

1191 - TRAM
UR1951/38-39

TDH/2

3rd May, 1951.

MEMORANDUM:

Sample of Coal from Preolenna Field.

As directed by you I have obtained a sample of coal (about 50lbs) from the Preolenna Field and forwarded it to :-

Dr. D. B. Andrews,
Chief Chemist,
Metropolitan Gas Co.,
West Melbourne Works,
MELBOURNE.

The Preolenna Field has been fairly fully described in Geological Survey Bulletin No. 13 and in the Coal Resources of Tasmania.. The former was published in 1913 and the latter in 1922.

This Preolenna Coal is the highest grade found in Tasmania but the seams are very narrow and the coal has a high sulphur content. There are four or five seams reported at this field and a certain amount of development has occurred at two places - the Preolenna Coal Mine and the Torban Hill Mine at Meunna. Unfortunately both these sets of workings are completely inaccessible so that no underground samples could be obtained from them.

With the aid of Messrs. S. Carson and R. Barr an old adit, driven by the latter's father, was located and a sample obtained at about 50 feet from the portal. The old Preolenna Coal Mine Road may be traversed by vehicle to the terminus of the old Railway formation (Maweena). A cart road continues South from here and eventually leads to Takone. At about three quarters of a mile along this track the Old Arthur River Track crosses it. This point is on a saddle to the West of which is the head of Main Creek which flows to the Flowerdale River; while to the East is the head of a small creek flowing to the Jessie River. This saddle is 1,400 feet above sea level and 120 feet above the old Railway terminus. About eight chains to the east of this point and one chain north of the first creek which crosses the track and flows to the Jessie the adit may be found. The valley of the Jessie has steep, thickly wooded sides and the mount of the adit lies 250 feet below the track.

The adit was commenced where one seam outcrops, and was driven horizontally on a bearing of 300°. The country rock in this adit consists of micaceous sandstones containing shale bands varying in thickness from two inches to one foot. These beds and the containing coal seams strike at 15° and dip to the West at 14° to 20°. Thus the adit is driven almost at right angles to the strike.

As shown on the attached section, four seams were intersected by this adit. The lowest, at the portal is cut at the outcrop and no good purpose could be served by obtaining a sample of this.

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At 50 feet from the entrance the high grade seam of torbanite was cut. This is a hard black coal of low specific gravity and no well developed cleavage and is very difficult to extract. The seam is 20 inches in width and dips to the West (285°) at 14° . A sample weighing approximately 50 lbs was obtained across this seam. The bedded distance between the torbanite and the lower coal is about 12 feet. At 120 feet from the portal a band of seemingly poor quality black shale 3 feet in width was encountered and about 6 feet above this is another coal seam at which the adit ends 146 feet from the portal. This coal is easily broken and contains much iron oxide in joint places. A great deal of water soaks down these joint places. The coal does not appear to be of such a quality as the torbanite and has a slightly steeper dip (about 20°). The bedded distance between the two seams is 22 feet.

As the two seams could not be mined together (that is at this point) a sample of the better quality one was obtained. It is unfortunate that samples could not be obtained from old workings and although this sample was not taken from the outcrop it is not very far from the surface.

At this stage a brief note on the structure of the field may be opportune. It is an accepted theory of those who are and have been interested in the field that the coal seams and their enclosing strata lie in the form of a large basin. On the Eastern flanks the outcrops dip to the West and to the West the dip is to the East so that it has been assumed that these are the edges of a large fold, the centre of which is horizontal. In other words the dip of the coal seams will gradually flatten until they are almost horizontal. To my mind, with the brief examination made, this is not so. Permian strata in Tasmania is not usually folded and we should look to faulting rather than folding to explain the steep (for Permian strata) dips. A large fault, probably related to the neighbouring dolerite intrusion may be expected somewhere across the centre of the field and if this is so the dip of the coal seams would increase and not decrease away from the outcrop. But this, of course, is theory only.

Signed: T. D. Hughes,
GEOLOGIST

The Director,
Department of Mines,
HOBART.