SITE 730 HOLE A CORE 1H CORED INTERVAL 1065.8-1074.1 mbsl; 0.0-8.3 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PLEISTOCENE | *A/G | *A/G | *Barren | | O | ●ϕ=59.0 γ=1.71 ●ϕ=64.9 γ=1.64 | ●IC=8.52 ●IC=7.47 OC=1.28 | 1 2 3 4 5 6 CC | 0.5 1.0 | VOID 0.15 | | | * * * 1W |

LITHOLOGIC DESCRIPTION

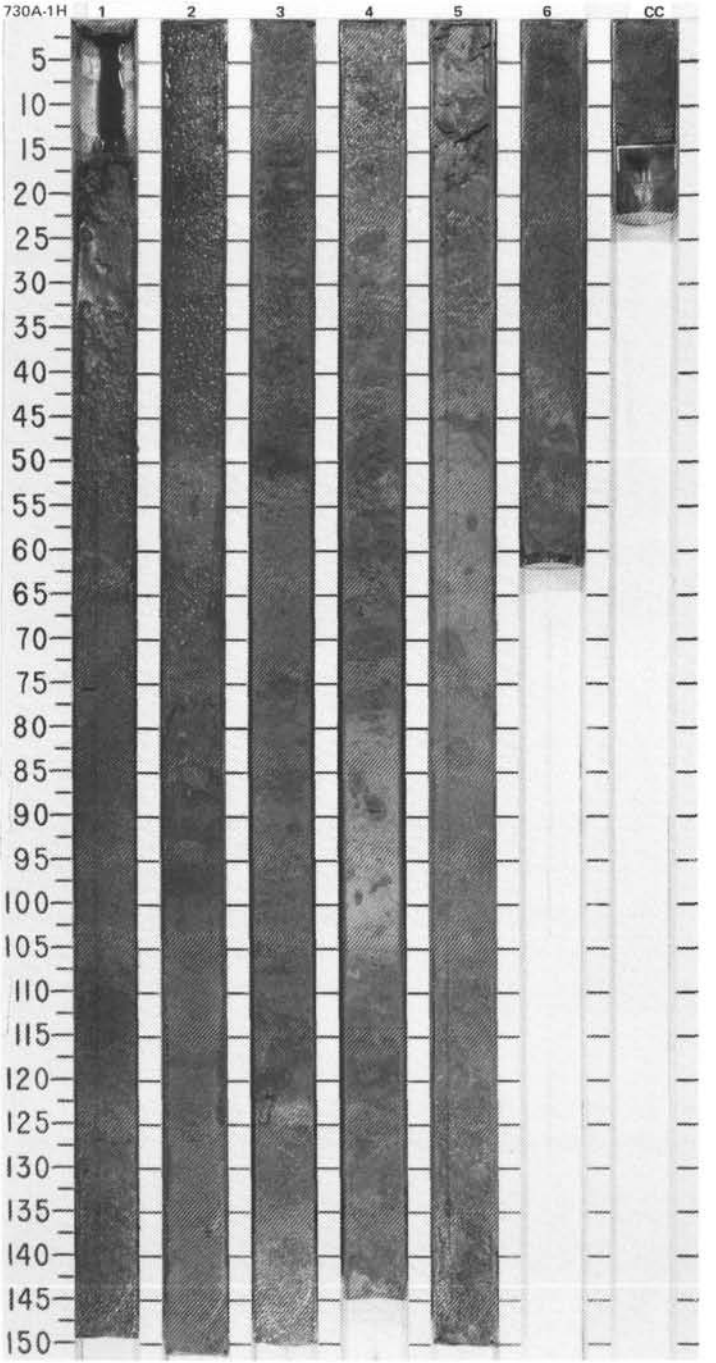
MARLY FORAMINIFER-NANNOFOSSIL OOZE

Section 1, 15-35 cm, is soupy; remainder is undisturbed.

Major lithologies: MARLY FORAMINIFER-NANNOFOSSIL OOZE, olive (5Y 5/3, 4/3) and olive gray (5Y 5/2). Minor burrow mottling throughout. Contacts gradational and mottled. Shell fragments common; echinoid spines and scaphopods visible.

SMEAR SLIDE SUMMARY (%):

| | 1, 27 M | 2, 65 M | 3, 65 D |
|---|---|---|---|
| TEXTURE: | | | |
| Sand | 15 | 15 | 8 |
| Silt | 50 | 35 | 62 |
| Clay | 35 | 50 | 30 |
| COMPOSITION: | | | |
| Access. minerals | 5 | 2 | 5 |
| Clay | 15 | 25 | 15 |
| Diatoms | Tr | — | — |
| Dolomite | 2 | Tr | 3 |
| Feldspar | — | — | 1 |
| Foraminifers | 45 | 30 | 30 |
| Inorganic calcite | 10 | 5 | 20 |
| Mica | — | 3 | 1 |
| Nannofossils | 20 | 30 | 15 |
| Quartz | 3 | 5 | 10 |
| Sponge spicules | Tr | Tr | |



SITE 730 HOLE A CORE 2H CORED INTERVAL 1074.1-1083.6 mbsl; 8.3-17.8 mbsf

TIME-ROCK UNIT: UPPER MIOCENE / PLEISTOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: R/M *; A/G *NN10 *Discoaster calcaris*; Barren *. NANNOFOSSILS: *A/G; *A/M; NN19 *Pseudoemiliania lacunosa*; A/M-G*; N16-17. RADIOLARIANS. DIATOMS.

PALEOMAGNETICS. PHYS. PROPERTIES: ●ϕ=56.7 γ=1.76; ●ϕ=61.0 γ=1.72; ●ϕ=66.1 γ=1.61. CHEMISTRY: ●IC=4.81; ●IC=8.46.

SECTION: CC, 7, 6, 5, 4, 3, 2, 1. METERS: 0.5, 1.0.

GRAPHIC LITHOLOGY. DRILLING DISTURB. SED. STRUCTURES. SAMPLES.

LITHOLOGIC DESCRIPTION

MARLY FORAMINIFER-NANNOFOSSIL OOZE and MARLY NANNOFOSSIL OOZE

Entire core undisturbed.

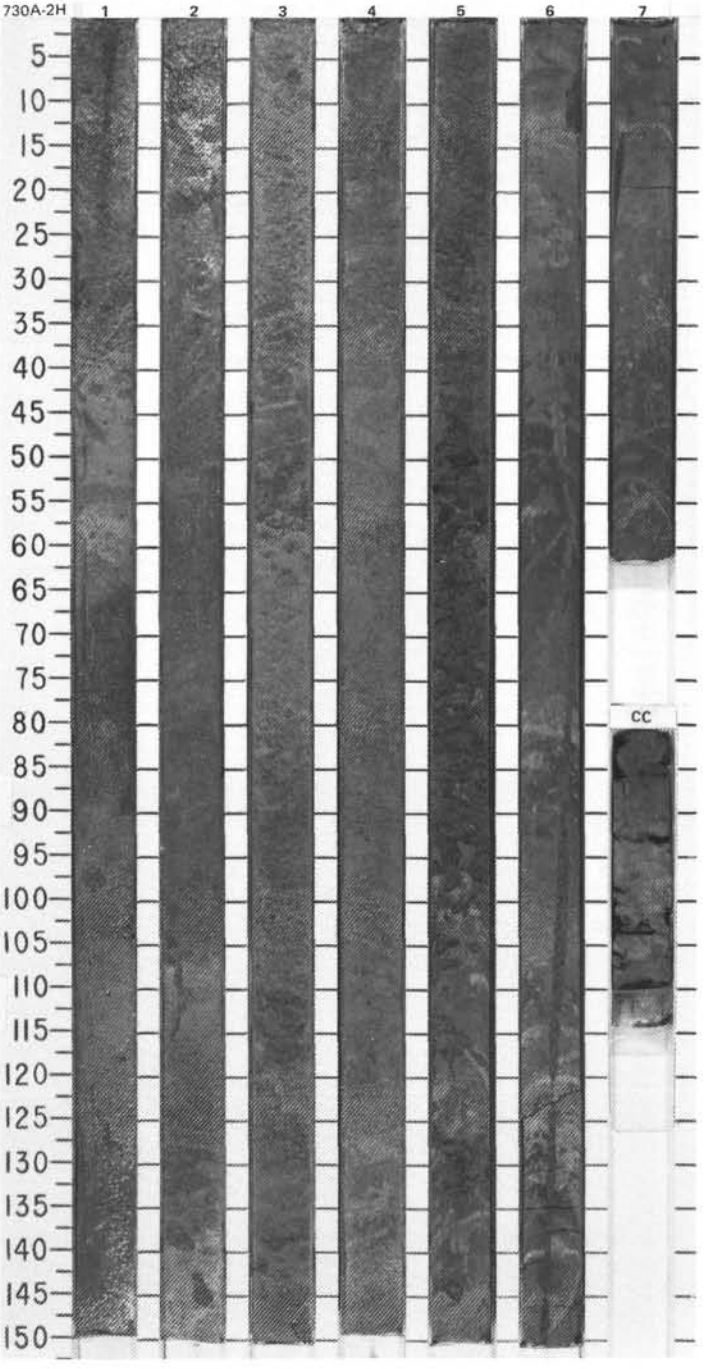
Major lithologies:

a. MARLY FORAMINIFER-NANNOFOSSIL OOZE, olive (5Y 4/3) and olive gray (5Y 5/2). Minor burrow mottling throughout. Contacts gradational and mottled. Solitary coral visible (in working half).

b. Section 5, 121 cm, to base of core: MARLY NANNOFOSSIL OOZE, olive (5Y 4/3) and olive gray (5Y 5/2). Minor burrow mottling throughout. Contacts gradational and mottled; contact between major lithologies strongly mottled.

SMEAR SLIDE SUMMARY (%):

| | 5, 70 D | 5, 109 D |
|---|---|---|
| TEXTURE: | | |
| Sand | 10 | — |
| Silt | 55 | 40 |
| Clay | 35 | 60 |
| COMPOSITION: | | |
| Access. minerals. | 5 | 3 |
| Clay | 16 | 22 |
| Dolomite | 1 | Tr |
| Foraminifers | 20 | 5 |
| Inorganic calcite | 20 | 15 |
| Mica | 3 | — |
| Nannofossils | 20 | 40 |
| Pyrite | — | 5 |
| Quartz | 15 | 10 |



SITE 730 HOLE A CORE 3H CORED INTERVAL 1083.6-1093.1 mbsl; 17.8-27.3 mbsf

TIME-ROCK UNIT: UPPER MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: N16-N17; NANNOFOSSILS: NN10 *Discoaster calcaris*; RADIOLARIANS; DIATOMS

PALEOMAGNETICS; PHYS. PROPERTIES: ϕ-64.1 γ-1.60; ϕ-65.9 γ-1.57; ϕ-65.5 γ-1.64

CHEMISTRY: IC-3.61; IC-3.53; IC-4.27 OC-1.61

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY: VOID 20.00; VOID 25.41

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: OG, IW

LITHOLOGIC DESCRIPTION

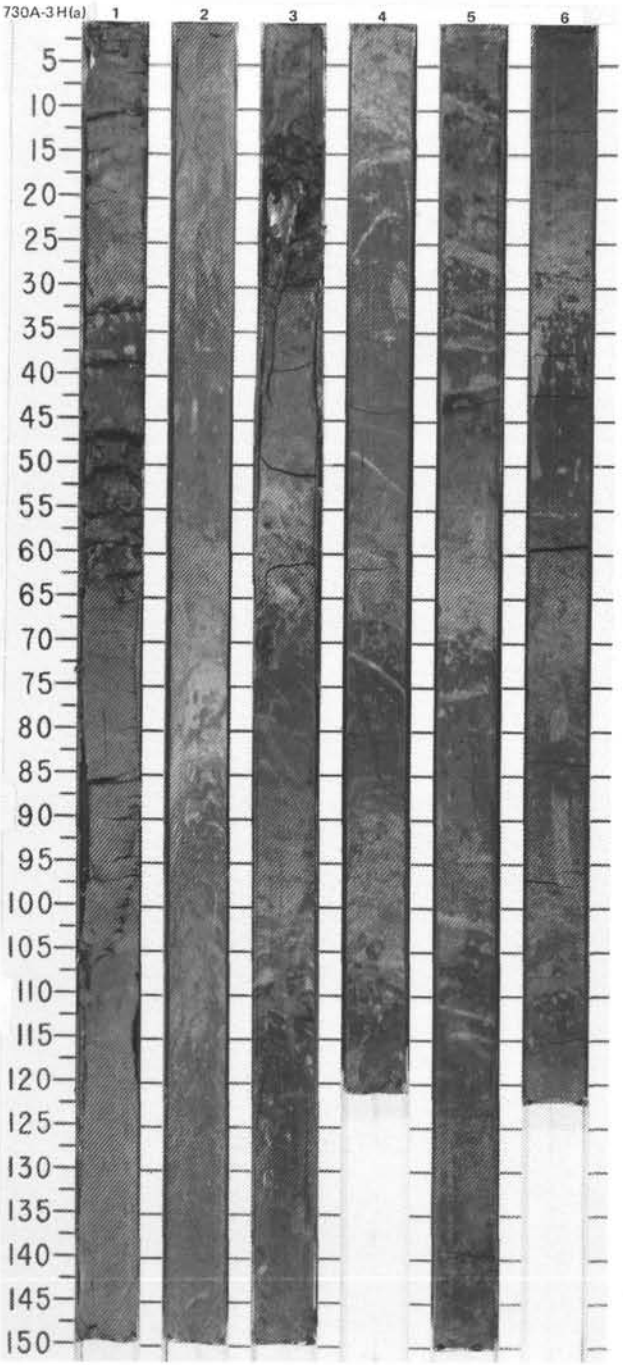
MARLY NANNOFOSSIL OOZE

Section 1, 0–110 cm, and Section 3, 25–35 cm, is moderately disturbed; Section 1, 110–150 cm, is slightly disturbed; and remainder is undisturbed.

Major lithology: MARLY NANNOFOSSIL OOZE, olive (5Y 5/3, 4/3), olive gray (5Y 4/2, 5/2), and dark olive gray (5Y 3/2). Minor to moderate burrow mottling. Contacts gradational and mottled.

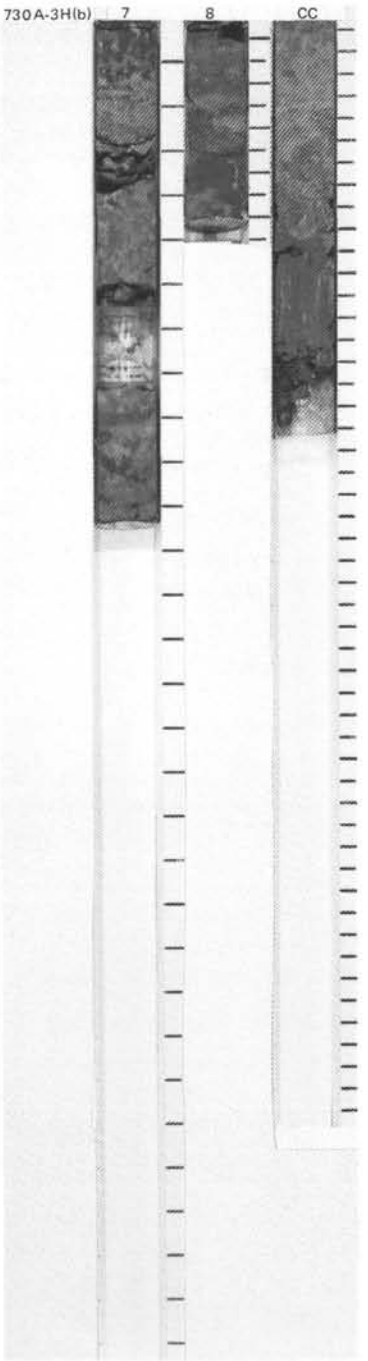
SMEAR SLIDE SUMMARY (%):

| | 3, 118 D | 5, 63 D |
|---|---|---|
| TEXTURE: | | |
| Silt | 35 | 25 |
| Clay | 65 | 75 |
| COMPOSITION: | | |
| Access. minerals | — | 1 |
| Clay | 40 | 25 |
| Dolomite | 1 | 1 |
| Foraminifers | 3 | 5 |
| Inorganic calcite | 30 | 18 |
| Nannofossils | 16 | 40 |
| Quartz | 10 | 10 |



SITE 730 HOLE A CORE 3H CORED INTERVAL 1083.6-1093.1 mbsl; 17.8-22.3 mbsf

| TIME-ROCK UNIT | BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS | BIOSTRAT. ZONE/ FOSSIL CHARACTER: NANNOFOSSILS | BIOSTRAT. ZONE/ FOSSIL CHARACTER: RADIOLARIANS | BIOSTRAT. ZONE/ FOSSIL CHARACTER: DIATOMS | PALEOMAGNETICS | PHYS. PROPERTIES | CHEMISTRY | SECTION | METERS | GRAPHIC LITHOLOGY | DRILLING DISTURB. | SED. STRUCTURES | SAMPLES | LITHOLOGIC DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *R/P | *A/G | *BARREN | | | | | 7 | | VOID | | | | (cont.) |
| | | | | | | | | 8 | | | | | | |
| | | | | | | | | CC | | | | | | |



SITE 730 HOLE A CORE 4H CORED INTERVAL 1093.1-1102.6 mbsl; 27.3-36.8 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: *Barren; *A/M; *C/G
- NANNOFOSSILS: NN9 *Discoaster hamatus*
- RADIOLARIANS: *C/G *Diartus petterssoni*
- DIATOMS

PALEOMAGNETICS

PHYS. PROPERTIES: ●ϕ-79.6 γ-1.38; ●ϕ-72.2 γ-1.50; ●ϕ-64.8 γ-1.60

CHEMISTRY: ●IC=4.23; ●IC=5.56, OC=1.51

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: *

LITHOLOGIC DESCRIPTION

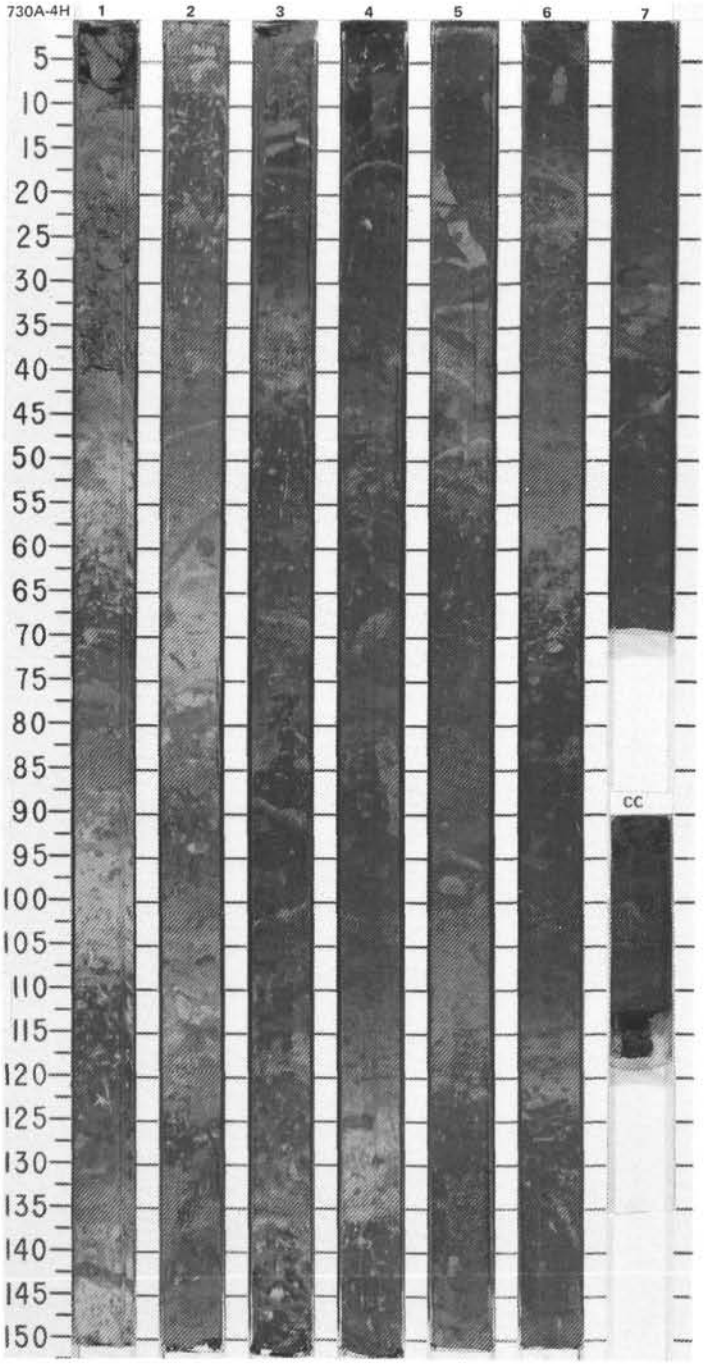
MARLY NANNOFOSSIL OOZE, DIATOMACEOUS MARLY NANNOFOSSIL OOZE, and DIATOMACEOUS SILTY CLAY

Entire core is undisturbed.

Major lithologies:
a. MARLY NANNOFOSSIL OOZE, olive (5Y 5/3, 4/3), olive gray (5Y 5/2), and dark olive gray (5Y 3/2). Minor to moderate burrow mottling. Contacts gradational and mottled.
b. DIATOMACEOUS MARLY NANNOFOSSIL OOZE, olive (5Y 5/3). Minor to moderate burrow mottling. Contacts gradational and mottled.
c. DIATOMACEOUS SILTY CLAY, olive (5Y 4/3), olive gray (5Y 4/2), and dark olive gray (5Y 3/2). Minor to moderate burrow mottling. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 5, 80 D |
|---|---|
| TEXTURE: | |
| Silt | 30 |
| Clay | 70 |
| COMPOSITION: | |
| Access. minerals | 2 |
| Clay | 30 |
| Diatoms | 2 |
| Dolomite | 1 |
| Foraminifers | 3 |
| Inorganic calcite | 10 |
| Nannofossils | 40 |
| Quartz | 10 |
| Radiolarians | 1 |
| Sponge spicules | 1 |



SITE 730 HOLE A CORE 5H CORED INTERVAL 1102.6-1112.1 mbsl: 36.8-46.3 mbsf

TIME-ROCK UNIT: MIOCENE

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

NN9 *Discoaster hamatus*

*C/G *Diartus pettersoni*

PALEOMAGNETICS: O

PHYS. PROPERTIES: ●ϕ=73.9 γ=1.41; ●ϕ=78.3 γ=1.34; ●ϕ=79.3 γ=1.37

CHEMISTRY: ●IC=3.11; ●IC=3.40; ●IC=2.89 OC=1.99

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

DIATOMACEOUS MARLY NANNOFOSSIL OOZE and DIATOMACEOUS SILTY CLAY

Entire core is undisturbed.

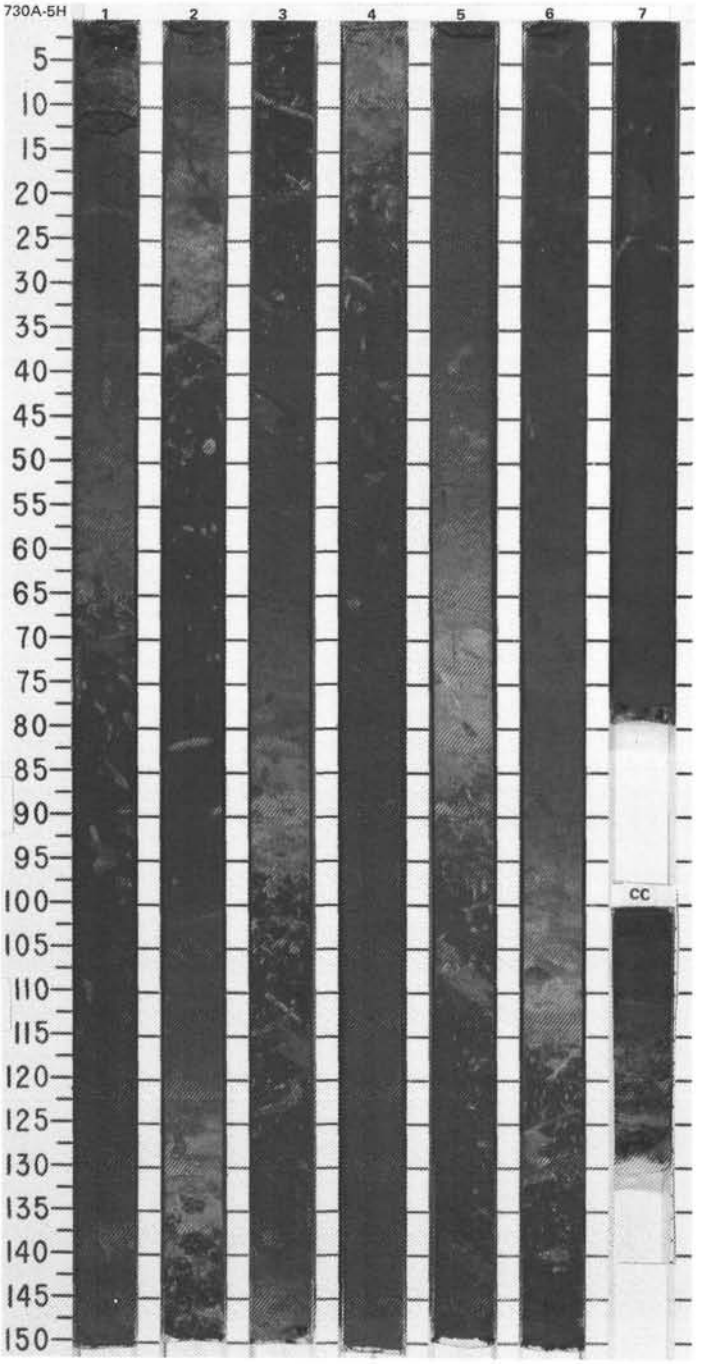
Major lithologies:

a. DIATOMACEOUS MARLY NANNOFOSSIL OOZE, olive (5Y 5/3) and olive gray (5Y 5/2). Minor burrow mottling throughout. Contacts gradational and mottled.

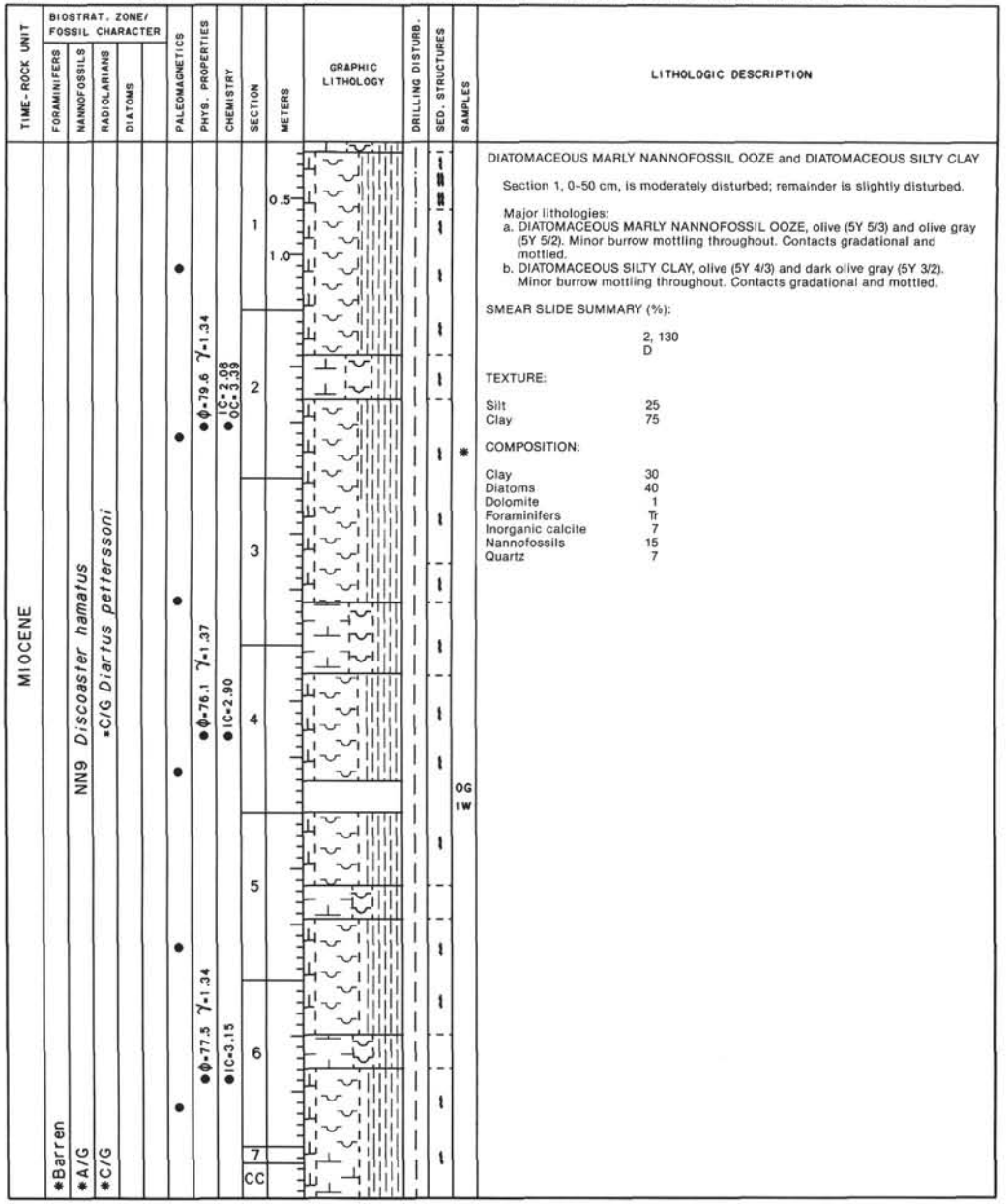
b. DIATOMACEOUS SILTY CLAY, olive (5Y 4/3), olive gray (5Y 4/2), and dark olive gray (5Y 3/2). Minor burrow mottling throughout. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 2, 145 M | 4, 75 D | 6, 110 D |
|---|---|---|---|
| TEXTURE: | | | |
| Silt | 25 | 40 | 20 |
| Clay | 75 | 60 | 80 |
| COMPOSITION: | | | |
| Clay | 25 | 25 | 25 |
| Diatoms | 37 | 45 | 8 |
| Dolomite | 1 | — | 2 |
| Foraminifers | 3 | — | 3 |
| Inorganic calcite | 10 | 5 | — |
| Nannofossils | 15 | 20 | 55 |
| Quartz | 4 | 5 | 3 |
| Radiolarians | 5 | — | — |
| Sponge spicules | — | — | 2 |



SITE 730 HOLE A CORE 6X CORED INTERVAL 1112.1-1121.6 mbsl; 46.3-55.8 mbsf




## LITHOLOGIC DESCRIPTION

DIATOMACEOUS MARLY NANNOFOSSIL OOZE and DIATOMACEOUS SILTY CLAY

Section 1, 0-50 cm, is moderately disturbed; remainder is slightly disturbed.

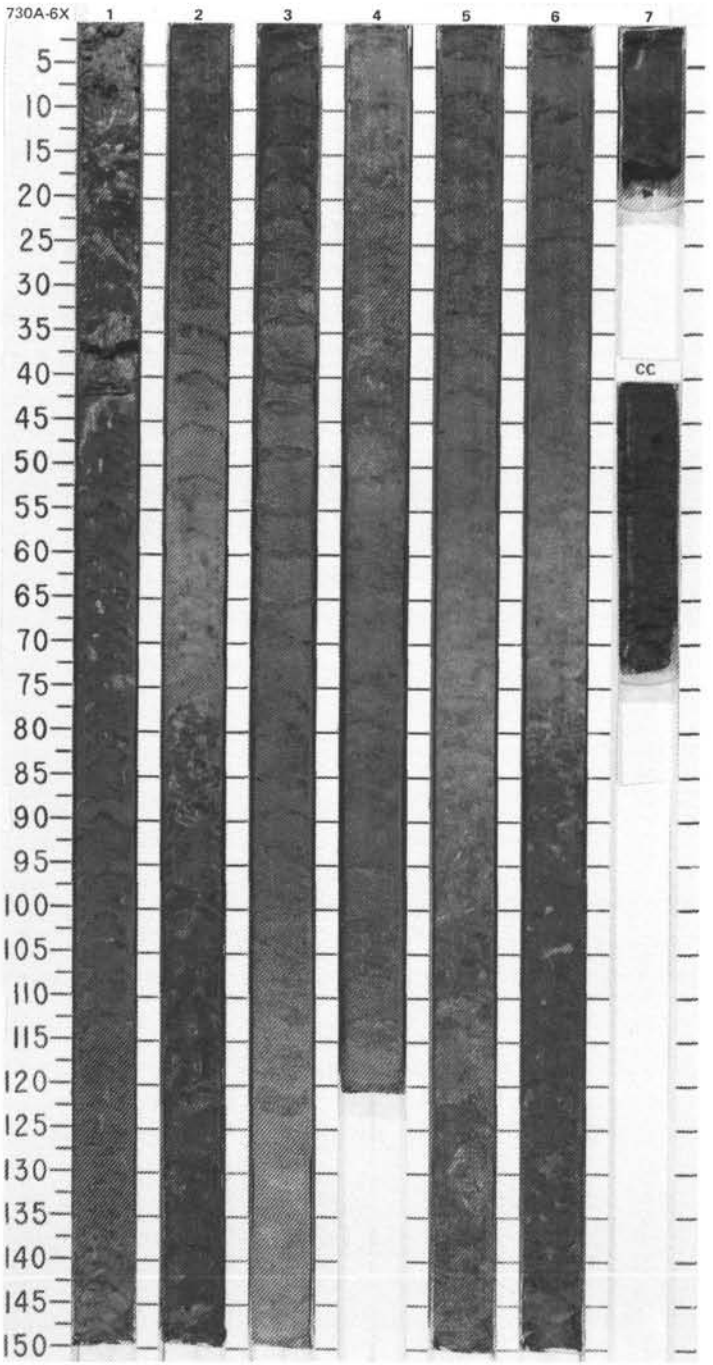
Major lithologies:

a. DIATOMACEOUS MARLY NANNOFOSSIL OOZE, olive (5Y 5/3) and olive gray (5Y 5/2). Minor burrow mottling throughout. Contacts gradational and mottled.

b. DIATOMACEOUS SILTY CLAY, olive (5Y 4/3) and dark olive gray (5Y 3/2). Minor burrow mottling throughout. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 2, 130 D |
|---|---|
| TEXTURE: | |
| Silt | 25 |
| Clay | 75 |
| COMPOSITION: | |
| Clay | 30 |
| Diatoms | 40 |
| Dolomite | 1 |
| Foraminifers | Tr |
| Inorganic calcite | 7 |
| Nannofossils | 15 |
| Quartz | 7 |



SITE 730 HOLE A CORE 7X CORED INTERVAL 1121.6-1131.3 mbsl; 55.8-65.5 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS *Barren; NANNOFOSSILS NN9 *A/M Discoaster hamatus; RADIOLARIANS *C/G; DIATOMS *C/G Diartus pettersoni

PALEOMAGNETICS

PHYS. PROPERTIES: ●Φ=80.3 γ=1.34; ●Φ=75.7 γ=1.41; ●Φ=77.7 γ=1.33

CHEMISTRY: ●TC=2.33 OC=2.88; ●IC=5.26; ●IC=3.16

SECTION: 1 2 3 4 5 6 7

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: PP

LITHOLOGIC DESCRIPTION

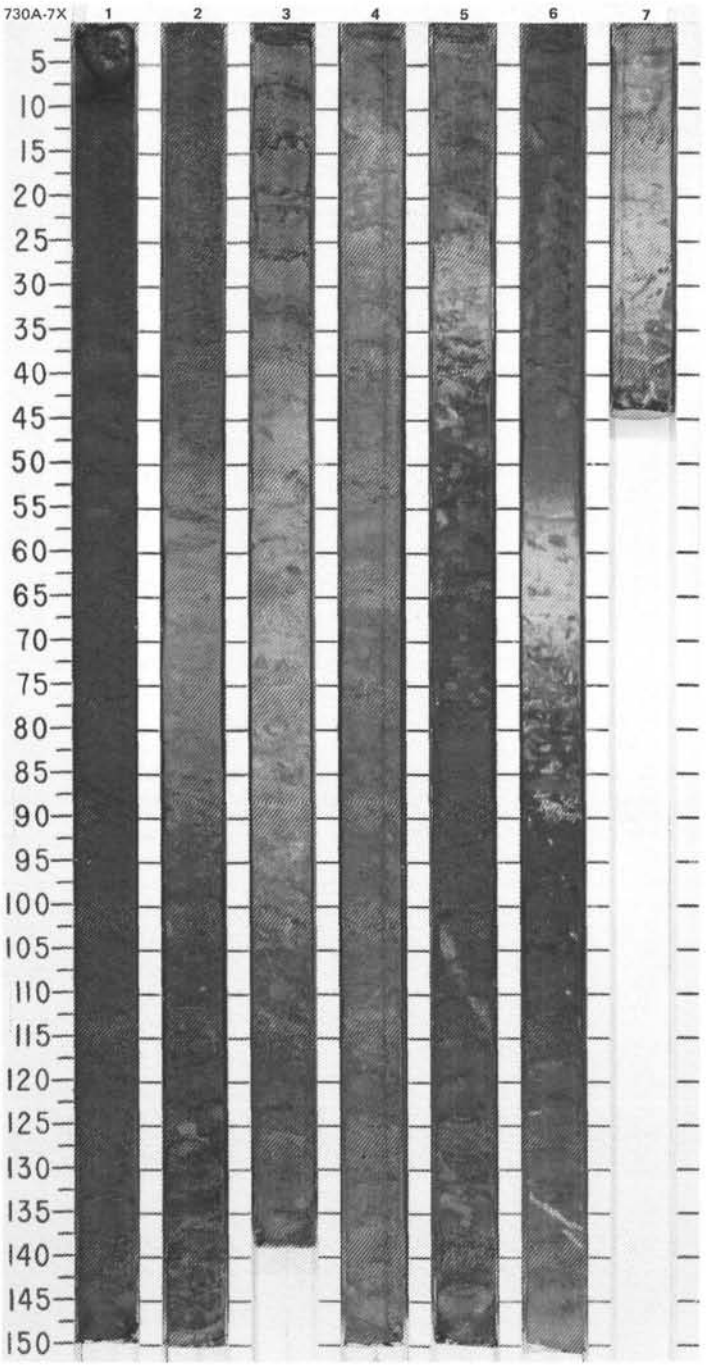
DIATOMACEOUS MARLY NANNOFOSSIL OOZE and DIATOMACEOUS SILTY CLAY

Section 3, 0-35 cm, is moderately disturbed; Section 4, 0-150 cm, is slightly disturbed; and remainder is undisturbed.

Major lithologies:
a. DIATOMACEOUS MARLY NANNOFOSSIL OOZE, olive (5Y 5/3) and olive gray (5Y 5/2). Minor to moderate burrow mottling. Contacts gradational and mottled.
b. DIATOMACEOUS SILTY CLAY, olive (5Y 4/3) and dark olive gray (5Y 3/2). Minor to moderate burrow mottling. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 2, 143 D | 4, 75 D |
|---|---|---|
| TEXTURE: | | |
| Silt | 30 | 10 |
| Clay | 70 | 90 |
| COMPOSITION: | | |
| Access. minerals | 2 | — |
| Clay | 30 | 20 |
| Diatoms | 35 | 11 |
| Dolomite | — | 2 |
| Foraminifers | 1 | — |
| Inorganic calcite | 10 | 3 |
| Mica | 1 | |
| Nannofossils | 15 | 60 |
| Quartz | 7 | 2 |
| Sponge spicules | — | 1 |



SITE 730 HOLE A CORE 8X CORED INTERVAL 1131.3-1141.0 mbsl; 65.5-75.2 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIOCENE | *Barren | NN9 *Discoaster hamatus* | *C/G *Diartus pettersson*i | | • | • | | 1 | 0.5 | | | | |
| | | | | | • | • | | | 1.0 | | | | |
| | | | | | • | • ϕ=73.8 γ=1.49 | IC=2.18 OC=2.09 | 2 | | | | | |
| | | | | | • | • ϕ=68.6 γ=1.51 | • IC=4.15 | 3 | | | | | * |
| | | | | | • | • ϕ=72.7 γ=1.47 | • IC=3.67 | 4 | | | | | |
| | | | | | | | | 5 | | | | | |
| | | | | | | | | 6 | | | | | |
| | | | | | | | | CC | | | | | |

LITHOLOGIC DESCRIPTION

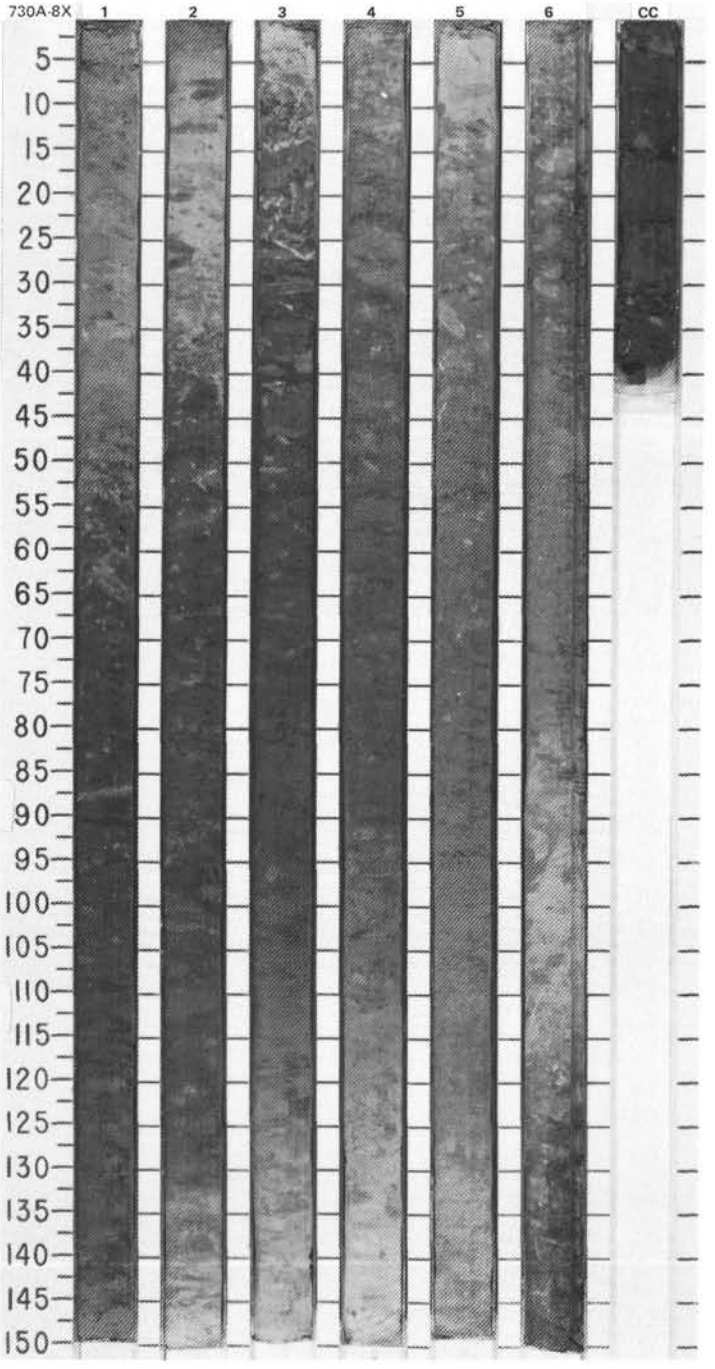
DIATOMACEOUS MARLY NANNOFOSSIL OOZE and DIATOMACEOUS SILTY CLAY

Section 1, 0-150 cm, and CC, 0-35 cm, are slightly disturbed; remainder is undisturbed.

Major lithologies:
a. DIATOMACEOUS MARLY NANNOFOSSIL OOZE, olive (5Y 5/3) and olive gray (5Y 5/2). Minor to moderate burrow mottling. Contacts gradational and mottled.
b. DIATOMACEOUS SILTY CLAY, olive (5Y 4/3), olive gray (5Y 4/2), and dark olive gray (5Y 3/2). Minor to moderate burrow mottling. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 4, 75 D |
|---|---|
| TEXTURE: | |
| Silt | 30 |
| Clay | 70 |
| COMPOSITION: | |
| Access. minerals | 1 |
| Clay | 35 |
| Diatoms | 30 |
| Dolomite | 1 |
| Inorganic calcite | 5 |
| Nannofossils | 15 |
| Quartz | 8 |
| Radiolarians | 2 |



SITE 730 HOLE A CORE 9X CORED INTERVAL 1141.0-1150.7 mbsl; 75.2-84.9 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIOCENE | *Barren | NN8 *Catinaster coalitus* | *C/G *Diartus pettersoni* | | • | ●ϕ-72.7 γ-1.49 | ●IC=2.35 OC=2.63 | 1 | 0.5 1.0 | | | | |
| | *A/M | | | | • | ●ϕ-66.3 γ-1.55 | ●IC=7.04 | 2 | | | | | |
| | *C/G | | | | • | ●ϕ-70.6 γ-1.49 | ●IC=6.03 | 3 | | | | | |
| | | | | | | | | 4 | | | | | IW OG |
| | | | | | | | | 5 | | | | | |
| | | | | | | | | 6 | | | | | |
| | | | | | | | | 7 | | | | | |
| | | | | | | | | CC | | | | | |

LITHOLOGIC DESCRIPTION

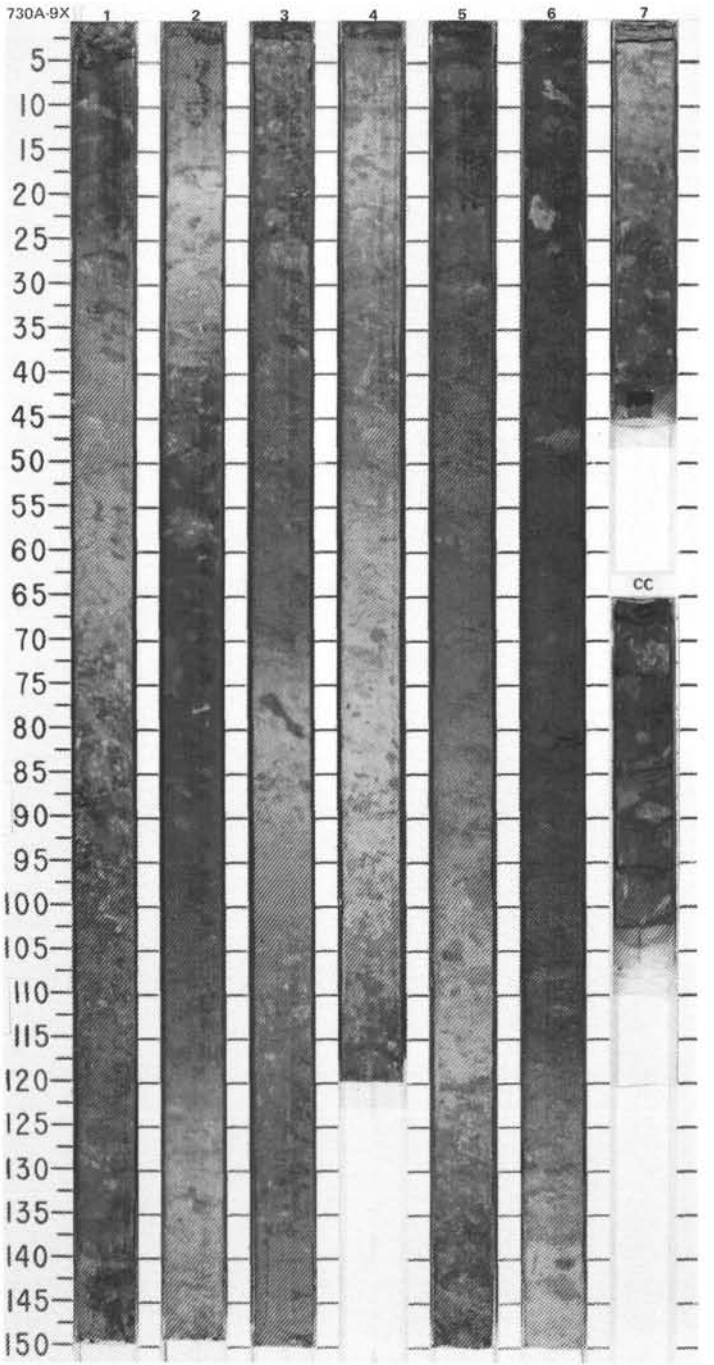
DIATOMACEOUS MARLY NANNOFOSSIL OOZE and DIATOMACEOUS SILTY CLAY

Entire core is undisturbed.

Major lithologies:
a. DIATOMACEOUS MARLY NANNOFOSSIL OOZE, olive (5Y 5/3) and olive gray (5Y 5/2). Minor to moderate burrow mottling. Contacts gradational and mottled.
b. DIATOMACEOUS SILTY CLAY, olive (5Y 4/3), olive gray (5Y 4/2), and dark olive gray (5Y 3/2). Minor to moderate burrow mottling. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 2, 100 D | 4, 80 D |
|---|---|---|
| TEXTURE: | | |
| Sand | 5 | 10 |
| Silt | 20 | 30 |
| Clay | 75 | 60 |
| COMPOSITION: | | |
| Clay | 20 | 20 |
| Diatoms | 20 | 15 |
| Dolomite | Tr | Tr |
| Foraminifers | 5 | 5 |
| Inorganic calcite | 5 | 10 |
| Nannofossils | 40 | 50 |
| Organic debris | 5 | — |
| Quartz | 5 | Tr |
| Radiolarians | Tr | Tr |
| Sponge spicules | Tr | Tr |



TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS *C/G; NANNOFOSSILS N12-N14, NN7 *A/M, NN8 *C/G; RADIOLARIANS *C/G; DIATOMS

*Discoaster kugleri*

*Carinaster coalitus*

•C/G *Diartus pettersoni*

PALEOMAGNETICS

PHYS. PROPERTIES: ϕ=71.2 γ=1.46; ϕ=75.2 γ=1.45; ϕ=68.3 γ=1.52

CHEMISTRY: IC=4.87; IC=3.40; IC=6.40 OC=1.88

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

DIATOMACEOUS MARLY NANNOFOSSIL OOZE and DIATOMACEOUS SILTY CLAY

Section 1, 0–150 cm, Section 2, 0–150 cm, and Section 5, 0–150 cm, are slightly disturbed; remainder is undisturbed.

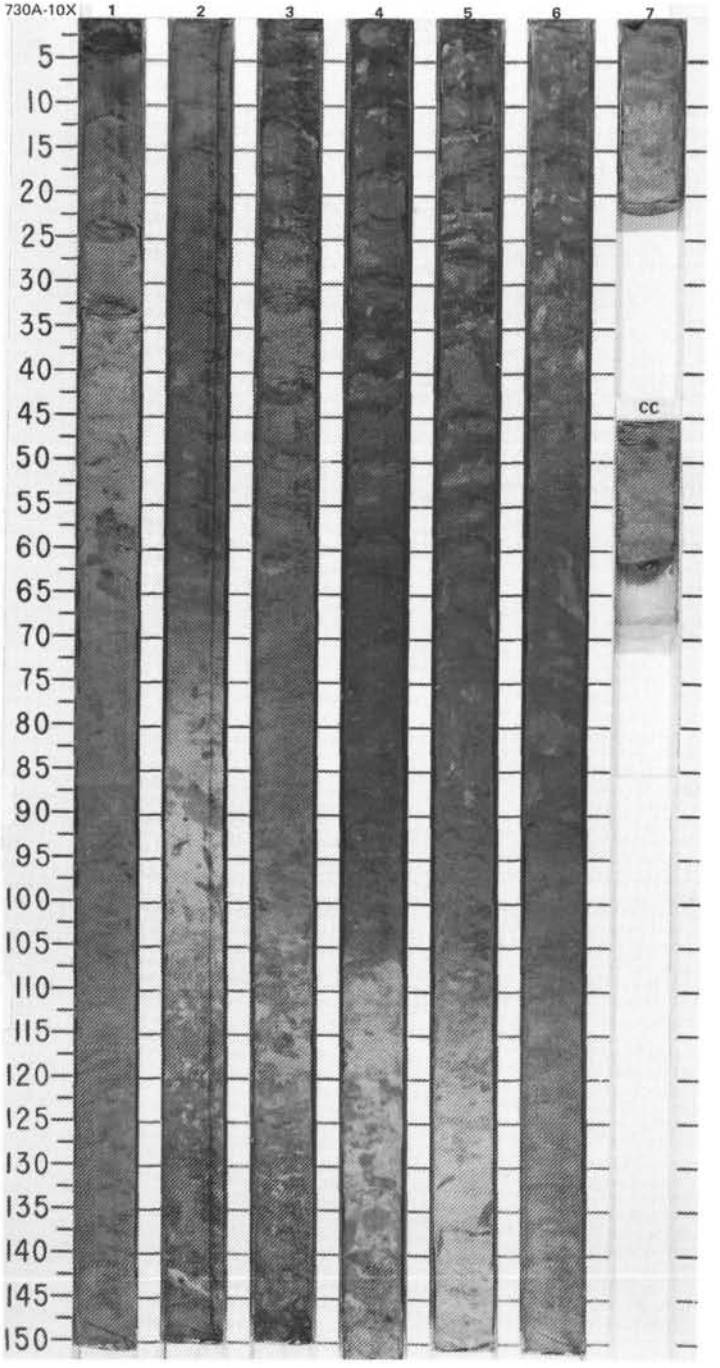
Major lithologies:

a. DIATOMACEOUS MARLY NANNOFOSSIL OOZE, olive gray (5Y 5/2). Minor to moderate burrow mottling. Contacts gradational and mottled.

b. DIATOMACEOUS SILTY CLAY, olive (5Y 4/4, 4/3), olive gray (5Y 4/2), and dark olive gray (5Y 3/2). Minor to moderate burrow mottling. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 2, 96 D | 4, 20 D |
|---|---|---|
| TEXTURE: | | |
| Silt | 25 | 60 |
| Clay | 75 | 40 |
| COMPOSITION: | | |
| Access. minerals | Tr | 7 |
| Clay | 25 | 8 |
| Diatoms | 15 | 30 |
| Dolomite | 2 | 2 |
| Foraminifers | 3 | 5 |
| Inorganic calcite | Tr | 10 |
| Nannofossils | 50 | 30 |
| Quartz | — | 2 |
| Radiolarians | 2 | 3 |
| Silicoflagellates | 1 | 1 |
| Sponge spicules | 2 | 2 |



SITE 730 HOLE A CORE 11X CORED INTERVAL 1160.4-1170.0 mbsl; 94.6-104.2 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: *Barren; NANNOFOSSILS: NN7 *Discoaster kugleri; RADIOLARIANS: *A/M; DIATOMS: *C/G *C/G Diartus pettersoni

PALEOMAGNETICS

PHYS. PROPERTIES: ●Φ=74.2 γ=1.64; ●Φ=63.0 γ=1.64; ●Φ=66.2 γ=1.60

CHEMISTRY: ●IC=3.68 OC=3.10; ●IC=5.68; ●IC=4.30

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

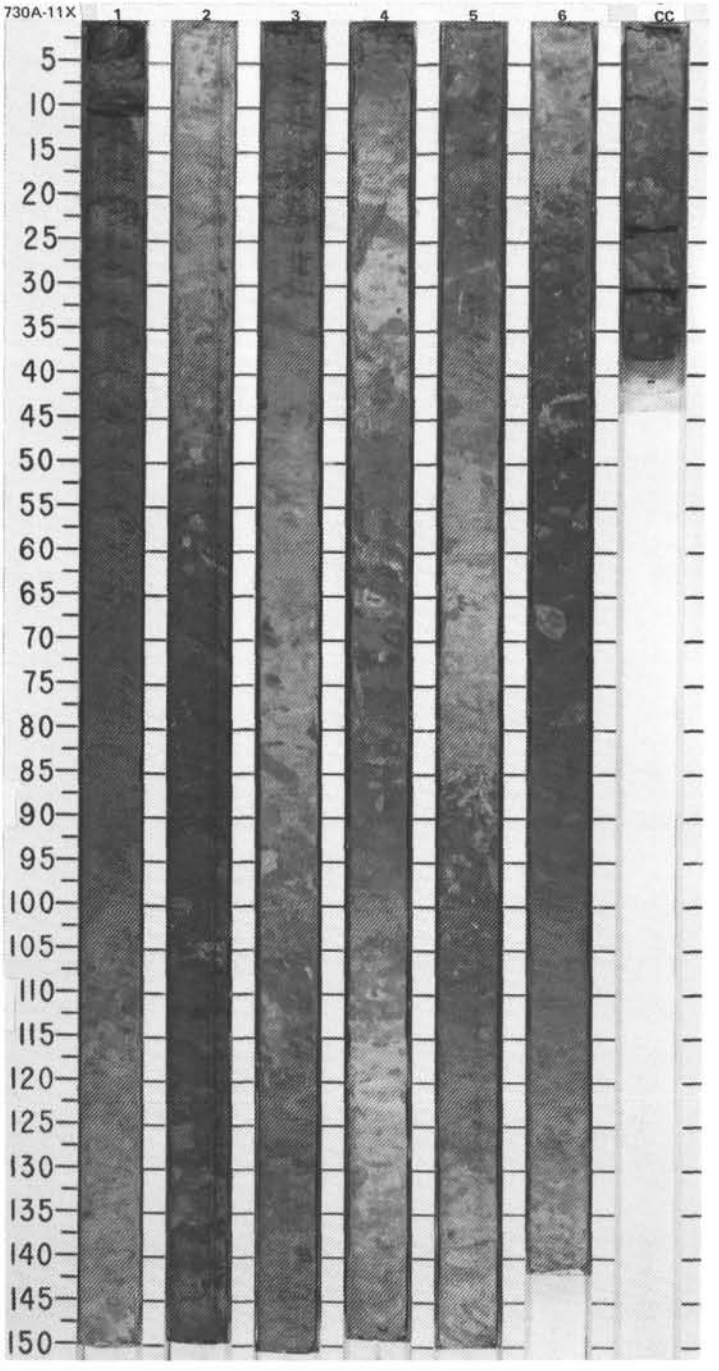
DIATOMACEOUS MARLY NANNOFOSSIL OOZE and DIATOMACEOUS SILTY CLAY

CC, 0-26 cm, is very disturbed; Section 2, 0-150 cm, is slightly disturbed; and remainder is undisturbed.

Major lithologies:
a. DIATOMACEOUS MARLY NANNOFOSSIL OOZE, olive (5Y 5/3) and olive gray (5Y 5/2). Minor to moderate burrow mottling. Contacts gradational and mottled.
b. DIATOMACEOUS SILTY CLAY, olive (5Y 4/3), olive gray (5Y 4/2), and dark olive gray (5Y 3/2). Minor to moderate burrow mottling. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 1, 65 D | 3, 65 D |
|---|---|---|
| TEXTURE: | | |
| Silt | 25 | 30 |
| Clay | 75 | 70 |
| COMPOSITION: | | |
| Clay | 35 | 30 |
| Diatoms | 30 | 20 |
| Dolomite | 1 | 1 |
| Foraminifers | 3 | 3 |
| Inorganic calcite | 3 | 1 |
| Nannofossils | 25 | 43 |
| Quartz | 3 | 1 |
| Radiolarians | — | 1 |



SITE 730 HOLE A CORE 12X CORED INTERVAL 1170.0-1179.7 mbsl: 104.2-113.9 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: N12-N14
- NANNOFOSSILS: NN7 *Discoaster kugleri*
- RADIOLARIANS: •C/M *Diartus pettersoni*
- DIATOMS

PALEOMAGNETICS: O

PHYS. PROPERTIES: ● ϕ-70.4 γ-1.52; ● ϕ-62.9 γ-1.62; ● ϕ-69.4 γ-1.53

CHEMISTRY: ● IC-3.87; ● IC-4.39; ● IC-4.79 OC-4.04

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: OG, IW

*R/G
*A/M-P
*C/G

LITHOLOGIC DESCRIPTION

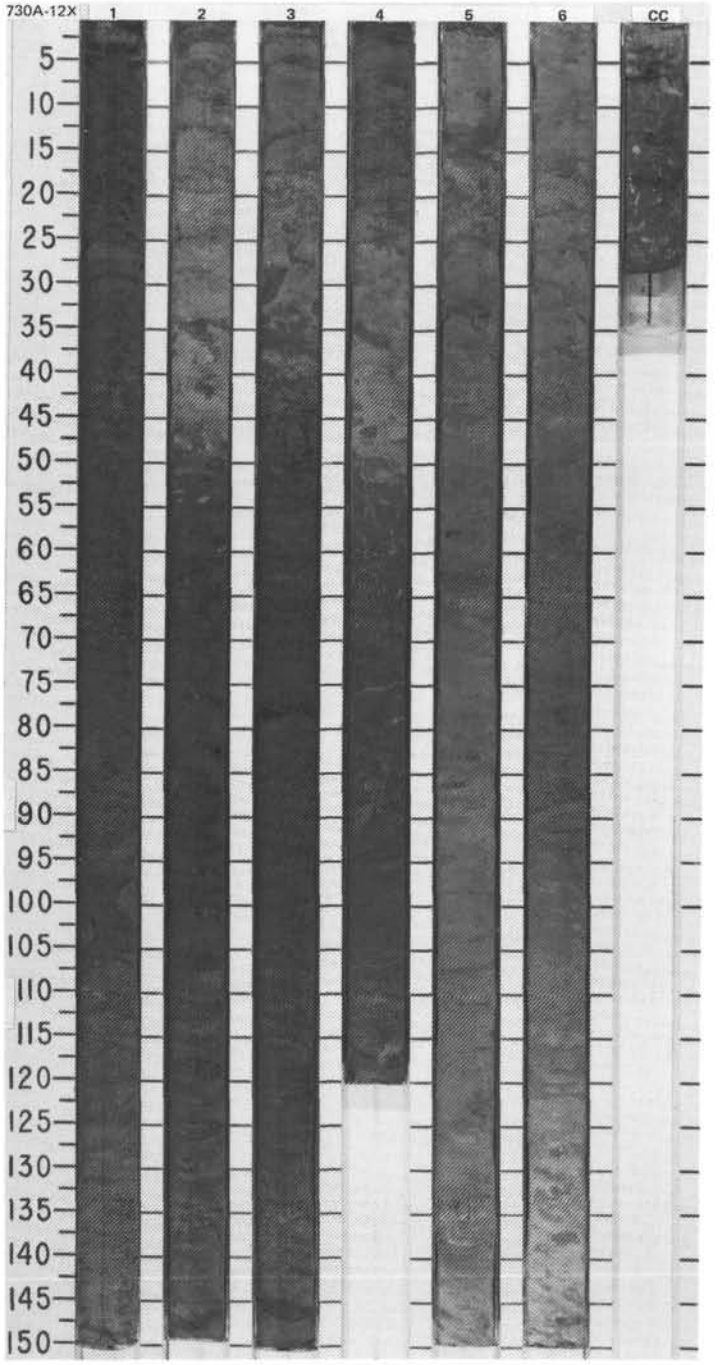
DIATOMACEOUS MARLY NANNOFOSSIL OOZE and DIATOMACEOUS SILTY CLAY

CC, 0-25 cm, moderately disturbed; remainder is slightly disturbed.

Major lithologies:
a. DIATOMACEOUS MARLY NANNOFOSSIL OOZE, olive (5Y 5/3) and olive gray (5Y 5/2). Minor burrow mottling common. Contacts gradational and mottled.
b. DIATOMACEOUS SILTY CLAY, olive (5Y 4/3), olive gray (5Y 4/2), and dark olive gray (5Y 3/2). Minor burrow mottling common. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 2, 100<br>D |
|---|---|
| TEXTURE: | |
| Silt | 20 |
| Clay | 80 |
| COMPOSITION: | |
| Clay | 30 |
| Diatoms | 10 |
| Dolomite | Tr |
| Foraminifers | 5 |
| Inorganic calcite | 10 |
| Nannofossils | 40 |
| Organic debris | 5 |
| Quartz | Tr |
| Silicoflagellates | Tr |
| Sponge spicules | Tr |



SITE 730 HOLE A CORE 13X CORED INTERVAL 1179.7-1189.3 mbsl; 113.9-123.5 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER
- FORAMINIFERS: *Barren; *A/M -P; *C/G
- NANNOFOSSILS: NN7 *Discoaster kugleri*
- RADIOLARIANS: *C/G *Diartus pettersoni*
- DIATOMS

PALEOMAGNETICS

PHYS. PROPERTIES: ϕ=70.7 γ=1.35; ϕ=62.0 γ=1.66

CHEMISTRY: IC=5.93 OC=1.76; IC=7.98

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: PP

LITHOLOGIC DESCRIPTION

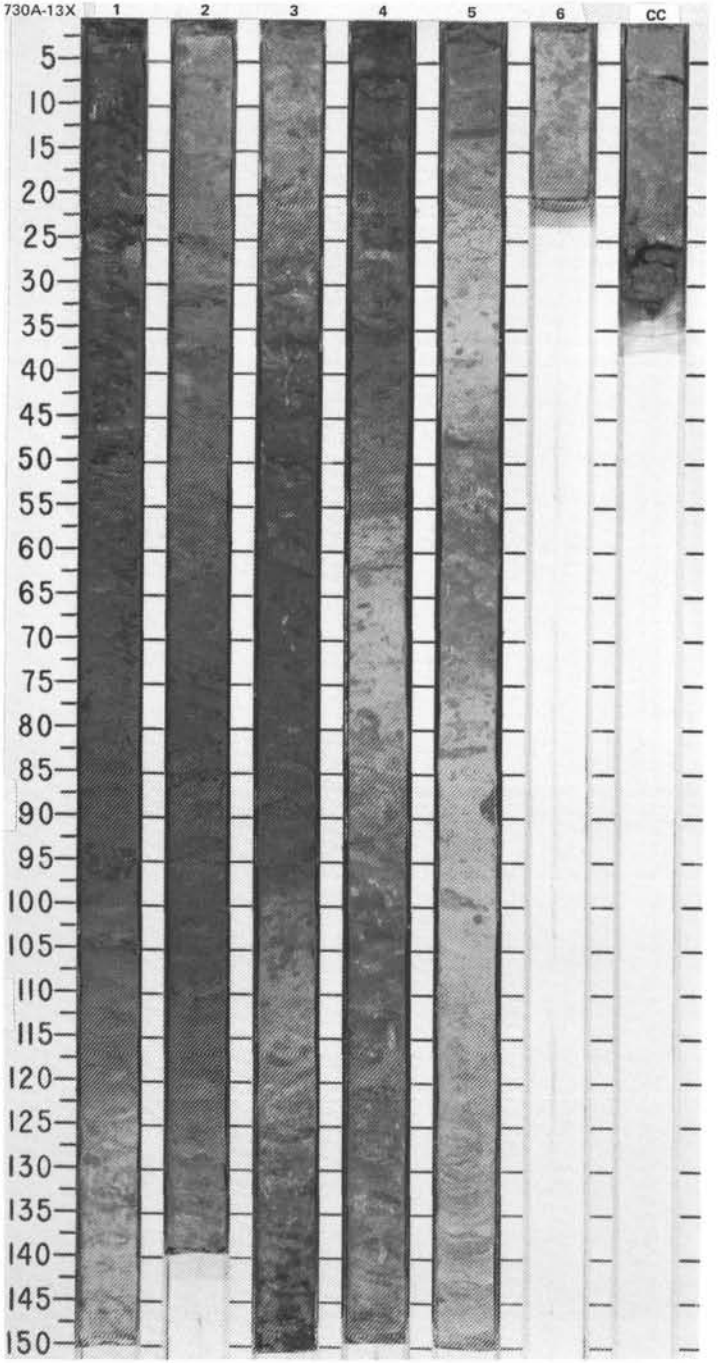
DIATOMACEOUS MARLY NANNOFOSSIL OOZE, DIATOMACEOUS SILTY CLAY, and DIATOM-BEARING MARLY NANNOFOSSIL OOZE

Sections 1-3 and Section 6, 0-20 cm, are slightly disturbed; remainder is undisturbed.

Major lithologies:
a. DIATOMACEOUS MARLY NANNOFOSSIL OOZE, olive (5Y 5/3) and olive gray (5Y 5/2). Minor burrow mottling common. Contacts gradational and mottled.
b. DIATOMACEOUS SILTY CLAY, olive (5Y 4/3) and dark olive gray (5Y 3/2). Minor burrow mottling common. Contacts gradational and mottled.
c. Section 5 and below: DIATOM-BEARING MARLY NANNOFOSSIL OOZE, olive (5Y 5/3) and olive gray (5Y 5/2). Minor burrow mottling throughout. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 3, 147 M | 6, 10 D |
|---|---|---|
| TEXTURE: | | |
| Silt | 30 | 15 |
| Clay | 70 | 85 |
| COMPOSITION: | | |
| Access. minerals | — | 1 |
| Clay | 25 | 23 |
| Diatoms | 10 | 3 |
| Dolomite | 3 | 4 |
| Foraminifers | 2 | 2 |
| Inorganic calcite | 10 | 3 |
| Nannofossils | 40 | 60 |
| Quartz | 7 | Tr |
| Radiolarians | — | 1 |
| Sponge spicules | 3 | 3 |



TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: * R/M; N12-N14
- NANNOFOSSILS: * A/M; NN7 *Discoaster kugleri*
- RADIOLARIANS: *C/G *Diartus pettersoni*
- DIATOMS: *C/G

PALEOMAGNETICS: ○

PHYS. PROPERTIES: ●Φ=64.7 γ=1.59; ●Φ=63.2 γ=1.63; ●Φ=59.7 γ=1.69

CHEMISTRY: ●IC=9.07; ●IC=8.57; ●IC=8.04 OC=0.38

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES: *

SAMPLES: *

LITHOLOGIC DESCRIPTION

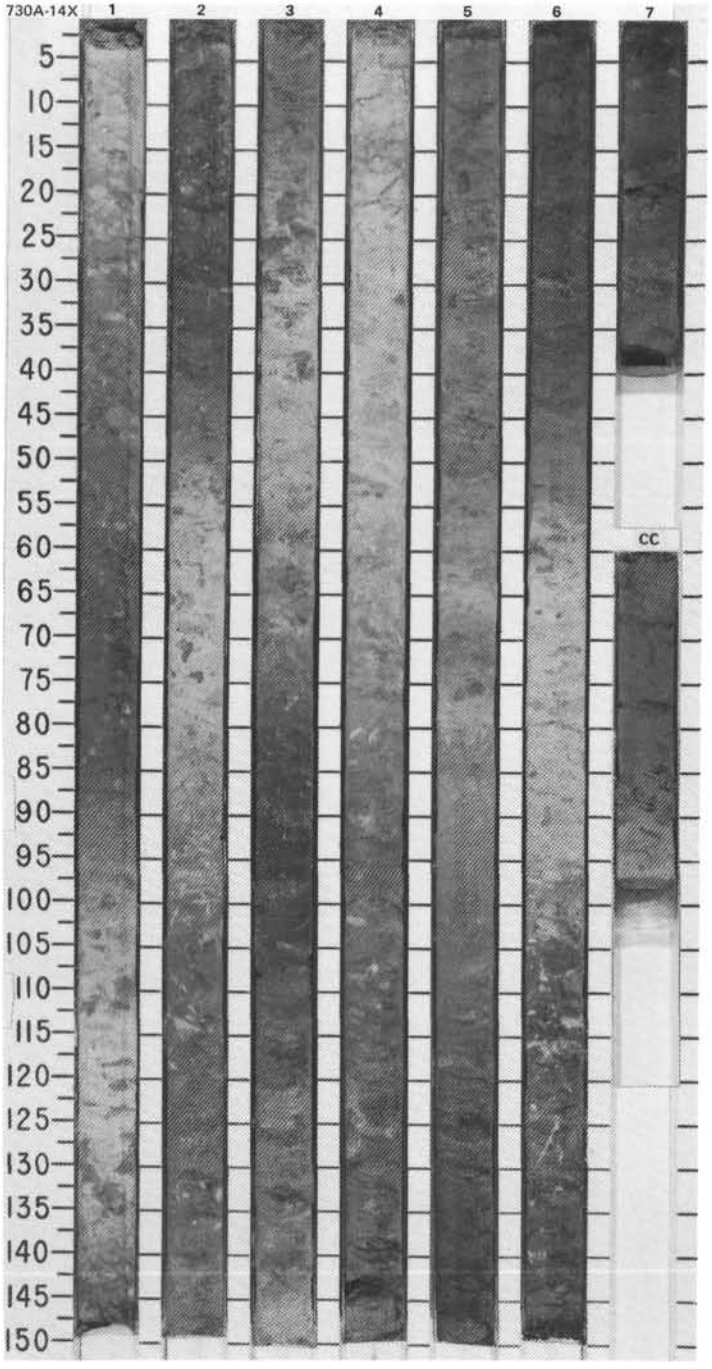
DIATOM-BEARING MARLY NANNOFOSSIL OOZE

CC, 0–40 cm, is moderately disturbed; remainder is slightly disturbed.

Major lithology: DIATOM-BEARING MARLY NANNOFOSSIL OOZE, olive (5Y 4/3, 5/3) and olive gray (5Y 5/2). Minor burrow mottling throughout. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 2, 80 D | 5, 143 D |
|---|---|---|
| TEXTURE: | | |
| Sand | — | 5 |
| Silt | 20 | 30 |
| Clay | 80 | 65 |
| COMPOSITION: | | |
| Access. minerals | — | Tr |
| Clay | 30 | 20 |
| Diatoms | Tr | 10 |
| Dolomite | 5 | Tr |
| Foraminifers | 5 | 5 |
| Inorganic calcite | 10 | 10 |
| Nannofossils | 45 | 45 |
| Organic debris | — | Tr |
| Quartz | Tr | 5 |
| Radiolarians | Tr | Tr |
| Silicoflagellates | — | Tr |
| Sponge Spicules | 5 | 5 |



SITE 730 HOLE A CORE 15X CORED INTERVAL 1199.0-1208.7 mbsl; 133.2-142.9 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIOCENE | *Barren | NN7 *Discoaster kugleri* | *C/G *Diartus pettersoni* | *C/G | • | • | • | 1 | 0.5 | | | | |
| | | | | | | ●ϕ=67.4 γ=1.54 | ●IC=8.42 OC=0.82 | | 1.0 | | | | |
| | | | | | • | | | 2 | | | | | |
| | | | | | | | | 3 | | | | | * |
| | | | | | | ●ϕ=73.8 γ=1.50 | ●IC=7.12 | 4 | | | | | |
| | | | | | | | | 5 | | | | | OC IW |
| | | | | | | ●ϕ=66.2 γ=1.57 | ●IC=7.33 | 6 | | | | | |
| | | | | | • | | | 7 | | | | | |
| | | | | | | | | CC | | | | | |

LITHOLOGIC DESCRIPTION

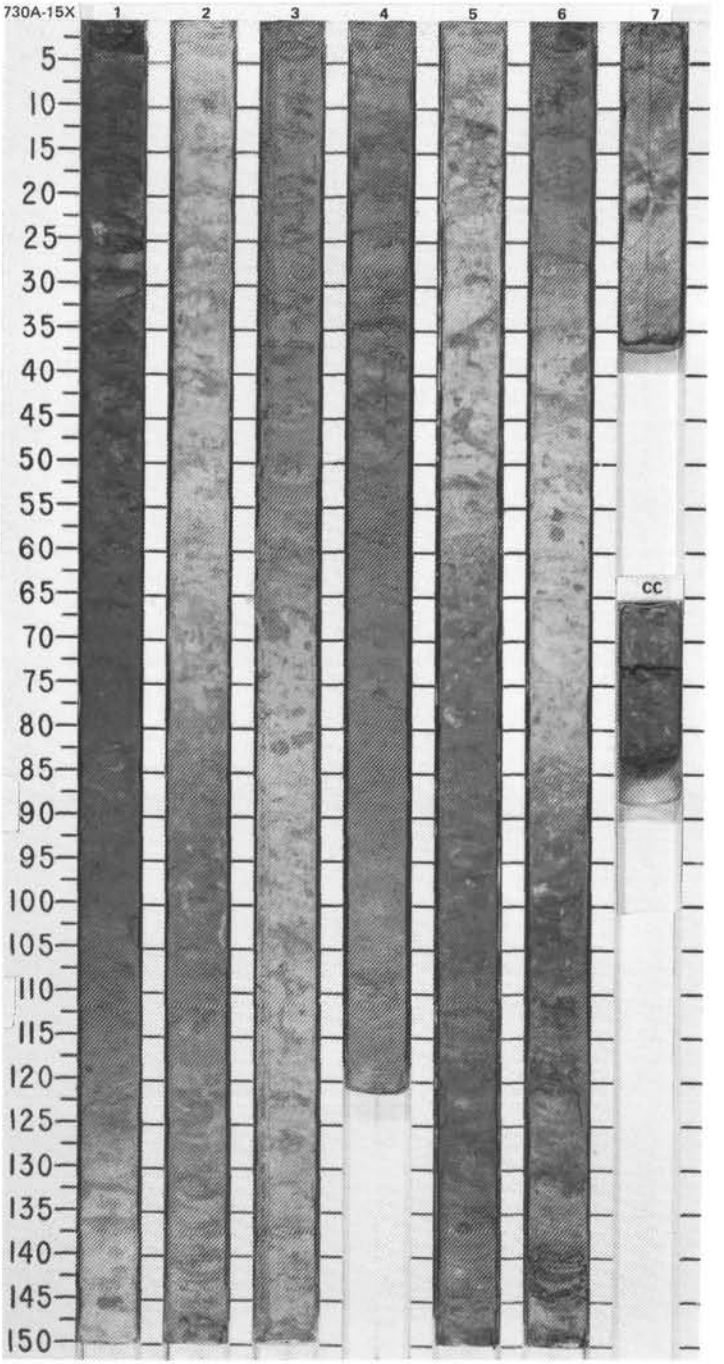
DIATOM-BEARING MARLY NANNOFOSSIL OOZE

CC, 0-40 cm, moderately disturbed; remainder is slightly disturbed.

Major lithology: DIATOM-BEARING MARLY NANNOFOSSIL OOZE, light gray (5Y 7/2), light olive gray (5Y 6/2), pale olive (5Y 6/3), and olive (5Y 4/3, 5/3). Minor burrow mottling throughout. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 3, 90 D |
|---|---|
| TEXTURE: | |
| Silt | 20 |
| Clay | 80 |
| COMPOSITION: | |
| Clay | 25 |
| Diatoms | 5 |
| Dolomite | Tr |
| Foraminifers | Tr |
| Inorganic calcite | 5 |
| Nannofossils | 60 |
| Radiolarians | 1 |
| Silicoflagellates | 1 |
| Sponge spicules | 3 |



SITE 730 HOLE A CORE 16X CORED INTERVAL 1208.7-1218.4 mbsl; 142.9-152.6 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: * R/M
- NANNOFOSSILS: N12-N14; NN7 *Discoaster kugleri*; * A/M -P
- RADIOLARIANS: * C/G
- DIATOMS: * C/G *Diartus pettersoni*

PALEOMAGNETICS

PHYS. PROPERTIES: ● ϕ=69.8 γ=1.48; ● ϕ=66.1 γ=1.64; ● ϕ=65.3 γ=1.64

CHEMISTRY: ● IC=5.66; ● IC=8.63; ● IC=6.78, OC=0.91

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: *

LITHOLOGIC DESCRIPTION

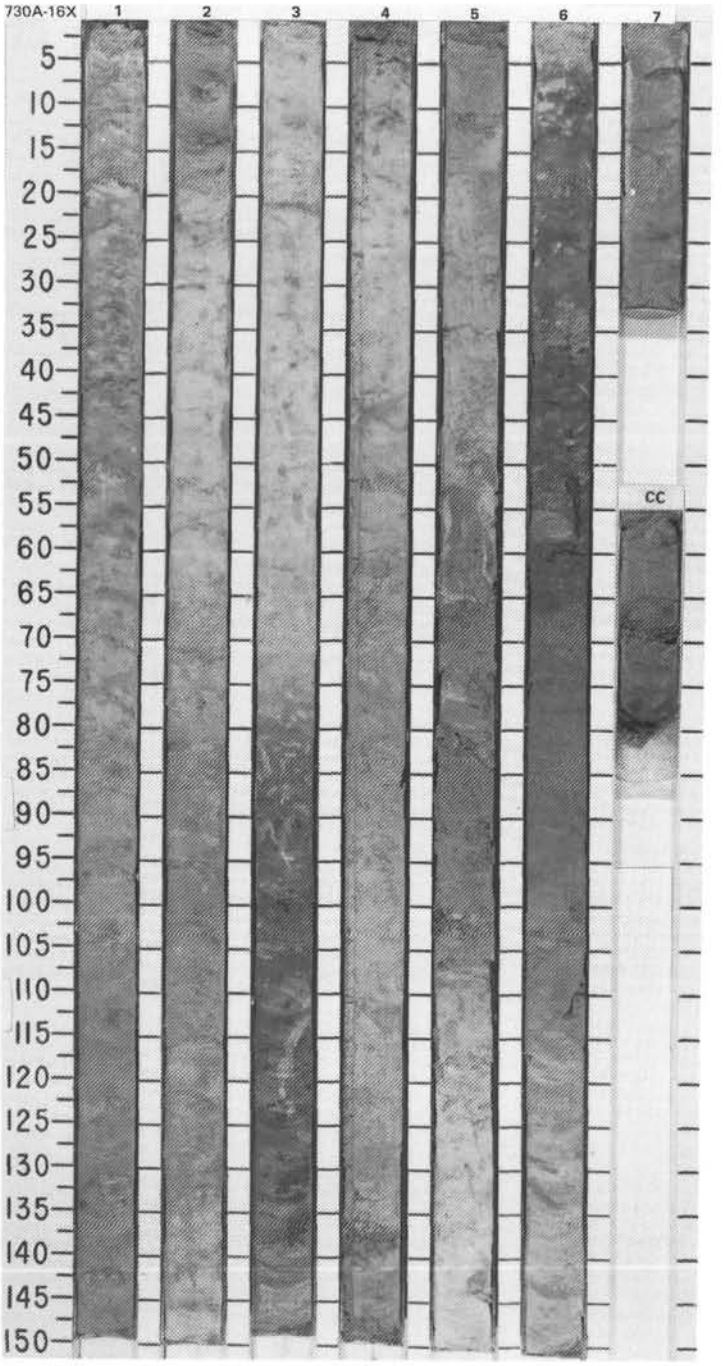
DIATOM-BEARING MARLY NANNOFOSSIL OOZE and MARLY NANNOFOSSIL OOZE

Entire core is slightly disturbed.

Major lithologies:
a. DIATOM-BEARING MARLY NANNOFOSSIL OOZE, light gray (5Y 7/2), light olive gray (5Y 6/2), pale olive (5Y 6/3), olive (5Y 5/3), and olive gray (5Y 4/2, 5/2). Minor burrow mottling throughout. Contacts gradational and mottled.
b. Section 6, 5 cm, and below: MARLY NANNOFOSSIL OOZE, olive (5Y 4/3, 5/3). Minor burrow mottling throughout. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 2, 34 D | 3, 128 D |
|---|---|---|
| TEXTURE: | | |
| Silt | 5 | 20 |
| Clay | 95 | 80 |
| COMPOSITION: | | |
| Access. minerals | — | 2 |
| Clay | 17 | 25 |
| Diatoms | — | 2 |
| Foraminifers | 1 | — |
| Volcanic glass | — | Tr |
| Inorganic calcite | — | 2 |
| Nannofossils | 80 | 55 |
| Organic debris | — | 2 |
| Quartz | — | 10 |
| Radiolarians | Tr | Tr |
| Silicoflagellates | Tr | — |
| Sponge spicules | 2 | 2 |



SITE 730 HOLE A CORE 17X CORED INTERVAL 1218.4-1228.0 mbsl; 152.6-162.2 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIOCENE | * A/M | N12-N14 | | | | ● ϕ -63.0 γ -1.65 | ● IC=5.46 | 6 | | | | | |
| | * A/M | NN7 *Discoaster kugleri* | | | | ● ϕ -63.1 γ=1.64 | ● IC=4.07 | 5 | | | | | * |
| | * C/G | | *C/G *Diartus pettersson*i | | | ● ϕ -62.2 γ=1.67 | ● IC=4.99 OC=1.15 | 4 | | | | | |
| | | | | | | | | 3 | | | | | |
| | | | | | | | | 2 | | | | | * |
| | | | | | | | | 1 | 0.5 1.0 | | | | |
| | | | | | | | | CC | | | | | |

LITHOLOGIC DESCRIPTION

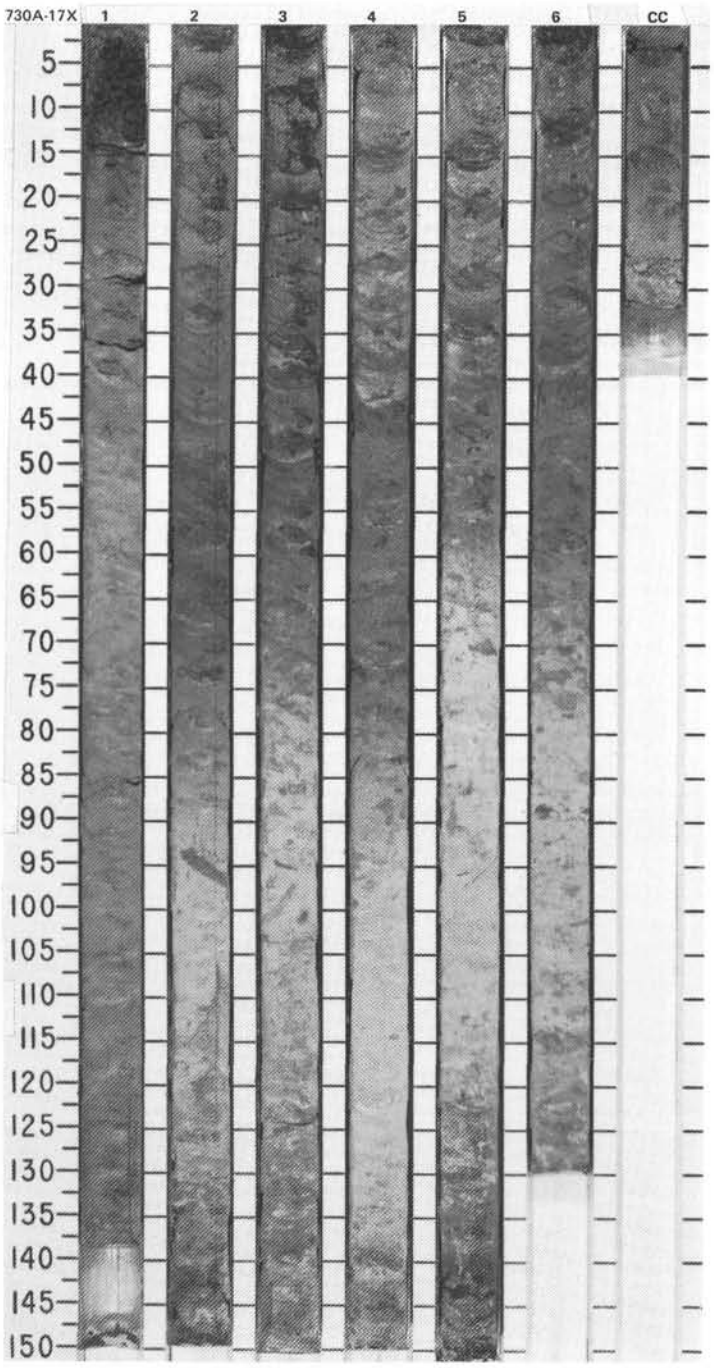
MARLY NANNOFOSSIL OOZE

Entire core is slightly disturbed.

Major lithology: MARLY NANNOFOSSIL OOZE, light gray (5Y 7/1), light olive gray (5Y 6/2), olive (5Y 4/3, 5/3), and olive gray (5Y 5/2). Minor burrow mottling throughout. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 2, 41 D | 5, 82 D |
|---|---|---|
| TEXTURE: | | |
| Sand | 10 | — |
| Silt | 25 | 10 |
| Clay | 65 | 90 |
| COMPOSITION: | | |
| Access. minerals | 2 | Tr |
| Clay | 25 | 10 |
| Diatoms | 1 | Tr |
| Foraminifers | Tr | 1 |
| Inorganic calcite | 10 | 2 |
| Nannofossils | 40 | 80 |
| Organic debris | 1 | — |
| Quartz | 20 | — |
| Radiolarians | Tr | Tr |
| Sponge spicules | 1 | 2 |



SITE 730 HOLE A CORE 18X CORED INTERVAL 1228.0-1237.7 mbsi; 162.2-171.9 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: N12-N14; NANNOFOSSILS: NN7 *Discoaster kugleri*; RADIOLARIANS: •C/G *Diartus pettersoni*; DIATOMS: •C/G *Dorcadospyris alata*

PALEOMAGNETICS

PHYS. PROPERTIES: ●ϕ-62.9 γ-1.67; ●ϕ-56.7 γ-1.81; ●ϕ-62.7 γ-1.64

CHEMISTRY: ●IC=6.14 OC=0.93; ●IC=8.57; ●IC=6.74

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: OG, IW

LITHOLOGIC DESCRIPTION

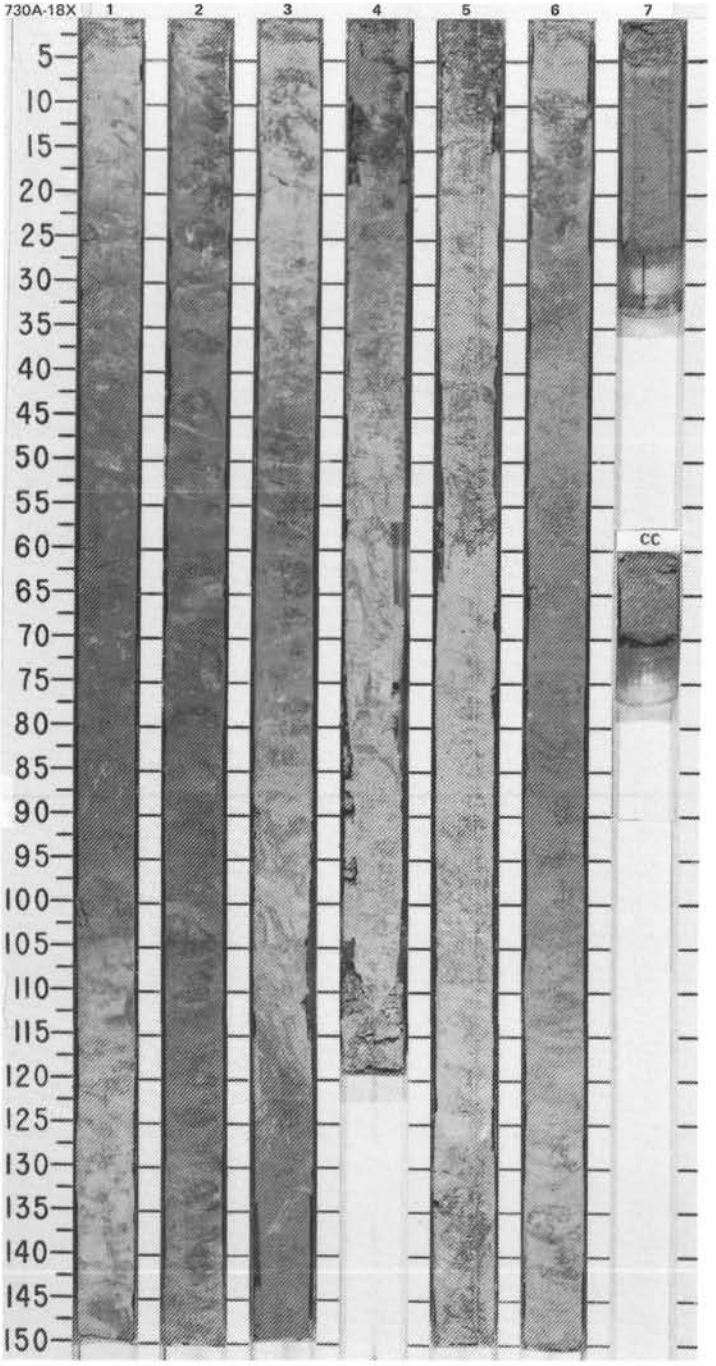
MARLY NANNOFOSSIL OOZE

Section 3, 45–70 cm, and Section 4, 105–120 cm, are very disturbed; remainder is slightly disturbed.

Major lithology: MARLY NANNOFOSSIL OOZE, light gray (5Y 7/2), light olive gray (5Y 6/2), pale olive (5Y 6/3), olive (5Y 5/3), and olive gray (5Y 5/2). Minor burrow mottling throughout. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 1, 79 D | 5, 68 D |
|---|---|---|
| TEXTURE: | | |
| Sand | 10 | — |
| Silt | 20 | 10 |
| Clay | 70 | 90 |
| COMPOSITION: | | |
| Access. minerals | Tr | Tr |
| Clay | 25 | 10 |
| Diatoms | Tr | — |
| Dolomite | Tr | 1 |
| Foraminifers | 2 | 3 |
| Inorganic calcite | 17 | 4 |
| Nannofossils | 45 | 80 |
| Quartz | 10 | Tr |
| Radiolarians | — | 1 |
| Sponge spicules | 1 | 1 |



SITE 730 HOLE A CORE 19X CORED INTERVAL 1237.7-1247.4 mbsl; 171.9-181.6 mbsf

TIME-ROCK UNIT: MIOCENE

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

N12-N14

NN7 *Discoaster kugleri*

*F/M *Dorcadospyris alata*

PALEOMAGNETICS

PHYS. PROPERTIES: ● ϕ-61.0 γ-1.73; ● ϕ-61.3 γ-1.73; ● ϕ-57.8 γ-1.73

CHEMISTRY: ● IC-6.72; ● IC-4.86; ● IC=9.35 OC=0.04

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

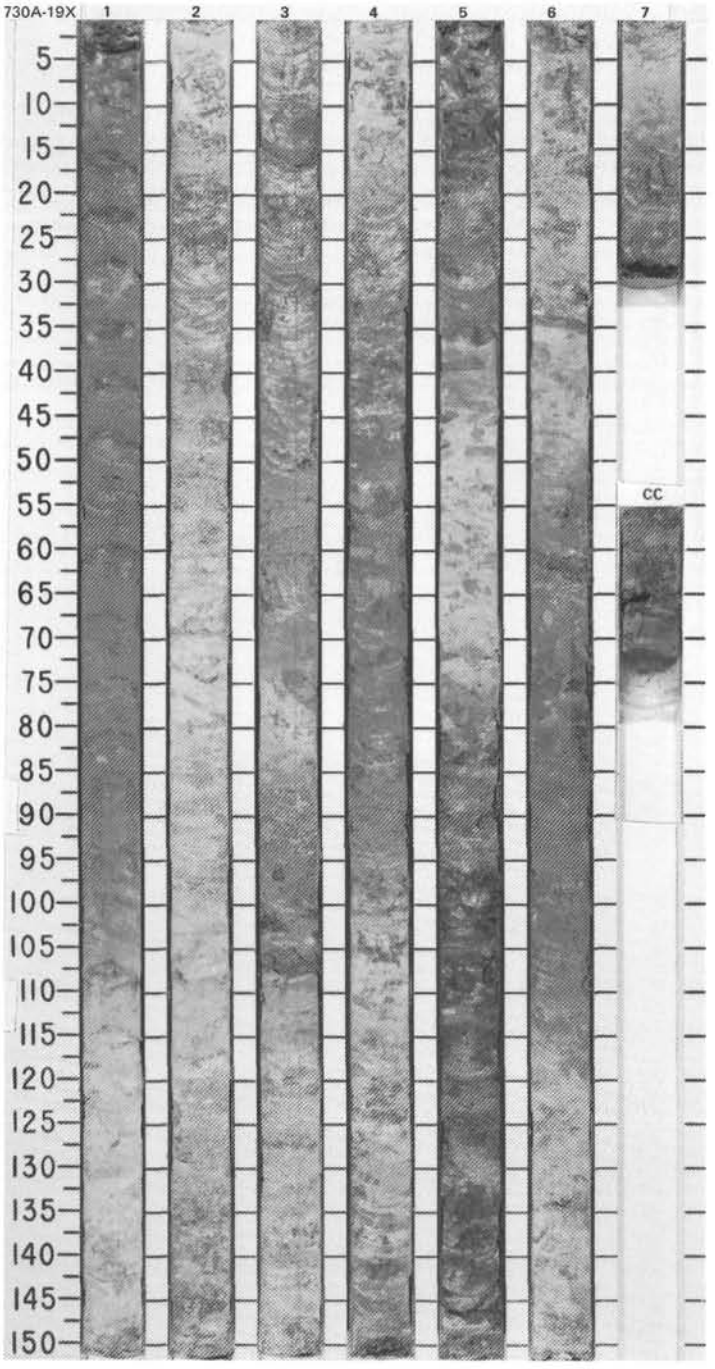
MARLY NANNOFOSSIL OOZE

Entire core is slightly disturbed.

Major lithology: MARLY NANNOFOSSIL OOZE, light gray (5Y 7/1, 7/2), light olive gray (5Y 6/2), olive (5Y 5/3, 4/3), and olive gray (5Y 5/2). Minor to moderate burrow mottling. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

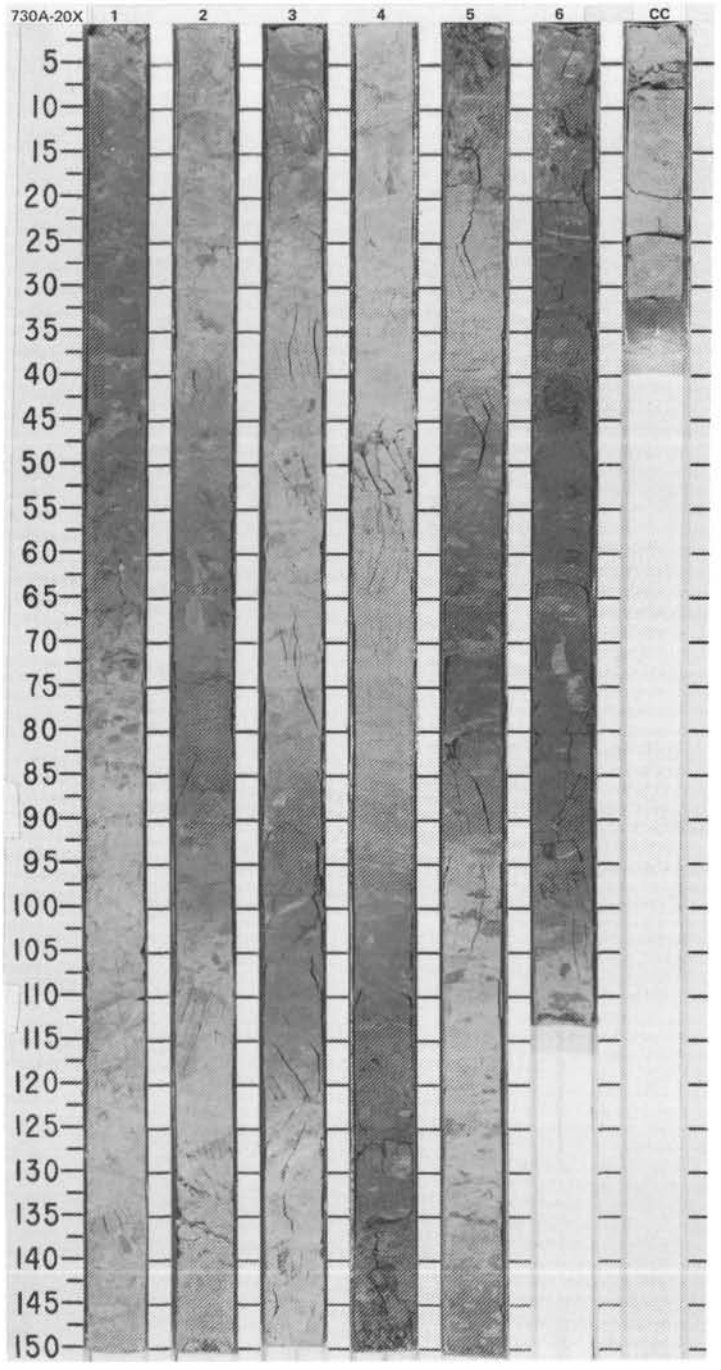
| | 1, 132 D | 5, 122 D |
|---|---|---|
| TEXTURE: | | |
| Sand | — | 10 |
| Silt | 5 | 25 |
| Clay | 95 | 65 |
| COMPOSITION: | | |
| Access. minerals | — | 2 |
| Clay | 10 | 25 |
| Diatoms | — | Tr |
| Dolomite | Tr | 2 |
| Foraminifers | 2 | 2 |
| Inorganic calcite | 3 | 20 |
| Nannofossils | 85 | 40 |
| Organic debris | — | 2 |
| Quartz | Tr | 7 |
| Sponge spicules | Tr | — |



SITE 730 HOLE A CORE 20X CORED INTERVAL 1247.4-1257.0 mbsl; 181.6-191.2 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIOCENE | N12-N14 | NN7 *Discoaster kugleri* | *C/G *Dorcadospyris alata* | | | ● ϕ -61.5 γ -1.68 | TC=7.54 OC=0.77 | 1 | 0.5 1.0 | | | | | MARLY NANNOFOSSIL CHALK |
| | *C/M | *A/M | *C/G | | | ● ϕ -61.7 γ -1.69 | ● IC=8.17 | 2 | | | | | | Section 4, 0-150 cm, is slightly fractured; remainder is moderately fractured. |
| | | | | | | ● ϕ -59.0 γ -1.72 | ● IC=5.57 | 3 | | | | | * | Major lithology: MARLY NANNOFOSSIL CHALK, light gray (5Y 7/1, 7/2), light olive gray (5Y 6/2), pale olive (5Y 6/3), olive (5Y 5/3, 4/3), and olive gray (5Y 5/2). Minor to moderate burrow mottling. Contacts gradational and mottled. |
| | | | | | | | | 4 | | | | | | SMEAR SLIDE SUMMARY (%): |
| | | | | | | | | 5 | | | | | * | |
| | | | | | | | | 6 | | | | | | |
| | | | | | | | | CC | | | | | | |

| | 3, 61 D | 6, 34 D |
|---|---|---|
| TEXTURE: | | |
| Sand | — | 10 |
| Silt | 10 | 20 |
| Clay | 90 | 70 |
| COMPOSITION: | | |
| Access. minerals | — | 1 |
| Clay | 10 | 25 |
| Diatoms | — | Tr |
| Dolomite | — | Tr |
| Foraminifers | 2 | Tr |
| Volcanic glass | 6 | — |
| Inorganic calcite | 1 | 20 |
| Mica | — | 1 |
| Nannofossils | 80 | 45 |
| Organic debris | — | 2 |
| Quartz | Tr | 6 |
| Radiolarians | Tr | — |
| Sponge spicules | 1 | — |



SITE 730 HOLE A CORE 21X CORED INTERVAL 1257.0-1266.7 mbsl; 191.2-200.9 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: *A/G; N12-N14
- NANNOFOSSILS: *A/M; NN7 *Discoaster kugleri*
- RADIOLARIANS: *F/M; *F/M Dorcadospyris alata*
- DIATOMS

PALEOMAGNETICS

PHYS. PROPERTIES: ●ϕ=55.2 γ=1.75; ●ϕ=62.2 γ=1.65; ●ϕ=59.5 γ=1.75

CHEMISTRY: ●IC=4.46; ●IC=6.47; ●IC= OC=

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: OG, IW

LITHOLOGIC DESCRIPTION

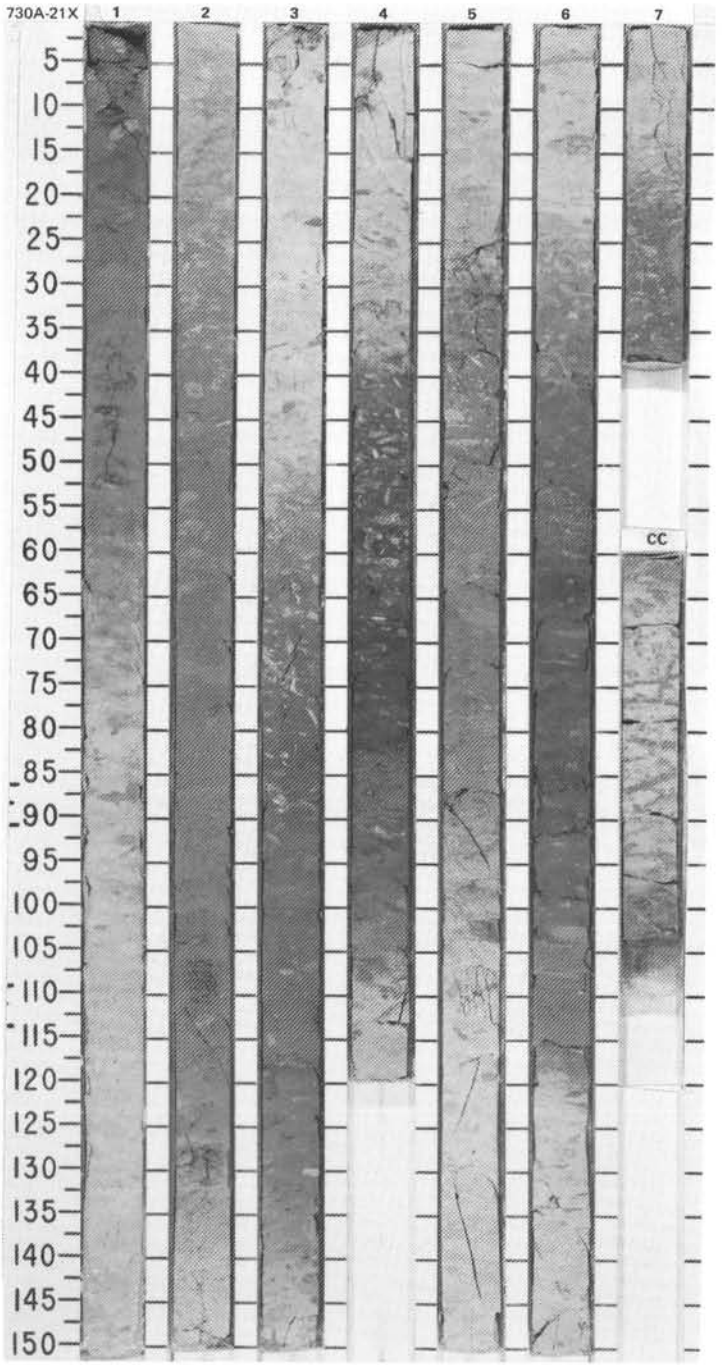
FORAMINIFER-NANNOFOSSIL CHALK

Section 1, 0-20 cm, is highly fractured; Section 2, 90-150 cm, Section 6, 120-150 cm, and Section 7, 0-115 cm, are slightly fractured; Section 4 and Section 6, 0-120 cm, are slightly disturbed; remainder is moderately fractured.

Major lithology: FORAMINIFER-NANNOFOSSIL CHALK, light gray (5Y 7/1, 7/2), light olive gray (5Y 6/2), and olive (5Y 5/3, 4/3). Minor to moderate burrow mottling. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 1, 114 D | 4, 75 D | 5, 129 D |
|---|---|---|---|
| TEXTURE: | | | |
| Sand | 10 | 15 | 25 |
| Silt | 15 | 30 | 10 |
| Clay | 75 | 55 | 65 |
| COMPOSITION: | | | |
| Access. minerals | Tr | 2 | — |
| Clay | 15 | 25 | 10 |
| Diatoms | 1 | 2 | — |
| Dolomite | 1 | 2 | — |
| Foraminifers | 15 | Tr | 25 |
| Inorganic calcite | 3 | 25 | 8 |
| Nannofossils | 60 | 30 | 55 |
| Organic debris | — | 2 | — |
| Quartz | 2 | 10 | — |
| Radiolarians | 1 | — | Tr |
| Silicoflagellates | Tr | — | — |
| Sponge spicule | 2 | 2 | 2 |



SITE 730 HOLE A CORE 22X CORED INTERVAL 1266.7-1276.4 mbsl; 200.9-210.6 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS *A/G; N10-N11; NANNOFOSSILS *A/M; NN7 *Discoaster kugleri*; RADIOLARIANS *F/M; *C/G *Dorcadospyris alata*; DIATOMS

PALEOMAGNETICS

PHYS. PROPERTIES: ●ϕ=56.8 γ=1.80; ●ϕ=60.5 γ=1.72; ●ϕ=56.7 γ=1.75

CHEMISTRY: *IC=7.80; *IC=10.10; ●IC=5.48 OC=0.98

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: *, *, PP

LITHOLOGIC DESCRIPTION

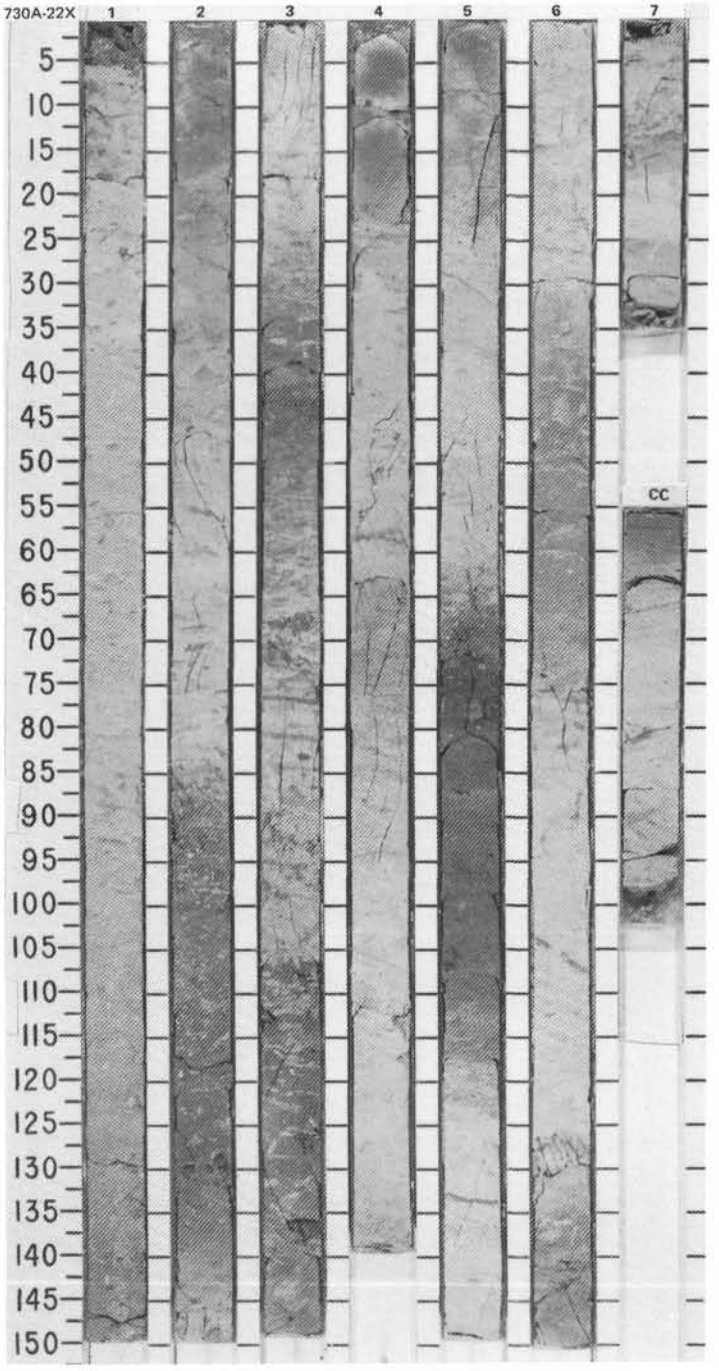
FORAMINIFER-NANNOFOSSIL CHALK

Section 2, 0-150 cm, and Section 4, 0-140 cm, are moderately disturbed, Section 1, 0-150 cm, is slightly disturbed; and remainder is slightly fractured.

*Major lithology: FORAMINIFER-NANNOFOSSIL CHALK, light gray (5Y 7/1, 7/2), light olive gray (5Y 6/2), and olive gray (5Y 5/2). Minor to moderate burrow mottling. Contacts gradational and mottled.*

SMEAR SLIDE SUMMARY (%):

| | 1, 66 D | 3, 146 D |
|---|---|---|
| TEXTURE: | | |
| Sand | 10 | 10 |
| Silt | 10 | 30 |
| Clay | 80 | 60 |
| COMPOSITION: | | |
| Access. minerals | 1 | 1 |
| Clay | 10 | 25 |
| Diatoms | — | Tr |
| Foraminifers | 15 | 3 |
| Inorganic calcite | 3 | 10 |
| Nannofossils | 70 | 45 |
| Quartz | — | 15 |
| Radiolarians | — | Tr |
| Sponge spicules | 1 | 1 |



SITE 730 HOLE A CORE 23X CORED INTERVAL 1276.4-1286.0 mbsl; 210.6-220.2 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: *A/G
- NANNOFOSSILS: N10-N11; NN7 *Discoaster kugleri*
- RADIOLARIANS: *A/M
- DIATOMS: *F/M; *C/G *Dorcadospyris alata*

PALEOMAGNETICS

PHYS. PROPERTIES:
- ● ϕ=62.7 γ=1.66
- ● ϕ=56.2 γ=1.75
- ● ϕ=57.4 γ=1.78

CHEMISTRY:
- ● IC=9.17
- ● IC=5.78
- ● IC= 6.00 OC= 0.64

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY: Void 216.5

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: *

## LITHOLOGIC DESCRIPTION

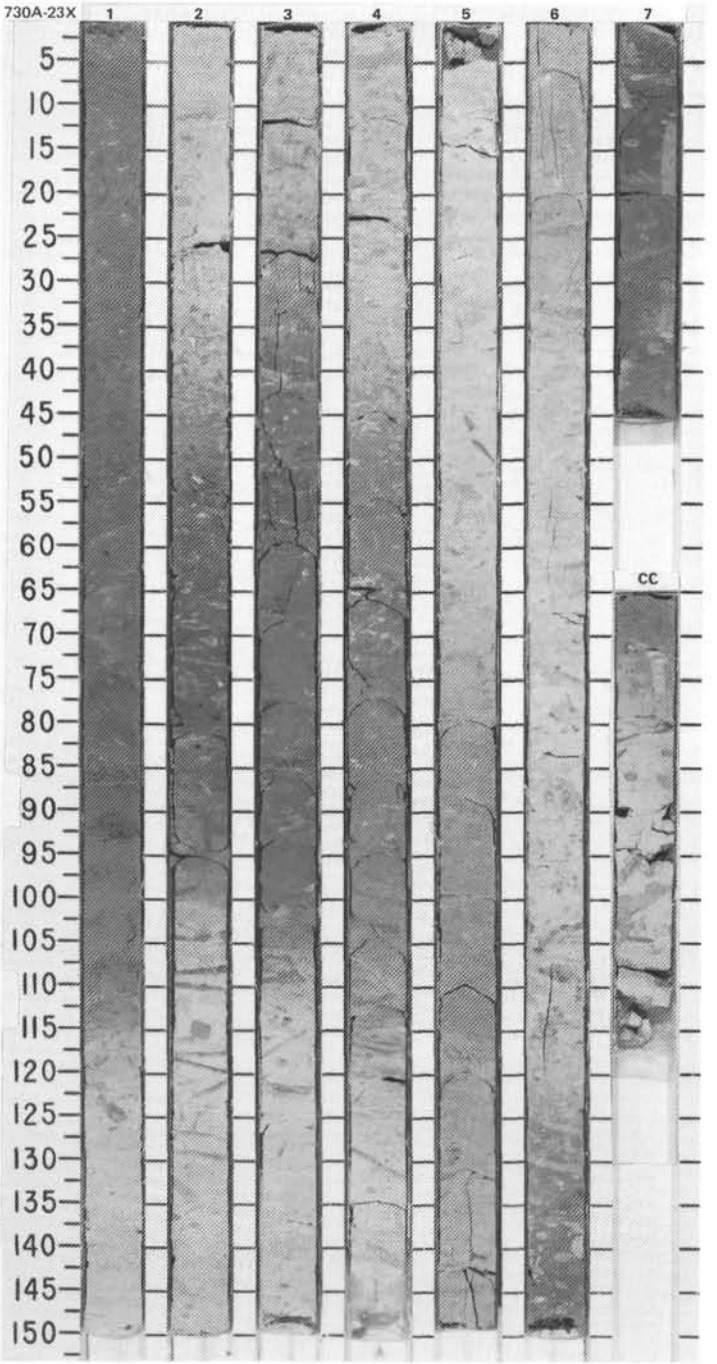
FORAMINIFER-NANNOFOSSIL CHALK

Section 1, 0–150 cm, is slightly disturbed; remainder is moderately fractured.

Major lithology: FORAMINIFER-NANNOFOSSIL CHALK, light gray (5Y 7/1, 7/2), light olive gray (5Y 6/2), olive (5Y 5/3), and olive gray (5Y 5/2). Minor to strong burrow mottling. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 2, 77 D | 5, 15 D |
|---|---|---|
| TEXTURE: | | |
| Sand | 15 | 20 |
| Silt | 20 | 5 |
| Clay | 65 | 75 |
| COMPOSITION: | | |
| Access. minerals | 1 | — |
| Clay | 25 | 10 |
| Diatoms | Tr | — |
| Dolomite | Tr | — |
| Foraminifers | 2 | 20 |
| Inorganic calcite | 20 | 3 |
| Nannofossils | 40 | 65 |
| Radiolarians | Tr | Tr |
| Quartz | 10 | — |
| Sponge spicules | 2 | 2 |



SITE 730 HOLE A CORE 24X CORED INTERVAL 1286.0-1295.7 mbsl; 220.2-229.9 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS N10-N11; NANNOFOSSILS NN6 *Discoaster exilis* / NN7 *Discoaster kugleri*; RADIOLARIANS •C/G *Dorcadospyris alata*; DIATOMS

PALEOMAGNETICS

PHYS. PROPERTIES: ●ϕ-56.2 γ-1.77; ●ϕ-60.5 γ-1.75; ●ϕ-59.0 γ-1.73

CHEMISTRY: ●IC-9.84; ●IC-7.87; ●IC-7.27 OC-0.35

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB. *

SED. STRUCTURES *

SAMPLES: OG, IW, *

LITHOLOGIC DESCRIPTION

FORAMINIFER-NANNOFOSSIL CHALK

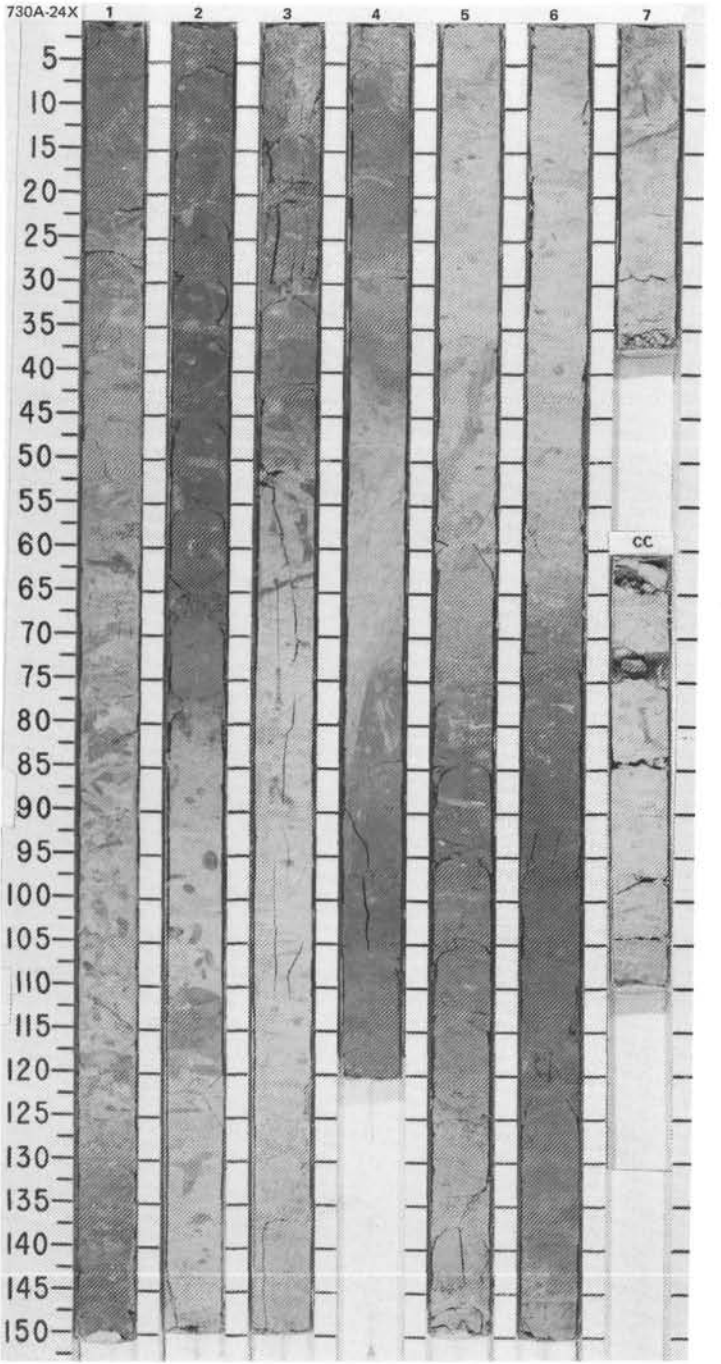
Section 4, 0-123 cm, Section 6, 0-150 cm, and Section 7, 0-35 cm, are slightly fractured; remainder is moderately fractured.

Major lithology: FORAMINIFER-NANNOFOSSIL CHALK, light gray (5Y 7/1), gray (5Y 6/1), light olive gray (5Y 6/2), olive (5Y 5/3), and olive gray (5Y 5/2). Minor to strong burrow mottling. Contacts gradational and mottled. Section 3, 140-150 cm, and Section 4, 0-123 cm, has many en echelon high angle faults.

Minor lithology: Section 5, 143-146 cm, foraminifer-rich carbonate turbidite containing sand-sized clasts of black (5Y 2.5/1) shale. Sharp base and gradational top, normal grading.

SMEAR SLIDE SUMMARY (%):

| | 2, 23 D | 6, 20 D |
|---|---|---|
| TEXTURE: | | |
| Sand | 15 | 25 |
| Silt | 20 | 15 |
| Clay | 65 | 60 |
| COMPOSITION: | | |
| Access. minerals | 2 | — |
| Clay | 20 | 15 |
| Dolomite | 3 | — |
| Foraminifers | 1 | 25 |
| Inorganic calcite | 20 | 10 |
| Mica | Tr | — |
| Nannofossils | 40 | 45 |
| Quartz | 7 | — |
| Sponge spicules | 2 | 5 |



SITE 730 HOLE A CORE 25X CORED INTERVAL 1295.7-1305.4 mbsl; 229.9-239.6 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: *A/G
- NANNOFOSSILS: N10-N11; NN6 *Discoaster exilis*
- RADIOLARIANS: *A/M
- DIATOMS: *R/P; *F/M *Dorcadospyris alata*

PALEOMAGNETICS

PHYS. PROPERTIES: ●ϕ-54.4 γ-1.83; ●ϕ-59.0 γ-1.77; ●ϕ-58.9 γ-1.71

CHEMISTRY: ●IC-10.67; ●IC-10.11; ●IC-6.84; OC-0.61

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

FORAMINIFER-NANNOFOSSIL CHALK

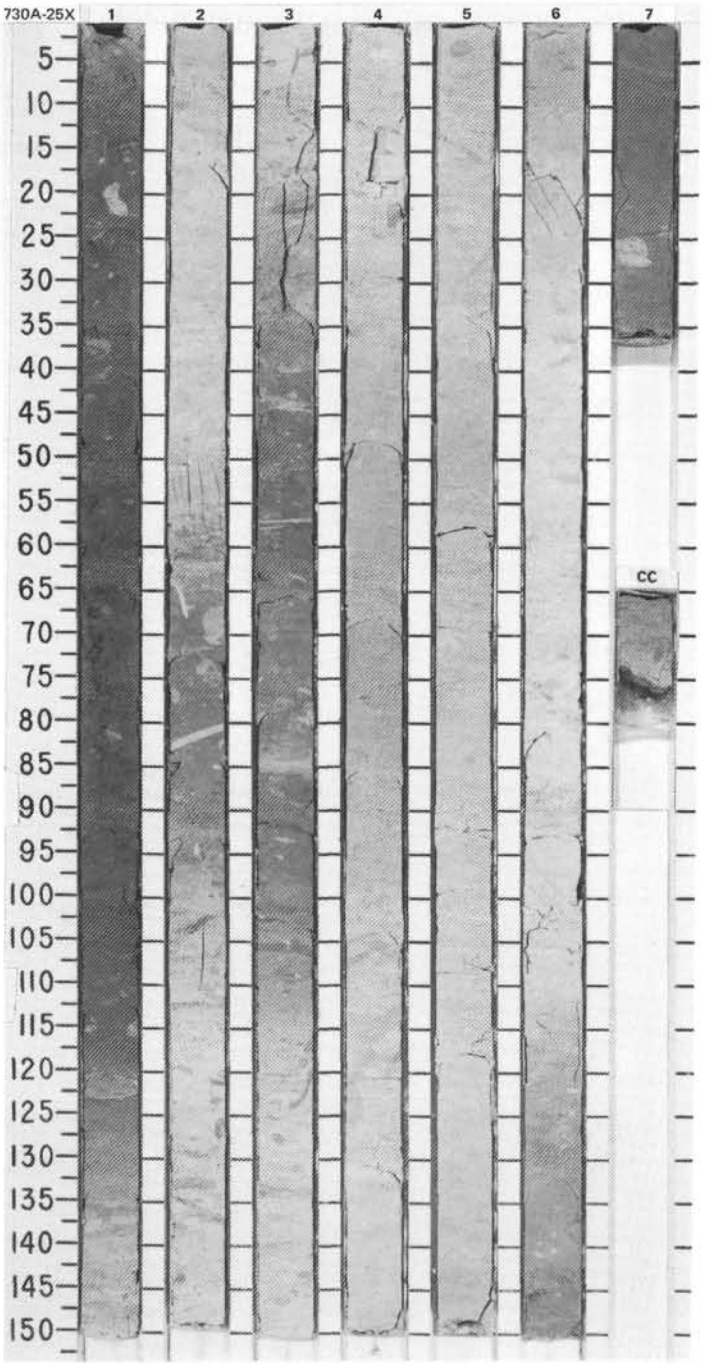
Sections 3 and 5 are moderately fractured; remainder is slightly fractured.

Major lithology: FORAMINIFER-NANNOFOSSIL CHALK, white (5Y 8/1), light gray (5Y 7/1, 7/2), gray (5Y 6/1), light olive gray (5Y 6/2), olive (5Y 5/3), and olive gray (5Y 5/2). Minor burrow mottling throughout. Contacts gradational and mottled. Section 3, 140–150 cm, and Section 4, 0–123 cm, many en echelon high angle faults.

Minor lithology: Section 1, 122–125 cm, foraminifer-rich carbonate turbidite containing sand sized clasts of black (5Y 2.5/1) shale. Sharp base and gradational top.

SMEAR SLIDE SUMMARY (%):

| | 1, 99 D | 2, 15 D | 3, 11 D |
|---|---|---|---|
| TEXTURE: | | | |
| Sand | 10 | 25 | 15 |
| Silt | 20 | 10 | 5 |
| Clay | 70 | 65 | 80 |
| COMPOSITION: | | | |
| Access. minerals | 2 | Tr | — |
| Clay | 25 | 15 | 10 |
| Dolomite | 1 | — | — |
| Foraminifers | 3 | 25 | 16 |
| Inorganic calcite | 20 | 7 | 3 |
| Nannofossils | 45 | 50 | 70 |
| Quartz | 2 | Tr | — |
| Radiolarians | Tr | — | — |
| Sponge spicules | 2 | 3 | 1 |



SITE 730 HOLE A CORE 26X CORED INTERVAL 1305.4-1315.0 mbsl; 239.6-249.2 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIOCENE | *A/G | N10-N11 | NN6 *Discoaster exilis* | unzoned | *R/P | | ●ϕ=52.6 γ=1.86 ●IC=10.36 ●OC=0.14 | ●ϕ=56.0 γ=1.82 ●IC=6.17 | 1 2 3 4 5 CC | 0.5 1.0 | | | | |

LITHOLOGIC DESCRIPTION

FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK

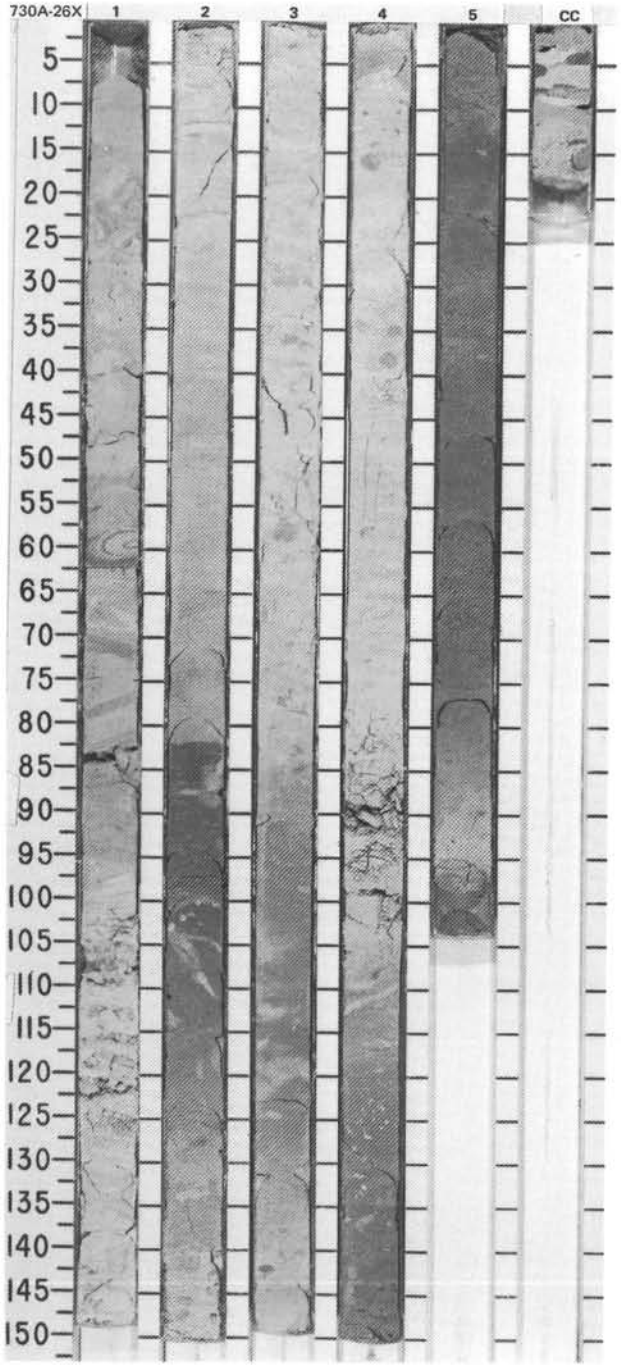
Sections 2-4 are moderately fractured; remainder is moderately disturbed.

Major lithology: FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK, light gray (5Y 7/1), light olive gray (5Y 6/2), and olive gray (5Y 5/2). Minor burrow mottling throughout. Contacts gradational and mottled. Section 1, 55-100 cm, and Section 2, 82 cm, has slumps with recumbant folds visible.

Minor lithology: CC, 0-3 and 7-10 cm, foraminifer sand with normal grading and sand-sized shale clasts.

SMEAR SLIDE SUMMARY (%):

| | 1, 33 D | 2, 72 D | 2, 112 D |
|---|---|---|---|
| TEXTURE: | | | |
| Sand | 15 | 5 | 18 |
| Silt | 10 | 20 | 14 |
| Clay | 75 | 75 | 68 |
| COMPOSITION: | | | |
| Access. minerals | — | 1 | 1 |
| Clay | 15 | 10 | 25 |
| Dolomite | Tr | 1 | 2 |
| Foraminifers | 10 | 6 | 4 |
| Inorganic calcite | 14 | 15 | 25 |
| Nannofossils | 60 | 65 | 40 |
| Quartz | — | 1 | 3 |
| Sponge spicules | 1 | 1 | Tr |



SITE 730 HOLE A CORE 27X CORED INTERVAL 1315.0-1324.7 mbsl; 249.2-258.9 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: * A/M; N10-N11
- NANNOFOSSILS: * A/P; NN6 *Discoaster exilis*
- RADIOLARIANS: * R/P; unzoned
- DIATOMS

PALEOMAGNETICS

PHYS. PROPERTIES: ● Φ=57.4 γ=1.82; ● Φ=56.5 γ=1.77

CHEMISTRY: ● IC=9.78 OC=0.10; ● IC=8.89

SECTION: 1, 2, 3, 4, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: *; OG IW; PP *

LITHOLOGIC DESCRIPTION

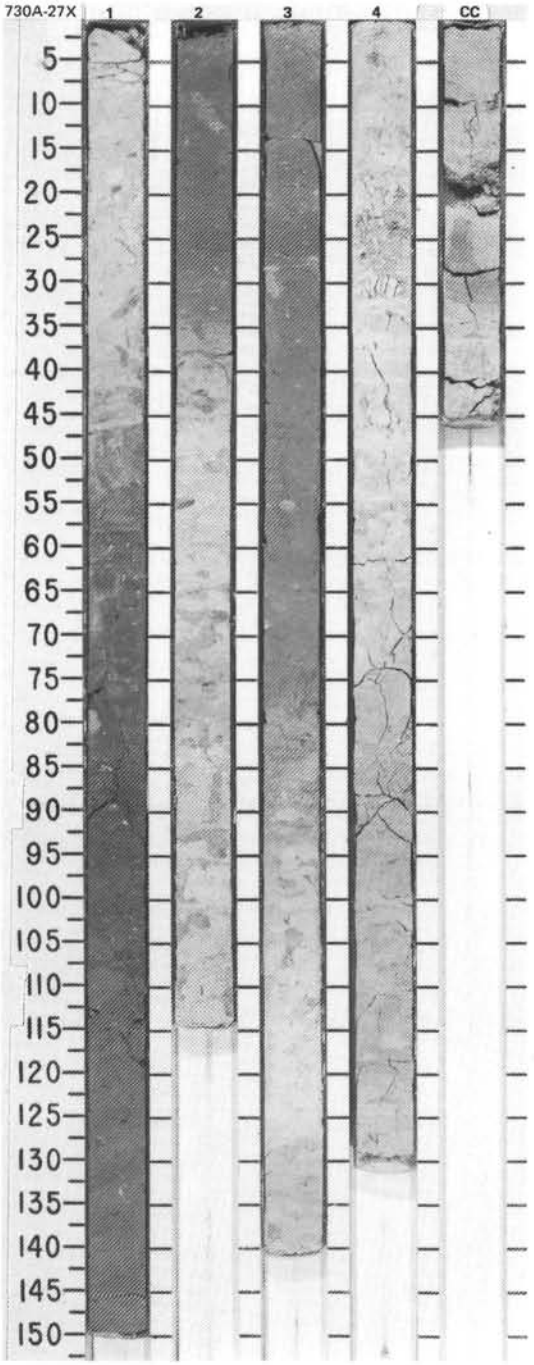
FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK

Section 1, 0–150 cm, is moderately disturbed; remainder is moderately fractured.

Major lithology: FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK, white (5Y 8/1), light gray (5Y 7/1, 7/2), light olive gray (5Y 6/2), and olive (5Y 5/3). Minor burrow mottling throughout. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 1, 114 D | 4, 14 D |
|---|---|---|
| TEXTURE: | | |
| Sand | 5 | — |
| Silt | 15 | 10 |
| Clay | 80 | 90 |
| COMPOSITION: | | |
| Access. minerals | 2 | — |
| Clay | 25 | 10 |
| Dolomite | 2 | 1 |
| Foraminifers | 1 | 5 |
| Inorganic calcite | 14 | 4 |
| Nannofossils | 55 | 80 |
| Quartz | 1 | — |
| Radiolarians | 1 | — |



SITE 730 HOLE A CORE 28X CORED INTERVAL 1324.7-1334.4 mbsl; 258.9-268.6 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: N10-N11
- NANNOFOSSILS: NN6 *Discoaster exilis*
- RADIOLARIANS: unzoned
- DIATOMS:

PALEOMAGNETICS
PHYS. PROPERTIES: ● ϕ=56.2 γ=1.80; ● ϕ=55.2 γ=1.81
CHEMISTRY: ● IC=8.18; ● IC=9.00 OC=0.32
SECTION: 1, 2, 3, 4, CC
METERS: 0.5, 1.0
GRAPHIC LITHOLOGY
DRILLING DISTURB.
SED. STRUCTURES
SAMPLES: *

LITHOLOGIC DESCRIPTION

FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK

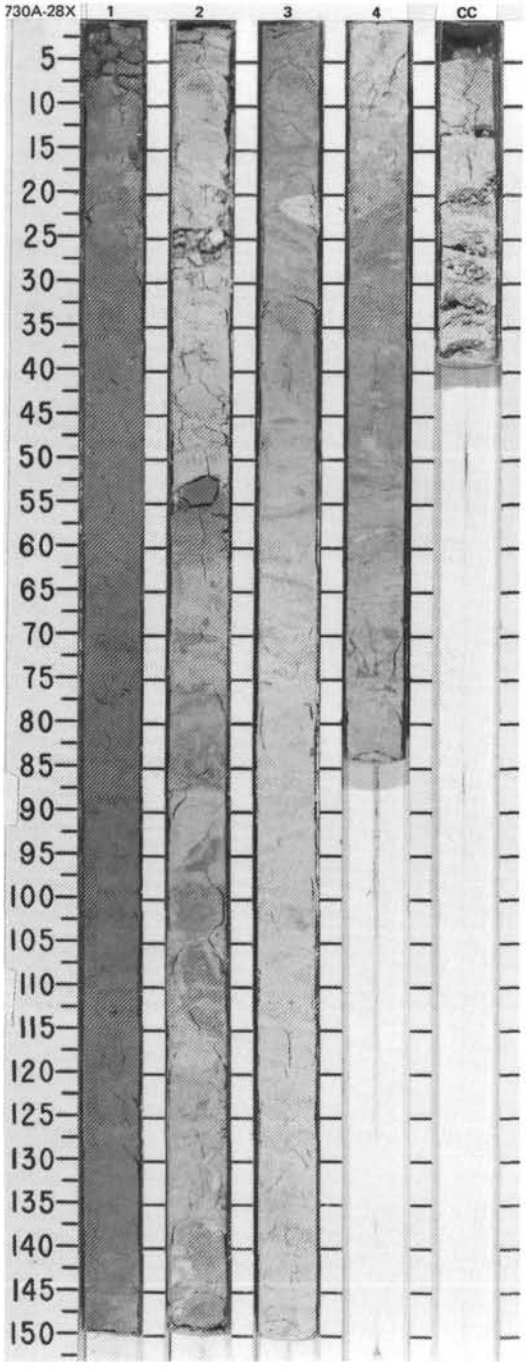
Section 1, 0-150 cm, and Section 3, 0-100 cm, are moderately disturbed; CC is heavily fractured; remainder is moderately fractured.

Major lithology: FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK, white (5Y 8/1), light gray (5Y 7/1, 7/2), and light olive gray (5Y 6/2). Minor burrow mottling common. Contacts gradational and mottled. Section 2, 56-150 cm, Section 3, 25-30 cm, and CC, 0-38 cm, slumped horizon. Section 2, 52-56 cm, dolomite clast.

Minor lithology: Section 4, 18-25 cm, foraminifer sand, normally graded with shale clasts (carbonate turbidite).

SMEAR SLIDE SUMMARY (%):

| | 1, 62<br>D |
|---|---|
| TEXTURE: | |
| Sand | 5 |
| Silt | 15 |
| Clay | 80 |
| COMPOSITION: | |
| Access. minerals | 1 |
| Clay | 25 |
| Foraminifers | 2 |
| Inorganic calcite | 15 |
| Nannofossils | 55 |
| Quartz | 1 |
| Sponge spicules | 1 |



SITE 730 HOLE A CORE 29X CORED INTERVAL 1334.4-1344.0 mbsl; 268.6-278.2 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: * A/M; N10-N11; * A/P; NN6 *Discoaster exilis*; * R/P
- NANNOFOSSILS
- RADIOLARIANS: unzoned
- DIATOMS

PALEOMAGNETICS

PHYS. PROPERTIES: ● ϕ=56.0 γ=1.78; ● ϕ=45.0 γ=2.00; ● ϕ=55.1 γ=1.84

CHEMISTRY: ● IC=6.21 OC=0.37; ● IC=11.19 OC=0.06; ● IC=8.58

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: *; OG; IW

LITHOLOGIC DESCRIPTION

FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK

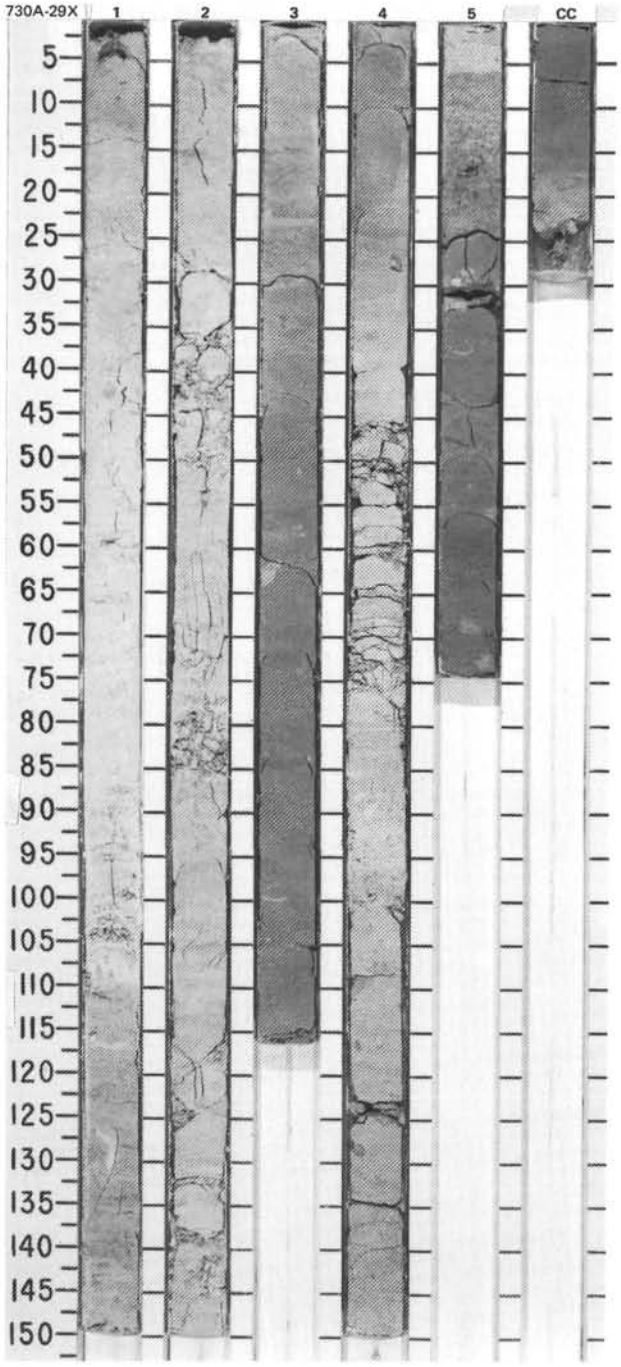
Section 2, 20–50, and 80–110 cm, are heavily fractured; Section 1, 120–150 cm, Section 2, 0–20, 50–80, and 110–150 cm, Section 4, 0–150 cm, and Section 3, 0–100 cm, are moderately fractured; and remainder is moderately disturbed.

Major lithology: FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK, white (5Y 8/1), light gray (5Y 7/2), light olive gray (5Y 6/2), and olive gray (5Y 5/2). Minor burrow mottling common. Contacts gradational and mottled.

Minor lithology: Section 4, 85–105 and 145–150 cm, and Section 5, 0–20 cm, benthic foraminifer sand to silt, normally graded with shale clasts (carbonate turbidite).

SMEAR SLIDE SUMMARY (%):

| | 1, 110 D | 3, 73 D |
|---|---|---|
| TEXTURE: | | |
| Sand | 15 | 10 |
| Silt | 10 | 20 |
| Clay | 75 | 70 |
| COMPOSITION: | | |
| Access. minerals | — | 1 |
| Clay | 10 | 20 |
| Dolomite | — | 2 |
| Foraminifers | 8 | 5 |
| Inorganic calcite | 15 | 20 |
| Mica | — | Tr |
| Nannofossils | 65 | 50 |
| Quartz | — | 1 |
| Radiolarians | — | Tr |
| Sponge spicules | 2 | 1 |



| TIME-ROCK UNIT | BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS | NANNOFOSSILS | RADIOLARIANS | DIATOMS | PALEOMAGNETICS | PHYS. PROPERTIES | CHEMISTRY | SECTION | METERS | GRAPHIC LITHOLOGY | DRILLING DISTURB. | SED. STRUCTURES | SAMPLES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIOCENE | * A/P | N10-N11 | * A/P | NN6 *Discoaster exilis* | *Barren | ●ϕ=38.5 γ=2.07 | ●IC=10.99 ●IC= OC= | 1 2 3 4 5 6 CC | 0.5 1.0 | | | | * * |

## LITHOLOGIC DESCRIPTION

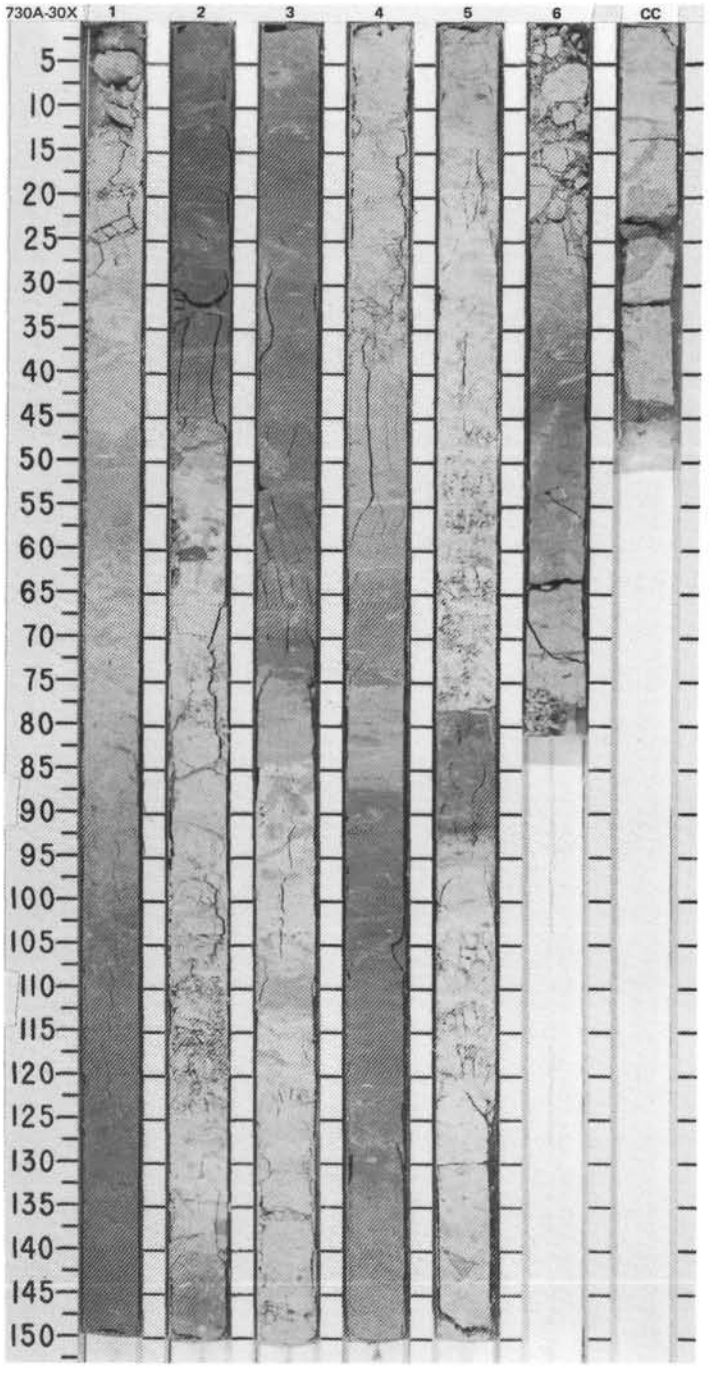
FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK

Section 2, 80–110 cm, Section 3, 50–70 cm, Section 4, 20–50 cm, Section 5, 20–150 cm, and Section 6, 0–30 cm, are heavily fractured; Section 1, 0–20 cm, and Section 2, 20–50 cm, are moderately fractured; Section 1, 20–150 cm, is slightly disturbed; and remainder is slightly fractured.

Major lithology: FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK, white (5Y 8/1), light gray (5Y 7/1, 7/2), light olive gray (5Y 6/2), and olive gray (5Y 5/2). Minor burrow mottling common. Contacts gradational and mottled.

SMEAR SLIDE SUMMARY (%):

| | 1, 130 D | 5, 140 M |
|---|---|---|
| TEXTURE: | | |
| Sand | 15 | 15 |
| Silt | 20 | 20 |
| Clay | 65 | 65 |
| COMPOSITION: | | |
| Cla | 20 | 20 |
| Dolomite | Tr | Tr |
| Foraminifers | 20 | 15 |
| Inorganic calcite | 15 | 10 |
| Nannofossils | 45 | 55 |
| Quartz | Tr | Tr |



SITE 730 HOLE A CORE 31X CORED INTERVAL 1353.7-1363.4 mbsl; 287.9-297.6 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: N9
- NANNOFOSSILS: NN4 *Helicosphaera ampliaperta* - NN5 *Sphenolithus heteromorphus*
- RADIOLARIANS: *Barren
- DIATOMS: *A/G, *A/M -P

PALEOMAGNETICS

PHYS. PROPERTIES: ϕ-60.0, γ-1.72; ϕ-52.8, γ-1.86; ϕ-53.8, γ-1.86

CHEMISTRY: IC-6.38, OC-0.41; IC-10.28; IC-9.85

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK

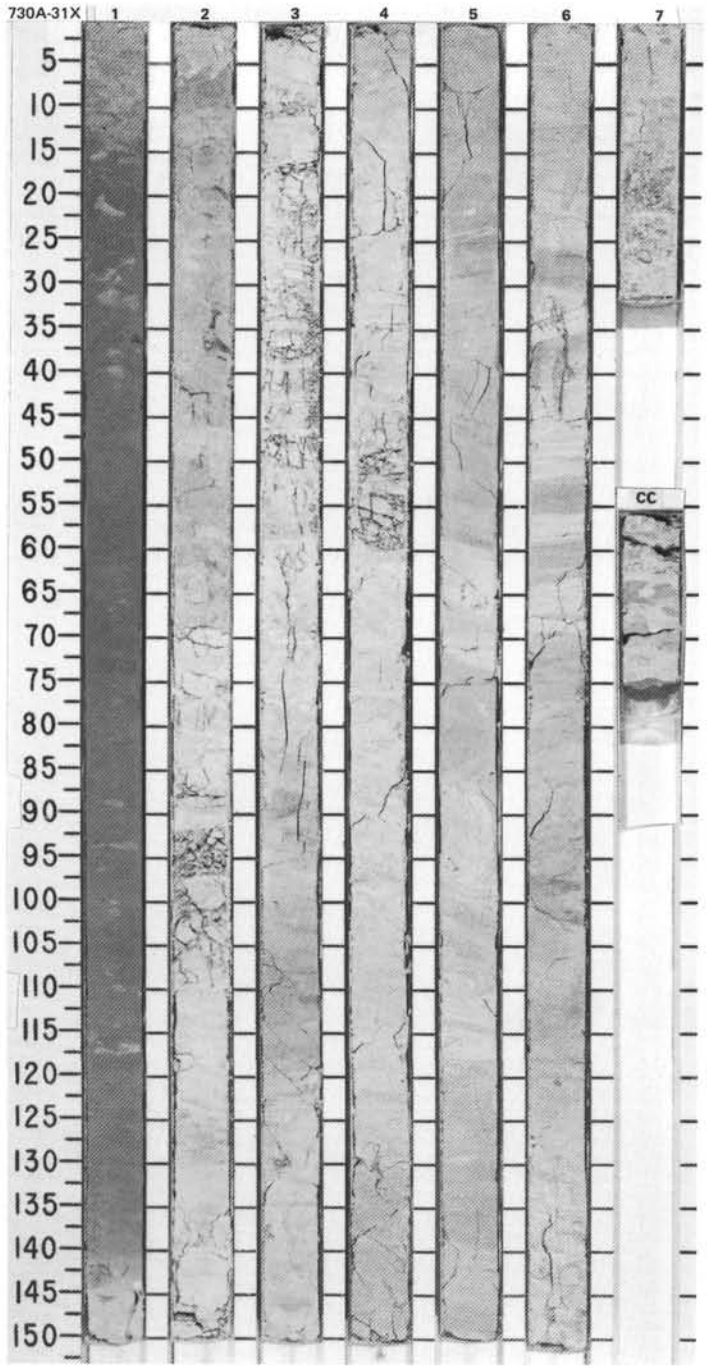
Section 2, 80–110 cm, Section 4, 40–60 cm, and Section 7, 10–30 cm, are heavily fractured; Section 2, 0–60 cm, Section 3, 140–150 cm, Section 4, 0–30 and 60–150 cm, Section 6, 0–60 and 130–150 cm, and CC, 0–15 cm, are slightly fractured; and remainder is undisturbed.

Major lithology: FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK, white (5Y 8/1, 8/2), light gray (5Y 7/1), and olive gray (5Y 5/2). Minor burrow mottling common. Contacts gradational and mottled.

Minor lithology: Section 4, 135–150 cm, Section 5, 30–150 cm, and Section 6, 0–80 cm, slumped millimeter-scale laminated foraminifer-bearing nannofossil chalk.

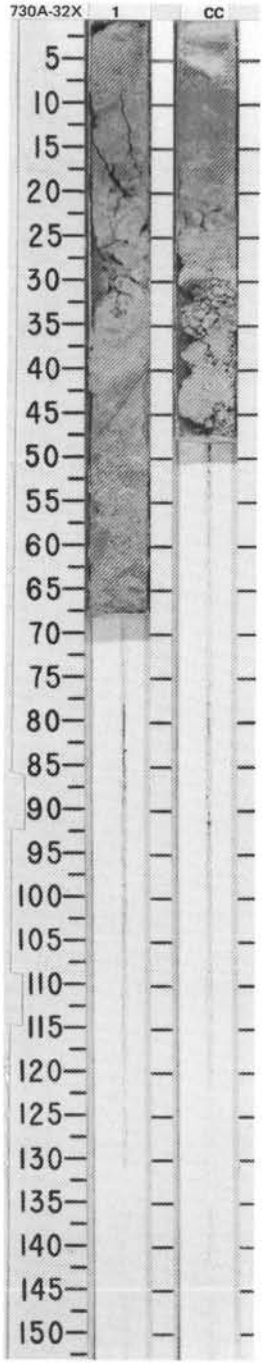
SMEAR SLIDE SUMMARY (%):

| | 1, 100 D |
|---|---|
| TEXTURE: | |
| Silt | 30 |
| Clay | 70 |
| COMPOSITION: | |
| Clay | 20 |
| Dolomite | 5 |
| Foraminifers | 10 |
| Inorganic calcite | 20 |
| Nannofossils | 45 |
| Quartz | Tr |



SITE 730 HOLE A CORE 32X CORED INTERVAL 1363.4-1373.0 mbsl; 297.6-307.2 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIOCENE | *A/P | *A/P | *Barren | | | ϕ=48.4 γ=1.93 ● | IC=11.21 ● OC=0.85 | 1 | 0.5 | | | | | NANNOFOSSIL CHALK |
| | N8 | | | | | | | CC | | | | | | Entire core is very disturbed. |
| | NN4 *Helicosphaera ampliaperta* - | NN5 *Sphenolithus heteromorphus* | | | | | | | | | | | | Major lithology: NANNOFOSSIL CHALK, slumped, light gray (5Y 7/1) and light olive gray (5Y 6/2). |
| | | | | | | | | | | | | | | Minor lithology: Section 1, 20–32 and 50–67 cm, benthic foraminifer sand, normally graded (carbonate turbidite). |



SITE 730 HOLE A CORE 33X CORED INTERVAL 1373.0-1382.7 mbsl; 307.2-316.9 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: A/G * ; A/P * ; Barren *
- NANNOFOSSILS: N8 ; NN4 *Helicosphaera ampliaperta* - NN5 *Sphenolithus heteromorphus*
- RADIOLARIANS
- DIATOMS

PALEOMAGNETICS

PHYS. PROPERTIES: ● ϕ=50.0 γ=1.89 ; ϕ=53.4 γ=1.83 ●

CHEMISTRY: ● IC=8.42 ; IC=10.66 ● OC= 0.03

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY: VOID

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: * ; * OG IW

LITHOLOGIC DESCRIPTION

FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK

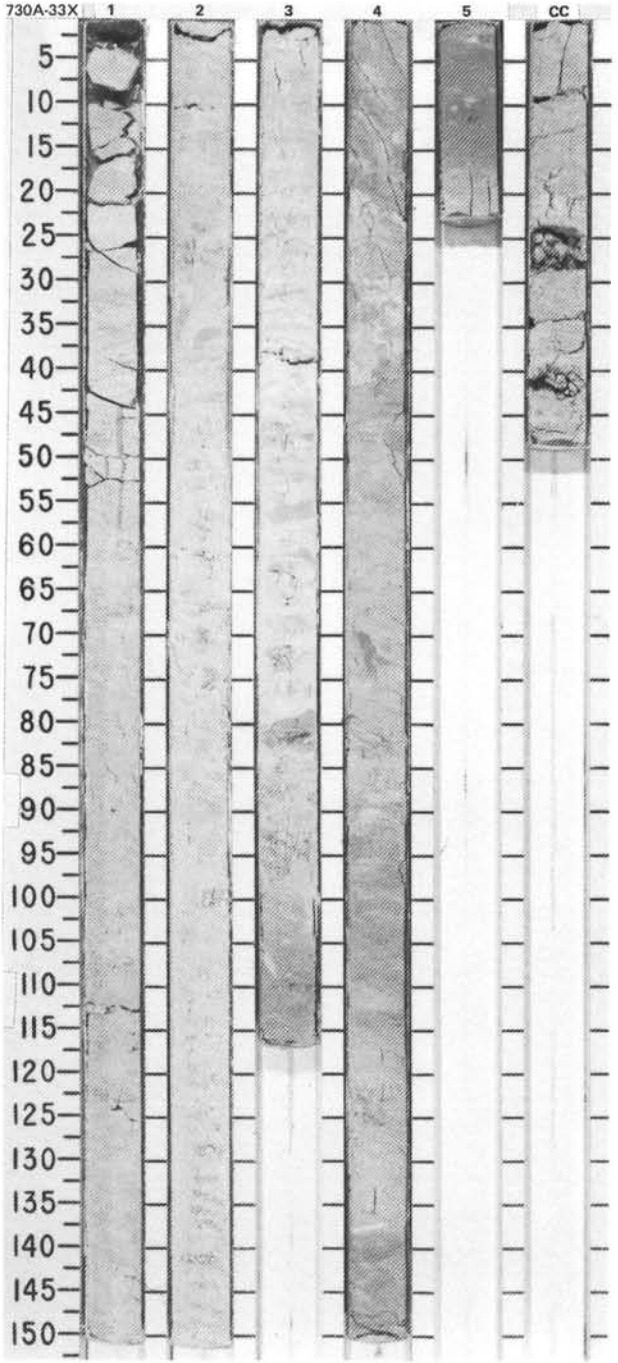
Section 1, 0–50 cm, Section 2, 40–70 and 130–150 cm, and CC, 0–45 cm, are moderately fractured; Section 5, 0–24 cm, is moderately disturbed; Section 3, 0–130 cm, and Section 4, 0–20 cm are very disturbed; remainder is undisturbed.

Major lithology: FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK, white (5Y 8/1), light gray (5Y 7/1), light olive gray (5Y 6/2), and olive gray (5Y 5/2). Minor to strong burrow mottling. Contacts gradational and mottled.

Minor lithology: Section 4, 20–25, 80–85, and 100–105 cm, slumped(?) millimeter laminated foraminifer-bearing nannofossil chalk.

SMEAR SLIDE SUMMARY (%):

| | 1, 90 D | 3, 109 D |
|---|---|---|
| TEXTURE: | | |
| Silt | 10 | 10 |
| Clay | 90 | 90 |
| COMPOSITION: | | |
| Clay | 15 | — |
| Dolomite | 1 | 2 |
| Foraminifers | 5 | 7 |
| Inorganic calcite | 1 | 1 |
| Mica | — | 25 |
| Nannofossils | 75 | 63 |
| Quartz | 3 | 2 |



SITE 730 HOLE A CORE 34X CORED INTERVAL 1382.7-1392.4 mbsl; 316.9-326.6 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIOCENE | *C/G | *A/M | *Barren | | | ϕ=54.0 γ=1.83 ● | IC=11.30 ● OC= 0.37 | 1 | 0.5 1.0 | | | | * |
| | N8 - NN5 *Sphenolithus heteromorphus* | | | | | | | 2 | | | | | |
| | NN4 *Helicosphaera ampliaperta* | | | | | | | CC | | | | | |

LITHOLOGIC DESCRIPTION

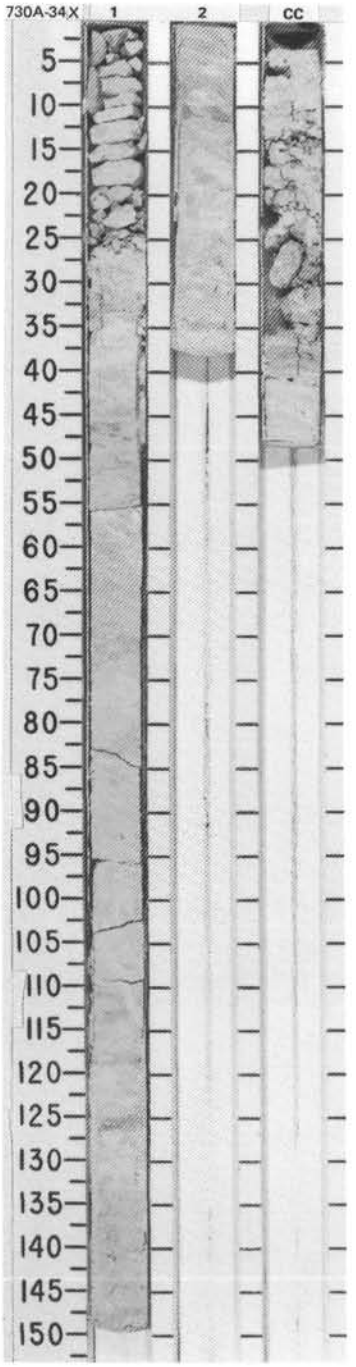
FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK

Section 1, 0-25 cm, and CC, 0-45 cm, are very disturbed; remainder is moderately disturbed.

Major lithology: FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK, white (5Y 8/1) and light gray (5Y 7/1, 7/2). Minor burrow mottling throughout. Contacts gradational and mottled.

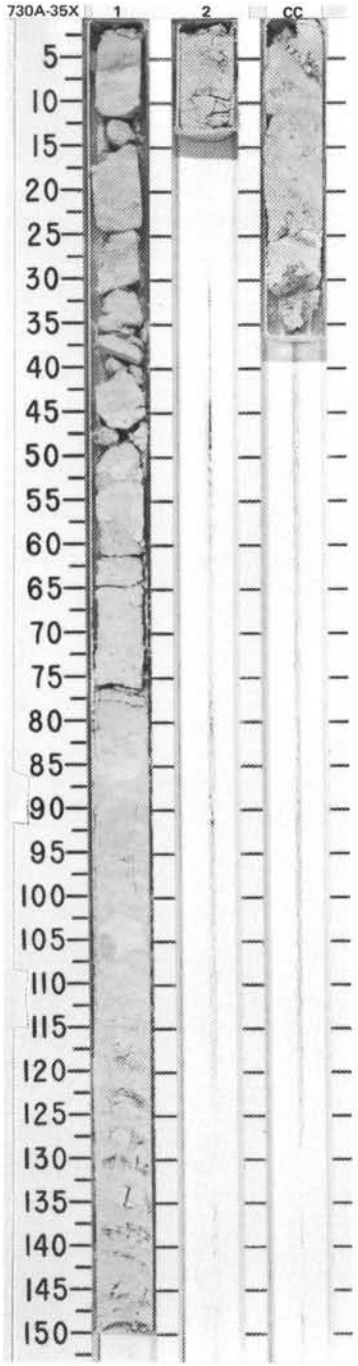
SMEAR SLIDE SUMMARY (%):

| | 1, 92 M |
|---|---|
| TEXTURE: | |
| Sand | 25 |
| Silt | 45 |
| Clay | 30 |
| COMPOSITION: | |
| Access. minerals | 1 |
| Clay | 15 |
| Foraminifers | 40 |
| Inorganic calcite | 4 |
| Micrite | 25 |
| Nannofossils | 15 |



SITE 730 HOLE A CORE 35X CORED INTERVAL 1392.4-1402.0 mbsl; 326.6-336.2 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIOCENE | N8 | *C/M | | | | ϕ=50.2 γ=1.92 ● | IC=11.30 ● OC=0.13 | 1 | 0.5 | | | | | FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK |
| | NN4 *Helicosphaera ampliaperta* - NN5 *Sphenolithus heteromorphus* | *A/P | | | | | | | 1.0 | | | | | Section 1, 0-75 cm, very disturbed; remainder is moderately disturbed. |
| | | *Barren | | | | | | 2 | | | | | | Major lithology: FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK, white (5Y 8/1, 8/2). Minor burrow mottling common. |
| | | | | | | | | CC | | | | | | Minor lithology: Section 1, 5-40 and 57-81 cm, foraminifer sands with normal grading (carbonate turbidite). |



SITE 730 HOLE A CORE 36X CORED INTERVAL 1402.0-1411.7 mbsl; 336.2-345.9 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIOCENE | *Barren | *A/P | *Barren | | | | | 1 | | | | | * |
| | NN4 *Helicosphaera ampliaperta* - NN5 *Sphenolithus heteromorphus* | | | | | | | CC | | | | | |

LITHOLOGIC DESCRIPTION

FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK

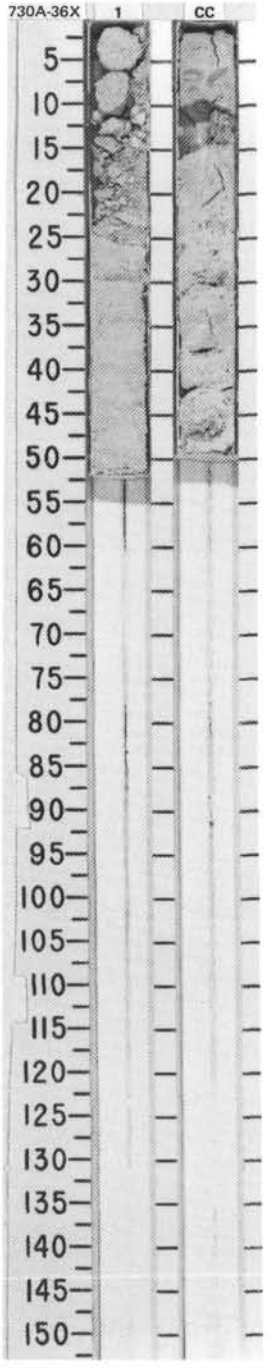
CC, 0-50 cm, is moderately disturbed; remainder is very disturbed.

Major lithology: FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK, white (5Y 8/1) and light gray (5Y 7/1).

Minor lithology: Section 1, 0-10 cm, slumped nannofossil chalk with occasional benthic foraminifers.

SMEAR SLIDE SUMMARY (%):

| | 1, 8 M |
|---|---|
| TEXTURE: | |
| Silt | 10 |
| Clay | 90 |
| COMPOSITION: | |
| Cement | 5 |
| Clay | 74 |
| Dolomite | 1 |
| Nannofossils | 10 |
| Opaques | 10 |

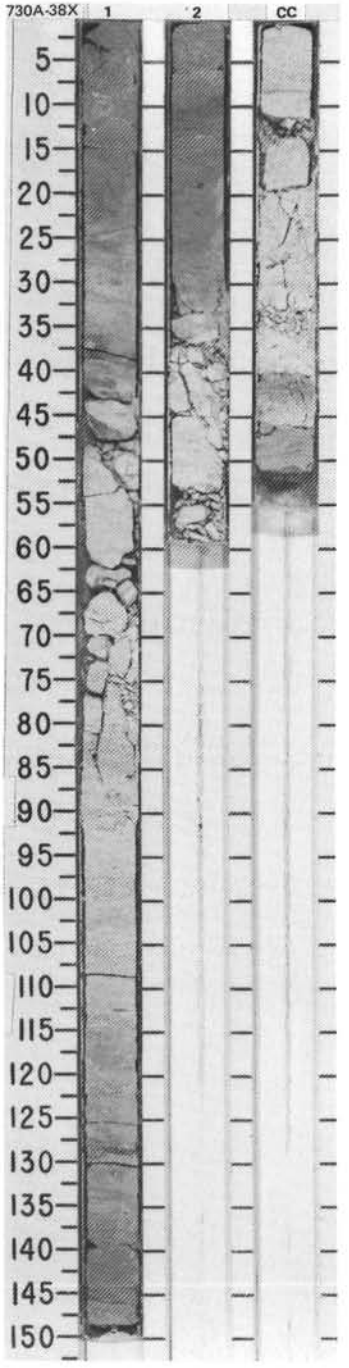


SITE 730 HOLE A CORE 37X CORED INTERVAL 1411.7-1421.4 mbsl; 345.9-355.6 mbsf

| TIME-ROCK UNIT | BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS | BIOSTRAT. ZONE/ FOSSIL CHARACTER: NANNOFOSSILS | BIOSTRAT. ZONE/ FOSSIL CHARACTER: RADIOLARIANS | BIOSTRAT. ZONE/ FOSSIL CHARACTER: DIATOMS | PALEOMAGNETICS | PHYS. PROPERTIES | CHEMISTRY | SECTION | METERS | GRAPHIC LITHOLOGY | DRILLING DISTURB. | SED. STRUCTURES | SAMPLES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIOCENE | N8 | | | | | | | | | | | | |
| | *A/G | | | | | | | | | | | | |
| | | NN4 *Helicosphaera ampliaperta* - NN5 *Sphenolithus heteromorphus* | | | | | | | | | | | |
| | *A/M | | | | | | | | | | | | |
| | *Barren | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| |

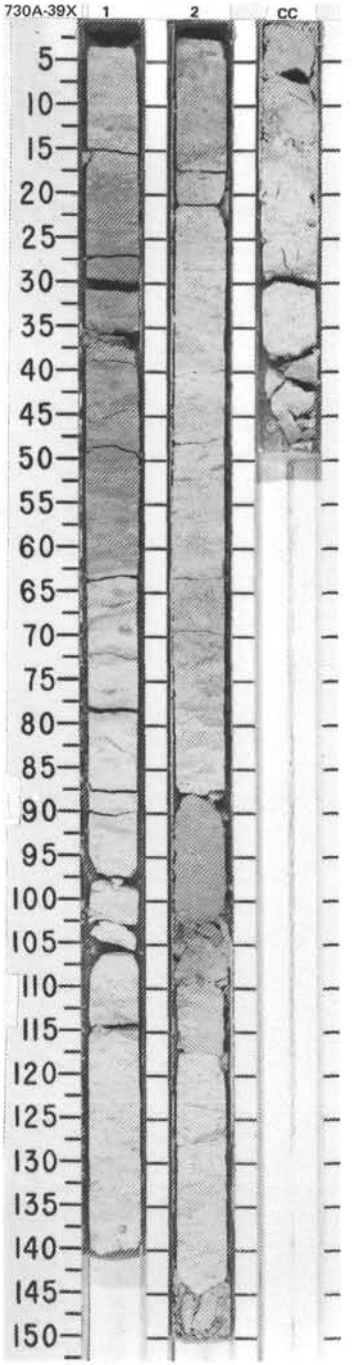
SITE 730 HOLE A CORE 38X CORED INTERVAL 1421.4-1431.0 mbsl; 355.6-365.2 mbsf

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIOCENE | *A/G | *A/G | *Barren | | | ● ϕ-52.7 γ-1.88 | ● IC-7.36 OC-0.27 | 1 | 0.5 | | | | | FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK |
| N8 | | | | | | | | | 1.0 | | | | | Section 2, 30-60 cm, and Section 1, 40-80 cm, are heavily fractured; Section 1, 40-80 cm, Section 2, 0-30 cm, and CC, 0-50 cm, are moderately fractured; and remainder is slightly fractured. |
| NN4 *Helicosphaera ampliaperta* - NN5 *Sphenolithus heteromorphus* | | | | | | | | 2 | | | | | | Major lithology: FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK, white (5Y 8/1), light olive gray (5Y 6/2), and gray (5Y 6/1). Minor burrow mottling throughout. Contacts gradational and mottled. |
| | | | | | | | | CC | | | | | | |



SITE 730 HOLE A CORE 39X CORED INTERVAL 1431.0-1440.7 mbsl; 365.2-374.9 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIOCENE | *A/M | *A/P | *Barren | | ϕ=53.2 | ●ϕ=52.1 γ=1.88 ● γ=1.86 | | 1 | 0.5 1.0 | | | | | FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK |
| N8 | | | | | | | | 2 | | | | | | CC, 0–45 cm, is very disturbed; remainder is slightly fractured. |
| NN4 *Helicosphaera ampliaperta* - NN5 *Sphenolithus heteromorphus* | | | | | | | | CC | | | | | IW | Major lithology: FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK, white (5Y 8/1), light gray (5Y 7/1), gray (5Y 6/1), and olive gray (5Y 5/2). Minor burrow mottling throughout. Contacts gradational and mottled. |



SITE 730 HOLE A CORE 40X CORED INTERVAL 1440.7-1450.4 mbsl; 374.9-384.6 mbsf

TIME-ROCK UNIT: MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER
- FORAMINIFERS: *A/M; N8
- NANNOFOSSILS: *A/G; NN4 *Helicosphaera ampliaperta* - NN5 *Sphenolithus heteromorphus*
- RADIOLARIANS: *Barren
- DIATOMS

PALEOMAGNETICS

PHYS. PROPERTIES: ● ϕ-52.9 γ-1.85; ● ϕ-49.9 γ-1.94

CHEMISTRY: ● IC=9.02 OC=0.05; ● IC=6.88

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK

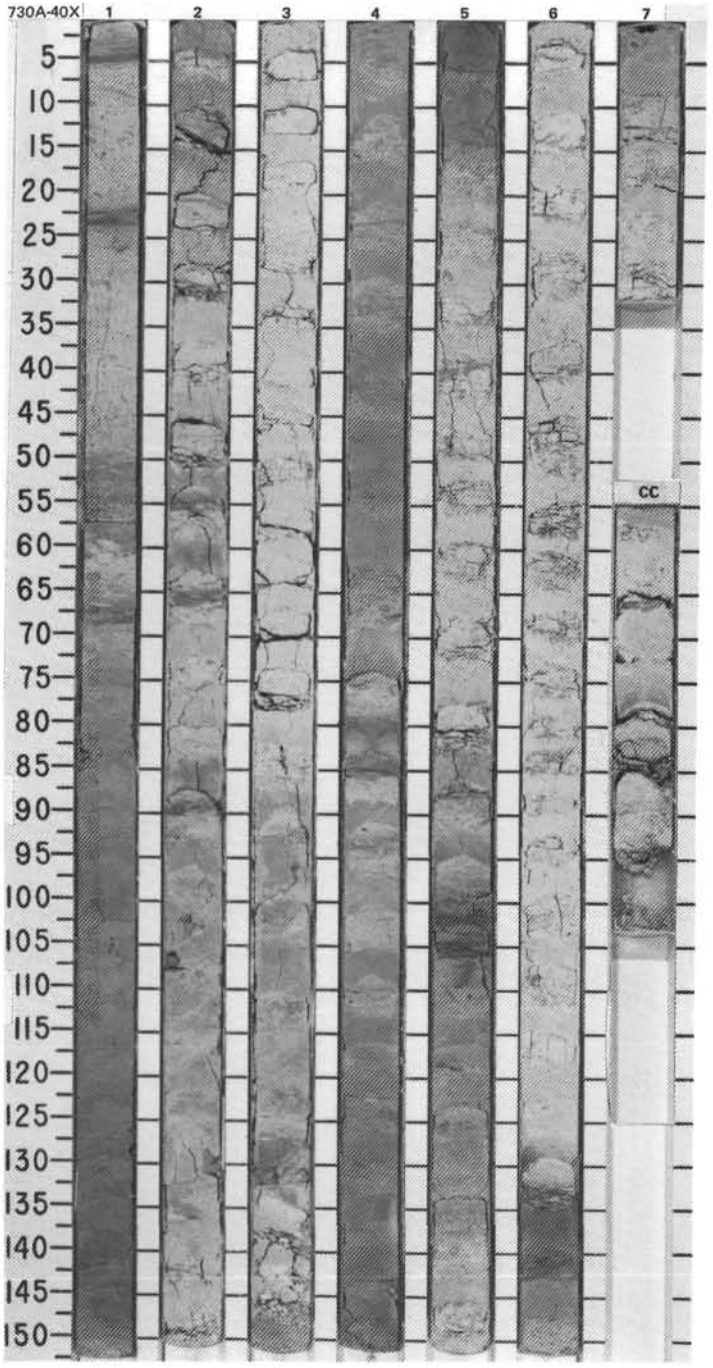
Section 6, 0–150 cm, is heavily fractured; remainder is moderately disturbed.

Major lithology: FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK, light gray (5Y 7/1), gray (5Y 6/1), olive gray (5Y 5/2), olive (5Y 5/3), and dark gray (5Y 5/1, 4/1). Minor burrow mottling throughout. Contacts gradational and mottled.

Minor lithology: Section 1, 48–56 cm, benthic foraminifer sand with shale clasts, normally graded (carbonate turbidite).

SMEAR SLIDE SUMMARY (%):

| | 1, 130 D | 5, 106 M | 6, 94 D |
|---|---|---|---|
| TEXTURE: | | | |
| Sand | — | 20 | — |
| Silt | 40 | 20 | 20 |
| Clay | 60 | 60 | 80 |
| COMPOSITION: | | | |
| Clay | 20 | 20 | 20 |
| Dolomite | Tr | 1 | Tr |
| Foraminifers | 5 | 30 | 5 |
| Inorganic calcite | 10 | — | 5 |
| Micrite | — | 33 | — |
| Nannofossils | 60 | 5 | 70 |
| Opaques | — | 10 | — |
| Quartz | 5 | — | Tr |
| Sponge spicules | — | 1 | — |



SITE 730 HOLE A CORE 41X CORED INTERVAL 1450.4-1460.0 mbsl; 384.6-394.2 mbsf

| TIME-ROCK UNIT | BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS | BIOSTRAT. ZONE/ FOSSIL CHARACTER: NANNOFOSSILS | BIOSTRAT. ZONE/ FOSSIL CHARACTER: RADIOLARIANS | BIOSTRAT. ZONE/ FOSSIL CHARACTER: DIATOMS | PALEOMAGNETICS | PHYS. PROPERTIES | CHEMISTRY | SECTION | METERS | GRAPHIC LITHOLOGY | DRILLING DISTURB. | SED. STRUCTURES | SAMPLES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIOCENE | N8 | *A/M | | | | | | | | | | | |
| | NN4 *Helicosphaera ampliaperta* - NN5 *Sphenolithus heteromorphus* | *A/M | *Barren | | | ϕ=47.3 γ=1.69 ● | IC=5.48 OC=0.10 ● | 1 | 0.5 | | | | |
| | | | | | | | | | 1.0 | | | | |
| | | | | | | | | CC | | | | Δ | |

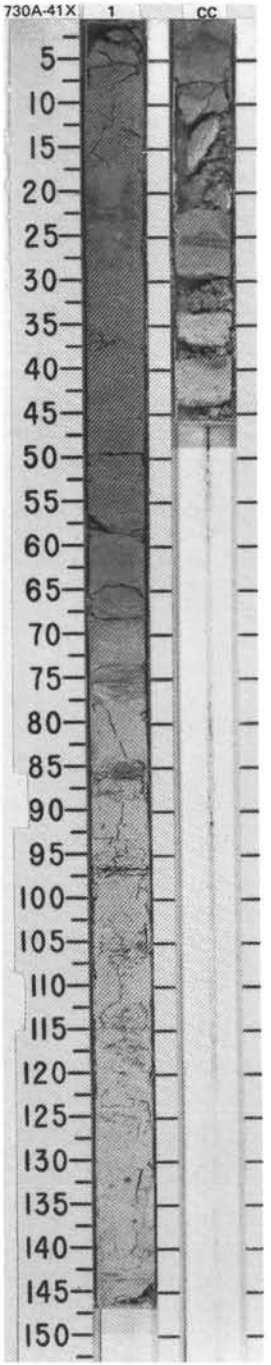
LITHOLOGIC DESCRIPTION

FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK

Section 1, 0-70 cm, is moderately fractured; remainder is heavily fractured.

Major lithology: FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK, light gray (5Y 7/1), gray (5Y 6/1), and dark gray (5Y 5/1). Minor burrow mottling throughout. Contacts gradational and mottled.

Minor lithology: CC, 20-25 cm, foraminifer sand, normally graded (carbonate turbidite).



SITE 730 HOLE A CORE 42X CORED INTERVAL 1460.0-1469.7 mbsl; 394.2-403.9 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIOCENE | *A/M N8 | | | | | ● ϕ=46.3 γ=1.88 | ● IC=10.53 OC=0.02 | 1 | 0.5 | | | | |
| | *A/G NN4 *Helicosphaera ampliaperta* - NN5 *Sphenolithus heteromorphus* | | | | ● ϕ=44.1 γ=1.96 | | | 2 | 1.0 | | | | * OG IW |
| | *Barren | | | | | ● IC=10.35 | | 3 | | | | | |
| | | | | | | | | 4 | | | | | |
| | | | | | | | | CC | | | | | |

LITHOLOGIC DESCRIPTION

FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK

Section 3, 0–50 cm, is heavily fractured; Section 3, 50–150 cm, is very disturbed; Section 1, 0–100 cm, is slightly fractured; and remainder is moderately disturbed.

Major lithology: FORAMINIFER-BEARING MARLY NANNOFOSSIL CHALK, white (5Y 8/1), light gray (5Y 7/1), gray (5Y 6/1), dark gray (5Y 5/1), and olive (5Y 4/3). Minor burrow mottling throughout. Contacts gradational and mottled.

Minor lithology: Section 1, 30–40 cm, and Section 3, 25–30 and 135–145 cm, contains foraminifer sand, normally graded, with common sand-sized black (5Y 2.5/1) shale clasts (carbonate turbidites).

SMEAR SLIDE SUMMARY (%):

| | 2, 112 D |
|---|---|
| TEXTURE: | |
| Silt | 20 |
| Clay | 80 |
| COMPOSITION: | |
| Clay | 18 |
| Foraminifers | 2 |
| Inorganic calcite | 10 |
| Micrite | 25 |
| Nannofossils | 45 |