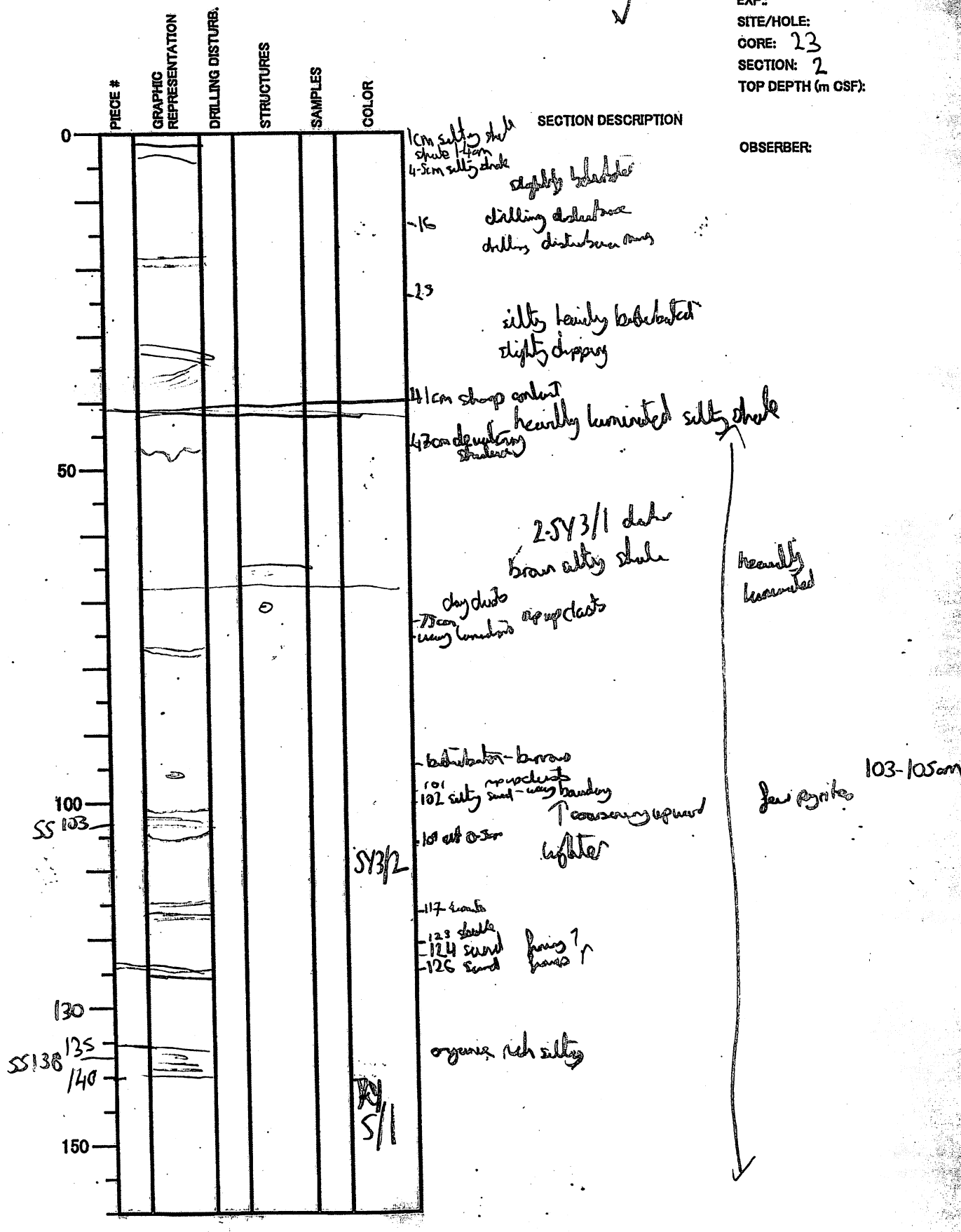
Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 6/9/2012
EXP.:
SITE/HOLE:
CORE: 23
SECTION: 2
TOP DEPTH (m CSF):

OBSERBER:

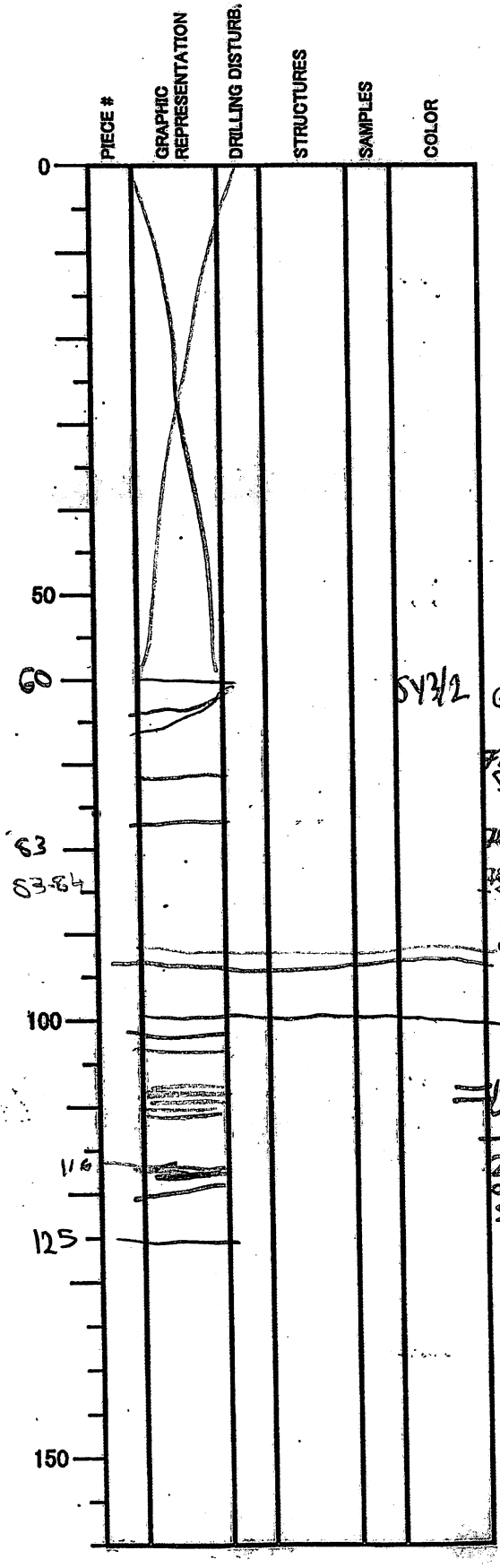


VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 6/9 / 2012
EXP.: 337
SITE/HOLE:
CORE: 23
SECTION: 3
TOP DEPTH (m CSF):

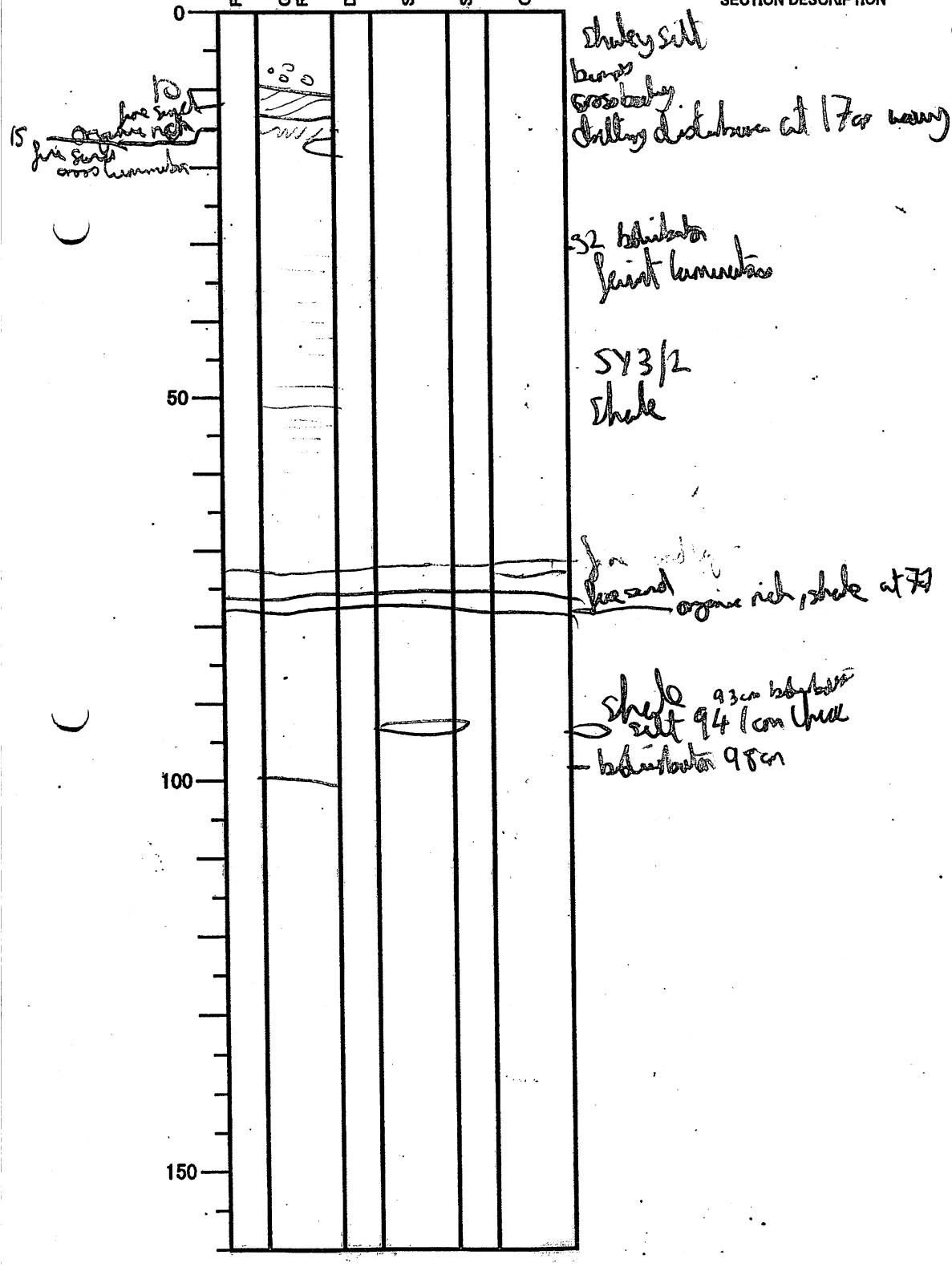
OBSERBER:



Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 6/9/2012
EXP.:
SITE/HOLE:
CORE: 23
SECTION: 4
TOP DEPTH (m CSF):

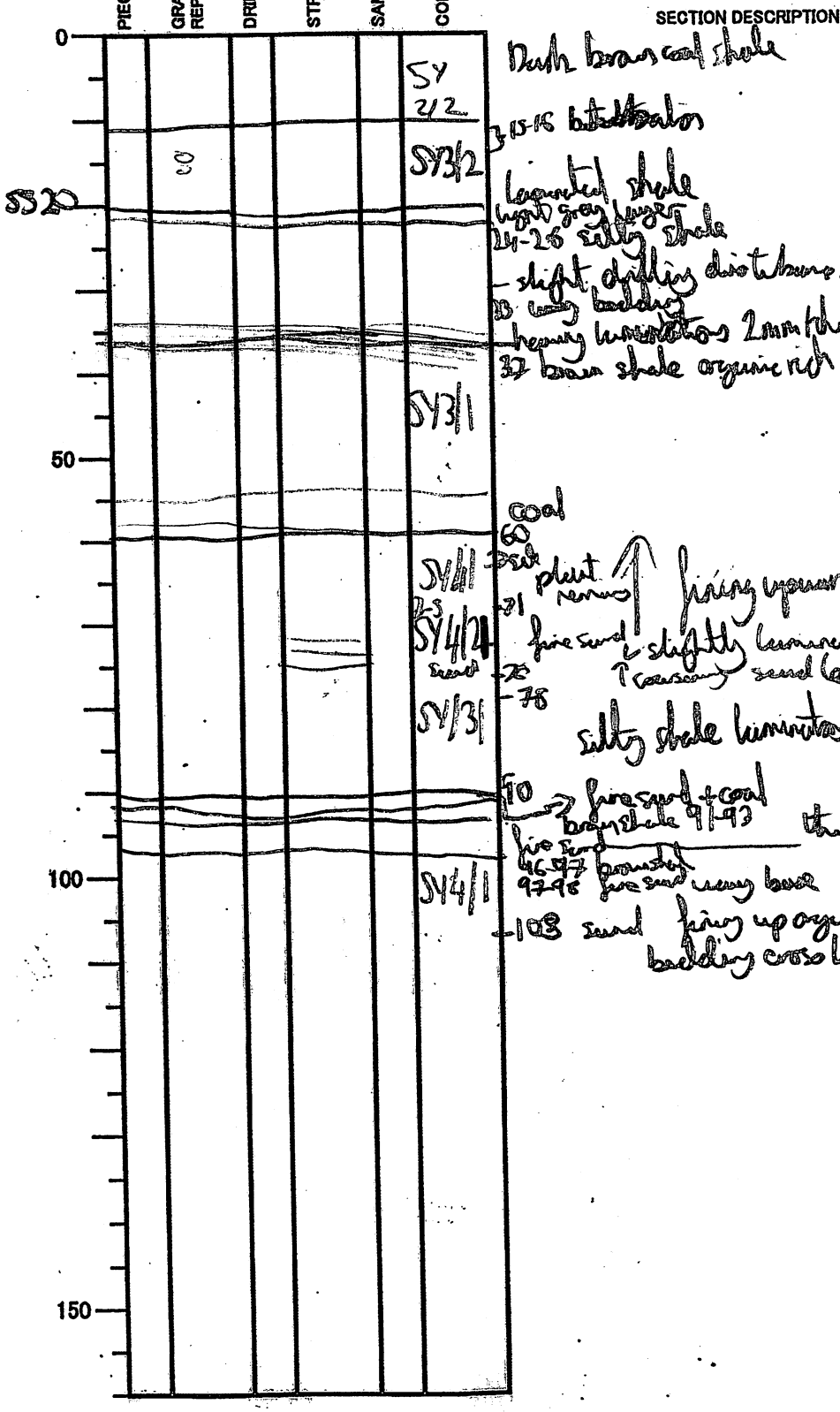
OBSERBER:



VCD_sheet_100805.xls

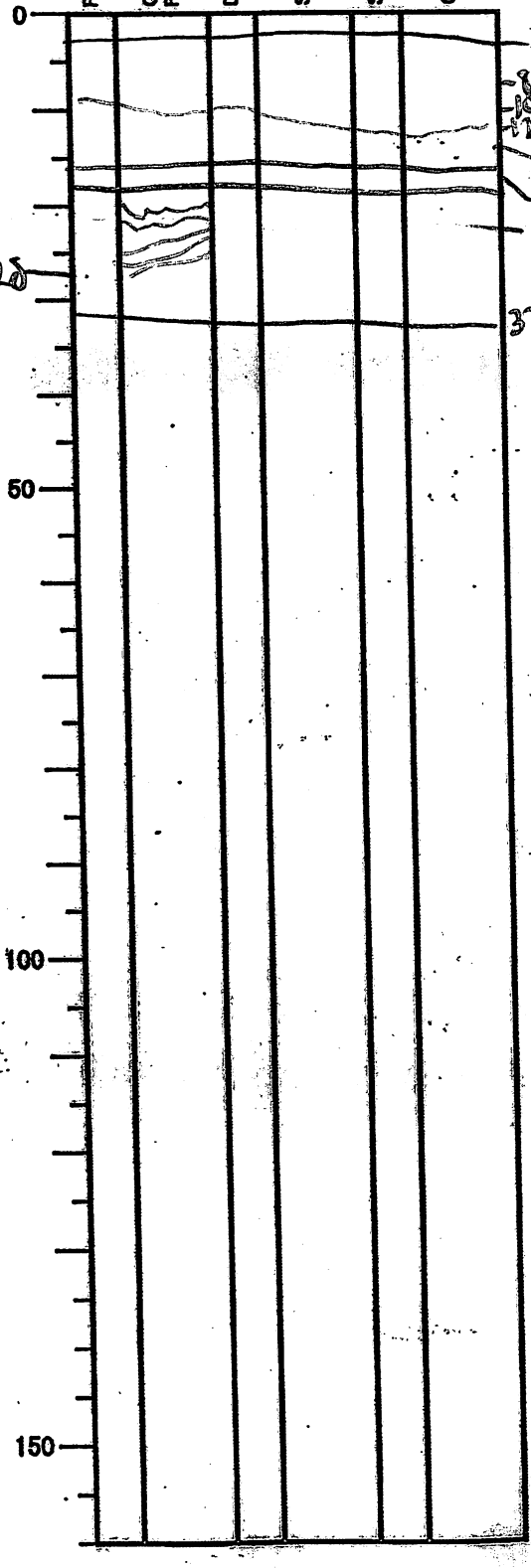
Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / / 20
EXP.: 337
SITE/HOLE:
CORE: 23
SECTION: 5
TOP DEPTH (m CSF):
OBSERBER:



Integrated Ocean Drilling Program
Visual Core Description

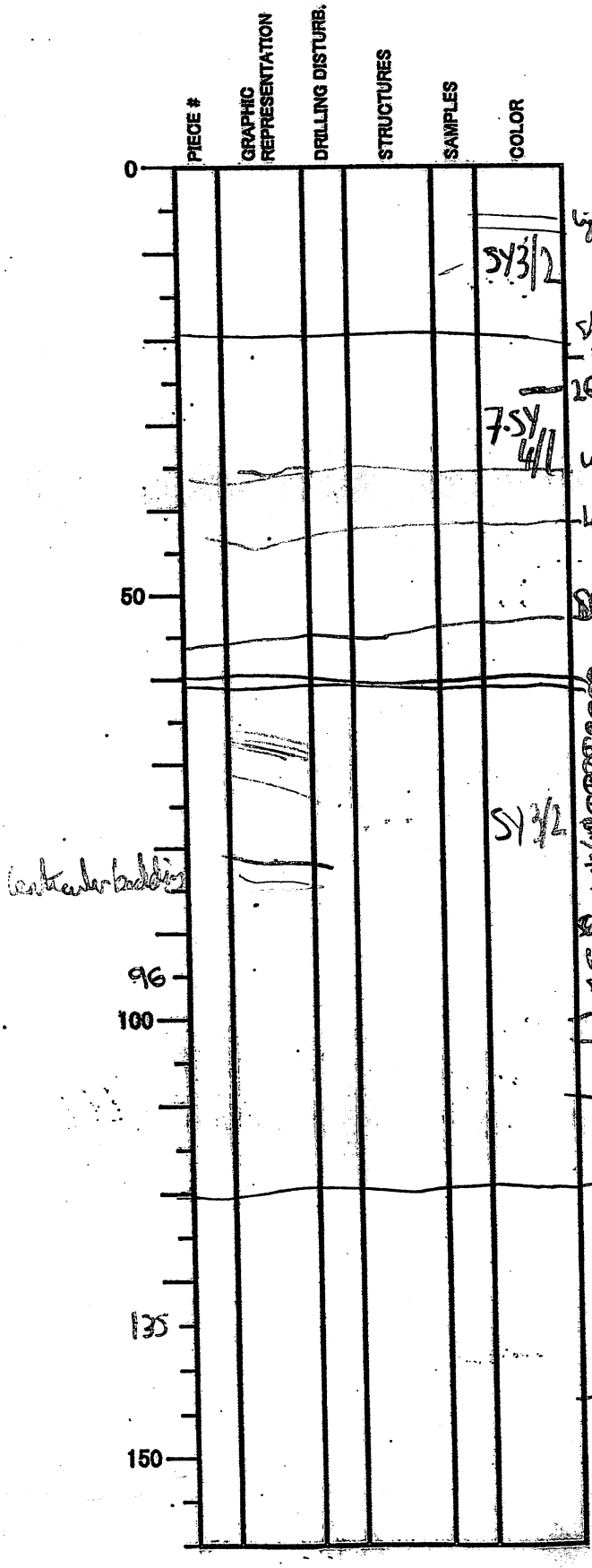
NO.
DATE: 6/9/2012
EXP:
SITE/HOLE:
CORE: 23
SECTION: 6
TOP DEPTH (m CSF):
OBSERBER:



Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 6/9/2012
EXP.:
SITE/HOLE:
CORE: 23
SECTION: 7
TOP DEPTH (m CSF):

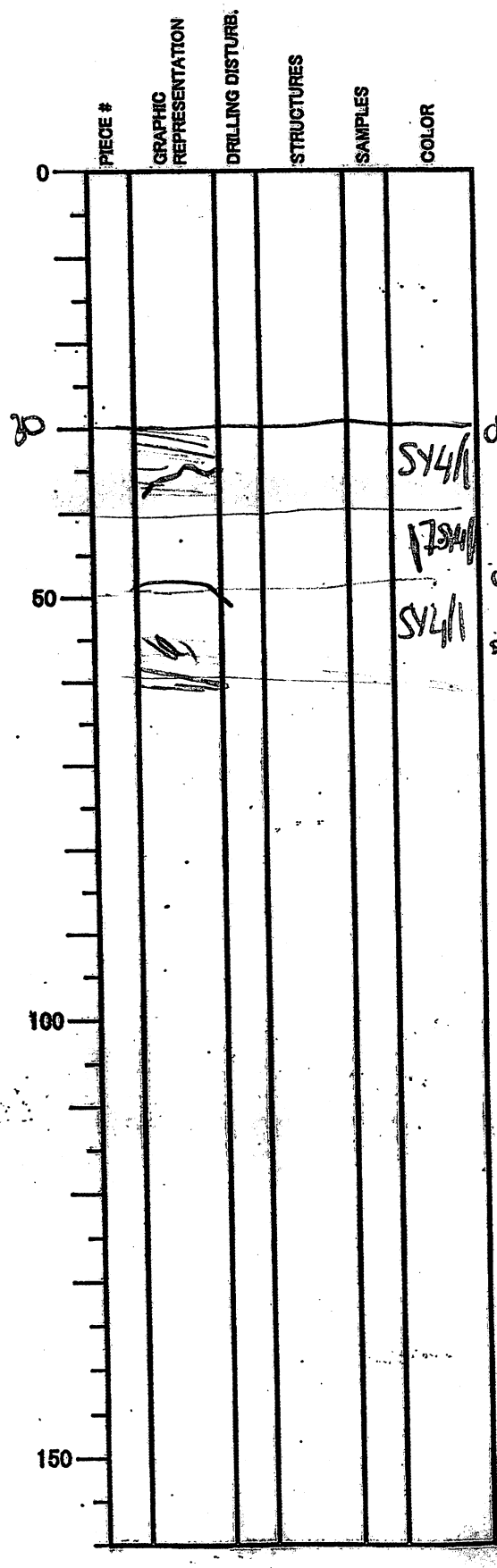
OBSERBER:



Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 5/9/20 12
EXP.:
SITE/HOLE:
CORE: 23
SECTION: 8
TOP DEPTH (m CSF):

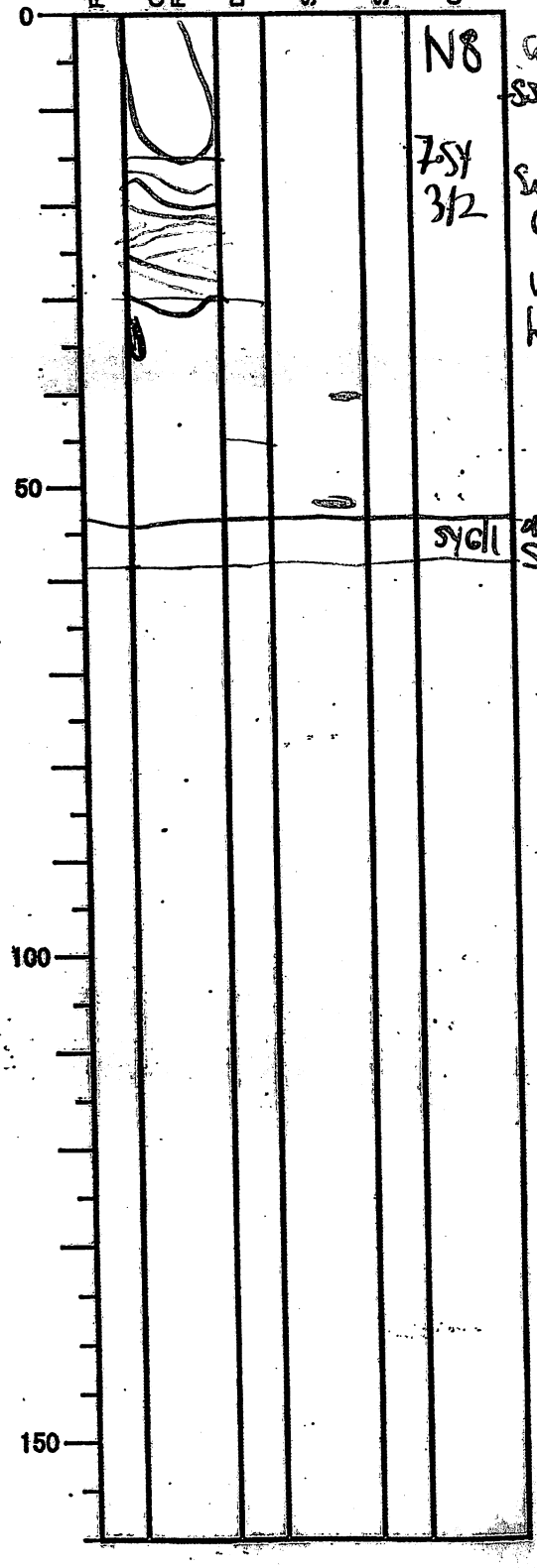
OBSERBER:



Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 6/9/2012
EXP.: 339
SITE/HOLE:
CORE: 23
SECTION: 9
TOP DEPTH (m CSF):

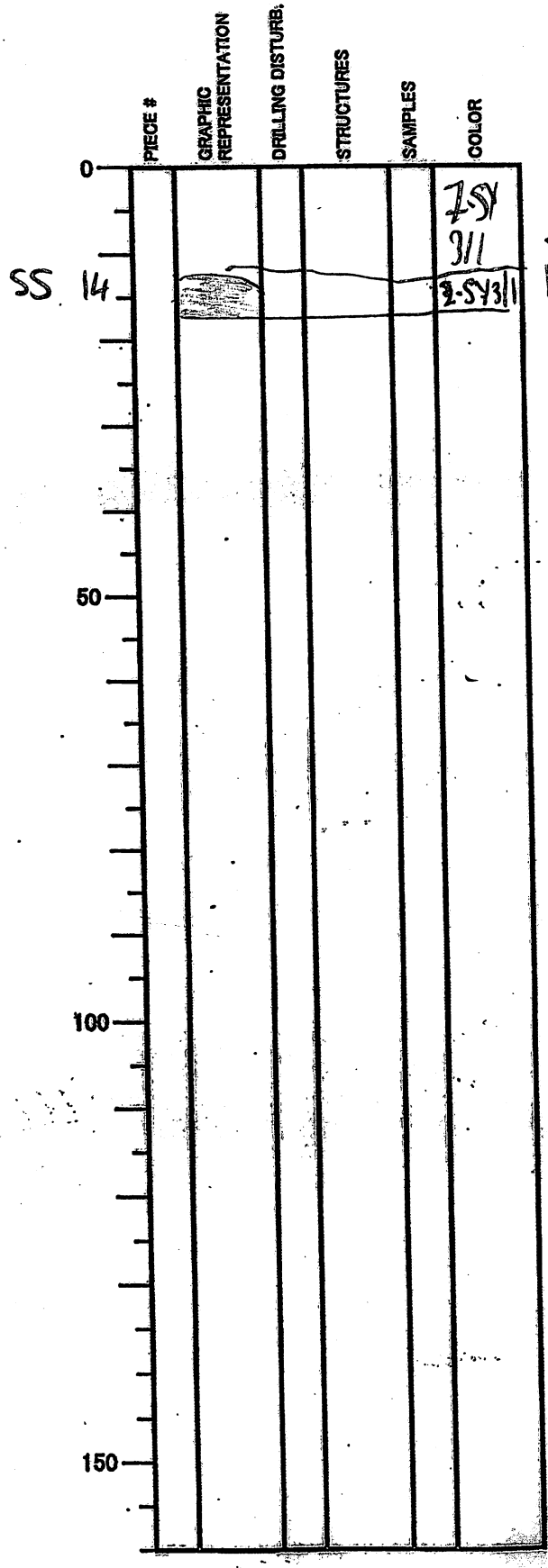
OBSERBER:



Integrated Ocean Drilling Program
Visual Core Description

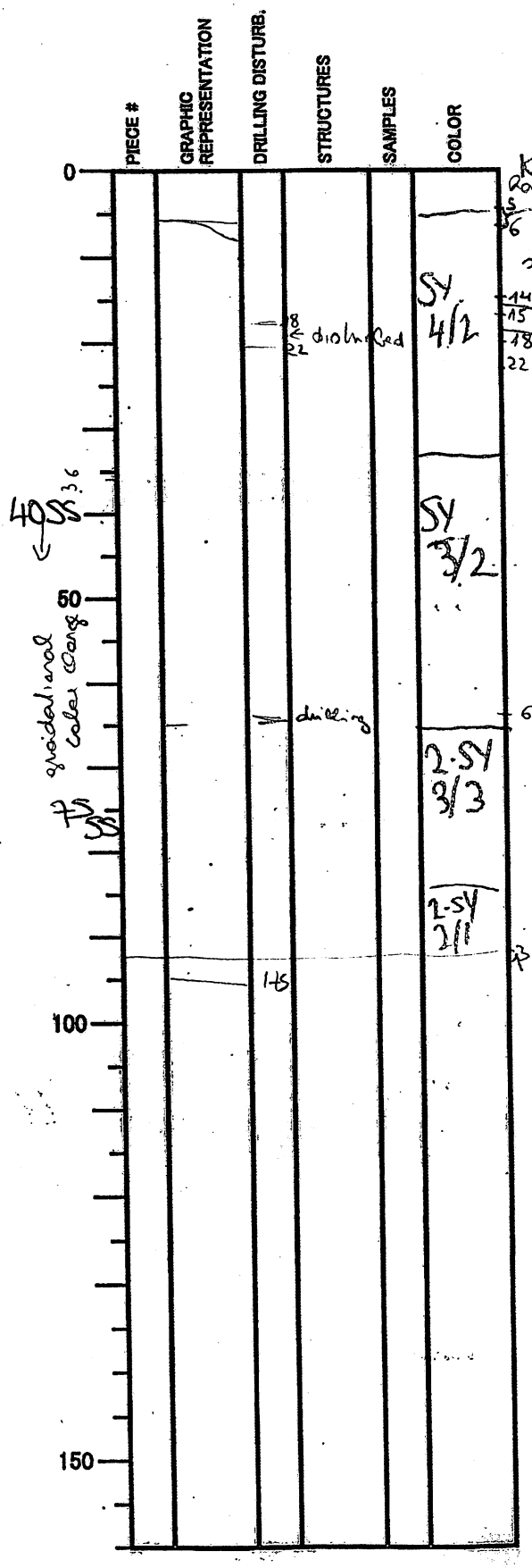
NO.
DATE: 8/2/2012
EXP.:
SITE/HOLE:
CORE: 23CC
SECTION:
TOP DEPTH (m CSF):

OBSERBER:



Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 6/9/2012
EXP.: 337
SITE/HOLE: CC20
CORE: 23
SECTION: 1
TOP DEPTH (m CSF):
OBSERBER:



VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 6/9/2012
EXP.: 337
SITE/HOLE: C0020
CORE: 24
SECTION: 1
TOP DEPTH (m CSF):

OBSERBER:

PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR
					5Y3/2
					5Y 5/1
					5Y 5/4

Depth scale: 0, 50, 100, 150

SECTION DESCRIPTION

2cm brown siltstone

middle sand - loose, cross bedding is visible
↳ ✓ good sorted; quartz, Fsp (few), mica, lithic fragments
good rounded;

23

sand with layers with organic matter
slightly dipping

33

middle sand, grey; massive, good sorted, rounded
quartz, Fsp, lithic fragments, black volc. glass
maybe 1 glauconite

56
piece of siltstone (brown) in sand

60
63 -> , siltstone, laminated

disturbed sandstone to the bottom

VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 6/9/2012
EXP.: 337
SITE/HOLE: C0020A
CORE: 24
SECTION: 2
TOP DEPTH (m CSF):

OBSERBER:

PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR
				55 31	5Y4/1

Scale: 0, 50, 100, 150

XRD (at ~31 cm)

SECTION DESCRIPTION

sand, disturbed, loose
coarse poor sorted, subangular
organic matter
quartz-rich, lithic fragments,

26
light brown ?
28-30 -> coaly layer -> massive to the top, bottom with sediments
-> cemented ?? 39 concretion ?? reacts slightly with HCl
siderite?

middle sand
47-49 thin coaly layers in middle sand

81 thin coaly layers
83-84 -> 1 cm coaly-sandy layer

99 coal -> durain (dull), some vitrain is visible
+ Fusain

104 Pyrite
113 Pyrite

118 End

VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 6/9/2012
EXP.: 337
SITE/HOLE: CC020
CORE: ~~8~~ 24
SECTION: 4
TOP DEPTH (m CSF):

PIECE # | GRAPHIC REPRESENTATION | DRILLING DISTURB. | STRUCTURES | SAMPLES | COLOR

Scale: 0, 50, 100, 150

DRILLING DISTURB.: Drilling disturbance

SAMPLES: 37, 55, 54

COLOR: 7,5 Y 6/1; 7,5 Y 4/1; 7,5 Y 4/2

SECTION DESCRIPTION

OBSERBER:

coaly & shale – dark brown with many plant remains

9 coaly shale with 3 coaly layers → 12 cm, 13 cm, 15, cm

18

20 coaly shale → ~~organ~~ organic matter + rounded light brown clasts! or burrows?

22 silty shale with organic matter

fine sand, grey

52

55 fine sand – lower part = brownish with concretions

58 fine sand

organic matter rich layers (63 cm → thick remains, 62 cm → thin)

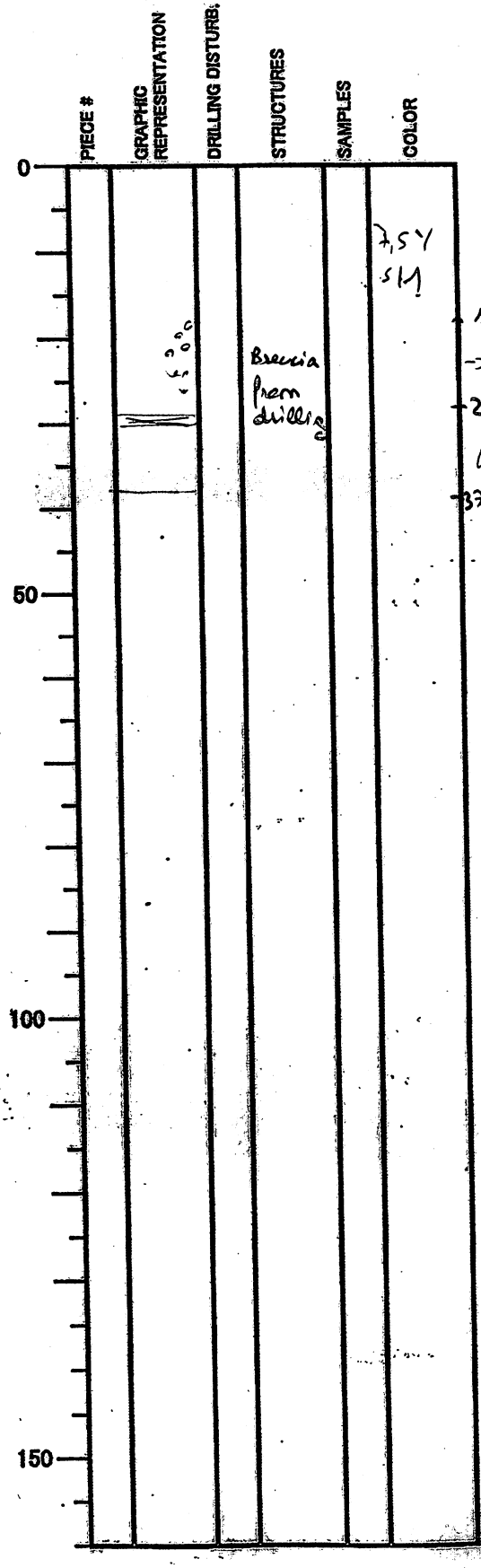
64 silt & with layers of + brownish concretions

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 6/9/2012
EXP.: 337
SITE/HOLE: C0020A
CORE: 24
SECTION: CC
TOP DEPTH (m CSF):

SECTION DESCRIPTION

OBSERBER:



fine to middle sand
good sorted, moderate sorted
gu-rich

18

→ one side → hard rock, other side - semicons

28

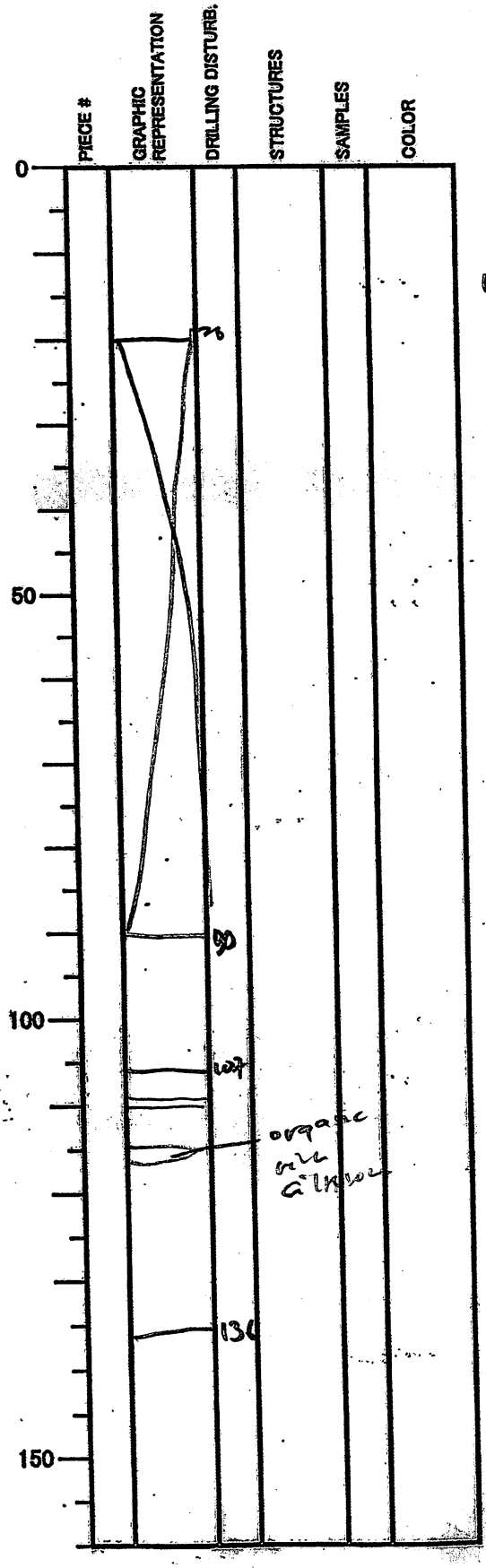
hard rock → gu-with sandstone - CC-cemented

37.1 End

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / /20
EXP:
SITE/HOLE: 27
CORE: 25
SECTION: 1
TOP DEPTH (m CSF):

OBSERBER:



SECTION DESCRIPTION

0-14 cm
fine sandstone grey 5PB 7/1 light bluish grey massive. hard consolidated shows stratification, homogenous.
14-20cm colour change to 5PB 6/1 (bluish grey)
(some slide show siltstone, moderate to subangular, well cores.

fine sandstone wackstone, 5PB 6/1, shows stratification

107-105. mudstone/siltstone: moderate to subangular, moderate well sorted
7.5Y3/1
109-110 - siltstone layer 7.5Y 6/1
110-115. mud concretion (yellow 7.5Y 7/8)
115-118. siltstone.
118-124. fine sandstone / stratification (of 121-123 mm in organic layer (stratification low frequency)
124-133 siltstone
133- carbonate concretion? mud concretion? dolomite.
133-134 - fine stratification rich in organic layer
134 - end - siltstone.

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 7/9/2012
EXP.: 337
SITE/HOLE: 204
CORE: 25
SECTION: 3
TOP DEPTH (m CSF):

OBSERBER:

PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR
		24			7.5Y 5/1
		47			From 36 – end 7.5Y 5/1 – 9/1 [?]
		66			

Scale: 0, 50, 100, 150

SECTION DESCRIPTION

25.

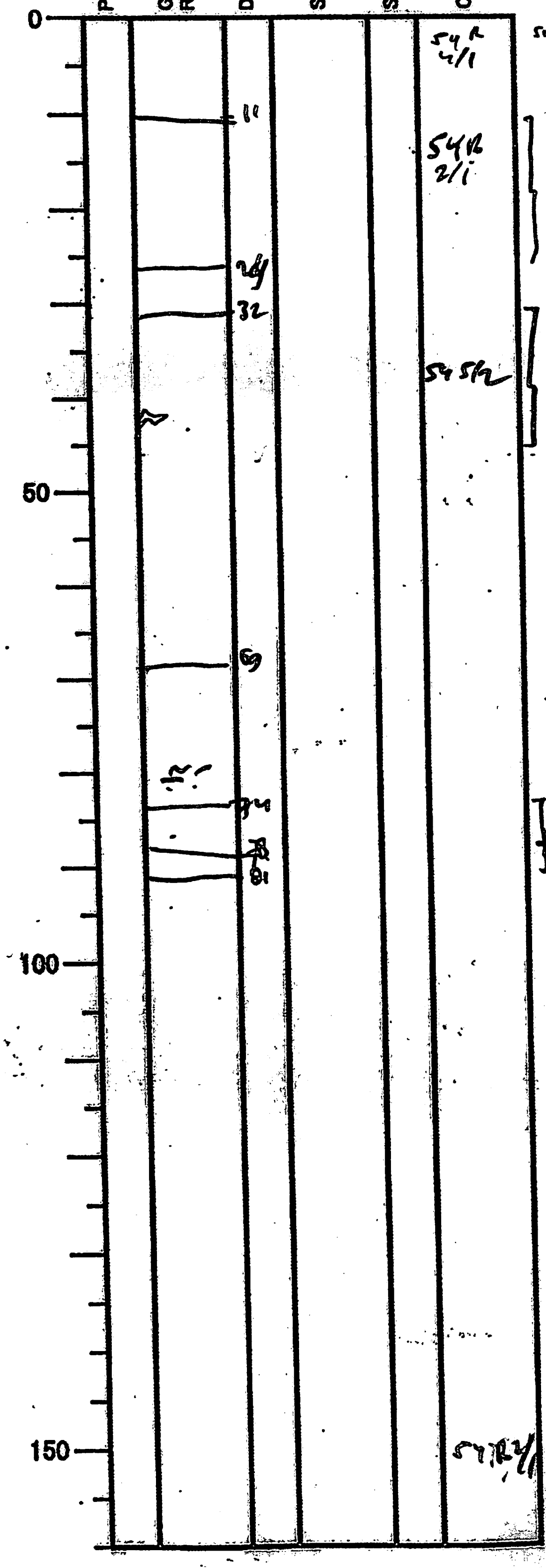
1 coal granule at 28 cm
23-26 fine to medium sandstone massive, hard with some mud/injections.
28-34 sandstone interval rich in organic layer (coal) dipping ~15°, at the top and the bottom of interval layer more thick (1 cm top, 2 cm bottom) in between fine layers < 0,1 mm
carbonate cemented [?]

36 - 50. siltstone massive ~~w~~
50 - 59. fining upward, silt to medium sand
fine organic layer at 55-56
59 - end. siltstone/mudstone again
47 cm → one lithic granule.
1 concretion in coal layer at 35 cm

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / /20
EXP.:
SITE/HOLE:
CORE: 25
SECTION: 5
TOP DEPTH (m CSF):

OBSERBER:



SECTION DESCRIPTION

siltstone/mudstone, compact

coal / lignin (shallow coal) layer, : c. carbonate concretion at 22.5 cm brownish black
some pyrite at 20-26 cm.

shale, 5YR 4/1 with few organic concretion

siltstone, coarsening downward massive organic concretion (coal at 54.5)

siltstone, with few coal concretion at 71-73 ..

very fine laminations of organic material.

layer of siltstone and fine sandstone.
coal concretion at 81 cm.

86- 89 → organic rich layer on fine sandstone

86 - 106 → coarsening downward
silt to medium sand ...
with some organic layer at interval.
87 - 89
92 - 95
100 - 106

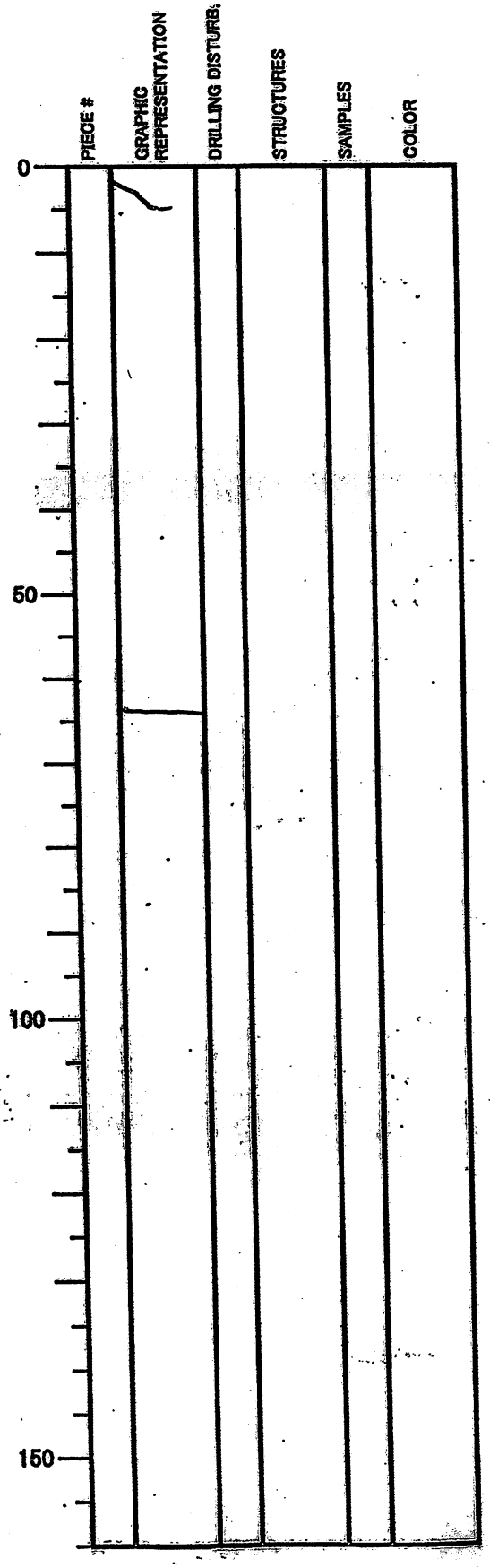
106 - 135 → sandstone coarsening downward rich in organic layer / coal? material at 128 - 130

135 - 138 → Shaly coal breccia brownish black dull. banded (< 0.1 mm)

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / /20
EXP:
SITE/HOLE:
CORE: 25
SECTION: 6
TOP DEPTH (m CSF):

OBSERBER:



SECTION DESCRIPTION

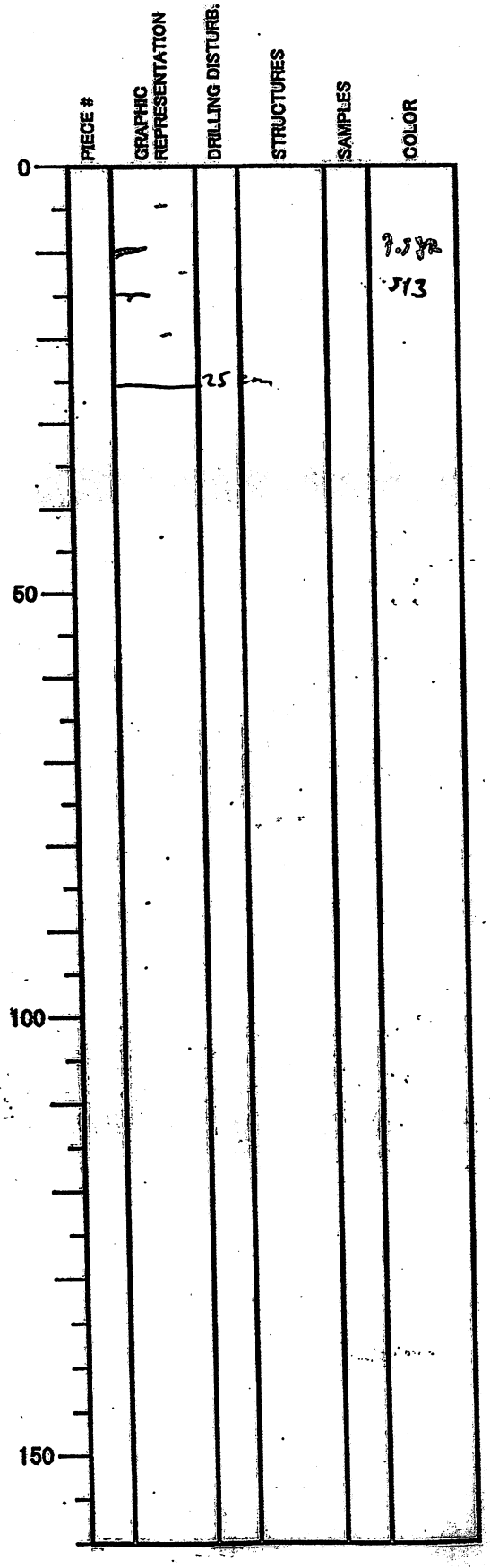
dully
coal, brownish black
clay.
carbonate concretion at 3.
25-23 shale layer.

pyrite at 82, 50..??

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 7/9/20 11
EXP.:
SITE/HOLE:
CORE: 25
SECTION: CC
TOP DEPTH (m CSF):

OBSERBER:



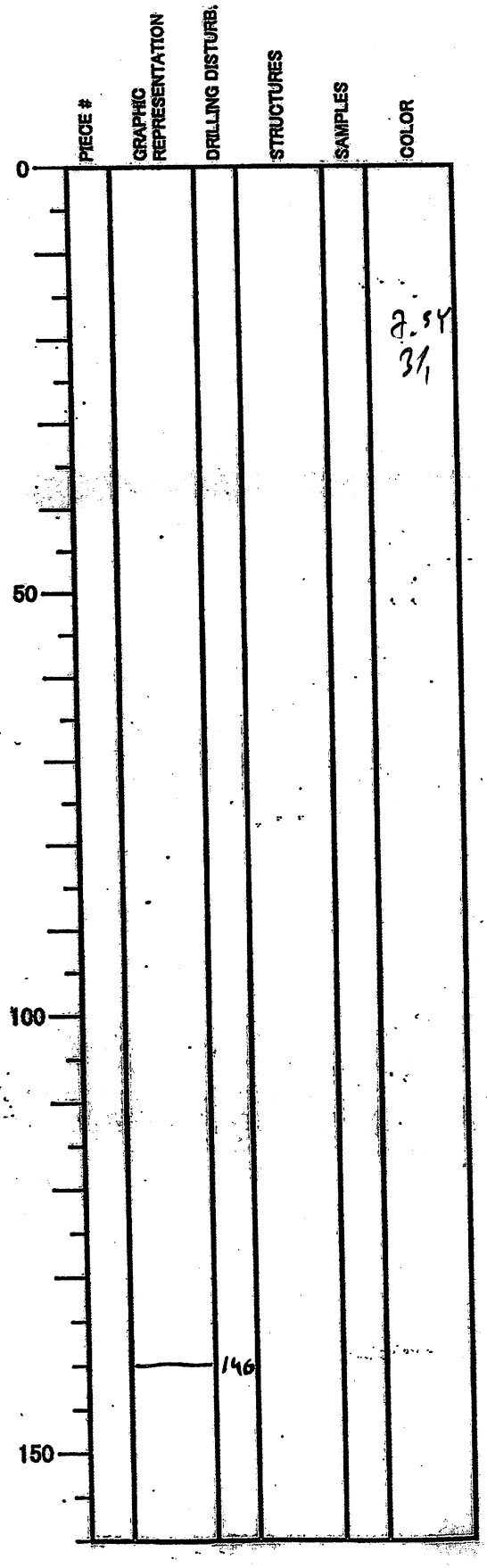
SECTION DESCRIPTION

Clayey shale, massive.
Coal/organic layer at 10.5 (0.5 mm)
14-16 cm -
18 cm
13 cm
dull brown.

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 1 / 120
EXP.: 337
SITE/HOLE: 20A
CORE: 26
SECTION: 1
TOP DEPTH (m CSF):

166-5



SECTION DESCRIPTION

OBSERBER:

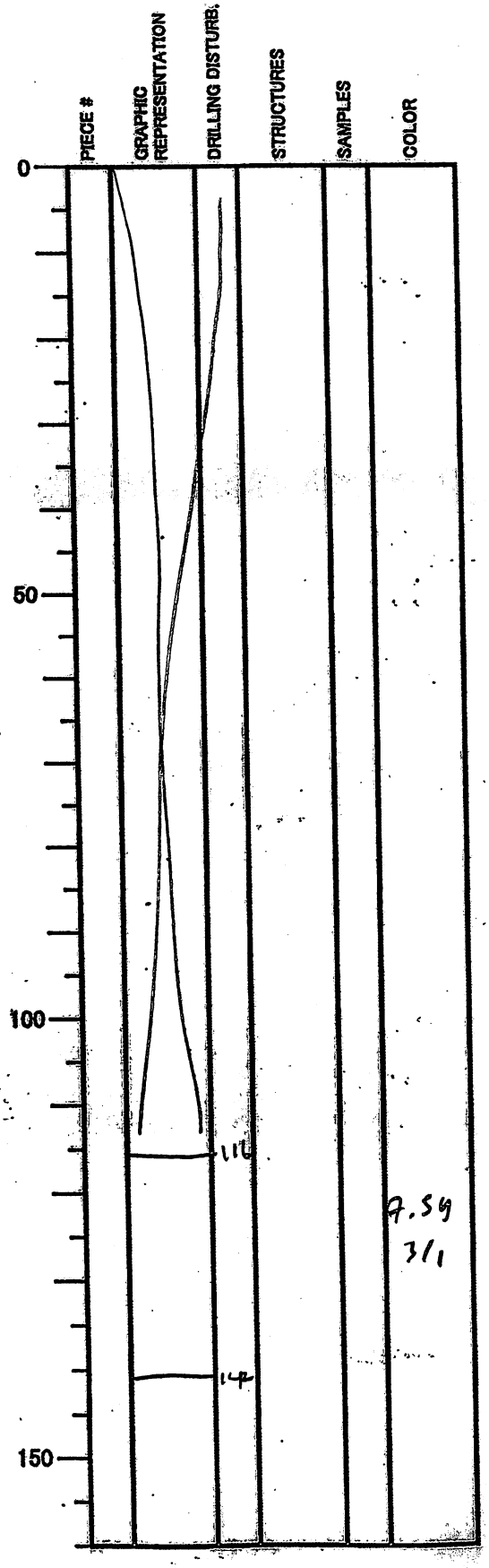
massive shale, homogen,
shell fragments at 81, 32, 18
carbonate concretion at 47.5 cm.

7.5Y
3/1

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 7 / 9 / 2012
EXP.:
SITE/HOLE:
CORE: 26
SECTION: 3
TOP DEPTH (m CSF):

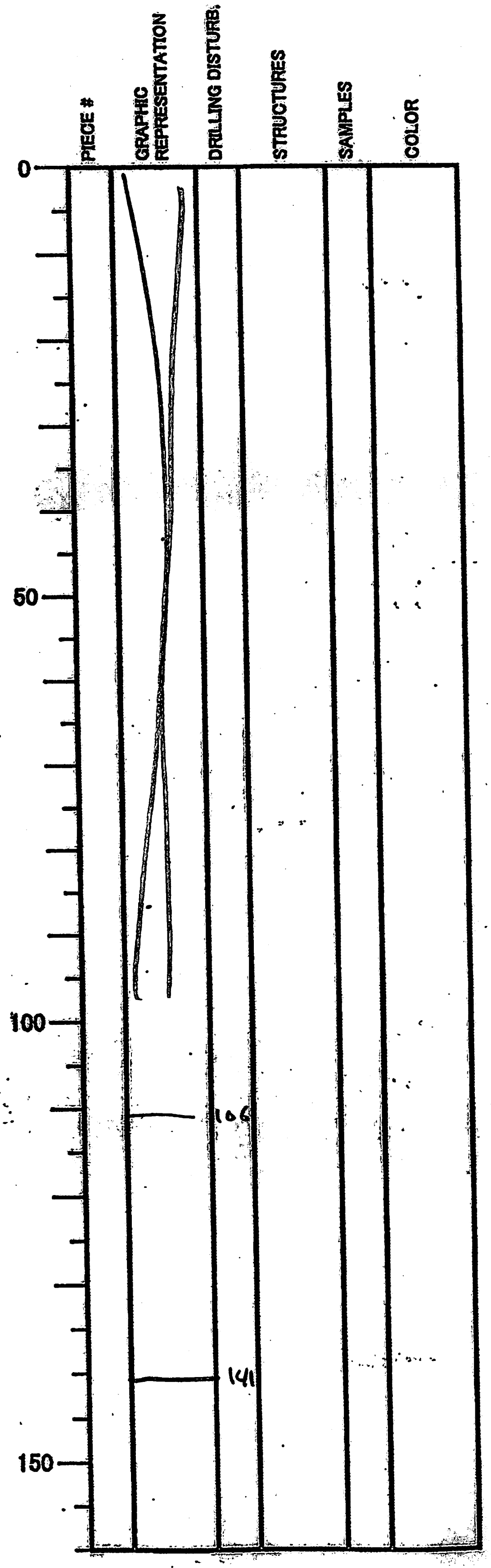
OBSERBER:



Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / /20
EXP.:
SITE/HOLE:
CORE: 26
SECTION: 6
TOP DEPTH (m CSF):

OBSERBER:



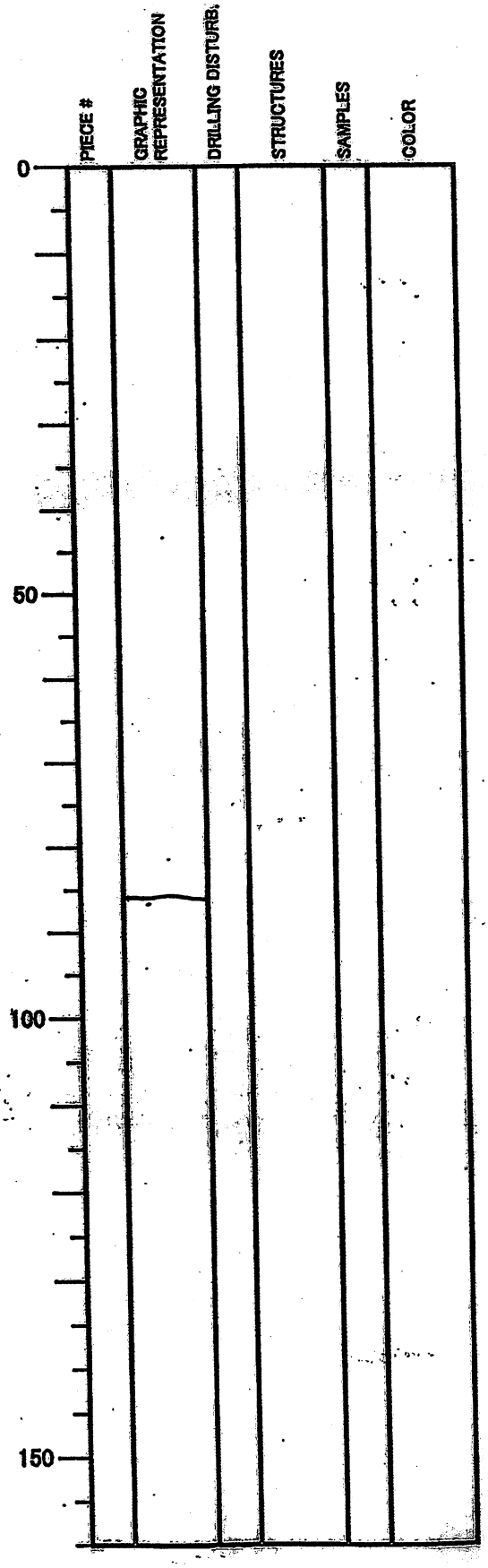
SECTION DESCRIPTION

massive shale with a few shell fragments
1 bivalve at 121.5.

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / /20
EXP.:
SITE/HOLE:
CORE: 26
SECTION: 7
TOP DEPTH (m CSF):

OBSERBER:



SECTION DESCRIPTION

massive shell/ mudstone.
~~red~~ with few shell fragments.
bioturbation at 48.5.
~~faint~~ thin laminations

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / /20
EXP.:
SITE/HOLE:
CORE: 26
SECTION: 9
TOP DEPTH (m CSF):

PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR

Scale: 0, 50, 100, 150

68

SECTION DESCRIPTION

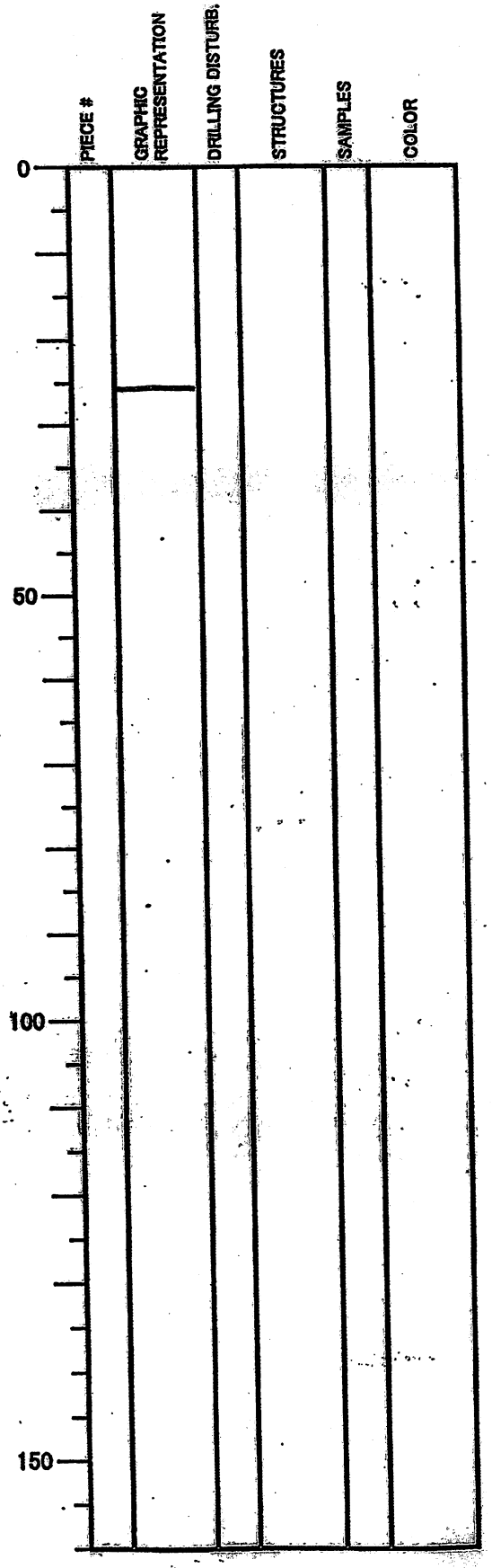
OBSERBER:

massive shale with a few shell fragments / bivalve
a few mud injections at 20, 24.5, 44 ~~[illegible]~~, 48 and 59.

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / /20
EXP.:
SITE/HOLE:
CORE: 26
SECTION: CC
TOP DEPTH (m CSF):

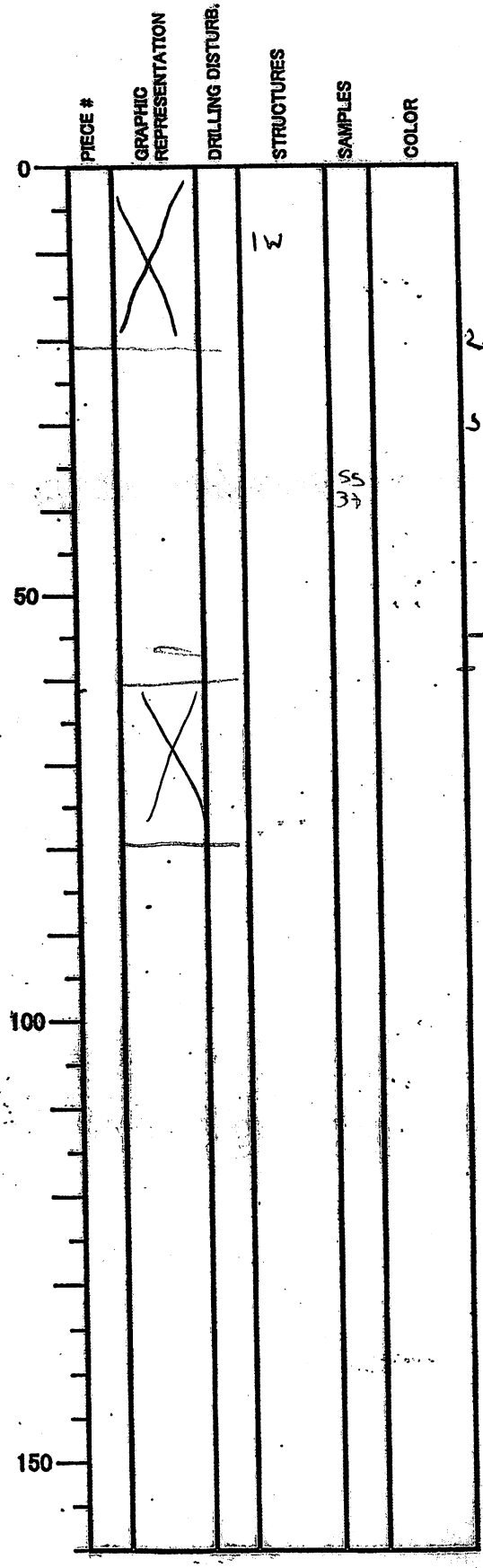
OBSERBER:



Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 7/ 9/20 12
EXP: 337
SITE/HOLE: C0020
CORE: 27
SECTION: 2
TOP DEPTH (m CSF):

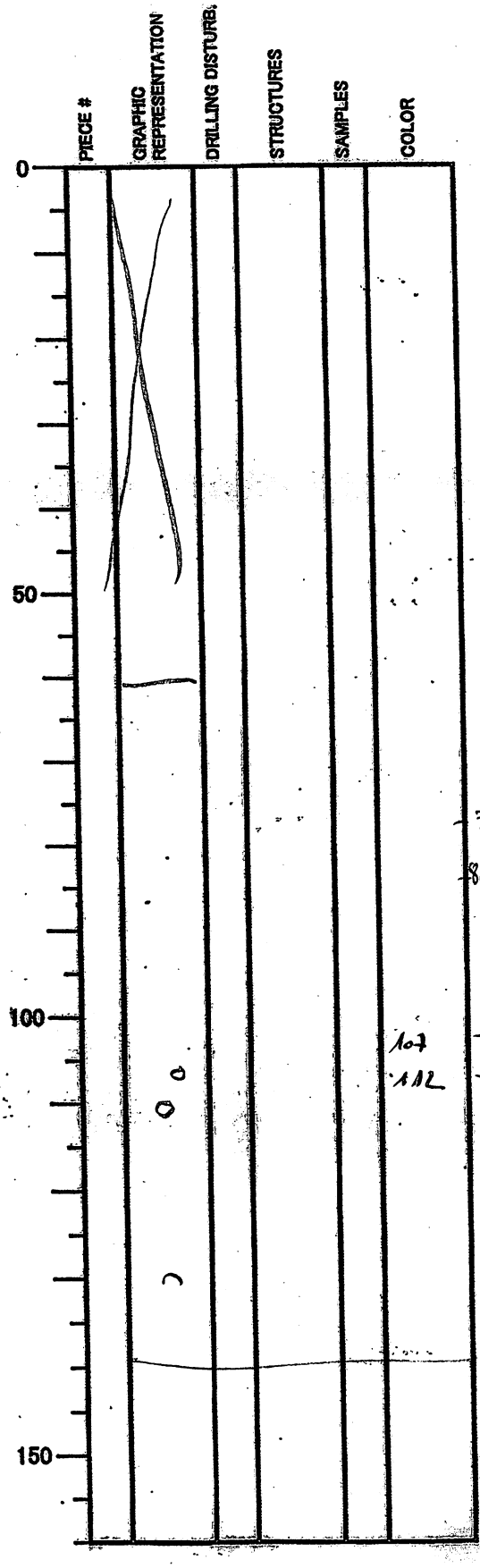
OBSERBER:



Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 7/9/2012
EXP.: 337
SITE/HOLE: U1520A
CORE: 27
SECTION: 3
TOP DEPTH (m CSF):

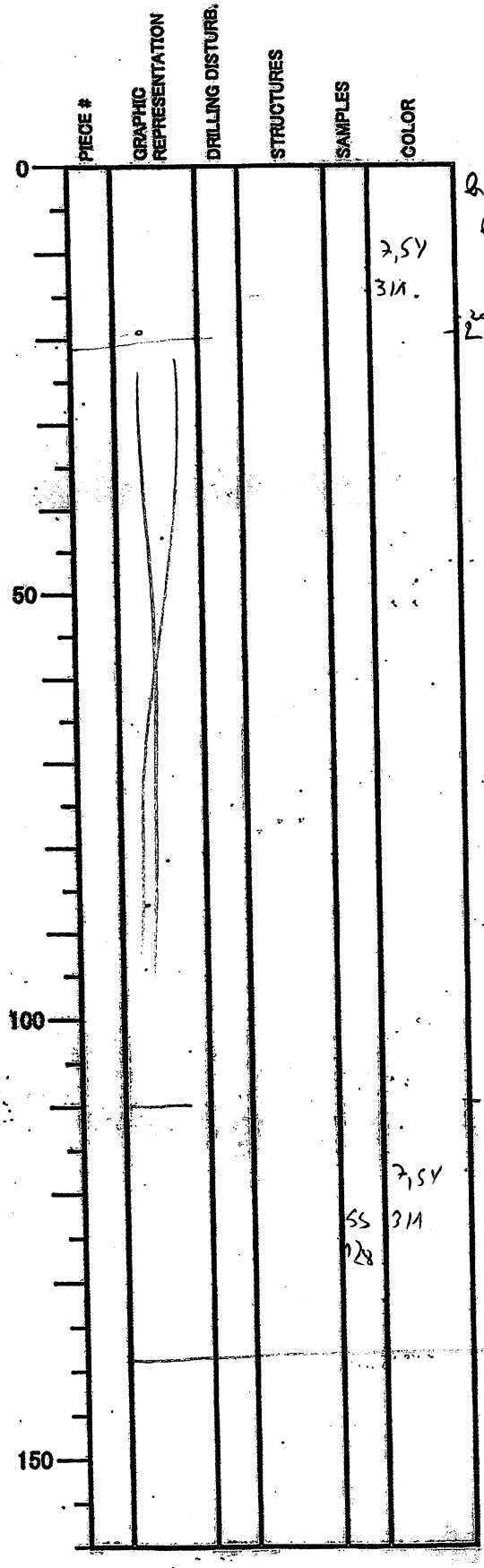
OBSERBER:



dark brown / grey scale
massive 5Y 3/1
shell = gastropod + 83
~~Fossil~~ shell - gastropods
shell
shell fragments

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 7/9/2012
EXP: 337
SITE/HOLE: Leo20
CORE: 27
SECTION: 4
TOP DEPTH (m CSF):
OBSERBER:



brown massive shell
kind of lamination in visible - very smooth
↳ bedding a little bit lighter
↳ looks a little bit like planar bedding

dark brown shell
→ same as on top
maybe lighter parts have silt in right

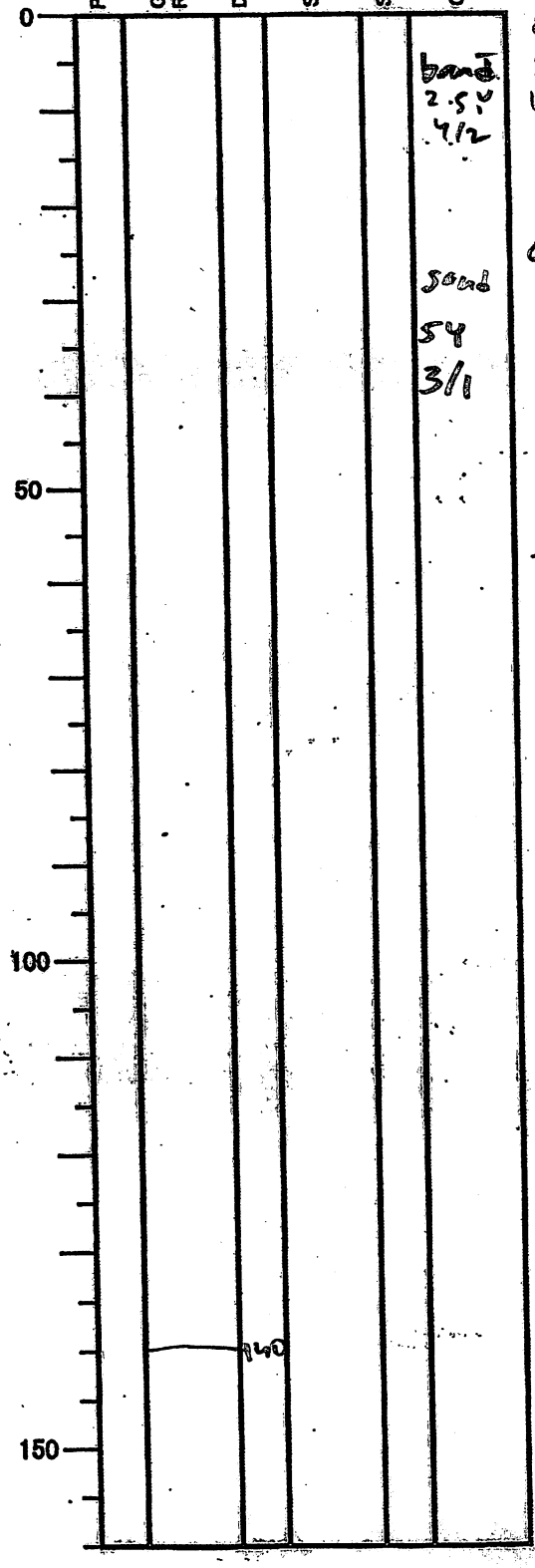
Integrated Ocean Drilling Program
Visual Core Description

bio

bifurcating

NO.
DATE: 8/9/2012
EXP.: 337
SITE/HOLE: 2
CORE: 28
SECTION: 1
TOP DEPTH (m CSF):

OBSERBER:



SECTION DESCRIPTION

olive black
Sandstone, medium
with abundant sideritic bands (
6-9 cm → coal layers (organic material)
0-15 cm → siderite bands
frequent
20-22 cm → 2cm siderite band
47 cm → 1.5 cm siderite band
58-62 cm → some band < 1 cm.
76-97 → siderite bands more
frequent, and bands are
bifurcating
97-115 → siderite grains
spread over
the interval
118-118 → siderite band
121-124 → some siderite
band < 1 cm
125 → thin coal layer
135-138 → some siderite
bands < 0.5 cm

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / /20
EXP.:
SITE/HOLE:
CORE: 23
SECTION: 2
TOP DEPTH (m CSF):

PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR ✓
					5Y 3/1

Scale (cm): 0, 50, 100, 150

SECTION DESCRIPTION

OBSERBER:

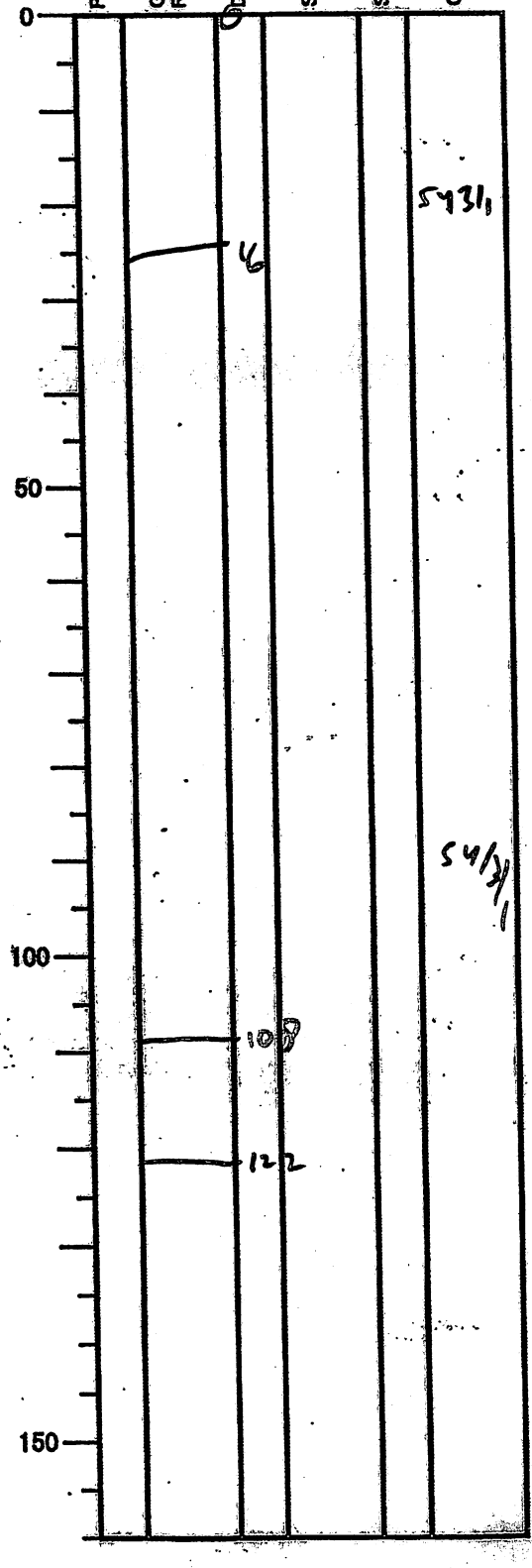
medium sand.

4 cm : siderite band : < 0.5 cm
10 cm : thin organic layer < 0.1 mm
12.5 cm siderite band < 0.8 cm
16 - 15 cm : 2 coal layer < 0.5 cm with scattered siderite grain
46 cm : siderite band < 0.5 cm
48 cm : siderite nodul
49 cm : organic layer < 1 mm
53 cm : siderite band 0.5 - 1 cm

65 cm : siderite band 1.5 cm
78 - 82 : a few organic layer < 0.1 cm
86 cm : siderite band < 0.5 cm
89 - 91 cm : siderite band ~1 cm
91 - 104 cm : siderite nodule
116 cm : thin siderite band < 0.2 mm
125 cm : siderite band 0.8 cm
127 cm : — 0.5 cm
128 - 136 : some organic layer more thick at the top, but more frequent at the bottom with few siderite band < 0.5 cm and siderite grains scattered.

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / /20
EXP: 382
SITE/HOLE:
CORE: 28
SECTION: 4
TOP DEPTH (m CSF):



SECTION DESCRIPTION

OBSERBER:

silt/sand laminated with some fine sand bands
some siderite grains visible at
3-4 cm. thin organic layer <0.1 cm
visible especially at 8-9 cm
and at 13-15 cm as well as at 18 cm.
sand band thicker at the top (3 cm)
and the bottom (16-19 cm)

silt/sand laminated colored with fine sandy
organic bearing sand interval at 112-118 cm
with few siderite grain scattered
silt lamination more frequent at
108-112 cm and at 114 to 116 cm
114 - end section fine sand

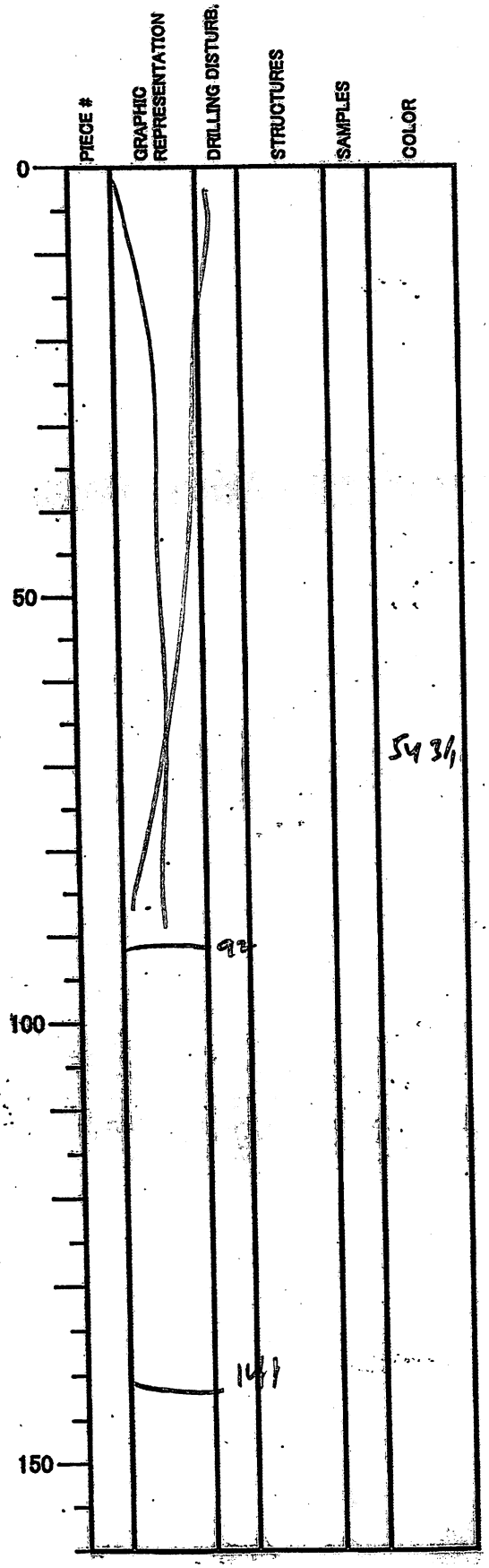
VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 8/9/20 12
EXP.: 337
SITE/HOLE:
CORE: 28
SECTION: 7
TOP DEPTH (m CSF): 46.1 MCD

SECTION DESCRIPTION

OBSERBER:



overall dg siltstone
siltstone intercalated with sandstone layer
(0.5 - 1 cm). dense at 65 - 99,
rich in organic
107 - 112 cm, at 114 - 118 cm
this interval with some thin organic
layer) → organic rich interval
120 - 122 cm → 2 sand bands 1 cm
rich in organic matter
125 - 126 cm → sand band (0.7 cm)
rich in organic matter
134 - 136 cm → 2 unconsolidated sand
bands 0.2 and 1 cm thick.

Integrated Ocean Drilling Program
Visual Core Description

✓

NO.
DATE: / / 20
EXP.: 337
SITE/HOLE:
CORE: 28
SECTION: 8
TOP DEPTH (m CSF):

PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR
	92				
	105				

0, 50, 100, 150

SECTION DESCRIPTION

OBSERBER:

siltstone intercolated with sand band (0.5 - 1 cm)

most bands are uncontinuous, bifurcating or in the form of nodule or concave shape.

55 - 65 cm : sand bands are more frequent

sand granule [illegible] 66 - 68 cm

medium sand dominant intercolated with silt (0.5 - 3 cm) more thick and dense at the bottom of the section

VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / / 20
EXP.:
SITE/HOLE:
CORE: 28
SECTION: CC
TOP DEPTH (m CSF):

Depth (cm)	PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR
0						5Y 3/1 sand
18		18 cm				silt 5Y 5/1
50						
100						
150						

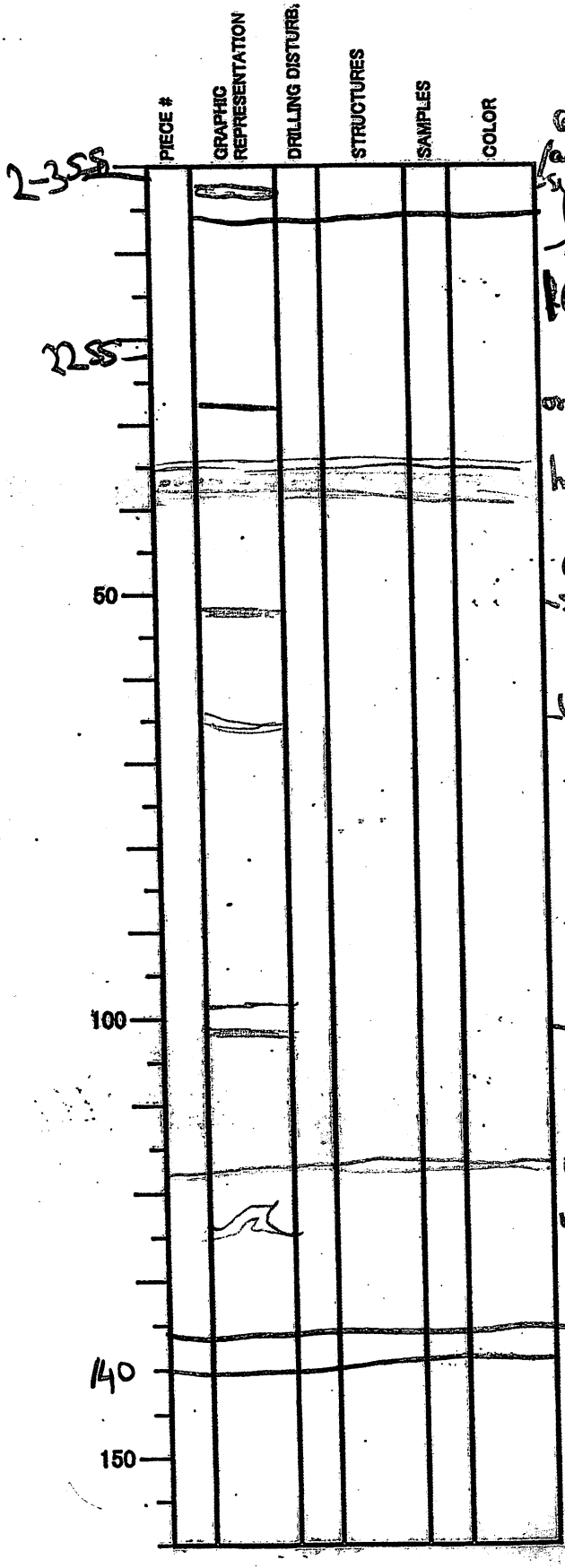
SECTION DESCRIPTION

OBSERBER:

medium sand interlayered with siltstone (0.5 - 1 cm)
siltstone band more dense the top of the section (0 - 10 cm)
one siderite nodule visible at 17 cm

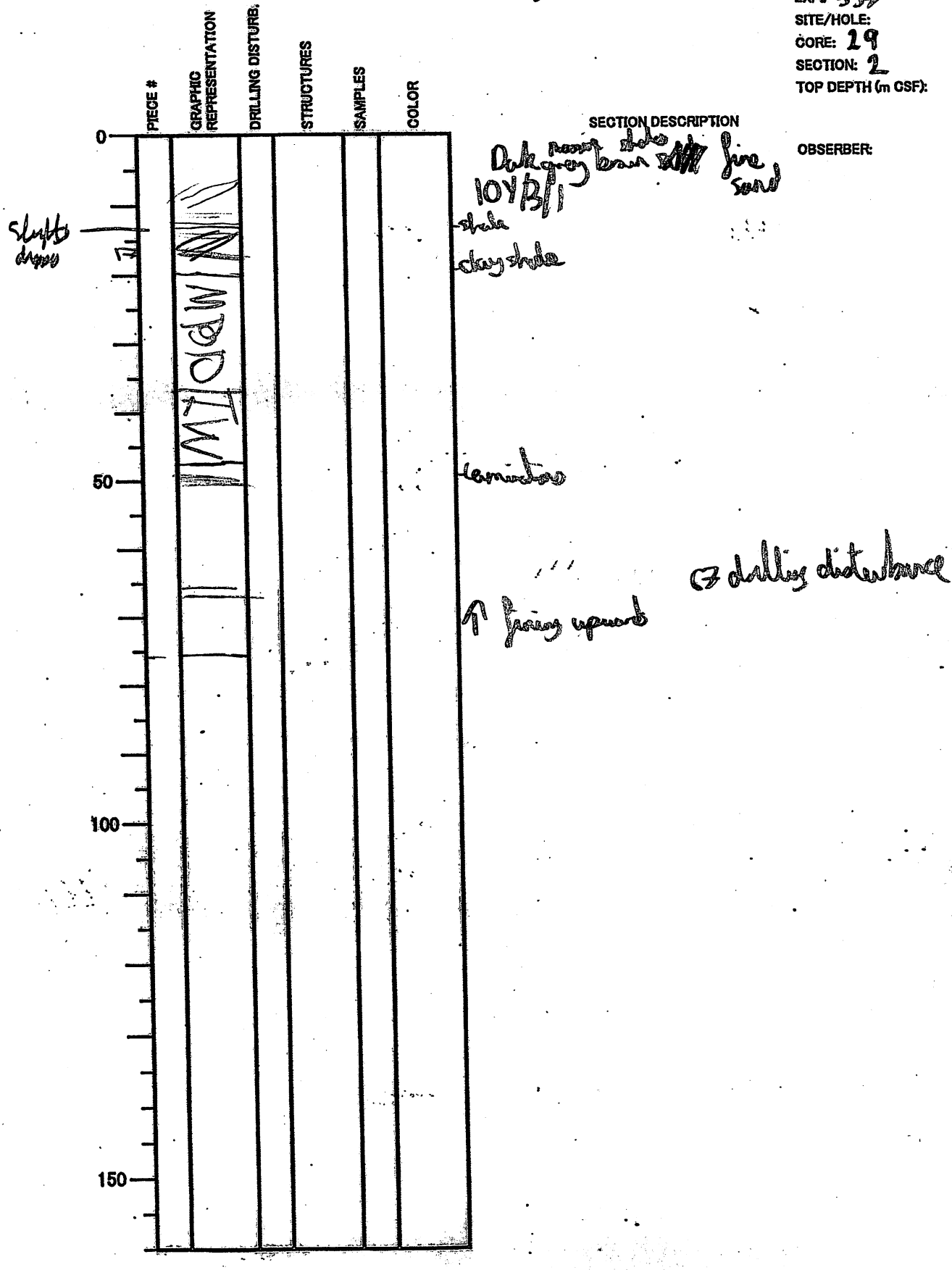
Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 8/9/2012
EXP: 337
SITE/HOLE: C0020
CORE: 29
SECTION: 1
TOP DEPTH (m CSF):
OBSERBER:



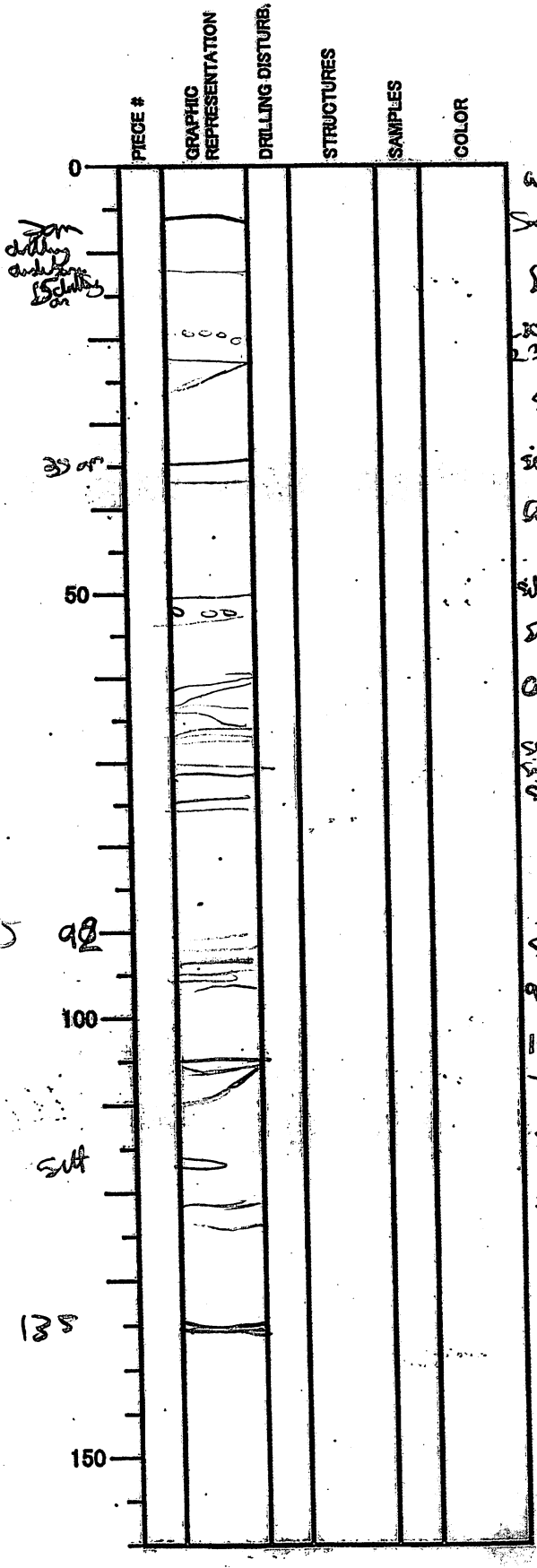
Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 8/9/2012
EXP: 337
SITE/HOLE:
CORE: 19
SECTION: 2
TOP DEPTH (m CSF):
OBSERBER:



Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 8 / 9 / 20 12
EXP.:
SITE/HOLE:
CORE: 29
SECTION: 3
TOP DEPTH (m CSF):
OBSERBER:

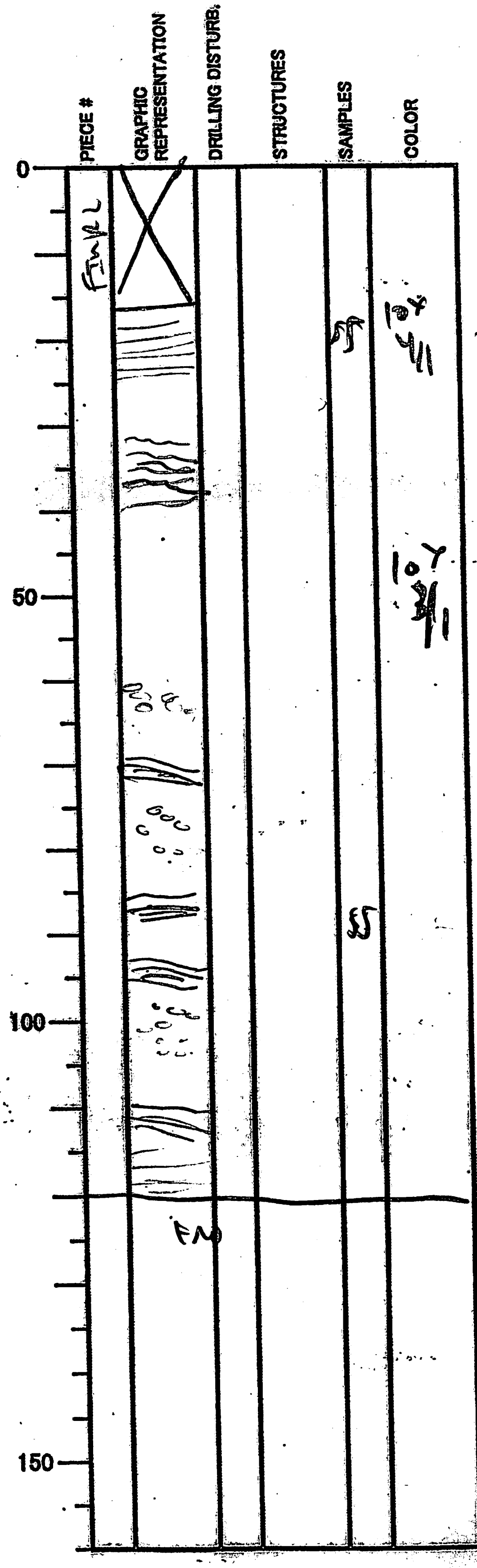


VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 9/9/2012
EXP.: 337
SITE/HOLE: C0020A
CORE: 29R
SECTION: 4
TOP DEPTH (m CSF):

OBSERBER: Sp



SECTION DESCRIPTION

17-37 cm
very hard, light gray silty fine sandstone

17-23 carbonate bands → 0.5-1 cm width

37-42 cm fine brown sandstone with mm-scale deformed silty shale laminations (dark brown) — coarsening upward

42 cm – 53 cm fine dark brown sandstone (brown-gray) w/ siltstone laminations (5-10 mm) between 49-53, overall coarsening upward

53-59 cm dark brown siltstone with fine-to-medium sand laminations (mm-scale)

59-116 cm fine to medium sandstone (dark brown)

authigenic carbonate bands → distributed (dark orange)
64-71 cm, 85-86 cm
93-96 cm, 108-111,

bioturbation 61-64 cm, 78-90 and 98-109 cm

116-120 cm interbedded siltstone and fine sand

VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 9/9/2012
EXP.: 337
SITE/HOLE: C0020A
CORE: 24R
SECTION: 5
TOP DEPTH (m CSF):

SECTION DESCRIPTION

OBSERBER:

PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR

0

10YR 3/1 to 10YR 3/2

50

100

150

from AIWR sample 40-50 cm fine brown sandstone w/ mm/scale silt and with silica laminae

VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 9/9/2012
EXP.: 337
SITE/HOLE: C0020A
CORE: 29R
SECTION: 7
TOP DEPTH (m CSF):

OBSERBER: SP

PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR
					10Y 4/1 to 3/1

Scale: 0, 50, 100, 150

141

SECTION DESCRIPTION

63–141 cm medium sand dark gray

faint thin bands of darker material throughout

- disturbed authigenic carbonate elongate nodules - core width 71 to 72, 74, 90, 107–114

- faint to distinct carbonate banding at 91–102 and 114–141

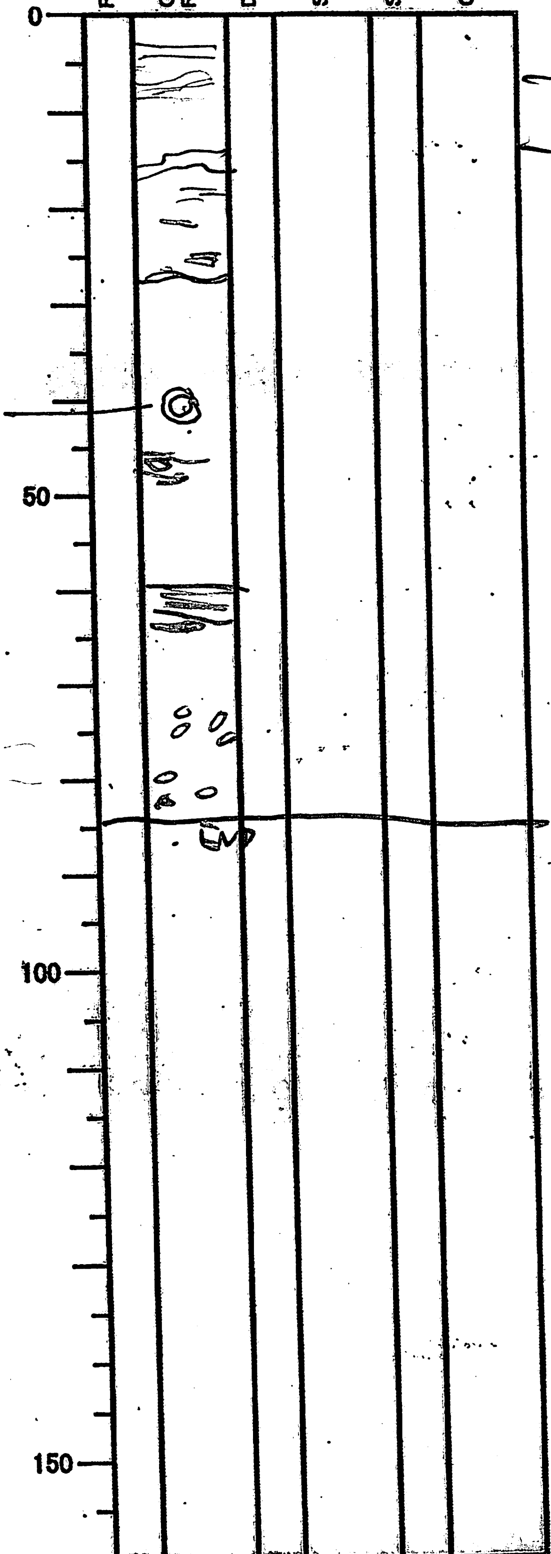
VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 9/9/2012
EXP.: 337
SITE/HOLE: C0020A
CORE: 29R
SECTION: 8
TOP DEPTH (m CSF):

OBSERBER: SP

SECTION DESCRIPTION



- 0-90 cm medium to fine sand
- elongate carbonate nodules/bands 4-9 cm, 11-20, 37, 46-48, 51, 59-62
- large burrow ~2cm diameter filled w/ lighter sand at 42-44 cm
- 46-47 and 80-89 cm <1cm diameter faint burrows w/ lighter medium sand

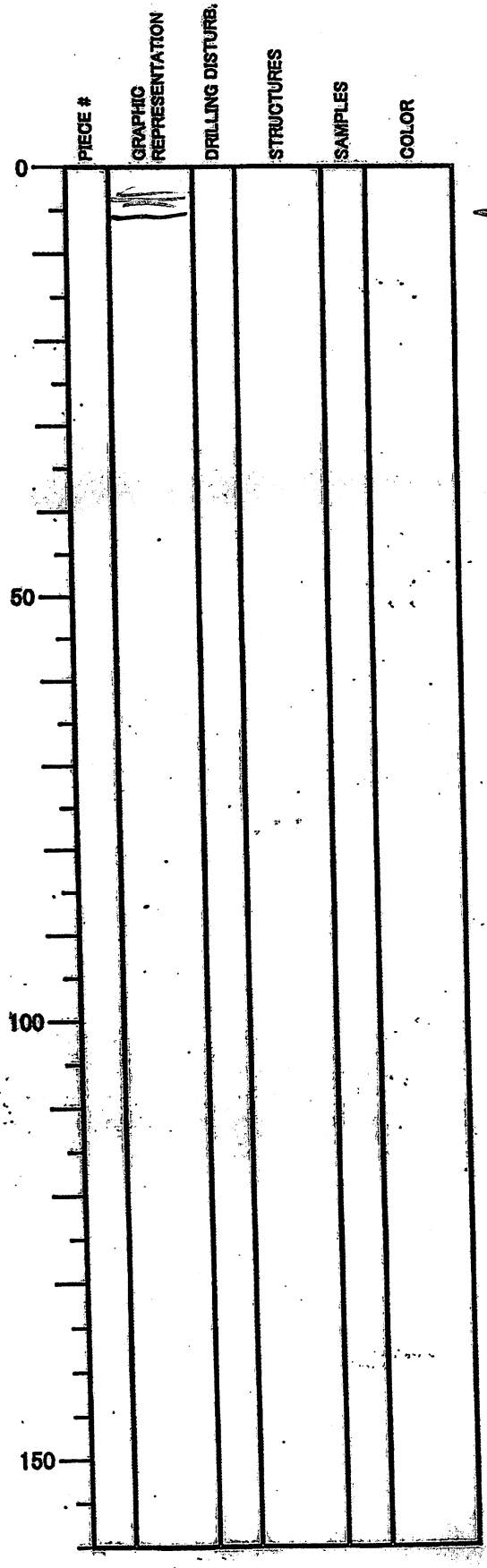
90-134 cm medium to fine sand w/ sparse mm-scale silty shale laminations
faint burrows <1cm occur between 104-116 cm
- authigenic carbonate nodules with lighter rims 120-125 cm <1 cm
- small burrow at 131-132 cm filled w/ lighter medium sand
- organic material lamination at 126 (possibly filling burrows)

VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 9/9/2012
EXP.: 372
SITE/HOLE: C0020A
CORE: 2H
SECTION: CC
TOP DEPTH (m CSF):

OBSERBER:



SECTION DESCRIPTION

0-6 cm

laminated fine to medium sand in muddy silty clay

similar to bottom of sec. 1

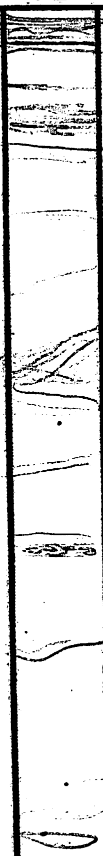
VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 10/19/2012
EXP.: 337
SITE/HOLE:
CORE: 30
SECTION: 1
TOP DEPTH (m CSF):

Sands 7.5Y 4/1
shale 2.5Y 2.5/1

PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR



Depth scale: 0, 10, 20, 50, 100, 150

SS=0
SS 10 carbonate cemented organic rich silt
organic rich middle sand SS 55
SS 80cm

SECTION DESCRIPTION

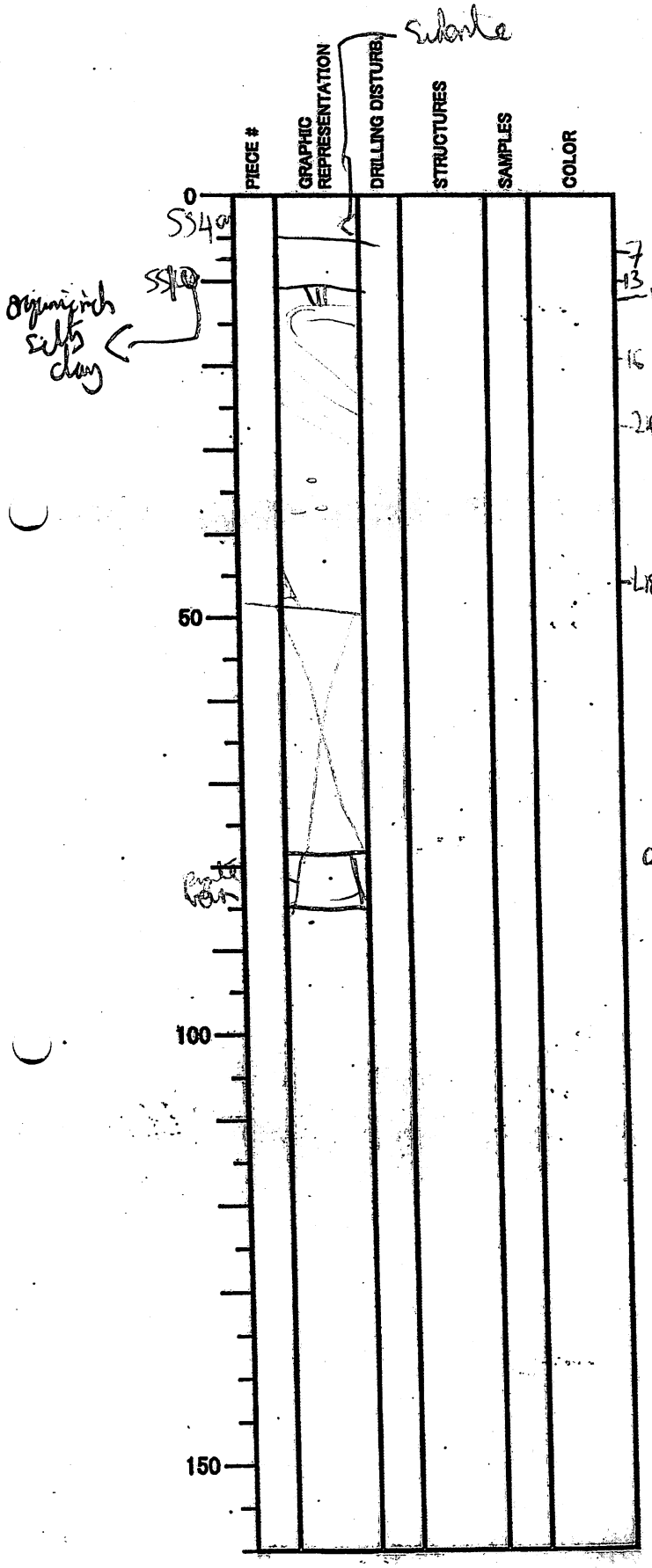
carbonate fine sand
silt – very cross laminations
fine sand
13cm anks?
10YR 3/1
brown silt lenses
grey laminated
silty laminations
silty sand 27-28 cm
35-40 cm cross bedding
52cm organic debris 2.5Y 7/4 lenses
sharp contact
shale
70cm
shale
fine sand lenses, lenticular bedding
85cm fine sand
91cm fine sand
coarsening upwards
more sand lenses

OBSERBER:

7.5 silt shale
6-7 cm middle sand
8 9cm sand
carbonate cemented
10-11.5 sand
11.5 silt laminations
12 silt laminations
14-15 grey silt / carbonate
17-20 cm fine sand
47
40-45 drilling fracture
48-50 shale very slightly dipping

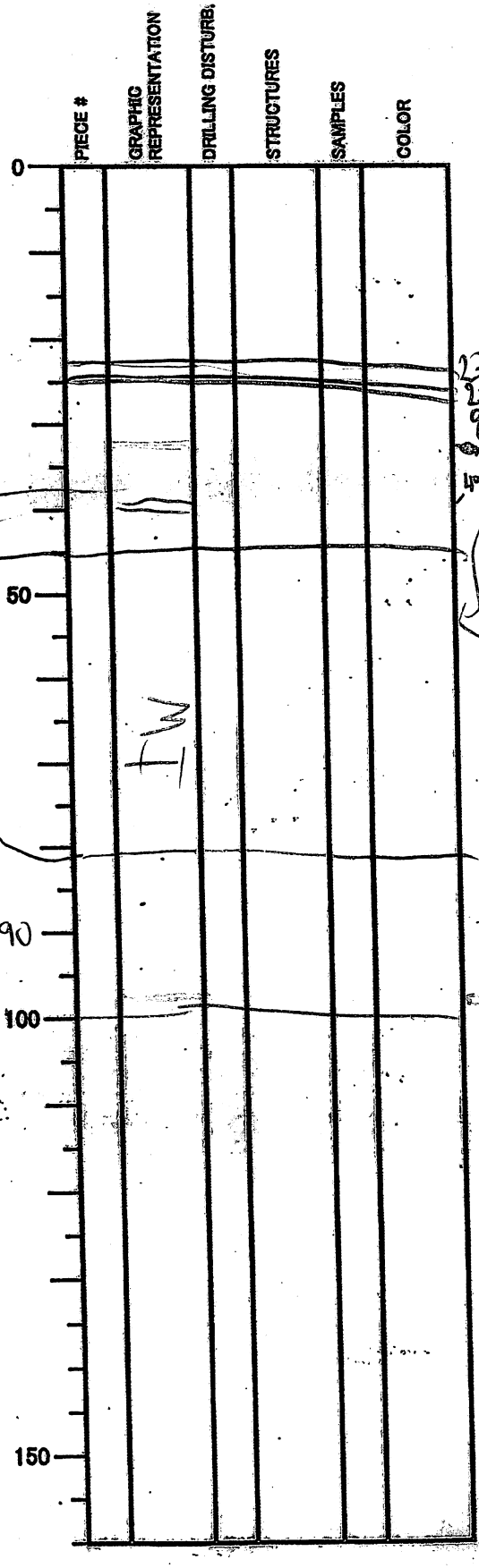
Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 10/9/2012
EXP.:
SITE/HOLE:
CORE: 3H
SECTION: 2
TOP DEPTH (m CSF):
OBSERVER: Sabet



Integrated Ocean Drilling Program
Visual Core Description

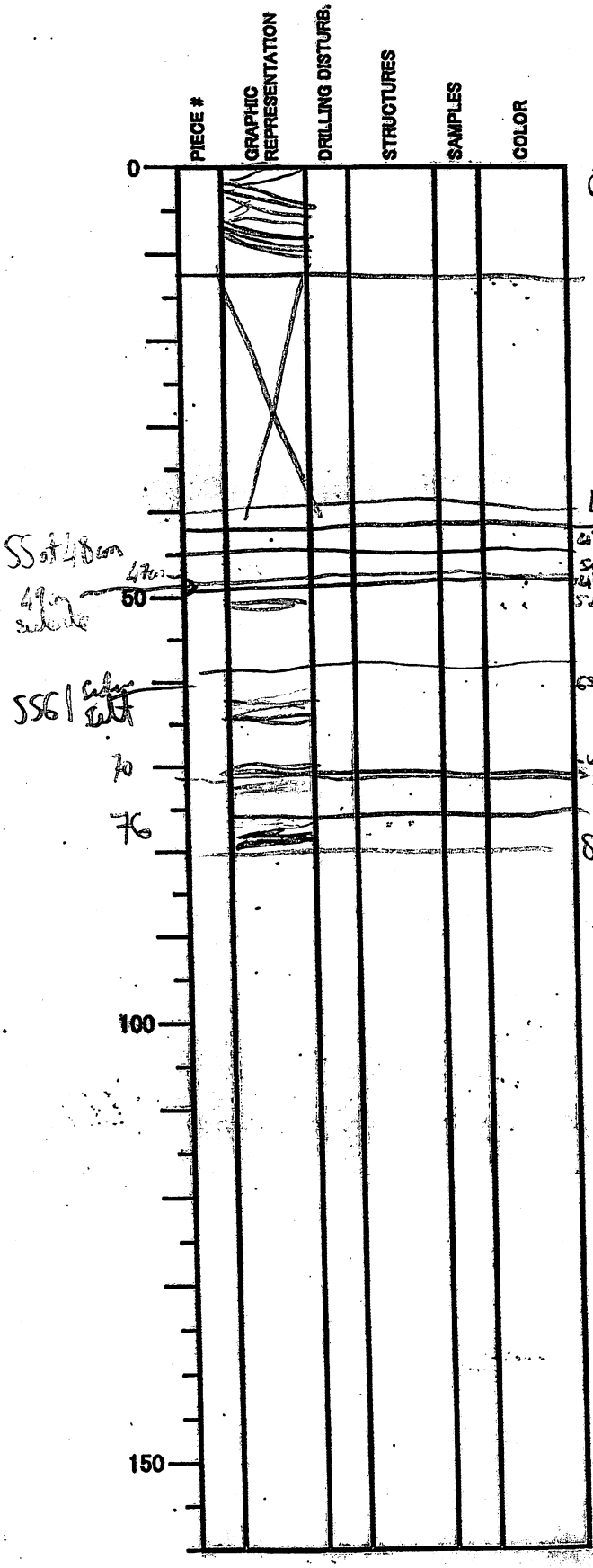
NO.
DATE: 8/9/2012
EXP.: 337
SITE/HOLE:
CORE: 30
SECTION: 4
TOP DEPTH (m CSF):
OBSERBER: DL



VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 10/9/2012
EXP.:
SITE/HOLE:
CORE: 30
SECTION: 5
TOP DEPTH (m CSF):
OBSERBER:

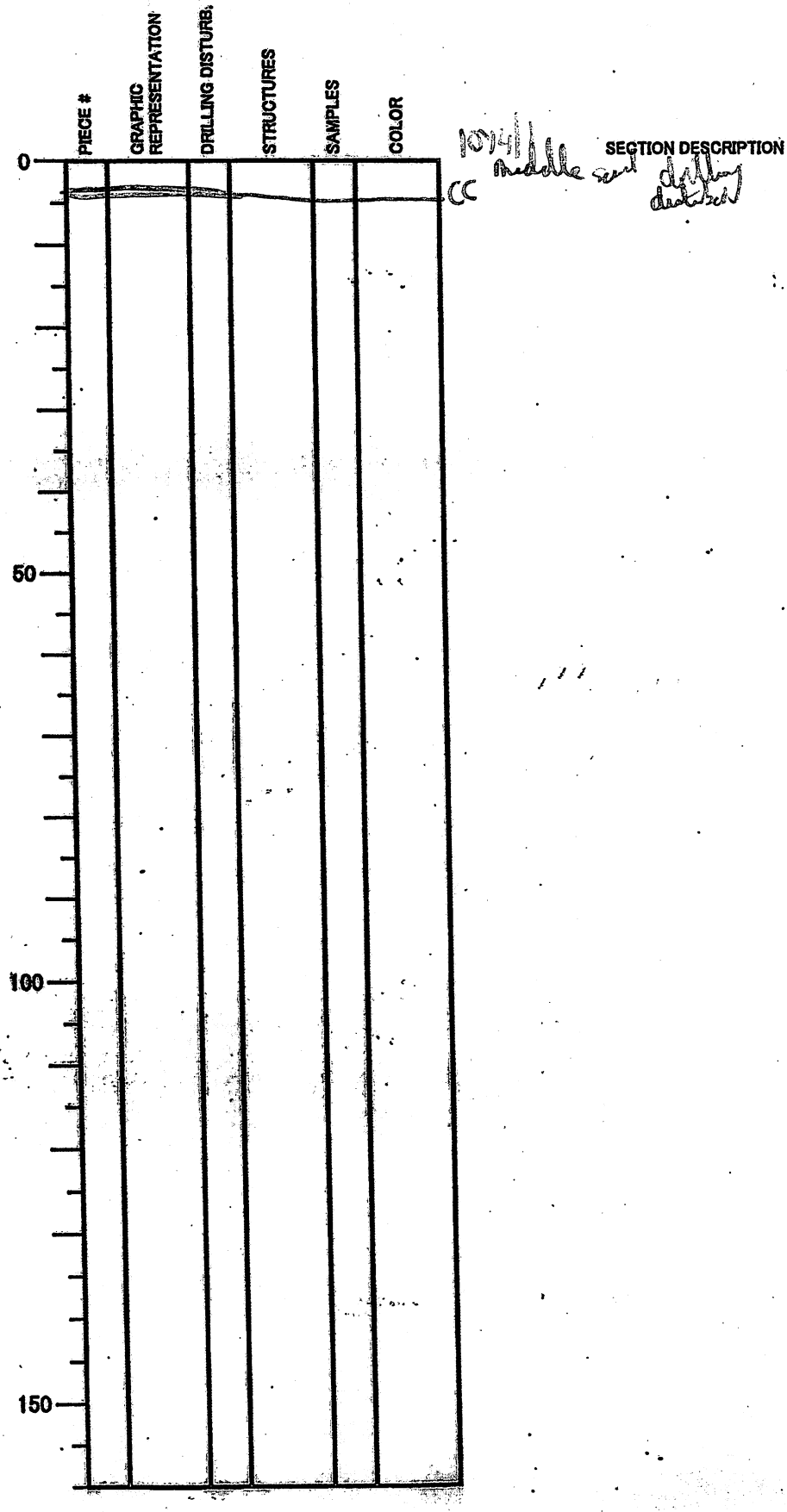


VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

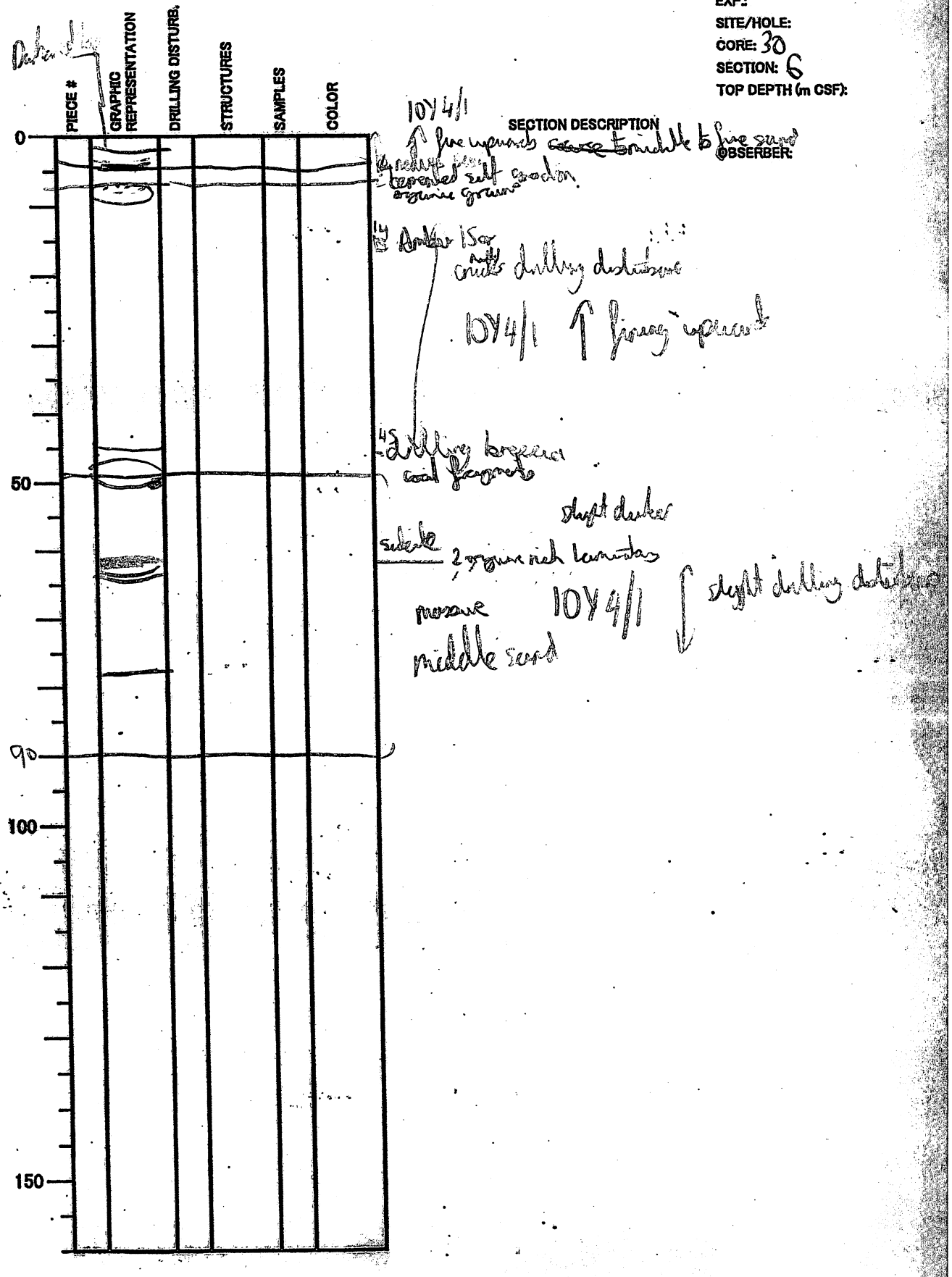
NO.
DATE: / / 20
EXP.:
SITE/HOLE:
CORE: 30
SECTION: CC
TOP DEPTH (m CSF):

OBSERBER:



Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 10/10/2012
EXP.:
SITE/HOLE:
CORE: 30
SECTION: 6
TOP DEPTH (m CSF):
OBSERVER:



Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 10/9/2012
EXP.:
SITE/HOLE:
CORE: 31
SECTION: 1
TOP DEPTH (m CSF):

Depth (cm)	PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR
0						
8			8			2.5 6Y 4/1
33			33			
50						
100						
150						

SECTION DESCRIPTION

OBSERBER:

drilling disturbance, crack, destroy the original structure

Shale intercalated with medium sand layers (≈0.5cm - 2cm)
sand layers at 20-22 cm and at the bottom (31-33 cm)
thick charcoal bedding at the end (29-33 cm)
at the top (0 - 3 cm), organic rich layers

VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / /20
EXP.: 337
SITE/HOLE:
CORE: 32
SECTION: 4
TOP DEPTH (m CSF):

OBSERBER:

PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR	SECTION DESCRIPTION
		0			2.5 GY 5/1	shale ~~intercalate~~ with few intercalations of sand layers at 5-6.5, 11-11.5 and at the bottom of interval (13-14 cm)
		14				
		60.5				highly disturbed
					2.5 GY 4/1	siltstone.
		64				sandstone with fine laminations of siltstone top (65-67 more frequent)
		78.5				77.5-78 cm: siltstone (high organic content) dark with sideritic grain scattered.
		78				78-94 cm: fine sandstone with siltstone laminae and medium sandstone laminations. silt lamina become more frequent to the end of section but thinner than the top.
		94				98.5-93 = the lamination dipping ± 20°
						94-142 : fine sandstone intercalated with silt and medium sandstone.
						99-101 → interval rich in organic material
						110-115 → "
						112-128 → " disturbed by drilling
						124-136 → fine sandstone with laminations of silt
		142				136-142 → fine sandstone intercalated with siltstone.
						~~laminations~~ thick ~~frequent~~ laminations at 135-136 and.

Depth scale: 0, 50, 100, 150

silt 2.5 GY 5/1

138-141 → fine laminations of silt or shale

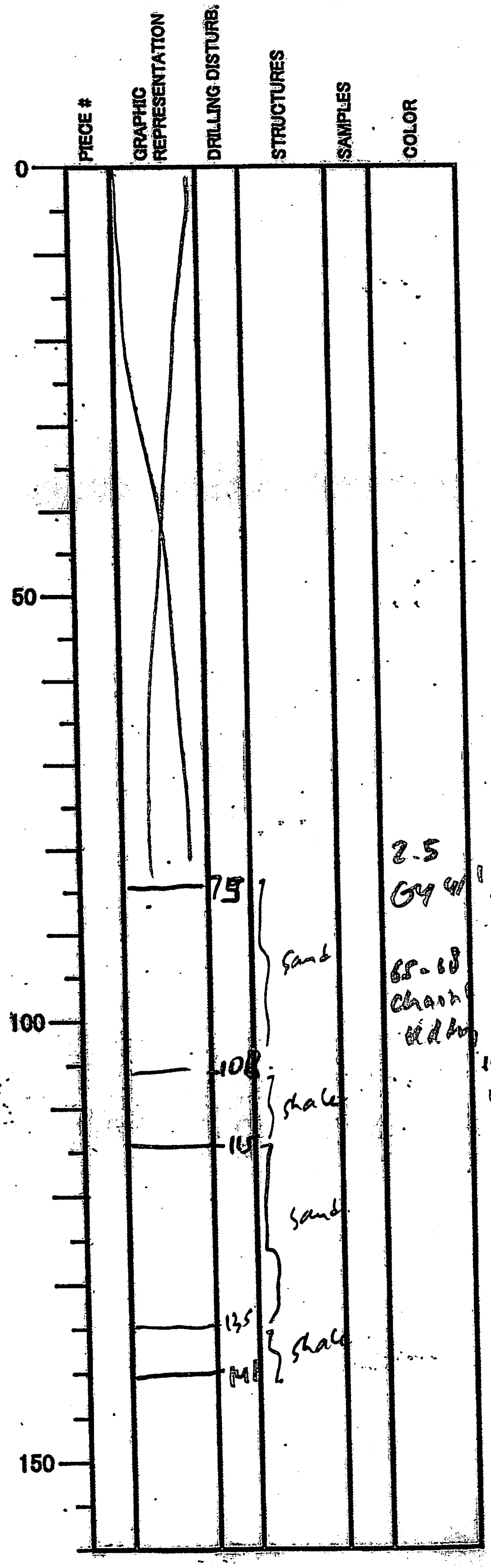
140-142 → fine sandstone

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / /20
EXP.:
SITE/HOLE:
CORE: 32
SECTION: 2
TOP DEPTH (m CSF):

SECTION DESCRIPTION

OBSERBER:



silt + mud layers are very fine.

fine sandstone, ~~medium and coarse~~ intercalated with siltstone and mudstone

fine laminations ripple laminations at 95-100

100-101 = ... lia

92.5 : organic or granule interval

93-94 : organic rich

108 : 115 : shale massive.

114 - 124 = medium sandstone with some very fine mud layer.

124 - 126 = massive shale.

126 - 135 : medium sandstone intercalated with clay/mud. lamination at the top and bottom more frequent.

135 - 141 → shale

shell fragment and plant remains at 120.5

siderite grain ??

94-95 → wavy ~~ripple~~ bedding

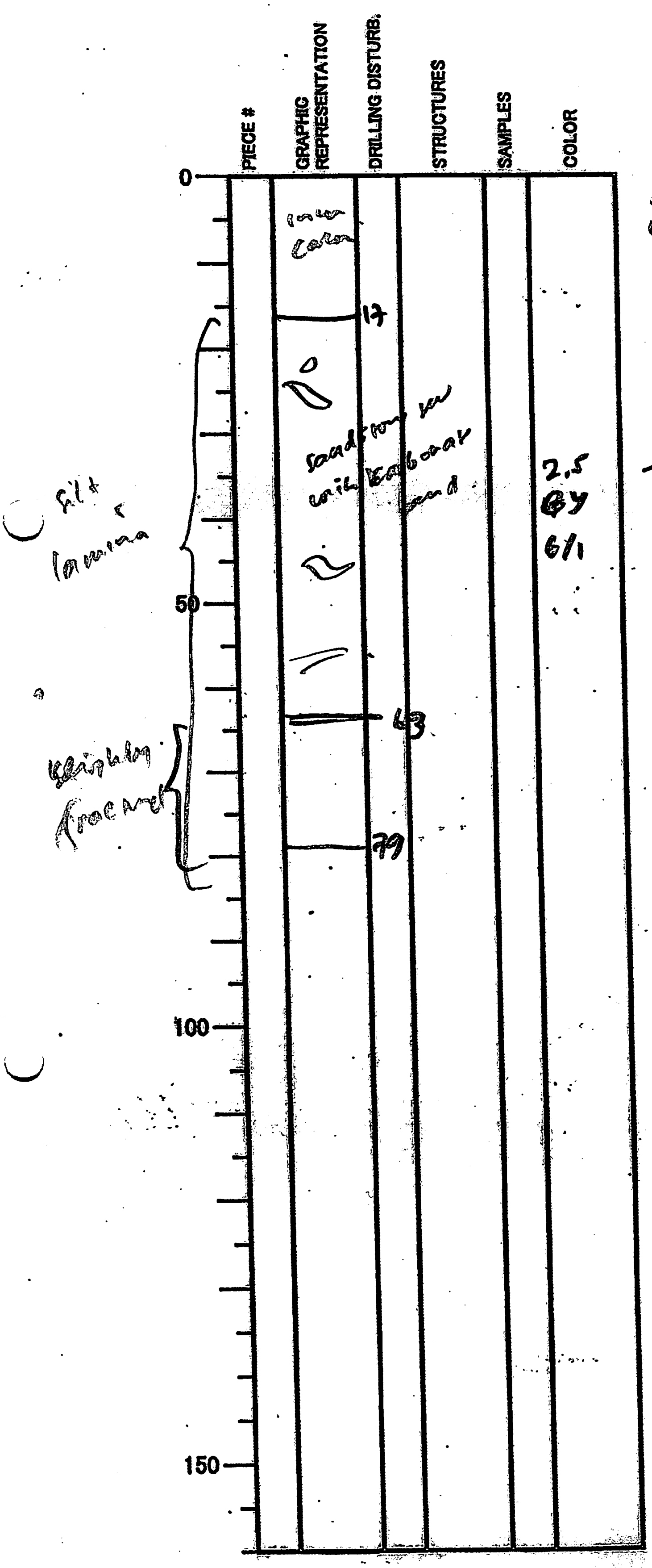
102 - 105 → wavy ~~ripple~~ bedding

VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / /20
EXP.:
SITE/HOLE:
CORE: 32
SECTION: 3
TOP DEPTH (m CSF):

OBSERBER:



SECTION DESCRIPTION

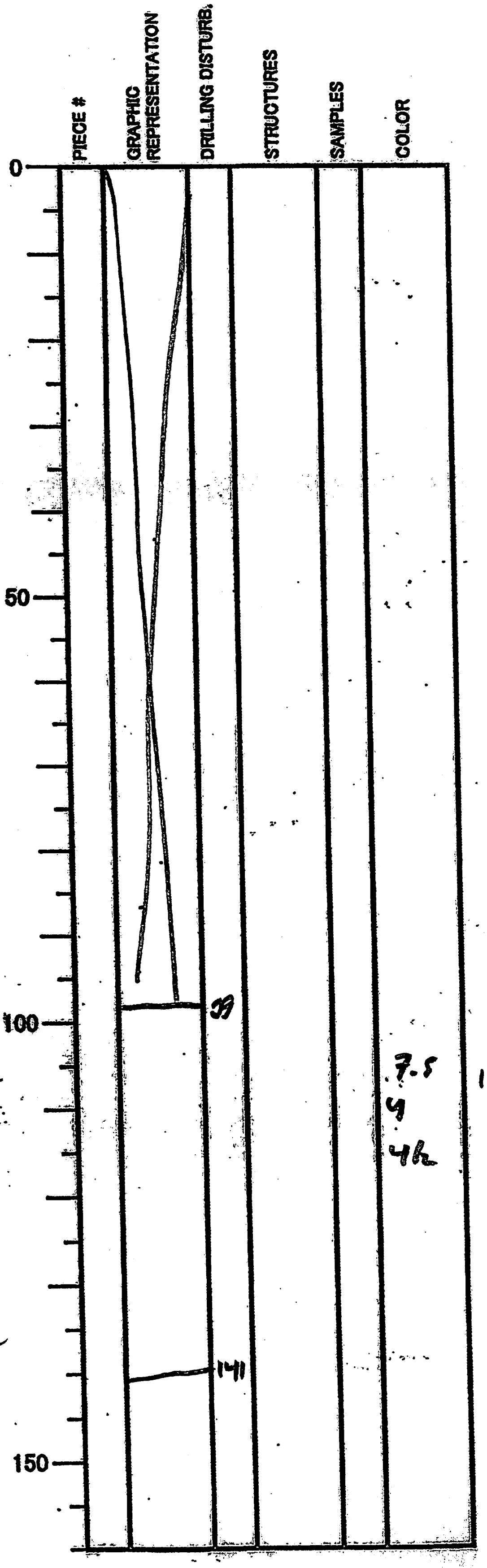
fine sandstone - medium sandstone with dense laminations of clay
1.5 cm : layer of organic
6 cm : layer of organic .
14 - 17 cm : drilling upward .
17 - 63 cm ; fine massive sandstone consolidated hard with ~~few~~ ~~and~~ carbonate ~~fossy~~ bands ~~nodule and layers~~
– at 19 - 21 cm . = uncontinous
29 - 31 cm ; concave shape uncontinuous
41 cm : uncontinous layer 0.5 - 1 cm .
45 - 46 . ~~uncontinous~~ ~~layer~~ lenticular bedding
61 - 62.5 : thick . continous (1.5 cm)
63 : 0.5 cm thick .
63 - 75 cm : sandstone interbedded with ~~clay~~ / siltstone , less frequent from the top interval .
13 cm ripple bedding
24 - 26 cm = vein
65 - 67 = vein

17 - 64 : massive carbonaceous sandstone

6

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / /20
EXP.:
SITE/HOLE:
CORE: 32
SECTION: 5
TOP DEPTH (m CSF):
OBSERBER:



SECTION DESCRIPTION

Shale massive.

100 - 109: ring structure possible bivalves not clear; no reaction with HCl also 111-116.

118 - 127 : interval rich in planar reaction

131.5-134 : organic rich interval

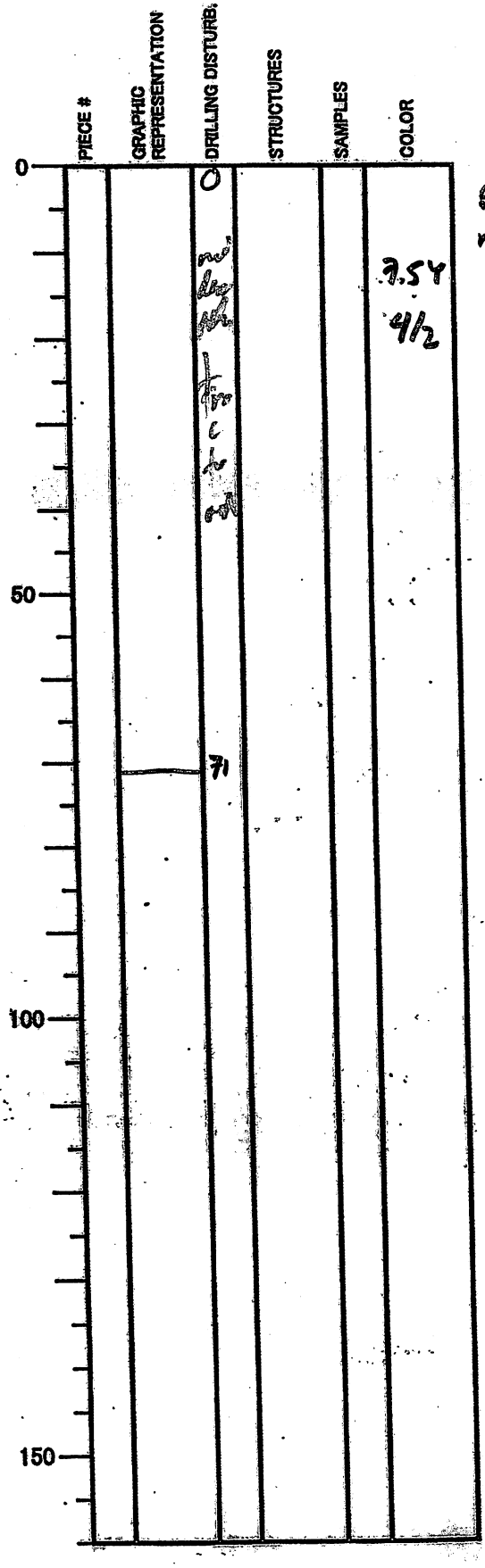
136 - 137 → bivalves !!

moderately fractured

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / / 20
EXP.:
SITE/HOLE:
CORE: 32
SECTION: 6
TOP DEPTH (m CSF):

OBSERBER:



SECTION DESCRIPTION

Dark massive.
nugget structure (drilling disturbance)

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / /20
EXP.:
SITE/HOLE:
CORE: 32
SECTION: 7
TOP DEPTH (m CSF):

PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR
					7.5 Y 4/1

0
50
100
150

68 cm
77

SECTION DESCRIPTION

OBSERBER:

Shale, massive, nugget structure.

56 – 59.5 : few nodules hard, yellow, non carbonate mineral filling.

60 – 62 cm : interval rich in organic matter

71 – 72 cm : – –

75 – 76 cm : –

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: / /20
EXP.:
SITE/HOLE:
CORE: 32 R
SECTION: 8
TOP DEPTH (m CSF):

PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR
		moderately fractured			7.5 Y 3/2
	(91)				

Scale: 0, 50, 100, 150

biscuit

SECTION DESCRIPTION

OBSERBER:

Shale, massive

8-9 cm : possible shell fragments ?

9.5 - 12.5 : interval rich in organic material, (plant + shell fragments) at top more fragment

38 cm : uncommon layer of organic material

58 cm : small nodule (sand coarse size) shell fragments ? mineral

60.5 = granule

64.5 : granule.

78, 11 : sands nodule.

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 10/9/2012
EXP.: 337
SITE/HOLE: C0020
CORE: 32
SECTION: 9
TOP DEPTH (m CSF):

SECTION DESCRIPTION

OBSERBER:

PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR
		fining upward	drilling!		

0, 50, 100, 150

65cm SS

SAA

brown scale, slack gefleckt ~~sh~~ gravity produced

fine dispersed sand

29 sandstone - sand = fine sand

35

fine - middle sand

~~laud~~,,,

~~75~~ scaly organic rich ~~[illegible]~~ layer

79 - fine dispersed

2.5GY 3/1 - 2/1

86

66 - 45 no change

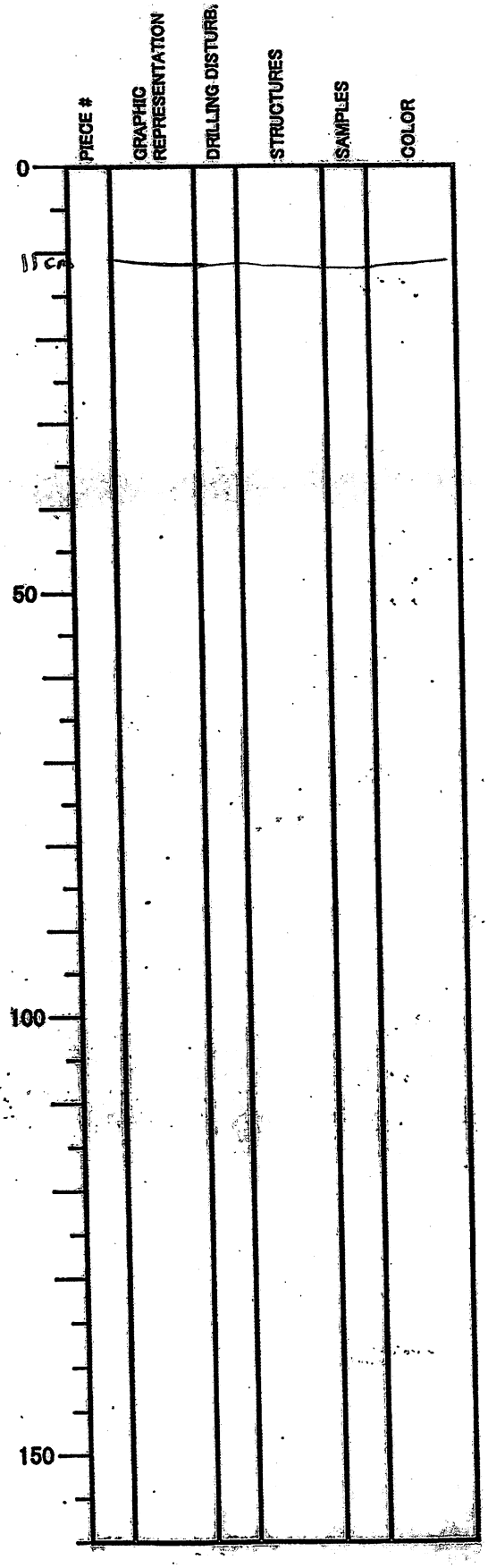
74 - 66 coarsening up

74 - 86 fining upward

VCD_sheet_100805.xls

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 10/9/2012
EXP:
SITE/HOLE:
CORE: 32 TO
SECTION:
TOP DEPTH (m CSF):



SECTION DESCRIPTION

OBSERBER:

Heavy drilling disturbance

Fine sand

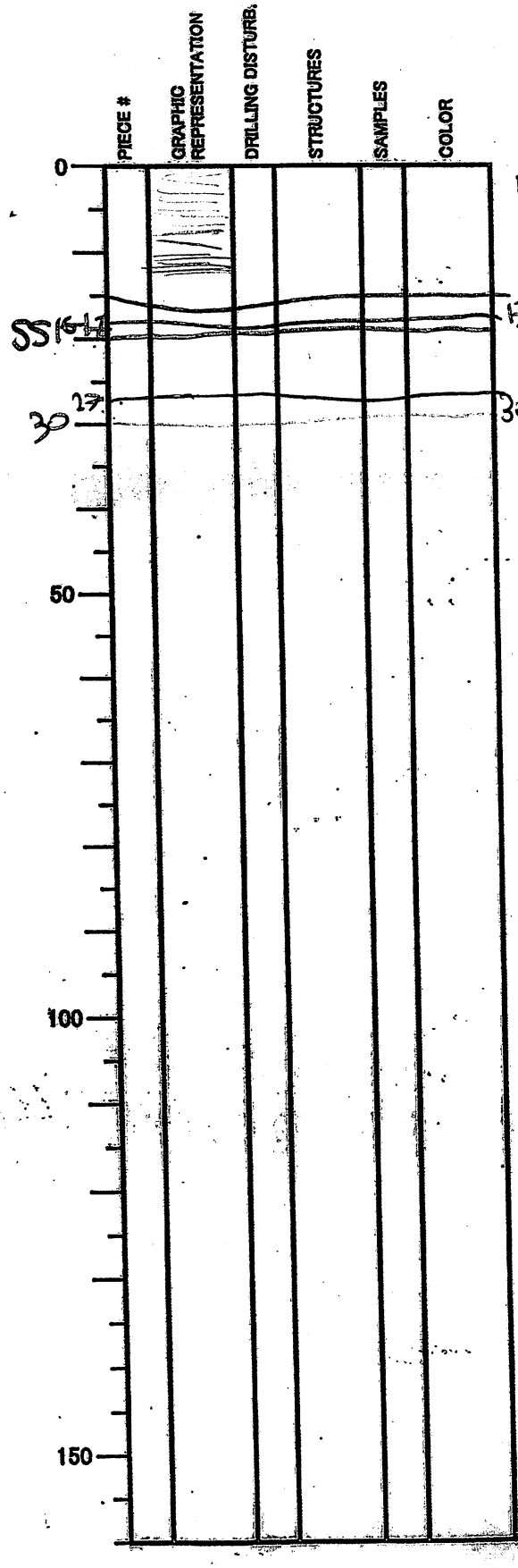
badly sorted

qu-rich; silicic progs, biolite

~~strength~~ moderate ~~sorted~~ rounded

Integrated Ocean Drilling Program
Visual Core Description

NO.
DATE: 10/9 / 20 12
EXP:
SITE/HOLE:
CORE: 32
SECTION: CC
TOP DEPTH (m CSF):



SECTION DESCRIPTION

OBSERBER:

parallel laminations
2 SGYS/1 drilling disturbance fine sand
27 subtle laminations of silt
fine sand
coarsening upwards between each laminations