

	Value.
Ore milled, 1,300 tons.	
137½ ozs. bullion . . . . .	\$1,557 87
7 tons sulphurets, value . . . . .	\$145 00
60 tons low grade concentrates, value . . . . .	15 95
1,100 tons tailings, value . . . . .	2 80
	3,080 00

Value per ton, \$5.07, in addition to slime losses. \$6.619 87

We have proved by these mill tests that the value of the ore is considerably higher in the lower level, gradually decreasing as height is gained. The first test came from the bottom part of the level. We have proved that the values at the third level in this stoppe are considerably higher than our estimate and that the portion taken in the upper levels is lower than our estimate. We have proved by our prospecting work that in the east end of the second level we have a large quantity of ore worth on the average \$4 per ton where former sampling showed the poorest ore in the mine. We have also proved that we have a large quantity of ore above the second level of good values of which we had no former knowledge. We have proved that the use of larger screens, recommended in my last report, is of great advantage, and there is no doubt but that, with the full 46 stamps running, we shall be able to crush from 150 to 175 tons of ore per day. In this connection we also find that the larger screens cause less slimes, thus making a better cyaniding product.

Mill.—In March an order was given to the Jenckes' Machine Co. for a carload of shoes and dies, which are made in Germany. These should have been delivered three months ago. We received them only last week, and in consequence had to hang up a portion of the mill for three months. This unavoidable delay caused us considerable loss, as we would have crushed 3,000 tons more ore in that time.

In our first mill test we found that we could not, by the use of Frue vanners alone, make concentrates high enough in grade, to nett more than 60 per cent. of their value, as the freight and treatment charges are excessive. Therefore I constructed tables, which separate slimes from the sands and classify the concentrates, taking off a streak which contains the galena, carrying a high percentage of silver and gold, and bringing the shipping product to a value of from \$150 to \$900 per ton. The shipping and treatment charges are no more on this grade than on the lower values, in fact, we now receive the lead values, which on the lower grade were not allowed, and now obtain 90 per cent. of gross value.

The second product, which we ran over Frue vanners and saved in the shape of low grade concentrates, was worth about \$15 to \$25 per ton, and was treated by the small cyanide plant, with which we made an extraction of 75 to 85 per cent. with a perfect precipitation. We expected to be able to run a considerable portion of the sand over with this mineral and have but a small loss in tailings. We, however, found that when we treated ore from the third level especially, which was of higher grade, that fully a third of our value was being lost, as even the slimes contained values, ranging from \$2 to \$4 per ton.

After many careful tests, we have concluded that nothing remains but to erect large cyanide tanks, and treat the whole product of the mill; as with the small plant now in use we have demonstrated that the whole of the tailings after leaving the tables, where the high grade sulphurets are extracted, can be run direct into these tanks and treated at a very low cost, which should leave handsome profits.

We now have stored, for future treatment, sufficient value in these tailings and low grade concentrates to pay the cost of the erection of this plant, when they can be treated. We already have the foundation made for a cyanide plant with a capacity of 200 tons per day, and as quickly as possible shall make the tanks, etc. To avoid expenses and freight charges we do all of this work on the ground, manufacturing the lumber in our own mill at the mine, and practically doing all the work in connection therewith, thus saving at least 60 per cent. of costs.

We cannot expect to have this large plant finished for at least three months, and I would recommend that only enough stamps be operated to crush the ore taken out in development until this is accomplished. We, however, have room is necessary to store 3,000 more tons.

On the completion of the work now under way, with careful management, this property should pay very fair profits.

#### GRANBY MINES.

The annual meeting of the Granby Consolidated Mining, Smelting and Power Company, Ltd., was held at Montreal on Oct. 7th. The annual report, which was read and adopted,

was considered to be very satisfactory. Mr. S. H. C. Miner, the president, in an address to the shareholders, said that the company had had much to contend against during the year. The price of copper had been exceedingly low, having declined from 17 to 11½ cents. Mr. Miner further explained that owing to the scarcity of coke, it was found impossible to operate over two out of the four furnaces at Grand Forks. In fact, it was only during the month of April that the four furnaces were in operation. He further stated a year ago he had hoped at this annual meeting to announce a dividend to the shareholders, but unforeseen events, already mentioned, have made this impossible. The mines were all in excellent condition. The members of last year's board were re-elected.

#### B. C. EXPLORATION SYNDICATE.

The sixth annual general meeting of this company was held in London on September 18th. The chairman stated that the home office expenses for the year had been reduced to £251, and that the directors had waived their fees. £11,000 had been expended in exploration work in British Columbia, £26,000 in the development of the Lucky Strike and Iron Mask mines at Kamloops, and some £16,000 on the Frederick Arm property. The chairman paid a very high tribute to the ability and integrity of the mine manager, Capt. Argall. The Iron Mask mine had been developed to the 500-foot level, and the workings from that point have been driven 344 feet on the lead, which has also been cross-cut for 202 feet in other directions. He stated that the company had "a practically unlimited body of 5 per cent. copper ore" and were in a position to supply a 50-ton smelter with ore daily from the reserves for a year or a year and a half. The report on the Frederick Arm mine was not satisfactory, although the company has not abandoned the mine.

#### ARLINGTON MINES, LIMITED.

The annual meeting of the Arlington Mines, Limited, was held in Slocan during October. A financial statement covering the operations for the year was presented and adopted. The election of officers resulted in the old board being re-appointed as follows: President, Mr. R. P. Rihet; secretary, Mr. John Lawson; managing director, Mr. J. Frank Collom; executive board, Messrs. R. P. Rihet, A. B. Williamson, John Lawson, Thomas Birney, W. A. Macdonald and J. Frank Collom. The ensuing year will be, it is thought, a memorable one for the company, as new works will be installed for the treatment of ores at the mine.

#### PERSONAL NOTES.

**MR. REGINALD A. DALY**, formerly instructor in geographic geology in Harvard University, who was last year appointed geologist of the Canadian Commission co-operating with the United States Commission in locating the international boundary, left Rossland, British Columbia, on October 15th on his return to Ottawa, after having spent the season now closing in the field with the Boundary Commission party under Mr. W. F. O'Hara. Dr. Daly joined the Dominion Geological Survey in May, 1901, and the following month left Ottawa for British Columbia. By the middle of July he had reached the camp of Mr. J. J. McArthur, D.L.S., who in the spring had commenced operations at the western extremity of the boundary line. The summary report for 1901 of the Geological Survey Department included an interesting report by Dr. Daly on the area covered that year. "This being an east and west belt of country 80 miles in length, parallel to, and limited on the south by the 49th parallel of latitude, with a breadth of 10 miles north of this line, and stretching from the Gulf of Georgia at Point Roberts to a meridian running about four miles east of Chilliwack Lake." This season Dr. Dalys field work has been along the boundary line east from the Okanagan River through the Boundary and West Kootenay districts of British Columbia.

Mr. Byron C. Riblet, engineer, of Nelson, B.C., has returned to that city from Encampment, Wyoming, where for eight months he has been engaged in superintending the construction of an aerial tramway to connect the Ferris-Haggerty Copper Mining Company's important copper mine, situate in the Battle Lake district of Carbon County, Wyoming, with the smelter at Grand Encampment. This tramway is stated to have cost about \$300,000 and to be 16 miles in length, crossing the Continental divide over a summit rather more than 11,000 feet in height.