



PE990550

PIKE-1

PALAEONTOLOGIC DATA SUMMARY

D.J. Taylor

September, 1973

BASIN GIPPSLAND

BY David Taylor Form R193 3/71

WELL NAME PIKE-1

DATE 1/9/73 ELEV. _____

Foram Zonules

		Highest Data	Quality	2 Way Time	Lowest Data	Quality	2 Way Time
MIOCENE	A Alternate						
	B Alternate						
	C Alternate						
	D ₁ Alternate	3350	0		4310	1	
	D ₂ Alternate	4710	0		4710	0	
	E Alternate	5010 *	0		5010		
	F Alternate	5290	1		5450	0	
	G Alternate	5590	1		5690	1	
	H ₁ Alternate	5830	1				
	H ₂ Alternate	5890	0		5936 +	1	
	H ₂ Alternate						
OLIGOCENE	I ₁ Alternate						
	I ₂ Alternate						
	J ₁ Alternate						
	J ₂ Alternate						
EOC.	K Alternate						
	Pre K						

* 5010' = Top E = E-1

+ SWC at 5998' contained a H-1 (0) fauna but on preservation was probably misplaced (mislabelled or misshot) and probably came above 5960'. It is noted that SWC 5994'

was a "greensand" and one would expect it would come at base of marine sequence. Zonation was impossible on

COMMENTS: SWC 5994', 5982', 5960'.

Note: If highest or lowest data is a 3 or 4, then an alternate 0, 1, 2 highest or lowest data will be filled in if control is available.

If a sample cannot be interpreted to be one zonule, as apart from the other, no entry should be made.

- 0 SWC or Core - Complete assemblage (very high confidence).
- 1 SWC or Core - Almost complete assemblage (high confidence).
- 2 SWC or Core - Close to zonule change but able to interpret (low confidence).
- 3 Cuttings - Complete assemblage (low confidence).
- 4 Cuttings - Incomplete assemblage, next to uninterpretable or SWC with depth suspicion (very low confidence).

Date Revised _____

By _____

2nd Copy X

PIKE - 1

Sheet 1
of 5 sheets.

. = 1-20 specimens ? = identification dubious
I = over 20 specimens

Depth not to scale	3350	3900	4310	4710	5010	5290	5450	5590	5690	5760	5800	5830	5860	5890	5920	5936	5960	5982	5994	5998
Side wall core	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
PLANKTONICS																				
1. Orbulina universa	I	I	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2. O. suturalis	.	.	.	.	.	.	.	?	.	.	.	.	.	.	.	.	.	.	.	.
3. Globigerina apertura	I	I	I	I	I	.	.	I	I	.	.	I	I	I	I	I	?	.	.	I
4. G. bulloides	I	I	I	I	I	.	I	I	.	.	.	.	.	.	.	.	.	.	.	.
5. G. woodi woodi	I	II	I	I	I	I	I	I	I	I	I	I	I	I	I	I	?	?	?	I
6. Globoquadrina dehiscens	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
7. Globorotalia menardii	I	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
8. G. miotumida	I	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
9. G. miocenica	I	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10. G. miozea conoidea	I	I	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
11. G. mayeri barisaensis	.	.	.	I	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
12. G. conica	.	I	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
13. G. miozea miozea	.	I	.	I	.	I	.	.	.	.	.	.	.	.	.	.	.	.	.	.
14. Globigerinoides trilobus	.	.	I	I	I	I	.	I	I	.	.	.	.	.	.	.	.	.	.	.
15. Globorotalia peripheroacuta	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
16. G. peripheroronda	.	.	.	.	I	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
17. G. pruemardii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
18. Globoquadrina advena	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
19. G. altispira	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	?
20. Globigerinoides bisphericus	.	.	.	I	I	I	.	.	.	.	.	.	.	.	.	.	.	.	.	.
21. G. glomerus curvus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
22. Globorotalia zealandica incognita	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
23. Globigerinoides trilobus — bisphericus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
24. Globigerina ciperoensia	.	.	.	.	.	.	.	.	I	.	I	I	I	I	I	I	.	.	.	.
25. Globoquadrina praedehiscens	.	.	.	.	.	.	.	I	I	I	I	I	I	I	I	I	?	.	.	.
26. Globorotalia opima continuosa	.	.	.	.	.	.	.	I	.	I	.	.	.	.	.	.	.	.	.	.
27. Globigerina praebulloides	.	.	.	.	.	.	.	.	I	I	I	I	I	I	I	I	.	.	.	I
28. G/ woodi connecta	.	.	.	.	.	.	.	.	I	I	I	I	I	I	I	I	.	.	?	I
29. Globorotalia pseudkugleri	.	.	.	.	.	.	.	.	.	..	.	.	.	.	.	.	.	.	.	.
30. G. zealandica zealandica	.	.	.	.	.	.	.	.	.	.	..	.	.	.	.	.	.	.	.	.
31. G. kugleri	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
32. G. cf. miozea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	?	I

Side wall core	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
ZONE	D-1	D-1	D-1	D-2	E-1	F	F	G	G	H-1	H-1	H-1	H-1	H-1	H-1	H-1	?	?	?	H-1
DEPTH	3350	3900	4310	4710	5010	5290	5450	5590	5690	5760	5800	5830	5860	5890	5920	5936	5960	5982	5994	5998

MISPLACED

Depth not to scale	3350	3900	4310	4710	5010	5290	5450	5590	5690	5760	5800	5830	5860	5890	5920	5936	5960	5982	5994	5998
Sidewall core	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
CALC. BENTHONICS I																				
33. Anomalinoidea macroglabra	I		I		I															
34. A. procolligera	.	.				.														
35. Cibicides lobatulus (flat)	I	I	I										.	.	.	.
36. C. lobatulus (convex)	I	I	I	I																
37. C. mediocris	I																			
38. Alabamina tenuimarginata		.		.			.													
39. Cibicides thiara			I	I			.	.	.	.						
40. C. victoriensis				I																
41. C. perforatus													I		I	I	I			
42. C. pseudoungerianus								.					I		I	I				
43. Gyroidinoides zelandica								I								.				
44. "Planulina" wallerstorfi						.			.											.
45. Gyroidinoides subzelandica							.			.										.
46. Cibicides vortex									.											.
47. Gyroidinoides tenera									.											.
48. Osangularia bengalensis									.				.							.
49. Melonis sp?									.				.							.
50. Cibicides novozelandica											.			I						.
51. C. brevoralis													.							.
52. Astrononion centroplax													.							.
53. Discorbinella berthelotti													.		.	I				.
54. D. concavus													.							.
55. Anomalina vitrinoda													.							.
CALC. BENTHONICS II & III NOT PRESENT																				
CALC. BENTHONICS IV																				
56. Cassidulina carinata	I				I			I	I					I						.
57. C. subglobosa	I		I			I					I									.
58. Sphearoidina bulloides	I	I		I	I			I	I	.	I	I	I	I	I	I	I			.
59. Pullinia bulloides				I	.															.
60. Chilostomella sp.					.								.							.
61. Nonionella sp?										.		I								.
62. Cassidulina sp0													.							.
Side wall core	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
ZONE	D-1	D-1	D-1	D-2	E-1	F	F	G	G	H-1	H-1	H-1	H-1	H-1	H-1	H-1	?	?	?	H-1
DEPTH	3350	3900	4310	4710	5010	5290	5450	5590	5690	5760	5800	5830	5860	5890	5920	5936	5960	5982	5994	5998

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Sidewall core	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
CALC. BENTHONICS V																				
63. <i>Luvigerina miozea</i>	I
64. <i>Trifarina bradyi</i>
65. <i>Luvigerina mata</i>	.	.	I	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
66. <i>Siphovigerina proboscidae</i>	I	I	.	.	.	.	.
67. <i>Loxostomum</i> sp?	.	.	.	I	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
68. <i>Luvigerina maynii</i>	I	.	.	I	.	.	.	.	.	.	.	.	.	.	.	.
69. <i>E. pickii</i>
70. <i>Siphovigerina plebja</i>	I	.	.	.	.	.	.	.	.	.	.	.	.	.	.
71. <i>Globobulimina pacifica</i>
72. <i>Bulimina marginata</i>
73. <i>Bolivina anastomosa</i>
CALC. BENTHONICS VI																				
74. <i>Lagena</i> spp.	I	I	.	I	.	I	I	.	I	.	.	.	.	I	.	.	.	.	.	.
75. <i>Lenticulina</i> spp.	I	I	.	I	I	.	.	.	I	I	I	I	I	I	I	.	.	.	.	.
76. <i>Nodosaria</i> spp.	I	.	.	.	.	I	.	.	.	.	I	.	.	.	.	.
CALC. BENTHONICS VII																				
77. <i>millioids</i> spp.	.	I	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
78. <i>Sigmoilopsis schlumbergi</i>
79. <i>Spiroloculina</i> sp?
80. <i>Pyrgo</i> sp0
ARAGONONITIC BENTHONICS																				
81. <i>Ceratobulimina</i> sp.
ARENACEOUS BENTHONICS - PRIMITIVE																				
82. <i>Bathysiphon</i> sp.D
83. <i>Ammodiscus</i> sp (coarse)
84. <i>Ammodiscoidina</i> sp.	I	.	.	.	.	.	.	.	.	.	.	.
85. <i>Bathysiphon</i> sp.A
86. <i>Haplophragmoides</i> sp.	I
87. <i>Discamina compressa</i>
88. <i>Avelophragmium</i> cf. <i>H. incisa</i>
89. <i>Reophax</i> spp.
Sidewall core	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
ZONE	D-1	D-1	D-1	D-2	E-1	F	F	G	G	H-1	H-1	H-1	H-1	H-1	H-1	H-1	?	?	?	H-1
DEPTH	3350	3900	4310	4710	5010	5290	5450	5590	5690	5760	5800	5830	5860	5890	5920	5936	5960	5982	5994	5998

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side wall core	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
APENACEOUS BENTHONICS - COMPLEX																				
90. Pseudoclavulina rudis	.																			
91. Gaudyrina heywoodensis			.																	
92. Textularia sp?					.															
93. Tritaxia sp?					.															
94. Textularia conica						.														
95. Valvulina granulosa						.							.	.						
96. Textularia semicarinata							.						.	.						
97. Valvulina sp?													.	.						
98. Martinotiella communis																	.			

OTHER FOSSILS

Ostracods
Echinoid spines

I

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I

I

MINERALS

Fine grained calcite
Disseminated pyrite
Angular quartz
Diagenetic effects on foraminifera
Glauconite pellets
Calcite rhombs
Pyrite spheres
Rounded quartz

Fine grained calcite	.	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I			I
Disseminated pyrite	I					I	I	I	I	I	I	I	I	I	I	I	I	I		
Angular quartz		.							.										I	.
Diagenetic effects on foraminifera												X	X	X	X	X	X	X		
Glauconite pellets																			I	
Calcite rhombs																	I	I		
Pyrite spheres																	I			
Rounded quartz																			I	

Side wall core
ZONE
DEPTH

T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
D-1	D-1	D-1	D-2	E-1	F	F	G	G	H-1	H-1	H-1	H-1	H-1	H-1	H-1	H-1	?	?	?	H-1
3350	3900	4310	4710	5010	5290	5450	5590	5690	5760	5800	5830	5860	5890	5920	5936	5960	5982	5994	5998	

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ZONE		D-1	D-1	D-1	D-2	E-1	F	F	G	G	H-1	H-1	H-1	H-1	H-1	H-1	H-1	?	?	?	H-1			
Side wall core		T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T			
ENVIRONMENTAL ASSEMBLAGES		7/6	7/6	6	5	5	5	5	5	5	5	5/4	5/4	5/4	5/4	5/4	4	?	?	?	? MISPLACED			
		OUTER SHELF TO EDGE OF SHELF					UPPER SLOPE		UPPER SLOPE					TO LOWER SLOPE		HEAVY DIAGENESIS								
DIAGNOSTIC SPECIES IN ENVIRONMENTAL ANALYSIS	PRESENT	35	35	35	36	56	44	39	39	39	39	50	50	48	50	66	44							
		36	36	36	39	68	66			43	48	78	89		56									
		37	77	39	66	69	70			56	56	49				66								
		56	63	82	82	78	95			68	71	87				95								
		63									88													
		ABSENT																						
ACCUMULATIVE % of PLANKTONIC to BENTHONIC FORAMS.																								
BENTHONIC SPECIFIC DIVERSITY NO. RELATIVE TO NO. OF SPECIMENS IN TOTAL FAUNA																								

* — * = benthonic specific diversity

o — o = relative number of specimens in total fauna

LITHOLOGICAL DESCRIPTION of SIDEWALL CORES

from PIKE-1

by David Taylor.....24-8-73

One page

sidewall core No.	Depth	Description of untreated core	Description of residue
30	3350	medium grey marl	mainly foraminifera, disseminated pyrite, some f. grained calcite
29	3900	medium grey micritic limestone	fine grained calcite + foraminifera
28	4310	" " " " + ang. qtz.	" " " " + rare c. ang. qtz.
27	4710	" " " " " " " "	" " " " " " " "
26	5010	brown/grey " " " "	" " " " " " " "
25	5290	" " " " " " " "	" " " " " " " "
24	5450	" " " " " " " "	" " " " " " " "
23	5590	light grey " " " "	" " " " " " " "
22	5690	medium grey " " " "	" " " " " " " "
21	5760	" " " " " " " "	" " " " " " " "
20	5800	" " " " " " + calcite viens	" " " " " " " "
19	5830	brown/grey " " " "	" " " " " " " "
18	5860	" " " " " " " "	NOTE DIAGENETIC EFFECTS ON FORAMINIFERA AT & BELOW 5850 " " " " " " " " + rare " " " " " " " " glauconite
17	5890	" " " " " " " "	" " " " " " " "
16	5920	light grey " " " "	" " " " " " " "
15	5936	" " " " " " " "	" " " " " " " "
14	5960	" " " " " " " "	" " " " " " " "
13	5982	Light brown/grey" " "	calcite rhombs + distorted foraminifera + disseminated pyrite + pyrite spheres + rare f. ang. qtz. calcite rhombs - all foraminifera absent due to extreme diagensis + disseminated pyrite
**12	5994	" " " sandstone	abundant f.-m. ang. qtz & pellet glauconite. Rare rounded qtz & foraminifera
**11	5998	medium grey micritic limestone	fine grained calcite + rare ang. qtz.
9	6456	brown silty quartz sandstone	c.-m.-f ang. qtz = some sub-round m. ang. qtz. Orange stained qtz. sandstone frags & sub-concoidal coal frags.

NOTE

** Sidewall cores 12 & 11 are probably misplaced (? mislabelled) as one would expect the qtz. glauconite sandstone (ic. "greensand") to be below the limestone. In fact foraminifera content of sidewall core 11 suggests that it may have come from above 5960.