

NOTES ON M. LEASES NOS. 10484 - 5 ACRES, CHARTED IN THE NAMES OF BROWN AND HARPER, AND 10470/M - 20 ACRES, IN THE NAMES OF GOUGH AND HARPER. W.R. 2672/W, 2 S.H. WELDBOROUGH DISTRICT.

Acting on instructions from the Director of Mines, an examination of above leases situated in the Weldborough district was made on 14th instant.

Location and Access. - The leases are situated about four miles north easterly from Weldborough and are reached by following a cart road from the latter as far as the Frome River, thence by track for a mile along the western bank of Wickborn Creek, a small tributary stream of the Frome River flowing north westerly to its junction with the latter about a mile distant.

Economic Geology. - The country rock consists of granite containing numerous veins of greisen with which is associated varying proportions of cassiterite; these veins, which usually assume a northerly strike, vary in thickness from one inch up to several feet, and where exposed in the workings dip vertically.

The ground on either side of Wickborn Creek rises to a height of approximately 200 feet the Creek occupying the valley between two ridges, having parallel axes trending north westerly.

What work has been carried out in vicinity and on the leases is confined to the bed of the Creek and the moderately sloping hillside to the west.

Where exposed, the granite rock is fairly soft and in course of denudation. Concentrations of tin ore have occurred in the Creek bed. The fall in the latter has been too steep to allow of any extensive deposition of drift material which ranges up to 2 to 3 feet in depth.

The tin ore shed from the greisen varies from coarse to fine usually in dark crystal form. In some trenches cut across the formation on the crest of the ridge on the western side of the Creek dark crystal tin of fairly coarse grain size is freely distributed in banded form in the greisen veins.

Mine workings. - The bed of Wickborg Creek has been worked by sluicing in the earlier days of the field from its junction with the Frome River to a point in the vicinity of these sections.

Paddocks of limited extent have been sluiced from the soft granite rock on the western side only.

It would appear that work at that time was confined to the rich concentrations of tin occurring in the bed of the Creek, which could be worked without any water pressure to speak of. From the generally appearance of the workings, it is many years since productive work was in progress.

The present lessees of the area recently carried out some sluicing work near the top of the ridge, approximately at an elevation of 150 feet above the bed of the Creek. An excavation, about 40 feet long, 25 feet deep, and of similar width, has been sluiced out, in a direction south 20 degrees east on the course of some greisen veins. The aggregated width of the veins would not exceed 3 feet;

individually they are not more than a few inches in thickness, but are distributed fully across the face.

The granite is fairly soft, and would offer no difficulty of removal with reasonable nozzle pressure.

Owing to the high elevation of this face, only 30 feet head pressure is available from the water supply race.

It is stated that about 2 bags of tin were cleaned up as a result of this work - a rather low return for the quantity of material removed.

This, with the old workings referred to, is the only work carried out excepting a small amount of trenching at various points south along the ridge 5 to 6 chains from the open face.

This work has exposed some fairly massive greisen outcrops through which in places can be seen veinlets of tin oxide. The greisen here is fairly hard; the granite rock appears to be soft. Sufficient work has not been done to determine the probable extent and character of the rocks and ore occurrence.

Down the hillside easterly towards Wickborg Creek the surface is covered with thick undergrowth of ferns, etc. In places where the rock is exposed the country rock is of the same character.

Working Facilities. - The situation of the soft granite formations and the enclosed bands of tin bearing greisen is very favourable so far as working conditions are concerned. By commencing sluicing at sufficient height above the level of Wickborg Creek to allow for the effective discharge of tailings a head pressure of approximately 150 feet is available.

Water is delivered by means of a race about a mile in length to the side of the valley of Wickborg Creek. The source of supply is obtained from Kent Creek under Water Right 2672/W two sluice heads.

It is proposed by the lessees to commence sluicing operations on the western side of the valley of the Creek conveying the water thereto by pipe line from the race on the eastern side. The estimated length of the latter is 1600 ft.

The length of pipe line required for the working scheme proposed could be lessened very considerably by continuing the water race round the valley of Wickborg Creek to the western side, but to do this a considerably length of race would need cutting through rather rough country, which, if constructed, would need considerable attention in the way of maintenance in the wet seasons of the year.

The ultimate success of productive operations on these sections will depend upon.

1. The condition of granite country rock.
2. The quantity of water available .
3. The relative proportion of tin ore recoverable by sluicing methods.

Regarding (1), the relative softness of the granite sufficient to allow its removal by moderate water pressure is a factor which will have an important bearing on the success of the proposed work. In this connection it is advisable to investigate the area in order to locate the

softer portions of the country rock on which to commence operations.

In carrying out work of this kind, success or failure depends largely on the quantity of ground that can be removed in a given time, providing that the proportion of tin it contains is sufficient to be payable under normal working conditions.

The facilities for working and prospects generally are favourable.

Signed (J.B. Scott)

STATE MINING ENGINEER

Mines Office,  
HOBART.

7th May, 1930