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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

1932

Published by Authority of the Hon. H. H. Stevens, M.P.,  
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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.**

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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 10 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. A list of operating companies with their office and plant addresses is included. 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—Directory of Reporting Firms—Notes on the Methods of Computing Values—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.

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#### 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.—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, Magnesite, 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 BACK COVER FOR PUBLICATIONS ON MANUFACTURES BASED CHIEFLY ON MINERALS

## PREFACE

The present statistical report provides in detail the first figures on the mineral production of Canada for the whole of the calendar year 1932. A report of production for the first six months of the year is issued in August, and on January first a preliminary estimate is released in bulletin form.

Lack of demand and low prices are reflected in the total value of production, on the other hand Canada has never in any former year produced as much gold as in 1932. The world production of gold was the greatest on record, even surpassing 1915 the previous peak year. Base metal production though lower than last year held up remarkably well. Exports of refined copper to the United States ceased after the imposition of the duty of four cents per pound, but exports to other countries were enlarged.

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.

Arrangements made several years ago with the provinces of Quebec, Ontario, Manitoba, and British Columbia, whereby the Bureau and these provinces use joint forms for the collection of mineral statistics, are working satisfactorily. By this system the operators are now 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. Losee, 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 9, 1933.

## Quantities and Values of Mineral Products from Canadian Sources, 1931 and 1932

|   | 1931        |                    | 1932        |                    | Per cent Increase (+)<br>or Decrease (-) |              |
|---|-------------|--------------------|-------------|--------------------|--|--------------|
|   | Quantity    | Value              | Quantity    | Value              | Quantity                                 | Value        |
| <b>METALLICS</b>                                    |             |                    |             |                    |  |              |
| Arsenic (As <sub>2</sub> O <sub>3</sub> )..... lb.  | 3,575,936   | 135,170            | -           | 99,008             | -  | -26.8        |
| Bismuth..... lb.                                    | 118,207     | 157,650            | 16,855      | 6,409              | -85.7                                    | -95.9        |
| Cadmium.....  | -           | 180,958            | -           | 26,824             | -  | -85.2        |
| Chromite..... tons                                  | -           | -                  | 54          | 750                | -  | -            |
| Cobalt..... lb.                                     | 521,051     | 651,179            | 490,631     | 589,062            | -5.8                                     | -9.5         |
| Copper..... lb.                                     | 292,304,390 | 24,114,065         | 247,678,503 | 15,294,022         | -15.3                                    | -36.6        |
| Gold..... fine oz.                                  | 2,693,892   | 55,687,688         | 3,050,581   | 63,061,103         | +13.2                                    | +13.2        |
| Lead..... lb.                                       | 267,342,482 | 7,200,183          | 255,949,960 | 5,409,758          | -4.3                                     | -25.5        |
| Manganese ore..... tons                             | 117         | 2,893              | -           | -                  | -  | -            |
| Molybdenite (concentrates)..... lb.                 | 1,222       | 280                | -           | -                  | -  | -            |
| Nickel..... lb.                                     | 65,666,320  | 15,267,453         | 30,327,968  | 7,179,862          | -53.8                                    | -53.0        |
| Palladium, rhodium, iridium, etc..... fine oz.      | 46,918      | 1,217,717          | 37,497      | 897,587            | -20.1                                    | -26.3        |
| Platinum..... fine oz.                              | 44,775      | 1,506,900          | 27,206      | 1,093,885          | -39.2                                    | -31.5        |
| Selenium..... lb.                                   | 21,500      | 40,850             | -           | -                  | -  | -            |
| Silver..... fine oz.                                | 20,562,247  | 6,141,943          | 18,356,393  | 5,813,769          | -10.7                                    | -5.3         |
| Titanium ore.....                                   | 1,509       | 10,261             | -           | -                  | -  | -            |
| Zinc..... lb.                                       | 237,245,451 | 6,059,249          | 172,283,658 | 4,144,454          | -27.4                                    | -31.6        |
| <b>Total.....</b>                                   | -           | <b>119,524,439</b> | -           | <b>103,616,493</b> | -  | <b>-12.6</b> |
| <b>NON-METALLICS</b>                                |             |                    |             |                    |  |              |
| <b>Fuels</b>  |             |                    |             |                    |  |              |
| Coal..... tons                                      | 12,243,211  | 41,207,682         | 11,723,411  | 37,045,272         | -4.2                                     | -10.1        |
| Natural gas..... M cu. ft.                          | 25,874,723  | 9,028,754          | 23,875,978  | 8,682,505          | -7.7                                     | -3.8         |
| Peat..... tons                                      | 1,674       | 7,033              | 3,248       | 7,593              | +94.0                                    | +8.0         |
| Petroleum, crude..... brls.                         | 1,542,573   | 4,211,674          | 1,049,253   | 3,000,886          | -32.0                                    | -28.7        |
| <b>Total.....</b>                                   | -           | <b>54,453,143</b>  | -           | <b>48,736,256</b>  | -  | <b>-10.5</b> |
| <b>Other Non-Metallics</b>                          |             |                    |             |                    |  |              |
| Actinolite..... tons                                | 35          | 456                | -           | -                  | -  | -            |
| Asbestos..... tons                                  | 164,296     | 4,812,886          | 122,977     | 3,039,721          | -25.1                                    | -36.8        |
| Barytes..... tons                                   | 16          | 363                | -           | -                  | -  | -            |
| Bituminous sands..... tons                          | 1,015       | 4,060              | 343         | 1,372              | -66.2                                    | -66.2        |
| Diatomite..... tons                                 | 1,610       | 32,789             | 1,496       | 29,509             | -7.1                                     | -10.0        |
| Feldspar..... tons                                  | 18,343      | 186,961            | 6,921       | 81,107             | -62.3                                    | -56.6        |
| Fluorspar..... tons                                 | 40          | 620                | 32          | 464                | -20.0                                    | -25.2        |
| Graphite..... tons                                  | 548         | 32,149             | 346         | 18,483             | -36.9                                    | -42.5        |
| Grindstones..... tons                               | 621         | 38,103             | 316         | 14,795             | -49.1                                    | -61.2        |
| Gypsum..... tons                                    | 803,752     | 2,111,517          | 438,629     | 1,080,379          | -49.2                                    | -48.8        |
| Iron oxides (ochre)..... tons                       | 5,520       | 49,205             | 5,240       | 46,161             | -5.1                                     | -6.2         |
| Magnesite..... tons                                 | 11,411      | 295,579            | 8,892       | 262,860            | -22.1                                    | -11.1        |
| Manganese (bog)..... tons                           | 77          | 462                | -           | -                  | -  | -            |
| Mica..... tons                                      | 1,339       | 54,066             | 310         | 6,828              | -76.8                                    | -87.4        |
| Mineral waters..... Imp. gals.                      | 217,408     | 13,324             | 79,066      | 7,171              | -63.6                                    | -46.2        |
| Phosphate..... tons                                 | -           | -                  | 1,316       | 12,333             | -  | -            |
| Quartz..... tons                                    | 195,724     | 303,158            | 171,900     | 263,208            | -12.2                                    | -13.2        |
| Salt..... tons                                      | 259,047     | 1,904,149          | 203,543     | 1,947,551          | +1.7                                     | +2.3         |
| Silica brick..... M                                 | 900         | 35,746             | 93          | 4,303              | -89.7                                    | -88.0        |
| Soapstone.....                                      | -           | 34,439             | -           | 40,751             | -  | +35.8        |
| Sodium carbonate..... tons                          | 712         | 7,351              | 520         | 3,606              | -27.0                                    | -50.9        |
| Sodium sulphate.....                                | -           | 421,097            | -           | 271,736            | -  | -35.5        |
| Sulphur*..... tons                                  | 50,107      | 429,457            | 53,172      | 470,014            | +6.1                                     | +9.4         |
| Talc..... tons                                      | 11,836      | 122,644            | 12,103      | 112,287            | +2.3                                     | +8.4         |
| Volcanic dust..... tons                             | 128         | 2,500              | 180         | 3,600              | +40.6                                    | +40.6        |
| <b>Total.....</b>                                   | -           | <b>10,893,141</b>  | -           | <b>7,724,239</b>   | -  | <b>-29.1</b> |
| <b>CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS</b> |             |                    |             |                    |  |              |
| <b>Clay Products</b>                                |             |                    |             |                    |  |              |
| Brick-Soft mud process (Face..... M                 | 5,476       | 116,316            | 5,021       | 78,007             | -8.3                                     | -32.0        |
| (Common..... M                                      | 41,177      | 619,357            | 16,048      | 248,856            | -61.0                                    | -59.8        |
| Stiff mud process (Face..... M                      | 77,135      | 1,752,947          | 33,284      | 725,386            | -56.8                                    | -58.6        |
| (wire cut) (Common..... M                           | 81,930      | 1,205,464          | 41,400      | 643,907            | -49.5                                    | -46.6        |
| Dry press..... M                                    | 20,149      | 423,357            | 65,203      | 109,984            | -74.2                                    | -74.0        |
| (Common..... M                                      | 8,688       | 107,213            | 4,248       | 46,762             | -51.1                                    | -55.4        |
| Fancy or ornamental brick..... M                    | 335         | 20,774             | 36          | 1,790              | -89.3                                    | -91.4        |
| Sewer brick..... M                                  | 2,253       | 43,692             | 901         | 15,819             | -60.0                                    | -63.8        |
| Paving brick..... M                                 | 10          | 682                | 6           | 155                | -68.4                                    | -77.3        |
| Firebrick..... M                                    | 2,248       | 107,597            | 1,580       | 71,757             | -29.7                                    | -33.3        |
| Fireclay..... tons                                  | 1,233       | 14,857             | 990         | 11,826             | -19.7                                    | -20.4        |
| Fireclay blocks and shapes.....                     | -           | 83,039             | -           | 75,209             | -  | -9.4         |
| Structural Tile—Hollow blocks..... tons             | 105,635     | 1,046,634          | 47,306      | 418,372            | -55.2                                    | -60.0        |
| Roofing tile..... No.                               | 6,935       | 720                | 48,039      | 3,900              | -  | -            |
| Floor tile (quarries)..... sq. ft.                  | 107,499     | 31,415             | 93,264      | 21,502             | -13.2                                    | -31.6        |
| Drain tile..... M                                   | 12,518      | 328,410            | 6,984       | 180,245            | -44.2                                    | -45.1        |
| Sewer pipe, copings, flue linings, etc.....         | -           | 1,508,803          | -           | 813,330            | -  | -46.1        |
| Pottery, glazed or unglazed.....                    | -           | 257,125            | -           | 244,861            | -  | -4.8         |
| Bentonite..... tons                                 | 187         | 935                | 7           | 176                | -96.3                                    | -81.2        |
| Other clay products.....                            | -           | 171,952            | -           | 20,166             | -  | -88.3        |
| <b>Total.....</b>                                   | -           | <b>7,841,288</b>   | -           | <b>3,732,010</b>   | -  | <b>-52.4</b> |
| <b>Other Structural Materials</b>                   |             |                    |             |                    |  |              |
| Cement..... brls.                                   | 10,161,658  | 15,826,243         | 4,498,721   | 6,930,721          | -55.7                                    | -56.2        |
| Lime..... tons                                      | 344,785     | 2,764,415          | 320,238     | 2,393,648          | -7.1                                     | -13.4        |
| Sand and gravel..... tons                           | 21,748,586  | 6,651,165          | 12,599,706  | 4,019,397          | -42.1                                    | -39.6        |
| Slate..... tons                                     | 250         | 5,000              | -           | -                  | -  | -            |
| Stone..... tons                                     | 8,397,860   | 11,079,184         | 4,803,010   | 5,167,386          | -42.8                                    | -53.3        |
| <b>Total.....</b>                                   | -           | <b>36,317,007</b>  | -           | <b>18,511,152</b>  | -  | <b>-49.0</b> |
| <b>Grand Total.....</b>                             | -           | <b>228,029,018</b> | -           | <b>182,320,150</b> | -  | <b>-20.0</b> |

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

# DOMINION BUREAU OF STATISTICS

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## PRELIMINARY REPORT

ON THE

# MINERAL PRODUCTION OF CANADA

DURING THE CALENDAR YEAR, 1932

Canada's mining industry, except for gold mining, passed through a trying time in 1932, in company with nearly all other productive industries. Prices of many minerals reached an all-time low; several companies had to curtail production and others were forced to close down to await improved conditions. The gold mining industry, however, has one advantage over all other industries in that it produces a commodity which is in greatest demand in periods of low prices, does not have to be marketed, knows no import tariff walls, is not controlled by cartels, and is welcomed in every country. Thus gold has saved the mining industry from the full measure of disaster which has fallen upon other industrial enterprises, and Canada, now the second largest gold producing country in the world, has reaped benefits in proportion to her ability to produce this metal.

The total value of mineral production in Canada in 1932 amounted to \$182,320,150, a decrease of 20 per cent from 1931. Metals as a group reached a total of \$103,616,493 as against \$118,524,439 in 1931; fuels, which include coal, natural gas, crude petroleum and peat, totalled \$48,736,256, a decrease of 10.5 per cent from the previous year; other non-metals, the principal items being asbestos, gypsum, salt, quartz, magnesite, and sodium sulphate, totalled \$7,724,239, which was less than 1931 by 29 per cent; and the structural materials group, including brick, cement, lime, stone and sand and gravel reflected the decrease in building programmes, and stood at \$22,243,162 as compared with \$44,158,295 in the previous year.

The value of mineral production of Canada for the past ten years is shown, by principal groups, in the following table:—

*Values of Mineral Production of Canada by Classes, 1923-1932*

| Year      | Metallics   | Coal,<br>natural gas,<br>peat and crude<br>petroleum | Other non-<br>metallics | Clay products<br>and other<br>structural<br>materials | Total              |
|-----------|-------------|--|-------------------------|---|--------------------|
|           | \$          | \$   | \$                      | \$  | \$                 |
| 1923..... | 84,391,218  | 78,465,622   | 13,471,110              | 37,751,381  | <b>214,079,331</b> |
| 1924..... | 102,406,528 | 59,770,024   | 12,025,985              | 35,380,860  | <b>209,583,406</b> |
| 1925..... | 117,082,208 | 57,354,055   | 14,497,746              | 37,649,234  | <b>226,583,333</b> |
| 1926..... | 115,237,581 | 68,743,933   | 16,496,211              | 39,959,368  | <b>240,437,123</b> |
| 1927..... | 113,561,030 | 71,426,516   | 17,559,730              | 44,809,419  | <b>247,356,695</b> |
| 1928..... | 132,012,454 | 74,413,160   | 18,826,692              | 49,737,181  | <b>274,989,487</b> |
| 1929..... | 154,454,056 | 76,787,397   | 21,073,959              | 58,534,834  | <b>310,850,246</b> |
| 1930..... | 142,743,764 | 68,184,485   | 15,217,864              | 53,727,465  | <b>279,873,578</b> |
| 1931..... | 118,524,439 | 54,453,143   | 10,893,141              | 44,158,295  | <b>228,029,018</b> |
| 1932..... | 103,616,493 | 48,736,256   | 7,724,239               | 22,243,162  | <b>182,320,150</b> |

The total value of Canada's mineral production does not adequately reflect the position in which this important industry stands with relation to other primary Canadian industries. In total value of output it is exceeded only by agriculture and forestry. During 1931, the last year for which complete statistics are available and excluding the amount spent on prospecting, the total capital invested in Canada's mines, smelters, refineries, oil and gas wells, cement plants, sand and gravel pits and stone quarries totalled \$842,000,000; 73,000 men were employed who received \$92,000,000 in salaries and wages. Such an industry, with its multitudinous requirements for all kinds of materials necessary to its successful operation, plays a very important part in the general industrial life of the country.

## METALS

Canadian metal mines have met a severe test of their ability to survive the present world-wide economic crisis. This country has a large exportable surplus of copper, lead and zinc, and to be able to successfully produce these metals at the low world prices of the past year reflects great credit upon the management and the employees of the mines. Never have the prices of the metals been so low, but Canada has developed, during the past decade, large base metal properties with the contingent smelting and refining facilities which have assisted her in retaining her place in the world markets in times when the supply far exceeds the demand.

*Gold.*—The drop in base metal prices is reflected in the lowered outputs but, on the other hand, in no previous year has the Dominion produced as much gold, never have the times been so propitious for the production of gold, and at no other time have the gold mines of Canada, taken as a whole, been in such excellent physical condition as they are at the present time. In addition, several new gold mines have reached the production stage during the past year and the intensive search and development work now being carried on gives promise that additional gold properties will be producing before the end of the present year. The world's production of gold in 1932 is estimated at 23,906,000 fine ounces valued at \$494,181,000, which is greater by 5 per cent than the output in 1915, the previous record year. Of this total the British Empire produced 71.5 per cent; South Africa's portion amounted to 11,566,000 fine ounces and the Canadian production totalled 3,050,581 fine ounces. United States is third in the list at 2,513,000 fine ounces. Increases are noted in the majority of gold producing countries. Whether these increases will be of a permanent character depends upon many circumstances but in the words of E. Baliol Scott in *The Mining Journal*, London, "This much may be hazarded: gold mining has received an impetus and is assured of supplies of capital to which it has long been a stranger, and as it is always necessary to provide years in advance for the ore which is eaten up in every twelve months, the basic position of the industry is immensely strengthened, so that if the costs are to be on the ascending scale owing to an advance in commodities and the cost of living, it should be in a position through the possession of large capital to greatly neutralize this by technical improvements of all kinds."

Canada's gold production in 1932 totalled 3,050,581 fine ounces which, when valued at \$20.671834 per fine ounce, was worth \$63,061,103. The greater part of Canada's gold output is now shipped to the Royal Canadian Mint at Ottawa, though some gold is exported by Canadian mining companies in concentrates and in blister copper. The average value of the United States dollar during 1932 in Canadian funds was \$1.1358 and if the premium were applied to the value of the total Canadian output of gold for the year under review, it would raise the value of the Canadian production by \$8,563,698. The 1932 output was 13 per cent greater than last year, 65 per cent over that of five years ago, and 142 per cent in excess of the production ten years ago.

Gold is reported as being produced in every province of the Dominion with the exception of New Brunswick and Prince Edward Island. Ontario with an output of 2,287,280 fine ounces or 76 per cent of the total is in the premier position, and the Lake Shore mine of the Kirkland Lake camp is the largest single producer in the country. The Hollinger mine in the Porcupine camp is second, Noranda in Quebec, primarily a copper mine, is third, and Teck-Hughes, McIntyre and Dome follow in the order named and there are many other properties which steadily add their quota and help to make up the magnificent total.

Quebec gold production at 401,105 fine ounces showed an increase of 34 per cent over 1931. The Noranda copper mine is the large producer and the Siscoe, Granada and O'Brien Cadillac all showed an improvement in output over last year. In addition, considerable active pros-

pecting was carried on, and at the Beattie property a large low-grade gold mine will commence production early in 1933; an 800-ton mill was completed and low cost of operation is expected.

Production of gold, both lode and placer, in British Columbia exceeded 1931. The Premier mine is still the leading gold producer of the province and the Pioneer had an increased return over the previous year. The Bralorne Mines Ltd. added a substantial contribution and many other small properties assisted in augmenting the total. The Reno mill which was destroyed by fire in February, 1932, has been reconstructed and it is expected that in 1933 production will be at a greater rate than formerly. Much interest is centred around the development of a lode gold property near Barkerville in the Cariboo gold belt and 1933 should witness much activity in this area. Production for the year of both lode and placer gold totalled 198,520 fine ounces worth \$4,103,772, an increase of 24 per cent over 1931.

Manitoba is also forging ahead in gold production. The copper-zinc ores of the Flin Flon mine are responsible for the major part of the gold output from this province, but the steady production of the Central Manitoba Gold Mines and the bringing into operation of the San Antonio mill in May last helped materially to augment the total. Manitoba was responsible for 121,982 fine ounces as compared with 102,969 in 1931. Prospecting has also been quite active and the area in the vicinity of God's Lake and Island Lake gives favourable promise.

Saskatchewan can also report a small production of gold for 1931 as test shipments of ore were made from the province to the Flin Flon smelter.

Yukon production of placer gold totalled 40,607 fine ounces as compared with 44,310 fine ounces in 1931, and the Royal Canadian Mint reported a receipt of 964 fine ounces from Nova Scotia properties. Alberta also had a small output.

*Copper.*—Tribute must be paid to the courage of the Canadian copper producers who have carried on in the face of the worst market conditions which have prevailed in the history of mining. Low prices, heavy stocks, expiration of agreements and foreign tariffs all militated against successful production. True it may be, that in the case of Noranda and Flin Flon, the gold content is the helping hand, and that the marketing of nickel controls the output to some extent at Sudbury, yet Granby and Britannia on the Pacific Coast have laboured through the year in the hope that conditions would improve. The duty of four cents per pound placed on imported copper by the United States upset to quite an extent the normal flow of copper to that country and since the middle of the year the Canadian copper producers have been obliged to seek to enlarge their markets in other countries. That they have succeeded fairly well is borne out by trade returns which show that exports to the United States, for the first six months, of refined copper, such as ingots, bars and rods, were 81,216,800 pounds, and to other countries, 34,984,000 pounds; in the last six months the United States took practically no copper in this form while other countries imported 84,722,500 pounds from Canada. At the Imperial Economic Conference held at Ottawa during the past summer, it was recommended that the British Government place a duty of 2 pence per pound on copper produced outside the Empire, provided the Empire producers are able or willing to offer copper on first sale in the United Kingdom at prices not exceeding world prices and in quantities sufficient to supply the requirements of the United Kingdom consumers. The duty has not yet been brought into effect but Great Britain is showing every tendency to use Empire copper. Production during the year totalled 247,678,503 pounds worth \$15,294,022 as compared with the 1931 output of 292,304,390 pounds which was valued at \$24,114,065, a decrease of only 15 per cent in quantity but 37 per cent in value. In British Columbia production totalled 50,580,104 pounds, a decrease of 22 per cent from 1931; Manitoba's output was greater by 15 per cent; Ontario produced 77,055,413 pounds as against 112,882,625 pounds in the preceding year, and the Quebec output totalled 67,336,692 pounds, a very slight reduction from 1931. The International Nickel Company produces, at Copper Cliff, blister copper which is refined in close proximity to the smelter by the Ontario Refining Company, Ltd., a company jointly owned by the International Nickel Company, the American Metal Company, and the Consolidated Mining and Smelting Company. Blister copper made at the Hudson's Bay smelter at Flin Flon, Manitoba, from Sherritt-Gordon ores, was also refined at this refinery. The Falconbridge nickel-copper matte is exported to Norway for treatment. In Quebec, blister copper made at the Noranda smelter is refined by the Canadian Copper Refineries, Ltd., Montreal East, in which company the Noranda Mines, Ltd., have a controlling interest; blister copper

made from Flin Flon ores is refined by the same company. The Eustis mine, in Quebec, exported concentrates during the year. The average price of copper on the New York market for the year was 5.555 cents per pound. In Canadian funds the average price on the British market was 6.3802 cents per pound.

*Nickel.*—Nickel production, including refined nickel, nickel in matte exported and in nickel oxide, at 30,327,968 pounds valued at \$7,179,862 was considerably less than in 1931. The largest nickel company curtailed output below sales, thus reducing stocks, and it is reported that the year closed with a strengthening of demand which led to an increase in production by this company. The Falconbridge Nickel Mines, Limited, commenced construction of a 250-ton concentrator, sintering plant, and other additions to their plant in September last, and at the end of the year construction was being carried on at their Norwegian refinery which will increase its output by 1,000 metric tons annually. Much credit is due the International Nickel Company for the research work which has led to so many new peace-time uses for this metal. The year 1932 witnessed increased use of four nickel alloys, two in the nickel cast iron alloy group, one in nickel clad steel plate, and the fourth was a special chrome-nickel alloy developed for dairy use.

*Silver.*—Silver production at 18,356,393 fine ounces worth \$5,813,769 showed a drop of 11 per cent in quantity and 5 per cent in value as compared with 1931. British Columbia with a total of 7,295,723 fine ounces is the largest silver producing province and the Sullivan silver-lead-zinc mine, the principal producer. The Premier mine is also an important contributor. Ontario is second in silver production, the principal source being the silver-cobalt ores which are smelted by the Deloro Smelting and Refining Co., Ltd., at Deloro, Ontario. The ores of the Mayo Camp of the Yukon Territory contributed upwards of 3,000,000 ounces; Manitoba production totalled 1,036,079 fine ounces, principally from the blister copper made at Flin Flon; Quebec gold and copper mines contributed 628,902 fine ounces. Mention should also be made of the first shipment of silver ore from the Great Bear Lake district. Silver ore which had been bagged in the previous fall and winter during the development of a silver-radium property in this district was shipped to Trail during the past summer.

The average price of silver in New York showed little change from that in 1931, but owing to the exchange situation the Canadian miner was able to realize a higher average price in Canada for this metal during 1932 than in the previous year.

The world production of silver in 1932 totalled 160,600,000 fine ounces of which Mexico produced 45 per cent, the United States, 15 per cent, and Canada, 11 per cent.

*Lead.*—Canada's production of lead in 1932 amounted to 255,949,960 pounds which when valued at 2.1136 cents per pound, the average London price, converted to Canadian funds, totalled \$5,409,758, a decrease of 4 per cent in quantity and 26 per cent in value when compared with 1931. British Columbia mines, principally the Sullivan, produced 99 per cent of the total and 3,855,909 pounds were exported from the Mayo District of the Yukon Territory in the form of silver-lead ores and concentrates. The lead mine near Galetta, Ontario, in Carleton county, closed down during 1931 and the only lead now credited to that province is a small amount which is exported in silver-lead-bismuth bullion from an Ontario smelter treating silver-cobalt ores. The total world production of refined lead in 1932 was 1,292,074 short tons of which the United States produced 22 per cent, Australia, 15 per cent, Mexico, 11 per cent, Canada, 10.5 per cent, Spain, 10 per cent, Germany, 8 per cent, and the remainder of Europe, 11 per cent. Estimated world stocks at the end of the year according to the Mining Journal, London, totalled 551,000 short tons as against 496,000 short tons at the end of 1931.

*Zinc.*—As in lead, British Columbia is by far Canada's principal zinc producing province and the Sullivan mine the principal source. Manitoba has come to the front as a zinc producer during the past two years since the zinc refinery was built by the Hudson Bay Mining & Smelting Co. Ltd., at Flin Flon, Manitoba, in conjunction with their copper smelter. The total production of zinc in Canada during 1932 totalled 172,283,558 pounds valued at \$4,144,451. The price of zinc, in Canadian funds, based on the daily quotations in London during the year was 2.4056 cents per pound. World production according to the Mining Journal, London, in 1932 was estimated to be 868,000 short tons as against 1,116,000 in 1931 and stocks at the end of the year were estimated at 279,000 short tons as against 339,000 at the end of the previous year.



*Metals of the Platinum Group.*—Production of platinum, palladium and other metals of this group was valued at \$1,991,472. Refining of practically all the Canadian output of these metals (which occur with the nickel-copper ores of Ontario) is carried on at Acton near London, England. A small amount of stream platinum is produced in British Columbia, and the nickel-copper matte which is shipped to Norway from Canada carries values in platinum group metals.

*Other Metals.*—Cobalt production in the form of metal, oxides and in ores exported was valued at \$589,062 as against \$651,179 in 1931. Arsenic output was less than in the previous year. A small amount of bismuth metal was produced and some bismuth was exported in the form of silver-lead-bismuth bullion for further treatment.

The Trail smelter reported a production of cadmium while at Flin Flon the Hudson Bay Mining & Smelting Co. Ltd. produced cadmium sponge.

No production of antimony ore was reported but it is understood some 54 tons were shipped from the Lake George area of New Brunswick. Manganese ore amounting to some 60 tons was reported as having been shipped from Turtle Creek, New Brunswick.

An outstanding event of the year was the building and putting into operation of a refinery at Port Hope, Ontario, to produce radium salts or compounds from the ores of the Eldorado silver-radium property of the Great Bear Lake area.

## FUELS

*Coal.*—Canadian coal production in 1932 declined 4.2 per cent to a total of 11,723,411 tons as compared with the preceding year's output of 12,243,211 tons. The 1932 output included 7,712,114 tons of bituminous coal, 560,992 tons of sub-bituminous coal, and 3,450,395 tons of lignite coal.

Nova Scotia mines produced 4,084,531 tons of coal, a decline of 17.6 per cent from the 1931 total of 4,955,563 tons. New Brunswick production advanced 15.8 per cent to 211,055 tons in 1932. Saskatchewan's output of 875,432 tons set up a new high record for the province. An increase of 6.6 per cent was recorded in the tonnage of coal mined in Alberta during the year; the 1932 total was 4,867,270 tons as against 4,564,015 tons in 1931. The output from British Columbia mines decreased 10.4 per cent to 1,681,015 tons from the 1931 production of 1,876,406 tons. Minor tonnages of coal were produced in Manitoba and the Yukon in 1932.

Although the total Canadian output was less than in the previous year considerable progress was made in the marketing of Canadian coal in areas hitherto supplied to a large extent with imported coal. This improved situation was due in the main part to the assistance provided by the federal government to aid the sale of Canadian coal in these highly competitive markets. Nova Scotia coal shipments into Ontario in 1932 amounted to 284,629 tons or 62.7 per cent above the preceding year's total; this coal was shipped as far west as Timmins. Shipments of Alberta coal to Manitoba points totalled 484,459 tons, an increase of 9.3 per cent over the 1931 tonnage. Saskatchewan coal shipped into Manitoba in 1932 increased 47.8 per cent to 361,233 tons.

Imports of coal into Canada during 1932 totalled 11,673,428 tons, a 13.7 per cent falling off from the 1931 importations of 13,531,831 tons. Receipts from the United States declined 20.9 per cent during the year, on the other hand imports from Great Britain advanced 76.4 per cent. The 1932 imports from the United States included 1,685,532 tons of anthracite coal, 8,170,248 tons of bituminous coal and 2,953 tons of lignite coal. Shipments from Great Britain consisted of 1,399,086 tons of anthracite coal and 362,068 tons of bituminous coal. Additional supplies of anthracite coal were obtained from the following sources: Germany, 52,189 tons, French East Indies, 700 tons, and Belgium, 650 tons.

*Peat.*—Shipments of peat by Canadian producers in 1932 were recorded at 3,248 tons as against 1,674 tons in 1931. The 1932 production was obtained from the St. Hyacinthe bog, Quebec, and from bogs at Alfred, Chesterville and Morewood, Ontario.

*Natural Gas.*—Natural gas production in Canada during 1932 amounted to 23,875,978 thousand cubic feet; a 7.7 per cent falling off from the 1931 output of 25,874,723 thousand cubic feet. Declining industrial demand and a further curtailment in drilling activities in the Turner Valley field, Alberta, were in the main part responsible for the decreased production during the year. Alberta wells produced 67.0 per cent of the total Canadian output in 1932, Ontario wells, 30.3 per cent, and New Brunswick wells, 2.7 per cent.

*Petroleum.*—Crude petroleum output from Canadian wells recorded a 32.0 per cent decline in 1932 to 1,049,253 barrels as compared with the 1931 production of 1,542,573 barrels. Decreased production in the Turner Valley field, Alberta, due principally to lessened demand for crude naphtha and to natural gas conservation regulations introduced by the provincial government, was responsible for the decline in the Canadian petroleum output.

The successful operation of a small refining plant near Fort Norman, in the Mackenzie River district, to provide fuel for mining operations in the Great Bear Lake area, was an interesting feature of the year. Crude oil from a nearby well, capped since 1925, was treated at this refinery.

### NON-METALS

The value of the Canadian non-metallic production other than fuels was 29 per cent under that of the previous year.

*Asbestos.*—Asbestos which has long been a leader in point of value and represents an important branch of the Canadian mining industry, decreased 25 per cent in quantity and 37 per cent in value. Foreign competition and lessened demand in Canada's principal market, the United States, had a severe effect on the output of this mineral.

*Gypsum.*—Gypsum production at 438,629 tons worth \$1,080,379 was also considerably less. A large part of the Nova Scotia output of this mineral is exported in the raw state to the United States and the lowered demand during these depressing times seriously affected the output from that province. The Nova Scotia output totalled 341,508 tons, New Brunswick, 38,019 tons, Ontario, 35,655 tons, Manitoba, 12,719 tons, and British Columbia, 10,728 tons.

*Salt.*—Salt was one of the few items of the whole list of metals and minerals to indicate an increase. Production amounted to 263,543 tons valued at \$1,947,551 as against 259,047 tons worth \$1,904,149 in the preceding year. Salt production in Ontario comes from wells and that from the Malagash deposits of Nova Scotia is recovered by mining methods. It is worthy of note that Manitoba has now entered the list as a producer of salt in commercial quantities.

*Quartz, Feldspar and Mica.*—Quartz output which includes silica for smelter flux as well as the purer variety for industrial uses, totalled 171,900 tons worth \$263,208, a decrease of 12 per cent in quantity and 13 per cent in value. Feldspar also showed a marked decrease. Feldspar grinding mills are established at Buckingham, Quebec, and Kingston, Ontario, to supply a large part of the Canadian demand for this material. A mica grinding mill in Quebec can also supply the Canadian market for this material.

*Sulphur.*—Sulphur computed as the sulphur contained in sulphuric acid produced from waste smelter gases at Trail, B.C., and at Copper Cliff, Ontario, and also in pyrites shipped, totalled 53,172 tons valued at \$470,014 an increase of 6 per cent in quantity and 9 per cent in value over 1931. Exports of sulphuric acid from Canada amounted to 1,424,600 pounds as against 1,993,300 pounds in the preceding year.

In addition to the above, Canada produced many other economic minerals including bituminous sands, diatomite, fluorspar, graphite, grindstones, iron oxides (ochres), magnesite, mica, mineral waters, silica brick, soapstone, sodium carbonate, sodium sulphate, talc, and volcanic dust.

### STRUCTURAL MATERIALS

*Clay Products.*—Clay products output, including brick of all kinds, sewer pipe and pottery, is a very important part of Canada's mineral production. Clay products of various kinds are produced in every province of the Dominion. The value of the output during 1932 reflected the falling off in building activities and stood at \$3,732,010.

*Cement.*—Cement production at 4,498,721 barrels worth \$6,930,721 was also less, due to decreased construction activities. The larger part of the Canadian production comes from mills in Ontario and Quebec, though the combined shipments from plants situated in Manitoba, Alberta and British Columbia are responsible for 15.3 per cent of the total.

*Lime.*—Lime output, including quicklime and hydrated, amounted to 320,238 tons worth \$2,393,648, a drop of 7 per cent in quantity and 13 per cent in value.

*Sand and Gravel and Stone.*—Sand and gravel, because of its wide distribution and general usefulness for roadmaking or as an aggregate for concrete, constitutes a considerable item in the total value of Canada's mineral production. Output during 1932 totalled 12,599,706 tons worth \$4,019,397. Stone is also an important item; nothing has taken the place of crushed stone as a road metal and many of Canada's most beautiful buildings are constructed of building stone found within her own borders. Production in 1932 totalled 4,803,910 tons valued at \$5,167,386.

### PRICES

Silver prices on the New York exchange in 1932 ranged from a high of 30·136 cents per fine ounce for the February average to a low of 25·010 for the month of December. The average yearly price of silver, in Canadian funds, computed from daily New York quotations was 31·67163 cents per troy ounce. In no previous year has the price of copper been so low; the average for the year in New York was 5·555 cents per pound; the price ranged from 7·060 cents in January to 4·813 cents in December. In January the London price of copper was 46·200 pounds sterling per long ton; the low point was reached in July when the price for the month averaged 29·107. The September quotation stood at 38·318 which fell to 34·344 in December. The average price of copper in London for the year, transposed to Canadian funds, was 6·3802 cents per pound. Quotations for lead were higher in January, 1932, than for any other month; the low points were reached in June and July, the December average being 3 cents per pound in New York, 2·877 cents in St. Louis, and 11·144 pounds sterling per long ton in London. The average price of lead for the year, based on daily quotations in London and transposed to Canadian funds was 2·1136 cents per pound. The prices for zinc were lower during the summer months than at the beginning of the year and the average December quotations showed a slight improvement over those for January. The London price of zinc, on the basis of which the greater part of the Canadian production is sold, when converted to Canadian funds averaged 2·4056 cents per pound in 1932.

### EMPLOYMENT

Returns on employment statistics received from mining companies indicated a drop in employment during the first eight months of 1932, succeeded by three months of increasing activity followed by a slight drop in the final month. The level of employment was lower than in the preceding year although the falling off was not so pronounced in mining as in some other groups. The index averaged 99·2 (1926 = 100) as compared with 107·7 in 1931. In coal mining employment was generally less active, the mean index being 91·0 compared with 96·6 in 1931. Employment in mining metallic ores though generally lower than in 1931 was continued in fair volume, the mean index at 133·1 was between five and six points below the average of the preceding year. Non-metallic minerals industry (other than coal) registered very decidedly reduced employment in sympathy with the dullness prevailing in the building trades, the index averaged 71·8 as against 97·7 in 1931.

*Mineral Production in Canada by Provinces, 1930-1932*

| Province         | 1930                |                   | 1931                |                   | 1932                |                   |
|------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|
|                  | Value of production | Per cent of total | Value of production | Per cent of total | Value of production | Per cent of total |
|                  | \$                  |                   | \$                  |                   | \$                  |                   |
| Nova Scotia*     | 27,019,367          | 9·65              | 21,080,746          | 9·24              | 16,234,882          | 8·90              |
| New Brunswick    | 2,191,425           | 0·76              | 2,176,910           | 0·96              | 2,243,879           | 1·23              |
| Quebec           | 41,215,220          | 14·73             | 35,696,563          | 15·65             | 24,369,246          | 13·37             |
| Ontario          | 113,530,976         | 40·57             | 96,113,235          | 42·15             | 79,239,578          | 43·46             |
| Manitoba         | 5,453,182           | 1·95              | 9,965,854           | 4·37              | 8,695,961           | 4·77              |
| Saskatchewan     | 2,368,612           | 0·85              | 1,931,890           | 0·85              | 1,625,167           | 0·89              |
| Alberta          | 30,619,888          | 10·95             | 23,580,727          | 10·34             | 21,163,727          | 11·01             |
| British Columbia | 54,953,320          | 19·64             | 35,337,756          | 15·50             | 26,855,997          | 14·73             |
| Yukon            | 2,521,588           | 0·90              | 2,145,347           | 0·94              | 1,891,713           | 1·04              |
| <b>Total</b>     | <b>279,873,578</b>  | <b>100·00</b>     | <b>229,629,018</b>  | <b>100·00</b>     | <b>182,320,150</b>  | <b>100·00</b>     |

\*Includes small production from Prince Edward Island in 1930.

## Mineral Production in Canada, by Provinces, 1932

|  | Nova Scotia       | New Brunswick    | Quebec            | Ontario           | Manitoba         | Saskatchewan     | Alberta           | British Columbia  | Yukon and North West Territories |
|--|-------------------|------------------|-------------------|-------------------|------------------|------------------|-------------------|-------------------|----------------------------------|
| <b>METALLICS</b>                                   |                   |                  |                   |                   |                  |                  |                   |                   |                                  |
| Antimony..... lb.                                  | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| Arsenic (As <sub>2</sub> O <sub>3</sub> )..... lb. | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | -                 | 99,008            | -                | -                | -                 | -                 | -                                |
| Bismuth..... lb.                                   | -                 | -                | -                 | 16,798            | -                | -                | -                 | 57                | -                                |
| \$   | -                 | -                | -                 | 6,358             | -                | -                | -                 | 51                | -                                |
| Cadmium..... lb.                                   | -                 | -                | -                 | -                 | -                | -                | -                 | 26,824            | -                                |
| \$   | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| Chromite..... tons                                 | -                 | -                | 54                | -                 | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | 750               | -                 | -                | -                | -                 | -                 | -                                |
| Cobalt..... lb.                                    | -                 | -                | -                 | 490,631           | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | -                 | 589,062           | -                | -                | -                 | -                 | -                                |
| Copper..... lb.                                    | -                 | -                | 67,336,692        | 77,055,413        | 52,706,294       | -                | -                 | 50,580,104        | -                                |
| \$   | -                 | -                | 4,296,216         | 4,407,928         | 3,362,767        | -                | -                 | 3,227,111         | -                                |
| Gold..... fine oz.                                 | 964               | -                | 401,105           | 2,287,280         | 121,982          | 12               | 111               | 198,520           | 40,607                           |
| \$   | 19,928            | -                | 8,291,576         | 47,282,272        | 2,521,592        | 248              | 2,294             | 4,103,772         | 839,421                          |
| Lead..... lb.                                      | -                 | -                | -                 | 86,477            | -                | -                | -                 | 252,007,574       | 3,855,909                        |
| \$   | -                 | -                | -                 | 1,828             | -                | -                | -                 | 5,326,432         | 81,498                           |
| Manganese ore..... tons                            | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| Molybdenite (concentrates)..... lb.                | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| Nickel..... lb.                                    | -                 | -                | -                 | 30,327,968        | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | -                 | 7,179,862         | -                | -                | -                 | -                 | -                                |
| Palladium, Rhodium, Iridium, etc..... fine oz.     | -                 | -                | -                 | 37,497            | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | -                 | 897,587           | -                | -                | -                 | -                 | -                                |
| Platinum..... fine oz.                             | -                 | -                | -                 | 27,151            | -                | -                | -                 | 55                | -                                |
| \$   | -                 | -                | -                 | 1,091,674         | -                | -                | -                 | 2,211             | -                                |
| Selenium..... lb.                                  | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| Silver..... fine oz.                               | 47                | -                | 628,902           | 6,341,053         | 1,036,479        | 16               | 9                 | 7,295,723         | 3,054,164                        |
| \$   | 15                | -                | 199,183           | 2,008,315         | 328,271          | 5                | 3                 | 2,310,674         | 967,393                          |
| Titanium ore..... tons                             | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| Zinc..... lb.                                      | -                 | -                | -                 | -                 | 41,736,600       | -                | -                 | 130,546,958       | -                                |
| \$   | -                 | -                | -                 | -                 | 1,004,016        | -                | -                 | 3,140,438         | -                                |
| <b>Total..... \$</b>                               | <b>19,943</b>     | <b>-</b>         | <b>12,787,725</b> | <b>63,563,894</b> | <b>7,216,646</b> | <b>253</b>       | <b>2,297</b>      | <b>18,137,513</b> | <b>1,888,222</b>                 |
| <b>NON-METALLICS</b>                               |                   |                  |                   |                   |                  |                  |                   |                   |                                  |
| <b>Fuels</b>                                       |                   |                  |                   |                   |                  |                  |                   |                   |                                  |
| Coal..... tons                                     | 4,084,531         | 211,055          | -                 | -                 | 3,300            | 875,432          | 4,867,270         | 1,681,015         | 898                              |
| \$   | 15,123,094        | 789,617          | -                 | -                 | 9,259            | 1,211,539        | 13,517,860        | 6,390,412         | 3,491                            |
| Natural gas..... M cu. ft.                         | -                 | 645,010          | -                 | 7,244,624         | 600              | -                | 15,985,744        | -                 | -                                |
| \$   | -                 | 317,603          | -                 | 4,544,000         | 180              | -                | 3,820,722         | -                 | -                                |
| Peat..... tons                                     | -                 | -                | 762               | 2,486             | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | 2,286             | 5,307             | -                | -                | -                 | -                 | -                                |
| Petroleum, crude..... brls.                        | -                 | 6,404            | -                 | 130,343           | -                | -                | 912,506           | -                 | -                                |
| \$   | -                 | 14,323           | -                 | 247,468           | -                | -                | 2,739,095         | -                 | -                                |
| <b>Total..... \$</b>                               | <b>15,123,094</b> | <b>1,121,643</b> | <b>2,296</b>      | <b>4,796,775</b>  | <b>9,439</b>     | <b>1,211,539</b> | <b>20,077,677</b> | <b>6,390,412</b>  | <b>3,491</b>                     |
| <b>Other Non-Metallies</b>                         |                   |                  |                   |                   |                  |                  |                   |                   |                                  |
| Actinolite..... tons                               | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| Asbestos..... tons                                 | -                 | -                | 122,977           | -                 | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | 3,039,721         | -                 | -                | -                | -                 | -                 | -                                |
| Barytes..... tons                                  | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| Bituminous sands..... tons                         | -                 | -                | -                 | -                 | -                | -                | 343               | -                 | -                                |
| \$   | -                 | -                | -                 | -                 | -                | -                | 1,372             | -                 | -                                |
| Diatomite..... tons                                | 1,438             | -                | -                 | 11                | -                | -                | -                 | -                 | 47                               |
| \$   | 28,760            | -                | -                 | 309               | -                | -                | -                 | -                 | 440                              |
| Feldspar..... tons                                 | -                 | -                | 3,264             | 3,657             | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | 38,187            | 42,920            | -                | -                | -                 | -                 | -                                |
| Fluorspar..... tons                                | -                 | -                | -                 | 32                | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | -                 | 464               | -                | -                | -                 | -                 | -                                |
| Graphite..... tons                                 | -                 | -                | -                 | 346               | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | -                 | 18,483            | -                | -                | -                 | -                 | -                                |
| Grindstones..... tons                              | 12                | 244              | -                 | -                 | -                | -                | -                 | 60                | -                                |
| \$   | 433               | 11,362           | -                 | -                 | -                | -                | -                 | 3,000             | -                                |
| Gypsum..... tons                                   | 341,508           | 38,019           | -                 | 35,655            | 12,719           | -                | -                 | 10,728            | -                                |
| \$   | 398,861           | 297,520          | -                 | 186,175           | 113,739          | -                | -                 | 84,084            | -                                |
| Iron oxides (ochre)..... tons                      | -                 | -                | 5,017             | -                 | -                | -                | -                 | 223               | -                                |
| \$   | -                 | -                | 44,161            | -                 | -                | -                | -                 | 2,000             | -                                |
| Magnesite..... tons                                | -                 | -                | 8,802             | -                 | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | 262,860           | -                 | -                | -                | -                 | -                 | -                                |
| Manganese (bog)..... tons                          | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | -                 | -                 | -                | -                | -                 | -                 | -                                |
| Mica..... tons                                     | -                 | -                | 41                | 269               | -                | -                | -                 | -                 | -                                |
| \$   | -                 | -                | 4,076             | 2,752             | -                | -                | -                 | -                 | -                                |

## Mineral Production in Canada, by Provinces, 1932—Continued

|   | Nova Scotia    | New Brunswick  | Quebec           | Ontario          | Manitoba       | Saskatchewan   | Alberta        | British Columbia | Yukon and North West Territories |
|---|----------------|----------------|------------------|------------------|----------------|----------------|----------------|------------------|----------------------------------|
| <b>Other Non-Metallics—</b>                         |                |                |                  |                  |                |                |                |                  |                                  |
| <b>Concluded.</b>                                   |                |                |                  |                  |                |                |                |                  |                                  |
| Mineral waters Imp. gal..                           | -              | -              | 17,858           | 61,208           | -              | -              | -              | -                | -                                |
| Phosphate..... tons                                 | -              | -              | 4,698            | 2,473            | -              | -              | -              | -                | -                                |
| Quartz..... tons                                    | -              | -              | 12,333           | -                | -              | -              | -              | -                | -                                |
| Salt..... tons                                      | 31,897         | -              | 17,022           | 67,625           | 87,253         | -              | -              | -                | -                                |
| Silica brick..... M                                 | 150,708        | -              | 66,991           | 93,724           | 102,483        | -              | -              | -                | -                                |
| Soapstone..... tons                                 | -              | -              | -                | 231,138          | 508            | -              | -              | -                | -                                |
| Sodium carbonate..... tons                          | -              | -              | -                | 1,789,751        | 7,092          | -              | -              | -                | -                                |
| Sodium sulphate..... tons                           | -              | -              | -                | 93               | -              | -              | -              | -                | -                                |
| Sulphur*..... tons                                  | -              | -              | 46,751           | 4,303            | -              | -              | -              | -                | -                                |
| Talc..... tons                                      | -              | -              | -                | -                | -              | 271,736        | -              | 520              | -                                |
| Volcanic dust..... tons                             | -              | -              | 17,954           | 3,332            | -              | -              | -              | 3,606            | -                                |
|   | -              | -              | 133,838          | 33,320           | -              | -              | -              | 31,886           | -                                |
|   | -              | -              | -                | 12,064           | -              | -              | -              | 302,856          | -                                |
|   | -              | -              | -                | 111,585          | -              | -              | -              | 39               | -                                |
|   | -              | -              | -                | -                | -              | 180            | -              | 702              | -                                |
|   | -              | -              | -                | -                | -              | 3,600          | -              | -                | -                                |
| <b>Total..... \$</b>                                | <b>578,762</b> | <b>398,882</b> | <b>3,653,616</b> | <b>2,296,259</b> | <b>223,324</b> | <b>275,336</b> | <b>1,372</b>   | <b>396,688</b>   | <b>-</b>                         |
| <b>CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS</b> |                |                |                  |                  |                |                |                |                  |                                  |
| <b>Clay Products</b>                                |                |                |                  |                  |                |                |                |                  |                                  |
| <b>Brick—Soft mud process—</b>                      |                |                |                  |                  |                |                |                |                  |                                  |
| Face..... M   | 160            | -              | 300              | 4,561            | -              | -              | -              | -                | -                                |
| Common..... M                                       | 2,008          | -              | 3,009            | 72,999           | -              | -              | -              | -                | -                                |
| Stiff mud process (wire cut) Face. M                | 640            | 1,269          | 100              | 8,520            | 1,667          | 660            | 697            | 2,595            | -                                |
| Common..... M                                       | 6,780          | 18,180         | 800              | 144,089          | 21,526         | 6,929          | 8,345          | 41,607           | -                                |
| Dry press—  |                |                |                  |                  |                |                |                |                  |                                  |
| Face..... M   | 347            | 487            | 13,937           | 17,595           | 380            | 115            | 267            | 156              | -                                |
| Common..... M                                       | 6,754          | 13,628         | 313,559          | 369,777          | 8,492          | 3,127          | 6,386          | 3,663            | -                                |
| Fancy or ornamental brick.... M                     | 2,229          | 520            | 28,495           | 8,193            | 439            | 220            | 989            | 315              | -                                |
| Sewer brick..... M                                  | 31,206         | 7,949          | 447,738          | 130,771          | 7,131          | 2,286          | 11,648         | 5,208            | -                                |
| Paving brick..... M                                 | -              | -              | -                | 36               | -              | -              | -              | -                | -                                |
| Firebrick..... M                                    | -              | -              | -                | 1,790            | -              | -              | -              | -                | -                                |
| Fireclay..... tons                                  | -              | -              | -                | 896              | -              | -              | -              | 5                | -                                |
| Fireclay blocks and shapes..... \$                  | -              | -              | -                | 15,734           | -              | -              | -              | 85               | -                                |
| Structural tile—                                    |                |                |                  |                  |                |                |                |                  |                                  |
| Hollow blocks..... tons                             | -              | -              | -                | -                | -              | -              | -              | 6                | -                                |
| Roofing tile..... No.                               | -              | -              | -                | -                | -              | -              | -              | 155              | -                                |
| Floor tile (quarries) Sq. ft.                       | -              | -              | -                | 93,316           | -              | -              | -              | 1,260            | -                                |
| Drain tile..... M                                   | 71             | 3              | 265              | 21,502           | -              | -              | -              | 56,010           | -                                |
| Sewer pipe, copings, flue linings, etc.... \$       | 2,974          | 120            | 9,409            | 140,073          | 5,309          | -              | 1,322          | 21,038           | -                                |
| Pottery, glazed or unglazed..... \$                 | 92,070         | -              | 83,566           | 466,477          | -              | -              | 112,810        | 58,407           | -                                |
| Bentonite..... tons                                 | -              | 24,362         | -                | 67,866           | -              | 4              | 144,903        | 7,726            | -                                |
| Other clay products..... \$                         | -              | -              | -                | -                | -              | -              | -              | 7                | -                                |
|   | -              | -              | -                | 16,600           | -              | 505            | -              | 176              | -                                |
|   | -              | -              | -                | -                | -              | -              | -              | 3,061            | -                                |
| <b>Total..... \$</b>                                | <b>172,557</b> | <b>68,151</b>  | <b>1,052,842</b> | <b>1,715,282</b> | <b>54,423</b>  | <b>109,739</b> | <b>329,584</b> | <b>239,432</b>   | <b>-</b>                         |

(See next page for grand total)

## Mineral Production in Canada, by Provinces, 1932—Concluded

|                                   | Nova Scotia       | New Brunswick    | Quebec            | Ontario           | Manitoba         | Saskatchewan     | Alberta           | British Columbia  | Yukon and North West Territories |
|-----------------------------------|-------------------|------------------|-------------------|-------------------|------------------|------------------|-------------------|-------------------|----------------------------------|
| <b>Other Structural Materials</b> |                   |                  |                   |                   |                  |                  |                   |                   |                                  |
| Cement.....brls.                  | —                 | —                | 2,210,584         | 1,599,342         | 242,112          | —                | 193,571           | 253,112           | —                                |
| \$                                | —                 | —                | 3,155,702         | 2,288,975         | 549,594          | —                | 399,922           | 536,528           | —                                |
| Lime.....tons                     | 6,533             | 11,672           | 93,813            | 106,582           | 18,235           | —                | 6,156             | 17,247            | —                                |
| \$                                | 35,534            | 110,584          | 587,901           | 1,272,201         | 172,110          | —                | 54,577            | 160,741           | —                                |
| Sand and gravel.....tons          | 331,911           | 592,373          | 3,275,798         | 5,610,985         | 390,573          | 208,620          | 715,734           | 1,473,712         | —                                |
| \$                                | 207,105           | 450,801          | 827,753           | 1,550,573         | 171,143          | 28,300           | 295,313           | 488,409           | —                                |
| Slate.....tons                    | —                 | —                | —                 | —                 | —                | —                | —                 | —                 | —                                |
| \$                                | —                 | —                | —                 | —                 | —                | —                | —                 | —                 | —                                |
| Stone.....tons                    | 40,703            | 38,820           | 2,198,665         | 2,122,392         | 78,423           | —                | 1,428             | 323,479           | —                                |
| \$                                | 97,887            | 183,918          | 2,301,421         | 1,765,619         | 299,282          | —                | 2,985             | 516,274           | —                                |
| <b>Total.....\$</b>               | <b>340,526</b>    | <b>745,393</b>   | <b>6,872,277</b>  | <b>6,877,368</b>  | <b>1,192,129</b> | <b>28,300</b>    | <b>752,797</b>    | <b>1,791,952</b>  | —                                |
| <b>Grand Total.....</b>           | <b>16,234,882</b> | <b>2,243,879</b> | <b>21,369,216</b> | <b>79,239,578</b> | <b>8,695,961</b> | <b>1,625,167</b> | <b>21,163,727</b> | <b>26,855,997</b> | <b>1,891,713</b>                 |

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

## Monthly Production of Principal Minerals in Canada, 1932\*

|                           | Asbestos       | Cement           | Clay Products    | Coal              | Copper             | Feldspar     | Gold             | Gypsum         |
|---------------------------|----------------|------------------|------------------|-------------------|--------------------|--------------|------------------|----------------|
|                           | tons           | brls.            | \$               | tons              | lb.                | tons         | fine oz.         | tons           |
| January.....              | 10,240         | 270,764          | 334,008          | 1,188,468         | 19,675,016         | 800          | 233,826          | 6,414          |
| February.....             | 7,700          | 235,895          | 296,239          | 1,230,218         | 22,428,571         | 945          | 225,891          | 6,101          |
| March.....                | 9,451          | 276,172          | 310,578          | 1,050,527         | 23,662,648         | 1,160        | 255,675          | 5,862          |
| April.....                | 9,561          | 427,320          | 362,327          | 739,534           | 22,077,843         | 415          | 246,359          | 15,549         |
| May.....                  | 9,554          | 530,504          | 403,561          | 697,704           | 21,356,879         | 423          | 268,543          | 32,242         |
| June.....                 | 8,936          | 566,992          | 427,967          | 793,868           | 20,669,800         | 479          | 270,526          | 70,707         |
| July.....                 | 7,164          | 457,246          | 375,111          | 651,910           | 18,090,417         | 635          | 250,394          | 80,144         |
| August.....               | 9,918          | 510,097          | 385,729          | 726,944           | 17,604,802         | 360          | 265,090          | 69,462         |
| September.....            | 11,001         | 508,644          | 356,061          | 934,189           | 18,811,514         | 375          | 261,538          | 52,130         |
| October.....              | 13,232         | 410,632          | 324,577          | 1,266,450         | 22,587,353         | 482          | 253,503          | 52,345         |
| November.....             | 11,616         | 193,236          | 248,735          | 1,248,811         | 17,716,133         | 433          | 252,517          | 27,601         |
| December.....             | 14,478         | 82,633           | 132,752          | 1,194,728         | 22,209,321         | 493          | 266,719          | 19,613         |
| <b>Calendar Year.....</b> | <b>122,866</b> | <b>4,470,135</b> | <b>3,958,215</b> | <b>11,723,411</b> | <b>246,899,297</b> | <b>7,000</b> | <b>3,050,581</b> | <b>438,170</b> |

|                           | Lead               | Lime           | Natural Gas       | Nickel            | Petroleum        | Salt           | Silver            | Zinc               |
|---------------------------|--------------------|----------------|-------------------|-------------------|------------------|----------------|-------------------|--------------------|
|                           | lb.                | tons           | M cu. ft.         | lb.               | brls.            | tons           | fine oz.          | lb.                |
| January.....              | 21,467,045         | 23,685         | 3,220,087         | 3,187,687         | 96,912           | 9,723          | 1,772,811         | 15,110,952         |
| February.....             | 20,154,613         | 23,632         | 3,043,967         | 4,202,036         | 90,841           | 10,332         | 1,600,591         | 14,224,278         |
| March.....                | 21,332,722         | 29,108         | 3,009,761         | 3,754,829         | 97,484           | 13,093         | 1,460,137         | 15,165,791         |
| April.....                | 21,624,442         | 26,744         | 2,353,619         | 3,384,620         | 95,585           | 15,326         | 1,645,094         | 14,650,218         |
| May.....                  | 20,150,393         | 30,014         | 1,760,161         | 3,471,304         | 95,222           | 15,406         | 1,418,384         | 15,247,980         |
| June.....                 | 22,456,497         | 27,290         | 1,139,787         | 3,162,310         | 80,525           | 15,709         | 1,310,573         | 14,665,930         |
| July.....                 | 20,053,383         | 27,185         | 981,700           | 2,959,231         | 86,969           | 13,969         | 1,825,238         | 15,206,916         |
| August.....               | 21,798,529         | 27,733         | 911,982           | 840,492           | 85,220           | 14,331         | 1,447,296         | 13,732,634         |
| September.....            | 19,894,525         | 28,550         | 1,157,682         | 677,998           | 79,813           | 15,218         | 1,171,575         | 13,301,607         |
| October.....              | 19,800,118         | 34,822         | 1,712,111         | 2,141,168         | 78,845           | 16,693         | 1,511,120         | 13,703,319         |
| November.....             | 26,360,985         | 29,211         | 2,182,352         | 1,227,747         | 77,107           | 18,640         | 1,514,817         | 15,305,200         |
| December.....             | 20,543,259         | 18,295         | 2,698,612         | 1,368,172         | 80,834           | 9,833          | 1,298,954         | 13,988,731         |
| <b>Calendar Year.....</b> | <b>255,695,511</b> | <b>326,269</b> | <b>24,162,824</b> | <b>30,377,594</b> | <b>1,054,366</b> | <b>168,163</b> | <b>17,976,533</b> | <b>172,283,538</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.

## (Metal Prices, 1928-1932)

| Metal                 | Market    | Unit     | 1928    | 1929    | 1930    | 1931    | 1932    |
|-----------------------|-----------|----------|---------|---------|---------|---------|---------|
| Antimony (ordinaries) | New York  | Pound    | 0-10305 | 0-08956 | 0-07667 | 0-06720 | 0-05592 |
| Arsenic, white        | New York  | Pound    | 0-04    | 0-04    | 0-04    | 0-045   | 0-04    |
| Cobalt                | New York  | Pound    | 2-63    | 2-52    | 2-50    | 2-50    | 2-50    |
| Cobalt oxide          | New York  | Pound    | 2-10    | 2-10    | 2-00    | 1-75    | 1-35    |
| Copper                | New York  | Pound    | 0-14570 | 0-18107 | 0-12982 | 0-08116 | 0-05555 |
|                       | Montreal  | Pound    | 0-16402 | 0-19978 | 0-1498  | 0-10096 | 0-07516 |
|                       | New York  | Pound    | 0-06305 | 0-06833 | 0-05517 | 0-04243 | 0-03180 |
|                       | Montreal  | Pound    | 0-0606  | 0-06678 | 0-05496 | 0-04168 | 0-03511 |
|                       | Toronto   | Pound    | 0-06206 | 0-06775 | 0-058   | 0-04238 | 0-03606 |
|                       | London    | Long ton | 21-060  | 23-246  | 18-007  | 12-958  | 11-913  |
| Nickel                | New York  | Pound    | 0-36    | 0-35    | 0-36    | 0-36    | 0-35    |
| Platinum              | New York  | Ounce    | 78-58   | 67-855  | 45-358  | 35-065  | *10-204 |
| Silver                | New York  | Ounce    | 0-58176 | 0-52993 | 0-38154 | 0-287   | 0-27892 |
| Tin                   | New York  | Pound    | 0-50472 | 0-45155 | 0-31694 | 0-24467 | 0-22017 |
|                       | St. Louis | Pound    | 0-05027 | 0-08512 | 0-04556 | 0-0364  | 0-02874 |
| Zinc                  | Montreal  | Pound    | 0-07144 | 0-0687  | 0-05084 | 0-03961 | 0-03724 |
|                       | London    | Long ton | 25-284  | 24-793  | 16-570  | 12-215  | 13-545  |

NOTE.—All prices in dollars per unit excepting London lead and zinc prices which are quoted in £ sterling per long ton and the 1932 price for platinum which is quoted in £ sterling per fine ounce.

## Metal Prices by Months, 1931-1932

| Month          | Copper (Electrolytic)            |              |  |               | Pig Lead                         |              |                                  |              |  |               |
|----------------|----------------------------------|--------------|--|---------------|----------------------------------|--------------|----------------------------------|--------------|--|---------------|
|                | New York<br>(In cents per pound) |              | London<br>(In £ sterling per long ton) |               | Montreal<br>(In cents per pound) |              | New York<br>(In cents per pound) |              | London<br>(In £ sterling per long ton) |               |
|                | 1931                             | 1932         | 1931                                   | 1932          | 1931                             | 1932         | 1931                             | 1932         | 1931                                   | 1932          |
| January        | 9.938                            | 7.060        | 47.524                                 | 46.200        | 4.040                            | 4.260        | 4.802                            | 3.750        | 13.872                                 | 15.084        |
| February       | 9.724                            | 5.965        | 47.950                                 | 41.381        | 4.530                            | 4.148        | 4.552                            | 3.712        | 13.444                                 | 14.560        |
| March          | 9.854                            | 5.763        | 47.699                                 | 36.786        | 4.510                            | 3.850        | 4.527                            | 3.150        | 13.128                                 | 12.345        |
| April          | 9.392                            | 5.565        | 45.375                                 | 34.190        | 4.250                            | 3.609        | 4.412                            | 3.000        | 12.375                                 | 11.223        |
| May            | 8.665                            | 5.237        | 42.175                                 | 32.833        | 3.930                            | 3.320        | 3.818                            | 3.000        | 11.491                                 | 10.673        |
| June           | 8.025                            | 5.145        | 38.066                                 | 30.841        | 3.920                            | 3.145        | 3.917                            | 2.993        | 11.582                                 | 9.608         |
| July           | 7.698                            | 5.053        | 37.293                                 | 29.107        | 4.135                            | 3.083        | 4.400                            | 2.747        | 12.731                                 | 9.818         |
| August         | 7.292                            | 5.219        | 35.388                                 | 34.784        | 3.964                            | 3.217        | 4.400                            | 3.235        | 11.944                                 | 11.349        |
| September      | 8.988                            | 5.978        | 36.148                                 | 38.318        | 3.800                            | 3.482        | 4.400                            | 3.465        | 11.932                                 | 13.122        |
| October        | 6.775                            | 5.733        | 41.000                                 | 36.190        | 3.905                            | 3.264        | 3.964                            | 3.052        | 13.227                                 | 11.958        |
| November       | 6.558                            | 5.131        | 41.190                                 | 36.568        | 4.162                            | 3.373        | 3.937                            | 3.050        | 14.577                                 | 12.071        |
| December       | 6.580                            | 4.813        | 44.409                                 | 34.344        | 4.268                            | 3.386        | 3.792                            | 3.000        | 15.188                                 | 11.144        |
| <b>Average</b> | <b>8.116</b>                     | <b>5.555</b> | <b>42.693</b>                          | <b>35.067</b> | <b>4.168</b>                     | <b>3.511</b> | <b>4.243</b>                     | <b>3.180</b> | <b>12.958</b>                          | <b>11.913</b> |

## Metal Prices by Months, 1931-1932

| Month          | Silver                                      |               |   |               | Zinc                             |              |                                   |              |  |               |
|----------------|---|---------------|---|---------------|----------------------------------|--------------|-----------------------------------|--------------|--|---------------|
|                | New York<br>(In cents per oz.<br>-999 fine) |               | London<br>(In pence per oz.<br>-925 fine) |               | Montreal<br>(In cents per pound) |              | St. Louis<br>(In cents per pound) |              | London<br>(In £ sterling per long ton) |               |
|                | 1931  | 1932          | 1931                                      | 1932          | 1931                             | 1932         | 1931                              | 1932         | 1931                                   | 1932          |
| January        | 29.423                                      | 29.780        | 13.810                                    | 19.623        | 4.360                            | 4.063        | 4.035                             | 3.011        | 12.747                                 | 14.416        |
| February       | 26.773                                      | 30.136        | 12.432                                    | 19.573        | 4.230                            | 3.936        | 4.012                             | 2.817        | 12.303                                 | 13.872        |
| March          | 29.192                                      | 29.810        | 13.524                                    | 18.336        | 4.220                            | 3.820        | 4.002                             | 2.787        | 12.190                                 | 12.616        |
| April          | 28.279                                      | 28.298        | 13.120                                    | 16.923        | 3.960                            | 3.634        | 3.717                             | 2.725        | 11.353                                 | 11.670        |
| May            | 27.650                                      | 27.755        | 12.858                                    | 16.868        | 3.660                            | 3.564        | 3.306                             | 2.632        | 10.484                                 | 12.432        |
| June           | 27.250                                      | 27.466        | 12.707                                    | 16.844        | 3.800                            | 3.480        | 3.416                             | 2.777        | 11.270                                 | 11.548        |
| July           | 28.255                                      | 26.700        | 13.197                                    | 16.930        | 3.978                            | 3.355        | 3.893                             | 2.537        | 12.280                                 | 11.592        |
| August         | 27.524                                      | 27.986        | 12.815                                    | 18.000        | 3.786                            | 3.561        | 3.817                             | 2.758        | 11.444                                 | 13.504        |
| September      | 28.180                                      | 27.870        | 14.101                                    | 17.998        | 3.707                            | 3.802        | 3.744                             | 3.322        | 11.571                                 | 15.455        |
| October        | 29.538                                      | 27.195        | 17.153                                    | 17.813        | 3.750                            | 3.667        | 3.377                             | 3.027        | 12.733                                 | 14.869        |
| November       | 32.223                                      | 26.698        | 19.393                                    | 18.099        | 4.014                            | 3.834        | 3.200                             | 3.094        | 13.845                                 | 15.264        |
| December       | 30.120                                      | 25.010        | 20.023                                    | 17.110        | 4.068                            | 3.971        | 3.149                             | 3.124        | 14.361                                 | 15.209        |
| <b>Average</b> | <b>28.790</b>                               | <b>27.892</b> | <b>14.594</b>                             | <b>17.843</b> | <b>3.961</b>                     | <b>3.724</b> | <b>3.649</b>                      | <b>2.876</b> | <b>12.215</b>                          | <b>13.545</b> |

Table showing the amount paid in Canadian dollars for one £ Sterling and one United States dollar by months, 1931-1932

|                | London       |              | New York       |              |
|----------------|--------------|--------------|----------------|--------------|
|                | 1931         | 1932         | 1931           | 1932         |
| January        | 4.863        | 4.028        | 1.0020         | 1.173        |
| February       | 4.858        | 3.959        | 1.0002         | 1.145        |
| March          | 4.851        | 4.064        | 1.0002         | 1.118        |
| April          | 4.860        | 4.173        | 1.0004         | 1.112        |
| May            | 4.865        | 4.157        | 1.0005         | 1.131        |
| June           | 4.876        | 4.205        | 1.0026         | 1.153        |
| July           | 4.867        | 4.076        | 1.00321        | 1.148        |
| August         | 4.869        | 3.975        | 1.00304        | 1.142        |
| September      | 4.693        | 3.847        | 1.04293        | 1.108        |
| October        | 4.382        | 3.723        | 1.12370        | 1.096        |
| November       | 4.191        | 3.760        | 1.12342        | 1.148        |
| December       | 4.092        | 3.787        | 1.21048        | 1.154        |
| <b>Average</b> | <b>4.689</b> | <b>3.979</b> | <b>1.04272</b> | <b>1.136</b> |

## Abrasives

*Diatomite*.—Production of diatomite in Canada during 1932 totalled 1,496 tons valued at \$29,509 as compared with an output of 1,610 tons worth \$32,789 in 1931. Production was reported from Nova Scotia, Ontario and British Columbia.

*Grindstones, Pulpstones and Scythestones*.—Production of grindstones, pulpstones and scythestones from Nova Scotia, New Brunswick and British Columbia quarries during 1932 totalled 316 tons valued at \$14,795 as compared with a total Canadian output of 621 tons worth \$38,103 during the previous year.

*Volcanic Dust*.—Volcanic dust produced in Saskatchewan in 1932 amounted to 180 tons valued at \$3,600 as compared with 128 tons worth \$2,560 in 1931.

*Garnets*.—Labelle Nickel and Garnet Company shipped 100 tons of crude ore from Joly county, Quebec, to the United States for experimental purposes in 1932.

*Imports into Canada and Exports of Abrasives, 1931 and 1932*

|   | 1931     |                  | 1932     |                  |
|---|----------|------------------|----------|------------------|
|   | Quantity | Value            | Quantity | Value            |
|   |          | \$               |          | \$               |
| <b>IMPORTS—</b>   |          |                  |          |                  |
| <b>Abrasives—</b>   |          |                  |          |                  |
| Artificial abrasives in bulk, crushed or ground, when imported for use in the manufacture of abrasive wheels and polishing composition..... | -        | 184,280          | -        | 154,410          |
| Diamond dust or bort and black diamonds for borers.....   | -        | 450,148          | -        | 129,703          |
| Emery in bulk, crushed or ground.....   | -        | 26,280           | -        | 31,252           |
| Grinding wheels.....  | -        | 125,673          | -        | 132,373          |
| Grinding stones or blocks.....  | -        | 28,969           | -        | 30,010           |
| Grindstones not mounted and not less than 36" in diameter.....  | -        | 111,770          | -        | 83,896           |
| Grindstones, n.o.p.....   | -        | 7,228            | -        | 3,587            |
| Pumice and pumice stone, lava and calcareous tufa, not further manufactured than ground.....  | -        | 34,542           | -        | 22,391           |
| Sandpaper, glass, flint and emery paper or emery cloth.....   | -        | 201,277          | -        | 91,485           |
| Manufactures of emery or of artificial abrasives, n.o.p.....  | -        | 44,429           | -        | 38,778           |
| Diatomaceous earth or infusorial earth (Kieselguhr) ground or unground..... cwt.  | 17,000   | 25,788           | 2,009    | 2,944            |
| Iron sand or globules or iron shot and dry putty for polishing or sawing.....   | -        | 25,319           | -        | 8,142            |
| <b>Total.....</b>   | -        | <b>1,265,703</b> | -        | <b>728,990</b>   |
| <b>EXPORTS—</b>   |          |                  |          |                  |
| <b>Grindstones, manufactured.....</b>   |          |                  |          |                  |
| -   | -        | 10,776           | -        | 7,541            |
| <b>Abrasives—</b>   |          |                  |          |                  |
| Natural, n.o.p..... cwt.  | 14,372   | 14,185           | 22,419   | 27,169           |
| Artificial, crude, including carborundum..... cwt.  | 851,206  | 1,981,713        | 246,177  | 953,422          |
| Artificial, made up into wheels, stones, etc.....   | -        | 19,576           | -        | 24,221           |
| <b>Total.....</b>   | -        | <b>2,026,250</b> | -        | <b>1,012,353</b> |

## Actinolite

Actinolite is obtained from occurrences in Elzevir and Kaladar townships, Hastings and Addington counties, Ontario. During 1931 shipments totalled 35 tons, worth \$456, as compared with 34 tons, worth \$437 in 1930. There was no Canadian production in 1932.

## Antimony

Antimony ores occur in the provinces of Nova Scotia, New Brunswick, British Columbia and in the Yukon and sometimes antimony is recovered from the cobalt ores of Ontario. In 1931 the Lake George mine of New Brunswick made a test shipment of 25 tons of antimony ore to Liverpool, England. No Canadian production of antimony was recorded for 1932.

Imports into Canada of antimony in 1932 amounted to 631,204 pounds valued at \$37,180 as against an import of 919,724 pounds valued at \$56,458 in the previous year. Imports of antimony salts for dyeing amounted to 678 pounds valued at \$86 and imports of antimony salts, viz., tartar emetic, chloride and lactate (antimonine) totalled 50,466 pounds valued at \$6,869.



## Arsenic

## Production in Canada, Imports and Exports of Arsenic, 1931 and 1932

|  | 1931             |                | 1932             |                |
|--|------------------|----------------|------------------|----------------|
|  | Quantity         | Value          | Quantity         | Value          |
|  | lb.              | \$             | lb.              | \$             |
| <b>PRODUCTION—</b>                                 |                  |                |                  |                |
| White arsenic and arsenic in other forms.....      | —                | 135,170        | —                | 99,008         |
| <b>Total</b> .....                                 | —                | <b>135,170</b> | —                | <b>99,008</b>  |
| <b>IMPORTS—</b>                                    |                  |                |                  |                |
| White arsenic (arsenious oxide).....               | 167,015          | 5,824          | 425,005          | 16,694         |
| Sulphide of arsenic.....                           | 10,412           | 1,347          | 111,106          | 4,277          |
| Soda, arseniate, bisarseniate and stannate of..... | 704              | 202            | 5,603            | 1,159          |
| Arsenate of lead.....                              | 1,248,460        | 116,096        | 830,120          | 80,488         |
| Arsenate of lime.....                              | 821,509          | 42,107         | 521,546          | 27,852         |
| <b>Total</b> .....                                 | —                | <b>166,476</b> | —                | <b>139,470</b> |
| <b>EXPORTS—</b>                                    |                  |                |                  |                |
| Arsenic, n.o.p..... <b>Total</b> .....             | <b>3,092,500</b> | <b>116,644</b> | <b>1,788,600</b> | <b>65,287</b>  |

## Asbestos

## Sales of Asbestos in Canada, 1931 and 1932

|                               | 1931           |                           |               | 1932           |                           |               |
|-------------------------------|----------------|---------------------------|---------------|----------------|---------------------------|---------------|
|                               | Quantity       | Total sales value at mill | Average value | Quantity       | Total sales value at mill | Average value |
|                               | tons           | \$                        | \$            | tons           | \$                        | \$            |
| Crude No. 1.....              | 206            | 88,880                    | 431.46        | 144            | 57,159                    | 396.94        |
| Crude No. 2.....              | 543            | 117,478                   | 216.35        | 313            | 60,230                    | 192.43        |
| Other crudes.....             | —              | —                         | —             | 14             | 1,832                     | 130.86        |
| Spinning fibre.....           | 8,560          | 917,776                   | 107.22        | 6,004          | 548,510                   | 91.36         |
| Shingle fibre.....            | 15,988         | 938,857                   | 58.72         | 6,625          | 328,805                   | 49.64         |
| Paper fibre.....              | 39,867         | 1,381,888                 | 34.64         | 32,694         | 1,008,436                 | 30.84         |
| Waste, stucco or plaster..... | 6,309          | 159,043                   | 25.20         | 3,984          | 92,800                    | 23.29         |
| Refuse or shorts.....         | 92,823         | 1,208,964                 | 13.02         | 73,199         | 941,858                   | 12.87         |
| <b>Total</b> .....            | <b>164,296</b> | <b>4,812,896</b>          | <b>29.29</b>  | <b>127,977</b> | <b>3,039,721</b>          | <b>24.73</b>  |
| Sand and gravel.....          | 7,209          | 5,952                     | 0.83          | 3,473          | 3,369                     | 0.97          |

## Imports into Canada and Exports of Asbestos, 1931 and 1932

|  | 1931   |                  | 1932   |                  |
|--|--------|------------------|--------|------------------|
|  | tons   | \$               | tons   | \$               |
| <b>IMPORTS—</b>  |        |                  |        |                  |
| Asbestos brake and clutch lining.....                                      | —      | 241,880          | —      | 194,745          |
| Asbestos in any form other than crude, and all manufactures of, n.o.p..... | —      | 312,484          | —      | 226,619          |
| Asbestos packing.....  | 69     | 63,455           | 55     | 52,733           |
| <b>Total</b> .....   | —      | <b>617,819</b>   | —      | <b>474,097</b>   |
| <b>EXPORTS—</b>  |        |                  |        |                  |
| Asbestos.....  | 70,903 | 3,929,317        | 42,061 | 2,115,140        |
| Asbestos, sand and waste.....  | 88,535 | 1,245,326        | 69,709 | 986,095          |
| Asbestos manufactures, including asbestos roofing.....                     | —      | 111,241          | —      | 75,517           |
| <b>Total</b> .....   | —      | <b>5,285,884</b> | —      | <b>3,176,752</b> |

## Barytes

There were no shipments of Canadian barytes during 1932. In 1931, 16 tons valued at \$363 constituted the Dominion output. The deposit at Lake Ainslie, Inverness county, Nova Scotia, as in previous years, was the source of the total 1931 output.

Barytes imports were recorded at 1,686 tons evaluated at \$32,712 in 1931; in 1932 there were 1,292 tons worth \$22,989 imported.

## Bismuth

Bismuth production, including metallic bismuth made at Trail, B.C., and the bismuth contained in silver-lead-bismuth bullion shipped during 1932 by the Deloro Smelting and Refining Company, totalled 16,855 pounds valued at \$6,409.

Imports of metallic bismuth into Canada during 1932 amounted to 5 pounds valued at \$9.

## Bituminous Sands

Bituminous sands production from the Fort McMurray district, Alberta, during 1932 amounted to 343 tons valued at \$1,372 as compared with a total of 1,015 tons worth \$4,060 in 1931.

Importations of asphalt, solid, into Canada in 1932 were recorded at 12,533 tons appraised at \$193,912; asphalt, not solid, to the value of \$10,709 and asphaltum oil for paving purposes worth \$8,887 were also imported.

## Cement

*Production in Canada, Imports and Exports of Cement, 1931 and 1932*

|                                   | 1931              |                   | 1932             |                  |
|-----------------------------------|-------------------|-------------------|------------------|------------------|
|                                   | Barrels           | Value             | Barrels          | Value            |
|                                   |                   | \$                |                  | \$               |
| <b>OUTPUT—Total</b>               | <b>10,197,964</b> | <b>-</b>          | <b>4,643,675</b> | <b>-</b>         |
| <b>SALES—</b>                     |                   |                   |                  |                  |
| Quebec                            | 4,942,323         | 7,092,895         | 2,210,584        | 3,155,702        |
| Ontario                           | 3,470,056         | 5,006,826         | 1,599,342        | 2,288,975        |
| Manitoba                          | 544,160           | 1,267,893         | 242,112          | 549,504          |
| Alberta                           | 626,483           | 1,286,080         | 193,571          | 399,922          |
| British Columbia                  | 578,636           | 1,172,549         | 253,112          | 536,528          |
| <b>Total</b>                      | <b>10,161,658</b> | <b>15,826,243</b> | <b>4,498,721</b> | <b>6,939,721</b> |
| Stocks, December 31               | 2,259,298         | -                 | 2,374,252        | -                |
| <b>IMPORTS—</b>                   |                   |                   |                  |                  |
| Portland                          | 38,392            | 143,491           | 21,351           | 58,092           |
| Manufactures                      | -                 | 13,243            | -                | 6,883            |
| <b>Total</b>                      | <b>-</b>          | <b>156,734</b>    | <b>-</b>         | <b>64,975</b>    |
| <b>EXPORTS—Total</b>              | <b>114,064</b>    | <b>124,267</b>    | <b>53,333</b>    | <b>38,921</b>    |
| <b>APPARENT CONSUMPTION—Total</b> | <b>10,065,956</b> | <b>-</b>          | <b>4,466,739</b> | <b>-</b>         |

## Chromite.

Production of chromite in Canada in 1932 totalled 54 tons valued at \$750. This output was mined near Theford Mines in Quebec, and is the first recorded production of chromite from this province since 1923.

## Production in Canada, Imports and Exports of Clay and Clay Products, 1931 and 1932

| Kind  | 1931     |                     | 1932             |                     |                  |
|---|----------|---------------------|------------------|---------------------|------------------|
|   | Quantity | Total selling value | Quantity         | Total selling value |                  |
|   |          | \$                  |                  | \$                  |                  |
| <b>PRODUCTION (SALES)—</b>  |          |                     |                  |                     |                  |
| Brick: Soft mud process (Face)  | M        | 5,476               | 116,316          | 5,021               | 78,007           |
| (Common)  | M        | 41,177              | 610,357          | 16,048              | 248,850          |
| Stiff mud process (wire cut) (Face)   | M        | 77,135              | 1,752,947        | 33,284              | 725,386          |
| (Common)  | M        | 81,930              | 1,205,464        | 41,460              | 643,907          |
| Dry press (Face)  | M        | 20,149              | 423,357          | 5,203               | 109,984          |
| (Common)  | M        | 8,688               | 107,213          | 4,248               | 46,762           |
| Fancy or ornamental brick (including special shapes, embossed and enamelled brick)  | M        | 335                 | 20,773           | 36                  | 1,790            |
| Sewer brick   | M        | 2,253               | 43,692           | 901                 | 15,819           |
| Paving brick  | M        | 19                  | 682              | 6                   | 155              |
| Firebrick from domestic clay  | M        | 2,248               | 107,597          | 1,580               | 71,757           |
| Fireclay  | tons     | 1,233               | 14,857           | 990                 | 11,829           |
| Bentonite   | tons     | 187                 | 935              | 7                   | 176              |
| Fireclay blocks and shapes  |          | -                   | 83,039           | -                   | 75,209           |
| Structural tile: Hollow blocks (including fireproofing and loadbearing tile)  | tons     | 105,635             | 1,046,634        | 47,306              | 418,372          |
| Roofing tile  | No.      | 6,935               | 720              | 48,939              | 3,900            |
| Floor tile (quarries)   | Sq. ft.  | 107,499             | 31,415           | 93,264              | 21,502           |
| Drain tile  | M        | 12,518              | 328,410          | 6,984               | 180,245          |
| Sewer pipe (including copings, fine linings, etc.)  |          | -                   | 1,508,803        | -                   | 813,330          |
| Pottery, glazed or unglazed   |          | -                   | 257,125          | -                   | 244,861          |
| Other products  |          | -                   | 171,952          | -                   | 20,160           |
| <b>Total</b>  |          |                     | <b>7,841,288</b> |                     | <b>3,732,010</b> |
| <b>IMPORTS—</b>   |          |                     |                  |                     |                  |
| Building brick  |          | -                   | 294,903          | -                   | 41,163           |
| Building blocks   |          | -                   | 75,276           | -                   | 15,682           |
| Clays—  |          |                     |                  |                     |                  |
| China   | cwt.     | 366,926             | 192,516          | 340,270             | 154,125          |
| Fire  | cwt.     | 887,033             | 107,893          | 385,956             | 101,768          |
| Pipe  |          | -                   | 10,804           | -                   | 18,308           |
| Zirconium silicate  |          | -                   | 3,122            | -                   | 1,252            |
| Zirconium oxide   |          | -                   | 7,099            | -                   | 4,574            |
| Other clays   |          | -                   | 152,270          | -                   | 182,254          |
| Drain tile, unglazed  |          | -                   | 2                | -                   | 317              |
| Drain and sewer pipe  |          | -                   | 53,128           | -                   | 10,856           |
| Insulators, electric, porcelain   |          | -                   | 231,296          | -                   | 170,904          |
| Earthenware and chinaware   |          | -                   | 3,637,530        | -                   | 3,236,055        |
| 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. |          | -                   | 60,420           | -                   | 48,133           |
| Brick, fire, n.o.p., for use exclusively in the construction or repair of a furnace, kiln or other equipment of a manufacturing establishment   |          | -                   | 711,410          | -                   | 384,250          |
| Firebrick, n.o.p.   |          | -                   | 41,382           | -                   | 37,173           |
| Fire brick, chrome  |          | -                   | 48,230           | -                   | 9,848            |
| Magnesite brick   |          | -                   | 152,435          | -                   | 71,077           |
| Silica brick  |          | -                   | 234,909          | -                   | 122,062          |
| Paving brick  |          | -                   | 84,326           | -                   | 14,446           |
| Other clay manufactures   |          | -                   | 1,553,097        | -                   | 780,605          |
| <b>Total</b>  |          |                     | <b>7,628,858</b> |                     | <b>5,405,750</b> |
| <b>EXPORTS—</b>   |          |                     |                  |                     |                  |
| Building brick  | M        | 1,085               | 21,144           | 535                 | 8,011            |
| Clay—   |          |                     |                  |                     |                  |
| Unmanufactured  | cwt.     | 8,016               | 4,161            | 3,031               | 895              |
| Manufactures  |          | -                   | 25,736           | -                   | 13,436           |
| Earthenware   |          | -                   | 33,745           | -                   | 33,391           |
| Porcelain insulators  |          | -                   | 333,742          | -                   | 140,761          |
| <b>Total</b>  |          |                     | <b>418,528</b>   |                     | <b>196,404</b>   |

## Coal

## Output and Value of Coal in Canada by Kinds and by Provinces, 1931 and 1932

| Province                           | 1931                    |                   | 1932                    |                   |
|------------------------------------|-------------------------|-------------------|-------------------------|-------------------|
|                                    | Quantity                | Value             | Quantity                | Value             |
| NOVA SCOTIA (Bituminous).....      | Short tons<br>4,955,563 | \$<br>19,016,720  | Short tons<br>4,084,531 | \$<br>15,123,094  |
| NEW BRUNSWICK (Bituminous).....    | 182,181                 | 743,196           | 211,055                 | 789,617           |
| MANITOBA (Lignite).....            | 1,306                   | 3,797             | 3,300                   | 9,259             |
| SASKATCHEWAN (Lignite).....        | 662,836                 | 945,259           | 875,432                 | 1,211,539         |
| ALBERTA—                           |                         |                   |                         |                   |
| Bituminous.....                    | 1,846,306               | 6,249,779         | 1,734,705               | 5,714,682         |
| Sub-bituminous.....                | 471,343                 | 1,211,197         | 560,902                 | 1,330,316         |
| Lignite.....                       | 2,246,366               | 5,881,699         | 2,571,663               | 6,472,862         |
| Total.....                         | 4,564,015               | 13,342,675        | 4,867,270               | 13,517,880        |
| BRITISH COLUMBIA (Bituminous)..... | 1,876,406               | 7,150,996         | 1,681,015               | 6,390,412         |
| YUKON (Bituminous).....            | 904                     | 5,039             | 808                     | 3,491             |
| CANADA—                            |                         |                   |                         |                   |
| Bituminous.....                    | 8,861,360               | 33,165,730        | 7,712,114               | 28,021,296        |
| Sub-bituminous.....                | 471,343                 | 1,211,197         | 560,902                 | 1,330,316         |
| Lignite.....                       | 2,910,508               | 6,830,755         | 3,450,395               | 7,693,660         |
| <b>Total</b> .....                 | <b>12,243,211</b>       | <b>41,207,682</b> | <b>11,723,411</b>       | <b>37,045,272</b> |

## Shipments of Coal from Canadian Mines by Grades and Destinations, 1931 and 1932

(Short tons)

| Destination                                     | 1931             |                  |                  |                   | 1932             |                  |                  |                   |
|---|------------------|------------------|------------------|-------------------|------------------|------------------|------------------|-------------------|
|   | Run-of-mine      | Screened         | Slack            | Total             | Run-of-mine      | Screened         | Slack            | Total             |
| Prince Edward Island.....                       | 3,339            | 69,859           | 3,285            | 76,483            | 6,222            | 58,597           | 4,323            | 69,142            |
| Nova Scotia.....                                | 241,637          | 444,489          | 441,524          | 1,127,650         | 132,417          | 356,599          | 299,032          | 788,048           |
| New Brunswick.....                              | 127,859          | 114,656          | 223,946          | 466,461           | 110,655          | 104,186          | 220,688          | 435,529           |
| Quebec.....                                     | 67,558           | 805,092          | 873,633          | 1,746,283         | 68,669           | 735,803          | 782,416          | 1,586,888         |
| Ontario.....                                    | 395              | 22,229           | 5,774            | 28,398            | 3,537            | 24,705           | 1,964            | 30,206            |
| Manitoba.....                                   | 163,632          | 282,891          | 299,360          | 746,183           | 140,833          | 437,552          | 321,176          | 899,561           |
| Saskatchewan.....                               | 222,975          | 647,457          | 429,488          | 1,299,920         | 273,284          | 1,030,038        | 258,255          | 1,562,477         |
| Alberta.....                                    | 202,137          | 377,294          | 443,193          | 1,022,624         | 197,581          | 679,164          | 228,218          | 1,104,963         |
| British Columbia.....                           | 28,780           | 574,299          | 234,588          | 837,667           | 18,665           | 631,566          | 138,491          | 788,722           |
| Yukon.....                                      | -                | 290              | -                | 290               | -                | 341              | -                | 341               |
| <b>Total domestic shipments</b> .....           | <b>1,058,612</b> | <b>3,338,626</b> | <b>2,954,791</b> | <b>7,351,929</b>  | <b>951,863</b>   | <b>4,059,451</b> | <b>2,254,563</b> | <b>7,265,877</b>  |
| Railroads.....                                  | 2,367,457        | 591,709          | 187,801          | 3,146,967         | 2,196,059        | 567,085          | 102,855          | 2,865,999         |
| Ship's bunkers.....                             | 166,590          | 55,432           | 504              | 222,526           | 116,462          | 59,209           | 3,236            | 178,907           |
| <b>Total railroads and ship's bunkers</b> ..... | <b>2,534,047</b> | <b>647,141</b>   | <b>188,305</b>   | <b>3,369,493</b>  | <b>2,312,521</b> | <b>626,294</b>   | <b>106,091</b>   | <b>3,044,906</b>  |
| United States.....                              | 1,418            | 40,484           | 82,528           | 124,430           | 2,124            | 43,199           | 65,927           | 111,160           |
| Alaska.....                                     | -                | 18,022           | -                | 18,022            | -                | 14,779           | -                | 14,779            |
| Newfoundland.....                               | 1,889            | 106,700          | -                | 108,589           | 2,889            | 107,071          | 1,220            | 111,180           |
| Other places.....                               | -                | 372              | -                | 372               | 1,045            | 1,007            | -                | 2,052             |
| <b>Total external shipments</b> .....           | <b>3,307</b>     | <b>165,578</b>   | <b>82,528</b>    | <b>251,413</b>    | <b>6,058</b>     | <b>165,966</b>   | <b>67,147</b>    | <b>239,171</b>    |
| <b>Total</b> .....                              | <b>3,595,966</b> | <b>4,151,245</b> | <b>3,225,624</b> | <b>10,972,835</b> | <b>3,270,442</b> | <b>4,851,711</b> | <b>2,427,801</b> | <b>10,549,954</b> |

Summary Statistics for 1932—Output, Exports, Interprovincial Shipments, Imports and Coal made Available for Consumption in Canada, by Provinces

(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 from other provinces | Shipped to other provinces | Exported |                      |                             |                       |                               |                                |
| <b>PRINCE EDWARD ISLAND—</b>       |               |                               |                            |          |                      |                             |                       |                               |                                |
| Anthracite.....                    | —             | —                             | —                          | —        | 2,034                | 3,865                       | —                     | —                             | 5,899                          |
| Bituminous.....                    | —             | 69,142                        | —                          | 70       | 3,973                | 2,067                       | —                     | —                             | 78,112                         |
| Total.....                         | —             | 69,142                        | —                          | 70       | 6,007                | 5,932                       | —                     | —                             | 81,011                         |
| <b>NOVA SCOTIA—</b>                |               |                               |                            |          |                      |                             |                       |                               |                                |
| Anthracite.....                    | —             | —                             | —                          | —        | 10,177               | 43,294                      | —                     | 650                           | 54,121                         |
| Bituminous.....                    | 4,084,531     | —                             | 2,024,161                  | 108,028  | 69                   | 49,274                      | —                     | —                             | 2,001,675                      |
| Total.....                         | 4,084,531     | —                             | 2,024,161                  | 108,028  | 10,230               | 92,568                      | —                     | 650                           | 2,055,796                      |
| <b>NEW BRUNSWICK—</b>              |               |                               |                            |          |                      |                             |                       |                               |                                |
| Anthracite.....                    | —             | —                             | —                          | —        | 29,666               | 78,633                      | —                     | —                             | 108,299                        |
| Bituminous.....                    | 211,055       | 367,728                       | 2,067                      | 51,315   | 11,349               | 15,792                      | —                     | —                             | 552,842                        |
| Total.....                         | 211,055       | 367,728                       | 2,067                      | 51,315   | 41,015               | 94,425                      | —                     | —                             | 660,841                        |
| <b>QUEBEC—</b>                     |               |                               |                            |          |                      |                             |                       |                               |                                |
| Anthracite.....                    | —             | —                             | —                          | —        | 408,005              | 1,241,704                   | 52,189                | —                             | 1,701,898                      |
| Bituminous.....                    | —             | 1,586,753                     | —                          | 66       | 470,731              | 290,780                     | —                     | 2                             | 2,348,250                      |
| Sub-bituminous.....                | —             | 135                           | —                          | —        | —                    | —                           | —                     | —                             | 135                            |
| Total.....                         | —             | 1,586,888                     | —                          | 66       | 878,736              | 1,532,484                   | 52,189                | 2                             | 4,050,283                      |
| <b>CENTRAL ONTARIO—</b>            |               |                               |                            |          |                      |                             |                       |                               |                                |
| Anthracite.....                    | —             | —                             | —                          | —        | 1,223,839            | 26,919                      | —                     | —                             | 1,250,758                      |
| Bituminous.....                    | —             | 3,481                         | —                          | 8        | 6,913,221            | 3,001                       | —                     | —                             | 8,919,695                      |
| Sub-bituminous.....                | —             | 5,709                         | —                          | —        | —                    | —                           | —                     | —                             | 5,709                          |
| Lignite.....                       | —             | 21,016                        | —                          | —        | —                    | —                           | —                     | —                             | 21,016                         |
| Total.....                         | —             | 30,206                        | —                          | 8        | 8,137,060            | 29,920                      | —                     | —                             | 8,197,178                      |
| <b>MANITOBA AND HEAD OF LAKES—</b> |               |                               |                            |          |                      |                             |                       |                               |                                |
| Anthracite.....                    | —             | —                             | —                          | —        | 11,808               | 4,669                       | —                     | —                             | 16,477                         |
| Bituminous.....                    | —             | 201,154                       | —                          | 195      | 766,148              | —                           | —                     | —                             | 967,107                        |
| Sub-bituminous.....                | —             | 63,387                        | —                          | —        | —                    | —                           | —                     | —                             | 63,387                         |
| Lignite.....                       | 3,300         | 635,286                       | —                          | 1,125    | 156                  | —                           | —                     | —                             | 637,617                        |
| Total.....                         | 3,300         | 899,827                       | —                          | 1,320    | 778,112              | 4,669                       | —                     | —                             | 1,684,588                      |
| <b>SASKATCHEWAN—</b>               |               |                               |                            |          |                      |                             |                       |                               |                                |
| Anthracite.....                    | —             | —                             | —                          | —        | —                    | —                           | —                     | —                             | —                              |
| Bituminous.....                    | —             | 111,830                       | —                          | 611      | 1,450                | —                           | —                     | —                             | 112,678                        |
| Sub-bituminous.....                | —             | 33,85                         | —                          | —        | —                    | —                           | —                     | —                             | 33,858                         |
| Lignite.....                       | 875,432       | 1,011,851                     | 367,379                    | 2,197    | 17                   | —                           | —                     | —                             | 1,517,724                      |
| Total.....                         | 875,432       | 1,157,539                     | 367,379                    | 2,808    | 1,476                | —                           | —                     | —                             | 1,664,260                      |
| <b>ALBERTA—</b>                    |               |                               |                            |          |                      |                             |                       |                               |                                |
| Anthracite.....                    | —             | —                             | —                          | —        | 3                    | —                           | —                     | —                             | 3                              |
| Bituminous.....                    | 1,734,705     | 12,551                        | 225,841                    | 287      | 830                  | —                           | —                     | —                             | 1,521,958                      |
| Sub-bituminous.....                | 580,902       | —                             | 141,837                    | —        | —                    | —                           | —                     | —                             | 419,065                        |
| Lignite.....                       | 2,571,663     | —                             | 1,385,580                  | 709      | —                    | —                           | —                     | —                             | 1,185,374                      |
| Total.....                         | 4,867,270     | 12,551                        | 1,753,258                  | 996      | 833                  | —                           | —                     | —                             | 3,126,400                      |
| <b>BRITISH COLUMBIA—</b>           |               |                               |                            |          |                      |                             |                       |                               |                                |
| Anthracite.....                    | —             | —                             | —                          | —        | —                    | 2                           | —                     | 700                           | 702                            |
| Bituminous.....                    | 1,681,015     | 21,109                        | 121,679                    | 109,713  | 2,424                | 1,154                       | —                     | —                             | 1,474,310                      |
| Sub-bituminous.....                | —             | 38,748                        | —                          | —        | —                    | —                           | —                     | —                             | 38,748                         |
| Lignite.....                       | —             | 84,806                        | —                          | 11,163   | 2,780                | —                           | —                     | —                             | 76,423                         |
| Total.....                         | 1,681,015     | 144,663                       | 121,679                    | 120,876  | 5,204                | 1,156                       | —                     | 700                           | 1,590,183                      |
| <b>YUKON—</b>                      |               |                               |                            |          |                      |                             |                       |                               |                                |
| Bituminous.....                    | 808           | —                             | —                          | —        | 4                    | —                           | —                     | —                             | 812                            |
| Total.....                         | 808           | —                             | —                          | —        | 4                    | —                           | —                     | —                             | 812                            |
| <b>CANADA—</b>                     |               |                               |                            |          |                      |                             |                       |                               |                                |
| Anthracite.....                    | —             | —                             | —                          | —        | 1,685,532            | 1,399,096                   | 52,189                | 1,350                         | 3,138,157                      |
| Bituminous.....                    | 7,712,114     | 2,373,748                     | 2,373,748                  | 270,283  | 8,170,245            | 362,068                     | —                     | 2                             | 15,974,139                     |
| Sub-bituminous.....                | 560,902       | 141,837                       | 141,837                    | —        | —                    | —                           | —                     | —                             | 660,902                        |
| Lignite.....                       | 3,450,385     | 1,752,959                     | 1,752,959                  | 15,194   | 2,853                | —                           | —                     | —                             | 3,438,154                      |
| Total.....                         | 11,723,411    | 4,268,544                     | 4,268,544                  | 285,487  | 9,858,733            | 1,761,154                   | 52,189                | 1,352                         | 23,111,352                     |

\* Shipments direct to Ontario points from Canadian mines.

† Consists of 650 tons of anthracite coal from Belgium, 700 tons anthracite coal from French East Indies, and 2 tons bituminous coal from Newfoundland.

## Imports of Anthracite, Bituminous and Lignite Coal into Canada, by Months, 1931 and 1932

(Short tons)

| Month              | 1931              |                |                 |                   | 1932             |                  |                 |                  |
|--------------------|-------------------|----------------|-----------------|-------------------|------------------|------------------|-----------------|------------------|
|                    | United States     | Great Britain  | Other countries | Total             | United States    | Great Britain    | Other countries | Total            |
| <b>ANTHRACITE—</b> |                   |                |                 |                   |                  |                  |                 |                  |
| January            | 239,420           | 5,699          | -               | 245,119           | 142,095          | 15,903           | -               | 157,998          |
| February           | 243,893           | 3,852          | -               | 247,745           | 119,495          | 8,916            | 650             | 129,061          |
| March              | 163,442           | 12,797         | -               | 176,239           | 214,150          | 8,103            | -               | 222,253          |
| April              | 106,362           | 9,142          | -               | 115,504           | 122,000          | 57,029           | -               | 179,029          |
| May                | 209,894           | 142,911        | -               | 352,805           | 150,802          | 170,967          | -               | 321,769          |
| June               | 188,067           | 145,359        | 14,731          | 348,157           | 109,816          | 146,657          | 5,693           | 256,166          |
| July               | 194,370           | 135,868        | 4,414           | 334,651           | 97,620           | 213,835          | 7,073           | 318,528          |
| August             | 129,812           | 88,536         | 12,406          | 230,754           | 142,135          | 196,829          | -               | 338,963          |
| September          | 194,648           | 100,514        | 15,962          | 291,124           | 126,697          | 171,444          | 6,157           | 304,298          |
| October            | 214,001           | 134,852        | 13,249          | 362,102           | 203,189          | 140,916          | 6,729           | 350,834          |
| November           | 213,750           | 85,614         | 4,592           | 293,956           | 126,027          | 197,696          | 19,266          | 342,989          |
| December           | 198,055           | 11,220         | -               | 209,275           | 140,506          | 70,792           | 7,980           | 219,278          |
| <b>Total</b>       | <b>2,235,423</b>  | <b>876,364</b> | <b>*65,354</b>  | <b>3,178,141</b>  | <b>1,685,532</b> | <b>1,399,086</b> | <b>153,539</b>  | <b>3,138,157</b> |
| <b>BITUMINOUS—</b> |                   |                |                 |                   |                  |                  |                 |                  |
| January            | 546,241           | 22             | -               | 546,263           | 471,155          | -                | -               | 471,155          |
| February           | 570,975           | 11,020         | -               | 582,001           | 376,126          | 2,722            | -               | 378,848          |
| March              | 635,130           | 2,765          | -               | 637,895           | 483,718          | 5,328            | -               | 489,046          |
| April              | 421,786           | 25             | -               | 421,811           | 357,788          | 5,530            | -               | 363,318          |
| May                | 829,580           | 8,525          | -               | 838,111           | 694,478          | 53,005           | -               | 747,483          |
| June               | 844,694           | 5,057          | -               | 850,261           | 671,034          | 34,391           | -               | 705,425          |
| July               | 899,395           | 11,156         | -               | 910,551           | 793,739          | 32,187           | -               | 825,926          |
| August             | 1,252,405         | 14,932         | -               | 1,267,337         | 818,376          | 40,674           | -               | 859,050          |
| September          | 1,210,754         | 15,010         | -               | 1,225,764         | 966,043          | 25,290           | -               | 991,333          |
| October            | 1,090,605         | 22,564         | -               | 1,113,129         | 949,388          | 31,425           | 2               | 980,815          |
| November           | 1,095,040         | 14,526         | -               | 1,109,566         | 1,047,474        | 117,411          | -               | 1,164,885        |
| December           | 828,501           | 16,090         | -               | 844,591           | 690,329          | 13,505           | -               | 703,834          |
| <b>Total</b>       | <b>10,224,982</b> | <b>127,298</b> |                 | <b>10,347,280</b> | <b>8,170,248</b> | <b>362,068</b>   | <b>12</b>       | <b>8,532,318</b> |
| <b>LIGNITE—</b>    |                   |                |                 |                   |                  |                  |                 |                  |
| January            | 1,444             | -              | -               | 1,444             | 480              | -                | -               | 480              |
| February           | 863               | -              | -               | 863               | 787              | -                | -               | 787              |
| March              | 1,295             | -              | -               | 1,295             | 223              | -                | -               | 223              |
| April              | 215               | -              | -               | 215               | 51               | -                | -               | 51               |
| May                | 101               | -              | -               | 101               | 85               | -                | -               | 85               |
| June               | 61                | -              | -               | 61                | 151              | -                | -               | 151              |
| July               | 183               | -              | -               | 183               | -                | -                | -               | -                |
| August             | 163               | -              | -               | 163               | 197              | -                | -               | 197              |
| September          | 362               | -              | -               | 362               | 43               | -                | -               | 43               |
| October            | 442               | -              | -               | 442               | 154              | -                | -               | 154              |
| November           | 569               | -              | -               | 569               | 328              | -                | -               | 328              |
| December           | 721               | -              | -               | 721               | 524              | -                | -               | 524              |
| <b>Total</b>       | <b>6,410</b>      |                |                 | <b>6,410</b>      | <b>2,953</b>     |                  |                 | <b>2,953</b>     |

\* Consists of 60,762 tons from Germany, 4,592 tons from French East Indies.

† Consists of 52,189 tons from Germany, 650 tons from Belgium, and 700 tons from French East Indies.

‡ Imported from Newfoundland.

## Coal Made Available for Consumption in Canada, 1931 and 1932

(Short tons)

| Month        | 1931              |                   |                |                             | 1932              |                   |                |                             |
|--------------|-------------------|-------------------|----------------|-----------------------------|-------------------|-------------------|----------------|-----------------------------|
|              | Output            | Imports           | Exports        | Coal made available for use | Output            | Imports           | Exports        | Coal made available for use |
| January      | 1,179,885         | 792,829           | 37,017         | 1,935,694                   | 1,188,468         | 629,633           | 34,017         | 1,784,084                   |
| February     | 963,340           | 830,609           | 21,641         | 1,772,308                   | 1,230,218         | 508,696           | 26,948         | 1,711,966                   |
| March        | 1,051,253         | 815,429           | 32,251         | 1,834,431                   | 1,050,527         | 711,522           | 27,380         | 1,734,669                   |
| April        | 898,747           | 537,530           | 12,431         | 1,423,846                   | 739,534           | 542,398           | 12,576         | 1,269,356                   |
| May          | 912,337           | 1,191,017         | 27,887         | 2,075,467                   | 697,764           | 1,039,887         | 18,269         | 1,719,382                   |
| June         | 891,425           | 1,198,479         | 38,066         | 2,051,828                   | 793,868           | 958,742           | 13,771         | 1,738,839                   |
| July         | 831,880           | 1,245,395         | 35,603         | 2,041,672                   | 651,910           | 1,054,454         | 27,878         | 1,678,486                   |
| August       | 707,547           | 1,498,354         | 27,436         | 2,238,465                   | 726,944           | 1,198,210         | 24,281         | 1,900,873                   |
| September    | 1,012,659         | 1,507,250         | 25,419         | 2,494,999                   | 934,189           | 1,296,274         | 18,854         | 2,211,609                   |
| October      | 1,226,032         | 1,475,673         | 37,782         | 2,669,923                   | 1,266,450         | 1,331,774         | 17,748         | 2,580,476                   |
| November     | 1,301,659         | 1,414,082         | 21,922         | 2,693,819                   | 1,248,811         | 1,508,202         | 33,255         | 2,723,758                   |
| December     | 1,206,447         | 1,025,187         | 42,407         | 2,189,227                   | 1,194,728         | 893,636           | 30,510         | 2,057,854                   |
| <b>Total</b> | <b>12,244,211</b> | <b>13,531,831</b> | <b>359,853</b> | <b>25,415,189</b>           | <b>11,723,411</b> | <b>11,673,428</b> | <b>285,487</b> | <b>23,111,352</b>           |

## Cobalt

*Production in Canada and Exports of Cobalt, 1931 and 1932*

|  | 1931           |                | 1932           |                |
|--|----------------|----------------|----------------|----------------|
|  | Pounds         | \$             | Pounds         | \$             |
| <b>PRODUCTION—</b>   |                |                |                |                |
| Cobalt, computed as cobalt in metal, in oxides sold, and in ores and residues exported..... <b>Total</b> | <b>521,051</b> | <b>651,179</b> | <b>490,631</b> | <b>589,962</b> |
| <b>EXPORTS—</b>  |                |                |                |                |
| Cobalt, alloys, cobalt metalics, cobalt oxides, cobalt salts and cobalt ores..... <b>Total</b>           | <b>-</b>       | <b>735,225</b> | <b>-</b>       | <b>590,334</b> |

## Coke

*Production in Canada, Imports and Exports of Coke, by Provinces, 1931 and 1932*

(Short tons)

|                                   | Year | Nova Scotia,<br>New Brunswick<br>and Quebec | Ontario   | Manitoba,<br>Saskatchewan,<br>Alberta and<br>British<br>Columbia | Canada    |
|-----------------------------------|------|---|-----------|--|-----------|
| <b>Production</b> .....           | 1931 | 538,126                                     | 1,113,509 | 181,065  | 1,832,700 |
|                                   | 1932 | 403,070                                     | 1,089,809 | 147,858  | 1,640,737 |
| <b>Imports</b> .....              | 1931 | 23,969                                      | 694,982   | 14,323   | 733,274   |
|                                   | 1932 | 35,869                                      | 605,307   | 7,813  | 648,989   |
| <b>Exports</b> .....              | 1931 | 897   | 106       | 19,977   | 20,980    |
|                                   | 1932 | 674   | -         | 14,805   | 15,479    |
| <b>Apparent consumption</b> ..... | 1931 | 561,198                                     | 1,808,385 | 175,411  | 2,544,994 |
|                                   | 1932 | 438,265                                     | 1,695,116 | 140,866  | 2,274,247 |

*Coke Production in Canada, by Months, 1932*

(Short tons)

| Months             | Bituminous coal used for coke making |                  |                  | Coke made        |
|--------------------|--------------------------------------|------------------|------------------|------------------|
|                    | Canadian                             | Imported         | Total            |                  |
| January.....       | 34,251                               | 168,548          | 202,799          | 151,111          |
| February.....      | 39,296                               | 153,061          | 192,357          | 143,915          |
| March.....         | 43,330                               | 169,472          | 212,802          | 156,108          |
| April.....         | 40,116                               | 155,088          | 195,204          | 142,606          |
| May.....           | 38,771                               | 146,882          | 185,653          | 129,194          |
| June.....          | 31,029                               | 133,346          | 164,374          | 118,719          |
| July.....          | 37,772                               | 135,237          | 173,009          | 127,168          |
| August.....        | 34,947                               | 131,439          | 166,386          | 120,936          |
| September.....     | 35,535                               | 138,302          | 173,837          | 126,639          |
| October.....       | 36,569                               | 144,158          | 180,727          | 131,472          |
| November.....      | 41,151                               | 151,778          | 192,929          | 142,616          |
| December.....      | 40,347                               | 165,977          | 206,324          | 150,253          |
| <b>Total</b> ..... | <b>453,113</b>                       | <b>1,793,288</b> | <b>2,246,401</b> | <b>1,640,737</b> |

## Copper

## Production in Canada, Imports and Exports of Copper, 1931 and 1932

|   | 1931               |                   | 1932               |                   |
|---|--------------------|-------------------|--------------------|-------------------|
|   | Pounds             | Value             | Pounds             | Value             |
| <b>PRODUCTION—</b>  |                    | \$                |                    | \$                |
| By Provinces—   |                    |                   |                    |                   |
| Quebec.....   | 68,376,985         | 5,723,154         | 67,336,692         | 4,296,216         |
| Ontario.....  | 112,882,625        | 9,096,463         | 77,055,413         | 4,407,928         |
| Manitoba.....   | 45,821,432         | 3,835,254         | 52,706,294         | 3,362,767         |
| British Columbia.....   | 65,223,348         | 5,459,194         | 50,580,104         | 3,227,111         |
| <b>Total.....</b>   | <b>292,394,390</b> | <b>24,114,065</b> | <b>247,678,503</b> | <b>15,294,022</b> |
| By Sources—   |                    |                   |                    |                   |
| In blister copper produced.....   | 243,805,331        | 20,434,685        | 210,964,478        | 13,459,956        |
| In ores exported.....   | 35,258,939         | 2,951,174         | 19,063,839         | 1,216,310         |
| In nickel-copper matte exported.....  | 13,240,120         | 728,206           | 17,650,186         | 617,756           |
| <b>Total.....</b>   | <b>292,394,390</b> | <b>24,114,065</b> | <b>247,678,503</b> | <b>15,294,022</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..... | 9,339,200          | 989,100           | 466,400            | 5,487             |
| Copper in bars or rods, in coil or otherwise, in lengths of not less than 6 feet, unmanufactured.....   | 348,200            | 52,552            | 169,200            | 26,471            |
| Copper in blocks, pigs or ingots.....   | 965,500            | 97,526            | 264,000            | 18,366            |
| Copper, old and scrap.....  | 753,400            | 73,289            | 9,800              | 627               |
| Copper, ore and concentrates.....   | —                  | —                 | —                  | —                 |
| Copper in strips, sheets or plates not polished or coated.....  | 1,074,600          | 181,782           | 286,500            | 49,578            |
| Copper tubing in lengths of not less than 6 feet, and not polished, bent or otherwise manufactured.....   | 1,874,087          | 353,685           | 1,135,966          | 209,165           |
| Copper wire.....  | 144,125            | 30,961            | 44,526             | 7,864             |
| Copper wire cloth, or woven wire of copper.....   | —                  | 7,947             | —                  | 3,416             |
| Copper wire, single or several, covered with cotton, linen, silk, rubber or other materials, including cable so covered.....  | —                  | 85,094            | *                  | —                 |
| Copper, all other, manufactures of, n.o.p.....  | —                  | 483,203           | —                  | 350,422           |
| Copper, precipitate of, crude.....  | 9,237              | 1,239             | 20,303             | 1,749             |
| Anodes of nickel, zinc, copper, silver or gold.....   | —                  | 4,377             | —                  | 2,737             |
| Copper, sub-acetate of, or verdigris, dry.....  | 2,081              | 586               | 2,209              | 318               |
| Copper, sulphate of (blue vitriol) and copper sulphate of, dehydrated, for agricultural or spraying purposes.....   | 5,231,723          | 210,328           | 5,174,057          | 164,603           |
| Copper rollers adapted for use in calico printing.....  | —                  | 87,965            | —                  | 59,066            |
| <b>Total.....</b>   | <b>—</b>           | <b>2,630,724</b>  | <b>—</b>           | <b>899,899</b>    |
| <b>EXPORTS—</b>   |                    |                   |                    |                   |
| Copper, fine, contained in ore, matte, regulus, etc.....  | 48,761,200         | 3,891,045         | 37,964,900         | 1,915,096         |
| Copper blister.....   | 37,697,700         | 3,597,146         | 21,994,500         | 1,233,090         |
| Copper, old and scrap.....  | 5,127,000          | 298,228           | 5,887,600          | 269,118           |
| Copper, pig.....  | —                  | —                 | —                  | —                 |
| Copper in bars, rods, strips, sheets, plates and tubing.....  | 105,203,200        | 9,278,441         | 62,346,700         | 14,673,447        |
| Copper in ingots, bars, cakes, slabs and billets.....   | —                  | —                 | 119,060,000        | 6,795,591         |
| Copper in rods, strips, sheets, plates and tubing.....  | —                  | —                 | 19,516,900         | 1,185,102         |
| Copper wire and cable.....  | —                  | 52,463            | —                  | 134,932           |
| Copper manufactures, n.o.p.....   | —                  | 38,300            | —                  | 25,252            |
| <b>Total.....</b>   | <b>—</b>           | <b>17,165,713</b> | <b>—</b>           | <b>16,231,628</b> |
| Copper coin, foreign.....   | —                  | 32,653            | —                  | 66,231            |
| "    Canadian.....  | —                  | 72                | —                  | 537               |

\*Included in 1932 under item "Copper wire."

†For 1932 these figures are for January, February and March only.

## Feldspar

## Production in Canada, Imports and Exports of Feldspar, 1931 and 1932

|                           | 1931          |                | 1932         |               |
|---------------------------|---------------|----------------|--------------|---------------|
|                           | Tons          | Value          | Tons         | Value         |
| <b>PRODUCTION—</b>        |               | \$             |              | \$            |
| Quebec.....               | 10,381        | 86,842         | 3,264        | 38,187        |
| Ontario.....              | 7,962         | 100,119        | 3,657        | 42,920        |
| <b>Total.....</b>         | <b>18,343</b> | <b>186,961</b> | <b>6,921</b> | <b>81,107</b> |
| <b>IMPORTS—Total.....</b> | <b>1,877</b>  | <b>37,297</b>  | <b>1,487</b> | <b>24,875</b> |
| <b>EXPORTS—Total.....</b> | <b>10,975</b> | <b>88,913</b>  | <b>2,017</b> | <b>15,465</b> |



## Fluorspar

Fluorspar production from a deposit near Madoc, Ontario, during 1932, amounted to 32 tons valued at \$464. In 1931, shipments from the same district totalling 40 tons were worth \$620.

Imports of fluorspar in 1932 totalled 1,009 tons worth \$22,965 as compared with 3,215 tons worth \$21,257 in the preceding year. Hydrofluosilicic acid amounting to 10 tons valued at \$1,901 was also imported in 1932 as against 13 tons worth \$3,264 in 1931.

## Gold

## Production of Gold in Canada by Provinces and by Sources, 1931 and 1932

|   | 1931        |            | 1932        |            |
|---|-------------|------------|-------------|------------|
|   | Fine ounces | Value      | Fine ounces | Value      |
|   |             | \$         |             | \$         |
| NOVA SCOTIA—                                      |             |            |             |            |
| In gold bullion.....                              | 460         | 9,509      | 964         | 19,928     |
| QUEBEC—   |             |            |             |            |
| In blister copper and in gold bullion.....        | 300,075     | 6,203,101  | 401,105     | 8,291,576  |
| ONTARIO—  |             |            |             |            |
| Porcupine area.....                               | 962,252     | 19,891,513 | 1,035,960   | 21,415,193 |
| Kirkland Lake area.....                           | 1,051,377   | 21,733,891 | 1,150,447   | 23,781,849 |
| Sudbury area.....                                 | 23,381      | 483,328    |             |            |
| Miscellaneous including Northwestern Ontario..... | 48,804      | 1,008,868  | 100,873     | 2,085,230  |
| Total.....  | 2,085,814   | 43,117,600 | 2,287,280   | 47,282,272 |
| MANITOBA—   |             |            |             |            |
| In gold bullion and in blister copper.....        | 102,069     | 2,128,558  | 121,982     | 2,521,592  |
| SASKATCHEWAN.....                                 | —           | —          | 12          | 248        |
| ALBERTA.....                                      | 195         | 4,031      | 111         | 2,294      |
| BRITISH COLUMBIA—                                 |             |            |             |            |
| In alluvial gold.....                             | 13,741      | 284,052    | 16,112      | 333,065    |
| In gold bullion.....                              | 37,233      | 769,674    | 57,379      | 1,186,129  |
| In blister copper.....                            | 26,364      | 544,992    | 19,013      | 393,033    |
| In base bullion and in ores exported.....         | 82,731      | 1,710,202  | 106,016     | 2,191,545  |
| Total.....  | 160,069     | 3,308,920  | 198,520     | 4,103,772  |
| YUKON—  |             |            |             |            |
| In alluvial gold.....                             | 44,061      | 910,822    | 40,373      | 834,584    |
| In ores exported.....                             | 249         | 5,147      | 234         | 4,837      |
| Total.....  | 44,310      | 915,969    | 40,607      | 839,421    |
| Canada.....                                       | 2,693,892   | 55,687,698 | 3,059,581   | 63,061,103 |

## Receipts at the Royal Mint, Ottawa, Canada, by Sources, 1931 and 1932

| Source  | 1931                |                        |                   | 1932                |                        |                   |
|---|---------------------|------------------------|-------------------|---------------------|------------------------|-------------------|
|   | Gross weight        | Precious metal content |                   | Gross weight        | Precious metal content |                   |
|   |                     | Fine gold              | Fine silver       |                     | Fine gold              | Fine silver       |
| Oz.   | Oz.                 | Oz.                    | Oz.               | Oz.                 | Oz.                    |                   |
| Nova Scotia.....  | 563.60              | 460.222                | 47.86             | 1,144.75            | 963.832                | 47.19             |
| New Brunswick.....  | —                   | —                      | —                 | —                   | —                      | —                 |
| Quebec.....   | 137,568.54          | 129,451.047            | 3,643.39          | 482,354.34          | 471,197.715            | 5,359.63          |
| Ontario.....  | 1,762,480.64        | 1,441,661.884          | 171,407.93        | 2,865,270.73        | 2,248,106.008          | 300,927.10        |
| Manitoba.....   | 56,937.51           | 25,901.456             | 3,781.17          | 56,449.14           | 34,469.810             | 4,809.00          |
| Saskatchewan.....   | 11.77               | 8.935                  | 0.95              | 3.90                | 3.085                  | 0.59              |
| Alberta.....  | 48.40               | 40.438                 | 4.35              | 124.02              | 92.490                 | 8.60              |
| British Columbia including Dominion of<br>Canada Assay Office, Vancouver..... | 116,787.19          | 94,145.269             | 10,985.85         | 84,293.28           | 62,408.419             | 13,622.75         |
| Yukon.....  | 10.00               | 7.836                  | 1.73              | 321.41              | 254.946                | 61.97             |
| Jewellery and scrap, various sources.....                                     | 47,246.43           | 29,489.420             | 4,344.02          | 30,293.07           | 12,015.167             | 3,831.25          |
| Foreign.....  | 78.04               | 70.097                 | 0.55              | 13.32               | 9.004                  | 2.52              |
| <b>Total.....</b>   | <b>3,121,732.21</b> | <b>1,721,236.603</b>   | <b>296,217.80</b> | <b>3,529,267.96</b> | <b>2,829,521.075</b>   | <b>328,676.00</b> |

## Imports into Canada and Exports of Gold, 1931 and 1932

|  | 1931              | 1932              |
|--|-------------------|-------------------|
|  | \$                | \$                |
| <b>IMPORTS—</b>  |                   |                   |
| Coin and bullion—  |                   |                   |
| Coins, British, Canadian and foreign gold coins .....  | 1,646,990         | 854,908           |
| Gold bullion in bars, blocks, ingots, drops, sheets or plates, unmanufactured .....  | 391,003           | 264,963           |
| <b>Total</b> .....   | <b>2,037,993</b>  | <b>1,119,771</b>  |
| Gold, other—   |                   |                   |
| Bullion or gold fringe .....   | 9,506             | 6,371             |
| Manufactures of gold and silver—   |                   |                   |
| Leaf .....   | 76,431            | 63,203            |
| Sweepings .....  | 35                | 70                |
| Manufactures, n.o.p. ....  | 31,878            | 19,189            |
| Electroplated ware .....   | 575,234           | 337,721           |
| Medals of gold, silver or copper and other metallic articles, actually bestowed as trophies or prizes, and received and accepted as honorary distinctions, and cups or other metallic prizes won in bona fide competitions ..... | 21,251            | 19,788            |
| <b>Total</b> .....   | <b>714,335</b>    | <b>446,342</b>    |
| <b>EXPORTS—</b>  |                   |                   |
| Coin and bullion—  |                   |                   |
| Gold coin—   |                   |                   |
| Canadian .....   | 920               | 500               |
| Foreign .....  | 37,439,464        | 9,424,691         |
| Gold bullion—  |                   |                   |
| Canadian .....   | 31,887,899        | 51,395,700        |
| Foreign .....  | -                 | 4,520             |
| <b>Total—Canadian</b> .....  | <b>31,888,819</b> | <b>51,396,200</b> |
| <b>Foreign</b> .....   | <b>37,439,464</b> | <b>9,429,211</b>  |
| <b>Total coin and fine gold bullion</b> .....  | <b>69,328,293</b> | <b>60,825,411</b> |
| Gold-bearing quartz, dust, nuggets and crude bullion obtained direct from mining operations .....  | 17,682,563        | 3,925,729         |
| Jewellers' sweepings (gold, silver and platinum) .....   | 234,276           | 290,095           |
| <b>Total</b> .....   | <b>17,916,839</b> | <b>4,215,824</b>  |

## Gold Production of the World, 1931 and 1932

Taken from "American Bureau of Metal Statistics"  
(Except Canadian Production)  
(Fine ounces)

| Country  | 1931              | 1932              |
|--|-------------------|-------------------|
| United States (a) .....                        | 2,396,000         | 2,513,000         |
| Canada .....                                   | 2,694,000         | 3,050,000         |
| Mexico .....                                   | 628,000           | 607,000           |
| South America .....                            | 587,000           | 654,000           |
| British India .....                            | 330,000           | 322,000           |
| Japan .....                                    | 430,000           | 394,000           |
| Australia and New Zealand (b) .....            | 784,000           | 938,000           |
| South Africa .....                             | 10,878,000        | 11,566,000        |
| Belgian Congo .....                            | 212,000           | 244,000           |
| Rhodesia .....                                 | 541,000           | 577,000           |
| British West Africa including Gold Coast ..... | 268,000           | 291,000           |
| Russia (c) .....                               | 1,600,000         | 1,900,000         |
| Elsewhere .....                                | 820,000           | 850,000           |
| <b>Total</b> .....                             | <b>22,168,000</b> | <b>23,906,000</b> |

(a) Includes Philippines.  
(b) Includes New Guinea.  
(c) Chiefly Siberia.

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## Graphite

## Production, Imports and Exports of Graphite, 1931 and 1932

|  | 1931       |                | 1932       |                |
|--|------------|----------------|------------|----------------|
|  | Tons       | Value          | Tons       | Value          |
|  |            | \$             |            | \$             |
| <b>PRODUCTION</b> .....                              | <b>518</b> | <b>32,149</b>  | <b>346</b> | <b>18,483</b>  |
| <b>IMPORTS</b> —                                     |            |                |            |                |
| Crucibles, plumbago .....                            | —          | 34,215         | —          | 29,909         |
| Plumbago, not ground or otherwise manufactured ..... | —          | 1,404          | —          | 1,869          |
| Plumbago, ground and manufactures of, n.o.p. ....    | —          | 81,233         | —          | 70,565         |
| <b>Total</b> .....                                   | <b>—</b>   | <b>116,852</b> | <b>—</b>   | <b>102,343</b> |
| <b>EXPORTS</b> —                                     |            |                |            |                |
| Graphite or plumbago, crude or refined .....         | <b>951</b> | <b>44,696</b>  | <b>907</b> | <b>41,146</b>  |

## Gypsum

## Production in Canada, Imports and Exports of Gypsum, 1931 and 1932

|   | 1931           |                  | 1932           |                  |
|---|----------------|------------------|----------------|------------------|
|   | Tons           | Value            | Tons           | Value            |
|   |                | \$               |                | \$               |
| <b>PRODUCTION</b> —   |                |                  |                |                  |
| Crude—  |                |                  |                |                  |
| (1) Lump or mine run .....  | 47,147         | 103,396          | 93,672         | 114,504          |
| Crushed .....   | 693,764        | 791,810          | 268,645        | 314,336          |
| Fine ground .....   | 4,418          | 21,392           | 1,826          | 10,459           |
| (2) Calcined .....  | 118,423        | 1,194,819        | 69,486         | 641,080          |
| <b>Total</b> .....  | <b>863,752</b> | <b>2,111,517</b> | <b>433,629</b> | <b>1,080,379</b> |
| <b>IMPORTS</b> —  |                |                  |                |                  |
| Gypsum, crude (sulphate of lime) .....                              | 484            | 13,491           | 55             | 1,381            |
| Plaster of Paris, or gypsum ground, not calcined .....              | 158            | 4,476            | 171            | 3,434            |
| Plaster of Paris or gypsum calcined and prepared wall plaster ..... | 11,050         | 120,516          | 1,384          | 31,165           |
| <b>Total</b> .....  | <b>11,692</b>  | <b>138,483</b>   | <b>1,610</b>   | <b>35,980</b>    |
| <b>EXPORTS</b> —  |                |                  |                |                  |
| Gypsum or plaster, crude .....                                      | 618,765        | 741,376          | 372,314        | 470,247          |
| Plaster of Paris, ground, and prepared wall plaster .....           | 3,086          | 50,774           | 799            | 13,979           |
| <b>Total</b> .....  | <b>621,851</b> | <b>792,150</b>   | <b>373,113</b> | <b>484,226</b>   |

(1) Includes some anhydrite produced in Nova Scotia.

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

### Iron Ore, Pig Iron, Steel Ingots and Castings

There were no export shipments of titaniferous ore from Quebec during 1932.

No other iron ore production was reported but imports into Canada totalled 67,567 short tons valued at \$184,363.

Shipments from Wabana mines, Newfoundland, while not included in the mineral production of Canada, have been of interest in past years because of the tonnage shipped to Nova Scotia. During 1932 shipments from Wabana mines totalled 166,303 tons valued at \$340,921, all of which was exported to Germany.

#### *Production of Pig Iron and Ferro-Alloys in Canada, 1931 and 1932*

(Tons of 2,240 lb.)

| Item                      | 1931*          |                |                | 1932           |               |                |
|---------------------------|----------------|----------------|----------------|----------------|---------------|----------------|
|                           | For own use    | For sale       | Total          | For own use    | For sale      | Total          |
| <b>IN BLAST FURNACES—</b> |                |                |                |                |               |                |
| Basic.....                | 309,650        | 2,200          | 311,850        | 105,058        | —             | 105,058        |
| Foundry.....              | 1,128          | 79,764         | 80,892         | —              | 25,246        | 25,246         |
| Malleable.....            | 5,669          | 21,027         | 27,296         | —              | 13,826        | 13,826         |
| <b>Total.....</b>         | <b>316,447</b> | <b>103,991</b> | <b>420,038</b> | <b>105,058</b> | <b>39,072</b> | <b>144,130</b> |
| Ferro-alloys.....         | —              | 46,764         | 46,764         | —              | 15,487        | 15,487         |

#### *Production of Steel Ingots and Castings in Canada, 1931 and 1932*

(Tons of 2,240 lb.)

| Item                                    | 1931*          |               |                | 1932           |               |                |
|---|----------------|---------------|----------------|----------------|---------------|----------------|
|   | For own use    | For sale      | Total          | For own use    | For sale      | Total          |
| <b>STEEL INGOTS—</b>                    |                |               |                |                |               |                |
| Open hearth—Basic.....                  | 612,402        | 35            | 612,437        | 311,741        | 619           | 312,360        |
| Acid.....                               | —              | —             | —              | —              | —             | —              |
| Electric.....                           | 25,017         | —             | 25,017         | 19,213         | —             | 19,213         |
| Other.....                              | —              | —             | —              | —              | —             | —              |
| <b>Total steel ingots.....</b>          | <b>637,419</b> | <b>35</b>     | <b>637,454</b> | <b>330,954</b> | <b>619</b>    | <b>331,573</b> |
| <b>STEEL CASTINGS—</b>                  |                |               |                |                |               |                |
| Open hearth—Basic.....                  | 3,348          | 11,412        | 14,760         | 440            | 2,393         | 2,833          |
| Acid.....                               | —              | —             | —              | —              | —             | —              |
| Bessemer.....                           | 100            | 490           | 590            | 74             | 795           | 869            |
| Electric.....                           | 13             | 19,292        | 19,305         | 300            | 7,213         | 7,513          |
| <b>Total direct steel castings.....</b> | <b>3,461</b>   | <b>31,194</b> | <b>34,655</b>  | <b>814</b>     | <b>10,401</b> | <b>11,215</b>  |
| <b>Grand total.....</b>                 | <b>640,880</b> | <b>31,229</b> | <b>672,109</b> | <b>331,768</b> | <b>11,020</b> | <b>342,788</b> |

\*Revised.

### Iron Oxides (Ochre)

Iron oxides produced from deposits in Quebec and British Columbia during 1932 amounted to 5,240 tons valued at \$46,161 as against 5,520 tons worth \$49,205 in 1931. This mineral output was utilized chiefly in the manufacture of pigments and for the purification of illuminating gas.

## Lead

## Production in Canada, Imports and Exports of Lead, 1931 and 1932

|                                      | 1931               |                  | 1932               |                  |
|--------------------------------------|--------------------|------------------|--------------------|------------------|
|                                      | Pounds             | Value            | Pounds             | Value            |
| <b>PRODUCTION—</b>                   |                    | \$               |                    | \$               |
| Ontario.....                         | 985,633            | 41,647           | 86,477             | 1,828            |
| British Columbia.....                | 261,902,236        | 7,097,812        | 252,007,574        | 5,326,432        |
| Yukon.....                           | 4,454,613          | 120,724          | 3,855,909          | 81,498           |
| <b>Total.....</b>                    | <b>267,342,482</b> | <b>7,260,183</b> | <b>255,949,960</b> | <b>5,409,758</b> |
| <b>IMPORTS—</b>                      |                    |                  |                    |                  |
| Old and scrap, pig and block.....    | 256,978            | 8,749            | 28,398             | 1,436            |
| Bars and sheets.....                 | 539,654            | 24,535           | 159,026            | 6,893            |
| Litharge.....                        | 3,866,100          | 232,280          | 2,284,700          | 125,385          |
| Acetate of lead.....                 | 102,955            | 9,146            | 124,169            | 8,195            |
| Nitrate of lead.....                 | 102,461            | 6,183            | 160,483            | 9,693            |
| Other manufactures.....              | -                  | 162,436          | -                  | 129,629          |
| Pipe lead.....                       | 127,525            | 5,750            | 31,006             | 1,350            |
| Shots and bullets.....               | 8,699              | 791              | 7,480              | 650              |
| Tea lead.....                        | 17,780             | 1,275            | -                  | -                |
| Lead arsenate.....                   | 1,248,460          | 116,996          | 830,120            | 80,488           |
| Lead tetraethyl, compounds of.....   | 1,205,305          | 1,363,209        | 1,525,825          | 1,517,639        |
| Lead pigments—                       |                    |                  |                    |                  |
| Dry white lead.....                  | 95,470             | 7,084            | 8,412              | 629              |
| White lead, ground in oil.....       | 53,119             | 4,736            | 13,632             | 1,174            |
| Dry red lead and orange mineral..... | 1,491,320          | 98,103           | 620,520            | 38,095           |
| <b>Total.....</b>                    | <b>-</b>           | <b>2,041,333</b> | <b>-</b>           | <b>1,921,226</b> |
| <b>EXPORTS—</b>                      |                    |                  |                    |                  |
| Lead, contained in ore.....          | 4,421,700          | 176,964          | 3,713,300          | 148,518          |
| Pig lead.....                        | 216,425,800        | 4,482,812        | 213,990,700        | 3,269,121        |
| <b>Total.....</b>                    | <b>220,847,500</b> | <b>4,659,776</b> | <b>217,704,000</b> | <b>3,417,639</b> |

## Lime

## Production in Canada, Imports and Exports of Lime, 1931 and 1932

|                           | Total 1931     |                  | 1932           |                  |               |                | Total 1932     |                  |
|---------------------------|----------------|------------------|----------------|------------------|---------------|----------------|----------------|------------------|
|                           | Quantity       | Value            | Quicklime      |                  | Hydrated Lime |                | Quantity       | Value            |
|                           |                |                  | Quantity       | Value            | Quantity      | Value          |                |                  |
|                           | Tons           | \$               | Tons           | \$               | Tons          | \$             | Tons           | \$               |
| <b>PRODUCTION—</b>        |                |                  |                |                  |               |                |                |                  |
| Nova Scotia.....          | 18,430         | 79,418           | 6,075          | 30,954           | 458           | 4,580          | 6,533          | 35,534           |
| New Brunswick.....        | 11,241         | 127,054          | 5,647          | 60,464           | 6,025         | 59,120         | 11,672         | 110,584          |
| Quebec.....               | 111,496        | 804,218          | 76,983         | 493,787          | 16,830        | 94,114         | 93,813         | 587,901          |
| Ontario.....              | 147,690        | 1,222,270        | 143,664        | 1,016,979        | 23,518        | 255,323        | 166,582        | 1,273,201        |
| Manitoba.....             | 21,014         | 267,401          | 15,047         | 116,369          | 3,188         | 55,741         | 18,235         | 172,110          |
| Alberta.....              | 5,118          | 46,785           | 6,043          | 53,336           | 113           | 1,241          | 6,156          | 54,577           |
| British Columbia.....     | 29,826         | 277,269          | 14,997         | 142,738          | 2,250         | 18,903         | 17,247         | 160,741          |
| <b>Total.....</b>         | <b>344,785</b> | <b>2,764,415</b> | <b>267,856</b> | <b>1,914,626</b> | <b>52,382</b> | <b>679,622</b> | <b>329,238</b> | <b>2,393,648</b> |
| <b>IMPORTS—Total.....</b> | <b>568</b>     | <b>10,561</b>    | -              | -                | -             | -              | <b>327</b>     | <b>6,241</b>     |
| <b>EXPORTS—Total.....</b> | <b>14,425</b>  | <b>283,459</b>   | -              | -                | -             | -              | <b>9,344</b>   | <b>188,329</b>   |

## Lithium Ore

It is interesting to note that a shipment of 25 tons of lithium ore was made from the Lac-du-Bonnet area, Southeastern Manitoba, in 1932. It is stated that the Manitoba lithium deposits are the only ones of possible commercial value known within the British Empire.

## Magnesite

*Production in Canada, Imports and Exports of Magnesite, 1931 and 1932*

|   | 1931   |                | 1932  |                |
|---|--------|----------------|-------|----------------|
|   | Tons   | Value          | Tons  | Value          |
| Production—Calcined or clinkered—Total                                  | 11,411 | \$ 295,579     | 8,892 | \$ 262,860     |
| Imports—  |        |                |       |                |
| Magnesia pipe covering  | -      | 126,210        | -     | 64,924         |
| Magnesite, crude rock   | -      | -              | -     | -              |
| Magnesite, dead burned, sintered, caustic, calcined or plastic magnesia | 1,787  | 40,628         | 1,065 | 28,626         |
| Brick, fire, magnesite  | -      | 152,435        | -     | 71,077         |
| <b>Total</b>  | -      | <b>319,273</b> | -     | <b>164,627</b> |
| Exports—  |        |                |       |                |
| Magnesite, calcined, dead burned, etc.                                  | 1,610  | 45,257         | 1,194 | 33,103         |

## Magnesium Sulphate

There has been no production of magnesium sulphate since 1923 when 121 tons were recovered from a deposit near Ashcroft, B.C. Importation of magnesium sulphate or Epsom salts during 1932 reached a total of 2,192 tons valued at \$47,679; in 1931, 2,060 tons valued at \$43,807 were imported.

## Manganese

In 1931 shipments of manganese ore from properties in Nova Scotia and New Brunswick totalled 117 tons worth \$2,893. There was no production reported in Canada during the year under review.

## Mercury

There is a small occurrence of cinnabar near Kamloops, British Columbia, but production has been very limited. No primary Canadian mercury was produced in 1932. During 1932 imports into Canada of mercury amounted to 43,230 pounds valued at \$37,068 as against 21,159 pounds worth \$25,454 in 1931.

## Metals of the Platinum Group

*Production of Platinum Group Metals, Canada, 1931 and 1932*

|                               |            | 1931             |                          | 1932             |                          |
|-------------------------------|------------|------------------|--------------------------|------------------|--------------------------|
|                               |            | Platinum         | Palladium, Rhodium, etc. | Platinum         | Palladium, Rhodium, etc. |
| Produced from Canadian Ores   | Oz         | 44,725           | 46,918                   | 27,151           | 37,497                   |
|                               | \$         | 1,595,117        | 1,217,717                | 1,091,674        | 897,587                  |
| Recovered from alluvial sands | Oz         | 50               | -                        | 55               | -                        |
|                               | \$         | 1,783            | -                        | 2,211            | -                        |
| <b>Total</b>                  | <b>Oz.</b> | <b>44,775</b>    | <b>46,918</b>            | <b>27,206</b>    | <b>37,497</b>            |
|                               | <b>\$</b>  | <b>1,596,900</b> | <b>1,217,717</b>         | <b>1,093,885</b> | <b>897,587</b>           |

*Imports into Canada and Exports of Platinum, 1931 and 1932*

|  | 1931   |                  | 1932   |                  |
|--|--------|------------------|--------|------------------|
|  | Oz.    | Value            | Oz.    | Value            |
| Imports—   |        |                  |        |                  |
| Platinum retorts, pans, condensers, tubing and pipe  | -      | 1,520            | -      | 30               |
| Platinum wire and bars, strips, sheets or plates, also platinum, palladium, iridium, osmium, ruthenium and rhodium in lumps, ingots, powder, sponge or scrap | -      | 45,802           | -      | 29,740           |
| Platinum crucibles   | -      | 7,106            | -      | 8,638            |
| <b>Total</b>   | -      | <b>54,428</b>    | -      | <b>38,408</b>    |
| Exports—   |        |                  |        |                  |
| Platinum, etc., contained in concentrates or other forms   | 14,202 | 1,135,388        | 14,570 | 1,155,705        |
| Platinum, old and scrap  | 81     | 2,070            | 50     | 2,374            |
| <b>Total</b>   | -      | <b>1,137,458</b> | -      | <b>1,158,079</b> |

## Mica

## Production of Mica in Canada, 1931 and 1932

| Grade               | 1931             |                                       |                    | 1932           |                                       |                    |
|---------------------|------------------|---------------------------------------|--------------------|----------------|---------------------------------------|--------------------|
|                     | Quantity         | Value,<br>f.o.b.<br>shipping<br>point | Price per<br>pound | Quantity       | Value,<br>f.o.b.<br>shipping<br>point | Price per<br>pound |
|                     | Lb.              | \$                                    | \$                 | Lb.            | \$                                    | \$                 |
| Rough cobbled ..... | -                | -                                     | -                  | -              | -                                     | -                  |
| Thumb trimmed ..... | 49,835           | 5,717                                 | 0-11               | 2,019          | 1,254                                 | 0-62               |
| Splittings .....    | 37,475           | 14,398                                | 0-38               | 3,350          | 2,014                                 | 0-60               |
| Scrap .....         | 2,589,918        | 33,951                                | 0-01               | 612,980        | 3,560                                 | 0-06               |
| <b>Total</b> .....  | <b>2,677,228</b> | <b>54,066</b>                         | <b>0-02</b>        | <b>618,349</b> | <b>6,828</b>                          | <b>0-01</b>        |

## Imports into Canada and Exports of Mica, 1931 and 1932

|  | 1931  |               | 1932 |               |
|--|-------|---------------|------|---------------|
|  | Tons  | Value         | Tons | Value         |
|  |       | \$            |      | \$            |
| <b>IMPORTS—</b>                                      |       |               |      |               |
| Mica and manufactures of, n.o.p.— <b>Total</b> ..... | -     | <b>92,294</b> | -    | <b>71,719</b> |
| <b>EXPORTS—</b>                                      |       |               |      |               |
| Rough cobbled and thumb trimmed .....                | 23    | 3,428         | 1    | 177           |
| Mica splittings .....                                | 19    | 14,672        | 50   | 26,833        |
| Mica, scrap and waste .....                          | 1,232 | 32,600        | 300  | 2,843         |
| Mica, plate and manufactures of (micanite) .....     | -     | 797           | -    | 1,260         |
| <b>Total</b> .....                                   | -     | <b>51,497</b> | -    | <b>31,113</b> |

## Mineral Waters

Mineral springs and wells in Canada produced 79,066 imperial gallons of commercial mineral waters during 1932. This output was valued at \$7,171. The production during the previous year totalled 217,408 gallons worth \$13,324.

## Molybdenite

No production of molybdenum ores was reported in Canada during 1932. In 1931 a comparatively small shipment of molybdenite concentrates was made from Renfrew county, Ontario.

## Natural Gas

## Production in Canada and Imports of Natural Gas, 1931 and 1932

|   | 1931              |                  | 1932              |                  |
|---|-------------------|------------------|-------------------|------------------|
|   | M cu. ft.         | Value            | M cu. ft.         | Value            |
|   |                   | \$               |                   | \$               |
| <b>PRODUCTION—</b>  |                   |                  |                   |                  |
| New Brunswick .....   | 655,891           | 323,184          | 645,010           | 317,603          |
| Ontario .....   | 7,419,534         | 4,635,497        | 7,244,624         | 4,514,000        |
| Manitoba .....  | 600               | 180              | 600               | 180              |
| Alberta .....   | 17,798,698        | 4,067,803        | 15,985,744        | 3,820,722        |
| <b>Total</b> .....  | <b>25,871,723</b> | <b>9,026,754</b> | <b>21,875,978</b> | <b>8,652,505</b> |
| <b>IMPORTS—</b>   |                   |                  |                   |                  |
| Gas for cooking, heating or illuminating, imported by pipe line— <b>Total</b> ..... | <b>109,168</b>    | <b>74,961</b>    | <b>129,840</b>    | <b>91,231</b>    |

## Nickel

*Production in Canada, Imports and Exports of Nickel, 1931 and 1932*

|   | 1931              |                   | 1932              |                  |
|---|-------------------|-------------------|-------------------|------------------|
|   | Quantity          | Value             | Quantity          | Value            |
|   | Lb.               | \$                | Lb.               | \$               |
| <b>PRODUCTION—</b>  |                   |                   |                   |                  |
| Nickel in matte and speiss exported (a).....  |                   |                   |                   |                  |
| Refined and electrolytic nickel produced.....   |                   |                   |                   |                  |
| Nickel in oxides and salts sold.....  |                   |                   |                   |                  |
| <b>Total</b> .....  | <b>65,666,320</b> | <b>15,267,453</b> | <b>30,327,968</b> | <b>7,179,862</b> |
| <b>IMPORTS—</b>   |                   |                   |                   |                  |
| Nickel, nickel silver and German silver in ingots or block, n.o.p.....                  | 36,001            | 5,318             | 7,364             | 2,179            |
| Nickel in bars and rods, strips, sheets and plates.....                                 | 616,027           | 228,435           | 452,781           | 172,446          |
| Nickel silver and German silver in bars, rods, strips, sheets, plates<br>or anodes..... | 85,708            | 26,558            | 37,218            | 12,585           |
| Nickel chromium in bars or rods, etc.....   | 44,111            | 45,033            | 41,434            | 46,443           |
| German, Nevada and nickel silver, manufactures of, not plated.....                      | -                 | 229,412           | -                 | 160,798          |
| Nickel-plated household hollow-ware.....  | -                 | 13,213            | -                 | 12,915           |
| Nickel kitchenware.....   | -                 | 2,597             | -                 | 825              |
| Nickel-plated ware, n.o.p.....  | -                 | 1,185,115         | -                 | 845,734          |
| <b>Total nickel and its products</b> .....  | <b>-</b>          | <b>1,735,681</b>  | <b>-</b>          | <b>1,253,925</b> |
| <b>EXPORTS—</b>   |                   |                   |                   |                  |
| Nickel, fine.....   | 27,132,700        | 7,140,420         | 15,165,500        | 4,022,748        |
| Nickel contained in matte.....  | 33,287,600        | 6,048,508         | 15,169,200        | 2,757,713        |
| Nickel in oxide.....  | 3,108,300         | 992,637           | 1,737,200         | 503,503          |
| <b>Total</b> .....  | <b>63,528,600</b> | <b>14,181,565</b> | <b>32,071,900</b> | <b>7,283,964</b> |

(a) Nickel in matte exported valued at 18 cents per pound.

*Output from Nickel-Copper Mines and Smelters, 1930-1932*

|   | Unit  | 1930        | 1931        | 1932       |
|---|-------|-------------|-------------|------------|
| Ore mined.....  | ton   | 2,127,043   | 1,714,075   | 826,041    |
| Ore shipped.....  | ton   | 2,115,139   | 1,689,874   | 790,615    |
| Content of ores, etc., shipped—                           |       |             |             |            |
| Copper.....   | pound | 142,948,534 | 123,641,180 | 92,144,651 |
| Nickel.....   | pound | 122,195,531 | 89,424,886  | 39,001,127 |
| Ore and concentrates treated at smelters.....             | ton   | 2,357,154   | 1,884,959   | 793,552    |
| Matte produced at smelters.....                           | ton   | 166,703     | 100,273     | 36,942     |
| Content of matte—   |       |             |             |            |
| Copper.....   | pound | 141,600,753 | 77,621,143  | 25,824,108 |
| Nickel.....   | pound | 122,224,662 | 81,285,931  | 32,290,872 |
| Matte shipped to Canadian refineries.....                 | ton   | 137,364     | 63,076      | 6,651      |
| Matte exported from Canadian smelters and refineries..... | ton   | 34,550      | 30,294      | 21,778     |

## Peat

Peat production from Canadian bogs amounted to 3,248 tons in 1932 as compared with 1,674 tons produced in 1931.



## Petroleum

Production of Crude Petroleum in Canada, 1931 and 1932

|                               | 1931             |                  | 1932             |                  |
|-------------------------------|------------------|------------------|------------------|------------------|
|                               | Barrels          | Value            | Barrels          | Value            |
|                               |                  | \$               |                  | \$               |
| NEW BRUNSWICK.....            | 6,577            | 15,461           | 6,404            | 14,323           |
| ONTARIO—                      |                  |                  |                  |                  |
| Petrolia and Enniskillen..... | 57,515           | 101,946          | 58,871           | 110,390          |
| Oil Springs.....              | 30,792           | 57,628           | 31,438           | 62,057           |
| Moore Township.....           | 3,739            | 6,621            | 3,272            | 6,132            |
| Sarnia Township.....          | 1,466            | 2,600            | 1,227            | 2,299            |
| Plympton Township.....        | 295              | 523              | 274              | 513              |
| Bothwell Township.....        | 18,024           | 31,933           | 19,460           | 32,467           |
| West Dover.....               | 891              | 1,581            | 453              | 849              |
| Onondaga.....                 | 34               | 129              | 543              | 1,918            |
| Moza Township.....            | 8,517            | 15,092           | 8,429            | 15,795           |
| Euphemia.....                 | 121              | 216              | 496              | 929              |
| Dunwich.....                  | 508              | 902              | 285              | 534              |
| Thamesville.....              | 463              | 822              | 534              | 1,001            |
| Dawn.....                     | -                | -                | 5,061            | 9,484            |
| Total for Ontario.....        | 122,365          | 219,993          | 130,343          | 247,408          |
| ALBERTA.....                  | 1,413,631        | 3,076,220        | 912,500          | 2,739,095        |
| <b>Canada</b> .....           | <b>1,542,573</b> | <b>4,211,674</b> | <b>1,049,253</b> | <b>3,008,886</b> |

## Imports into Canada and Exports of Petroleum and Its Products, 1931 and 1932

|   | 1931          |                   | 1932        |                   |
|---|---------------|-------------------|-------------|-------------------|
|   | Quantity      | Value             | Quantity    | Value             |
|   |               | \$                |             | \$                |
| <b>IMPORTS—</b>   |               |                   |             |                   |
| Asphaltum solid.....cwt.  | 738,018       | 517,532           | 250,649     | 193,912           |
| Asphaltum not solid.....  | —             | 35,854            | —           | 10,709            |
| Asphaltum oil for paving purposes only.....   | —             | 45,557            | —           | 8,887             |
| 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.   | 1,017,388,091 | 22,670,225        | 889,838,742 | 26,310,278        |
| 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.  | 77,280        | 3,221             | 306,975     | 13,837            |
| Petroleum (not including crude petroleum imported to be refined or illuminating or lubricating oils) 0.8235 specific gravity or heavier at 60 degrees temperature.....gal.  | 53,550,063    | 1,760,513         | 57,292,849  | 2,062,912         |
| 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.   | 127,830       | 59,426            | 118,987     | 58,400            |
| 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. | 3,296,711     | 161,228           | 20,061,147  | 1,021,485         |
| <b>KEROSENE, FUEL AND ILLUMINATING OILS</b>   |               |                   |             |                   |
| Coal oil and kerosene lighter than .8235 specific gravity at 60 degrees temperature, n.o.p.....gal.   | 3,493,849     | 212,420           | 1,670,205   | 126,768           |
| Illuminating oils, composed wholly or in part of the products of petroleum, coal, shale or lignite, costing more than 30 cents per gallon.....gal.  | 33,322        | 15,033            | 2,117       | 890               |
| Engine distillate lighter than 0.8235 specific gravity at 60 degrees temperature.....gal.   | 172,588       | 15,246            | 63,842      | 6,843             |
| Fuel oil, ex-warehoused for ships' stores.....gal.  | 35,900,828    | 891,962           | 32,008,998  | 857,490           |
| <b>LUBRICATING OILS</b>   |               |                   |             |                   |
| Lubricating oils, composed wholly or in part of petroleum, and costing less than 25 cents per gallon.....gal.   | 9,319,547     | 1,591,795         | 7,849,532   | 1,460,204         |
| Lubricating oils, n.o.p.....gal.  | 4,459,269     | 1,975,349         | 3,753,387   | 1,567,818         |
| <b>GASOLINE AND OTHER OILS</b>  |               |                   |             |                   |
| Gasoline, 0.725 specific gravity and heavier, but no heavier than 0.770 specific gravity at 60 degrees temperature.....gal.   | 8,610         | 821               | —           | —                 |
| 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 gasolines distilled in Canada.....gal.    | 32,140,805    | 2,152,102         | 26,693,969  | 1,530,657         |
| Gasoline lighter than 0.8235 specific gravity at 60 degrees temperature.....gal.  | 73,243,020    | 6,372,346         | 74,859,806  | 7,503,705         |
| Gasoline, n.o.p.....gal.  | 11,320,270    | 1,147,897         | —           | —                 |
| All other oils, n.o.p.....gal.  | 578,535       | 127,343           | 229,589     | 80,093            |
| <b>OTHER PRODUCTS OF PETROLEUM</b>  |               |                   |             |                   |
| Grease, axle.....lb.  | 4,148,459     | 206,770           | 3,148,868   | 169,484           |
| Paraffine wax.....lb.   | 2,473,199     | 74,561            | 1,619,905   | 53,508            |
| Paraffine wax candles.....lb.   | 429,976       | 79,437            | 309,486     | 58,204            |
| Vaseline, and all similar preparations of petroleum for toilet, medicinal or other purposes.....  | —             | 186,290           | —           | 200,084           |
| Naphtha and products of petroleum, n.o.p., lighter than 0.8235 specific gravity at 60 degrees temperature.....gal.  | 3,443,531     | 329,867           | 1,884,317   | 176,702           |
| <b>Total.....</b>   | <b>—</b>      | <b>40,632,795</b> | <b>—</b>    | <b>43,472,870</b> |
| <b>EXPORTS—</b>   |               |                   |             |                   |
| Oil, petroleum, crude.....gal.  | 16,277,182    | 677,378           | 7,297,332   | 244,613           |
| Oil, coal and kerosene, refined.....gal.  | 504,364       | 52,328            | 884,623     | 116,897           |
| Oil, gasoline and naphtha.....gal.  | 5,500,606     | 889,827           | 4,209,436   | 585,790           |
| Oil, mineral, n.o.p.....gal.  | 885,122       | 185,177           | 7,022,816   | 276,015           |
| Wax, mineral.....cwt.   | 9,469         | 31,092            | 23,855      | 66,144            |
| <b>Total.....</b>   | <b>—</b>      | <b>1,835,802</b>  | <b>—</b>    | <b>1,289,459</b>  |

## Phosphate

Imports of rock phosphate (fertilizer) into Canada totalled 65,533 tons worth \$346,907 in 1932 as against 141,722 tons worth \$619,079 in 1931. During 1932 phosphate totalling 1,316 tons valued at \$12,333 was produced in Quebec.

## Pyrites\*

## Production in Canada, Imports and Exports of Pyrites, 1931 and 1932

|   | 1931            |                | 1932            |                |
|---|-----------------|----------------|-----------------|----------------|
|   | Sulphur content | Value          | Sulphur content | Value          |
|   | tons            | \$             | tons            | \$             |
| <b>PRODUCTION—</b>                                      |                 |                |                 |                |
| Quebec .....  | 14,586          | 108,617        | 17,954          | 133,838        |
| Ontario .....   | 6,508           | 65,080         | 3,332           | 33,320         |
| British Columbia .....                                  | 29,013          | 255,760        | 31,886          | 302,856        |
| <b>Total .....</b>                                      | <b>50,107</b>   | <b>429,457</b> | <b>53,172</b>   | <b>470,014</b> |
| <b>IMPORTS—</b>   |                 |                |                 |                |
| Brinestone, or sulphur, crude or in roll or flour ..... | 124,192         | 2,281,054      | 104,995         | 2,023,085      |
| <b>EXPORTS—</b>   |                 |                |                 |                |
| Pyrites (Sulphur content) .....                         | 26,613          | 139,814        | 17,455          | 80,568         |

\*Sulphur.—It has been the practice of the Bureau in past years to report export shipments of pyrites in terms of the sulphur content of the pyrites. In view of the fact that there is now an important production of sulphur in the form of sulphuric acid made from waste bessemer gases, it has been decided to modify the method of reporting production so as to show the total sulphur content of pyrites shipped and of bessemer gases used in the manufacture of sulphuric acid.

## Quartz

## Production in Canada and Imports of Quartz, 1931 and 1932

|  | 1931           |                | 1932           |                |
|--|----------------|----------------|----------------|----------------|
|  | Tons           | Value          | Tons           | Value          |
|  |                | \$             |                | \$             |
| <b>PRODUCTION—</b>                                     |                |                |                |                |
| Nova Scotia .....                                      | 3,116          | 6,836          | —              | —              |
| Quebec .....   | 26,987         | 69,759         | 17,022         | 66,091         |
| Ontario .....  | 97,888         | 148,642        | 07,025         | 33,724         |
| Manitoba .....   | 67,214         | 76,624         | 87,253         | 102,493        |
| British Columbia .....                                 | 519            | 1,297          | —              | —              |
| <b>Total .....</b>                                     | <b>195,724</b> | <b>303,158</b> | <b>171,900</b> | <b>263,208</b> |
| <b>IMPORTS—</b>  |                |                |                |                |
| Silic or crystallized quartz, ground or unground ..... | 6,358          | 141,818        | 61,186         | 167,997        |
| Flint and ground flint stones .....                    | 2,616          | 23,653         | 1,926          | 16,075         |
| <b>Total .....</b>                                     | <b>8,974</b>   | <b>165,471</b> | <b>8,112</b>   | <b>184,072</b> |

## Salt

## Production of Salt in Canada, by Grades, 1931 and 1932

| Grade  | 1931              |                |   | 1932              |                |   |
|--|-------------------|----------------|---|-------------------|----------------|---|
|  | Manu-<br>factured | Sold           | Value of<br>salt sold<br>(Not includ-<br>ing con-<br>tainers) | Manu-<br>factured | Sold           | Value of<br>salt sold<br>(Not includ-<br>ing con-<br>tainers) |
|  | tons              | tons           | \$  | tons              | tons           | \$  |
| Table, dairy and pressed blocks .....                            | 57,250            | 57,294         | 1,130,378   | 61,168            | 60,128         | 1,104,649   |
| Common fine .....  | 55,510            | 57,886         | 339,459   | 58,472            | 59,036         | 349,571   |
| Common coarse .....  | 44,295            | 45,326         | 326,970   | 44,757            | 47,499         | 304,482   |
| Land salt .....  | 542               | 527            | 1,861   | 583               | 583            | 2,349   |
| Other grades .....   | 56                | 56             | 259   | 55                | 55             | 258   |
| Brine for chemical works (Salt equivalent<br>sold or used) ..... | 97,958            | 97,958         | 90,222  | 96,242            | 96,242         | 90,242  |
| <b>Total .....</b>   | <b>255,611</b>    | <b>259,047</b> | <b>1,904,149</b>  | <b>261,277</b>    | <b>263,543</b> | <b>1,947,551</b>  |
| Value of containers .....  | —                 | —              | 491,357   | —                 | —              | 590,413   |
| <b>Gand total .....</b>  | <b>255,611</b>    | <b>259,047</b> | <b>2,395,506</b>  | <b>261,277</b>    | <b>263,543</b> | <b>2,507,964</b>  |

## Imports into Canada and Exports of Salt, 1931 and 1932

|   | 1931           |                | 1932           |                |
|---|----------------|----------------|----------------|----------------|
|   | Tons           | Value<br>\$    | Tons           | Value<br>\$    |
| <b>IMPORTS—</b>   |                |                |                |                |
| Salt, for use of the sea or gulf fisheries.....   | 56,166         | 248,155        | 27,798         | 100,939        |
| Salt, in bulk, n.o.p.....   | 40,323         | 177,738        | 39,065         | 177,623        |
| Salt, n.o.p., in bags, barrels, etc.....  | 34,112         | 309,203        | 34,990         | 307,195        |
| Salt, table, made by an admixture of other ingredients, when containing not less than 90 per cent of pure salt..... | 294            | 16,842         | 180            | 10,197         |
| <b>Total</b> .....  | <b>130,895</b> | <b>751,938</b> | <b>102,033</b> | <b>595,954</b> |
| <b>EXPORTS—</b>   |                |                |                |                |
| <b>Total</b> .....  | <b>6,125</b>   | <b>55,110</b>  | <b>5,627</b>   | <b>36,248</b>  |

## Sand-Lime Brick

Statistics relating to the production of sand-lime brick are not included in the totals for the structural materials industries as both sand and lime used have been so recorded; production of sand-lime brick is regarded as a manufacturing operation and therefore is shown in the report on the *Manufactures of the Non-Metallic Minerals*, issued annually by the Bureau.

Figures on the production of sand-lime brick had not been received in sufficient detail at the time of going to press with this report to make an estimate for 1932. Production in 1931 totalled 46,003 thousand valued at \$469,783.

## Sand and Gravel

Sand and gravel production in Canada during 1932 totalled 12,599,706 tons with a valuation of \$4,019,397 as compared with 21,748,586 tons valued at \$6,651,165 shipped in 1931.

Imports of sand and gravel into Canada during 1932 amounted to 36,387 tons worth \$48,677 while silica sand imported for the manufacture of glass and carborundum and for use in foundries amounted to 59,176 tons valued at \$162,869. Corresponding data in 1931 showed 155,482 tons worth \$139,935 and silica sand 107,711 tons at \$235,191. Exports of sand and gravel in 1932 totalled 177,710 tons appraised at \$33,620 as against a total of 485,813 tons worth \$146,060 exported in 1931.

## Silver

## Production, Imports and Exports of Silver, 1931 and 1932

|  | 1931              |                  | 1932              |                  |
|--|-------------------|------------------|-------------------|------------------|
|  | Quantity          | Value            | Quantity          | Value            |
|  | fine ozs.         | \$               | fine ozs.         | \$               |
| NOVA SCOTIA—   |                   |                  |                   |                  |
| In gold bullion—Total.....   | 48                | 14               | 47                | 15               |
| QUEBEC—  |                   |                  |                   |                  |
| In gold ores in blister copper and in copper ores exported—Total.....  | 539,345           | 158,414          | 628,902           | 199,183          |
| ONTARIO—   |                   |                  |                   |                  |
| In silver bullion and nuggets.....   | 6,100,055         | 1,822,086        | 4,781,174         | 1,514,276        |
| In gold bullion.....   | 357,311           | 106,729          | 445,713           | 141,165          |
| In blister copper produced; and in ores, concentrates, residues and<br>matte exported or treated in smelters outside the province..... | 981,585           | 293,199          | 1,114,166         | 352,874          |
| <b>Total</b> .....   | <b>7,438,951</b>  | <b>2,222,014</b> | <b>6,341,053</b>  | <b>2,008,315</b> |
| MANITOBA—  |                   |                  |                   |                  |
| In gold bullion and in blister copper—Total.....   | 836,547           | 249,577          | 1,036,479         | 328,271          |
| SASKATCHEWAN.....  | -                 | -                | 16                | 5                |
| ALBERTA—Total.....   | 29                | 9                | 9                 | 3                |
| BRITISH COLUMBIA—  |                   |                  |                   |                  |
| In alluvial gold.....  | 3,091             | 923              | 2,912             | 922              |
| In gold bullion.....   | 6,843             | 2,044            | 11,301            | 3,579            |
| In blister copper.....   | 820,715           | 245,148          | 599,810           | 189,019          |
| In base bullion and in ores exported.....  | 7,230,950         | 2,159,885        | 6,084,700         | 2,117,154        |
| <b>Total</b> .....   | <b>8,061,599</b>  | <b>2,488,000</b> | <b>7,295,723</b>  | <b>2,310,674</b> |
| †YUKON AND NORTHWEST TERRITORIES—  |                   |                  |                   |                  |
| In alluvial gold.....  | 9,914             | 2,961            | 9,084             | 2,877            |
| In ores exported or shipped to Canadian smelters.....  | 3,684,814         | 1,100,654        | 3,045,080         | 964,426          |
| <b>Total</b> .....   | <b>3,694,728</b>  | <b>1,103,615</b> | <b>3,054,164</b>  | <b>967,303</b>   |
| <b>Canada</b> .....  | <b>20,562,247</b> | <b>6,141,943</b> | <b>18,356,393</b> | <b>5,913,769</b> |
| IMPORTS—   |                   |                  |                   |                  |
| Silver in bars, etc., unmanufactured.....  | -                 | 407,404          | -                 | 585,788          |
| Silver manufactures of n.o.p., and articles consisting wholly or in<br>part of sterling or other silverware.....                       | -                 | 115,127          | -                 | 94,108           |
| Silver and other coin except gold.....   | -                 | 260              | -                 | -                |
| <b>Total</b> .....   | -                 | <b>582,791</b>   | -                 | <b>679,896</b>   |
| EXPORTS—   |                   |                  |                   |                  |
| Silver contained in ore, concentrates, etc.....  | 4,017,182         | 1,168,261        | 3,488,064         | 982,652          |
| Silver bullion.....  | 14,640,185        | 4,230,998        | 13,504,060        | 3,978,438        |
| <b>Total</b> .....   | <b>18,657,367</b> | <b>5,399,259</b> | <b>16,992,124</b> | <b>4,961,090</b> |
| Silver coin, Foreign.....  | -                 | 3,447,323        | -                 | 808,695          |
| " Canadian.....  | -                 | 17,461           | -                 | 86,689           |

†Includes production from N.W.T. in 1932 only.

## Slate

Imports into Canada during the year under review were: roofing slate 1,521 squares valued at \$11,819; slate pencils valued at \$2,810; school writing slates worth \$35,732; slate mantels and other manufactures of slate valued at \$7,570. No production was reported in Canada in 1932.

## Sodium Carbonate

The output of sodium carbonate crystals in 1932 amounted to 520 tons worth \$3,606 as compared with shipments of 712 tons at \$7,351 in the preceding year.

Soda ash is manufactured from salt brine at Amherstburg, Ontario, by the Brunner, Mond Canada, Limited.

## Sodium Sulphate

Shipments of natural sodium sulphate from deposits in Saskatchewan during 1932 were valued at \$271,736 as against \$421,097 in 1931.

## Stone

*Production in Canada, Imports and Exports of Stone, 1931 and 1932*

|  | 1931               |                     | 1932               |                    |
|--|--------------------|---------------------|--------------------|--------------------|
|  | Tons               | Value<br>\$         | Tons               | Value<br>\$        |
| <b>PRODUCTION—</b>   |                    |                     |                    |                    |
| Nova Scotia .....  | 83, 181            | 225, 632            | 40, 703            | 97, 887            |
| New Brunswick .....  | 62, 325            | 341, 991            | 38, 820            | 183, 918           |
| Quebec .....   | 4, 265, 529        | 5, 893, 042         | 2, 198, 665        | 2, 301, 421        |
| Ontario .....  | 3, 359, 364        | 2, 881, 444         | 2, 122, 392        | 1, 765, 619        |
| Manitoba .....   | 153, 248           | 642, 649            | 78, 423            | 299, 282           |
| Alberta .....  | 2, 496             | 9, 642              | 1, 428             | 2, 985             |
| British Columbia .....   | 471, 717           | 1, 075, 784         | 323, 479           | 516, 274           |
| <b>Canada .....</b>  | <b>8, 397, 560</b> | <b>11, 070, 184</b> | <b>4, 803, 910</b> | <b>5, 167, 386</b> |
| <b>IMPORTS—</b>  |                    |                     |                    |                    |
| Building stone, other than marble or granite, sawn on more than two sides, but not sawn on more than four sides .....  | 837                | 7, 824              | 18                 | 275                |
| Building stone other than marble or granite, planed, turned, cut or further manufactured than sawn on four sides ..... | 110                | 3, 544              | 7                  | 796                |
| Flagstone, sandstone, and all building stone, not hammered, sawn or chiselled .....                                    | -                  | 152, 387            | -                  | 32, 887            |
| Flagstone and building stone, other than marble or granite, sawn on not more than two sides .....                      | -                  | 20, 377             | -                  | 1, 758             |
| Granite, sawn only .....   | -                  | 3, 815              | -                  | 7, 689             |
| Granite, manufactures of, n.o.p. ....  | -                  | 10, 848             | -                  | 11, 240            |
| Granite monuments .....  | -                  | 94, 806             | -                  | 68, 466            |
| Granite, rough, not hammered or chiselled .....  | -                  | 48, 805             | -                  | 48, 351            |
| Paving blocks .....  | -                  | 25                  | -                  | 620                |
| Marble, rough, not hammered or chiselled .....   | -                  | 90, 626             | -                  | 18, 648            |
| Marble, sawn or sand rubbed, not polished .....  | -                  | 144, 971            | -                  | 27, 132            |
| Marble, not further manufactured than sawn for tombstones .....  | -                  | 7, 165              | -                  | 12, 323            |
| Marble, manufactures of, n.o.p. ....   | -                  | 96, 363             | -                  | 30, 721            |
| Refruse stone .....  | 214, 973           | 186, 360            | 33, 388            | 28, 559            |
| Manufactures of stone, n.o.p. ....   | -                  | 62, 376             | -                  | 34, 221            |
| <b>Total .....</b>   | <b>-</b>           | <b>939, 192</b>     | <b>-</b>           | <b>323, 692</b>    |
| <b>EXPORTS—</b>  |                    |                     |                    |                    |
| Crushed stone .....  | 74, 244            | 135, 140            | 43, 093            | 80, 451            |
| Granite and marble, unwrought .....  | 2, 938             | 52, 058             | 2, 133             | 41, 172            |
| Freestone, limestone, and other building stone, unwrought .....  | 305                | 2, 087              | 20                 | 100                |
| Dressed stone .....  | -                  | 3, 080              | -                  | 3, 084             |
| <b>Total .....</b>   | <b>-</b>           | <b>192, 365</b>     | <b>-</b>           | <b>124, 807</b>    |

*Production of Stone in Canada by Kinds and by Provinces, 1932*

|                              | Granite        |                  | Limestone        |                  | Marble        |                | Sandstone      |                |
|------------------------------|----------------|------------------|------------------|------------------|---------------|----------------|----------------|----------------|
|                              | Tons           | \$               | Tons             | \$               | Tons          | \$             | Tons           | \$             |
| Nova Scotia.....             | 12,210         | 32,061           | 7,441            | 24,970           | -             | -              | 21,052         | 40,856         |
| New Brunswick.....           | 4,384          | 103,699          | 22,707           | 47,554           | -             | -              | 11,729         | 32,665         |
| Quebec.....                  | 122,714        | 523,158          | 1,600,426        | 1,305,246        | 9,059         | 204,305        | 466,466        | 268,712        |
| Ontario.....                 | 73,272         | 186,357          | 2,043,768        | 1,532,104        | 2,065         | 40,175         | 3,287          | 6,893          |
| Manitoba.....                | 18             | 232              | 78,405           | 299,050          | -             | -              | -              | -              |
| Alberta.....                 | -              | -                | 1,428            | 2,985            | -             | -              | -              | -              |
| British Columbia.....        | 185,427        | 192,344          | 133,752          | 120,930          | 300           | 3,000          | 4,000          | 200,000        |
| <b>Total for Canada.....</b> | <b>398,025</b> | <b>1,037,851</b> | <b>3,887,927</b> | <b>3,352,929</b> | <b>11,424</b> | <b>247,480</b> | <b>506,534</b> | <b>549,126</b> |

**Talc and Soapstone**

*Production in Canada, Imports and Exports of Talc and Soapstone, 1931 and 1932*

|  | 1931         |                | 1932         |                |
|--|--------------|----------------|--------------|----------------|
|  | Tons         | Value          | Tons         | Value          |
| <b>PRODUCTION—</b>                                       |              | \$             |              | \$             |
| Soapstone.....   | -            | 34,430         | -            | 40,751         |
| Talc.....  | 11,806       | 122,644        | 12,103       | 112,287        |
| <b>Total.....</b>  | -            | <b>157,073</b> | -            | <b>169,038</b> |
| <b>IMPORTS—</b>  |              |                |              |                |
| Talc or soapstone, ground or unground— <b>Total.....</b> | <b>2,670</b> | <b>49,452</b>  | <b>1,900</b> | <b>49,774</b>  |
| <b>EXPORTS—</b>  |              |                |              |                |
| Talc— <b>Total.....</b>                                  | <b>7,851</b> | <b>83,765</b>  | <b>7,806</b> | <b>85,790</b>  |

**Zinc**

*Production in Canada, Imports and Exports of Zinc, 1931 and 1932*

|   | 1931               |                  | 1932               |                  |
|---|--------------------|------------------|--------------------|------------------|
|   | Pounds             | Value            | Pounds             | Value            |
| <b>PRODUCTION—</b>  |                    | \$               |                    | \$               |
| Quebec.....   | -                  | -                | -                  | -                |
| Ontario.....  | -                  | -                | -                  | -                |
| Manitoba.....   | 35,173,749         | 898,338          | 41,736,600         | 1,004,016        |
| British Columbia.....   | 202,071,702        | 5,160,911        | 130,546,958        | 3,140,438        |
| <b>Total.....</b>   | <b>237,245,451</b> | <b>6,059,249</b> | <b>172,283,558</b> | <b>4,144,454</b> |
| <b>IMPORTS—</b>   |                    |                  |                    |                  |
| Zinc dust.....  | 527,641            | 40,032           | 530,028            | 40,623           |
| Zinc in blocks, pigs, bars and rods, and zinc plates, n.o.p.....  | 403,205            | 12,798           | 123,476            | 3,248            |
| Zinc in sheets and strips and zinc plates for marine boilers..... | 4,013,796          | 272,012          | 4,070,523          | 273,359          |
| Zinc spelter.....   | 22,378             | 1,073            | 66,476             | 1,897            |
| Zinc white.....   | 11,483,357         | 641,570          | 10,112,476         | 456,861          |
| Zinc sulphate and chloride of.....                                | 2,242,204          | 77,278           | 336,685            | 10,907           |
| Zinc sulphate.....  | -                  | -                | 719,923            | 14,628           |
| Zinc, chloride of.....  | -                  | -                | 1,456,036          | 50,630           |
| Zinc, manufactures of, n.o.p.....                                 | -                  | 122,131          | -                  | 80,261           |
| Lithopone.....  | 13,862,914         | 560,037          | 16,110,700         | 585,148          |
| <b>Total.....</b>   | -                  | <b>1,726,931</b> | -                  | <b>1,517,562</b> |
| <b>EXPORTS—</b>   |                    |                  |                    |                  |
| Zinc in ore.....  | -                  | -                | -                  | -                |
| Zinc scrap, dross and ashes.....                                  | 1,093,100          | 10,918           | 827,900            | 9,522            |
| Zinc spelter.....   | 238,018,000        | 5,554,511        | 175,321,800        | 3,852,990        |
| <b>Total.....</b>   | -                  | <b>5,564,529</b> | -                  | <b>3,862,512</b> |



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