

**S
T
A
R
T**

U.R. 1964/57

Acid Insoluble Microfossils Mepunga NO. 7 Bore - Progress Report

Bore core from the Mines Department Mepunga No. 7 bore was treated by the hydrofluoric acid - Schulze's solution method, and residue, including acid insoluble microfossils, examined under the microscope.

	<u>Core Depth (feet)</u>	<u>Microfossils</u>
A1	1494-1505	Hystriospheres, including <u>Hystriosphera ramosa</u>
AM	1950-1965	<u>Nothofagus</u> sp. (pollens).
AN	2155-2175	<u>Proteacidites</u> sp. <u>Nothofagus emarcida</u> (pollens).
AS	3227-3237	<u>Deflandrea</u> sp. <u>Hystriospheraeridium</u> <u>Heteracanthum</u> and outicular macerations
AT	3413-3428	<u>Hystriospheraeridium</u> sp. <u>pediastrum</u> sp. <u>gymnosperm</u> pollens.

Remarks

Tertiary sediments were sampled in cores A1, AM, and AN, but Upper Cretaceous microplankton were isolated from core AS (3227-3237 feet). Dinoflagellates and hystriospheres were fossilized with dicotyledons pollens and microspores, with outicular macerations resulting in a mass of Agathis-like conifer remains associated with angiosperm leaf cuticles.

The only other Western District sediments yielding such a microplankton-angiosperm-conifer association were those from Port Campbell No. 1 bore at 5705 feet (Waarre formation) and Port Campbell No. 4 bore 4883-5005 feet.

Core AT (3413-3428 feet) yielded few hystriospheres, but of insufficient diagnostic value to give an accurate dating. Absence of dicotyledon pollens indicates that the beds are basal upper Cretaceous.

John Douglas,
Geologist