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SUPPLEMENTARY REPORT ON RIVERSIDE MINE

(LEASE 9925M, J. A. CRISP)

Introduction

This brief report may be regarded as supplementary to that prepared by Mr. J. B. Scott, State Mining Engineer, on 22nd January, 1927. It has been prepared to place on record the results of the work performed by the Riverside Tin Mining Company during the past nine months. Two hours only were spent in making the examination, but sufficient information was obtained in that time for the purpose of this report.

Nature of the Deposits

According to the remarks of the State Mining Engineer, the tin ore-bearing alluvial beds extend southerly about 18 chains through the middle of the leased ground, and are three chains in width and 6 to 12 feet deep. The following is a section of the beds exposed at one part of the workings:-

Surficial gravels, one foot; clayey gravels, six feet; gravel and boulders with interstitial clay, four feet, resting upon decomposed granite.

The basal bed only contains tin ore in fair proportion. The well-assorted water-worn gravels and boulders of the basal bed consist largely of indurated and silicified mudstones and sandstones of the Permo-Carboniferous formation, and also of pieces of quartz, diabase, and granite, the whole firmly cemented by the clay.

Tin ore is fairly evenly distributed through the materials of the basal bed.

Proportion of Tin Ore in the Alluvial Beds

No attempt was made to take representative samples for the purpose of forming an estimate of the tin ore content. It is stated that the average content of tin ore is in the proportion of two lbs. per cubic yard. That evidently is an excessive estimate as the yield has shown an average under one lb. per cubic yard.

Method of Operation

Water for sluicing is raised 40 feet from South Esk River and delivered through pipes, a distance of 16 chains, to the mine by means of a crude oil-burning engine. The pressure of water at the workings is so low that it is quite incapable of effecting the rapid disintegration of the compacted boulder clay.

General Remarks

It may be stated now that, assuming an average yield of one lb. of tin ore per cubic yard of material, under present conditions successful operation is impossible. The original estimates of value may safely be reduced 50 per cent., and it is doubtful whether the attempt at working these deposits can be justified - certainly not on the basis of the results obtained in the recent operations. Whether provision should be made for the delivery of water under adequate pressure is a moot question, but the matter is worthy of consideration

if a further close investigation of the deposits shows higher proportion of tin ore in the ground ahead of the present workings.

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