



PE990092

By:- David J. Taylor.

BIOSTRATIGRAPHIC LOG - GOLDEN BEACH WEST NO.1

Drilled by: Woodside (Lakes Entrance) Oil Co., in the
Gippsland Basin.

Casing program: 13 $\frac{3}{8}$ " set at 257': 9 $\frac{5}{8}$ " set at 3,154'.

Datum (K.B.) = + 39' A.S.L.

Cores: Only Core 1 (2,170' to 2,190') contained any fauna.
No fauna in side wall cores.

Cuttings: examined at 50' or less intervals. Mud contamination
heavy and constant throughout.

- 110 - 200' Quaternary mollusca and foraminifera.
- 200 - 450' "Jemmy's Point fauna" including Flintina intermedia.
KALIMNAN STAGE = LOWER PLIOCENE.
- 450 - 800' UPPER MIOCENE fauna - probably MITCHELLIAN Stage
This is equivalent of Taylor's (1965) Zonule
A & B of the Gippsland Shelf No.1 sequence.
- 800 - 1200' MIDDLE MIOCENE fauna including both BAIRNSDALIAN
and BALCOMBIAN stages. Globorotalia conica,
Bolivina sp.9 and Elphidium pseudoinflatum
first appear at 980' indicating Zonule D.
- 1200 - 1450' LOWER MIOCENE - BATESFORDIAN stage with
Lepidocyclina howchini, Amphistegina lessoni
and Operculina victoriensis. This is
Taylor's predicted Zonule F which did not
occur in Gippsland Shelf No.1. It is noted
that O.victoriensis first appeared at 1040'
in this section and is of stratigraphic
significance (refer Hocking, 1965), but was
not present 'in situ' in Gippsland Shelf

- 1450-1850' LOWER MIOCENE - LONGFORDIAN Stage - Zonules G and H.
- 1850-2250' UPPER OLIGOCENE - Zonule I with the appearance of Globigerina euapertura, Globorotalia opima opima and an increasing abundance of arenaceous forms down the section. This is within the Lakes Entrance Formation of Crespin (1943).
- 2250-2350' LOWER OLIGOCENE - Zonule J with the first appearance of Globorotalia testarugosa and the presence of the Bolivina pontis - anastomosa complex. Brown coal fragments appear in the marl cuttings below 2360'. Hocking and Taylor (1964) believe these are of structural significance, being reworked from the structurally higher areas at the time of initiation of the marine transgression. The sands between 2315' and 2350' contain fauna, as the foraminifera from below 2300' differ in preservation from above but represent the same Zonule J.
- 2350'- T.D. No new faunas are found below 2350' although "down-hole" contamination is heavy. The top of the sand unit (at 2315') certainly represents the "Basal Sandy Unit" of the Lakes Entrance Formation of Hocking (1965). However the base of this unit cannot be designated on available material and the "sand on sand" contact makes other methods of designation difficult. This section was in a structurally deep area at the time of initial marine transgression in the on-shore Gippsland Basin.

REFERENCES:

- CRESPIN, I., 1943. Stratigraphy of the Tertiary marine rocks in Gippsland, Victoria. Comm. Paleont. Bull., 4.
- HOCKING, J.B., 1965. Characteristics of the Tertiary Formations of southern and south-eastern Gippsland. Geol. Surv. Vict., Unpubl. rep. 5/1965.
- HOCKING, J.B., and TAYLOR, D.J., 1964. The initial marine transgression in the Gippsland Basin, Victoria. A.P.E.A. J., 1964.
- TAYLOR, D.J., 1965. The mid-Tertiary foraminiferal sequence - ESSO Gippsland Shelf NO.1 Well. Geol. Surv. Vict., Unpubl. rep. 16/1965 and as appendix to ESSO's completion report.