

MOORINA TIN MINE, MOORINA

NOTES ON PROPOSED HYDRO-ELECTRIC POWER SCHEME

This Company is operating on a lead of drift extending to a depth of 140 to 160 feet. Hitherto only the upper portions of the deposit have been worked owing to the dependence on gravitation methods for the disposal of tailings.

As the work proceeded northerly on the course of the lead it was found that the better quality of wash gradually dipped underfoot in the direction in which the face is being worked, necessitating a reorganisation of the existing methods of operation.

To test the value of the drift below the floor of the present workings, a small paddock of ground was worked by means of a "blower" or hydraulic elevator.

According to particulars supplied by the Company a total of 43,000 cubic yards of drift were elevated, yielding 15 tons of oxide assaying 70 per cent tin. This is equivalent to 12 and a half ounces of tin per cubic yard.

Operating under these conditions, although stated to be well remunerative the limitations of the work performed by the "blower" did not allow of the requisite depth being reached or a sufficient quantity of drift treated in a given time.

It is now proposed by the management to generate electrical power using portion of the water flowing in the Company's race for the purpose.

The site of the proposed power station is approximately 2 miles from the mine; the intervening ground is practically level.

From observations made by aneroid the writer estimates the head pressure available at 400 feet. On that fall the estimated length of pipe line required is 1500 feet.

The capacity of the water race is 35 sluice heads.

With a static head of 400 feet 17 sluice heads of water would generate 217 horse power, 10 sluice heads 128 horse power.

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In using portion of the water flowing the race for the generation of power it would leave ample for sluicing purposes under nozzle pressure.

The mine generally is very well equipped, given a sufficiency of power to enable operations to be carried out without interruption to the desired depth, the trouble hitherto experience in this direction would be entirely overcome.

The scheme to generate power as proposed has everything to recommend it.

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Department of Mines,  
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