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PALYNOLOGICAL EXAMINATION - ESSO BASS NO. 1. WELL.

Cores from the ESSO Bass No. 1 Well were sampled and treated by the hydrofluoric acid - Schulze's solution method and the residues examined for acid insoluble microfossils.

Cores treated and examined were cores 11 to 15.

Cores 11 (sample int:- 5898 feet). This core contained a rich microflora with associated less profuse dinoflagellates and acritarchs (microplankton). The microflora was composed principally of pollens derived from gymosperm and angiosperms groups, with a small proportion from cryptogam groups.

Dicotyledonous pollens present include Nothofagus sp.a, sp.b, sp.c, and sp.d, Proteacidites sp.a, and sp.b, Triorites harrissi, Myrtaceidites sp. Microplankton include forms listed as Hystichosphaera ramosa, Hystichosphaeridum colligerum, Hystichocolpoma rigaudea and Membranilarnax clathrodermum, by Deflandre and Cookson.

Although many of the pollens and certain of microplankton are found in Upper Cretaceous sediments, the assemblage is typical of the Victorian Lower Tertiary.

Core 12 (sample int:- 6408 feet). This contained a much less profuse microfloral assemblage, as well as a very few isolated small dinoflagellates of unknown affinities. The sample could be of Upper Cretaceous to Lower Tertiary age, but the absence of diagnostic Cretaceous forms, suggests a Lower Tertiary age.

Core 13 (sample int: 6931 feet): Core 14 (sample ints: 7441.5 feet and coal from 7419 feet and 7442.5 feet:

Core 15 (sample Int: 7717 feet). These also contained a much less profuse microflora than core 11, and no microplankton.

Fungal spores were very common and all cores yielded large leaf cuticle fragments after sieving in the initial treatment stages.

The cuticles were almost all derived from dicotyledinous leaves, with the exception of Brachyphyllum type conifer leaves.