



**REPORT on the Mount Claude Silver-Lead Mining Company's (Registered) Mines,  
County Devon.**

*Inspector of Mines' Office, Launceston, March, 1885.*

THESE Silver-Lead ore deposits were, it will be remembered, first examined, in accordance with the instructions of the Hon. C. O'Reilly, Minister of Lands and Works, in the latter part of 1880, the Report of which was forwarded to the Lands and Works Office on the 30th December, 1881.

During a period of over three years since elapsed a considerable amount of "dead work" has been carried out at these mines with a view of developing the ore deposits there extant. In order to deal with the whole matter, for the purposes of this Report it may now be submitted that as to the mode of occurrence of these argentiferous galenites, the opinion expressed in my first Report (page 6, after the words—"It is in the" &c.) has been fully borne out after the present examinations.

The present levels, drives, and other irregular workings still exhibit the ore in irregular veins, bunches, and pockets; and the statement also made in the first Report, that the driving of levels, sinking of winzes, &c., if adopted with such peculiarly formed deposits, would be found an expensive matter, has been verified thoroughly. In no case, now that I had a better opportunity to observe, could the deposits be classed as "Lodes;" and the style or system of working same on that erroneous supposition must have been expensive, without obtaining thereby a regular and continuous output of cleaned Silver-Lead ore. The so well known features characterising "proper" Lodes,—i.e., regular and continuous walls, the presence of largely developed vein-matter (such as calcites, barytes, and others) in which such ores occur in regularly laminated forms, a soft vein (selvage or "dig") at either walls—are here altogether wanting, so that they cannot be classed as lodes or vein deposits, but irregular pockets, veins, and bunches embedded in the joints of the country rocks adjacent.

Through this error of judgment the development of the mines has been retarded, and the outcome of ore has likewise been reduced to below what it should have been; besides that, the question as to the future and present commercial value of these deposits has been left in much the same position as before. In my opinion, therefore, there is no such thing as Nos. 1, 2, 3, 4, &c. lodes, and I consider, had the "terrace or open face system" been adopted as recommended, the greater portion of the cost of the main adit would have been obtained from the proceeds of ore thereby raised.

**THE ARGENTIFEROUS GALENA DEPOSITS.**

These have been opened by several irregular workings, chiefly located on the east side of Mount Claude Creek, at the base of the "Round Mountain," and two or three others west of the "Jug" and the upper waterfalls. On the creek the height of the "backs" on the visible ore deposits from the main adit would be about seventy feet, whilst the far end of that tunnel would command, and not exceed 230 feet. So far as could be ascertained, the *quality* of these ores had not deteriorated, but if anything they contained a considerably higher percentage of silver than what was tested in London, which satisfactory feature was doubtless due to those ores being less affected by surface and other decomposition. With regard to the extent of these deposits on their lines of "strike," it has also been proved that such is satisfactory, and that if judiciously opened and mined they can produce regular outputs of ore in such quantities as can be cleaned by the dressing machinery employed.

It was likewise observed in the "Jug," or No. 2 tunnel, that the ore was of more than the average thickness, of rich percentage, and that it impregnated the adjacent country rocks—a very perceptible improvement upon what was seen at my first examination.

The bearings of those ore-carrying "joints" in the No. 3 workings, as well as those east of the "Jug," (the latter about twenty feet vertical below the former), demonstrate a convergence at or near the boundary of the twelve-and-a-half acre section of this Company, in the direction of nearly the line of the mouth of the main tunnel.

At that junction, it is possible that a more defined and extensive deposit of ore may eventually be found, but this Report is dealing with the visible deposits *in situ*. It is, however, important for the Company to state that, from all appearances, the central surface metalliferous belt dips to the north-west; but as to the outcrops on the hill, where the huts are situated, and the veins (3) of ore intersected in the main tunnel, show, that there are, in all probability, other ore-carrying belts of strata running parallel with the former. Considering the distances as between the extreme eastern points, where the ores still continue to pass into the Round Mountain, and where their continuations have been intersected on the Huts Hill and in the main adit, these ore deposits evidently include a good-sized area, with unknown extensions beyond, and they deserve therefore, from their richness and facilities for working, to be wrought to their fullest extent.

It would not, however, be advisable for the present, and until more is known of these ore deposits nearer and at the surface, to continue that main adit, which has reached a length of 593 feet. In place thereof it is recommended to cut a sideling track for a tramway up the Claude Creek, at such a grade and level as will give, say, thirty to forty feet of "backs" beneath the bottom or sole of workings east of the "Jug." It will be requisite (if my suggestions are adopted) if the "main tramway" cannot be utilised as its continuation—which would be preferable every way—to start near the main tunnel, and cross the Claude Creek higher up by means of a culvert until within about twenty feet of the most western veins of ore; then gradually open out at that deeper level for a face 12 feet in width, being vertical at both east and west sides, until that very rich ore near the end of No. 2 tunnel (on plan) has been intersected, and taken down for dressing. Upon that being done, then to blast away the present roof of those eastern old workings in No. 2 tunnel; sort by hand the resulting ore until an eastern face or terrace has been formed at the extreme end of those old workings for further progressive operations. In this manner the Company would have an upper and a lower level and face to work a total (and increasing) height of stope of from sixty to eighty feet, all of which, interspersed with veins, bunches, and pockets of rich silver-lead ores, will be remunerative and eventually profitable to work after the preliminary works and dressing appliances have been constructed. This method of laying out the workings possesses other advantages besides, viz.—with the large quantity of spoil or *débris* a good-sized level dressing floor could be formed without cutting into the rock, and the water power available could be more directly, and therefore more effectively, conveyed to the machinery to be erected at such floors. Subsequently the western bank of the Claude Creek could be operated upon in a similar manner, and eventually the main adit could be utilised to a very considerable extent for the conveyance of ores from the deeper western faces to the lower ore-dressing floors.

In closing my Report I beg to draw particular attention to the suggestions of the future system of mining and crude dressing of ores; and I have but little doubt but that, if the mine management is placed into judicious and intelligent hands, the proceeds of these mines will become more and more satisfactory to the owners of the same.

G. THUREAU, F.G.S.

The Chairman of the Board of Directors of the Mount Claude  
Silver-Lead Mining Company (Registered), Latrobe.

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The bearings of those ore-carrying "joints" in the No. 3 workings, as well as those east of the "Jug," (the latter about twenty feet vertical below the former), demonstrate a convergence at or near the boundary of the twelve-acre area, and in the direction of nearly the line of the mouth of the mine.

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