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U.R 1962/88

COMMENTS ON FAUNA FROM EAST LAKE TYERS NO.1 AND EAST NOWA NO.1 WELLS

Examination was made on rotary cutting samples from these two shallow stratigraphic wells drilled by ARCO-Woodside in the eastern portion of the Gippsland Basin. Severe contamination in the cutting samples, especially from East Lake Tyers No.1, make stratigraphic correlations impossible. Only one core was taken in the Tertiary section; that being in East Lake Tyers No.1 Any stratigraphic conclusions drawn are based on the work of Carter (1962).

East Lake Tyers No.1 Well:

Marine sediments were entered at 30 feet. They contain an abundant fauna of miliolids and Nobulus spp. Although no diagnostic species are present, large hard limestones with interbedded marls indicate that these sediments represent the Bairnsdale Limestone. The first definite Bairnsdalian faunas were noted at 150 feet. Orbulina universa was frequent and Heronallenia howitti was present. The former species does not occur lower than Bairnsdalian whilst Carter (loc.cit.) states that the latter species is restricted to the Bairnsdalian.

The first appearance of Operculina victoriensis (the large flat ornamented Foraminifera) is noted at 700 feet. Carter (loc.cit.) states that this species does not range above the Wuk Wuk Marls in the Gippsland Basin. This is not conclusive evidence that the top of the Wuk Wuk Marls is at 700 feet, as it would mean that the Bairnsdale Limestone was 670 feet thick which would be exceptional. No fauna break is noted above 700 feet and in fact the Bairnsdalian faunas continue below this depth to the bottom of the well.

Astrononion centroplax was noted at 900 feet. As this species does not range above the Longfordian the Longfordian Limestone (which includes marls) is at and below this level.

The Lakes Entrance Formation cannot be identified. The core at 1360 feet contains no diagnostic fauna. The marl reported by Ingram and Rutledge (1962) from 1412 to 1460 feet contained a post-Longfordian fauna. This marl is in fact total contamination from above 900 feet.

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It is noted that the electric logs do not indicate a marl for this interval.

Core No.2 at 1531 feet does not contain any fauna.

East Nowa No.1 Well:

The sands and clays down to 170 feet do not contain any faunas.

Bairnsdalian faunas (including Orbulina universa and Heronella howitti) occur below 170 feet.

The first appearance of Elpidium crespinae at 300 feet probably indicates the top of the Wuk Wuk Marls.

The top of the Glencoe Limestone cannot be designated.

The first appearance of Astrononion centroplax at 650 feet indicates the top of the Longford Limestone equivalent. Contamination below this level is severe and the Lakes Entrance Formation cannot be identified.

No fauna was found in Core No.1 at 1188 feet.

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6th December, 1962.

References:

Carter,A.N., 1962	Tertiary Foraminifera from the Gippsland, Victoria, and their stratigraphic significance. Geol.Surv.Vict. Memoir (in press)
Ingram,P., and Rutledge,D., 1962	Graphic lithological log - East Lake Tyers. ARCO Ltd. (unpublished).