

THE ST. PAUL'S RIVER TIN DEPOSITS.

Launceston, 8th September, 1881.

THE Avoca Valley, which is watered by the South Esk and St. Paul's Rivers, is covered for a considerable length and depth by a flow of basalt, which, as far as seen, descends down that valley as far as Corners Station on the Main Line of Railway. Having already, in a former report, alluded to the great probability of a sub-basaltic gravel or ancient river-bed existing there, it should be mentioned that above the Township of Avoca some tin-bearing tributaries fall into the South Esk and probably into the St. Paul's River also; and that tin ore has been known to exist for a very considerable number of years past. At several points on that and the St. Paul's River also stream tin has been found, and worked on a limited scale.

One of the sources higher up the valley, whence these tin deposits appear to have been derived from, is situated in the Parish of St. Andrew's, upon Lot 692, nearly due north-east from St. Paul's Dome. Unlike the granitic country rocks enclosing tin ores near Ben Lomond, the strata here consists of a variety of porphyrites, indistinctly stratified, in which however the denser and more feldspathic bands are impregnated with a good crystalline description of "cassiterite." At the surface the ore has been liberated after decomposition of the matrix; and, consequently, good prospects were obtained by washing the surface soil in the pan. The principal zone of these tin impregnations consists of a dyke (porphyritic) from 15 to 20 feet wide, a smaller dyke about 3 feet wide, and some others less distinct. These dykes are mostly of a quartzose character; and they exhibit, as component parts, the following minerals; viz.—Tourmalines, chlorites, and felspars. The underlay of the tin-bearing strata, parallel, though some distance apart, is synclinal, thus indicating a probable junction at some depth below the surface. The features observed in this vicinity are such as to deserve to be thoroughly prospected by means of a main shaft and cross drives at a greater depth than yet reached.

The facilities for transporting in future (should the locality be worked for tin as suggested) the ore to the Main Line of Railway, along a capital road, is an important advantage, if looked upon in comparison with mines located nearer to Avoca and the railway, inasmuch as they have much greater obstacles to overcome previous to shipping their ores.

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