

REPORT ON OPEN CUT COAL AT JUBILEE COAL MINE

For some months the Jubilee Coal Company have been endeavouring to mine, by open cut methods, coal from seams exposed at positions about half a mile to the westward from their existing mine. The preliminary work is being carried out under contract by Messrs. McLennan and Frew of Scottsdale with modern earth moving equipment.

Three seams of coal have been exposed by the present operations and were examined and samples taken on July 26th.

The work already done had been to a great extent misdirected. No attempt had been made to carry stripping operations much past the point necessary to expose the seams and any coal produced was of necessity badly contaminated. The continuous wet weather experienced at and prior to the date of inspection had reduced the area of operation to the state of a quagmire where even walking was difficult. Drainage problems had not been overcome and disposal of spoil could have been more efficient.

Sections of the seams as exposed and sampled at the time of the visit are as follows:-

Sample No.1

Bottom Seam	3 ft. 5 in. overall
Shale Roof	
Coal	6 ins.
Penny Band	
Coal	9 ins.
Band White	1 in.
Coal	17 ins.
Band Black	$\frac{1}{4}$ in.
Coal	8 ins.
Shale Floor	

The top 15 ins. of coal show the effect of weather but the lower 25 ins. are more compact. The bands could not be removed in open cut mining so have been included in the sample.

Sample No. 2

Middle seam	4 ft. 1 in. overall
Shale Roof	
Broken Coal	15 ins.
Narrow Band	
Firm coal, rather dull	6 ins.
Band of Shale	$\frac{1}{2}$ in.
Coal, appears good	9 ins.
Band of Shale	$\frac{1}{2}$ in.
Coal, firm and fairly bright	18 ins.
Shale band	$\frac{1}{4}$ in.
Coal	2 ins.
Shale Floor	

The $2\frac{1}{4}$ in. on shale floor is not included in the sample.

Sample No. 3

Top Seam	Top Section 2 ft. 1 in. overall
Shale Roof	
Poor Coal	8 ins. not sampled
Shale Band	1 in. not in sample
Coal	14 ins.
Band Black	1 1/2 in.
Coal	9 1/2 in.
Shale Band	2 in. not in sample

Sample No. 4

Top seam	Bottom section 8 in. overall
Coal bright flaky	8 in.
Shale Floor	

Sample No. 5

Top Seam	Top section 2 ft. 1 in. overall
Shale Roof	
Coal poor	8 in. not sampled
Band Shale	1 in. not in sample
Coal	14 in.
Band Black	1 1/2 in.
Coal	9 1/2 in.
Shale Band	2 in. not in sample

Sample No. 6

Top Seam	Bottom Section 11 in. overall
Bright Coal	11 in.
Shale Bottom	

Above the top seam overburden occurs to 20 feet in thickness and consisting of soils and Dolerite boulders.

Between the top and middle seam shales occur varying in thickness to 15 feet.

Between the middle seam and the bottom seam the shales vary to 8 feet in thickness.

The samples were forwarded to the Mines Department Laboratory for analysis and the results are tabulated below. Samples Nos. 5 and 6 were taken from a more settled position in the top seam.

<u>Registered</u> <u>Number</u>	<u>Constituents</u>	<u>Per Cent</u>
691	"1. Bottom Seam, 3'5" overall"	
	Moisture	9.5
	Ash	21.1
	Volatile Combustible Matter	26.9
	Fixed Carbon	42.5
	Sulphur	0.41
	Calorific value: 9,300 B.Th.U's	
692	"2. Middle Seam, 4'1 overall"	
	Moisture	6.7
	Ash	28.4
	Volatile Combustible Matter	23.8
	Fixed Carbon	41.1
	Sulphur	0.36
	Calorific value: 8,770 B.Th.U's	

<u>Registered Number</u>	<u>Constituents</u>	<u>Per Cent</u>
693	"3. Top Seam, 2'1 overall"	
	Moisture	6.6
	Ash	35.7
	Volatile Combustible Matter	19.8
	Fixed Carbon	37.9
	Sulphur	0.26
	Calorific value: 7,440 B.Th.U's	
694	"4. Bottom Section 8" overall"	
	Moisture	6.9
	Ash	27.4
	Volatile Combustible Matter	31.6
	Fixed Carbon	34.1
	Sulphur	0.60
	Calorific Value: 9,150 B.Th.U's	
695	"5. Top Section 2'1 overall"	
	Moisture	4.5
	Ash	34.0
	Volatile Combustible Matter	20.1
	Fixed Carbon	41.4
	Sulphur	0.26
	Calorific Value: 8,120 B.Th.U's	
696	"6. Top Seam, Bottom Section 11 inch"	
	Moisture	6.3
	Ash	16.0
	Volatile Combustible Matter	36.3
	Fixed Carbon	41.4
	Sulphur	0.73
	Calorific Value: 10,860 B.Th.U's	

A further visit was paid to the open cut on Thursday, 16th August. Some further stripping has been done and production from the top seam has commenced. Stripping should be carried further in advance of operations for production is already approaching the face of overburden and the coal will shortly be contaminated. At the time of the latter visit the coal was being broken manually and it was stated that mechanical mining produced excessive slack coal. Manually the coal was breaking in large lumps with minimum slack and appeared to be of average quality.

Sgd. H.G.W. Keid

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