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PRELIMINARY EXAMINATION OF PLANT REMAINS IN ESSO  
GIPPSLAND SHELF NO. 1 BORE

Cores 15 and 16

Bore cores Nos. 15 and 16 Esso Gippsland Shelf No. 1 Bore were macerated in hydrofluoric acid and Schulz's solution, and the residues examined. Megascopeic plant remains in both cores were also examined, and in some cases treated to free cuticular tissue.

Core 15. The only megascopic remains identified consisted of conifer branches with small appressed leaves of Pagiophyllum type, comparable to Pagiophyllum chambersi n.sp. (Douglas MS), but differing in leaf and stomatal arrangement, and evidently a different species. P. chambersi was first found in the Arco Woodside Merriman No. 1 bore at 5,070-5,081 feet; and appears to be limited to the "Upper Beds" (Douglas MS) of the Victorian Lower Cretaceous section.

Microfossils (sporomorphs) consisted largely of gymnosperm pollens including cf. Taeugaepollenites sp. and Alesporites similis, with fern? species such as Cyathidites australis occasionally present. Two Proteacidites sp. pollen grains were also isolated.

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The microfossils indicate a Lower Cretaceous (Strzelecki Group?) age, and the Proteaceous pollens, if not a contaminant, in conjunction with the Pagiophyllum mega compressions indicate that the sample comes from beds at the top of the Lower Cretaceous section.

No marine fossils were seen in the sample.

Core 16. Megacompressions here appear most likely, but not absolutely certainly to be derived from Sphenopsid roots and tubers. Microfossils present are poorly preserved, and few in number, and provide no conclusive evidence one way or another for geological age. Basing my opinion largely on the Sphenopsid? roots or stems, I would consider the sample to be derived from Lower Cretaceous beds. Sphenopsid remains have not been found in younger rocks in Victoria.

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Geologist