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Report
on
SYLVANIA MINE

by
J. PAUL JONES
Consulting Engineer

March 10, 1959

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J. PAUL JONES
Consulting Engineer
Mining Reports

March 10th, 1959
Fresno, California

Captain George L. Booth
80 Alvarado Ave.
Pittsburg, California

Dear Captain:

Herewith a short Resume and opinion on the Clair Silver and Lead mine, located in the Sylvania Mining District, Esmeralda County, Nevada, covering my inspection trip to the property last week.

As you well know it would take three or four weeks for an engineer to really sample the mine and geologise the area, ^{for} this I did not have time to accomplish, however it was well done by Mr. Lyttle/Price, E.M. and in September 1925 he made his Report covering his findings as the result of his examination and from his samples taken on the property.

I checked this Report when I made my quick "Horse Back" Survey of the property this past week.

Since this Report is over thirty three years old, it is natural to raise the questions of who was the engineer and what changes have been made at the mine since his report and is there any commercial ore left there today? Further could it be mined at a profit today?

1st -- After some checking with others, I recall meeting Mr. Price some years back, with Mr. Charles D. Wilkinson, E.M. formerly of the Goldfield Consolidated Mines Co. and I can place Mr. Price with one of the better engineers of the Goldfield operational times, when he had the reputation as one of Goldfields best field engineers.

Therefore, I think we must accept Mr. Price's Report on the physical aspects of the mine as his true findings in 1925.

2nd -- Having accepted the Price Report as true in 1925, how has the mine ore conditions changed since then?

We learn that some 1200 tons of Dump ore has been milled, but, little mine ore has been touched -- and from my checking over the various drifts and bodies of ore Mr. Price covered in his report, the 13,000 tons of Available ore, he speaks of, is still there intact.

And further, since his report, some 900 feet of crosscuts and drifts have been run which has exposed and made available additional tonnage which will more than effect the loss of the 1200 tons of Dump ore he mentioned in his Report.

In addition to the 7 claims covered by his Report, there have been added to three more claims contiguous to the 7 claims and along the strike of the Lode, said to show the same surface outcropping stain as shown on the surface of the 7 claims, thus making a length of some 15000 feet held by claims along the Lode.

There can be no doubt that a huge amount of ore tonnage within this Lode is yet to be developed. However, little or no work other than "pothole" discovery and assessment work has ever been done on most of the claims.

From my examination, I have formed the opinion, that a better grade ore can be mined from below the 100 foot level and that the drift going easterly in the Myer's tunnel will encounter a better grade ore and the vein will be stronger and more consistent of a vein structure.

3rd -- Mr. Price valued his average ore in the 13,000 tons of Available ore -- assaying 10 oz. Silver and 10% Lead @ \$20.00 per ton. On today's market, Silver is valued @ \$ 0.93 per oz. and Lead is quoted @ 14 cents per pound which changes the value of this ore to \$37.30 per ton of the mined ore.

Considering a 15% loss or a mill recovery of 85% the value per ton on today's market will be \$31.70.

While quoted prices on the value of the ore have somewhat increased, the production costs have considerably increased, in fact labor has almost increased three times higher, however the use of the improved equipment of today will help

offset part of that cost.

We can safely estimate the costs per ton of ore treated today to mine, mill, concentrate and smelt as follows:

Royalty	-	per ton	\$3.17
Insurance, Mining and Development			8.00
Hauling to mill			1.00
" (cans) Smelter			2.00
Smelter costs			1.53
Power, powder, caps and fuse			2.00
milling, etc.			3.00
			<u>\$20.70</u>
10% contingencies			2.07
Overall costs to mine & mill & smelt			<u>\$22.77</u>

The ore value today @ \$31.70 per ton	
" " costs "	<u>22.77</u>
" " profit "	8.93

Considering only the 13,000 Available tons, we have to calculate 13,000 x \$8.93 equals \$116,090.00 as the possible profit on that ore alone.

If this tonnage is milled only at the rate of 30 tons per day the profit will be in hand at the end of a year and one half, of operation.

Mr. Price writes of the operations being equipped with a steam plant -- the steam plant has been displaced with gasoline and Diesel units.

The present small (about thirty tons) mill has been operating on Tungsten ore mined on the property during 1956-7 but, it is now being reconverted back to a silver and lead concentrating plant. Most all of the required machinery for this is on hand and partially installed -- the crushers, ball mills, jig, tables, etc. are all there -- but, the plant needs and must have a Flotation unit complete to make the proper recovery ie 85%.

The plant will be powered by a 100 KVA Diesel -- now on hand. It will not be too much trouble nor too much added expense to give this mill a fifty ton capacity.

Mr. Don Clair, the present owner and manager of the mine, seems to know the property, from his many years living there on the ground, far better than any engineer you could find and further, seems more capable to rebuild the mill and to operate both the mill and the mine better than any one I know.

In conclusion, I will state, considering not only the 13,000 tons of Available ore in Mr. Price's Report, but, the almost certain development of many times that much silver and lead ore of equal or better grade, makes the mine most attractive -- also, the Tungsten ore and the MOS₂ ore within the mine and may some day add further values to the property.

If this property is properly financed (it does need some additional mine and mill equipment) mined and developed in a minerlike fashion with proper economical supervision, it can be made into a very profitable venture with a relative small outlay of money.

Sincerely yours,

J. Paul Jones (signed)