

Mining Throughout British Columbia

Receipts at Trail Smelter—Statement of Consolidated Smelter Management on Embargo of Lead Ores with Four per cent. Zinc Content.

Mine	Location	Week	Year
Bluebell (Riondell)		183	4,007
Center Star (Rossland)		856	36,198
Couverabee (Field)		69	272
Delphia (Danville, Wn.)		11	11
Electric Point (Boundary, Wn.)		350	4,023
Emma (Eholt)		615	33,142
Emerald (Salmo)		40	4,299
Galena Farm (Silverton)		50	1,721
Gem (Sandon)		6	10
Higgins, P. (Smithers)		7	7
High Grade (Springdale, Wn.)		58	671
Iron Mask (Kamlops)		32	2,674
Jennie-Bluebird (Ainsworth)		3	3
Josie (Le Roi No. 2) (Rossland)		353	7,442
Knob Hill (Republic, Wn.)		151	6,072
Le Roi (Rossland)		2,490	48,751
Lucky Jim (Kaslo)		134	2,575
Lucky Thought (Silverton)		54	880
Mandy (Le Pas, Man.)		29	3,261
Metaline (Metaline, Id.)		84	821
Payne (Sandon)		21	21
Quilp (Republic, Wn.)		526	3,741
Rambler-Cariboo (Rambler)		72	902
Schuffer, P., (Smithers)		7	7
Slocan Star (Sandon)		40	1,571
Standard (Silverton)		79	8,538
Sullivan (Kimberly) (Zinc)		2,224	113,864
Surprise (Sandon)		88	1,591
Tip Top (Kashabawa, Ont.)		137	3,995
Triune (Gerard)		28	28
United Copper (Chewelah)		144	4,508
Van Roi (Silverton)		103	1,582
Other Mines			19,343
Total Week and Year		8,996	336,531

The importance to the small shipper of ore of the embargo placed by the Consolidated Smelter on lead ores containing more than four per cent. of zinc is such that we place before our readers the statement of the management. The situation has been temporarily relieved by an order for 2,400 tons of lead from the Imperial Munitions Board, but when this is filled it will likely become as grave as before. The statement by Mr. S. G. Blaylock follows:

"That there may be a clear understanding of the present condition of the lead industry in British Columbia, it might be advisable to run over briefly the happenings in the period since the war started:

"You will remember that in 1914 practically everyone shut down and at this time the smelter had to get along on such ores as could be had. The price of silver receded very rapidly and, in fact, this metal could hardly be sold at all. The price of lead was low and the market very much restricted. So much so, that accumulated stocks of pig lead in our hands were liquidated by exporting them at a loss to China and Japan.

"In the spring of 1915, the war demand increased rapidly by the establishment of a huge munition industry in Canada and during 1916 and the greater part of 1917 the demand upon us for lead tonnage for the munition board was insistent.

"Canada could produce only a part of the lead required for its munition manufactures, so that not only was a considerable amount of clean lead ore from the United States smelted in Canada, but many thousands of tons of American piglead were imported into Eastern Canada. The

stimulation of high prices for the lead and the recovery of the price of silver, opened up many Slocan mines and also made a number of low lead, high zinc ores, profitable to the shippers. Mills cut more and more of their middlings into the concentrates, until the smelter receipts of lead ores carried considerably more zinc than silica.

"Now, I shall explain what this means: A slag must contain about 30 per cent. silica. It is exceedingly difficult to smelt one containing more than 10 per cent. zinc. As a general rule, much less than this is desirable. In some way or other it has, therefore, been necessary to obtain twice as much silica free from zinc as was contained in the ores, we had to get still more of the silicious material. This means two things, both of which are of vital importance.

"In the first place, it means that if barren silica is put into a lead furnace, lime must be added to flux the silica, and in the second place, this dilution of the charge makes a larger tonnage of slag, a lower average of lead contained on the charge, and consequently a very much higher lead loss.

"It was serious enough when lead was 3½ cents per pound, because after deducting 1½ cents refining and marketing charge, each pound of lead lost in excess of the 10 per cent. not paid for, costs us 2c per pound, or 40c per unit of lead lost. A 25 per cent. lead loss on this price on an average ore of 30 per cent. lead meant a loss of 4½ units of lead, or about \$1.80 per ton to get out of the treatment charge, but when lead rose from 10c to 12c per pound, or we will say a net price of 10 cents after deducting marketing and refining, or \$2 per unit, a 25 per cent. lead loss meant \$9 per ton on the same 30 per cent. lead ore.

"It is hardly necessary to point out that this spelled ruination. The only hope was to get sufficient ores carrying low zinc and high lead as well as high slag-forming elements. The only chance to get this was in the United States, and there only against competition.

"Now, one man writes that he assumes that if we had not bought American ores we would not be over-stocked. If he had been more familiar with the smelting business, he might have added 'and the smelter would have been absolutely bankrupt.'

"For your information, I might tell you that, at present there is practically no American ore in stock at the smelter. It has been used as fast as it arrived to flux the custom ore from the Slocan. I can almost feel someone getting ready to say, 'You mean to flux the Sullivan ore.' The following figures will, I am sure be a very decided surprise to most of you:

Mr. Blaylock mentioned figures showing how customs lead ore shipments had been increasing and those from the company's own mines had been reduced. The 1917 statement follows:

Month	Tons Sullivan ore Received	Tons Sullivan ore Smelted	Tons Other ores Received	Tons Other ores Smelted
1917				
January	3,912	2,895	6,089	4,195
February	3,226	2,785	6,990	4,387
March	2,399	1,804	5,392	4,843
April	2,390	3,267	1,412	3,975
May	1,576	2,217	1,746	2,064
June	1,489	1,567	3,022	3,083
July	2,199	1,230	4,469	2,221
August	2,849	705	6,458	4,886
September	1,981	720	5,963	4,340
October 15	621	294	2,991	1,883
	22,642	17,484	44,532	35,868

October 15—Sullivan ore on hand, 7,040 tons; other lead ores on hand, 8,692 tons; matte on hand, 1,825 tons.