



PALYNOLOGY OF
MACKEREL-3
GIPPSLAND BASIN

by

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INTERNETATIONAL

INTRODUCTION

Samples from Mackerel-3 were received for palynological analysis during April, 1972. No samples of suitable lithology for palynology were present in the first 100 feet of the Latrobe Group. Deeper samples from 7903 feet to 8587 feet contained good spore-pollen and dinoflagellate assemblages referable to the upper part of the Paleocene L. balmei Zone

SUMMARY

<u>Sample</u>	<u>Depth (in feet)</u>	<u>Zone</u>	<u>Age</u>
SWC 24	7798	<u>P. tuberculatus</u>	Oligocene
SWC 23	7801	Sample barren	-
SWC 20	7807	" "	-
SWC 19	7826	" "	-
SWC 18	7835	" "	
Core	7844	" "	
Core	7903	<u>L. balmei</u>	Paleocene
Core	7914½	"	"
SWC 13	7915	"	"
SWC 12	7975	"	"
SWC 11	8052	"	"
SWC 5	8383	"	"
SWC 4	8449	"	"
SWC 3	8482	"	"
SWC 2	8519	"	"
SWC 1	8587	"	"

COMMENTS

All fossiliferous samples from the Latrobe Group contain dinoflagellates as well as spores and pollen.

The SWC at 7798 feet contain spores, pollen and dinoflagellates indicative of the P. tuberculatus Zone, which is in agreement with the possible J1 or I1 age as determined from the planktonic foraminiferal data.

The samples assigned to the L. balmei Zone contain well preserved spore-pollen assemblages although the species diversity is not high, particularly in the samples 7903 feet to 7915 feet.

The assemblages from Mackerel-3 show good agreement in spore, pollen and dinoflagellate species content with the L. balmei Zone samples from Mackerel-2.

INTERPRETATIVE

BASIN GIPPSLAND

DATE _____

WELL NAME MACKEREL -3

ELEVATION +32 feet

AGE	PALYNOLOGIC ZONES	HIGHEST DATA				LOWEST DATA					
		Preferred Depth	Rtg.	Alternate Depth	Rtg.	2 way time	Preferred Depth	Rtg.	Alternate Depth	Rtg.	2 way time
Eocene	<u>P. tuberculatus</u>	7798	0				7798	0			
	<u>U. N. asperus</u>										
	<u>M. N. asperus</u>										
	<u>L. N. asperus</u>										
	<u>P. asperopolus</u>										
	<u>U. M. diversus</u>										
	<u>M. M. diversus</u>										
	<u>L. M. diversus</u>										
Paleocene	<u>U. L. balmei</u>	7903	0				8052	1			
	<u>L. L. balmei</u>	8383	1				8587	0			
	<u>T. longus</u>										
Cretaceous	<u>T. lilliei</u>										
	<u>N. senectus</u>										
	<u>C. trip./T.pach.</u>										
	<u>C. distocarin.</u>										
	<u>T. pannosus</u>										
EARLY CRETACEOUS											
PRE-CRETACEOUS											

COMMENTS: Dinoflagellate Zones:
Wetzeliella homomorpha 7903 (1) - 7915 (1)
Eisenackia crassitabulata 8449 (1) - 8587 (1)

- RATINGS: 0; SWC or CORE, EXCELLENT CONFIDENCE, assemblage with zone species of spores, pollen and microplankton.
 1; SWC or CORE, GOOD CONFIDENCE, assemblage with zone species of spores and pollen or microplankton.
 2; SWC or CORE, POOR CONFIDENCE, assemblage with non-diagnostic spores, pollen and/or microplankton.
 3; CUTTINGS, FAIR CONFIDENCE, assemblage with zone species of either spore and pollen or microplankton, or both.
 4; CUTTINGS, NO CONFIDENCE, assemblage with non-diagnostic spores, pollen and/or microplankton.

NOTE: If a sample cannot be assigned to one particular zone, then no entry should be made. Also, if an entry is given a 3 or 4 confidence rating, an alternate depth with a better confidence rating should be entered, if possible.

DATA RECORDED BY: ADP DATE May 1972.

DATA REVISED BY: ADP DATE Jan. 1975.