

taken in the exploration of the deposit of the experience gained in similar works of the United States. More especially as the vein is very similar in character to those worked at Rossie, New York, though of larger dimensions, the methods in use there, in so far as they are good in themselves, would be found suitable to the Frontenac Mine.

The present workings and the buildings of the mine appear to me to be judiciously planned and situated, and no wasteful expenditure seems to have been incurred. The stream which feeds Indian Lake will afford the water required for washing the ore. Wood for fuel and other purposes can be obtained very cheaply, and there will be no difficulty in shipping the produce of the mine from Kingston.

The present works and the portion of vein No. 1 already proved should be made the basis of operations; and even if the deposit should prove richer in the limestone, the present site will be found sufficiently suited for working this extension, and also for collecting the produce of such smaller workings as may be made to prove the deposit east and west.

The property now in possession of the Company, appears to contain all the more valuable deposits, and to be sufficiently extensive.

The percentage of silver found by Prof. Chapman in the ore, though for the present not deserving of entering into the calculation of the Company, points to the importance, when the mine shall be more fully opened, of making trials of samples taken from the different veins in different parts of their extension longitudinally, and also in their depth and width, since it is quite possible that the silver may be accumulated in certain portions of the produce of the veins, in such a manner as to make a separate extraction with reference to it, profitable.

It is possible that when excavations are made in the limestone valley on the course of the veins, quantities of alluvial or stream lead ore may be found to have accumulated from the waste of the outcrops of the veins.

In conclusion, I would repeat the opinion expressed above, that the deposit is of unquestionable richness and value, and free, in so far as can be observed, of any circumstances of a prejudicial character. I may add that it is, in so far as I know, by much the most important deposit of lead hitherto found in Canada, or in the neighbouring parts of the United States.

J. W. DAWSON.

MONTREAL, 27th May, 1868.

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N.B.—The Kingston & Pembroke Railway is now being extended to Sydenham, within five miles of the mine.