

Improvements.—Manager's residence, assay office, miners' boarding house, store houses, stable, blacksmith shop, carpenter shop, magazine, etc., have been erected. Several miles of fairly good wagon road have been built. There is a quantity of mining tools etc., on the property.

Proposed Operations.—It is proposed to install a concentrating plant of moderate initial capacity to handle ore now in sight and ship the enriched product. Concentrates produced by the initial plant from \$10. ore can be shipped at a good profit. This would be a temporary procedure to continue until such time as the Company possessed full information necessary to undertake the erection of a smelter. At the same time that the initial preliminary plant will be treating ore now available, it is the intention of the Company to continue underground drifting and sinking, and also to further prospect the extent of the ore deposit by core drilling. The Mines department has offered the use of a Government drill for the latter purpose. Special attention will be devoted to making large working tests of the ore from different parts of the deposit.

Underground Development.—Professors Woodman and Sexton of Dalhousie University School of Mines, advise the following plan of underground work:—

"The present slope should be straightened, with a dip about 30 deg. and extended until it attains a length of 250 ft. A similar slope should be sunk to the south directly along the line of strike and say 1,000 feet distant. From the bottom levels should be run to meet, thus blocking out 200,000 square feet of section below fifty feet from the surface. We regard that depth as probably necessary for a working roof on account of the shattered state of the surface rocks and the sluggish water circulation on the flat plateau above. It might be worth while also to tunnel south from the south slope about 500 feet on the strike, thus blocking out 50,000 square feet additional. From the bottom of each slope, a cross-cut should be driven east and west. It probably would have to go but a few yards west to reach the foot wall, but must extend 300 feet or more to the hanging-wall if surface indications hold in depth. If this condition continues the operation will block out more than 8,000,000 tons of rock below fifty feet and between the two slopes. The tunnelling and cross-cutting south of the south slope would add a presumable 1,250,000 tons more. If the mineral continues evenly disseminated this will represent the amount of ore then in sight. The proportion which could be ultimately won would depend upon the system of work adopted. By the above development, however, the whole of that part of the ore body would be put into condition for remunerative working on a large scale. The amount of excavation required to effect this development (deducting the amount said to be opened by the present slope) would be about 9,400 tons, all in ore, hence not dead work. We believe, as already stated, that the present indications warrant such expenditure as will enable the above programme to be carried out."—The foregoing work represents about 2,000 feet of drifting and sinking the cost of which may be approximated at \$15.00 per foot; total \$30,000. The block of ground which would be opened up would only be a small section of the apparent extent of the whole ore deposit.

Working and Drainage Tunnel.—It is probable that ultimately it will prove economical and advantageous to work and unwater the Company's deposit by a long cross-cut tunnel similar to those driven in many parts of the world to tap deposits at considerable depth. Mr. M. V. Grandin reports on this feature in substance as follows:—

"There can be no doubt as to the wisdom of running such a tunnel, especially as the configuration of the country favors such a scheme in a remarkable manner. (Of course a great deal of work must be performed and information secured before a work of this magnitude be considered). Cross-cuts at intervals would, without doubt, reveal extensive and valuable deposits which do not outcrop. It would save 4 miles transportation over extremely rough country. It would afford the cheapest method of working and unwatering the mines it would tap. Great working, pumping and ventilation shafts with their enormously expensive machinery and cost of maintenance would not be necessary. A natural and inexpensive system of ventilation would be established in the place of an expensive and artificial one. Once the tunnel was completed the cost of maintenance would be practically nothing. The total length of the tunnel would be about 2½ miles and the cost with lateral branches about \$200,000. An up grade into the mountain of 8 inches in 100 feet would bring the tunnel about 1000 feet vertically below the copper deposit."

The tunnel would serve other properties enroute and it would be the main artery from which branches could be extended throughout the L'Abime division of the Cheticamp Mining District.