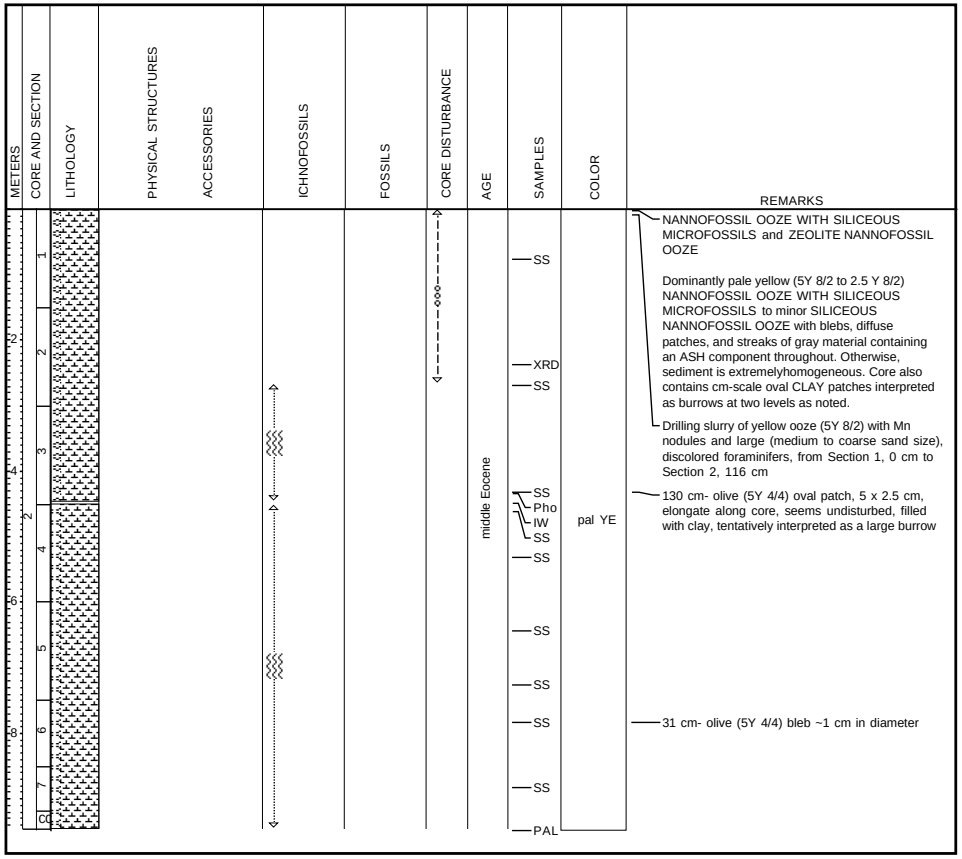
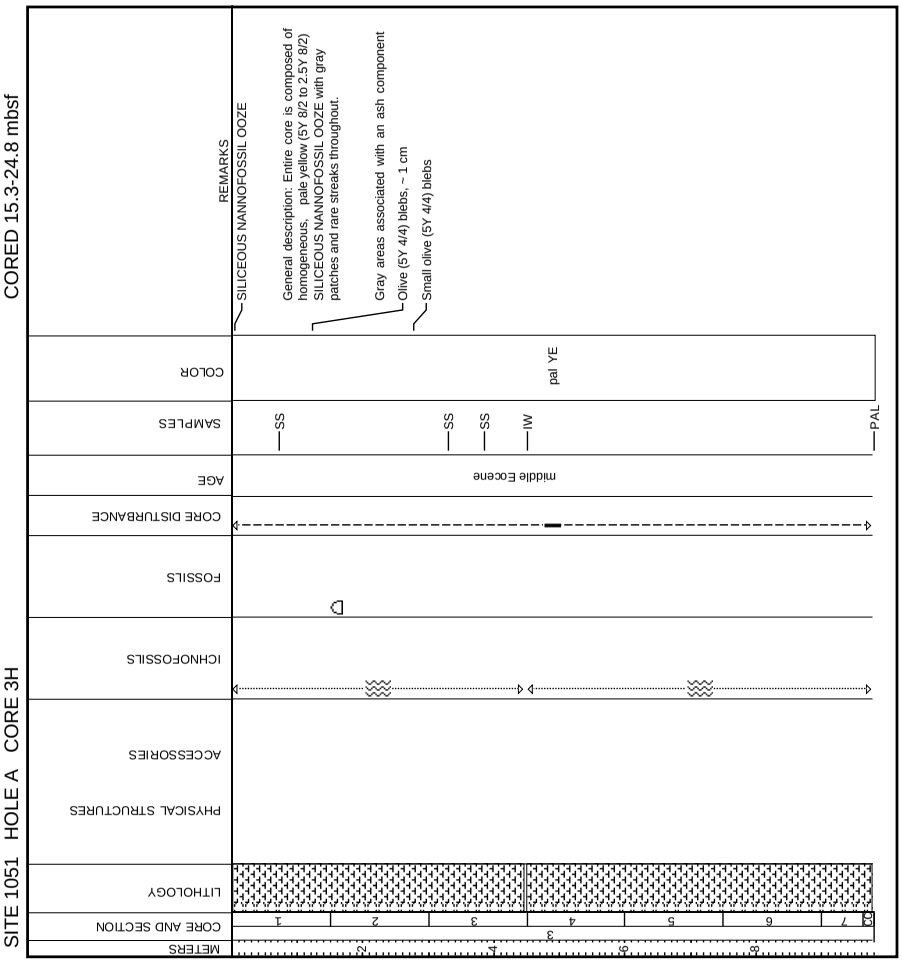
1051A-1H NO RECOVERY

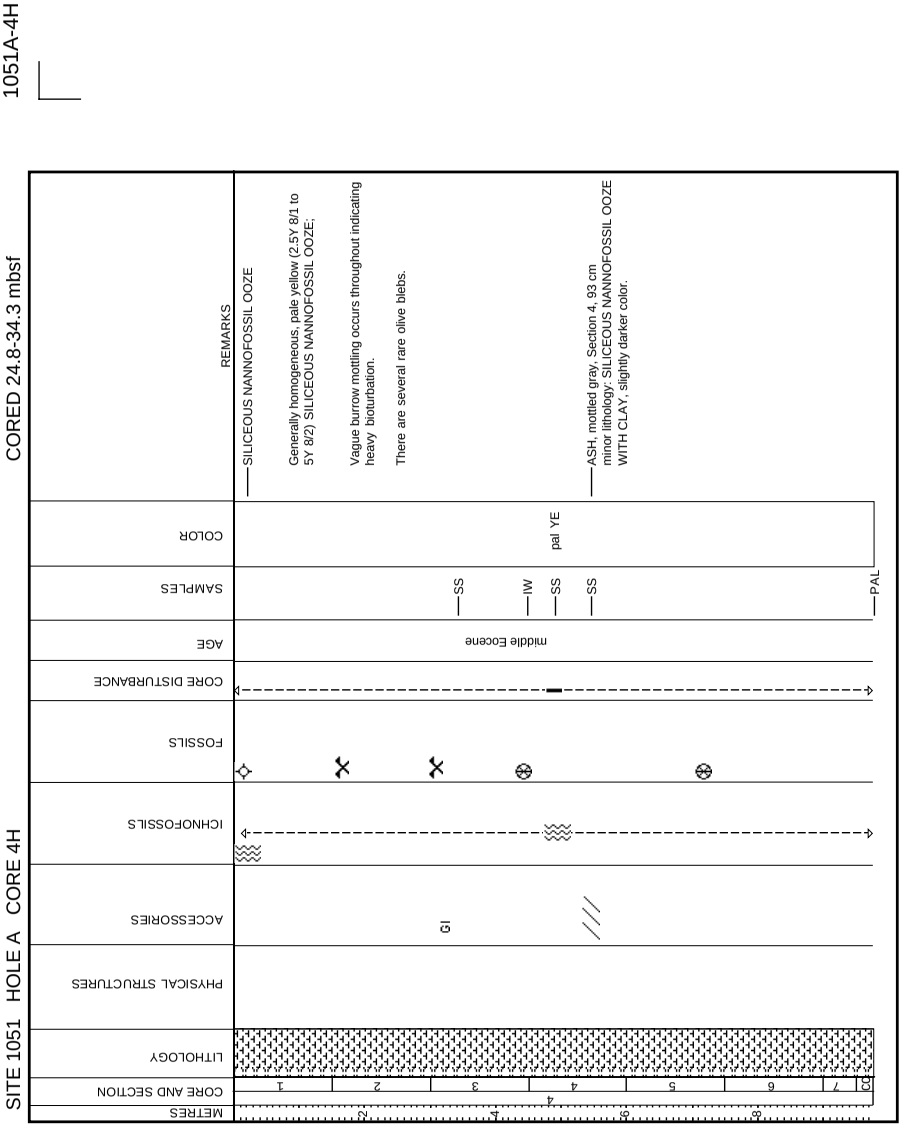
SITE 1051 HOLE A CORE 2H CORED 5.8-15.3 mbsf

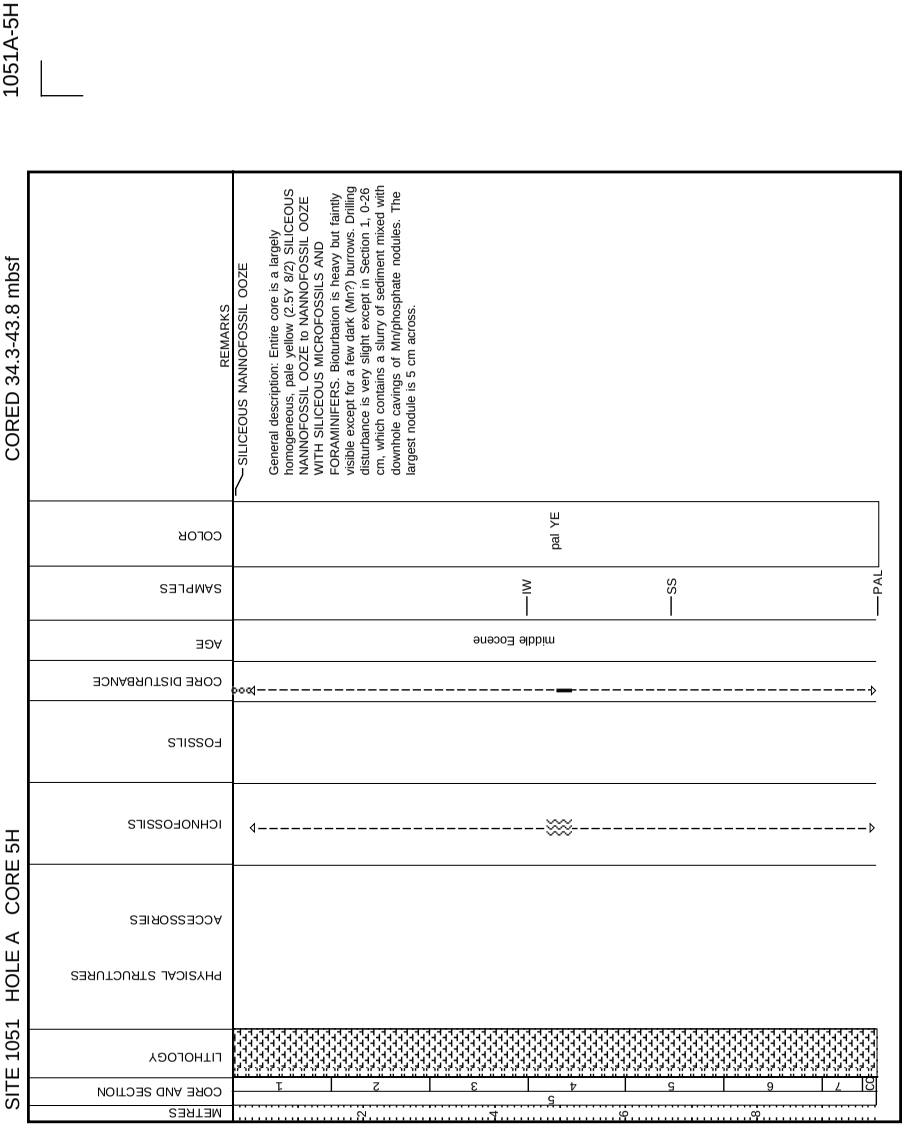


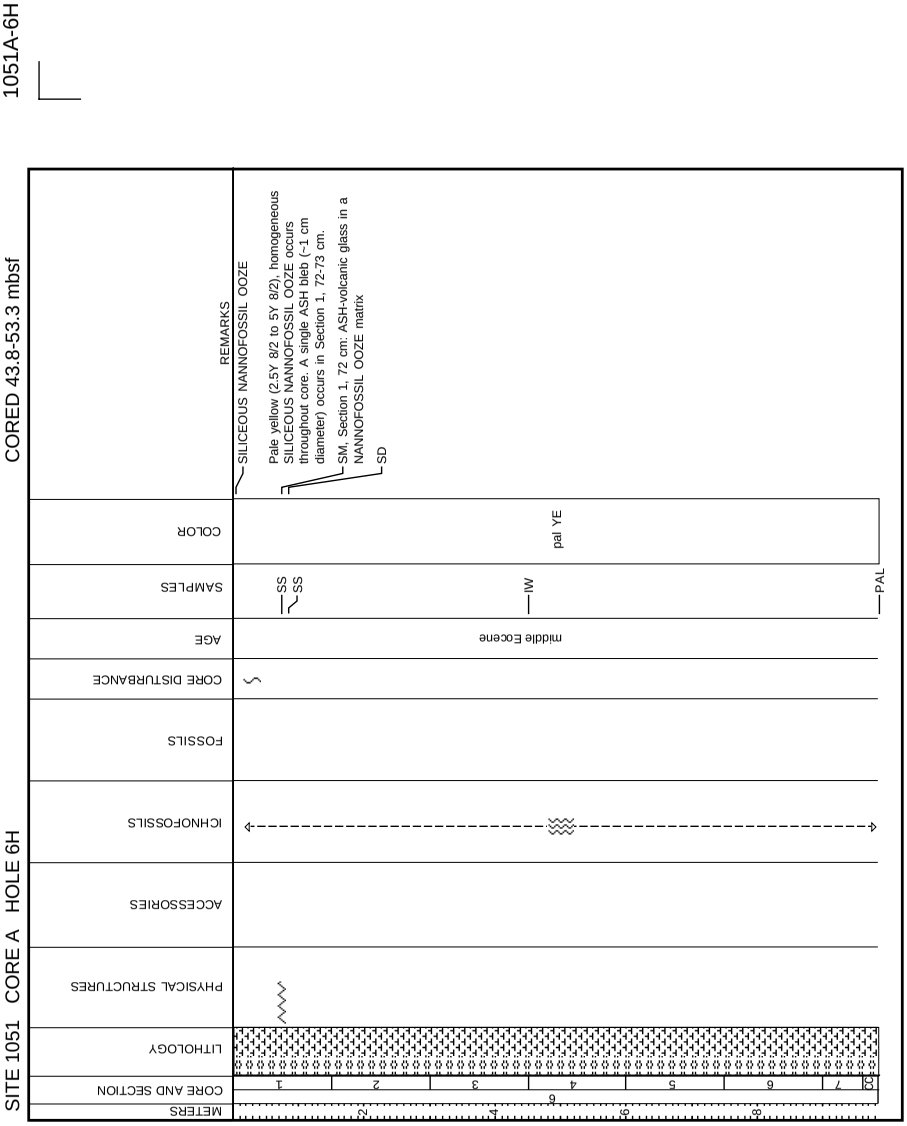
Prior Chapter Contents Next Chapter

1051A-3H


SITE 1051 HOLE A CORE 3H
CORED 15.3-24.8 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL OOZE
General description: Entire core is composed of homogeneous, pale yellow (5Y 8/2 to 2.5Y 8/2) SILICEOUS NANNOFOSSIL OOZE with gray patches and rare streaks throughout.
Gray areas associated with an ash component
Olive (5Y 4/4) blebs, ~ 1 cm
Small olive (5Y 4/4) blebs
middle Eocene
SS
SS
SS
MI
PAL
pal YE
1
2
3
4
5
6
7
CC


1051A-4H
SITE 1051 HOLE A CORE 4H
CORED 24.8-34.3 mbsf
METRES
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL OOZE
Generally homogeneous, pale yellow (2.5Y 8/1 to 5Y 8/2) SILICEOUS NANNOFOSSIL OOZE;
Vague burrow mottling occurs throughout indicating heavy bioturbation.
There are several rare olive blebs.
ASH, mottled gray. Section 4, 93 cm
minor lithology: SILICEOUS NANNOFOSSIL OOZE WITH CLAY; slightly darker color.
middle Eocene
SS
MI
SS
SS
PAL
pal YE
GI
1
2
3
4
5
6
7
CC

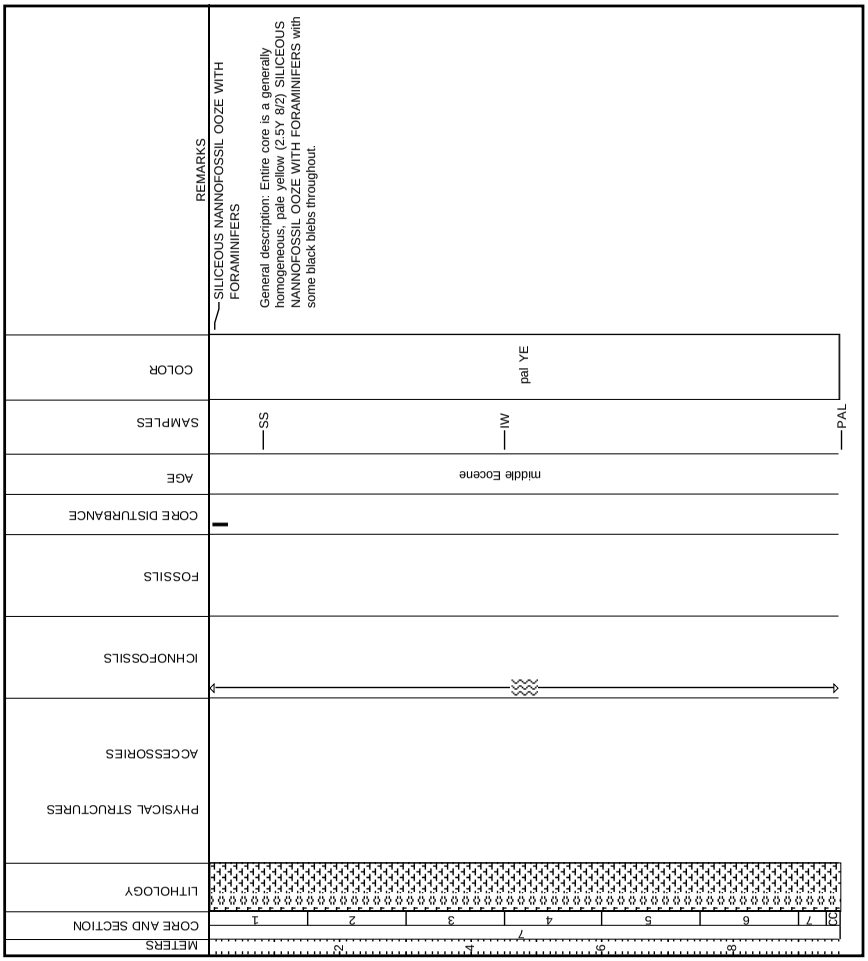

1051A-5H
SITE 1051 HOLE A CORE 5H
CORED 34.3-43.8 mbsf
METRES
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL OOZE
General description: Entire core is a largely homogeneous, pale yellow (2.5Y 8/2) SILICEOUS NANNOFOSSIL OOZE to NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS AND FORAMINIFERS. Bioturbation is heavy but faintly visible except for a few dark (Mn?) burrows. Drilling disturbance is very slight except in Section 1, 0-26 cm, which contains a slurry of sediment mixed with downhole cavings of Mn/phosphate nodules. The largest nodule is 5 cm across.
middle Eocene
pal YE
AM
SS
PAL
1
2
3
4
5
6
7
CC

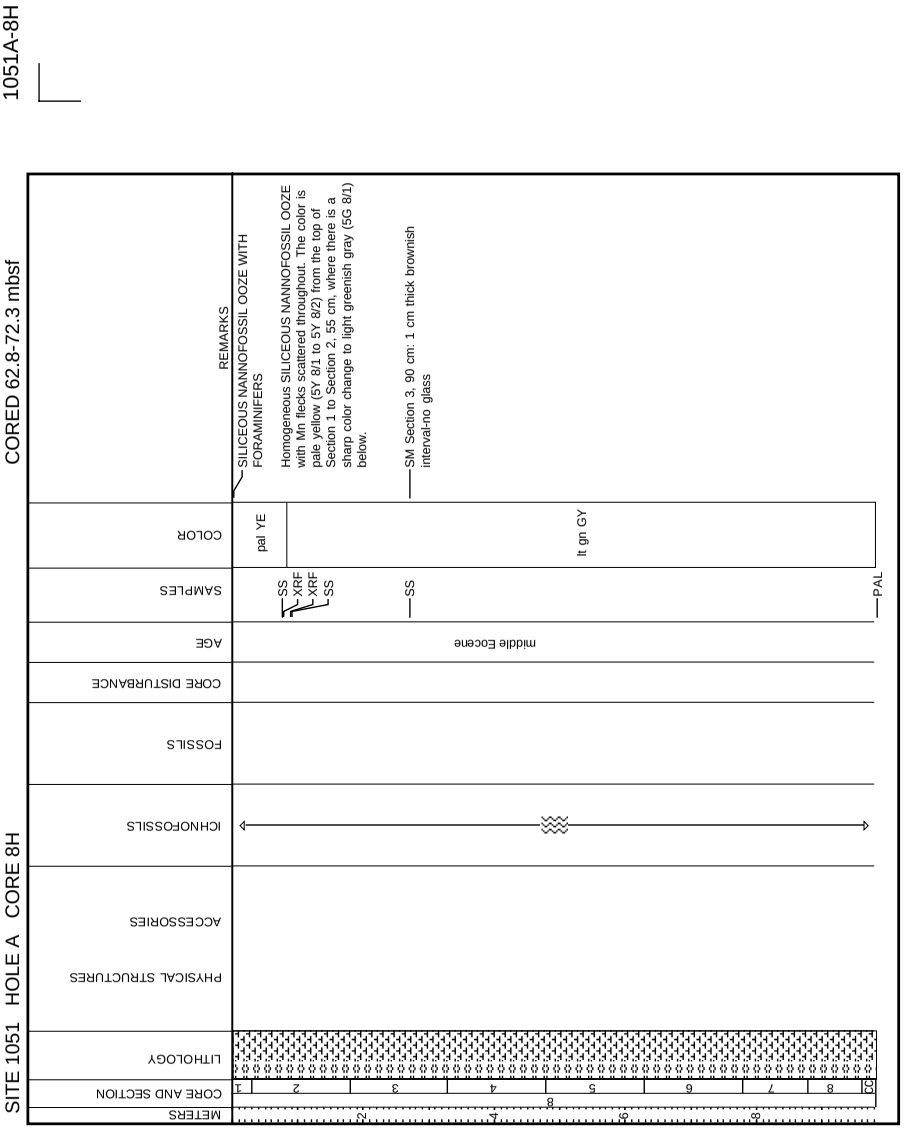

SITE 1051 CORE A HOLE 6H
CORED 43.8-53.3 mbsf
1051A-6H
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
SS
IW
PAL
pal YE
SILICEOUS NANNOFOSSIL OOZE
Pale yellow (2.5Y 8/2 to 5Y 8/2), homogeneous SILICEOUS NANNOFOSSIL OOZE occurs throughout core. A single ASH bleb (~1 cm diameter) occurs in Section 1, 72-73 cm.
SM, Section 1, 72 cm: ASH-volcanic glass in a NANNOFOSSIL OOZE matrix
SD

SITE 1051 HOLE A CORE 7H

CORED 53.3-62.8 mbsf

1051A-7H

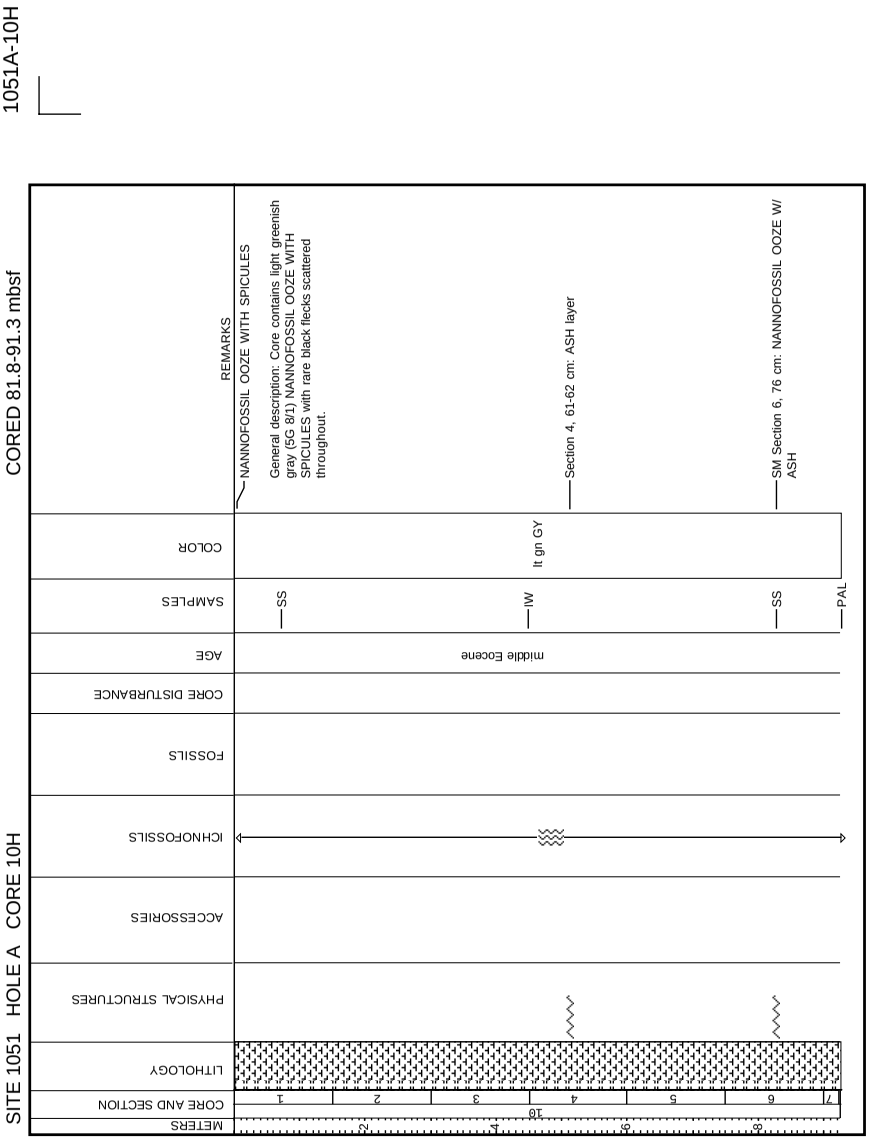


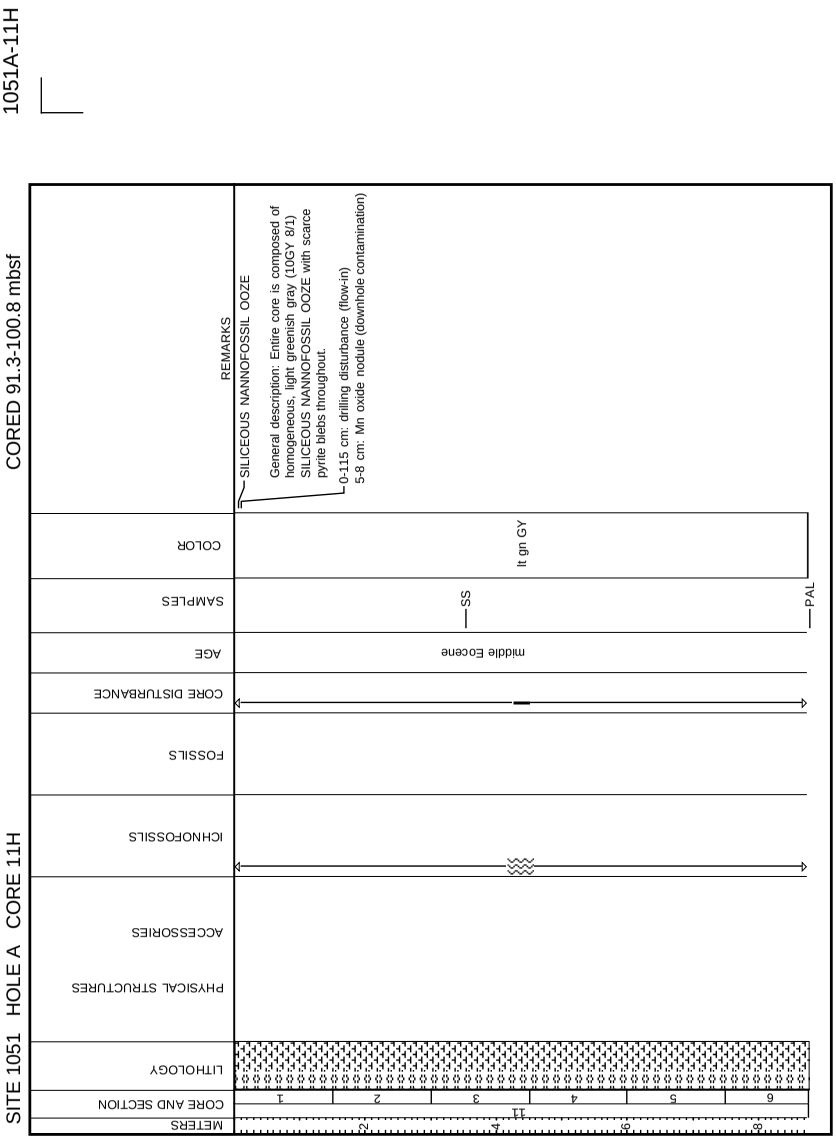

1051A-8H
SITE 1051 HOLE A CORE 8H
CORED 62.8-72.3 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
XRF
XRF
SS
SS
PAL
pal YE
lt gn GY
SILICEOUS NANNOFOSSIL OOZE WITH FORAMINIFERS
Homogeneous SILICEOUS NANNOFOSSIL OOZE with Mn flecks scattered throughout. The color is pale yellow (5Y 8/1 to 5Y 8/2) from the top of Section 1 to Section 2, 55 cm, where there is a sharp color change to light greenish gray (5G 8/1) below.
SM Section 3, 90 cm: 1 cm thick brownish interval-no glass

SITE 1051 HOLE A CORE 9H

CORED 72.3-81.8 mbsf

1051A-9H

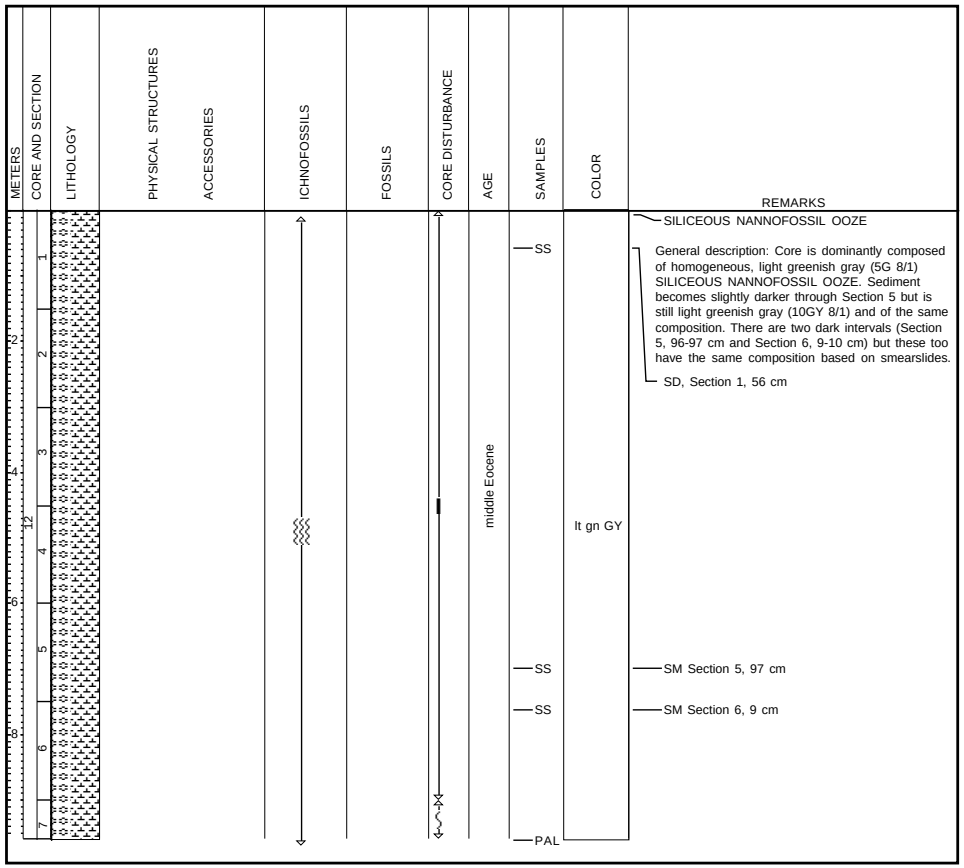

1051A-10H
CORED 81.8-91.3 mbsf
SITE 1051 HOLE A CORE 10H
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
IW
SS
PAL
lt gn GY
NANNOFOSSIL OOZE WITH SPICULES
General description: Core contains light greenish gray (5G 8/1) NANNOFOSSIL OOZE WITH SPICULES with rare black flecks scattered throughout.
Section 4, 61-62 cm: ASH layer
SM Section 6, 76 cm: NANNOFOSSIL OOZE W/ ASH

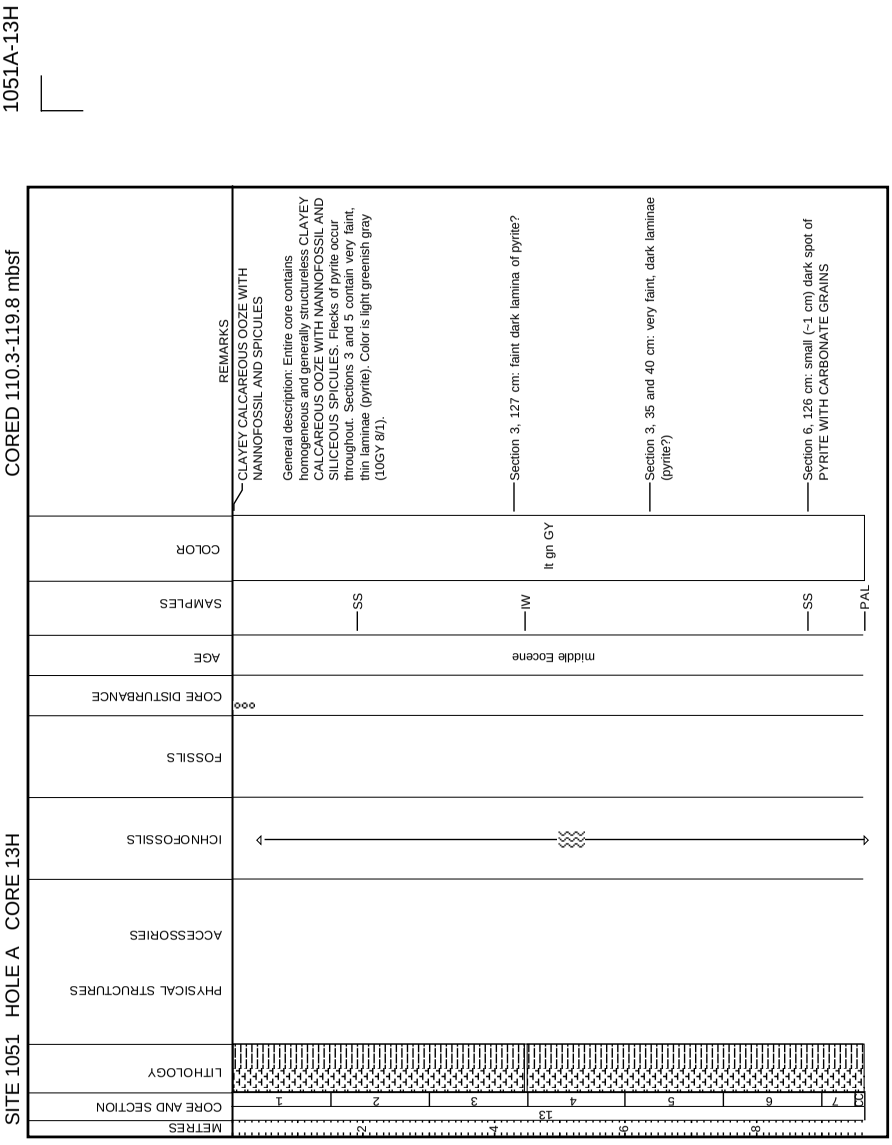

1051A-11H
SITE 1051 HOLE A CORE 11H
CORED 91.3-100.8 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
PAL
lt gn GY
SILICEOUS NANNOFOSSIL OOZE
General description: Entire core is composed of homogeneous, light greenish gray (10GY 8/1) SILICEOUS NANNOFOSSIL OOZE with scarce pyrite blebs throughout.
0-115 cm: drilling disturbance (flow-in)
5-8 cm: Mn oxide nodule (downhole contamination)

SITE 1051 HOLE A CORE 12H

CORED 100.8-110.3 mbsf

1051A-12H

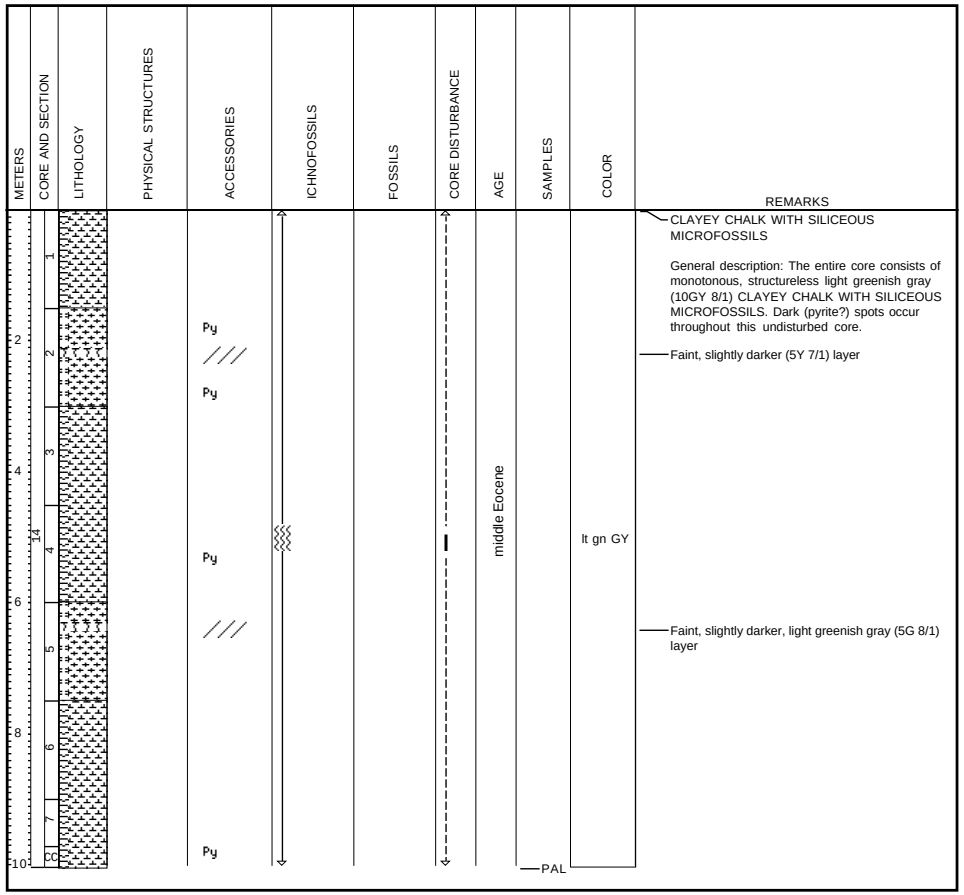



1051A-13H
SITE 1051 HOLE A CORE 13H
CORED 110.3-119.8 mbsf
METRES
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
IW
SS
PAL
lt gn GY
CLAYEY CALCAREOUS OOZE WITH NANNOFOSSIL AND SPICULES
General description: Entire core contains homogeneous and generally structureless CLAYEY CALCAREOUS OOZE WITH NANNOFOSSIL AND SILICEOUS SPICULES. Flecks of pyrite occur throughout. Sections 3 and 5 contain very faint, thin laminae (pyrite). Color is light greenish gray (10GY 8/1).
Section 3, 127 cm: faint dark lamina of pyrite?
Section 3, 35 and 40 cm: very faint, dark laminae (pyrite?)
Section 6, 126 cm: small (~1 cm) dark spot of PYRITE WITH CARBONATE GRAINS

SITE 1051 HOLE A CORE 14H

CORED 119.8-129.3 mbsf

1051A-14H



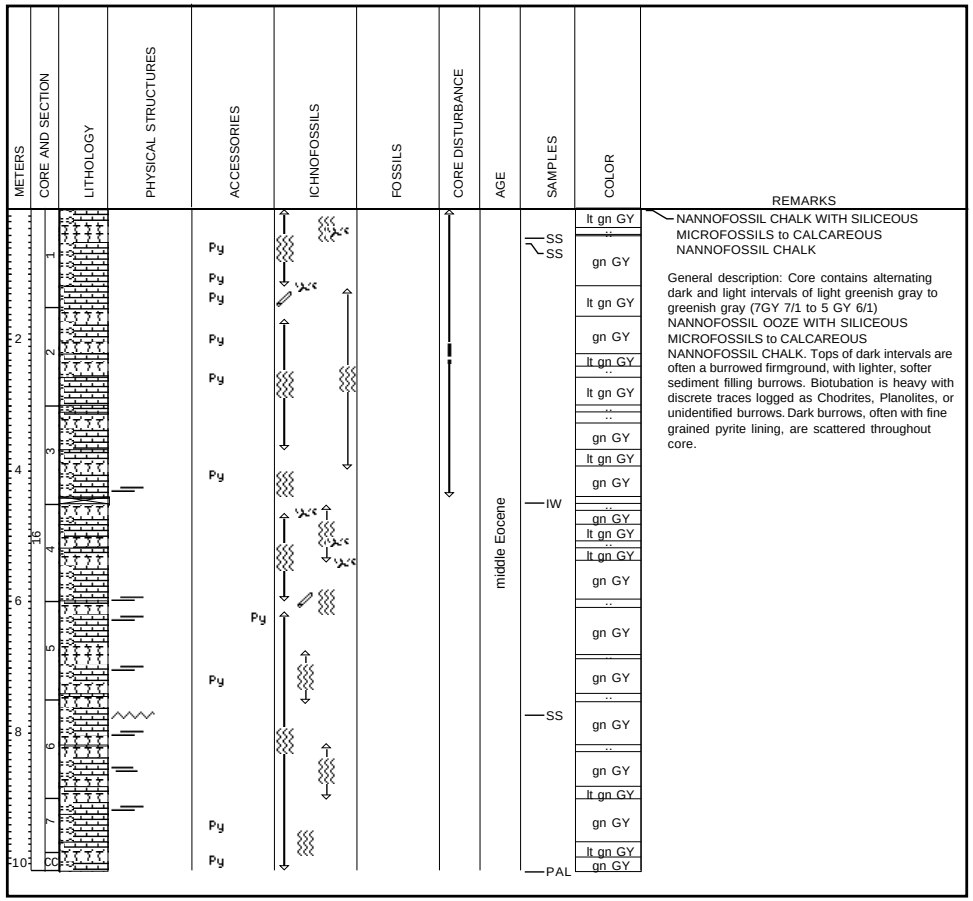
SITE 1051 HOLE A CORE 15H — CORED 129.3-138.8 mbsf

1051A-15H

SITE 1051 HOLE A CORE 16H

CORED 138.8-148.3 mbsf

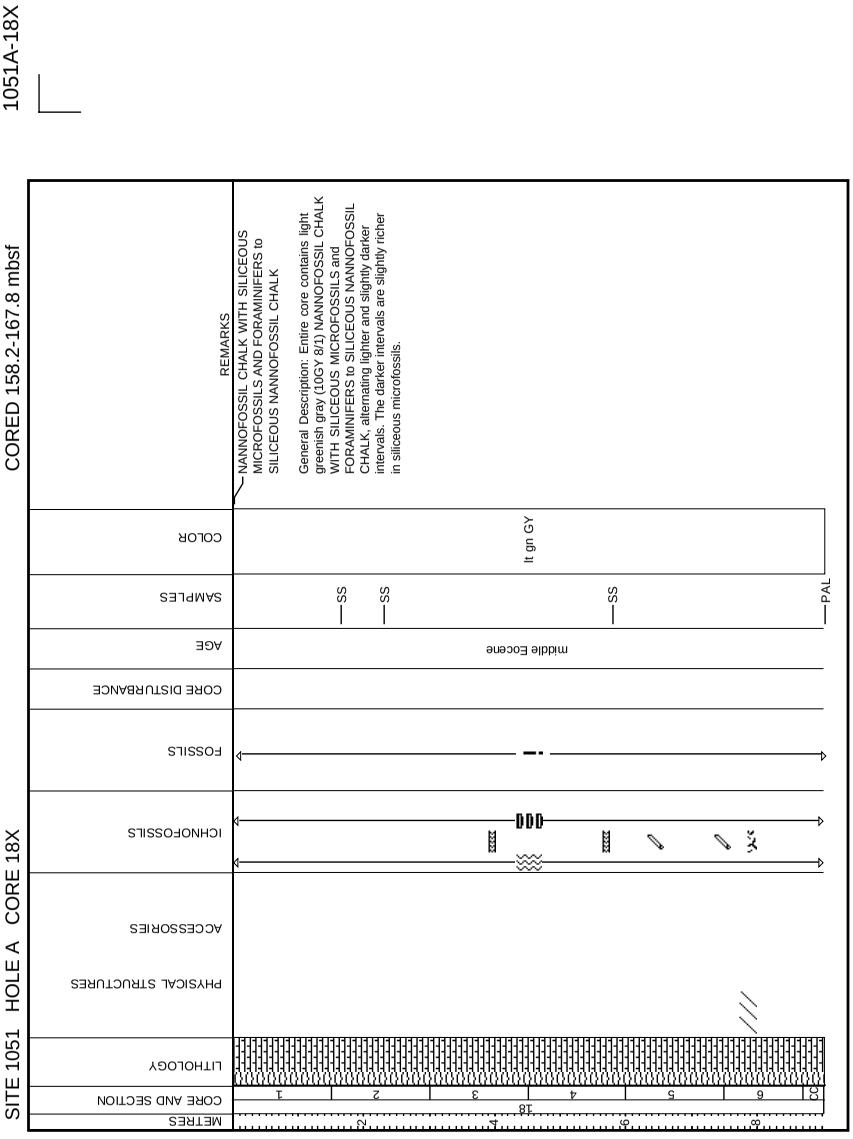
1051A-16H

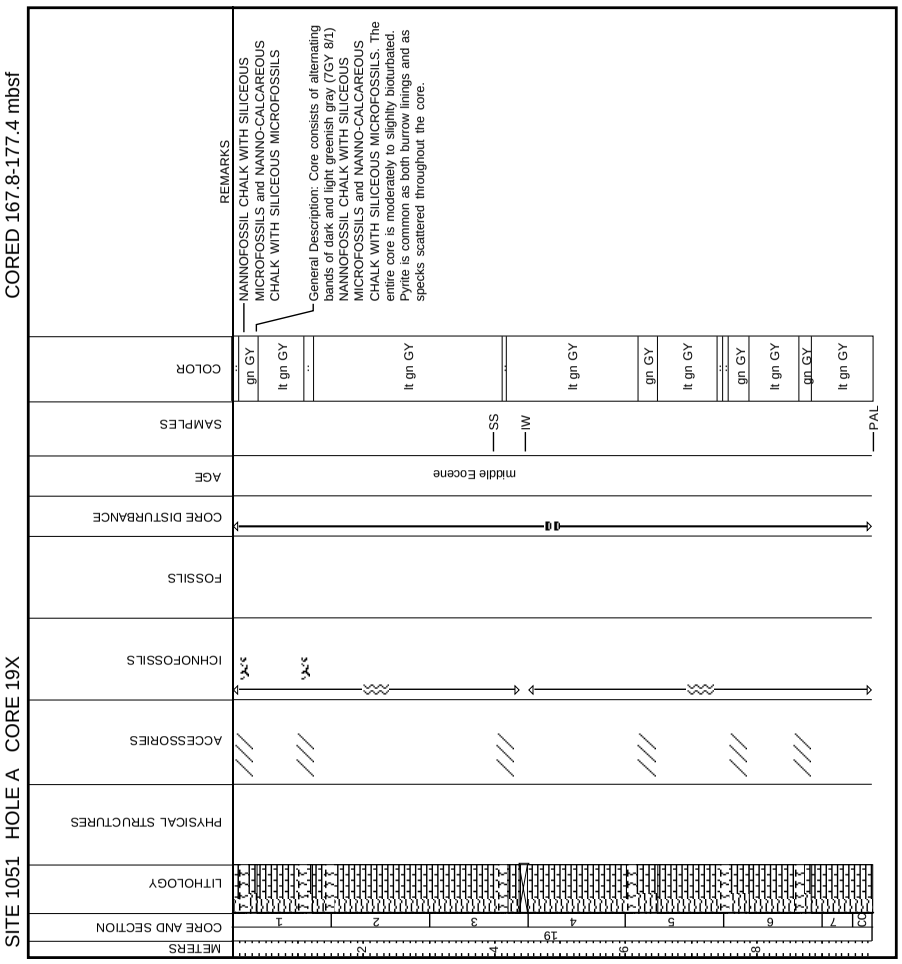


SITE 1051 HOLE A CORE 17X

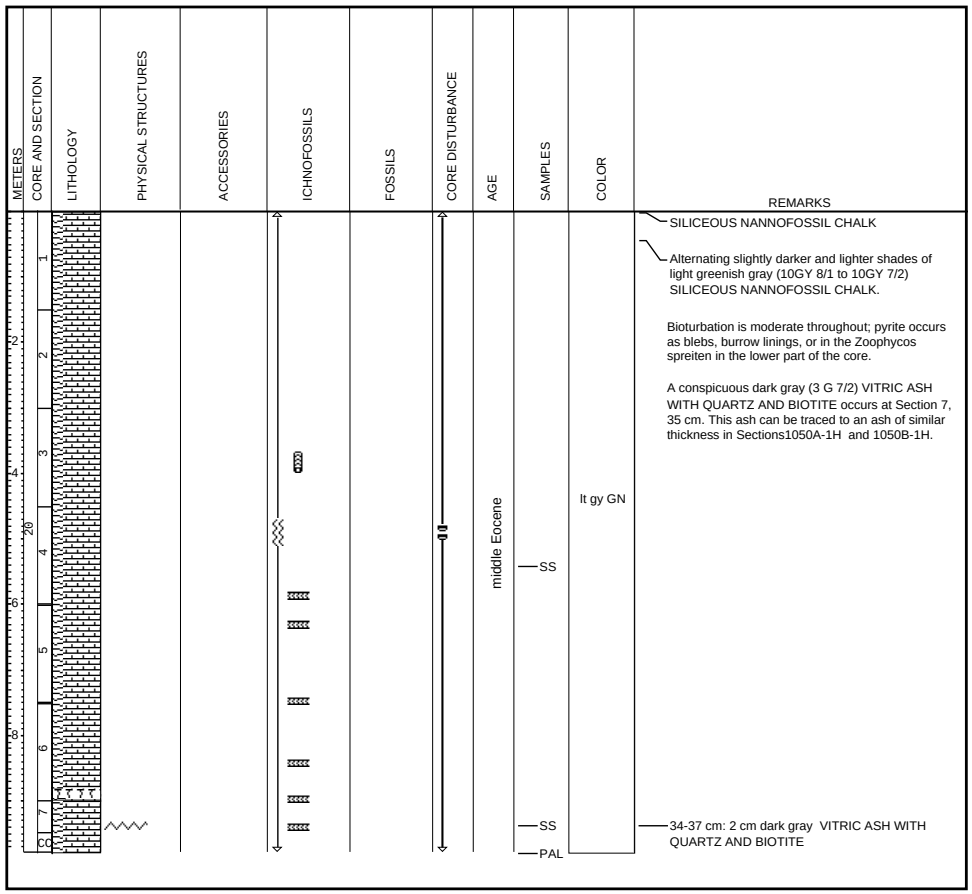
CORED 148.3-158.2 mbsf

1051A-17X


SITE 1051 HOLE A CORE 18X
CORED 158.2-167.8 mbsf
1051A-18X
METRES
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
SS
SS
PAL
lt gn GY
NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS AND FORAMINIFERS to SILICEOUS NANNOFOSSIL CHALK
General Description: Entire core contains light greenish gray (10GY 8/1) NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS and FORAMINIFERS to SILICEOUS NANNOFOSSIL CHALK, alternating lighter and slightly darker intervals. The darker intervals are slightly richer in siliceous microfossils.


SITE 1051 HOLE A CORE 19X
CORED 167.8-177.4 mbsf
1051A-19X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
IW
PAL
gn GY
lt gn GY
NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS and NANNO-CALCAREOUS CHALK WITH SILICEOUS MICROFOSSILS
General Description: Core consists of alternating bands of dark and light greenish gray (7GY 8/1) NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS and NANNO-CALCAREOUS CHALK WITH SILICEOUS MICROFOSSILS. The entire core is moderately to slightly bioturbated. Pyrite is common as both burrow linings and as specks scattered throughout the core.

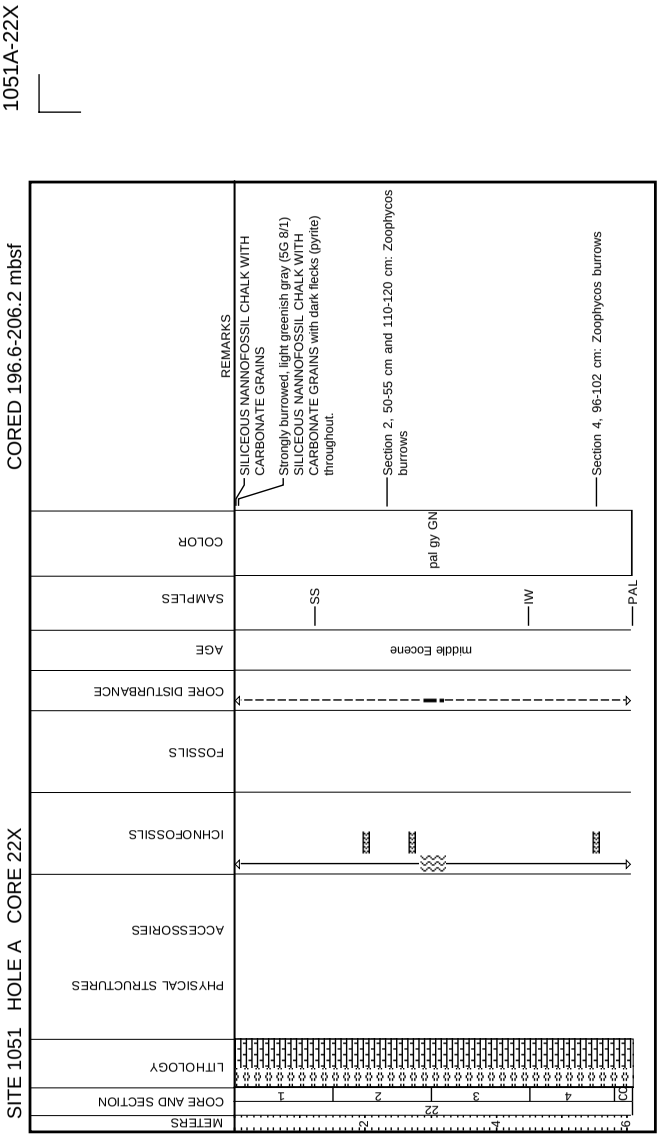
SITE 1051 HOLE A CORE 20X CORED 177.4-187.0 mbsf

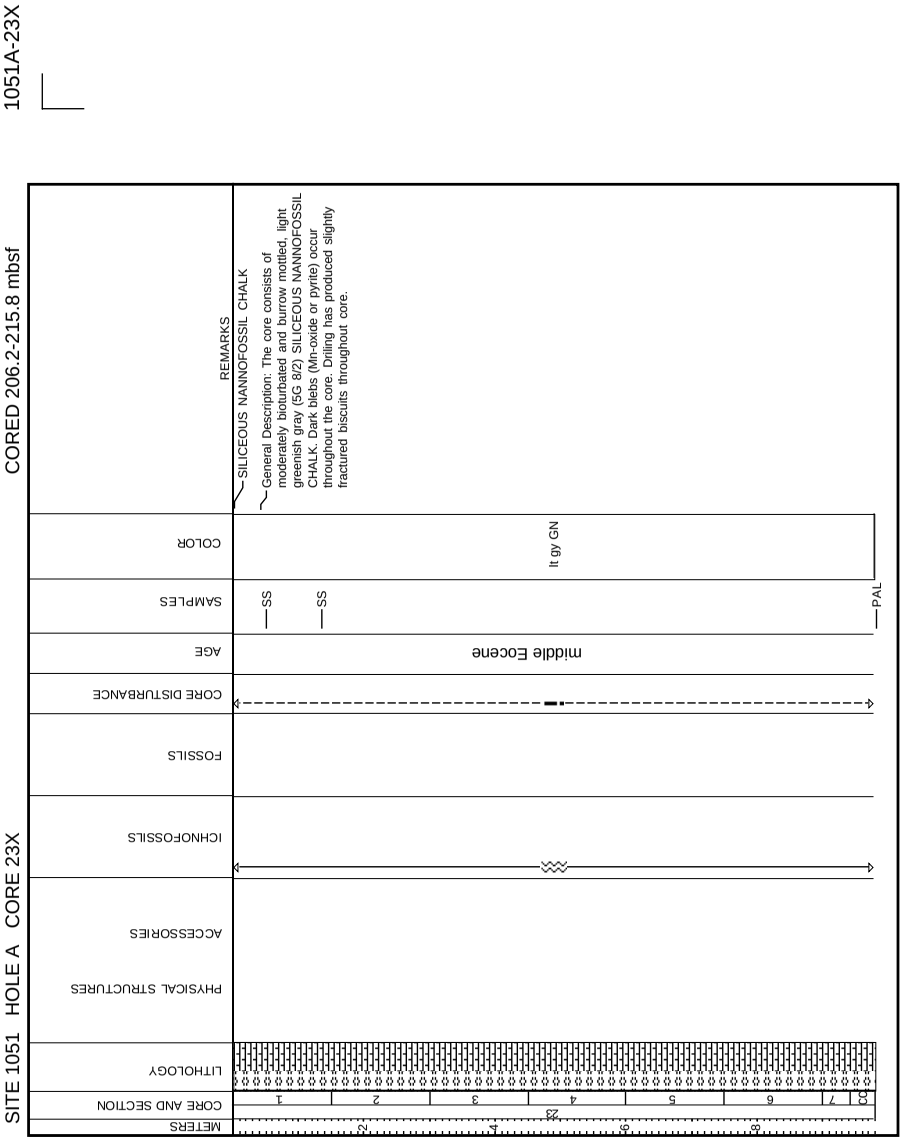


SITE 1051 HOLE A CORE 21X

CORED 187.0-196.6 mbsf

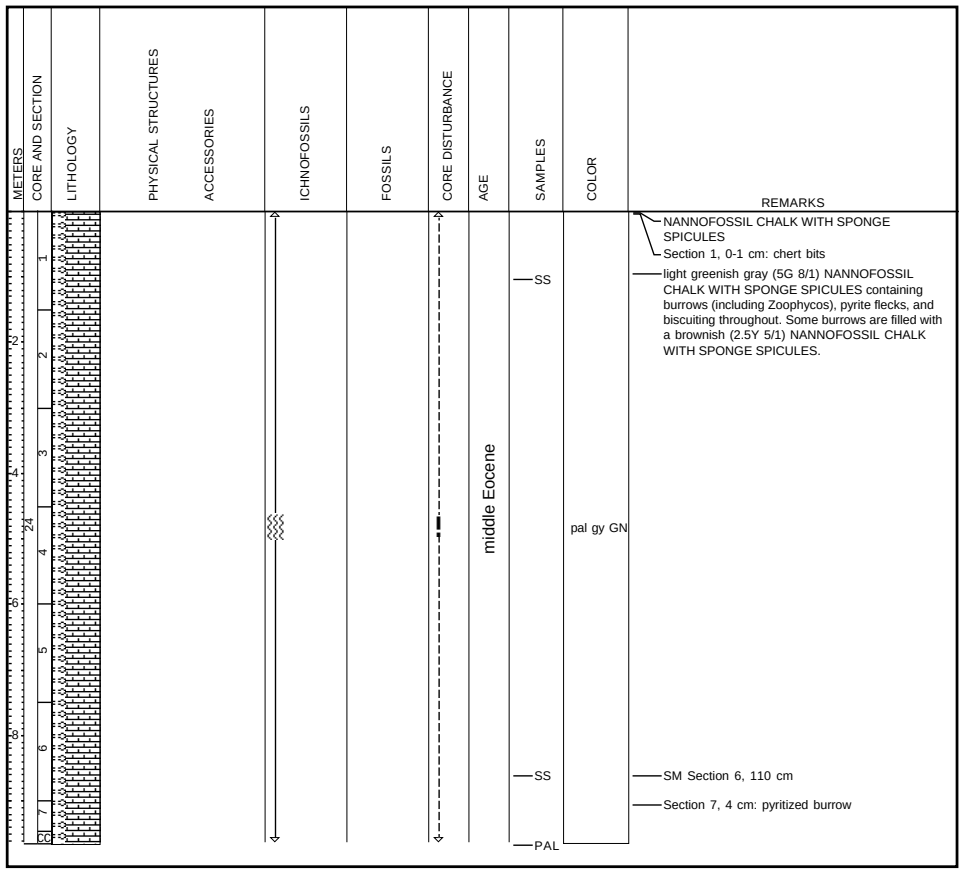
1051A-21X


SITE 1051 HOLE A CORE 22X
CORED 196.6-206.2 mbsf
1051A-22X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
IW
PAL
pal gy GN
SILICEOUS NANNOFOSSIL CHALK WITH CARBONATE GRAINS
Strongly burrowed, light greenish gray (5G 8/1) SILICEOUS NANNOFOSSIL CHALK WITH CARBONATE GRAINS with dark flecks (pyrite) throughout.
Section 2, 50-55 cm and 110-120 cm: Zoophycos burrows
Section 4, 96-102 cm: Zoophycos burrows

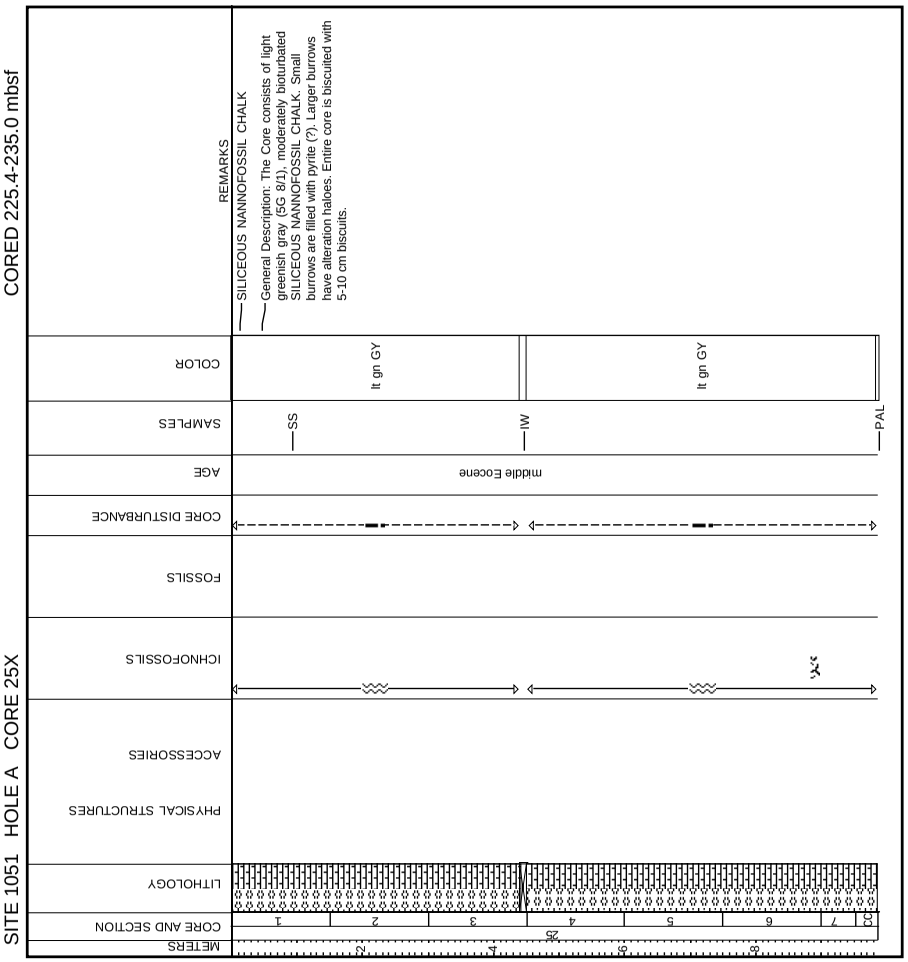

SITE 1051 HOLE A CORE 23X
CORED 206.2-215.8 mbsf
1051A-23X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
SS
PAL
lt gy GN
SILICEOUS NANNOFOSSIL CHALK
General Description: The core consists of moderately bioturbated and burrow mottled, light greenish gray (5G 8/2) SILICEOUS NANNOFOSSIL CHALK. Dark blebs (Mn-oxide or pyrite) occur throughout the core. Drilling has produced slightly fractured biscuits throughout core.

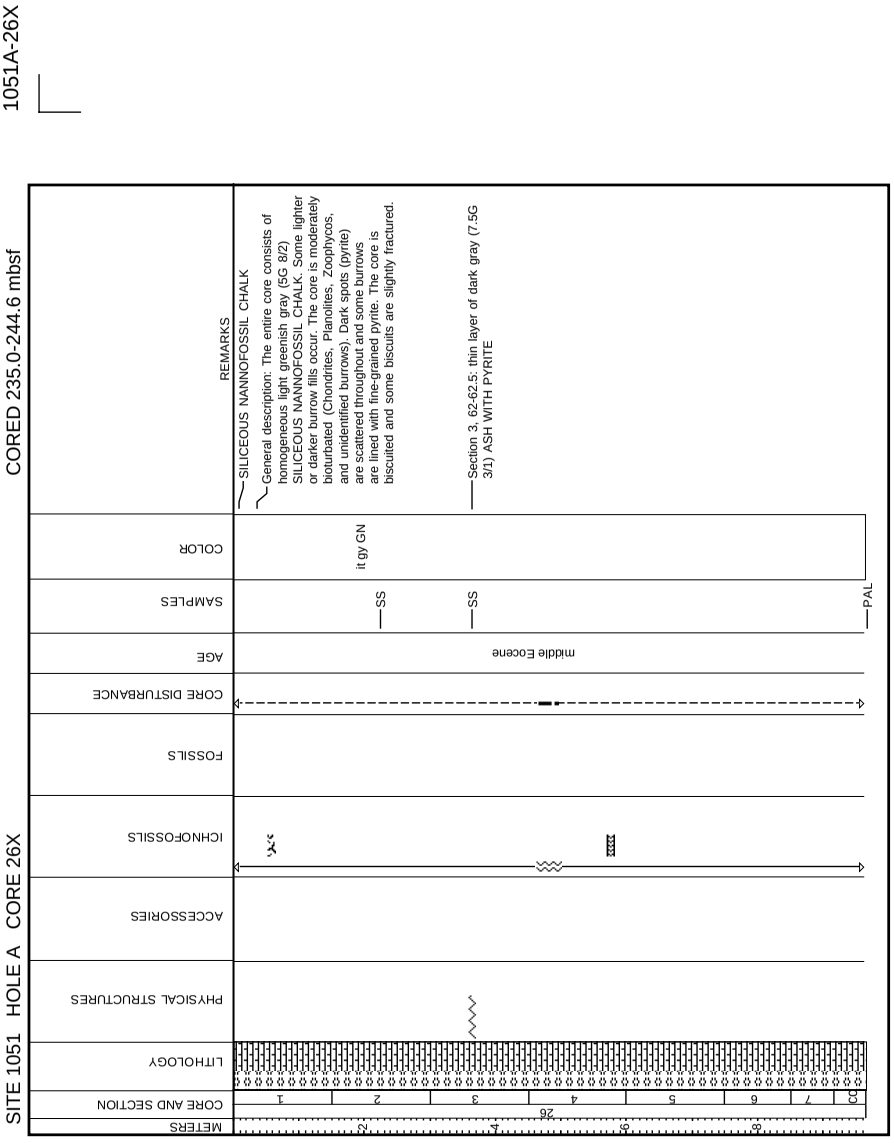
SITE 1051 HOLE A CORE 24X CORED 215.8-225.4 mbsf

1051A-24X



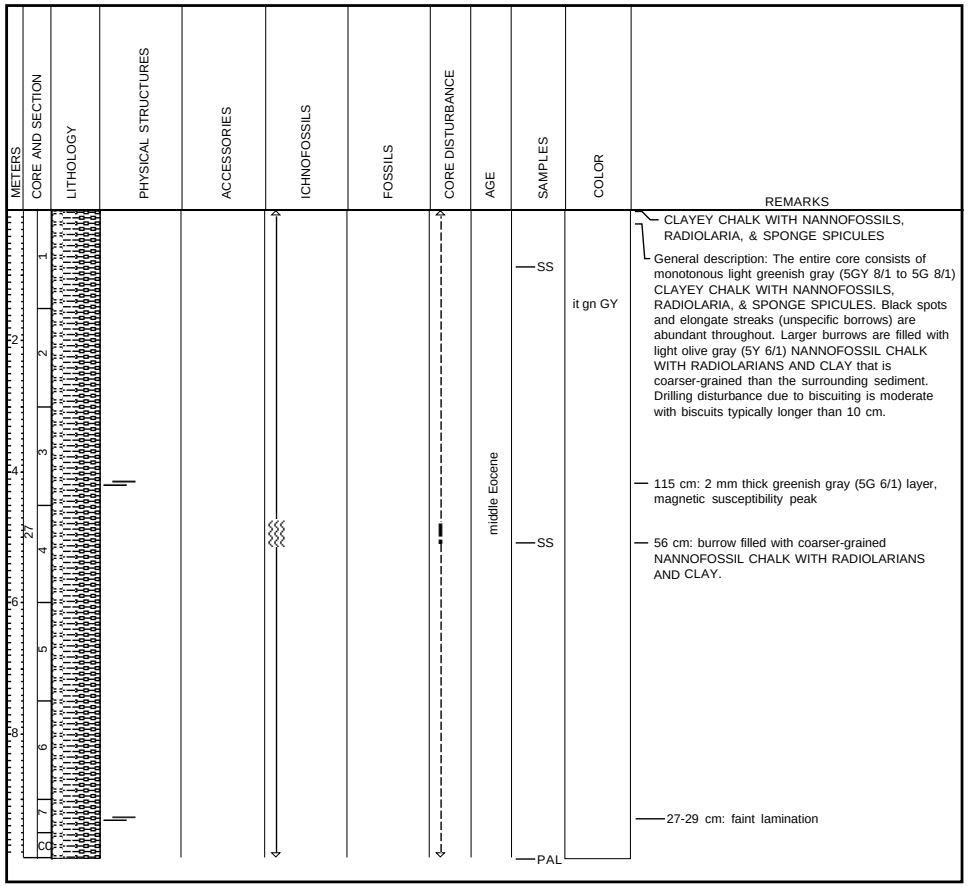
1051A-25X


SITE 1051 HOLE A CORE 25X
CORED 225.4-235.0 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL CHALK
General Description: The Core consists of light greenish gray (5G 8/1), moderately bioturbated SILICEOUS NANNOFOSSIL CHALK. Small burrows are filled with pyrite (?). Larger burrows have alteration haloes. Entire core is biscuited with 5-10 cm biscuits.
lt gn GY
lt gn GY
middle Eocene
SS
IW
PAL
1
2
3
4
5
6
7
CC


SITE 1051 HOLE A CORE 26X
CORED 235.0-244.6 mbsf
1051A-26X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
it gy GN
SS
SS
PAL
SILICEOUS NANNOFOSSIL CHALK
General description: The entire core consists of homogeneous light greenish gray (5G 8/2) SILICEOUS NANNOFOSSIL CHALK. Some lighter or darker burrow fills occur. The core is moderately bioturbated (Chondrites, Planolites, Zoophycos, and unidentified burrows). Dark spots (pyrite) are scattered throughout and some burrows are lined with fine-grained pyrite. The core is biscuited and some biscuits are slightly fractured.
Section 3, 62-62.5: thin layer of dark gray (7.5G 3/1) ASH WITH PYRITE

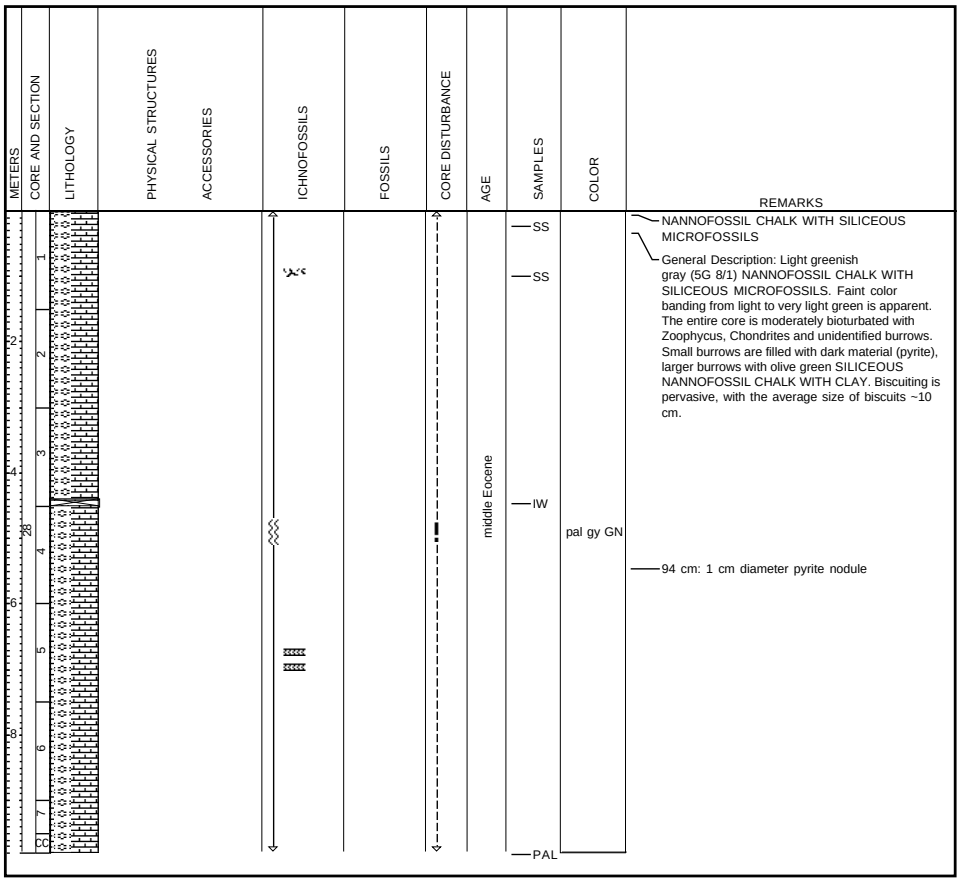
SITE 1051 HOLE A CORE 27X CORED 244.6-254.2 mbsf

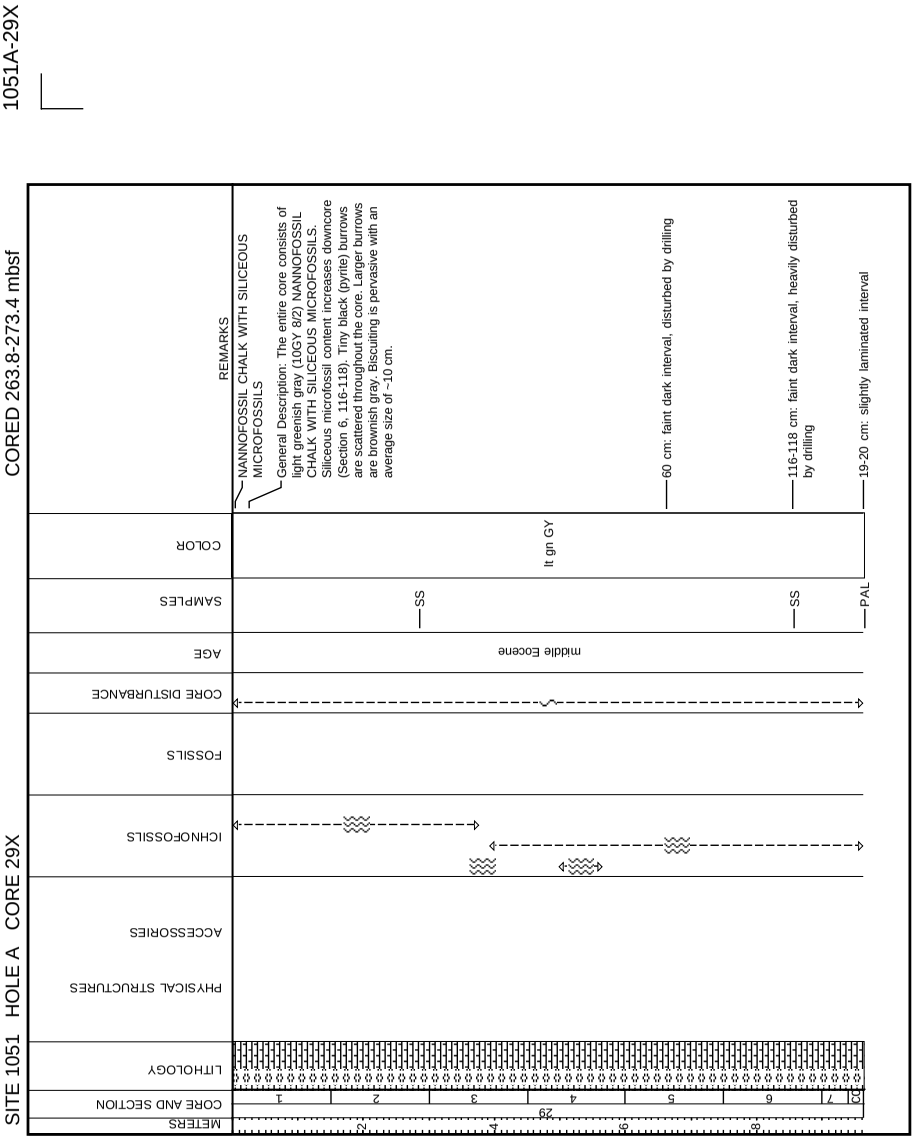
1051A-27X

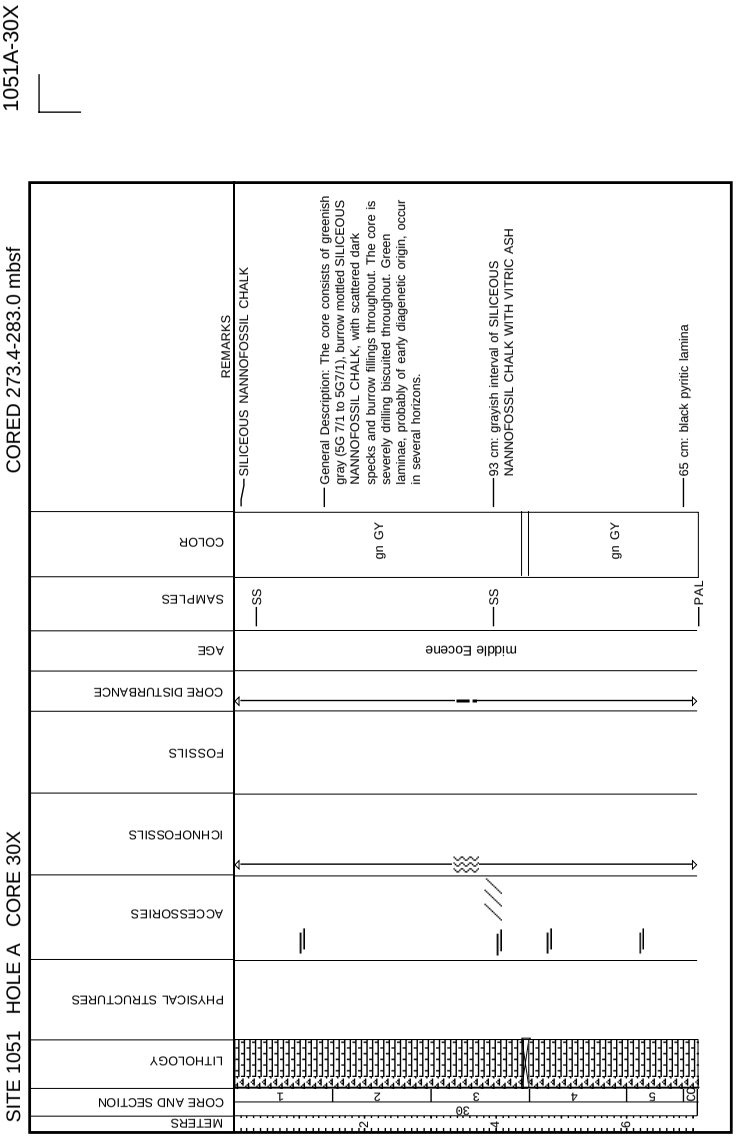


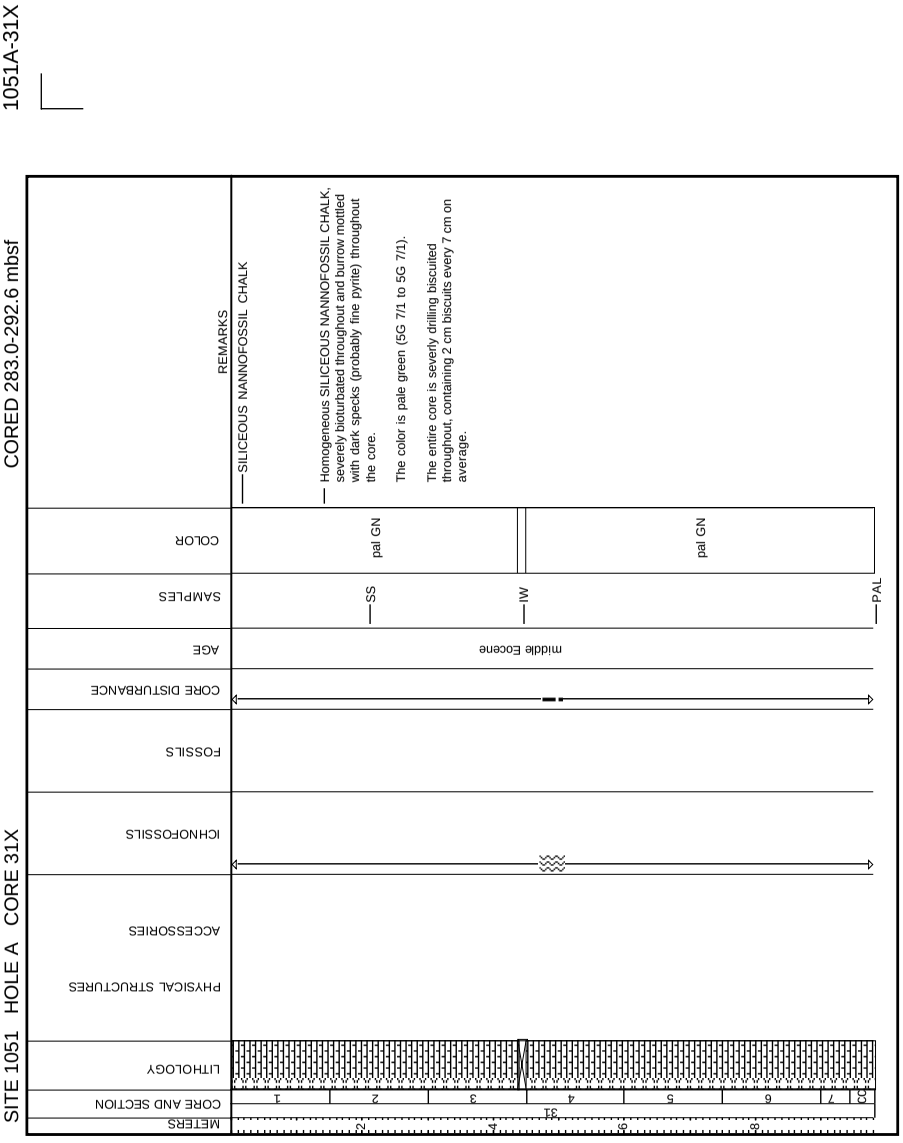
SITE 1051 HOLE A CORE 28X CORED 254.2-263.8 mbsf

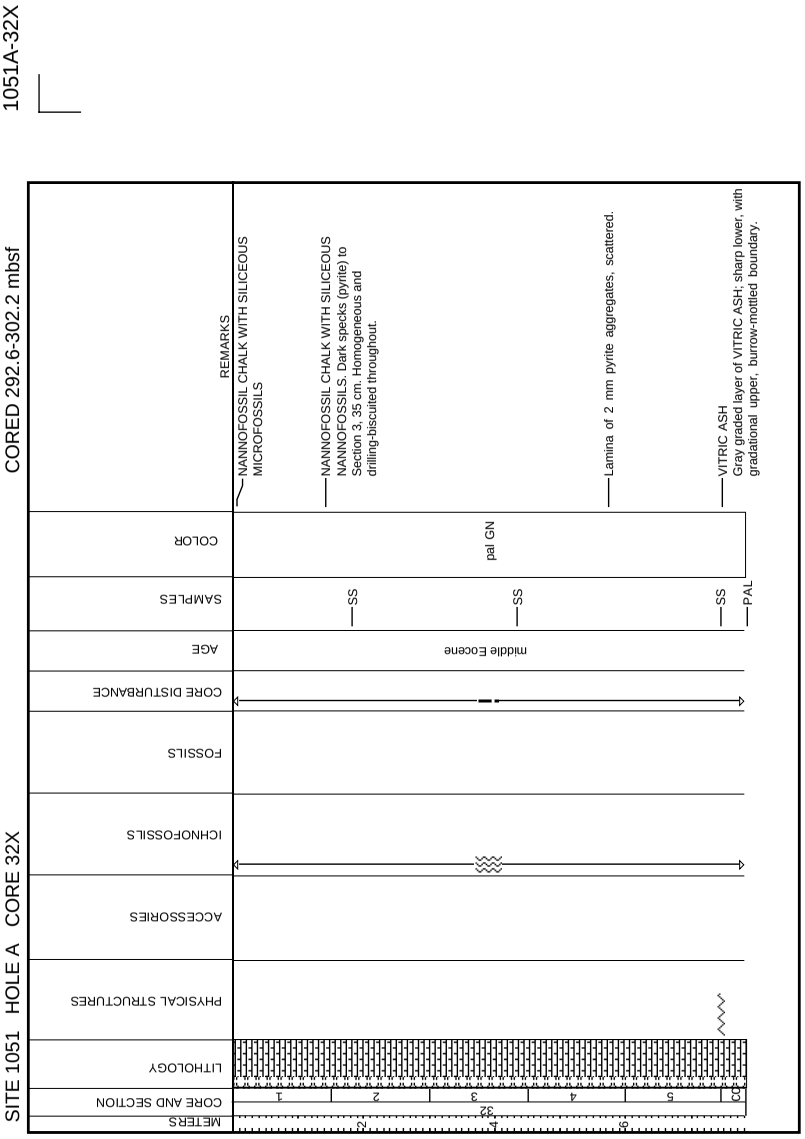
1051A-28X




1051A-29X
SITE 1051 HOLE A CORE 29X
CORED 263.8-273.4 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
SS
PAL
lt gn GY
NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS
General Description: The entire core consists of light greenish gray (10GY 8/2) NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS. Siliceous microfossil content increases downcore (Section 6, 116-118). Tiny black (pyrite) burrows are scattered throughout the core. Larger burrows are brownish gray. Biscuiting is pervasive with an average size of ~10 cm.
60 cm: faint dark interval, disturbed by drilling
116-118 cm: faint dark interval, heavily disturbed by drilling
19-20 cm: slightly laminated interval


SITE 1051 HOLE A CORE 30X
CORED 273.4-283.0 mbsf
1051A-30X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL CHALK
General Description: The core consists of greenish gray (5G 7/1 to 5G7/1), burrow mottled SILICEOUS NANNOFOSSIL CHALK, with scattered dark specks and burrow fillings throughout. The core is severely drilling biscuited throughout. Green laminae, probably of early diagenetic origin, occur in several horizons.
93 cm: grayish interval of SILICEOUS NANNOFOSSIL CHALK WITH VITRIC ASH
65 cm: black pyritic lamina
middle Eocene
SS
SS
PAL
gn GY
gn GY
1
2
3
4
5
CC
30
1
2
3
4
5
6

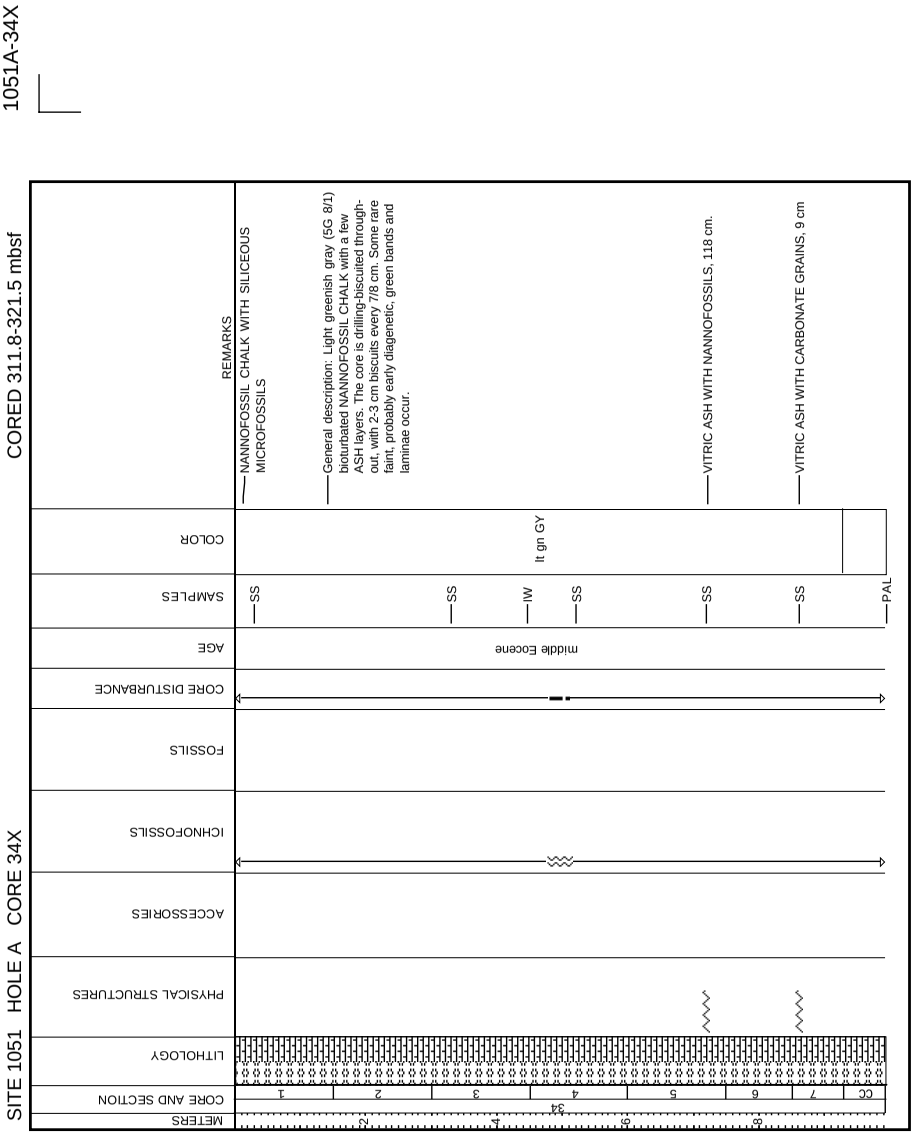

1051A-31X
SITE 1051 HOLE A CORE 31X
CORED 283.0-292.6 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
IW
PAL
pal GN
pal GN
SILICEOUS NANNOFOSSIL CHALK
Homogeneous SILICEOUS NANNOFOSSIL CHALK, severely bioturbated throughout and burrow mottled with dark specks (probably fine pyrite) throughout the core.
The color is pale green (5G 7/1 to 5G 7/1).
The entire core is severly drilling biscuited throughout, containing 2 cm biscuits every 7 cm on average.


SITE 1051 HOLE A CORE 32X
CORED 292.6-302.2 mbsf
1051A-32X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
pal GN
SS
SS
SS
PAL
NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS
NANNOFOSSIL CHALK WITH SILICEOUS NANNOFOSSILS. Dark specks (pyrite) to Section 3, 35 cm. Homogeneous and drilling-biscuited throughout.
Lamina of 2 mm pyrite aggregates, scattered.
VITRIC ASH
Gray graded layer of VITRIC ASH; sharp lower, with gradational upper, burrow-mottled boundary.

SITE 1051 HOLE A CORE 33X

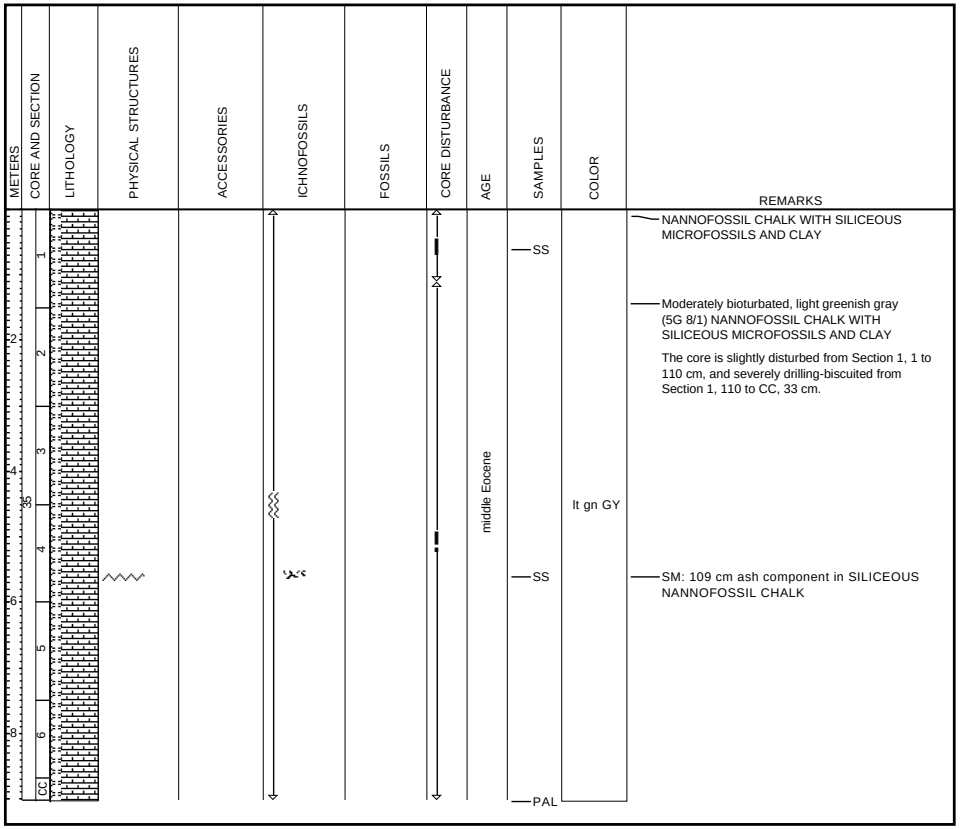
CORED 302.2-311.8 mbsf

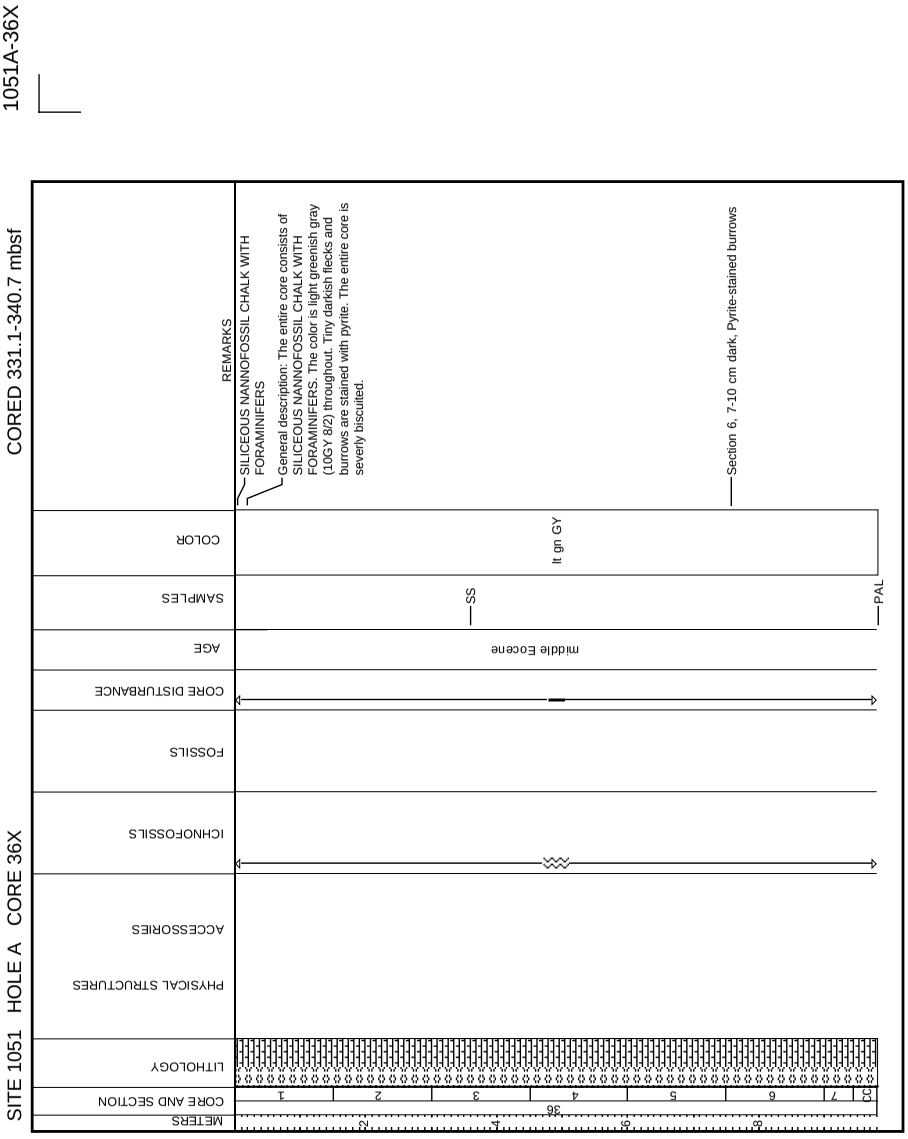
1051A-33X


1051A-34X
SITE 1051 HOLE A CORE 34X
CORED 311.8-321.5 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
SS
IW
SS
SS
SS
PAL
lt gn GY
NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS
General description: Light greenish gray (5G 8/1) bioturbated NANNOFOSSIL CHALK with a few ASH layers. The core is drilling-biscuited through-out, with 2-3 cm biscuits every 7/8 cm. Some rare faint, probably early diagenetic, green bands and laminae occur.
VITRIC ASH WITH NANNOFOSSILS, 118 cm.
VITRIC ASH WITH CARBONATE GRAINS, 9 cm
1
2
3
4
5
6
7
CC
34

SITE 1051 HOLE A CORE 35X CORED 321.5-331.1 mbsf

1051A-35X

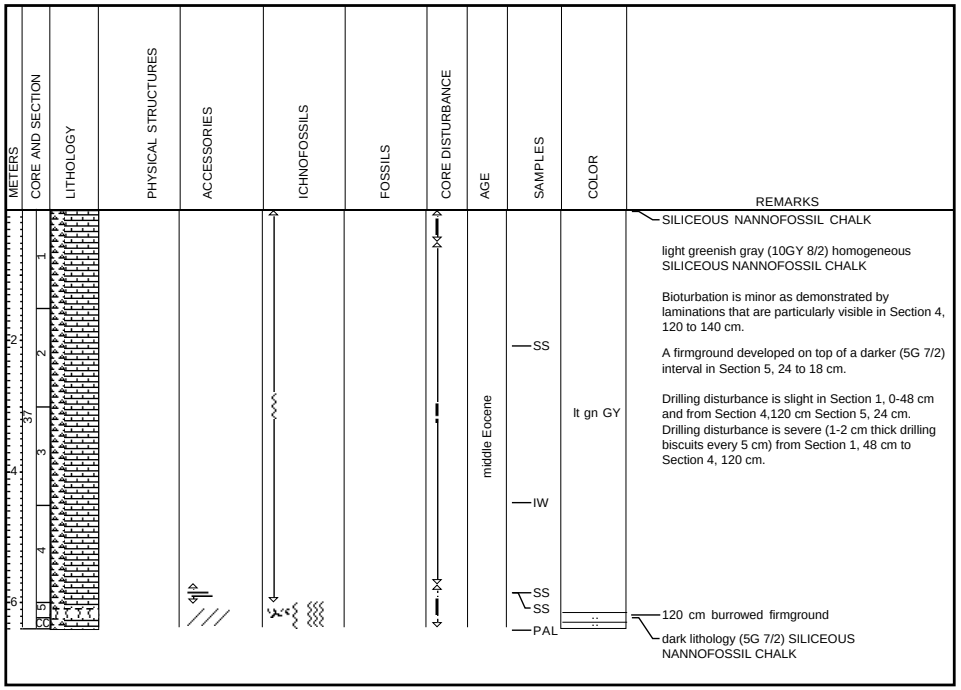


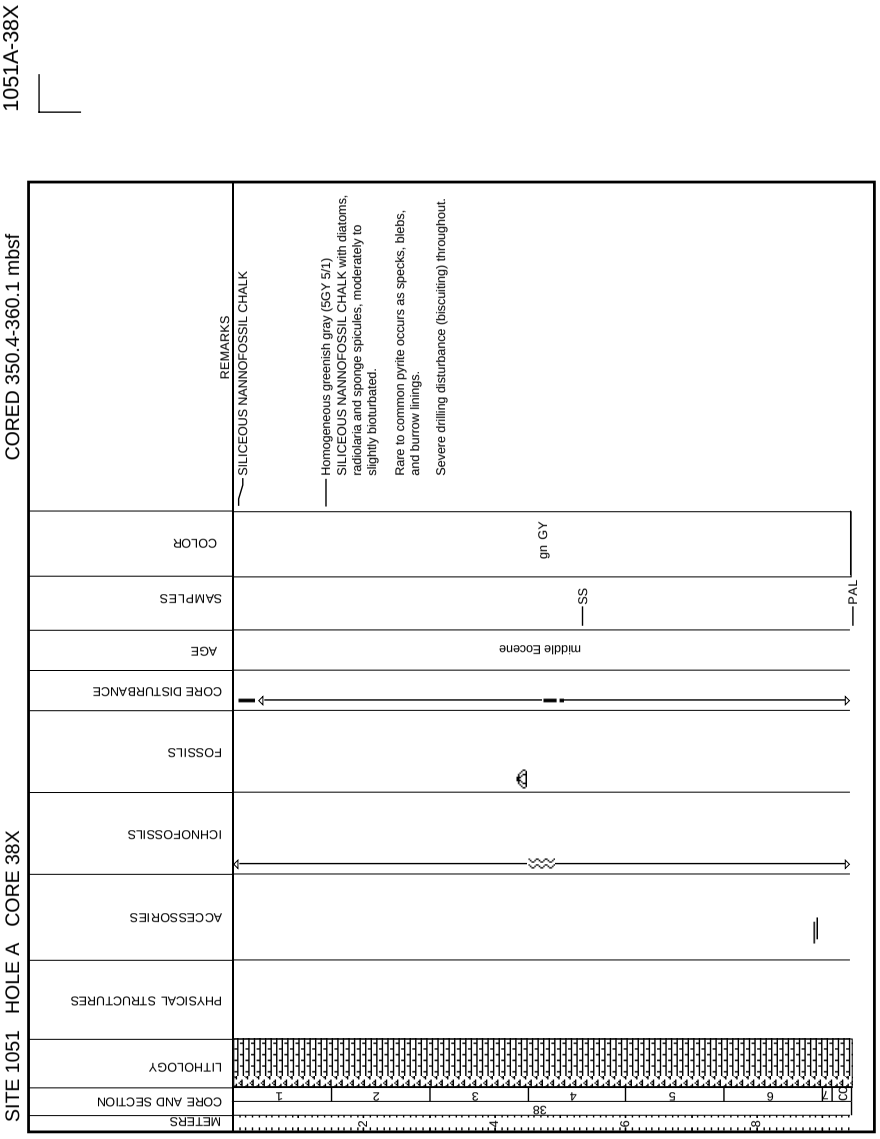

1051A-36X
SITE 1051 HOLE A CORE 36X
CORED 331.1-340.7 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
PAL
lt gn GY
SILICEOUS NANNOFOSSIL CHALK WITH FORAMINIFERS
General description: The entire core consists of SILICEOUS NANNOFOSSIL CHALK WITH FORAMINIFERS. The color is light greenish gray (10GY 8/2) throughout. Tiny darkish flecks and burrows are stained with pyrite. The entire core is severly biscuited.
Section 6, 7-10 cm dark, Pyrite-stained burrows

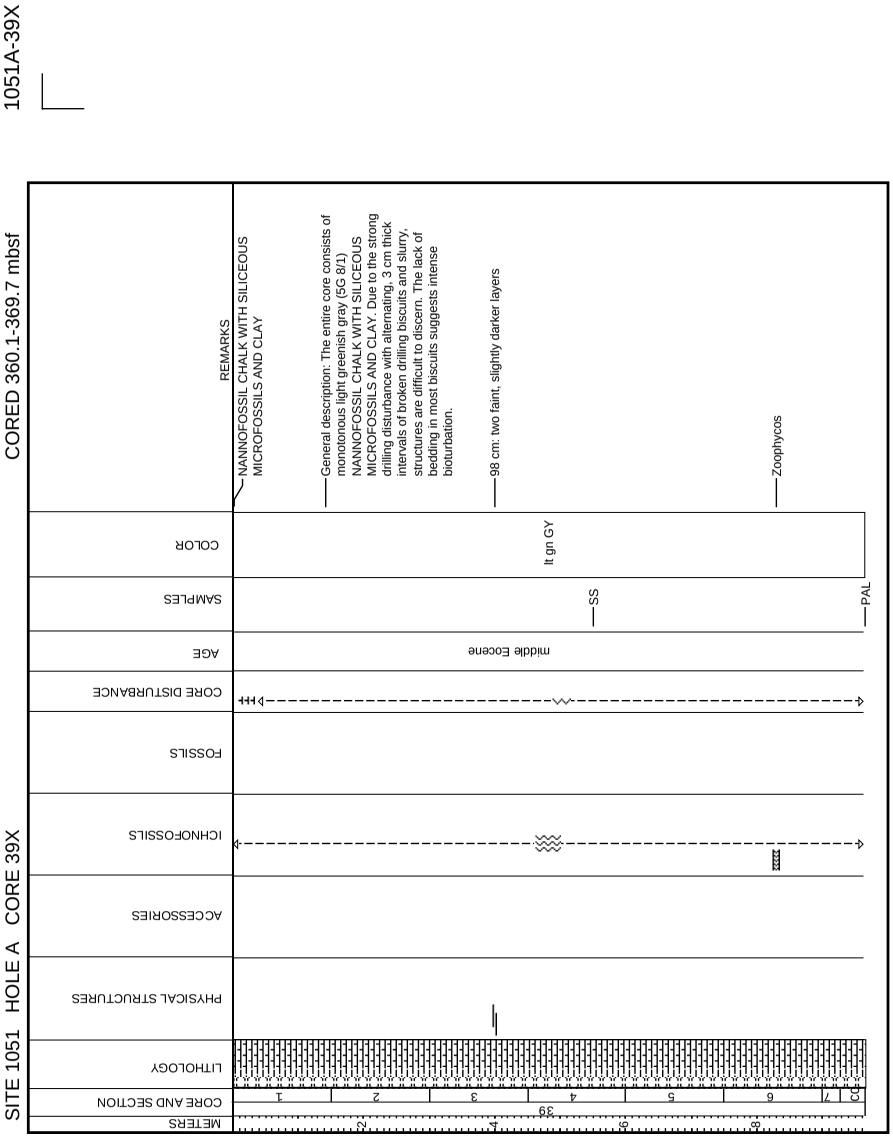
SITE 1051 HOLE A CORE 37X

CORED 340.7-350.4 mbsf

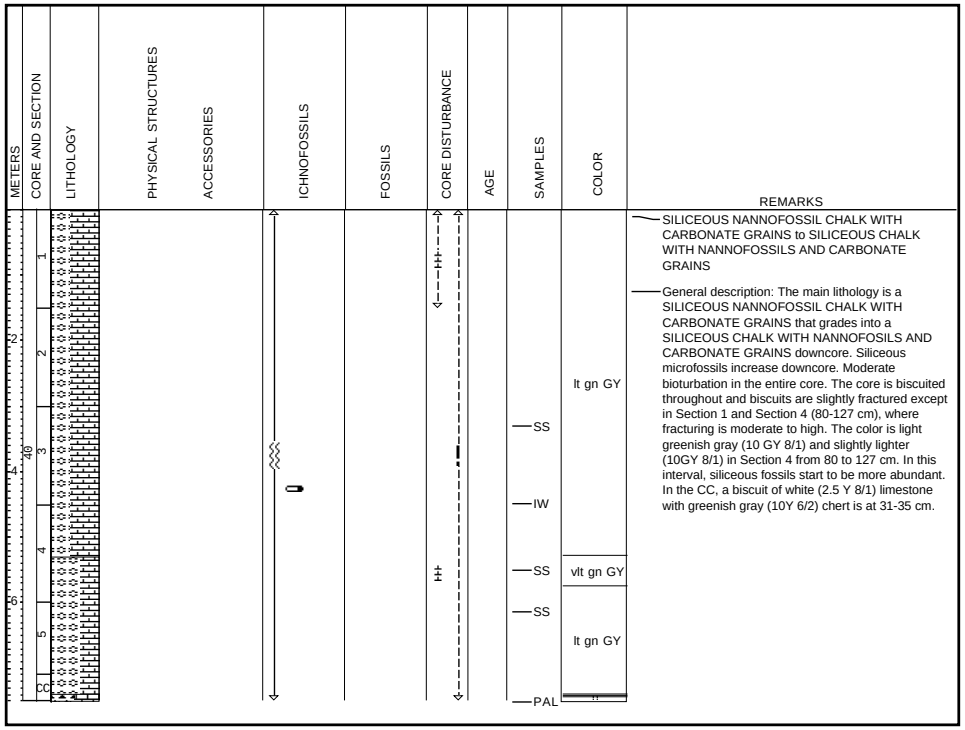
1051A-37X



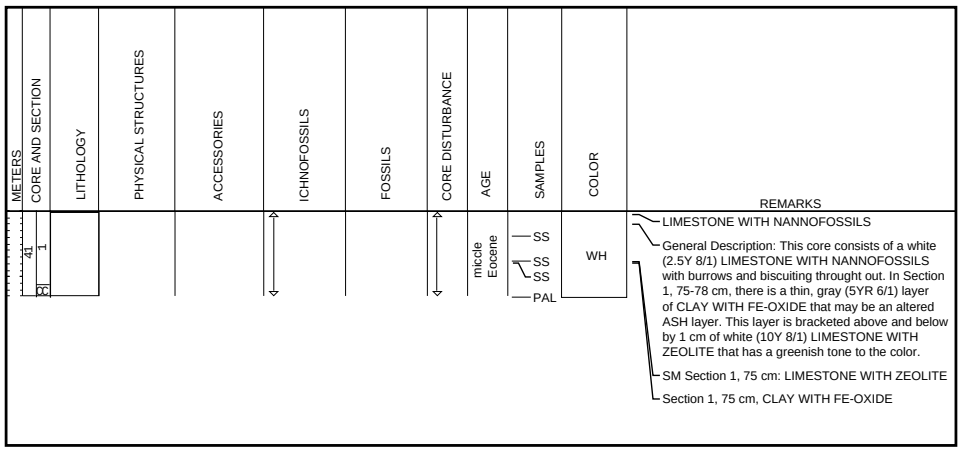

1051A-38X
SITE 1051 HOLE A CORE 38X
CORED 350.4-360.1 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL CHALK
Homogeneous greenish gray (5GY 5/1) SILICEOUS NANNOFOSSIL CHALK with diatoms, radiolaria and sponge spicules, moderately to slightly bioturbated.
Rare to common pyrite occurs as specks, blebs, and burrow linings.
Severe drilling disturbance (biscuiting) throughout.
middle Eocene
SS
PAL
gn GY
1
2
3
4
5
6
7
CC
38
2
4
6
8


SITE 1051 HOLE A CORE 39X
CORED 360.1-369.7 mbsf
1051A-39X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
PAL
lt gn GY
NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS AND CLAY
General description: The entire core consists of monotonous light greenish gray (5G 8/1) NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS AND CLAY. Due to the strong drilling disturbance with alternating, 3 cm thick intervals of broken drilling biscuits and slurry, structures are difficult to discern. The lack of bedding in most biscuits suggests intense bioturbation.
98 cm: two faint, slightly darker layers
Zoophycos

SITE 1051 HOLE A CORE 40X CORED 369.7-379.3 mbsf

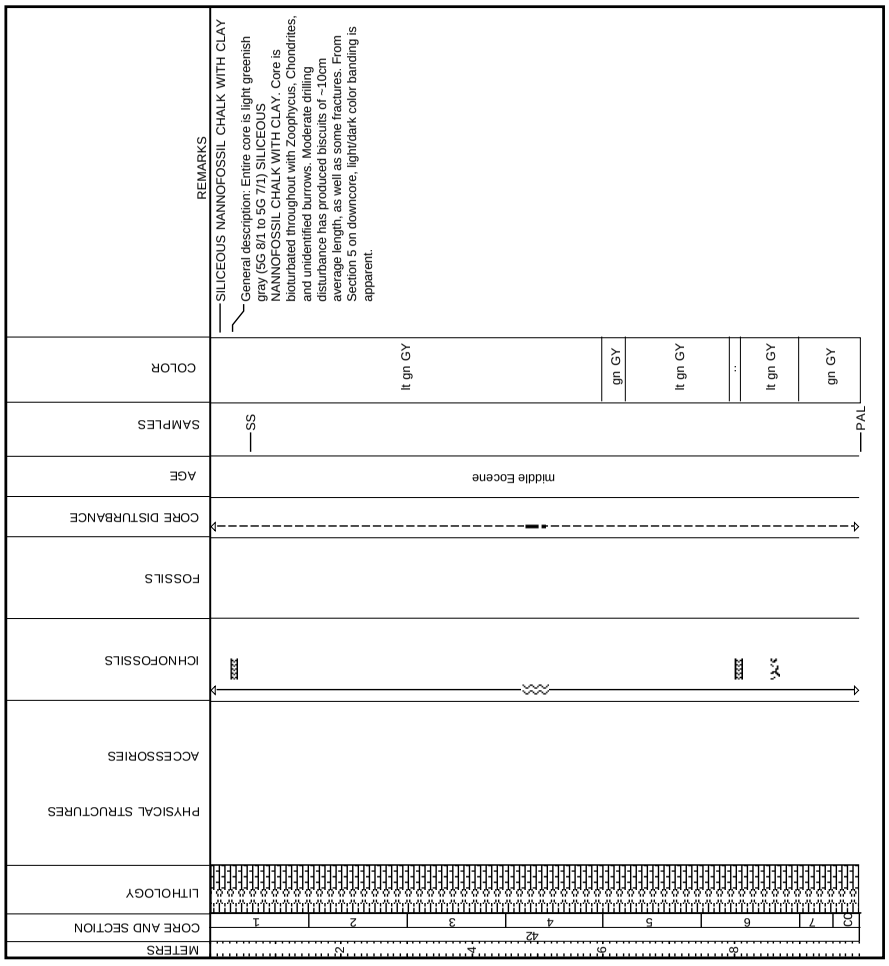


SITE 1051 HOLE A CORE 41X CORED 379.3-381.6 mbsf



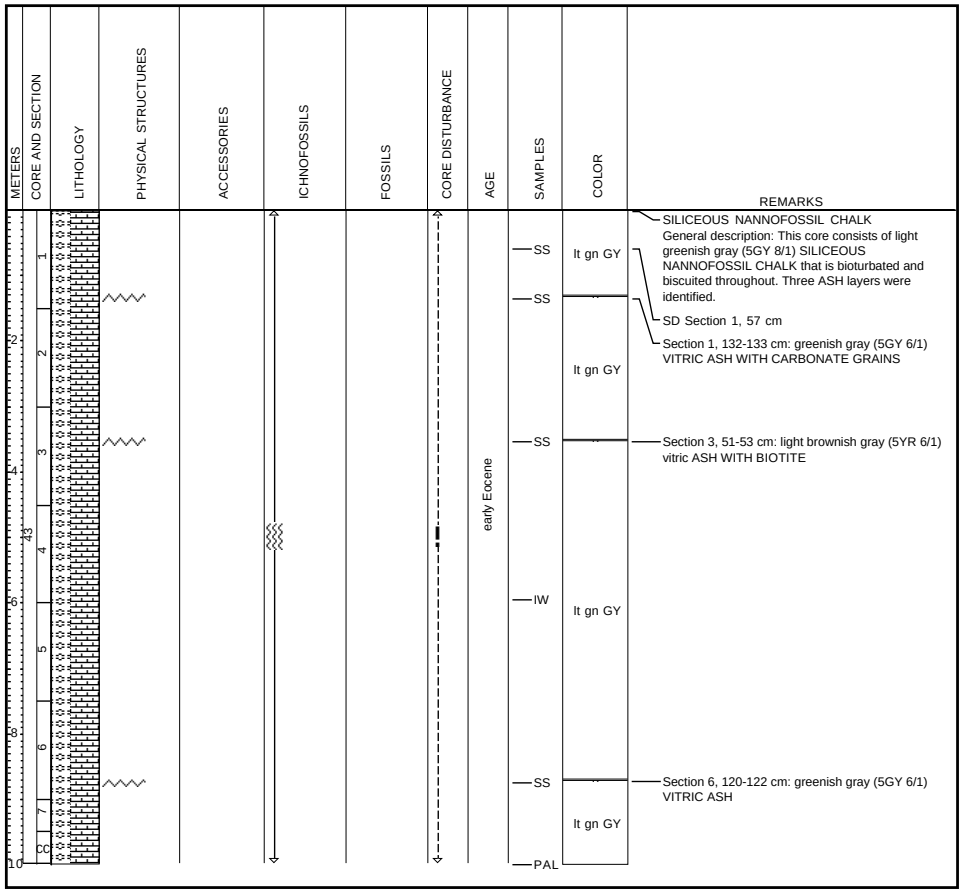
SITE 1051 HOLE A CORE 42X CORED 389.9-399.5 mbsf

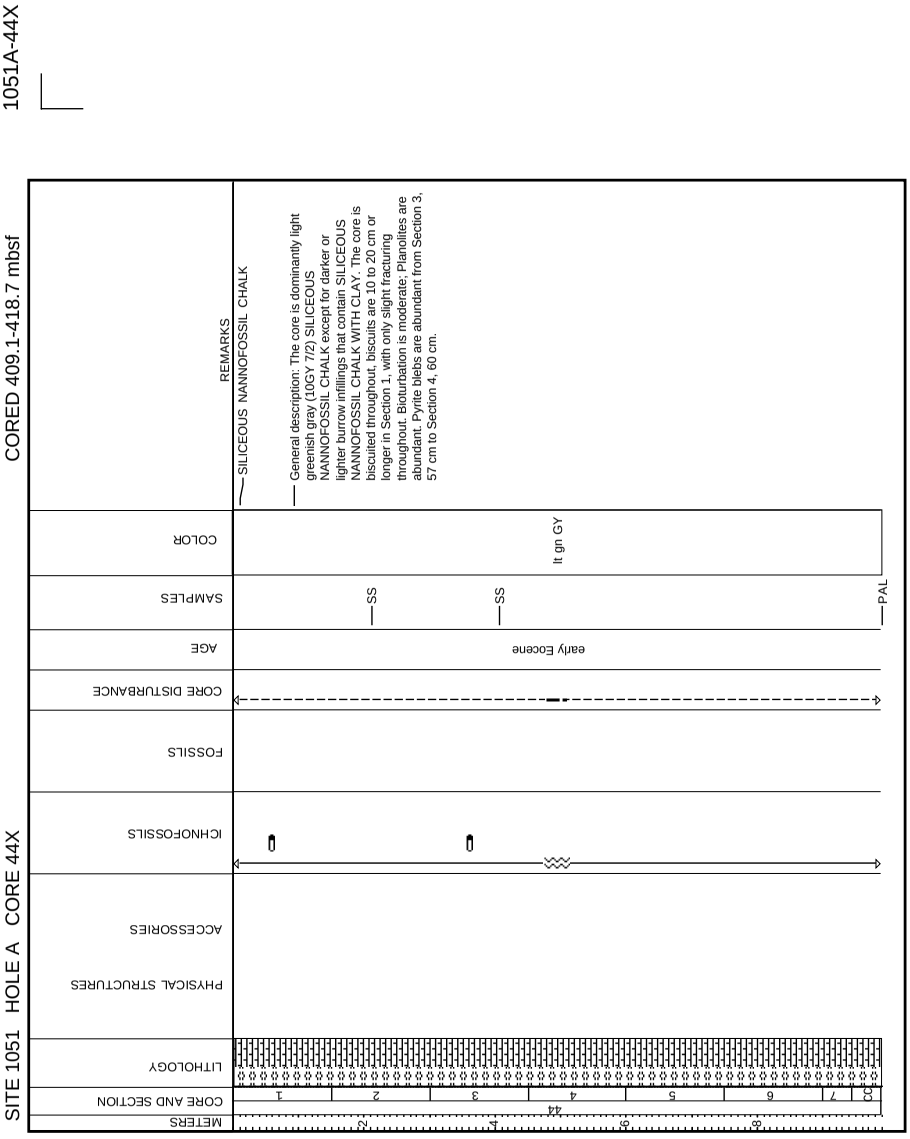
1051A-42X

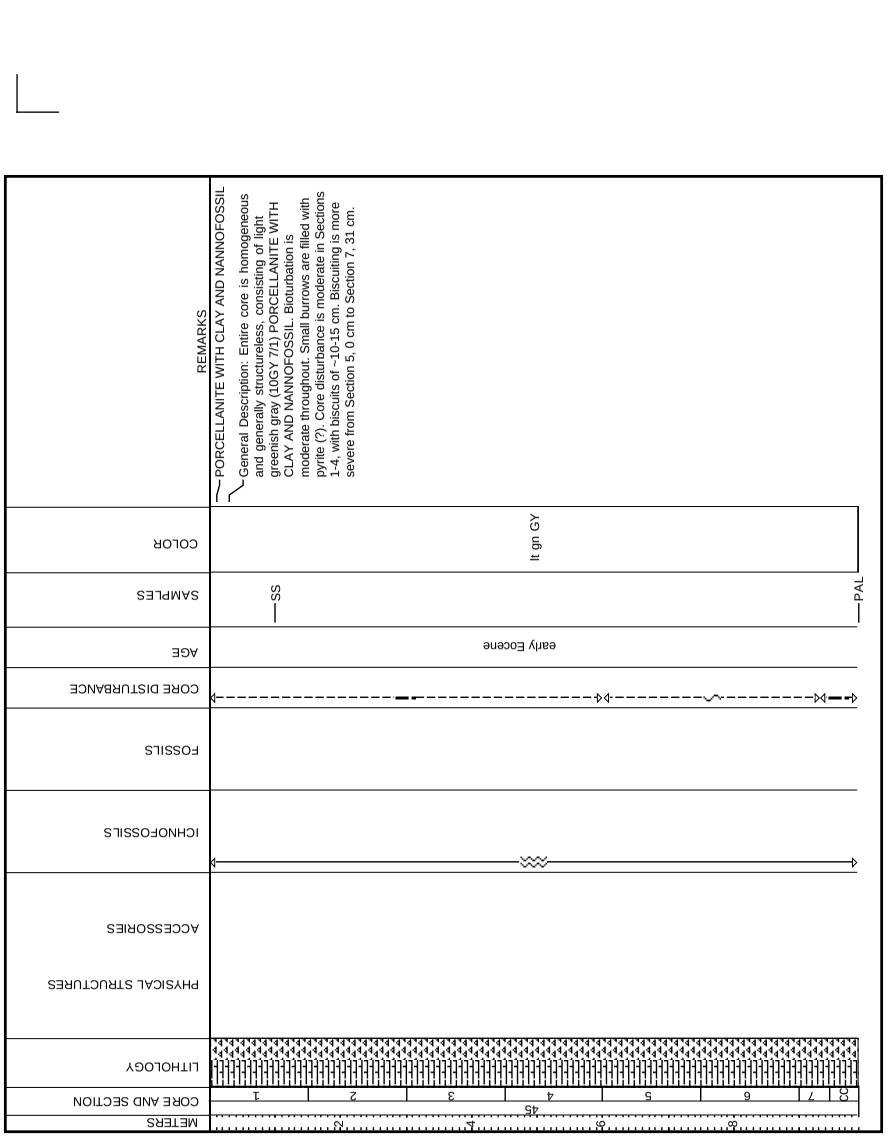


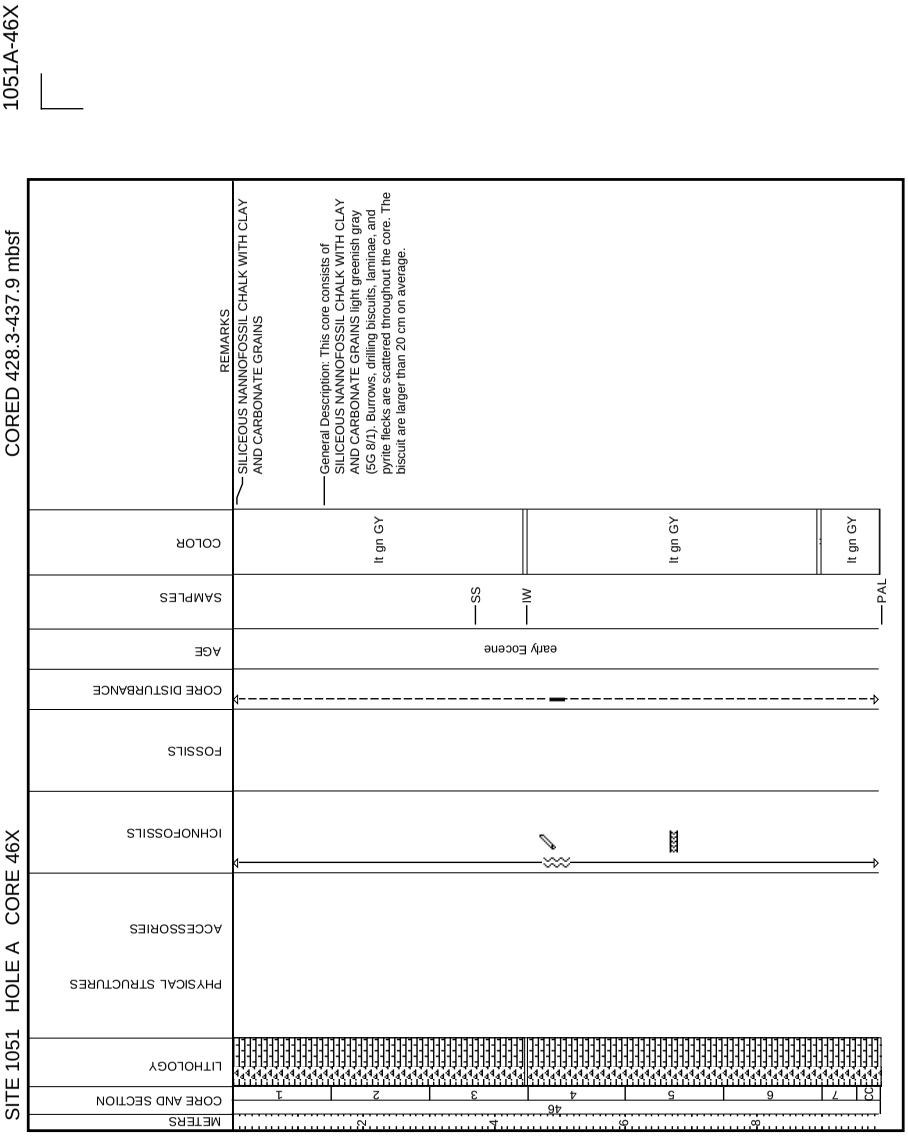
SITE 1051 HOLE A CORE 43X CORED 399.5-409.1 mbsf

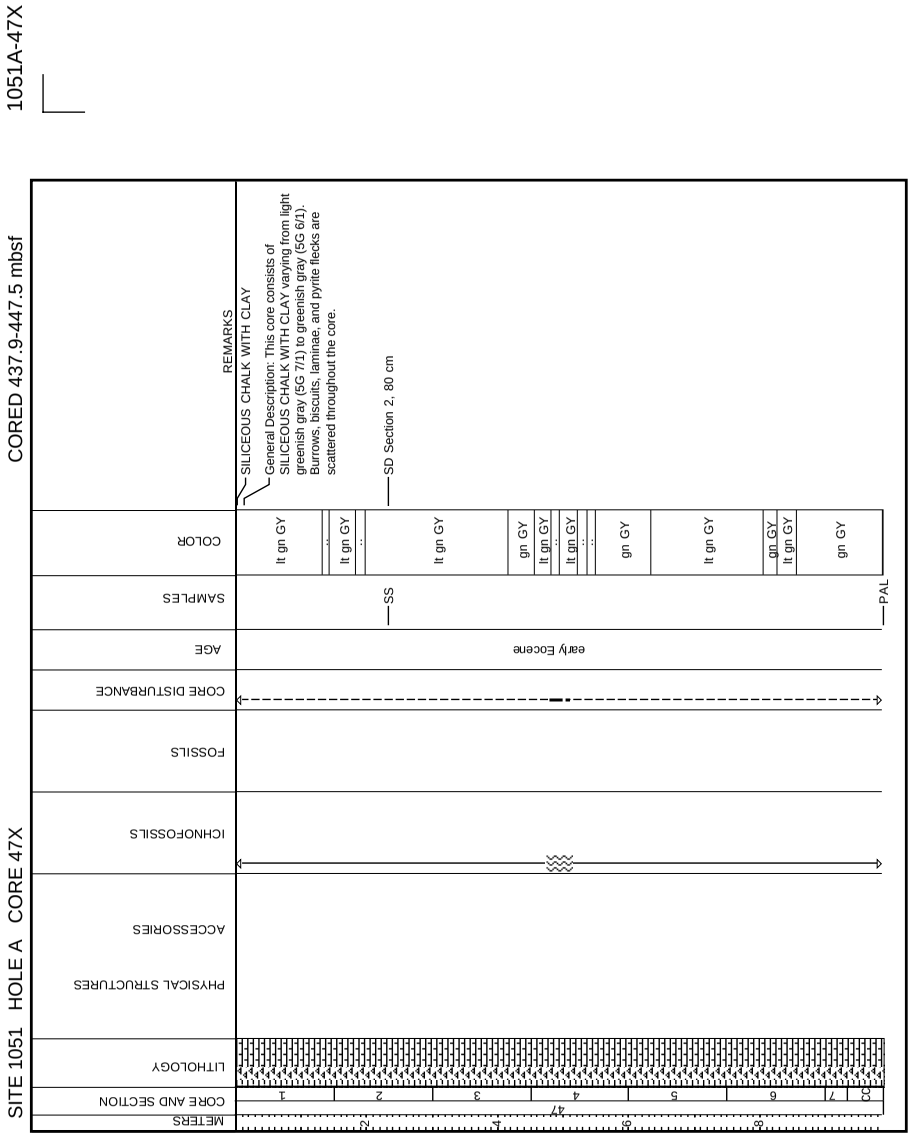
1051A-43X




SITE 1051 HOLE A CORE 44X
CORED 409.1-418.7 mbsf
1051A-44X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL CHALK
General description: The core is dominantly light greenish gray (10GY 7/2) SILICEOUS NANNOFOSSIL CHALK except for darker or lighter burrow infillings that contain SILICEOUS NANNOFOSSIL CHALK WITH CLAY. The core is biscuited throughout, biscuits are 10 to 20 cm or longer in Section 1, with only slight fracturing throughout. Bioturbation is moderate; Planolites are abundant. Pyrite blebs are abundant from Section 3, 57 cm to Section 4, 60 cm.
lt gn GY
early Eocene
SS
SS
PAL
1
2
3
4
44
5
6
7
CC

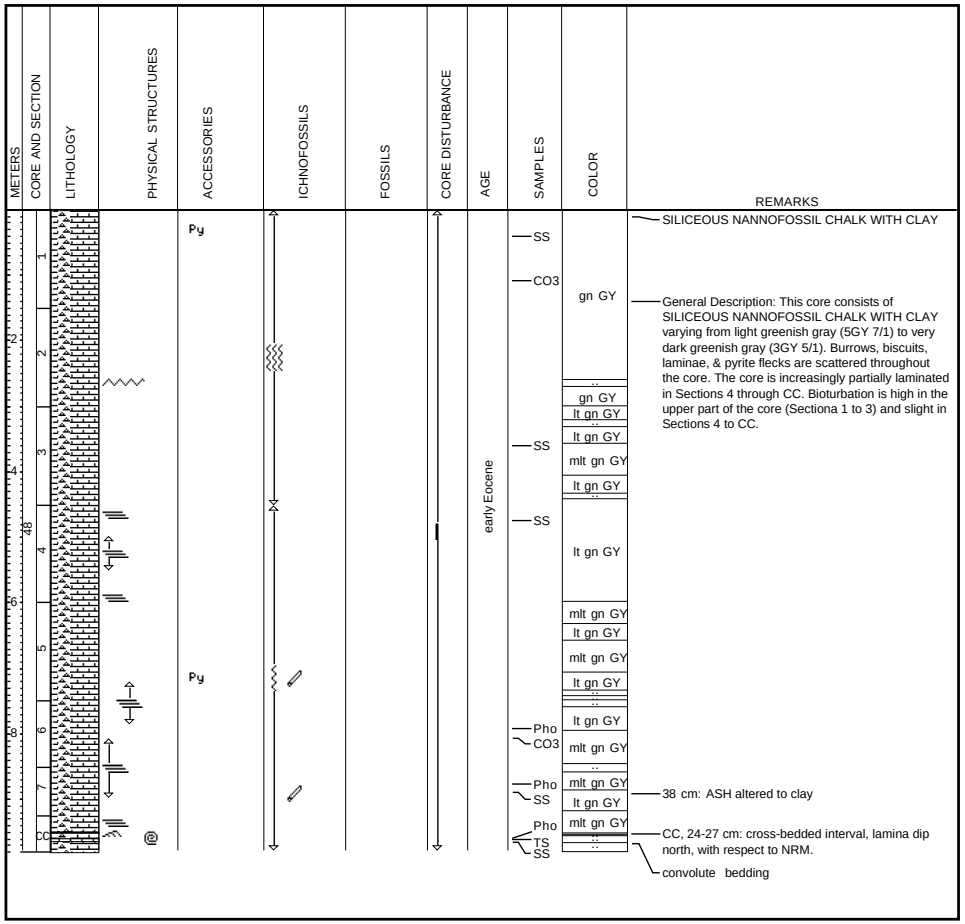

SITE 1051 HOLE A CORE 45X
CORED 418.7-428.3 mbsf
1051A-45X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
PORCELLANITE WITH CLAY AND NANNOFOSSIL
General Description: Entire core is homogeneous and generally structureless, consisting of light greenish gray (10GY 7/1) PORCELLANITE WITH CLAY AND NANNOFOSSIL. Bioturbation is moderate throughout. Small burrows are filled with pyrite (?). Core disturbance is moderate in Sections 1-4, with biscuits of ~10-15 cm. Biscuiting is more severe from Section 5, 0 cm to Section 7, 31 cm.
lt gn GY
early Eocene
SS
PAL
1
2
3
4
45
5
6
7
CC

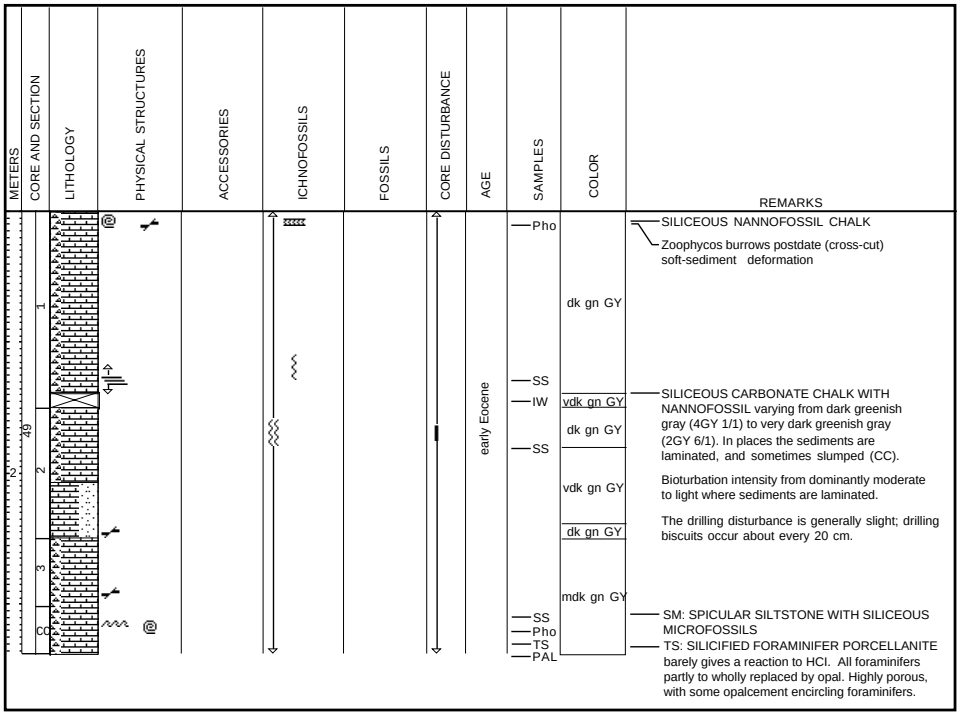

SITE 1051 HOLE A CORE 46X
CORED 428.3-437.9 mbsf
1051A-46X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL CHALK WITH CLAY AND CARBONATE GRAINS
General Description: This core consists of SILICEOUS NANNOFOSSIL CHALK WITH CLAY AND CARBONATE GRAINS light greenish gray (5G 8/1). Burrows, drilling biscuits, laminae, and pyrite flecks are scattered throughout the core. The biscuit are larger than 20 cm on average.
lt gn GY
lt gn GY
lt gn GY
early Eocene
SS
IW
PAL
1
2
3
4
5
6
7
CC
46


1051A-47X
CORED 437.9-447.5 mbsf
SITE 1051 HOLE A CORE 47X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS CHALK WITH CLAY
General Description: This core consists of SILICEOUS CHALK WITH CLAY varying from light greenish gray (5G 7/1) to greenish gray (5G 6/1). Burrows, biscuits, laminae, and pyrite flecks are scattered throughout the core.
SD Section 2, 80 cm
SS
PAL
early Eocene
lt gn GY
gn GY
1
2
3
4
47
5
6
7
CC

SITE 1051 HOLE A CORE 48X CORED 447.5-457.1 mbsf

1051A-48X

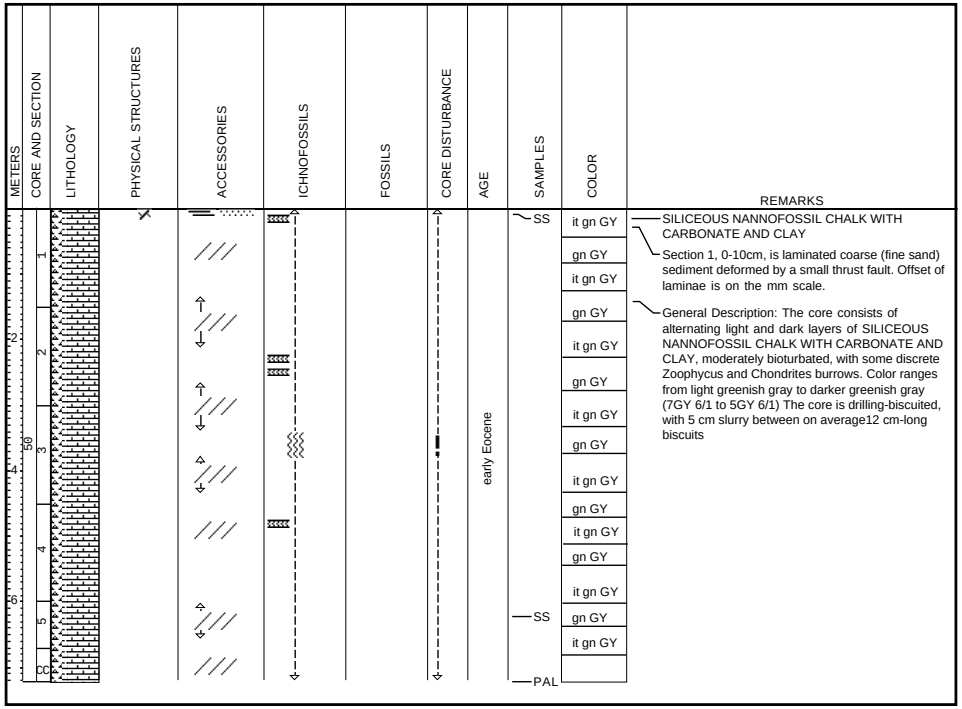



METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
Pho
SS
IW
SS
SS
Pho
TS
PAL
dk gn GY
vdk gn GY
dk gn GY
vdk gn GY
dk gn GY
mdk gn GY
early Eocene
SILICEOUS NANNOFOSSIL CHALK
Zoophycos burrows postdate (cross-cut) soft-sediment deformation
SILICEOUS CARBONATE CHALK WITH NANNOFOSSIL varying from dark greenish gray (4GY 1/1) to very dark greenish gray (2GY 6/1). In places the sediments are laminated, and sometimes slumped (CC).
Bioturbation intensity from dominantly moderate to light where sediments are laminated.
The drilling disturbance is generally slight; drilling biscuits occur about every 20 cm.
SM: SPICULAR SILTSTONE WITH SILICEOUS MICROFOSSILS
TS: SILICIFIED FORAMINIFER PORCELLANITE barely gives a reaction to HCl. All foraminifers partly to wholly replaced by opal. Highly porous, with some opalcement encircling foraminifers.

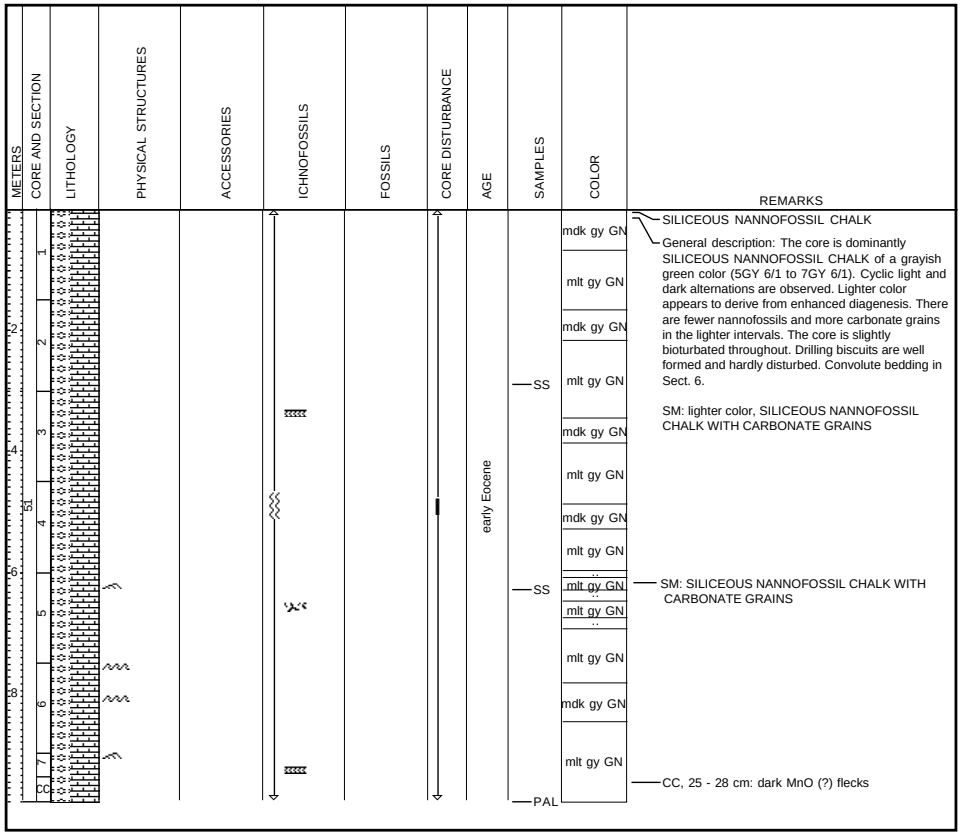
SITE 1051 HOLE A CORE 50X

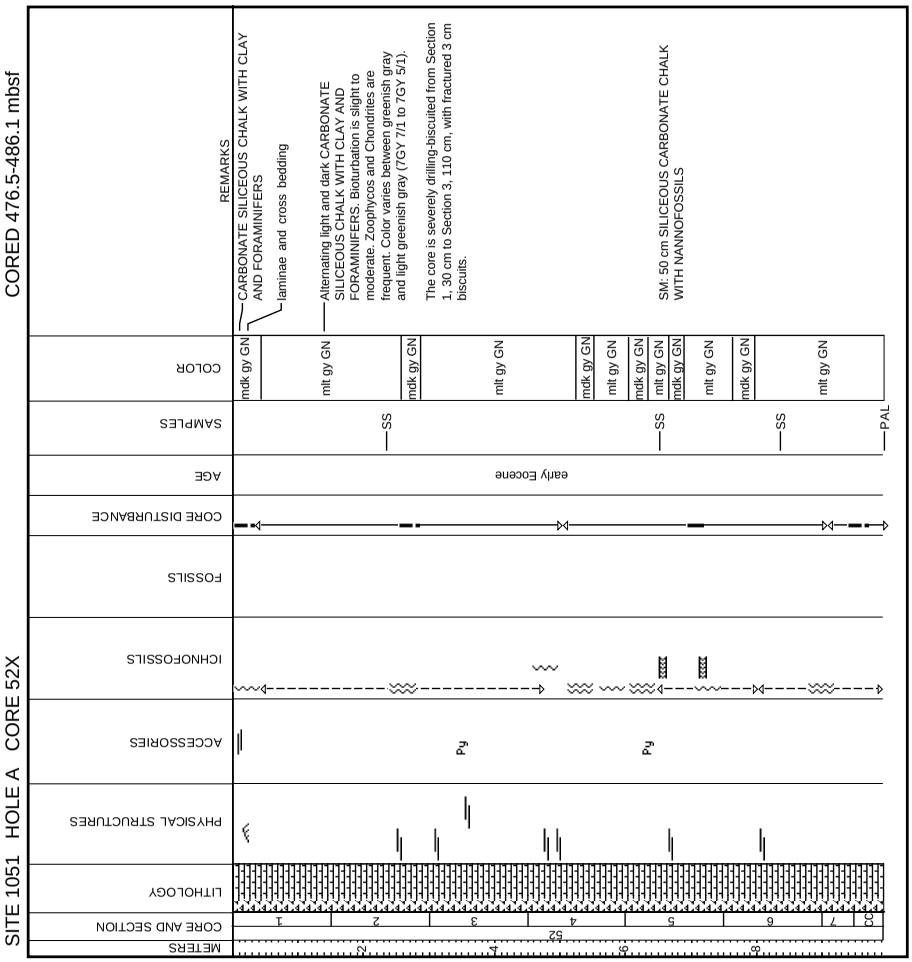
CORED 460.2-466.8 mbsf

1051A-50X

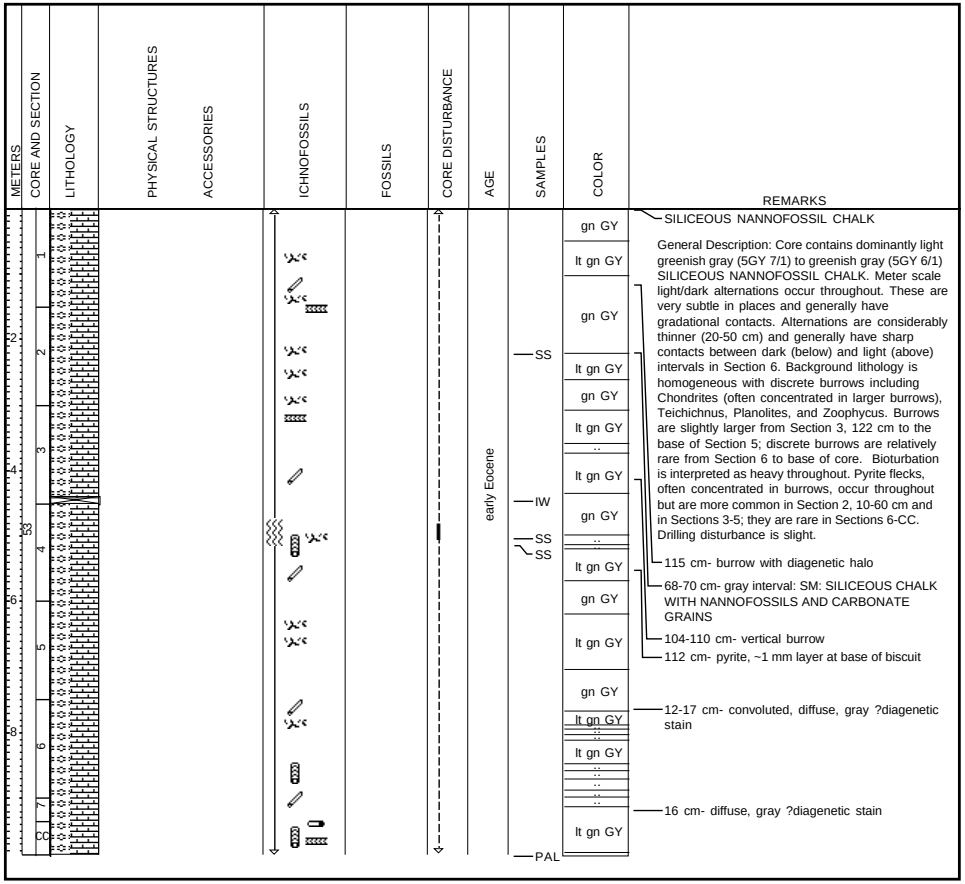


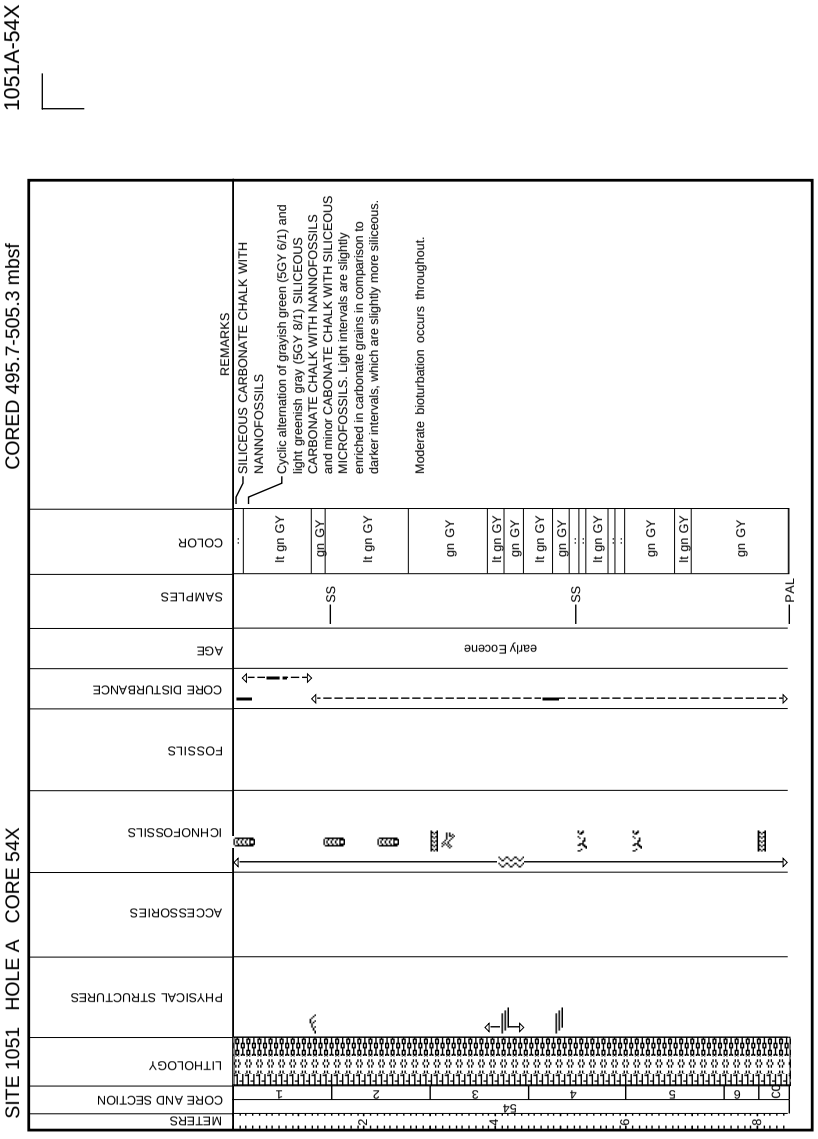
SITE 1051 HOLE A CORE 51X CORED 466.8-476.5 mbsf

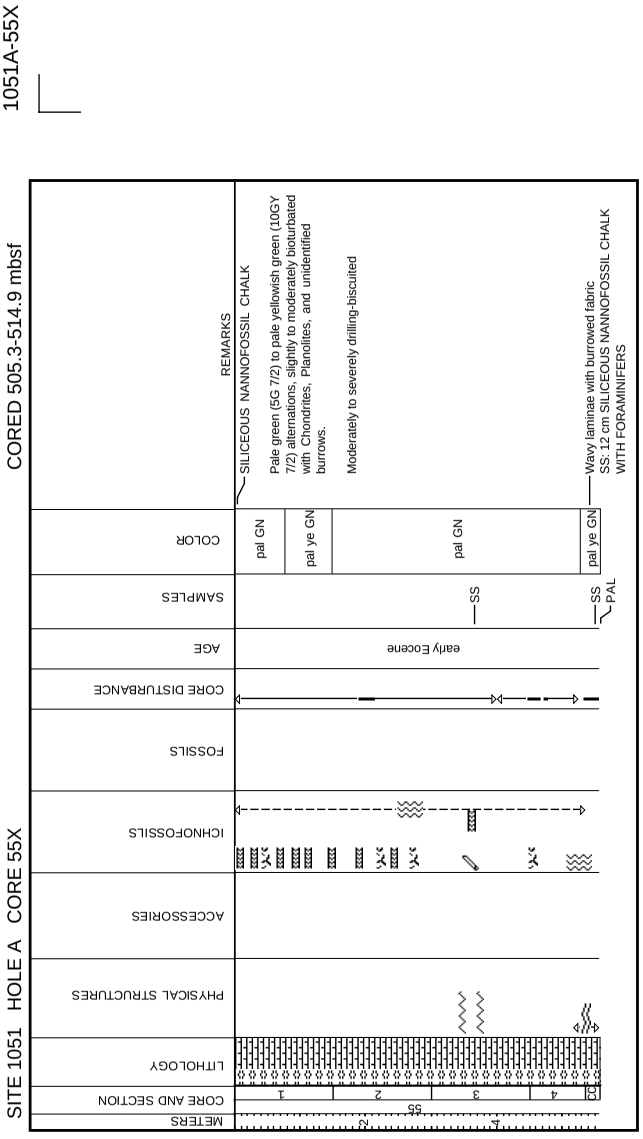



SITE 1051 HOLE A CORE 52X
CORED 476.5-486.1 mbsf
1051A-52X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
early Eocene
SS
PAL
Py
mdk gy GN
mlt gy GN
CARBONATE SILICEOUS CHALK WITH CLAY AND FORAMINIFERS
laminae and cross bedding
Alternating light and dark CARBONATE SILICEOUS CHALK WITH CLAY AND FORAMINIFERS. Bioturbation is slight to moderate. Zoophycos and Chondrites are frequent. Color varies between greenish gray and light greenish gray (7GY 7/1 to 7GY 5/1).
The core is severely drilling-biscuited from Section 1, 30 cm to Section 3, 110 cm, with fractured 3 cm biscuits.
SM: 50 cm SILICEOUS CARBONATE CHALK WITH NANNOFOSSILS

SITE 1051 HOLE A CORE 53X CORED 486.1-495.7 mbsf



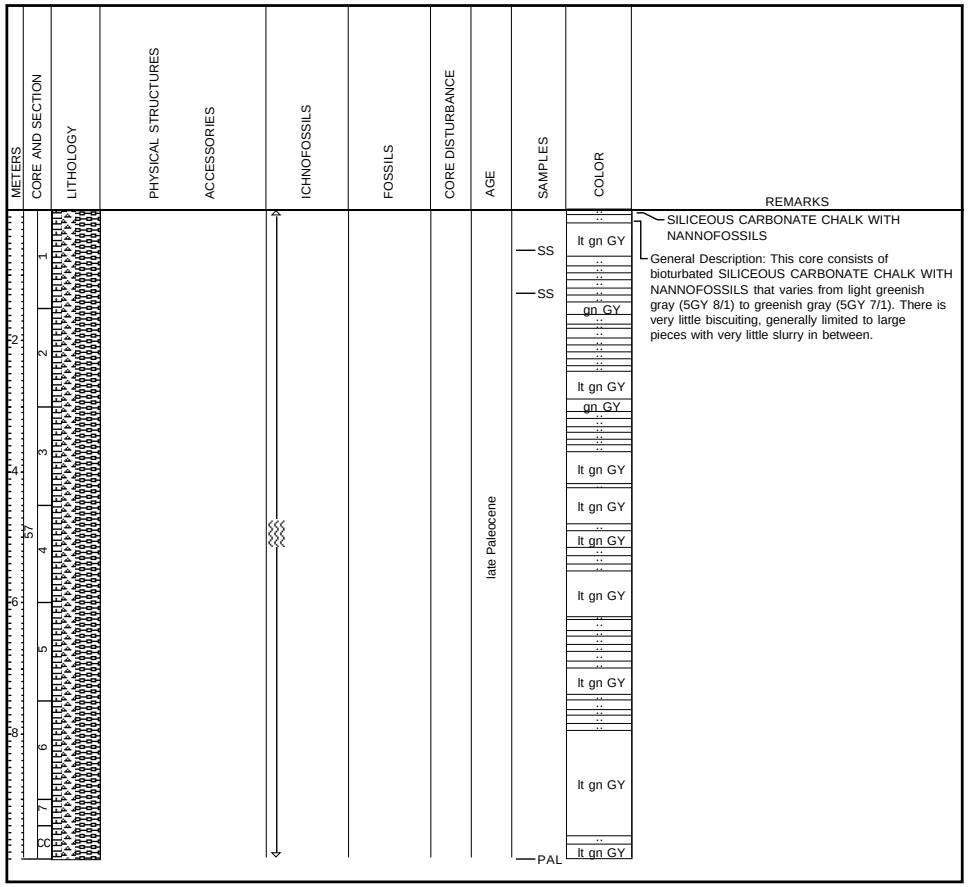

SITE 1051 HOLE A CORE 54X
CORED 495.7-505.3 mbsf
1051A-54X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
early Eocene
SS
SS
PAL
lt gn GY
gn GY
SILICEOUS CARBONATE CHALK WITH NANNOFOSSILS
Cyclic alternation of gravish green (5GY 6/1) and light greenish gray (5GY 8/1) SILICEOUS CARBONATE CHALK WITH NANNOFOSSILS and minor CABONATE CHALK WITH SILICEOUS MICROFOSSILS. Light intervals are slightly enriched in carbonate grains in comparison to darker intervals, which are slightly more siliceous.
Moderate bioturbation occurs throughout.


SITE 1051 HOLE A CORE 55X
CORED 505.3-514.9 mbsf
1051A-55X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
pal GN
pal ye GN
pal GN
pal ye GN
early Eocene
SS
SS
PAL
SILICEOUS NANNOFOSSIL CHALK
Pale green (5G 7/2) to pale yellowish green (10GY 7/2) alternations, slightly to moderately bioturbated with Chondrites, Planolites, and unidentified burrows.
Moderately to severely drilling-biscuited
Wavy laminae with burrowed fabric
SS: 12 cm SILICEOUS NANNOFOSSIL CHALK WITH FORAMINIFERS

SITE 1051 HOLE A CORE 56X CORED 514.9-524.5 mbsf

1051A-56X

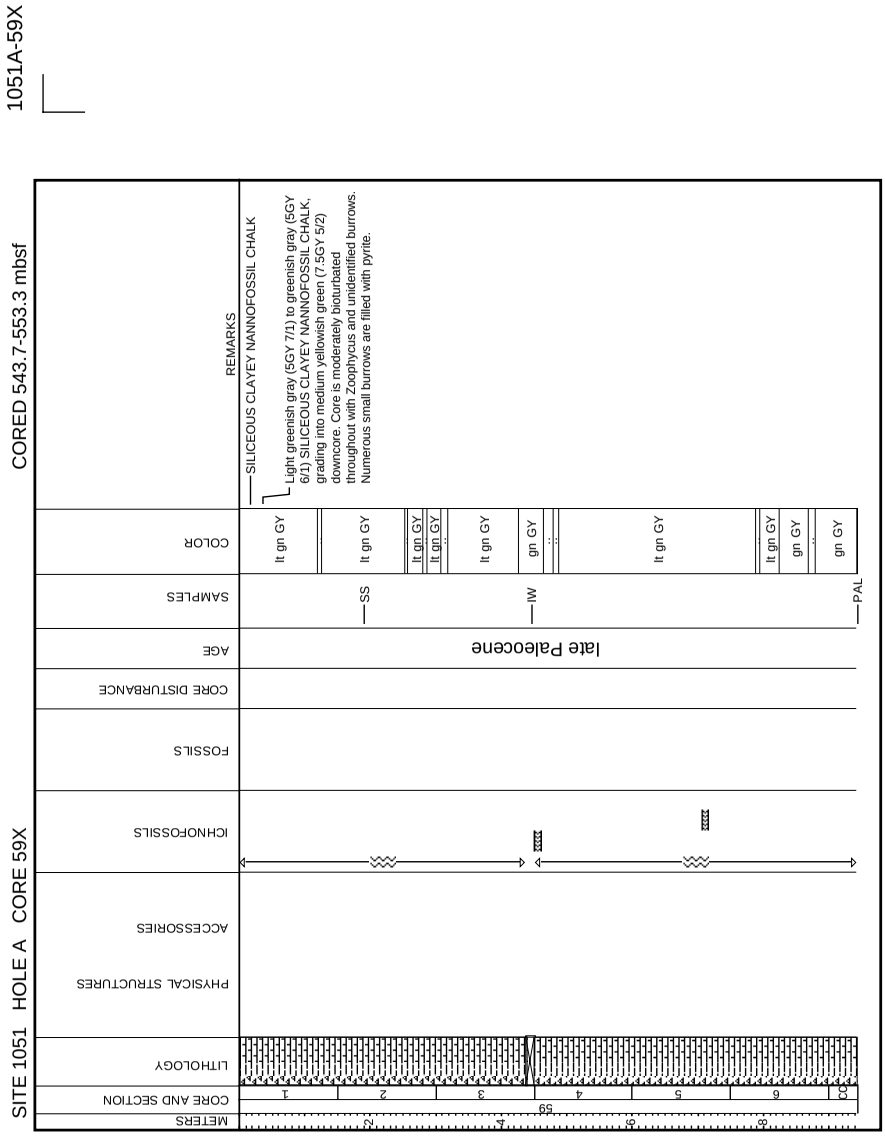
SITE 1051 HOLE A CORE 57X CORED 524.5-534.1 mbsf

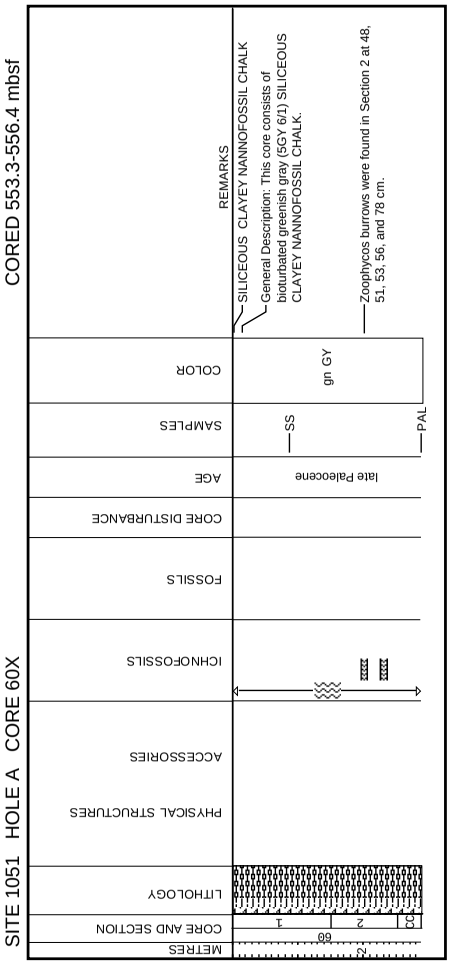


SITE 1051 HOLE A CORE 58X

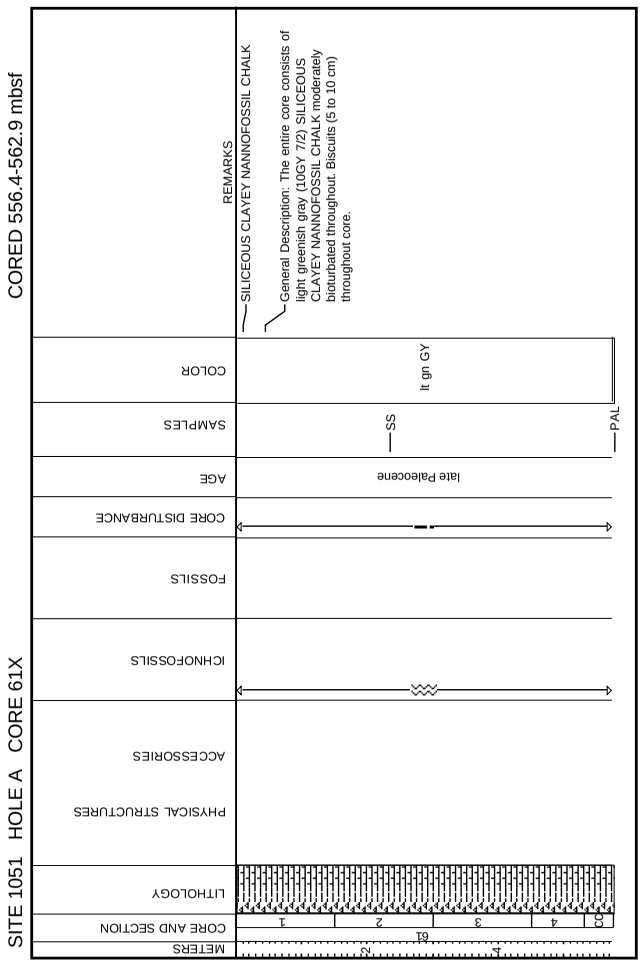
CORED 534.1-543.7 mbsf

1051A-58X


SITE 1051 HOLE A CORE 59X
CORED 543.7-553.3 mbsf
1051A-59X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
late Paleocene
SS
IW
PAL
lt gn GY
gn GY
SILICEOUS CLAYEY NANNOFOSSIL CHALK
Light greenish gray (5GY 7/1) to greenish gray (5GY 6/1) SILICEOUS CLAYEY NANNOFOSSIL CHALK, grading into medium yellowish green (7.5GY 5/2) downcore. Core is moderately bioturbated throughout with Zoophycus and unidentified burrows. Numerous small burrows are filled with pyrite.

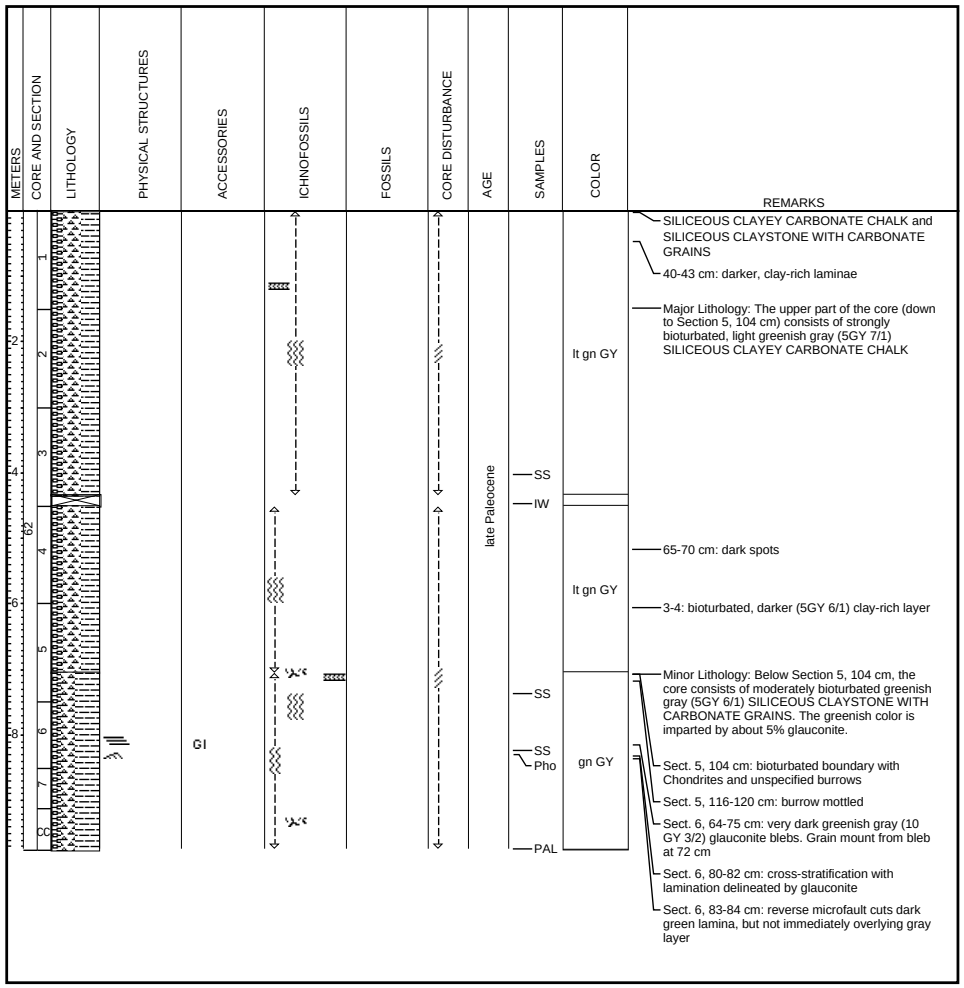


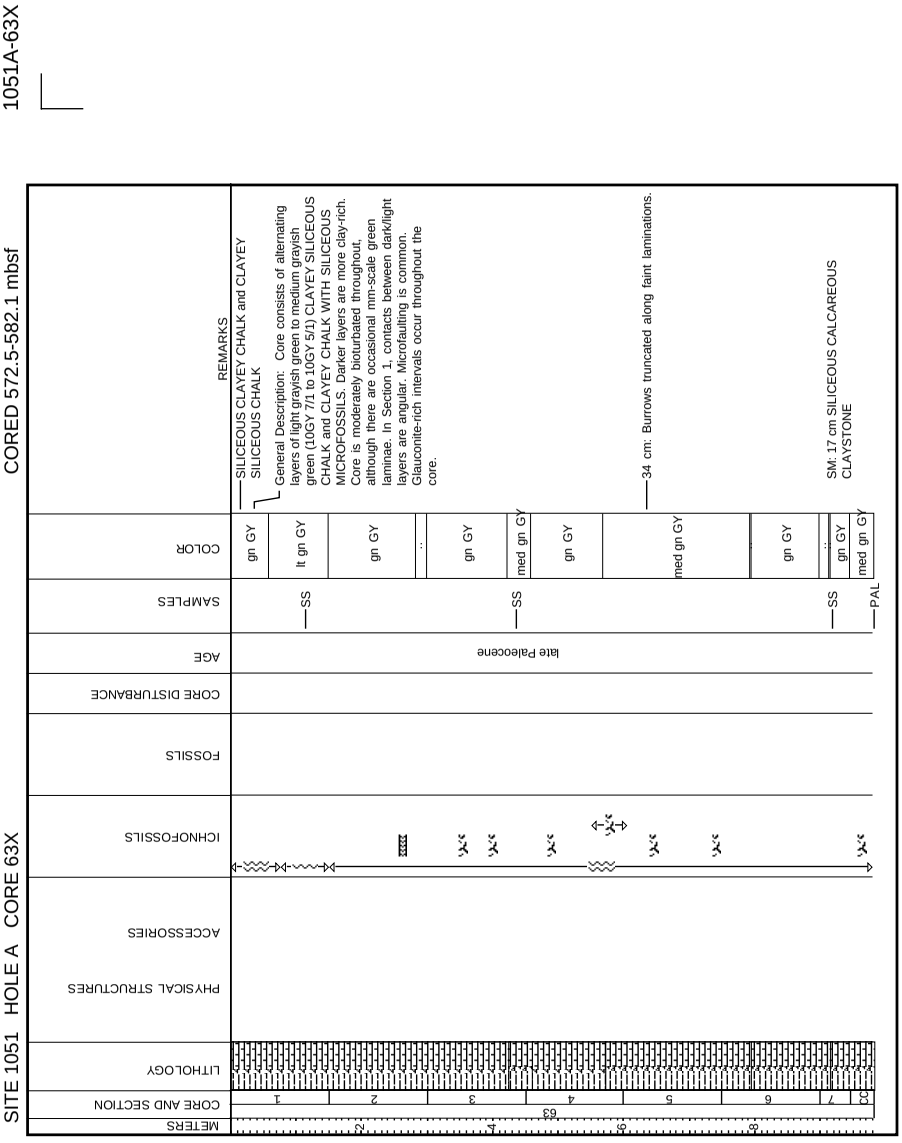
1051A-60X



1051A-61X

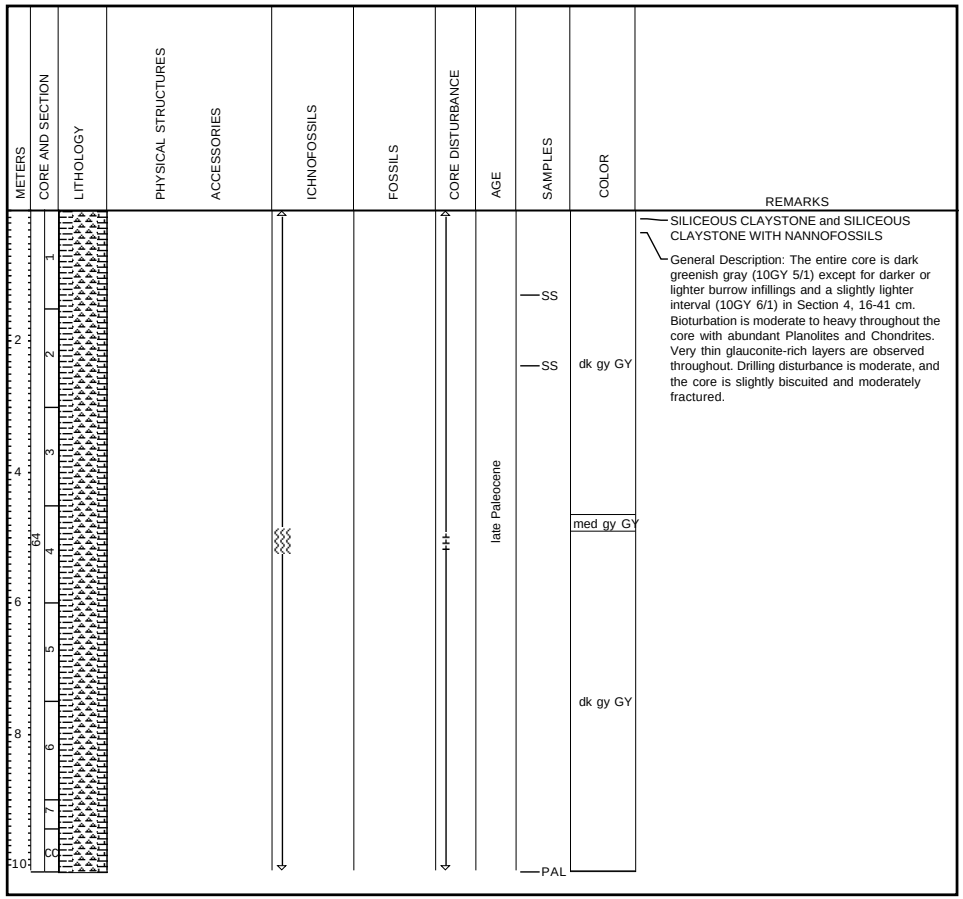
SITE 1051 HOLE A CORE 62X CORED 562.9-572.5 mbsf




SITE 1051 HOLE A CORE 63X
CORED 572.5-582.1 mbsf
1051A-63X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
late Paleocene
gn GY
lt gn GY
gn GY
med gn GY
SS
PAL
SILICEOUS CLAYEY CHALK and CLAYEY SILICEOUS CHALK
General Description: Core consists of alternating layers of light grayish green to medium grayish green (10GY 7/1 to 10GY 5/1) CLAYEY SILICEOUS CHALK and CLAYEY CHALK WITH SILICEOUS MICROFOSSILS. Darker layers are more clay-rich. Core is moderately bioturbated throughout, although there are occasional mm-scale green laminae. In Section 1, contacts between dark/light layers are angular. Microfaulting is common. Glauconite-rich intervals occur throughout the core.
34 cm: Burrows truncated along faint laminations.
SM: 17 cm SILICEOUS CALCAREOUS CLAYSTONE

SITE 1051 HOLE A CORE 64X CORED 582.1-591.8 mbsf

1051A-64X



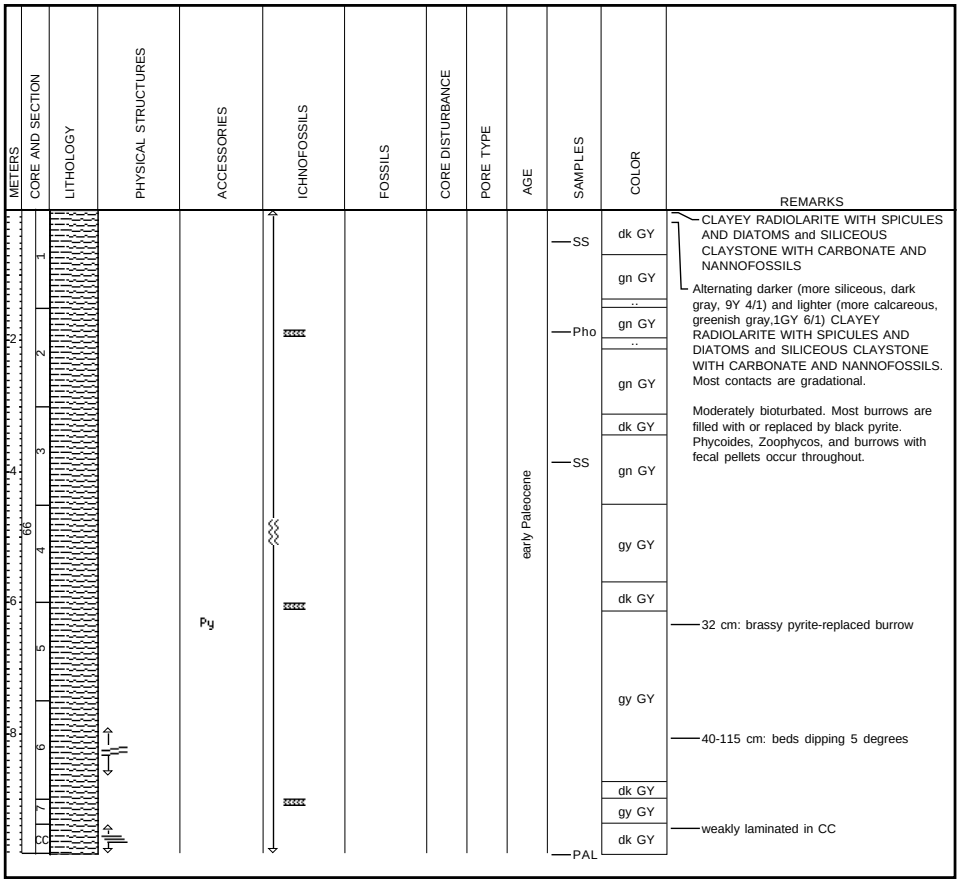
SITE 1051 HOLE A CORE 65X

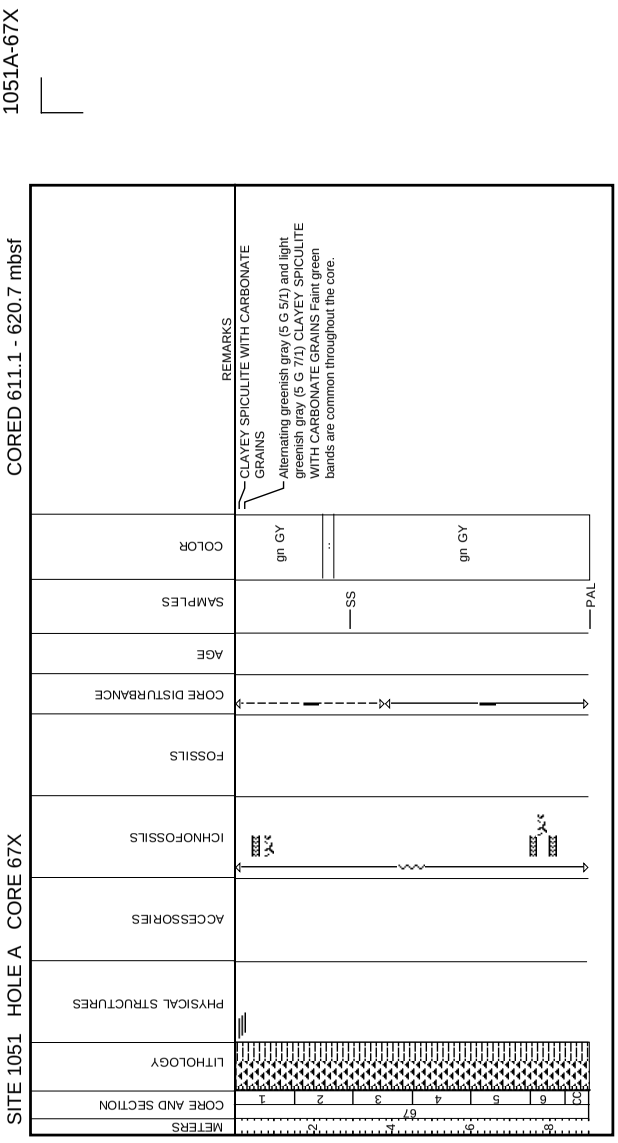
CORED 591.8-601.5 mbsf

1051A-65X

SITE 1051 HOLE A CORE 66X CORED 601.5-611.1 mbsf

1051A-66X




1051A-67X
SITE 1051 HOLE A CORE 67X
CORED 611.1 - 620.7 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
CLAYEY SPICULITE WITH CARBONATE GRAINS
Alternating greenish gray (5 G 5/1) and light greenish gray (5 G 7/1) CLAYEY SPICULITE WITH CARBONATE GRAINS Faint green bands are common throughout the core.
gn GY
gn GY
SS
PAL
67
CC

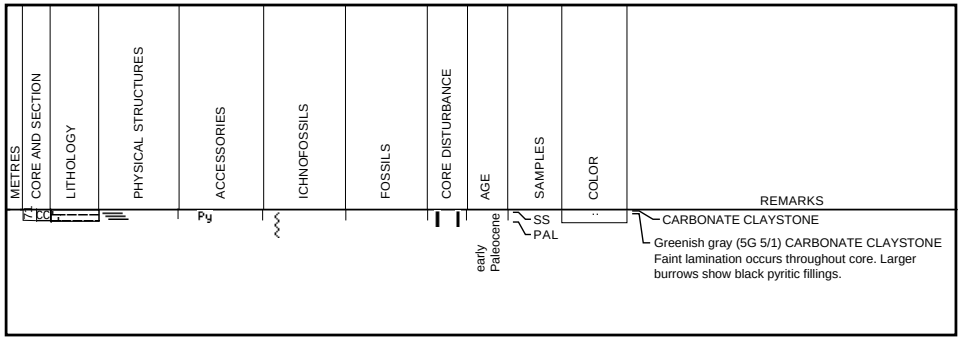
SITE 1051 HOLE A CORE 68X — CORED 620.7-624.3 mbsf

SITE 1051 HOLE A CORE 69X — CORED 624.3-630.4 mbsf

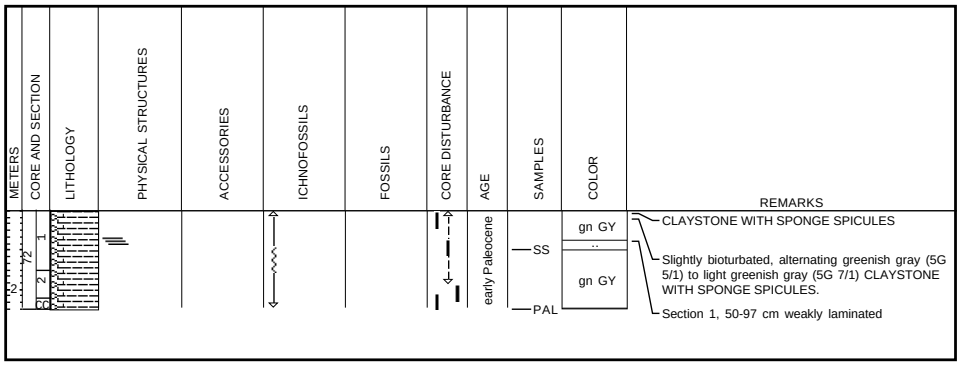
SITE 1051 HOLE A CORE 70X — CORED 630.4-634.5 mbsf

1051A-71X 1051A-72X 1051A-73X

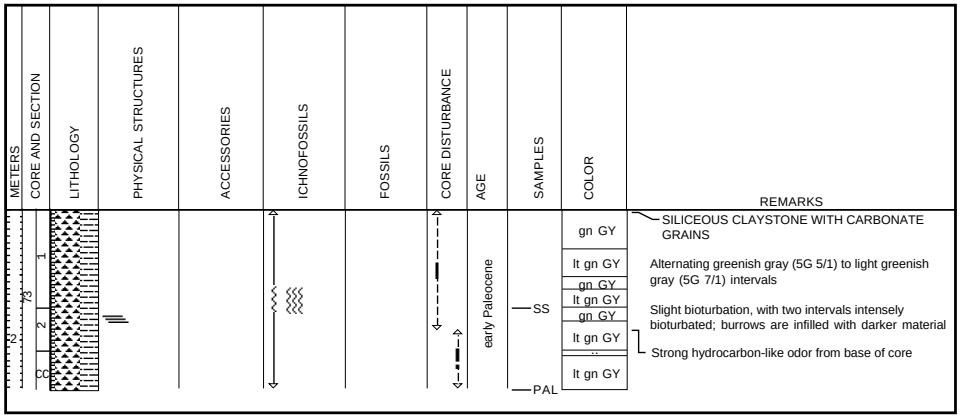
SITE 1051 HOLE A CORE 71X CORED 634.5-640.0 mbsf



SITE 1051 HOLE A CORE 72X CORED 640.0-641.6 mbsf

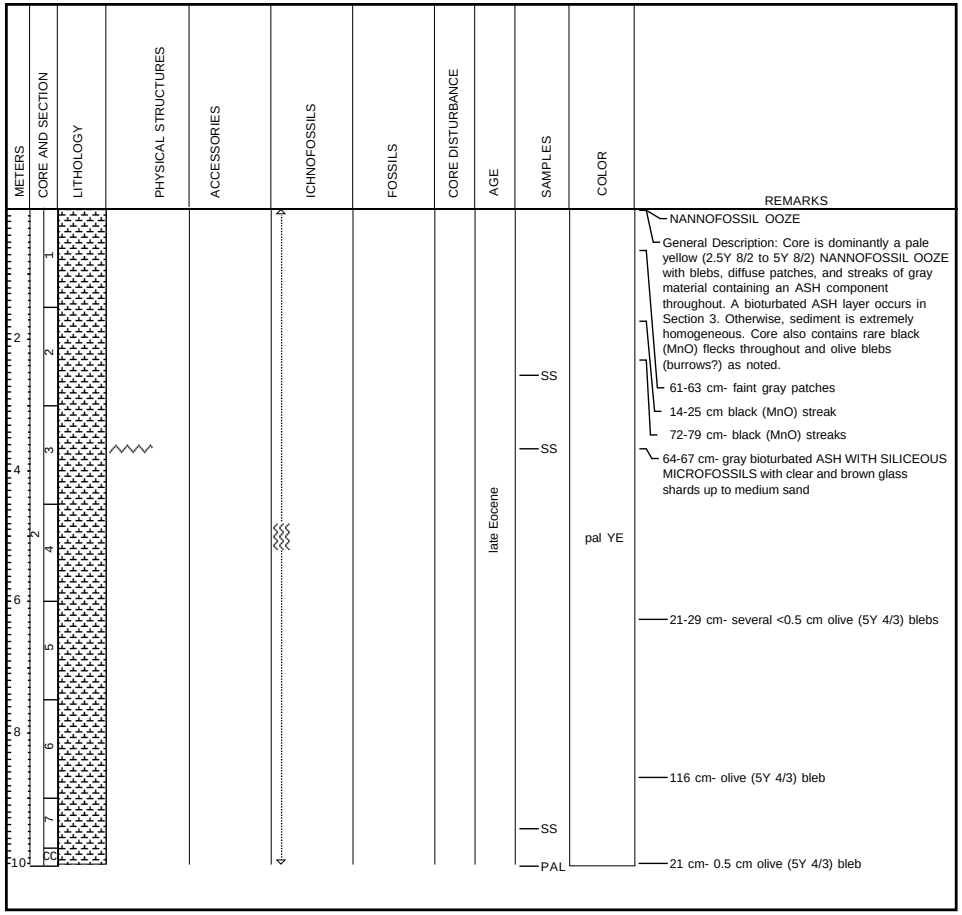


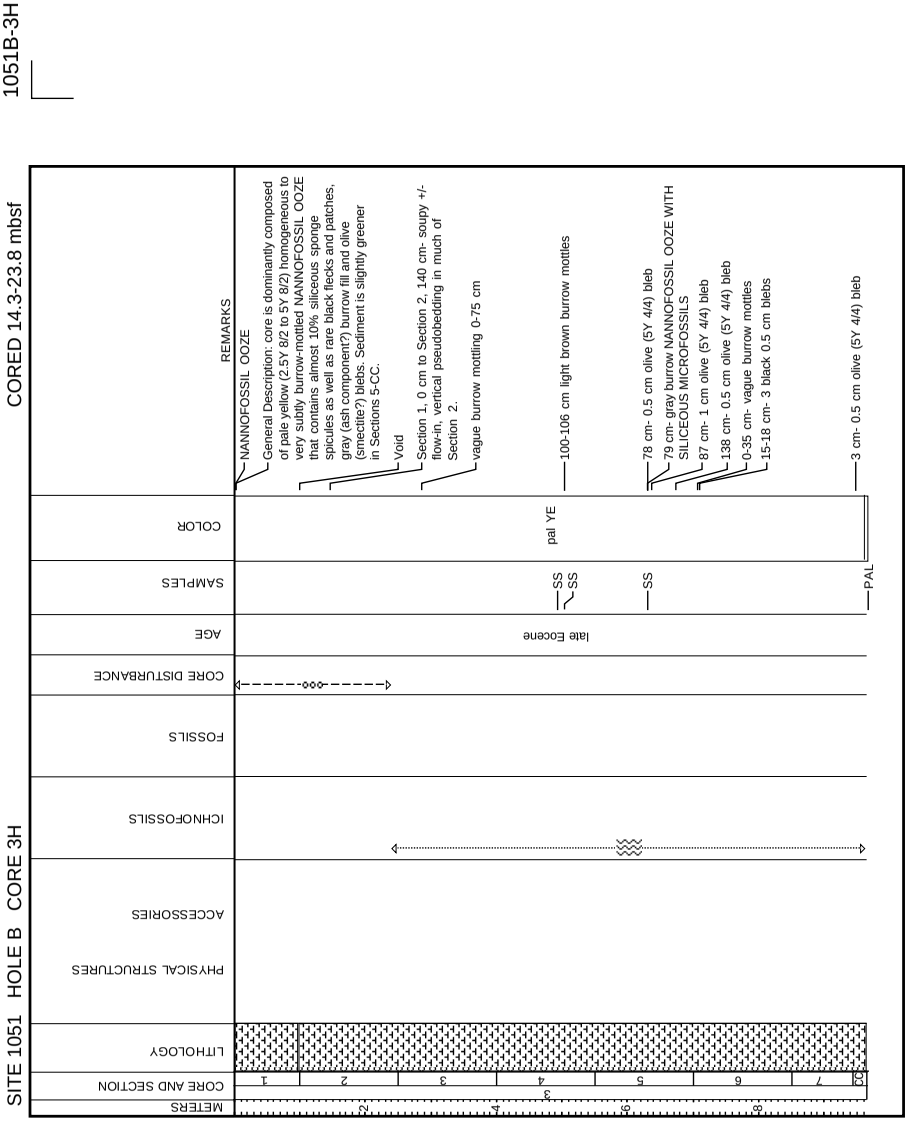
SITE 1051 HOLE A CORE 73X CORED 641.6-644.6 mbsf



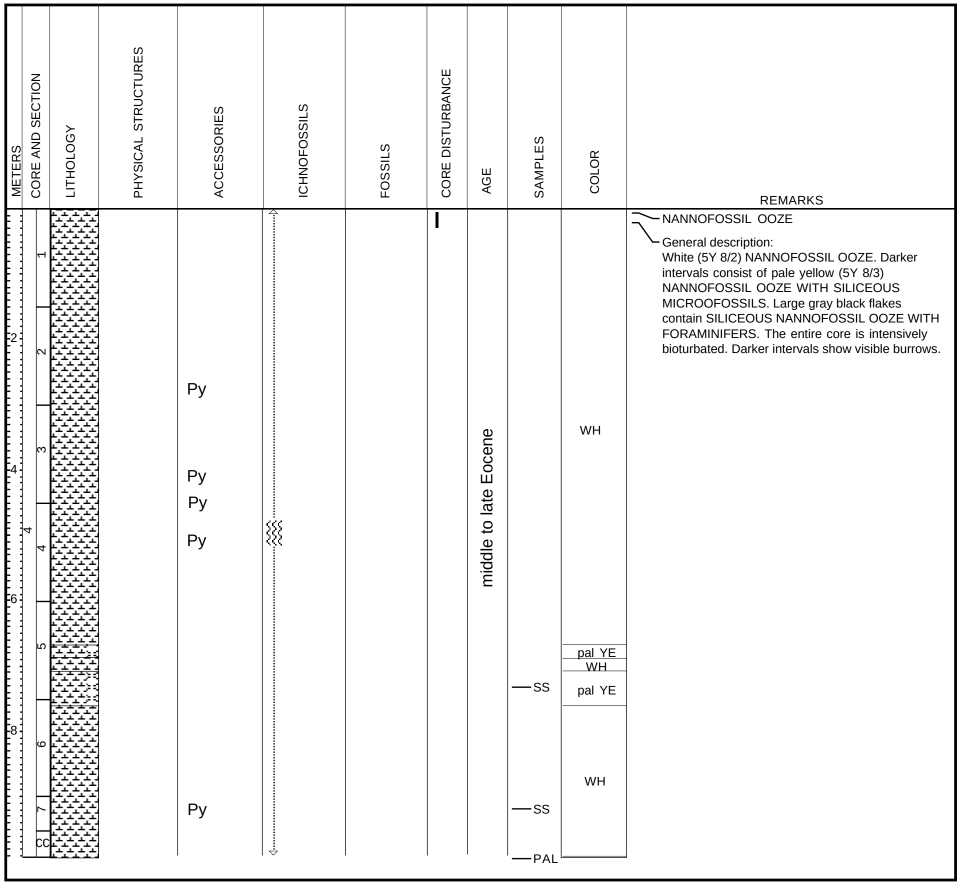
1051B-2H

SITE 1051 HOLE B CORE 2H CORED 4.8-14.3 mbsf



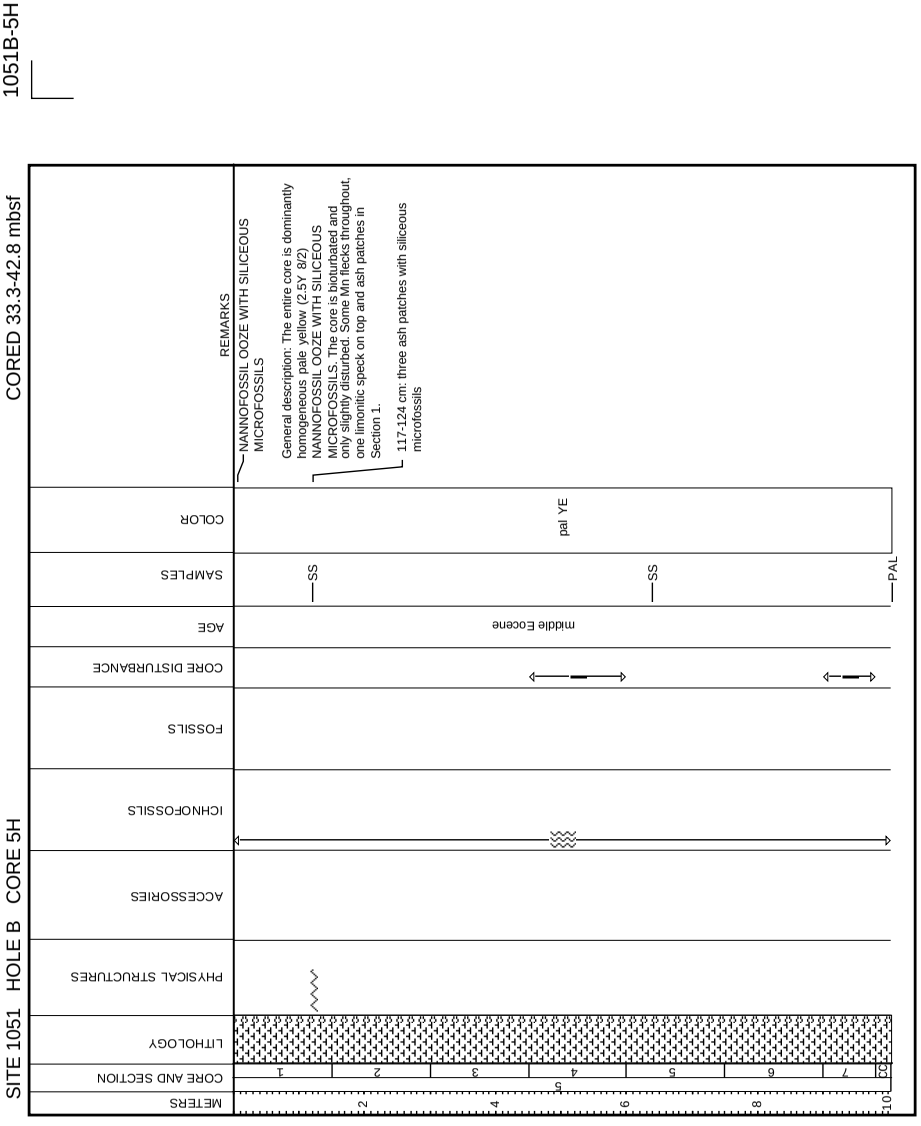

1051B-3H
SITE 1051 HOLE B CORE 3H
CORED 14.3-23.8 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
late Eocene
pal YE
SS
SS
SS
PAL
NANNOFOSSIL OOZE
General Description: core is dominantly composed of pale yellow (2.5Y 8/2 to 5Y 8/2) homogeneous to very subtly burrow-mottled NANNOFOSSIL OOZE that contains almost 10% siliceous sponge spicules as well as rare black flecks and patches, gray (ash component?) burrow fill and olive (smectite?) blebs. Sediment is slightly greener in Sections 5-CC.
Void
Section 1, 0 cm to Section 2, 140 cm- soupy +/- flow-in, vertical pseudobedding in much of Section 2.
vague burrow mottling 0-75 cm
100-106 cm light brown burrow mottles
78 cm- 0.5 cm olive (5Y 4/4) bleb
79 cm- gray burrow NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS
87 cm- 1 cm olive (5Y 4/4) bleb
138 cm- 0.5 cm olive (5Y 4/4) bleb
0-35 cm- vague burrow mottles
15-18 cm- 3 black 0.5 cm blebs
3 cm- 0.5 cm olive (5Y 4/4) bleb

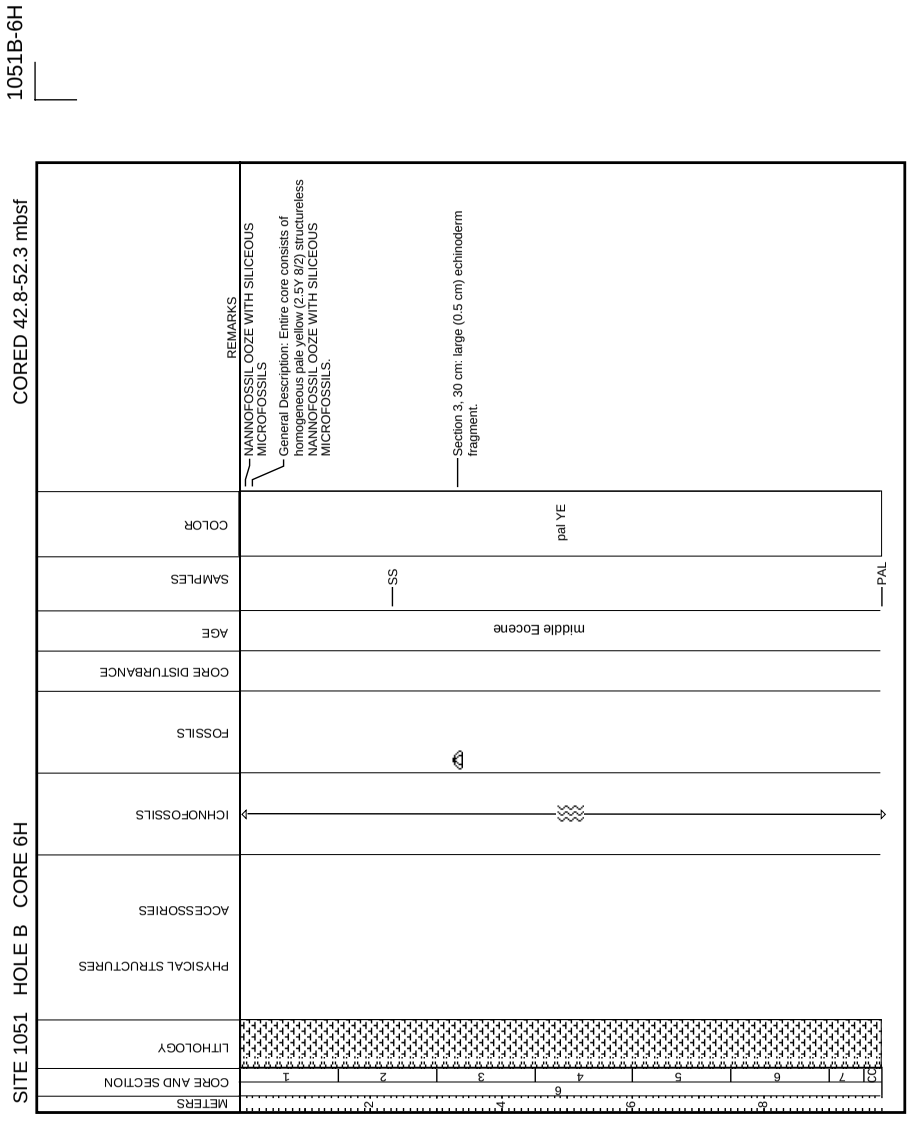
SITE 1051 HOLE B CORE 4H CORED 23.8-33.3 mbsf



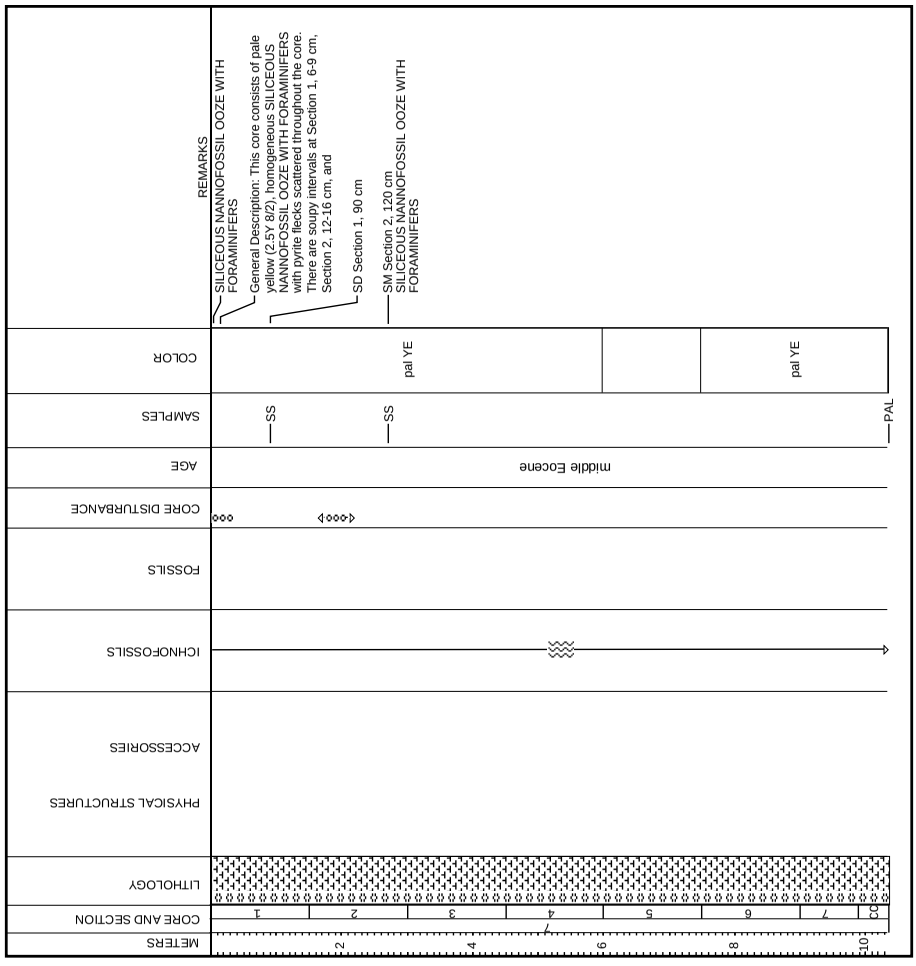
NANNOFOSSIL OOZE

General description:
White (5Y 8/2) NANNOFOSSIL OOZE. Darker intervals consist of pale yellow (5Y 8/3) NANNOFOSSIL OOZE WITH SILICEOUS MICROOFOSSILS. Large gray black flakes contain SILICEOUS NANNOFOSSIL OOZE WITH FORAMINIFERS. The entire core is intensively bioturbated. Darker intervals show visible burrows.


SITE 1051 HOLE B CORE 5H
CORED 33.3-42.8 mbsf
1051B-5H
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS
General description: The entire core is dominantly homogeneous pale yellow (2.5Y 8/2) NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS. The core is bioturbated and only slightly disturbed. Some Mn flecks throughout, one limonitic speck on top and ash patches in Section 1.
117-124 cm: three ash patches with siliceous microfossils
middle Eocene
pal YE
SS
SS
PAL
1
2
3
4
5
6
7
CC
2
4
6
8
10


1051B-6H
SITE 1051 HOLE B CORE 6H
CORED 42.8-52.3 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS
General Description: Entire core consists of homogeneous pale yellow (2.5Y 8/2) structureless NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS.
Section 3, 30 cm: large (0.5 cm) echinoderm fragment.
middle Eocene
SS
PAL
pal YE
1
2
3
4
5
6
7
CC

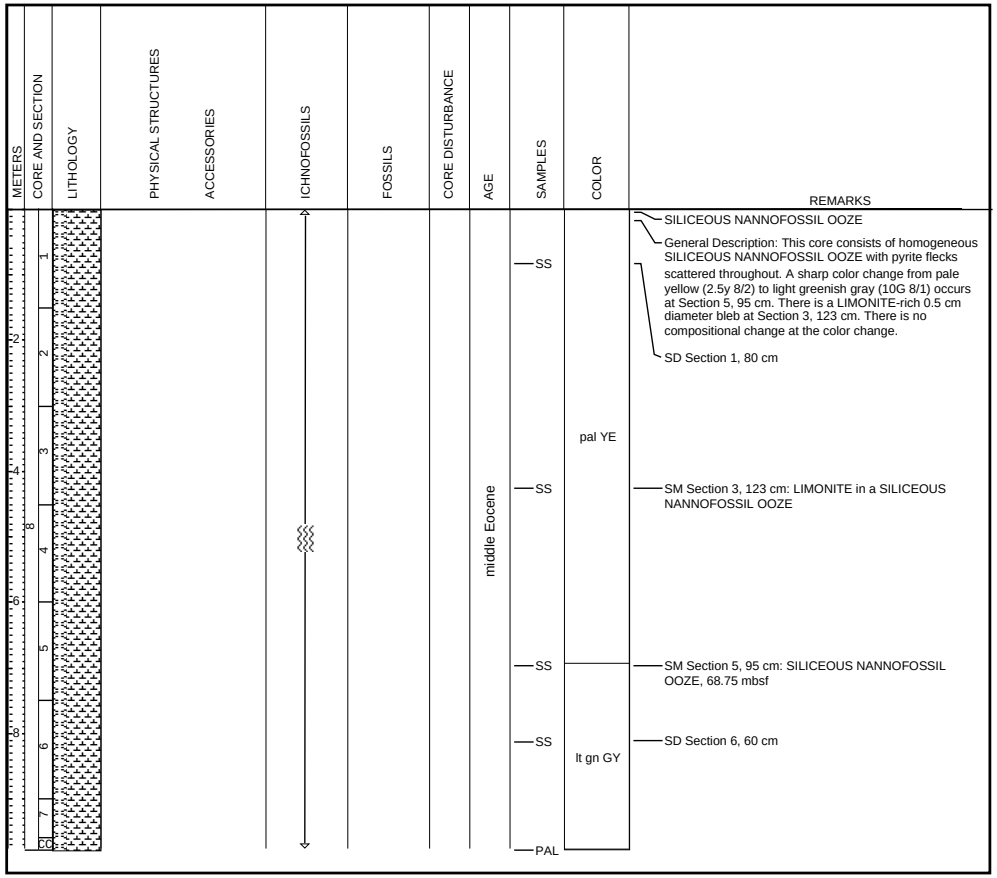
1051B-7H


SITE 1051 HOLE B CORE 7H
CORED 52.3-61.8 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
SS
PAL
pal YE
pal YE
SILICEOUS NANNOFOSSIL OOZE WITH FORAMINIFERS
General Description: This core consists of pale yellow (2.5Y 8/2), homogeneous SILICEOUS NANNOFOSSIL OOZE WITH FORAMINIFERS with pyrite flecks scattered throughout the core. There are soupy intervals at Section 1, 6-9 cm, Section 2, 12-16 cm, and
SD Section 1, 90 cm
SM Section 2, 120 cm
SILICEOUS NANNOFOSSIL OOZE WITH FORAMINIFERS

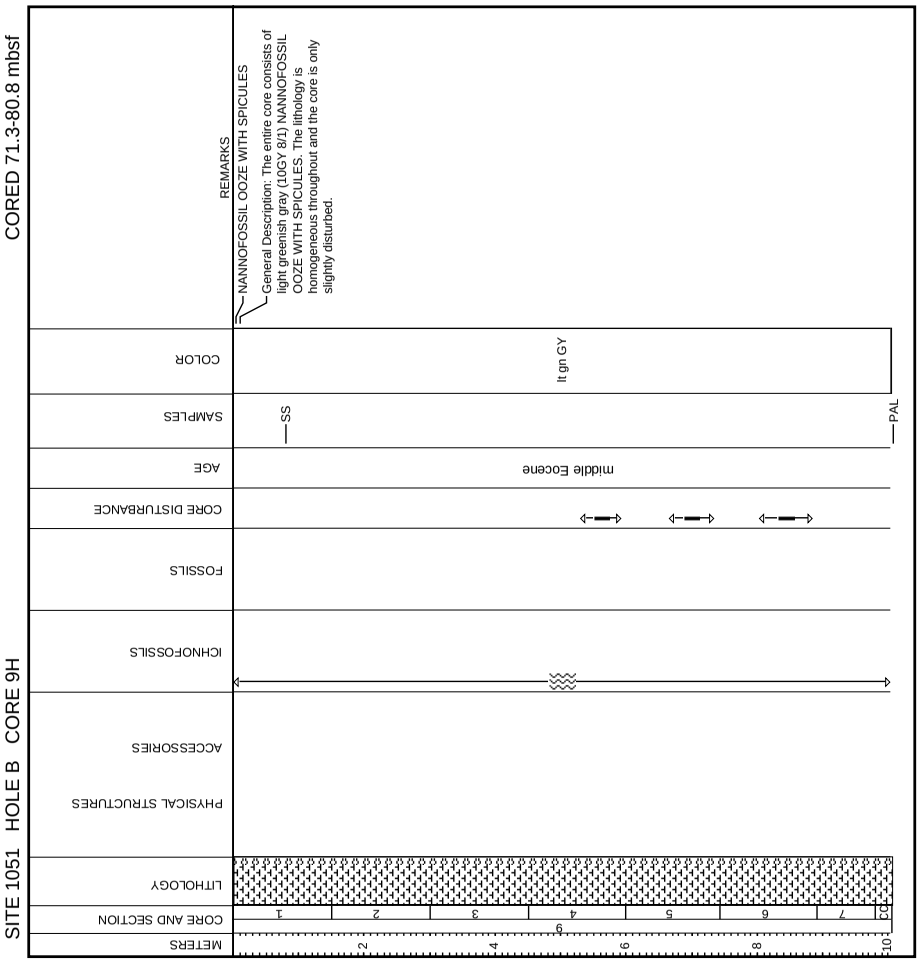
SITE 1051 HOL E B CORE 8H

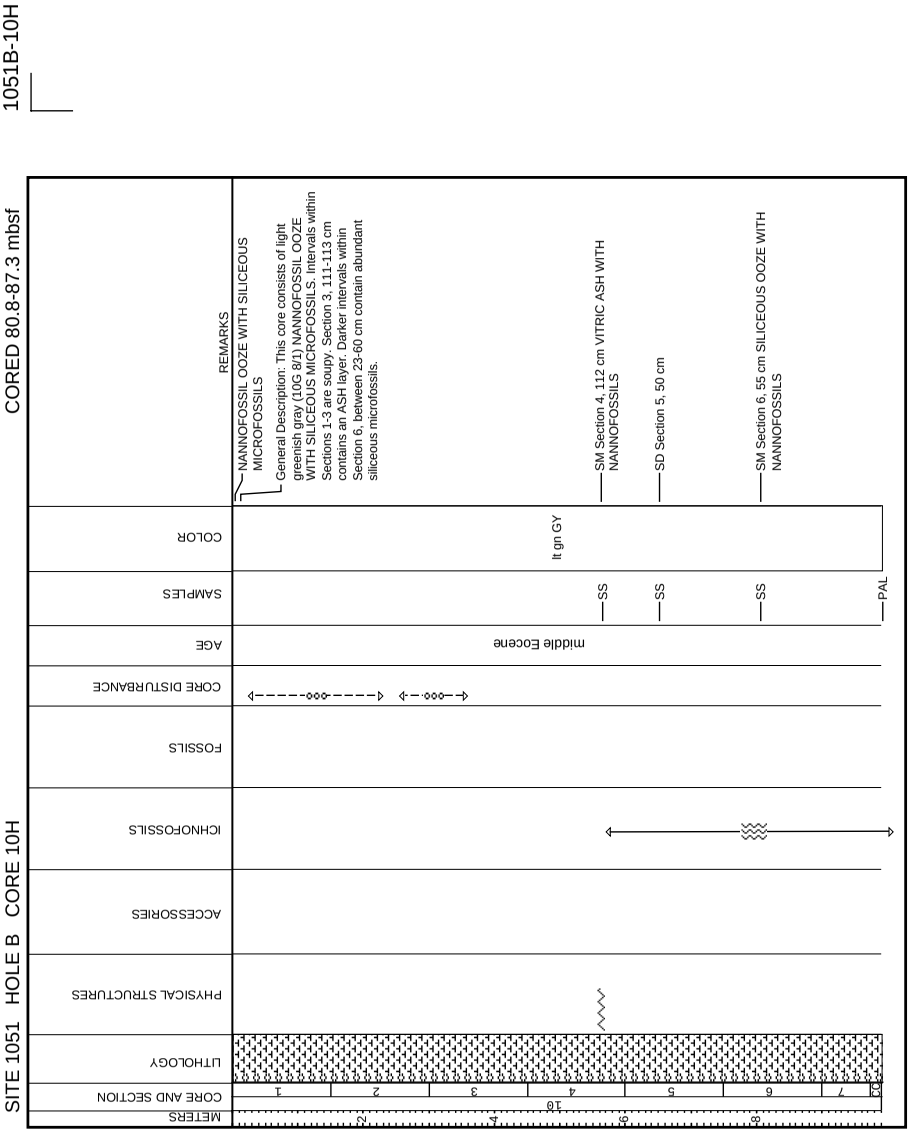
CORED 61.8-71.3 mbsf

1051B-8H



1051B-9H

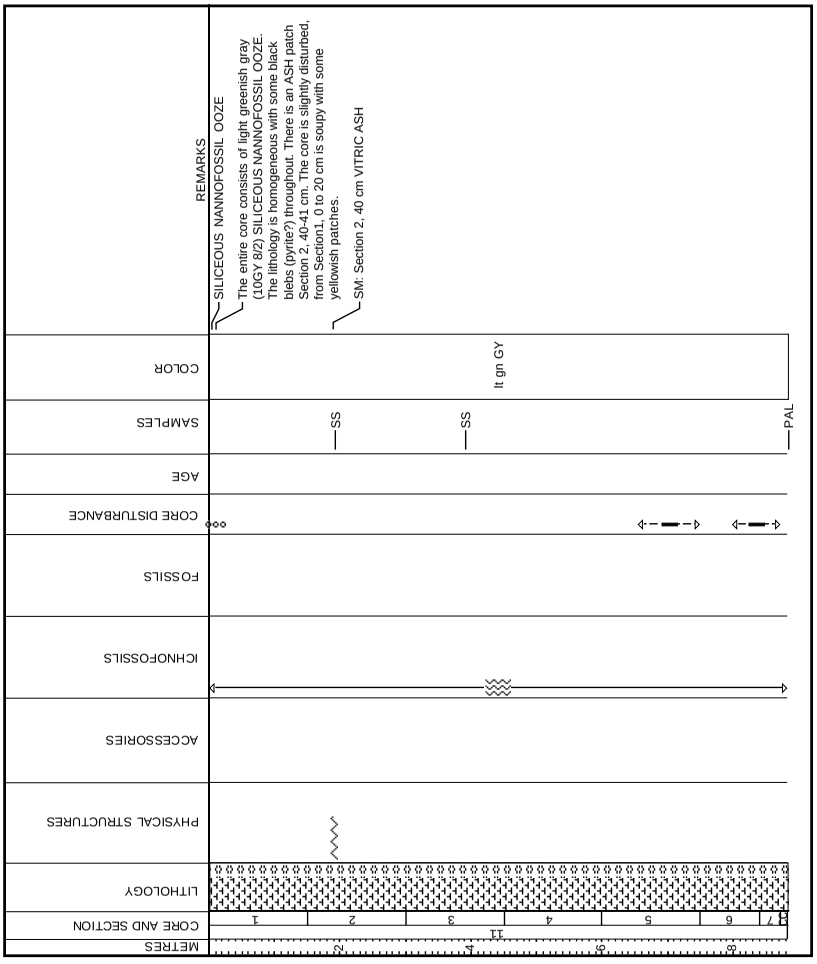

SITE 1051 HOLE B CORE 9H
CORED 71.3-80.8 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
NANNOFOSSIL OOZE WITH SPICULES
General Description: The entire core consists of light greenish gray (10GY 8/1) NANNOFOSSIL OOZE WITH SPICULES. The lithology is homogeneous throughout and the core is only slightly disturbed.
middle Eocene
lt gn GY
SS
PAL
1
2
3
4
5
6
7
CC
2
4
6
8
9
10

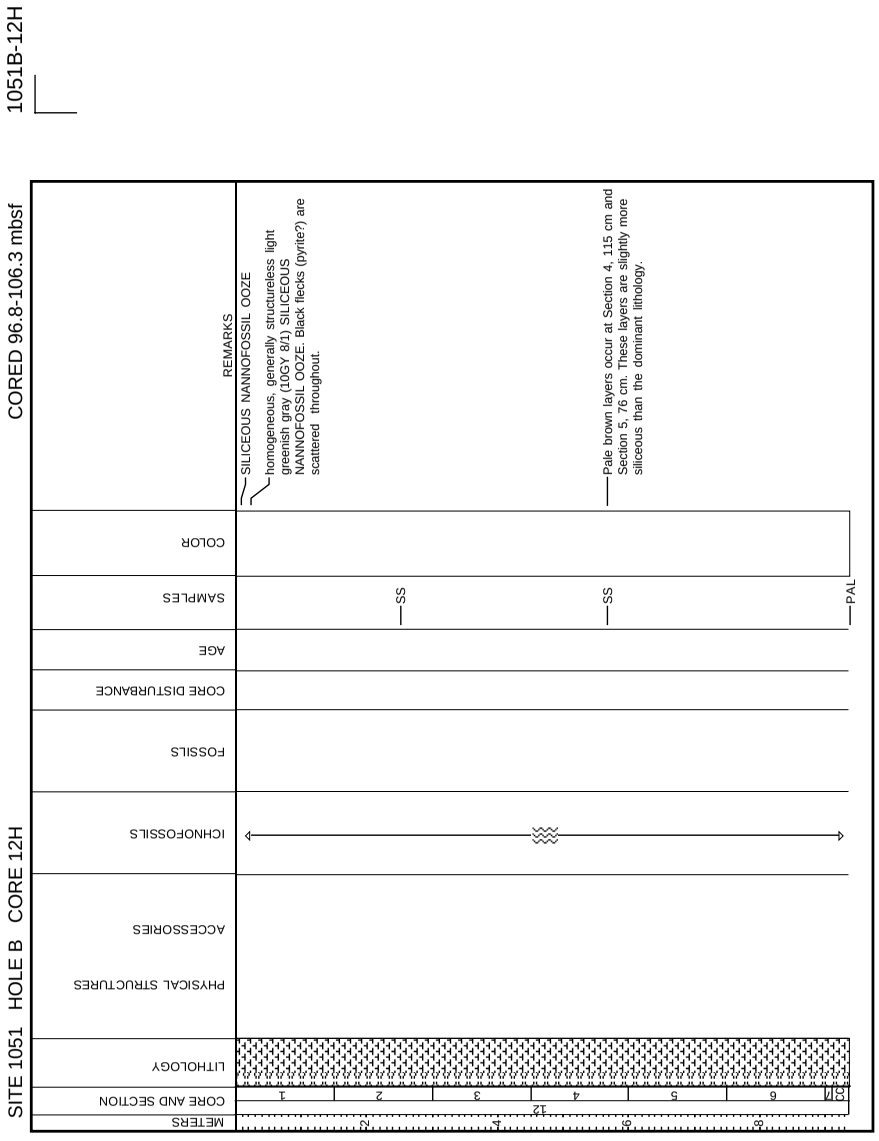

1051B-10H
SITE 1051 HOLE B CORE 10H
CORED 80.8-87.3 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
lt gn GY
SS
SS
SS
PAL
NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS
General Description: This core consists of light greenish gray (10G 8/1) NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS. Intervals within Sections 1-3 are soupy. Section 3, 111-113 cm contains an ASH layer. Darker intervals within Section 6, between 23-60 cm contain abundant siliceous microfossils.
SM Section 4, 112 cm VITRIC ASH WITH NANNOFOSSILS
SD Section 5, 50 cm
SM Section 6, 55 cm SILICEOUS OOZE WITH NANNOFOSSILS

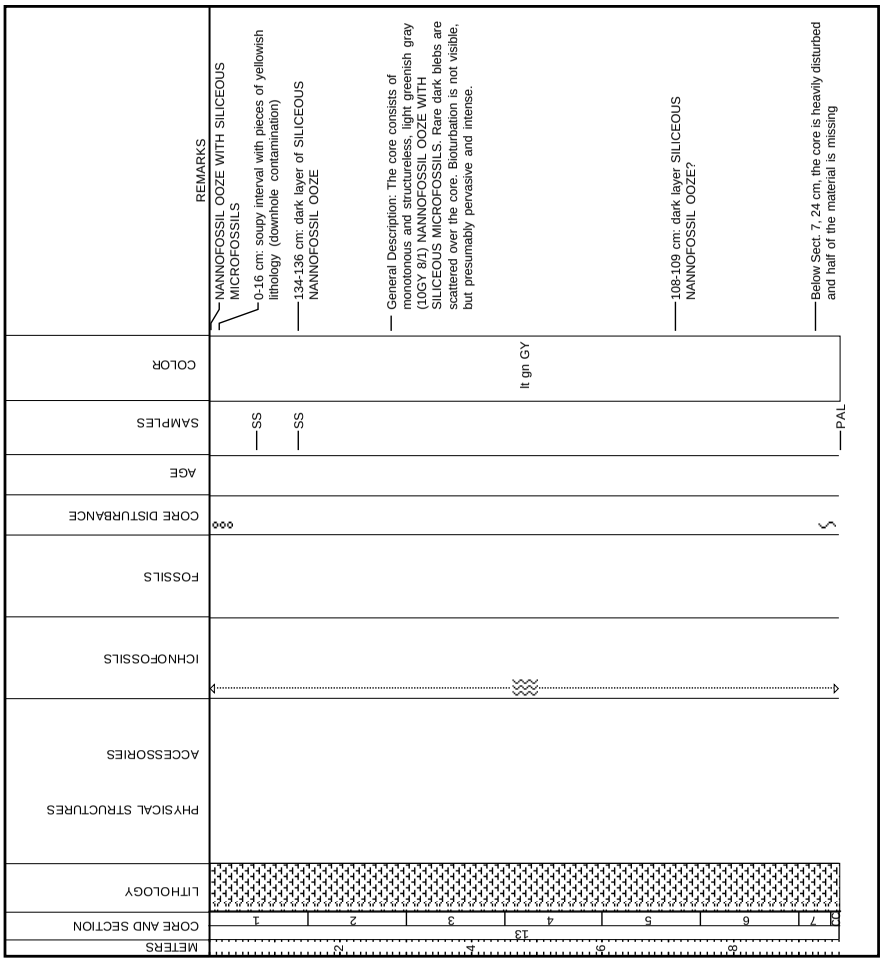
1051B-11H

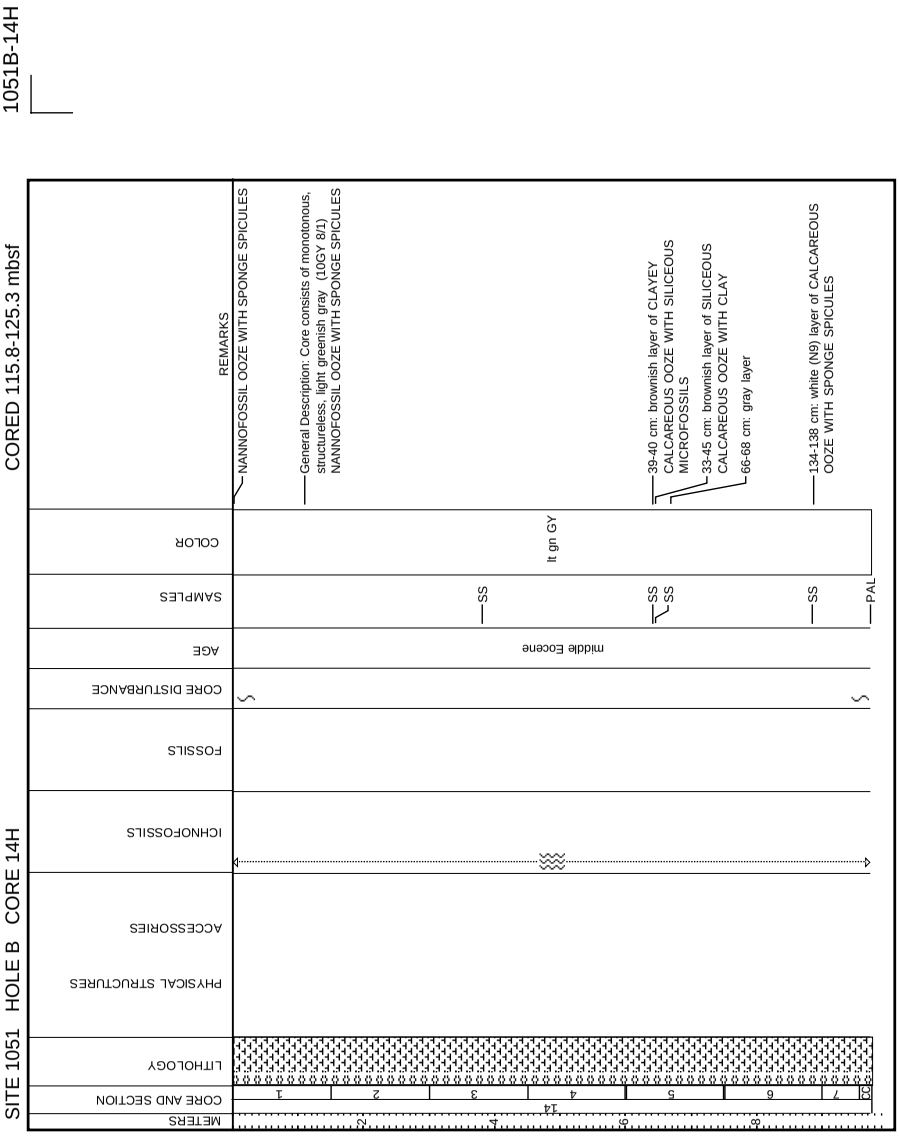
SITE 1051 HOLE B CORE 11H

CORED 87.3-96.8 mbsf




1051B-12H
SITE 1051 HOLE B CORE 12H
CORED 96.8-106.3 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL OOZE
homogeneous, generally structureless light greenish gray (10GY 8/1) SILICEOUS NANNOFOSSIL OOZE. Black flecks (pyrite?) are scattered throughout.
SS
SS
PAL
Pale brown layers occur at Section 4, 115 cm and Section 5, 76 cm. These layers are slightly more siliceous than the dominant lithology.


SITE 1051 HOLE B CORE 13H
CORED 106.3-115.8 mbsf
1051B-13H
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SS
SS
PAL
lt gn GY
NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS
0-16 cm: soupy interval with pieces of yellowish lithology (downhole contamination)
134-136 cm: dark layer of SILICEOUS NANNOFOSSIL OOZE
General Description: The core consists of monotonous and structureless, light greenish gray (10GY 8/1) NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS. Rare dark blebs are scattered over the core. Bioturbation is not visible, but presumably pervasive and intense.
108-109 cm: dark layer SILICEOUS NANNOFOSSIL OOZE?
Below Sect. 7, 24 cm, the core is heavily disturbed and half of the material is missing


1051B-14H
SITE 1051 HOLE B CORE 14H
CORED 115.8-125.3 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
SS
SS
SS
PAL
lt gn GY
NANNOFOSSIL OOZE WITH SPONGE SPICULES
General Description: Core consists of monotonous, structureless, light greenish gray (10GY 8/1) NANNOFOSSIL OOZE WITH SPONGE SPICULES
39-40 cm: brownish layer of CLAYEY CALCAREOUS OOZE WITH SILICEOUS MICROFOSSILS
33-45 cm: brownish layer of SILICEOUS CALCAREOUS OOZE WITH CLAY
66-68 cm: gray layer
134-138 cm: white (N9) layer of CALCAREOUS OOZE WITH SPONGE SPICULES

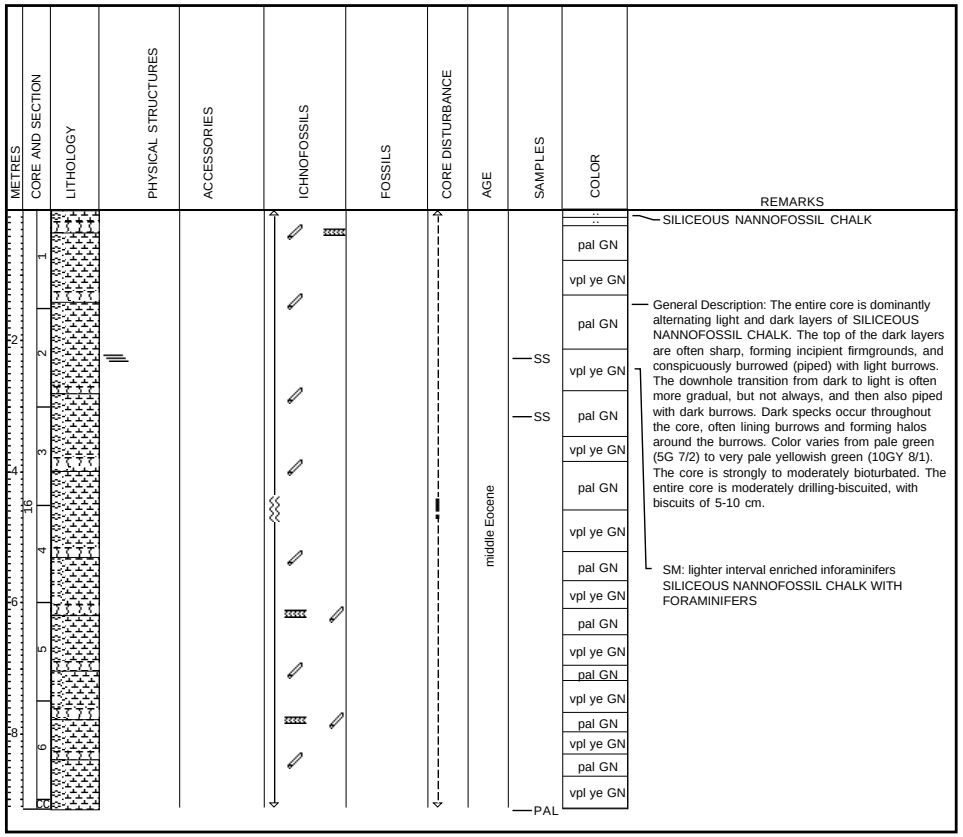
SITE 1051 HOLE B CORE 15H

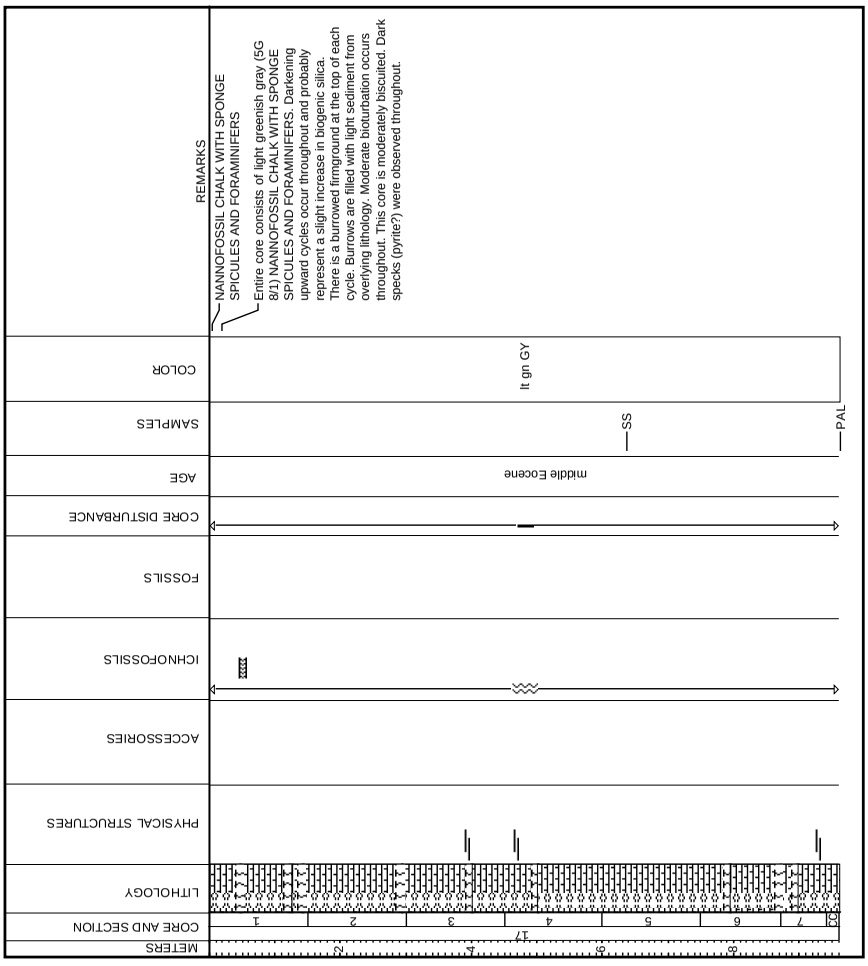
CORED 125.3-134.8 mbsf

1051B-15H

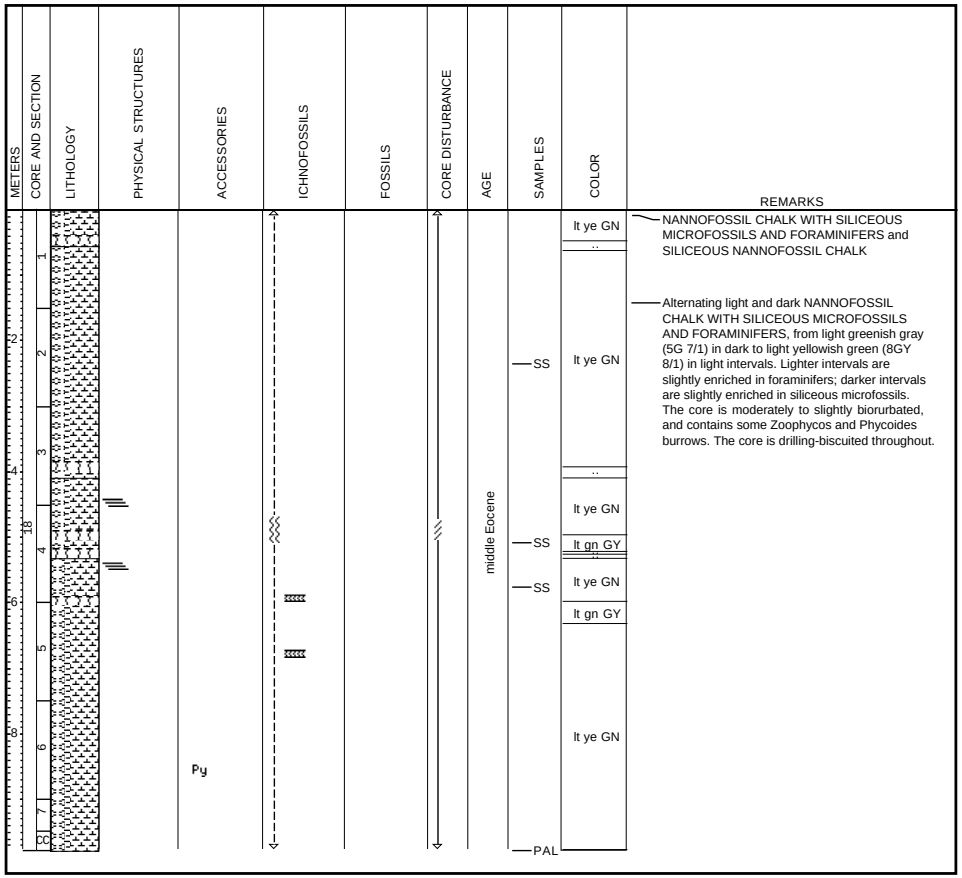
SITE 1051 HOLE B CORE 16X CORED 134.8-143.3 mbsf

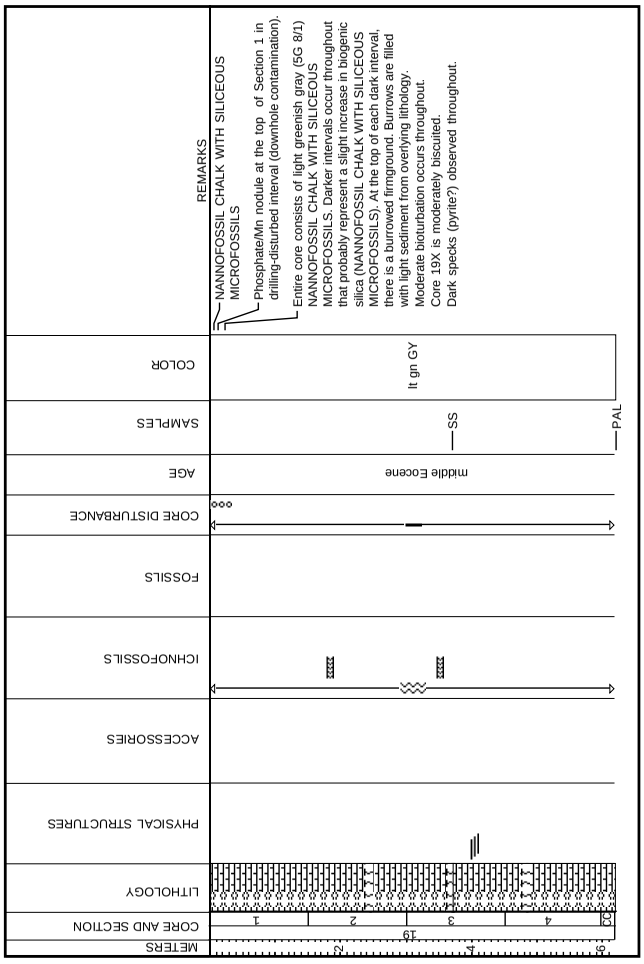
1051B-16X

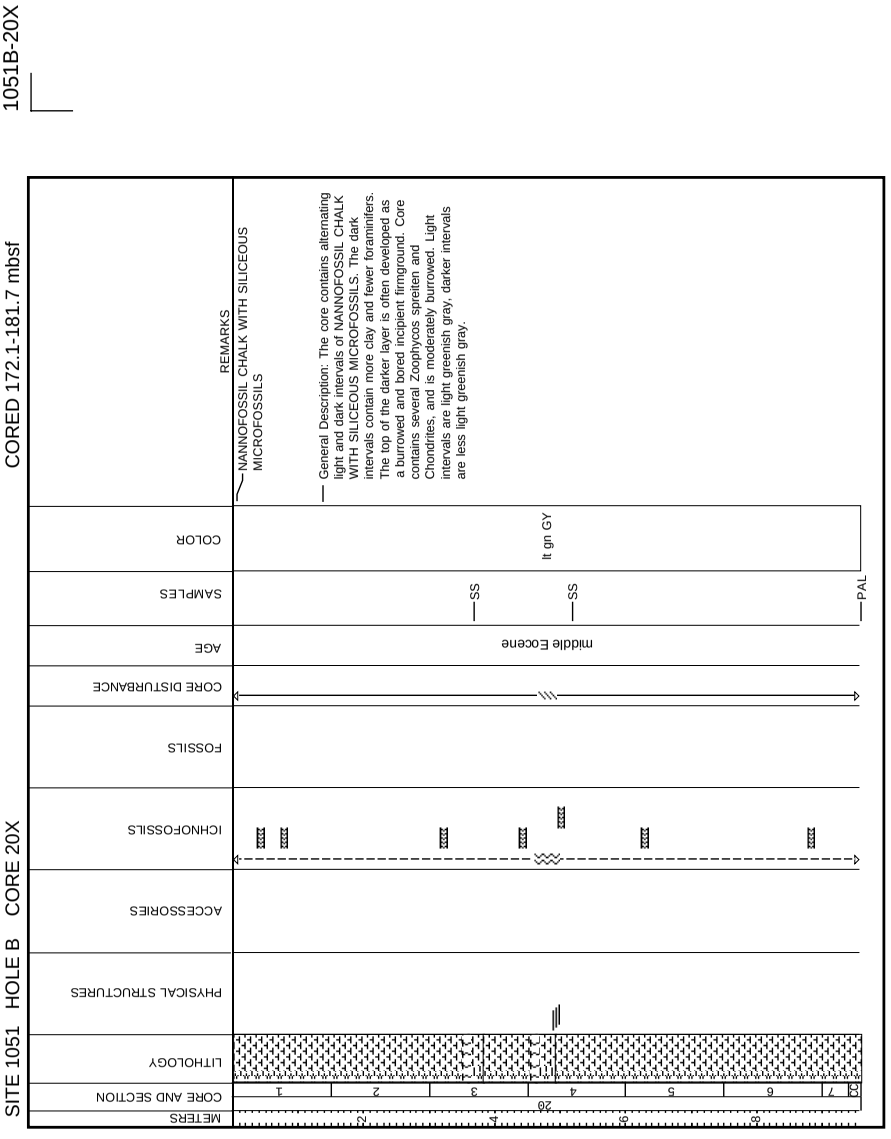



SITE 1051 HOLE B CORE 17X
CORED 143.3-152.9 mbsf
1051B-17X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
lt gn GY
SS
PAL
NANNOFOSSIL CHALK WITH SPONGE SPICULES AND FORAMINIFERS
Entire core consists of light greenish gray (5G 8/1) NANNOFOSSIL CHALK WITH SPONGE SPICULES AND FORAMINIFERS. Darkening upward cycles occur throughout and probably represent a slight increase in biogenic silica. There is a burrowed firmground at the top of each cycle. Burrows are filled with light sediment from overlying lithology. Moderate bioturbation occurs throughout. This core is moderately biscuited. Dark specks (pyrite?) were observed throughout.

SITE 1051 HOLE B CORE 18X CORED 152.9-162.5 mbsf 1051B-18X

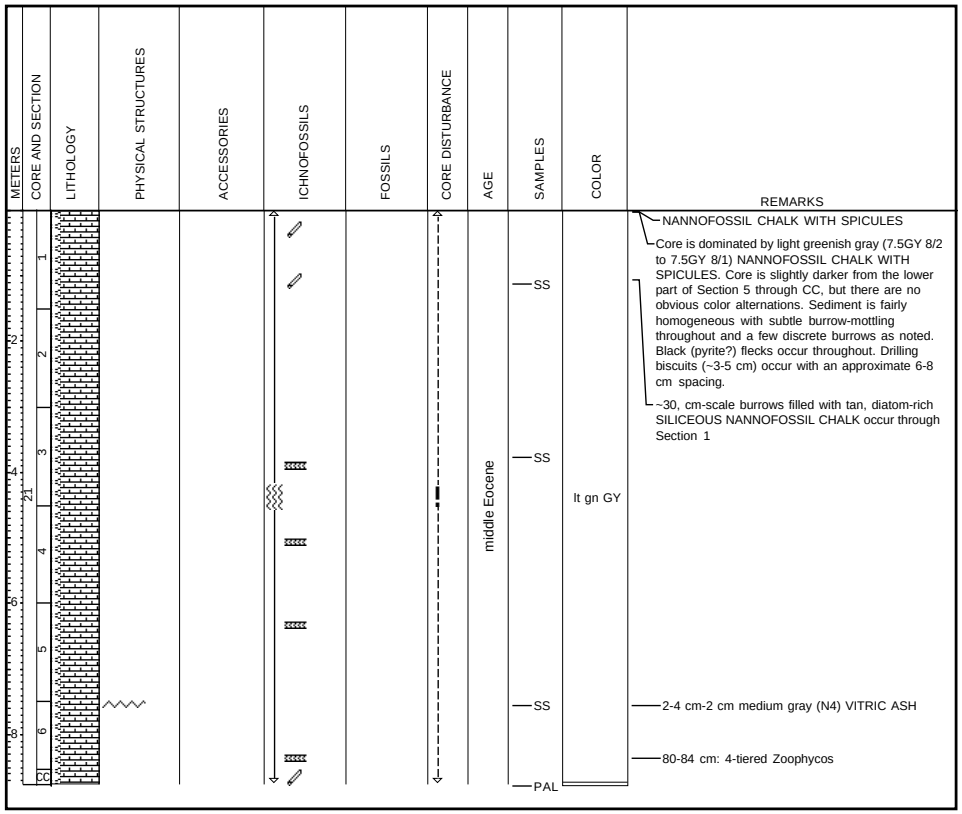


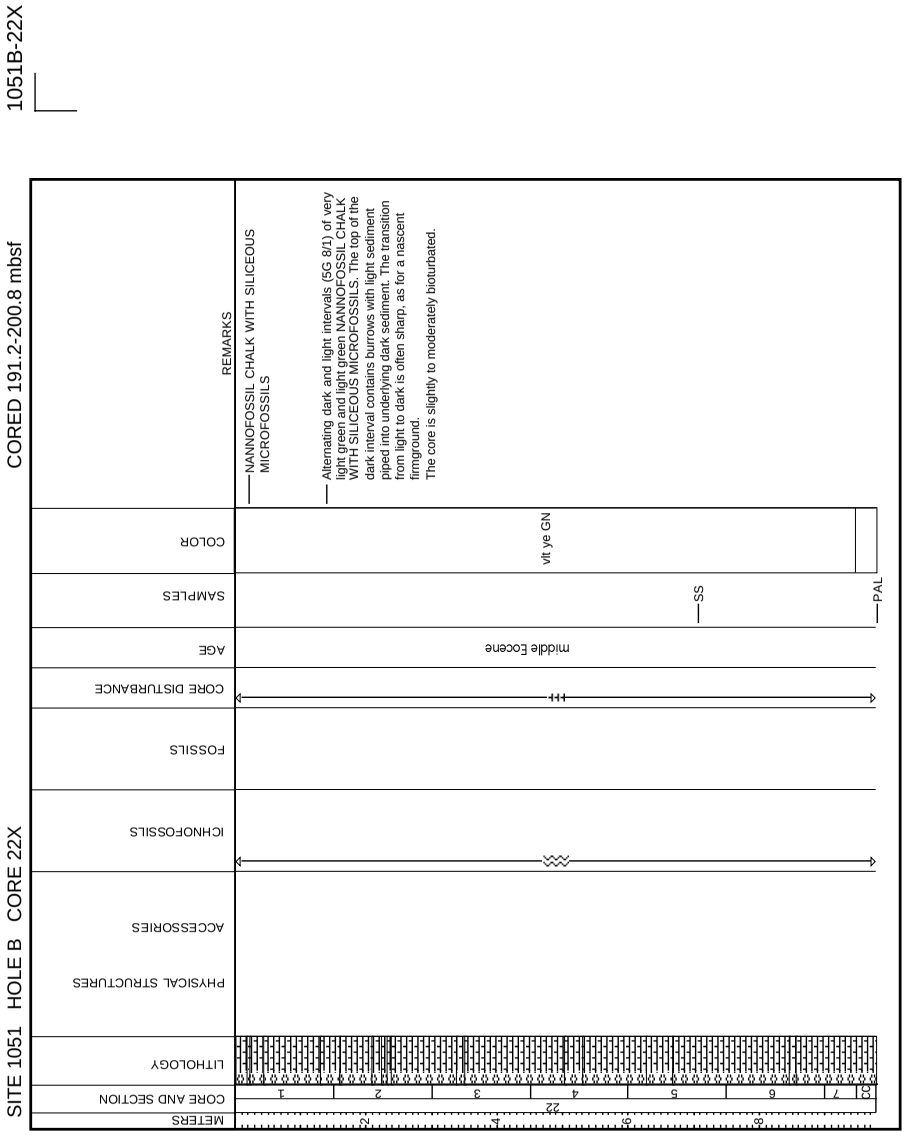

SITE 1051 HOLE B CORE 19X
CORED 162.5-172.1 mbsf
1051B-19X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
PAL
lt gn GY
NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS
Phosphate/Mn nodule at the top of Section 1 in drilling-disturbed interval (downhole contamination).
Entire core consists of light greenish gray (5G 8/1) NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS. Darker intervals occur throughout that probably represent a slight increase in biogenic silica (NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS). At the top of each dark interval, there is a burrowed firmground. Burrows are filled with light sediment from overlying lithology.
Moderate bioturbation occurs throughout.
Core 19X is moderately biscuited.
Dark specks (pyrite?) observed throughout.

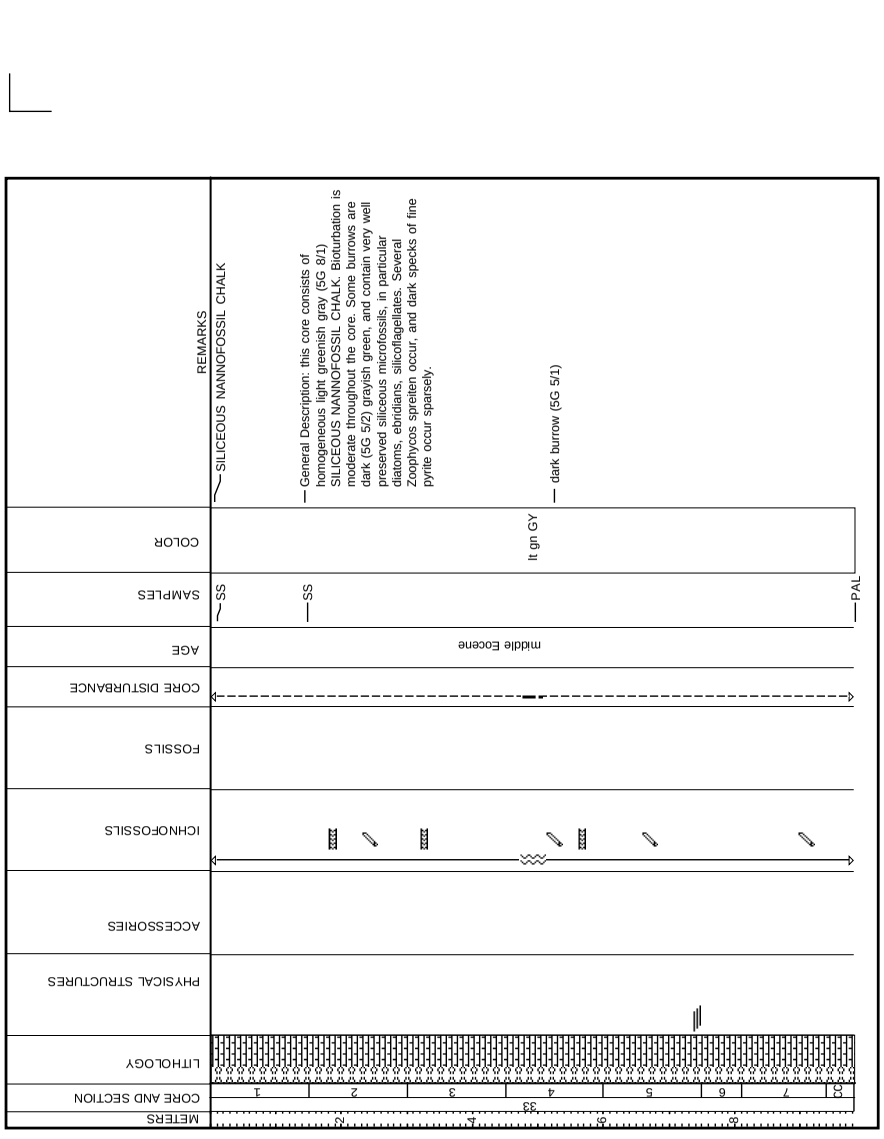

SITE 1051 HOLE B CORE 20X
CORED 172.1-181.7 mbsf
1051B-20X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS
General Description: The core contains alternating light and dark intervals of NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS. The dark intervals contain more clay and fewer foraminifers. The top of the darker layer is often developed as a burrowed and bored incipient firmground. Core contains several Zoophycos spreiten and Chondrites, and is moderately burrowed. Light intervals are light greenish gray, darker intervals are less light greenish gray.
lt gn GY
middle Eocene
SS
SS
PAL
1
2
3
4
5
6
7
CC
20
H

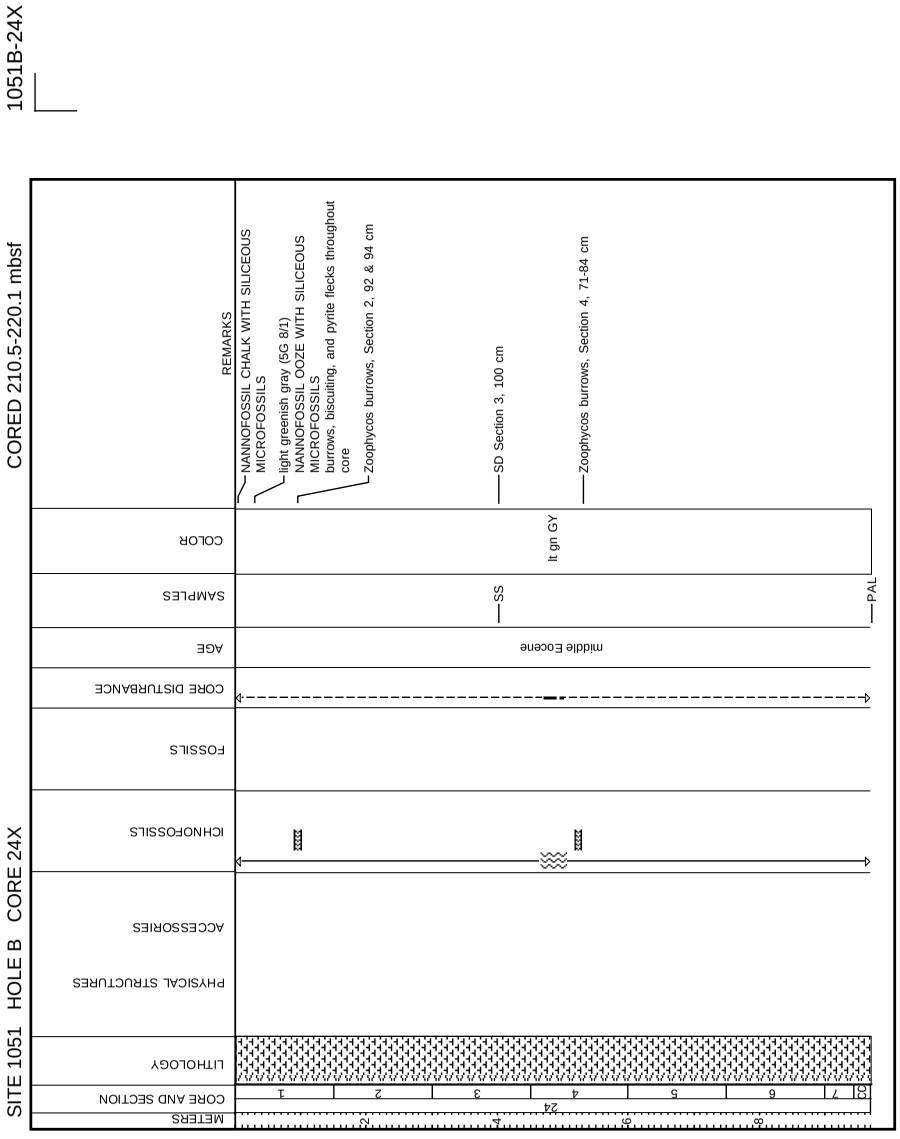
SITE 1051 HOLE B CORE 21X CORED 181.7-191.2 mbsf

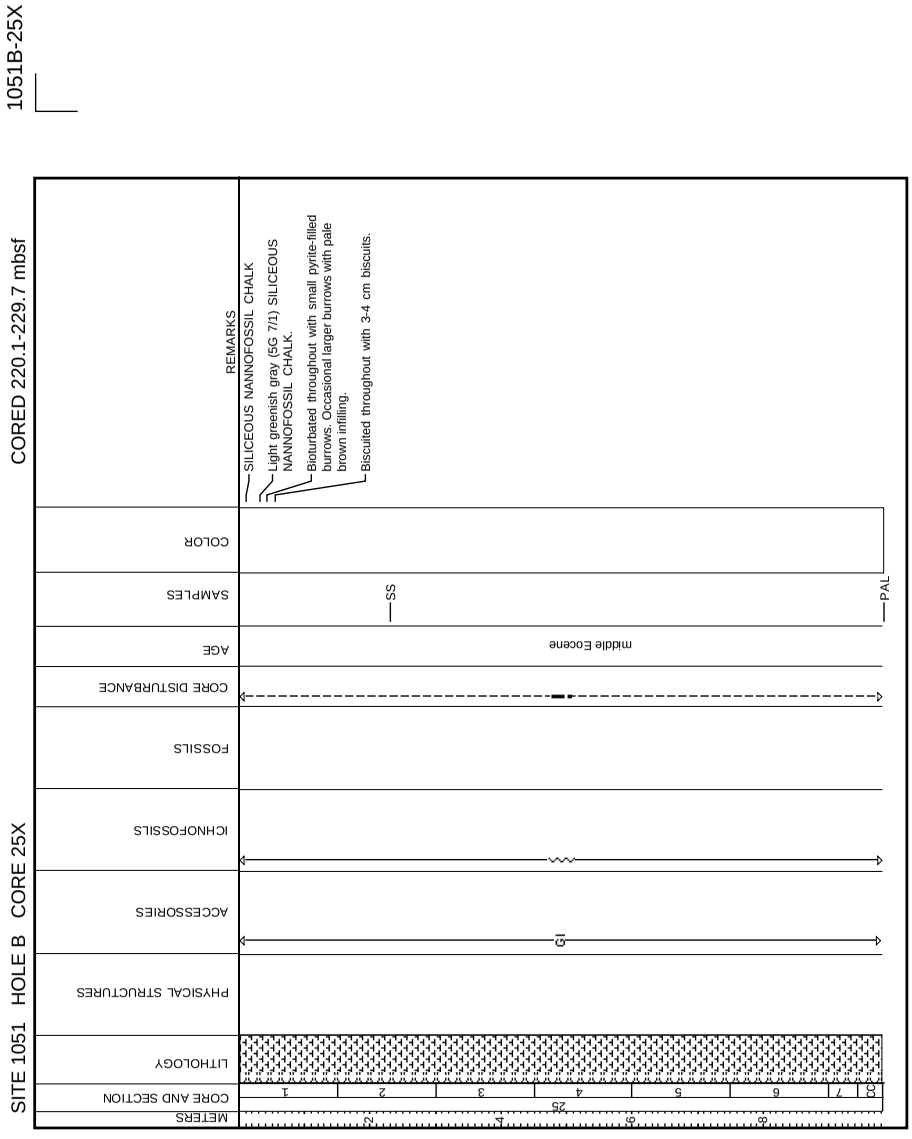
1051B-21X

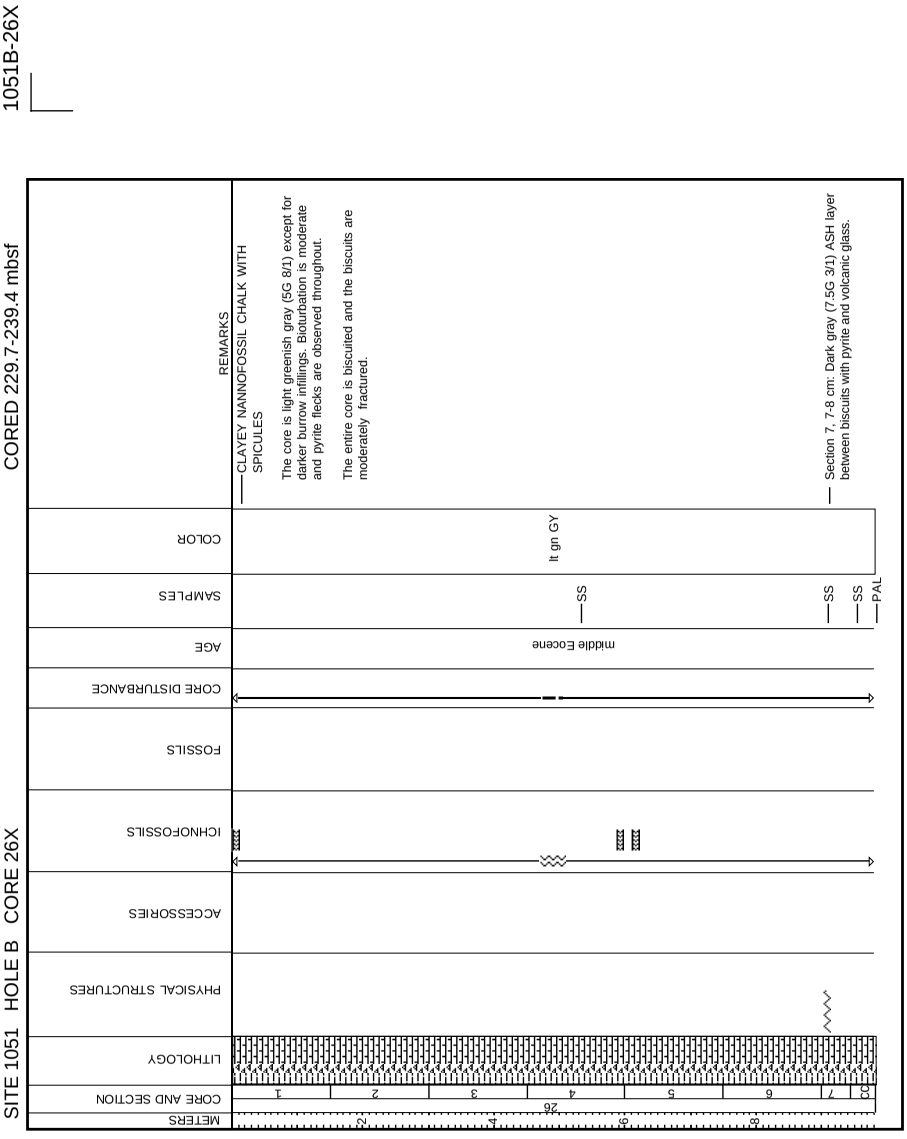



SITE 1051 HOLE B CORE 22X
CORED 191.2-200.8 mbsf
1051B-22X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
PAL
vlt ye GN
NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS
Alternating dark and light intervals (5G 8/1) of very light green and light green NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS. The top of the dark interval contains burrows with light sediment piped into underlying dark sediment. The transition from light to dark is often sharp, as for a nascent firmground.
The core is slightly to moderately bioturbated.


1051B-23X
SITE 1051 HOLE B CORE 23X
CORED 200.8-210.5 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL CHALK
General Description: this core consists of homogeneous light greenish gray (5G 8/1) SILICEOUS NANNOFOSSIL CHALK. Bioturbation is moderate throughout the core. Some burrows are dark (5G 5/2) grayish green, and contain very well preserved siliceous microfossils, in particular diatoms, ebridians, silicoflagellates. Several Zoophycos spreiten occur, and dark specks of fine pyrite occur sparsely.
dark burrow (5G 5/1)
lt gn GY
middle Eocene
SS
SS
PAL
1
2
3
4
5
6
7
CC
0
50
100
150
33


SITE 1051 HOLE B CORE 24X
CORED 210.5-220.1 mbsf
1051B-24X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
PAL
lt gn GY
NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS
light greenish gray (5G 8/1)
NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS
burrows, biscuiting, and pyrite flecks throughout core
Zoophycos burrows, Section 2, 92 & 94 cm
SD Section 3, 100 cm
Zoophycos burrows, Section 4, 71-84 cm

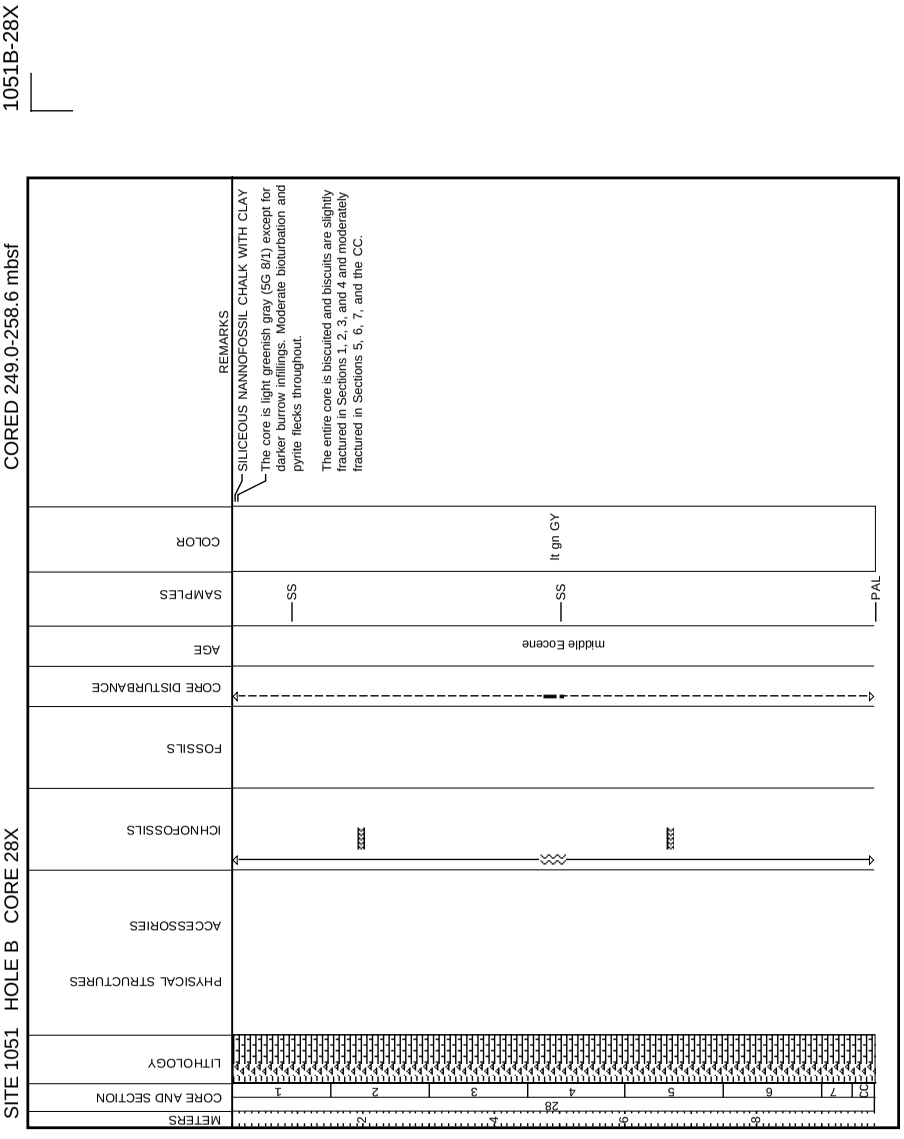

1051B-25X
SITE 1051 HOLE B CORE 25X
CORED 220.1-229.7 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL CHALK
Light greenish gray (5G 7/1) SILICEOUS NANNOFOSSIL CHALK.
Bioturbated throughout with small pyrite-filled burrows. Occasional larger burrows with pale brown infilling.
Biscuited throughout with 3-4 cm biscuits.
middle Eocene
SS
PAL
Gl

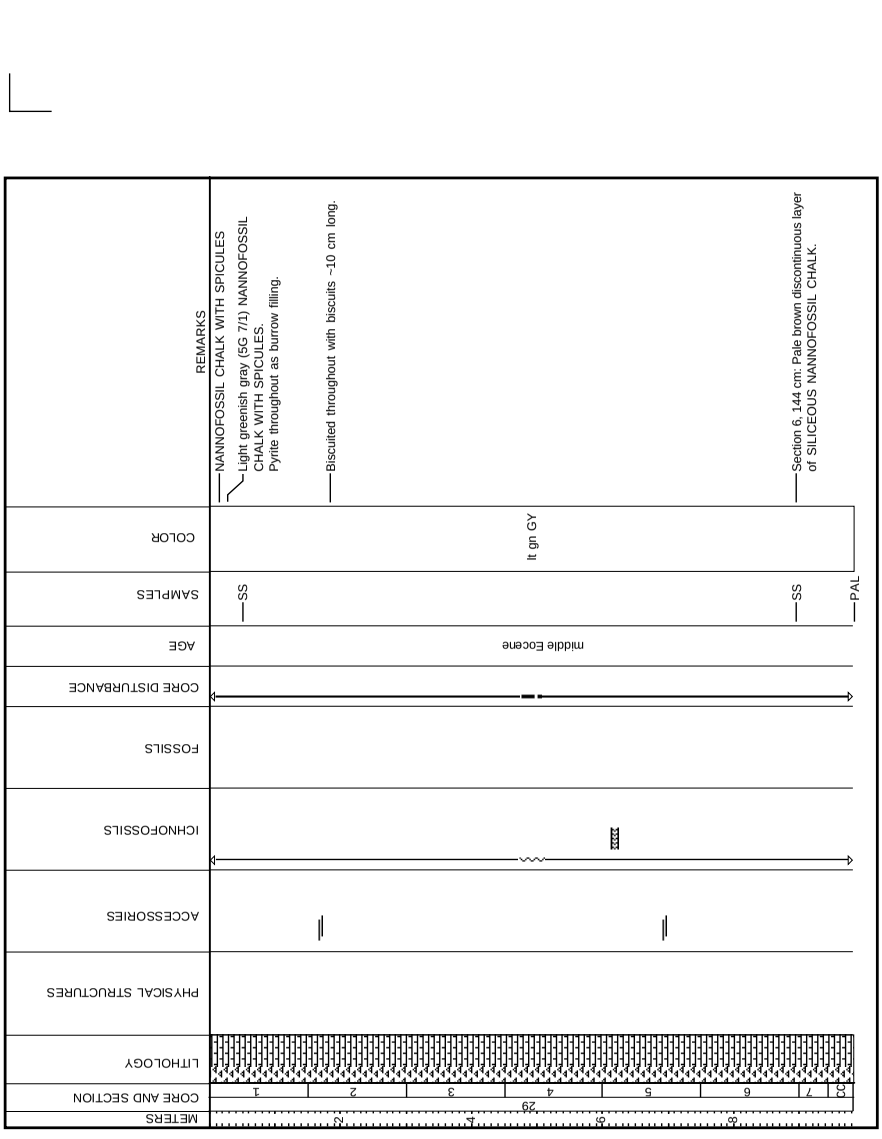

SITE 1051 HOLE B CORE 26X
CORED 229.7-239.4 mbsf
1051B-26X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
lt gn GY
SS
SS
SS
PAL
CLAYEY NANNOFOSSIL CHALK WITH SPICULES
The core is light greenish gray (5G 8/1) except for darker burrow infillings. Bioturbation is moderate and pyrite flecks are observed throughout.
The entire core is biscuited and the biscuits are moderately fractured.
Section 7, 7-8 cm: Dark gray (7.5G 3/1) ASH layer between biscuits with pyrite and volcanic glass.

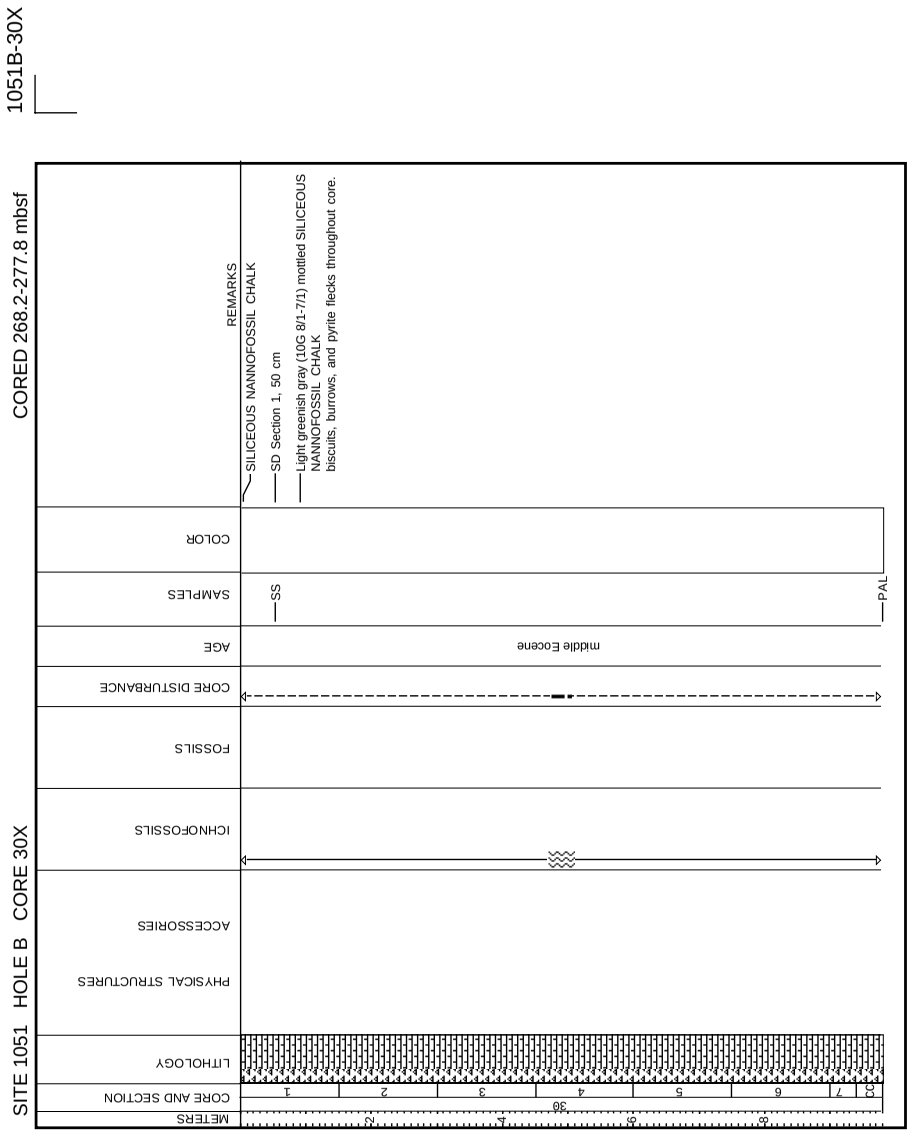
SITE 1051 HOLE B CORE 27X

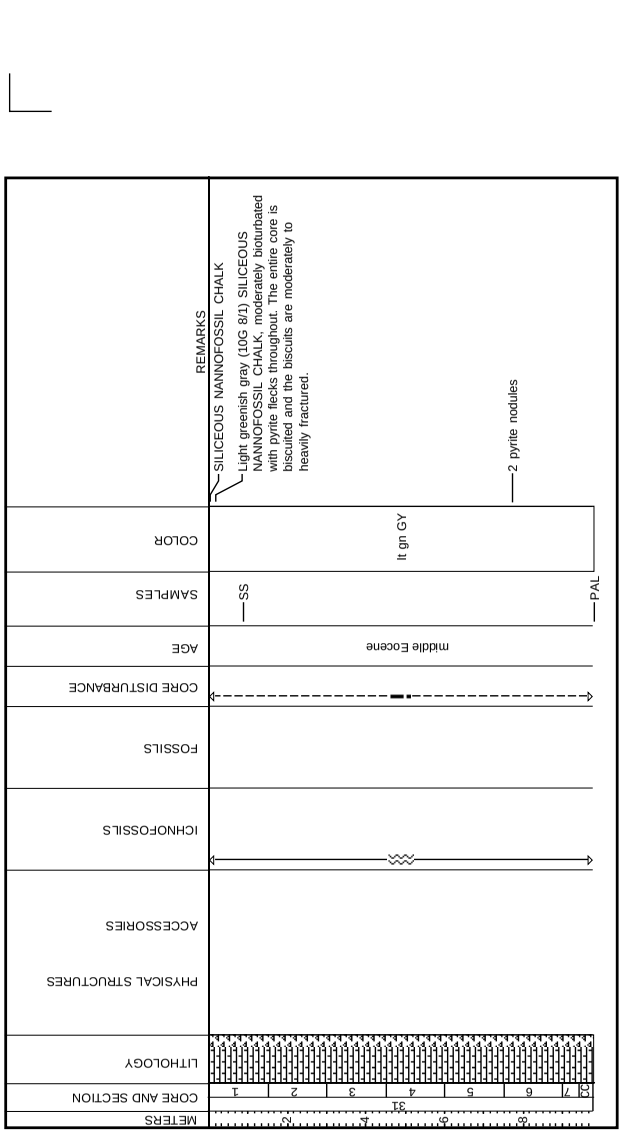
CORED 239.4-249.0 mbsf

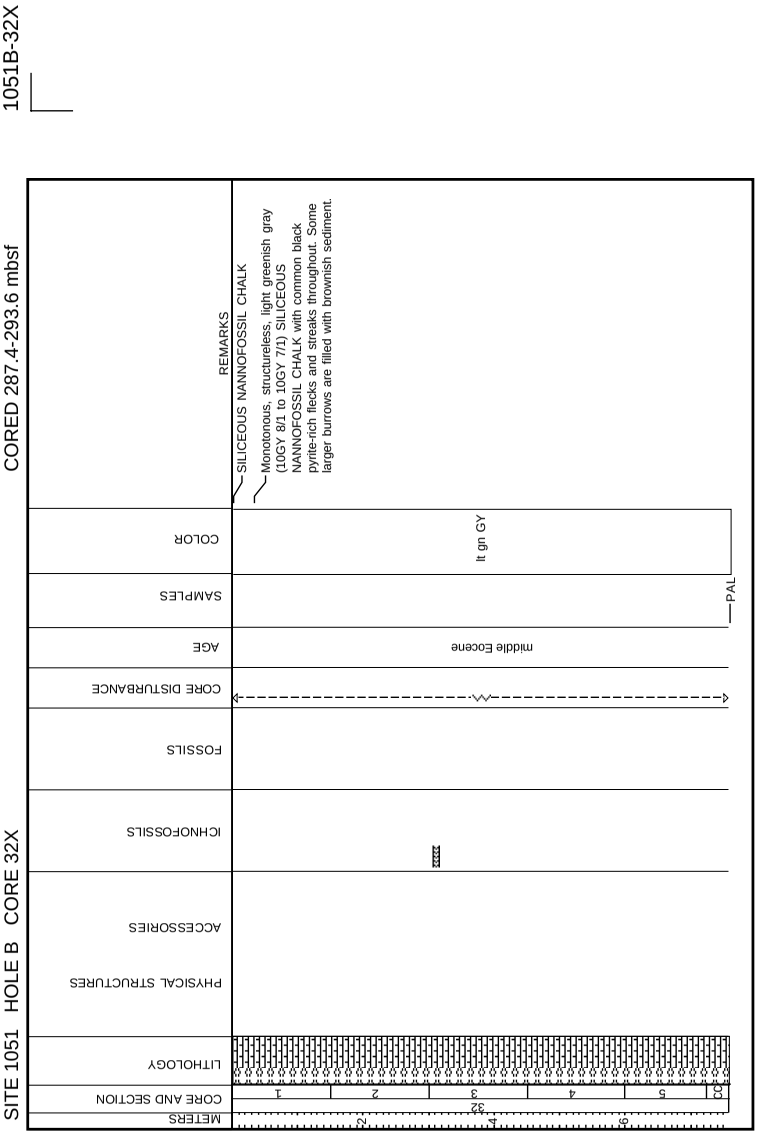
1051B-27X


SITE 1051 HOLE B CORE 28X
CORED 249.0-258.6 mbsf
1051B-28X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
SS
PAL
lt gn GY
SILICEOUS NANNOFOSSIL CHALK WITH CLAY
The core is light greenish gray (5G 8/1) except for darker burrow infillings. Moderate bioturbation and pyrite flecks throughout.
The entire core is biscuited and biscuits are slightly fractured in Sections 1, 2, 3, and 4 and moderately fractured in Sections 5, 6, 7, and the CC.


1051B-29X
SITE 1051 HOLE B CORE 29X
CORED 258.6-268.2 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
SS
PAL
lt gn GY
NANNOFOSSIL CHALK WITH SPICULES
Light greenish gray (5G 7/1) NANNOFOSSIL CHALK WITH SPICULES.
Pyrite throughout as burrow filling.
Biscuited throughout with biscuits ~10 cm long.
Section 6, 144 cm: Pale brown discontinuous layer of SILICEOUS NANNOFOSSIL CHALK.

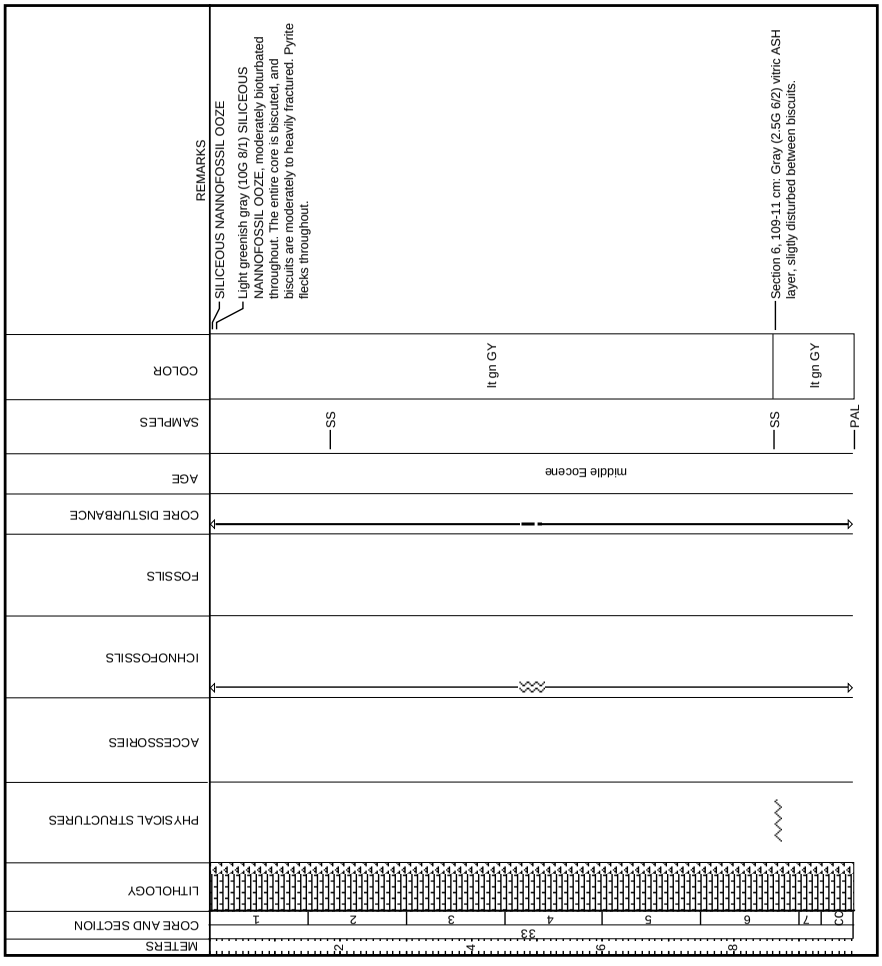

1051B-30X
CORED 268.2-277.8 mbsf
SITE 1051 HOLE B CORE 30X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
PAL
SILICEOUS NANNOFOSSIL CHALK
SD Section 1, 50 cm
Light greenish gray (10G 8/1-7/1) mottled SILICEOUS NANNOFOSSIL CHALK biscuits, burrows, and pyrite flecks throughout core.

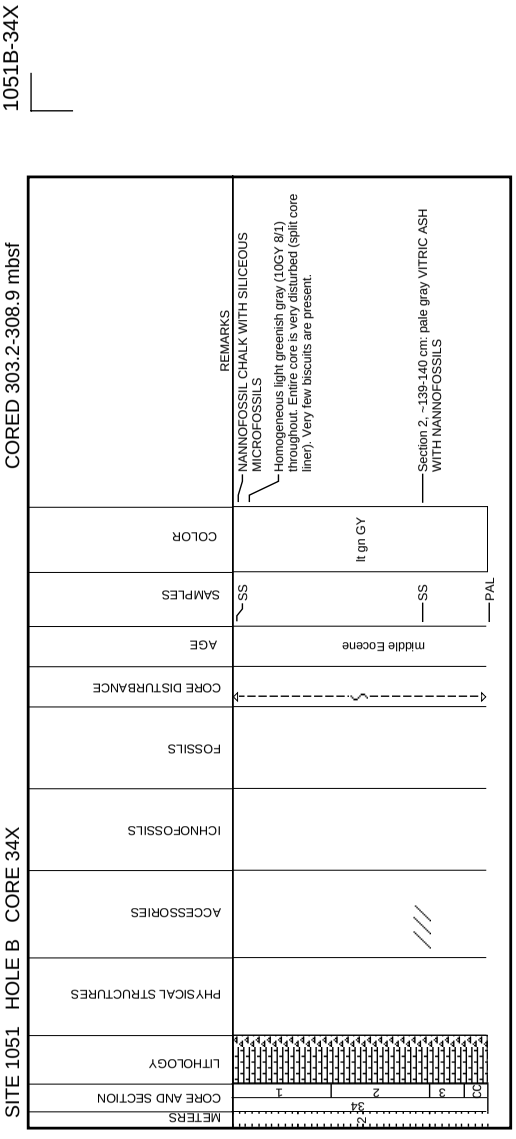

1051B-31X
SITE 1051 HOLE B CORE 31X
CORED 277.8-287.4 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
PAL
lt gn GY
2 pyrite nodules
SILICEOUS NANNOFOSSIL CHALK
Light greenish gray (10G 8/1) SILICEOUS NANNOFOSSIL CHALK, moderately bioturbated with pyrite flecks throughout. The entire core is biscuited and the biscuits are moderately to heavily fractured.

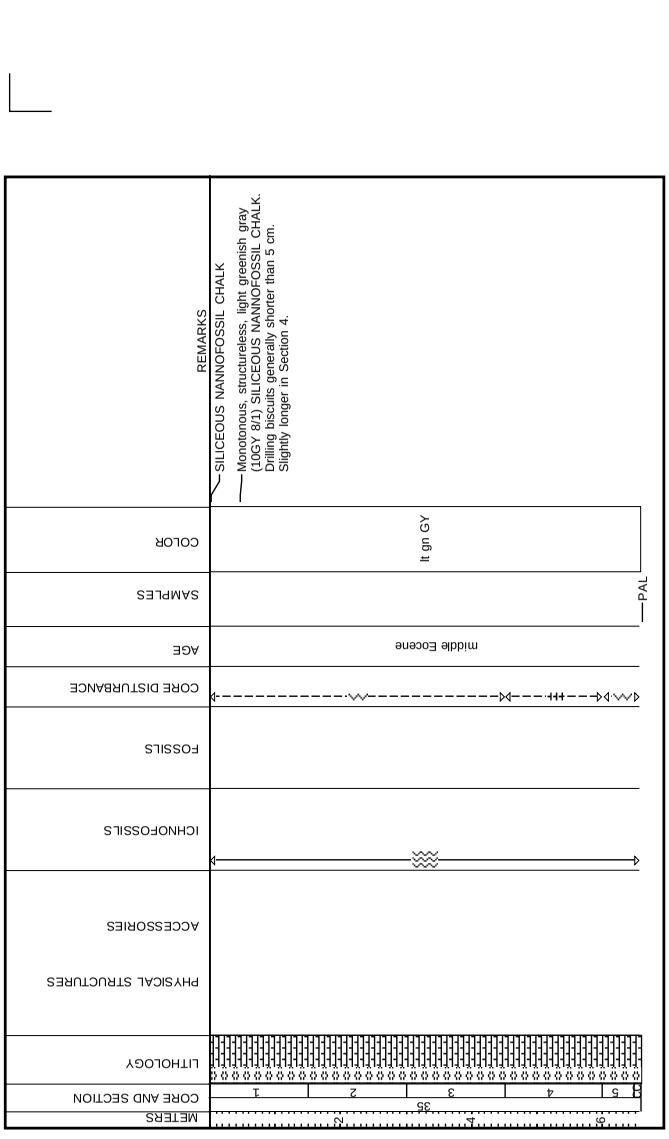

SITE 1051 HOLE B CORE 32X
CORED 287.4-293.6 mbsf
1051B-32X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
PAL
lt gn GY
SILICEOUS NANOFOSSIL CHALK
Monotonous, structureless, light greenish gray (10GY 8/1 to 10GY 7/1) SILICEOUS NANOFOSSIL CHALK with common black pyrite-rich flecks and streaks throughout. Some larger burrows are filled with brownish sediment.

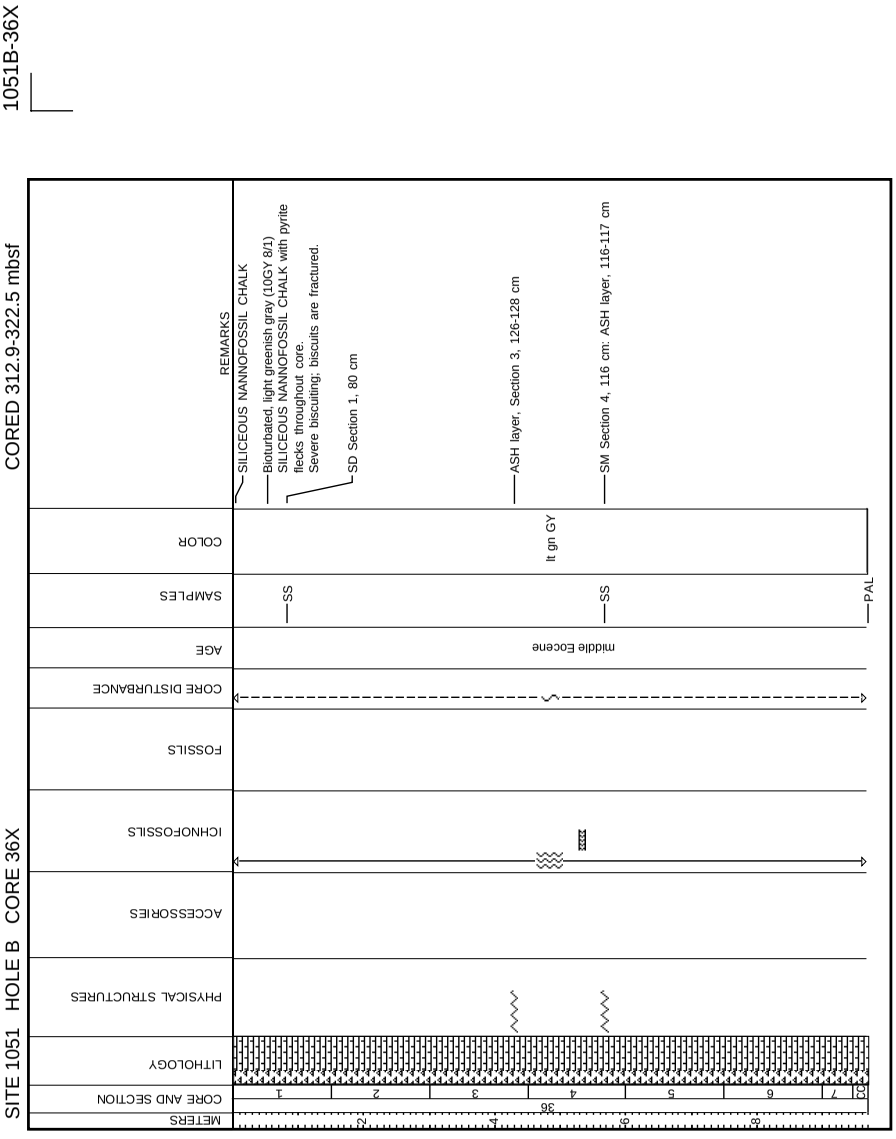
1051B-33X

SITE 1051 HOLE B CORE 33X CORED 293.6-303.2 mbsf

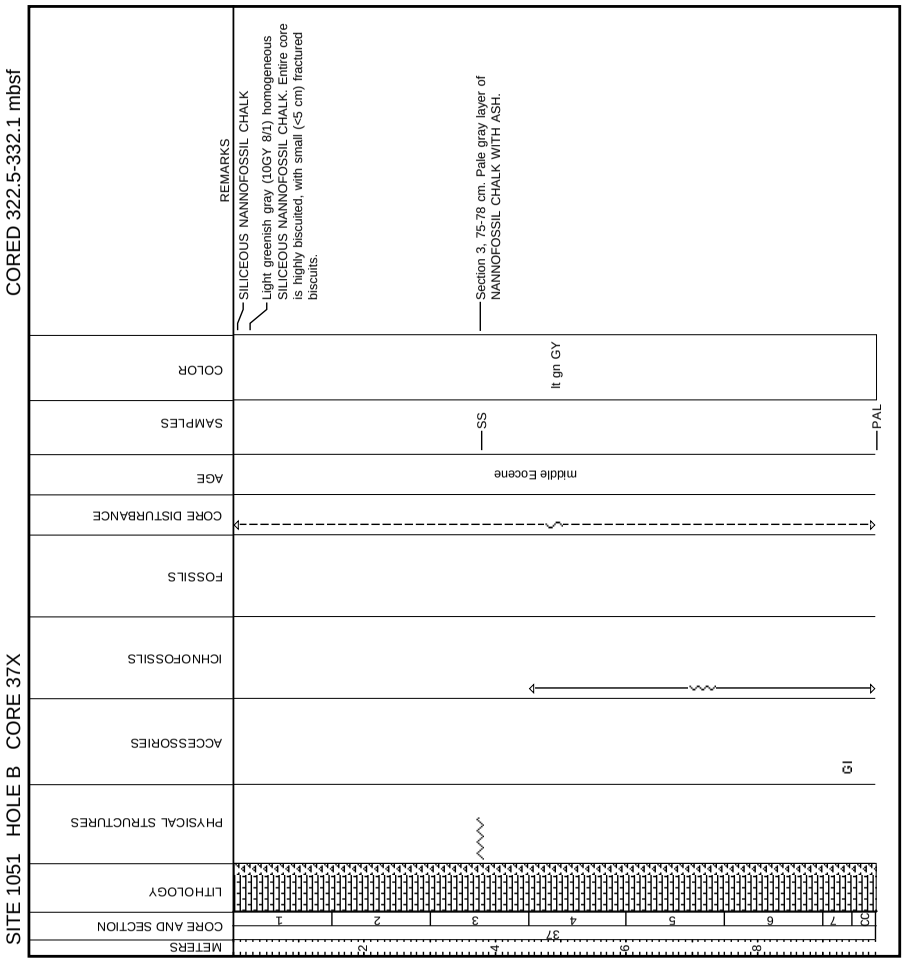


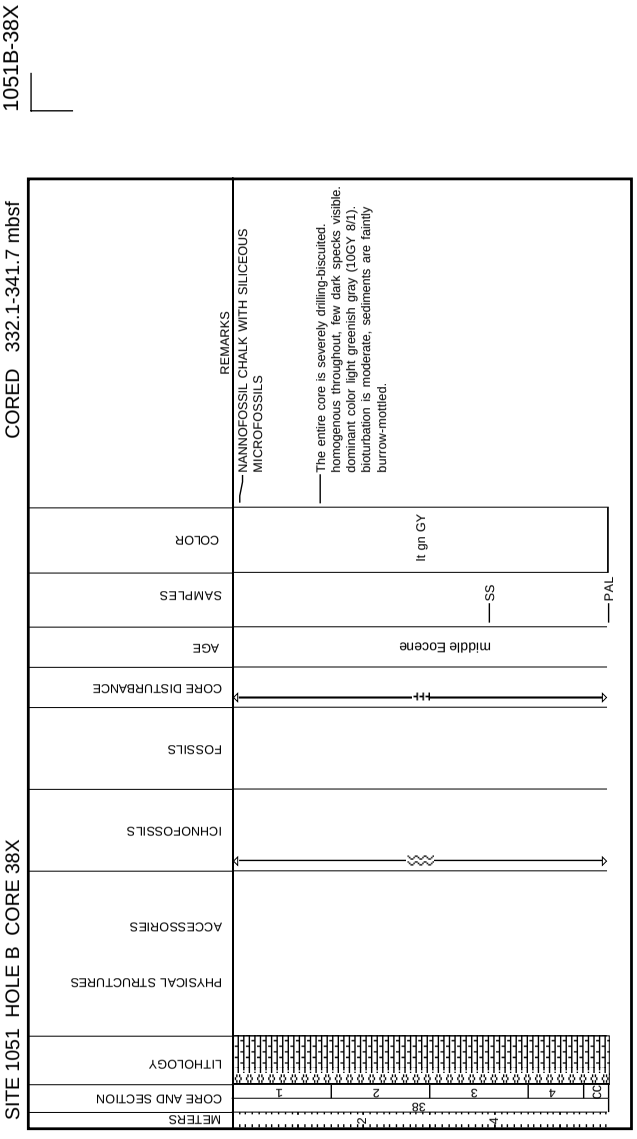

SITE 1051 HOLE B CORE 34X
CORED 303.2-308.9 mbsf
1051B-34X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
middle Eocene
SS
SS
PAL
lt gn GY
NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS
Homogeneous light greenish gray (10GY 8/1) throughout. Entire core is very disturbed (split core liner). Very few biscuits are present.
Section 2, -139-140 cm: pale gray VITRIC ASH WITH NANNOFOSSILS

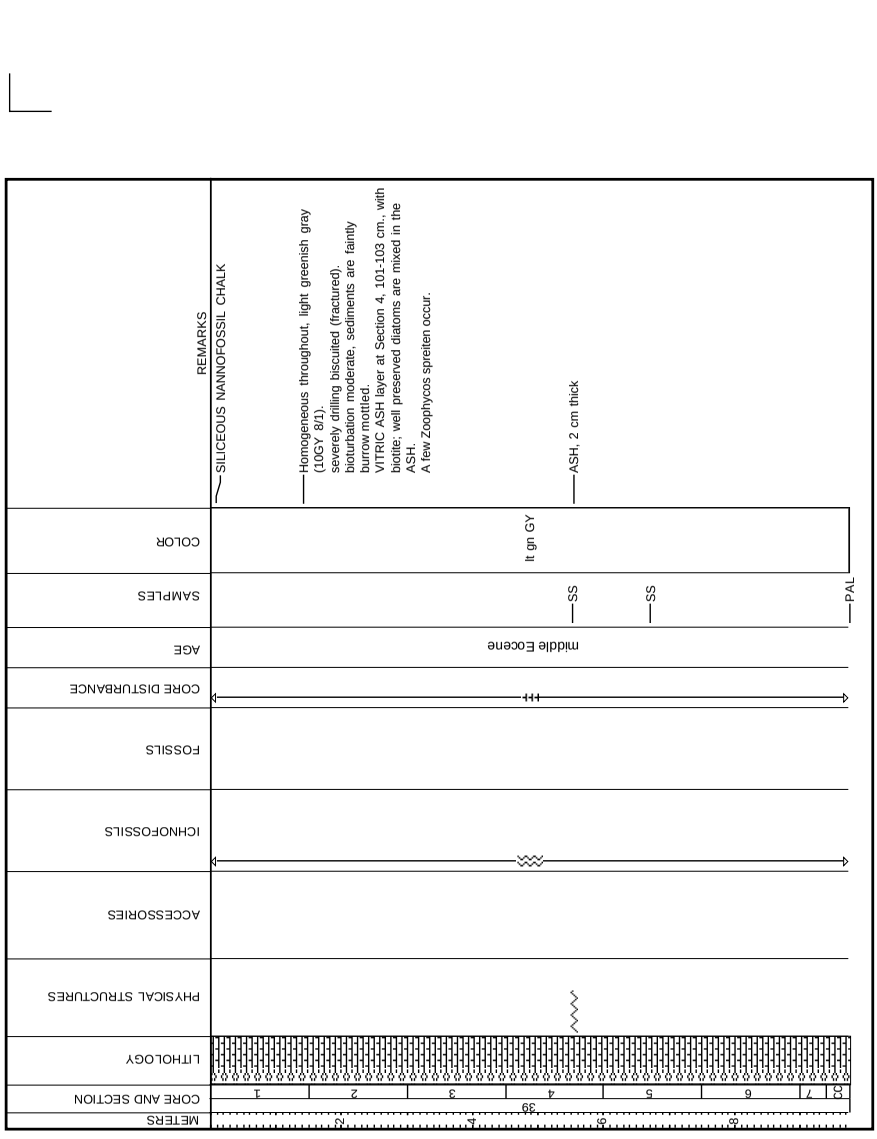

1051B-35X
CORED 308.9-312.9 mbsf
SITE 1051 HOLE B CORE 35X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL CHALK
Monotonous, structureless, light greenish gray (10GY 8/1) SILICEOUS NANNOFOSSIL CHALK. Drilling biscuits generally shorter than 5 cm. Slightly longer in Section 4.
lt gn GY
middle Eocene
PAL
1
2
3
4
5
CC
35
1
2
3
4
5
6

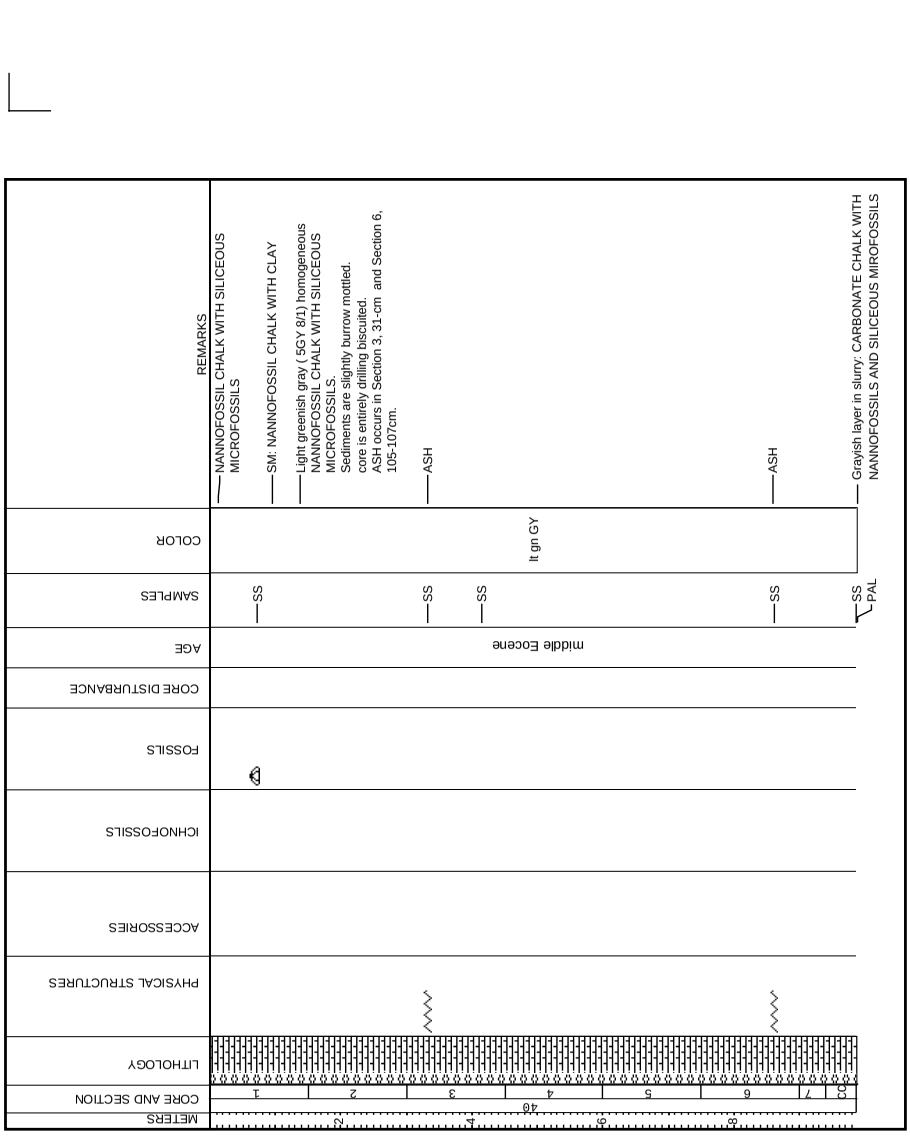

1051B-36X
SITE 1051 HOLE B CORE 36X
CORED 312.9-322.5 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL CHALK
Bioturbated, light greenish gray (10GY 8/1)
SILICEOUS NANNOFOSSIL CHALK with pyrite
flecks throughout core.
Severe biscuiting; biscuits are fractured.
SD Section 1, 80 cm
ASH layer, Section 3, 126-128 cm
SM Section 4, 116 cm: ASH layer, 116-117 cm
lt gn GY
middle Eocene
SS
SS
PAL
1
2
3
4
36
5
6
7
CC

1051B-37X

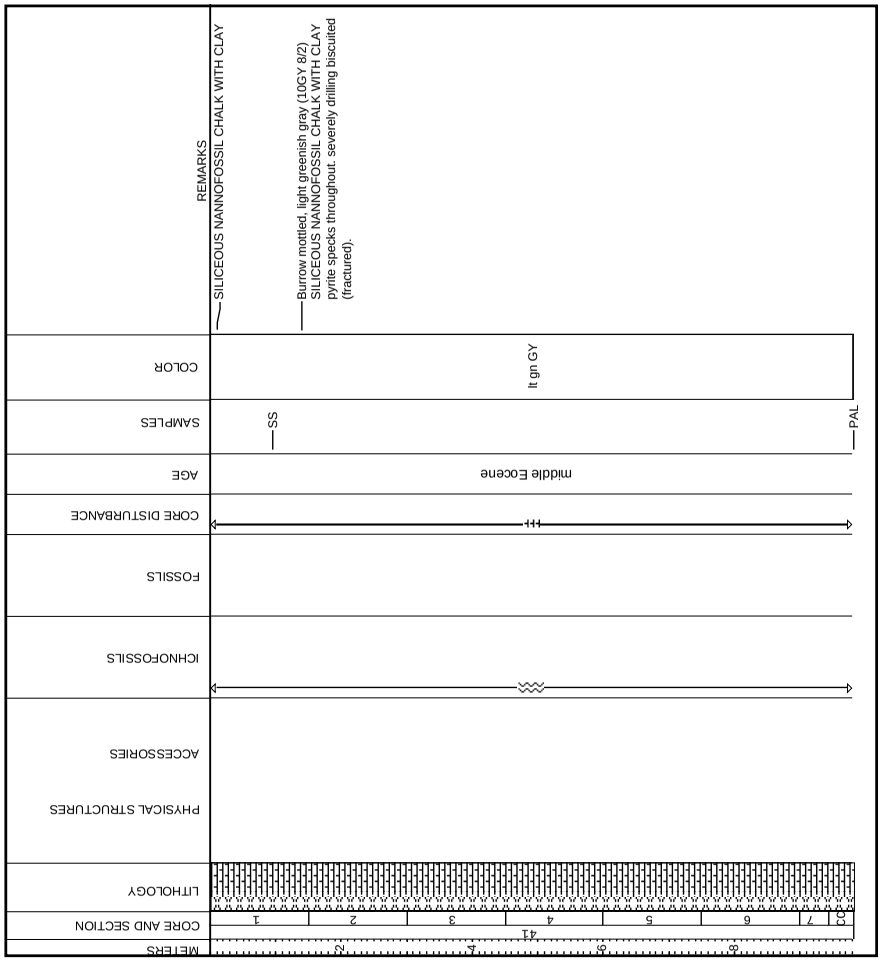

SITE 1051 HOLE B CORE 37X
CORED 322.5-332.1 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL CHALK
Light greenish gray (10GY 8/1) homogeneous SILICEOUS NANNOFOSSIL CHALK. Entire core is highly biscuited, with small (<5 cm) fractured biscuits.
Section 3, 75-78 cm. Pale gray layer of NANNOFOSSIL CHALK WITH ASH.
middle Eocene
SS
PAL
lt gn GY
GI
1
2
3
4
5
6
7
CC
37
0
1
2
3
4
5
6
7
8
9


SITE 1051 HOLE B CORE 38X
CORED 332.1-341.7 mbsf
1051B-38X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
1
2
3
4
CC
38
R2
T1
NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS
The entire core is severely drilling-biscuited, homogenous throughout, few dark specks visible. dominant color light greenish gray (10GY 8/1); bioturbation is moderate; sediments are faintly burrow-mottled.
middle Eocene
lt gn GY
SS
PAL

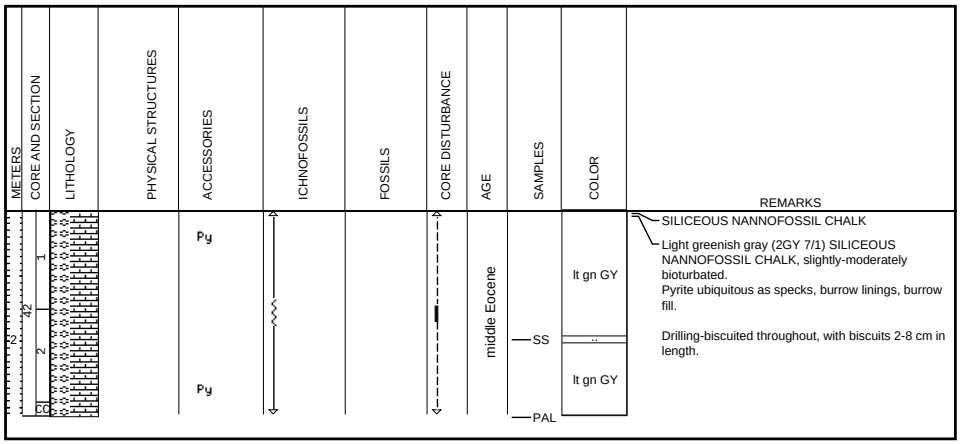

1051B-39X
SITE 1051 HOLE B CORE 39X
CORED 341.7-351.3 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL CHALK
Homogeneous throughout, light greenish gray (10GY 8/1).
severely drilling biscuited (fractured).
bioturbation moderate, sediments are faintly burrow mottled.
VITRIC ASH layer at Section 4, 101-103 cm., with biotite; well preserved diatoms are mixed in the ASH.
A few Zoophycos spreiten occur.
ASH, 2 cm thick
lt gn GY
middle Eocene
SS
SS
PAL
1
2
3
4
39
5
6
7
CC


SITE 1051 HOLE B CORE 40X
CORED 351.3-360.9 mbsf
1051B-40X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS
SM: NANNOFOSSIL CHALK WITH CLAY
Light greenish gray (5GY 8/1) homogeneous NANNOFOSSIL CHALK WITH SILICEOUS MICROFOSSILS.
Sediments are slightly burrow mottled.
core is entirely drilling biscuited.
ASH occurs in Section 3, 31-cm and Section 6, 105-107cm.
ASH
ASH
Grayish layer in slurry; CARBONATE CHALK WITH NANNOFOSSILS AND SILICEOUS MIROFOSSILS
middle Eocene
lt gn GY
SS
PAL

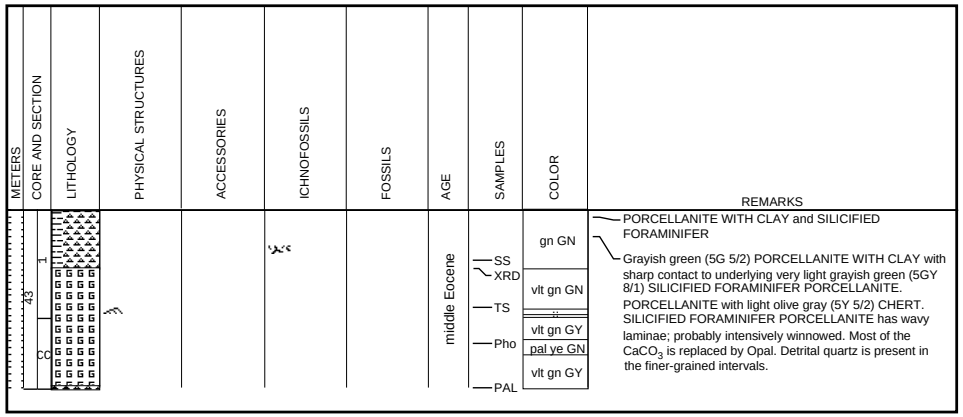
1051B-41X


SITE 1051 HOLE B CORE 41X
CORED 360.9-370.5 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL CHALK WITH CLAY
Burrow mottled, light greenish gray (10GY 8/2) SILICEOUS NANNOFOSSIL CHALK WITH CLAY pyrite specks throughout; severely drilling biscuited (fractured).
lt gn GY
middle Eocene
SS
PAL
1
2
3
4
41
5
6
7
CC

SITE 1051 HOLE B CORE 42X — CORED 370.5-374.1 mbsf



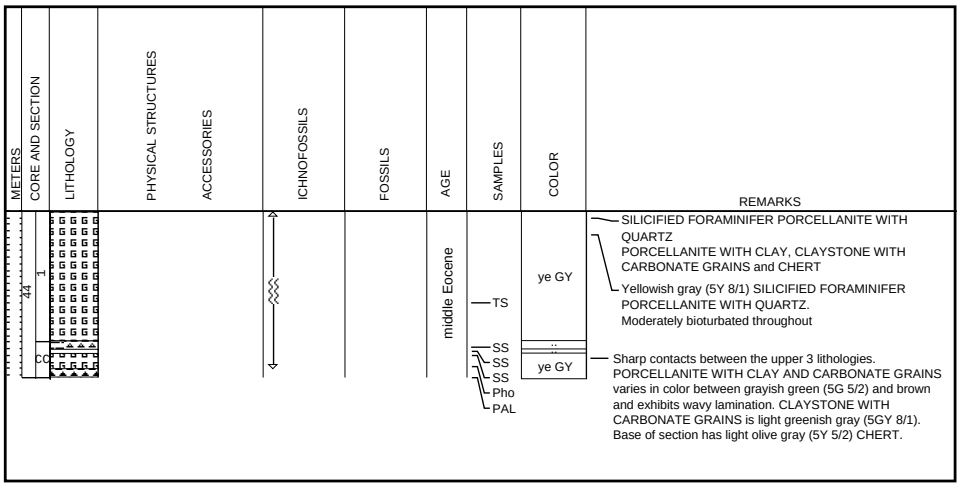
SITE 1051 HOLE B CORE 43X — CORED 376.1-380.1 mbsf



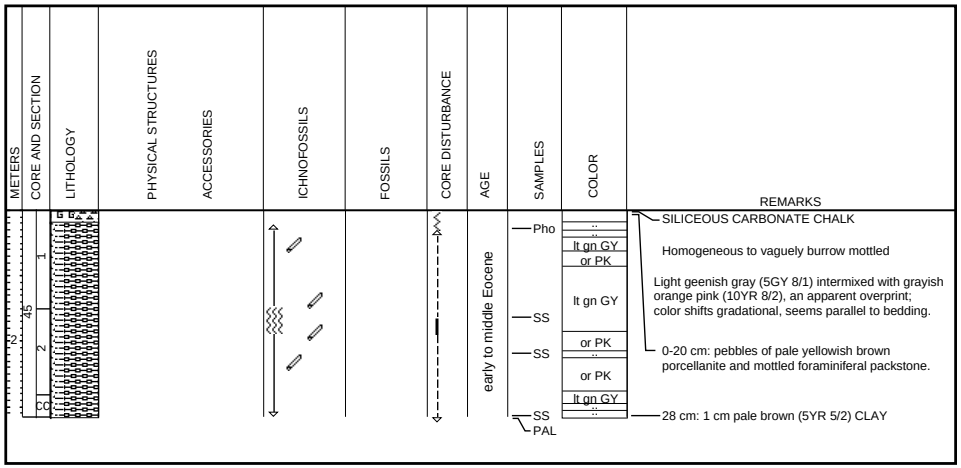
SITE 1051 HOLE B CORE 44X — CORED 380.1-382.7 mbsf

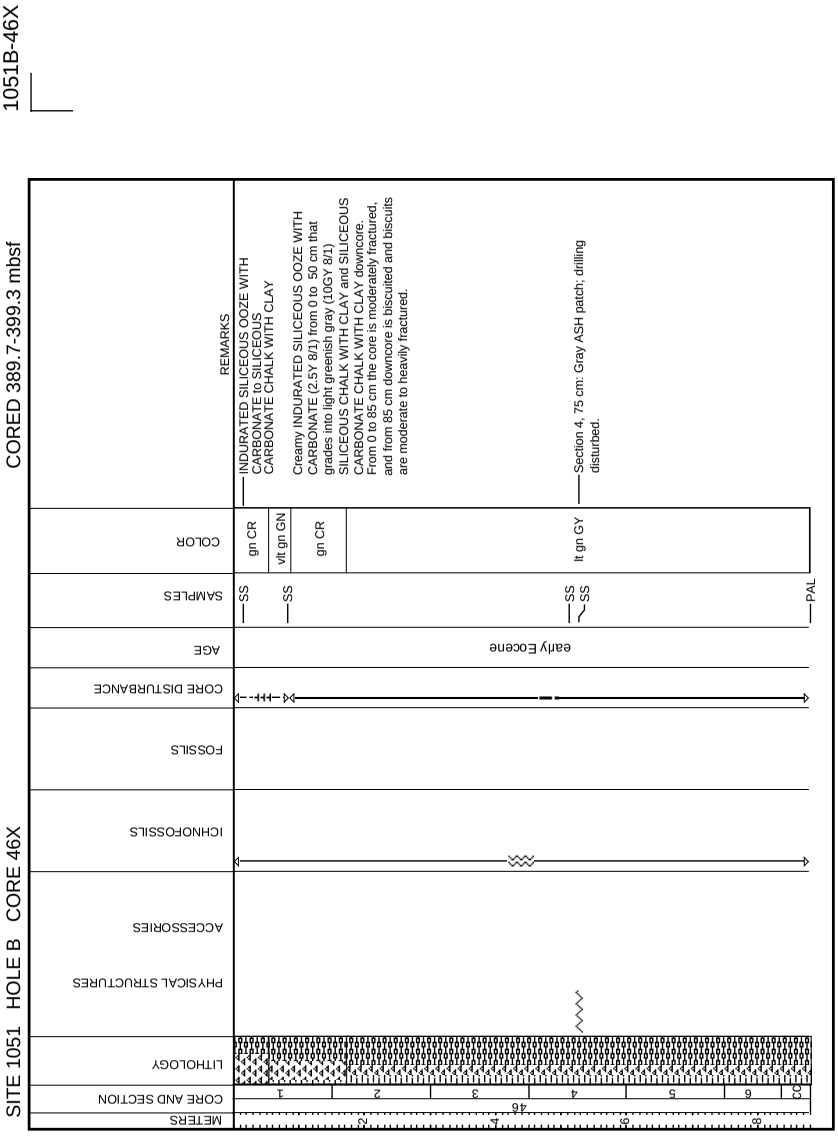
1051B-44X

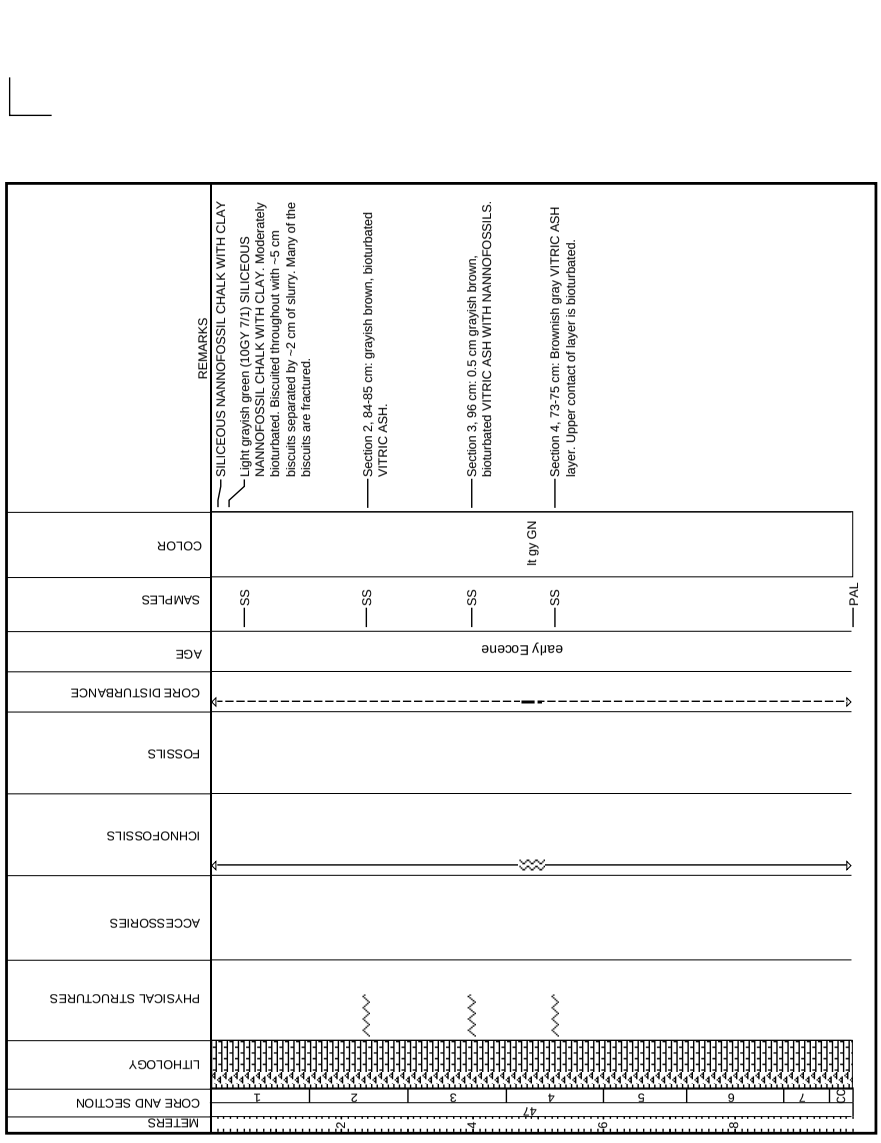
1051B-45X

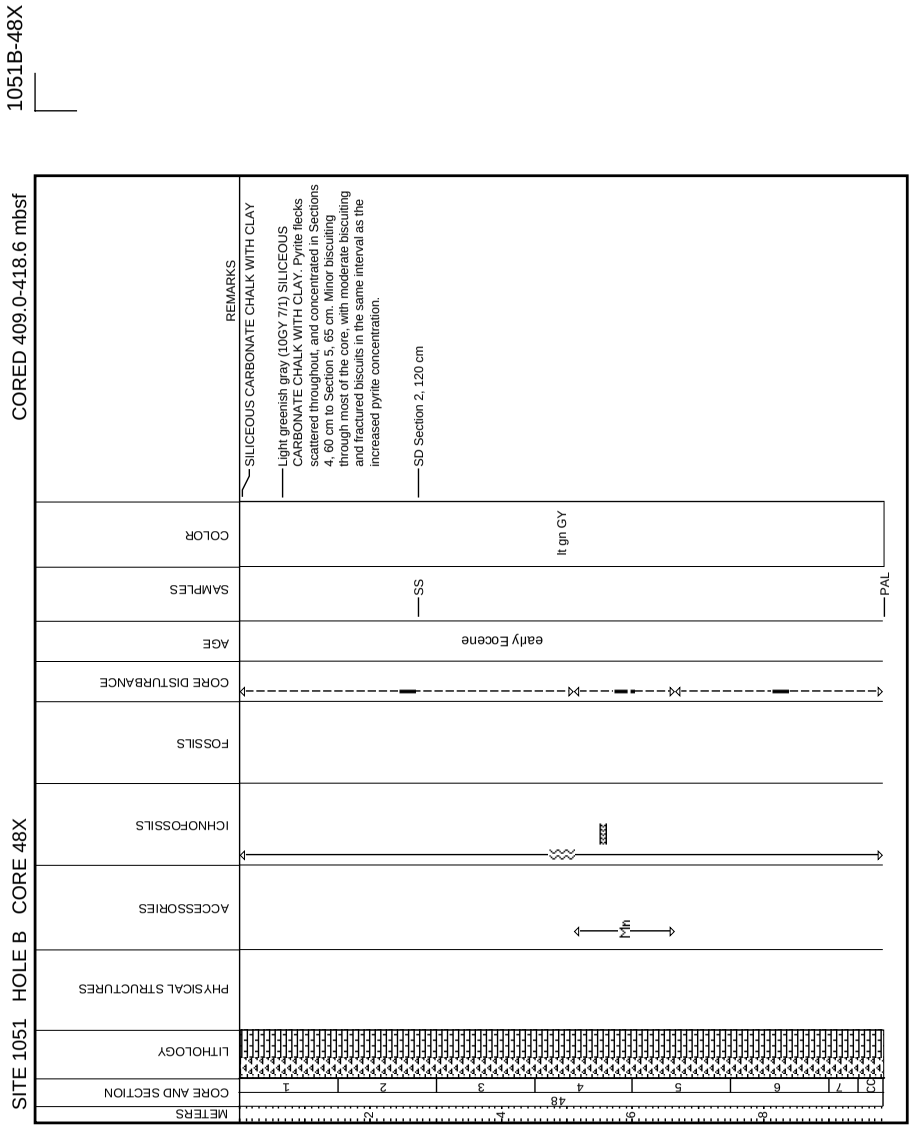


SITE 1051 HOLE B CORE 45X — CORED 382.7-389.7 mbsf

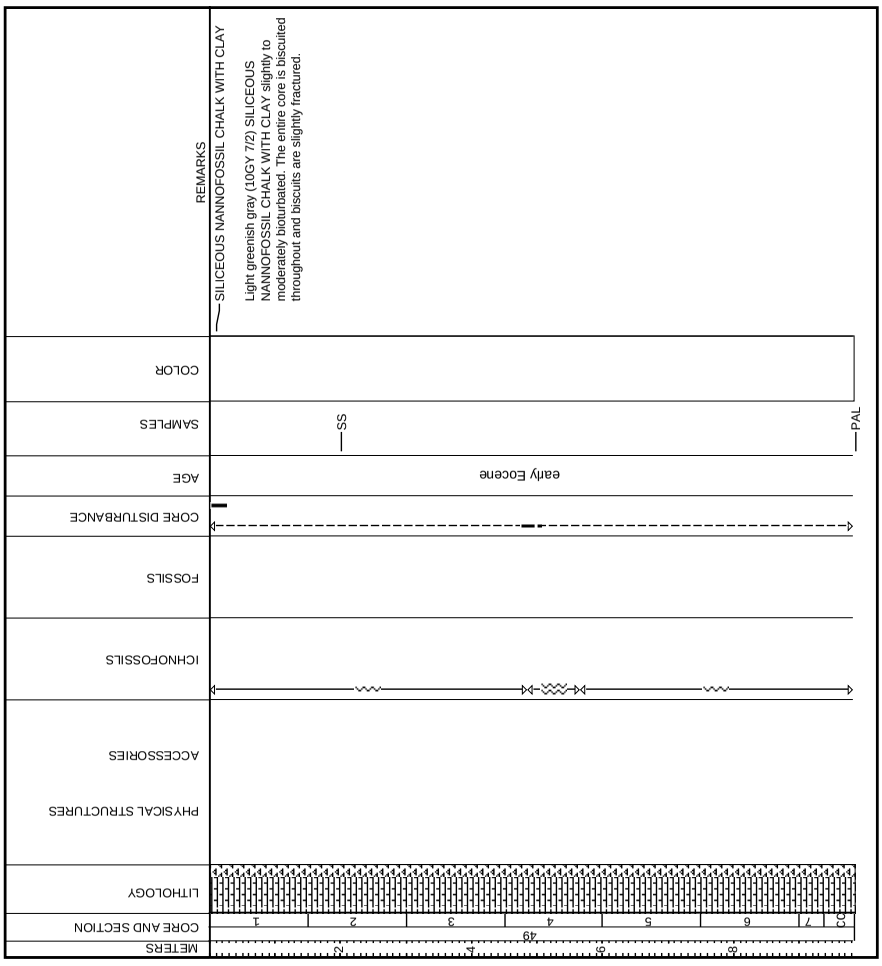


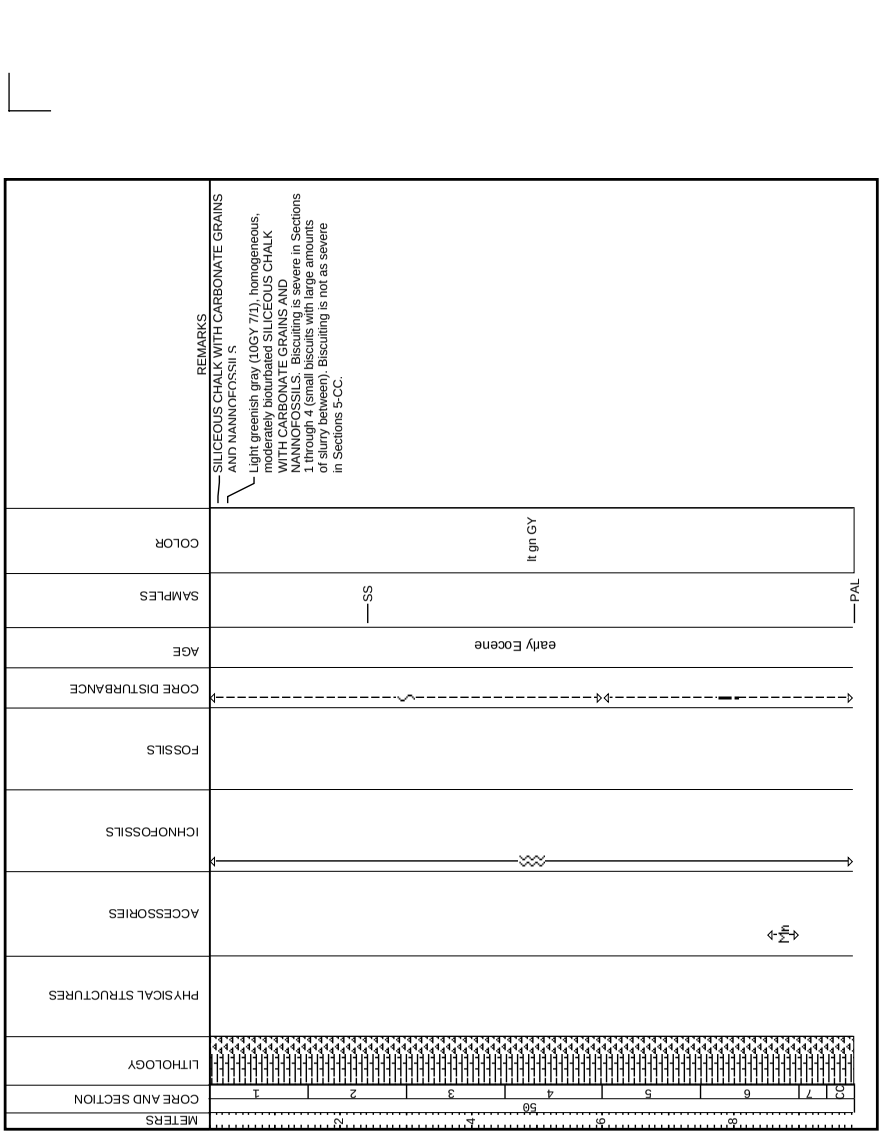

1051B-46X
SITE 1051 HOLE B CORE 46X
CORED 389.7-399.3 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
gn CR
vlt gn GN
gn CR
lt gn GY
early Eocene
SS
SS
SS
SS
PAL
INDURATED SILICEOUS OOZE WITH CARBONATE to SILICEOUS CARBONATE CHALK WITH CLAY
Creamy INDURATED SILICEOUS OOZE WITH CARBONATE (2.5Y 8/1) from 0 to 50 cm that grades into light greenish gray (10GY 8/1) SILICEOUS CHALK WITH CLAY and SILICEOUS CARBONATE CHALK WITH CLAY downcore. From 0 to 85 cm the core is moderately fractured, and from 85 cm downcore is biscuited and biscuits are moderate to heavily fractured.
Section 4, 75 cm: Gray ASH patch; drilling disturbed.

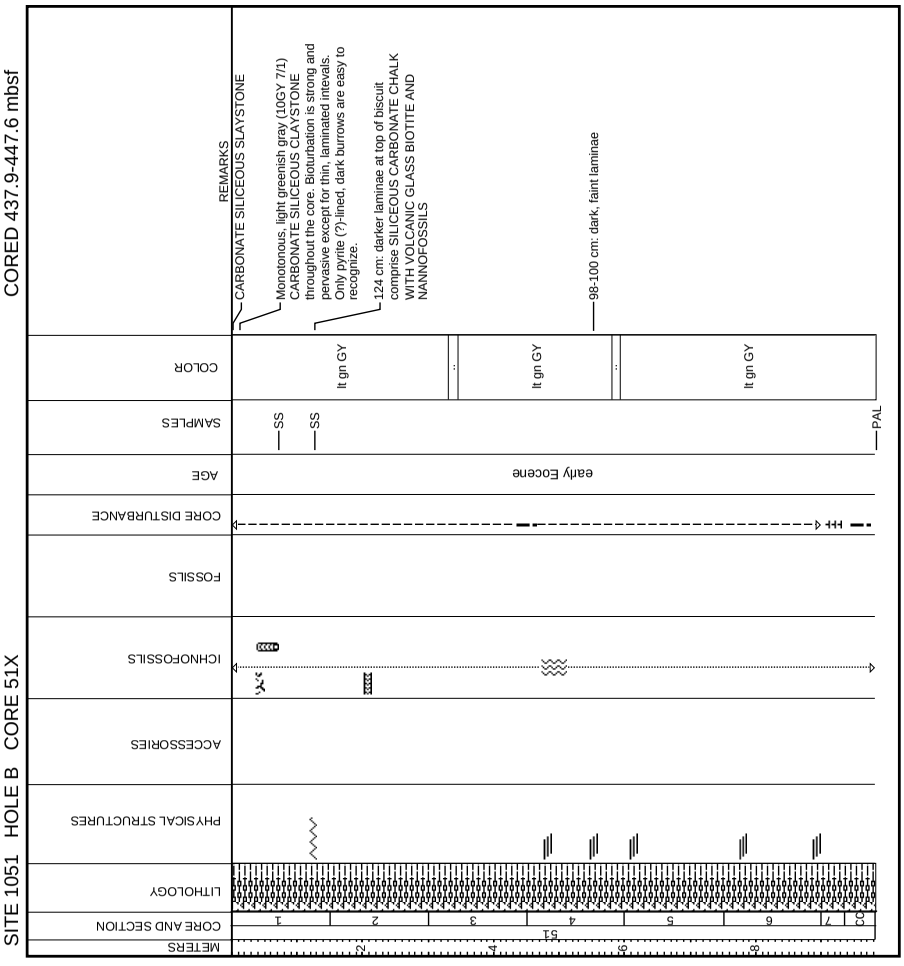

SITE 1051 HOLE B CORE 47X
CORED 399.3-409.0 mbsf
1051B-47X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
early Eocene
SS
PAL
lt gy GN
SILICEOUS NANNOFOSSIL CHALK WITH CLAY
Light grayish green (10GY 7/1) SILICEOUS NANNOFOSSIL CHALK WITH CLAY. Moderately bioturbated. Biscuited throughout with ~5 cm biscuits separated by ~2 cm of slurry. Many of the biscuits are fractured.
Section 2, 84-85 cm: grayish brown, bioturbated VITRIC ASH.
Section 3, 96 cm: 0.5 cm grayish brown, bioturbated VITRIC ASH WITH NANNOFOSSILS.
Section 4, 73-75 cm: Brownish gray VITRIC ASH layer. Upper contact of layer is bioturbated.


SITE 1051 HOLE B CORE 48X
CORED 409.0-418.6 mbsf
1051B-48X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS CARBONATE CHALK WITH CLAY
Light greenish gray (10GY 7/1) SILICEOUS CARBONATE CHALK WITH CLAY. Pyrite flecks scattered throughout, and concentrated in Sections 4, 60 cm to Section 5, 65 cm. Minor biscuiting through most of the core, with moderate biscuiting and fractured biscuits in the same interval as the increased pyrite concentration.
SD Section 2, 120 cm
lt gn GY
SS
PAL
early Eocene
Pyr
1
2
3
4
5
6
7
CC
48
0
2
4
6
8

1051B-49X


SITE 1051 HOLE B CORE 49X
CORED 418.6-428.3 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS NANNOFOSSIL CHALK WITH CLAY
Light greenish gray (10GY 7/2) SILICEOUS NANNOFOSSIL CHALK WITH CLAY slightly to moderately bioturbated. The entire core is biscuited throughout and biscuits are slightly fractured.
early Eocene
SS
PAL


SITE 1051 HOLE B CORE 50X
CORED 428.3-437.9 mbsf
1051B-50X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
SILICEOUS CHALK WITH CARBONATE GRAINS AND NANNOFOSSILS
Light greenish gray (10GY 7/1), homogeneous, moderately bioturbated SILICEOUS CHALK WITH CARBONATE GRAINS AND NANNOFOSSILS. Biscuiting is severe in Sections 1 through 4 (small biscuits with large amounts of slurry between). Biscuiting is not as severe in Sections 5-CC.
lt gn GY
early Eocene
SS
PAL
1
2
3
4
5
6
7
CC


SITE 1051 HOLE B CORE 51X
CORED 437.9-447.6 mbsf
1051B-51X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
early Eocene
SS
SS
PAL
lt gn GY
lt gn GY
lt gn GY
CARBONATE SILICEOUS SLAYSTONE
Monotonous, light greenish gray (10GY 7/1) CARBONATE SILICEOUS CLAYSTONE throughout the core. Bioturbation is strong and pervasive except for thin, laminated intevals. Only pyrite (?)-lined, dark burrows are easy to recognize.
124 cm: darker laminae at top of biscuit comprise SILICEOUS CARBONATE CHALK WITH VOLCANIC GLASS BIOTITE AND NANNOFOSSILS
98-100 cm: dark, faint laminae

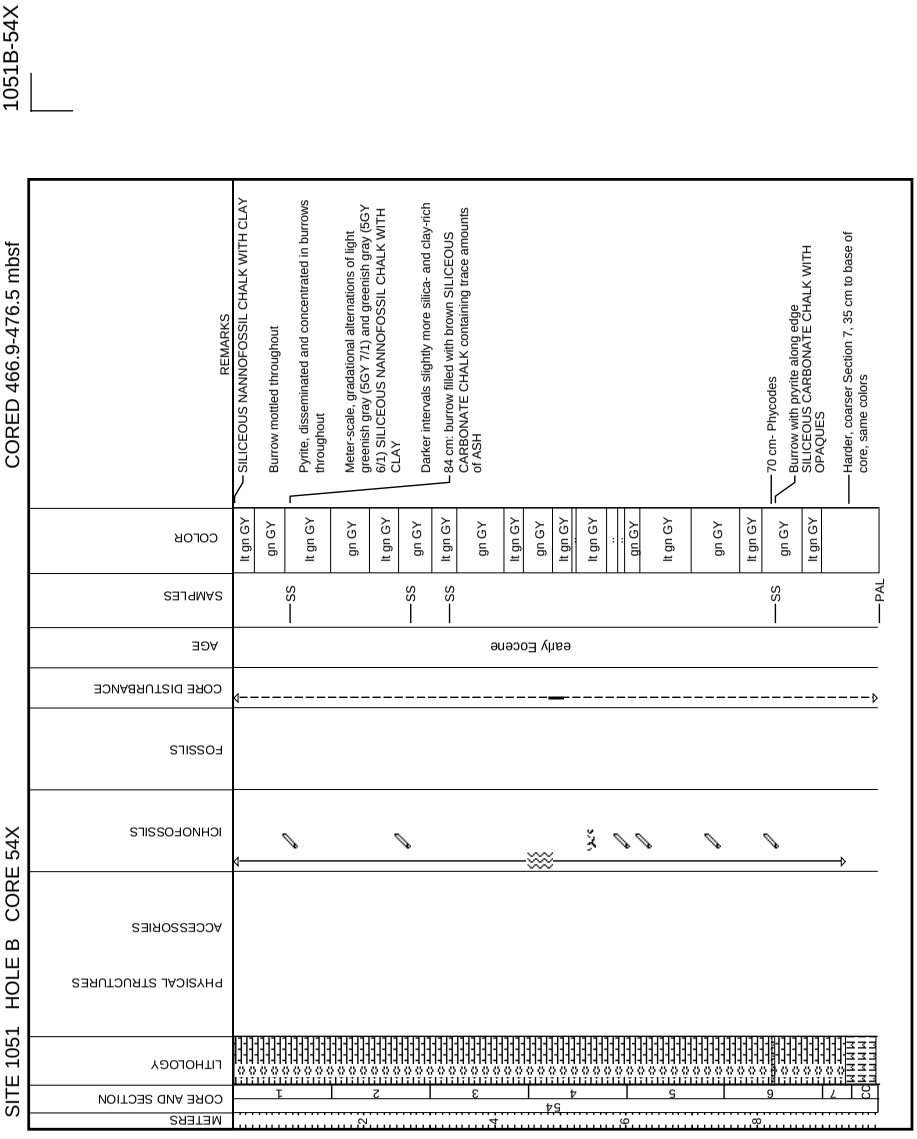
SITE 1051 HOLE B CORE 52X CORED 447.6-457.3 mbsf

1051B-52X

SITE 1051 HOLE B CORE 53X

CORED 457.3-466.9 mbsf

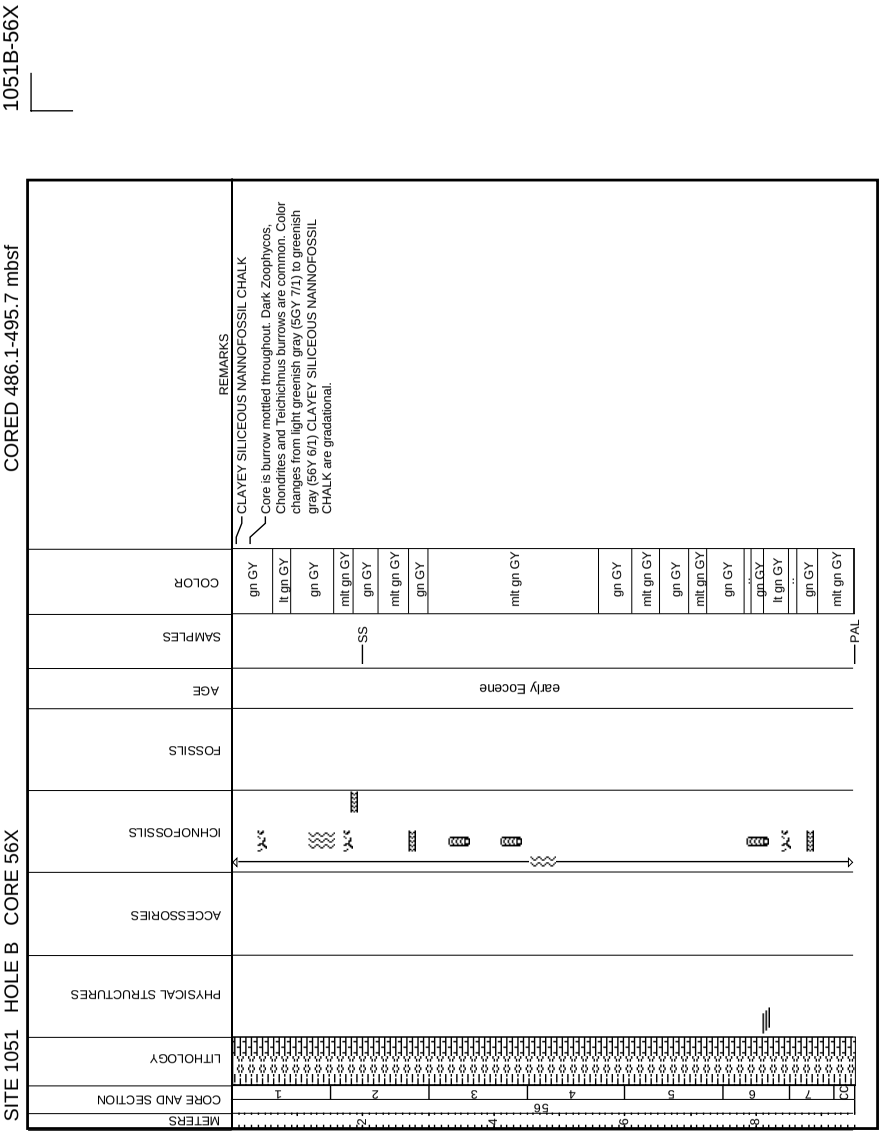
1051B-53X


1051B-54X
SITE 1051 HOLE B CORE 54X
CORED 466.9-476.5 mbsf
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
early Eocene
SS
PAL
lt gn GY
gn GY
SILICEOUS NANNOFOSSIL CHALK WITH CLAY
Burrow mottled throughout
Pyrite, disseminated and concentrated in burrows throughout
Meter-scale, gradational alternations of light greenish gray (5GY 7/1) and greenish gray (5GY 6/1) SILICEOUS NANNOFOSSIL CHALK WITH CLAY
Darker intervals slightly more silica- and clay-rich
84 cm: burrow filled with brown SILICEOUS CARBONATE CHALK containing trace amounts of ASH
70 cm- Phycodes
Burrow with pyrite along edge
SILICEOUS CARBONATE CHALK WITH OPAQUES
Harder, coarser Section 7, 35 cm to base of core, same colors

SITE 1051 HOLE B CORE 55X

CORED 476.5-486.1 mbsf

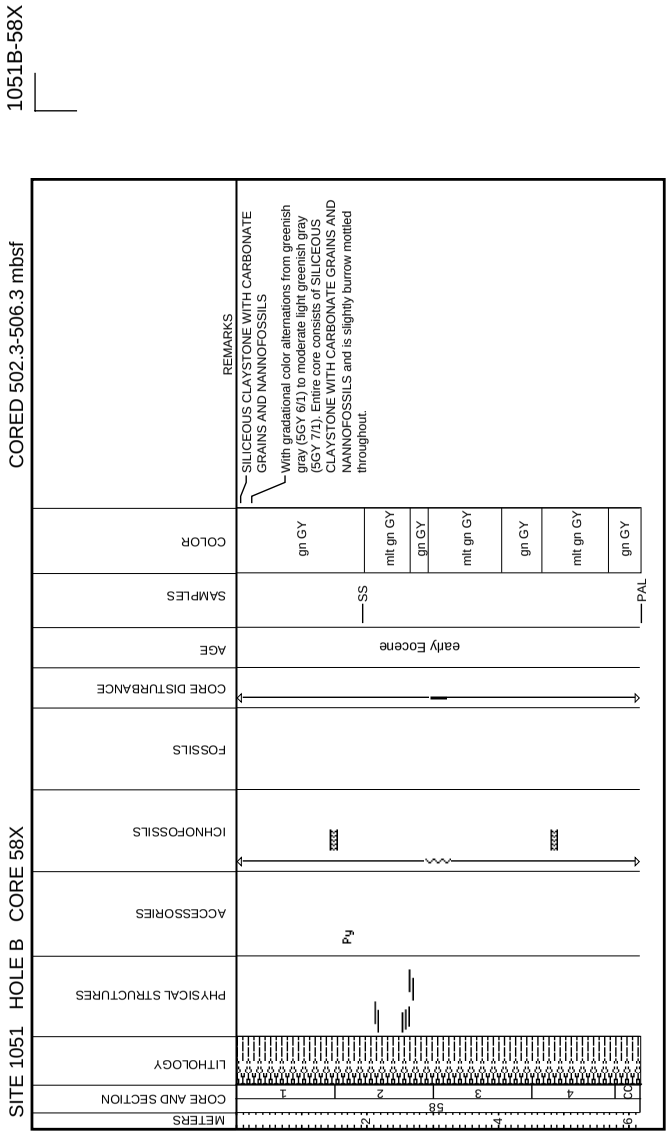
1051B-55X


SITE 1051 HOLE B CORE 56X
CORED 486.1-495.7 mbsf
1051B-56X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
AGE
SAMPLES
COLOR
REMARKS
early Eocene
SS
PAL
CLAYEY SILICEOUS NANNOFOSSIL CHALK
Core is burrow mottled throughout. Dark Zoophycos, Chondrites and Teichichnus burrows are common. Color changes from light greenish gray (5GY 7/1) to greenish gray (5GY 6/1) CLAYEY SILICEOUS NANNOFOSSIL CHALK are gradational.

SITE 1051 HOLE B CORE 57X

CORED 495.7-502.3 mbsf

1051B-57X


SITE 1051 HOLE B CORE 58X
CORED 502.3-506.3 mbsf
1051B-58X
METERS
CORE AND SECTION
LITHOLOGY
PHYSICAL STRUCTURES
ACCESSORIES
ICHNOFOSSILS
FOSSILS
CORE DISTURBANCE
AGE
SAMPLES
COLOR
REMARKS
Py
early Eocene
SS
PAL
gn GY
mlt gn GY
gn GY
mlt gn GY
gn GY
mlt gn GY
gn GY
SILICEOUS CLAYSTONE WITH CARBONATE GRAINS AND NANNOFOSSILS
With gradational color alternations from greenish gray (5GY 6/1) to moderate light greenish gray (5GY 7/1). Entire core consists of SILICEOUS CLAYSTONE WITH CARBONATE GRAINS AND NANNOFOSSILS and is slightly burrow mottled throughout.

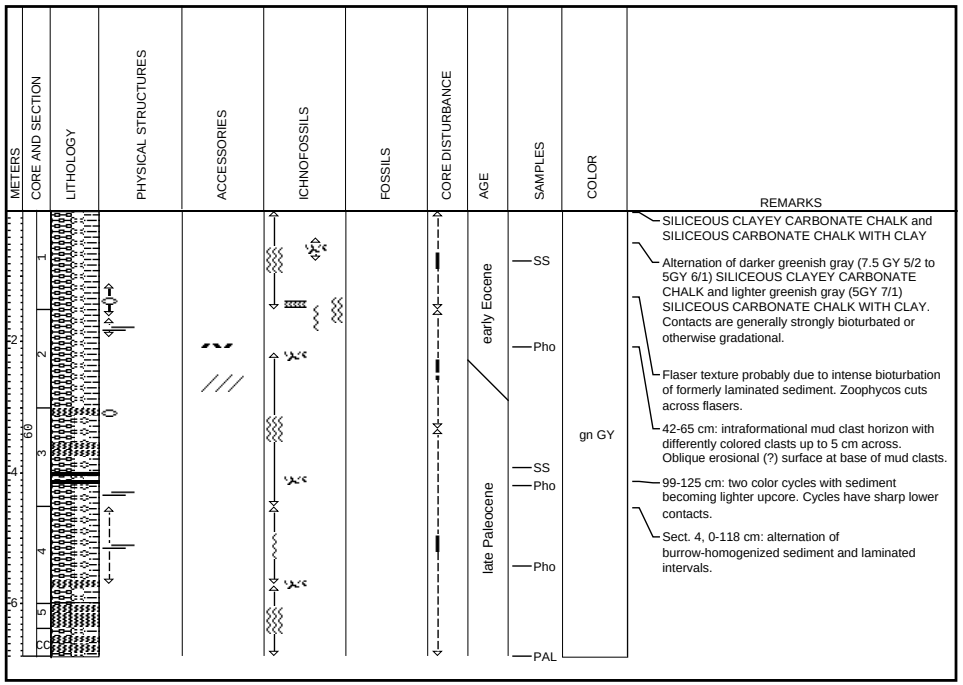
SITE 1051 HOLE B CORE 59X

CORED 506.3-510.9 mbsf

1051B-59X

SITE 1051 HOLE B CORE 60X CORED 510.9-516.9 mbsf

1051B-60X



SITE 1051 HOLE B CORE 61X CORED 516.9-526.6 mbsf

1051B-61X

Prior Chapter Contents Next Chapter