

PRELIMINARY REPORT ON KOSMINSKI MINE - DUNDASIntroduction

This report deals in brief with the results of observations during a visit of inspection on the 10th June. The information obtained may be regarded as supplementary to that appearing in Bulletin No. 36.

The ore-bodies on the Kosminski property were discovered and first explored in the early nineties during the boom period of the Dundas Field. Since then the properties have been held under lease a number of times and attempts have been made, with little success, to mine and concentrate the ores on a commercial scale.

Until recent time the mixed zinc and lead sulphides were difficult of separation. The penalty imposed for the zinc impurity reduced the lead ore below the critical value, therefore, the richest shoots of galena only were removed. Today the conditions are quite different: the mixed concentrate finds a ready market, and the separation of the two minerals by differential flotation is now not a difficult operation.

Area, Situation etc.

This is a 74 acre section now held under lease. The property lies between the Great South Comet Mine and milling plant, and is conveniently situated as regards access.

Nature of the Ore Bodies

Two lodes - one known as the East and the other the West have been opened at a number of points on the property, both coursing N. 35 degrees W. and dipping S.W. at 65 degrees. Their most southern exposures are at the bank of the creek close to the Great South Comet workings. From the creek, which occupies a fault plane, the lodes have been traced about 20 chains in a northerly direction. Along their courses they pinch and swell, as they do along their dips, and the shoots of workable ore are short. The lode material consists of galena, sphalerite, quartz, siderite, pyrite, and a little chalcopyrite, and in every essential, similar to the ore of the Great South Comet Mine. In one of the adits out in Western lode the rare mineral hudscolite (sulphide of lead and zinc) forms a large proportion of the lode. This mineral is not likely to prove persistent. Siderite, quartz, and dolomite are the matrices of the ores. Both galena and sphalerite are coarsely crystalline, and not generally intimately associated. The lodes are contained in soft grey and black (graphite) slates, bearing 10 degrees and dipping westerly at high angles.

Development

Near the south boundary the western lode has been opened at three levels in adits 40 to 50 feet apart, No. 3 or low-level adit is a little above Creek level, and about 300 feet in length. At the entrance the lode materials are poor, but as the adit advances the quality improves, and some high grade lead-zinc sulphide ore appears. Rich shoots are short, narrow and erratic. Near the end of the adit the lode is laterally displaced, and its faulted position is not known. At the mouth of the adit is a large heap of galena-sphalerite ore of high milling grade.

No. 2 level adits expose an ore body consisting of 12 inches of sphalerite and hudscolite on the footwall, eight feet of dolomite and three feet of galena - sphalerite ore on the hanging-wall side. This body is exposed 100 feet in length with equally rich ore in the end of the adit where quartz and manganosiderite studded with pyrite is prominent. These were known as Keogh's workings and from these were taken the bulk of the ore trained to market. The adit on the galena-sphalerite shoot is caved at entrance and No. 1 adit level exposes an 18 inch band of zinc-lead ore and quartz in two distinct bands. The hanging-wall is of graphitic slate and the footwall is of quartz resting on grey slate. The quality of the higher grade ore from these workings is indicated in the following analysis:-

Lead	55.2 per cent
Zinc	13.18 per cent
Silver	24 ounces; 16 dwt. per ton.

Western lode is exposed again in a trench and short (27 ft.) adit near the northern boundary of the property. The lode here is about 8 inches wide and consists of coarsely crystalline galena, sphalerite, and siderite intimately associated. These workings were originally known as "The Sudden Jerk."

Between the northern and southern workings the ore body has not been traced.

Eastern lode lies about 300 feet away and is nearly parallel to the western lode.

It is exposed at the north end in a short adit just below the summit of the hill, where it is seen that the ore consists essentially of galena and sphalerite similar in all respects to that of the western lode. Another short adit a little lower down the hillside exposes a 3-foot body of siderite with a little galena and sphalerite. Further south the ore-body is well exposed in a long adit where it consists of zinc-lead ore of high milling grade. A lower adit exposes 2-feet of zinc-lead ore of equal quality. At the southern boundary of the property in cutting of a tramway leading from the Great South Comet lowest adit to the loading bins, an ill-defined body of zinc-lead ore is exposed. This may prove to be the eastern lode, and if so, it is identical with the main ore body of the Great South Comet Mine.

General Remarks

From the foregoing it will be seen that on this property two extensive bodies of zinc-lead ore of average grade have been explored. The true value of the ore at the points where it is uncovered could not be determined in the time at the disposal of the writer; but the indications are such as to lend encouragement to further development. The prospects warrant the expenditure of a moderate sum in this work.

The ore bodies are so placed as to allow of their exploration by means of adits. In this work, ore will be broken, therefore the cost will be reduced by the amount of the value of the ore.

Facilities for the transport and the milling and concentration of the ore are already provided by the Great South Comet Company therefore the only necessary outlay for mining need be provided for the development of the lodes on the Kosminski property. Satisfactory arrangements can be made with the Great South Comet Co. for the haulage, treatment, and marketing of the concentrated ores.

The sum of £2000 should be sufficient to develop the property and allow of profitable production. If the development works to be undertaken expose ore of equal quality to that showing in the adits, success should be the outcome.

DIRECTOR OF MINES

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