

NEAR GEORGETOWN

The occurrence of outcrops of coal-seams in the vicinity of Georgetown to which attention has recently been drawn are located two and a half miles from Bell Bay and four miles in a straight line from Georgetown. It is not a new discovery as coal was first discovered there in 1888, and was reported on by the late W.H. Twelvetrees in 1904. No work on the deposits had, however, been carried out to determine their value satisfactorily and definitely, and the original coal leases have remained vacant until the recent renewed attention to them.

The object of the present examination was:

- (1) To examine the work recently carried out
- (2) To decide whether the coal seams belong to the Trias Jura coal measures which constitute the greater part of the coal resources of Tasmania, or were merely portion of the Tertiary lignite or brown coal beds which in Tasmania are not of sufficient thickness to be of value as fuel.
- (3) To determine the area occupied by those Trias Jura coal measures if they were proved to be present.
- (4) In the latter contingency to determine the best means of testing the thickness and value of the coal seams.

The examination resulted in the following conclusions:

(1) The recent work has consisted of the sinking of a shaft 45 feet in depth in the vicinity of Hachett's old shaft. At a depth of 15 feet two seams of coal were encountered, one 8 inches thick and the other 6 inches, separated by one foot of white sandstone. In the bottom of the shaft a thin seam of coal was encountered an inch or two in thickness but progress beyond this point was rendered impossible by the tapping of water under pressure in the bottom of the shaft which has risen to within eight feet of the surface. From fragments brought up by the water it was thought that a coal seam exists below the bottom of the shaft but it has not yet been possible to definitely determine this point.

(2) The evidence obtained during this examination has been sufficient to definitely establish the fact that the coal-measures in this locality belong to the Trias-Jura system to which the greater part of the coal deposits of Tasmania belong. This is confirmed by the analyses of the representative samples of the 8" and 6" seams which show that the coal is of essentially the same character and composition as the better class of Trias-Jura coal as represented by the best coal from Mt. Nicholas and Cornwall mines.

(3) It has been ascertained that these coal-measures in the vicinity of Georgetown occupy an area of approximately five square miles situated immediately to the east of the Mt. George-Buffalo Range and north of the main road. All this is possibly coal-bearing, but whether it actually carries coal seams of workable thickness has yet to be demonstrated by exploratory work preferably with the aid of suitable boring apparatus.

(4) The general characteristics of the coal seams and associated sediments disclosed in the workings already opened up show that they are located on the western edge of the coal basin. Future exploratory work should therefore be directed to the penetration of the coal-horizon to the eastwards. I have accordingly fixed sites for bores which have been indicated on the field by pegs numbered 1 to 8. The object of these bores is simply to penetrate the coal measures and ascertain what is the thickness and number of the seams. They need in no case be more than 100 feet in depth. The country to be passed through is wholly soft sandstone and shales with a little pebbly grit. This could be bored through by a simple hand plant. There should be no need for a large drilling plant in these preliminary investigations. The type of hand boring plant which we evolved on the Western Front for geological test bores in chalk with flints would be particularly suitable for this work. This plant weighs only 115 lbs., can be operated by two men and costs very little to make. It is capable of boring to 100 feet or more. It is unfortunate that there is no firm in Australia which supplies such light machines or undertakes work with them, and it has become so apparent that the availability of such plants for work of this character is essential to the investigation of many deposits of coal, clay &c., in Tasmania that I deem it my duty to draw attention to it and to submit a separate report dealing with the question of the provision of boring facilities. The ready availability of efficient boring facilities at a reasonable cost is very desirable in Tasmania and would appreciably assist in the investigation of certain of our natural resources, and I am therefore desirous of making available my experience in this connection.

The bore sites Nos. 1 to 8 have been located on the assumption that a light boring plant is utilised. Bore No. 1 is designed to test the ground below the bottom of the shaft on the western edge of the basin. It should be about 80 feet in depth. Bores Nos. 2, 3 and 4 should be put down to a depth of 50 feet, while Bores Nos. 5, 6 and 7 should go to 80 feet. Bore No. 8 which is on the flat ground just north of the road should be 100 feet deep.

CONCLUSION

There exists therefore in the vicinity of Georgetown a possible coal field five square miles in area. Whether this coal field carries seams of sufficient thickness to pay to work has yet to be demonstrated. The seams of coal already disclosed demonstrate that the quality may be expected to be equal to the general average of our Tasmanian coals. The evidence warrants the exploration of the area to the eastwards of the western edge of the coal field on the lines indicated above in order to ascertain the thickness of the seams in the main portion of the field.

In conclusion I desire to draw attention to the information disclosed by the recent work in regard to underground water supplies. It is clear that this basin of sandstone and mudstone carries underground water under sufficient pressure to nearly reach the surface when tapped. As the lower portions of this basin are within two miles of Bell Bay, less than four miles from Georgetown and not more than three miles from Low Head, a possible source of water supply for these areas at a very small cost is indicated and I desire to draw special attention to it.

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Launceston,

14th September 1920