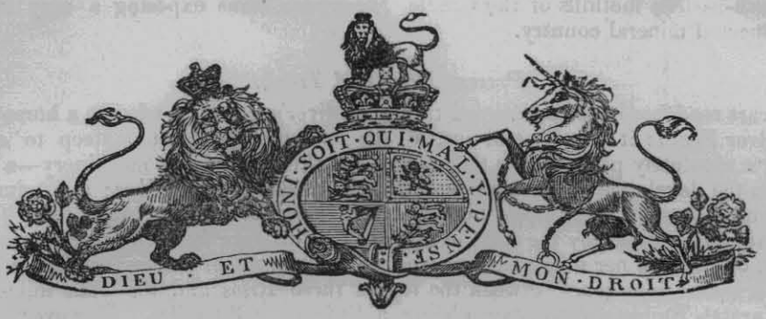

SPECIAL Report upon the General Geology of the Route from Mount Claude to the Five-Mile Rises, west of the River Forth, near Middlesex Plains, County of Lincoln, North Tasmania.

Mining Geologist's Office, Launceston, 6th May, 1889.

The Land.

STARTING from a point on the Mount Claude Ranges where a new road crosses the summit, the main outcrop of rocks consist of huge beds of very coarse conglomerates resting upon micaceous quartz schists, and traversed by dykes of garnet rocks, near which the Mount Claude silver-lead formations have been discovered. The conglomerates disappear within a couple of miles, and metamorphic schists occur, and the whole of this land is totally unfit for cultivation.

Rising to the high plains on the eastern summits overlooking the River Forth, those schists are capped by gray to black cellular lavas or basalts; these on decomposition form very good land, and only their altitude and exposed position render this land—Oliver's Country, and other high plateaux—unfit for cultivation, though its fattening capabilities are being to some extent availed of during the summer months for cattle.

On the eastern slopes of these ranges a rich soil covers the ground for over 10 to 12,000 acres, being the denuded detritus of the higher basalts; lower down the ground becomes stony to some extent, yet, to judge from the large timber growing, it is a productive part of the district if properly tilled. Then, rich alluvial flats flank the eastern bank of the river, and these will become invaluable when the splendid timber has been cleared off. With regard to the timber, it is not very densely distributed, and there is not much undergrowth or scrub.

Crossing the River Forth a very decided change takes place. Though an auriferous reef occurs on the east side—Campbell's Reward G.M. Co., Registered—it is on the west side that the strata becomes more and more metalliferous and mineralised.

Mineral Deposits.

The Five-Mile Rises form an uninterrupted range on the west side of the River Forth, and having examined the various mineral deposits as occurring at about five miles from here, near where the Mount Claude Creek falls into the River Forth, I am in a position to state that this range contains metalliferous and mineral deposits of so diverse a character as to encourage miners to persevere with their prospecting operations. At near the Mount Claude silver-lead mines, two miles southerly, there has been found gold in quartz, silver-lead, tin ore, and lower down the river at the west side rich chalcopyrite or copper pyrites. At Five-Mile Rises proper on the same range gold in quartz and in the alluvial in more than remunerative percentages also associated with silver and lead ores, also in a remarkably ferruginous matrix with traces of silver.

These ranges attain to a height of from 800 to 2000 feet above the River Forth, and it is strongly recommended, in view of the manifold ore deposits there, that some portion of the expenditure for driving a deep adit (Five-Mile Rises) from the River Dove in an easterly direction, could be allotted by the Government to aid in the exploitation of the deeper lodes, and for the drainage of the same, inasmuch, in spite of the elevation of this ground, it is still greatly saturated with water.

Means of Communication with Settled Districts.

That the opening of so valuable regions would benefit the Colony at large I have no doubt whatever, especially when it is borne in mind that gold and other minerals have been obtained right beneath the north-eastern foothills of the Cradle Mountains, thus exposing a very large area of but partly prospected mineral country.

Present Road and Track.

A rough cart road has been constructed through Oliver's Country, whence a horse track leads down to the River Forth: it is badly laid out, as the descents are far too steep to ensure rapid travelling, and it absolutely prevents the transport of any kind of mining machinery—a desideratum much needed in the development of mines situate on both sides of the river; it is simply the old Bischoff track used by stockmen in past times. I was informed that it is pretty level *from the top of the Five-Mile Rises*, which, by the way, extends in that distance from the river an ascent of close upon 2000 feet, or 400 feet per mile, thus preventing the supply of heavy articles of machinery. Only one hill, it is said, intervenes between the top of these Rises and the 26th mile-post on the Burnie and Waratah Railway, the distance being a little over 30 miles. However, the country should be carefully examined in order to ascertain its physical and geological character.

New Track and Bridge.

A new track (sidling) can, I believe, easily and inexpensively be constructed, by means of which all the heavier gradients would be avoided, and thus the present steep track, and that paltry and periodically very unsafe crossing the river by means of a suspended wire rope with a cage running on hollow or grooved pulleys, could be dispensed with. At about 15 to 1600 feet above the river, east side, a track could, at easy grades, be cut down to a place known as "Old Distillery," or the "Rocks," and one mile below the present crossing. The banks of the river there suddenly converge, and the stream is made to pass through a narrow chasm between solid rocks, measuring a little over 20 feet across, and as the river descends in rapids below this outlet there is always, even at the highest floods (often rising to nearly 30 feet in a couple of hours), over 20 feet clear passage beneath, where it is strongly recommended the new bridge should be constructed. Five spars of about fifty feet in length each thrown across the chasm could be procured close by, and they would form a solid foundation for the decking of the bridge, which, with hand rails, would complete the structure at very moderate expense. From there the Five-Mile Rises could be traversed by a road at very easy gradients, though, perhaps, at a trifling longer distance and consequent expense, which latter is, however, warranted by the urgent exigency of the case.

In conclusion of this Report it should be mentioned that, here and there in the thickly-grown timber, open and well grassed patches of good basaltic land occur which are well sheltered and need scarcely any fencing by settlers; these are from 10 to 50 acres in extent, and, whether their basaltic outliers indicate a now disrupted system of deep diluvial leads, either auriferous or stanniferous, I had not at the time the means for ascertaining.

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