.21926/123-124

A. McIntosh Reid Esq.,
Director of Mines,
HOBART.

Dear Sir,

P. S. Shadforth S. Mt. Cameron

In compliance with your instructions I beg to forward herewith advisory report based on the results of boring operations recently carried out by Mr. W. Wilson at S. Mt. Cameron.

The area tested is situated about ½ mile west of the main road on comparatively level button grass country, and embraces land applied for under a mining lease - 38 acres in the name of D. Keenan, also an extended prospecting area.

Former workings

Towards the centre of the area bored by Mr. Wilson there has been worked in past years a small paddock of ground roughly of ¼ acre in extent. The plant used for this work is still on the ground and consists of a small portable steam engine and gravel pump. The average depth of the tin drift in paddock worked is about 8 feet. The upper portion for a depth of 2 feet consists of clay, below this is fine quartz gravel intermixed with clay resting on soft granite bottom. On the western portion of the area a miner is working a face of wash dirt by ground sluicing. The tin bearing drift here averages about 8 feet and is similar in character to that above described. The area worked is about 1/3 acres in extent. I understand that both Mr. Wilson and Mr. Hayes have supplied full particulars respecting the relative positions of the above holes hence it will not be necessary for me to furnish details concerning the area covered by boring. A plan drawn to scale showing depth and value of each bore with its position marked thereon would be the best means of conveying detailed information of the ground. If this was desired I could furnish a plan if so instructed. The configuration of the ground bored has make it necessary for irregularly fixing sites for bores, hence to make an exact plan some time would be necessary to make a survey as the various lines of bores are most parallel or situated at right angles although they roughly conform to such positions. The tin contents over the whole area are more or less irregular but the limits of variation are not wide, ranging from 1½ lbs. to the yard to a little less than ½ lb. to the yard excepting in a few instances where there was a trace only. The grain size of the tin is about 1/32 inches and if of very good quality. In the vicinity of No. 12 Bore in Line "B" and going south from that point some very rich wash dirt was struck at a depth of 22 feet. The upper portion of this bore was of the usual characteristic material carrying fair prospects of fine tin, a short distance below what appeared to be bottom a gutter of coarse black tin grain size about ⅛" was struck, this coarse tin contained in coarse sub angular gravel. With the object of proving the extent of this lead a number of bores were put down on "E" line one chain south of "B" and on "F" line 1½ chains south of "E" and on G line one chain south of "E". These series of bores apparently proved that the rich lead of coarse black tin is in this vicinity of very limited extent although an area of a few square chains has been proved to be exceptionally rich.

On boring further south the same bed of gravel with which the coarse tin was associated was met with but proved to be poor. Line "E" returned an average of 5.53 lbs. of tin per cubic yard. No. 1 bore line "E" returned 7.5 lbs. per cub. yard. Three on line "G" 1½ chain south of E over a width of one chain returned only 0.58 lbs. of tin to the cubic yard. A similar distance further north on line "H" the values dropped to a little over half a pound to the cubic yard. Any considered scheme for the purpose of working this area should be based on the average value of the ground, unless work was contemplated in a limited way on the richer portions of the ground. Line M of bores extending westerly along the bed of Smith Creek commencing from a point 3 chains of the East line of bores averaged 1.20 lbs.per cubic yard over a distance of about 14 chains the average depth of wash dirt being 10.4 feet. The values obtained would in all probability continue westerly to "L" line of bores. "M" line being in the centre of the creek bed, the average width of the wash dirt cannot be determined.

Average results

The average depth of wash as proved by boring over whole area 14.5 feet. The average value in tin from all bores returned 0.92 lbs. per cubic yard.

Character of drift

The tin bearing wash dirt in this area consists chiefly of sand and clay, alternatively with layers of an intermixture of gravel and clay. Any proposal having the object to work the ground, the question of economically dealing with wash dirt of this character which contains a high proportion of clay should at the outset be seriously considered.

Drifts containing clay cannot be so easily treated as those composed of sand or gravel only. The losses moreover when treating clayey drift must also be reckoned with.

Sludge channel

From observations made, it would appear that the ground in this area is too flat to carry away tailings without some system of elevation for that purpose.

Water supply

At present a good stream of water is available running through the ground from West to East. In the summer months the water supply would diminish considerably to what extent I cannot say. There is a good site for the conservation of water a short distance west of the area.

An embankment with a height of 10 feet from the bed of creek would impound a good supply of water roughly an area of 50 acres. To determine the approximate capacity of a dam would necessitate a series of contour lines being run. The length of breast at top would be 330 feet. Allowing 5 ft. per cubic yard for quarrying and building embankment the cost would be approximately £250.

Yours obediently,

J. B. Scott
State Mining Engineer.

22/7/1926.

Zeehan.