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DOMINION BUREAU OF STATISTICS - CANADA
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THE SILVER MINING INDUSTRY IN CANADA, 1929.

- (a) The Silver-Cobalt Mining Industry.
- (b) The Silver-Lead-Zinc Mining Industry.

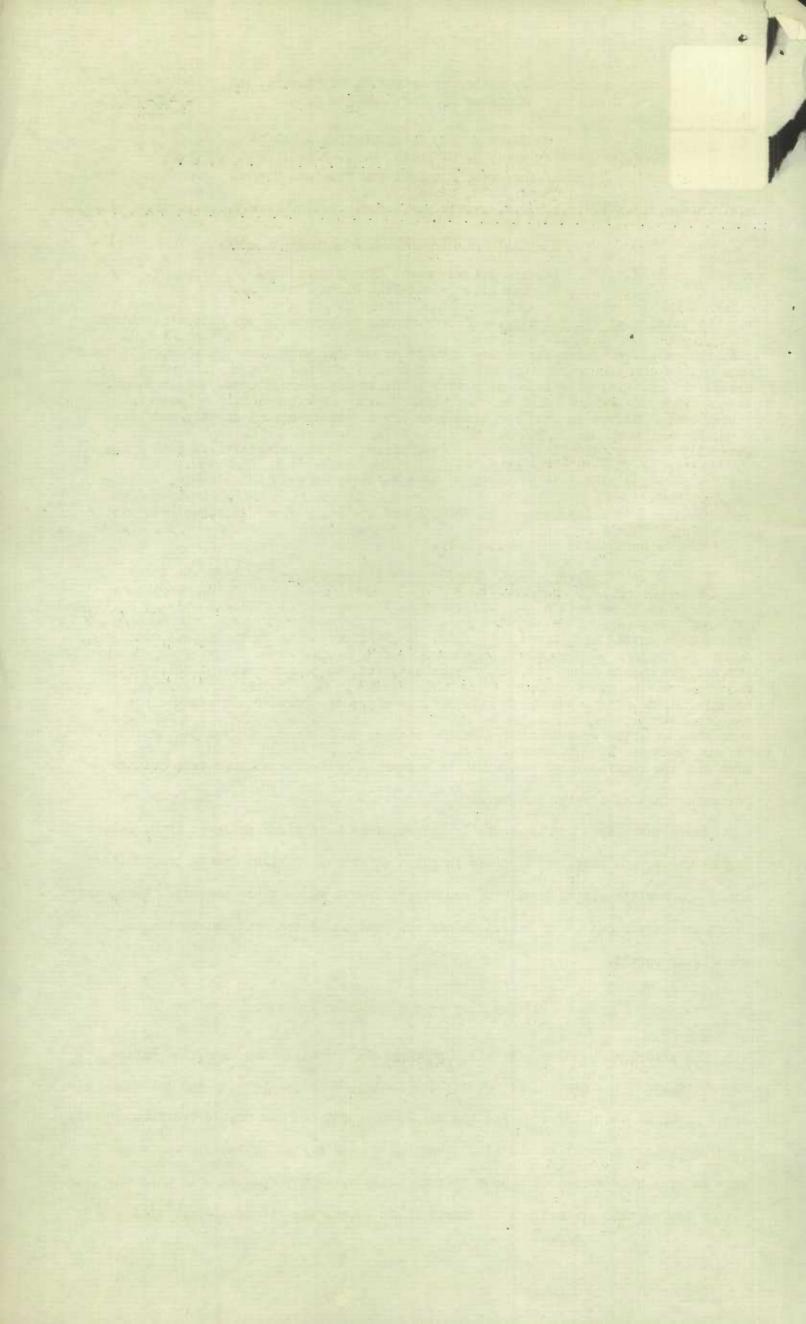
Definition of the Industry. Silver mining in Canada is not a distinct mining industry as silver generally occurs with other metals; with lead and zinc, with cobalt, nickel and arsenic; with lode and placer gold; in copper-gold ores, and in nickel-copper ores. Silver in lead and zinc ores and in cobalt-nickel-arsenic ores is generally the predominating factor in determining the marketability of such ores. Silver-lead-zinc mining is a very important industry in British Columbia, the Yukon Territory, and to a less extent in Ontario and Quebec, whereas silver-cobalt mining in Canada is restricted to Ontario only.

Production of silver, lead, zinc, cobalt and arsenic.— In 1929 the total production of these metals from all Canadian sources was as follows: silver, 23,143,261 fine ounces valued at \$\frac{0}{2}\$,264,308; lead, 326,522,566 pounds worth \$\frac{0}{6}\$,544,248; zinc, 197,267,087 pounds worth \$\frac{0}{1}\$,626,778; cobalt, 929,415 pounds worth \$\frac{0}{1}\$,801,915; and arsenic, 5,230,088 pounds worth \$\frac{0}{1}\$,171,320. The greater part of the arsenic was recovered as white arsenic at the Deloro smelter in Ontario and from silver-cobalt ores and the remainder was contained in arsenical gold ores shipped from British Columbia mines to foreign smelters.

Among the metals and minerals in Canada, lead held fifth place in 1929, silver eighth place, and zinc, minth place in point of value. In 1929 Canada ranked third among the world's silver producing countries; fourth among those producing lead, and sixth in smelter output of zinc. Canada and Central Africa produce about equal amounts of cobalt.

(a) The Silver-Cobalt Mining Industry

The principal producers in this industry were the Nipissing mine, the Mining Corporation and the O'Brien at Cobalt; the Keeley, Frontier-Lorrain and Lorrain Trout Lake, at South Lorrain; and the Miller Lake O'Brien and Castle Tretheway in the Gowganda area. Several of the older properties were worked by leasers who were able to mine silver ore, at a profit, from veins which were passed over when the mine was on large scale production. A considerable amount was recovered from mill



cleanups and dumps.

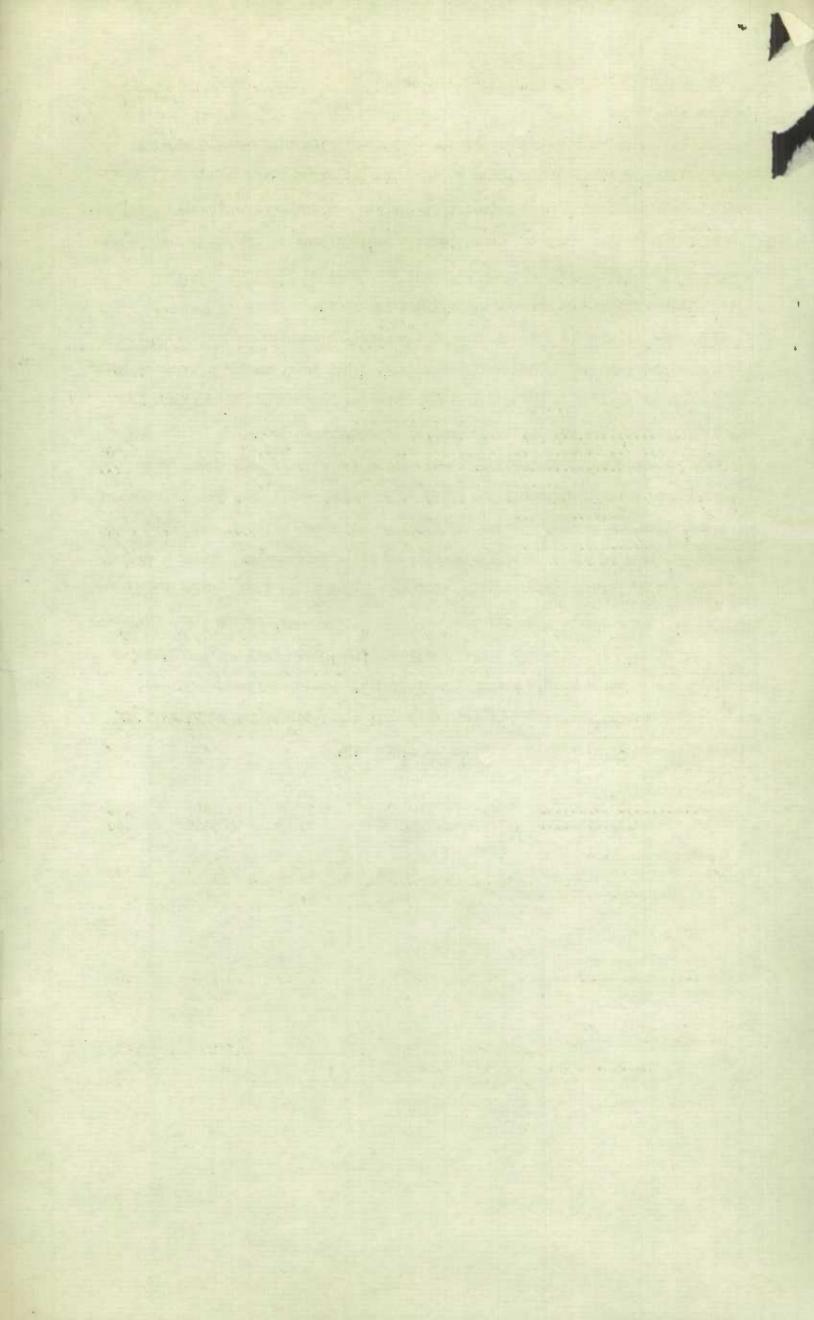
The Nipissing Mining Company was the only company in this group producing silver bullion in 1929. Other mines in the district shipped are to the mill of the Cobalt Reduction Company, to the Deloro smelter and to smelters in foreign countries.

During 1929 this group of mines produced 242,591 tons of one and milled 235,546 tons to produce 3,996 tons of concentrates; one cyanided amounted to 45,421 tons and silver bullion production reached 1,546,165 fine ounces.

Shipments of oresand concentrates to the Canadian smelter amounted to 2,932 tons and to European and United States smelters, 2,263 tons, making a total of 5,195 tons in 1929 as against 6,125 tons in 1928. The total value of all shipments, including bullion, was \$3,918,316 as against \$3,938,884 in 1928.

Capital employed in the silver-cobalt mining industry in 1929 amounted to \$15,820,435 of which \$10,537,310 was invested in lands, buildings, plant, machinery and tools; \$262,569 represented cost of supplies and stock on hand, and \$5,020,556 was in cash, trading and operating accounts and bills receivable.

Salaried officials numbered 96 in 1929 as against 94 in 1928. Wage-earners averaged 1,053 persons of whom 648 were employed underground, 297 on the surface and 106 in the mills. Salaries and wages totalled \$1,532,333. Fuel cost \$407,952 at the mines and included \$275,789 for electric power. Power equipment employed, exclusive of boilers, consisted of 171 units having a total rating of 7,137 h.p. Boilers numbered 15 with a total rating of 1,258 h.p.



-3-PRINCIPAL STATISTICS OF THE SILVER-COBALT MINING INDUSTRY IN CANADA. 1925 - 1929.

ENGINEE STATISTICS OF THE STEVEN-CODALE MINING INDUSTRI IN CANADY, 1920 - 1929.								
							Net value of	
	Number of	Number of		Number	Salaries	Cost of	bullion, ore,	
	active	operating	Capital	of em-	and	fuel and	concentrates	
	operators	mines	employed	ployees	wages	elec-	and residues	
						tricity	sold	
			\$			\$	Ş	
1925	33	38	44,045,619	1,788	2,576,414	498,874	6,611,644	
1926	33	37	40,504,721	1,779	2,815,930	518,907	5,470,433	
1927	23	26	30,123,645	1,458	2,178,163	472,548	4,760,546	
1928	15	19	22,027,685	1,166	1,809,466	430,683	3,938,884	
1939	27	32	15,820,435	1,149	1,532,333	407,952	3,918,316	

STATISTICS OF THE SILVER-COBALT MINES AND MULL OPERATIONS IN CANADA, 1928 and 1929.

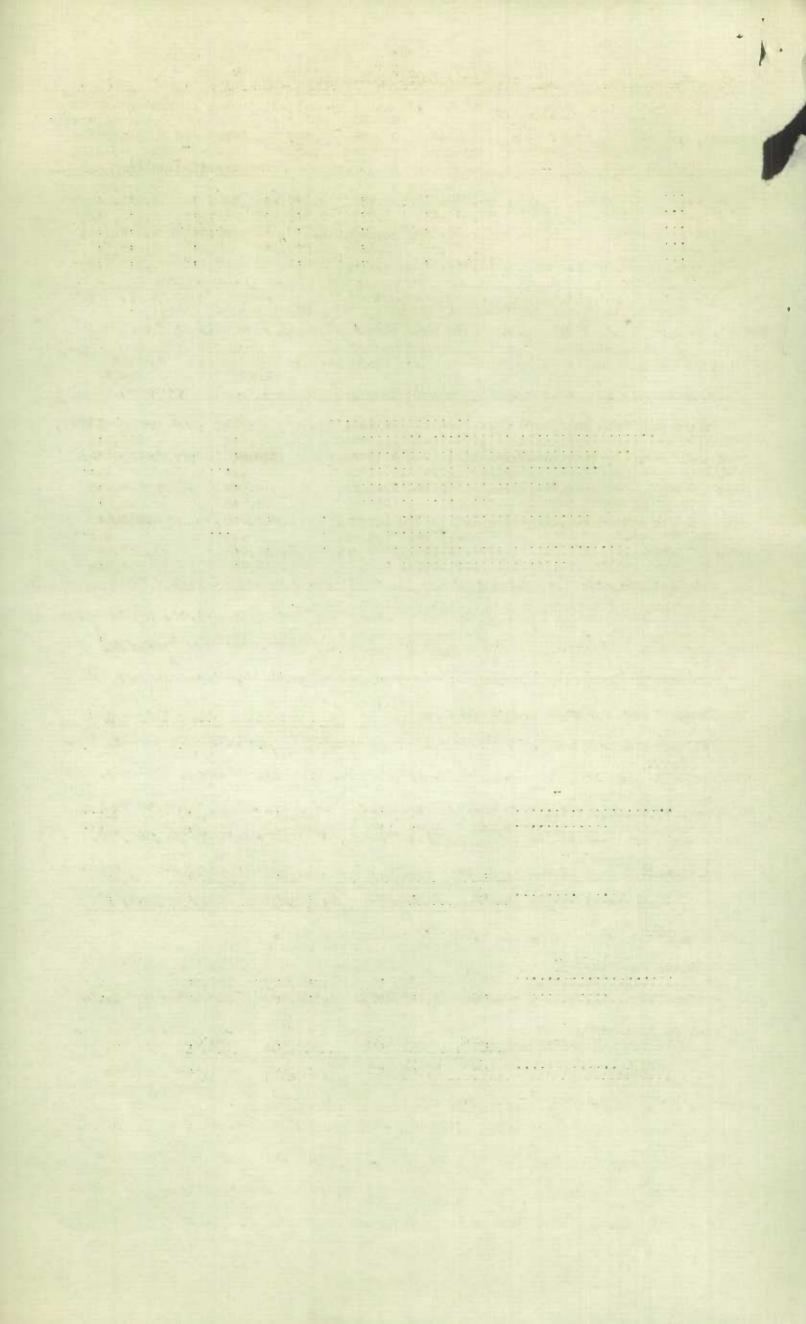
		1928	1929
Number of mines in operation (x)		19	32
Ore mined		260,644	242,591
Ores treated		252,670	235,546
Tailings treated	tons	***	• • •
Concentrates produced	tons	4,649	3,996
Quantity of material cyanided	tons	63,592	45,421
Bullion recovered	fine oz.	1,886,958	1,546,165
Silver recovered by direct smelting		•••	
Bullion sold	fine oz.	1,815,661	1,367,063
Net value of bullion		1,055,485	736,294

(x) All plants of this industry are located in Ontario.

SHIPMENTS OF ORES, CONCENTRATES AND RESIDUES FROM THE COBALT DISTRICT, ONTARIO; 1928 and 1929.

	Kind 1928	Q	uantity tons	Net(x) Value	Metalli Silver fine oz.	c content j	Selling States of the collection of the collecti	an dili riligiana
То	Canadian smelters Ores Concentrates		705 2,595	544,693 1,894,038	926,596 3,486,949	274,803 206,826	•••	
To	Foreign smelters Concentrates and TOTAL	residues	2,825 6,125	444,668 2,883,399	676,907 5,090,452	203,772	44,475 44,475	
	1929							
To	Canadian smelters Ores Concentrates		576 2,356	624,786 2,185,493	1,381,029 4,405,742	280,043	•••	
To	Foreign smelters Concentrates and TOTAL	residues	2,263 5,195	371,743 3,182,022	635,602	16 4 ,542	36,731 26,731	-

⁽x) Net value means the actual amount received by the operator.



(b) The Silver-Lead-Zinc Mining Industry

Silver-lead-zinc ores are found in commercial quantities in the provinces of Quebec, Ontario, British Columbia and the Yukon Territory. In 1929 ores from the Tetreault mine in Quebec were concentrated and exported for treatment in Belgian and United States smelters. Galena ore from Galetta, Ontario, was concentrated and smelted at the mine and high-grade ores and concentrates were exported to the United States smelters from the Mayo district of the Yukon.

In British Columbia where the greater part of this industry is carried on, the Trail smelter handled all concentrates from the Sullivan mine as well as from other mines within reasonable shipping distance. In addition to the smelter a customs concentrator was also operated which was of much assistance to small producers.

Among the Canadian provinces, British Columbia was the leading producer of silver, lead and zinc. In this province, 44 per cent of Canada's silver, 94 per cent of the lead and 87 per cent of the zinc, were produced. The Sullivan mine, noted the world over for its output of lead and zinc, is the largest individual silver producing mine in Canada.

The silver-lead-zinc mining industry in Canada was represented by 163 mines operated by 149 firms in 1929. In Quebec 8 properties were in operation, one of which was producing. In Ontario, 5 mines were in operation, 2 of which were producing.

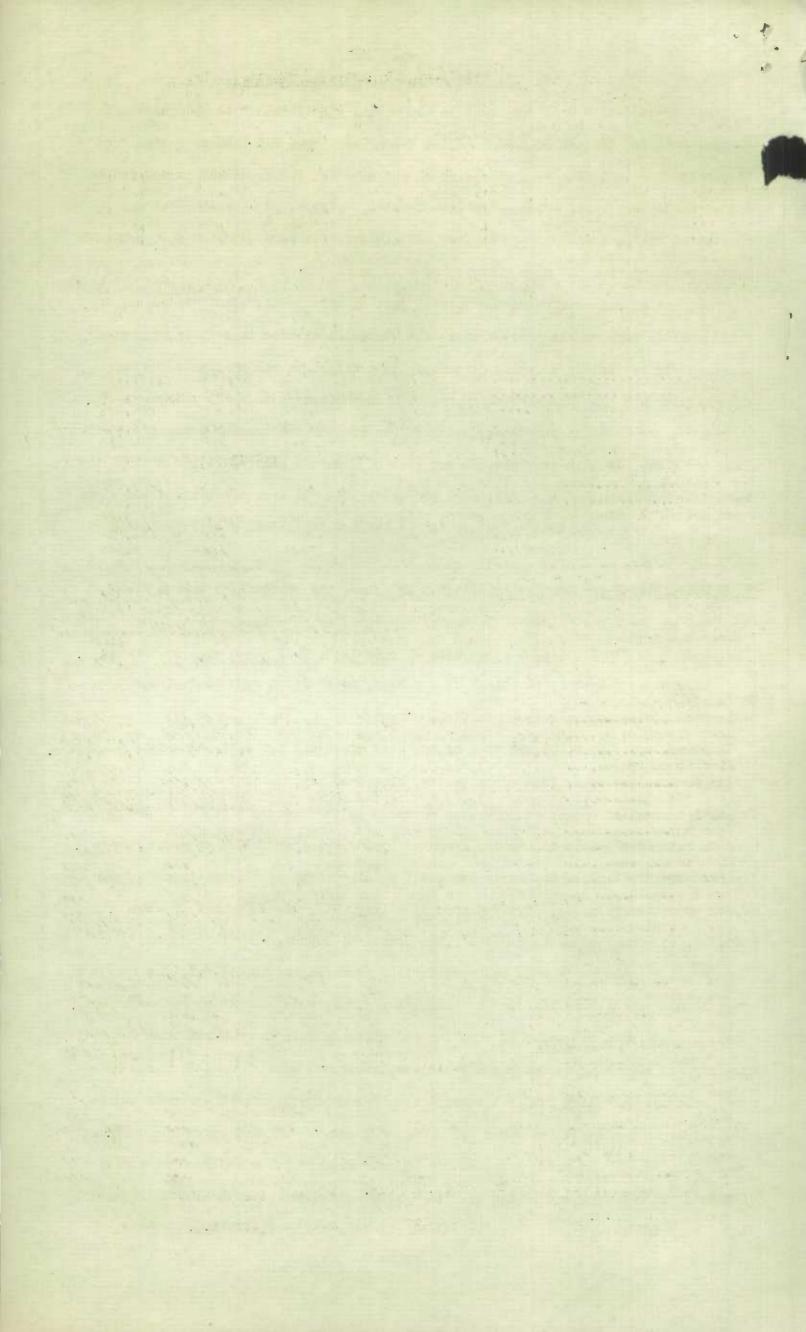
In British Columbia, 145 mines were worked, 80 of which were producing and in the Yukon 9 were reported in production.

During the year 2,208,270 tons of ore were mined and 2,352,439 tons were milled. Shipments of lead ores, lead concentrates, zinc ore, zinc concentrates, dry ores, and a small tennage of copper concentrates produced in the treatment of the ords from one Ontario copper-lead-zinc mine, amounted to 569,591 tons valued at \$22,748,089.

As determined by settlement assay the total metal content of these shipments included 7,985 ounces of gold, 11,225,477 ounces of silver, 347,662,225 pounds of lead, 309,787,247 pounds of zinc, and 1,145,842 pounds of copper.

Capital employed in this industry in 1929 amounted to \$50,573,661, and included over 45 million dollars invested in lands, buildings, plant machinery and tools, 2.5 million dollars in the value of supplies and stock on hand and 2.2 millions in cash, trading and operating accounts and bills receivable.

Salaries totalling \$770,457 were paid to 321 employees and wagos amounting to \$5,711,935 were distributed among 5,782 wage-earners. Fuel used amounted to \$793,139 of which \$354,932 was spent for electric power. Primary power employed consisted of 604 units with a combined rating of 32,108 h.p. Secondary power included 136 motors rated at 3,146 h.p. There were 29 boilers in use rated at 4,511 h.p.



PRINCIPAL STATISTICS OF THE SILVER-LEAD-ZINC MINING INDUSTRY IN CANADA, 1925 - 1929.								
Number of	Number of operating	Capital	Number	Salaries		Net value		
Years active	plants		employ-			of ores and concentrates		
operators	or mines		ees	wages		sold		
1005	0.4	35 505 000		\$	17	\$		
1925 89 1926 108	94		2,538	3,867,613	584,121	21,902,686		
1926 108	173		2,924	4,431,730	658,679 588,520	26,190,034		
1928 150	132	7	3,680	5,531,634	671,564	17,520,130		
1929 149	168		4,153	6,482,392	793,139	22,748,089		
ORE MINED AND MILLED	IN THE STI	VER-LEAD-ZIN	C MININ	G INDUSTRY I	N CANADA, 19	928 and 1929.		
		Onta	rio					
Production		an		British Columbia	Yukon	CANADA		
		Que	bec	Columbia	The state of the same of the same of			
1928								
Ore mined				1,729,883		2,097,179		
Ore milled				1,840,252		2,209,034		
Concentrates produced	zinc	· · · · · · · · · · · · · · · · · · ·		210,461 213,856	4,876	226,641 241,789		
	copper.		716	210,000	• • •	716		
1929		do-derest-ver-						
Ore mined		tons 263,	611	1,899,534	45,125 2	2,208,270		
Ore milled				2,000,722		2,352,439		
Concentrates produced	l - lead	tons 9,	189	210,031	5,942	225,162		
	zinc			242,479	•••	271,817		
	copper.	••tons 3,	245	•••	•••	3,245		
DESTINATION OF SH	HIPMENTS FR							
	Tons	Net value at	T	otal metal c	ontent as de ttlement ass	-		
Product shipped	shipped		Gold		Lead Lead	Zine		
	and the second of the second of the second	point	fine	oz. fine oz.				
1928								
To Canadian smelters								
Lead ore		607,787	1,477	818,003	13,317,453	2,379,353		
Lead concentrates.	215,431	9,382,935	1,252	6,055,889	294,948,527			
Zinc ore		79,653	7		10,867,555			
Zinc concentrates. Dry ore		3,799,758 148,554			14,434,944			
Total			4,247	7,968,383	64,392			
To Foreign smelters -		oran ar amakan ay ay ah ay ay						
Lead ore		554,436	197	946,494	3,281,646			
Lead concentrates.		1,633,721	4,990	2,467,205	10,692,233			
Zinc concentrates.		836,041	2,317	155,331	201,510	25,123,526		
Dry ore		63,000	• • •	127,825	437,556			
Copper concentrate	s 716	17,570	122	7,045		• • •		
Total	39,780	3,104,768	7,626	3,703,900	14,612,945	25,639,330		
1929								
To Canadian smelters Lead ore		782,200	684	906 100	11 270 340	9 '007 000		
Lead concentrates.		12,506,654	513	906,108 5,503,611	11,370,340			
Zinc ore		50,002	22	22,512	303,584			
Zinc concentrates.	255,224	5,665,667	97	592,413	18,109,563			
Dry ore		105,213	117	252,051	771 946 961	980 638 086		
To tal To Foreign smelters -		19,109,736	1,438	7,276,695	331,246,261	279,617,876		
Lead ore		661,352	45	1,032,508	2,853,625	18,805		
Lead concentrates.	12,734	2,039,911	4,053	2,735,699	13,190,497	•••		
Zinc ore		000		740 077				
Zinc concentrates. Copper concentrate				140,976		-		
Dry ore		130,534		59,599 •••				
Total	49,852	3,638,353	6,545	3,948,782	16,415,962	30,169.371		
To Foreign smelters -	copper in	lead concent	rates,	146,038 pour	ds; copper :	in copper		
	concentrat	tes, 996,781	pounds;	a total of	1,142,819 p	ounds.		



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