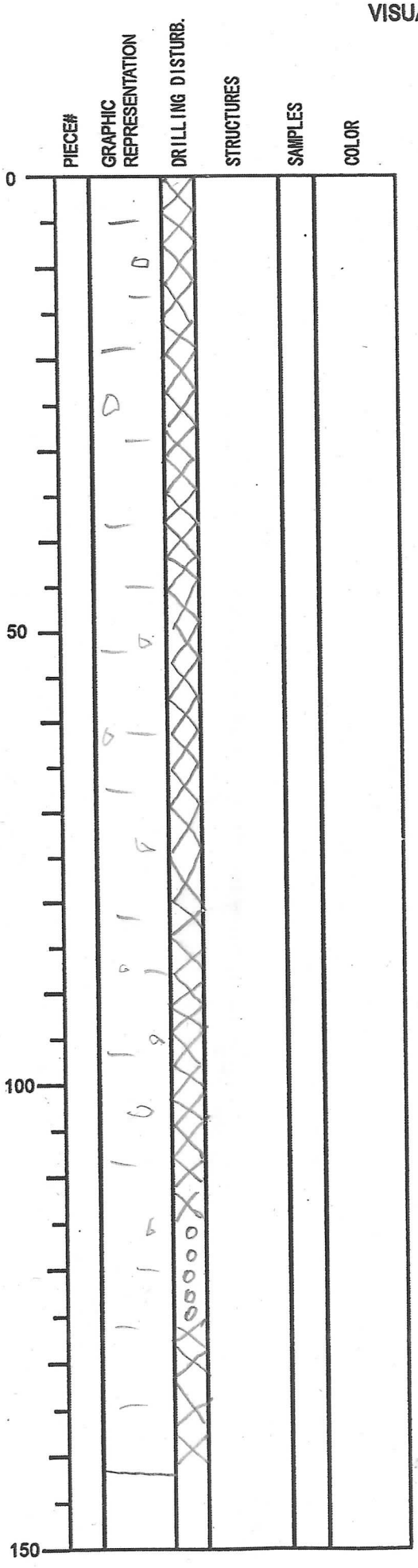
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 12/23/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 1R
SECTION: 1
OBSERBER: CLF



SECTION DESCRIPTION

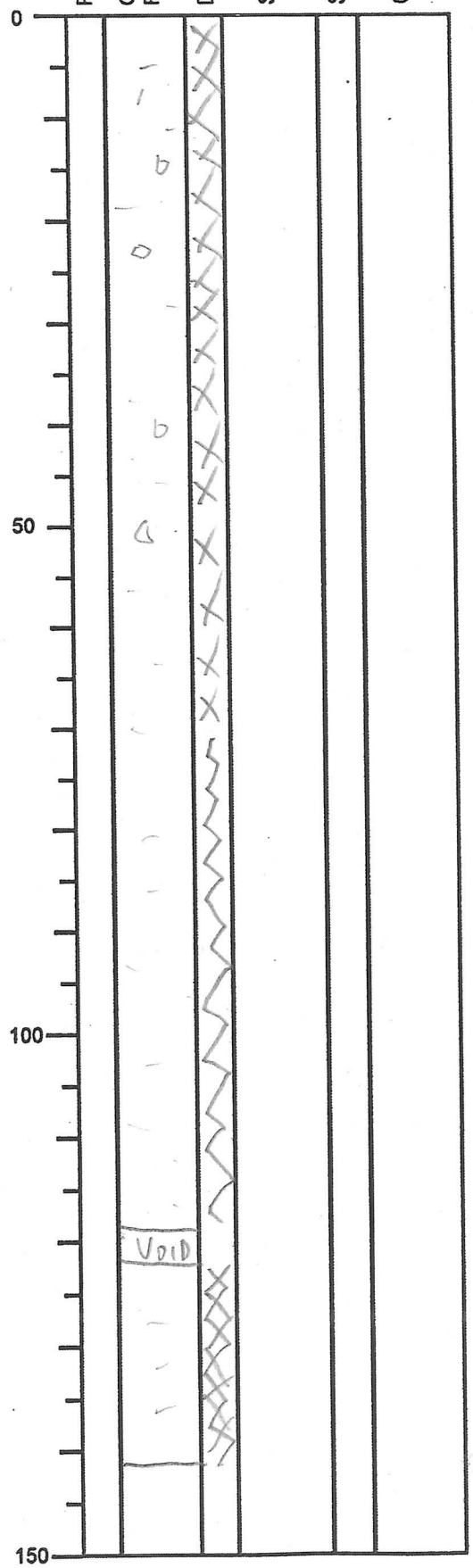
- clasts up to 8cm in upper part, well lithified.

Greenish-gray silty claystone

Drilling breccia, locally soupy.

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 12/23/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 1R
SECTION: 2
OBSERBER: CLF

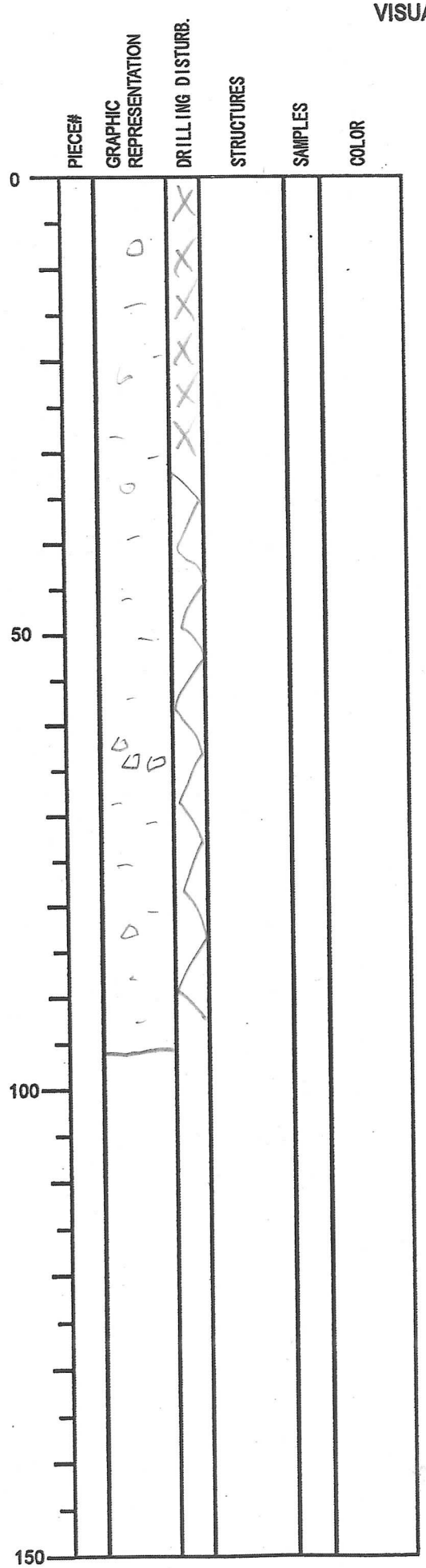


SECTION DESCRIPTION

as previous

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 23 / 11 / 20 07
EXP: 316
SITE/HOLE: C0004D
CORE: 1R
SECTION: 3
OBSERBER: UN

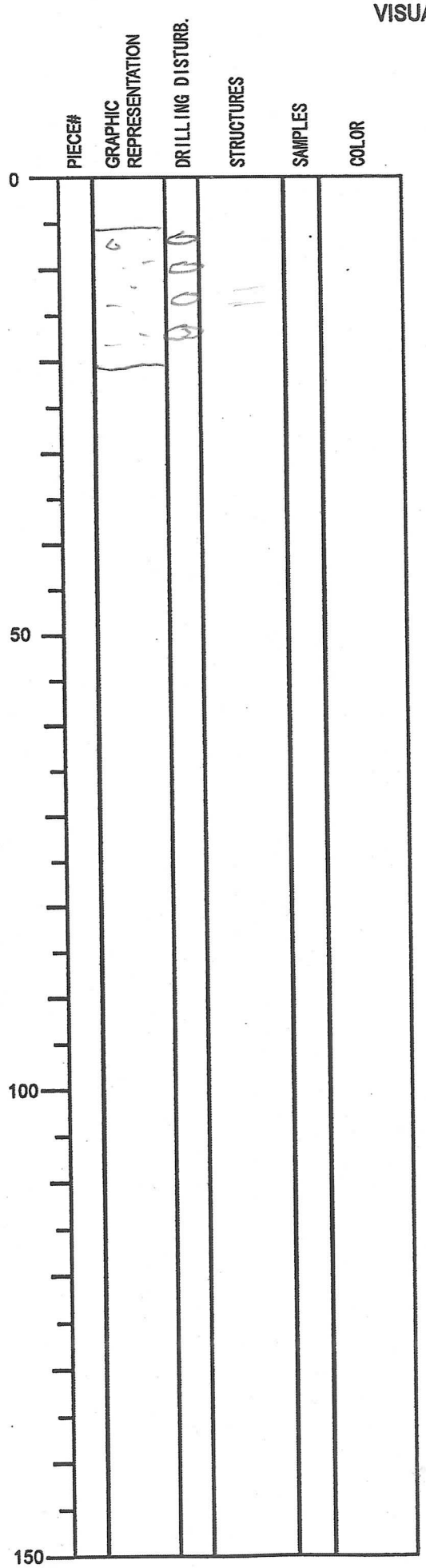


SECTION DESCRIPTION

Some subtle colour banding brown-gray to green-gray colour.

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP: 316
SITE/HOLE: C 0004D
CORE: 1A
SECTION: EC
OBSERBER: UN

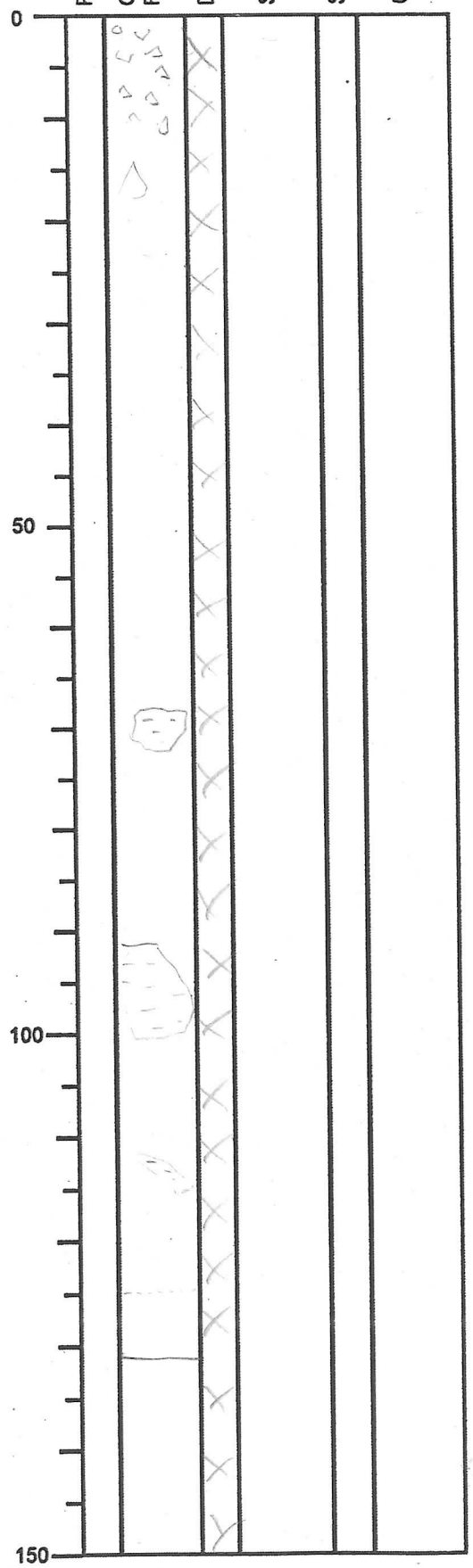


SECTION DESCRIPTION

thick pale grey laminations, may be small amounts of ash?

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 2R
SECTION: 1
OBSERBER:



SECTION DESCRIPTION

heavely drilling induced Breccia

~~with~~ in CT seam clear evidences for RCB cutting of chats

~~Lithology~~ primary Lithology

dark greenish gray mudstone

initial texture can not be identified due to drilling disturbance

Big chust show foliations? (check with structural geology) and striation

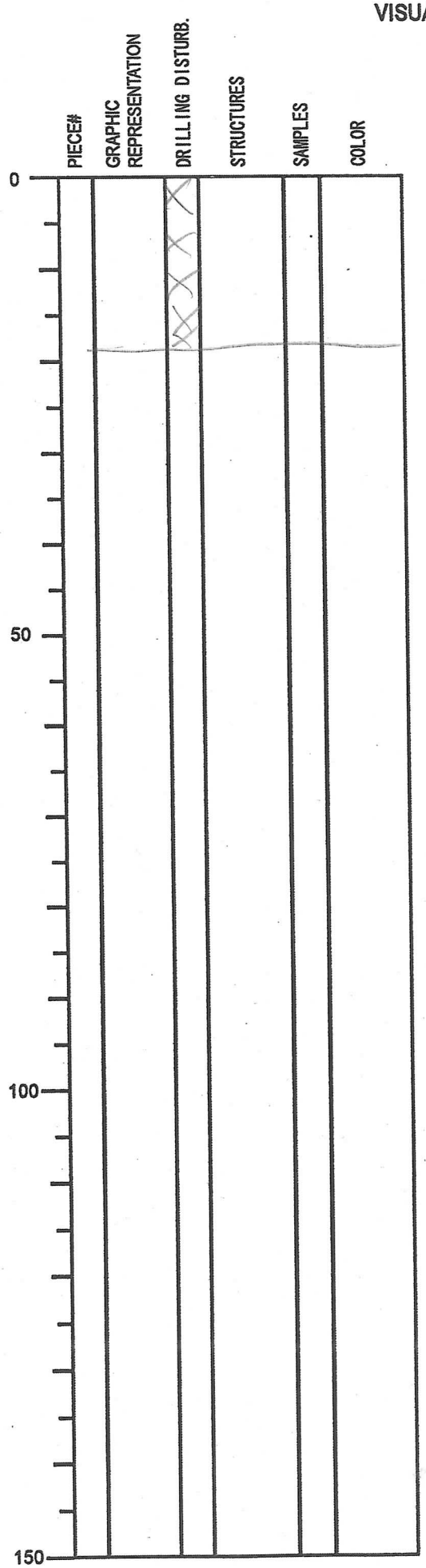
slight color change to somewhat lighter dark greenish gray

Sharp contact

bedding ?

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 2R
SECTION: CC
OBSERBER:

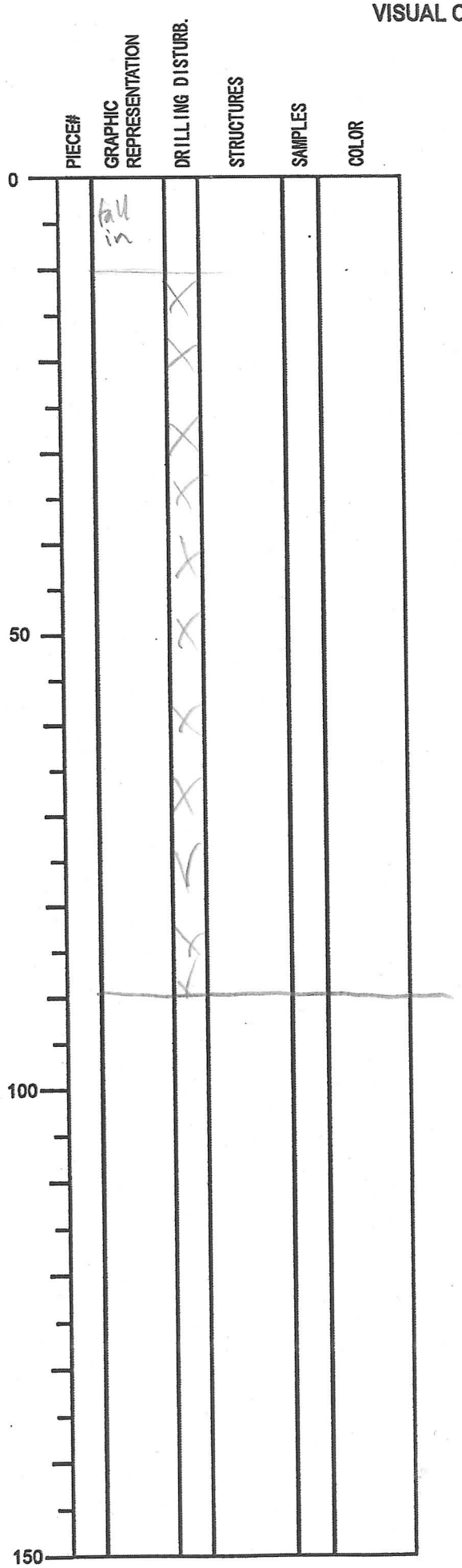


SECTION DESCRIPTION

dark greenish gray mudstone

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 3R
SECTION: 1
OBSERBER:



SECTION DESCRIPTION

dark greenish gray Mudstone

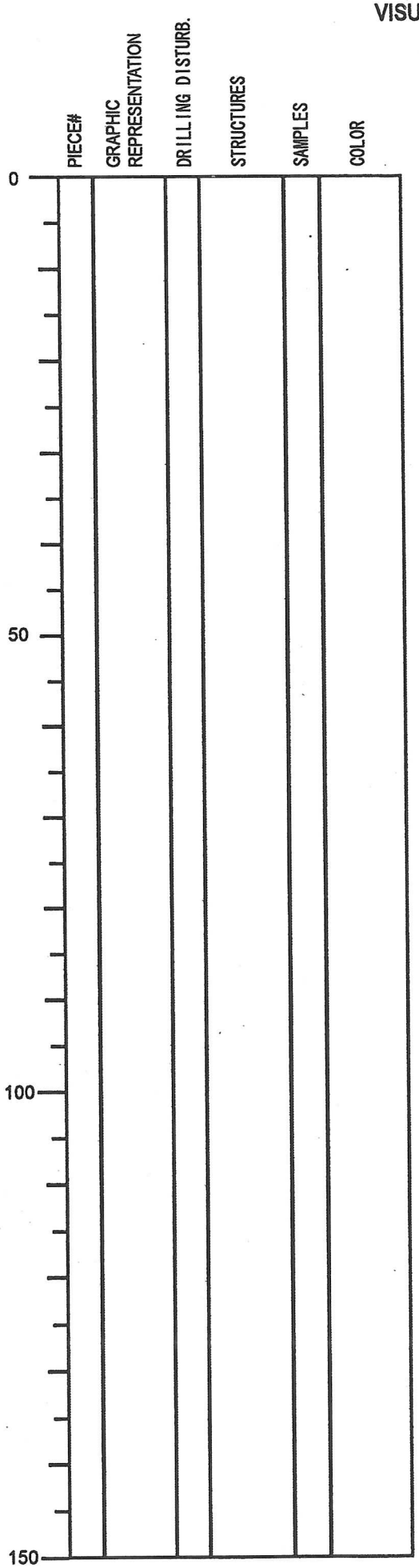
brecciated due to drilling

initial texture can not be recognized

some minor patches (few mm) of slight color variations

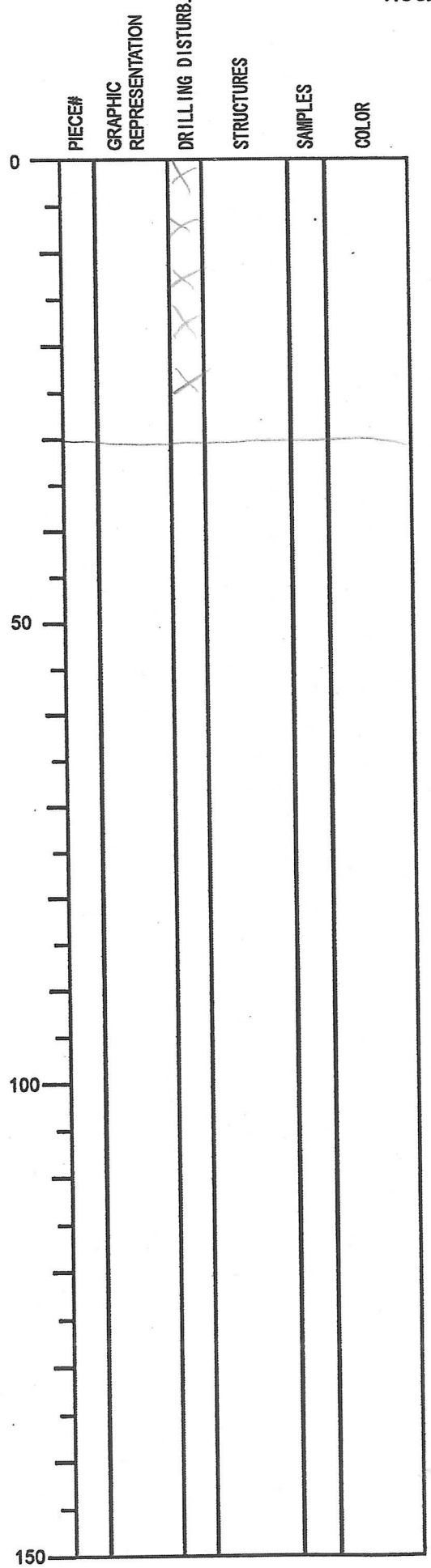
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 3R
SECTION: 2
OBSERBER:



INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 3R
SECTION: 3
OBSERBER:

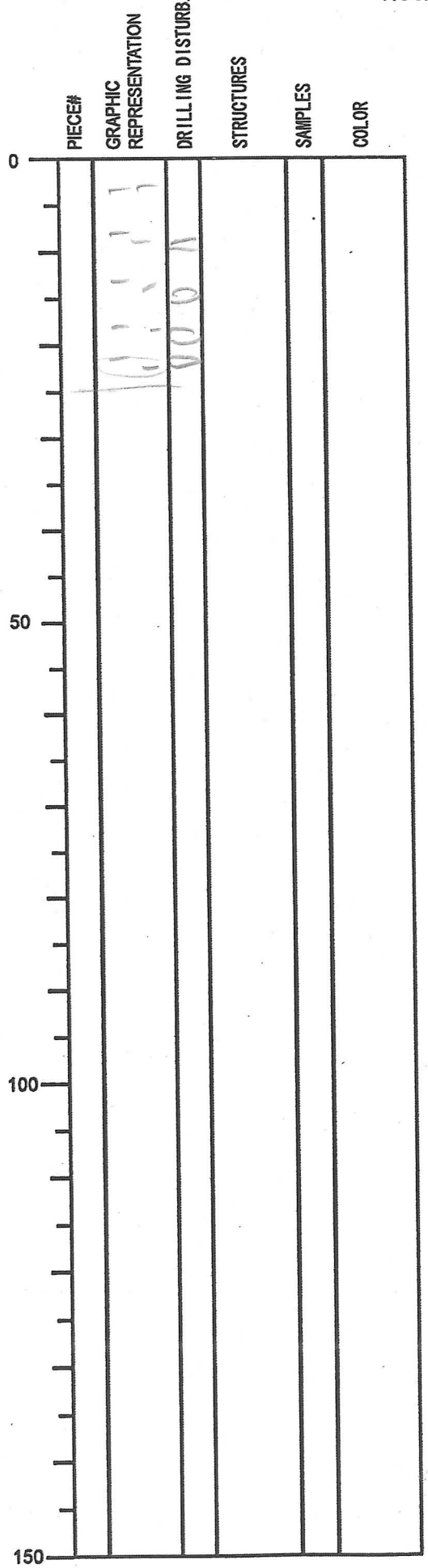


SECTION DESCRIPTION

dark greenish gray mud
drilling disturbed

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0007D
CORE: 3R
SECTION: CC
OBSERBER:



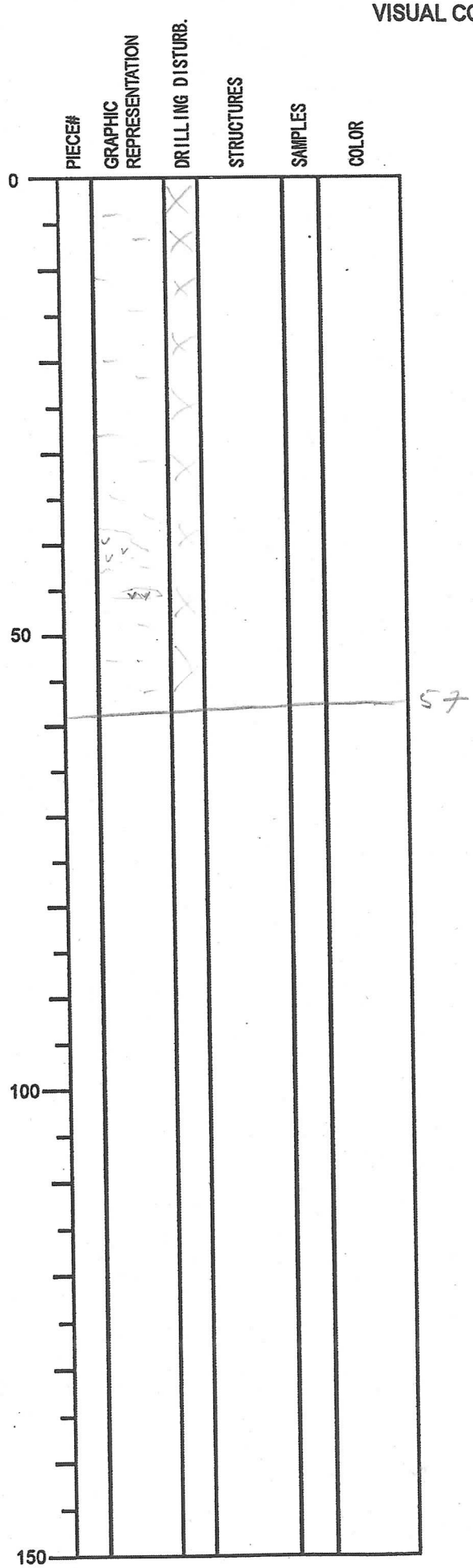
SECTION DESCRIPTION

3 pcs of dark greenish gray mudstone

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 23 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 4R
SECTION: 1
OBSERBER: M.S / KLM



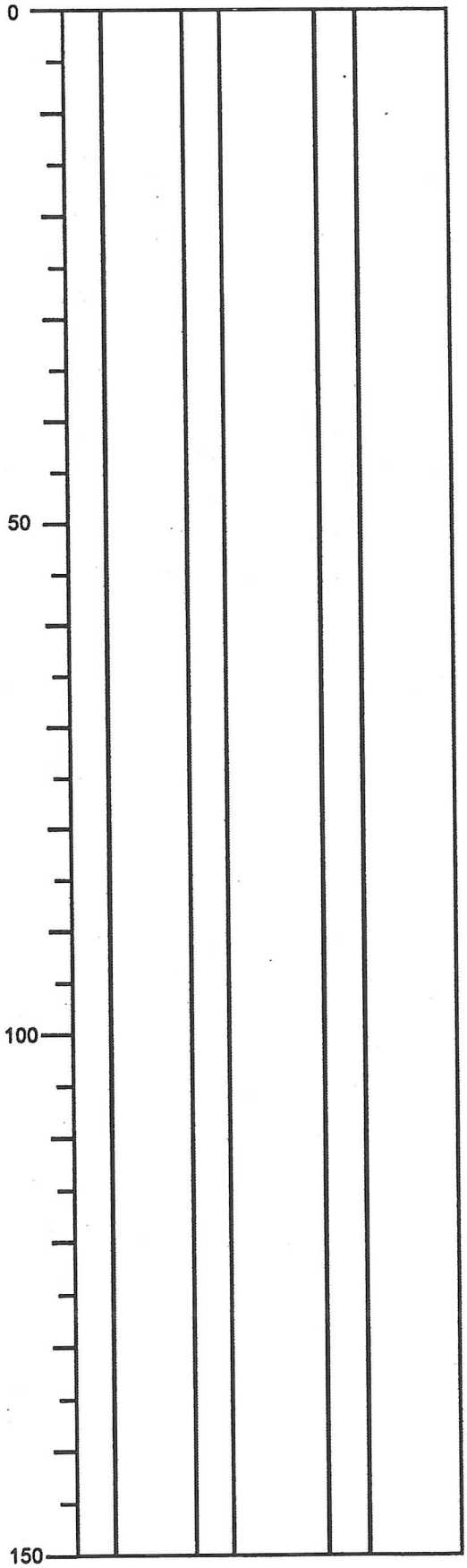
SECTION DESCRIPTION

dark greenish gray silty claystone
with patches of light gray
Ash at 39-4 and 45cm

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / / 20
EXP:
SITE/HOLE:
CORE: 4R
SECTION: ~~4R~~ 2
OBSERBER:

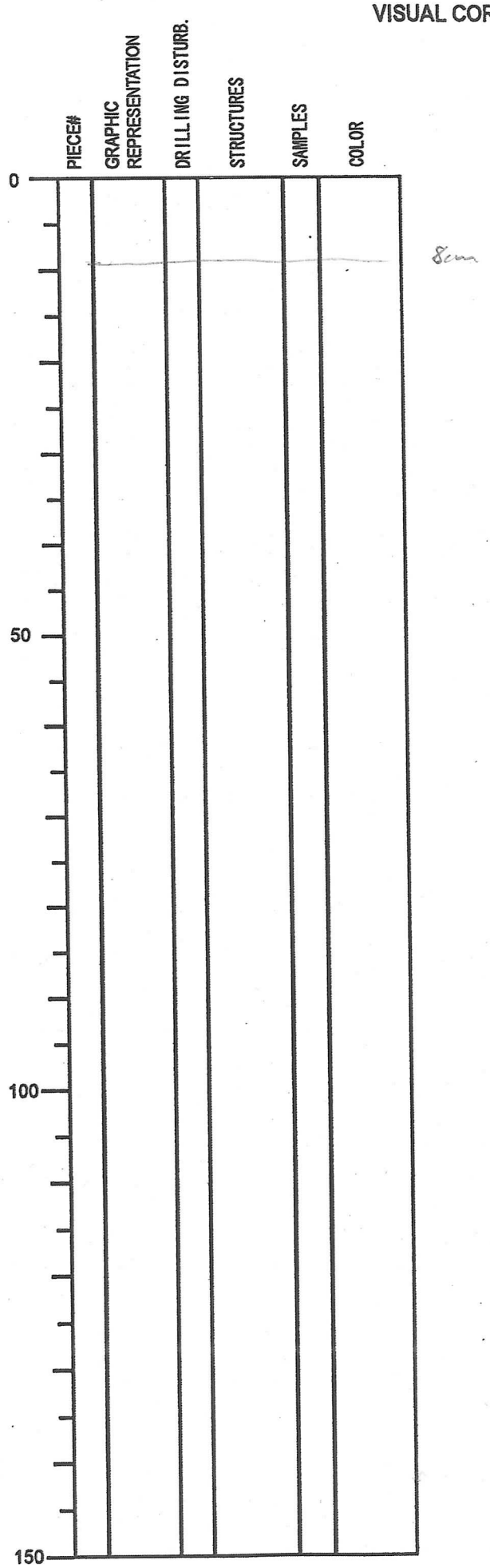


SECTION DESCRIPTION

IW

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / / 20
EXP:
SITE/HOLE:
CORE: 4R
SECTION: 3
OBSERBER:



SECTION DESCRIPTION

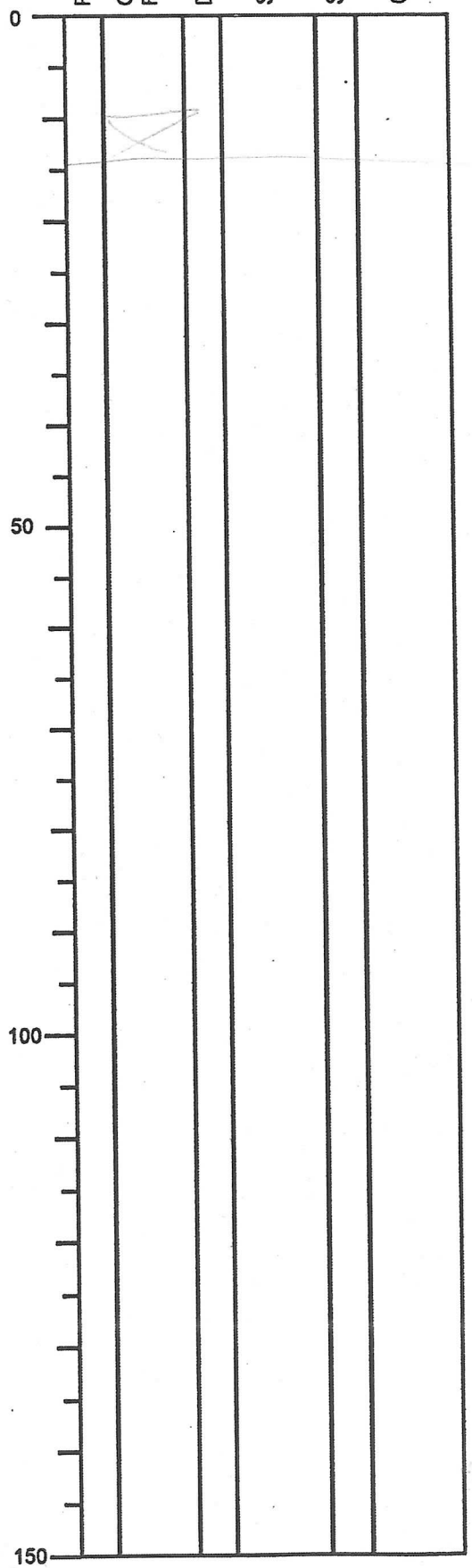
silty clay slow

8cm

Ver.0.10_071109

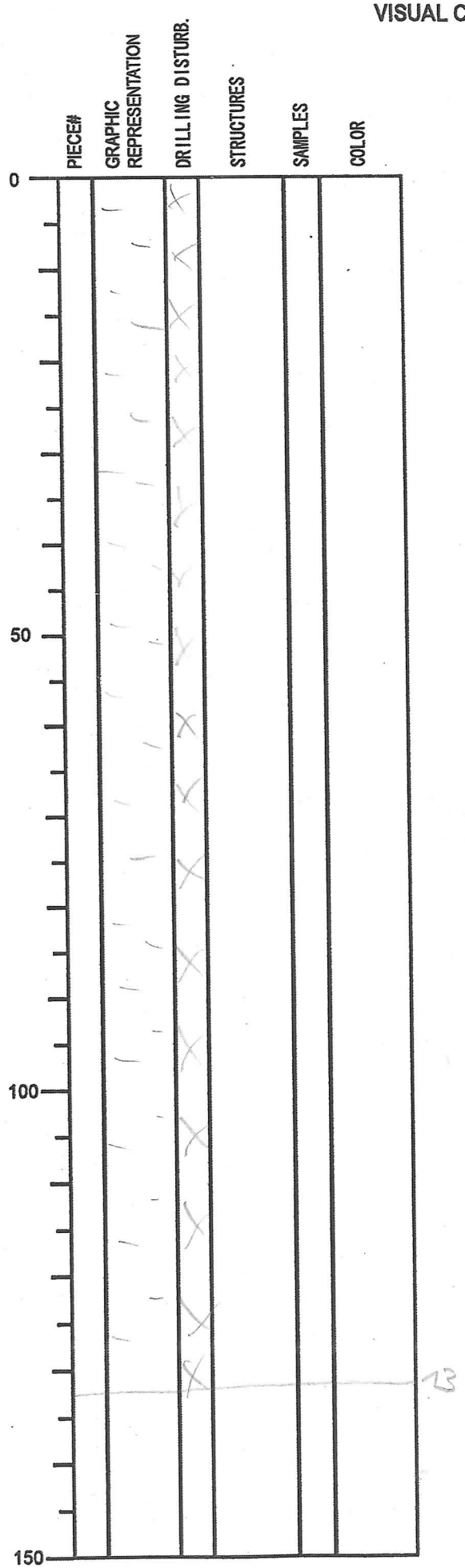
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: ~~422~~
CORE: 4R
SECTION: CC
OBSERBER:



INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 5R
SECTION: 1
OBSERBER: M.S. / KLM



SECTION DESCRIPTION

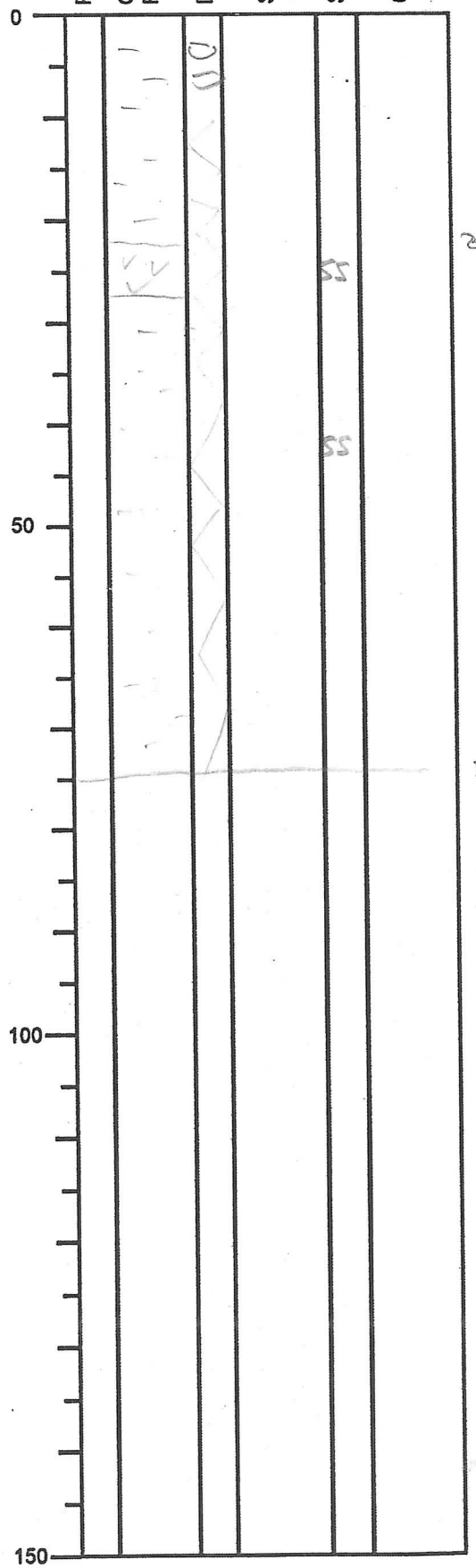
greenish gray silty claystone

Heavily disturbed and brecciated due to coring

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE:
CORE: 5R
SECTION: 2
OBSERBER: M.J / KLM



SECTION DESCRIPTION

dark greenish gray silty clay
heavily drilling disturbed with biscuits (as to be observed in CT scan) but als smaller intervals which are more coherent

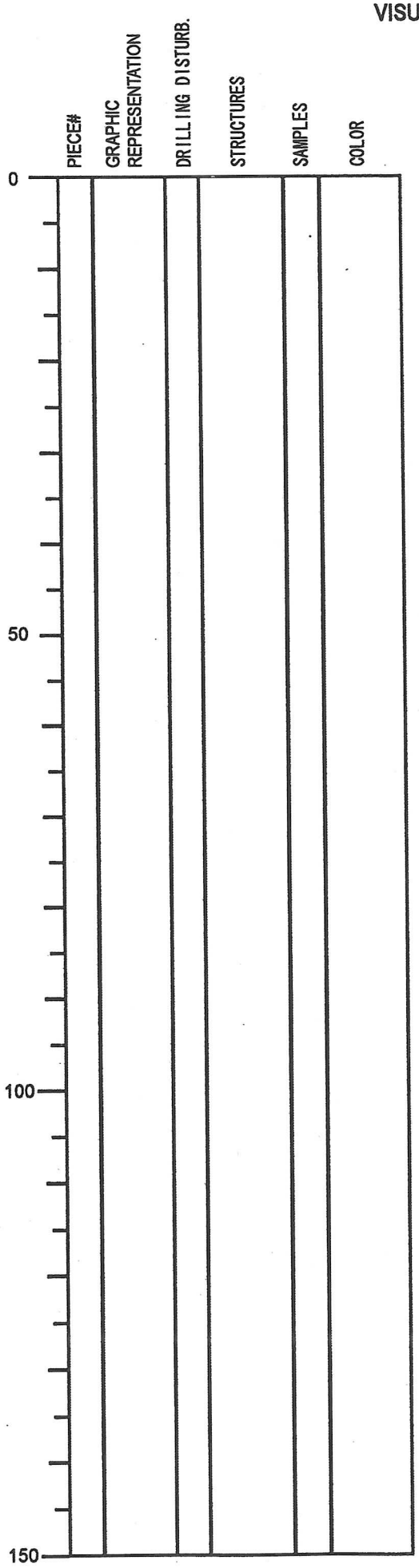
Ash Layer : sucession of two layers an upper slightly coarse sandy grayish layer and a lower greenish grey layer

silty color variation from dark greenish gray to greenish gray down section

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / / 20
EXP:
SITE/HOLE:
CORE: 5R
SECTION: 3
OBSERBER:

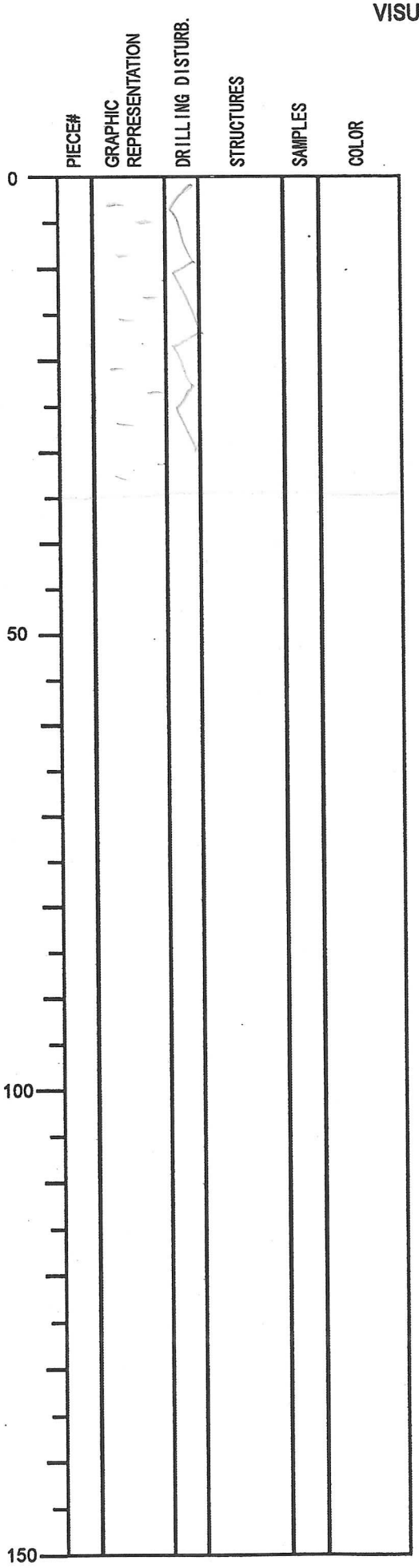


SECTION DESCRIPTION

IW

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / / 20
EXP:
SITE/HOLE:
CORE: 5R
SECTION: 4
OBSERBER:

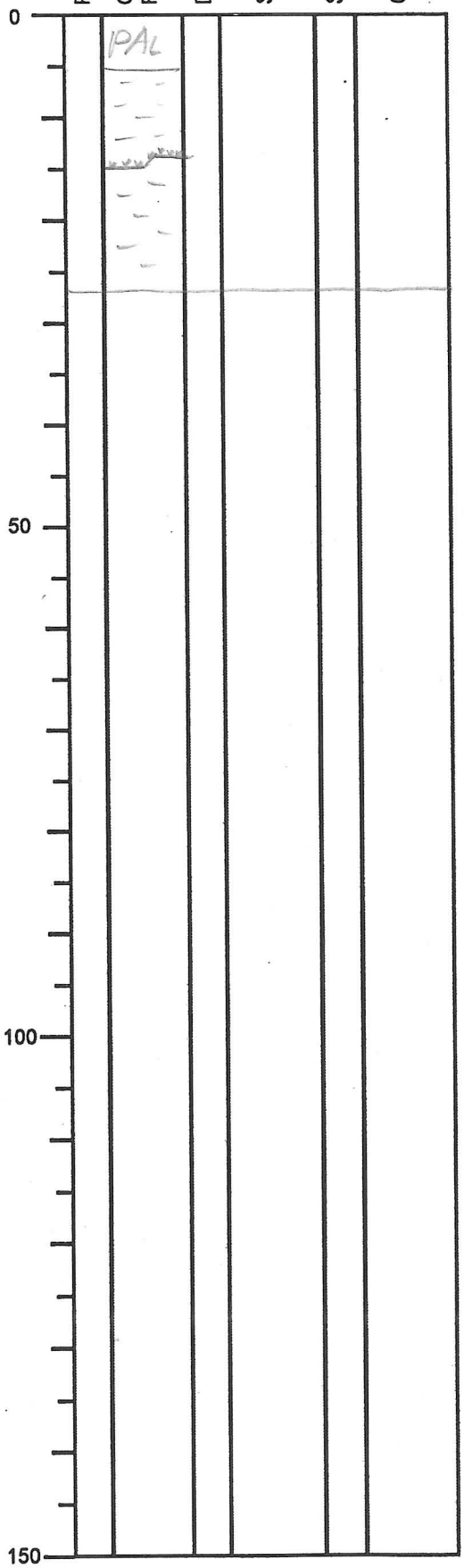


SECTION DESCRIPTION

~~Litho~~ greenish gray silty clay
coring disturbed

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / / 20
EXP:
SITE/HOLE:
CORE: 5R
SECTION: CC
OBSERBER:



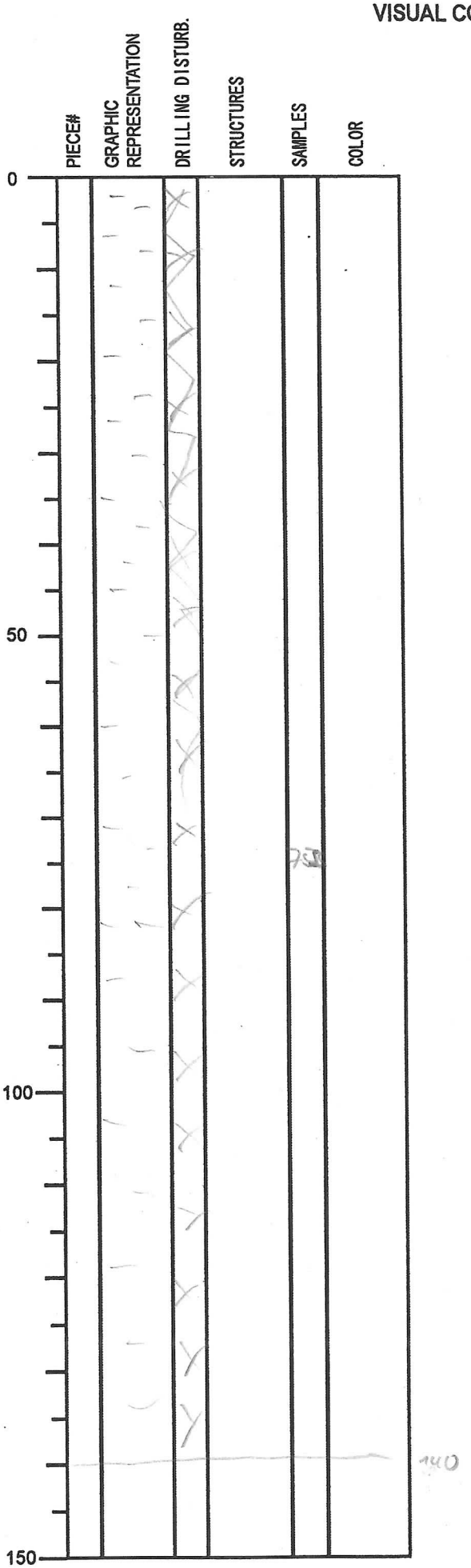
SECTION DESCRIPTION

greenish gray silty clay

very fine ash layer 3mm with some reworking above
very sharp contact and offset to lower dark greenish gray finer dark greenish gray

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / / 20
EXP: 316
SITE/HOLE: C0004D
CORE: 7R
SECTION: 1
OBSERBER: M.S / KIM



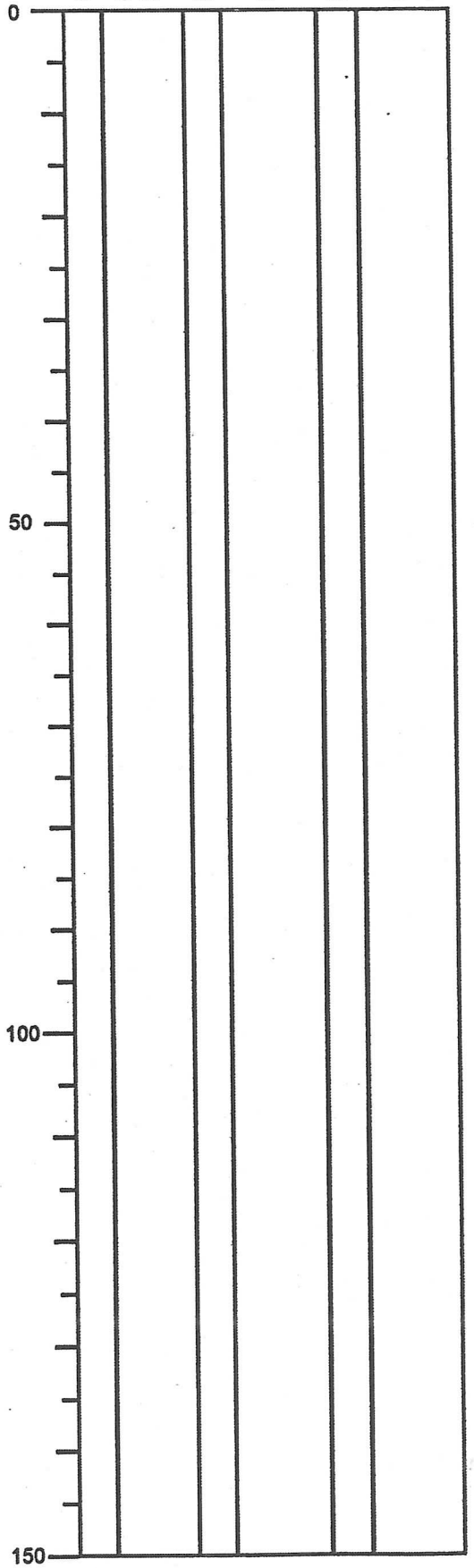
SECTION DESCRIPTION

dark greenish gray silty clay stone
heavily drilling disturbed

below 65cm pieces up to 5cm across
of intact silty claystone preserved

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 7R
SECTION: 2
OBSERBER:

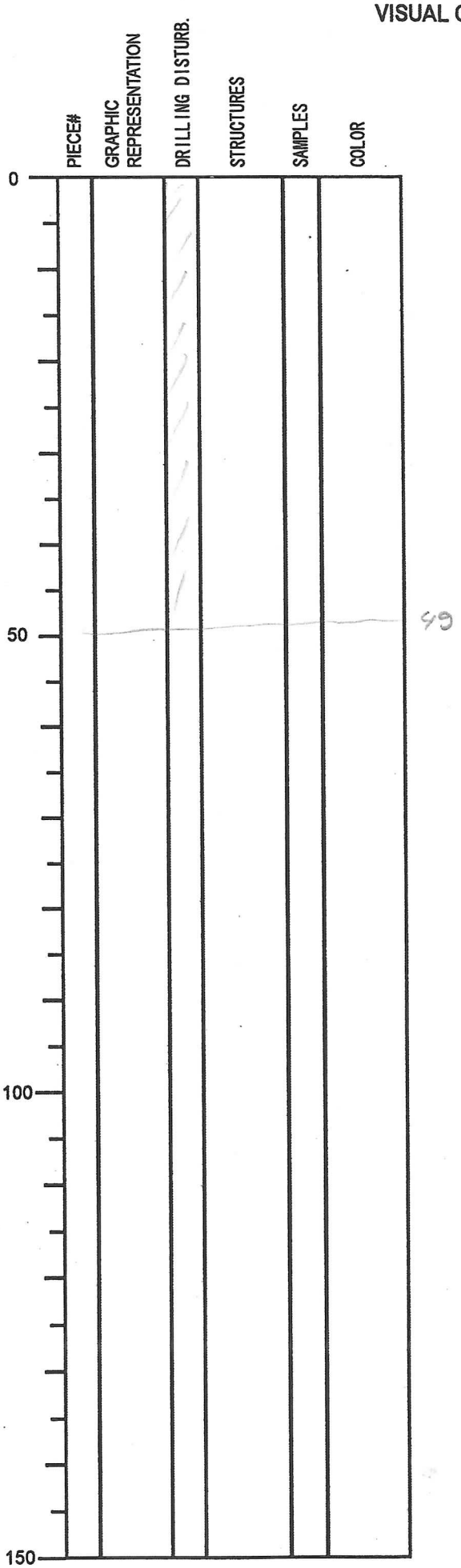


SECTION DESCRIPTION

IW

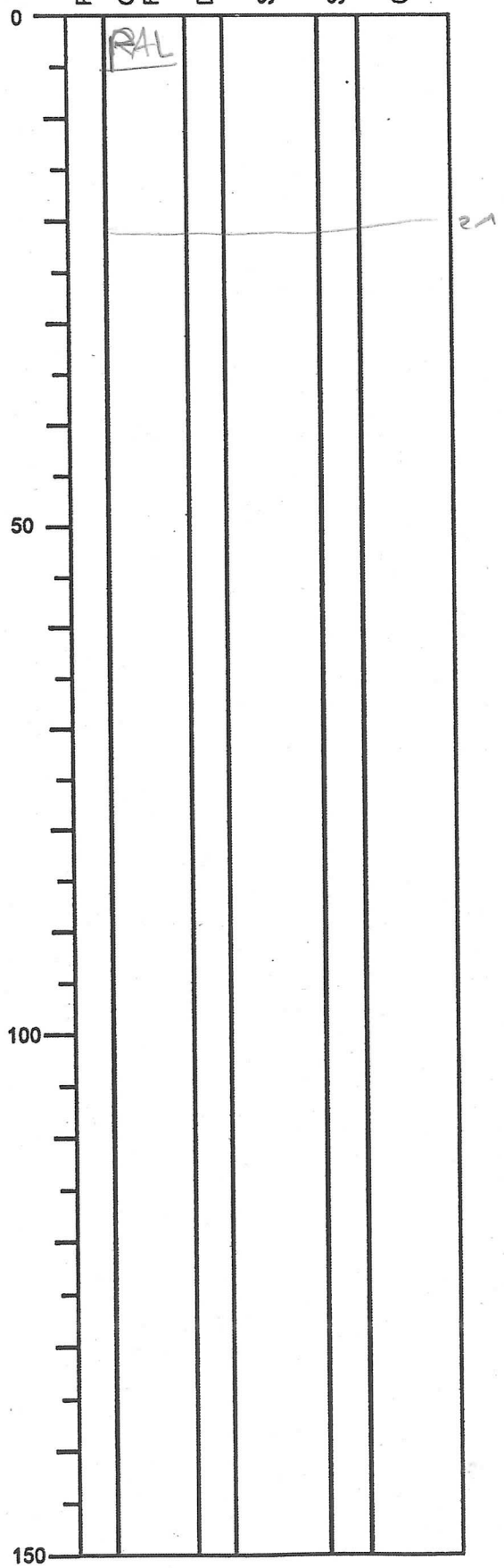
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: ~~3~~ 7R
SECTION: 3
OBSERBER: M.S. KLM



INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: ~~2R~~ 7R
SECTION: CC
OBSERBER: M.S. / K.L.M

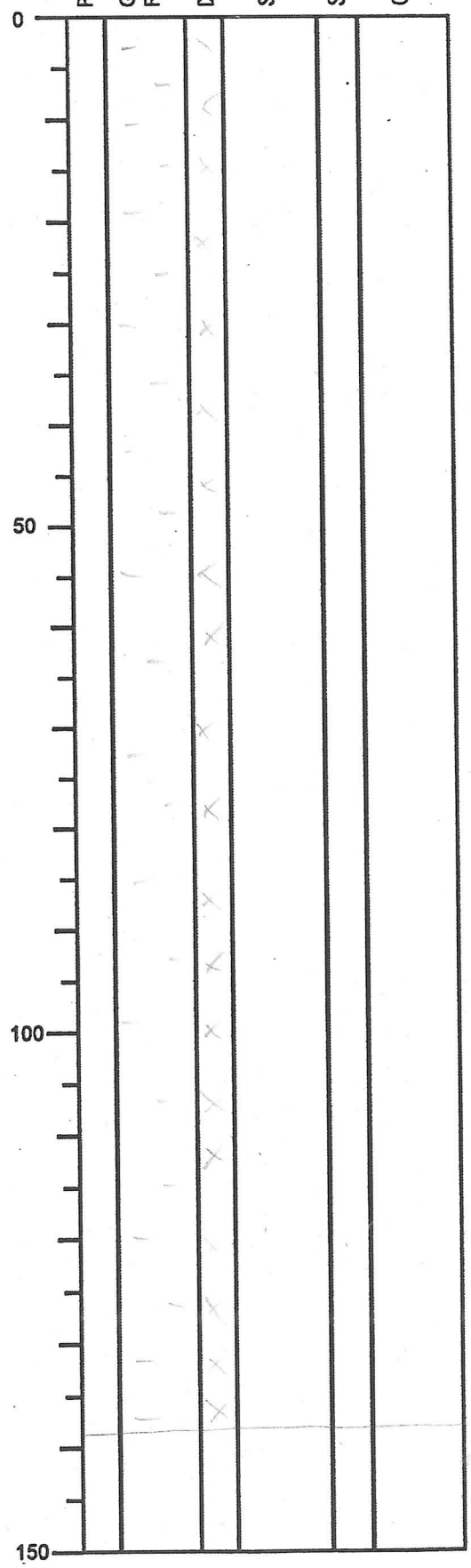


SECTION DESCRIPTION

dito

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 23 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 8R
SECTION: 1
OBSERBER: MS / KLM



SECTION DESCRIPTION

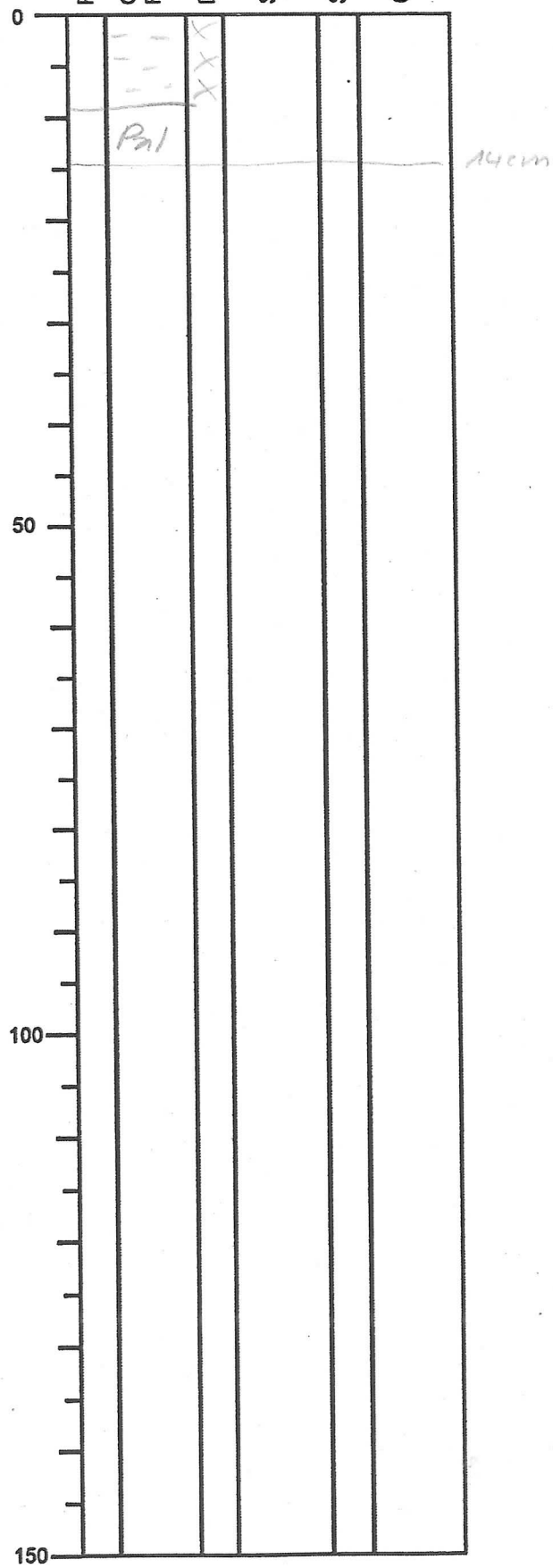
dark greenish gray silty claystone

brecciated due to drilling

intact pieces of homogeneous claystone up to 7cm (esp. 25-50 cm)

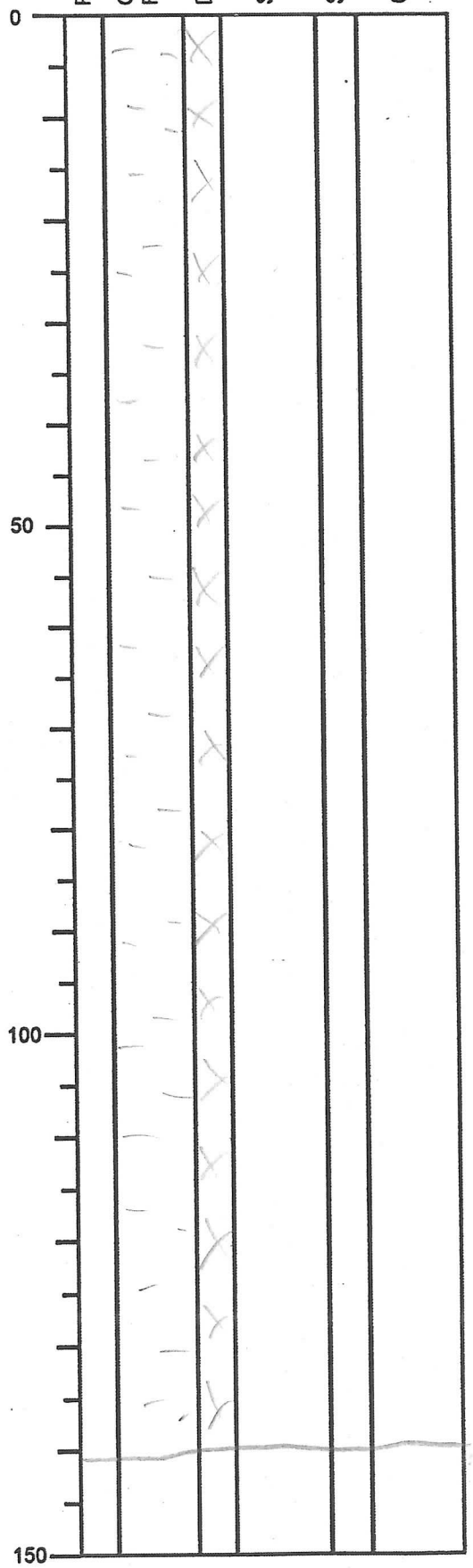
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE:
CORE: 8R
SECTION: CC
OBSERBER: M.S / KLM



INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP: 316
SITE/HOLE: C0004D
CORE: 9R
SECTION: 1
OBSERBER: MS / KLM

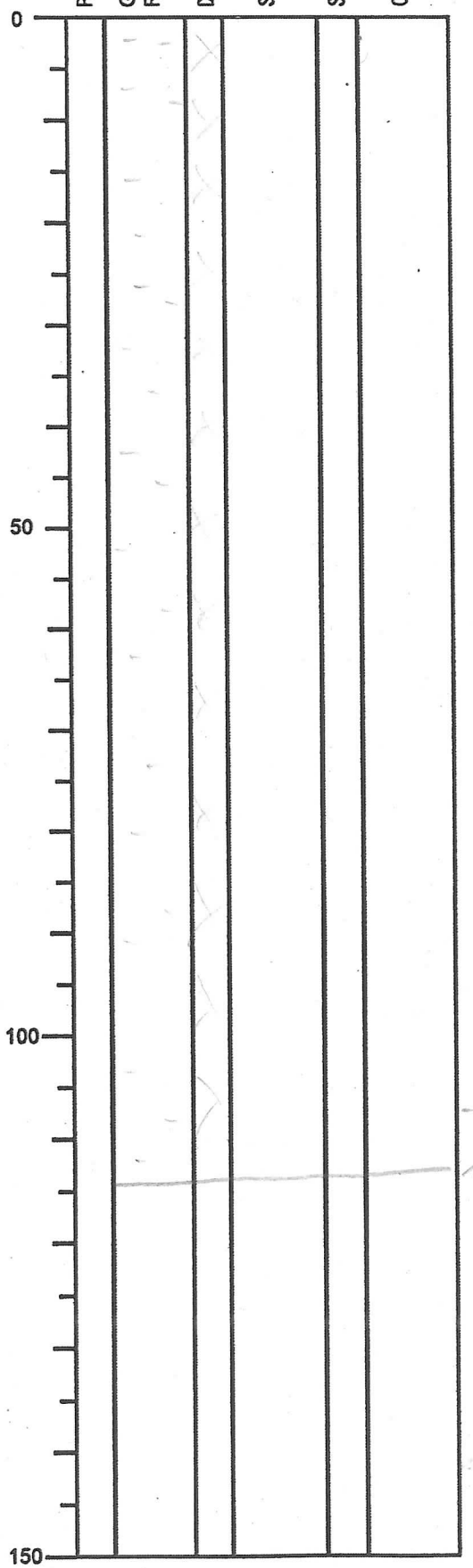


SECTION DESCRIPTION

greenish gray silty clay
heavily cavity disturbed

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE:
CORE: 9R
SECTION: 2
OBSERBER: FD. KCM



SECTION DESCRIPTION

dark greenish gray silty claystone
heavily coring disturbed → breccia and fascits

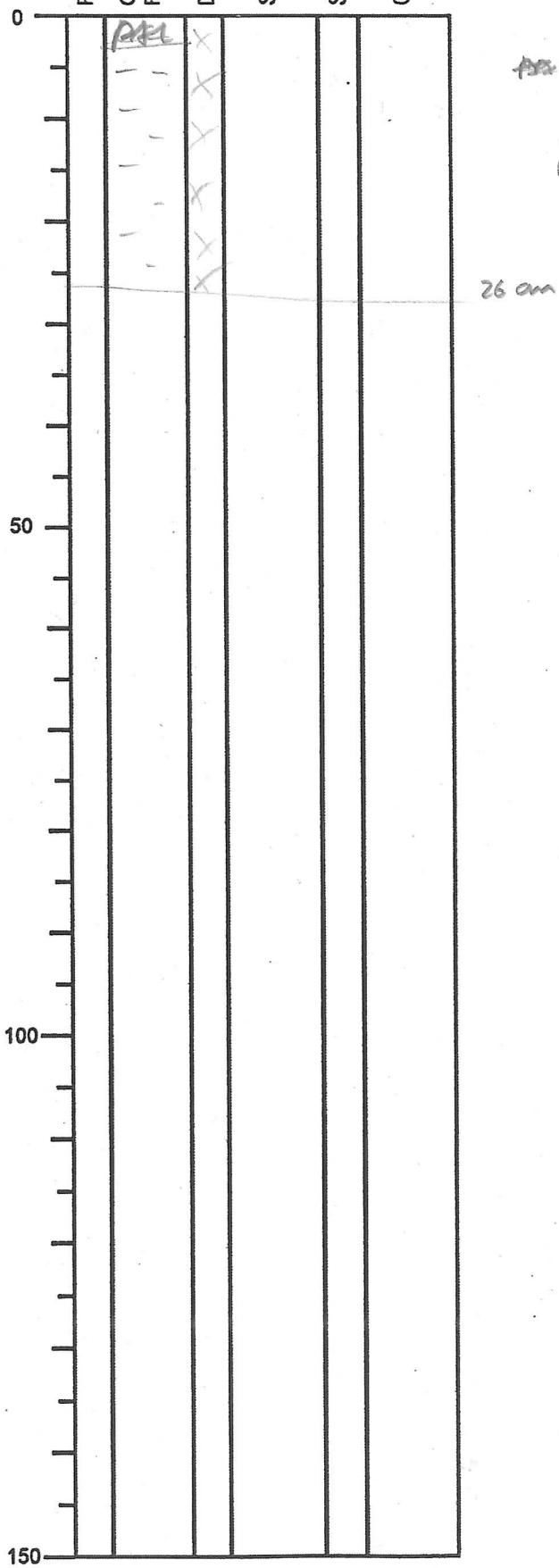
in some intact pieces burrows can be indentified ~~burrow filling grayish with~~
also the mudstone appears to be fractured

small white spots turn out to be burrow fills with concentrated siliciones sponge spicules
e.g 5S at 65cm

slightly brighter color hue below 10cm

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / / 20
EXP:
SITE/HOLE:
CORE: 9R
SECTION: CC
OBSERBER:



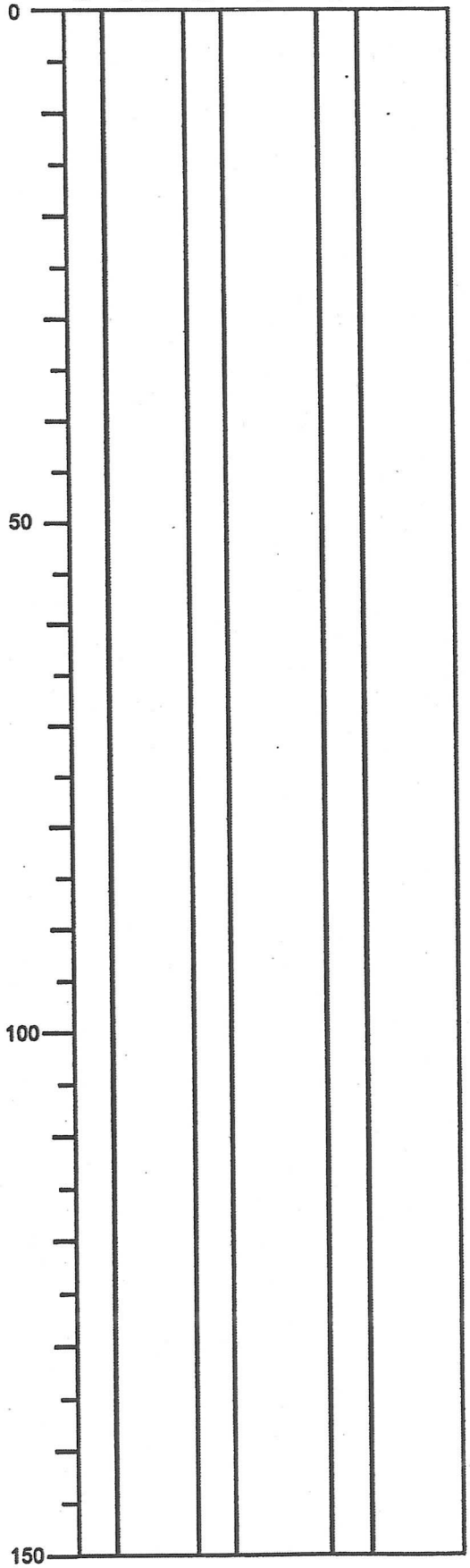
SECTION DESCRIPTION

~~Asa~~ silty claystone

some spots filled in with white material → sponge spicules? or ash?

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

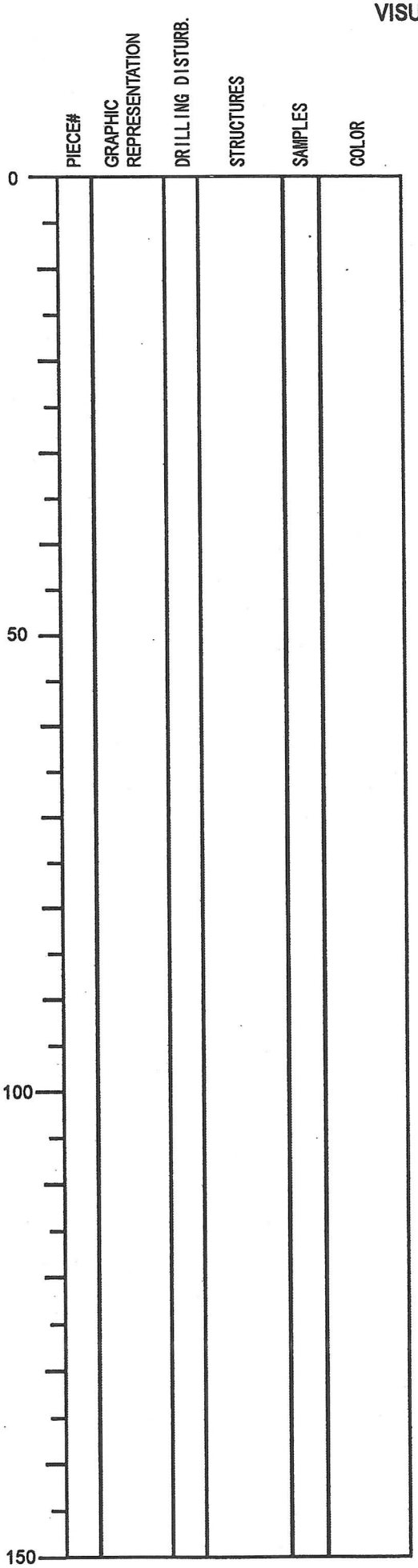
NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 10R
SECTION: CC
OBSERBER:



SECTION DESCRIPTION

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 23 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 91R
SECTION: 1 ~~2 CC~~
OBSERBER: M.S.



SECTION DESCRIPTION

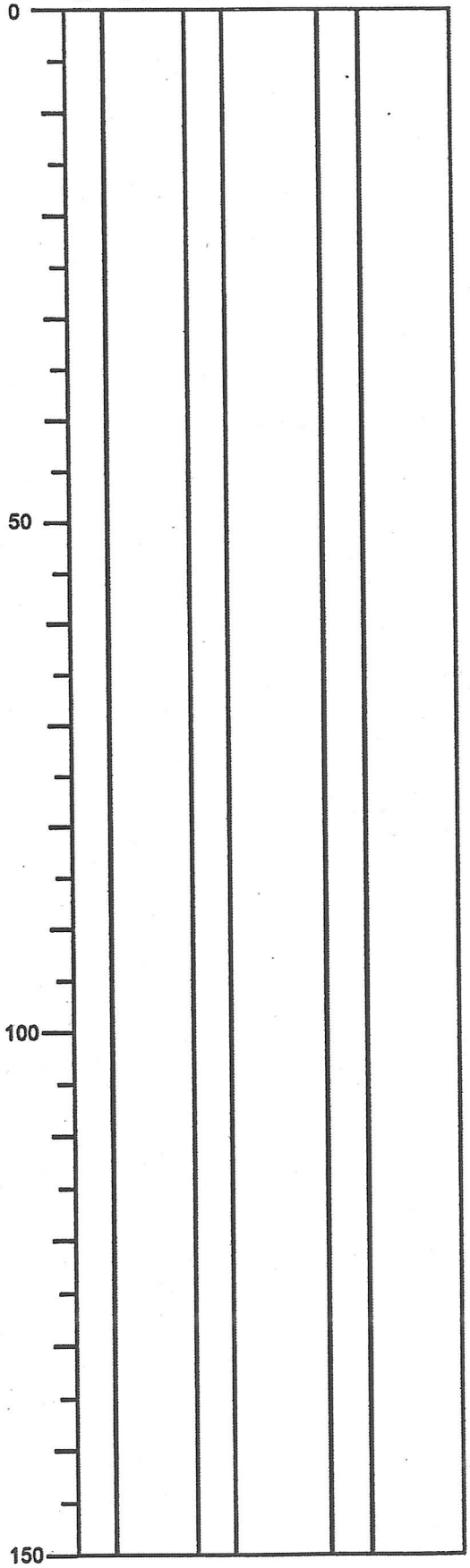
all the same dakgreenish gray silty clay stone heavily coring disturbed throughout

→ see J-cores

Ver.0.10_071109

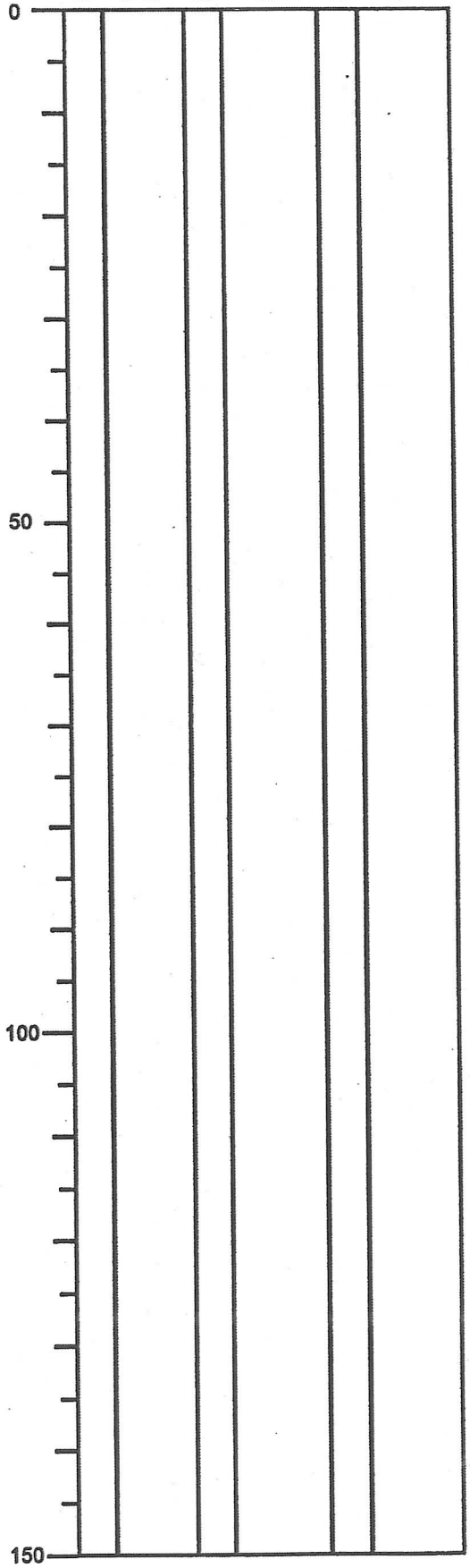
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 11R
SECTION: 2
OBSERBER:



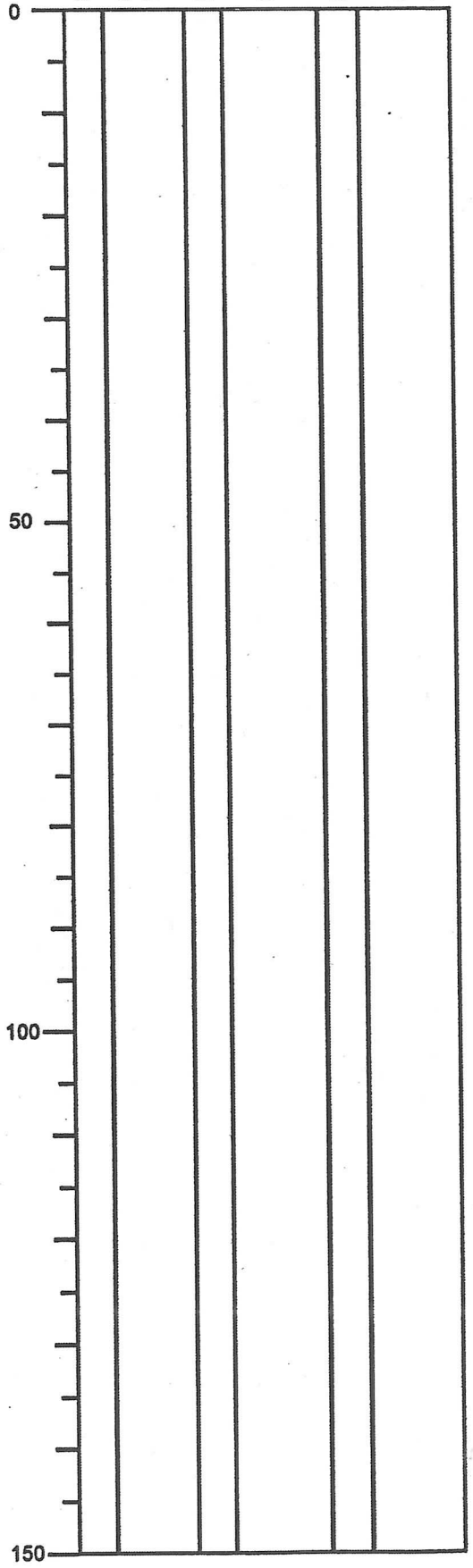
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 11R
SECTION: 3
OBSERBER:



INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

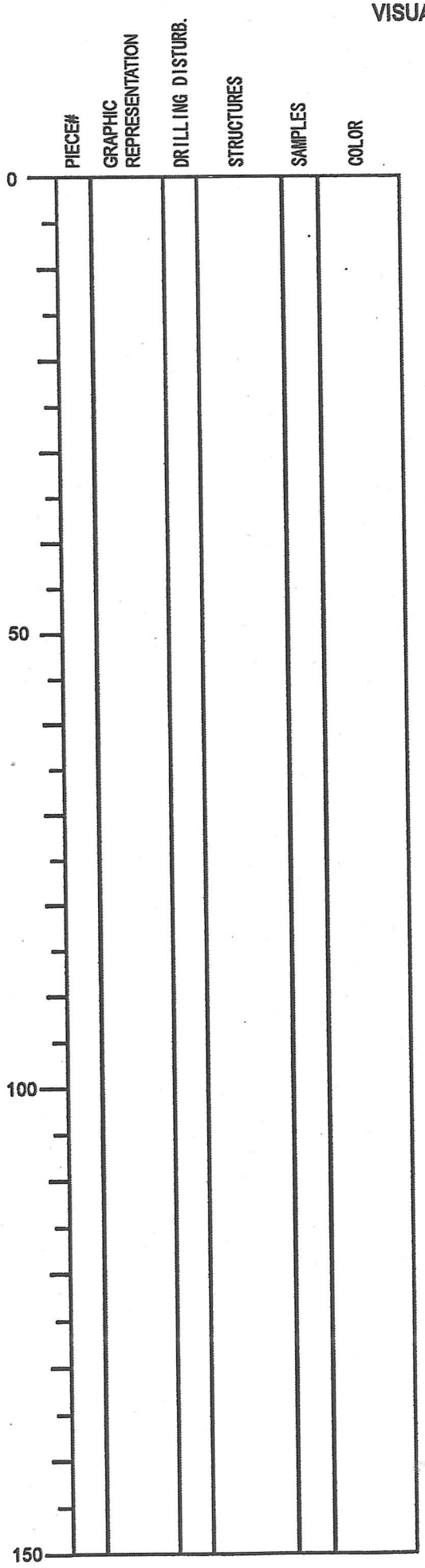
NO.
DATE: / /20
EXP:
SITE/HOLE:
CORE: C0004D-11R
SECTION: CC
OBSERBER:



SECTION DESCRIPTION

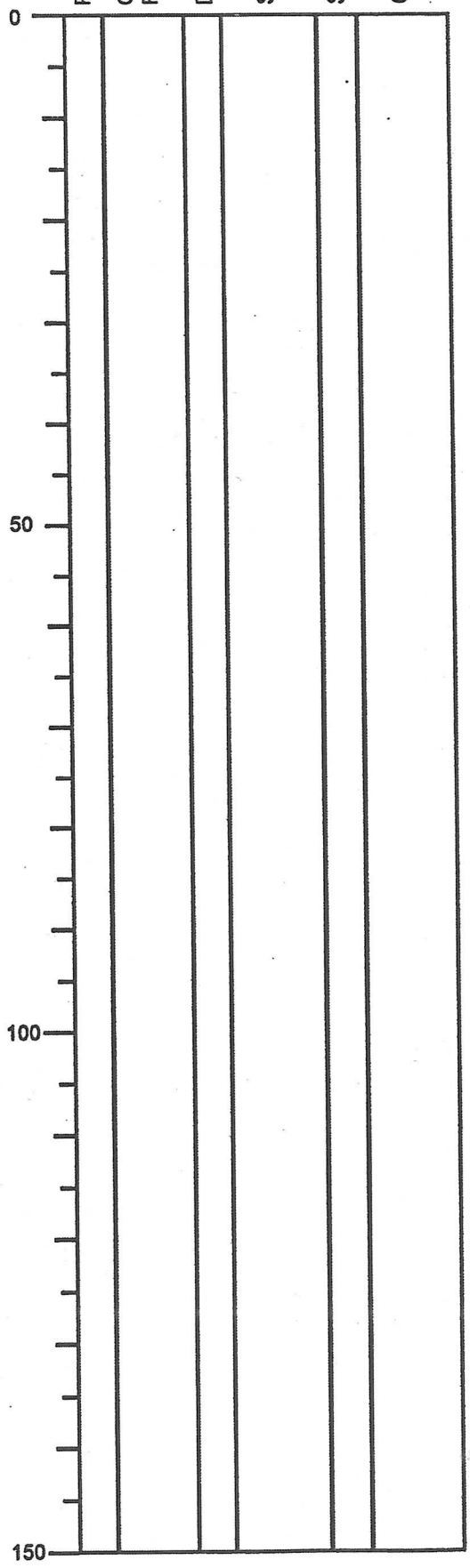
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 12R
SECTION: 1
OBSERBER:



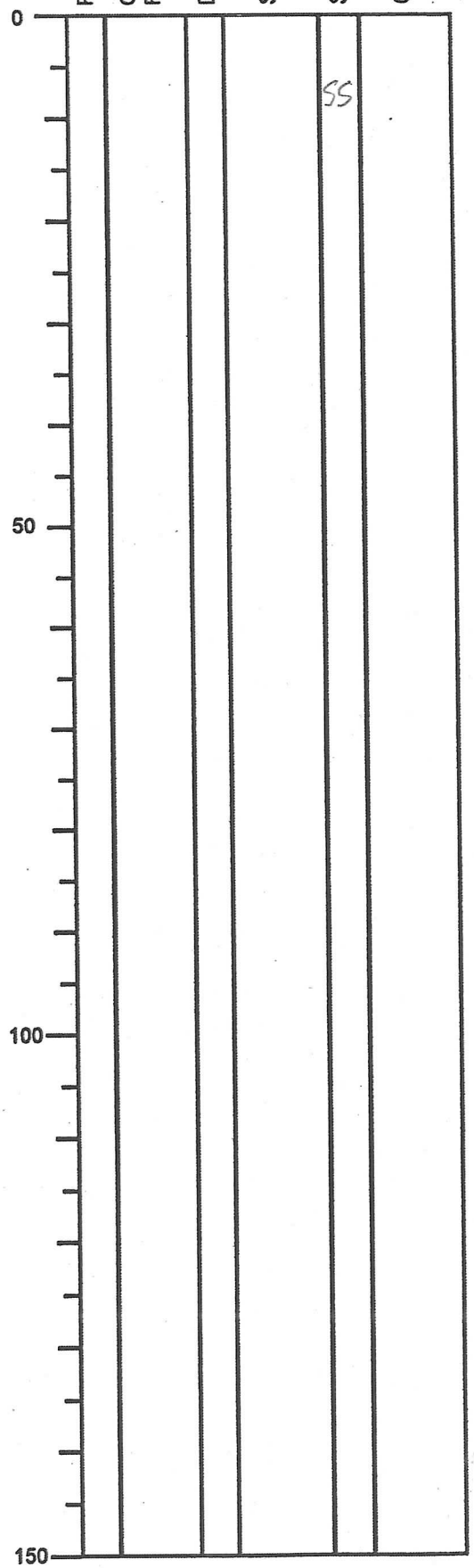
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 12R
SECTION: CC
OBSERBER:



INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

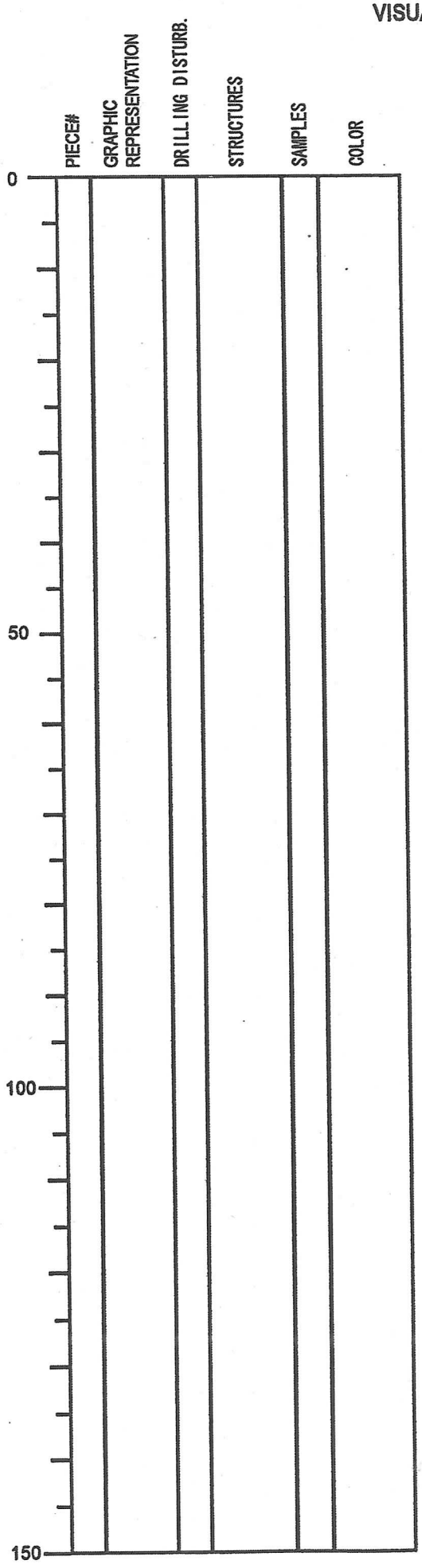
NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 13R
SECTION: 1
OBSERBER:



SECTION DESCRIPTION

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 13R
SECTION: 2
OBSERBER:

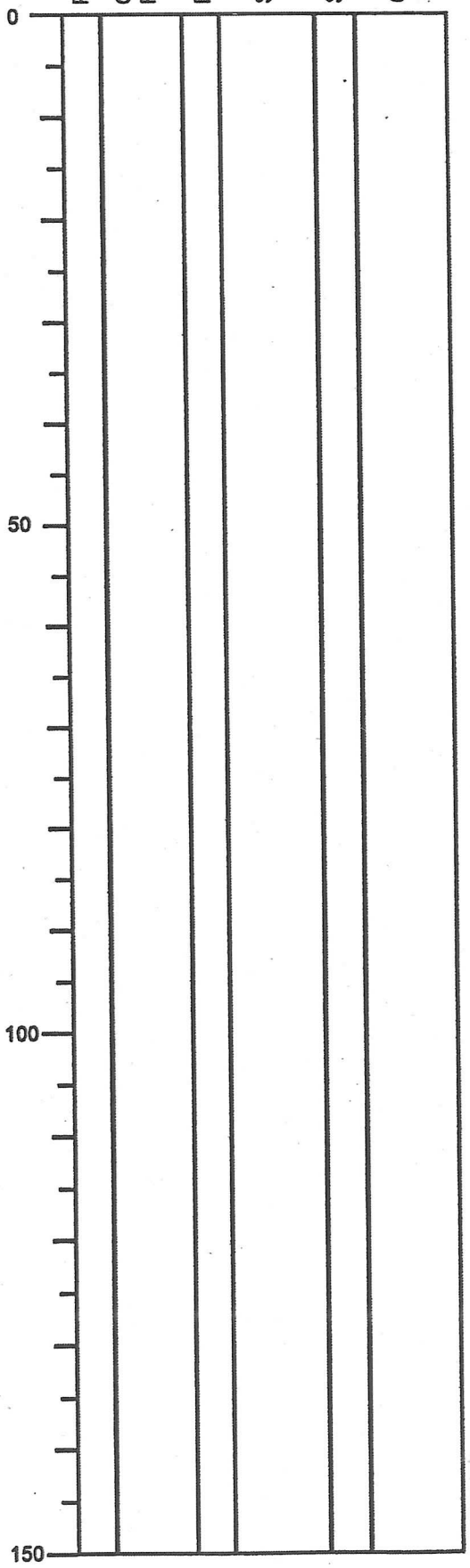


SECTION DESCRIPTION

IW

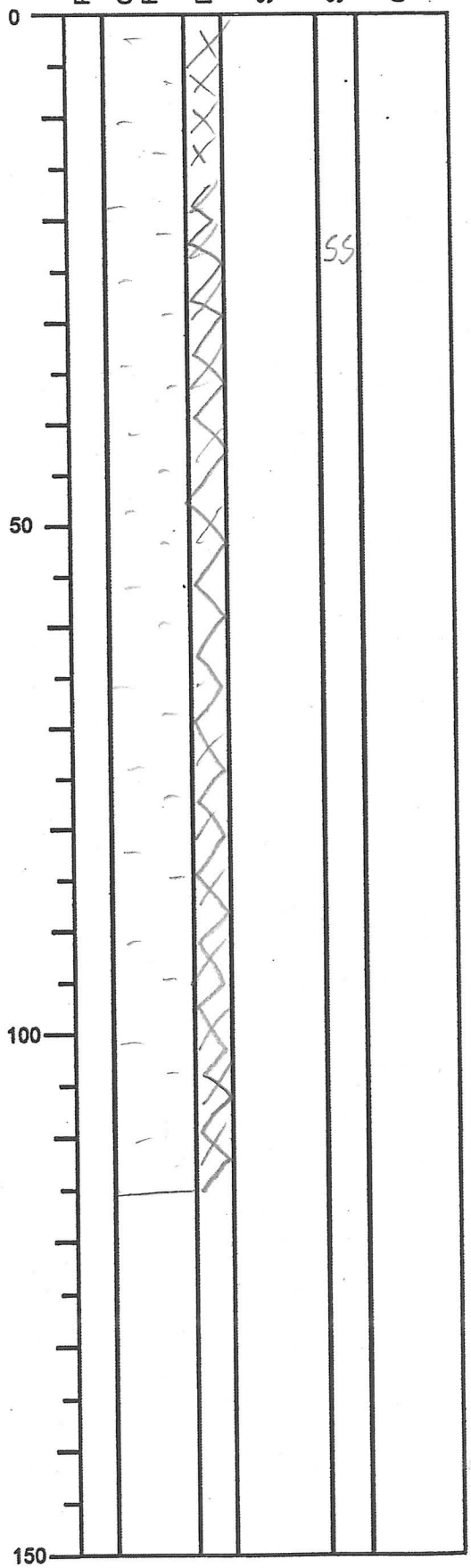
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 13R
SECTION: CC
OBSERBER:



INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 24/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 18R
SECTION: 1
OBSERBER: UN



SECTION DESCRIPTION

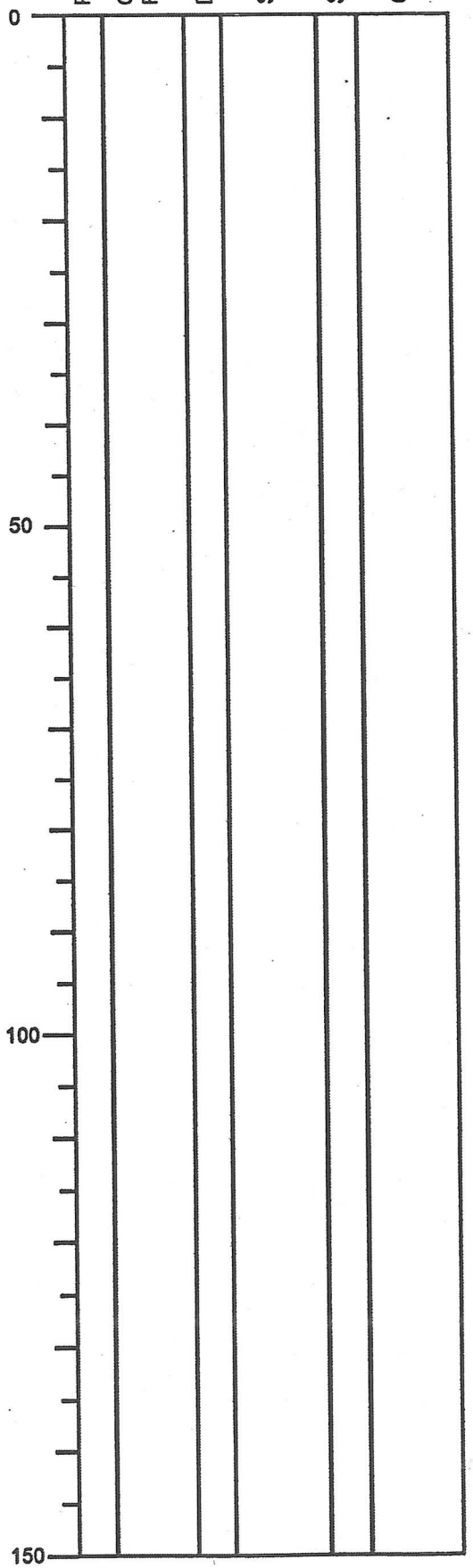
dark greenish grey silty clay
- generally rubbled due to drilling disturbance

- almost vertical deformation bands visible as green colour bands in more complete sections of core (55-60cm)

INTERSTITIAL WATER

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

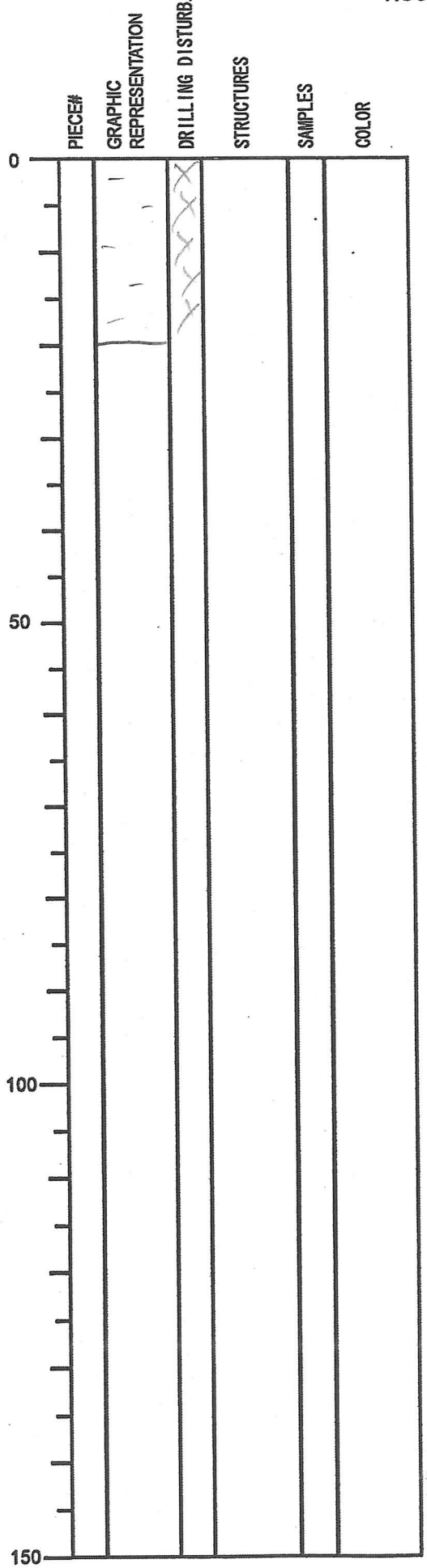
NO.
DATE: 24/12/2009
EXP: 316
SITE/HOLE: C 0004D
CORE: 16R
SECTION: 2
OBSERBER: UN



2-FW

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO:
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 16R
SECTION: CC
OBSERBER: UN

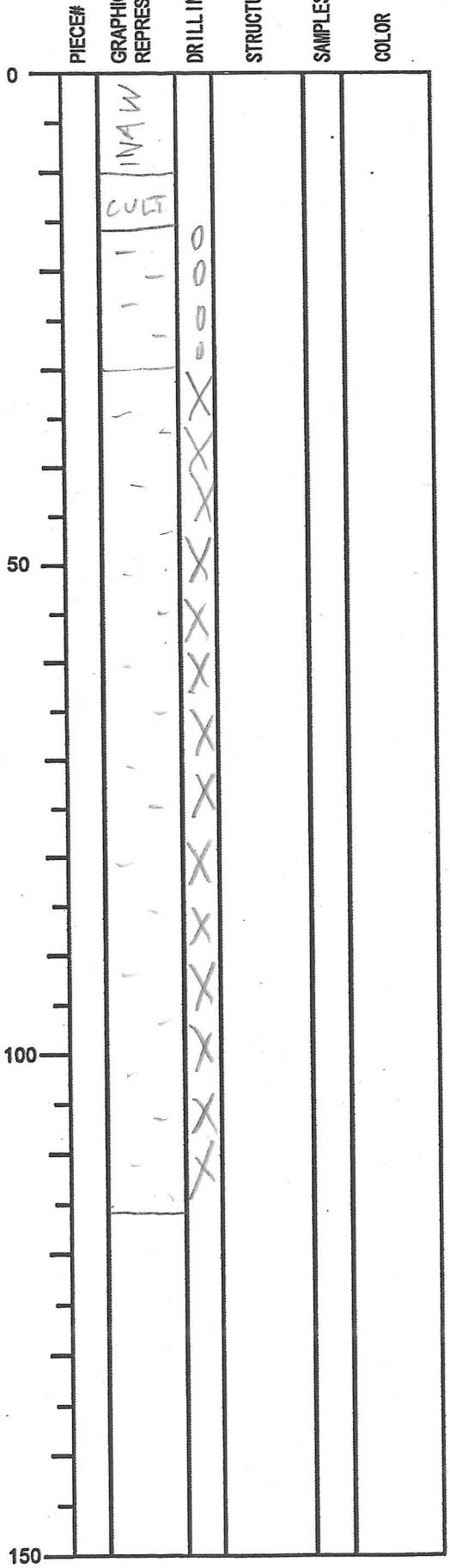


SECTION DESCRIPTION

dark greenish-grey silty clay.

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 25 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: ~~5R~~ 6 / 9R
SECTION: 1
OBSERBER: UN



SECTION DESCRIPTION

dark greenish-grey, apparently homogeneous claystone.
- heavily brecciated by drilling

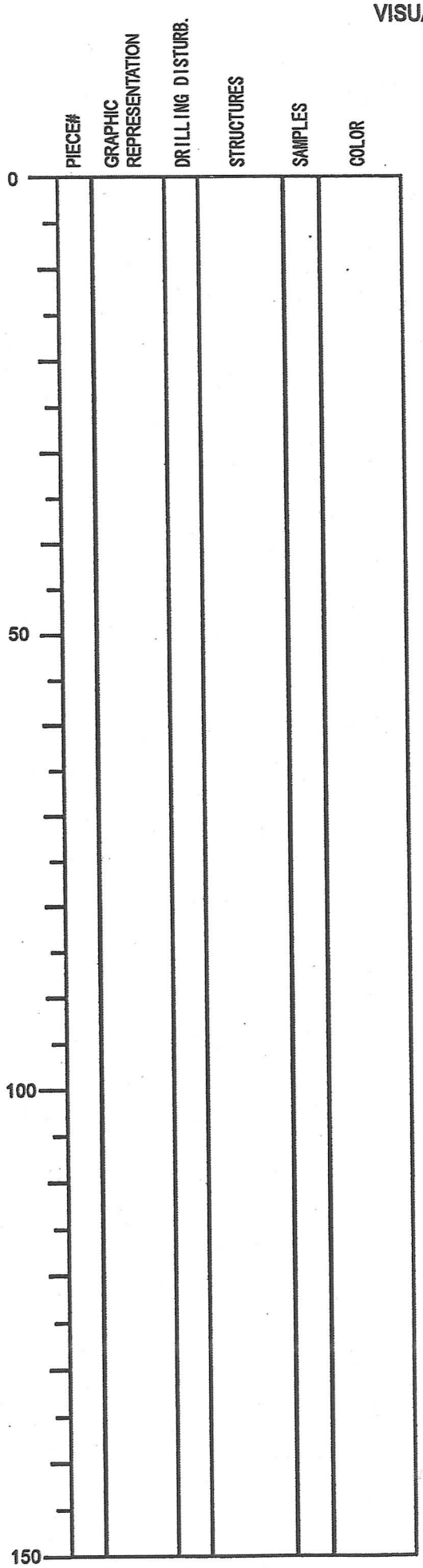
- weak fissility (sub-horizontal) can be observed, probably parallel to bedding

- black particle - probably organic matter, or
several large clastic grains (ø ca. 5mm) are visible to the naked slide (quartz?)
- also dispersed glauconite grains

- dispersed organic matter

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 24/12/2007
EXP: 316
SITE/HOLE: C0009D
CORE: 19R
SECTION: 2
OBSERBER: UN

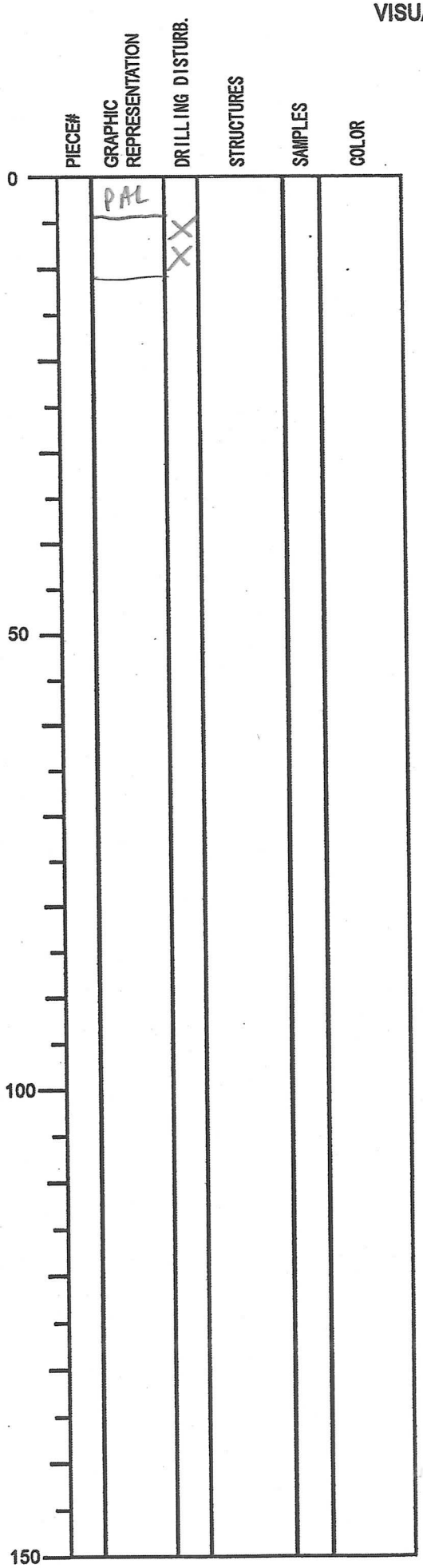


SECTION DESCRIPTION

I. W.

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 24 / 12 / 2007
EXP: 316
SITE/HOLE: ~~316~~ C 0004D
CORE: ~~6~~ 19R
SECTION: CC
OBSERBER: UN



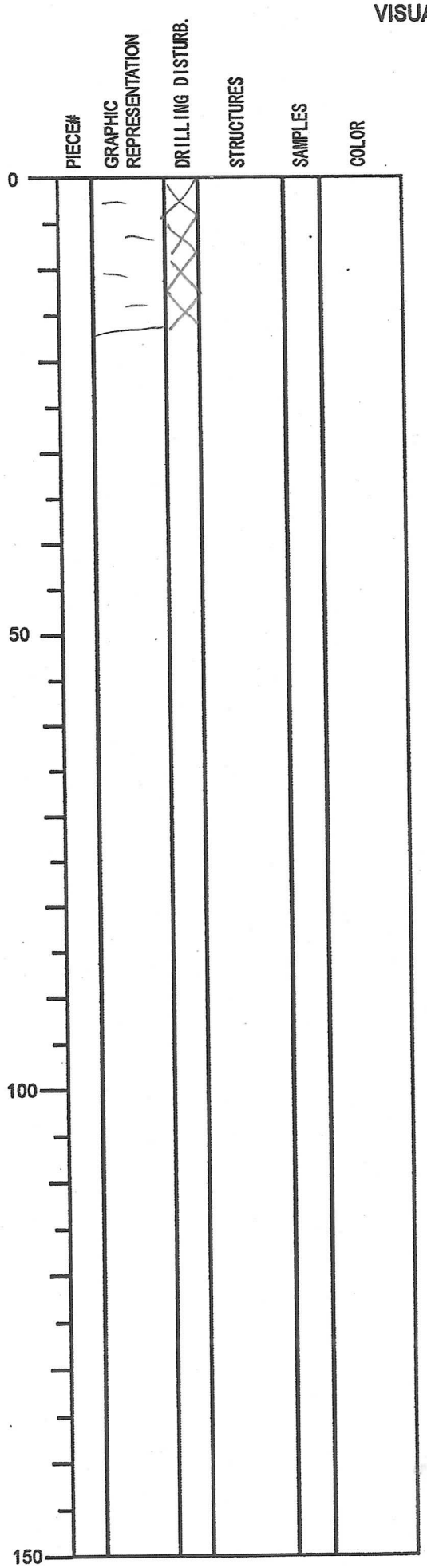
SECTION DESCRIPTION

as previous

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 24/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 20R
SECTION: 1
OBSERBER: CLF

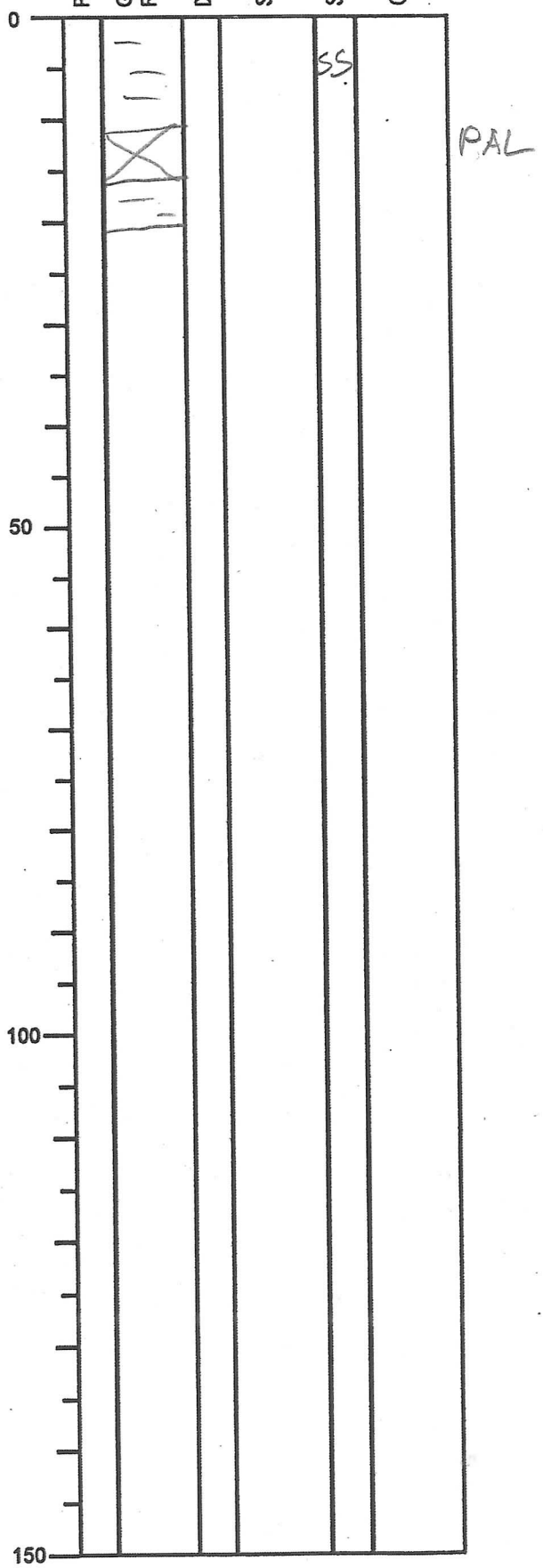


SECTION DESCRIPTION

Silty claystone
greenish gray

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 24/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 20R
SECTION: CC
OBSERBER: CLF

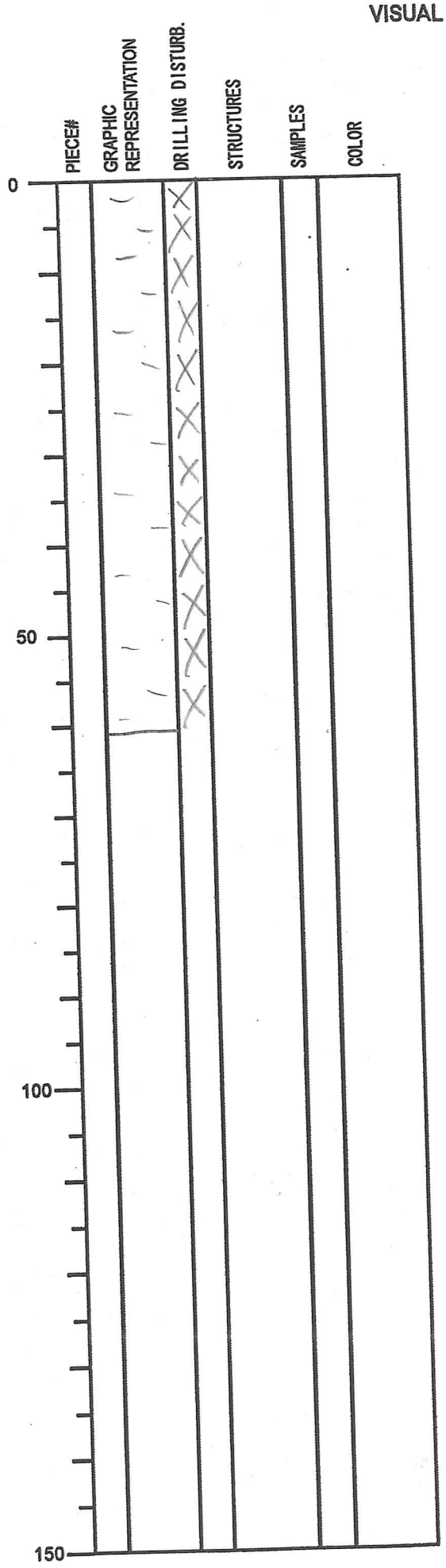


SECTION DESCRIPTION

Silty claystone

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 24 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: ~~21~~ 21R
SECTION: 1
OBSERBER: UN



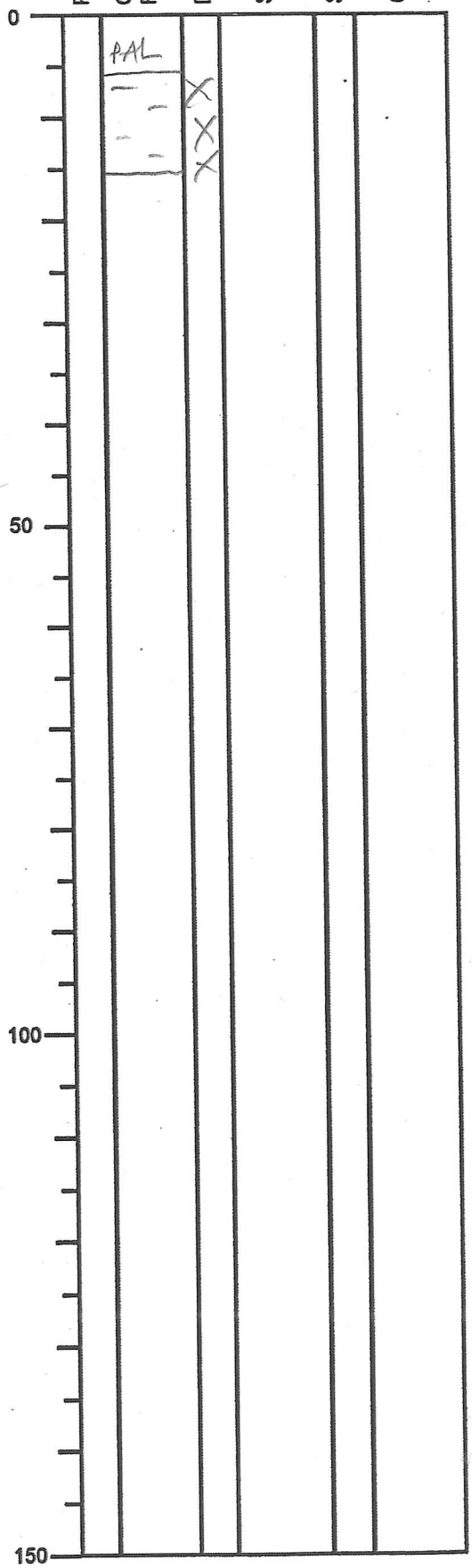
SECTION DESCRIPTION

dark greenish-grey silty clay. Apparently homogeneous.
Brecciated by drilling.

Occasional glauconite grains.

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 24/12/2007
EXP: 3/6
SITE/HOLE: C 0004D
CORE: 21R
SECTION: CC
OBSERBER: UN

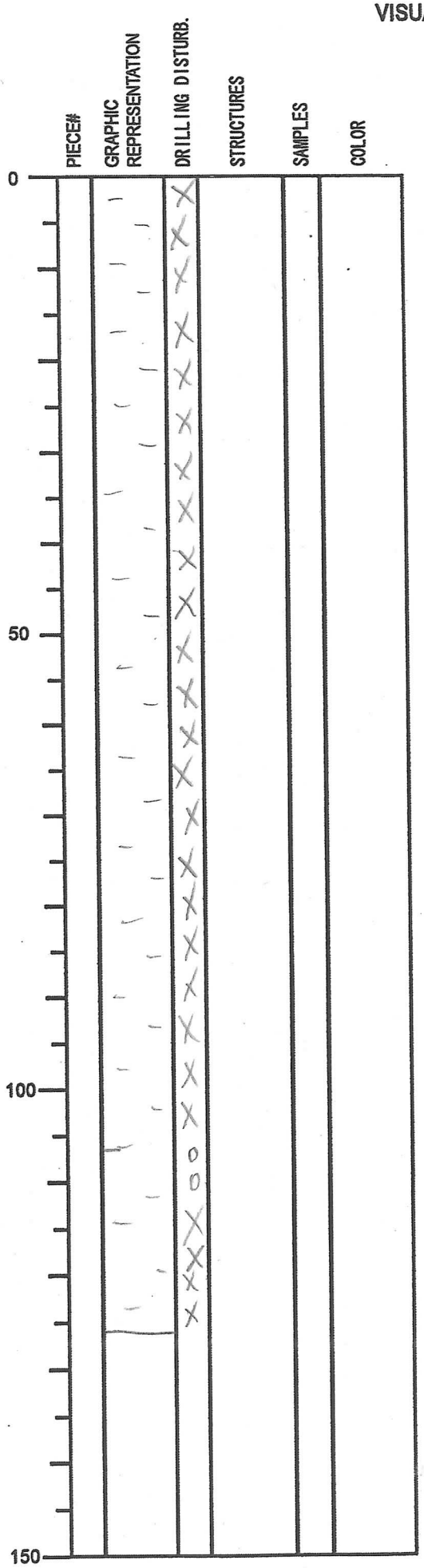


SECTION DESCRIPTION

as previous

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 24 / 12 / 2007
EXP: 316
SITE/HOLE: C 0004D
CORE: 22R
SECTION: 1
OBSERBER: UN



SECTION DESCRIPTION

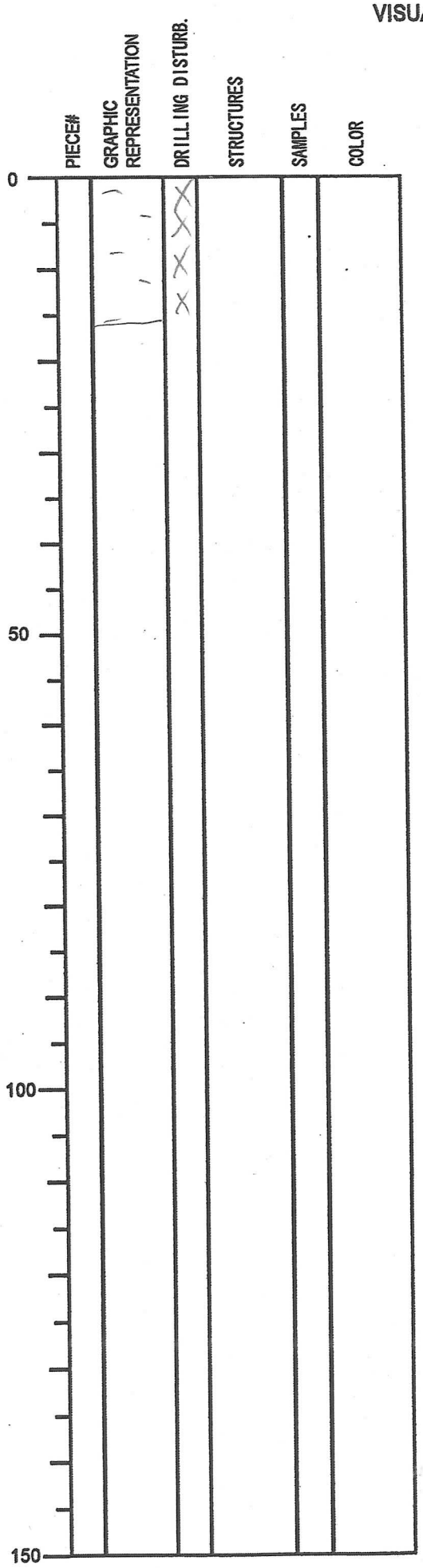
dark greenish-grey silty clay

mashed to a pulp...

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 24 / 12 / 2007
EXP: 3/6
SITE/HOLE: C 0004D
CORE: 22R
SECTION: CC
OBSERBER: VN



Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 24 / 1 /20
EXP: 316
SITE/HOLE: C0004D
CORE: 23R
SECTION: 1-2 + CC
OBSERBER: M.S / KLM

PIECE#	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR

0 — 50 — 100 — 150

SECTION DESCRIPTION

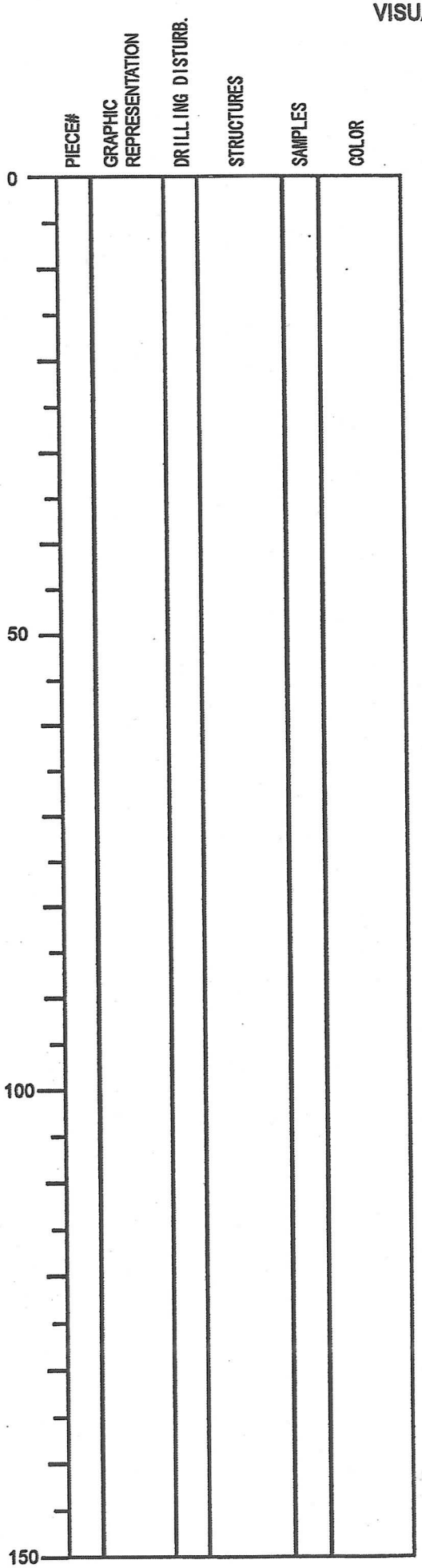
all the same greenish gray claystone throughout

see J-core for section details

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 1 / 20
EXP: 316
SITE/HOLE: C0004D
CORE: 24R
SECTION: 1-2 + CC
OBSERBER: TTS / KCM



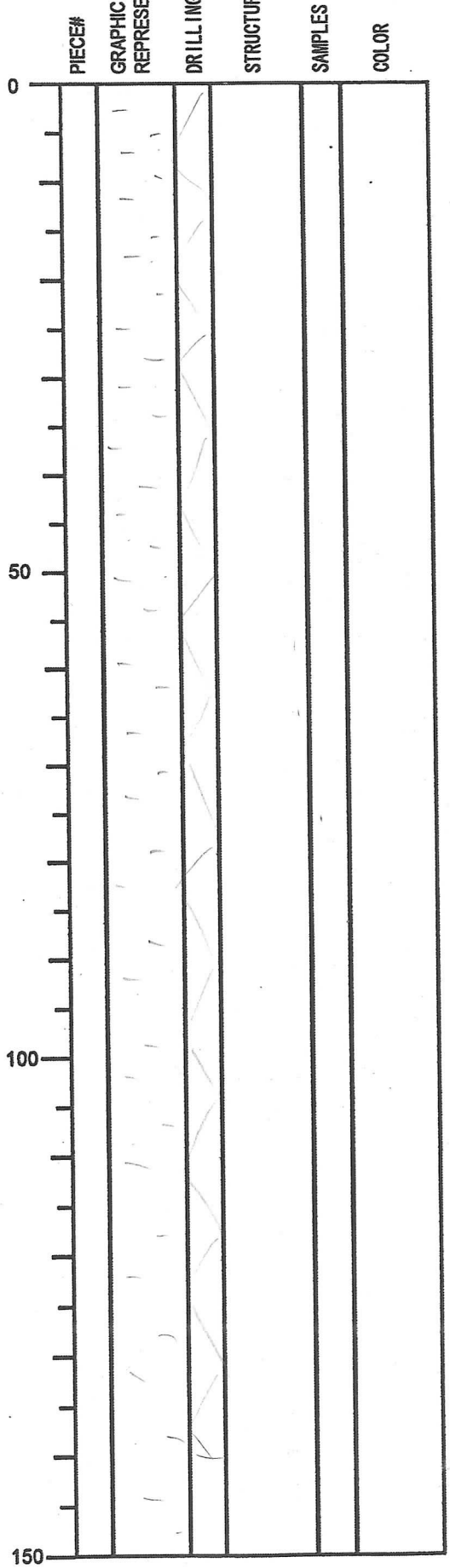
SECTION DESCRIPTION

dark greenish gray mudstone
heavily fractured and
drilling disturbed throughout

see J-core

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 25 R
SECTION: 1
OBSERBER: MS / KLM



SECTION DESCRIPTION

dark greenish gray silty claystone chips max 2cm across but mostly smaller more sumpy in the upper part and dryer in the lower part

Between 57 and 59
and
65 - 68 slight color variations from dark greenish gray to somewhat lighter dark greenish gray

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 25R
SECTION: 2
OBSERBER: MS / KLM

PIECE#	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR

Scale: 0, 50, 100, 150

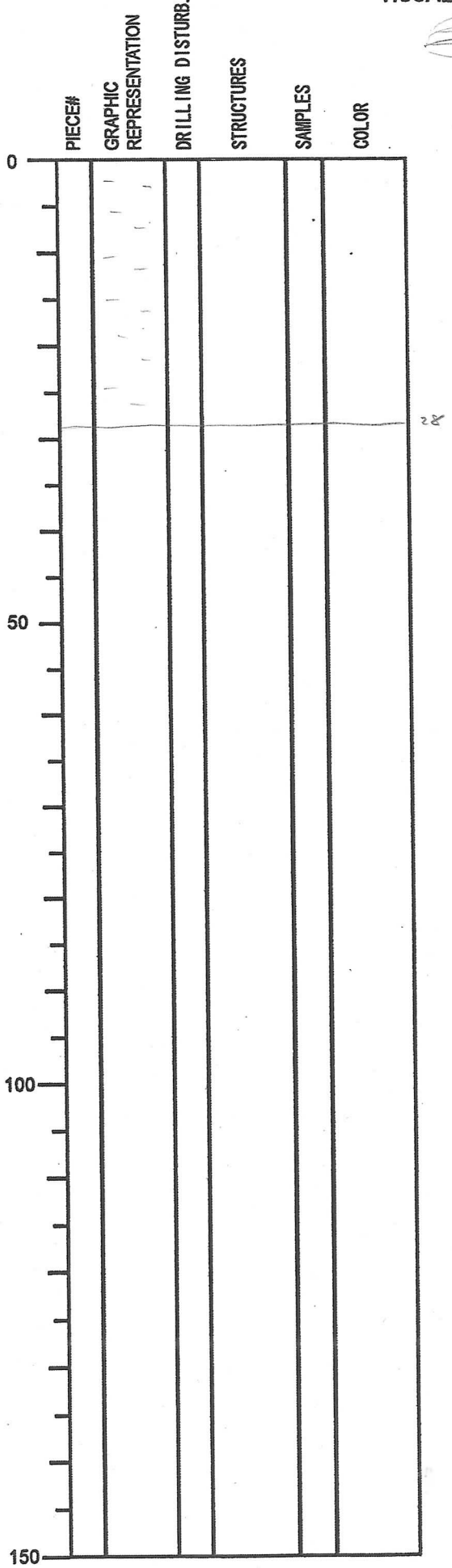
SECTION DESCRIPTION

same dark greenish gray silty clay with greenish colorbanding to mottling (~~subhorizontal~~) at 12cm mm (inclined) 19-22cm

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 25R
SECTION: CC
OBSERBER: MS / KCM



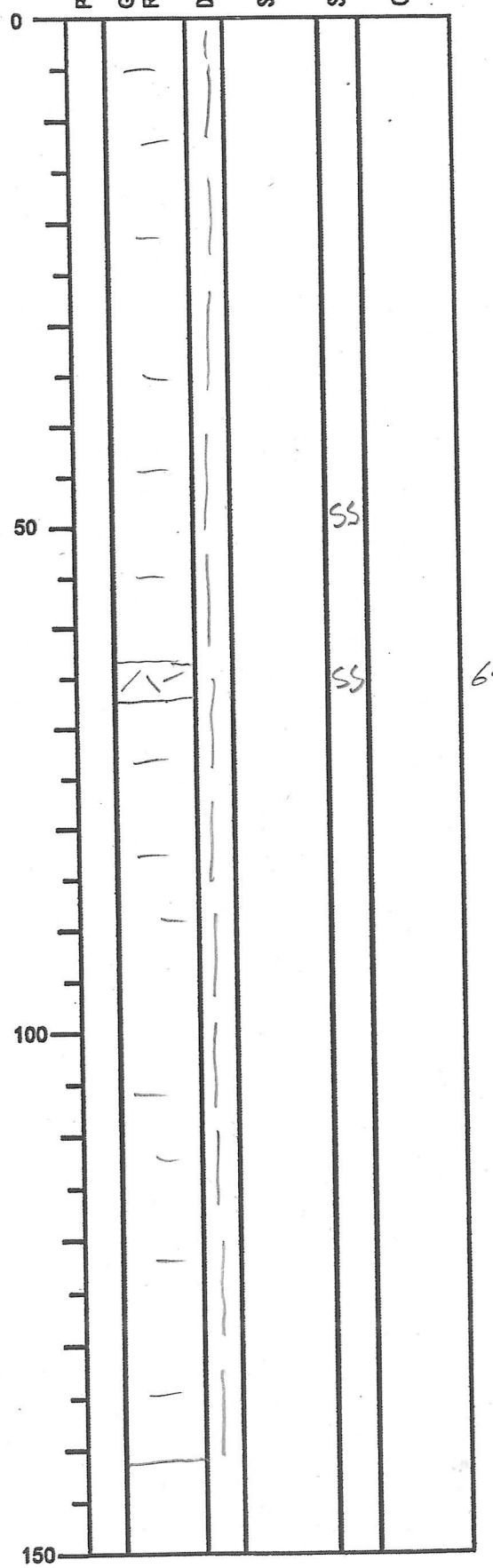
SECTION DESCRIPTION

dark greenish gray silty clay

slight color variation from dark greenish gray to somewhat lighter dark greenish gray with a sharp boundary at ~ 19cm

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 26R
SECTION: 1
OBSERBER: CLF



SECTION DESCRIPTION

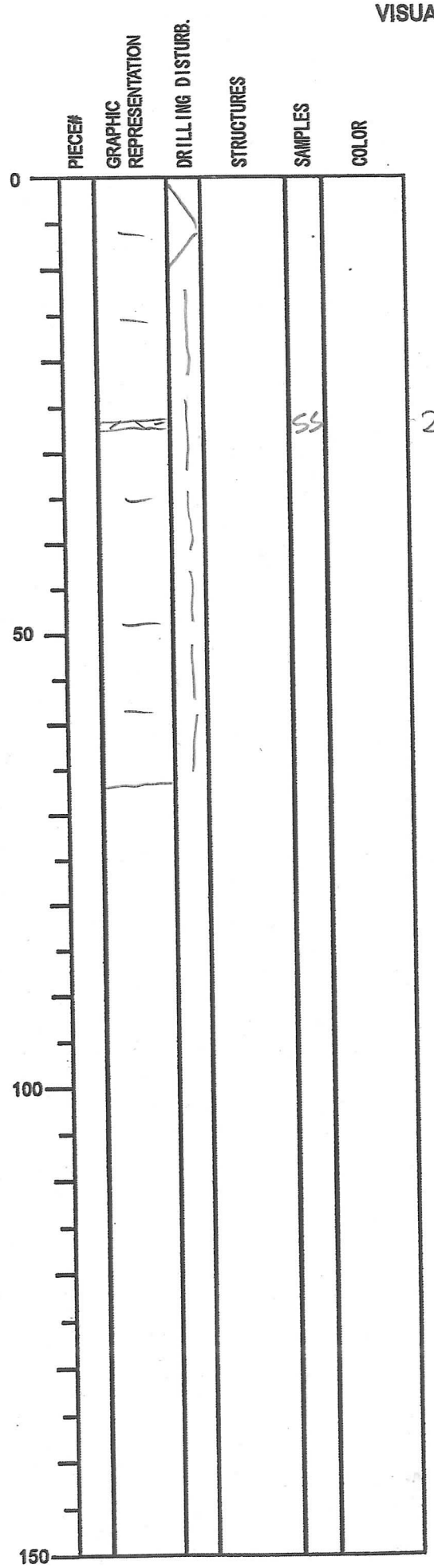
Olive-gray silty clay
— soft
? Moderately disturbed by drilling. Fault breccia.

64–67cm Light-colored — light-gray to olive gray layer (ash layer).

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 26R
SECTION: 2
OBSERBER: CLF



SECTION DESCRIPTION

Olive-gy silty claystone

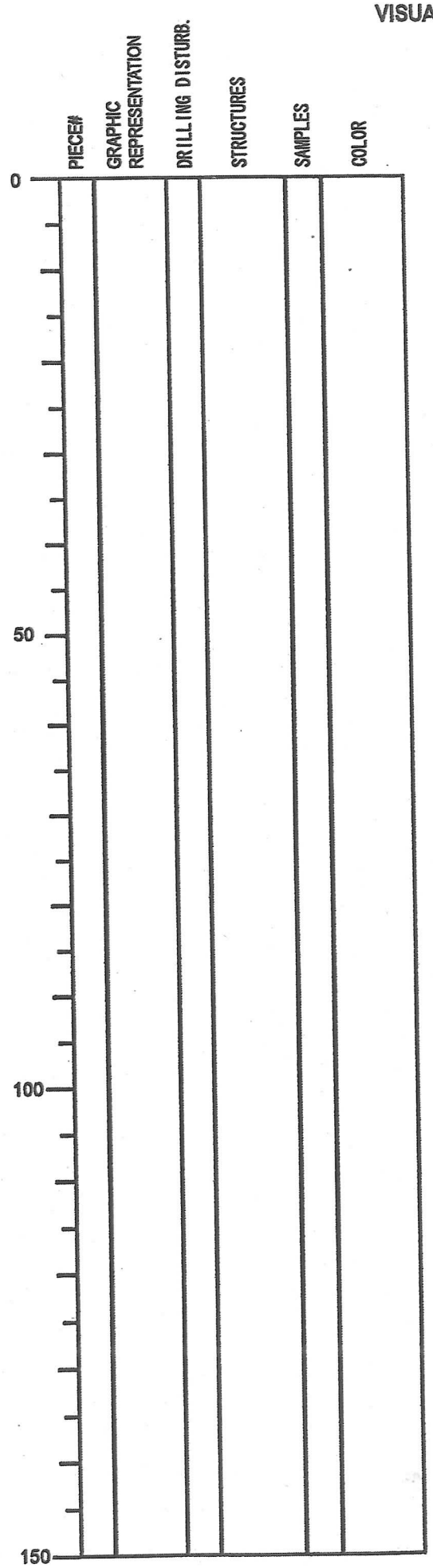
Fault breccia.

26-27cm Volcanic ash (white)

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE:
CORE: ~~5FR~~ 26R
SECTION: 3
OBSERBER:

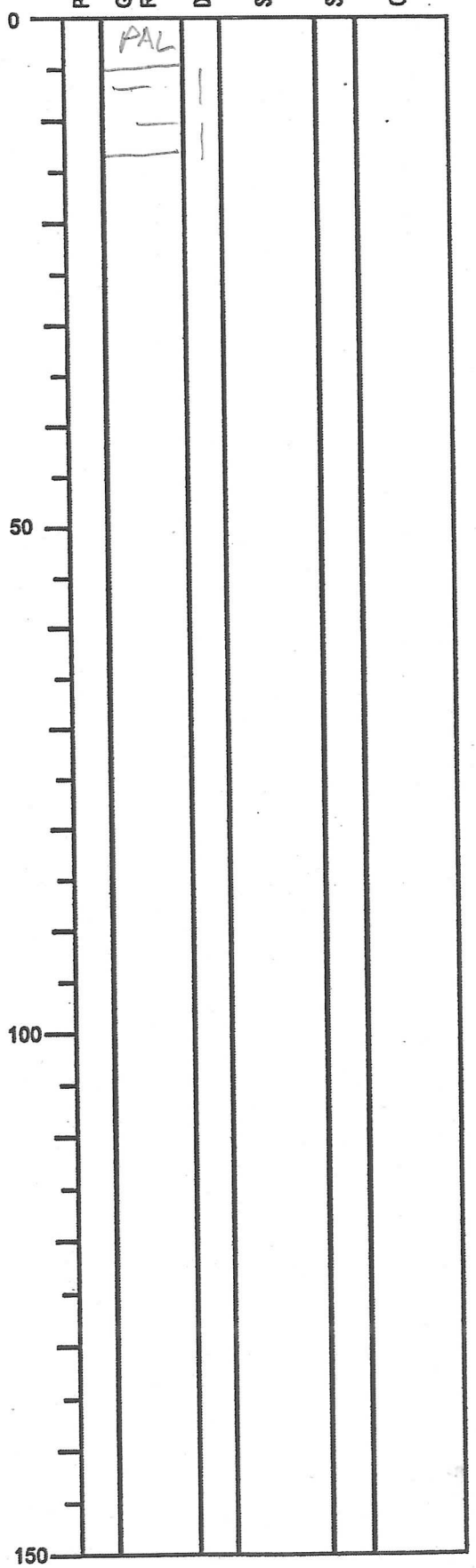
IW



SECTION DESCRIPTION

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

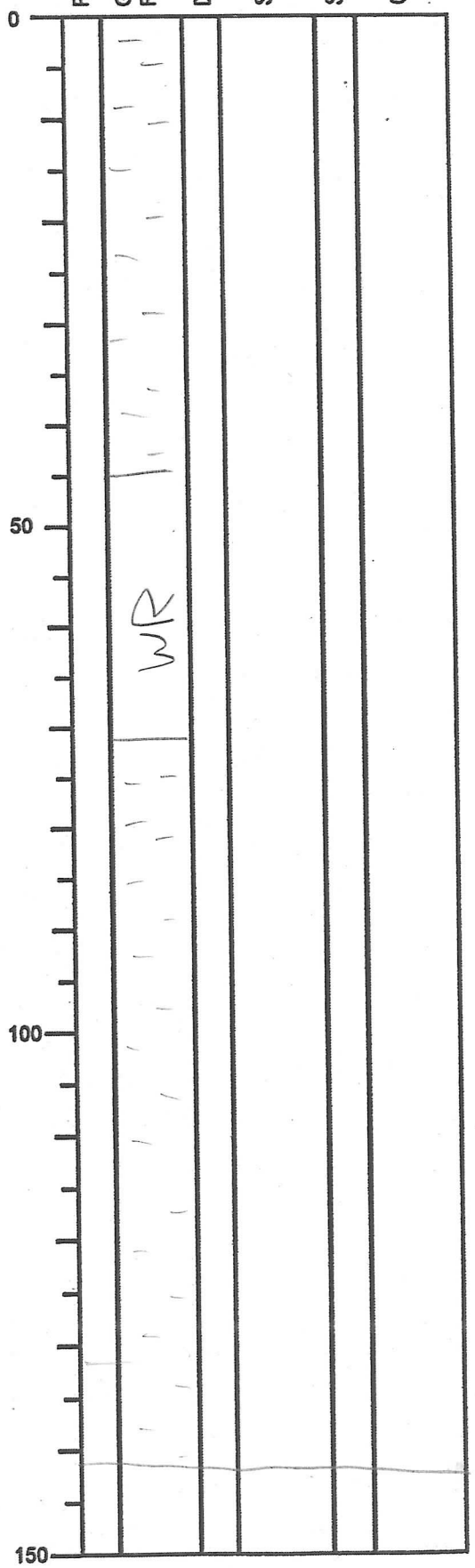
NO.
DATE: 28/12/2007
EXP: 316
SITE/HOLE: C0604D
CORE: 26R
SECTION: CC
OBSERBER: CLF



Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 27R
SECTION: 1
OBSERBER: TS / KLM



SECTION DESCRIPTION

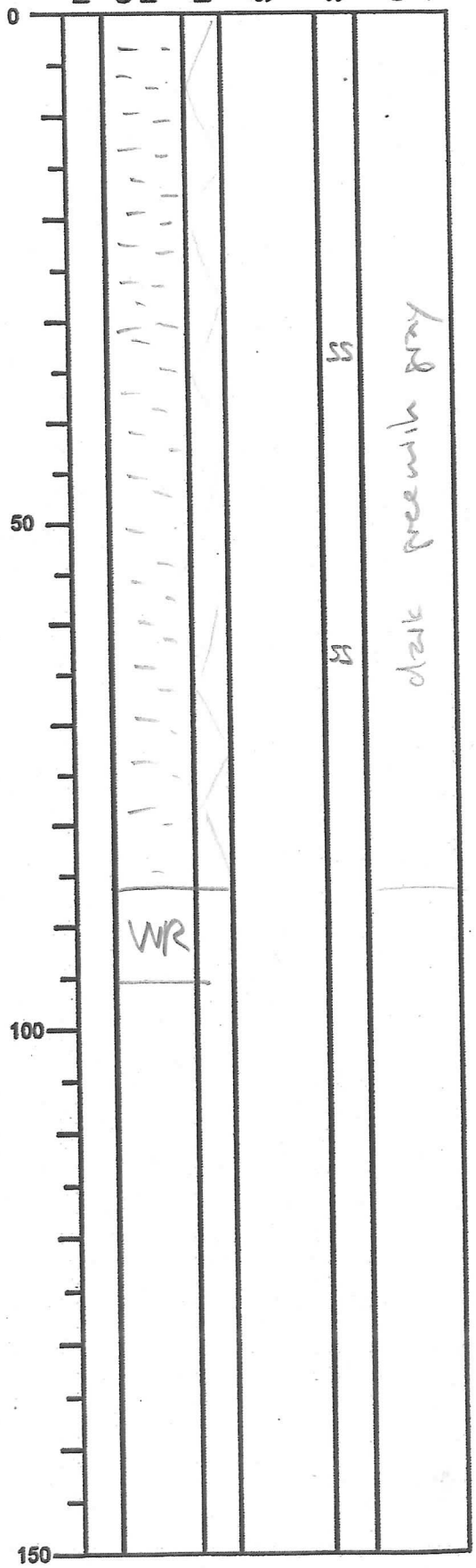
dark greenish gray silty claystone
mostly small chips
greenish color hue throughout → Glauconite?

121 dispersed ash?

141

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 1 11 /2008
EXP: 316
SITE/HOLE: C0004D
CORE: 27R
SECTION: 2
OBSERBER: MS/KCM

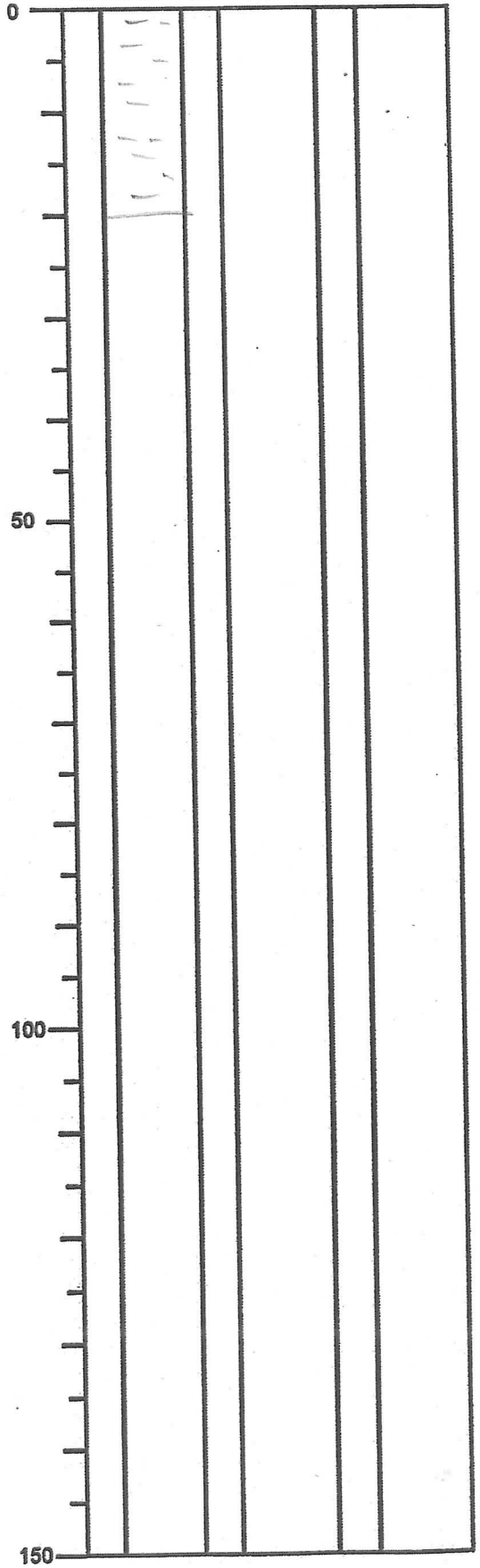


SECTION DESCRIPTION

2 : 2bue

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 1 / 1 / 20 07
EXP: 316
SITE/HOLE: C0004D
CORE: 27R
SECTION: CC
OBSERBER: MS / GLM

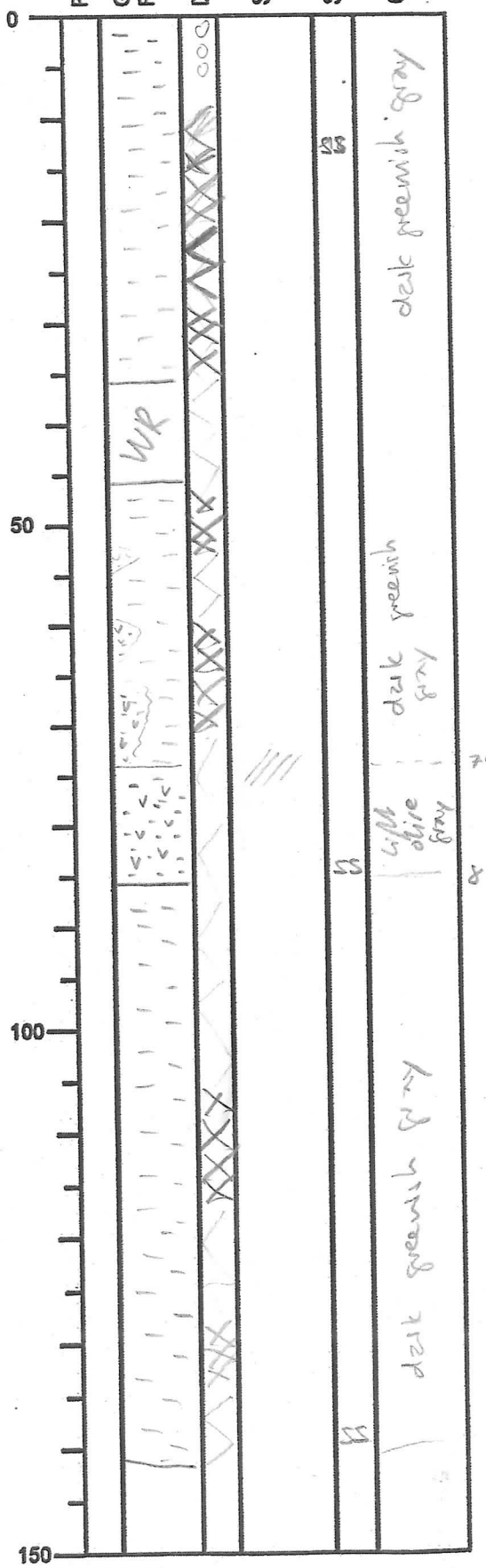


SECTION DESCRIPTION

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 21 01 / 2008
EXP: 316
SITE/HOLE: C0004D
CORE: 28R
SECTION: 1
OBSERBER: MS/KCH



SECTION DESCRIPTION

silty clay - varying intervals of more coherent pieces that are fractured and intervals with drilling induced breccia

patches of dispersed ash

diffuse upper boundary

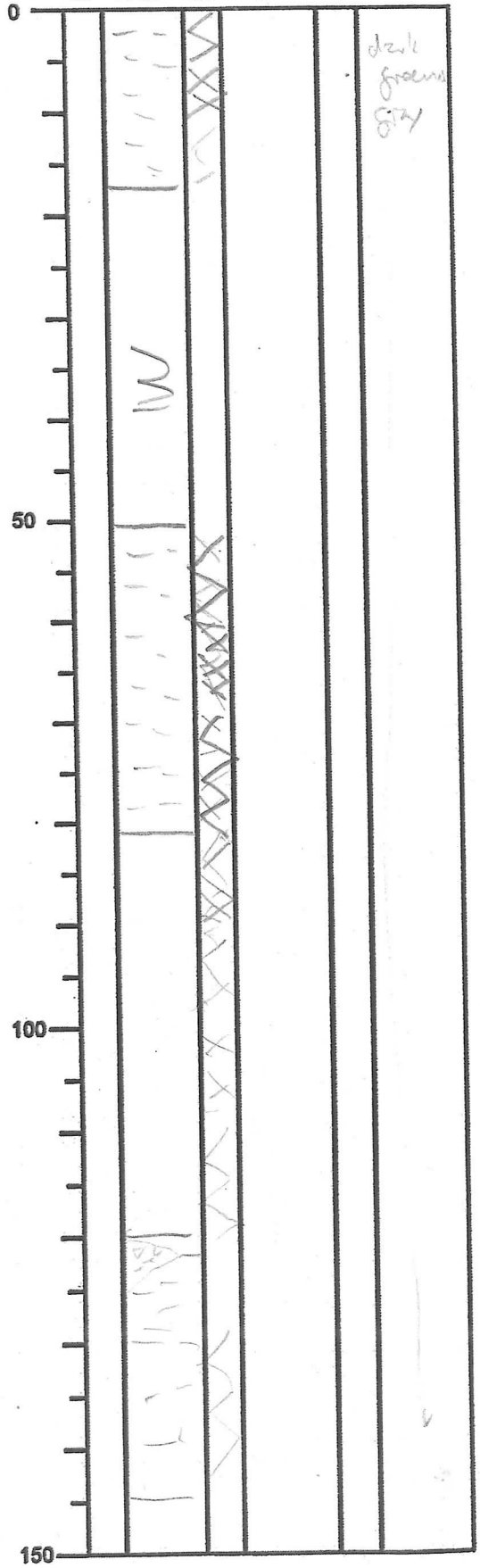
c/M dark ash (dispersed within silty clay dark grayish sediment)

sharp lower boundary

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 1 / 1 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 28R
SECTION: 2
OBSERBER: MS / KLM



SECTION DESCRIPTION

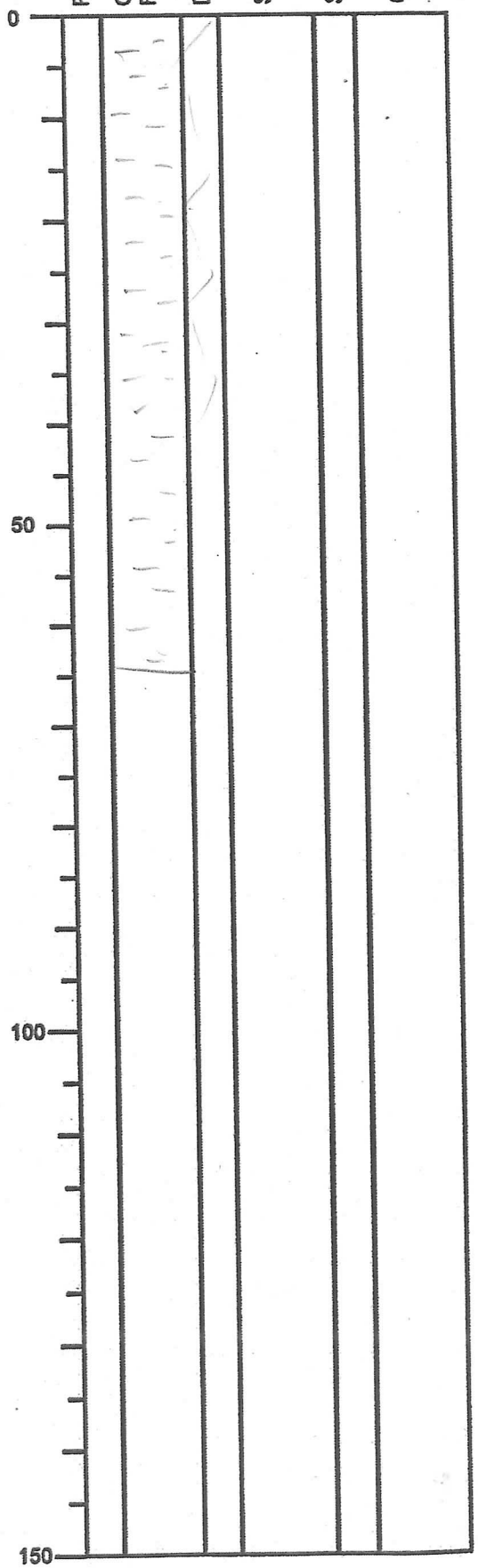
as above

dark greenish gray

patch of light olive gray dispersed with

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE:
CORE: 29 R
SECTION: 3
OBSERBER:

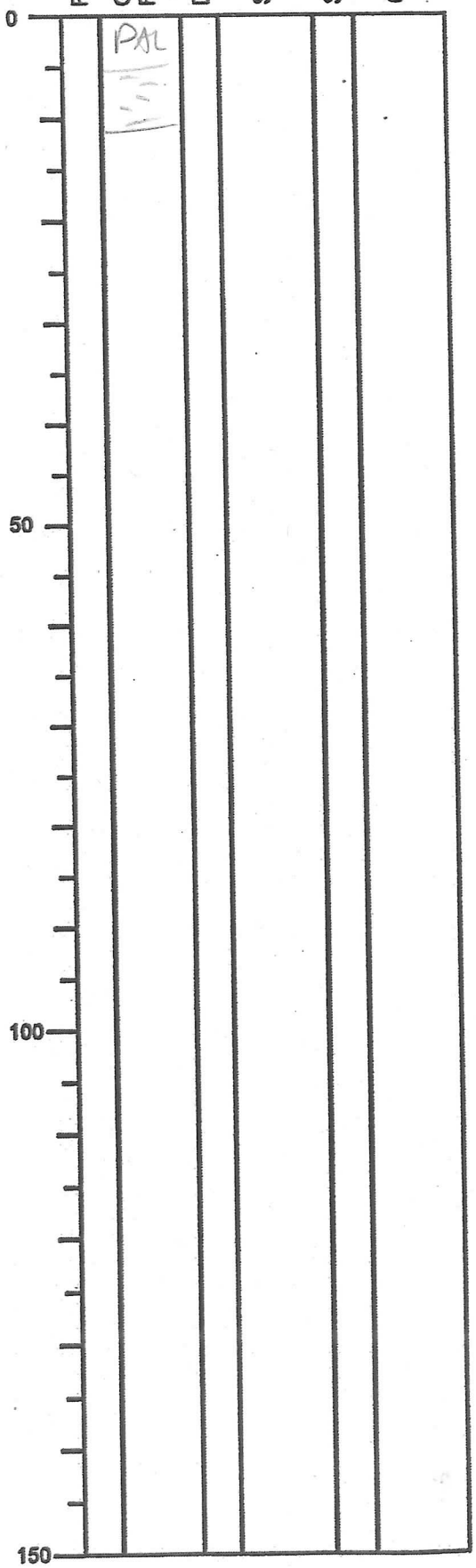


SECTION DESCRIPTION

2> above

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 28R
SECTION: CC
OBSERBER: MS/KLL

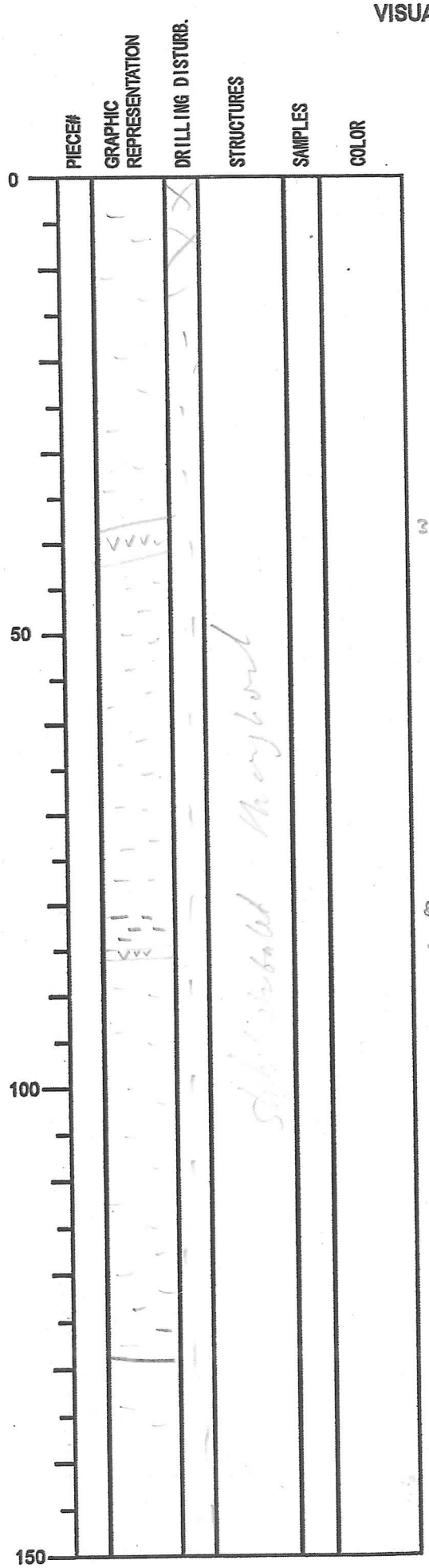


SECTION DESCRIPTION

As above

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 29R
SECTION: 1
OBSERBER: M.S / KLM



SECTION DESCRIPTION

dark greenish gray silty claystone with fractured in mostly small pieces

only few coherent pieces that show glauconite and small sand-sized specks of ?? Pyrite??

the small chips appear to be slightly finer and do not contain large glauconite but are also twisted

However it can't tell any differences in lithology

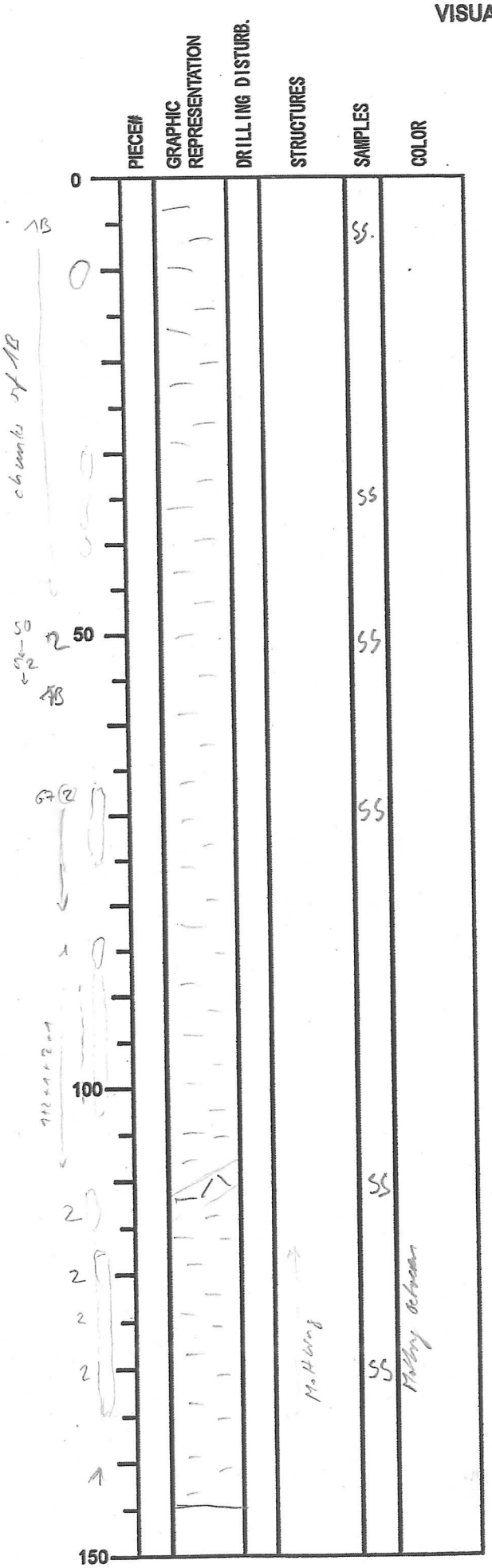
39-42 Ash

81-86 more coherent piece

86 0.2cm ash layer

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 30/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 29R
SECTION: 2
OBSERBER: TS / KLM



SECTION DESCRIPTION

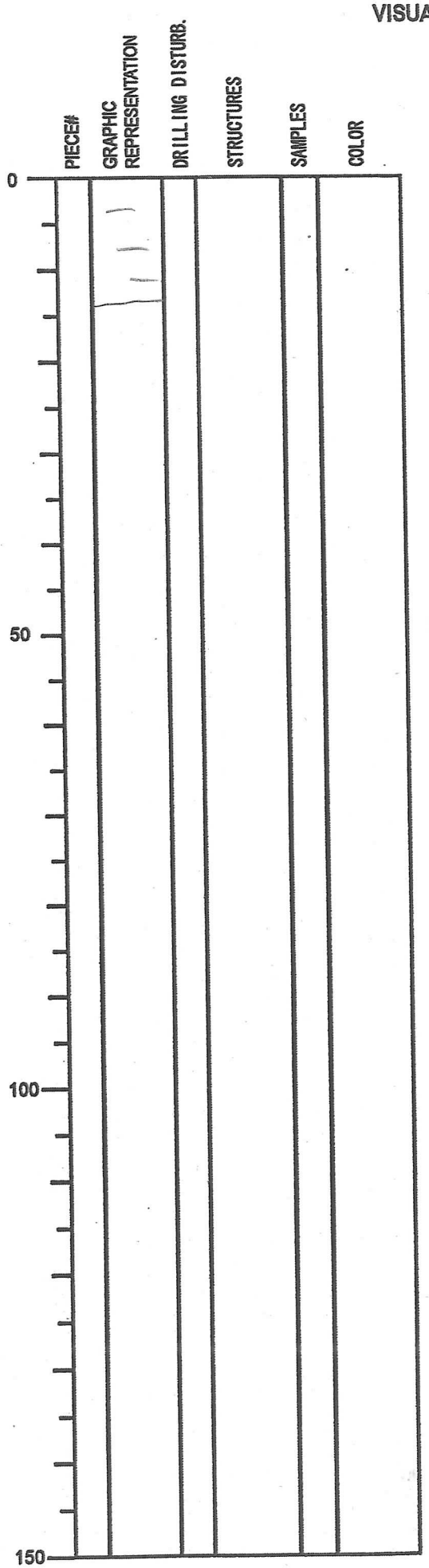
dark greenish gray silty claystone
fracture in kind of sharp 0.5-1cm chips
greenish color patches and mottling
=> claystone

greenish 51-52

96
97 greenish gray
98 Light olive gray
99 greenish gray
100
Volcanic ash (gy-wh)

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 31/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 29R
SECTION: 3
OBSERBER: CLF

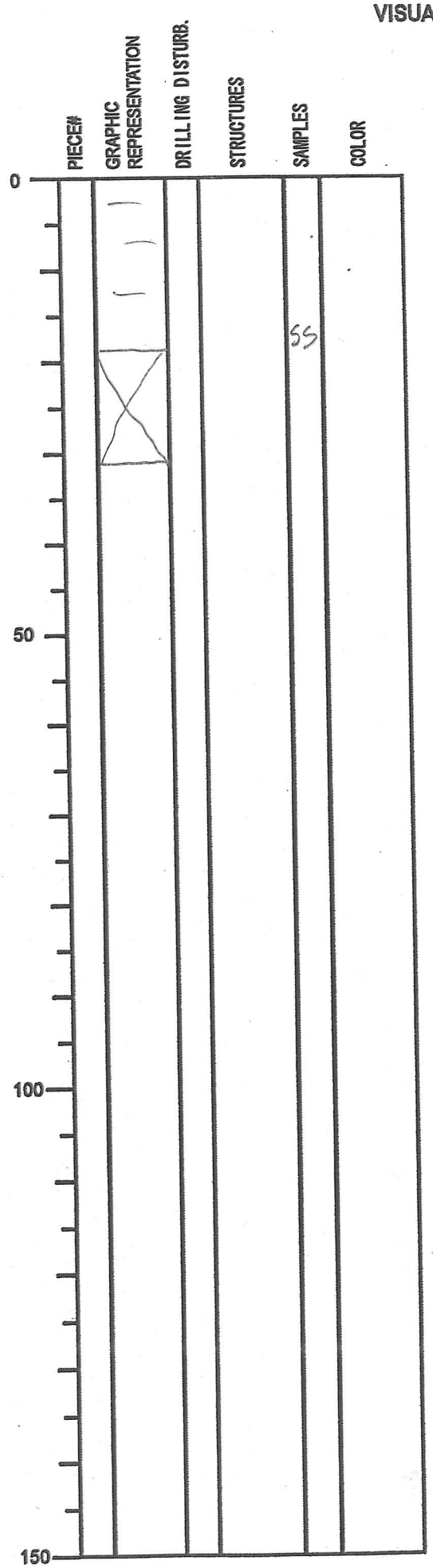


SECTION DESCRIPTION

Colour variation
Dk greenish-gy silty claystone
highly fractured (fault gouge)

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 3/1/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 29R
SECTION: CC
OBSERBER: CLF



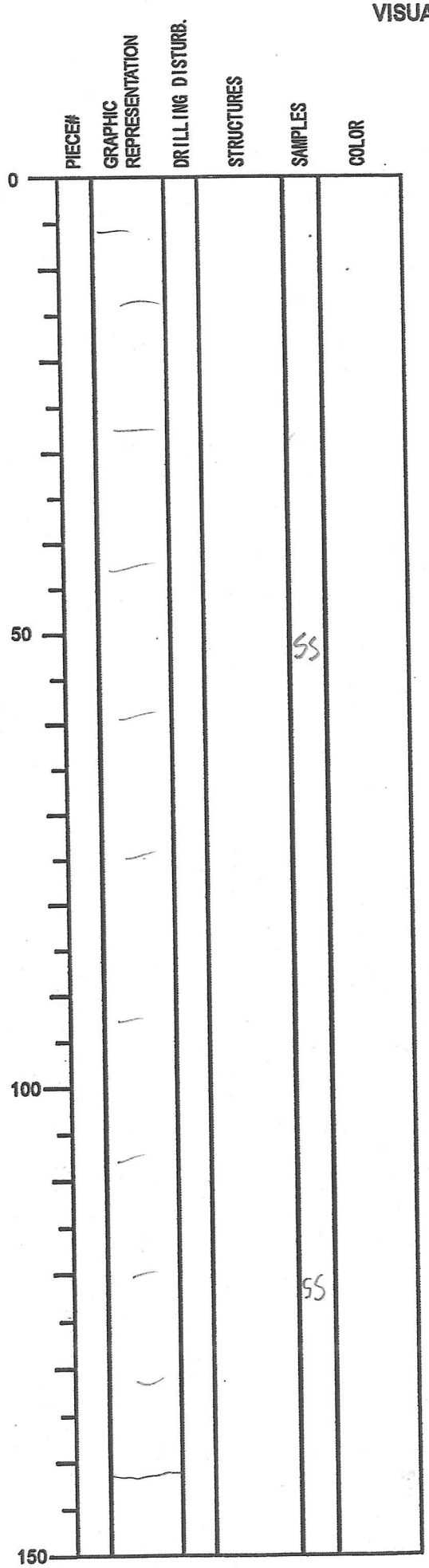
SECTION DESCRIPTION

Dk greenish-gy silty claystone
fractured.

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 31 1/2/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 30R
SECTION: 1
OBSERBER: CLF

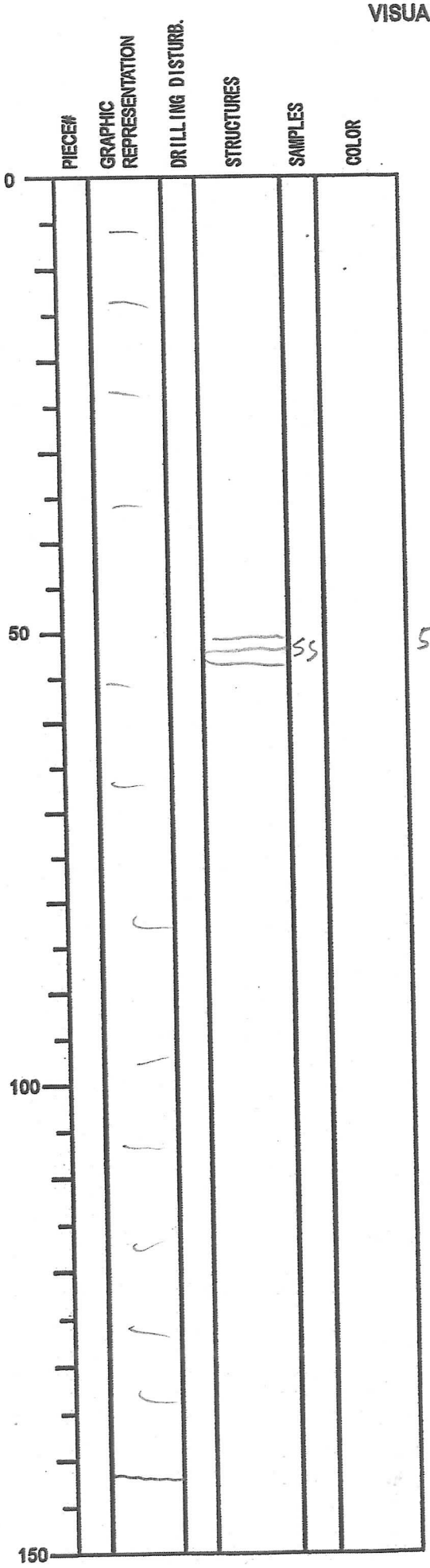


SECTION DESCRIPTION

Brecciated / fault gouge
silty claystone
(greenish-gy)

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 31/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 30R
SECTION: 2
OBSERBER: CLF



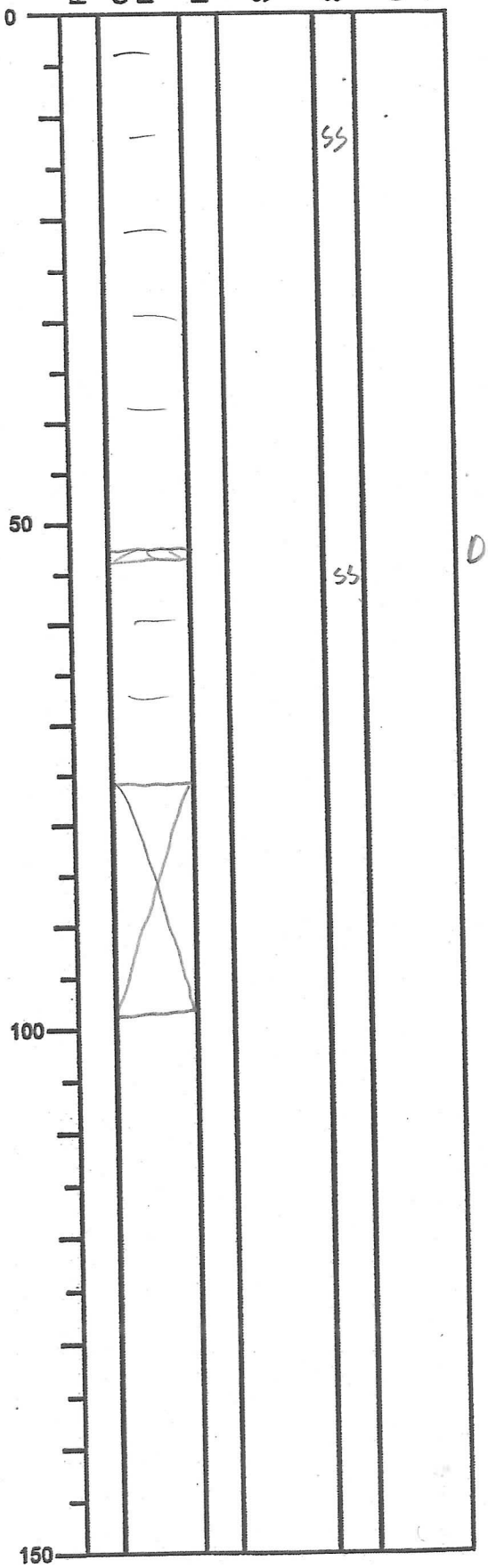
SECTION DESCRIPTION

Greenish gy silty claystone
Fault Breccia / gouge

52cm color banding

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 31 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 30R
SECTION: 3
OBSERBER: CL



SECTION DESCRIPTION

greenish-gy silty claystone

8-20 cm color variation (mottling)
green to brown-gy

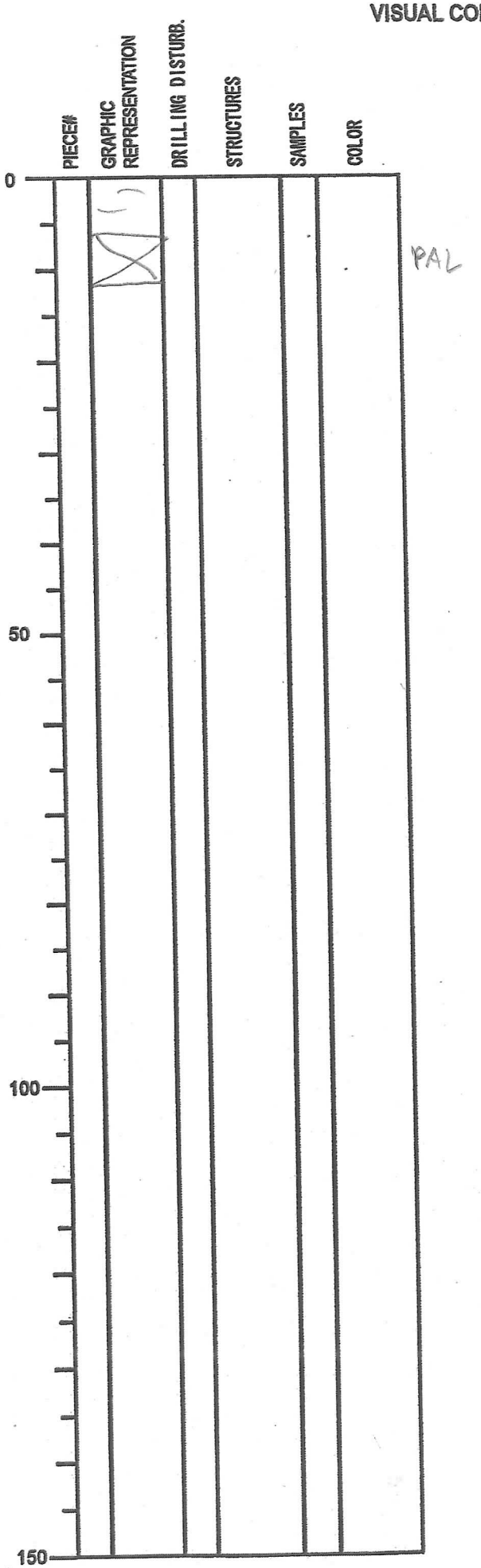
Discontinuous green band 54-55cm
volcanic ash

IW

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 31 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 30R
SECTION: CC
OBSERBER: CLT

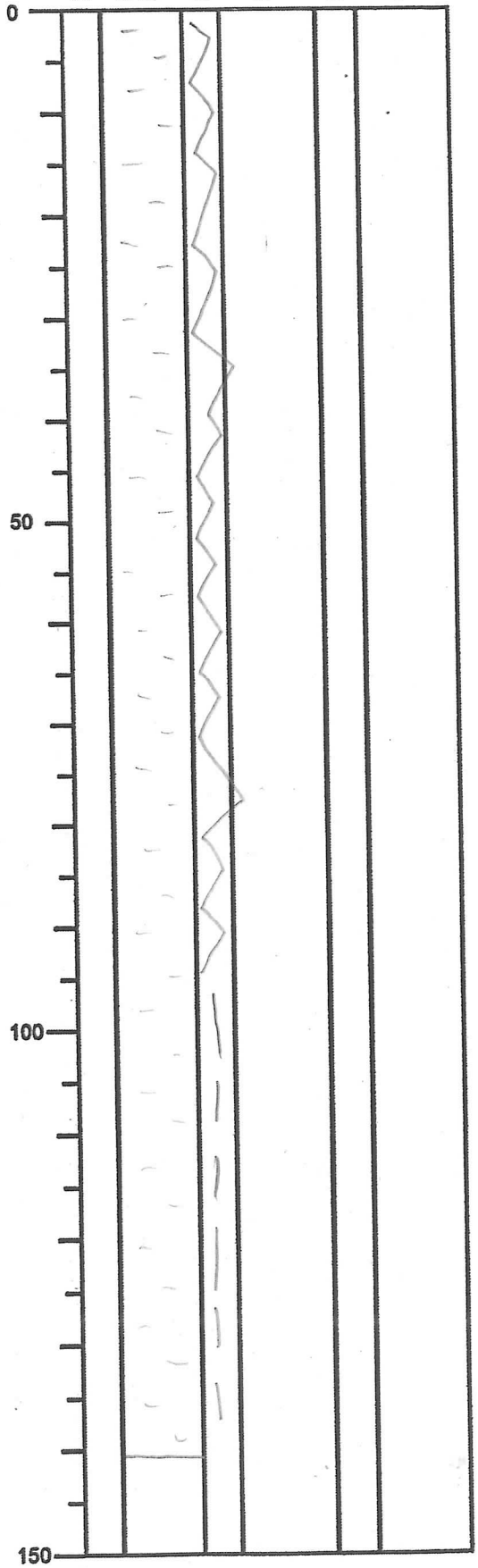


SECTION DESCRIPTION

Silty claystone.

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 12 / 2007
EXP: 316
SITE/HOLE: C 0004D
CORE: 3 / R
SECTION: ~~1~~ 1
OBSERBER: KN



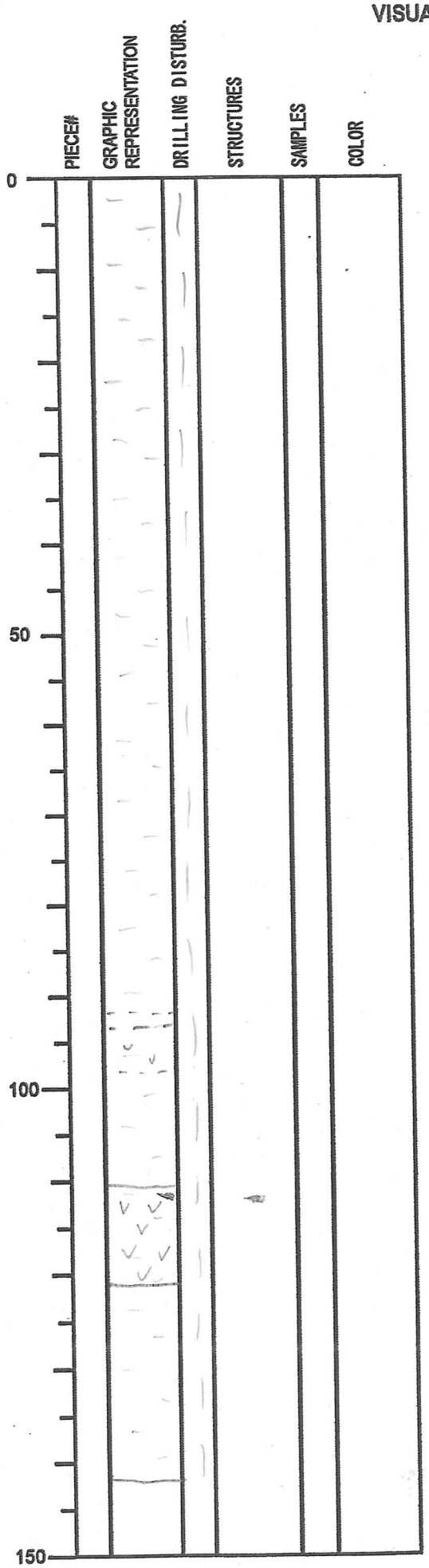
SECTION DESCRIPTION

dive grey to dark greenish-grey claystone, brecciated into small 0.5 – 5 cm clasts = this may be a fault breccia in this case.

patchy colour distribution in places.

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 31R 2
SECTION: 2
OBSERBER: VN



SECTION DESCRIPTION

as previous

- some green colour banding is apparent; sometimes this appears as blobs (discontinuous) rather than coherent bedding parallel horizons

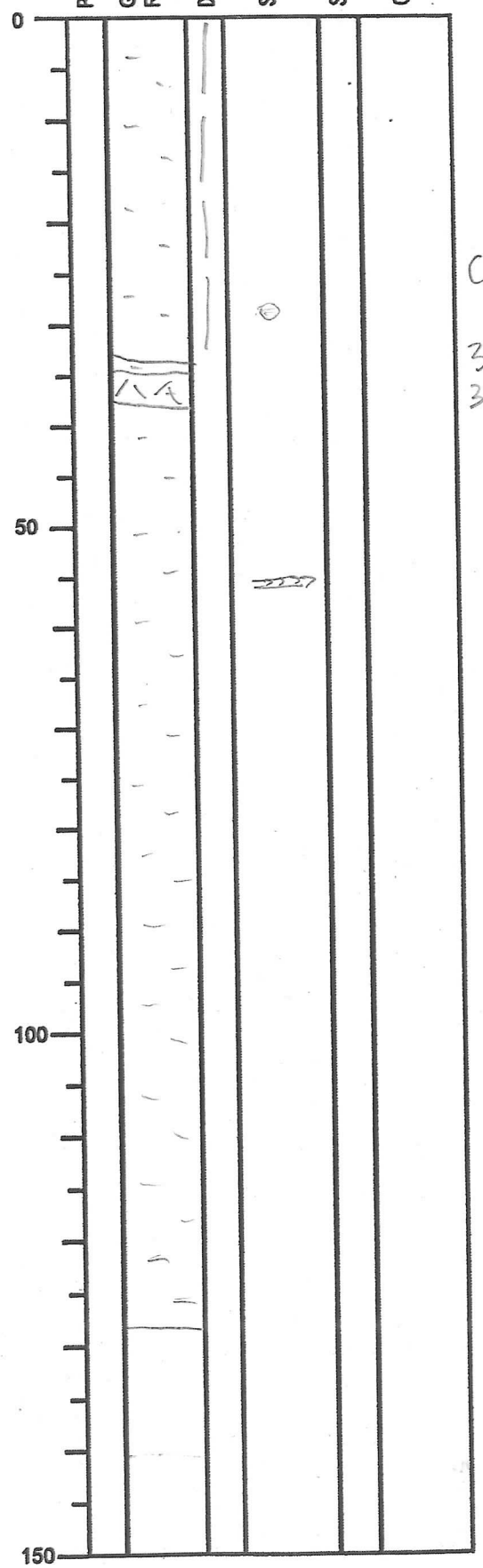
- slickensides on some of clasts indicate ~~this~~ the brecciation is due to faulting although it may be accentuated by drilling

still a high component of ash in sand ⊙
95 cm (smear slide), along with associated green banding in core,
light olive grey silty clay/clay with ash component

- Black patch near top of ash. Upper boundary of ash much less distinct than lower

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 31R
SECTION: 3
OBSERBER:



SECTION DESCRIPTION

Olive-gy silty claystone

- Fault breccia

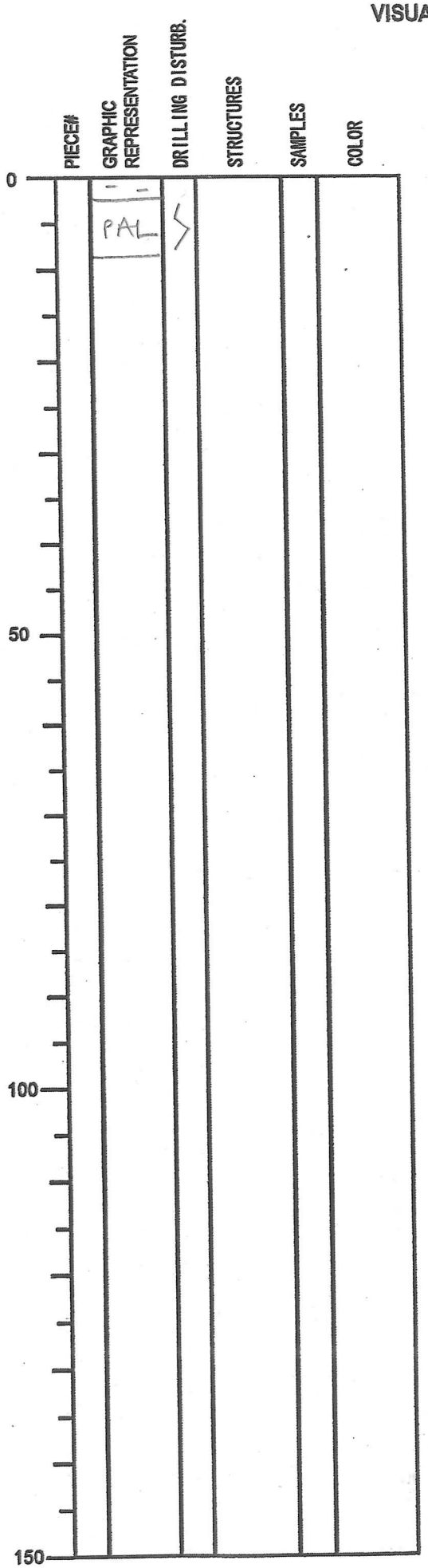
Colour banding
- laminations

33-34 cm Void
34-37.5 cm Volcanic ash (gy-wh)

- zoophycos burrows at high angle in clast within fault breccia.

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

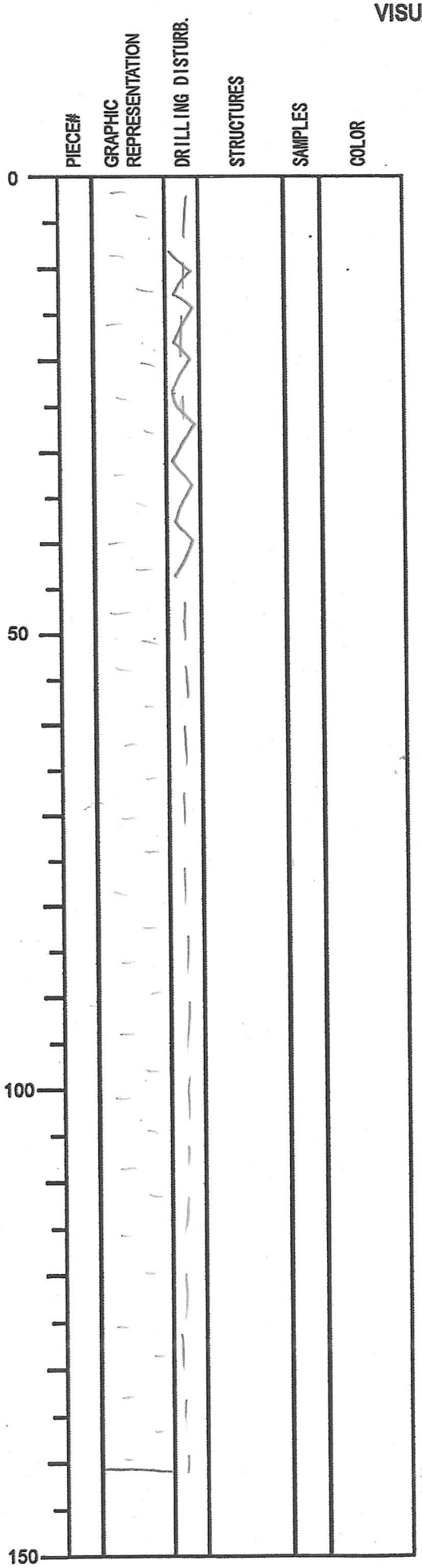
NO.
DATE: 25 / 12 / 2007
EXP: 316
SITE/HOLE: C 0004B
CORE: 31R
SECTION: 4 (CC)
OBSERBER: VN



SECTION DESCRIPTION

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28 / 12 / 2007
EXP: 316
SITE/HOLE: C 0004 A
CORE: 32R
SECTION: 1
OBSERBER: UN



SECTION DESCRIPTION

dark greenish grey silty clay stone.
Dispersed green grains throughout section,
0.1 - 2mm wide - (SS) -

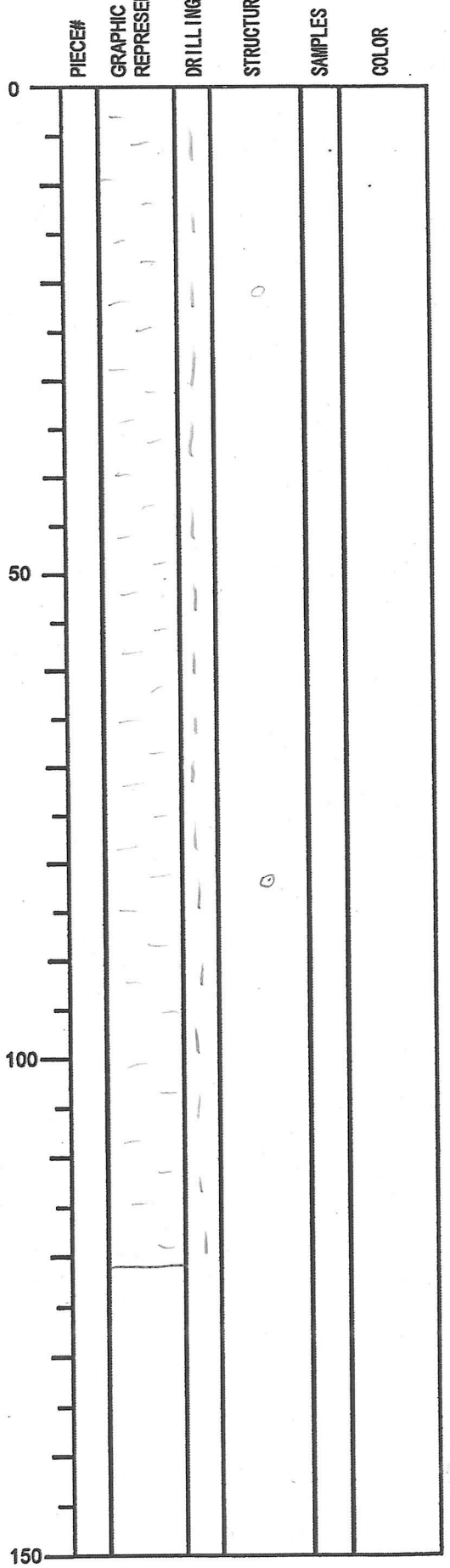
high proportion of volcanic glass throughout this core, as shown by Smear slides

} 32-37cm - sheared ash horizon or large ash lapilli

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 32R
SECTION: 2
OBSERBER: UN



SECTION DESCRIPTION

or previous

- large (>1cm), round green clast at 23cm.

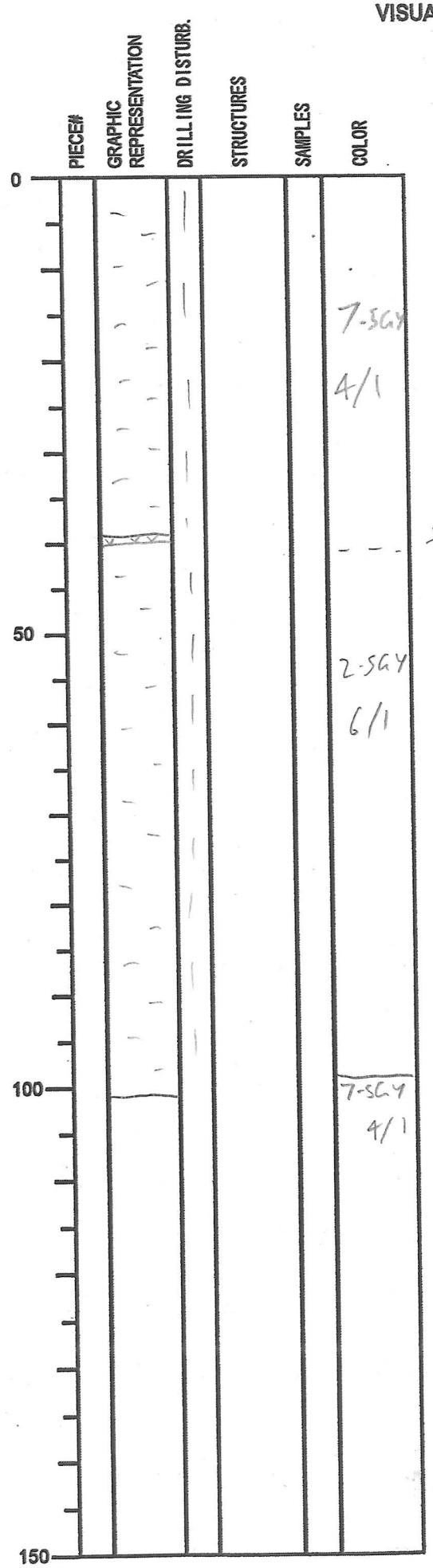
- ash lapilli at 85cm

green patches from 92 - base of section.

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 32R
SECTION: 3
OBSERBER: GN



SECTION DESCRIPTION

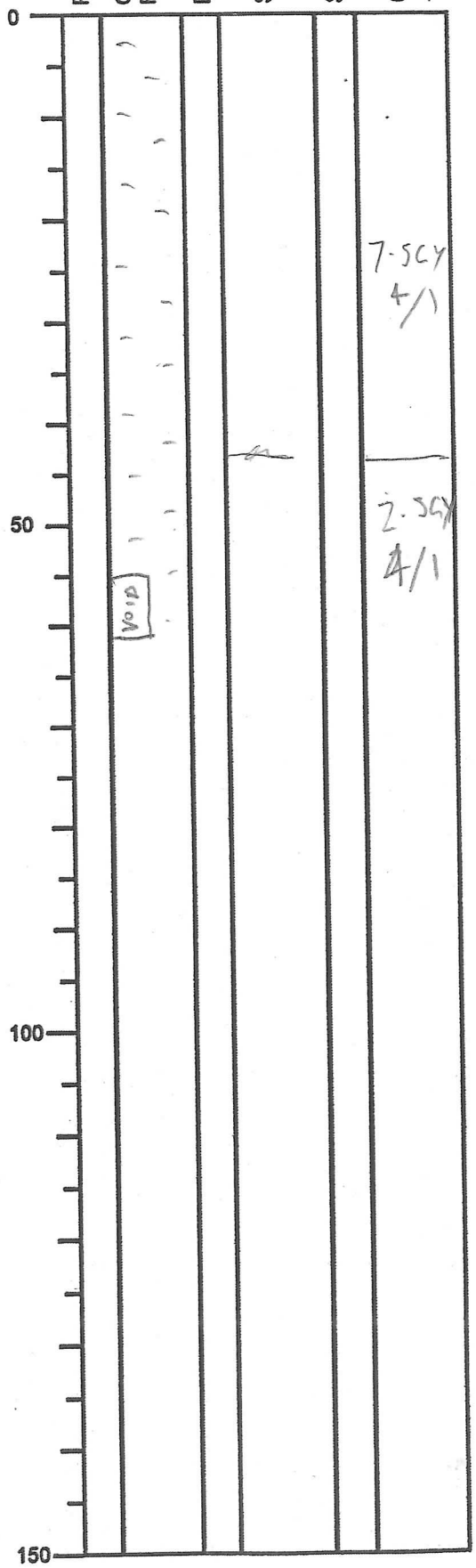
as previous - colour varies between olive grey and dark greenish grey

thin ash bed (1cm) with thin green band above (0.5 cm)

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 32R
SECTION: 4
OBSERBER: YN



SECTION DESCRIPTION

as previous.

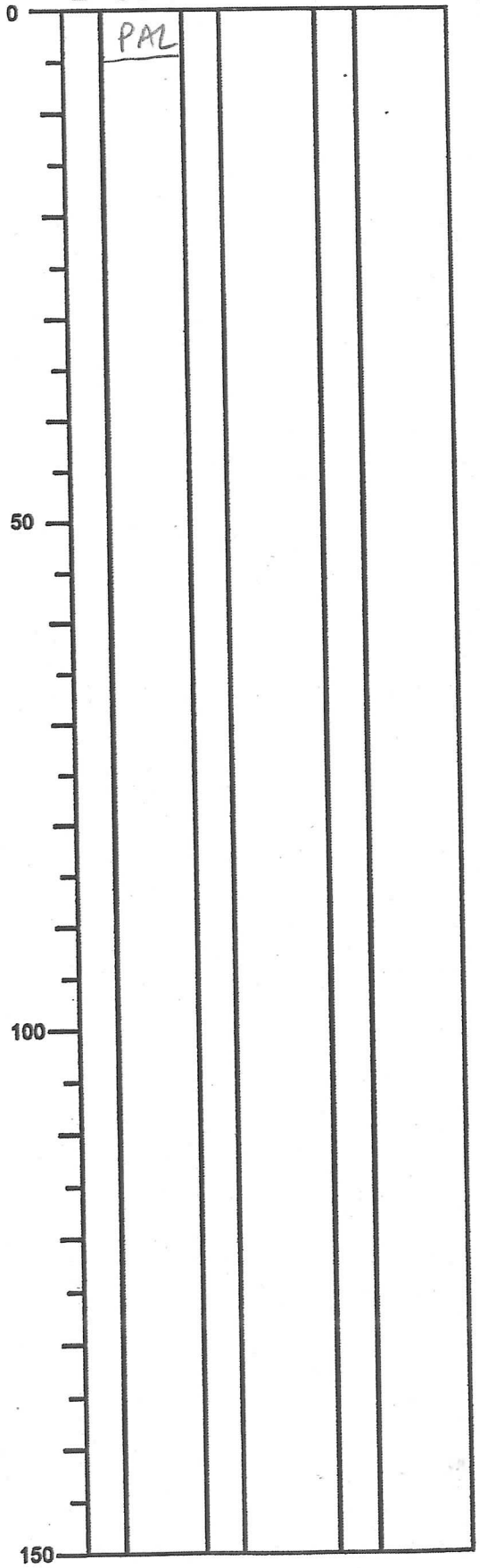
← colour change

SS - 33

SS - 50

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

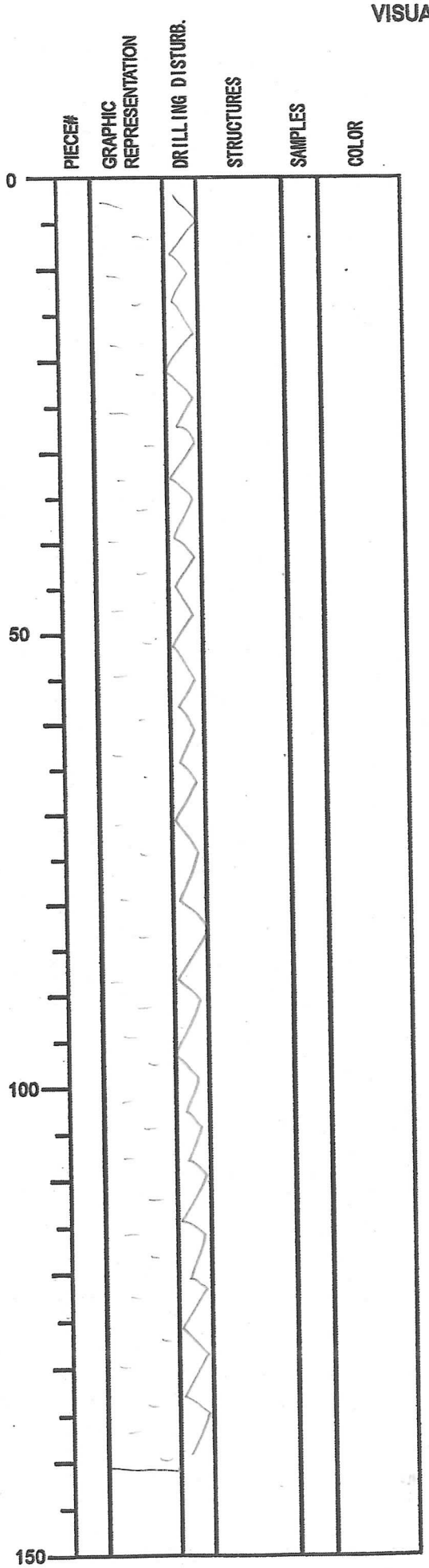
NO.
DATE: 28 / 12 / 2007
EXP: 3/6
SITE/HOLE: C 0004D
CORE: 32R
SECTION: 5 (CC)
OBSERBER: UN



Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 25 / 12 / 20 07
EXP: 316
SITE/HOLE: C0004D
CORE: 33R
SECTION: 1
OBSERBER: UN



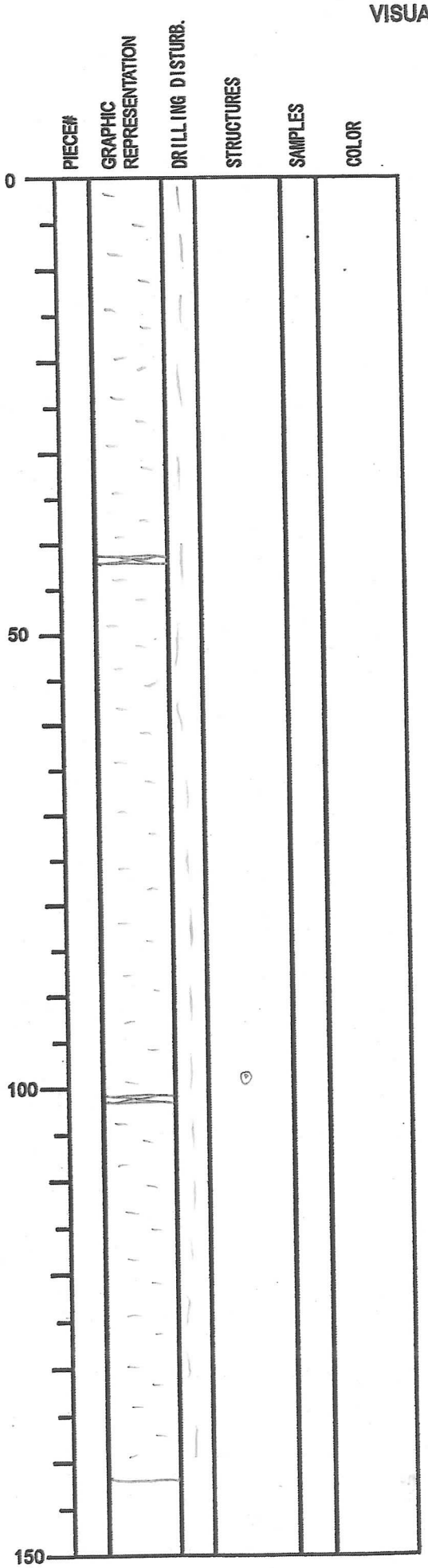
SECTION DESCRIPTION

dark olive-grey / dark greenish grey ; silty claystone -
occasional glauconite grains throughout,
as well as green patches which are also
probably glauconitic
generally brecciated throughout - fault breccia

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28 / 12 / 2007
EXP: 316
SITE/HOLE: C 0004D
CORE: 33R
SECTION: 2
OBSERBER: UN



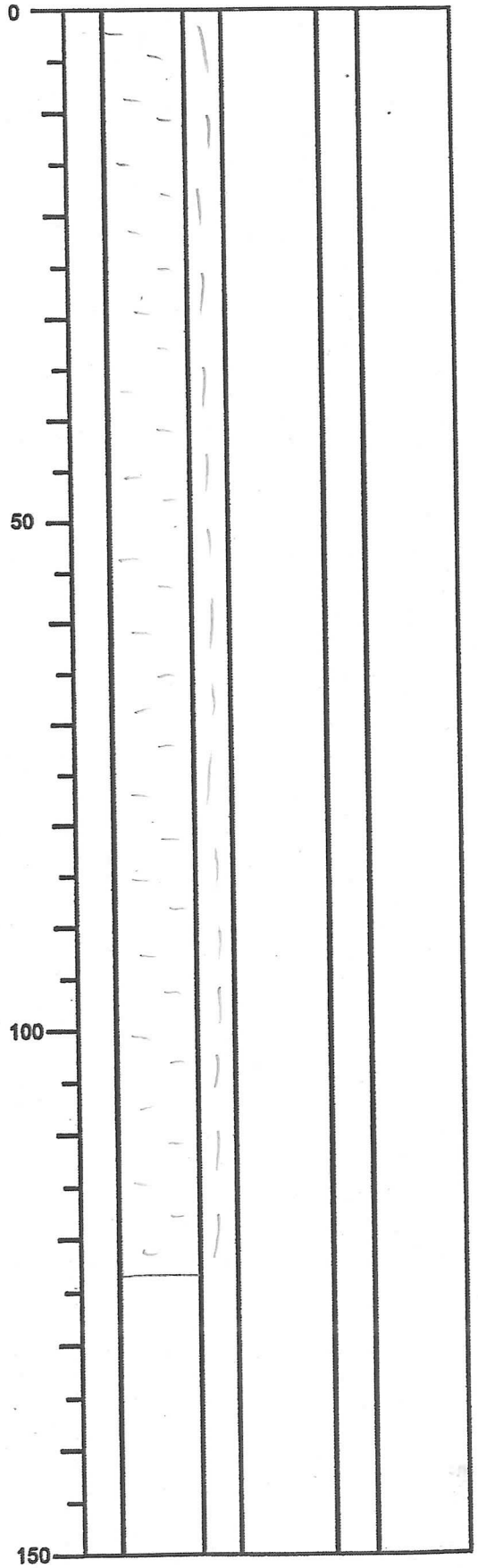
SECTION DESCRIPTION

as previous, occasional green patches

- small ash pebble clast

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28 / 12 / 2007
EXP: 316
SITE/HOLE: C 0004D
CORE: 32R
SECTION: 3
OBSERBER: GN

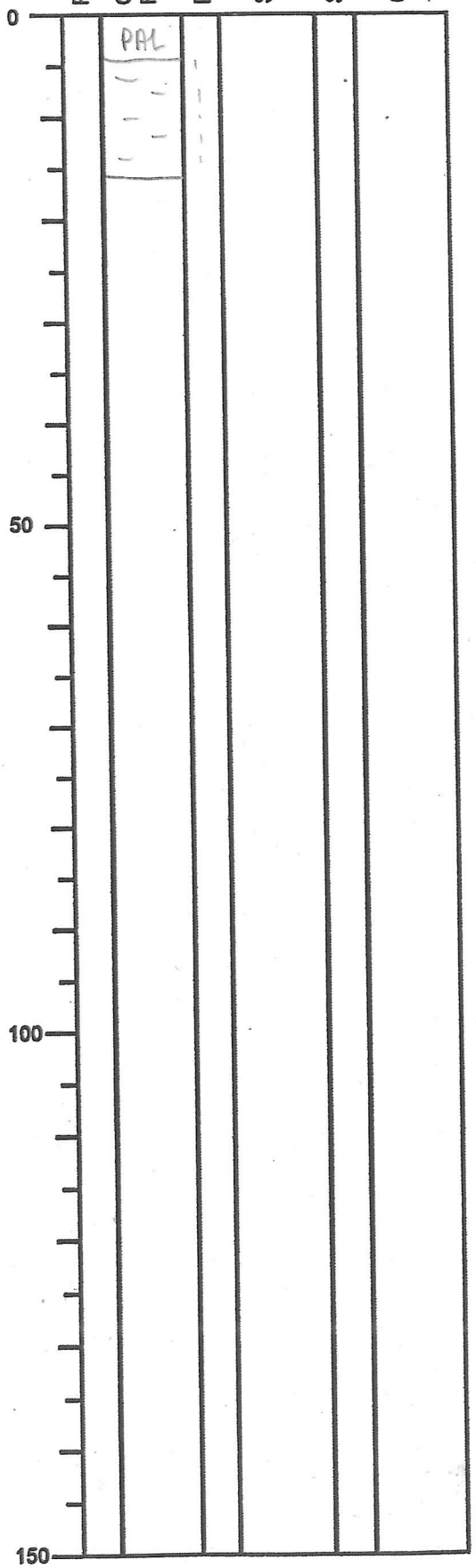


SECTION DESCRIPTION

as previous.

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28 / 12 / 2007
EXP: 316
SITE/HOLE: C 0004D
CORE: 33R
SECTION: 4 (CC)
OBSERBER: KN

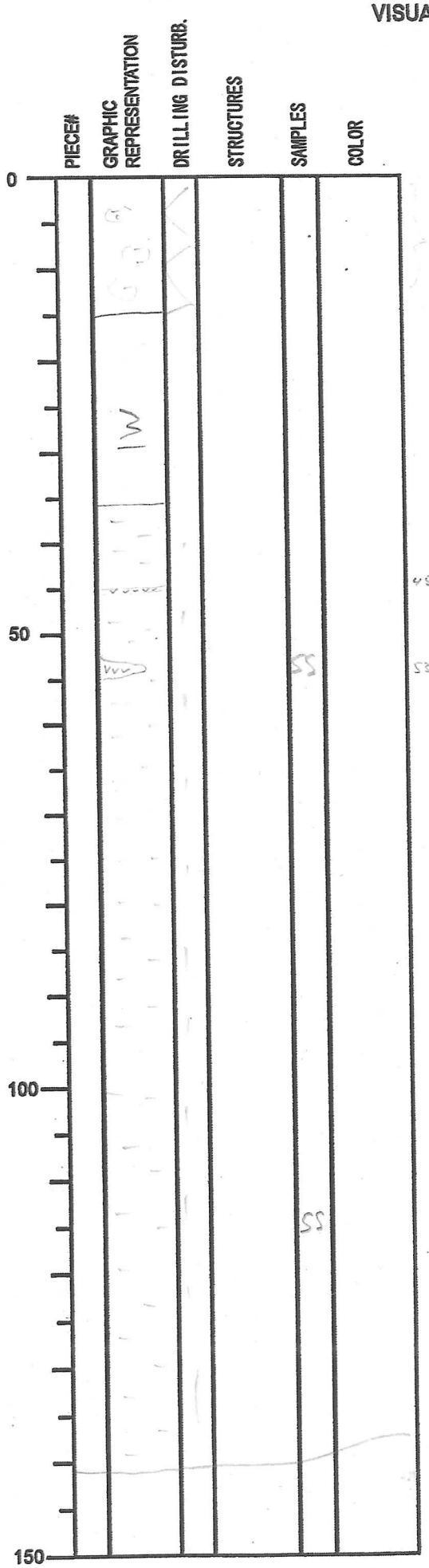


SECTION DESCRIPTION

as previous
- slightly patchy colour distribution - olive grey and greenish-grey.

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 34
SECTION: 1
OBSERBER: M.S.



SECTION DESCRIPTION

fall in
= precese

dark greenish gray silty clay stone
generally brecciated through out ⇒ fault breccia
only small pieces of few cm preserved
possibly enhanced due to drilling
hard to say

patches of greenish colors at 62, 89 102
110 - 140

⇒ glauconite ?

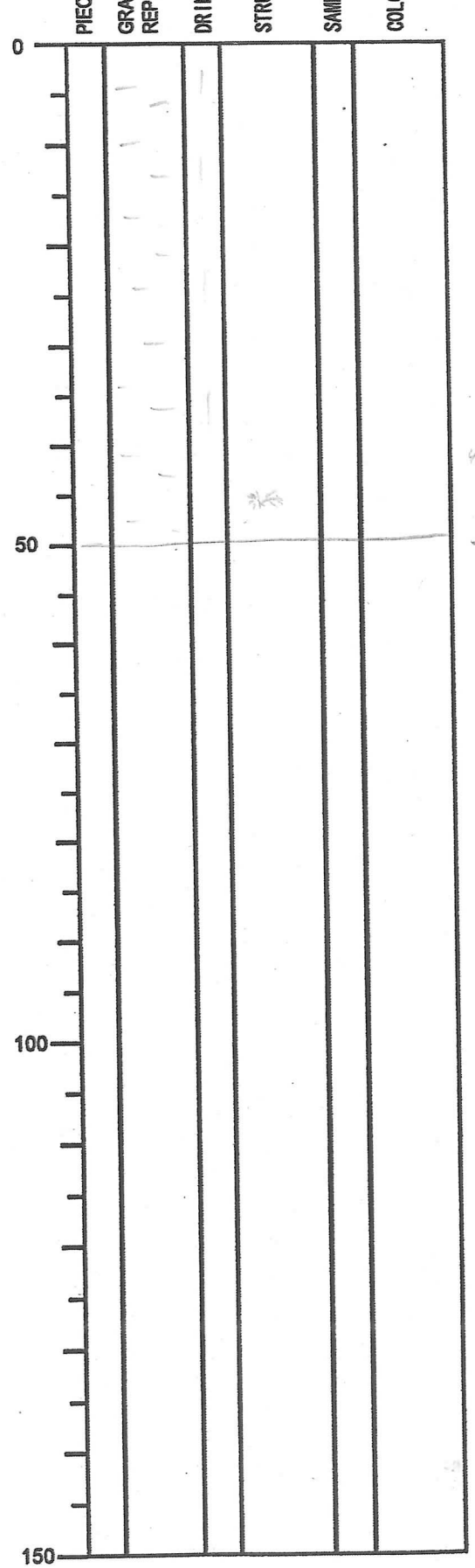
45 1mm thick fine laminae of olive gray ash
between slightly disperesed ash

53-54 patch of olive gray ash

little to now structures
identified in CT images

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO. 28
DATE: ~~316~~ / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 34R
SECTION: 2
OBSERBER: MS / KLM



SECTION DESCRIPTION

same as above

CT images show overturbation

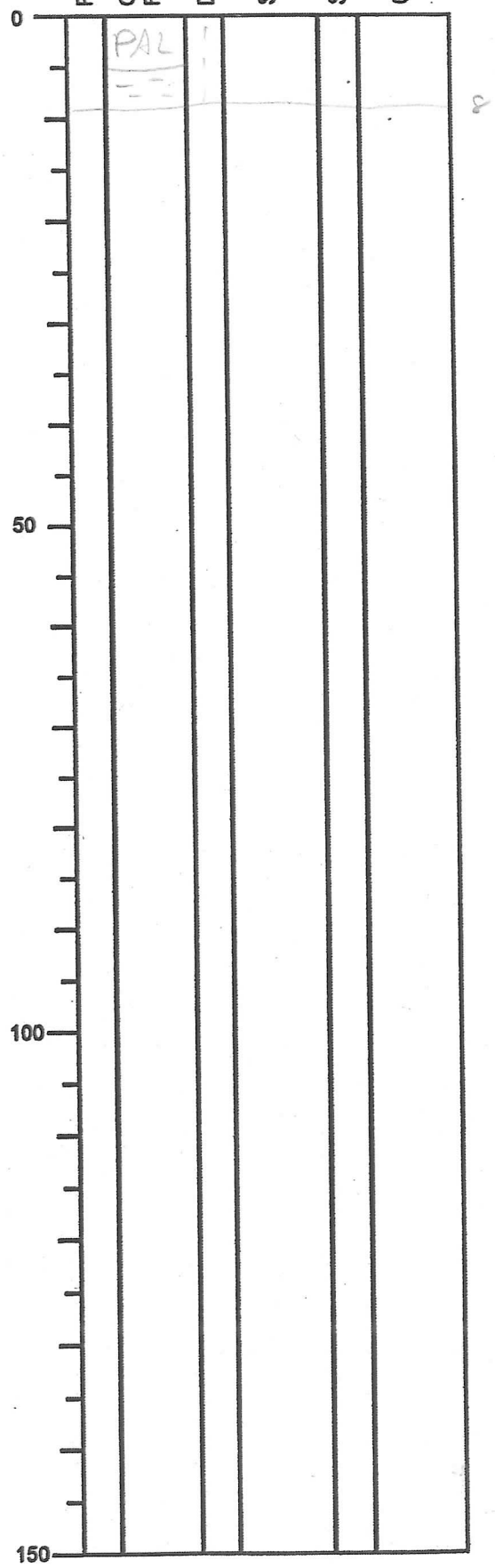
63-80 more coherent pieces showing chondrites and greenish color mottling (=glauconite

5

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 2007 / 8 / 20
EXP: 316
SITE/HOLE: C0004D
CORE: 34D
SECTION: CC
OBSERBER: MS/KKM



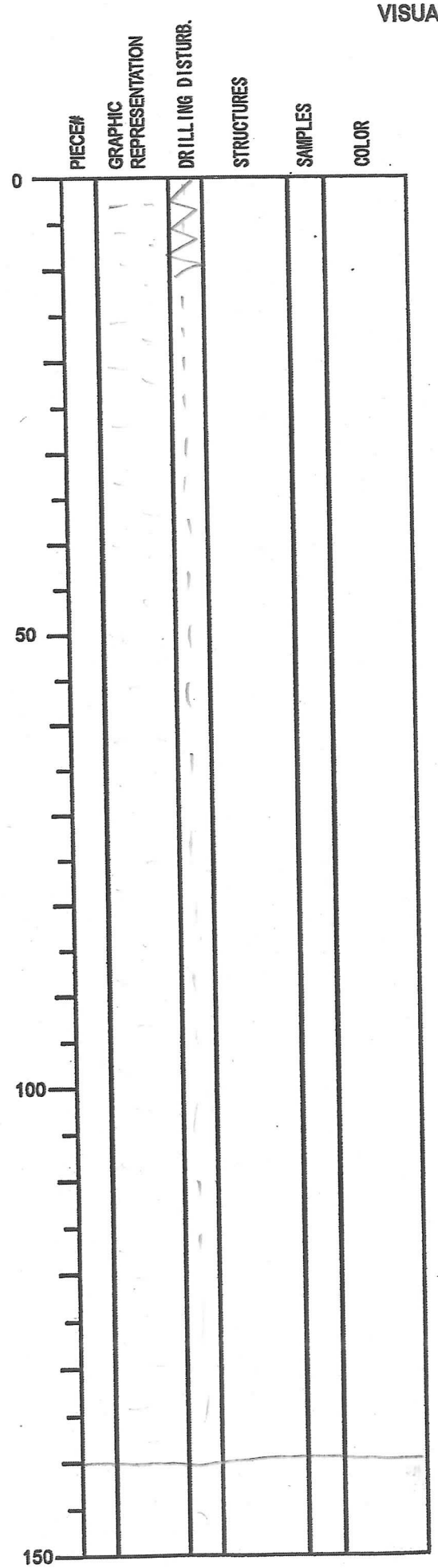
SECTION DESCRIPTION

as above

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP: 316
SITE/HOLE: C0004D
CORE: 35R
SECTION: 1
OBSERBER: MS / KLM



SECTION DESCRIPTION

dark greenish grey silty claystone fractured in mostly small little pieces of ≥ 0.5-1 cm scale

intervalls of more coherent pieces e.g. with chalk contents
28 - 33
39 - 41

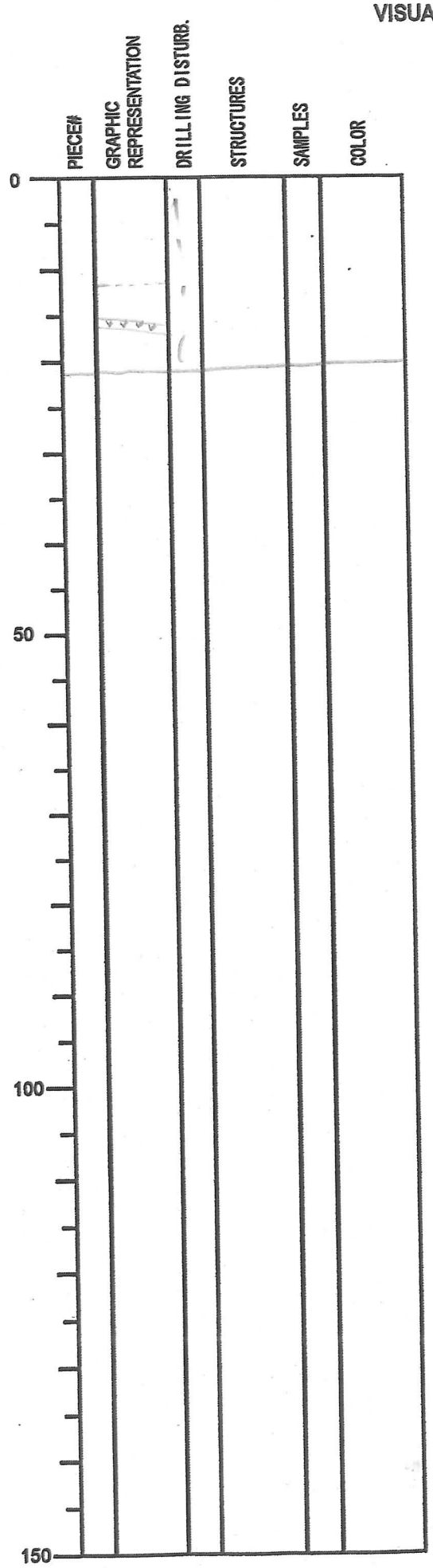
appears to be slightly coarser
SS however show the same silty clay

slight change in color hue ≈ 130 cm from dark greenish to dark olive gray
⇒ dispersed Ash?

⇒ greenish mottling throughout
⇒ Glauconite

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28 / 12 / 20 07
EXP: 310
SITE/HOLE: U
CORE: 1000C4D 35R
SECTION: 2
OBSERBER: MS / KLM

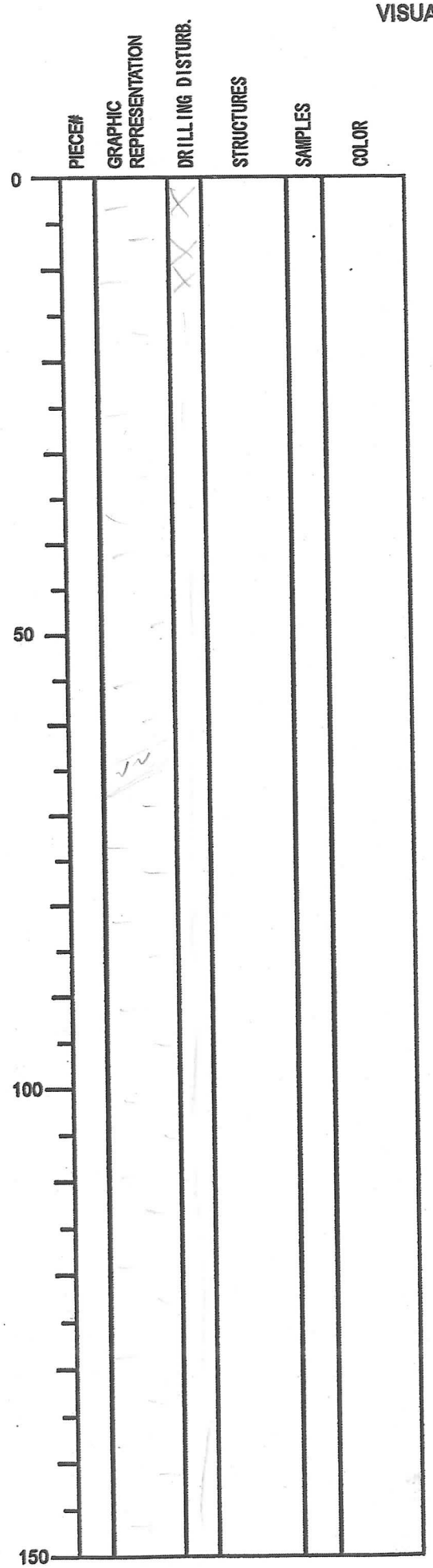


SECTION DESCRIPTION

as above
with the FIRST OCCURANCE
of a
BASALTIC ASH
at 15cm

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 29 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 36R
SECTION: 1
OBSERBER:



SECTION DESCRIPTION

~~36~~ dark greenish gray silty mudstone fractured in mostly small to little pieces chips

some greenish areas with milky and potentially glauconite

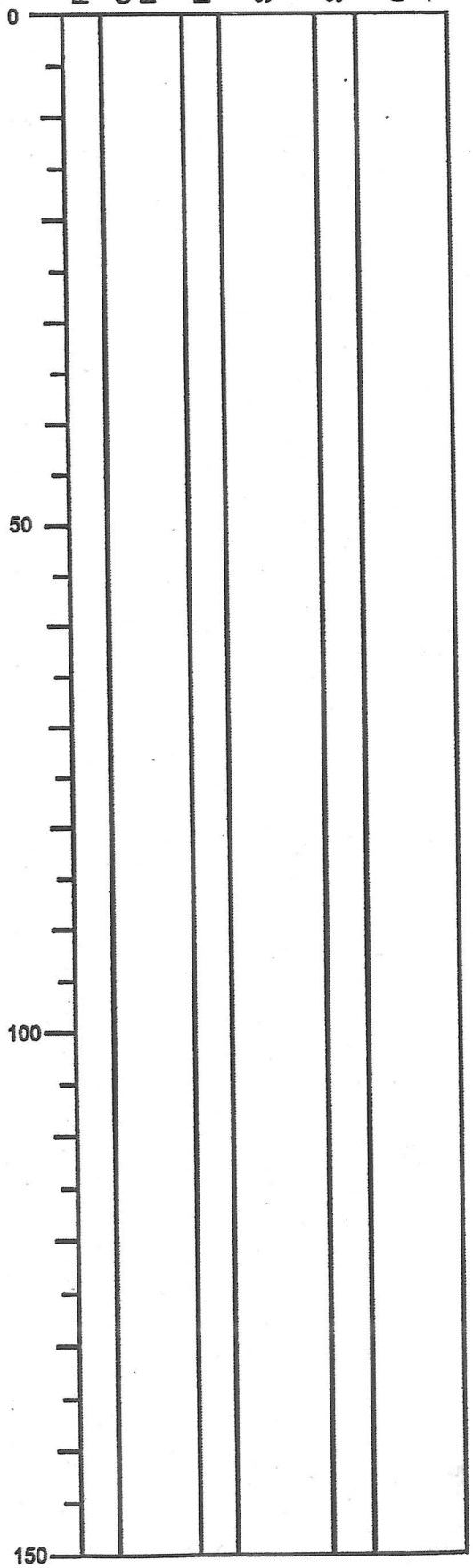
64-68 ~~cm~~ very fine grained not fractured
⇒ dispersed Ash

dispersed Ash

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

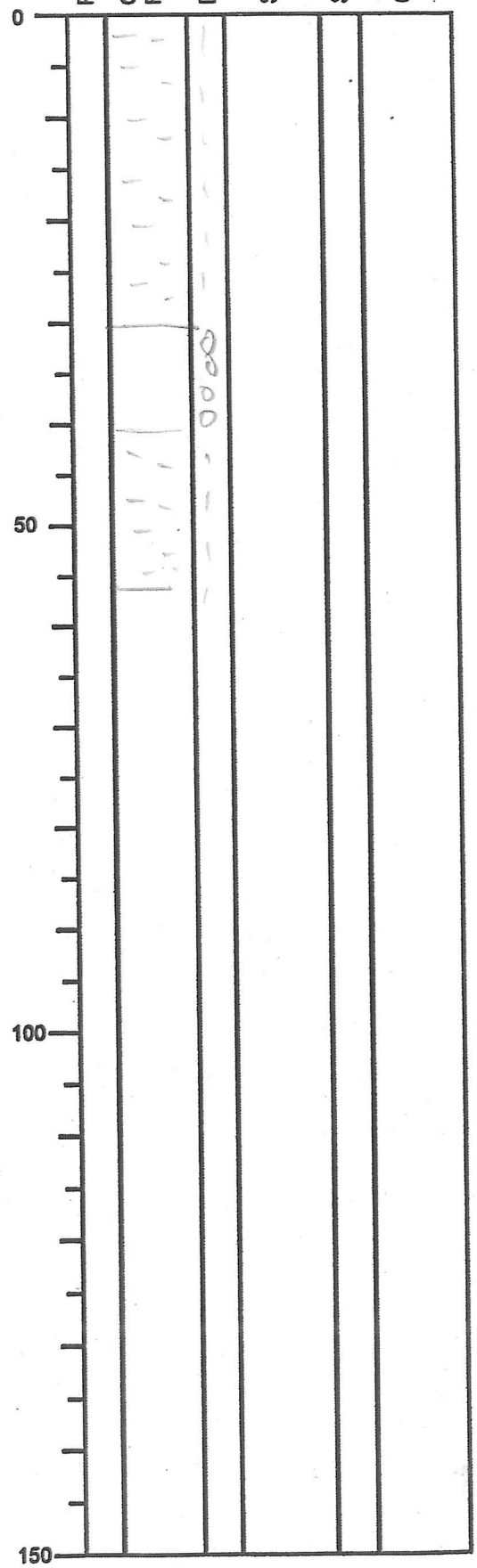
NO.
DATE: / / 20
EXP:
SITE/HOLE:
CORE: 36 R
SECTION: 2
OBSERBER:



IW

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28 / 11 / 20 07
EXP: 316
SITE/HOLE: C0004 ~~316~~ D
CORE: 36R
SECTION: 3
OBSERBER: TTS



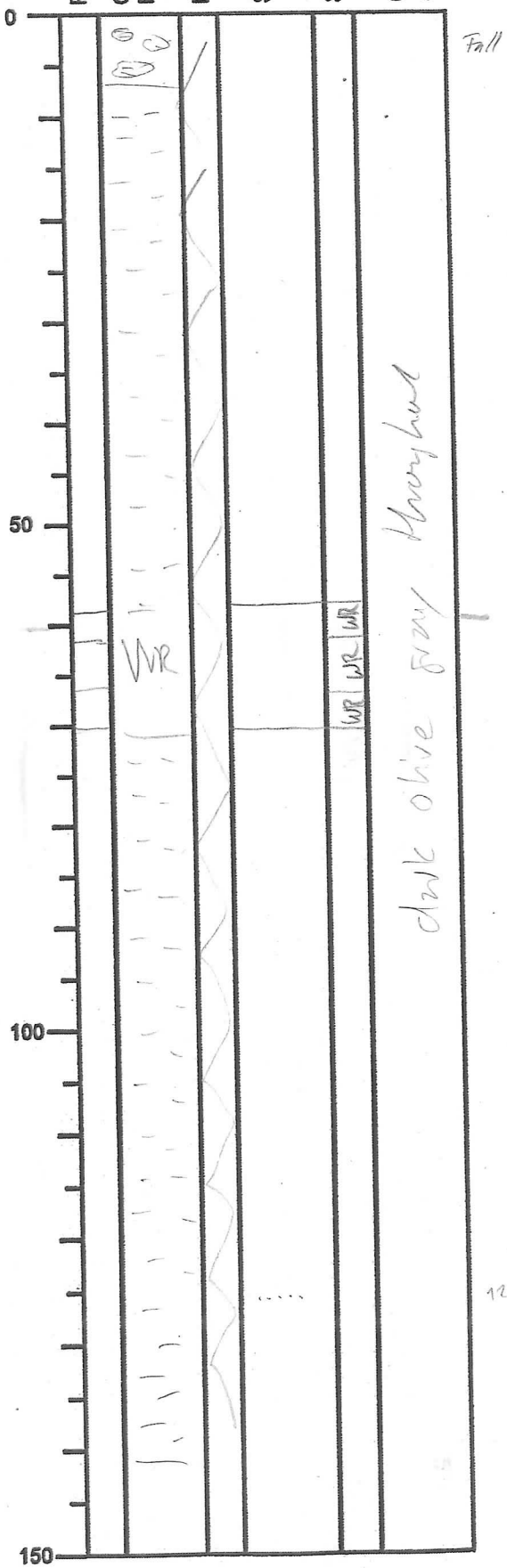
SECTION DESCRIPTION

dito as above

Sompy ⇒
between 30 and 40cm

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO. 1
DATE: 1 / 1 / 2008
EXP: 316
SITE/HOLE: C0004D
CORE: 37R
SECTION: 1
OBSERBER: MS / KCM



SECTION DESCRIPTION

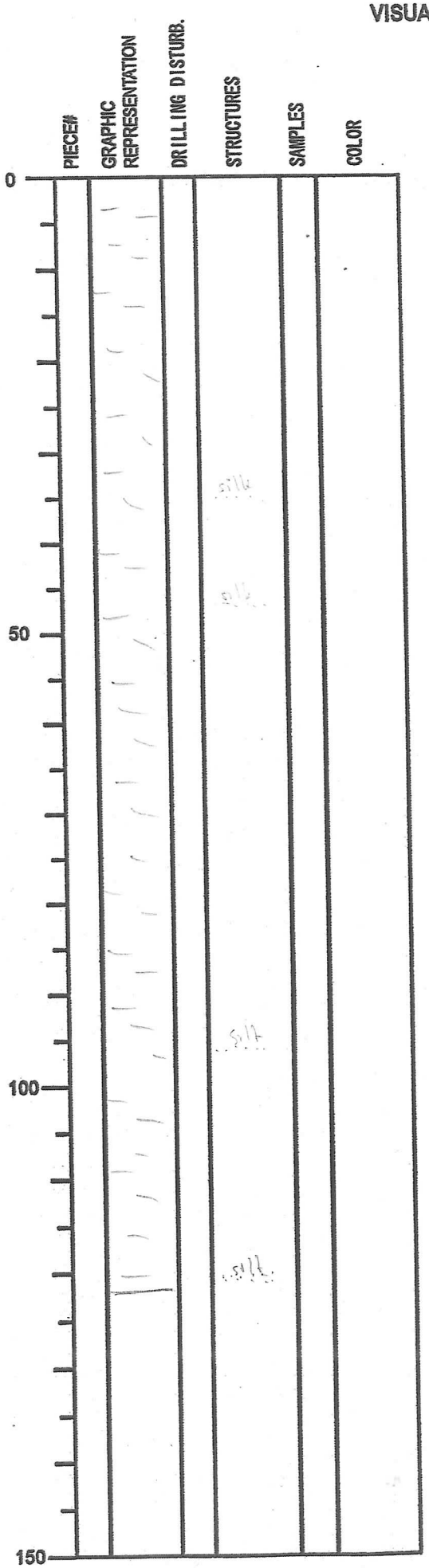
Fall in pieces one body black and hard encrusted? (⇒working half)

dark olive gray silty claystone mostly occurring in small chips (subparallel fissility

126 1cm thick silt laminae within a more coherent piece lacking subparallel fissility

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO. 2
DATE: 1 / 1 / 2008
EXP: 316
SITE/HOLE: C0004D
CORE: 37R
SECTION: 2
OBSERBER: MS / KUM



SECTION DESCRIPTION

dark olive gray silty clay stone
core broken up in small pieces
and generally appearing slightly coarser
(silty)

subparallel slightly more coherent cm 1
cm thick intervals at ~ 34
47
96

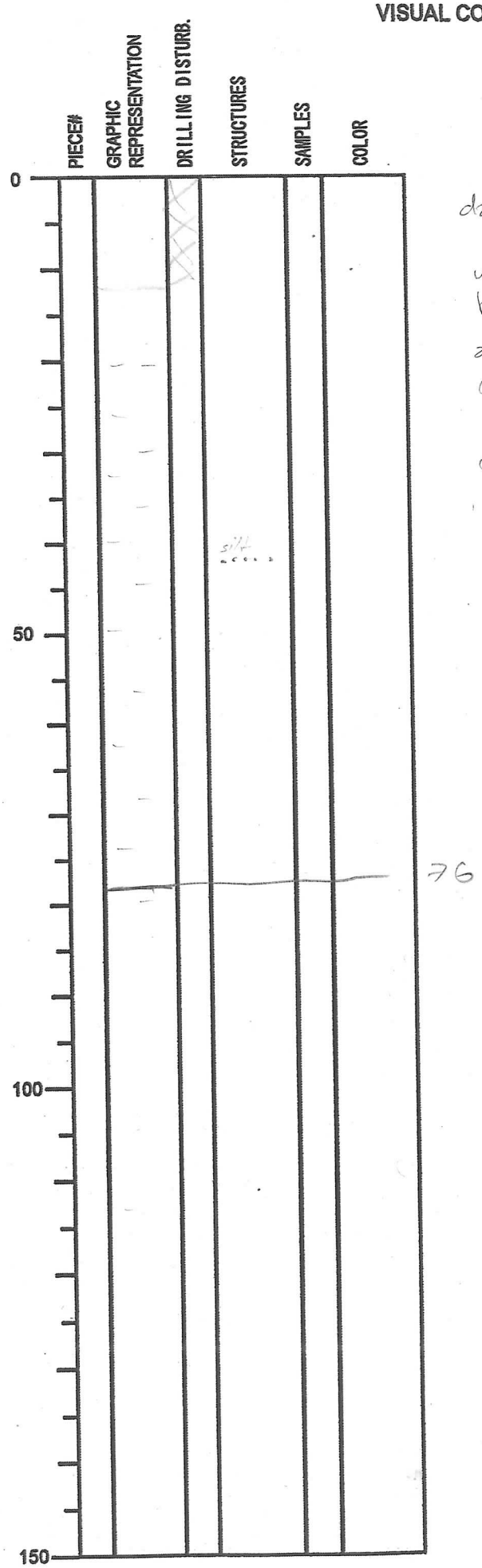
pieces of more silty slightly clay with sand
in the coarsest part of the section

slightly more lighter dark olive gray
interval ~ 20 - 30cm

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28 / 12 / 20 07
EXP: 316
SITE/HOLE: C0004D
CORE: 38R
SECTION: 1
OBSERBER:



SECTION DESCRIPTION

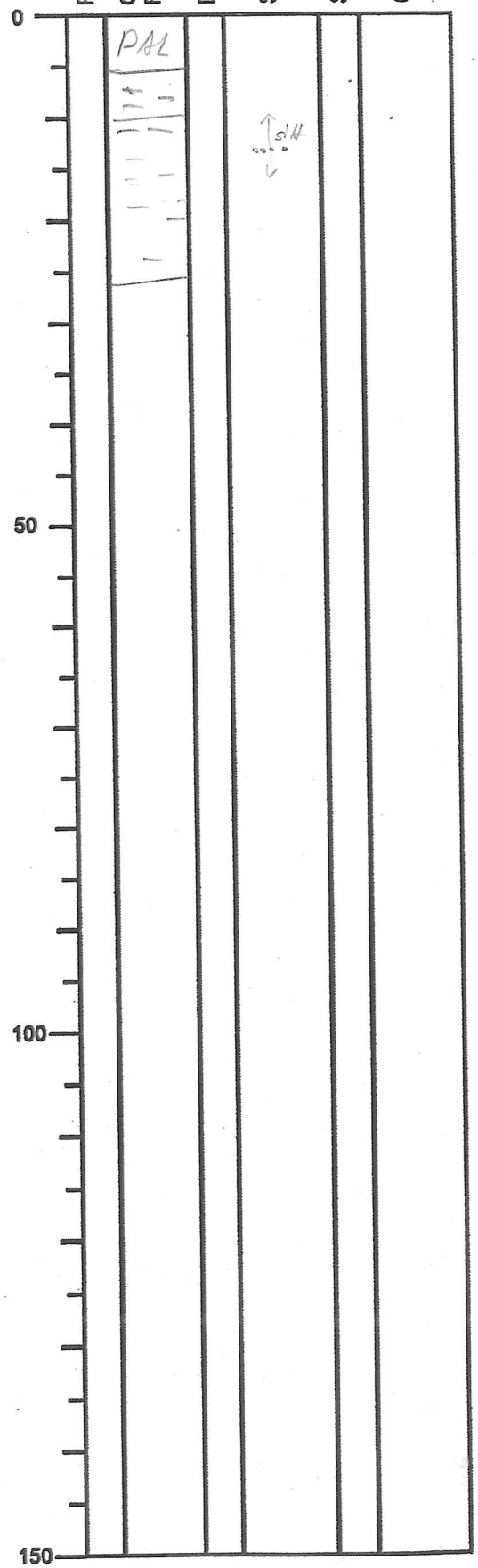
dark greenish to olive gray silty claystone with more coherent pieces that appear to be slightly coarse and interval ~~with~~ showing possibly subparallel stratification within claystone

coherent intervals 26 - 22
42 - 46 silt with sand
48 52

reminds me to what we have seen in 39

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 38 R
SECTION: CC
OBSERBER: MS / KCM

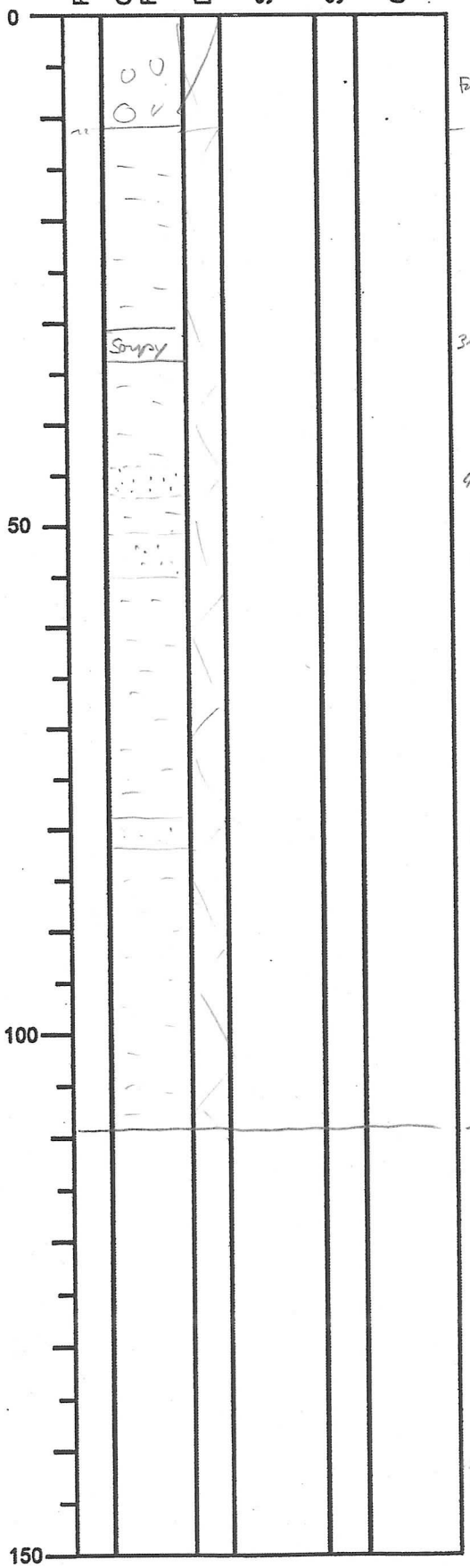


SECTION DESCRIPTION

dark olive gray silty clay stone
slightly more silties with sand
between 10 - 17 cm

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP: 316
SITE/HOLE: C0004D
CORE: 39R
SECTION: 1
OBSERBER: MS / AKM



SECTION DESCRIPTION

general Lithology:
dark greenish gray silty clay
with intervals of silty clays with sand
and fine sandy silt layers
more coherend and competent pieces
mostly are silty clay to clayey silts with sand

Fall in pieces

31-34 washed out ? sand ?

42-45 more competent silty sand layer

51-54 " "

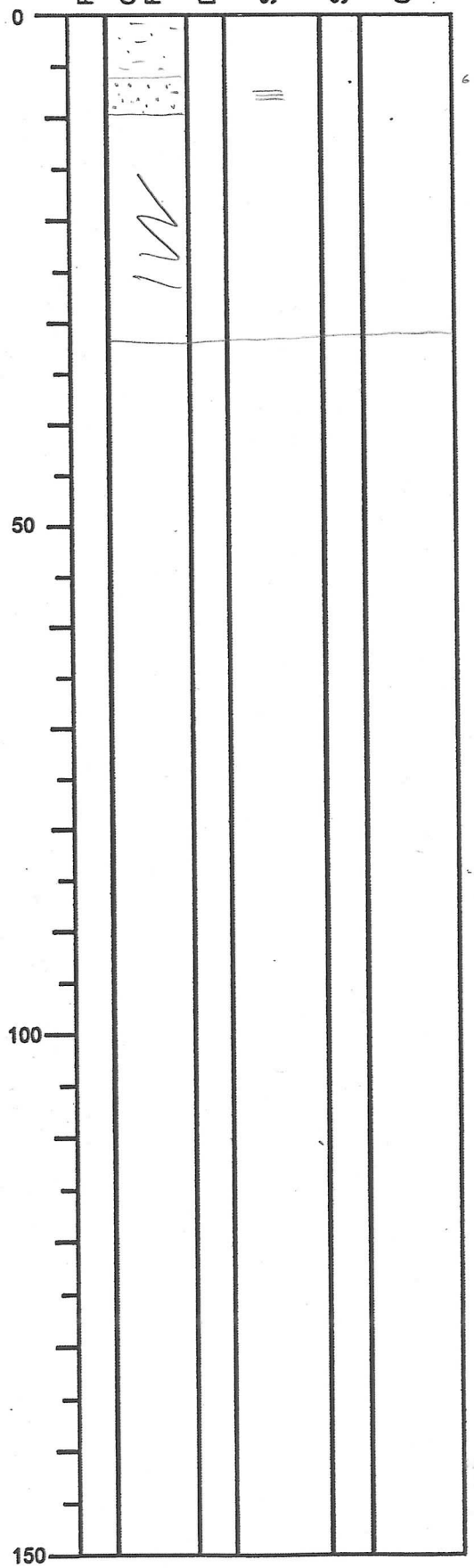
78-81 "

85 white spots ○ => sponge spicules filled burrows?

109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 2 / /20
EXP: 316
SITE/HOLE:
CORE: 39R
SECTION: 2
OBSERBER: MS / KLM



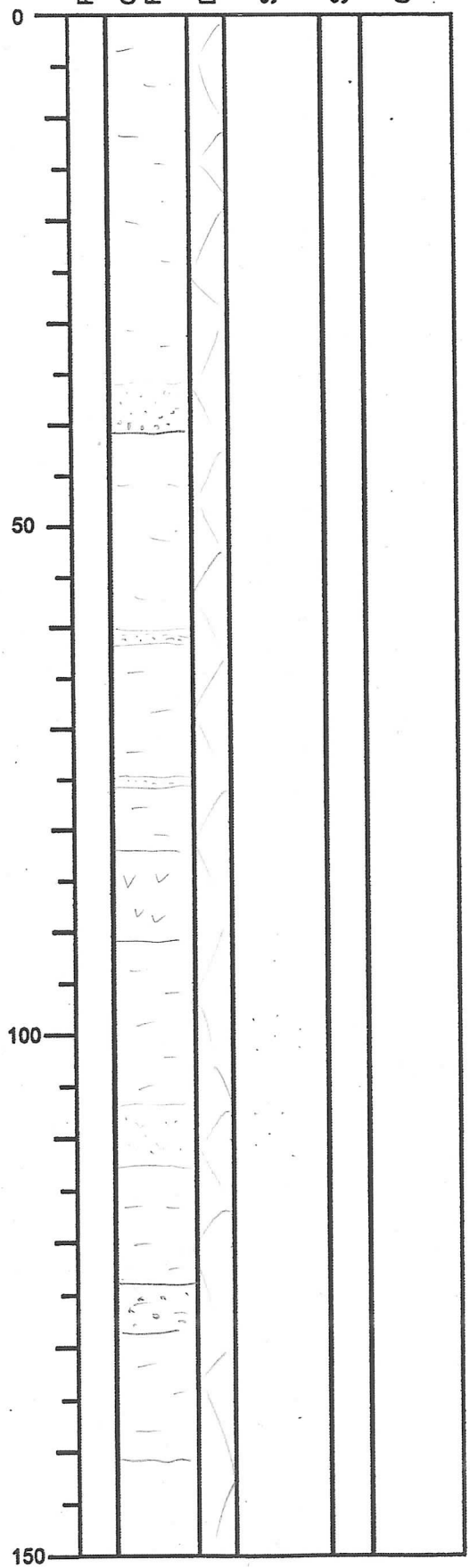
SECTION DESCRIPTION

silt with sand

6 - 9 silty sand layer with subhorizontal parallel laminations (darker laminae coarser (fine sand) and lighter laminae silt with sand)

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 39R
SECTION: 3
OBSERBER:



SECTION DESCRIPTION

dark olive gray silty clayey
with intervals of silty clayey with sand

81 - 93 olive gray Ash

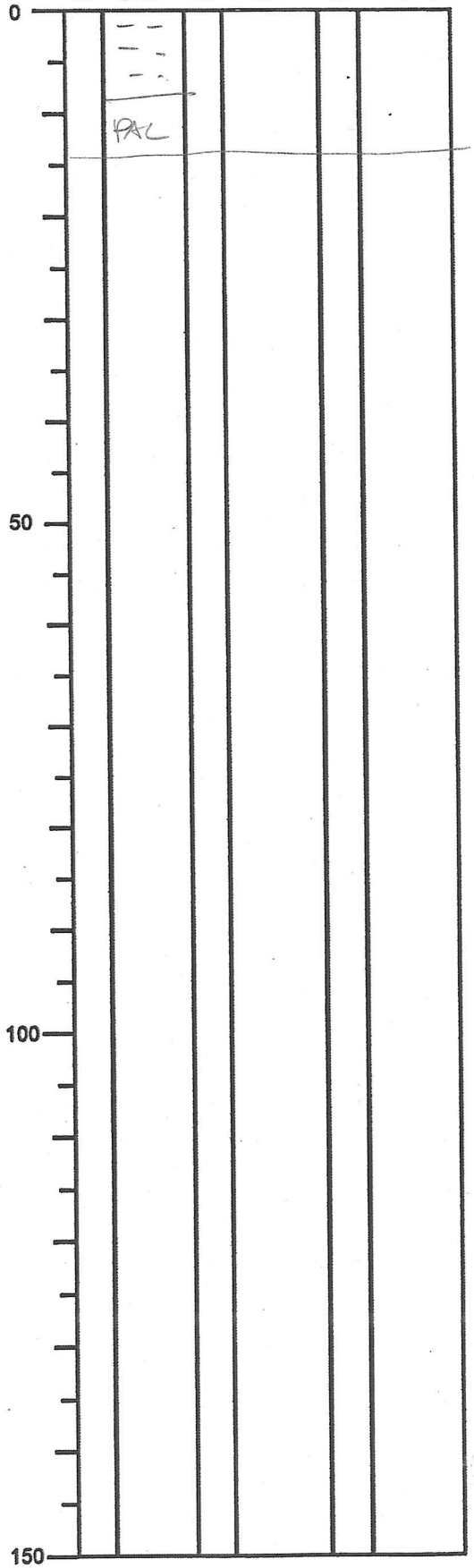
dispersed sand

107 - 113 olive grey + sandy => dispersed ash and sand?

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27 / 11 / 20 07
EXP: 316
SITE/HOLE: C0004D
CORE: 39R
SECTION: CC
OBSERBER: MS / KLM



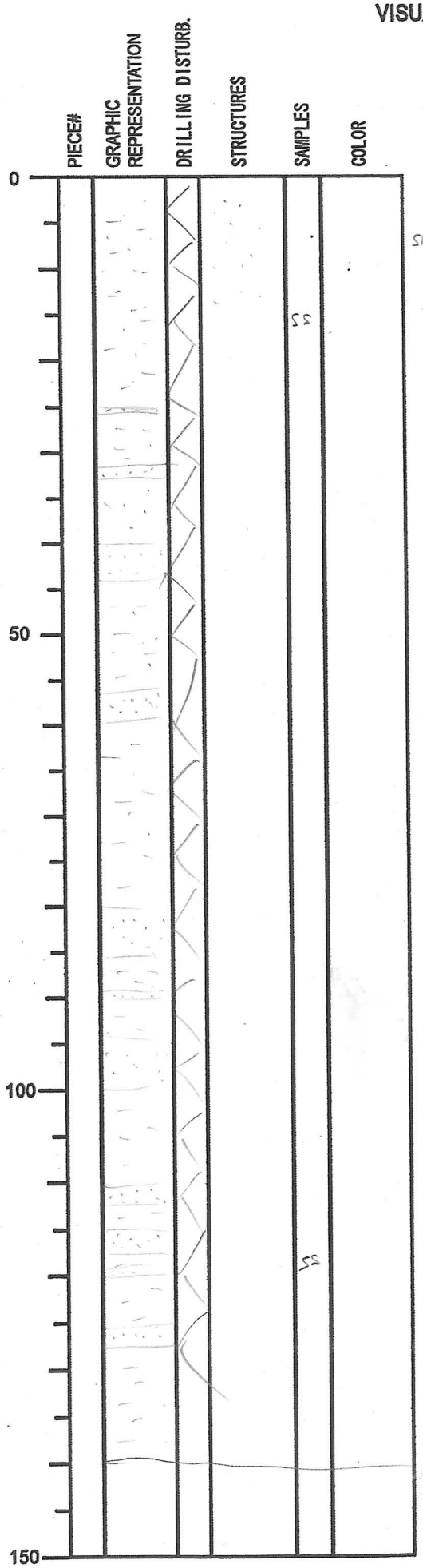
SECTION DESCRIPTION

d. olive gray silty clay with sponge spicules foraminifers

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 40R
SECTION: 1
OBSERBER: M.S / KUM



SECTION DESCRIPTION

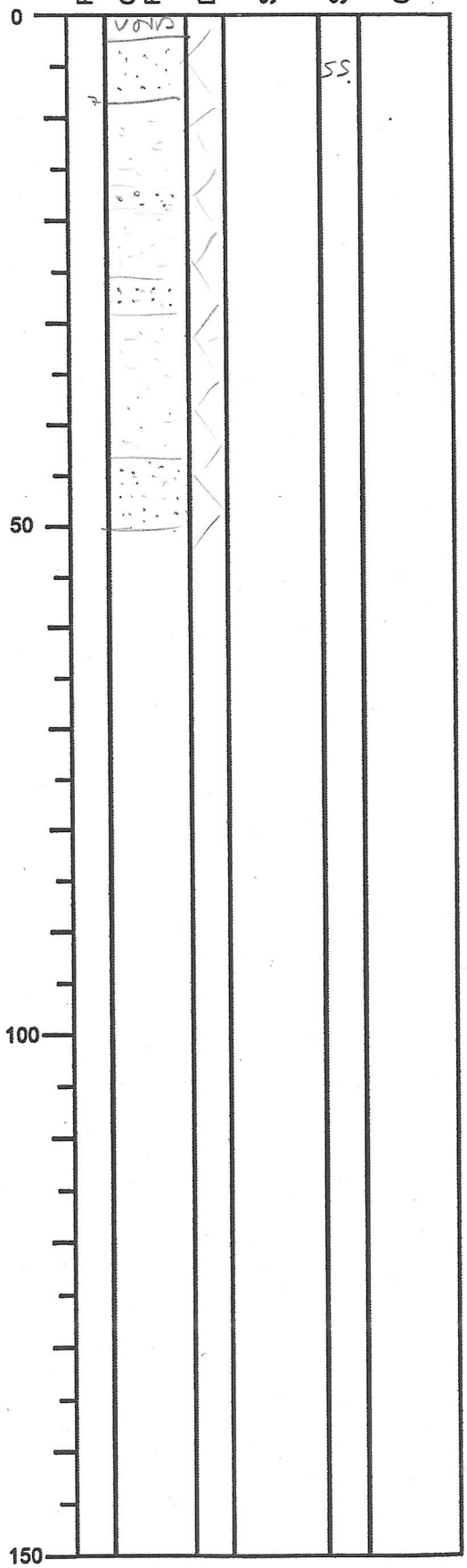
dark olive gray silty clay with intervalls of silty clay with sand and sandy silt heavily drilling disturbed and soupy in the upper m 50cm
⇒ the more coherent and competent pieces are mostly + structureless silty clay with sand, or clayey silts with sand
25 some fine darker layer are coarser and are sandy silts
30-32 ⇒ variations trough out the core

57-62 sand as observed in WH

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27/ 12/ 20 07
EXP: 316
SITE/HOLE: C0004 D
CORE: 40R
SECTION: 2
OBSERBER: M. S / KLM



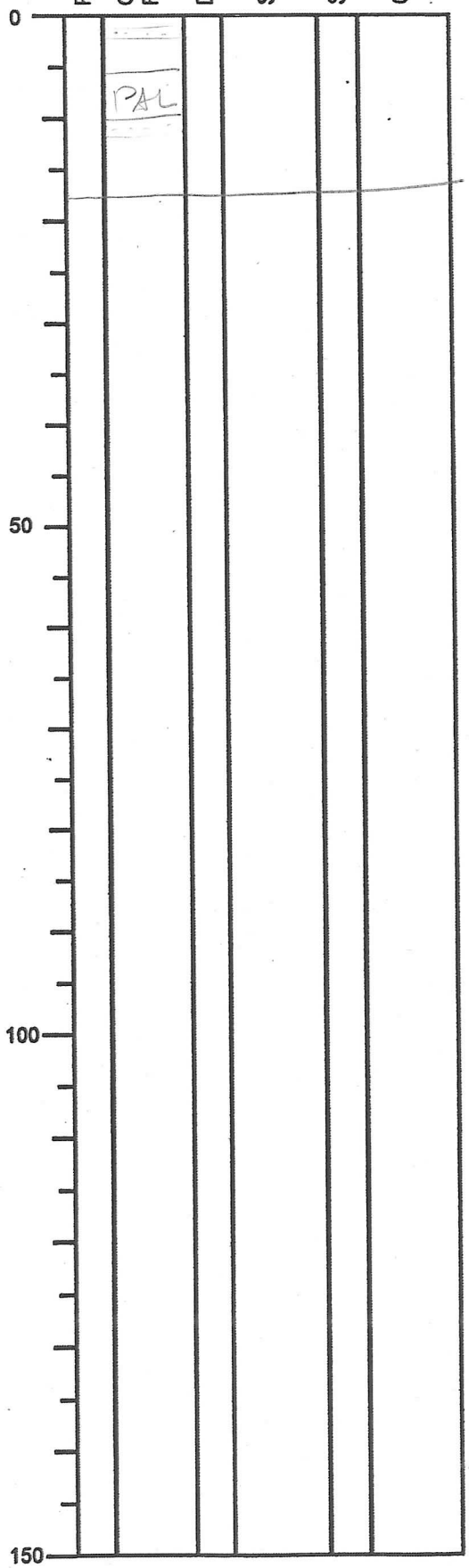
SECTION DESCRIPTION

ditto as above

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

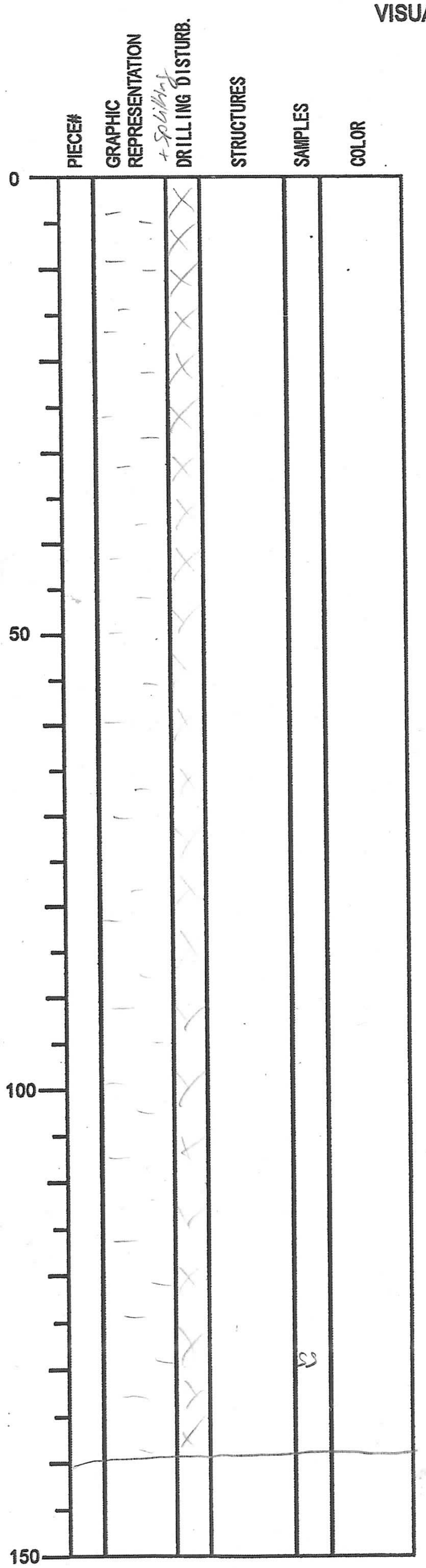
NO.
DATE: 27 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 40R
SECTION: CC
OBSERBER: MS / KLM



Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27/12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 41R
SECTION: 1
OBSERBER: MS / KCM



SECTION DESCRIPTION

vertical saw technique

dark olive gray silty claystone

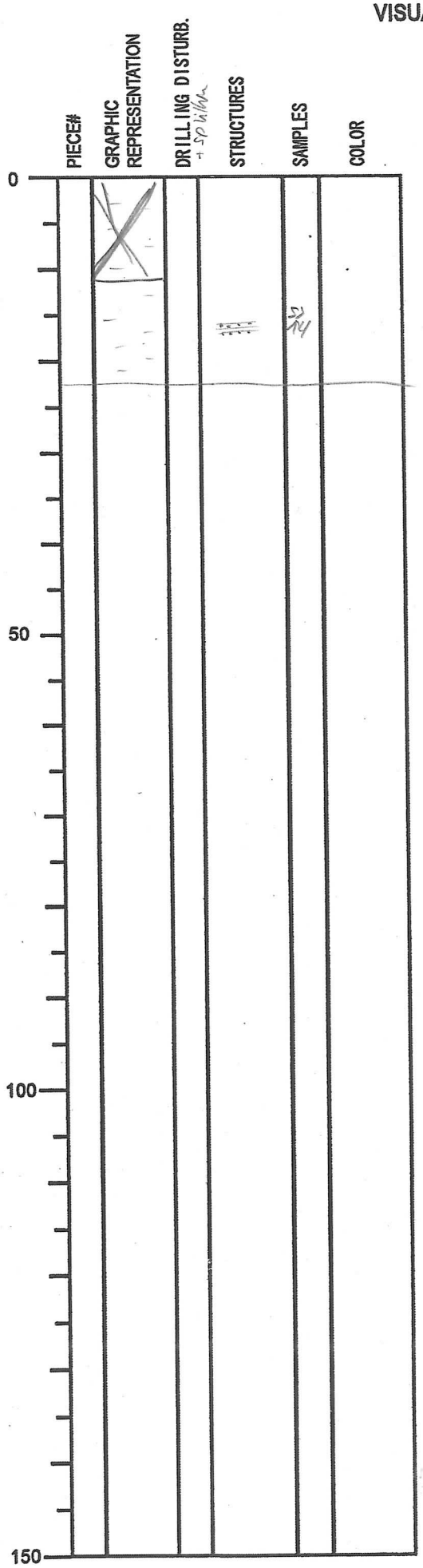
only small coherent pieces up to 3 cm swimming in sandy matrix ⇒ heavily drilling and splitting disturbed

- matrix appears to be somewhat more sandier around 70cm, 100-105 cm and 123 cm corresponding to slight brighter CT trace
- rusty brownish color hue ~ 124cm 133cm from splitting ?? pyrite ??

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 41R
SECTION: 2
OBSERBER: MAS/KIM



SECTION DESCRIPTION

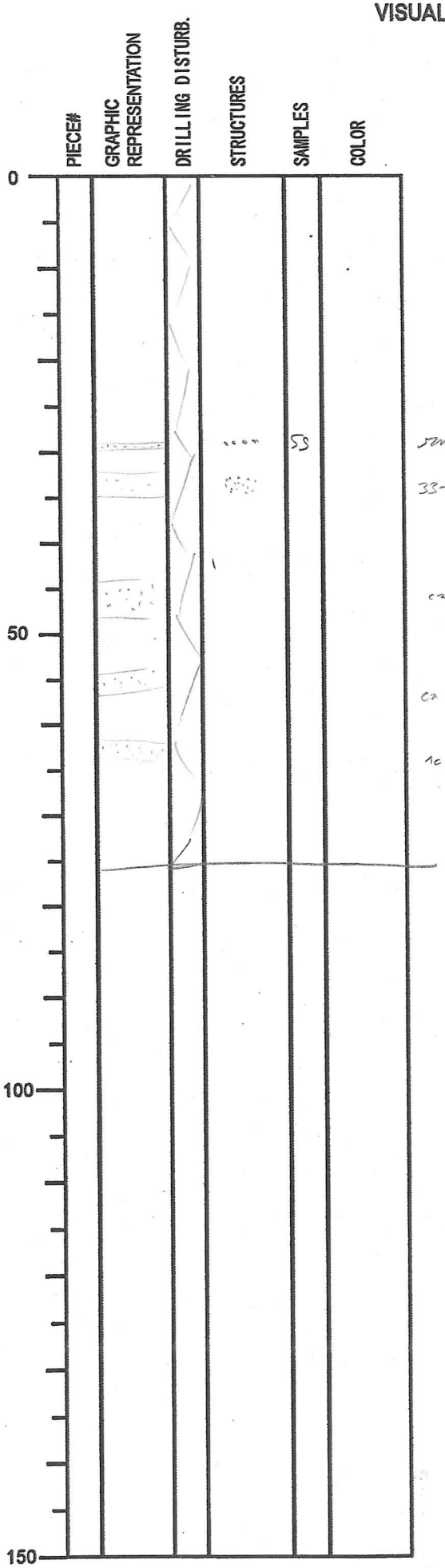
diferent splitting technique ⇒ wire

dark greenish grey silty clay with mm scale laminations of fine sand silty sand layers (only clearly to be identified in CT images 13-95 cm

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 1 /20
EXP: 316
SITE/HOLE: C0004D
CORE: 41R
SECTION: 3
OBSERBER: MS /KM



SECTION DESCRIPTION

different splitting technique => cutting lines then splitting with introducing a plate

intervals with slightly more competent dark olive gray silty clay („brittle fracturing") and intervals with olive gray silt and sand the sandy interval appear structureless and have a sharp base and fine gradual tops => fining upwards cycles ???
Hard to tell due due heavy

sand laminae 1cm thick at 28-29 / inclining

33-35 more sandy

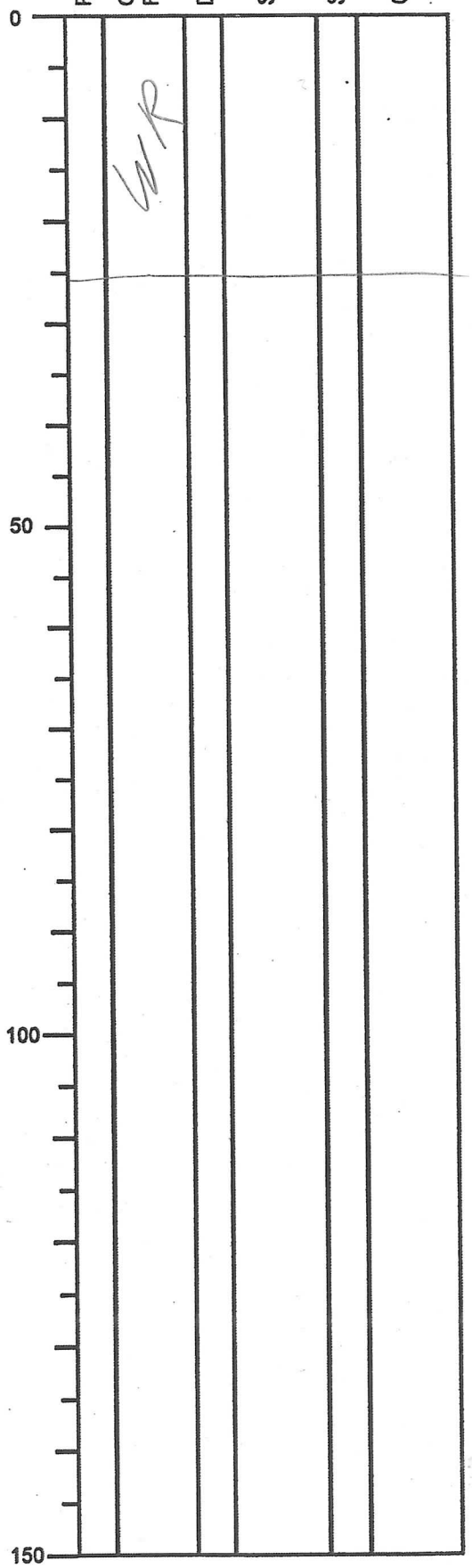
ca 3 thick more sandy interval

ca 2 thick more sandy interval

1cm inclined sand stayer.

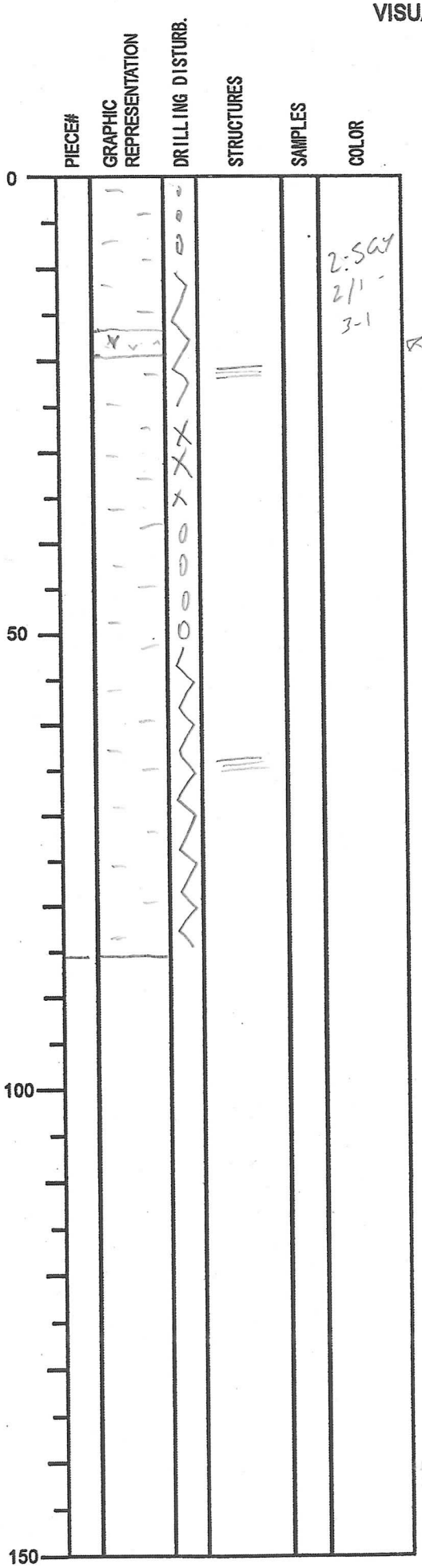
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 41R
SECTION: CC
OBSERBER: M.S



INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 12 / 2007
EXP: 316
SITE/HOLE: C 0004D
CORE: 42R
SECTION: 1
OBSERBER: UN



SECTION DESCRIPTION

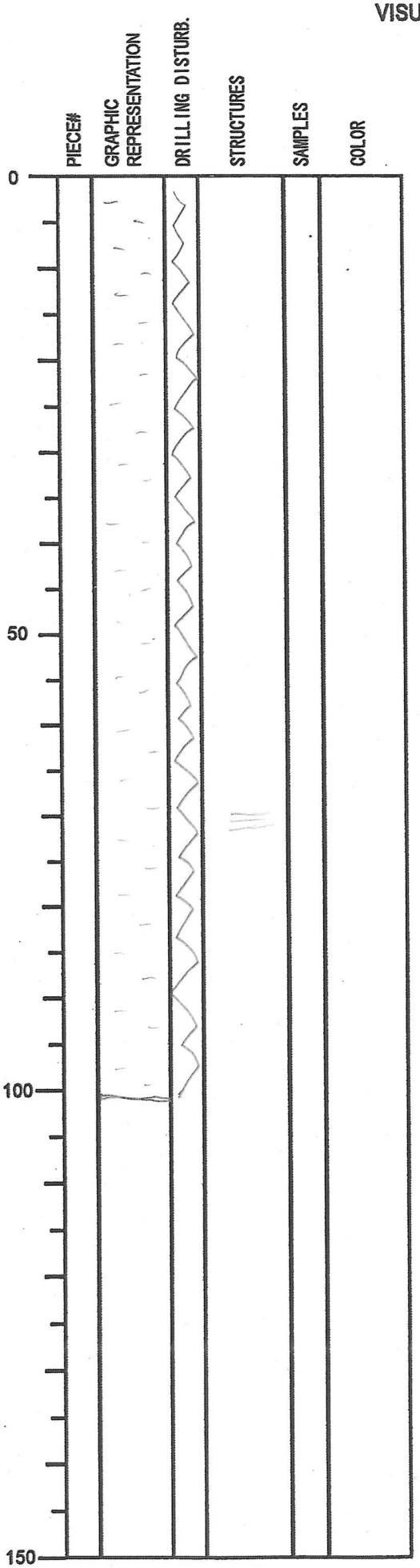
dark olive-grey to black (Munsell number 2.5GY 2/1 ~ 3-1) silty claystone

- partly brecciated by drilling but can see some clear foliation bedding in places

2 cm thick ash horizon (TBC)

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP: 316
SITE/HOLE: C0044
CORE: 42R
SECTION: 2
OBSERBER: VN

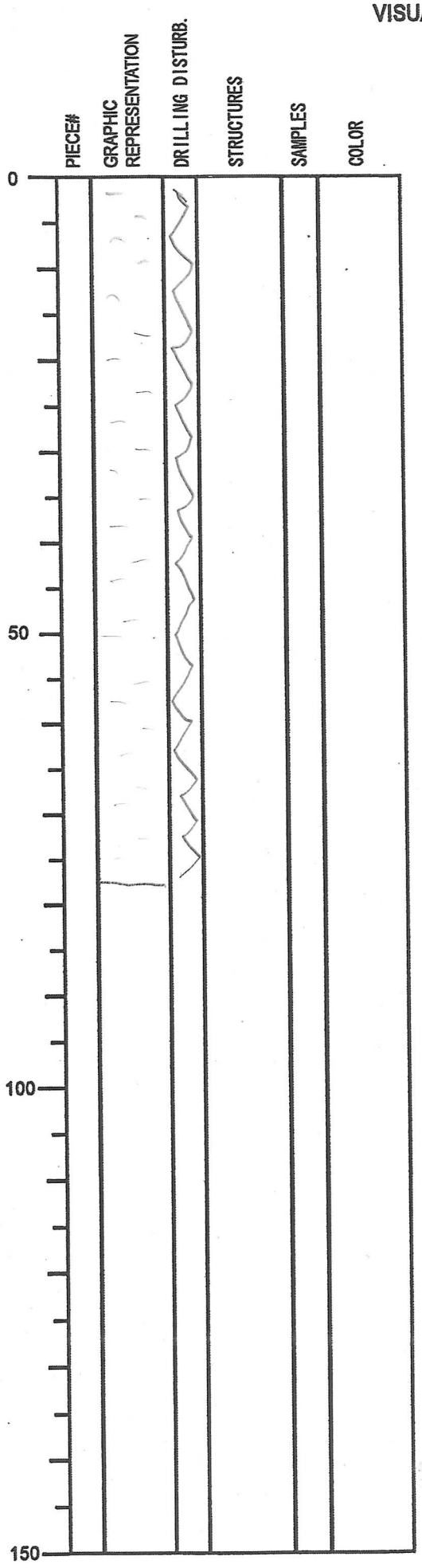


SECTION DESCRIPTION

dark olive grey silty claystone.

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP: 316
SITE/HOLE: C0004D
CORE: 42R
SECTION: 3
OBSERBER: UN

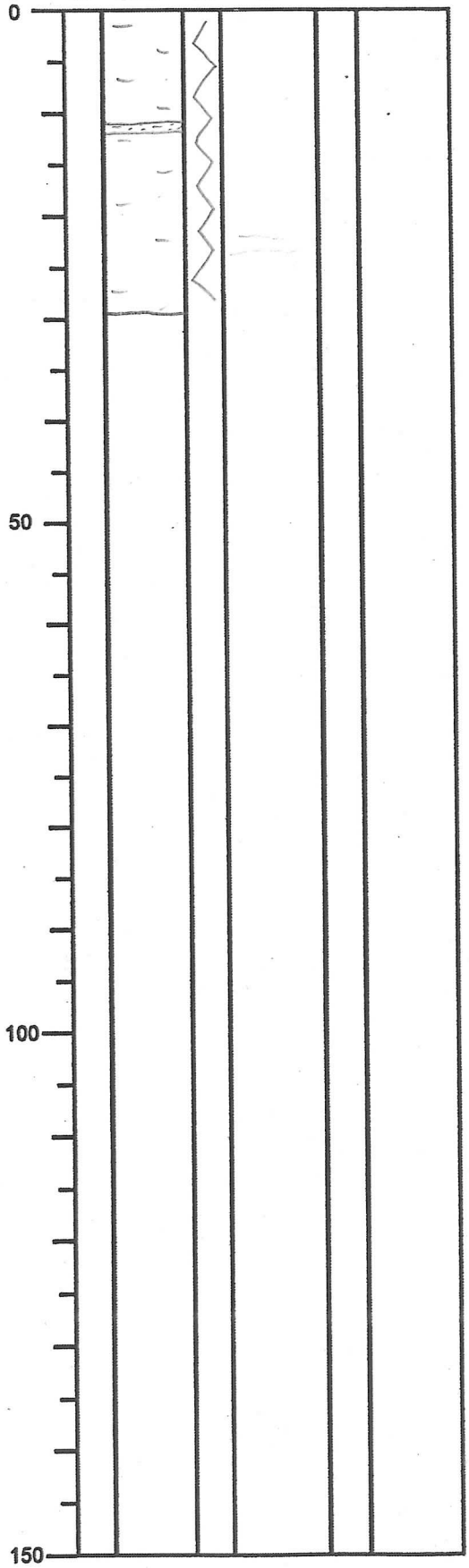


SECTION DESCRIPTION

dark olive-grey ← silty claystone

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 1 \ 1 20
EXP: 316
SITE/HOLE: C0004D
CORE: 42R
SECTION: 4
OBSERBER: UN



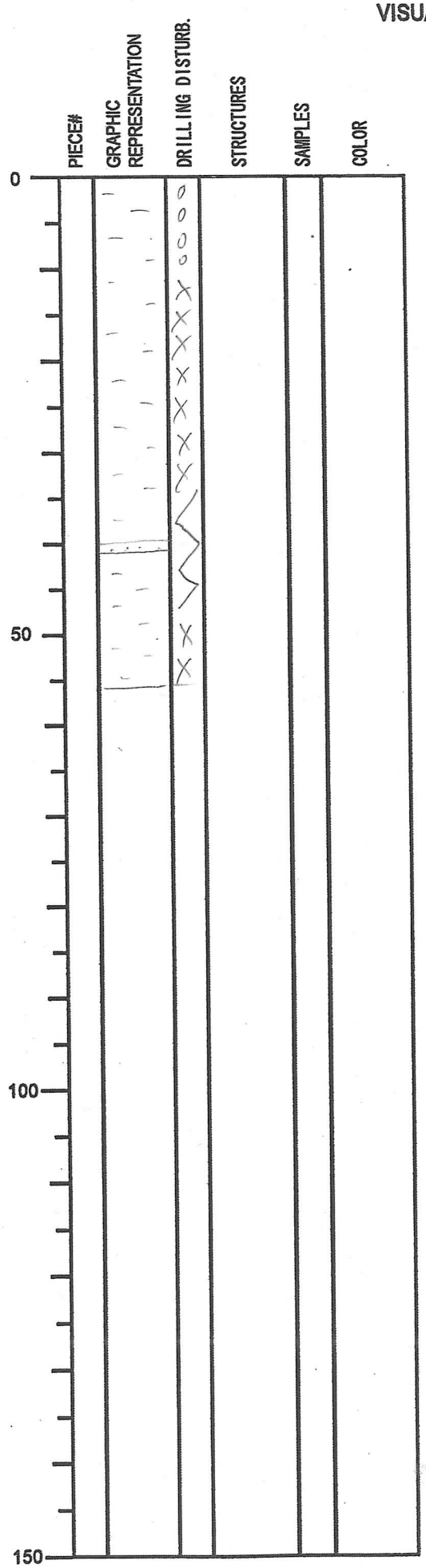
SECTION DESCRIPTION

thin 1 cm silty layer - same colour as clay

subtle colour banding, light olive grey to dark olive grey

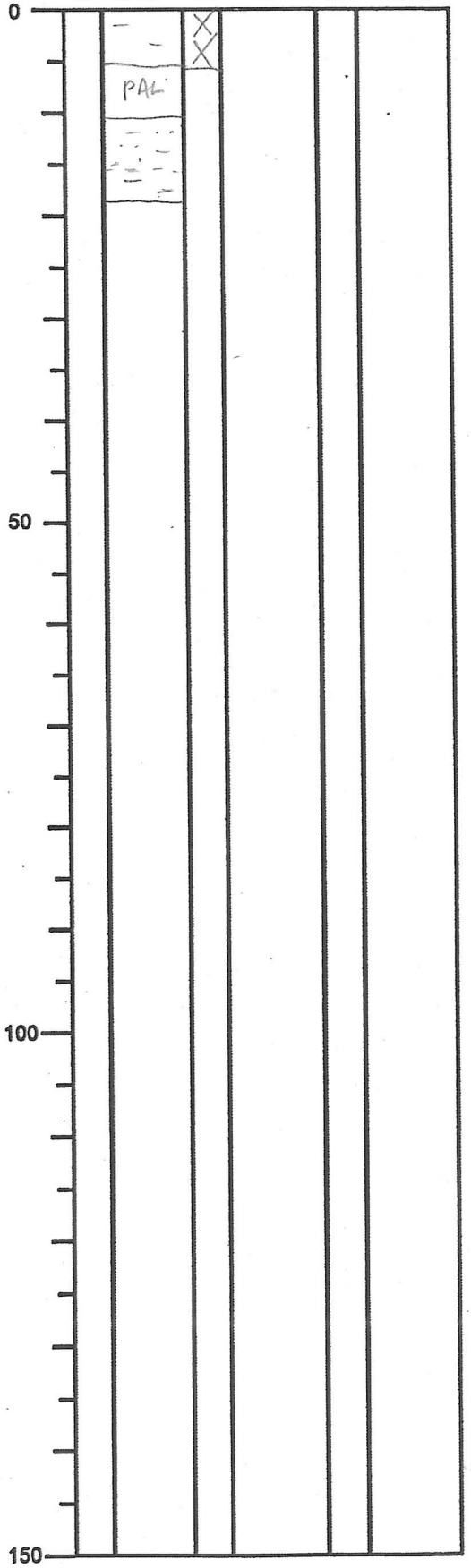
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP: 316
SITE/HOLE: C0004D
CORE: 42R
SECTION: 5
OBSERBER: UN



INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP: 316
SITE/HOLE: C 0004D
CORE: 42R
SECTION: CC (6)
OBSERBER: UN



SECTION DESCRIPTION

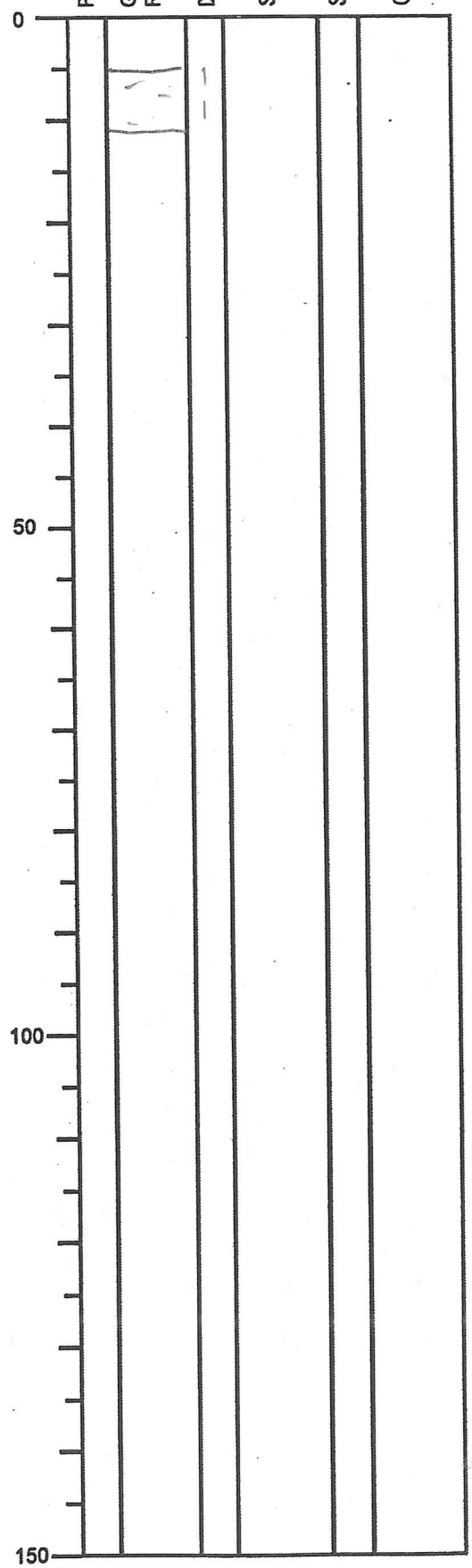
dark olive-gray silty claystone

clay rich silt, > 3 cm thick

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 12 / 2007
EXP: 316
SITE/HOLE: C 0004D
CORE: 46 R
SECTION: 3 (CC)
OBSERBER: UN

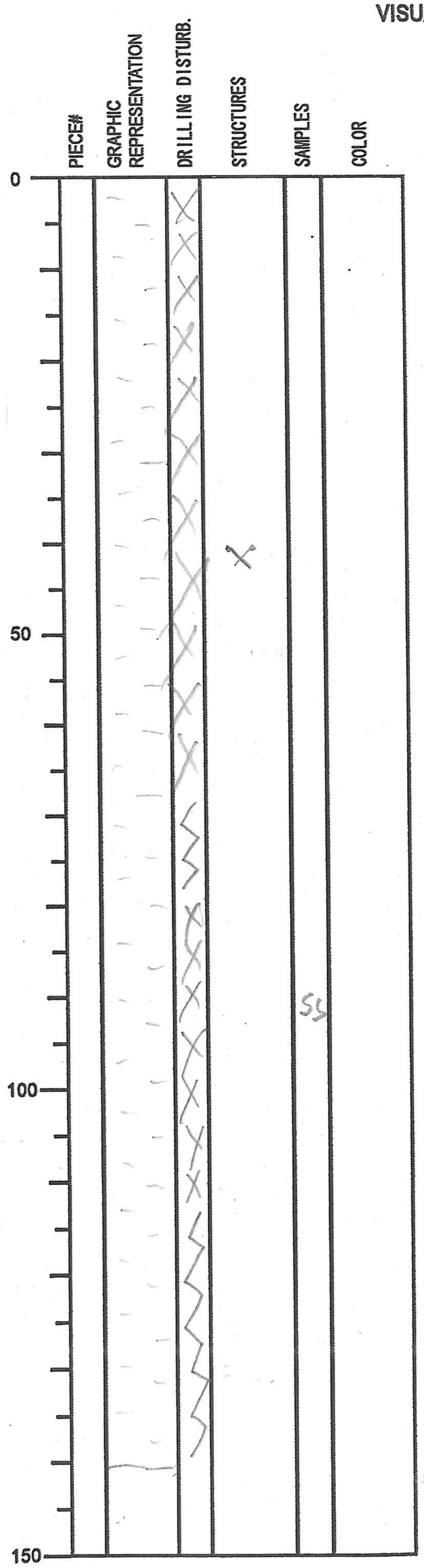


SECTION DESCRIPTION

as above.

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 47R
SECTION: 1
OBSERBER: UN



SECTION DESCRIPTION

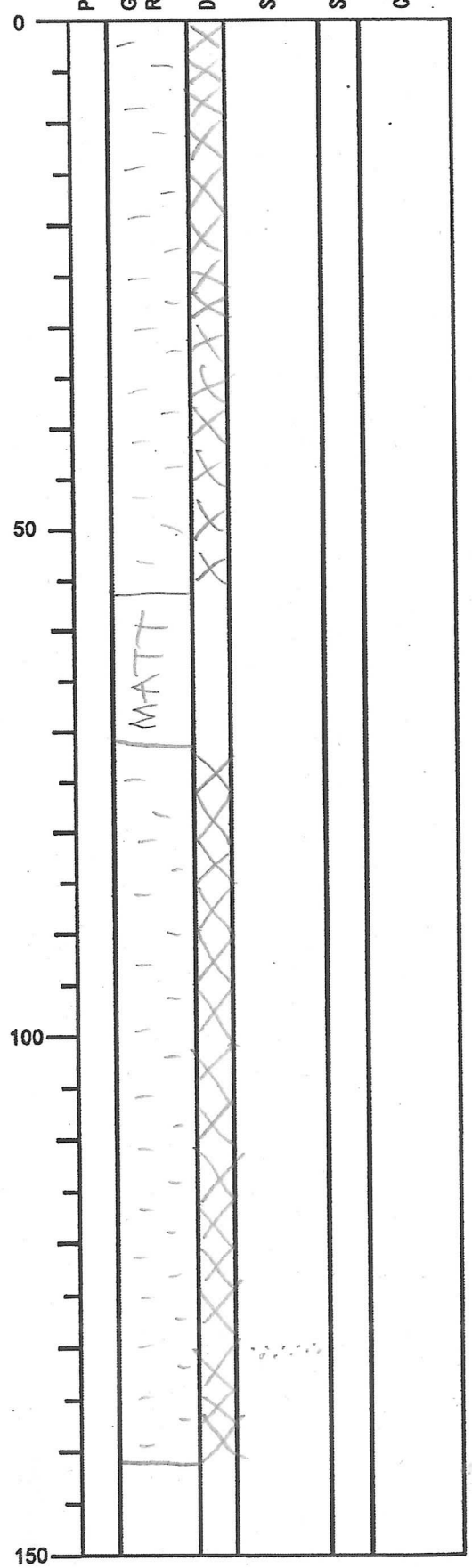
dark olive-grey silty claystone, variably disturbed by drilling – mostly brecciated.

– sponge spicule, rim round organic matter (8mm long – probably burrow lining.

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 12 / 20 07
EXP: 316
SITE/HOLE: C 0004D
CORE: 47R
SECTION: 2
OBSERBER: UN



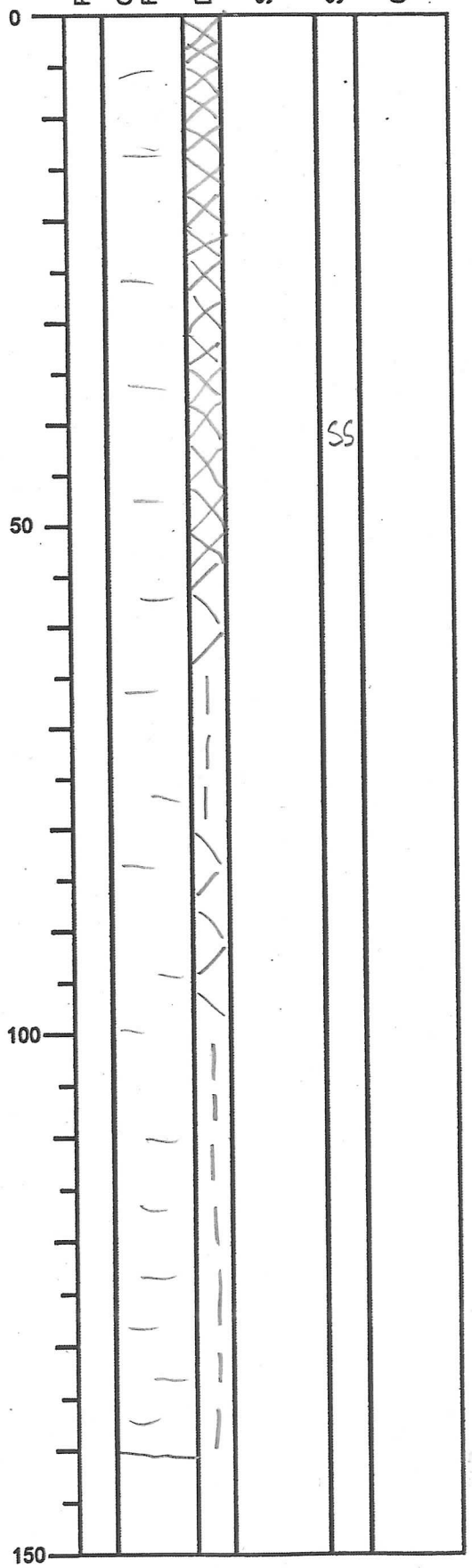
SECTION DESCRIPTION

as previous

thin (0.4mm), light brown lamination of v-f-sstn/ash.

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 /12 /20 07.
EXP: 316
SITE/HOLE: C0004D
CORE: 43R
SECTION: 1
OBSERBER: CLF

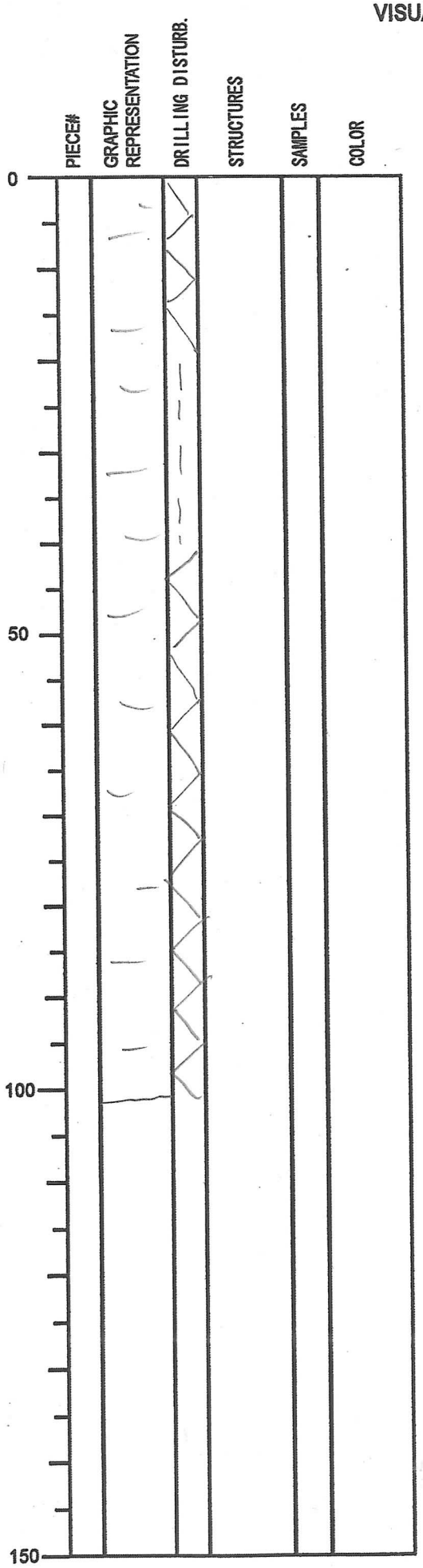


SECTION DESCRIPTION

dark greenish gray silty claystone with fissility (horizontal)

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 43R
SECTION: 2
OBSERBER: CLF

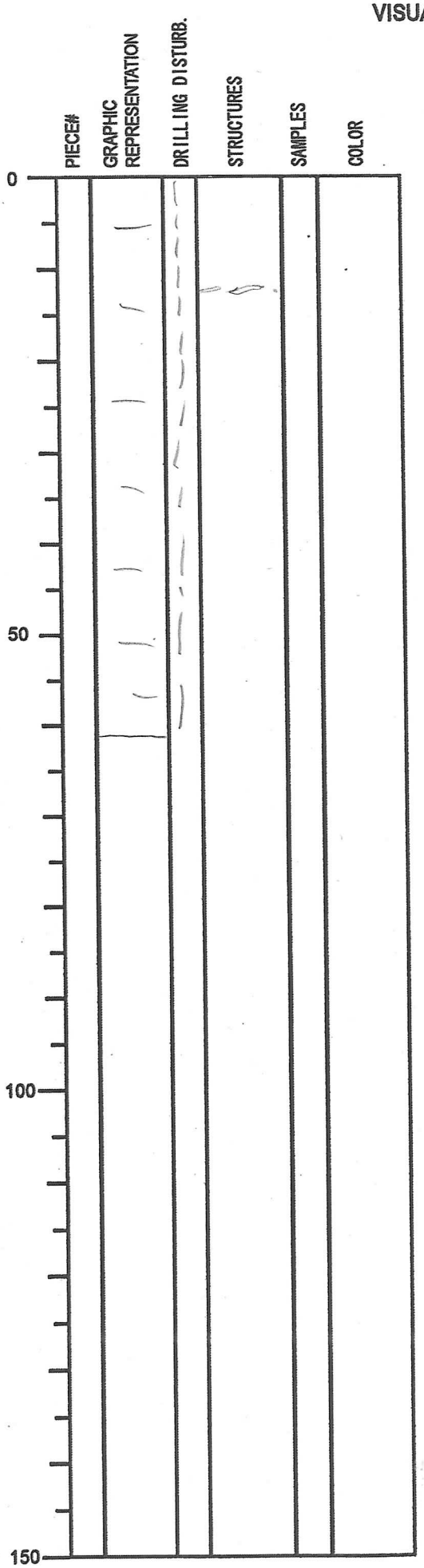


SECTION DESCRIPTION

dk gn-gy silty claystone

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 12 / 2007.
EXP: 316
SITE/HOLE: C0004D
CORE: 43R
SECTION: 3
OBSERBER: CLF



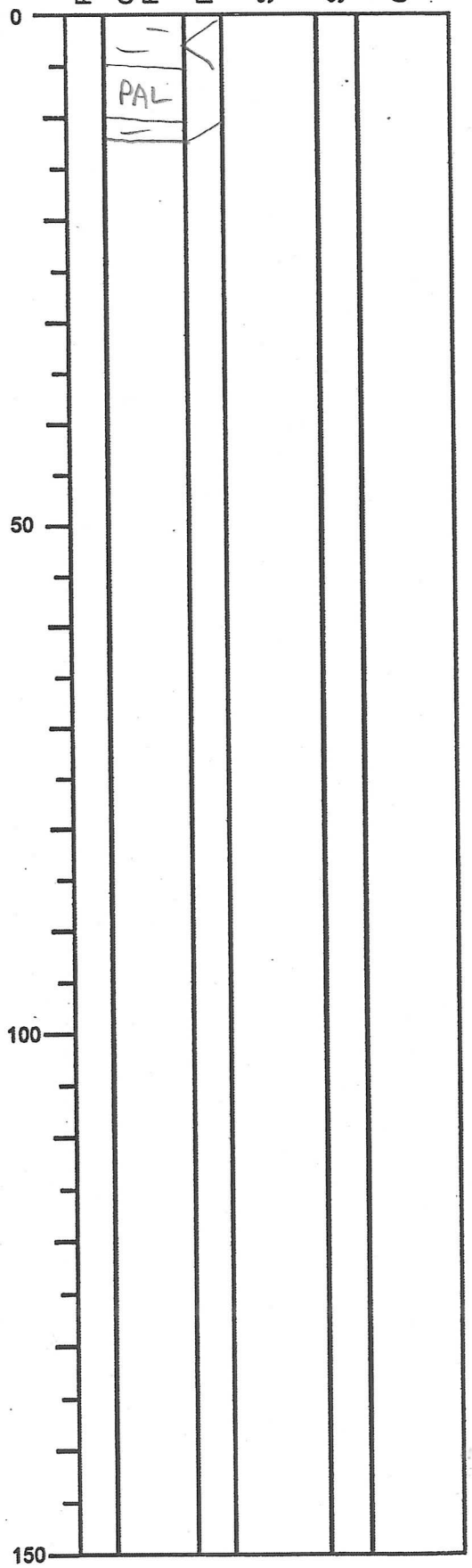
SECTION DESCRIPTION

dk gn-gy silty claystone

2 small white blobs

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 43R
SECTION: CC
OBSERBER: CLF

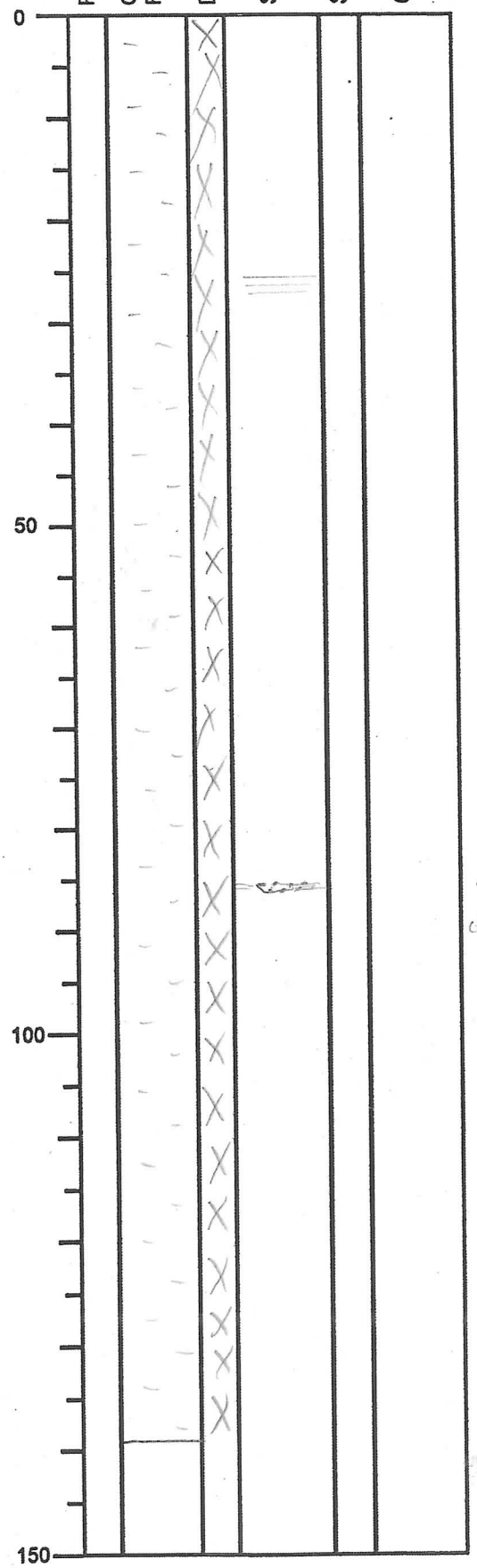


SECTION DESCRIPTION

Silty claystone

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 12 / 2007
EXP: 316
SITE/HOLE: C0002D
CORE: 44R
SECTION: 1
OBSERBER: UN



SECTION DESCRIPTION

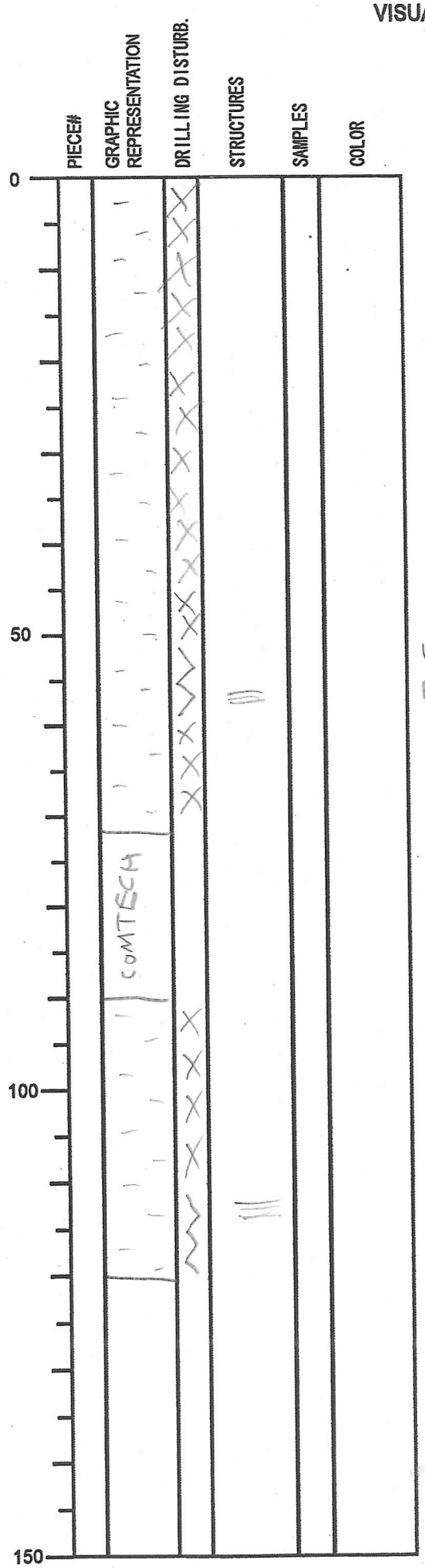
dark olive grey silty sandstone, as previous

fissility - near horizontal and parallel.

- subtle grain size variation
- thin (<1 cm) bed of slightly coarser grained material:- clayey silt instead of silty clay. Slightly more bioturbated than surrounding lithology

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP: 316
SITE/HOLE: C 0004D
CORE: 44R
SECTION: 2
OBSERBER: VN



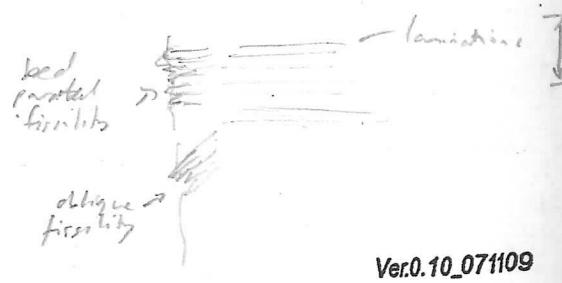
SECTION DESCRIPTION

dark olive grey silty ssstn.

high angle (natural(?)) fractures in rock from 22 - 31 cm.

high angle fracture (parallel to above) cutting piece of well consolidated core. This core is less brecciated than that surrounding it; this differential brecciation probably reflects lithological variations in the core, and bedding parallel grooves etc can be picked out.

- visible parallel laminations, light and dark bands 1-2 mm thick.
- Fissility parallel to this but another fissility oblique to this

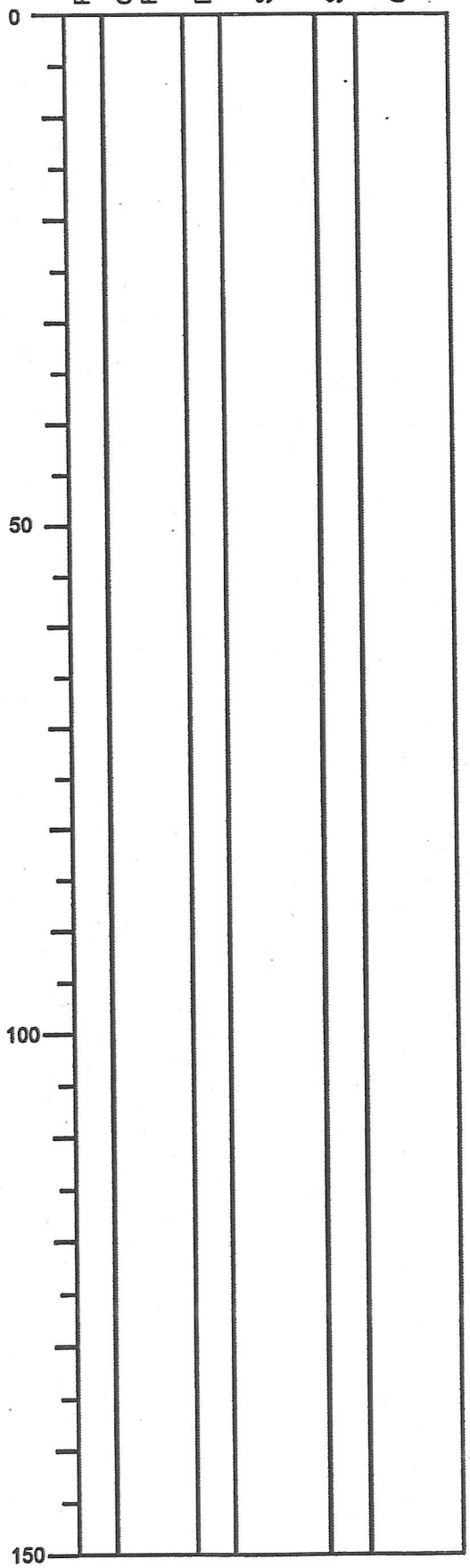


Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE:
CORE: 4H2
SECTION: 3
OBSERBER:

I. W.

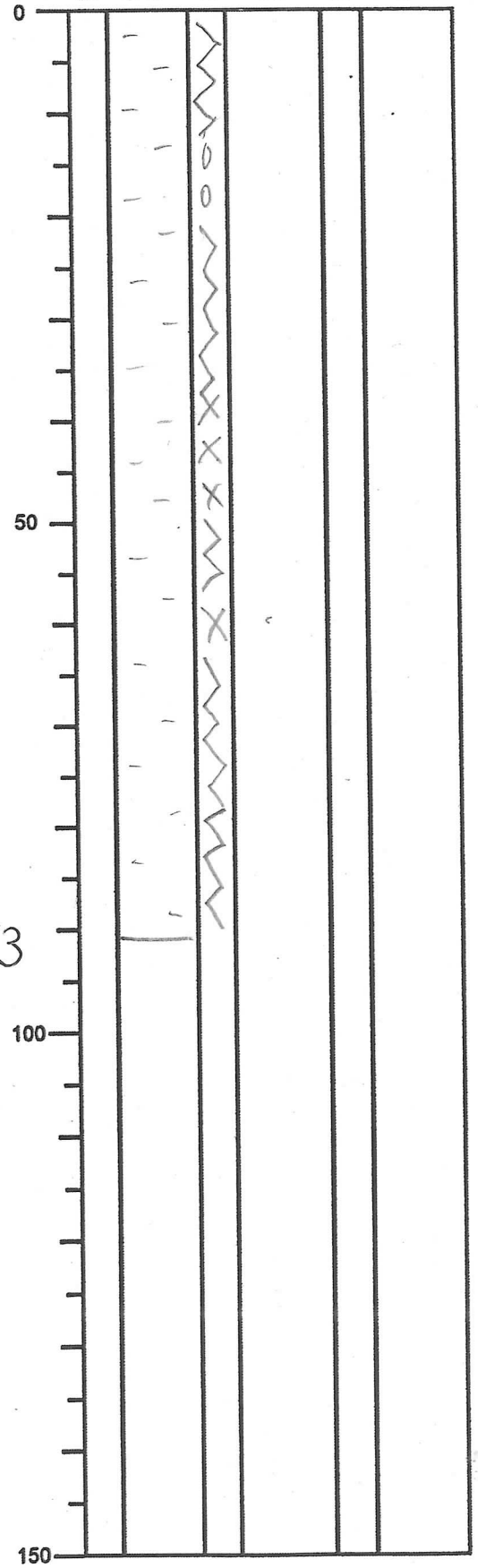


SECTION DESCRIPTION

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 12 / 2007
EXP: 316
SITE/HOLE: C 0004D
CORE: 4R
SECTION: 4
OBSERBER: UN

3



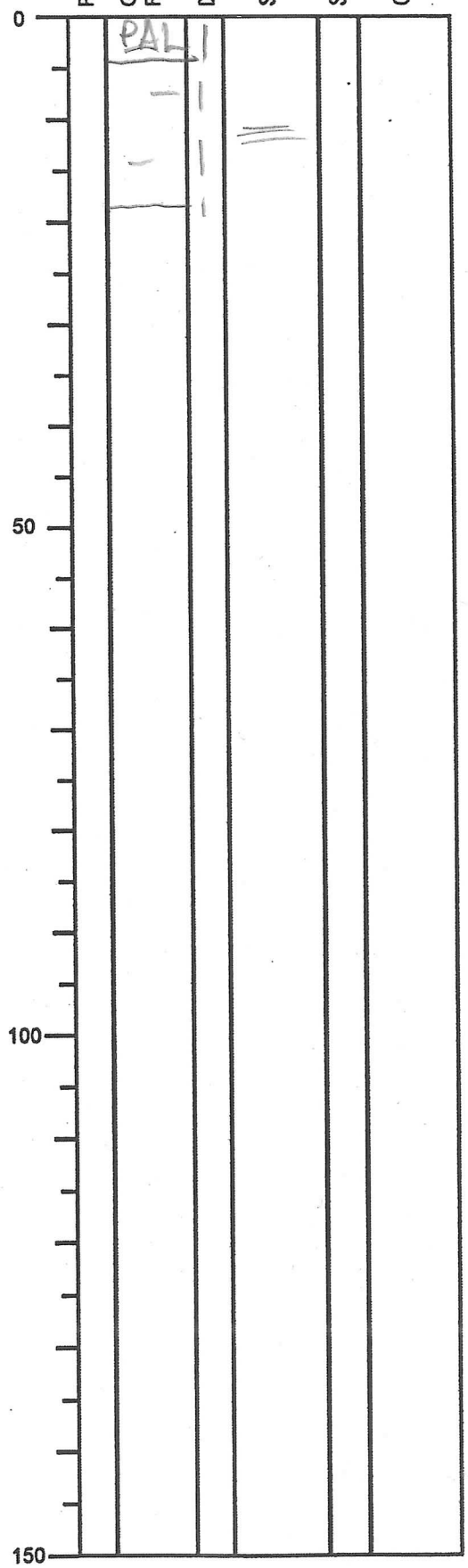
SECTION DESCRIPTION

- 8mm, 3mm wide, long, white nodule with black core, white rim looks fibrous - ~~calcite mineral~~ sponge spicules? - smear slide.

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 12 / 20 07
EXP: 316
SITE/HOLE: C0004D
CORE: 44R
SECTION: 4 5 (cc)
OBSERBER: CLF



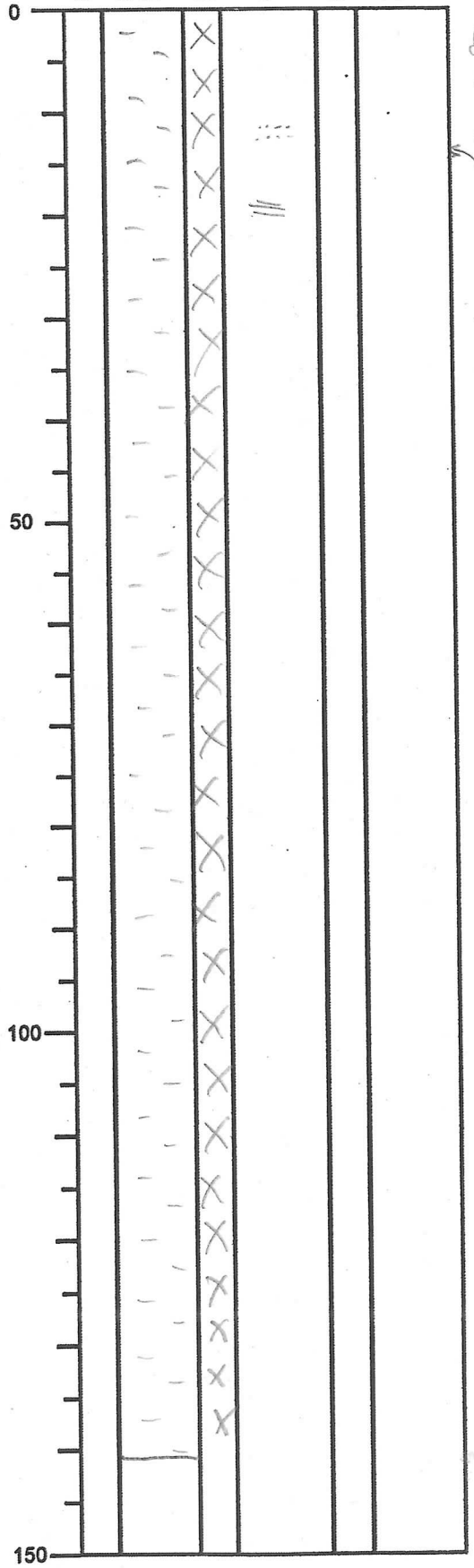
SECTION DESCRIPTION

olive grey clayey, silty claystone

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 12 / 2007
EXP: 316
SITE/HOLE: C 0004D
CORE: 4SR
SECTION: 1
OBSERBER: UN



SECTION DESCRIPTION

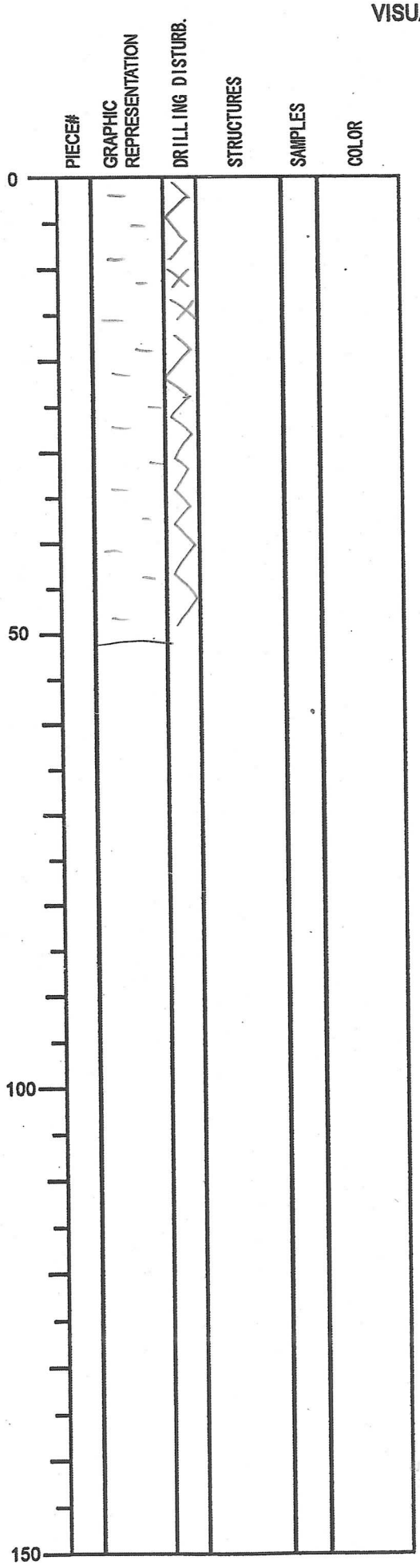
dark olive grey ~~to~~ silty clay. ~~Generally~~ horizontal fissility is generally visible throughout most of the section.

small, discontinuous silty laminations @ 13 cm.

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 12 / 2007
EXP: 316
SITE/HOLE: C 0004P
CORE: 4FR
SECTION: 2
OBSERBER: VN

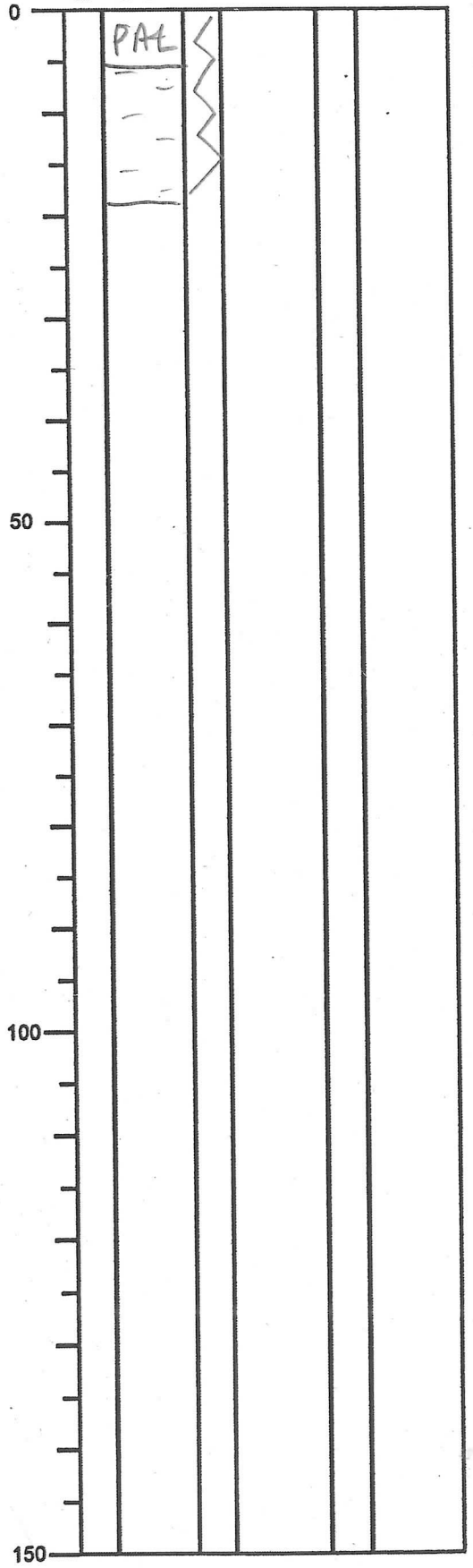


SECTION DESCRIPTION

as above

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 12 / 2007
EXP: 316
SITE/HOLE: C 0004-D
CORE: 45R
SECTION: CC (3)
OBSERBER: VN

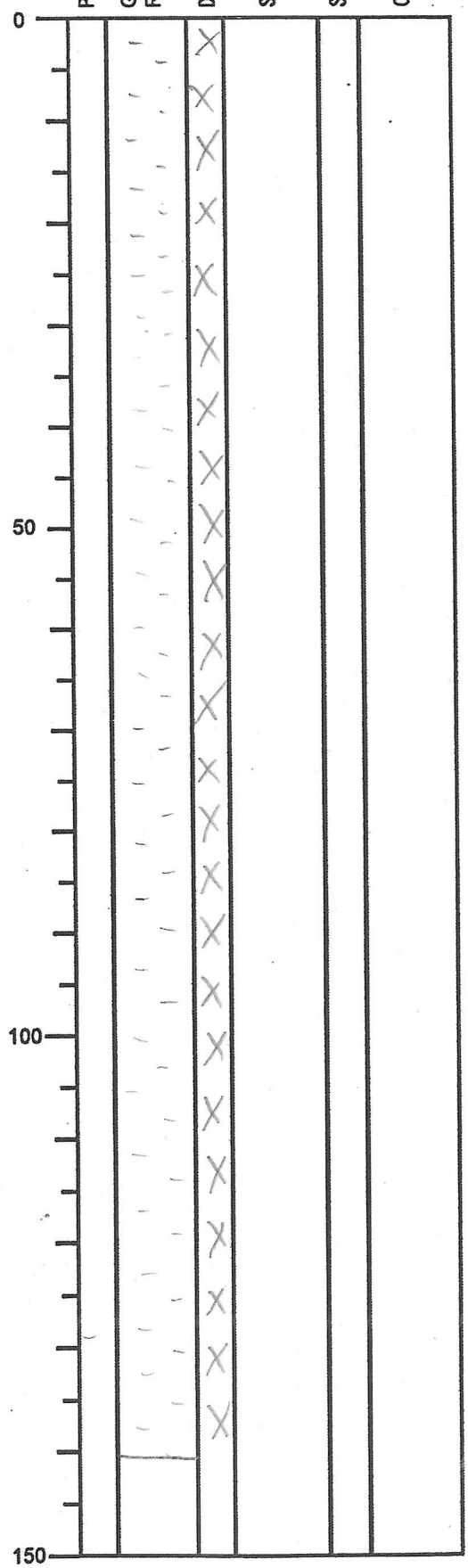


SECTION DESCRIPTION

as above

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 12 / 2007
EXP: 316
SITE/HOLE: C 0004D
CORE: 46R
SECTION: 1
OBSERBER: UN

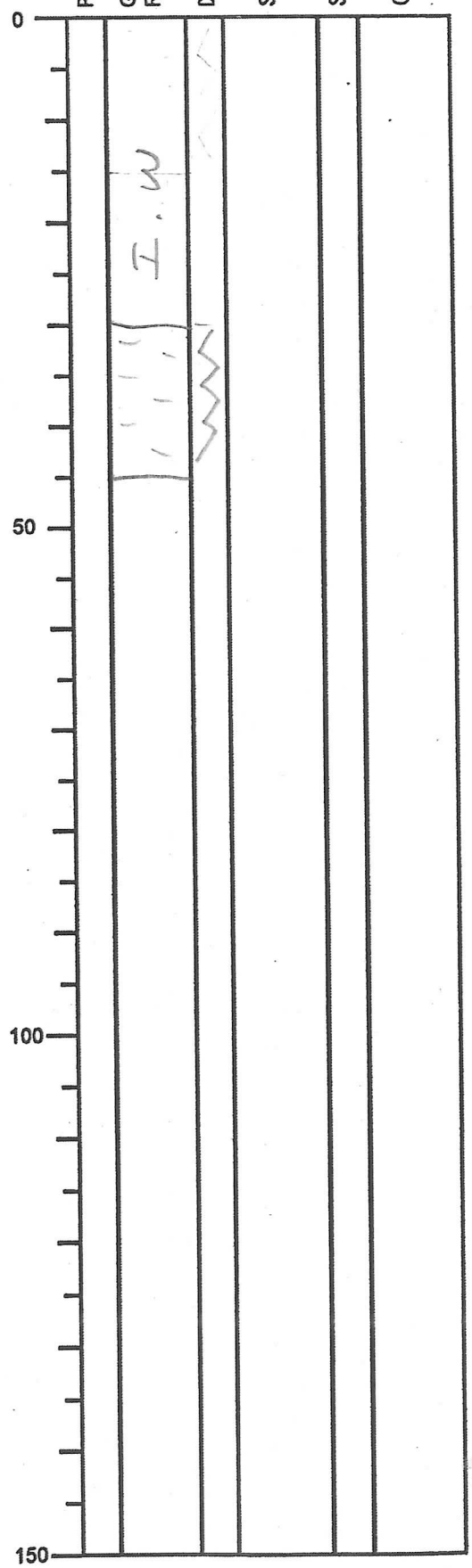


SECTION DESCRIPTION

olive grey silty clay.

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

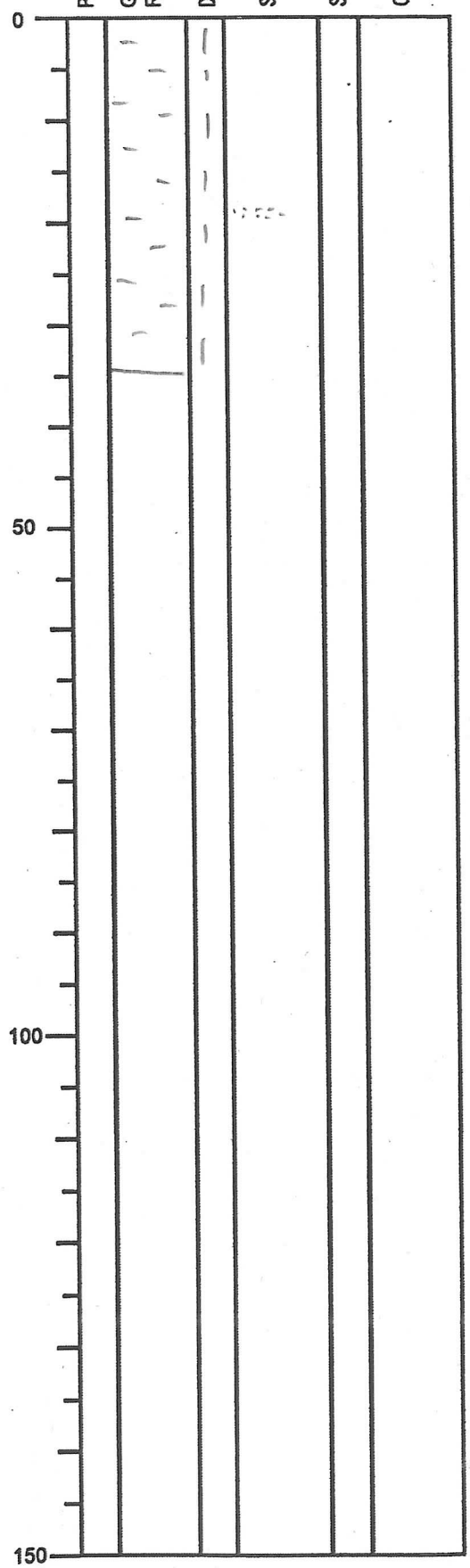
NO.
DATE: 7 / / 20
EXP: 316
SITE/HOLE: C0004D
CORE: 46R
SECTION: 2
OBSERBER: CN



Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 2 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 47R
SECTION: 3 (~~A~~)
OBSERBER: UN



SECTION DESCRIPTION

as previous.

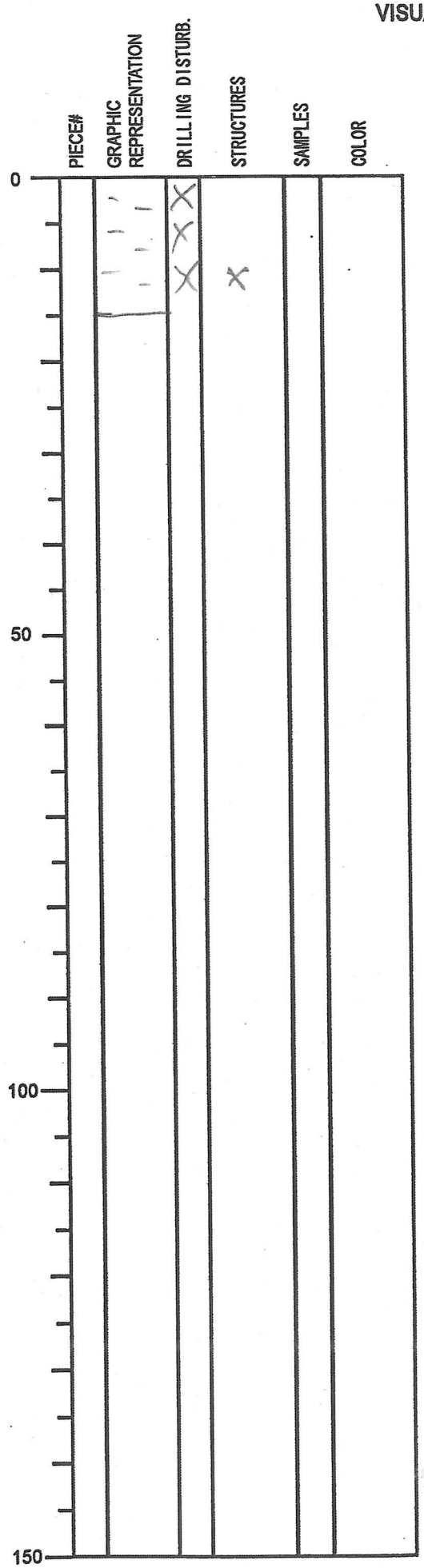
V.f. sand lamination (0.5cm)

NOTE: It is possible that there are more sand laminae within the brecciated claystone that are not easy to see - colour is very similar to the claystone and they are very thin.

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP: 316
SITE/HOLE: C 0004A
CORE: 47R
SECTION: 4 (CC)
OBSERBER: UN



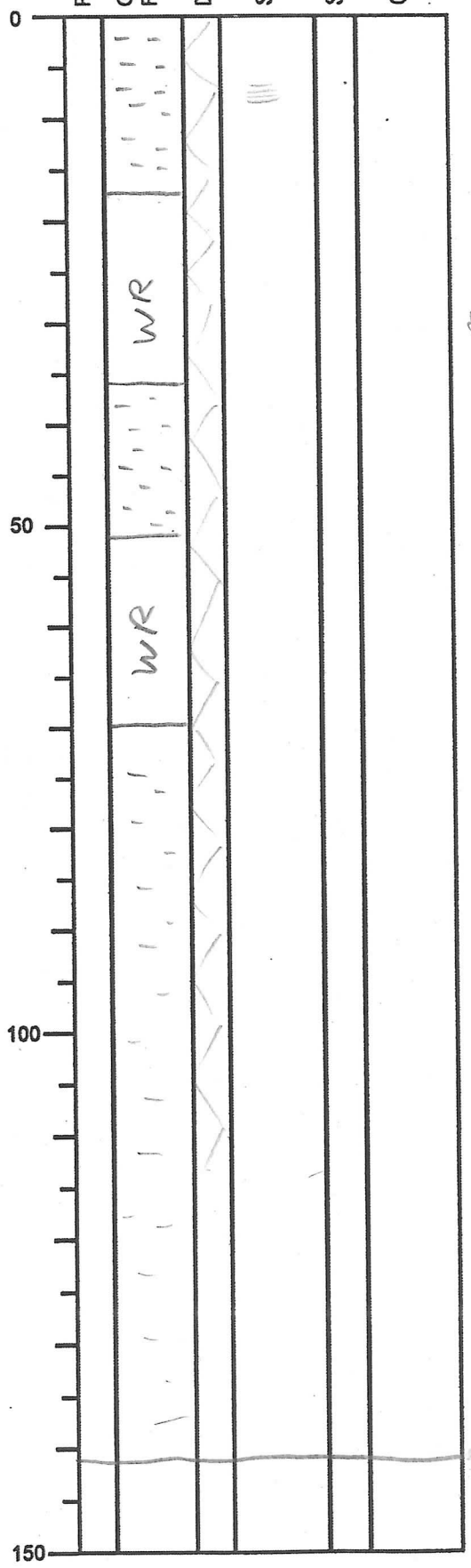
SECTION DESCRIPTION

cs previous

- Sponge spicule ~~pellet~~ burrow lining?

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP: 316
SITE/HOLE: C0004D
CORE: 48R
SECTION: 2
OBSERBER: M.S /



SECTION DESCRIPTION

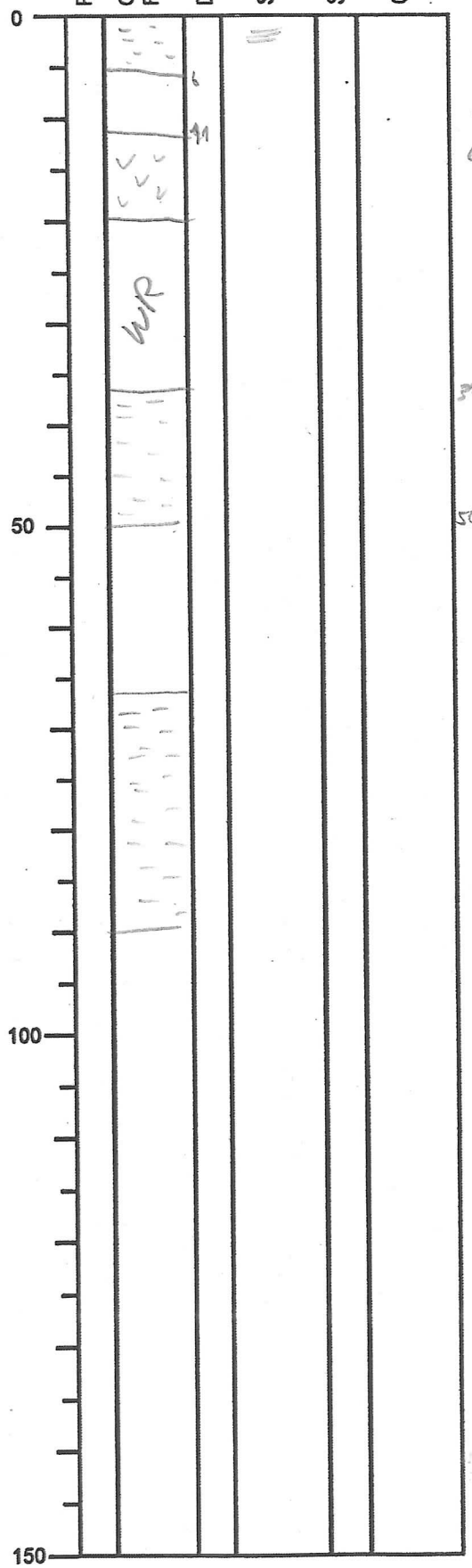
dark olive-grey silky claystone, variably disturbed by drilling, mostly ~~xxxx~~ fractured + brecciated

1-6 piece (fall into whole while wireline trip)

6-17 fine ~mm-scale fissility (subhorizontal) fractured coherent pieces and intervals with less coherent breccia pieces alternate

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 48R
SECTION: 2
OBSERBER: M.S



SECTION DESCRIPTION

light olive gray to dark olive gray → compressed ash
light gray Ash layer

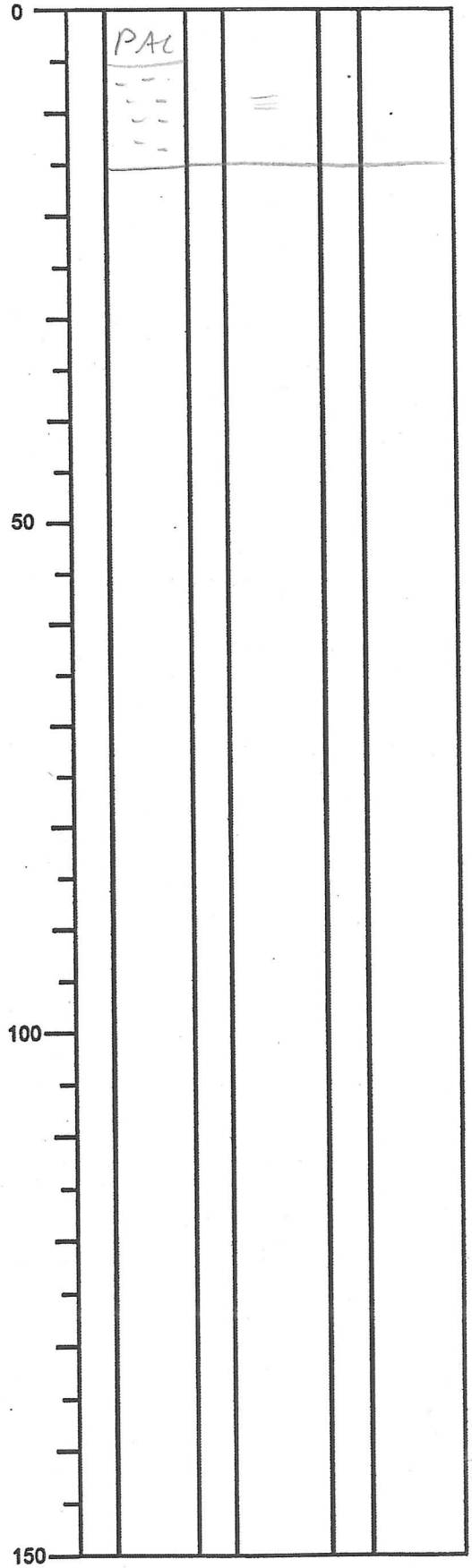
3 coherent pieces of dark olive gray silty mudstone rel. massive and homogeneous

± coherent pieces some sub horizontal fissility

82.5 fine 1cm crushed slightly darker chondrites burrows at 87

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 48R
SECTION: CC
OBSERBER: M.S IKT



INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO. L
DATE: 12 / 26 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 49R1
SECTION: 1
OBSERBER: KLM / MS

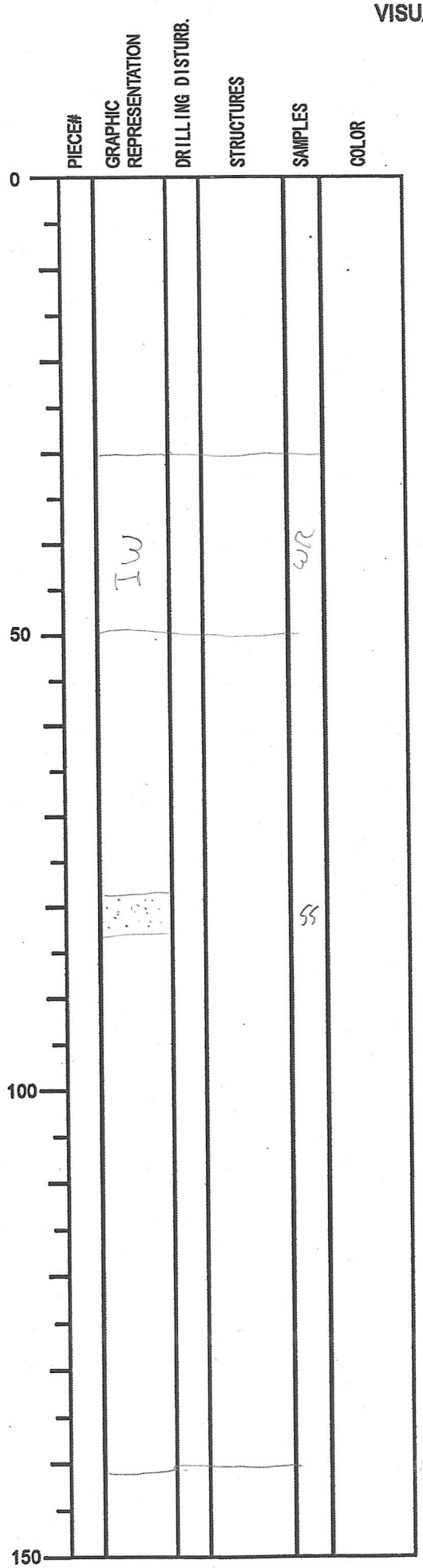
42.7
80.3
111

Depth (cm)	PIECE#	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR	SECTION DESCRIPTION
0							dk gray silty clay intermittent fissility
~60		(stippled)		≡	SS		sdy/silty interval - visible on CT
~71					SS		
~80–90		LIND			LR		
~113–125		COM			WR		sdy/silty on CT
150							

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO. 2
DATE: 12 / 2 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 49R
SECTION: 2
OBSERBER: KLM/MS



SECTION DESCRIPTION

dark olive gray

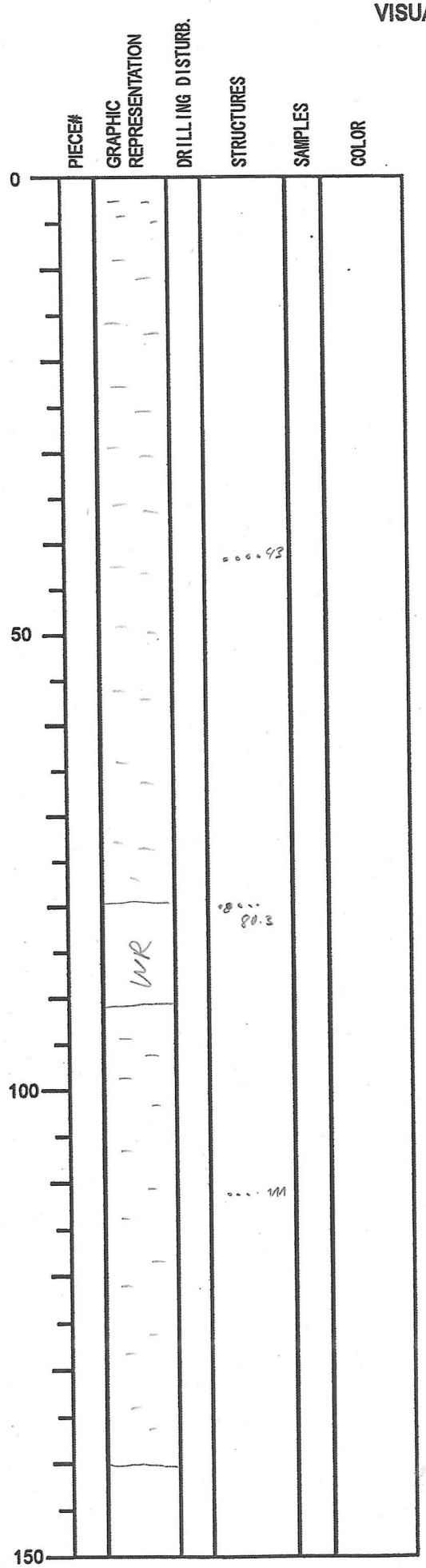
silty clay

rather structureless — minor bioturbation throughout on CT; locally fissile

silty sand

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO. 3
DATE: 27 /12 /2007
EXP: 316
SITE/HOLE: C0004D
CORE: 49 R
SECTION: 3
OBSERBER: MS / KLM



SECTION DESCRIPTION

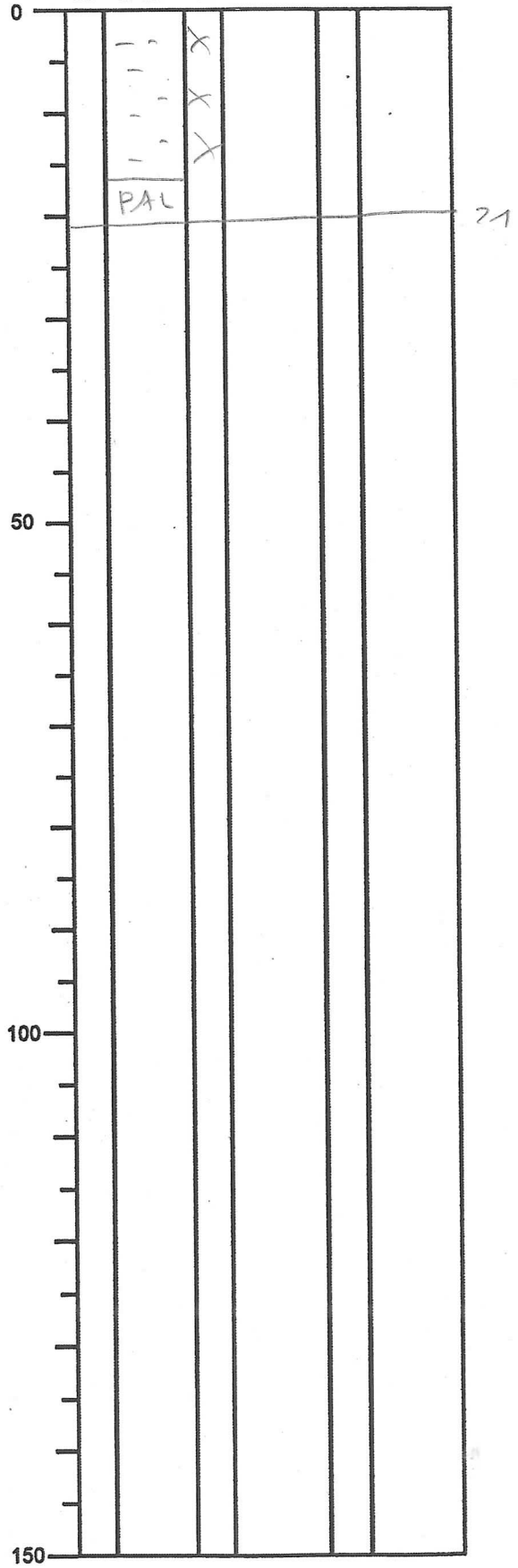
dark olive gray silty claystone
rather structureless

only minor bioturbation throughout as to be observed in CT scan images
· coccolithy dissible
slightly more sandy around 43, 80 and 111 cm
(slightly more dense in CT scans)

burrow filled with sponge spicules in the lower part

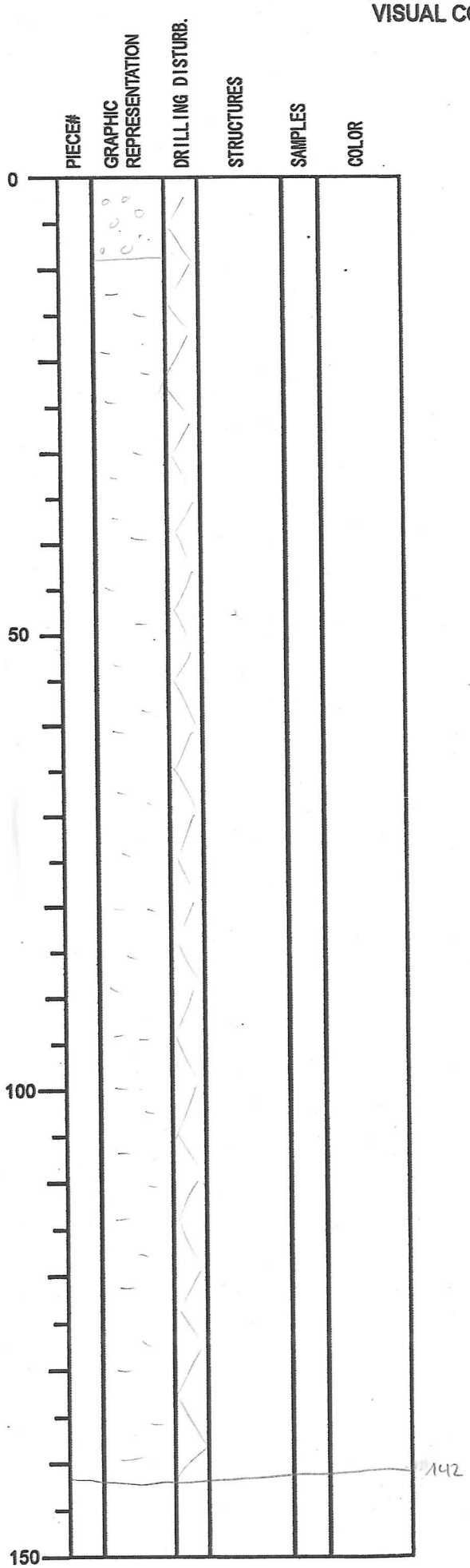
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 28 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 49 R1
SECTION: 1
OBSERBER: CLM / IMS



INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 50R
SECTION: 1
OBSERBER: MS / KLM



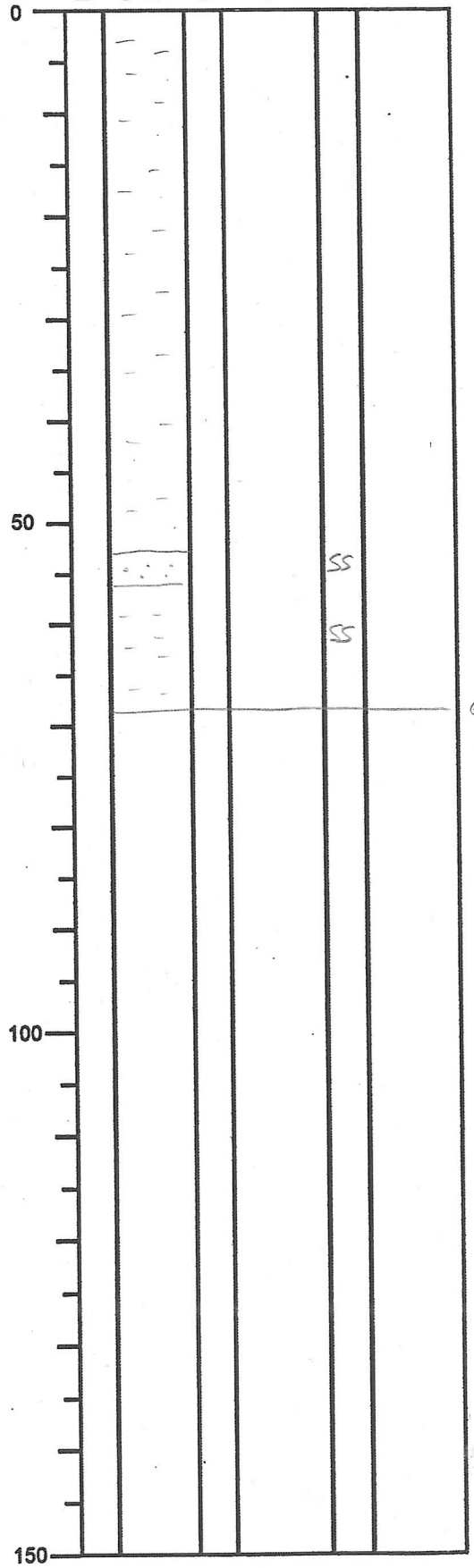
SECTION DESCRIPTION

dark olive gray silty claystone

appears rather structureless in coherent pieces but in subhorizontal possibly

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 50R
SECTION: 2
OBSERBER: MS / KCM



SECTION DESCRIPTION

dark olive gray mud stone as above down to 53cm (CT facies type 1)

sand layer

olive gray, less competent dispersed ash (⇒ CT facies Typ 2)

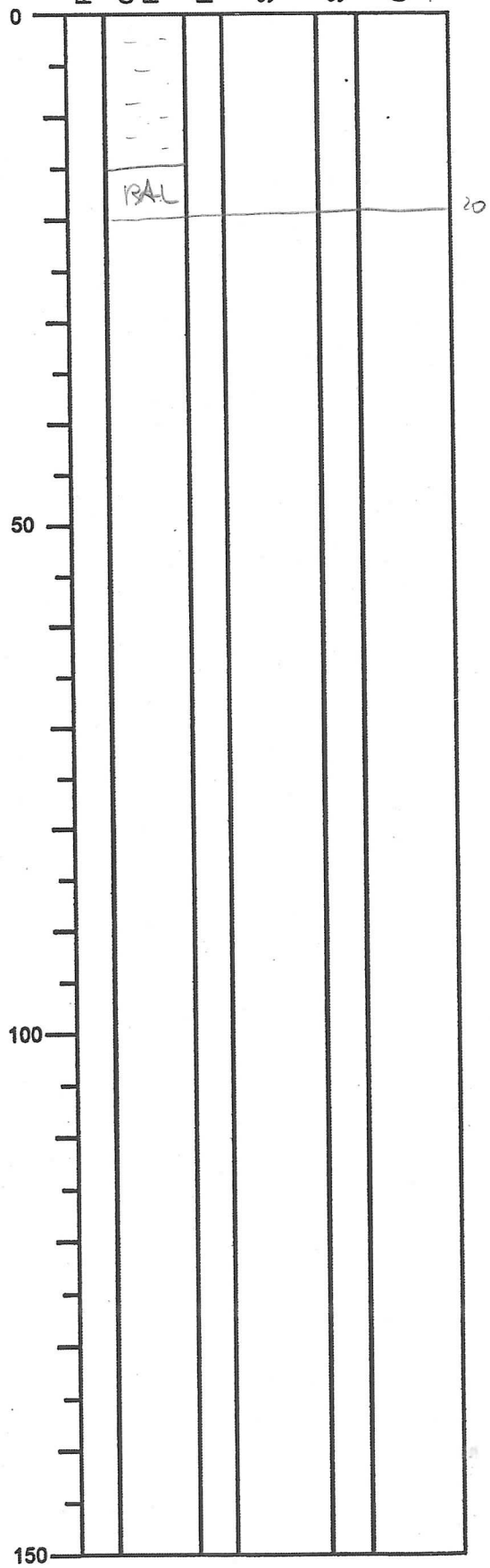
68cm

SS analyses reveal slightly more ash shards and pumice fragments

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 / 11 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 50R
SECTION: CC
OBSERBER: M.S / KUM

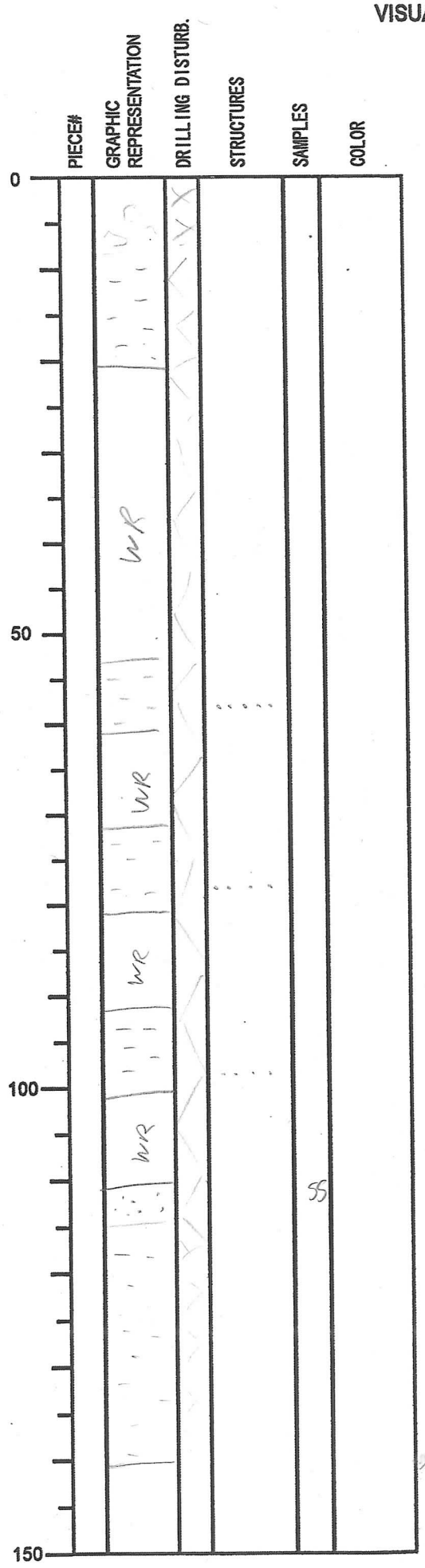


SECTION DESCRIPTION

silty clay (dark olive gray)

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO. 1
DATE: 12 /26 /2007
EXP: 316
SITE/HOLE: C0004D
CORE: 51R
SECTION: 1
OBSERBER: Ikeda / Ms



SECTION DESCRIPTION

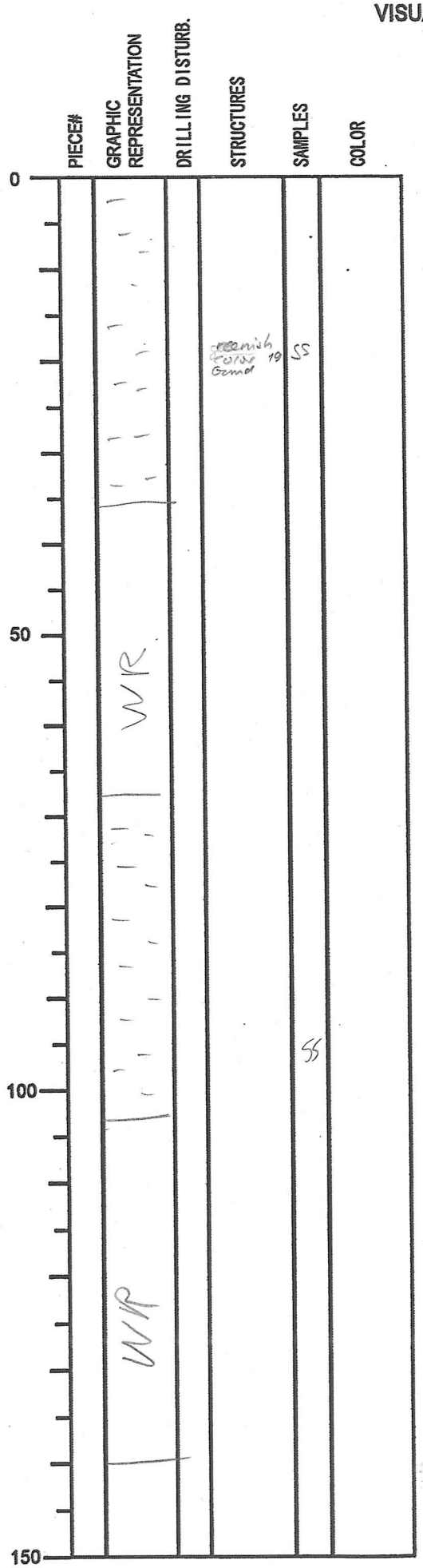
dark olive gray silty clay stone
as above
slightly more sandy especially at 48,77 - 98 cm

110 – 113 sandy interval with lot's of pyroclastics

per

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 51R
SECTION: 2
OBSERBER: MS / KLM



SECTION DESCRIPTION

dark olive gray claystone as above
impression of slightly sandier

greenish colorband 0.5cm thick

Variations in CT scan can not be observed in core only by slight differences in the character and in tensity of drilling disturbance ?

CT discription

bright at 79 95

114 - 121

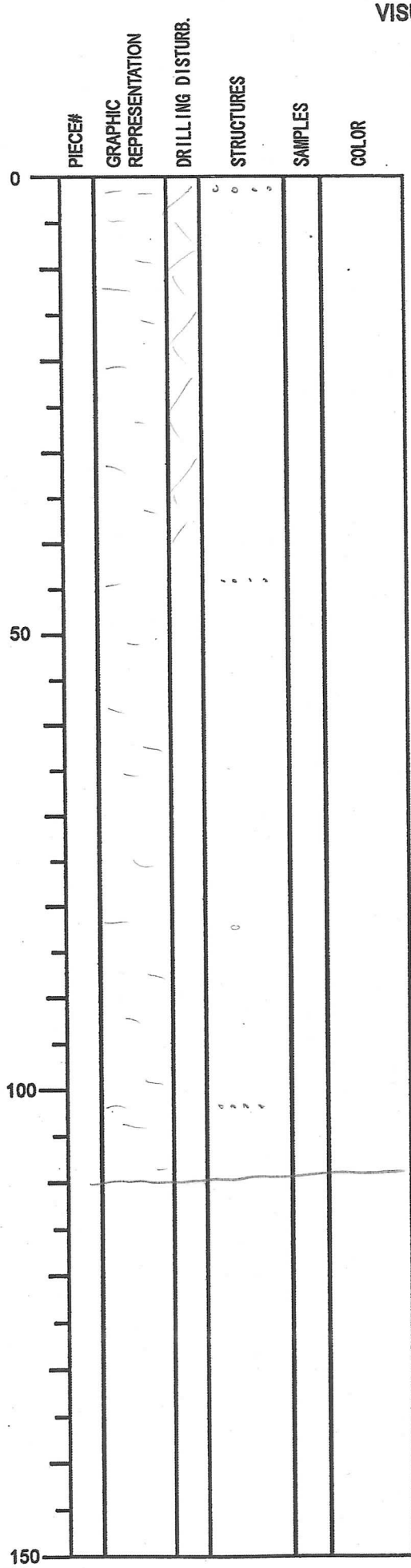
light density fluctuation at 33

transition typ 1 – 2 at 95

Burrow ? complexes at 130

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 5R
SECTION: 3
OBSERBER: MS/KLM



SECTION DESCRIPTION

dark olive grey silty claystone
21 above

1cm sand layer 44-45

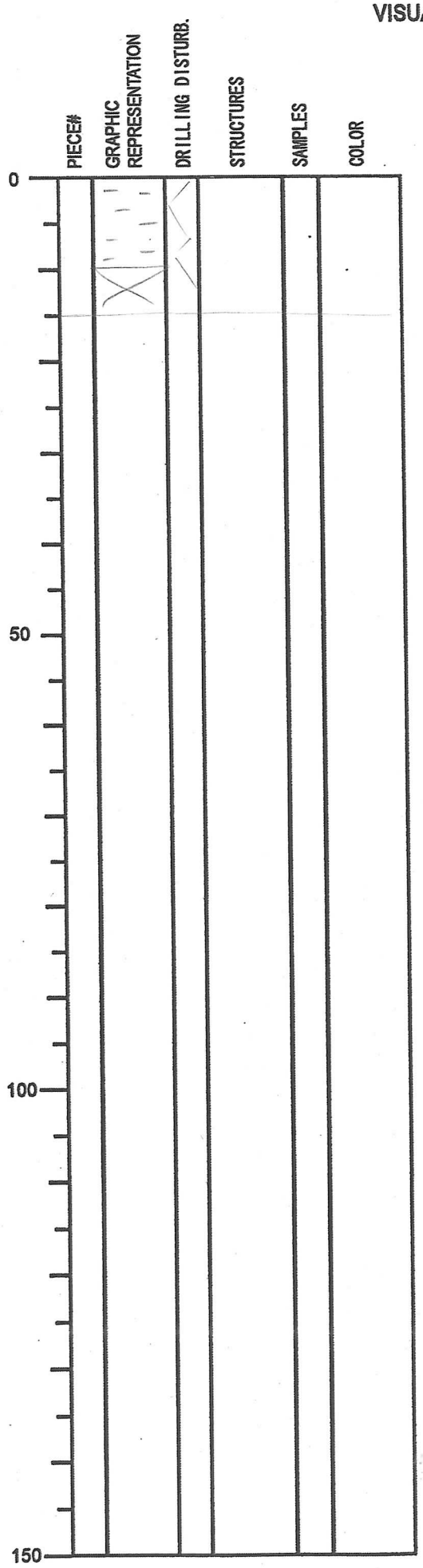
burrow filled with orange spicules at 88.5

120

CT
high density layer at 44
low density interval at 86
potentially high density at 102

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP: 316
SITE/HOLE: C0004D
CORE: 51R
SECTION: CC
OBSERBER: MS / KLM

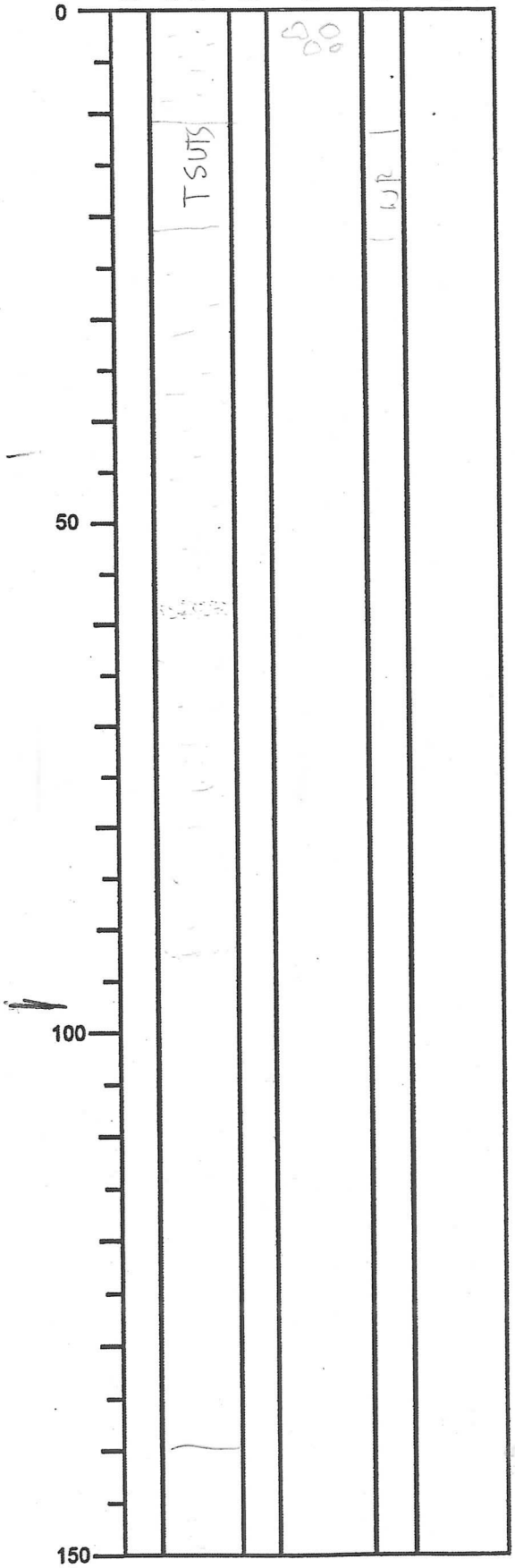


SECTION DESCRIPTION

as above

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO. 1
DATE: 12 / 26 / 20 07
EXP: 316
SITE/HOLE: C0002D
CORE: 5212
SECTION: 1
OBSERBER: KLM / MS



rubble

dk olive gray silty claystone

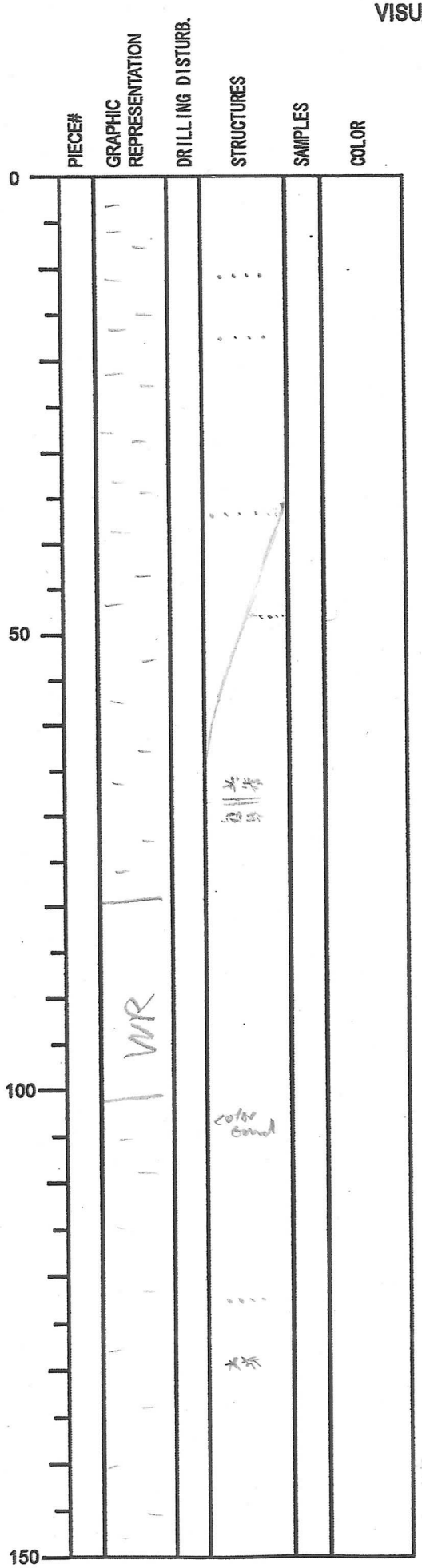
CT Scan reveals thin sdy/silty intervals at 40 101 121

parallel bmin. & fissility

silty sd throughout

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 26 /12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 52R
SECTION: 2
OBSERBER: M.S / KL



SECTION DESCRIPTION

⚠ change in splitting technique

Sandlayer at 11cm ~1cm thik rel. sharp contact
17cm ~1cm thick "
35 cm-35 layer not visible but slightly coarse material
47-49 only one side of the fault

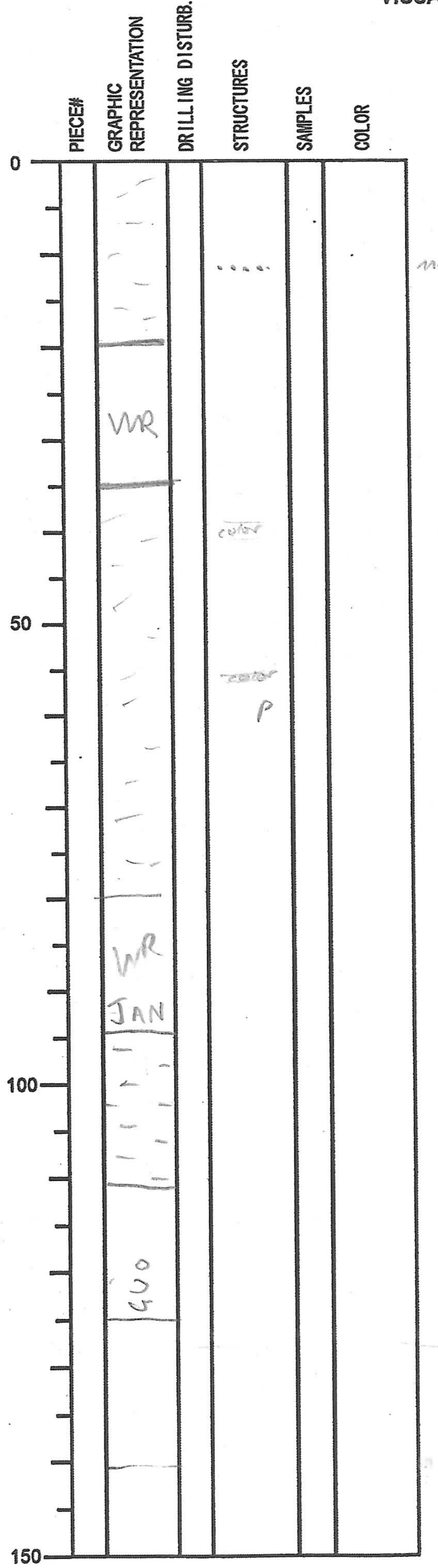
123 1cm rel. sharp contact

dark ~~gray~~ olive gray silty claystone with intervals showing mottling, chondrites, color banding and fine sand ~~laminae~~ intervalls and parallel lamination within the sand intervals.

→ borrow with sponge spicules at 21 cm
123 cm

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP:
SITE/HOLE: C0004D
CORE: 52R
SECTION: 3
OBSERBER: MS / KCM



SECTION DESCRIPTION

same dominant lithology

11-13 sandy layer + parallel lamination

greenish color boundary

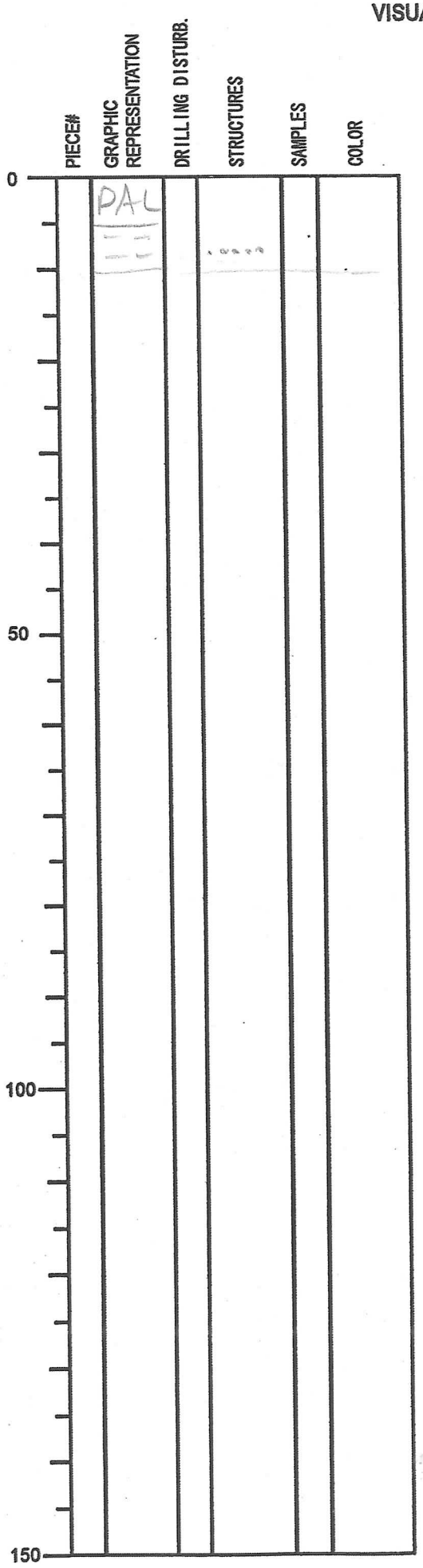
Pyrite nodule in a patch slight lighter olive gray

Spong spicule 13
59
73 (Gry tube)

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: / /20
EXP: 316
SITE/HOLE: C0002D
CORE: 52R
SECTION: CC
OBSERBER: MS IKEDA

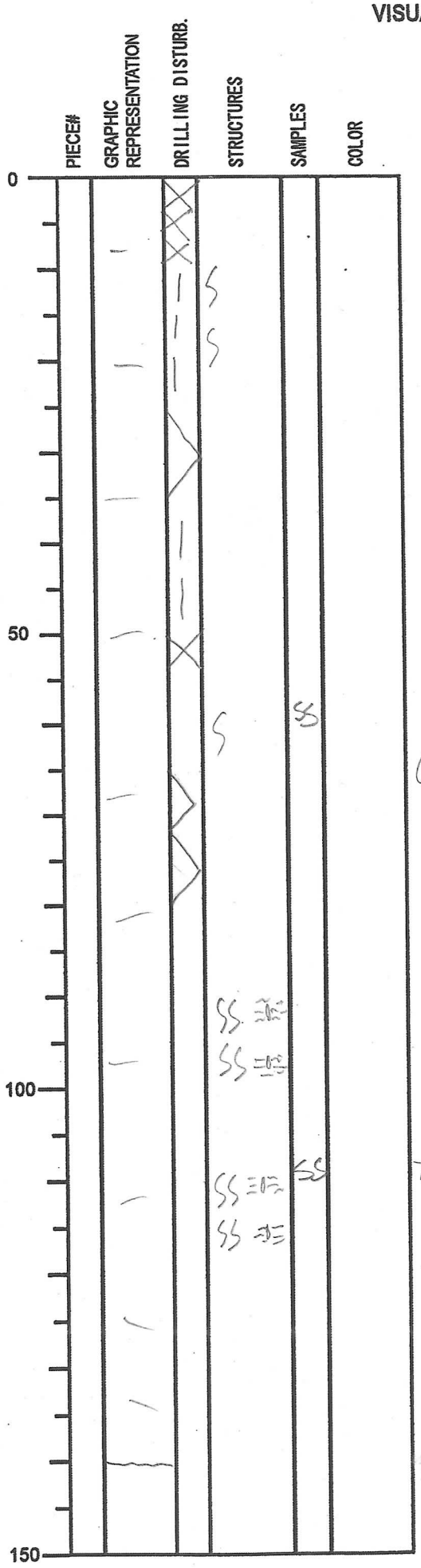


SECTION DESCRIPTION

as above

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 53R
SECTION: 1
OBSERBER: CLF



SECTION DESCRIPTION

dark olive gy silty claystone
c color bands
chrondrites
Fissility locally developed

Color bands 40-42cm

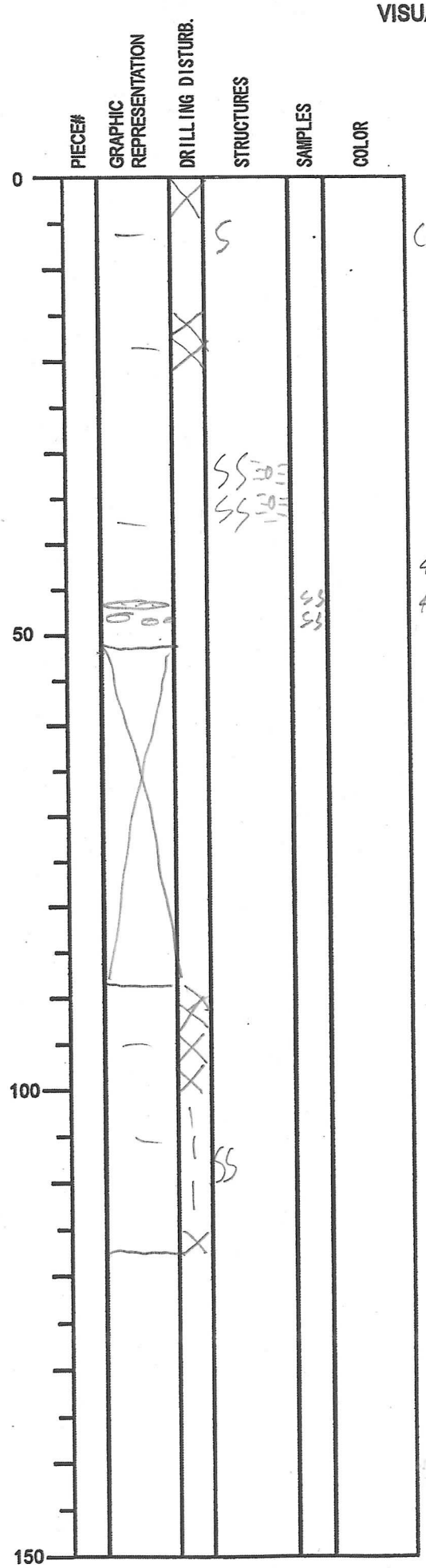
Color band 64cm

Thin brown layer 107-107.5cm

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: ~~5~~ 3R
SECTION: 2
OBSERBER: CLF



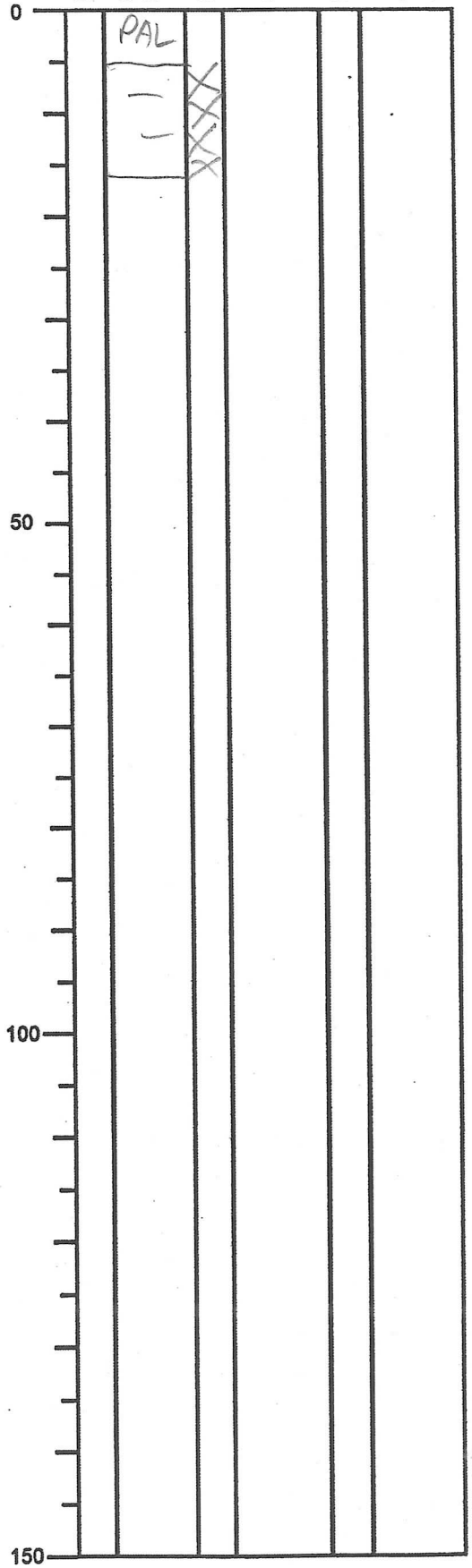
Color band 7-8cm
dk olive-gy silty claystone

47cm patch of silty material (ss - much the same)
48cm 3 white oval patches - lapilli balls

IW

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

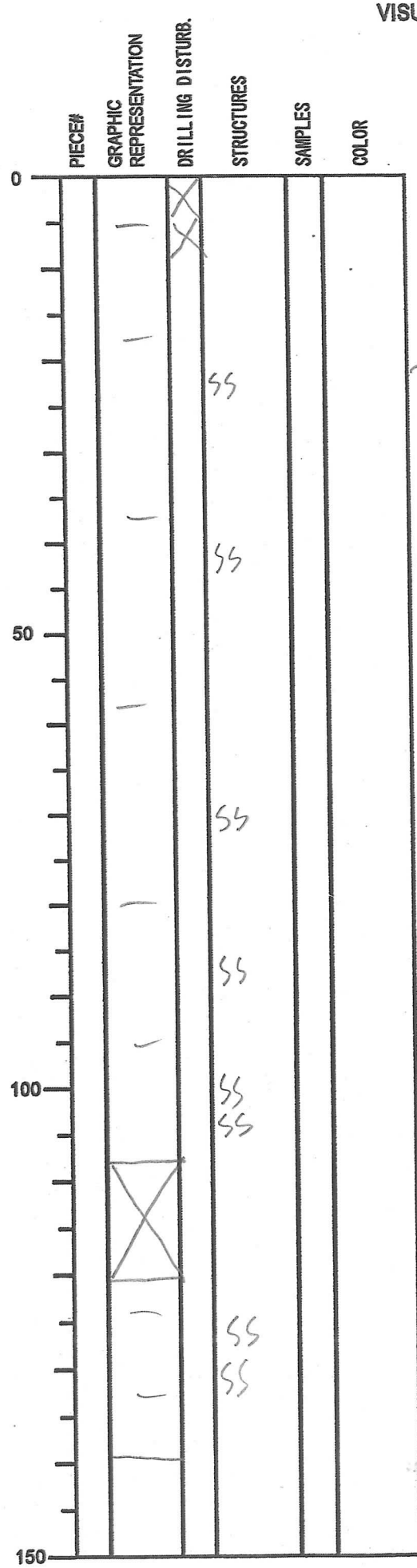
NO.
DATE: 27/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 53R
SECTION: CC
OBSERBER: CLF



Ver.0.10_071109

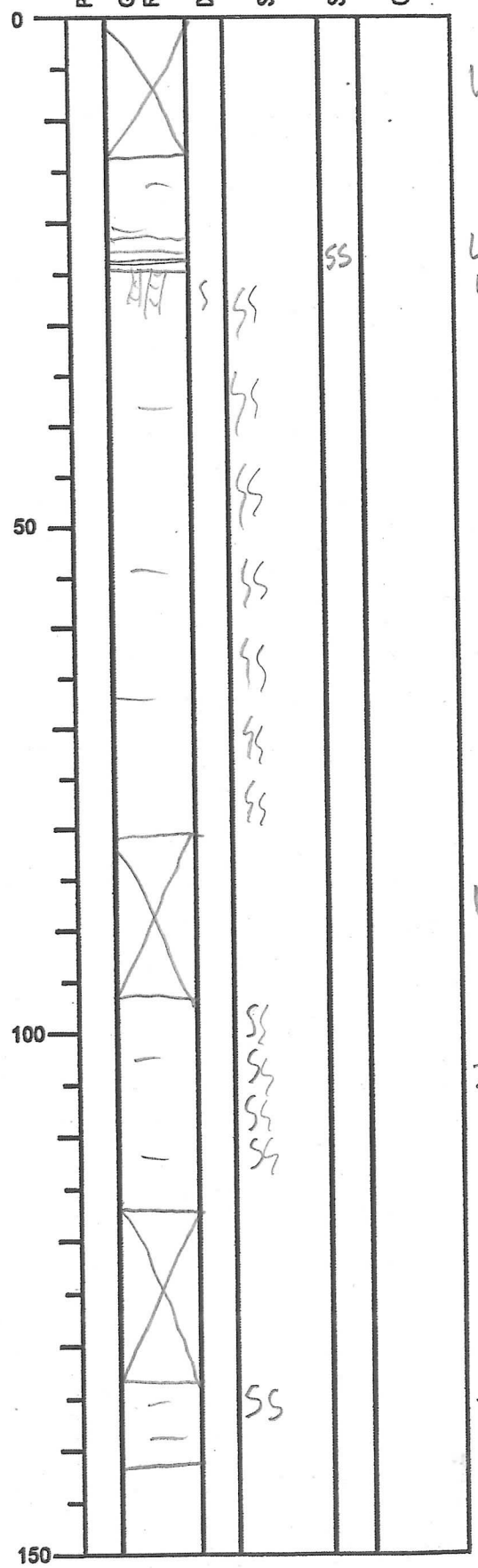
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27/12/2007.
EXP: 316
SITE/HOLE: C0004D
CORE: 54R
SECTION: 1
OBSERBER: CLF



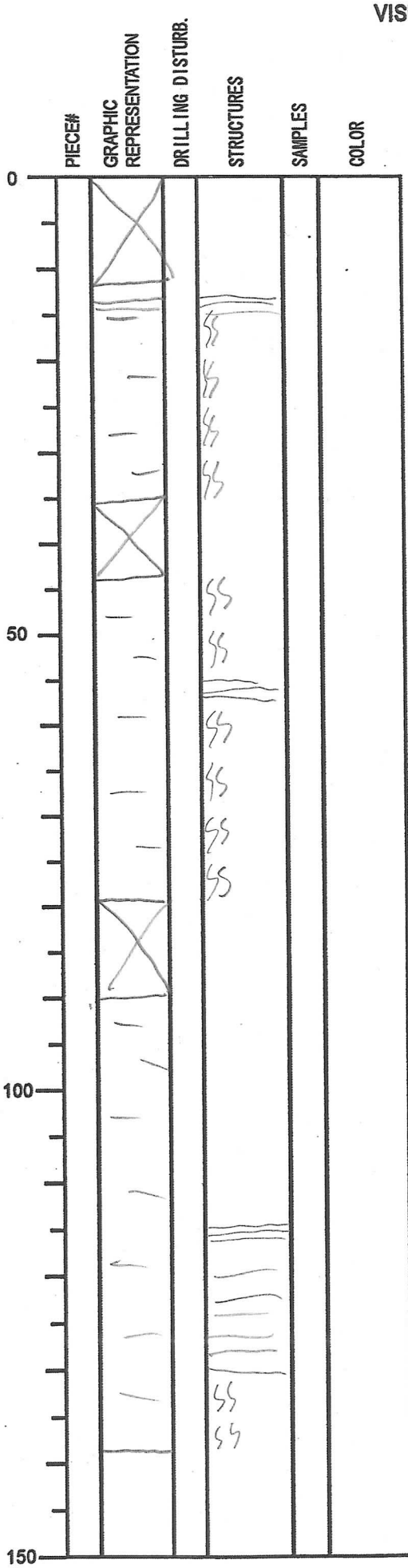
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 54R
SECTION: 2
OBSERBER: CLF



INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27 / / 20
EXP: 316
SITE/HOLE: C0004D
CORE: 54R
SECTION: 3
OBSERBER:



SECTION DESCRIPTION

WR

13-15cm lamination

WR

55-56cm lamination/color banding

Zoophycos

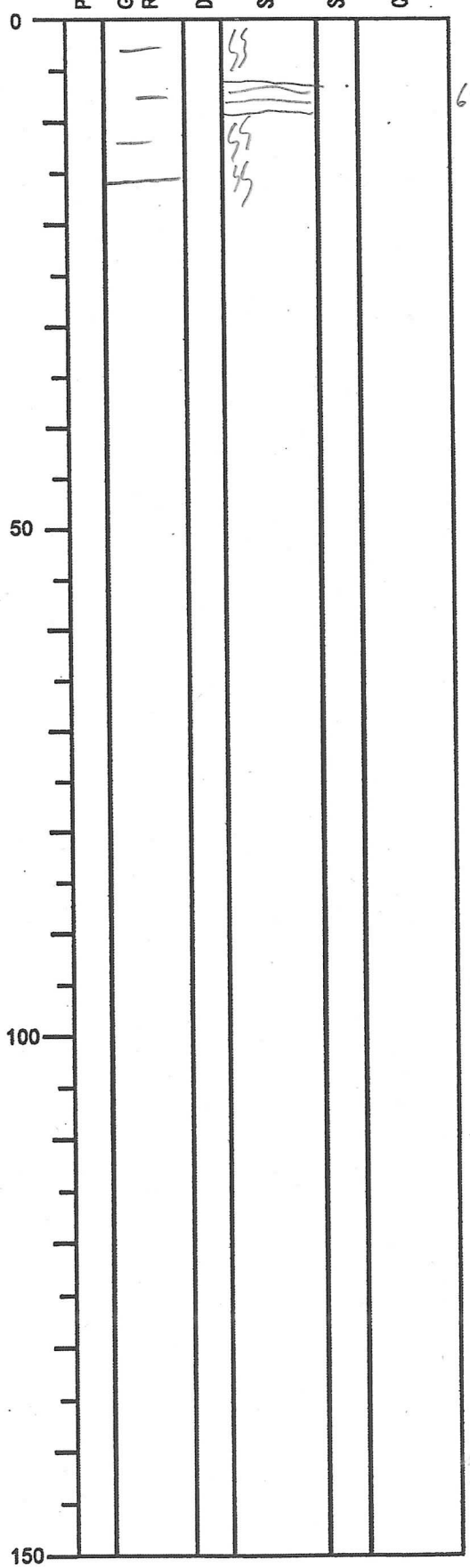
WR

Color banding

115-130 laminations

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

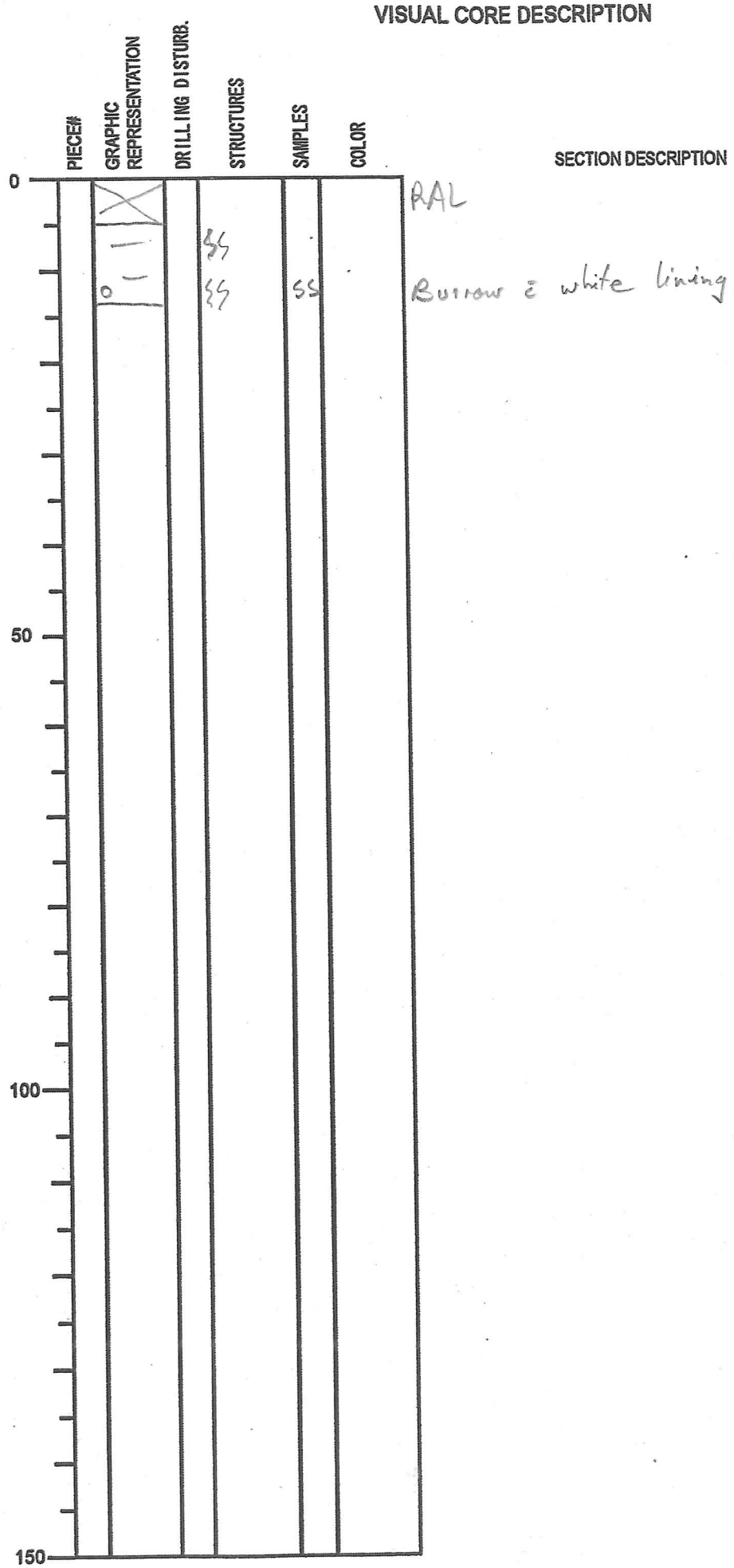
NO.
DATE: 27/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 54R
SECTION: 4
OBSERBER: CLF



Ver.0.10_071109

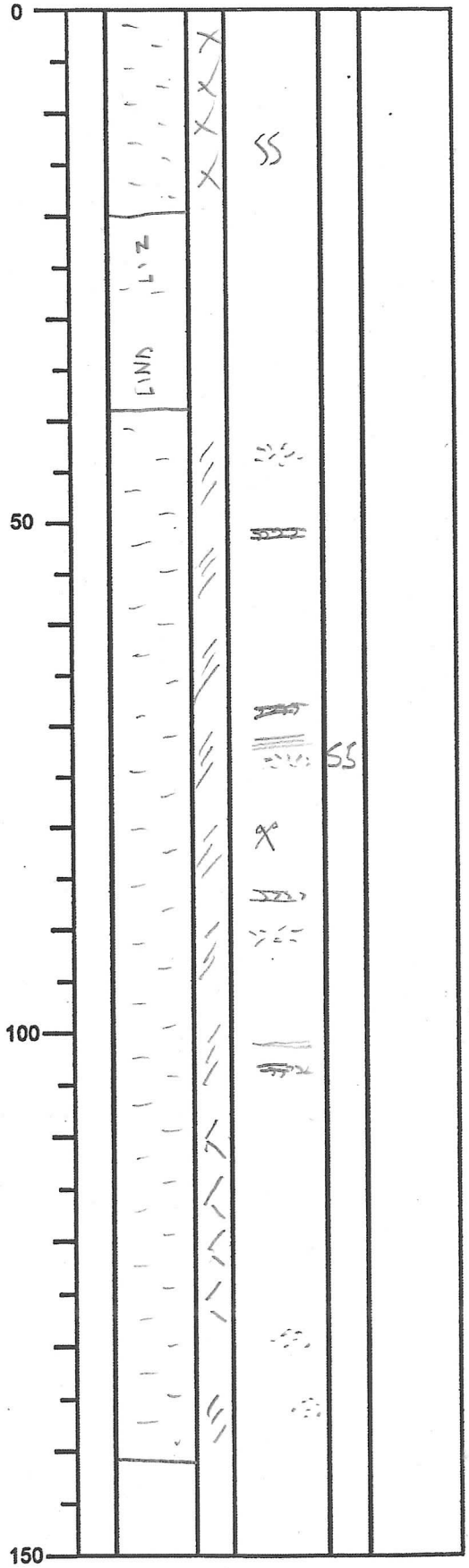
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27/2/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 54R
SECTION: CC
OBSERBER: CLF



INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 5SR
SECTION: 1
OBSERBER: UN



SECTION DESCRIPTION

~~dark~~ olive grey silty clay, moderately bioturbated by zoophycos + chondrites. Colour actually alternates between olive grey and greenish grey on a 1-10 cm scale

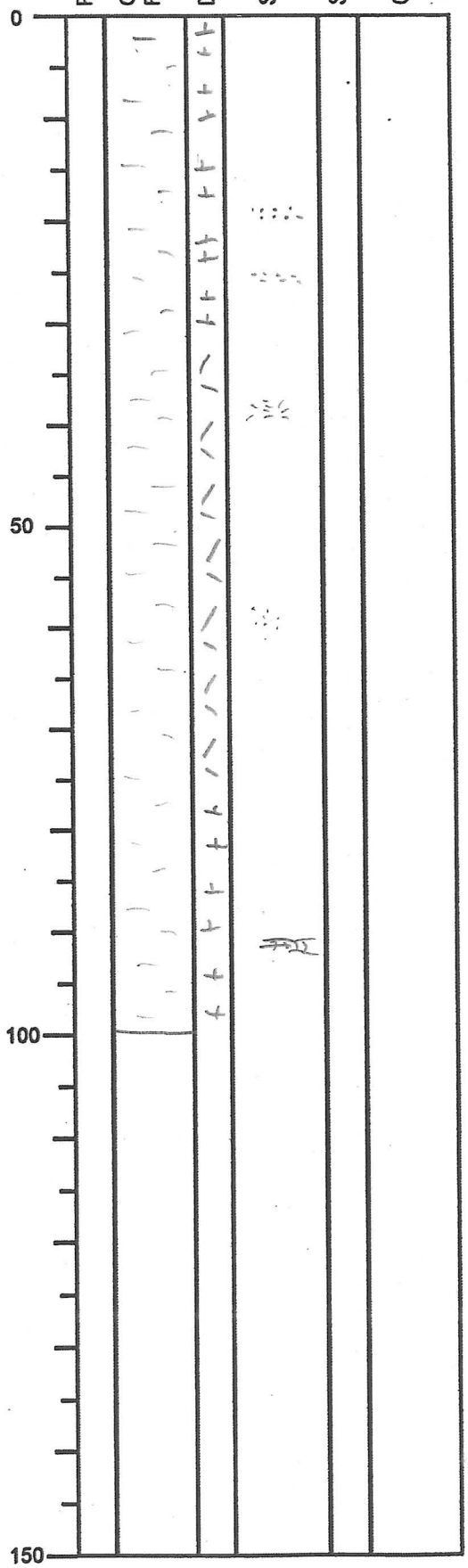
-sponge spicule burrow lining.

slightly divergent laminations.

- scattered sand grains / sandy patches probably part of burrow fill.

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27 / 12 / 2007
EXP: 316
SITE/HOLE: C0004D
CORE: 55R
SECTION: 2
OBSERBER: UN



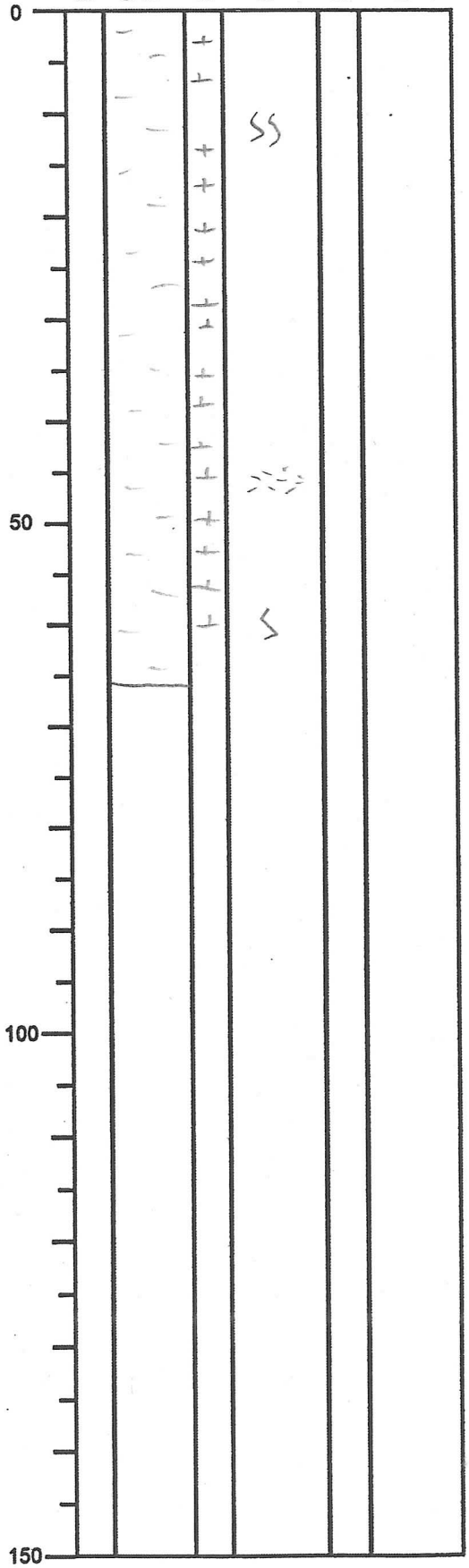
SECTION DESCRIPTION

as previous.

1.5 cm thick silt/v.f. sand layer

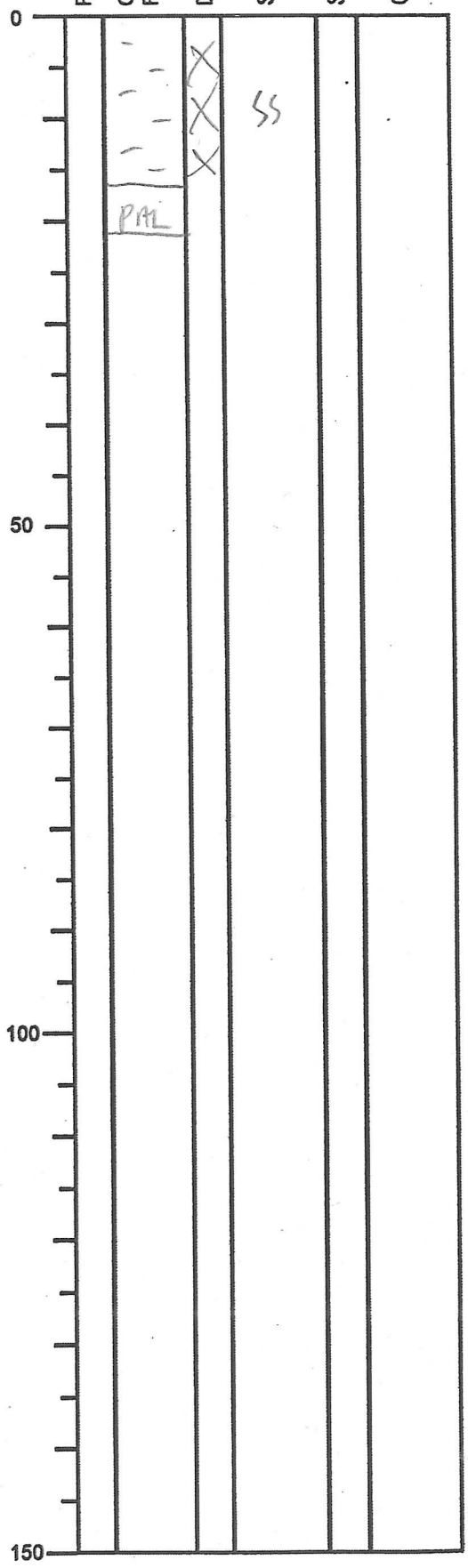
INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27/12/2007
EXP: 316
SITE/HOLE: C0004A
CORE: 55R
SECTION: 3
OBSERBER: UN



INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

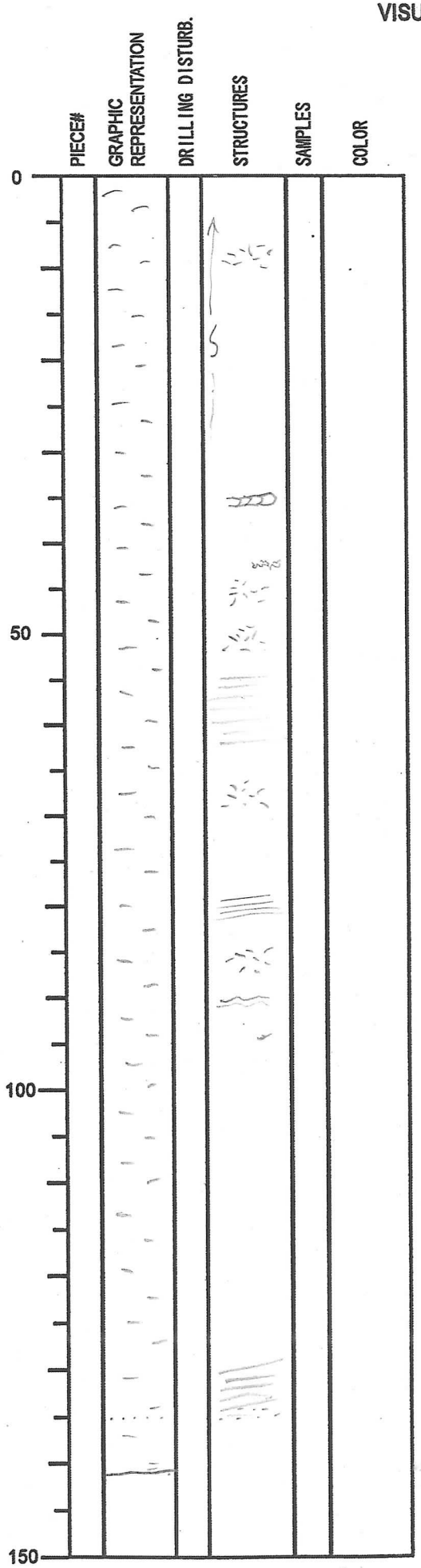
NO.
DATE: 27/12/2007
EXP: 316
SITE/HOLE: C0004D
CORE: 55R
SECTION: 4 (CC)
OBSERBER: VN



Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27 /12 /2007
EXP: 316
SITE/HOLE: C 0004D
CORE: 56R
SECTION: 1
OBSERBER: UN



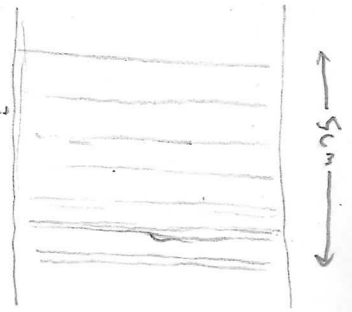
SECTION DESCRIPTION

olive grey silty ~~[illegible]~~ claystone, mild to moderate bioturbation

- small, narrow (<1mm) ~~[illegible]~~ white, tube-like features
- Sponge spicules agoni.

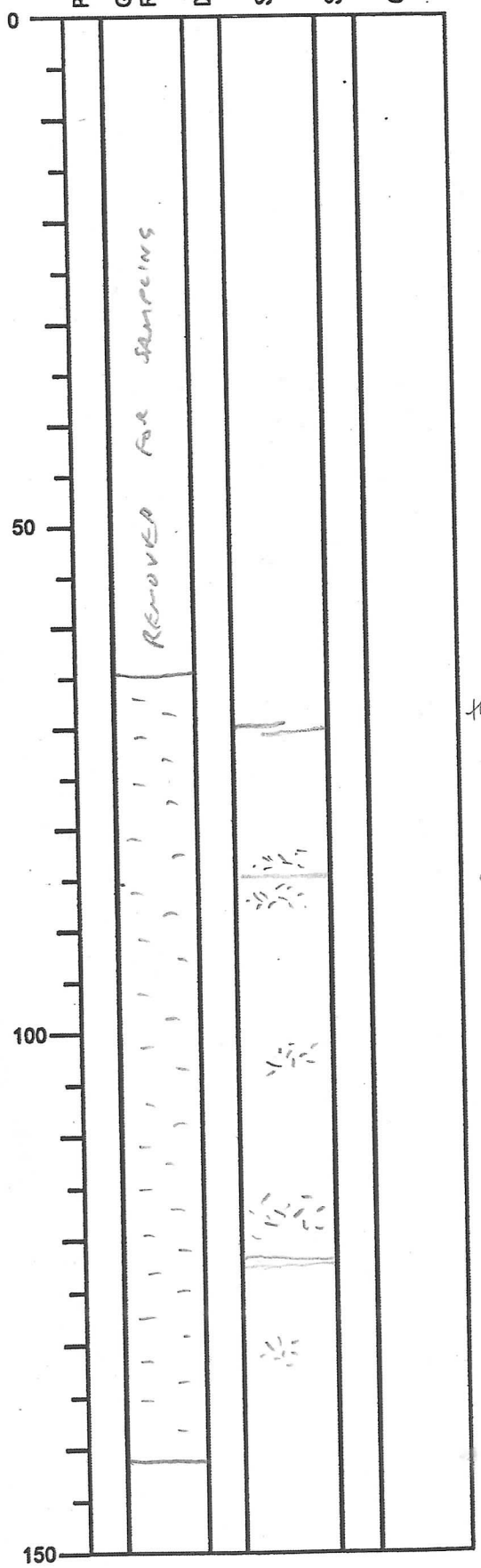
- slightly wavy laminations (low amplitude)
- black organic matter

- mostly parallel laminations with some slight undulations on individual laminae
- slightly ~~[illegible]~~ silty base



INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27 / 12 / 2006
EXP: 316
SITE/HOLE: C0006D
CORE: 56 R
SECTION: 2
OBSERBER: UN



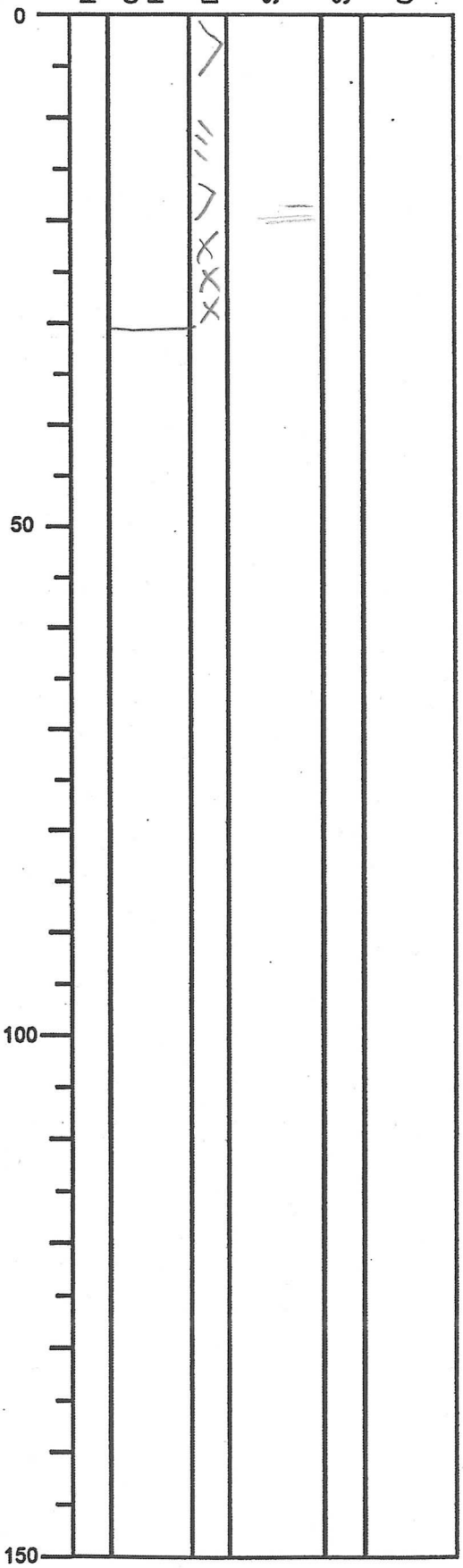
thin dark grey laminations, en-echelon like overstep, with bulk beds being discontinuous

dark grey laminations → not intersected by chondrites burrows on either side

- slightly parting/divergent laminations

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27/12/2006
EXP:
SITE/HOLE:
CORE: 96 R
SECTION: 3
OBSERBER: UN



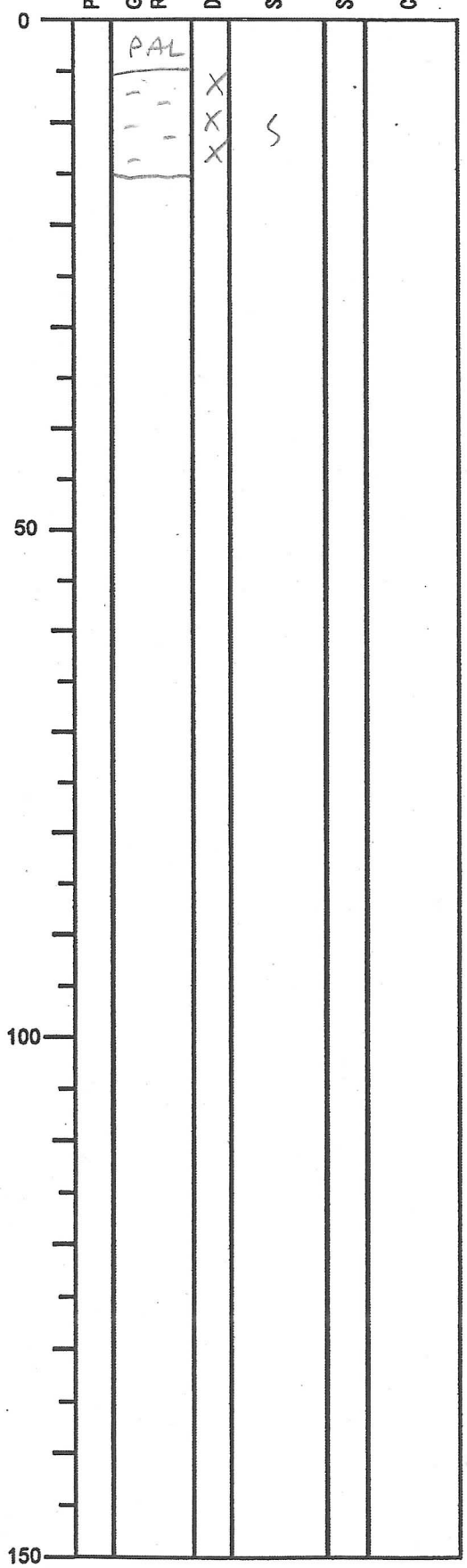
SECTION DESCRIPTION

darker color bands (3mm

Ver.0.10_071109

INTEGRATED OCEAN DRILLIGN PROGRAM
VISUAL CORE DESCRIPTION

NO.
DATE: 27/12/2006
EXP: 316
SITE/HOLE: C0004D
CORE: 56R
SECTION: CC
OBSERBER: UN



END OF HOLE

C0004D

Ver.0.10_071109