SITE 736 HOLE A CORE 1H CORED INTERVAL 639.5-648.5 mbsl; 0-9.0 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATES	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
QUATERNARY	F/G	R/G	F/G	A/G	B	O	●w=61.9% γ=1.32	●%CaCO3=0.9	6				◇	*
									5				◇	*
													◇	IW
							●w=63.9% γ=1.33	●%CaCO3=4.0 TOC=0.62%	4				◇	*
									3					
									2					*
							●W=79.6% γ=1.11							P
									1	1.0		O		*
										0.5		O		*
												O		
									CC				◇	*

LITHOLOGIC DESCRIPTION

DIATOM OOZE

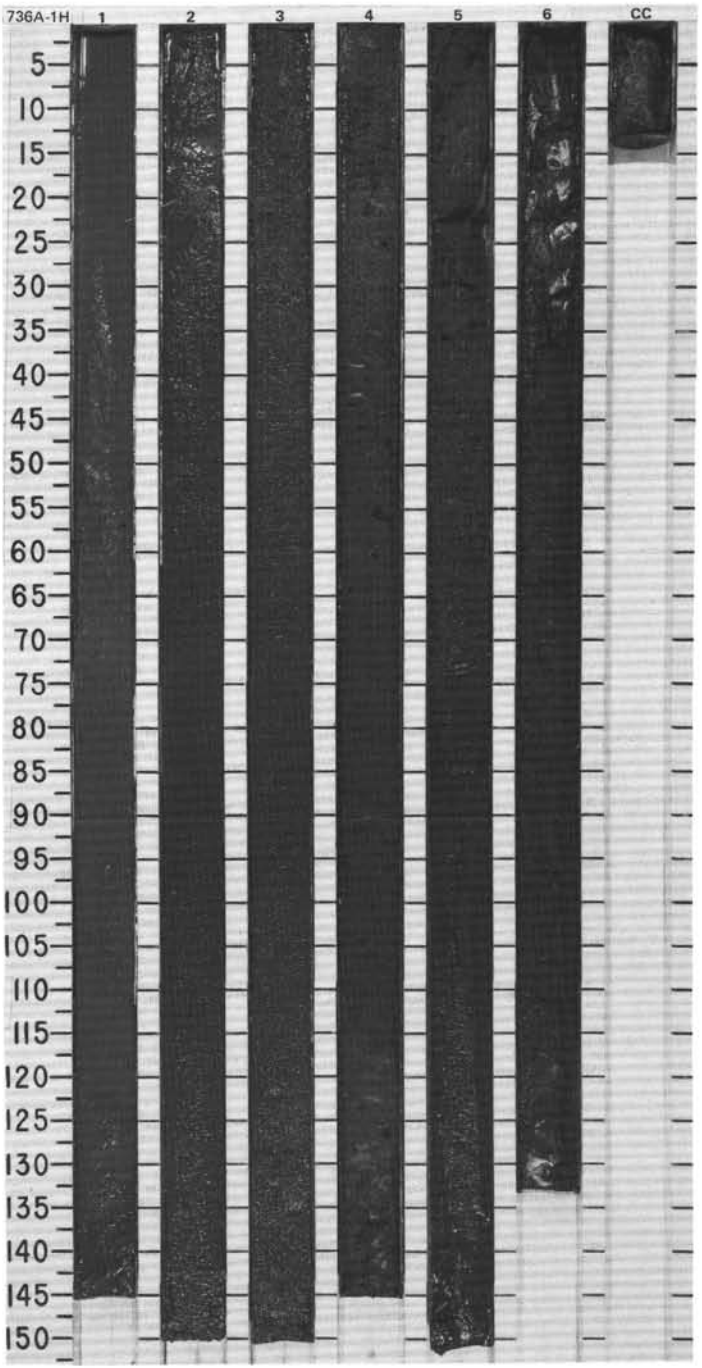
Major lithology: Diatom ooze. Sections 1, 2, 3, 4 (0-35 cm) olive (5Y 4/4 to 5Y 5/4), homogeneous. Sections 4 (35-150 cm), 5, 6, CC gradually darkening downwards from olive (5Y 4/4) to dark olive gray (5Y 4/3 to 5Y 3/2), some burrows in Section 4, dispersed pebbles (L; including basaltic and firm clay clasts). Section 4 contains small sand pockets of 1 cm diameter between 110 and 150 cm.

Core catcher (0-12 cm) coarse fraction: dark olive gray (5Y 3/2), angular grains of quartz, volcanic glass, basaltic rock and sandstone fragments.

Drilling disturbance: soft sediment with water cover in Section 1 (0-145 cm); core otherwise undisturbed.

SMEAR SLIDE SUMMARY (%):

	1, 99 D	1, 112 D	2, 98 D	4, 90 D	4, 145 D	5, 25 D	CC D
TEXTURE:							
Sand	10	7	10	10	5	10	—
Silt	80	88	80	85	80	85	80
Clay	10	5	10	5	15	5	20
COMPOSITION:							
Access. Minerals	Tr	2	—	Tr	Tr	—	—
Clay	10	—	10	—	2	—	10
Diatoms	85	83	80	90	90	90	80
Feldspar	—	7	—	2	—	—	—
Foraminifers	5	—	10	—	—	8	—
Glass	—	1	—	—	2	2	—
Nannofossils	—	—	—	5	—	—	—
Pumice	—	7	—	—	—	—	—
Quartz	—	—	—	3	2	—	2
Rock Fragment	—	—	—	—	2	—	—
Silicoflagellates	—	—	—	—	—	Tr	—
Spicules	—	—	Tr	—	2	Tr	5



Information on Core Description Forms, for ALL sites, represents field notes taken aboard ship. Some of this information has been refined in accord with post-cruise findings, but production schedules prohibit definitive correlation of these forms with subsequent findings. Thus the reader should be alerted to the occasional ambiguity or discrepancy.

SITE 736 HOLE A CORE 2H CORED INTERVAL 9.0-18.5 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATES	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
QUATERNARY	C/G	B	C/G	A/G			● w=78.4% γ=1.08	● %CaCO₃=3.6	1 2 3 4 CC	0.5 1.0	VOID			

LITHOLOGIC DESCRIPTION

Neogloboquadrina pachyderma interval

Antarctissa denticulata interval

Thalassiosira lentiginosa Zone

Spiniferites scabratus

DIATOM OOZE with VOLCANIC DETRITUS and DIATOM OOZE

Major lithologies:
a. Diatom ooze with volcanic detritus, olive-gray (5Y 3/2) with minor disseminated volcanic sand and silt and scattered subangular volcanic (basaltic) granules and pebbles.
b. Diatom ooze, olive (5Y 5/4), clayey-silt textured, homogeneous.

Post depositional disturbance in form of 4 cm wide irregular sub-vertical patches of the olive-gray (5Y 3/2) diatom ooze with volcanic detritus set in pure olive (5Y 5/4) ooze. Patch boundaries are sharp but cusped. This is not drilling disturbance or burrowing.

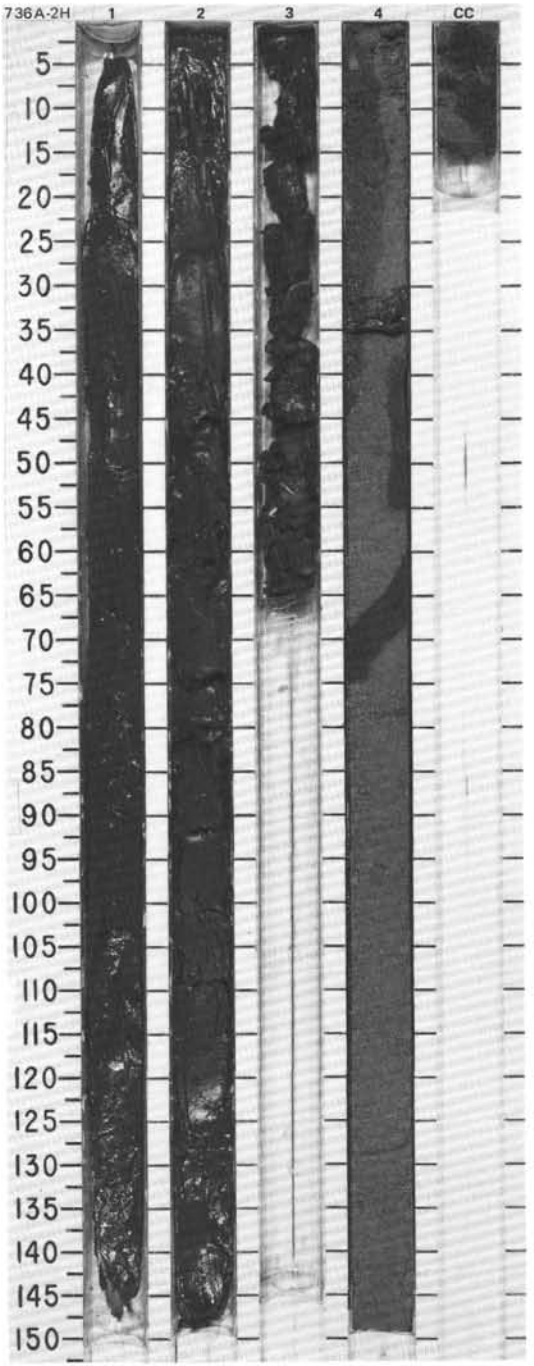
Drilling disturbance: deformation at top of core.

SMEAR SLIDE SUMMARY (%):

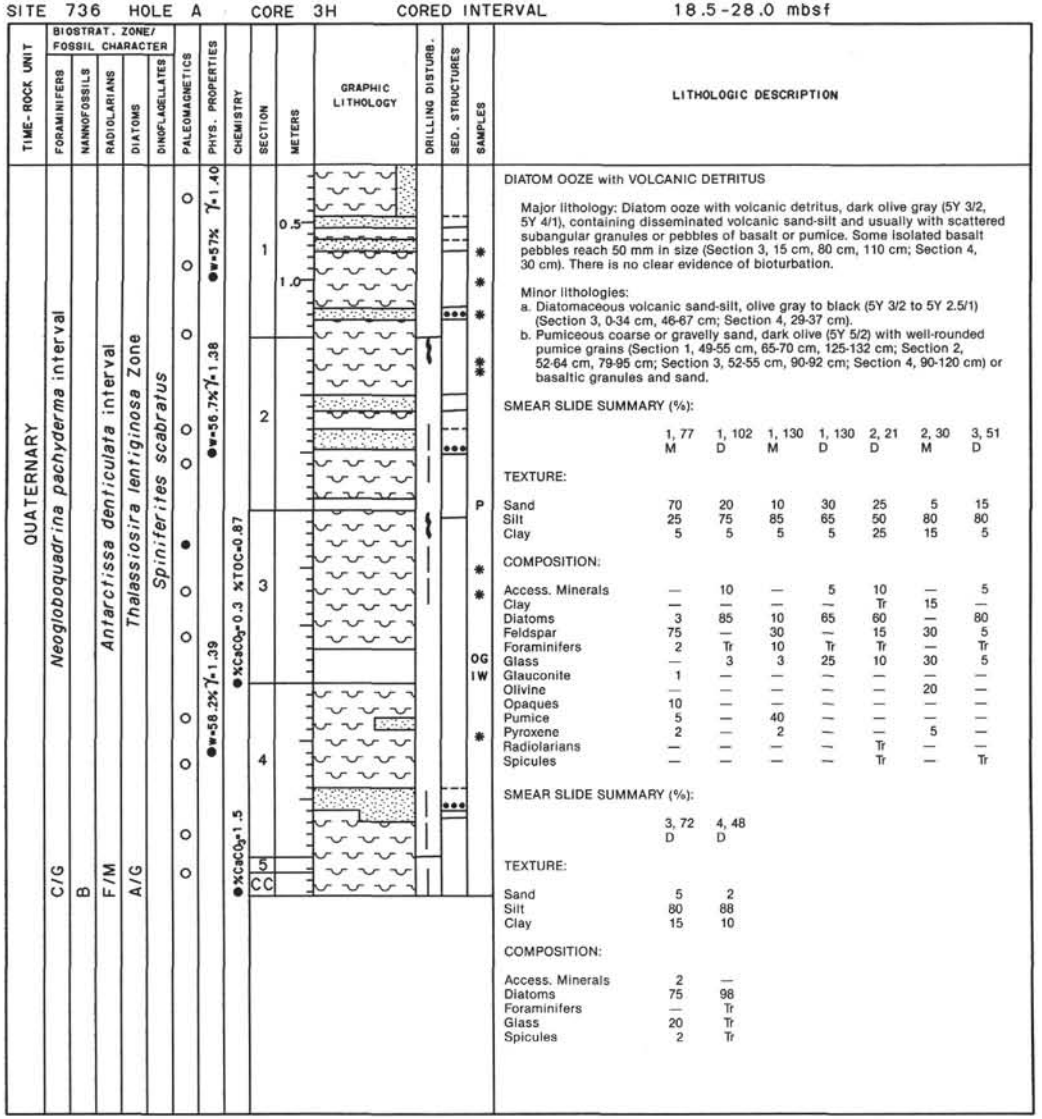
	1, 18 D	1, 40 D	1, 97 D	2, 30 D	2, 120 D	3, 40 D
TEXTURE:						
Sand	1	5	5	8	5	10
Silt	80	75	80	87	90	80
Clay	19	20	15	5	5	10
COMPOSITION:						
Access. Minerals	Tr	—	—	Tr	Tr	Tr
Clay	—	4	10	—	8	10
Diatoms	90	95	85	92	90	85
Feldspar	6	—	—	—	—	—
Foraminifers	—	—	2	2	—	—
Glass	—	Tr	—	Tr	—	—
Nannofossils	—	—	—	—	—	—
Pyrite	—	Tr	—	—	—	—
Pyroxene	—	—	—	1	—	—
Quartz	Tr	—	2	1	—	—
Silicoflagellates	—	—	—	—	—	—
Spicules	Tr	1	—	—	—	—

SMEAR SLIDE SUMMARY (%):

	4, 32 D	4, 91 D	4, 129 D	CC, 4 D
TEXTURE:				
Sand	3	10	5	20
Silt	90	80	87	75
Clay	7	10	8	5
COMPOSITION:				
Access. Minerals	—	Tr	—	Tr
Clay	5	5	5	5
Diatoms	90	90	87	75
Foraminifers	5	—	5	1
Glass	—	—	—	15
Quartz	Tr	—	—	—
Radiolarians	—	1	—	Tr
Silicoflagellates	—	Tr	—	—



SITE 736 HOLE A CORE 3H CORED INTERVAL 18.5-28.0 mbsf



LITHOLOGIC DESCRIPTION

DIATOM OOZE with VOLCANIC DETRITUS

Major lithology: Diatom ooze with volcanic detritus, dark olive gray (5Y 3/2, 5Y 4/1), containing disseminated volcanic sand-silt and usually with scattered subangular granules or pebbles of basalt or pumice. Some isolated basalt pebbles reach 50 mm in size (Section 3, 15 cm, 80 cm, 110 cm; Section 4, 30 cm). There is no clear evidence of bioturbation.

Minor lithologies:

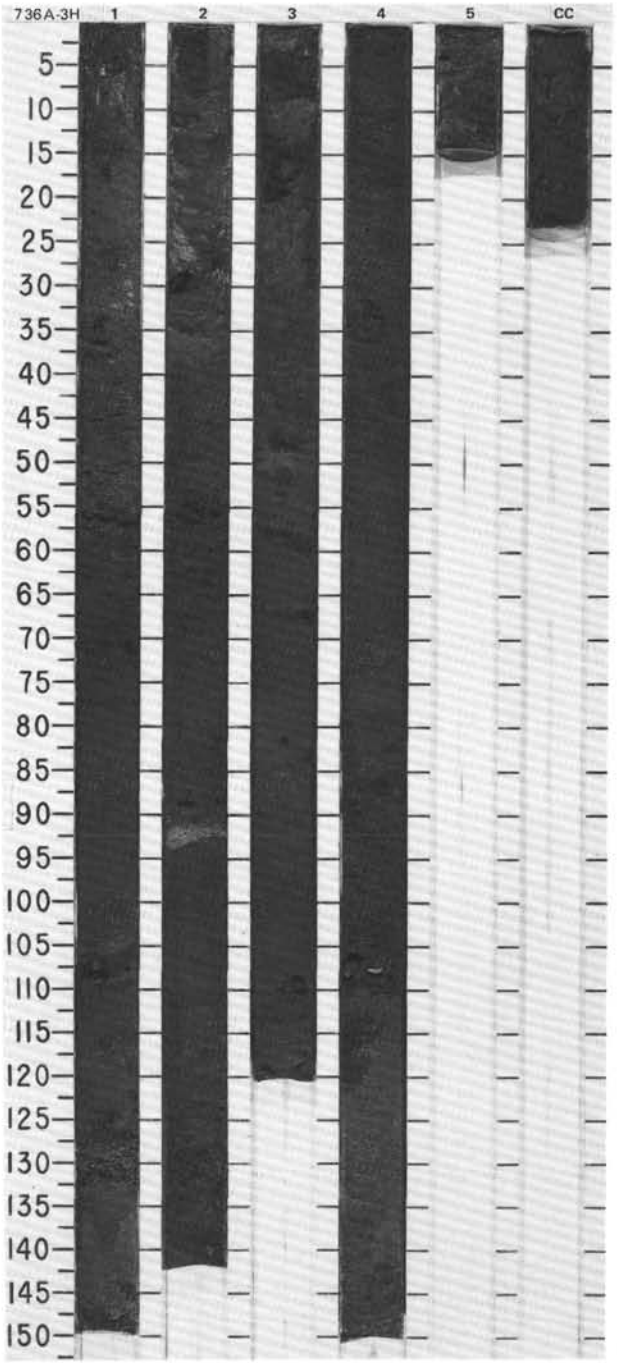
a. Diatomaceous volcanic sand-silt, olive gray to black (5Y 3/2 to 5Y 2.5/1) (Section 3, 0-34 cm, 46-67 cm; Section 4, 29-37 cm).
b. Pumiceous coarse or gravelly sand, dark olive (5Y 5/2) with well-rounded pumice grains (Section 1, 49-55 cm, 65-70 cm, 125-132 cm; Section 2, 52-64 cm, 79-95 cm; Section 3, 52-55 cm, 90-92 cm; Section 4, 90-120 cm) or basaltic granules and sand.

SMEAR SLIDE SUMMARY (%):

	1, 77 M	1, 102 D	1, 130 M	1, 130 D	2, 21 D	2, 30 M	3, 51 D
TEXTURE:							
Sand	70	20	10	30	25	5	15
Silt	25	75	85	65	50	80	80
Clay	5	5	5	5	25	15	5
COMPOSITION:							
Access. Minerals	—	10	—	5	10	—	5
Clay	—	—	—	—	Tr	15	—
Diatoms	3	85	10	65	60	—	80
Feldspar	75	—	30	—	15	30	5
Foraminifers	2	Tr	10	Tr	Tr	—	Tr
Glass	—	3	3	25	10	30	5
Glauconite	1	—	—	—	—	—	—
Olivine	—	—	—	—	—	20	—
Opaques	10	—	—	—	—	—	—
Pumice	5	—	40	—	—	—	—
Pyroxene	2	—	2	—	—	5	—
Radiolarians	—	—	—	—	Tr	—	—
Spicules	—	—	—	—	Tr	—	Tr

SMEAR SLIDE SUMMARY (%):

	3, 72 D	4, 48 D
TEXTURE:		
Sand	5	2
Silt	80	88
Clay	15	10
COMPOSITION:		
Access. Minerals	2	—
Diatoms	75	98
Foraminifers	—	Tr
Glass	20	Tr
Spicules	2	Tr



SITE 736 HOLE A CORE 4H CORED INTERVAL 28.0-33.0 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATES	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
QUATERNARY	*Neogloboquadrina pachyderma* interval		*Antarctissa denticulata* interval	*Thalassiosira lentiginosa* Zone	*Spiniferites scabratus*		●w=58.5%, γ=1.35 ●w=61.2%, γ=1.37 ●w=76.4%, γ=1.22	●%CaCO₃=0.3	1 2 3 4 CC	0.5 1.0				* * * ** * *

LITHOLOGIC DESCRIPTION

DIATOM OOZE with VOLCANIC DETRITUS

Major lithology: Diatom ooze with volcanic detritus, dark olive gray to olive (5Y 3/2 to 5Y 4/3), sandy-bearing clayey-silt texture with scattered subangular to rounded volcanic (basaltic) silt, sand, granules and pebbles. Isolated basaltic pebbles up to 5cm in size, subangular to subrounded (Section 1, 75-80 cm).

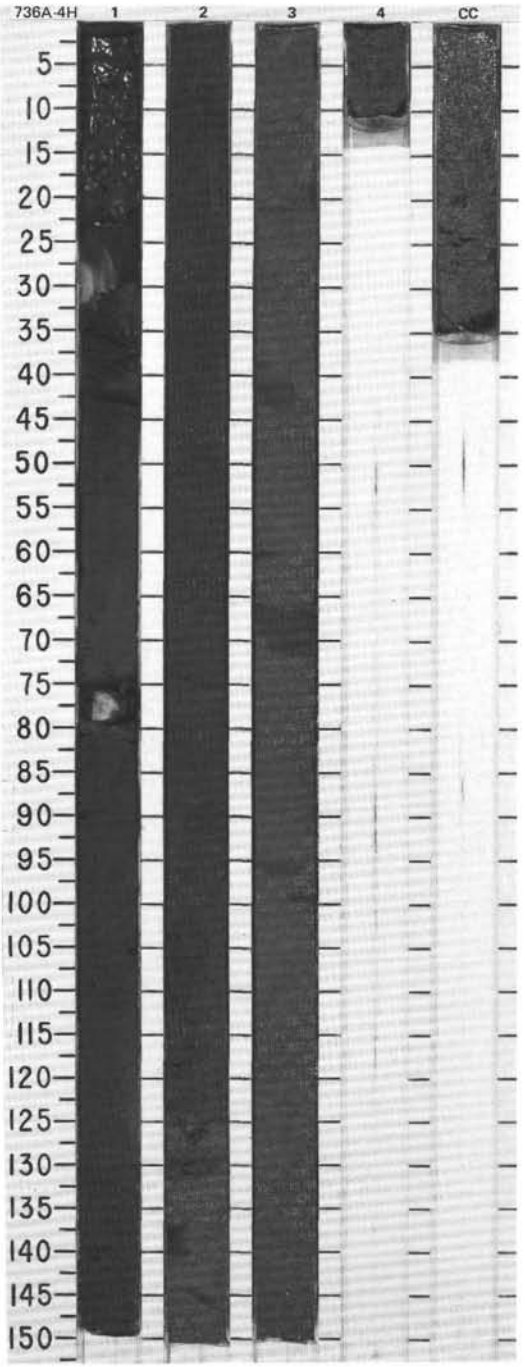
Minor lithology:
Diatomaceous volcanic sand with foraminifer (Section 2, 75 cm).

SMEAR SLIDE SUMMARY (%):

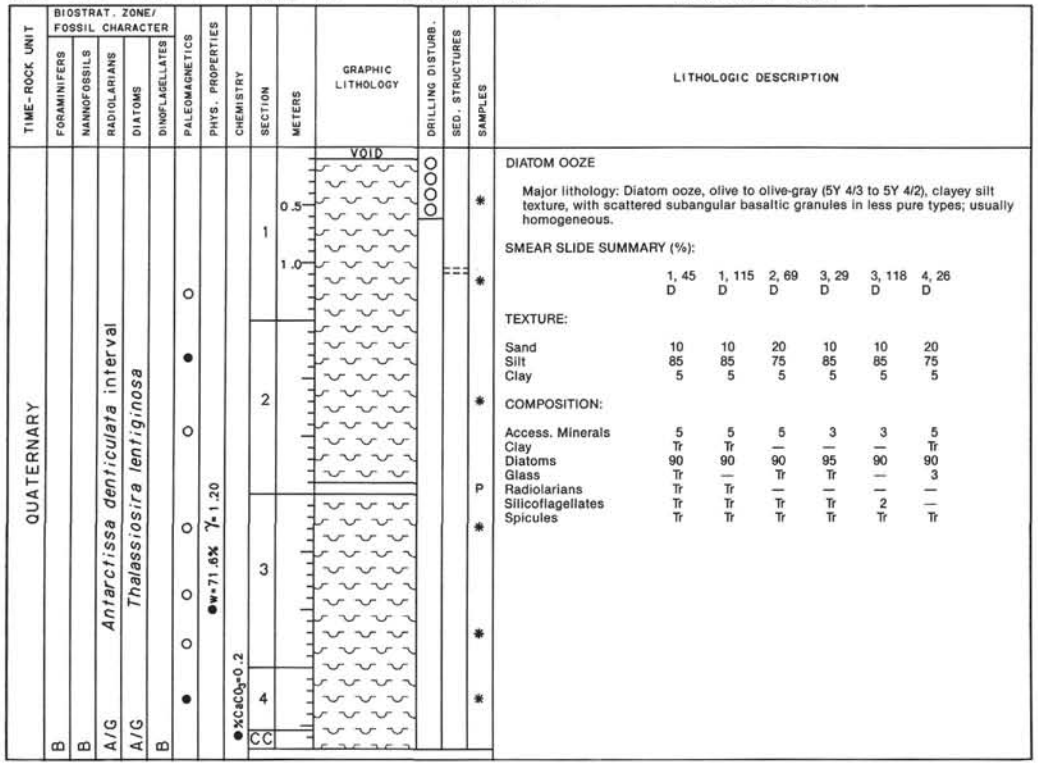
	1, 17 D	1, 109 D	2, 41 D	2, 74 M	2, 122 D
TEXTURE:					
Sand	15	2	25	15	2
Silt	80	88	70	80	80
Clay	5	10	5	5	17
COMPOSITION:					
Access. Minerals	10	—	2	5	Tr
Clay	Tr	—	Tr	Tr	2
Diatoms	85	95	95	90	85
Feldspar	—	—	—	—	5
Glass	Tr	Tr	2	3	5
Radiolarians	—	—	—	Tr	—
Silicoflagellates	—	4	Tr	—	Tr
Spicules	Tr	1	Tr	Tr	—

SMEAR SLIDE SUMMARY (%):

	2, 126 D	2, 135 D	3, 30 D	3, 121 D	CC, 12 D
TEXTURE:					
Sand	1	10	2	2	7
Silt	89	85	88	87	88
Clay	10	5	10	11	5
COMPOSITION:					
Access. Minerals	—	5	Tr	—	Tr
Diatoms	95	90	95	96	97
Glass	Tr	Tr	—	Tr	Tr
Silicoflagellates	1	Tr	2	2	1
Spicules	Tr	Tr	1	1	1



SITE 736 HOLE A CORE 5H CORED INTERVAL 33.0-38.0 mbsf



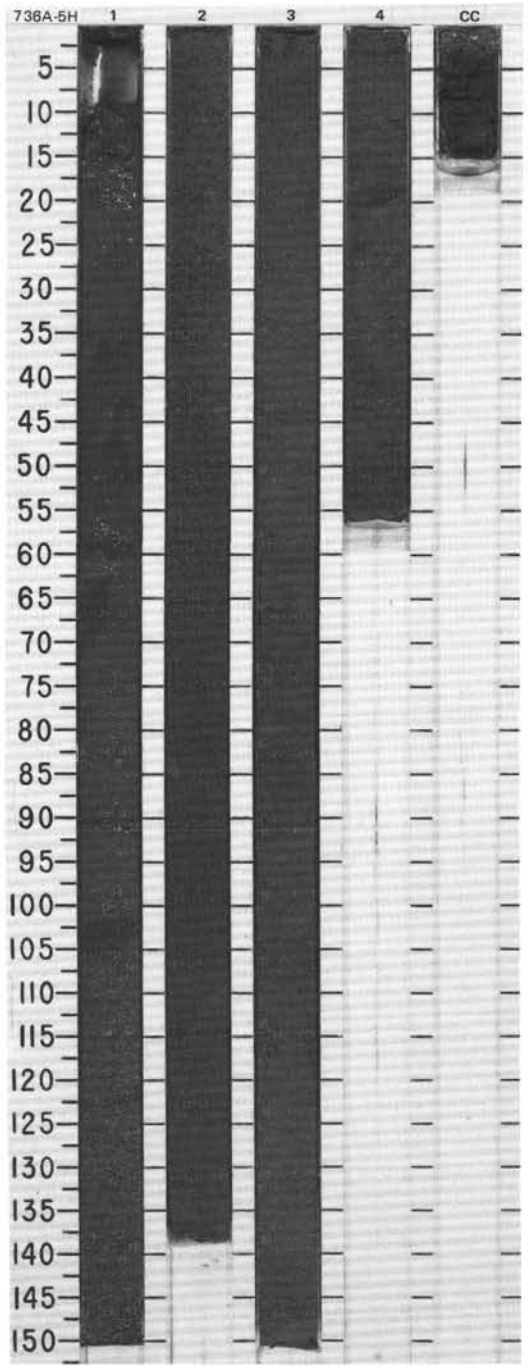
LITHOLOGIC DESCRIPTION

DIATOM OOZE

Major lithology: Diatom ooze, olive to olive-gray (5Y 4/3 to 5Y 4/2), clayey silt texture, with scattered subangular basaltic granules in less pure types; usually homogeneous.

SMEAR SLIDE SUMMARY (%):

	1, 45 D	1, 115 D	2, 69 D	3, 29 D	3, 118 D	4, 26 D
TEXTURE:						
Sand	10	10	20	10	10	20
Silt	85	85	75	85	85	75
Clay	5	5	5	5	5	5
COMPOSITION:						
Access. Minerals	5	5	5	3	3	5
Clay	Tr	Tr	—	—	—	Tr
Diatoms	90	90	90	95	90	90
Glass	Tr	—	Tr	Tr	—	3
Radiolarians	Tr	Tr	—	—	—	—
Silicoflagellates	Tr	Tr	Tr	Tr	2	—
Spicules	Tr	Tr	Tr	Tr	Tr	Tr



SITE 736 HOLE A CORE 6H CORED INTERVAL 38.0-43.0 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATES	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
QUATERNARY	C/G *Neogloboquadrina pachyderma* interval	B		A/G *Thalassiosira lentiginosa* *Spiniferites scabratus*			●w=75.4% γ=1.20	●%CaCO₃=1.0 ●%CaCO₃=1.2 %TOC=0.82	1 2 3 CC	0.5 1.0				TS TS TS * * OG IW

LITHOLOGIC DESCRIPTION

DIATOM OOZE, PUMICEOUS GRAVEL and VOLCANIC GRAVEL and SAND

Major lithology: Diatom ooze, olive to olive-gray (5Y 4/3 to 5Y 5/2), sandy clayey-silt in texture, with up to 15% volcanic sand and silt in darker, less pure types (Section 2, 65 cm).

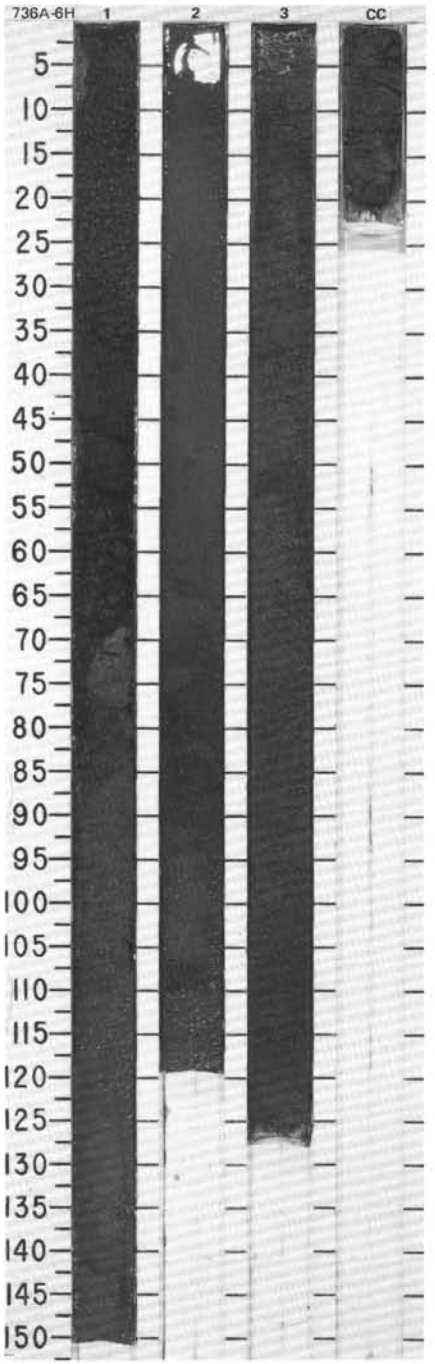
Minor lithologies:
a. Pumice gravel, pale gray (5Y 5/2). Clasts well-rounded, composed of white, fibrous pumice (Section 1, 0-33 cm).
b. Volcanic gravel and sand (Section 1, 38-75 cm), black to gray-black (5Y 2.5/1), well-sorted when coarse, subangular to sub-rounded basaltic and other igneous material, up to 2.5 cm in size, occasional clasts to 5 cm (Section 1, 50 cm).

Mottling exists between diatom oozes of different purities (Section 3, 10-70 cm).

No clear bioturbation.

SMEAR SLIDE SUMMARY (%):

	1, 141 D	2, 64 D
TEXTURE:		
Sand	2	10
Silt	80	80
Clay	18	10
COMPOSITION:		
Amphibole	—	Tr
Diatoms	95	86
Foraminifers	3	—
Glass	2	2
Quartz	—	5
Silicoflagellates	Tr	2
Spicules	—	Tr



SITE 736 HOLE A CORE 7H CORED INTERVAL 43.0-48.0 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATES	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
QUATERNARY	A/G *Neogloboquadrina pachyderma* interval	B	A/G *Antarctissa denticulata* interval	A/G *Thalassiosira lentiginosa*	B	●	●	●x=70.9% ?=1.20	●x=66.2% ?=1.25	●xCaCO3=10.6	1 2 3 4 CC	0.5 1.0				

LITHOLOGIC DESCRIPTION

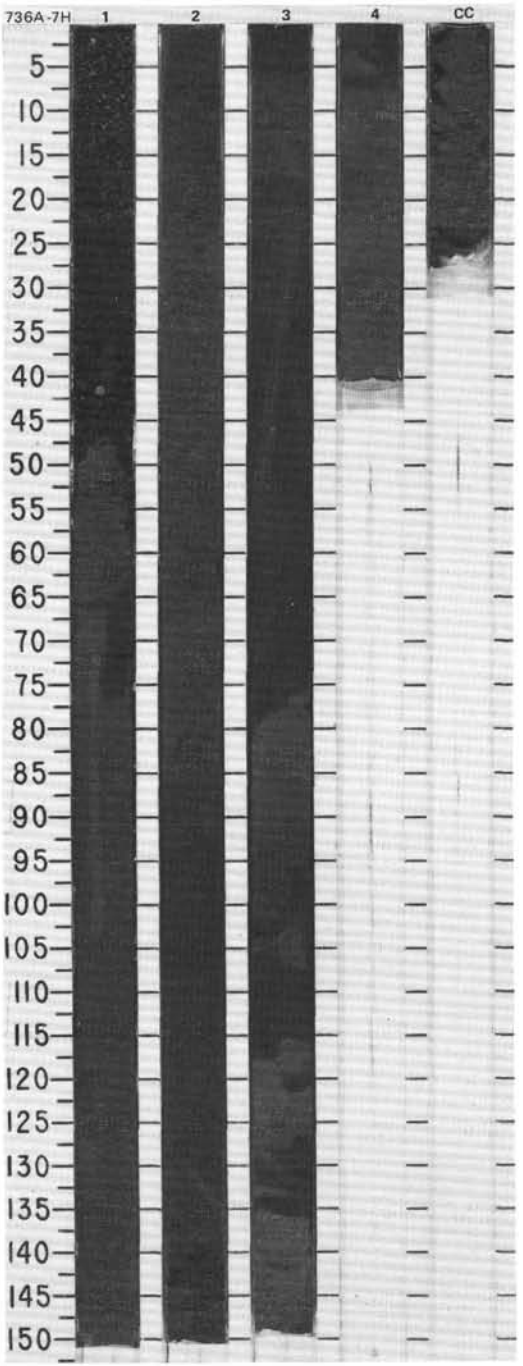
DIATOM OOZE with VOLCANIC DETRITUS, PUMICEOUS GRAVEL and VOLCANIC GRAVEL

Major lithology: Diatom ooze with volcanic detritus, olive to very dark gray (5Y 4/3 to 5Y 3/1), usually clayey silt, but in more volcanic rich types with scattered pumice or basaltic granules (Section 3, 20-75 cm).

Minor lithologies:
a. Pumice gravel, gray (5Y 5/2), well-sorted, composed of well-rounded fibrous pumice granules and pebbles. Lower sections in part have a component of *coarse black volcanic sand (Section 1, 0-23 cm).*
b. Volcanic gravel and sand, black to very dark gray (5Y 2.5/1 to 5Y 3/1), well sorted. In the coarse gravels, clasts consist of subangular to subrounded basaltic material. Sands contain basaltic grains, glass, pumice and feldspar (Section 1, 18-21 cm; Section 2, 139-150 cm; Section 3, 19 cm; Section 4, 35-36 cm).

Large shallow-water benthic foraminifers (including Pyrgo) occur in the pumice gravel of Section 1 (1-22 cm).

Mottling occurs in the diatom ooze (Section 1, 65-75 cm; Section 2, 7-9 cm; Section 3, 96-141 cm; Section 4, 0-40 cm).



SITE 736 HOLE A CORE 8H CORED INTERVAL 48.0-53.0 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: F/G — *Neogloboquadrina pachyderma* interval
- NANNOFOSSILS: B
- RADIOLARIANS: A/G — *Antarctissa denticulata* interval
- DIATOMS: A/G — *Coscinodiscus elliptopora/Actinocyclus ingens*
- DINOFLAGELLATES: B

PALEOMAGNETICS: O O O O O
PHYS. PROPERTIES: ●w=49.7% γ=1.51 ●w=40.8% γ=1.71 ●w=70.8% γ=1.22
CHEMISTRY: ●XCaCO3=0.3
SECTION: 1 2 3 4 CC
METERS: 0.5 1.0
GRAPHIC LITHOLOGY
DRILLING DISTURB.
SED. STRUCTURES: O
SAMPLES: P

LITHOLOGIC DESCRIPTION

DIATOM OOZE with VOLCANIC DETRITUS

Major lithology: Diatom ooze with volcanic detritus, dark olive gray (5Y 3/2 to 5Y 4/2), clayey silt in texture, becoming sandy or incorporating granules as volcanic content increases. No clear bioturbation.

Minor lithology:
Volcanic sand and gravel, black (5Y 2.5/1), of basaltic granules and pebbles, subangular to sub-rounded (Section 2, 88-105 cm) or sandy (Section 3, 66-75 cm, 110-115 cm).

Mottling between purer and volcanic-bearing diatom oozes at some levels (Section 1, 60-150 cm; Section 2, 0-10 cm, 73-88 cm, CC).

Drilling disturbance: The gravel in Section 1 (0-47 cm) is interpreted as drillhole cave-in derived from stratigraphically higher levels. Size-graded pebbles and coarse sand contain slugs consist of basaltic gravel and sand with diatom ooze matrix.

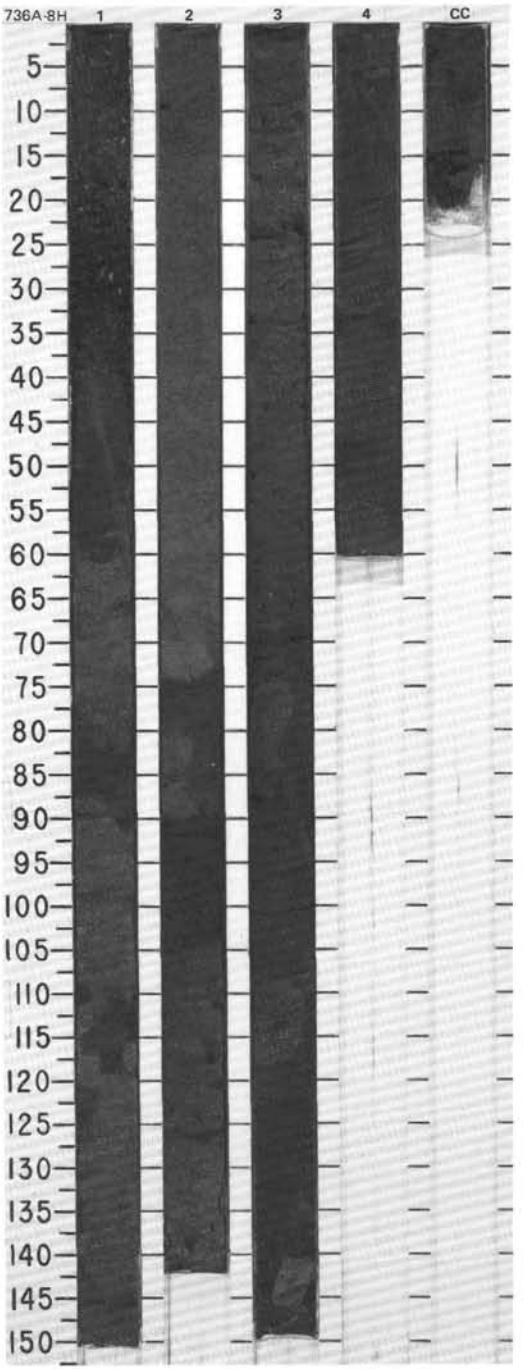
SMEAR SLIDE SUMMARY (%):

	1, 70 D	1, 110 D	1, 140 D	1, 145 D	1, 145 M	2, 40 D	2, 66 M
TEXTURE:							
Sand	15	50	8	3	5	15	20
Silt	80	50	86	87	85	80	70
Clay	5	—	4	10	10	5	10
COMPOSITION:							
Access. Minerals	5	—	5	—	—	5	—
Clay	—	—	—	—	10	—	—
Diatoms	85	43	80	75	25	85	15
Feldspar	—	28	5	10	25	—	15
Foraminifers	—	Tr	—	3	—	—	55
Glass	Tr	10	Tr	—	30	Tr	15
Glauconite	—	4	1	2	3	—	—
Palagonite	—	7	—	—	—	—	—
Pumice	—	5	—	5	—	—	—
Pyroxene	—	—	—	1	4	—	—
Quartz	Tr	—	—	—	—	—	—
Radiolarians	Tr	—	1	—	Tr	Tr	—
Silicoflagellates	5	—	7	—	Tr	5	—
Spicules	Tr	—	—	—	Tr	Tr	—
Zeolite	Tr	—	—	—	—	—	—

SMEAR SLIDE SUMMARY (%):

	2, 130 D	2, 136 M	3, 15 D	3, 30 D	3, 116 D	3, 121 D
TEXTURE:						
Sand	5	0	4	2	1	2
Silt	90	85	88	90	87	80
Clay	5	15	8	8	12	18
COMPOSITION:						
Access. Minerals	10	—	Tr	—	—	—
Altered Grains	—	5	—	—	—	—
Clay	—	15	—	—	—	—
Diatoms	70	20	90	88	80	65
Feldspar	—	35	—	—	10	20
Foraminifers	3	5	—	—	5	5
Glass	15	—	5	7	Tr	1
Glauconite	—	3	—	—	Tr	1
Opaques	—	—	—	1	—	—
Palagonite	—	—	—	—	Tr	1
Pumice	—	—	—	—	1	2
Pyroxene	—	15	—	—	3	2
Quartz	—	—	2	3	—	—
Radiolarians	Tr	—	—	—	—	—
Silicoflagellates	—	—	1	Tr	—	—
Spicules	Tr	—	1	Tr	—	—

(cont.)



SITE 736 HOLE A CORE 8H CORED INTERVAL 48.0-53.0 mbsf

cont.

SMEAR SLIDE SUMMARY (%):

	4, 15 D	4, 24 D	4, 40 D
TEXTURE:			
Sand	3	3	2
Silt	90	88	90
Clay	7	9	8
COMPOSITION:			
Diatoms	90	88	92
Glass	5	5	3
Opaques	Tr	1	Tr
Quartz	2	2	1
Silicoflagellates	Tr	Tr	Tr
Spicules	Tr	Tr	Tr

SITE 736 HOLE A CORE 9H CORED INTERVAL 53.0-59.0 mbsf

QUATERNARY

F/G *Neogloboquadrina pachyderma* interval

R/M

A/G *Antarctissa denticulata* interval

A/G *Coscinodiscus elliptopora/Actinocyclus ingens*

B

●%CaCO3=5.3

●%CaCO3=0.5 %TOC=1.43

●w=46.7% γ=1.49

●w=45.3% γ=1.55

DIATOM OOZE and MIXED DIATOM OOZE with GRAVEL, SAND AND SILT

Major lithologies:

a. Diatom ooze, olive gray (5Y 4/2 and 5Y 4/4), dark olive gray (5Y 3/2), very dark olive gray (5Y 3/1), black (5Y 2.5/1), homogeneous but sometimes with soft sediment deformation, dispersed basaltic pebbles and grains of volcanic glass.

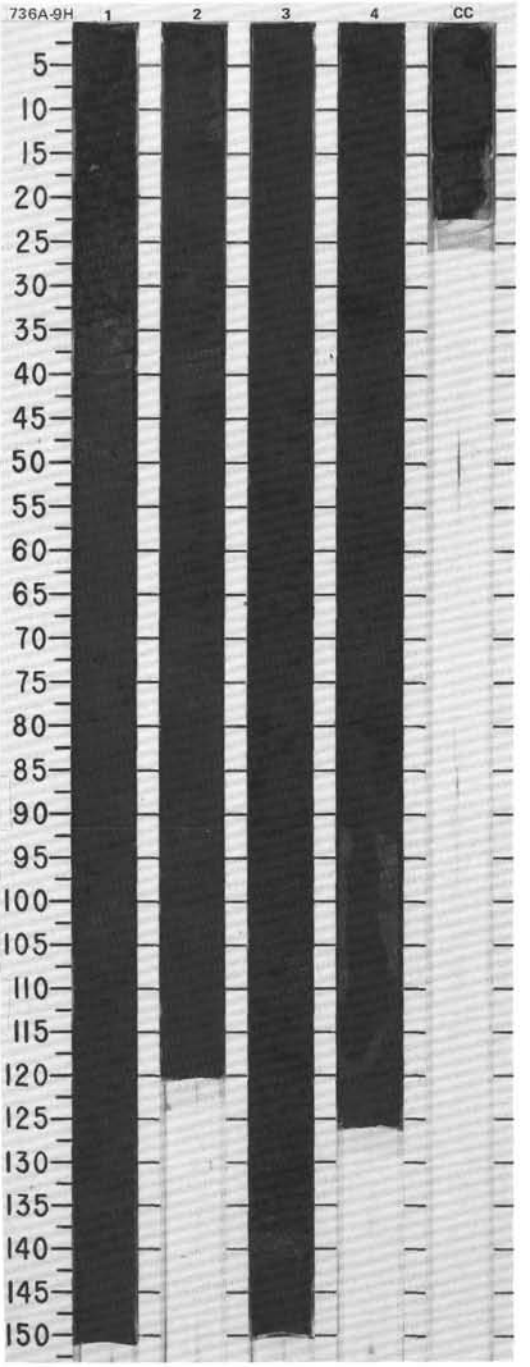
b. Mixed diatom ooze with basaltic gravel, sand and silt, mainly black (5Y 2.5/1). Minor amounts of reddish (**) sandstone clasts. Poorly sorted and structureless except for weak coarse-tail grading. Clasts are mainly subrounded to subangular, and up to pebble size.

Minor lithology:
Coarse sand of quartz and (?)feldspar. Dark gray (5Y 4/1), moderately well sorted (Section 3, 138-141 cm).

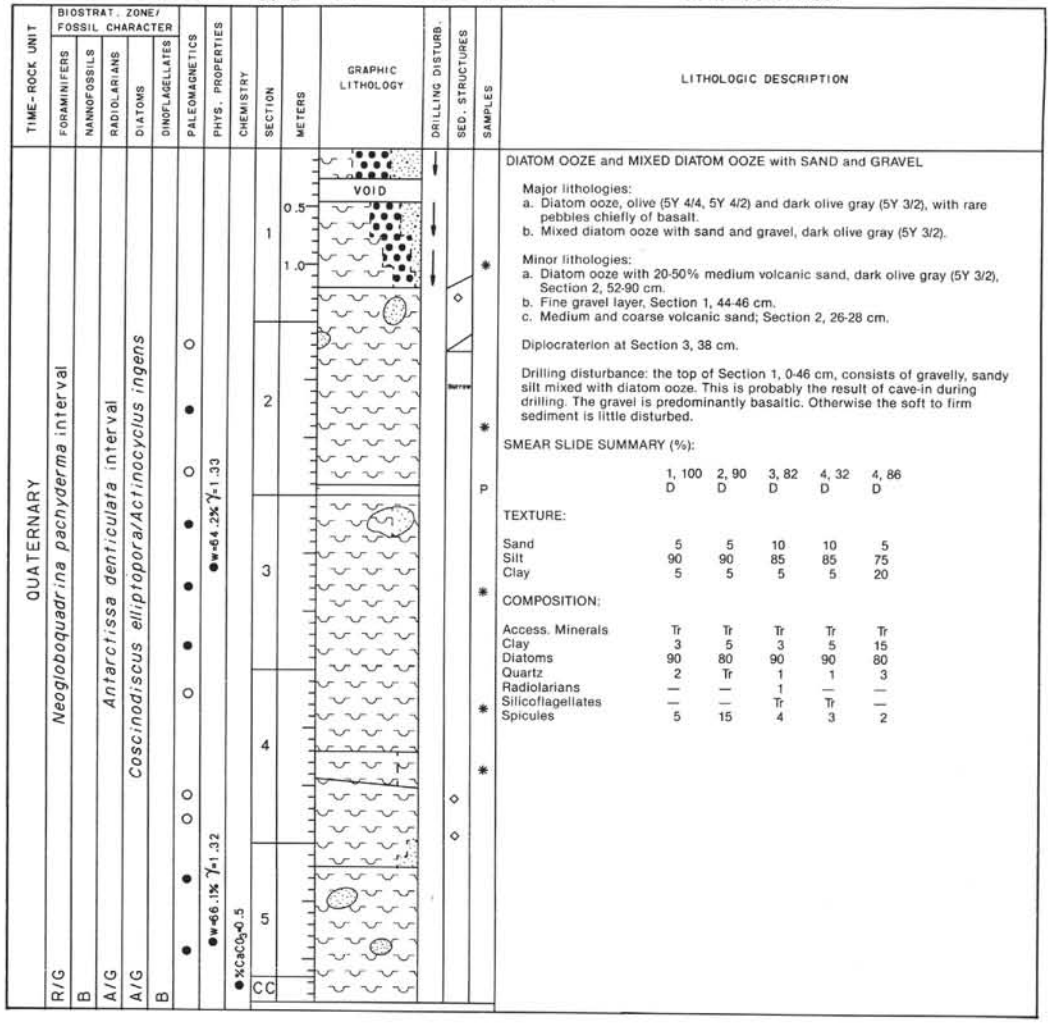
Drilling disturbance: it is probable that the gravel of Section 1, 0-52 cm, is a drillhole cave-in deposit. The core is otherwise little disturbed.

SMEAR SLIDE SUMMARY (%):

	1, 61 D	2, 20 D	2, 90 D	3, 65 D	3, 148 D	4, 96 M	4, 97 D
TEXTURE:							
Sand	10	15	10	10	10	10	10
Silt	80	75	80	80	80	80	80
Clay	10	10	10	10	10	10	10
COMPOSITION:							
Access. Minerals	1	1	Tr	1	2	—	Tr
Clay	20	10	10	10	10	5	4
Diatoms	75	85	88	65	65	90	90
Glass	—	—	—	4	5	—	Tr
Quartz	1	1	1	10	7	—	1
Spicules	2	2	1	10	10	5	5



SITE 736 HOLE A CORE 10H CORED INTERVAL 59.0-68.5 mbsf



DIATOM OOZE and MIXED DIATOM OOZE with SAND and GRAVEL

Major lithologies:
a. Diatom ooze, olive (5Y 4/4, 5Y 4/2) and dark olive gray (5Y 3/2), with rare pebbles chiefly of basalt.
b. Mixed diatom ooze with sand and gravel, dark olive gray (5Y 3/2).

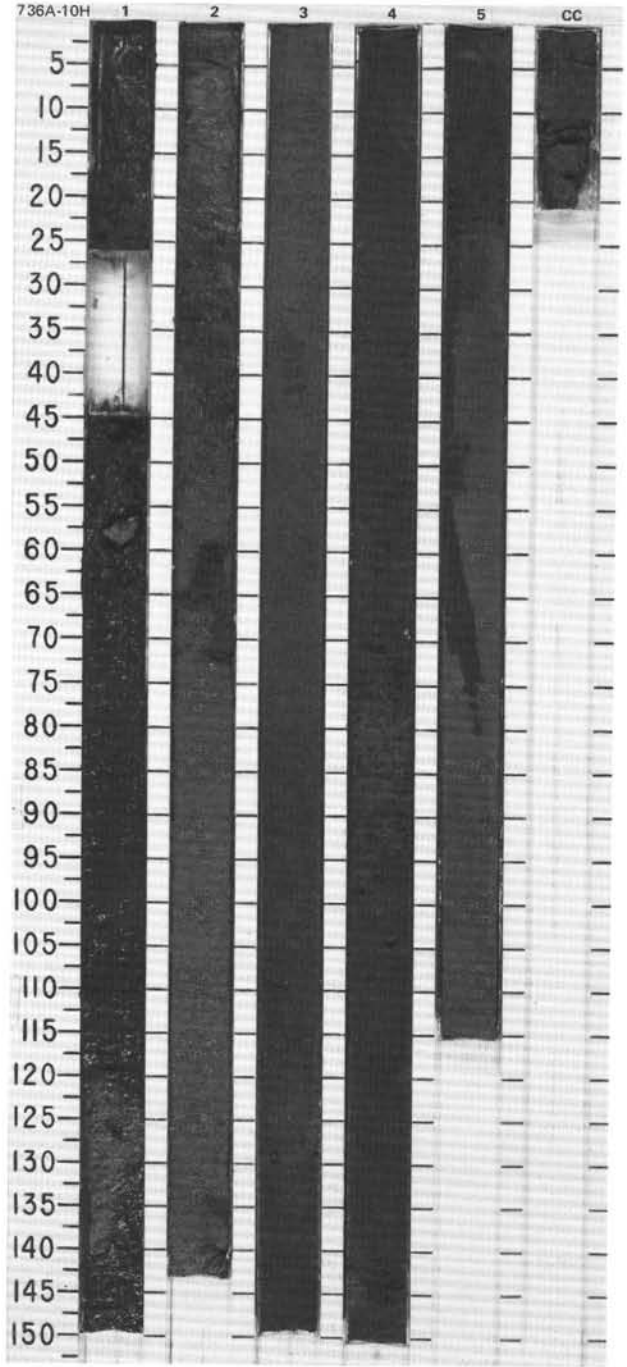
Minor lithologies:
a. Diatom ooze with 20-50% medium volcanic sand, dark olive gray (5Y 3/2), Section 2, 52-90 cm.
b. Fine gravel layer, Section 1, 44-46 cm.
c. Medium and coarse volcanic sand; Section 2, 26-28 cm.

Diplocraterion at Section 3, 38 cm.

Drilling disturbance: the top of Section 1, 0-46 cm, consists of gravelly, sandy silt mixed with diatom ooze. This is probably the result of cave-in during drilling. The gravel is predominantly basaltic. Otherwise the soft to firm sediment is little disturbed.

SMEAR SLIDE SUMMARY (%):

	1, 100 D	2, 90 D	3, 82 D	4, 32 D	4, 86 D
TEXTURE:					
Sand	5	5	10	10	5
Silt	90	90	85	85	75
Clay	5	5	5	5	20
COMPOSITION:					
Access. Minerals	Tr	Tr	Tr	Tr	Tr
Clay	3	5	3	5	15
Diatoms	90	80	90	90	80
Quartz	2	Tr	1	1	3
Radiolarians	—	—	1	—	—
Silicoflagellates	—	—	Tr	Tr	—
Spicules	5	15	4	3	2



SITE 736 HOLE A CORE 11H CORED INTERVAL 68.5-73.5 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATES	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
QUATERNARY	R/G	B	A/G	A/G	B	●		● %CaCO3=9.8	CC					
						●			3					
						●			2					
						●	●w=67.1% γ=1.32		1	1.0				
						O				0.5				
						O								
						●								
						O								
						●								

Neogloboquadrina pachyderma interval

Antarctissa denticulata interval

Coscinodiscus elliptopora/Actinocyclus ingens

LITHOLOGIC DESCRIPTION

DIATOM OOZE

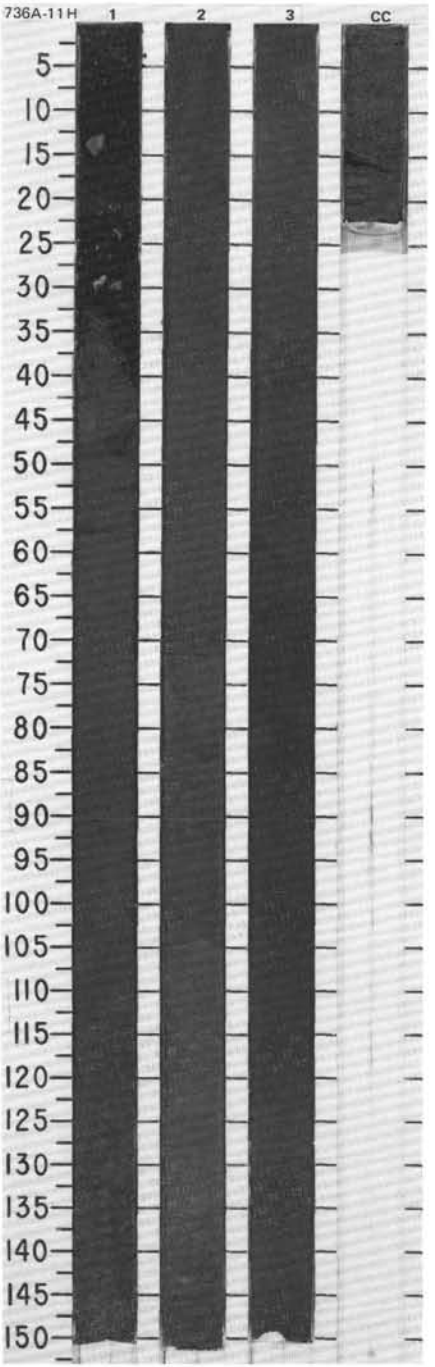
Major lithology: Diatom ooze, olive (5Y 4/3, 5Y 4/2). Slightly sandy; a few patches of gravel; non-stratified.

Minor lithology:
Diatom ooze with minor basaltic sand, dark olive (5Y 4/3), occurring as schlieren 5 mm thick in Section 1, 53 cm and 60 cm.

Drilling disturbance: the top of Section 1, 0-40 cm, is apparently cave-in material derived from above. The upper 5 cm comprises pumice mixed with basaltic sand; from 5-12 cm sand, medium coarse with 2 cm basalt pebble at 12 cm; from 12-40 cm sand and gravel, consisting of black (5Y 2.5/1) basaltic subrounded to subangular pebbles, angular sand and a few smears of diatom ooze.

SMEAR SLIDE SUMMARY (%):

	1, 75 D
TEXTURE:	
Sand	10
Silt	80
Clay	10
COMPOSITION:	
Clay	5
Diatoms	95
Silicoflagellates	Tr
Spicules	Tr



SITE 736 HOLE A CORE 12H CORED INTERVAL 73.5-79.5 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATES	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
QUATERNARY	B	B	A/G *Antarctissa denticulata* interval	A/G *Coscinodiscus elliptopora/Actinocyclus ingens*	B	O	●w=65.9% γ=1.37	●%CaCO3=5.0	1	0.5			◇	
						O				1.0			◇	
						O			2				◇	*
						O			3					*
						O			4					
						O			CC					

LITHOLOGIC DESCRIPTION

DIATOM OOZE

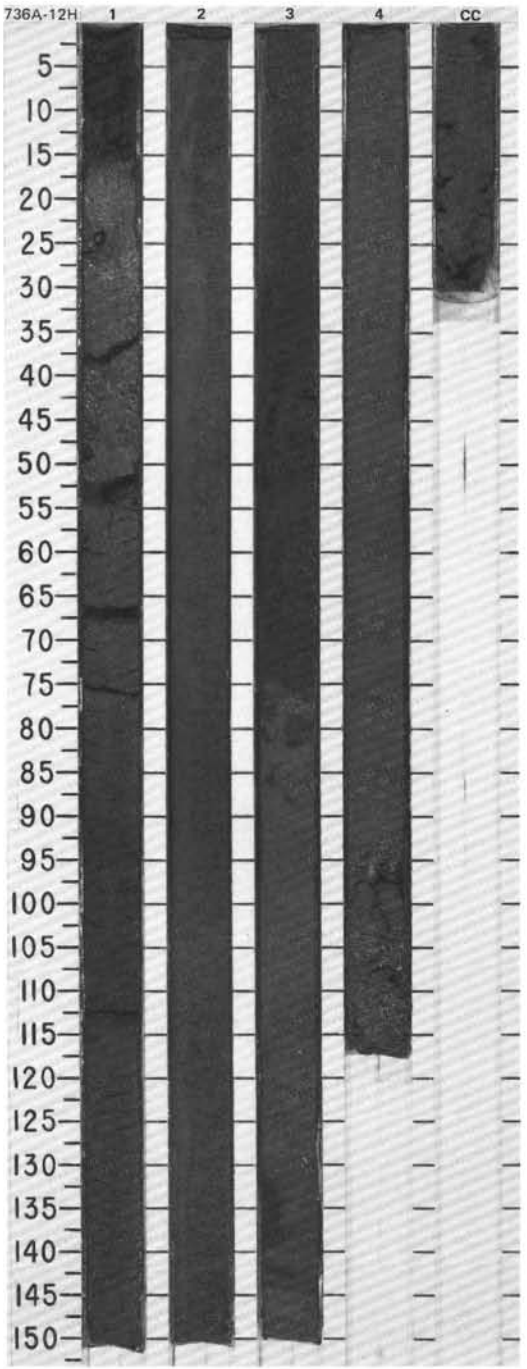
Major lithology: Diatom ooze, olive (5Y 4/4, 5Y 4/3) to dark olive gray (5Y 3/2). Homogeneous. Some volcanic pebbles 1-7 mm in diameter (a few striated, subangular and faceted near top of core).

Minor lithology:
Diatom ooze with 10-20% volcanic sand and pebble component, dark olive (5Y 3/2; Section 3, 20-70 cm).

Drilling disturbance: dark gray sand in upper part of core (Section 1, 0-15 cm) is probably cave-in material. Otherwise the soft to firm sediment is undeformed.

SMEAR SLIDE SUMMARY (%):

	2, 80 D	3, 34 D
TEXTURE:		
Sand	5	10
Silt	90	75
Clay	5	15
COMPOSITION:		
Access. Minerals	Tr	1
Clay	5	10
Diatoms	95	75
Feldspar	—	Tr
Quartz	—	5
Silicoflagellates	Tr	Tr
Spicules	Tr	1
Volcanic Ash	—	7



SITE 736 HOLE A CORE 13H CORED INTERVAL 79.5-89.0 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: C/G *Neogloboquadrina pachyderma* interval
- NANNOFOSSILS: B
- RADIOLARIANS: A/G *Antarctissa denticulata* interval
- DIATOMS: A/G *Coscinodiscus elliptopora/Actinocyclus ingens*
- DINOFLAGELLATES: B

PALEOMAGNETICS
PHYS. PROPERTIES: γ=1.56 w=47.6%; γ=1.24 w=72.7%
CHEMISTRY: %CaCO3=2.6; %CaCO3=2.7 %TOC=0.90
SECTION: 1, 2, 3, 4, 5, 6, 7
METERS: 0.5, 1.0
GRAPHIC LITHOLOGY
DRILLING DISTURB.
SED. STRUCTURES
SAMPLES: OC, IW

LITHOLOGIC DESCRIPTION

DIATOM OOZE

Major lithology: Diatom ooze, olive (5Y 4/3, 5Y 4/4; 5Y 3/2 and black 5Y 2.5/2 in Section 5), homogeneous, scattered pebbles of basalt (one of 3 cm diameter in a sandy patch of diatom in Section 1, 105-110 cm), some carbonate shells in Section 1 (?Serpularia), also carbonate fragments. Near base of core, in Section 4, 70-80 cm, are 2 cm-thick sandy streaks.

Drilling disturbance: black sand (5Y 2.5/2) and gravel, probably cave-in material, Section 1, 0-60 cm. Otherwise the firm sediment is unaltered by coring.

SMEAR SLIDE SUMMARY (%):

	2, 103 D	6, 9 D	6, 106 D
TEXTURE:			
Sand	5	5	5
Silt	90	70	90
Clay	5	25	5
COMPOSITION:			
Access. Minerals	Tr	Tr	Tr
Clay	5	25	5
Diatoms	95	73	93
Opaques	–	1	Tr
Quartz	Tr	1	1
Silicoflagellates	Tr	Tr	Tr
Spicules	Tr	Tr	Tr

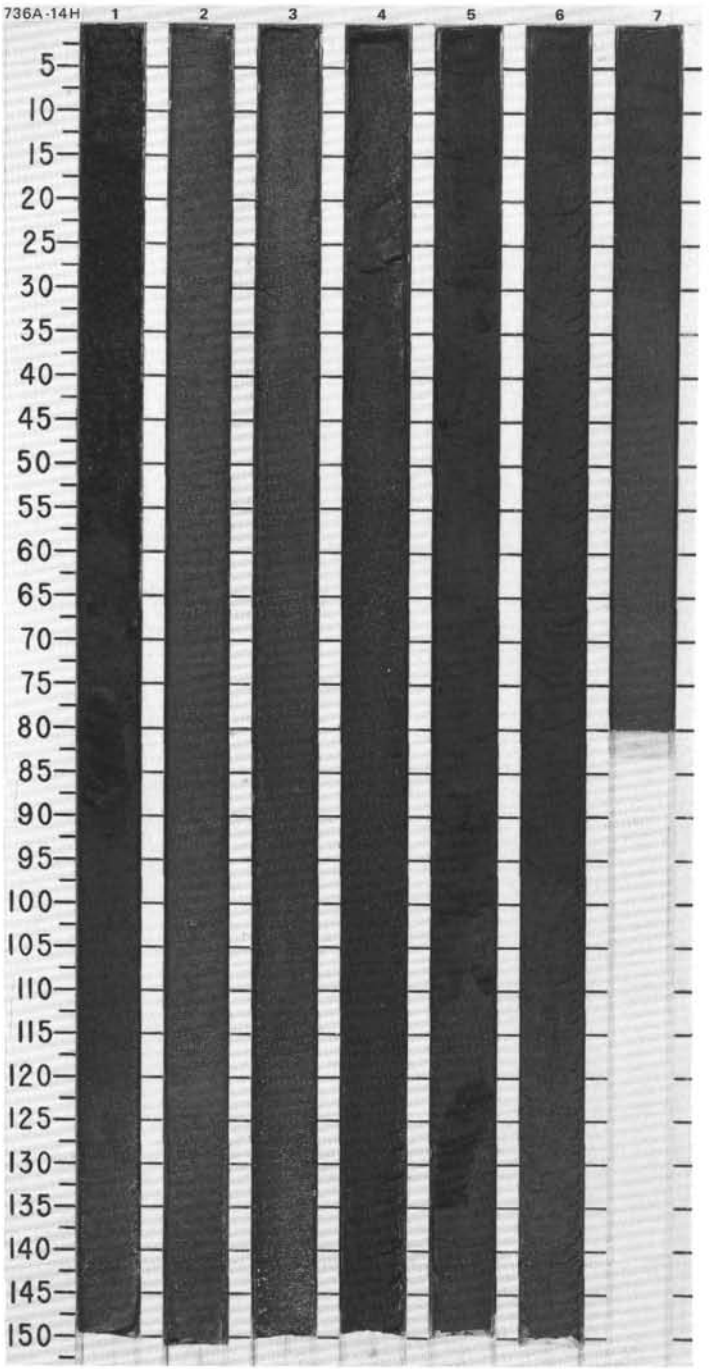
SITE 736 HOLE A CORE 14H CORED INTERVAL 89.0-98.5 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATES	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
QUATERNARY	A/G	B	A/G	A/G		O	ρ=1.26 w=68.8%		1	0.5 1.0			◇		DIATOM OOZE
	Neogloboquadrina pachyderma interval		*Antarctissa denticulata* interval	*Coscinodiscus elliptopora/Actinocyclus ingens*					2						Major lithologies: a. Diatom ooze, olive (5Y 4/4 to 5Y 4/3), Section 1, 90 cm to Section 4, 100 cm; Section 5, 110 cm to Section 7, 80 cm (end of core). b. Diatom ooze, gray, basaltic pebbles common (diameter up to 1 cm) and some pockets with basaltic sand. Section 1, 55-90 cm; Section 4, 100 cm; Section 5, 110 cm. Some bioturbation in the lower half of Section 5, 106-110 cm.
									3						Drilling disturbance: the soft to firm sediment is mostly undeformed except in uppermost 1 m.
									4						SMEAR SLIDE SUMMARY (%):
									5				◇ ◇		
									6						TEXTURE:
									7						

	5, 55 D	7, 20 D
Sand	10	8
Silt	85	90
Clay	5	2
COMPOSITION:		
Diatoms	75	90
Opaques	10	5
Quartz	15	5

●w=62.9% ρ=1.36

●%CaCO₃=2.3



SITE 736 HOLE A CORE 15H CORED INTERVAL 98.5-108.0 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATES	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
QUATERNARY	R/G	B	A/G	A/M	B	● ●●	●	●%CaCO3=0.1	1	0.5			◇	
										1.0			◇	
													W	
													B	
									2					
													B	
									3					*
									4					
									5				◇	
													◇	
													B	
									6					
													W	
									7					*
									CC					

Neogloboquadrina pachyderma interval

Antarctissa denticulata interval

Rhizosolenia barboi/Nitzschia kerguelensis – Coscinodiscus elliptopora/Actinocyclus ingens

●w=67.2%/1.29 ●w=51.4%/1.49 ●

LITHOLOGIC DESCRIPTION

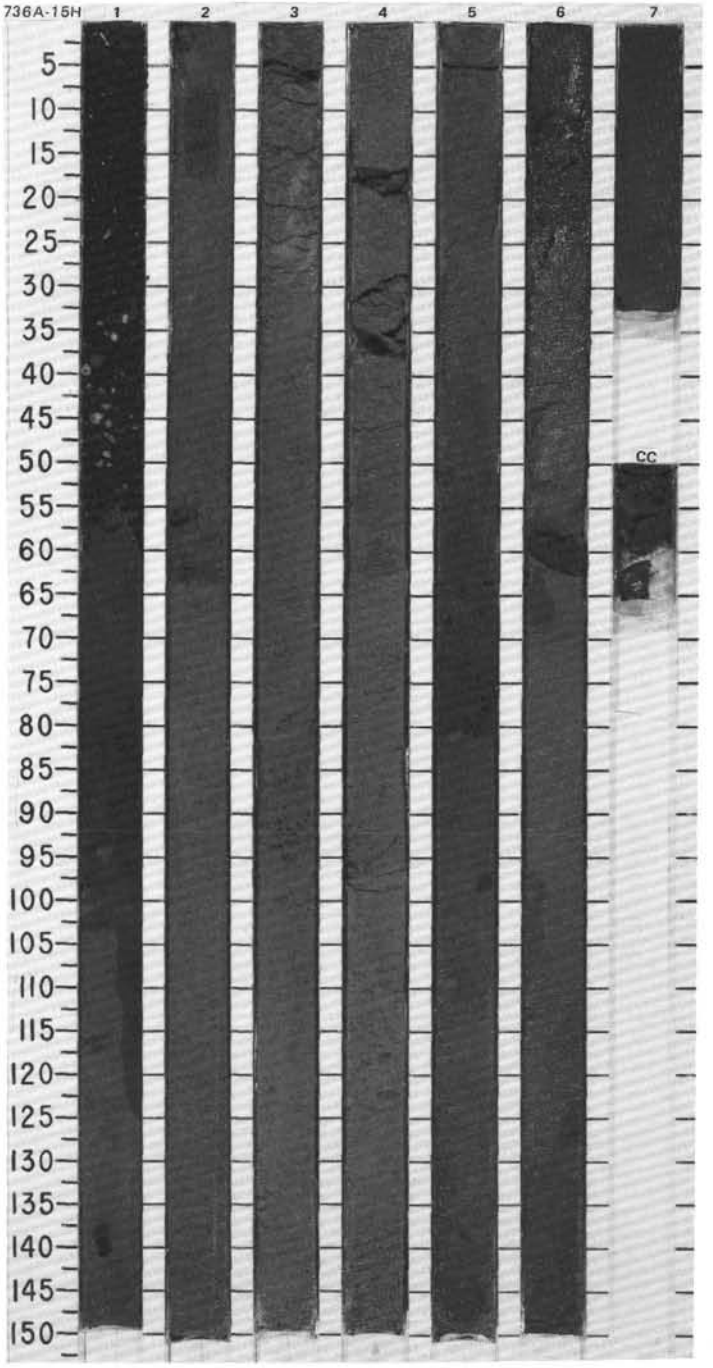
DIATOM OOZE

Major lithology: Diatom ooze; olive (5Y 4/4, 5Y 4/3, 5Y 5/3), olive gray (5Y 4/2) and dark olive gray (5Y 3/2); homogeneous except for weak contorted stratification near base of core. Dispersed basalt pebbles and sand grains. Locally ooze is more sandy and pebbly (black, 5Y 2.5/2). Also burrows (B) with sandier/pebbly material.

Drilling disturbance: gravel (washed) in top 48 cm of Section 1 is probably cave-in material. Dominantly basalt clasts, some striated, faceted pebbles (predominantly subangular to subrounded). The rest of the core (firm sediment) is characterized by concave-up bowed laminations.

SMEAR SLIDE SUMMARY (%):

	3, 100 D	7, 10 D
TEXTURE:		
Sand	5	5
Silt	85	90
Clay	10	5
COMPOSITION:		
Clay	10	5
Diatoms	88	95
Opaques	Tr	Tr
Silicoflagellates	2	—
Spicules	—	Tr



SITE 736 HOLE A CORE 16H CORED INTERVAL 108.0-117.5 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: C/G — *Neogloboquadrina pachyderma* interval
- NANNOFOSSILS: B
- RADIOLARIANS: A/G — *Antarctissa denticulata* interval
- DIATOMS: A/G — *Rhizosolenia barboi/Nitzschia kerguelensis-Coscinodiscus elliptopora/Actinocyclus ingens*
- DINOFLAGELLATES: B

PALEOMAGNETICS
PHYS. PROPERTIES: ●w=60.1% ϒ=1.32
CHEMISTRY: ●%$CaCO_3$=1.4; ●%$CaCO_3$=0.3 %TOC=0.57
SECTION: 1 2 3 4 5 6 7 CC
METERS: 0.5, 1.0
GRAPHIC LITHOLOGY
DRILLING DISTURB.: Concave-up bowed laminations
SED. STRUCTURES: ◇ Ⓑ ≀ OG IW
SAMPLES: *

LITHOLOGIC DESCRIPTION

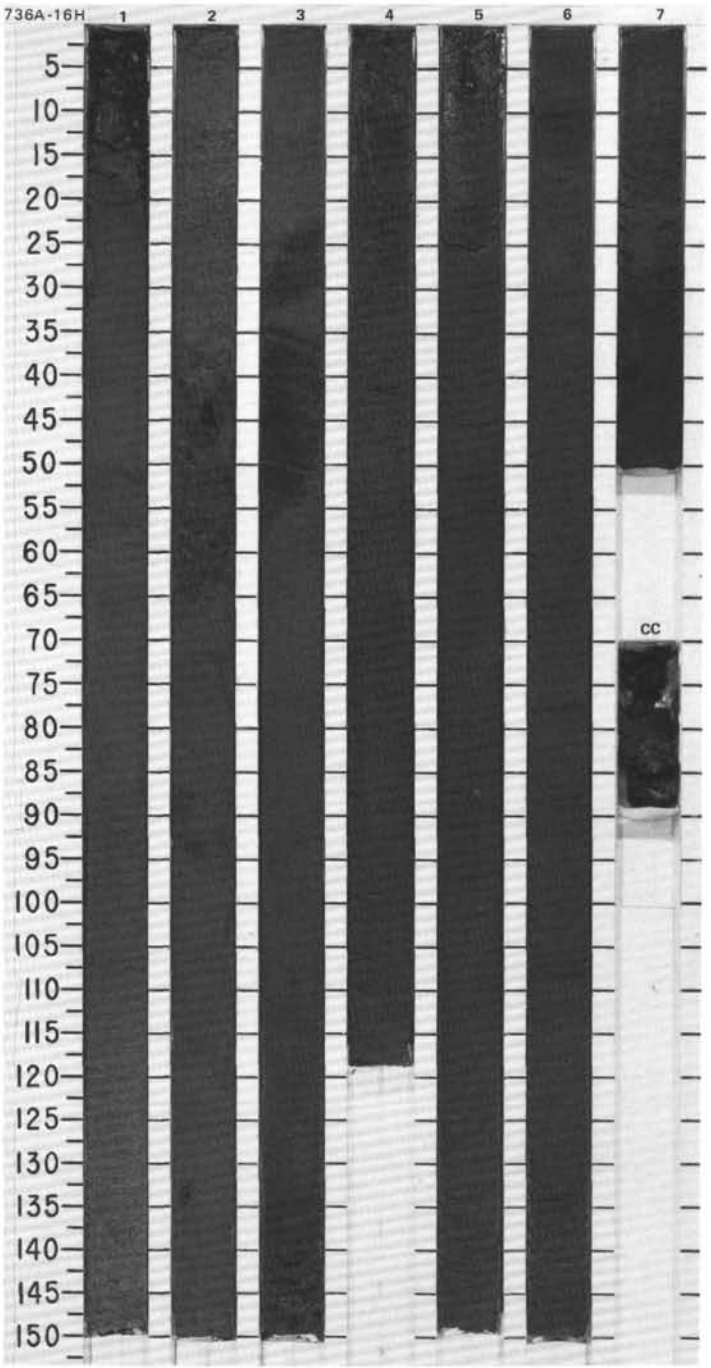
DIATOM OOZE and DIATOM OOZE with VOLCANIC DETRITUS

Major lithologies:
a. Diatom ooze, olive (5Y 4/3), homogeneous and slightly burrowed in Section 2, 75 cm and 135 cm. Minor carbonate fragments in Section 5, 90 cm.
b. Diatom ooze with pebble, sand and silt detritus (mainly basaltic), gray (5Y 3/2) and olive gray (5Y 4/2). Gradational with diatom ooze. Occurs in Section 2 (38-64 cm), Section 3 (35-55 cm and 140-150 cm) and also in patches a few cm across, Section 5, 90 cm.

Drilling disturbance: gravel and sand, mostly basaltic, black, Section 1, 0-20 cm is probably cave-in material. Otherwise there is minor disturbance of sediment.

SMEAR SLIDE SUMMARY (%):

	1, 52 M	5, 70 D
TEXTURE:		
Sand	—	2
Silt	—	93
Clay	—	5
COMPOSITION:		
Access. minerals	1	Tr
Clay	5	5
Diatoms	45	92
Opaques	1	1
Quartz	Tr	Tr
Spicules	45	Tr



SITE 736 HOLE A CORE 17X CORED INTERVAL 117.5-127.1 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATES	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
QUATERNARY *Rhizosolenia barboi/Nitzschia kerguelensis–Coscinodiscus elliptopora/Actinocyclus ingens*	A/G						w-67.5% ρ-1.23 ●	● %$CaCO_3$-0.8	CC	0.5 1 1.0				*
Antarctissa denticulata interval	C/G													
	B													
Neogloboquadrina pachyderma interval	C/G													

LITHOLOGIC DESCRIPTION

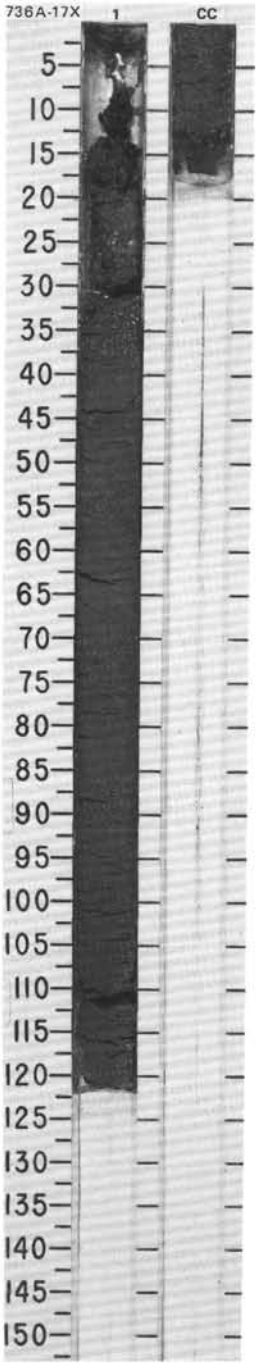
DIATOM OOZE

Major lithology: Diatom ooze, olive (5Y 4/4), homogeneous, clayey silt in texture.

Drilling disturbance: basaltic gravel and mixed gravel diatom ooze, Section 1, 0-29 cm is probably cave-in material.

SMEAR SLIDE SUMMARY (%):

	1, 71 D
TEXTURE:	
Sand	5
Silt	90
Clay	5
COMPOSITION:	
Access. Minerals	Tr
Diatoms	95
Opaques	Tr
Silicoflagellates	2
Spicules	1

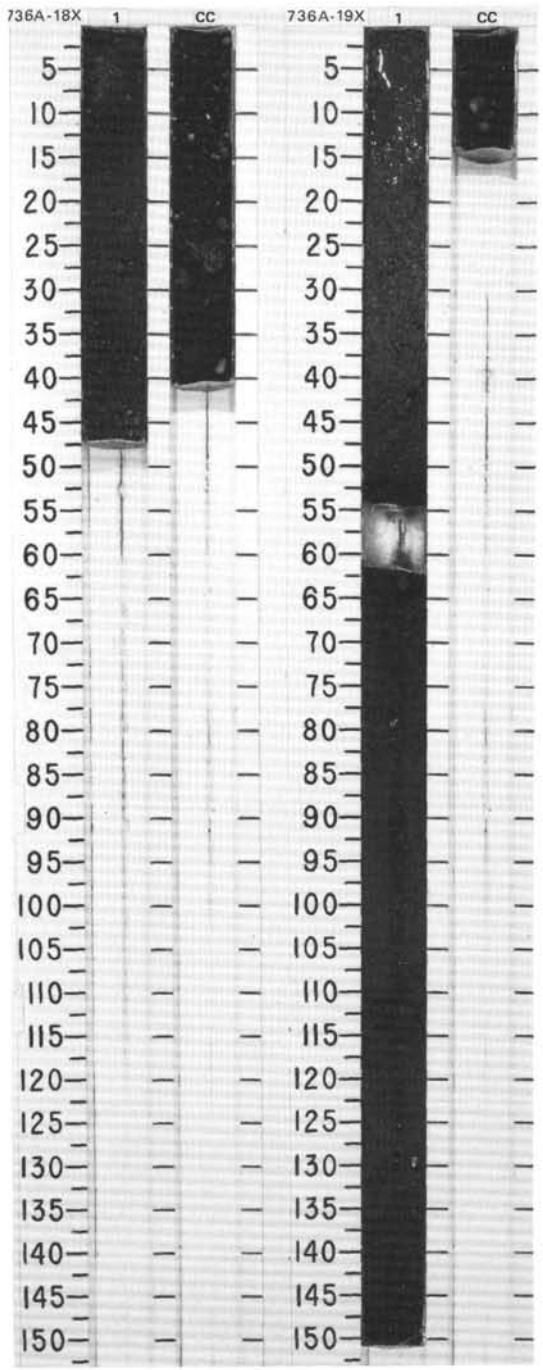


SITE 736 HOLE A CORE 18X CORED INTERVAL 127.1-136.8 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATES	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
UPPER PLIOCENE *Neogloboquadrina pachyderma* interval *Coscinodiscus kolbei/Rhizosolenia barboi*	R/M B C/M B							%$CaCO_3$=1.3	1 CC	0.5				*	Major lithology: Gravel and coarse sand (Section 1, CC), crudely size-graded, with scattered lumps of mixed gravel and diatom ooze (olive, 5Y 4/4 **). Drilling disturbance: The gravel represents cave-in contamination from drilling. SMEAR SLIDE SUMMARY (%): CC, 25 D TEXTURE: Sand 5 Silt 87 Clay 8 COMPOSITION: Access. Minerals Tr Diatoms 95 Opaques 1 Silicoflagellates 2 Spicules 1

SITE 736 HOLE A CORE 19X CORED INTERVAL 136.8-146.4 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATES	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	B	B							1 CC	0.5 1.0			Ø Ø		Major lithology: Gravel (7YR 2/0; Section 1, 0-48 cm), of fine pumice and basalt, with clasts to 1 to 1.2 cm. Drilling disturbance: the gravel represents cave-in contamination from drilling. Section 1, 61-130 cm shows a central TUBE zone of fine black (7YR 2/0) gravel surrounded by similar gravel mixed with a proportion of diatom ooze. This is interpreted as drilling disturbance.



SITE 736 HOLE A CORE 20H CORED INTERVAL 146.4-155.9 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATES	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
UPPER PLIOCENE	R/G	B	F/G	A/G	B	•	●w=67% γ=1.21	●%$CaCO_3$=0.2	6	0.5				*
									CC	1.0				
	Neogloboquadrina pachyderma interval		NR5	*Coscinodiscus kolbei/Rhizosolenia barboi*		•		●%$CaCO_3$=0.1 %TOC=1.02	5					*
						•			4					*
						•	●w=66% γ=1.28		3					*
						•			2					*
						O			1					*

LITHOLOGIC DESCRIPTION

DIATOM OOZE

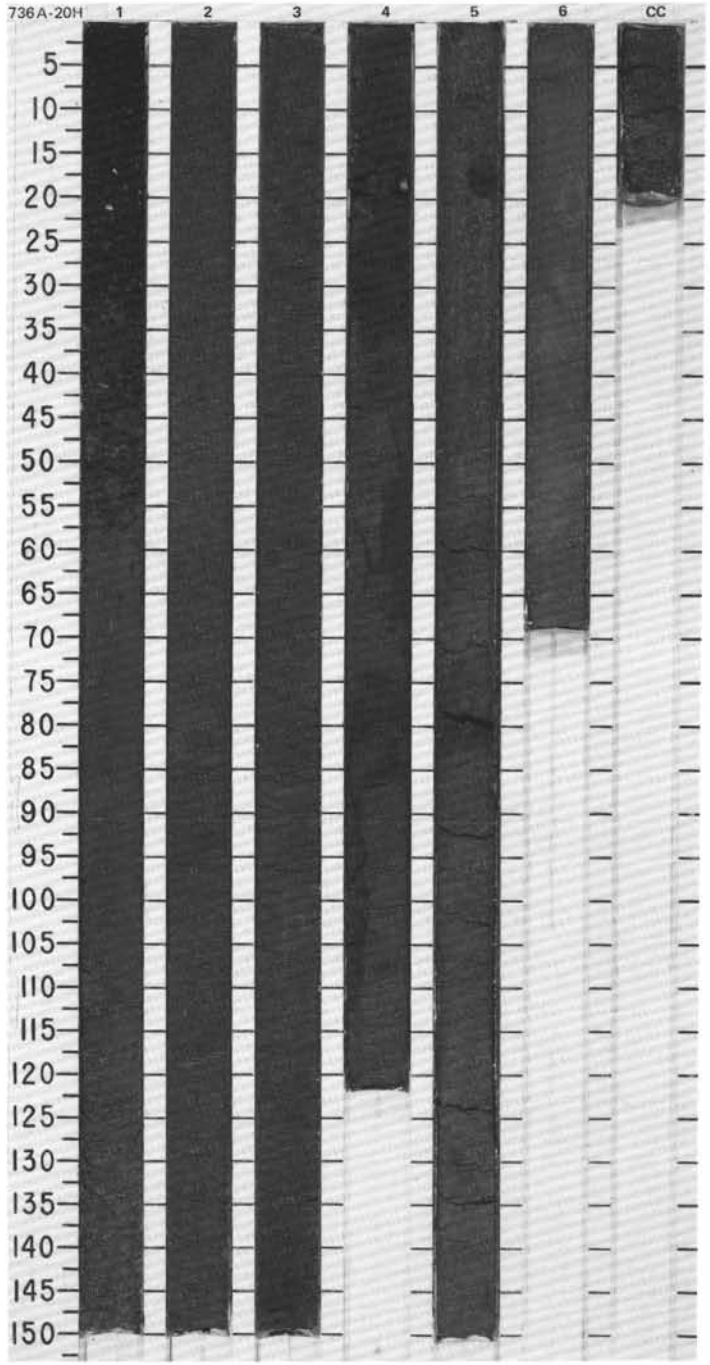
Major lithology: Diatom ooze, olive (5Y 4/3), homogeneous, clayey silt texture. Minor fine sandy layers (< 1-2 cm thick) occur in Section 5 (60, 70, 80, 90, 125-135 cm). They contain volcanic detritus.

Minor lithologies:

a. Diatom ooze with volcanic detritus, very dark gray (2.5Y 3/1), as a stratum (Section 4, 16-36 cm) or as mottling (Section 3, 142-150 cm; Section 4, 36-110 cm; Section 5, 8-20 cm).
b. Gravel (Section 1, 0-55 cm), upper part well sorted, though lumps of mixed gravel (black, 7.5YR 2/0) and diatom ooze (olive, 5Y 4/3) occur in the portion 33-35 cm.

SMEAR SLIDE SUMMARY (%):

	1, 93 D	3, 47 D	4, 24 D	5, 80 M
TEXTURE:				
Sand	5	6	7	8
Silt	90	487	485	477
Clay	45	47	47	415
COMPOSITION:				
Access. Minerals	Tr	Tr	Tr	10
Diatoms	95	95	95	90
Glass	—	1	42	Tr
Opaques	Tr	Tr	1	—
Silicoflagellates	41	41	41	—
Spicules	41	Tr	Tr	—



SITE 736 HOLE A CORE 21H CORED INTERVAL 155.9-115.4 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATES	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
UPPER PLIOCENE	A/G	B	C/G	A/G	B	●	●	●	CC	6					
	Neogloboquadrina pachyderma interval		NR 5	*Coscinodiscus kolbei/Rhizosolenia barboi*		●	●	●%CaCO$_3$=6.1							
						●	●	●w=69.5%γ=1.19		5					
						●	●	●w=68.4%γ=1.20		4					
						●	●	w=70.3%γ=1.24 ●		3					
						●	○	w=65.1%γ=1.20 ●		2					
						●	●			1					

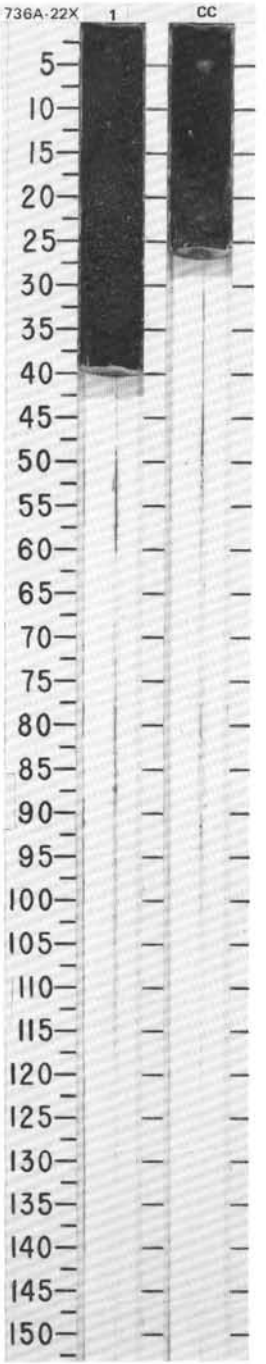
DIATOM OOZE

Major lithology: Diatom ooze, olive (5Y 4/3) to pale olive (5Y 6/3), homogeneous, clayey silt texture. Mottling exists between colors in the diatom ooze (Section 3, 55 cm; Section 2, 20 cm, 70 cm, 110-115 cm; Section 1, 89-114 cm). The latter is a large body of dark olive grey ooze (5Y 3/2) with steep, curved boundaries; darker volcanic sand domains are also included-possibly burrows.

Minor lithology:
Mixed diatom ooze and volcanic sand, black (5Y 2.5/2) (Section 1, 32-41 cm). Bioturbation may carry this material into the olive diatom ooze (Section 1, 45-50 cm.

SITE 736 HOLE A CORE 22X CORED INTERVAL 165.4-175.0 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATES	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
UPPER PLIOCENE	R/G	B	C/G	C/G	B			%CaCO3>0.6 ●	1						Major lithology: Gravel, black (10Y 4/1), well-sorted, basaltic pebbles and granules (Section 1, 0-35 cm; CC, 0-18 cm). At the base of each gravel section (Section 1, 35-39 cm; CC, 18-26 cm) occur lumps of mixed diatom ooze (olive, 5Y 4/3 **) and gravel. Drilling disturbance: the gravels represent cave-in drilling disturbance.
Neogloboquadrina pachyderma interval			NR 5	*Coscinodiscus kolbei/Rhizosolenia barboi*					CC	0.5					

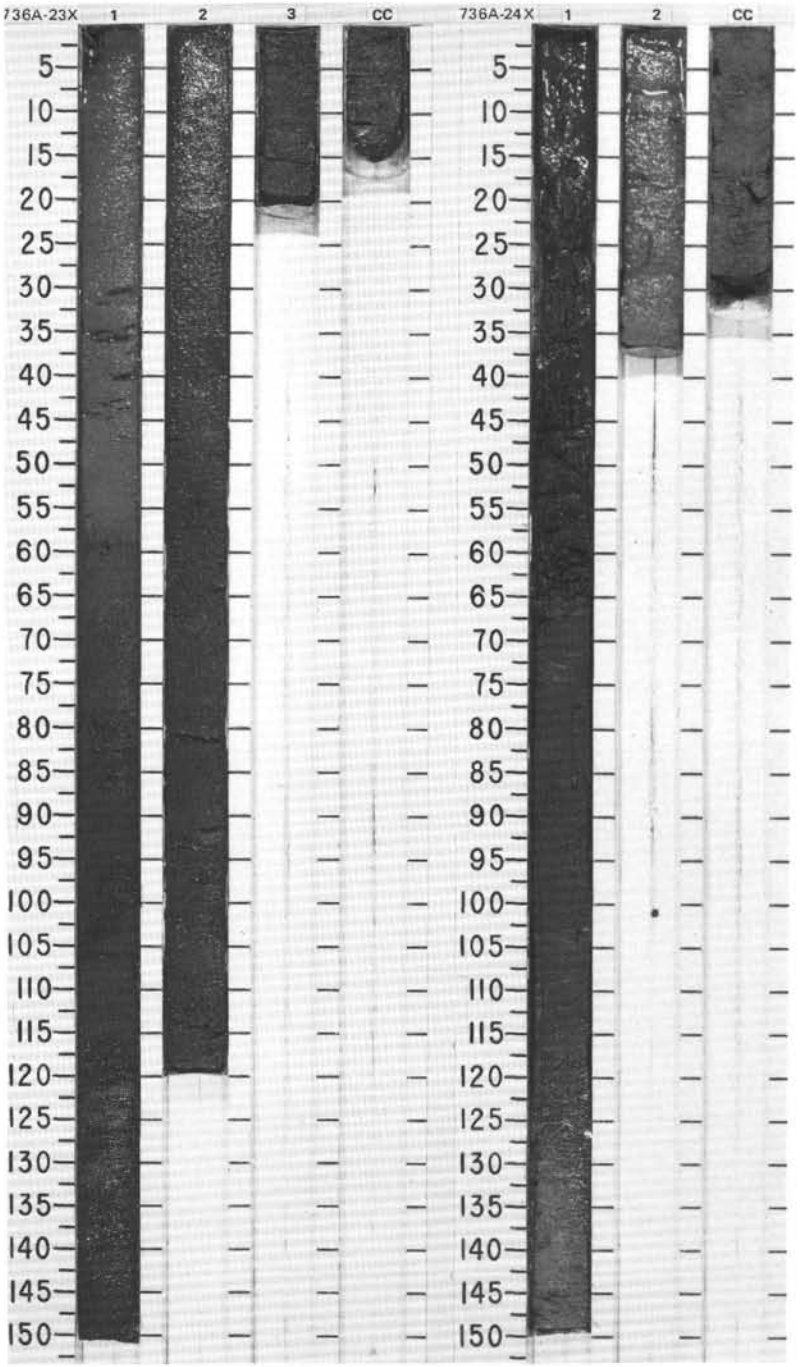


SITE 736 HOLE A CORE 23X CORED INTERVAL 175.0-184.6 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINO-FLAGELLATE	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
UPPER PLIOCENE	C/G								1	0.5					DIATOM OOZE
	B									1.0					Major lithology: Diatom ooze, olive (5Y 5/3), homogeneous, with occasional mottles of the minor lithology.
	B	*Neogloboquadrina pachyderma* interval							2						Minor lithology: Diatom ooze with volcanic detritus, olive gray (5Y 4/2) to black (5Y 2.5/2), occurring as thin, sometimes graded units (Section 1, 58-81 cm; Section 2, 20 cm), or as mottles in the olive (5Y 5/3) diatom ooze (Section 1, 92-142 cm).
	A/G	*Coscinodiscus kolbei* / *Rhizosolenia barboi*													
	B								3						
									CC						

SITE 736 HOLE A CORE 24X CORED INTERVAL 184.6-194.4 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINO-FLAGELLATE	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
UPPER PLIOCENE	F/G	*Neogloboquadrina pachyderma* interval							1	0.5					DIATOM OOZE with VOLCANIC DETRITUS
	B		NR5							1.0					Major lithology: Diatom ooze with volcanic detritus, dark to very dark olive (5Y 3/2 to 5Y 3/1), sandy silt textures, generally homogeneous. Pebbles up to 1.5 cm occur at the base of one such unit (Section 1, 58-64 cm). Lithology also occurs as mottles in the olive ooze (Section 1, 132-150 cm; Section 2 0-36 cm).
	F/G								2						Minor lithology: Diatom ooze, olive (5Y 5/4) occurs in the CC.
	A/G	*Coscinodiscus kolbei* / *Rhizosolenia barboi*													Drilling disturbance: observed in Section 1 and the core-catcher.
	B								CC						



SITE 736 HOLE A CORE 25X CORED INTERVAL 194.4-203.9 mbsf

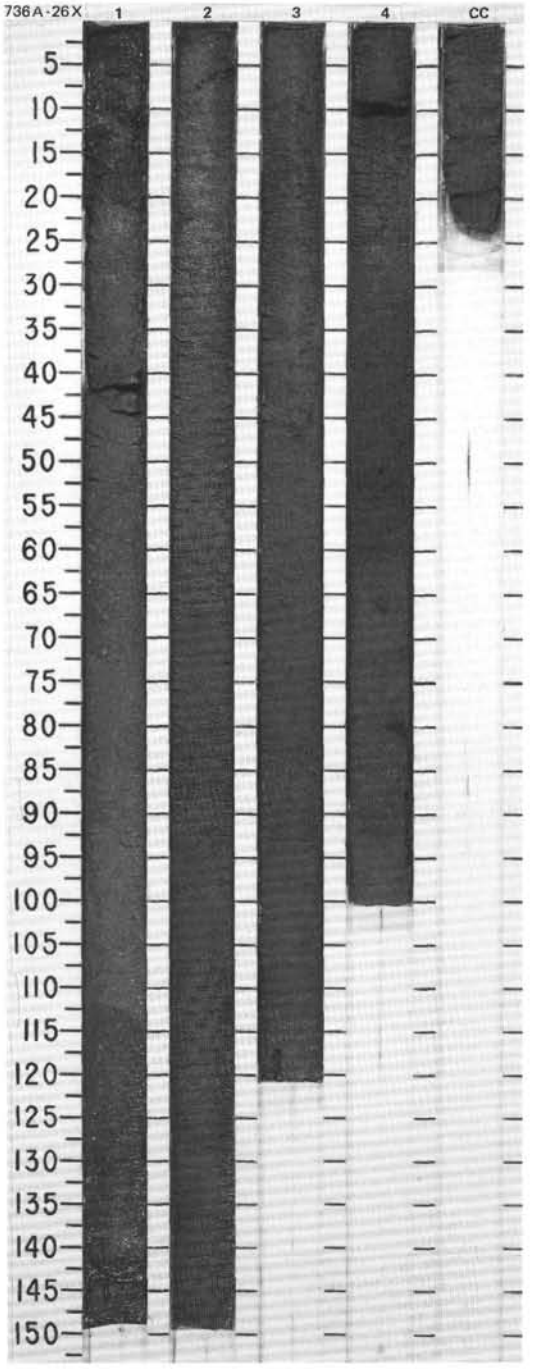
TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINO-FLAGELLATE	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
UPPER PLIOCENE	C/G	R/M	F/G	A/G	B			%$CaCO_3$=2.1 ●	CC	1					Core-catcher sample 0.04 m. Not described.
	Neogloboquadrina pachyderma interval		NR5	*Coscinodiscus vulnificus* →	(*Coscinodiscus kolbei* / *Rhizosolenia barboi*)										

SITE 736 HOLE A CORE 26X CORED INTERVAL 203.9-213.5 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINO-FLAGELLATE	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
UPPER PLIOCENE	R/G *Neogloboquadrina pachyderma* interval	B	R/G NR5	A/G *Coscinodiscus vulnificus*	B				1 2 3 4 CC	0.5 1.0				OG IW	DIATOM OOZE

Major lithology: Diatom ooze, olive-brown (2.5Y 4/4) to olive (5Y 4/3), mostly homogeneous, but with mottling in slightly darker ooze (Section 4, 79-82 cm). Thin beds of darker ooze with volcanic debris also occur (Section 1, 138-148 cm).

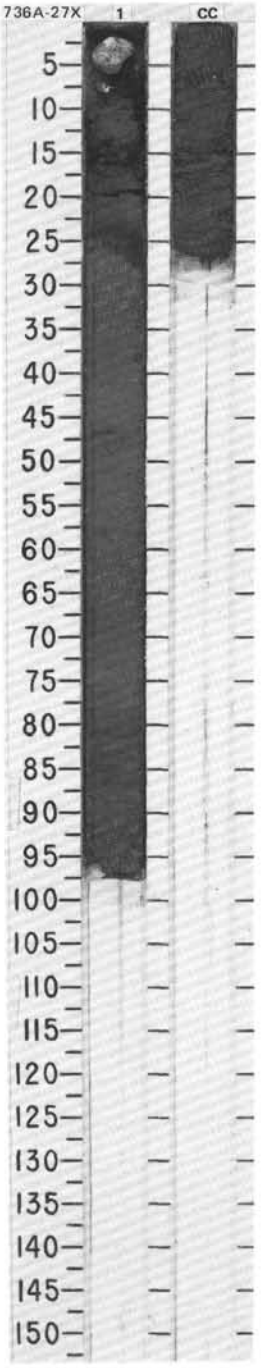
Drilling disturbance: in Section 1, 40-50 cm, basaltic pebbles in olive (5Y 4/3) diatom ooze lie against the core liner and may have been introduced during drilling.



SITE 736 HOLE A CORE 27X CORED INTERVAL 213.5-223.2 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
UPPER PLIOCENE	F/G *Neogloboquadrina pachyderma* interval	F/M NR5	C/G	A/G *Coscinodiscus vulnificus*	O O	ρ=38.6% ● Vp=1.520	● %$CaCO_3$=3.1	1 CC	0.5					DIATOM OOZE Major lithology: Diatom ooze, olive (5Y 4/3) with some lighter (5Y 5/3) and darker (5Y 4/2) patches, the latter with increased volcanic content. Drilling disturbance: black (10Y 4/1) basalt pebble at top of Section 1 (0-8 cm) and the underlying mixed gravel and diatom ooze (8-19 cm) are drillhole cave-in.

736 A 28X NO RECOVERY

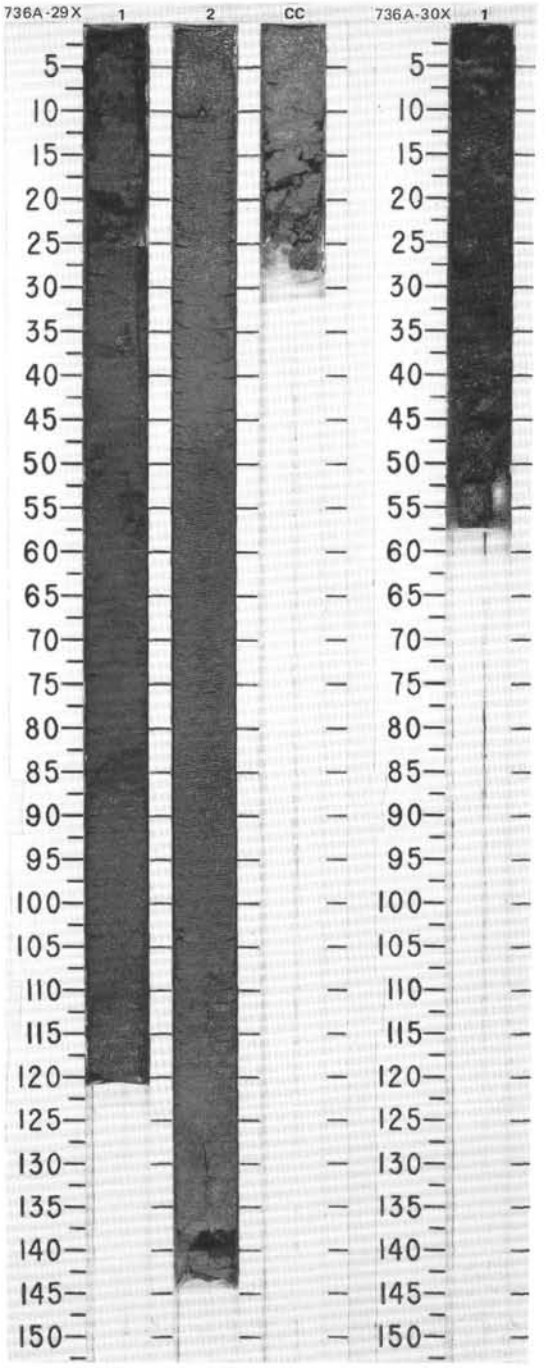


SITE 736 HOLE A CORE 29X CORED INTERVAL 232.9-242.6 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATE	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
UPPER PLIOCENE	F/M	*Neogloboquadrina pachyderma* interval													DIATOM OOZE
	C/M														Major lithology: Diatom ooze, olive (5Y 4/2), homogeneous except for occasional mottles and sandy patches (Section 1, 34-110 cm).
	C/G		NR6												Drilling disturbance: Section 1 (0-7 cm) has mixed gravel and diatom ooze (olive, 5Y 4/2); it is interpreted as a drillhole cave-in deposit.
	A/G			*Cosmiodiscus insignis*											
	B														

SITE 736 HOLE A CORE 30X CORED INTERVAL 242.6-252.3 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	DINOFLAGELLATE	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
UPPER PLIOCENE	F/M	R/M	B	*Cosmiodiscus insignis* A/G	B										Major lithology: Basaltic gravel (CC, 0-57 cm), intermixed with olive (5Y 4/3) diatom ooze to produce overall sediment colours of very dark gray (2.5Y 3/1, Section 1, 0-9 cm), olive (5Y 4/3) and dark grey (5Y 4/1).
															Drilling disturbance: the gravel is interpreted as drillhole cave-in material.



SITE 736 HOLE B CORE 1H CORED INTERVAL 0.0-8.4 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
QUATERNARY	A/G *Neogloboquadrina pachyderma* interval	B	R/G *Antarctissa denticulata* interval	A/G *Thalassiosira lentiginosa*		ρ = 79.7% ϕ = 1.17	%CaCO3=6.6 %CaCO3=1.9	1 2 3 4 5 6 CC	0.5 1.0				

LITHOLOGIC DESCRIPTION

DIATOM OOZE and DIATOM OOZE with VOLCANIC DETRITUS

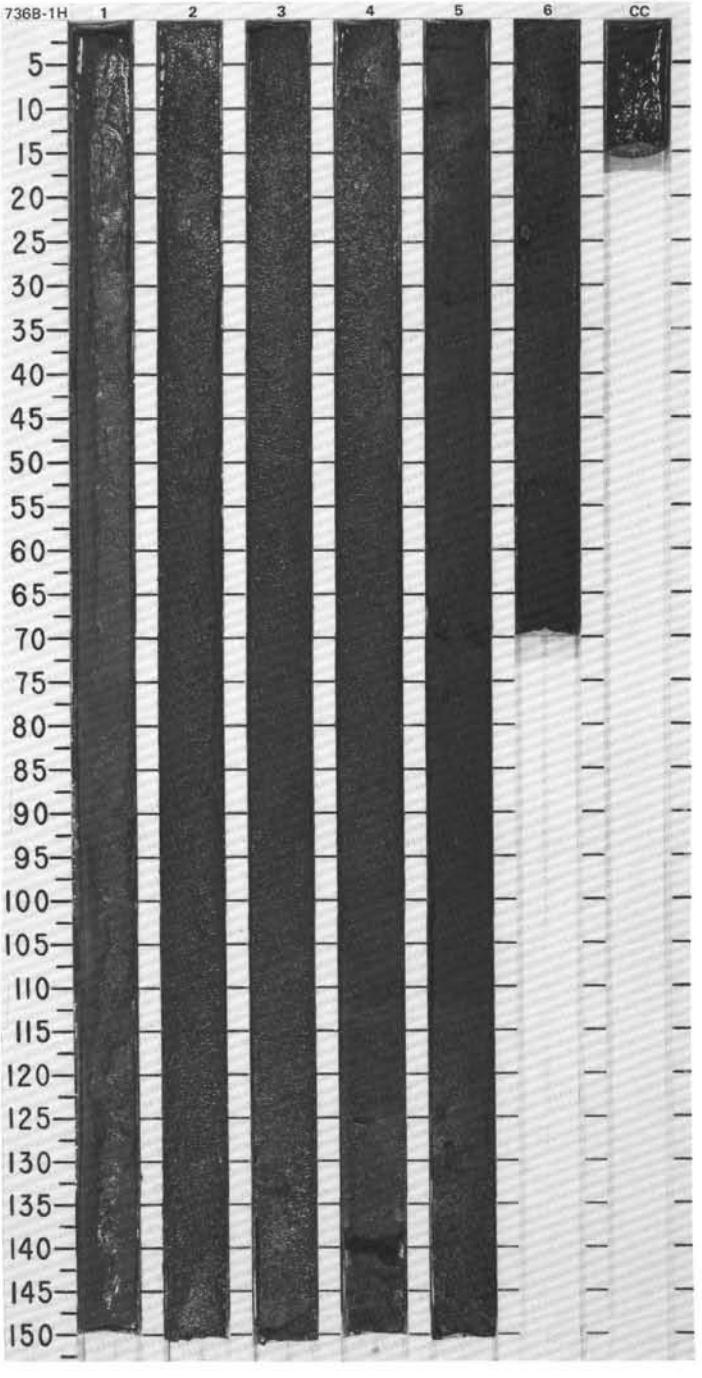
Major lithologies:
a. Diatom ooze, olive (5Y 5/4 to 5Y 4/3, homogeneous, top of core to Section 4, 95 cm. Shell fragments of mm size were noted at Section 3, 61 cm.
b. Diatom ooze with volcanic detritus, dark olive gray (5Y 3/2); scattered basaltic pebbles up to 5 mm, sand and silt grains; Section 4, 85 cm to bottom of ocre.

Drilling disturbance: soupy disturbance (Section 1; Section 6, 50-70 cm; CC), otherwise relatively undisturbed (bent laminations). Some of the basalt pebbles (e.g., Section 4, 30-40 cm) may have been introduced at the edge of the core liner by the disturbance.

A 2.5 cm, round vacancy in the ocre (Section 4, 139-142 cm), appears to have been occupied before drilling. Both sides are concave and are lined with extremely wet, fluid clay which at logging lay as a puddle in the bottom of the gap. The structure was tentatively interpreted as a hydrate mould, though no appropriate chemical measurements were possible; the ocre had been warmed to 2°C.

SMEAR SLIDE SUMMARY (%):

	1, 80 D	43, 80 4D	45, 80 4D
TEXTURE:			
Sand	47	45	45
Silt	85	90	85
Clay	8	5	10
COMPOSITION:			
Access. Minerals	—	—	Tr
Clay	8	5	10
Diatoms	92	95	82
Glass	—	—	Tr
Opaques	Tr	Tr	Tr
Quartz	Tr	Tr	5
Silicoflagellates	Tr	Tr	—
Spicules	—	—	1



SITE 736 HOLE B CORE 2H CORED INTERVAL 8.4-17.9 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS C/G; NANNOFOSSILS B; RADIOLARIANS A/G; DIATOMS A/G

Neogloboquadrina pachyderma interval

Antarctissa denticulata interval

Thalassiosira lentiginosa

PALEOMAGNETICS

PHYS. PROPERTIES: ● W=65.9% ρ=1.37

CHEMISTRY: ● W=70.2% ρ=1.38; ● %$CaCO_3$=1.8

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

DIATOM OOZE and DIATOM OOZE with VOLCANIC DETRITUS

Major lithologies:

a. Diatom ooze with rare volcanic silt and snad grains, and small basaltic pebbles; dark olive gray (5Y 3/2) and olive (5Y 4/4); homogeneous. Section 4, 88-96 cm has calcareous bivalve fragments. Section 6, 0-70 cm has irregular mottling (possible water escape features).

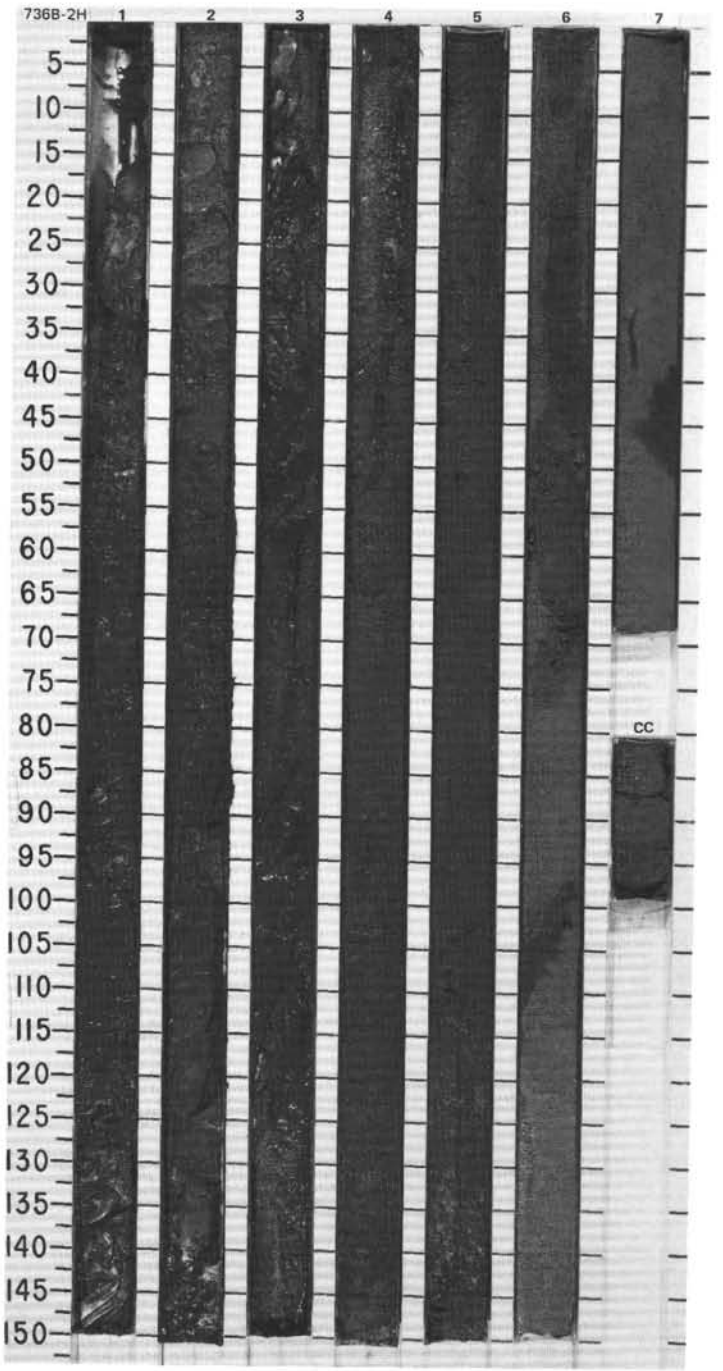
b. Diatom ooze with volcanic silt and sand grains and pebbles mainly less than 5 mm diameter; a pebbley in Section 1, at 125 cm is 3 cm in diameter; dark olive (5Y 3/2).

Minor lithology:
Mixture of diatom ooze and up to 60% volcanic sand; dark olive gray (5Y 3/2).

Drilling disturbance: core soupy in Section 1, then moderately deformed down to middle of Section 4, then undisturbed.

SMEAR SLIDE SUMMARY (%):

	1, 85 D	4, 80 D	6, 80 D
TEXTURE:			
Sand	7	5	5
Silt	85	90	90
Clay	8	5	5
COMPOSITION:			
Access. Minerals	Tr	Tr	Tr
Clay	8	5	5
Diatoms	85	92	92
Glass	—	Tr	Tr
Opaques	1	Tr	Tr
Quartz	5	Tr	Tr
Silicoflagellates	Tr	Tr	Tr
Spicules	Tr	Tr	Tr



SITE 736 HOLE B CORE 3H CORED INTERVAL 17.9-27.4 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
QUATERNARY	CG	B	CG			● W=58.2% ● 1.143	● %$CaCO_3$=0.8	1 2 3 4 5 6 7 CC	0.5 1.0	VOID		◇ (B)		DIATOM OOZE, DIATOM OOZE with VOLCANIC DETRITUS and VOLCANIC SAND

Neogloboquadrina pachyderma interval

Antarctissa denticulata interval

Thalassiosira lentigenosa

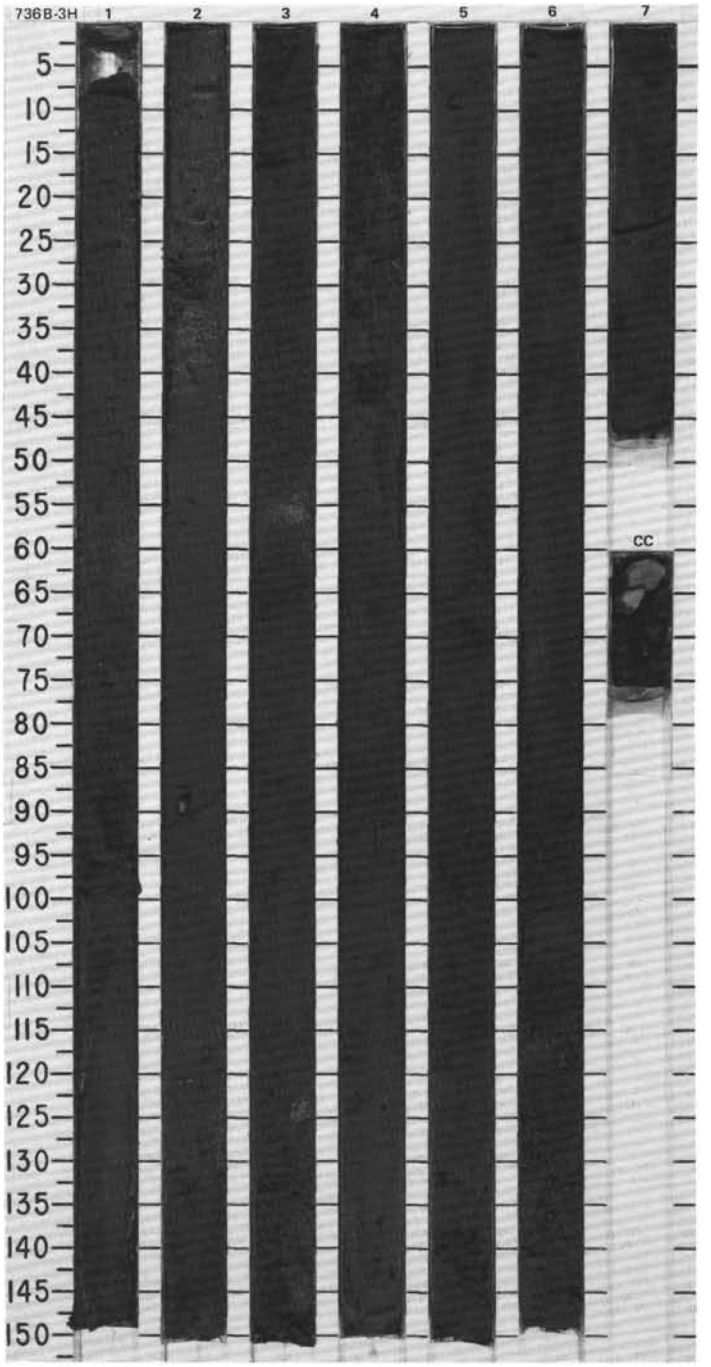
Major lithologies:

a. Diatom ooze, olive gray (5Y 4/2) to dark olive gray (5Y 3/2). Minor pumice grains of sand and silt size, scattered basaltic pebbles at some levels, otherwise absent (maximum pebble size 4 cm diameter, CC). Occasional burrows, including a possible spreiten (Section 5, 50-60 cm). Calcareous shell fragments at Section 4, 116-119 cm.

b. Diatom ooze with volcanic sand (pumice) and pebbles (basaltic) up to 10%; olive gray (5Y 4/2) to dark olive gray (5Y 3/2). Pebbles up to 5 striations. A 5 mm diameter granitic pebble occurs at Section 1, 93 cm.

c. Volcanic sand, comprising angular pumice grains up to 5 mm diameter; gray. A layer at Section 2, 28-38 cm is poorly sorted, another at Section 3, 53-57 cm is well sorted. This lithology also occurs as 3 cm diameter pockets at Section 4, 32 cm.

Minor lithology:
Mixed diatom ooze and volcanic sand and pumice, Section 1, 58-75 cm.



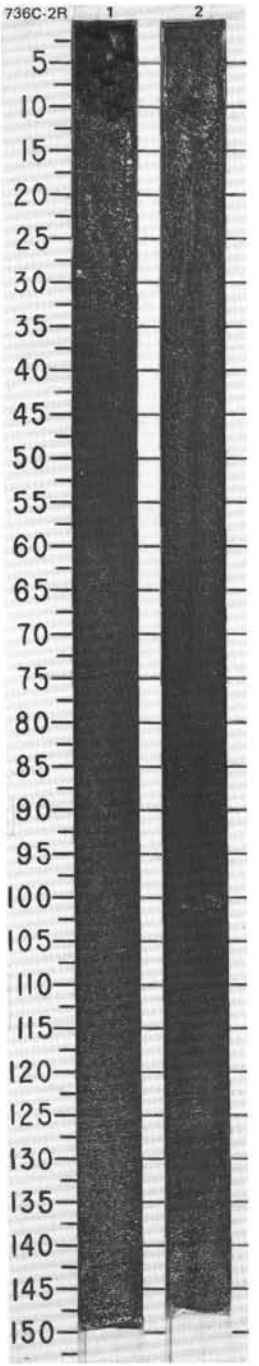
SITE 736 HOLE C CORE 1W CORED INTERVAL 639.5-846.4 mbsl; 0.0-206.9 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
								1	0.5				*	Major lithology: The total 0.1 m recovery was a basalt pebble coated thinly with diatom ooze (olive, 5Y 4/3)–obviously drillhole cave-in contamination.

SITE 736 HOLE C CORE 2R CORED INTERVAL 846.4-855.9 mbsl; 207.0-216.5 mbsf

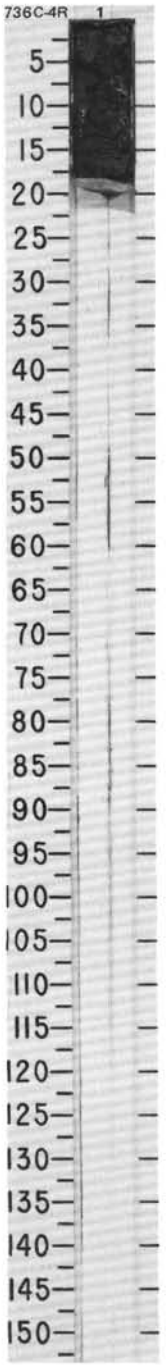
TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
UPPER PLIOCENE	Neogloboquadrina pachyderema interval	Barren	NR5	*Coscinodiscus vulnificus*	O	● W-62.1% ● Y-1.24	● %$CaCO_3$=0.1%	1	0.5					DIATOM OOZE Major lithology: Diatom ooze, olive (5Y 4/3), homogenous (Section 1, 10-150 cm; Section 2, 0-148 cm). Minor lithology: Section 1, 0-8 cm, gravel composed of black (5Y 2.5/1) basalt pebbles coated with olive (5Y 4/3) diatom ooze. Drilling disturbance: gravel of Section 1, 0-8 cm, is drillhole cave-in contamination. SMEAR SLIDE SUMMARY (%): 2, 142 D TEXTURE: Sand 1 Silt 80 Clay 19 COMPOSITION: Access. Minerals Tr Diatoms 90 Feldspar 6
								1	1.0					
								2						
								CC		VOID			*	

736 C 3R NO RECOVERY



SITE 736 HOLE C CORE 4R CORED INTERVAL 865.5-875.2 mbsl; 226.0-335.7 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
UPPER PLIOCENE	R/M	R/P	NR6 A/G	*C. vulnificus / C. insignis* A/G			% $CaCO_3$=4.2	1 CC	1	VOID				Major lithology: Basalt granules and small pebbles (black, **) held in diatom ooze (olive, 5Y 4/3); Section 1, 0-18 cm. Drilling disturbance: the whole core is greatly disturbed by drilling and is drillhole cave-in material.



SITE 736 HOLE C CORE 5R CORED INTERVAL 875.2-884.9 mbsl; 235.7-245.4 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
UPPER PLIOCENE	F/M	F/P	A/G	NR6	A/G	*Cosmiodiscus insignis*	O O O	W=57.3% ρ=1.34 W=50.8% ρ=1.45	$\%CaCO_3$=5.7	1 2 3 4 5 CC	0.5 1.0	VOID VOID	— — — —	↓ ∞ ∞	*

LITHOLOGIC DESCRIPTION

DIATOM OOZE

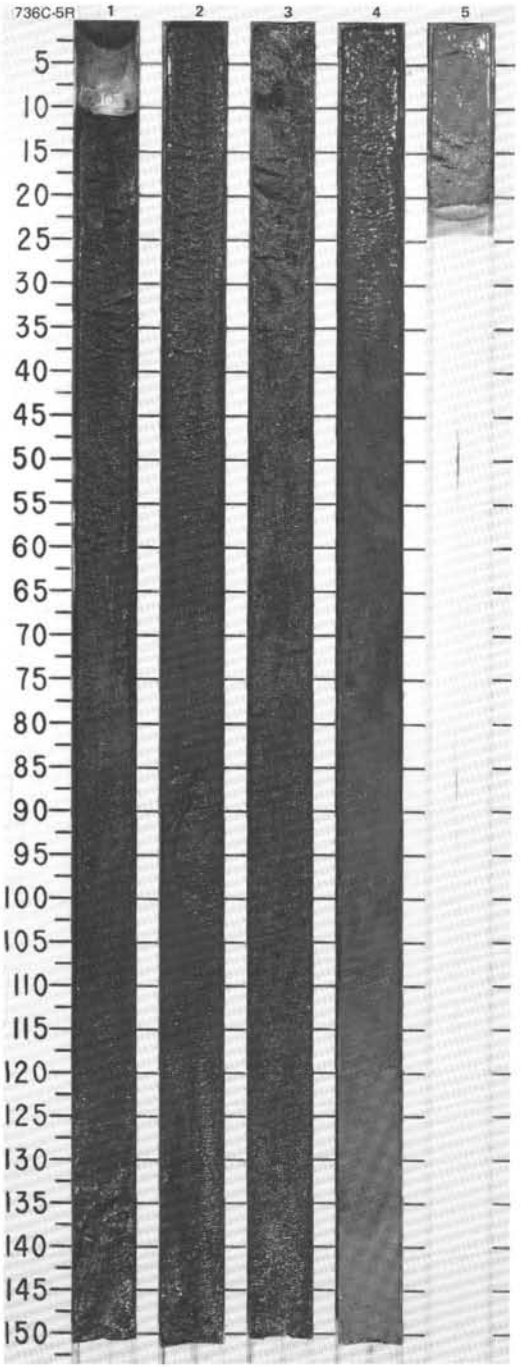
Major lithology: Diatom ooze, with a gradual lightening in color from top to base, from very dark gray (5Y 3/1; Section 1, 0-70 cm, 70-118 cm), to dark olive gray (5Y 3/2; Section 3), olive gray (5Y 4/2; Section 2; Section 3), olive (5Y 4/3; Section 4) and pale olive (5Y 6/3; Section 5). High water content.

Drillhole disturbance: the following are regarded as drillhole cave-in material and contaminants:

a. Small angular black basalt pebbles (Section 1, 15 cm, 22 cm, 30cm, 75 cm, 79 cm, 82 cm, 90 cm, 96 cm, 98 cm, 103 cm).
b. Black sandy streaks in the diatom ooze, accompanied by occasional small granules and pebbles (Section 2; 110-150 cm).

SMEAR SLIDE SUMMARY (%):

	3, 29 D
TEXTURE:	
Sand	3
Silt	87
Clay	10
COMPOSITION:	
Quartz	—
Feldspar	5
Access. minerals	3
Opaques	2
Diatoms	88
Sponge Spicules	2



SITE 736 HOLE C CORE 6R CORED INTERVAL 884.9-894.5 mbsl; 245.4-255.0 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	BIOSTRAT. ZONE/ FOSSIL CHARACTER: NANNOFOSSILS	BIOSTRAT. ZONE/ FOSSIL CHARACTER: RADIOLARIANS	BIOSTRAT. ZONE/ FOSSIL CHARACTER: DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	C/G *Neogloboquadrina pachyderma* interval	R/P NR6	C/G *Cosmiodiscus insignis*	A/G			• $\%CaCO_3$=7.5	CC	0.5 1.0	VOID				Not described (0.10 m CC recovery only).

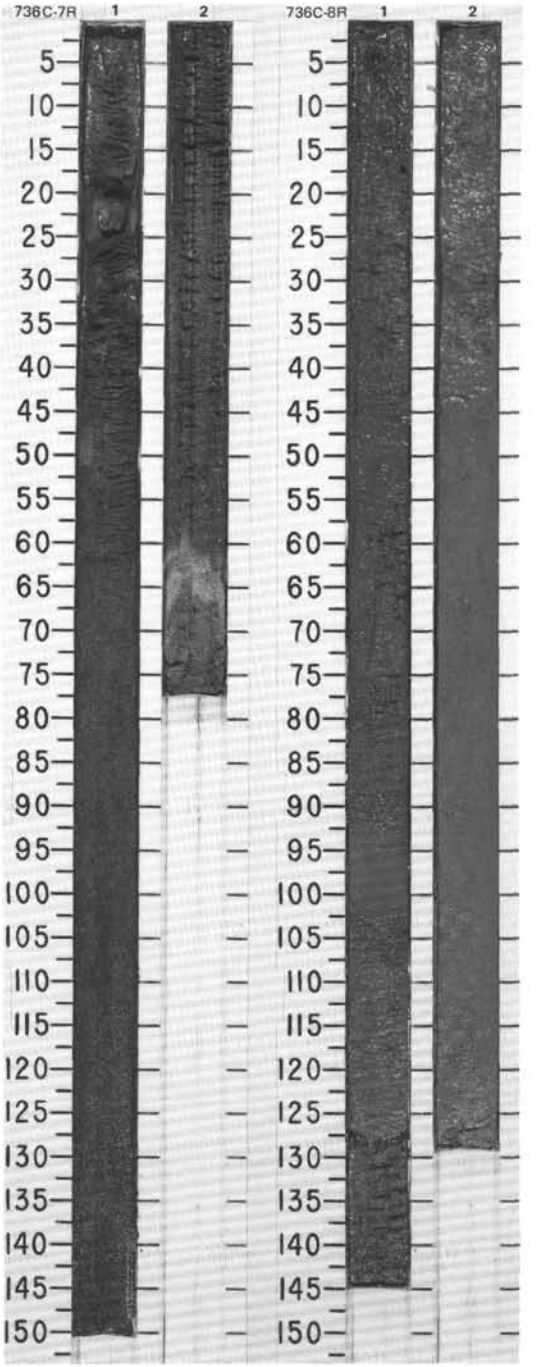
SITE 736 HOLE C CORE 7R CORED INTERVAL 894.5-904.2 mbsl; 255.0-264.7 mbsf

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
UPPER PLIOCENE	R/G				O	W=59.7% γ=1.30	%CaCO3=1.2	1, 2, CC	0.5, 1.0	VOID				DIATOM OOZE Major lithology: Diatom ooze, olive (5Y 4/3) to olive gray (5Y 4/2). Minor lithology: Nannofossil ooze, light olive gray (5Y 6/2; Section 2, 61-68 cm), no diatoms observed. Drilling disturbance: black basalt pebbles and granules in the diatom ooze at Section 1, (0-7 cm) represent drilling cave-in contamination.
	R/P	A/G	B	B										
	A/G		NR6											
	A/G			*Cosmiodiscus insignis*										

SITE 736 HOLE C CORE 8R CORED INTERVAL 904.2-913.9 mbsl; 264.7-274.4 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
UPPER PLIOCENE	A/G	*Neogloboquadrina pachyderma* interval				W=58% γ=1.33	%CaCO3=7.0 TOC=0.40%	1, 2, CC	0.5, 1.0	VOID		◇ ◇ ◇	* G G	DIATOM OOZE Major lithology: Diatom ooze, olive (5Y 4/4), homogeneous. Small pebbles (maximum size 5 mm) are scattered through the core (Section 1, 0-40 cm; Section 2, 30-80 cm); almost all are basaltic, subrounded to subangular; some are faceted and striated; one pebble is reddish (**). from appearance alone, but the physical properties show very low shear strength and very low density for 270 mbsf. SMEAR SLIDE SUMMARY (%):
		F/P												
		F/G	NR6											
		A/G		*Nitzschia weaveri*			%CaCO3=7.0							

	1, 80 D	2, 80 D
TEXTURE:		
Sand	2	2
Silt	83	83
Clay	15	15
COMPOSITION:		
Clay	15	15
Diatoms	83	83
Opaques	Tr	Tr
Quartz	Tr	Tr
Silicoflagellates	1	1



SITE 736 HOLE C CORE 9R CORED INTERVAL 913.9-923.5 mbsl; 274.4-284.0 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
UPPER PLIOCENE	C/G	F/M	C/G	NR6	A/G	*N. interfrigidaria / C. vulnificus to N. interfrigidaria*	●W=64.4% γ=1.27	●%$CaCO_3$=0.3	●%$CaCO_3$=1.7	1 2 3 4 5 6 7 CC	0.5 1.0	VOID			* G XRD CB * G

LITHOLOGIC DESCRIPTION

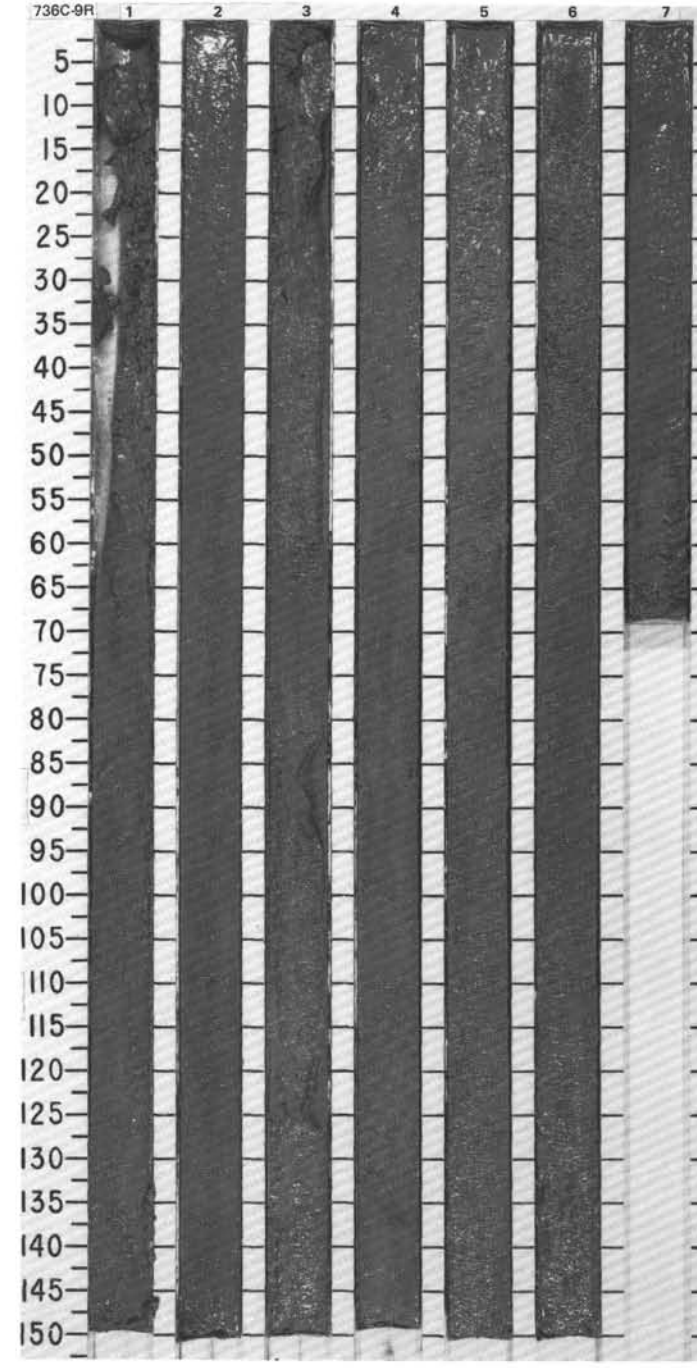
DIATOM OOZE

Major lithology: Diatom ooze, olive (5Y 4/4), homogeneous. Sprinkling of fine glass or ash fragments (Section 1, 0-80 cm; Section 4, 90-150 cm; Section 5, 0-50 cm). Very slight H_2S odour with dilute acid in Section 7, 50 cm.

Drilling disturbance: soupiness suggests core is severely disturbed.

SMEAR SLIDE SUMMARY (%):

	2, 80 D	6, 80 D
TEXTURE:		
Sand	1	15
Silt	94	80
Clay	5	5
COMPOSITION:		
Access. Minerals	Tr	—
Clay	5	5
Diatoms	83	85
Foraminifers	—	Tr
Glass	1	—
Gypsum	10	10
Quartz	Tr	—
Silicoflagellates	—	Tr



SITE 736 HOLE C CORE 10R CORED INTERVAL 923.5-933.2 mbsl; 284.0-293.7 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
UPPER PLIOCENE	C/G	B	A/G	NR6	A/M	*N. interfrigidaria / C. vulnificus* to *N. interfrigidaria*	● $\%CaCO_3$ = 0.3	●w=53.1%/1.30	1 2 3 4 5 6 7 CC	0.5 1.0	VOID		◇ ◇	*

LITHOLOGIC DESCRIPTION

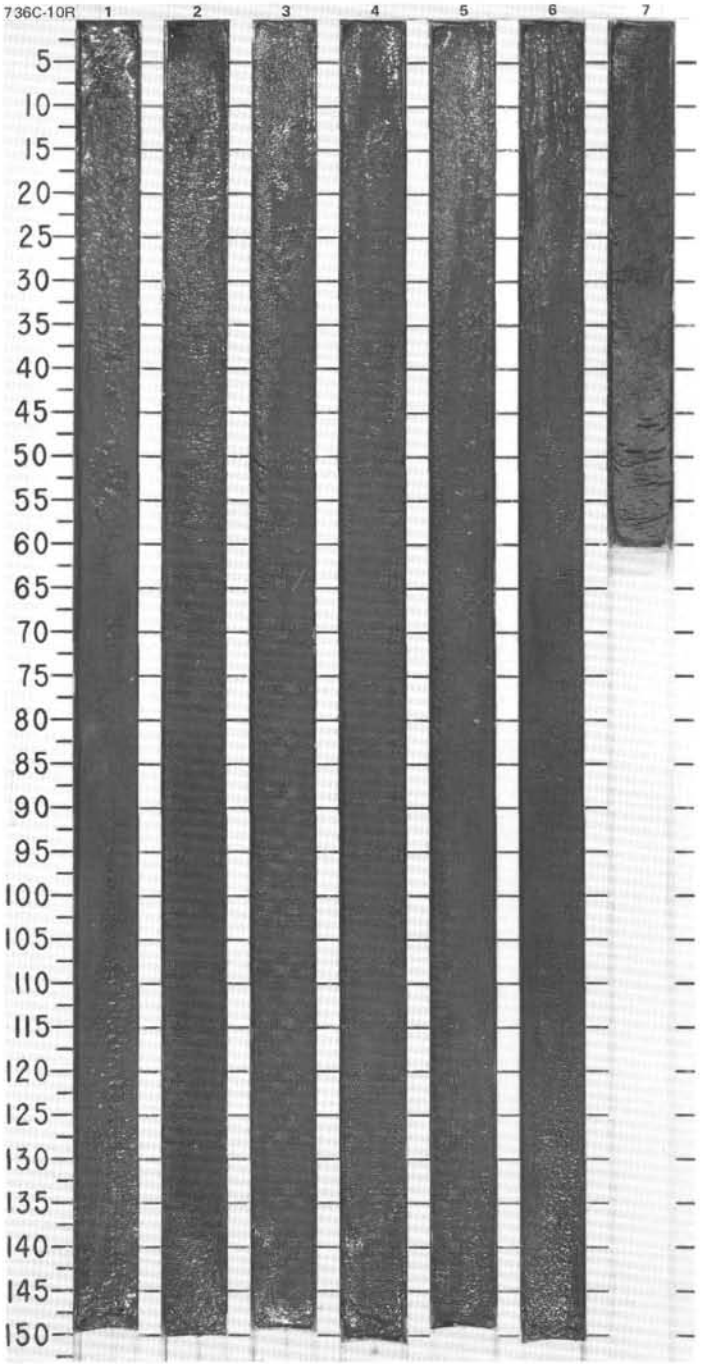
DIATOM OOZE

Major lithology: Diatom ooze, olive gray (5Y 4/2) and olive (5Y 4/4, 5Y4/3), homogeneous. A few basaltic pebbles (maximum size 5 mm) and silty ash/ glass occur in Section 1, 0-140 cm.

Drilling disturbance: top 9 cm of Section 1 comprises basaltic sand and pebbles, with minor ash, glass and diatom ooze. This is probably washed-in material from above. The rest of the core is soupy and was totally remobilized durdrilling.

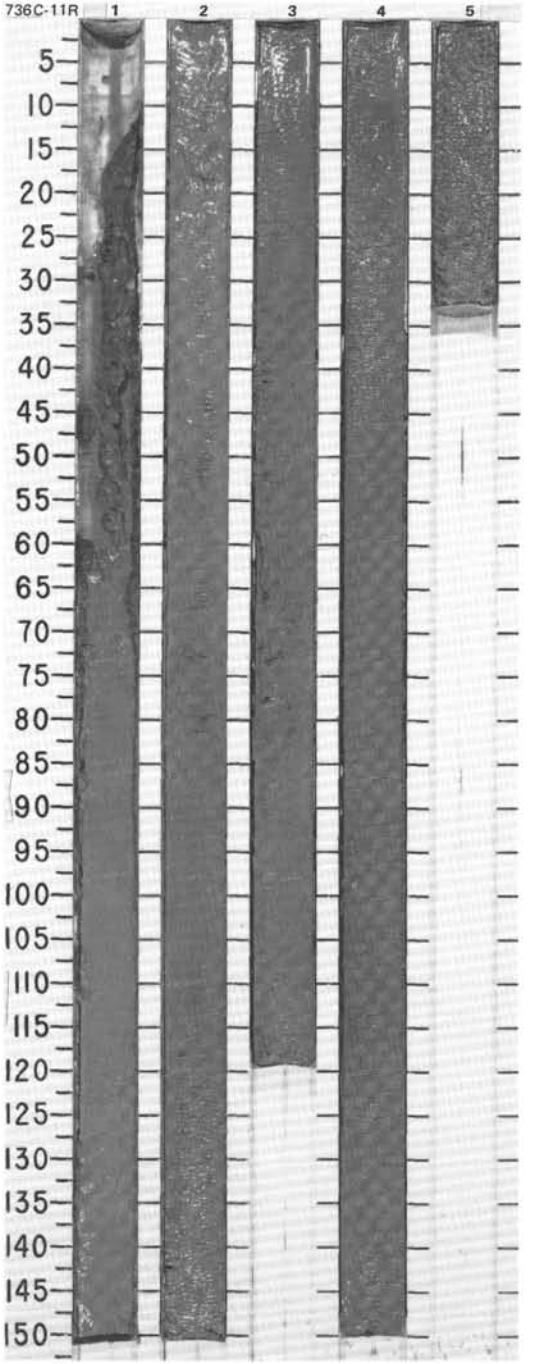
SMEAR SLIDE SUMMARY (%):

	4, 80 D
TEXTURE:	
Sand	10
Silt	80
Clay	10
COMPOSITION:	
Clay	10
Diatoms	90
Opaques	Tr
Silicoflagellates	Tr
Spicules	Tr



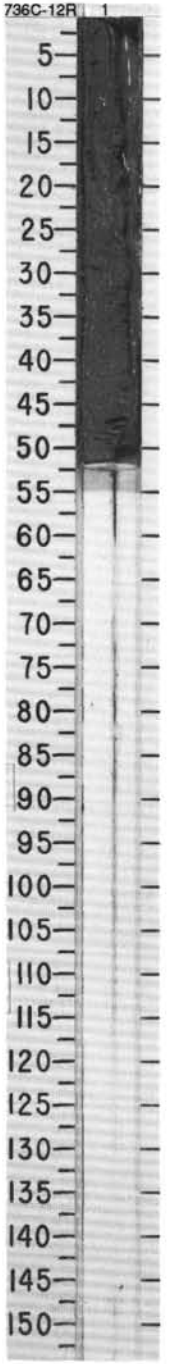
SITE 736 HOLE C CORE 11R CORED INTERVAL 933.2-942.9 mbsl; 293.7-303.4 mbsf

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
UPPER PLIOCENE	C/M	B	F/G NR6	A/M *N. interfrigidaria / C. vulnificus* to *N. interfrigidaria*		● w=58.9% γ=1.30	● %$CaCO_3$ =0.4 ● %$CaCO_3$ =0.3 %TOC=0.32	1 2 3 4 5 CC	0.5 1.0	VOID VOID			* C IW OG HS	DIATOM OOZE Major lithology: Diatom ooze, olive gray (5Y 4/2) and olive (5Y 4/4, 5Y 4/3), homogeneous. A few basaltic pebbles (maximum size 5 mm) and silty ash/ glass grains occur in Section 1, 0-140 cm. Drilling disturbance: top 9 cm of Section 1 comprises basaltic sand and pebbles, with minor ash, glass and diatom ooze. This is probably washed-in material from above. The rest of the core is soupy and was totally remobilized *during drilling.* SMEAR SLIDE SUMMARY (%): 2, 80 D TEXTURE: Sand 0 Silt 80 Clay 20 COMPOSITION: Clay 15 Diatoms 84 Opaques Tr Spicules 1



SITE 736 HOLE C CORE 12R CORED INTERVAL 942.9-952.6 mbsl; 303.4-313.1 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
UPPER PLIOCENE	C/M	B	C/G NR6	A/G *N. interfrigidaria / C. vulnificus to N. interfrigidaria*		w=64.6% γ=1.25	% $CaCO_3$=0.3	1		VOID	O			DIATOM OOZE Major lithology: Diatom ooze, olive (5Y 5/3). Drilling disturbance: soupy and totally remobilized on coring.
								CC		VOID	O			



SITE 736 HOLE C CORE 13R CORED INTERVAL 952.6-962.3 mbsl; 313.1-322.8 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
UPPER PLIOCENE	B	B	C/G NR6	A/M *N. interfrigidaria / C. vulnificus* to *N. interfrigidaria*		w=68.2% γ=1.39	• %$CaCO_3$=0.3	1	0.5		○	◇	G
									1.0		○		
								2			○		*
								3			○		
								4			○		G
								5			○		
								6			○		
								7			○		
								CC		VOID	○		

LITHOLOGIC DESCRIPTION

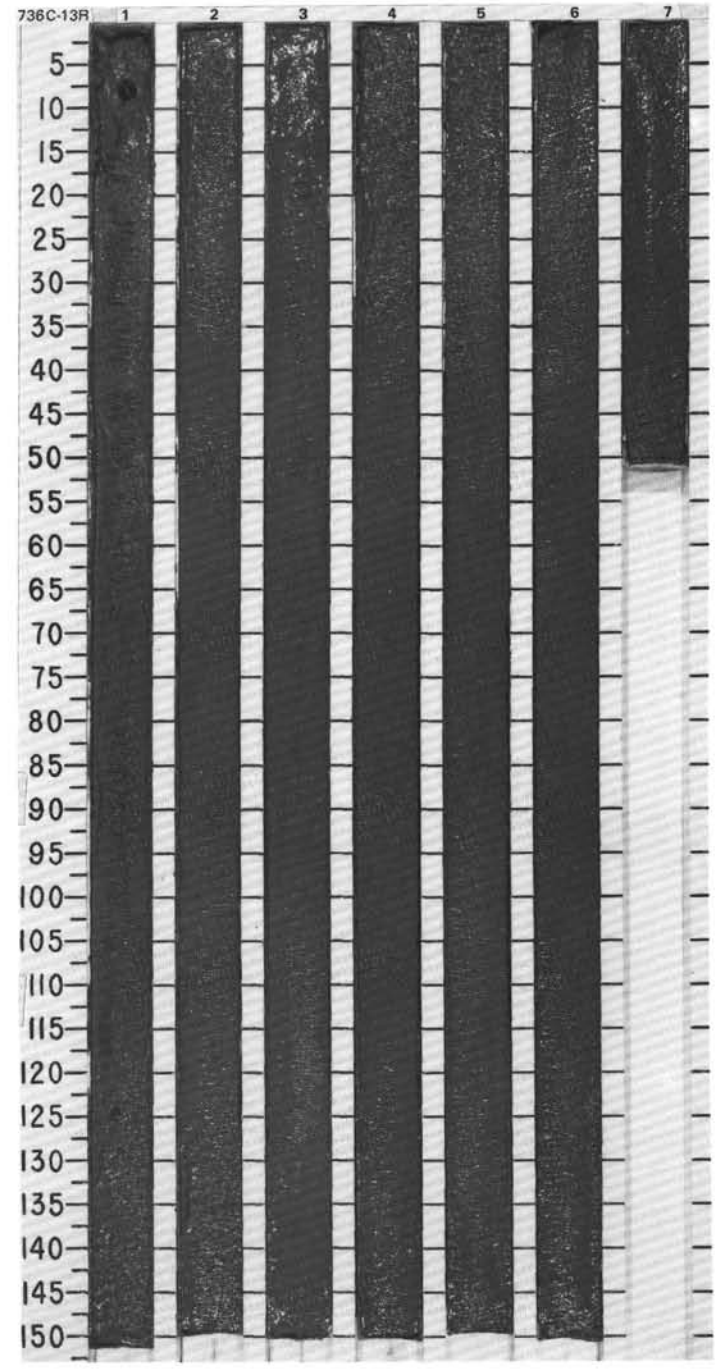
DIATOM OOZE

Major lithology: Diatom ooze, olive (5Y 5/3), homogeneous.

Drilling disturbance: soupy nature of sediment indicates total remobilization Furthermore, in Section 1, 0-10 cm, are fragments of basalt (2 mm size) and a basalt pebble (3 cm size), subangular and with faint striations. These and other basalt fragments (1 mm size) sprinkled through Section 2, 0-40 cm appear to be drilling contamination.

SMEAR SLIDE SUMMARY (%):

	2, 80 D
TEXTURE:	
Sand	1
Silt	80
Clay	19
COMPOSITION:	
Clay	10
Diatoms	89
Feldspar	Tr
Opaques	Tr
Spicules	1



SITE 736 HOLE C CORE 14R CORED INTERVAL 962.3-971.9 mbsl; 322.8-332.4 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
UPPER PLIOCENE	B	B	R/G NR6	A/M *N. interfrigidaria / C. vulnificus* to *N. interfrigidaria*		• w=54.7% γ=1.34	• $\%CaCO_3$=6.7 %TOC=0.35	1	0.5				
									1.0				
								2					*
							• $\%CaCO_3$=1.9	3					G
								CC		VOID			

LITHOLOGIC DESCRIPTION

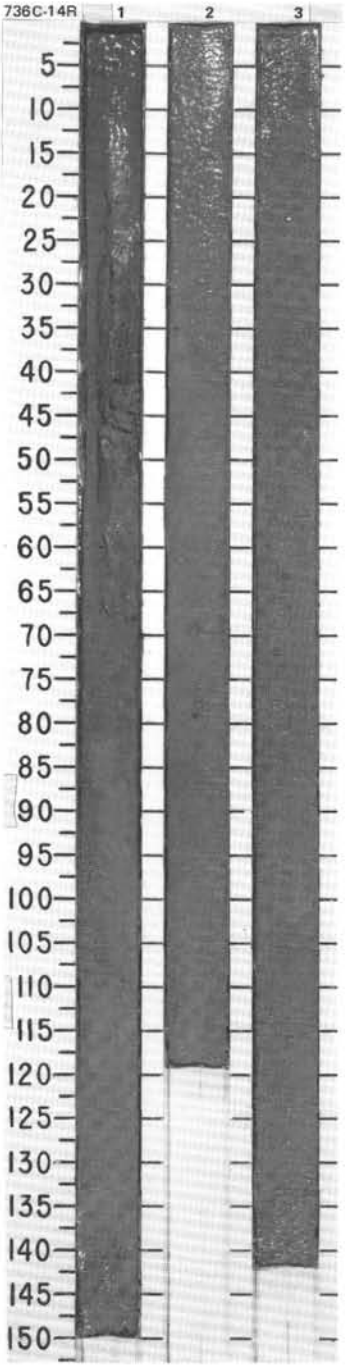
DIATOM OOZE

Major lithology: Diatom ooze, olive (5Y 5/3), homogeneous.

Drilling disturbance: soupy nature of sediment indicates total remobilization.

SMEAR SLIDE SUMMARY (%):

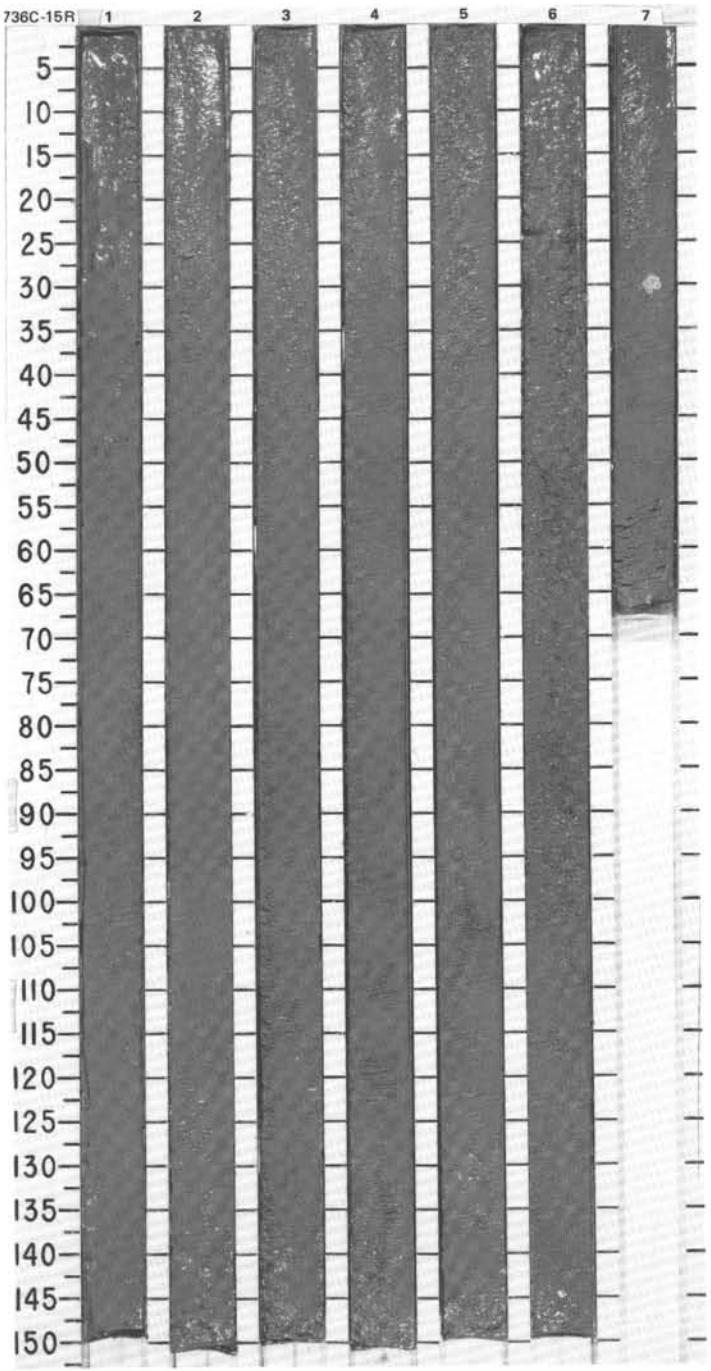
	2, 80 D
TEXTURE:	
Sand	5
Silt	90
Clay	5
COMPOSITION:	
Access. Minerals	1
Clay	5
Diatoms	94
Spicules	Tr



SITE 736 HOLE C CORE 15R CORED INTERVAL 971.9-981.5 mbsl; 332.4-342.0 mbsf

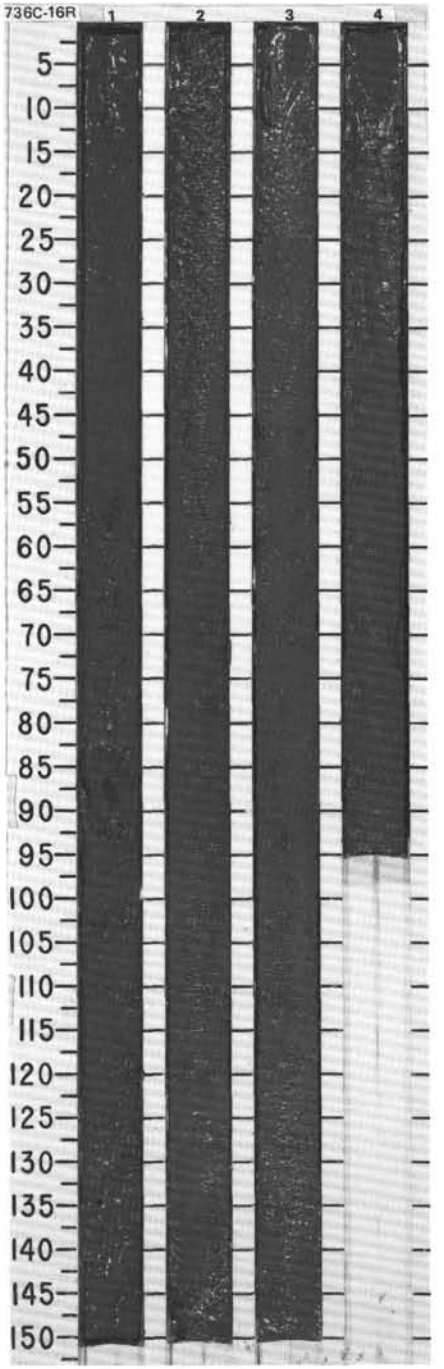
TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
UPPER PLIOCENE	B	B	R/G	A/M			●%CaCO3=5.3	1	0.5				G	DIATOM OOZE
			NR6						1.0					Major lithology: Diatom ooze, olive (5Y 5/3), homogeneous.
								2						Drilling disturbance: 0-20 cm, Section 1 there is a sprinkling of glass fragments, probably drilling or splitting contamination. Otherwise, the soupy nature of sediments indicates total remobilization.
								3					*	At 10 cm above bottom of ocre a slight H25 smell was emitted on treatment with HC1.
								4						SMEAR SLIDE SUMMARY (%):
								5						3, 80 D
								6						*TEXTURE:*
								7						Sand 5 Silt 90 Clay 5
								CC		VOID			G	COMPOSITION:
														Access. Minerals 1 Clay 5 Diatoms 94 Spicules Tr

N. interfrigidaria / C. vulnificus to *N. interfrigidaria*



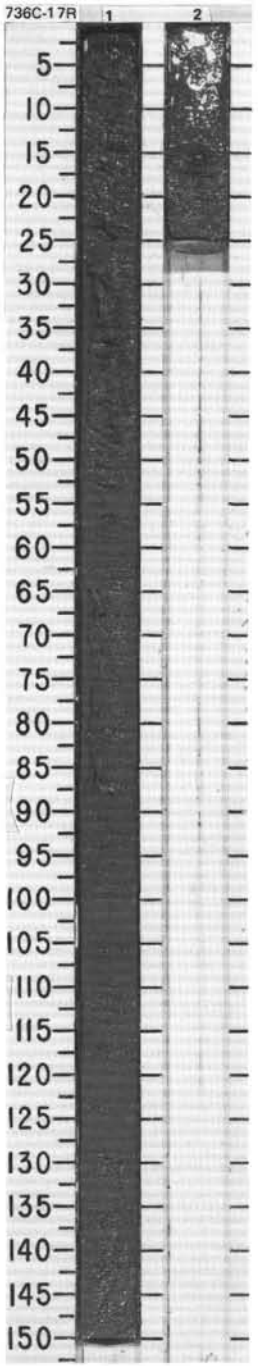
SITE 736 HOLE C CORE 16R CORED INTERVAL 981.5-991.1 mbsl; 342.0-351.6 mbsf

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
UPPER PLIOCENE	B	B	R/G NR6	A/G *N. interfrigidaria / C. vulnificus N. interfrigidaria*		● w=49.9% γ=1.26	● %$CaCO_3$=3.2	1	0.5		O			DIATOM OOZE Major lithology: Diatom ooze, olive (5Y 5/3), homogeneous. Drilling disturbance: soupy nature of sediment indicates total remobilization. SMEAR SLIDE SUMMARY (%): 3, 80 D TEXTURE: Sand 1 Silt 90 Clay 9 COMPOSITION: Clay 5 Access. minerals 1 Oxide Tr Diatoms 94 Silicoflagellates Tr
									1.0					
								2						
								3					*	
								4						
								CC		VOID	O		G	



SITE 736 HOLE C CORE 17R CORED INTERVAL 991.1-1000.8 mbsl; 351.6-361.3 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
UPPER PLIOCENE	B	B	R/G NR6	A/G *N. interfrigidaria* / *C. vulnificus* to *N. interfrigidaria*		w=40.2% γ=1.28 ●	● %$CaCO_3$=0.8	1	0.5, 1.0		○			DIATOM OOZE Major lithology: Diatom ooze, olive (5Y 5/3), homogeneous. Drilling disturbance: Ash/glass dispersed through the upper 25 cm of Section 1, appears to be drilling contamination. Soupy nature of the sediment indicates total remobilization. SMEAR SLIDE SUMMARY (%): 2, 18 D TEXTURE: Sand 1 Silt 95 Clay 4 COMPOSITION: Clay 10 Diatoms 90 Oxide Tr
								2			○			
								CC	VOID		○		*	



SITE 736 HOLE C CORE 18R CORED INTERVAL 1000.8-1010.5 mbsl; 361.3-371.0 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
UPPER PLIOCENE	B	B	R/G NR6	A/P *N. interfrigidaria* / *C. vulnificus* to *N. interfrigidaria*		●w=39.3% ?=1.36	● %$CaCO_3$=1.7 %TOC=0.9	1	0.5		O	◇		DIATOM OOZE
									1.0		O			Major lithology: Diatom ooze, olive (5Y 5/3), homogeneous.
											O			Drilling disturbance: Basalt fragments and pebble (4 cm diameter) in top 20 cm of ocre could have fallen in from above. Soupy nature of the sediment indicates total remobilization.
								2			O			SMEAR SLIDE SUMMARY (%):
											O			3, 80 D
											O			TEXTURE:
											O		IW OG	Sand —
											O			Silt 95
								3			O			Clay 5
											O			COMPOSITION:
											O		*	Calcite Tr
											O			Clay 5
											O			Diatoms 95
											O			Oxide Tr
											O			Spicules Tr
								4			O		G	
								CC		VOID