SITE 795 HOLE A CORE 1H CORED INTERVAL 3300.2-3328.5 mbsl; 0.0-9.3 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER
- FORAMINIFERS: R/P
- NANNOFOSSILS: B
- RADIOLARIANS: R/G
- DIATOMS: F/G

Emiliania huxleyi
Theocalyptra davisiana
Neodenticula seminae

PALEOMAGNETICS: N (Brunhes)

PHYS. PROPERTIES: V=1520; ρb=1.42; ρb=1.70; V=1515; V=1509; ρb=1.58; V=1525; ρb=1.58; ρb=1.42

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES: XRD, OG, FW, XRD, XRD

SAMPLES

LITHOLOGIC DESCRIPTION

SILTY CLAY

Major lithology: SILTY CLAY, light olive gray(5Y6/1), olive gray (5Y3/2), dark reddish brown (5YR 4/4); distinct to faint an gradational color banding, minor, thick clay-rich laminae. Color variation due to variation in pyrite and organic debris content.

Minor lithology: Organic debris-bearing silty clay, dark reddish brown (5YR 3/3), diatom clayey mixed sediment, reddish brown (5YR 4/4). Diatom-bearing silty clay, dark greenish gray (5Y 6/1). Foraminifera-bearing silty clay, dark olive gray (5Y 3/2). Thick laminae to thin beds of ash in Section 1 at 150 cm, Section 2 at 150 cm, Section 4 at 30, 89 and 100 cm, Section 5 at 60 cm and Section 6 at 38 and 134 cm.

SMEAR SLIDE SUMMARY (%):

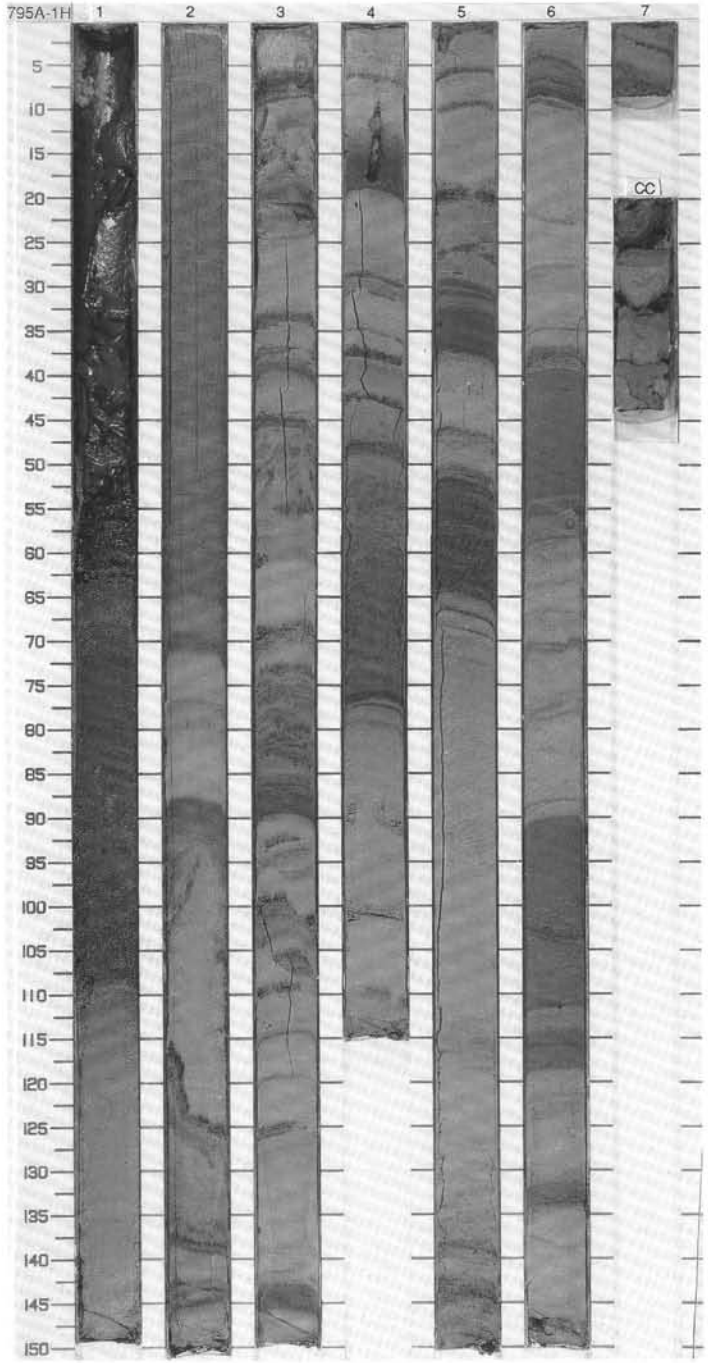
	1, 28 D	1, 57 D	1, 106 D	1, 130 D	2, 26 D	2, 102 M	2, 137 D
TEXTURE:							
Silt	20	50	60	60	40	50	30
Clay	80	50	40	40	60	50	70
COMPOSITION:							
Bioclast	—	—	2	—	—	—	—
Clay	75	—	50	50	55	55	65
Diatoms	15	45	Tr	30	2	1	Tr
Feldspar	—	—	—	5	15	5	10
Foraminifers	Tr	—	10	—	—	—	—
Glass	Tr	45	—	10	—	5	—
Inorganic calcite	—	—	—	—	5	10	2
Nannofossils	Tr	—	—	—	—	—	—
Organic matter	8	10	—	—	—	—	—
Plant	—	—	20	—	—	Tr	—
Pyrite	—	—	1	—	2	—	2
Quartz	—	Tr	15	5	20	20	15
Radiolarians	Tr	—	—	—	—	1	—
Rock fragment	—	—	—	—	—	—	1
Silicoflagellates	—	—	—	—	1	—	—
Spicules	Tr	—	—	—	—	—	Tr

SMEAR SLIDE SUMMARY (%):

	2, 145 M	4, 68 D	5, 33 M
TEXTURE:			
Sand	3	—	—
Silt	27	20	30
Clay	70	80	70
COMPOSITION:			
Clay	65	75	50
Diatoms	—	5	2
Feldspar	15	—	—
Glass	—	5	—
Nannofossils	—	—	Tr
Plant	—	—	20
Pyrite	5	2	25
Quartz	15	10	1
Silicoflagellates	—	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1,18	0.59	0.1
1,103	2.63	4.0
1,111	1.22	0.7
2, 45	1.17	1.7
4, 18	3.19	0.6
4, 148	0.58	0.3
5, 3	0.56	0.3
5, 62	2.74	16.2



SITE 795 HOLE A CORE 2H CORED INTERVAL 3309.5-3319.0 mbsl; 9.3-18.8 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER
- FORAMINIFERS: B
- NANNOFOSSILS: B
- RADIOLARIANS: *Emiliania huxleyi*
- DIATOMS: F/M *Theocalyptra davisiana*; A/M *Neodenticula seminae*

PALEOMAGNETICS: N (Brunhes)

PHYS. PROPERTIES: V=1522; V=1524; V=1522; V=1510

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: HM; XRD

LITHOLOGIC DESCRIPTION

SILTY CLAY AND ASHY SILTY CLAY

Major lithology: SILTY CLAY and ASHY SILTY CLAY, light gray (N6) light olive gray (5Y 6/1) with thick greenish gray (5G 6/1) clay-rich laminae; slight bioturbation; alternates with SILTY CLAY, olive gray (5Y 4/1), pyrite-and organic debris-bearing and laminated.

Minor lithology: Diatom ooze, olive gray (5Y 4/1), vitric ash, light gray (N7) with minor grading in Section 3 at 46, 79, 98 and 123 cm and Section 7 at 45 cm. Quartz silt, medium gray (N4).

SMEAR SLIDE SUMMARY (%):

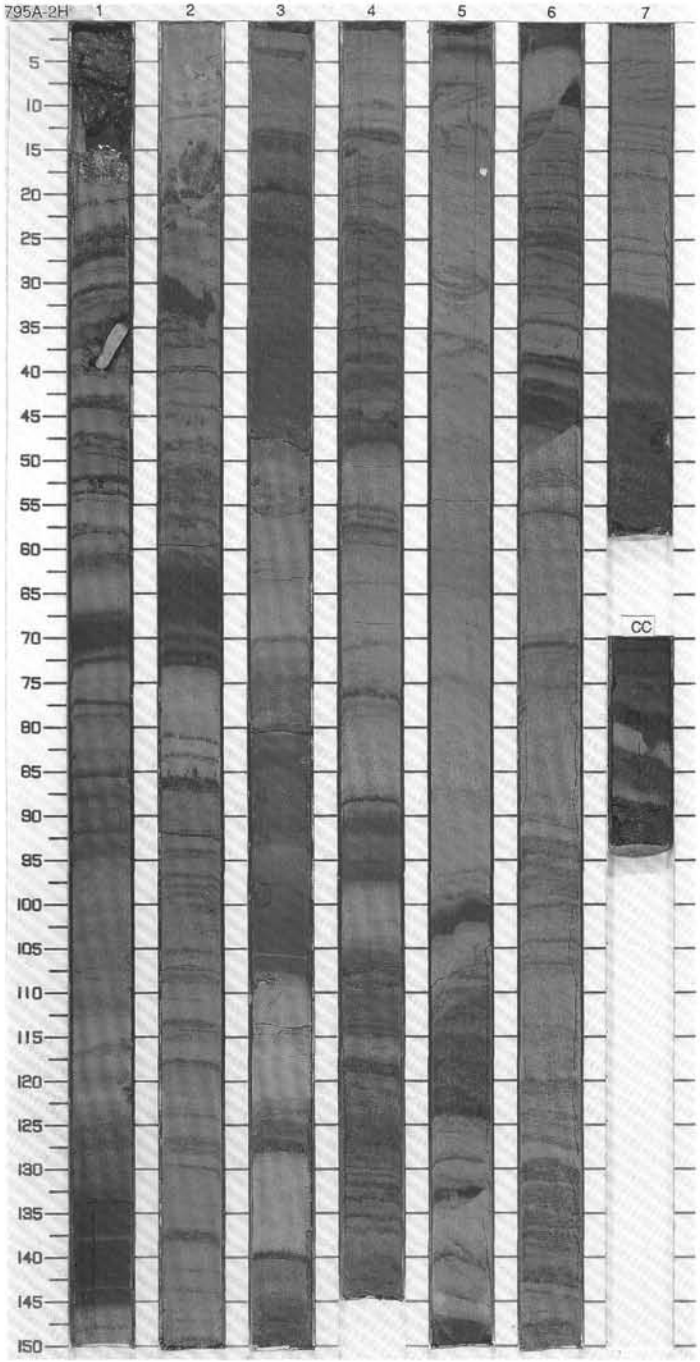
	1, 84 D	1, 140 D	2, 78 D	2, 86 M	2, 146 D	3, 30 D	3, 45 M
TEXTURE:							
Silt	10	30	30	30	40	30	60
Clay	90	70	70	70	60	70	40
COMPOSITION							
Clay	60	55	55	70	30	25	20
Diatoms	2	1	20	25	60	70	1
Dolomite	—	1	—	—	—	—	—
Feldspar	5	—	5	—	—	—	15
Foraminifers	—	1	—	—	—	—	—
Glass	15	—	10	5	10	—	45
Hornblende	—	—	—	Tr	—	—	—
Inorganic calcite	2	—	—	—	—	—	—
Organic matter	—	10	—	—	—	—	—
Plant	1	—	—	—	—	—	—
Pyrite	—	20	—	—	—	—	—
Quartz	10	10	10	—	Tr	2	15
Silicoflagellates	1	1	—	—	—	2	—
Spicules	1	1	—	—	—	—	—

SMEAR SLIDE SUMMARY (%):

	3, 102 D	4, 128 D	5, 81 D	7, 35 D
TEXTURE:				
Sand	—	5	—	—
Silt	30	35	40	80
Clay	70	60	60	20
COMPOSITION:				
Clay	60	60	60	40
Diatoms	2	2	—	—
Feldspar	5	10	10	20
Foraminifers	—	3	—	—
Glass	—	Tr	10	—
Inorganic calcite	—	5	—	2
Pyrite	20	Tr	—	5
Quartz	10	15	20	30
Radiolarians	—	Tr	—	—
Silicoflagellates	—	Tr	—	—
Spicules	—	Tr	—	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
3, 26	1.61	0.5
3, 104	2.53	1.0
5, 3	1.13	0.7
7, 37	0.62	1.2



SITE 795 HOLE A CORE 3H CORED INTERVAL 3319.0-3328.5 mbsl; 18.8-28.3 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: B
- NANNOFOSSILS: B — *Emiliania huxleyi*
- RADIOLARIANS: A/G — *Theocalyptra davisiana*
- DIATOMS: C/G — *Rhizosolenia curvirostris*

PALEOMAGNETICS: N (Brunhes)

PHYS. PROPERTIES: ρ=83.9, p=1.44; ρ=81.9, p=1.46; ρ=86.5, p=1.31; ρ=85.5, p=1.40; ρ=80.7, p=1.45; ρ=84.1, p=1.39

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES: (XRD)

SAMPLES: XRD, OG, BM, TW, XRD

LITHOLOGIC DESCRIPTION

SILTY CLAY

Major lithology: SILTY CLAY, greenish gray (5G 6/1) and light gray (N7) with distinct, thick, dark greenish gray (5GY 4/1) laminae; alternates with olive gray (5Y 4/1) pyrite-organic debris-bearing silty clay with distinct to faint and gradational color banding and laminae.

Minor lithology: Micrite, olive gray (5Y 5/2). Calcareous diatom clay, dark yellowish brown (10 YR 4/2). Ash layers in Section 3 at 53, 88 and 94 cm, Section 4 at 52 cm, Section 5 at 36 and 139 cm and Section 6 at 11 and 91 cm.

SMEAR SLIDE SUMMARY (%):

	1, 85 D	1, 97 D	2, 43 M	2, 104 D	2, 109 M	3, 83 M	5, 82 D
TEXTURE:							
Sand	—	—	—	5	5	—	5
Silt	15	—	50	15	30	30	20
Clay	85	100	50	80	65	70	75
COMPOSITION:							
Clay	75	100	15	75	55	55	70
Diatoms	10	Tr	1	—	—	20	Tr
Dolomite	—	—	70	—	—	—	—
Feldspar	—	—	—	5	10	—	10
Foraminifers	—	—	—	5	2	—	—
Glass	5	—	—	—	—	Tr	Tr
Inorganic calcite	—	—	—	5	—	10	2
Pyrite	—	—	—	—	5	2	3
Quartz	10	Tr	10	10	23	10	15
Radiolarians	—	—	—	—	—	2	—
Spicules	—	—	—	—	—	1	—
	—	—	—	—	—	Tr	—

SMEAR SLIDE SUMMARY (%):

	6, 58 D
TEXTURE:	
Silt	30
Clay	70
COMPOSITION:	
Clay	70
Diatoms	Tr
Glass	Tr
Quartz	30

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	0.13	10.7
4, 143	1.37	0.4
5, 3	1.49	0.74H

795A-3H 1 2 3 4 5 6 7

5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150

CC

SITE 795 HOLE A CORE 4H CORED INTERVAL 3328.5-3338.0 mbsl; 28.3-37.8 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS A/M; NANNOFOSSILS *Gephyrocapsa oceanica* A/G; RADIOLARIANS *Theocalyptra davisiana* R/M; DIATOMS *Rhizosolenia curvirostris* R/P

PALEOMAGNETICS: N (Brunhes) / R (Matuyama)

PHYS. PROPERTIES: ●Φ=84.4 ρ=1.46; ●Φ=89.5 ρ=1.34 ●v=1525; ●Φ=80.9 ρ=1.47 v=1519●; ●Φ=75.1 ρ=1.55 v=1510●; ●Φ=77.6 ρ=1.53; ●Φ=72.6 ρ=1.59 v=1533; ●Φ=70.1 ρ=1.64

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES: XRD, XRD, XRD, XRD

SAMPLES

LITHOLOGIC DESCRIPTION

SILTY CLAY

Major lithology: SILTY CLAY, light gray (N7) and greenish gray (5G 6/1) with dark greenish gray (5G 4/2) laminae; alternates with dark greenish gray (5G 4/1) and olive black (5Y 2/1) silty clay with distinct to gradational color bands and lamination.

Minor lithology: Micrite, dark yellowish orange (10YR 6/6). Foraminifera- bearing calcareous clay, olive gray (5Y 4/1). Ash layers, light gray (N7) in Section 1 at 10, 100 and 123 cm, Section 2 at 8, 62, 101and 131 cm, Section 4 at 38, 70, 101, 109 and 122 cm and Section 5 at 46 cm.

SMEAR SLIDE SUMMARY (%):

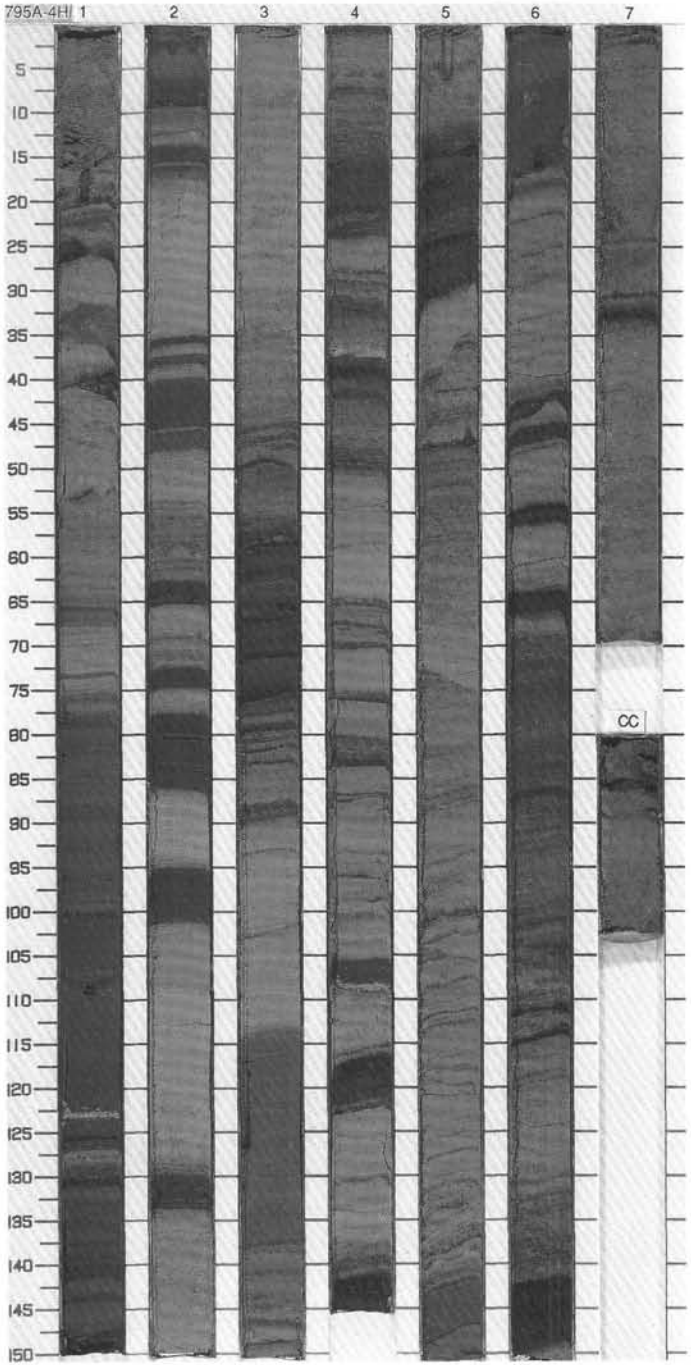
	1, 12 M	1, 78 M	2, 46 D	2, 93 D	3, 70 D	3, 129 D	5, 29 D
TEXTURE:							
Sand	10	---	—	—	—	—	—
Silt	30	---	30	30	20	25	20
Clay	60	100	70	70	80	75	80
COMPOSITION:							
Clay	25	5	40	60	90	75	80
Diatoms	5	1	5	Tr	5	Tr	Tr
Dolomite	—	90	—	—	—	—	—
Feldspar	10	2	5	—	—	—	—
Foraminifers	—	—	10	—	—	—	—
Glass	50	—	—	10	—	—	Tr
Inorganic calcite	—	—	20	5	—	—	—
Organic matter	—	—	—	—	—	5	3
Pyrite	—	—	2	—	—	5	2
Quartz	10	2	15	20	5	15	15
Radiolarians	—	—	1	—	—	—	—
Silicoflagellates	Tr	—	—	—	—	—	Tr

SMEAR SLIDE SUMMARY (%):

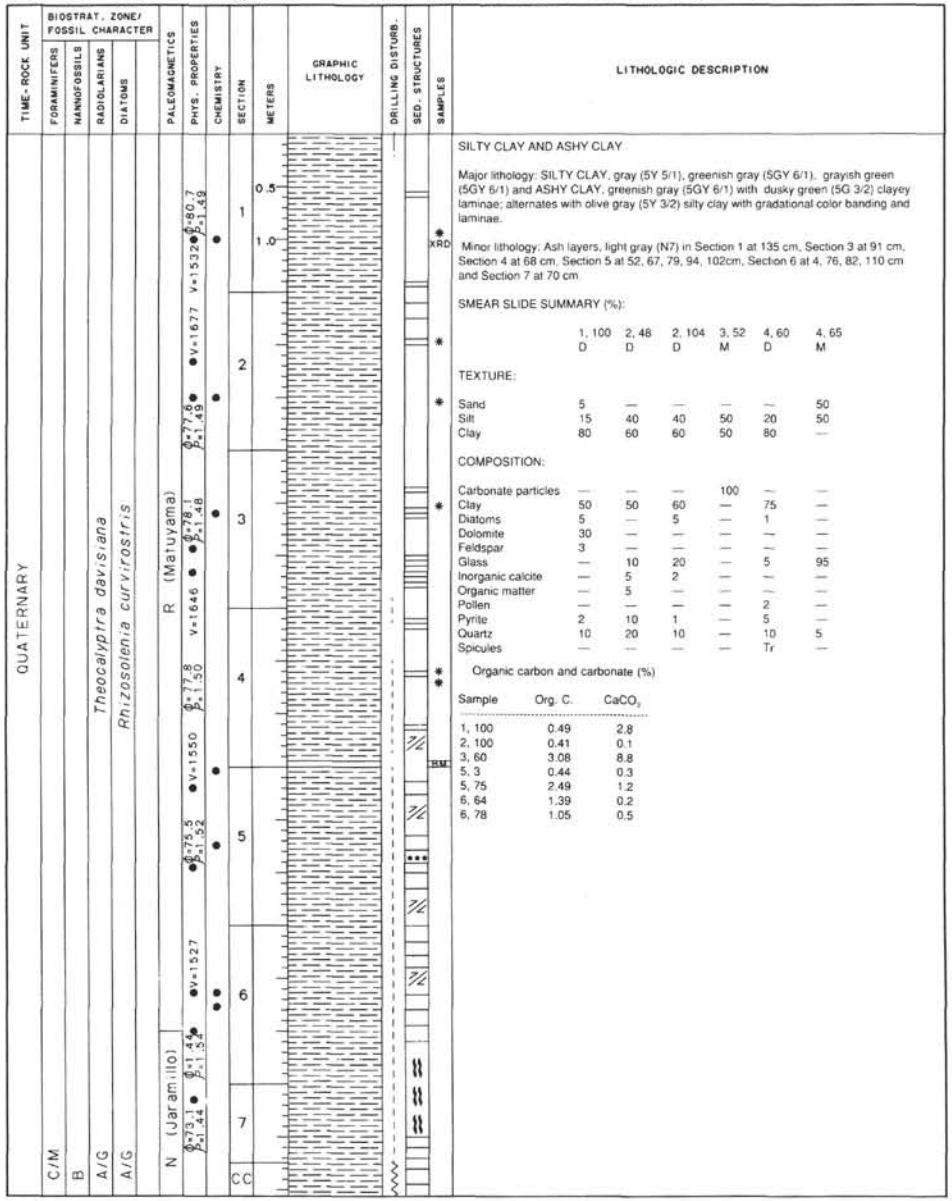
	5, 143 M	6, 100 D
TEXTURE:		
Sand	—	5
Silt	100	20
Clay	—	75
COMPOSITION:		
Carbonate particles	100	—
Clay	—	75
Diatoms	—	2
Feldspar	—	5
Glass	—	5
Organic matter	—	1
Pyrite	—	2
Quartz	—	10
Silicoflagellates	—	Tr
Spicules	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 105	1.65	1.2
2, 84	2.45	10.2
2, 94	0.18	0.7
3, 128	0.66	1.6
4, 107	2.71	1.2
5, 3	0.31	0.7
5, 26	1.69	0.5
6, 144	3.85	1.7



SITE 795 HOLE A CORE 5H CORED INTERVAL 3338.0-3347.5 mbsl; 37.8-47.3 mbsf



SILTY CLAY AND ASHY CLAY

Major lithology: SILTY CLAY, gray (5Y 5/1), greenish gray (5GY 6/1), grayish green (5GY 6/1) and ASHY CLAY, greenish gray (5GY 6/1) with dusky green (5G 3/2) clayey laminae; alternates with olive gray (5Y 3/2) silty clay with gradational color banding and laminae.

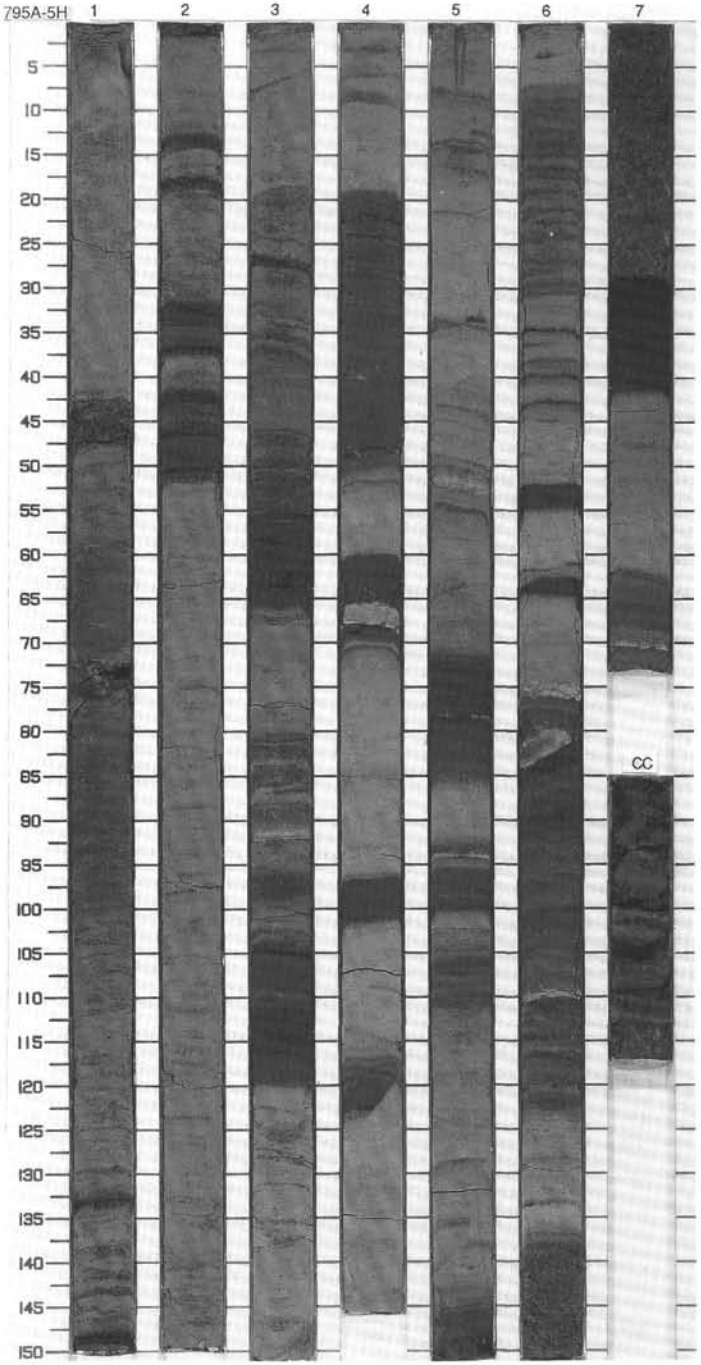
Minor lithology: Ash layers, light gray (N7) in Section 1 at 135 cm, Section 3 at 91 cm, Section 4 at 68 cm, Section 5 at 52, 67, 79, 94, 102cm, Section 6 at 4, 76, 82, 110 cm and Section 7 at 70 cm.

SMEAR SLIDE SUMMARY (%):

	1, 100 D	2, 48 D	2, 104 D	3, 52 M	4, 60 D	4, 65 M
TEXTURE:						
Sand	5	—	—	—	—	50
Silt	15	40	40	50	20	50
Clay	80	60	60	50	80	—
COMPOSITION:						
Carbonate particles	—	—	—	100	—	—
Clay	50	50	60	—	75	—
Diatoms	5	—	5	—	1	—
Dolomite	30	—	—	—	—	—
Feldspar	3	—	—	—	—	—
Glass	—	10	20	—	5	95
Inorganic calcite	—	5	2	—	—	—
Organic matter	—	5	—	—	—	—
Pollen	—	—	—	—	2	—
Pyrite	2	10	1	—	5	—
Quartz	10	20	10	—	10	5
Spicules	—	—	—	—	Tr	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 100	0.49	2.8
2, 100	0.41	0.1
3, 60	3.08	8.8
5, 3	0.44	0.3
5, 75	2.49	1.2
6, 64	1.39	0.2
6, 78	1.05	0.5



SITE 795 HOLE A CORE 6H CORED INTERVAL 3347.5-3357.0 mbsl; 47.3-56.8 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS B; NANNOFOSSILS B; RADIOLARIANS *Theocalyptra davisiana*; DIATOMS F/M; R/P

PALEOMAGNETICS: R (Matuyama); N (Jaramillo)

PHYS. PROPERTIES: Φ=75.1 ρ=1.56; Φ=73.8 ρ=1.54; V=1541; Φ=83.5 ρ=1.37; V=1540; Φ=75.9 ρ=1.54; V=1608; Φ=74.4 ρ=1.57; V=1657; V=1609; Φ=80.1 ρ=1.42; Φ=82.9 ρ=1.43

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: XRD

LITHOLOGIC DESCRIPTION

SILTY CLAY

Major lithology: SILTY CLAY, light green gray (5G 7/1), greenish brown (5YR 3/2), grayish green (10G 4/2), olive gray (5Y 5/1); thin to mediumbedded, moderately well laminated.

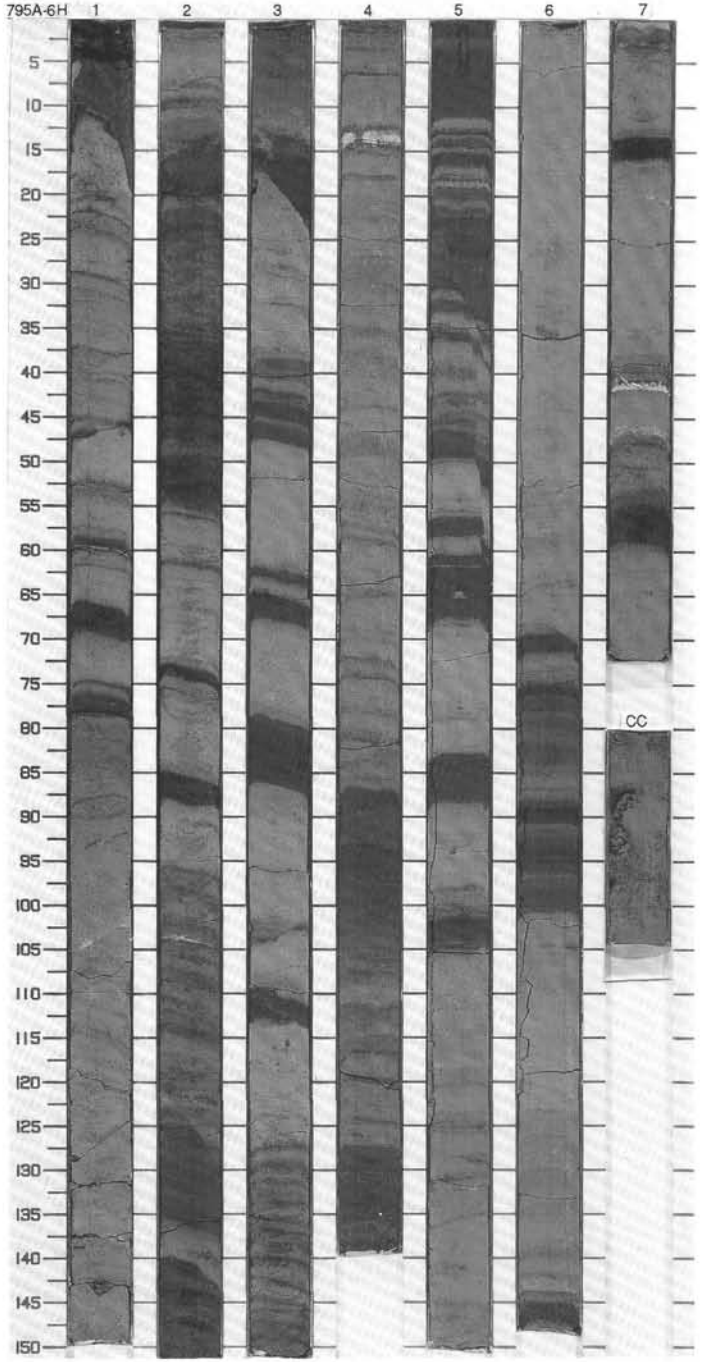
Minor lithology: Ash, light gray (N8) to medium gray (N5); mostly less than 1 cm thick; occur in Section 1 at 10, 60, 105, 138 cm, Section 2 at 123 cm, Section 3 at 126 cm, Section 4 at 13-14 cm, Section 5 at 18, 60 65, 132 cm, Section 6 at 36, 127 cm and Section 7 at 0-2, 20, 41, 46 cm. Diatom-bearing silty clay, light greenish-gray (5G 7/1). Calcareous bed, moderate brown (5YR 4/4) at 75-76 cm.

SMEAR SLIDE SUMMARY (%):

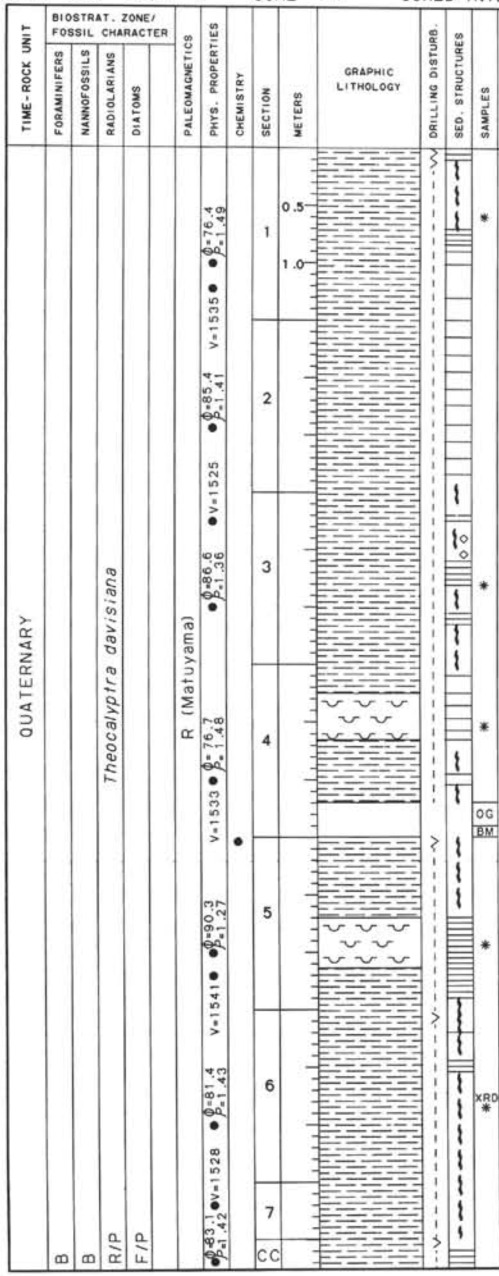
	1, 97 D	3, 80 M	5, 14 M	5, 71 D	7, 2 M
TEXTURE:					
Sand	—	—	90	—	—
Silt	80	40	10	30	95
Clay	20	60	—	70	5
COMPOSITION:					
Accessory minerals	—	2	2	1	—
Clay	40	80	—	90	—
Diatoms	55	10	Tr	Tr	—
Feldspar	—	—	5	—	—
Glass	Tr	2	10	5	90
Pyrite	—	5	—	2	10
Quartz	—	—	53	—	—
Radiolarians	Tr	—	—	Tr	—
Rock fragment	—	—	30	—	—
Silicoflagellates	Tr	—	—	—	—
Spicules	—	—	Tr	Tr	—
Spores	—	Tr	—	—	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
4, 147	1.06	0.7
5, 3	2.29	0.5



SITE 795 HOLE A CORE 7H CORED INTERVAL 3357.0-3366.5 mbsl; 56.8-66.3 mbsf



LITHOLOGIC DESCRIPTION

SILTY CLAY AND SILTY DIATOM OOZE

Major lithology: SILTY CLAYand SILTY DIATOM OOZE, light greenish gray (5G 7/1), brownish gray (5Y 4/1), dark greenish gray (5G 4/1) and olive gray (5Y 4/1); light olive gray (5Y 7/1), and light bluish gray (5B 7/1); thin to thick bedded; moderately to slightly bioturbated.

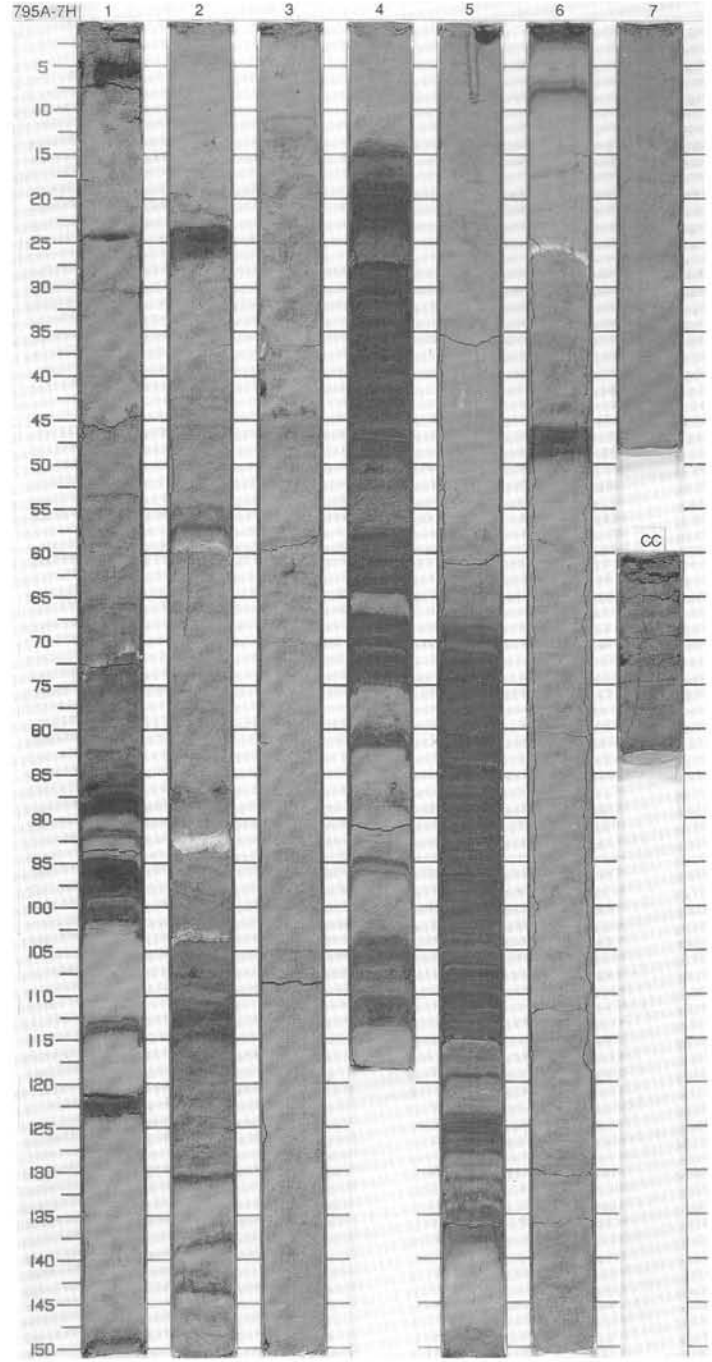
Minor lithology: Thin ash beds, very light gray (N8), to medium gray (N5). Occur in Section 1 at 72 cm, Section 2 at 58, 91-93, 102 cm, Section 4 at 24-26 cm, Section 5 at 135-137 cm and Section 6 at 25 cm. Carbonate-rich lamina, moderate yellow brown (10YR 5/4), occur in Section 6 at 25 cm and Section 7 at 28-31 cm. Fine disseminated pyrite black (N1) throughout.

SMEAR SLIDE SUMMARY (%):

	1, 60 D	3, 80 D	4, 53 D	5, 93 D	6, 86 D
TEXTURE:					
Sand	—	—	20	—	—
Silt	20	40	60	85	15
Clay	80	60	20	15	85
COMPOSITION:					
Accessory minerals	1	2	—	—	—
Clay	93	80	25	20	90
Diatoms	Tr	5	65	75	5
Glass	1	5	—	—	2
Organic matter	—	Tr	—	—	—
Pollen	Tr	Tr	—	Tr	Tr
Pyrite	—	—	Tr	—	—
Quartz	—	3	10	—	—
Silicoflagellates	—	—	—	—	Tr
Spicules	Tr	—	—	—	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
5, 3	0.36	0.4



SITE 795 HOLE A CORE 8H CORED INTERVAL 3366.5-3376.0 mbsl; 66.3-75.8 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: B; NANNOFOSSILS: B; RADIOLARIANS: F/M; DIATOMS: F/P; *Theocalyptra davisiana*

PALEOMAGNETICS: R (Matuyama)

PHYS. PROPERTIES: Φ=81.1, ρ=1.42; V=1529; Φ=80.4, ρ=1.46; V=1518; Φ=77.9, ρ=1.49; V=1516; Φ=83.2, ρ=1.43; Φ=84.0, ρ=1.42; V=1511; Φ=77.4, ρ=1.54

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

SILTY CLAY

Major lithology: SILTY CLAY, light bluish gray (5B 7/1), light olive gray (5Y 6/1), grayish blue-green (5BG 5/2) and brownish gray (5YR 4/1); thin to medium bedded. Light colored silty clays merging into dark green clays; thinly laminated to slightly bioturbated. Section 6, 10-80 cm is highly mottled.

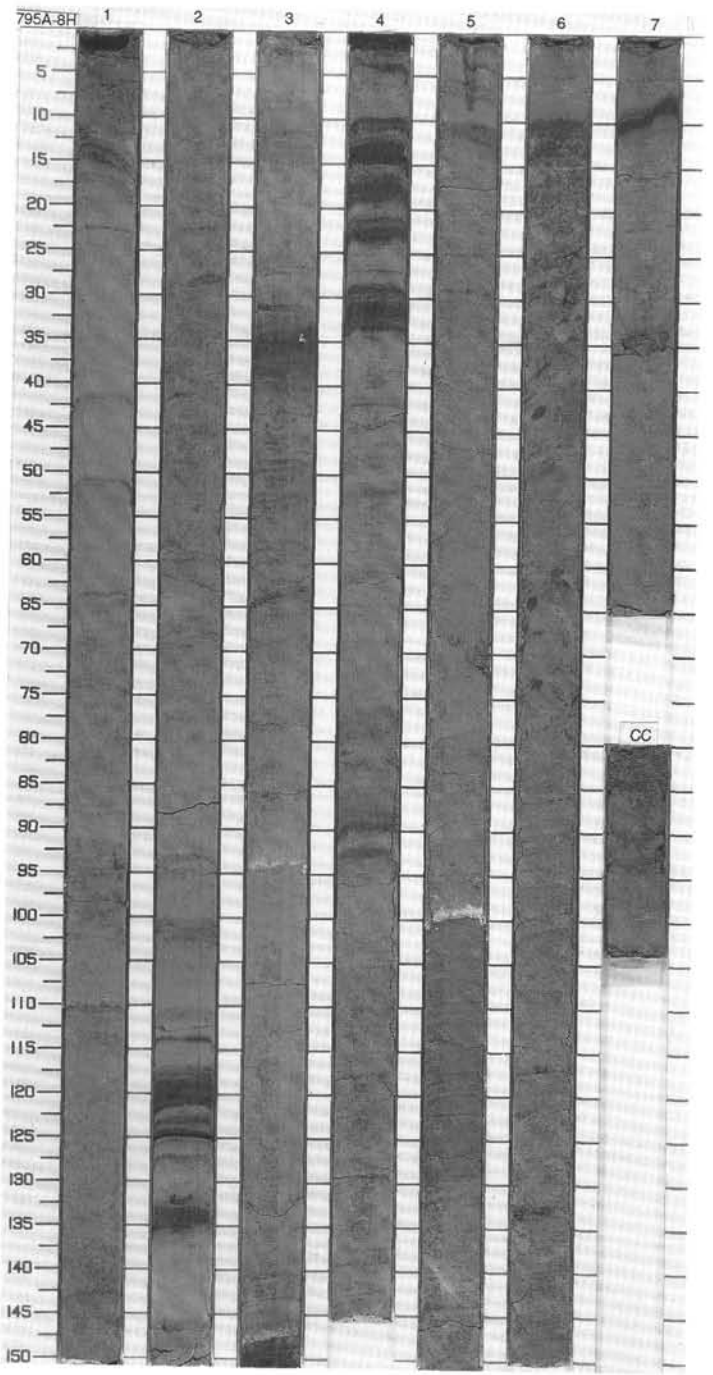
Minor lithology: Ash, light gray (N7) to very light gray (N8); present in Section 3 at 94-147 cm, Section 4 at 12-15 cm, Section 5 at 99 cm and Section 6 at 12 cm. Scattered pyrite nodules and disseminated pyrite throughout. Carbonate-rich laminae, moderate yellow brown (10YR 5/4) in Section 2 at 64-66 cm, Section 2 at 5-6, 19-20, 36-39 cm, Section 4 at 90-92 cm and Section 5 at 56 cm. Diatom-bearing silty clay, light olive gray (5Y 6/1) in Section 6.

SMEAR SLIDE SUMMARY (%):

	1, 31 D	3, 50 D	4, 89 M	6, 132 D
TEXTURE:				
Silt	2	30	40	40
Clay	98	70	60	60
COMPOSITION:				
Accessory minerals	Tr	2	—	—
Carbonate grains	—	—	95	—
Clay	90	90	—	90
Diatoms	Tr	2	—	3
Glass	5	3	—	2
Pollen	—	—	—	Tr
Spicules	—	—	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
5, 3	0.24	0.29H



SITE 795 HOLE A CORE 9H CORED INTERVAL 3376.0-3385.5 mbsl; 75.8-85.3 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS R/P; NANNOFOSSILS B; RADIOLARIANS *Theocalyptra davisiana*; DIATOMS R/P

PALEOMAGNETICS: R (Matuyama)

PHYS. PROPERTIES: ϕ=71.3 ρ_s=1.59; V=1535 ϕ=76.0 ρ_s=1.53; ϕ=79.4 ρ_s=1.49; V=1516; ϕ=75.8 ρ_s=1.54; V=1518; ϕ=81.1 ρ_s=1.46; V=1525; ϕ=81.8 ρ_s=1.42; ϕ=81.3 ρ_s=1.42

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES: XRD; XRD

SAMPLES: QG; BM; W

LITHOLOGIC DESCRIPTION

SILTY CLAY

Major lithology: SILTY CLAY, dark greenish gray (5GY 4/1), olive gray (5Y 3/2), light olive gray (5Y 6/1) greenish gray (5G 5/1), olive gray (5Y 4/1); mostly bioturbated to faintly laminated; thin bedded (1-2cm) light olive gray clays merging into darker greenish gray clays.

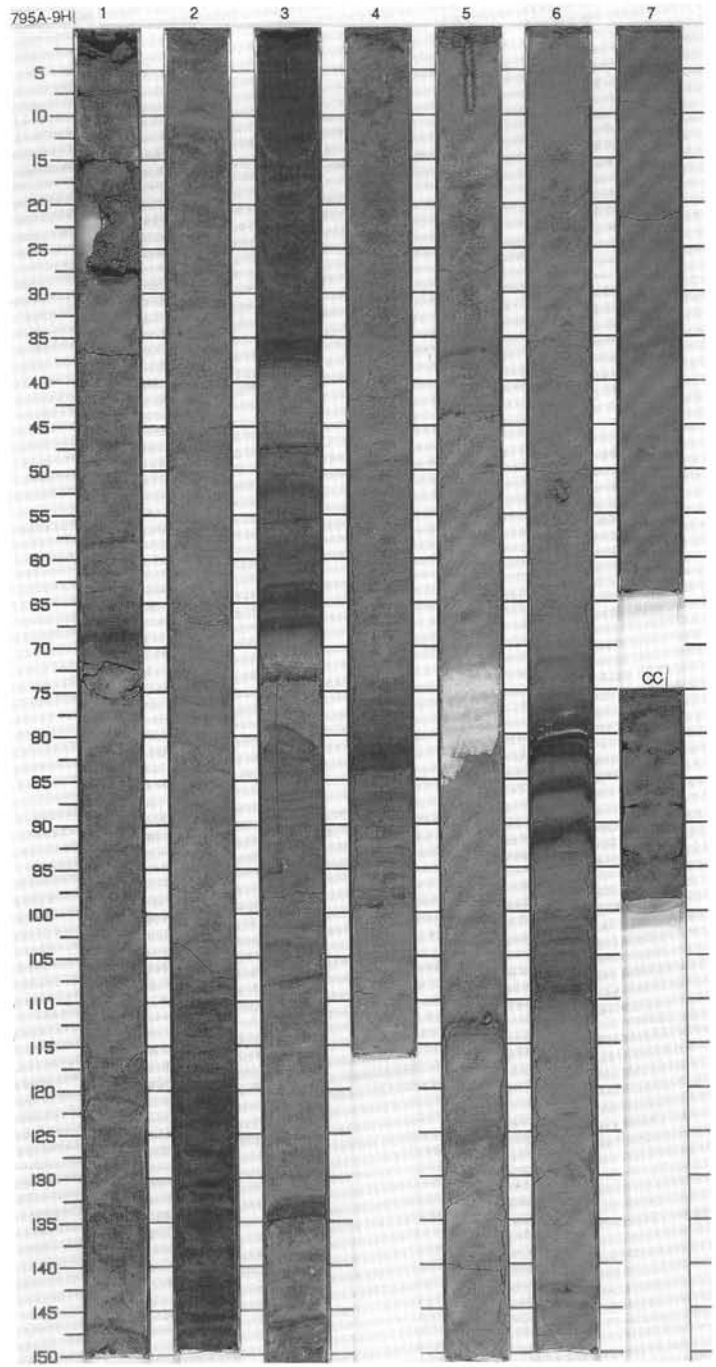
Minor lithology: Carbonate nodules, moderate yellowish brown (10YR 5/4) in Section 1 at 71-74 cm, Section 5 at 131-135 and Core Catcher at 2-3 cm. Scattered pyrite nodules. Ash layers, white (N9) to light gray (N7) in Section 3 at 37, 72-74, 134, 146 cm, Section 5 at 17, 73-78, 112 cm and Section 6 at 6 and 80 cm. Diatom-bearing silty clay, light olive gray (5Y 6/1).

SMEAR SLIDE SUMMARY (%):

	1, 146 M	3, 7 D	3, 134 M	4, 64 D	6, 81 M
TEXTURE:					
Silt	20	30	60	50	15
Clay	80	70	40	50	85
COMPOSITION:					
Accessory minerals	Tr	Tr	—	Tr	Tr
Clay	92	90	50	95	85
Diatoms	3	5	43	Tr	Tr
Glass	3	Tr	Tr	Tr	1
Organic matter	Tr	Tr	3	Tr	—
Pollen	Tr	—	—	—	—
Pyrite	Tr	3	1	Tr	Tr
Quartz	—	—	—	—	10
Silicoflagellates	—	—	Tr	—	Tr
Spicules	—	—	—	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 101	0.19	0.1
4, 147	1.20	20.7
5, 3	0.19	1.2



SITE 795 HOLE A CORE 10H CORED INTERVAL 3385.5-3395.0 mbsl; 85.3-94.8 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
QUATERNARY	B	R/M *Sphaeropyle robusta*	R/M *Actinocyclus oculatus*	R/M (Matuyama)	N (Olduvai) R	Φ=75.2 ρ=1.55 ● V=1563 Φ=79.3 ρ=1.45	● ●	1 2 CC	0.5 1.0				HM

LITHOLOGIC DESCRIPTION

SILTY CLAY

Major lithology: SILTY CLAY, greenish gray (5G 5/1), dark greenish gray (5G 4/1), olive gray (5Y 4/1) and yellowish gray (5Y 8/1); bioturbated.

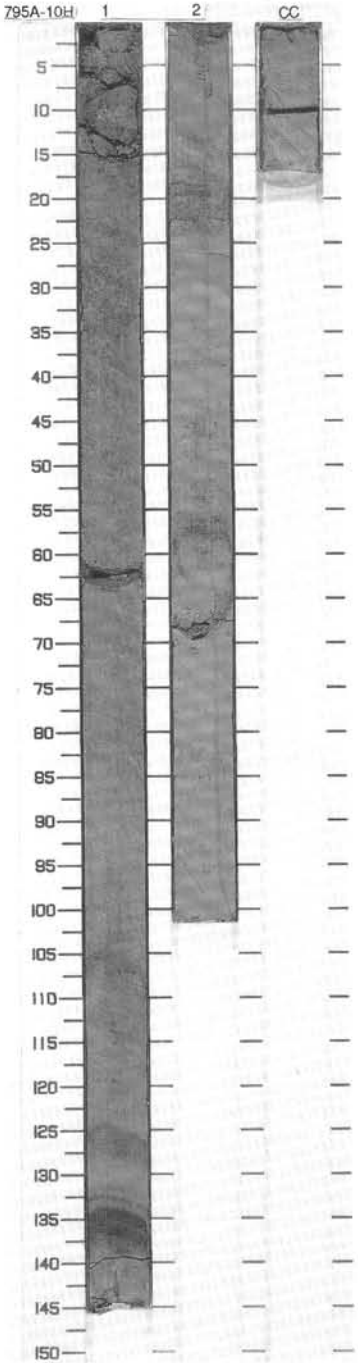
Minor lithology: Dolomite nodules, Section 1 at 6-13 cm and Section 2 at 68 cm.

SMEAR SLIDE SUMMARY (%):

	1, 81 D	2, 57 D
TEXTURE:		
Silt	40	40
Clay	60	60
COMPOSITION:		
Accessory minerals	3	Tr
Clay	90	90
Diatoms	2	—
Glass	Tr	3
Organic matter	Tr	2

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 51	0.18	0.1
2, 3	0.19	0.2



SITE 795 HOLE A CORE 11H CORED INTERVAL 3395.0-3404.5 mbsl; 94.8-104.3 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS C/M; NANNOFOSSILS B; RADIOLARIANS F/M; DIATOMS C/G — Sphaeropyle robusta; Actinocyclus aculatus

PALEOMAGNETICS: INDETERMINATE; R (Matuyama); N (Olduvai)

PHYS. PROPERTIES: ρ=81.3 ρ=1.50; V=1528; ρ=84.2 ρ=1.58; V=1512; ρ=81.7 ρ=1.44; V=1510; ρ=83.4 ρ=1.43; ρ=82.2 ρ=1.47; V=1522; ρ=83.2 ρ=1.45; V=1495; ρ=79.4 ρ=1.44

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: XRD

LITHOLOGIC DESCRIPTION

DIATOM-BEARING SILTY CLAY

Major lithology: DIATOM-BEARING SILTY CLAY, light greenish gray (5G 7/1), dark green gray (5G 4/1), greenish gray (5G 5/1) and olive gray (5Y 11/1). Mostly slightly to moderately bioturbated/mottled; a few zones are faintly laminated (color-banded).

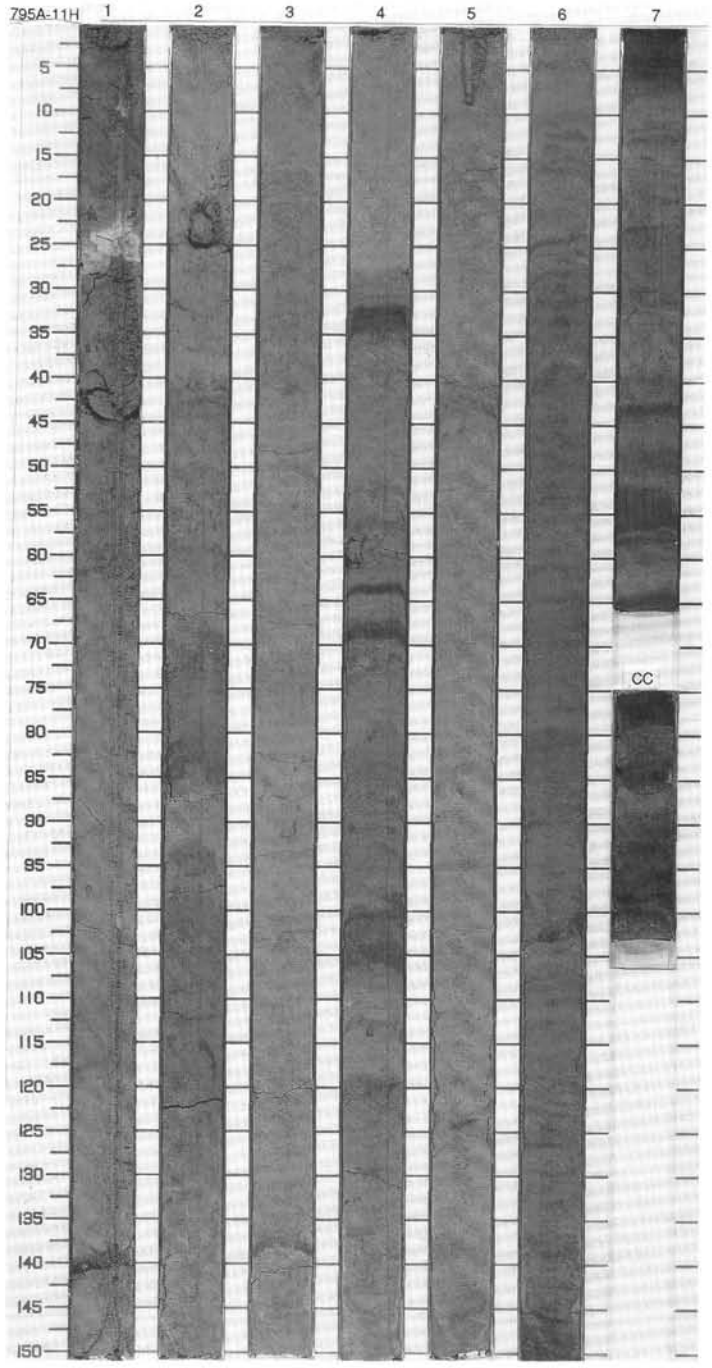
Minor lithology: Ash beds and lamina of various color; in Section 1 at 23-28 cm, very light gray (N8), 140 cm, dark gray (N3), Section 3 at 138-139 cm, very light gray (N8) to medium dark gray (N4). Section 5 at 24 cm, medium gray (N5). Isolated pyrite nodules and finely disseminat pyrite, especially in ash layers. Carbonate-rich zones in Section 2 at 65, 122 cm, and Section 4 at 57-59 cm, both moderate yellow brown (10YR 5/4).

SMEAR SLIDE SUMMARY (%):

	1, 83 D	3, 74 D	4, 105 M	6, 78 D
TEXTURE:				
Silt	40	20	20	15
Clay	60	80	80	85
COMPOSITION:				
Accessory minerals	1	Tr	Tr	Tr
Clay	90	92	93	85
Diatoms	2	1	2	3
Glass	2	2	1	—
Organic matter	—	Tr	Tr	—
Pollen	—	—	—	Tr
Pyrite	—	—	Tr	—
Quartz	—	—	Tr	10
Silicoflagellates	—	Tr	Tr	Tr
Spicules	—	—	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 101	0.77	0.2
4, 33	1.57	0.1
5, 3	0.20	0.2
7, 4	1.22	1.6



SITE 795 HOLE A CORE 12H CORED INTERVAL 3404.5-3414.0 mbsl; 104.3-113.8 mbsf

TIME-ROCK UNIT: UPPER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS F/P; NANNOFOSSILS B; RADIOLARIANS *Sphaeropyle robusta*; DIATOMS C/M; *Neodenticula kozumii* A/G

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: Φ=83.9 ρ=1.57 ●V=1516; Φ=79.5 ρ=1.49 ●V=1596; Φ=80.2 ρ=1.53; Φ=87.4 ρ=1.47 ●V=1600; Φ=81.1 ρ=1.48 ●V=1624; Φ=81.5 ρ=1.53

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: OC, AM, TW

LITHOLOGIC DESCRIPTION

DIATOM-BEARING SILTY CLAY

Major lithology: DIATOM-BEARING SILTY CLAY, greenish gray (5G 6/1, 5G 5/1, 5GY 6/1), light olive gray (5Y 6/1) and dark greenish gray (5G 4/1). Moderately to heavily bioturbated/mottled. Some zones moderately to faintly laminated (color banding).

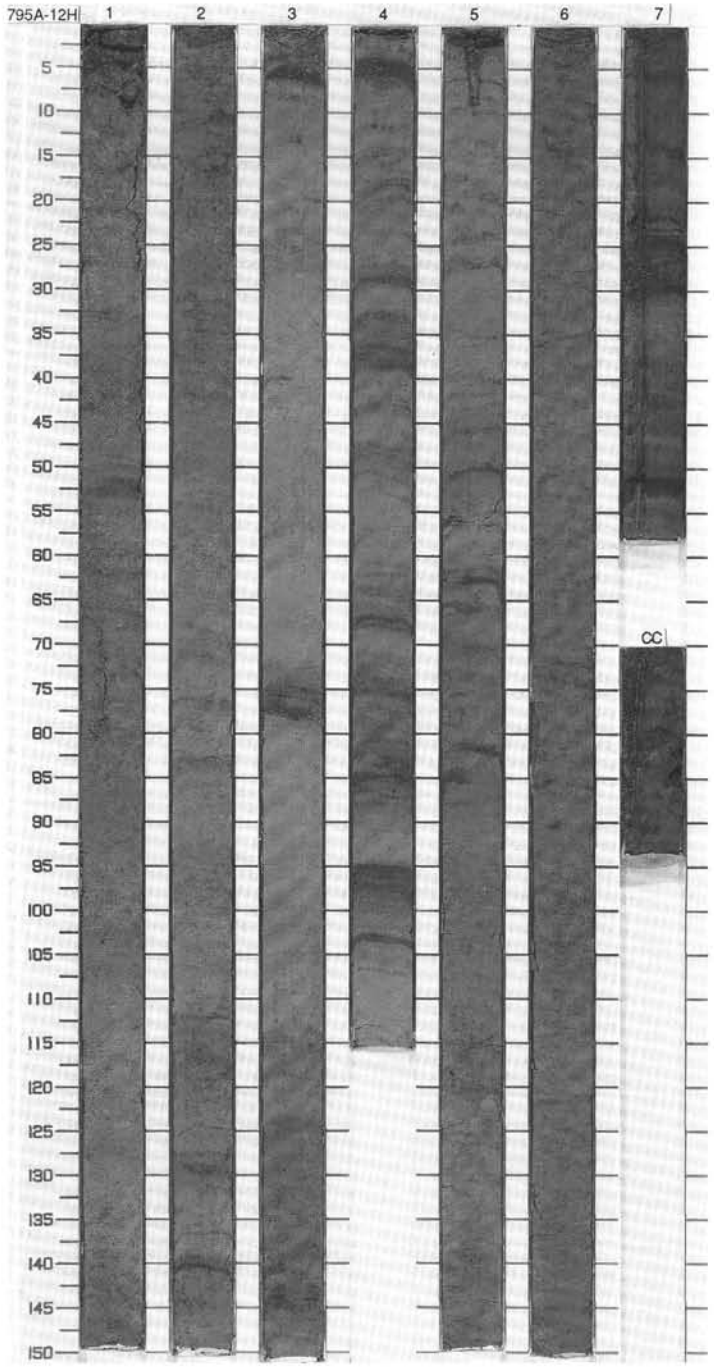
Minor lithology: Scattered dolomite pebbles at top of core. Ash beds in Section 2 at 16 cm, medium dark gray (N4), Section 3 at 78 cm, medium dark gray (N4), Section 5 at 82 and 85 cm, dark gray (N3). Carbonate-rich bed, Section 7 at 27-29 cm, moderate yellow brown (10YR 5/4), Section 2 at 21-23 cm, moderate yellow brown (10YR 6/4). Scattered, finely crystalline pyrite, especially in ash beds.

SMEAR SLIDE SUMMARY (%):

	2, 88 D	4, 98 D	6, 66 D	7, 28 M
TEXTURE:				
Silt	15	15	5	80
Clay	85	85	95	20
COMPOSITION:				
Accessory minerals	Tr	Tr	—	—
Clay	90	85	75	30
Diatoms	5	10	20	—
Glass	4	—	—	—
Micrite	—	—	—	70
Organic matter	—	Tr	Tr	—
Pyrite	—	—	Tr	—
Silicoflagellates	Tr	—	—	—
Spores	—	Tr	Tr	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	0.89	0.2
4, 147	0.82	0.8
5, 3	0.47	0.3



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/M	A/G	Indeterminate *Sphaeropyle robusta* *Neodenticula kaizumii*			1 2 3 4 5 6 7 CC	0.5 1.0				XRD XRD LAN

LITHOLOGIC DESCRIPTION

DIATOM-BEARING SILTY CLAY

Major lithology: DIATOM-BEARING SILTY CLAY, dark greenish gray (5G 4/1), grayish green (10GY 5/2) bioturbated and mottled throughout, with discontinuous laminae or lenses of brownish gray (5YR 4/1), dusky yellow green (5GY 5/2) clay.

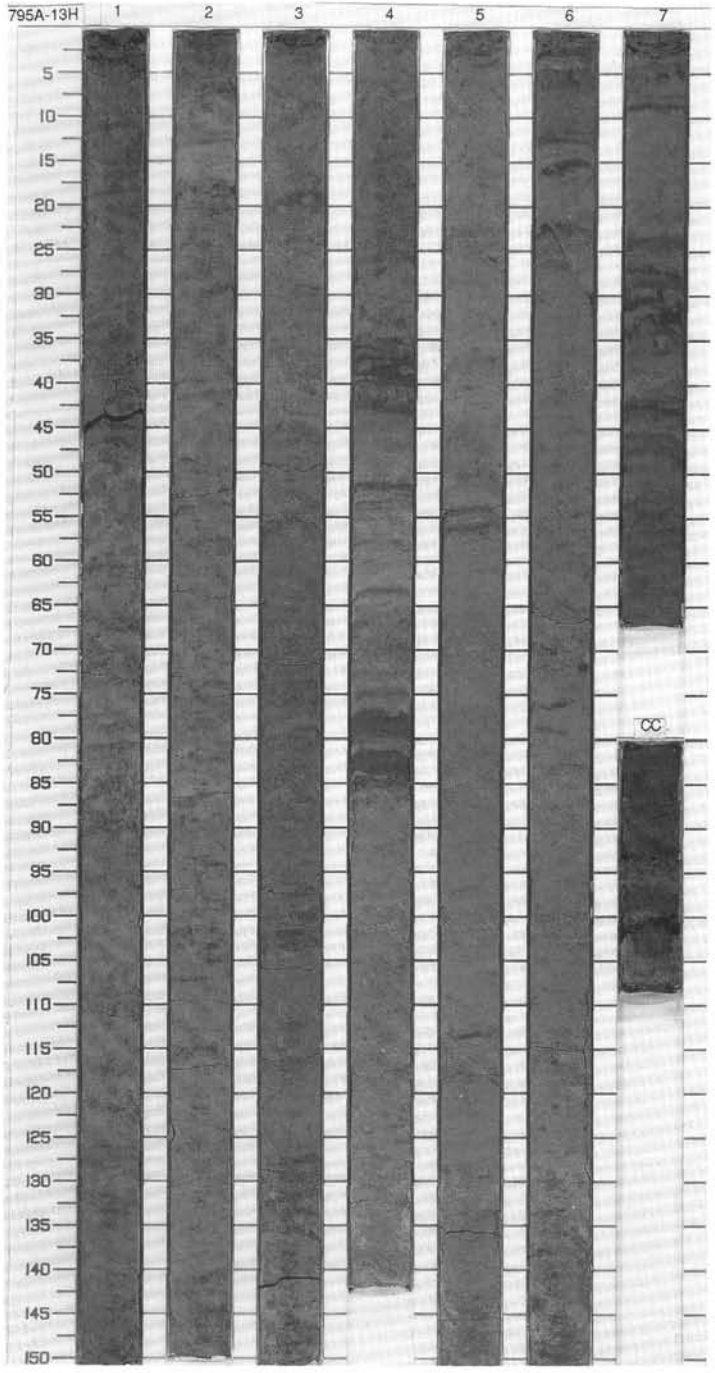
Minor lithology: Ashy silty clay with pyrite, medium bluish gray (5B 5/1) to dark greenish gray (5G 4/1). Ash layers in Section 4 at 41 cm and Section 6 at 4 cm.

SMEAR SLIDE SUMMARY (%):

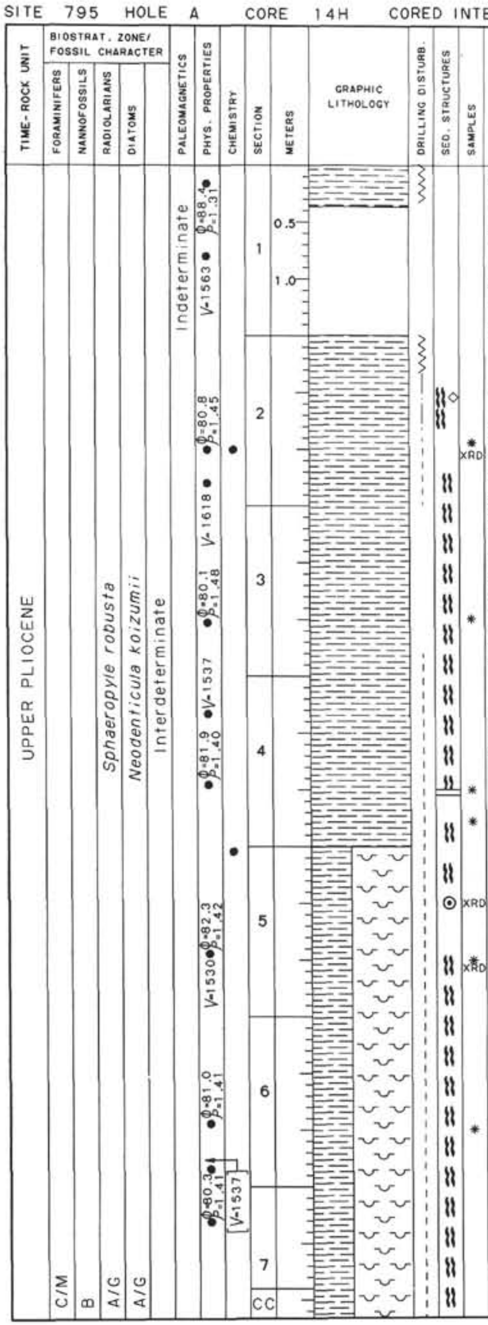
	2, 123 D	3, 66 D	4, 41 M	4, 43 D	4, 117 D	5, 100 D	6, 138 D
TEXTURE:							
Sand	—	—	30	—	20	20	—
Silt	50	40	30	30	30	30	40
Clay	50	60	40	70	50	50	60
COMPOSITION:							
Clay	40	50	22	65	30	30	55
Diatoms	40	25	40	20	30	30	10
Feldspar	—	—	—	—	—	5	—
Glass	—	10	20	1	2	2	10
Pollen	Tr	Tr	—	—	—	—	—
Pyrite	—	Tr	5	—	1	—	10
Quartz	10	10	10	5	25	25	10
Radiolarians	2	—	—	2	2	2	—
Silicoflagellates	2	Tr	—	1	Tr	1	—
Spicules	5	5	3	5	5	5	3

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	0.51	1.2
5, 3	0.30	0.214H



SITE 795 HOLE A CORE 14H CORED INTERVAL 3423.5-3433.0mbsl; 123.3-132.8mbsf



LITHOLOGIC DESCRIPTION

SILTY CLAY AND DIATOM SILTY CLAY MIXED SEDIMENT

Major lithology: SILTY CLAY and DIATOM SILTY CLAY MIXED SEDIMENT, dark greenish gray (5G 4 1), greenish gray (5GY 6 1) to grayish olive (10 YR 4 2), both heavily bioturbated and mottled.

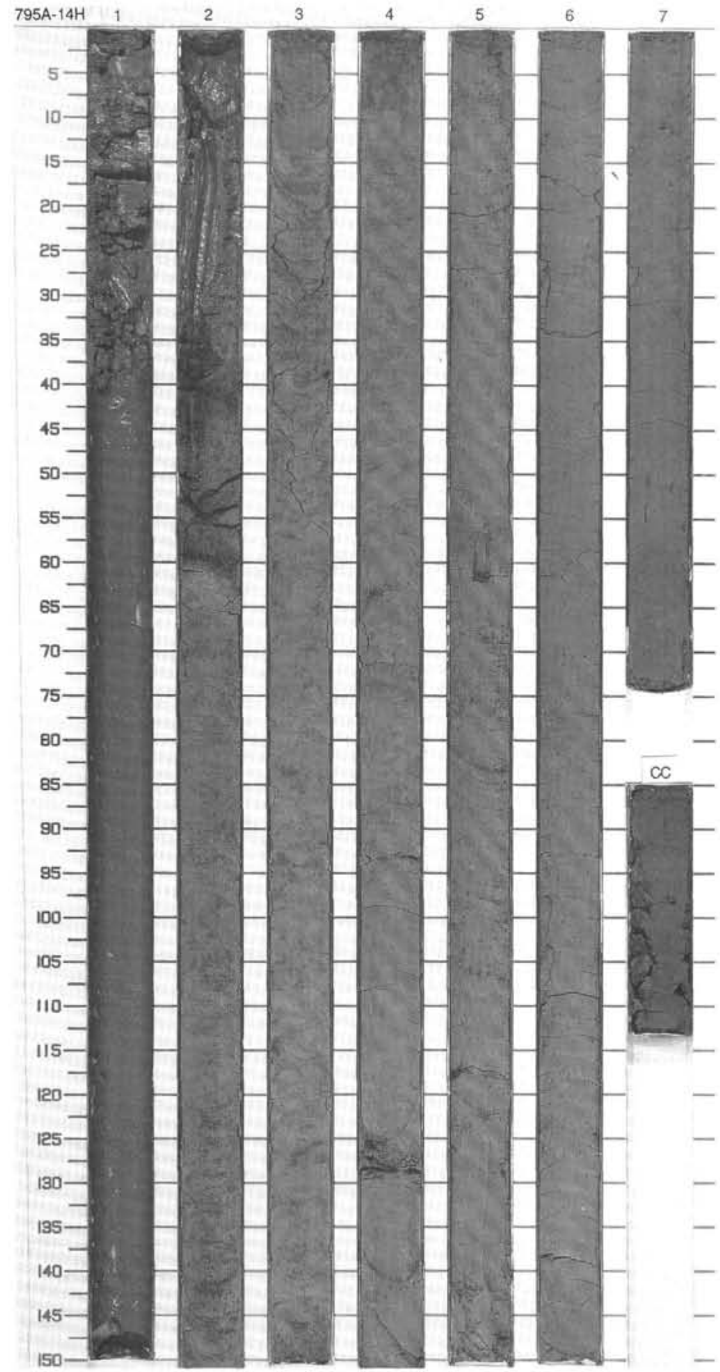
Minor lithology: Carbonate-bearing diatom silty clay, light olive gray (5Y 5 2), heavily bioturbated and mottled throughout, and dolomitic micrite, light olive gray (5Y 5 2) in Section 4 at 130 cm.

SMEAR SLIDE SUMMARY (%):

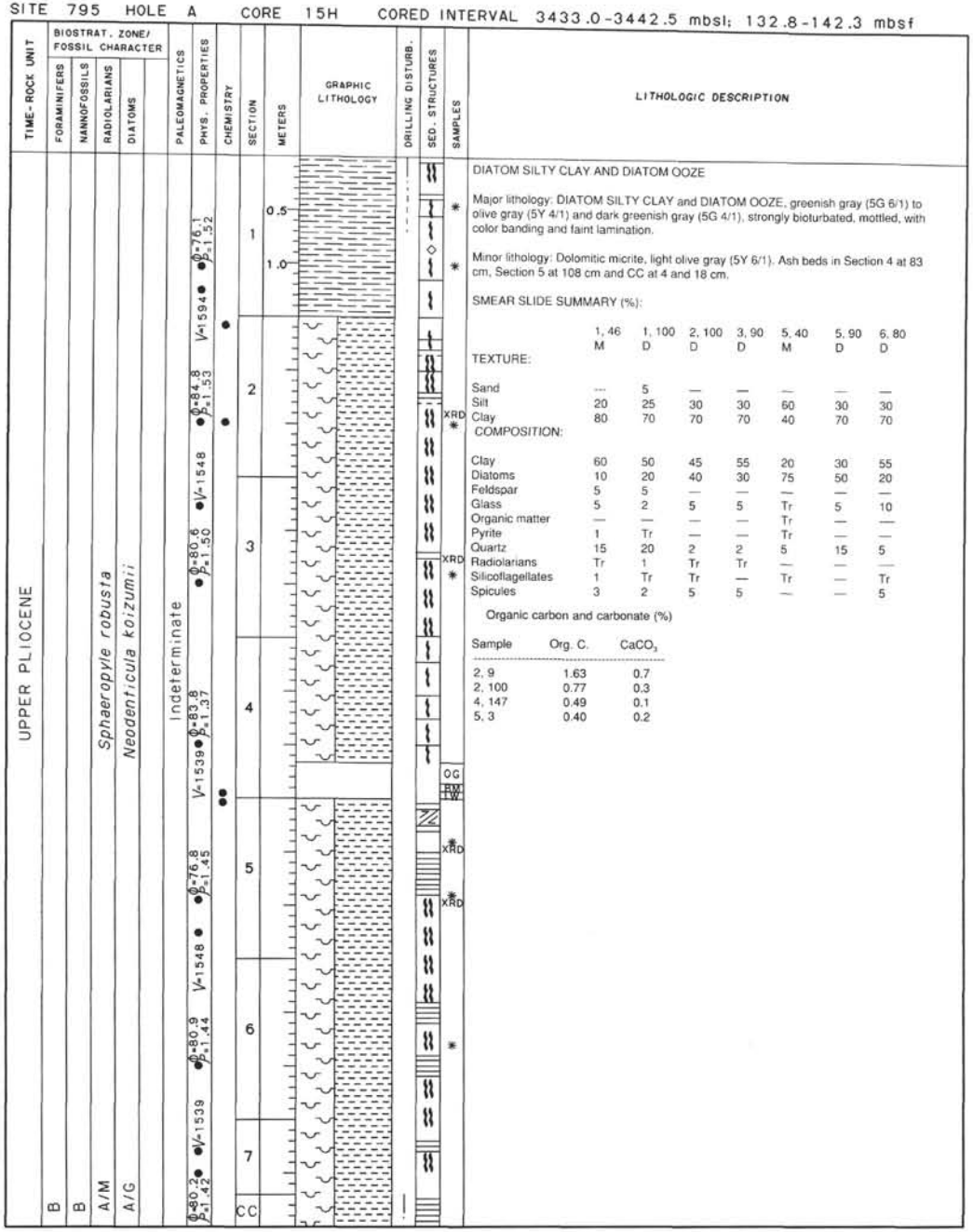
	2, 100 D	3, 100 D	4, 100 D	4, 128 M	5, 100 D	6, 100 D
TEXTURE:						
Sand	5	—	—	—	—	20
Silt	35	60	30	70	20	50
Clay	60	40	70	30	80	30
COMPOSITION:						
Carbonate	—	—	15	—	—	—
Clay	40	30	35	10	30	10
Diatoms	15	50	35	5	45	65
Dolomite	10	—	—	—	—	—
Feldspar	5	—	—	—	3	—
Glass	2	5	—	—	—	10
Micrite	—	—	—	80	—	—
Pyrite	1	—	—	—	3	—
Quartz	15	15	10	5	12	15
Radiolarians	2	—	2	—	2	—
Spicules	10	Tr	3	Tr	5	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	0.67	0.2
5, 3	0.72	1.7



SITE 795 HOLE A CORE 15H CORED INTERVAL 3433.0-3442.5 mbsl; 132.8-142.3 mbsf



LITHOLOGIC DESCRIPTION

DIATOM SILTY CLAY AND DIATOM OOZE

Major lithology: DIATOM SILTY CLAY and DIATOM OOZE, greenish gray (5G 6/1) to olive gray (5Y 4/1) and dark greenish gray (5G 4/1), strongly bioturbated, mottled, with color banding and faint lamination.

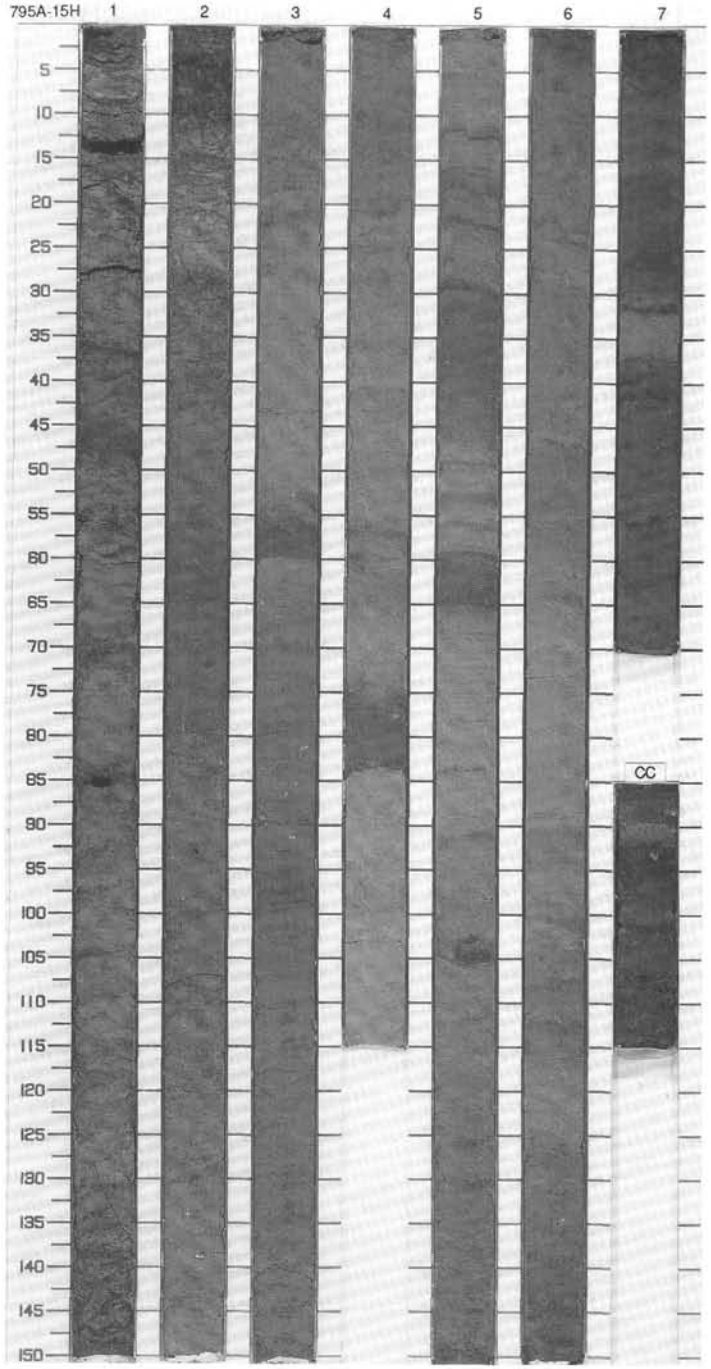
Minor lithology: Dolomitic micrite, light olive gray (5Y 6/1). Ash beds in Section 4 at 83 cm, Section 5 at 108 cm and CC at 4 and 18 cm.

SMEAR SLIDE SUMMARY (%):

	1, 46 M	1, 100 D	2, 100 D	3, 90 D	5, 40 M	5, 90 D	6, 80 D
TEXTURE:							
Sand	---	5	—	—	—	—	—
Silt	20	25	30	30	60	30	30
Clay	80	70	70	70	40	70	70
COMPOSITION:							
Clay	60	50	45	55	20	30	55
Diatoms	10	20	40	30	75	50	20
Feldspar	5	5	—	—	—	—	—
Glass	5	2	5	5	Tr	5	10
Organic matter	—	—	—	—	Tr	—	—
Pyrite	1	Tr	—	—	Tr	—	—
Quartz	15	20	2	2	5	15	5
Radiolarians	Tr	1	Tr	Tr	—	—	—
Silicoflagellates	1	Tr	Tr	—	Tr	—	Tr
Spicules	3	2	5	5	—	—	5

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 9	1.63	0.7
2, 100	0.77	0.3
4, 147	0.49	0.1
5, 3	0.40	0.2



SITE 795 HOLE A CORE 16H CORED INTERVAL 3442.5-3452.0 mbsl; 142.3-151.8 mbsf

TIME-ROCK UNIT: UPPER PLIOCENE

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

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: V-1571 ρ=1.42 ϕ=81.9; V-1555 ρ=1.45 ϕ=82.5; V-1579 ρ=1.43 ϕ=79.6; ρ=1.38 ϕ=82.7

CHEMISTRY

SECTION: 1, 2, 3, 4, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

CLAYEY DIATOM OOZE, DIATOM OOZE AND DIATOM SILTY CLAY

Major lithology: CLAYEY DIATOM OOZE, DIATOM OOZE and DIATOM SILTY CLAY, dark yellowish brown (10YR 4/2), dark greenish gray (5G 4/1), and light olive gray (5Y 5/2), homogeneous to faintly laminated moderately to heavily bioturbated and mottled throughout.

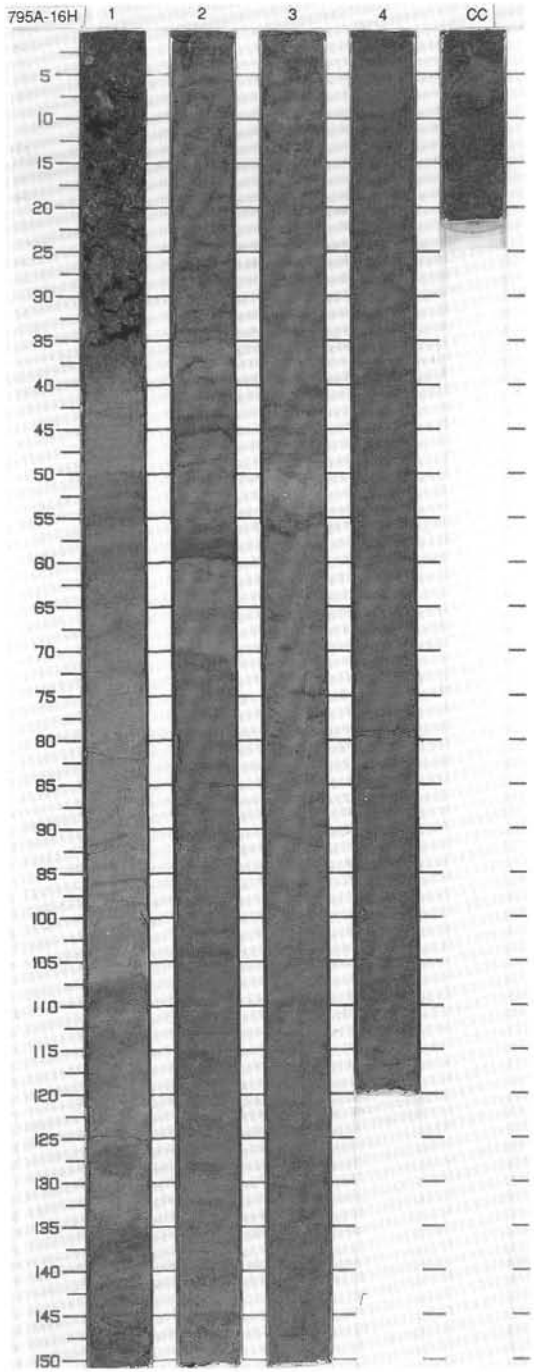
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 100 D	2, 100 D	3, 100 D	4, 100 D
TEXTURE:				
Silt	40	40	50	70
Clay	60	60	50	30
COMPOSITION:				
Clay	25	30	30	20
Diatoms	60	40	40	60
Feldspar	—	—	5	—
Glass	Tr	5	5	1
Inorganic calcite	—	10	Tr	—
Pyrite	—	2	2	—
Quartz	5	5	15	5
Radiolarians	2	—	—	4
Silicoflagellates	Tr	—	—	—
Spicules	5	5	—	5

Organic carbon and carbonate (%)

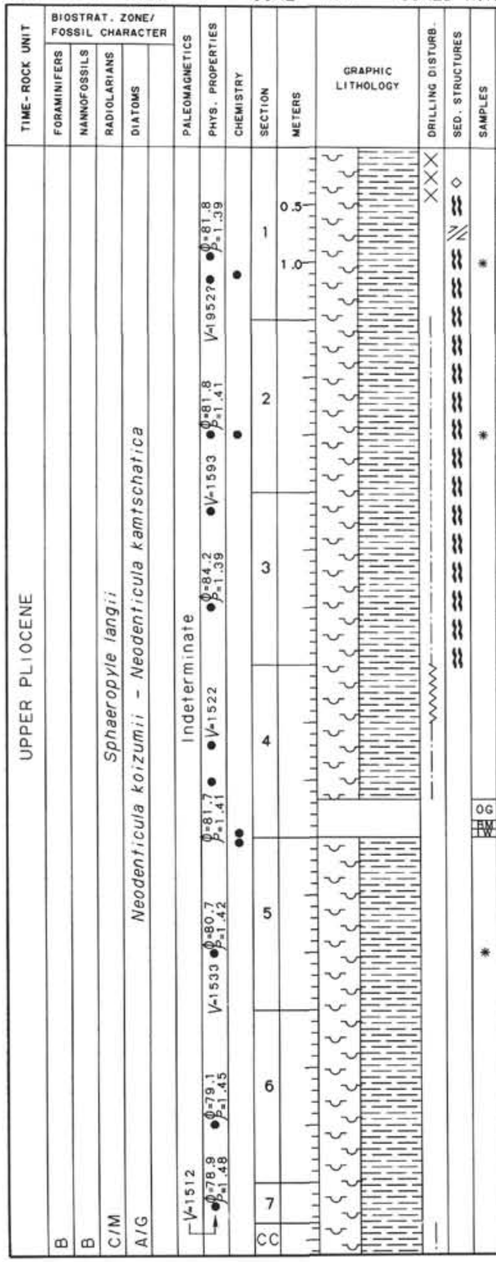
Sample	Org. C.	$CaCO_3$
1, 64	0.23	0.2
2, 3	0.61	0.2
2, 100	0.78	1.9
4, 78	0.53	0.2



SITE 795 HOLE A CORE 17H CORED INTERVAL 3452.0-3452.1 mbsl; 151.8-151.9 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
UPPER PLIOCENE	B	B	C/G	A/G *Sphaeropyle langii* – *Neodenticula koizumii* – *Neodenticula kamtschatica*				1			X			MICRITIC LIMESTONE Major lithology: MICRITIC LIMESTONE, light olive gray (5Y 6/1), three pebbles Minor lithology: None.

SITE 795 HOLE A CORE 18H CORED INTERVAL 3453.1-4924.2 mbsl; 152.9-162.4 mbsf



LITHOLOGIC DESCRIPTION

SILTY CLAYEY DIATOM OOZE

Major lithology: SILTY CLAYEY DIATOM OOZE, grayish olive green (5GY 3/2) to dark greenish gray (5G 4/1), mottled and heavily bioturbated at the top; homogeneous in the lower half.

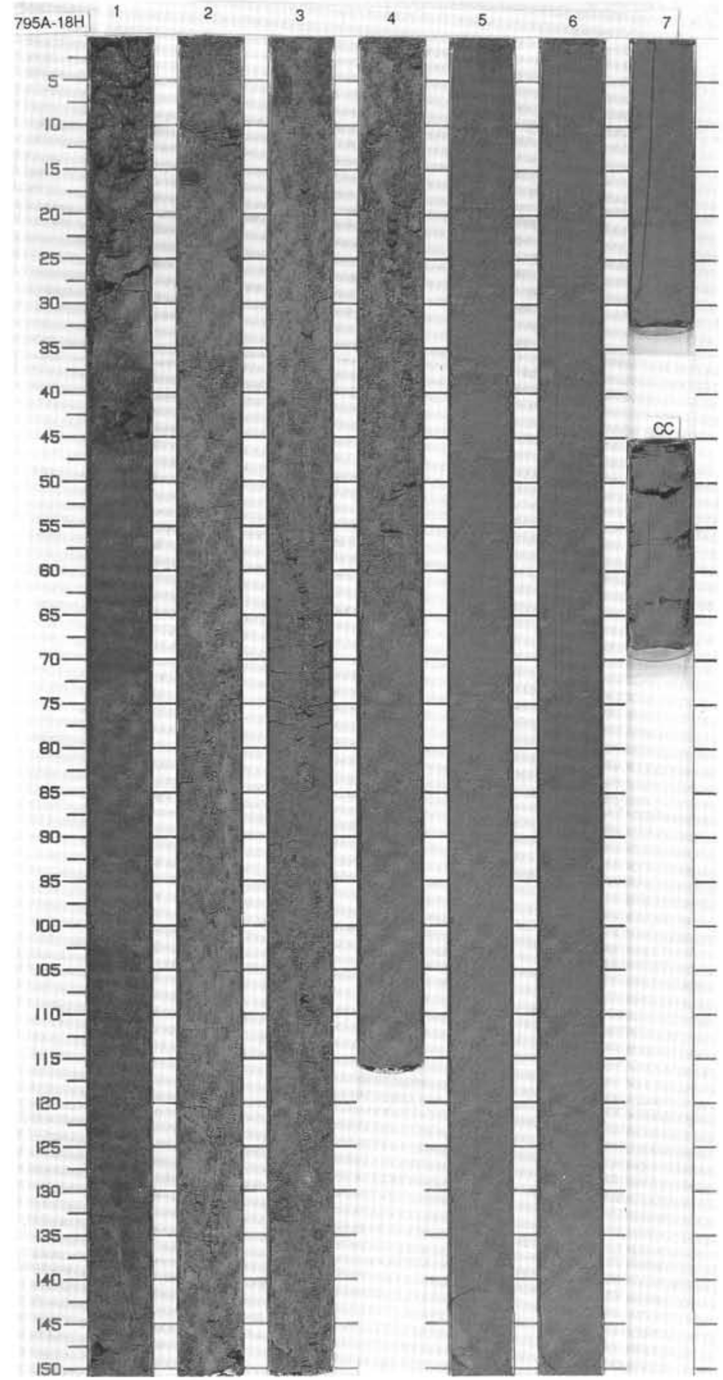
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 100	2, 100	5, 100
	D	D	D
TEXTURE:			
Sand	10	20	—
Silt	15	20	40
Clay	75	60	60
COMPOSITION:			
Clay	15	15	25
Diatoms	60	60	50
Feldspar	5	3	—
Glass	—	—	2
Pyrite	2	2	—
Quartz	10	10	10
Radiolarians	3	2	—
Silicoflagellates	—	—	1
Spicules	5	8	2

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 111	0.57	0.5
2, 100	0.15	0.7
4, 147	0.74	0.2
5, 3	0.71	0.2



SITE 795 HOLE A CORE 19H CORED INTERVAL 3462.6-3472.1 mbsl; 162.4-171.9 mbsf

TIME-ROCK UNIT: UPPER PLIOCENE

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

Neodenticula kozumii – *Neodenticula kamtschatica*

Sphaeropyle langii

Indeterminate

PALEOMAGNETICS

PHYS. PROPERTIES: Φ=82.7 ρ=1.52; Φ=80.4 ρ=1.51; V=1555; Φ=83.2 ρ=1.55; V=1546; Φ=84.0 ρ=1.44; V=1575; Φ=82.8 ρ=1.44; V=1593; Φ=81.6 ρ=1.45; Φ=81.2 ρ=1.45

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: XRD; XRD

LITHOLOGIC DESCRIPTION

SILTY CLAYEY DIATOM OOZE AND SILTY CLAY DIATOM MIXED SEDIMENT

Major lithology: SILTY CLAYEY DIATOM OOZE and SILTY CLAY DIATOM MIXED SEDIMENT, greenish gray (5G 6/1) to dark greenish gray (5GY 4/1) and dark greenish gray (5G 4/1) to olive gray (5Y 4/1), both heavily bioturbated and mottled to slightly laminated with dark greenish gray (5G 4/1) laminae.

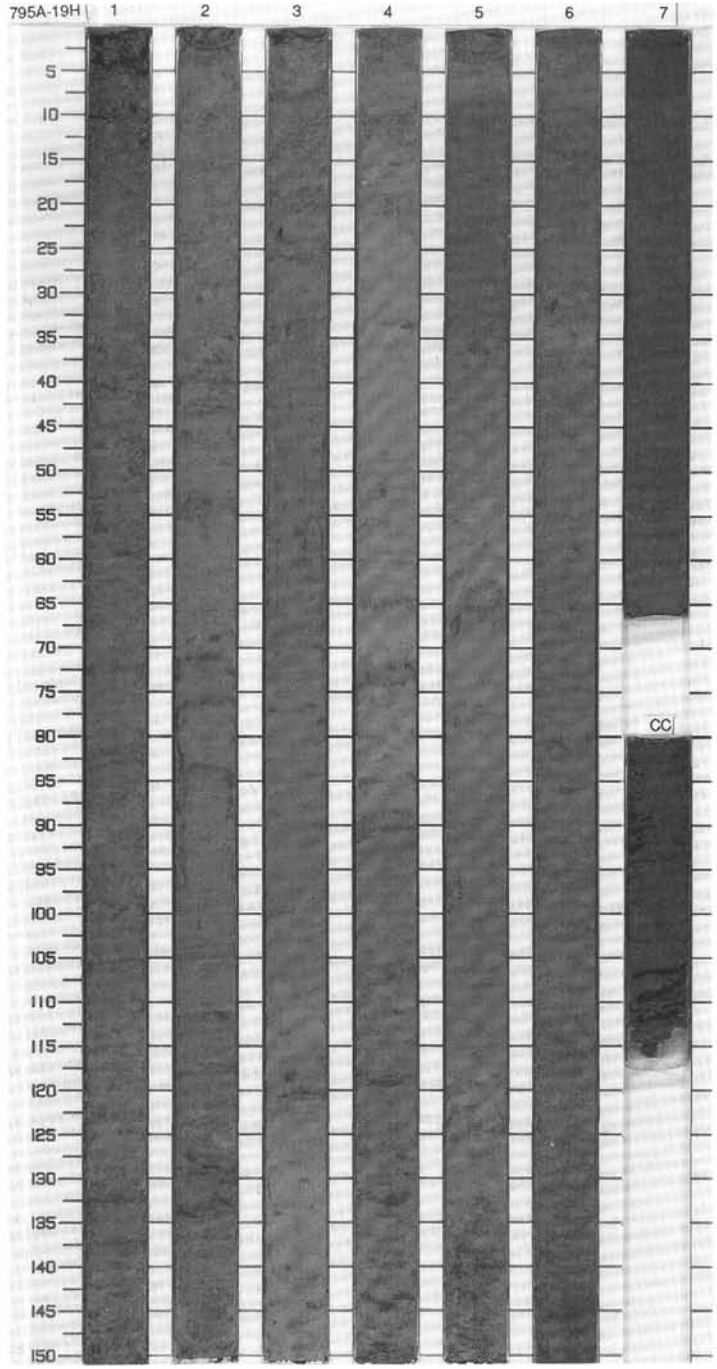
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 100 D	2, 100 D	3, 100 D	3, 146 D	5, 100 D	7, 40 D
TEXTURE:						
Sand	—	20	—	—	20	20
Silt	60	20	20	40	40	40
Clay	40	60	80	60	40	40
COMPOSITION:						
Clay	20	20	60	45	15	15
Diatoms	60	50	25	35	60	55
Feldspar	—	5	—	—	5	5
Glass	—	2	2	Tr	—	Tr
Pyrite	—	2	—	—	1	—
Quartz	10	15	7	10	15	20
Radiolarians	—	1	—	—	2	1
Silicoflagellates	1	—	—	Tr	—	—
Spicules	5	5	2	5	2	4

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	0.36	0.3
5, 3	0.47	0.221X



795A 20X NO RECOVERY

SITE 795 HOLE A CORE 21X CORED INTERVAL 3481.8-3491.4 mbsl; 181.6-191.2 mbsf

TIME-ROCK UNIT: UPPER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS B; NANNOFOSSILS B; RADIOLARIANS C/G *Thecosphaera japonica*; DIATOMS A/G *Neodenticula koizumii* - *Neodenticula kamtschatica*

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: ● 3483.8 P=1.43; ● 3483.7 P=1.40; ● 3483.8 P=1.36; ● 3483.3 P=1.39; ● 3481.8 P=1.39; ● 3481.8 P=1.41; ● 3480.6 P=1.42

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: XRD; CAN; OG; TW

LITHOLOGIC DESCRIPTION

CLAYEY DIATOM OOZE AND DIATOM OOZE

Major lithology: CLAYEY DIATOM OOZE and DIATOM OOZE, grayish green (5G 6/1),and dark greenish gray (5GY 4/1) to olive gray with dusky green (5G 3/2) laminae and patches heavily bioturbated and mottled; homogeneous with progressive color changes.

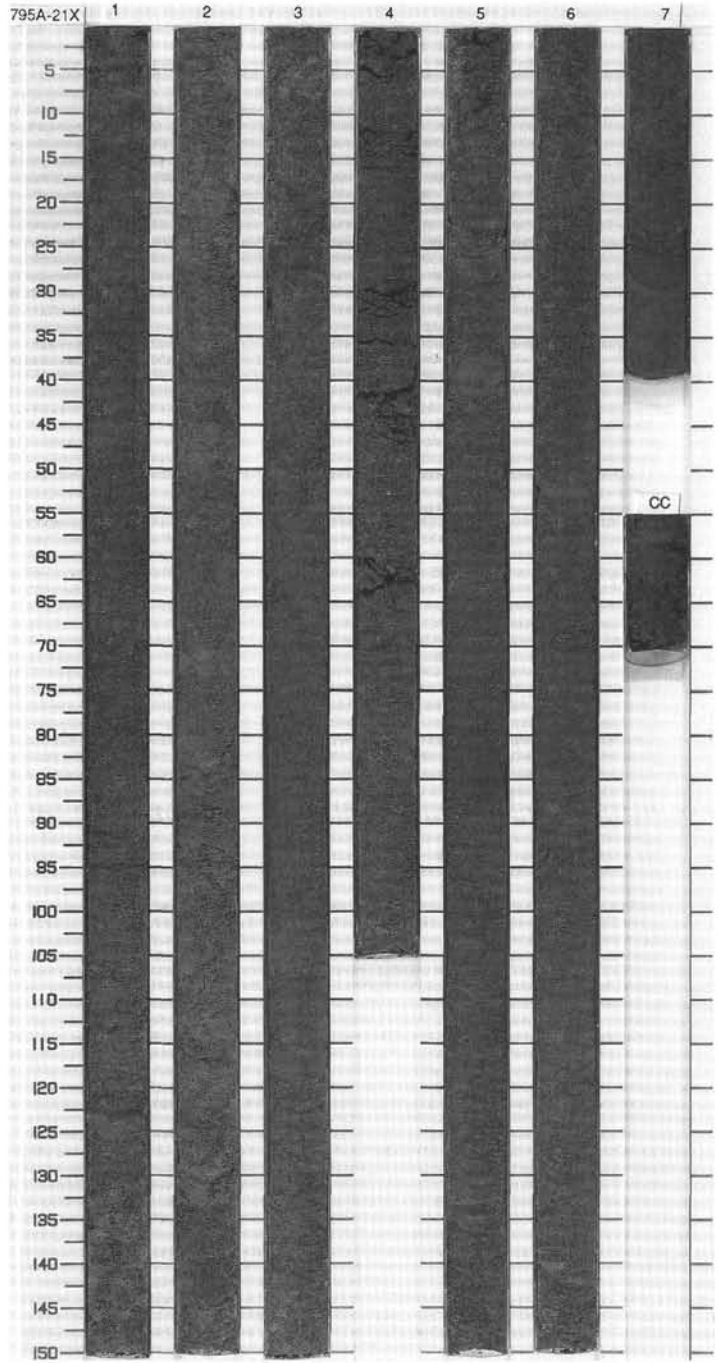
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 99 D	2, 99 D	3, 100 D	5, 100 D
TEXTURE:				
Silt	70	40	40	30
Clay	30	60	60	70
COMPOSITION:				
Clay	20	20	15	20
Diatoms	60	70	60	50
Glass	—	—	Tr	—
Pyrite	—	—	—	3
Quartz	10	5	15	5
Radiolarians	—	—	Tr	5
Silicoflagellates	Tr	—	2	Tr
Spicules	10	5	5	20

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 101	0.39	0.2
4, 147	0.56	0.2
5, 3	0.57	0.2



SITE 795 HOLE A CORE 22X CORED INTERVAL 3491.4-3501.1 mbsl; 191.2-200.9 mbsf

TIME-ROCK UNIT: UPPER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: R/P
- NANNOFOSSILS: B
- RADIOLARIANS: C/G
- DIATOMS: A/G — *Neodenticula kozumii* - *Neodenticula kamtschatica*; *Thecosphaera japonica*; Indeterminate

PALEOMAGNETICS: ● 0-81.7 p=1.41; ● 0-83.5 p=1.44

PHYS. PROPERTIES: ● 0-82.3 p=1.38; ● 0-83.5 p=1.42; ● 0-81.0 p=1.43; ● 0-83.5 p=1.44

CHEMISTRY: ●

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: * * * XRD

LITHOLOGIC DESCRIPTION

DIATOM OOZE AND CLAYEY DIATOM OOZE

Major lithology: DIATOM OOZE and CLAYEY DIATOM OOZE, dark greenish gray (5G 4/1 to 5GY 4/1) and medium bluish gray (5B5/1); bioturbated and indistinctly mottled; olive gray (5Y 4/1) zones; semiconsolidated.

Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

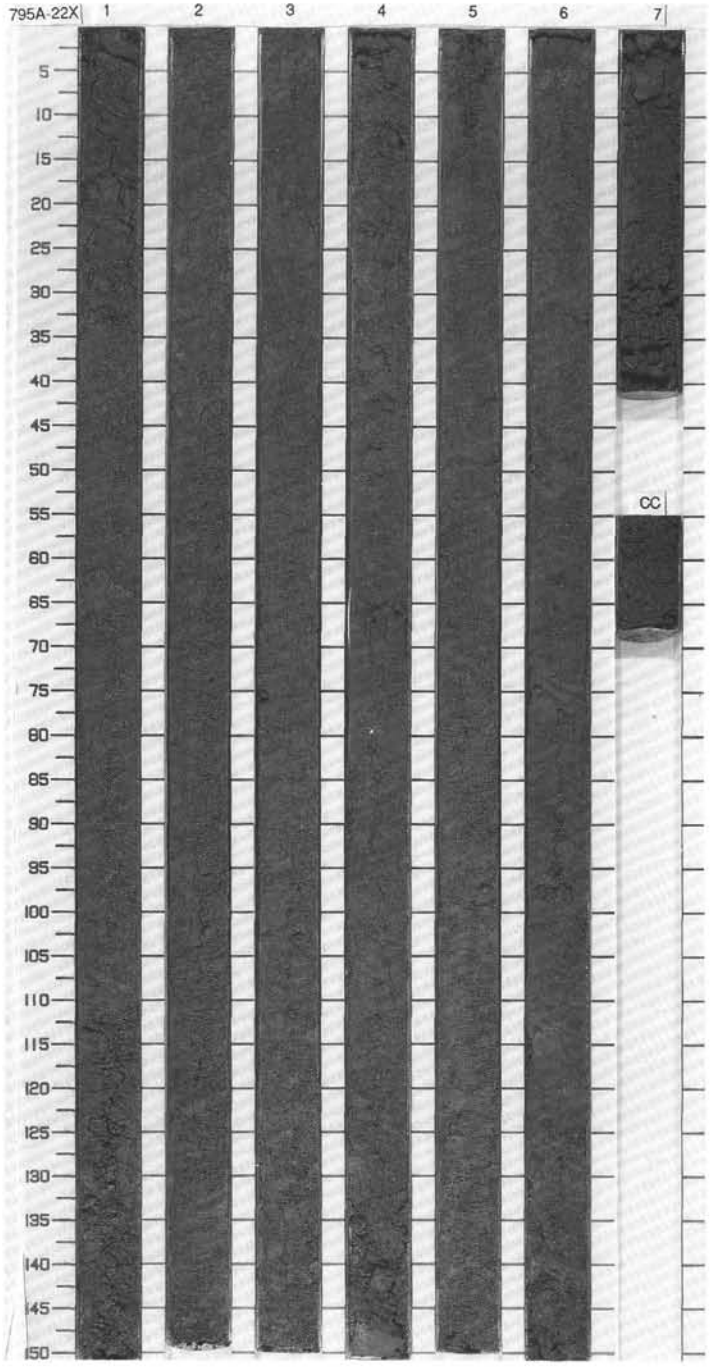
	1, 48 D	3, 20 D	5, 130 D
TEXTURE:			
Sand	—	25	10
Silt	20	55	50
Clay	80	20	40
COMPOSITION:			
Accessory minerals	3	—	Tr
Clay	—	15	10
Diatoms	90	70	85
Feldspar	—	—	Tr
Glass	1	—	—
Mica	—	—	Tr
Pyrite	1	—	—
Quartz	—	15	3
Radiolarians	—	Tr	Tr
Silicoflagellates	—	—	Tr
Spicules	—	Tr	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 101	0.55	0.1
5, 3	0.46	0.2

795A 23X NO RECOVERY

795A 24X NO RECOVERY



SITE 795 HOLE A CORE 25X CORED INTERVAL 2520.6-3530.3 mbsl; 220.4-230.1 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER
- FORAMINIFERS: B
- NANNOFOSSILS: B
- RADIOLARIANS: A/M *Thecosphaera japonica*
- DIATOMS: A/G *Thalassiosira oestrupii*

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: ●Φ=79.3 ρ=1.44; ●Φ=81.2 ρ=1.39; ●Φ=81.1 ρ=1.44; ●Φ=80.0 ρ=1.45; ●Φ=79.9 ρ=1.39; ●Φ=81.8 ρ=1.38

CHEMISTRY: •

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

METERS: 0.5

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: *; OC; BM; W

LITHOLOGIC DESCRIPTION

DIATOM OOZE AND SILTY DIATOM CLAY

Major lithology: DIATOM OOZE and SILTY DIATOM CLAY, dark greenish gray (5G 5/1 to 5G 4/1), olive gray (5Y 4/1) and greenish gray (5G 6/1); bioturbated and homogeneous throughout. Semiconsolidated.

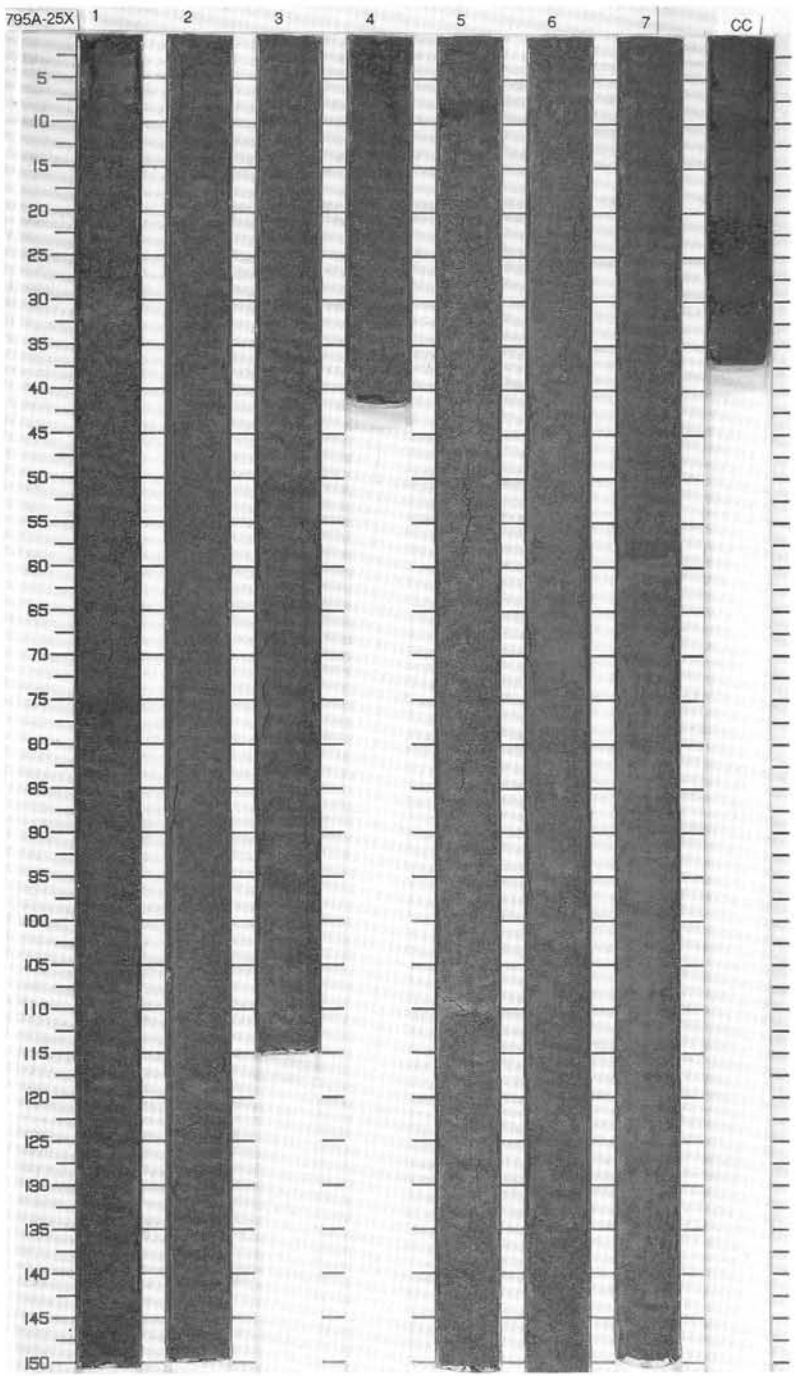
Minor lithology: Ash beds in Section 5 at 7-8 cm (dark gray N3) and 109-110 cm (light gray N7). Small patch of white (N9) ash in Core Catcher at 31 cm. Ashy diatom clay, dark greenish gray (5G 4/1).

SMEAR SLIDE SUMMARY (%):

	1, 31 D	3, 64 D	5, 7 M	7, 58 D
TEXTURE:				
Sand	25	—	5	15
Silt	30	30	85	30
Clay	45	70	10	55
COMPOSITION:				
Accessory minerals	—	Tr	5	—
Clay	45	4	—	60
Diatoms	25	90	7	20
Feldspar	Tr	—	5	—
Glass	15	Tr	75	5
Pollen	—	—	Tr	—
Pyrite	—	1	5	—
Quartz	10	—	2	10
Rock fragment	Tr	—	—	Tr
Silicoflagellates	Tr	Tr	—	Tr
Spicules	Tr	—	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 101	0.45	0.1
3, 147	0.69	0.2
4, 2	0.68	0.2



SITE 795 HOLE A CORE 26X CORED INTERVAL 3530.3-3540.1 mbsl; 230.1-239.9 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: R/G
- NANNOFOSSILS: B
- RADIOLARIANS: C/M
- DIATOMS: A/M

Thecosphaera japonica

Thalassiosira oestrupii

Indeterminate

PALEOMAGNETICS

PHYS. PROPERTIES: ●0=82.8 β=1.45; ●0=80.4 β=1.46; ●0=80.9 β=1.39; ●0=80.4 β=1.39; ●0=81.8 β=1.41; ●0=79.8 β=1.38; ●0=78.2 β=1.44

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: *, XRD

LITHOLOGIC DESCRIPTION

SILTY DIATOM CLAY AND DIATOM OOZE

Major lithology: SILTY DIATOM CLAY and DIATOM OOZE, dark greenish gray (5G 4/1 to 5G 5/1), greenish gray (5G 6/1), olive gray (5Y 4/1); thoroughly bioturbated and indistinctly mottled throughout. Semiconsolidated.

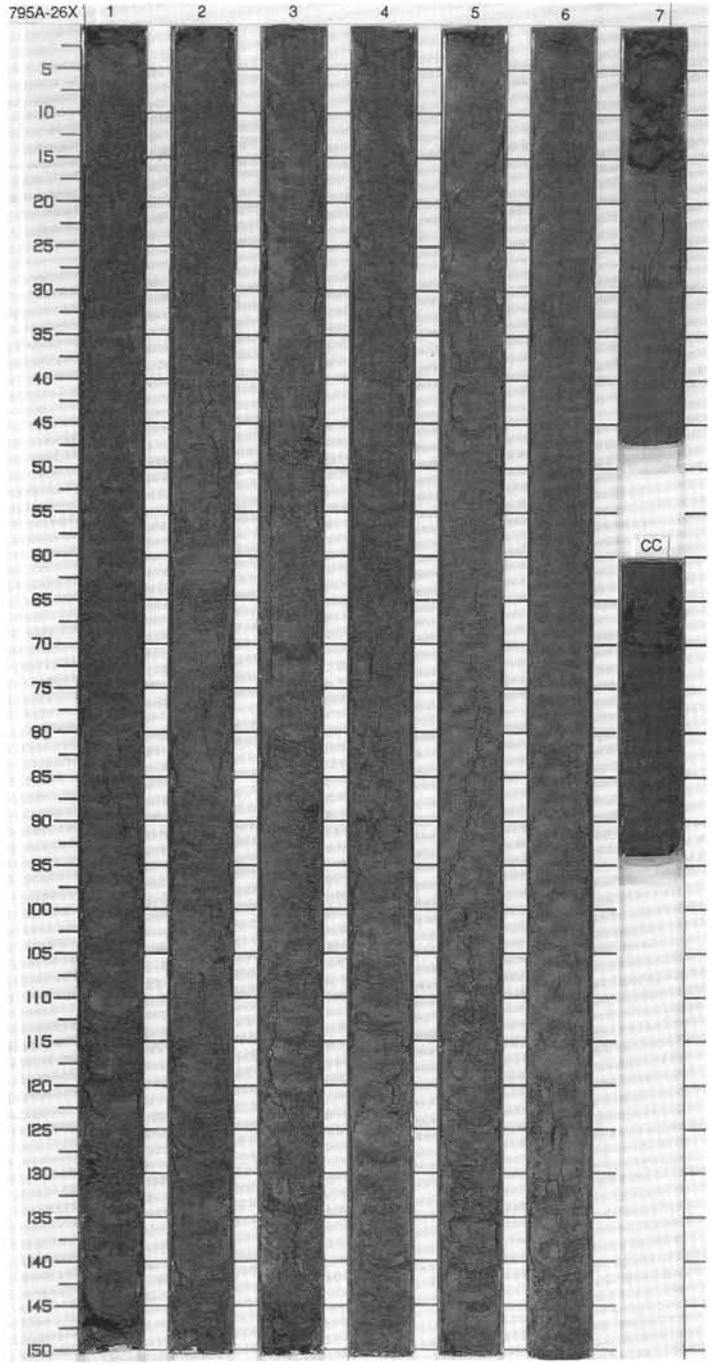
Minor lithology: Isolated, very small (<1 cm) pockets of very light gray (N8) ash in Section 2 at 106 cm, Section 3 at 22 cm and Section 5 at 95 cm.

SMEAR SLIDE SUMMARY (%):

	1, 63 D	3, 20 D	5, 9 D	6, 140 D
TEXTURE:				
Sand	20	—	—	20
Silt	20	25	20	15
Clay	60	75	80	65
COMPOSITION:				
Clay	60	10	10	60
Diatoms	25	85	85	30
Feldspar	Tr	Tr	—	—
Glass	Tr	Tr	Tr	Tr
Pyrite	Tr	1	Tr	Tr
Quartz	10	—	—	10
Radiolarians	—	—	Tr	Tr
Silicoflagellates	—	Tr	—	—
Spicules	—	Tr	Tr	—
Spores	—	Tr	Tr	—

Organic carbon and carbonate (%)

Sample	Org. C	$CaCO_3$
2, 101	0.42	0.1
5, 2	0.50	0.1



SITE 795 HOLE A CORE 27X CORED INTERVAL 3540.1-3549.9 mbsl; 239.9-249.7 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER
- FORAMINIFERS: B
- NANNOFOSSILS: B
- RADIOLARIANS: A/M
- DIATOMS: C/M

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: Thecosphaera japonica

CHEMISTRY: Thalassiosira oestrupii

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: XRD, CAN

LITHOLOGIC DESCRIPTION

SILTY DIATOM CLAYSTONE

Major lithology: SILTY DIATOM CLAYSTONE, dark greenish gray (5G 4/1 to 5G 5/1), olive gray (5Y 4/1); bioturbated throughout, indistinctly mottled.

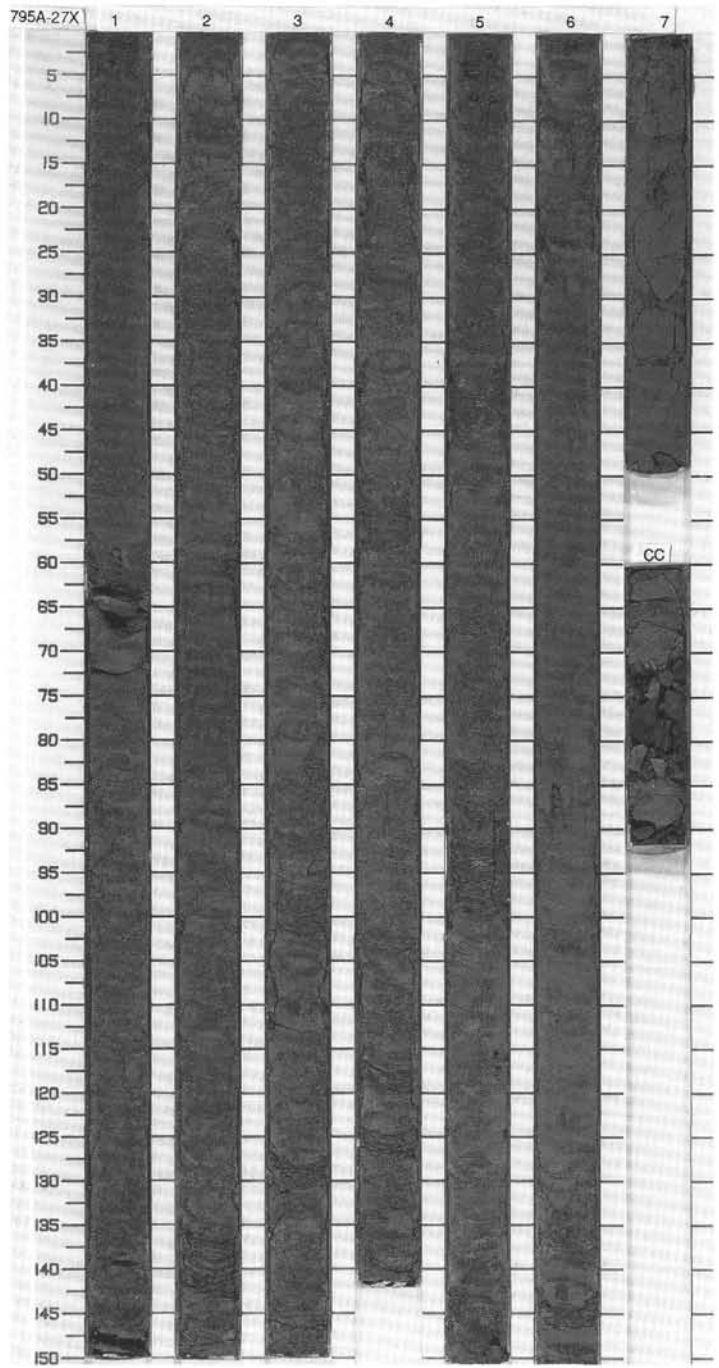
Minor lithology: Ash, medium dark gray (N4), occurs in Section 5 at 115-118 cm. Dolomite concretion, moderate yellow brown (10YR 5/4), 5 cm across, occurs in Section 1 at 65 cm.

SMEAR SLIDE SUMMARY (%):

	1, 34 D	3, 75 D	5, 116 M	6, 106 D
TEXTURE:				
Sand	10	—	20	10
Silt	30	10	75	20
Clay	60	90	5	70
COMPOSITION:				
Accessory minerals	Tr	—	—	Tr
Clay	55	75	—	70
Diatoms	35	25	Tr	20
Feldspar	—	—	Tr	—
Glass	—	—	95	Tr
Pyrite	Tr	Tr	1	Tr
Quartz	10	—	—	10
Radiolarians	Tr	—	—	—
Rock fragment	—	—	—	Tr
Silicoflagellates	Tr	—	—	—
Spicules	Tr	—	—	—

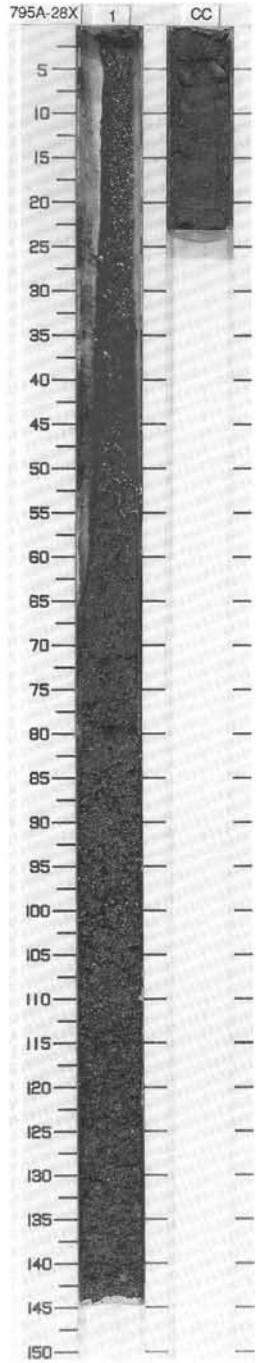
Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 101	0.57	0.1
5, 3	0.60	0.129X



SITE 795 HOLE A CORE 28X CORED INTERVAL 3549.9-3559.7 mbsl; 249.7-259.5 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
LOWER PLIOCENE	R/M	F/P	C/M	C/M	Indeterminate			1 CC	0.5 1.0					SILTY DIATOM CLAYSTONE Major lithology: SILTY DIATOM CLAYSTONE, dark grayish green (10YR 4/2); drilling breccia: pebble, granule and sand size. Minor lithology: Dolomite nodules, moderate yellow brown (10YR 5/4) in Core Catcher at 0-5 cm and 13 cm. SMEAR SLIDE SUMMARY (%): CC, 20 D TEXTURE: Sand 20 Silt 20 Clay 60 COMPOSITION: Clay 55 Diatoms 30 Glass Tr Pyrite Tr Quartz 10 Radiolarians Tr



SITE 795 HOLE A CORE 29X CORED INTERVAL 3559.7-3569.5 mbsl; 259.5-269.3 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
LOWER PLIOCENE	B	B	C/G	C/G	Indeterminate	●0=83.3 ρ=1.35 ●0=79.8 ρ=1.51	● ● ●	1 2 3 CC	0.5 1.0			◇ ≋ XRD	* *

LITHOLOGIC DESCRIPTION

SILTY DIATOM CLAYSTONE

Major lithology: SILTY DIATOM CLAYSTONE, dark greenish gray (5G 4/1 to 5G 5/1); highly bioturbated, indistinctly mottled; drilling breccia occurs in top 70 cm of Sections1 and 2.

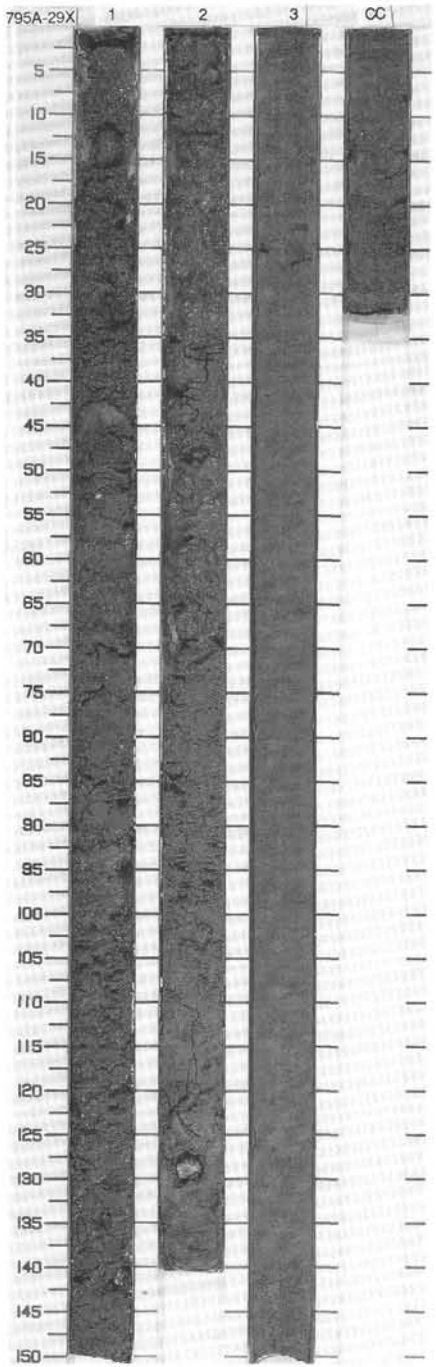
Minor lithology: Dolomite nodule, moderate yellowish brown (10YR 5/4) in Section 2 at 123-127 cm. Rounded porphyritic basalt pebbles in Section 2 at 48, 121 and 129 cm. Thin discontinuous lamina, 0.5 cm thick, composed of carbonate-rich woody material in Section 3 at 24 cm.

SMEAR SLIDE SUMMARY (%):

	1, 79 D	3, 80 D
TEXTURE:		
Sand	—	15
Silt	10	30
Clay	90	55
COMPOSITION:		
Accessory minerals	—	Tr
Clay	90	55
Diatoms	5	30
Glass	Tr	Tr
Pyrite	—	Tr
Quartz	—	10
Radiolarians	—	Tr
Silicoflagellates	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 101	0.45	0.1
2, 147	0.41	0.1
3, 3	0.40	0.1



SITE 795 HOLE A CORE 30X CORED INTERVAL 3569.5-3579.3 mbsl; 269.3-279.1 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

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

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: ●Φ=77.2 ρ=1.50; ●Φ=83.2 ρ=1.48; ●Φ=79.0 ρ=1.47; ●Φ=79.3 ρ=1.43; ●Φ=81.4 ρ=1.45

CHEMISTRY: ●

SECTION: 1, 2, 3, 4, 5

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: BM; XRD

LITHOLOGIC DESCRIPTION

SILTY DIATOM CLAYSTONE

Major lithology: SILTY DIATOM CLAYSTONE, dark greenish gray (5G 4/1 to (5G 5/1), light greenish gray (5G 8/1); bioturbated and faintly laminated throughout; highly fractured by drilling.

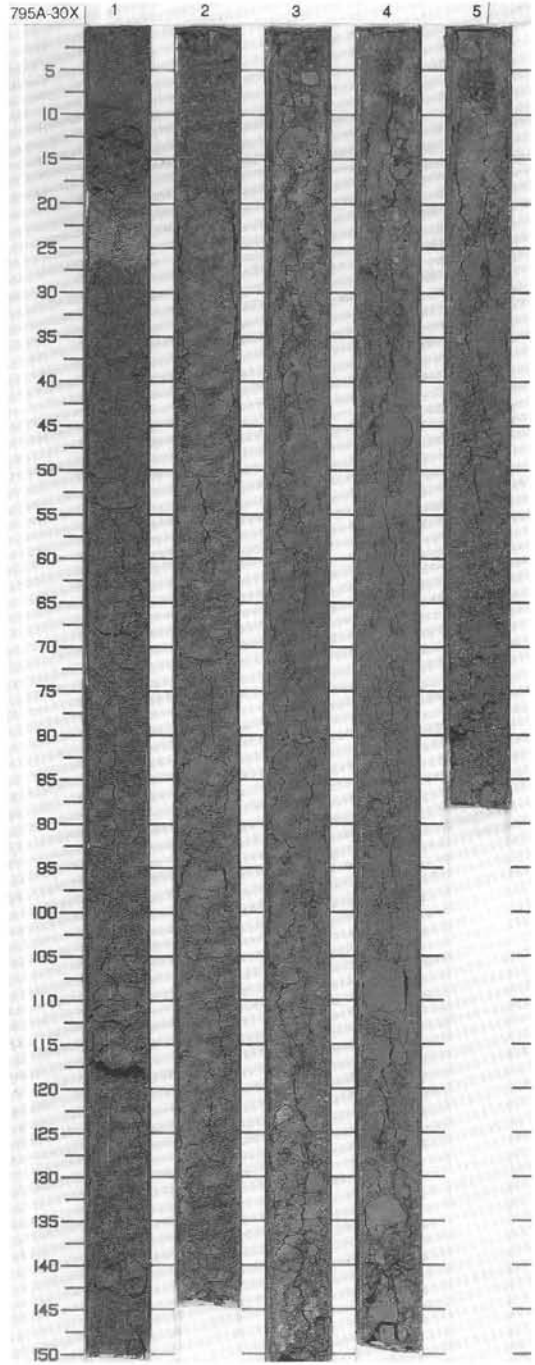
Minor lithology: Dolomite nodule, moderate yellow brown (10YR 5/4) in Section 1 at 8 cm. Clayey dolomite, dark greenish gray (5G 4/1). Basalt pebbles in Section 1 at 9 cm.

SMEAR SLIDE SUMMARY (%):

	1, 23 D	3, 74 D	5, 16 D
TEXTURE:			
Sand	5	15	—
Silt	15	15	40
Clay	80	70	60
COMPOSITION:			
Clay	75	60	20
Diatoms	20	35	75
Glass	Tr	—	—
Pyrite	—	—	Tr
Quartz	5	5	—
Silicoflagellates	Tr	Tr	—
Spores	—	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 101	0.52	0.1
3, 3	0.38	0.2



SITE 795 HOLE A CORE 31X CORED INTERVAL 3579.3-3589.0 mbsl; 279.1-288.8 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
LOWER PLIOCENE	B	B	C/M	C/M	Indeterminate			1	0.5				*
			Thecosphaera japonica	*Thalassiosira oestrupii*		Φ=78.6 ρ=1.45			1.0				
						Φ=79.4 ρ=1.43		2					XRD
						Φ=79.0 ρ=1.5		3					* XRD
					Φ=77.0 ρ=1.57			4					BM
					Φ=75.2 ρ=1.50			5					XRD *
								6					
								CC					

DIATOM CLAYEY SILT MIXED SEDIMENT

Major lithology: DIATOM CLAYEY SILT MIXED SEDIMENT, grayish olive green (5GY 3/2), mostly homogeneous with rare mottles; highly bioturbated(?).

Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

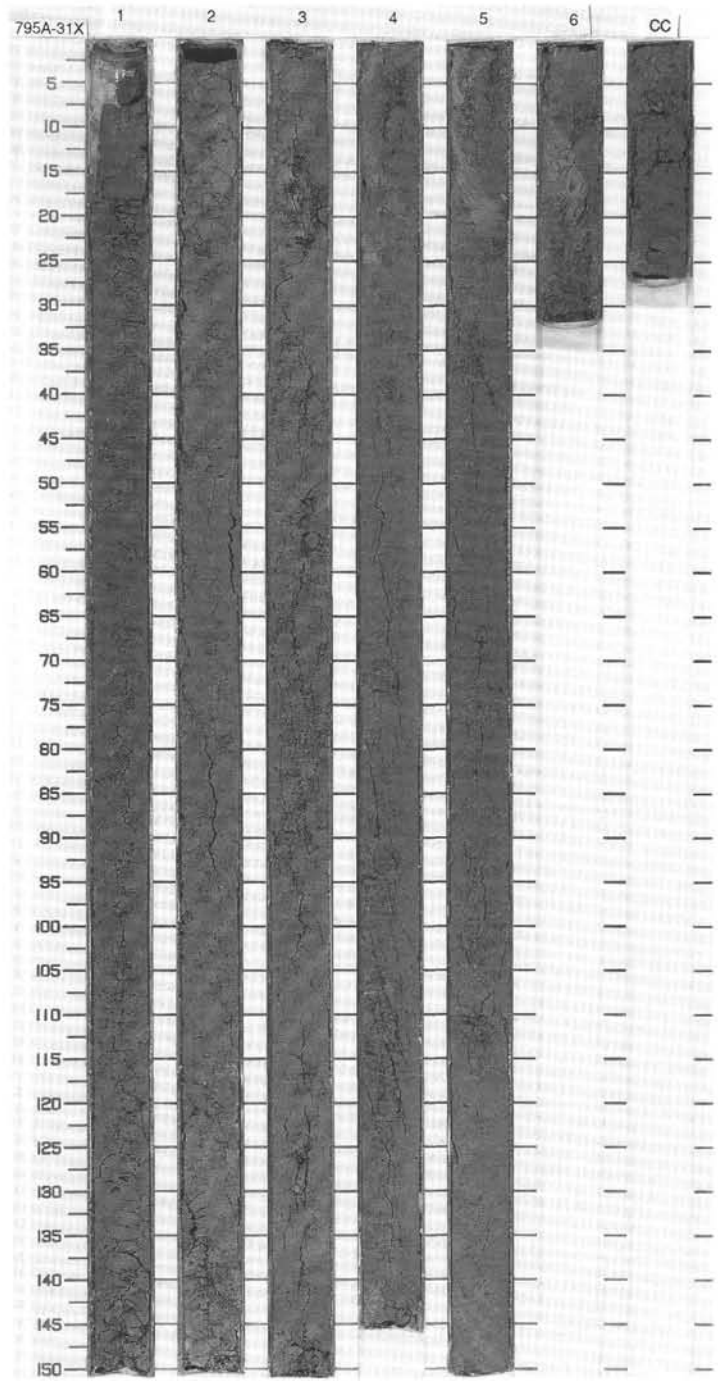
	1, 75 D	2, 130 D	5, 100 D
TEXTURE:			
Sand	—	—	—
Silt	50	20	50
Clay	50	80	50
COMPOSITION:			
Clay	40	50	50
Diatoms	45	30	45
Nannofossils	—	1	—
Organic matter	Tr	—	Tr
Pyrite	Tr	—	Tr
Quartz	10	10	5
Radiolarians	—	1	—
Siliceoflagellates	—	2	—
Spicules	—	3	—

Organic carbon and carbonate (%)

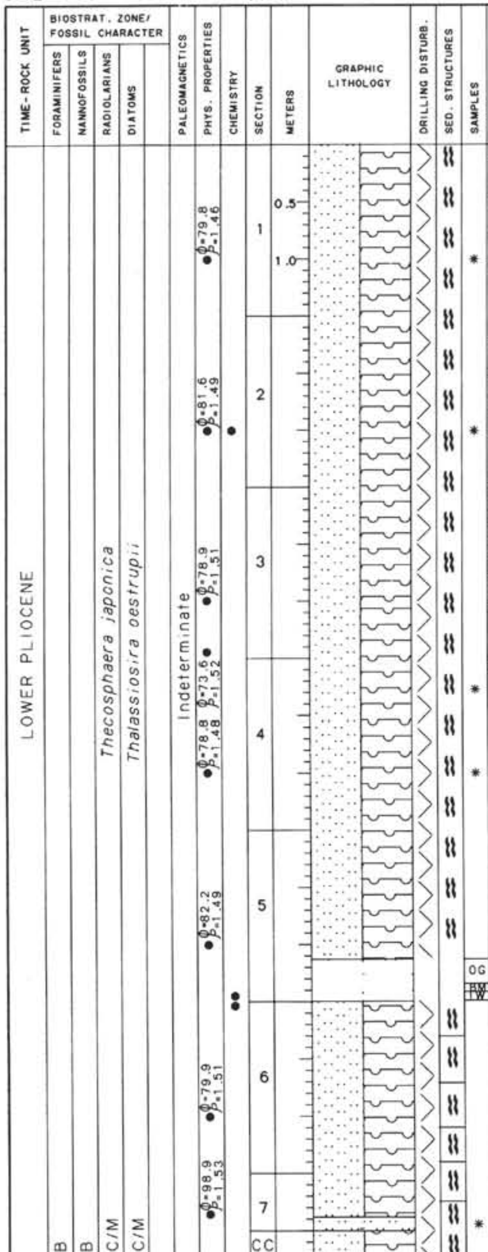
Sample	Org. C.	$CaCO_3$
2, 100	0.45	0.1
5, 3	0.65	0.2

795A 32X NO RECOVERY

795A 33X NO RECOVERY



SITE 795 HOLE A CORE 34X CORED INTERVAL 3608.1-3617.8 mbsl; 307.9-317.6 mbsf



LITHOLOGIC DESCRIPTION

DIATOM CLAYEY SILT MIXED SEDIMENT

Major lithology: DIATOM CLAYEY SILT MIXED SEDIMENT, grayish olive green (5GY 3/2), mostly homogeneous with rare mottles; highly bioturbated(?).

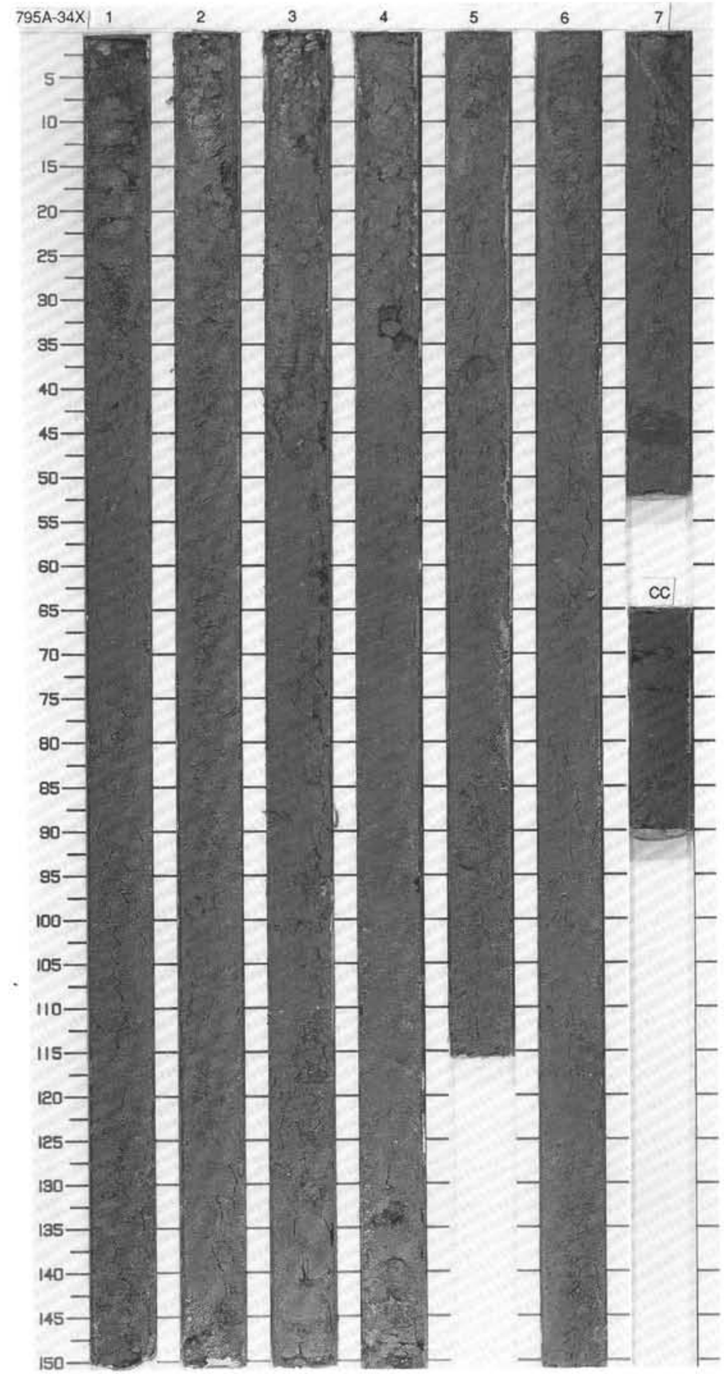
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 100 D	2, 101 D	4, 28 D	4, 100 D	7, 46 M
TEXTURE:					
Sand	—	10	—	—	20
Silt	60	50	70	60	40
Clay	40	40	30	40	40
COMPOSITION:					
Clay	35	30	40	30	30
Diatoms	30	25	20	50	10
Feldspar	—	5	—	—	10
Glass	—	2	1	Tr	2
Pyrite	2	Tr	—	Tr	3
Quartz	20	30	30	20	40
Radiolarians	1	2	—	—	—
Rock fragment	—	—	—	—	3
Silicoflagellates	3	1	2	Tr	Tr
Spicules	5	5	2	Tr	2

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 101	0.57	0.2
5, 147	0.56	0.1
6, 3	0.59	0.1



SITE 795 HOLE A CORE 35X CORED INTERVAL 3617.8-3627.4 mbsl; 317.6-327.2 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS B; NANNOFOSSILS B; RADIOLARIANS C/M *Thecosphaera japonica*; DIATOMS C/M *Thalassiosira oestrupii*

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: Φ=70.3 ρ=1.67; Φ=83.5 ρ=1.42; Φ=76.5 ρ=1.48; Φ=80.0 ρ=1.40; Φ=78.4 ρ=1.45; Φ=76.3 ρ=1.46; Φ=74.0 ρ=1.49

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: HMC

LITHOLOGIC DESCRIPTION

DIATOM CLAYEY SILTSTONE AND SILICEOUS SILTY CLAYSTONE

Major lithology: DIATOM CLAYEY SILTSTONE, grayish olive green (5GY 3/2), heavily bioturbated, fractured by drilling; change to SILICEOUS SILTY CLAYSTONE, grayish olive green (5GY 3/2) indicated by disappearance of diatoms at the top of Section 6.

Minor lithology: Opal-CT chert, olive black (5Y 2/1), in Section 6.

SMEAR SLIDE SUMMARY (%):

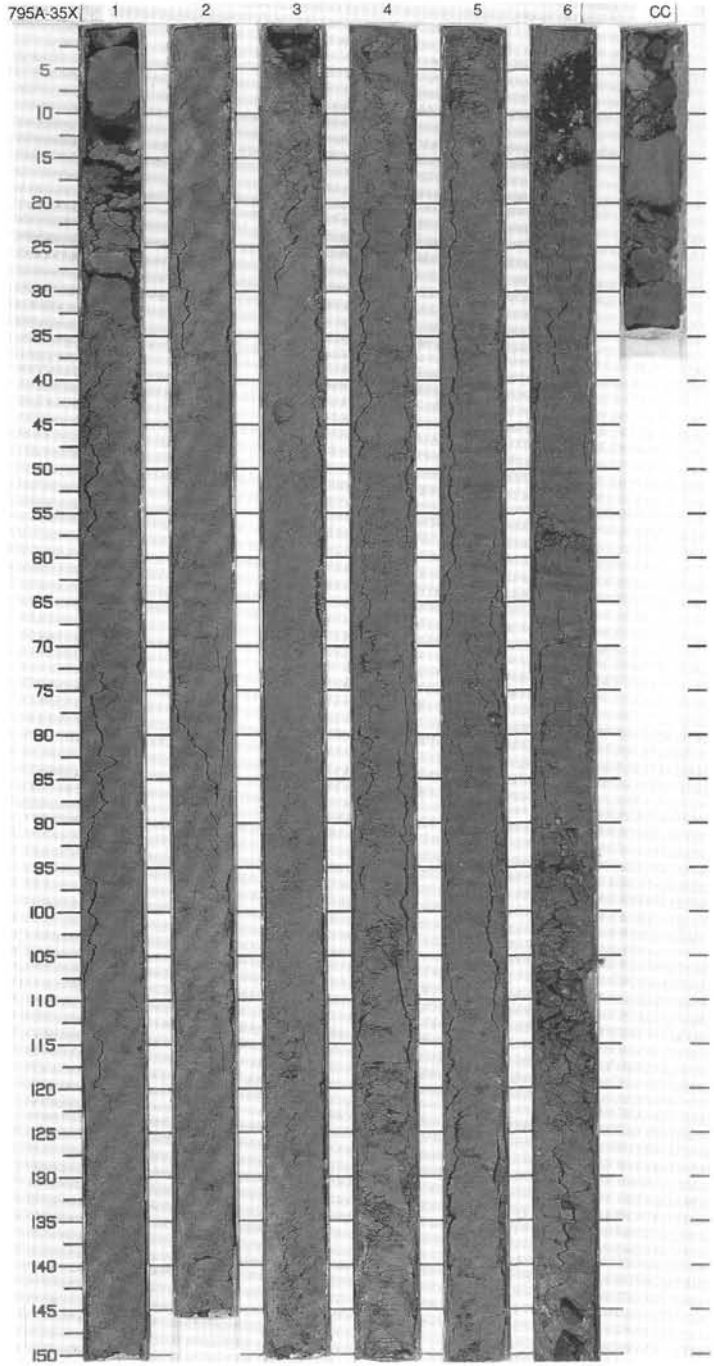
	2, 97 D	3, 50 D	5, 50 D	5, 100 D	5, 149 D	6, 45 D	6, 100 M
TEXTURE:							
Sand	—	—	15	—	10	5	—
Silt	40	70	25	70	40	45	25
Clay	60	30	60	30	50	50	75
COMPOSITION:							
Clay	40	20	15	25	30	50	75
Diatoms	30	30	40	50	30	10	Tr
Feldspar	—	—	5	—	5	10	—
Glass	5	—	Tr	—	—	—	Tr
Organic matter	—	—	Tr	Tr	—	—	Tr
Pyrite	—	—	2	Tr	Tr	3	Tr
Quartz	20	40	15	25	20	25	25
Radiolarians	1	1	Tr	—	5	Tr	—
Silicoflagellates	2	3	3	Tr	—	—	—
Spicules	2	5	20	Tr	10	2	—

SMEAR SLIDE SUMMARY (%):

	6, 145 D	CC, 16 D
TEXTURE:		
Sand	...	5
Silt	25	25
Clay	75	70
COMPOSITION:		
Clay	70	60
Diatoms	2	2
Feldspar	5	5
Glass	—	4
Pyrite	3	4
Quartz	20	25
Radiolarians	Tr	Tr
Spicules	—	Tr

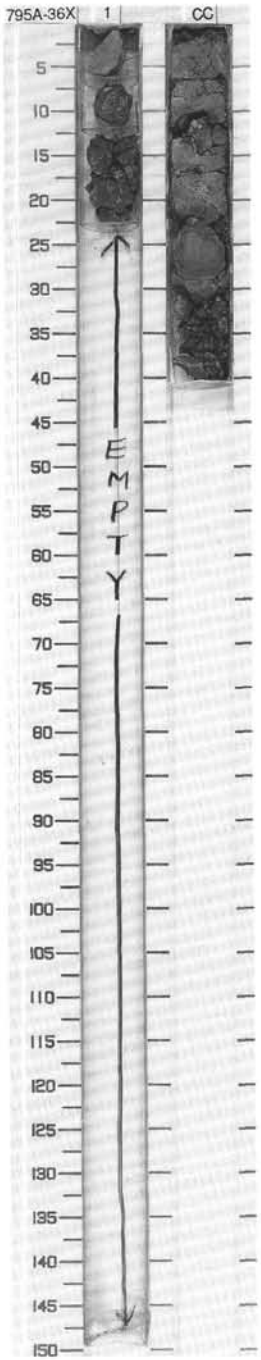
Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 101	0.44	0.1
3, 3	0.56	0.1



SITE 795 HOLE A CORE 36X CORED INTERVAL 3627.4-3637.1 mbsl; 327.2-336.9 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
LOWER PLIOCENE / UPPER MIOCENE ?	B	B	F/M	R/P	Indeterminate			1			X	≈	XRD	OPAL-CT CHERT AND SILICEOUS SILTY CLAYSTONE Major lithology: OPAL-CT CHERT, olive black (5Y 2/1) and SILICEOUS SILTY CLAYSTONE, grayish olive green (5GY 3/2); bioturbated; drilling breccia. Minor lithology: None.
			Thecosphaera japonica					CC			X	≈		



SITE 795 HOLE A CORE 37X CORED INTERVAL 3637.1-3646.8 mbsl; 336.9-346.6 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
UPPER MIOCENE ?	B	B	R/M	B	Indeterminate	Φ=59.5 ρ=1.72	•	1	0.5				*
									1.0				*
													BM
								2					

Thecosphaera japonica

LITHOLOGIC DESCRIPTION

SILICEOUS SILTY CLAYSTONE

Major lithology: SILICEOUS SILTY CLAYSTONE, dark greenish gray (5GY 4/1), heavily bioturbated, firm to hard.

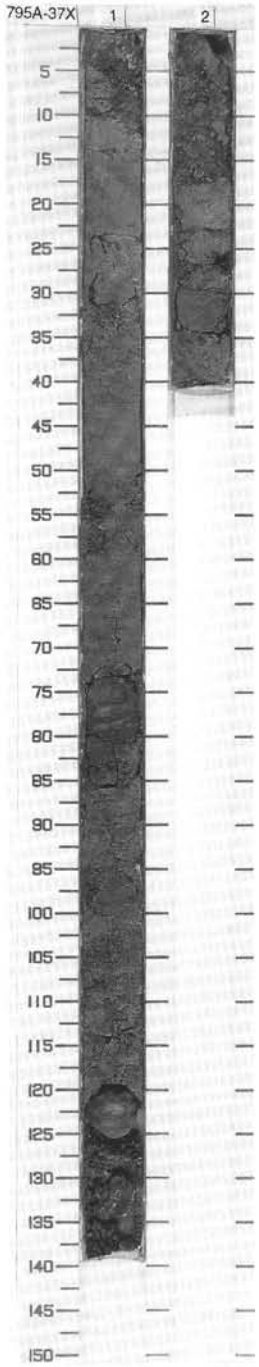
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 29 D	1, 87 D
TEXTURE:		
Sand	5	5
Silt	15	15
Clay	80	80
COMPOSITION:		
Clay	80	80
Diatoms	—	Tr
Feldspar	4	2
Pyrite	3	3
Quartz	13	15
Radiolarians	Tr	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 135	0.48	0.2



SITE 795 HOLE A CORE 38X CORED INTERVAL 3646.8-3656.4 mbsl; 346.6-356.2 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 MIOCENE ?	B	B	R/P	B				CC			X X	≋	*	SILICEOUS SILTY CLAYSTONE

Thecosphaera japonica

Indeterminate

Major lithology: SILICEOUS SILTY CLAYSTONE, dark greenish gray (5G 4/1); bioturbated and indistinctly mottled; most of core drilling breccia.

Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	CC, 24 D
TEXTURE:	
Sand	1
Silt	15
Clay	84
COMPOSITION:	
Accessory minerals	Tr
Clay	90
Glass	Tr
Quartz	8

SITE 795 HOLE A CORE 39X CORED INTERVAL 3656.4-3666.1 mbsl; 356.2-365.9 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
UPPER MIOCENE ?	B	B	C/M	B				CC			X		*	SILICEOUS SILTY CLAYSTONE

Thecosphaera japonica

Indeterminate

Major lithology: SILICEOUS SILTY CLAYSTONE, dark greenish gray (5G 4/1); bioturbated, mottled; drilling breccia.

Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	CC, 12 D
TEXTURE:	
Silt	15
Clay	85
COMPOSITION:	
Accessory minerals	Tr
Clay	85
Glass	Tr
Pyrite	Tr
Quartz	10

SITE 795 HOLE B CORE 1R CORED INTERVAL 3664.1-3673.9 mbsl; 365.2-375.0 mbsf

TIME-ROCK UNIT	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
UPPER MIOCENE	B	B	C/M	B	R	V=1698 ● Φ=51.6 ρ=1.85 V=4025 ● Φ=62.3 ρ=1.83 V=4025 ● Φ=12.7 ρ=2.95	●	1	0.5 1.0			XRD	*
			Thecosphaera japonica	*Neodenticula kamtschatica* ● C/G				2					*
								3					
								CC					

LITHOLOGIC DESCRIPTION

SILTY SILICEOUS CLAYSTONE

Major lithology: SILTY SILICEOUS CLAYSTONE, dark greenish gray (5G 4/1, 5G 5/1), with mottles, dark yellow brown (10YR 4/2); slightly to moderately bioturbated with *abundant, horizontally flattened burrows in some parts; well laminated zones in Section* 1, 78-85 and 91-95 cm, and Section 2, 21-30 cm; thin dark gray burrows containing pyrite scattered throughout the main lithology. The laminated section at 91-95 cm is a possible silt-mud turbidite.

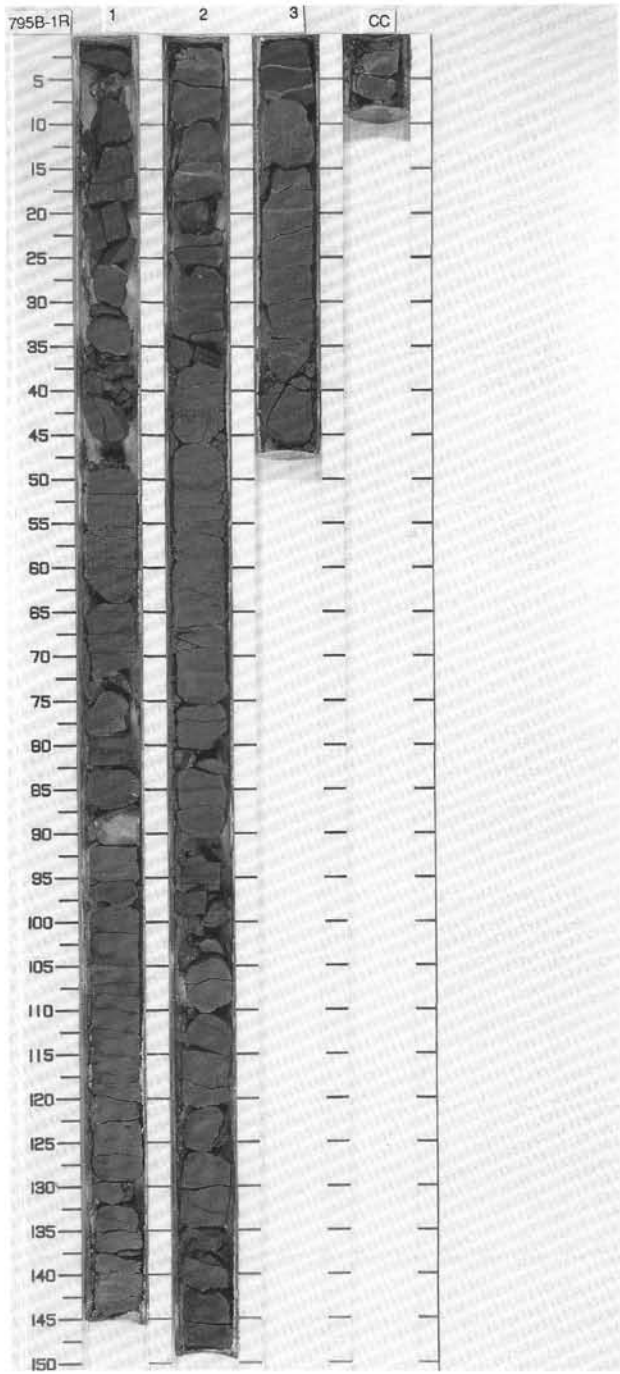
Minor lithology: Dolomite, dark yellowish brown (10YR 4/2) at 86-90 cm.

SMEAR SLIDE SUMMARY (%):

	1, 50 D	2, 71 D
TEXTURE:		
Silt	15	20
Clay	85	80
COMPOSITION:		
Accessory minerals	Tr	Tr
Clay	95	85
Diatoms	—	Tr
Glass	—	Tr
Organic matter	1	—
Pyrite	2	—
Quartz	—	5
Radiolarians	—	Tr
Silcia	—	10

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 51	0.41	0.3



SITE 795 HOLE B CORE 2R CORED INTERVAL 3673.9-3683.6 mbsl; 375.0-384.7 mbsf

TIME-ROCK UNIT	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
UPPER MIOCENE	B	B	F/M	B	Indeterminate	ϕ=72.0 ρ=1.61 V=1686		1 2 CC	0.5 1.0				XRD

LITHOLOGIC DESCRIPTION

SILTY SILICEOUS CLAYSTONE

Major lithology: SILTYSILICEOUS CLAYSTONE. dark greenish gray (5G 4/1) and greenish gray (5GY 6/1); moderately to slightly bioturbated with abundant flattened burrows parallel to bedding; dark lenses and stringers (medium dark gray N4) disseminated throughout core; moderately well indurated.

Minor lithology: Ash bed, medium gray (N5) at 11-12 cm containing pyrite and an unidentified zeolite.

SMEAR SLIDE SUMMARY (%):

	1, 47 D	2, 63 D	CC, 12 M
TEXTURE:			
Sand	—	—	50
Silt	20	20	50
Clay	80	80	—
COMPOSITION:			
Accessory minerals	Tr	Tr	Tr
Clay	92	93	—
Glass	—	—	93
Pyrite	3	3	1
Zeolite	—	—	2

SITE 795 HOLE B CORE 3R CORED INTERVAL 3683.6-3693.3 mbsl; 384.7-394.4 mbsf

TIME-ROCK UNIT	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
UPPER MIOCENE	B	B	F/M	C/G	Indeterminate	ϕ=52.4 ρ=1.42 V=2085		1 CC	0.5 1.0				XRD

LITHOLOGIC DESCRIPTION

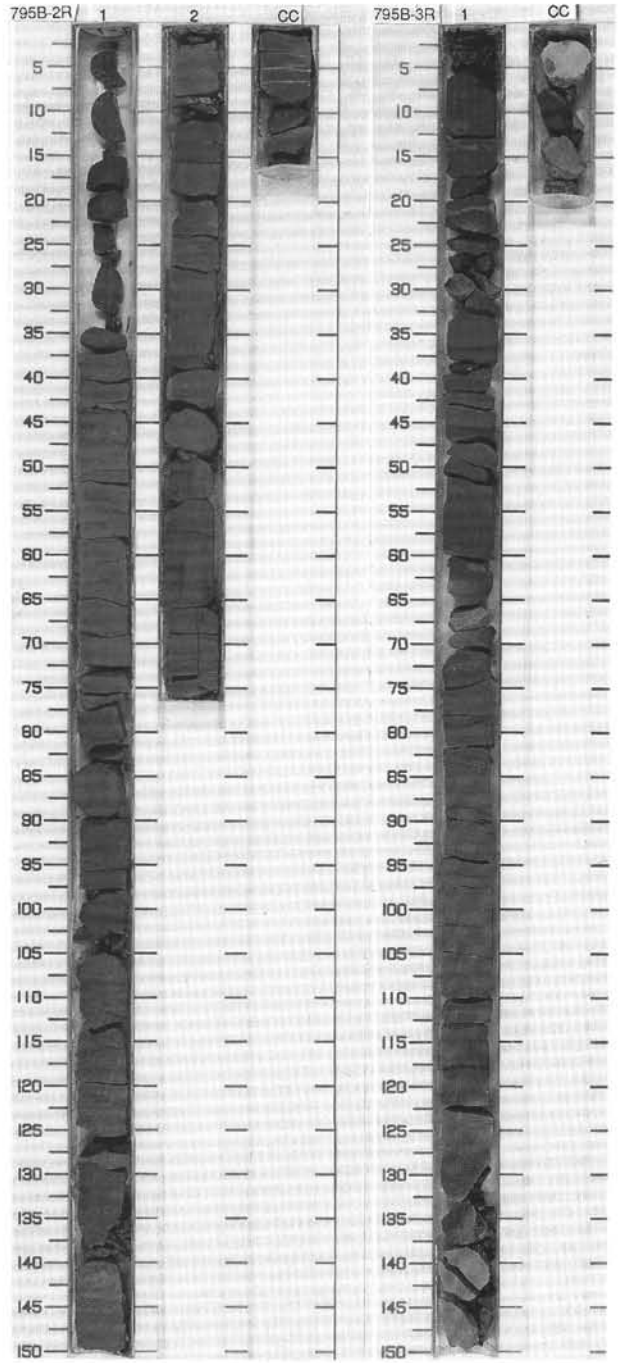
SILTY SILICEOUS CLAYSTONE

Major lithology: SILTY SILICEOUS CLAYSTONE, dark greenish gray (5GY6/1); moderately bioturbated and mottled; abundant flattened burrows parallel to bedding; moderately well indurated; thin dark stringers and flattened burrows (medium gray N5) throughout siliceous claystone, some containing pyrite.

Minor lithology: Porcellanite, dark greenish gray (5G 5/1); well indurated. Dolomite nodules in drilling breccia in Core Catcher.

SMEAR SLIDE SUMMARY (%):

	1, 74 D
TEXTURE:	
Silt	30
Clay	70
COMPOSITION:	
Accessory minerals	Tr
Clay	94
Pyrite	1



SITE 795 HOLE B CORE 4R CORED INTERVAL 3693.3-3703.0 mbsl; 394.4-404.1 mbsf

TIME-ROCK UNIT: UPPER MIOCENE ?

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: B; NANNOFOSSILS: B; RADIOLARIANS: F/M *Lychnocanium nipponicum*; DIATOMS: B

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: V=2211 Φ=47.8 ρ=1.92

CHEMISTRY

SECTION: 1, 2, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: TS, XRD, TS, XRD, *

LITHOLOGIC DESCRIPTION

SILICEOUS SILTY CLAYSTONE

Major lithology: SILICEOUS SILTY CLAYSTONE, dark greenish gray (5GY 4/1) to greenish black (5G 2/1), heavily to moderately bioturbated.

Minor lithology: Calcareous fine vitric tuff, light gray (N7), graded.

SMEAR SLIDE SUMMARY (%):

	1, 63 D	2, 15 D
TEXTURE:		
Silt	3	15
Clay	97	85
COMPOSITION:		
Clay	90	85
Feldspar	—	3
Pyrite	5	2
Quartz	3	10

SITE 795 HOLE B CORE 5R CORED INTERVAL 3703.0-3712.7 mbsl; 404.1-413.8 mbsf

TIME-ROCK UNIT: UPPER MIOCENE ?

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: B; NANNOFOSSILS: B; RADIOLARIANS: B *Lychnocanium nipponicum*; DIATOMS: B

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: V=1970 Φ=51.6 ρ=1.87

CHEMISTRY

SECTION: 1

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: XRD, *, XRD

LITHOLOGIC DESCRIPTION

SILICEOUS SILTY CLAY

Major lithology: SILICEOUS SILTY CLAY, dark greenish gray (5GY 4/1) to olive black (5Y 2/1), heavily to moderately bioturbated.

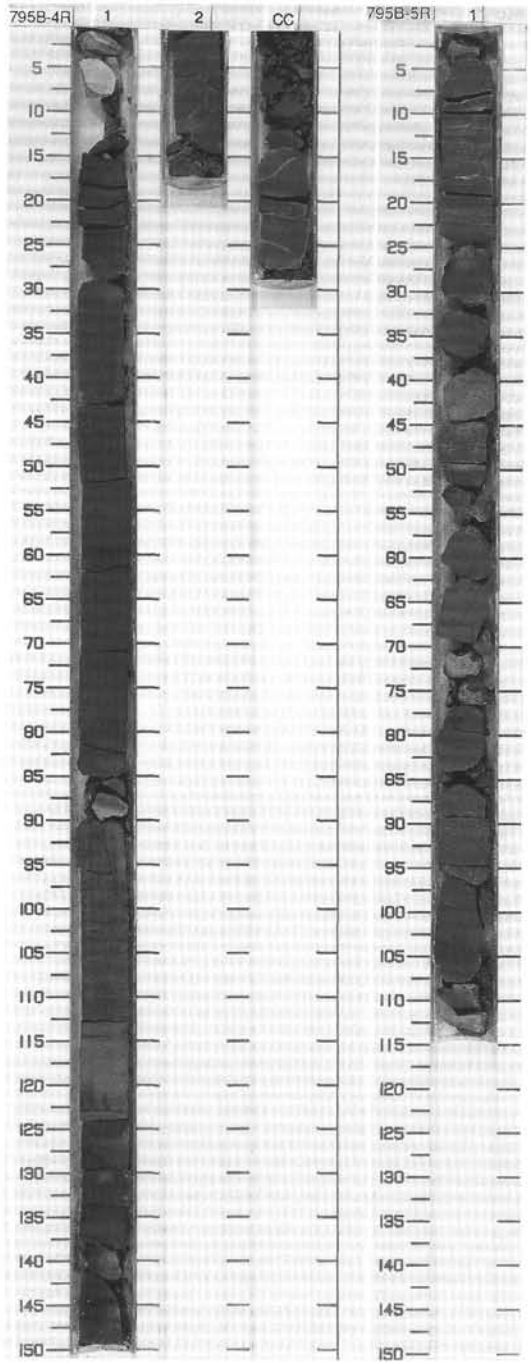
Minor lithology: Vitric ash silty clay mixed sediment, medium dark gray (N4), sharp contact at the bottom, slightly bioturbated.

SMEAR SLIDE SUMMARY (%):

	1, 90 D
TEXTURE:	
Silt	15
Clay	85
COMPOSITION:	
Clay	85
Feldspar	2
Pyrite	3
Quartz	10

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 2	0.73	0.8



SITE 795 HOLE B CORE 6R CORED INTERVAL 3712.7-3722.0 mbsl; 413.8-423.1 mbsf

TIME-ROCK UNIT	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
UPPER MIOCENE ?	B	B	F/P *Lychnocanium nipponicum*	B	Indeterminate	ϕ-80.8 ● ρ-1.88 V-2174	●	1					XRD

LITHOLOGIC DESCRIPTION

SILICEOUS CLAYSTONE

Major lithology: SILICEOUS CLAYSTONE, dark greenish gray (5GY 4/1) to olive black (5Y 2/1).

Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 82
	D
TEXTURE:	
Silt	10
Clay	90
COMPOSITION:	
Clay	85
Feldspar	1
Glass	1
Pyrite	5
Quartz	8

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 83	0.65	0.5

SITE 795 HOLE B CORE 7R CORED INTERVAL 3722.0-3731.7 mbsl; 423.1-437.8 mbsf

TIME-ROCK UNIT	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
UPPER MIOCENE ?	B	B	C/P *Lychnocanium nipponicum*	B	Indeterminate	ϕ-56.8 ● ρ-1.91	●		0.5				

LITHOLOGIC DESCRIPTION

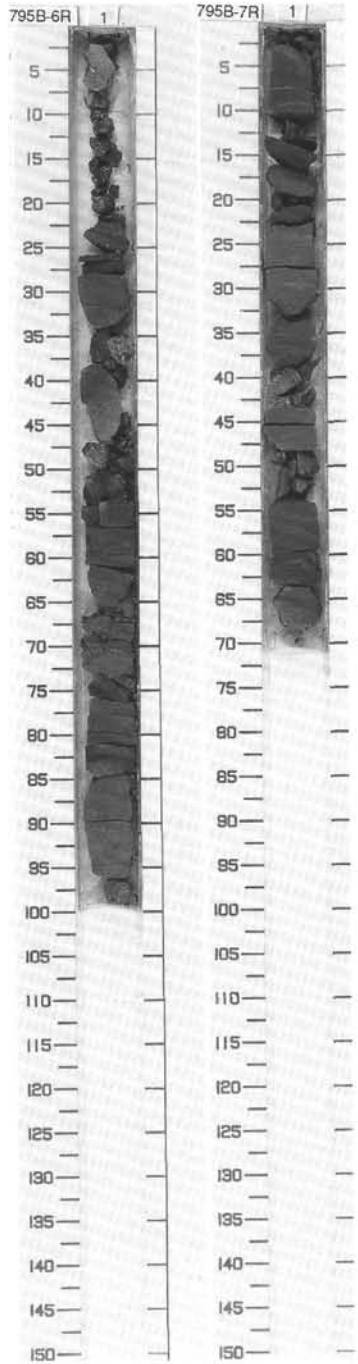
SILICEOUS SILTY CLAYSTONE

Major lithology: SILICEOUS SILTY CLAYSTONE, dark greenish gray (5G 4/1) to greenish black (5GY 2/1); flattened horizontal burrows.

Minor lithology: None.

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 2	0.58	0.2



SITE 795 HOLE B CORE 8R CORED INTERVAL 3731.7-3741.3 mbsl; 432.8-442.4 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 MIOCENE ?	B	B	C/P *Lychnocanium nipponicum*	B	Indeterminate	ν=2304 ● ρ=1.91 Φ=47.5	●	1	0.5, 1.0				

SILICEOUS CLAYSTONE

Major lithology: SILICEOUS CLAYSTONE, dark greenish gray (5GY 4/1) to olive black (5Y 2/1); heavily to moderately bioturbated.

Minor lithology: None.

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 2	0.29	0.1

SITE 795 HOLE B CORE 9R CORED INTERVAL 3741.3-3750.9 mbsl; 442.4-452.0 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 MIOCENE ?	B	B	R/P *Cyrtocapsella tetrapera*	B	Indeterminate	ν=2292 ● ρ=1.96 Φ=50.1 ν=1671 ● ρ=1.80 Φ=55.2	●	1 2 3 CC	0.5, 1.0				XRD XRD

SILICEOUS CLAYSTONE

Major lithology: SILICEOUS CLAYSTONE, dark yellow green (5GY 5/2) to olive gray (5Y 3/2); moderately to heavily bioturbated; pyrite-bearing nodules.

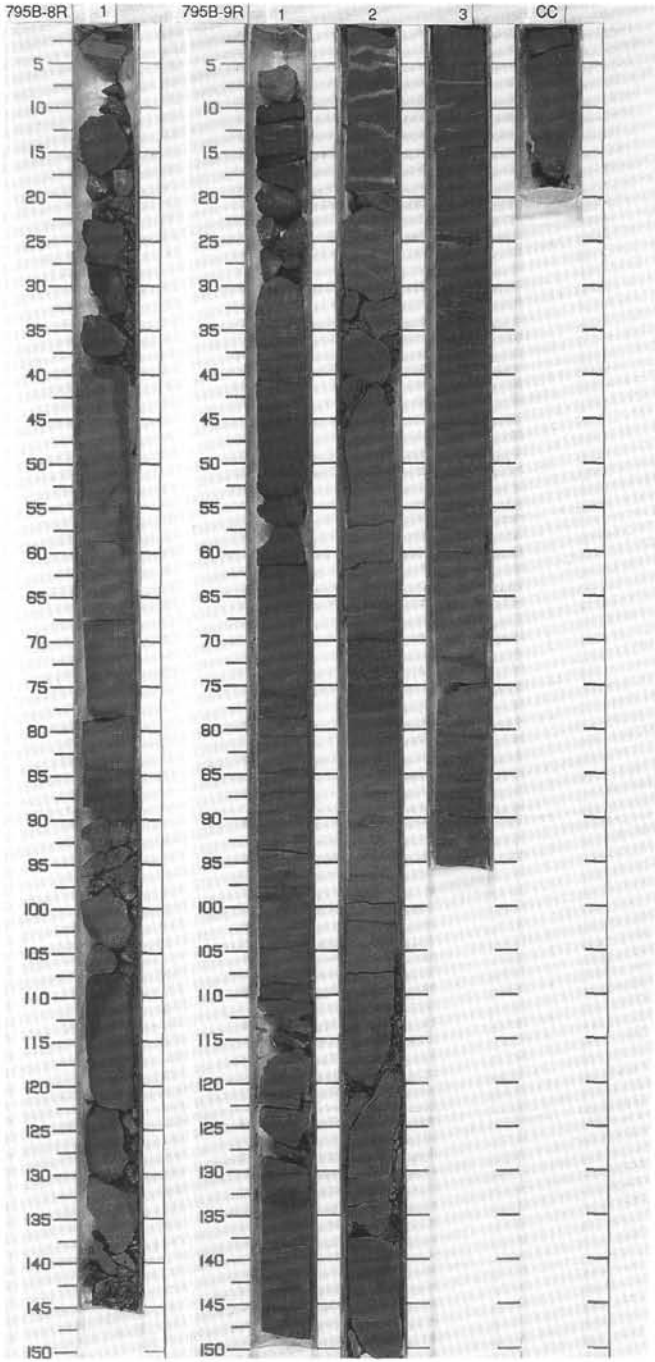
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 14 D	1, 83 D	2, 72 D	2, 100 D	CC, 11 D
TEXTURE:					
Silt	20	20	20	20	20
Clay	80	80	80	80	80
COMPOSITION:					
Apatite	—	—	—	—	Tr
Bioclast	—	—	—	—	Tr
Clay	95	95	80	80	80
Feldspar	—	—	3	2	—
Glass	—	—	—	—	2
Pyrite	—	Tr	7	3	3
Quartz	5	5	10	15	10

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 94	0.86	1.010R



SITE 795 HOLE B CORE 10R CORED INTERVAL 3750.9-3760.6 mbsl; 452.0-461.7 mbsf

TIME-ROCK UNIT: UPPER MIOCENE ?

BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS B; NANNOFOSSILS B; RADIOLARIANS R/P; DIATOMS B

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: V=2404 Φ=58.9 ρ=1.77; V=1739 Φ=59.3 ρ=1.74; V=1743 Φ=56.3 ρ=1.94

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: XRD; OC; DM; PM

LITHOLOGIC DESCRIPTION

SILICEOUS CLAYSTONE

Major lithology: SILICEOUS CLAYSTONE, *greenish olive* (5Y 3/2), *grayish olive* (10Y 4/2), olive gray (5Y 3/2), grayish olive green (5GY 3/2) and dark green gray (5GY 4/1); moderately to heavily bioturbated with abundant horizontally flattened and oval burrows and a few vertical burrows; some burrows filled with pyrite; a few large foraminifers.

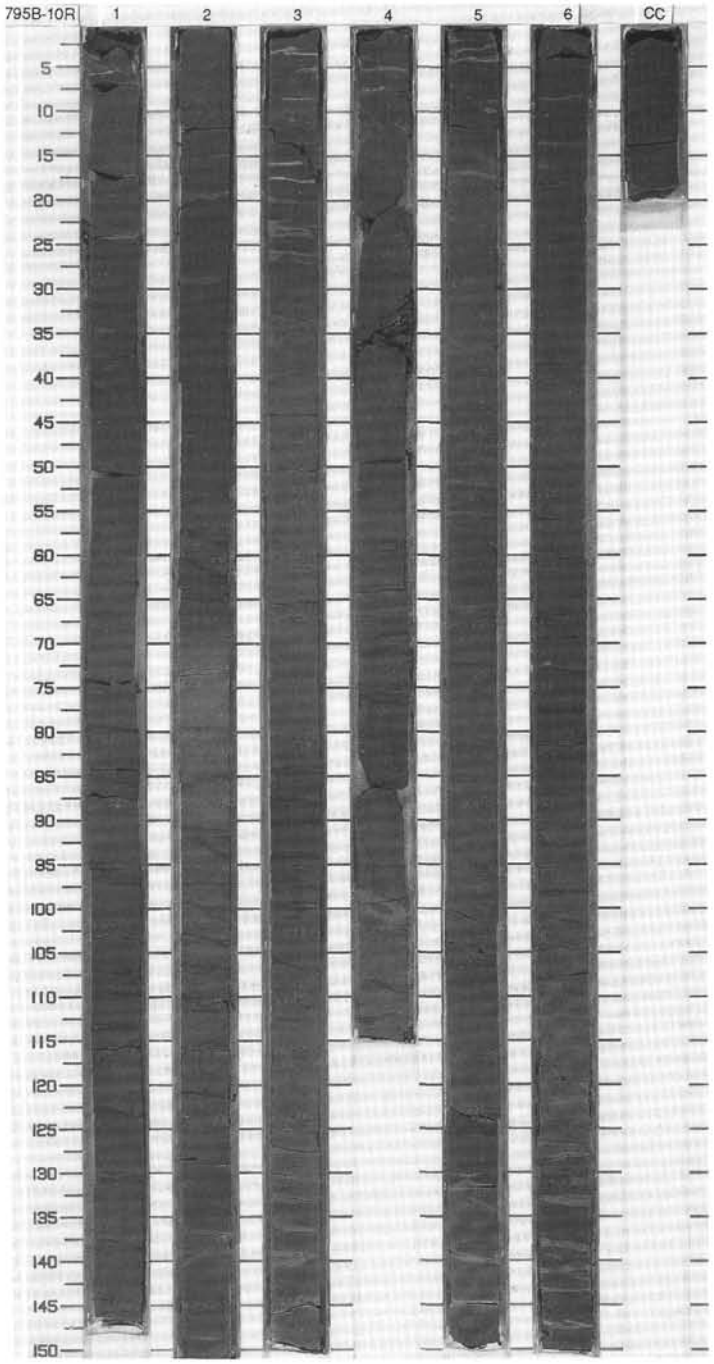
Minor lithology: Thin (0.5 cm) vitric tuff layers in Section 2 at 79 and 91 cm.

SMEAR SLIDE SUMMARY (%):

	1, 100 D	2, 80 M	4, 58 D	6, 128 D
TEXTURE:				
Silt	15	80	5	10
Clay	85	20	95	90
COMPOSITION:				
Accessory minerals	—	—	—	Tr
Clay	80	30	85	80
Diatoms	—	—	—	Tr
Feldspar	5	—	—	—
Glass	—	60	—	—
Pyrite	5	—	1	1
Quartz	10	5	4	5
Radiolarians	—	Tr	—	—
Silcia	—	—	10	10

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
4, 147	1.12	0.4
5, 2	0.96	0.5



SITE 795 HOLE B CORE 11R CORED INTERVAL 3760.6-3770.3 mbsl; 461.7-471.4 mbsf

TIME-ROCK UNIT	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
UPPER MIOCENE ?	B	B	B	B	Indeterminate	V-1937 ● Φ=57.7 ρ=1.79; V-1782 ● Φ=67.7 ρ=1.79; V-1807 ● Φ=50.5 ρ=1.97	● ●	1, 2, 3, 4, CC	0.5, 1.0			Ⓟ	* * *

BIOSTRAT. ZONE/ FOSSIL CHARACTER

LITHOLOGIC DESCRIPTION

SILICEOUS CLAYSTONE

Major lithology: SILICEOUS CLAYSTONE, dark greenish gray (5G 4/1), greenish black (5GY 2/1), olive gray (5Y 4/1) and grayish olive (10Y 5/2); moderately to highly bioturbated with abundant horizontally flattened burrows (a few vertical burrows); a few large foraminifers are visible; pyrite in burrows and disseminated throughout claystone.

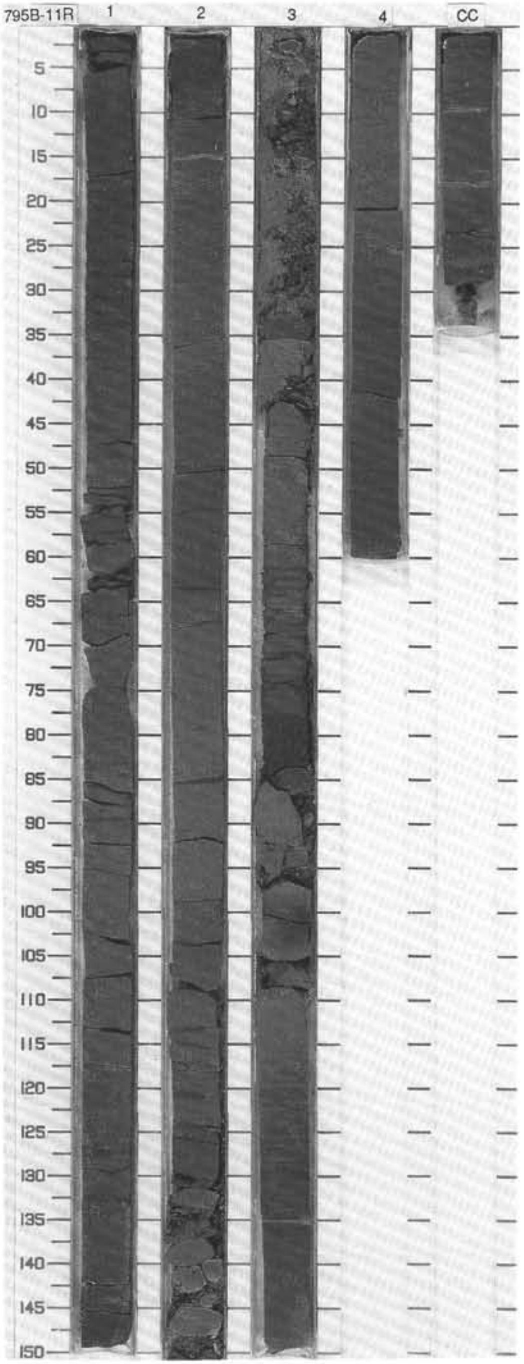
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 30 D	3, 66 D	CC, 11 D
TEXTURE:			
Silt	10	5	5
Clay	90	95	95
COMPOSITION:			
Accessory minerals	Tr	Tr	Tr
Bioclast	—	—	Tr
Clay	85	85	95
Glass	Tr	Tr	—
Pyrite	2	1	Tr
Quartz	5	2	2
Silcia	5	10	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 2	1.20	0.4
2, 95	0.61	0.8



SITE 795 HOLE B CORE 12R CORED INTERVAL 3770.3-3779.9 mbsl; 471.4-481.0 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 MIOCENE ?	F/P	R/P	B	B	Indeterminate	V-1908 Φ=53.3 ρ=2.05; V-1892 Φ=48.2 ρ=2.04		1 2 3 4 CC	0.5 1.0				* * *

LITHOLOGIC DESCRIPTION

SILT-BEARING SILICEOUS CLAYSTONE

Major lithology: SILT-BEARING SILICEOUS CLAYSTONE, dark greenish gray (5GY 4/1 to 5GY 5/1), olive gray (5Y 4/2), greenish black (5GY 2/1) and greenish gray (5GY 6/1); moderately to highly bioturbated: most burrows horizontally flattened (a few are vertical); pyrite is abundant and occurs disseminated throughout claystone and within burrows, also as discrete, small nodules; a few foraminifers are visible especially in Section 4 at 53-55 cm. Possible soft-sediment deformation structures (slump?) in Section 3 at 136-140 cm.

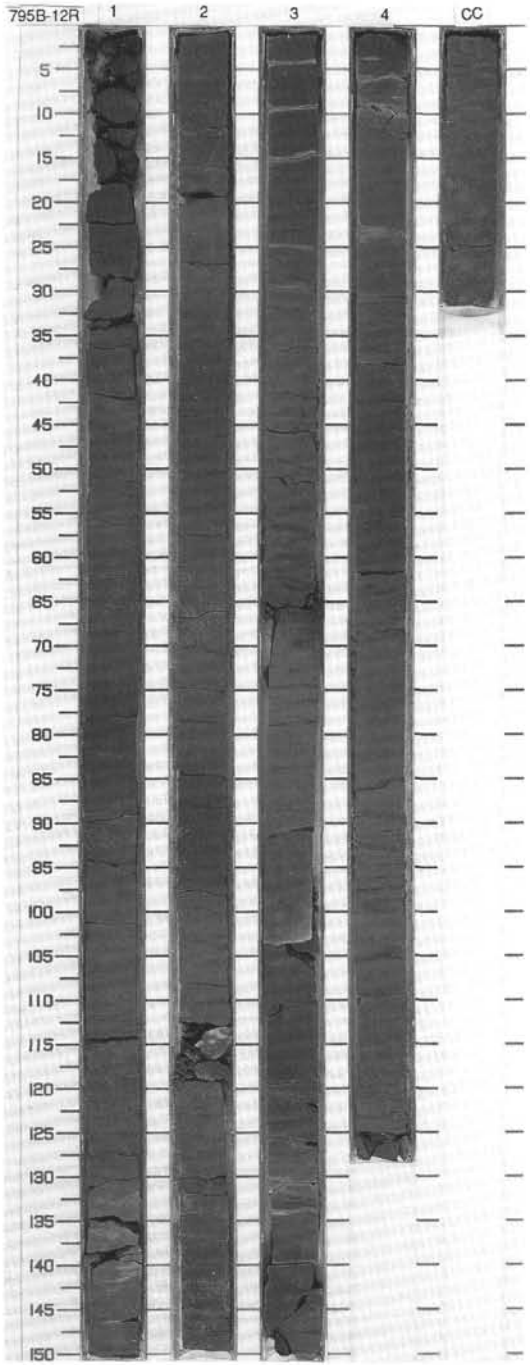
Minor lithology: Dolomite in Section 2 at 117 cm, in drilling breccia.

SMEAR SLIDE SUMMARY (%):

	1, 56 D	3, 91 D	CC, 24 D
TEXTURE:			
Silt	5	2	5
Clay	95	98	95
COMPOSITION:			
Accessory minerals	Tr	Tr	Tr
Bioclast	Tr	Tr	Tr
Clay	95	95	90
Feldspar	Tr	—	—
Glass	—	Tr	Tr
Pyrite	Tr	Tr	Tr
Quartz	2	Tr	1
Silicia	Tr	Tr	5

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
3, 2	0.83	0.4



SITE 795 HOLE B CORE 13R CORED INTERVAL 3779.9-3789.6 mbsl; 481.0-490.7 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 MIOCENE	F/P	B	B	B	Indeterminate	V-1883 ● 6-50.2 P-2.11		1	0.5 1.0		X		*
			Denticulopsis dimorpha ● R/P					2					
						V-1695 ● 6-54.8 P-1.87	●	3					*
								CC					*

LITHOLOGIC DESCRIPTION

SILICEOUS SILTY CLAYSTONE

Major lithology: SILICEOUS SILTY CLAYSTONE: dark greenish gray (5G 4/1), olive gray (5Y 4/1) and greenish black (5GY 3/1); moderately to highly bioturbated; small horizontally flattened burrows; disseminated pyrite throughout, concentrated in darker bands; large foraminifers scattered throughout.

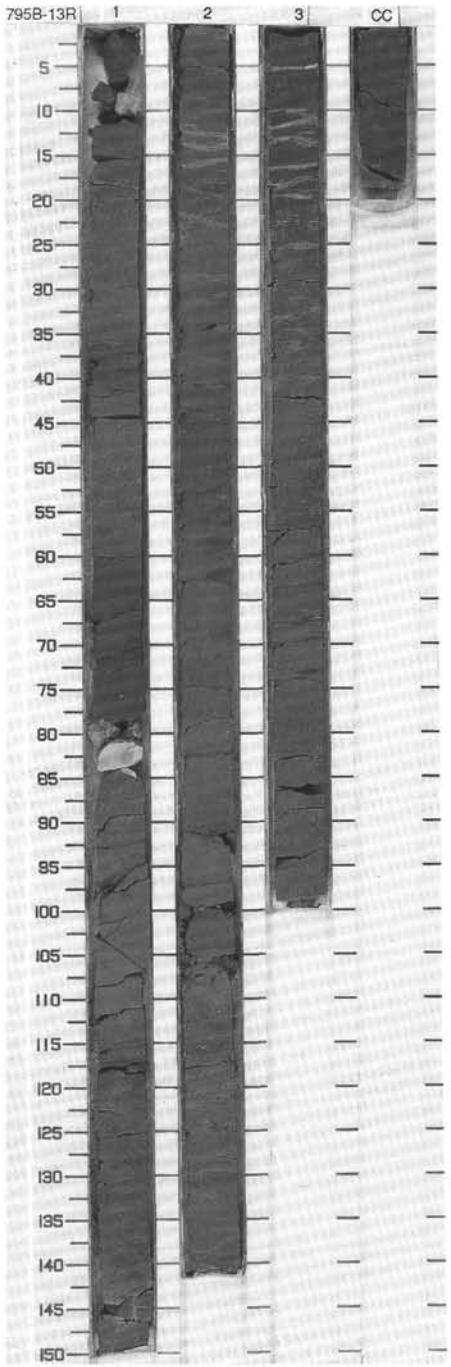
Minor lithology: Tuff, medium light gray (N8) in Section 1 at 130 cm. Dolomite nodules, dusky yellow (5Y 6/6) in Section 1 at 78-84 cm.

SMEAR SLIDE SUMMARY (%):

	1, 29 D	3, 12 D	CC, 8 D
TEXTURE:			
Silt	5	5	5
Clay	95	95	95
COMPOSITION:			
Accessory minerals	Tr	Tr	Tr
Bioclast	—	—	Tr
Bryozoa	—	Tr	—
Clay	95	95	95
Glass	Tr	Tr	Tr
Pyrite	Tr	Tr	2
Quartz	—	2	—
Silcia	Tr	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 145	0.73	0.5
2, 147	1.03	0.2



SITE 795 HOLE B CORE 14R CORED INTERVAL 3789.6-3798.9 mbsl; 490.7-500.0 mbsf

TIME-ROCK UNIT: UPPER MIOCENE ?

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

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: V=1782 Φ=53.3 ρ=1.96; V=1780 Φ=59.2 ρ=1.96

CHEMISTRY

SECTION: 1, 2, 3, 4, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

SILICEOUS SILTY CLAYSTONE

Major lithology: SILICEOUS SILTY CLAYSTONE, dark greenish gray (5G 4/1); heavily bioturbated with indistinct horizontally flattened burrows; foraminifers present throughout; scattered microfractures.

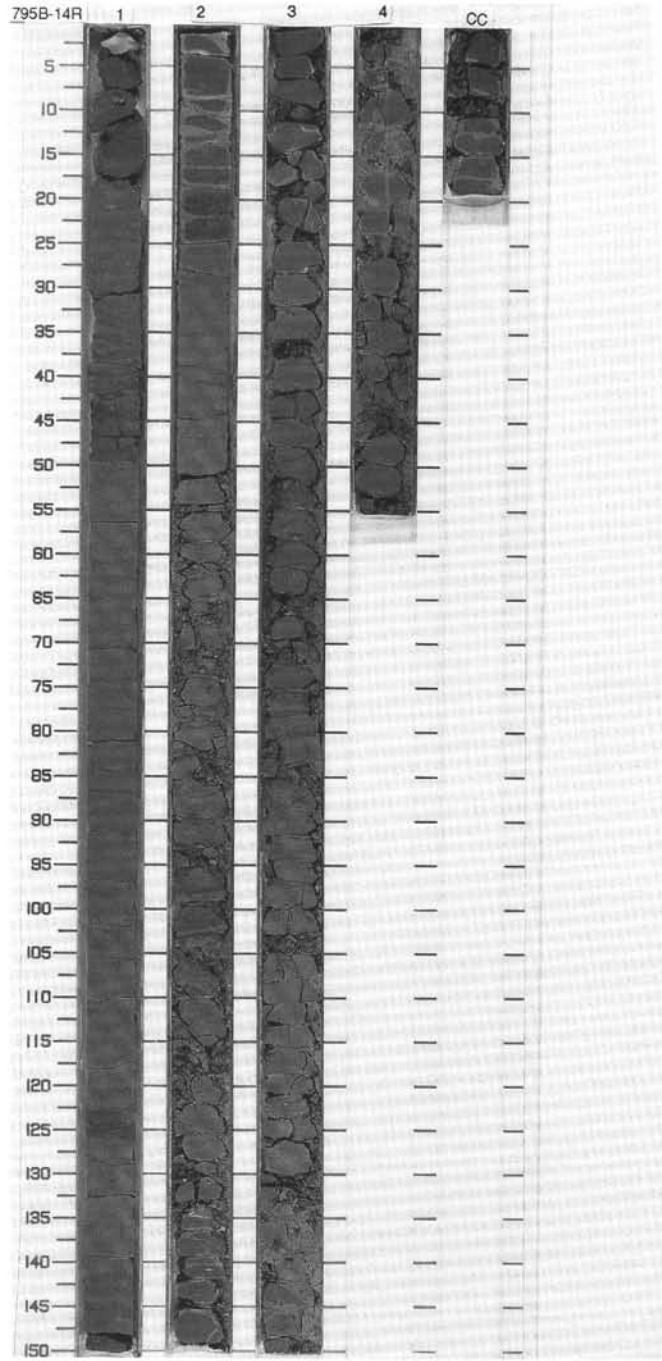
Minor lithology: Pyrite-bearing siliceous silty claystone, olive gray (5Y 3/2); moderately bioturbated with very distinct horizontally flattened burrows; interbedded with major lithology in Section 1 at 40-50 and 123-127 cm, and in Section 2 at 18-24 and 99-103 cm. Tuff medium dark gray (N4) in Section 1 at 51 cm. Dolomite pebbles, light olive gray (5Y 6/1) in Section 1 at top within drilling breccia.

SMEAR SLIDE SUMMARY (%):

	1, 22 D	2, 22 M	4, 35 D
TEXTURE:			
Silt	5	10	5
Clay	95	90	95
COMPOSITION:			
Accessory minerals	Tr	Tr	Tr
Clay	95	95	95
Glass	Tr	Tr	Tr
Pyrite	Tr	2	1
Quartz	—	—	1
Silcia	Tr	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 25	1.09	0.7
3, 2	0.58	0.3



SITE 795 HOLE B CORE 15R CORED INTERVAL 3798.9-3808.6 mbsl; 500.0-509.7 mbsf

TIME-ROCK UNIT: UPPER MIOCENE ?

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

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: V=1748 ●ϕ=57.0 ρ=2.19; V=1740 ϕ=52.3 ●ρ=1.99

CHEMISTRY: ●

SECTION: 1, 2, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: * * XRD

LITHOLOGIC DESCRIPTION

SILT-BEARING SILICEOUS CLAYSTONE

Major lithology: SILT-BEARING SILICEOUS CLAYSTONE, dark greenish gray (5G 4/1 to 5G 5/1); highly bioturbated; horizontal and sub-horizontal flattened burrows (most mm to a few cm in length); scattered foraminifers and microfractures; significant drilling disturbance (highly fragmented).

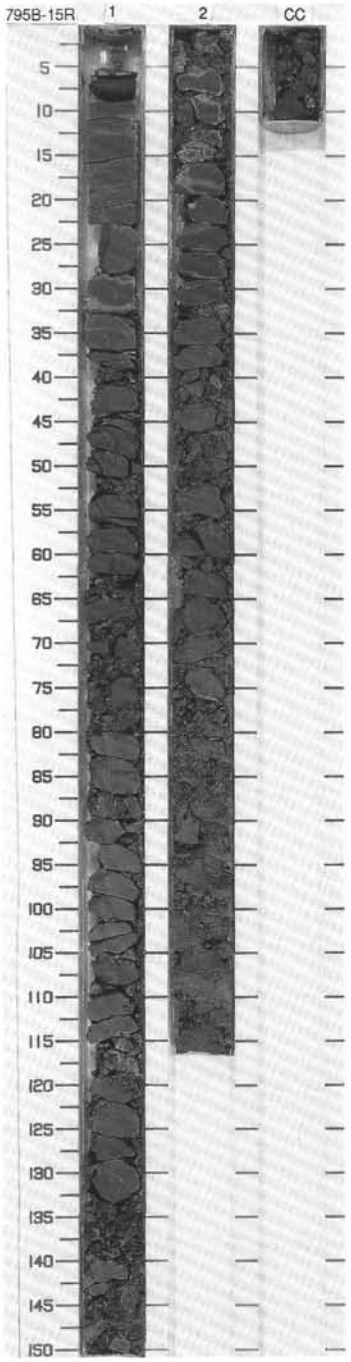
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 32 D	2, 103 D
TEXTURE:		
Silt	5	5
Clay	95	95
COMPOSITION:		
Accessory minerals	Tr	Tr
Clay	95	95
Diatoms	—	Tr
Glass	Tr	Tr
Pyrite	Tr	Tr
Quartz	1	1
Silcia	Tr	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 2	0.71	0.2



SITE 795 HOLE B CORE 16R CORED INTERVAL 3808.6-3818.3 mbsl; 509.7-519.4 mbsf

TIME-ROCK UNIT: UPPER MIOCENE ?

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

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: V=1726 Φ=64.3 ρ=2.02; V=1735 Φ=55.6 ρ=1.98

CHEMISTRY

SECTION: 1, 2, 3, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: XRD

LITHOLOGIC DESCRIPTION

SILICEOUS SILTY CLAYSTONE

Major lithology: SILICEOUS SILTY CLAYSTONE, dark greenish gray (5GY 2/1); highly bioturbated with abundant indistinct, horizontally flattened burrows; pyrite disseminated throughout claystone and concentrated in darker-colored burrows; microfractures locally.

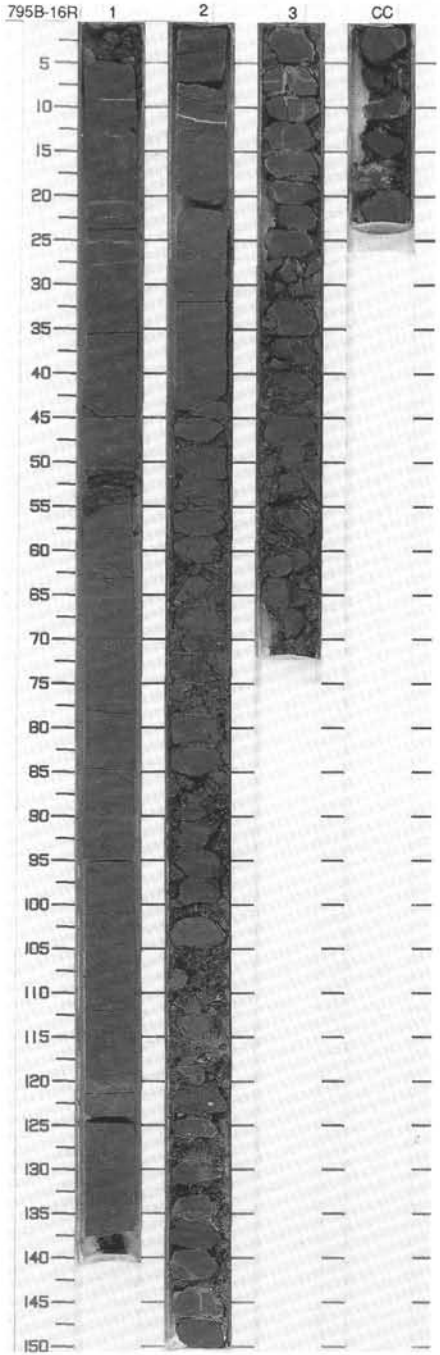
Minor lithology: Pyrite-bearing siliceous silty claystone, brownish gray (5YR 4/1), moderately bioturbated with horizontally compacted burrows; occurs in Section 1 at 54-58 cm. Scattered glauconite grains throughout.

SMEAR SLIDE SUMMARY (%):

	1, 27 D	2, 20 D	3, 20 D
TEXTURE:			
Silt	20	15	10
Clay	80	85	90
COMPOSITION:			
Accessory minerals	Tr	Tr	—
Clay	95	95	90
Glass	Tr	Tr	Tr
Organic matter	Tr	—	—
Pyrite	Tr	Tr	Tr
Quartz	—	—	5
Silcia	—	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 145	0.68	0.2
1, 147	0.61	0.3



SITE 795 HOLE B CORE 17R CORED INTERVAL 3818.3-3828.0 mbsl; 519.4-529.1 mbsf

TIME-ROCK UNIT: UPPER MIOCENE ?

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

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: V-1798 ● 0.49 P-2.09; V-1754 ● 0.51.6 P-2.03

CHEMISTRY: ●

SECTION: 1, 2

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES: TS

SAMPLES: *, *

LITHOLOGIC DESCRIPTION

SILICEOUS CLAYSTONE

Major lithology: SILICEOUS CLAYSTONE, dark greenish gray (5G 4/1) and olive gray (5Y 4/1), highly bioturbated with abundant indistinct horizontal burrows (flattened), interbedded on a scale of 10 to 20 cm with SILICEOUS CLAYSTONE, olive black (5Y 2/1), brownish gray (5YR 4/1) and brownish black (5YR 2/1), moderately bioturbated, with very distinct, flattened horizontal burrows; scattered foraminifers and pyrite.

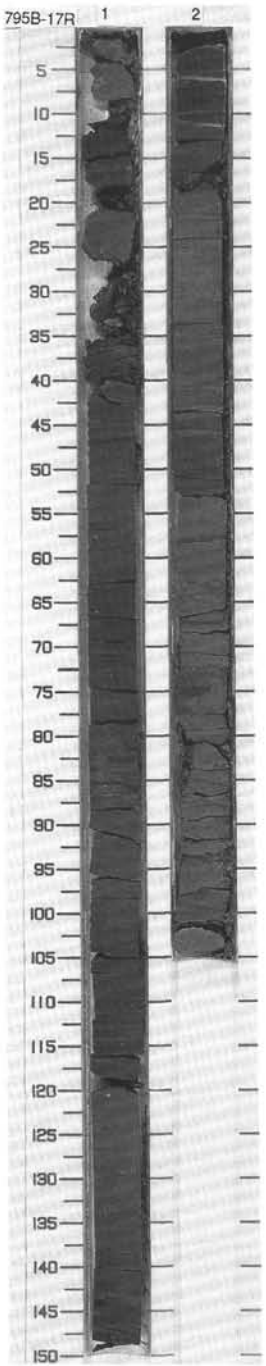
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 96 D	1, 131 D	2, 69 D
TEXTURE:			
Silt	2	3	5
Clay	98	97	95
COMPOSITION:			
Clay	95	95	95
Glauconite	1	—	—
Pyrite	2	Tr	Tr
Quartz	2	1	2
Silcia	—	Tr	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 2	2.02	0.2



SITE 795 HOLE B CORE 18R CORED INTERVAL 3828.0-3837.6 mbsl; 529.1-538.7 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 MIOCENE ?	B	B	B	B	Indeterminate	V=1843 Φ=49.3 ρ=2.03 V=1854 Φ=48.6 ρ=2.06 V=1967 Φ=42.5 ρ=2.09 V=1785 Φ=50.4 ρ=2.05	•	1 2 3 4 CC	0.5 1.0				*

LITHOLOGIC DESCRIPTION

CLAYSTONE

Major lithology: CLAYSTONE, grayish olive (10Y 4/2), heavily bioturbated lighter layers with horizontal and oblique burrows alternating with grayish olive green (5GY 3/2) slightly to moderately bioturbated darker layer with horizontal locomotive burrows, each layers being 30 to 100 cm. thick. Water escape veinlets in Section 1 at 73-79 cm and Section 2 at 92-115 cm.

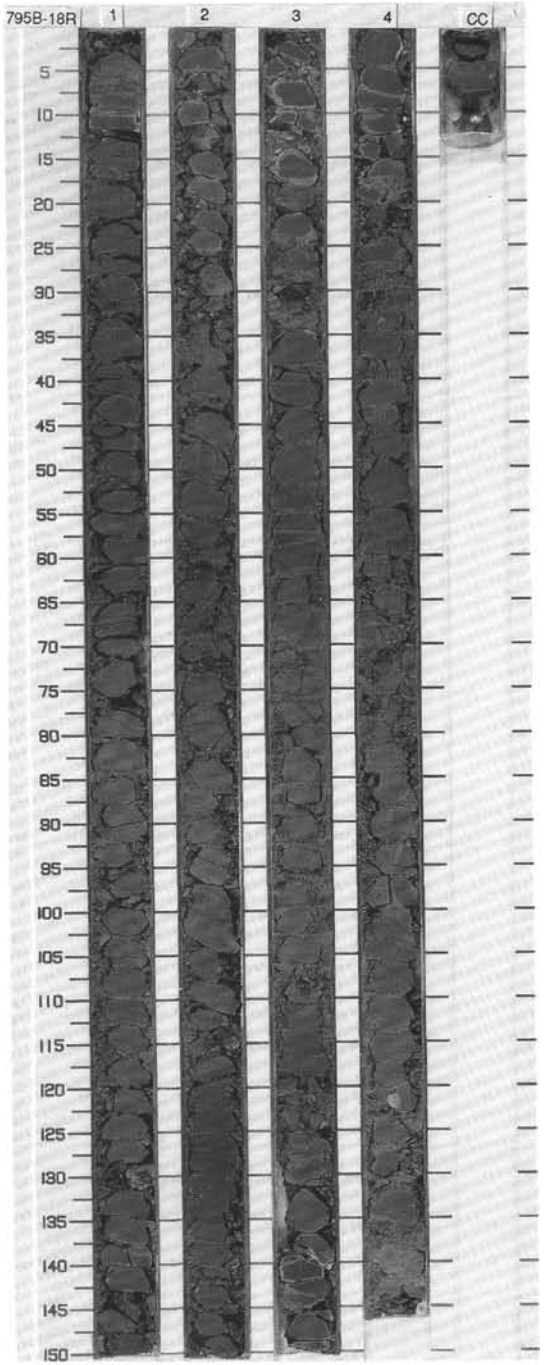
Minor lithology: Fine vitric tuff, laminated and slightly bioturbated and graded, in Section 4, 138-150 cm.

SMEAR SLIDE SUMMARY (%):

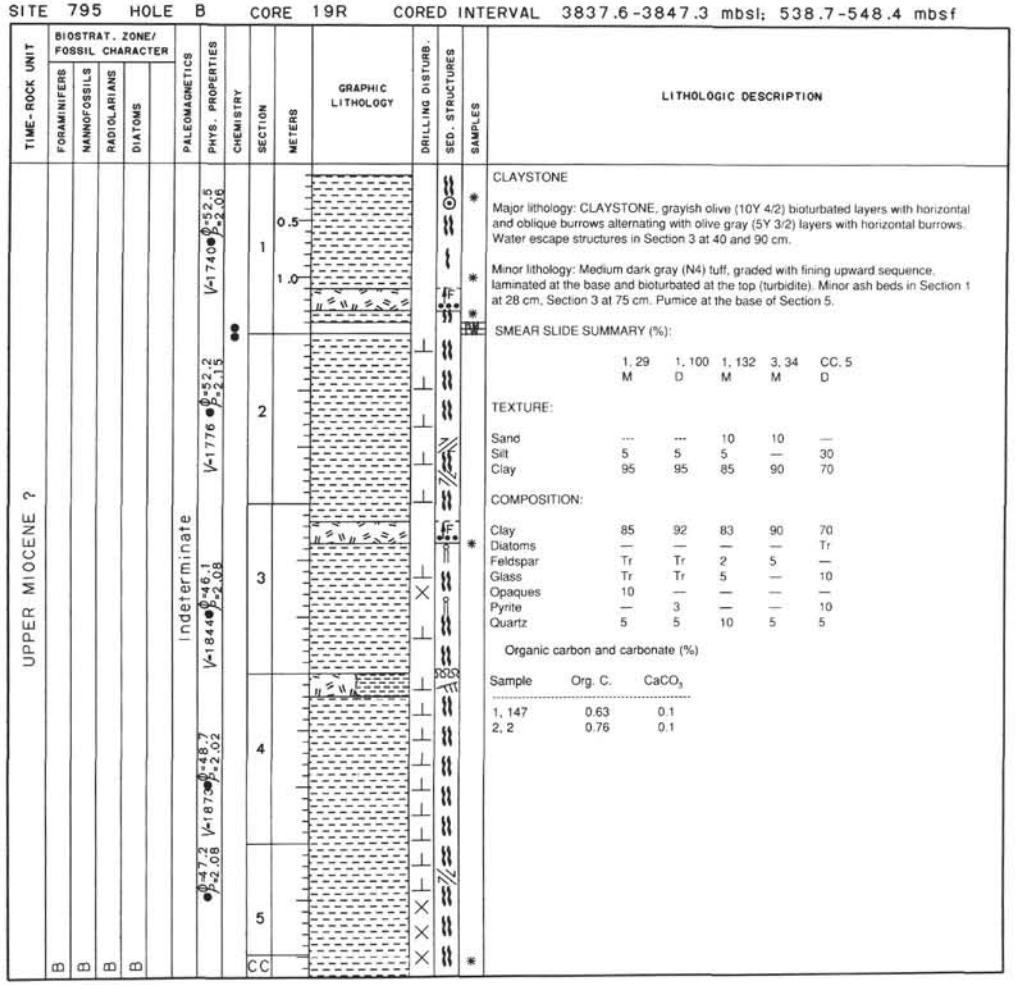
	1, 100 D	3, 60 D
TEXTURE:		
Silt	10	7
Clay	90	93
COMPOSITION:		
Clay	85	90
Feldspar	2	—
Pyrite	6	5
Quartz	7	5

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
3, 2	0.73	0.1



SITE 795 HOLE B CORE 19R CORED INTERVAL 3837.6-3847.3 mbsl; 538.7-548.4 mbsf



LITHOLOGIC DESCRIPTION

CLAYSTONE

Major lithology: CLAYSTONE, grayish olive (10Y 4/2) bioturbated layers with horizontal and oblique burrows alternating with olive gray (5Y 3/2) layers with horizontal burrows. Water escape structures in Section 3 at 40 and 90 cm.

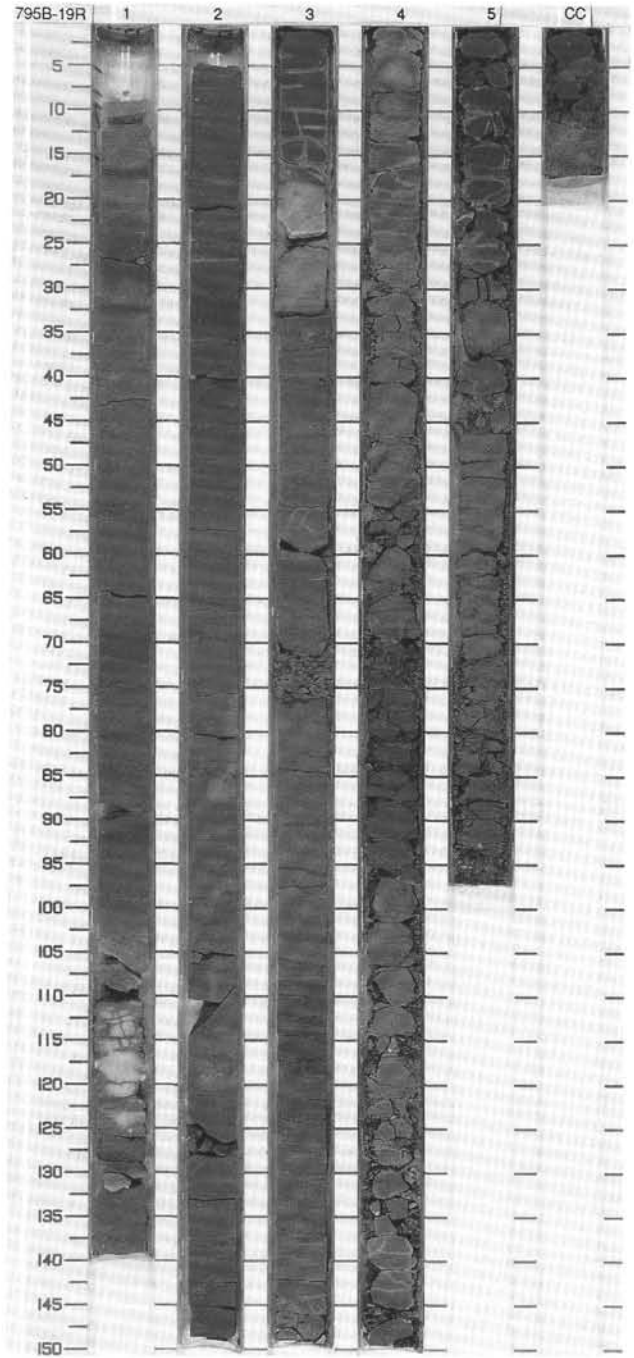
Minor lithology: Medium dark gray (N4) tuff, graded with fining upward sequence, laminated at the base and bioturbated at the top (turbidite). Minor ash beds in Section 1 at 28 cm, Section 3 at 75 cm. Pumice at the base of Section 5.

SMEAR SLIDE SUMMARY (%):

	1, 29 M	1, 100 D	1, 132 M	3, 34 M	CC, 5 D
TEXTURE:					
Sand	---	---	10	10	—
Silt	5	5	5	—	30
Clay	95	95	85	90	70
COMPOSITION:					
Clay	85	92	83	90	70
Diatoms	—	—	—	—	Tr
Feldspar	Tr	Tr	2	5	—
Glass	Tr	Tr	5	—	10
Opaques	10	—	—	—	—
Pyrite	—	3	—	—	10
Quartz	5	5	10	5	5

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 147	0.63	0.1
2, 2	0.76	0.1



SITE 795 HOLE B CORE 20R CORED INTERVAL 3847.3-3857.0 mbsl; 548.4-558.1 mbsf

TIME-ROCK UNIT: UPPER MIOCENE ?

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

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: V=1858 Φ=46.8 ρ=2.13; V=1856 Φ=45.8 ρ=2.17; V=1961 Φ=39.8 ρ=2.19; V=1821; V=1744 Φ=47.8 ρ=2.08; Φ=47.1 ρ=2.07

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

CLAYSTONE

Major lithology: CLAYSTONE, dusky yellow green (5GY 5/2), heavily bioturbated lighter layers 50 to 100 cm thick alternate with grayish olive green (5GY 3/2), moderately bioturbated darker layers 5 to 20 cm thick.

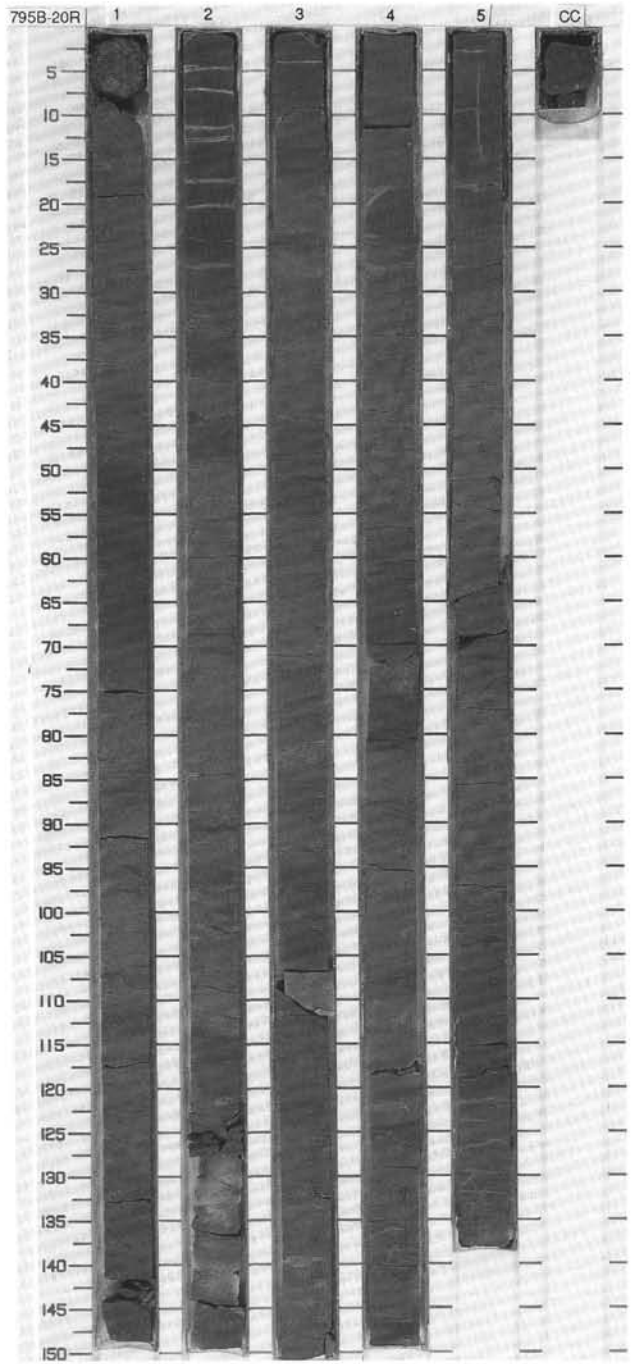
Minor lithology: Tuff, medium light gray (N6) with dusky yellow green (5GY 5/2) mottles and burrows, sharp basal contact, fining upward in Section 2, 125-145 cm. Thin tuff layers in Section 4 at 75 cm and Core Catcher at 10 cm.

SMEAR SLIDE SUMMARY (%):

	3, 100	D
TEXTURE:		
Silt	5	
Clay	95	
COMPOSITION:		
Clay	90	
Pyrite	5	
Quartz	5	

Organic carbon and carbonate (%)

Sample	Org. C	$CaCO_3$
1, 149	0.70	0.221R



SITE 795 HOLE B CORE 21R CORED INTERVAL 3857.0-3866.6 mbsl; 558.1-567.7 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
MIDDLE MIOCENE	B	B	B	B	Indeterminate	●Φ=42.5 V=1.804 ρ=2.20	●Φ=39.9 V=1.859 ρ=2.08	●Φ=50.8 V=1.808 ρ=2.14	●Φ=50.8 V=1.808 ρ=2.26	*Denticulopsis praedimorpha* ● R/P	1	0.5	1.0	2	3	4	5	6	CC				TS	

LITHOLOGIC DESCRIPTION

CLAYSTONE

Major lithology: CLAYSTONE, dusky yellow green (5GY 5/2) to grayish olive (10Y 4/2) light colored beds with short horizontal and oblique burrows alternate with grayish olive green (5GY 3/2) darker beds with flattened horizontal locomotion burrows. Water escape veinlets in Section 3 between 70 and 130 cm.

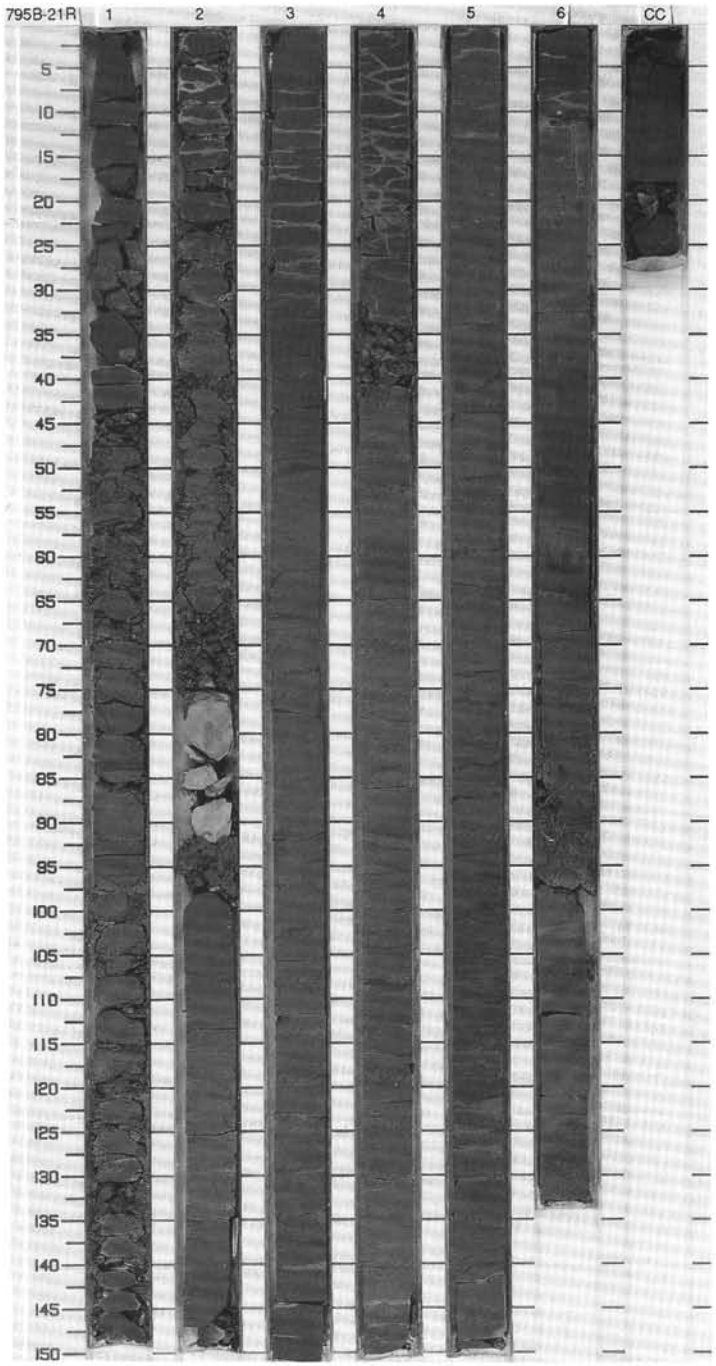
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	2, 86 M
TEXTURE:	
Silt	40
Clay	60
COMPOSITION:	
Clay	Tr
Diatoms	10
Inorganic calcite	80
Pyrite	5
Quartz	Tr
Radiolarians	5

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
6, 2	0.72	0.1



SITE 795 HOLE B CORE 22R CORED INTERVAL 3866.6-3876.3 mbsl; 567.7-577.4 mbsf

TIME-ROCK UNIT: MIDDLE MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: B; NANNOFOSSILS: B; RADIOLARIANS: B; DIATOMS: R/P *Denticulopsis praedimorpha*

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: ▽-1861 ●0.45.2 ρ-2.08; ▽-1812 ●0.62.8 ρ-1.78; ●0.43.0 ρ-2.09

CHEMISTRY: [▽-1861]

SECTION: 1, 2, 3, 4, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES: TS; TS

SAMPLES: *; XRD

LITHOLOGIC DESCRIPTION

CLAYSTONE

Major lithology: CLAYSTONE, grayish olive (10Y 4/2) to dark greenish gray (5Y 4/1), heavily bioturbated and mottled with short oblique and horizontal burrows in lighter layers and horizontal burrows in darker layers.

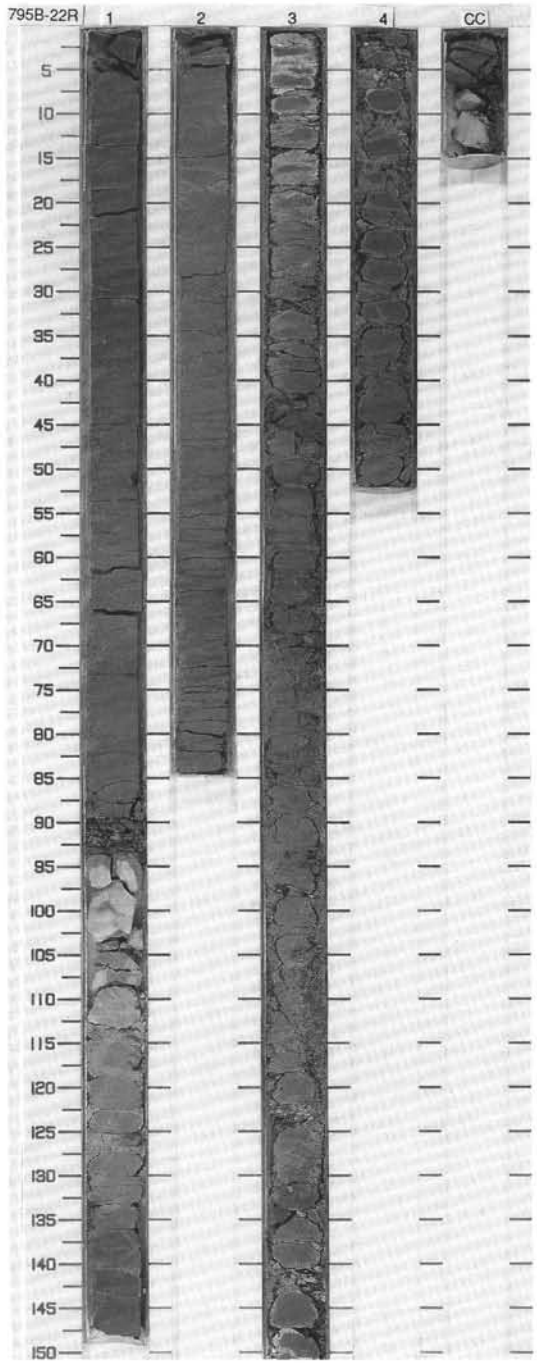
Minor lithology: Tuff, greenish gray (5G 6/1), coarse to fine, laminated, fining upward, in Section 1, 95-137 cm. Calcareous chert, olive gray (5Y 3/2) in Core Catcher at 5-14 cm.

SMEAR SLIDE SUMMARY (%):

	1, 40 D	1, 94 M	1, 133 M
TEXTURE:			
Sand	---	—	10
Silt	5	5	20
Clay	95	95	70
COMPOSITION:			
Biotite	—	—	1
Clay	92	50	95
Feldspar	—	Tr	1
Inorganic calcite	—	50	—
Pyrite	3	*Tr*	1
Quartz	5	Tr	1

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 87	0.53	0.2
3, 2	0.53	0.1



SITE 795 HOLE B CORE 23R CORED INTERVAL 3876.3-3885.9 mbsl; 577.4-587.0 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
MIDDLE MIOCENE ?	B	B	B	B	Indeterminate; V-1922 ● Φ=41.0 ρ=2.16; V-1838 ● Φ=43.8 ρ=2.08; ● Φ=48.6 ρ=2.00 V-1789; V-1830 ● Φ=43.7 ρ=2.06	●	1	0.5					
								1.0					
								2				F	
								3					OG
								4					
								CC					

LITHOLOGIC DESCRIPTION

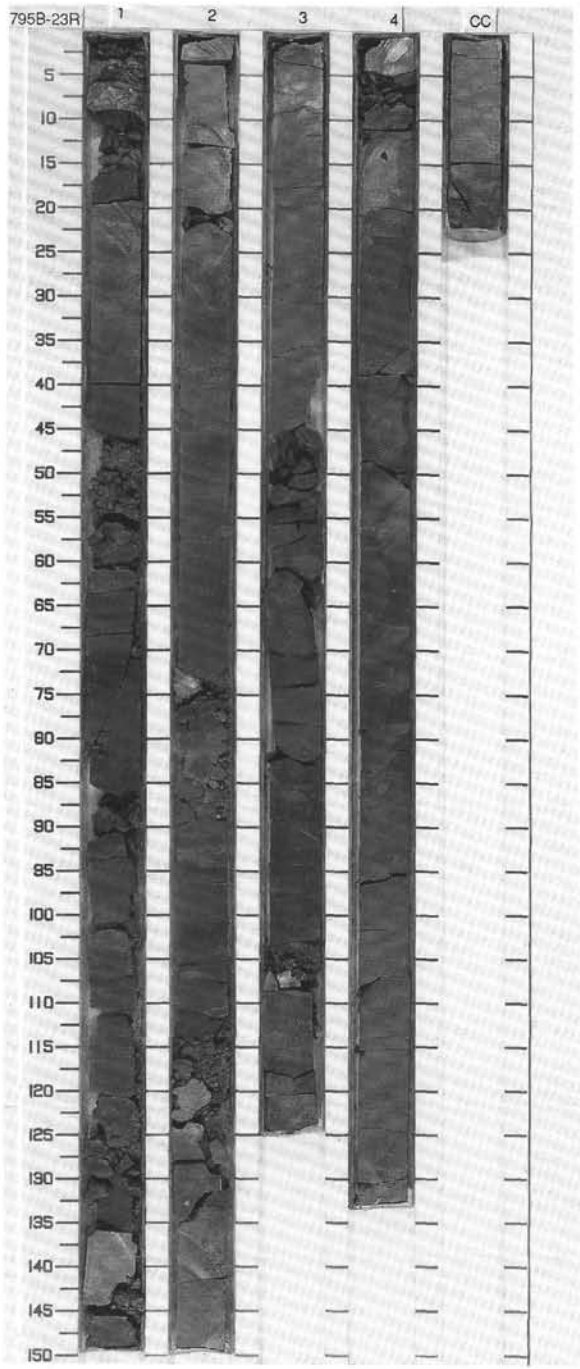
CLAYSTONE

Major lithology: CLAYSTONE, grayish olive green (5GY 3/2), greenish gray (5G 6/1) to light olive gray (5Y 5/2), heavily to moderately bioturbated and mottled with horizontal burrows in darker layers and horizontal and oblique burrows in lighter layers.

Minor lithology: Vitric tuff (altered), in 2 to 12 cm beds, yellowish gray (5Y 7/2), light olive gray (5Y 6/1) often graded and bioturbated in Section 1 at 13, 58, 85 and 125 cm. Section 2, 78-89 and 108-125 cm.

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 2	0.74	0.1
2, 146	0.57	0.2



SITE 795 HOLE B CORE 24R CORED INTERVAL 3885.9-3895.6 mbsl; 587.0-596.7 mbsf

TIME-ROCK UNIT: MIDDLE MIOCENE ?

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

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: V=1820 Φ=45.6 ρ=2.12; V=1775 Φ=53.4 ρ=2.11; V=1806 Φ=43.7 ρ=2.09

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

CLAYSTONE

Major lithology: CLAYSTONE, greenish gray (5GY 6/1), light olive brown (5Y 5/6) and dark greenish gray (5GY 4/1); highly bioturbated, with abundant horizontally flattened burrows, some highly pyritic; interbedded with claystone, dark yellow brown (10YR 4/2), moderately bioturbated with distinct horizontal burrows in Section 4 at 70-85 cm.

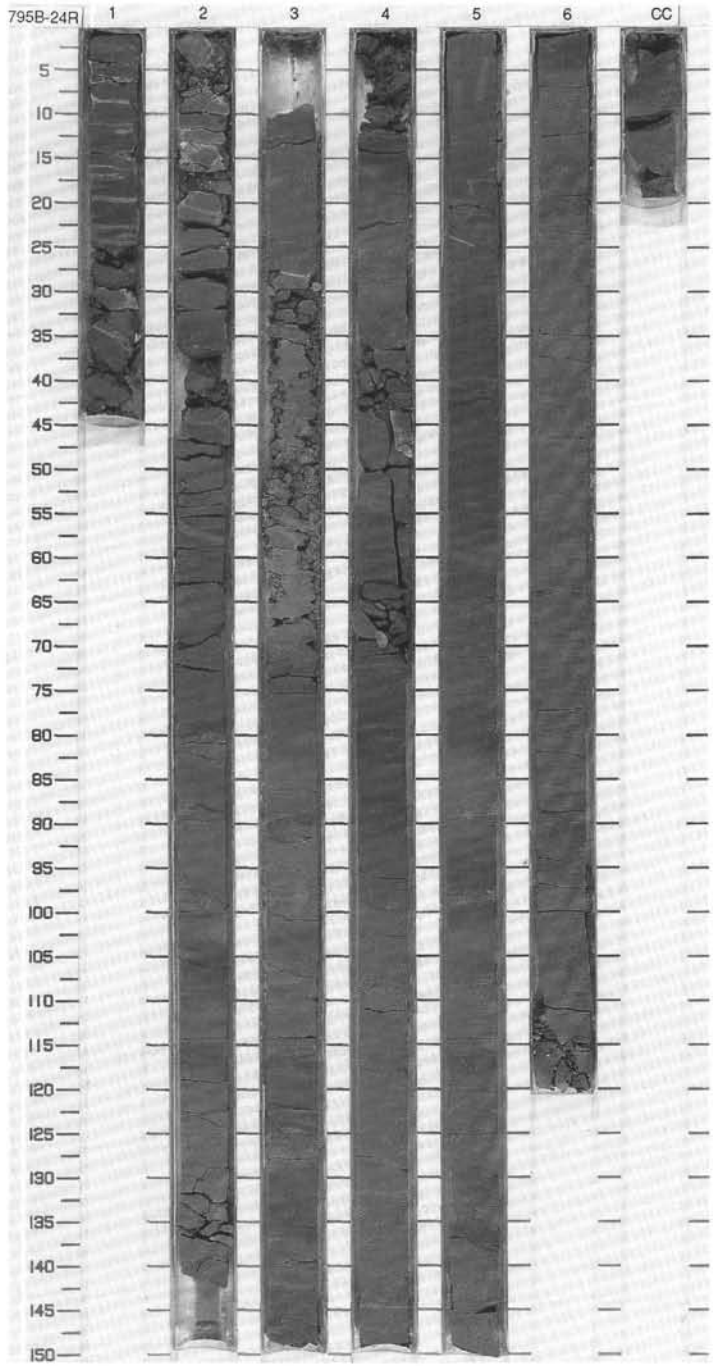
Minor lithology: Tuff, medium dark gray (N4), to light greenish gray (5GY 8/1); parallel laminations at base; normally graded from coarse tuff at base to fine tuff at top; occurs in Section 3 at 46-73 cm (possible turbidite).

SMEAR SLIDE SUMMARY (%):

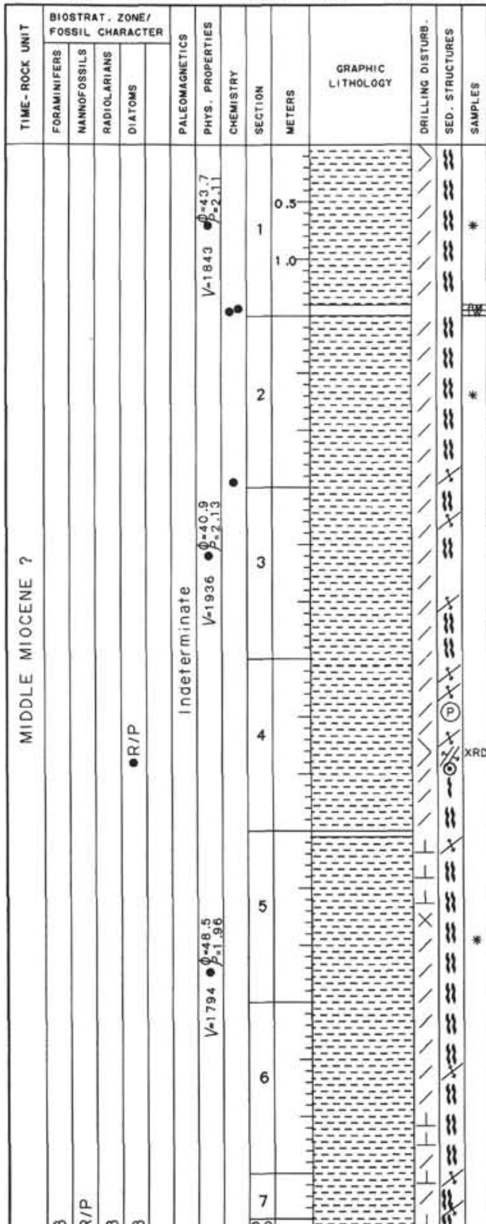
	1, 10	5, 113
	D	D
TEXTURE:		
Silt	5	2
Clay	95	98
COMPOSITION:		
Accessory minerals	—	Tr
Clay	95	98
Pyrite	Tr	Tr
Quartz	2	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
4, 74	1.01	0.1
5, 112	0.73	0.1
6, 2	0.66	0.1



SITE 795 HOLE B CORE 25R CORED INTERVAL 3895.6-3905.3 mbsl; 596.7-606.4 mbsf



LITHOLOGIC DESCRIPTION

CLAYSTONE

Major lithology: CLAYSTONE, greenish gray (5G 6/1 to 5G 7/1) and dark greenish gray (5G 4/1); highly bioturbated with abundant horizontally flattened burrows, some with pyrite; microfractures abundant, with slickensides on some fracture surfaces.

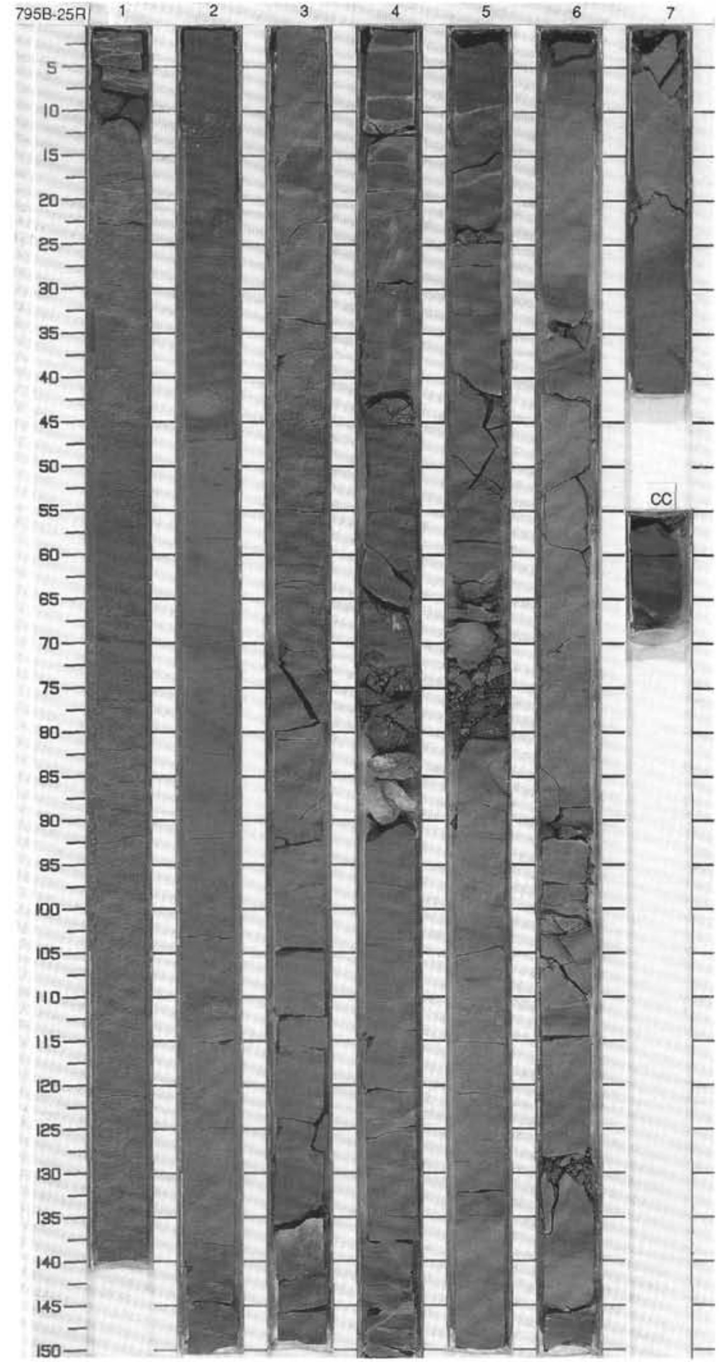
Minor lithology: Ash, medium light gray (N6) in Section 5 at 135-136 cm; claystone, heavily fractured; fractures filled with white (N9) calcite (?) in Section 4 at 80-90 cm; dolomite nodule in Section 4 at 90 cm.

SMEAR SLIDE SUMMARY (%):

	1, 70 D	2, 69 D	5, 97 D
TEXTURE:			
Silt	5	2	2
Clay	95	98	98
COMPOSITION:			
Accessory minerals	Tr	Tr	Tr
Clay	95	97	95
Glass	Tr	—	—
Pyrite	Tr	Tr	Tr
Quartz	—	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 145	0.82	0.2
1, 147	0.85	0.2
2, 144	0.40	0.3



SITE 795 HOLE B CORE 26R CORED INTERVAL 3905.3-3914.9 mbsl; 606.4-616.0 mbsf

TIME-ROCK UNIT: MIDDLE MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS B; NANNOFOSSILS B; RADIOLARIANS B; DIATOMS B; *Denticulopsis praedimorpha* ● R/P

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: V-1832 ● Φ=44.1 ρ=2.08; V-1841 ● Φ=46.2 ρ=2.06; V-1931 ● Φ=41.8 ρ=2.10

CHEMISTRY ●

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES: Ⓟ

SAMPLES: * * *

LITHOLOGIC DESCRIPTION

CLAYSTONE

Major lithology: CLAYSTONE, medium bluish gray (5B 6/1), greenish gray (5G 6/1), light bluish gray (5B 7/1) and light olive gray (5Y 6/1); highly bioturbated, with abundant horizontally compacted burrows; abundant microfractures.

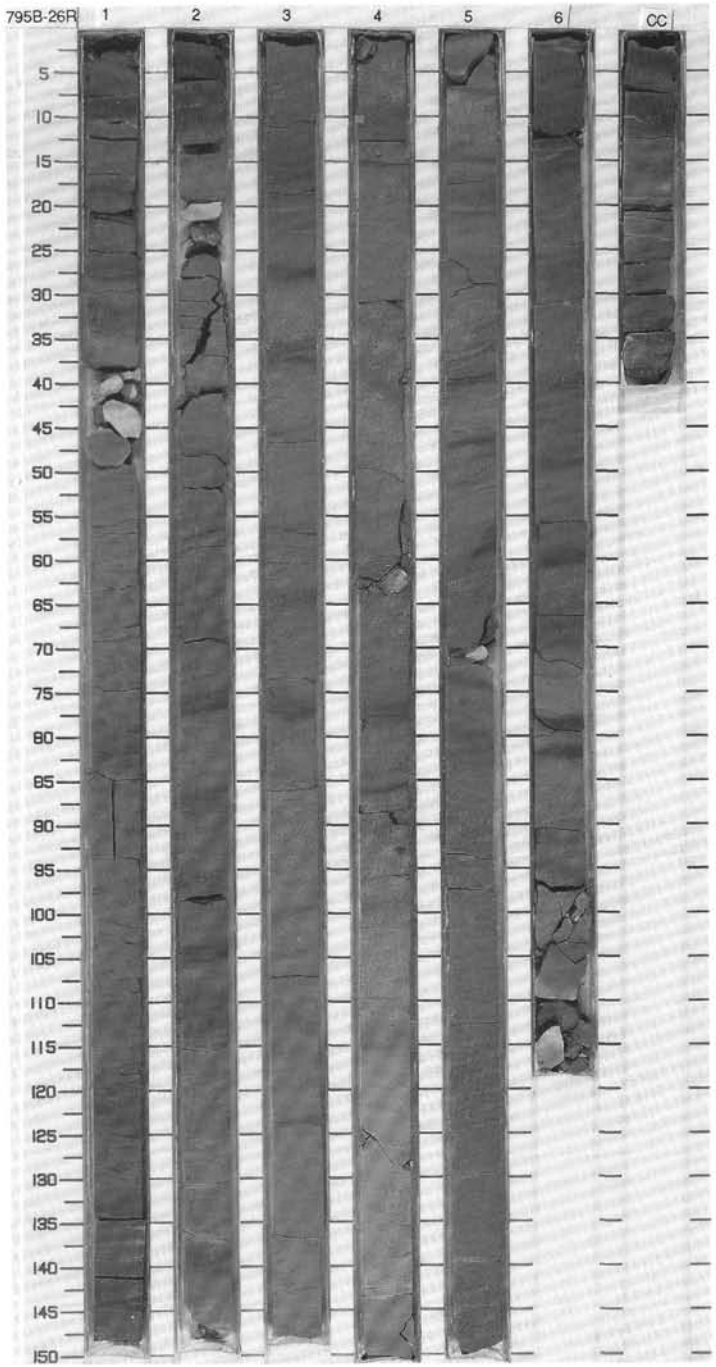
Minor lithology: Dolomite concretions, light gray (N7) in Section 2 at 22-28 cm and Section 5 at 70-79 cm. Pyrite nodule in Section 4 at 60-63 cm.

SMEAR SLIDE SUMMARY (%):

	1, 70 D	4, 29 D	6, 98 D
TEXTURE:			
Silt	3	2	2
Clay	97	98	98
COMPOSITION:			
Accessory minerals	Tr	Tr	Tr
Clay	95	95	95
Pyrite	Tr	Tr	1
Quartz	Tr	—	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
4, 2	0.49	0.127R



SITE 795 HOLE B CORE 27R CORED INTERVAL 3914.9-3924.6 mbsl; 616.0-625.7 mbsf

TIME-ROCK UNIT: MIDDLE MIOCENE ?

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS F/M; NANNOFOSSILS F/M; RADIOLARIANS B; DIATOMS B

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: V=1944 ●ϕ=40.6 ρ=2.20; V=1884 ●ϕ=43.2 ρ=2.14; ●ϕ=42.4 ρ=2.13

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

CLAYSTONE

Major lithology: CLAYSTONE, medium bluish gray (5B 6/1), greenish gray (5G 6/1) and dark greenish gray (5G 4/1); highly bioturbated with abundant, but indistinct, horizontally compacted burrows; numerous microfractures and slickenslides; scattered foraminifers.

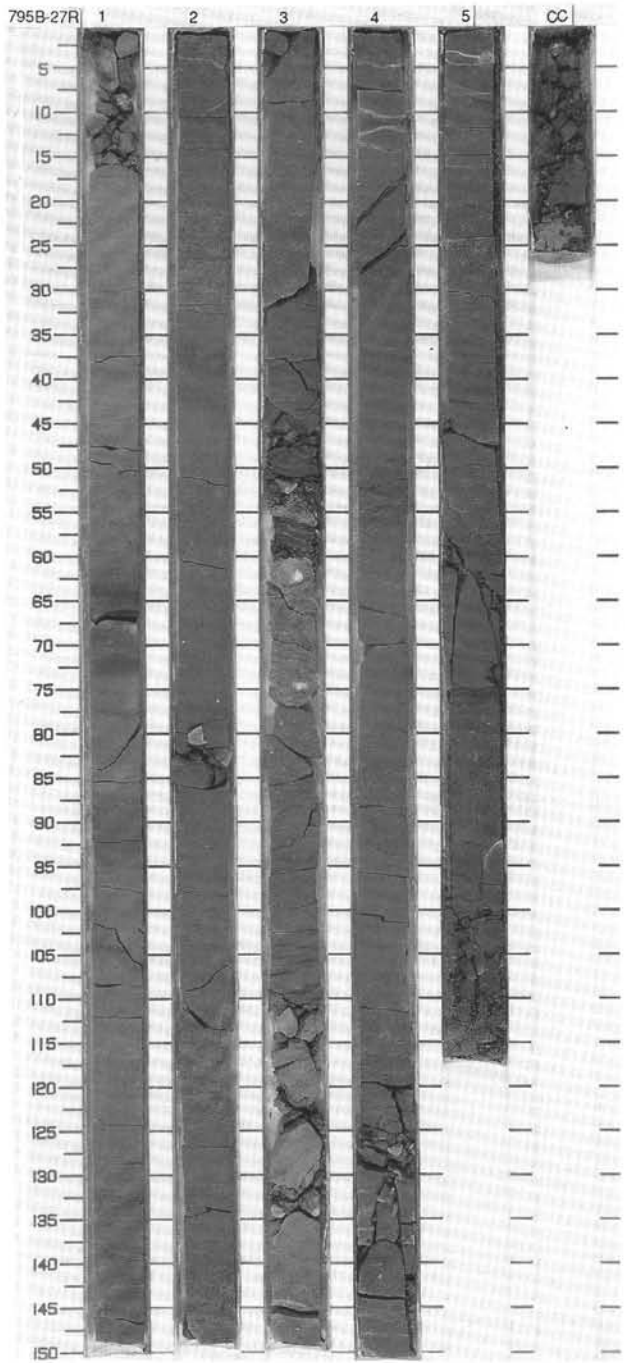
Minor lithology: Tuff, medium gray (N5) in Section 3 at 49-79 cm; highly fractured and cemented (replacing tuff). Pyrite nodules. Mollusc fragments observed in Section 2 at 96 cm and in Section 3 at 104 cm. Drilling breccia at top of core includes small porphyritic basalt clast.

SMEAR SLIDE SUMMARY (%):

	2, 60	5, 57
	D	D
TEXTURE:		
Silt	5	5
Clay	95	95
COMPOSITION:		
Accessory minerals	Tr	Tr
Bioclast	Tr	—
Clay	95	95
Pyrite	Tr	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
3, 2	0.57	0.2



SITE 795 HOLE B CORE 28R CORED INTERVAL 3924.6-3934.3 mbsl; 625.7-635.3 mbsf

TIME-ROCK UNIT: MIDDLE MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: B; NANNOFOSSILS: B; RADIOLARIANS: R/P; DIATOMS: F/P

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: V=1871 Φ=40.7 ρ=2.16; V=1915 Φ=39.0 ρ=2.12

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: XRD; (P); (P); *; *

LITHOLOGIC DESCRIPTION

CLAYSTONE

Major lithology: CLAYSTONE, greenish gray (5G 5/1 to 5G 6/1) and medium bluish gray (5B 4/1, 5/1 and 6/1); highly bioturbated with indistinct, horizontally flattened burrows; scattered microfractures throughout.

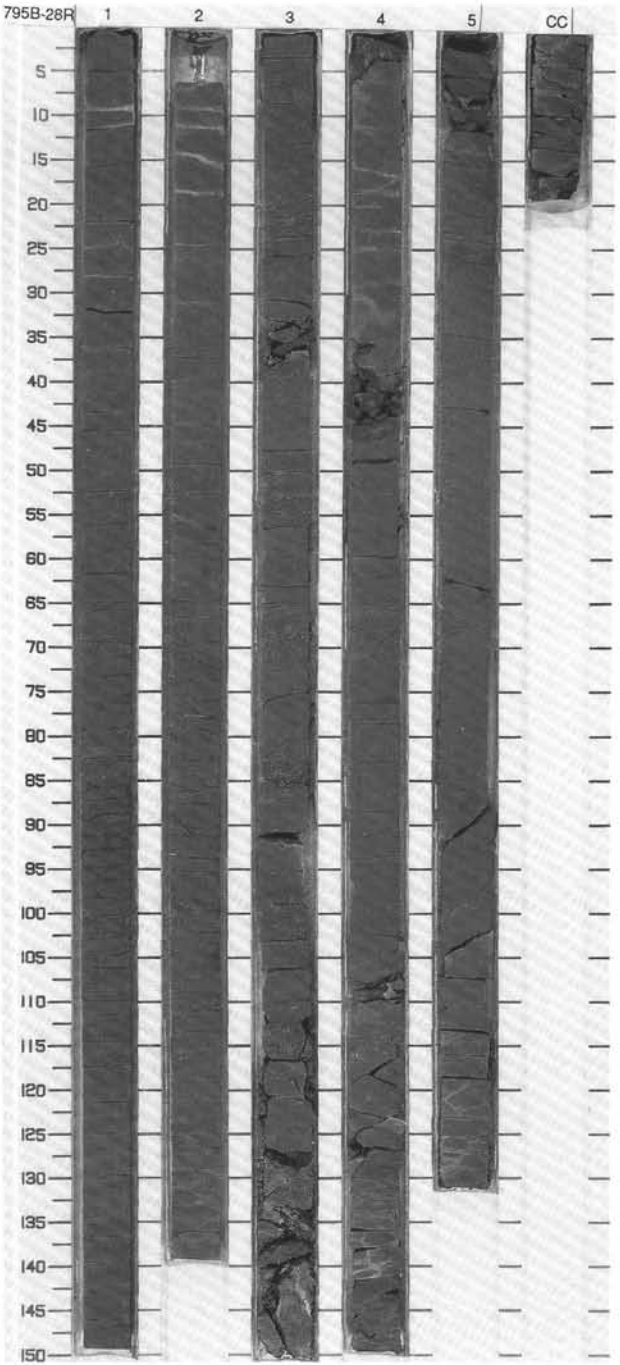
Minor lithology: Pyrite-bearing silty claystone, dark yellow brown (10YR 4/2) in Section 4 at 44-45 cm; isolated pyrite-filled burrows.

SMEAR SLIDE SUMMARY (%):

	3, 67	4, 45
	D	M
TEXTURE:		
Sand	—	2
Silt	5	15
Clay	95	83
COMPOSITION:		
Accessory minerals	Tr	Tr
Clay	95	94
Glass	—	Tr
Pyrite	Tr	3

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 145	0.45	0.3
2, 147	0.46	0.3



SITE 795 HOLE B CORE 29R CORED INTERVAL 3934.2-3943.8 mbsl: 635.3-644.9 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
MIDDLE MIOCENE	B	B	B	B	Indeterminate	Dentriculopsis hustedtii	● R/P	● Φ=42.7 ρ=2.10	V-1869	● Φ=41.3 ρ=2.16	● Φ=41.9 ρ=2.18	•	1	0.5	1.0	2	3	4	5	CC					*

LITHOLOGIC DESCRIPTION

CLAYSTONE

Major lithology: CLAYSTONE, dusky yellow green (5GY 5/2) to dark greenish gray (5G 4/1), moderately to heavily bioturbated, with both horizontal and oblique burrows. Rare foraminifers disseminated throughout. Fluid escape veinlets, Section 1 and 2. Normal faults and quartz-filled fractures.

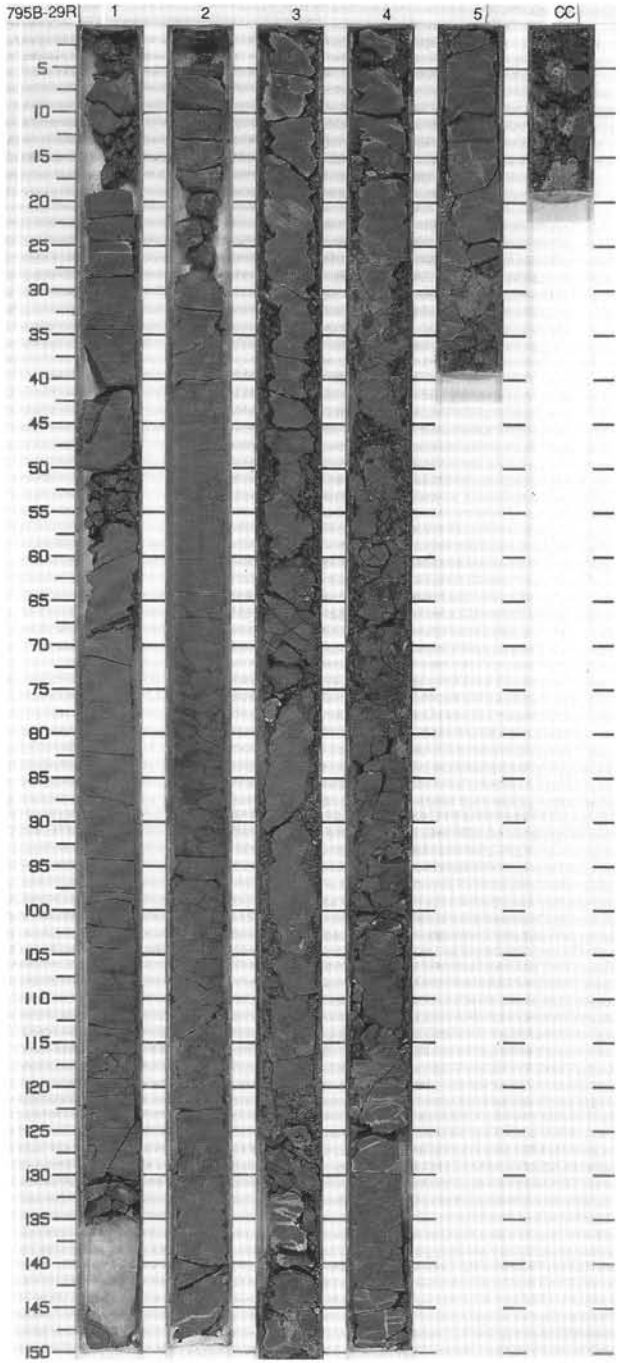
Minor lithology: Tuff, dark greenish gray (5G 4/1) with normal grading. Calcareous interval, pale yellowish brown (10YR 6/2) in Section 1 at 134-150 cm.

SMEAR SLIDE SUMMARY (%):

	3, 100 D
TEXTURE:	
Silt	5
Clay	95
COMPOSITION:	
Clay	93
Pyrite	2
Quartz	5

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
3, 3	0.39	0.3
4, 42	0.44	0.2



SITE 795 HOLE B CORE 30R CORED INTERVAL 3943.8-3953.4 mbsl; 644.9-654.5 mbsf

TIME-ROCK UNIT: MIDDLE MIOCENE ?

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

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: V=1873 ● Φ=42.6 ρ=2.18; V=1879 ● Φ=43.4 ρ=2.16

CHEMISTRY: ●

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: *

LITHOLOGIC DESCRIPTION

CLAYSTONE

Major lithology: CLAYSTONE, dusky yellow green (5GY 5/2) to grayish green (10GY 5/2), heavily bioturbated and homogeneous with mostly small (<1 cm), distinct, dark horizontal to slightly oblique burrows and minor large (1-6 cm) flattened, horizontal burrows. Alternates with claystone, olive gray (5Y 4/1) to olive black (5Y 2/1), moderately to heavily bioturbated with mostly large (1-6 cm) flattened, horizontal burrows.

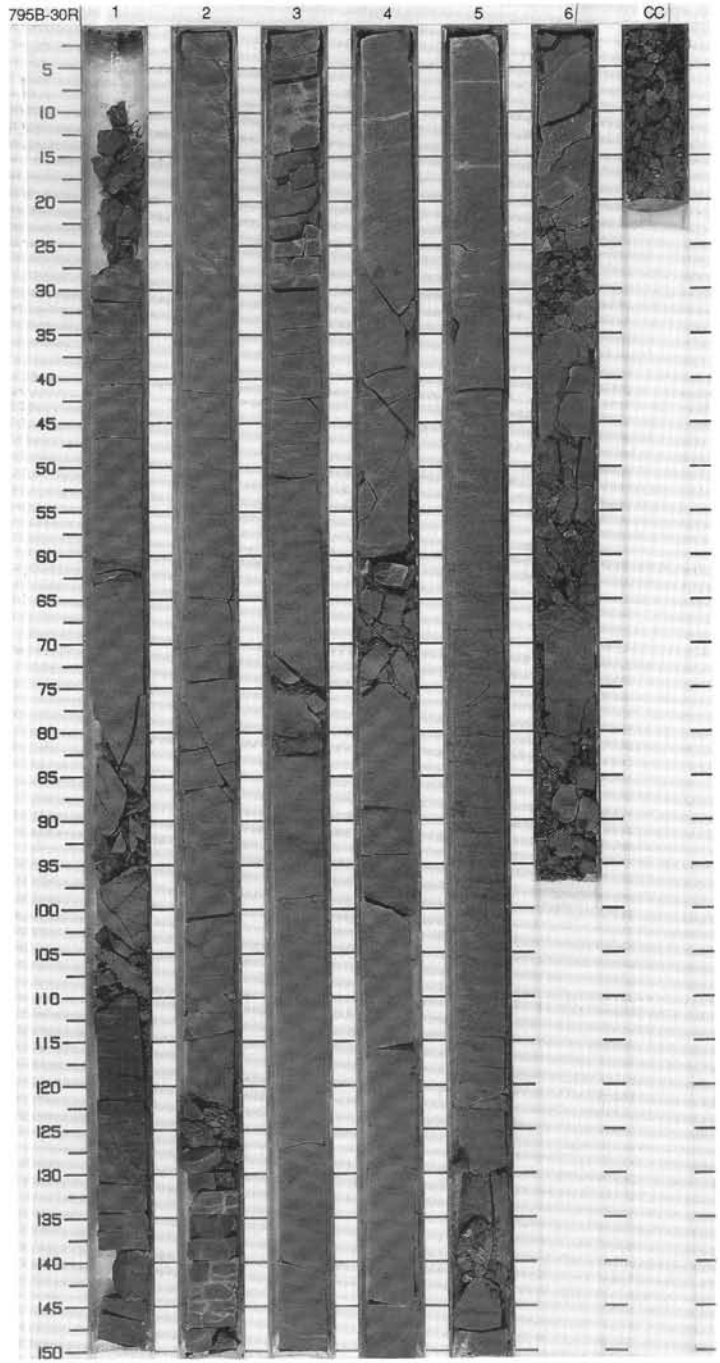
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	3, 100 D
TEXTURE:	
Silt	5
Clay	95
COMPOSITION:	
Clay	93
Pyrite	2

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
3, 2	0.56	0.2



SITE 795 HOLE B CORE 31R CORED INTERVAL 3953.4-3963.1 mbsl; 654.5-664.2 mbsf

TIME-ROCK UNIT: MIDDLE MIOCENE ?

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

PALEOMAGNETICS: Indeterminate

PHYS. PROPERTIES: V-1889 ● Φ=41.7 ρ=2.23; V-1933 ● Φ=39.5 ρ=2.22

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: OG

LITHOLOGIC DESCRIPTION

CLAYSTONE

Major lithology: CLAYSTONE, dusky yellow green (5GY 5/2) to greenish olive green (5G 3/2), heavily bioturbated with horizontal and oblique burrows. Small amount of glauconite(?) pellets scattered in Sections 3 and 4. Several horizons with fluid escape structures (mud- filled veinlets).

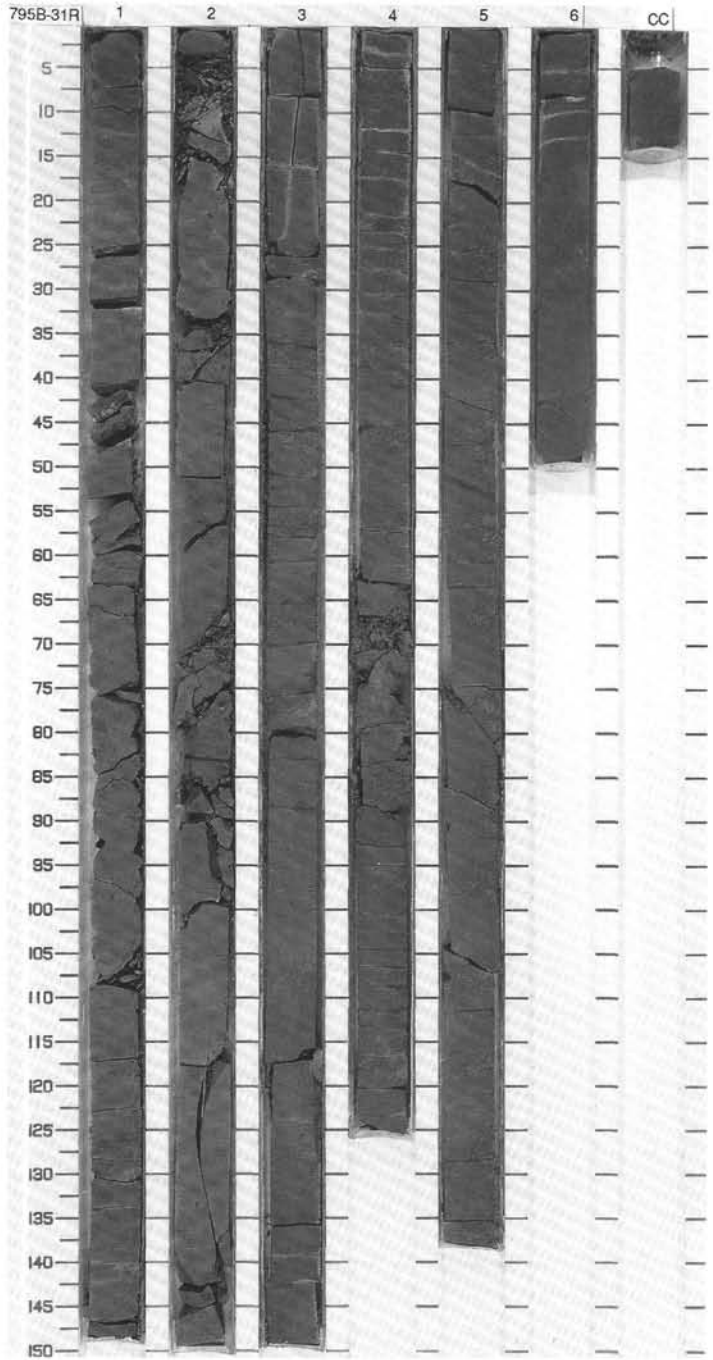
Minor lithology: *Pyrite nodules in Section 2 at 8 and 28 cm.*

SMEAR SLIDE SUMMARY (%):

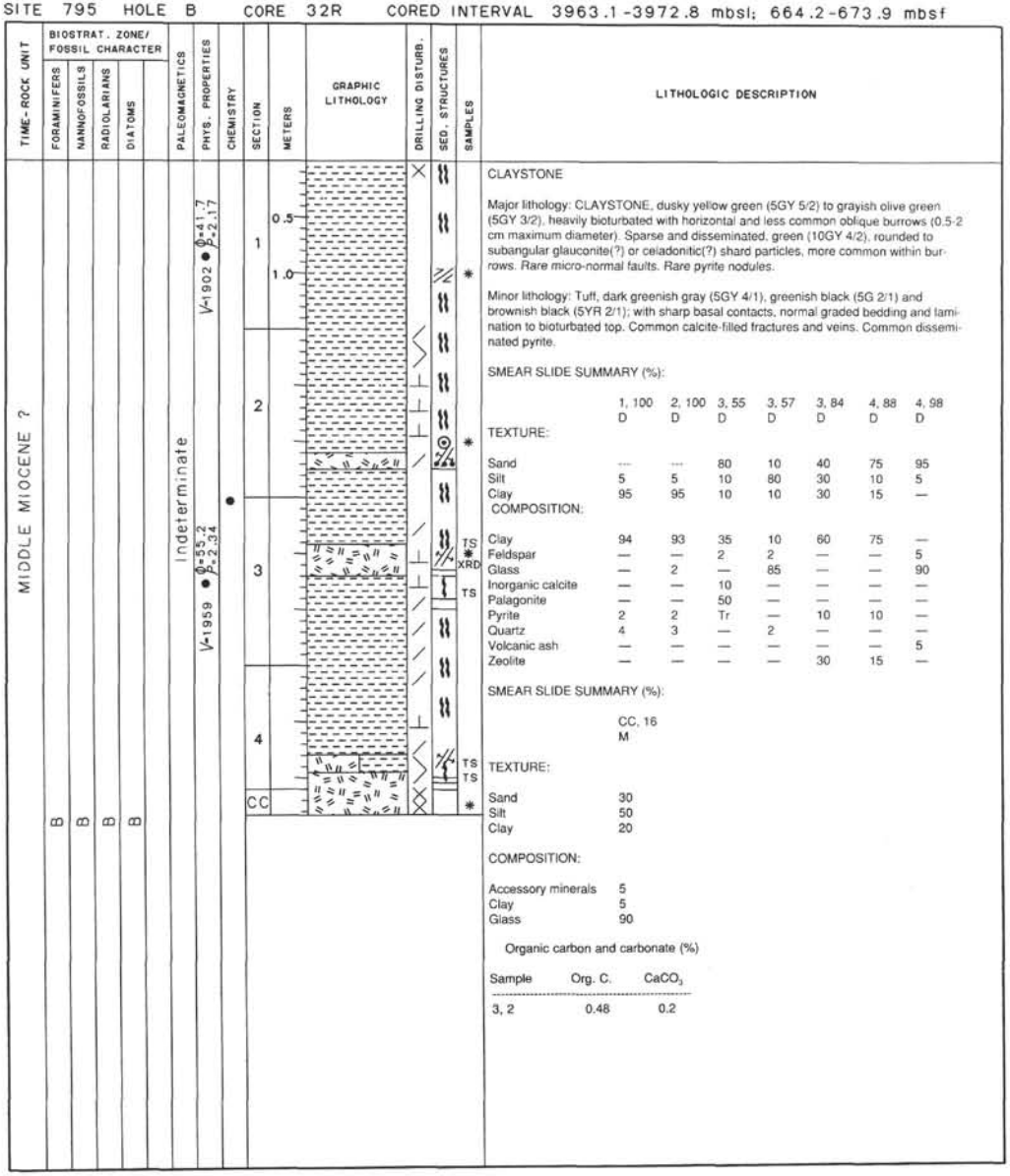
	3, 100 D
TEXTURE:	
Silt	5
Clay	95
COMPOSITION:	
Clay	90
Pyrite	5
Quartz	5

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
5, 147	0.47	0.1
6, 2	0.45	0.2



SITE 795 HOLE B CORE 32R CORED INTERVAL 3963.1-3972.8 mbsl; 664.2-673.9 mbsf



LITHOLOGIC DESCRIPTION

CLAYSTONE

Major lithology: CLAYSTONE, dusky yellow green (5GY 5/2) to grayish olive green (5GY 3/2), heavily bioturbated with horizontal and less common oblique burrows (0.5-2 cm maximum diameter). Sparse and disseminated, green (10GY 4/2), rounded to subangular glauconite(?) or celadonitic(?) shard particles, more common within burrows. Rare micro-normal faults. Rare pyrite nodules.

Minor lithology: Tuff, dark greenish gray (5GY 4/1), greenish black (5G 2/1) and brownish black (5YR 2/1); with sharp basal contacts, normal graded bedding and lamination to bioturbated top. Common calcite-filled fractures and veins. Common disseminated pyrite.

SMEAR SLIDE SUMMARY (%):

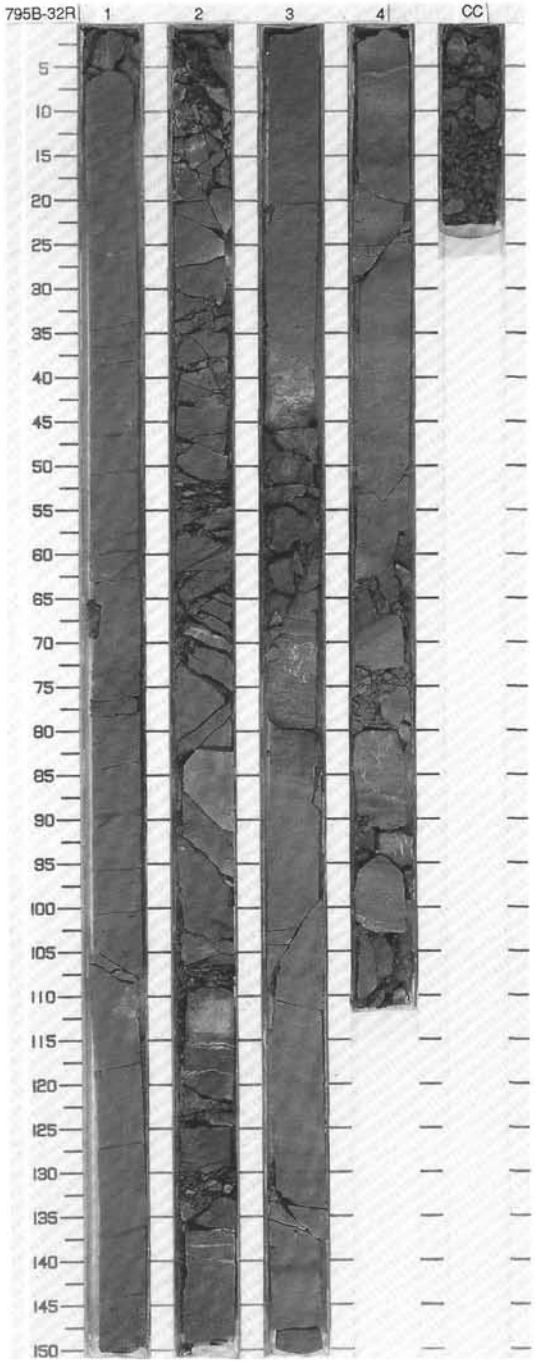
	1, 100 D	2, 100 D	3, 55 D	3, 57 D	3, 84 D	4, 88 D	4, 98 D
TEXTURE:							
Sand	---	---	80	10	40	75	95
Silt	5	5	10	80	30	10	5
Clay	95	95	10	10	30	15	—
COMPOSITION:							
Clay	94	93	35	10	60	75	—
Feldspar	—	—	2	2	—	—	5
Glass	—	2	—	85	—	—	90
Inorganic calcite	—	—	10	—	—	—	—
Palagonite	—	—	50	—	—	—	—
Pyrite	2	2	Tr	—	10	10	—
Quartz	4	3	—	2	—	—	—
Volcanic ash	—	—	—	—	—	—	5
Zeolite	—	—	—	—	30	15	—

SMEAR SLIDE SUMMARY (%):

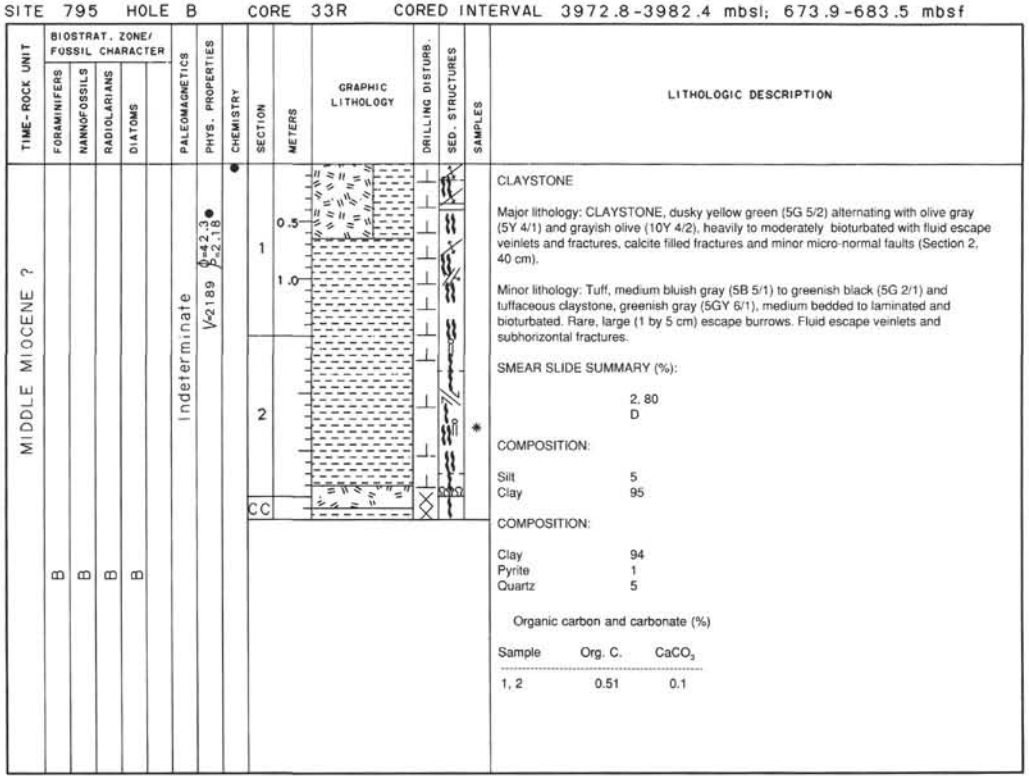
	CC, 16 M
TEXTURE:	
Sand	30
Silt	50
Clay	20
COMPOSITION:	
Accessory minerals	5
Clay	5
Glass	90

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
3, 2	0.48	0.2



SITE 795 HOLE B CORE 33R CORED INTERVAL 3972.8-3982.4 mbsl; 673.9-683.5 mbsf



CLAYSTONE

Major lithology: CLAYSTONE, dusky yellow green (5G 5/2) alternating with olive gray (5Y 4/1) and grayish olive (10Y 4/2), heavily to moderately bioturbated with fluid escape veinlets and fractures, calcite filled fractures and minor micro-normal faults (Section 2, 40 cm).

Minor lithology: Tuff, medium bluish gray (5B 5/1) to greenish black (5G 2/1) and tuffaceous claystone, greenish gray (5GY 6/1), medium bedded to laminated and bioturbated. Rare, large (1 by 5 cm) escape burrows. Fluid escape veinlets and subhorizontal fractures.

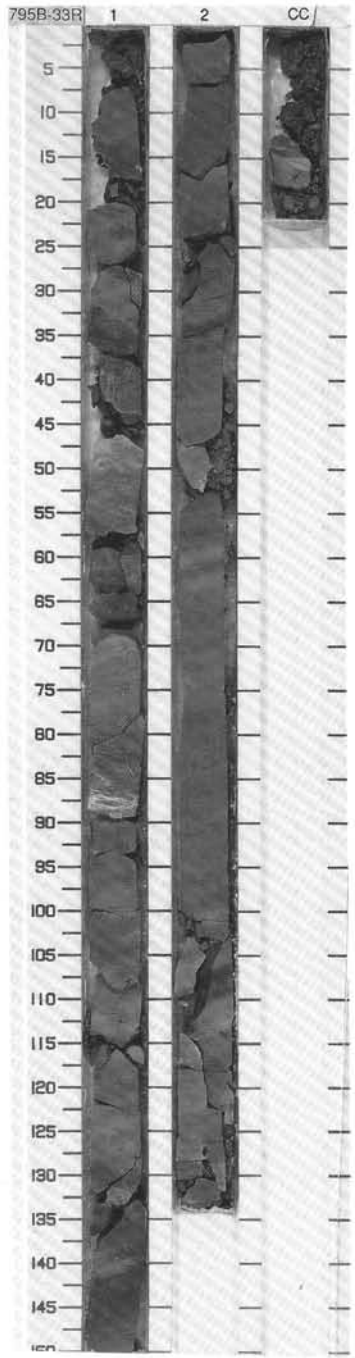
SMEAR SLIDE SUMMARY (%):

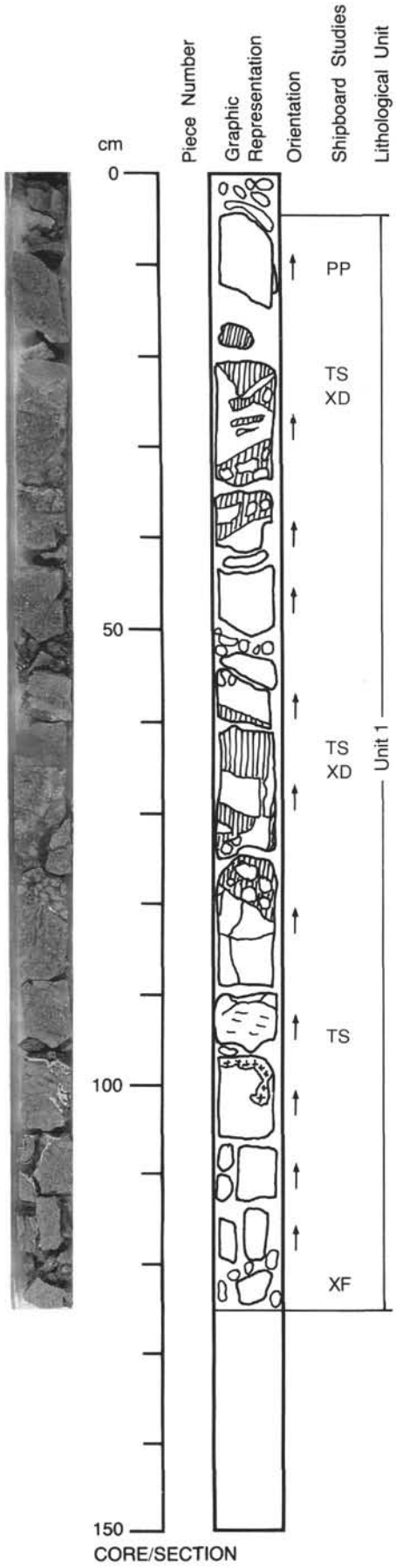
	2, 80 D
COMPOSITION:	
Silt	5
Clay	95

COMPOSITION:	
Clay	94
Pyrite	1
Quartz	5

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 2	0.51	0.1





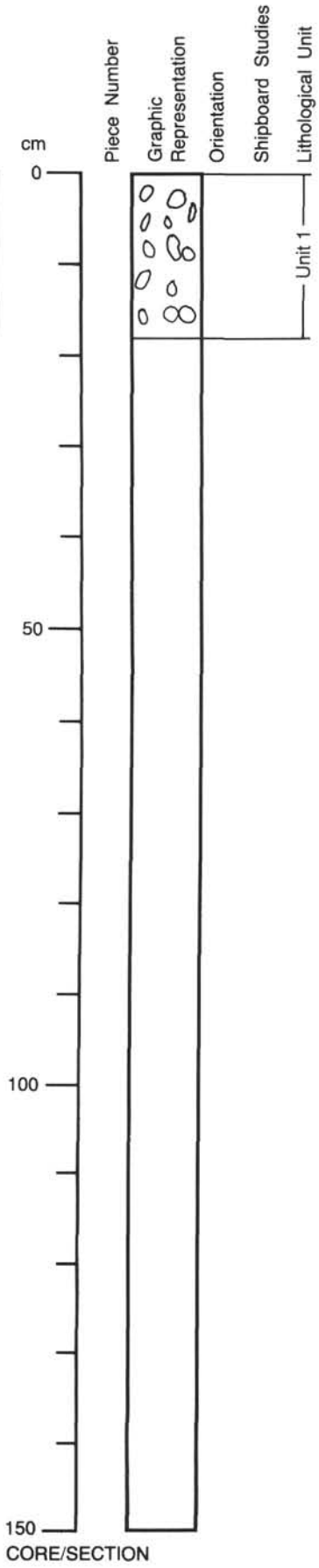
Grayish green (5G5/2) fine-grained matrix

127-795B-34R-1

UNIT 1: BRECCIATED SPARSELY PLAGIOCLASE PYROXENE PHYRIC BASALTIC ANDESITE

Pieces 5, 125 cm

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <5%; <2 mm; subhedral-anhedral.
Pyroxene - <1%; <2 mm; anhedral.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 5%; 0.5-10 mm; elongated; homogeneous; the orientation of the dominant elongation direction of the vesicles defines a planar fabric in many breccia fragments. The vesicles are filled by dark green clays.
COLOR: Dark gray (N3).
STRUCTURE: Brecciated.
ALTERATION: Moderately altered.
VEINS/FRACTURES: <1%; <5 mm; irregular; filled by greenish black clays and zeolite (heulandite?). Some fillings show a zonation from a brown-ochre coating, followed by bright green clays and zeolites.
ADDITIONAL COMMENTS: The unit is composed of two major components: 1) angular shaped basalt fragments with a maximum size of 10-15 cm. 2) Fine-grained grayish green matrix. There appear to be a range in the size of the basaltic fragments embedded in the matrix from <1 mm to 15 cm. Some fragments show concentric alteration. From 0-5 cm the section consists of drilling rubble containing claystone and pyrite.

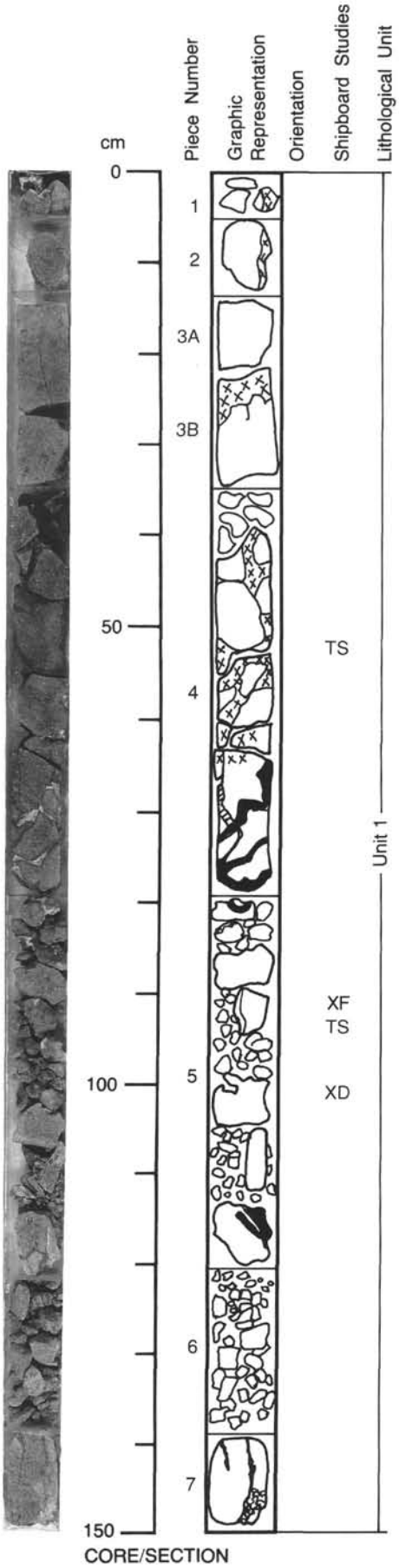


127-795B-34R-CC

UNIT 1: BRECCIATED SPARSELY PLAGIOCLASE PYROXENE PHYRIC BASALTIC ANDESITE

Piece N/A

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <5%; <2 mm; subhedral-anhedral.
Pyroxene - <1%; <2 mm; anhedral.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 5%; 0.5-5 mm; elongated; homogeneous; filled by dark greenish clays.
Elongation direction of vesicles defines a planar fabric.
COLOR: Dark gray (N3).
STRUCTURE: Brecciated.
ALTERATION: Medium altered.
VEINS/FRACTURES: Not seen.
ADDITIONAL COMMENTS: Unit continued from 127-795B-34R-1.



Blue green clay vein infilling

Blue green clay vein infilling

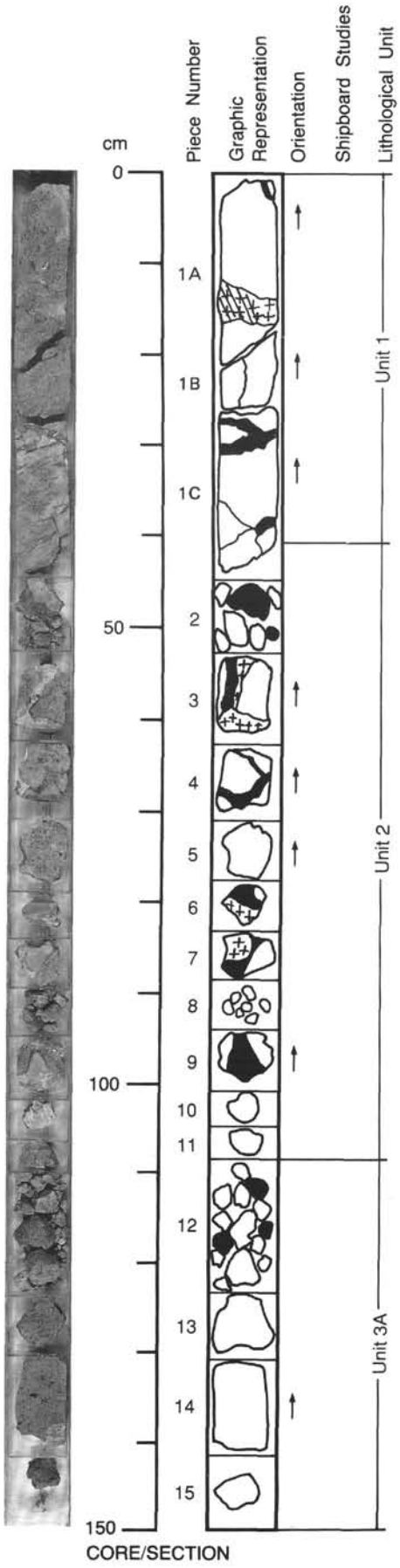
Pink and green zeolite infilling

127-795B-35R-1

UNIT 1: BRECCIATED MODERATELY PLAGIOCLASE PYROXENE PHYRIC BASALTIC ANDESITE

Pieces 1-7

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - 2%; <2 mm; euhedral-subhedral, moderately altered to clays.
Pyroxene - trace; <1.5 mm; subhedral-anhedral.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 5%; <12 mm; lobate to angular and elongate; homogeneous; the elongation direction of the vesicles defines a planar fabric in the breccia fragments.
COLOR: Medium gray (N5).
STRUCTURE: Brecciated.
ALTERATION: Highly altered to clays; degree of alteration increases towards major fractures/fillings.
VEINS/FRACTURES: 5%; <10 mm; random; veins filled with clays.
ADDITIONAL COMMENTS: The section is highly brecciated (with clast sizes ranging from 5 to 10 cm) with a matrix composed of relatively finer sized basaltic fragments (1-10 mm) and a pale bluish green clay. Some fractures are filled by bluish green silicified material, dark green clay, and zeolites.



Brecciated

Vein filled by greenish clay and silica

Basalt

127-795B-36R-1

UNIT 1: BRECCIATED MODERATELY PLAGIOCLASE PYROXENE PHYRIC BASALTIC ANDESITE

Pieces 1A-1C

CONTACTS: Lower contact is at 42 cm, below which occurs a high proportion of siliceous veins.
PHENOCRYSTS:
Plagioclase - 7%; 1 mm; subhedral.
Pyroxene - <5%; <1 mm; subhedral.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: <3%; <2 mm; irregular; random; completely filled by clays.
COLOR: Medium gray (N5).
STRUCTURE: Brecciated.
ALTERATION: Highly altered.
VEINS/FRACTURES: 5%; <10 mm; irregular; filled by bluish green material and zeolites.
ADDITIONAL COMMENTS: Continued from 127-795B-35R-1.

UNIT 2: SILICIFIED BRECCIATED PLAGIOCLASE PHYRIC BASALT

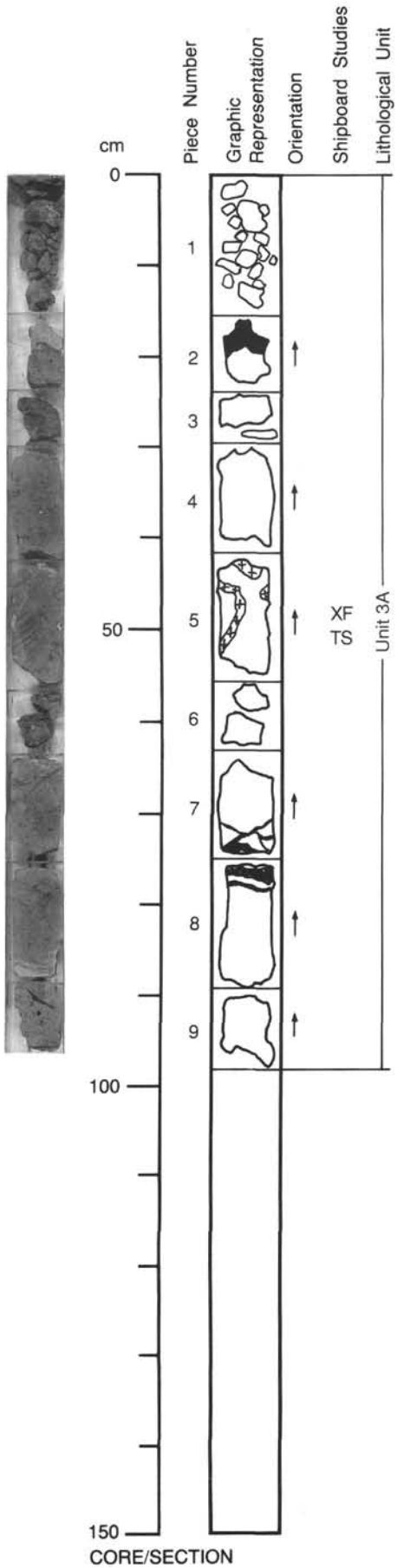
Pieces 1C (40 cm)-11

CONTACTS: Upper contact defined by the appearance of silicified veins/tuff. Lower contact not seen.
PHENOCRYSTS: Identification of mafic phenocrysts not possible because of extensive alteration.
Plagioclase - 7%; 1 mm; subhedral.
GROUNDMASS: Fine-grained.
VESICLES: 2-5%; <8 mm; irregular; homeogeneous; filled by clays.
COLOR: Medium gray (N5).
STRUCTURE: Brecciated, silicified and veined basalt
ALTERATION: Highly altered.
VEINS/FRACTURES: 10%; 10-20 mm; random; greenish gray silicified tuff or siliceous alteration.
ADDITIONAL COMMENTS: The basaltic fragments appear to be petrographically similar to those of Unit 1.

UNIT 3A: SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

Pieces 12-15

CONTACTS: None.
PHENOCRYSTS:
Pyroxene - 3%; <1 mm; subhedral.
Plagioclase - <2%; <1 mm; euhedral-subhedral, often highly altered.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 10%; 1-3 mm; irregular; heterogeneous; generally filled by clays.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; trace; irregular; black alteration veins/fractures.



Blue green clay vein filling

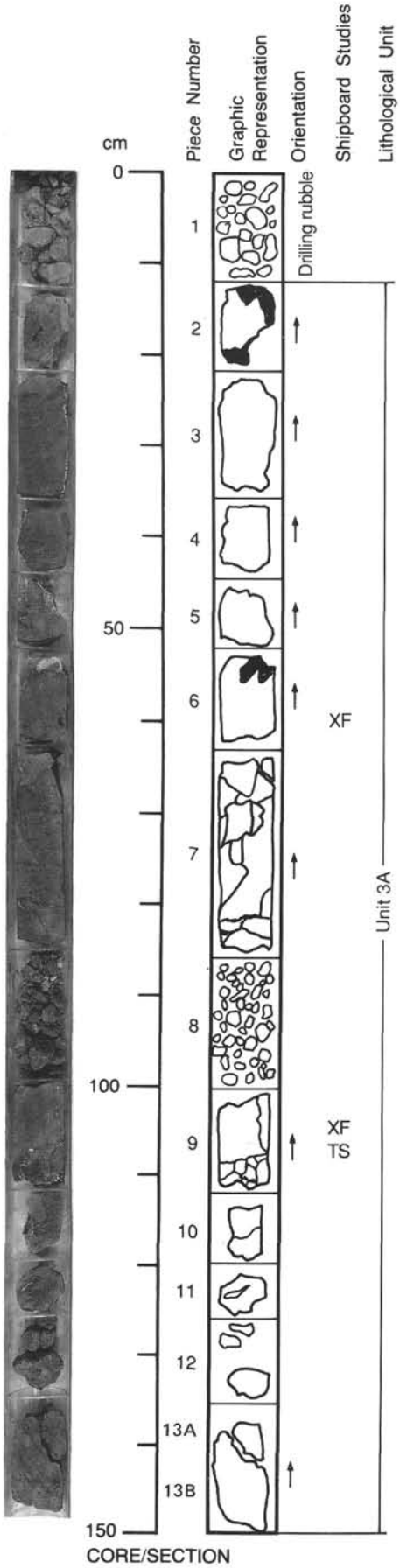
Highly brecciated with blue green clay filling

127-795B-36R-2

UNIT 3A: SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

Pieces 1-9

CONTACTS: None.
PHENOCRYSTS:
Pyroxene - 2%; <1 mm; anhedral-subhedral.
Plagioclase - <1%; <1 mm; subhedral, extensively altered.
GROUNDMASS: *Fine-grained, microlitic.*
VESICLES: 5-10%; <15 mm; round to slightly elongated; homogeneous; filled with 1) green clays (90% of vesicles), 2) outer rim of pale blue green clays and center with dark green clays (5%), and 3) totally filled by blue green silica (5%). Some vesicles are surrounded by pinkish alteration haloes.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive.
ALTERATION: Moderately altered.
VEINS/FRACTURES: 2%; <10 mm; irregular distributed; all fractures are filled (90% with blue green silica, 10% with green clays). There appear to be two generations of fracture fillings. A first generation contains blue green silica. A second generation contains green clays (mostly thin veins <1 mm). Zeolite fillings appear to cross-cut the first generation fillings (Piece 2).
ADDITIONAL COMMENTS: Sub-unit continued from 127-795B-36-1.



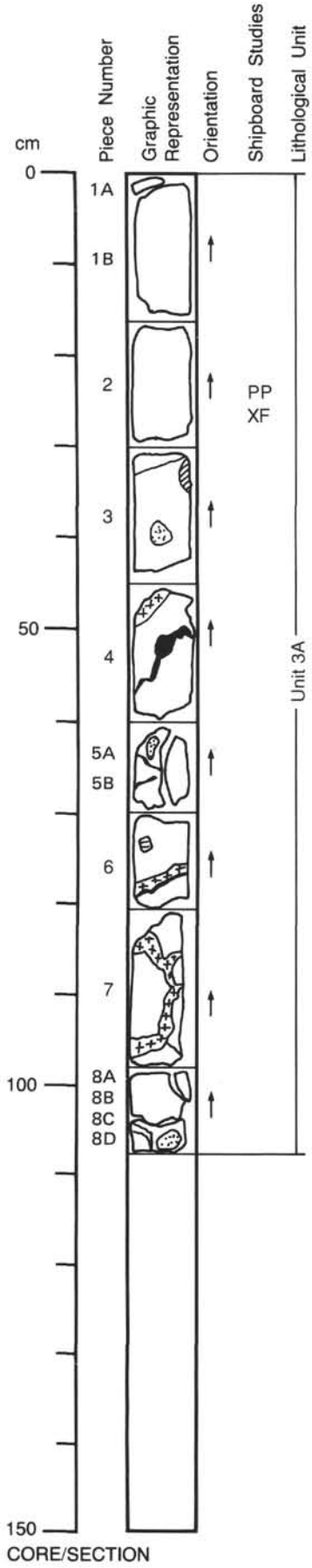
Blue green chert

127-795B-37R-1

UNIT 3A: SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

Pieces 2-13B

CONTACTS: None.
PHENOCRYSTS:
Pyroxene - 3%; <1 mm; subhedral-anhedral.
Plagioclase - <1%; <1 mm; euhedral, altered.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 3-5%; <10 mm; round to lobate; homogeneous; partially to totally filled by pale green to dark green clays. The abundance of vesicles may reach 25% (Piece 2). A large vug from one side of Pieces 3 and 4. Several smaller vugs are also present in the same pieces. All vugs are filled with a mixture of a clear tabular zeolite (heulandite?) and platy soft chlorite.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive.
ALTERATION: Moderately altered.
VEINS/FRACTURES: <1%; <1 mm; random; filled by dark clays.
ADDITIONAL COMMENTS: Piece 1 is drilling rubble composed of fragments of dolomite, basalt, and pyrite rosettes. Sub-unit is continued from 127-795B-36R-2.



Vein filled by zeolite and greenish clay and silica
Vesicle or cavity

Brecciated

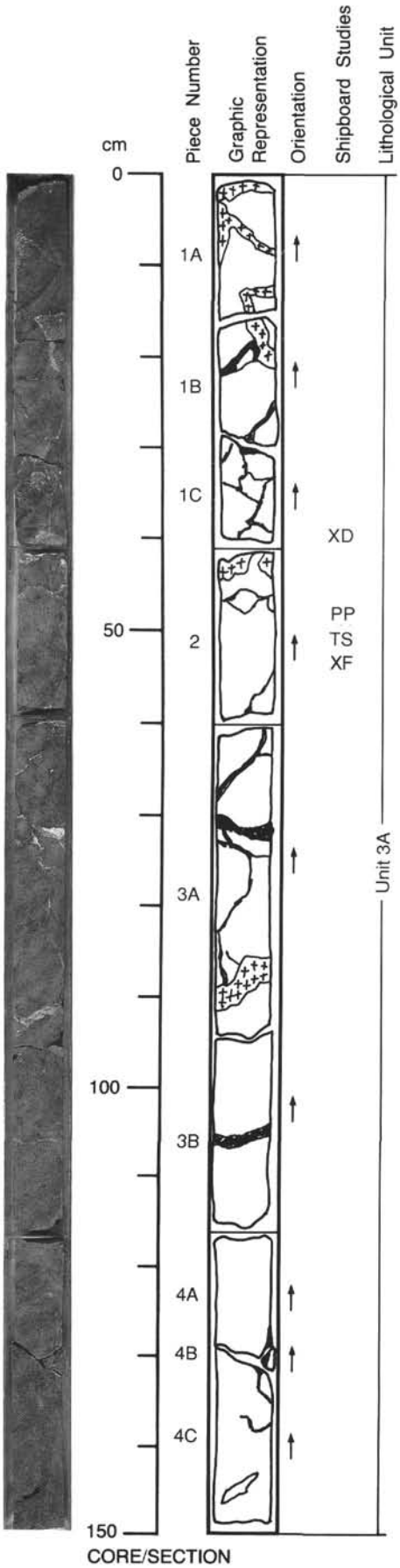
Light greenish gray (5G7/1) clay

127-795B-38R-1

UNIT 3A: SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

Pieces 1-8D

CONTACTS: None.
PHENOCRYSTS:
Pyroxene - <2%; 1-2 mm; subhedral.
Plagioclase - <1%; <3 mm; euhedral, highly altered.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 5%; 1-4 mm; irregular; heterogeneous; large vesicles/cavities up to 20 mm exist. Smaller vesicles are completely filled by light greenish clay minerals.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <5%; <1-10 mm; random; filled by dark greenish clays, zeolites, and silica.
ADDITIONAL COMMENTS: Sub-unit is continued from 127-795B-37R-1. Brecciated veins exists in Pieces 3 and 7. These veins consist of angular basalt fragments (0.5 10 10 mm) in a matrix totally composed of light greenish to dark greenish clays. Piece 8 contains large euhedral zeolites in a cavity (heulandite?).



Brecciated

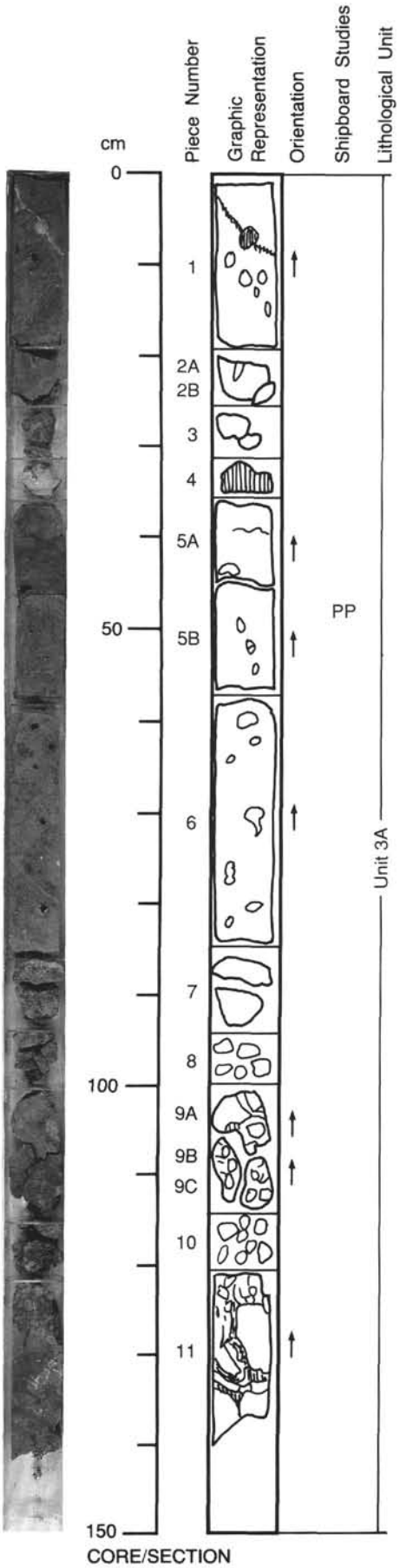
Vein

127-795B-38R-2

UNIT 3A: SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

Pieces 1A-4C

CONTACTS: None.
PHENOCRYSTS:
Pyroxene - <2%; 1 mm; subhedral-euhedral.
Plagioclase - ?; <2 mm; euhedral, extensively altered.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 5-7%; <2 mm; round to irregular; homogeneous; filled by clays.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive. Partly brecciated in Pieces 1A,1B, and 3A. Matrix of brecciated veins are composed of silica and clays.
ALTERATION: Highly altered.
VEINS/FRACTURES: <5%; <5 mm; random; filled by clays, silica, and zeolites.
ADDITIONAL COMMENTS: Sub-unit continued from 127-795B-38R-1.



Chert

Vesicles filled by grayish green clays

127-795B-38R-3

UNIT 3A: SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

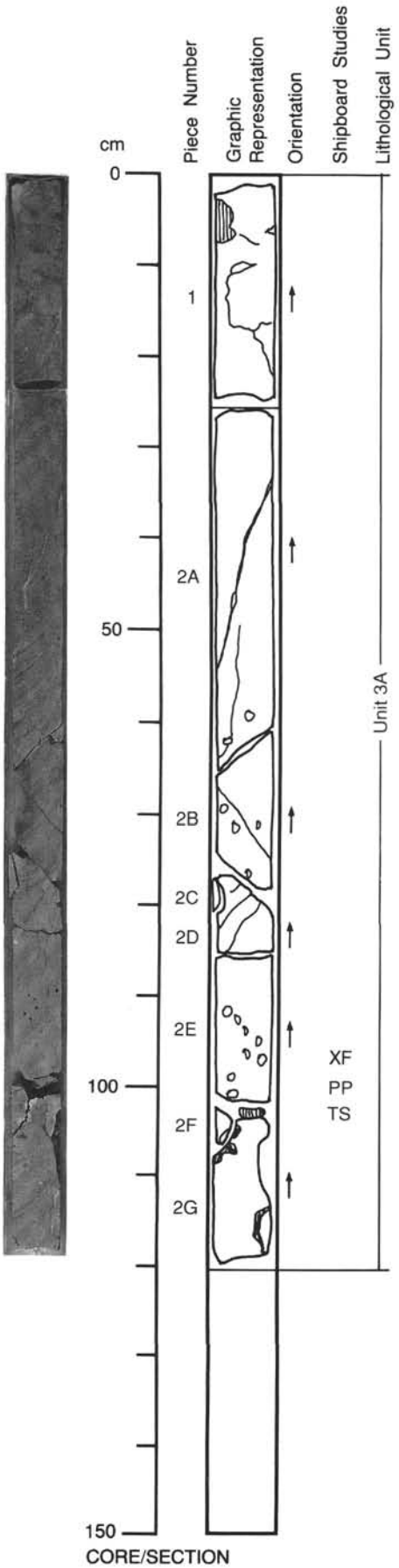
Pieces 1-6

CONTACTS: None.
PHENOCRYSTS:
Pyroxene - 1-2%; <1 mm; subhedral-anhedral.
Plagioclase - <1%; <2 mm; euhedral.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 5-10%; <20 mm, typically 5-8 mm; round to irregular; random; smaller vesicles are filled by greenish clays. Larger vesicles/vugs are partially filled.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive.
ALTERATION: Moderately altered.
VEINS/FRACTURES: <1%; <1 mm; random; filled by dark clays.
ADDITIONAL COMMENTS: Sub-unit continued from 127-795B-38R-2.

UNIT 3A: BRECCIATED SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

Pieces 7-11

CONTACTS: None.
PHENOCRYSTS:
Pyroxene - 1-2%; <1 mm; subhedral-anhedral.
Plagioclase - <1%; <1 mm; euhedral, altered.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: <10%; <1 mm; round to irregular; homogeneous; filled by greenish clays.
COLOR: Medium dark gray (N4).
STRUCTURE: Brecciated.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; <1 mm; irregular; filled by greenish black clays and zeolites.
ADDITIONAL COMMENTS: The matrix of the breccia is composed of fine-grained greenish clay material and zeolites.



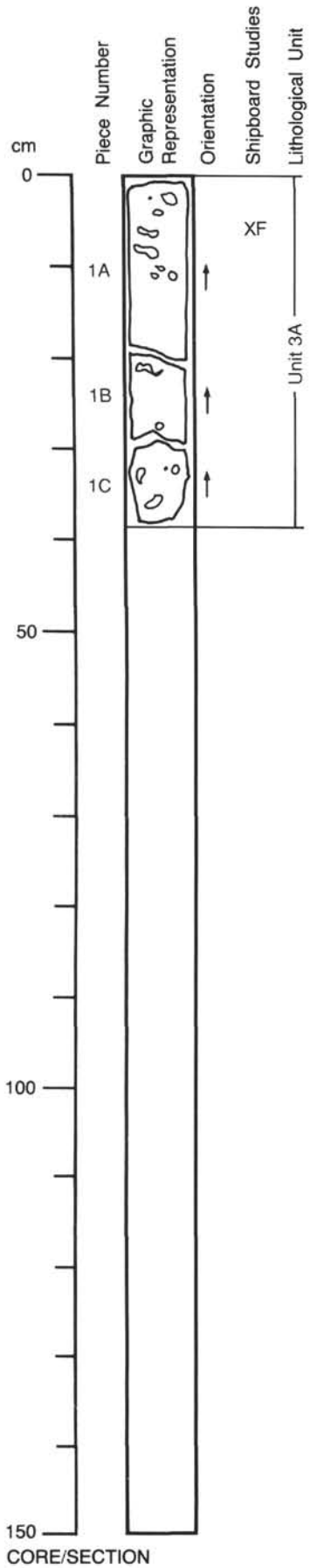
Chert

127-795B-38R-4

UNIT 3A: SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

Pieces 1-2G

CONTACTS: None.
PHENOCRYSTS:
Pyroxene - 1-2%; <1 mm; subhedral-anhedral.
Plagioclase - <2%; <2 mm; euhedral.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 3-4%; <8 mm; round; homogeneous; completely to partially filled by clays.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1-2%; <8 mm; irregular; filled by blackish clays and greenish siliceous material.

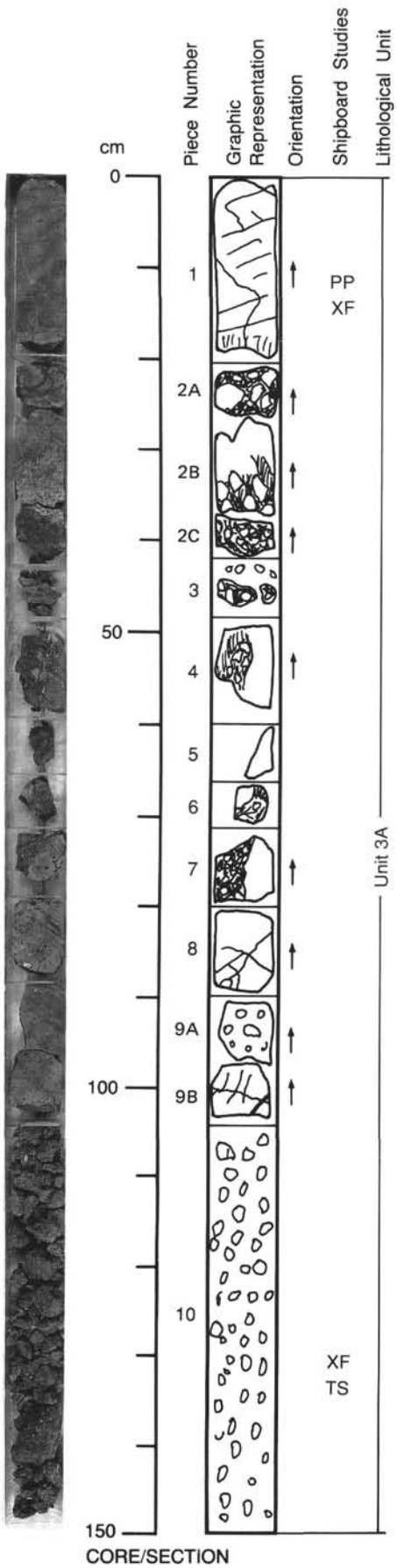


127-795B-38R-5

UNIT 3A: SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

Pieces 1A-1C

CONTACTS: None.
PHENOCRYSTS:
Pyroxene - 1-2%; <1 mm; subhedral-anhedral.
Plagioclase - <2%; <1 mm; euhedral, highly altered.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 3-4%; <10 mm; round to irregular; homogeneous; partially to completely filled by dark green clays.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; <2 mm; random; filled by clays.

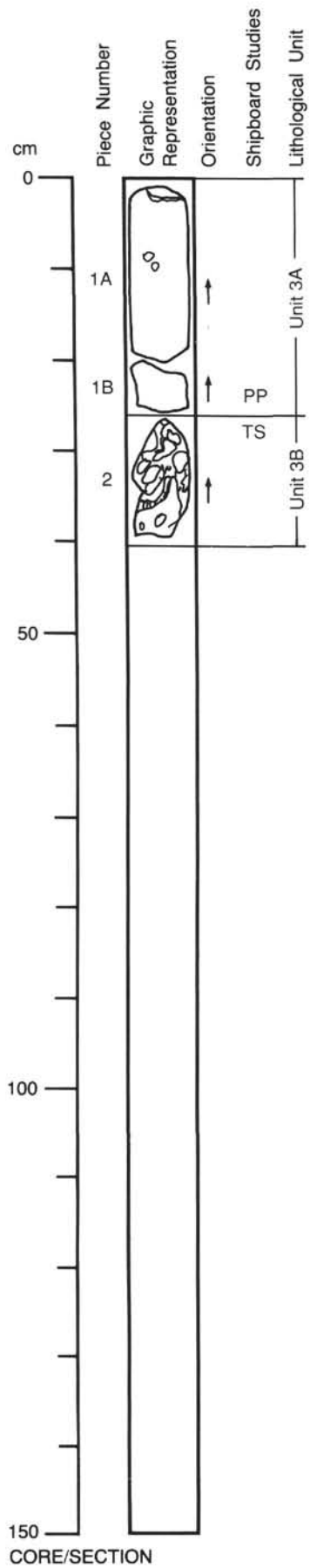


127-795B-39R-1

UNIT 3A: SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

Pieces 1-10

CONTACTS: Lower contact gradational.
PHENOCRYSTS:
Pyroxene - 2%; <2 mm; subhedral-anhedral.
Plagioclase - <1%; <2 mm; euhedral.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 2%; 1-4 mm; round; random; filled by greenish clay minerals.
COLOR: Medium dark gray (N4).
STRUCTURE: Brecciated.
ALTERATION: Highly altered.
VEINS/FRACTURES: 1%; <1 mm; slightly inclined to the length of core; filled by dark green clays.
ADDITIONAL COMMENTS: Pieces 1 (0-17cm), 8, and 9 are massive, Pieces 2-7 are brecciated. Piece 10 occurs as rubble. The breccia has two components; dominantly angular basaltic fragments and a matrix composed of a fine-graine dark clay-like material. There is a compolete range in the size of the basaltic fragments from > 10 cm to < 1 mm. Piece 3 is rubble containing fragments of claystone, pyrite, and brecciated basalts similar to the rest of the sub-unit.



127-795B-39R-2

UNIT 3A: HIGHLY VESICULAR SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

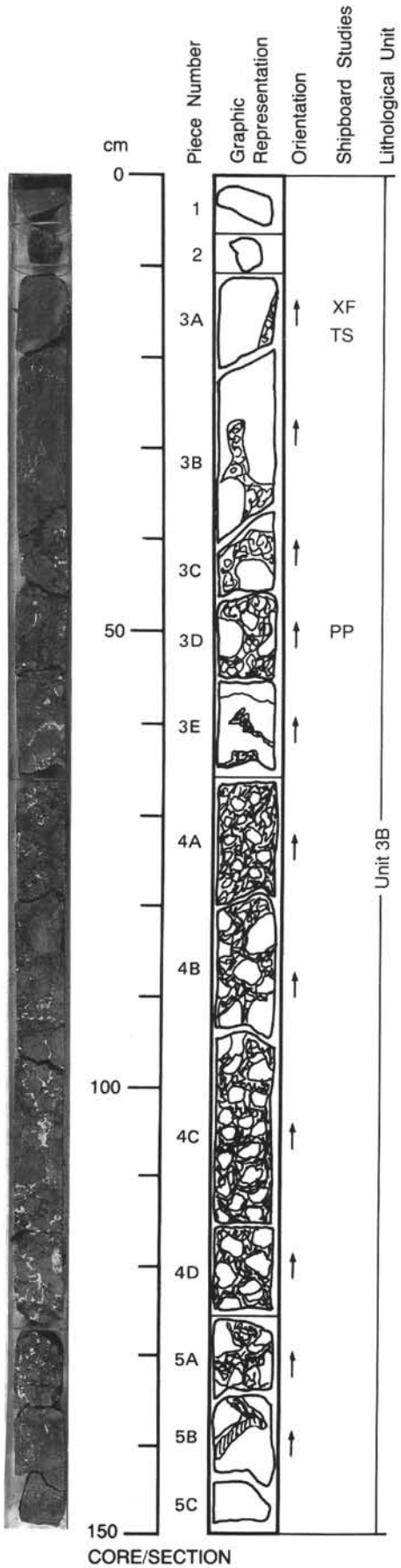
Pieces 1A, 1B

CONTACTS: None.
PHENOCRYSTS:
Pyroxene - 1%; <1; subhedral-anhedral.
Plagoclase - <1%; <1; euhedral-subhedral.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 20-30%; <2 mm; round; homogeneous; partially filled by dark green clays.
Piece 1B contains a higher abundance of unfilled or partially unfilled vesicles.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: Trace; <1 mm; random; filled by dark clays and sometimes zeolites.
ADDITIONAL COMMENTS: Irregular cavities are filled by zeolites. Sub-unit is highly vesicular in this section.

UNIT 3B: BRECCIATED SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

Piece 2

CONTACTS: None.
PHENOCRYSTS:
Pyroxene - 1-2%; <1 mm; subhedral-anhedral.
Plagioclase - <1%; <1 mm; subhedral.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 20%; <2 mm; round; homogeneous; mostly filled by clays.
COLOR: Medium dark gray (N4).
STRUCTURE: Brecciated.
ALTERATION: Both matrix and basalt fragments are highly altered.
VEINS/FRACTURES: <1%; trace; random; filled by dark clays.

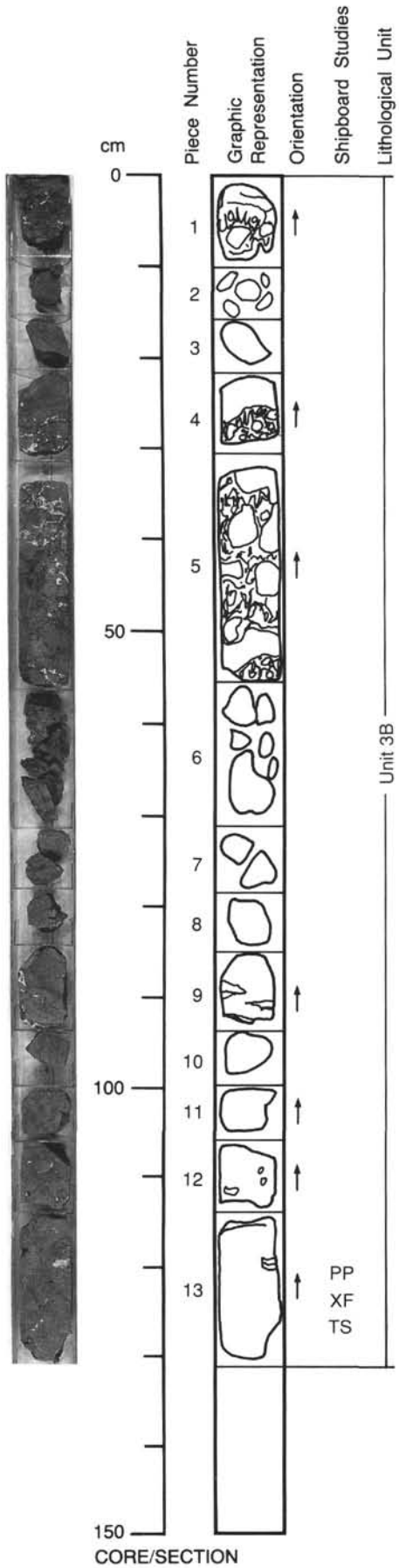


127-795B-40R-1

UNIT 3B: BRECCIATED SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

Pieces 1-5C

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <1%; <1 mm; euhedral-subhedral.
Pyroxene - 1%; <1 mm; subhedral.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 20-30%; <2 mm; round; homogeneous; filled by clays.
COLOR: Medium dark gray (N4).
STRUCTURE: Brecciated.
ALTERATION: Highly altered to secondary minerals. The finer grained matrix is more highly altered than the larger basaltic fragments.
VEINS/FRACTURES: <2%; <1 mm; random; filled by dark clays. Zeolites appear in some fractures/cavities particularly below 65 cm.
ADDITIONAL COMMENTS: The maximum size of the basaltic fragments range widely from a maximum of 10-15 cm to well below 1 cm.

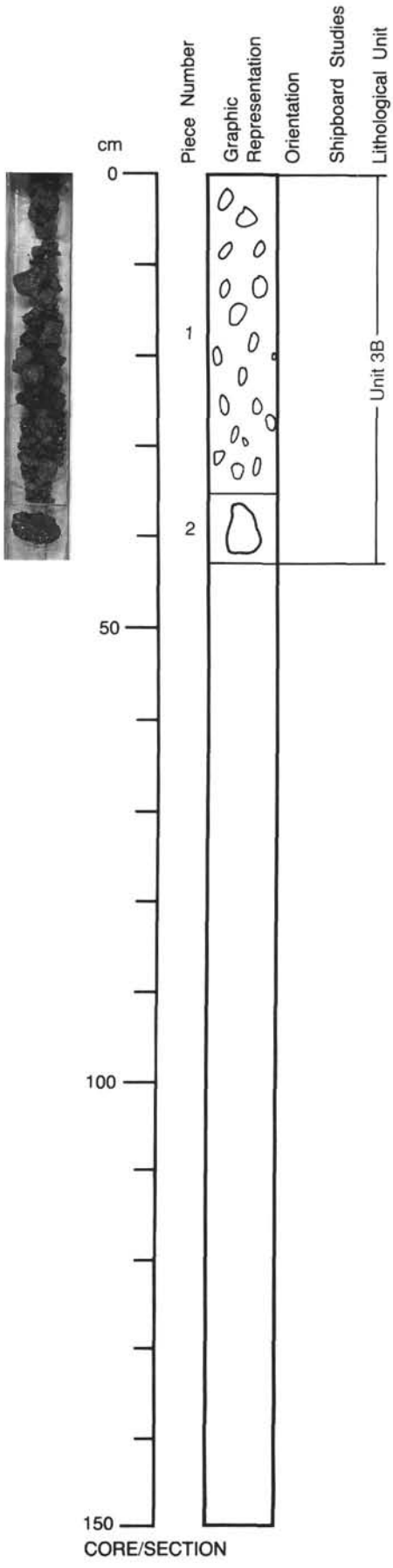


127-795B-40R-2

UNIT 3B: BRECCIATED SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

Pieces 1-13

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <1%; <1 mm; euhedral-subhedral.
Pyroxene - 1%; <1 mm; subhedral.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 20%; <2 mm; round; homogeneous; filled by clays. Zeolites appear in some cavities in the matrix.
COLOR: Medium dark gray (N4).
STRUCTURE: Brecciated.
ALTERATION: Both matrix and basaltic fragments are highly altered.
VEINS/FRACTURES: Not seen.

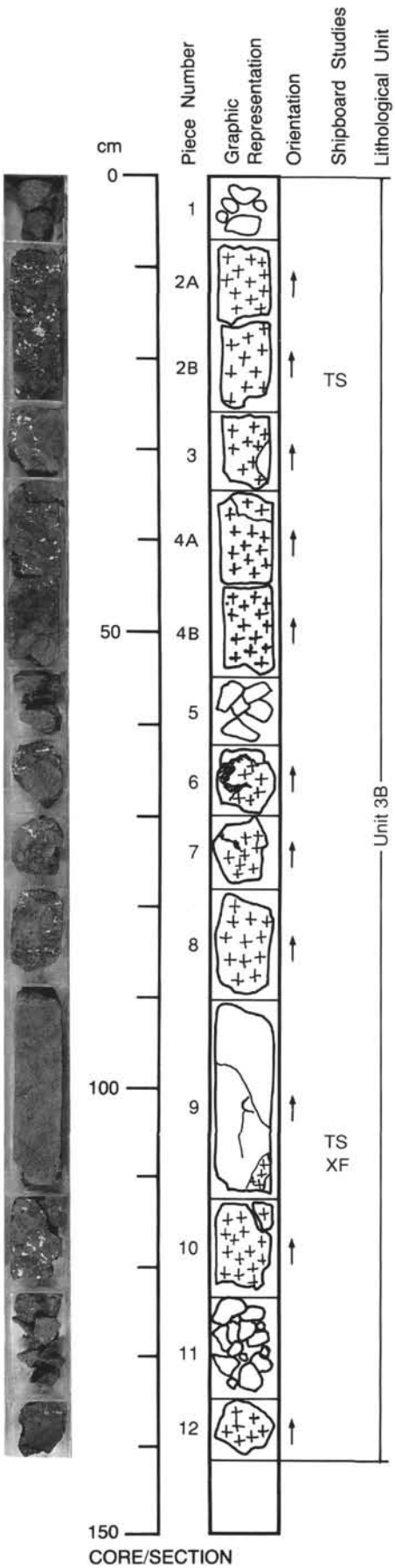


127-795B-40R-3

UNIT 3B: BRECCIATED SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

Pieces 1-2

CONTACTS: None.
PHENOCRYSTS:
Pyroxene - 1%; <2 mm; anhedral.
Plagioclase - <1%; <2 mm; euhedral.
GROUNDMASS: Fine-grained.
VESICLES: 10%; <1 mm; round to irregular; random; filled by clays.
COLOR: Medium dark gray (N4).
STRUCTURE: Brecciated.
ALTERATION: Highly altered.
VEINS/FRACTURES: Not observed.
ADDITIONAL COMMENTS: The basaltic fragments are mostly below 10 mm in diameter and angular in form.



Brecciated

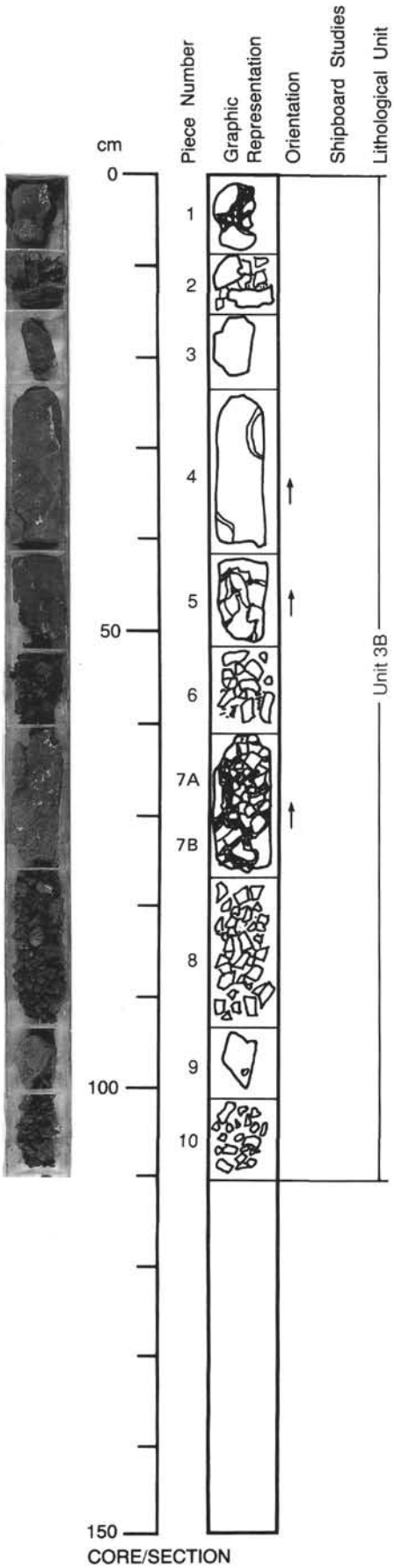
Vein

127-795B-41R-1

UNIT 3B: BRECCIATED SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

Pieces 1-12

CONTACTS: None.
PHENOCRYSTS:
Pyroxene - <2%; 1 mm; subhedral.
Plagioclase - trace; 1 mm; euhedral.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 15-20%; 0.5-8 mm; round to irregular; homogeneous; filled by clays and zeolites.
COLOR: Medium dark gray (N4).
STRUCTURE: Brecciated.
ALTERATION: Highly altered.
VEINS/FRACTURES: Trace; <0.5 mm; irregular; filled by greenish clays.
ADDITIONAL COMMENTS: The breccia has two components: 1) Angular basalt fragments and 2) Fine-grained matrix of greenish clays and zeolites. Individual fragments range from <10 mm to 20 cm.



127-795B-41R-2

UNIT 3B: BRECCIATED SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

Pieces 1-10

CONTACTS: None.
PHENOCRYSTS:
Pyroxene - 1%; 1 mm; subhedral.
Plagioclase - <1%; <2 mm; euhedral.
GROUNDMASS: Fine-grained, microlitic.
VESICLES: 15%; <2 mm; round; homogeneous; rimmed to filled by green clays.
COLOR: Medium dark gray (N4).
STRUCTURE: Brecciated.
ALTERATION: Highly altered.
VEINS/FRACTURES: Trace; <1 mm; random; filled by dark clays.
ADDITIONAL COMMENTS: The breccia is characterized by angular basalt clasts surrounded by a matrix of green clays aand zeolites. The matrix may form up to 20% of the rock. Pieces 2, 6, 8,and 10 are basalt rubble.

127-795B-34R-01 (Piece 1A, 96-98 cm) WHERE SAMPLED: Interior of breccia clast, Unit 1

ROCK NAME: MODERATELY PLAGIOCLASE PYROXENE PHYRIC BASALTIC ANDESITE

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic with microcrystalline interstitial groundmass

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	7	7	0.3-1		euhedral-anhedral	Occasionally as glomerophenocryst with augite and magnetite. Sometimes has dusty core (altered)
Augite	1	5	0.3-1		subhedral-anhedral	Occasionally altered
Magnetite	2	2	0.3		subhedral-anhedral	
GROUNDMASS						
Plagioclase	30	40	< 0.3		lath-shaped	Partially altered
Augite	trace	trace	< 0.1		subhedral-anhedral	Partially altered
Magnetite	5	5	< 0.3		subhedral-anhedral	
Mesostasis	0	30				Totally altered

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Clay minerals	< 40	plagioclase, augite, mesostasis, vesicle	Green to brown

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicle	5	random	0.2-5	clays	round-irregular

COMMENTS: Highly altered. No piece numbers.

127-795B-35R-01 (Piece 4, 53-54 cm) WHERE SAMPLED: Interior of breccia clast, Unit 1

ROCK NAME: HIGHLY PLAGIOCLASE PYROXENE PHYRIC BASALTIC ANDESITE

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic with microcrystalline interstitial groundmass

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	7	7	0.3-1		euhedral-subhedral	Occasionally occur as glomerophenocrysts with augite and magnetite
Augite	1	3	0.3-1		subhedral-anhedral	Sometimes totally altered
Magnetite	< 1	< 1	0.3		subhedral	
GROUNDMASS						
Plagioclase	50	50	< 0.3		lath-shaped	Slightly altered
Augite	<1	3	< 0.3		subhedral	Generally altered to clay
Magnetite	3	3	< 0.3		subhedral	
Mesostasis	0	30				Totally altered to clay

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Clay minerals	40	augite, mesostasis, and vesicle	Green (celadonite?) to brown

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicle	5	random	0.5-2	clay	irregular

COMMENTS: Highly altered

127-795B-36R-02 (Piece 5,49-51 cm) WHERE SAMPLED: Massive lava of Unit 3 A

ROCK NAME: MODERATELY PLAGIOCLASE PYROXENE PHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic with microcrystalline interstitial groundmass

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	1	5	0.5-1		euhedral	Often glomerophenocrystic, cores are highly altered
Augite	5	5	0.5-1		subhedral	Sometimes as glomerophenocrysts with plagioclase
Olivine	0	trace	1-2		euhedral	Completely replaced by clays
GROUNDMASS						
Plagioclase	40	40	<0.3		lath-shaped	Slightly altered
Augite	15	15	<0.1		subhedral-anhedral	Slightly altered
Mesostasis	0	30				Totally altered to clay

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Clay mineral	10	plagioclase and vesicle	Green celadonite
Clay mineral	30	mesostasis and vesicle	Brown to green

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	10	random	<5	clays	irregular-lobate

127-795B-37R-01 (Piece 9,105-107 cm) WHERE SAMPLED: Massive lava of Unit 3 A

ROCK NAME: MODERATELY PLAGIOCLASE PYROXENE PHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic with microcrystalline interstitial groundmass

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	1	3	0.5-1.5		euhedral	Often glomerophenocrystic, cores are highly altered to clay
Augite	3	3	0.5-1		subhedral	
GROUNDMASS						
Plagioclase	50	50	<0.2		lath-shaped	Slightly altered
Augite	5	5	<0.1		subhedral-anhedral	Slightly altered
Mesostasis	0	30				Totally altered

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Clay minerals	30-40	all phases, including mesostasis	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	10	random	0.2-2	green clay minerals	round, irregular, lobate

127-795B-38R-02 (Piece 2,51-53 cm) WHERE SAMPLED: Massive lava of Unit 3 A

ROCK NAME: MODERATELY PLAGIOCLASE PYROXENE PHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic with microcrystalline interstitial groundmass

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	1	5	0.3-2		euhedral-subhedral	Cores are altered to clay
Augite	5	5	0.1-0.5		subhedral	Often glomerophenocrystic
GROUNDMASS						
Plagioclase	50	50	<0.2		lath-shaped	Slightly altered
Augite	5	5	<0.1		subhedral	Slightly altered
Mesostasis	0	30				Completely altered to clays

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Clay minerals	30-35	all phases, mesostasis, and vesicles	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	5	random	<0.5	green clays	irregular

127-795B-38R-04 (Piece 2E,99-101 cm) WHERE SAMPLED: Interior of massive lava of UNIT 3 A

ROCK NAME: MODERATELY PYROXENE PLAGIOCLASE PHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic with microcrystalline interstitial groundmass

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Augite	2	2	0.5-2		subhedral-anhedral	Often as glomerophenocrysts
Plagioclase	1	1	0.7-2		euhedral, tabular	Cores are highly to totally altered to green clays, zoned rims are preserved
GROUNDMASS						
Plagioclase	50	50	<0.2		lath-shaped	
Augite	5	5	<0.5		subhedral-anhedral	
Mesostasis	0	35			irregular	Altered to dark brown secondary minerals (clays?)

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Clay minerals	35-40	plagioclase, mesostasis, and vesicles	Dark brown clays replace mesostasis; green clays replace plagioclase cores; pale brown clays rim vesicles which are filled with green clays

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE	COMMENTS
Vesicles	5	random	<4	clays	round	Vesicles are rimmed with brown clays and filled with green (celadonotic?) clays

COMMENTS: Moderately to highly altered

127-795B-39R-01 (Piece 10,131-133 cm) WHERE SAMPLED: Interior of breccia clast, UNIT 1

ROCK NAME: MODERATELY PLAGIOCLASE PYROXENE PHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic with microcrystalline interstitial groundmass

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	<1	2	1-2		euhedral-subhedral	Cores are highly altered. Occasionally occur as glomerophenocrysts with augite
Augite	1	2	0.5-1.5		subhedral	Occasionally totally altered
GROUNDMASS						
Plagioclase	40	50	< 0.5		lath-shaped	Partially altered
Augite	< 5	< 5	< 0.3		subhedral	Partially altered
Mesostasis	0	20				Totally altered

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Clay mineral	15	plagioclase, vesicle	Green (celadonite?)
Clay minerals	40	plagioclase, augite, mesostasis, vesicle	Brown to green

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicle	20	random	0.2 to 2	clays	round-irregular

COMMENTS: Highly altered

127-795B-39R-02 (Piece 1B,22-24 cm) WHERE SAMPLED: Interior of massive lava of UNIT 3 A

ROCK NAME: MODERATELY PYROXENE PLAGIOCLASE PHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic with microcrystalline interstitial groundmass

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Augite	2	2	0.3-1		subhedral-anhedral	Frequently occur as glomerophenocrysts
Plagioclase	<<1	1	0.5-1		euhedral, prismatic	Cores are totally altered to clays
GROUNDMASS						
Plagioclase	35	35	<0.5		lath-shaped	Cores are slightly altered to clays
Augite	5	5	<0.1		anhedral	
Mesostasis	0	35				Altered to brown clays with minor bright green celadonite(?)

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Clay minerals		plagioclase cores, mesostasis, vesicles	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE	COMMENTS
Vesicles	20	random	<2	clays	round	Vesicles are rimmed with greenish-brown clays and filled with green (celadonitic?) clays

127-795B-40R-01 (Piece 3A,15-17 cm) WHERE SAMPLED: Interior of breccia clast, UNIT 3B

ROCK NAME: SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic with microcrystalline interstitial groundmass

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Augite	1	1	0.5		subhedral	Commonly occur as glomerophenocrysts, sometimes form glomeroporphyritic cluster with plagioclase
Plagioclase	trace	1	0.5-1		euhedral-subhedral	Cores are highly altered to clays
GROUNDMASS						
Plagioclase	50	50	<0.3		lath-shaped	Slightly altered
Augite	2	2	<0.3		subhedral	Slightly altered
Mesostasis	0	30				Totally altered to clays

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Clay mineral	15	plagioclase, vesicles	Green (celadonite?)
Clay mineral	30	primary minerals, mesostasis, vesicle	Brown, cryptocrystalline

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicle	15	random	0.2-2	clays	round-irregular

COMMENTS: Highly altered

127-795B-40R-02 (Piece 13,123-125 cm) WHERE SAMPLED: Interior of breccia clast, UNIT 3 B

ROCK NAME: SPARSELY PYROXENE PHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic with microcrystalline interstitial groundmass

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Augite	1	1-2	0.5-1		euhedral-subhedral	Commonly occur as glomerophenocrysts, sometimes form glomeroporphyritic cluster with plagioclase
Plagioclase	trace	1	1-2		euhedral-subhedral	Cores are highly altered to clays
GROUNDMASS						
Plagioclase	60	60	<0.3		lath-shaped	Slightly altered
Augite	3	3	<0.3		subhedral	Slightly altered
Mesostasis	0	30				Totally altered to clays

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Clay mineral	15	plagioclase and vesicles	celadonite?
Clay mineral	30	primary minerals, mesostasis, vesicle	brown cryptocrystalline material

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicle	15	random	0.1-3	clay	round to irregular

COMMENTS: Highly altered

127-795B-41R-01 (Piece 2B,22-24 cm) WHERE SAMPLED: In breccia of Unit 3 B

ROCK NAME: Moderately plagioclase pyroxene phyric basalt

GRAIN SIZE: Fine-grained to microcrystalline

TEXTURE: Porphyritic with intersertal groundmass; vesicular and brecciated

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	1-2	1-2	<2		euhedral	Sometimes moderately altered
Augite	1-2	1-2	<1.2		subhedral	
GROUNDMASS						
Plagioclase	30	35	<0.5		lath-shaped	Sometimes slightly altered
Augite	5	5	<0.5		anhedral-subhedral	
Mesostasis	0	30				Totally altered

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE	COMMENTS
Vesicles	20-25	homogeneous	<1	silica, clays	round	Filled with yellow-brown cryptocrystalline material
Matrix	?	between rock pieces	<10-120	clays, zeolites, silica	irregular	May originally in part have been voids; often show pattern of green, celadonitic? clays rimming outside, zeolites inside

COMMENTS: Rock is breccia composed of pieces of basalt.

127-795B-41R-01 (Piece 9,107-109 cm) WHERE SAMPLED: Massive piece of UNIT 3 B

ROCK NAME: SPARSELY PYROXENE PLAGIOCLASE PHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic with microcrystalline interstitial groundmass

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Augite	1	1	0.3-1		euhedral-subhedral	Occasionally occur as glomerophenocrysts
Plagioclase	<<1	1	0.5-2		euhedral-subhedral	Cores are highly to totally altered to green and brown clays. Some grains occur with pyroxene in glomerophenocrysts
GROUNDMASS						
Plagioclase	30	30	<0.5		Lath-shaped	Slightly altered
Augite	2	2	<0.1		subhedral-anhedral	Slightly altered
Mesostasis	0	35				Altered to brown clays

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Clay minerals		plagioclase cores, mesostasis, vesicles	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE	COMMENTS
Vesicles	30	random	<3	totally filled	round	Three different fillings in vesicles: outer rim is very pale brown clays(?), inner rim is pale brown clays, core is filled with green pleochroic (celadonitic?) clays