

PRELIMINARY REPORT
ON THE
COAL RESOURCES OF THE AREA TO BE SERVED BY
THE PROPOSED RAILWAY FROM PICANNINI POINT TO
COLES BAY
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THE DELIMITATION OF THE COAL AREA BY THE SEA-COAST
AND THE DIABASE

The coal-bearing area of the East Coast may be regarded as that stretch of country extending from Gray on the North to Coombend on the South, bounded on the East by the Coast line and extending Westward to an irregular line governed by the position of the diabase.

The diabase throughout the area intrudes the coal measures and forms an effective break to the lateral extension of the coal seams westward. At Piccannini Point the diabase occurs about four miles inland. From here it follows a south-easterly direction to Seymour where it is about $1\frac{1}{2}$ miles from the Coast. At Seymour the line of diabase turns westward and continues until the Douglas River is crossed. The line then turns southwards and the diabase is found about one mile from and running parallel to the River until it is again about two miles from the shore. Here again a change takes place in direction and the diabase is found following a south-westerly course till about one mile north of the Denison River where the line of contact swings in the form of a rough circle westwards and returns to a position immediately south of the last turning point. A southern extension of diabase is found at the Denison River, but the main mass again is westward and encloses a circular area at St. Albans. The southern limit of the St. Albans area is about 4 miles East of North of Llandaff. From here the diabase follows a South-westerly line to Coombend which is the southern extremity of the coal-field. Between this irregular line and the Coast the whole of the coal of the East Coast is to be found.

ALTITUDE OF COAL SEAMS

The altitude at which coal is to be found varies from north to south and from west to east. The greatest altitude at which a seam was located was at 1750 feet in the upper portion of the Douglas River. By far the larger portion of the coal is to be found between the sea level and an altitude of 1000 feet.

THE FAULTS AND THEIR EFFECTS

Faulting has taken place in the area and the main faulting has occurred along north-south lines. Faulting to a lesser extent has occurred along east-west lines.

It is due, to a great extent, to this faulting that the great variation in altitude of the various coal seams exists. A series of at least three north-south faults exist with the result that there now only exist blocks of coal-bearing strata separated by fairly definite lines.

- 2 -

THE ATTACHED SKETCH MAP

The various geological features together with the fault lines and the positions of the mines along the Coast are shown on the accompanying sketch map of the area.

THE NUMBER OF SEAMS

It has been shown that eight seams of coal exist throughout the greater portion of the area. So little prospecting has been done that it is difficult to form any true opinion as regards the quantity or quality of most of the seams. From what has been done it has been seen that at least two seams exist from which quantities of coal have been taken and from which the immediate supplies would come. The work already done has been sufficient to show that as the seams extend southwards they become thinner, with the result that the 15' seam at Dalmayne has only a thickness of 8' at Douglas River.

ESTIMATE OF MINIMUM CALCULABLE COAL RESERVES

The quantities of coal available from the two best known seams in the various areas may be tabulated as follows:-

<u>Area</u>	<u>Thickness Available in Seam.</u>		<u>Approximate Quantities</u>
	<u>No. 1</u>	<u>No. 2</u>	<u>Available Minimum</u>
Dalmayne	8'	4' 6"	8,000,000 tons
Douglas	4'	2'	2,160,000 "
Denison	2'	2'	2,000,000 "
Steep Creek	1' 6"	2'	2,000,000 "
Mt. Paul	6'	2'	6,144,000 "

Giving a minimum reserve of 20,000,000 tons for the area. These figures are based on calculations for areas at present existing as leases and will be subject to revision. The quantity, however, is a minimum.

POTENTIAL RESERVES.

There are in addition six seams occurring over approximately the same areas, the details as to which are not at present sufficiently definite to permit of actual calculations of tonnage but which are destined ultimately to considerably increase the total coal reserves.

TRAMWAY ROUTE

On the accompanying sketch map a tramway is marked. This route was published by Mr. Twelvetreves in 1902 as a proposed railway and may be taken as a probable route for tramway purposes.

The route is for the greater part of the distance practically level. Variations of about 50 feet may be met but there is only one place on the whole route where an altitude of 200 feet above the surrounding country is reached. This point is indicated at a position westwards of Bicheno.

- 3 -

CONCLUSION

It may be accepted, therefore, that a reserve of 20,000,000 tons of coal can be accepted with confidence in this area. This is the absolute minimum and the geological evidence available justifies the conclusion that further investigation and development will disclose very appreciable coal reserves in addition.

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