

COMMONWEALTH OF AUSTRALIA.



DEPARTMENT OF SUPPLY AND SHIPPING.  
**MINERAL RESOURCES SURVEY.**

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**REPORT No.** 1944/31.

Plans No. 737, 1102, 1103, 772, 772, 787, 832,  
840, 867, 950, 813.

REPORT ON

SUMMARY OF RESULTS OF BORING OPERATIONS COORIN-CO. FIELD  
COALFIELD 1942-1943.

- By -

H. G. RAGGATT,  
Director.

1244/31  
CANBERRA.

20th July, 1944.

DEPARTMENT OF SUPPLY & SHIPPING.

MINERAL RESOURCES SURVEY BRANCH.

SUMMARY OF RESULTS OF BORING OPERATIONS COORABIN-OAKLANDS

COALFIELD 1942-1943.

Report No. 1944/31. Plans No. 737, 1102, 1103, 772, 77b, 787,  
832, 840, 867, 950, 813.

During the period August 1942-August 1943, a boring campaign was conducted in the Coorabin section of the coalfield by the Commonwealth Coal Commission. The boring was done by the Water Conservation & Irrigation Commission of New South Wales under the supervision of the Mineral Resources Survey Branch of the Department of Supply & Shipping. When the Coal Commission withdrew, and before the plant was removed from the field, an additional bore was put down by the Department of Supply & Shipping in the Oaklands section of the field.

The bores put down during the foregoing campaign have been given letter designations to distinguish them from the bores which were put down by the New South Wales Mines Department in the year 1920 and which were given number designations.

It may be noted that bore B was not put down and that there is no bore I.

Results of analyses of bores F to J are indicated on the copies of the plans accompanying this report and the explanation of these figures is made clear on the plan of bore H. Following are the results of analyses of coal proved in bores A to E.

| DEPTH           | PROXIMATE ANALYSIS           |                    |                 |       |
|-----------------|------------------------------|--------------------|-----------------|-------|
|                 | HYGRO-<br>SCOPIC<br>MOISTURE | VOLATILE<br>MATTER | FIXED<br>CARBON | ASH   |
|                 | %                            | %                  | %               | %     |
| <u>BORE A.</u>  |                              |                    |                 |       |
| 185' - 187'6"   | 18.55                        | 22.76              | 26.34           | 32.35 |
| 187'6" - 189'   | 19.29                        | 22.83              | 26.38           | 31.50 |
| 189' - 191'     | 19.21                        | 22.35              | 26.96           | 31.48 |
| 191' - 192'     | 17.96                        | 23.08              | 26.70           | 32.26 |
| 192' - 194'     | 20.67                        | 23.54              | 32.86           | 22.93 |
| 195'4" - 196'   | 16.55                        | 24.60              | 37.18           | 21.67 |
| 196' - 197'     | 8.43                         | 14.06              | 21.75           | 55.76 |
| 197' - 198'3"   | 14.79                        | 24.90              | 44.62           | 15.69 |
| 198'3" - 199'6" | 9.35                         | 16.31              | 28.61           | 45.73 |
| 199'6" - 201'   | 5.27                         | 9.03               | 14.06           | 71.64 |

| DEPTH           | PROXIMATE ANALYSIS           |                    |                 |       |
|-----------------|------------------------------|--------------------|-----------------|-------|
|                 | HYGRO-<br>SCOPIC<br>MOISTURE | VOLATILE<br>MATTER | FIXED<br>CARBON | ASH   |
|                 | %                            | %                  | %               | %     |
| <u>BORE C.</u>  |                              |                    |                 |       |
| 208' - 212'     | 10.44                        | 22.96              | 21.66           | 44.94 |
| 212' - 216'     | 12.19                        | 24.72              | 27.98           | 35.11 |
| 217' - 218'6"   | 13.68                        | 26.70              | 41.01           | 18.61 |
| 219'6" - 220'6" | 10.33                        | 28.54              | 42.63           | 18.50 |
| 222' - 223'     | 8.31                         | 21.99              | 36.81           | 32.89 |
| 228' - 230'     | 9.54                         | 26.42              | 42.54           | 21.50 |

| DEPTH           | PROXIMATE ANALYSIS           |                    |                 |       |        |
|-----------------|------------------------------|--------------------|-----------------|-------|--------|
|                 | HYGRO-<br>SCOPIC<br>MOISTURE | VOLATILE<br>MATTER | FIXED<br>CARBON | ASH   | B.t.u. |
|                 | %                            | %                  | %               | %     |        |
| <u>BORE D.</u>  |                              |                    |                 |       |        |
| 281' - 283'     | 6.83                         | 17.10              | 31.72           | 44.35 | 6,120  |
| 283' - 287'     | 6.47                         | 17.53              | 26.93           | 49.07 | 5,410  |
| 287' 6" - 290'  | 7.79                         | 23.28              | 35.14           | 33.79 | 7,310  |
| 314' 6" - 318'  | 7.39                         | 16.37              | 30.74           | 45.50 |        |
| 318' - 320'     | 6.07                         | 15.90              | 23.71           | 54.32 |        |
| 320' - 323'     | 6.68                         | 14.94              | 28.14           | 50.24 |        |
| 323' - 325'     | 4.72                         | 12.18              | 21.66           | 61.44 |        |
| 325' - 327'     | 4.78                         | 11.92              | 19.54           | 63.76 |        |
| 327' - 329'     | 7.98                         | 18.18              | 34.06           | 39.78 |        |
| 329' - 330' 6"  | 6.40                         | 14.24              | 25.31           | 54.05 |        |
| 330' 6" - 333'  | 4.93                         | 14.17              | 22.43           | 58.47 |        |
| 333' - 333' 10" | 2.93                         | 9.07               | 13.00           | 75.00 |        |
| 336' - 339'     | 2.42                         | 8.85               | 11.60           | 77.13 |        |
| 339' 3" - 334'  | 5.39                         | 16.85              | 24.47           | 53.29 |        |

| DEPTH                            | PROXIMATE ANALYSIS           |                    |                 |      |        |
|----------------------------------|------------------------------|--------------------|-----------------|------|--------|
|                                  | HYGRO-<br>SCOPIC<br>MOISTURE | VOLATILE<br>MATTER | FIXED<br>CARBON | ASH  | B.t.u. |
|                                  | %                            | %                  | %               | %    |        |
| <u>BORE E.</u>                   |                              |                    |                 |      |        |
| 283' 6" - 291'                   | 7.6                          | 26.6               | 45.8            | 20.0 | 9,130  |
| 291' - 292' 3"                   | 7.4                          | 23.7               | 48.7            | 20.2 | 9,010  |
| 292' 6" - 295' $2\frac{1}{2}$    | 8.0                          | 27.2               | 53.5            | 11.3 | 10,160 |
| 295' - 298' 3                    | 8.1                          | 27.8               | 54.6            | 9.5  | 10,650 |
| 298' - 301' 4" $3\frac{1}{3}$    | 7.8                          | 24.7               | 52.9            | 14.6 | 9,870  |
| 301' 4" - 303' 6" $2\frac{1}{4}$ | 6.8                          | 20.7               | 46.5            | 26.0 | 8,120  |
| 303' 6" - 305' 6" 2              | 8.7                          | 25.6               | 53.1            | 12.6 | 9,950  |
| 305' 6" - 308' 6" 3              | 9.5                          | 26.8               | 51.2            | 12.5 | 9,890  |
| 310' 3" - 312'                   | 9.5                          | 26.2               | 54.1            | 10.2 | 10,270 |
| 312' - 314'                      | 9.0                          | 26.1               | 48.4            | 16.5 | 9,520  |
| 314' - 316'                      | 9.2                          | 26.8               | 51.5            | 12.5 | 10,050 |
| 316' - 317' 4"                   | 7.7                          | 24.1               | 49.1            | 19.1 | 9,290  |
| 317' 4" - 320' 6"                | 8.9                          | 26.2               | 53.2            | 11.7 | 10,250 |
| 320' 6" - 322'                   | 9.2                          | 26.4               | 53.8            | 10.6 | 10,280 |
| 324' - 327' 6"                   | 8.7                          | 25.6               | 46.0            | 19.7 | 9,790  |
| 327' 6" - 330' 3"                | 8.4                          | 28.0               | 49.5            | 14.1 | 9,970  |
| 332' 3" - 333' 9"                | 8.3                          | 28.8               | 46.9            | 16.0 | 9,820  |
| 333' 9" - 336'                   | 8.6                          | 24.0               | 48.3            | 19.1 | 9,210  |
| 336' - 337' 6"                   | 6.7                          | 18.5               | 36.3            | 38.5 |        |
| 337' 6" - 338' 6"                | 7.5                          | 25.6               | 43.8            | 25.1 | 8,710  |

It will be noted that the total thickness of coal proved in Bore E is 55 feet and that the various plys may be arranged in several ways to give useful working thicknesses as follows:-

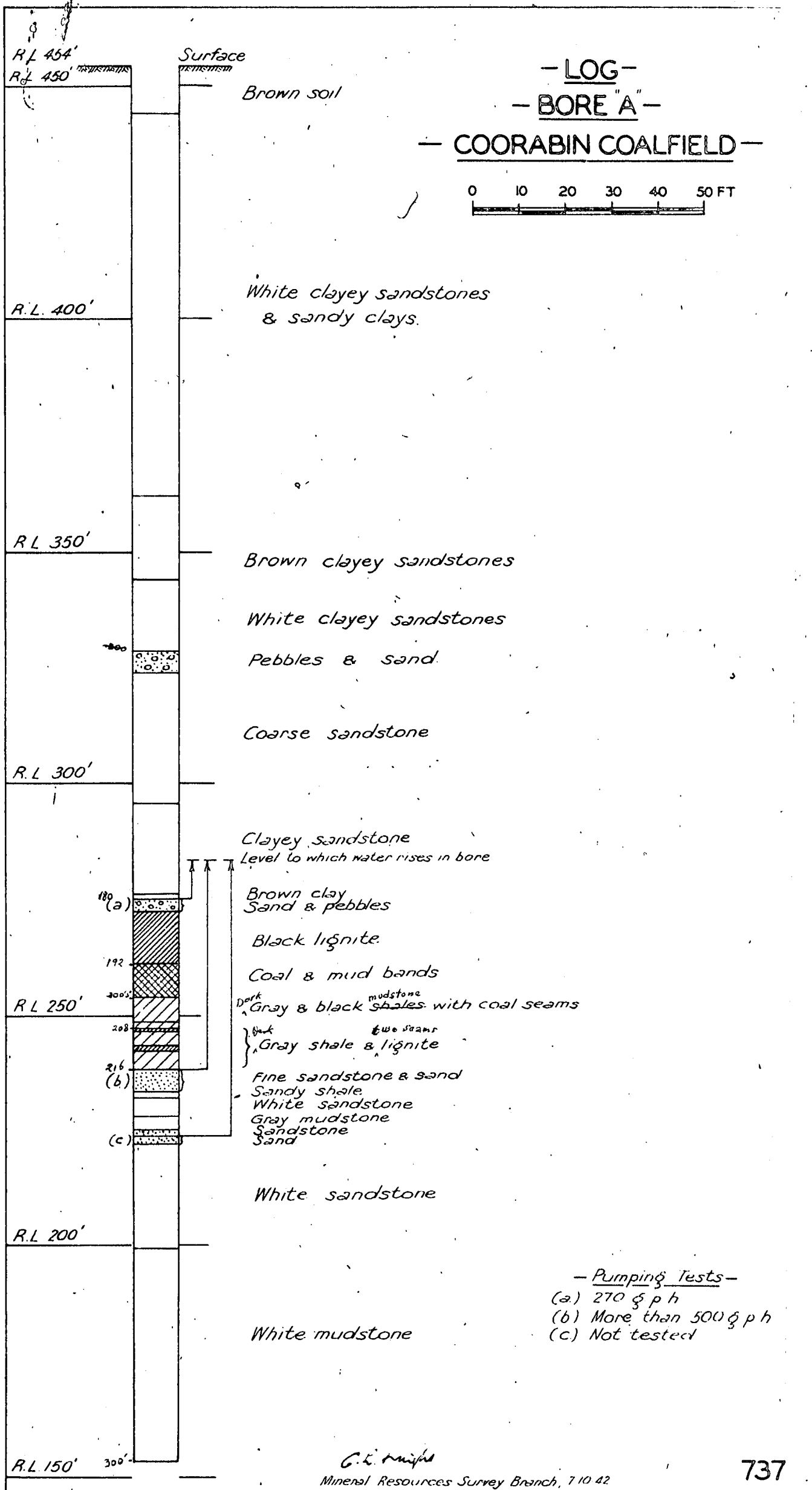
| THICKNESS | PROXIMATE ANALYSIS           |                    |                 |             | CALORIFIC<br>VALUE<br>B.t.u. |
|-----------|------------------------------|--------------------|-----------------|-------------|------------------------------|
|           | HYGRO-<br>SCOPIC<br>MOISTURE | VOLATILE<br>MATTER | FIXED<br>CARBON | ASH         |                              |
|           | %                            | %                  | %               | %           |                              |
| 8'9"      | 7.6                          | 26.2               | 46.3            | <u>20.0</u> | 9,113                        |
| 8'10"     | 7.9                          | 27.4               | 53.6            | 11.9        | 10,217                       |
| 5'0"      | 9.2                          | 26.3               | 52.0            | 12.5        | 9,914                        |
| 16'0"     | 8.2                          | 26.2               | 52.2            | <u>14.0</u> | 9,838                        |
| 5'9"      | 9.2                          | 26.4               | 51.2            | 13.2        | 9,933                        |
| 4'8"      | 9.0                          | 26.3               | 53.4            | 11.3        | 10,260                       |
| 11'9"     | 9.0                          | 26.1               | 51.8            | <u>13.1</u> | 9,989                        |
| 6'3"      | 8.6                          | 26.7               | 47.5            | <u>17.2</u> | 9,869                        |

Numbers in the above table refer to samples taken  
as follows:-

1. 283'6" - 292'3".
2. 292'6" - 301'4".
3. 303'6" - 308'6".
4. 292'6" - 308'6".
5. 310'3" - 316'.
6. 317'4" - 322'.
7. 310'3" - 322'.
8. 324' - 330'3".

CANBERRA, A.C.T.  
20th July, 1944.

H.G. RAGGATT,  
Director.



# LOG OF BORE "C" COORABIN COALFIELD, N.S.W.

Surface R.L. 476'

10' 20' 30' 40' 50' 60' 70' 80' 90' 100' 110' 120' 130' 140' 150' 160' 170' 180' 190' 200' 210' 220' 230' 240'

Brown clayey soil

Brown sandy clay

White sandy clay

White clayey sandstone

White sandy clay

White clayey sandstone

White sandy clay

Pure white clay

White sandy clay

Pure white clay

White clayey sandstone

White clayey sand & pebbles

? Sandy (Mud used)

Cream sandy clay

? Sandy (Mud used)

Cream clayey sandstone

? Sandy (Mud used)

White clayey sandstone

? Sandy (Mud used)

Brown clayey sandstone

Coarse sand & pebbles with some brown clay

Black lignite

Thin coal seams with shale & mud

Grey shale

Thin coal seams with shales, mud & sand.

Grey mudstone & clay shale

Fine grey sandstone & sand.

## Notes.

(1.) For detailed section through seam see Drawing N<sup>o</sup> 1101

(2.) Yield from aquifers

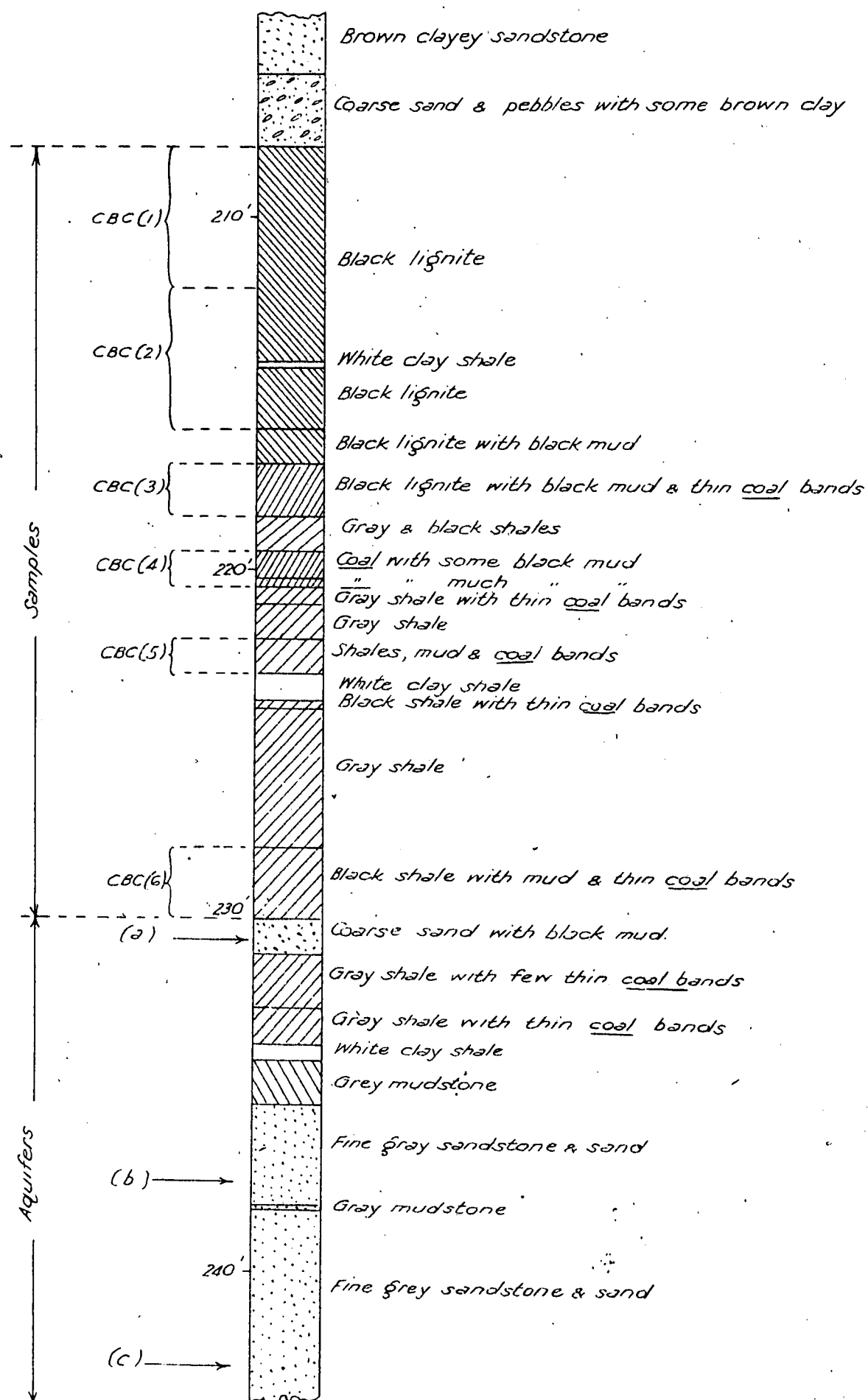
(a) About 20 g.p.h

(b.) " 30 g.p.h

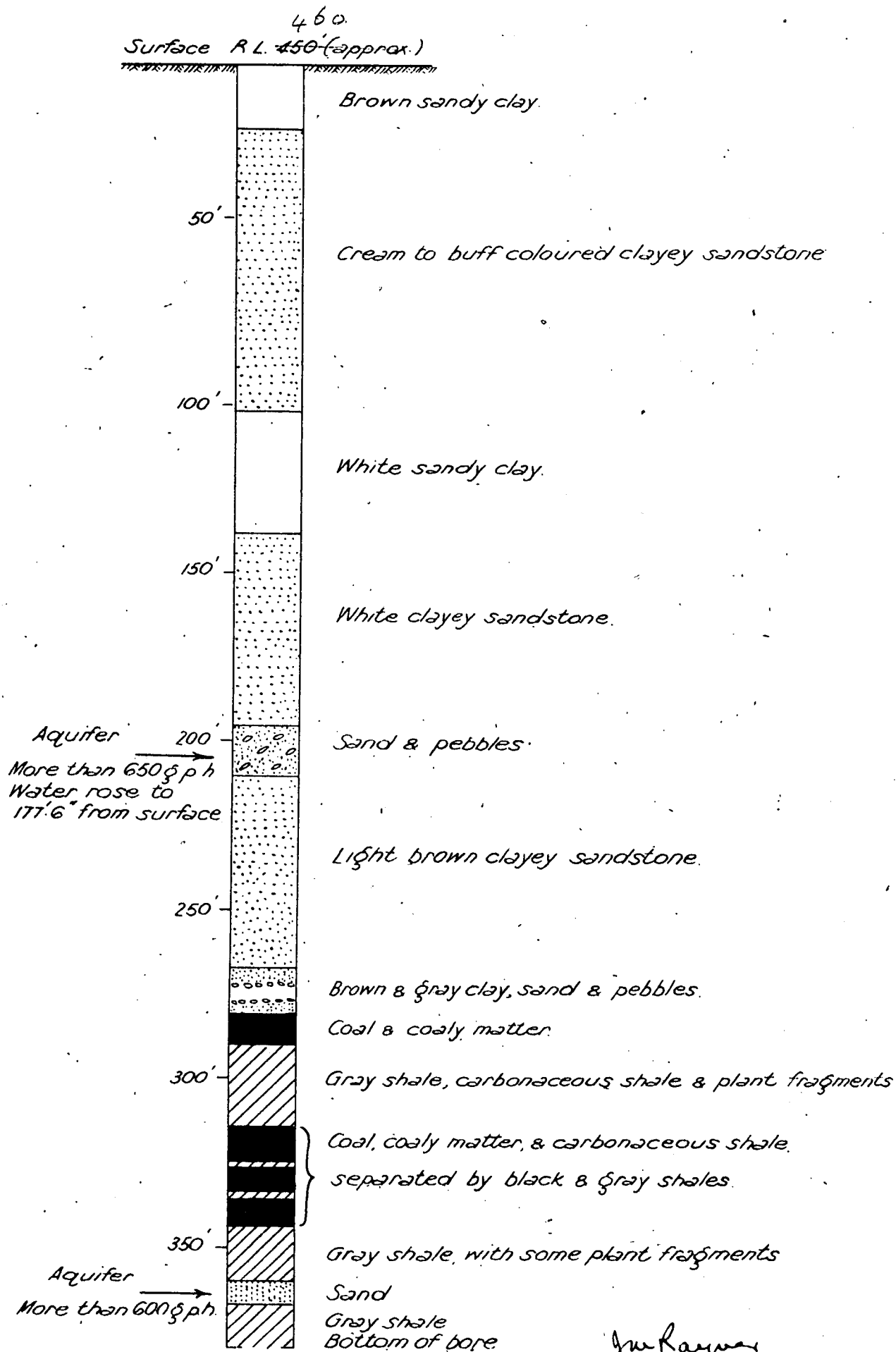
(c) More than 480 g.p.h.

Aquifers  
(a)  
(b)  
(c)

BORE "C" COORABIN COALFIELD, N.S.W.  
DETAILS OF SECTION THROUGH SEAM



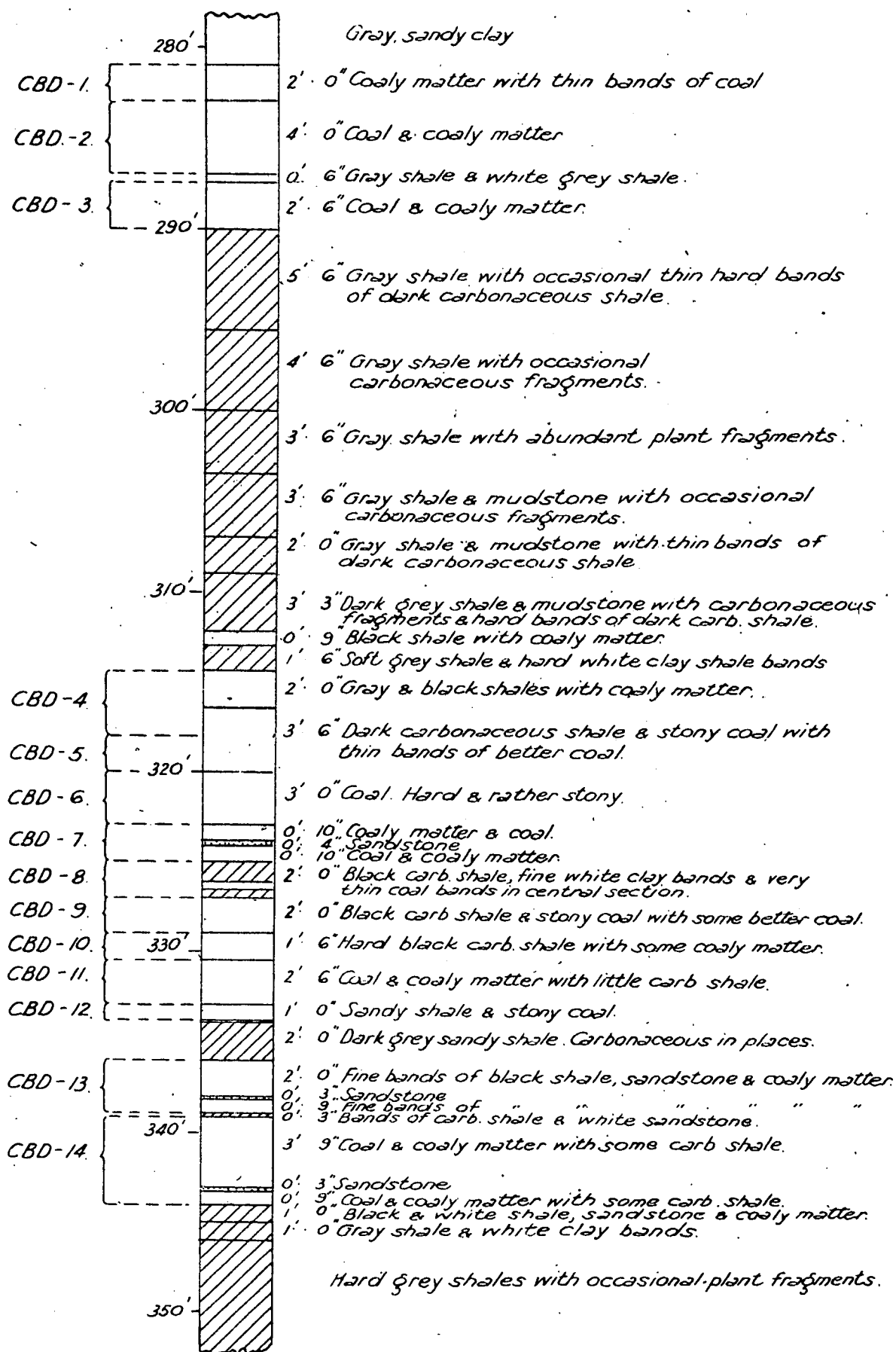
LOG OF BORE D  
COORABIN COALFIELD  
N. S. W.



J. R. Kaye  
Mineral Resources Survey Branch  
21.12.42.

# BORE D. COORABIN COALFIELD N.S.W.

## DETAILS OF SECTION THROUGH SEAM



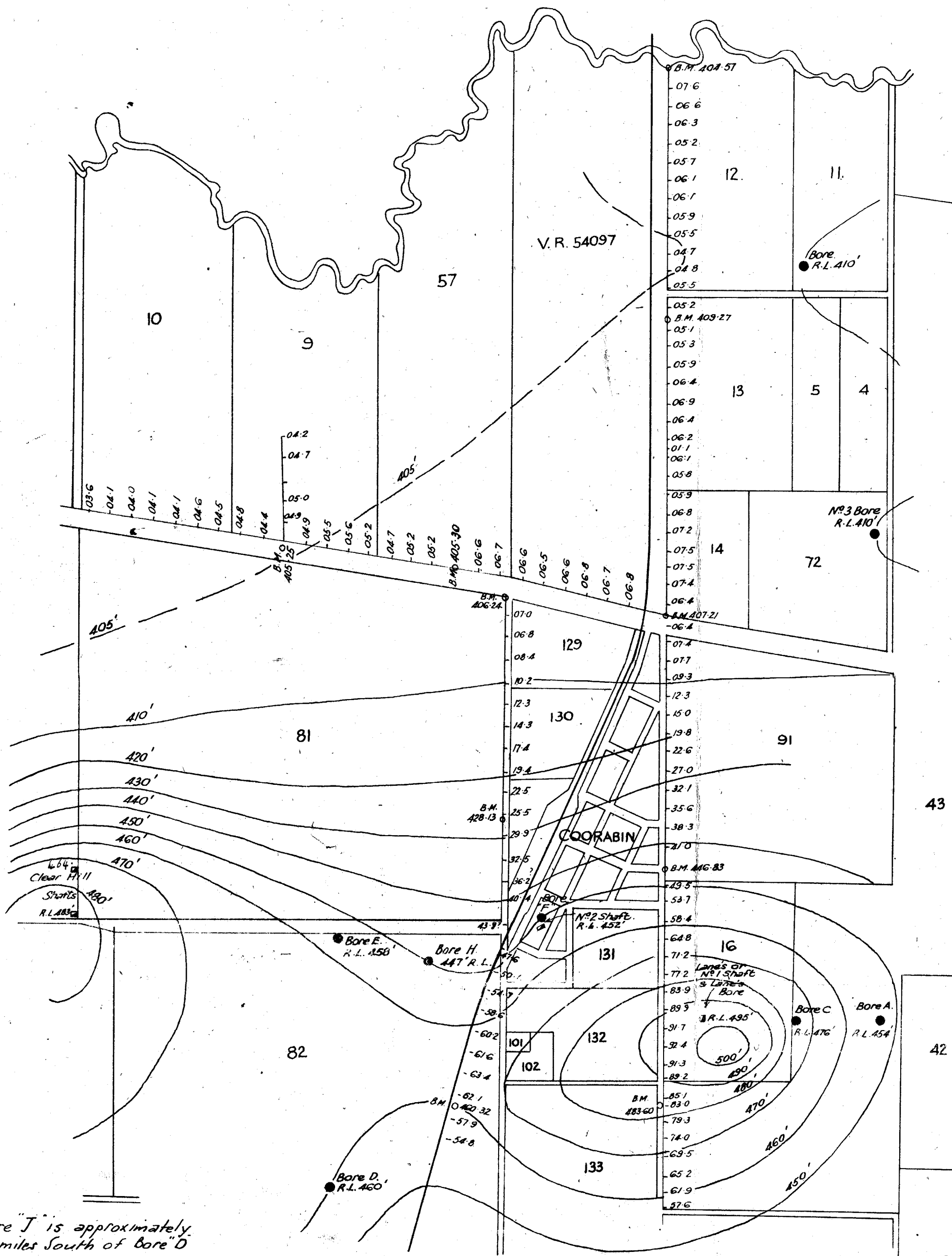
J. H. Kaymer

Mineral Resources Survey Branch. 21.12.42.

# Contour Plan.

Vicinity of Coorabin, N.S.W.

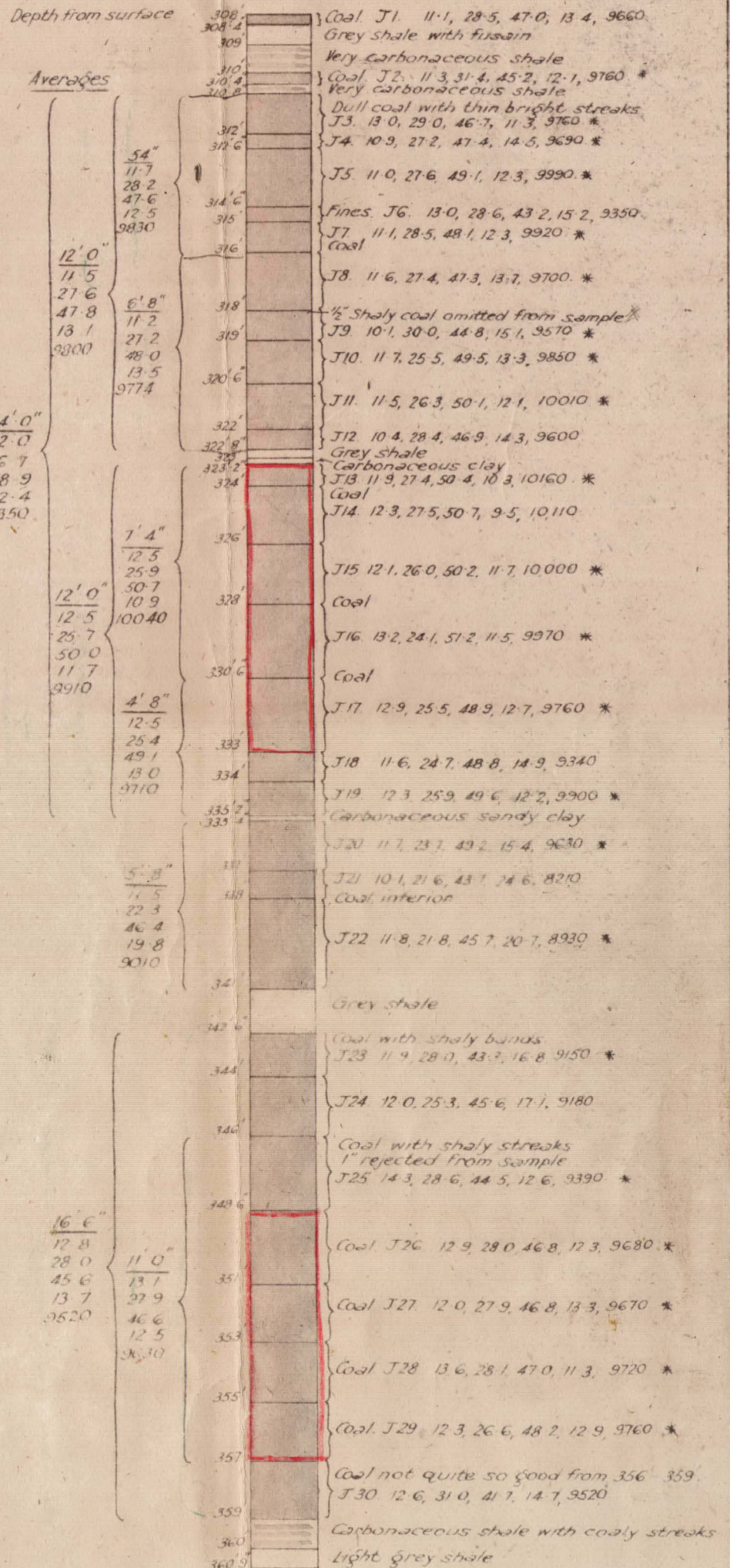
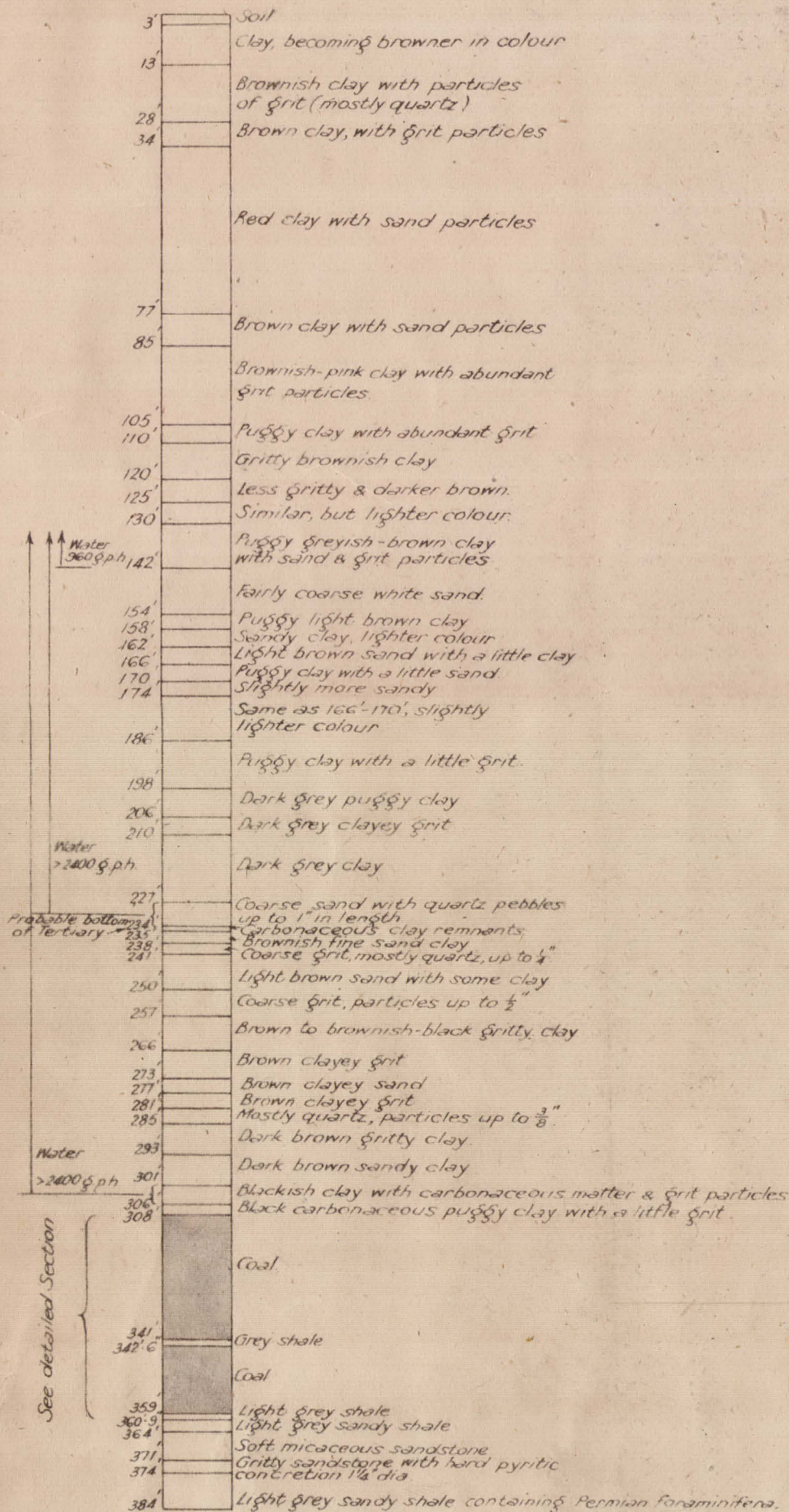
Based on surveys by W.C. & I. C. and  
Minerals Resources Survey Branch,  
Scale 1" = 20 chs.



Bore "J" is approximately  
3 miles South of Bore "D"

DETAILED SECTION OF COAL SEAM  
Scale 1" = 5'

LOG OF BORE  
Scale 1" = 40'



NOTE: Samples were wet at time of examination hence emphasis on plastic properties of the clay bands.

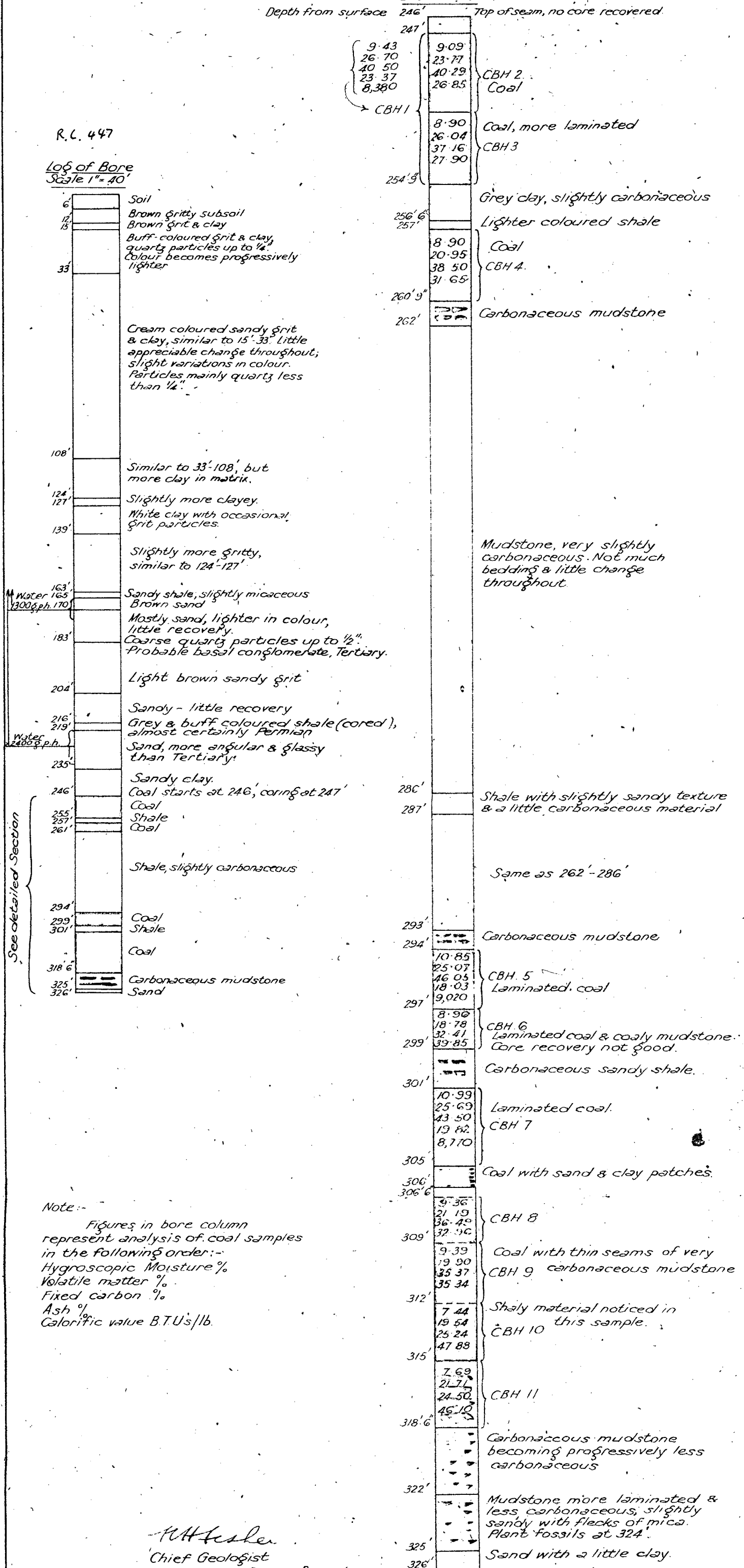
Water at 142' contained 666 grains of sodium chloride per gallon  
 " " 227' " 703 " " " " " "  
 " " 301' " 703 " " " " " "

H. Maggah M. H. H. H.  
 Director Chief Geologist  
 Mineral Resources Survey Branch  
 Sept. 1943

Coal is generally dull with thin bright streaks. Figures after Sample Nos represent proximate analyses of coal samples in the following order: Hygroscopic Moisture%, Volatile Matter%, Fixed Carbon%, Ash%, Calorific Value BTUs/lb. \* Denotes calculated calorific value

Detailed Section of Coal Seam  
Scale 1" = 5'

Depth from surface 246' Top of seam, no core recovered



# BORE G. COORABIN COALFIELD, N.S.W.

DETAILED SECTION OF COAL-BEARING SECTION  
Scale 1" = 5 ft

LOG OF BORE  
Scale 1" = 40 ft

See Detailed Section

|          |                                                                                   |
|----------|-----------------------------------------------------------------------------------|
| 5' 0"    | Soil                                                                              |
| 13' 0"   | Light brown & white clay with nodular fragments                                   |
| 17' 0"   | White clay with gritty quartz fragments up to 1/4"                                |
| 21' 0"   | White sandy grit                                                                  |
|          | White clay & grit, same as 5'-13'                                                 |
|          | White sandy grit                                                                  |
| 39' 0"   | do. but becoming progressively more clayey                                        |
| 48' 0"   | White clay with grit particles                                                    |
| 58' 0"   | " " " more "                                                                      |
|          | White sandy grit, same as 21'-39'                                                 |
| 70' 6"   | White clay with grit particles                                                    |
| 73' 0"   | White clay & grit                                                                 |
| 83' 0"   | White clay with grit particles                                                    |
| 90' 6"   | White sandy clay & grit                                                           |
| 96' 0"   | White sandy clay                                                                  |
| 105' 0"  | White clay & grit                                                                 |
|          | Light brown gritty clay, grit particles of varying size, becoming generally finer |
| 127' 0"  |                                                                                   |
|          | Light brown sandy grit with quartz particles up to 1/2"                           |
| 176' 0"  | Water. 200 g p.h. rose to 172' 0"                                                 |
|          | Water sand, no samples                                                            |
| 195' 0"  | Light brown grit, less clay than 127'-176'                                        |
| 199' 0"  | Similar, but more clay in matrix                                                  |
| 211' 0"  | Main water horizon, > 2100 g. p.h., rose to 171' 3"                               |
|          | Carb sandy grit & carb. mudstone                                                  |
| 218' 0"  | Carbonaceous clay                                                                 |
| 224' 0"  | Inferior coal & carbonaceous shale                                                |
| 229' 0"  | Carbonaceous shale                                                                |
|          | Grey shale with some carbonaceous fragments                                       |
| 241' 10" | More or less carbonaceous shale                                                   |
| 260' 3"  | Carbonaceous shale                                                                |
| 266' 1"  | Inferior coal & carbonaceous shale                                                |
| 270' 3"  | Mostly sand                                                                       |
| 274'     |                                                                                   |

|          |                                                                              |
|----------|------------------------------------------------------------------------------|
| 213' 0"  | Carbonaceous mud with a little quartz grit                                   |
| 214' 0"  |                                                                              |
|          | Carbonaceous clay                                                            |
| 217' 0"  | Mud - more carbonaceous                                                      |
| 218' 0"  | Laminated carbonaceous material                                              |
| 218' 5"  | Carbonaceous shale                                                           |
| 219' 0"  | CBG 1 Inferior coal                                                          |
|          | 8 6<br>27 0<br>40 0<br>24 4                                                  |
| 221' 0"  | CBG 2 Laminated carbonaceous shale                                           |
|          | 8 1<br>25 6<br>40 6<br>25 7                                                  |
|          | 8 5<br>26 3<br>24 7                                                          |
| 224' 3"  | CBG 3                                                                        |
|          |                                                                              |
|          | Carbonaceous shale                                                           |
| 229' 0"  |                                                                              |
|          | Grey shale with occasional carbonaceous fragments                            |
| 234' 0"  | Slightly more laminated & carbonaceous                                       |
| 235' 0"  |                                                                              |
|          | Grey shale or mudstone, very little carbonaceous matter                      |
| 241' 10" | Carbonaceous shale                                                           |
| 242' 3"  | Slightly carbonaceous shale                                                  |
| 244' 0"  | Buff coloured clay stone                                                     |
| 244' 6"  |                                                                              |
|          | Slightly carbonaceous shale                                                  |
| 248' 0"  |                                                                              |
|          | Similar - with a few narrow slightly sandy light coloured streaks            |
| 254' 0"  | Carbonaceous shale                                                           |
| 256' 0"  | Carbonaceous shale with fine sandy laminated texture                         |
| 260' 0"  | Mudstone                                                                     |
| 260' 3"  | Inferior coal                                                                |
| 261' 0"  | Carbonaceous shale, becoming more carbonaceous & grading into low grade coal |
| 265' 0"  | CBG 4                                                                        |
|          | 7 9<br>16 8<br>30 8<br>44 5                                                  |
| 267' 0"  | CBG 5 Inferior coal                                                          |
|          | 9 9<br>22 2<br>42 2<br>25 7                                                  |
| 270' 3"  | Very carbonaceous shale                                                      |
| 272' 0"  | Mostly sand                                                                  |

Note: Figures in bore column represent analysis of coal in the following order:-  
Hygroscopic Moisture %  
Volatile matter %  
Fixed Carbon %  
Ash %

M. H. Fisher  
Chief Geologist  
Mineral Resources Survey Branch  
25.3.43

# BORE F. COORABIN COALFIELD N. S.W.

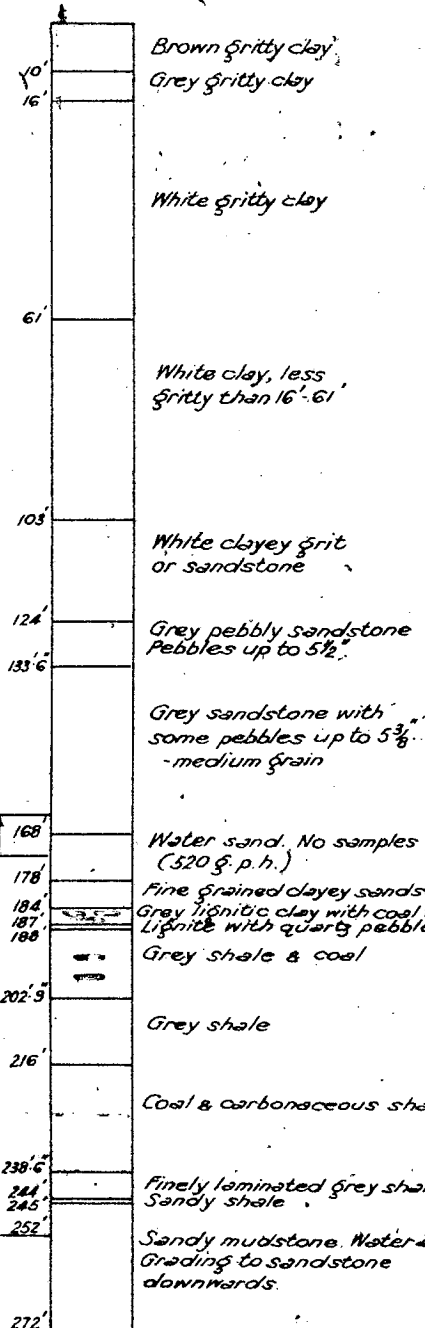
## DETAILED SECTION OF COAL SEAM

Scale 1" = 5 ft.

### LOG OF BORE

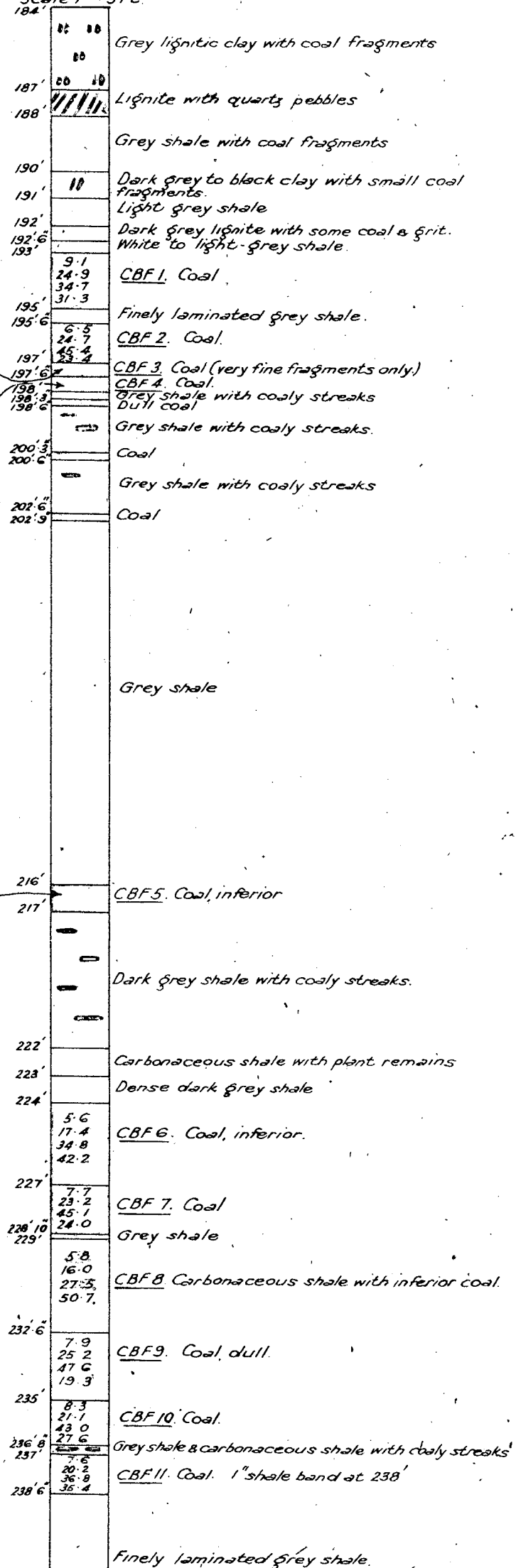
Scale 1" = 40 ft.

Water > 2500 g.p.h.



6.7  
25.9  
39.3  
27.5  
6.2  
26.8  
42.8  
24.5

4.5  
20.8  
30.5  
44.2



## LOG OF BORE

SCALE 1"=40 FT.

## BORE E. COORABIN COALFIELD N.S.W.

## DETAILED SECTION OF COAL SEAM

SCALE 1"=5 FT.

Surface = R.L. 458

Depth  
from  
Surface

13

Brown gritty clay.

30

White to brown clayey grit.

99

Cream clayey grit.

White clayey grit.

150

Coarse white clayey grit

White clayey grit.

Fine white clayey sandstone

White clayey sandstone

White sandy clay(?) No sample

Dark grey clayey sandstone

Light "

Coarse sandstone

Clayey sandstone

Grey clayey sandstone

Grey pebbly sandstone  
with coaly streaks, micaceous.

Coal &amp; shale

Thin bedded grey carbonaceous shale  
with some coal streaks. Plant remains

Grey shale, coaly streak at 345'

Mottled sandy mudstone, micaceous.

Total thickness of seam including bands = 55 ft.  
The coal is generally rather dull with abundant  
rectangular pieces of fusion & some very  
thin bright streaks. To avoid repetition of this  
description, the term "coal" is used with  
appropriate qualifying notes.

Depth  
from  
Surface

283'6"

Sample  
No

Description.

Coal.

C.B. E1. Sample contaminated with  
gravel. Clean pieces of coal  
picked out for sample. Appears  
rather shaly.

C.B. E2. Coal

Light grey shale

C.B. E3. Coal

C.B. E4. Coal (Good quality)

Thin bright streaks at 298'

C.B. E5. Coal (dull)

C.B. E6. Coal. Shaly; leaden streak.

C.B. E7. Coal

C.B. E8. Coal, very friable.

Bright streaks 305'6" - 305'9"

Dark grey shale with coaly streaks.

C.B. E9. Coal, friable

C.B. E10. Coal

C.B. E11. Coal

C.B. E12. Coal. Dull &amp; somewhat shaly.

C.B. E13. Coal

C.B. E14. Coal

Cores upset & incomplete.  
Mostly grey to carbonaceous  
shale remaining.

Coal. Dull &amp; greyish

C.B. E15. Bright streaks at 327'3"

C.B. E16. Coal.

Dark grey carbonaceous shale.

C.B. E17. Coal. 1/2" band grey shale at 333'9"

C.B. E18. Coal; dull.

C.B. E19. Carbonaceous shale with coaly  
streaks grading into grey shale at  
base.

C.B. E20. Coal; shaly in places

Thinly bedded grey to  
carbonaceous shale with  
some coal streaks.