

in the ore to make their recovery of commercial importance. Eventually ore may be encountered carrying higher values in these rare metals, in which event the magnetic residue of the initial crushing will be reduced to an enriched nickel-cobalt speise in a reverberatory or cupola furnace, the resulting speise, which corresponds to smelter matte, being available for sale to cobalt refiners. For the recovery of the gold in the magnetic part of the pulps, calcination will be followed by cyaniding, a large recovery being possible, as indicated by the results of numerous experiments to date.

There is meanwhile no reason why the Giant should not with careful management be profitably worked.

A despatch from Rossland states that Mr. F. W. Bradley, one of the members of the firm of consulting engineers to the Le Roi Company, has recommended the directors to proceed with the construction of a concentrator to treat 200 tons daily. The estimated cost of this mill is placed at one hundred thousand dollars.

BOUNDARY DISTRICT.

During the month the Providence Mining Company paid a fourth dividend of ten cents per share.

To the end of June last there had been done during the fiscal year, a total of sinking and raising, 5,098 feet at the Granby mines. The shipments of ore for this period aggregated 521,29 tons.

At the sheriff's sale of the Winnipeg mine, on June 29th, no tender was made for the property.

EAST KOOTENAY.

Acting upon the advice of Mr. S. S. Fowler, a well-known consulting engineer of Nelson, the directors of the North Star Mining Company, at a recent meeting of shareholders recommended that further exploration work at this Kimberley mine should cease and provision made for the liquidation of the company. While there can be no doubt of the wisdom of this decision, it is nevertheless a matter for regret that the career of the North Star mine, which at one time paid very substantial profits, dividends aggregating \$312,000 having been distributed should now be closed, more especially as the affairs of the company have been judiciously and honestly administered. When some two years ago the main ore body was nearing exhaustion, an energetic effort was made to open up new ground, but though at times the indications appeared promising, and some small bodies of shipping ore were found, no new discoveries of importance rewarded the search. Recently Mr. Fowler's services were requisitioned and his report, made after a careful examination, sums up the situation as follows:

"The main old ore bodies have been worked out excepting a few remnants.

Several thousand feet of development work in all directions have found no new bodies.

Careful study of the rocks show that some of the unaltered country rock was probably the original source of the ore.

The ore bodies were found to have had altered country rock in relatively large volume on at least one side.

The rocks at depth (300 level) to the north, west and east are practically unaltered, and therefore I judge will not be found to contain ore bodies.

To the south of the old ore bodies, the rock has been altered on one or both sides of the main fissures, but mineral found there is insignificant in quantity and of low grade. If valuable ore ever existed in this region, it lay above and has been worn away.

For these reasons I cannot see any reasonable hope of further valuable discovery in connection with the fissures which have held ore heretofore.

As to the existence of other fissures, there may be no doubt, but their importance and position are both problematical. There appears no probability that they exist in the immediate vicinity of the mine, and to search for them without some tangible evidence of their existence would, I believe, be futile. So far as I can see, their discovery would be a matter of accident rather than of expectation, and I therefore advise against further development expenditure."

Meanwhile from the funds remaining in the treasury, an interim dividend of 8 cents per share will be paid, while a further distribution may be expected after the company's properties shall have been sold.

The recently re-organised Gold River Placer Mining Co., employing a force of fifty men has commenced work at Bull river, where a dam is to be constructed to direct the stream to facilitate the mining of the gravel in the channel. A flume sixteen feet wide and five feet in depth, of which a mile and a quarter is to be built, is meanwhile being constructed.

At the close of last month an important discovery was made at the St. Eugene mine at Moyie, a fine body of ore, fourteen feet in width, and carrying a higher percentage of silver than any yet mined here, having been encountered in the No. 1 tunnel, 1600 feet from its portal, and at a vertical depth from the surface of 1000 feet.

The quantity of realisable ore at this mine is enormous, and in any other country almost the average values would be considered satisfactory. The fact remains, however, that after shipping ore to the gross value of \$1,100,904 in 1900, and to the value of \$616,561 in 1901, it was found necessary subsequently to suspend operations until quite recently owing to unfavorable market, transport and treatment conditions. Thus in 1900 the freight and treatment charges per ton of concentrates averaged \$27.53, while in 1901 these were increased to \$28.62, at the same time the prices of silver and lead fell very considerably, and the American market was closed to British Columbia lead products. It is difficult to say whether the new discovery of ore will prove sufficiently rich to enable the company to continue production should the Federal Government refuse the request that has been made in respect to the amendment of the Lead Bounty Act, but the opening up of an extensive and valuable ore-body at so great a depth in this East Kootenay mine is nevertheless noteworthy in itself.

THE WINDERMERE DISTRICT.

The Bunyan mine, three miles from Windemere, has been bonded by Messrs. William Harrison, one of the owners, and William Chamberlain. They have already shipped one car-load of ore and are soon to have another car on the way. Last week, while widening the drift, they shot down the wall, exposing two feet of gray copper ore. From this they have taken 200 sacks of ore, which carries good values in gold, silver and copper. A trial shipment ran \$90 in all values.

THE CANADIAN MINERAL EXHIBIT AT ST. LOUIS.

MR. LOUIS LARIVE, Canadian Press Correspondent at St. Louis, sends us the following description of the Canadian mineral exhibit: Canada's great mineral wealth is admirably exemplified by an attractive exhibit in the Palace of Mines and Metallurgy at the World's Fair. The display is the largest ever made by Canada at any exposition. The exhibit occupies a space of 9,000 square feet near one of the main entrances, adjoining the United States Government section in the Mines building. The exhibit is not confined to show cases, but unique and striking mass displays are made. As Canada supplies more than one-half of the world's production of nickel and 95 per cent. of the world's production of asbestos, these two ores are given a prominent place in the exhibit. They are displayed in the form of large pyramids. The pyramid of nickel weighs 17 tons, while the one of asbestos weighs 14 tons. The other pyramids are shown, one of corundum, weighing 15 tons, and another of mica. These pyramids illustrate the processes the ores undergo in the transition from the crude state to the finished product. For example, in the nickel pyramid the ore as turned out of the mine forms the base; above is a section containing the product after the roasting process. Above this is a section containing the copper and nickel matte, and the apex is finished in the refined article. Surmounting the pyramid is a statue sculptured out of the refined nickel and typically Canadian in design.

A feature of the exhibit holds a place in the centre of the rear wall of the section and resembles a mantel in shape.