SITE 810 HOLE A CORE 1H CORED INTERVAL 0.0 - 9.5 mbsf

TIME ROCK UNIT: PLEISTOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: AM; N22 / N23; NANNOFOSSILS; RADIOLARIANS; DIATOMS; PALEOMAGNETICS; PHYS. PROPERTIES: Φ =1.56, γ =76.6; Φ =73.0, γ =1.61; Φ =76.7, γ =1.56; Φ =70.1, γ =1.63; CHEMISTRY; SECTION; METERS; GRAPHIC LITHOLOGY; DRILLING DISTURB.; SED. STRUCTURES; SAMPLES

LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE

Major lithology: NANNOFOSSIL OOZE, grayish-brown (10YR 5/2), gray (10YR 5/1 to 10YR 6/1), and dark gray (10YR 4/1) in Sections 1 and 2, light gray (5Y 7/1) to white (10YR 8/1) below Section 2. Bioturbation including *Planolites* and *Chondrites* types occurs throughout. Bedding planes are preserved in Section 2, 70-83 cm, Section 4, 73-83 cm, and in Section 5, 15-35 cm. High inclination of color interfaces in Section 1 to 3 suggests cut and fill structures. Foraminifers in smear slides appear worn and stained.

Minor lithologies:

a. Foraminifer ooze occurs in thin layers in Section 2, 64 cm and 68 cm.

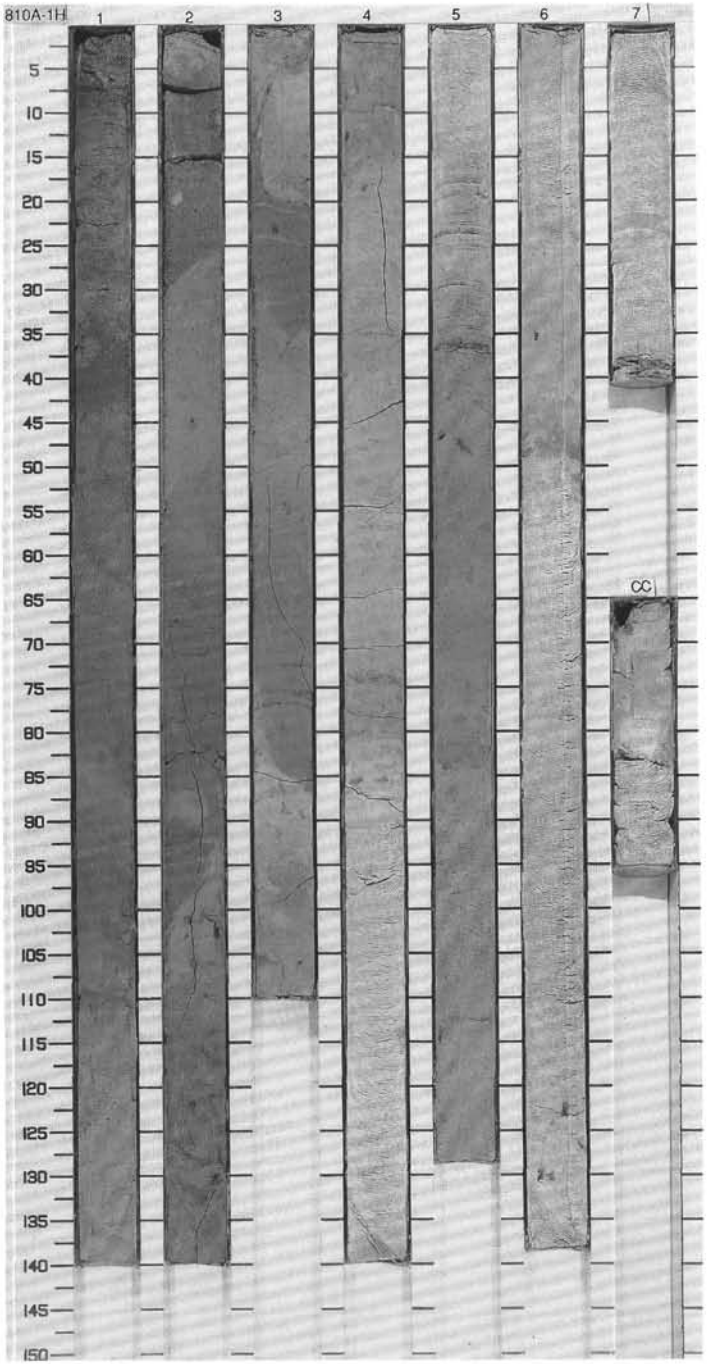
b. A small gastropod shell occurs in Section 6, 27 cm.

c. Bands of purple stain (manganese oxide?) occur in Section 4, 139-140 cm, and Section 7 at 7 and 22 cm.

SMEAR SLIDE SUMMARY (%):

	1, 20 D	1, 40 D	1, 60 D	1, 120 D	2, 22 D	2, 50 D	2, 64 D
TEXTURE:							
Sand	–	–	–	–	25	10	35
Silt	10	20	15	15	8	13	6
Clay	90	80	85	85	67	78	5
COMPOSITION:							
Barite	–	–	–	–	Tr	–	–
Clay	10	–	20	–	5	3	2
Diatoms	2	5	5	5	5	2	–
Foraminifers	5	3	5	5	25	10	35
Glass	–	–	–	–	1	2	Tr
Glauconite	–	–	–	–	–	Tr	–
Nannofossils	80	80	65	85	62	75	57
Pellets	–	–	–	–	–	5	3
Quartz	–	–	–	–	Tr	–	–
Radiolarians	3	10	5	5	2	1	2
Spicules	–	2	–	–	Tr	2	1

cont.



SITE 810 HOLE A CORE 1H CORED INTERVAL 0.0 - 9.5 mbsf

TIME-ROCK UNIT | BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS, NANNOFOSSILS, RADIOLARIANS, DIATOMS | PALEOMAGNETICS | PHYS. PROPERTIES | CHEMISTRY | SECTION | METERS | GRAPHIC LITHOLOGY | DRILLING DISTURB. | SED. STRUCTURES | SAMPLES | LITHOLOGIC DESCRIPTION

(cont.)

SMEAR SLIDE SUMMARY (%):

	2, 118 D	3, 8 D	3, 30 D	3, 60 D	3, 90 D	4, 110 D	5, 5 D
TEXTURE:							
Sand	20	–	–	–	–	–	–
Silt	50	5	10	9	5	10	10
Clay	30	95	90	91	95	90	90
COMPOSITION:							
Barite	Tr	–	–	–	–	–	–
Clay	–	10	5	–	–	–	–
Diatoms	1	Tr	–	1	1	2	1
Foraminifers	30	3	10	6	2	5	5
Glass	4	–	–	–	–	2	–
Nannofossils	62	85	85	91	95	89	90
Pellets	2	–	–	–	1	–	–
Plant	–	–	–	–	–	Tr	–
Quartz	Tr	–	–	–	–	–	–
Radiolarians	1	2	–	1	1	1	3
Silicoflagellates	–	–	–	–	–	Tr	–
Spicules	Tr	–	–	1	–	1	1

SMEAR SLIDE SUMMARY (%):

	5, 35 D	6, 30 D	6, 100 D	6, 127 M	7, 7 M	7, 20 D	CC, 20 D
TEXTURE:							
Sand	10	–	–	70	–	–	–
Silt	10	23	13	19	10	5	10
Clay	80	77	87	11	90	95	90
COMPOSITION:							
Clay	1	–	–	–	–	–	–
Diatoms	–	1	2	1	–	–	2
Foraminifers	7	5	3	5	5	3	5
Glass	–	1	Tr	–	2	–	2
Nannofossils	80	77	87	21	90	95	90
Opaques	–	–	–	70	–	–	–
Pellets	10	15	5	2	–	–	1
Quartz	–	–	–	1	–	–	–
Radiolarians	2	1	1	–	3	2	Tr
Silicoflagellates	–	Tr	Tr	–	–	–	Tr
Spicules	–	–	2	–	–	–	Tr

cont.

SITE 810 HOLE A CORE 1H CORED INTERVAL 0.0 - 9.5 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
								1	0.5 1.0					(cont.) SMEAR SLIDE SUMMARY (%):
								2	0.5 1.0					CC, 30 D TEXTURE: Silt 9 Clay 91 COMPOSITION: Clay 2 Foraminifers 3 Glass 2 Nannofossils 89 Pellets 1 Quartz Tr Radiolarians 1 Spicules 1
								3	0.5 1.0					
								4	0.5 1.0					
								5	0.5 1.0					
								6	0.5 1.0					
								7						

SITE 810 HOLE C CORE 1H CORED INTERVAL 0.0 - 2.4 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
PLEISTOCENE	AM	N22 / N23				Φ=79.2 ● Ψ=1.55 Φ=73.4 ● Ψ=1.58 Φ=76.7 ● Ψ=1.50	CaCO3=53.8% ● CaCO3=53.8% ● CaCO3=53.8% ●	1 2 CC	0.5 1.0 0.5		○	≋ ≋ ≋ ≋ ≋	* * * *

LITHOLOGIC DESCRIPTION

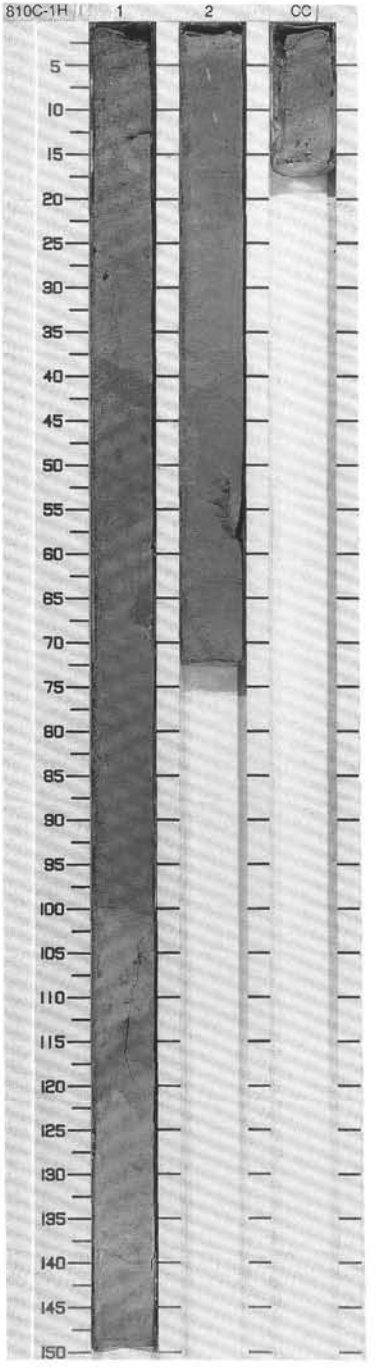
NANNOFOSSIL OOZE

Major lithology: NANNOFOSSIL OOZE, grayish-brown (10YR 5/2), light brownish-gray (10YR 6/2), dark gray (10YR 4/1), and gray (10YR 5/1) in Section 1, light gray (5Y 7/1) to gray (5Y 6/1) in Section 2. Bioturbation including *Planolites* type occurs throughout. Bedding planes occur in Section 2, 60-70 cm.

Minor lithology: Bands of purple stain (manganese oxide?) occur in Core Catcher at 8 cm.

SMEAR SLIDE SUMMARY (%):

	1, 5 D	1, 85 D	1, 130 D	2, 30 D
TEXTURE:				
Sand	–	–	40	–
Silt	25	48	30	10
Clay	75	52	30	90
COMPOSITION:				
Clay	2	2	–	–
Diatoms	3	3	–	1
Foraminifers	15	36	40	10
Glass	3	1	4	
Nannofossils	75	50	30	80
Pellets	Tr	1	28	–
Quartz	Tr	–	–	–
Radiolarians	1	3	–	5
Spicules	3	2	1	–



SITE 810 HOLE C CORE 2H CORED INTERVAL 2.4 - 11.9 mbsf

TIME-ROCK UNIT: PLEISTOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: AP; NANNOFOSSILS: N22; RADIOLARIANS; DIATOMS

PALEOMAGNETICS

PHYS. PROPERTIES: Φ=74.5 ● γ=1.62; Φ=74.3 ● γ=1.55; Φ=69.3 ● γ=1.68; Φ=71.9 ● γ=1.56; Φ=70.0 ● γ=1.63; Φ=70.3 ● γ=1.61; Φ=76.9 ● γ=1.52; Φ=70.2 ● γ=1.55; Φ=76.5 ● γ=1.53; Φ=62.2 ● γ=1.43

CHEMISTRY: ● CaCO3=67.7%; CaCO3=62.3% ●; CaCO3=66.1% ●; CaCO3=75.7% ●; CaCO3=56.0% ●; CaCO3=80.3% ●; CaCO3=45.9% ●

SECTION: 1, 2, 3, 4, 5, 6, 7, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE

Major lithology: This core contains NANNOFOSSIL OOZE. The ooze is gray (5 Y 6/1) and greenish gray (5 BG 6/1) in Section 1, becoming white (2.5 Y 8/0) to light greenish gray (10 Y 7/1) in Sections 2 to 4. Sections 5 to Core Catcher are light gray (5 Y 7/1) to gray (5 Y 6/1). Bioturbation occurs throughout and includes *Chondrites* and *Planolites* trace fossils. Preserved bedding planes occur in Section 1, 27-36 cm and 135-140 cm, and in Section 5, 33-40 cm and 89-100 cm. A color contact near the top of Section 7 is highly inclined, suggesting cut and fill structure.

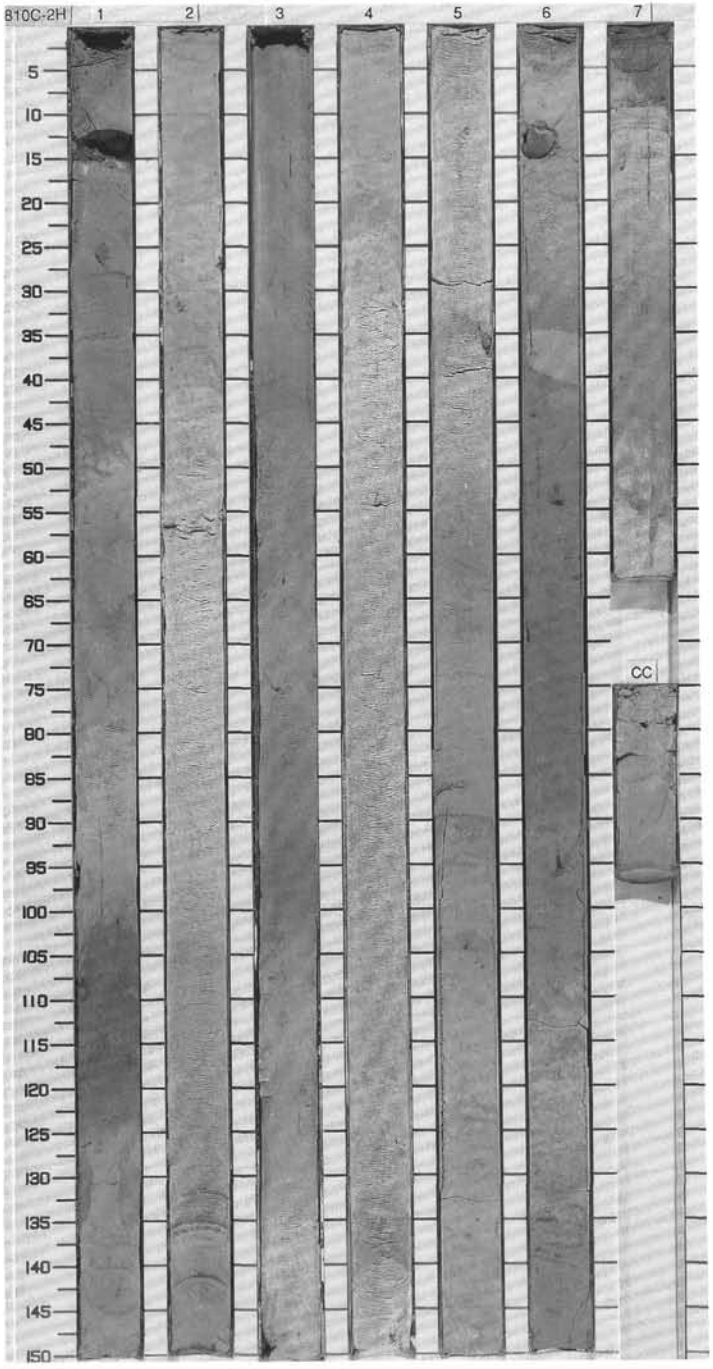
Minor lithology: Bands of purple stain occur in Sections 1, 5 and 7. A band of green stain associated with a high pellet content in the ooze occurs in Section 7, at 10 cm. A large rounded pumice pebble occurs in Section 6, 12-15 cm.

SMEAR SLIDE SUMMARY (%):

	1, 30 M	1, 90 D	2, 60 D	3, 40 D	3, 125 D	4, 10 D	4, 80 D
TEXTURE:							
Silt	30	10	5	7	10	10	2
Clay	70	90	95	93	90	90	98
COMPOSITION:							
Barite	–	–	–	–	–	2	–
Diatoms	2	1	–	1	1	–	–
Foraminifers	15	6	4	3	3	5	2
Glass	2	1	1	Tr	Tr	3	–
Glauconite	–	–	–	Tr	–	–	–
Nannofossils	77	90	95	95	95	90	98
Pellets	3	1	–	–	Tr	–	–
Quartz	–	–	–	Tr	–	–	–
Radiolarians	1	1	–	1	1	–	–
Silicoflagellates	–	Tr	–	Tr	Tr	–	–
Spicules	Tr	Tr	–	–	Tr	–	–

SMEAR SLIDE SUMMARY (%):

	5, 10 D	5, 87 M	5, 140 D	6, 145 D	7, 10 M	7, 40 D
TEXTURE:						
Sand	–	70	–	–	–	3
Silt	15	15	20	15	50	35
Clay	85	15	80	85	50	62
COMPOSITION:						
Barite	–	–	–	1	–	–
Clay	–	–	3	4	–	–
Diatoms	3	–	–	1	–	1
Foraminifers	3	72	10	4	10	10
Glass	1	1	7	5	Tr	Tr
Nannofossils	85	15	80	85	50	62
Pellets	5	–	–	–	40	25
Quartz	–	–	–	–	–	1
Radiolarians	1	10	Tr	–	Tr	1
Silicoflagellates	1	–	–	–	–	–
Spicules	1	2	Tr	–	–	–



SITE 810 HOLE C CORE 3H CORED INTERVAL 11.9 - 21.4 mbsf

TIME-ROCK UNIT: UPPER PLIOCENE / LOWER PLEISTOCENE

BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS: AP; NANNOFOSSILS: N21 / N22; RADIOLARIANS; DIATOMS; PALEOMAGNETICS; PHYS. PROPERTIES; CHEMISTRY; SECTION; METERS; GRAPHIC LITHOLOGY; DRILLING DISTURB; SED. STRUCTURES; SAMPLES

PHYS. PROPERTIES: Φ=67.5 γ=1.70 • Φ=63.8 γ=1.73 • Φ=71.0 γ=1.60 • Φ=71.2 γ=1.62 • Φ=68.6 γ=1.64 • Φ=70.6 γ=1.60 • Φ=72.3 γ=1.61 • Φ=69.4 γ=1.63 • Φ=69.5 γ=1.64 • Φ=71.1 γ=1.59 • Φ=77.3 γ=1.68 •

CHEMISTRY: CaCO3 = 72.9% • CaCO3 = 72.4% • CaCO3 = 61.0% • CaCO3 = 71.1% • CaCO3 = 71.6% •

SECTION: 1 2 3 4 5 6 7 CC

METERS: 0.5 1.0

DRILLING DISTURB: OO

SED. STRUCTURES: S SS

SAMPLES: * PP

LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE

Major lithology: NANNOFOSSIL OOZE, alternating light gray (10YR 7/1, 7.5YR 7/0) and gray (10YR 5/1, 10Y 6/1) dominant. Mostly structureless with *Planolites* and rare *Chondrites* type bioturbation, visible at color interfaces. Color changes are gradual, except for a diagonal contact in Section 7, 54 cm. Bands of purple (manganese?) stain occur in Section 2, 68 cm and 118-135 cm. Green stain bands associated with high pellet concentrations in smear slides occur in Section 4, 105-115 cm, and Section 5, 110 cm.

Minor lithologies:
a. A lithified worm tube in Section 1, 65-75 cm.
b. Rounded pumice pebbles in Section 2 at 8 and 138 cm, Section 4, 148 cm, and Section 6, 25 cm.
c. An ash layer in Section 2, 117 cm.
d. A small pocket of calcite crystal-grains occurs in Core Catcher at 4 cm, associated with a large burrow filled with dark gray pyrite-rich sediment.

SMEAR SLIDE SUMMARY (%):

	1, 78 M	1, 90 D	2, 80 D	2, 118 M	3, 60 D	3, 100 D	4, 15 D
TEXTURE:							
Sand	100	–	–	30	–	–	–
Silt	–	10	20	40	17	20	90
Clay	–	90	80	30	83	80	10
COMPOSITION:							
Barite	–	–	–	–	–	Tr	–
Clay	–	–	–	5	–	–	–
Diatoms	–	–	2	2	–	–	–
Feldspar	–	–	–	5	–	–	–
Foraminifers	–	6	10	5	5	12	10
Glass	–	–	1	49	10	5	13
Glauconite	–	–	–	2	–	–	–
Hematite	–	–	–	Tr	–	–	–
Nannofossils	–	90	85	30	83	80	15
Pellets	–	–	–	–	–	–	50
Quartz	–	–	–	Tr	–	–	–
Radiolarians	–	4	1	1	2	3	1
Silicoflagellates	–	–	Tr	–	–	–	–
Spicules	–	–	1	1	–	–	1
Sulfide	100	–	–	–	–	–	–

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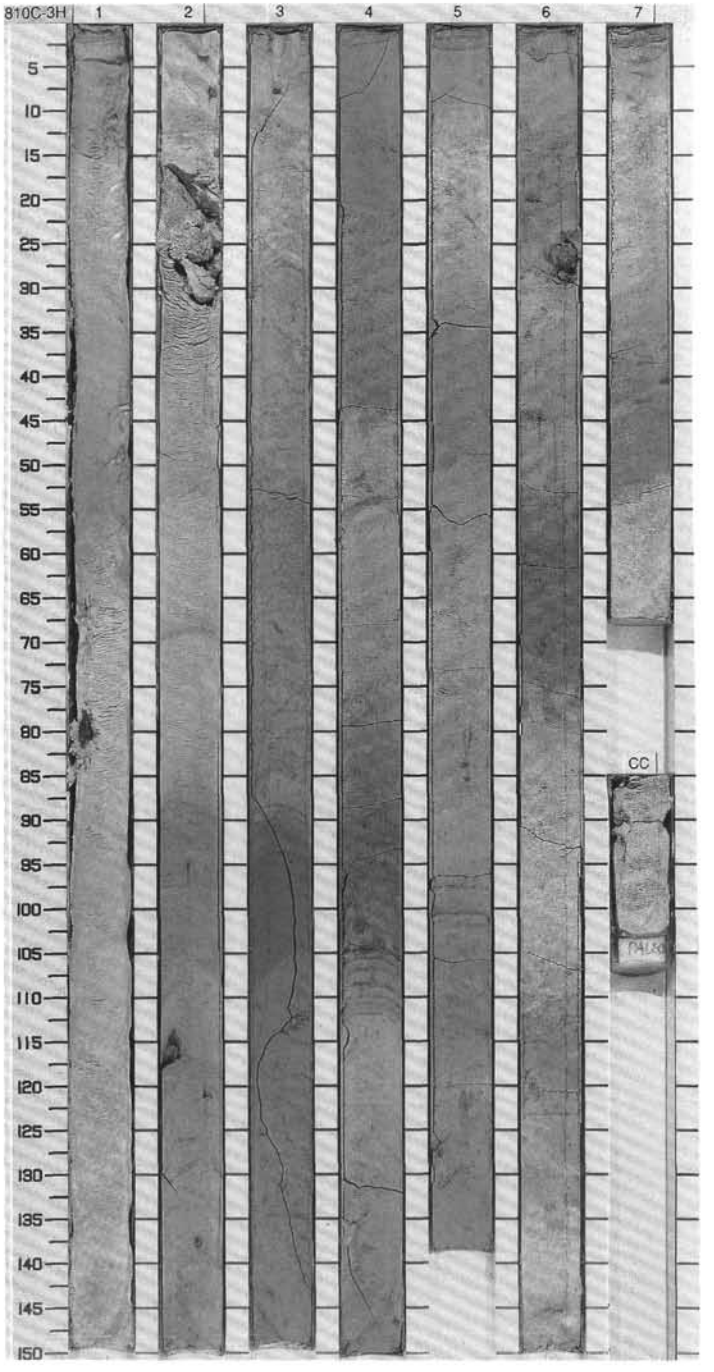

SITE 810 HOLE C CORE 3H CORED INTERVAL 11.9 - 21.4 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS		PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
									1	0.5 1.0					
									2	0.5 1.0					
									3	0.5 1.0					
									4	0.5 1.0					
									5	0.5 1.0					
									6	0.5 1.0					
									7						

(cont.)

SMEAR SLIDE SUMMARY (%):

	4, 120 D	5, 70 D	6, 60 D	6, 90 D	7, 35 D	7, 60 D	CC, 4 M
TEXTURE:							
Sand	10	–	10	–	–	–	100
Silt	30	10	60	20	5	10	–
Clay	60	90	30	80	95	90	–
COMPOSITION:							
Calcite	–	–	–	–	–	–	100
Clay	–	–	–	–	–	–	–
Diatoms	1	–	–	2	–	–	–
Foraminifers	10	8	30	5	5	8	–
Glass	–	–	1	Tr	–	–	–
Nannofossils	66	90	37	81	95	90	–
Pellets	20	–	30	10	–	–	–
Quartz	Tr	–	–	–	–	–	–
Radiolarians	2	2	–	1	–	2	–
Silicoflagellates	1	–	–	–	–	–	–
Spicules	Tr	–	2	1	–	–	–

SITE 810 HOLE C CORE 4H CORED INTERVAL 21.4 - 30.9 mbsf

TIME-ROCK UNIT: UPPER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: AP; NANNOFOSSILS: N21; RADIOLARIANS; DIATOMS

PALEOMAGNETICS

PHYS. PROPERTIES: Φ =67.9 ρ =1.68 • Φ =66.8 ρ =1.67 • Φ =71.1 ρ =1.61 • Φ =69.9 ρ =1.63 • Φ =71.4 ρ =1.59 • Φ =68.8 ρ =1.64 • Φ =69.6 ρ =1.61 • Φ =69.4 ρ =1.65 • Φ =70.2 ρ =1.64 • Φ =68.8 ρ =1.65

CHEMISTRY: CaCO3 = 67.6% • CaCO3 = 73.8% • CaCO3 = 56.9% • CaCO3 = 72.5% • CaCO3 = 84.8% • CaCO3 = 69.4% • CaCO3 = 88.0% •

SECTION: 1 2 3 4 5 6 7 CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.: O O

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE

Major lithology: NANNOFOSSIL OOZE, gray (10YR 5/1), light gray (5Y 7/1) to white (2.5Y 8/1, 5Y 8/1) dominant. Lighter and darker parts alternate in 40 to 100 cm thick units with gradual interfaces. Bioturbation occurs throughout, burrows commonly filled with dark gray pyrite-rich sediment or foraminifer silty-sand. Soupy drilling disturbance along the edge of the core in Section 3, 45-50 and 95 cm. Green color bands associated with high pellet concentrations in smear slides occur in Section 3, 6-10, 82-90, 98-102, and 149-150 cm, and Section 5, 91 and 140 cm. Purple stain bands (manganese?) occur in Section 5, 18 and 86 cm. Small purple streaks, probably manganese stain smeared by the core-splitter are common throughout.

Minor lithologies:

a. Volcanic ash layers in Section 1, 4-6 cm, Section 2, 26 cm, Section 3, 134 cm, and Section 4, 82 cm.

b. Rounded pumice pebbles in Section 1, 8 and 29 cm, Section 6, 98 cm, and Section 7, 57 cm.

SMEAR SLIDE SUMMARY (%):

	1, 4 M	1, 110 D	2, 26 M	2, 70 D	2, 110 D	3, 10 D	3, 134 M
TEXTURE:							
Sand	90	10	–	–	–	5	10
Silt	10	40	95	5	4	90	90
Clay	–	50	5	95	96	5	–
COMPOSITION:							
Barite	–	–	–	2	–	–	–
Clay	–	–	–	–	–	–	–
Diatoms	–	1	–	–	–	–	–
Feldspar	–	–	5	–	–	–	–
Foraminifers	–	25	–	3	3	10	2
Glass	95	1	90	–	1	5	90
Nannofossils	–	50	5	95	96	25	5
Opaques	5	–	–	–	–	–	3
Pellets	–	20	–	–	–	60	–
Quartz	Tr	–	–	–	–	–	–
Radiolarians	–	2	–	–	–	–	–
Silicoflagellates	–	–	–	–	–	–	–
Spicules	–	1	–	–	–	–	–

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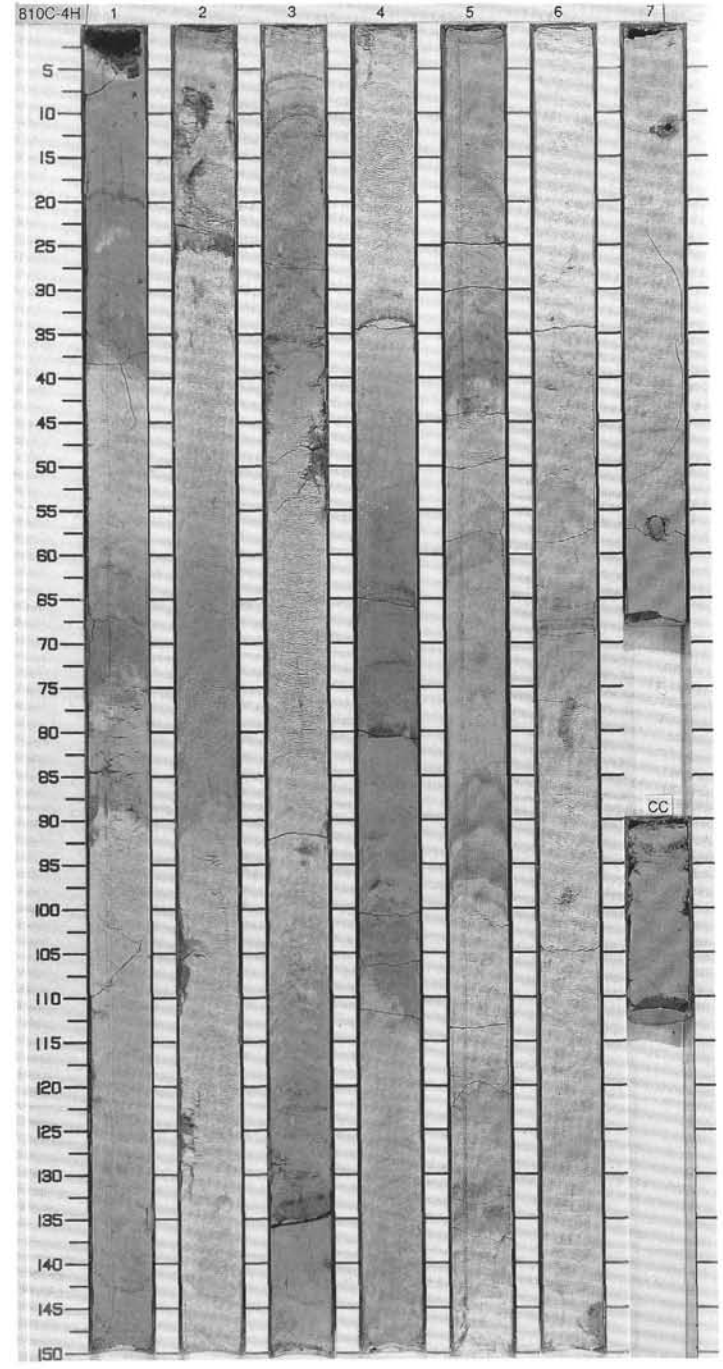


SITE 810 HOLE C CORE 4H CORED INTERVAL 21.4-30.9 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS		PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
									1	0.5 1.0				
									2	0.5 1.0				
									3	0.5 1.0				
									4	0.5 1.0				
									5	0.5 1.0				
									6	0.5 1.0				
									7					

LITHOLOGIC DESCRIPTION

(cont.)

SMEAR SLIDE SUMMARY (%):

	4, 25 D	4, 55 D	4, 82 M	4, 122 D	5, 39 M	5, 70 D	6, 66 M
TEXTURE:							
Sand	–	–	–	–	20	2	–
Silt	12	20	55	5	40	18	40
Clay	88	80	45	95	40	80	40
COMPOSITION:							
Barite	2	5	–	–	10	–	–
Diatoms	–	–	–	–	1	1	–
Foraminifers	5	5	5	5	34	2	5
Glass	5	10	50	–	3	1	–
Nannofossils	88	80	45	95	40	88	60
Pellets	–	–	–	–	10	5	35
Radiolarians	–	–	–	–	1	1	–
Silicoflagellates	–	–	–	–	1	2	–
Spicules	–	–	–	–	Tr	Tr	–

SMEAR SLIDE SUMMARY (%):

	6, 78 M	6, 90 D	7, 11 M	7, 44 D
TEXTURE:				
Sand	20	–	–	2
Silt	30	20	20	18
Clay	50	80	80	80
COMPOSITION:				
Barite	–	–	–	1
Diatoms	–	–	1	1
Foraminifers	45	10	5	5
Glass	5	–	Tr	Tr
Nannofossils	50	80	83	89
Pellets	–	10	–	2
Radiolarians	–	–	1	1
Silicoflagellates	–	–	2	Tr
Spicules	–	–	2	1
Sulfide	–	–	5	–

SITE 810 HOLE C CORE 5H CORED INTERVAL 30.9 - 40.4 mbsf

TIME-ROCK UNIT: UPPER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: AP; NANNOFOSSILS: N21; RADIOLARIANS; DIATOMS; PALEOMAGNETICS

PHYS. PROPERTIES: Φ=73.8 γ=1.59; Φ=69.3 γ=1.61; Φ=67.7 γ=1.69; Φ=59.4 γ=1.67; Φ=69.5 γ=1.63; Φ=70.5 γ=1.63; Φ=66.8 γ=1.65; Φ=66.8 γ=1.68; Φ=65.8 γ=1.58; Φ=63.8 γ=1.71

CHEMISTRY: CaCO3 = 54.6%; CaCO3 = 57.1%; CaCO3 = 11.0%; CaCO3 = 71.4%; CaCO3 = 83.4%; CaCO3 = 82.1%; CaCO3 = 65.2%

SECTION: 1, 2, 3, 4, 5, 6, 7, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE

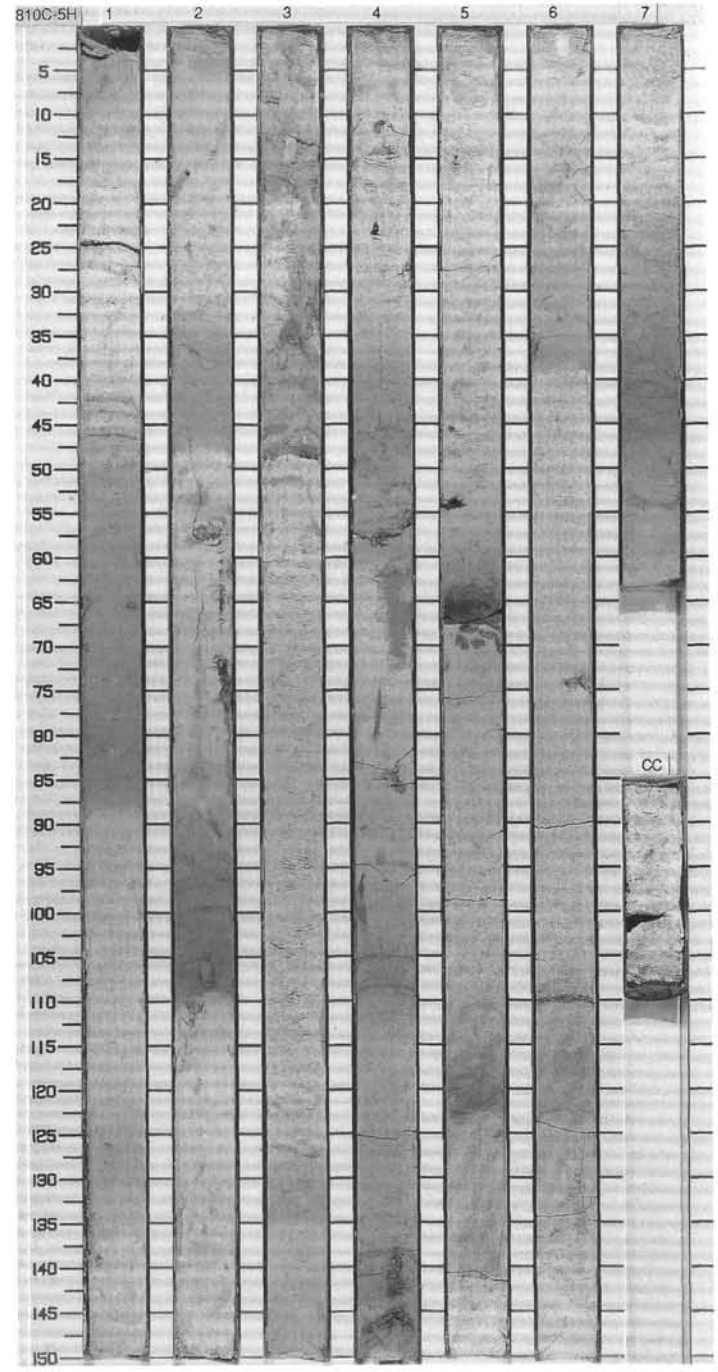
Major lithology: NANNOFOSSIL OOZE, gray (5Y 6/1), light gray (2.5 Y 7/1, 10Y 7/1), and white (2.5Y 8/0, 5Y 8/1) dominant. Lighter and darker parts alternate in 40 to 80 cm thick units with fairly sharp color interfaces. Slight to heavy bioturbation throughout, with abundant *Chondrites* and *Planolites* structures and long, thin vertical tubes (*Trichichnus*?). Some burrows filled with dark gray pyrite-rich sediment or foraminifer silty-sand. Green color bands occur in Section 4, 90-115 cm, and Section 6, 109 cm. Purple stain bands (manganese?) in Section 6, 122 cm.

Minor lithology: Volcanic ash layers 0.2 to 2 cm thick in Section 3, 47 cm, Section 4, 147 cm, and Section 5, 64 cm.

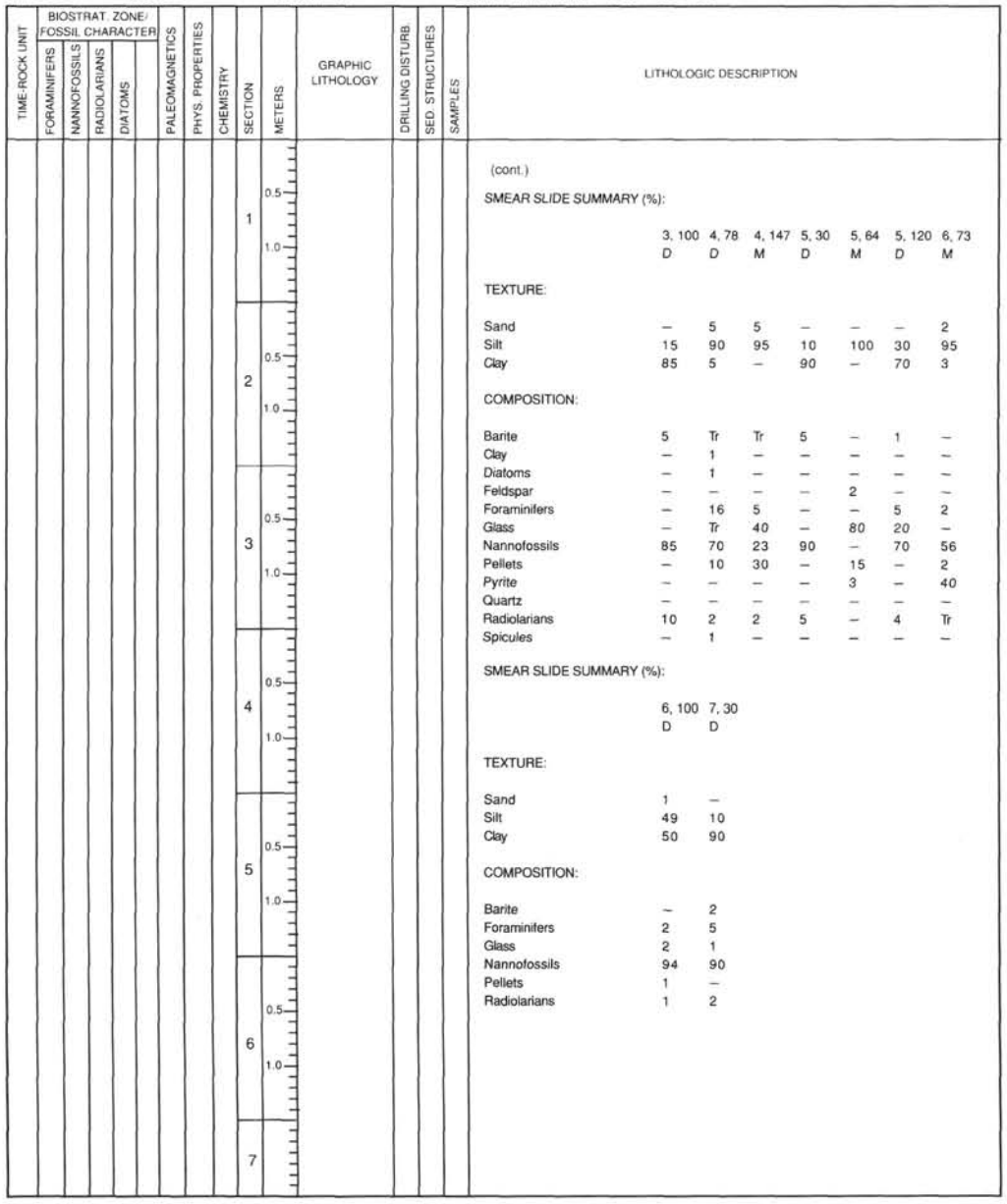
SMEAR SLIDE SUMMARY (%):

	1, 25 D	1, 75 D	1, 115 D	2, 25 D	2, 100 D	3, 30 D	3, 47 M
TEXTURE:							
Sand	–	–	–	5	2	–	–
Silt	10	5	15	90	93	25	95
Clay	90	95	85	5	5	75	5
COMPOSITION:							
Barite	–	–	1	–	1	2	–
Clay	–	–	4	–	–	–	–
Diatoms	–	–	–	2	Tr	1	–
Feldspar	–	–	–	–	–	–	5
Foraminifers	7	5	5	10	4	15	–
Glass	2	–	–	2	2	5	85
Nannofossils	90	95	80	70	84	75	5
Pellets	–	–	–	10	7	–	–
Pyrite	–	–	–	–	–	–	5
Quartz	–	–	–	–	–	–	–
Radiolarian	1	–	10	5	1	2	–
Silicoflagellates	–	–	–	Tr	–	–	–
Spicules	–	–	–	1	1	–	–

cont.



SITE 810 HOLE C CORE 5H CORED INTERVAL 30.9-40.4 mbsf



LITHOLOGIC DESCRIPTION

(cont.)

SMEAR SLIDE SUMMARY (%):

	3, 100 D	4, 78 D	4, 147 M	5, 30 D	5, 64 M	5, 120 D	6, 73 M
TEXTURE:							
Sand	–	5	5	–	–	–	2
Silt	15	90	95	10	100	30	95
Clay	85	5	–	90	–	70	3
COMPOSITION:							
Barite	5	Tr	Tr	5	–	1	–
Clay	–	1	–	–	–	–	–
Diatoms	–	1	–	–	–	–	–
Feldspar	–	–	–	–	2	–	–
Foraminifers	–	16	5	–	–	5	2
Glass	–	Tr	40	–	80	20	–
Nannofossils	85	70	23	90	–	70	56
Pellets	–	10	30	–	15	–	2
Pyrite	–	–	–	–	3	–	40
Quartz	–	–	–	–	–	–	–
Radiolarians	10	2	2	5	–	4	Tr
Spicules	–	1	–	–	–	–	–

SMEAR SLIDE SUMMARY (%):

	6, 100 D	7, 30 D
TEXTURE:		
Sand	1	–
Silt	49	10
Clay	50	90
COMPOSITION:		
Barite	–	2
Foraminifers	2	5
Glass	2	1
Nannofossils	94	90
Pellets	1	–
Radiolarians	1	2

SITE 810 HOLE C CORE 6H CORED INTERVAL 40.4 - 49.9 mbsf

TIME ROCK UNIT: MIDDLE PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: AP; N20 / NANNOFOSSILS / RADIOLARIANS / DIATOMS / PALEOMAGNETICS / PHYS. PROPERTIES / CHEMISTRY / SECTION / METERS / GRAPHIC LITHOLOGY / DRILLING DISTURB. / SED. STRUCTURES / SAMPLES

LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE

Major lithology: NANNOFOSSIL OOZE, light gray (5Y 7/1) to white (5Y 8/1). Slight to heavy bioturbation, visible at color interfaces, includes *Planolites*, *Chondrites*, and *Trichichnus* (?) types. Larger burrows in Section 5 filled with foraminifer silty sand. Green color bands associated with high pellet concentrations in smear slides occur in Section 3, 75 and 137-145 cm, Section 5, 0-10, 76, and 120-127 cm, and Section 7, 56-58 cm. Purple stained horizons (manganese?) in Section 5, 128 cm.

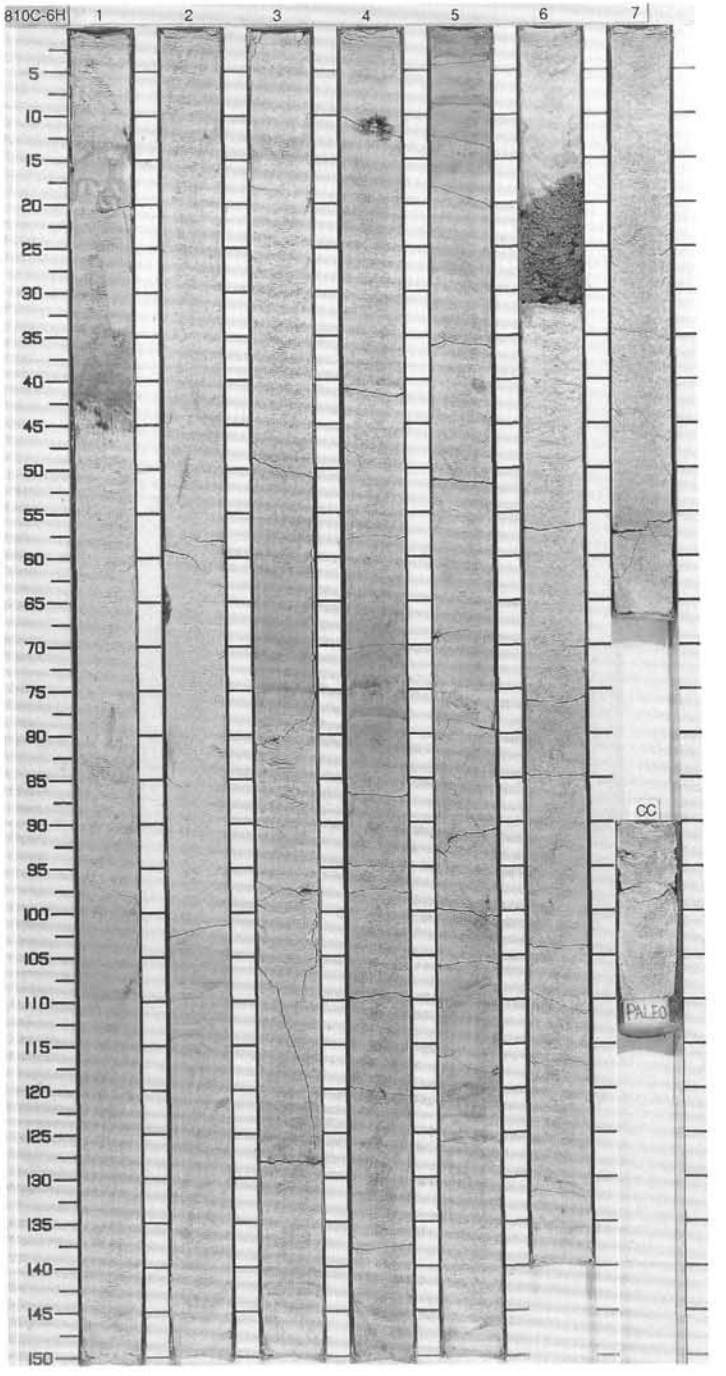
Minor lithology: A coarse volcanic ash bed occurs in Section 6, 18-32 cm. Thin beds rich in volcanic glass in Section 1, 12-20 and 43 cm.

SMEAR SLIDE SUMMARY (%):

	1, 43 M	1, 100 D	3, 75 D	3, 100 D	4, 11 M	4, 60 D	4, 78 M
TEXTURE:							
Sand	5	–	–	–	–	–	–
Silt	75	80	60	60	25	25	25
Clay	20	20	40	40	75	75	75
COMPOSITION:							
Barite	–	–	5	1	–	5	2
Diatoms	1	Tr	Tr	Tr	–	–	–
Foraminifers	8	1	1	1	1	15	2
Glass	50	–	2	Tr	–	5	1
Nannofossils	24	98	89	96	75	75	75
Pellets	4	1	1	Tr	3	–	20
Pyrite	–	–	–	–	20	–	–
Radiolarians	1	Tr	2	2	1	–	–
Silicoflagellates	Tr	–	–	–	–	–	–
Spicules	2	Tr	–	–	–	–	–

SMEAR SLIDE SUMMARY (%):

	5, 76 M	5, 105 M	5, 135 D	7, 57 D
TEXTURE:				
Sand	–	75	–	–
Silt	60	20	30	40
Clay	40	5	70	60
COMPOSITION:				
Barite	1	2	–	–
Diatoms	Tr	–	Tr	Tr
Foraminifers	2	75	2	Tr
Glass	–	–	5	Tr
Nannofossils	67	22	88	98
Opaques	5	1	–	Tr
Pellets	25	Tr	5	–
Quartz	–	–	–	–
Radiolarians	Tr	Tr	Tr	2



SITE 810 HOLE C CORE 7H CORED INTERVAL 49.9 - 59.4 mbsf

TIME-ROCK UNIT: MIDDLE PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: N20 / CP; NANNOFOSSILS; RADIOLARIANS; DIATOMS

PALEOMAGNETICS

PHYS. PROPERTIES: Φ=70.2, γ=1.65 • Φ=67.4, γ=1.68 • Φ=71.1, γ=1.62 • Φ=66.6, γ=1.69 • Φ=65.1, γ=1.70 • Φ=65.0, γ=1.68 • Φ=65.2, γ=1.71 • Φ=66.2, γ=1.67

CHEMISTRY: CaCO3 = 84.1% • CaCO3 = 79.1% • CaCO3 = 86.8% • CaCO3 = 89.7% • CaCO3 = 84.8% • CaCO3 = 90.0% • CaCO3 = 78.1%

SECTION: 1, 2, 3, 4, 5, 6, 7, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE

Major lithology: NANNOFOSSIL OOZE, light gray (2.5Y 7/0) to white (5Y 8/1, 2.5Y 8/0) *dominant in Sections 1 to 4. White (2.5Y 8/0) to light gray (2.5Y 7/2) alternating units* 25 to 40 cm thick in Core Catcher. Color contacts are gradual. Slight to heavy bioturbation including *Planolites* and *Chondrites* types throughout. Purple and green bands occur in Sections 1 and 4.

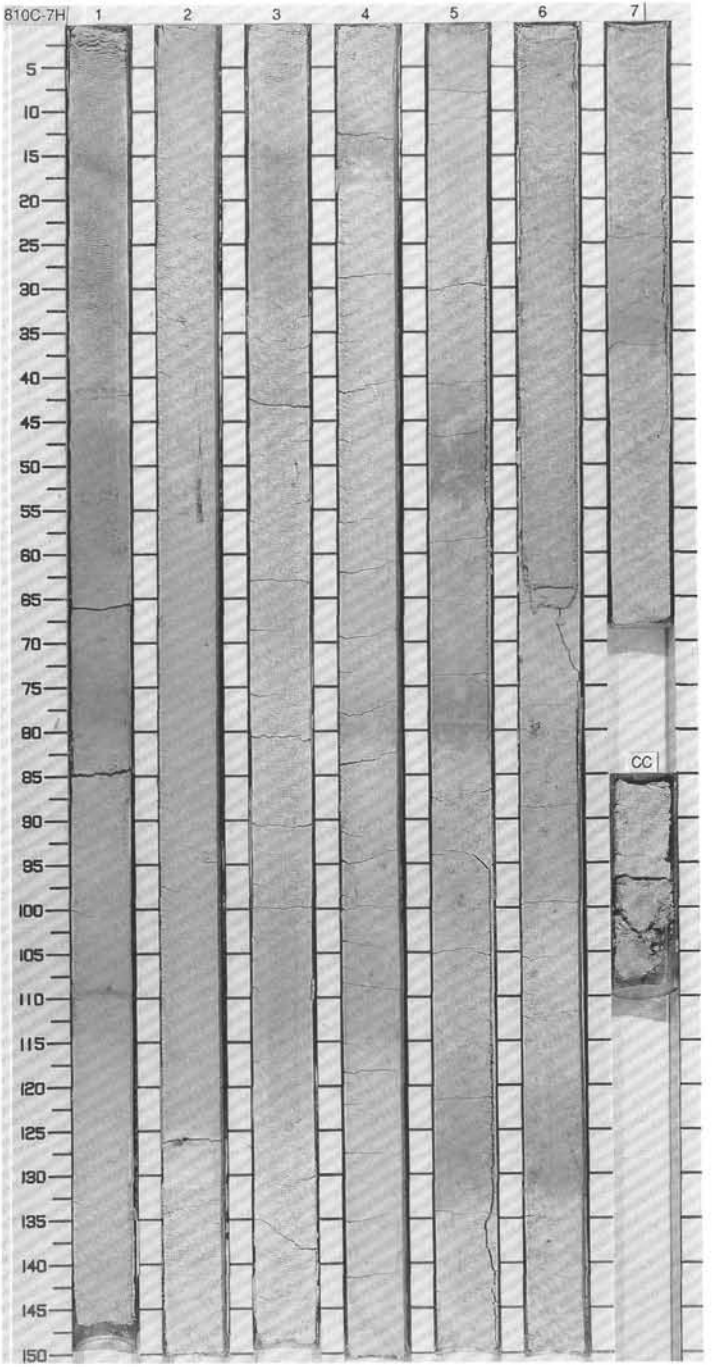
Minor lithology: A rounded pumice pebble in Section 6, 78 cm.

SMEAR SLIDE SUMMARY (%):

	1, 40 D	1, 80 D	1, 120 D	2, 35 D	2, 100 D	3, 30 D	3, 100 D
TEXTURE:							
Silt	15	16	10	20	20	15	20
Clay	85	84	90	80	80	85	80
COMPOSITION:							
Barite	3	10	2	Tr	Tr	1	1
Diatoms	–	–	–	Tr	Tr	–	–
Discoaster	5	–	–	–	8	5	5
Foraminifers	5	5	8	1	2	10	25
Glass	–	–	–	Tr	–	4	1
Nannofossils	85	84	90	96	80	80	80
Pellets	–	–	–	3	10	–	3
Radiolarians	2	1	–	Tr	Tr	–	5
Spicules	–	–	–	–	Tr	–	–

SMEAR SLIDE SUMMARY (%):

	4, 60 D	4, 110 D	5, 50 D	5, 100 D	6, 100 D	7, 40 D
TEXTURE:						
Silt	8	9	20	15	16	12
Clay	92	91	80	85	84	88
COMPOSITION:						
Barite	1	1	5	5	–	5
Diatoms	–	Tr	–	–	–	–
Discoaster	–	8	5	5	3	2
Foraminifers	–	Tr	5	5	3	5
Glass	–	Tr	2	–	Tr	–
Nannofossils	99	91	80	85	84	88
Pellets	–	–	1	–	10	–
Radiolarians	–	–	2	–	Tr	–
Spicules	Tr	–	–	–	–	–



SITE 810 HOLE C CORE 8H CORED INTERVAL 59.4 - 68.9 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS CP; N19; NANNOFOSSILS; RADIOLARIANS; DIATOMS; PALEOMAGNETICS

PHYS. PROPERTIES: Φ =70.5 ● γ =1.66; Φ =69.7 ● γ =1.65; Φ =64.2 ● γ =1.70; Φ =65.5 ● γ =1.71; Φ =69.8 ● γ =1.69; Φ =67.6 ● γ =1.68; Φ =67.2 ● γ =1.69; Φ =70.2 ● γ =1.64; Φ =69.4 ● γ =1.65

CHEMISTRY: ● CaCO3 = 70.6%; ● CaCO3 = 74.5%; ● CaCO3 = 91.3%; ● CaCO3 = 89.5%; ● CaCO3 = 77.1%; ● CaCO3 = 80.6%; ● CaCO3 = 47.5%

SECTION: 1, 2, 3, 4, 5, 6, 7, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE

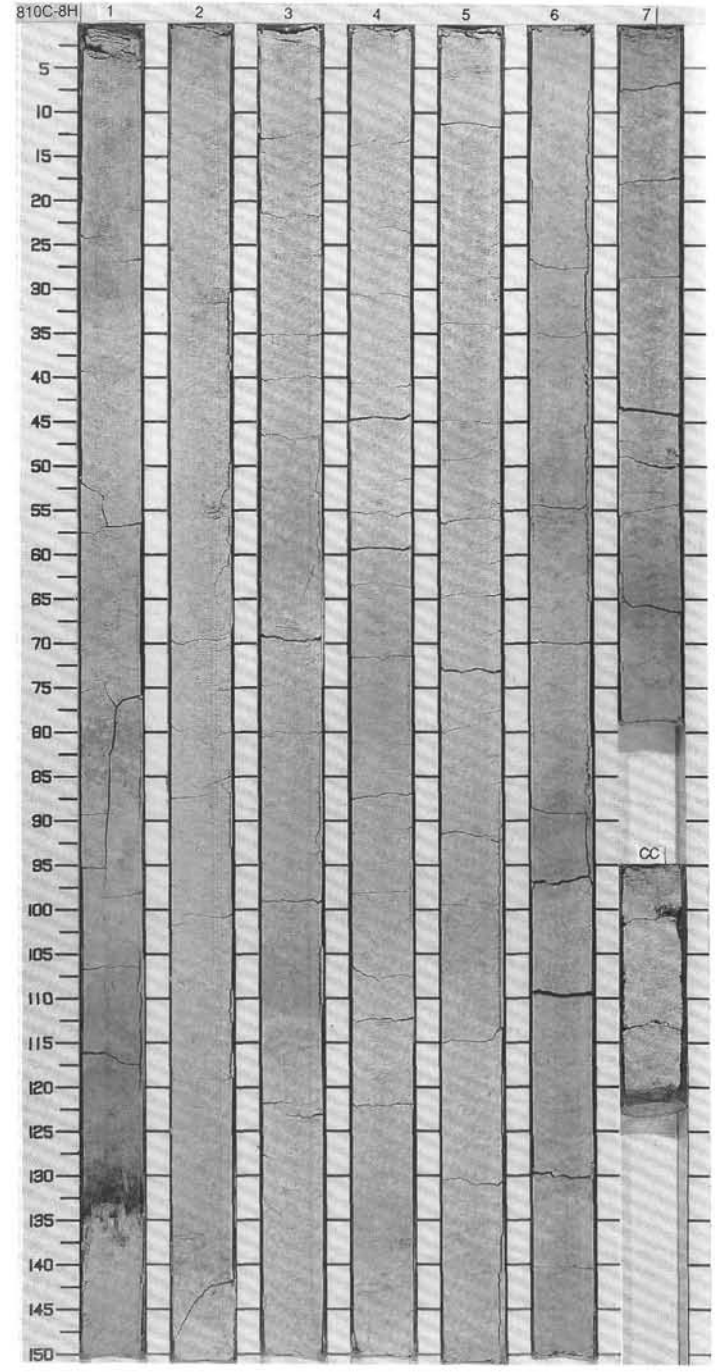
Major lithology: NANNOFOSSIL OOZE, light gray (5Y 8/1 to 5Y 7/2), mostly NANNOFOSSILS with minor amounts of discoasters and fragmented FORAMINIFERS, structureless to bioturbated (*Chondrites* and sparse *Planolites*), ash layers in Sections 1 and 2, traces of barite throughout.

SMEAR SLIDE SUMMARY (%):

	1, 70 D	1, 132 M	1, 145 D	2, 100 D	2, 140 M	3, 90 D	4, 100 D
TEXTURE:							
Silt	10	17	4	14	50	2	10
Clay	90	83	96	86	50	98	90
COMPOSITION:							
Barite	2	2	2	Tr	–	2	1
Diatoms	–	1	–	Tr	Tr	–	–
Discoaster	3	5	–	–	–	–	–
Feldspar	–	–	–	–	Tr	–	–
Foraminifers	5	7	2	Tr	–	–	Tr
Glass	–	–	–	Tr	40	–	Tr
Nannofossils	90	83	96	91	59	98	94
Opaques	–	–	–	–	1	–	–
Pellets	–	–	–	8	Tr	–	5
Quartz	–	–	–	–	Tr	–	–
Radiolarians	–	2	–	Tr	Tr	–	–

SMEAR SLIDE SUMMARY (%):

	5, 50 D	6, 70 D	6, 90 D	7, 40 D	CC, 1 M
TEXTURE:					
Silt	3	12	15	3	60
Clay	97	88	85	97	40
COMPOSITION:					
Barite	1	Tr	1	2	Tr
Diatoms	–	–	–	–	1
Discoaster	1	–	–	–	–
Foraminifers	–	Tr	1	–	3
Glass	–	Tr	Tr	1	1
Nannofossils	97	98	93	97	42
Opaques	–	Tr	–	–	20
Pellets	–	2	5	–	30
Radiolarians	1	Tr	Tr	–	2
Siliceous sponge spicules	–	–	–	–	Tr
Silicoflagellates	–	–	Tr	–	1



SITE 810 HOLE C CORE 9H CORED INTERVAL 68.9-78.4 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWER PLIOCENE	FP	N19				Φ=73.4 ϕ=1.61	CaCO3 = 90.1%	1	0.5				*
						Φ=65.1 ϕ=1.69	CaCO3 = 88.1%		1.0				*
						Φ=63.4 ϕ=1.73	CaCO3 = 88.8%	2	0.5				*
						Φ=67.8 ϕ=1.75	CaCO3 = 88.4%		1.0				*
						Φ=68.0 ϕ=1.69	CaCO3 = 60.6%	3	0.5				*
						Φ=68.3 ϕ=1.68	CaCO3 = 64.9%		1.0				*
						Φ=70.5 ϕ=1.65	CaCO3 = 83.3%	4	0.5				*
									1.0				*
								5	0.5				*
									1.0				*
								6	0.5				*
									1.0				*
								7	0.5				*
									1.0				*
								CC	0.5				*

LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE

Major lithology: NANNOFOSSIL OOZE, mostly nannofossils with minor amounts of discoasters and fragmented foraminifers and radiolarians, light gray (5Y 8/1 to 5Y7/2) with minor clay content (up to 40% in patches), burrowed (*Chondrites* and *Planolites*), sparse purple to black stains, traces of barite.

Minor lithology: Clayey NANNOFOSSIL OOZE, gray (7.5YR 7/2), 25 to 40% clay, burrowed (*Zoophycus*, *Planolites*) throughout, rhythmically alternating with purer NANNOFOSSIL OOZE in Section 6, traces of barite.

SMEAR SLIDE SUMMARY (%):

	1, 54 M	1, 66 D	1, 120 D	2, 80 D	2, 110 D	3, 16 M	3, 50 D
TEXTURE:							
Silt	98	10	10	4	5	5	10
Clay	2	90	90	96	95	95	90
COMPOSITION:							
Barite	–	–	Tr	2	2	–	–
Clay	–	20	15	–	–	60	30
Diatoms	–	Tr	1	–	–	Tr	Tr
Discoaster	–	–	–	–	5	–	–
Foraminifers	Tr	–	Tr	–	2	–	–
Glass	98	5	–	2	–	Tr	5
Nannofossils	2	75	84	96	95	40	65
Opaques	–	–	Tr	–	–	–	–
Quartz	Tr	Tr	Tr	–	–	Tr	Tr
Radiolarians	–	Tr	Tr	–	1	Tr	Tr
Siliceous sponge spicules	–	Tr	Tr	–	–	Tr	Tr

SMEAR SLIDE SUMMARY (%):

	4, 70 D	4, 130 D	5, 20 D	5, 105 D	5, 112 D	6, 10 D	6, 65 D
TEXTURE:							
Silt	4	20	10	5	15	12	20
Clay	96	80	90	95	85	88	80
COMPOSITION:							
Barite	1	5	Tr	–	Tr	5	2
Clay	–	25	25	20	20	–	5
Diatoms	–	–	Tr	–	–	–	–
Discoaster	–	5	–	–	–	5	10
Foraminifers	1	–	–	Tr	Tr	–	1
Glass	–	5	2	1	5	–	–
Nannofossils	96	58	75	79	80	88	80
Opaques	–	–	–	–	5	–	–
Pellets	–	–	–	–	3	–	–
Quartz	–	–	Tr	Tr	–	–	Tr
Radiolarians	–	2	1	Tr	Tr	2	2
Siliceous sponge spicules	–	–	–	Tr	Tr	–	–

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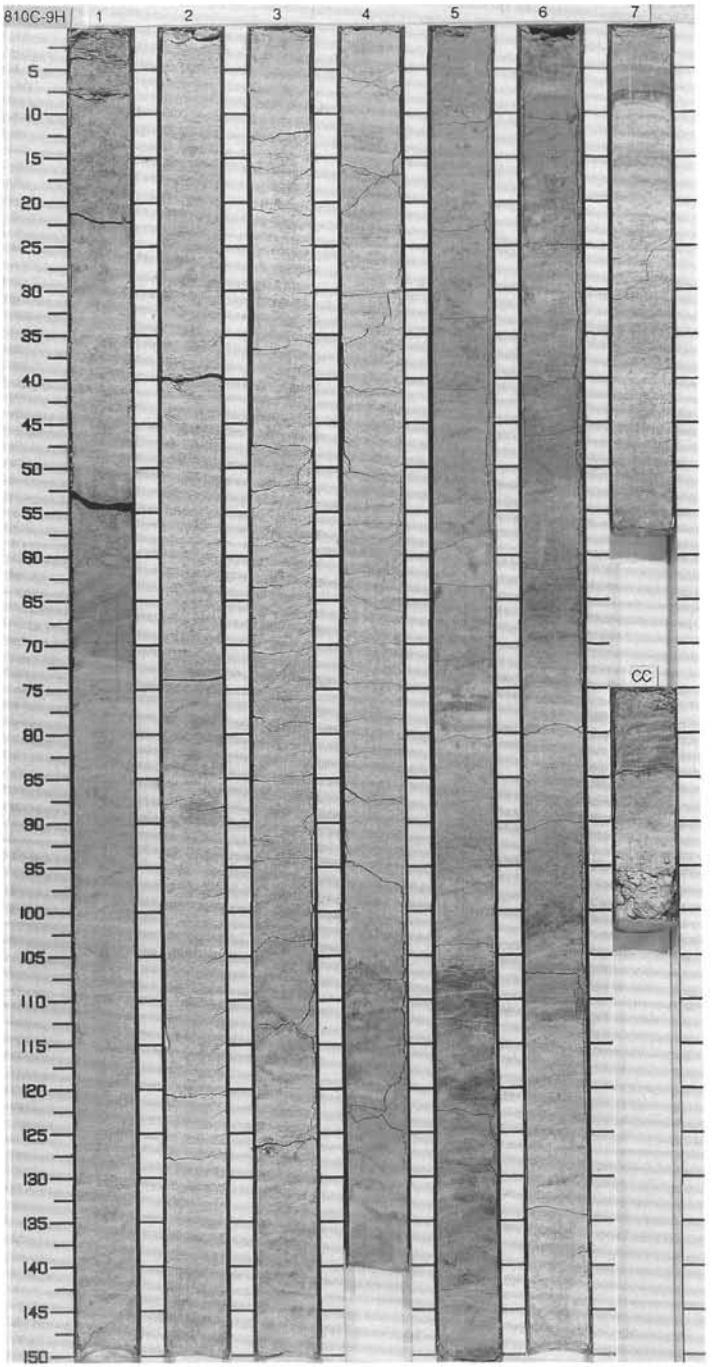


SITE 810 HOLE C CORE 9H CORED INTERVAL 68.9 - 78.4 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
								1	0.5 1.0					(cont.)
								2	0.5 1.0					
								3	0.5 1.0					
								4	0.5 1.0					
								5	0.5 1.0					
								6	0.5 1.0					
								7						

SMEAR SLIDE SUMMARY (%):

	6, 90 D	6, 140 D	7, 8 M	7, 40 D	CC, 20 D
TEXTURE:					
Silt	7	1	70	47	1
Clay	93	99	30	53	99
COMPOSITION:					
Barite	1	1	–	Tr	1
Clay	–	40	10	20	49
Diatoms	–	–	–	Tr	–
Discoaster	5	–	–	–	–
Foraminifers	–	–	–	Tr	–
Glass	1	–	5	2	–
Nannofossils	93	59	73	73	50
Opaques	–	–	10	–	–
Pellets	-----	2	5	–	
Quartz	–	Tr	–	–	Tr
Radiolarians	–	–	–	Tr	–

SITE 810 HOLE C CORE 10 H CORED INTERVAL 78.4-87.9 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: AP; NANNOFOSSILS: N19; RADIOLARIANS; DIATOMS; PALEOMAGNETICS; PHYS. PROPERTIES; CHEMISTRY; SECTION; METERS; GRAPHIC LITHOLOGY; DRILLING DISTURB.; SED. STRUCTURES; SAMPLES

PHYS. PROPERTIES: ϕ=64.2, γ=1.71; ϕ=67.0, γ=1.64; ϕ=66.7, γ=1.71; ϕ=65.9, γ=1.71; ϕ=66.3, γ=1.71; ϕ=69.6, γ=1.64; ϕ=67.5, γ=1.66; ϕ=68.8, γ=1.67

CHEMISTRY: CaCO3 = 71.6%; CaCO3 = 85.7%; CaCO3 = 86.0%

SECTION: 1, 2, 3, 4, 5, 6, 7, CC

METERS: 0.5, 1.0

LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE

Major lithology: NANNOFOSSIL OOZE, mostly nannofossils with sparse discoasters and minor to trace amounts of fragmented foraminifers, diatoms and radiolarians, pale tan (10YR 8/2), abundant burrows (*Chondrites, Planolites, Thalassinoides*).

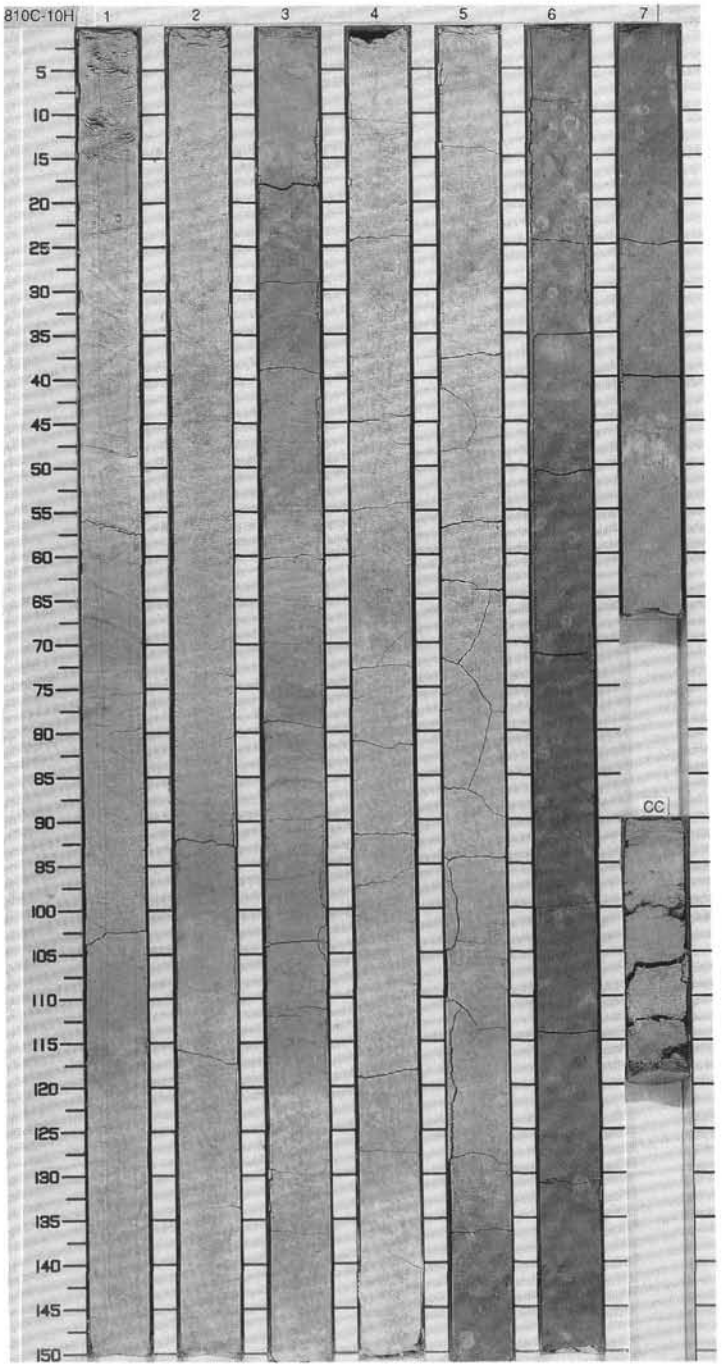
Minor lithology: CALCAREOUS CLAY, 70% clay mixed with nannofossils and sparse discoasters, tan (10YR 7/2), in rhythmically alternating bands in Section 3.

SMEAR SLIDE SUMMARY (%):

	1, 50 D	2, 10 D	3, 30 D	3, 130 D	4, 10 D	5, 27 M	5, 60 D
TEXTURE:							
Silt	7	17	10	2	30	6	7
Clay	93	83	90	98	70	94	93
COMPOSITION:							
Barite	2	Tr	2	2	1	–	2
Clay	20	25	72	5	10	5	5
Discoaster	3	–	5	–	–	2	1
Feldspar	–	–	–	–	–	–	–
Foraminifers	1	2	–	–	Tr	2	2
Glass	–	–	1	–	1	–	–
Nannofossils	73	73	20	93	88	89	89
Quartz	–	Tr	–	–	Tr	–	–
Radiolarians	1	Tr	–	–	Tr	1	1
Siliceous sponge spicules	–	Tr	–	–	–	–	–

SMEAR SLIDE SUMMARY (%):

	5, 140 D	6, 22 M	6, 83 D	7, 20 D	7, 50 D
TEXTURE:	5	23	44	15	6
Clay	95	77	56	85	94
COMPOSITION:					
Barite	1	Tr	1	5	1
Clay	60	10	49	70	60
Discoaster	2	–	–	5	3
Foraminifers	1	1	Tr	Tr	2
Glass	–	2	2	–	–
Nannofossils	35	87	56	15	34
Pyrite	–	–	1	Tr	–
Quartz	–	–	Tr	–	–
Radiolarians	1	Tr	Tr	Tr	–
Siliceous sponge spicules	–	Tr	Tr	–	–



SITE 810 HOLE C CORE 11H CORED INTERVAL 87.9-97.4 mbsf

TIME-ROCK UNIT: UPPER ? MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: Younger than N13; NANNOFOSSILS: FP; RADIOLARIANS; DIATOMS

PALEOMAGNETICS

PHYS. PROPERTIES: Φ=62.5 γ=1.74; Φ=64.6 γ=1.74; Φ=65.9 γ=1.73; Φ=67.4 γ=1.69; Φ=63.4 γ=1.77; Φ=64.7 γ=1.73; Φ=64.8 γ=1.71

CHEMISTRY

SECTION: 1, 2, 3, 4, 5, 6, 7, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

CLAYEY NANNOFOSSIL OOZE

Major lithology: CLAYEY NANNOFOSSIL OOZE, nannofossils with discoasters and traces of foraminifers, mixed with varying proportions of clay, traces of barite, tan (10YR 7/2), burrowed by *Planolites*, *Chondrites*, *Thalassinoides* and *Trichichnus* (?), rhythmically alternating with brown clay in Section 6.

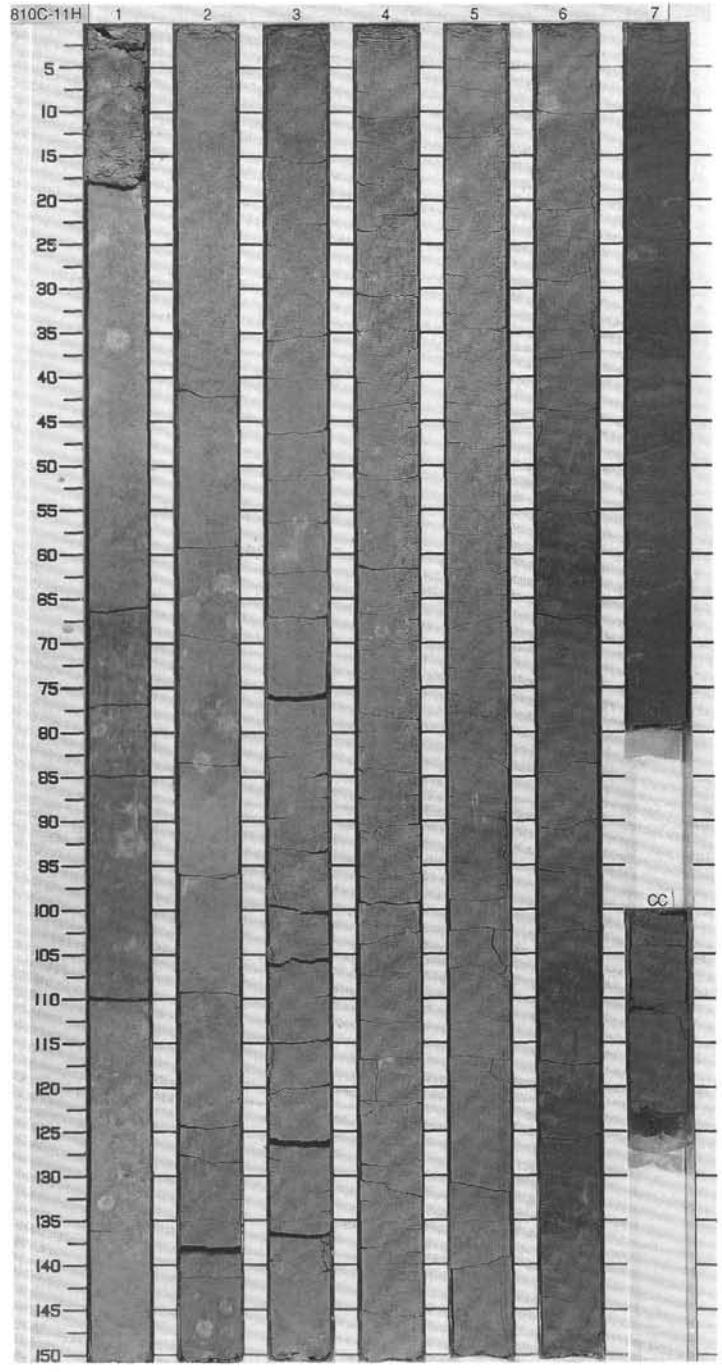
Minor lithology: Calcareous clay, >50% clay mixed with nannofossil ooze, brown (10YR 5/3).

SMEAR SLIDE SUMMARY (%):

	1, 70 D	1, 140 D	2, 70 D	3, 100 D	4, 70 D	5, 70 D	6, 20 D
TEXTURE:							
Silt	17	30	7	40	5	40	15
Clay	83	70	93	60	95	60	85
COMPOSITION:							
Barite	---	2	5	Tr	1	1	5
Clay	70	50	35	50	60	40	5
Discoaster	---	---	5	---	2	---	2
Feldspar	---	---	---	---	---	---	---
Foraminifers	Tr	Tr	2	Tr	2	Tr	3
Glass	2	Tr	---	Tr	---	Tr	5
Nannofossils	28	48	58	50	35	59	80
Quartz	Tr	Tr	---	Tr	---	Tr	---

SMEAR SLIDE SUMMARY (%):

	6, 130 D	7, 50 D	CC, 20 D
TEXTURE:			
Silt	12	25	15
Clay	88	75	85
COMPOSITION:			
Barite	5	Tr	5
Clay	50	65	80
Discoaster	5	---	5
Feldspar	---	---	---
Foraminifers	2	---	5
Glass	---	5	---
Nannofossils	38	30	5
Opaques	---	Tr	---
Quartz	---	Tr	---



SITE 810 HOLE C CORE 12 H CORED INTERVAL 97.4-106.9 mbsf

TIME-ROCK UNIT: UPPER ? MIOCENE; UPPER LOWER EOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: AM; P8 / P9

NANNOFOSSILS; RADIOLARIANS; DIATOMS; PALEOMAGNETICS; PHYS. PROPERTIES: ϕ = 54.2, ρ = 1.88 ●; ϕ = 49.0, ρ = 1.88 ●; ϕ = 54.3, ρ = 1.86 ●; ϕ = 55.4, ρ = 1.86 ●; ϕ = 65.9, ρ = 1.70 ●; ϕ = 65.6, ρ = 1.70 ●

CHEMISTRY; SECTION; METERS; GRAPHIC LITHOLOGY; DRILLING DISTURB.; SED. STRUCTURES; SAMPLES

LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE

Major lithology: NANNOFOSSIL OOZE, nannofossils with up to 20% clay, large coccoliths in abundance, minor amounts of discoasters and traces of barite and fragmented foraminifers, pale tan (10YR 8/2), burrowed throughout by *Planolites, Chondrites* and *Trichichnus(?)*.

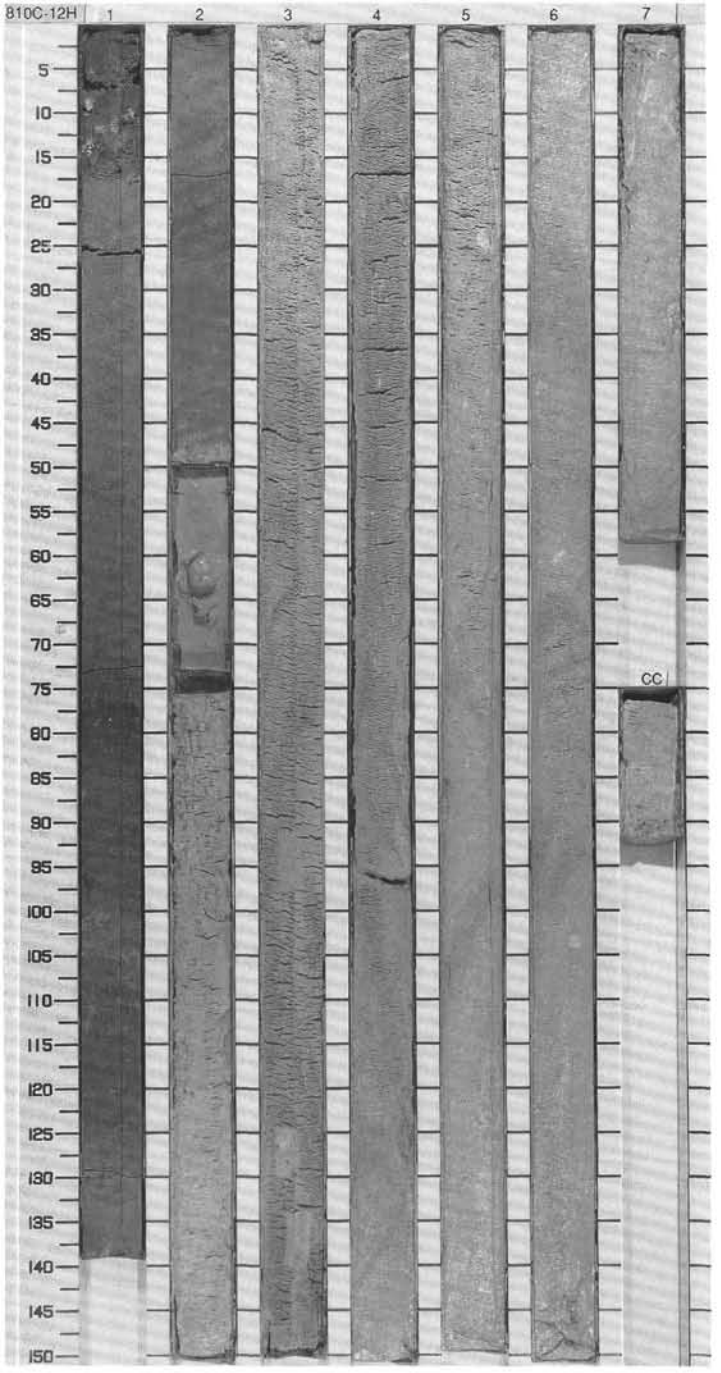
Minor lithology: Calcareous clay, 50% clay with nannofossils and sparse discoasters and fragmented foraminifers, brown (10YR 6/2), burrowed throughout and bounded below by a 25 cm void with liquified sediment.

SMEAR SLIDE SUMMARY (%):

	1, 30 D	1, 77 M	1, 118 D	2, 20 D	2, 100 D	3, 70 D	4, 41 M
TEXTURE:							
Silt	24	32	55	7	20	90	20
Clay	76	68	45	93	80	10	80
COMPOSITION:							
Barite	2	5	2	2	–	–	1
Clay	40	33	15	50	–	1	5
Discoaster	–	–	–	2	15	–	10
Foraminifers	1	Tr	Tr	3	3	5	–
Glass	1	20	2	–	–	Tr	–
Nannofossils	56	40	70	43	82	94	84
Opaques	Tr	2	1	–	–	–	–
Quartz	Tr	–	Tr	Tr	–	Tr	Tr

SMEAR SLIDE SUMMARY (%):

	4, 70 D	5, 70 D	6, 59 M	6, 70 D	7, 30 D
TEXTURE:					
Silt	20	90	15	40	95
Clay	80	10	85	60	5
COMPOSITION:					
Clay	–	1	–	–	–
Discoaster	10	–	5	20	–
Foraminifers	–	3	–	2	1
Nannofossils	90	96	95	78	99
Opaques	–	Tr	–	–	–
Pellets	–	–	–	–	Tr



SITE 810 HOLE C CORE 13 H CORED INTERVAL 106.9-116.4 mbsf

TIME-ROCK UNIT: LOWER MAESTRICHTIAN | E. P | UPPER PALEOCENE | LOWER EOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: AM KS 29 AM P2 P3a AM CG P8; NANNOFOSSILS: AM AM AM AM AM; RADIOLARIANS; DIATOMS; PALEOMAGNETICS; PHYS. PROPERTIES: Φ = 60.6 γ = 1.77; Φ = 60.1 γ = 1.81; Φ = 57.0 γ = 1.83; Φ = 60.6 γ = 1.77; Φ = 59.9 γ = 1.81; Φ = 59.5 γ = 1.77; Φ = 55.7 γ = 1.84; CHEMISTRY

SECTION: 1 2 3 4 5 6 7 CC

METERS: 0.5 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE

Major lithology: NANNOFOSSIL OOZE, very pure nannofossil ooze with large coccolith plates, minor foraminifers, minor clay and traces of quartz, pyrite and barite, pale tan (10YR 8/2) to cream and white in lower half, discoasters absent below Section 1, burrowed throughout, soft sediment deformation structures in Sections 1 and 2.

SMEAR SLIDE SUMMARY (%):

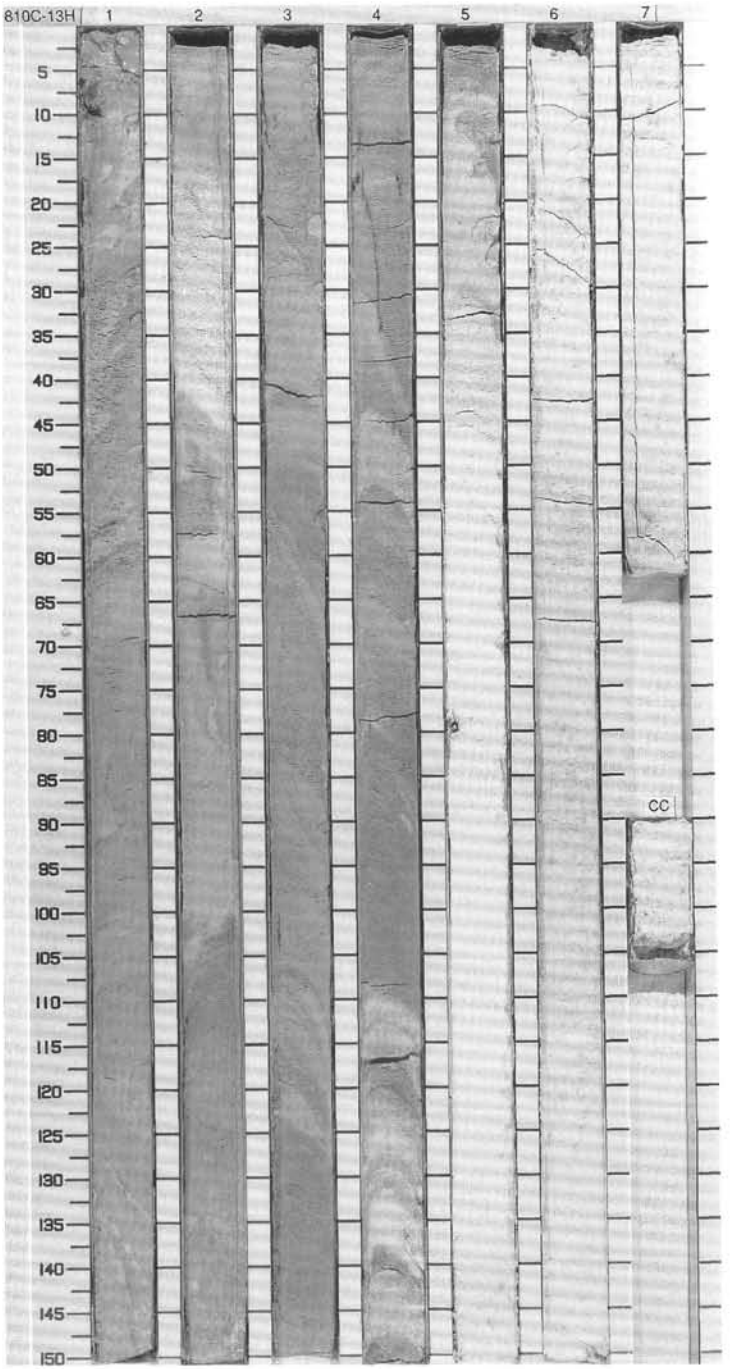
	1, 54 M	1, 100 D	2, 30 D	2, 120 D	3, 93 D	3, 138 D	4, 100 D
TEXTURE:							
Silt	35	70	40	25	40	10	20
Clay	65	30	60	75	60	90	80
COMPOSITION:							
Barite	–	–	–	Tr	–	–	Tr
Clay	–	–	20	8	–	–	10
Foraminifers	5	2	Tr	2	20	25	Tr
Glass	Tr	–	–	–	1	–	–
Nannofossils	90	98	80	90	80	75	90
Opaques	5	–	–	–	–	Tr	–
Quartz	–	Tr	–	Tr	Tr	Tr	–

SMEAR SLIDE SUMMARY (%):

	4, 110 D	5, 20 D	5, 40 D	5, 100 D	5, 145 D	6, 306, 42 D	M
TEXTURE:							
Silt	20	5	5	1	3	10	20
Clay	80	95	95	99	97	90	80
COMPOSITION:							
Barite	–	Tr	–	–	–	Tr	Tr
Clay	10	–	–	–	–	15	5
Foraminifers	2	5	3	1	3	1	2
Glass	–	Tr	2	Tr	Tr	–	–
Nannofossils	88	95	95	99	97	84	93
Quartz	Tr	–	–	–	–	–	Tr

SMEAR SLIDE SUMMARY (%):

	7, 42 M	CC, 10 M
TEXTURE:		
Silt	2	20
Clay	98	80
COMPOSITION:		
Barite	Tr	Tr
Clay	–	5
Foraminifers 2	Tr	
Glass	–	–
Nannofossils 98	95	
Siliceous sponge spicules	Tr	–



SITE 810 HOLE C CORE 14 H CORED INTERVAL 116.4-125.9 mbsf

TIME-ROCK UNIT: LOWER MAESTRICHTIAN

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: FM; NANNOFOSSILS: KS 29; RADIOLARIANS; DIATOMS; PALEOMAGNETICS; PHYS. PROPERTIES; CHEMISTRY

SECTION | METERS | GRAPHIC LITHOLOGY | DRILLING DISTURB. | SED. STRUCTURES | SAMPLES

PHYS. PROPERTIES: ϕ = 60.9, γ = 1.83; ϕ = 61.0, γ = 1.76; ϕ = 60.0, γ = 1.75; ϕ = 57.2, γ = 1.83; ϕ = 63.0, γ = 1.70; ϕ = 63.7, γ = 1.73

LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE

Major lithology: NANNOFOSSIL OOZE, very pure nannofossil ooze with large coccolith plates, minor foraminifers, minor clay and traces of quartz, glass and barite, pale tan (10YR 8/2) to cream and white, burrowed throughout.

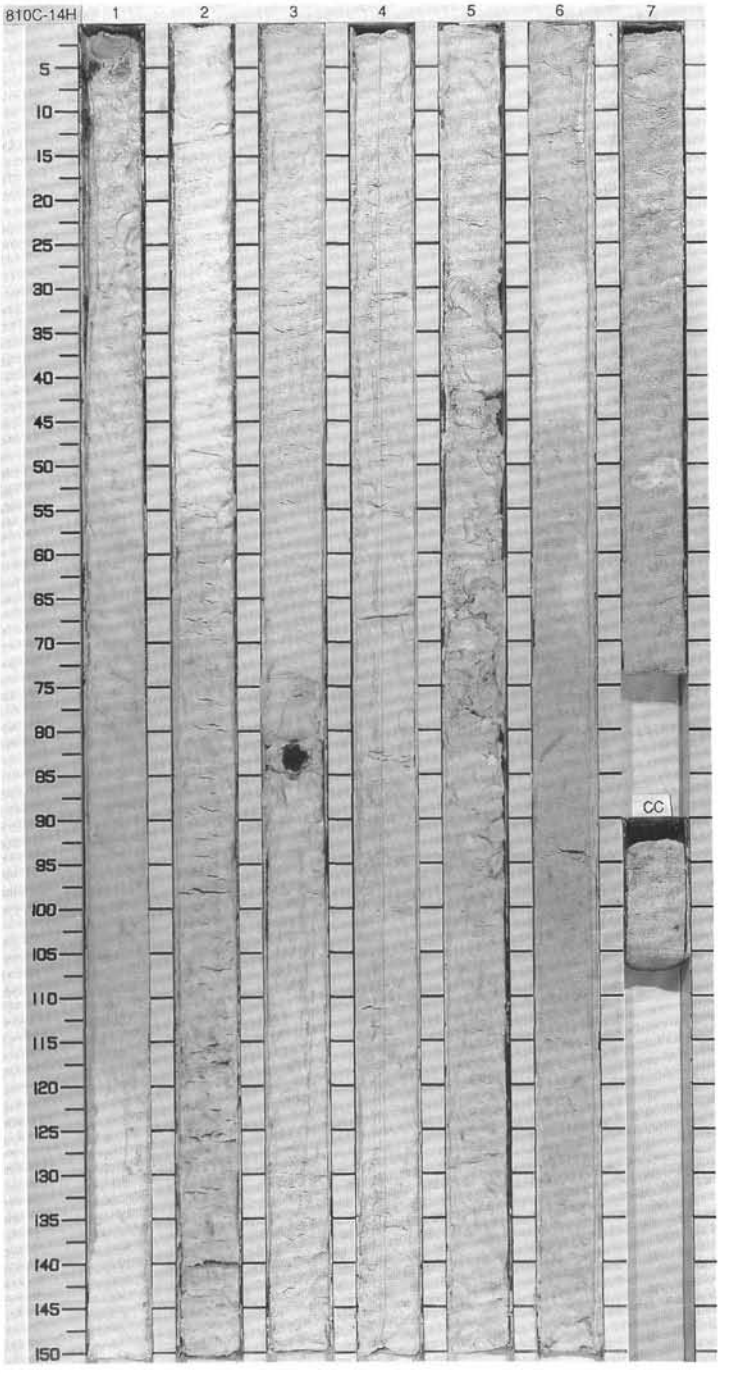
Minor lithology: Chert, a dark yellowish brown nodule (in Section 3, 85 cm) 5 cm in diameter, contains mm-scale laminations.

SMEAR SLIDE SUMMARY (%):

	1, 70 D	1, 135 D	2, 30 D	2, 100 D	3, 120 D	4, 70 D	5, 100 D
TEXTURE:							
Silt	8	60	30	–	80	10	80
Clay	92	40	70	100	20	90	20
COMPOSITION:							
Barite	–	–	–	Tr	–	–	–
Clay	–	–	10	–	–	5	–
Foraminifers	8	1	5	–	2	Tr	Tr
Glass	Tr	–	Tr	–	Tr	–	–
Nannofossils	92	99	85	100	98	95	100
Quartz	–	Tr	–	–	–	–	–

SMEAR SLIDE SUMMARY (%):

	6, 40 D	6, 100 D	7, 50 M
TEXTURE:			
Silt	20	80	80
Clay	80	20	20
COMPOSITION:			
Foraminifers	1	Tr	–
Nannofossils	99	100	100



SITE 810 HOLE C CORE 15 H CORED INTERVAL 125.9-127.1 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWER MAESTRICHTIAN	AM / KS 29					ϕ = 61.1, γ = 1.76; ϕ = 69.7, γ = 1.69; ϕ = 71.9, γ = 1.59; ϕ = 74.2, γ = 1.56		1–7, CC	0.5, 1.0				*

LITHOLOGIC DESCRIPTION

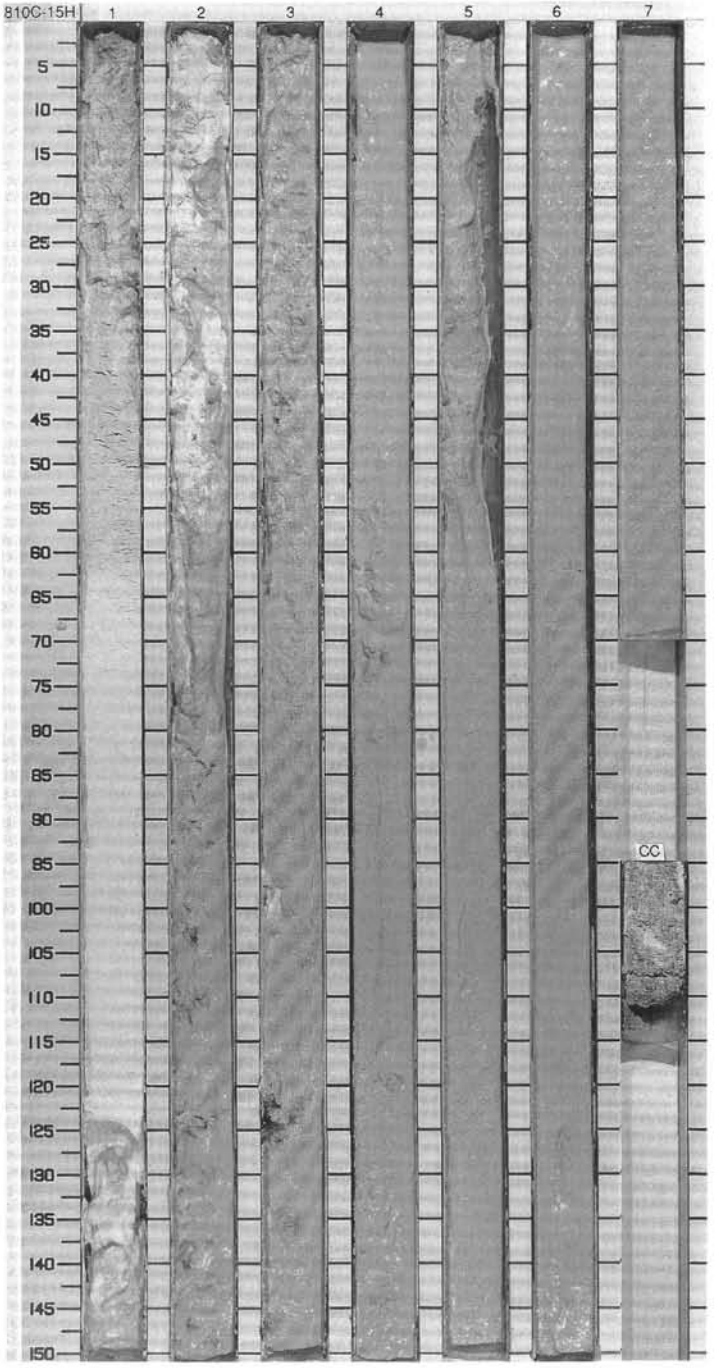
NANNOFOSSIL OOZE AND CORING BRECCIA

Major lithology: NANNOFOSSIL OOZE, very pure nannofossil ooze (>95% nannofossils and large coccoliths), disturbed by drilling from 0 to 40 cm in Section 1, pale tan (10YR 8/2) to white (2.5Y 8/1, 5Y 8/0).

CORING BRECCIA: a mixture of many lithologies along with mud lube and pipe dope, sucked into the APC barrel after a short stroke by the corer, fills the core below 130 cm in Section 1.

SMEAR SLIDE SUMMARY (%):

	1, 50 D	1, 100 D	CC, 5 D
TEXTURE:			
Silt	20	40	10
Clay	80	60	90
COMPOSITION:			
Barite	Tr	Tr	Tr
Clay	–	–	5
Diatoms	–	–	Tr
Foraminifers	–	Tr	2
Glass	–	–	2
Nannofossils	100	100	88
Pellets	–	–	2
Radiolarians	–	–	1
Siliceous sponge spicules	–	–	T
Silicoflagellates	–	Tr	



SITE 810 HOLE C CORE 16 X CORED INTERVAL 127.1-136.1 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
LOWER MAESTRICHTIAN	AM	AM	KS 28			ϕ = 5.2 γ = 2.67; ϕ = 73.7 γ = 1.83; ϕ = 61.4 γ = 1.76		1, 2, CC	0.5, 1.0, 0.5, 1.0				* *	NANNOFOSSIL OOZE Major lithology: NANNOFOSSIL OOZE, abundant large coccoliths with 2-20% foraminifers, white, severely disturbed by drilling with biscuits of firm chalk. Minor lithology: Chert, large flakes up to 5 mm thick and 50 to 75 mm wide, gray, conchoidally fractured. SMEAR SLIDE SUMMARY (%): 1, 110 D; 2, 69 D TEXTURE: Sand 2 20 Silt 98 80 COMPOSITION: Foraminifers 2 20 Glass Tr – Nannofossils 90 75 Opaques – – Pellets 8 5 Siliceous sponge spicules Tr –