium-Uranium

The commercial production of primary radium and uranium products in Canada comes entirely from the refinery of Eldorado Gold Mines, Ltd. This plant, located at Port Hope, Ontario, was in continuous operation throughout 1935. Concentrates treated at Port Hope, Ontario, are shipped from the company's pitchblende-silver mine situated at Echo Bay, Great Bear Lake, Northwest Territories. The mill handles 65 to 70 tons daily, making around 1,000 pounds of pitchblende-silver concentrates. No figures of production are available for publication.

The Canada Radium Mines, Ltd., was active throughout 1935 in Haliburton county, Ontario.

## Selenium

Selenium is obtained as a by-product in copper refining and was produced for the first time in Canada in 1931 by the Ontario Refining Company, Ltd., at Copper Cliff, Ontario. It is also recovered by Canadian Copper Refiners at Montreal East, Quebec. Production totalled 345,159 pounds valued at \$662,705 as compared with 104,924 pounds worth \$171,311 in 1934. Production is credited to the provinces from whose ores the blister copper, electrolytically refined, was obtained.

## Silver

The Sullivan silver-lead-zinc mine in British Columbia is the largest producer of silver in Canada. This mine, together with the Monarch, Premier, and other properties, establishes British Columbia as Canada's principal silver producing province. For many years several properties situated in the Cobalt, Gowganda, and South Lorraine areas of Ontario contributed the major proportion of the metal but during recent times the principal producers in Ontario have been limited to the O'Brien mine at Cobalt and the Miller-Lake-O'Brien at Gowganda. A substantial amount is contributed annually as a by-product in the treatment of nickel-copper ores. Gold ores supply a measurable quantity also. The silver-radium ores of the Great Bear Lake area in the Northwest Territories are now contributing annually to Canada's total output.

The price of silver, often an important factor in the economic mining of non-ferrous ores, especially silver-lead, averaged in Canadian funds 64.7899 cents per fine ounce in 1935 as compared with 47.4609 cents in 1934 and 37.8328 cents in 1933. The average monthly price per fine ounce reached a high for 1935 of 74.4675 cents in May, later declining to an average of 58.9633 cents for December.

## Production, Imports and Exports of Silver, 1934 and 1935

	1934		1935	
	Quantity	Value	Quantity	Value
NOVA SCOTIA—	fine oz.	\$	fine oz.	\$
In gold bullion—Total	321	152	372	241
QUEBEC—				
In gold ores, in blister copper, and in copper and silver-lead-zinc ores exported—Total	470,254	223,187	663,821	433,328
ONTARIO—				
In silver bullion and nuggets	2,681,104	1,272,476	2,022,296	1,310,244
In gold bullion	418,528	198,637	451,665	292,633
In blister copper produced; and in ores, concentrates, residues and matte exported or treated in smelters outside the province	2,221,528	1,054,357	2,685,346	1,739,833
<b>Total</b>	<b>5,321,160</b>	<b>2,525,470</b>	<b>5,159,397</b>	<b>3,342,710</b>
MANITOWA—				
In gold bullion and in blister copper—Total	1,252,920	594,647	1,252,901	811,754
SASKATCHEWAN—				
In ores shipped to Canadian smelters—Total	87,551	41,552	174,000	112,734
ALBERTA—				
In alluvial gold—Total	35	17	16	10
BRITISH COLUMBIA—				
In alluvial gold	4,533	2,152	5,040	3,266
In gold bullion	44,707	21,218	73,262	47,466
In blister copper	344,425	163,467	288,141	186,686
In base bullion and in ores exported	8,336,056	3,956,367	8,801,308	5,702,360
<b>Total</b>	<b>8,729,721</b>	<b>4,143,204</b>	<b>9,167,751</b>	<b>5,939,778</b>
YUKON AND NORTH WEST TERRITORIES—				
In alluvial gold	8,708	4,133	8,034	5,205
In ores exported or shipped to Canadian smelters	544,612	258,478	193,224	125,190
<b>Total</b>	<b>553,320</b>	<b>262,611</b>	<b>201,258</b>	<b>130,395</b>
<b>Canada</b>	<b>16,415,282</b>	<b>7,790,840</b>	<b>16,624,426</b>	<b>10,770,950</b>
IMPORTS—				
Silver in bars, etc., unmanufactured	—	2,193,201	—	5,584,906
Silver, manufactures of, n.o.p., and articles consisting wholly or in part of sterling or other silverware	—	67,425	—	64,596
Silver and other coin, except gold	—	—	—	—
<b>Total</b>	<b>—</b>	<b>2,260,626</b>	<b>—</b>	<b>5,649,502</b>
EXPORTS—				
Silver contained in ore, concentrates, etc.	1,745,152	714,444	1,364,008	882,106
Silver bullion	10,664,182	4,933,690	16,963,181	10,953,083
<b>Total</b>	<b>12,409,334</b>	<b>5,648,134</b>	<b>18,327,189</b>	<b>11,835,189</b>
Silver coin, foreign	—	615,665	—	896,010
Silver coin, Canadian	—	30,250	—	38,198

## Tellurium

Tellurium is now being produced at Copper Cliff, Ontario, and Montreal East, Quebec, as a by-product in the refining of the nickel-copper ores. Tellurium is used as a hardening and strengthening agent in lead and its alloys; the metal is also employed in the manufacture of rubber products, its function being to increase tensile strength and resistance to abrasion. Production in 1935 totalled 14,375 pounds valued at \$65,550 as compared with 5,130 pounds at \$25,599 in 1934.

## Titanium Ore

Shipments of titanium ore in Canada during 1935 totalled 2,288 tons valued at \$16,016 as compared with 2,023 tons worth \$14,161 in 1934.

The 1935 output, as for some years past, came from deposits located near Baie St. Paul, Quebec. The entire production during the last calendar year was exported to the United States. The utilization of titanium white by the Canadian paint industry is increasing, consumption in 1934 amounting to 1,710,188 pounds with a value of \$186,678 as compared with 1,061,249 pounds at \$128,969 in 1933.

## Zinc

Refined zinc is produced at Trail, B.C., and at Flin Flon, Manitoba. A high grade zinc concentrate was exported to Belgium by the Base Metals Mining Corporation which operates the Monarch mine, at Field, B.C. Zinc concentrates were also exported by the Britannia mine on Howe Sound, British Columbia, and from the Tetreault mine located at Montauban les Mines, Quebec. The price of zinc on the basis of the London market and converted to Canadian funds averaged 3.0989 cents per pound in 1935 as compared with 3.0436 cents per pound in 1934.

## Production in Canada, Imports and Exports of Zinc, 1934 and 1935

	1934		1935	
	Pounds	Value	Pounds	Value
		\$		\$
<b>PRODUCTION—</b>				
Quebec.....	—	—	5,322,844	164,954
Manitoba.....	47,264,342	1,438,538	52,511,500	1,627,326
Saskatchewan.....	2,162,938	65,831	7,502,000	232,487
British Columbia.....	249,152,403	7,583,202	255,222,315	7,909,314
<b>Total.....</b>	<b>298,579,683</b>	<b>9,087,571</b>	<b>320,558,659</b>	<b>9,934,081</b>
<b>IMPORTS—</b>				
Zinc dust.....	1,067,300	61,135	1,648,100	80,837
Zinc in blocks, pigs, bars and rods, and zinc plates, n.o.p.....	18,300	1,282	18,100	2,111
Zinc in sheets and strips, and zinc plates for marine boilers.....	3,964,300	260,446	5,579,000	349,013
Zinc spelter.....	3,100	300	115,300	4,254
Zinc white (zinc oxide).....	11,751,090	520,911	11,768,314	460,122
Zinc sulphate.....	1,844,821	27,091	2,042,284	29,459
Zinc, chloride of.....	1,462,592	41,712	1,809,056	55,942
Zinc, manufactures of, n.o.p.....	—	82,883	—	128,536
Lithopone.....	14,530,612	510,558	17,383,273	620,615
<b>Total.....</b>	<b>—</b>	<b>1,506,221</b>	<b>—</b>	<b>1,730,889</b>
<b>EXPORTS—</b>				
Zinc, contained in ore.....	39,043,400	654,835	19,600,200	337,732
Zinc, scrap, dross and ashes.....	4,290,600	48,539	6,267,500	63,719
Zinc, spelter.....	237,894,400	6,990,639	270,918,800	7,809,691
<b>Total—Exports.....</b>	<b>281,228,400</b>	<b>7,694,013</b>	<b>296,786,500</b>	<b>8,211,142</b>

## FUELS

## Coal

Coal production in Canada during 1935 totalled 13,864,577 tons as compared with 13,810,193 tons produced in the preceding year. Nova Scotia's output declined 8.4 per cent to 5,808,420 tons from the 1934 total of 6,341,625 tons. New Brunswick mined 342,333 tons or 8.8 per cent above the tonnage produced in 1934. Operators in Manitoba reported an output of 3,106 tons as against 4,113 tons in 1934. Saskatchewan's production rose 1.1 per cent to 919,477 tons in 1935. An advance of 14.9 per cent was recorded in Alberta's production when 5,461,027 tons were mined as compared with 4,753,810 tons in the preceding year. Output from British Columbia sources in 1935 declined 10.5 per cent to 1,329,379 tons. In the Yukon 835 tons were produced during the year.

Customs records show that Canada imported 13,009,098 tons of coal in 1935; this represented a 5.8 per cent falling-off from the tonnage imported in 1934. Anthracite imports during the year were made up of 1,664,094 tons from the United States, 1,456,832 tons from Great Britain, 205,045 tons from Germany, 67,220 tons from Belgium, and 54,447 tons imported from French Indo-China. Bituminous receipts in 1935 included 9,175,185 tons from the United States, 380,645 tons from Great Britain and minor tonnages from Norway, Esthonia, Alaska and Poland.

Exports of Canadian coal during 1935 totalled 418,391 tons as compared with 306,335 tons exported in 1934. The 1935 exportations were the highest on record since 1930.

Canadian coal moved under federal government assistance during 1935 amounted to 2,124,748 tons; in the preceding year 2,368,803 tons were moved under government assisted rates.

## Output and Value of Coal in Canada, by Kinds and by Provinces, 1934 and 1935

(Short tons)

Province	1934		1935	
	Quantity	Value	Quantity	Value
		\$		\$
NOVA SCOTIA (Bituminous).....	6,341,625	21,860,093	5,808,420	20,350,404
NEW BRUNSWICK (Bituminous).....	314,750	1,026,343	342,333	1,119,655
MANITOBA (Lignite).....	4,113	8,952	3,106	7,408
SASKATCHEWAN (Lignite).....	909,288	1,241,130	919,477	1,281,005
ALBERTA—				
Bituminous.....	1,915,800	6,116,513	2,248,685	6,583,544
Sub-bituminous.....	537,508	1,256,936	566,425	1,410,426
Lignite.....	2,300,502	5,182,650	2,645,917	6,092,794
Total.....	4,753,810	12,556,099	5,461,027	14,086,764
BRITISH COLUMBIA (Bituminous).....	1,485,969	5,351,108	1,329,379	5,039,800
YUKON (Bituminous).....	638	2,217	835	3,483
Canada—				
Bituminous.....	10,058,782	34,356,274	9,729,652	33,096,895
Sub-bituminous.....	537,508	1,256,936	566,425	1,410,426
Lignite.....	3,213,993	6,432,732	3,568,500	7,381,207
Total.....	13,810,193	42,045,942	13,864,577	41,888,528

## Shipments of Coal direct from Canadian Mines, by Grades and Destinations, 1934 and 1935

(Short tons)

Destination	1934				1935			
	Run-of-mine	Screened	Slack	Total	Run-of-mine	Screened	Slack	Total
Prince Edward Island.....	5,748	59,670	10,270	75,688	9,681	51,002	10,058	70,741
Nova Scotia.....	124,542	418,916	625,418	1,168,876	147,786	391,097	755,779	1,294,662
New Brunswick.....	135,069	117,653	249,606	502,328	131,998	117,518	270,024	519,510
Quebec.....	121,709	1,308,956	1,453,944	2,884,609	7,716	1,144,421	1,239,876	2,392,113
Ontario.....	5,273	53,025	20,613	78,911	652	68,254	20,397	89,303
Manitoba.....	70,541	304,460	499,551	874,552	75,286	524,696	340,910	940,892
Saskatchewan.....	239,046	721,074	511,582	1,471,702	222,558	1,156,346	219,404	1,598,308
Alberta.....	190,133	393,206	480,629	1,063,968	194,746	767,720	252,228	1,214,694
British Columbia.....	18,095	465,874	167,133	651,102	18,507	527,509	141,055	687,071
Yukon.....	-	191	-	191	-	310	-	310
Northwest Territories.....	-	31	-	31	-	-	-	-
Total domestic shipments.....	910,156	3,843,056	4,018,746	8,771,958	808,930	4,748,873	3,249,831	8,807,634
Railroads /In Canada.....	2,466,488	607,940	93,655	3,168,083	2,561,733	538,907	78,385	3,179,025
/In United States.....	10,564	-	54	10,618	9,913	-	-	9,913
Ships' bunkers.....	234,910	105,243	330	340,483	265,368	103,359	1,824	370,551
Total railroads and ships' bunkers.....	2,711,962	713,183	94,039	3,519,184	2,837,014	642,266	80,209	3,559,489
United States.....	2,735	21,136	53,506	77,377	6,371	39,418	74,419	120,208
Alaska.....	-	15,290	-	15,290	-	15,213	-	15,213
Newfoundland.....	4,116	115,697	120	119,933	12,922	126,278	9	139,209
Other countries.....	-	2,222	-	2,222	197	7,330	-	7,527
Lost at Sea.....	-	-	-	-	-	6,720	-	6,720
Total external shipments.....	6,851	154,345	53,626	214,822	19,490	194,959	74,428	288,877
Total.....	3,628,969	4,710,584	4,166,411	12,505,964	3,665,434	5,586,098	3,404,468	12,656,000

### Output, Exports, Interprovincial Shipments, Imports and Coal made Available for Consumption in Canada, by Provinces, 1935

(Short tons)

Province	Canadian coal				Imported from U.S.A.	Imported from Great Britain	Imported from Germany	Imported from other countries	Coal available for consumption
	Output	Received direct from mines in other provinces	Shipped direct to other provinces	Exported					
<b>PRINCE EDWARD ISLAND—</b>									
Anthracite .....	—	—	—	—	1,454	3,400	—	—	4,854
Bituminous .....	—	70,741	—	100	125	4,142	—	—	74,908
<b>Total .....</b>	—	70,741	—	100	1,579	7,542	—	—	79,762
<b>NOVA SCOTIA—</b>									
Anthracite .....	—	—	—	—	7,370	52,380	3,366	—	63,116
Bituminous .....	5,808,420	68	2,829,159	232,597	48	54,506	—	—	2,801,286
<b>Total .....</b>	5,808,420	68	2,829,159	232,597	7,418	106,886	3,366	—	2,864,402
<b>NEW BRUNSWICK—</b>									
Anthracite .....	—	—	—	—	18,971	49,249	—	—	68,220
Bituminous .....	342,333	372,799	9,216	62,130	11,989	22,809	—	—	678,584
<b>Total .....</b>	342,333	372,799	9,216	62,130	30,960	72,058	—	—	746,804
<b>QUEBEC—</b>									
Anthracite .....	—	—	—	—	316,562	1,320,197	201,679	91,907	1,930,345
Bituminous .....	—	2,392,113	—	77	459,761	296,281	—	341	3,148,419
<b>Total .....</b>	—	2,392,113	—	77	776,323	1,616,478	201,679	92,248	5,078,764
<b>CENTRAL ONTARIO—</b>									
Anthracite .....	—	—	—	—	1,310,721	29,657	—	29,760	1,370,138
Bituminous .....	—	20,328	—	108	8,085,024	860	—	—	8,106,104
Sub-bituminous .....	—	*23,961	—	—	—	—	—	—	23,961
Lignite .....	—	*45,014	—	—	—	—	—	—	45,014
<b>Total .....</b>	—	89,303	—	108	9,395,745	30,517	—	29,760	9,545,217
<b>MANITOBA AND HEAD OF LAKES—</b>									
Anthracite .....	—	—	—	—	8,935	381	—	—	9,316
Bituminous .....	—	232,328	—	213	613,587	931	—	—	846,033
Sub-bituminous .....	—	69,372	—	—	—	—	—	—	69,372
Lignite .....	3,106	636,306	—	390	396	—	—	—	639,418
<b>Total .....</b>	3,106	938,006	—	603	622,918	1,312	—	—	1,564,739
<b>SASKATCHEWAN—</b>									
Anthracite .....	—	—	—	—	49	—	—	—	49
Bituminous .....	—	68,754	—	263	952	—	—	—	69,443
Sub-bituminous .....	—	16,005	—	—	—	—	—	—	16,005
Lignite .....	919,477	1,049,298	408,824	3,130	182	—	—	—	1,557,003
<b>Total .....</b>	919,477	1,134,057	408,824	3,393	1,183	—	—	—	1,842,500
<b>ALBERTA—</b>									
Anthracite .....	—	—	—	—	—	—	—	—	—
Bituminous .....	2,248,685	11,261	303,462	438	1,136	—	—	—	1,957,182
Sub-bituminous .....	566,425	—	149,065	—	—	—	—	—	417,360
Lignite .....	2,645,917	—	1,392,656	1,110	39	—	—	—	1,252,190
<b>Total .....</b>	5,461,027	11,261	1,845,183	1,548	1,175	—	—	—	3,626,732
<b>BRITISH COLUMBIA—</b>									
Anthracite .....	—	—	—	—	32	1,568	—	—	1,600
Bituminous .....	1,329,379	104,060	130,615	111,822	2,543	1,116	—	43	1,194,704
Sub-bituminous .....	—	39,721	—	—	—	—	—	—	39,727
Lignite .....	—	70,862	—	5,985	4,629	—	—	—	89,506
<b>Total .....</b>	1,329,379	214,649	130,615	117,807	7,204	2,684	—	43	1,308,537
<b>YUKON—</b>									
Bituminous .....	835	—	—	28	20	—	—	—	827
<b>Total .....</b>	835	—	—	28	20	—	—	—	827
<b>CANADA—</b>									
Anthracite .....	—	—	—	—	1,664,094	1,456,832	205,045	(a) 121,667	3,447,638
Bituminous .....	9,729,652	3,272,452	3,272,452	407,776	9,175,185	380,645	—	(b) 384	18,878,690
Sub-bituminous .....	566,425	149,065	119,065	—	—	—	—	—	566,125
Lignite .....	3,568,590	1,801,480	1,801,480	10,615	5,246	—	—	—	3,563,131
<b>Total .....</b>	13,864,577	5,222,997	5,222,997	418,391	10,844,525	1,837,477	205,045	122,051	26,455,284

\*Shipments to any point in Ontario from Western mines.

(a) Includes 67,220 tons imported from Belgium and 54,447 tons imported from French Indo China.

(b) Includes 285 tons imported from Norway, 55 tons imported from Estonia, 43 tons imported from Alaska and 1 ton imported from Poland.

### Imports of Anthracite, Bituminous and Lignite Coal into Canada, by Months, 1934 and 1935

(Short tons)

Month	1934				1935			
	United States	Great Britain	Other countries	Total	United States	Great Britain	Other countries	Total
<b>ANTHRACITE</b>								
January	171,847	10,067	-	181,914	161,808	5,826	-	167,634
February	129,584	35,889	-	165,473	179,913	11,166	-	191,079
March	195,997	20,061	-	216,058	121,452	14,898	-	136,350
April	79,512	5,811	-	85,323	112,013	23,010	-	135,023
May	158,027	302,019	-	460,046	131,589	260,152	20,242	412,013
June	163,399	213,083	-	376,482	187,513	156,072	30,100	373,685
July	129,671	199,047	6	328,724	127,911	208,908	48,208	385,027
August	104,813	195,218	5,937	305,968	91,301	185,484	37,400	314,185
September	165,164	213,490	17,802	396,456	122,316	209,362	40,799	372,477
October	168,243	204,762	18,364	391,369	210,143	198,751	68,671	477,565
November	185,382	228,357	30,327	454,066	80,511	158,283	64,980	303,774
December	152,488	14,812	11,200	178,500	137,624	24,790	16,317	178,731
<b>Total</b>	<b>1,804,127</b>	<b>1,643,516</b>	<b>89,666</b>	<b>3,537,309</b>	<b>1,664,094</b>	<b>1,456,832</b>	<b>326,712</b>	<b>3,447,638</b>
<b>BITUMINOUS—</b>								
January	355,091	4,217	-	359,308	302,074	8,728	-	310,802
February	248,826	5,606	-	254,432	297,473	5,271	-	302,744
March	477,452	13,406	-	490,858	379,300	12,922	40	392,262
April	359,757	6,092	-	365,849	509,841	7,090	-	516,931
May	1,035,287	52,921	-	1,088,208	994,117	78,779	1	1,072,897
June	1,131,576	24,209	-	1,155,845	1,111,413	20,933	195	1,132,541
July	1,189,068	27,045	50	1,216,163	982,609	64,880	40	1,047,529
August	1,126,836	29,268	300	1,156,404	1,173,539	40,485	51	1,214,035
September	1,151,823	45,407	-	1,197,230	996,298	57,865	56	1,054,319
October	1,112,112	57,004	-	1,169,116	797,764	38,182	-	835,946
November	1,157,957	57,461	319	1,215,737	1,024,777	30,692	31	1,055,509
December	595,586	8,821	-	604,407	605,880	14,818	-	620,698
<b>Total</b>	<b>9,941,371</b>	<b>331,517</b>	<b>669</b>	<b>10,273,557</b>	<b>9,175,185</b>	<b>380,645</b>	<b>384</b>	<b>9,556,214</b>
<b>LIGNITE—</b>								
January	596	-	-	596	590	-	-	590
February	144	-	-	144	668	-	-	668
March	135	-	-	135	430	-	-	430
April	190	-	-	190	117	-	-	117
May	14	-	-	14	150	-	-	150
June	48	-	-	48	-	-	-	-
July	-	-	-	-	193	-	-	193
August	97	-	-	97	59	-	-	59
September	173	-	-	173	486	-	-	486
October	248	-	-	248	617	-	-	617
November	368	-	-	368	784	-	-	784
December	778	-	-	778	1,152	-	-	1,152
<b>Total</b>	<b>2,791</b>	<b>-</b>	<b>-</b>	<b>2,791</b>	<b>5,246</b>	<b>-</b>	<b>-</b>	<b>5,246</b>

### Coal Made Available for Consumption in Canada, 1934 and 1935

(Short tons)

Month	1934				1935			
	Output	Imports	Exports	Coal made available for use	Output	Imports	Exports	Coal made available for use
January	1,290,708	541,818	17,956	1,814,570	1,519,118	479,026	28,109	1,970,035
February	1,009,996	420,049	26,015	1,404,030	1,036,668	494,491	39,997	1,471,162
March	1,031,525	707,051	19,397	1,719,179	1,037,909	529,142	23,648	1,543,403
April	815,015	451,362	8,134	1,258,243	892,074	652,071	12,868	1,531,277
May	1,005,221	1,548,268	23,763	2,529,726	924,960	1,485,060	19,599	2,390,421
June	982,952	1,532,375	22,370	2,492,957	929,066	1,506,196	33,527	2,401,735
July	991,167	1,545,787	20,884	2,516,070	980,249	1,432,749	41,961	2,371,037
August	1,097,064	1,462,460	26,213	2,533,320	986,746	1,528,319	37,556	2,477,599
September	1,305,798	1,593,859	20,719	2,878,938	1,117,269	1,427,277	33,425	2,511,121
October	1,562,917	1,560,763	45,320	3,078,360	1,555,271	1,314,128	47,278	2,822,121
November	1,429,128	1,666,171	29,634	3,065,665	1,618,058	1,360,058	45,981	2,932,135
December	1,288,702	783,685	45,930	2,026,457	1,287,189	800,581	54,442	2,033,328
<b>Total</b>	<b>13,816,193</b>	<b>13,813,657</b>	<b>306,335</b>	<b>27,317,615</b>	<b>13,864,577</b>	<b>13,609,098</b>	<b>418,391</b>	<b>26,455,284</b>

NOTE.—The imports of coal as shown in the preceding tables refer to the total tonnages received at Canadian ports of entry.

## Coke

## Coke Statistics for Canada, by Months, 1935

(Short tons)

Months	Bituminous coal used in coke making			Coke made	Disposition of coke by makers				Total
	Canadian	Imported	Total		Used		Sold		
					In coke or gas plants	In makers' smelters	For domestic use	For other uses	
January.....	85,563	183,353	268,916	199,868	21,378	43,802	164,251	26,307	255,738
February.....	80,237	169,746	249,983	181,049	20,567	48,044	141,992	25,177	235,780
March.....	87,641	188,906	276,607	198,217	21,978	53,836	99,415	27,666	202,895
April.....	74,940	175,261	250,201	180,243	21,548	48,975	65,056	23,736	159,315
May.....	79,429	177,528	256,957	184,573	21,944	52,477	43,306	19,233	136,960
June.....	73,956	177,785	251,741	179,006	19,725	51,565	49,670	20,298	141,258
July.....	72,888	171,690	244,578	176,291	19,775	48,065	55,387	20,219	141,346
August.....	75,499	169,162	244,661	175,279	17,782	49,509	61,185	21,241	149,717
September.....	81,585	170,413	251,998	179,616	21,053	51,811	87,949	23,452	184,265
October.....	91,546	192,730	284,276	205,213	19,769	55,948	127,199	28,258	231,174
November.....	91,169	194,320	285,489	205,815	19,158	57,128	118,755	28,865	223,936
December.....	99,251	199,162	298,413	216,341	21,306	61,582	150,613	31,606	265,107
<b>Total.....</b>	<b>993,704</b>	<b>2,176,116</b>	<b>3,169,820</b>	<b>2,282,411</b>	<b>242,983</b>	<b>623,642</b>	<b>1,164,868</b>	<b>236,658</b>	<b>2,327,491</b>

## Production in Canada, Imports and Exports of Coke, by Provinces, 1934 and 1935

(Short tons)

	Year	Nova Scotia, New Brunswick and Quebec	Ontario	Manitoba, Saskatchewan, Alberta and British Columbia	Canada
Production.....	1934	654,305	1,388,709	200,406	2,243,420
	1935	730,307	1,361,553	190,551	2,282,411
Imports.....	1934	36,002	881,235	12,984	930,221
	1935	19,920	489,439	14,499	523,658
Exports.....	1934	795	54	6,547	7,396
	1935	604	-	20,045	20,649
Available for Consumption.....	1934	689,512	2,269,890	206,843	3,166,245
	1935	749,623	1,850,992	185,005	2,785,620

## Natural Gas

The Canadian production of natural gas in 1935 rose to 24,191,612 thousand cubic feet from the 1934 total of 23,162,324 thousand cubic feet. Alberta produced 15,700,000 thousand cubic feet or 5.8 per cent above the preceding year's output. The production figures for Alberta include only the natural gas consumed for industrial and domestic purposes and do not take into account waste gas burned in the Turner Valley field and the gas piped into the Bow Island field for storage. Production from Ontario wells advanced 1.5 per cent to 7,800,000 thousand cubic feet from the 1934 total of 7,682,851 thousand cubic feet. The Stony Creek field in New Brunswick produced 615,454 thousand cubic feet of gas as against 623,601 thousand cubic feet in the preceding year. Saskatchewan's output of 75,558 thousand cubic feet was obtained from the Lloydminster well.

## Production in Canada and Imports of Natural Gas, 1934 and 1935

	1934		1935	
	M cu. ft.	Value	M cu. ft.	Value
<b>PRODUCTION—</b>		\$		\$
New Brunswick.....	623,601	306,005	615,454	303,884
Ontario.....	7,682,851	4,741,368	7,800,000	4,680,000
Manitoba.....	600	180	600	180
Saskatchewan.....	13,781	4,823	75,558	7,555
Alberta.....	14,841,491	3,707,276	15,700,000	4,105,000
<b>Total.....</b>	<b>23,162,324</b>	<b>8,759,652</b>	<b>24,191,612</b>	<b>9,096,619</b>
<b>IMPORTS—</b>				
Gas for cooking, heating or illuminating, imported by pipe line....	107,171	69,734	106,401	70,154

## Peat

Canada produced 1,340 tons of peat for use as fuel during 1935; in the previous year 1,878 tons were produced. The 1935 output was obtained from bogs in the Province of Ontario.

## Petroleum

Crude petroleum production in Canada during 1935 advanced slightly to 1,429,386 barrels from the previous year's total of 1,410,895 barrels. Operators in New Brunswick, Ontario, and the Northwest Territories reported increased outputs during the year, on the other hand, there was a slight falling-off in Alberta's production.

A new absorption plant was completed by the Royalite Oil Company in the Turner Valley field, Alberta, early in July. This is the third absorption plant operating in the Turner Valley field. Approximately 711,000 barrels of naphtha were recovered in separators in this field; the remainder of the output was recovered in absorption plants.

## Production of Crude Petroleum in Canada, 1934 and 1935

Province	1934		1935	
	Barrels	Value	Barrels	Value
		\$		\$
<b>NEW BRUNSWICK.....</b>	<b>11,106</b>	<b>22,277</b>	<b>(a) 13,359</b>	<b>26,718</b>
<b>ONTARIO—</b>				
Petrolia and Enniskillen.....	57,938	121,642	59,282	123,243
Oil Springs.....	29,863	65,984	31,646	68,926
Moore Township.....	2,963	6,221	3,264	9,783
Sarnia Township.....	825	1,732	871	1,810
Plympton Township.....	202	424	237	493
Bothwell Township.....	32,133	67,463	34,714	72,136
West Dover.....	558	1,171	13,117	27,257
Onondaga.....	601	1,311	431	874
Mosa Township.....	9,031	18,961	8,788	18,262
Brooke.....	1,941	4,075	122	254
Dunwich.....	283	594	408	848
Raleigh.....	264	554	195	405
Thamesville.....	614	1,289	428	889
Dawn and Eapleimia.....	4,169	8,753	11,538	23,976
<b>Total for Ontario.....</b>	<b>141,385</b>	<b>299,874</b>	<b>165,041</b>	<b>346,156</b>
<b>ALBERTA—</b>				
Turner Valley.....	1,220,862	3,065,955	1,215,599	3,046,547
Red Coulee—Kebo.....	20,854	28,651	14,772	18,847
Wainwright—Skiff.....	12,250	10,817	15,500	12,889
<b>Total for Alberta.....</b>	<b>1,253,966</b>	<b>3,104,823</b>	<b>1,245,871</b>	<b>3,078,283</b>
<b>NORTHWEST TERRITORIES.....</b>	<b>4,438</b>	<b>22,188</b>	<b>5,115</b>	<b>25,573</b>
<b>Canada.....</b>	<b>1,410,895</b>	<b>3,449,162</b>	<b>1,429,386</b>	<b>3,476,730</b>

(a) Well output.



## Imports into Canada and Exports of Petroleum and Its Products, 1934 and 1935

	1934		1935	
	Quantity	Value	Quantity	Value
		\$		\$
<b>IMPORTS—</b>				
Asphaltum solid.....cwt.	100,305	114,951	120,024	120,979
Asphaltum not solid.....gal.	98,657	11,030	113,104	12,265
Asphaltum oil for paving purposes only.....gal.	14,619	1,832	29,035	2,338
Crude petroleum in the natural state, 0.7900 specific gravity or heavier at 60 degrees temperature, when imported by oil refiners to be refined in their own factories.....gal.	1,072,327,425	31,907,176	1,156,788,480	33,816,433
Crude petroleum, gas oils other than naphtha, benzine and gasoline lighter than 0.8235 but not less than 0.775 specific gravity at 60 degrees.....gal.	181,278	9,740	29,797	1,728
Petroleum, and other oils imported by miners or mining companies or concerns for use in the concentration of ores of metals in their own concentrating establishments.....gal.	77,126	85,364	68,155	49,354
Petroleum, crude, not in its natural state, 0.725 specific gravity or heavier, but not heavier than 0.770 specific gravity, at 60 degrees temperature when imported by oil refiners to be refined in their own factories.....gal.	1,782,276	98,920	1,098,559	66,558
<b>KEROSENE, FUEL AND ILLUMINATING OILS</b>				
Coal oil and kerosene lighter than .8235 specific gravity at 60 degrees temperature, n.o.p.....gal.	1,985,739	142,025	1,269,150	111,667
Illuminating oils, composed wholly or in part of the products of petroleum, coal, shale or lignite, costing more than 30 cents per gallon.....gal.	1,062	345	3,337	1,120
Engine distillate lighter than 0.8235 specific gravity at 60 degrees temperature.....gal.	132,795	12,946	83,962	8,731
Petroleum (not including crude petroleum imported to be refined or illuminating or lubricating oils) 0.8235 specific gravity or heavier at 60 degrees temperature (fuel oil).....gal.	32,959,499	1,149,341	30,887,850	1,108,762
Fuel oil, ex-warehoused for ships' stores.....gal.	23,481,946	589,843	18,389,802	507,283
<b>LUBRICATING OILS</b>				
Lubricating oils, composed wholly or in part of petroleum, and costing less than 25 cents per gallon.....gal.	6,872,364	1,047,882	10,232,069	1,457,333
Lubricating oils, n.o.p.....gal.	3,048,960	1,345,094	3,010,201	1,188,992
<b>GASOLINE AND OTHER OILS</b>				
Natural casinghead, compression or absorption gasoline lighter than 0.6690 specific gravity at 60 degrees temperature, when imported by distillers of petroleum for blending with other gasoline distilled in Canada.....gal.	48,376,014	2,593,460	48,417,345	2,589,814
Gasoline lighter than 0.8235 specific gravity at 60 degrees temperature.....gal.	13,205,856	1,248,497	19,614,867	1,661,306
All other oils, n.o.p.....gal.	580,667	117,509	3,103,221	233,080
<b>OTHER PRODUCTS OF PETROLEUM</b>				
Gresse, axle.....lb.	3,374,842	169,183	3,973,299	203,310
Paraffine wax.....lb.	6,063,526	268,741	5,234,224	196,118
Paraffine wax candles.....lb.	146,075	28,647	164,500	30,737
Vaseline, and all similar preparations of petroleum for toilet, medicinal or other purposes.....	-	241,063	-	252,740
Naphtha and products of petroleum, n.o.p., lighter than 0.8235 specific gravity at 60 degrees temperature.....gal.	1,868,361	142,927	1,022,743	165,278
<b>Total</b> .....	-	<b>41,336,516</b>	-	<b>44,002,526</b>
<b>EXPORTS—</b>				
Oil, petroleum, crude.....gal.	5,438	497	897	132
Oil, coal and kerosene, refined.....gal.	782,350	78,618	806,760	99,783
Oil, gasoline and naphtha.....gal.	4,757,175	528,197	3,357,110	413,469
Fuel Oil (From April 1, 1935).....gal.	-	-	8,349,733	240,577
Oil, mineral, n.o.p.....gal.	12,994,817	585,785	1,152,090	144,541
Wax, mineral.....cwt.	2,633	10,219	5,829	26,022
<b>Total</b> .....	-	<b>1,203,316</b>	-	<b>924,524</b>

## NON-METALLICS (except Fuels)

## Abrasives

**Corundum**—Corundum is found in Canada in the northern part of Hastings and Renfrew counties of Ontario. No production has been reported for several years.

**Grindstones, Pulpstones and Scythestones**—Quarries for the production of these products are located at Shediac, Stonehaven, and in the Parish of Derby, New Brunswick, Pictou county, Nova Scotia, and at Haddington and Gabriola Islands, British Columbia. Crude blocks produced at Quarry Island, Nova Scotia, are shipped to the Stonehaven dressing works for the production of grindstones. Scythestones and grindstones are made at Stonehaven, New Brunswick, from local stone. Pulpstones were produced in British Columbia during 1935 by a company operating quarries at Gabriola and Haddington Islands. The total production of these particular abrasives in 1935 totalled 708 tons valued at \$34,010.

**Volcanic Dust**.—Volcanic dust was produced for some years from deposits occurring in Saskatchewan; volcanic dust also occurs in Alberta and British Columbia. The product is utilized as a filler, abrasive and filtering medium; no production was reported in the Dominion for 1935.

**Diatomite**.—Diatomite was produced during 1935 at New Annan and Little River, Nova Scotia; Martin's Siding, Muskoka district, Ontario, and at Quesnel, British Columbia. Production in Canada in 1935 amounted to 823 tons valued at \$33,140.

## Imports into Canada and Exports of Abrasives in 1934 and 1935

	1934		1935	
	Quantity	Value	Quantity	Value
		\$		\$
<b>IMPORTS</b>				
Artificial abrasives in bulk, crushed or ground when imported for use in the manufacture of abrasive wheels and polishing composition....	-	306,377	-	454,818
Diamond dust or bort, and black diamonds for borers.....	-	1,395,404	-	1,578,503
Emery in bulk, crushed or ground.....	-	40,709	-	42,102
Grinding wheels, manufactured by the bonding together of either natural or artificial abrasives.....	-	103,630	-	76,246
Grinding stones or blocks manufactured by the bonding together of either natural or artificial abrasives.....	-	10,366	-	9,253
Grindstones, not mounted, and not less than 36 inches in diameter. No.	1,024	140,327	1,089	140,208
Grindstones, n.o.p..... No.	4,056	4,491	3,683	4,015
Pumice and pumice stone, lava and calcareous tufa, not further manufactured than ground.....	-	25,142	-	30,971
Sand paper, glass, flint and emery paper or emery cloth.....	-	92,046	-	114,617
Manufactures of emery or of artificial abrasives, n.o.p.....	-	38,342	-	43,616
Diatomaceous earth or infusorial earth (kieselguhr), ground or unground..... cwt.	24,832	39,315	38,470	56,832
<b>Total</b> .....	-	<b>2,196,149</b>	-	<b>2,551,181</b>
<b>EXPORTS</b>				
Grindstones, manufactured.....	-	4,947	-	74
Abrasives—				
Natural, n.o.p., in ore or bulk, crushed or ground*..... cwt.	26,434	33,512	11,128	15,501
Artificial, crude, including silicon carbide..... cwt.	1,267,651	3,869,013	1,401,635	3,925,364
Artificial, made up into wheels, stones, etc.....	-	43,838	-	51,676
<b>Total</b> .....	-	<b>3,951,910</b>	-	<b>3,992,615</b>

\* Including infusorial earth, rotten stones, tripoli, etc.

## Asbestos

Canadian asbestos production in 1935 experienced a pronounced increase over that of the preceding year in both quantity and value; the 1935 shipments totalled 210,467 tons valued at \$7,054,614 as compared with 155,980 tons at \$4,936,326 in 1934. The mineral in 1935, as for many years past, came entirely from the Eastern Townships of the province of Quebec. It

is interesting, however, to note that during the past year extensive development work was conducted at the Ralm Lake asbestos mine located in Bannockburn township, Montreal River Mining Division, Ontario; considerable asbestos rock containing chrysotile fibre was mined and the company is contemplating the erection of a mill.

### Sales of Asbestos in Canada, 1934 and 1935

Grades	1934			1935		
	Shipments and sales		Average value per ton	Shipments and sales		Average value per ton
	Tons	Value		Tons	Value	
		\$	\$		\$	\$
Crudes.....	1,663	409,853	246.45	2,278	539,558	236.86
Fibres.....	77,465	3,456,389	44.62	102,270	4,873,255	47.05
Shorts.....	70,852	1,070,074	13.92	105,919	1,641,801	15.50
<b>Total.....</b>	<b>155,980</b>	<b>4,936,316</b>	<b>31.65</b>	<b>210,467</b>	<b>7,054,614</b>	<b>33.52</b>
Sands, gravel and stone (waste rock only)...	4,672	3,480	0.74	3,025	2,063	0.68
<b>Total.....</b>	<b>160,652</b>	<b>4,939,806</b>	<b>-</b>	<b>213,492</b>	<b>7,056,677</b>	<b>-</b>
		1934 Tons			1935 Tons	
Rock mined.....		2,320,750			2,852,118	
Rock milled.....		1,935,129			2,256,994	

### Imports into Canada and Exports of Asbestos, 1934 and 1935

	1934		1935	
	tons	\$	tons	\$
<b>IMPORTS—</b>				
Asbestos brake and clutch lining.....	-	218,052	-	235,620
Asbestos in any form other than crude, and all manufactures of, n.o.p.	-	408,020	-	420,469
Asbestos packing.....	83	64,713	60	56,208
<b>Total.....</b>	<b>-</b>	<b>690,785</b>	<b>-</b>	<b>712,297</b>
<b>EXPORTS—</b>				
Asbestos.....	83,267	4,029,191	100,186	5,300,176
Asbestos sand and waste.....	74,977	1,100,305	100,025	1,585,481
Asbestos manufactures, including asbestos roofing.....	-	140,826	-	175,452
<b>Total.....</b>	<b>-</b>	<b>5,270,322</b>	<b>-</b>	<b>7,061,109</b>

### Barite

There has been no important production of barite in Canada for some time. For a number of years a small amount was produced from a deposit at Lake Ainslie, Nova Scotia, but this operation has now been abandoned. Other Canadian deposits are located in Ontario in the Thunder Bay district, near Night Hawk Lake, in the Porcupine district, and in North Burgess and Yarrow Townships, Lanark county.

### Bituminous Sands

Bituminous sands occur in the Fort McMurray district of Alberta and investigations leading to the utilization of this material have been carried on for some years. Experiments have followed three main channels—(1) the use as a bituminous binder in road construction; (2) the use of separated bitumen as a source of gasoline, lubricants, etc., and (3) its use for the production of certain of the higher priced classes of asphaltic materials. Production in 1935 totalled 40 tons valued at \$160 as compared with 862 tons worth \$3,449 in 1934.

### Feldspar

Canadian production of feldspar in 1935, as in 1934, came entirely from the province of Quebec, Ontario and Manitoba. It is worthy of note that prior to 1933 the commercial output of feldspar was confined only to Quebec and Ontario with the exception of the year 1921 when a relatively small tonnage was shipped in Nova Scotia. In 1933 feldspar was recorded as being mined and sold on a commercial basis for the first time in Manitoba.

Most of the feldspar mined in Canada is of the high-potash variety. Deposits of soda-rich spar are relatively uncommon and often carry a high proportion of objectionable impurities. A proportion of the best grade feldspar mined in the Buckingham district, Quebec, is utilized for dental purposes.

A considerable part of the Canadian output is now ground in Canada, the product being used in the manufacture of glass, enamels, electrical porcelain and vitrified ware. It also enters into the manufacture of floor and wall tile, and in the finely ground form, as an ingredient in scouring soaps.

#### Production in Canada, Imports and Exports of Feldspar, 1934 and 1935

	1934		1935	
	Tons	Value	Tons	Value
<b>PRODUCTION—(Sales)</b>		\$		\$
Quebec.....	9,207	78,853	7,899	67,378
Ontario.....	7,302	61,665	8,656	75,003
Manitoba.....	1,793	6,763	1,922	7,207
<b>Total</b> .....	<b>18,302</b>	<b>147,281</b>	<b>18,477</b>	<b>149,588</b>
<b>IMPORTS—Total</b> .....	<b>1,039</b>	<b>15,245</b>	<b>698</b>	<b>10,995</b>
<b>EXPORTS—Total</b> .....	<b>10,532</b>	<b>65,158</b>	<b>9,959</b>	<b>59,883</b>

### Fluorspar

Fluorspar production in Canada in 1935 totalled 225 tons valued at \$2,700; this came entirely from Hastings county, Ontario. Fluorspar also occurs at the Rock Candy Mine situated north of Grand Forks, British Columbia. This mine is owned by the Consolidated Mining and Smelting Co. Ltd., and supplies fluorspar when necessary for their metallurgical operations at Trail.

Imports of fluorspar into Canada during 1935 amounted to 11,591 tons valued at \$92,775; as against 7,220 tons valued at \$56,628 in 1934.

### Graphite

The entire output of graphite in Canada during 1935 came from the Black Donald mine in Renfrew county, Ontario, where steady operations were maintained throughout the year and various grades of refined graphite were shipped; it is interesting to note that the product of this company is now reported as being successfully employed in the manufacture of pencils.

Recent trends in industrial consumption of graphite indicate that the use of Madagascar flake is increasing for the manufacture of crucibles; Ceylon graphite was at one time used almost exclusively for this purpose. The reported success in milling of the Ceylon and Canadian mineral for pencils may eventually prove of considerable economic importance to producers in these countries; Mexican graphite was employed largely for pencil manufacture during past years.

The world consumption of graphite has been estimated at approximately 20 per cent for crucibles, 40 per cent for foundry work, 15 per cent for paints, 7 per cent for electrical conductors, 7 per cent for lubricants, 5 per cent for electric batteries, 4 per cent for crayons and 2 per cent for miscellaneous purposes.

Some of the more important graphite producing countries are Germany, Korea, Austria, Madagascar, Ceylon, Italy and Mexico.

### Production, Imports and Exports of Graphite, 1934 and 1935

	1934		1935	
	Tons	Value	Tons	Value
		\$		\$
<b>PRODUCTION..... Total</b>	-	<b>71,424</b>	-	<b>78,500</b>
<b>IMPORTS—</b>				
Crucibles, plumbago .....	-	36,363	-	38,066
Plumbago, not ground or otherwise manufactured.....	-	2,989	-	6,559
Plumbago, ground, and manufactures of, n.o.p.....	-	103,652	-	92,852
<b>Total.....</b>	-	<b>143,004</b>	-	<b>137,477</b>
<b>EXPORTS—</b>				
Graphite or plumbago, crude or refined.....	<b>1,935</b>	<b>90,129</b>	<b>3,548</b>	<b>145,772</b>

### Gypsum

Gypsum is mined in Nova Scotia, New Brunswick, Ontario, Manitoba and British Columbia. Production in 1935 showed a considerable improvement over 1934.

Gypsum products are placed on the market in many different forms, some of which are hard-wall plaster, wood fibre plaster, beam and column fireproofing, roof and partition tile, wallboard, and in other forms for insulating and fire resisting purposes.

The possibilities for expansion of the gypsum industry in Canada are considered bright. The increasing tendency in construction to make buildings as nearly fireproof as possible has greatly increased the demand for gypsum products; special insulating plasters and other products prepared from gypsum have been developed and are finding a ready market. In the field of sound-deadening products, the market for acoustic plasters prepared from gypsum is being rapidly extended.

### Production in Canada, Imports and Exports of Gypsum, 1934 and 1935

	1934		1935	
	Tons	Value	Tons	Value
		\$		\$
<b>PRODUCTION—(Sales)</b>				
<b>Crude—</b>				
(1) Lump or mine run.....	33,165	41,475	38,403	54,122
Crushed.....	369,696	473,558	337,699	488,185
Fine ground.....	652	3,494	369	2,893
(2) Calcined.....	57,724	345,249	65,393	387,002
<b>Total.....</b>	<b>461,237</b>	<b>863,776</b>	<b>541,864</b>	<b>932,203</b>
<b>IMPORTS—</b>				
Gypsum, crude (sulphate of lime).....	18	320	17	196
Plaster of Paris or gypsum ground, not calcined .....	173	4,938	202	7,846
Plaster of Paris or gypsum calcined and prepared wall plaster.....	551	15,890	1,727	27,676
<b>Total.....</b>	<b>742</b>	<b>21,148</b>	<b>2,006</b>	<b>35,718</b>
<b>EXPORTS—</b>				
Gypsum or plaster, crude.....	354,978	413,961	439,341	508,338
Plaster of Paris, ground, and prepared wall plaster.....	712	16,078	717	38,074
<b>Total.....</b>	<b>355,690</b>	<b>430,039</b>	<b>440,058</b>	<b>546,412</b>

(1) Includes some anhydrite produced in Nova Scotia.

(2) Does not include gypsum calcined in the manufacturing plants at Montreal and Calgary.

### Iron Oxides

Canadian iron oxides are marketed in two forms, crude and calcined. Crude oxides are dried before shipment for use in the purification of illuminating gas while the calcined product is ground usually for consumption as a pigment in the paint industry. Shipments of iron oxides, including both the crude and calcined totalled 5,396 tons valued at \$76,745.

Quebec has been the principal producer of iron oxides, though a small annual production has been reported from British Columbia where it is used for purifying illuminating gas. The Department of Mines, Ottawa, reports that the present producing localities have been able to

meet the requirements of the domestic pigment trade for the cheaper grades for many years past. Should the demand increase, there are other prospective deposits which could be drawn upon; two of these are located in the townships of Iberville and Bergeronnes, Saguenay county, Quebec. Deposits of ochres are also known to exist in Nova Scotia, Alberta, British Columbia, Saskatchewan and Manitoba.

Imports of ochrey earths, oxides, etc., totalled 1,554 tons valued at \$54,661 as compared with 1,028 tons worth \$39,380 in 1934.

### Magnetitic-Dolomite

The production of this material in Canada is confined to Argenteuil county, Quebec, the deposits occurring some sixty miles west of Montreal and north of the Ottawa river. Steady operations were maintained during 1935 in this area by the International Magnesite Company, Ltd., and Canadian Refractories Ltd. The latter company crush and grind the crude rock to about 100 mesh after which it is burnt in rotary kilns to an inert state.

Magnesia products are utilized principally in manufacture of refractories such as the lining for steel furnaces; it is also used to a lesser extent as a refractory cement. Floors and floor tiles are made from caustic-calcined magnesia and a new development in the industry is the production of refractory brick from dead-burned Canadian magnetitic-dolomite.

### Production in Canada, Imports and Exports, of Magnetitic-Dolomite, 1934 and 1935

	1934		1935	
	Tons	Value	Tons	Value
		\$		\$
<b>PRODUCTION—</b>				
Calcined or clinkered— <b>Total</b> .....	-	<b>352,927</b>	-	<b>628,558</b>
<b>IMPORTS—</b>				
Magnesia pipe covering.....	-	45,759	-	37,523
Magnesite, crude rock.....	-	35	-	8
Magnesite, dead burned, sintered, caustic, calcined or plastic magnesia.....	472	26,740	765	42,644
Brick, fire, magnesite.....	-	396,664	-	384,141
<b>Total</b> .....	-	<b>463,198</b>	-	<b>464,316</b>
<b>EXPORTS—</b>				
Magnesite, calcined, dead burned, etc.....	1,997	56,670	1,577	43,338

### Magnesium-Sulphate

Production of natural magnesium sulphate in Canada during 1935 totalled 340 tons valued at \$7,965 as compared with an output of 42 tons worth \$1,100 in 1934. Production represents salts recovered from deposits in the Kamloops district, British Columbia, and which were treated in a plant at Ashcroft, British Columbia. The mineral also occurs in association with sodium sulphate in deposits in Saskatchewan. Magnesium sulphate has a medicinal value under the name of Epsom salts and it is used in the finishing of cotton fabrics and for weighting paper, silk and leather.

Imports of magnesium sulphate or Epsom salts totalled 1,842 tons valued at \$40,407 in 1935 as compared with 2,300 tons worth \$48,459 in 1934.

### Mica

In 1934 mica was produced in Quebec, Ontario and British Columbia, but the output of this mineral during 1935 was confined to the two first mentioned provinces.

The Canadian mica production is confined almost exclusively to the phlogopite variety termed in the trade—amber mica. Deposits of muscovite or white mica are known, but attempts to mine this type have usually not proved profitable, and the production has been negligible. The productive mica region lies, for the most part, within a radius of about one hundred miles from the city of Ottawa, the northern portion of the field lying principally between or adjacent to the Gatineau and Lièvre rivers, in Quebec, and the southern portion in the Perth-Kingston district in Ontario.

## Production of Mica in Canada, 1934 and 1935

Grade	1934			1935		
	Quantity	Value, f.o.b. shipping point	Price per pound	Quantity	Value, f.o.b. shipping point	Price per pound
	Lb.	\$	\$	Lb.	\$	\$
Knife trimmed.....	61,003	25,628	0.42	111,459	52,959	0.48
Thumb trimmed.....	90,726	27,360	0.30	12,013	3,616	0.30
Spittings.....	75,050	33,120	0.44	32,921	15,506	0.47
Scrap.....	1,700,031	10,449	0.006	1,068,618	7,509	0.007
Rough cobbed.....	2,459	514	0.21	30,605	2,448	0.08
<b>Total.....</b>	<b>1,995,269</b>	<b>97,071</b>	<b>-</b>	<b>1,277,612</b>	<b>82,038</b>	<b>-</b>

## Imports into Canada and Exports of Mica, 1934 and 1935

	1934		1935	
	Tons	Value	Tons	Value
		\$		\$
<b>IMPORTS—</b>				
Mica and manufactures of, n.o.p.— <b>Total.....</b>	-	<b>62,690</b>	-	<b>66,801</b>
<b>EXPORTS—</b>				
Rough cobbed and thumb trimmed.....	95	69,574	75	52,196
Mica splittings.....	44	38,602	17	16,615
Mica, scrap and waste.....	840	7,736	670	6,189
Mica, plate, and manufactures of (micanite).....	-	1,890	-	950
<b>Total.....</b>	<b>-</b>	<b>117,802</b>	<b>-</b>	<b>75,950</b>

## Mineral Waters

Sales of natural mineral waters in Canada during 1935 totalled 145,116 imperial gallons valued at \$16,540 as compared with 97,440 imperial gallons valued at \$17,738 in 1934. These shipments were made from mineral springs located in Ontario and Quebec.

Imports of natural mineral waters, not in bottles, during 1935 amounted to 83 gallons valued at \$46. Mineral and aerated waters, n.o.p., imported during 1935 totalled \$85,040. Exports of mineral and aerated waters amounted in value to \$4,627.

## Phosphate

Shipments of Canadian mined phosphate during 1935 totalled 186 tons valued at \$1,103 as compared with 81 tons worth \$683 in 1934. The output in 1935 was mined entirely in the provinces of Quebec and Ontario.

Imported rock is used in the manufacture of superphosphates by Canadian fertilizer manufacturers. The Consolidated Mining and Smelting Co. Ltd., Trail, B.C., have investigated the possibilities of the utilization of a rock phosphate from the Crow's Nest District of British Columbia for the manufacture of superphosphate. At the present time, however, their supply of this raw material is imported from the States of Idaho and Montana, directly south of the International boundary. Imports of phosphate rock (fertilizer) totalled 63,514 tons valued at \$234,580 as against 31,775 tons valued at \$165,240 in 1934.

## Pyrites (Sulphur)

The sulphur content of pyrites shipped and sulphur recovered from non-ferrous smelter gas amounted in 1935 to 67,446 tons valued at \$634,235 as compared with 51,537 tons worth \$515,502 in 1934. Production during both years came from the provinces of Quebec, Ontario and British Columbia.

No pyrites is being directly mined as such at the present time, but pyrites concentrates which are separated from copper sulphides at Eustis, Quebec, and at the Britannia mine, British Columbia, are sold to Canadian and foreign consumers. Part of the concentrate from the

Britannia mine is exported to the Tacoma smelter for use as a fluxing material. Sulphuric acid is made from waste smelter gases at the Trail and Copper Cliff smelters. Elemental sulphur is also being recovered from smelter gases at Trail.

### Production in Canada, Imports and Exports of Pyrites, 1934 and 1935

	1934		1935	
	Sulphur content	Value	Sulphur content	Value
	tons	\$	tons	\$
<b>*PRODUCTION—</b>				
Quebec.....	4,908	50,398	7,370	47,779
Ontario.....	14,598	145,980	13,292	132,920
British Columbia.....	32,031	319,124	46,784	453,536
<b>Total.....</b>	<b>51,537</b>	<b>515,502</b>	<b>67,446</b>	<b>634,235</b>
<b>IMPORTS—</b>				
Brimestone, or sulphur, crude or in roll or flour.....	157,697	2,589,311	136,675	2,207,650
<b>EXPORTS—</b>				
Pyrites (Sulphur content).....	9,821	94,623	7,610	48,446

\*Includes sulphur in pyrites, concentrates and sulphur recovered from smelter gases.

### Quartz

Figures on the Canadian production of quartz include silica used by smelters for fluxing purposes, in the manufacture of scouring compounds, for glass manufacturing, moulding, ferro-silicon, brick-making, and for artificial abrasive manufacture. The price range per ton varies greatly, depending on the purity of the product, which in turn depends on the purpose for which it is to be used. Several modern plants are now in operation in Eastern Canada for the production of ground and crushed silica products. The mineral is often associated with feldspar and is produced in Nova Scotia, Quebec, Ontario, Manitoba, Saskatchewan and British Columbia.

### Production in Canada and Imports of Quartz,\* 1934 and 1935

	1934		1935	
	Tons	Value	Tons	Value
		\$		\$
<b>PRODUCTION—</b>				
Nova Scotia.....	7,292	12,107	9,640	13,978
Quebec.....	57,208	229,817	49,938	222,699
Ontario.....	89,838	134,572	83,034	120,005
Manitoba.....	931	3,031	86	86
Saskatchewan.....	92,447	88,748	78,150	62,700
British Columbia.....	24,847	13,990	9,000	4,500
<b>Total.....</b>	<b>272,563</b>	<b>482,265</b>	<b>229,848</b>	<b>423,968</b>
<b>IMPORTS—</b>				
Silica or crystallized quartz, ground or unground.....	2,323	53,430	3,359	75,708
Flint and ground flint stones.....	2,340	28,427	2,277	24,014
Silica sand†.....	96,165	226,188	123,576	282,930
<b>Total.....</b>	<b>100,828</b>	<b>308,045</b>	<b>129,212</b>	<b>382,712</b>

\*Includes both crude and crushed quartz and quartzite, silica fluxing gravel and natural silica sands.

†For making carborundum and glass and for filtration and sand blasting.

### Salt

The quantity of salt produced in Canada during 1935 was the greatest in the history of the Canadian salt industry.

Salt is produced in widely different sections of Canada. At the Malagash mine in Nova Scotia it is produced by direct mining, and in Ontario, Manitoba and Saskatchewan, it is extracted by evaporation from a brine solution. Very little of the Canadian salt production is exported, it is sold in Canada for fish curing, meat curing, dairy purposes, and as table salt. It is especially interesting to note the rapidly increasing shipments of salt for consumption in the chemical industry; the quantity of this Canadian mineral reported for such purposes rising from 96,242 tons in 1932 to 145,433 tons in 1935, an increase of 51.1 per cent within four years.



## Production of Salt in Canada, by Grades, 1934 and 1935

Grade	1934			1935		
	Manu- factured	Sold	Value of salt sold (Not includ- ing con- tainers)	Manu- factured	Sold	Value of salt sold (Not includ- ing con- tainers)
	Tons	Tons	\$	Tons	Tons	\$
Table, dairy and pressed blocks.....	71,249	69,779	1,098,817	72,210	73,704	990,222
Common, fine.....	66,191	67,777	384,873	84,748	82,608	422,724
Common, coarse.....	20,224	20,488	185,926	23,057	22,014	181,543
Land salt.....	403	402	1,320	289	261	962
Other grades.....	41,835	39,175	159,885	32,438	36,323	140,094
Brine for chemical works (Salt equivalent sold or used).....	124,132	124,132	124,132	145,433	145,433	145,433
<b>Total.....</b>	<b>324,037</b>	<b>321,753</b>	<b>1,854,933</b>	<b>358,225</b>	<b>360,343</b>	<b>1,880,978</b>
Value of containers.....	-	-	603,369	-	-	492,050
<b>Grand total.....</b>	<b>324,037</b>	<b>321,753</b>	<b>2,558,322</b>	<b>358,225</b>	<b>360,343</b>	<b>2,373,028</b>

## Imports into Canada and Exports of Salt, 1934 and 1935

	1934		1935	
	Tons	Value	Tons	Value
		\$		\$
<b>IMPORTS—</b>				
Salt, for use of the sea or gulf fisheries.....	57,272	173,023	50,942	147,611
Salt, in bulk, n.o.p.....	42,256	166,949	46,610	183,447
Salt, n.o.p., in bags, barrels, etc.....	37,471	234,120	30,628	103,520
Salt, table, made by an admixture of other ingredients, when con- taining not less than 90 per cent of pure salt.....	1,795	11,941	67	2,162
<b>Total.....</b>	<b>138,794</b>	<b>586,033</b>	<b>128,247</b>	<b>526,740</b>
<b>EXPORTS—</b>				
<b>Total.....</b>	<b>6,597</b>	<b>48,097</b>	<b>9,045</b>	<b>51,239</b>

## Sodium Carbonate

Sodium carbonate production totalled 242 tons valued at \$2,430 during 1935 as compared with 244 tons worth \$1,920 in the preceding year and came entirely from deposits located on or near the line of the Pacific and Great Eastern Railway in British Columbia.

Sodium carbonate, or soda ash, has many industrial uses, being employed in the manufacture of glass, soap, and in the purification of oils, etc.

Imports of soda ash or barilla during 1935 totalled 1,324 tons valued at \$37,995 as compared with 1,155 tons worth \$32,258 in 1934. Soda ash consumed in the manufacture of non-metallic mineral products in Canada was evaluated at \$644,655 in 1934.

## Sodium Sulphate

Natural sodium sulphate occurs in deposits of considerable magnitude in Western Canada. In 1935, as for some years past, the entire Canadian production came from the province of Saskatchewan. The output in 1935 totalled 44,817 tons valued at \$343,764, as compared with 66,821 tons worth \$587,986 in 1934 when the quantity and value of the production represented all-time high records for this particular industry.

Sodium sulphate finds its principal use in the pulp and paper industry for the manufacture of "kraft paper" by the sulphate process, in the manufacture of glass, in the dyes industry, in the smelting of nickel-copper ores, and as one of the raw materials in the manufacture of sodium carbonate.

Imports of salt cake in 1935 totalled 5,176 tons valued at \$49,354 as against 10,577 tons worth \$123,980 in 1934; nitre cake imports totalled 469 tons worth \$12,793 as compared with 1,896 tons valued at \$20,282 during the preceding year; Glauber's salt imports amounted to 1,584 tons valued at \$26,591 in 1935.

### Talc and Soapstone

Canadian talc production in 1935, as for some years past, came chiefly from important deposits of foliated white talc located near Madoc, Ontario; two companies operate mines and mills in this area and produce various grades of high quality talc. Preparation of the mineral for the market includes crushing, drying, grinding and bolting; the products from these mills are marketed in Canada, United States and Europe. Both companies were in continuous operation throughout 1935.

In British Columbia shipments of talc were made in 1935 from Anderson and Sooke Lakes; most of the production in this province is consumed in the manufacture of roofing materials.

Soapstone products are produced from deposits of the mineral occurring in the Eastern Townships, Quebec. These properties were actively operated in 1935. The mineral is mainly used, in the shape of blocks, as a refractory lining in alkali recovery furnaces in paper mills using the sulphite process. Powdered soapstone finds a good market as a filler in various industries. Mixed with Portland cement it has been used successfully for interior plastering purposes giving a very white velvet finish. It is now used in the manufacture of fireless cookers, fireplaces, stoves, wood or coal burners and electrical heaters. Soapstone is easily carved and when polished takes a soft marble-streaked appearance. Various objects such as tobacco jars, candlesticks, clock cases, and book-ends made of carved and polished soapstone have lately been put on the market and have met with a gratifying reception.

#### Production in Canada, Imports and Exports of Talc and Soapstone, 1934 and 1935

	1934		1935	
	Tons	Value	Tons	Value
		\$		\$
PRODUCTION—				
Soapstone.....	—	44,297	—	32,053
Talc.....	13,959	136,480	13,803	139,556
<b>Total.....</b>	—	<b>180,777</b>	—	<b>171,609</b>
IMPORTS—				
Talc or soapstone, ground or unground— <b>Total.....</b>	<b>2,897</b>	<b>44,905</b>	<b>2,694</b>	<b>44,503</b>
EXPORTS—				
Talc— <b>Total.....</b>	<b>9,386</b>	<b>103,631</b>	<b>8,927</b>	<b>90,823</b>

### Structural Materials and Clay Products

The close and sympathetic relationship existing between construction and the primary structural materials industries is emphasized in a comparison of the value of \$160,305,000 estimated by MacLean Building Reports Ltd. as the value of contracts awarded in Canada in 1935 and a combined value of \$21,246,725 for cement, clay products, lime, sand and gravel, and stone produced in Canada in the same year with the corresponding values of \$125,811,000 for contracts and \$19,286,761 for structural materials in 1934. Of the structural materials already referred to, encouraging production increases were realized during 1935 for sand and gravel, clay products and lime whereas cement declined somewhat and the stone output showed relatively little change.

#### Cement

Shipments of cement by Canadian producers in 1935 showed a relatively slight decrease in both quantity and value from those of the preceding year. Sales totalled 3,648,086 barrels valued at \$5,580,043 as compared with 3,783,226 barrels at \$5,667,946 in 1934. Limestone consumed by the industry totalled 818,443 short tons and gypsum utilized amounted to 21,612 tons. The cement industry reports a considerable improvement in the use of cement for buildings and small uses, but on the other hand, there was a falling-off in road and street paving and in municipal work generally. While the increase in the one and the decline in the other nearly balanced, there was on the whole, a small decrease in consumption.

## Production in Canada, Imports and Exports of Cement, 1934 and 1935

	1934		1935	
	Barrels	Value	Barrels	Value
		\$		\$
<b>OUTPUT—Total</b> .....	<b>3,484,233</b>	—	<b>3,487,003</b>	—
<b>SALES—</b>				
Quebec.....	1,613,641	2,294,847	1,751,012	2,472,008
Ontario.....	1,702,128	2,403,590	1,243,836	1,752,148
Manitoba.....	181,166	411,247	266,457	604,857
Alberta.....	183,946	326,253	219,555	436,914
British Columbia.....	122,345	232,009	167,226	314,116
<b>Total</b> .....	<b>3,783,226</b>	<b>5,667,946</b>	<b>3,649,886</b>	<b>5,580,043</b>
Stocks, December 31.....	1,562,501	—	1,402,017	—
<b>IMPORTS—</b>				
Portland.....	14,341	45,548	17,738	60,079
Manufactures.....	—	4,167	—	17,102
<b>Total</b> .....	—	<b>49,715</b>	—	<b>77,181</b>
<b>EXPORTS—Total</b> .....	<b>70,046</b>	<b>55,181</b>	<b>55,607</b>	<b>44,365</b>
<b>APPARENT CONSUMPTION—Total</b> .....	<b>3,727,521</b>	—	<b>3,610,217</b>	—

## Clay Products

The combined values of all varieties of clay products, made from domestic clay, produced during 1935 amounted to \$2,946,907 as compared with \$2,680,410 in 1934. Reflecting a stimulation in building were the increases realized over 1934 in the output of almost all grades of brick. Other products to show increases during the year under review were hollow blocks, roofing tile and sewer pipe.

## Production (Sales) of Domestic Clay and Clay Products in Canada, 1934 and 1935

Products	Unit of measure	Sales or Shipments			
		1934		1935	
		Quantity	\$	Quantity	\$
Clay—Bentonite.....	tons	63	1,578	41	781
Fireclay.....	tons	1,043	12,598	2,272	15,574
Kaolin (china clay).....	tons	48	504	170	1,520
Fireclay blocks and shapes.....			62,348		71,344
Firebrick.....	M	2,109	101,210	1,816	90,075
<b>Brick—</b>					
Soft mud process—Face.....	M	4,904	76,247	6,594	115,727
Common.....	M	14,250	183,585	17,353	206,772
Stiff mud process (wire cut)—Face.....	M	23,800	494,341	25,786	511,572
Common.....	M	30,317	424,131	35,134	486,473
Dry press—Face.....	M	6,005	130,392	7,778	160,355
Common.....	M	6,440	66,616	5,000	47,177
Fancy or ornamental brick (including special shapes, embossed and enamelled brick).....	M	43	2,625	13	728
Sewer brick.....	M	307	5,992	175	5,236
Paving brick.....	M	10	382	15	627
<b>Structural tile—</b>					
Hollow blocks (including fireproofing, and load-bearing tile).....	tons	31,136	244,122	44,251	327,058
Roofing tile.....	No.	44,115	1,852	82,015	3,660
Floor tile (quarries).....	sq. ft.	80,356	17,491	51,765	7,629
Ceramic tile.....		—	—	—	615
Drain tile.....	M	7,325	180,563	6,260	177,852
Sewer pipe (including copings, flue linings, etc.).....		—	436,433	—	481,239
Pottery, glazed or unglazed (including coarse earthenware, stoneware, and all other pottery).....		—	223,733	—	221,711
Other products.....		—	13,628	—	13,173
<b>Total</b> .....		—	<b>2,680,410</b>	—	<b>2,946,907</b>

## Imports into Canada and Exports of Clay and Clay Products, 1934 and 1935

	Unit of measure	1934		1935	
		Quantity	\$	Quantity	\$
<b>IMPORTS—</b>					
Building brick .....	ton	1,514	16,673	570	8,519
Building blocks .....	"	-	1,794	-	3,209
Clays—China .....	cwt.	654,999	250,705	708,890	287,997
Fire .....	"	909,972	139,317	993,947	156,361
Pipe .....	"	-	77	-	6,489
Other clays, n.o.p. ....	"	-	196,294	-	258,044
Zirconium silicate .....	"	-	2,029	-	2,307
Zirconium oxide .....	"	-	7,827	-	13,824
Drain tile, unglazed .....	"	-	251	-	11
Drain, sewer pipe and earthenware fittings therefor, chimney linings or vents, chimney tops or inverted blocks, glazed or unglazed .....	"	-	9,799	-	8,219
Tiles or blocks of earthenware or stone prepared for mosaic flooring .....	"	-	39,778	-	28,890
Tiles, earthenware, for roofing purposes .....	"	-	2,172	-	5,146
Tiles, earthenware, n.o.p. ....	"	-	92,835	-	97,779
Insulators, electric, porcelain .....	"	-	62,510	-	63,428
Pottery and chinaware .....	"	-	3,054,124	-	3,363,970
Brick, fire, other, valued at not less than \$100 per M, rectangular shaped; the dimensions of each not to exceed 125 cubic inches for use exclusively in the construction or repair of a furnace, kiln, etc .....	"	-	86,039	-	110,863
Brick, fire, n.o.p., for use exclusively in the construction or repair of a furnace, kiln, or other equipment of a manufacturing establishment .....	"	-	667,471	-	492,961
Firebrick, n.o.p. ....	"	-	47,517	-	224,735
Firebrick, chrome .....	"	-	39,184	-	46,882
Magnesite brick .....	"	-	390,664	-	384,141
Silica brick (containing not less than 90 per cent silica) .....	"	-	210,190	-	215,500
Paving brick .....	ton	1,775	12,035	2,505	18,787
Artificial teeth, not mounted .....	"	-	276,594	-	306,922
Baths, bathtubs, basins, laundry tubs, etc., of earthenware, cement or clay, n.o.p. ....	"	-	113,355	-	85,350
Ceramic insulator cores, not further manufactured than burned and glazed, printed or decorated or not, and without fittings, when imported by manufacturers of spark plugs for use exclusively in the manufacture of spark plugs, in their own factories .....	"	-	109,915	-	130,060
Crucibles, clay or sand .....	"	-	42,142	-	44,580
Other manufactures of clay .....	"	-	56,514	-	73,053
<b>Total</b> .....			<b>5,935,895</b>		<b>6,438,042</b>
<b>EXPORTS—</b>					
Building brick .....	M	549	10,287	367	6,784
Clay—Unmanufactured .....	cwt.	7,619	1,668	5,591	2,595
Manufactured .....	"	-	14,900	-	15,502
Earthenware .....	"	-	33,762	-	49,843
Porcelain insulators .....	"	-	125,742	-	268,400
<b>Total</b> .....			<b>186,359</b>		<b>353,124</b>

## Lime

Production of lime in the Dominion was considerably greater in 1935 than in the preceding year. Increases over 1934 were realized in quantity and value of both the quick and hydrated product. The total production of both varieties totalled 406,225 short tons valued at \$2,932,182 as compared with 368,113 tons at \$2,745,797 in 1934. Increases recorded in 1935 occurred more particularly in Quebec and Ontario, provinces in which are centred some of the larger lime consuming chemical industries.

## Production in Canada, Imports and Exports of Lime, 1934 and 1935

	Total 1934		1935					
			Quicklime		Hydrated lime		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	Tons	\$	Tons	\$	Tons	\$	Tons	\$
<b>PRODUCTION—</b>								
Nova Scotia.....	8,920	67,954	10,998	80,408	333	2,290	11,331	82,698
New Brunswick.....	15,752	126,409	9,529	75,939	6,703	50,054	16,232	125,993
Quebec.....	108,440	641,829	90,900	536,204	25,387	140,801	116,287	677,005
Ontario.....	190,495	1,533,444	197,793	1,477,555	23,379	226,140	221,172	1,703,701
Manitoba.....	16,568	163,608	14,594	115,349	4,021	70,368	18,615	185,717
Alberta.....	7,455	65,697	6,354	54,803	230	2,305	6,584	57,108
British Columbia.....	19,687	151,856	12,085	83,664	3,319	16,266	16,004	99,960
<b>Total.....</b>	<b>367,317</b>	<b>2,752,797</b>	<b>342,853</b>	<b>2,423,922</b>	<b>63,372</b>	<b>508,260</b>	<b>406,225</b>	<b>2,932,182</b>
<b>IMPORTS—Total.....</b>	<b>327</b>	<b>5,118</b>	-	-	-	-	<b>635</b>	<b>9,181</b>
<b>EXPORTS—Total.....</b>	<b>10,675</b>	<b>151,983</b>	-	-	-	-	<b>5,230</b>	<b>50,296</b>

## Stone

Stone shipments at 4,010,081 tons and \$4,811,236 were relatively little different from the 1934 output of 4,077,016 tons worth \$4,152,329. Of the 1935 production Ontario contributed 1,977,695 tons valued at \$1,751,514 and Quebec, 1,342,633 tons worth \$1,987,614. The total tonnage for 1935, as recorded above, comprised 3,469,715 tons of limestone, 252,473 tons of granite, 10,951 tons of marble, and 129,426 tons of sandstone.

A new development during 1934 was the production at Thorold, Ontario, for the first time in Canada, of rock wool. This material is manufactured from an argillaceous-dolomite found in quantity in that neighbourhood. It is used principally as a thermal insulator; it is also used for sound insulation and as an acoustical material. There are now three companies producing this material in Canada.

## Production (Sales) of Stone from Canadian Quarries, by Kinds and by Provinces, 1934 and 1935

Province	Unit of measure	Granite	Limestone	Marble	Sandstone	Total
<b>1934</b>						
Nova Scotia.....	tons	325	105,620	-	17,123	123,068
	\$	12,300	135,962	-	23,055	171,317
New Brunswick.....	tons	5,984	30,356	-	1,578	37,918
	\$	76,793	78,441	-	5,948	161,182
Quebec.....	tons	69,428	1,034,058	9,302	86,304	1,199,132
	\$	488,477	953,815	47,503	85,822	1,575,617
Ontario.....	tons	75,526	2,370,339	4,331	10,104	2,460,300
	\$	128,386	1,788,107	20,556	28,458	1,965,507
Manitoba.....	tons	213	42,914	-	-	43,127
	\$	2,702	50,843	-	-	53,545
Alberta.....	tons	-	2,737	-	-	2,737
	\$	-	8,104	-	-	8,104
British Columbia.....	tons	48,809	161,755	150	-	210,714
	\$	73,081	142,560	1,410	-	217,057
<b>Canada.....</b>	<b>tons</b>	<b>290,285</b>	<b>3,747,779</b>	<b>13,783</b>	<b>115,169</b>	<b>4,077,016</b>
	<b>\$</b>	<b>781,739</b>	<b>3,157,832</b>	<b>69,425</b>	<b>143,283</b>	<b>4,152,329</b>
<b>1935</b>						
Nova Scotia.....	tons	275	8,988	-	176,395	185,658
	\$	12,300	19,188	-	303,230	334,718
New Brunswick.....	tons	6,065	31,612	-	840	38,717
	\$	82,822	78,155	-	19,447	180,424
Quebec.....	tons	137,988	1,109,430	6,204	89,311	1,342,633
	\$	809,292	1,042,942	31,071	107,309	1,987,611
Ontario.....	tons	45,427	1,918,696	4,016	9,556	1,977,695
	\$	101,067	1,590,155	34,274	25,988	1,751,514
Manitoba.....	tons	387	146,100	127	-	146,614
	\$	4,630	183,893	1,233	-	189,756
Alberta.....	tons	-	2,242	-	-	2,242
	\$	-	6,981	-	-	6,981
British Columbia.....	tons	62,631	252,147	904	840	316,522
	\$	84,306	227,862	5,471	42,600	360,239
<b>Canada.....</b>	<b>tons</b>	<b>352,473</b>	<b>3,469,715</b>	<b>10,951</b>	<b>276,942</b>	<b>4,010,081</b>
	<b>\$</b>	<b>1,091,447</b>	<b>3,149,166</b>	<b>72,049</b>	<b>498,574</b>	<b>4,811,236</b>

NOTE.—In addition to the above production there were produced 738 tons of slate at \$4,862 in 1934 and 1,129 tons valued at \$4,329 in 1935; also not included in the limestone statistics are 806,546 tons of limestone consumed in the cement industry in 1934 and 818,443 tons in 1935. Limestone used in the Canadian lime industry is also not included; it is estimated that approximately 600,000 tons of limestone was burned in the manufacture of lime in 1934 and 800,000 tons in 1935.

## Imports and Exports of Stone, 1934 and 1935

	1934		1935	
	Tons	Value \$	Tons	Value \$
<b>IMPORTS—</b>				
Building stone, other than marble or granite, sawn on more than two sides, but not sawn on more than four sides	-	-	-	-
Building stone other than marble or granite, planed, turned, cut or further manufactured than sawn on four sides	1	122	20	1,127
Flagstone, sandstone, and all building stone, not hammered, sawn or chiselled	-	16,879	-	20,193
Flagstone and building stone, other than marble or granite, sawn on not more than two sides	-	2,748	-	2,091
Granite, sawn only	-	4,961	-	8,336
Granite, manufactures of, n.o.p.	-	8,212	-	3,007
Granite monuments	-	19,036	-	22,008
Granite, rough, not hammered or chiselled	-	65,925	-	65,185
Marble, rough, not hammered or chiselled	-	3,144	-	4,926
Marble, sawn or sand rubbed, not polished	-	11,322	-	9,685
Marble, not further manufactured than sawn for tombstones	-	15,078	-	15,246
Marble, manufactures, of, n.o.p.	-	8,440	-	9,640
Refuse stone	364,088	200,398	382,186	202,416
Slate—including roofing, pencils, writing, mantels and manufactures of, n.o.p.	-	40,966	-	36,388
Manufactures of stone, n.o.p.	-	22,126	-	19,416
<b>Total</b>	-	<b>418,357</b>	-	<b>420,264</b>
<b>EXPORTS—</b>				
Crushed stone	52,273	94,794	54,669	98,244
Granite and marble, unwrought	1,153	9,766	1,255	10,301
Freestone, limestone and other building stone, unwrought	-	-	47	433
Dressed stone	-	409	-	1,917
<b>Total</b>	-	<b>104,969</b>	-	<b>110,895</b>

## Sand and Gravel

Production of sand and gravel in 1935 totalled 17,734,078 short tons valued at \$4,972,028 as compared with 14,854,159 short tons worth \$4,035,477 in 1934. Ontario and Quebec with outputs of 7,958,917 tons and 4,703,284 tons, respectively, were the largest provincial producers of these materials in 1935. Imports of sand and gravel in 1935 totalled 98,624 tons valued at \$81,763. Exports were recorded at 100,157 tons worth \$21,446.

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**Manufactures of Non-Ferrous Metals:** Aluminium Products—Brass and Copper Products—White Metal Alloys—Jewellery and Silverware—Electrical Apparatus and Supplies — Miscellaneous Non-Ferrous Metal Products — Non-Ferrous Smelting and Refining.

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#### *Quarterly—*

**Analysis of the Radio Industry in Canada.**

#### *Monthly—*

**Production of Iron and Steel in Canada.**

**Coal and Coke Statistics for Canada.**

**Automobile Statistics for Canada.**

#### **SPECIAL REPORTS.—**

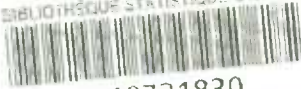
Directory of Chemical Industries as of July 1, 1932.

Consumption of Chemicals in Municipal Waterworks, 1931 and 1932.

The Fertilizer Trade of Canada (annual).

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