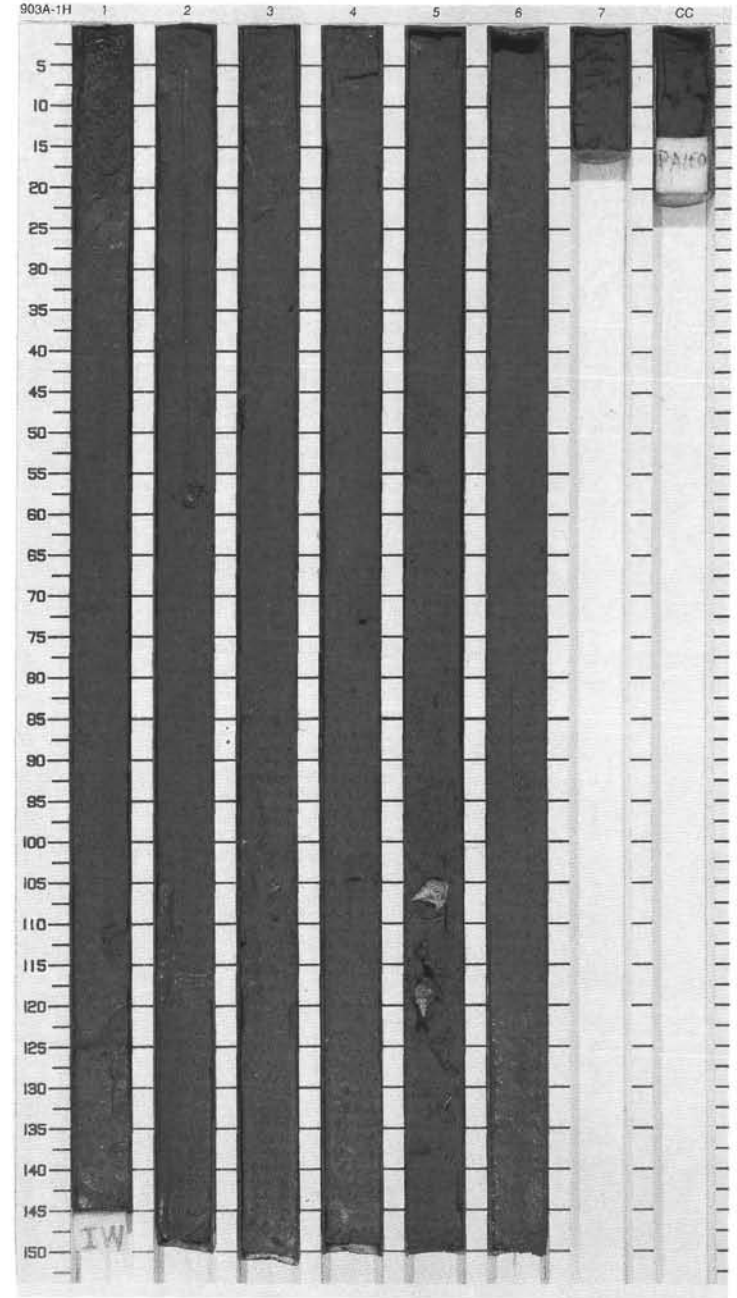
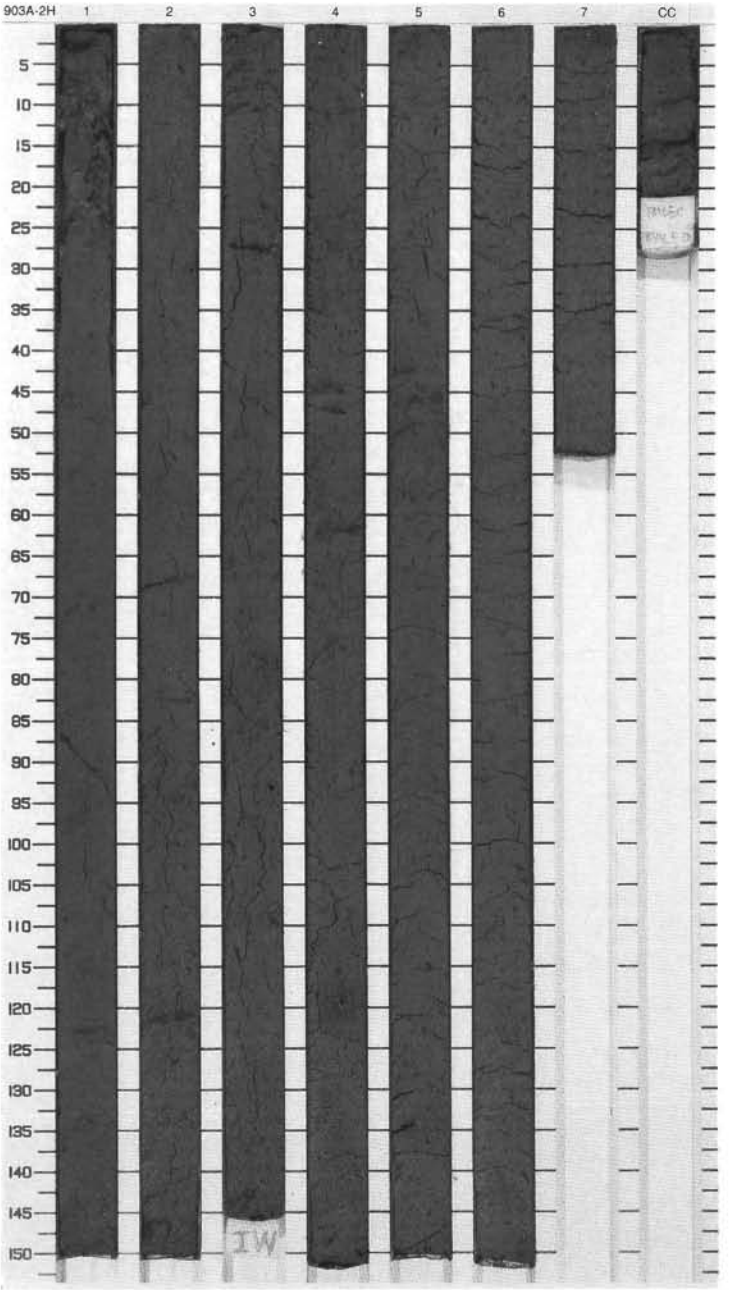
SITE 903 HOLE A CORE 1H CORED 0.0 - 9.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–6, CC	late Pleistocene			S, I, P, D, S, P, S, S, S, S, P, S	10Y 5/1; 5R 4/1; 5Y 4/1; 10Y 4/1	CLAYEY SILT Major Lithology: Gray, homogeneous CLAYEY SILT, possibly bioturbated, with rare small (<5 mm) shell fragments and very minor silt-sized glauconite. In Section 5 between 119 and 133 cm, complete gastropods, a broken echinoid and a scaphopod. Rare pinkish gray (5R 4/1) zones. Minor Lithology: Homogeneous SANDY CLAYEY SILT with approximately 10% quartz sand and minor sand-sized glauconite. Rare small shell fragments. This lithology is better consolidated in Sections 7 and Core Catcher.

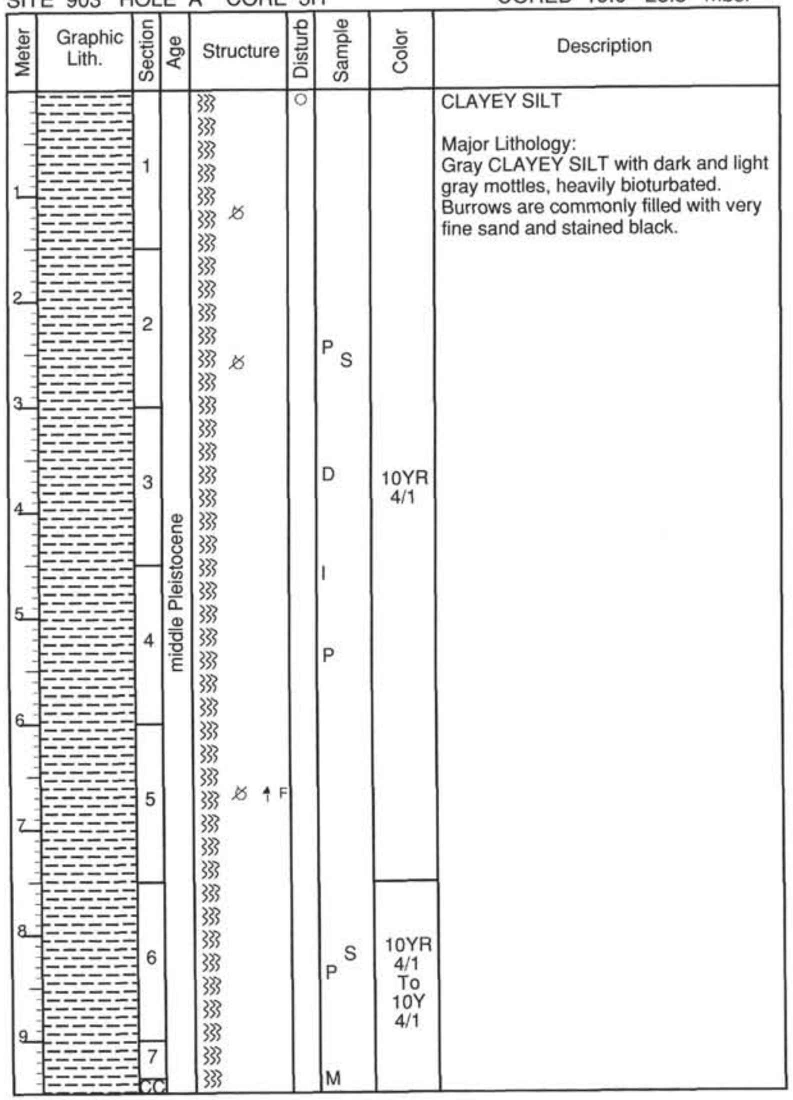


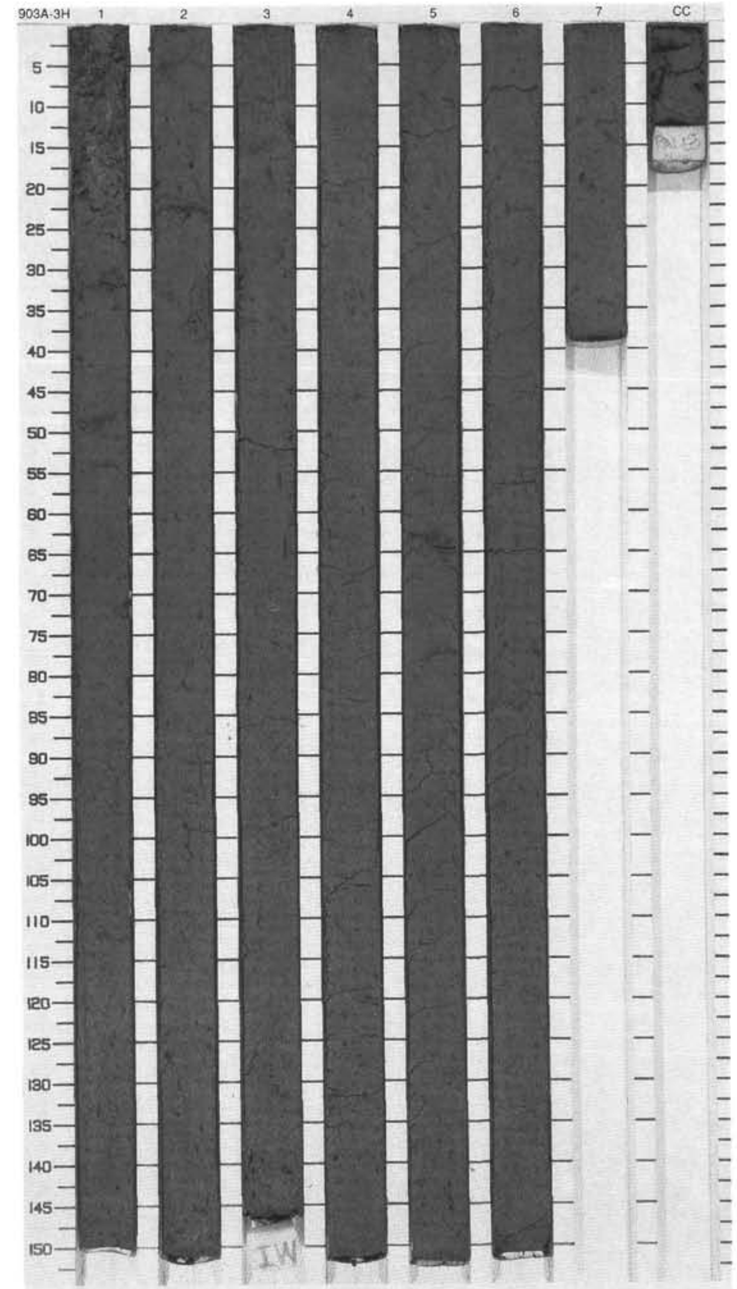
SITE 903 HOLE A CORE 2H CORED 9.5 - 19.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	middle Pleistocene		○	P S, S, D, P, I, P S, M	10Y 4/1; 10Y 4/1 To 10YR 4/1; 10YR 4/1	CLAYEY SILT Major Lithology: CLAYEY SILT is gray (10Y 4/1 and 10YR 4/1), moderately to heavily bioturbated, with very rare small shell fragments. Very thin (<1 cm thick), graded, very fine to fine sand-grained, quartz dominated sand layers occur, in Section 2 at 120 cm, Section 3 at 27 cm, Section 4 at 44, 46, and 61 cm, Section 5 at 41, 46, and 49 cm, and Section 6 at 36 cm. Black, mottled structures, possibly bioturbation origin, are common throughout this core.



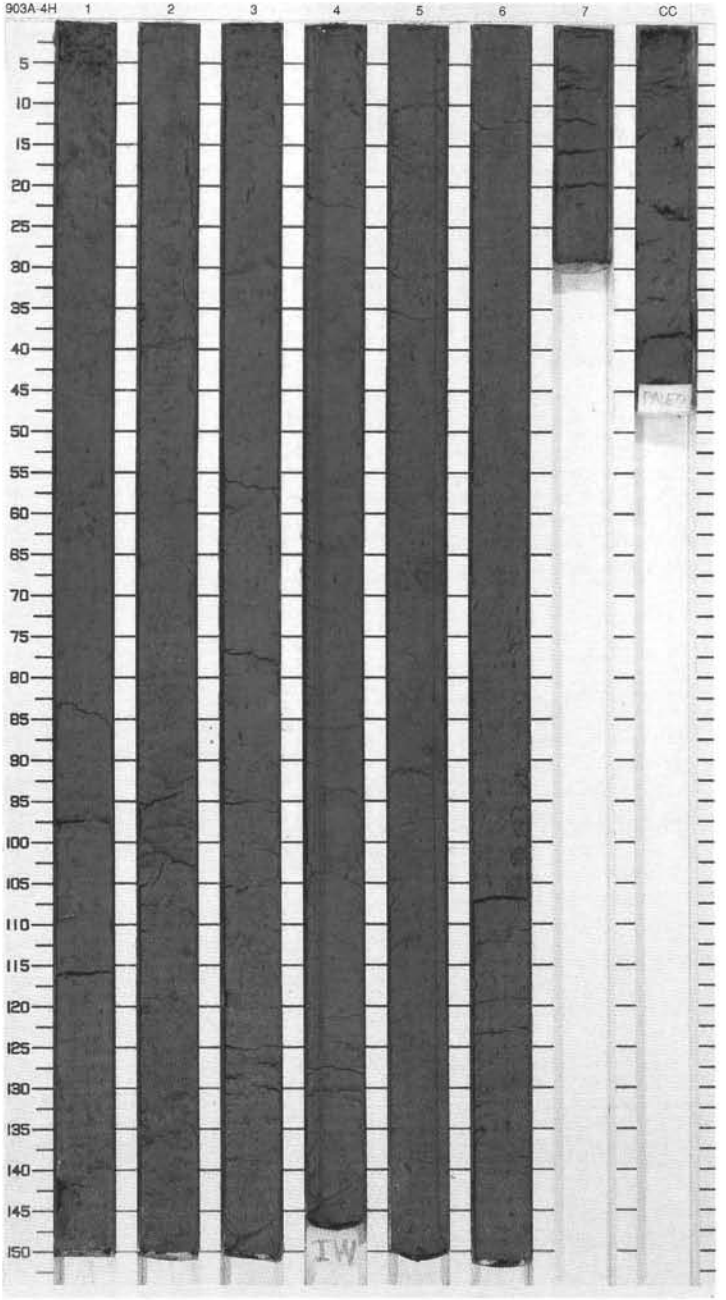
SITE 903 HOLE A CORE 3H CORED 19.0 - 28.5 mbsf





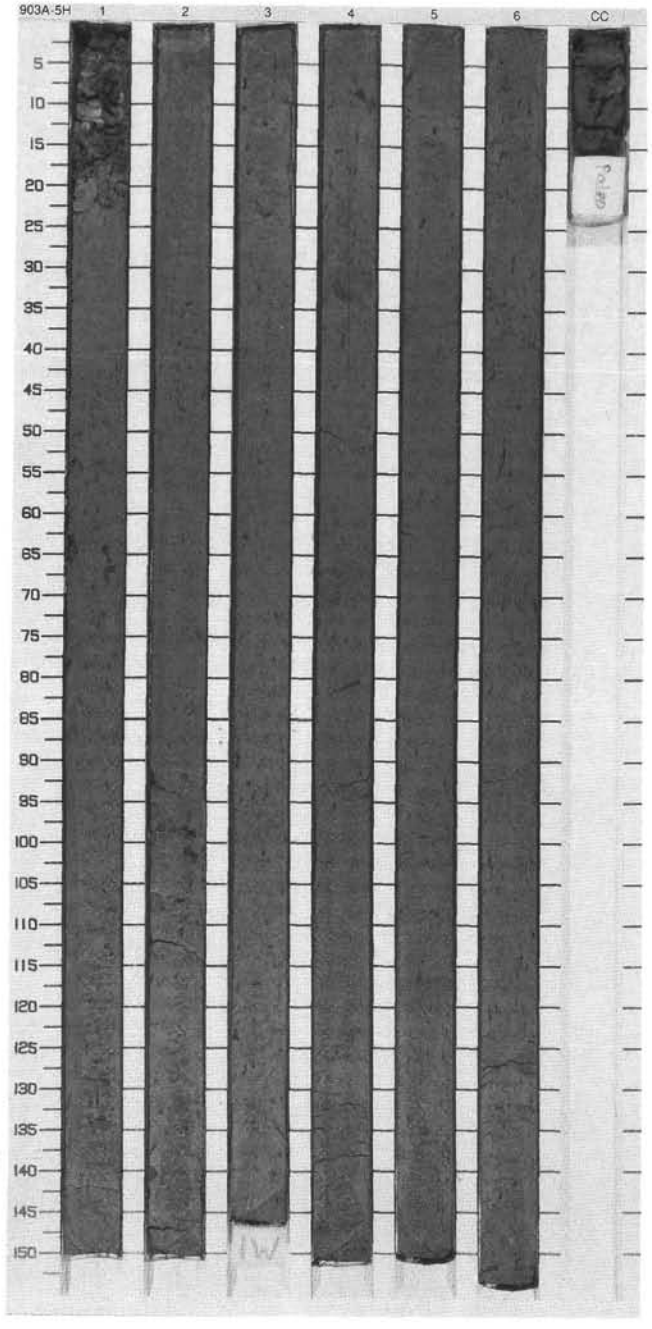
SITE 903 HOLE A CORE 4H CORED 28.5 - 38.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–6, 7, CC	middle Pleistocene			P, SD, I, PS, M	10Y 3/1	CLAYEY SILT and SILTY CLAY Major Lithologies: Gray CLAYEY SILT and SILTY CLAY, dark and light mottled, heavily bioturbated. Abundant burrows filled with very fine sand. Minor Lithology: VERY FINE SAND occurs as thin, burrowed normally graded beds in Section 5.



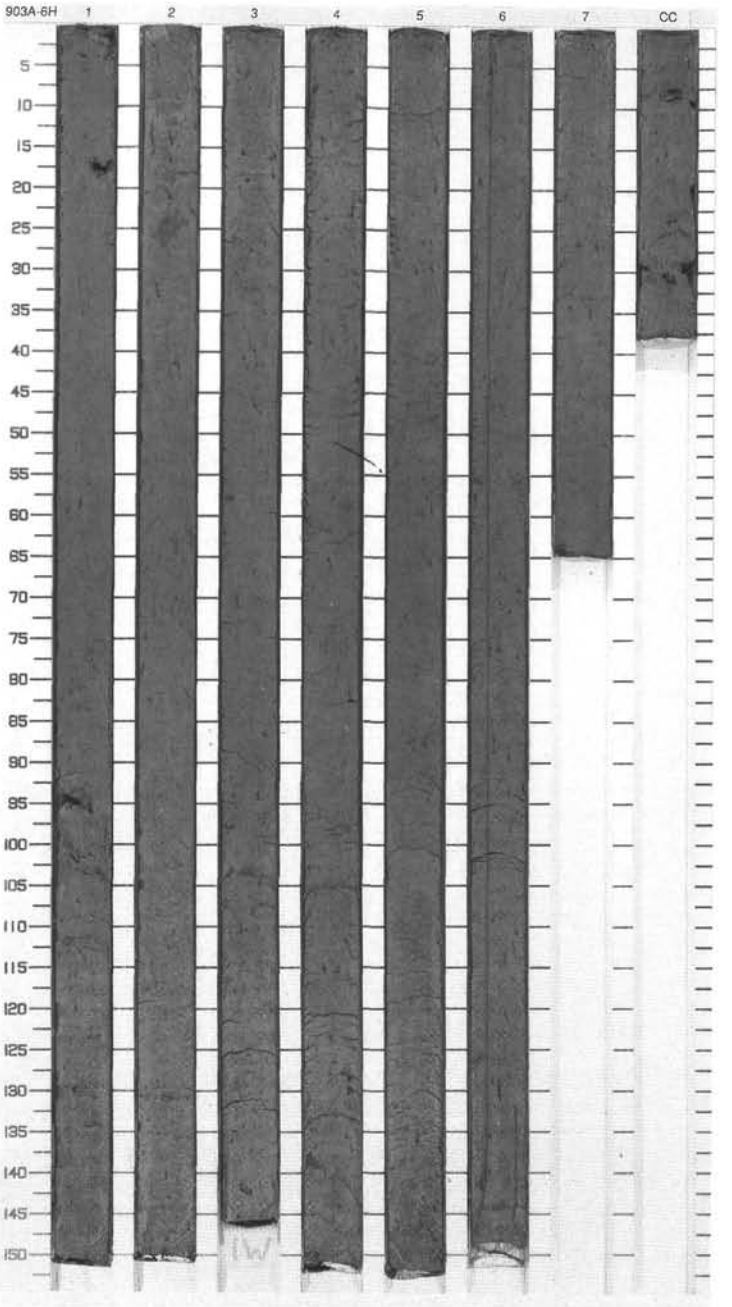
SITE 903 HOLE A CORE 5H CORED 38.0 - 47.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	middle Pleistocene		VV		10Y 4/1	CLAYEY SILT and SILTY CLAY Major Lithologies: Gray (10Y 4/1, 10YR 4/1) CLAYEY SILT and SILTY CLAY with black and light gray mottles filled with silt to very fine sand-sized sediments, heavily bioturbated. In Section 5, between 30 cm and 130 cm, pinkish or brownish gray (5R 4/1), heavily bioturbated SILTY CLAY with black and light gray mottles. Minor Lithologies: Black, thin (<1-cm-thick), graded SILT to VERY FINE SAND layers occur in Section 4 at 80 cm and CC at 2 cm.
		2				D P	10Y 4/1 To 5Y 4/1	
		3				S		
						I		
		4				P	10YR 4/1	
		5						
		6					5R 4/1	
		CC			!	M	10YR 4/1	



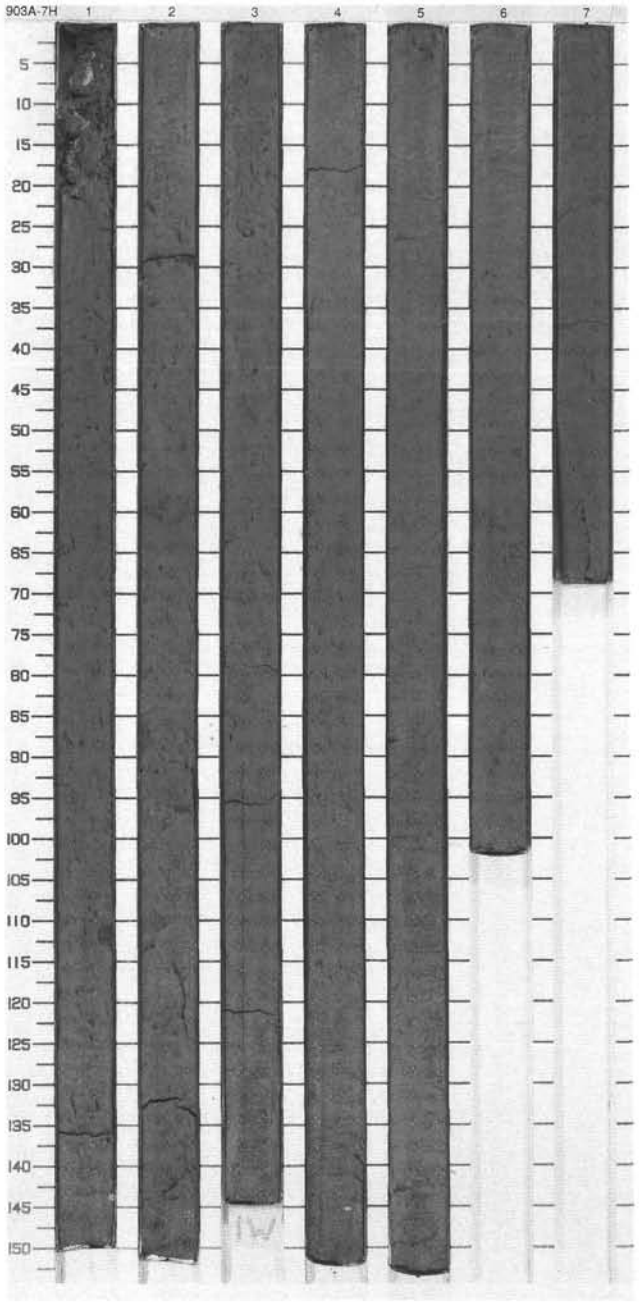
SITE 903 HOLE A CORE 6H CORED 47.5 - 57.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–7, CC	middle Pleistocene	F; F		D P; I; S P; P; M	10YR 5/1; 10YR 5/1 To 10R 4/1; 10YR 5/1	SILTY CLAY Major Lithology: SILTY CLAY is moderately to heavily bioturbated, commonly color-mottled gray (10YR 5/1), dark gray (N4), and brownish gray (10R 4/1) and rare zones of vague color banding. Common sand-filled and black sulfide-filled small (<5 mm) circular burrows. Very rare thin (1–2 cm) graded sand laminae with sharp bases, typically burrowed. Common mica flakes throughout.



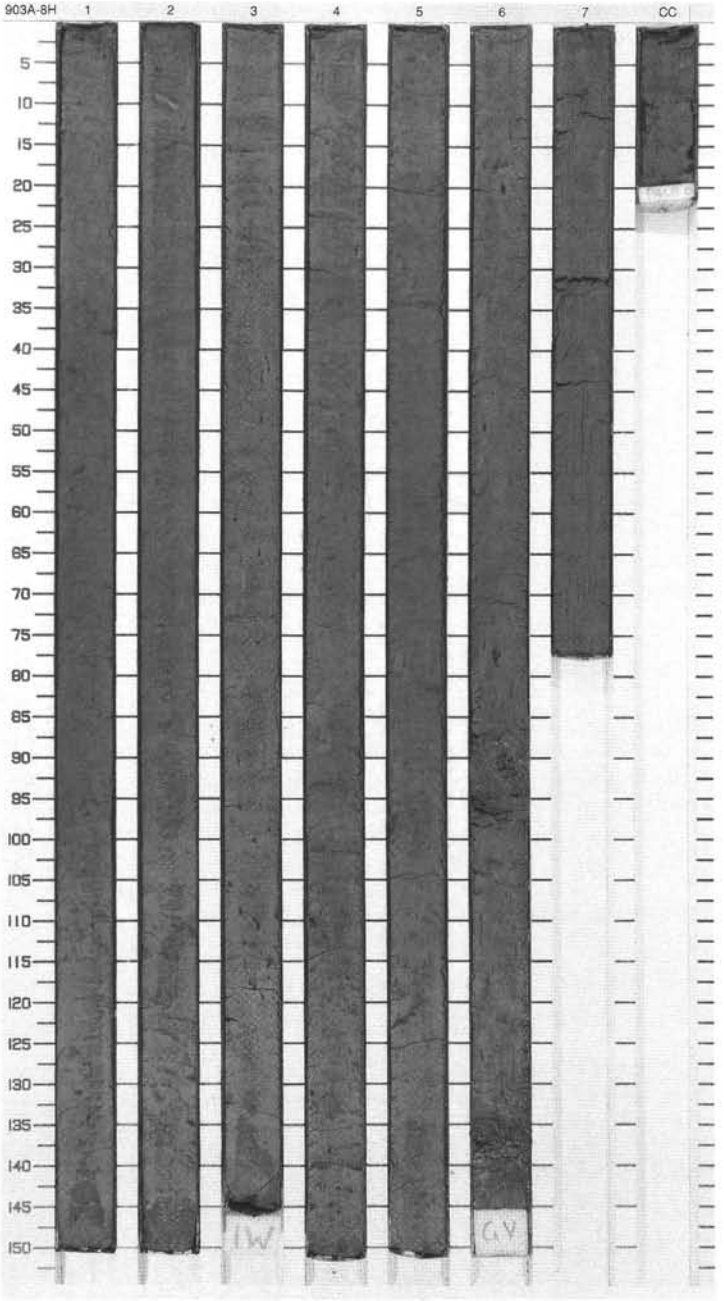
SITE 903 HOLE A CORE 7H CORED 57.0 - 66.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7	middle Pleistocene		○	D P S I P P M	10Y 5/1; 10Y 5/1 To 10R 5/1; 10R 5/1; 10YR 5/1 To 10R 5/1	SILTY CLAY and VERY FINE SAND Major Lithologies: Gray (10YR 5/1) and pinkish, brownish gray (10R 5/1) SILTY CLAY is heavily bioturbated. Burrows mottles filled with black or light gray silt to very fine sand-grained sediments commonly occur. Thin (<5-mm-thick), graded, quartz dominant VERY FINE SAND occurs in Section 1 at 135 cm, Section 2 at 31 cm, Section 5 at 25 cm, 100 cm, 144 cm, and 150 cm, and Section 7 at 10 cm. A part of burrow mottles filled with light gray, very fine sand-grained, quartz dominated sediments may be a product of incomplete bioturbation of the quartz dominated thin sand layers.



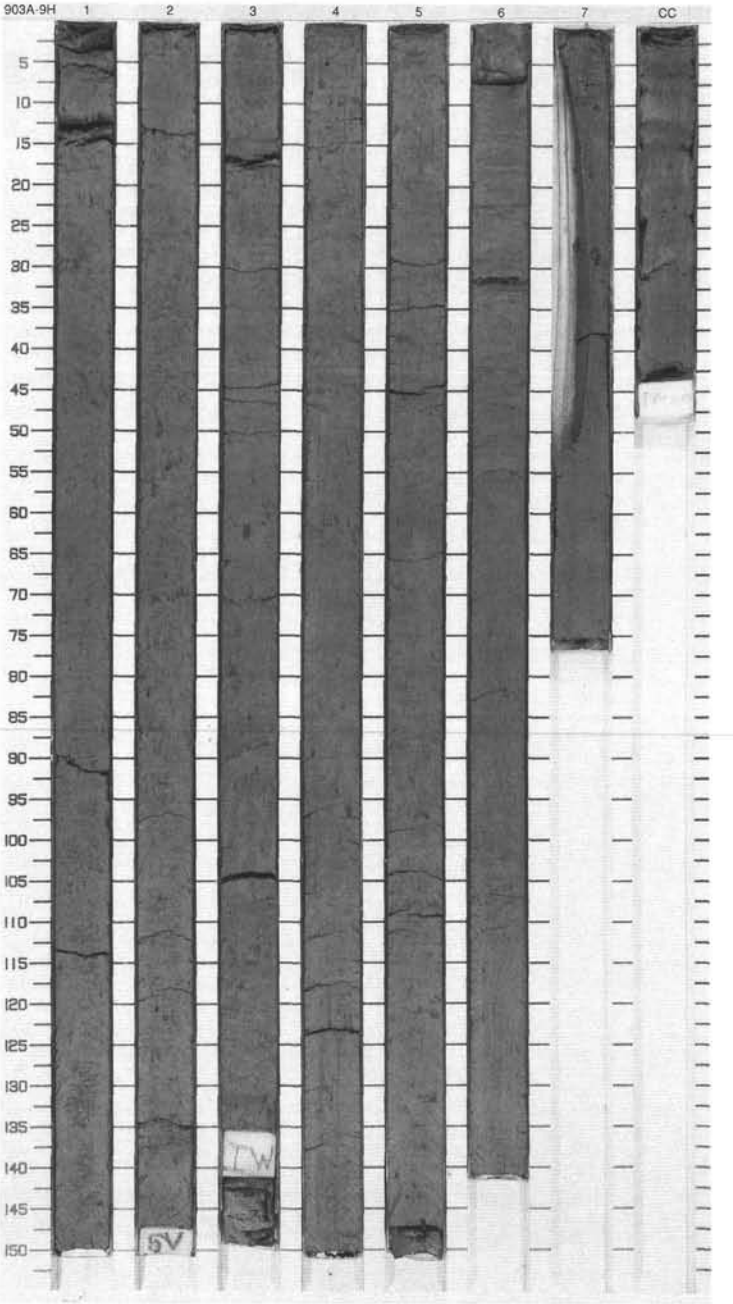
SITE 903 HOLE A CORE 8H CORED 66.5 - 76.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	middle Pleistocene			S, D, P, I, P, S, P, M	10YR 5/1 To 5Y 5/1	SILTY CLAY and CLAYEY SILT Major Lithologies: Gray mottled SILTY CLAY and CLAYEY SILT with mm- to cm-scale very fine sand-filled burrows throughout. Faint, thin, light and dark gray color banding occurs at the tops of Sections 2 and 3. Minor Lithology: VERY FINE SAND is present as thin beds (<1 cm) from the base of Section 2 to CC. NOTE: Flow-in below 86 cm in Section 6.



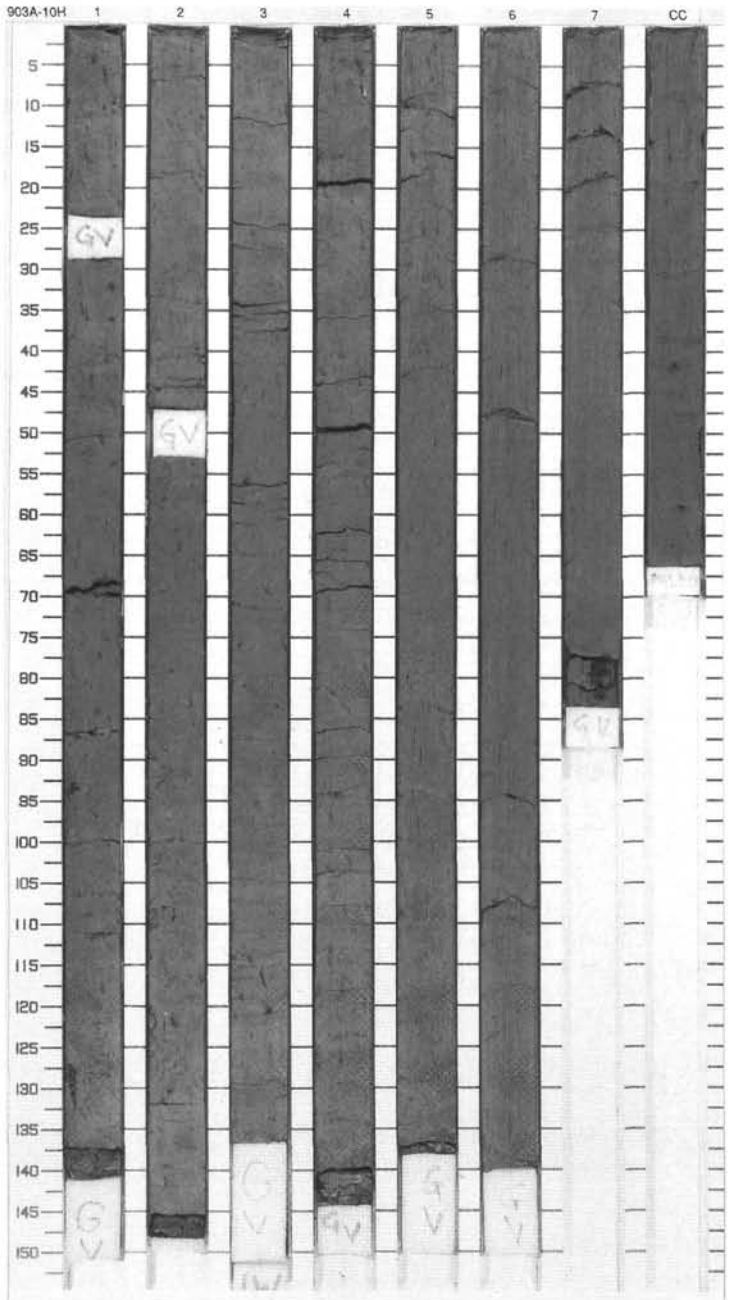
SITE 903 HOLE A CORE 9H CORED 76.0 - 85.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–7, CC	middle Pleistocene			S, P, I S, P, S, P, M	10YR 5/1 To 5Y 5/1	SILTY CLAY and CLAYEY SILT Major Lithologies: Gray, mottled, micaceous SILTY CLAY and CLAYEY SILT with *mm*- to *cm*-scale burrows filled with very fine sand. Black spots (<0.5 cm) may be iron sulfide. General Description: NOTE: Flow-in from Section 5, 110 cm to the base of the core.



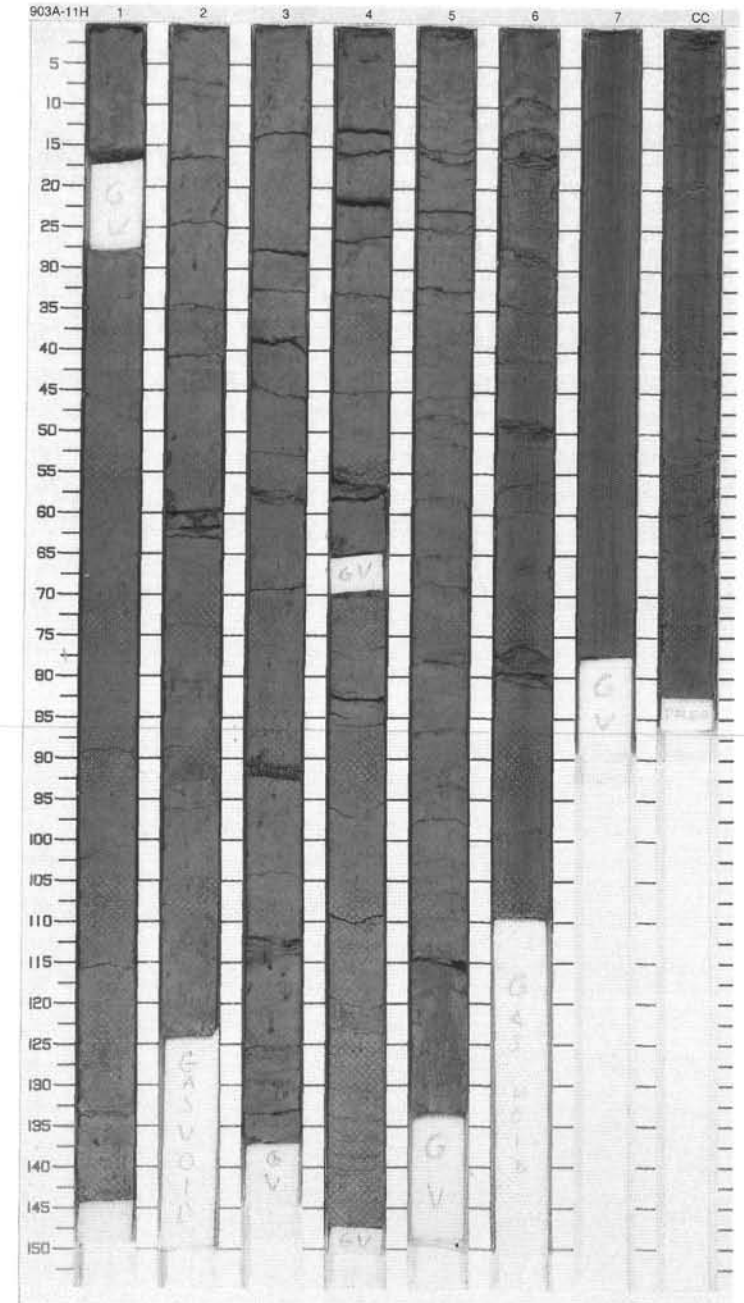
SITE 903 HOLE A CORE 10H CORED 85.5 - 95.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–7, CC	middle Pleistocene			S, P, S, P S, I, P, S, M	10YR 5/1 To 5Y 5/1	SILTY CLAY and CLAYEY SILT Major Lithologies: Gray, mottled, micaceous and heavily bioturbated SILTY CLAY and CLAYEY SILT with occasional occurrence of mm-scale pyritic clots in burrows. General Description: Flow-in from Section 5, 50 cm to CC. The top of Section 5 represents a transition zone, partly flow in.

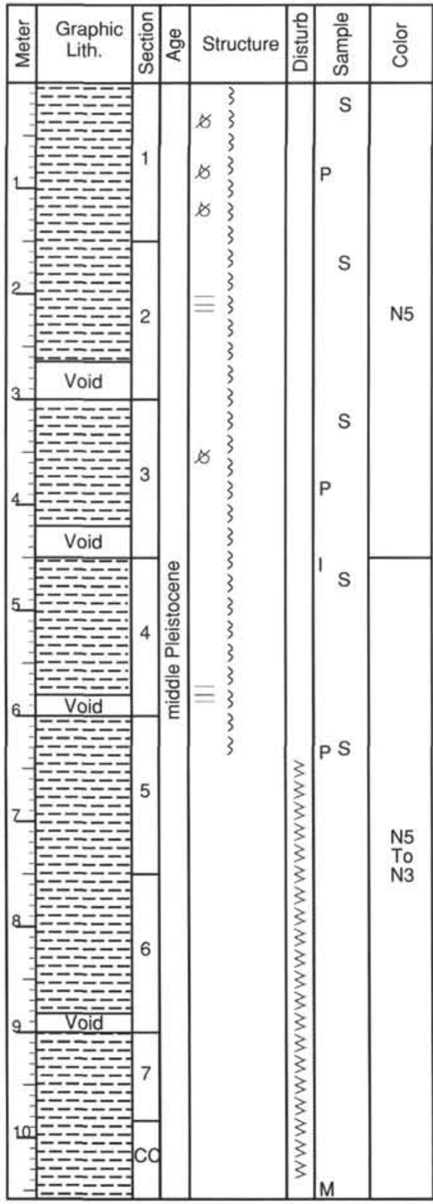


SITE 903 HOLE A CORE 11H CORED 95.0 - 104.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1	middle Pleistocene			S		SILTY CLAY and CLAYEY SILT Major Lithologies: *Dark gray, micaceous, mottled*, SITLY CLAY and CLAYEY SILT, slightly bioturbated, with uncommon shell fragments. *Minor Lithology:* Pyritic VERY FINE TO FINE SAND occurs as a thin (2 cm), normally graded layer with a sharp base at 95 cm in Section 3. NOTE: Flow in from Section 5, 115 cm to the base.
		2				S P		
		3				S		
		4		∅		I S P D	5Y 5/1 To N5	
		5				S		
	Void	6						
		7						
		CC				M		



SITE 903 HOLE A CORE 12H CORED 104.5 - 114.0 mbsf



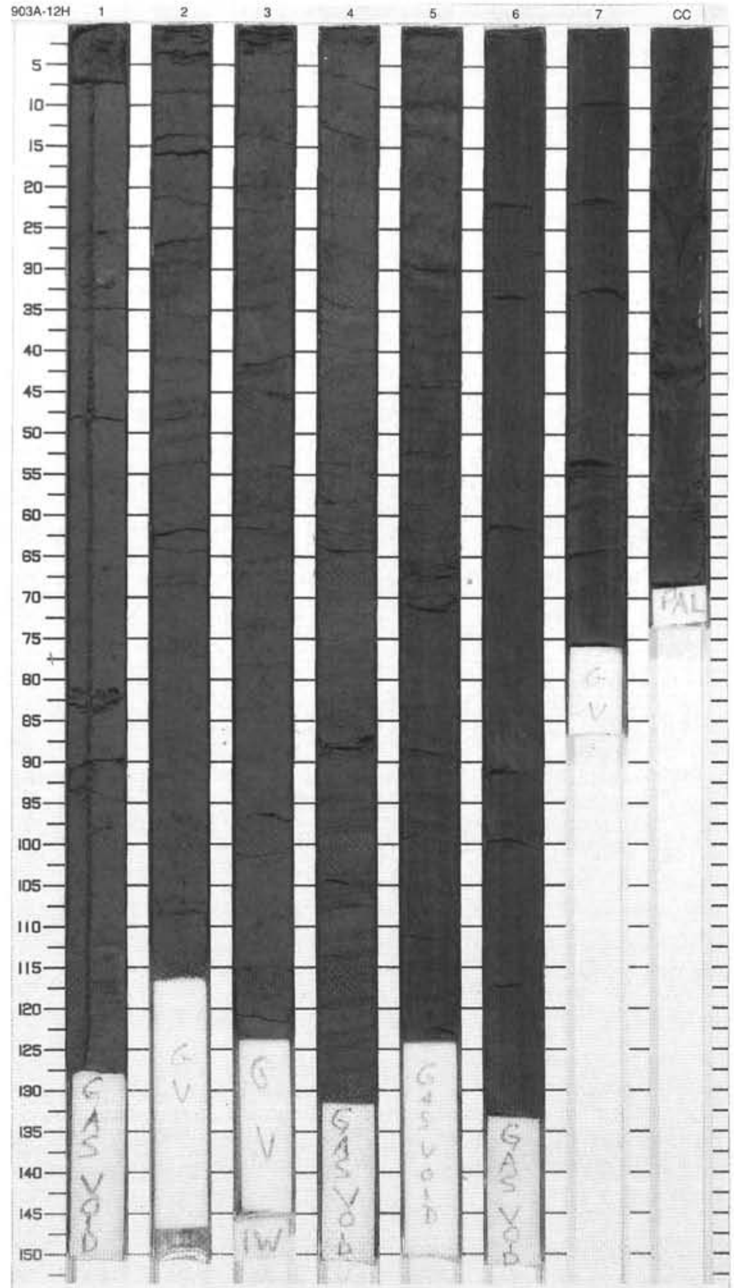
Description

SILTY CLAY and CLAYEY SILT

Major Lithologies:
Dark gray mottled SILTY CLAY and CLAYEY SILT, slightly bioturbated with common shell fragments in Section 1.

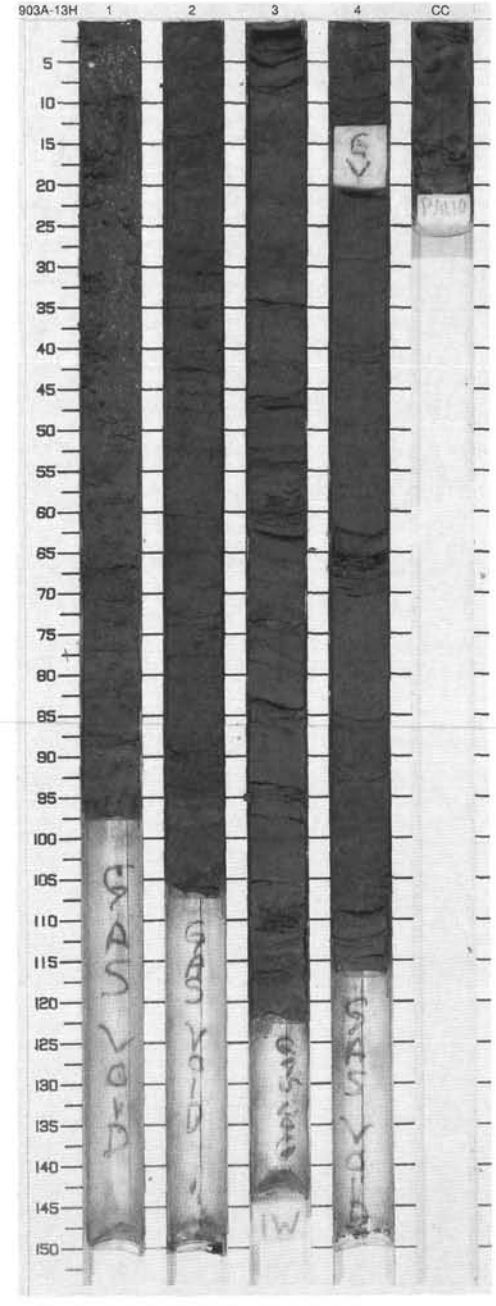
Minor Lithologies:
Pyritic, very dark sand fills burrows in Section 2, 28–33 cm. Occasional silt-rich laminae in Section 2, 46–56 cm and at the base of Section 4. Thin color banding in Section 4, 96–130 cm.

NOTE: Numerous gas voids throughout the core, flow-in from Section 5, 40 cm to CC.



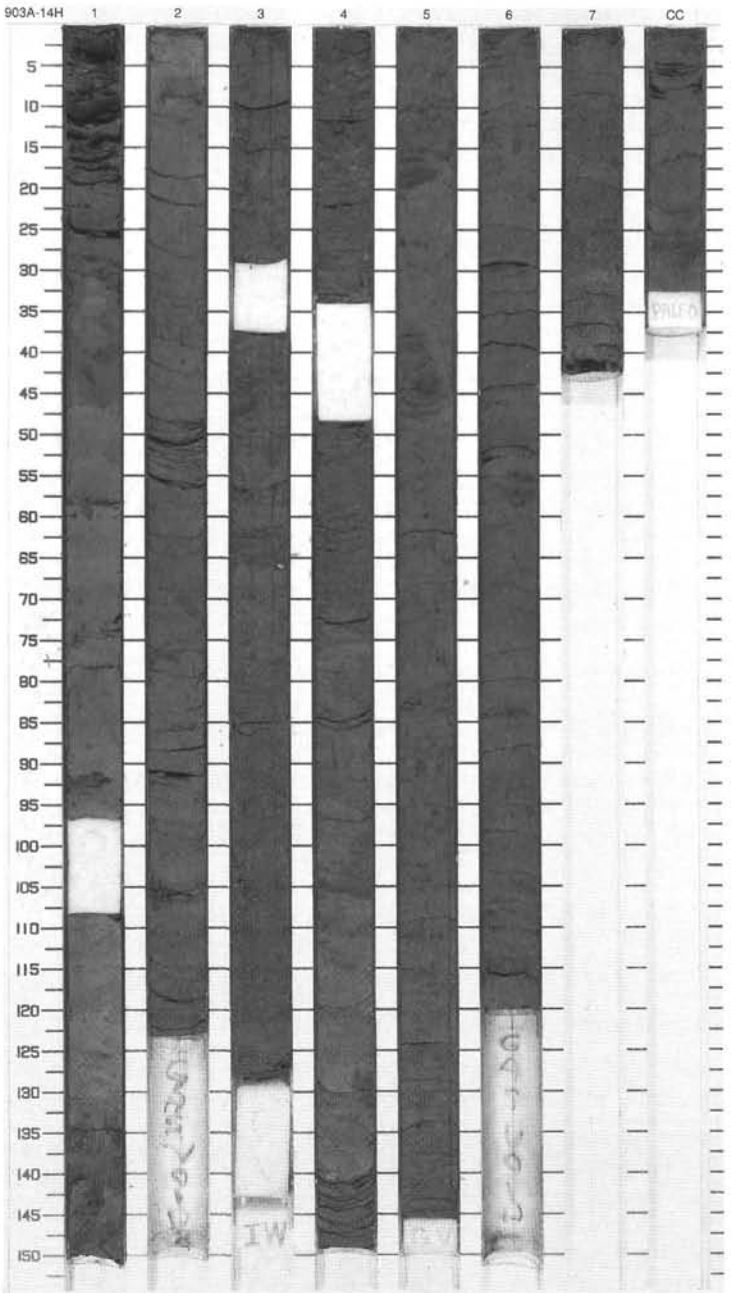
SITE 903 HOLE A CORE 13H CORED 114.0 - 123.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Pleistocene		○○○○	P S S	N4 To N5	SILTY CLAY and CLAYEY SILT Major Lithologies: Dark gray, slightly micaceous SILTY CLAY and CLAYEY SILT occasionally burrowed. Minor Lithologies: Very fine sand fills burrows. Mm-scale laminae occur in Section 4, 53 cm. NOTE: Numerous gas voids throughout the core.
	Void							
2		2				S		
3	Void							
4		3		≀≀≀≀≀≀		P		
	Void							
5		4				S P		
	Void							
6		CC				M		



SITE 903 HOLE A CORE 14H CORED 123.5 - 133.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	middle Pleistocene			P	N2	SILTY CLAY, CLAYEY SILT and SAND
							N4 To N5	Major Lithologies: The upper and the lower part of the core consist of dark gray, mottled, slightly to moderately bioturbated SILTY CLAY and CLAYEY SILT. The middle part of the core is composed of a greenish gray, micaceous SAND unit. The boundaries of this unit are *gradational. Quartz grains are* well rounded and occur together with shell debris, pyrite, and probably heavy minerals.
						S		
		2				S	N2 To N4	
	Void							
		3				S	10Y 4/1 To 10Y 3/1	Minor Lithologies: Silt fills burrows and occurs as thin mm-scale layers in both upper and lower part of the core.
	Void					P D		
	Void					I		NOTE: Numerous gas voids throughout the core.
		4				S		
							N4	
		5				S		
						P		
		6				S	N3 To N4	
	Void							
		7						
		CC				M		

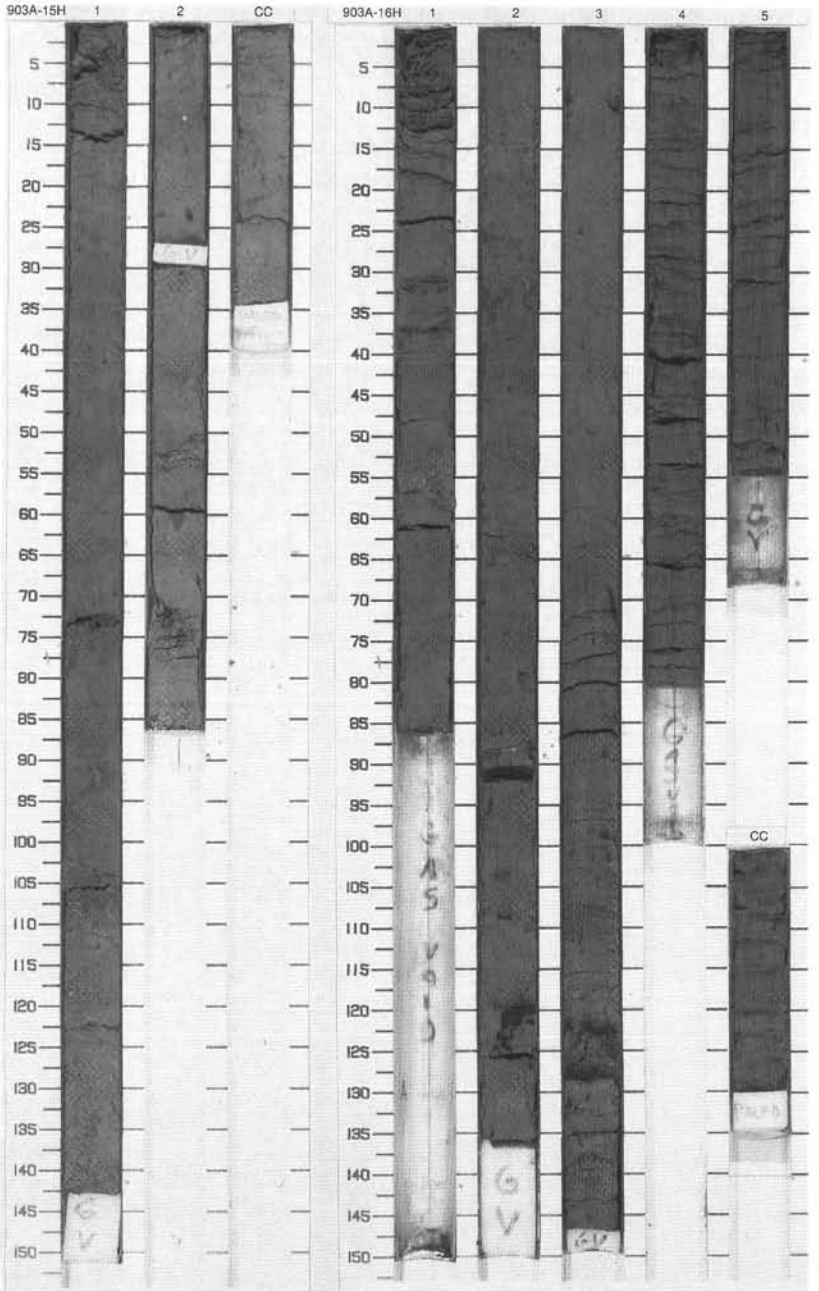


SITE 903 HOLE A CORE 15H CORED 133.0 - 142.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Pleistocene			S P	N3	SILTY CLAY and CLAYEY SILT Major Lithologies: Gray to dark gray, slightly bioturbated and mottled SILTY CLAY and CLAYEY SILT. Silt and very fine black pyritic sand fills burrows.
2		2				S	N4 To N5	
		CC				P S M S		

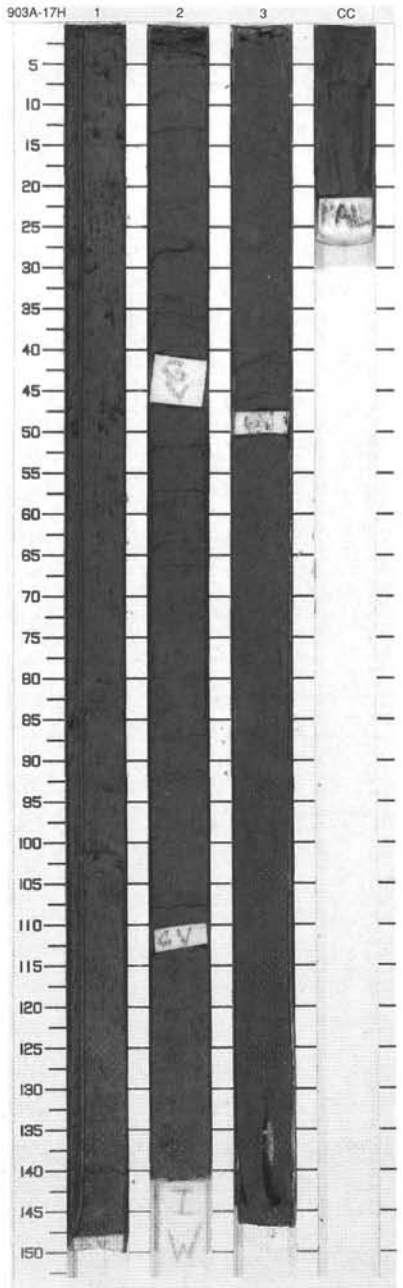
SITE 903 HOLE A CORE 16H CORED 142.5 - 149.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Pleistocene		!	S	N4 To N5	SILTY CLAY and CLAYEY SILT Major Lithologies: Gray to dark gray, slightly bioturbated, mottled SILTY CLAY and CLAYEY SILT. In Section 2, 120 cm, iron sulfide-rich black sand fills a large burrow. NOTE: Numerous gas voids and flow-in from Section 3, 135 cm downward.
	Void				O	P		
2		2				S		
3	Void							
4		3				S		
						P D		
5		4			WWWWWWWWWW			
	Void							
6		5						
		CC				M		



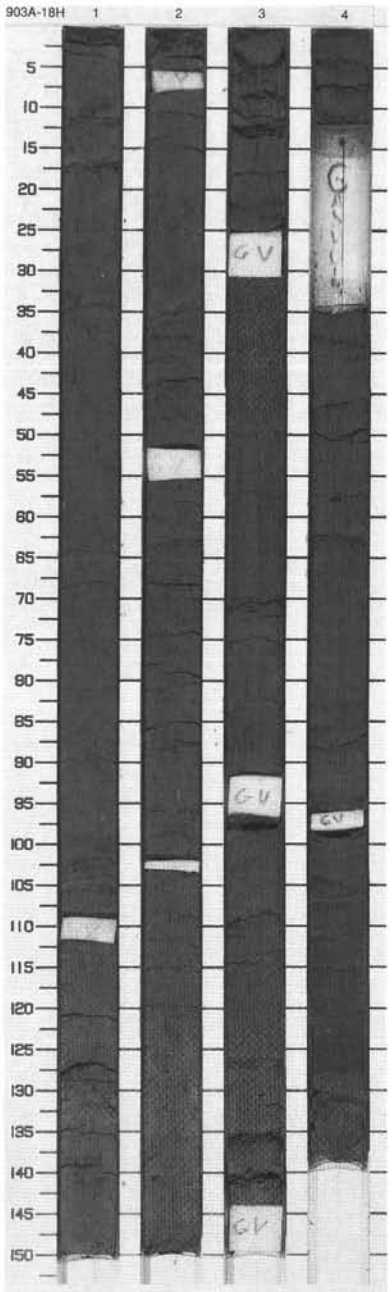
SITE 903 HOLE A CORE 17H CORED 149.0 - 154.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–4		1, 2, 3, CC	middle Pleistocene		WWWWW	S, P, S, I, S, P D, M	N4 To N3; 10YR 4/1 To N4	SILTY CLAY and CLAYEY SILT Major Lithologies: Gray to dark gray, slightly bioturbated, mottled SILTY CLAY and CLAYEY SILT. Iron sulfide-rich black fine sand fills burrows. A slight change of color from gray to brownish gray occurs between Sections 1 and 2. NOTE: Numerous small gas voids, flow-in from Section 3, 60 cm downward.



SITE 903 HOLE A CORE 18H CORED 154.0 - 160.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–5	Void	1, 2, 3, 4, CC	middle Pleistocene			S P D, P, P, S P, P, M	10YR 4/1 To N5	SILTY CLAY and CLAYEY SILT Major Lithologies: Gray to brownish gray, slightly bioturbated, mottled, and weakly micaceous SILTY CLAY and CLAYEY SILT. Burrows may be filled with light very fine sand or by black pyritic very fine sand. NOTE: Numerous gas voids throughout core and flow-in from Section 3, 12 cm to the base of the core.

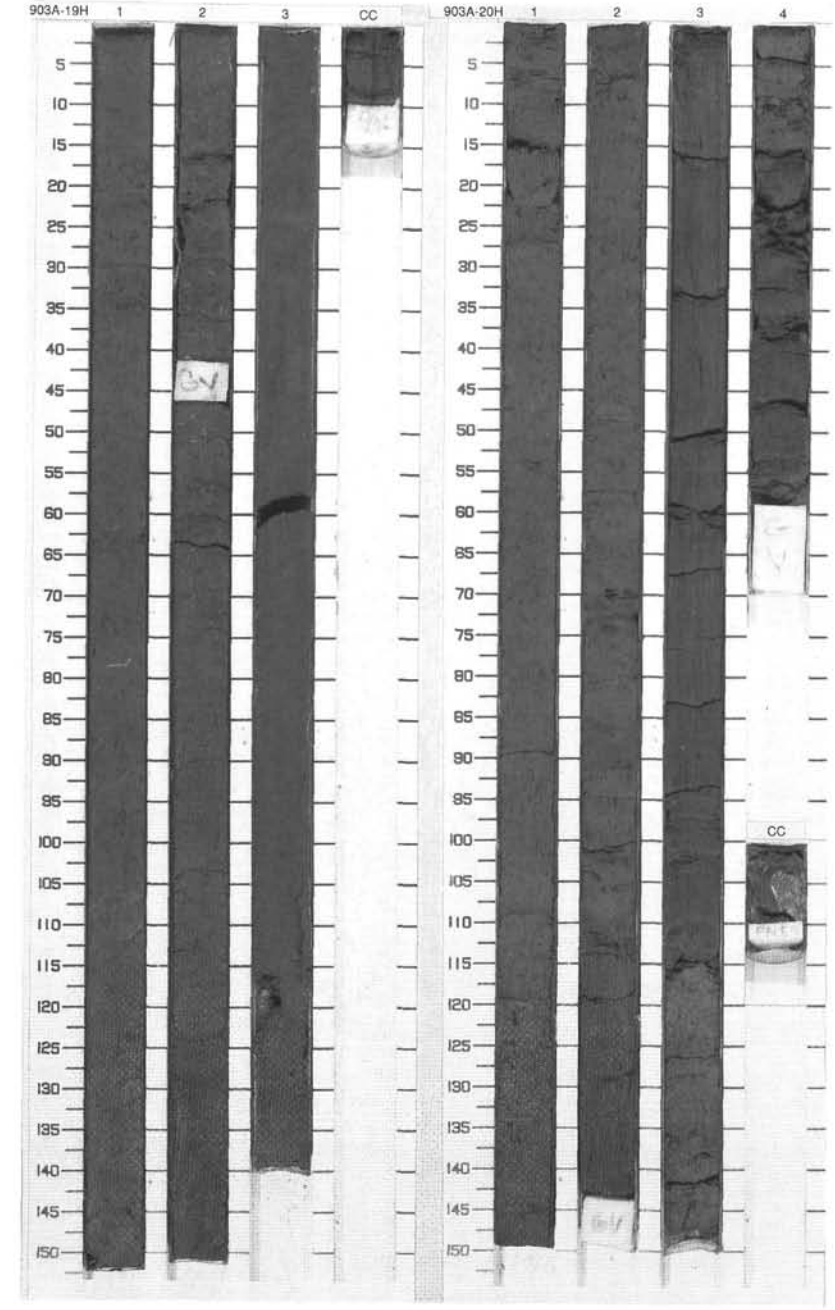


SITE 903 HOLE A CORE 19H — CORED 160.0 - 164.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–4		1, 2, 3, CC	middle Pleistocene			S, P, S, P, M	10YR 4/1; N4 To N3	SILTY CLAY and CLAYEY SILT Major Lithologies: Mottled, brownish gray to gray, slightly to moderately bioturbated SILTY CLAY and CLAYEY SILT. Burrows are infilled with sand which can be iron sulfide-stained and black in color, or light gray in color. NOTE: Flow-in from Section 2, 135 cm to base of the core.

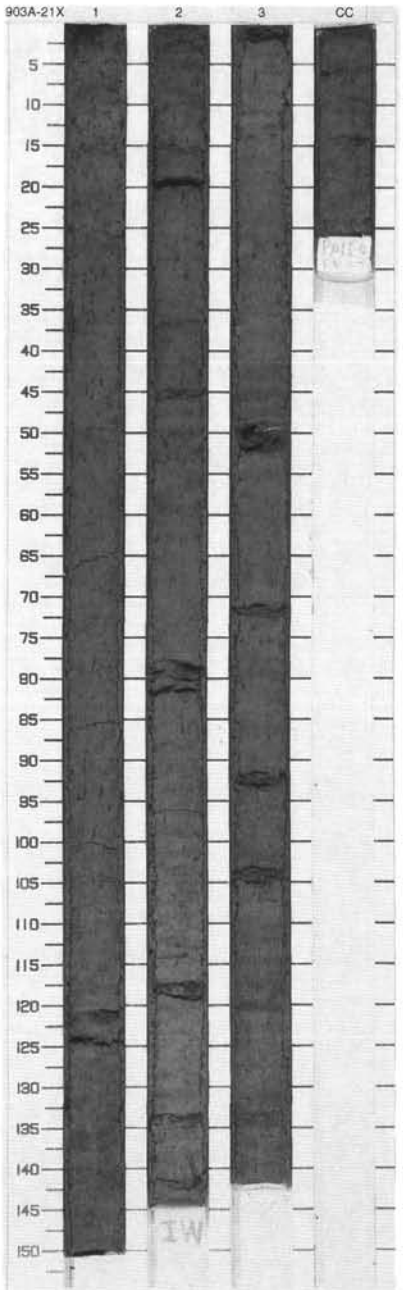
SITE 903 HOLE A CORE 20H — CORED 164.5 - 169.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–5		1, 2, 3, 4, CC	middle Pleistocene			S, P, SD, P, M	10YR 4/1 To N3	SILTY CLAY and CLAYEY SILT Major Lithologies: Brownish gray to dark gray, slightly bioturbated and mottled SILTY CLAY and CLAYEY SILT. Burrows are filled with black iron sulfide-rich black sand or with cream-colored sand. NOTE: Flow-in from Section 2, 110 cm to base of the core.



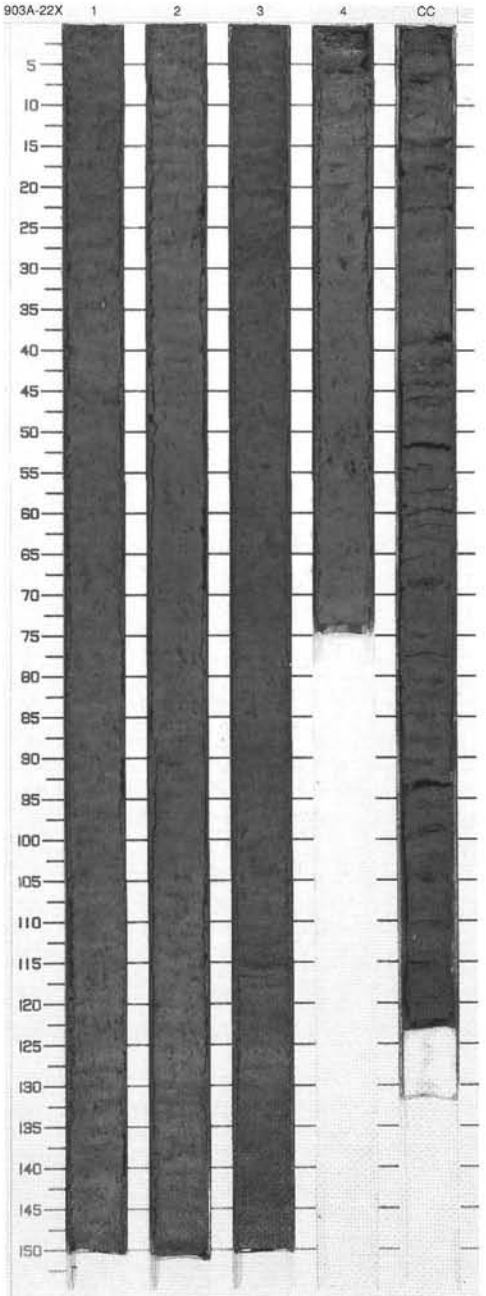
SITE 903 HOLE A CORE 21X CORED 169.5 - 172.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Pleistocene			S P	N3 To N4	SILTY CLAY Major Lithology: Gray to dark gray SILTY CLAY, moderate color mottling and bioturbation. Abundant sand-filled and black sulfide (?pyrite) filled burrows.
2		2				S S P		
3		3				I S P		
4		CC				M		



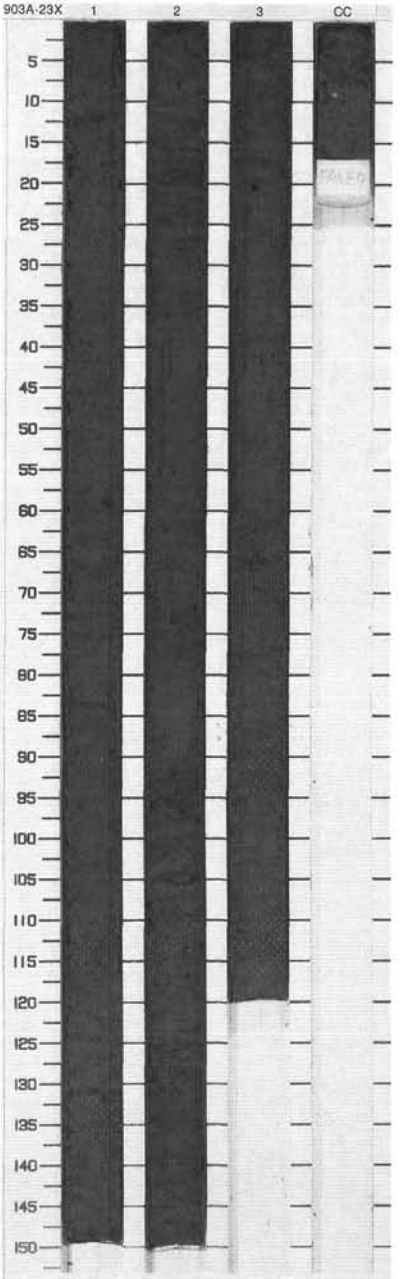
SITE 903 HOLE A CORE 22X CORED 172.8 - 182.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–6		1, 2, 3, 4, CC	middle Pleistocene			S, S, P, S, S, P, S, M	N4 To N3	CLAYEY SILT Major Lithology: Gray to dark gray (N4 to N3), moderately bioturbated CLAYEY SILT. Burrow mottles filled with black to light gray, silt to very fine sand-sized sediments (quartz and sulfide) are common.



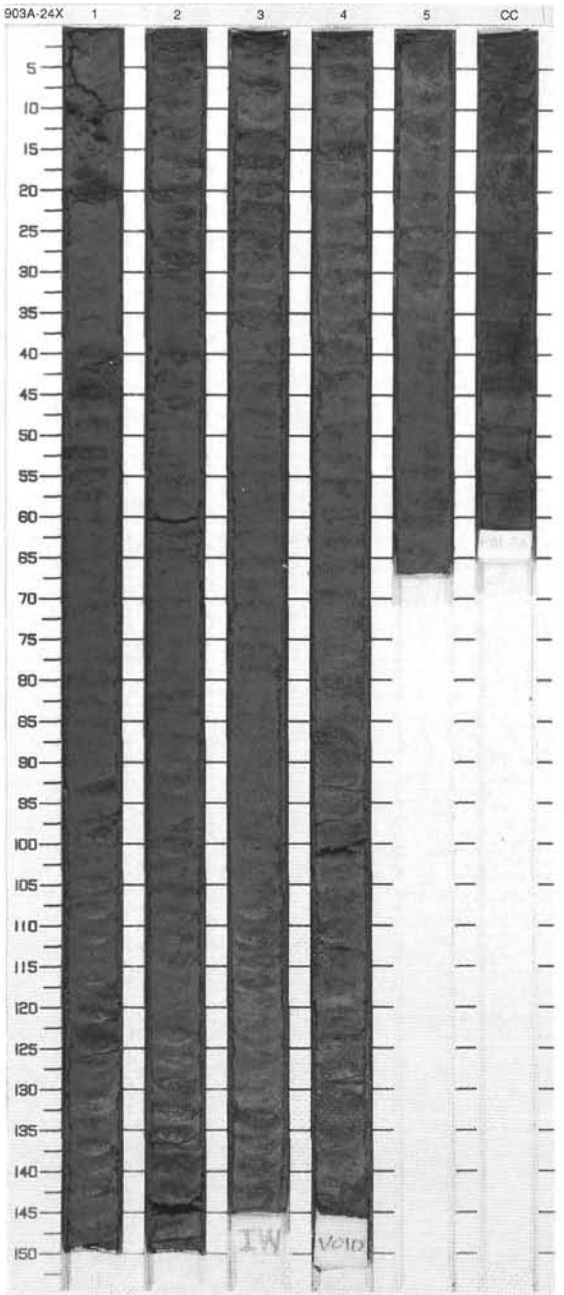
SITE 903 HOLE A CORE 23X CORED 182.3 - 191.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4		1 2 3 CC	middle Pleistocene			S P S S P M	N3 To N4	CLAYEY SILT Major Lithology: Gray to dark gray (N4 to N3), moderately bioturbated CLAYEY SILT. Burrow mottles filled with black to light gray, silt to very fine sand-sized sediments (quartz and sulfide) are common.



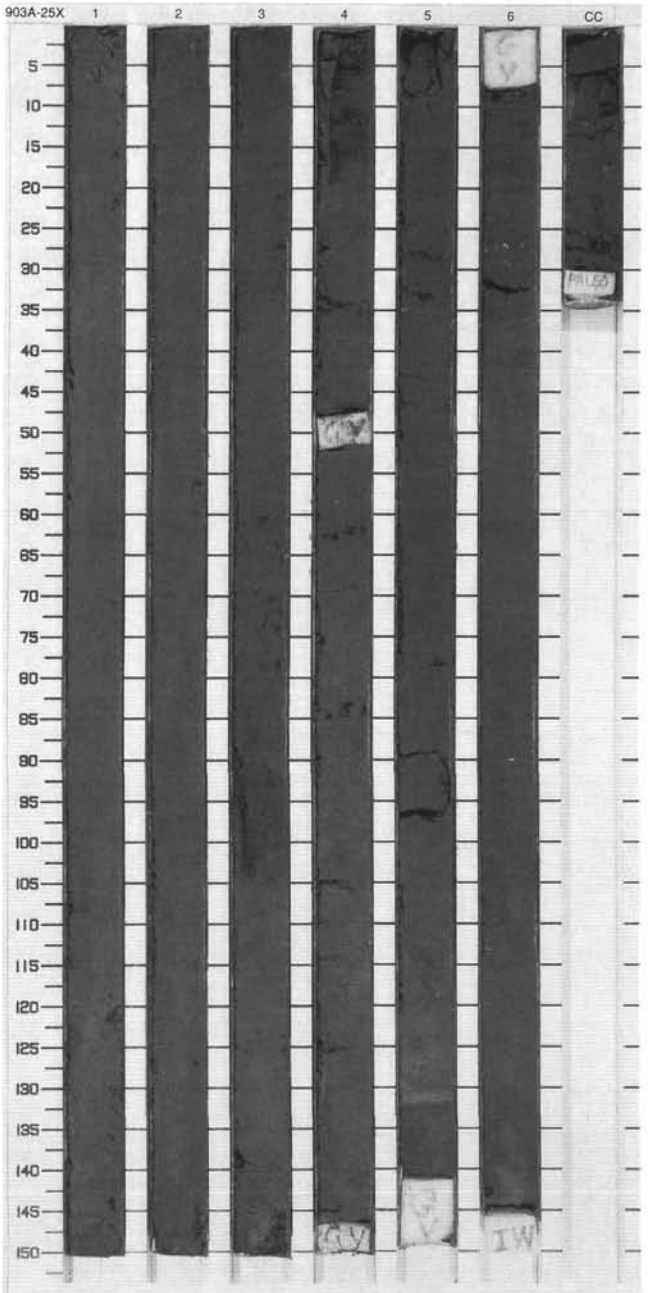
SITE 903 HOLE A CORE 24X CORED 191.9 - 201.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1	middle Pleistocene			S	N4 To 10Y 4/1	SILTY CLAY and CLAY Major Lithologies: SILTY CLAY is homogeneous to slightly color mottled, slighlty to moderately bioturbated, minor mica flakes in Section 1, gradually becoming greener and more diatom-rich downsection. CLAY contains minor silt, is color mottled and moderately bioturbated and contains approximately 10% diatoms. Minor Lithology: DIATOMACEOUS CLAY contains 30%–50% diatoms, minor silt, is slightly color mottled and slightly bioturbated. Its basal contact in the Core Catcher is sharp.
		2				S P		
		3				S	10Y 4/1	
		4				S P		
		5				S	10Y 4/2	
		CC				M	10Y 4/1	



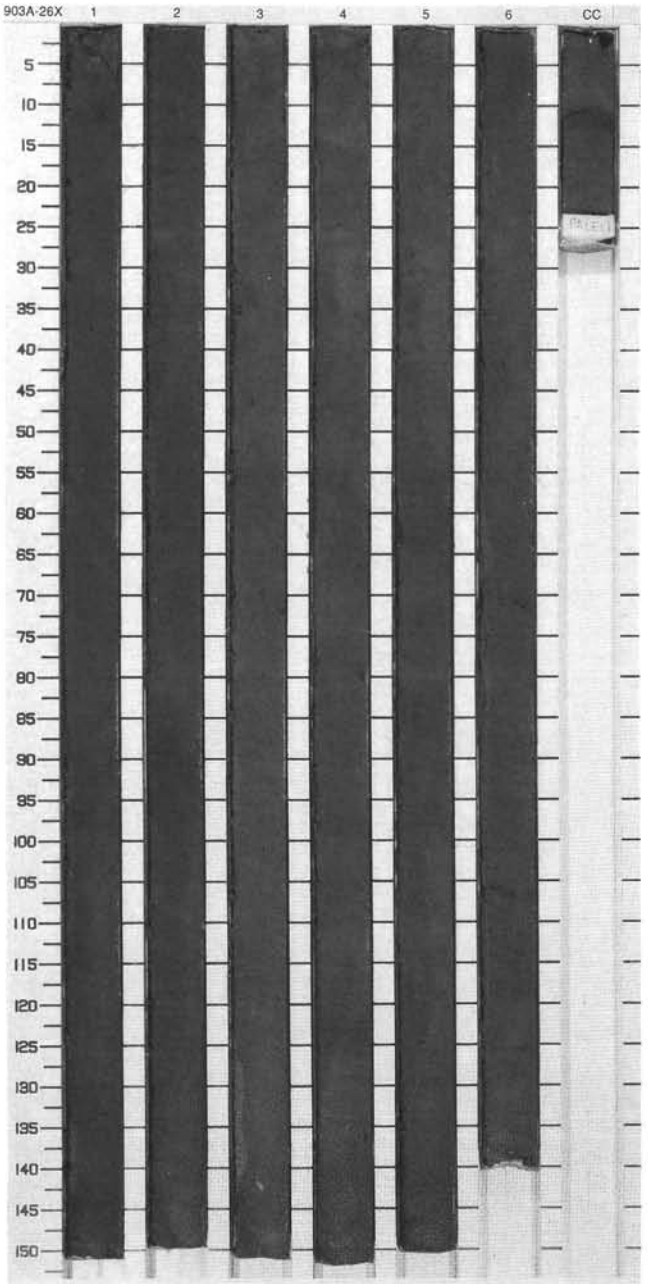
SITE 903 HOLE A CORE 25X CORED 201.4 - 211.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	middle Pleistocene			S	10Y 4/1	SILTY CLAY Major Lithology: Gray to greenish gray SILTY CLAY, homogeneous to slightly mottled, bioturbated. Approximately 10% diatoms and abundant foraminifers in part. Becoming sandy (quartz, glauconite, and shell fragments) in Section 5. In Sections 6 and Core Catcher, SILTY CLAY is greenish gray and contains up to 50% diatoms and abundant glauconite. Minor Lithology: SANDY SILT occurs in a 50 cm bed in the base of Section 5 and the top of Section 6. Displays overall grading from very coarse to fine sand, abundant quartz, glauconite, and shell fragments. Very weak, low angled laminae occur in Section 6. Sharp upper boundary, gradational bioturbated lower boundary.
		2				S P		
		3				S D	10Y 4/1 To 10Y 4/2 10Y 4/1	
		4				S P	10Y 4/1 To 10Y 4/2	
		5		F		S	10Y 4/1	
		6				P S	10Y 4/2	
		CC				M		



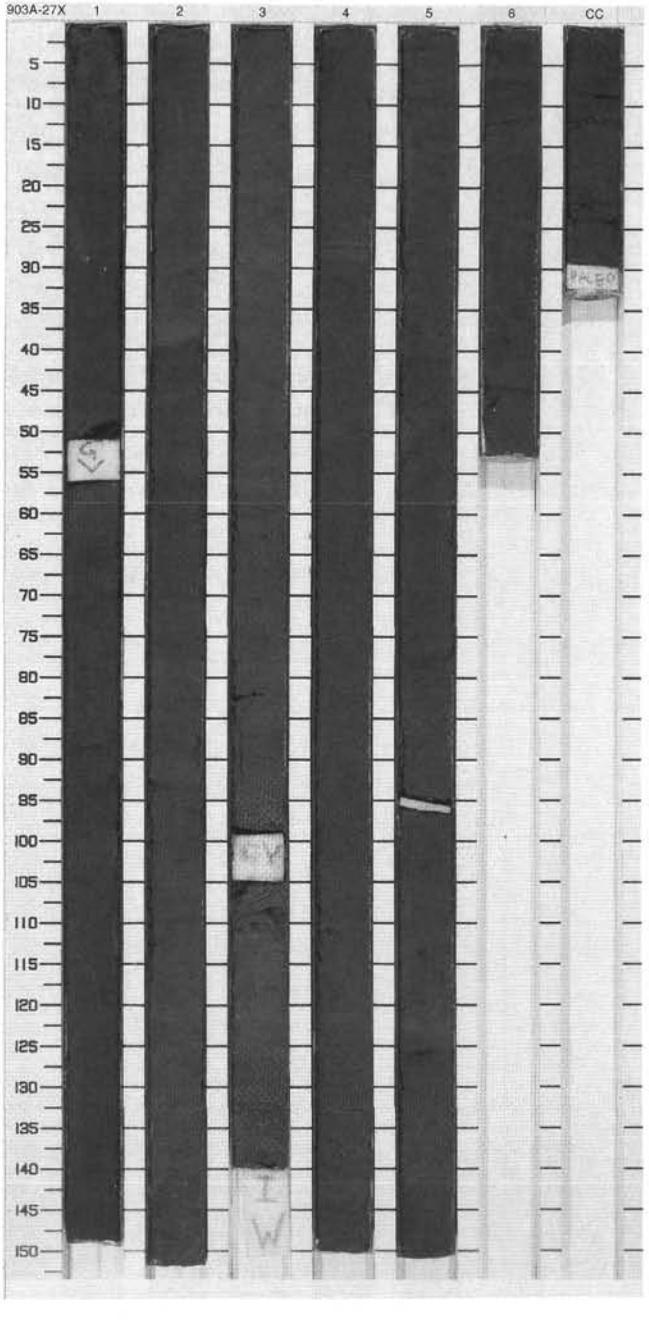
SITE 903 HOLE A CORE 26X CORED 211.0 - 220.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–6, CC	middle Pleistocene			S, P, S, P, S, P, S, M	10Y 4/2; 5Y 4/1	SILTY CLAY Major Lithology: Homogeneous to slightly mottled SILTY CLAY, slight bioturbation, rare scattered shell fragments, in Section 4 as infills to burrows(?). Woody organic matter as silt-sized specks in lower half of Section 6. Minor Lithology: Homogeneous green-gray DIATOMACEOUS SILTY CLAY, scattered shell fragments, sharp bioturbated base in Section 2, probably bioturbated throughout.



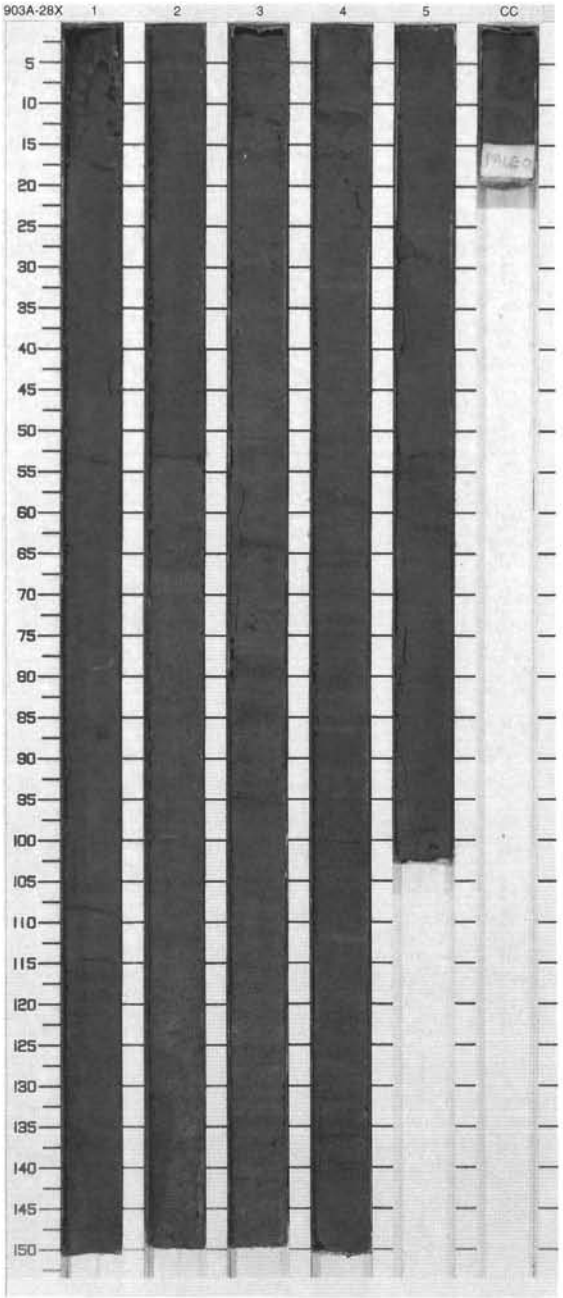
SITE 903 HOLE A CORE 27X CORED 220.6 - 230.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1–6, CC	middle Pleistocene			S, S, D P, I, P, S P, M	5Y 4/1; 5Y 5/1 To 5Y 4/1; 5Y 4/1	SILTY CLAY and SANDY SILTY CLAY Major Lithologies: Sections 1 to 3 comprise homogeneous to weak thinly color-banded SILTY CLAY. Tight, soft-sediment folds occur at the base of Section 1 and top of Section 2. Truncation surfaces and chevron patterns within these deformed zones may result predominantly from coring deformation. Below 132 cm in Section 3, the SANDY SILTY CLAY contains medium to coarse quartz grains and fragmented pyrite nodules. Intervals evincing tight folding alternate with more homogeneous levels. Mass transport processes have evidently occurred in both of these facies. Minor Lithology: MEDIUM to COARSE SAND occurs as a thin (2 cm) bed with reverse grading and fragmented pyrite at the top, from 77 to 79 cm in Section 5. NOTE: Drilling biscuits strongly affect this core.



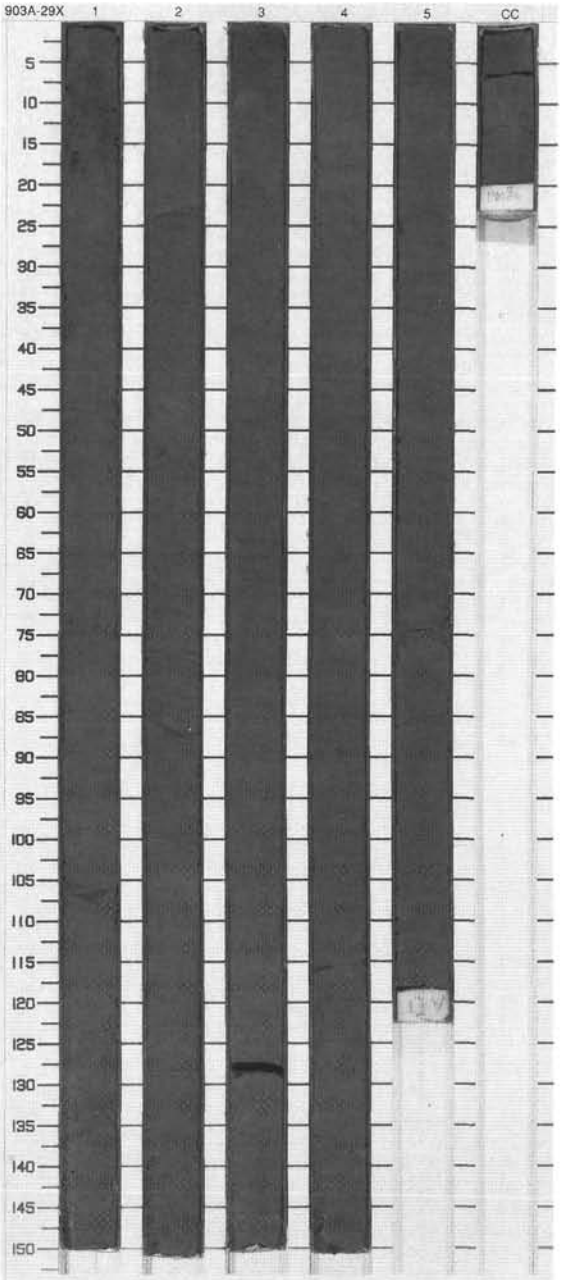
SITE 903 HOLE A CORE 28X CORED 230.3 - 240.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1	middle Pleistocene			S	10Y 4/1 To 10Y 5/1	CLAYEY SILT Major Lithology: CLAYEY SILT is color banded and variably bioturbated. Slumped sediments show no bioturbation. Slumped beds display isoclinal, horizontal folds and subhorizontal shear surfaces. Minor quartz sand in thin laminae and in burrows in Sections 2, 3, and 4. Minor Lithology: Color-mottled and color-banded, heavily bioturbated, very fine quartz sand-filled burrows.
						P		
		2					N4	
							10Y 4/1 To 10Y 5/1	
		3				P	10Y 4/1 To 10YR 5/1	
		4					10Y 4/1 To 10YR 4/1	
							10Y 3/1	
		5				S	10Y 3/1 To 10YR 4/1	
						P		
		CC				M	N4	



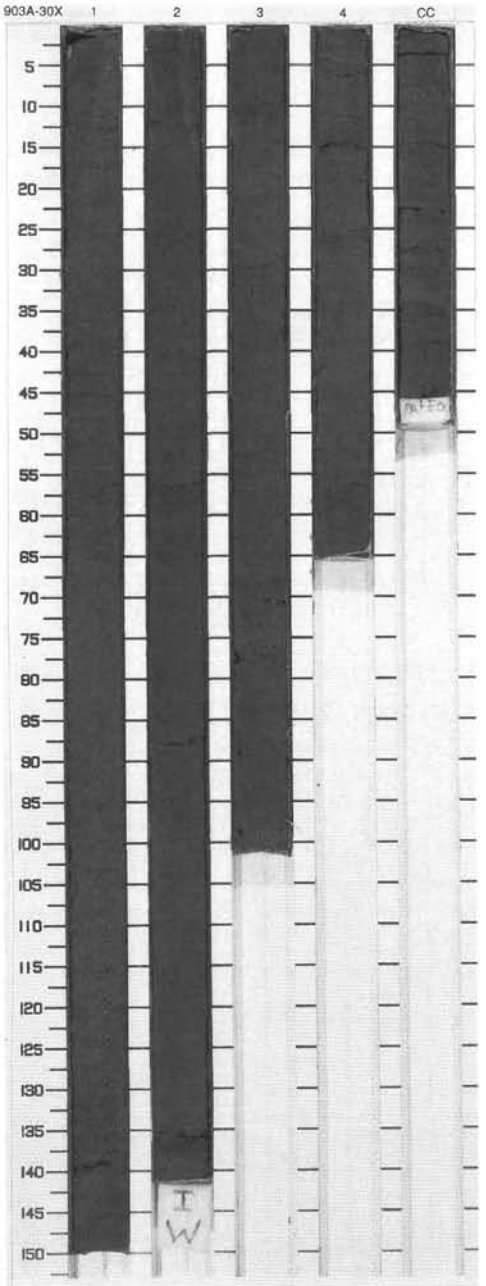
SITE 903 HOLE A CORE 29X CORED 240.0 - 249.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1	middle Pleistocene		VV	S	10YR 4/1	SILTY CLAY and CLAYEY SILT Major Lithologies: Gray to dark gray, slightly to moderately bioturbated, mottled SILTY CLAY and CLAYEY SILT. Slump folds occur in Sections 2 and 3. Slumped intervals are characterized by a reddish gray color. Black laminations occur in Sections 3, 4, and 5. Minor Lithologies: A greenish gray, moderately bioturbated SANDY, SILTY CLAY unit with black very fine to fine sand-sized grains occurs from Section 5, 74 cm to the base of the core. Black grains may be iron sulfide or glauconite. NOTE: Drilling biscuits occur throughout the core.
		2				P	10YR 4/1 To 10R 5/2	
							10YR 4/1	
		3				S	5R 4/1	
		4				P D	10YR 4/1 To 10R 4/1	
		5				S P	10Y 4/1	
		CC				M		



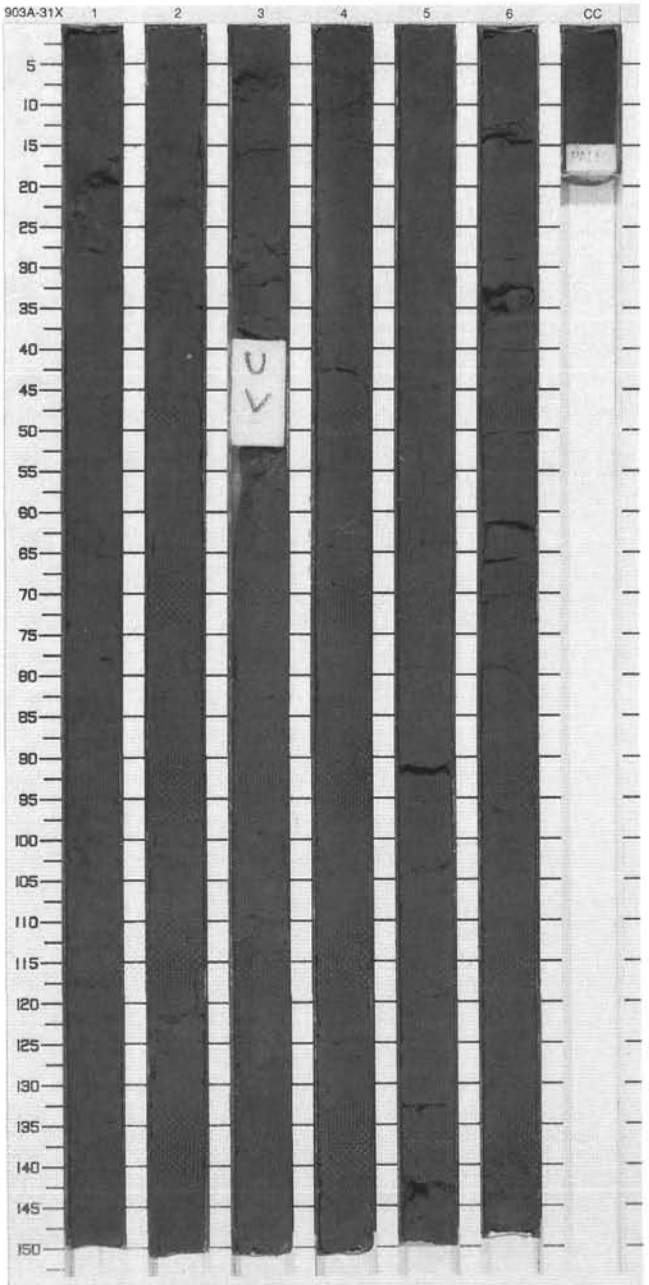
SITE 903 HOLE A CORE 30X CORED 249.7 - 259.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Pleistocene			S	10Y 4/1	SILTY CLAY and SAND/SILT/CLAY Major Lithologies: Gray, heavily bioturbated, mottled SILTY CLAY and SAND/SILT/CLAY. Burrows (<1 cm in diameter) have commonly dark (pyritic?) rims. Mica flakes occur from Section 3 downward. Occasional alternating zones of gray and reddish gray silty clay with very gradational boundaries in Sections 1 through 3. NOTE: Drilling biscuits throughout the core.
2		2				P		
3		3				I S S P	10Y 4/1 To 5YR 4/1	
4		4					10Y 5/1	
5		CC				M		



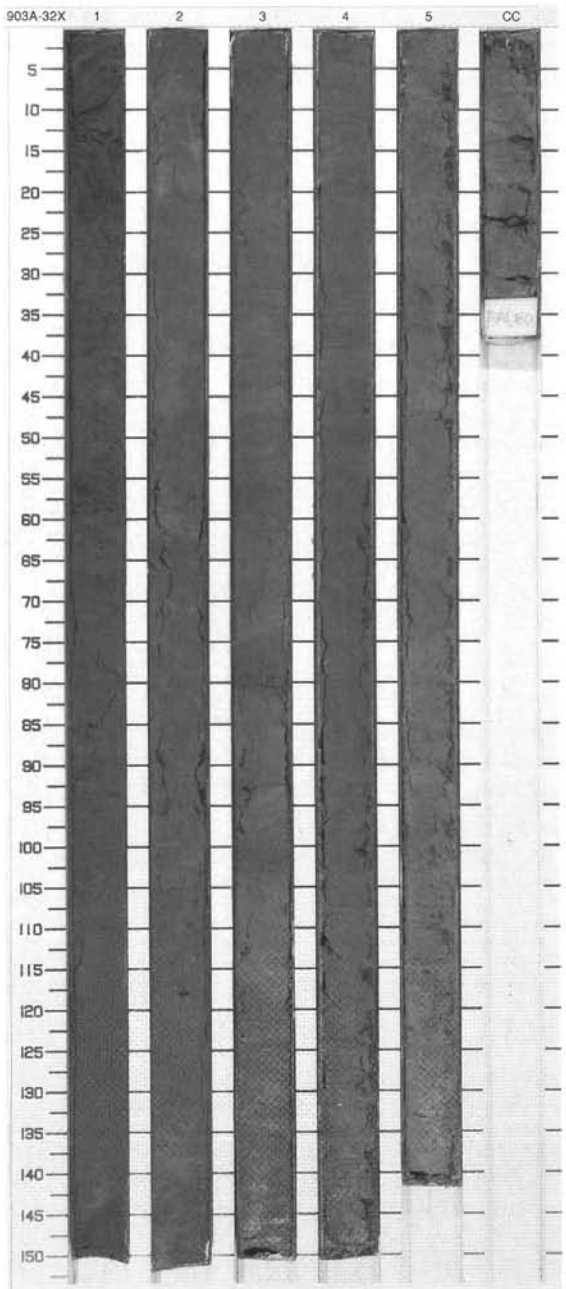
SITE 903 HOLE A CORE 31X CORED 259.3 - 268.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–6, CC	middle Pleistocene			P, S, S, S, P, S, P, M	10Y 5/1	SAND-SILT-CLAY Major Lithology: Moderately to slightly bioturbated SAND-SILT-CLAY, with common pyrite grains and, possibly comminuted woody organic debris. Minor Lithology: A SILTY SAND occurs at the base of Section 6. A void of unknown origin occurs in Section 3 from 39 to 52 cm.



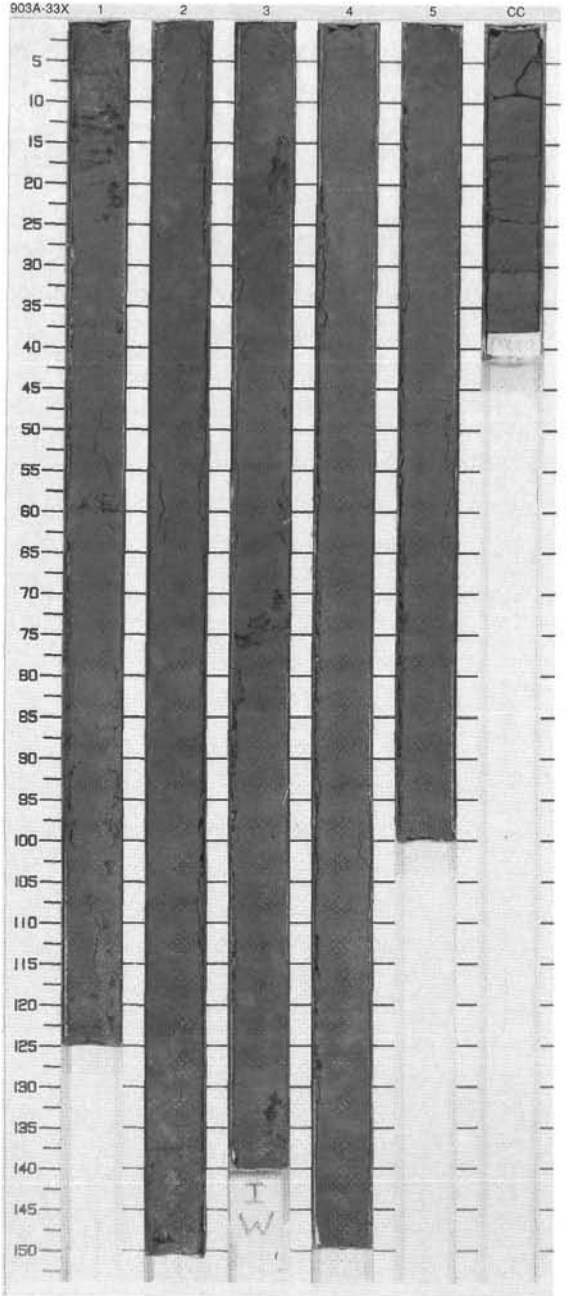
SITE 903 HOLE A CORE 32X CORED 268.9 - 278.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1	middle Pleistocene			S P	5Y 5/1 5BG 4/1	SILTY CLAY and SANDY SILTY CLAY Major Lithologies: This core is characterized by the occurrence of 3 contorted intervals, each corresponding to slumped units. The first one, in Section 1, is composed of SANDY SILTY CLAY with striking light/dark color contrast. Comminuted woody debris(?) or pyrite are common. This unit displays a sharp base at 111 cm. The second slump unit, in Sections 2 and 3, and the third slump unit, in Sections 3 and 4, consist of tightly folded slump folds affecting thinly color banded SILTY CLAY (tight folding exaggerated by drilling biscuit). SILTY CLAY with cm-scale light gray mud clasts displaying indistinct boundaries occurs between the slump intervals. From Section 4, 45 cm to the base of the core, the sediment consists of homogeneous blue-gray SILTY CLAY without evidence of burrowing. Minor Lithology: Homogeneous blue-gray SAND/SILT/CLAY with scattered quartz sand occurs at the base of Section 1, 111 to 143 cm. It is underlain by a dark gray (N/4) very poorly sorted sediment containing quartz granules and (<1 mm) black grains.
		2				S	5Y 5/1	
		3				S P	5Y 6/1	
		4				S	5Y 5/1	
		5				S P	5GY 5/1	
		CC				M		



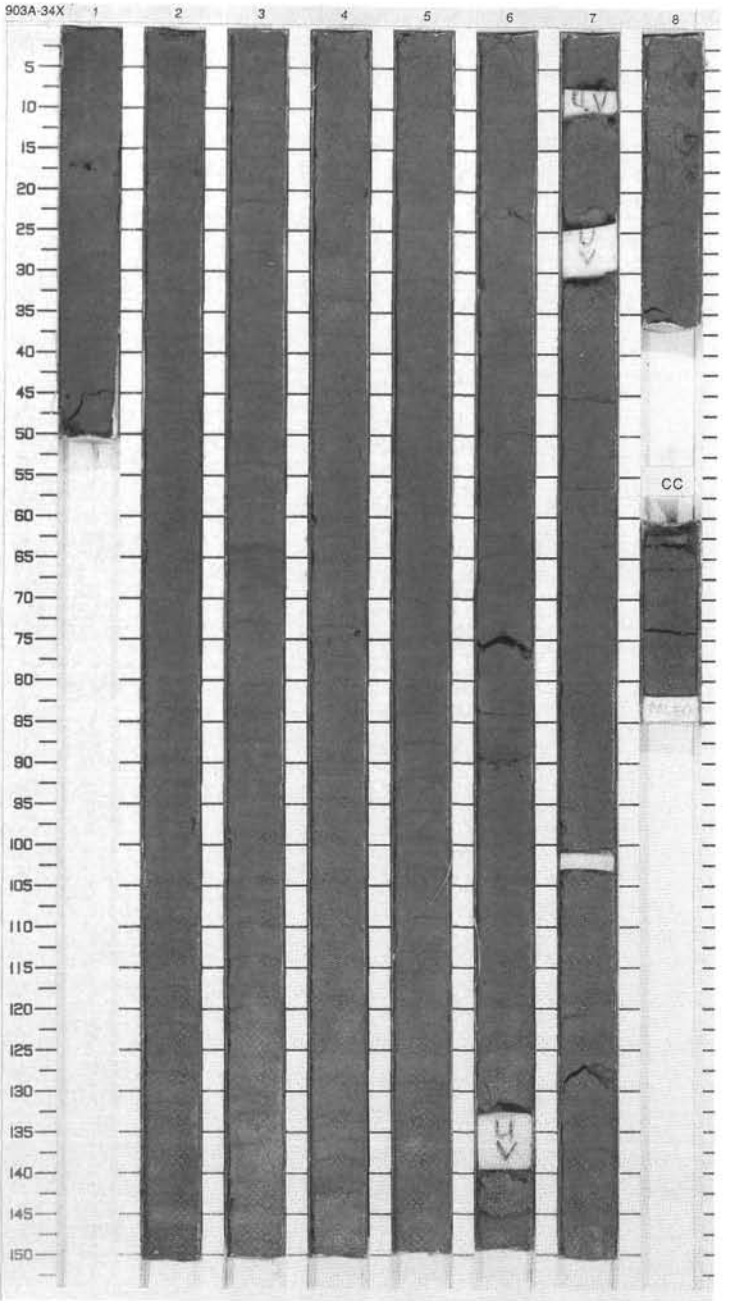
SITE 903 HOLE A CORE 33X CORED 278.5 - 288.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1, 2, 3, 4, 5, CC	middle Pleistocene	◇		S, P, D, S, S, P, I, D, S, S, P, M	5GY 5/1	SILTY CLAY and SANDY SILTY CLAY Major Lithologies: The whole core consists mainly of greenish gray SILTY CLAY and SANDY SILTY CLAY, slightly bioturbated in Sections 4 and 5. Scattered very coarse sand grains and woody fragments throughout from Sections 2 to 4, with uncommon occurrence of mm-scale pebbles. Biogenic remains consist of nannofossils (about 10%).

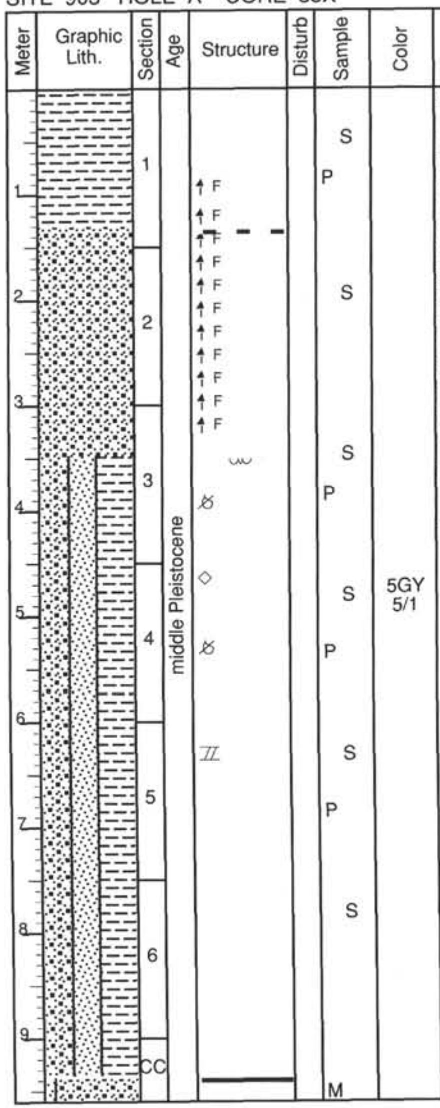


SITE 903 HOLE A CORE 34X CORED 288.2 - 297.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Pleistocene			S D	5GY 5/1	SILTY CLAY and CLAYEY SILT Major Lithologies: The whole core consists of slightly burrowed, greenish gray SILTY CLAY and CLAYEY SILT. A fine sand/silt ungraded bed with shell fragments occurs in Section 3, 64–65 cm. Possible comminuted woody fragments in Section 1. Nannofossils (about 10%) occur in all sections. NOTE: Drilling biscuits throughout the core.
						S		
2		2				P		
						S D		
3		3						
						S		
4		4				P		
						S		
5		5						
6		6				S		
						P		
7		7						
8		8						
9		CC				M		



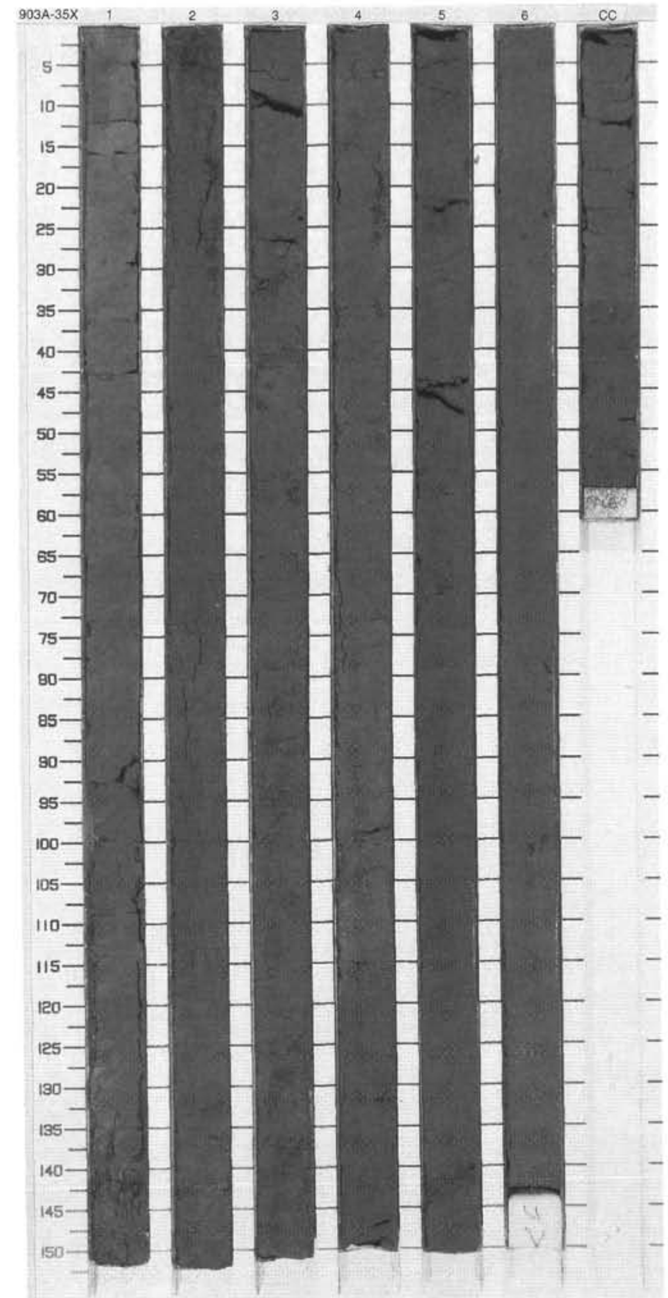
SITE 903 HOLE A CORE 35X CORED 297.9 - 307.5 mbsf



Description

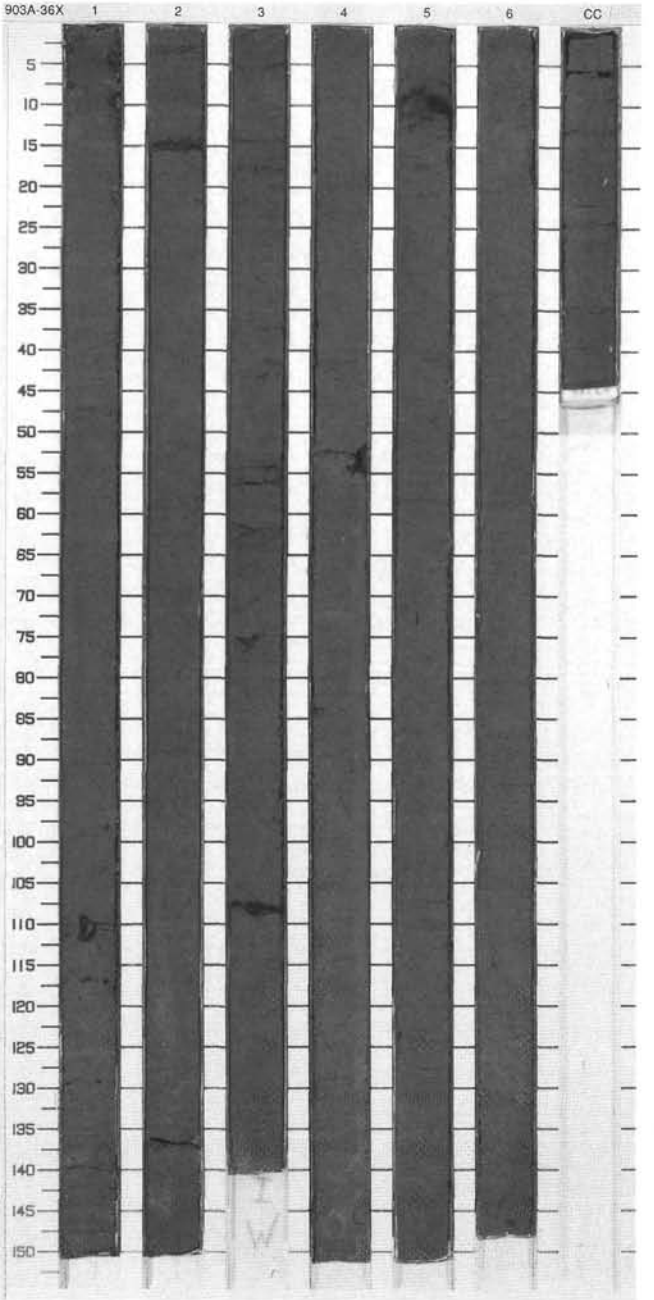
SILTY SAND

Major Lithology:
The occurrence of a graded SILTY SAND unit from Section 3, 48 cm upward is the most striking feature of the core. This unit shows a erosional contact (scoured contact) at its base and a fining-upward trend. The base of the unit consists of poorly sorted sediments (fine sand with well-rounded, coarse (1–2 mm) quartz grains and shell debris). From Section 3, 48 cm to the base, sediment consists of silty, clay-rich fine sand, without apparent grading. Comminuted coarse (1–2 mm) well-rounded quartz grains and shell fragments occur throughout, together with rare cm-scale pebbles. In Section 5, 22–33 cm, cross stratification (climbing ripples) occurs. Biogenic remains consist of nannofossils and rare diatoms.



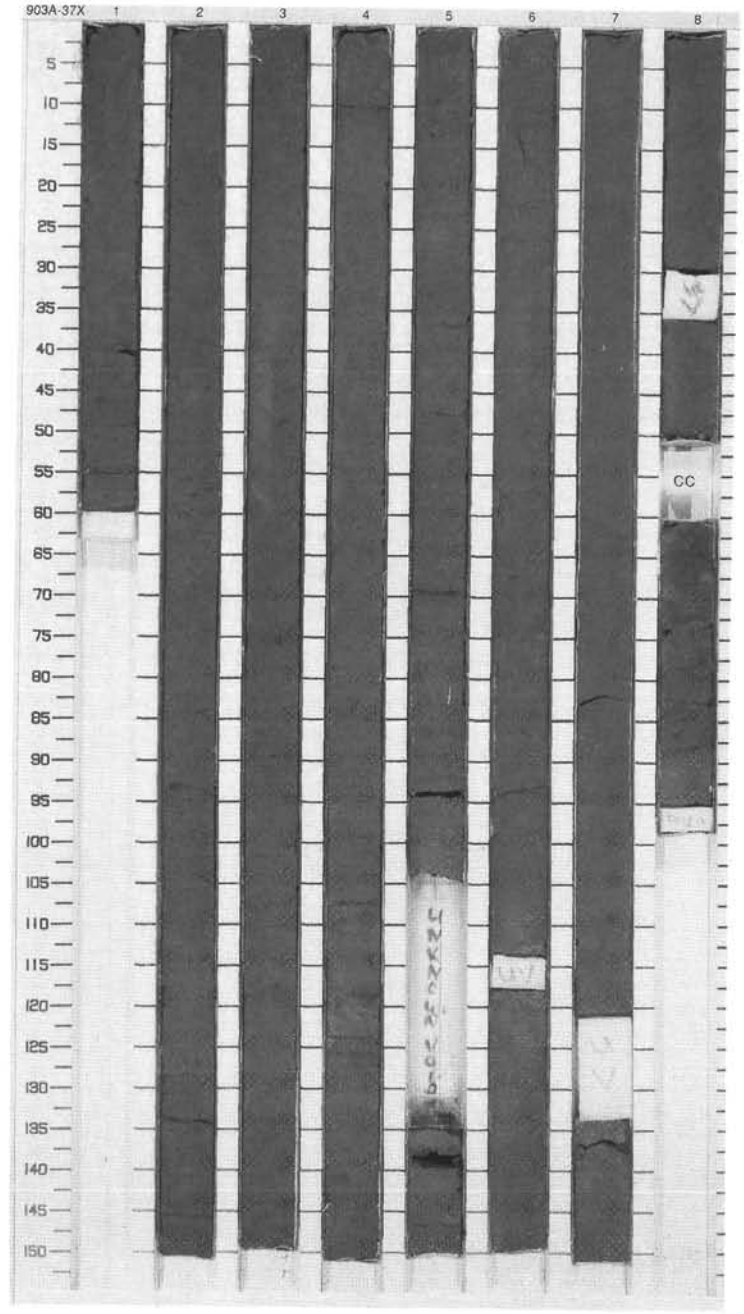
SITE 903 HOLE A CORE 36X CORED 307.5 - 317.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–6, CC	middle Pleistocene			S, P, M	5GY 5/1	SILTY CLAY Major Lithology: The whole core consists of greenish gray, slightly bioturbated, mottled SILTY CLAY. Large burrows filled with iron sulfide-rich sand occur in Sections 1 and 2, 105 cm, Section 5 at 12 cm, Section 6, and CC. Very few biogenic remains according to smear slides.



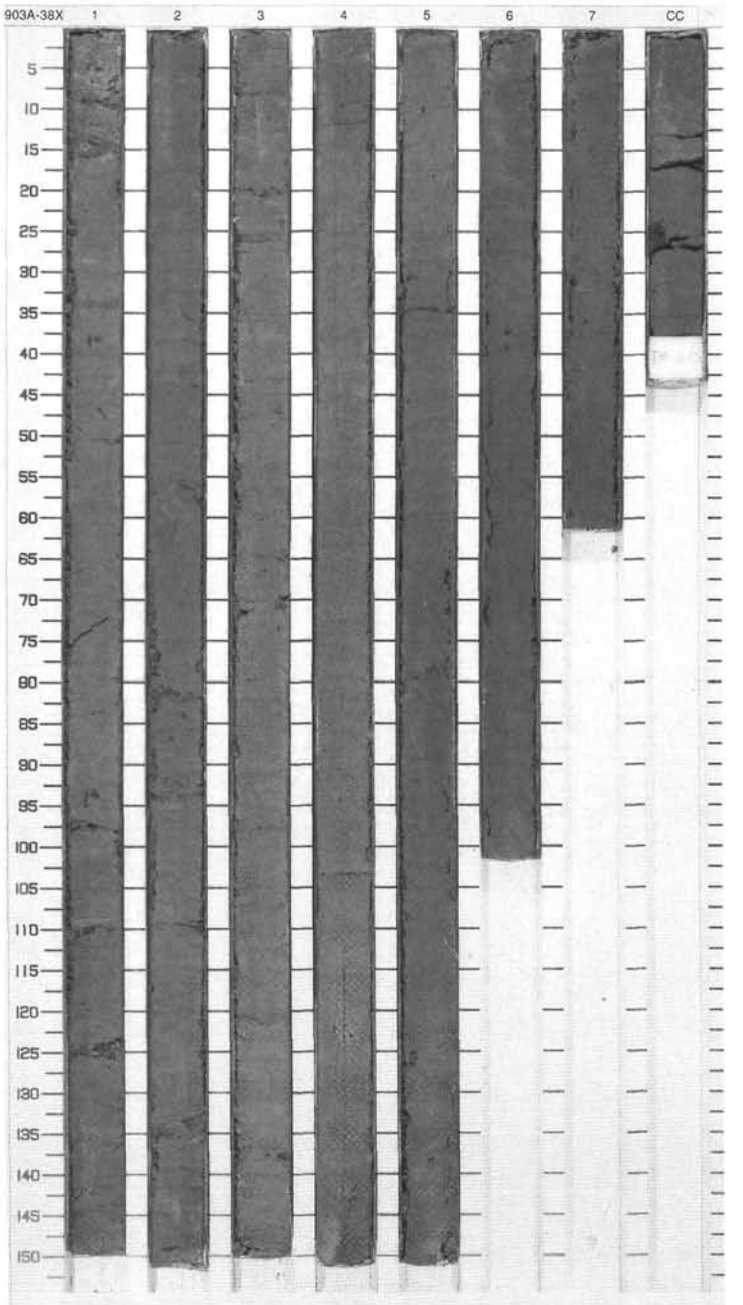
SITE 903 HOLE A CORE 37X CORED 317.2 - 326.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–7, CC	middle Pleistocene			S, D, S, P, S, S, P, S, P, D, M S	5GY 5/1	SILTY CLAY Major Lithology: The whole core except CC consists of greenish gray, mottled, SILTY CLAY. Dark-stained (iron sulfide) burrowing occurs from Sections 1 to 6. Section 7 is characterized by the absence of burrows and by partially indurated sediment. Minor Lithologies: The CC is composed of three intervals. The first one consists of sand (0–8 cm). The second (8–28 cm), showing a sharp base, consists of a sand matrix containing mud clasts of various colors. The third interval (28 cm to base) is composed of semi-indurated gray, homogeneous, and mottled clay.



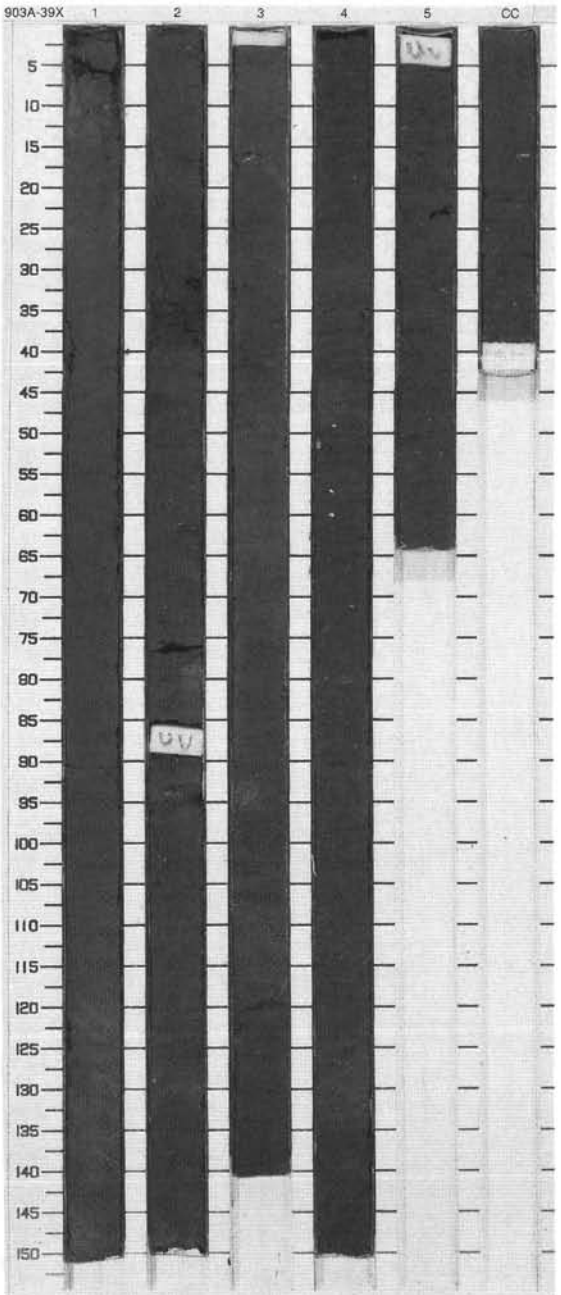
SITE 903 HOLE A CORE 38X CORED 326.7 - 336.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	middle Pleistocene			S, P, S, S, P, S, S, P, S, S, M	5GY 5/1	SILTY CLAY Major Lithology: The whole core consists of homogeneous, greenish gray SILTY CLAY, without apparent structure, except slightly bioturbation and mottling from Section 3 to the base of the core. Nannofossils (5%–10%) occur in Sections 5, 6, and 7.



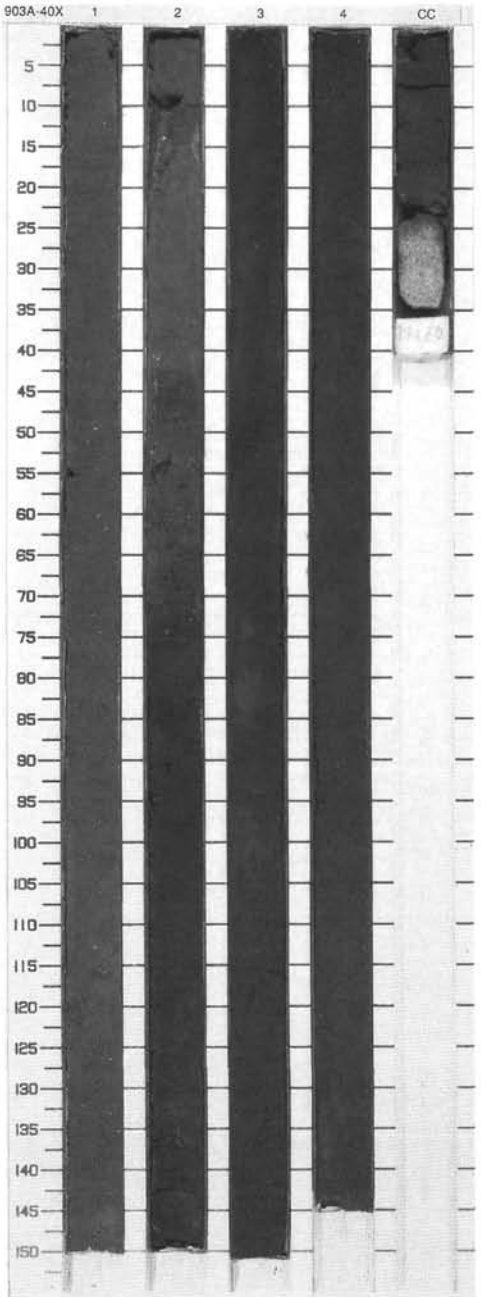
SITE 903 HOLE A CORE 39X CORED 336.4 - 346.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1	middle Pleistocene			S P	5GY 5/1	SILTY CLAY, SANDY CLAY and FINE TO MEDIUM SAND Major Lithologies: SILTY CLAY, from top of Section 1 to 28 cm in Section 2, is greenish gray (5GY 5/1) and homogeneous. SANDY CLAY, from top to 76 cm in Section 3, contains fine to coarse sand-sized quartz grains and varies from gray (N3 to N5) to brown (2.5 YR 5/6) in color. Gray to dark gray (N3 to N5), FINE to MEDIUM SAND comprises glauconitic sediment with coarse sand to granule-sized quartz, mud, and lithic clasts. Reworked Paleocene, Eocene, and lower Miocene in Sections 5 and CC.
		2				S P	N4 To N3	
		3				S		
		4	??			I S P	N5 To N3	
		5				S		
		CC				M		



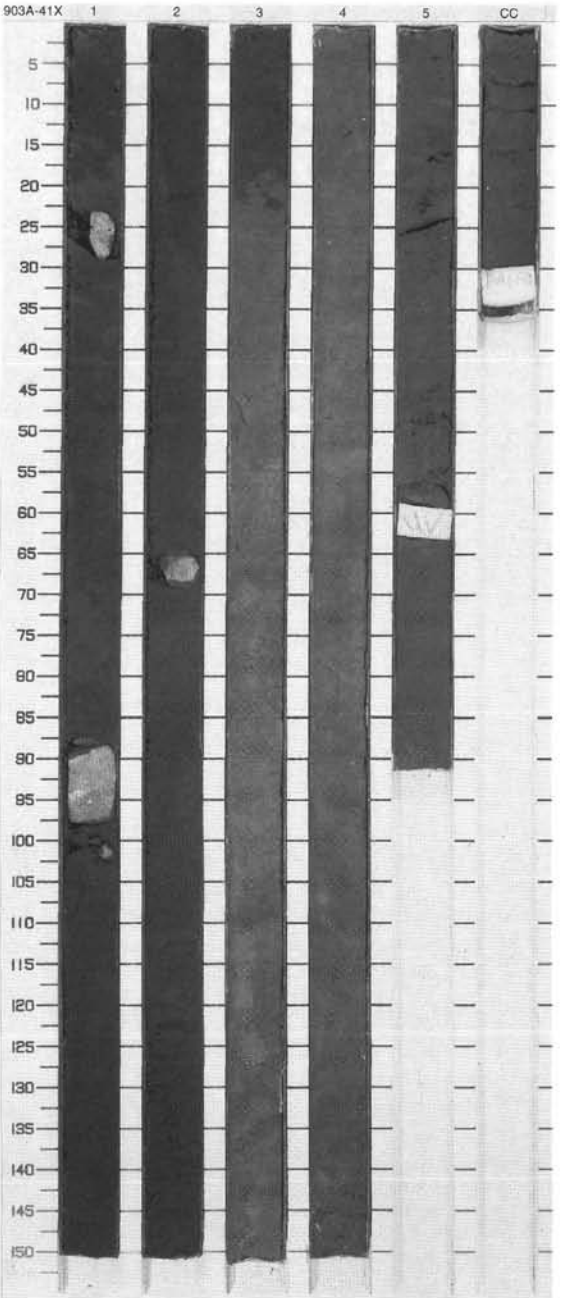
SITE 903 HOLE A CORE 40X CORED 346.0 - 355.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–6		1	late Pliocene			P	10Y 4/1	GLAUCONITIC SAND and SILTY SAND Major Lithologies: GLAUCONITIC SAND occurs as a large, fining-upward unit, from granule-rich coarse sand at base in the Core Catcher, through coarse sand in Section 4, medium sand in Section 3, to fine to medium sand in Section 2. Glauconite occurs as fine to coarse sand and granules, comprising >50% of the sands. Other components are quartz, mica, and lithic sand and granules. Basal 10 cm is cemented by calcite. SILTY SAND is composed of quartz, lithics, mica, and glauconite, moderately rounded, poorly to moderately sorted with a clayey silty matrix. Thick lamination and thin bedding is poorly developed. Rare quartz granules, shell fragments, mud clasts (10YR 5/2). This lithology occurs in Section 2 and shows upward fining from medium to coarse at base to fine to medium at top. Minor Lithology: COARSE SAND occurs between 0 and 73 cm in Section 2. At the base, it contains abundant granules and small pebbles of black chert, glauconite, and quartz. Glauconite is abundant at base (>20%), with quartz, lithics, and mica becoming abundant upsection.
				↑ F	○	S		
		2		↑ F		P	5G 4/1	
				↑ F		S		
						P		
		3				S		
							5G 3/1	
		4	Pliocene			S		
						P		
		CC	late Mio.	↑ F		T MP		



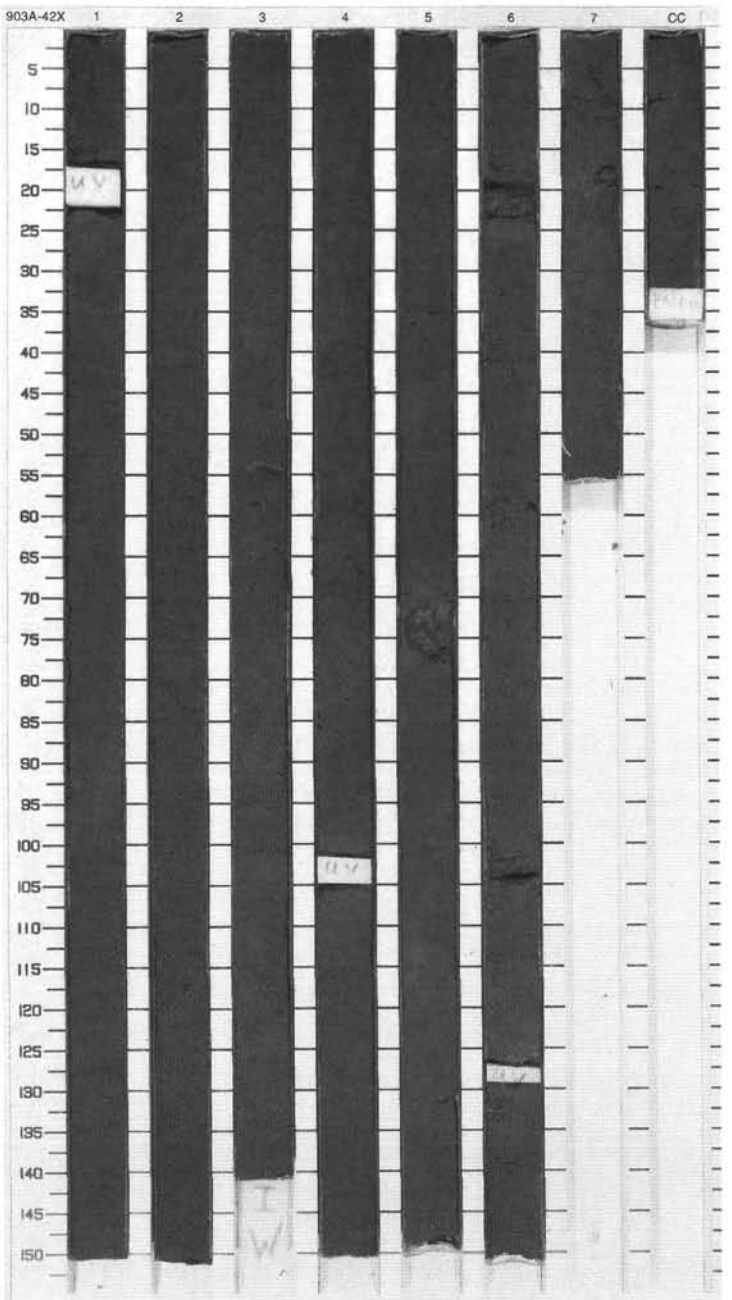
SITE 903 HOLE A CORE 41X CORED 355.7 - 365.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1–5, CC	late Miocene			S, P, P, S, S, S, S, P, S, S, P	5G 3/1; 5Y 5/1; 5Y 5/1 To 5Y 4/1; 5Y 4/1	GLAUCONITIC SAND, SANDY SILT and CLAYEY SILT Major Lithologies: Greenish dark gray (5G 3/1), very fine to very coarse sand-sized, GLAUCONITIC SAND with granule-sized quartz occurs as a upward-fining unit, from 20 cm in Section 3. The GLAUCONITIC SAND overlies gray to light gray (5Y 5/1), homogeneous SANDY SILT with sharp boundary. Gray to light gray (5Y 5/1), homogeneous CLAYEY SILT occurs from 140 cm in Section 3 to 130 cm in Section 4 and graded into the underlying SANDY SILT. Carbonate-cemented zones and nodules occur in Section 1, 22–27 and 89–97 cm and in Section 2, 65–68 cm.



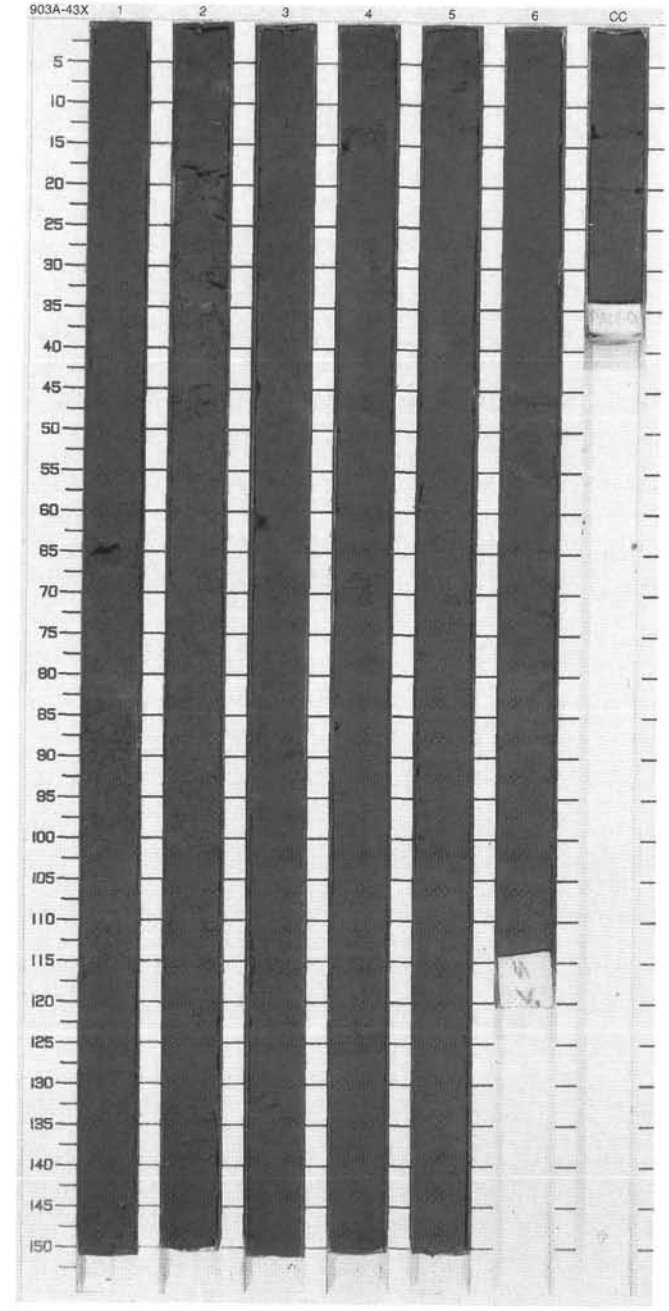
SITE 903 HOLE A CORE 42X CORED 365.4 - 374.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	late Miocene				5Y 4/1	SANDY SILT and CLAYEY SILT Major Lithologies: CLAYEY SILT is homogeneous with minor quartz and mica fine sand, very minor glauconite silt. SANDY SILT is homogeneous to slightly bioturbated, monotonous. Abundant very fine and fine quartz and mica sand, minor glauconite silt, rare plant debris below Section 4. General Description: NOTE: Extensive drilling biscuits disturbance with 0.5–1 cm slurry intervals.
		2				P		
						S		
		3				I		
		4				P		
		5				S		
		6				P		
		7						
		CC				M		



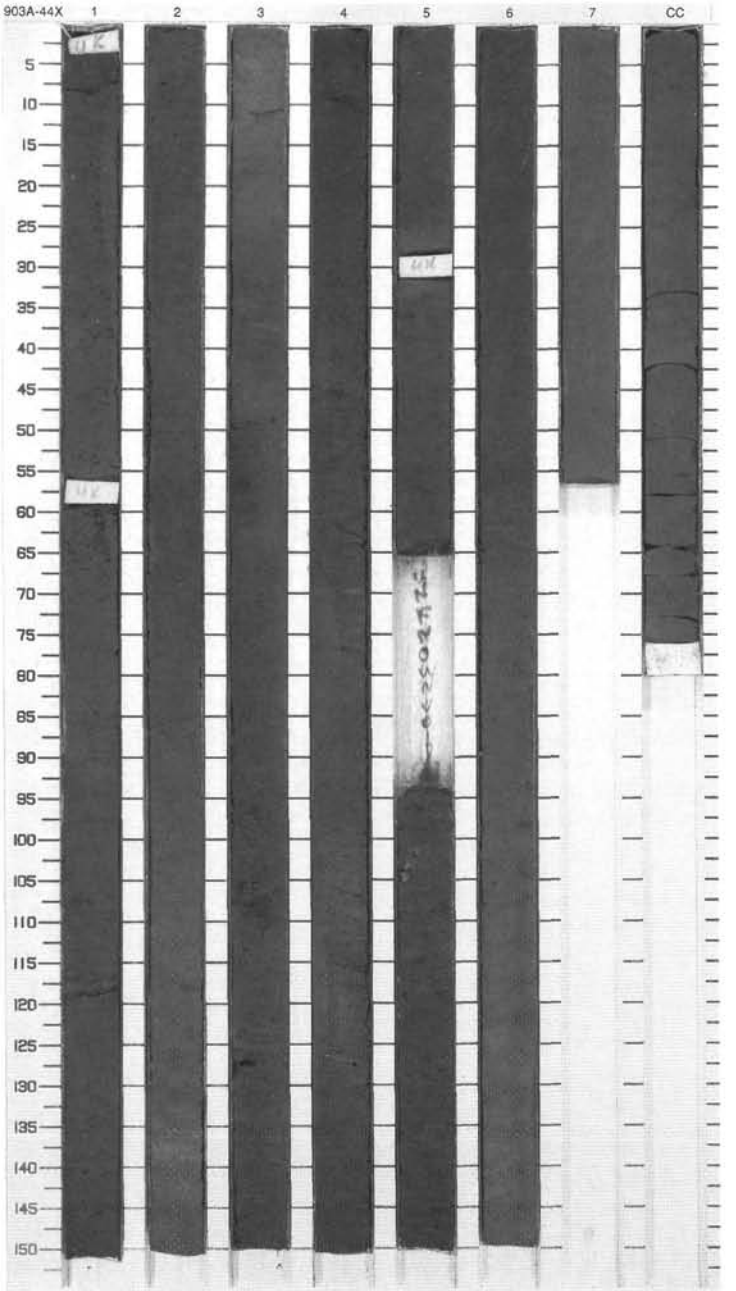
SITE 903 HOLE A CORE 43X CORED 374.9 - 384.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1, 2, 3, 4, 5, 6, CC	late Miocene			S, P, S, P, S, P, M	5Y 4/1	SANDY SILT Major Lithology: Gray (5Y 4/1), moderately bioturbated SANDY SILT with black-colored mottles occurs throughout this core. The sand-sized particles consist mainly of very fine to fine sand-grained quartz, mica, and glauconite. From 35 cm in Section 6 to the bottom of this core, plant fragments commonly occur. Minor Lithology: SILTY SAND consists mainly of fine to medium sand-grained quartz, mica, and glauconite. General Description: *Drilling biscuit deformation occurs* throughout this core.



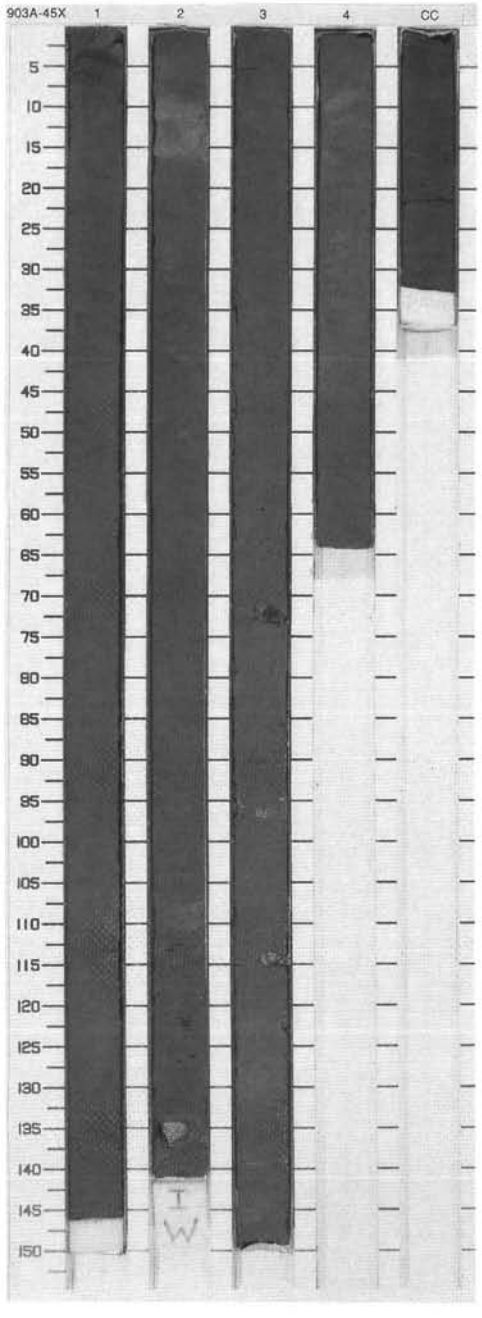
SITE 903 HOLE A CORE 44X CORED 384.6 - 394.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1	late Miocene			P S	5Y 4/1	SILTY SAND and SILTY CLAY Major Lithologies: SILTY SAND is moderately to heavily burrowed and contains very fine to fine quartz and mica sand. Common comminuted woody organic matter, rare shell fragments and glauconite. Glauconite concentration increasing in Sections 3, 4, and 5 to >35% in Section 6. Lower boundary of this lithology in Section 6 is highly bioturbated, with glauconitic material occurring in the underlying SILTY CLAY down to 104 cm below the contact. SILTY CLAY is slightly to moderately bioturbated and slightly glauconitic. Minor Lithology: SILTY CLAYEY SAND is glauconitic, heavily bioturbated, with granule-sized grains at the base. General Description: The contact at the base of the glauconitic sand in Section 6 is transitional over a 17 cm interval due to burrowing.
		2					5Y 3/1	
		3					5Y 5/1	
		4				S	5Y 3/2	
	Void	5				P	2.5G 3/2	
		6				P	5Y 4/1	
		7				P	2.5Y 3/2	
		CC				M	5Y 5/1	



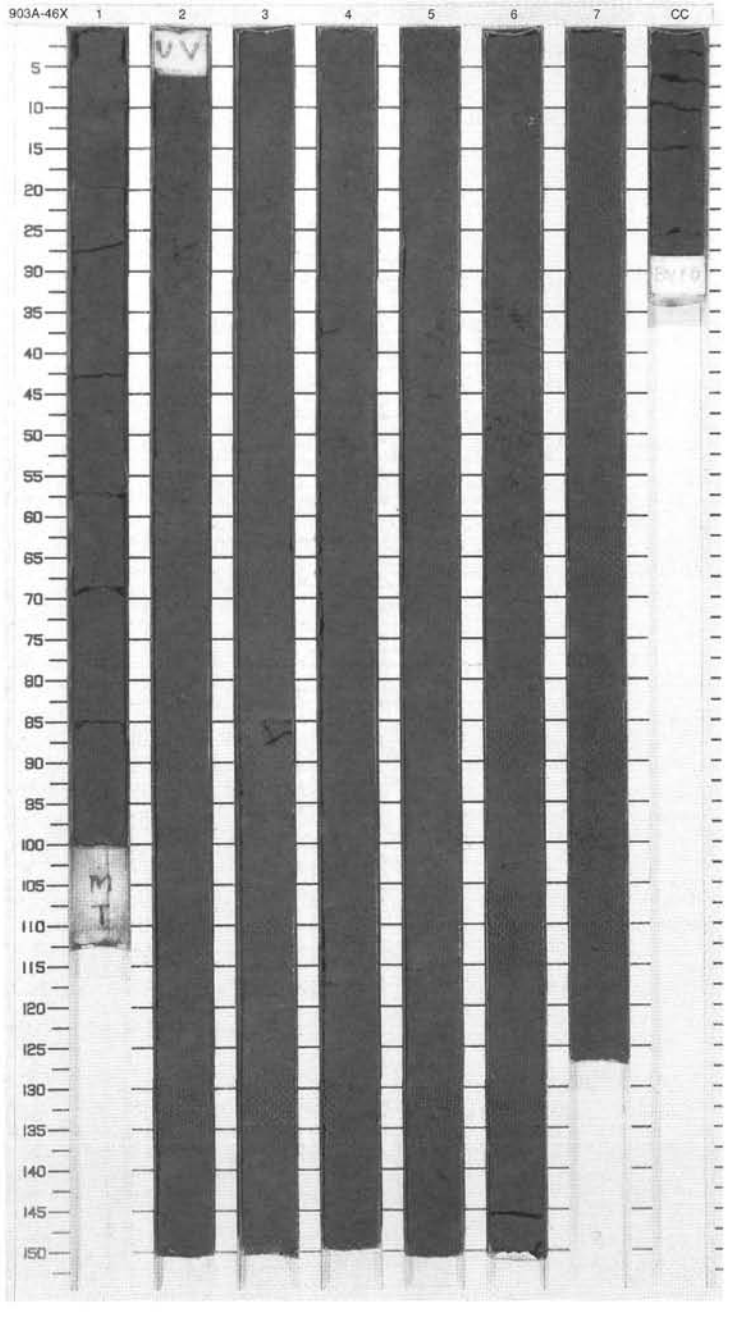
SITE 903 HOLE A CORE 45X CORED 394.3 - 404.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–5		1, 2, 3, 4, CC	late Miocene			P, P, S, M	5Y 5/1	SILTY CLAY Major Lithology: Heavily bioturbated SILTY CLAY with abundant comminuted woody debris. Pale gray (5Y 3/1) and buff (5Y 6/2) nodules common in Sections 2 and 3. Minor Lithology: SILTY SAND occurs in Section CC; fine quartz, mica, and minor glauconite.



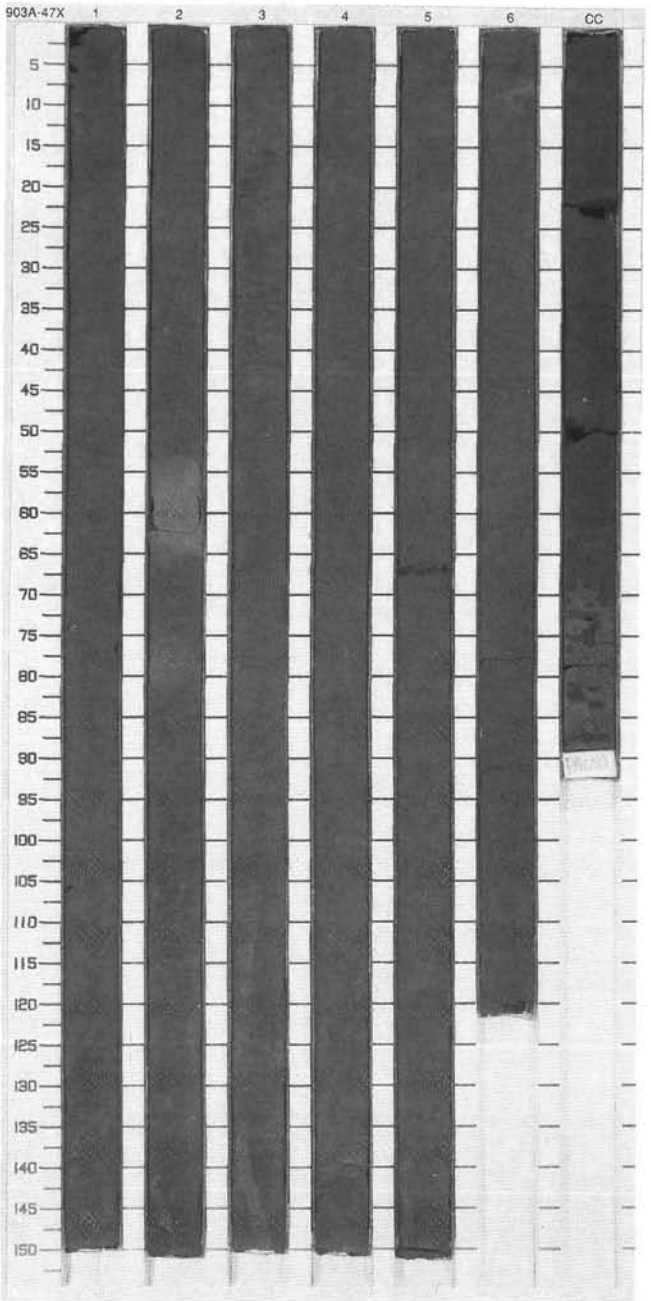
SITE 903 HOLE A CORE 46X CORED 404.0 - 413.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–7, CC	late Miocene			S, P, P, S, P, M	5Y 3/1; 5Y 4/1; 5Y 3/1; 5Y 4/1; 5Y 3/1	CLAYEY SILT, SILT and SANDY SILT Major Lithologies: Gray to dark gray, moderately to heavily bioturbated CLAYEY SILT occurs at the top and base of the core. Woody fragments are abundant. In Sections 4 through 6, the sediments are moderately to heavily bioturbated SILT and SANDY SILT, with very abundant woody debris and glauconite.



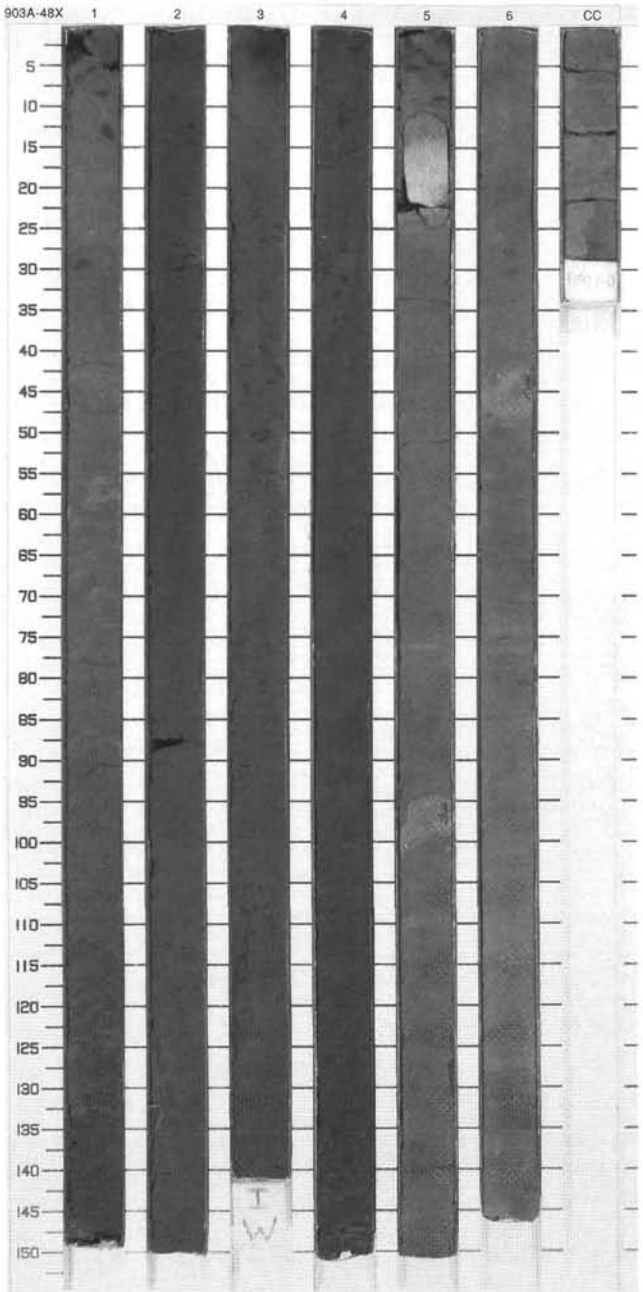
SITE 903 HOLE A CORE 47X CORED 413.7 - 423.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–6, CC	late Miocene			P, P, P, P, M	10Y 3/1; 5Y 3/1	SILTY CLAY, GLAUCONITIC SANDY SILT and CLAY Major Lithologies: SILTY CLAY: abundant quartz and mica with minor organic material (flakes <2 mm in size), concentrated laminae of plant debris at 67 cm in Section 3, pale cream layers of siderite in Sections 2, 4, and 6, scattered pyritized fossils, pyrite nodule, rare shell fragments, heavily bioturbated. In Sections 5, 6, and CC color patches of 5Y 4/1, 5Y 3/1, and 5Y 5/1. GLAUCONITIC SANDY SILT: fine to medium sand, glauconite increasing towards the base of the core, coarse quartz grains and mica flakes common. CLAY: gray-green, well-developed burrows infilled with glauconite. NOTE: Drilling biscuits disturbance.



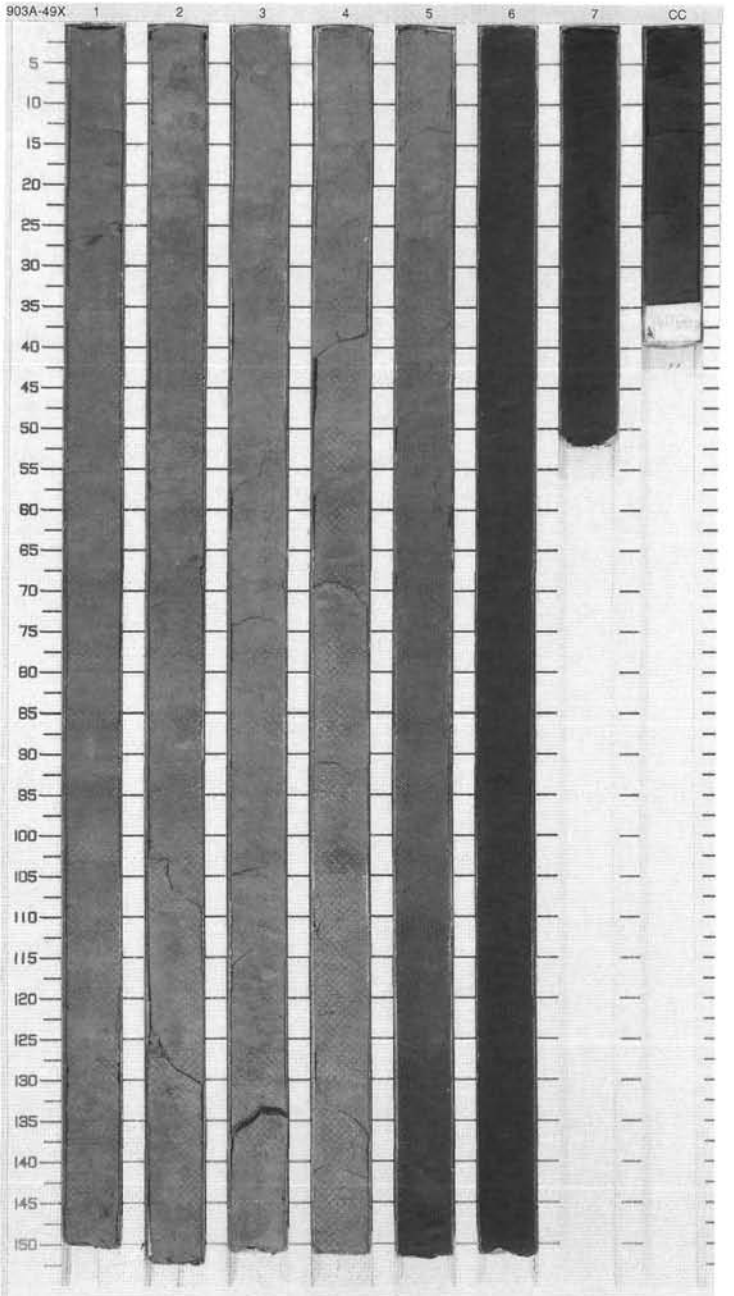
SITE 903 HOLE A CORE 48X CORED 423.3 - 433.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	late Miocene			S P	5Y 5/1 To 5Y 3/1	SILTY CLAY and GLAUCONITIC SANDY SILT Major Lithologies: SILTY CLAY comprises the top (Section 1) and the base (Sections 5 to CC). The top unit is moderately bioturbated and weakly glauconitic. The basal unit is homogeneous and nonglauconitic. Sections 2 to 4 comprise GLAUCONITIC SANDY SILT in a fining upwards unit, with abrupt base at which there is a concentration of glauconite. Woody plant debris is also abundant. Minor Lithologies: Carbonate-cemented horizons and/or nodules occur in Sections 5 and 6. These are about 10 cm-thick and the one beneath the glauconitic unit is very well-indurated.
		2				S		
		3				S P		
		4				I S		
		5		Ca Ca		S P	10Y 4/1 To 10Y 5/1	
		6		Ca		P S		
		CC				M		



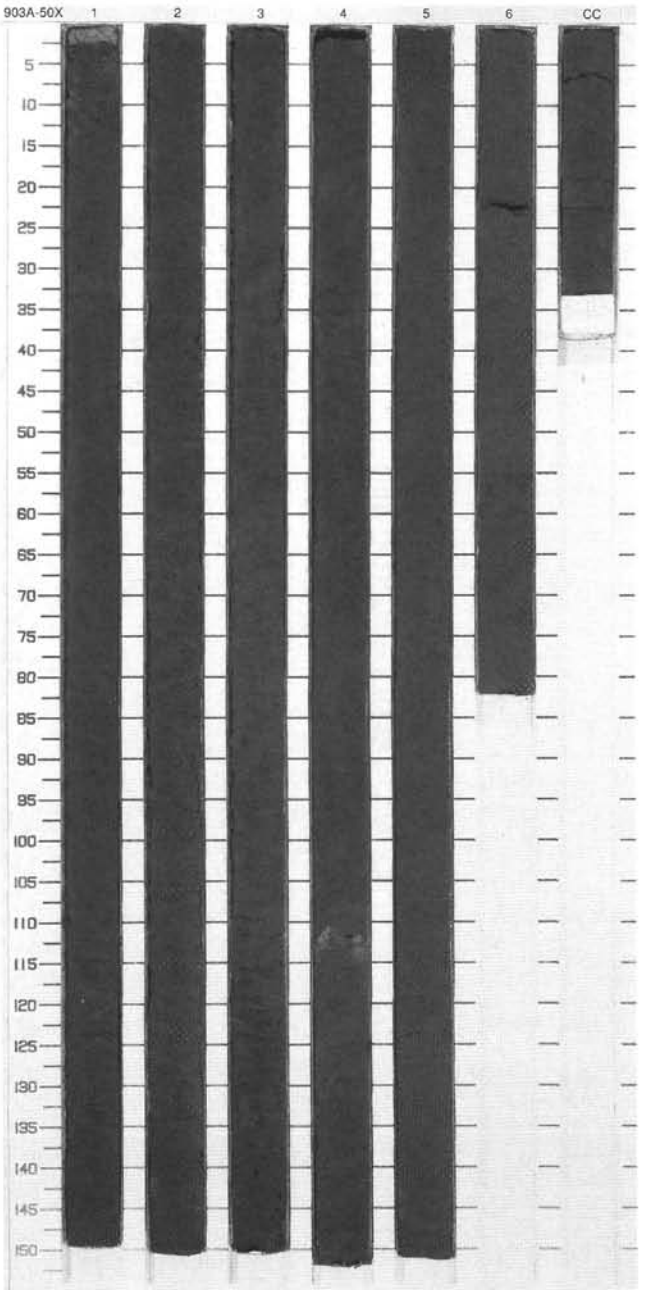
SITE 903 HOLE A CORE 49X CORED 433.0 - 442.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	late Miocene			S		SILTY CLAY and GLAUCONITIC SANDY SILT *Major Lithologies:* Sections 1 to 5 comprise moderately bioturbated SILTY CLAY, weakly glauconitic. Thin (cm-scale) cream-colored bands occur sporadically. The transition into the underlying unit is gradational. Sections 6 to CC comprise GLAUCONITIC SANDY SILT. Coarse sand and mica occur alongside the glauconite. Scattered, very coarse sand and granules occur throughout this unit.
				G		P		
		2		P G		S		
		3		G		S	10Y 5/1	
						P		
		4				S		
				G				
		5		G		S		
				G		P		
		6		G G		S		
				G G G G G G G G G G		P	10Y 3/1	
		7		G G G G G G G G G G		S		
		CC		G G G G G		M		



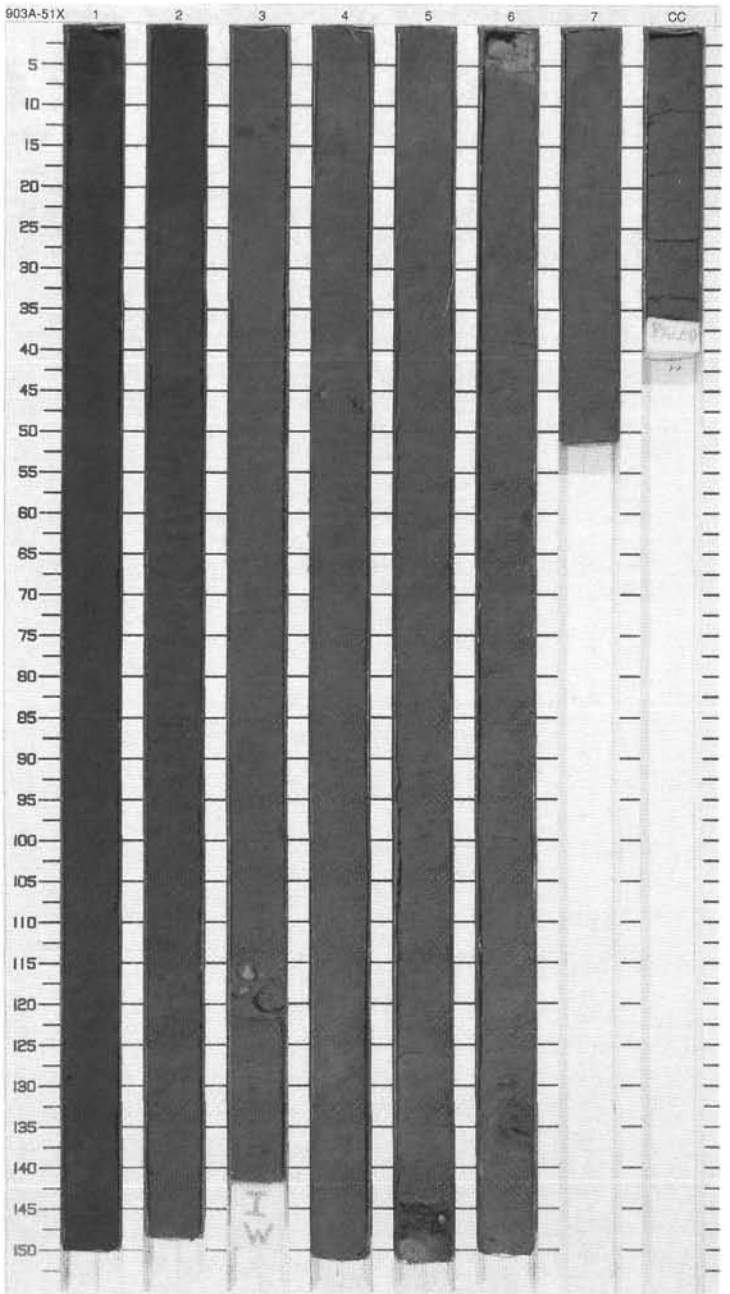
SITE 903 HOLE A CORE 50X CORED 442.7 - 452.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	late Miocene			S		GLAUCONITIC SILTY SAND Major Lithology: Heavily bioturbated and highly GLAUCONITIC SILTY SAND, with scattered mica flakes and coarse quartz grains throughout. Rare quartz granules and small pebbles.
						P		
2		2				S		
3		3				S		
						P		
4						S		
5		4				P		
6						S		
7		5				P		
8		6				S		
		CC				M		



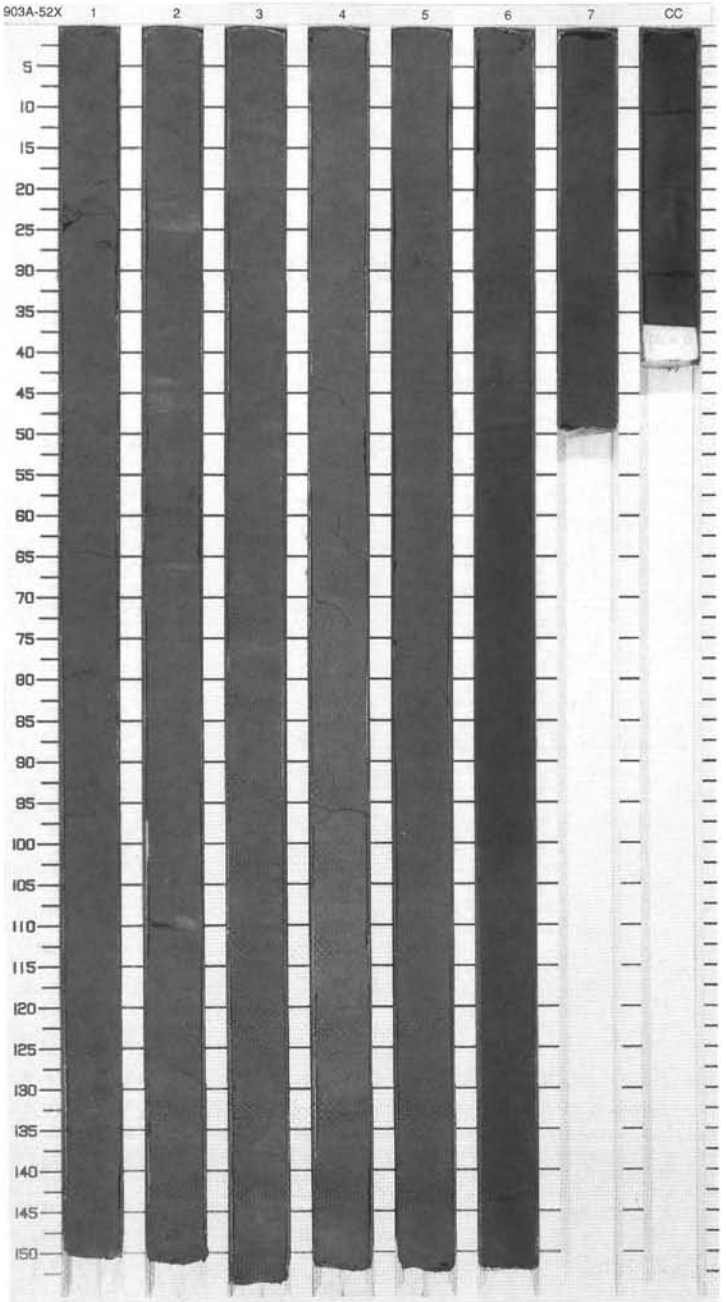
SITE 903 HOLE A CORE 51X CORED 452.2 - 461.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	late Miocene			S, P, S, S, P, I, S, P, S, P, S, M	10Y 3/1; 10Y 6/1	GLAUCONITIC SILTY SAND and CLAY Major Lithologies: Sections 1 and 2 comprise gray-green GLAUCONITIC SILTY SAND which is heavily bioturbated and contains scattered coarse quartz grains throughout. Sections 3 to CC comprise light gray SILTY CLAY which is moderately to weakly bioturbated. Carbonate concretions of 1–2 cm occur in Sections 3 and 4; the upper of these is septarian. Pyrite nodules, <1 cm diameter, occur in Sections 7 and CC. The junction between the two major lithologies is gradational over about 1 m.



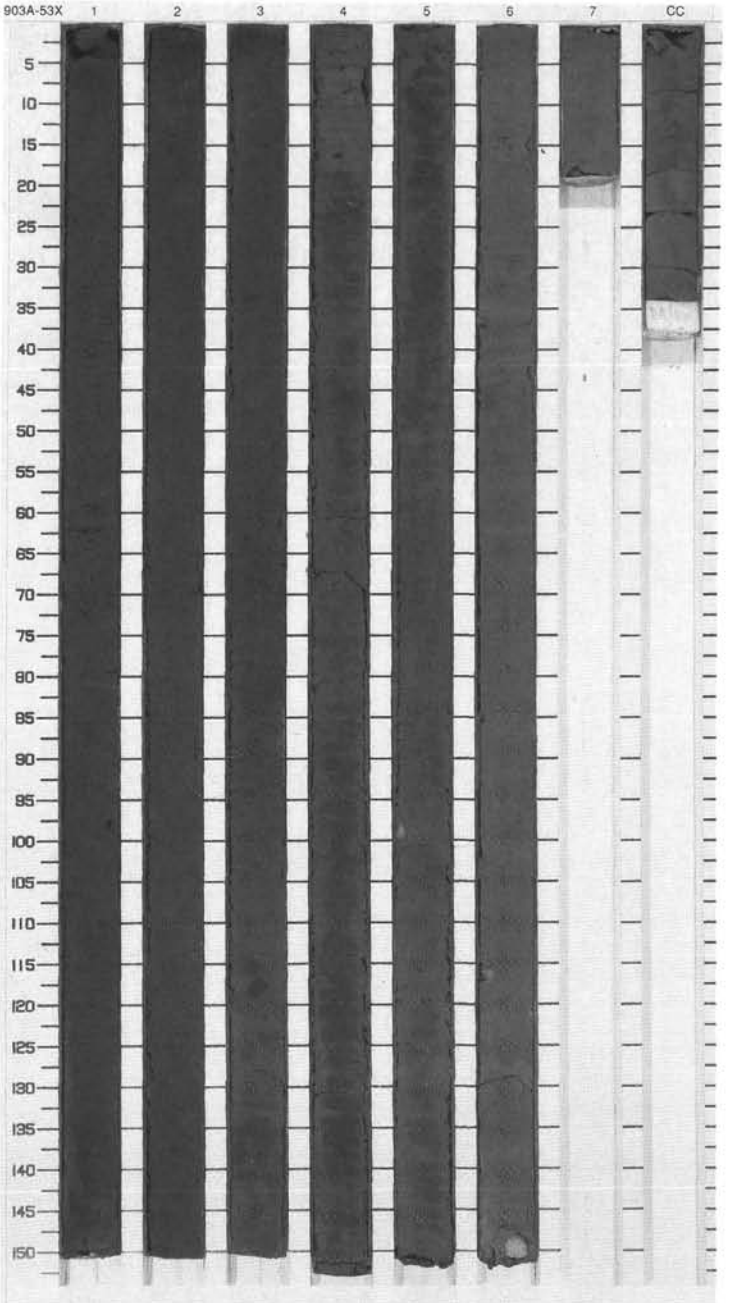
SITE 903 HOLE A CORE 52X CORED 461.9 - 471.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	late Miocene			S, P, M	10Y 4/1; 10Y 3/1	SILTY CLAY and SANDY SILTY CLAY Major Lithologies: This core comprises two parts. The upper part consists mainly of greenish gray, moderately bioturbated, SILTY CLAY. Pyrite nodules (2 mm to 2 cm) are common in Sections 1 and 2. Cream-colored bands with diffuse boundaries (probably siderite-rich horizons) occur from Sections 1 through 4. The second part consists of glauconitic, moderately bioturbated SANDY SILTY CLAY containing scattered mica flakes and abundant woody fragments. In Section 6, a sharp contact characterizes the top of a more glauconitic, sandy, and darker unit. Shell fragments occur below this contact. Biogenic remains consist mainly of diatom and sponge spicules, a few percent each.



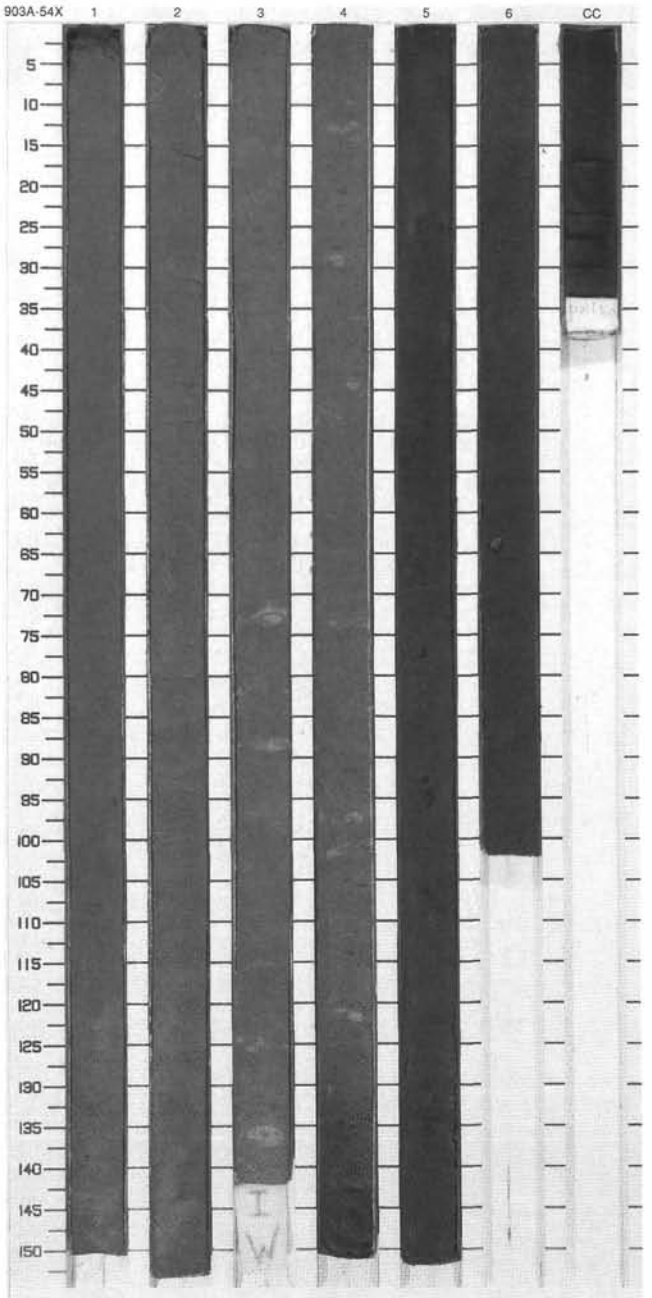
SITE 903 HOLE A CORE 53X CORED 471.6 - 481.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	late Miocene			S P	10Y 3/1	SILTY CLAY and SANDY SILTY CLAY Major Lithologies: The upper part of the core (Sections 1 to 3) consists of greenish gray, slightly bioturbated, micaceous, and weakly glauconitic SANDY SILTY CLAY. Common woody fragments occur in Section 1. The lower part of the core is composed of brownish (10Y 3/2) and greenish gray (10Y 4/1) slightly bioturbated SILTY CLAY with comminuted woody fragments and glauconite. Granules of glauconite are abundant in Section 4.
		2				S P		
		3				S P		
		4				S P	10Y 3/2	
		5				S P		
		6				S P	10Y 4/1	
		7 CC				M		



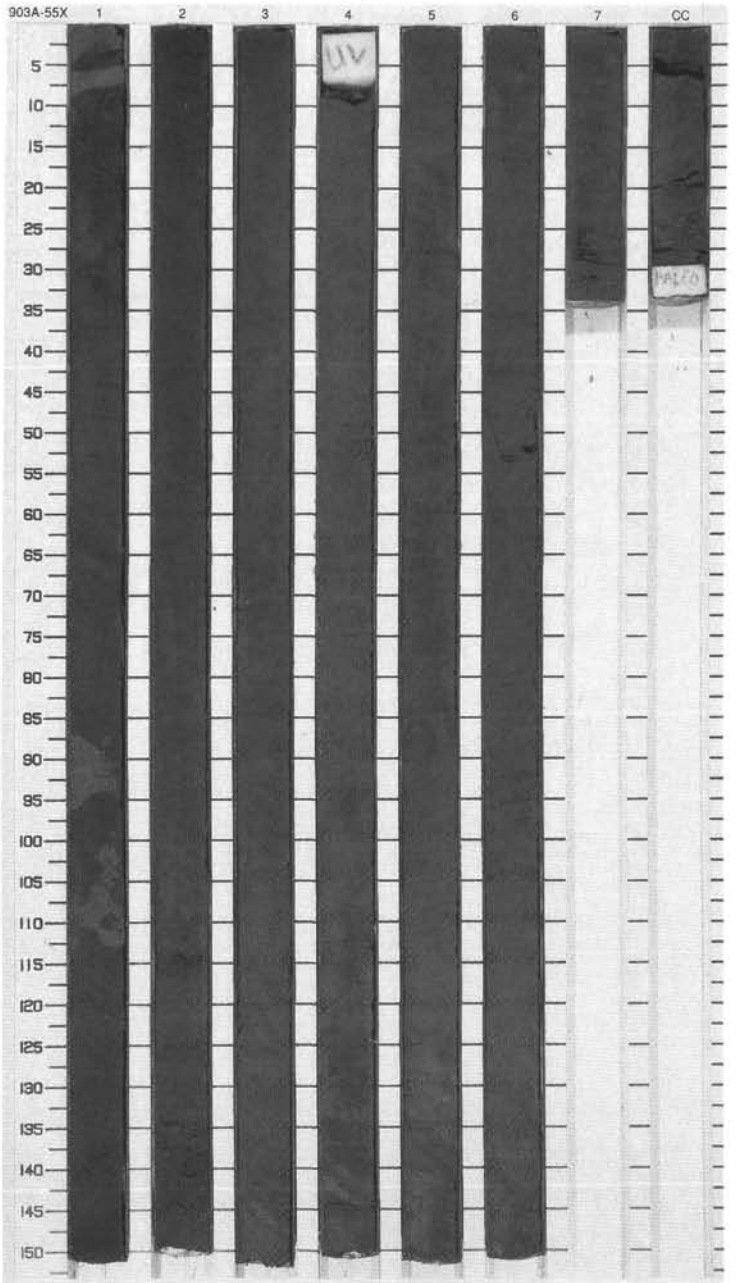
SITE 903 HOLE A CORE 54X CORED 481.3 - 490.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1–6, CC	late Miocene			S, P, M	10Y 4/1; 10Y 3/1	SILTY CLAY and SANDY CLAYEY SILT Major Lithologies: Section 1 to Section 4 at 125 cm consist of weakly bioturbated, greenish gray SILTY CLAY with scattered cream-colored siderite(?) nodules (up to 3 cm in diameter). These nodules occurring mainly in Sections 3 and 4 seem to be in various stages of formation. From Section 4 to the base of the core, sediment consists of glauconite-rich SANDY CLAYEY SILT with occasional burrows and well-rounded (0.5 cm to 1 cm in diameter) pebbles (Section 6, 27 and 64 cm). About 15% of diatoms in Sections 1 to 4.



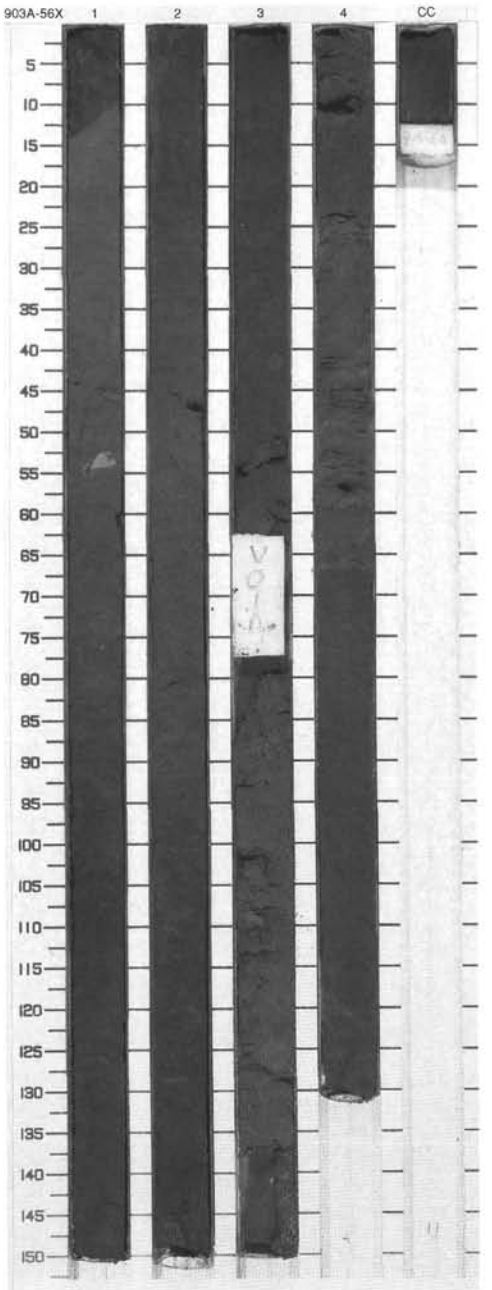
SITE 903 HOLE A CORE 55X CORED 490.9 - 500.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	late Miocene			S, P, S, P, S, P, S, P, S, P, S, M	10Y 3/1; N3	SILTY CLAY and SANDY, CLAYEY SILT Major Lithologies: Section 1 to Section 2, 56 cm, consists of slightly bioturbated, glauconitic SANDY, CLAYEY SILT displaying a sharp base. Several large (up to 9 cm in diameter) cream-colored nodules occur in Section 1, 87–113 cm. From Section 2, 56 cm to the base of the core, sediment consists of dark gray SILTY CLAY with numerous laminae containing woody fragments. About 20% of diatoms from Section 4 to the base of the core. Minor Lithologies: Silty sand layers occur in Section 2, 112–115 cm, Section 4, 144–150 cm, and Section 7, 24–29 cm.



SITE 903 HOLE A CORE 56X CORED 500.6 - 510.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–5	Void	1, 2, 3, 4, CC	late Miocene			S, D, P, S, P, S, P, M	5Y 5/1 To 5Y 3/1; 5Y 5/1; N3	SANDY, SILTY CLAY Major Lithology: The core is mainly composed of SANDY, SILTY CLAY. Section 1 consists of glauconitic, moderately bioturbated SANDY, SILTY CLAY with comminuted woody fragments. Finer SANDY, SILTY CLAY with less glauconite occurs from the top of Section 2 to Section 3, 62 cm. The base of the core consists of SANDY, SILTY CLAY with occasional well-rounded quartz and lithic pebbles (up to 3 mm in diameter) and sandy laminated zones in Section 4, 24–28 and 43–56 cm.

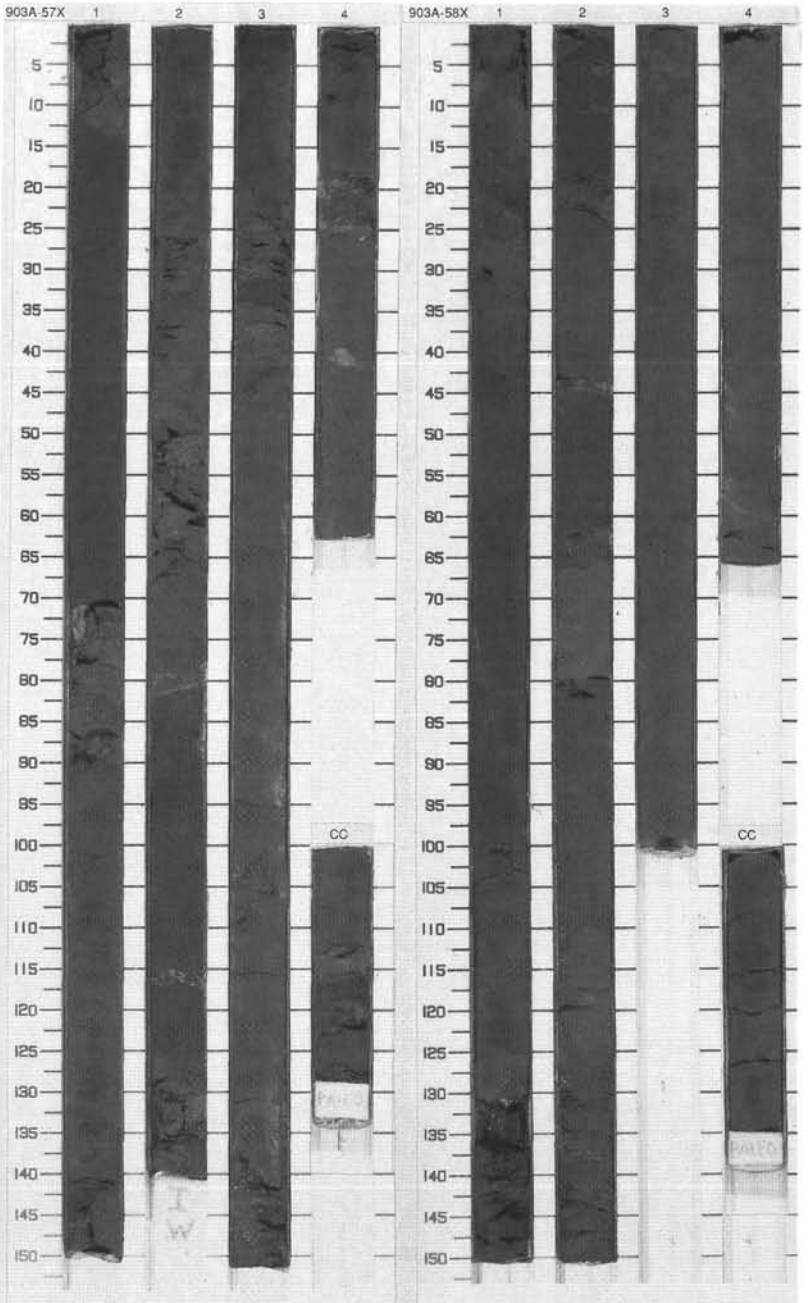


SITE 903 HOLE A CORE 57X CORED 510.2 - 519.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–5		1, 2, 3, 4, CC	late Miocene			S, P, S, P, I, S, P, P, M	5Y 3/1	SANDY, SILTY CLAY Major Lithology: The whole core consists of more or less glauconitic SANDY, SILTY CLAY with occasional woody fragments and carbonate nodules. Minor Lithology: Sand intervals, without well-defined structure because of drilling disturbance, occur throughout the core (Section 1, 70–91 cm, 140–150 cm; Section 2, 28–68 cm, 128–140; Section 3, 23–40 cm, 140–148 cm; and CC, 13–15 cm).

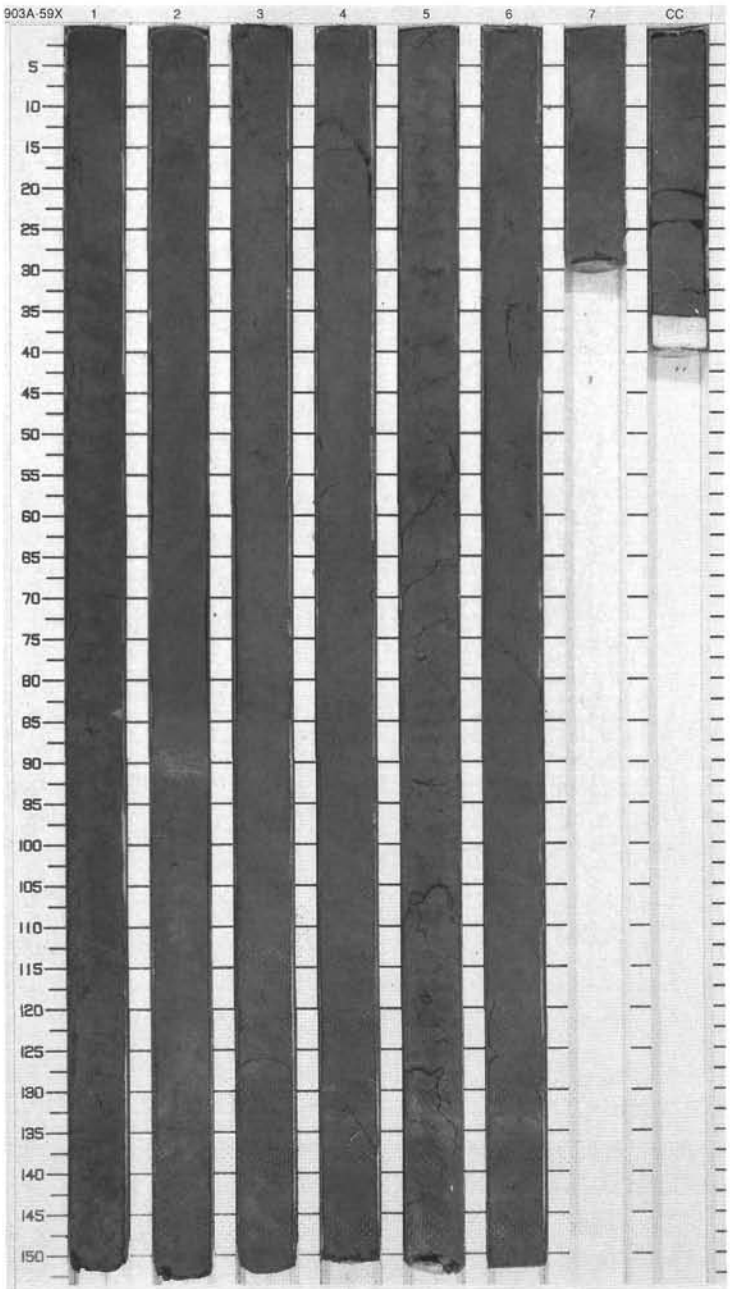
SITE 903 HOLE A CORE 58X CORED 519.9 - 529.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–5		1, 2, 3, 4, CC	late Miocene, middle Mio.-late Mio.			S, P, S, P, S, P, S, M	5Y 5/1 To 5Y 3/1	SANDY,SILTY CLAY and SILTY CLAY Major Lithologies: Sediment of Section 1 consists of glauconitic SANDY, SILTY CLAY. From Section 2 to the base of the core, less glauconitic SILTY CLAY occurs. Woody fragments are common. Disturbed sand intervals occur in Section 1, 120 and 137 cm, and in Section 2, 17–22 and 130–139 cm. More indurated sediment occurs in Section 2, 66–80 and 107–117 cm.



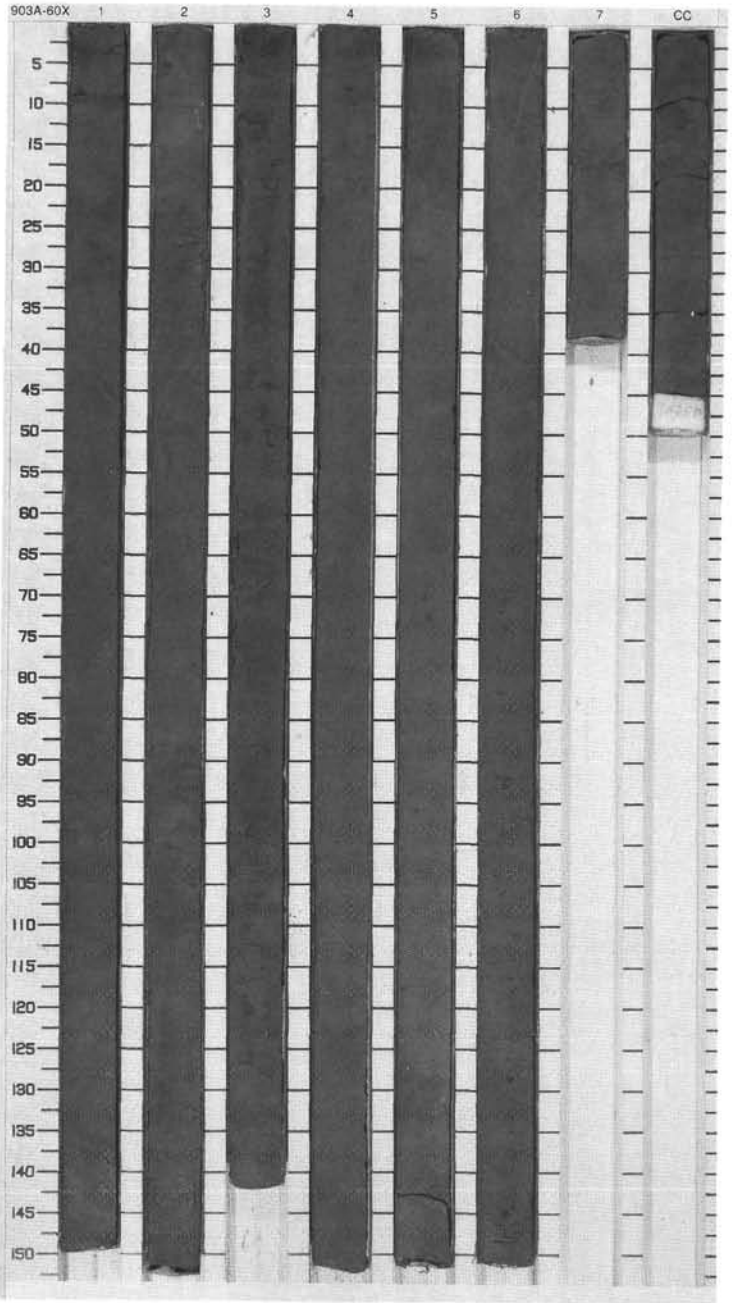
SITE 903 HOLE A CORE 59X CORED 529.5 - 539.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	middle Miocene-late Miocene			S P	5Y 5/1 To 5Y 4/1	SILTY CLAY Major Lithology: Greenish gray SILTY CLAY, semi-indurated, homogenous, moderate to heavy bioturbation throughout (?Chondrites), minor incipient replacement of small (2–5 cm) zones by ?siderite/calcite. 5% to 10% of diatoms throughout. NOTE: Extensive drilling biscuit deformation.
		2				S P		
		3				S		
		4				S		
		5				S P		
		6				S P		
		7				S		
		CC				M		



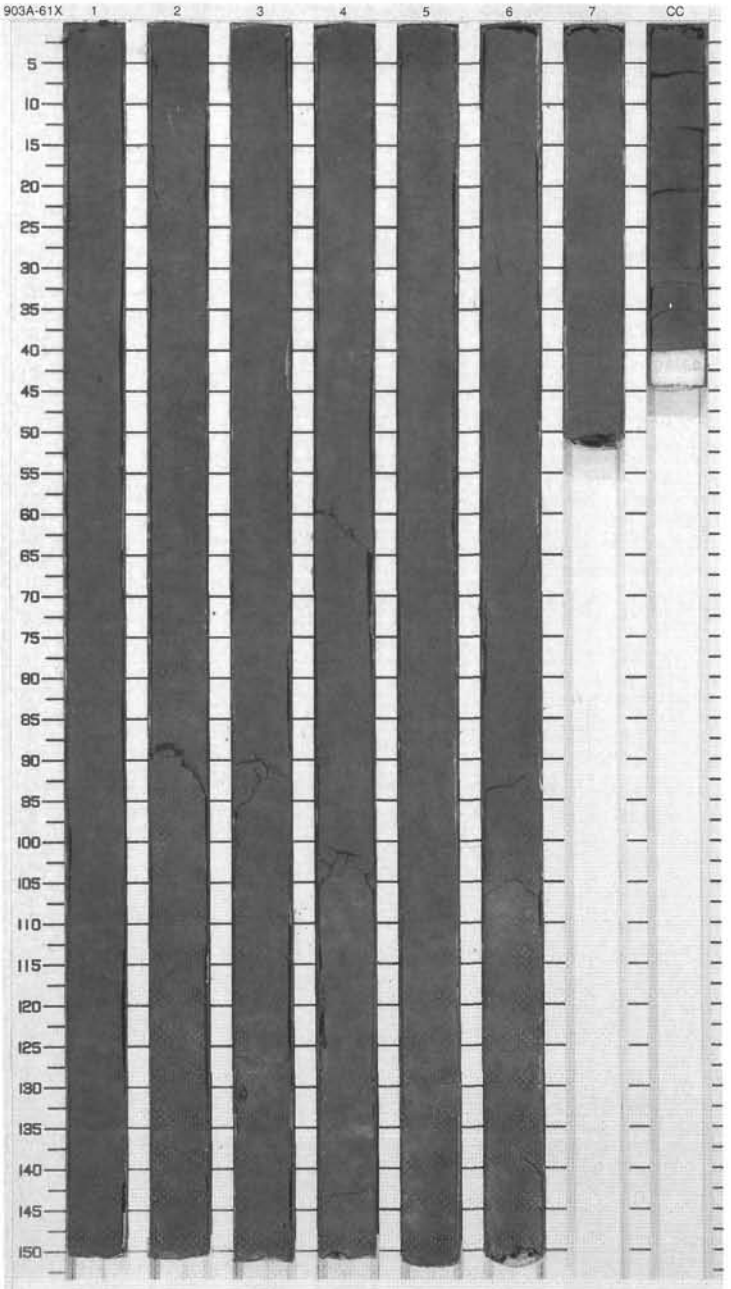
SITE 903 HOLE A CORE 60X CORED 539.2 - 548.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	middle Miocene-late Miocene			S P	5Y 4/1	SILTY CLAY Major Lithology: Greenish gray (5Y 4/1), homogeneous, semi-indurated SILTY CLAY. 5% to 10% of diatoms. NOTE: Drilling biscuit occurs throughout this core.
		2				S P		
		3				S		
		4				I S P		
		5				S P		
		6				S P		
		7				S		
		CC				S M		



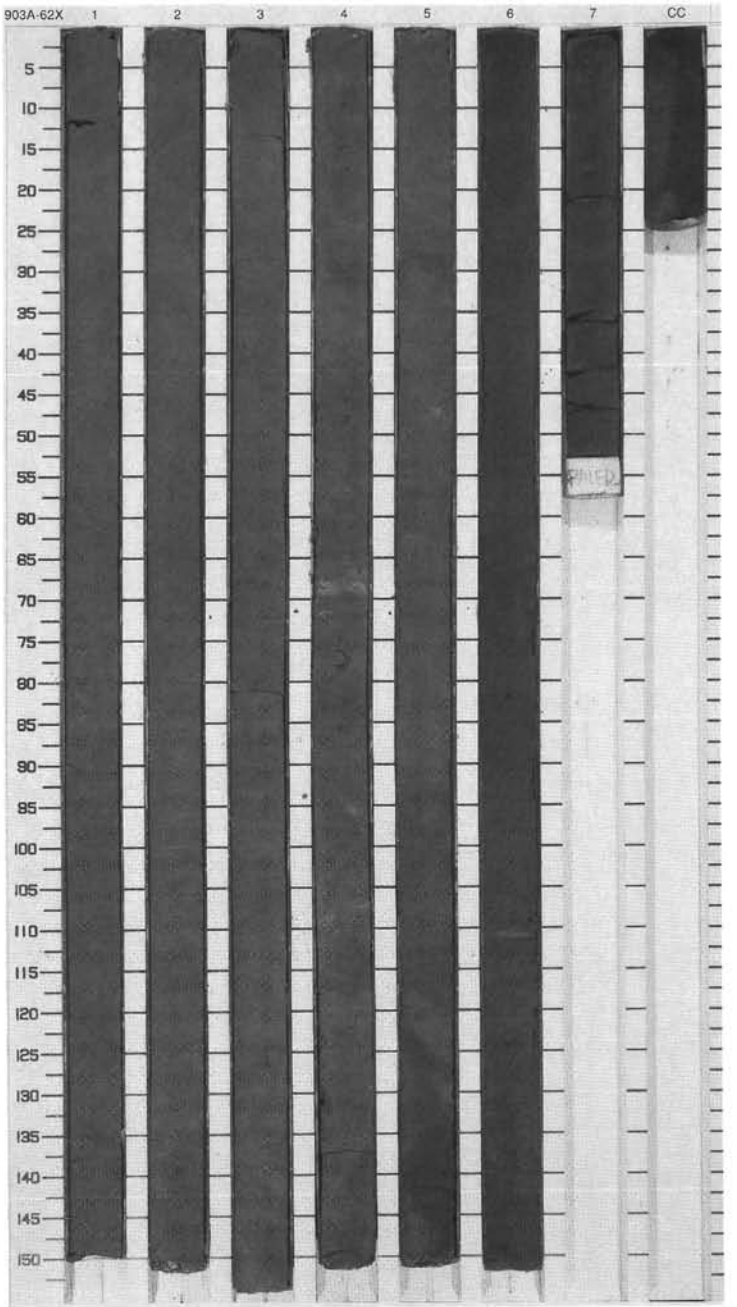
SITE 903 HOLE A CORE 61X CORED 548.9 - 558.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	middle Miocene-late Miocene			P	5Y 4/1	SILTY CLAY/CLAYSTONE Major Lithology: Greenish gray SILTY CLAY/CLAYSTONE, homogeneous, occasional wood fragments in Section 1.
		2				S P		
		3						
		4				P		
		5				S		
		6						
		7						
		CC				M		



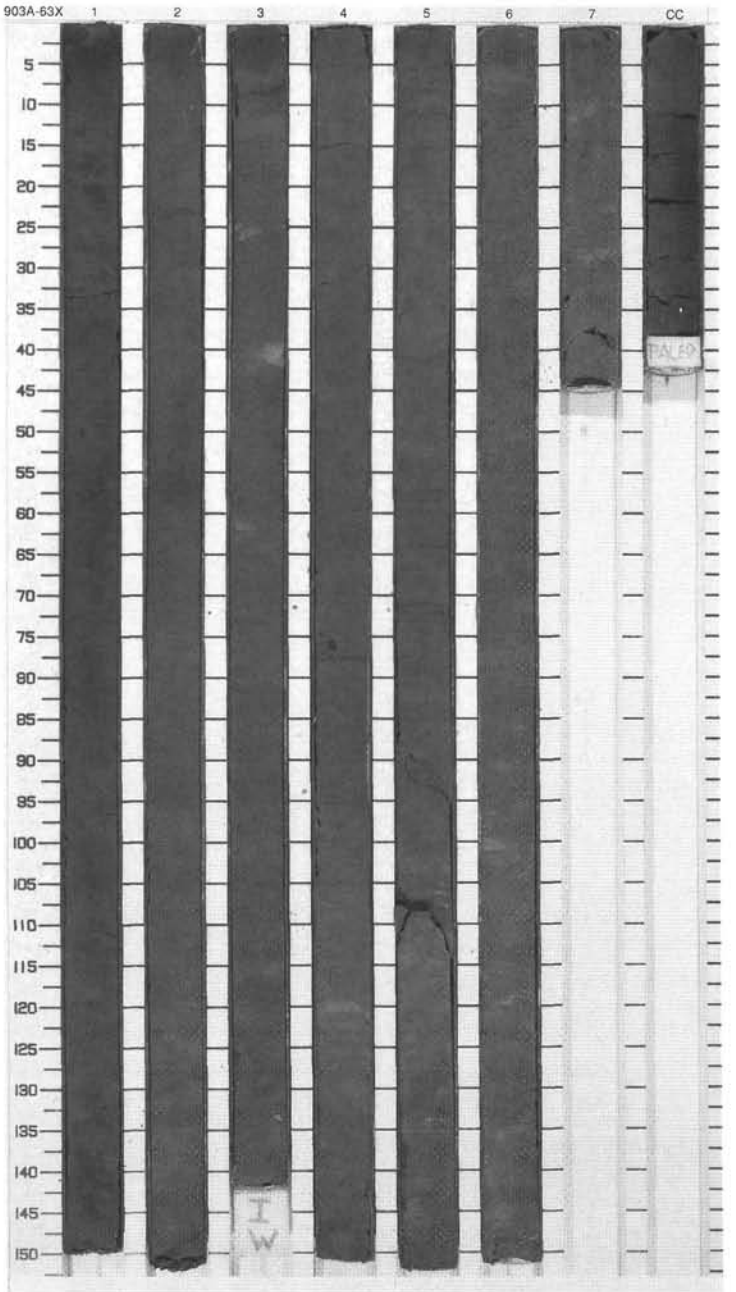
SITE 903 HOLE A CORE 62X CORED 558.5 - 567.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	middle Miocene-late Miocene	⊙		P	5Y 5/1	SILTY CLAY/CLAYSTONE Major Lithology: Greenish gray, homogeneous SILTY CLAY/CLAYSTONE in Sections 1 through 5. Cream-colored siderite/calcite nodules and thin beds (<5 cm) occur in Sections 3 and 4. In Sections 6 and 7 and the Core Catcher, the SILTY CLAY/CLAYSTONE is dark greenish gray (5Y 3/1) with occasional plant debris. Minor Lithology: SANDY SILTY CLAY, homogeneous, common quartz sand, rare subrounded quartz granules, and occasional plant debris.
		2				S		
		3				P		
		4		⊙ ⊙		P		
		5				S		
		6				P	5Y 3/1	
		7						
		CC				M		



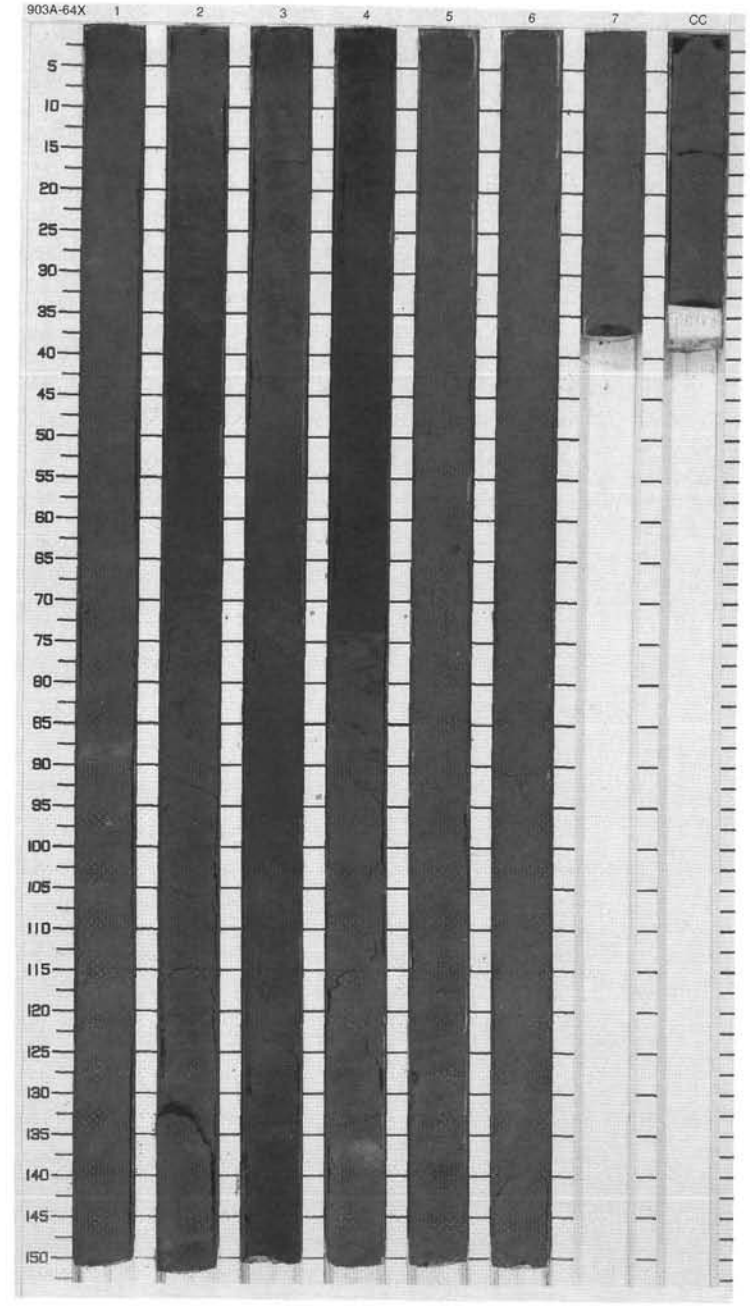
SITE 903 HOLE A CORE 63X CORED 567.8 - 577.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	middle Miocene-late Miocene			P	5Y 3/1 To 5Y 5/1	SILTY CLAY/CLAYSTONE Major Lithology: Homogeneous, greenish gray (5Y 3/1 to 5Y 5/1) SILTY CLAY/CLAYSTONE with occasional wood fragments in Sections 1 to Core Catcher. Cream-colored siderite/calcite nodules occur in Sections 3 to Core Catcher. Less than 10% of diatoms.
		2				S P		
		3						
		4		P			5Y 5/1	
		5				S		
		6				P		
		7						
		CC				M		



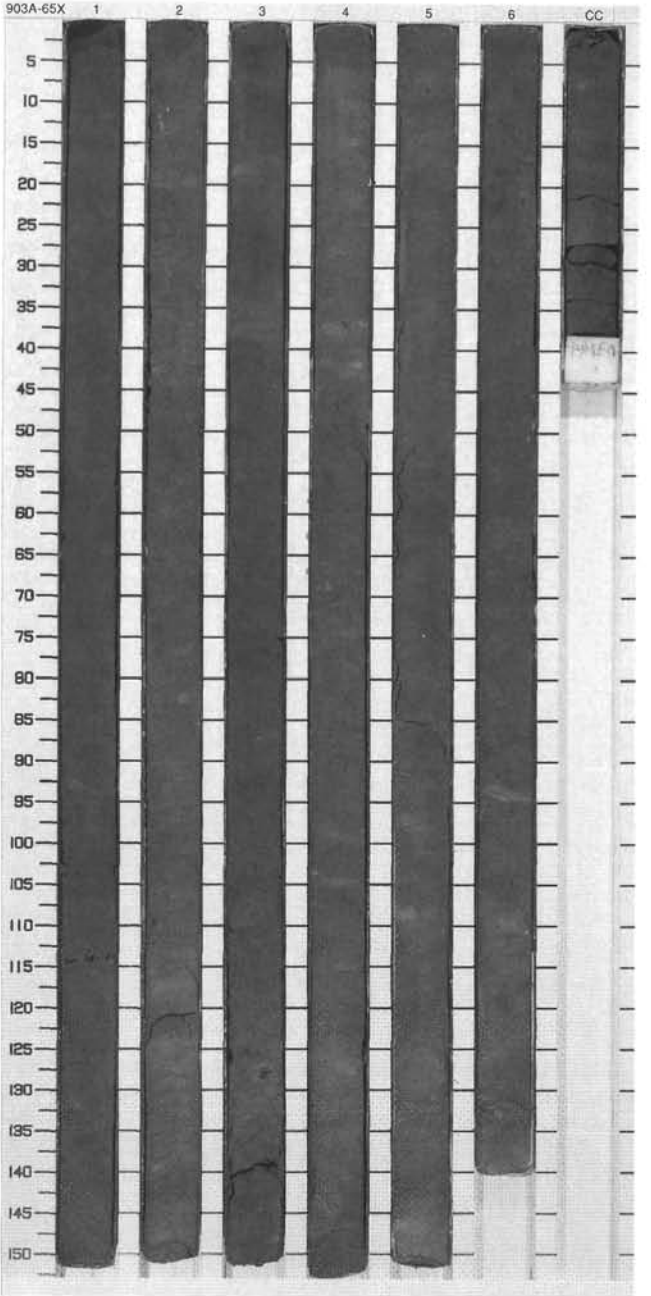
SITE 903 HOLE A CORE 64X CORED 577.5 - 587.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	middle Miocene-late Miocene			P	5Y 5/1	GLAUCONITIC SAND/SILT/CLAY, GLAUCONITIC SILTY CLAY, SILTY CLAY and CLAY Major Lithologies: Gray-green GLAUCONITIC SAND/SILT/CLAY *forms two fining*-upward units at the top of Section 2, in Section 3, and the top of Section 4. These are more glauconitic at the base and heavily to moderately bioturbated, with cm-scale subhorizontal burrows. The lower unit grades through GLAUCONITIC SILTY CLAY into SILTY CLAY above. The SILTY CLAY and CLAY that makes up the remainder of the core is gray to *light gray* and contains common Chondrites-like burrows. Minor Lithology: Buff color (2.5Y 7/2) ?SIDERITE nodules/color bands occur in Sections 1 and 4.
		2				S	5Y 3/2	
						S	5Y 5/2	
		3				S		
						P		
		4				S	5Y 5/3	
		5				P	5Y 5/1	
		6						
		7				S		
		CC				M		



SITE 903 HOLE A CORE 65X CORED 587.1 - 596.8 mbsf

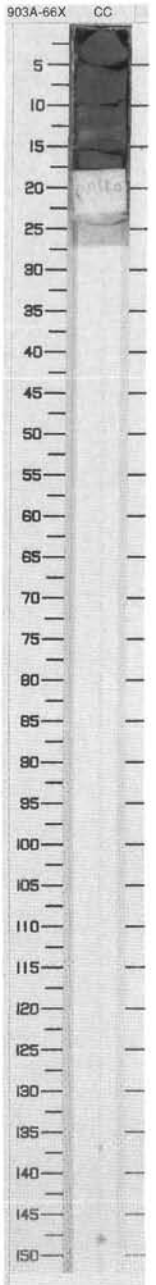
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–6, CC	middle Miocene-late Miocene			P, S, M	5Y 5/1; 5Y 5/2 To 5Y 5/1	CLAY and SILTY CLAY Major Lithologies: Gray, slightly to moderately bioturbated CLAY and SILTY CLAY with scattered buff-colored (2.5Y 7/2) nodules and color bands.



SITE 903 HOLE A CORE 66X CORED 596.8 - 606.3 mbsf

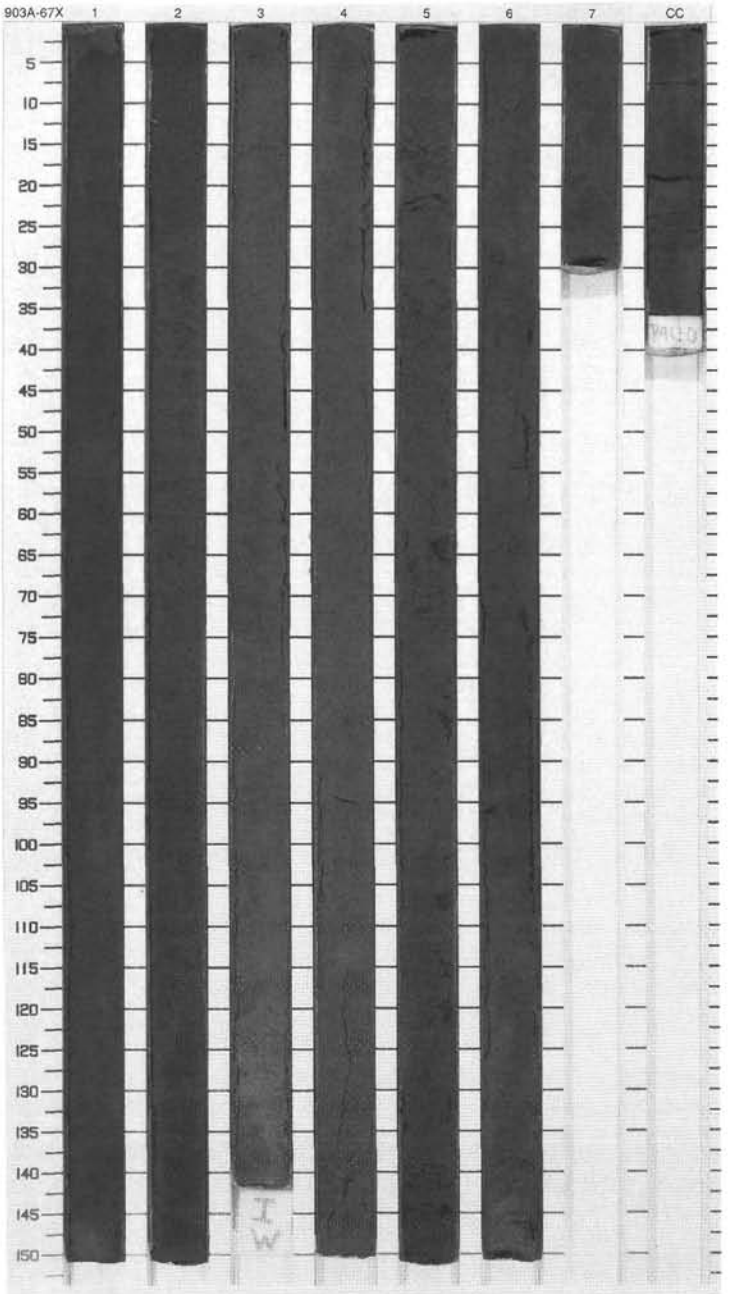
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC				S M		CLAY

Major Lithology:
Gray to olive gray (5Y 5/1 and 5Y 5/2), homogeneous CLAY with scattered buff-colored (2.5Y 7/2) thin (1- to 2-cm-thick) bands.



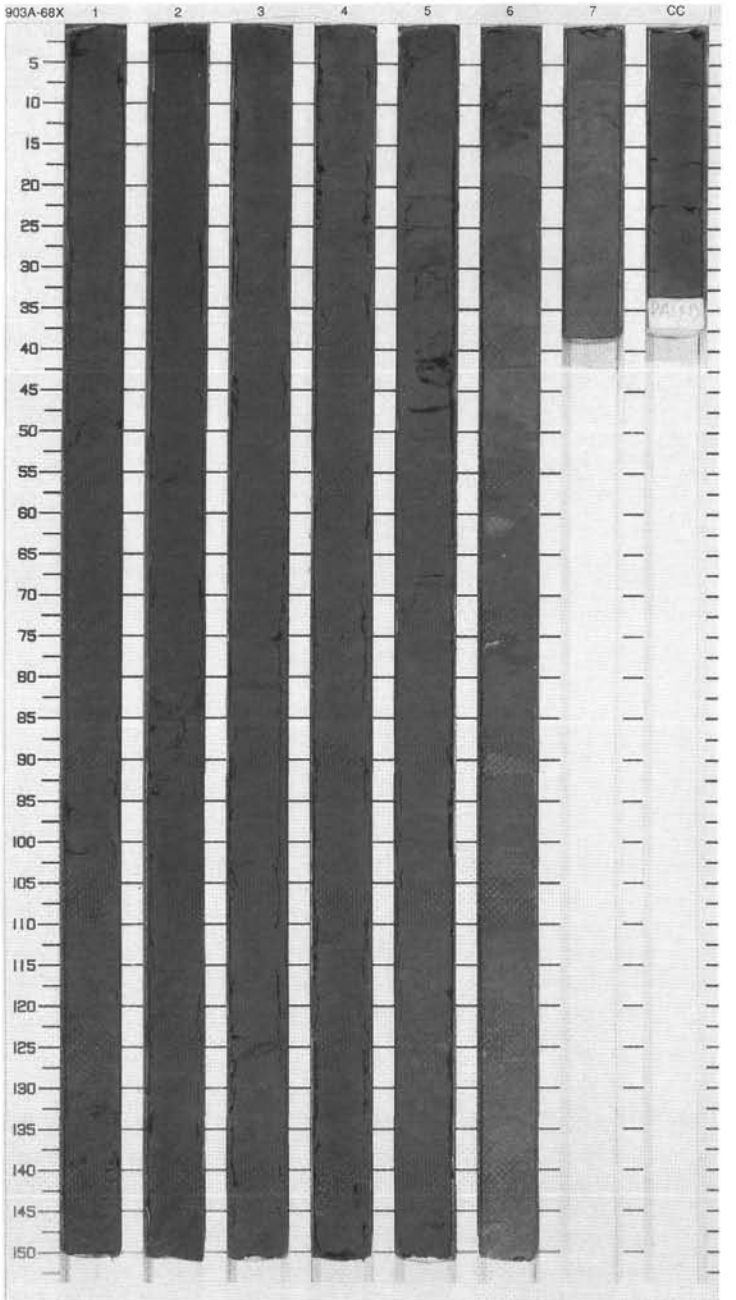
SITE 903 HOLE A CORE 67X CORED 606.3 - 616.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	middle Miocene-late Miocene			S	5Y 3/1	SILTY CLAY and SANDY SILT Major Lithologies: Moderately to heavily bioturbated SILTY CLAY, with variable amounts of glauconite, quartz, and mica silt, common plant material, and very minor very fine sand. SANDY SILT is slightly to heavily bioturbated, with abundant quartz, mica, and glauconite very fine to fine sand, and silt, common plant material. Minor Lithologies: SAND WITH SILT is dominantly composed of fine quartz sand with minor mica and glauconite. Rare granule-sized green mud clasts, quartz granules, and large plant fragments. SILTY SAND consists of poorly sorted quartz and glauconite sand, common glauconite granules, and small plant fragments.
		2		P		P	5Y 4/1	
		3				I	2.5Y 3/2	
		4				S		
						P		
		5				S	5Y 4/1	
		6		G G G		S	5Y 3/1	
						P	5Y 4/1	
		7				M	5Y 3/1	
		CC		F				



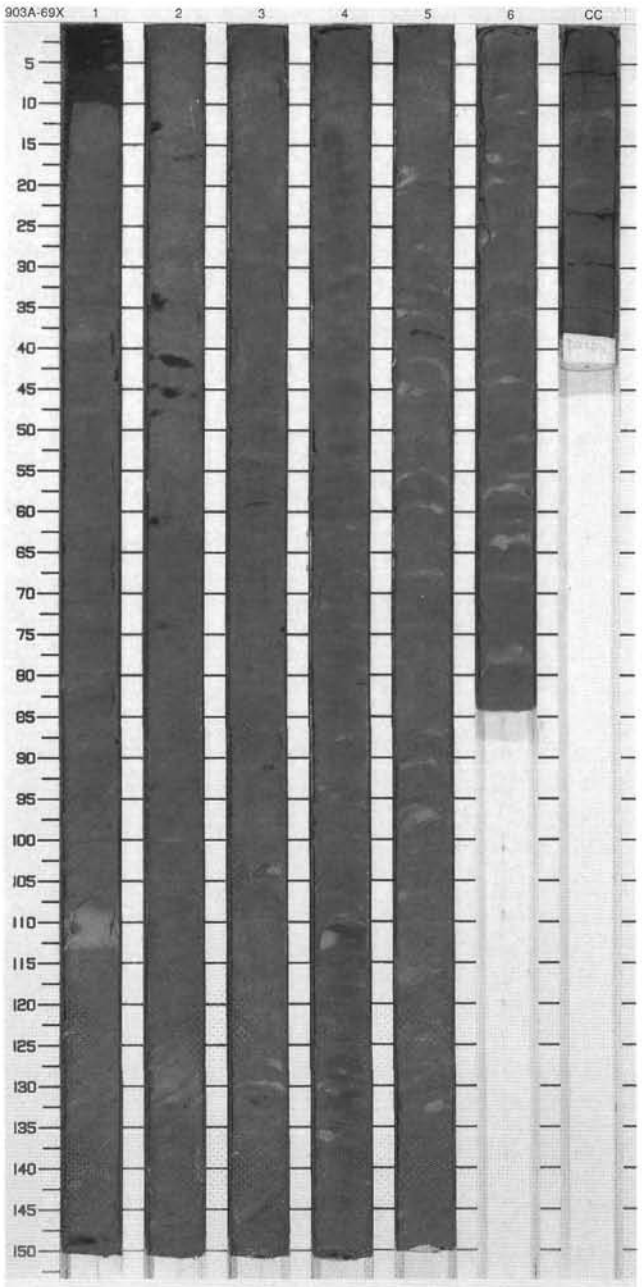
SITE 903 HOLE A CORE 68X CORED 616.0 - 625.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	middle Miocene-late Miocene			S, P, P, P, P, S, S, P, M	5Y 3/2; 10Y 4/1; 5Y 3/1; 5Y 4/1; 10Y 4/1; 10Y 5/1; 10Y 4/1; 5Y 4/1	SAND, CLAYEY SILT and SILTY CLAY Major Lithologies: Section 1 and the top of Section 2 comprises mostly fine- to medium-grained SAND and CLAYEY SILT. This unit is glauconitic (some present as clasts of glauconite sand) and contains scattered granule-sized grains. Most of Section 2, Section 3, and the top of Section 4 comprises CLAYEY SILT and SILTY CLAY, moderately bioturbated and containing quartz and glauconite very fine sand, and towards the base, woody organic matter. Sections 4, 5, and 6 comprise mainly SAND of variable character. Fine to coarse poorly sorted SAND occurs at the base of Section 4, and the middle and the base of Section 5. These units are poorly sorted and contain fine to coarse lithic fragments and small pebbbles. The more silty layers between these sands are bioturbated and contain shell fragments and woody organic material. The SAND in Section 6 is a slump unit, with poorly sorted medium sand to granule-sized grains. The upper part shows slump folds. The lower part contains a mixture of lithic clasts. The basal contact with the underlying SILTY CLAY is sharp.



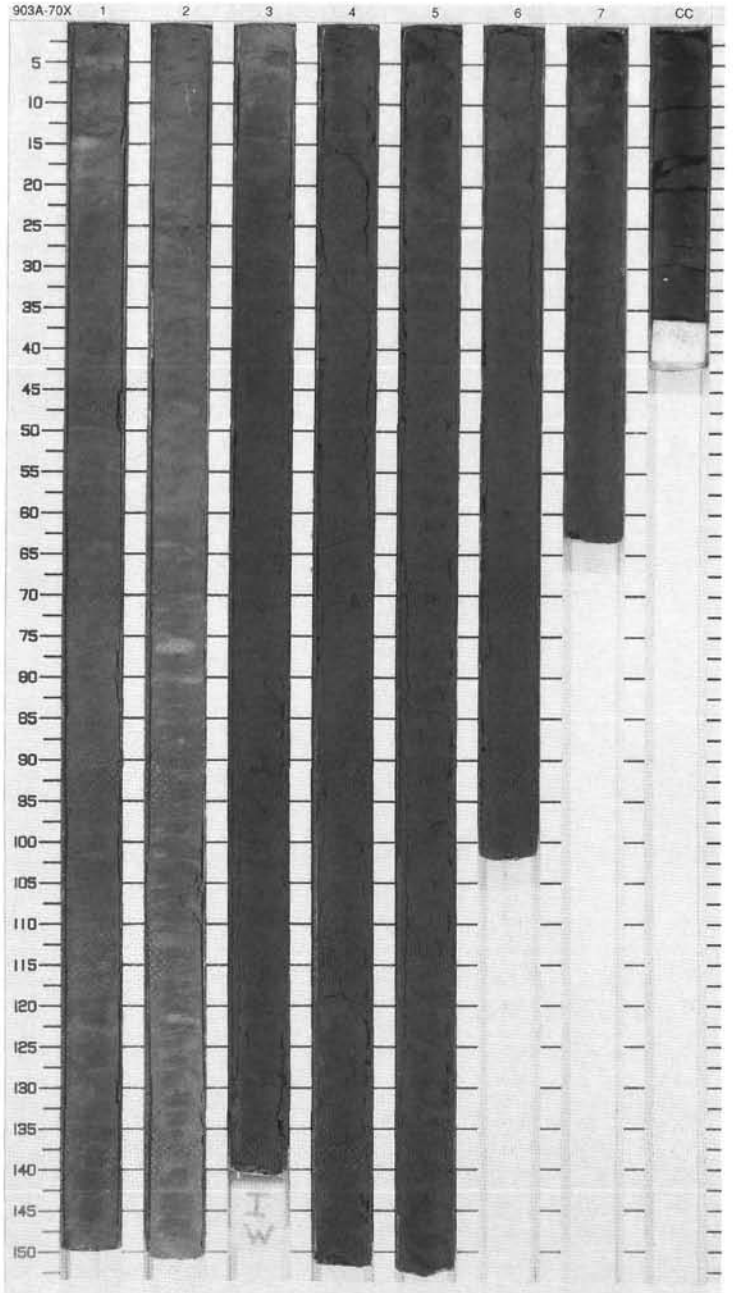
SITE 903 HOLE A CORE 69X CORED 625.6 - 635.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1, 2, 3, 4, 5, 6, CC	middle Miocene-late Miocene	C, P	\/\/	P, S, P, S, P, M	5Y 6/1	CLAY Major Lithology: CLAY: Buff-colored banded zones and concretions with diffuse boundaries are common. A zone of pyrite/nodules (~1 cm thick) occurs at the top of Sections 2 and 5. There is a moderately well-indurated zone with buff-colored nodules in Section 4 (110–140 cm). Chondrites-like burrows are common.



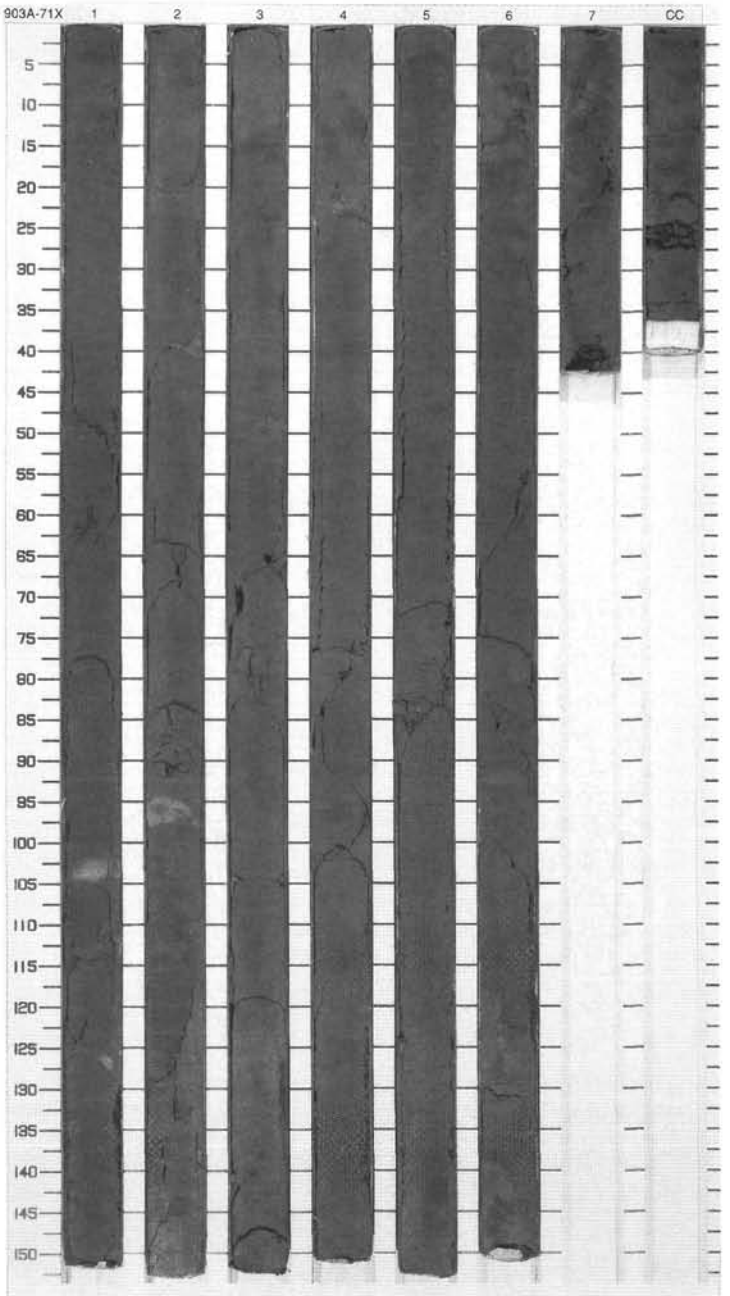
SITE 903 HOLE A CORE 70X CORED 635.2 - 644.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	middle Miocene-late Miocene			P, S, I, M	10Y 5/1 To 10Y 5/2; 5Y 3/1 To 5Y 3/2	CLAY and SILTY CLAY Major Lithologies: CLAY: greenish gray, slightly bioturbated, Chondrites burrows are common. Buff-colored zones, bands, and nodules. Pyrite nodules. SILTY CLAY: brownish dark gray grades upsection to light gray-gray. Silty clay has very fine-sized glauconite. Slight bioturbation.



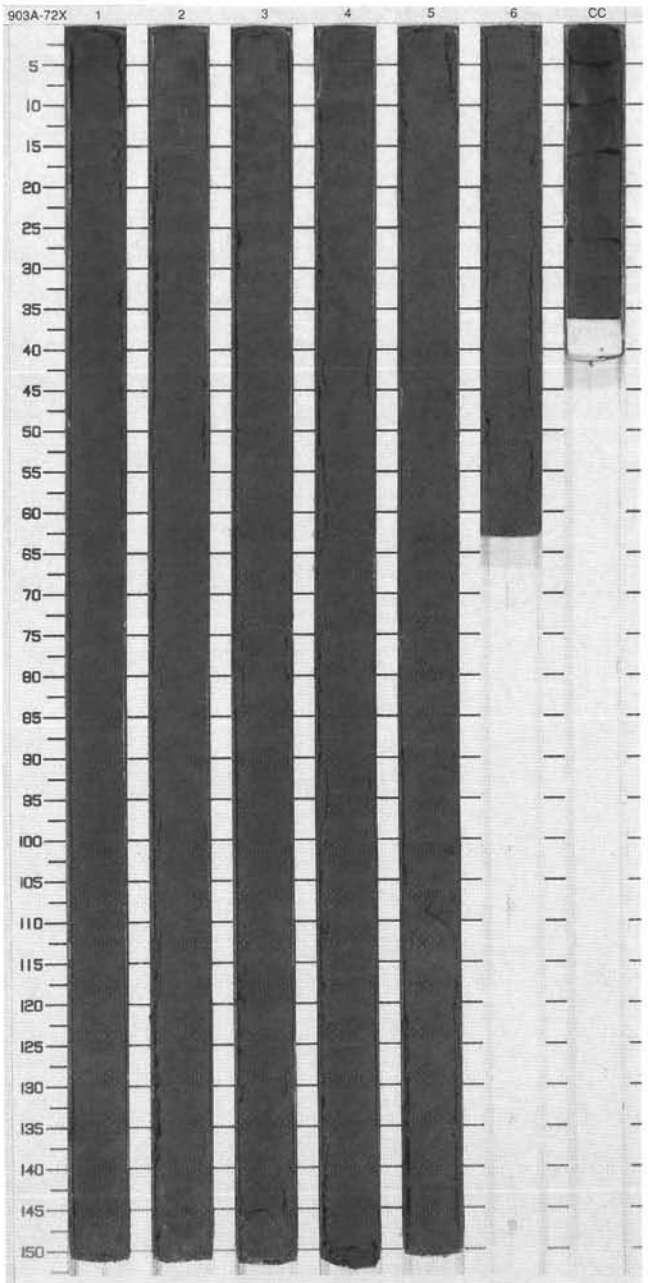
SITE 903 HOLE A CORE 71X CORED 644.7 - 654.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	middle Miocene-late Miocene			P, S, P, S, P, S, P, M	5Y 3/2 To 5Y 4/2; 5Y 4/1 To 5Y 4/2	SILTY CLAY Major Lithology: SILTY CLAY: olive dark gray, moderately bioturbated, with Chondrites-like small burrows (filled with black dark gray sediment). Buff-colored siderite/calcite nodules in Sections 1 and 2. Small wood fragments in Sections 1 and 2. Shell fragments through the core. Very fine sand-sized quartz at base of Section 3. Biogenic remains consist of diatoms (30%) and minor sponge spicules.



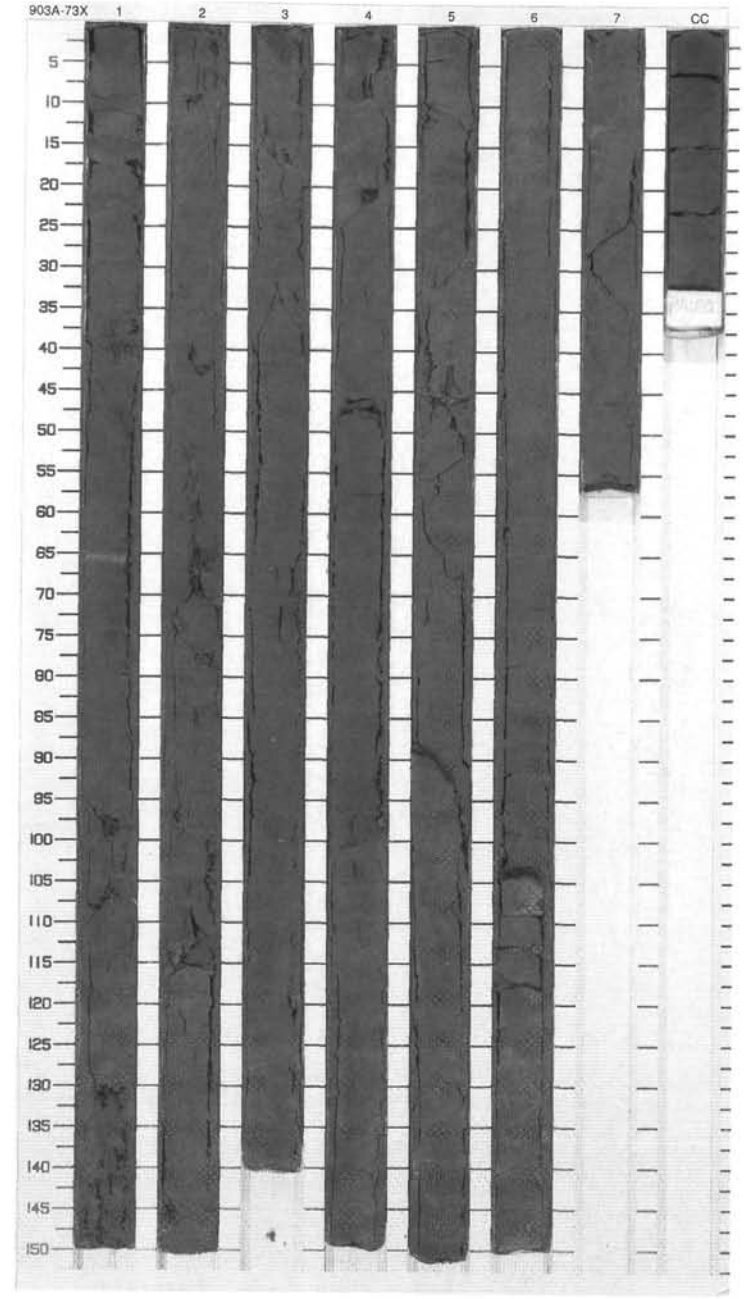
SITE 903 HOLE A CORE 72X CORED 654.4 - 664.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1, 2, 3, 4, 5, 6, CC	middle Miocene-late Miocene			P S; S; P; S; P; S; M	5Y 3/2	SILTY CLAY Major Lithology: SILTY CLAY: greenish gray, moderately bioturbated. Chondrite-like burrows, occasional occurrence of Planolites. Occasional shell fragments. Abundant diatoms (20%–30%).



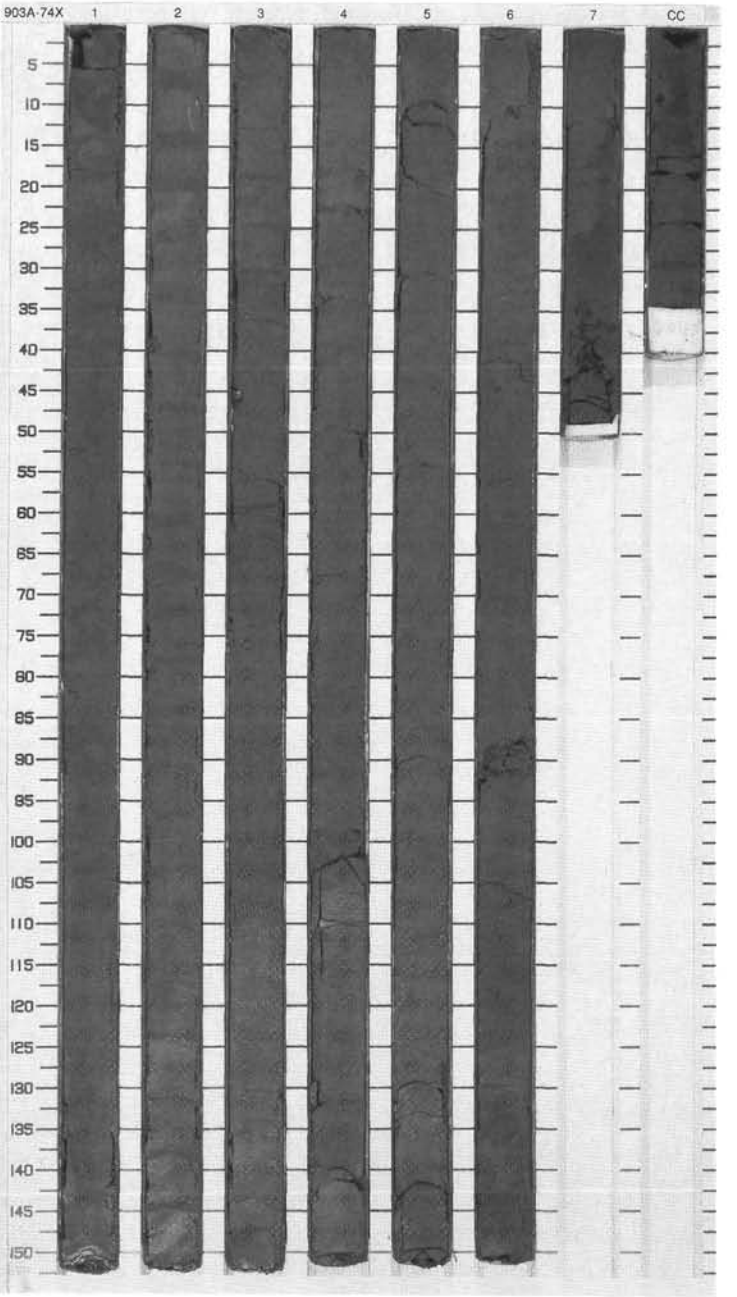
SITE 903 HOLE A CORE 73X CORED 664.1 - 673.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	middle Miocene-late Miocene			P, S, P, I, S, P, S, D, M	5Y 3/2	SILTY CLAY Major Lithology: SILTY CLAY: fairly homogeneous, green-brown in color, Chondrites-like burrows. Scarce mica flakes, scattered shell fragments. Woody fragments form laminations in Section 2 (85 cm), Section 4 (135 cm), and Section 5 (10 cm). Clusters of orange-brown crystals (0 to 5 cm in diameter) occur in Section 4 (100 cm) and Section 7 (15 cm). Pyrite nodules in Section 6 (85 and 140 cm). Pyritic stain: Section 7, 50 cm. About 30% diatoms.



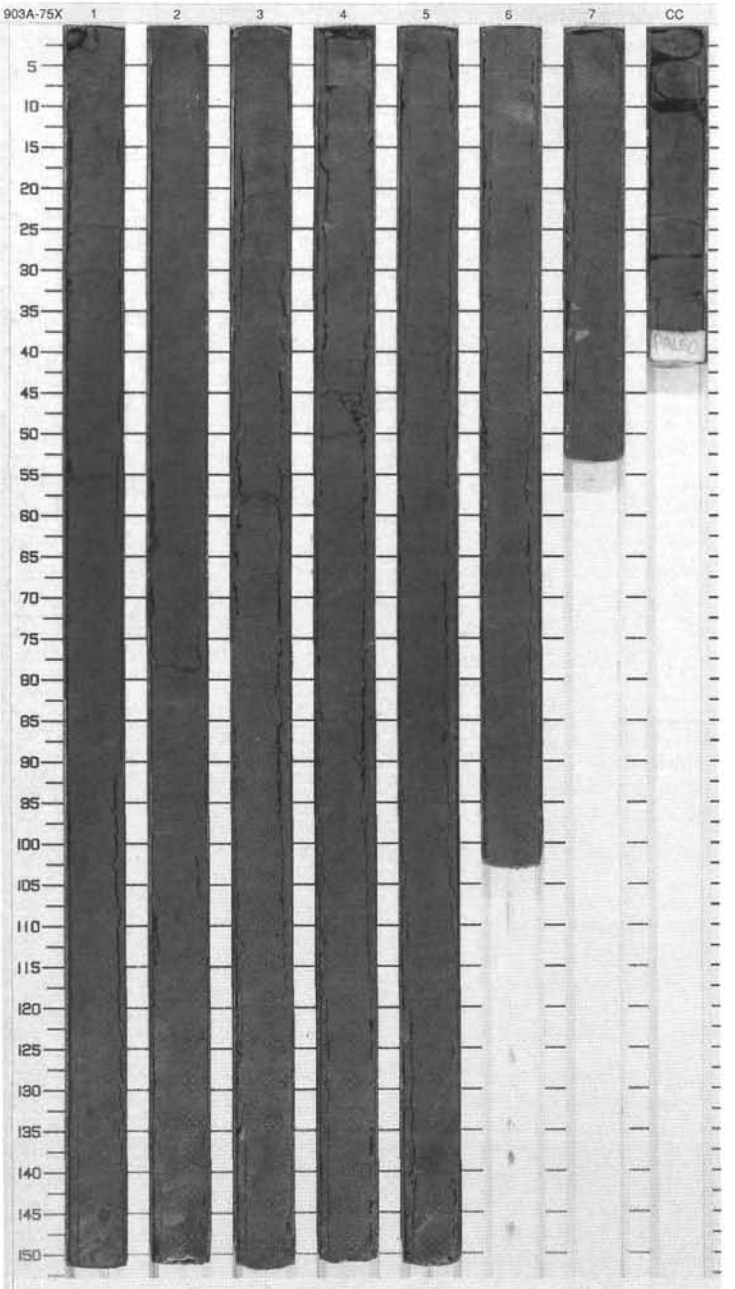
SITE 903 HOLE A CORE 74X CORED 673.8 - 683.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Miocene-late Miocene			S	5Y 4/2	SILTY CLAY and CLAYEY SILT Major Lithologies: SILTY CLAY: greenish gray, slightly bioturbated (Chondrites-like burrows). Pyrite nodules (1 mm) Section 1 (80 cm), Section 2 (80 cm), Section 3 (105 cm). Disseminated pyrite in Section 3 (95 cm), Section 4 (16 to 18 cm), and Section 5. Scattered woody fragments. CLAYEY SILT: slightly coarser and darker in color than the silty clay. Slightly glauconitic, micaceous, and with woody organic material. About 20% diatoms.
						P		
2		2						
3		3				S		
4		4					5Y 4/1	
5		5				S		
6		6				P		
7		7					5Y 3/2 To 2.5Y 3/2	
		CC				M		



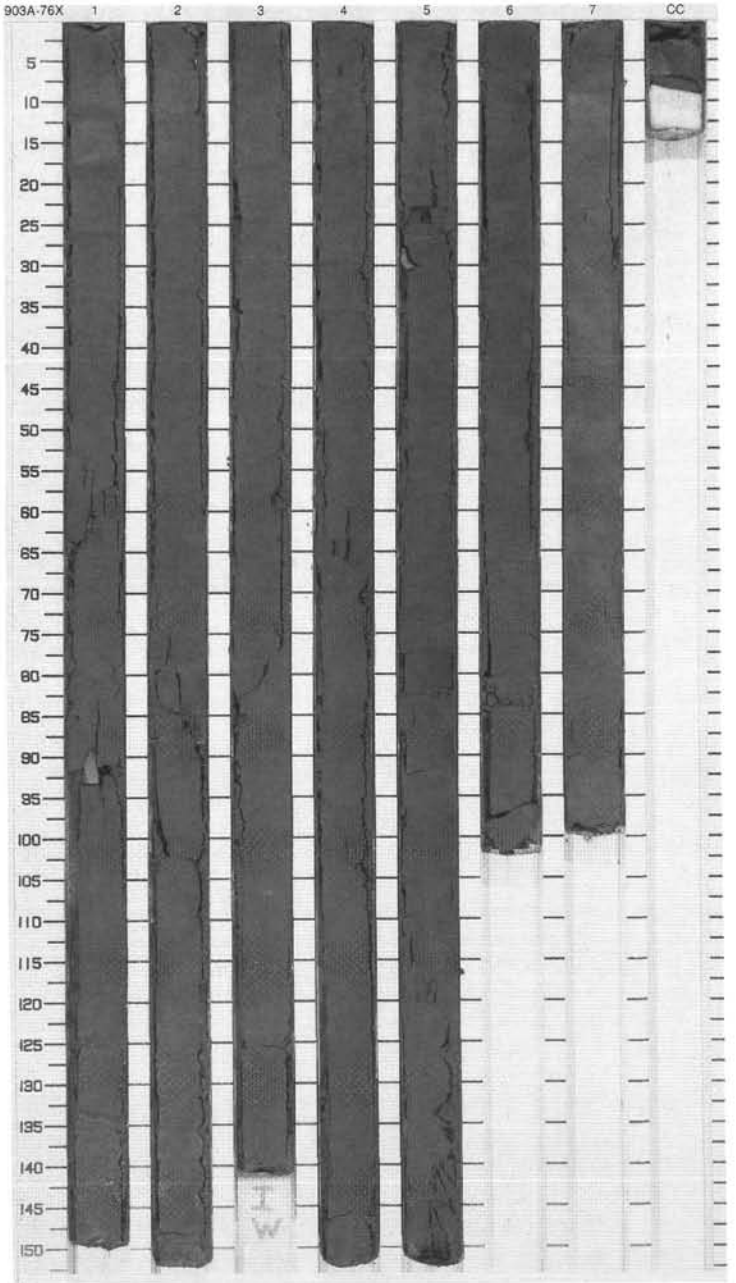
SITE 903 HOLE A CORE 75X CORED 683.5 - 693.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1, 2, 3, 4, 5, 6, 7, CC	middle Miocene-late Miocene		W	S, P, S, P, S, P, S, M	5Y 3/2; 5Y 4/2; 5Y 3/2 To 5Y 4/2	SILTY CLAY Major Lithology: The whole core consists of slightly to moderately bioturbated, weakly micaceous SILTY CLAY with scattered shell fragments and rare tiny woody fragments. Bioturbation comprise abundant Chondrites-like burrows together with uncommon Planolites (Section 5, 13 cm). Lighter, slightly indurated, cream-colored bands with diffuse boundaries occur from Section 3, downward. Buff-colored nodules (siderite?) occur in Section 7, 30–40 cm. About 15%–20% of diatoms.



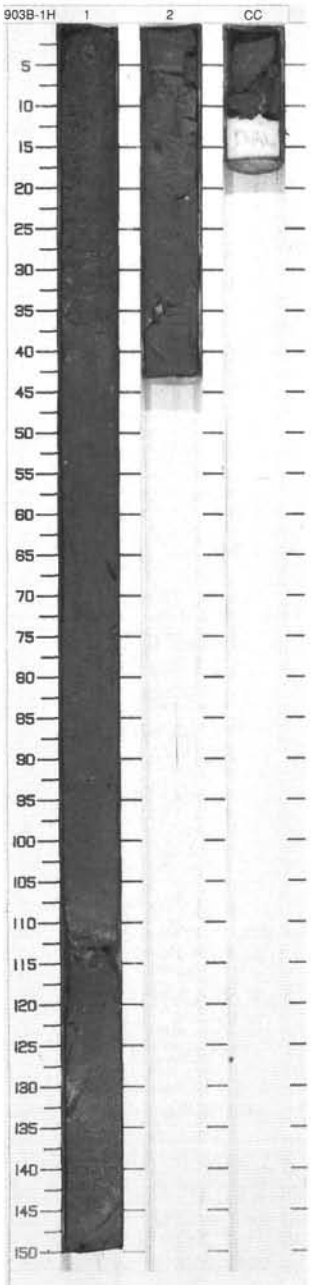
SITE 903 HOLE A CORE 76X CORED 693.1 - 702.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	middle Miocene-late Miocene			S, P, S, P, I, S, P, M S	5Y 3/2 To 5Y 4/2	SILTY CLAY Major Lithology: Greenish gray, slightly to moderately bioturbated (Chondrites-like burrows) SILTY CLAY to silty claystone. A glauconitic sandy layer (medium sand with mica flakes) occurs at the top of Section 6, 0–30 cm. Biogenic remains consist mainly of diatoms (about 20%) and sponge spicules (5%–10%).



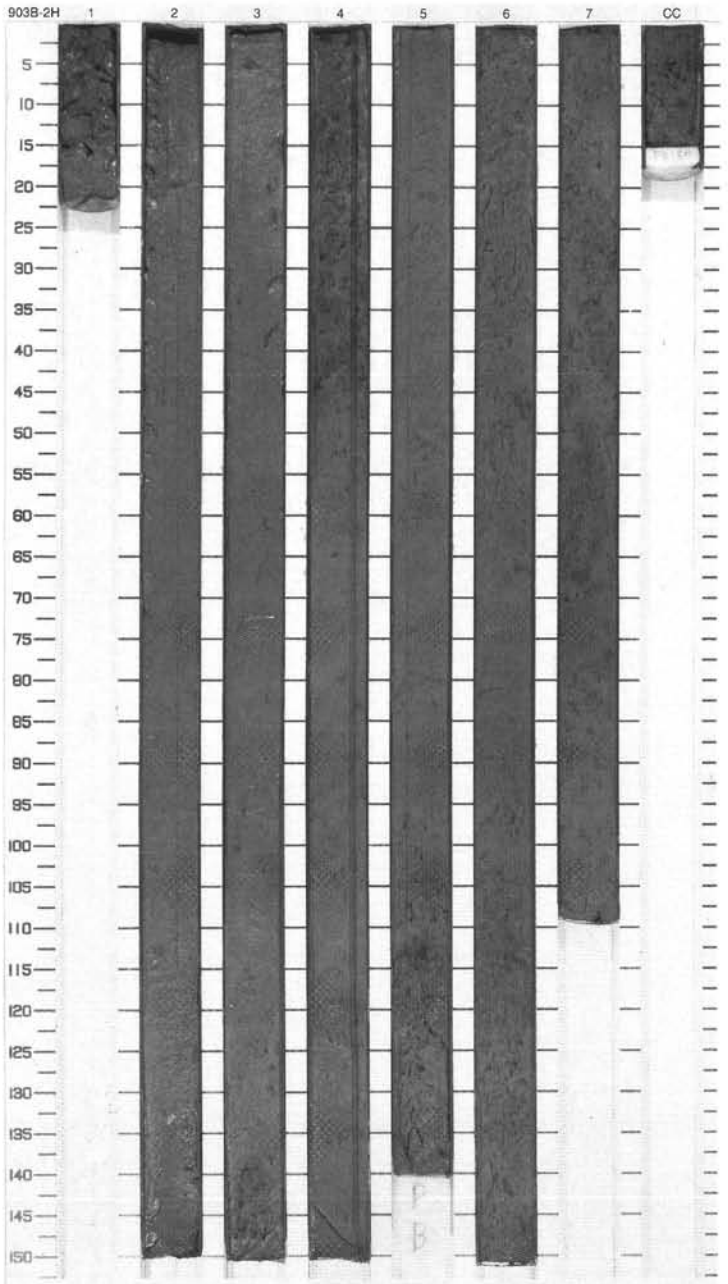
SITE 903 HOLE B CORE 1H CORED 0.0 - 2.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	late Pleistocene			S	5Y 4/2	SILTY CLAY Major Lithology: The top 37 cm of Section 1 consists of very soupy, green-gray, glauconitic sandy, SILTY CLAY with abundant foraminifers. The remainder of the core is soupy gray, structureless, SILTY CLAY with a few large shell fragments.
						P	10Y 4/1	
		2						
2		CC				M S		



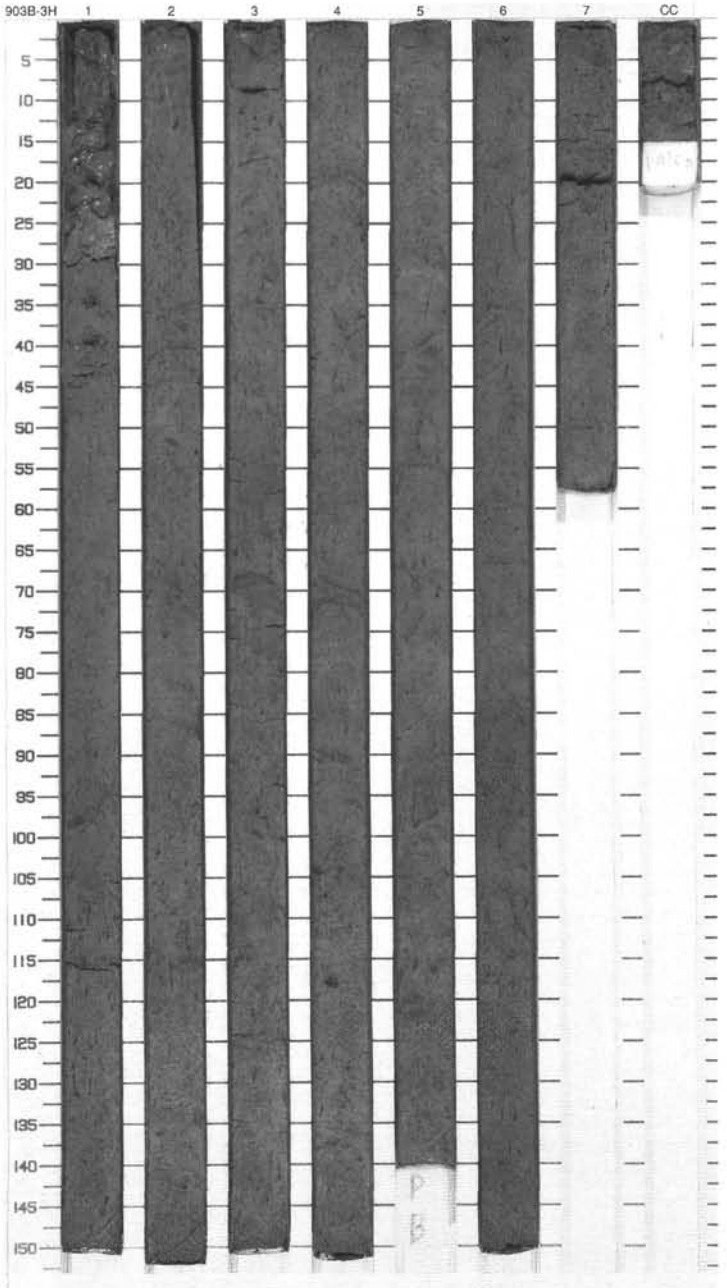
SITE 903 HOLE B CORE 2H CORED 2.0 - 11.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1–7, CC	middle Pleistocene			S, P, P, I W, P, M	10Y 4/1	SILTY CLAY Major Lithology: From the top down to Section 3, 90 cm, the core is structureless SILTY CLAY. The lower part of Section 3 is characterized by contorted beds containing mud clasts and shell fragments, and may be a slump. From the base of Section 3 to the base of the core, sediments consist of gray, moderately bioturbated SILTY CLAY. Burrows are generally filled with black hydrotroilite, except between Section 4, 50 cm and Section 5, 100 cm. A greenish gray clast occurs at 81 cm of Section 4. A sand-rich lense occurs in Section 6, 79 cm.



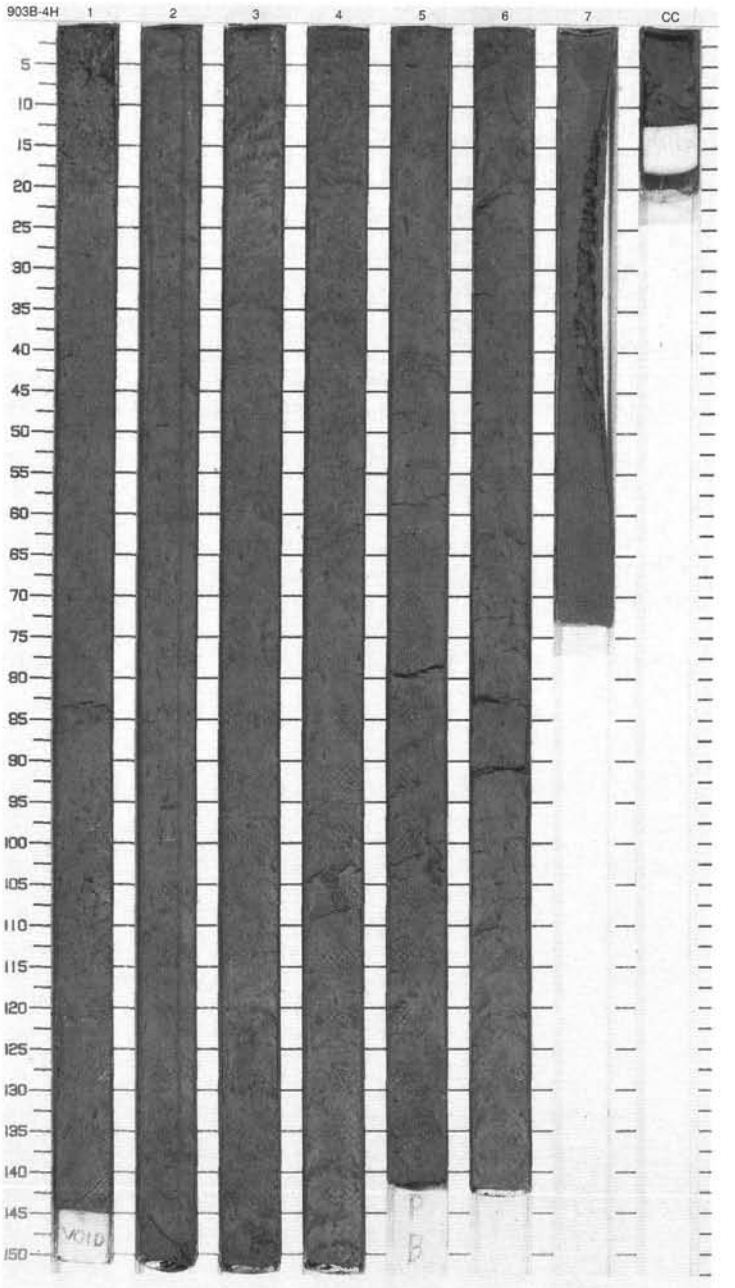
SITE 903 HOLE B CORE 3H CORED 11.5 - 21.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	middle Pleistocene			P, S, P, P, I W, M	10Y 4/1	SILTY CLAY Major Lithology: Gray, moderatly bioturbated, mottled SILTY CLAY. Burrows are filled with iron sulfide-rich black sand. A large burrow filled with shell fragments and coarse sand (mm grain size) occurs in Section 4 at 115 cm.



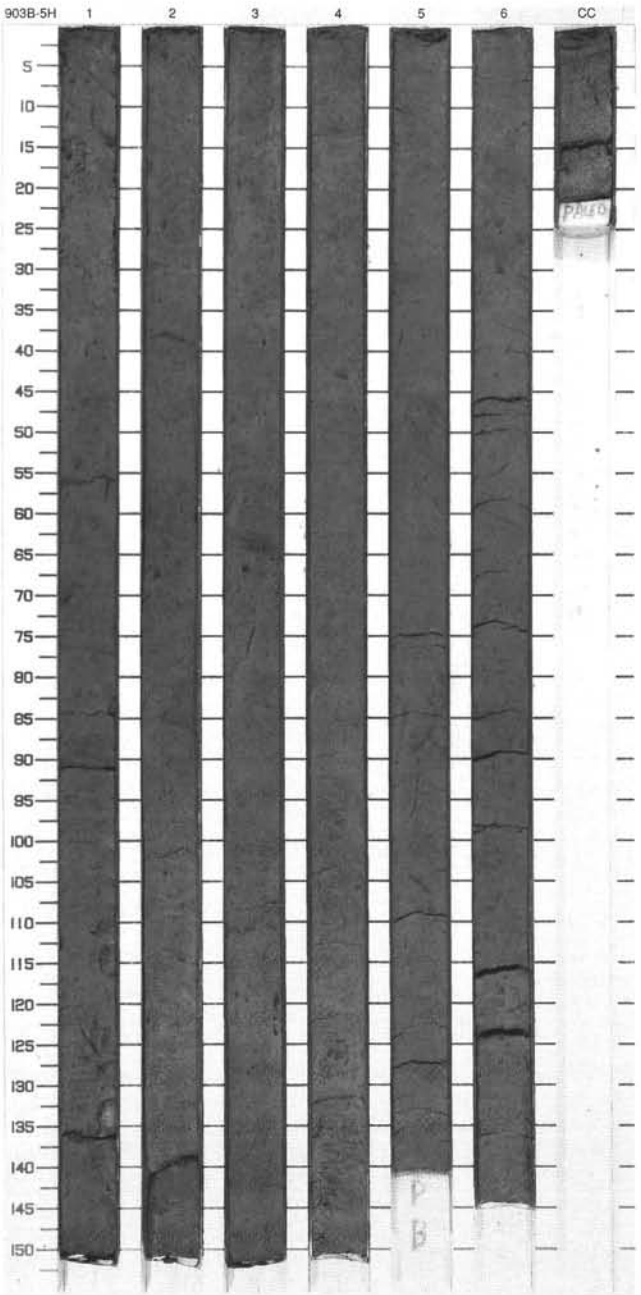
SITE 903 HOLE B CORE 4H CORED 21.0 - 30.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1, 2, 3, 4, 5, 6, 7, CC	late Pleistocene		WWW	P, S, P, P, W, M	10Y 4/1	SILTY CLAY Major Lithology: Gray, moderately bioturbated, mottled SILTY CLAY. Iron *sulfide-rich, fine* sand fills burrows. Common stained zones with iron sulfide (hydrotroilite).



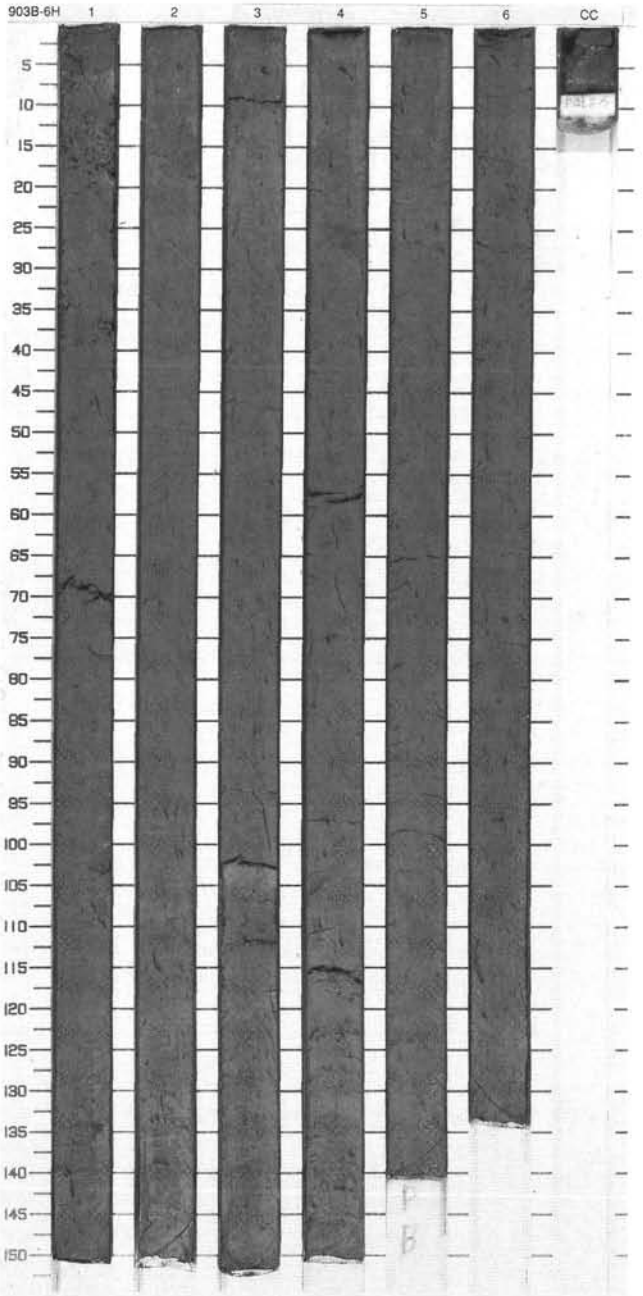
SITE 903 HOLE B CORE 5H CORED 30.5 - 40.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–6, CC	middle Pleistocene			P, S, P, P, W, M	10Y 4/1	SILTY CLAY Major Lithology: Gray, moderately bioturbated, mottled and slightly micaceous SILTY CLAY. Burrows are filled with black, iron sulfide-rich sand. Common black staining with hydrotroilite.



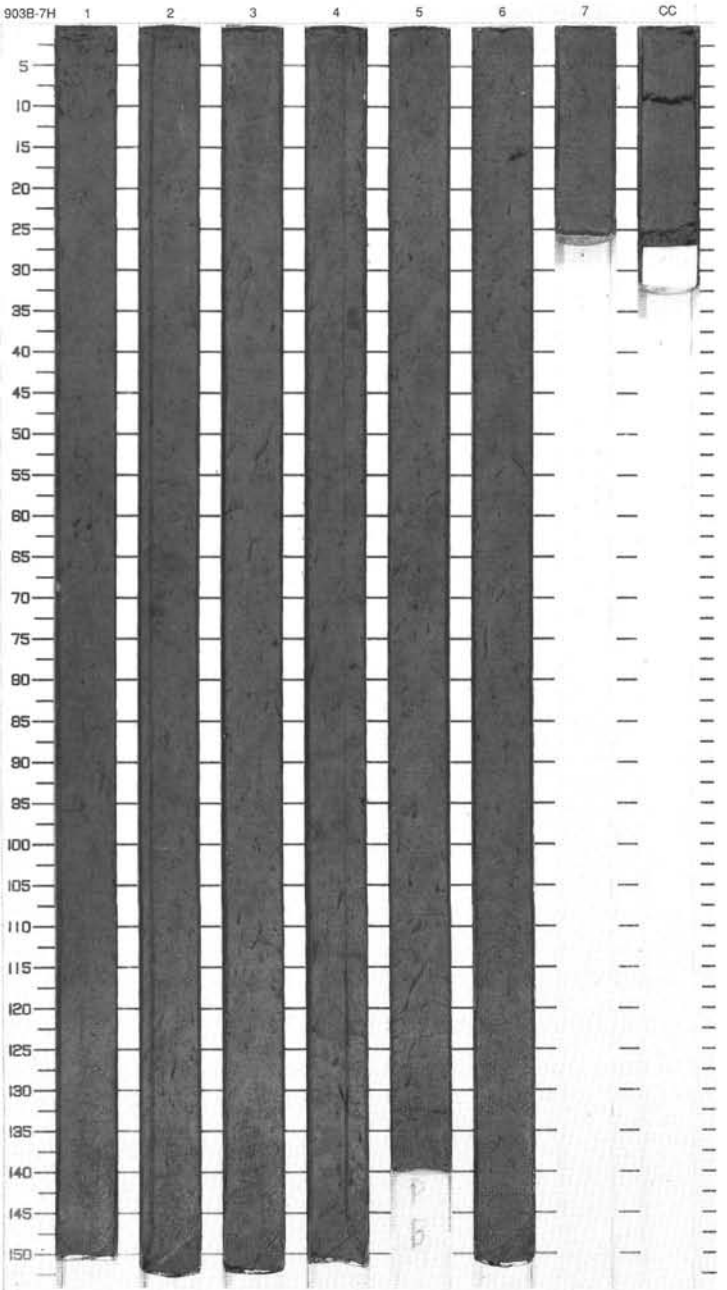
SITE 903 HOLE B CORE 6H CORED 40.0 - 49.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1–6, CC	middle Pleistocene			P, P, P, W, M	10R 4/1 To N4	SILTY CLAY Major Lithology: Slightly burrowed, pinkish gray SILTY CLAY. Burrows are filled with sand. Hydrotroilite mottling throughout the core.



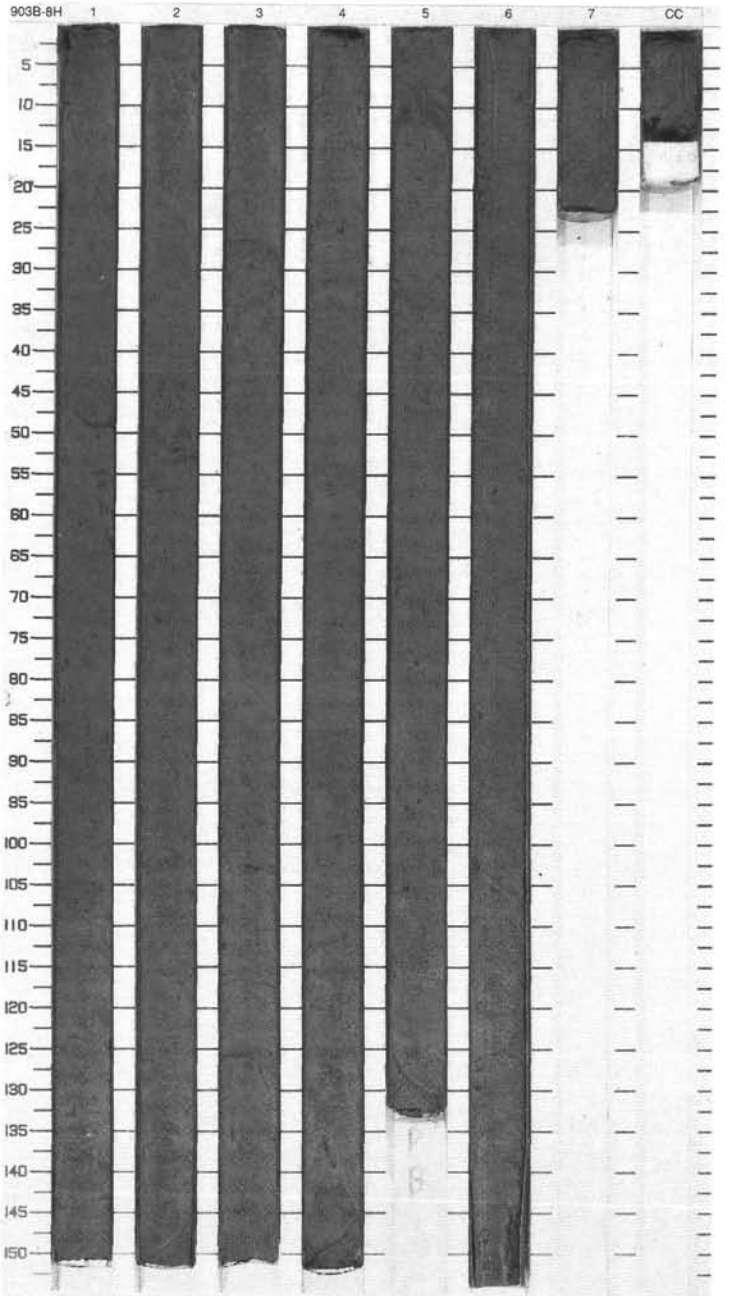
SITE 903 HOLE B CORE 7H CORED 49.5 - 59.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	middle Pleistocene			P, S, P, P, W, M	10R 4/1 To N4	SILTY CLAY Major Lithology: Slightly bioturbated, mottled gray SILTY CLAY with a pinkish to brownish tinge. Common mottling stained with iron sulfide. Very fine to fine sand fills burrows.



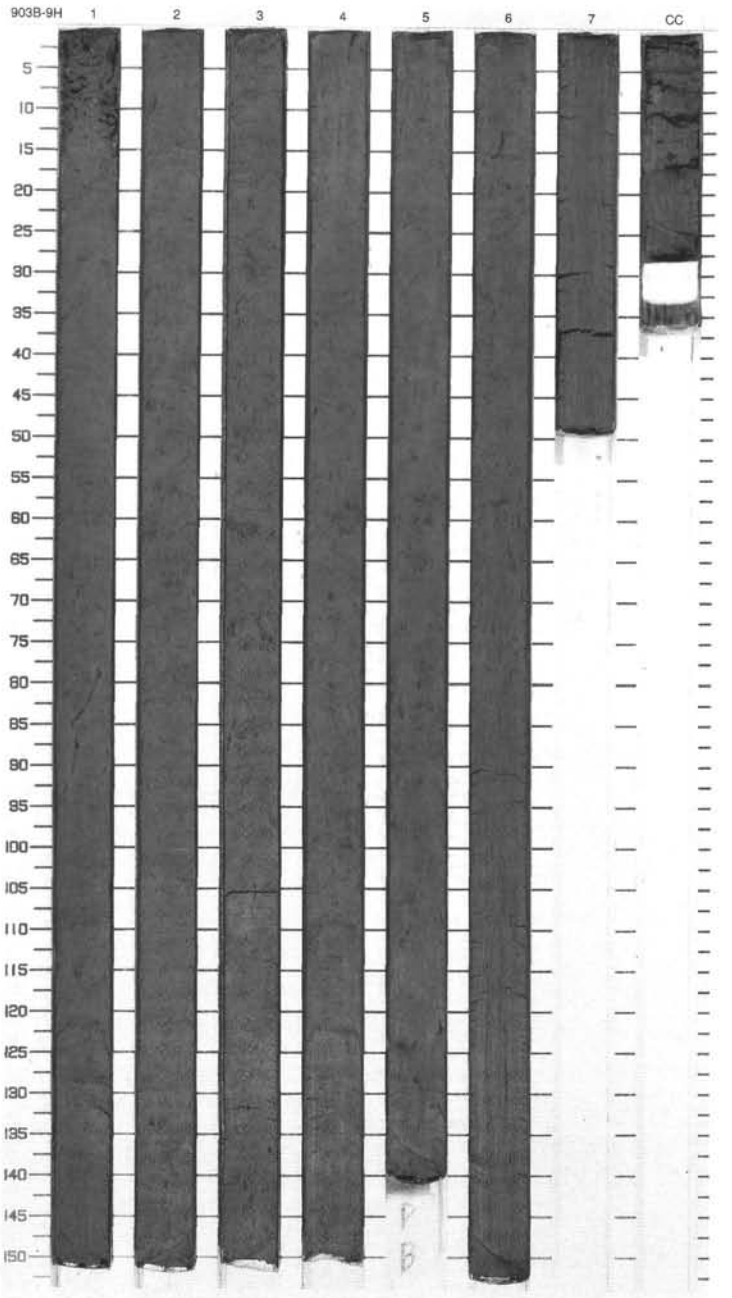
SITE 903 HOLE B CORE 8H CORED 59.0 - 68.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–6, 7 CC	middle Pleistocene			P, S, P, P, W, M	10R 4/1 To N4	SILTY CLAY Major Lithology: Pinkish gray, slightly burrowed SILTY CLAY. Very fine to fine sand fills burrows. Faint hydrotroilite banding along entire core.



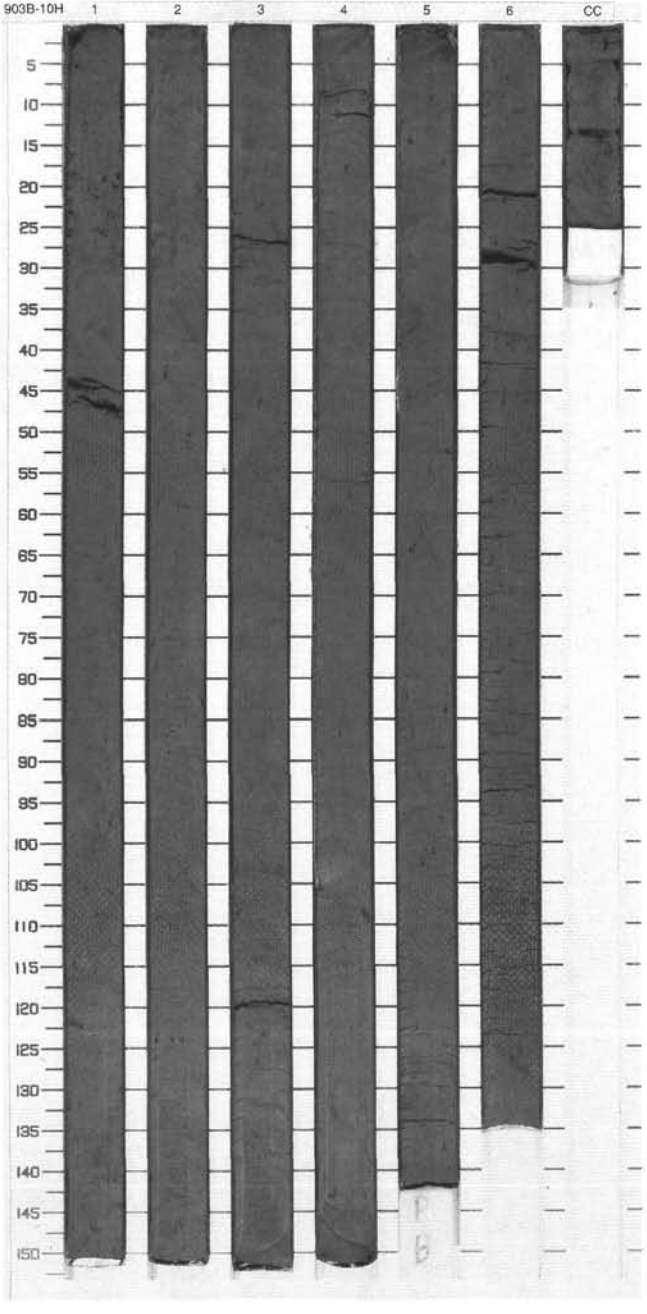
SITE 903 HOLE B CORE 9H CORED 68.5 - 78.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	middle Pleistocene			P, S, P, P, W, M	N4	SILTY CLAY Major Lithology: Slightly bioturbated, gray SILTY CLAY from the core top down to Section 6, 58 cm. Burrows are filled with fine sand. Mottling and staining by *hydrotroilite throughout core*. A few pinkish gray bands occur in Section 1, 58–61, 111–113, and 128–129 cm. *General Description:* NOTE: Flow-in from Section 6, 58 cm to base of core.



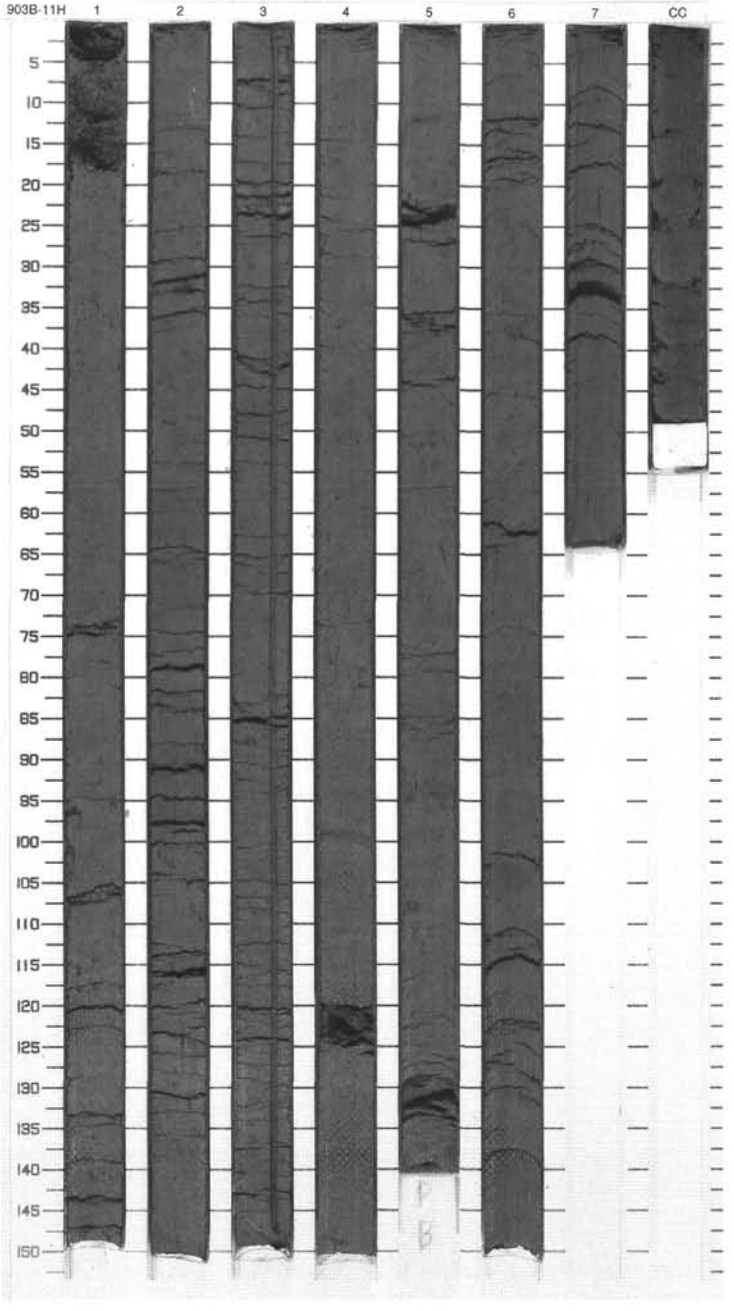
SITE 903 HOLE B CORE 10H CORED 78.0 - 87.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1, 2, 3, 4, 5, 6, CC	middle Pleistocene			P, S, P, P, W, M	10R 4/1 To N4	SILTY CLAY Major Lithology: Pinkish gray (10Y 4/1 to N4), homogeneous to slightly bioturbated SILTY CLAY. Burrows filled with sandy sediments occur throughout this core.



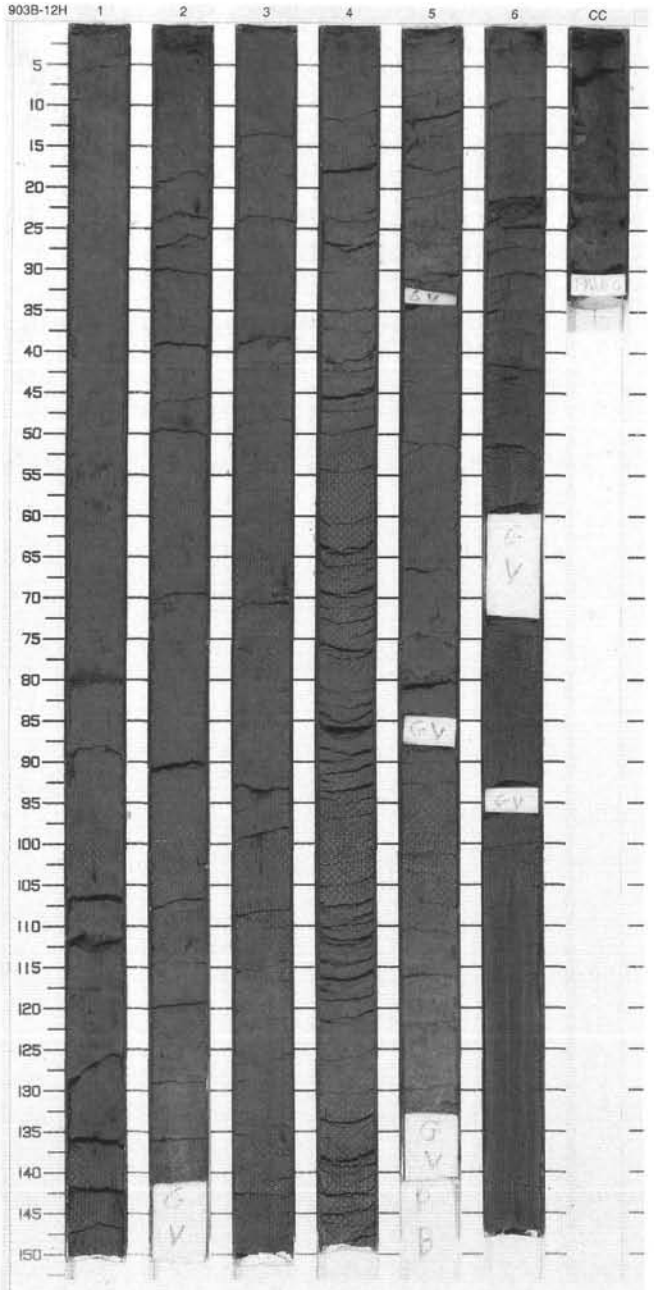
SITE 903 HOLE B CORE 11H CORED 87.5 - 97.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–7, CC	middle Pleistocene		W	P, S, P, P, W, M	10YR 4/1 To N4	SILTY CLAY Major Lithology: Pinkish gray (10Y R4/1 to N4), homogeneous SILTY CLAY with moderate burrows, which are filled with sandy sediments. General Description: NOTE: Flow-in from Section 6, 80 cm to the base of the core.



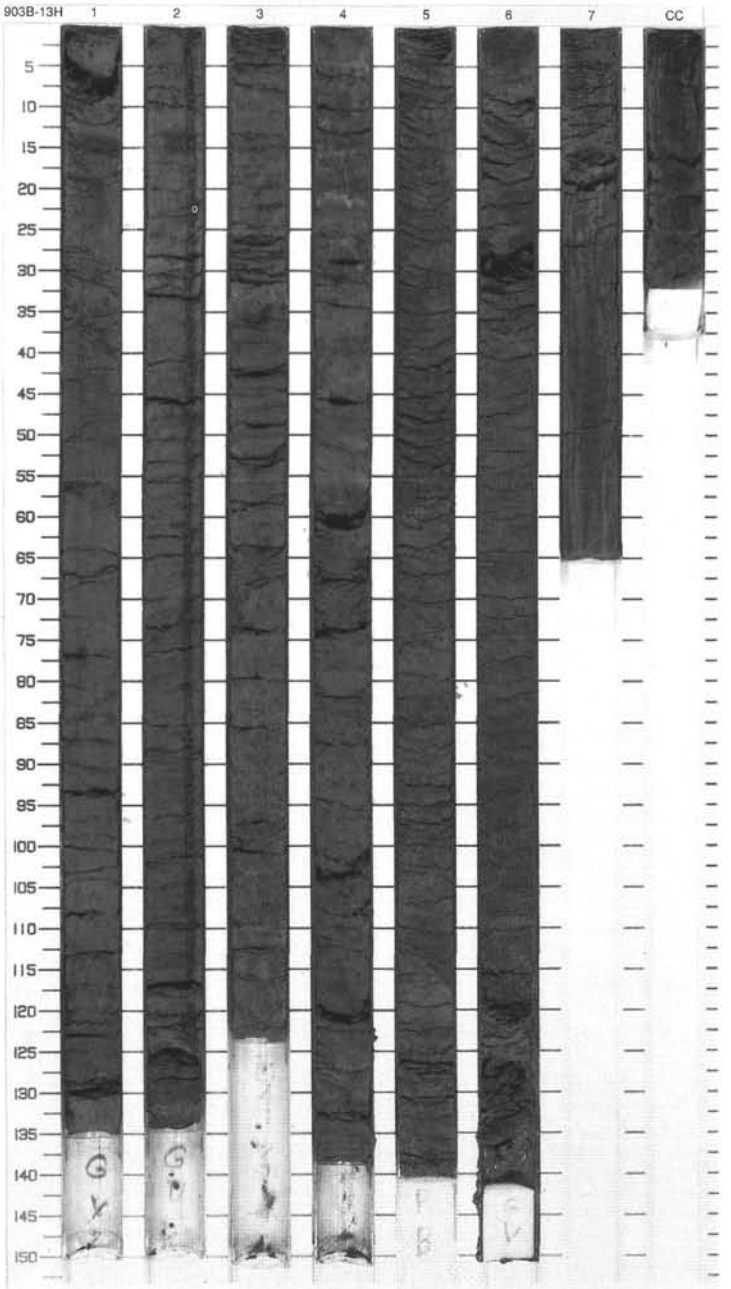
SITE 903 HOLE B CORE 12H CORED 97.0 - 106.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	middle Pleistocene			P	10Y 4/1 To N5	SILTY CLAY Major Lithology: Gray to dark gray (10Y 4/1 to N3), slightly bioturbated to homogeneous SILTY CLAY. Black to light gray, burrows filled with silt to very fine sand, are common.
		2				S	N3	
		3					N5 To 10Y 4/1	Minor Lithology: Olive gray, graded, very fine to fine sand layer (<1 cm-thick) occurs at 80–81 cm in Section 1. General Description: NOTE: Gas voids in Section 5, flow-in from Section 6, 20 cm to the base of the core.
		4				P		
		5				W		
		6					N4	
		CC				M	N3	



SITE 903 HOLE B CORE 13H CORED 106.5 - 116.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Pleistocene				N4 To N3	SILTY CLAY Major Lithology: Homogeneous to slightly bioturbated SILTY CLAY with minor color banding in Section 1. General Description: NOTE: Section 7 and CC are flow-in.
2		2				P	N4 To 10Y 4/1 N4 To N3	
3		3					10Y 4/1 To N3	
4		4				P	10Y 4/1 To N4	
5		5				W	N3 To N4	
6		6				P		
7		7						
10		CC				M		

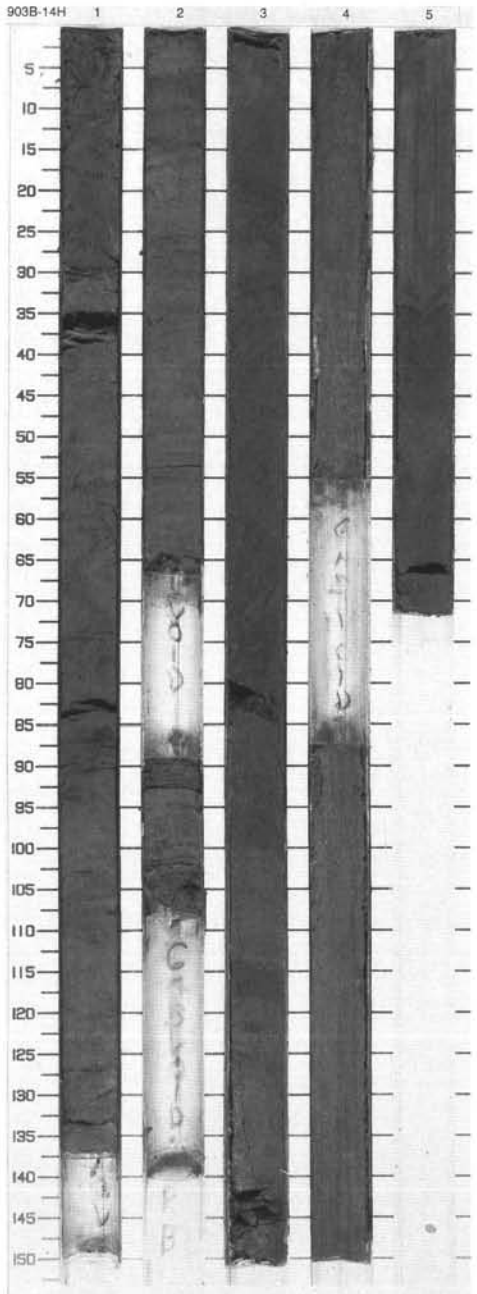


SITE 903 HOLE B CORE 14H CORED 116.0 - 125.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–6		1–5	middle Pleistocene			P, W, P	N3 To N4	SILTY CLAY Major Lithology: Monotonous SILTY CLAY, with slight bioturbation, burrows infilled with dark gray sand. Rare silty sand laminae (e. g. Section 2, 88–92 cm). Contorted beds (slump?) well developed in Section 3. Gas voids are common. General Description: NOTE: Sections 4 and 5 are flow-in.

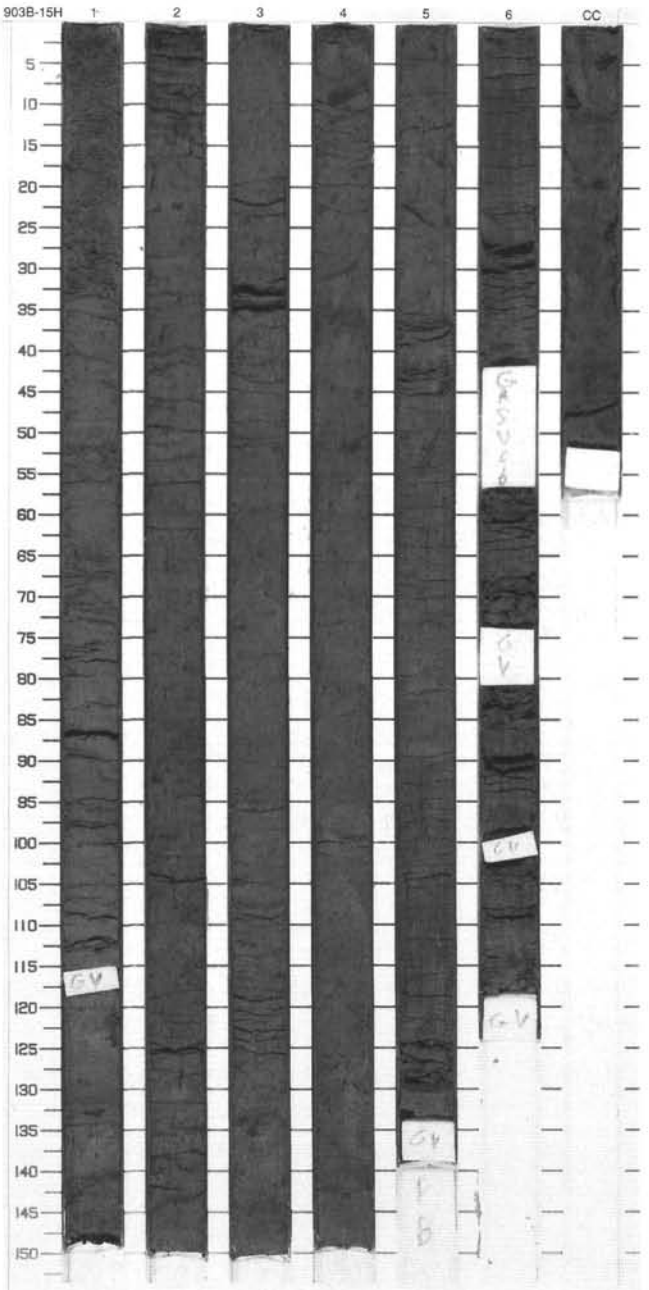
Void

Void

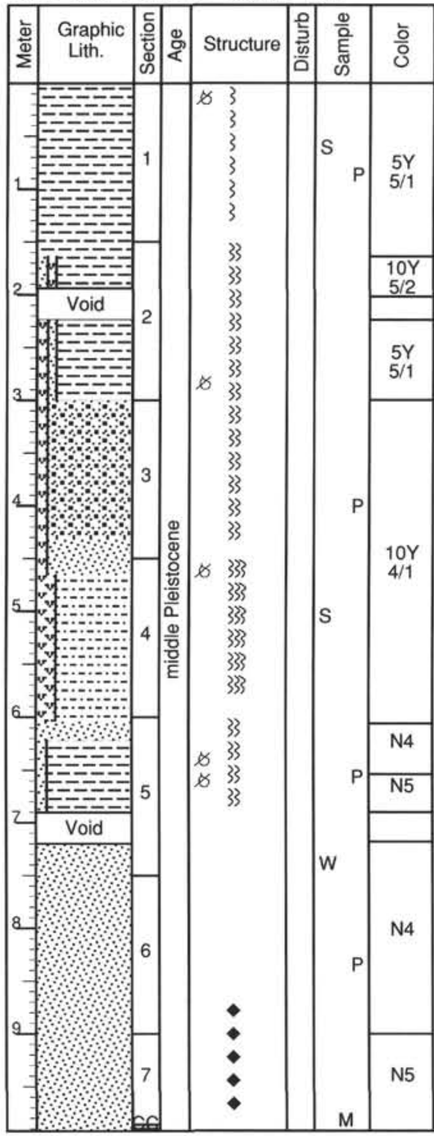


SITE 903 HOLE B CORE 15H CORED 125.5 - 135.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	middle Pleistocene				N4 To N5	SILTY CLAY Major Lithology: Slightly bioturbated SILTY CLAY with burrows infilled with very fine to fine sand. Common hydrotroilite smearing. Irregular zones with a brownish tinge in Section 4. Minor zones of sandy clay. Sandy sediments in Section 1 may be related to the slump(?) in the base of Core 14. It also occurs in Section 5 as a small bed (37–45 cm). General Description: NOTE: Below 105 cm in Section 5, the core is flow-in.
		2				P		
		3						
		4				P	N4 To N3	
		5				W		
		6						
		CC				M		



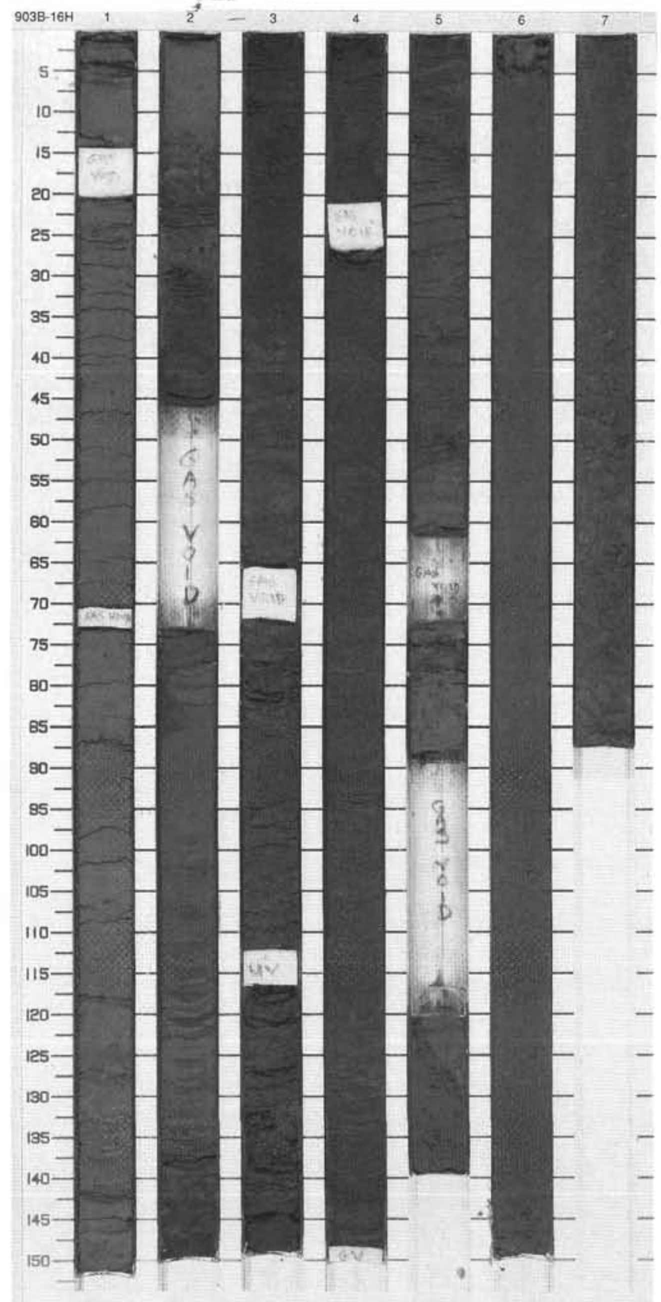
SITE 903 HOLE B CORE 16H CORED 135.0 - 144.5 mbsf



Description

SILTY CLAY, SILTY SANDSTONE and SAND

Major Lithologies:
Slightly to moderately bioturbated SILTY CLAY, in Section 1, faintly color banded and mottled, becoming micacous, diatomaceous, and sandy in Section 2. Common very fine sand-filled burrows. In Section 5, the clay is fairly homogeneous with common shell fragments and minor small beds of medium sand. Moderately bioturbated SILTY SANDSTONE, dominated by fine to medium sand with 10%–20% diatoms, occurs in Sections 3 and 4. A medium sand interbed occurs in Section 3 and the clay and diatom content increases in Section 4. In Sections 5, 6, and 7, clean, medium quartz SAND occur. In Sections 5 and 6 (0–130 cm), the sands are slightly shelly, homogeneous, and micaceous. Below 130 cm in Section 6 and in Section 7, mud clasts occur in the medium sand. Clasts are normally graded in size, with <5 mm clasts in the base of Section 6; 0.5–1 cm clasts in the top of Section 7 (0–87 cm); and angular 2–3 cm clasts in the base of Section 7.

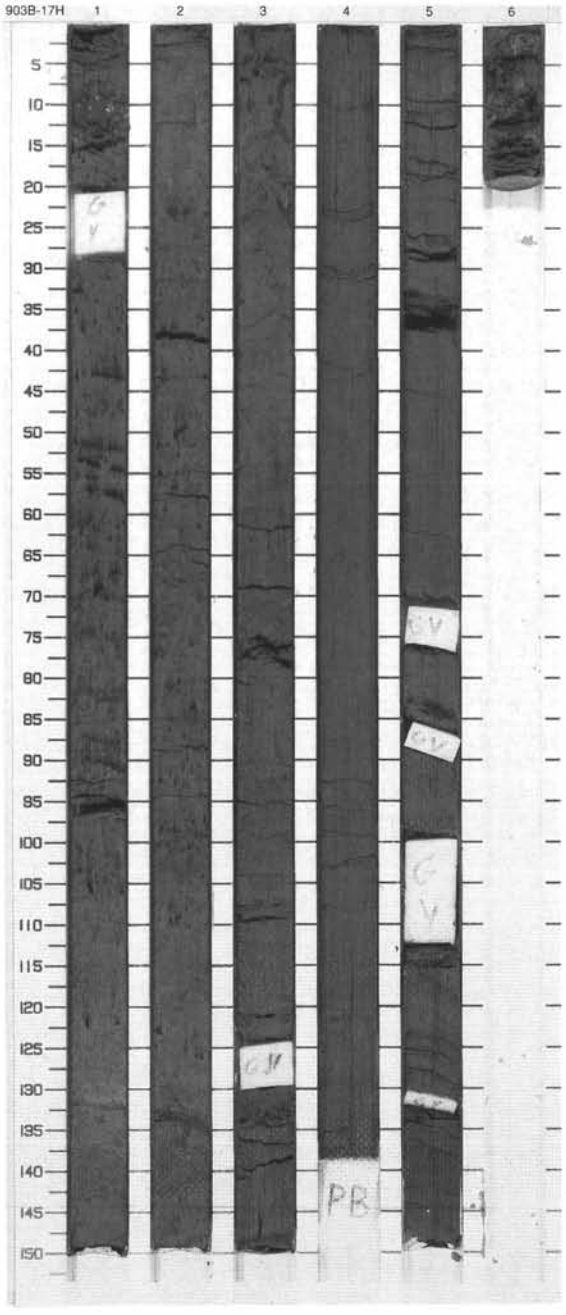


SITE 903 HOLE B CORE 17H CORED 144.5 - 154.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1–6	middle Pleistocene			P, P, W	N3 To N4	SILTY CLAY Major Lithology: Moderately to heavily bioturbated SILTY CLAY, common sand-filled burrows, infilled with black-stained very fine sand in Sections 1 and 2 and rare vertical burrows in Section 3 infilled with white fine–to-medium sand. General Description: NOTE: Core below 50 cm in Section 3 is flow-in.

DRILLED 0.0 to 485.5 mbsf

903C 1R THROUGH 4R NO RECOVERY

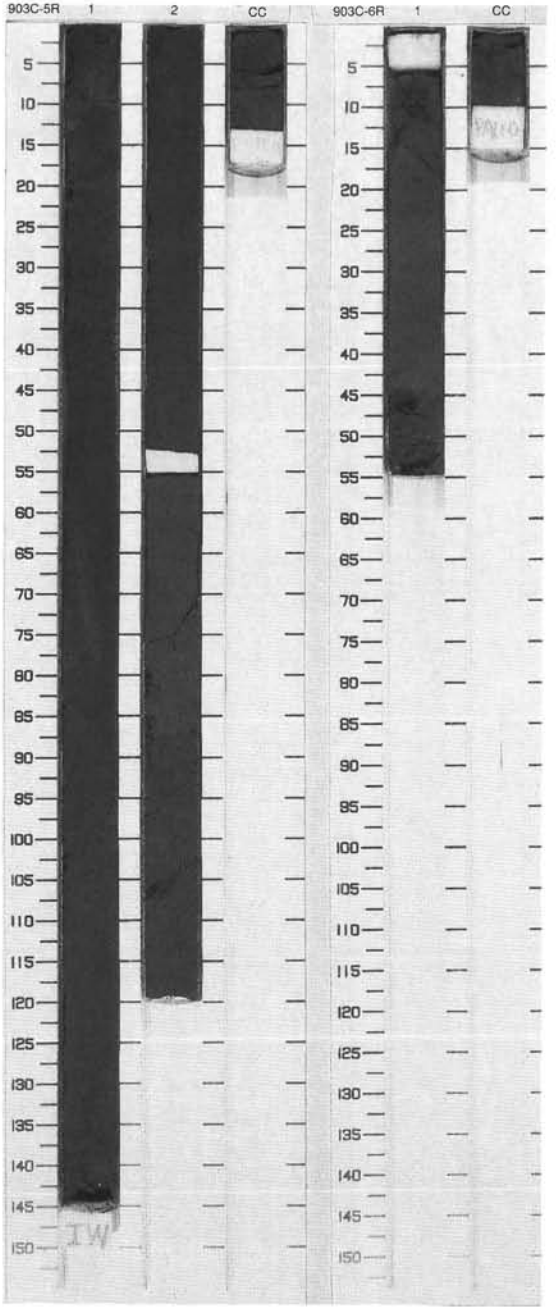


SITE 903 HOLE C CORE 5R CORED 505.6 - 510.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2		1 2 CC	late Miocene			S P D I S P M	5Y 3/2 5Y 4/2	GLAUCONITIC SILTY FINE SAND and GLAUCONITIC SANDY SILT Major Lithologies: Green to greenish dark gray, moderately to heavily bioturbated GLAUCONITIC SILTY FINE SAND. From 55 to 87 cm in Section 2, brownish gray SANDY SILT with granule-sized glauconite and mica. The GLAUCONITIC SILTY FINE SAND with mica underlying the GLAUCONITIC SANDY SILT interval, from 87 to 120 cm in Section 2, is graded into greenish gray to brownish gray in color. Biogenic remains mainly consist of diatoms (about 15%).

SITE 903 HOLE C CORE 6R CORED 510.3 - 515.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1 CC	middle Miocene			P M S	5Y 4/1	GLAUCONITIC SILTY SAND and GLAUCONITIC SANDY SILT Major Lithologies: GLAUCONITIC SILTY SAND: homogeneous, very fine sand, slightly darker from 40 to 54 cm. GLAUCONITIC SANDY SILT: Homogeneous.



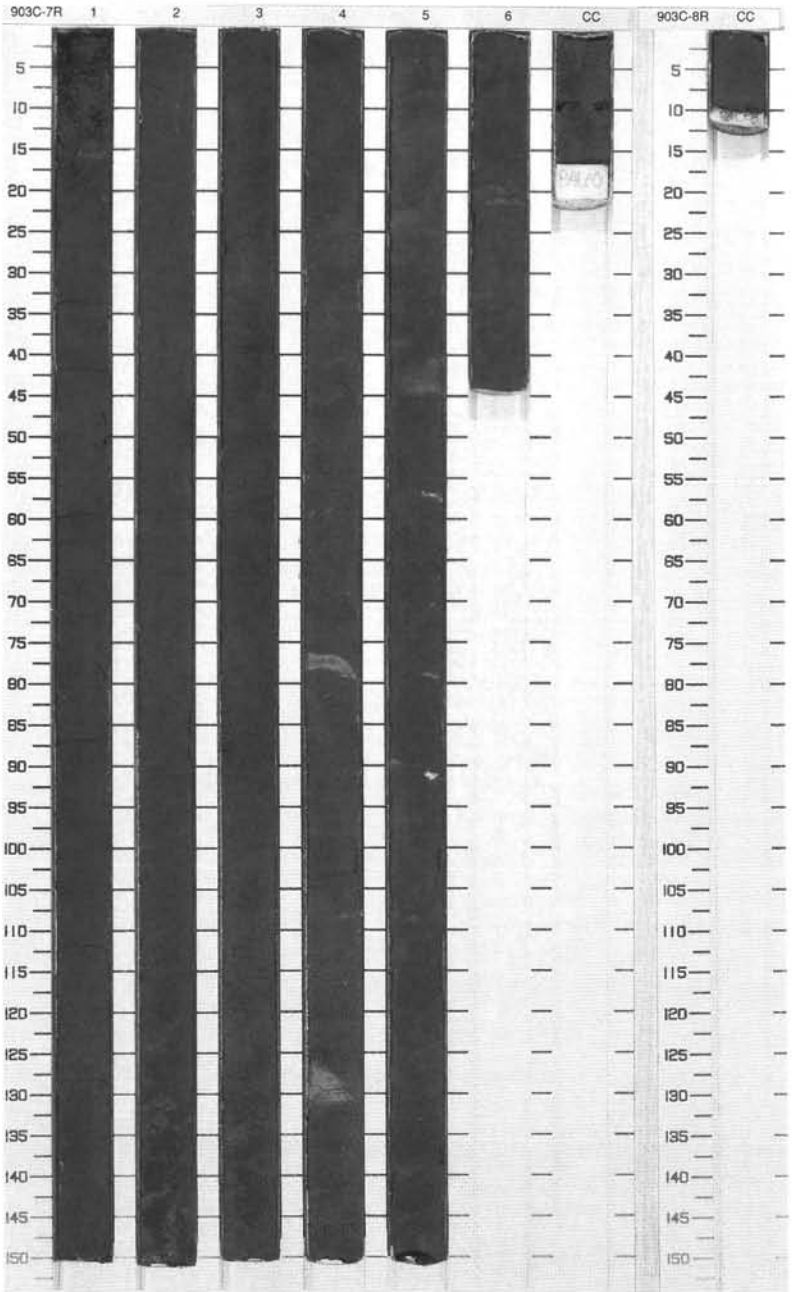
SITE 903 HOLE C CORE 7R CORED 515.3 - 525.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1–6, CC	middle Miocene	↑ F	W	S, P, D, M	5Y 4/1; 5Y 3/2	SANDY SILT, GLAUCONITIC SANDY SILT and SILTY CLAY Major Lithologies: SANDY SILT: fairly homogeneous, green-brown, very fine-grained, slightly micaceous, woody fragments. Slightly coarser glauconitic interval in Section 2 (83 to 98 cm). GLAUCONITIC SANDY SILT: very fine-grained, woody fragments, large wood fragments (up to 2 cm) in Section 3 (0–50 cm), and Section 4 (125–130 cm). Scattered coarse quartz grains, normally graded coarse glauconite and quartz interval in Section 3 (50–90 cm). In Section 3 at 90 cm there is a burrowed boundary. SILTY CLAY: Gradational boundary between silty clay and glauconitic sandy silt. Planolites burrow in Section 4, 40 cm. Spots (0.5 cm in diameter) in Section 4, 60 cm. Concretions (5Y 6/3) with diffuse boundaries in Section 4 (75–130 cm). Incipient concretions in Section 5, 20–25 cm, and 40–45 cm. Comminuted woody debris. About 10%–20% of diatoms.

SITE 903 HOLE C CORE 8R CORED 525.0 - 534.6 mbsf

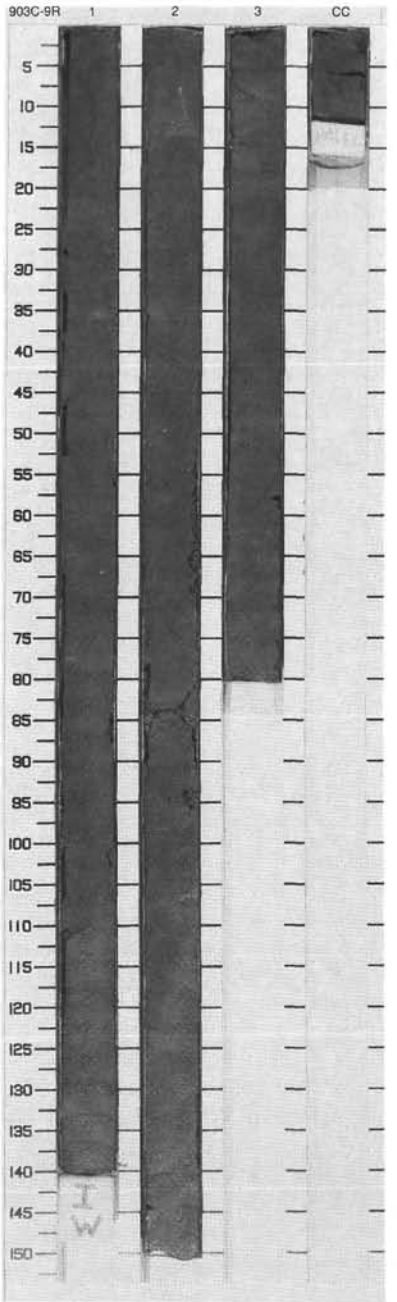
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC						SILTY CLAY Major Lithology: Moderately bioturbated, greenish gray, micaceous SILTY CLAY.

DRILLED 534.6–586.5 mbsf



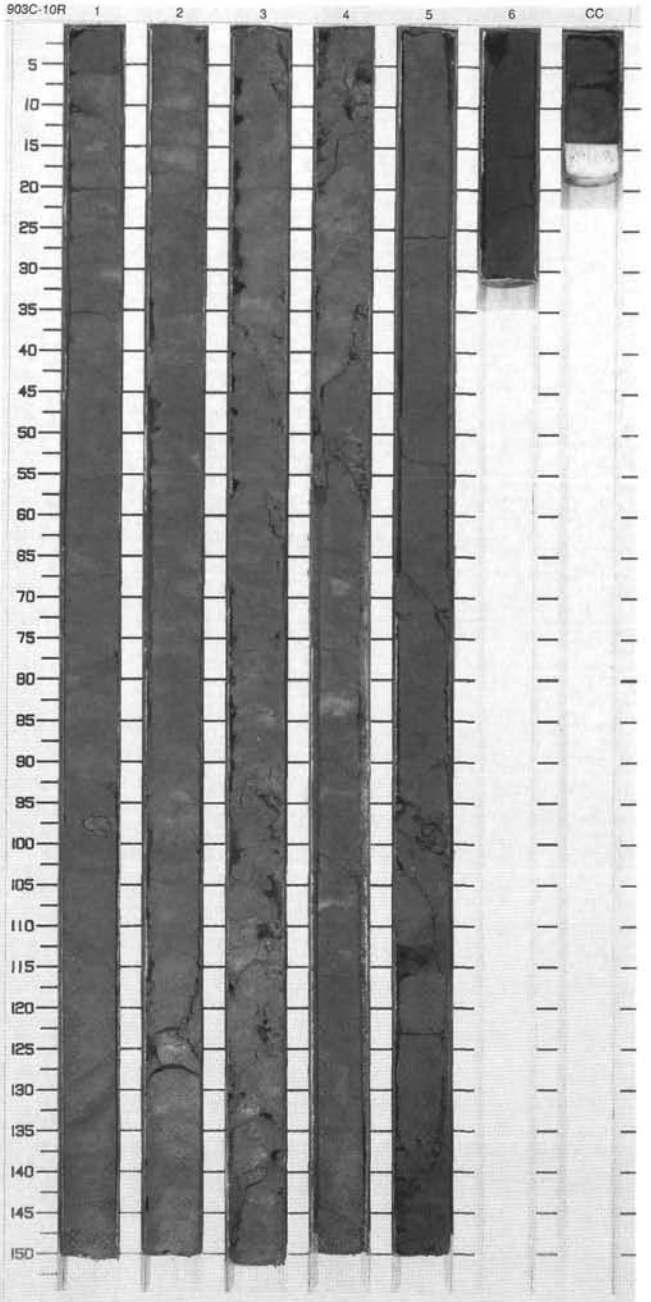
SITE 903 HOLE C CORE 9R CORED 586.5 - 592.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3		1 2 3 CC	middle Miocene			S P P S P M	5Y 5/1	CLAY Major Lithology: Light greenish gray, slightly bioturbated CLAY. Sporadic occurrence of Chondrites-like burrows. Cream-colored (5Y 6/2) nodules occur in Section 1, 35 and 75 cm and bands with diffuse boundaries occur from Section 2 down to the bottom of the core.



SITE 903 HOLE C CORE 10R CORED 592.1 - 601.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1–6, CC	middle Miocene			S, P, P, S, P, P, S, P, S, M	5Y 5/1; 5Y 2.5/1	CLAY Major Lithology: Light greenish gray, slightly bioturbated CLAY from the top of the core down to Section 5, 110 cm. Cream-colored nodules (5Y 6/2) up to 5 cm in diameter and bands displaying diffuse boundaries are common. Small burrows (<1 mm) filled with pyrite occur in Sections 3, 4, and 5, 110 cm. Minor Lithology: Glauconitic SANDY CLAY occurs at the base of Section 5 between 120 and 150 cm. Coarse grains of glauconite are common. Sections 6 and CC consist of glauconitic, dark greenish brown clay with a few silt/sand grains of quartz, glauconite, and mica.



SITE 903 HOLE C CORE 11R CORED 601.8 - 611.5 mbsf

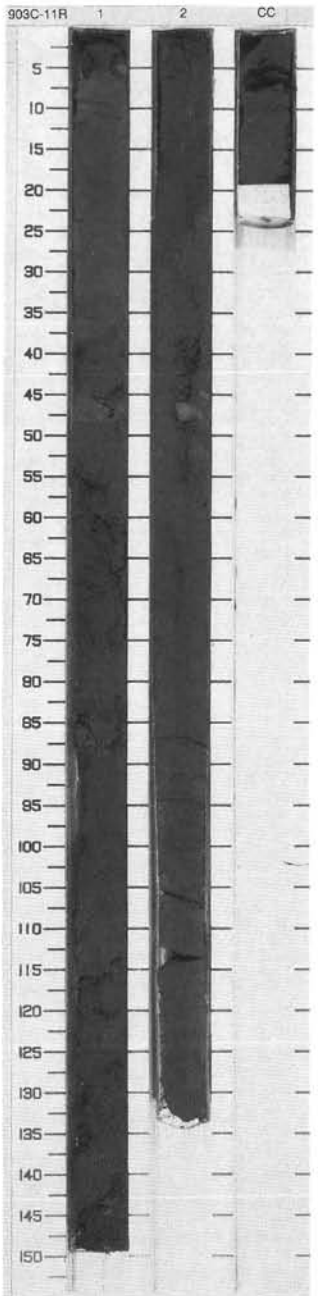
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color
1 2 3		1 2 CC	middle Miocene			P S P M S	5Y 3/1 5Y 2.5/1

Description

SILTY CLAY and CLAYEY SAND

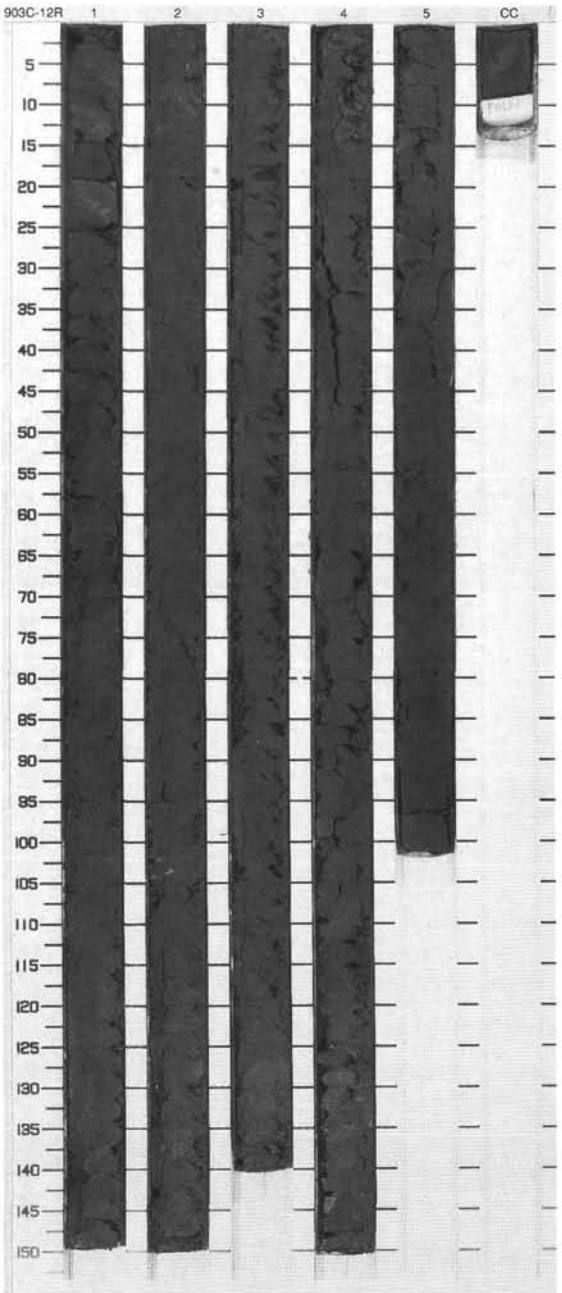
Major Lithologies:
The top of Section 1 (0–38 cm) consists of dark greenish gray glauconitic SILTY CLAY. The abundance of silt-size grains of glauconite decrease from the top to the base of this interval. From Section 1, 38 cm to Section 2, 88 cm, sediment consists of dark greenish gray, glauconitic CLAYEY SAND with light greenish gray mud clasts. Angular, slightly indurated mud clasts (up to 5 cm in diameter) occur in Section 1, 45–45 and 85–87 cm and in Section 2, 44 and 46–48 cm. Rounded mud clasts occur in Section 2, 46–47 and 51–52 cm. Woody fragments, as well as mica flakes, are abundant. Sharp contacts occur at the top and base of this unit, which may be a slump. From Section 2, 88 cm, to the base of the core, the sediment consists of moderately burrowed, glauconitic SILTY CLAY with occasional cm-sized wood fragments and comminuted woody debris.

DRILLED 611.5–688.6 mbsf



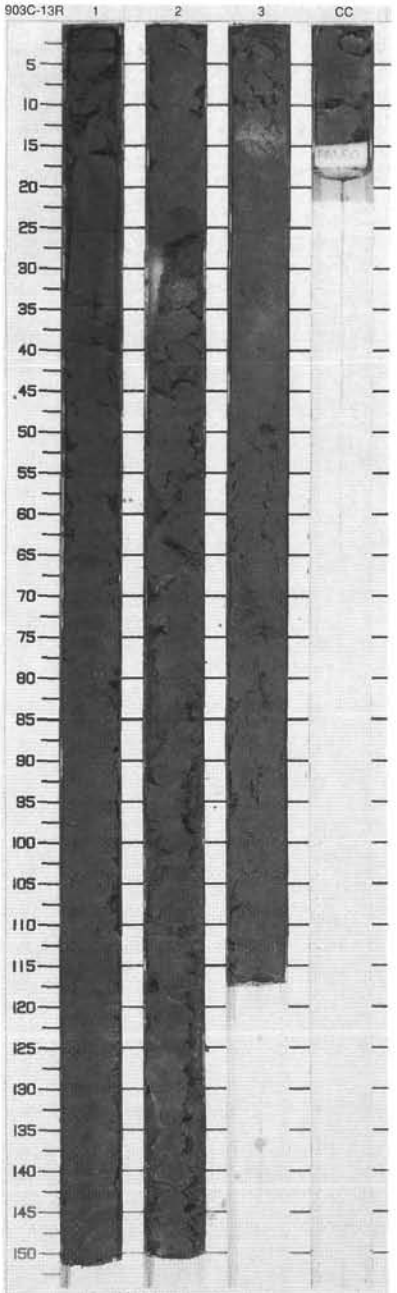
SITE 903 HOLE C CORE 12R CORED 688.6 - 698.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1, 2, 3, 4, 5, CC	middle Miocene			S, P, S, P, I, S, M P	10Y 4/1	CLAYSTONE Major Lithology: Greenish gray, slightly to moderately bioturbated CLAYSTONE. Carbonate nodule (siderite?, mm in size) occurs in Section 1. Small amounts of glauconite grains in Section 5, 70 to 90 cm. General Description: NOTE: Drilling biscuits throughout core.



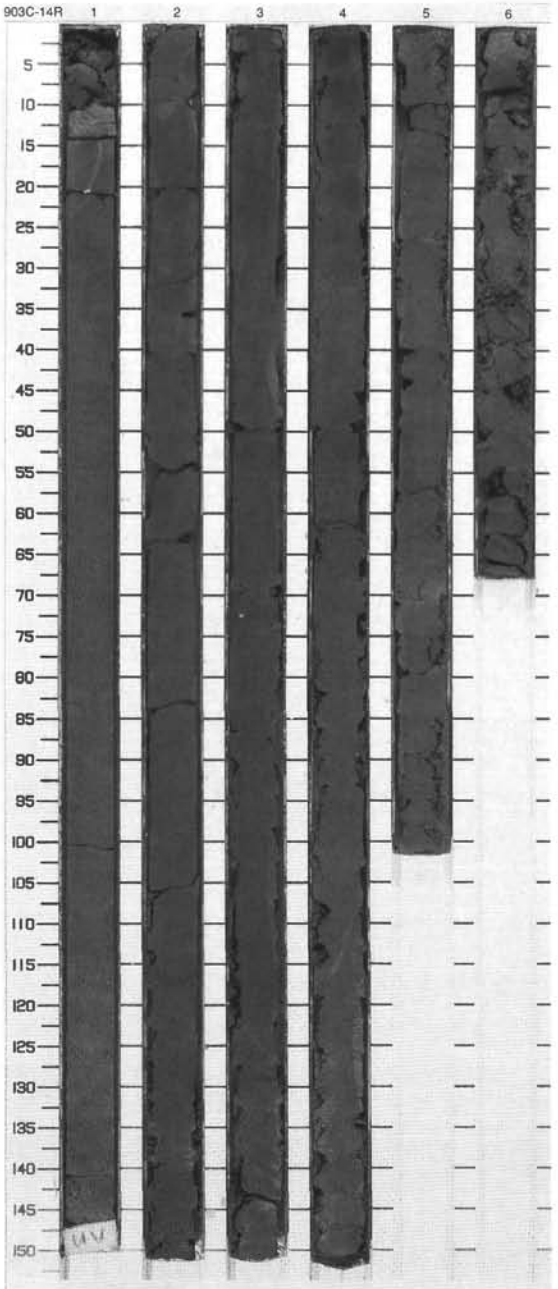
SITE 903 HOLE C CORE 13R CORED 698.2 - 707.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–4		1, 2, 3, CC	middle Miocene			S, P, S, S P D, M	10Y 3/1; 10Y 4/1; 10Y 4/1 To 10Y 5/1	CLAYEY SILT TO SILTY CLAY AND GLAUCONITIC SANDY SILT Major Lithology: Greenish gray, moderately bioturbated CLAYEY SILT to SILTY CLAY. *Chondrites* and *Planolites* burrows filled with dark gray to black-colored sediments are common. Pale yellow (5Y 7/2) Siderite(?) nodule from 10 cm to 16 cm in Section 3. Greenish dark gray, homogeneous GLAUCONITIC SANDY SILT occurs from 5 to 49 cm in Section 1. Planolites-burrows filled with glauconitic sand originated from the GLAUCONITIC SANDY SILT interval are visible in the underlying CLAYEY SILT to SILTY CLAY interval (from 49 to 70 cm). General Description: Note: "Drilling biscuit" occurs throughout this core.

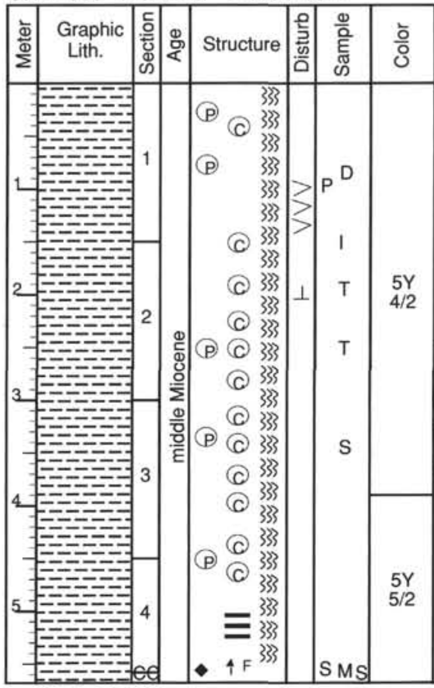


SITE 903 HOLE C CORE 14R CORED 707.8 - 717.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1–6, CC	middle Miocene			P; S D P; S; M	5Y 4/1 To 5Y 4/2	CLAYEY SILT and SILTY CLAY Major Lithologies: Gray, moderately to heavily bioturbated CLAYEY SILT and SILTY CLAY with silt to very fine sand-sized glauconite (less than 5%) and mica (less than 1%–2%). Small Chondrite burrows (about 1 mm in diameter) is common throughout this core. Disseminated and nodular pyrite occurs at 30 and 143 cm in Section 4, 57 cm and in Section 5, 70 cm. Siderite nodules also occur in Section 5, 46–48 cm and in Section 6, 18–20 and 54–59 cm.



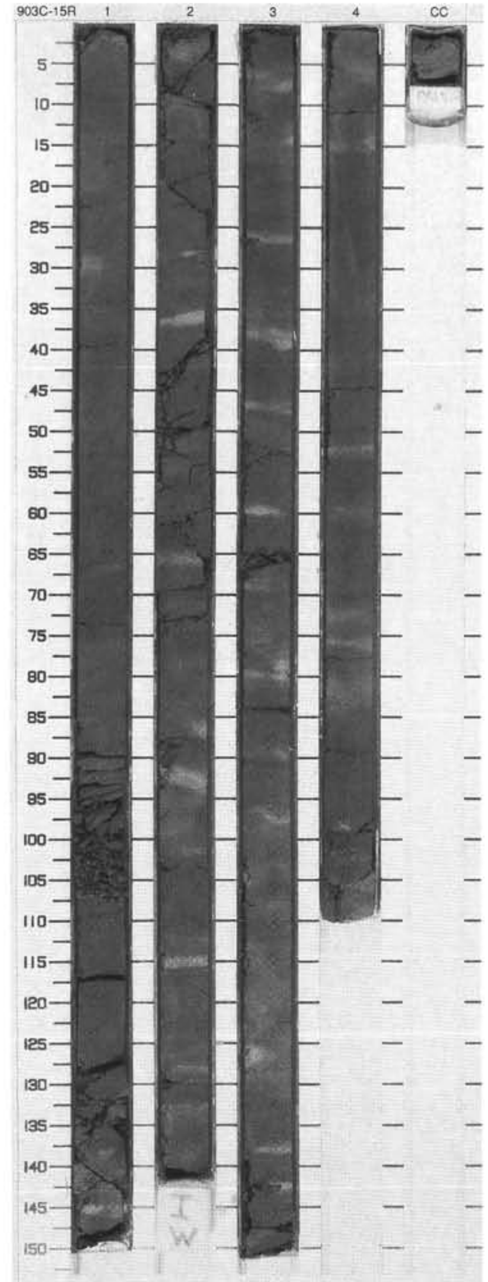
SITE 903 HOLE C CORE 15R CORED 717.2 - 727.0 mbsf



Description

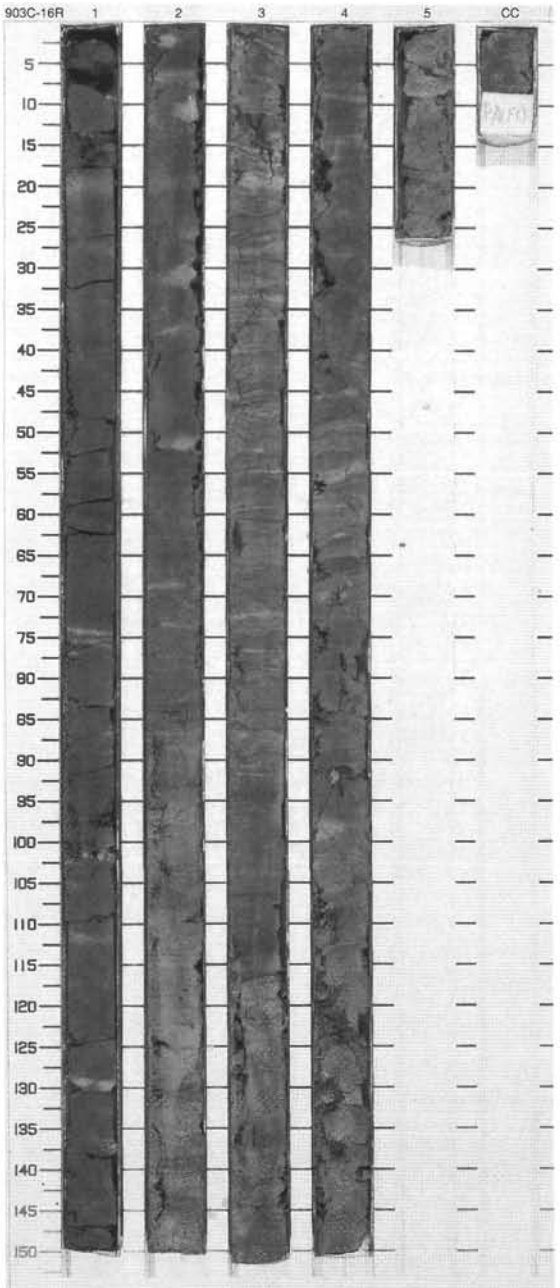
SILTY CLAY

Major Lithology:
Moderatley to heavily bioturbated gray SILTY CLAY with abundant siderite occuring in diffuse replacement zones, nodules, and laminae. Pyrite replacement of plant debris and infilling of burrows are common. Minor unreplaced plant debris, mica flakes, and glauconite silt also occur. In the base of Section 4, angular mud clasts with siderite-replaced laminae occur in a small graded bed. Thinly laminated gray (N5) silty clay with very thin (1–2 mm) siderite laminae occurs below this bed in Section 4 and in the Core Catcher. The clasts appear to have been derived from this bed.



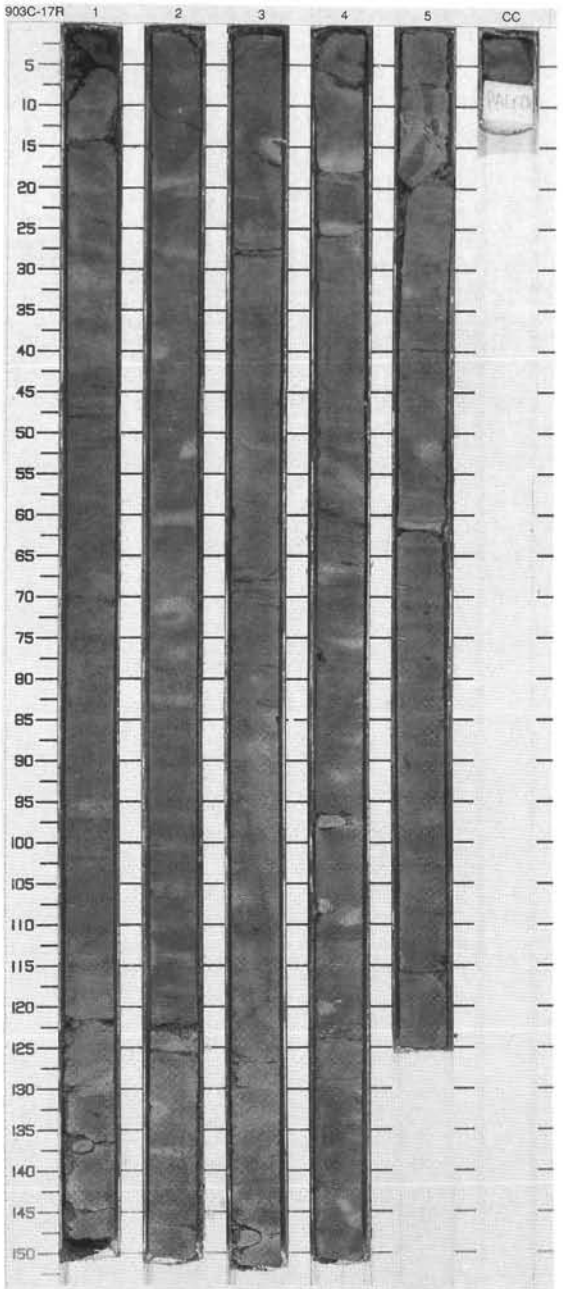
SITE 903 HOLE C CORE 16R CORED 727.0 - 736.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–6		1, 2, 3, 4, 5, CC	middle Miocene			S, P, S, P D, M	5Y 5/2 To 10Y 4/1; 5Y 5/2 To N4; 10Y 4/1; N4 To 5Y 5/2; 10Y 5/1	SILTY CLAY and INTERBEDDED Major Lithologies: Moderately to heavily bioturbated SILTY CLAY, color mottled by siderite replacement. Common siderite nodules, minor plant debris and minor interbeds of fine quartz sand. Underlying the SILTY CLAY, in Sections 2, 3, and 4, is a zone of disturbed and slumped sediments. In Sections 2, 3, and 4, INTERBEDDED SANDY SILT AND SILTY CLAY is thinly color laminated (N4 and N5) with selective replacement of thin laminae by siderite (5Y 5/2). Abundant very fine to fine-sized quartz and mica sand and minor plant debris are present in the sandy laminae. The top of this unit is burrowed. At the base of Section 2 and in the top half of Section 3, micronormal faulting occurs. Interbedded with these dominantly gray sediments are grayish green clayey silts with 5% diatoms. Underlying this lithology in Section 4 is a 125-cm-thick bed of matrix-supported conglomerate with tabular gray-green (10Y 4/1) pebbles and small cobbles (<7 cm) in a contorted matrix of clayey silt. Underlying this bed are slightly bioturbated sandy silts and silty clays.

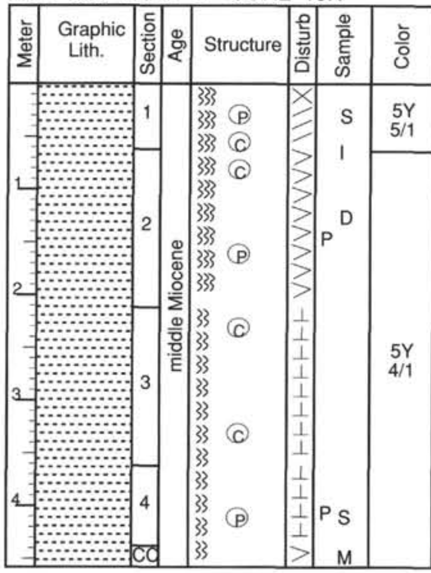


SITE 903 HOLE C CORE 17R CORED 736.8 - 746.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1–5, CC	middle Miocene			S, P, S, P, M	5Y 5/1	CLAYSTONE Major Lithology: CLAYSTONE comprises the whole core. Chondrites-like burrows occur commonly and Planolites, Zoophycus, and Teichichnus are also present. Diagenetic pyrite and carbonate occur throughout, in disseminated and nodular forms, commonly centered around burrows.



SITE 903 HOLE C CORE 18R CORED 746.5 - 756.2 mbsf

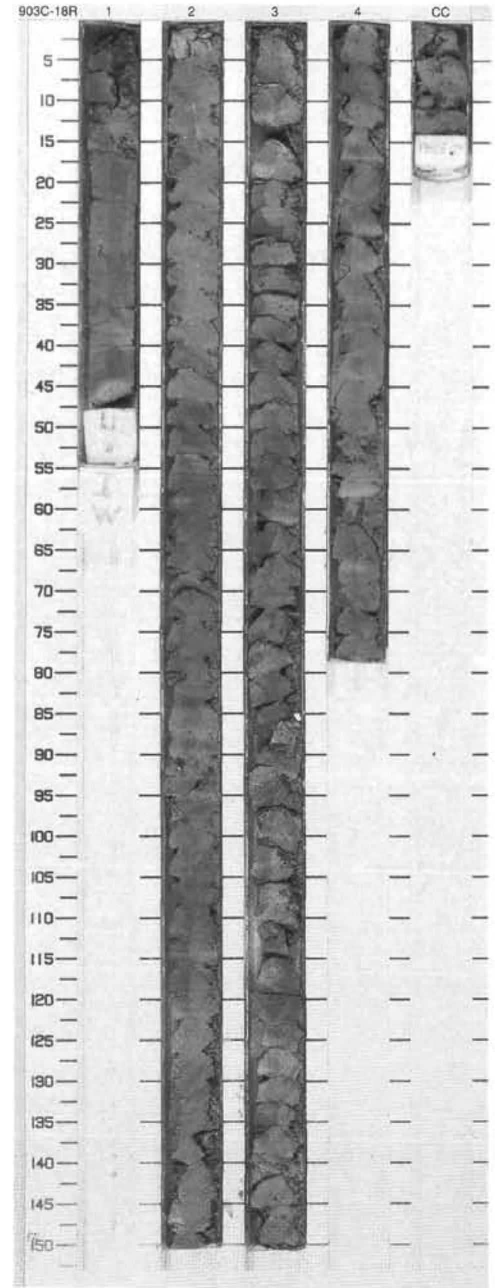


Description

CLAYSTONE

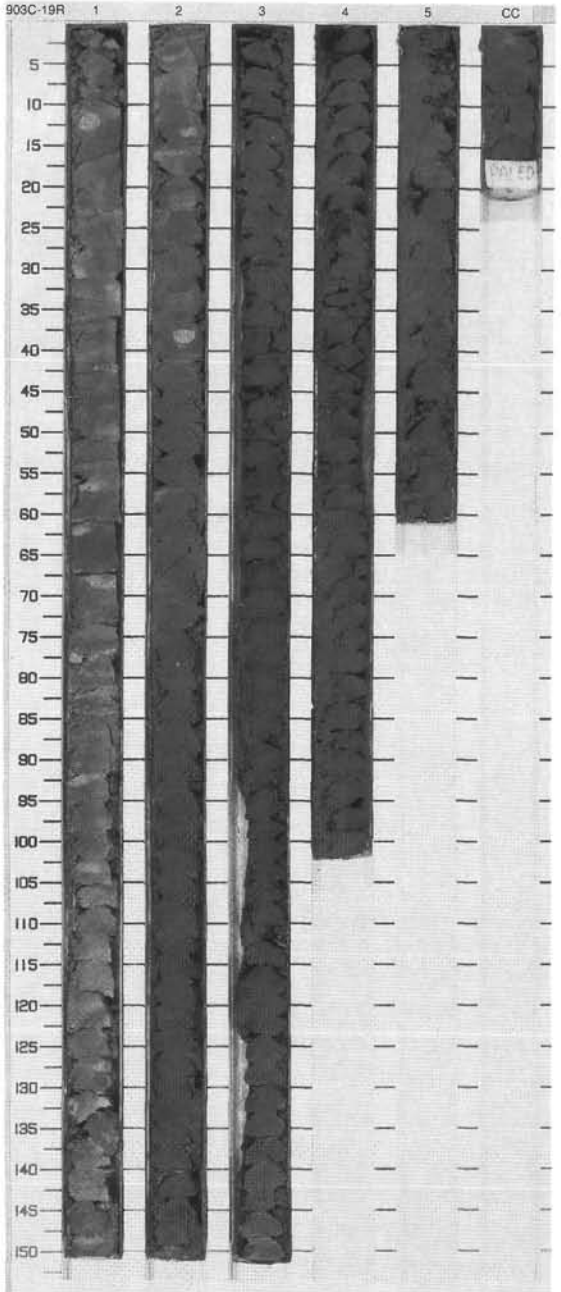
Major Lithology:
Moderately to heavily bioturbated gray CLAYSTONE, with Chondrites as the dominant burrow type. Common siderite and pyrite nodules.

General Description:
NOTE: Extensive drilling biscuit deformation.



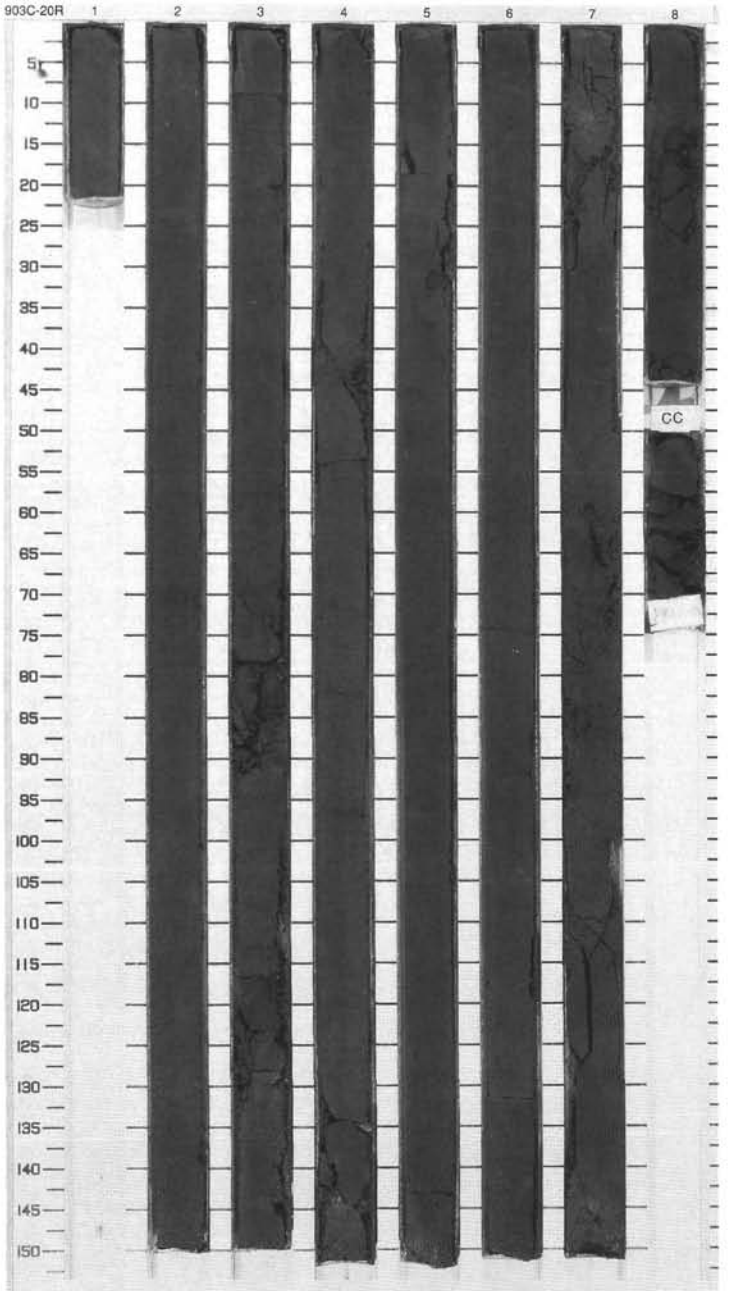
SITE 903 HOLE C CORE 19R CORED 756.2 - 765.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–6		1, 2, 3, 4, 5, CC	middle Miocene			S, P, T S, P D, M	5Y 5/1 To 5Y 6/1; 5Y 4/1 To 5Y 4/2; 5Y 4/1	CLAYSTONE and SILTY CLAYSTONE Major Lithologies: Olive gray to light olive gray, moderately bioturbated CLAYSTONE and greenish gray to dark olive gray, moderately bioturbated SILTY CLAYSTONE. In the CLAYSTONE interval, buff-colored bands and nodules are common and Chondrites burrows are also common. The CLAYSTONE is graded into the underlying SILTY CLAYSTONE with gradual color change in upper part of Section 2. Silt to very fine sand-sized glauconite is contained in the SILTY CLAYSTONE interval from 50 cm in Section 2 to the bottom of Section 3.



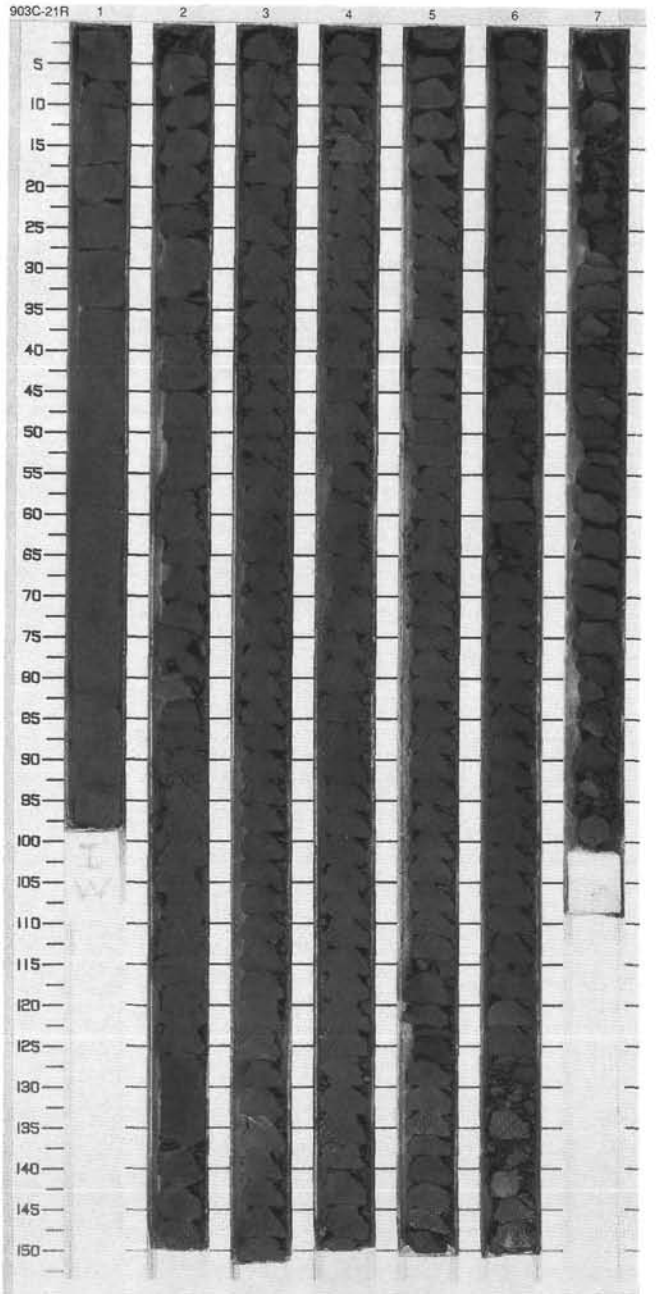
SITE 903 HOLE C CORE 20R CORED 765.9 - 775.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–8, CC	middle Miocene			S, P, S, P D, S, P, S, M	5Y 4/1 To 5Y 4/2; 5Y 4/1 To 5Y 3/1; 5Y 4/1 To 5Y 3/1; 5Y 3/2	SILTY CLAYSTONE Major Lithology: Olive gray to olive dark gray, slightly to moderately bioturbated SILTY CLAYSTONE. In Sections 2, 7, and 8, the SILTY CLAYSTONE is interbedded with greenish gray to greenish dark gray, nonbioturbated to slightly bioturbated CLAY (less than 5 cm thick). Thin laminations (ca., 7- to 10-cm-thick interval) indicate absence of burrowing in Sections 2 and 7. Well-preserved, distinct burrows such as Chondrites, Planolites, Teichichnus, Terebellina, and unnamed forms are visible throughout this core.



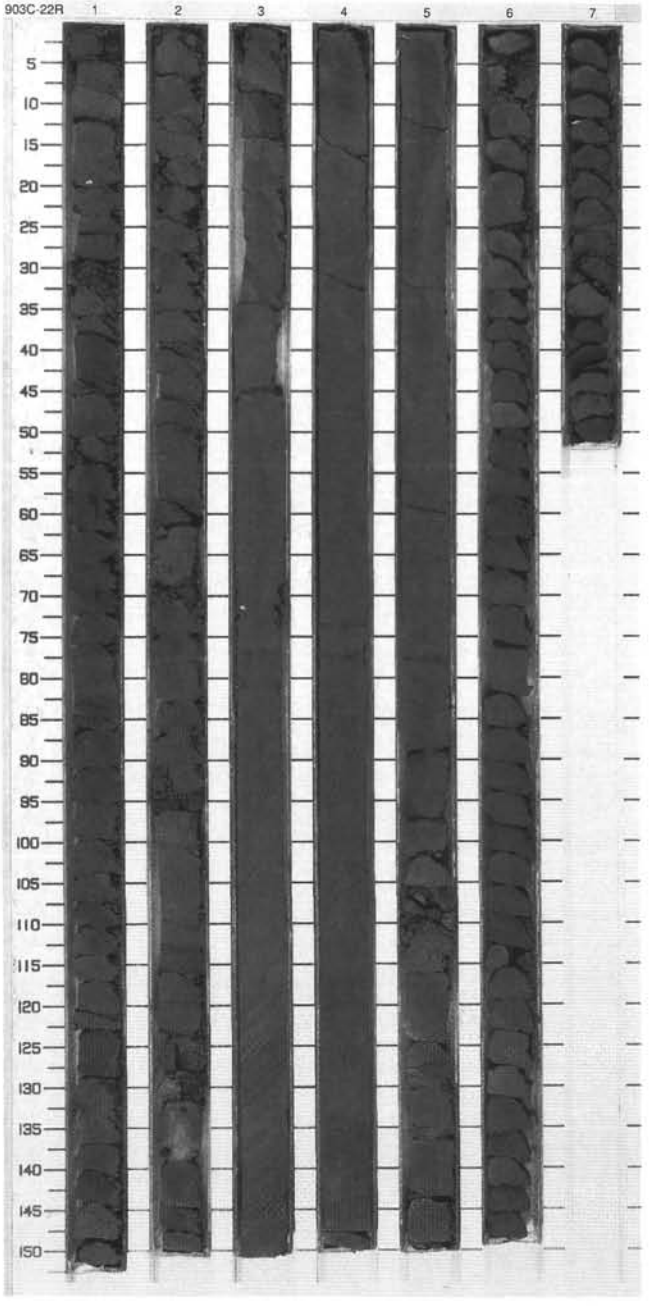
SITE 903 HOLE C CORE 21R CORED 775.5 - 785.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	middle Miocene			P, I, S, S, P, P, M	5Y 3/2	SILTY CLAYSTONE and GLAUCONITE SANDY SILTSTONE Major Lithologies: Gray brown SILTY CLAYSTONE comprises the bulk of the core. Slightly bioturbated with Chondrites-like burrows most common, but also sparse Planolites-like burrows, with glauconitic fills, in Section 3 and Section 4. Section 2 comprises GLAUCONITE SANDY SILTSTONE which is compositionally graded with increasing glauconite towards the sharp base. Very finely comminuted woody organic debris occurs in both lithologies.



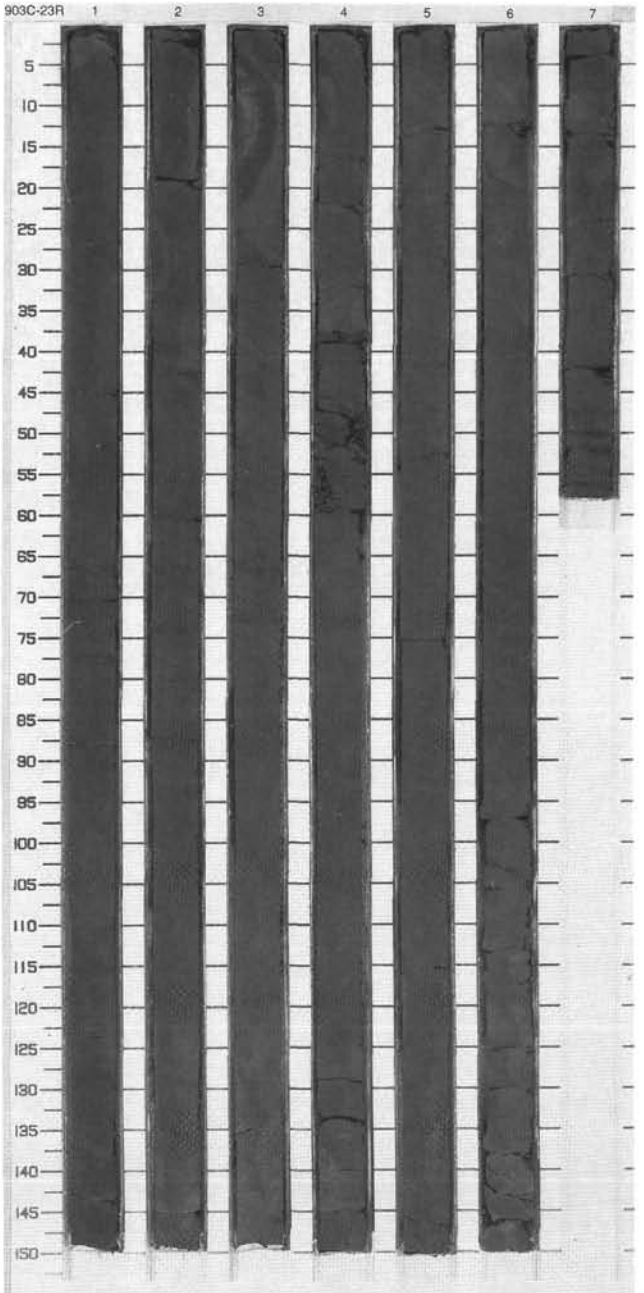
SITE 903 HOLE C CORE 22R CORED 785.2 - 794.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7 CC	middle Miocene			P, S, P, D, P, M	5Y 3/2	SILTY CLAYSTONE Major Lithology: Greenish brown to greenish gray SILTY CLAYSTONE with common microscopic woody organic debris and minor tiny shell fragments throughout. Slightly bioturbated in Sections 1 and 2 and heavily bioturbated from Section 3 to the base of the core. Burrows are dominantly Chondrites. A few percent of silt-sized glauconite grains are disseminated from Sections 3 to 5.



SITE 903 HOLE C CORE 23R CORED 794.9 - 804.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	middle Miocene			S, P, P, S, P D, P, S, S, P, P, M S	5Y 3/2	SILTY CLAYSTONE Major Lithology: Moderately to heavily bioturbated SILTY CLAYSTONE. Burrows comprise Chondrites and numerous Planolites, especially in Section 6, 85–110 cm. Shell fragments (1 mm to 1 cm in size) occur sporadically throughout the core. Glauconitic grains (2%–3%) are disseminated in the sediment. The amount of glauconite slightly increases in Section 5 downward.



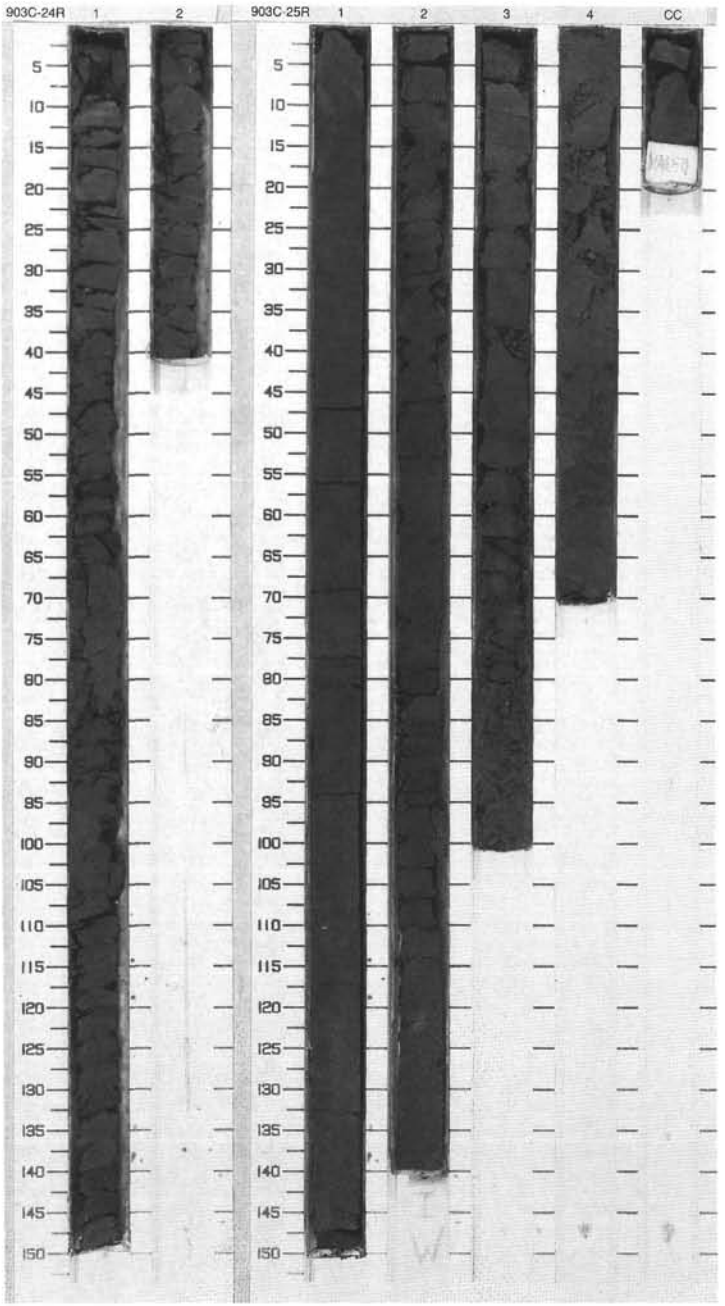
SITE 903 HOLE C CORE 24R CORED 804.1 - 813.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1 2 CC	middle Miocene			S D S M S	5Y 3/2	SILTY CLAYSTONE Major Lithology: Sediment consists of greenish gray, moderately bioturbated, weakly glauconitic SILTY CLAYSTONE. General Description: NOTE: Very badly disturbed by drilling.

SITE 903 HOLE C CORE 25R CORED 813.8 - 823.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4		1 2 3 4 CC	middle Miocene			S P D P I P S M	5Y 3/2	SILTY CLAYSTONE Major Lithology: Moderately bioturbated, brownish gray SILTY CLAYSTONE. Common glauconite grains are dispersed throughout. Increased abundance of very fine sand-sized glauconite in Section 4, 53–58 cm.

903C 26R NO RECOVERY

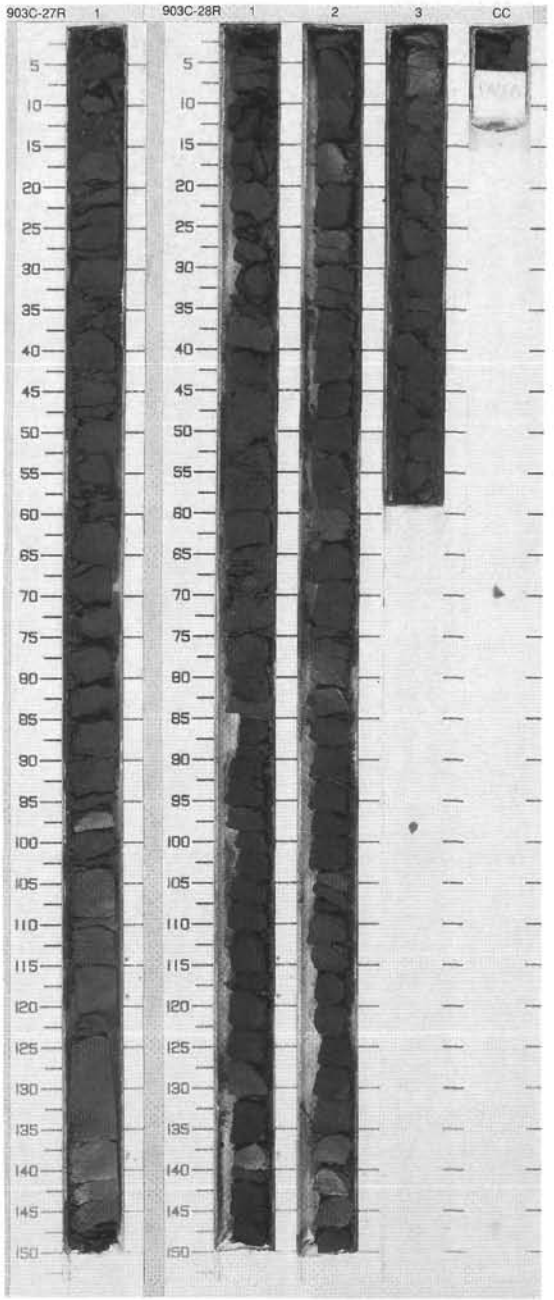


SITE 903 HOLE C CORE 27R CORED 833.1 - 842.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1 CC	middle Miocene			S P D M	5Y 3/2	SILTY CLAYSTONE Major Lithology: Moderately bioturbated, greenish gray SILTY CLAYSTONE with scattered, common glauconite grains.

SITE 903 HOLE C CORE 28R CORED 842.7 - 852.4 mbsf

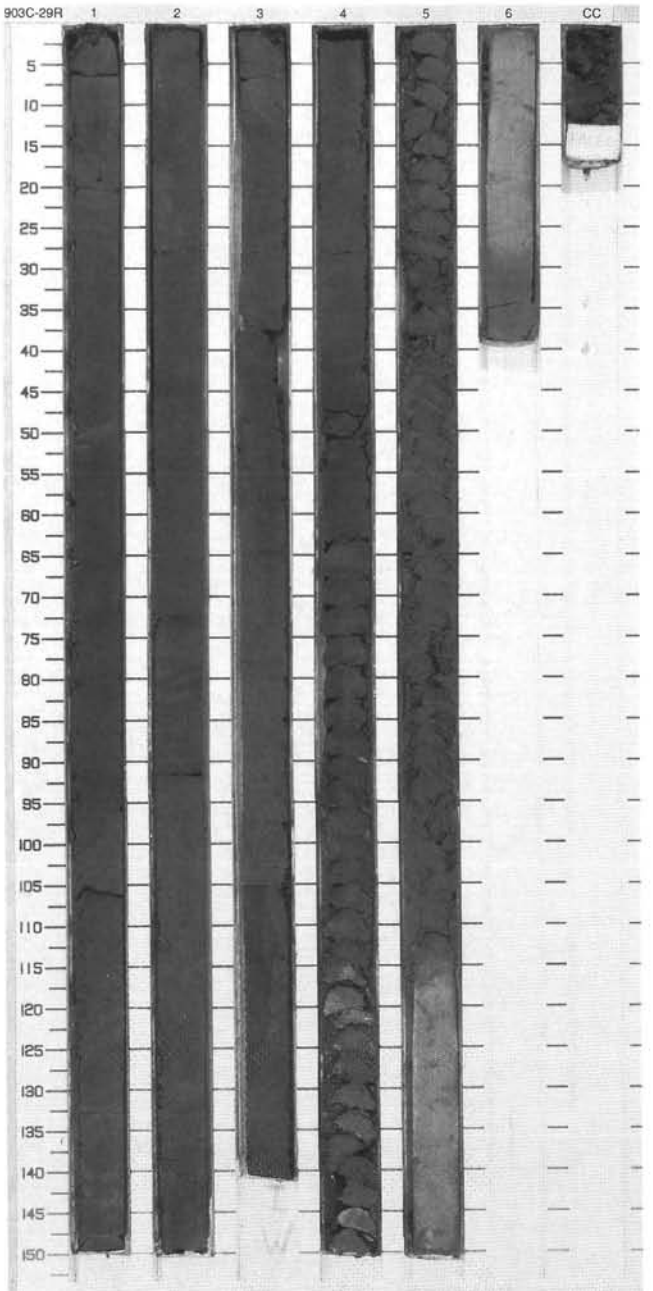
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
2 3		1 2 3 CC	middle Miocene			S P P P S D M	5Y 3/2	SILTY CLAYSTONE Major Lithology: Slightly bioturbated, greenish gray SILTY CLAYSTONE with scattered, common glauconite grains.



SITE 903 HOLE C CORE 29R CORED 852.4 - 862.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1–6, CC	middle Miocene	G		S, P, D, I, M	5Y 3/2; 5Y 4/2 To 5Y 3/2	SILTY CLAYSTONE Major Lithology: Greenish gray, moderately bioturbated SILTY CLAYSTONE. Well-preserved burrows of several types including, Zoophycos and Planolites. Common glauconite grains are disseminated throughout. Glauconite-rich intervals occur in Sections 2, 120–140 cm; Section 3, 25–45, 90–104, 116–130 cm and Section 4, 0–57 cm. Within each interval, glauconite decreases from base to top. Below the base of the cycles, sand-sized glauconite grains fill burrows. Indurated, hard, lithified, slightly to moderately burrowed silty claystone (rock) occurs from Section 5, 112 cm to Section 6, 39 cm.

903C 30R NO RECOVERY

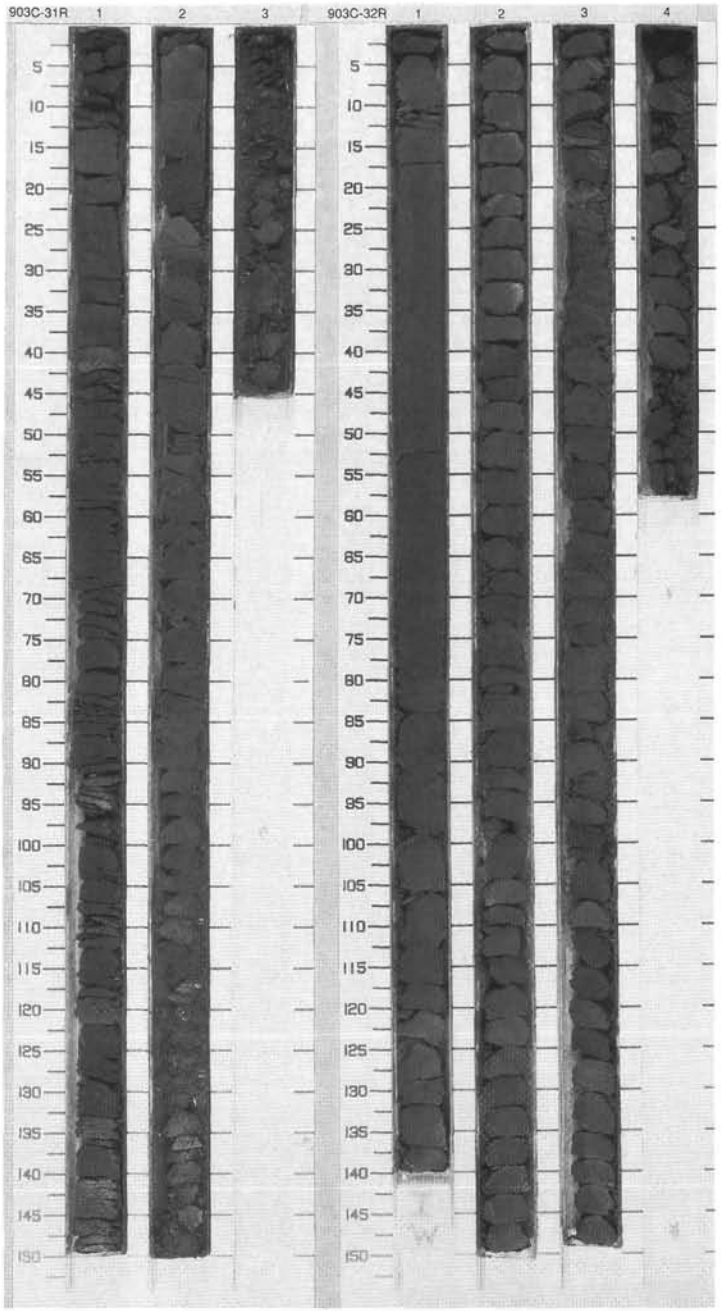


SITE 903 HOLE C CORE 31R CORED 871.7 - 881.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–3		1, 2, 3, CC	middle Miocene			S P PD P S D P P S M	10YR 2/2	SILTY CLAYSTONE Major Lithology: Dark brown, slightly to rarely burrowed SILTY CLAYSTONE. A few percent of glauconite silt-sized grains are disseminated throughout. A higher concentration of glauconite occurs from Section 1, 130 cm to Section 2, 40 cm where glauconite grains form mm-thick bands.

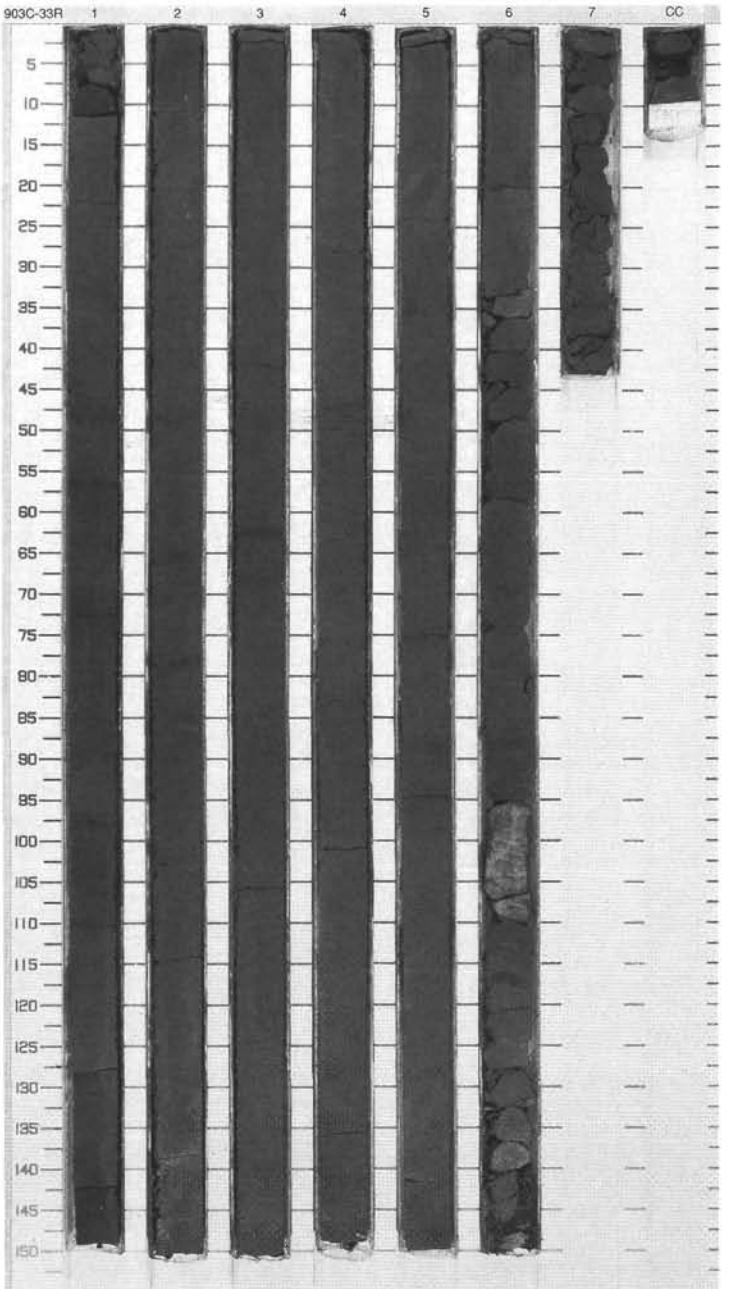
SITE 903 HOLE C CORE 32R CORED 881.4 - 891.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–5		1, 2, 3, 4, CC	middle Miocene			S P D I P D P S M S	10YR 2/2	SILTY CLAYSTONE Major Lithology: Weakly glauconitic (fine grains of glauconite), rarely to slightly burrowed, dark brown SILTY CLAYSTONE. A 20 cm-thick glauconitic unit corresponding to a sandy clay occurs in Section 3, 20–40 cm. Gradational contacts are observed at the top and at the base of this unit. Below this unit, well-preserved Planolites-like burrows are filled with glauconite sand-sized grains.



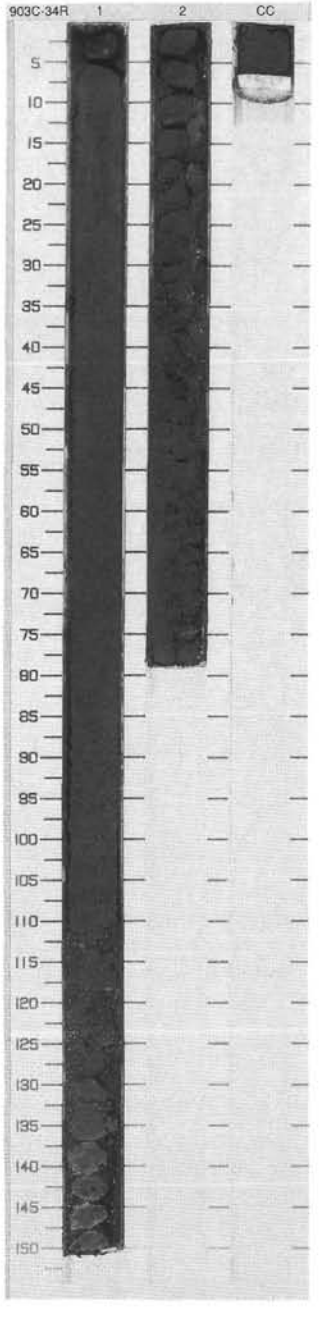
SITE 903 HOLE C CORE 33R CORED 891.1 - 900.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Miocene			S P D	10YR 3/2	SILTY CLAYSTONE Major Lithology: Dark brownish green, homogeneous to slightly bioturbated SILTY CLAYSTONE with minor disseminated silt-sized glauconite. Rare large burrows. In Section 6, 40 cm bed with abundant sand-sized glauconite at base, increasing abundance downwards, moderately bioturbated. Sharp basal contact, with glauconitic sand-filled burrows below contact. Basal 10 cm of glauconite sand is well cemented with dolomite(?).
2		2						
3		3				S P		
4								
5		4					10YR 3/2 To 10YR 2/2	
6						S		
7		5				P		
8		6				P		
9		7				P M	10YR 3/2	
		CC						



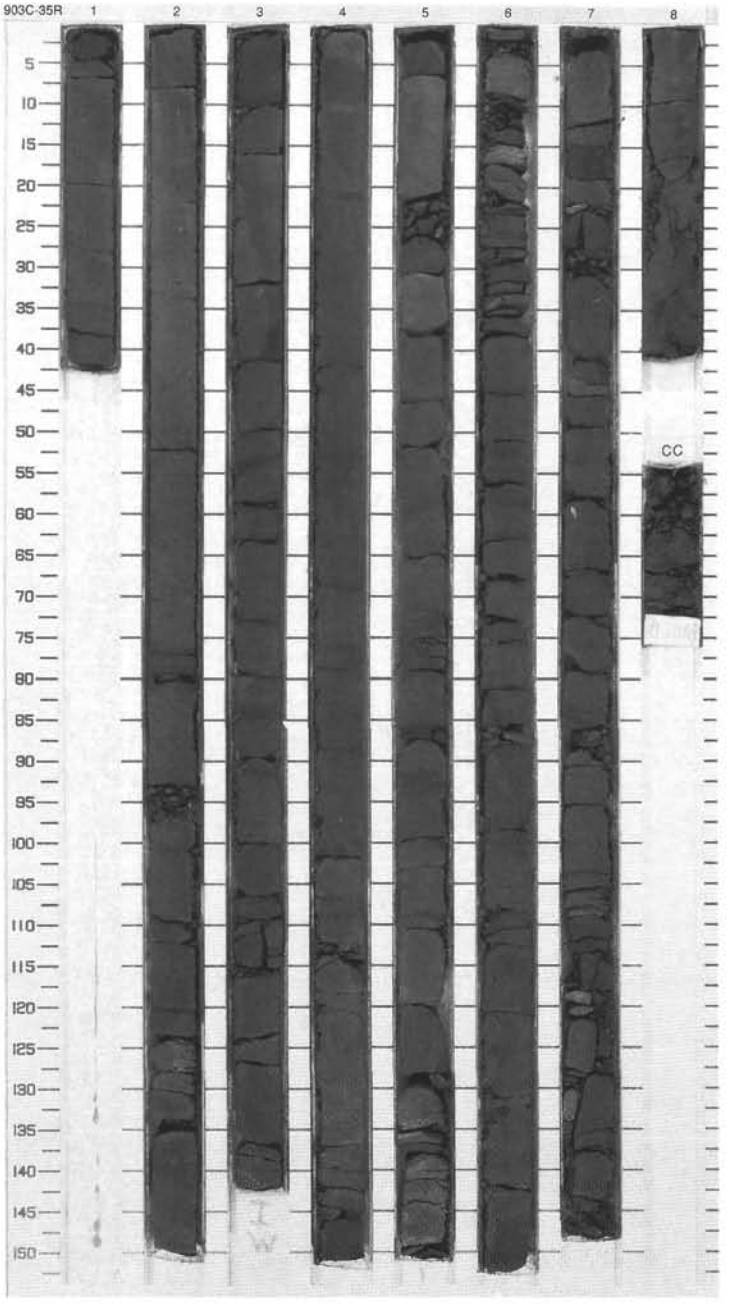
SITE 903 HOLE C CORE 34R CORED 900.7 - 910.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
2		1 2	middle Miocene			T D S D P S MS	10YR 3/2	SILTY CLAYSTONE Major Lithology: Dark brownish green, slightly to heavily bioturbated SILTY CLAYSTONE with rare large burrows infilled with silty claystone with 5%–10% fine sand-sized glauconite. Below the glauconitic silty clay in Section 1 and in the top of Section 2, common burrows infilled with silty glauconitic sand. A piece of cemented glauconite sand, highly abraded by drilling and clearly out of place, was present at the top of Section 1 and appeared to be similar to the cemented zone in Core 33R. Minor Lithology: Section 1 has a bed of heavily bioturbated GLAUCONITIC SILTY CLAYSTONE, with abundance of fine glauconite sand increasing from 5% at the top to 40%–50% at the base; minor fine quartz sand also present at the base of glauconitic sand.



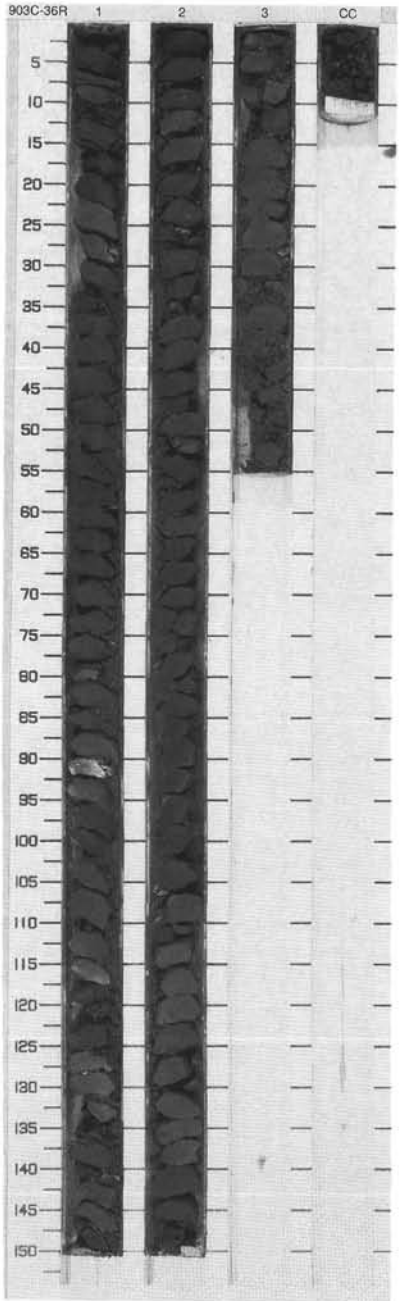
SITE 903 HOLE C CORE 35R CORED 910.4 - 920.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1	early Miocene			S	10YR 3/2	SILTY CLAYSTONE Major Lithology: Dark brownish gray, moderately to heavily bioturbated SILTY CLAYSTONE, with abundant diatoms, nannofossils, and minor foraminifers. Planolities is the dominant burrow with Zoophycos present in Sections 4 and 5. Minor Lithology: Heavily bioturbated, very dark grayish brown GLAUCONITIC SILTY CLAYSTONE with abundant very fine- to medium-sized glauconite sand occurs in the top of Section 2.
							10YR 4/2	
		2		G G		P		
		3				I	10YR 3/2	
		4				S P D		
		5					10YR 3/2 To 10YR 4/3	
		6		G		P S	5Y 3/1 To 10YR 4/3	
		7					10YR 3/2	
		8				M		
		CC						



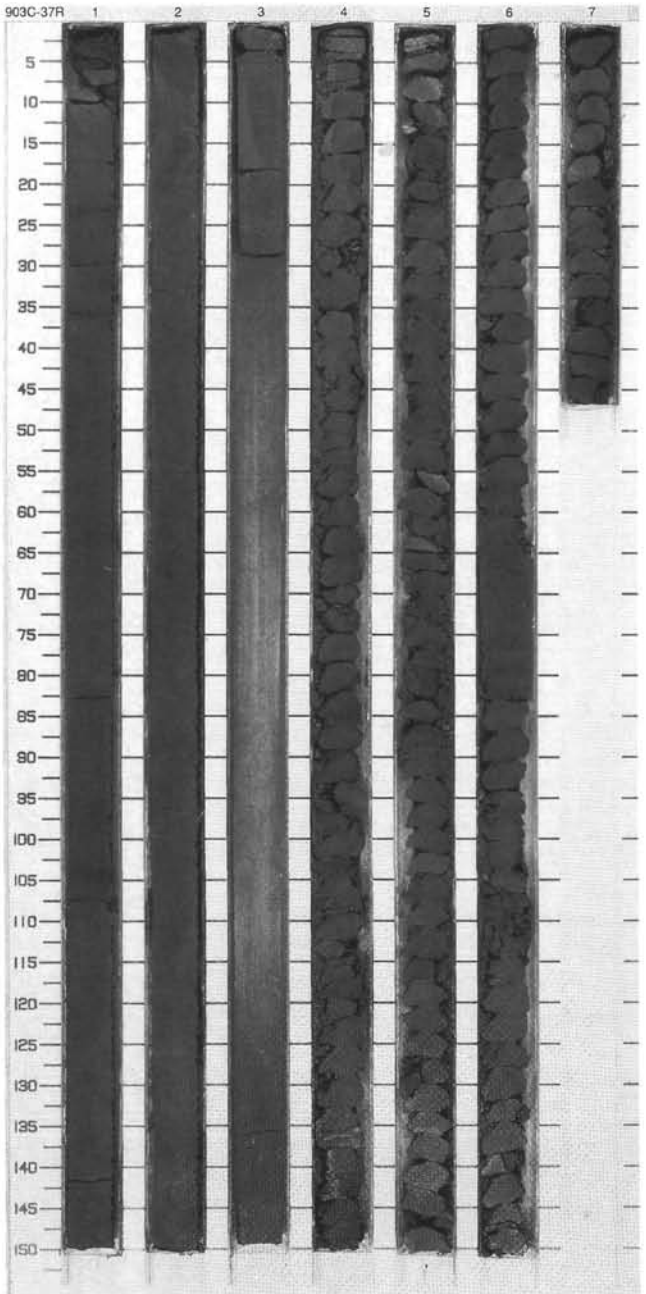
SITE 903 HOLE C CORE 36R CORED 920.0 - 929.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3		1 2 3 CC	early Miocene			P M S D P M	10YR 3/2	SILTY CLAYSTONE Major Lithology: Dark brownish gray, slightly to moderately bioturbated SILTY CLAYSTONE, with abundant diatoms and nannofossils, rare small fossil fragments and foraminifers. General Description: NOTE: Very extensive drilling biscuit deformation.



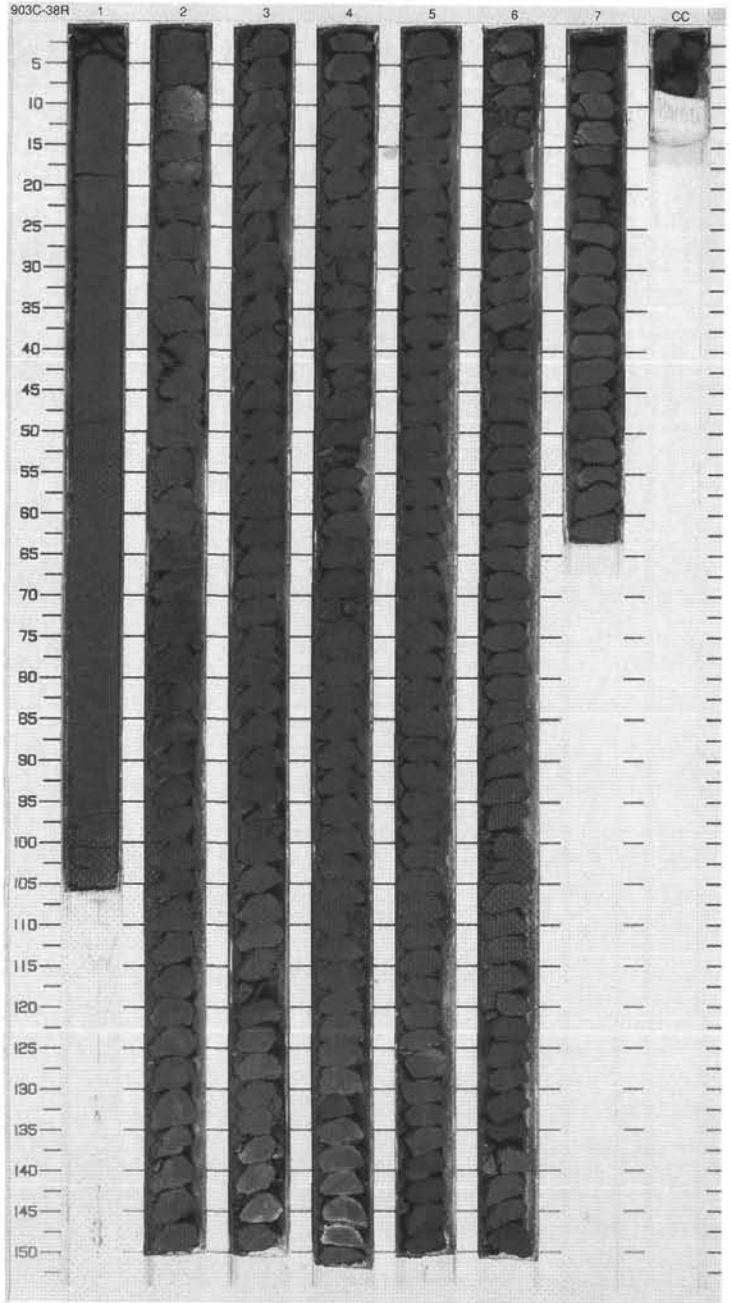
SITE 903 HOLE C CORE 37R CORED 929.7 - 939.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7 CC	early Miocene			S; P D; P T; S; P; S; M	10YR 3/2; 10YR 4/2; 10YR 3/2	SILTY CLAYSTONE Major Lithology: Very dark grayish brown, moderately bioturbated, diatom-dominated SILTY CLAYSTONE with dark grayish brown (10YR 4/2) to grayish brown (10YR 5/2) burrows and mottles. Minor Lithology: Dark grayish brown, moderately to heavily bioturbated DOLOMITIC CLAYEY SILTSTONE occurs from 30 to 134 cm in Section 3. Well-preserved trace fossils filled with grayish brown to light brownish gray (10YR 6/2 to 5/2) sediments include Planolites, Phycosiphon, and Zoophycos.



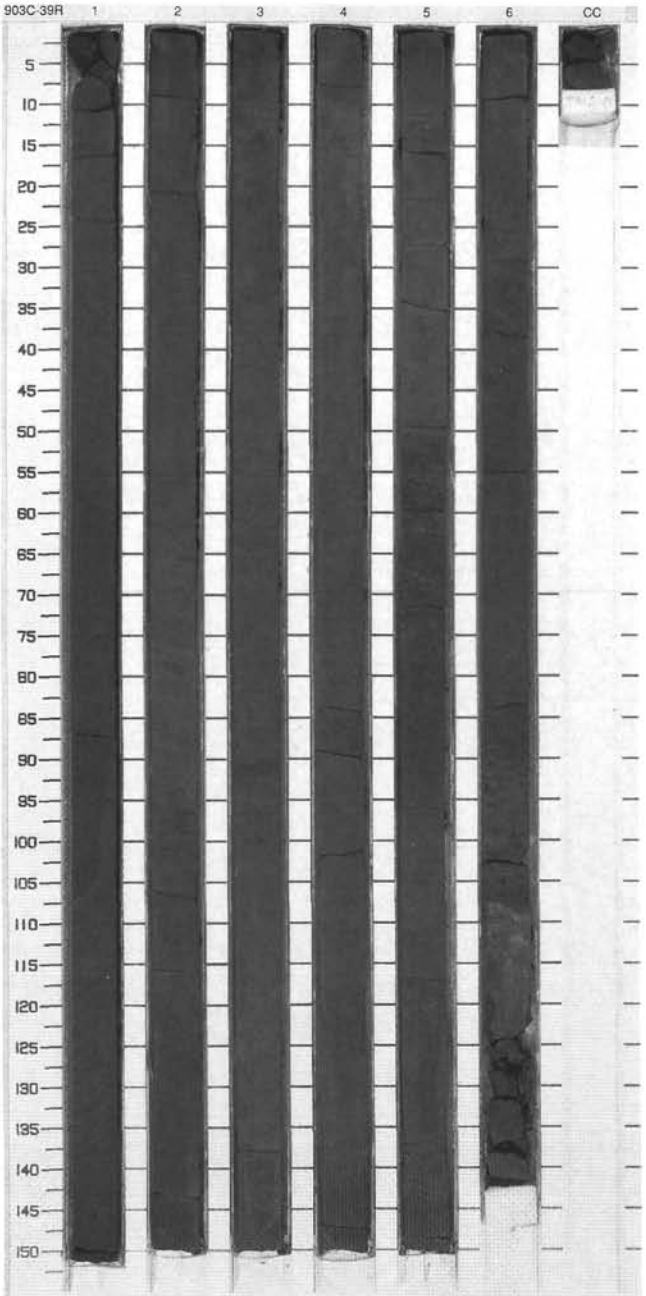
SITE 903 HOLE C CORE 38R CORED 939.0 - 948.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	early Miocene			P, I, P D, S, P S, M S, M	5Y 3/2; 5Y 4/2; 5Y 3/2	SILTY CLAYSTONE Major Lithology: Dark brown-gray, moderately bioturbated SILTY CLAYSTONE, with 30% diatoms and abundant nannofossils. In Sections 1 and 2, lighter brown gray intervals overlie dark brown intervals across gradational boundaries. Burrows include Planolites, Chondrites, and Zoophycos. Forams are common in Sections 3, 4, and 6. Scattered glauconite occurs in Section 5 (50–95 cm). Also, in Section 5 (125–127 cm) is a burrowed layer of diatom-rich, gray clay which contains thin low birefrigent "shards" with undulose extinction (from smear-slide analysis).



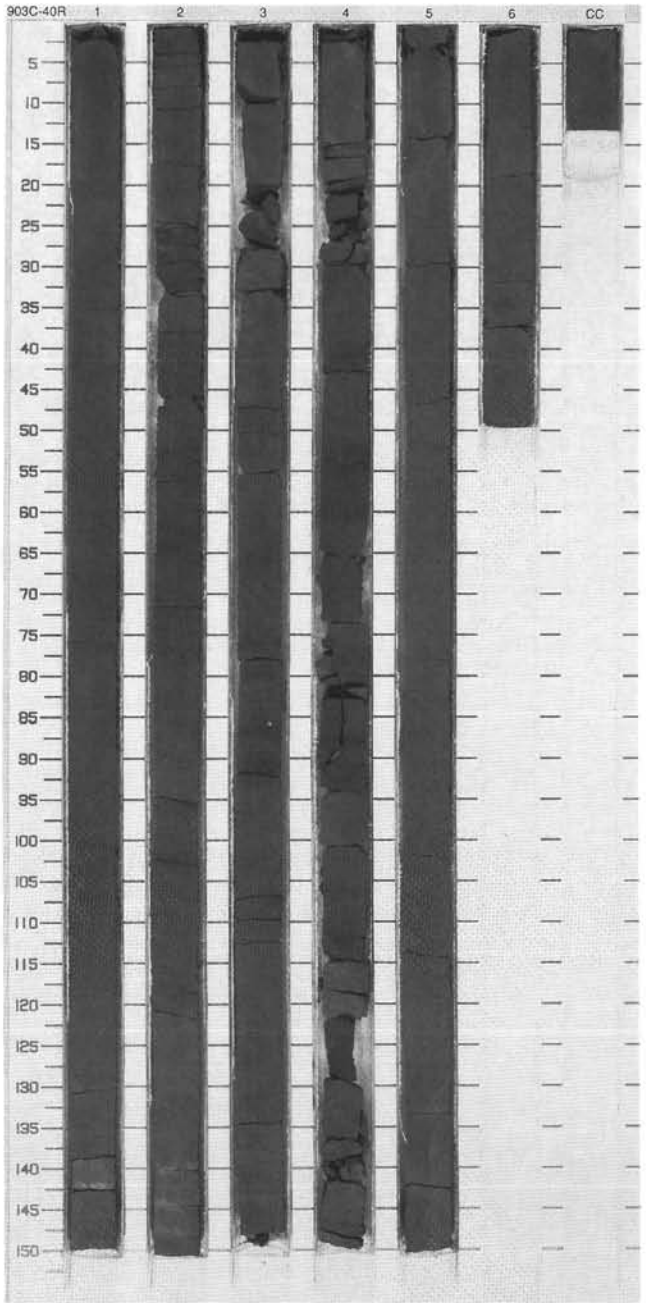
SITE 903 HOLE C CORE 39R CORED 948.6 - 958.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	early Miocene			S P	10YR 3/2	SILTY CLAYSTONE Major Lithology: Very dark brown-gray, moderately to heavily bioturbated SILTY CLAYSTONE with common Planolites and Zoophycos. Minor glauconite in Section 6. In Sections 2 and 5, olive gray SILTY CLAYSTONE, with well-preserved burrows overlies very dark brown gray silty claystone (Section 2) and claystone (Section 5). In Section 6, glauconite concentration increases downward to a glauconite sand (fine to coarse sand) at 100–123 cm. The sand is heavily bioturbated and glauconite sand occurs above this layer suggesting mixing of sediment through bioturbation. Base of the sand is cemented by dolomite(?). The basal contact was not recovered. Underlying the sand is a very dark gray-brown homogeneous claystone.
		2					5Y 5/2	
		3		G		D P	10YR 3/2	
		4						
		5				P	10Y 5/1 10YR 3/1 10YR 3/2	
		6		G G			10YR 3/1 5Y 2.5/1	
		CC				T M	10YR 3/2	



SITE 903 HOLE C CORE 40R CORED 958.2 - 967.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1–6, CC	early Miocene	≫		S, P, S, P D, P, M S	10YR 3/2; 10YR 4/2	SILTY CLAYSTONE Major Lithology: Very dark grayish brown from top of Section 1 to 50 cm in Section 5 to dark grayish brown to base of core. Moderately bioturbated to homogeneous (possibly heavily bioturbated) SILTY CLAYSTONE with slightly lighter colored burrows, Planolites, Thalassinoides, and Zoophycos.



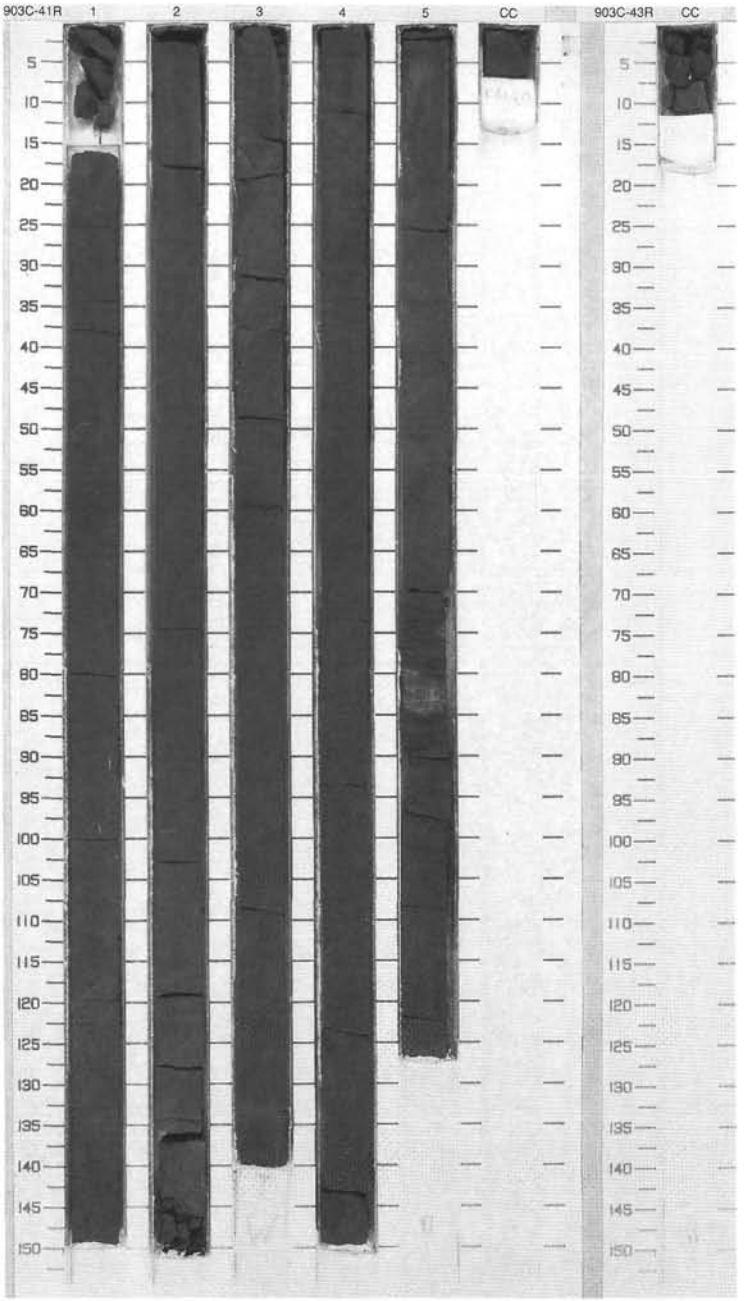
SITE 903 HOLE C CORE 41R CORED 967.5 - 977.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1–5, CC	early Miocene		W	P; P D; I; P S; P M S	5Y 3/2	SILTY CLAYSTONE Major Lithology: Dark brownish gray, slightly to moderately bioturbated SILTY CLAYSTONE with scattered foraminifers. Trace fossils include Zoophycos and numerous, well-preserved Planolites in Section 5. Glauconite fills burrows and rarely foraminifers (e.g. Section 3, 35 cm). Minor Lithology: GLAUCONITIC SILTY SANDSTONE occurs in Section 5, 72–90 cm. Fine-sized sand grains of glauconite increase in abundance downward. Above this unit glauconite occurs in cm-scale burrows as concentric fill. Below this unit glauconite is abundant in burrows down to 98 cm and is sparse in burrows below 98 cm.

903C 42R NO RECOVERY

SITE 903 HOLE C CORE 43R CORED 986.8 - 996.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC						SILTY CLAYSTONE Major Lithology: Dark brown SILTY CLAYSTONE. Very disturbed.



SITE 903 HOLE C CORE 44R CORED 996.5 - 1006.2 mbsf

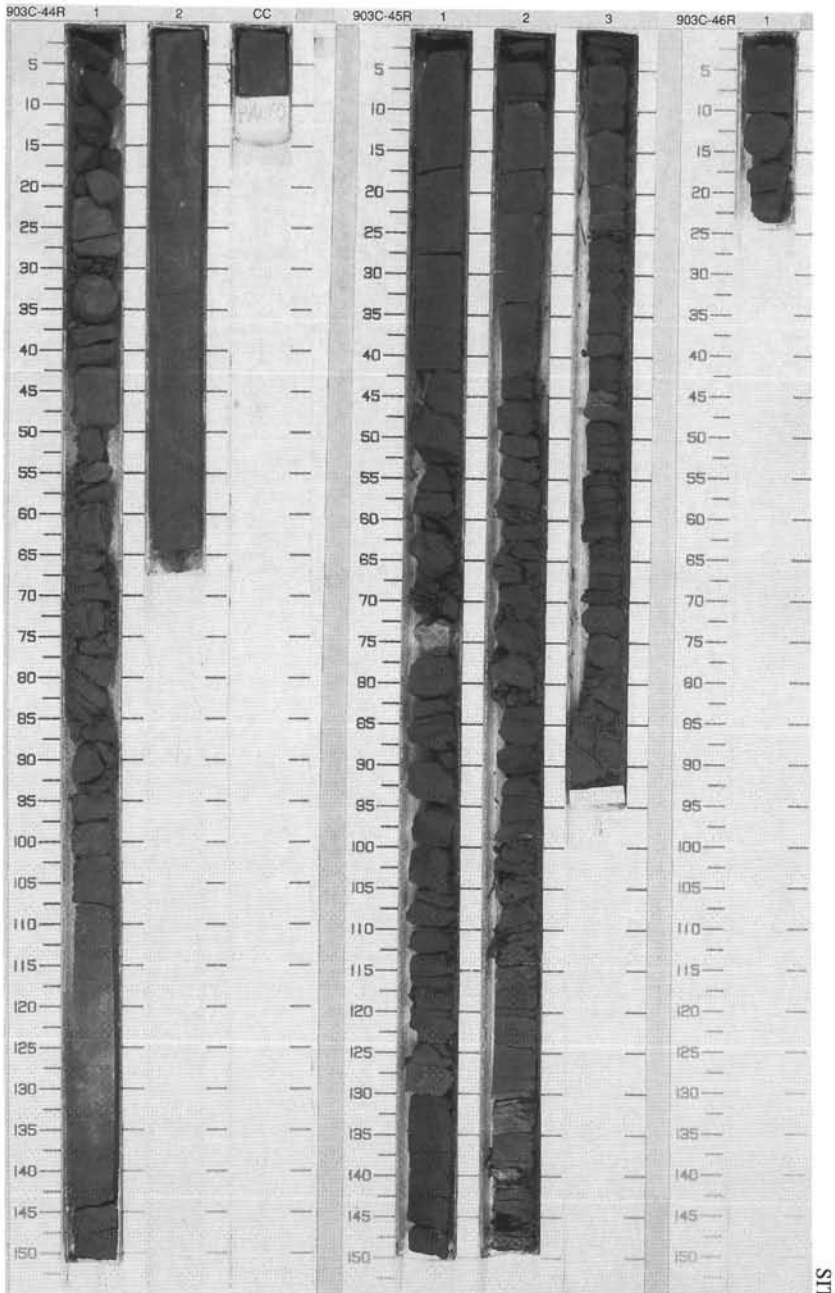
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2		1 2 CC	early Miocene		W W W W W	S P D D P S	10YR 4/1 To 10YR 5/2	SILTY CLAYSTONE Major Lithology: Brown gray, moderately bioturbated SILTY CLAYSTONE with minor glauconite. Well indurated between 117 and 138 cm in Section 1.

SITE 903 HOLE C CORE 45R CORED 1006.2 - 1015.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3		1 2 3	late Oligocene			S T P D P D M P	5Y 3/1	SILTY CLAYSTONE Major Lithology: Dark, greenish gray SILTY CLAYSTONE, moderately bioturbated. Glauconitic interval occurs from 61 to 76 cm in Section 1; basal 4 cm is cemented. Foraminifers scattered throughout. Darker interval with shaly aspect from 140 to 150 cm in Section 2.

SITE 903 HOLE C CORE 46R CORED 1015.8 - 1025.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1 CC	late Oligocene		W	M P D		SILTY CLAYSTONE Major Lithology: Glauconitic, moderately bioturbated (Planolites) SILTY CLAYSTONE with abundant foraminifers.

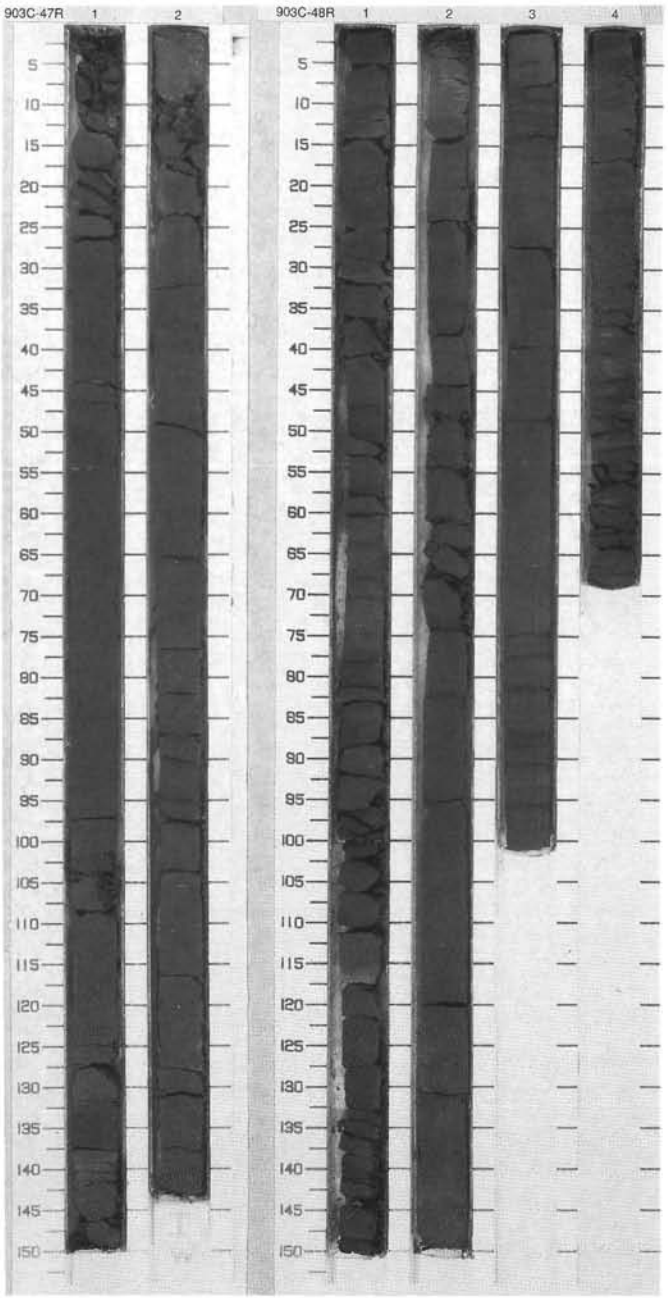


SITE 903 HOLE C CORE 47R CORED 1025.5 - 1029.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3		1 2 CC	late Oligocene			S D P D D P M I	5Y 3/1	SILTY CLAYSTONE Major Lithology: Greenish brownish gray, slightly to moderately bioturbated SILTY CLAYSTONE with abundant foraminifers (<2 mm) and glauconite grains scattered throughout.

SITE 903 HOLE C CORE 48R CORED 1029.1 - 1035.1 mbsf

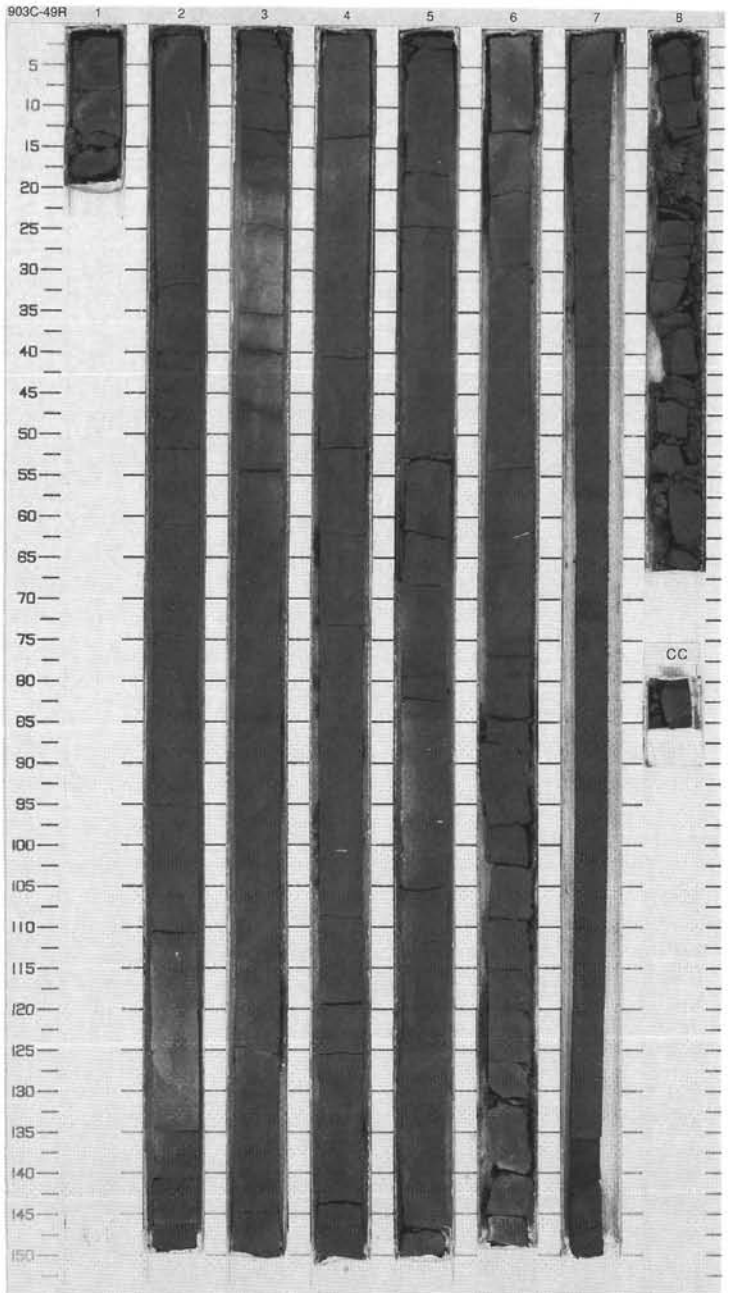
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4		1 2 3 4 CC	late Oligocene			S P P D S P M S	5Y 3/1	SILTY CLAYSTONE Major Lithology: Brownish gray, moderately bioturbated SILTY CLAYSTONE with fine-sized glauconite sand throughout the core. Shell fragments occur in Section 1, scattered foraminifers (<2 mm) are common throughout the core.



SITE 903 HOLE C CORE 49R CORED 1035.1 - 1044.8 mbsf

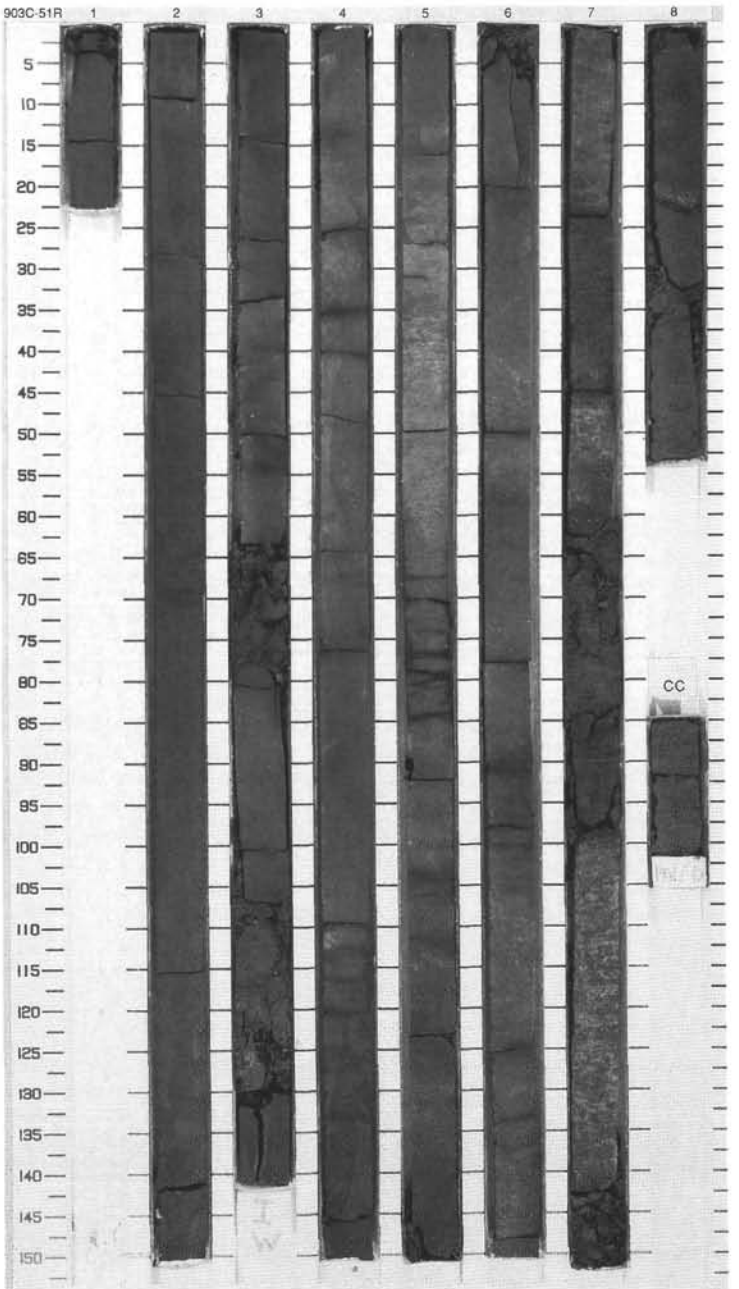
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	late Oligocene			S	5Y 3/1	SILTY CLAYSTONE Major Lithology: Greenish gray, slightly to moderately bioturbated SILTY CLAYSTONE. Burrows include Planolites and Chondrites. Foraminifers abundant throughout. A few percent of silt-sized grains of glauconite in all sections.
		2				P D		
2		3				S		
						P		
3		4				P		
4						S		
		5				P		
5		6				P D		
6						S		
7		7						
8		8				M S		
9		CC						

903C 50R NO RECOVERY



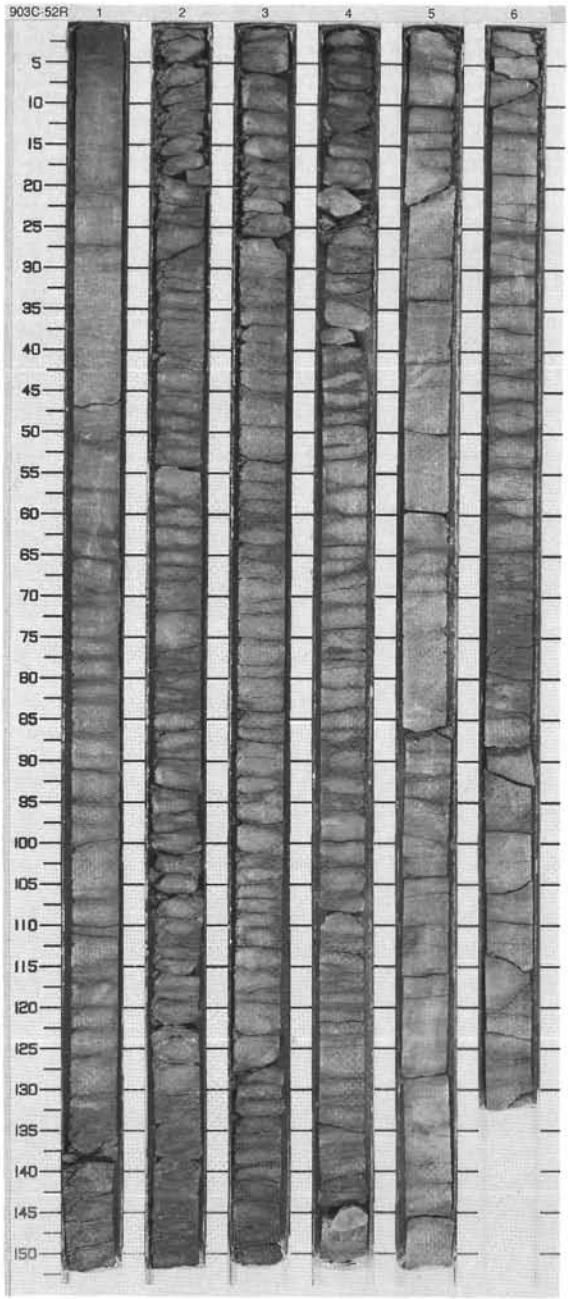
SITE 903 HOLE C CORE 51R CORED 1054.4 - 1064.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–CC	late Oligocene			S P S S I P S S P S P M	5Y 3/2; 10YR 3/2; 5Y 3/1; 5Y 3/2; 10YR 3/2; 10YR 3/2 To 5G 3/1; 5Y 4/2	CLAYEY SILTSTONE, SILTY CLAYSTONE, GLAUCONITIC SANDY SILTSTONE and GLAUCONITIC SILTY SANDSTONE Major Lithologies: CLAYEY SILTSTONE and SILTY CLAYSTONE comprise Section 1 to the middle of Section 6 and are highly bioturbated; Planolites and Chondrites are common, as are foraminifers. Below the middle of Section 6, the sediment grades through well-cemented GLAUCONITIC SANDY SILTSONE to GLAUCONITIC SILTY SANDSTONE in Section 7. Glauconite grains are fine to coarse sand-sized. Bioturbation is moderate and comminuted carbonate fragments (foraminifers) are abundant. Sections 8 and CC contain similar sediment to Section 7, albeit less sandy.



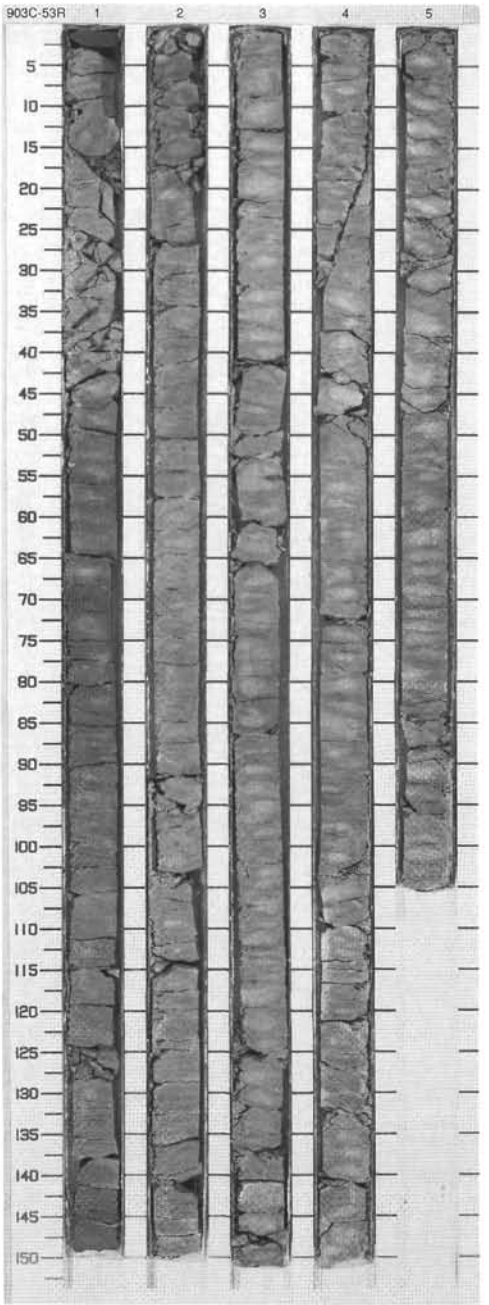
SITE 903 HOLE C CORE 52R CORED 1064.1 - 1073.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1, 2, 3, 4, 5, 6, CC	late Eocene	(P) (P)		S S P S DP S S P M	10Y 6/1 To N6	NANNOFOSSIL CLAYEY CHALK WITH FORAMINIFERS Major Lithology: Light gray to gray, heavily bioturbated NANNOFOSSIL CLAYEY CHALK WITH FORAMINIFERS. Disseminated pyrite, with grains less than 3 mm in diameter, occur throughout. Chondrites and Planolites occur commonly and Zoophycos less so. Dark gray sediment or pyrite fill Chondrites. Planolites filled with glauconite derived from overlying glauconitic interval are observable in Section 1 down to 30 cm.



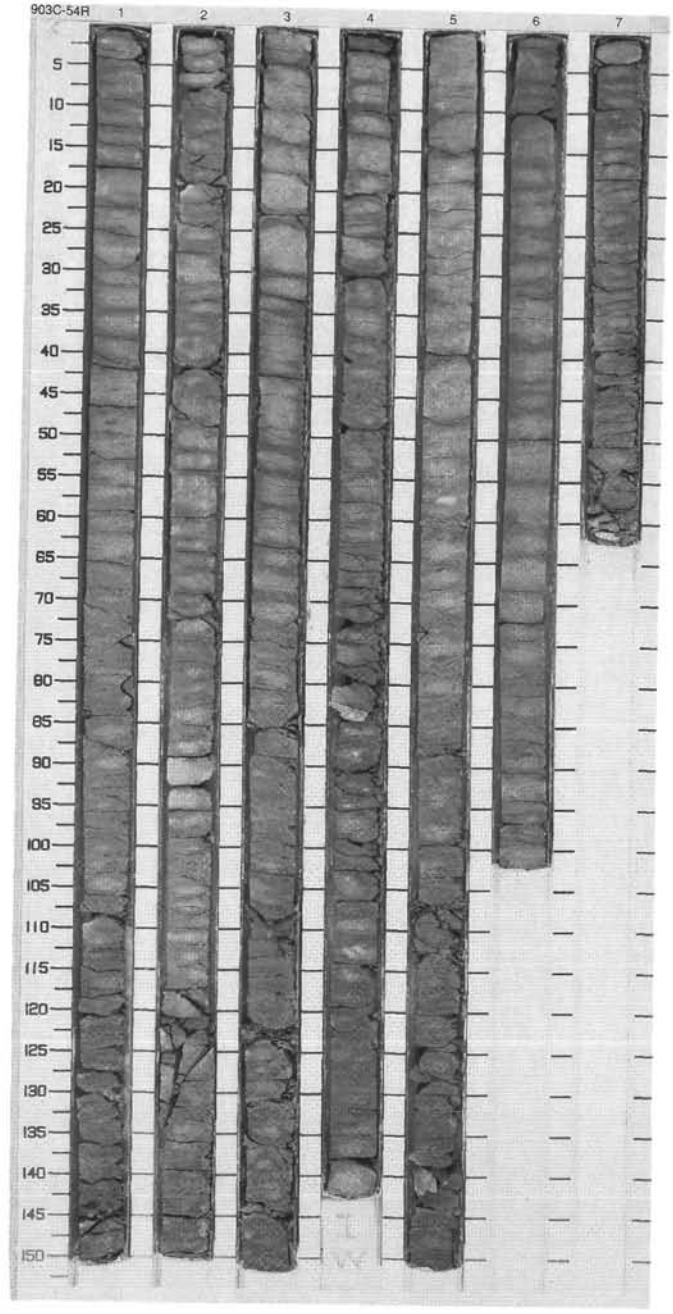
SITE 903 HOLE C CORE 53R CORED 1073.8 - 1083.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	late Eocene			P S	5Y 5/1 To 5Y 5/2	NANNOFOSSIL CLAYEY CHALK WITH FORAMINIFERS Major Lithology: Gray to olive gray, heavily bioturbated NANNOFOSSIL CLAYEY CHALK WITH FORAMINIFERS. Burrows include common Chondrites and Planolites as well as Zoophycos in Section 3. Burrows are often filled with gray- to olive-colored sediment. Mm-scale pyrite nodules occur in Sections 1 to 3.
2		2		P		S	5Y 6/1 To 5Y 6/2	
3		3		P		P D		
4		4		P			5Y 6/2 To 5Y 5/2	
5		5				P M		
6		CC						
7								



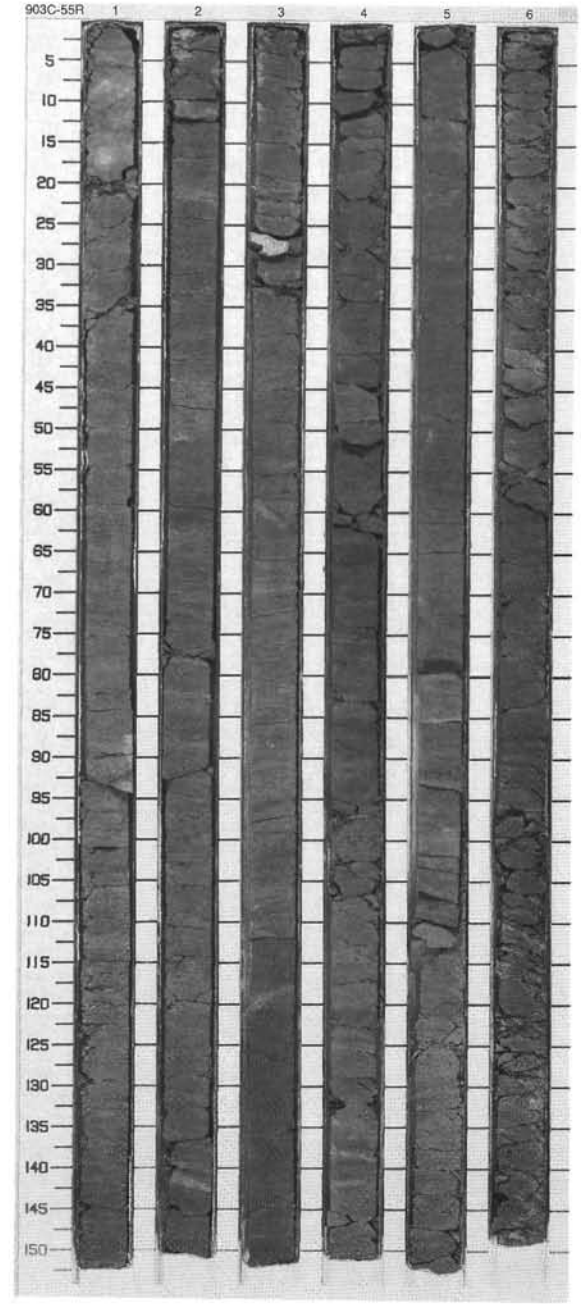
SITE 903 HOLE C CORE 54R CORED 1083.4 - 1092.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	late Eocene			S	5Y 5/1 To 5Y 6/2	NANNOFOSSIL CLAYEY CHALK WITH FORAMINIFERS Major Lithology: Gray to olive-gray, heavily bioturbated NANNOFOSSIL CLAYEY CHALK WITH FORAMINIFERS. Well-preserved burrows are mainly *Planolites* and *Chondrites*. Some *Zoophycos* occur also, together with *Thalassinoides*(?) in Section 5.
		2				P		
		3						
		4				P	5Y 5/1 To 5Y 5/2	
		5				I		
		6				S		
		7			P D		5Y 5/1 To 5Y 6/2	
		CC			M			



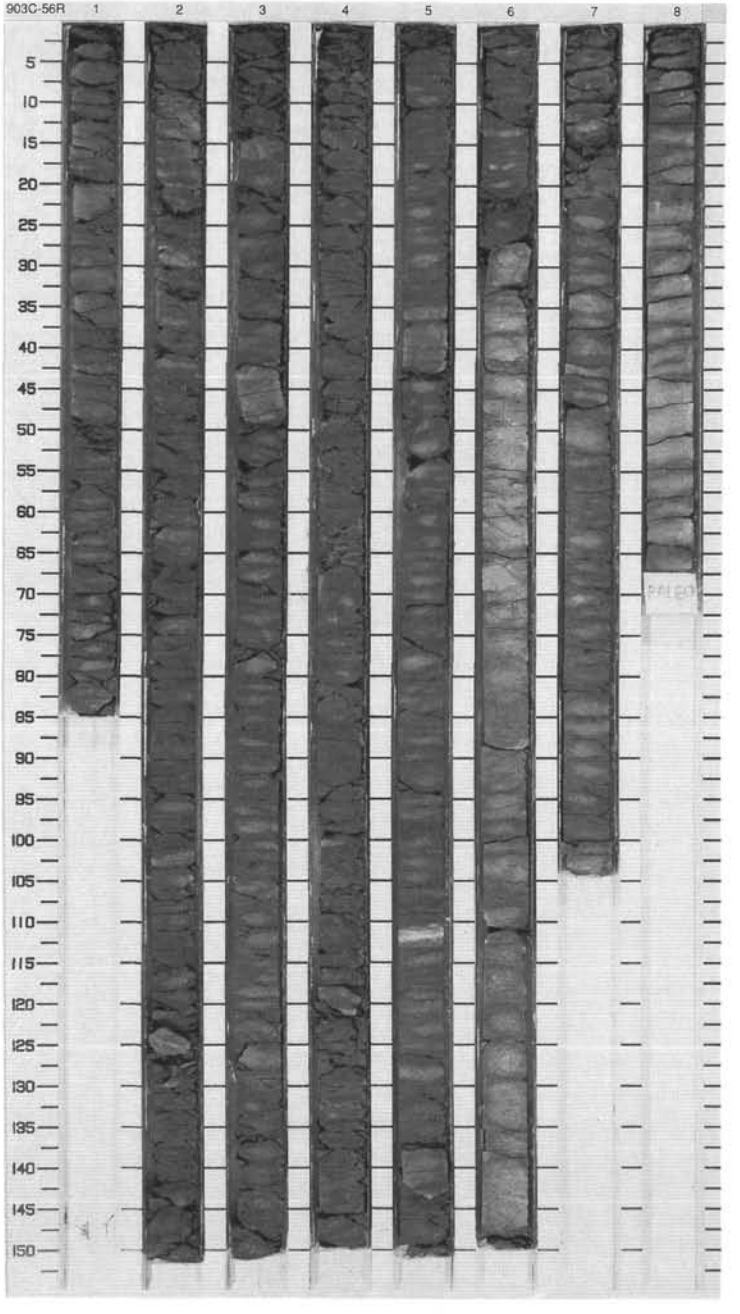
SITE 903 HOLE C CORE 55R CORED 1092.8 - 1102.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1–6	late Eocene			S, P, P, S, D, P, P, S, P, M	5Y 6/1 To 5Y 5/1	NANNOFOSSIL CLAYEY CHALK WITH FORAMINIFERS Major Lithology: Light greenish gray, heavily bioturbated (Planolites, Chondrites, rare Zoophycos) NANNOFOSSIL CLAYEY CHALK WITH FORAMINIFERS. Very rare silt-sized grains of glauconite filling burrows. A foraminifer-rich layer occurs at the base of Section 2.



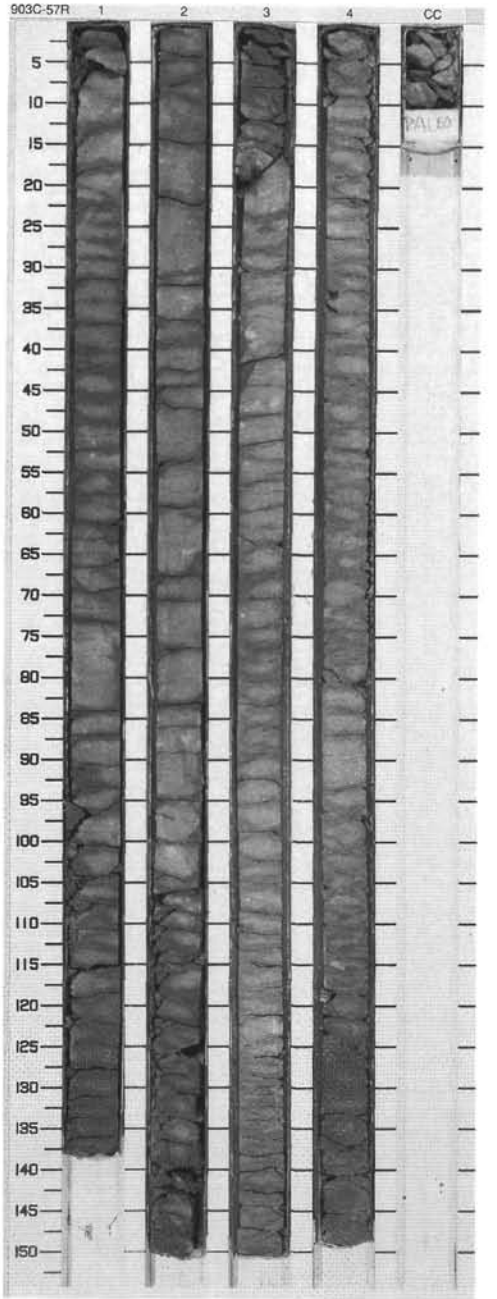
SITE 903 HOLE C CORE 56R CORED 1102.3 - 1111.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–8	late Eocene			S, P, P, S, D, P, P, S, S, M	5Y 5/1 To 5Y 4/1	NANNOFOSSIL CLAYEY CHALK WITH FORAMINIFERS Major Lithology: Gray to olive gray, slightly to heavily bioturbated NANNOFOSSIL CLAYEY CHALK WITH FORAMINIFERS. Burrows are mainly Planolites and Chondrites. Scattered occurrence of Zoophycos in Section 6. Between 20 to 27 cm of Section 6, a darker, laminated (1–2 mm thick laminations) silty to very fine sandy interval occurs that may contain microtektites. Gray layers of silt are anastomosed between 24.5 and 25.5 cm. At 26.5 cm burrows are filled with coarse sand. A distinctive unit between 27 and 80 cm can be distinguished by the abundance of foraminifers, by the occurrence of glauconite at the top, and by a pinkish carbonate nodule, with noncompacted vertical burrows suggesting an early diagenetic formation.



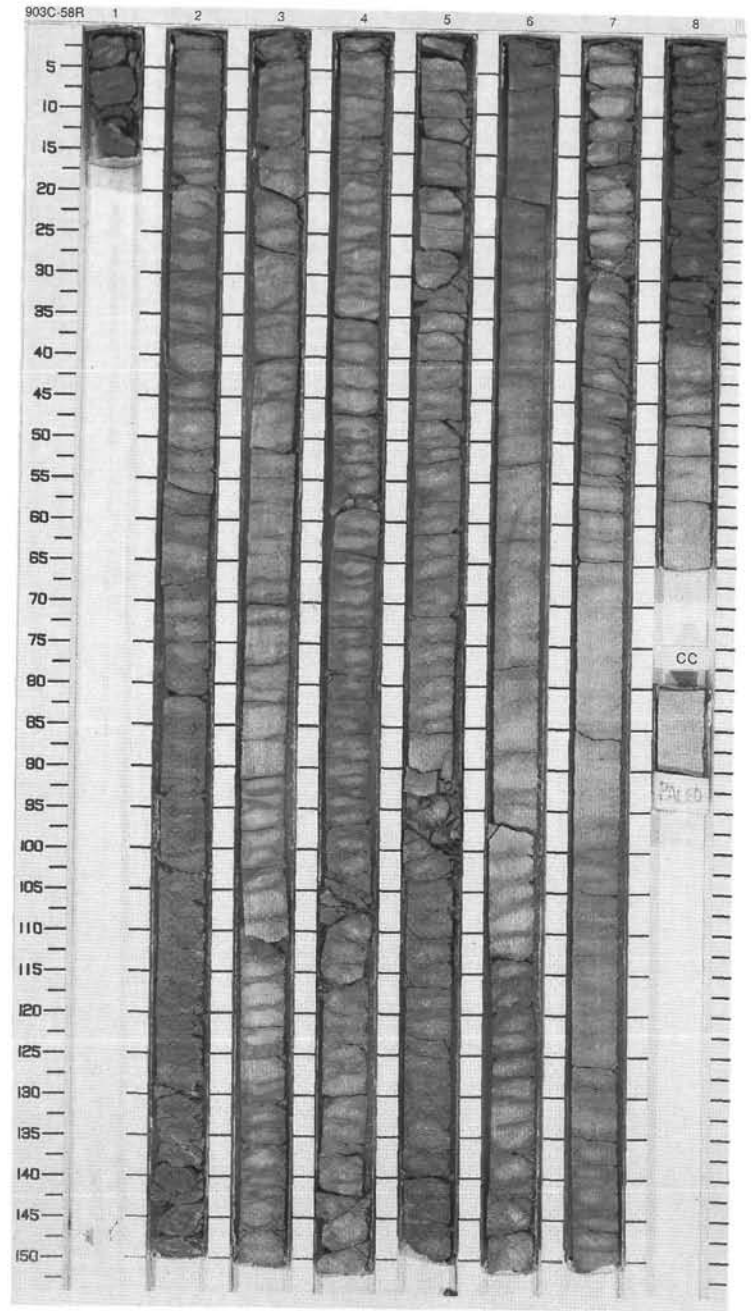
SITE 903 HOLE C CORE 57R CORED 1111.5 - 1121.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–6		1, 2, 3, 4, CC	late Eocene / middle Eocene			S, P, I, T, D, S, P, M	5Y 5/1 To 5Y 5/2; 5Y 6/2 To 5Y 5/2	NANNOFOSSIL CLAYEY CHALK WITH FORAMINIFERS Major Lithology: Slightly to heavily bioturbated NANNOFOSSIL CLAYEY CHALK WITH FORAMINIFERS.



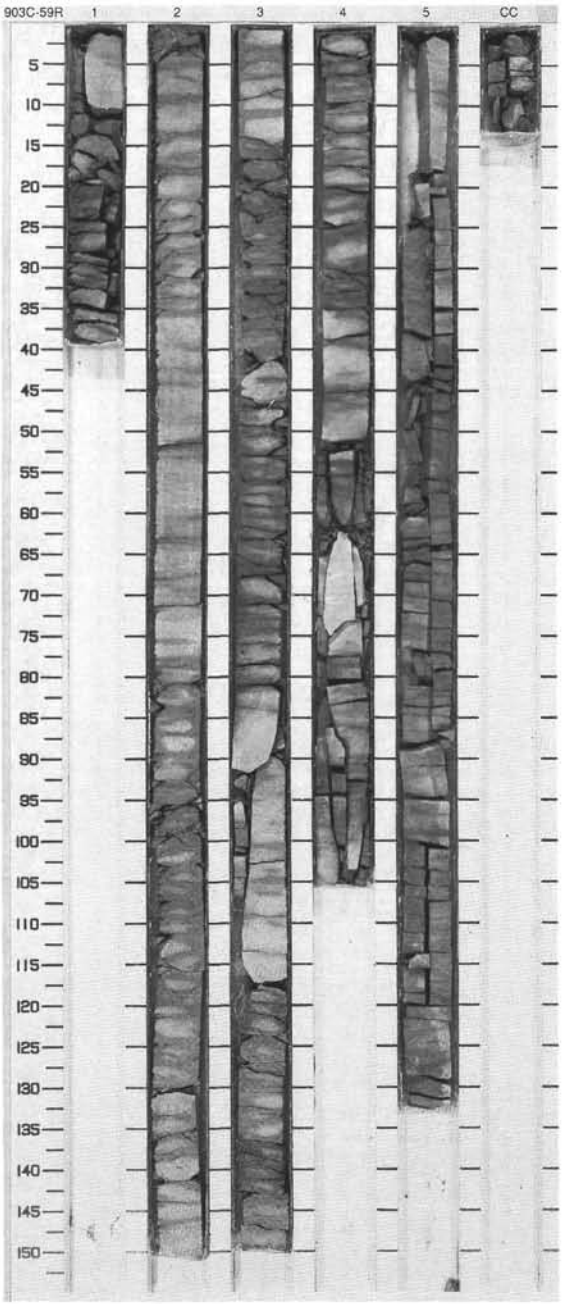
SITE 903 HOLE C CORE 58R CORED 1121.1 - 1130.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–8, CC	middle Eocene			P, P, T, P, D, D, M	10GY 5/2 To 5G 5/2	PORCELLANITIC NANNOFOSSIL CHALK Major Lithology: Heavily bioturbated, grayish green PORCELLANITIC NANNOFOSSIL CHALK with 10%–15% foraminifers and clay. Burrows dominantly Chondrites with *minor Zoophycus* and Planolites. Minor Lithology: Heavily bioturbated, grayish green, well-indurated CALCAREOUS PORCELLANITE with 10%–15% foraminifers and clay.

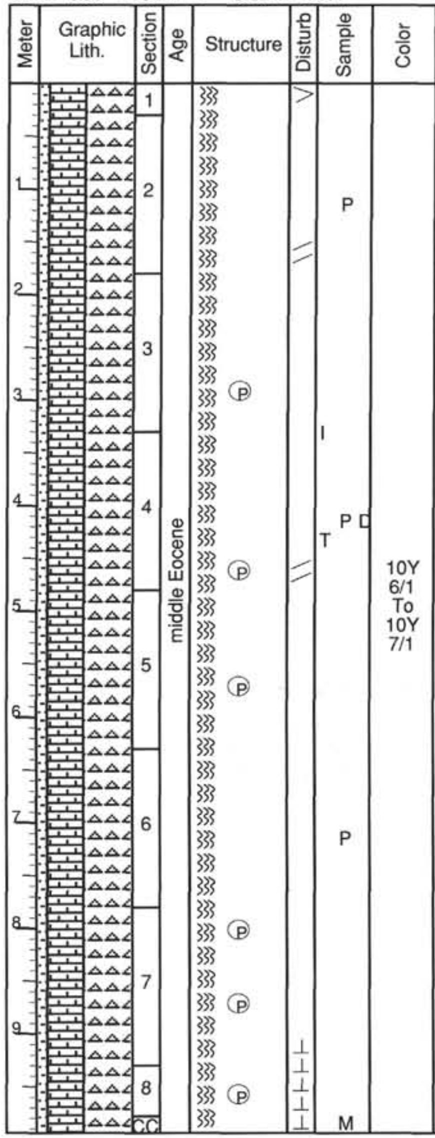


SITE 903 HOLE C CORE 59R CORED 1130.6 - 1140.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–5		1–5, CC	middle Eocene	Ⓟ, Ⓟ		P, D, T, P, M	10Y 6/1; 10Y 5/1; 10Y 6/1; 10Y 5/1; 10Y 6/1	CALCAREOUS PORCELLANITE and PORCELLANITIC NANNOFOSSIL CHALK Major Lithologies: Interbedded heavily bioturbated CALCAREOUS PORCELLANITE and PORCELLANITIC NANNOFOSSIL CHALK, both with abundant foraminifers, clay, and trace disseminated pyrite. Burrows include Chondrites and Zoophycos. CALCAREOUS PORCELLANITE displays typical vertical and horizontal conchoidal fractures, due to drilling deformation. The upper contacts of the CALCAREOUS PORCELLANITE beds are gradational and the lower contacts are sharp.



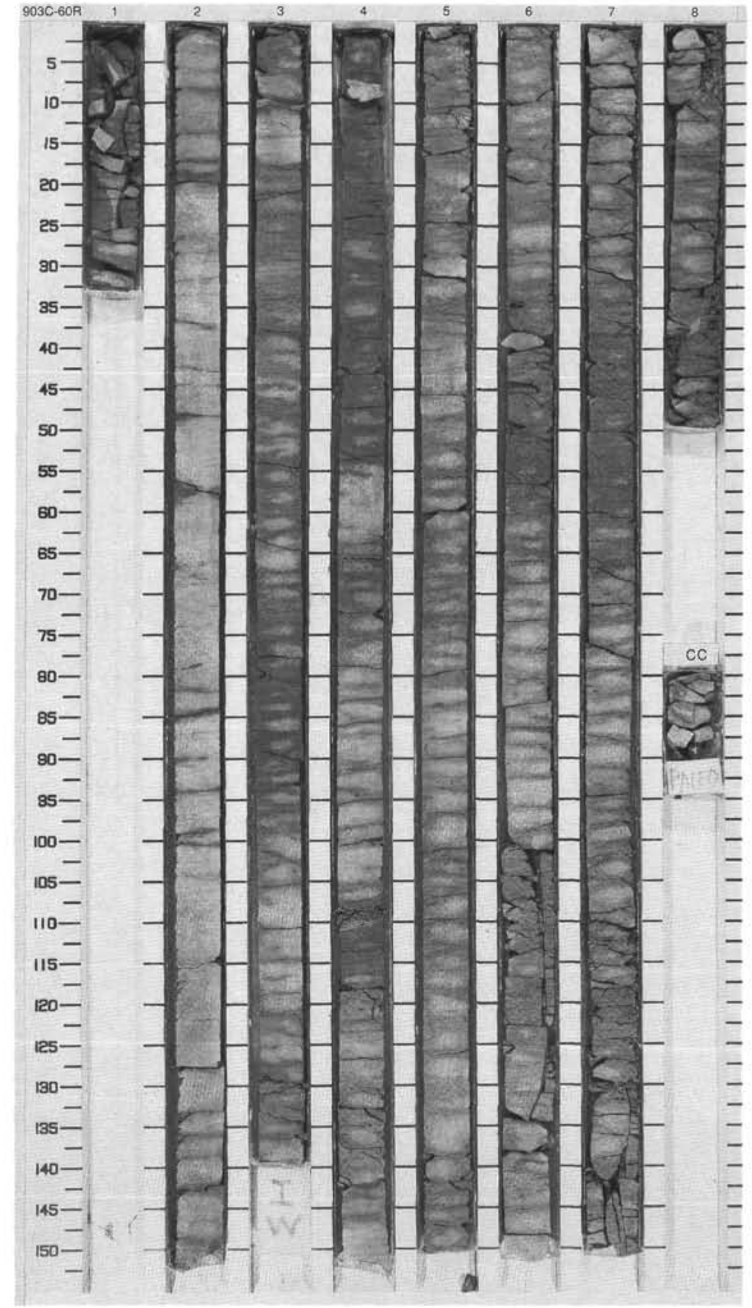
SITE 903 HOLE C CORE 60R CORED 1140.0 - 1149.7 mbsf



Description

CALCAREOUS PORCELLANITE

Major Lithology:
Heavily bioturbated CALCAREOUS PORCELLANITE with 5%–15% foraminifers and minor clay. In Sections 1, 6, and 7, vertical conchoidal fractures due to drilling deformation occur. Trace disseminated pyrite occurs in Sections 2 to 8.

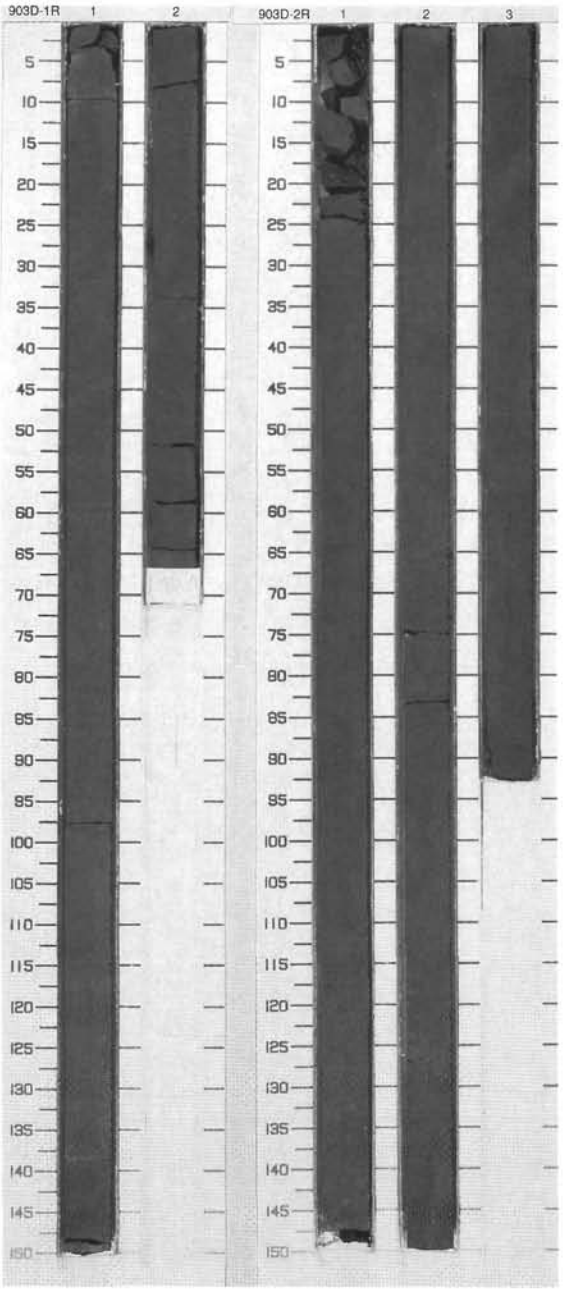


SITE 903 HOLE D CORE 1R CORED 774.9 - 784.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2		1 2	middle Miocene			S P M P	5Y 3/2	SILTY CLAY Major Lithology: Very dark olive gray, moderately bioturbated SILTY CLAY with silt- to very fine sand-grained quartz and glauconite, and plant fragments. Small Chondrites burrows (1 mm in diameter) filled with dark gray (N 4) sediments commonly occur throughout this core.

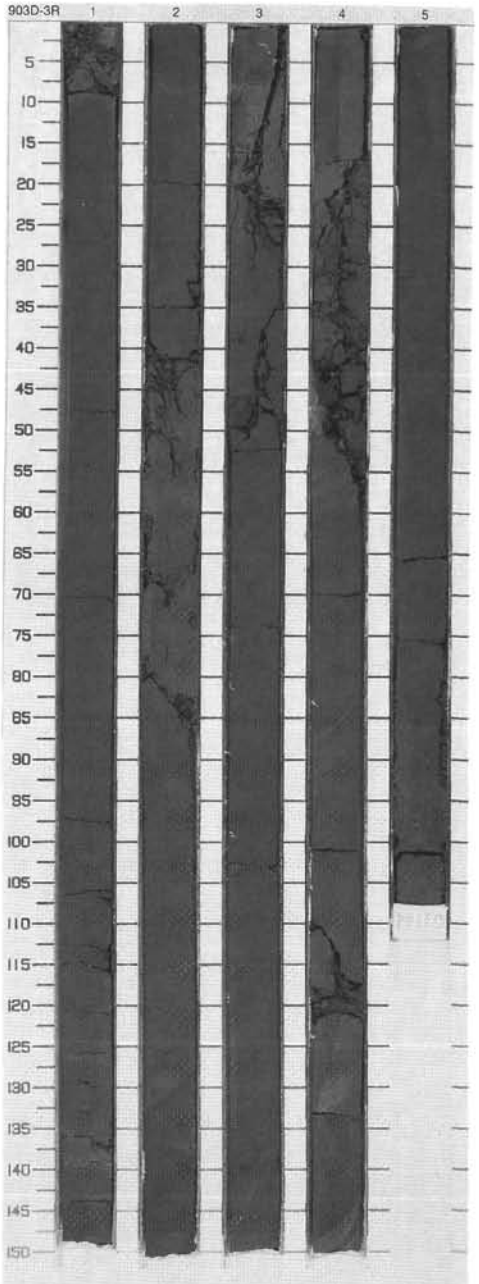
SITE 903 HOLE D CORE 2R CORED 784.5 - 794.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3		1 2 3 CC	middle Miocene			S P S P M	5Y 3/2	SILTY CLAY and CLAYEY SILT Major Lithologies: Very dark olive gray, moderately to heavily bioturbated SILTY CLAY and CLAYEY SILT with silt- to very fine sand-grained quartz and glauconite. Quartz and glauconite content increase downward. Chondrites and Planolites burrows commonly occur.

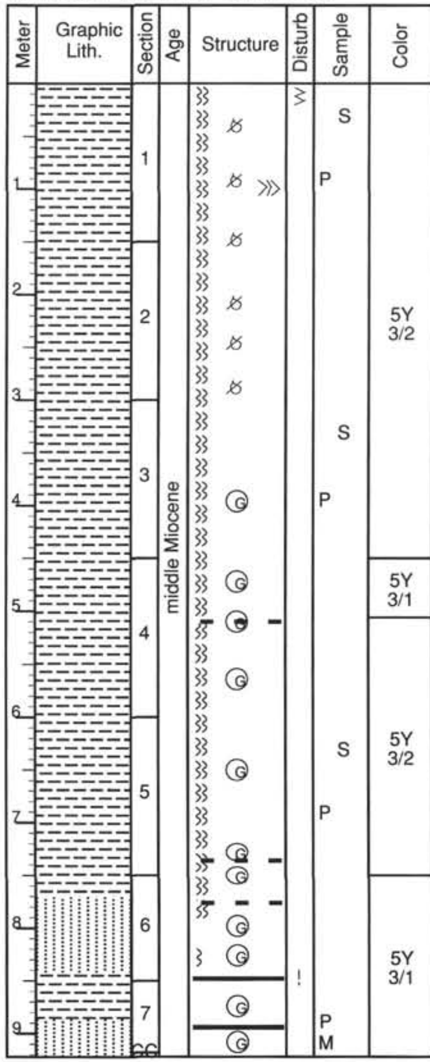


SITE 903 HOLE D CORE 3R CORED 794.2 - 803.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1, 2, 3, 4, 5	middle Miocene		W, WW, WW, WW, —	S, P, S, P, S, P, M	5Y 3/2	SILTY CLAY and CLAYEY SILT Major Lithologies: Very dark olive gray, moderately to heavily bioturbated SILTY CLAY and CLAYEY SILT with silt to very fine sand-grained quartz and glauconite throughout. Chondrites and Planolites are common, Zoophycos occur in Sections 4 and 5.



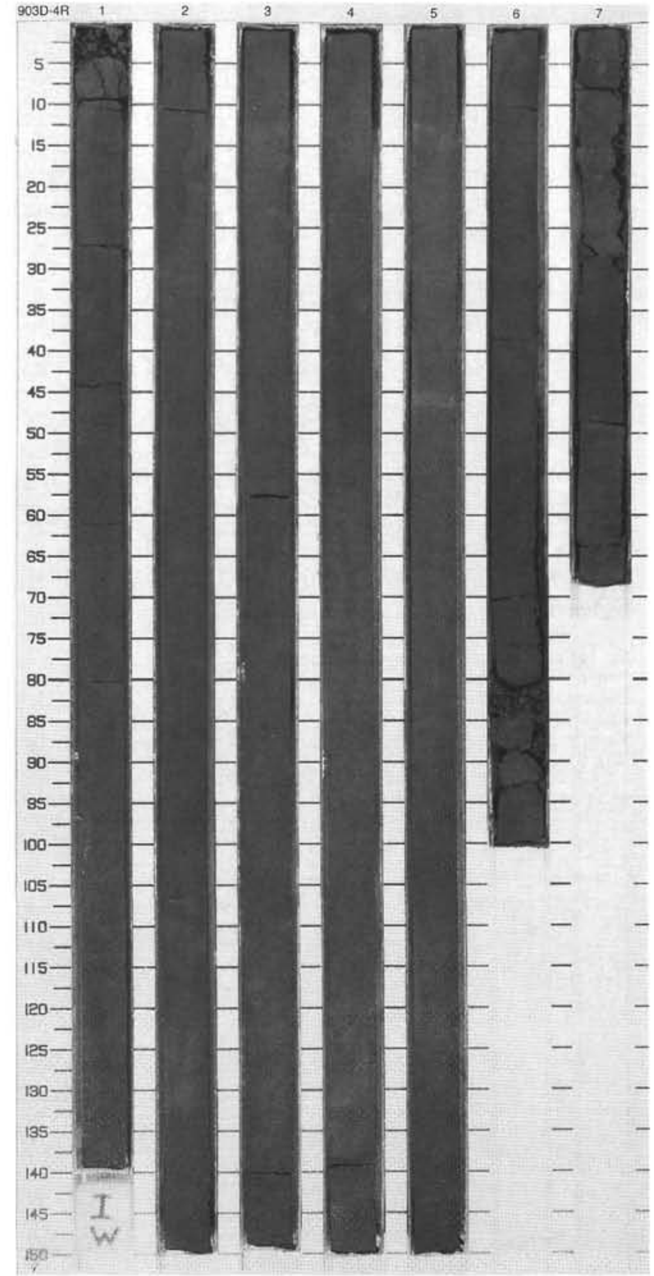
SITE 903 HOLE D CORE 4R CORED 803.8 - 813.4 mbsf



Description

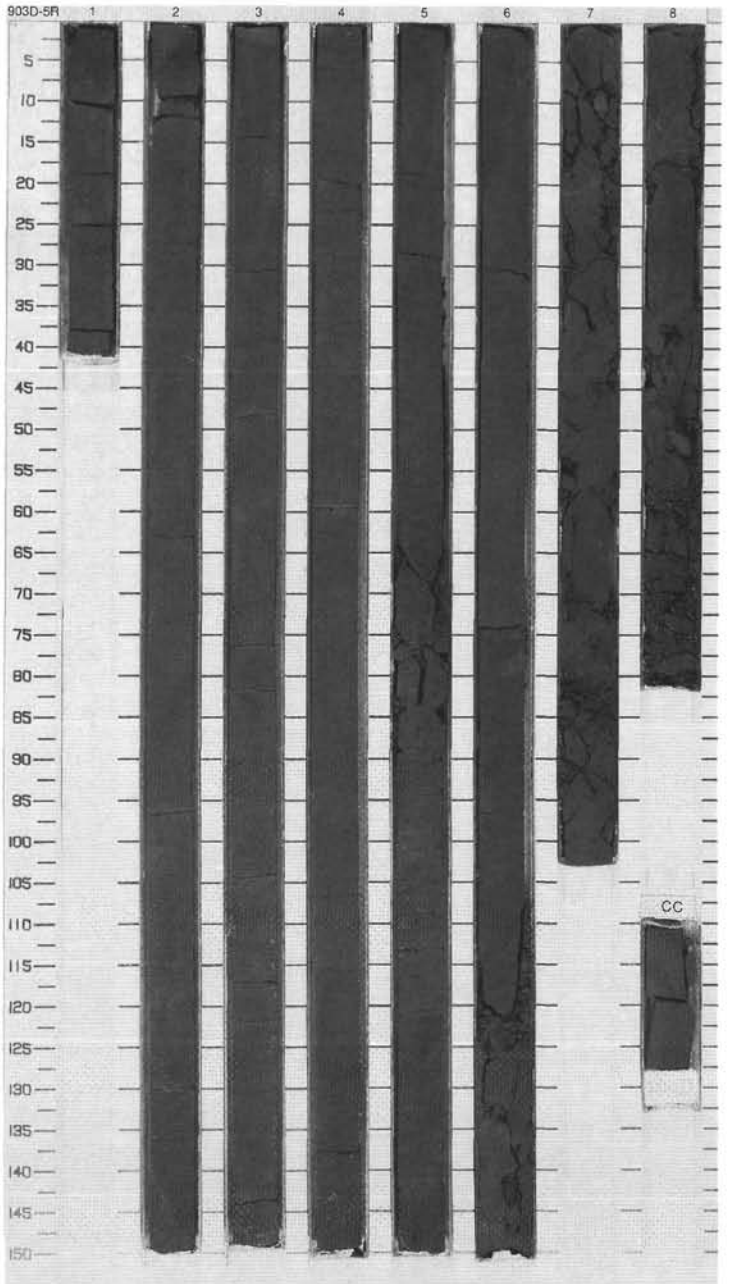
SILTY CLAY and SANDY CLAY

Major Lithologies:
The upper part of the core up to Section 6, 20 cm consists of moderately bioturbated, olive gray to dark brown SILTY CLAY with scattered foraminifers and thin-shelled bivalves. Trace fossils include common Chondrites, Planolites and occasional Zoophycos. Burrows are occasionally filled with micaceous, fine quartz sand and glauconite (e.g., Section 3, 85 cm). Glauconite occurs from Section 3, 80 cm to the base of the core. The amount of glauconite increases downward. A quartz sand layer occurs in Section 4, 139–140 cm. SANDY CLAY occurs at the base of the core in Sections 6 and 7. Glauconite is abundant and occurs together with mica flakes and medium quartz grains.



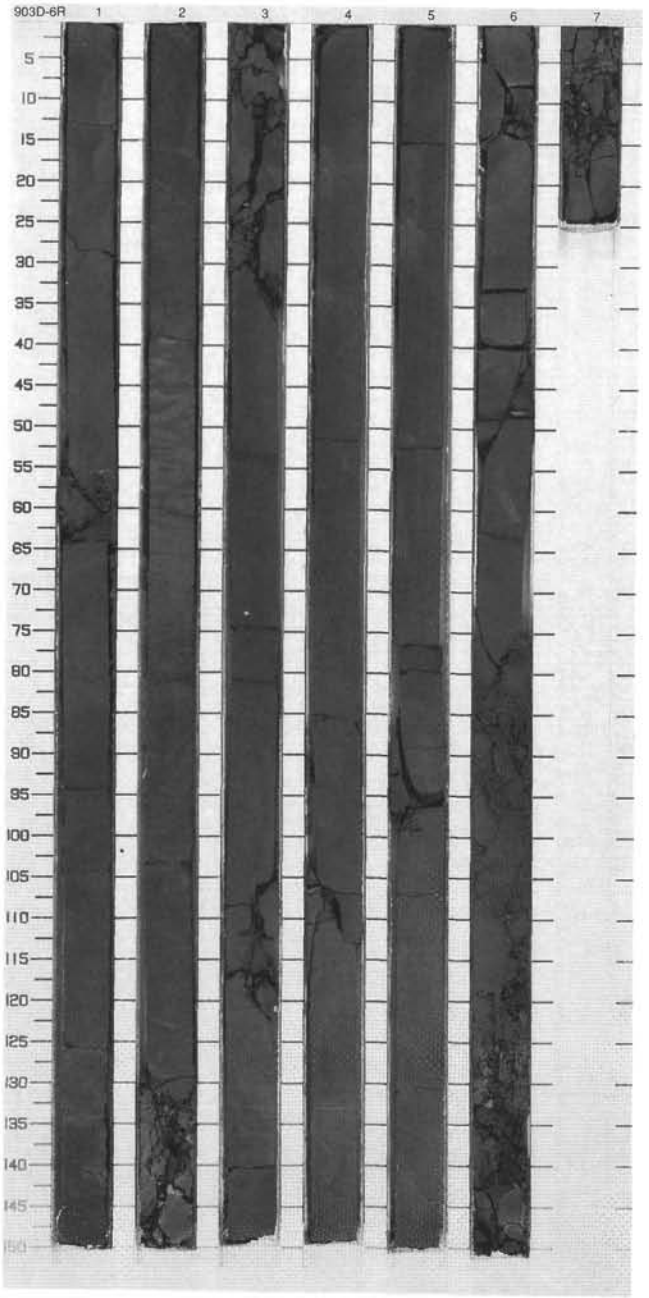
SITE 903 HOLE D CORE 5R CORED 813.4 - 823.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–8, CC	middle Miocene			S, S, P, S, P, S, P, S, P, M	5Y 3/2; 5Y 3/1; 5Y 3/1 To 5Y 3/2; 5Y 4/1; 5Y 3/1	SILTY CLAY Major Lithology: Dark gray to brown, slightly to moderately bioturbated SILTY CLAY with scattered foraminifers and glauconite grains. Glauconite is generally concentrated in burrows including common Planolites and Chondrites. In Section 4, glauconite increases gradually in abundance below 75 cm. In Section 5, glauconite is abundant between 60 and 95 cm and between 120 and 150 cm. Between these glauconitic rich intervals, glauconite is piped down from beds above. Minor Lithologies: A glauconitic sand layer occurs at the top 6 cm of Section 1.



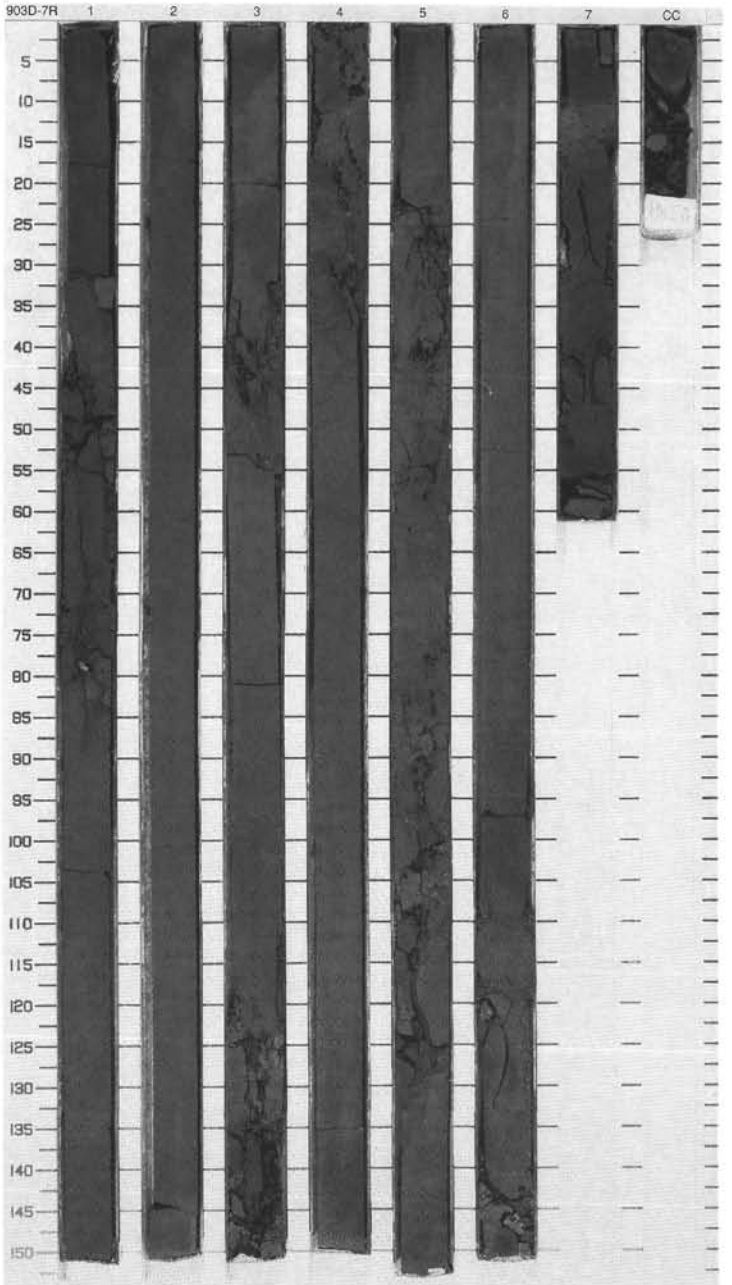
SITE 903 HOLE D CORE 6R CORED 823.1 - 832.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7	middle Miocene			S, P, S, P, S, P, M S	5Y 3/2	SILTY CLAY Major Lithology: Dark brown, slightly to heavily bioturbated SILTY CLAY with common glauconite. Sand-sized glauconite grains are abundant at the base of Section 1 (132–150 cm) and in Section 2, 70–130 cm. In this latter section, well-preserved burrows including Zoophycos, Planolites and Thallassinoides at 39 cm are observed. In Section 4, glauconite grains are concentrated in thin (mm-scale) laminae.



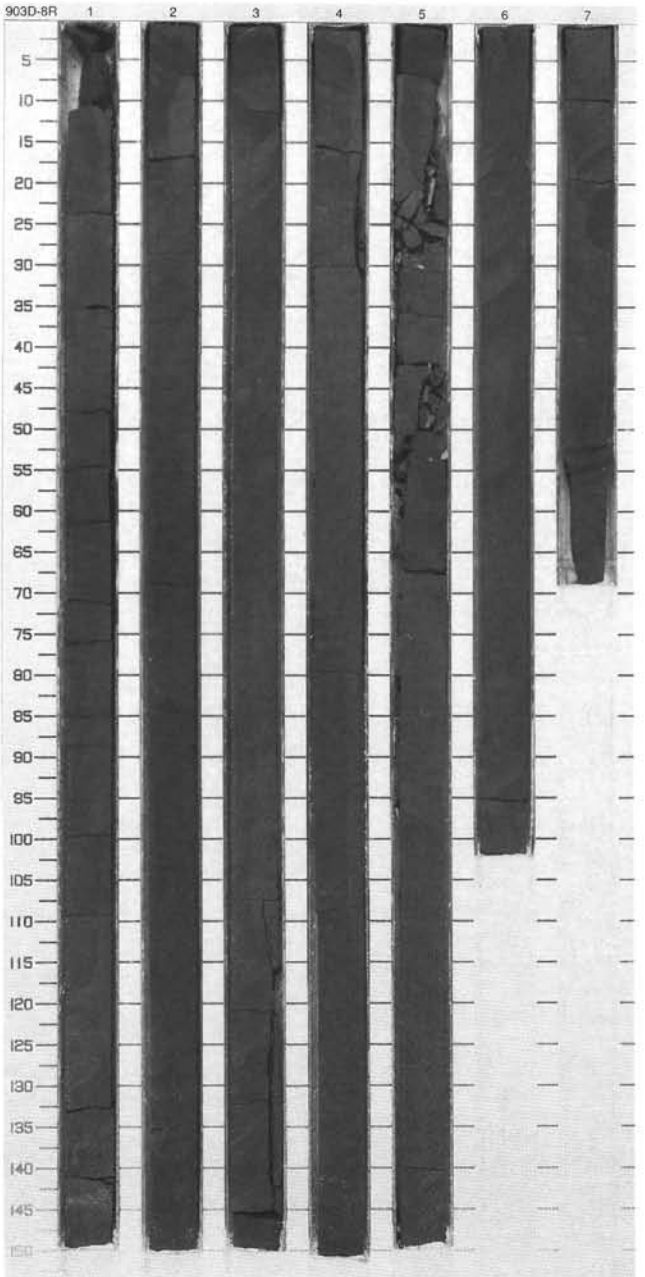
SITE 903 HOLE D CORE 7R CORED 832.8 - 842.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	middle Miocene			S P	5Y 3/1	SILTY CLAYSTONE Major Lithology: Dark brown, slightly to moderately bioturbated SILTY CLAYSTONE. Burrows include Planolites and Zoophycos. Sand-sized grains of glauconite are common in Sections 3, 4, 6, and 7.
		2					5Y 3/2	
		3				S P	5Y 3/1	
		4					5Y 3/2	
		5				S P		
		6					5Y 3/1	
		7			WW	S	5Y 3/2	
		CC				M		



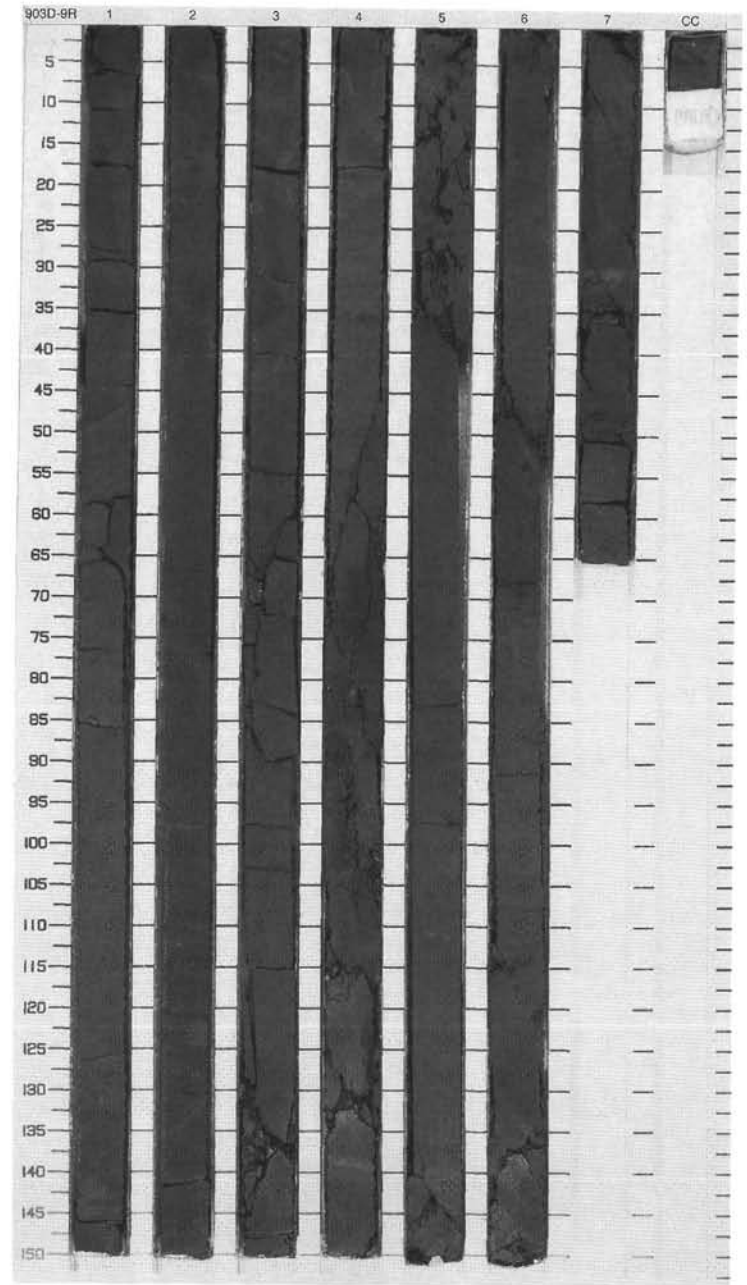
SITE 903 HOLE D CORE 8R CORED 842.4 - 852.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	middle Miocene			S P S P S DT P S M P	5Y 3/2	SILTY CLAYSTONE Major Lithology: Dark brown, moderately to heavily bioturbated SILTY CLAYSTONE with common disseminated glauconite throughout. Glauconite is concentrated in burrows. Abundant foraminifers occur at the base of Section 4. Section 5 is characterized by the occurrence of two vertically oriented shear fractures. Fracture filling is light buff-gray in color (5Y5/2). Filling is about 1 cm thick and shows slickensides as well as adjacent SILTY CLAYSTONE.



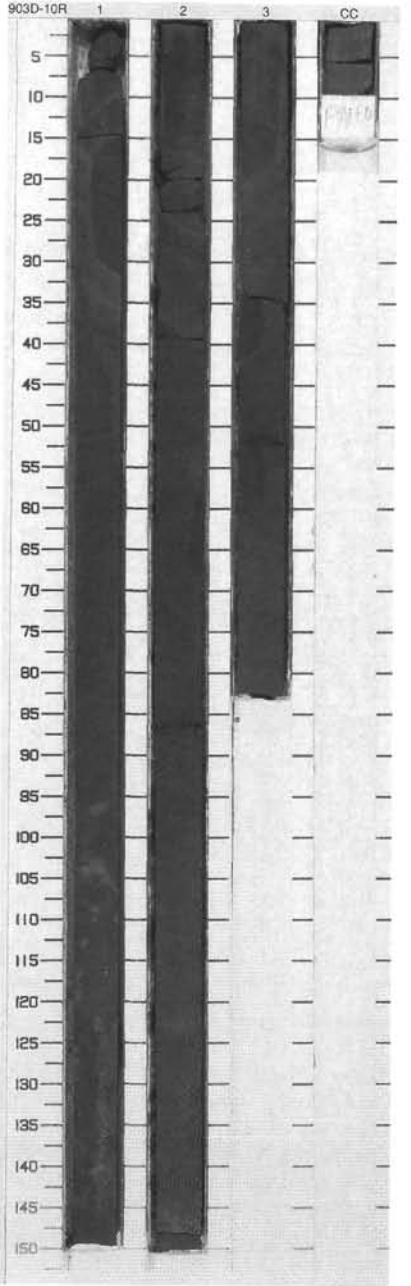
SITE 903 HOLE D CORE 9R CORED 852.0 - 861.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	middle Miocene			S, P, S, S, P, S, P, M S P	5Y 4/1 To 5Y 4/2; 5Y 3/1; 5Y 3/2	SILTY CLAYSTONE Major Lithology: Dark brown, moderately to heavily burrowed SILTY CLAYSTONE with common to abundant glauconite silt to sand-sized grains. Some intervals are characterized by abundant glauconite, Section 1, 100–150 cm, Section 2, 100–124 cm, Section 6, 33–60 cm and Section 7, 10–50 cm. Glauconite is also commonly concentrated in burrows.



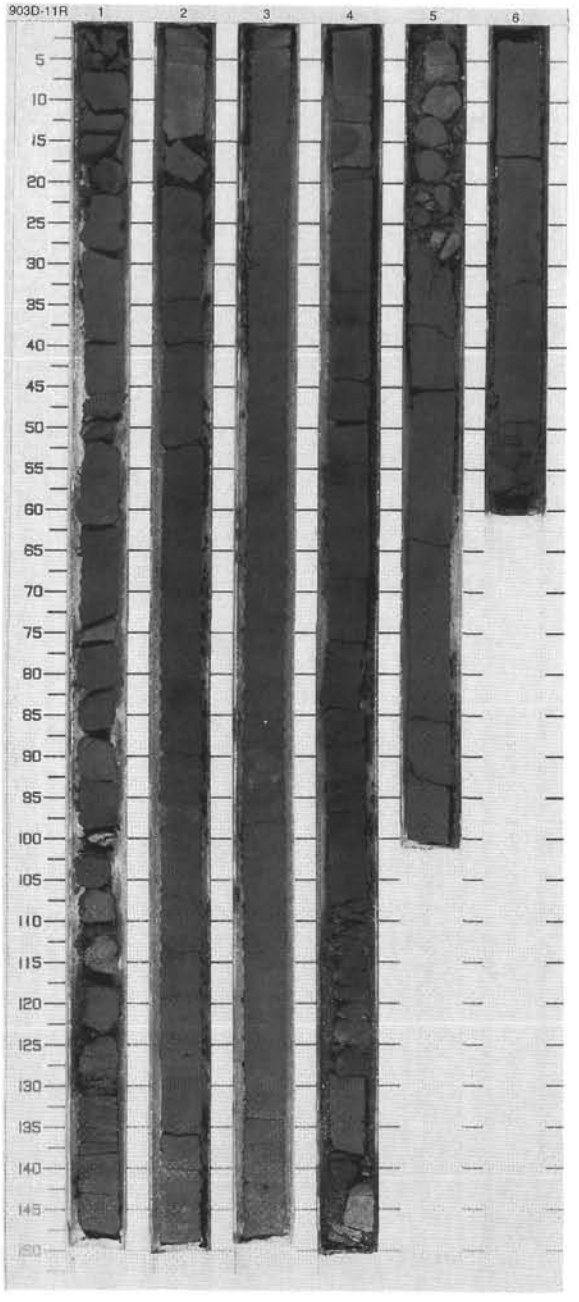
SITE 903 HOLE D CORE 10R CORED 861.7 - 871.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Miocene	G G G		S P	5Y 3/2	SILTY CLAYSTONE Major Lithology: Dark brown, moderately to heavily bioturbated SILTY CLAYSTONE with disseminated glauconite grains in Section 1. Bluish gray (5GY4/1) irregular zones with diffuse boundaries occur in Section 1, 95–140 cm.
2		2				P		
3		3				S P		
		CC				M		



SITE 903 HOLE D CORE 11R CORED 871.3 - 881.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1–6	middle Miocene	G		S, P, S, S, P, S, P, S M	5Y 3/1; 5Y 3/2	SILTY CLAYSTONE Major Lithology: Dark brown, slightly to heavily bioturbated SILTY CLAYSTONE. Disseminated glauconite throughout, decreasing in Section 6. Thin laminae of glauconite sand between 110 and 140 cm in Section 1. At base of this interval, laminae dip at a slight angle. Blue gray (5GY 4/1) material, with diffuse boundaries at 96 cm in Section 2. Foraminifers becoming common in base of Section 5.

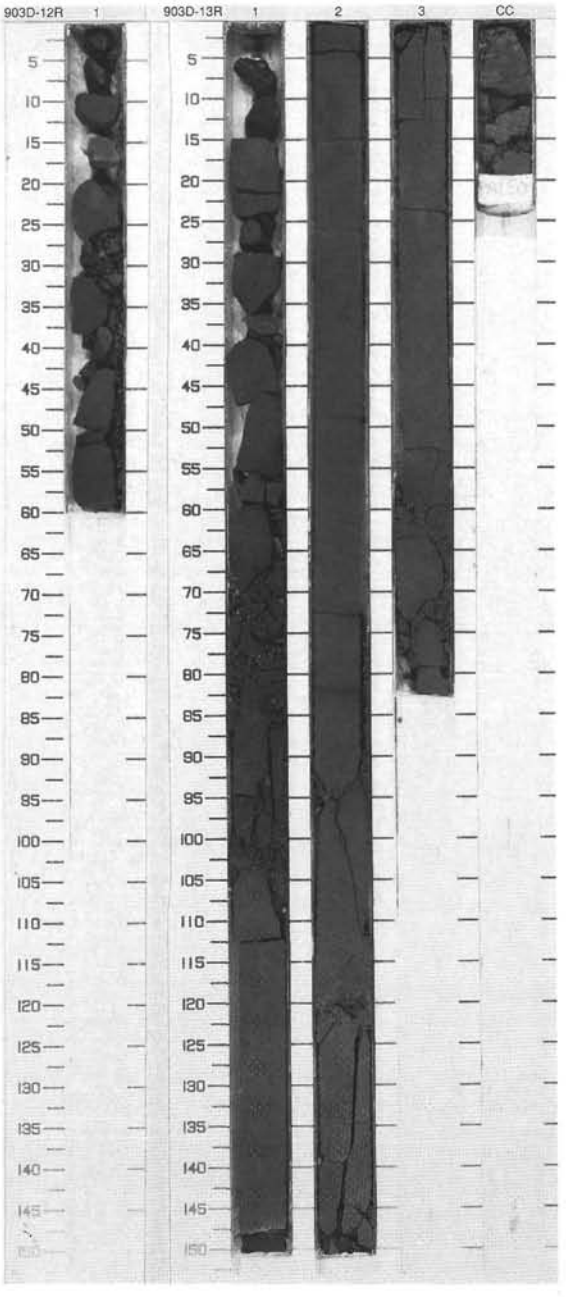


SITE 903 HOLE D CORE 12R CORED 881.0 - 890.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1	middle Mio.			S P M	5Y 3/2	SILTY CLAYSTONE Major Lithology: Dark brown, slightly bioturbated SILTY CLAYSTONE with glauconite.
		CC						

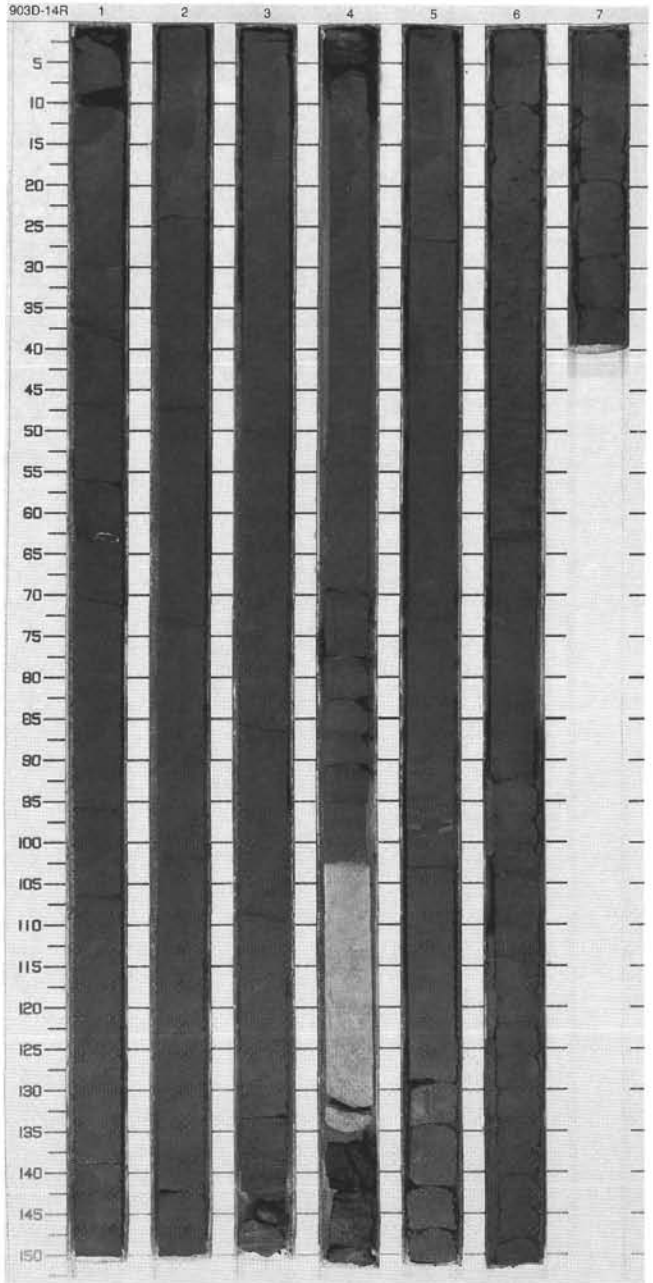
SITE 903 HOLE D CORE 13R CORED 890.7 - 900.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4		1 2 3 CC	middle Miocene			S P P S M	5Y 3/2	SILTY CLAYSTONE Major Lithology: Dark brown, slightly to heavily bioturbated SILTY CLAYSTONE. Disseminated glauconite commonly occurs throughout this core.



SITE 903 HOLE D CORE 14R CORED 900.2 - 909.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	middle Miocene			S, P, S, P, S, S, S, P D, S, S, S, S, M	10YR 3/1	SILTY CLAYSTONE Major Lithology: Dark brown green, slightly to heavily bioturbated, glauconitic SILTY CLAYSTONE and slightly bioturbated or homogeneous SILTY CLAYSTONE. Glauconite contents increase downward below the lower part of Section 3. Very fine to fine sand-grained glauconite dominated, heavily bioturbated, darker color (5Y 2.5/1) intervals are observable, from 133 to 143 cm in Section 3, from 97 to 142 cm in Section 4, and from 44 to 63 cm in Section 6. ?Dolomitic cemented portions occur in these glauconite-dominated intervals.

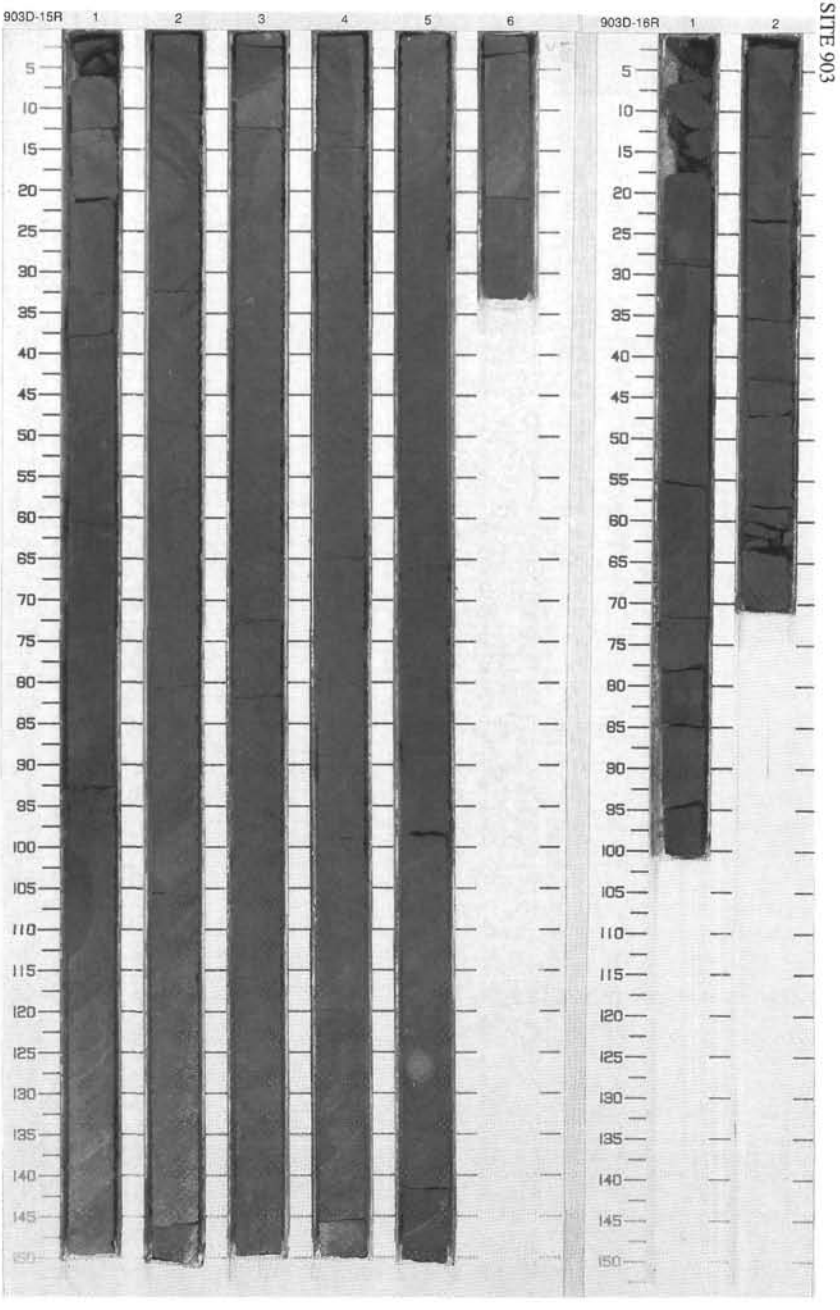


SITE 903 HOLE D CORE 15R CORED 909.7 - 919.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1	middle Miocene			S P	10YR 3/1	SILTY CLAYSTONE Major Lithology: Dark brown green, slightly to moderately bioturbated SILTY CLAYSTONE with minor disseminated silt-sized glauconite. Foraminifers are a minor component throughout the core, rarely concentrated in laminae. Interlaminated, moderately bioturbated fine- to medium-sized glauconite sand and SILTY CLAYSTONE between 83 and 99 cm in Section 1.
		2					10YR 3/1 To 5Y 3/2	
		3				S P		
		4					5Y 3/2	
		5				P		
		6				M		

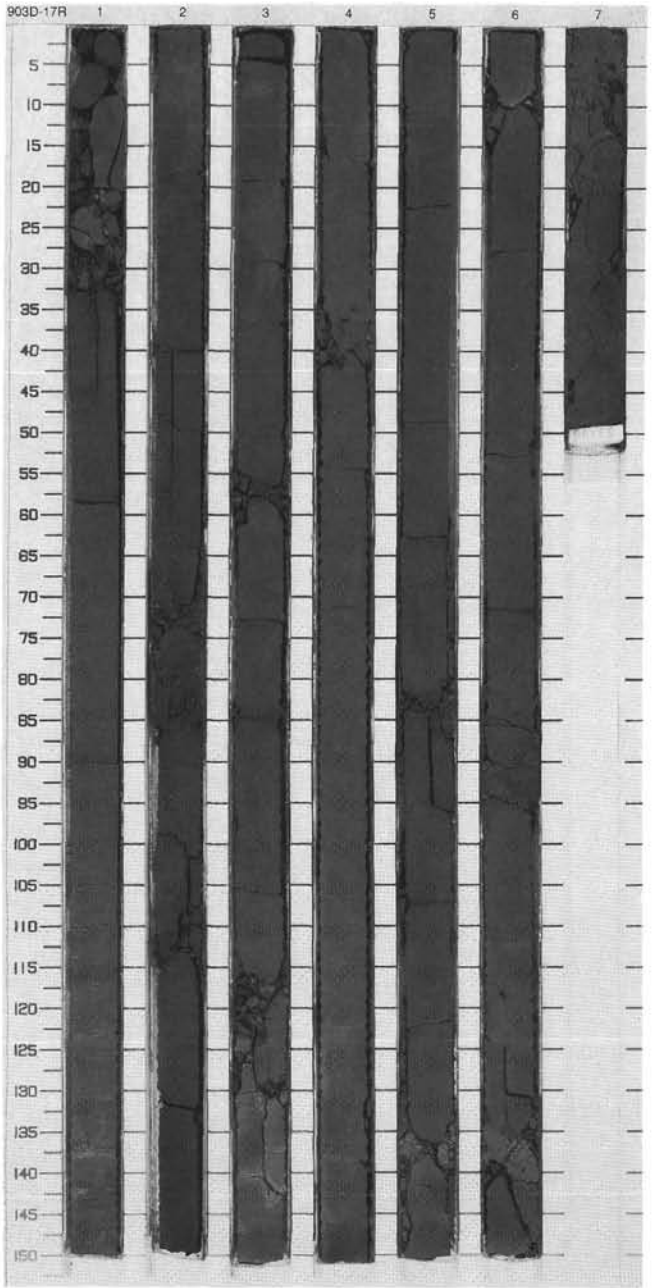
SITE 903 HOLE D CORE 16R CORED 919.2 - 928.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	early Miocene		X	S P	5Y 3/2	SILTY CLAYSTONE Major Lithology: Dark brown green, heavily bioturbated SILTY CLAYSTONE with minor silt-sized glauconite and foraminifers. Zoophycos and Planolites common. Below 40 cm in Section 2, darker brown green (10YR 3/1) with burrow fills of dark brown green (5Y 3/2).
		2				M		



SITE 903 HOLE D CORE 17R CORED 928.8 - 938.4 mbsf

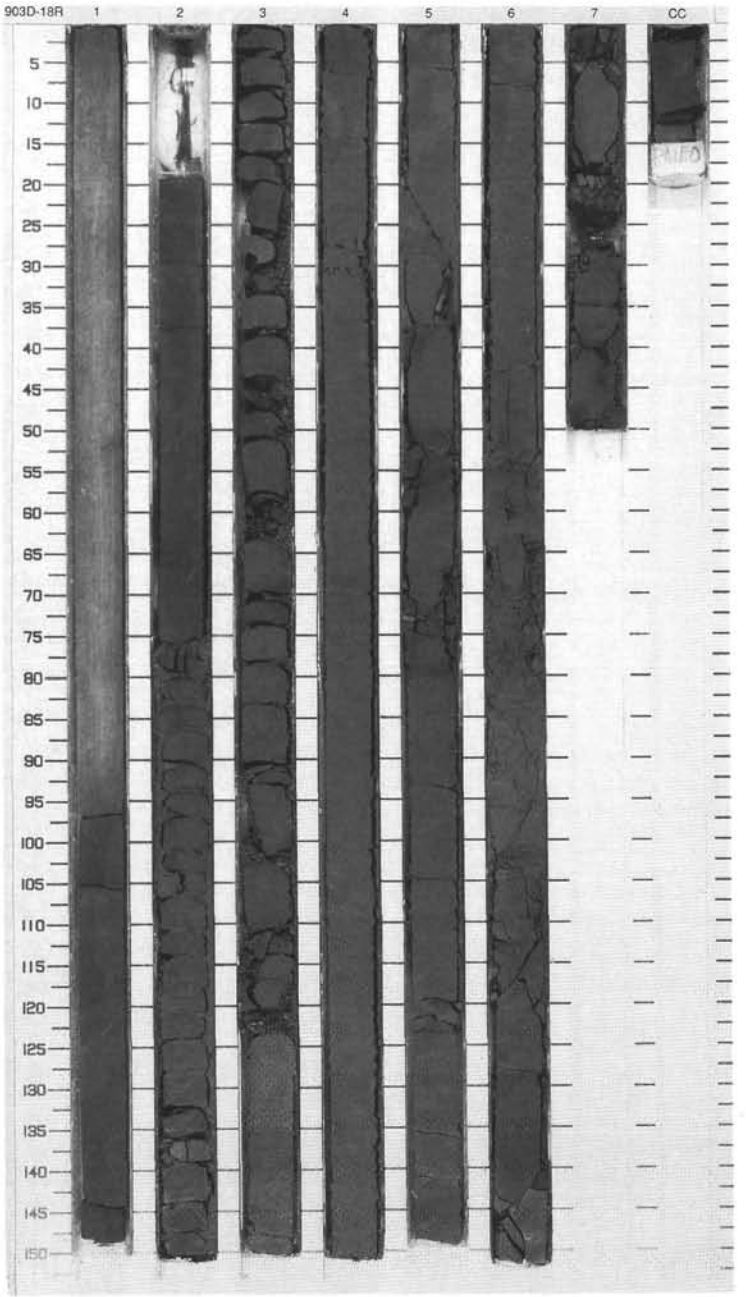
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	early Miocene			S P	10YR 3/2	CLAYEY SILTSTONE and SILTY CLAYSTONE Major Lithologies: Very dark brownish gray to very dark olive gray, moderately to heavily bioturbated SILTY CLAYSTONE and CLAYEY SILTSTONE. Burrows include Chondrites, Planolites, Thalassinoides, and Zoophycos. Silt to very fine sand-grained glauconite content increases downward from Section 3 and is locally high; from top to 40 cm in Section 4 and Section CC.
							5Y 3/2	
		2						
		3				S P	10YR 3/2	
		4		C			10YR 3/2 To 5Y 3/2	
		5				S P		
		6					10YR 3/2	
		7		C		M		



SITE 903 HOLE D CORE 18R CORED 938.4 - 948.0 mbsf

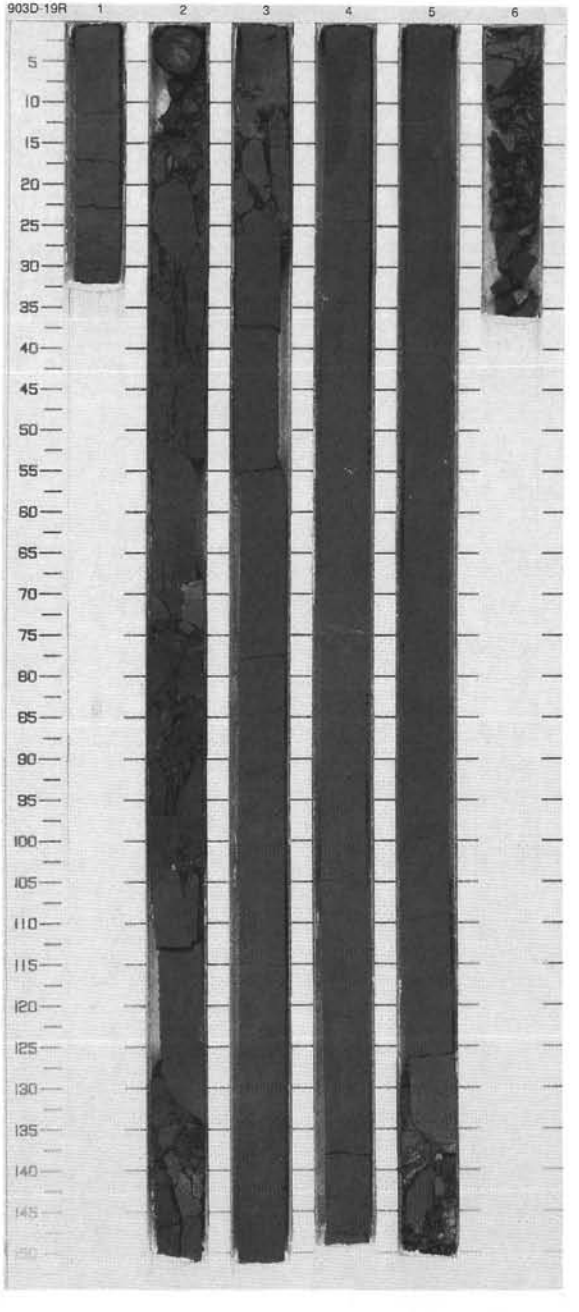
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9	Void	1–7, CC	early Miocene	D		P, S, M	10YR 4/2 To 5Y 4/1; 10YR 3/2 To 5Y 3/1; 10YR 3/2; 10YR 3/2 To 5Y 3/2; 10YR 3/2; 10Y 4/2	CLAYEY SILTSTONE and SILTY CLAYSTONE Major Lithologies: Very dark brownish gray to very dark olive gray, moderately to heavily bioturbated SILTY CLAYSTONE and CLAYEY SILTSTONE with silt-sized glauconite. Distinct burrows include Chondrites, Planolites, Thalassinoides, and Zoophycos, most of which are filled with sediments derived from overlying interval. From top to 96 cm in Section 1, slightly brownish dark olive gray, bioturbated ?dolomitic cement with silt to very fine-grained glauconite.

DRILLED 948.0–977.0 mbsf



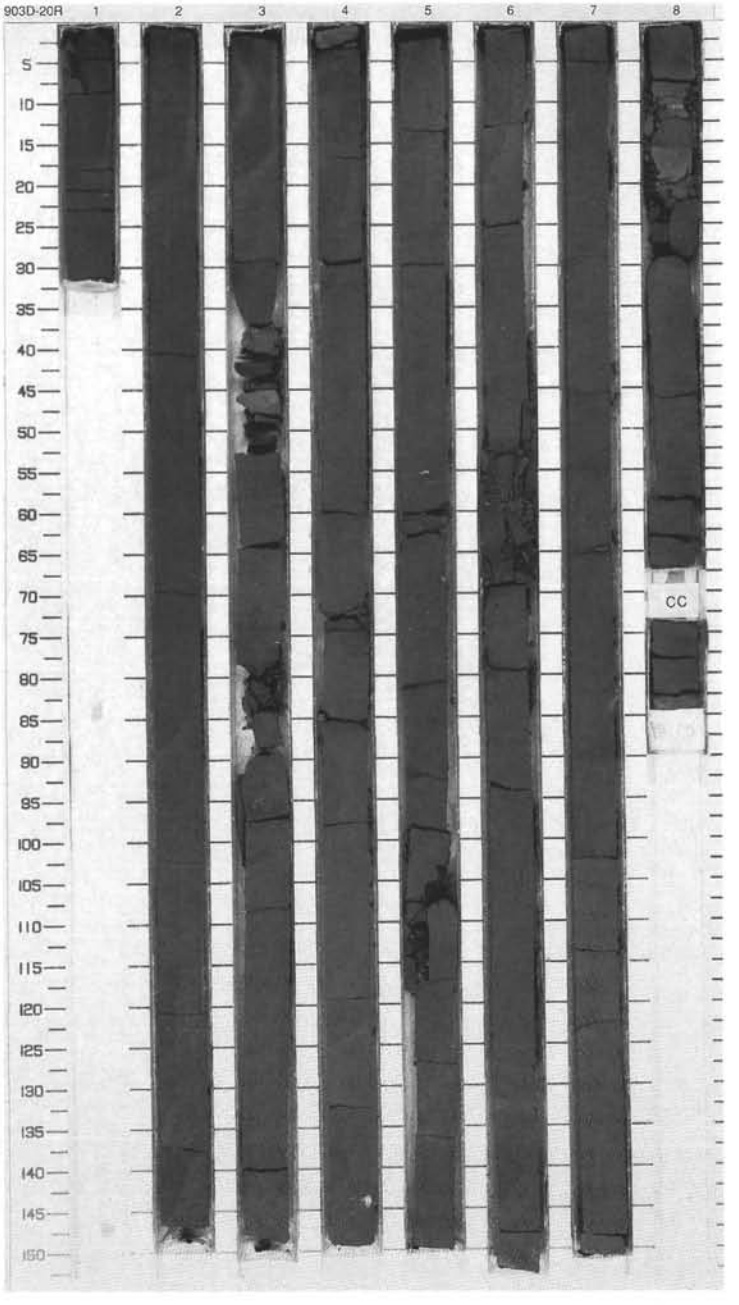
SITE 903 HOLE D CORE 19R CORED 977.0 - 986.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–6		1–6, CC	early Miocene			S, P, S, P, S, P, M	2.5YR 3/2; 10YR 3/1	SILTY CLAYSTONE and GLAUCONITIC SILTY CLAYSTONE Major Lithologies: Dark brown, moderately bioturbated SILTY CLAYSTONE with common foraminifers and minor silt-sized glauconite. Burrows are difficult to distinguish because of a lack of color contrast between the fills and the groundmass. Dark greenish brown, slightly to heavily bioturbated GLAUCONITIC SILTY CLAYSTONE. Glauconite content is variable. Abundant glauconite (30%) occurs at the base of Section 1, in the top of Section 2, where it is cemented by dolomite. Common glauconite (10%–20%) occurs from 37 to 51 cm and 113 to 140 cm in Section 2. The silty clay intervals in Section 2 are heavily bioturbated.



SITE 903 HOLE D CORE 20R CORED 986.7 - 996.3 mbsf

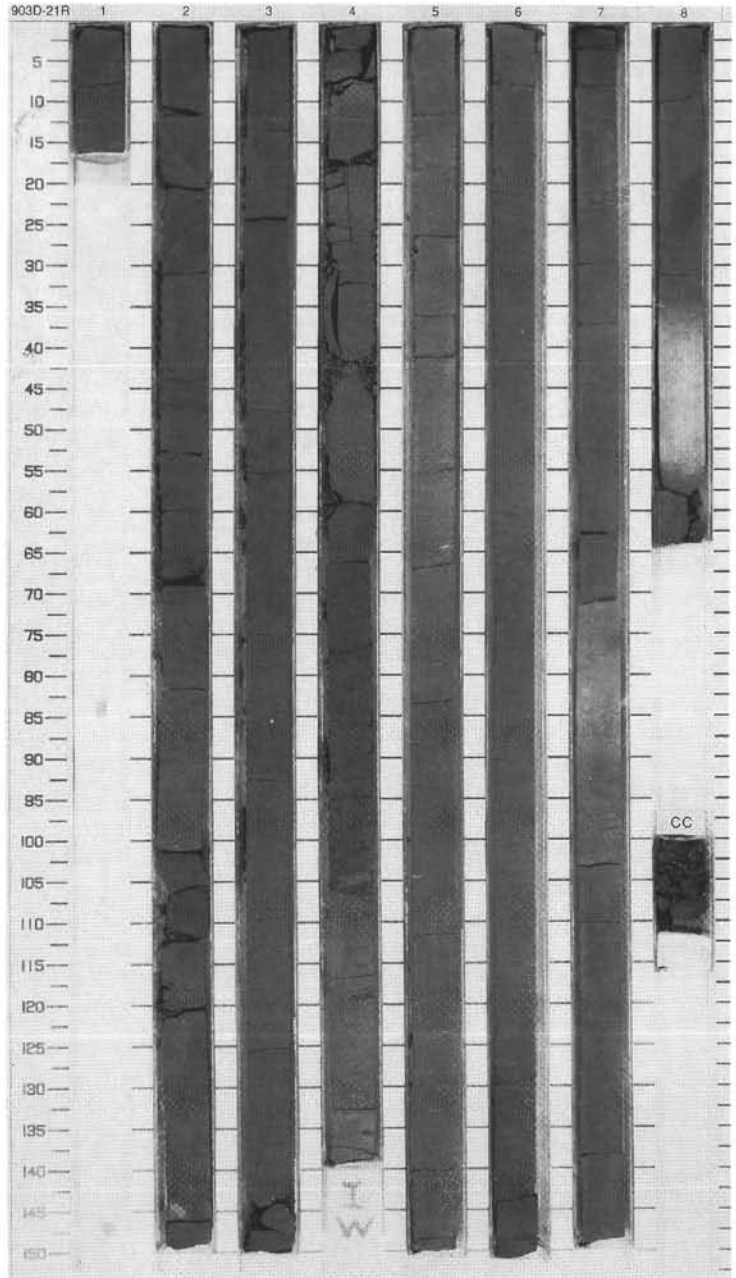
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–8, CC	early Miocene			S, P, S, P, S, P, S, M	5Y 3/2; 10YR 3/2; 10YR 3/2 To 5Y 3/2; 10YR 3/2; 10YR 3/2 To 5Y 3/2; 10YR 3/2; 10YR 3/2 To 5Y 3/2; 5Y 3/2	SILTY CLAYSTONE and CLAYEY SILTSTONE Major Lithologies: Very dark brownish gray, moderately to heavily bioturbated SILTY CLAYSTONE or CLAYEY SILTSTONE and very dark brownish gray to very dark olive gray, moderately to heavily bioturbated SILTY CLAYSTONE or CLAYEY SILTSTONE. In the upper half of this core (top of this core to 100 cm in Section 5), shell fragments and foraminifers are common. Complete solitary coral is found at 145 cm in Section 4. Silt to very fine sand-grained glauconite patches with foraminifers locally occur. In the lower half of this core, very dark brownish gray SILTY CLAYSTONE without shell fragments is dominant.



SITE 903 HOLE D CORE 21R CORED 996.3 - 1005.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–8, CC	early Miocene – late Oligocene			S, P, I, M P	2.5Y 3/2; 10YR 3/2; 2.5Y 3/2; 5Y 3/1; 5Y 4/2; 5Y 3/2; 2.5Y 3/2; 5Y 3/2 To 5Y 5/1; 2.5Y 3/2; 5Y 3/2	SILTY CLAYSTONE Major Lithology: Dark brown to gray brown, slightly to heavily bioturbated SILTY CLAYSTONE with common scattered silt to fine sand-sized glauconite. Glauconite is concentrated in burrows and in some intervals (e.g., Section 4, 66–106 cm). This interval which is heavily bioturbated shows abundant very dark green fine sand-sized glauconite grains. The base of Section 4, below this interval, shows glauconitic sediment from above piped down in sharply defined burrows. Burrows include common Planolites and Chondrites and occasional Zoophycos. Sections 4 and 5 are characterized by the occurrence of fragments of solitary corals. Dolomite-cemented intervals occur at the base of the core, Section 7, 7–93 cm, Section 8, 33–57 cm and cemented pebbles in CC. These intervals show gradational boundaries and ghosts of burrows.

903D 22R NO RECOVERY

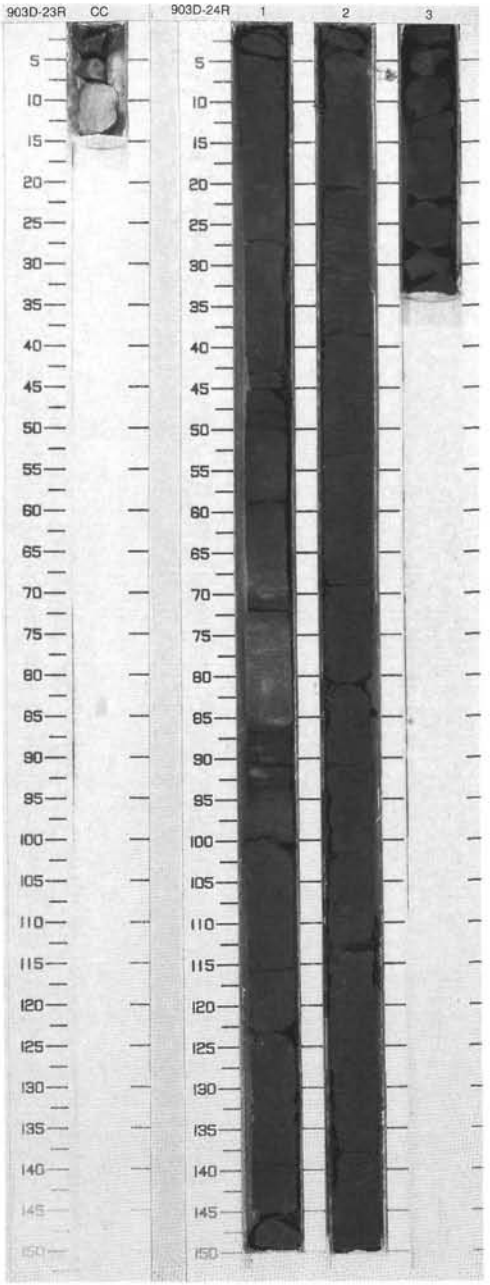


SITE 903 HOLE D CORE 23R CORED 1015.6 - 1025.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC						DOLOMITE CEMENTED SILTY CLAYSTONE Major Lithology: Pebbles of DOLOMITE CEMENTED SILTY CLAYSTONE with sand-sized glauconite grains. Very disturbed. Light color (5Y5/2).

SITE 903 HOLE D CORE 24R CORED 1025.3 - 1029.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3		1 2 3 CC	late Oligocene		|	S P P M P S	2.5Y 3/2 5Y 3/2 5Y 3/1	SILTY CLAYSTONE Major Lithology: Dark brown, slightly to moderately bioturbated SILTY CLAYSTONE with scattered foraminifers throughout. Cemented intervals occur in Section 1, 5–40 cm and 50–100 cm. This latter interval is strongly glauconitic (silt to fine sand-sized) and glauconite is mostly concentrated in burrows.



SITE 903 HOLE D CORE 25R CORED 1029.0 - 1037.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1–6, CC	late Oligocene			S, P, S, P, S, M P S	10YR 3/1	SILTY CLAYSTONE Major Lithology: Dark brown, slightly to moderately bioturbated, SILTY CLAYSTONE with abundant silt-sized glauconite grains and scattered foraminifers. Common well-preserved Planolites (e.g., top of Section 5). A coarser interval with fine sand-sized glauconite grains occurs in Section 2, 65–75 cm. An oblique fracture (no displacement) occurs in Section 3.