

Table S1.

Ancora

top (ft)	bottom (ft)	Depth (m) ^a	Age relative to CIE (kyr) ^b	<i>Subbotina</i> B/Ca ($\mu\text{mol/mol}$)	<i>Acarinina</i> B/Ca ($\mu\text{mol/mol}$)	<i>Morozovella</i> B/Ca ($\mu\text{mol/mol}$)
525.4	525.5	160.16	153		79	76
525.6	525.7	160.22	152		68	65
525.6	525.7	160.22	152	51		
532.2	532.3	162.23	128	49	71	54
533.5	533.6	162.63	124	47	57	60
533.5	533.6	162.63	124	50		
534.5	534.6	162.93	120		57	
535.4	535.5	163.19	117	49	73	65
536.3	536.4	163.48	113	51	78	55
536.3	536.4	163.48	113		69	58
537.5	537.6	163.85	109	49	80	59
537.5	537.6	163.85	109		71	57
537.5	537.6	163.85	109		75	
538	538.1	164.00	107	47	62	59
539.3	539.4	164.39	103	47		45
541.4	541.5	165.02	95	48	60	
542.8	542.9	165.46	87		55	52
542.8	542.9	165.46	87	53	50	51
542.8	542.9	165.46	87		52	
543.5	543.6	165.67	70	51	55	54
543.9	544	165.80	67	40	43	
544.4	544.5	165.95	63		42	54
544.6	544.7	166.01	62	40	37	
544.9	545	166.10	60	38	43	48
545.4	545.5	166.24	57	37	38	
550.2	550.3	167.72	33	37	39	53
550.7	550.8	167.85	32	37	36	49
551.6	551.7	168.14	30	36	37	49
555.8	555.9	169.41	18	41	38	
556	556.1	169.48	18	37	39	52
556.4	556.5	169.59	17	39	37	
556.9	557	169.76	15	39	36	57
557.2	557.3	169.85	14		37	

557.3	557.4	169.88	14			58
557.6	557.7	169.97	13	37	37	52
557.9	558	170.06	12		37	52
558.1	558.2	170.12	12	39	37	
558.4	558.5	170.22	11	38	39	
558.8	558.9	170.34	10	39	39	46
559.2	559.3	170.46	9	38		54
559.7	559.8	170.61	7	36	38	49
559.8	559.9	170.63	7	39	38	50
560	560.1	170.70	7	38	39	49
560.2	560.3	170.76	6		34	44
560.9	561	170.98	4	38	38	
560.9	561	170.98	4		39	
560.9	561	170.98	4		39	
561.2	561.3	171.07	3		38	
562.9	563	171.59	-17	51		
563.3	563.4	171.71	-32	51		

Table S2.

Site 689

Depth (m) ^a	Age relative to CIE (kyr) ^b	<i>Acarinina</i> B/Ca (μmol/mol)	<i>Subbotina</i> B/Ca (μmol/mol)
204.3	230	50	42
204.4	225		35
204.8	208	51	
205.1	195	48	
205.4	152	48	41
207.3	35	33	23
207.3	34	31	20
207.4	31	31	
207.5	28	28	30
207.5	27	28	21
207.6	24	32	20
207.7	22	26	
207.7	21	27	19
207.7	21		32
207.7	21	29	
207.9	15	31	
207.9	13	25	
208.0	9	26	
208.1	3	28	
208.1	1	26	
208.1	1	45	34
208.1	1	31	
208.2	-2	29	35
208.2	-5		34
208.4	-12	53	36
208.4	-13	51	38
208.5	-16	53	
208.5	-19	45	34
208.6	-23	52	37
208.6	-25	52	46
208.9	-36	46	33
209.2	-50	44	42

Site 690

Depth (m) ^a	Age relative to CIE (kyr) ^b	<i>Acarinina</i> B/Ca (μmol/mol)	<i>Subbotina</i> B/Ca (μmol/mol)
167.8	134.2		53
168.8	101.3		32
168.9	98.2		25
169.0	95.5		46
169.0	94.6	60	
169.1	90.8	49	
169.3	85.0	57	
169.3	83.1	46	
169.4	80.6	58	58
169.5	77.1	57	
169.6	71.2	43	
169.7	61.8	48	
169.8	56.2	49	32
169.9	53.0	50	27
169.9	53.0	39	41
169.9	49.3	46	
170.0	43.0	32	32
170.0	43.0		37
170.0	43.0		47
170.1	37.1	34	33
170.2	30.5	37	32
170.3	24.5	36	
170.3	21.9	30	23
170.4	15.0	34	34
170.4	15.0	31	
170.5	9.4	26	
170.5	9.4	27	
170.6	2.5	36, 49 ^c	
170.6	2.5	34, 55 ^c	
170.6	1.1	41	
170.6	0.4		50
170.7	-0.1	29	
170.7	-0.1	32	
170.7	-2.7	45	38
170.7	-2.7	29	62

170.7	-3.2	25	
170.8	-8.4	33, 55 ^c	39
170.8	-8.4	43, 52 ^c	
170.9	-14.0		49
171.0	-19.1	54	45
171.1	-24.3		45
171.2	-29.4	57	47
171.2	-29.4	58	
171.3	-33.6	49	44
171.3	-34.0		39
171.4	-38.1		39
171.4	-38.6	54	
171.4	-40.9	49	

Table S3.
New Jersey

Core site	top (ft)	bottom (ft)	Depth (m) ^a	Age relative to CIE (kyr) ^b	Size fraction (μm)	Subbotina spp. δ ¹¹ B	2 s.e.
Bass River	1183.85	1184.0	361	-356	180-300	13.87	0.37
Bass River	1183.5	1183.7	361	-346	212-300	13.81	0.49
Bass River	1183.5	1183.7	361	-346	180-212	12.95	0.83
Bass River	1158.3	1158.5	353	67	250-300	12.57	0.26
Bass River	1158.3	1158.5	353	67	212-250	12.42	0.37
Millville	888.0	888.5	271	20	212-300	12.55	0.30
Millville	871.4	871.6	266	55	212-300	12.80	0.19