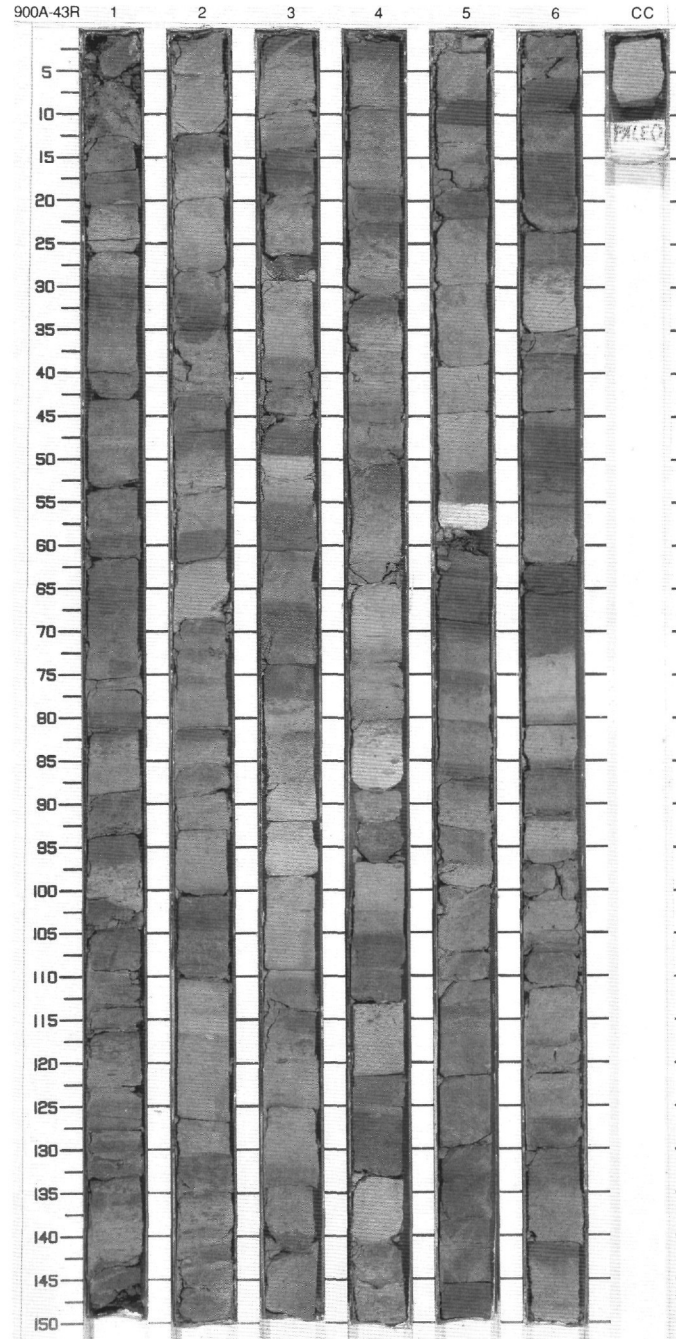


SITE 900 HOLE A CORE 43R

CORED 392.6 - 402.3 mbsf

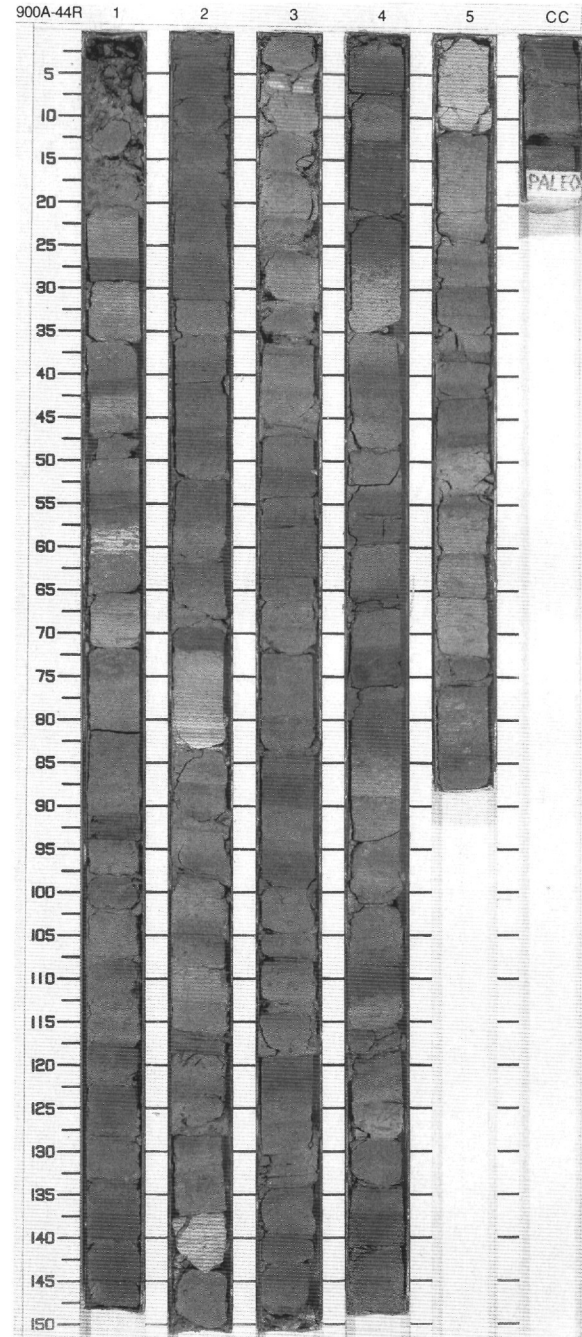
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Lithology symbol]	1	late Oligocene			P	5G 4/1 To 5G 6/1	<p>NANNOFOSSIL CLAYSTONE and CALCAREOUS CLAYSTONE</p> <p>Major Lithologies: Light gray (N7) to greenish gray (5G 6/1) NANNOFOSSIL CLAYSTONE comprises about 60% of the core and dark greenish gray (5G 4/1) CALCAREOUS CLAYSTONE 30%.</p> <p>Minor Lithologies: Olive gray (5Y 4/1) to medium gray (N5) foraminifer-rich SANDSTONE forms about 5% of the core. Olive gray (5Y 4/1) SILTY CLAYSTONE totals about 5% of the core.</p> <p>General Description: This core is similar to Cores 41R and 42R. Upwards darkening and fining sequences, ranging from 5–10 cm in thickness, usually contain a SANDSTONE base that passes upward into SILTY CLAYSTONE followed by CLAYSTONE. The SANDSTONE is up to 4 cm thick and varies from laminated to bioturbated and from continuous to discontinuous. It also exhibits some sharp tops and erosional bases, and is locally cemented by calcite. A very coarse, loosely consolidated sandstone with foraminifera occurs in Section 5, 57–60 cm. Bioturbation is common in the core.</p>
2	[Lithology symbol]	2				S P		
3	[Lithology symbol]	3				P		
4	[Lithology symbol]	4						
5	[Lithology symbol]	5				S S		
6	[Lithology symbol]	6						
CC	[Lithology symbol]	CC				M		



SITE 900 HOLE A CORE 44R

CORED 402.3 - 412.0 mbsf

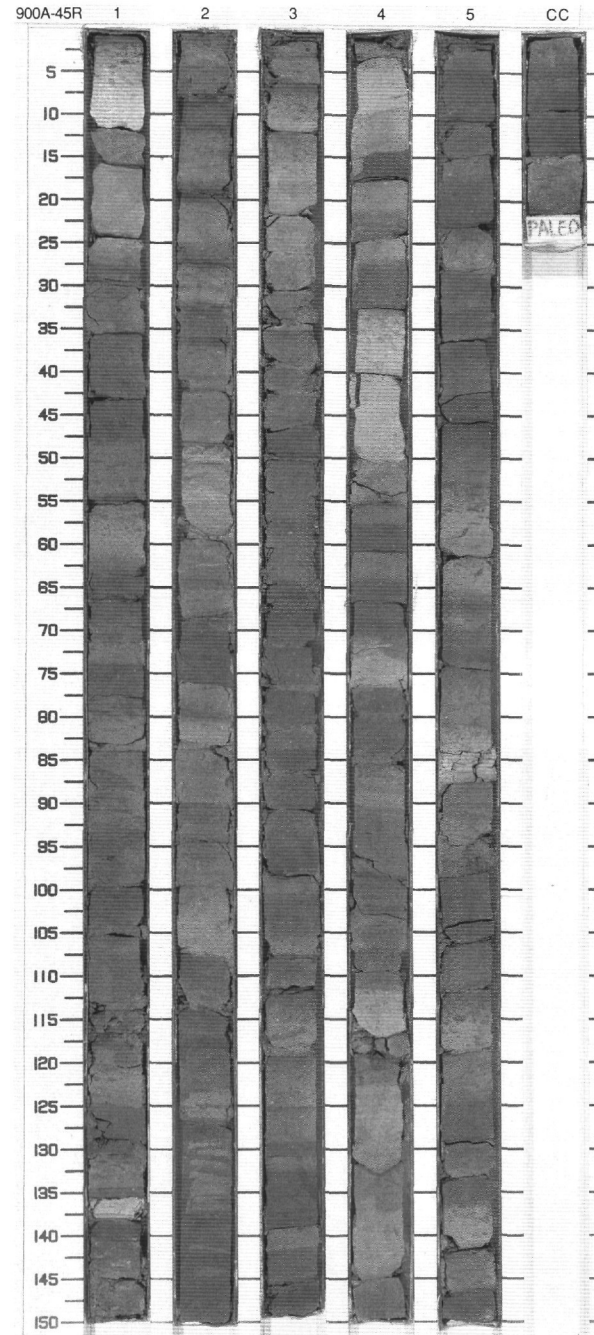
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Pattern]	1	late Oligocene	↑ F	W	P		<p>SILTY CLAYSTONE and CALCAREOUS CLAYSTONE</p> <p>Major Lithologies: SILTY CLAYSTONE is dark greenish gray (5GY 4) or greenish gray (5G 4/1), and forms 49% of the core. Greenish gray (5GY 6/1) CALCAREOUS CLAYSTONE forms 33% of the core, and the olive gray (5Y 4/1) variety 9%.</p> <p>Minor Lithologies: Calcite-cemented foraminifer-rich SANDSTONE is light greenish gray (5GY 8/1) and greenish gray (5GY 6/1), whereas uncemented soft foraminifer-rich SANDSTONE (often with silty clay laminae) is dark greenish gray (5GY 4/1) to greenish black (5GY 2/1). Together, these two varieties of SANDSTONE comprise 6% of the core. NANNOFOSSIL CLAYSTONE is light greenish gray (5GY 8/1) and very light gray (N8) in color, and forms 3% of the core.</p> <p>General Description: Upwards-darkening, sharp-based sequences ranging in thickness from 5–15 cm, occur throughout the core. The majority of the sequences consist of lighter CALCAREOUS CLAYSTONE overlain by darker SILTY CLAYSTONE, with the transition between them showing Chondrites and Planolites. The sequences may commence with olive gray CALCAREOUS CLAYSTONE, or either variety of SANDSTONE; the SANDSTONES often fine upwards, and are bioturbated. A few sequences consist of NANNOFOSSIL CLAYSTONE overlain by, and bioturbated with, SILTY CLAYSTONE.</p>
2	[Pattern]	2		↑ F		S		
3	[Pattern]	3		↑ F		P	5GY 4/1 To 5GY 6/1	
4	[Pattern]	4		↑ F	Mn	P		
5	[Pattern]	5		↑ F		S		
6	[Pattern]	6		↑ F		S		
7	[Pattern]	7		↑ F		S		
8	[Pattern]	8		↑ F		S		
9	[Pattern]	9		↑ F		S		
10	[Pattern]	10		↑ F		S		
11	[Pattern]	11		↑ F		S		
12	[Pattern]	12		↑ F		S		
13	[Pattern]	13		↑ F		S		
14	[Pattern]	14		↑ F		S		
15	[Pattern]	15		↑ F		S		
16	[Pattern]	16		↑ F		S		
17	[Pattern]	17		↑ F		S		
18	[Pattern]	18		↑ F		S		
19	[Pattern]	19		↑ F		S		
20	[Pattern]	20		↑ F		S		
21	[Pattern]	21		↑ F		S		
22	[Pattern]	22		↑ F		S		
23	[Pattern]	23		↑ F		S		
24	[Pattern]	24		↑ F		S		
25	[Pattern]	25		↑ F		S		
26	[Pattern]	26		↑ F		S		
27	[Pattern]	27		↑ F		S		
28	[Pattern]	28		↑ F		S		
29	[Pattern]	29		↑ F		S		
30	[Pattern]	30		↑ F		S		
31	[Pattern]	31		↑ F		S		
32	[Pattern]	32		↑ F		S		
33	[Pattern]	33		↑ F		S		
34	[Pattern]	34		↑ F		S		
35	[Pattern]	35		↑ F		S		
36	[Pattern]	36		↑ F		S		
37	[Pattern]	37		↑ F		S		
38	[Pattern]	38		↑ F		S		
39	[Pattern]	39		↑ F		S		
40	[Pattern]	40		↑ F		S		
41	[Pattern]	41		↑ F		S		
42	[Pattern]	42		↑ F		S		
43	[Pattern]	43		↑ F		S		
44	[Pattern]	44		↑ F		S		
45	[Pattern]	45		↑ F		S		
46	[Pattern]	46		↑ F		S		
47	[Pattern]	47		↑ F		S		
48	[Pattern]	48		↑ F		S		
49	[Pattern]	49		↑ F		S		
50	[Pattern]	50		↑ F		S		
51	[Pattern]	51		↑ F		S		
52	[Pattern]	52		↑ F		S		
53	[Pattern]	53		↑ F		S		
54	[Pattern]	54		↑ F		S		
55	[Pattern]	55		↑ F		S		
56	[Pattern]	56		↑ F		S		
57	[Pattern]	57		↑ F		S		
58	[Pattern]	58		↑ F		S		
59	[Pattern]	59		↑ F		S		
60	[Pattern]	60		↑ F		S		
61	[Pattern]	61		↑ F		S		
62	[Pattern]	62		↑ F		S		
63	[Pattern]	63		↑ F		S		
64	[Pattern]	64		↑ F		S		
65	[Pattern]	65		↑ F		S		
66	[Pattern]	66		↑ F		S		
67	[Pattern]	67		↑ F		S		
68	[Pattern]	68		↑ F		S		
69	[Pattern]	69		↑ F		S		
70	[Pattern]	70		↑ F		S		
71	[Pattern]	71		↑ F		S		
72	[Pattern]	72		↑ F		S		
73	[Pattern]	73		↑ F		S		
74	[Pattern]	74		↑ F		S		
75	[Pattern]	75		↑ F		S		
76	[Pattern]	76		↑ F		S		
77	[Pattern]	77		↑ F		S		
78	[Pattern]	78		↑ F		S		
79	[Pattern]	79		↑ F		S		
80	[Pattern]	80		↑ F		S		
81	[Pattern]	81		↑ F		S		
82	[Pattern]	82		↑ F		S		
83	[Pattern]	83		↑ F		S		
84	[Pattern]	84		↑ F		S		
85	[Pattern]	85		↑ F		S		
86	[Pattern]	86		↑ F		S		
87	[Pattern]	87		↑ F		S		
88	[Pattern]	88		↑ F		S		
89	[Pattern]	89		↑ F		S		
90	[Pattern]	90		↑ F		S		
91	[Pattern]	91		↑ F		S		
92	[Pattern]	92		↑ F		S		
93	[Pattern]	93		↑ F		S		
94	[Pattern]	94		↑ F		S		
95	[Pattern]	95		↑ F		S		
96	[Pattern]	96		↑ F		S		
97	[Pattern]	97		↑ F		S		
98	[Pattern]	98		↑ F		S		
99	[Pattern]	99		↑ F		S		
100	[Pattern]	100		↑ F		S		
101	[Pattern]	101		↑ F		S		
102	[Pattern]	102		↑ F		S		
103	[Pattern]	103		↑ F		S		
104	[Pattern]	104		↑ F		S		
105	[Pattern]	105		↑ F		S		
106	[Pattern]	106		↑ F		S		
107	[Pattern]	107		↑ F		S		
108	[Pattern]	108		↑ F		S		
109	[Pattern]	109		↑ F		S		
110	[Pattern]	110		↑ F		S		
111	[Pattern]	111		↑ F		S		
112	[Pattern]	112		↑ F		S		
113	[Pattern]	113		↑ F		S		
114	[Pattern]	114		↑ F		S		
115	[Pattern]	115		↑ F		S		
116	[Pattern]	116		↑ F		S		
117	[Pattern]	117		↑ F		S		
118	[Pattern]	118		↑ F		S		
119	[Pattern]	119		↑ F		S		
120	[Pattern]	120		↑ F		S		
121	[Pattern]	121		↑ F		S		
122	[Pattern]	122		↑ F		S		
123	[Pattern]	123		↑ F		S		
124	[Pattern]	124		↑ F		S		
125	[Pattern]	125		↑ F		S		
126	[Pattern]	126		↑ F		S		
127	[Pattern]	127		↑ F		S		
128	[Pattern]	128		↑ F		S		
129	[Pattern]	129		↑ F		S		
130	[Pattern]	130		↑ F		S		
131	[Pattern]	131		↑ F		S		
132	[Pattern]	132		↑ F		S		
133	[Pattern]	133		↑ F		S		
134	[Pattern]	134		↑ F		S		
135	[Pattern]	135		↑ F		S		
136	[Pattern]	136		↑ F		S		
137	[Pattern]	137		↑ F		S		
138	[Pattern]	138		↑ F		S		
139	[Pattern]	139		↑ F		S		
140	[Pattern]	140		↑ F		S		
141	[Pattern]	141		↑ F		S		
142	[Pattern]	142		↑ F		S		
143	[Pattern]	143		↑ F		S		
144	[Pattern]	144		↑ F		S		
145	[Pattern]	145		↑ F		S		
146	[Pattern]	146		↑ F		S		
147	[Pattern]	147		↑ F		S		
148	[Pattern]	148		↑ F		S		
149	[Pattern]	149		↑ F		S		
150	[Pattern]	150		↑ F		S		



SITE 900 HOLE A CORE 45R

CORED 412.0 - 421.6 mbsf

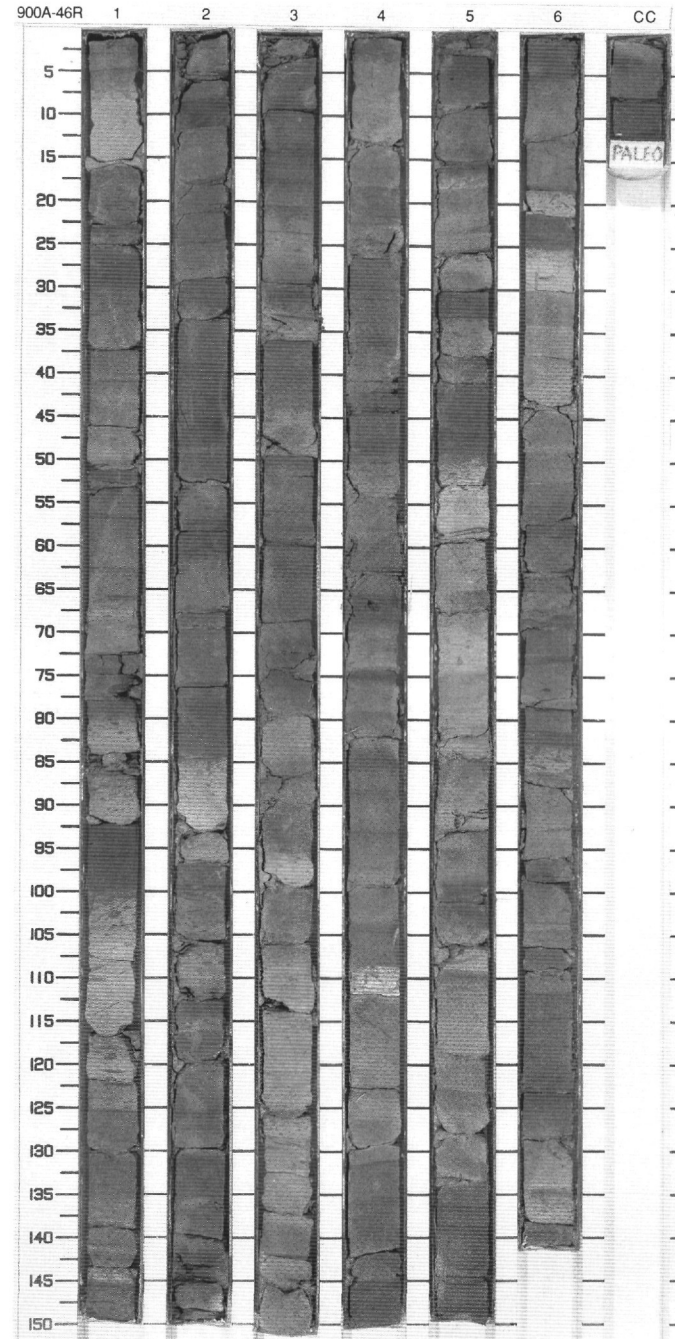
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Dotted pattern]	1	late Oligocene	}}		S	5G 4/1 To 5G 6/1	<p>CALCAREOUS CLAYSTONE WITH SILT and CLAYSTONE</p> <p>Major Lithologies: Greenish gray (5G 6/1), light gray (N7), and olive gray (5Y 4/1) CALCAREOUS CLAYSTONE WITH SILT forms 45% of the core and dark greenish gray (5G 4/1) CLAYSTONE 50%.</p> <p>Minor Lithologies: Olive gray to medium gray foraminifer-rich SANDSTONE makes up about 5% of the core and light gray (N7) NANNOFOSSIL CLAYSTONE less than 1%.</p> <p>General Description: Sequences, 5-15 cm thick, that darken and less commonly fine upwards occur in this core. They consist of a local SANDSTONE gradationally overlain by CALCAREOUS CLAYSTONE WITH SILT followed by CLAYSTONE. Bioturbation (trace fossils observed include Zoophycos, Planolites, and abundant Chondrites) is common in the two types of claystones and sometimes extends into the SANDSTONE. Some SANDSTONES appear to grade into the overlying CALCAREOUS CLAYSTONE WITH SILT, however, bioturbation disrupts original stratigraphic relationships. Calcite-cemented SANDSTONES, up to 10 cm thick, are scattered throughout the core.</p>
2	[Dotted pattern]	2		}}		S P		
3	[Dotted pattern]	3		}}		P		
4	[Dotted pattern]	4		}}		S		
5	[Dotted pattern]	5		}}		P		
CC	[Dotted pattern]	CC		}}		M		



SITE 900 HOLE A CORE 46R

CORED 421.6 - 431.1 mbsf

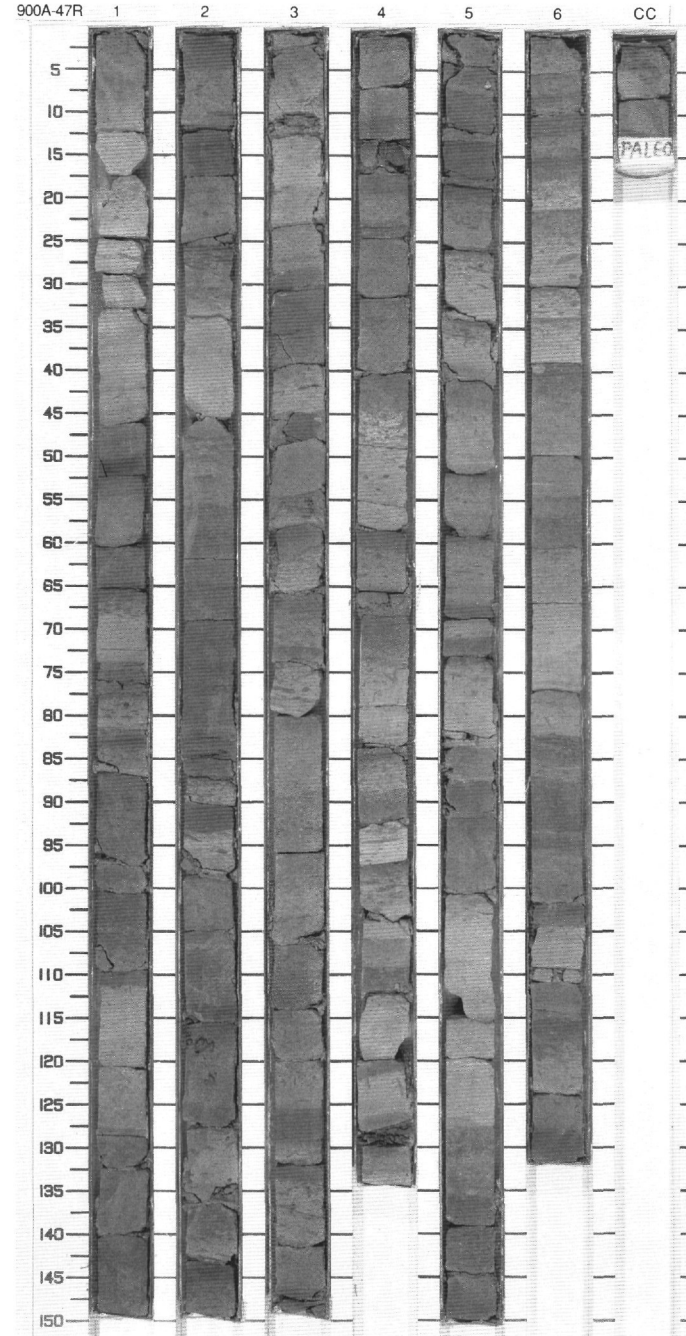
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Pattern]	1	late Oligocene	[Symbol]	[Symbol]	P	5G 4/1 To 5B 8/1	<p>CLAYSTONE WITH SILT/SILTY CLAYSTONE and CALCAREOUS SILTY CLAYSTONE</p> <p>Major Lithologies: CLAYSTONE WITH SILT/SILTY CLAYSTONE is dark greenish gray (5G 4/1) or olive gray (5Y 4/1), and forms 34% of the core. Light greenish gray (5G /1) CALCAREOUS SILTY CLAYSTONE forms 46% of the core.</p> <p>Minor Lithology: Light gray (N7) or light greenish gray (5GY 8/1) to greenish gray (5GY 6/1), calcite-cemented foraminifer-rich CALCAREOUS SANDSTONE forms around 20% of the core.</p> <p>General Description: Upwards-darkening, sharp-based sequences, ranging in thickness from 5 to 15 cm occur throughout the core. Two types of sequences are visible. The lighter colored type consists of a basal layer of well-cemented, CALCAREOUS SANDSTONE, overlain by CALCAREOUS SILTY CLAYSTONE and CALCAREOUS CLAYSTONE. The darker type consists of uncemented, basal SANDSTONE overlain by SILTY CLAYSTONE and CLAYSTONE. Zoophycos is common throughout the core.</p>
2	[Pattern]	2		[Symbol]	[Symbol]	P		
3	[Pattern]	3		[Symbol]	[Symbol]	P		
4	[Pattern]	4		[Symbol]	[Symbol]	P		
5	[Pattern]	5		[Symbol]	[Symbol]	P		
6	[Pattern]	6		[Symbol]	[Symbol]	P		
7	[Pattern]	7		[Symbol]	[Symbol]	P		
8	[Pattern]	8		[Symbol]	[Symbol]	P		
9	[Pattern]	9		[Symbol]	[Symbol]	M		



SITE 900 HOLE A CORE 47R

CORED 431.1 - 440.6 mbsf

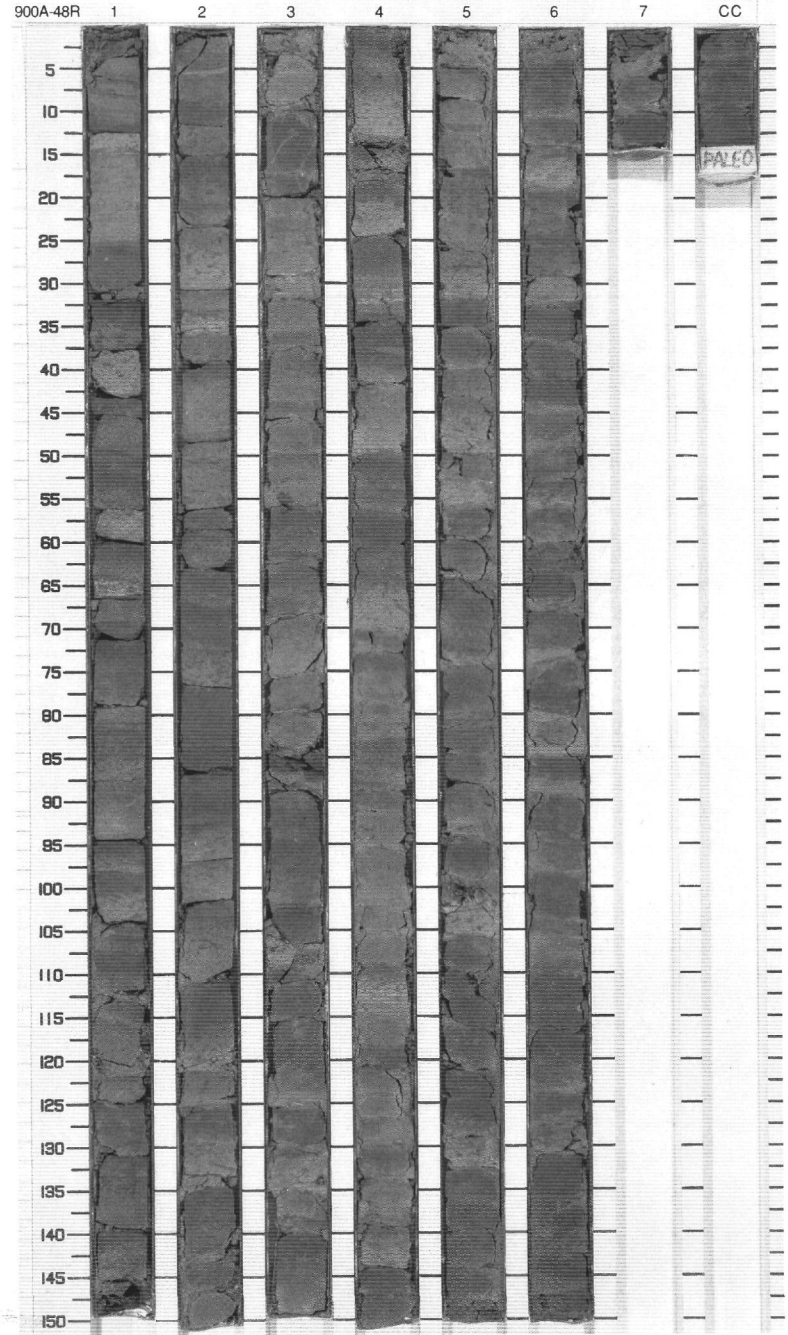
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Pattern]	1		Mn		P		<p>CALCAREOUS SILTY CLAYSTONE TO CLAYEY SILTSTONE and CLAYSTONE WITH SILT</p> <p>Major Lithologies: Greenish gray (5GY 6/1) CALCAREOUS SILTY CLAYSTONE TO CLAYEY SILTSTONE forms 50% of the core. Dark greenish gray (5GY 4/1) CLAYSTONE with SILT comprises 35% of the core.</p> <p>Minor Lithology: Greenish gray (5GY 6/1) to light gray (N7), fine- to medium-grained foraminifer-rich CALCAREOUS SANDSTONE totals about 15% of the core.</p> <p>General Description: The core consists of several upwards-darkening, usually fining upwards sequences, 10 to 15 cm thick, composed of a basal calcite cemented CALCAREOUS SILTY SANDSTONE, followed by CALCAREOUS SILTY CLAYSTONE and CLAYSTONE with SILT. Cementation of the core is weak to moderate. Bioturbation is more intense in the lighter lithologies.</p>
2	[Pattern]	2		Mn		P		
3	[Pattern]	3		Mn		P		
4	[Pattern]	4	late Oligocene	Mn		P	5GY 4/1 To 5GY 6/1	
5	[Pattern]	5		Mn		P		
6	[Pattern]	6		Mn		P		
7	[Pattern]	7		Mn		P		
8	[Pattern]	8		Mn		P		
	[Pattern]	CC		Mn		M		



SITE 900 HOLE A CORE 48R

CORED 440.6 - 450.2 mbsf

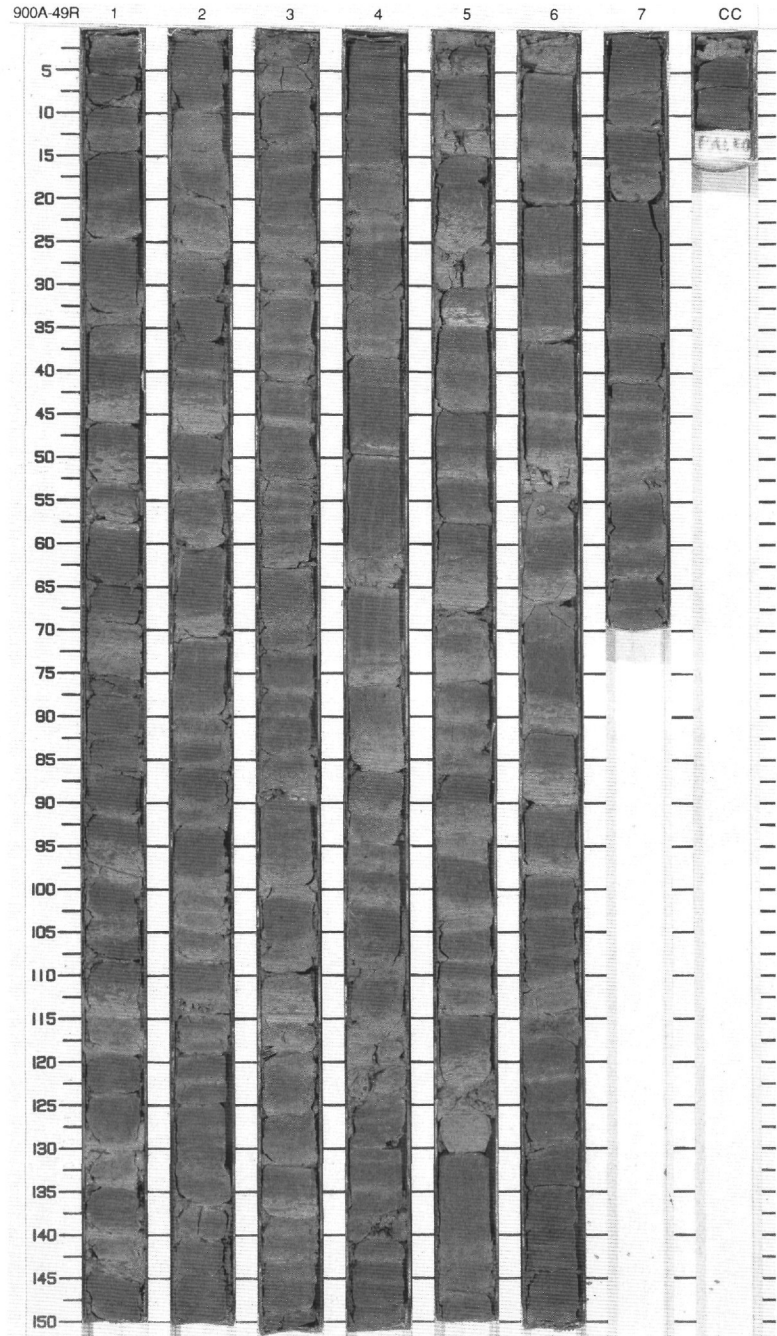
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Pattern]	1	early Oligocene			P	5GY 4/1 To 5GY 6/1	CALCAREOUS SILTY CLAYSTONE Major Lithology: Greenish gray (5GY 6/1) CALCAREOUS SILTY CLAYSTONE from 74% of the core.
2	[Pattern]	2				P		Minor Lithologies: Dark greenish gray (5GY 4/1) CLAYSTONE WITH SILT comprises 15% of the core and foraminifer- and nannofossil-rich, parallel- and cross-laminated CALCAREOUS SILTY SANDSTONE totals about 10% of the core. Light gray (N7) CLAYEY CHALK occurs in Section 5 at 100 to 105 cm.
3	[Pattern]	3		Mn		S P		General Description: The core consists of several darkening upwards sequences, 8-15 cm thick; most of them consist of a basal calcareous SILTY SANDSTONE, followed by calcareous SILTY CLAYSTONE and CLAYSTONE WITH SILT. All sequences show sharp bases and gradational tops. From Section 4, 70 cm to the bottom of the core the sections are highly biscuited in pieces of 3 to 5 cm thick.
4	[Pattern]	4				P		
5	[Pattern]	5				S P		
6	[Pattern]	6				P		
7	[Pattern]	7				M		



SITE 900 HOLE A CORE 49R

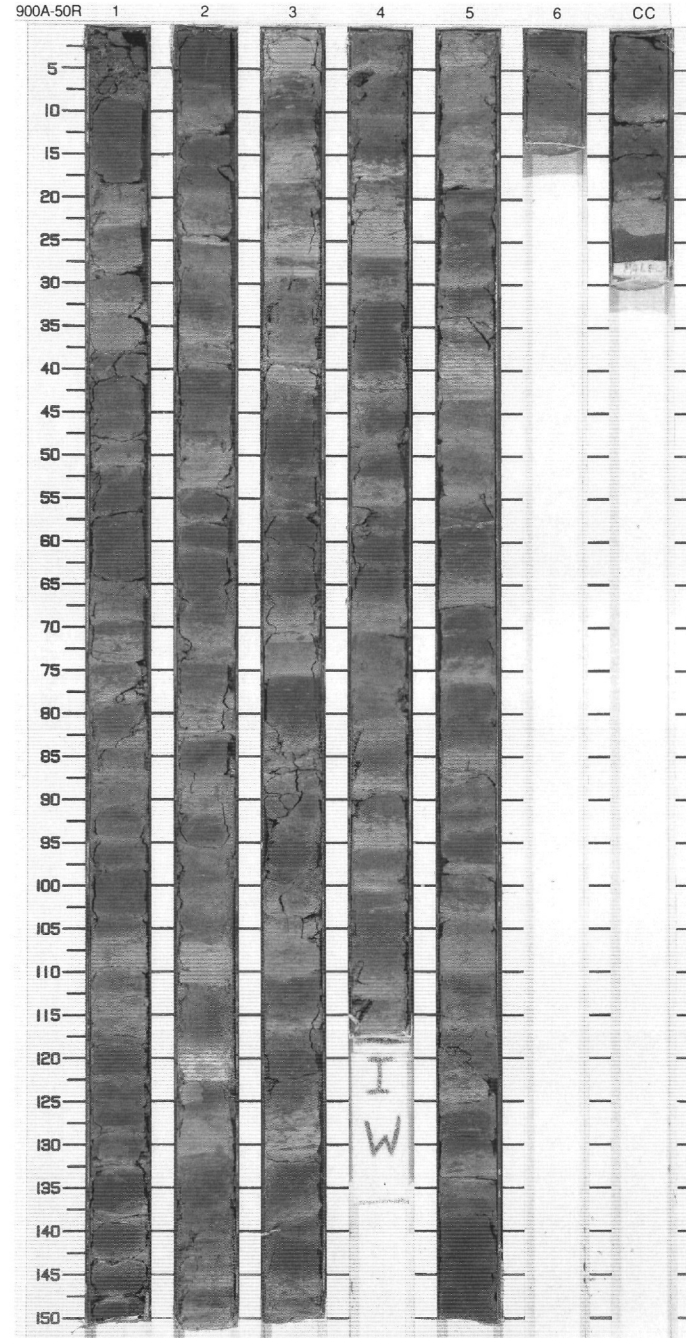
CORED 450.2 - 459.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Pattern]	1	late Oligocene-early Oligocene		~	P	5Y 4/1 To 5B 5/1	<p>SILTY CLAYSTONE</p> <p>Major Lithology: Olive gray (5Y 4/1) to dark greenish gray (5GY 4/1) SILTY CLAYSTONE forms 71% of the core.</p> <p>Minor Lithologies: Greenish gray (5GY 6/1) to light greenish gray (5GY 8/1) CALCAREOUS SILTY CLAYSTONE comprises 20% of the core, and fine- to medium-grained, medium bluish gray (5B 5/1) and light bluish gray (5B 7/1), foraminifer- and nannofossil-rich CALCAREOUS SILTY SANDSTONE forms 9% of the core.</p> <p>General Description: The core consists of several, 5 to 15 cm thick, darkening upwards sequences, consisting of a basal CALCAREOUS SILTY SANDSTONE, followed by bioturbated CALCAREOUS SILTY CLAYSTONE and SILTY CLAYSTONE; the last named lithology forms the bulk of the sequences. Near the basal sandstones the SILTY CLAYSTONES are more gray colored, probably due to cementation. Bioturbation is common throughout the sequences.</p>
					~	S		
2	[Pattern]	2			~	P		
					~	S		
3	[Pattern]	3			~	P		
4	[Pattern]	4			~	P		
5	[Pattern]	4			~	P		
6	[Pattern]	5			~	P		
7	[Pattern]	5			~	P		
8	[Pattern]	6			~	P		
9	[Pattern]	6			~	P		
		7			~	P		
		CC				M		



SITE 900 HOLE A CORE 50R CORED 459.9 - 469.9 mbsf

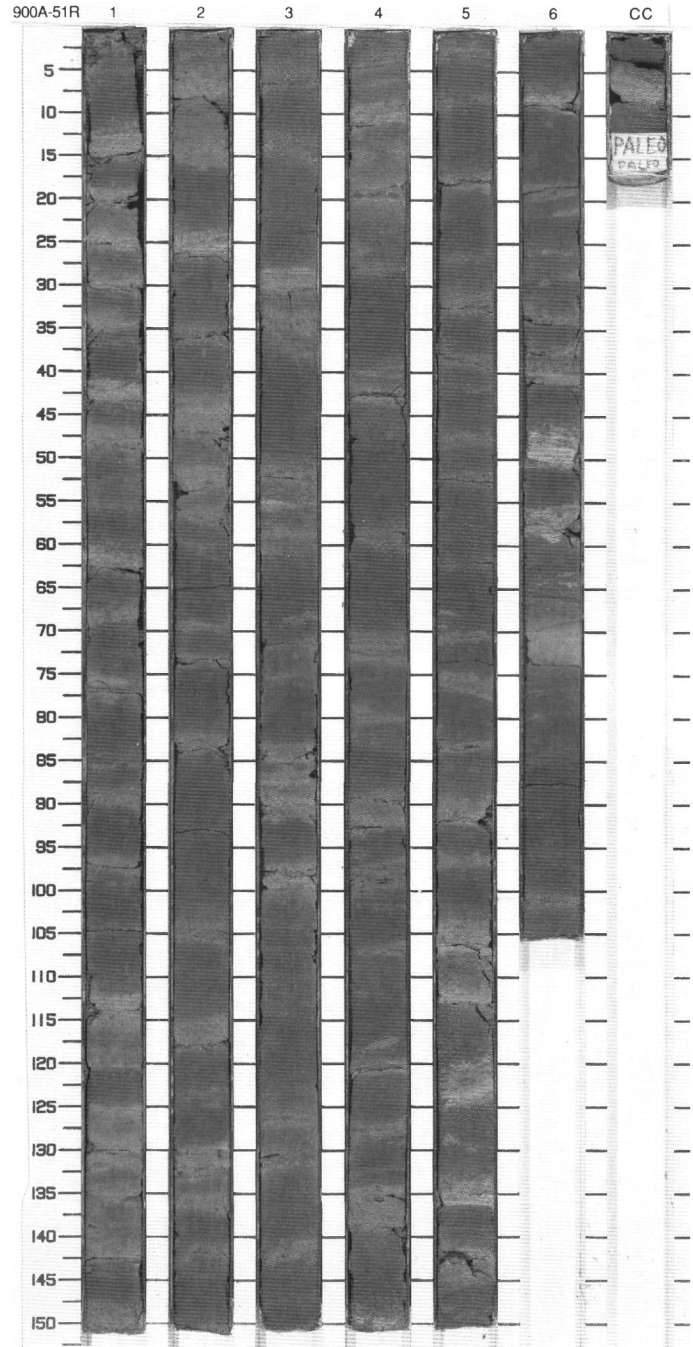
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Pattern]	1		}}		S P	5Y 4/1 To 5G 6/1	<p>CALCAREOUS SILTY CLAYSTONE and CLAYSTONE WITH SILT TO SILTY CLAYSTONE</p> <p>Major Lithologies: Light greenish gray (5G 6/1), heavily bioturbated CALCAREOUS SILTY CLAYSTONE forms 70% of the core. Olive gray (5Y 4/1) to dark greenish gray (5G 4/1) and moderate yellowish brown (10YR 5/4) to moderate yellowish brown (10YR 4/2), highly cemented CLAYSTONE with SILT to SILTY CLAYSTONE comprises 25% of the core.</p> <p>Minor Lithology: Greenish gray (5G 6/1) SILTY SANDSTONE is less cemented and totals about 5% of the core.</p> <p>General Description: The core is highly biscuited. It contains several, upwards-darkening sequences, which change in color below Section 1, 99 cm from green to brown. The sequences are between 5 to 10 cm thick. They are composed of a basal SILTY SANDSTONE, overlain by calcareous SILTY CLAYSTONE and CLAYSTONE WITH SILT.</p>
2	[Pattern]	2		}}		S P		
3	[Pattern]	3		}}		S P		
4	[Pattern]	4		}}		P	5Y 4/1 To 10YR 4/2	
5	[Pattern]	5		}}		P		
6	[Pattern]	6		}}		P		
7	[Pattern]	7		}}		M		



SITE 900 HOLE A CORE 51R

CORED 469.9 - 479.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Dotted pattern]	1	late Oligocene-late Eocene	⋈	⋈	P	5B 5/1 To 5YR 4/4	<p>CLAYSTONE WITH SILT/SILTY CLAYSTONE</p> <p>Major Lithology: Moderate brown (5YR 4/4) CLAYSTONE WITH SILT/SILTY CLAYSTONE forms 78% of the core.</p> <p>Minor Lithologies: Grayish orange (10YR 7/4) CALCAREOUS SILTY CLAYSTONE comprises 10% of the core and medium bluish (5B 5/1) SILTY SANDSTONE totals 12% of the core.</p> <p>General Description: The core consists of several, upwards-darkening sequences, 5 to 15 cm thick, composed of a basal uncemented SILTY SANDSTONE, followed by calcareous SILTY CLAYSTONE and CLAYSTONE with SILT.</p>
2	[Dotted pattern]	2		⋈	⋈	P		
3	[Dotted pattern]	3		⋈	⋈	S		
4	[Dotted pattern]	4		⋈	⋈	P		
5	[Dotted pattern]	5		⋈	⋈	P		
6	[Dotted pattern]	6		⋈	⋈	S		
7	[Dotted pattern]	5		⋈	⋈	P		
8	[Dotted pattern]	6		⋈	⋈	P		
	[Dotted pattern]	CC		⋈	⋈	M		



SITE 900 HOLE A CORE 52R

CORED 479.2 - 488.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Dotted pattern]	1	late Eocene	}}	-	S P	10YR 4/2 To 5GY 5/1	CLAYSTONE WITH SILT Major Lithology: CLAYSTONE WITH SILT forms 95% of the core. In Sections 1-4 it is dominantly dark yellowish brown (10YR 4/2) in color, but greenish gray (5G 5/1) and light olive gray (5Y 4/1) varieties also occur.
2	[Dotted pattern]	2		P				
3	[Dotted pattern]	3		}}		P	10YR 4/2 To 5Y 5/1	Minor Lithologies: In Sections 5 and 6, NANNOFOSSIL CLAYSTONE occurs and is olive gray (5Y 4/1, 6/1) in color. NANNOFOSSIL CHALK is yellowish gray in color and forms about 4% of the core, mainly occurring in Sections 5 and 6. Foraminifer-rich SANDSTONE is greenish gray (5GY 6/1) in color and forms about 1% of the core.
4	[Dotted pattern]	3		}}				
5	[Dotted pattern]	4		}}		P	5Y 4/1 To 5Y 6/1	General Description: In Sections 1-4, clear upwards-darkening sequences are absent, possibly obscured by the diagenetic change that produced the brown coloration. From Section 3, 60 cm to Section 4, 135 cm, large Zoophycos are present, but no distinct ichnofauna is evident above this interval. Sections 4 and 5 contain well-developed sharp-based upwards-darkening sequences, ranging in thickness from 5 to 15 cm. Sometimes these have basal thin (2-5 cm) SANDSTONE intervals, or NANNOFOSSIL CHALK beds about 5 cm thick. Chondrites is very common in the sequences, and Planolites occurs mostly in the zone of bioturbation that has mixed the lighter and darker CLAYSTONE WITH SILT lithologies.
6	[Dotted pattern]	4		}}				
7	[Dotted pattern]	5		}}		S S		
8	[Dotted pattern]	6		}}		P		
	[Dotted pattern]	CC		M				

