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CHIEF GEOLOGIST:

A.P.M. DEV. ROSEDALE NO.1

Three samples from Rosedale No.1 have been examined briefly to check the Mesozoic - Tertiary boundary on the basis of spores. The depths of the samples were :-

| | |
|----------|-----------------|
| core 13 | 2283 - 2285 ft. |
| core 15 | 2469 - 2471 ft. |
| cuttings | 4895 - 4900 ft. |

The results confirm that the Tertiary - Mesozoic boundary was penetrated between 2285 and 2469 ft. The yield from core 13 was poor but a sufficient number of angiosperm pollens were present to indicate a Tertiary age for that sample. Core 15, in a compact grey shale, contained well preserved spores of Mesozoic age, including Cyathidites spp., Osmundacidites commaumensis, Granulatisporites daiiyi, and bisaccate pollens. Cookson and Dettmann (1958) and Dettmann (1959) claim that G. daiiyi is restricted to the Lower Cretaceous. The accuracy of that restriction is debateable but not relevant to the present problem.

The cuttings at 4895 - 4900 ft. yielded a similar abundance of Cyathidites spp. and bisaccate pollens with Lycopodi-ucidites austrociavitidites and Neoraistrickia sp. in addition. No diagnostic Cretaceous or Jurassic spores were found in the samples.

(P.R. EVANS)
Geologist.

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For your information.

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