1899

MINERAL PRODUCTION OF CANADA

To Dr. G. M. Dawson, C.M.G., F.R.S.,
Director of the Geological Survey.

Sir,—I have the honour to submit herewith the annual preliminary statistical statement of the mineral production of Canada for the calendar year 1899.

As in the past, it has not been found possible to get in all the returns at this date, but we are enabled in most cases to fill in the places of those missing by close estimates based on a general knowledge of the progress made in the various industries.

Thus, although the figures must be taken as subject to revision, they may be considered as very close to those which will be given in the final report.

The completed annual report will follow later, and besides containing a revise of the general table of production, will include other details relating to exploration, development, exports, imports, etc. As much of this information is not available till several months after the close of the year, and the compilation and printing necessarily occupy some time, it cannot be completed until well on in the year following the one covered.

I am, sir,

Your obedient servant,

ELFRIC DREW INGALL.

Geological Survey of Canada,
Section of Mineral Statistics and Mines,
27th February, 1900.

GEOLOGICAL SURVEY OF CANADA

G. M. DAWSON, C.M.G., LL.D., F.R.S., DIRECTOR.

SECTION OF

MINERAL STATISTICS AND MINES

SUMMARY

OF THE

MINERAL PRODUCTION OF CANADA

FOR 1899.

ELFRIC DREW INGALL, M.E.

Associate of the Royal School of Mines, England, Mining Engineer to the Geological Survey of Canada.

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PUBLISHED BY AUTHORITY OF PARLIAMENT.

No. 686

GEOLOGICAL SURVEY OF CANADA.

SUMMARY OF THE MINERAL PRODUCTION OF CANADA IN 1899.

(Subject to Revision.)

Product.		Quantity. (a)	Value. (a)
Metallic.			$
Copper (fine, in ore, &c.) (b)	Lbs.	15,078,475	2,655,319
Gold, Yukon District	$ 16,000,000		
" all other	5,049,730		
			21,049,730
Iron ore	Tons.	77,158	248,372
Lead (fine, in ore, &c.) (c)	Lbs.	21,862,436	977,250
Nickel (fine, in ore, &c.) (d)	"	5,744,000	2,067,840
Platinum	Oz.	55	835
Silver (fine, in ore, &c.) (e)	Lbs.	3,078,837	1,834,371
Total metallic			28,833,717
Non-Metallic.			
Arsenic	Lbs.	114,637	4,872
Asbestus and asbestic	Tons.	25,285	483,299
Chromite	"	1,980	33,760
Coal	"	4,565,993	9,040,058
Coke (f)	"	100,820	350,022
Feispar	"	3,000	6,000
Fire-clay	"	599	1,295
Graphite	"	1,220	16,179
Grindstones	"	4,511	43,265
Gypsum	"	244,566	257,329
Limestone for flux	"	53,202	45,662
*Manganese ore	"	308	3,960
Mica			163,000
Mineral pigments –			
Baryta	Tons.	720	4,402
Ochres	"	3,919	19,900
Mineral water			100,000
Moulding sand	Tons.	13,724	27,430
Natural gas (g)			387,271
Petroleum (h)	Bbls.	808,570	1,202,020
Phosphate (apatite)	Tons.	3,000	18,000
Pyrites	"	27,687	110,748
Salt	"	57,095	234,520
Soapstone	"	450	1,960

* Returns incomplete.

(a) Quantity or value of product marketed. The ton used is that of 2,000 lbs.

(b) Copper contents of ore, matte, &c., at 17·61 cents per lb.

(c) Lead contents of ores, &c., at 4·47 cents per lb.

(d) Nickel contents of ore, matte, &c., at 36 cents per lb.

(e) Silver contents of ore at 59·58 cents per oz.

(f) Oven coke, all the production of Nova Scotia and British Columbia.

(g) Gross return from sale of gas.

(h) Calculated from inspection returns at 100 galls. crude to 42 refined oil, and computed at 81.48⅝ per bbl. of 35 imp. galls. The barrel of refined oil is assumed to contain 42 imp. galls.

SUMMARY OF THE MINERAL PRODUCTION OF CANADA IN 1899—*Concluded.*

(Subject to Revision.)

Product.	Quantity. *(a)*	Value. *(a)*
Structural Materials and Clay Products.		$
Cement, natural rock ..... Bbls.	131,387	119,508
" Portland ..... "	255,366	513,983
Flagstones	.....	7,600
Granite	.....	90,542
Pottery	.....	200,000
Sewer pipe	.....	161,546
Slate	.....	33,406
Terra-cotta	.....	220,258
Building material including bricks, building stone, lime, sands and gravels, and tiles	.....	4,250,000
Total structural materials and clay products	.....	5,596,843
" all other non-metallic	.....	12,544,952
Total non-metallic	.....	18,141,795
Total metallic	.....	28,833,717
Estimated value of mineral products not returned	.....	300,000
Total, 1899	.....	47,275,512
1898, Total	.....	38,661,010
1897 "	.....	28,661,430
1896 "	.....	22,584,513
1895 "	.....	20,639,964
1894 "	.....	19,931,158
1893 "	.....	20,035,082
1892 "	.....	16,628,417
1891 "	.....	18,976,616
1890 "	.....	16,763,353
1889 "	.....	14,013,913
1888 "	.....	12,518,894
1887 "	.....	11,321,331
1886 "	.....	10,221,255

(a) Quantity or value of product marketed. The ton used is that of 2,000 lbs.

REMARKS.

The increase in the value of the mineral production of Canada which has been so noticeable a feature in the figures for the previous four years is continued during 1899. Compared with the corrected total for 1898, the preliminary figures for 1899 show an increase of over 22·2 per cent, the increases for 1898 and 1897 having been nearly 35 per cent and nearly 27 per cent, respectively.

Of the above-mentioned 22·28 per cent, 15·52 per cent is to be credited to the increased output of gold from the Yukon placers, 2·92 per cent to the increases in the other metallic products, and 3·84 per cent to the growth of the non-metallic mineral industries.

The value of the mineral production of the country per capita for 1899 would be about $8.90, having increased almost fourfold in the fourteen years since 1886, when the first figures are available.

A study of the figures given in the table following, shows that the metallic products contribute some 61 per cent of the value of the whole, and these, together with coal, petroleum and building material, account for all but about 9 per cent of the grand total.

The proportional contributions of the various products for 1898 and 1899, are shown below.

1898.		1899.	
Product.	Per cent of Total Production.	Product.	Per cent of Total Production.
Gold	35·63	Gold	44·53
Coal	21·27	Coal	19·12
Building material	10·77	Building material	8·99
Silver	6·71	Copper	5·62
Copper	5·52	Nickel	4·37
Nickel	4·71	Silver	3·88
Lead	3·12	Petroleum	2·54
Petroleum	2·75	Lead	2·07
Asbestus	1·27	Cement	1·34
Cement	1·03	Asbestus	1·02
Natural gas	·83	Natural gas	·82
Coke	·74	Coke	·74
Salt	·64	Gypsum	·54
Gypsum	·60	Iron ore	·53
Pottery	·55	Salt	·50

The chief points of interest brought out by the above figures lie in the much greater prominence assumed by gold, and the falling off in the silver and lead, which now occupy the sixth and eighth places, as compared with the fourth and seventh positions formerly occupied by these metals.

The progress, &c., of the several mineral industries in comparison with 1898, is shown below.

Product.	Quantity.		Value.	
	Increase.	Decrease.	Increase.	Decrease.
	p. c.	p. c.	p. c.	p. c.
Metallic :—				
Copper		15·04	24·84	
Gold			52·81	
Iron ore	32·25		62·56	
Lead		31·50		18·99
Nickel	4·10		13·56	
Silver		30·85		29·28
Non-Metallic :—				
Asbestus	6·30			1·61
Coal	9·43		9·94	
Coke	15·09		22·38	
Cement	54·57		59·34	
Gypsum	11·54		10·67	
Natural gas			20·22	
Petroleum	6·62		13·21	

In copper, owing to the large advance in prices, there was a marked increase in value notwithstanding the decrease in the output. The main features of the industry consisted in decreases in the production of the Quebec and Ontario mines, for, although in the latter case the amount of ore treated was greater than in 1898, the content of copper was lower. The shipments of ore from the Parry Sound district, although small, constitute a new feature in this industry. In British Columbia there was a large advance in the production, chiefly from the Rossland mines.

The value of the gold production shews a large percentage increase, in the Yukon and Ontario especially, the former having grown 60 per cent. and the latter over 58 per cent. In the case of iron ore, the large advance shewn was only to be expected from the great demand which arose, and in view of the growth in the last few years of the iron smelting industry of the country.

The increase in the quantity and value of the nickel produced, attests the continued prosperity of the mines of Sudbury, Ontario, notwithstanding their decreased output of copper as mentioned above. Of the chief contributors to the total mineral production of the country, lead and silver are the only two shewing a considerable falling off, and that notwithstanding more favourable prices. This is due to local causes in British Columbia, not dependent on the value of the deposits but which have led to the restriction of operations there.

With the exception of a slight falling off in the value of the asbestus, all the other chief minerals show considerable advances, both in amount and value. Inspection of the figures shews this especially to be the case in the cement and coke making industries.