000

(6)

12-013

Q 97/9

605001

R E P O R T

on

COAL PROPOSITION EAST OF RECHERCHE BAY

by

FRITZ NOETLING, M.A. Ph.D., ETC.,

605002

REPORT ON THE COAL PROPOSITION EAST OF RECHERCHE BAY(known as the Reward Claim)

by

Fritz. Nöetling, M.A.,Ph.D., &c.

SITUATION. The proposition under report is situated close to the Northern Western shore of Recherche Bay, part of its Eastern boundary line being within half a mile of the Eastern (right bank) of the outlet of the D'Entrecasta Channel. Like the Catamaran colliery it is therefore situated in the South Eastern corner of Tasmania and approximately two miles north of the shafts o of the Catamaran.

ACCESSIBILITY Notwithstanding its closeness to the sea shore the present ways of access are by no means easy, leastways as far as the distance from the Main road to the outcrops is concerned. At present the locality is reached first by steamer from Hobart to Southport (Hythe) about 52 miles and thence by road to Recherche Bay. About 2 miles north of the Catamaran River (13 miles from South port) near the Salt Water Inlet an old delapidated tram (timber) branches off towards West, this is followed in western direction, to the foot of a hill rising about 150 to 200 feet above sea level is reached. Following up the slopes and outcrops and prospecting works are found near the top of the hill. The scrub is in this part very dense; I understand, however, that there is a much shorter route than the one I followed, but the scrub along it is almost impenetrable on account of the large bushes of cutting grass. The distance I covered was at the outside 1½ mile but owing to the dense scrub it took a considerable time. Though not easy to reach at present I think that this difficulty is only a temporary one, because a track could be easily cut at small costs.

052

What is, however, of great importance , tha outcrops are at such elevation above the sea level that the coal could be carried to the jetty either by self-acting tram or by an areal tram, o both not longer than one mile.

MINING LEASE

The property was originally granted to Mr. H.Smith as a reward claim but this has since been forfeited no work having been done

The property comprises 237 acres in all and is held under mining lease 4756/M in the name of A.E.Sherwin and Smithand others. So far no timber lease has been taken up, neither has an easement to construct a tram line to the sea shore been secured.

GEOLOGY.

The beds in which the coal seams occur apparently belong to the same series as those found in the Catamaran Colliery, but I am pretty certain that the seams as found on this proposition are not the same as those occurring at Catamaran. In fact I feel inclined to think that they belong to a somewhat younger part of the Thinnefeloai series than the Catamaran's seams.

The first signs of coal are seen in the bed of a small riverlet running down the slope in eastern direction. A fine seam of good hard though somewhat dull coal is exposed in this seam (seephoto) dipping in North western direction. About 30 feet in the direction of the dip a prospecting shaft 18 feet in depth had been sunk. At the time of my visit it was full of water whih had to be bailed out and when empty it exposed the following section in necessary order.

SURFACE COAL PASSING INTO COAL

3.	Coal	3	feet	0	inches
	Shale,dark	1	"	3	"
2.	Coal	2	"	3	"
	Shale	0	"	3	"
	Coal	1	"	6	"
	Shale	0	"	3	"
	Coal	1	"	6	"

003

	Shale dark,	0	feet	8	inches
1.	Coal	0	"	8	"
	Shale	0	"	2	"
	Coal	0	"	7	"
	Shale	0	"	3	"
	Coal	2	"	6	"

Shale forming foot wall.

Total thickness of coal 12 feet 0 inches

Total thickness of shale 2 feet 10 inches. though probably representing one seam, having a total thickness of 14 feet 10inches it will be perhaps best to distinguish three parts The botton Part (1) has an aggregated thickness of 4 feet 2 inches and it is divided by a conocnical band of shale in two layers of 2 feet 6 inches and 1 foot 3 inches(the last one being again divided).

The shale band 8 inches in thickness divided the bottom from the middle portion. (2) this has a total thickness of 5 feet 9 inches of which there are 5 feet 3 inches of coal and only 6 inches of shale dividing the whole into three conocnical beds. Above this follows a shale ba of 1 foot 3 inches in thickness and then comes the top seam . (3) showing 3 feet of coal.

Unfortunately no analysis has been made of this coal or of the different parts composing the seam. It is therefore impossible to say which are the best parts. In appearance the coal is somewhat dull, though pretty hard and it possible belongs to the nonbituminous group.

Whether this feature is only local due to the shattering of the outcrop or persistent in the seam, I am unable to say, unless further developmental work being carried out.

however
I am inclined to think that the dull appearance is rather due to weathering. It must not be forgotten that the seam has been exposed in the creek for an enormous number of years and that the prospecting shaft was practically sunk on the outcrop and did not open up the deeper parts of the seam.

The hardness and firmness of the coal can perhaps best be judged by the fact, that a heap of coal that was taken out of the shaft has been lying there exposed to the actions of the atmosphere for about 12 years without crumbling to pieces.

In my opinion the bottom and middle parts having an aggregate thickness 9 feet of coal should be worked together and the top part (3ft of coal) be left as a roof. The only drawback would be the two bands of shale of 8 inches and 1 foot 3 inches respectively; perhaps the last named may be hard enough to be used as a roof but this appears to be somewhat doubtful.

However, that may be, it will be seen that if the top seam is disregarded as it will probably have to be, one foot of face yields for every 3 feet of inclined length 27 feet of coal which is almost equal to one ton. That is to say only half of the [redacted] required in the Catamaran Colliery where the dimensions are 2 x 3 x 5 ft. in order to produce 1 ton of coal.

I carefully measured the dip, which is from 4 to 5 degrees in north western direction, that is to say about 45 degrees north of west. The strike is therefore north east, south west and t this seems to be a more easterly trend than observed at the Catamaran. The difference may be local however, and I am not in a position to say whether there is really such a difference

in the strike of the seams at Catamaran and the section under report.

Before reaching the above outcrop, I was shown a small hole under a big tree that had fallen across the gully and was told that another seam of 3 feet thickness was discovered in this hole. If this be so, and I have no doubt that the information is correct this would represent an older seam than the one above described. No samples were available and I am therefore not in a position to make any statement as to the value of this seam. It is however questionable whether such a thin seam, unless of exceptionally good quality, would be of any value at all.

Moving a little further down hill (i.e. in eastern direction) and then turning down sharp to the right (i.e. in southern direction) another prospecting shaft was reached: this being about a couple of chains south of No. 1 prospecting shaft, and being lower down in the series must be sunk on a seam still older than either No.1 or No. 2.

Like the first shaft, this one had a depth of 18 feet from the surface and had to be bailed out. The sequence in descending order was:-

Surface Soil	12 feet
Shale, dark	5 feet
Coal	1ft. 6 ins.
Sandstone, white	2ft. 6 ins
Coal	2 ft.
Shale dark	1 in
Coal	5ft.

Bottom of seam not seen because water could not be bailed out.

The dip is same as observed in No. 1 shaft though the angle seems to be slightly steeper.

No correct observations could be taken, but it is certain that the dip and are practically the same as observed in prospecting shaft No. 1

The coal is of bright appearance, hard and evidently belongs to the bituminous group No analysis has so far been made.

SUMMARY OF OBSERVATIONS

From the foregoing description it will be seen that very little prospecting work has been done on this section, but the little that has been done revealed highly satisfactory features. It has proved the existance of three different seams.

(1) The top seam total thickness 12ft

(2) The middle seam " 3ft.

(3) The bottom seam not less than 7ft.

This will give an aggregate thickness of 22 ft of coal or if the small seam in No. 2 shaft is added, of 23ft. 6ins.of coal. It is however pretty certain that at least 7ft. 6ins. of coal cannot be taken out yet, this would leave an aggregate thickness of 16 ft.of coal vis.,

9 ft in the top seam, 7 ft in the bottom seam.

The bottom seam presents another very favourable feature, viz., a firm root of sandstone which will greatly facilitate workings.

I wish however to add a few words of caution with regard to the sample that was taken out of the shafts. If these samples were analysed they will probably show a high percentage of moisture. This is not surprising considering that the shafts were full of water and the high percentage of moisture should therefore not be taken as an average.

TIMBER

Timber of mining purpose is available in any quantity, but a lease should be taken out at once.

RECOMMENDATIONS

Two prospecting shafts have unquestionably proved on the eastern slope of a hill about a mile from the shore, the existance of two different coal seams of great thickness.

At the present time it is impossible to f give even an approximate idea as to the extent of these seams. Strike, dip and bedding appear to be very regular and undistributed along the outcrops and this would indicate a certain regularity with regards to the stratification. I observed no diabase occurrences, in the neighbourhood of the outcrops and this again is a favourable feature.

It must however be understood that more developmental work must be done before anything definite can be stated with regard to these seams. My opinion is, however, that they represent as far as can be judged from the appearance of the seams in the shafts an excellent proposition which may develop intosomething phenominal, and outshine all other collieries in Tasmania. In fact the outcrop seemed to me good enough to commence proper mining operations at once without further developmental work.

In the following dip the extent of the seam could easily be ascertained, but at the same time a large quantity of coal would be raised which had to be disposed of unless a tram, aerial or otherwise were to be constructed in order to deliver the coal at the jetty it would be practically lost. If this plan were followed it would be absolutely necessary to provide a strong pump to keep the influx of water under control as it is pretty certain there will be a good deal of water

At the same time while the seams are thus opened up - I would recommend to start with the bottom seam particularly on account of the fine "roof-boring operations might be carried out on the flat top of the hill in order to fully ascertain the extent of shale.

Though there is a jetty close to the place where the tram would end I am afraid that this wo would not be strong enough to bear a fairly large output, the construction of a proper jetty would therefore be necessary.

The water in the outlet of the D'Entrecast-aux River seems to be fairly deep, but I have no soundings to go upon.

An easement for the construction of the tram should be taken out at once, and a timber lease be obtained without further delay.

FRITZ NOETLING.

HOBART

12th February 1912