

THE MOUNT LINDSAY TIN MINE

REFERENCE (1) Plate VI of G.S. Bulletin No. 15 by L.L. Waterhouse.

(2) "Lindsay Tin Mine" - G.S. Plan No. 152 by A.M. Reid dated 23rd May, 1927.

GENERAL This report details the results of 1½ days spent in the Lindsay area and is, therefore, in no sense, a detailed report on the lode formation. In G.S. Bulletin No. 15, Waterhouse devotes many pages to the structure of the Lindsay Lode and gives an excellent account of the mining development up to the time of his visit in 1912. As far as the present writer can determine, Waterhouse's theory of the genesis and structure of the lode are sound and this report is to be read in conjunction with Waterhouse's account and to be considered as additional thereto.

ACCESS The Lindsay area is reached by following the Corinna Road for a distance of four miles from Zeehan, thence turning off across buttongrass to strike the Pieman River at its junction with the Stanley. The Pieman is crossed either by cage or by boat. The route then follows buttongrass to the Stanley Reward and then follows through heavy timber the old Renison Bell Packtrack for three miles. The Lindsay area lies 1½ miles north of this pack-track and the total distance from Zeehan is 25 miles. A shorter route leads from Renison Bell along the pack-track but this is impassable at the present time and the suspension bridge across the Pieman cannot be used. There is a hut at the Stanley Reward and another at the Lindsay at the end of the packtrack on the west side of Tulloch Creek.

RECENT DEVELOPMENTAL WORK

Mr. Malcolm Clark holds two five acre leases on the Lindsay Lode and, with one assistant, has been doing some work there recently. All equipment and food has had to be packed along this long and tedious track on the men's backs and consequently only two or three day's work per week have been possible. In addition, Mr. Clark has found it necessary to erect a light cage across the Pieman at the Stanley Junction. The developmental work completed consists of cleaning out the old Battery Adit (See Ref. No. 2) for 40 feet, eastwards along the drive to the first crosscut and along the stope. In addition, a hole 10' x 3' x 4' deep has been sunk in hard rock about where the figure "20" appears on the plan of the main workings.

AREA INVESTIGATED

The lode was traversed from the camp (see Ref. No. 1) westwards to the head of the small tributary of New's Creek i.e. for about 30 chains. The area is densely timbered and the old workings and prospects difficult to find. However, all were found with the exception of No. 3 Trench, No. 4 Trench and No. 2 West Crosscut. A trail was blazed from the hut and old workings indicated on the trail by three blazes one above the other. This will assist any person wishing to inspect the area. The old workings and trenches are much overgrown and the rock hidden by moss growth. There was not time to clean out these but it was seen that the trenches each penetrate to the lode material.

DISCUSSION

The lode is mainly pyritic but with local concentrations of copper minerals and cassiterite. To the east of Tulloch Creek, large gossan areas occur and it

was in these that old workings were located because of the ease of working. Much ore still remains and the areas are worthy of systematic investigation. West of Tulloch Creek, the lode rises over the steep Lindsay Spur. Very little gossan occurs the lode consisting mainly of pyritic bands carrying tin in exceedingly hard slates. Because of the hard nature of the rock, the previous owners paid little attention to this portion of the lode. It is the present writer's opinion, however, that this section of the lode is worthy of investigation and it is possible that the future of the mine may lie in this section of the lode. The lode dips steeply south at about 80° . Owing to the topography, the surface trace of the lode shows two curves where it crosses the Lindsay and the South-East Spurs. Actually, however, the lode runs perfectly straight. Where Tulloch Creek crosses the lode, the elevation is about 1,450 feet, at the Western Adit about 1,720 feet, while the top of the spur is 1,820 feet. Where the section proved to be of value, the mining problem would be simple. An adit drive could be put in westwards along the lode commencing at a point about 30 feet above Tulloch Creek on a rise of, say, 1 in 5, right through the hill. A second adit drive could be located about 100 feet above this and from both, cross-cutting and stoping carried out.

Proving of the ore is, of course, necessary. In such hard rock, trenching and prospect driving will prove expensive. Diamond drilling is the answer to the problem. A series of holes could be drilled at an angle of about 50° from the vertical along a line parallel to the lode and distant about 50 feet from the hanging wall (southern) side. These would give a series of cross-sections. If the results of this work were encouraging, holes could be drilled in the lode parallel to the dip to test vertical extent.

The Lindsay has been considered as a tin lode. However, copper minerals appear to be fairly abundant and it is suggested that both the tin and the copper content be investigated. It may prove worthwhile to work the lode for both metals.

In specimens from the hole sunk by Mr. Clark, some bright green and blue minerals were noticed. They will probably prove to be copper ores. However, there is a faint chance that they may prove to be radio-active minerals which sometimes occur with copper in sulphide zones. It is suggested that Sample No. 1 be tested on the G-M counter.

SAMPLES SUBMITTED

The following samples have been dispatched by post.

- (1) From prospect hole near figure "20". Pyrite, copper minerals, cassiterite and possibly radio-active minerals.
- (2) As for No. 1 Pyrite and cassiterite showing bleb of ore pushing aside bedding planes.
- (3) Western Adit dumpheap. Pyrite and copper minerals parallel to bedding planes.
- (4) As for No. 3. Shows two generations of sulphide minerals.
 - (a) Parallel to bedding planes.
 - (b) Vein of coarser crystals crossing bedding planes.

Sgd. B.L. Taylor - Geologist
Zeehan 29th August, 1949.

The Director of Mines
HOBART