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DOMINION BUREAU OF STATISTICS - CANADA
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THE NICKEL-COPPER MINING, SMELTING AND REFINING INDUSTRY IN CANADA, 1928.

Mining, smelting and refining of the nickel-copper ores of the Sudbury district showed a great improvement in 1928 over 1927, according to a statement just issued by the Dominion Bureau of Statistics at Ottawa. More ore was treated by the smelters, and as a consequence more matte was produced and a larger output of refinery products was obtained than ever before.

The Creighton mine and the smelter at Coppercliff, Ontario, were operated continuously throughout the year by the International Nickel Company, Limited, and facilities for the production of electrolytic nickel at the Port Colborne refinery were increased by the installation of a second electrolytic unit in September, a third in December, 1928, and a fourth in February, 1929. Three additional units were to be added later in 1929. In addition to electrolytic nickel, this refinery produces refined nickel, nickel oxide, metals of the platinum group and converter copper, carrying gold and silver, which is exported to the United States for refining. Bessemer matte is shipped directly from the smelter at Coppercliff to Huntington, West Virginia, U.S.A., for the manufacture of monel metal.

The Mond Nickel Company, Limited, operated the Garson, Levack, and Frood extension mines, the smelter at Coniston and utilized the bessemer gases for the manufacture of high-grade sulphuric acid. Matte from Coniston was sent to Clydach, Wales, where pure nickel, copper sulphate, gold, silver, and metals of the platinum group were recovered.

Apart from the actual production from the older properties of the district, development on the International and Mond sections of the Frood mine, were so encouraging and showed so much ore of high copper content that it was deemed advisable towards the end of 1928 to merge the two companies. On the completion of the merger, ownership and control of this large ore body passed into the hands of a single powerful organization splendidly equipped to operate the property in a highly efficient manner and to market the products to the best possible advantage. In addition to the operations of the Mond and International Nickel Companies, the Falconbridge Nickel Mines, Ltd., acquired a large acreage in the nickel area of the Sudbury district and started development work in September, 1928. The first unit of a smelter plant which will have a capacity of 200 tons daily is now in the course of construction.

The McVittie Graham Mines, Limited, also began development on some properties in this district in the fall of 1928.

During 1928 the 2 producing companies mined 1,457,910 tons of ore containing 33,743 tons of copper and 50,210 tons of nickel. The smelters trated 1,476,704 tons of ore and concentrates and produced 91,313 tons of matte which contained 59,408,538 pounds of copper and 86,786,830 pounds of nickel. Shipments of matte to the Canadian refinery amounted to 68,463 tons and export shipments to Great Britain and the United States totalled 39,310 tons.

Capital employed in the nickel-copper mining, smelting and refining industry amounted to $76,605,559 of which $45,106,028 was invested in lands, buildings, plant, machinery and tools, at the mines and $20,199,878 at the smelter and refinery; cost of materials and stocks on hand at the mines, smelters and refinery, $5,075,811, and cash, trading and operating accounts and bills receivable, $6,223,842.

Salaried employees at the mines, smelters and refinery numbered 187 people and salaries totalled $606,809. Of the 3,926 wage-earners, 1,919 were employed in and about the mines and 2,007 at the smelters and refinery. Wages for the year totalled $6,056,710. During the month of highest employment the mines had 1,827 men working 8 hours or less per day, 489 men 9 hours per day, 27 men working 10 hours and 9 men over 10 hours. The smelters and refinery employed 1,900 men on the 8 hour shift; 375 men, 9 hours per day; 118 men, 10 hours; and 3 men over 10 hours.

Fuel and electricity consumed by these mining and smelting operations cost $1,415,986 of which $364,947 was expended for electric power, $604,490 for imported bituminous coal, and $383,258 for fuel oil. Power employed consisted of 17 steam engines with a rating of 4,655 h.p.; 2 oil engines rated at 157 h.p.; and 778 electric motors capable of producing 61,886 h.p. There were also 12 boilers rated at 4,825 h.p.

PRINCIPAL STATISTICS OF THE NICKEL-COPPER MINING, SMELTING AND REFINING INDUSTRY IN CANADA, 1927-1928.

		1927	1928
Number of firms		2	4
Number of mines		6	8
Number of smelters		2	2
Number of refineries		1	1
Capital employed	$	69,436,704	76,605,559
Number of employees:-			
On salary		173	187
On wages		3,347	3,926
Total		3,520	4,113
Salaries and wages:-			
Salaries	$	544,167	606,809
Wages	$	4,919,446	6,056,710
Total	$	5,463,613	6,663,519
Estimated value of matte exported and refinery products produced	$	21,594,078	32,494,359

OUTPUT FROM NICKEL-COPPER MINES AND SMELTERS, 1927 and 1928.

		1927	1928
Ore mined	Tons	1,305,917	1,457,910
Ore shipped	Tons	1,305,917	1,457,910
Content of ores, etc., shipped -			
Copper	lb.	55,128,978	67,485,937
Nickel	lb.	87,147,139	100,420,842
Ores, concentrates treated at smelters	Tons	1,350,214	1,476,704
Matte produced	Tons	81,848	91,313
Content of matte:-			
Copper	lb.	51,937,215	59,408,536
Nickel	lb.	79,246,144	86,786,830
Matte shipped to Canadian refineries	Tons	39,942	66,463
Matte exported to foreign smelters	Tons	33,541	39,310

PRODUCTION IN CANADA AND EXPORTS OF NICKEL, 1927 and 1928.

	1927		1928	
	Quantity	Value	Quantity	Value
	Pounds	$	Pounds	$
PRODUCTION -				
Nickel in matte and speiss exported[a]	31,584,097	5,685,138	37,783,991	6,801,118
Refined and electrolytic nickel produced	28,469,996	7,497,436	49,144,875	12,596,371
Nickel in oxides and salts sold	6,744,624	2,079,597	9,826,712	2,921,418
Total	66,798,717	15,262,171	96,755,578	22,318,907
EXPORTS -				
Nickel, fine	29,015,800	7,896,211	51,188,700	13,320,034
Nickel contained in matte	36,458,800	5,784,623	36,370,800	5,457,222
Nickel in oxide	5,196,100	1,600,986	9,607,200	3,004,951
Total	...	15,281,820	...	21,782,207

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