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PALYNOLOGICAL EXAMINATION OF GSV BORES LOCATED ON THE SALE 1:100 000 MAP SHEET, GIPPSLAND BASIN, VICTORIA

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by

V ARCHER

PALYNOLOGICAL EXAMINATION OF GSV BORES LOCATED ON THE SALE 1:100 000 MAP SHEET, GIPPSLAND BASIN, VICTORIA.

INTRODUCTION

A palynological analysis of several bores recently drilled by this department has been undertaken for the purpose of age determinations. The bores are Sale 23, Glencoe 44, Glencoe South 4, Dulungalong 2, Seacombe 7 and Bengworden South 9 and 12, which are located on the Sale 1:100 000 map sheet, Gippsland Basin, Victoria.

The age determinations are based on the spore-pollen zonation schemes of Stover and Partridge (1973) for the Tertiary, and Dettmann and Playford (1969) for the Early Cretaceous.

Results

Assemblages defined as the Middle <u>N. asperus</u> Zone all contain the zone index species <u>T. magnificus</u>.

SALE 23

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a	Depth:	72.2m
	Age:	Pliocene
	Comments:	The assemblage contains abundant <u>H. harrisii</u>
		and rare <u>Nothofagidites brassi</u> type pollen.
b	Depth:	127.9m
	Age:	? Pliocene
	Comments:	A low spore-pollen yield containing
		relatively common <u>H. harrisii</u> and rare
	• ••	N. brassi type pollen was recorded at this
		depth.

GLENCOE 44

- a Depth: 274m Age: Indeterminate Comments: An assemblage of predominantly fungal and algal spores including <u>Botryococcus braunii</u> was recorded from this interval.
- bDepth:340mSpore-pollen Zone:Middle N. asperus ZoneAge:Late Eocene early Oligocene.
- c Depth: 440m Spore-pollen Zone: Middle <u>N. asperus</u> Zone Age: Late Eocene - early Oligocene.
- d Depth: 500-503m
 Spore-pollen Zone: Middle N. asperus Zone
 Age: Late Eocene early Oligocene
 Comments: A rare occurrence of the dinoflagellate
 Vozzhennikovia extensa was recorded in this sample.
- e Depth: 505m Spore-pollen Zone: ? Lower <u>N. asperus</u> Zone Age: (late) Middle Eocene Comments: A low yield with no species indicative of the Middle <u>N. asperus</u> Zone was recorded.
- f Depth: 576m Spore-pollen Zone: <u>C. paradoxa</u> Zone Age: Middle Albian.

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g	Depth:	644.7 - 648.5m
	Spore-pollen Zone:	Indeterminate
	Age:	Early Cretaceous
	Comments:	A sparse spore-pollen yield was obtained with
		no zone index species being recorded.

GLENCOE SOUTH 4

aDepth:446mAge:IndeterminateComments:An assemblage of predominantly fungal andalgal spores including Botryococcus braunii

was recorded from this sample.

b Depth: 608-614m
 Spore-pollen Zone: Upper <u>M. diversus</u> Zone - <u>P. asparopolus</u> Zone
 Age: Early - middle Eocene
 Comments: An assemblage containing abundant <u>H. harrisii</u>
 together with <u>A. acutullus</u>, <u>P. crassus</u>,
 <u>P. pachypolus</u> and <u>M. diversus</u> was recorded

c Depth: 663m Spore-pollen Zone: ? Upper <u>M. diversus</u> Zone Age: Early - Eocene Comments: Species recorded include <u>N. heterus</u>,

<u>P. grandis</u>, and a predominance of <u>H. harrisii</u> compared with <u>Nothofagidites</u> spp.

d Depth: 776.5m
 Spore-pollen Zone: Lower L. balmei Zone
 Age: Early Paleocene
 Comments: Species recorded include <u>T. gillii</u>,
 <u>T. phillipsii</u>, <u>G. edwardsii</u>, <u>P. verrucosus</u>
 and common P. mawsonii.

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DULUNGALONG 2

- a Depth: 77.3 83.3m
 Age: Indeterminate; virtually barren.
 b Depth: 576.3 582.3m
 Age: Indeterminate
 Comments: An assemblage consisting predominantly of fungal and algal spores including <u>B. braunii</u> was recorded.
- c Depth: 847.9 853.9m
 Spore-pollen Zone: Middle N. asperus Zone
 Age: Late Eocene early Oligocene
 Comments: Abundant dinoflagellates, predominantly
 <u>V. extensa</u>, were recorded from this interval.
- d Depth: 956.2 962.2m Spore-pollen Zone: Middle <u>N. asperus</u> Zone Age: Late Eocene - early Oligocene Comments: Rare <u>V. extensa</u> was recorded from this assemblage.

SEACOMBE 7

Depth:	1246.1m
Spore-pollen Zone:	Upper <u>M. diversus</u> - <u>P. asperopolus</u> Zones
Age:	Early - middle Eocene
Comments:	A low spore-pollen yieli was obtained, with
	species recorded including P. pachypolus,
	P. crassus and N. emarcidus/heterus.

BENGWORDEN SOUTH 9 Depth: 11.9m

Age: Indeterminate; sample barren.

BENGWORDEN SOUTH 12

Depth: Age: Comments: 16.8 - 18.3m
? Pleistocene
Species recorded include <u>T. pleistocenicus</u>,
<u>T. antipodica</u>, <u>H. amolosus</u>, <u>Chenopodopollis</u>
sp. and <u>C. bifurcatus</u>.

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