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COMMONWEALTH OF AUSTRALIA.

MINISTRY OF NATIONAL DEVELOPMENT.

Bureau Of Mineral Resources.

Geology and Geophysics.

REPORT NO. 1952/50.

OPEN CUT COAL PROGRAMME - NEWCASTLE REGION

K O T A R A A R E A .

DRILLING RESULTS

By T. H. RODGER

Report No: 52/50

CONTENTS

Page 1 : Text

Map N14/91 - Geological Map Kotara Area

KOTARA AREA
DRILLING RESULTS

The area investigated lies on the outskirts of Kotara, a suburb in the S.W. of Newcastle. Its position in Portion 174, Parish of Newcastle, Northumberland County is sketched in the Joint Coal Board Plan BN 96. The coal of interest is in the Burwood Seam.


The original assumption was that the dip of the Burwood Seam, which is worked in the Lambton Central No.1 and Borehill Collieries nearby, is parallel with the surface slope. The seam might therefore be available under fairly uniform cover for open cutting between these collieries.

Accordingly the first hole S1 was drilled in the middle of the area. A second hole S2 was later drilled S.E. of S1. No coal was reported from these holes.

Further field work was then carried out and the underground working plans of the nearby collieries were studied. It was apparent that coal should have been found in S1 at about 35ft. and when questioned the drillers reported that there was a possibility of smut at that depth. This was assumed to be weathered coal and an offset hole was drilled at S3 for confirmation, the log being revised accordingly.

The area was then surveyed. Levels at the base of the seam were obtained from underground plans of the nearby collieries. These were incorporated in BMR Plan Ref. N14/91 showing structure contours on the floor of the seam. The plan shows that there is only a strip 350ft. wide under a minimum of 10ft. of overburden in the area surrounding S1 and S3. The maximum overburden in any place would be approximately 45ft. If a colliery barrier 50ft. wide is left, the width of the strip with an overburden varying between 10ft. and 45ft. is only 300ft. Drilling results in S1 and S3 however indicate that weathering may be quite deep in this strip as the coal in S1 and S3, under 28ft. 3ins. and 28ft. 1in. respectively was very weathered, though this may be localised if the weathering is a result of faulting.

Thus the drilling indicates that the central portion of the area outlined in the Joint Coal Board Plan BN 96 contains a 300ft. wide strip of the Burwood Seam under 10ft. to 45ft. of overburden, part of which at least is very weathered. Because of these unsatisfactory results investigation was discontinued.



Geological Map KOTARA AREA Parish of Newcastle County of Northumberland NSW

200 0 200 FEET

Grid on True North based on 1000 yard unit squares of the Newcastle sheet of the 1:25,000 Military Map

REFERENCE

- Shaft
- BMR Drill Hole
- Contour
- Lot Boundary
- ⋈ Adit
- Spot height
- Structure Contour

Port 172

Port 173

Port 174

Borehill Collieries Lease Boundary

BENCHMARK 152'
BOREHILL COLLIERIES

WORKINGS BY BOREHILL COLLIERIES

S3 S1

172.4'

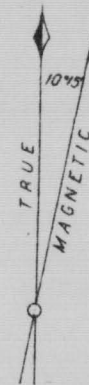
S2

133.5'

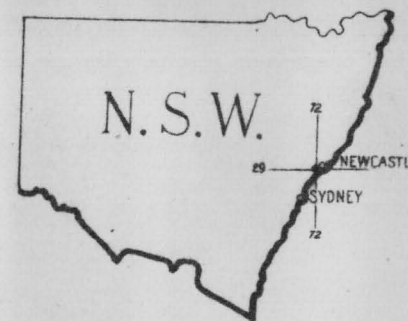
FANSHAF 138'

LAMBTON CENTRAL NO.1

MARCH STREET



LOCALITY MAP



100 0 100 200 300

BUREAU OF MINERAL RESOURCES

Name and No. of Bore S1 KOTARA

Fanshaft

Lambton Cen. No. 1 Coll.

DISTRICT Newcastle COUNTY Northumberland PARISH Newcastle PORTION 174 LOCATION 14°/670'

Surveyed by McKinnon & Rodger Survey Method Tel. Alidade Elevation 172.4' ASL Ref. Map BMR Plan N14/91

Logged by M.C.Konecki Cased Not Datum H.W.B. Ref. Report BMR Records 1952/50

Sunk by BMR Type of Drill Failing 750/262 Depth 150' Date Begun/Finished 26.1.82/3.3.52

Estimated Depth		Estimated Thickness		GEOLOGICAL DESCRIPTION OF STRATA	Core Measured		Coal Sample No.	Min. Bands Included		Min. Bands Excluded		PROXIMATE ANALYSIS				
Ft.	Ins.	Ft.	Ins.		Ft.	Ins.		Ft.	Ins.	Ft.	Ins.	H.M.	V.	F.C.	ASH	B. TH. U/LB
1	6	1	6	Soil, dark gy.												
10	0	8	6	Sandstone, c.gr. br.-gy. wd.												
25	0	15	0	Clayshale, yish-gy.												
27	8	2	8	Chert, gy.												
28	3		7	Siltstone, dk.gy. carb. v.hd.		7										
29	8	1	5	COAL, powdery (?)												
30	4 $\frac{1}{2}$		8 $\frac{1}{2}$	Clayshale, brish-gy. carb. & mic.		8 $\frac{1}{2}$										
31	1 $\frac{1}{2}$		9	COAL, powdery (?)												
31	5 $\frac{1}{2}$		4	Clayshale, brish-gy. carb.		4										
32	8	1	2 $\frac{1}{2}$	COAL, powdery (?)												
33	2		6	Shale, gy. w. plant detritus		6										
35	2	2	0	COAL, powdery wd (?)		9										
36	4	1	2	Siltstone, v.hd. gy. w. plant remains	1	2										
37	2		10	Shale, sdy. gy. mic.		3 $\frac{1}{2}$										
37	5		3	COAL		3										
38	5	1	0	Siltstone, carb. gy. v.hd	1	0										
38	7		2	Shale, gy. w. plant remains		2										
39	3		8	Shale, l.gy. w. carb. bds.		8										
40	9	1	6	Siltstone, l.gy. hd. w. bds. of carb.shale	1	6										
48	0	7	3	Siltstone, as immediately preceeding, passing into f. to c.gr. l.gy. sandstone, v.hd. w. softer beds.												
56	0	8	0	Sandstone, l.gy. m. to c.gr. v.hd. w. some sh. bds.												
57	0	1	0	Sandstone, l.gy. v.c.gr. hd.												
62	0	5	0	Sandstone, f. to c.gr. hd. w. softer bds.												
65	0	3	0	COAL w. some shale bds.												
65	4		4	COAL, bright		4										
66	0		8	Shale, dk. gy. carb.		2										
66	6		6	Shale as immediately preceding												
67	0		6	Sandstone, v.f.gr. gy. carb. hd.		6										

No coal samples selected for analysis.

BURWOOD SEAM (THR)

Estimated Depth		Estimated Thickness		GEOLOGICAL DESCRIPTION OF STRATA	Core Measured		Coal Sample No.	Min. Bands Included		Min. Bands Excluded		PROXIMATE ANALYSIS				
Ft.	Ins.	Ft.	Ins.		Ft.	Ins.		Ft.	Ins.	Ft.	Ins.	H.M.	V.	F.C.	ASH	B. TH. U/LB
68	0	1	0	Clayshale, dk.gy. carb. soft	6											
73	0	5	0	Shale, gy. w. plant remains												
103	0	30	0	Shale, w. bds. of siltstone												
123	0	20	0	Sandstone, f. to c.gr. hd. w. carb. shale bds												
128	0	5	0	Sandstone, m.gr. gy. hd.												
140	0	12	0	Shale, gy. carb. w. hd. f. to m.gr. sandst.												
150	0	10	0	Shale, dk.gy. carb. w. bds. of hd. c.gr. sandstone & siltstone w. carb. plant; traces of coal												
Hole completed																
													typed	17.9.52		

BUREAU OF MINERAL RESOURCES

Name and No. of Bore S2 KOTARA

Pen shaft
Lambton Gen. No. 1
Coll. 658/795'

DISTRICT Newcastle COUNTY Northumberland PARISH Newcastle PORTION 174 LOCATION
Surveyed by McKinnon & Rodger Survey Method Tel. Alidade Elevation 133.5' ASL Ref. Map BMR Plan N14/91
Logged by M.C.Konecki Cased Not Datum H.W.B. Ref. Report BMR Records 1952/50
Sunk by BMR Type of Drill Failing 750/262 Depth 175' Date Begun/Finished 3.3.52/5.3.52

Estimated Depth		Estimated Thickness		GEOLOGICAL DESCRIPTION OF STRATA	Core Measured		Coal Sample No.	Min. Bands Included		Min. Bands Excluded		PROXIMATE ANALYSIS				
Ft.	Ins.	Ft.	Ins.		Ft.	Ins.		Ft.	Ins.	Ft.	Ins.	H.M.	V.	F.C.	ASH	B. TH. U/LB
10	0	10	0	Sandstone, c.gr. ferr. w. yish. clay												
34	6	24	6	Clay, yish. -l.gy, w. l.gy. chert bds.												
39	5	4	11	Chert, l.gy. & gh.												
39	11		6	COAL		6										
40	6		7	Shale, gy. w. plant remains		7										
40	7		1	Shale, dk.gy. carb. m.hd.		1										
42	5	1	10	COAL, shattered		4										
44	7	2	2	Shale, gy. w. plant remains	2	0										
47	7	3	0	Shale as immediately preceding, but silty		4										
50	0	2	5	Shale as immediately preceding w. bds. of chert & Coal												
65	0	15	0	Sandstone, gy. f.gr. w. plant remains & carb. sh. bds.												
70	0	5	0	Sandstone, f. to m.gr. gy. w. carb. bds. & some chert & coal												
80	0	10	0	Sandstone, m. to c.gr. gy. w. thin shale bds.												
90	0	10	0	Shale, gy. carb. w. plant remains & bds. of f. to c.gr. sst.												
100	0	10	0	Clayshale, gy. to l.gy. w. bds. of f. to m. gr. gy. sandstone												
104	0	4	0	Sandstone, gy. carb. f. to m.gr. hd.												
116	8	12	8	Shale, gy. s.w. bds. of f. to m.gr.gy. sandstone & chert												
117	1		5	Shale, bk. s.w. bds. of Coal												
117	4		3	Clayshale, off-wh. s.		3										
117	6 $\frac{1}{2}$		2 $\frac{1}{2}$	COAL, bdd. bright & dull		2 $\frac{1}{2}$										
117	8 $\frac{1}{2}$		2	Shale, bk.		2										
117	9 $\frac{1}{2}$		1	COAL,		1										
119	1	1	3 $\frac{1}{2}$	Siltstone, gk. carb. w.carb. shale bds.	1	3 $\frac{1}{2}$										
125	0	5	11	Shale,carb.w.bds. of m.hd.carb. siltstone some chert at 125'												
130	0	5	0	Shale, carb. with traces of coal												
175	0	45	0	Shale, w.bds. of siltstone as before												

Hole abandoned.

typed 17.9.52

Name and No. of Bore S3.....KOTARA

~~Fanshaft~~

Lambton Cen. No. 1

DISTRICT Newcastle COUNTY Northumberland PARISH Newcastle PORTION 174 LOCATION Coll. 130/670'

Surveyed by McKinnon & Rodger Survey Method Tel. Alidade Elevation 172.0' ASL Ref. Map BMR Plan N14/91

Logged by M.C.Konecki Cased Not Datum H.W.B. Ref. Report BMR Records 1952/50

Sunk by BLR Type of Drill Failing 750/262 Depth 67' Date Begun/Finished 6.3.52/?3.52

[illegible]

[illegible]