

APPENDIX 4

Moora Line 1A and 1C palynomorph range chart SWCs from 40.5 m to 244.5 m

Borehole	1C	1C	1C	1C	1C	1A	1A	1A	1A	1C	1A	1C	1C	1C	1A	1A
Microplankton Zone (after Helby et al. 1987, Partridge 2006)	<i>D. armata</i>						<i>E. lubrodia</i>	<i>E. dentidula</i>	<i>M. tetraodon</i>	<i>D. devilli</i>	<i>O. operculata</i>					
Depth (m)	40.5	52.5	65.8	85.5	105.5	111	124.5	149	165	175.8	184	196.5	204.5	220.5	229	244.5
SPORE-POLLEN																
<i>Amosporites cruciformis</i>	1				2										1	
<i>Appendicisporites</i> spp.															2	2
<i>Araucariacites australis</i>											1		1	2	1	2
<i>Baculatisporites comaumensis</i>																
<i>Balmeiopsis limbata</i>						x	1			5	x	1		x	3	2
<i>Balmeiopsis robusta</i>	x							x		1		x	x	1	x	2
<i>bisaccate pollen</i>					6	2	2	6		1	13	3	25	1	15	19
<i>Callialasporites dampieri</i>						x			x					3	1	x
<i>Contignisporites cooksoniae</i>															1	1
<i>Corollina torosa</i>					2		1		1	3	x	4	2	8	16	17
<i>Crybelosporites stylus</i>															x	x
<i>Cyathidites</i> spp.	7				37	9	18	27	10	12	3	9	3	31	10	6
<i>Densaspores velatus</i>															x	x
<i>Dictyophyllidites equieinus</i>								1						1	1	1
<i>Dictyosporites complex</i>					1										x	1
<i>Gleicheniidites</i> spp.	x				14	4	9	14	10	1	x	2		7	4	7
<i>Haegisporites lenticulifera</i>	1	x			x	x	1	1	x							
<i>Ischyosporites crateris</i>											x					x
<i>Laevigatosporites ovatus</i>	2				2	x										
<i>Leptolepidites</i> spp.							x	x							x	
<i>Lycopodiadites asperatus</i>							x	1	x					1	x	
<i>Microcachrydites antarcticus</i>	x				12	2	5	4	3	5	8	10	14	1	17	17
<i>Microfoveolatosporis caniculatus</i>							1	x								
<i>Neoraistrickia</i> spp.					2	x			x			x		3	2	2
<i>Neoraistrickia truncata</i>	1				1								1	1		
<i>Nevesisporites dailii</i>								x								
<i>Perotrites linearis</i>															x	
<i>Perotrites majus</i>							x	x								
<i>Perotrites oepikii</i>					x		x	1								
<i>Polycingulatisporites clavus</i>														1	1	
<i>Reticuloidosporites arcus</i>														1		1
<i>Retispora triquetra</i>																x
<i>Retitrites austroclavodites</i>							1					1	1	1	x	1
<i>Retitrites circolumenus</i>	x													x	x	x
<i>Retitrites nodosus</i>														1		
<i>Retitrites tenuis</i>															x	
<i>Retitrites watheroensis</i>														3	1	x
<i>Ruffordiaspora australiensis</i>							1		x					4	1	x
<i>Sestrosporites pseudoalveolatus</i>																
<i>Staplinisporites caminus</i>														x		
<i>Staplinisporites telatus</i>															x	1
<i>Stereisporites antiquasporites</i>							x	x				x	1	1	x	1
<i>Trilobosporites perverulentus</i>													1			x
<i>Trilobosporites trioreticulosus</i>								x								
<i>Vitreisporites signatus</i>					1	x	x	2			x		x			x

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Borehole	1C	1C	1C	1C	1C	1A	1A	1A	1A	1C	1A	1C	1C	1C	1A	1A
Microplankton Zone (after Helby et al. 1987, Partridge 2006)	<i>D. armata</i>						<i>E. ludbrookiae</i>	<i>C. dentulata</i> ?	<i>M. tetracontia</i>	<i>D. davidii</i>	<i>O. operculata</i>					
Depth (m)	40.5	52.5	65.8	85.5	105.5	111	124.5	149	165	175.8	184	196.5	204.5	220.5	229	244.5
DINOCYSTS																
Dinocysts indet.	13				15	5	8	7	10	9	22	23	16	5	2	x
<i>Angustidium</i> spp.									2							
<i>Aptea</i> sp. cf. <i>A. polymorpha</i>	1			x	1	2	2									
<i>Apteodinium maculatum</i>	11	x			1	4	6	1								
<i>Apteodinium</i> sp.											3					
<i>Ascodinium parvum</i>	3				1											
<i>Batiacasphaera</i> spp.	x				1	2	1	1	2	1	3	2	2			
<i>Batioladinium micropodum</i>								x				1	1		1	
<i>Canninginopsis denticulata</i>	9	x		x	2	2	x		1							
<i>Canninginopsis intermedia</i>											x					
<i>Carpodinium granulatum</i>											x					
<i>Cassiculosphaeridia magna</i>														4		
<i>Cassiculosphaeridia reticulata</i>											2	2	10			
<i>Cauca parva</i>											x					
<i>Chichaouadinium boydii</i>	x										38					
<i>Chlamydothorella nyei</i>	5	x		x	6	8	3	2	6	1	19	1	1			
<i>Chlamydothorella</i> sp.																2
<i>Chlamydothorella urna</i>					x	1										
<i>Circulodinium attadalicum</i>														x	2	5
<i>Circulodinium colliveri</i>					x		x				x	x	3	x	x	
<i>Circulodinium hirtellum</i>														1	x	x
<i>Cleistosphaeridium</i> spp.						1	1		2		3		1			
<i>Coronifera oceanica</i>	x						x									
<i>Cribrerodinium apione</i>						x	x	x								
<i>Cribrerodinium edwardsii</i>	5	x		x	x	3	5	1	1	7	6	4	1	6	x	
<i>Cribrerodinium muderongense</i>								x								x
<i>Cribrerodinium ? tenuiceras</i>																
<i>Cyclonephelium membranophorum</i>		x														
<i>Cyclonephelium</i> sp. cf. <i>C. intonsum</i>						x					x					
<i>Diconodinium cristatum</i>	10		x	x	47	31	14	17	22							
<i>Diconodinium davidii</i>												14				
<i>Diconodinium psilatium</i>	x				13	1	2	5	6							
<i>Dingodinium cerviculum</i>											3	1	x	4	x	x
<i>Dinopterygium tuberculatum</i>				x		x	1	x								
<i>Dioxya armata</i>					1	x										
<i>Dioxya villosa</i>					3											
<i>Discorsia nanna</i>											x		x			
<i>Endoceratium ludbrookiae</i>	1				1	x	1	x								
<i>Endoceratium turneri</i>					x	5	x		8	3	2		x			
<i>Epelidosphaeridia pentagona</i>											6					
<i>Exochosphaeridium</i> spp.	4				x	x	1				x	1	1			
<i>Fibradinium variculum</i>												1				
<i>Florentinia</i> spp.							x		x		x					
<i>Fusiformacysta salasii</i>															x	
<i>Heslertonia striata</i>	1					x	x									
<i>Heterosphaeridium</i> spp.	5	x			x		1	x	1							
<i>Horologinella lineata</i>														x		x
<i>Hystrichodinium oligacanthum</i>	1						x				x					
<i>Hystrichostrogylon</i> sp. cf. <i>H. stolidatum</i>											11					
<i>Impagidium</i> spp.								1	1					x		x
<i>Kiakansium polypes</i>	x			x	1		1	x	7				x?		1	
<i>Leberidacysta chlamydata</i>	x					x	x									
<i>Litosphaeridium arundum</i>				x	1	1	x	x	x							
<i>Litosphaeridium siphoniphorum</i>						1										
<i>Meiurogonyaulax maculatum</i>																x
<i>Microdinium</i> spp.	x															
<i>Muderongia australis</i>																x
<i>Muderongia mcwhaei</i>																x
<i>Muderongia tetracontia sensu Morgan</i>										2	12	4	6			
<i>Odontochitina operculata</i>	x	x			x	1	x		1	2	3	2		x		
<i>Odontochitina singhii</i>						x				1				x		
<i>Odontochitina striatoperforata</i>	1	x		x	3	2	1	x	x							
<i>Oligosphaeridium complex</i>	x	x		x	3	2	1		3		3	1	x		1	
<i>Ovoidinium striatum</i>														x		
<i>Pareodina</i> spp.	1															
<i>Prolixosphaeridium parvispinum</i>											1		x			
<i>Protoellipsoidinium densispinum</i>	x				1						1					
<i>Psalligonyaulax deflandei</i>					x	x	x									
<i>Pseudoceratium securigerum</i>											x					
<i>Pterodinium cornutum</i>											6				1	
<i>Sentusidinium</i> spp.	3				2	2	1		3	3	2	7	4	5	x	3
<i>Sepispinula ancorifera</i>	4				1			1			1	x				
<i>Spinidinium styliferum</i>					1?	1	1			4	2					
<i>Spiniferites magnoseriatum</i>										x	1	1	1			
<i>Spiniferites</i> spp.	9	x		x	5	6	6	1		4	16	6	4		x	x
<i>Tanyosphaeridium</i> spp.					x						2					x
<i>Tetrachacysta allenii</i>															5	1
<i>Trichodinium intermedium</i>	1				1		2				3	x		1	1	x
<i>Wallodinium luna</i>					x			x			x		x			
<i>Wrevittea</i> spp.							x		x		1					
<i>Yalkalpodinium scutum</i>											x			x		
ACRITARCHS & ALGAE																
<i>Cymatiosphaera</i> spp.							x									
<i>Domasiella discophora</i>															x	
<i>Fromea amphora</i>						1	x	x	x	1						
<i>Fromea fragilis</i>	x					x		x	x							
<i>Fromea monilifera</i>											x			x	x	
<i>Fromea</i> sp.											1					
<i>Lecaniella dictyota</i>		x			x											
<i>Michrhystridium</i> spp.					4		1				1		1			
<i>Nummus parvus</i>												x				
<i>Nummus pentagonus</i>															10	6
<i>Palabages</i> forma A							x									
<i>Platycystidia diptera</i>					1											
<i>Rhombodella natans</i>											2					
<i>Veryhachium</i> spp.		x			4	1	x	5	1				1			

Total count 100 0 0 0 200 100 100 100 100 67 200 100 100 100 100 100 100

x = present outside count