

FACIES UNIT III - EARLY MIOCENE - top approximating 1150m

The Early Miocene age is based purely on the highest appearance of the planktonic foraminifera *Globigerina woodi connecta* at 1150m. The facies was similar to Unit II, but not so well developed lower in the section, where "Larger Foraminifera" were absent. This implies that temperatures were lower earlier in the Miocene, with a gradual increase up section. This complies with the paleo-temperature graphs for the Southern Ocean and Tasman Sea (Loutit & Kennett, 1981). Both sedimentation and burial rates were seemingly much slower in this unit than in Unit II.

FACIES UNIT IV - OLIGOCENE - top approximating 1410m.

The Oligocene age is established on the highest appearance of *Globigerina euapertura* at 1410m. Planktonic foraminifera occur sporadically in this unit suggesting an inhibition to oceanic circulation. Much of the biogenic material was infilled with pyrite, suggesting rapid burial under anoxic conditions on a shallow shelf platform; possibly within the intertidal zone, as sedimentation was in a high energy regime. Facies Unit IV is a correlate of the Jan Juc Formation without any equivalents of the more marginal, quartz sandy sediments of the Angahook Formation.

FACIES UNIT V - ?LATE EOCENE? - top approximating 1610m.

Apart from contaminants, no planktonic foraminifera were found in this unit. The facies is typical of the Demons Bluff Formation of most other Bass Basin sequences.

REFERENCES

- LOUTIT, T.S. & KENNETT, J.P., 1981 - New Zealand and Australian Cenozoic sedimentary cycles and sea-level changes. AAPG Bull. 65 (9); 1586-1601.
- PALMIERI, V., 1976 - Modern and relict Foraminifera from the Central Queensland Continental Shelf. Qld. Govt. Mining J., Sept. 1976; 406-436.