NOTES ON WILLIAMS BROS. FREEHOLD PROPERTY

GOULDS COUNTRY

Access and situation

This property is situated in the mineral district of Goschin, but is not defined on the chart. The situation may be described as being about three miles from the township of Lottah, on the road to St. Helens. It forms the lower portion of the wide valley, lying between the road and the Ransom River.

Topographical Features

The property occupies the valley lying to the south of the Ransom River, the latter, which takes its source in the Blue Tier range of hills, flows through the valley in a general south-easterly direction. The locality is characterised by steeply sloping hillsides to the River bed. A small tributory stream takes a north easterly course through the property joining the river near to the north-east portion of it. Owing to the contraction of the valley in the lower portion of the area, a terrace has been formed, due to a hard bar of granite, affording lodgment for sand and drift material carried down from the higher ground. This area of comparatively level surface occupies roughly about 50 acres.

The Ransom River is a fast flowing stream carrying a good supply of water throughout the year.

Economic Geology

The area is situated in a locality which is noted for its production of tin oxide extending over a long number of years. The head of the valley is occupied by tin bearing granite rocks. On the western fall of the hill forming the divide very large quantities of granite have been treated for tin. On the eastern fall, over which the granite rock extends, no mining work to speak of has been undertaken. The land has been used for pastoral purposes and is comparatively well cleared of timber. It is, however, considerably overgrown with bracken fern.

Some prospecting by means of shallow holes have been sunk in the depressions formed by water courses. These show limited quantities of tin bearing drift. The hill slopes are too steep to allow for the accumulation of any considerable amount of drift material. On the lower portion of the area the land surface has levelled sufficiently to form an accumulation of drift covering an area, as stated, of about 50 acres. The depth of this bed of drift is not known. A few holes have been sunk on portions of it to a depth of several feet. The drift consists of sand and fine gravel. Owing to water soakage from the higher ground it is not possible to sink shafts through it without making provision for pumping and close timbering.

Dish prospects washed from the material excavated from the shafts show very encouraging prospects of tin.

To the north-west of the level area a small amount of sluicing work has been carried out. The drift here consists of a bed of shingle two to three feet in depth overlain by sandy loam to a depth of 3 to 6 feet. This overburden material carries little or no tin. The shingle drift has been deposited on a former bed of the Ransom River which flows by, a short distance to the north. This bed of drift consists of well rounded boulders of an average size of three inches in diameter, intermixed with fine gravel and sand, the whole being considerably stained by leached oxide of iron. This material carries good prospects of tin.

The drift covering the area has been shed from the higher ground above being derived from the denudation of the granite. Certain areas of the granite country at the head of the valley are known to be tin bearing, which, no doubt, is the source of the tin in the drifts.

Mining Economics

The facilities for working the ground by sluicing are very favourable. The best apparent outlet to serve as a tailings-channel is through land owned by Mr. Steel. A ridge of hard granite crossed the course of the drift some few chains below the eastern boundary of Messrs. Williams Bros. property. This bar of granite has served as an effective means of accumulating a bed of alluvial material, of what extent and value remains to be proved, preferably by boring.

A reliable water supply is available from the Ransom River. A survey would be necessary to determine if the water of this stream would be utilised for power purposes in the event of the ground proving to be of payable value and in sufficient quantity to warrant expenditure in plant and general equipment. A careful gauging of the stream would be necessary to find out the quantity of water available and investigations made for facilities for storage.

General

The writer made only a brief examination of the area, and, judging from the results obtained from dish washing of the material thrown out of a number of shafts sunk at various points, the prospects are sufficiently encouraging to justify expenditure in testing the ground by boring. It is recommended as a preliminary test that a number of scout bores be put down. Sufficient information would be obtained from these as a guide as to whether closer boring is warranted.

The quality of the tin oxide is very good, being fairly coarse, rendering it easy to save by ordinary sluicing methods, some of the samples on the higher ground showed fine tin.

The most favourable portion of the area could be tested only to a shallow depth. The deeper ground is totally untried and is certainly worth investigating.

The writer is indebted to Mr. Press of Goulds Country for assistance and information supplied respecting the property.

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