

19278/1-2  
126. TRANS

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NOTES on MINERAL LEASES Nos. 9986/M, 8 Acres  
9646/M, 5 acres; 9517/M, 40 acres; Charted  
in the name of E.L. ANDREWS

### Central Cascade or Carnac

The land embraced in the leases was the subject of a preliminary report by Mr. A. McIntosh Reid, Director of Mines, dated 24th April, 1927.

Since the time of Mr. Reid's examination of the area, productive work of a limited character has been carried out more or less continuously by handrill sluicing on the soft micro-granite and aplite formations. This work has been carried out under adverse conditions, chiefly through the low head pressure (40 ft) used, to add to this disadvantage the race for the disposal of tailings has not the requisite fall to effectively discharge them. The inclination is 15 to 18" per chain instead of at least 24 inches. It is essential in sluicing operations that work should not be interrupted through the ineffective discharge of tailing.

Operations at the mine are hindered through want of plant in the way of a pipe line. It is estimated that with a pipe line 1500 feet in length a pressure of 200 to 300 feet could be obtained.

The work carried out during the past few months has been confined to sluicing in a depression extending westerly from the Cascade River the latter passes through the north east corner of Mineral Lease No. 9517/M.

As the distance of the face is extended from the direction of River the difficulty in disposing of the tailings is increased.

Sluicing has proceeded over a distance of several chains for an average width of half a chain, depth of face averaging from 2 or 3 feet up to 15 feet.

In working this channel a number of aplite dykes have been exposed, the channel crossing them obliquely.

These dykes which are as a rule decomposed, readily break up in water under a moderate nozzle pressure the resulting material being buoyant is readily carried away in the sluices.

Dish samples washed from various exposures showed prospects of black tin. In some places little or no result would be obtained whilst in others a high percentage was present.

The work has demonstrated that the granite rock formations carry payable quantities of tin, but it is necessary that operations should be conducted under better working conditions. The full head pressure of water available should be utilised and a deep tail race cut from the vicinity of the Cascade River, this would not only provide a means of disposing of tailings but would also enable the ground to be worked at a level approximately 50 feet below the floor of the present workings by gravitation methods. A complete survey of the locality is necessary in order to obtain the exact data.

The full extent of the tin bearing portion of the area has not been proved, so far as the present workings have been carried in a westerly direction the face shows every indication of it extending.

The success of the area from a sluicing point of view will depend upon the condition of the aplite dykes and decomposed granite below the present floor of the workings, if they continue in a condition sufficiently soft to allow being worked by hydraulic sluicing a large quantity of ground will be available.

The area is one offering every inducement for a complete investigation relative to the value and extent of the tin bearing formations, utilization of water supply at full pressure available, provision for low level tail race.

signed  
J.B. SCOTT  
STATE MINING ENGINEER

Mines Department,  
HOBART.

23rd December, 1927.