REPORT ON LEASE No. 10259/M, 40 acres, applied for in the name of Flaherty and McKenzie; Extended Prospecting Claim of 320 acres in the name of R. W. McKenzie, Prospecting areas each of 40 acres in the name of F. Smithies and Ryan and Bently respectively. 14

Location and Access

The various areas referred to in this report are situated near Storey's Creek in the Ben Lomond district, Avoca.

The latter is a small township on the Fingal Railway line, 52 miles from Launceston. The distance by road from Launceston is a few miles less than by rail.

From Avoca to Storey's Creek is 15 miles, the road is in very fair condition though sections of the upper portions are rough. By motor the journey from Avoca to Storey's Creek can be accomplished in about 1½ hours. The areas examined are situated on the southern slopes of the Ben Lomond mountain range at an elevation of approximately 2000 feet above sea-level and 1350 feet above Avoca.

The road to Storey's Creek passes through the properties about a mile by road from the latter.

Topography

The greater portion of the areas are situated on a fairly level plateau to the west of Nisbet Creek, the latter taking a south-easterly course through the prospecting claim junctioning with Storey's Creek about a mile further on.

Nisbet Creek has cut a deep channel on its course towards its junction with Storey's Creek and from the valley on either side the sides of which are steeply inclined, good facilities exist for the development of the various lode outcrops by channels to depths up to 100 feet or more.

Economic Geology

The land embraced in the area covers the contact of the igneous and sedimentary series of rocks the former being represented by intrusive granite and the latter by alternating bands of slate and sandstone. In the slates themselves and on the contact of the slate and granite, veins of quartz up to several feet in width outcrop in various places.

The veins vary in thickness from a few inches up to a width of 5 feet, they occur in short lenses from point to point along the line of strike, the very limited amount of work carried out is not sufficient to prove if they are continuous or of sporadic occurrence.

In some of the outcrops tin oxide can be observed in the form of small dark brown crystals and blebs usually on the faces where in contact with the country rock.

The veins are all more or less tin bearing although samples of the stone show no visible tin, appreciable quantities are found when assayed.

It is usual to find small quantities of mica irregularly distributed through the stone in the form of bunches and thread-like veins.

The tin occurrences in the granite are associated with quartz greisen through which is disseminated small crystals of tourmaline. It is not unusual to find the tin bearing stone, particularly near or on the contact of granite with the sedimentary rocks consisting of quartz tourmaline. The lodes have an apparent strike of 45 degrees, and dip westerly at a high angle.

The land is lightly covered with soil which in the vicinity of the lode outcrop carries small quantities of tin oxide. A deposit of alluvial tin occurs on the south western side of the road. This consists of clayey material with which is associated angular and rounded quartz rubble up to 2 inches in diameter. The deposit which is being worked is about 3 feet deep on the average. Its extent has not been proved but it will probably be confined to well within the limits of the 20 acres of prospecting area in which it is included.

Some pieces of the quartz rubble forkings contain a high percentage of tin oxide. These have no doubt been derived from a lode outcrop situated north of the present working face.

Ore Occurrences

It may here be stated that the area examined has not been surveyed consequently the situation of the boundary lines of the various holdings in relation to the lode outcrops is not known. An approximation of the position can be made by reference to the chart of the district and the position relative of the road and Nisbet Creek.

The block of 40 acres applied for under lease in the name of Flaherty and McCormack adjoins on the south west consolidated lease No. 7250/M known as the Storey's Creek Mines.

The lode occurrences on the latter which have been highly productive of tin and wolfram for many years past are situated at least ½ a mile to the east of those on the area examined, and are approximately parallel to them on the line of strike. A number of quartz outcrops have been located on the various blocks but so little work has been done on them particularly with regard to proving their lineal extension that very little can be said regarding their prospective value. The outcrops located are all more or less tin bearing in some instances the tin occurs as in the form of fairly large sized crystals and blebs, in others where no tin is visible appreciable quantities are found on assay.

There is no marked difference in the character of the various quartz outcrops, attention should be given to those showing the best indications of tin.

At a point a few chains north of the road on the north east bank of Nisbet Creek a strong outcrop of quartz occurs. It is situated about 1½ chains of the latter at an elevation of 40 feet above it, the strike of the lode is along the western fall of the hill. The wall rocks consist of slate. This outcrop from the position of the posted notice is situated on F. Smithies prospecting area. The lode material shows no visible tin but an assay of the quartz gave encouraging results.

To the south east of this outcrop similar ones occur a short distance from the roadside, three have been located here in parallel formation and are known as Nos. 1, 2, and 3 respectively, No. 1. is approximately 100 feet east of No. 2 and No. 3, 55 feet west of No. 2. These several outcrops have not been traced for any distance to speak of on the line of strike. The quartz formation referred to on F. Smithies Prospecting area appears to be a continuation of No. 2 lode.

It is yet early to form an opinion regarding the prospective value of the formations exposed, excepting in a few instances some shots have been fired in the outcrops no developmental work has been carried out. Some of the outcrops show very strong bodies of quartz these should be traced along the line of strike and carefully examined for their tin contents, where the best prospects are obtained developmental work should be undertaken.

In the preliminary developmental work on these lodes when sufficiently encouraging prospects are obtained to warrant it, sinking on the outcrops should be undertaken in the first instance in order that data may be gathered to serve as a guide for a more comprehensive scheme of work.

The configuration of the country in the vicinity of the lodes is very favourable for their development by tunnelling. From the west side of Nisbet Creek 50 feet of backs could be obtained to cut the three lodes referred to No. 1. would be out in approximately 90 feet No. 2 in 200 feet, and No. 3 in 265 feet of driving respectively, these figures are approximate only. If desired deeper tunnel levels up to a hundred feet or more can be obtained entailing longer drives to cut the lodes. In the present stages of development none of the lode outcrops warrant any considerable expenditure such as driving tunnels on the chance of better developments at depth.

Water Supply

The question of utilising Nisbet Creek as a possible source of water supply for the generation of power has been discussed by the applicants. Such a scheme must provide for an ample storage of in addition to a constant and adequate flow of water for such a purpose. The facilities for building a dam on Nisbet Creek are decidedly unfavourable owing to the rapid fall and steep banks of the stream. The volume of water flowing in the creek is quite insufficient for power purposes for the limited fall available in the vicinity of the property.

Nisbet Creek would serve as a water supply for ore dressing purposes; in the dry season of the year it is doubtful if the quantity available would be sufficient for that purpose; for the greater part of the year there would be ample.

Conclusion.

The lode outcrops are situated in a district and adjacent to a miningproperty noted for its persistency in highly productive work extending over many years. While in some respects particularly in the similarity of the lode material the lodes in the area examined are characteristic of those found in the district. The lodes in the parent mine however, are comparatively speaking

remotely situated from the disturbing influences of the eruptive such as occur in area described. The same conditions for ore deposition are not to be found on the latter as in the former which will tend to be more erratic. The prospects are sufficiently encouraging to warrant in the first instance systematic surface prospecting along the outcrops in search for tin values of sufficient importance to merit development by sinking and subsequently by tunnelling methods.

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19th December, 1927.