


PE990355

APPENDIX 2

FORAMINIFERAL BIOSTRATIGRAPHY,

COBIA-1,

GIPPSLAND BASIN

BY

D.J. Taylor

10th October, 1972

FORAMINIFERAL BIOSTRATIGRAPHY, COBIA-1 - GIPPSLAND BASIN

by David Taylor

October 10, 1972

Thirteen side wall cores were submitted for examination from a short interval between 7821 and 7710 feet. No fauna was found in the side wall core at 7821 feet. As yet no rotary cuttings have been examined from the well.

BIOSTRATIGRAPHY

The biostratigraphic zonation is that proposed by Taylor (1966) for the off-shore Gippsland Basin. Certain refinements to the scheme are in accordance with the New Zealand planktonic foraminiferal zonation as outlined by Jenkins (1971).

The earliest fauna found is that in a "greensand" at 7817 feet, where Globigerina angioroides is present without associated planktonic species. Such a fauna can be no younger than Zone J and is probably no older. Immediately above, at 7810 feet, G. angioroides is associated with G. euapertura indicating the upper part of Zone J which is the equivalent of Jenkins (1971) G. angioroides Zone. The highest appearance of G. angioroides at 7790 feet marks the top of Zone J.

At 7780 feet the association of G. euapertura and Globorotalia opima opima is diagnostic of Zone I and this association persists to 7720 feet.

Globigerina woodi woodi makes its initial appearance at 7710 feet where it is associated with Globoquadrina praedehiscens and Globorotalia continuosa. This fauna represents the base of Zone H and the G. woodi woodi Zone of Jenkins (1971).

The samples examined are all from the Oligocene, if current opinions by Jenkins (1970; non 1971) are valid.

ENVIRONMENT

The faunas in sidewall cores from 7810 to 7710 feet are dominated by planktonic foraminifera. The percentage of planktonics in the foraminiferal fauna ranges from 95% to 98%. Obviously the sediment was a globigerinid ooze and probably deep water. The benthonic fauna includes such forms as Melonis pompiliodes, Osangularia bengalensis, Discammina compressa and Avelophragmium spp. (Bandy, 1960). These species are deep water indicators and support the contention for a deep water origin of the sediment.

- BANDY, O.L. 1960 - 21st. Intern. Geol. Congress, 22; 7 - 19.
JENKINS, D.G. 1970 - Rev. Espan. Micropaleont.,
JENKINS, D.G. 1971 - N.Z. Geol. Surv. Paleont. Bull. 42.
TAYLOR, D.J. 1966 - Appendix in Comm. Aust. Petrol. Search Subsidy Acts Publ. 76.

Key to two foraminifera distribution sheets

T = sidewall cores at: - 7710'; 7720'; 7730; 7740; 7750'; 7760'; 7770';
7780'; 7790'; 7800'; 7810'; 7817'; 7821' (No
foraminiferal fauna).

No rotary cutting or conventional cores were submitted for
examination.

- . = 1-20 specimens
1 = over 20 specimens

	7700	7720	7740	7760	7780	7800	7820	7840
PLANKTONICS								
1. <i>Globigerina</i> <i>apertura</i>								
2. <i>Globigerina</i> <i>woodi</i>								
3. <i>Globigerina</i> <i>bulloides</i>								
4. <i>Globorotalia</i> <i>opima</i> <i>continua</i>	•							
5. <i>Globoquadrina</i> <i>praedehiscens</i>	•				•			
6. <i>Globigerina</i> <i>euaertura</i>								
7. <i>Globorotalia</i> <i>opima</i> <i>opima</i>								
8. <i>Globigerina</i> <i>trilocularis</i>								
9. <i>Globoquadrina</i> <i>advena</i>			•					
10. <i>Globigerina</i> <i>angiporoides</i>								
11. <i>Globorotalia</i> <i>sp.</i> (indeterminate)						•		
CALC. BENTHONICS - I								
12. <i>Cibicides</i> <i>thiara</i>	•							
13. <i>Cibicides</i> <i>retulgens</i>		•						
14. <i>Gyrogoninoides</i> <i>zelandica</i>			•	•	•	•		
15. <i>Melonis</i> <i>pompilioides</i>			•					
16. <i>Osangularia</i> <i>bengalensis</i>			•		•			
17. <i>Cibicides</i> <i>karreriformis</i>				•				
18. <i>Cibicides</i> <i>pseudoungerianus</i>				•				
CALC. BENTHONICS - II								
19. <i>Chilostomella</i> <i>ovoidea</i>	•							
20. <i>Sphaeroidina</i> <i>bulloides</i>		•	•					
21. <i>Globocassidulina</i> <i>minuta</i>				•				
22. <i>Pullenia</i> <i>sp.</i>				•		•		
CALC. BENTHONICS - III								
23. <i>Bolivina</i> <i>sp.</i>	•							
24. <i>Bolivina</i> <i>sp.</i>	•							
25. <i>Euvuigerina</i> <i>magnei</i>			•					
	H	7720	I	7780	J	7817		

