

COMMONWEALTH OF AUSTRALIA.

DEPARTMENT OF SUPPLY AND SHIPPING.

TELEPHONE  
CANBERRA 982  
TELEGRAMS:  
CARE "MINPROD" CANBERRA

MINERAL RESOURCES SURVEY,  
CENSUS BUILDING,  
CITY, CANBERRA.

IN REPLY PLEASE QUOTE . . . . .

19th February, 1943.

MICRO-EXAMINATION OF SAMPLES FROM BORE NO. 3797  
ON THE PROPERTY OF A. HOLMES NEAR ELLA VALE, NORTHERN NEW SOUTH WALES.

Report No. 1943/14.

- 50-85 feet - Fine sandstone, consisting of angular to subangular quartz grains, with some ironstaining.
- 86 feet - Angular to subangular quartz grains and massive gypsum.
- 101 feet - Dark brown to ochreous fragmental rock with angular to subangular quartz grains, many ironstained, limonitic particles and glauconite.
- 135 feet - Grey shale.
- 180 feet - Moderately hard, white, chalky rock.
- 215 feet - Fine, white clay and limonitic particles.
- 280 feet - Grey shale and limonitic particles, with a few foraminifera (Haplophragmoides spp., Textularia sp.).
- 300 feet - Grey and dark grey shale. No organisms.
- 350 feet - Carbonaceous shale, with pyrites and a few foraminifera (Haplophragmoides sp., Ammobaculites sp., Trochammina sp.).
- 400 feet - Grey, carbonaceous shale with numerous fine, angular quartz grains, and a few foraminifera (Haplophragmoides sp., Reophax sp., Ammobaculites sp., Verruculina polystropha, Marginulina bullata, Lenticulina gibba, L. sp., Eponides sp.).
- 450 feet - Grey to dark grey shale, with foraminifera (Ammobaculites sp., Spiroplectammina sp., Listerella sp., Trochammina sp., Dentalina cf. pertinens).
- 500 feet - Grey shale, slightly carbonaceous, with Ammobaculites sp., and Lenticulina cf. gibba.
- 600 feet - Carbonaceous shale and sandstone with pyrites and ostracoda (Cytheropteron concentricum, C. sp.).
- 650 feet - Grey shale and carbonaceous shale with quartz grains and foraminifera (Spiroplectammina sp., Trochammina sp., fragments of arenaceous forms indet., Lenticulina cf. gibba).
- 700 feet - Grey, carbonaceous shale with a few foraminifera (Trochammina sp., fragments of arenaceous forms indet., Lenticulina gibba).
- 750 feet - Grey shale, rounded to subangular quartz grains and numerous arenaceous foraminifera including Haplophragmoides sp., Ammobaculites Trochammina sp.

Bore No. 3797 on A. Holmes' property is situated about 25 miles north-west of Bore No. 3785 on W.R. Johnston's property reported upon 12/11/41, 19/1/42 and 11/3/42. and about 20 miles north of Bore No. 3752 on G.M. Taylor's property reported upon 1/9/41.

The samples examined are from the depth of 50 feet down to 750 feet.

From 50 feet down to 215 feet, the samples are unfossiliferous. From 280 feet down to 750 feet, numerous foraminifera chiefly arenaceous genera, and ostracoda including Cytherepteron concentricum are present in carbonaceous shale, and are referable to the Lower Cretaceous.

The foraminifera and ostracoda are similar to those recorded in W.R. Johnston's Bore from 325 feet down to 1181 feet and in G.M. Taylor's Bore from 275 feet down to 425 feet, no sample being available from this bore between the depths of 420 feet and 1067 feet.

They are also present in Bore 1471 on the Berawinnia Pastoral Co. Property about 50 miles to the south-west from the depth of 121 feet down to 395 feet and in D.L. Murray's Bore about 85 miles to the south-west from 77 feet down to 334 feet. No foraminifera are present in Mrs. Bennett's Bore (No. 3805) about 180 miles to the south-east. Similar forms to the above are recorded in No. 2 Bore, Boronga 250 miles to the north-east but not in the Kiga Bore still further east.

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