

REPORT ON PROSPECTING AREAS EACH OF 40 ACRES  
IN THE NAMES OF J. WALLACE AND T.L. KITTO,  
NORTH DUNDAS, BEING OLD SECTION NO. 9439 AND  
THE LAND NORTH AND ADJOINING.

### Location and Access

These prospecting areas are situated in the North Dundas district and lie about  $\frac{3}{4}$  mile to the SE of the Five Mile Station on the NE Dundas Railway. The Five Mile Station on the Emu Bay Railway is about  $\frac{1}{2}$  mile to the W of the latter. The road from Zeehan towards Renison Bell crosses the narrow gauge line at Five Mile Station. The locality is, therefore, well served by rail and road communication.

To reach the southern portion of the area a branch station road about a  $\frac{1}{4}$  mile on the Zeehan side of the Five Mile Station is followed from the road in a SE direction. For a short distance the ground is cleared and fairly level.

The ground soon starts to rise, the rough track follows the bed of a small creek which takes its source in the higher ground above.

### Topography

The area is one of high relief and is deeply dissected by several small streams which have a general westerly flow converging in the lower ground to form Nevada Creek, a sub-tributary of the Little Henty River.

Steeply inclined wooded hills thickly covered with typical West Coast forest growth characterises the locality. The hills of which there is a series form the divide between the lower lying country to the S of Dundas township and the Melba Flat area to the NW. The hills rise to a height of 600 to 700 feet above the general level of the surrounding plain.

### History

These areas embrace what is known as the Old Grand Prize Mine on which a considerable amount of prospecting was carried out some thirty-seven years ago in the search for galena on a large gossaneous formation. The presence of tin ore in a lode formation of that description which it was later found to contain was not then suspected. If it was at the time known no significance was attached to the occurrence. Following a fruitless search for silver lead ore the mine was definitely abandoned. In later years from time to time, small areas of alluvial ground on the lower slopes of the hills have been worked for tin particularly in the Melba Flat area where some good returns are said to have been obtained associated with alluvial gold. These areas have been worked both on the North Western and South Eastern extensions of the lode formation. No work has been carried out on the latter in the way of testing for tin other than of taking samples for assaying.

### Geology

The country rocks are principally slates and a porphyritic dyke rock running parallel to a gossaneous lode formation which traverses the area from N to S. The surface of the ground is so densely covered with bush that it completely obscures any rock exposures rendering it impossible to form an opinion as to whether the **lode**

is of the contact or fissure type.

This belt of country is in direct line with the Razorback tin area at Dundas distant about  $1\frac{1}{4}$  miles due S. The lode in the latter occurs on the contact of slate and serpentine rocks. The presence of serpentine has not been observed on the Grand Prize area.

The lode formation as stated consists of gossan and can be traced through the property boldly outcropping above the surrounding country rocks. It is essentially the oxidised portion of a sulphidic orebody underlying it. The depth of oxidisation is not known but from the general appearance of the gossan and from evidence obtained from a shaft 60 feet or more in depth it would appear to be considerable .

It appears that the lode is similar to the large tin bearing gossan formations in the Renison Bell district. The Grand Prize is, however, more regular and continuous on its strike than those of Renison Bell.

The character of the gossan varies in different portions of the outcrop. In some places it consists of light coloured spongy gossan carrying a high silica content; at others it consists of heavy black iron stone with variations in grades between these types. There is not sufficient done in the way of sampling and assaying to determine the probable distribution of tin from point to point along the outcrop.

In the vicinity of the shaft referred to very good prospects of tin can be obtained by tin washing.

#### Prospecting and Development

The lode formation is very well situated for economical prospecting by means of tunnels. In places deep ravines cut across the lode and from either side of these drives commencing in the lode could be carried along the course of the strike with cross-cuts put out at intervals from wall to wall. Owing to the walls along the outcrop not being clearly exposed it was not possible to obtain the true width of the formation, but judging by the outcrop it would average about 25 feet.

The lode formation is a very strong and continuous body and in places has been proved to carry payable quantities of tin. It now remains for further prospecting work to be undertaken to ascertain the extent and approximate tin content of the untried portions of the lode.

As a preliminary effort, the most inexpensive and systematic method of surface prospecting along the face of the outcrop is by a system of hand drilling or "jumper".

A transverse line of holes, say, 10 feet apart spaced each chain along the outcrop and the cuttings from these assayed would give much useful information concerning the distribution of tin in the lode. There would be no difficulty in reaching a depth of 12 to 16 feet by this means. The cuttings from the respective holes could with advantage be taken and kept separately with each 4 ft. section bored and numbered consecutively. By adopting some such method much useful information would be obtained.

In places it may be advisable to drive short adits for prospecting purposes. These in the prospecting stage of the property should only be put in where a commencement of the rock can be made on the lode itself. To drive

cross-cuts through the country rock for the purpose of intersecting the lode, should be avoided; it being costly and slow work is quite unnecessary in prospecting a formation of this kind, and situated as it is.

The lode is of promising character and well warrants attention in the way of testing to determine the quantity of payable ore it contains. It will probably contain enrichments of more or less limited extent which is characteristic of gossan lodes of this type. Too much significance must therefore not be placed on any local enrichments that may be met with in prospecting as many portions of the formation are likely to be devoid of tin. The question is to determine by systematic prospecting the average grade that could be economically mined for treatment. For a moderate quantity of ore of this kind an average in the vicinity of 1 per cent would be well payable.

### General

There appears to be a sufficient supply of dressing water available in the small creeks which flow through the area should the developments warrant the erection of a concentrating plant. The water in these would be indispensable.

No consideration should be given to the question of the erection of a dressing plant until a sufficient quantity of payable ore is definitely proved to exist, making as well a liberal allowance for adverse contingencies.

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