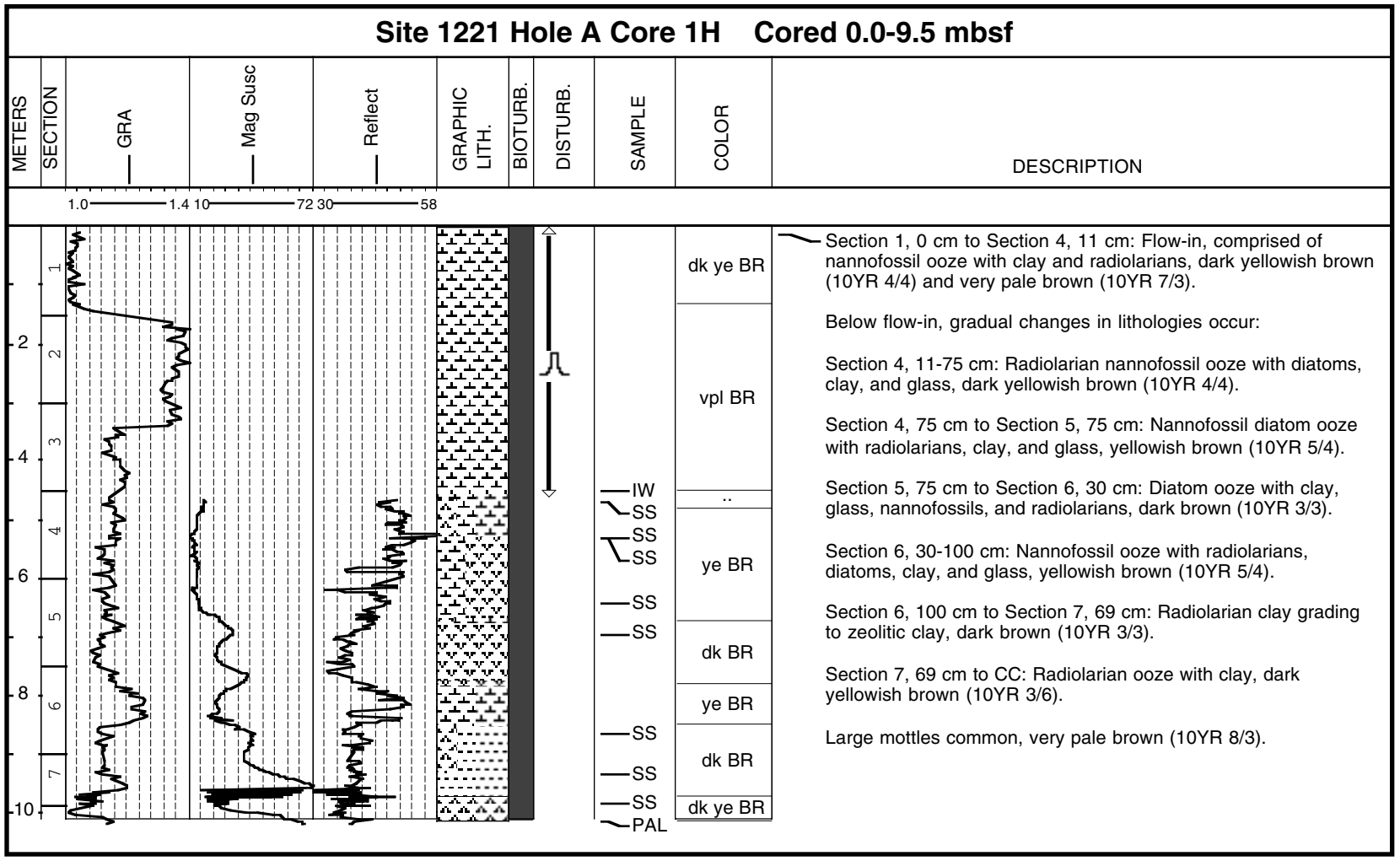
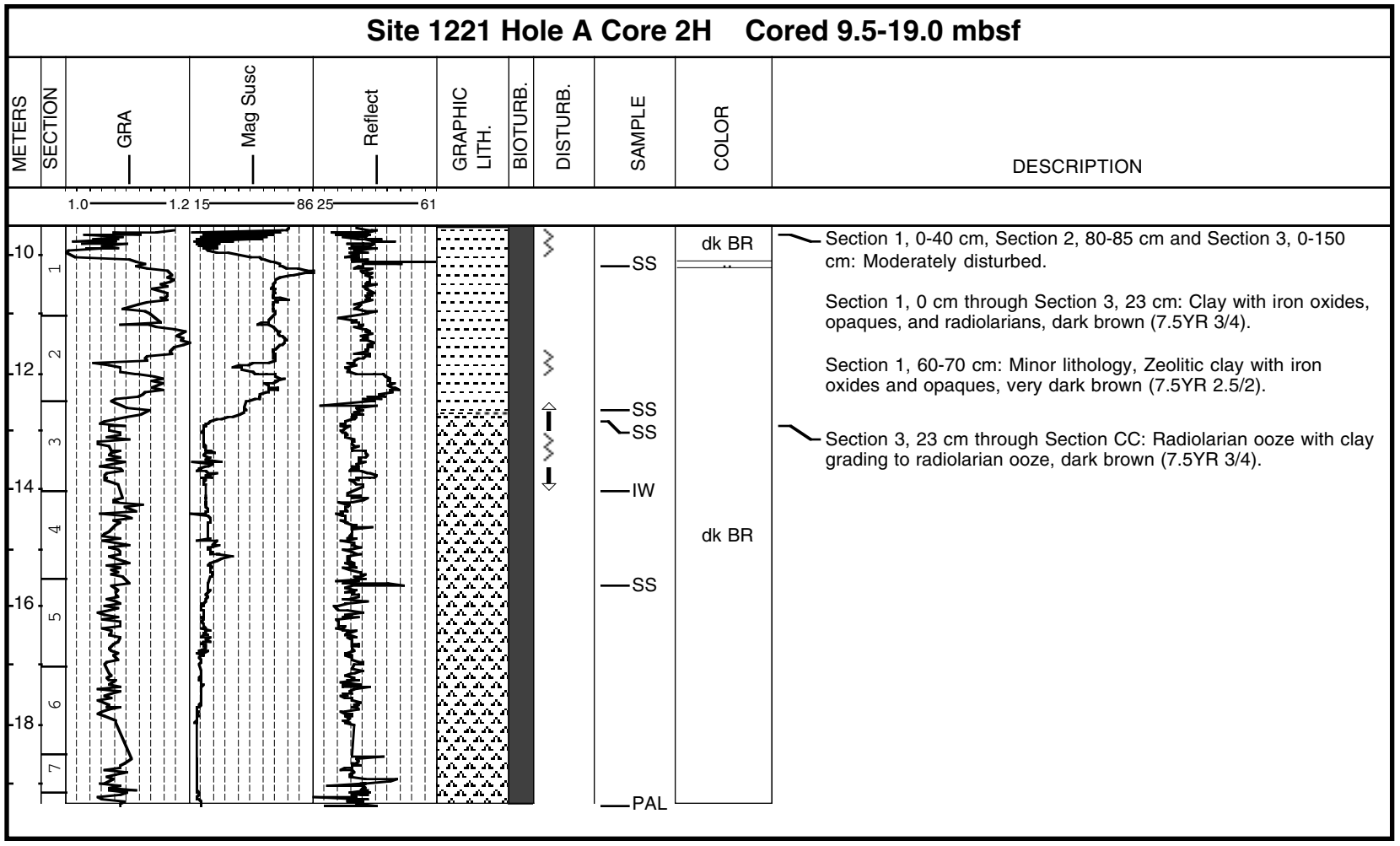
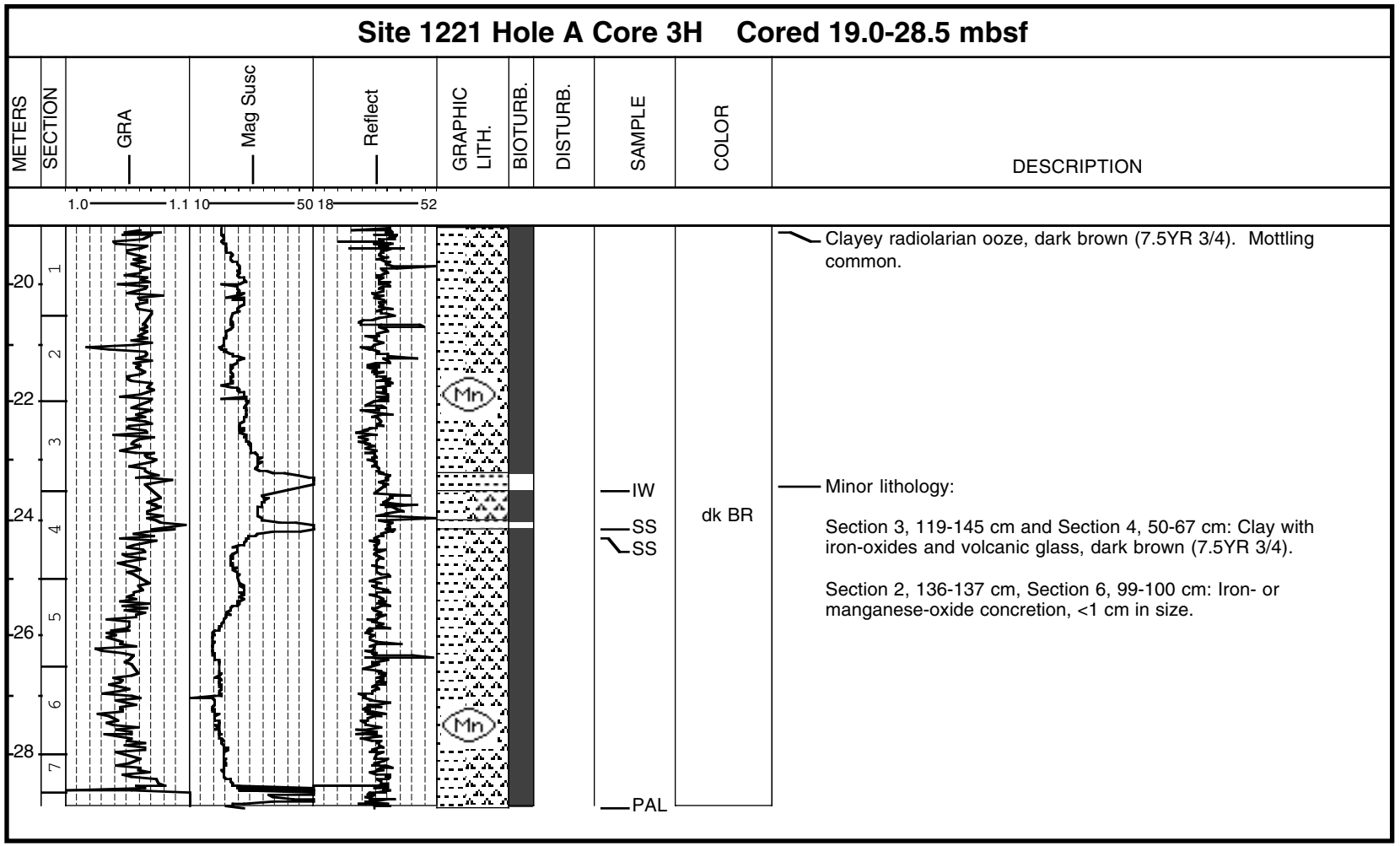
Core Photo


Site 1221 Hole A Core 1H Cored 0.0-9.5 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.0
1.4
10
72
30
58
IW
SS
SS
SS
SS
SS
SS
SS
PAL
dk ye BR
vpl BR
..
ye BR
dk BR
ye BR
dk BR
dk ye BR
Section 1, 0 cm to Section 4, 11 cm: Flow-in, comprised of nannofossil ooze with clay and radiolarians, dark yellowish brown (10YR 4/4) and very pale brown (10YR 7/3).
Below flow-in, gradual changes in lithologies occur:
Section 4, 11-75 cm: Radiolarian nannofossil ooze with diatoms, clay, and glass, dark yellowish brown (10YR 4/4).
Section 4, 75 cm to Section 5, 75 cm: Nannofossil diatom ooze with radiolarians, clay, and glass, yellowish brown (10YR 5/4).
Section 5, 75 cm to Section 6, 30 cm: Diatom ooze with clay, glass, nannofossils, and radiolarians, dark brown (10YR 3/3).
Section 6, 30-100 cm: Nannofossil ooze with radiolarians, diatoms, clay, and glass, yellowish brown (10YR 5/4).
Section 6, 100 cm to Section 7, 69 cm: Radiolarian clay grading to zeolitic clay, dark brown (10YR 3/3).
Section 7, 69 cm to CC: Radiolarian ooze with clay, dark yellowish brown (10YR 3/6).
Large mottles common, very pale brown (10YR 8/3).

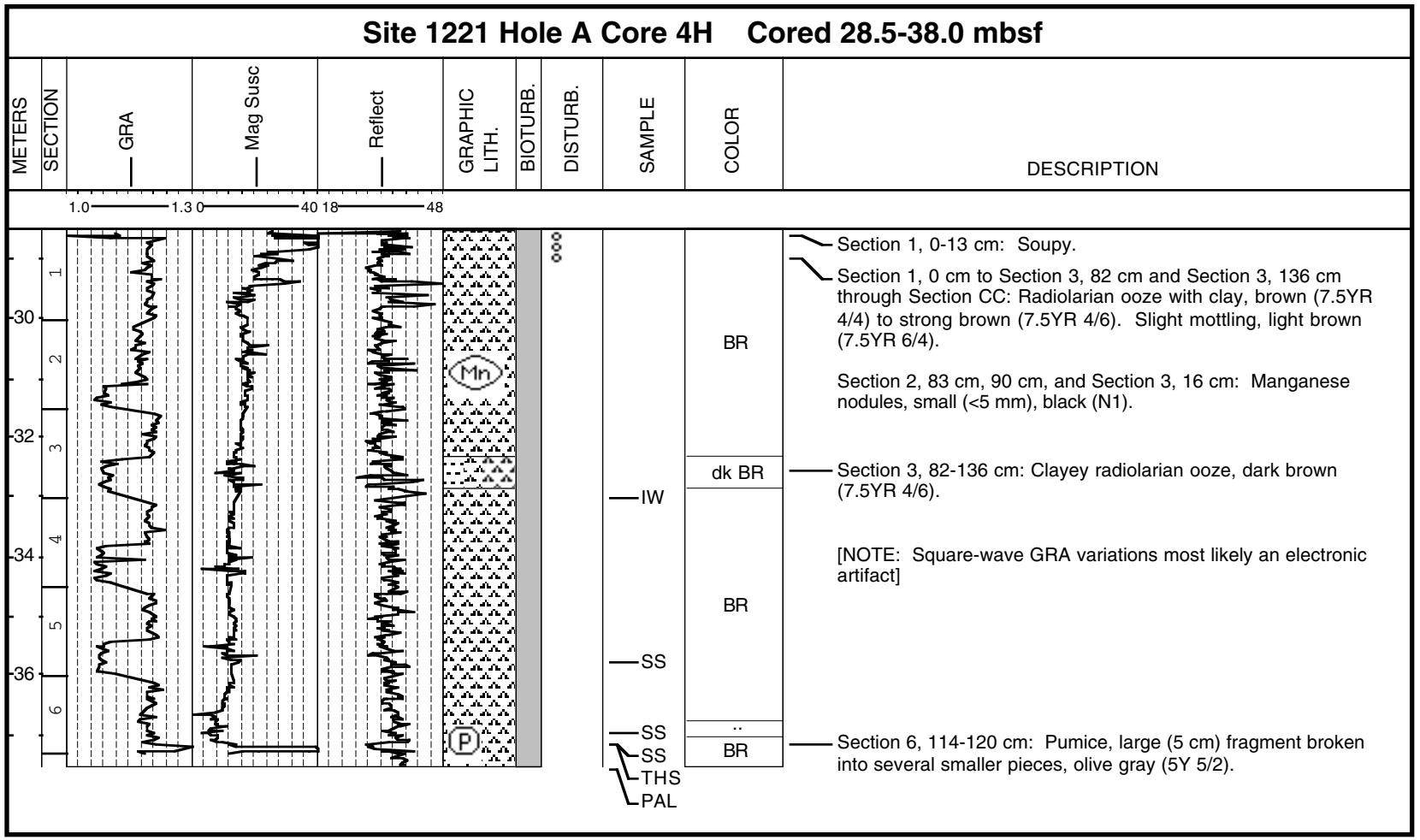
Core Photo


Site 1221 Hole A Core 2H Cored 9.5-19.0 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.0
1.2
15
86
25
61
10
12
14
16
18
1
2
3
4
5
6
7
SS
SS
SS
IW
SS
PAL
dk BR
dk BR
Section 1, 0-40 cm, Section 2, 80-85 cm and Section 3, 0-150 cm: Moderately disturbed.
Section 1, 0 cm through Section 3, 23 cm: Clay with iron oxides, opaques, and radiolarians, dark brown (7.5YR 3/4).
Section 1, 60-70 cm: Minor lithology, Zeolitic clay with iron oxides and opaques, very dark brown (7.5YR 2.5/2).
Section 3, 23 cm through Section CC: Radiolarian ooze with clay grading to radiolarian ooze, dark brown (7.5YR 3/4).

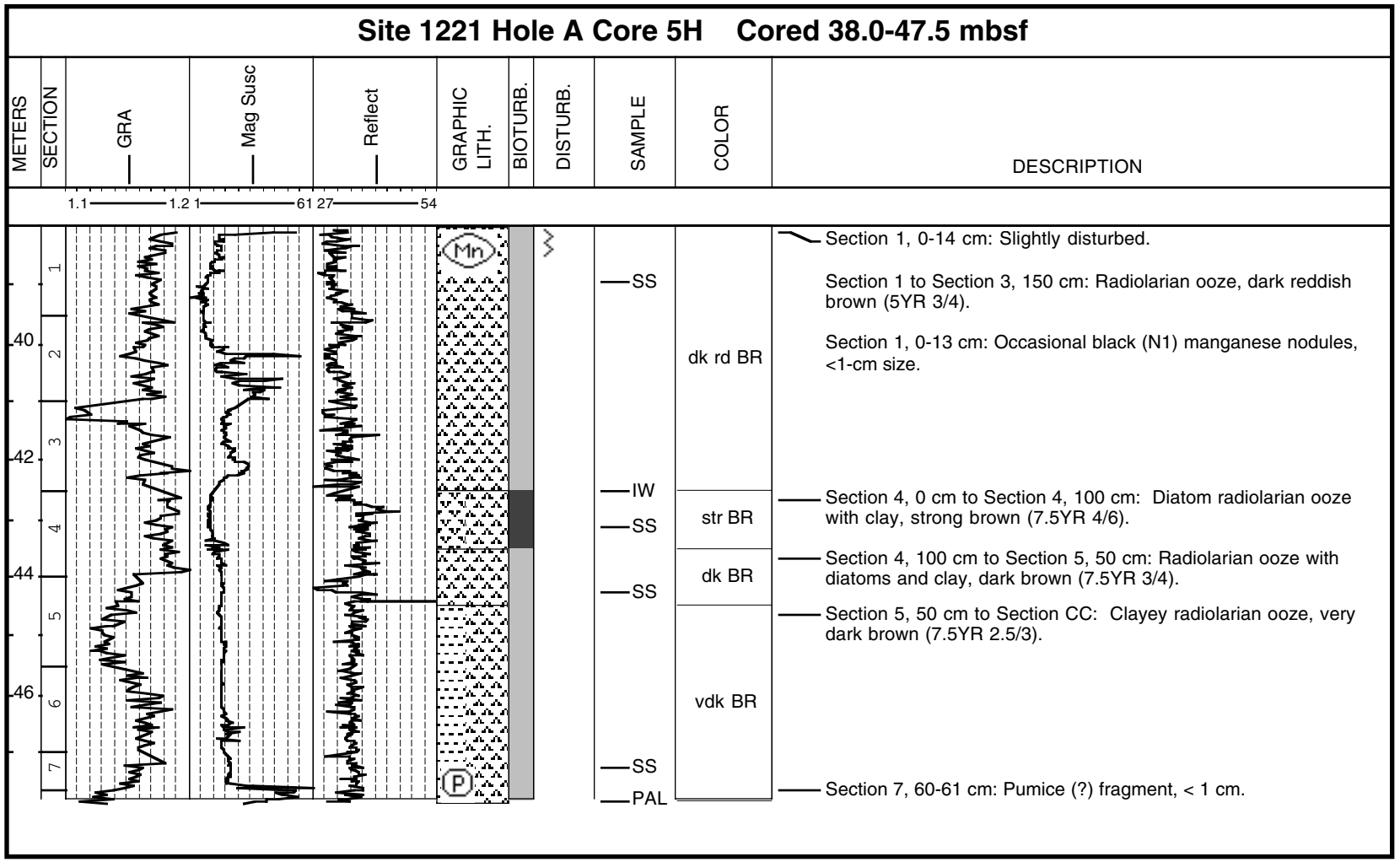
Core Photo


Site 1221 Hole A Core 3H Cored 19.0-28.5 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.0
1.1
10
50
18
52
20
22
24
26
28
1
2
3
4
5
6
7
Mn
Mn
IW
SS
SS
PAL
dk BR
Clayey radiolarian ooze, dark brown (7.5YR 3/4). Mottling common.
Minor lithology:
Section 3, 119-145 cm and Section 4, 50-67 cm: Clay with iron-oxides and volcanic glass, dark brown (7.5YR 3/4).
Section 2, 136-137 cm, Section 6, 99-100 cm: Iron- or manganese-oxide concretion, <1 cm in size.

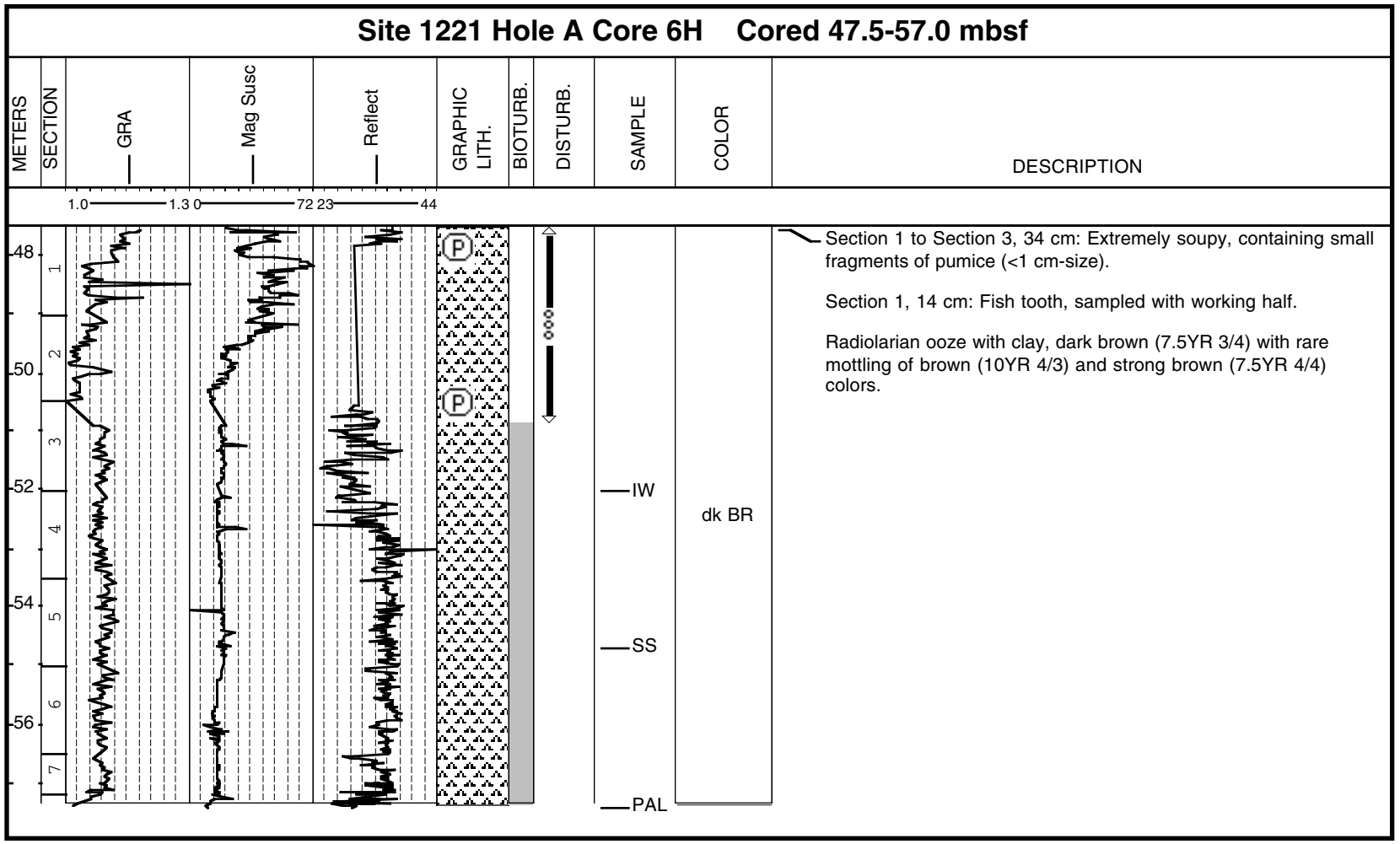
Core Photo


Site 1221 Hole A Core 4H Cored 28.5-38.0 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.0
1.3
0
40
18
48
30
32
34
36
1
2
3
4
5
6
Mn
P
IW
SS
SS
SS
THS
PAL
BR
dk BR
BR
BR
Section 1, 0-13 cm: Soupy.
Section 1, 0 cm to Section 3, 82 cm and Section 3, 136 cm through Section CC: Radiolarian ooze with clay, brown (7.5YR 4/4) to strong brown (7.5YR 4/6). Slight mottling, light brown (7.5YR 6/4).
Section 2, 83 cm, 90 cm, and Section 3, 16 cm: Manganese nodules, small (<5 mm), black (N1).
Section 3, 82-136 cm: Clayey radiolarian ooze, dark brown (7.5YR 4/6).
[NOTE: Square-wave GRA variations most likely an electronic artifact]
Section 6, 114-120 cm: Pumice, large (5 cm) fragment broken into several smaller pieces, olive gray (5Y 5/2).

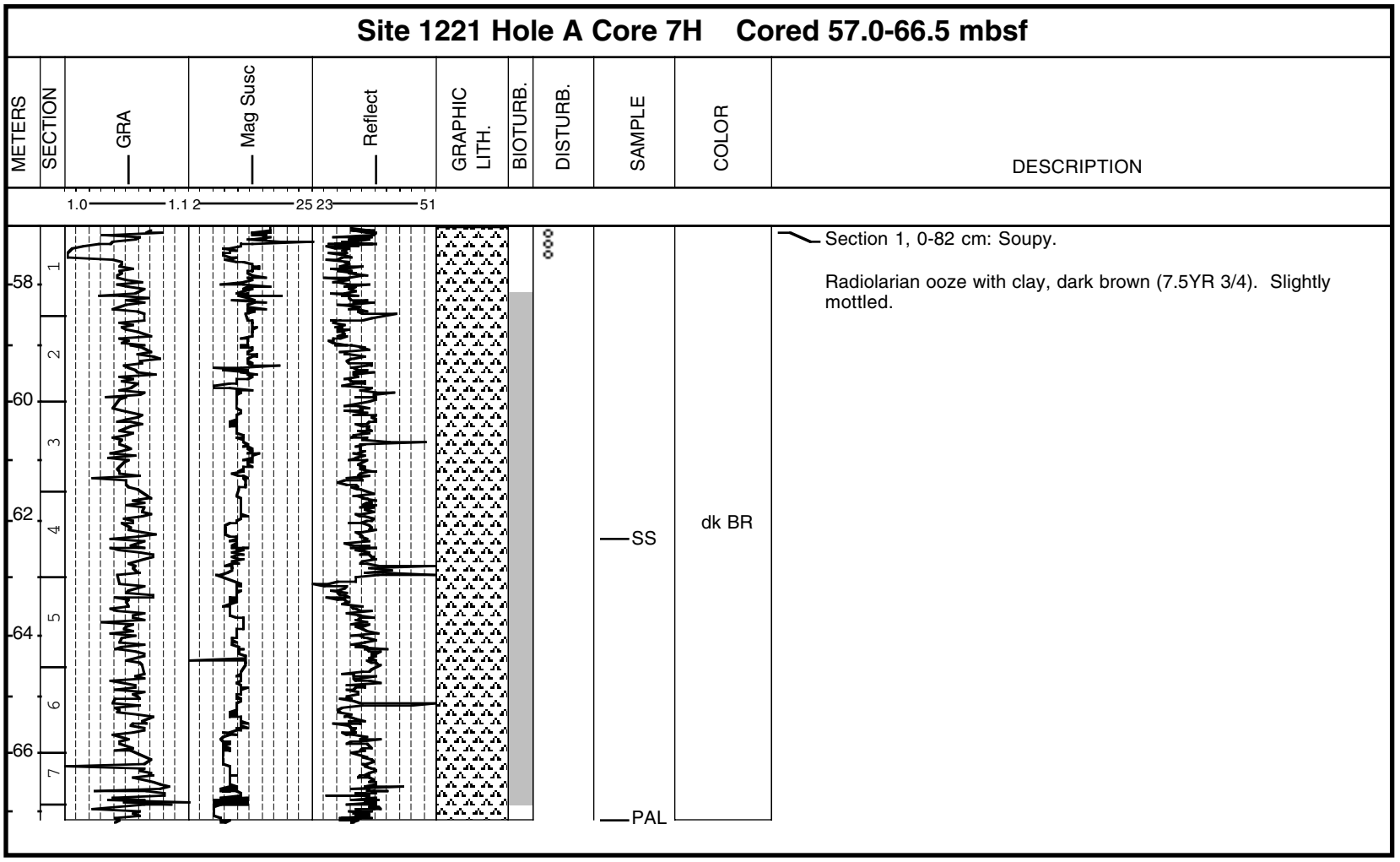
Core Photo


Site 1221 Hole A Core 5H Cored 38.0-47.5 mbsf
METERS
SECTION
GRA
1.1
1.2
Mag Susc
1
61
Reflect
27
54
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
40
42
44
46
1
2
3
4
5
6
7
Mn
P
SS
IW
SS
SS
SS
PAL
dk rd BR
str BR
dk BR
vdk BR
Section 1, 0-14 cm: Slightly disturbed.
Section 1 to Section 3, 150 cm: Radiolarian ooze, dark reddish brown (5YR 3/4).
Section 1, 0-13 cm: Occasional black (N1) manganese nodules, <1-cm size.
Section 4, 0 cm to Section 4, 100 cm: Diatom radiolarian ooze with clay, strong brown (7.5YR 4/6).
Section 4, 100 cm to Section 5, 50 cm: Radiolarian ooze with diatoms and clay, dark brown (7.5YR 3/4).
Section 5, 50 cm to Section CC: Clayey radiolarian ooze, very dark brown (7.5YR 2.5/3).
Section 7, 60-61 cm: Pumice (?) fragment, < 1 cm.

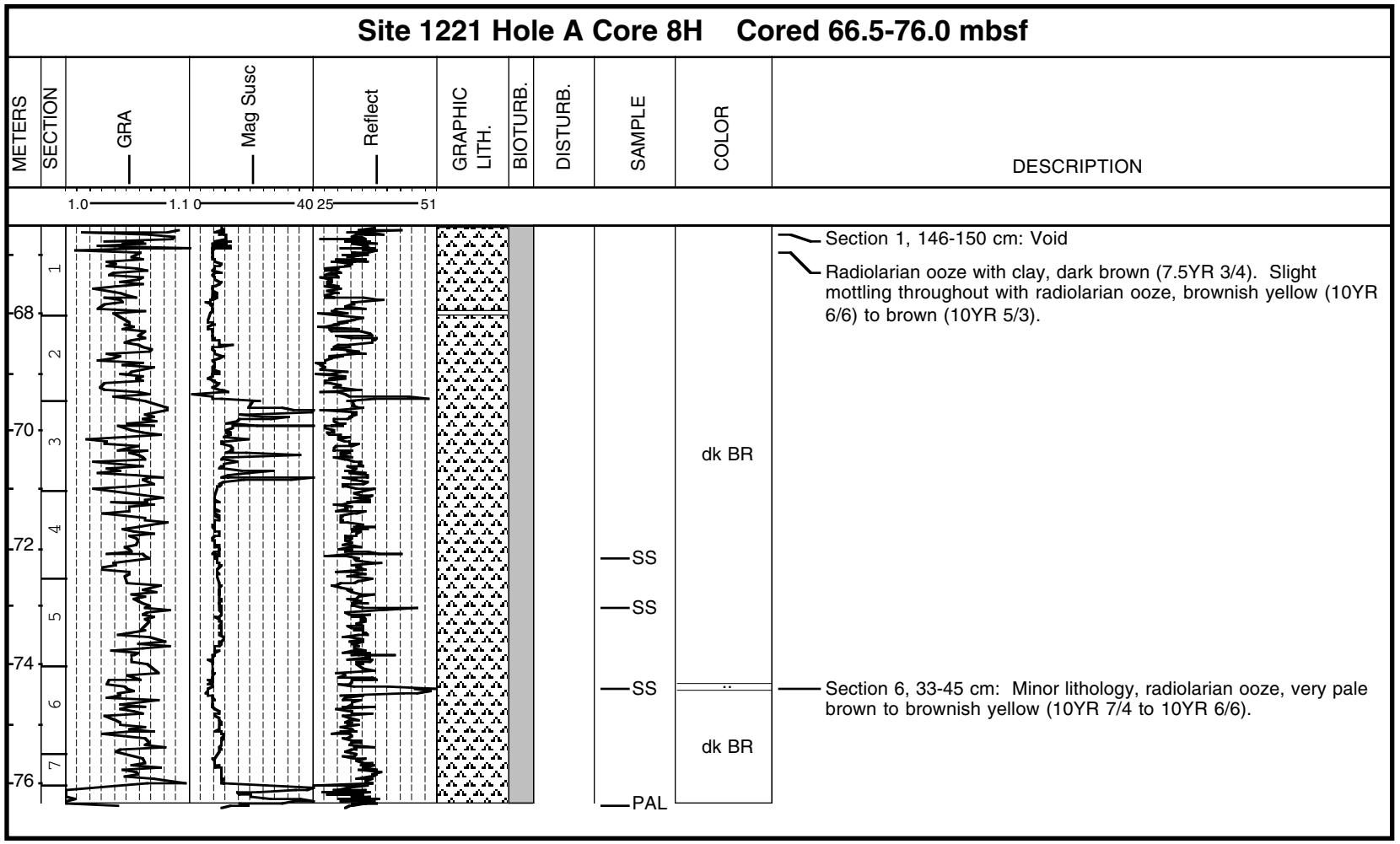
Core Photo


Site 1221 Hole A Core 6H Cored 47.5-57.0 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.0
1.3
0
72
23
44
48
50
52
54
56
1
2
3
4
5
6
7
P
P
IW
SS
PAL
dk BR
Section 1 to Section 3, 34 cm: Extremely soupy, containing small fragments of pumice (<1 cm-size).
Section 1, 14 cm: Fish tooth, sampled with working half.
Radiolarian ooze with clay, dark brown (7.5YR 3/4) with rare mottling of brown (10YR 4/3) and strong brown (7.5YR 4/4) colors.

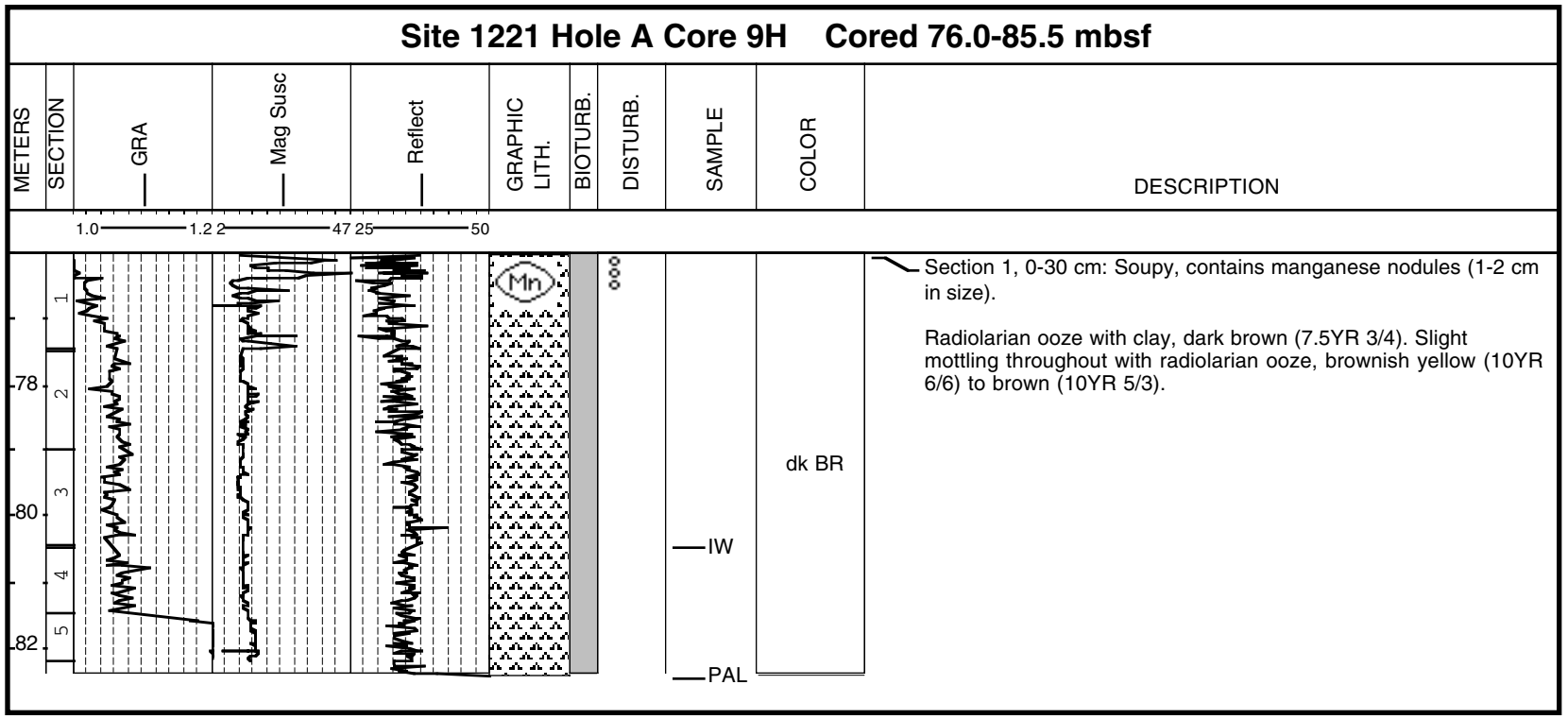
Core Photo


Site 1221 Hole A Core 7H Cored 57.0-66.5 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.0
1.1
2
25
23
51
58
60
62
64
66
1
2
3
4
5
6
7
SS
PAL
dk BR
Section 1, 0-82 cm: Soupy.
Radiolarian ooze with clay, dark brown (7.5YR 3/4). Slightly mottled.

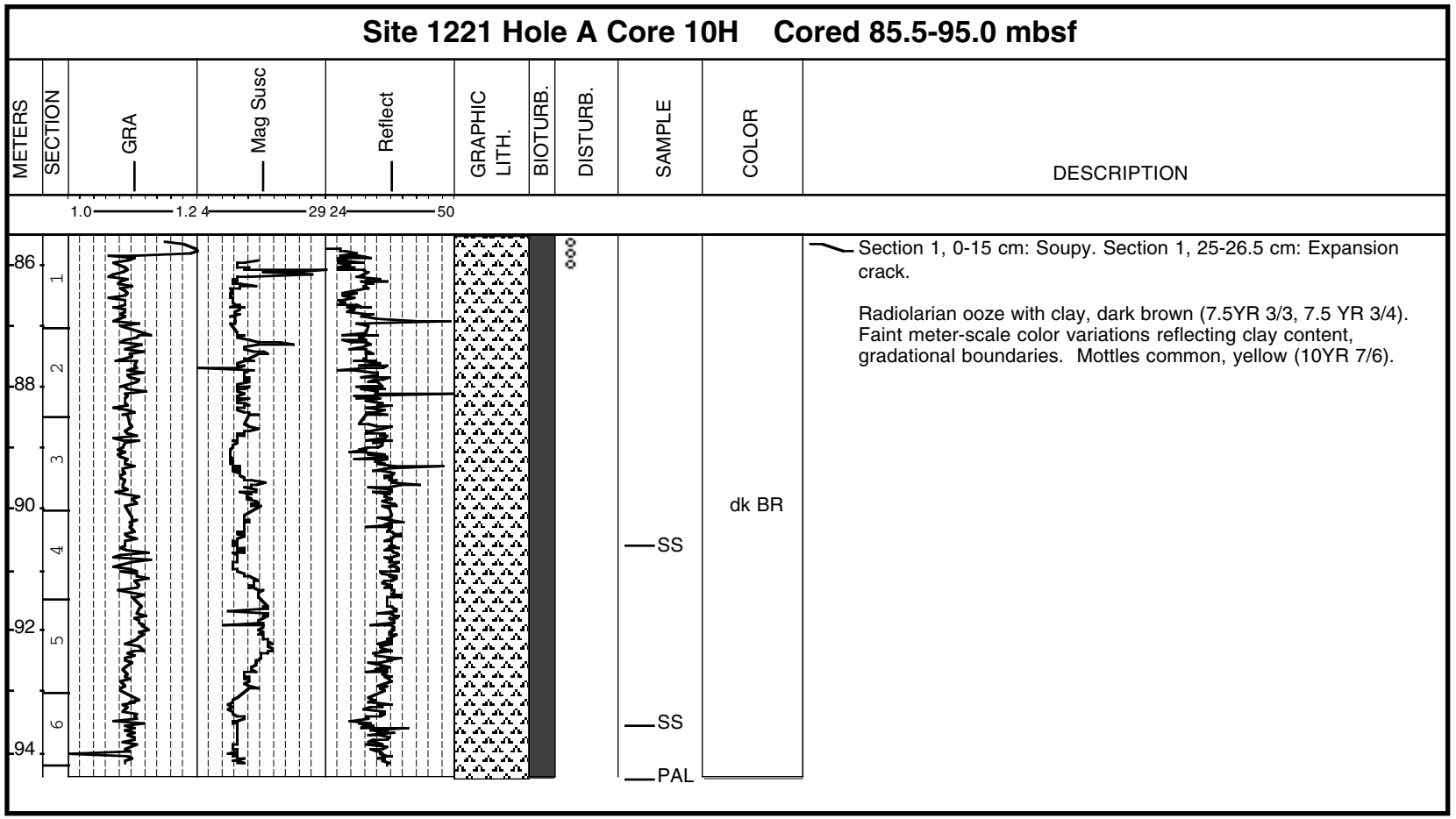
Core Photo


Site 1221 Hole A Core 8H Cored 66.5-76.0 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.0
1.1
0
40
25
51
68
70
72
74
76
1
2
3
4
5
6
7
SS
SS
SS
PAL
dk BR
dk BR
Section 1, 146-150 cm: Void
Radiolarian ooze with clay, dark brown (7.5YR 3/4). Slight mottling throughout with radiolarian ooze, brownish yellow (10YR 6/6) to brown (10YR 5/3).
Section 6, 33-45 cm: Minor lithology, radiolarian ooze, very pale brown to brownish yellow (10YR 7/4 to 10YR 6/6).

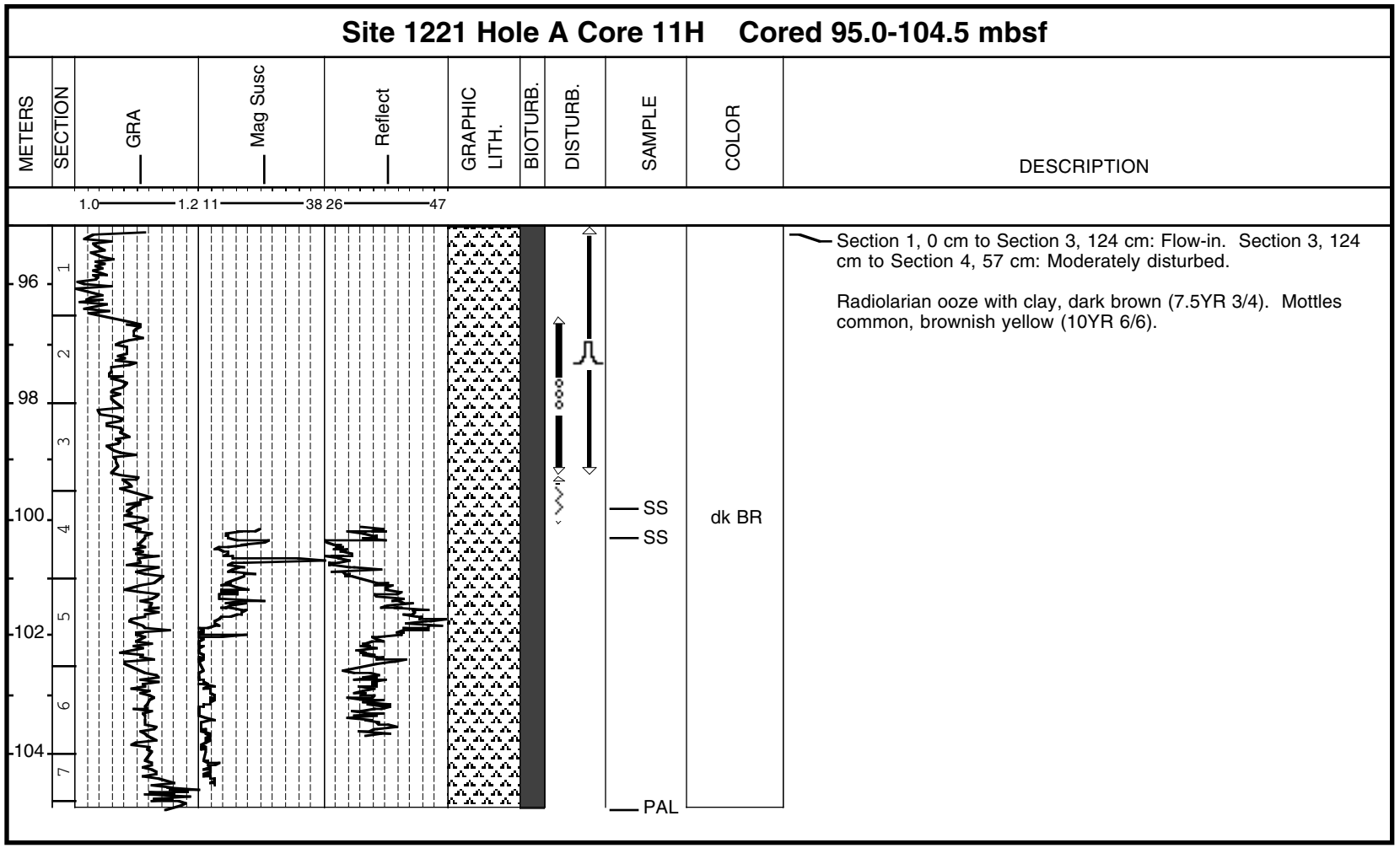
Core Photo


Site 1221 Hole A Core 9H Cored 76.0-85.5 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.0
1.2
2
47
25
50
78
80
82
1
2
3
4
5
Mn
IW
PAL
dk BR
Section 1, 0-30 cm: Soupy, contains manganese nodules (1-2 cm in size).
Radiolarian ooze with clay, dark brown (7.5YR 3/4). Slight mottling throughout with radiolarian ooze, brownish yellow (10YR 6/6) to brown (10YR 5/3).

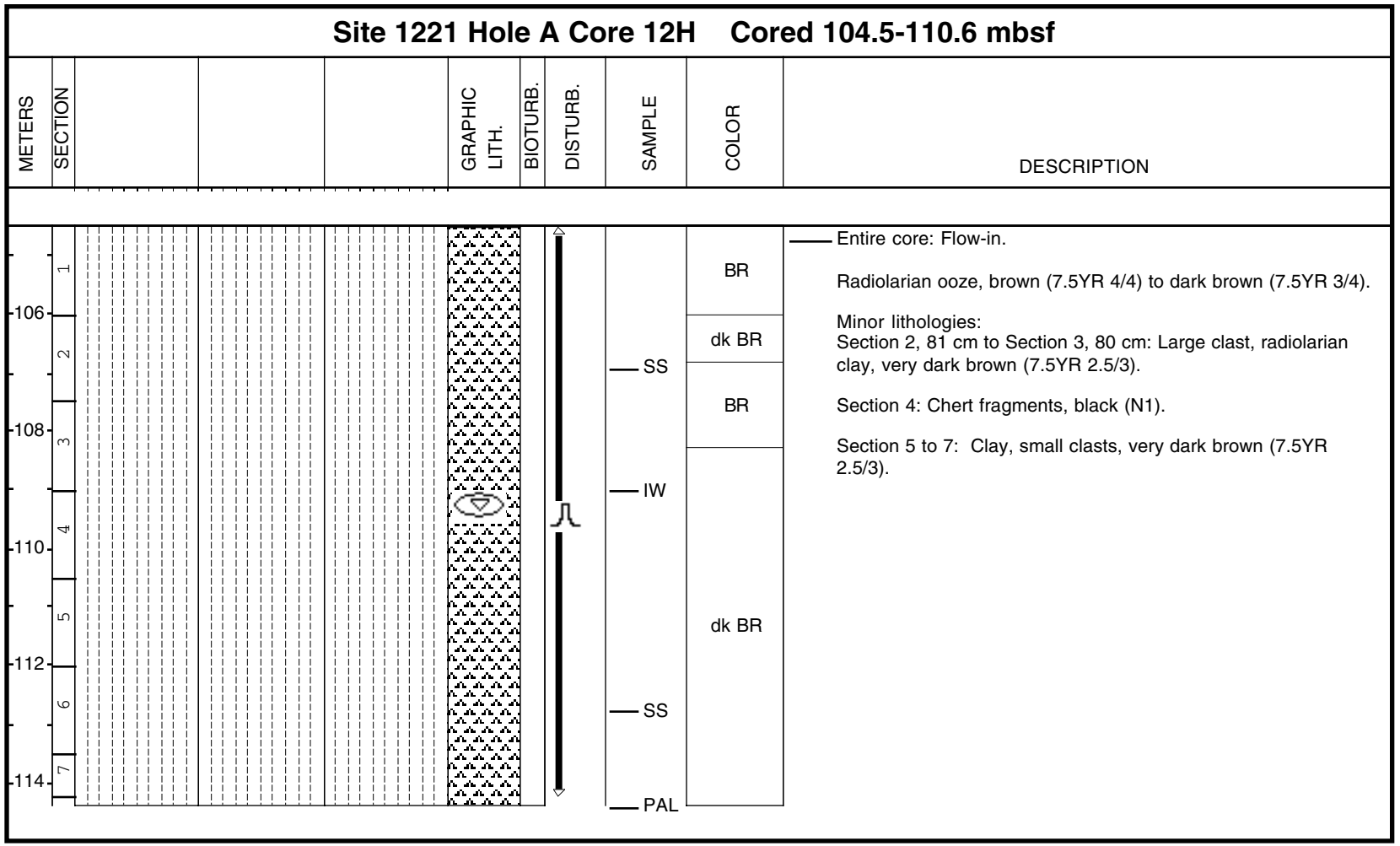
Core Photo


Site 1221 Hole A Core 10H Cored 85.5-95.0 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.0
1.2
4
29
24
50
86
88
90
92
94
1
2
3
4
5
6
SS
SS
PAL
dk BR
Section 1, 0-15 cm: Soupy. Section 1, 25-26.5 cm: Expansion crack.
Radiolarian ooze with clay, dark brown (7.5YR 3/3, 7.5 YR 3/4). Faint meter-scale color variations reflecting clay content, gradational boundaries. Mottles common, yellow (10YR 7/6).

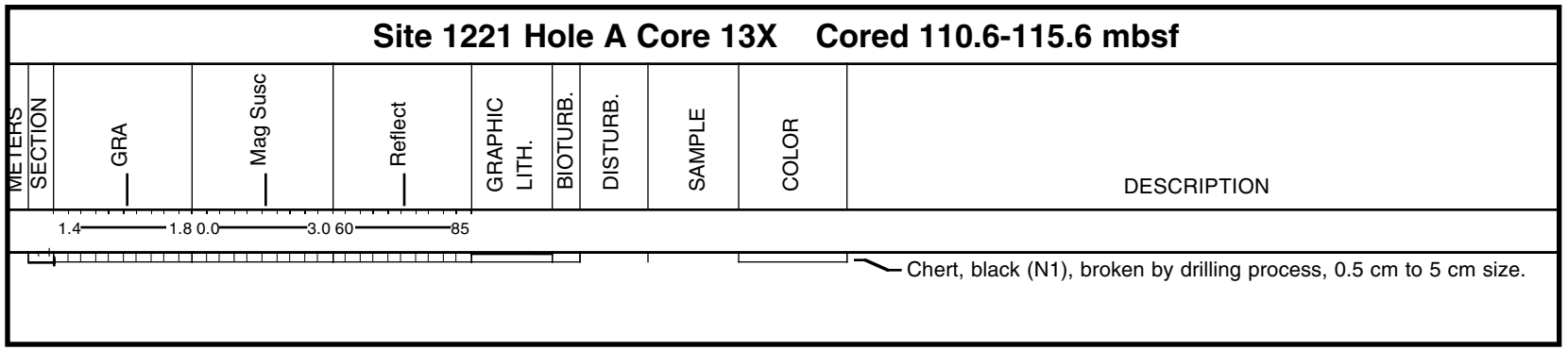
Core Photo


Site 1221 Hole A Core 11H Cored 95.0-104.5 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.0
1.2
11
38
26
47
96
98
100
102
104
1
2
3
4
5
6
7
SS
SS
PAL
dk BR
Section 1, 0 cm to Section 3, 124 cm: Flow-in. Section 3, 124 cm to Section 4, 57 cm: Moderately disturbed.
Radiolarian ooze with clay, dark brown (7.5YR 3/4). Mottles common, brownish yellow (10YR 6/6).

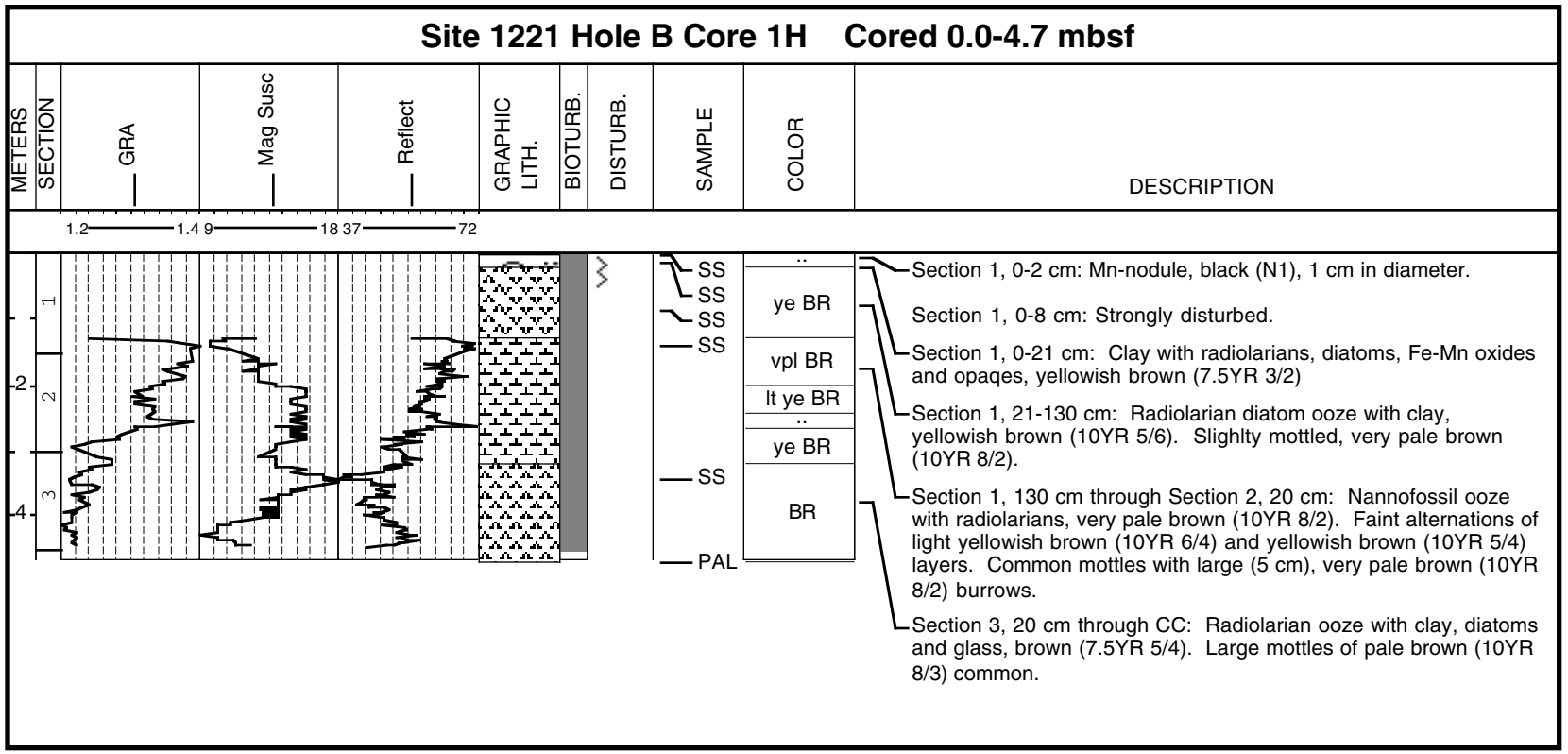
Core Photo


Site 1221 Hole A Core 12H Cored 104.5-110.6 mbsf
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
106
108
110
112
114
1
2
3
4
5
6
7
SS
IW
SS
PAL
BR
dk BR
BR
dk BR
Entire core: Flow-in.
Radiolarian ooze, brown (7.5YR 4/4) to dark brown (7.5YR 3/4).
Minor lithologies:
Section 2, 81 cm to Section 3, 80 cm: Large clast, radiolarian clay, very dark brown (7.5YR 2.5/3).
Section 4: Chert fragments, black (N1).
Section 5 to 7: Clay, small clasts, very dark brown (7.5YR 2.5/3).

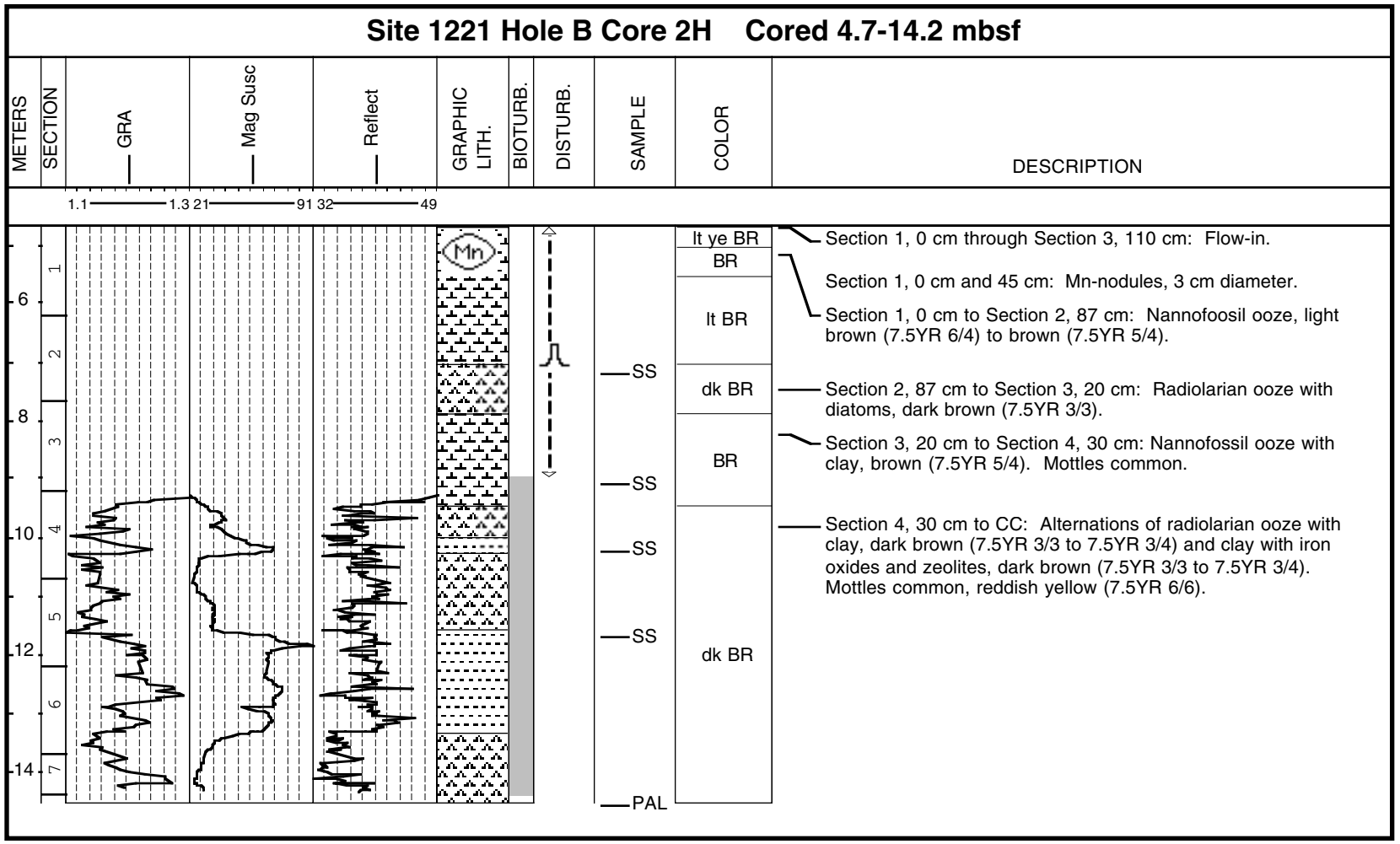
Core Photo


Site 1221 Hole A Core 13X Cored 110.6-115.6 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.4
1.8 0.0
3.0 60
85
Chert, black (N1), broken by drilling process, 0.5 cm to 5 cm size.

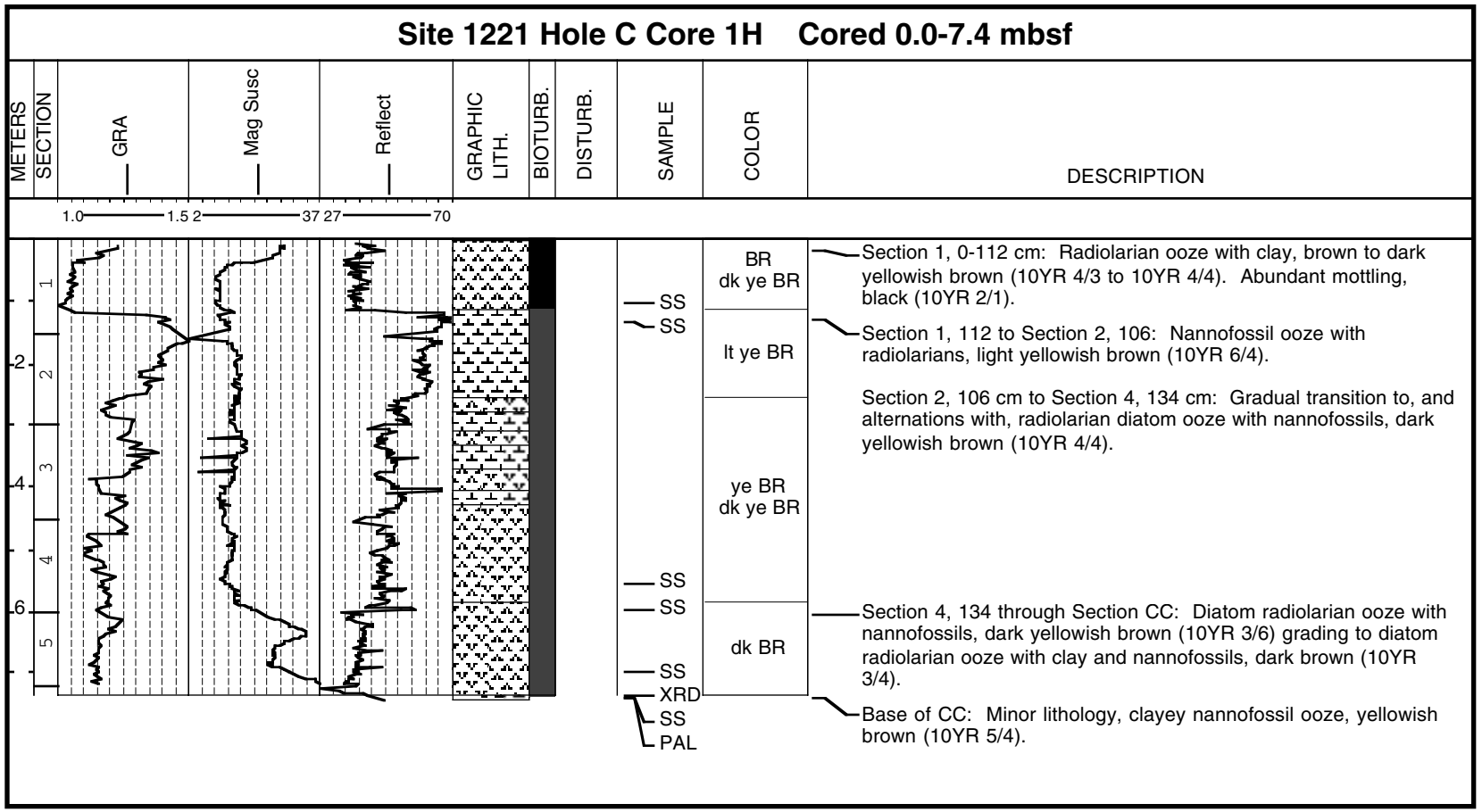
Core Photo


Site 1221 Hole B Core 1H Cored 0.0-4.7 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.2
1.4 9
18 37
72
SS
SS
SS
SS
SS
PAL
ye BR
vpl BR
lt ye BR
ye BR
BR
Section 1, 0-2 cm: Mn-nodule, black (N1), 1 cm in diameter.
Section 1, 0-8 cm: Strongly disturbed.
Section 1, 0-21 cm: Clay with radiolarians, diatoms, Fe-Mn oxides and opaqes, yellowish brown (7.5YR 3/2)
Section 1, 21-130 cm: Radiolarian diatom ooze with clay, yellowish brown (10YR 5/6). Slighlty mottled, very pale brown (10YR 8/2).
Section 1, 130 cm through Section 2, 20 cm: Nannofossil ooze with radiolarians, very pale brown (10YR 8/2). Faint alternations of light yellowish brown (10YR 6/4) and yellowish brown (10YR 5/4) layers. Common mottles with large (5 cm), very pale brown (10YR 8/2) burrows.
Section 3, 20 cm through CC: Radiolarian ooze with clay, diatoms and glass, brown (7.5YR 5/4). Large mottles of pale brown (10YR 8/3) common.

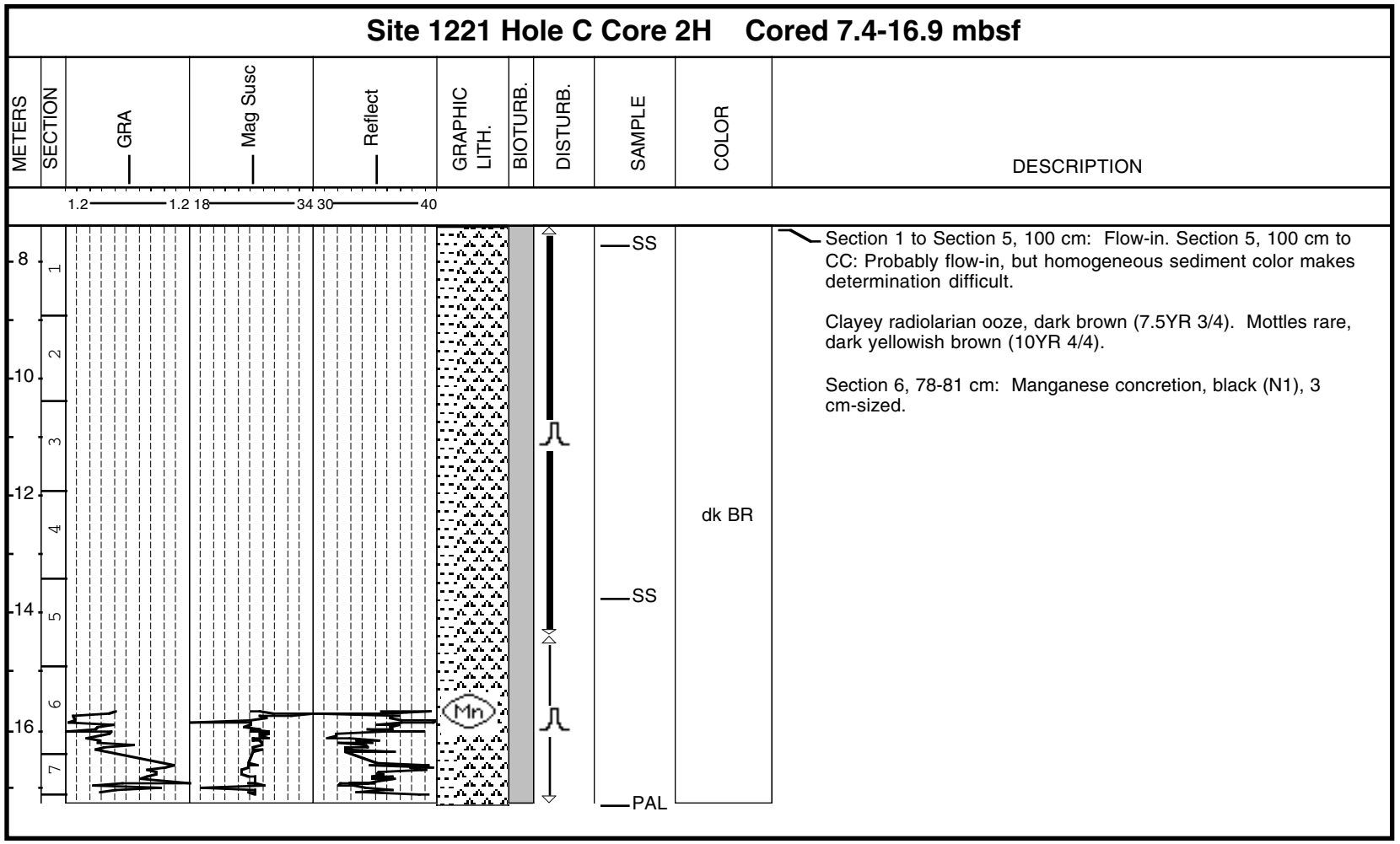
Core Photo


Site 1221 Hole B Core 2H Cored 4.7-14.2 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.1
1.3
21
91
32
49
6
8
10
12
14
Mn
SS
SS
SS
SS
PAL
lt ye BR
BR
lt BR
dk BR
BR
dk BR
Section 1, 0 cm through Section 3, 110 cm: Flow-in.
Section 1, 0 cm and 45 cm: Mn-nodules, 3 cm diameter.
Section 1, 0 cm to Section 2, 87 cm: Nannofoosil ooze, light brown (7.5YR 6/4) to brown (7.5YR 5/4).
Section 2, 87 cm to Section 3, 20 cm: Radiolarian ooze with diatoms, dark brown (7.5YR 3/3).
Section 3, 20 cm to Section 4, 30 cm: Nannofossil ooze with clay, brown (7.5YR 5/4). Mottles common.
Section 4, 30 cm to CC: Alternations of radiolarian ooze with clay, dark brown (7.5YR 3/3 to 7.5YR 3/4) and clay with iron oxides and zeolites, dark brown (7.5YR 3/3 to 7.5YR 3/4). Mottles common, reddish yellow (7.5YR 6/6).

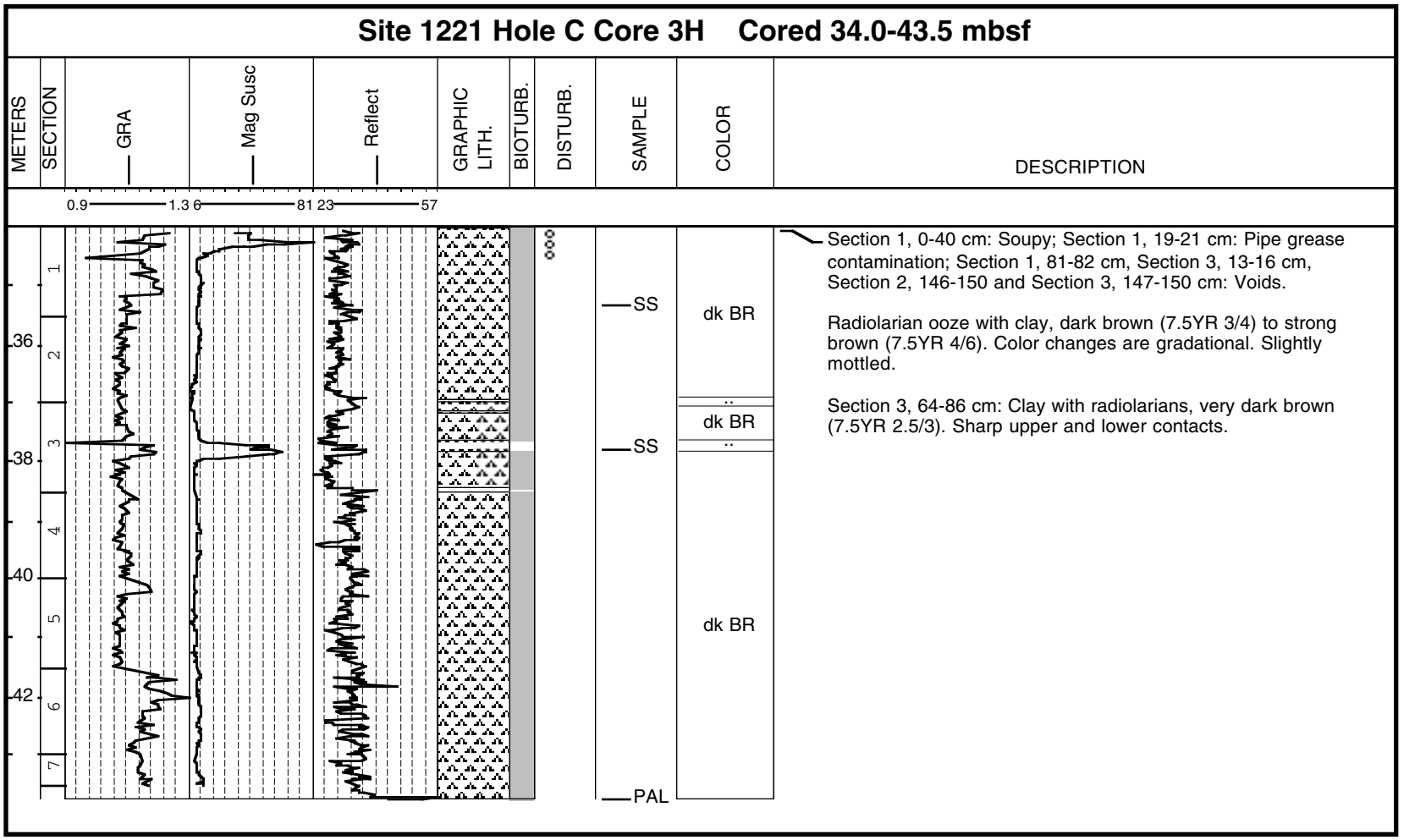
Core Photo


Site 1221 Hole C Core 1H Cored 0.0-7.4 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.0
1.5
2
37
27
70
SS
SS
SS
SS
SS
XRD
SS
PAL
BR
dk ye BR
lt ye BR
ye BR
dk ye BR
dk BR
Section 1, 0-112 cm: Radiolarian ooze with clay, brown to dark yellowish brown (10YR 4/3 to 10YR 4/4). Abundant mottling, black (10YR 2/1).
Section 1, 112 to Section 2, 106: Nannofossil ooze with radiolarians, light yellowish brown (10YR 6/4).
Section 2, 106 cm to Section 4, 134 cm: Gradual transition to, and alternations with, radiolarian diatom ooze with nannofossils, dark yellowish brown (10YR 4/4).
Section 4, 134 through Section CC: Diatom radiolarian ooze with nannofossils, dark yellowish brown (10YR 3/6) grading to diatom radiolarian ooze with clay and nannofossils, dark brown (10YR 3/4).
Base of CC: Minor lithology, clayey nannofossil ooze, yellowish brown (10YR 5/4).

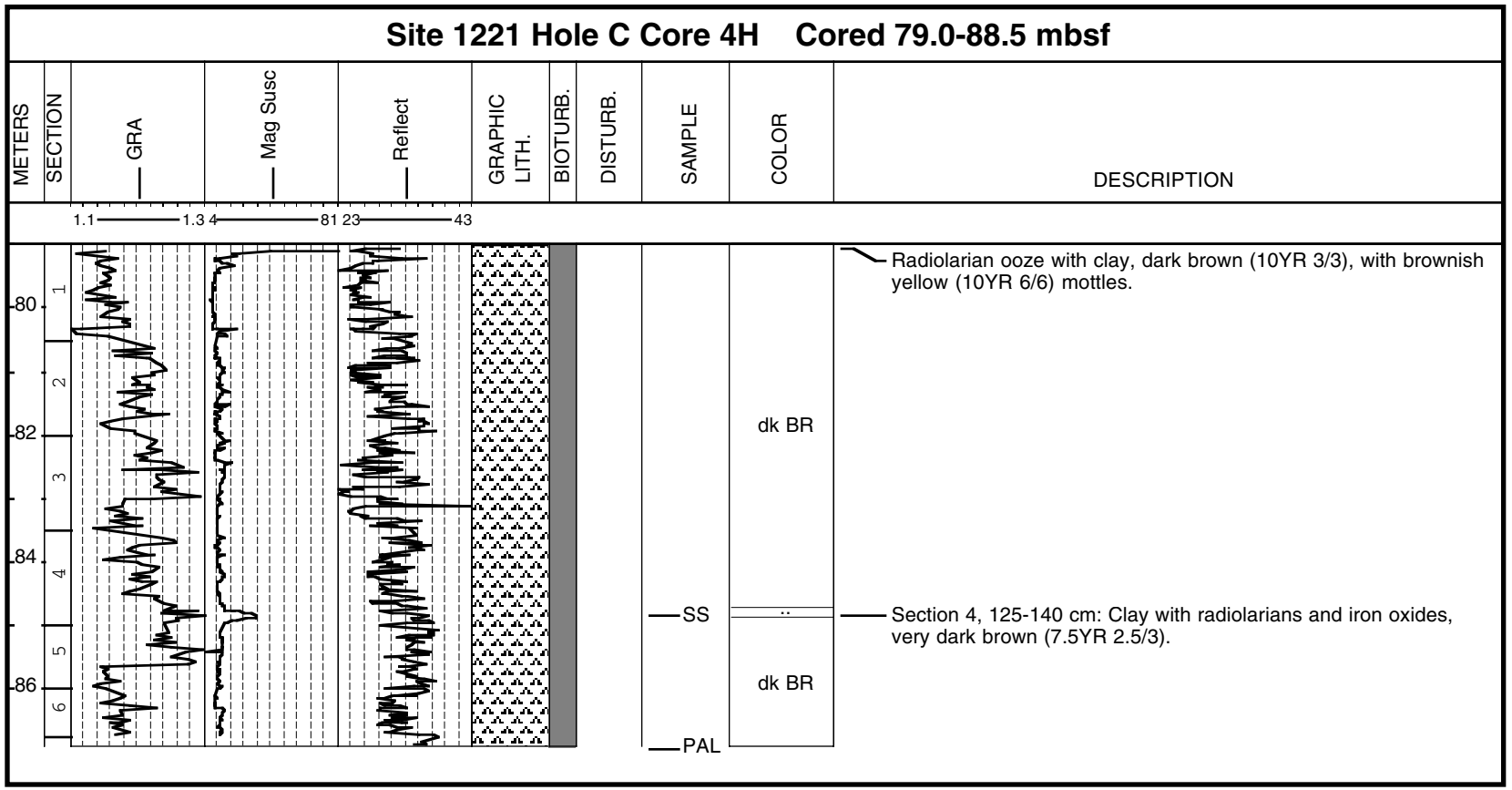
Core Photo


Site 1221 Hole C Core 2H Cored 7.4-16.9 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.2
1.2 18
34 30
40
8
10
12
14
16
1
2
3
4
5
6
7
Mn
SS
SS
PAL
dk BR
Section 1 to Section 5, 100 cm: Flow-in. Section 5, 100 cm to CC: Probably flow-in, but homogeneous sediment color makes determination difficult.
Clayey radiolarian ooze, dark brown (7.5YR 3/4). Mottles rare, dark yellowish brown (10YR 4/4).
Section 6, 78-81 cm: Manganese concretion, black (N1), 3 cm-sized.

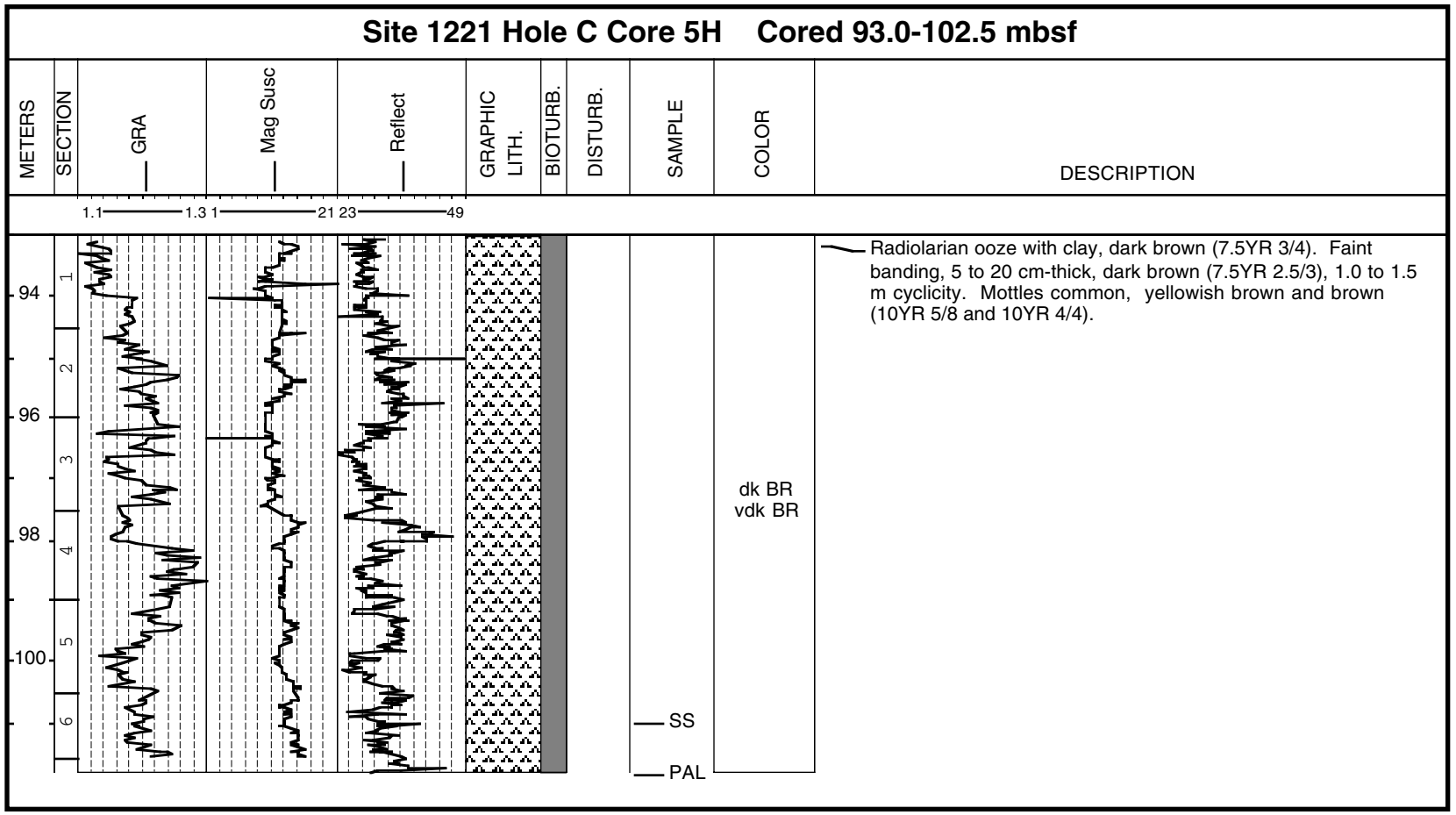
Core Photo


Site 1221 Hole C Core 3H Cored 34.0-43.5 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
0.9
1.3
6
81
23
57
36
38
40
42
1
2
3
4
5
6
7
SS
SS
PAL
dk BR
dk BR
dk BR
Section 1, 0-40 cm: Soupy; Section 1, 19-21 cm: Pipe grease contamination; Section 1, 81-82 cm, Section 3, 13-16 cm, Section 2, 146-150 and Section 3, 147-150 cm: Voids.
Radiolarian ooze with clay, dark brown (7.5YR 3/4) to strong brown (7.5YR 4/6). Color changes are gradational. Slightly mottled.
Section 3, 64-86 cm: Clay with radiolarians, very dark brown (7.5YR 2.5/3). Sharp upper and lower contacts.

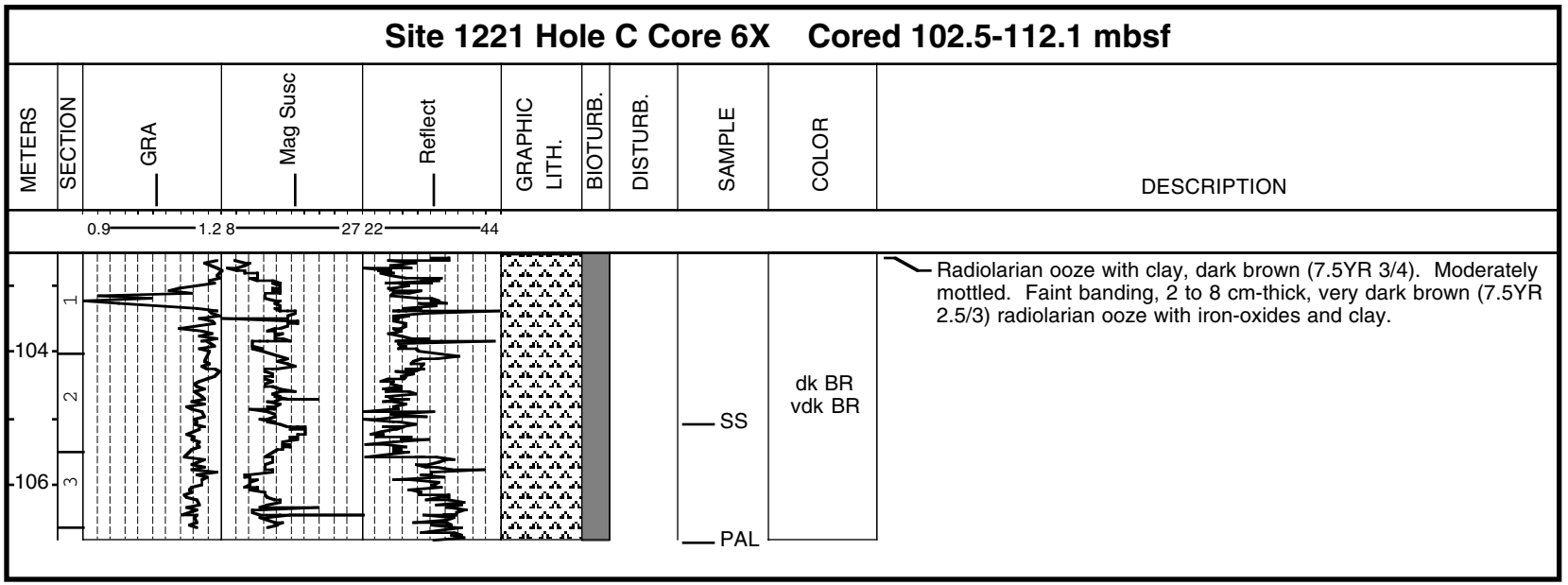
Core Photo


Site 1221 Hole C Core 4H Cored 79.0-88.5 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.1
1.3
4
81
23
43
80
82
84
86
1
2
3
4
5
6
SS
PAL
dk BR
dk BR
Radiolarian ooze with clay, dark brown (10YR 3/3), with brownish yellow (10YR 6/6) mottles.
Section 4, 125-140 cm: Clay with radiolarians and iron oxides, very dark brown (7.5YR 2.5/3).

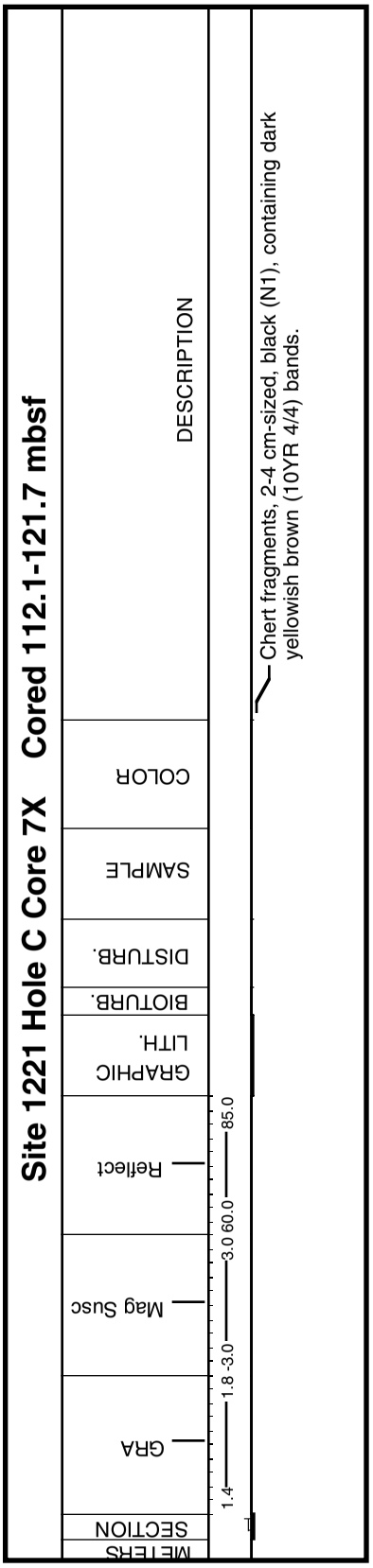
Core Photo


Site 1221 Hole C Core 5H Cored 93.0-102.5 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.1
1.3
1
21
23
49
94
96
98
100
1
2
3
4
5
6
SS
PAL
dk BR
vdk BR
Radiolarian ooze with clay, dark brown (7.5YR 3/4). Faint banding, 5 to 20 cm-thick, dark brown (7.5YR 2.5/3), 1.0 to 1.5 m cyclicity. Mottles common, yellowish brown and brown (10YR 5/8 and 10YR 4/4).

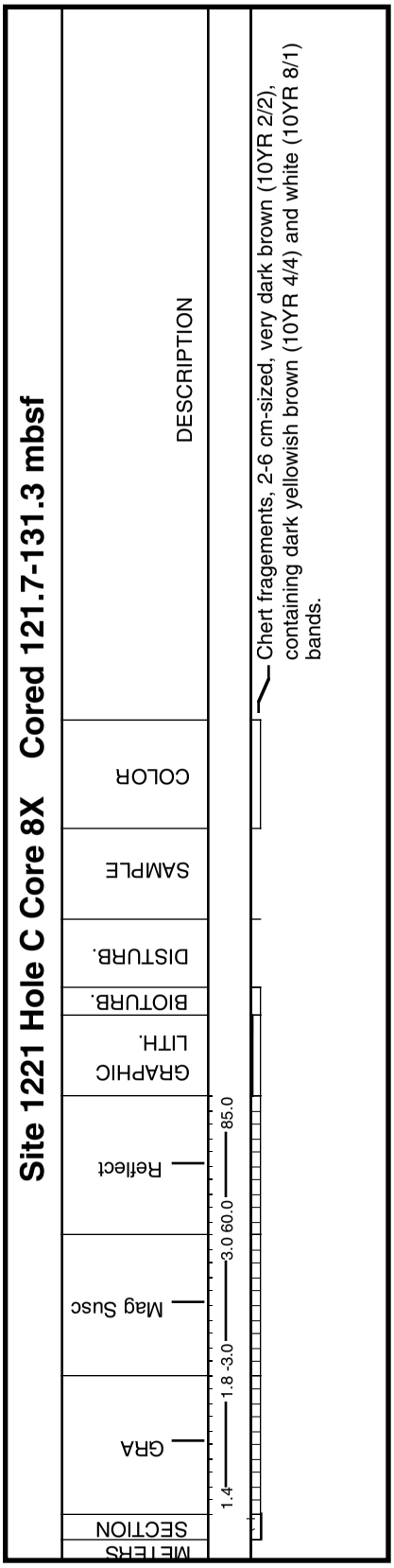
Core Photo


Site 1221 Hole C Core 6X Cored 102.5-112.1 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
0.9
1.2
8
27
22
44
104
106
1
2
3
SS
PAL
dk BR
vdk BR
Radiolarian ooze with clay, dark brown (7.5YR 3/4). Moderately mottled. Faint banding, 2 to 8 cm-thick, very dark brown (7.5YR 2.5/3) radiolarian ooze with iron-oxides and clay.

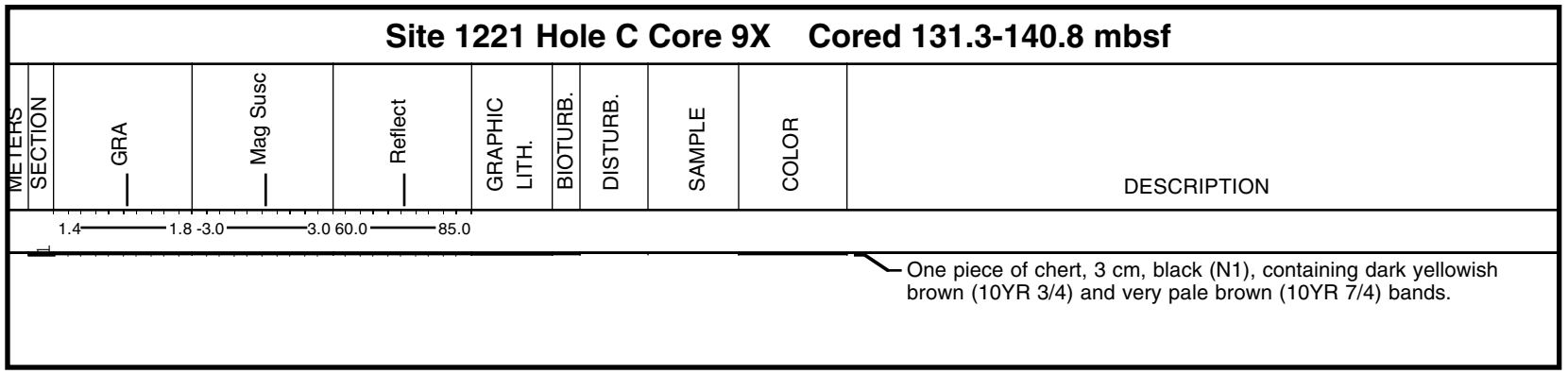
Core Photo


Site 1221 Hole C Core 7X Cored 112.1-121.7 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.4
1.8
3.0
60.0
85.0
Chert fragments, 2-4 cm-sized, black (N1), containing dark yellowish brown (10YR 4/4) bands.

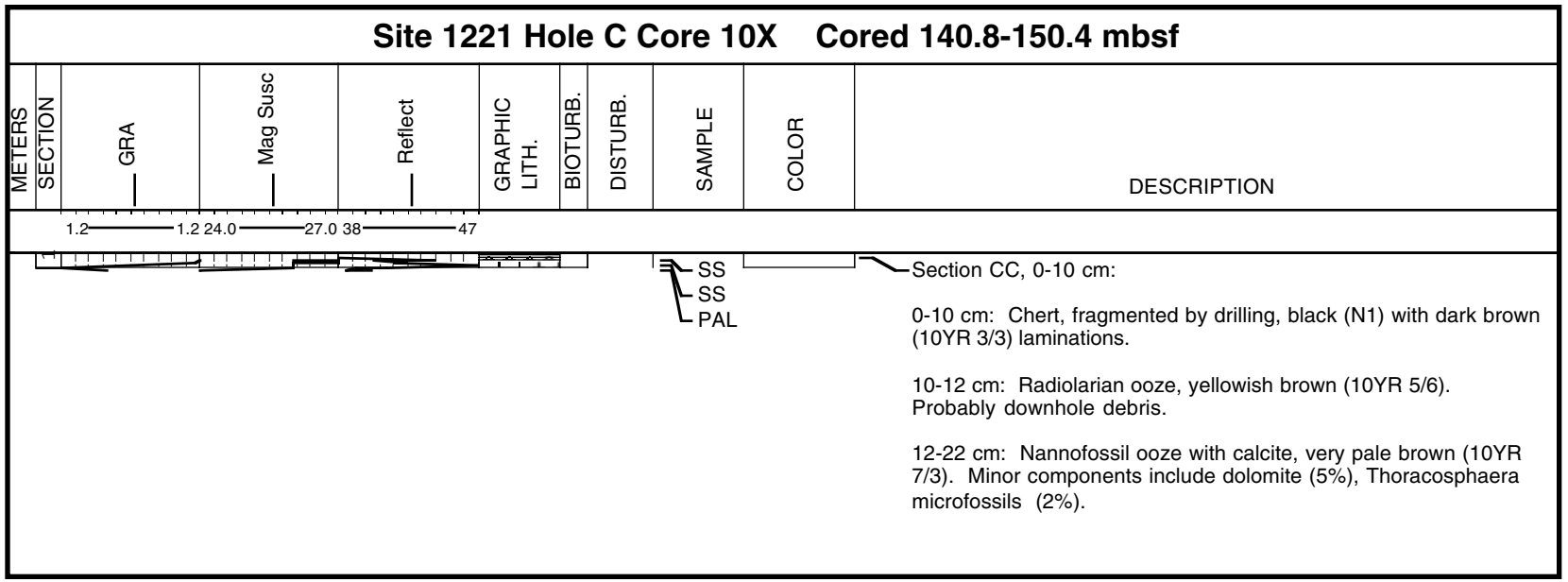
Core Photo


Site 1221 Hole C Core 8X Cored 121.7-131.3 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.4
1.8
3.0
60.0
85.0
Chert fragements, 2-6 cm-sized, very dark brown (10YR 2/2), containing dark yellowish brown (10YR 4/4) and white (10YR 8/1) bands.

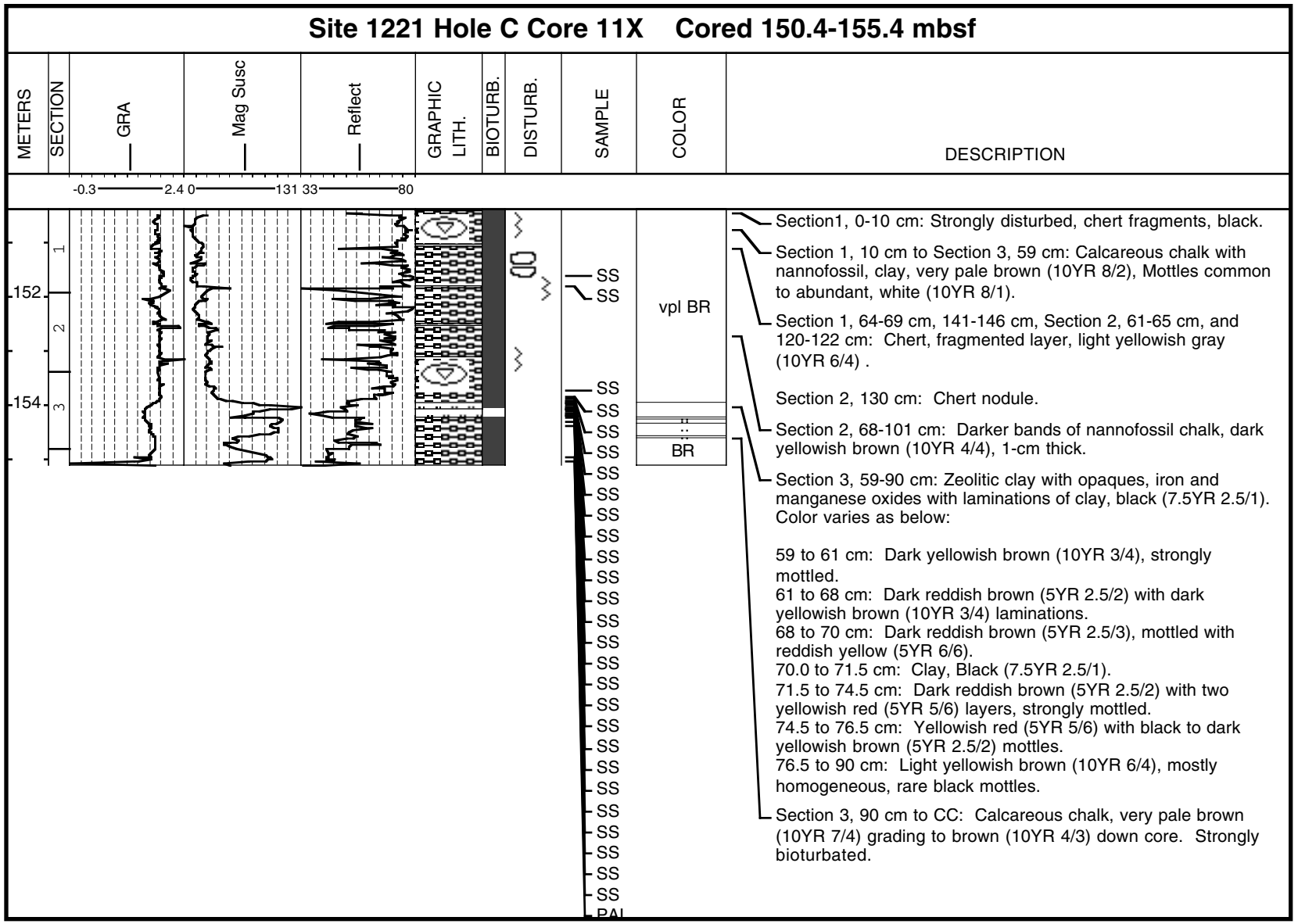
Core Photo


Site 1221 Hole C Core 9X Cored 131.3-140.8 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.4
1.8
-3.0
3.0
60.0
85.0
1
One piece of chert, 3 cm, black (N1), containing dark yellowish brown (10YR 3/4) and very pale brown (10YR 7/4) bands.

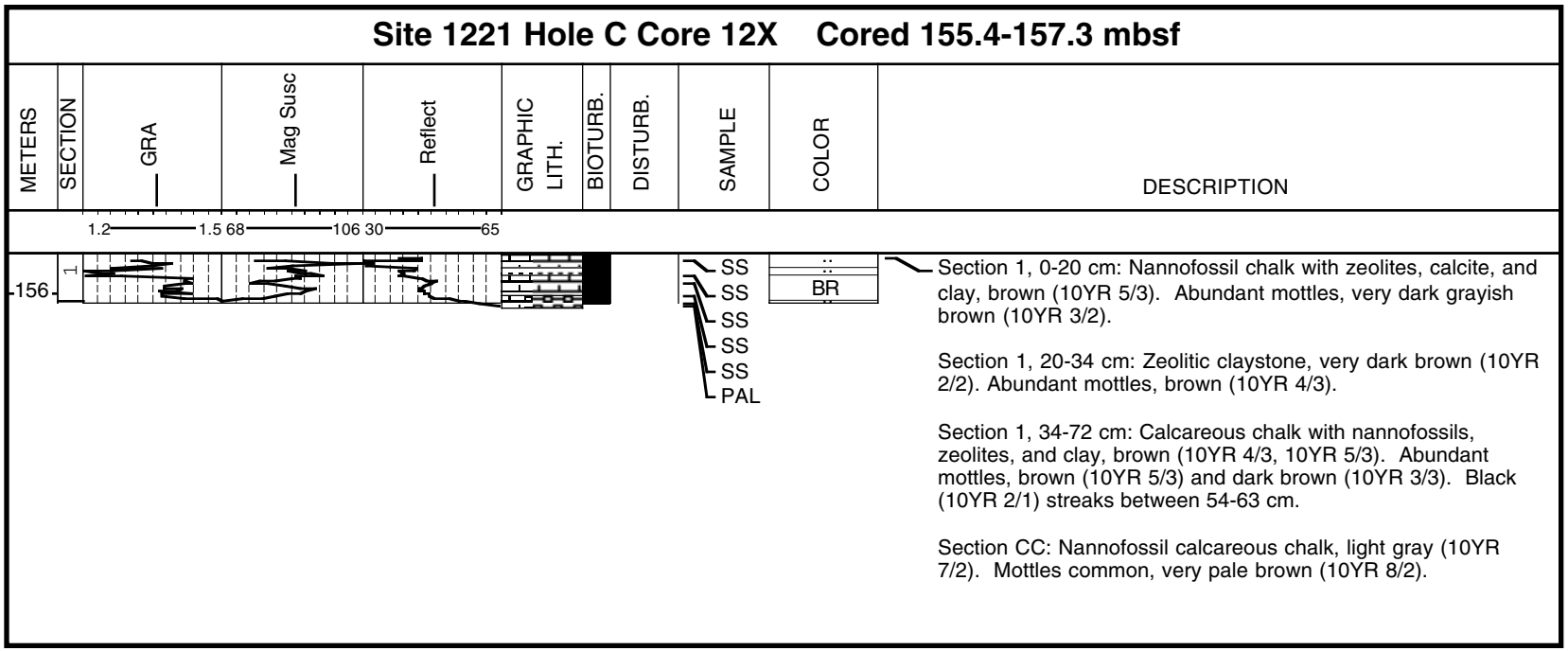
Core Photo


Site 1221 Hole C Core 10X Cored 140.8-150.4 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.2
1.2 24.0
27.0 38
47
SS
SS
PAL
Section CC, 0-10 cm:
0-10 cm: Chert, fragmented by drilling, black (N1) with dark brown (10YR 3/3) laminations.
10-12 cm: Radiolarian ooze, yellowish brown (10YR 5/6). Probably downhole debris.
12-22 cm: Nannofossil ooze with calcite, very pale brown (10YR 7/3). Minor components include dolomite (5%), Thoracosphaera microfossils (2%).

Core Photo

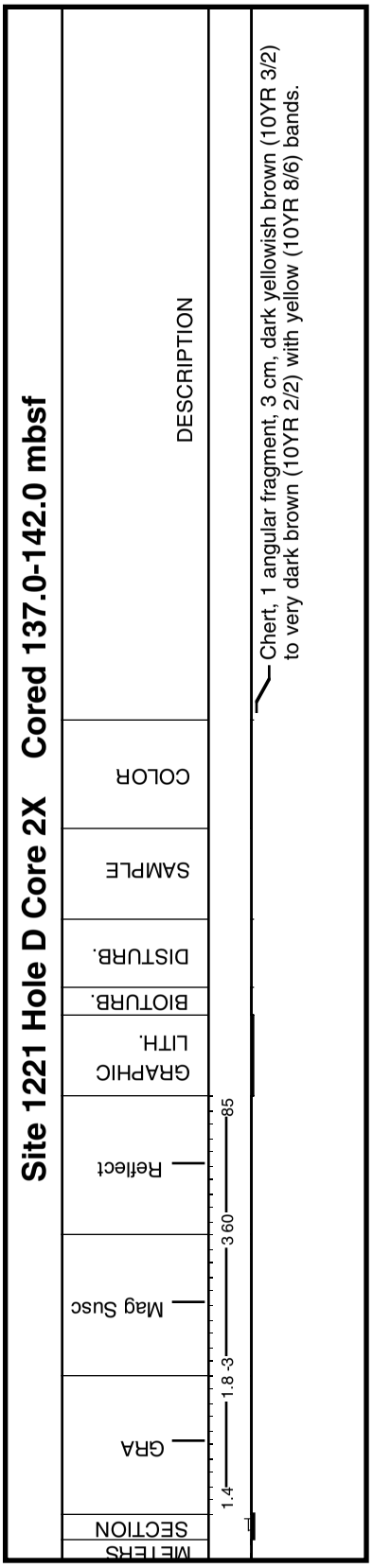

Site 1221 Hole C Core 11X Cored 150.4-155.4 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
-0.3
2.4
0
131
33
80
152
154
1
2
3
SS
PAL
vpl BR
BR
Section1, 0-10 cm: Strongly disturbed, chert fragments, black.
Section 1, 10 cm to Section 3, 59 cm: Calcareous chalk with nannofossil, clay, very pale brown (10YR 8/2), Mottles common to abundant, white (10YR 8/1).
Section 1, 64-69 cm, 141-146 cm, Section 2, 61-65 cm, and 120-122 cm: Chert, fragmented layer, light yellowish gray (10YR 6/4) .
Section 2, 130 cm: Chert nodule.
Section 2, 68-101 cm: Darker bands of nannofossil chalk, dark yellowish brown (10YR 4/4), 1-cm thick.
Section 3, 59-90 cm: Zeolitic clay with opaques, iron and manganese oxides with laminations of clay, black (7.5YR 2.5/1). Color varies as below:
59 to 61 cm: Dark yellowish brown (10YR 3/4), strongly mottled.
61 to 68 cm: Dark reddish brown (5YR 2.5/2) with dark yellowish brown (10YR 3/4) laminations.
68 to 70 cm: Dark reddish brown (5YR 2.5/3), mottled with reddish yellow (5YR 6/6).
70.0 to 71.5 cm: Clay, Black (7.5YR 2.5/1).
71.5 to 74.5 cm: Dark reddish brown (5YR 2.5/2) with two yellowish red (5YR 5/6) layers, strongly mottled.
74.5 to 76.5 cm: Yellowish red (5YR 5/6) with black to dark yellowish brown (5YR 2.5/2) mottles.
76.5 to 90 cm: Light yellowish brown (10YR 6/4), mostly homogeneous, rare black mottles.
Section 3, 90 cm to CC: Calcareous chalk, very pale brown (10YR 7/4) grading to brown (10YR 4/3) down core. Strongly bioturbated.

Core Photo

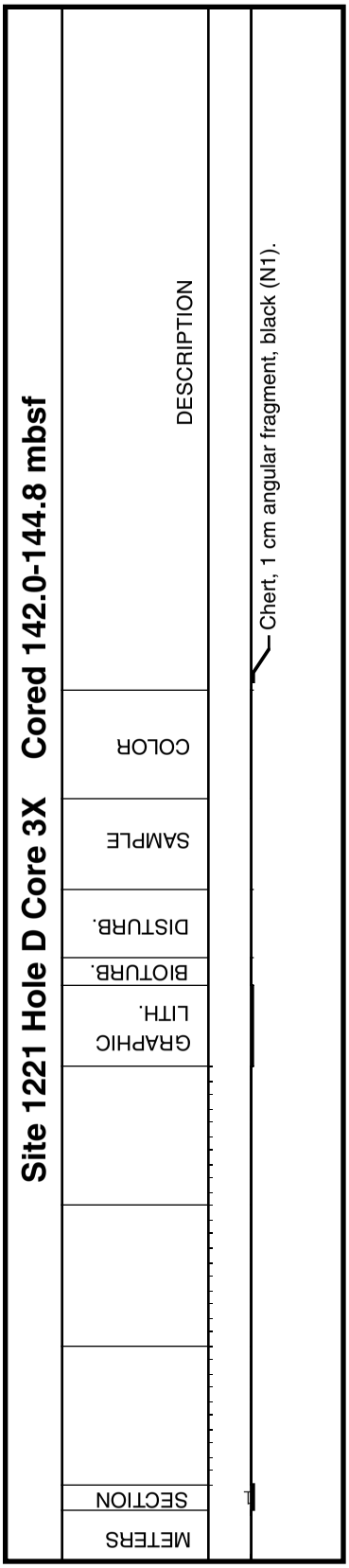


1221D-1X No Recovery

Core Photo

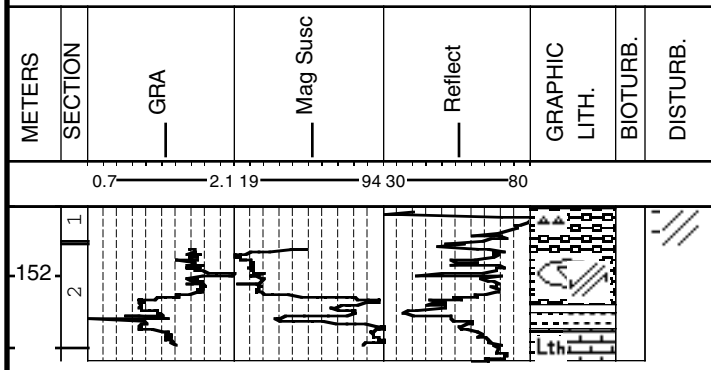

Site 1221 Hole D Core 2X Cored 137.0-142.0 mbsf
METERS
SECTION
GRA
Mag Susc
Reflect
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
1.4
1.8
-3
60
85
Chert, 1 angular fragment, 3 cm, dark yellowish brown (10YR 3/2) to very dark brown (10YR 2/2) with yellow (10YR 8/6) bands.

Core Photo


Site 1221 Hole D Core 3X Cored 142.0-144.8 mbsf
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
DISTURB.
SAMPLE
COLOR
DESCRIPTION
Chert, 1 cm angular fragment, black (N1).

Core Photo

Site 1221 Hole D Core 4X Cored 151.0-156.0 mbsf



Section 1, 0-25 cm: Drilling slurry with fragmented chert breccia. Chert is black (N1), very dark brown (10YR 2/2) and light yellowish brown (10YR 6/4).

Section 1, 25 cm to Section 2, 69 cm: Carbonate chalk, very pale brown (10YR 7/3). Intervals of chert breccia in Section 1, 0-8 cm, 25-31 cm, and 49-53 cm. Thin parallel laminations of yellowish brown (10YR 5/4) in Section 2, 0-3 cm. Folded laminations of similar lithology in Section 2, 17-26 cm.

Section 2, 41-45 cm: Large chert nodule, very dark gray interior (10YR 3/1), rimmed with light gray (10YR 7/2).

Section 2, 69-91 cm: Carbonate Chalk, yellowish brown to light reddish brown (10YR 7/3 to 5YR 6/4). Strongly mottled. Microfaults observed in Section 2, 80-86 cm.

Section 2, 91-101.5 cm: Clay, dark brown to very dark brown (7.5YR 3/2 to 10YR 2.5/2) grading to black (7.5YR 2/1). Thin parallel laminations with reddish yellow (5YR 6/6). Sharp basal contact.

Section 2, 101.5-105: Zeolitic clay, reddish yellow (7.5YR 6/6). Mottled with light yellowish brown (10YR 6/4).

Section 2, 105-123 cm: Zeolitic clay, light yellowish brown (10YR 6/4). Homogeneous.

Section 2, 123 cm to Section CC, 23 cm: Nannofossil chalk, very pale brown (10YR 7/4, 10YR 8/4 and 10YR 8/3). Strongly mottled. Strongly mottled with slightly darker colored 10YR 7/3.

Section CC, 17 cm: Basalt, very dark gray (10YR 3/1) fine-grained phaneritic. Weathered fragment.

Sample									Texture			Mineral										Biogenic									
Leg	Site	Hole	Core	Coretype	Section	Top Interval (cm)	Depth (mbsf)	Lithology	Sand	Silt	Clay	Apatite (14)	Calcite (30)	Clay Mineral (47)	Dolomite (62)	Fe Oxide (68)	Feldspar (71)	Opaques (140)	Plagioclase (159)	Volcanic Glass (81)	Zeolite (222)	Calcispheres (29)	Diatoms (58)	Fish Remains (74)	Foraminifers (78)	Nannofossils (132)	Radiolarians (173)	Siliceous Sponge Spicules (185)	Silicoflagellates (189)	Theracosphera (252)	Comments
Hole A																															
199	1221	A	1	H	4	17	4.67	D			100			10						10			15			35	30				Radiolarian, nannofossil ooze with diatoms, clay and glass
199	1221	A	1	H	4	75	5.25	D			100			10						10			40			35	5				Nannofossil, diatom ooze with clay, and volcanic glass
199	1221	A	1	H	4	80	5.30	D			100			10						15			25			40	10				Nannofossil ooze with diatoms, volcanic glass, radiolarians and clay
199	1221	A	1	H	5	40	6.40	D			100			10						10			35			30	15				Nannofossil diatom ooze with radiolarian, clay, and volcanic glass
199	1221	A	1	H	5	90	6.90	D			100			20		1				15			24			20	20				Diatom ooze with clay, glass, nannofossils, and radiolarians
199	1221	A	1	H	6	109	8.59	D			100			56		2		3		2	2						35				Radiolarian clay
199	1221	A	1	H	7	30	9.30	D			100			53		7		3		2	35										Zeolitic clay
199	1221	A	1	H	7	80	9.80	D			100			15		5							*				80				Radiolarian ooze with clay
199	1221	A	1	H	CC	20	10.09	D			100			15		3							2				80				Radiolarian ooze with clay
199	1221	A	2	H	1	64	10.14	D			100			40		15		15		1	29										Zeolitic clay with Fe-oxides and opaque minerals
199	1221	A	2	H	3	9	12.59	D			100			55		15		15		*							15				Clay with Fe-oxides, opaque minerals, and radiolarians
199	1221	A	2	H	3	30	12.80	D			100			15		5		3									77				Radiolarian ooze with clay
199	1221	A	2	H	5	9	15.59	M			100			5													95				Radiolarian ooze
199	1221	A	3	H	4	60	24.10	M			100			65		20				10	5		*								Clay with iron oxides and volcanic glass
199	1221	A	3	H	4	80	24.30	D			100			39		2							5				45	9			Clayey radiolarian ooze
199	1221	A	4	H	3	93	32.43	M			100			25		5							1				69	*			Clayey radiolarian ooze
199	1221	A	4	H	5	123	35.73	D			100			15		2							3				78	2			Radiolarian ooze with clay
199	1221	A	4	H	6	90	36.90	M			100			15		*											83	2			Radiolarian ooze with clay
199	1221	A	4	H	6	119	37.19	M			100			20													79	1			Radiolarian ooze with clay
199	1221	A	5	H	1	90	38.90	D			100			20		5					5		*				65	5			Radiolarian ooze with clay
199	1221	A	5	H	4	60	43.10	D			100			18		2							35				40	5			Diatomaceous radiolarian ooze with clay
199	1221	A	5	H	5	20	44.20	D			100			15		5		3					20				57	*			Radiolarian ooze with diatoms and clay
199	1221	A	5	H	7	20	47.20	D			100			36		5							5				45	9			Clayey radiolarian ooze
199	1221	A	6	H	5	117	54.67	D			100			20			*										78	2			Radiolarian ooze with clay
199	1221	A	7	H	4	80	62.30	D			100			20		6											65	9	*		Radiolarian ooze with clay
199	1221	A	8	H	4	117	72.17	M			100			5									*				93	2			Radiolarian ooze
199	1221	A	8	H	5	51	73.01	M			100			8		1		1					*				88	2			Radiolarian ooze
199	1221	A	8	H	6	39	74.39	D			100			10		5							*				83	2			Radiolarian ooze with clay
199	1221	A	10	H	4	60	90.60	D			100			10		3							*				87				Radiolarian ooze with clay
199	1221	A	10	H	6	50	93.50	D			100			20		5		5									70				Radiolarian ooze with clay
199	1221	A	11	H	4	30	99.80	D			100			15		3											82				Radiolarian ooze with clay
199	1221	A	11	H	4	80	100.30	D			100			20		10		3									67				Radiolarian ooze with clay and Fe-oxides
199	1221	A	11	H	6	30	102.80	D			100			20		5		5									70				Radiolarian ooze with clay
199	1221	A	12	H	2	90	106.90	D			100			55		8		7									30				Radiolarian clay (Flow in)
199	1221	A	12	H	6	75	112.75	D			100			10		3											87				Radiolarian ooze (Flow in)
Hole B																															
199	1221	B	1	H	1	2	0.02	D			100			45		10		10					15				20				Clay with radiolarians, diatoms, Fe-oxides, and opaque minerals
199	1221	B	1	H	1	11	0.11	D			100			55		15		20			5						5				Clay with opaques and Fe-oxides
199	1221	B	1	H	1	82	0.82	D			100			10									60				30				Radiolarian diatom ooze with clay

Sample									Texture			Mineral										Biogenic									
Leg	Site	Hole	Core	Coretype	Section	Top Interval (cm)	Depth (mbsf)	Lithology	Sand	Silt	Clay	Apatite (14)	Calcite (30)	Clay Mineral (47)	Dolomite (62)	Fe Oxide (68)	Feldspar (71)	Opaques (140)	Plagioclase (159)	Volcanic Glass (81)	Zeolite (222)	Calcispheres (29)	Diatoms (58)	Fish Remains (74)	Foraminifers (78)	Nannofossils (132)	Radiolarians (173)	Siliceous Sponge Spicules (185)	Silicoflagellates (189)	Theracosphera (252)	Comments
Hole B (continued)																															
199	1221	B	1	H	1	139	1.39	D			100															90	10				Nannofossil ooze with radiolarians
199	1221	B	1	H	2	30	1.80	D			100															85	15				Nannofossil ooze with radiolarians
199	1221	B	1	H	3	39	3.39	D			100			20						10			15				55				Radiolarian ooze with clay, diatoms, and volcanic glass
199	1221	B	2	H	2	99	7.19	D			100			20		2		2					5				71				Radiolarian ooze with diatoms
199	1221	B	2	H	3	139	9.09	D			100			10		3				5						77	5				Nannofossil ooze with clay
199	1221	B	2	H	4	130	10.50	D			100			15		3		1					*				81				Radiolarian ooze with clay
199	1221	B	2	H	5	99	11.69	D			100			75		10		5		*	10										Clay with Fe-oxides and zeolites
Hole C																															
199	1221	C	1	H	1	99	0.99	D			100			15		*							*				83	2			Radiolarian ooze with clay
199	1221	C	1	H	1	130	1.30	D			100			3		*							*			77	20	*			Nannofossil ooze with radiolarians
199	1221	C	1	H	4	100	5.50	D			100			8		4					1		35			20	30	2			Radiolarian diatom ooze with nannofossils
199	1221	C	1	H	4	142	5.92	M			100			5									35			20	40	*			Diatomaceous radiolarian ooze with nannofossil
199	1221	C	1	H	5	95	6.95	D			100			15							5		25			15	40	*			Diatom radiolarian ooze with nannofossils and clay
199	1221	C	1	H	CC	0	7.18	D			100			30		1				1			*			55	13				Clayey nannofossil ooze with radiolarians
199	1221	C	2	H	1	30	7.70	D			100			30		8		2						*			60	*			Clayey radiolarian ooze
199	1221	C	2	H	5	30	13.70	M			100			65		20		*			15										Clay with iron oxides and zeolites
199	1221	C	3	H	1	130	35.30	D			100			15		3		*					5				75	2			Radiolarian ooze with clay
199	1221	C	3	H	3	75	37.75	M			100			72		8					5						15	*			Clay with radiolarians
199	1221	C	4	H	4	130	84.80	M			100			40		24		9									23	4			Clay with radiolarians and iron oxides
199	1221	C	5	H	6	49	100.99	M			100			3				2					2				90	3			Radiolarian ooze
199	1221	C	6	X	2	104	105.04	M			100			10		15							2	*			73	*			Radiolarian ooze with iron oxides and clay
199	1221	C	10	X	CC	10	140.90	M			100			3	*											5	90	2			Radiolarian ooze
199	1221	C	10	X	CC	20	141.00	D			100		20	3	5												70			2	Nannofossil ooze with calcite
199	1221	C	11	X	1	121	151.61	D			100		50	10	18							1			1	20					Calcareous chalk with dolomite, nannofossils, and clay
199	1221	C	11	X	1	139	151.79	D			100		30	15	30										*	25					Carbonate chalk with nannofossils and clay
199	1221	C	11	X	3	30	153.70	D			100		55	10	15							5				15					Calcareous chalk with dolomite, nannofossils, and clay
199	1221	C	11	X	3	45	153.85	D			100		60	10	7							3				20					Calcareous chalk with nannofossils, dolomite, and clay
199	1221	C	11	X	3	48	153.88	D			100		68	10	5	*						2			*	15					Calcareous chalk with nannofossils and clay
199	1221	C	11	X	3	51.5	153.92	D			100		72	15	3						5	*			*	5					Calcareous chalk with clay
199	1221	C	11	X	3	54	153.94	D			100		65	15	*	2		3								15					Calcareous chalk with nannofossils and clay
199	1221	C	11	X	3	55	153.95	D			100		25	20		10		20			10					15					Carbonate chalk with clay, opaque minerals, nannofossils, and Fe-oxides
199	1221	C	11	X	3	56	153.96	D			100		69	10		*		1				*				20					Carbonate chalk with nannofossils and clay
199	1221	C	11	X	3	57	153.97	D			100		59	15	5			1				*				20					Carbonate chalk with nannofossils and clay
199	1221	C	11	X	3	60	154.00	D			100	3	5	15				5			70					2					Zeolite clay
199	1221	C	11	X	3	62	154.02	D			100	5	3	15		1		4			70					2					Zeolite clay
199	1221	C	11	X	3	64	154.04	D			100	5	*	10		3		12			70					*					Zeolite clay with opaques
199	1221	C	11	X	3	66	154.06	D			100	5		10	3			3		*	79										Zeolite clay
199	1221	C	11	X	3	68	154.08	D			100	3	2	20		10		15			50										Zeolite clay with opaques and Fe-oxides
199	1221	C	11	X	3	69	154.09	D			100	2	15	50	4	3		6			10					10					Clay with calcite, nannofossils, and zeolites
199	1221	C	11	X	3	70	154.10	D			100	2	5	25		3		15			45					5					Zeolite silt with clay and opaque minerals
199	1221	C	11	X	3	71	154.11	D			100			45		15		35			5					*					Opaque mineral rich clay with Fe-oxides
199	1221	C	11	X	3	73	154.13	D			100			27		3		25			45					*					Zeolite silt with clay and opaque minerals

Sample									Texture			Mineral										Biogenic									
Leg	Site	Hole	Core	Coretype	Section	Top Interval (cm)	Depth (mbsf)	Lithology	Sand	Silt	Clay	Apatite (14)	Calcite (30)	Clay Mineral (47)	Dolomite (62)	Fe Oxide (68)	Feldspar (71)	Opaques (140)	Plagioclase (159)	Volcanic Glass (81)	Zeolite (222)	Calcispheres (29)	Diatoms (58)	Fish Remains (74)	Foraminifers (78)	Nannofossils (132)	Radiolarians (173)	Siliceous Sponge Spicules (185)	Silicoflagellates (189)	Theracosphera (252)	Comments
Hole C (continued)																															
199	1221	C	11	X	3	75.5	154.16	D			100			25	*				*	5	70										Zeolite silt with clay
199	1221	C	11	X	3	77	154.17	D			100		1	63	*	1		35	*		*					*					Opaque mineral rich claystone
199	1221	C	11	X	3	77.5	154.18	D			100		*	44		1				5	50					*					Zeolitic clay
199	1221	C	11	X	3	79	154.19	D			100		*	10		1		2		*	87					*					Zeolitic clay
199	1221	C	11	X	3	84	154.24	D			100			55				10		*	35										Zeolitic clay
199	1221	C	11	X	3	94	154.34	D			100		65	5	15						5					10					Carbonate chalk with dolomite and nannofossils
199	1221	C	11	X	3	102	154.42	D			100		48	10		1		1			35					5					Zeolitic carbonate chalk with clay
199	1221	C	11	X	3	119	154.59	D			100		80		5	3		2		*						10					Carbonate chalk with nannofossils
199	1221	C	11	X	3	127	154.67	D			100		75	5	5	*										15					Carbonate chalk with nannofossils
199	1221	C	11	X	CC	9	154.91	D			100		52	10	5	2		1			15					15					Carbonate chalk with zeolites and nannofossils
199	1221	C	12	X	1	9	155.49	D			100		15	15	5	5					20					40					Nannofossil chalk with zeolites, calcite, and clay
199	1221	C	12	X	1	29	155.69	D			100			50	2	10		3			35										Zeolitic claystone
199	1221	C	12	X	1	42	155.82	D			100		52	10	2	4		2			15					15					Carbonate chalk with zeolites, nannofossils, and clay
199	1221	C	12	X	1	60	156.00	D			100		40	10	5	2		3			15					25					Carbonate chalk with nannofossils, zeolites, and clay
199	1221	C	12	X	CC	3	156.15	D			100		55	10	3	1		1								30					Carbonate chalk with nannofossils and clay
Hole D																															
199	1221	D	4	X	2	20	151.71	D			100		75	10	3	2						*				10					Carbonate chalk with clay and nannofossils
199	1221	D	4	X	2	60	152.11	D			100		75	10	*	*						5			*	10					Carbonate chalk with clay and nannofossils
199	1221	D	4	X	2	74	152.25	D			100	*	34	20	*	5		10			1	*			*	30					Nannofossil carbonate chalk with clay and opaque minerals
199	1221	D	4	X	2	80	152.31	D			100	5	15	25	4	5		10			35					1					Zeolite silt with clay, calcite, and opaque minerals
199	1221	D	4	X	2	90	152.41	D			100	5	2	20		2		3			68										Zeolite silt with clay
199	1221	D	4	X	2	93	152.44	D			100	2	3	35		10		25		*	25										Claystone with zeolites, opaque minerals, and Fe-oxides
199	1221	D	4	X	2	97	152.48	D			100		*	20		20		45			15					*					Metalliferous sediment with clay and zeolites
199	1221	D	4	X	2	102	152.53	D			100			20		1		1		*	77					1					Zeolitic clay
199	1221	D	4	X	2	115	152.66	D			100	2						2			96										Zeolitic clay
199	1221	D	4	X	2	138	152.89	D			100		60	15						1	9					15					Carbonate chalk with clay and nannofossils