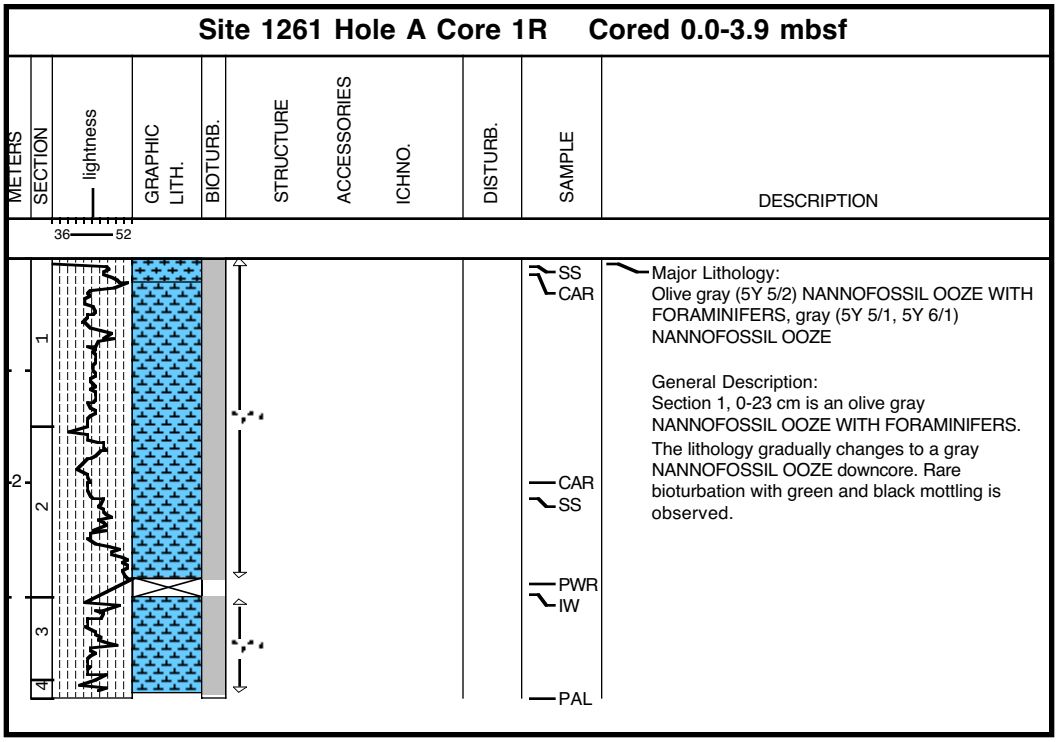
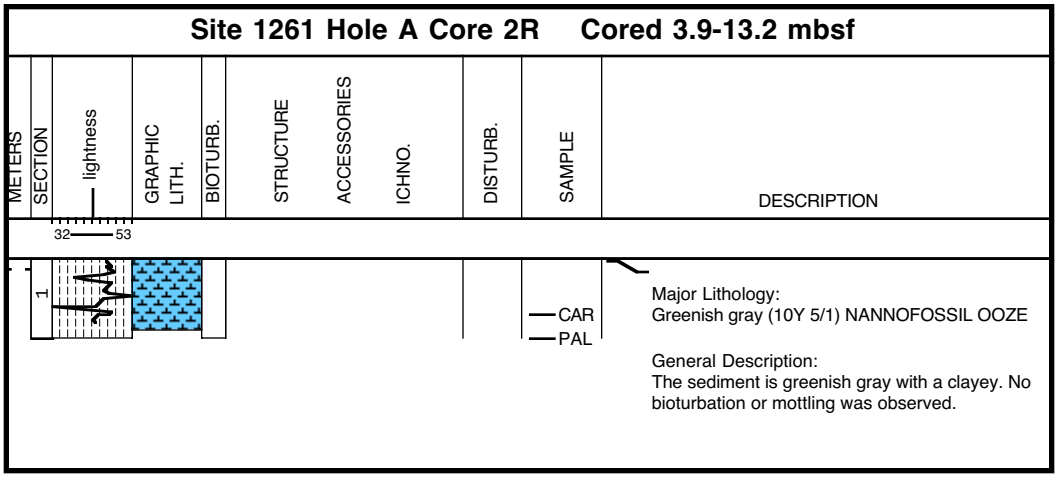
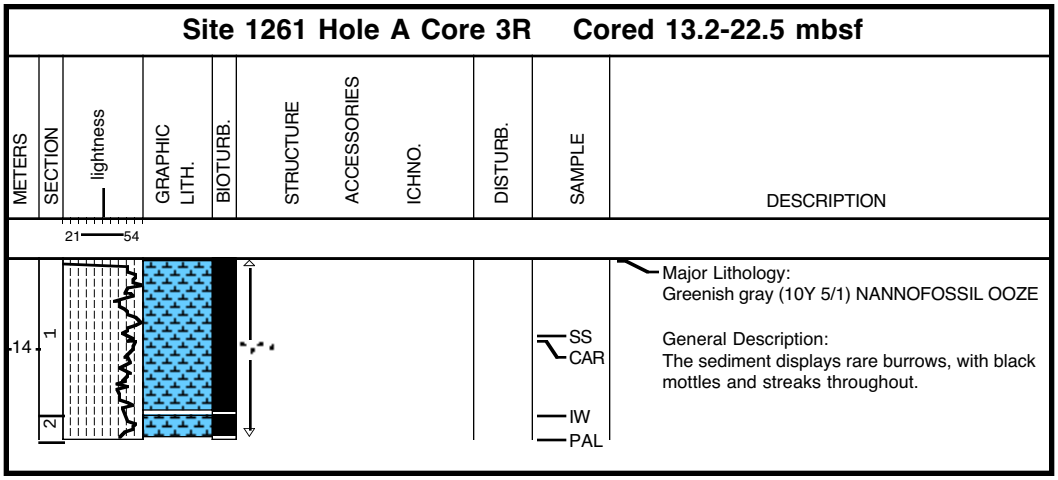
Core Photo


Site 1261 Hole A Core 1R Cored 0.0-3.9 mbsf
METERS
SECTION
lightness
36
52
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
1
2
3
4
SS
CAR
CAR
SS
PWR
IW
PAL
Major Lithology:
Olive gray (5Y 5/2) NANNOFOSSIL OOZE WITH FORAMINIFERS, gray (5Y 5/1, 5Y 6/1) NANNOFOSSIL OOZE
General Description:
Section 1, 0-23 cm is an olive gray NANNOFOSSIL OOZE WITH FORAMINIFERS.
The lithology gradually changes to a gray NANNOFOSSIL OOZE downcore. Rare bioturbation with green and black mottling is observed.

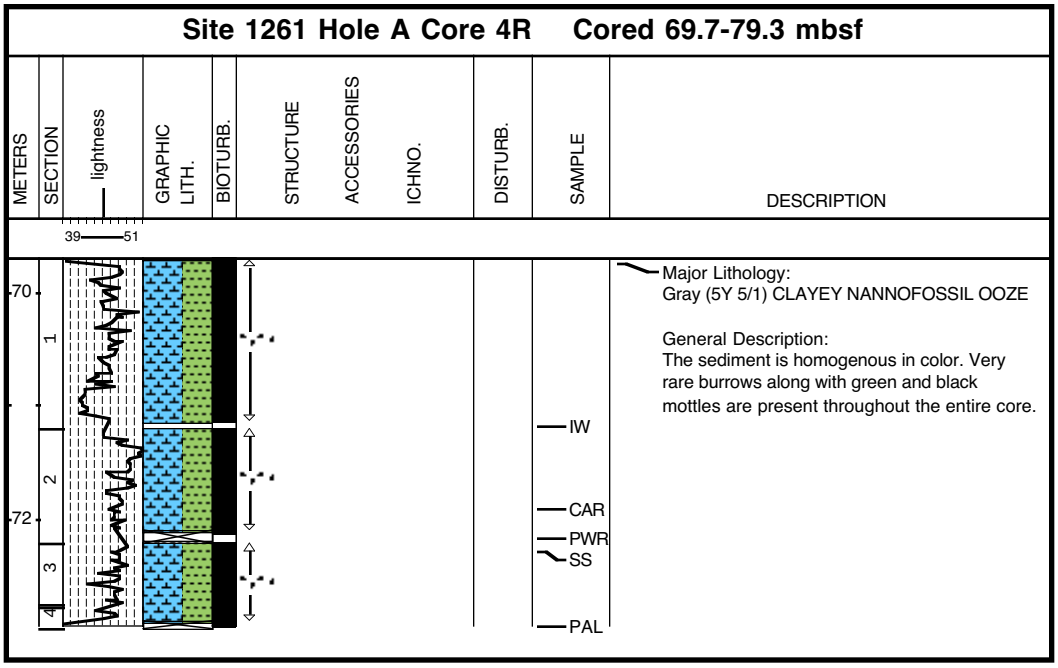
Core Photo


Site 1261 Hole A Core 2R Cored 3.9-13.2 mbsf
METERS
SECTION
lightness
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
32
53
1
CAR
PAL
Major Lithology:
Greenish gray (10Y 5/1) NANNOFOSSIL OOZE
General Description:
The sediment is greenish gray with a clayey. No bioturbation or mottling was observed.

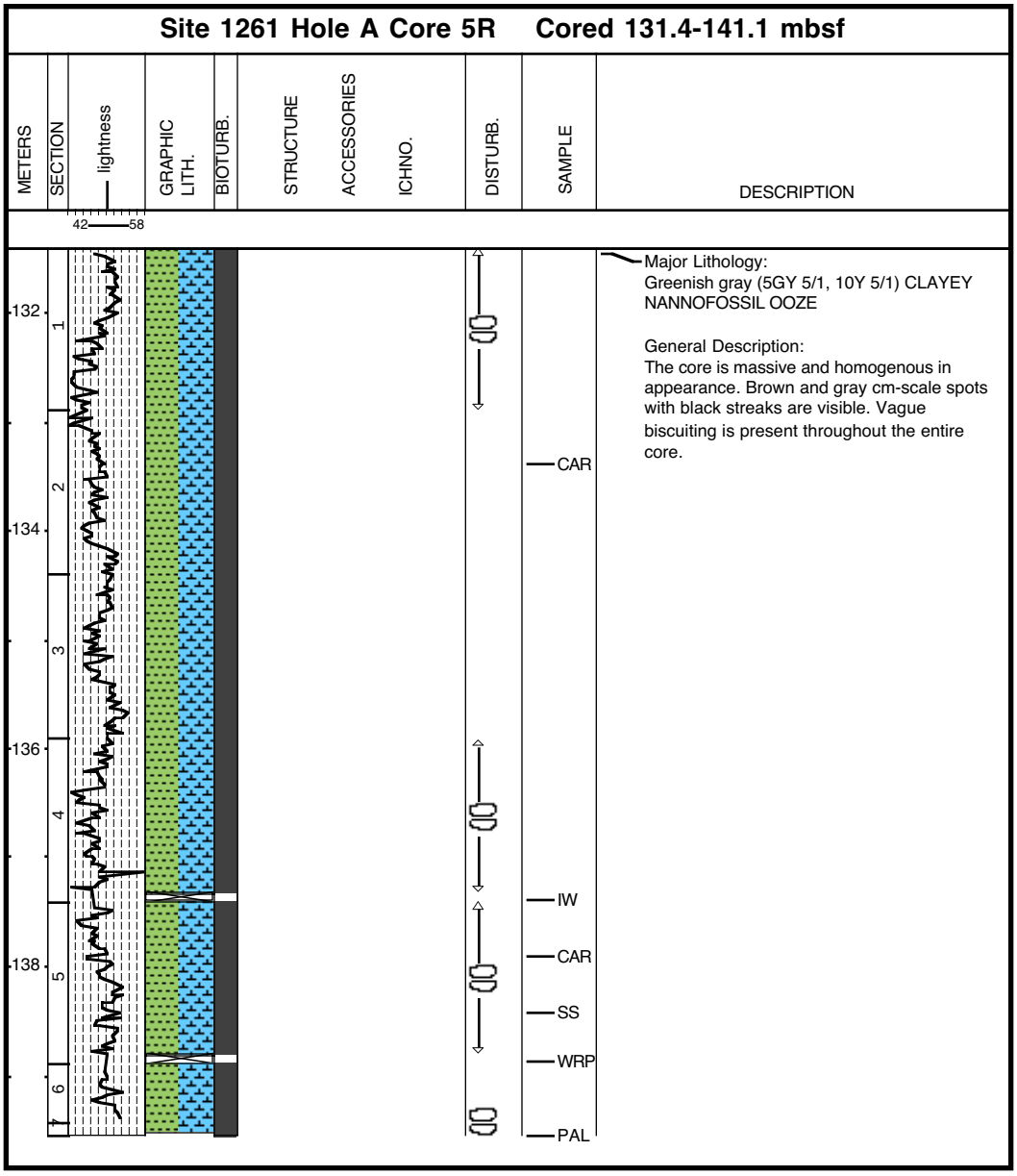
Core Photo


Site 1261 Hole A Core 3R Cored 13.2-22.5 mbsf
METERS
SECTION
lightness
21
54
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
14
1
2
SS
CAR
IW
PAL
Major Lithology:
Greenish gray (10Y 5/1) NANNOFOSSIL OOZE
General Description:
The sediment displays rare burrows, with black mottles and streaks throughout.

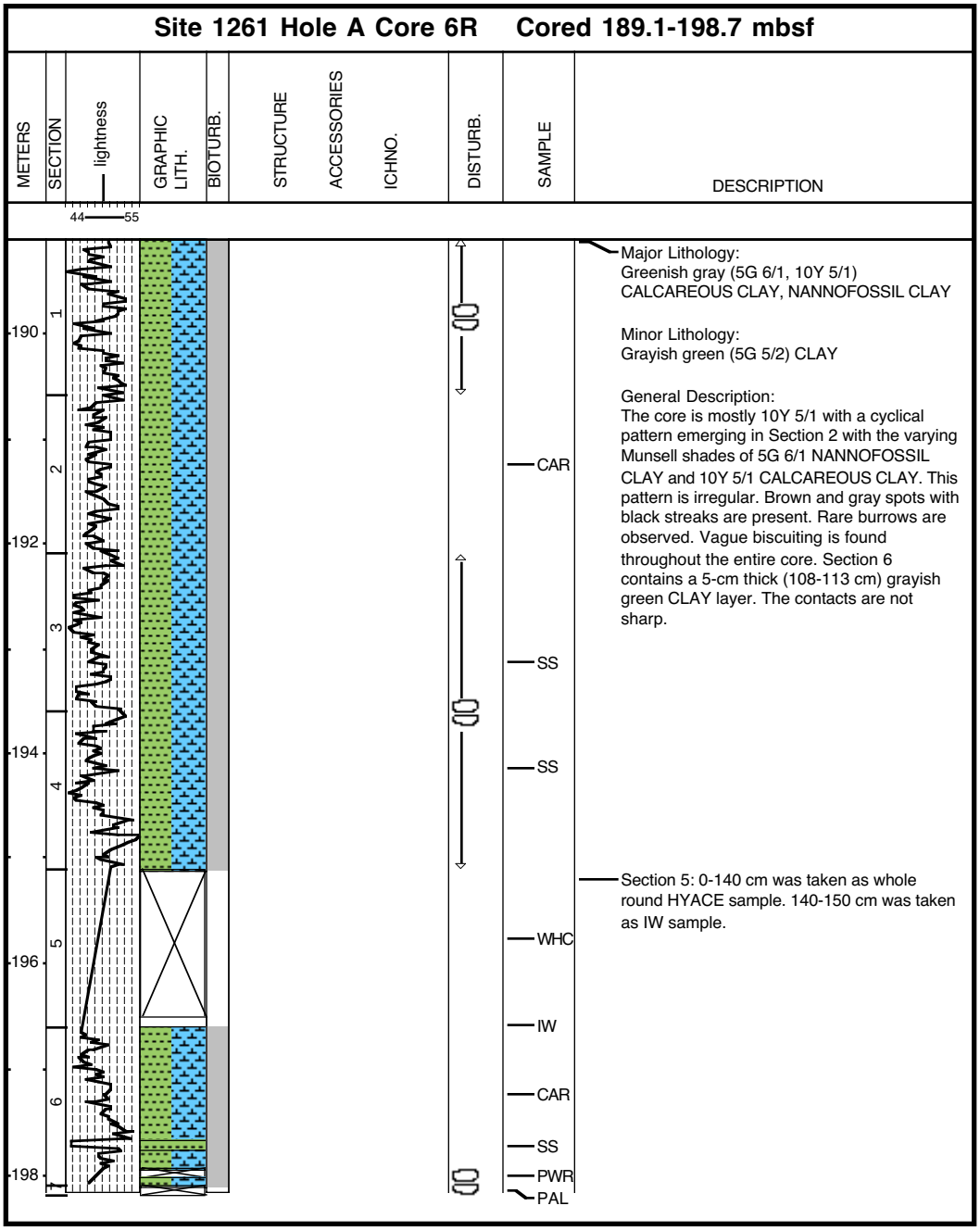
Core Photo


Site 1261 Hole A Core 4R Cored 69.7-79.3 mbsf
METERS
SECTION
lightness
39
51
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
70
72
1
2
3
4
IW
CAR
PWR
SS
PAL
Major Lithology:
Gray (5Y 5/1) CLAYEY NANNOFOSSIL OOZE
General Description:
The sediment is homogenous in color. Very rare burrows along with green and black mottles are present throughout the entire core.

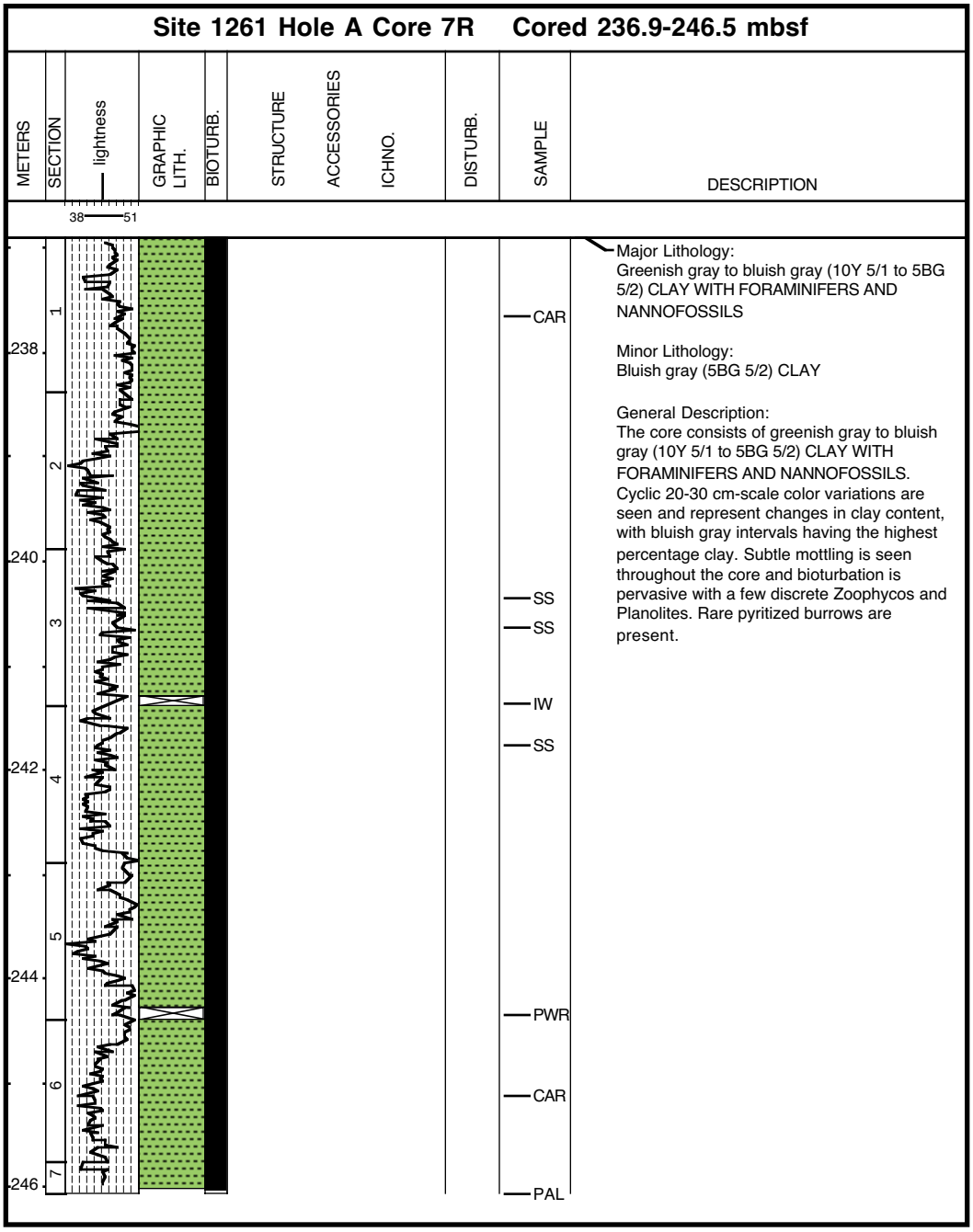
Core Photo


Site 1261 Hole A Core 5R Cored 131.4-141.1 mbsf
METERS
SECTION
lightness
42
58
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
132
134
136
138
1
2
3
4
5
6
CAR
IW
CAR
SS
WRP
PAL
Major Lithology:
Greenish gray (5GY 5/1, 10Y 5/1) CLAYEY NANNOFOSSIL OOZE
General Description:
The core is massive and homogenous in appearance. Brown and gray cm-scale spots with black streaks are visible. Vague biscuiting is present throughout the entire core.

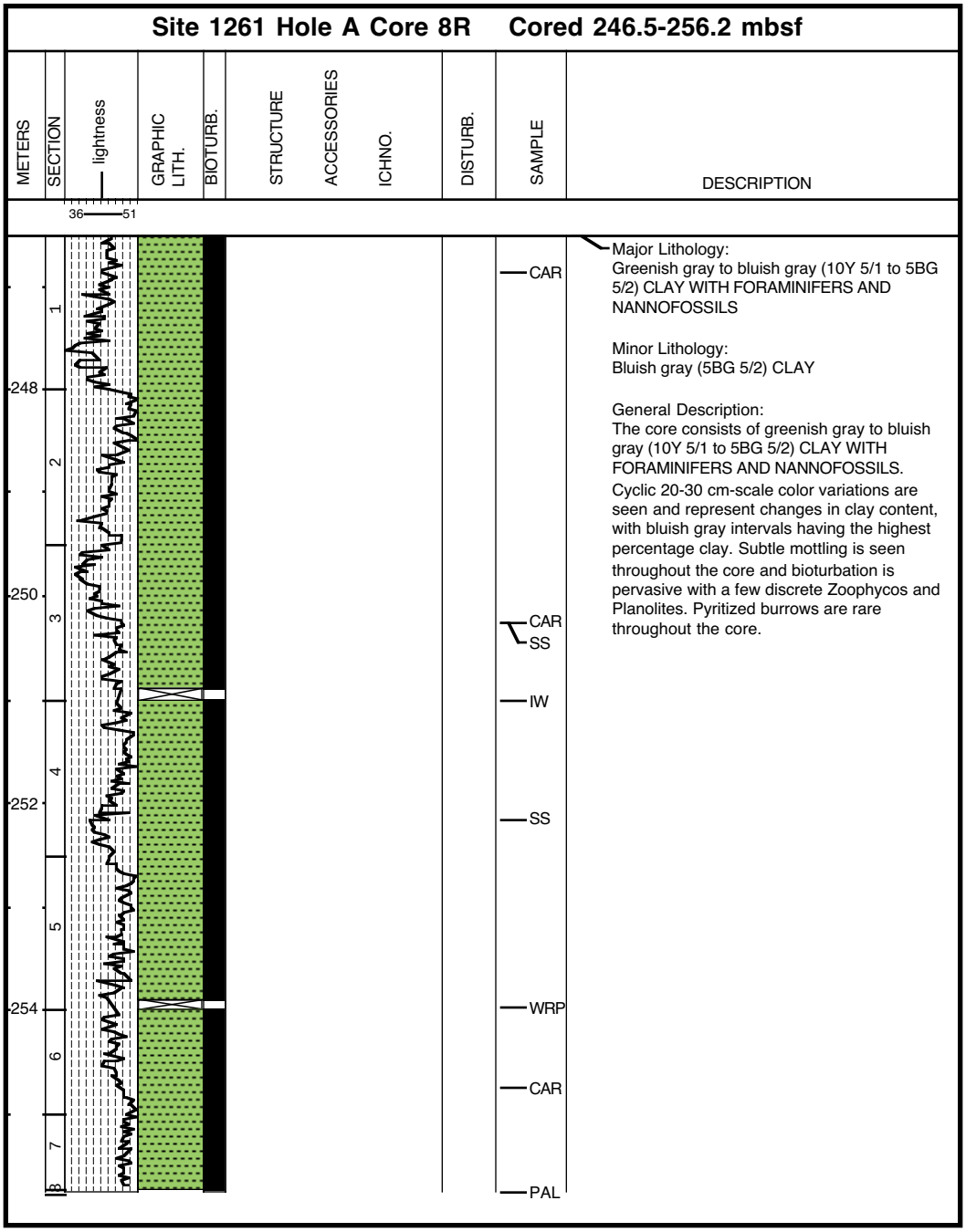
Core Photo


Site 1261 Hole A Core 6R Cored 189.1-198.7 mbsf
METERS
SECTION
lightness
44
55
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
190
192
194
196
198
1
2
3
4
5
6
CAR
SS
SS
WHC
IW
CAR
SS
PWR
PAL
Major Lithology:
Greenish gray (5G 6/1, 10Y 5/1)
CALCAREOUS CLAY, NANNOFOSSIL CLAY
Minor Lithology:
Grayish green (5G 5/2) CLAY
General Description:
The core is mostly 10Y 5/1 with a cyclical pattern emerging in Section 2 with the varying Munsell shades of 5G 6/1 NANNOFOSSIL CLAY and 10Y 5/1 CALCAREOUS CLAY. This pattern is irregular. Brown and gray spots with black streaks are present. Rare burrows are observed. Vague biscuiting is found throughout the entire core. Section 6 contains a 5-cm thick (108-113 cm) grayish green CLAY layer. The contacts are not sharp.
Section 5: 0-140 cm was taken as whole round HYACE sample. 140-150 cm was taken as IW sample.

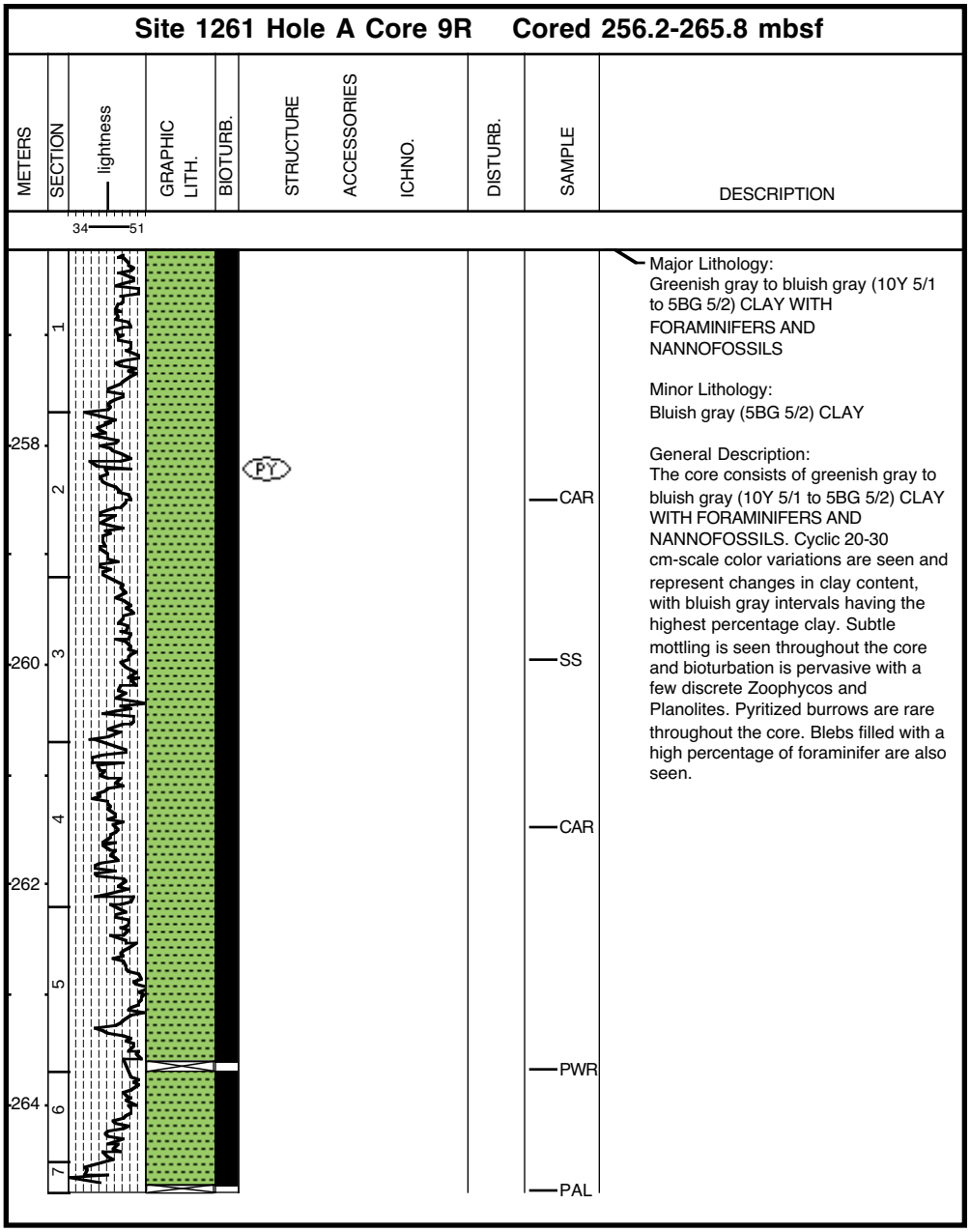
Core Photo


Site 1261 Hole A Core 7R Cored 236.9-246.5 mbsf
METERS
SECTION
lightness
38
51
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
238
240
242
244
246
1
2
3
4
5
6
7
CAR
SS
SS
IW
SS
PWR
CAR
PAL
Major Lithology:
Greenish gray to bluish gray (10Y 5/1 to 5BG 5/2) CLAY WITH FORAMINIFERS AND NANNOFOSSILS
Minor Lithology:
Bluish gray (5BG 5/2) CLAY
General Description:
The core consists of greenish gray to bluish gray (10Y 5/1 to 5BG 5/2) CLAY WITH FORAMINIFERS AND NANNOFOSSILS. Cyclic 20-30 cm-scale color variations are seen and represent changes in clay content, with bluish gray intervals having the highest percentage clay. Subtle mottling is seen throughout the core and bioturbation is pervasive with a few discrete Zoophycos and Planolites. Rare pyritized burrows are present.

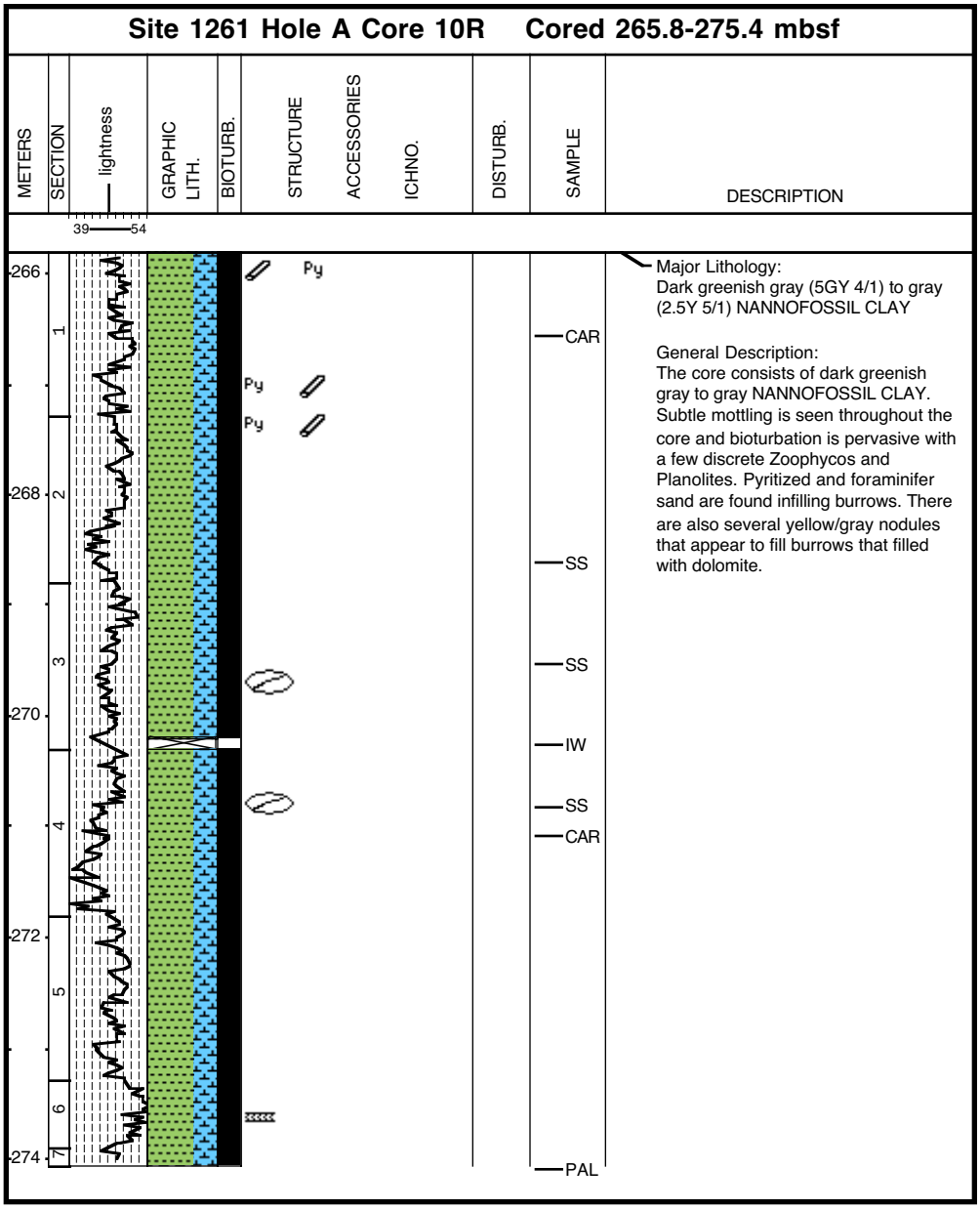
Core Photo


Site 1261 Hole A Core 8R Cored 246.5-256.2 mbsf
METERS
SECTION
lightness
36
51
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
248
250
252
254
1
2
3
4
5
6
7
CC
CAR
CAR
SS
IW
SS
WRP
CAR
PAL
Major Lithology:
Greenish gray to bluish gray (10Y 5/1 to 5BG 5/2) CLAY WITH FORAMINIFERS AND NANNOFOSSILS
Minor Lithology:
Bluish gray (5BG 5/2) CLAY
General Description:
The core consists of greenish gray to bluish gray (10Y 5/1 to 5BG 5/2) CLAY WITH FORAMINIFERS AND NANNOFOSSILS. Cyclic 20-30 cm-scale color variations are seen and represent changes in clay content, with bluish gray intervals having the highest percentage clay. Subtle mottling is seen throughout the core and bioturbation is pervasive with a few discrete Zoophycos and Planolites. Pyritized burrows are rare throughout the core.

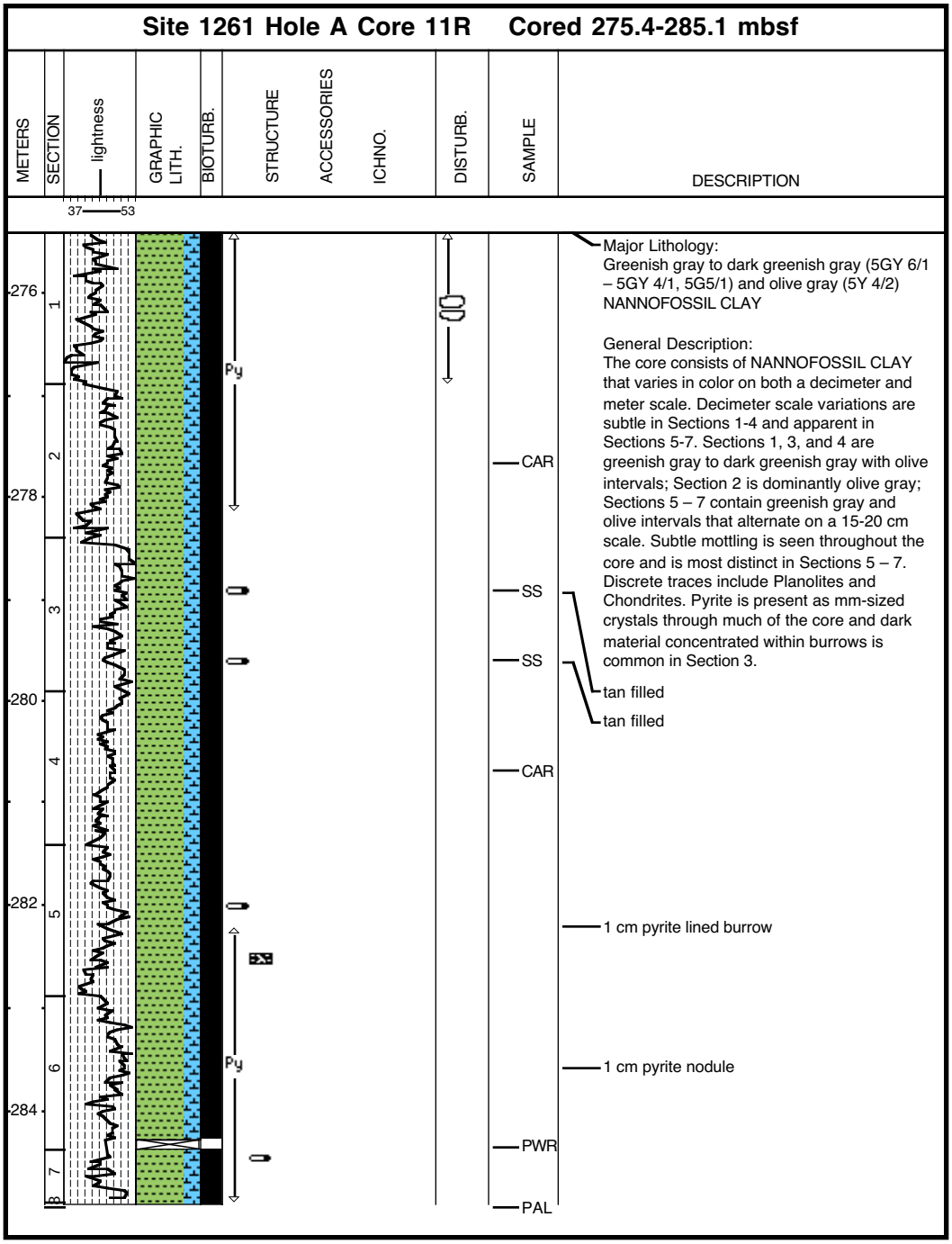
Core Photo


Site 1261 Hole A Core 9R Cored 256.2-265.8 mbsf
METERS
SECTION
lightness
34
51
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
258
260
262
264
1
2
3
4
5
6
7
PY
CAR
SS
CAR
PWR
PAL
Major Lithology:
Greenish gray to bluish gray (10Y 5/1 to 5BG 5/2) CLAY WITH FORAMINIFERS AND NANNOFOSSILS
Minor Lithology:
Bluish gray (5BG 5/2) CLAY
General Description:
The core consists of greenish gray to bluish gray (10Y 5/1 to 5BG 5/2) CLAY WITH FORAMINIFERS AND NANNOFOSSILS. Cyclic 20-30 cm-scale color variations are seen and represent changes in clay content, with bluish gray intervals having the highest percentage clay. Subtle mottling is seen throughout the core and bioturbation is pervasive with a few discrete Zoophycos and Planolites. Pyritized burrows are rare throughout the core. Blebs filled with a high percentage of foraminifer are also seen.

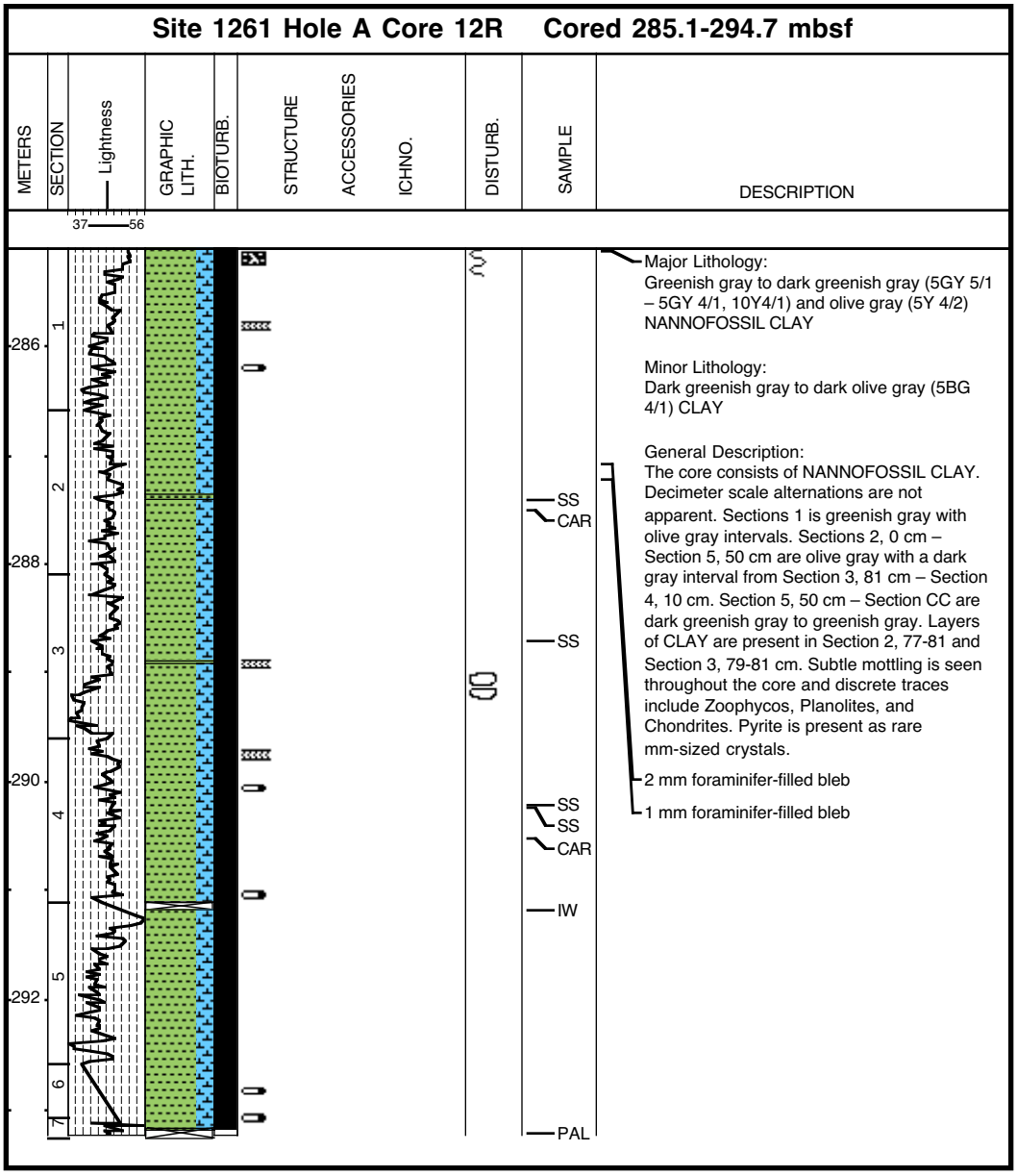
Core Photo


Site 1261 Hole A Core 10R Cored 265.8-275.4 mbsf
METERS
SECTION
lightness
39
54
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
266
268
270
272
274
1
2
3
4
5
6
7
Py
Py
Py
CAR
SS
SS
IW
SS
CAR
PAL
Major Lithology:
Dark greenish gray (5GY 4/1) to gray (2.5Y 5/1) NANNOFOSSIL CLAY
General Description:
The core consists of dark greenish gray to gray NANNOFOSSIL CLAY. Subtle mottling is seen throughout the core and bioturbation is pervasive with a few discrete Zoophycos and Planolites. Pyritized and foraminifer sand are found infilling burrows. There are also several yellow/gray nodules that appear to fill burrows that filled with dolomite.

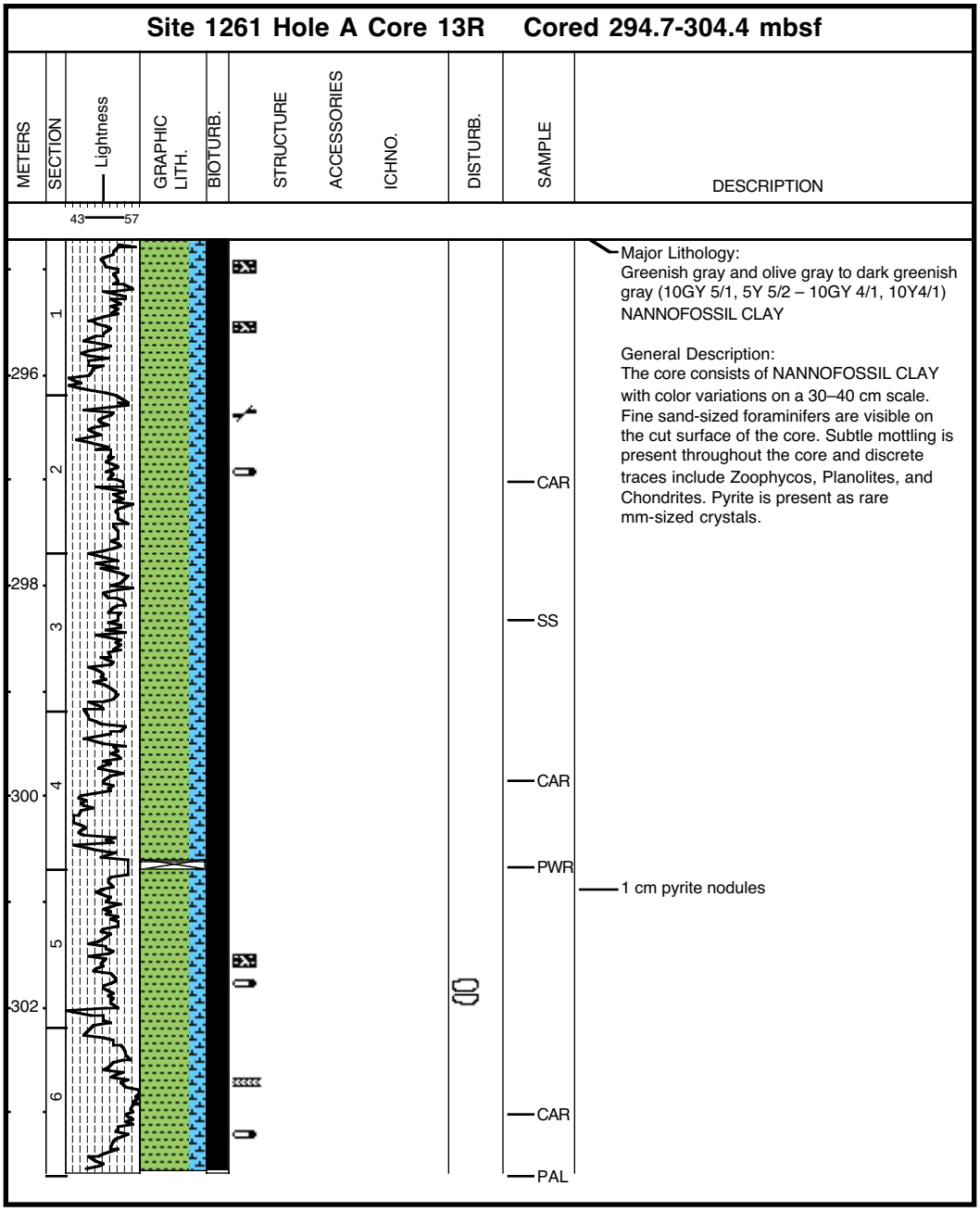
Core Photo


Site 1261 Hole A Core 11R Cored 275.4-285.1 mbsf
METERS
SECTION
lightness
37
53
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
276
278
280
282
284
1
2
3
4
5
6
7
CC
Py
Py
CAR
SS
SS
CAR
PWR
PAL
Major Lithology:
Greenish gray to dark greenish gray (5GY 6/1 – 5GY 4/1, 5G5/1) and olive gray (5Y 4/2) NANNOFOSSIL CLAY
General Description:
The core consists of NANNOFOSSIL CLAY that varies in color on both a decimeter and meter scale. Decimeter scale variations are subtle in Sections 1-4 and apparent in Sections 5-7. Sections 1, 3, and 4 are greenish gray to dark greenish gray with olive intervals; Section 2 is dominantly olive gray; Sections 5 – 7 contain greenish gray and olive intervals that alternate on a 15-20 cm scale. Subtle mottling is seen throughout the core and is most distinct in Sections 5 – 7. Discrete traces include Planolites and Chondrites. Pyrite is present as mm-sized crystals through much of the core and dark material concentrated within burrows is common in Section 3.
tan filled
tan filled
1 cm pyrite lined burrow
1 cm pyrite nodule

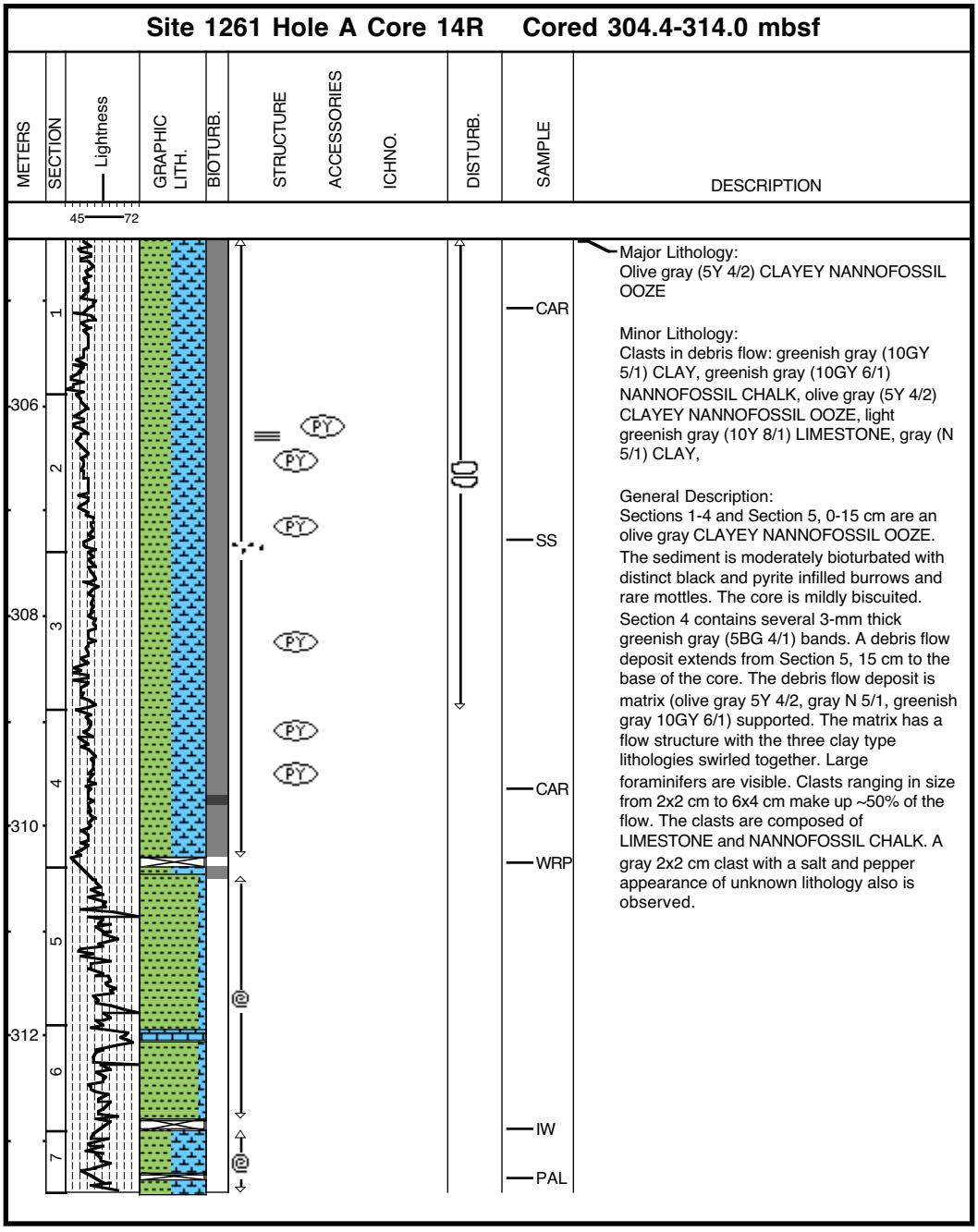
Core Photo


Site 1261 Hole A Core 12R Cored 285.1-294.7 mbsf
METERS
SECTION
Lightness
37
56
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
286
288
290
292
1
2
3
4
5
6
7
SS
CAR
SS
SS
SS
CAR
IW
PAL
Major Lithology:
Greenish gray to dark greenish gray (5GY 5/1 – 5GY 4/1, 10Y4/1) and olive gray (5Y 4/2) NANNOFOSSIL CLAY
Minor Lithology:
Dark greenish gray to dark olive gray (5BG 4/1) CLAY
General Description:
The core consists of NANNOFOSSIL CLAY. Decimeter scale alternations are not apparent. Sections 1 is greenish gray with olive gray intervals. Sections 2, 0 cm – Section 5, 50 cm are olive gray with a dark gray interval from Section 3, 81 cm – Section 4, 10 cm. Section 5, 50 cm – Section CC are dark greenish gray to greenish gray. Layers of CLAY are present in Section 2, 77-81 and Section 3, 79-81 cm. Subtle mottling is seen throughout the core and discrete traces include Zoophycos, Planolites, and Chondrites. Pyrite is present as rare mm-sized crystals.
2 mm foraminifer-filled bleb
1 mm foraminifer-filled bleb

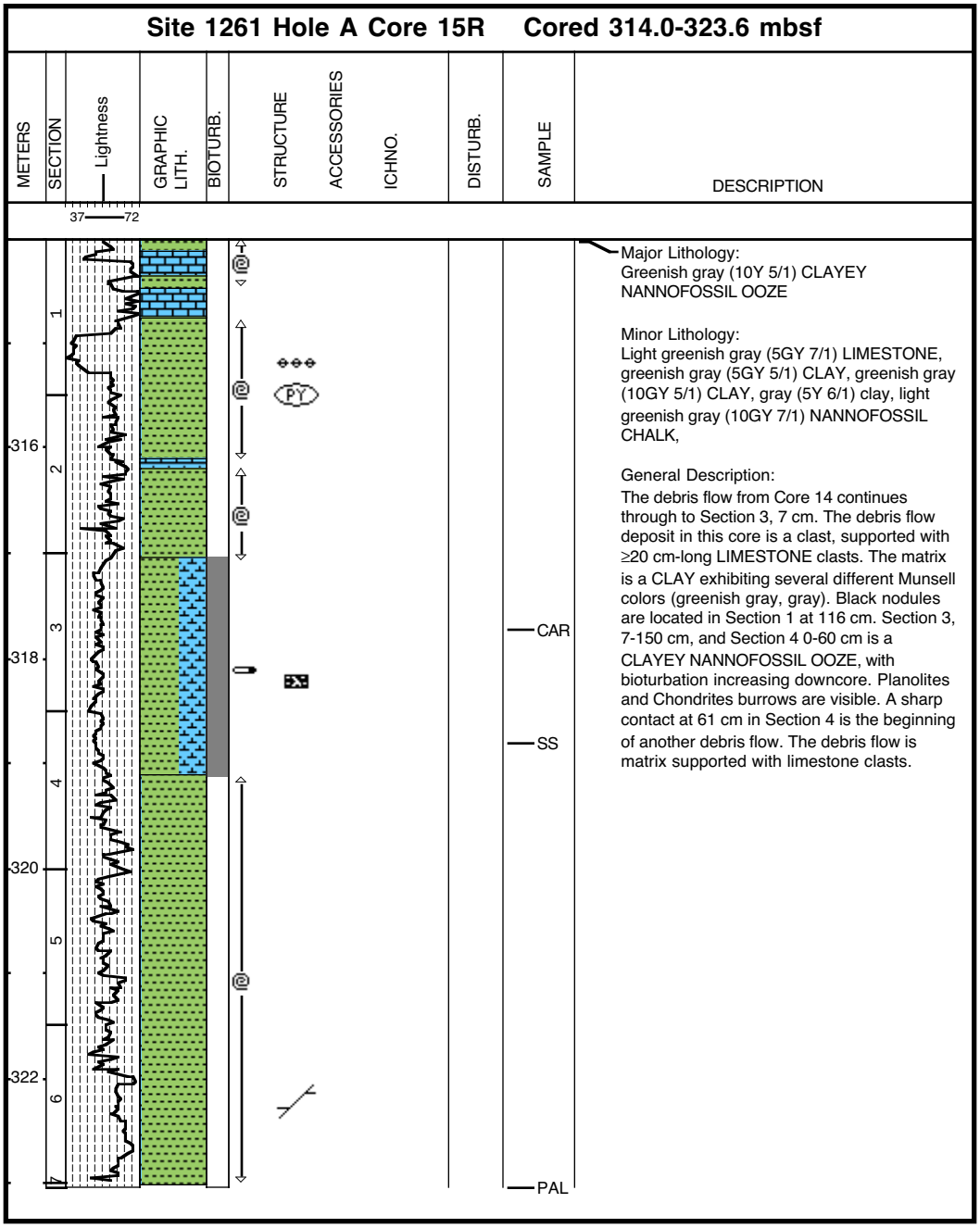
Core Photo


Site 1261 Hole A Core 13R Cored 294.7-304.4 mbsf
METERS
SECTION
Lightness
43
57
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
296
298
300
302
1
2
3
4
5
6
CAR
SS
CAR
PWR
CAR
PAL
Major Lithology:
Greenish gray and olive gray to dark greenish gray (10GY 5/1, 5Y 5/2 – 10GY 4/1, 10Y4/1) NANNOFOSSIL CLAY
General Description:
The core consists of NANNOFOSSIL CLAY with color variations on a 30–40 cm scale. Fine sand-sized foraminifers are visible on the cut surface of the core. Subtle mottling is present throughout the core and discrete traces include Zoophycos, Planolites, and Chondrites. Pyrite is present as rare mm-sized crystals.
1 cm pyrite nodules

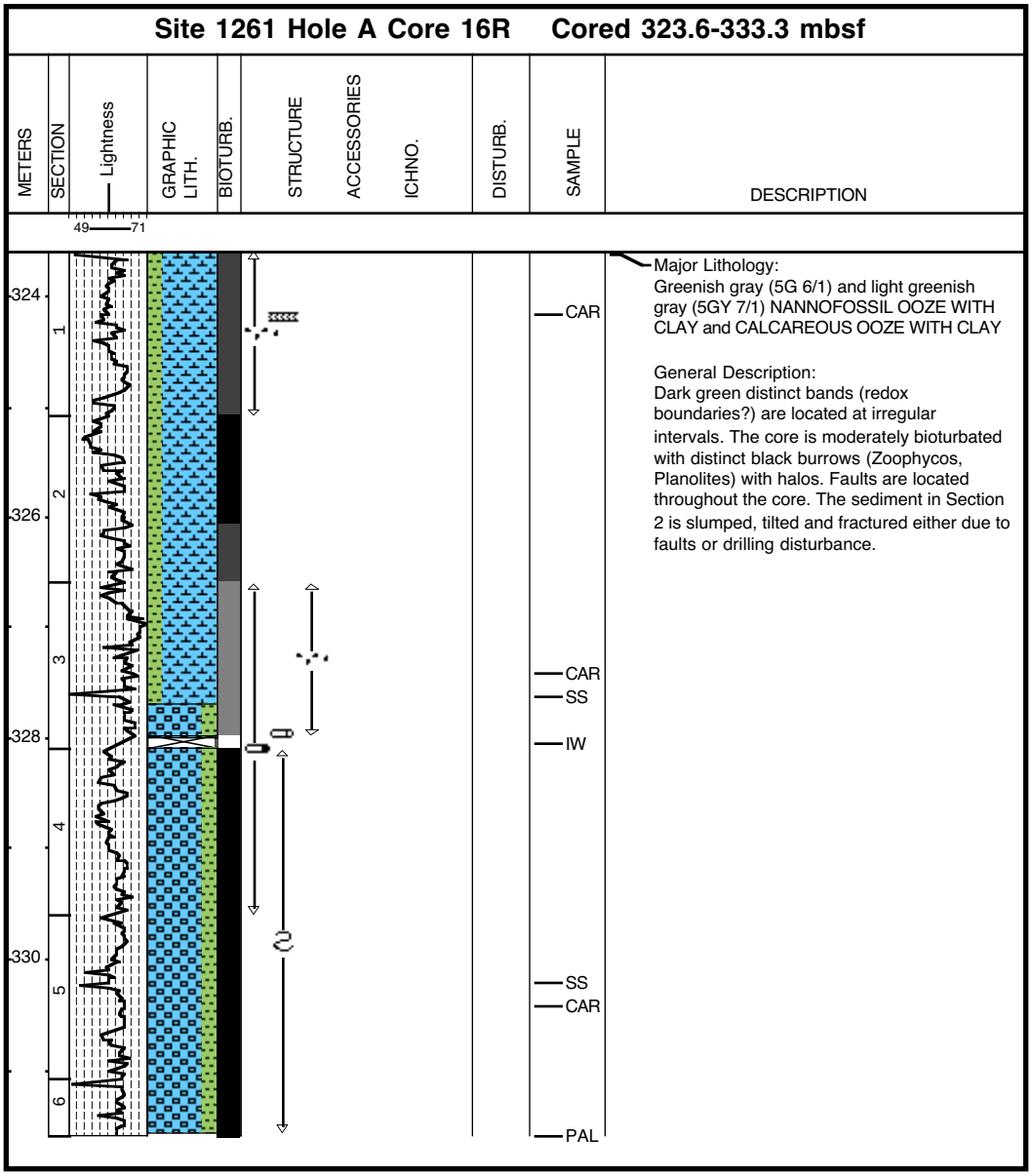
Core Photo


Site 1261 Hole A Core 14R Cored 304.4-314.0 mbsf
METERS
SECTION
Lightness
45
72
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
306
308
310
312
1
2
3
4
5
6
7
PY
CAR
SS
CAR
WRP
IW
PAL
Major Lithology:
Olive gray (5Y 4/2) CLAYEY NANNOFOSSIL OOZE
Minor Lithology:
Clasts in debris flow: greenish gray (10GY 5/1) CLAY, greenish gray (10GY 6/1) NANNOFOSSIL CHALK, olive gray (5Y 4/2) CLAYEY NANNOFOSSIL OOZE, light greenish gray (10Y 8/1) LIMESTONE, gray (N 5/1) CLAY,
General Description:
Sections 1-4 and Section 5, 0-15 cm are an olive gray CLAYEY NANNOFOSSIL OOZE. The sediment is moderately bioturbated with distinct black and pyrite infilled burrows and rare mottles. The core is mildly biscuited. Section 4 contains several 3-mm thick greenish gray (5BG 4/1) bands. A debris flow deposit extends from Section 5, 15 cm to the base of the core. The debris flow deposit is matrix (olive gray 5Y 4/2, gray N 5/1, greenish gray 10GY 6/1) supported. The matrix has a flow structure with the three clay type lithologies swirled together. Large foraminifers are visible. Clasts ranging in size from 2x2 cm to 6x4 cm make up ~50% of the flow. The clasts are composed of LIMESTONE and NANNOFOSSIL CHALK. A gray 2x2 cm clast with a salt and pepper appearance of unknown lithology also is observed.

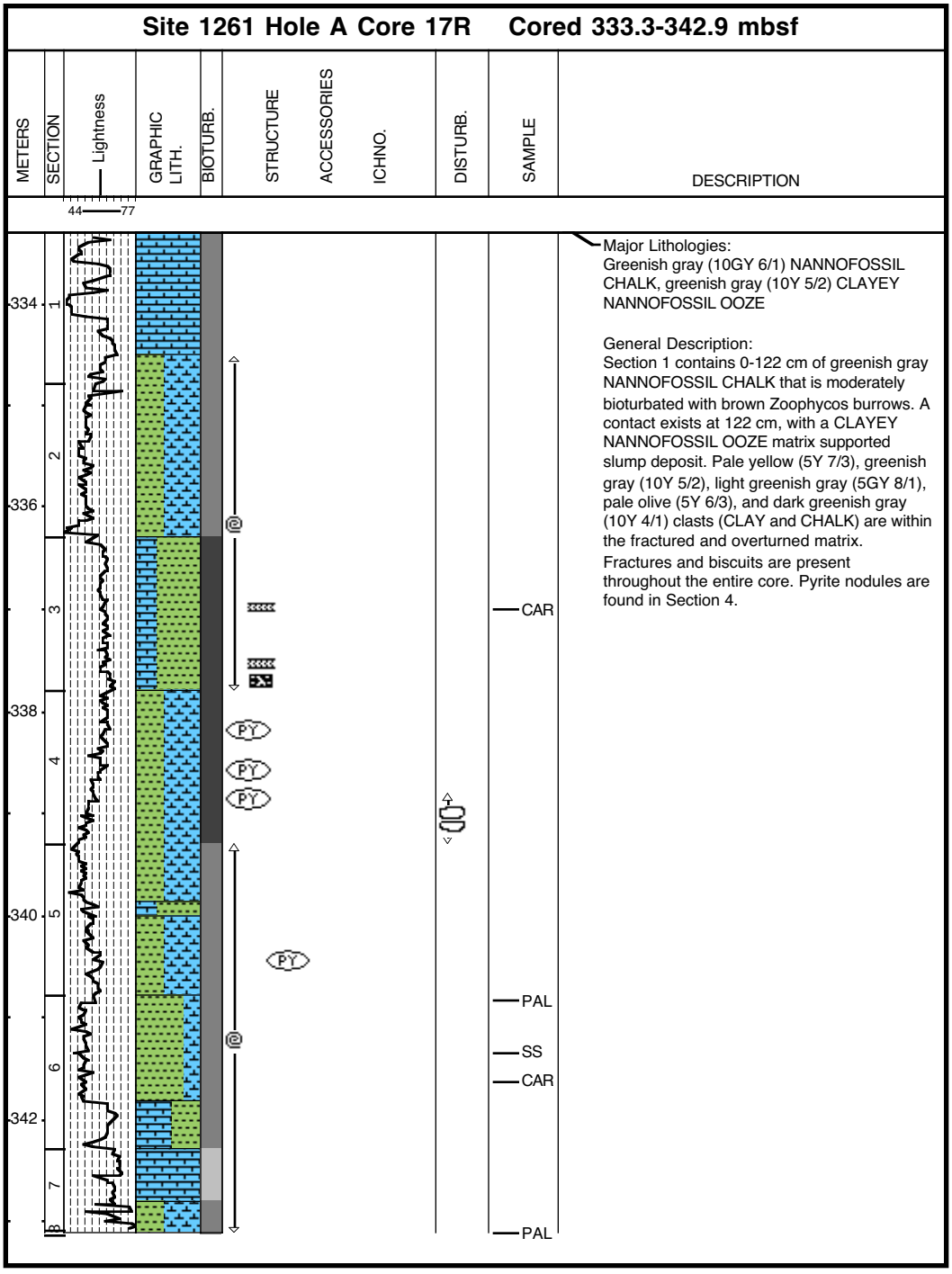
Core Photo


Site 1261 Hole A Core 15R Cored 314.0-323.6 mbsf
METERS
SECTION
Lightness
37
72
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
316
318
320
322
1
2
3
4
5
6
PY
CAR
SS
PAL
Major Lithology:
Greenish gray (10Y 5/1) CLAYEY NANNOFOSSIL OOZE
Minor Lithology:
Light greenish gray (5GY 7/1) LIMESTONE, greenish gray (5GY 5/1) CLAY, greenish gray (10GY 5/1) CLAY, gray (5Y 6/1) clay, light greenish gray (10GY 7/1) NANNOFOSSIL CHALK,
General Description:
The debris flow from Core 14 continues through to Section 3, 7 cm. The debris flow deposit in this core is a clast, supported with ≥20 cm-long LIMESTONE clasts. The matrix is a CLAY exhibiting several different Munsell colors (greenish gray, gray). Black nodules are located in Section 1 at 116 cm. Section 3, 7-150 cm, and Section 4 0-60 cm is a CLAYEY NANNOFOSSIL OOZE, with bioturbation increasing downcore. Planolites and Chondrites burrows are visible. A sharp contact at 61 cm in Section 4 is the beginning of another debris flow. The debris flow is matrix supported with limestone clasts.

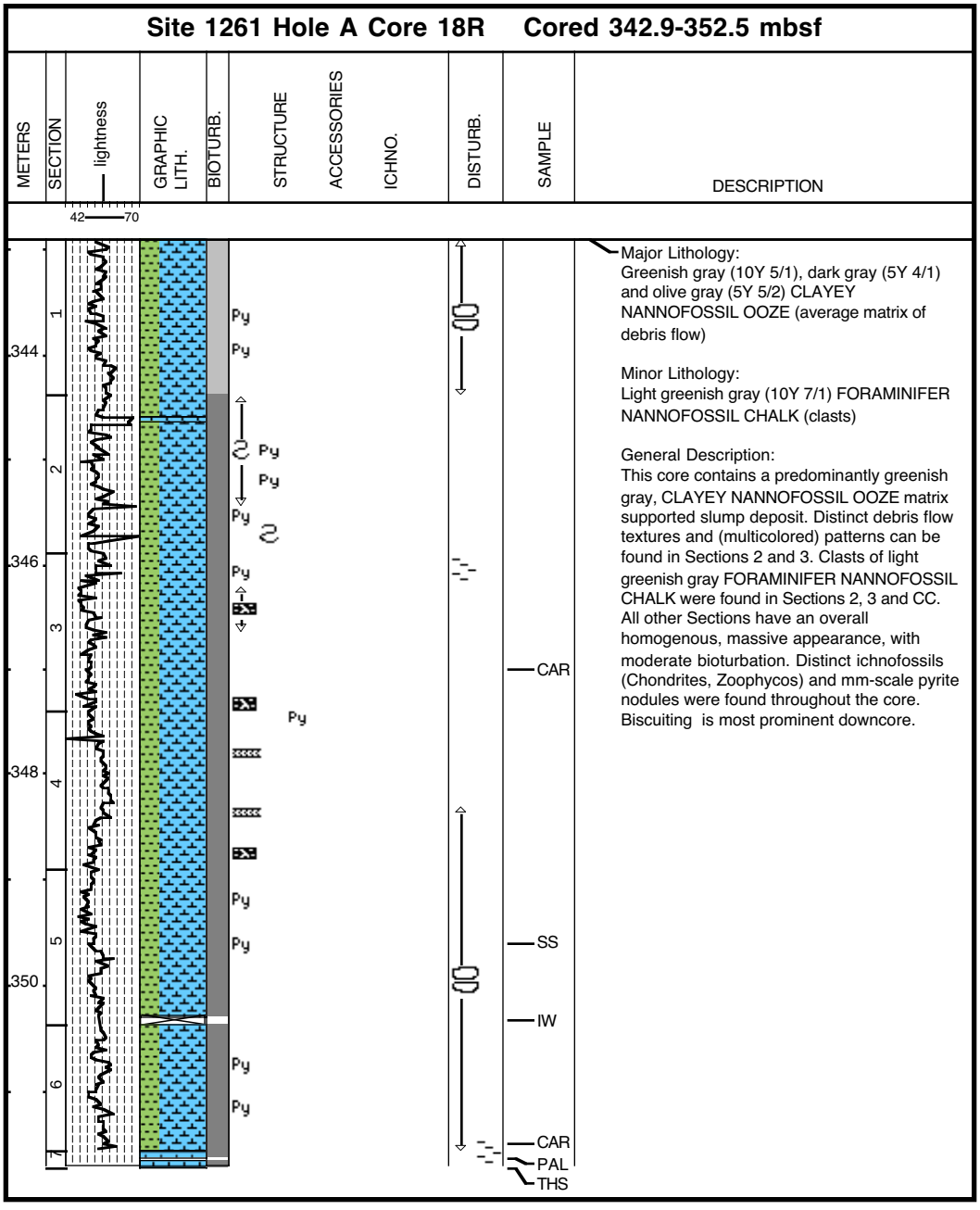
Core Photo


Site 1261 Hole A Core 16R Cored 323.6-333.3 mbsf
METERS
SECTION
Lightness
49
71
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
324
326
328
330
1
2
3
4
5
6
CAR
CAR
SS
IW
SS
CAR
PAL
Major Lithology:
Greenish gray (5G 6/1) and light greenish gray (5GY 7/1) NANNOFOSSIL OOZE WITH CLAY and CALCAREOUS OOZE WITH CLAY
General Description:
Dark green distinct bands (redox boundaries?) are located at irregular intervals. The core is moderately bioturbated with distinct black burrows (Zoophycos, Planolites) with halos. Faults are located throughout the core. The sediment in Section 2 is slumped, tilted and fractured either due to faults or drilling disturbance.

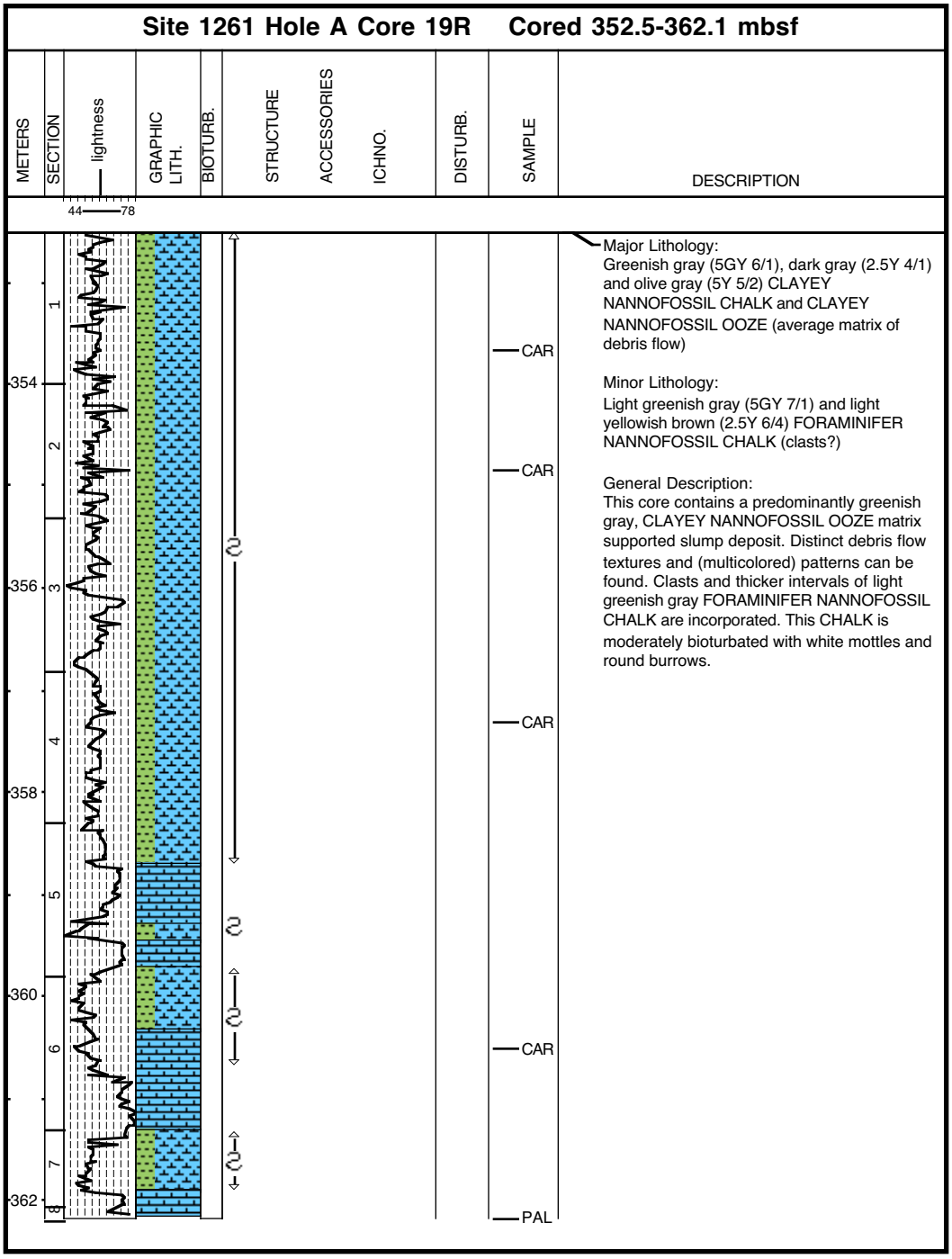
Core Photo


Site 1261 Hole A Core 17R Cored 333.3-342.9 mbsf
METERS
SECTION
Lightness
44
77
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
334
336
338
340
342
1
2
3
4
5
6
7
CC
PY
CAR
PAL
SS
CAR
PAL
Major Lithologies:
Greenish gray (10GY 6/1) NANNOFOSSIL CHALK, greenish gray (10Y 5/2) CLAYEY NANNOFOSSIL OOZE
General Description:
Section 1 contains 0-122 cm of greenish gray NANNOFOSSIL CHALK that is moderately bioturbated with brown Zoophycos burrows. A contact exists at 122 cm, with a CLAYEY NANNOFOSSIL OOZE matrix supported slump deposit. Pale yellow (5Y 7/3), greenish gray (10Y 5/2), light greenish gray (5GY 8/1), pale olive (5Y 6/3), and dark greenish gray (10Y 4/1) clasts (CLAY and CHALK) are within the fractured and overturned matrix.
Fractures and biscuits are present throughout the entire core. Pyrite nodules are found in Section 4.

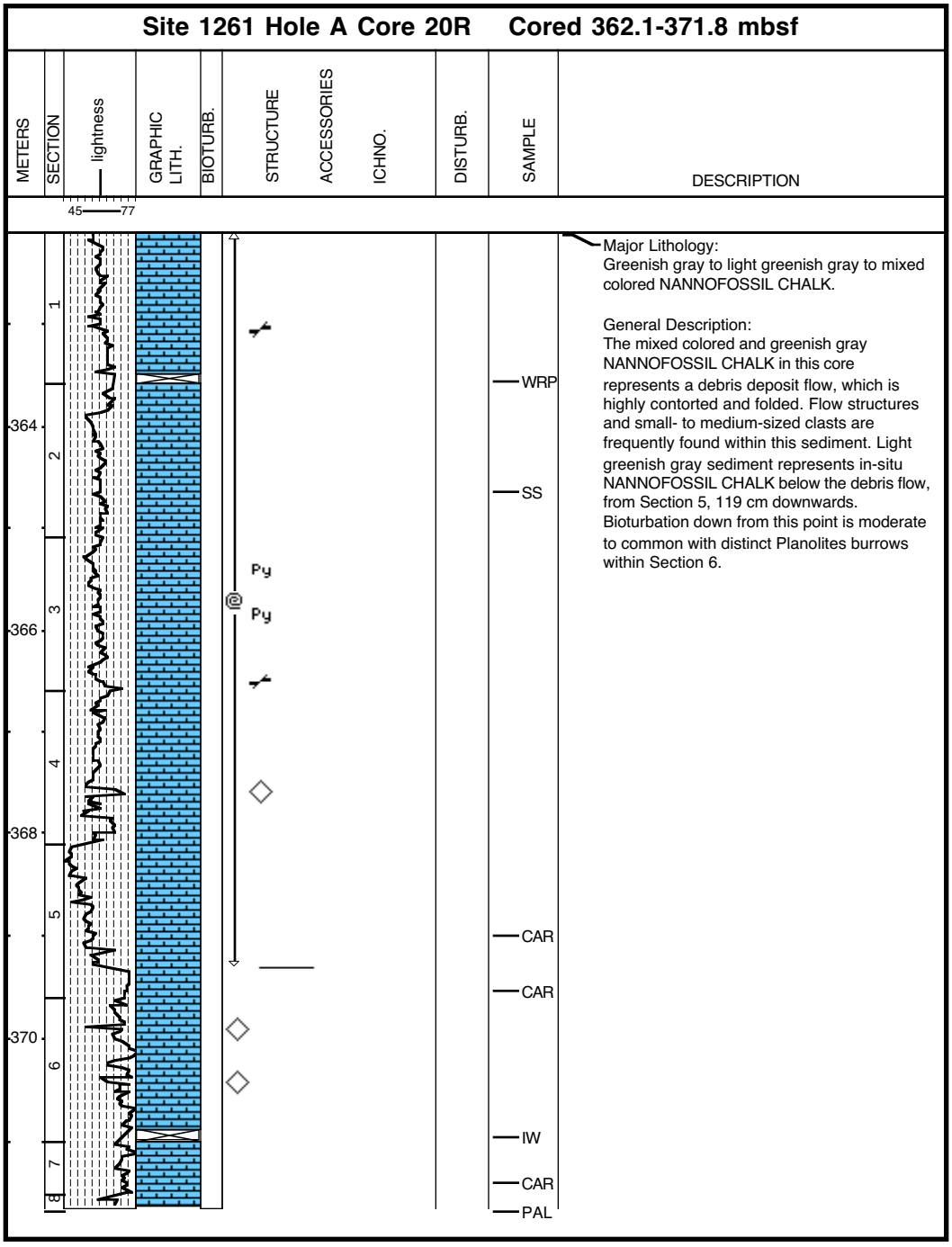
Core Photo


Site 1261 Hole A Core 18R Cored 342.9-352.5 mbsf
METERS
SECTION
lightness
42
70
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
344
346
348
350
1
2
3
4
5
6
7
Py
CAR
SS
IW
CAR
PAL
THS
Major Lithology:
Greenish gray (10Y 5/1), dark gray (5Y 4/1) and olive gray (5Y 5/2) CLAYEY NANNOFOSSIL OOZE (average matrix of debris flow)
Minor Lithology:
Light greenish gray (10Y 7/1) FORAMINIFER NANNOFOSSIL CHALK (clasts)
General Description:
This core contains a predominantly greenish gray, CLAYEY NANNOFOSSIL OOZE matrix supported slump deposit. Distinct debris flow textures and (multicolored) patterns can be found in Sections 2 and 3. Clasts of light greenish gray FORAMINIFER NANNOFOSSIL CHALK were found in Sections 2, 3 and CC. All other Sections have an overall homogenous, massive appearance, with moderate bioturbation. Distinct ichnofossils (Chondrites, Zoophycos) and mm-scale pyrite nodules were found throughout the core. Biscuiting is most prominent downcore.

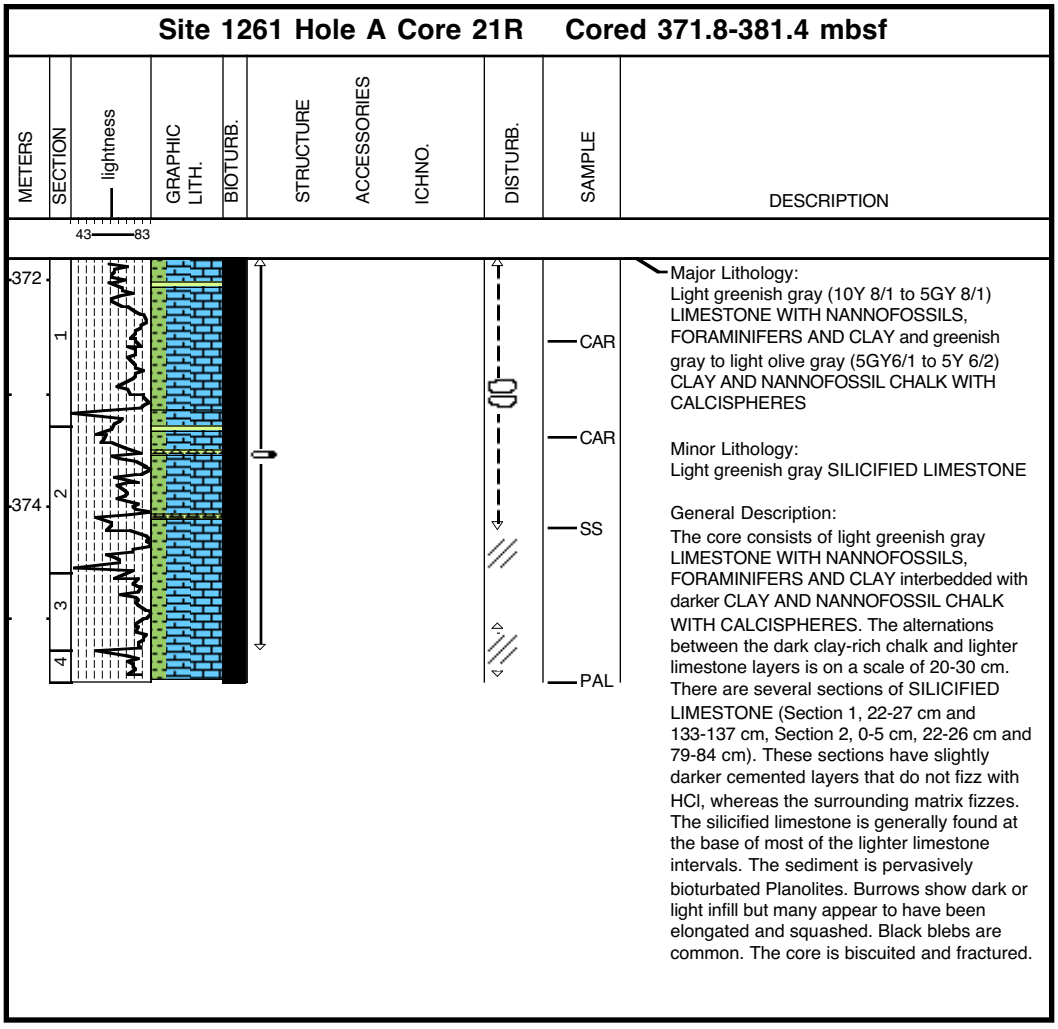
Core Photo


Site 1261 Hole A Core 19R Cored 352.5-362.1 mbsf
METERS
SECTION
lightness
44
78
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
354
356
358
360
362
1
2
3
4
5
6
7
CAR
CAR
CAR
CAR
PAL
Major Lithology:
Greenish gray (5GY 6/1), dark gray (2.5Y 4/1) and olive gray (5Y 5/2) CLAYEY NANNOFOSSIL CHALK and CLAYEY NANNOFOSSIL OOZE (average matrix of debris flow)
Minor Lithology:
Light greenish gray (5GY 7/1) and light yellowish brown (2.5Y 6/4) FORAMINIFER NANNOFOSSIL CHALK (clasts?)
General Description:
This core contains a predominantly greenish gray, CLAYEY NANNOFOSSIL OOZE matrix supported slump deposit. Distinct debris flow textures and (multicolored) patterns can be found. Clasts and thicker intervals of light greenish gray FORAMINIFER NANNOFOSSIL CHALK are incorporated. This CHALK is moderately bioturbated with white mottles and round burrows.

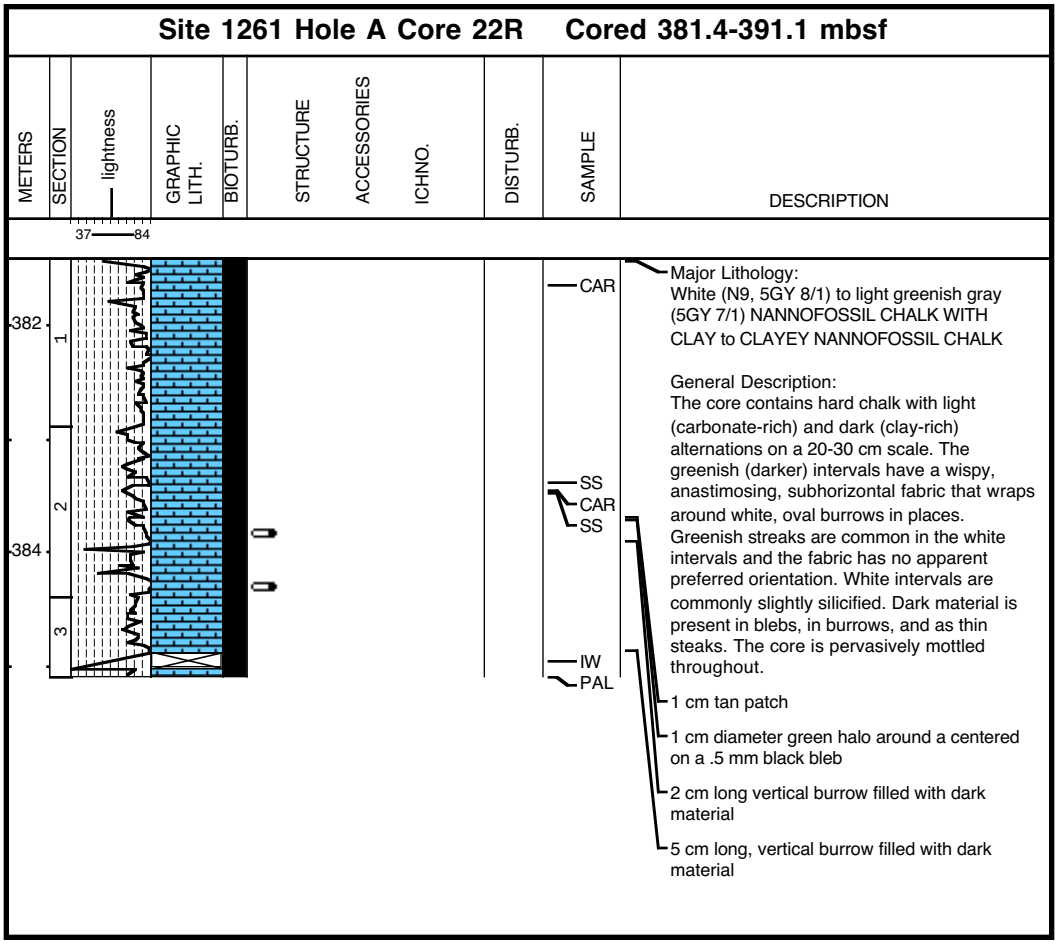
Core Photo


Site 1261 Hole A Core 20R Cored 362.1-371.8 mbsf
METERS
SECTION
lightness
45
77
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
364
366
368
370
1
2
3
4
5
6
7
CC
Py
Py
WRP
SS
CAR
CAR
IW
CAR
PAL
Major Lithology:
Greenish gray to light greenish gray to mixed colored NANNOFOSSIL CHALK.
General Description:
The mixed colored and greenish gray NANNOFOSSIL CHALK in this core represents a debris deposit flow, which is highly contorted and folded. Flow structures and small- to medium-sized clasts are frequently found within this sediment. Light greenish gray sediment represents in-situ NANNOFOSSIL CHALK below the debris flow, from Section 5, 119 cm downwards. Bioturbation down from this point is moderate to common with distinct Planolites burrows within Section 6.

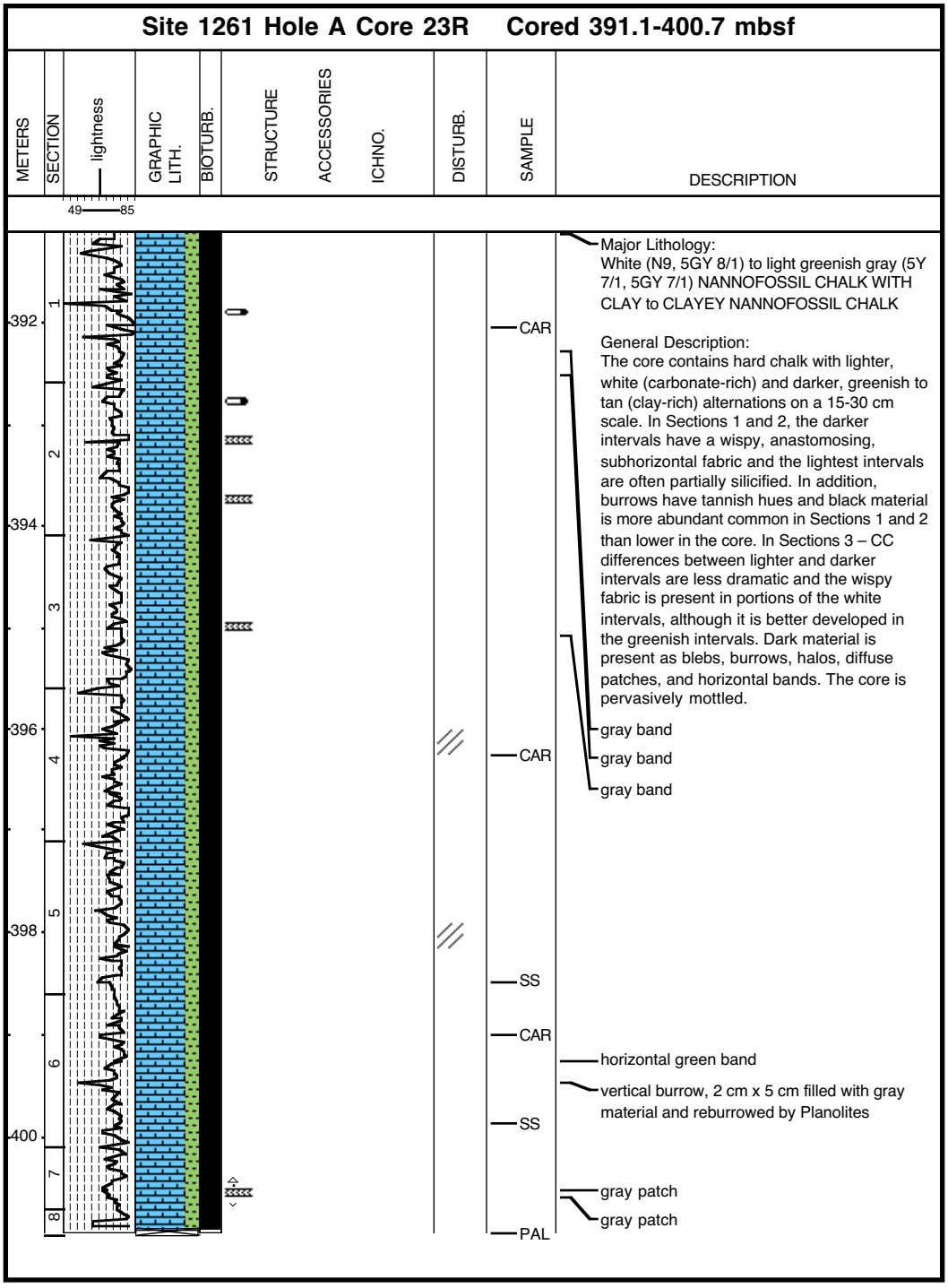
Core Photo


Site 1261 Hole A Core 21R Cored 371.8-381.4 mbsf
METERS
SECTION
lightness
43
83
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
372
374
1
2
3
4
CAR
CAR
SS
PAL
Major Lithology:
Light greenish gray (10Y 8/1 to 5GY 8/1) LIMESTONE WITH NANNOFOSSILS, FORAMINIFERS AND CLAY and greenish gray to light olive gray (5GY6/1 to 5Y 6/2) CLAY AND NANNOFOSSIL CHALK WITH CALCISPHERES
Minor Lithology:
Light greenish gray SILICIFIED LIMESTONE
General Description:
The core consists of light greenish gray LIMESTONE WITH NANNOFOSSILS, FORAMINIFERS AND CLAY interbedded with darker CLAY AND NANNOFOSSIL CHALK WITH CALCISPHERES. The alternations between the dark clay-rich chalk and lighter limestone layers is on a scale of 20-30 cm. There are several sections of SILICIFIED LIMESTONE (Section 1, 22-27 cm and 133-137 cm, Section 2, 0-5 cm, 22-26 cm and 79-84 cm). These sections have slightly darker cemented layers that do not fizz with HCl, whereas the surrounding matrix fizzes. The silicified limestone is generally found at the base of most of the lighter limestone intervals. The sediment is pervasively bioturbated Planolites. Burrows show dark or light infill but many appear to have been elongated and squashed. Black blebs are common. The core is biscuited and fractured.

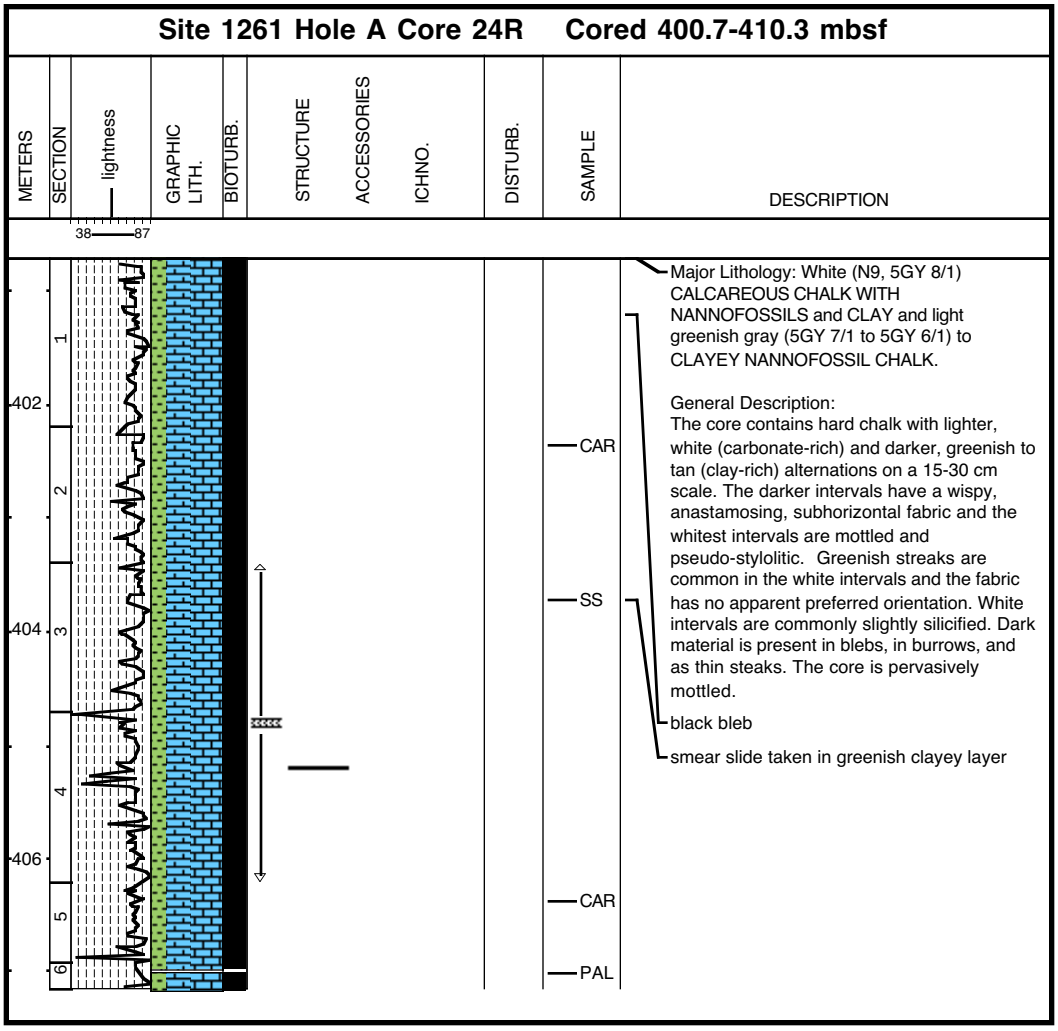
Core Photo


Site 1261 Hole A Core 22R Cored 381.4-391.1 mbsf
METERS
SECTION
lightness
37
84
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
382
384
1
2
3
CAR
SS
CAR
SS
IW
PAL
Major Lithology:
White (N9, 5GY 8/1) to light greenish gray (5GY 7/1) NANNOFOSSIL CHALK WITH CLAY to CLAYEY NANNOFOSSIL CHALK
General Description:
The core contains hard chalk with light (carbonate-rich) and dark (clay-rich) alternations on a 20-30 cm scale. The greenish (darker) intervals have a wispy, anastimosing, subhorizontal fabric that wraps around white, oval burrows in places. Greenish streaks are common in the white intervals and the fabric has no apparent preferred orientation. White intervals are commonly slightly silicified. Dark material is present in blebs, in burrows, and as thin steaks. The core is pervasively mottled throughout.
1 cm tan patch
1 cm diameter green halo around a centered on a .5 mm black bleb
2 cm long vertical burrow filled with dark material
5 cm long, vertical burrow filled with dark material

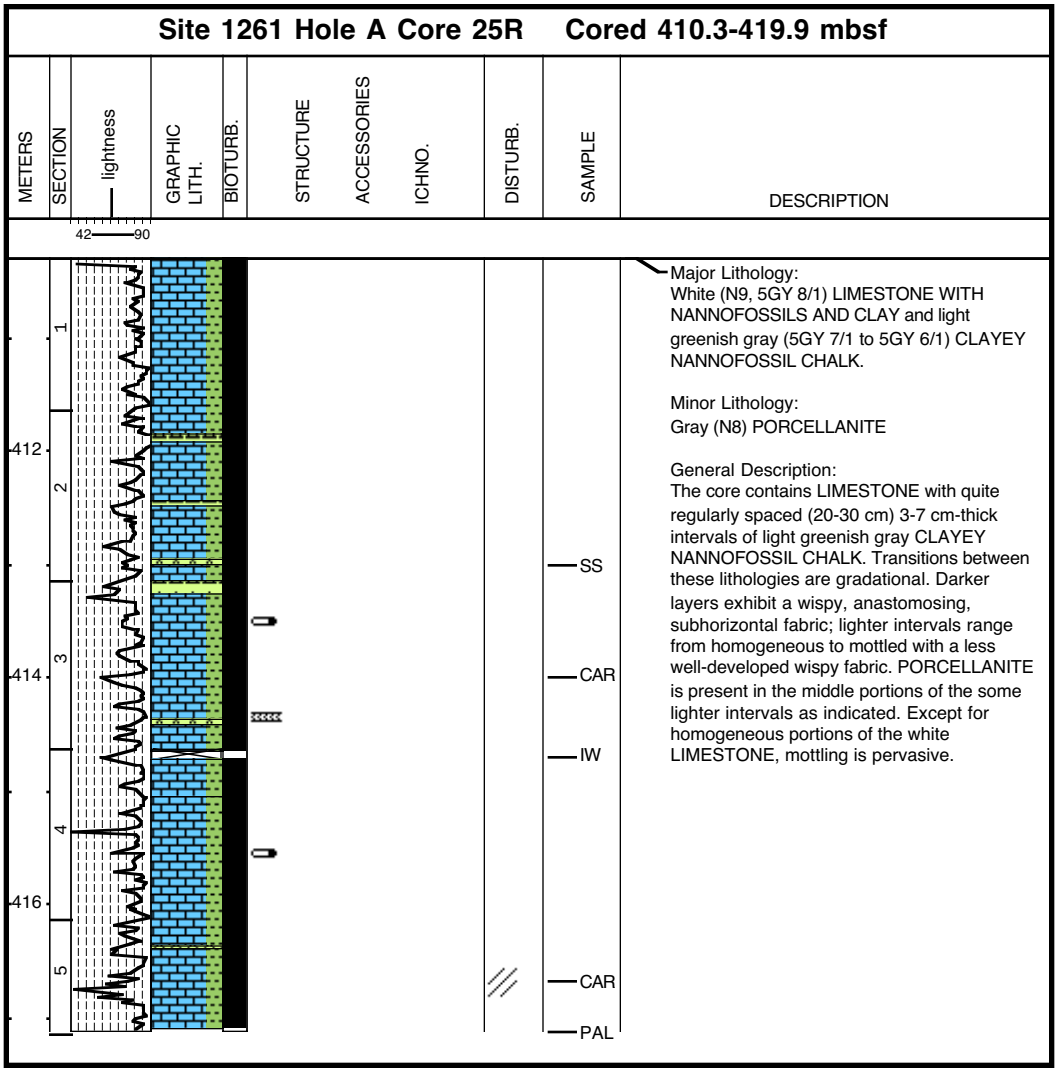
Core Photo


Site 1261 Hole A Core 23R Cored 391.1-400.7 mbsf
METERS
SECTION
lightness
49
85
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
392
394
396
398
400
1
2
3
4
5
6
7
8
CAR
CAR
SS
CAR
SS
PAL
Major Lithology:
White (N9, 5GY 8/1) to light greenish gray (5Y 7/1, 5GY 7/1) NANNOFOSSIL CHALK WITH CLAY to CLAYEY NANNOFOSSIL CHALK
General Description:
The core contains hard chalk with lighter, white (carbonate-rich) and darker, greenish to tan (clay-rich) alternations on a 15-30 cm scale. In Sections 1 and 2, the darker intervals have a wispy, anastomosing, subhorizontal fabric and the lightest intervals are often partially silicified. In addition, burrows have tannish hues and black material is more abundant common in Sections 1 and 2 than lower in the core. In Sections 3 – CC differences between lighter and darker intervals are less dramatic and the wispy fabric is present in portions of the white intervals, although it is better developed in the greenish intervals. Dark material is present as blebs, burrows, halos, diffuse patches, and horizontal bands. The core is pervasively mottled.
gray band
gray band
gray band
horizontal green band
vertical burrow, 2 cm x 5 cm filled with gray material and reburrowed by Planolites
gray patch
gray patch

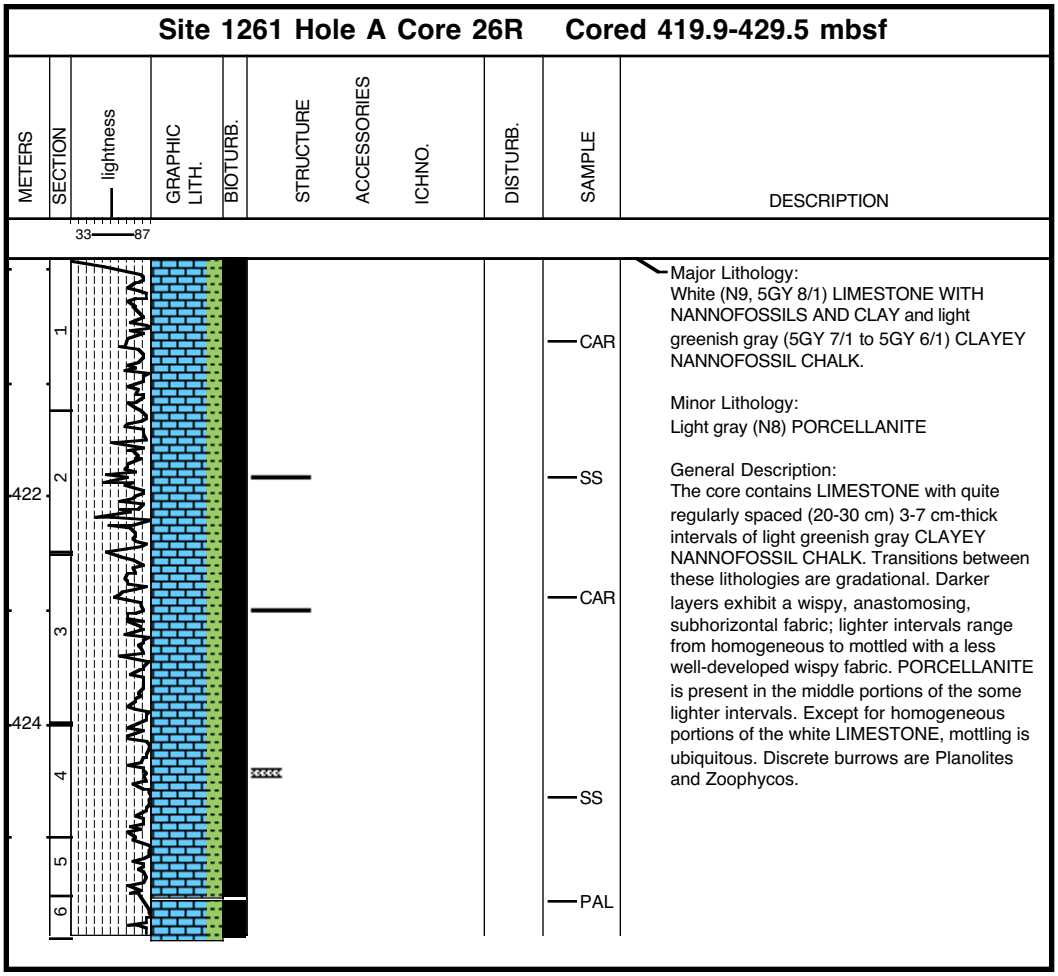
Core Photo


Site 1261 Hole A Core 24R Cored 400.7-410.3 mbsf
METERS
SECTION
lightness
38
87
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
402
404
406
1
2
3
4
5
6
CAR
SS
CAR
PAL
Major Lithology: White (N9, 5GY 8/1) CALCAREOUS CHALK WITH NANNOFOSSILS and CLAY and light greenish gray (5GY 7/1 to 5GY 6/1) to CLAYEY NANNOFOSSIL CHALK.
General Description:
The core contains hard chalk with lighter, white (carbonate-rich) and darker, greenish to tan (clay-rich) alternations on a 15-30 cm scale. The darker intervals have a wispy, anastamosing, subhorizontal fabric and the whitest intervals are mottled and pseudo-stylolitic. Greenish streaks are common in the white intervals and the fabric has no apparent preferred orientation. White intervals are commonly slightly silicified. Dark material is present in blebs, in burrows, and as thin steaks. The core is pervasively mottled.
black bleb
smear slide taken in greenish clayey layer

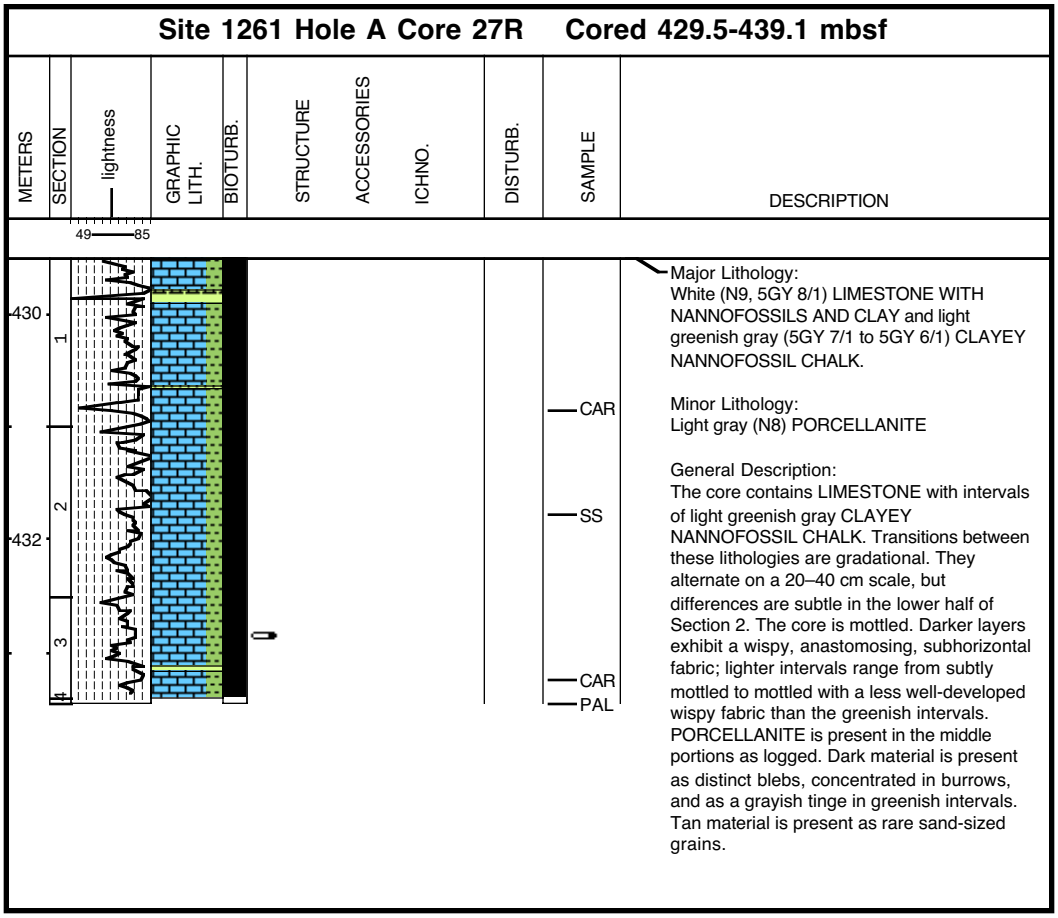
Core Photo


Site 1261 Hole A Core 25R Cored 410.3-419.9 mbsf
METERS
SECTION
lightness
42
90
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
412
414
416
1
2
3
4
5
SS
CAR
IW
CAR
PAL
Major Lithology:
White (N9, 5GY 8/1) LIMESTONE WITH NANNOFOSSILS AND CLAY and light greenish gray (5GY 7/1 to 5GY 6/1) CLAYEY NANNOFOSSIL CHALK.
Minor Lithology:
Gray (N8) PORCELLANITE
General Description:
The core contains LIMESTONE with quite regularly spaced (20-30 cm) 3-7 cm-thick intervals of light greenish gray CLAYEY NANNOFOSSIL CHALK. Transitions between these lithologies are gradational. Darker layers exhibit a wispy, anastomosing, subhorizontal fabric; lighter intervals range from homogeneous to mottled with a less well-developed wispy fabric. PORCELLANITE is present in the middle portions of the some lighter intervals as indicated. Except for homogeneous portions of the white LIMESTONE, mottling is pervasive.

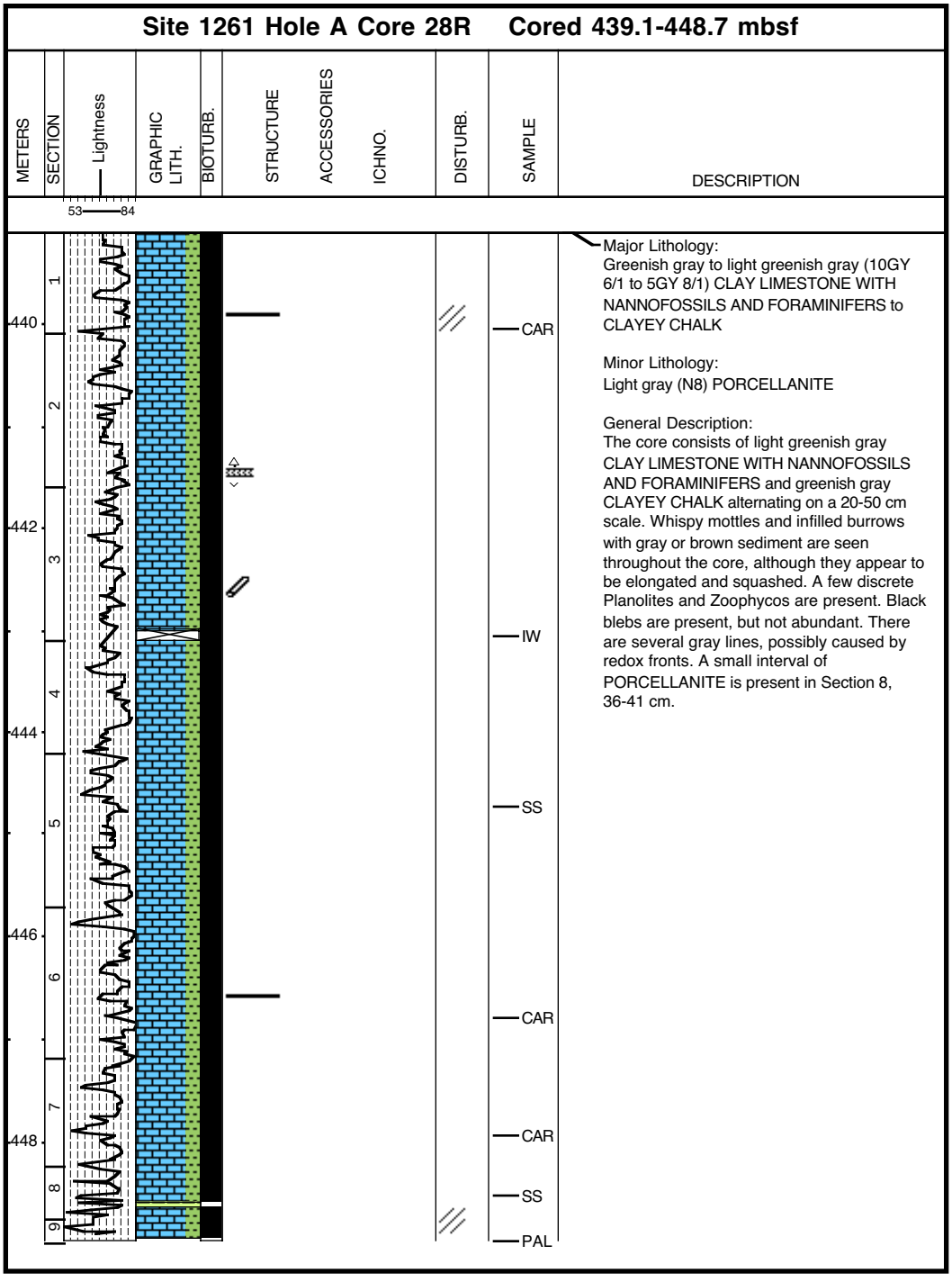
Core Photo


Site 1261 Hole A Core 26R Cored 419.9-429.5 mbsf
METERS
SECTION
lightness
33
87
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
422
424
1
2
3
4
5
6
CAR
SS
CAR
SS
PAL
Major Lithology:
White (N9, 5GY 8/1) LIMESTONE WITH NANNOFOSSILS AND CLAY and light greenish gray (5GY 7/1 to 5GY 6/1) CLAYEY NANNOFOSSIL CHALK.
Minor Lithology:
Light gray (N8) PORCELLANITE
General Description:
The core contains LIMESTONE with quite regularly spaced (20-30 cm) 3-7 cm-thick intervals of light greenish gray CLAYEY NANNOFOSSIL CHALK. Transitions between these lithologies are gradational. Darker layers exhibit a wispy, anastomosing, subhorizontal fabric; lighter intervals range from homogeneous to mottled with a less well-developed wispy fabric. PORCELLANITE is present in the middle portions of the some lighter intervals. Except for homogeneous portions of the white LIMESTONE, mottling is ubiquitous. Discrete burrows are Planolites and Zoophycos.

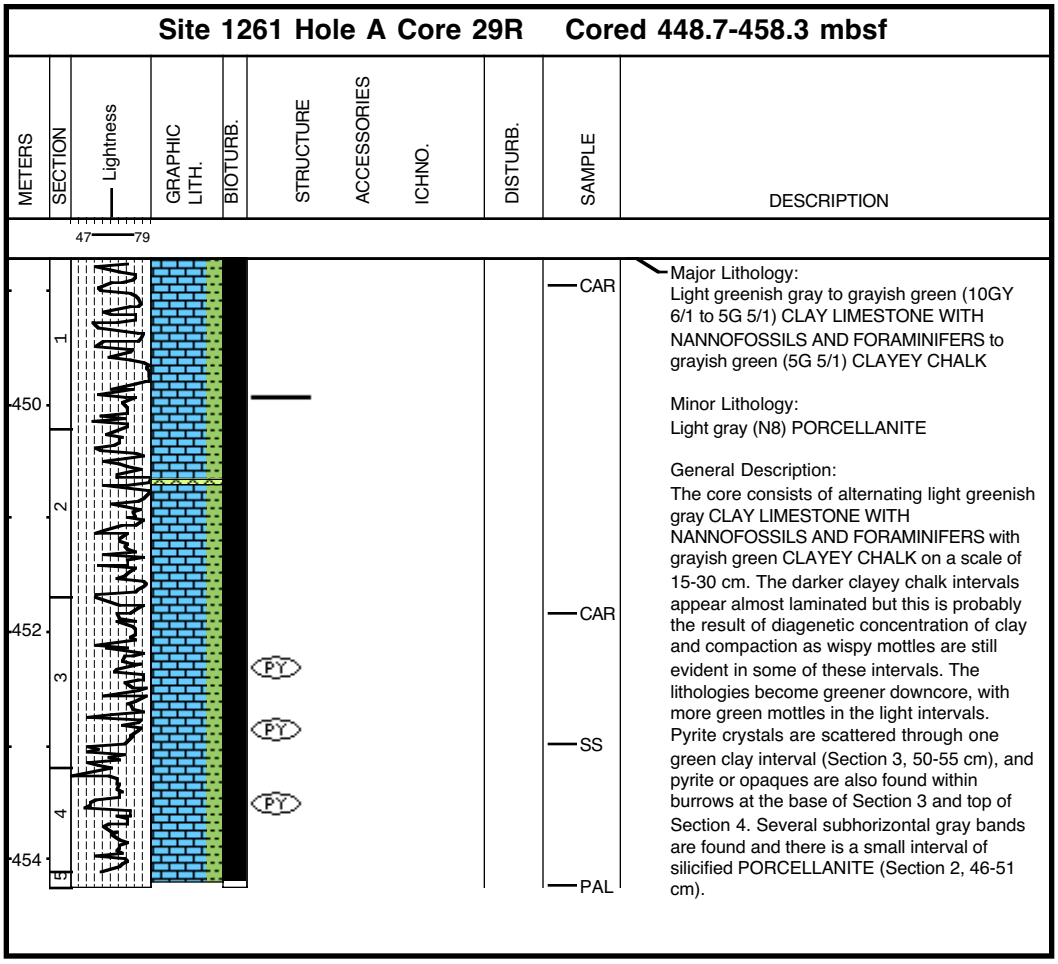
Core Photo


Site 1261 Hole A Core 27R Cored 429.5-439.1 mbsf
METERS
SECTION
lightness
49
85
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
430
432
1
2
3
CAR
SS
CAR
PAL
Major Lithology:
White (N9, 5GY 8/1) LIMESTONE WITH NANNOFOSSILS AND CLAY and light greenish gray (5GY 7/1 to 5GY 6/1) CLAYEY NANNOFOSSIL CHALK.
Minor Lithology:
Light gray (N8) PORCELLANITE
General Description:
The core contains LIMESTONE with intervals of light greenish gray CLAYEY NANNOFOSSIL CHALK. Transitions between these lithologies are gradational. They alternate on a 20–40 cm scale, but differences are subtle in the lower half of Section 2. The core is mottled. Darker layers exhibit a wispy, anastomosing, subhorizontal fabric; lighter intervals range from subtly mottled to mottled with a less well-developed wispy fabric than the greenish intervals. PORCELLANITE is present in the middle portions as logged. Dark material is present as distinct blebs, concentrated in burrows, and as a grayish tinge in greenish intervals. Tan material is present as rare sand-sized grains.

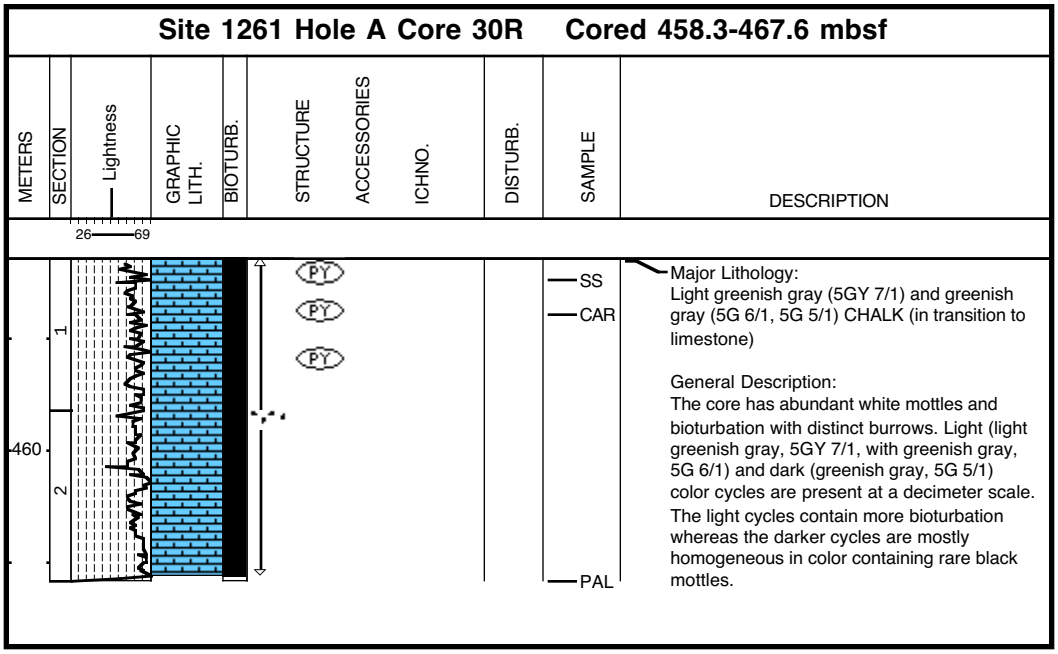
Core Photo


Site 1261 Hole A Core 28R Cored 439.1-448.7 mbsf
METERS
SECTION
Lightness
53
84
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
440
442
444
446
448
1
2
3
4
5
6
7
8
9
CAR
IW
SS
CAR
CAR
SS
PAL
Major Lithology:
Greenish gray to light greenish gray (10GY 6/1 to 5GY 8/1) CLAY LIMESTONE WITH NANNOFOSSILS AND FORAMINIFERS to CLAYEY CHALK
Minor Lithology:
Light gray (N8) PORCELLANITE
General Description:
The core consists of light greenish gray CLAY LIMESTONE WITH NANNOFOSSILS AND FORAMINIFERS and greenish gray CLAYEY CHALK alternating on a 20-50 cm scale. Whispy mottles and infilled burrows with gray or brown sediment are seen throughout the core, although they appear to be elongated and squashed. A few discrete Planolites and Zoophycos are present. Black blebs are present, but not abundant. There are several gray lines, possibly caused by redox fronts. A small interval of PORCELLANITE is present in Section 8, 36-41 cm.

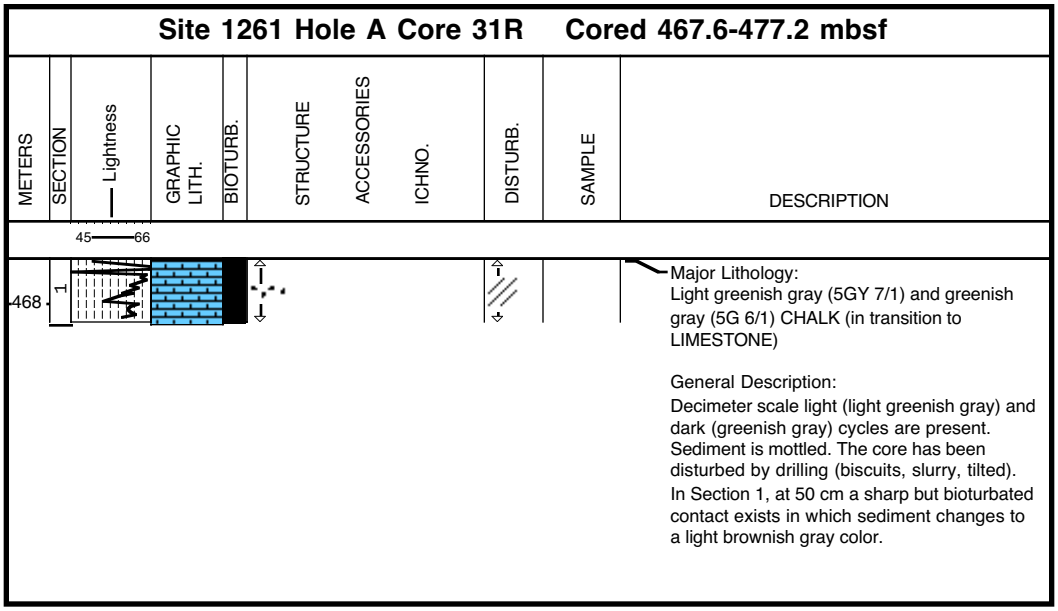
Core Photo


Site 1261 Hole A Core 29R Cored 448.7-458.3 mbsf
METERS
SECTION
Lightness
47
79
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
450
452
454
1
2
3
4
CC
PY
PY
PY
CAR
CAR
SS
PAL
Major Lithology:
Light greenish gray to grayish green (10GY 6/1 to 5G 5/1) CLAY LIMESTONE WITH NANNOFOSSILS AND FORAMINIFERS to grayish green (5G 5/1) CLAYEY CHALK
Minor Lithology:
Light gray (N8) PORCELLANITE
General Description:
The core consists of alternating light greenish gray CLAY LIMESTONE WITH NANNOFOSSILS AND FORAMINIFERS with grayish green CLAYEY CHALK on a scale of 15-30 cm. The darker clayey chalk intervals appear almost laminated but this is probably the result of diagenetic concentration of clay and compaction as wispy mottles are still evident in some of these intervals. The lithologies become greener downcore, with more green mottles in the light intervals. Pyrite crystals are scattered through one green clay interval (Section 3, 50-55 cm), and pyrite or opaques are also found within burrows at the base of Section 3 and top of Section 4. Several subhorizontal gray bands are found and there is a small interval of silicified PORCELLANITE (Section 2, 46-51 cm).

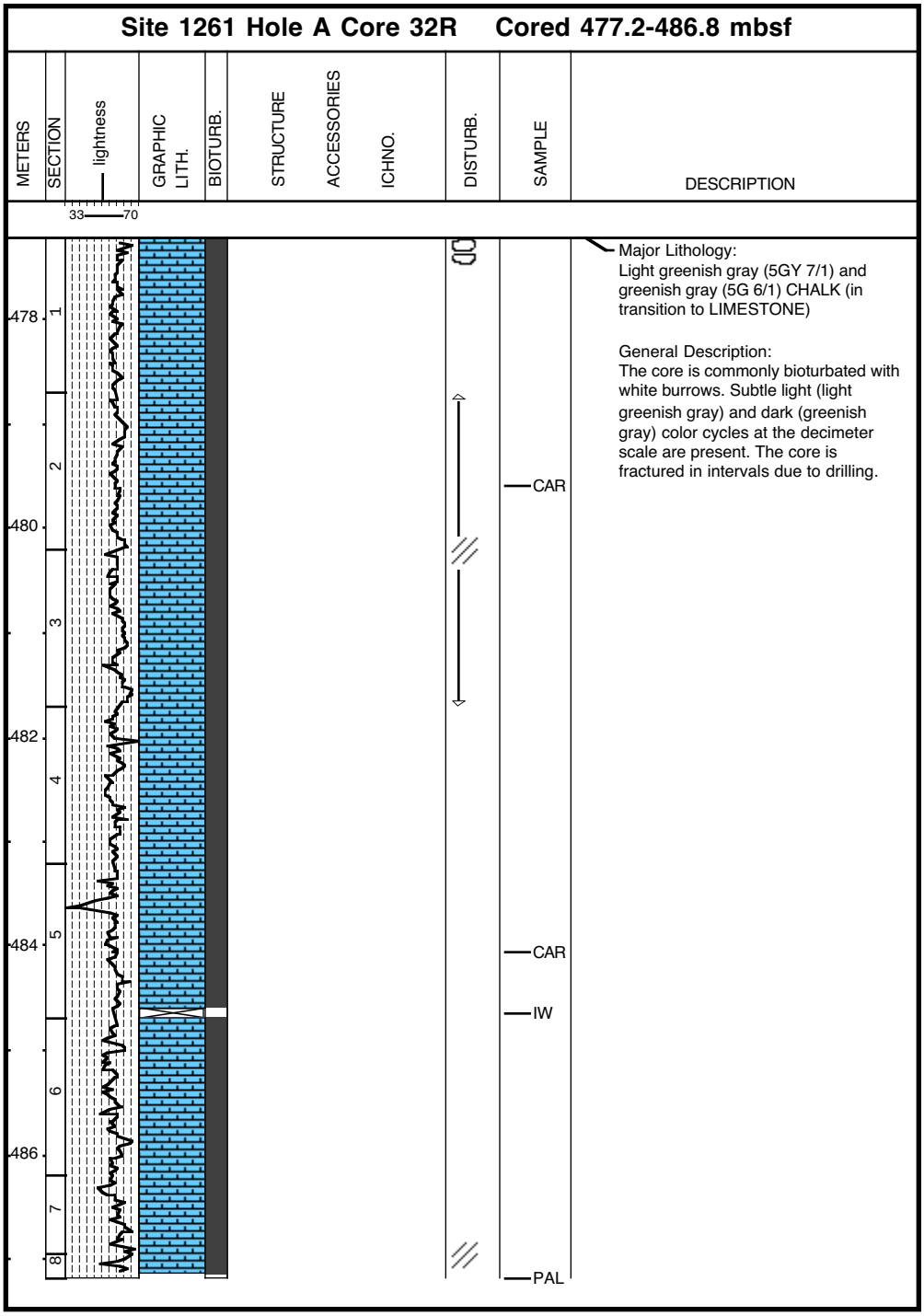
Core Photo


Site 1261 Hole A Core 30R Cored 458.3-467.6 mbsf
METERS
SECTION
Lightness
26
69
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
460
1
2
PY
PY
PY
SS
CAR
PAL
Major Lithology:
Light greenish gray (5GY 7/1) and greenish gray (5G 6/1, 5G 5/1) CHALK (in transition to limestone)
General Description:
The core has abundant white mottles and bioturbation with distinct burrows. Light (light greenish gray, 5GY 7/1, with greenish gray, 5G 6/1) and dark (greenish gray, 5G 5/1) color cycles are present at a decimeter scale. The light cycles contain more bioturbation whereas the darker cycles are mostly homogeneous in color containing rare black mottles.

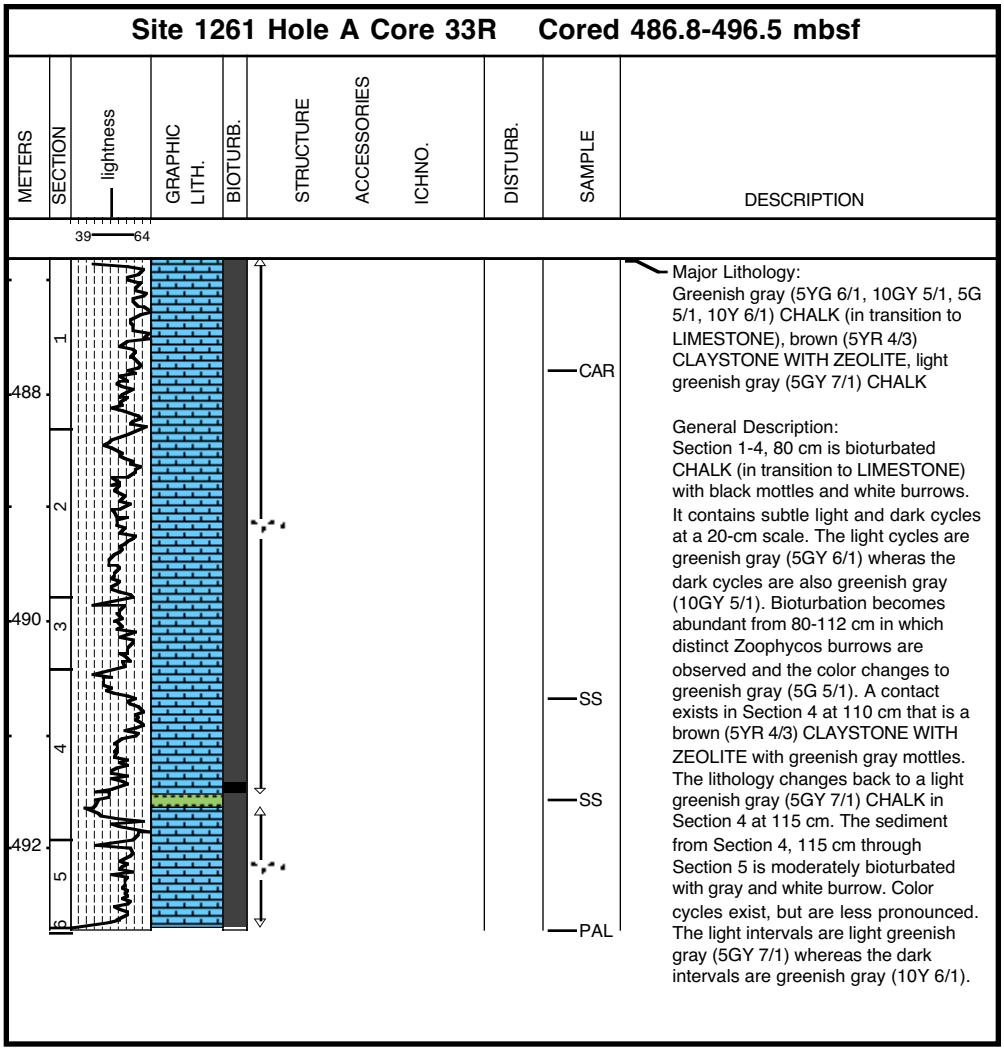
Core Photo


Site 1261 Hole A Core 31R Cored 467.6-477.2 mbsf
METERS
SECTION
Lightness
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
45
66
468
1
Major Lithology:
Light greenish gray (5GY 7/1) and greenish gray (5G 6/1) CHALK (in transition to LIMESTONE)
General Description:
Decimeter scale light (light greenish gray) and dark (greenish gray) cycles are present. Sediment is mottled. The core has been disturbed by drilling (biscuits, slurry, tilted). In Section 1, at 50 cm a sharp but bioturbated contact exists in which sediment changes to a light brownish gray color.

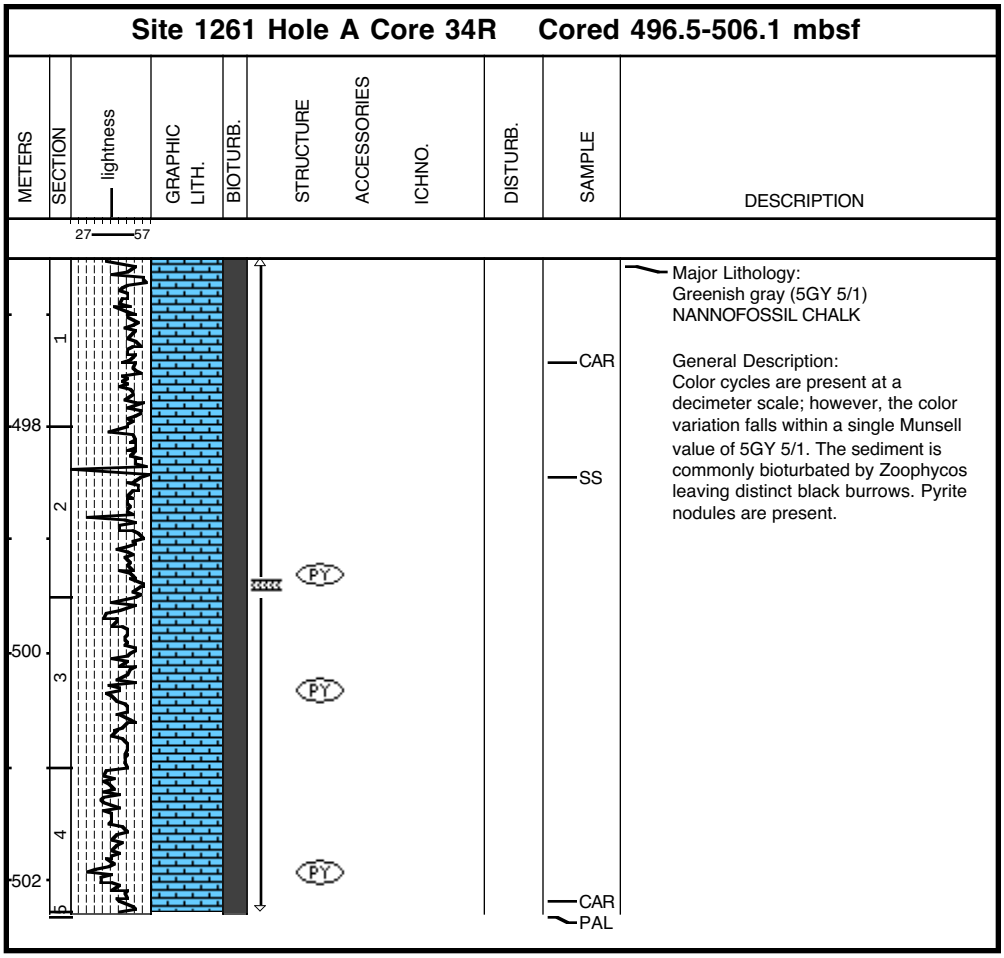
Core Photo


Site 1261 Hole A Core 32R Cored 477.2-486.8 mbsf
METERS
SECTION
lightness
33
70
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
478
480
482
484
486
1
2
3
4
5
6
7
8
CAR
CAR
IW
PAL
Major Lithology:
Light greenish gray (5GY 7/1) and greenish gray (5G 6/1) CHALK (in transition to LIMESTONE)
General Description:
The core is commonly bioturbated with white burrows. Subtle light (light greenish gray) and dark (greenish gray) color cycles at the decimeter scale are present. The core is fractured in intervals due to drilling.

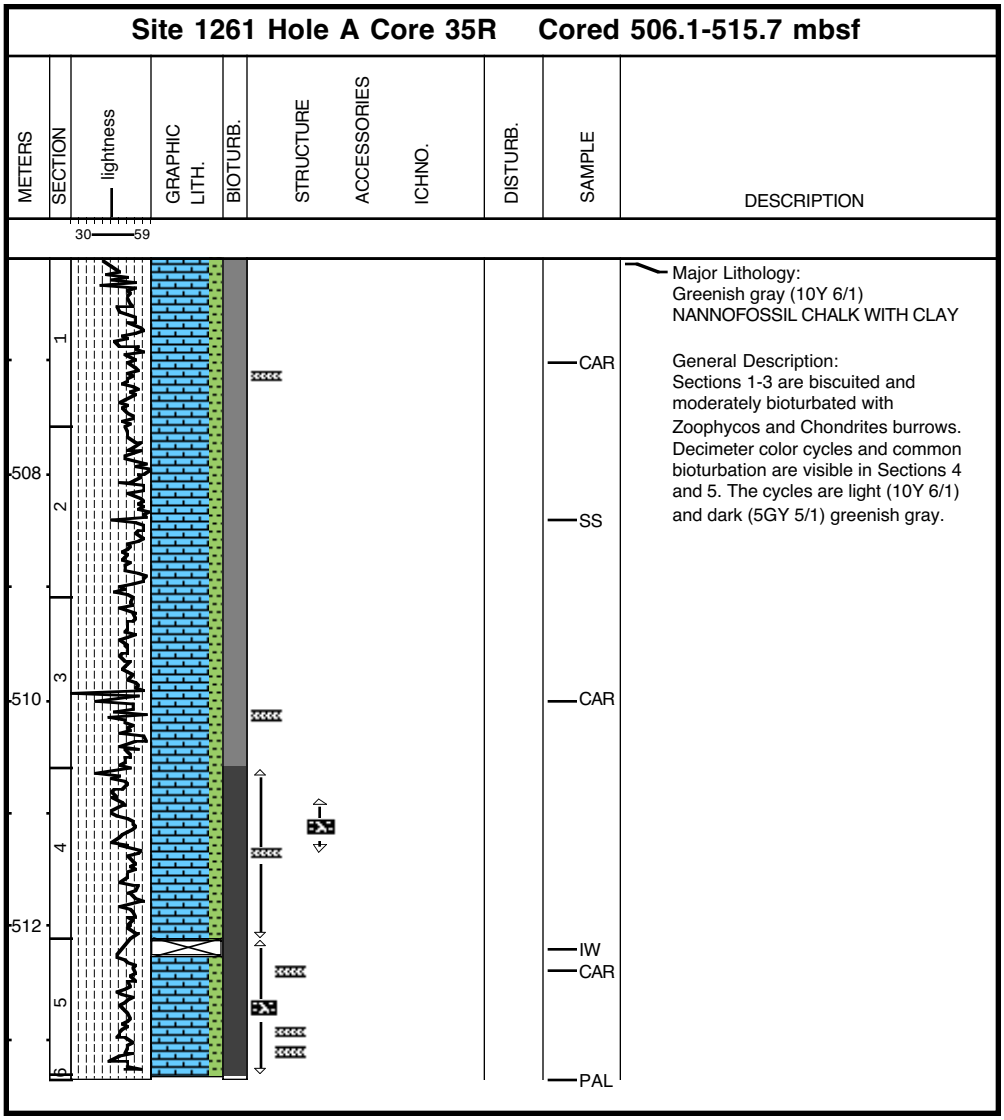
Core Photo


Site 1261 Hole A Core 33R Cored 486.8-496.5 mbsf
METERS
SECTION
lightness
39
64
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
488
490
492
1
2
3
4
5
6
CAR
SS
SS
PAL
Major Lithology:
Greenish gray (5YG 6/1, 10GY 5/1, 5G 5/1, 10Y 6/1) CHALK (in transition to LIMESTONE), brown (5YR 4/3) CLAYSTONE WITH ZEOLITE, light greenish gray (5GY 7/1) CHALK
General Description:
Section 1-4, 80 cm is bioturbated CHALK (in transition to LIMESTONE) with black mottles and white burrows. It contains subtle light and dark cycles at a 20-cm scale. The light cycles are greenish gray (5GY 6/1) wheras the dark cycles are also greenish gray (10GY 5/1). Bioturbation becomes abundant from 80-112 cm in which distinct Zoophycos burrows are observed and the color changes to greenish gray (5G 5/1). A contact exists in Section 4 at 110 cm that is a brown (5YR 4/3) CLAYSTONE WITH ZEOLITE with greenish gray mottles. The lithology changes back to a light greenish gray (5GY 7/1) CHALK in Section 4 at 115 cm. The sediment from Section 4, 115 cm through Section 5 is moderately bioturbated with gray and white burrow. Color cycles exist, but are less pronounced. The light intervals are light greenish gray (5GY 7/1) whereas the dark intervals are greenish gray (10Y 6/1).

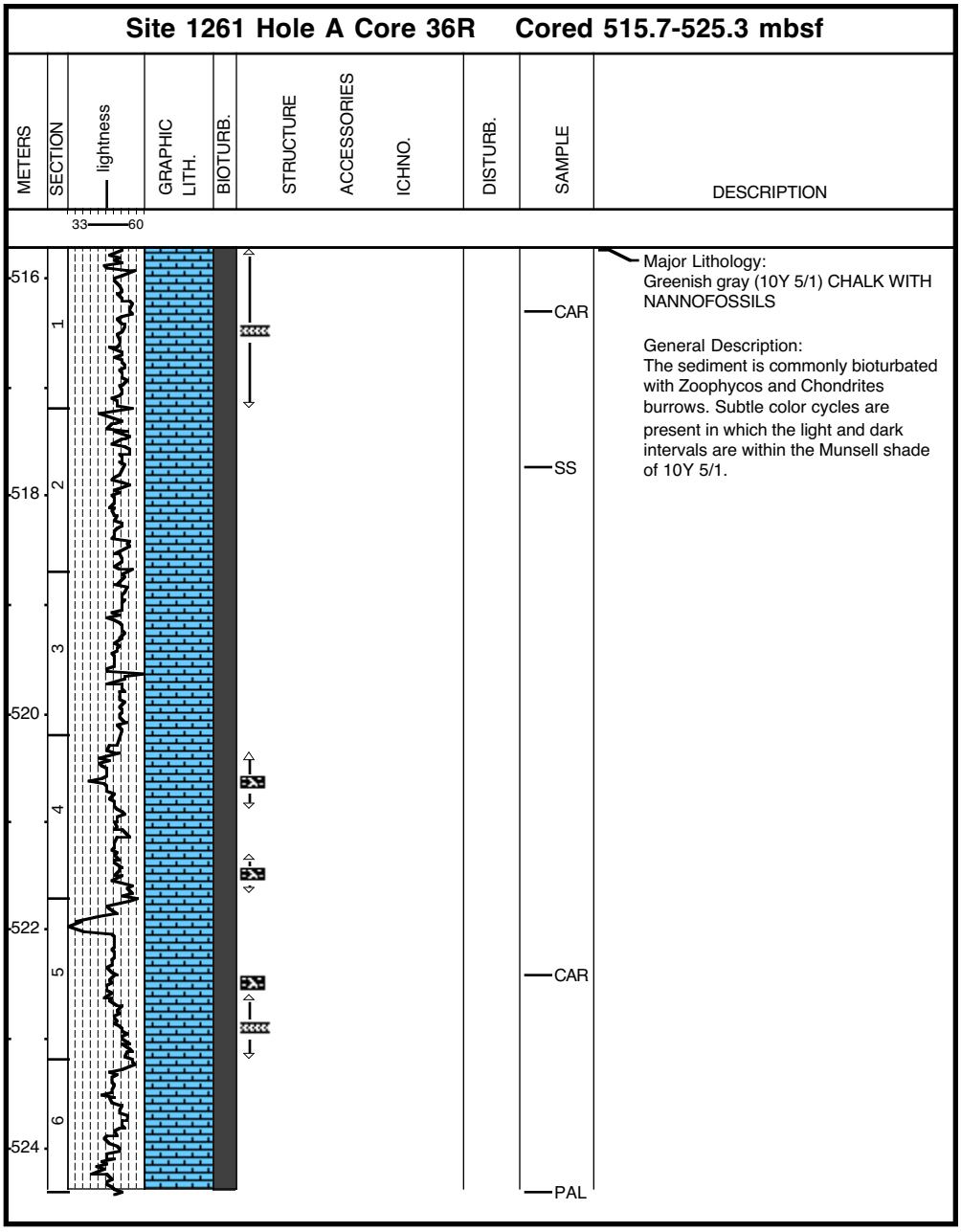
Core Photo


Site 1261 Hole A Core 34R Cored 496.5-506.1 mbsf
METERS
SECTION
lightness
27
57
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
498
500
502
1
2
3
4
5
PY
PY
PY
CAR
SS
CAR
PAL
Major Lithology:
Greenish gray (5GY 5/1)
NANNOFOSSIL CHALK
General Description:
Color cycles are present at a decimeter scale; however, the color variation falls within a single Munsell value of 5GY 5/1. The sediment is commonly bioturbated by Zoophycos leaving distinct black burrows. Pyrite nodules are present.

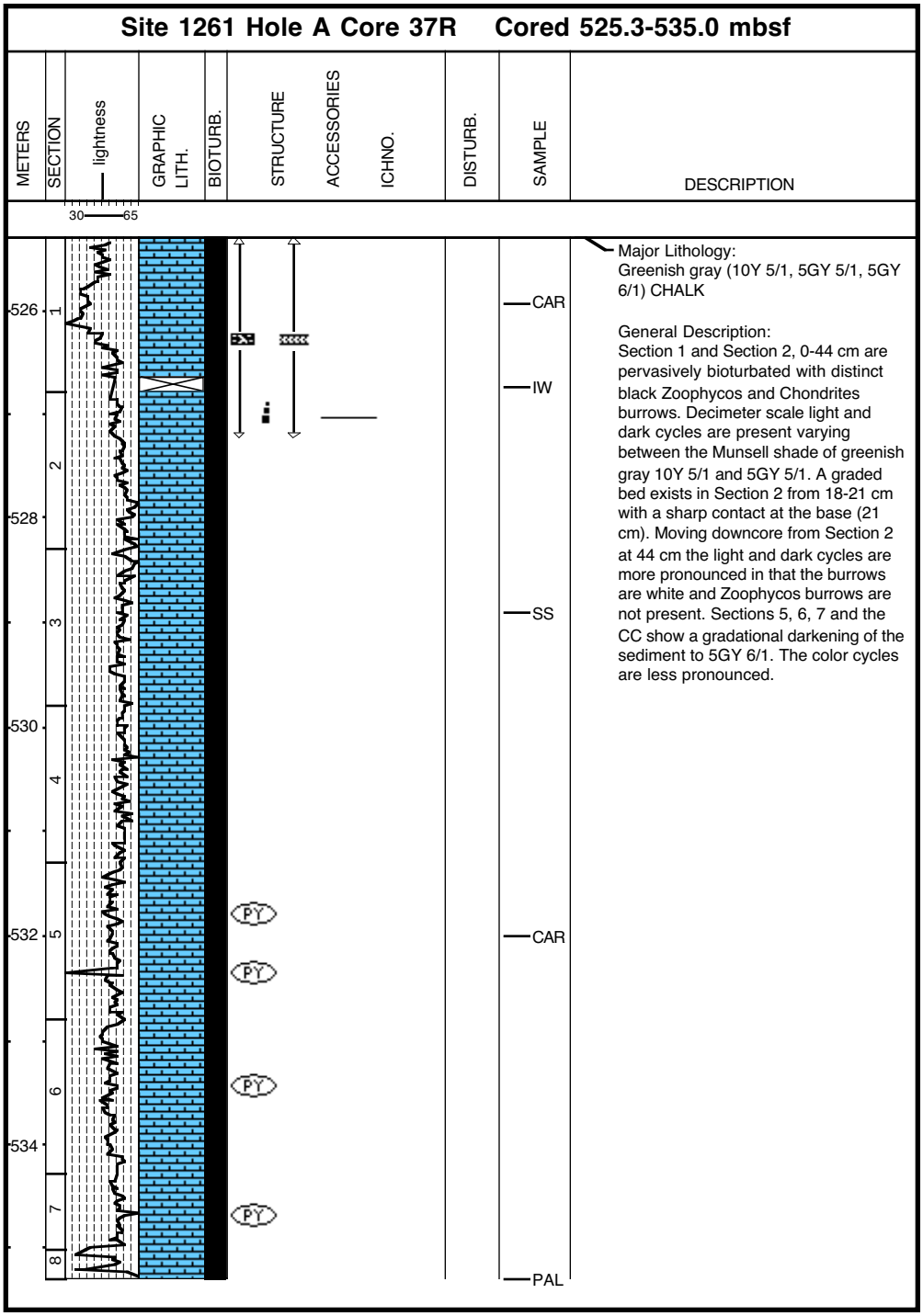
Core Photo


Site 1261 Hole A Core 35R Cored 506.1-515.7 mbsf
METERS
SECTION
lightness
30
59
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
508
510
512
1
2
3
4
5
6
CAR
SS
CAR
IW
CAR
PAL
Major Lithology:
Greenish gray (10Y 6/1)
NANNOFOSSIL CHALK WITH CLAY
General Description:
Sections 1-3 are biscuited and moderately bioturbated with Zoophycos and Chondrites burrows. Decimeter color cycles and common bioturbation are visible in Sections 4 and 5. The cycles are light (10Y 6/1) and dark (5GY 5/1) greenish gray.

Core Photo

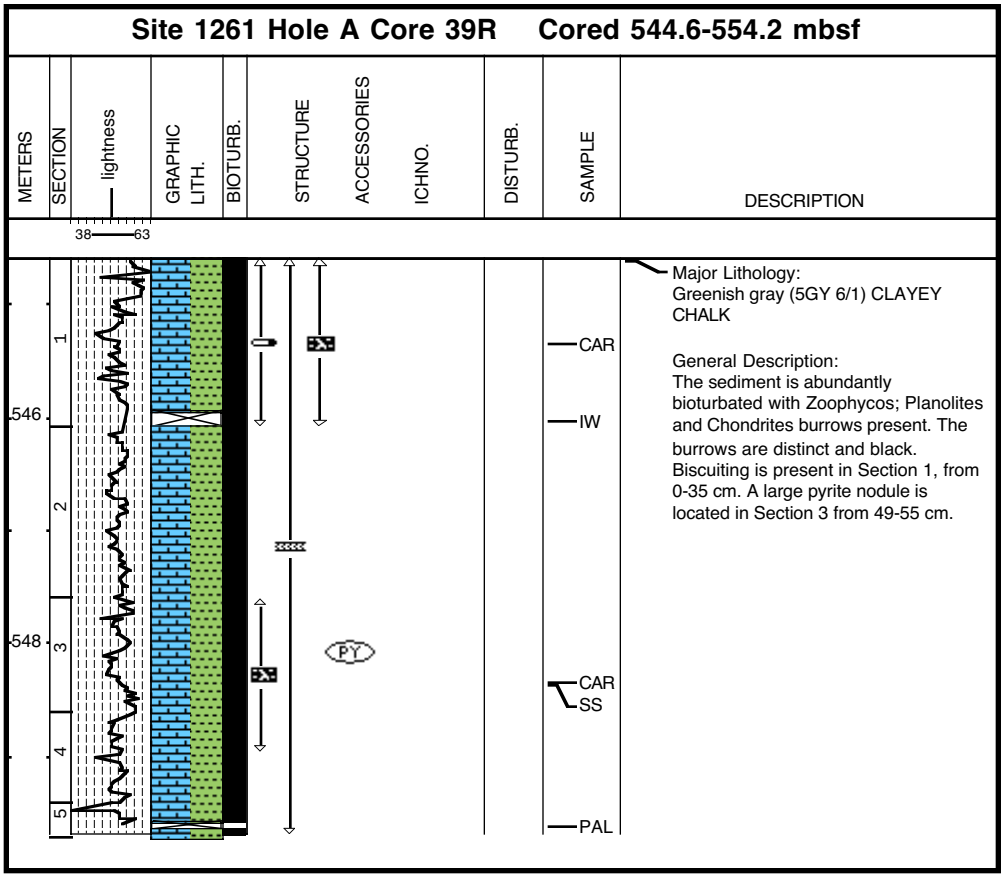

Site 1261 Hole A Core 36R Cored 515.7-525.3 mbsf
METERS
SECTION
lightness
33
60
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
516
518
520
522
524
1
2
3
4
5
6
CAR
SS
CAR
PAL
Major Lithology:
Greenish gray (10Y 5/1) CHALK WITH NANNOFOSSILS
General Description:
The sediment is commonly bioturbated with Zoophycos and Chondrites burrows. Subtle color cycles are present in which the light and dark intervals are within the Munsell shade of 10Y 5/1.

Core Photo

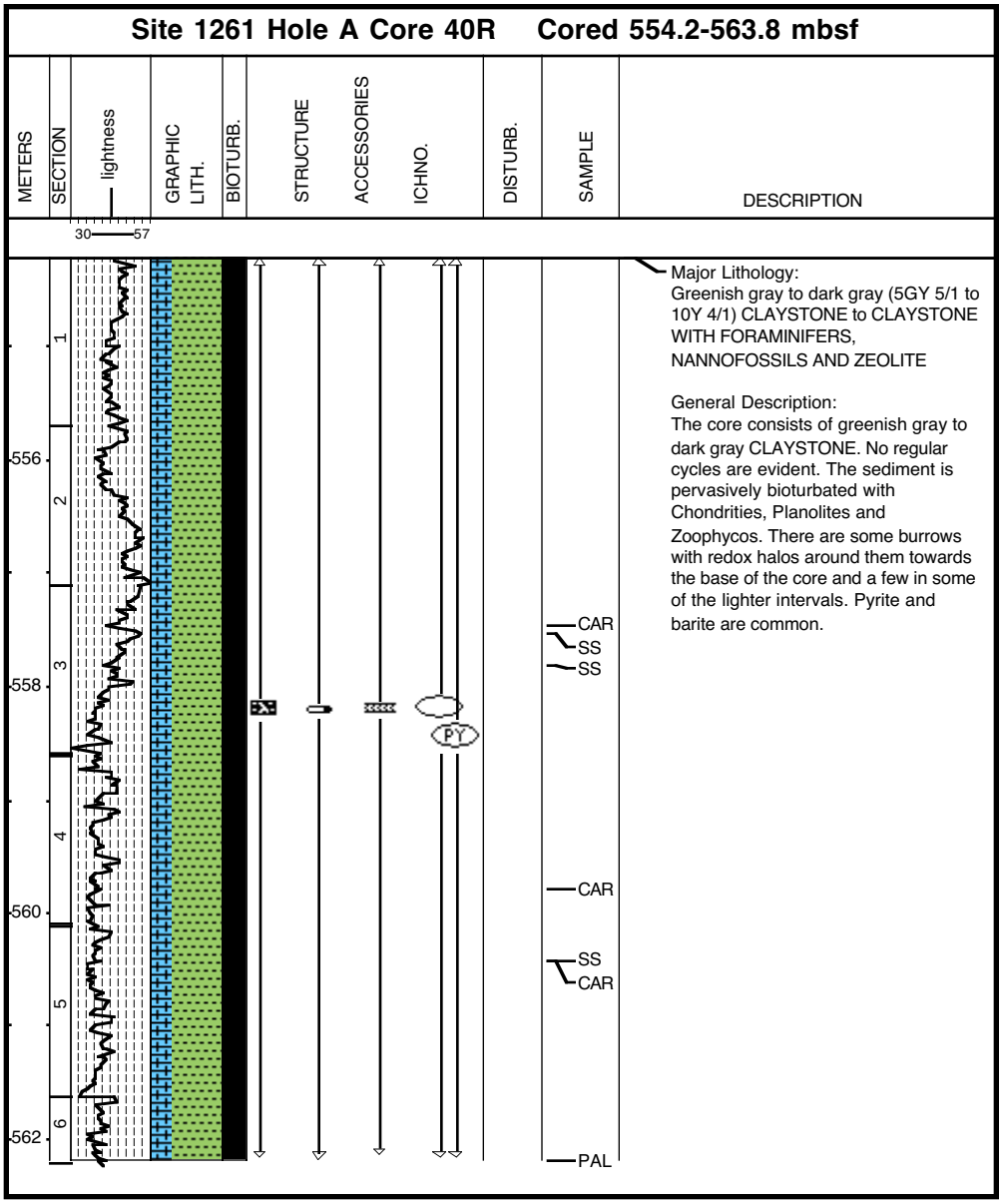


1261A-38R ENTIRE CORE GIVEN TO PALEONTOLOGISTS.

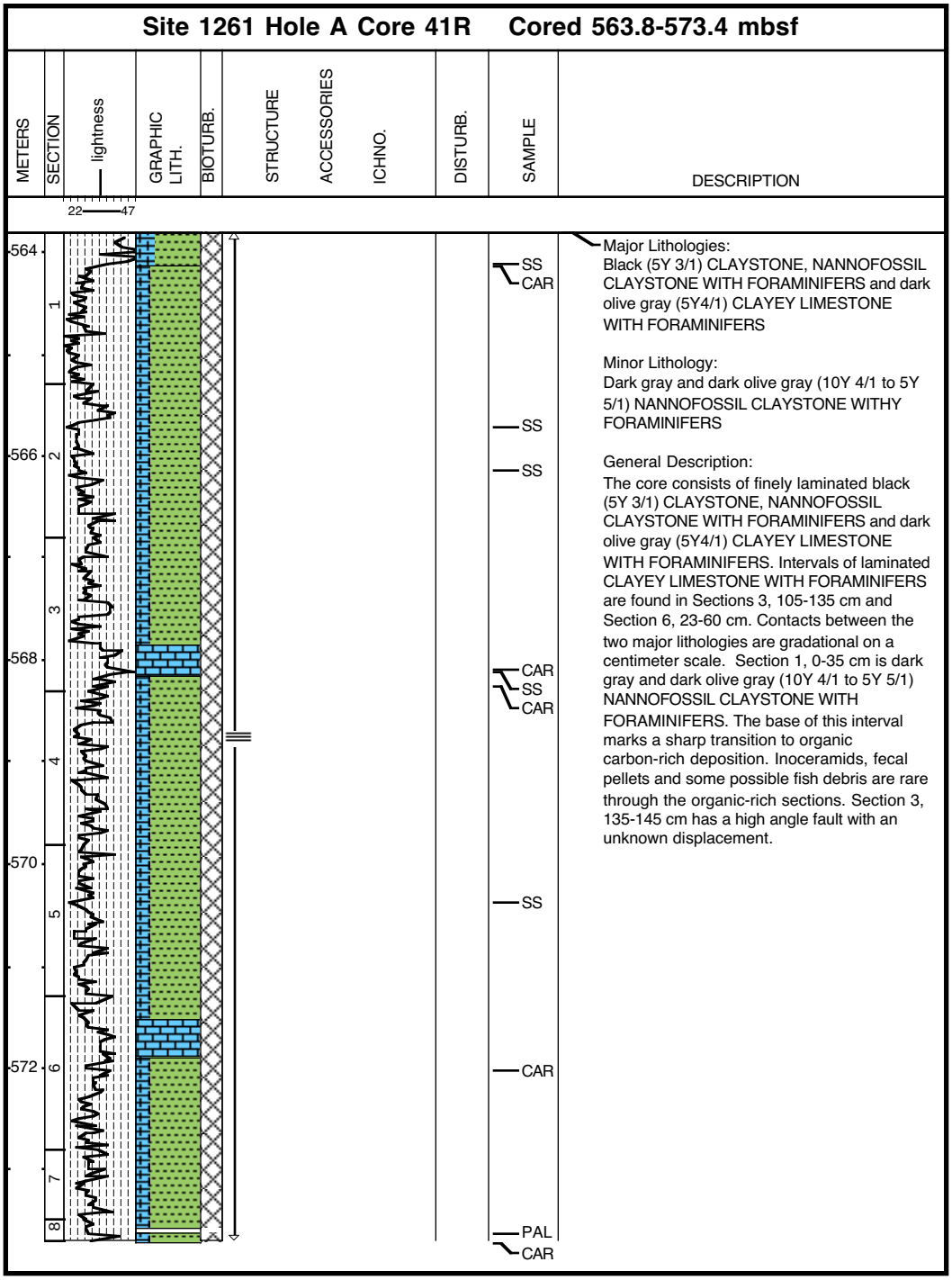
Core Photo


Site 1261 Hole A Core 39R Cored 544.6-554.2 mbsf
METERS
SECTION
lightness
38
63
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
546
548
1
2
3
4
5
PY
CAR
IW
CAR
SS
PAL
Major Lithology:
Greenish gray (5GY 6/1) CLAYEY CHALK
General Description:
The sediment is abundantly bioturbated with Zoophycos; Planolites and Chondrites burrows present. The burrows are distinct and black. Biscuiting is present in Section 1, from 0-35 cm. A large pyrite nodule is located in Section 3 from 49-55 cm.

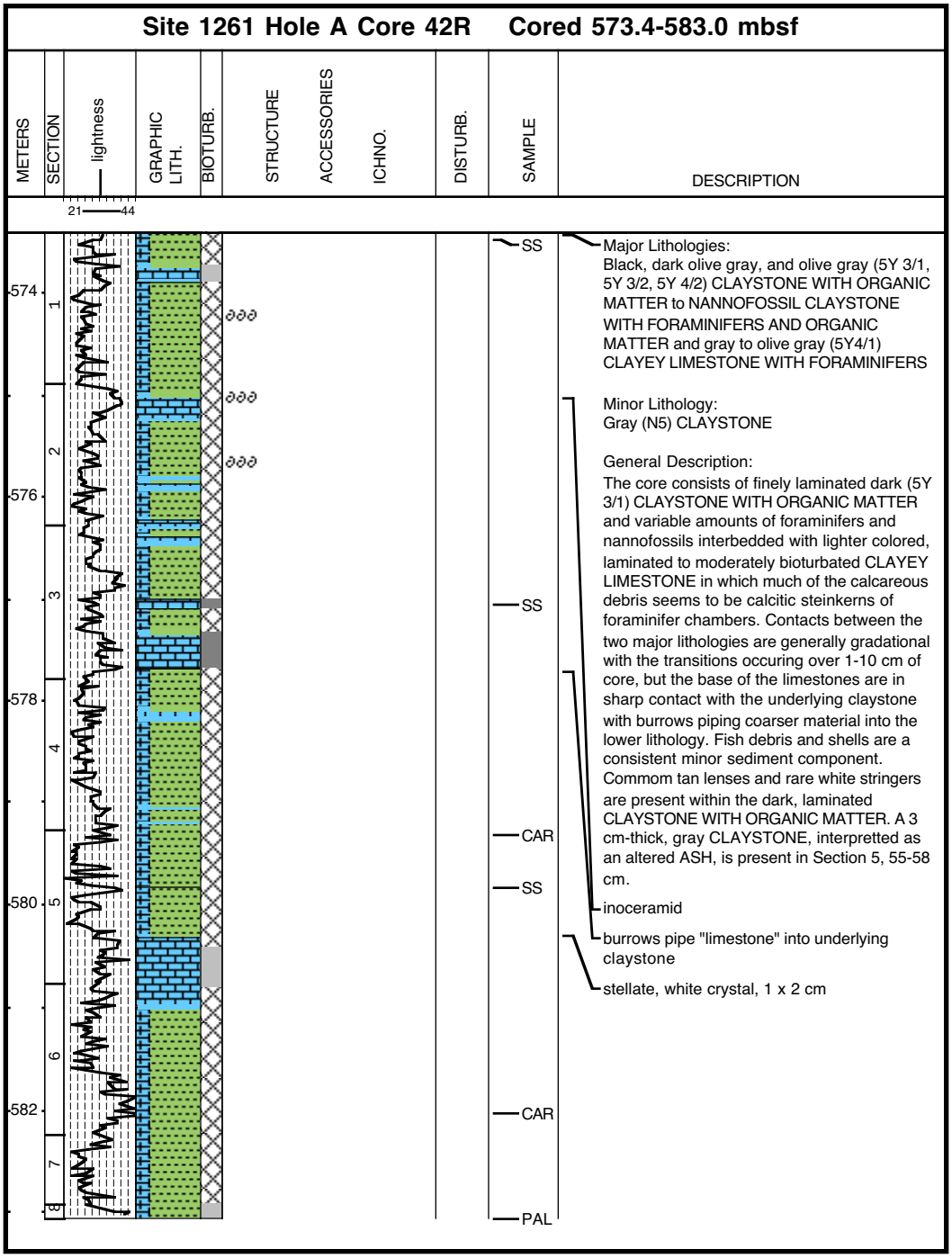
Core Photo


Site 1261 Hole A Core 40R Cored 554.2-563.8 mbsf
METERS
SECTION
lightness
30
57
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
556
558
560
562
1
2
3
4
5
6
PY
CAR
SS
SS
CAR
SS
CAR
PAL
Major Lithology:
Greenish gray to dark gray (5GY 5/1 to 10Y 4/1) CLAYSTONE to CLAYSTONE WITH FORAMINIFERS, NANNOFOSSILS AND ZEOLITE
General Description:
The core consists of greenish gray to dark gray CLAYSTONE. No regular cycles are evident. The sediment is pervasively bioturbated with Chondrities, Planolites and Zoophycos. There are some burrows with redox halos around them towards the base of the core and a few in some of the lighter intervals. Pyrite and barite are common.

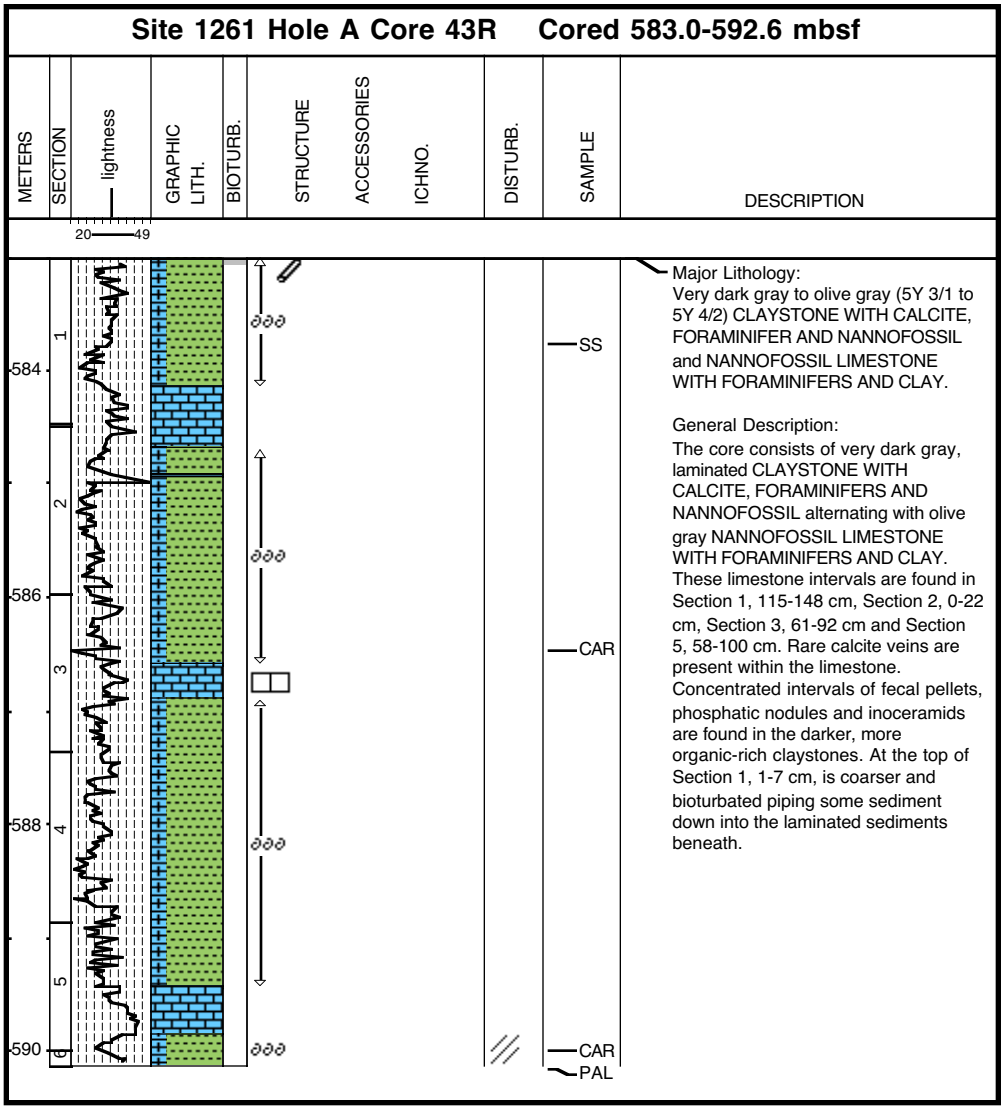
Core Photo


Site 1261 Hole A Core 41R Cored 563.8-573.4 mbsf
METERS
SECTION
lightness
22
47
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
564
566
568
570
572
1
2
3
4
5
6
7
8
SS
CAR
SS
SS
CAR
SS
CAR
SS
CAR
PAL
CAR
Major Lithologies:
Black (5Y 3/1) CLAYSTONE, NANNOFOSSIL CLAYSTONE WITH FORAMINIFERS and dark olive gray (5Y4/1) CLAYEY LIMESTONE WITH FORAMINIFERS
Minor Lithology:
Dark gray and dark olive gray (10Y 4/1 to 5Y 5/1) NANNOFOSSIL CLAYSTONE WITHY FORAMINIFERS
General Description:
The core consists of finely laminated black (5Y 3/1) CLAYSTONE, NANNOFOSSIL CLAYSTONE WITH FORAMINIFERS and dark olive gray (5Y4/1) CLAYEY LIMESTONE WITH FORAMINIFERS. Intervals of laminated CLAYEY LIMESTONE WITH FORAMINIFERS are found in Sections 3, 105-135 cm and Section 6, 23-60 cm. Contacts between the two major lithologies are gradational on a centimeter scale. Section 1, 0-35 cm is dark gray and dark olive gray (10Y 4/1 to 5Y 5/1) NANNOFOSSIL CLAYSTONE WITH FORAMINIFERS. The base of this interval marks a sharp transition to organic carbon-rich deposition. Inoceramids, fecal pellets and some possible fish debris are rare through the organic-rich sections. Section 3, 135-145 cm has a high angle fault with an unknown displacement.

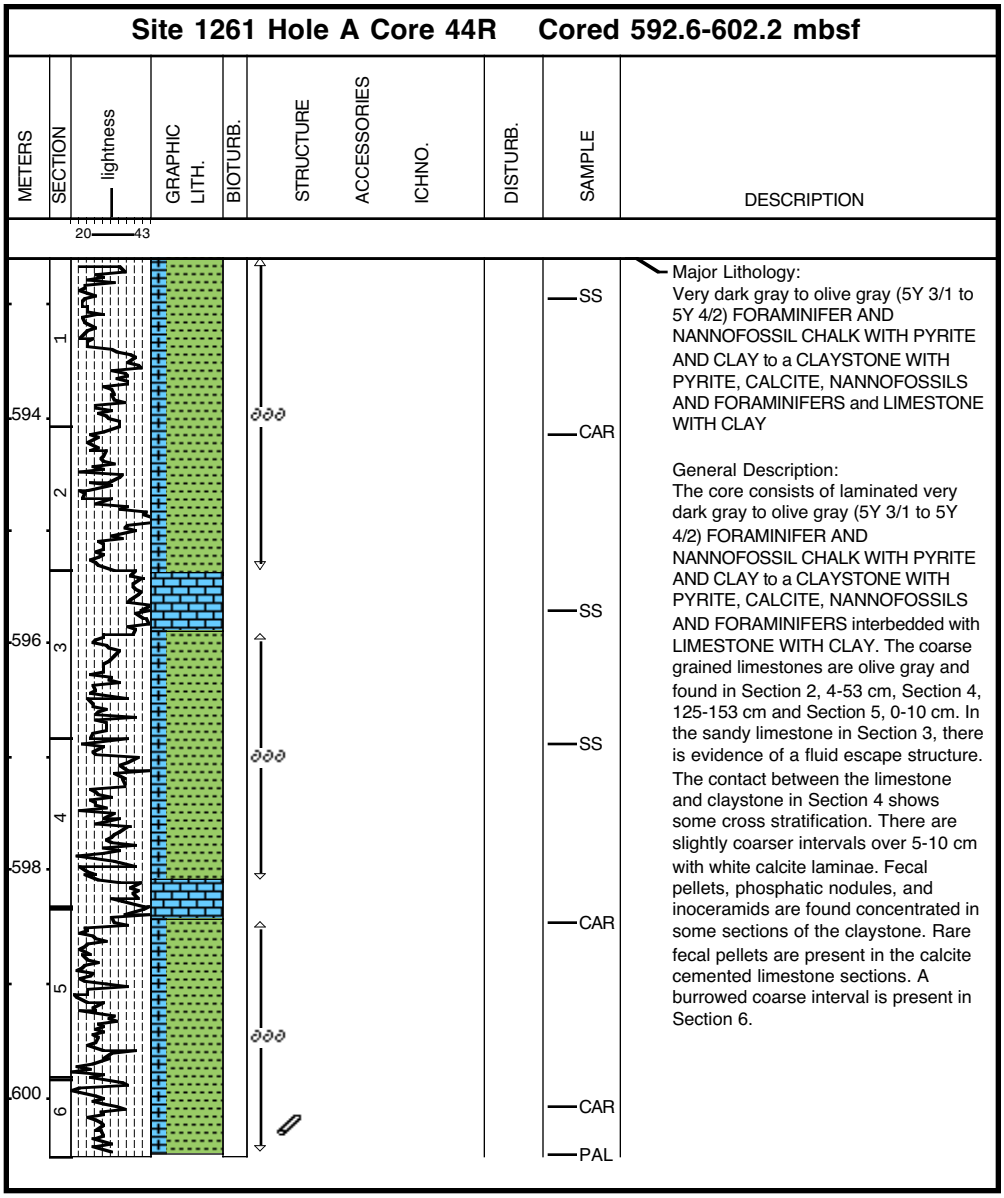
Core Photo


Site 1261 Hole A Core 42R Cored 573.4-583.0 mbsf
METERS
SECTION
lightness
21
44
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
574
576
578
580
582
1
2
3
4
5
6
7
CC
SS
SS
CAR
SS
CAR
PAL
Major Lithologies:
Black, dark olive gray, and olive gray (5Y 3/1, 5Y 3/2, 5Y 4/2) CLAYSTONE WITH ORGANIC MATTER to NANNOFOSSIL CLAYSTONE WITH FORAMINIFERS AND ORGANIC MATTER and gray to olive gray (5Y4/1) CLAYEY LIMESTONE WITH FORAMINIFERS
Minor Lithology:
Gray (N5) CLAYSTONE
General Description:
The core consists of finely laminated dark (5Y 3/1) CLAYSTONE WITH ORGANIC MATTER and variable amounts of foraminifers and nannofossils interbedded with lighter colored, laminated to moderately bioturbated CLAYEY LIMESTONE in which much of the calcareous debris seems to be calcitic steinkerns of foraminifer chambers. Contacts between the two major lithologies are generally gradational with the transitions occuring over 1-10 cm of core, but the base of the limestones are in sharp contact with the underlying claystone with burrows piping coarser material into the lower lithology. Fish debris and shells are a consistent minor sediment component. Commom tan lenses and rare white stringers are present within the dark, laminated CLAYSTONE WITH ORGANIC MATTER. A 3 cm-thick, gray CLAYSTONE, interpretted as an altered ASH, is present in Section 5, 55-58 cm.
inoceramid
burrows pipe "limestone" into underlying claystone
stellate, white crystal, 1 x 2 cm

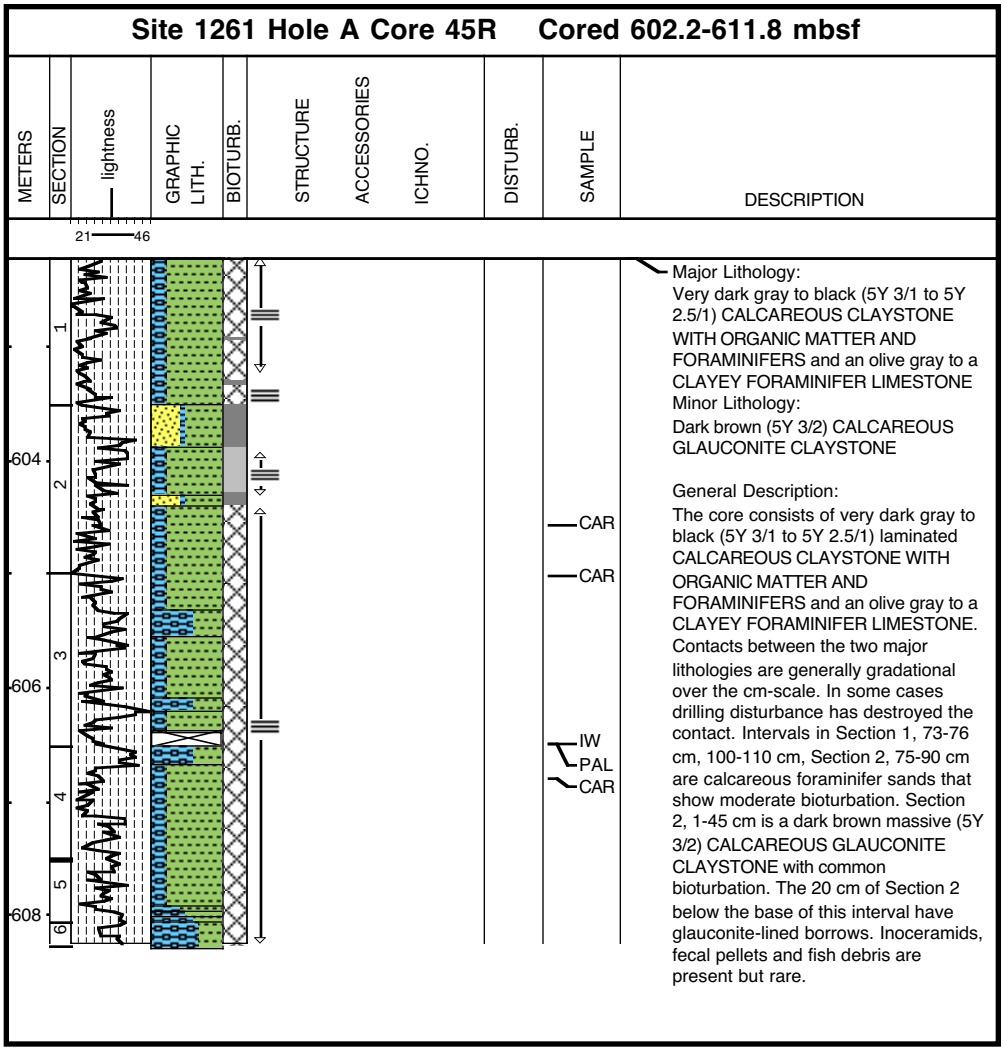
Core Photo


Site 1261 Hole A Core 43R Cored 583.0-592.6 mbsf
METERS
SECTION
lightness
20
49
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
584
586
588
590
1
2
3
4
5
CC
SS
CAR
CAR
PAL
Major Lithology:
Very dark gray to olive gray (5Y 3/1 to 5Y 4/2) CLAYSTONE WITH CALCITE, FORAMINIFER AND NANNOFOSSIL and NANNOFOSSIL LIMESTONE WITH FORAMINIFERS AND CLAY.
General Description:
The core consists of very dark gray, laminated CLAYSTONE WITH CALCITE, FORAMINIFERS AND NANNOFOSSIL alternating with olive gray NANNOFOSSIL LIMESTONE WITH FORAMINIFERS AND CLAY. These limestone intervals are found in Section 1, 115-148 cm, Section 2, 0-22 cm, Section 3, 61-92 cm and Section 5, 58-100 cm. Rare calcite veins are present within the limestone. Concentrated intervals of fecal pellets, phosphatic nodules and inoceramids are found in the darker, more organic-rich claystones. At the top of Section 1, 1-7 cm, is coarser and bioturbated piping some sediment down into the laminated sediments beneath.

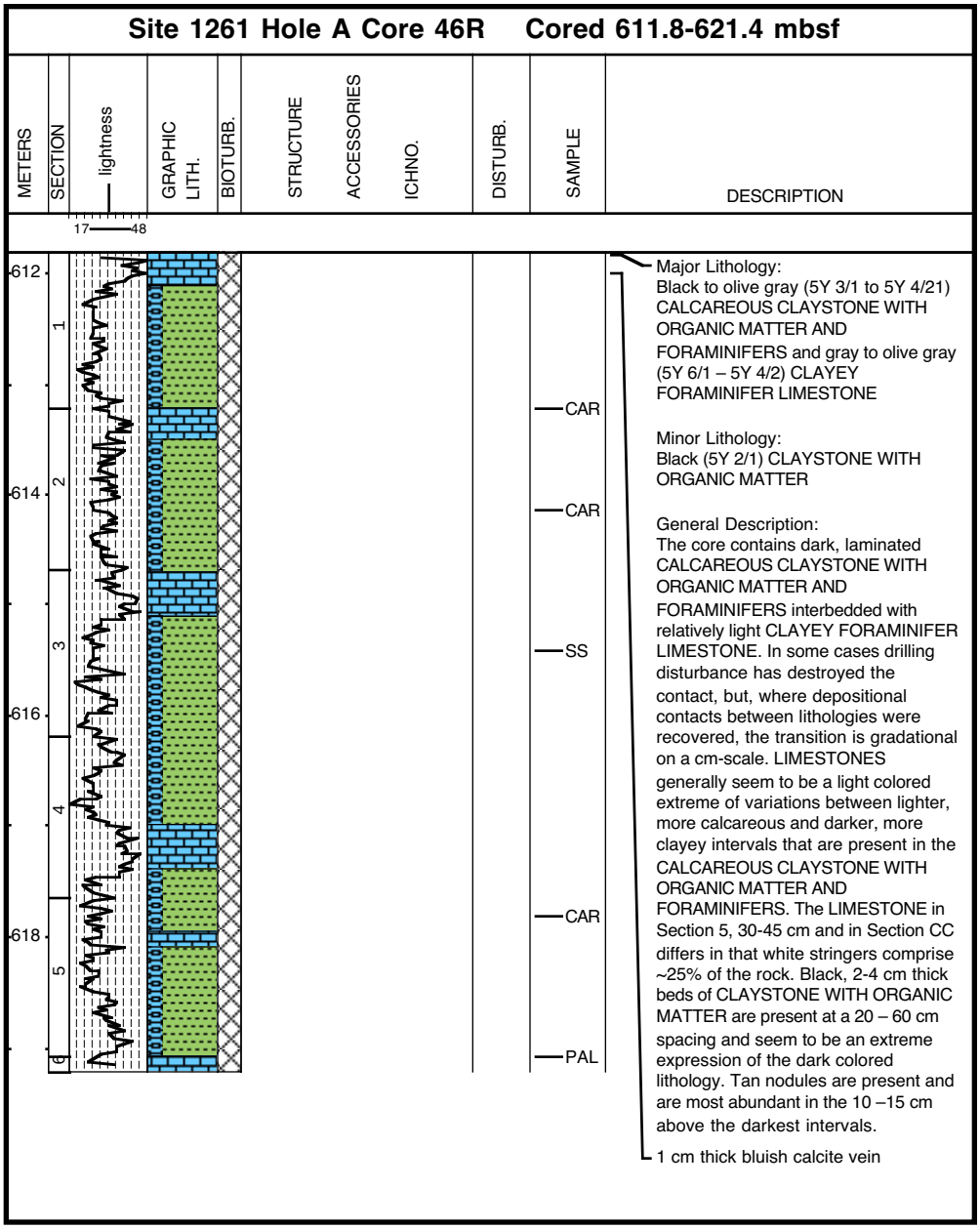
Core Photo


Site 1261 Hole A Core 44R Cored 592.6-602.2 mbsf
METERS
SECTION
lightness
20
43
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
594
596
598
600
1
2
3
4
5
6
SS
CAR
SS
SS
CAR
CAR
PAL
Major Lithology:
Very dark gray to olive gray (5Y 3/1 to 5Y 4/2) FORAMINIFER AND NANNOFOSSIL CHALK WITH PYRITE AND CLAY to a CLAYSTONE WITH PYRITE, CALCITE, NANNOFOSSILS AND FORAMINIFERS and LIMESTONE WITH CLAY
General Description:
The core consists of laminated very dark gray to olive gray (5Y 3/1 to 5Y 4/2) FORAMINIFER AND NANNOFOSSIL CHALK WITH PYRITE AND CLAY to a CLAYSTONE WITH PYRITE, CALCITE, NANNOFOSSILS AND FORAMINIFERS interbedded with LIMESTONE WITH CLAY. The coarse grained limestones are olive gray and found in Section 2, 4-53 cm, Section 4, 125-153 cm and Section 5, 0-10 cm. In the sandy limestone in Section 3, there is evidence of a fluid escape structure. The contact between the limestone and claystone in Section 4 shows some cross stratification. There are slightly coarser intervals over 5-10 cm with white calcite laminae. Fecal pellets, phosphatic nodules, and inoceramids are found concentrated in some sections of the claystone. Rare fecal pellets are present in the calcite cemented limestone sections. A burrowed coarse interval is present in Section 6.

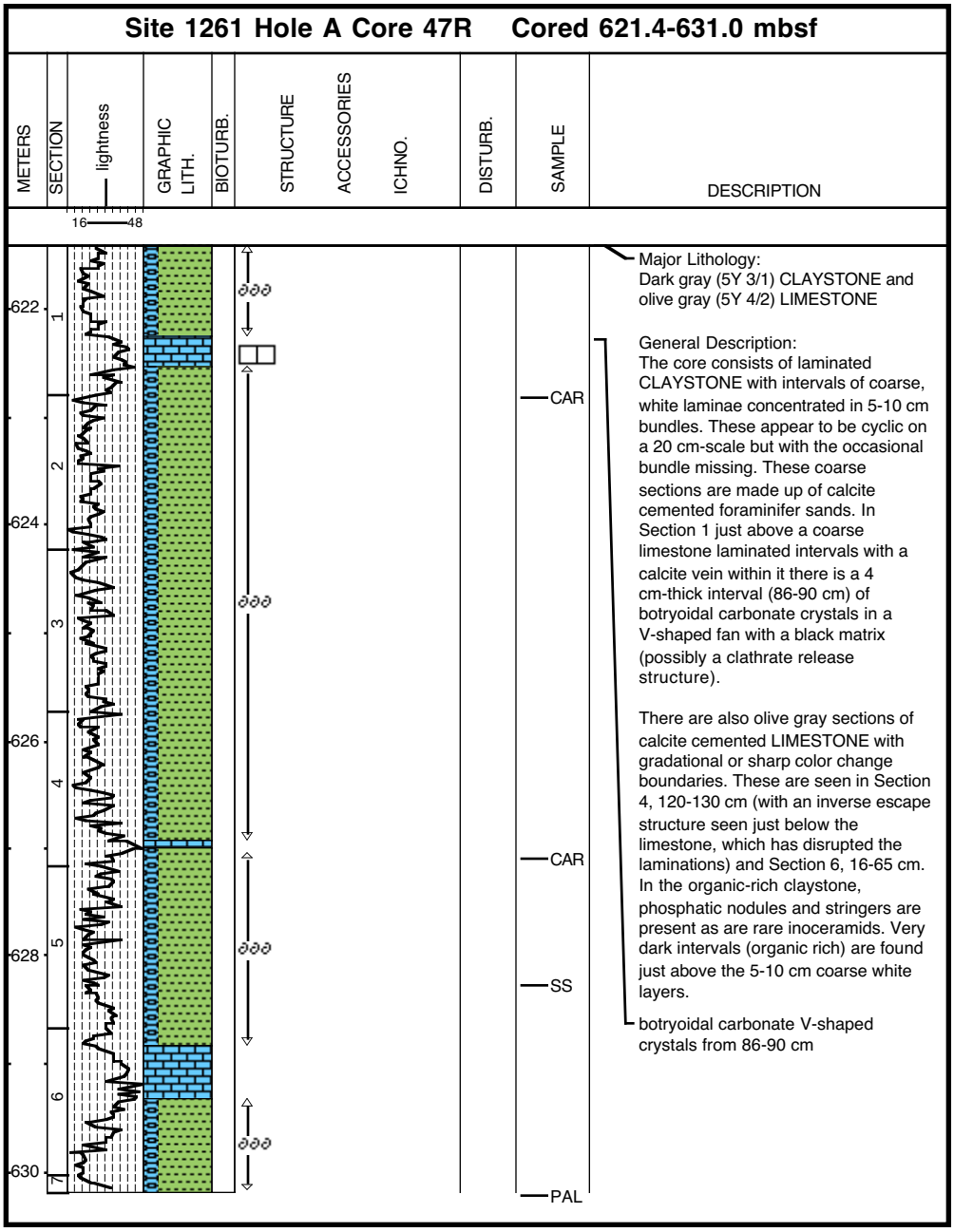
Core Photo


Site 1261 Hole A Core 45R Cored 602.2-611.8 mbsf
METERS
SECTION
lightness
21
46
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
604
606
608
1
2
3
4
5
6
CAR
CAR
IW
PAL
CAR
Major Lithology:
Very dark gray to black (5Y 3/1 to 5Y 2.5/1) CALCAREOUS CLAYSTONE WITH ORGANIC MATTER AND FORAMINIFERS and an olive gray to a CLAYEY FORAMINIFER LIMESTONE
Minor Lithology:
Dark brown (5Y 3/2) CALCAREOUS GLAUCONITE CLAYSTONE
General Description:
The core consists of very dark gray to black (5Y 3/1 to 5Y 2.5/1) laminated CALCAREOUS CLAYSTONE WITH ORGANIC MATTER AND FORAMINIFERS and an olive gray to a CLAYEY FORAMINIFER LIMESTONE. Contacts between the two major lithologies are generally gradational over the cm-scale. In some cases drilling disturbance has destroyed the contact. Intervals in Section 1, 73-76 cm, 100-110 cm, Section 2, 75-90 cm are calcareous foraminifer sands that show moderate bioturbation. Section 2, 1-45 cm is a dark brown massive (5Y 3/2) CALCAREOUS GLAUCONITE CLAYSTONE with common bioturbation. The 20 cm of Section 2 below the base of this interval have glauconite-lined borrows. Inoceramids, fecal pellets and fish debris are present but rare.

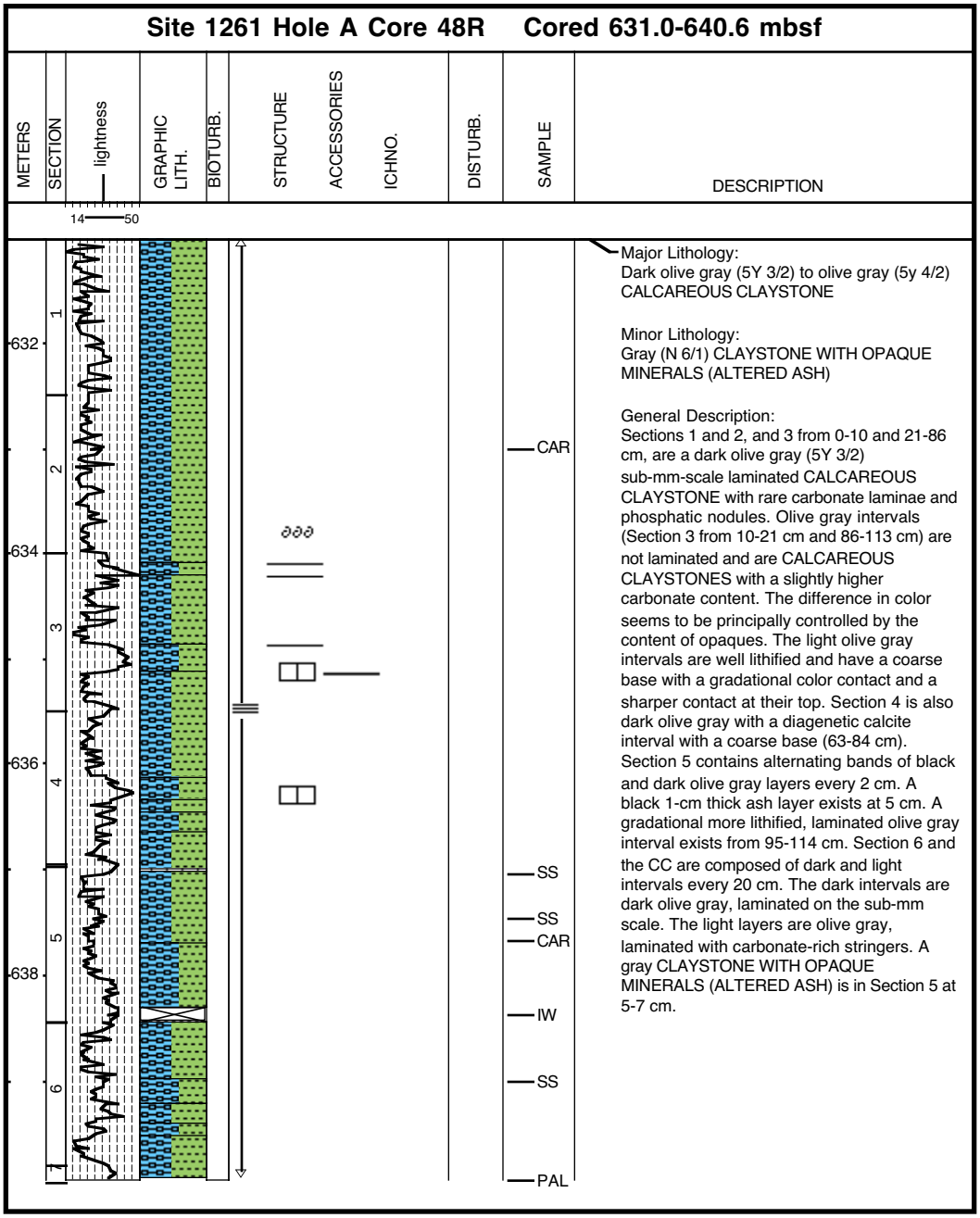
Core Photo


Site 1261 Hole A Core 46R Cored 611.8-621.4 mbsf
METERS
SECTION
lightness
17
48
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
612
614
616
618
1
2
3
4
5
d
CAR
CAR
SS
CAR
PAL
Major Lithology:
Black to olive gray (5Y 3/1 to 5Y 4/21) CALCAREOUS CLAYSTONE WITH ORGANIC MATTER AND FORAMINIFERS and gray to olive gray (5Y 6/1 – 5Y 4/2) CLAYEY FORAMINIFER LIMESTONE
Minor Lithology:
Black (5Y 2/1) CLAYSTONE WITH ORGANIC MATTER
General Description:
The core contains dark, laminated CALCAREOUS CLAYSTONE WITH ORGANIC MATTER AND FORAMINIFERS interbedded with relatively light CLAYEY FORAMINIFER LIMESTONE. In some cases drilling disturbance has destroyed the contact, but, where depositional contacts between lithologies were recovered, the transition is gradational on a cm-scale. LIMESTONES generally seem to be a light colored extreme of variations between lighter, more calcareous and darker, more clayey intervals that are present in the CALCAREOUS CLAYSTONE WITH ORGANIC MATTER AND FORAMINIFERS. The LIMESTONE in Section 5, 30-45 cm and in Section CC differs in that white stringers comprise ~25% of the rock. Black, 2-4 cm thick beds of CLAYSTONE WITH ORGANIC MATTER are present at a 20 – 60 cm spacing and seem to be an extreme expression of the dark colored lithology. Tan nodules are present and are most abundant in the 10 –15 cm above the darkest intervals.
1 cm thick bluish calcite vein

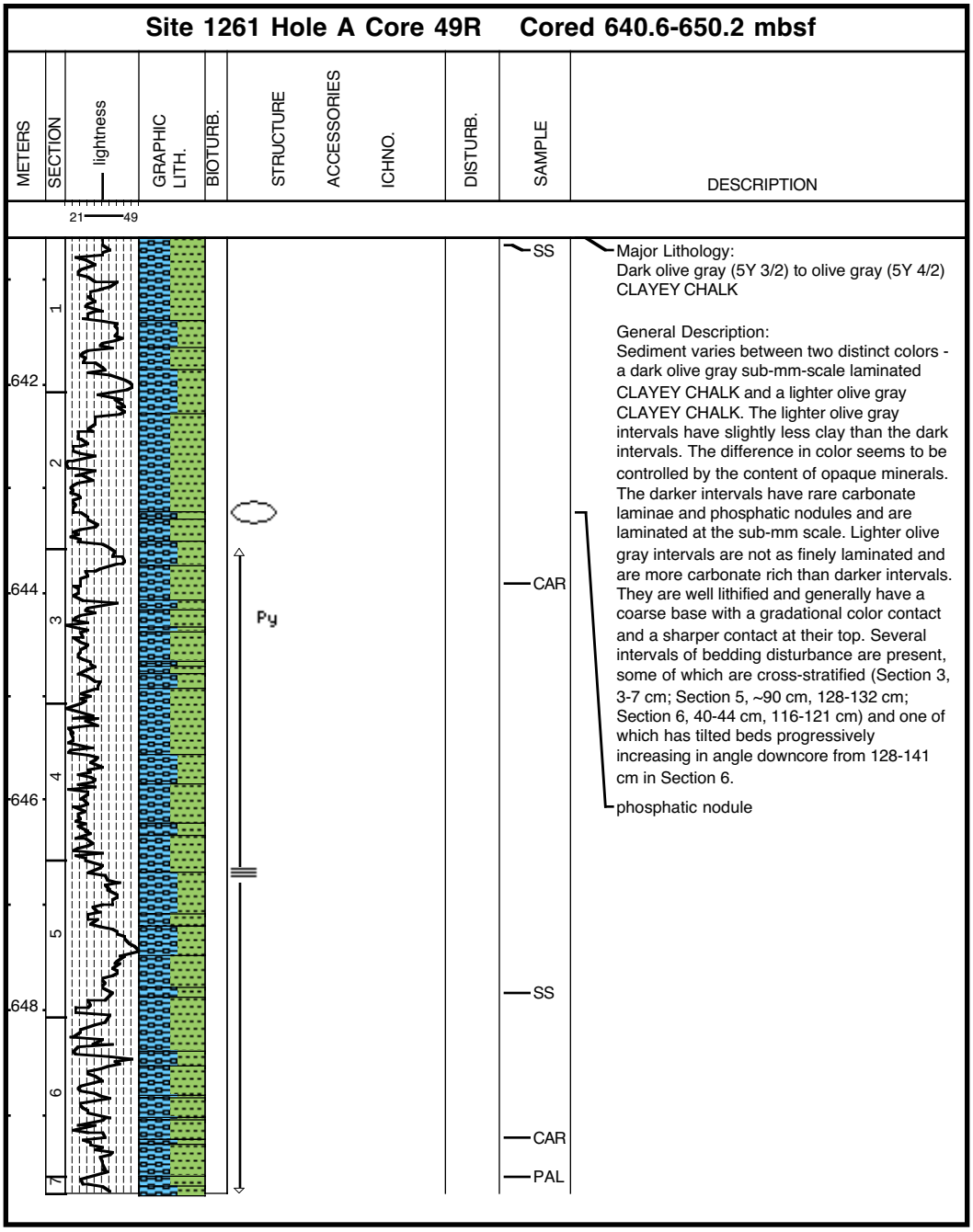
Core Photo


Site 1261 Hole A Core 47R Cored 621.4-631.0 mbsf
METERS
SECTION
lightness
16
48
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
622
624
626
628
630
1
2
3
4
5
6
7
CAR
CAR
SS
PAL
Major Lithology:
Dark gray (5Y 3/1) CLAYSTONE and olive gray (5Y 4/2) LIMESTONE
General Description:
The core consists of laminated CLAYSTONE with intervals of coarse, white laminae concentrated in 5-10 cm bundles. These appear to be cyclic on a 20 cm-scale but with the occasional bundle missing. These coarse sections are made up of calcite cemented foraminifer sands. In Section 1 just above a coarse limestone laminated intervals with a calcite vein within it there is a 4 cm-thick interval (86-90 cm) of botryoidal carbonate crystals in a V-shaped fan with a black matrix (possibly a clathrate release structure).
There are also olive gray sections of calcite cemented LIMESTONE with gradational or sharp color change boundaries. These are seen in Section 4, 120-130 cm (with an inverse escape structure seen just below the limestone, which has disrupted the laminations) and Section 6, 16-65 cm. In the organic-rich claystone, phosphatic nodules and stringers are present as are rare inoceramids. Very dark intervals (organic rich) are found just above the 5-10 cm coarse white layers.
botryoidal carbonate V-shaped crystals from 86-90 cm

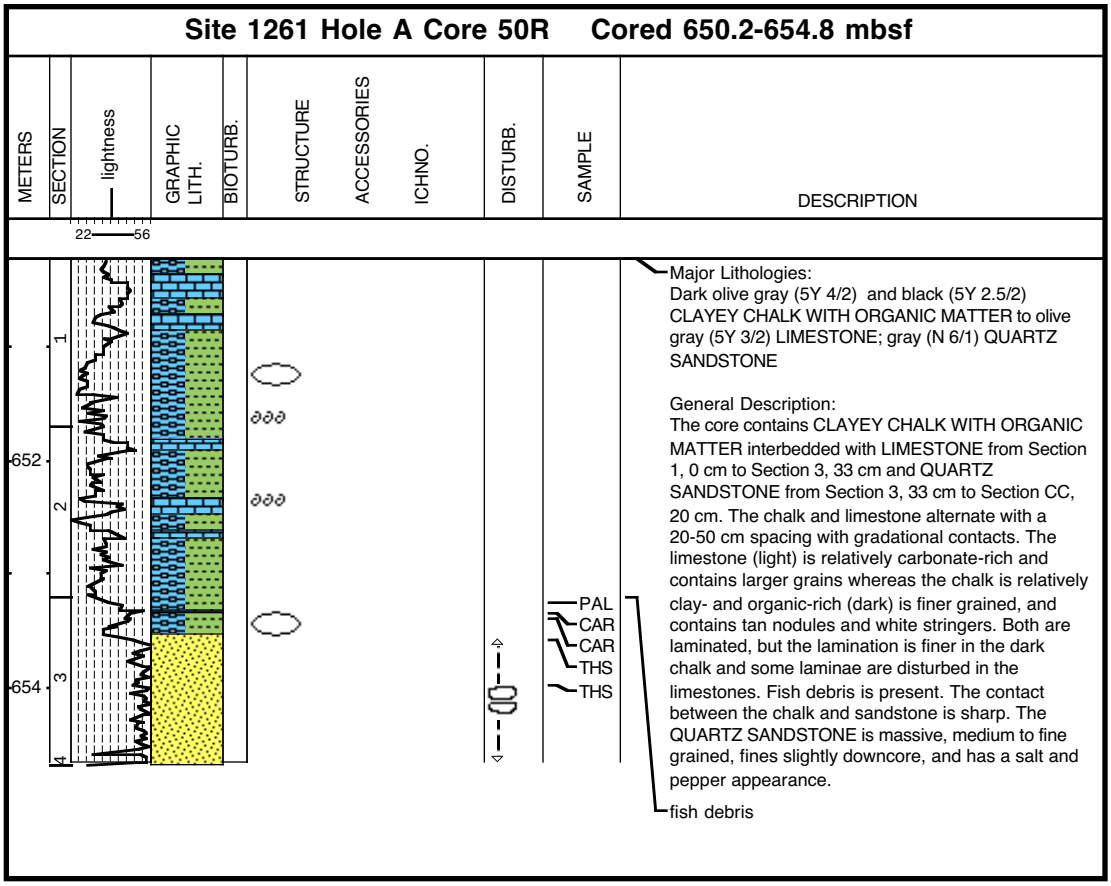
Core Photo


Site 1261 Hole A Core 48R Cored 631.0-640.6 mbsf
METERS
SECTION
lightness
14
50
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
632
634
636
638
1
2
3
4
5
6
7
CAR
SS
SS
CAR
IW
SS
PAL
Major Lithology:
Dark olive gray (5Y 3/2) to olive gray (5y 4/2) CALCAREOUS CLAYSTONE
Minor Lithology:
Gray (N 6/1) CLAYSTONE WITH OPAQUE MINERALS (ALTERED ASH)
General Description:
Sections 1 and 2, and 3 from 0-10 and 21-86 cm, are a dark olive gray (5Y 3/2) sub-mm-scale laminated CALCAREOUS CLAYSTONE with rare carbonate laminae and phosphatic nodules. Olive gray intervals (Section 3 from 10-21 cm and 86-113 cm) are not laminated and are CALCAREOUS CLAYSTONES with a slightly higher carbonate content. The difference in color seems to be principally controlled by the content of opaques. The light olive gray intervals are well lithified and have a coarse base with a gradational color contact and a sharper contact at their top. Section 4 is also dark olive gray with a diagenetic calcite interval with a coarse base (63-84 cm). Section 5 contains alternating bands of black and dark olive gray layers every 2 cm. A black 1-cm thick ash layer exists at 5 cm. A gradational more lithified, laminated olive gray interval exists from 95-114 cm. Section 6 and the CC are composed of dark and light intervals every 20 cm. The dark intervals are dark olive gray, laminated on the sub-mm scale. The light layers are olive gray, laminated with carbonate-rich stringers. A gray CLAYSTONE WITH OPAQUE MINERALS (ALTERED ASH) is in Section 5 at 5-7 cm.

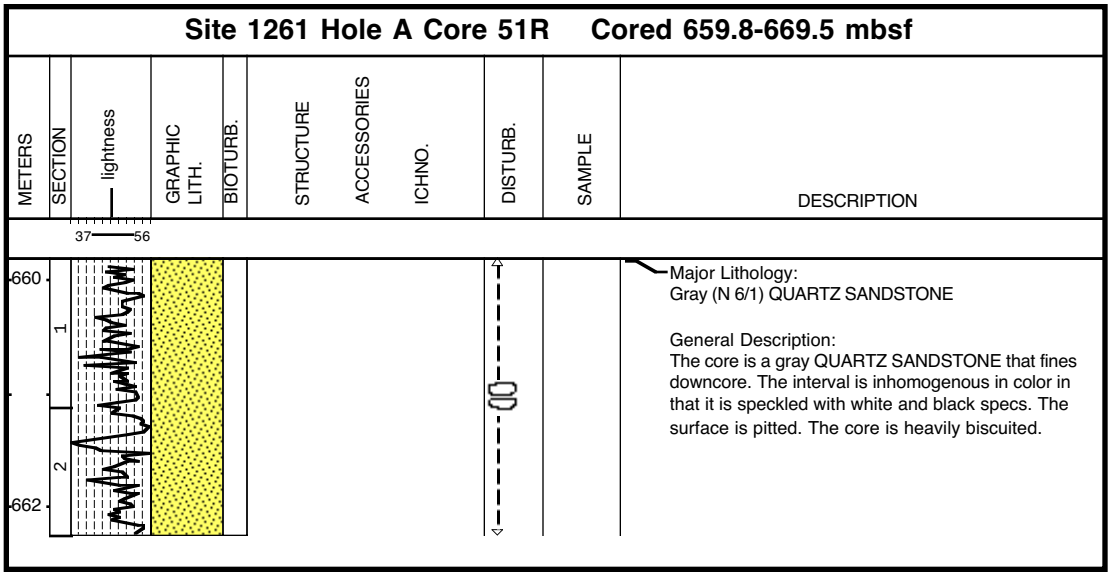
Core Photo


Site 1261 Hole A Core 49R Cored 640.6-650.2 mbsf
METERS
SECTION
lightness
21
49
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
642
644
646
648
1
2
3
4
5
6
7
Py
SS
CAR
SS
CAR
PAL
Major Lithology:
Dark olive gray (5Y 3/2) to olive gray (5Y 4/2) CLAYEY CHALK
General Description:
Sediment varies between two distinct colors - a dark olive gray sub-mm-scale laminated CLAYEY CHALK and a lighter olive gray CLAYEY CHALK. The lighter olive gray intervals have slightly less clay than the dark intervals. The difference in color seems to be controlled by the content of opaque minerals. The darker intervals have rare carbonate laminae and phosphatic nodules and are laminated at the sub-mm scale. Lighter olive gray intervals are not as finely laminated and are more carbonate rich than darker intervals. They are well lithified and generally have a coarse base with a gradational color contact and a sharper contact at their top. Several intervals of bedding disturbance are present, some of which are cross-stratified (Section 3, 3-7 cm; Section 5, ~90 cm, 128-132 cm; Section 6, 40-44 cm, 116-121 cm) and one of which has tilted beds progressively increasing in angle downcore from 128-141 cm in Section 6.
phosphatic nodule

Core Photo

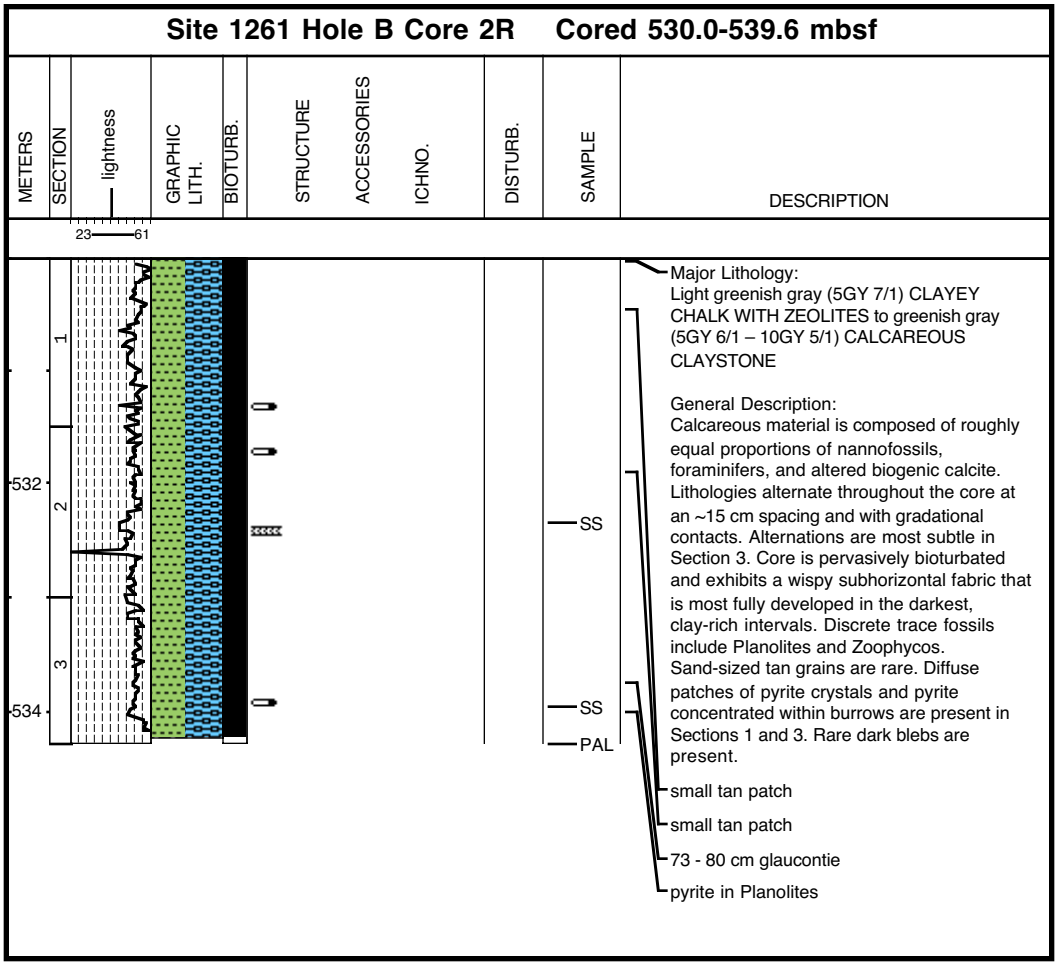

Site 1261 Hole A Core 50R Cored 650.2-654.8 mbsf
METERS
SECTION
lightness
22
56
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
652
654
1
2
3
4
PAL
CAR
CAR
THS
THS
Major Lithologies:
Dark olive gray (5Y 4/2) and black (5Y 2.5/2) CLAYEY CHALK WITH ORGANIC MATTER to olive gray (5Y 3/2) LIMESTONE; gray (N 6/1) QUARTZ SANDSTONE
General Description:
The core contains CLAYEY CHALK WITH ORGANIC MATTER interbedded with LIMESTONE from Section 1, 0 cm to Section 3, 33 cm and QUARTZ SANDSTONE from Section 3, 33 cm to Section CC, 20 cm. The chalk and limestone alternate with a 20-50 cm spacing with gradational contacts. The limestone (light) is relatively carbonate-rich and contains larger grains whereas the chalk is relatively clay- and organic-rich (dark) is finer grained, and contains tan nodules and white stringers. Both are laminated, but the lamination is finer in the dark chalk and some laminae are disturbed in the limestones. Fish debris is present. The contact between the chalk and sandstone is sharp. The QUARTZ SANDSTONE is massive, medium to fine grained, fines slightly downcore, and has a salt and pepper appearance.
fish debris

Core Photo

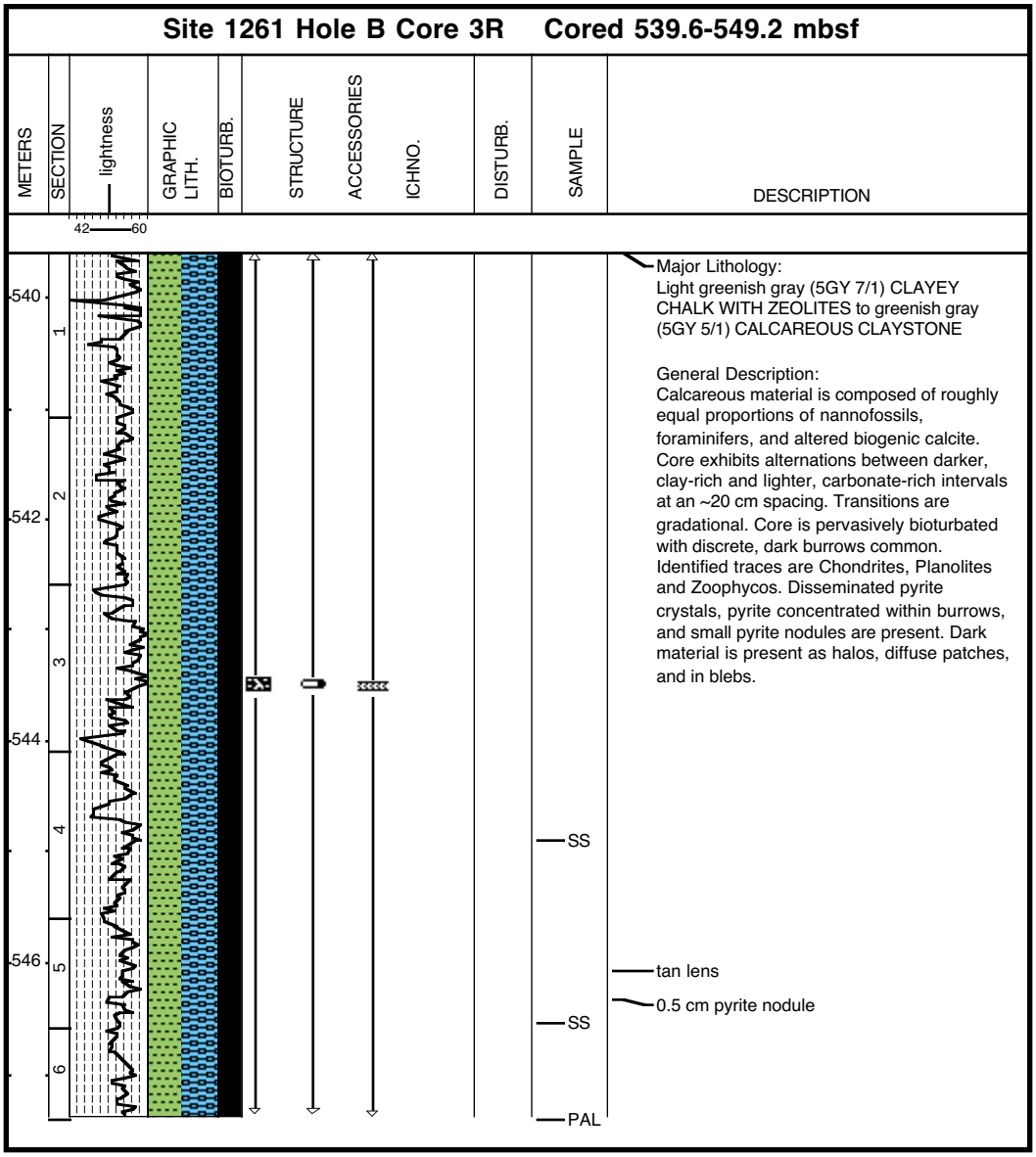


1261B-1R NO RECOVERY

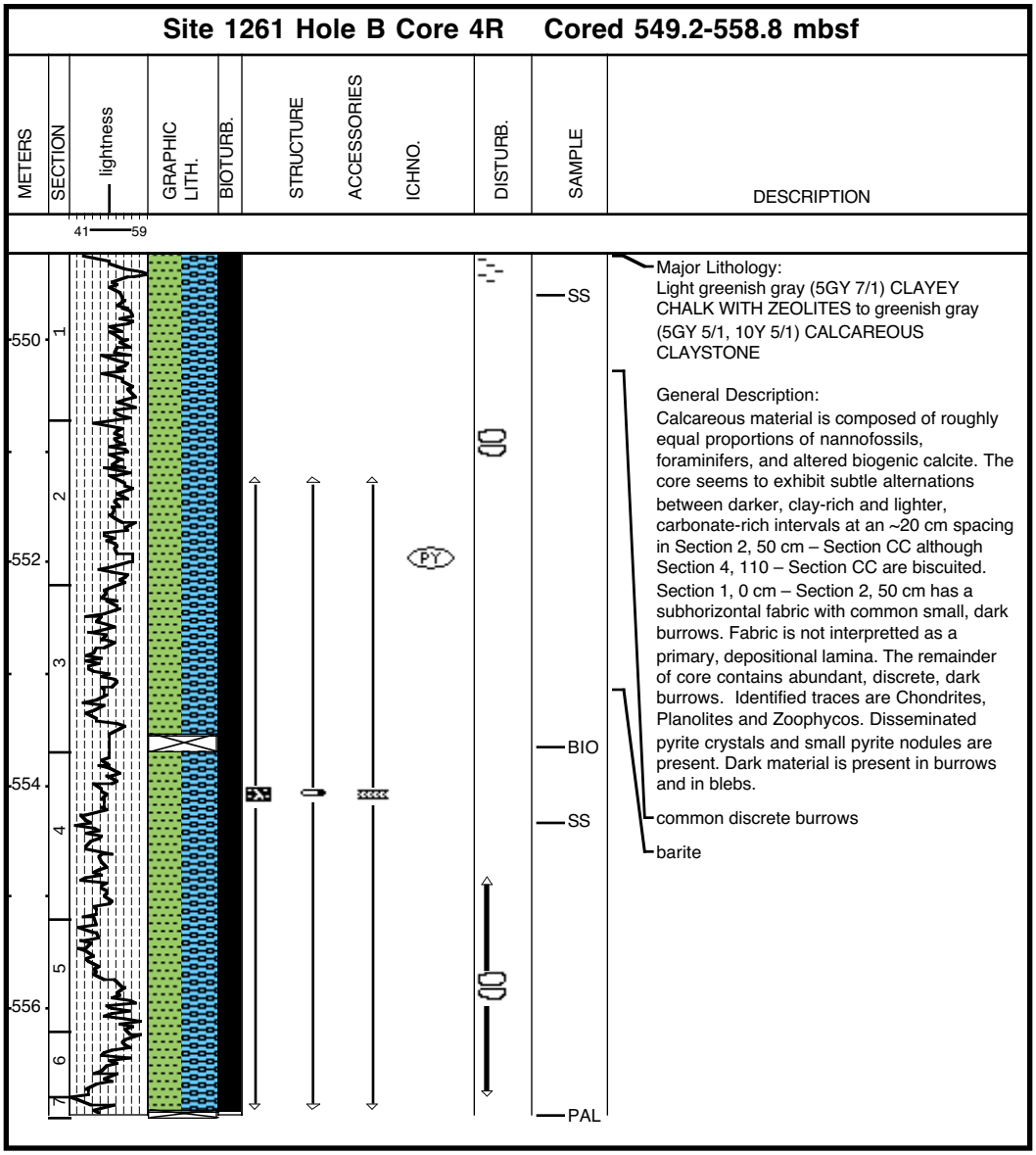
Core Photo


Site 1261 Hole B Core 2R Cored 530.0-539.6 mbsf
METERS
SECTION
lightness
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
23
61
1
2
3
532
534
SS
SS
PAL
Major Lithology:
Light greenish gray (5GY 7/1) CLAYEY CHALK WITH ZEOLITES to greenish gray (5GY 6/1 – 10GY 5/1) CALCAREOUS CLAYSTONE
General Description:
Calcareous material is composed of roughly equal proportions of nannofossils, foraminifers, and altered biogenic calcite. Lithologies alternate throughout the core at an ~15 cm spacing and with gradational contacts. Alternations are most subtle in Section 3. Core is pervasively bioturbated and exhibits a wispy subhorizontal fabric that is most fully developed in the darkest, clay-rich intervals. Discrete trace fossils include Planolites and Zoophycos. Sand-sized tan grains are rare. Diffuse patches of pyrite crystals and pyrite concentrated within burrows are present in Sections 1 and 3. Rare dark blebs are present.
small tan patch
small tan patch
73 - 80 cm glaucontie
pyrite in Planolites

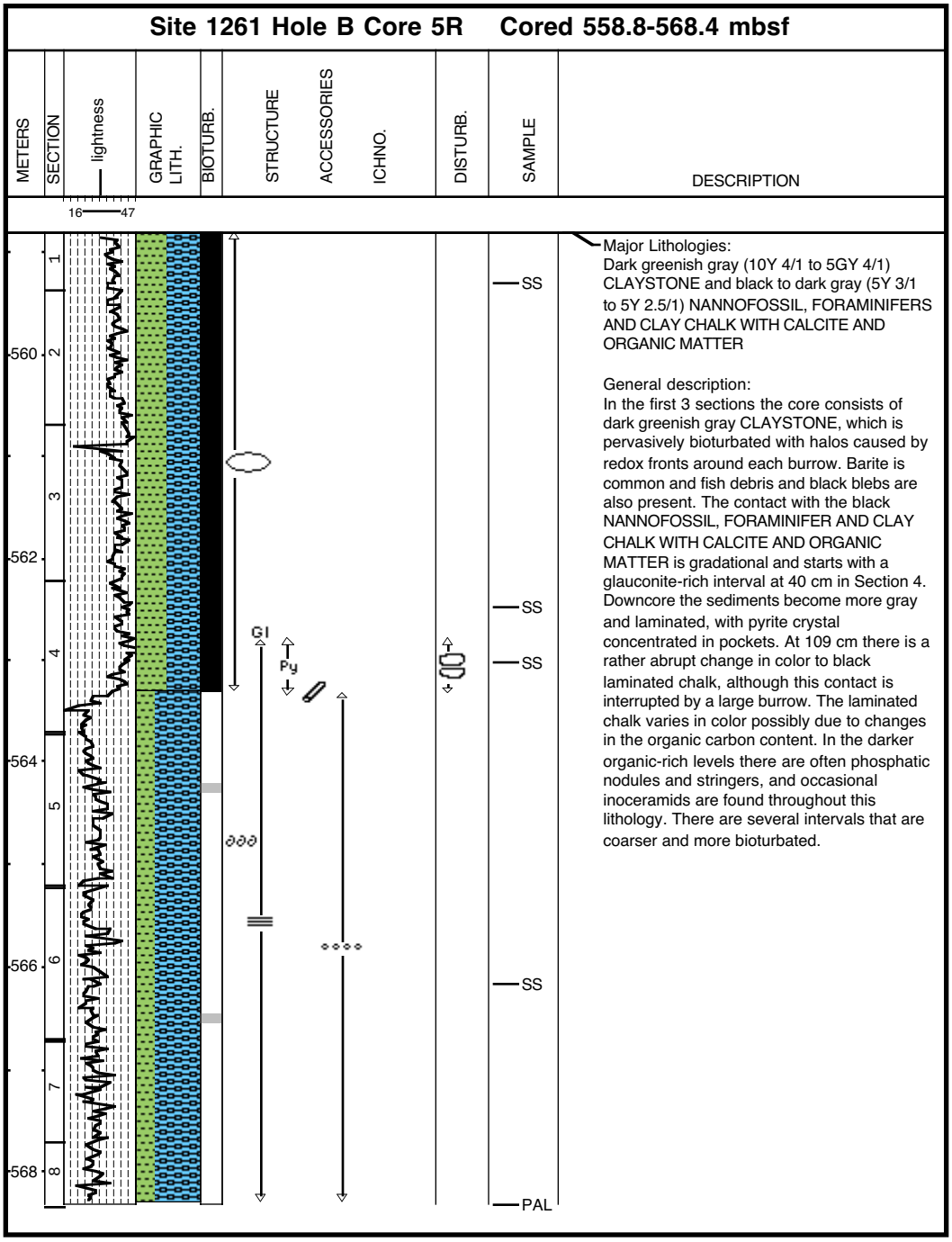
Core Photo


Site 1261 Hole B Core 3R Cored 539.6-549.2 mbsf
METERS
SECTION
lightness
42
60
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
540
542
544
546
1
2
3
4
5
6
SS
SS
PAL
Major Lithology:
Light greenish gray (5GY 7/1) CLAYEY CHALK WITH ZEOLITES to greenish gray (5GY 5/1) CALCAREOUS CLAYSTONE
General Description:
Calcareous material is composed of roughly equal proportions of nannofossils, foraminifers, and altered biogenic calcite. Core exhibits alternations between darker, clay-rich and lighter, carbonate-rich intervals at an ~20 cm spacing. Transitions are gradational. Core is pervasively bioturbated with discrete, dark burrows common. Identified traces are Chondrites, Planolites and Zoophycos. Disseminated pyrite crystals, pyrite concentrated within burrows, and small pyrite nodules are present. Dark material is present as halos, diffuse patches, and in blebs.
tan lens
0.5 cm pyrite nodule

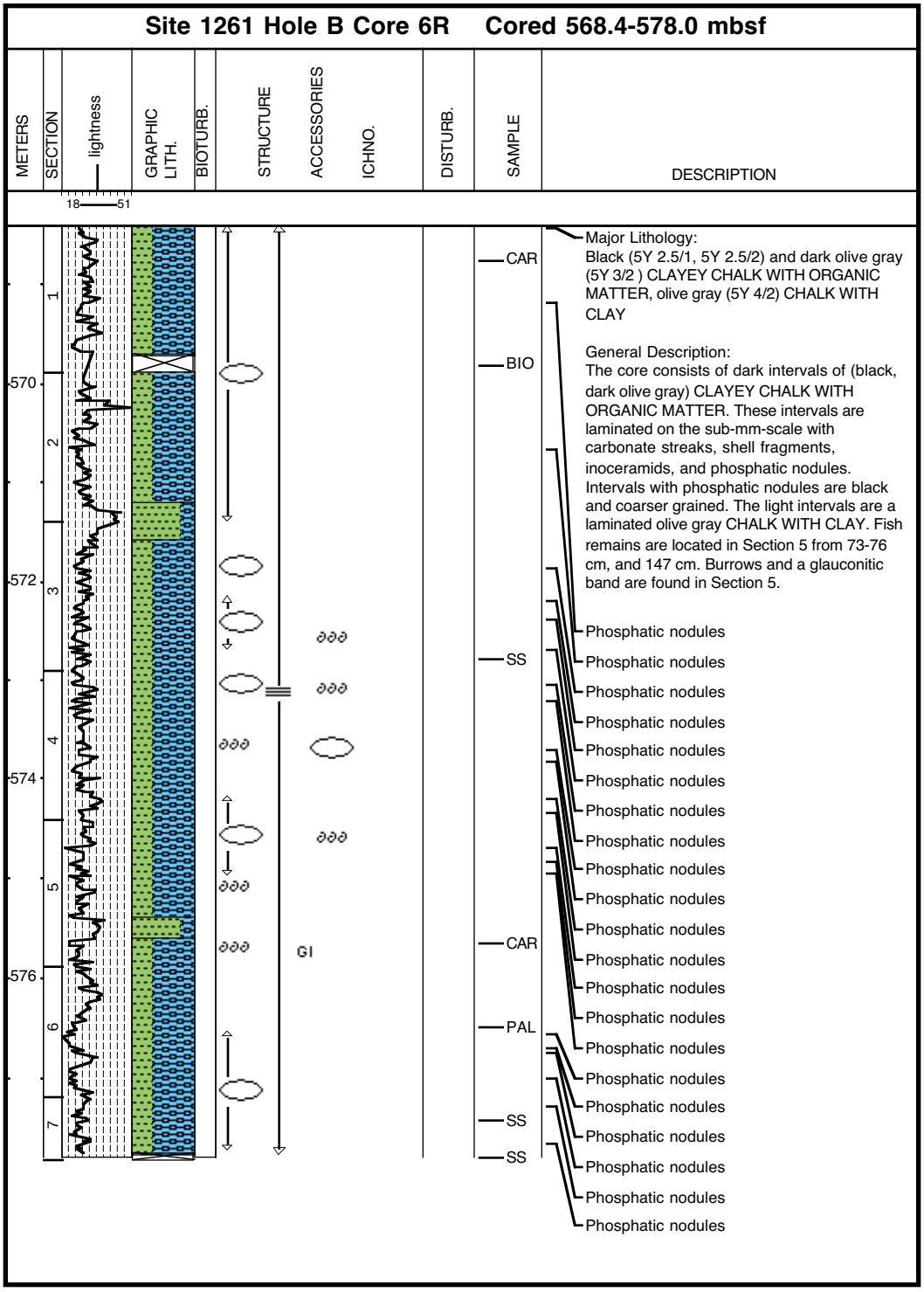
Core Photo


Site 1261 Hole B Core 4R Cored 549.2-558.8 mbsf
METERS
SECTION
lightness
41
59
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
550
552
554
556
1
2
3
4
5
6
7
PY
SS
BIO
SS
PAL
Major Lithology:
Light greenish gray (5GY 7/1) CLAYEY CHALK WITH ZEOLITES to greenish gray (5GY 5/1, 10Y 5/1) CALCAREOUS CLAYSTONE
General Description:
Calcareous material is composed of roughly equal proportions of nannofossils, foraminifers, and altered biogenic calcite. The core seems to exhibit subtle alternations between darker, clay-rich and lighter, carbonate-rich intervals at an ~20 cm spacing in Section 2, 50 cm – Section CC although Section 4, 110 – Section CC are biscuited. Section 1, 0 cm – Section 2, 50 cm has a subhorizontal fabric with common small, dark burrows. Fabric is not interpretted as a primary, depositional lamina. The remainder of core contains abundant, discrete, dark burrows. Identified traces are Chondrites, Planolites and Zoophycos. Disseminated pyrite crystals and small pyrite nodules are present. Dark material is present in burrows and in blebs.
common discrete burrows
barite

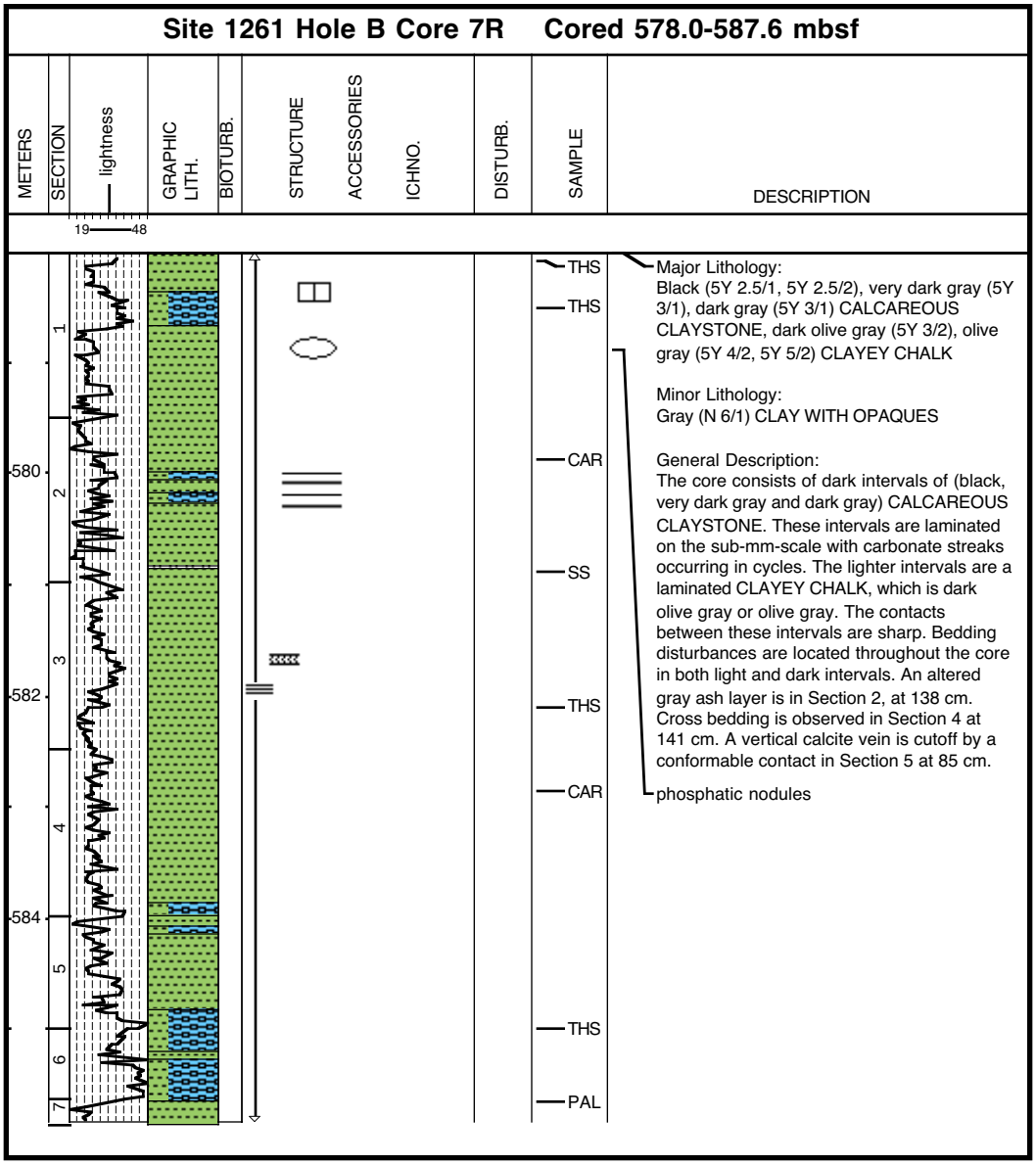
Core Photo


Site 1261 Hole B Core 5R Cored 558.8-568.4 mbsf
METERS
SECTION
lightness
16
47
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
560
562
564
566
568
1
2
3
4
5
6
7
8
Gl
Py
SS
SS
SS
SS
PAL
Major Lithologies:
Dark greenish gray (10Y 4/1 to 5GY 4/1) CLAYSTONE and black to dark gray (5Y 3/1 to 5Y 2.5/1) NANNOFOSSIL, FORAMINIFERS AND CLAY CHALK WITH CALCITE AND ORGANIC MATTER
General description:
In the first 3 sections the core consists of dark greenish gray CLAYSTONE, which is pervasively bioturbated with halos caused by redox fronts around each burrow. Barite is common and fish debris and black blebs are also present. The contact with the black NANNOFOSSIL, FORAMINIFER AND CLAY CHALK WITH CALCITE AND ORGANIC MATTER is gradational and starts with a glauconite-rich interval at 40 cm in Section 4. Downcore the sediments become more gray and laminated, with pyrite crystal concentrated in pockets. At 109 cm there is a rather abrupt change in color to black laminated chalk, although this contact is interrupted by a large burrow. The laminated chalk varies in color possibly due to changes in the organic carbon content. In the darker organic-rich levels there are often phosphatic nodules and stringers, and occasional inoceramids are found throughout this lithology. There are several intervals that are coarser and more bioturbated.

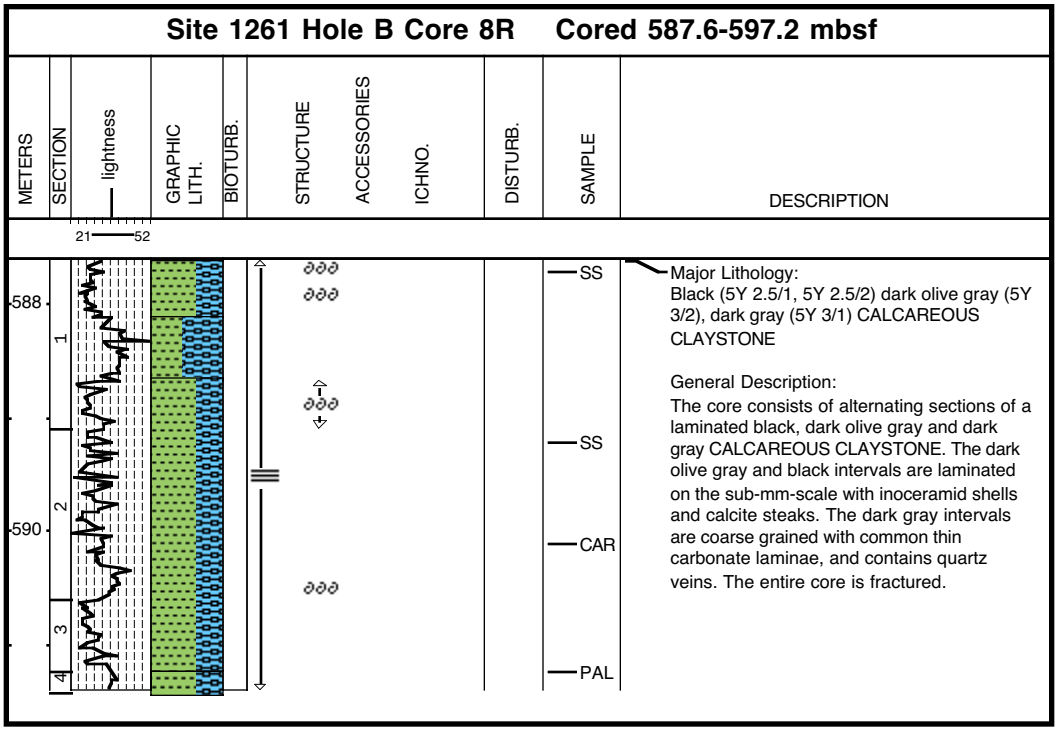
Core Photo


Site 1261 Hole B Core 6R Cored 568.4-578.0 mbsf
METERS
SECTION
lightness
18
51
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
570
572
574
576
1
2
3
4
5
6
7
GI
CAR
BIO
SS
CAR
PAL
SS
SS
Major Lithology:
Black (5Y 2.5/1, 5Y 2.5/2) and dark olive gray (5Y 3/2) CLAYEY CHALK WITH ORGANIC MATTER, olive gray (5Y 4/2) CHALK WITH CLAY
General Description:
The core consists of dark intervals of (black, dark olive gray) CLAYEY CHALK WITH ORGANIC MATTER. These intervals are laminated on the sub-mm-scale with carbonate streaks, shell fragments, inoceramids, and phosphatic nodules. Intervals with phosphatic nodules are black and coarser grained. The light intervals are a laminated olive gray CHALK WITH CLAY. Fish remains are located in Section 5 from 73-76 cm, and 147 cm. Burrows and a glauconitic band are found in Section 5.
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules
Phosphatic nodules

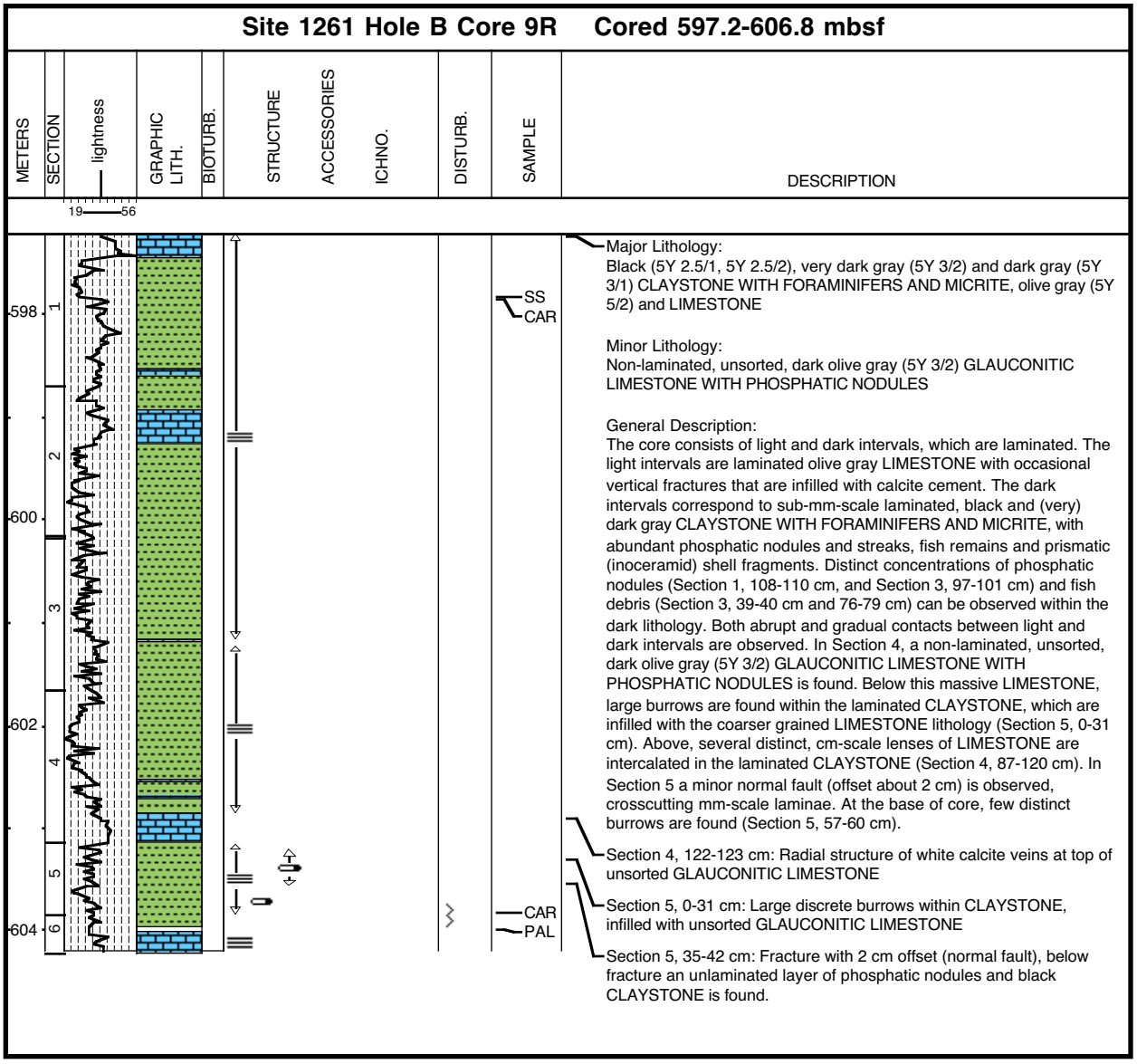
Core Photo


Site 1261 Hole B Core 7R Cored 578.0-587.6 mbsf
METERS
SECTION
lightness
19
48
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
580
582
584
1
2
3
4
5
6
7
THS
THS
CAR
SS
THS
CAR
THS
PAL
Major Lithology:
Black (5Y 2.5/1, 5Y 2.5/2), very dark gray (5Y 3/1), dark gray (5Y 3/1) CALCAREOUS CLAYSTONE, dark olive gray (5Y 3/2), olive gray (5Y 4/2, 5Y 5/2) CLAYEY CHALK
Minor Lithology:
Gray (N 6/1) CLAY WITH OPAQUES
General Description:
The core consists of dark intervals of (black, very dark gray and dark gray) CALCAREOUS CLAYSTONE. These intervals are laminated on the sub-mm-scale with carbonate streaks occurring in cycles. The lighter intervals are a laminated CLAYEY CHALK, which is dark olive gray or olive gray. The contacts between these intervals are sharp. Bedding disturbances are located throughout the core in both light and dark intervals. An altered gray ash layer is in Section 2, at 138 cm. Cross bedding is observed in Section 4 at 141 cm. A vertical calcite vein is cutoff by a conformable contact in Section 5 at 85 cm.
phosphatic nodules

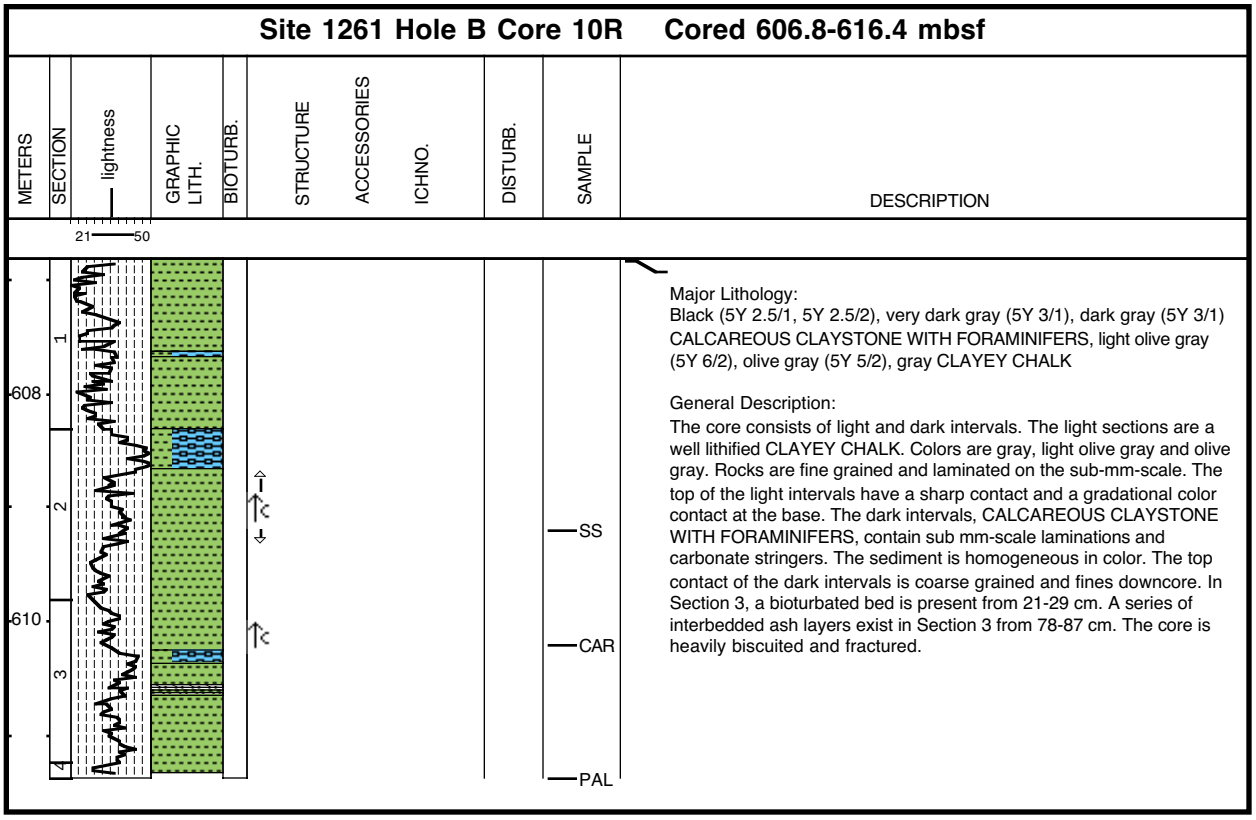
Core Photo


Site 1261 Hole B Core 8R Cored 587.6-597.2 mbsf
METERS
SECTION
lightness
21
52
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
588
590
1
2
3
4
SS
SS
CAR
PAL
Major Lithology:
Black (5Y 2.5/1, 5Y 2.5/2) dark olive gray (5Y 3/2), dark gray (5Y 3/1) CALCAREOUS CLAYSTONE
General Description:
The core consists of alternating sections of a laminated black, dark olive gray and dark gray CALCAREOUS CLAYSTONE. The dark olive gray and black intervals are laminated on the sub-mm-scale with inoceramid shells and calcite steaks. The dark gray intervals are coarse grained with common thin carbonate laminae, and contains quartz veins. The entire core is fractured.

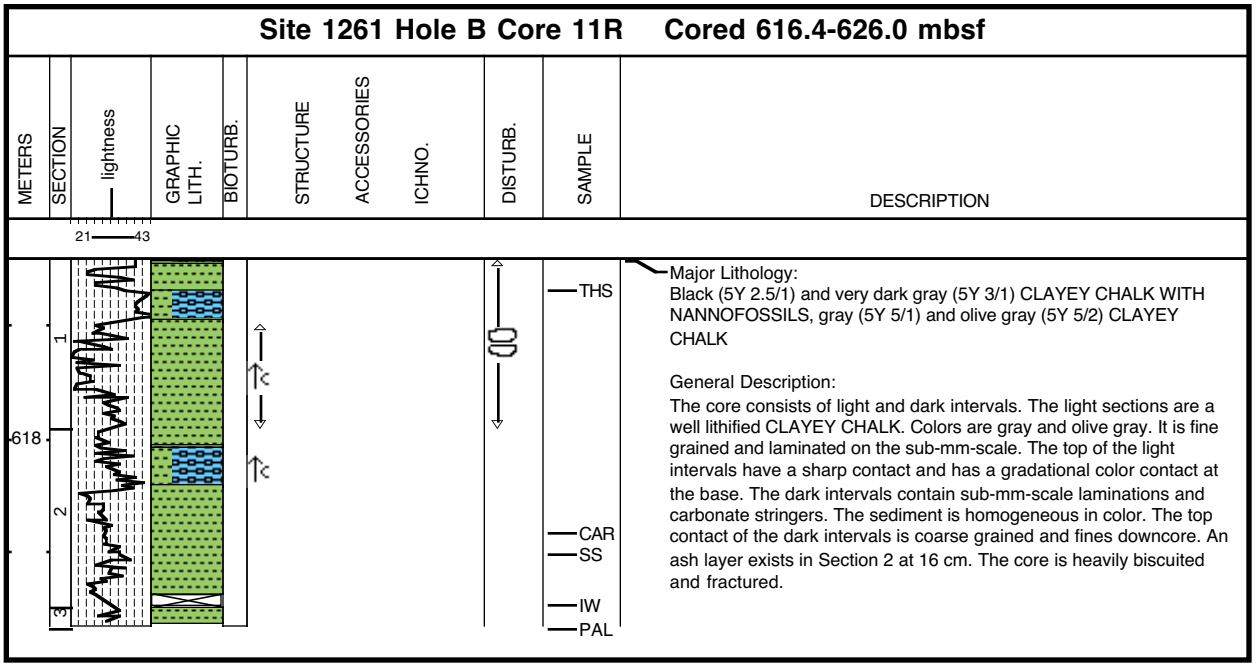
Core Photo


Site 1261 Hole B Core 9R Cored 597.2-606.8 mbsf
METERS
SECTION
lightness
19
56
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
598
600
602
604
1
2
3
4
5
6
SS
CAR
CAR
PAL
Major Lithology:
Black (5Y 2.5/1, 5Y 2.5/2), very dark gray (5Y 3/2) and dark gray (5Y 3/1) CLAYSTONE WITH FORAMINIFERS AND MICRITE, olive gray (5Y 5/2) and LIMESTONE
Minor Lithology:
Non-laminated, unsorted, dark olive gray (5Y 3/2) GLAUCONITIC LIMESTONE WITH PHOSPHATIC NODULES
General Description:
The core consists of light and dark intervals, which are laminated. The light intervals are laminated olive gray LIMESTONE with occasional vertical fractures that are infilled with calcite cement. The dark intervals correspond to sub-mm-scale laminated, black and (very) dark gray CLAYSTONE WITH FORAMINIFERS AND MICRITE, with abundant phosphatic nodules and streaks, fish remains and prismatic (inoceramid) shell fragments. Distinct concentrations of phosphatic nodules (Section 1, 108-110 cm, and Section 3, 97-101 cm) and fish debris (Section 3, 39-40 cm and 76-79 cm) can be observed within the dark lithology. Both abrupt and gradual contacts between light and dark intervals are observed. In Section 4, a non-laminated, unsorted, dark olive gray (5Y 3/2) GLAUCONITIC LIMESTONE WITH PHOSPHATIC NODULES is found. Below this massive LIMESTONE, large burrows are found within the laminated CLAYSTONE, which are infilled with the coarser grained LIMESTONE lithology (Section 5, 0-31 cm). Above, several distinct, cm-scale lenses of LIMESTONE are intercalated in the laminated CLAYSTONE (Section 4, 87-120 cm). In Section 5 a minor normal fault (offset about 2 cm) is observed, crosscutting mm-scale laminae. At the base of core, few distinct burrows are found (Section 5, 57-60 cm).
Section 4, 122-123 cm: Radial structure of white calcite veins at top of unsorted GLAUCONITIC LIMESTONE
Section 5, 0-31 cm: Large discrete burrows within CLAYSTONE, infilled with unsorted GLAUCONITIC LIMESTONE
Section 5, 35-42 cm: Fracture with 2 cm offset (normal fault), below fracture an unlaminated layer of phosphatic nodules and black CLAYSTONE is found.

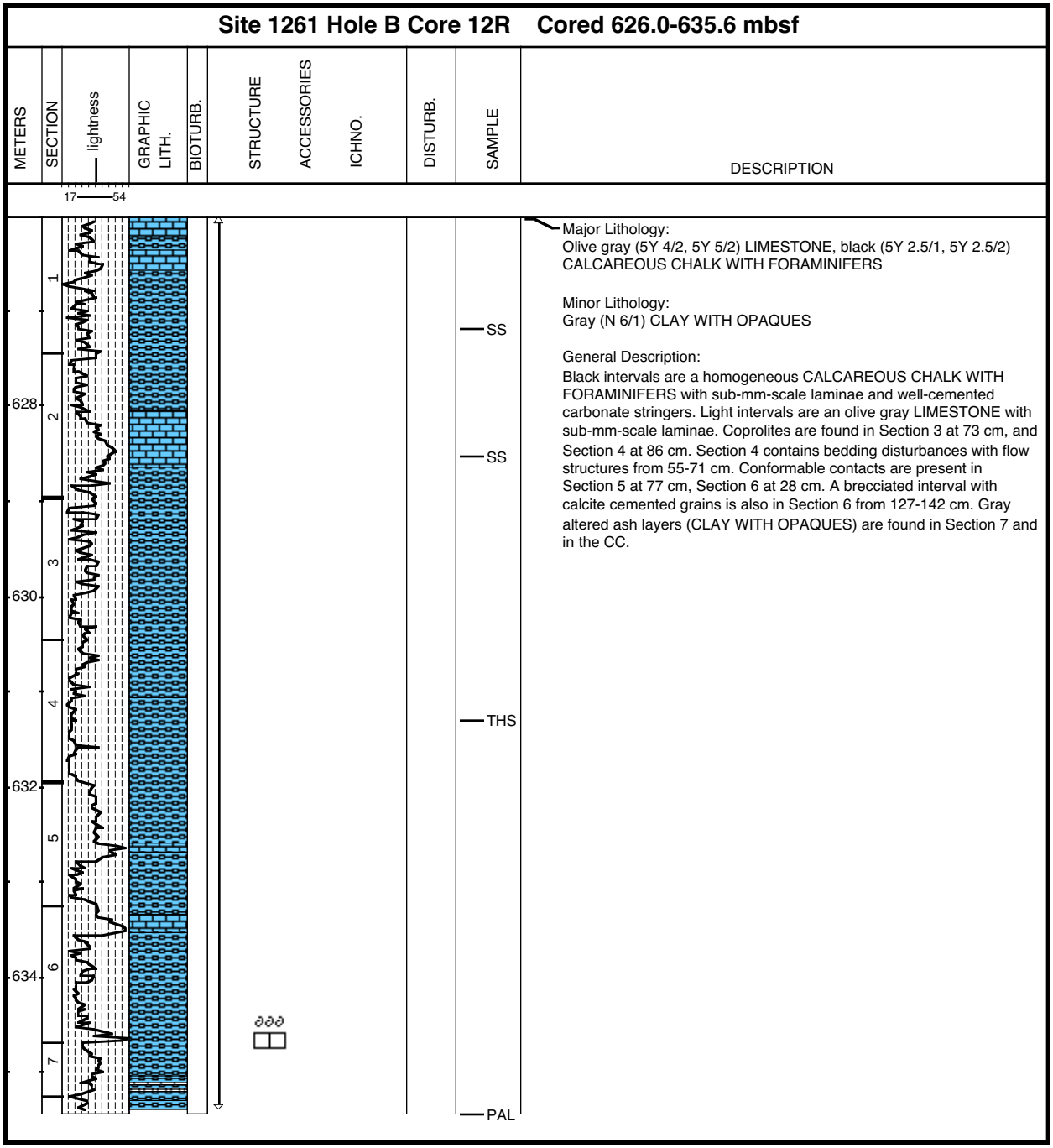
Core Photo


Site 1261 Hole B Core 10R Cored 606.8-616.4 mbsf
METERS
SECTION
lightness
21
50
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
608
610
1
2
3
4
SS
CAR
PAL
Major Lithology:
Black (5Y 2.5/1, 5Y 2.5/2), very dark gray (5Y 3/1), dark gray (5Y 3/1) CALCAREOUS CLAYSTONE WITH FORAMINIFERS, light olive gray (5Y 6/2), olive gray (5Y 5/2), gray CLAYEY CHALK
General Description:
The core consists of light and dark intervals. The light sections are a well lithified CLAYEY CHALK. Colors are gray, light olive gray and olive gray. Rocks are fine grained and laminated on the sub-mm-scale. The top of the light intervals have a sharp contact and a gradational color contact at the base. The dark intervals, CALCAREOUS CLAYSTONE WITH FORAMINIFERS, contain sub mm-scale laminations and carbonate stringers. The sediment is homogeneous in color. The top contact of the dark intervals is coarse grained and fines downcore. In Section 3, a bioturbated bed is present from 21-29 cm. A series of interbedded ash layers exist in Section 3 from 78-87 cm. The core is heavily biscuited and fractured.

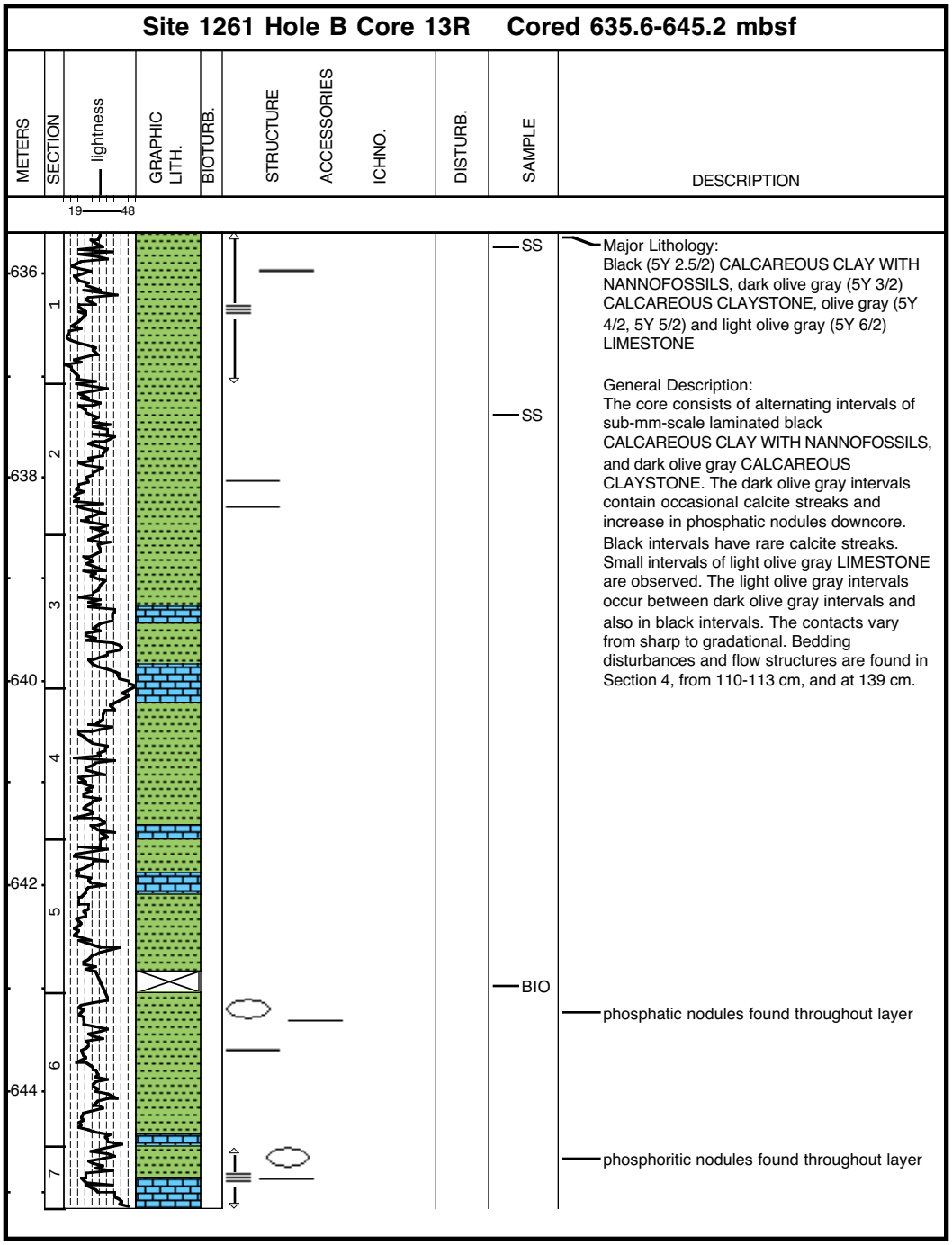
Core Photo


Site 1261 Hole B Core 11R Cored 616.4-626.0 mbsf
METERS
SECTION
lightness
21
43
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
618
1
2
3
THS
CAR
SS
IW
PAL
Major Lithology:
Black (5Y 2.5/1) and very dark gray (5Y 3/1) CLAYEY CHALK WITH NANNOFOSSILS, gray (5Y 5/1) and olive gray (5Y 5/2) CLAYEY CHALK
General Description:
The core consists of light and dark intervals. The light sections are a well lithified CLAYEY CHALK. Colors are gray and olive gray. It is fine grained and laminated on the sub-mm-scale. The top of the light intervals have a sharp contact and has a gradational color contact at the base. The dark intervals contain sub-mm-scale laminations and carbonate stringers. The sediment is homogeneous in color. The top contact of the dark intervals is coarse grained and fines downcore. An ash layer exists in Section 2 at 16 cm. The core is heavily biscuited and fractured.

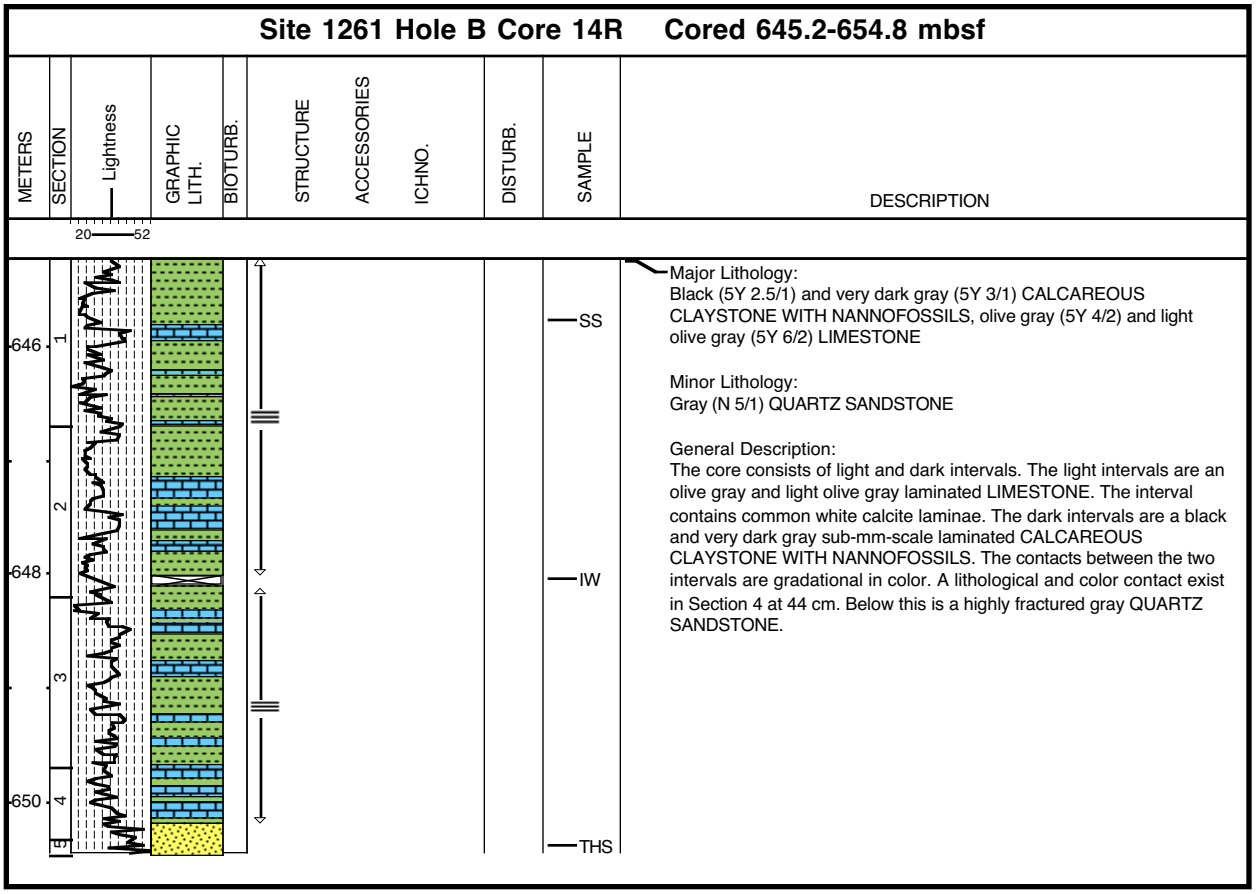
Core Photo


Site 1261 Hole B Core 12R Cored 626.0-635.6 mbsf
METERS
SECTION
lightness
17
54
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
628
630
632
634
1
2
3
4
5
6
7
SS
SS
THS
PAL
Major Lithology:
Olive gray (5Y 4/2, 5Y 5/2) LIMESTONE, black (5Y 2.5/1, 5Y 2.5/2) CALCAREOUS CHALK WITH FORAMINIFERS
Minor Lithology:
Gray (N 6/1) CLAY WITH OPAQUES
General Description:
Black intervals are a homogeneous CALCAREOUS CHALK WITH FORAMINIFERS with sub-mm-scale laminae and well-cemented carbonate stringers. Light intervals are an olive gray LIMESTONE with sub-mm-scale laminae. Coprolites are found in Section 3 at 73 cm, and Section 4 at 86 cm. Section 4 contains bedding disturbances with flow structures from 55-71 cm. Conformable contacts are present in Section 5 at 77 cm, Section 6 at 28 cm. A brecciated interval with calcite cemented grains is also in Section 6 from 127-142 cm. Gray altered ash layers (CLAY WITH OPAQUES) are found in Section 7 and in the CC.

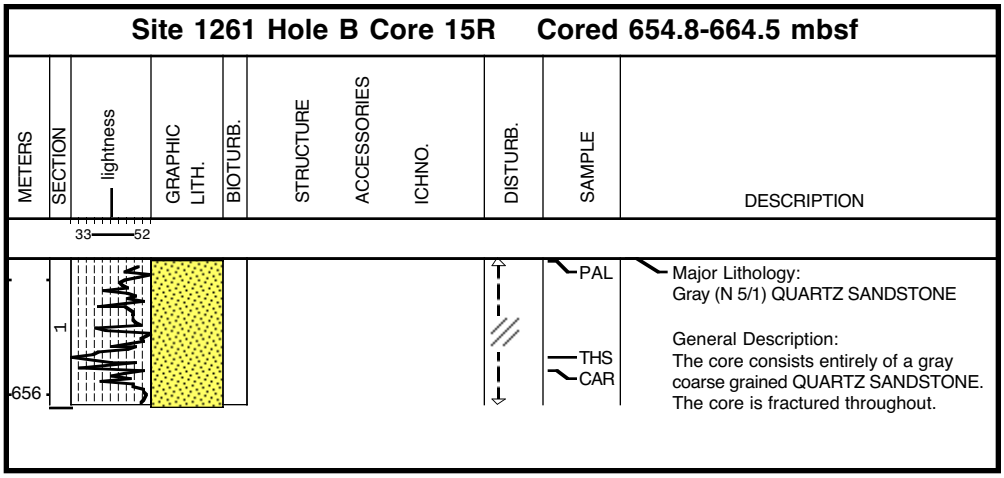
Core Photo


Site 1261 Hole B Core 13R Cored 635.6-645.2 mbsf
METERS
SECTION
lightness
19
48
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
636
638
640
642
644
1
2
3
4
5
6
7
SS
SS
BIO
Major Lithology:
Black (5Y 2.5/2) CALCAREOUS CLAY WITH NANNOFOSSILS, dark olive gray (5Y 3/2) CALCAREOUS CLAYSTONE, olive gray (5Y 4/2, 5Y 5/2) and light olive gray (5Y 6/2) LIMESTONE
General Description:
The core consists of alternating intervals of sub-mm-scale laminated black CALCAREOUS CLAY WITH NANNOFOSSILS, and dark olive gray CALCAREOUS CLAYSTONE. The dark olive gray intervals contain occasional calcite streaks and increase in phosphatic nodules downcore. Black intervals have rare calcite streaks. Small intervals of light olive gray LIMESTONE are observed. The light olive gray intervals occur between dark olive gray intervals and also in black intervals. The contacts vary from sharp to gradational. Bedding disturbances and flow structures are found in Section 4, from 110-113 cm, and at 139 cm.
phosphatic nodules found throughout layer
phosphoritic nodules found throughout layer

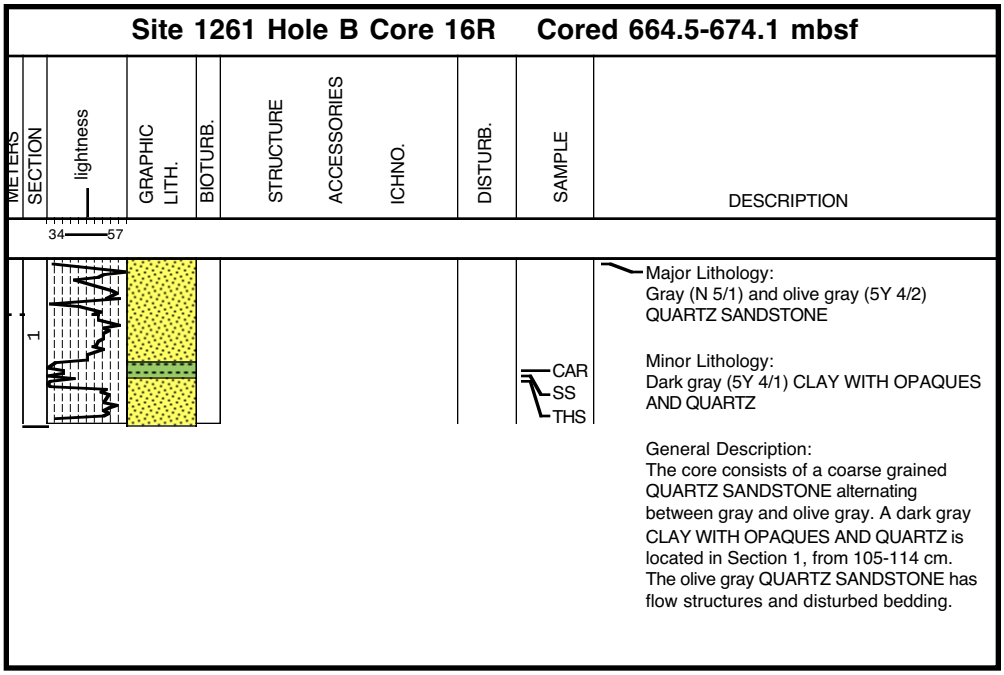
Core Photo


Site 1261 Hole B Core 14R Cored 645.2-654.8 mbsf
METERS
SECTION
Lightness
20
52
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
646
648
650
1
2
3
4
5
SS
IW
THS
Major Lithology:
Black (5Y 2.5/1) and very dark gray (5Y 3/1) CALCAREOUS CLAYSTONE WITH NANNOFOSSILS, olive gray (5Y 4/2) and light olive gray (5Y 6/2) LIMESTONE
Minor Lithology:
Gray (N 5/1) QUARTZ SANDSTONE
General Description:
The core consists of light and dark intervals. The light intervals are an olive gray and light olive gray laminated LIMESTONE. The interval contains common white calcite laminae. The dark intervals are a black and very dark gray sub-mm-scale laminated CALCAREOUS CLAYSTONE WITH NANNOFOSSILS. The contacts between the two intervals are gradational in color. A lithological and color contact exist in Section 4 at 44 cm. Below this is a highly fractured gray QUARTZ SANDSTONE.

Core Photo


Site 1261 Hole B Core 15R Cored 654.8-664.5 mbsf
METERS
SECTION
lightness
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
33
52
1
656
PAL
THS
CAR
Major Lithology:
Gray (N 5/1) QUARTZ SANDSTONE
General Description:
The core consists entirely of a gray coarse grained QUARTZ SANDSTONE. The core is fractured throughout.

Core Photo


Site 1261 Hole B Core 16R Cored 664.5-674.1 mbsf
METERS
SECTION
lightness
34
57
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
1
CAR
SS
THS
Major Lithology:
Gray (N 5/1) and olive gray (5Y 4/2) QUARTZ SANDSTONE
Minor Lithology:
Dark gray (5Y 4/1) CLAY WITH OPAQUES AND QUARTZ
General Description:
The core consists of a coarse grained QUARTZ SANDSTONE alternating between gray and olive gray. A dark gray CLAY WITH OPAQUES AND QUARTZ is located in Section 1, from 105-114 cm. The olive gray QUARTZ SANDSTONE has flow structures and disturbed bedding.

Sample						Mineral															Biogenic									Rock		
Core	CT	Sct	Top (cm)	Depth (mbsf)	Lithology	Accessory minerals (253)	Barite (17)	Calcite (30)	Carbonate (35)	Clay Mineral (47)	Dolomite (62)	Glauconite (82)	Magnetite (110)	Manganese Oxide (124)	Opaques (140)	Pyrite (169)	Quartz (172)	Volcanic Glass (81)	Zeolite (222)	Calcispheres (29)	Calpionellids (31)	Dinoflagellate (59)	Fish Remains (74)	Nannofossils (132)	Planktonic Forams (160)	Pollen (162)	Radiolarians (173)	calcareous debris (161)	Micrite (119)	Organic Debris Organic Matter (142)	Comments
Hole A																																
1	R	1	5	0.05	D				*								*			3				85	12						Nannofossil ooze with foraminifers
1	R	2	60	2.1	D				1						1		2	1		2				88	4			1			Nannofossil ooze
3	R	1	68	13.88	D				2						*		2	1		2				90	2			1			Nannofossil ooze
4	R	3	6	72.26	D				2	40							1	3						50	4						Clayey nannofossil ooze
5	R	5	100	138.4	D				10	50					1		1	1		*				36	1						Nannofossil ooze with clay
6	R	3	100	193.1	D				*	65					1		1	1						30	1			1			Nannofossil clay
6	R	4	51	194.11	M				1	48					1		1	1		*	1			45	2						Nannofossil clay
6	R	6	111	197.72	M					87					2		1							10							Claystone
7	R	3	43	240.33	M				2	66		5			5		1						*	15	3					3	Claystone with nannofossils
7	R	4	34	241.74	D				10	44		*				1					5			30	10						Nannofossil claystone with foraminifers and calcite
8	R	3	73	250.23	D				5	54		3			1	2					5			30								Nannofossil claystone
8	R	4	113	252.13	D			20	2	28		*			3		1		1		2			40	3						Nannofossil clay with calcite
9	R	3	72	259.92	D				8	33		1		5	3						3			40	5			2			Nannofossil claystone
10	R	2	129	268.59	M					50		1			2	2			1	2	3		*	30	5			4			Nannofossil claystone
10	R	3	72	269.52	D				10	52		2					1				2			30	3						Nannofossil claystone
10	R	4	49	270.79	M			20			70													10							Dolomite with calcite and nannofossils
11	R	3	51	278.91	M			20		33						2				2	3		*	30	10						Calcite and nannofossil clay
11	R	3	118	279.58	D			10		40		*									5		*	35	10						Nannofossil clay with calcite and foraminifers
12	R	2	79	287.39	M					77		1				3	3						2	10	1	3					Clay with nannofossils
12	R	3	61	288.71	M	2							2					96										*			Volcanic ash
12	R	3	61.5	288.72	M			1		30					2		*	*						65				2			Clayey nannofossil ooze
12	R	4	60	290.2	M					76		2				5	5			1				10	1						Clay with nannofossils
12	R	4	63	290.23	D			15		38						1			1					30	10			5			Nannofossil clay with foraminifers and calcite
14	R	2	135	307.25	D			2		47					1									45	3			2			Clayey nannofossil ooze
15	R	4	30	318.8	D			7		30					1			*						60	2						Clayey nannofossil ooze
16	R	3	100	327.6	D			5		15						*	*							70	10						Nannofossil ooze with clay
16	R	5	61	330.21	M			5		20						10								45	20						Calcareous ooze with clay
17	R	6	55	341.35	D			2		35						1	*			*				57	5						Clayey nannofossil ooze
18	R	5	70	349.6	D	*				30					*		1			1				63	5						Clayey nannofossil ooze
20	R	2	102	364.62	D			3		10					*					1		1		78	7						Nannofossil chalk
21	R	2	88	374.16	M			5		27						2			5	10			1	30	15			5			Clay and nannofossil chalk with calcispheres
22	R	2	47	383.37	D			45		16	2						1		1					10	10			15			Limestone with nannofossils, foraminifers, and clay
22	R	2	56	383.46	D			30		30						1			1	3				20	10			5			Clay limestone with foraminifers and nannofossils
23	R	5	134	398.44	D			10		30						2			10	3				30	10			5			Nannofossil clay chalk with zeolite, calcite, and foraminifers

Sample						Mineral														Biogenic										Rock		
Core	CT	Sct	Top (cm)	Depth (mbsf)	Lithology	Accessory minerals (253)	Barite (17)	Calcite (30)	Carbonate (35)	Clay Mineral (47)	Dolomite (62)	Glauconite (82)	Magnetite (110)	Manganese Oxide (124)	Opaques (140)	Pyrite (169)	Quartz (172)	Volcanic Glass (81)	Zeolite (222)	Calcispheres (29)	Calpionellids (31)	Dinoflagellate (59)	Fish Remains (74)	Nannofossils (132)	Planktonic Forams (160)	Pollen (162)	Radiolarians (173)	calcareous debris (161)	Micrite (119)	Organic Debris Organic Matter (142)	Comments
Hole A (continued)																																
23	R	6	124	399.84	D			10	20	20						2			1	2				20	25						Nannofossil and foraminifer chalk with clay
24	R	3	30	403.7	M			25	10	23									2	5				20	10			5			Nannofossil chalk with foraminifer and clay
25	R	2	136	413	M			10		28						3			5	8			1	30	10			5			Clay and nannofossil limestone with foraminifers
26	R	2	52	421.77	M			20		40									15					5	10			10			Nannofossil and clay chalk with foraminifers and zeolite
26	R	4	65	424.65	D			30	15	21										2				15	15			2			Nannofossil limestone with foraminifers and clay
27	R	2	74	431.74	D			30		10							2		15	8			*	10	20		*	5			Nannofossil chalk with clay, zeolite, and foraminifers
28	R	5	51	444.71	D			35		27						2			1					10	15			10			Clay and nannofossil limestone with foraminifers
28	R	8	29	448.52	M			48		25						2			15				*	5	5						Clayey chalk
29	R	3	128	452.98	D			20	10	26		*				5			10	8			1	10	10						Nannofossil and clay with calcite, foraminifers, and zeolite
30	R	1	19	458.49	D			47			1				*		*		5	4					3			10	30		Chalk
32	R	3	108	481.28	D			50	2								*		7	2				2	7				30		Chalk
33	R	4	25	490.67	D			20		10							*		6					15	5			15	29		Chalk
33	R	4	122	491.64	M					89					*				11												Clay with zeolite
34	R	2	42	498.42	D			10	2								1		3					64	5			5	10		Nannofossil chalk
35	R	2	80	508.4	D			15		15							*		2	1				47	5			15			Nannofossil chalk with clay
36	R	2	50	517.7	D			20		5									5	1				14	10			40	5		Chalk with nannofossils
37	R	3	60	528.9	D			15		10	1				1				3	1				15	5			29	20		Chalk
39	R	3	75	548.35	D			15		26					*		*		3	*				10				26	20		Clayey chalk
40	R	3	40	557.56	D			10	5	63							1		1					10	10						Claystone with foraminifers and nannofossils
40	R	3	68	557.84	D		1	5	5	46						5	3		10				*	10	10			5			Claystone with foraminifers, nannofossils, and zeolite
40	R	5	30	560.46	D				5	75					3	3	3						1	5	2			3			Claystone
41	R	1	30	564.1	M				10	35		1			3	3	3						5	25	15						Nannofossil claystone with foraminifers
41	R	2	39	565.69	M			1		75					5		2		5				5	2						5	Claystone
41	R	2	83	566.13	D			3	5	37					2	3								25	20					5	Nannofossil claystone with foraminifers
41	R	3	129	568.09	D			10	40	37						1	1							1	10						Clay limestone with foraminifers
42	R	1	5	573.45	D				5	19		5			3	3	2		2				8	30	15					8	Nannofossil chalk with foraminifers and clay
42	R	3	76	577.03	D			5	30	13					2	2	2		3					10	30					3	Calcareous and nannofossil chalk with clay
42	R	5	56	579.83	M				2	61					20	10	5							1	1						Claystone with pyrite
43	R	1	75	583.75	M				10	46						1	1		1				3	20	15					3	Nannofossil claystone with calcite and foraminifers
44	R	1	33	592.93	D				5	20						10	1		1				5	30	25		*			3	Foraminifer and nannofossil chalk with pyrite and clay

Sample						Mineral														Biogenic										Rock		
Core	CT	Sct	Top (cm)	Depth (mbsf)	Lithology	Accessory minerals (253)	Barite (17)	Calcite (30)	Carbonate (35)	Clay Mineral (47)	Dolomite (62)	Glauconite (82)	Magnetite (110)	Manganese Oxide (124)	Opaques (140)	Pyrite (169)	Quartz (172)	Volcanic Glass (81)	Zeolite (222)	Calcispheres (29)	Calpionellids (31)	Dinoflagellate (59)	Fish Remains (74)	Nannofossils (132)	Planktonic Forams (160)	Pollen (162)	Radiolarians (173)	calcareous debris (161)	Micrite (119)	Organic Debris Organic Matter (142)	Comments
Hole A (continued)																																
44	R	3	34	595.7	D			15	60	16	5					1								1	2						Limestone with clay
44	R	4	4	596.88	D				10	40						10	1		1				5	10	15		*			8	Claystone with pyrite, calcite, nannofossils, and foraminifers
46	R	3	73	615.4	D				3	53									1				3	15	20					5	Claystone with nannofossils and foraminifers
47	R	5	107	628.24	D				2	75					2	3			5				2	5	1					5	Claystone
48	R	5	5	637	M					72					25		2											1			Altered ash claystone with opaque minerals
48	R	5	50	637.45	D			30		46					5				2					10	*					7	Calcareous claystone
48	R	6	55	639	D			30	8	41					2				4				1	5	2					7	Calcareous claystone
49	R	1	5	640.65	D			25	5	38					1		*		3					18	5					5	Clayey chalk
49	R	5	126	647.84	D			31	15	32					2		*		2					5	10					3	Clayey chalk
50	R	3	17	653.37	D			20	10	33					1									15	10					11	Clayey chalk with organic matter

Sample						Mineral											Biogenic				Rock			
Core	CT	Sct	Top (cm)	Depth (mbsf)	Lithology	Accessory minerals (253)	Calcite (30)	Carbonate (35)	Clay Mineral (47)	Dolomite (62)	Glauconite (82)	Opaques (140)	Pyrite (169)	Quartz (172)	Zeolite (222)	Fish Remains (74)	Nannofossils (132)	Planktonic Forams (160)	calcareous debris (161)	Micrite (119)	Organic Debris Organic Matter (142)	Siliceous Fragments (184)	Comments
Hole B																							
2	R	2	81	532.31	D			10	57				1	3	3	3	15	5	3				Claystone with calcite and nannofossils
2	R	3	93	533.93	D			20	36				2	2	10	*	20	10					Clay chalk with foraminifers, zeolite, calcite, and nannofossils
3	R	4	77	544.87	D		15	10	39	5			1				20	10					Calcareous and clay chalk with foraminifers and nannofossils
3	R	5	93	546.53	D			10	56					1	10		10	10	3				Claystone with zeolite calcite foraminifer sand nannofossils
4	R	1	37	549.57	D			30	26				1	2	5	1	20	15					Clay and calcite chalk with foraminifers and nannofossils
4	R	4	60	554.30	D			20	54		*		2	3	5		15					1	Calcareous claystone with foraminifers
5	R	2	50	559.88	D			5	88				3			1	3						Claystone
5	R	4	26	562.47	M			3	67				2	5	1	2	20						Claystone with nannofossils
5	R	4	79	563.00	M		5	3	32				15		2	3	30	10					Nannofossil and clay chalk with foraminifers and pyrite
5	R	6	94	566.15	D		5	10	28					2	5		25	25					Nannofossil foraminifer and clay chalk with calcite
6	R	3	138	572.78	D		5		25			2			5		15	12		25	11		Clayey chalk with organic matter, foraminifers, and nannofossils
6	R	7	24	577.44	D		10	15	20	*		1		*			10	12		30	2		Chalk with clay, foraminifers, and nannofossils
7	R	2	138	580.86	M	1			78			20		1									Clay with opaque minerals (looks like an ash layer)
7	R	4	52	583.00	D		10		40						3		22	10		10	5		Clayey chalk
8	R	2	10	589.20	D		10	2	50					*	3		5	10		20			Calcareous claystone
9	R	1	66	597.86	D		5		50			2		*	3		5	15		12	8		Claystone with foraminifers and micrite
10	R	2	89	609.19	D		4		35			3			5		8	12		25	8		Calcareous claystone with foraminifers
11	R	2	109	618.99	D		5	2	29			2		*	2		12	8		35	5		Clayey chalk with nannofossils
12	R	1	117	627.17	D		5		50			3		*	2		5	12		15	8		Calcareous chalk with foraminifers
12	R	2	106	628.51	D		35	2	10			*					2	1		50			Limestone foraminifer wackestone
13	R	1	13	635.73	D	1	3		40			4		1	1		15	2	*	25	8		Calcareous clay with nannofossils
13	R	2	29.5	637.40	D		10	2	41			1		1			10	15	3	15	2		Calcareous claystone
14	R	1	53	645.73	D		5		33			1			5		15	5	8	20	8		Calcareous claystone with nannofossils
16	R	1	102	665.52	M		5		71		*	11		11			1		1				Clay with opaques and quartz

Sample								Mineral											Biogenic									Rock																		
Cor	CT	Sct	Top (cm)	Bot (cm)	Depth (mbsf)	Thin Section Number	Lithology	Calcite	Clay	Calcite	Glauconite	Accessory Minerals	Opaque Minerals	Quartz	Phosphorite	Zircon	Other	Fish Remains	Nannofossils	Foraminifers	Planktonic Foraminifers	Benthic Foraminifers	Calcareous Shell Fragments	Shell Fragments	Organic Debris	Microfossils	Matrix	Bioclast	Micrite	Sparite	Carbonate Grains	Cement	Organic Matter	Clasts	Lithic Fragments	Other		Lithology	Comments
Hole A																																												
18	R	CC	11	15	351.71	110			40									2	5		35	2							15								1	100	Clayey chalk-conglomerate	Sediment is conglomerate with abundant pebbles (but not many pebble contacts). Foraminifers include pebbles. Fish remains plus phosphorite and collophane.
50	R	3	35	38	653.55	111	D							40														27				33					100	Quartzose calcareous sandstone	Quartz are subangular to subrounded with grain contacts. Bioclasts are oriented parallel bedding. 30% of cement is very coarse calcite crystals and 3% early diagenetic calcite.
50	R	3	75	78	653.95	112	D							47		*	*											5				46		1	1		100	Quartz arenite with calcite cement	Quartz are angular to subrounded. Larger grains are oriented parallel bedding (mainly shell fragments). Clasts are lithic fragments.
Hole B																																												
7	R	1	38	40	578.38	113	M	38	7		7		3		42					*					3												100	Calcareous phosphorite	Phosphoritic/glauconitic black shale in the process of being replaced by calcite. Approximately 10% original black shale preserved. Secondary diagenetic calcite. Glauconite is concentrated in some areas. Two big pebbles of phosphate (total area).
7	R	1	48	51	578.48	114	D		20		*		2					2			30									44		2				100	Foraminifer wackestone	Big foraminifers filled with blocky calcite are scattered throughout. Fish remains include phosphate. Diagenetic microspar.
7	R	3	109	113	115	115	D		25	3			1					2			25								34			10				100	Foraminifer wackestone	This thin section is from more clay- and organic matter-rich part. Foraminifers are filled with matrix. Blocky calcite from collapsed foraminifers. Micrite matrix.

Sample								Mineral										Biogenic									Rock															
Cor	CT	Sct	Top (cm)	Bot (cm)	Depth (mbsf)	Thin Section Number	Lithology	Calcite	Clay	Calcite	Glauconite	Accessory Minerals	Opaque Minerals	Quartz	Phosphorite	Zircon	Other	Fish Remains	Nannofossils	Foraminifers	Planktonic Foraminifers	Benthic Foraminifers	Calcareous Shell Fragments	Shell Fragments	Organic Debris	Microfossils	Matrix	Bioclast	Micrite	Sparite	Carbonate Grains	Cement	Organic Matter	Clasts	Lithic Fragments	Other		Lithology	Comments
Hole B (continued)																																									
7	R	5	100	102	584.98	116	D		25	30			2					*			10			*	*				33								100	Foraminifer wackestone	Fabric is disturbed by calcite recrystallization. Micrite is in patches and background matrix. Microspar-size diagenetic calcite. Trace of Inoceramus shell fragments.
11	R	1	26	30	616.66	117	D		30				2					2			22								40				4				100	Clayey chalk with foraminifer wackestone	Micrites are background micrite to microsparite. Foraminifers are recrystallized.
12	R	4	85	88	631.3	118			41						25														10	12			12			*	100	Phosphoritic claystone with foraminifers and organic matter	One large phosphate nodule with big fish fragments in typical black shale. Layers with fish debris. One long Inoceramus shell. Fish remains are mainly counted as phosphorite. Foraminifers are counted as sparite.
14	R	CC	2	3	650.36	119	D					*		46														5			1	44		2	2		100	Quartz arenite with calcite cement	Quartz is angular to subrounded. Cement is large drusy calcite. Clasts are lithic fragments.
15	R	1	87	89	655.67	120	D		3			*	3	50			2											2				40			*	*	100	Quartz arenite with calcite cement	Quartz is angular to subrounded, grain contacts are rare. Other mineral: unknown very dark, but not opaque, mineral–Fe-oxide coating(?). Thin section also includes echinoid fragments and other shell material.
16	R	1	108	109	665.58	121	M		10	3			2	30				*						1				1	54						*			Quartz wacke	Quartz grains are not well sorted and angular; few grain contacts. Large calcite crystals (replacement). Micrites are micritic to microsparitic matrix.