

Integrated Ocean Drilling Program

Visual Core Description

NO. 1
 DATE: 25/12/2013
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 1R
 SECTION: 1
 TOP DEPTH (m CSF):

OBSERVER: ANA

PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR
0					
7	*	X	10.5 P	SS SS	MEDIUM GREY
16					
50					
100					
150					

SECTION DESCRIPTION

MUDSTONE (SANDY IN PLACES):
 MEDIUM GREY, FIRM-MODERATELY
 HARD, FINE GRAINED-MUDDY, VERY
 SILTY, COMMONLY VERY FINELY
 SANDY IN PLACES, OCCASIONAL
 SAND LENSES WITHIN MUDSTONE
 (SILTY CLAYSTONE); DARK GREY
 PATCHES IN PLACES (ORG. MATTER).



VERY FINE SAND LENSES

↓
 CONFIRMED BY
 SMEAR SLIDE

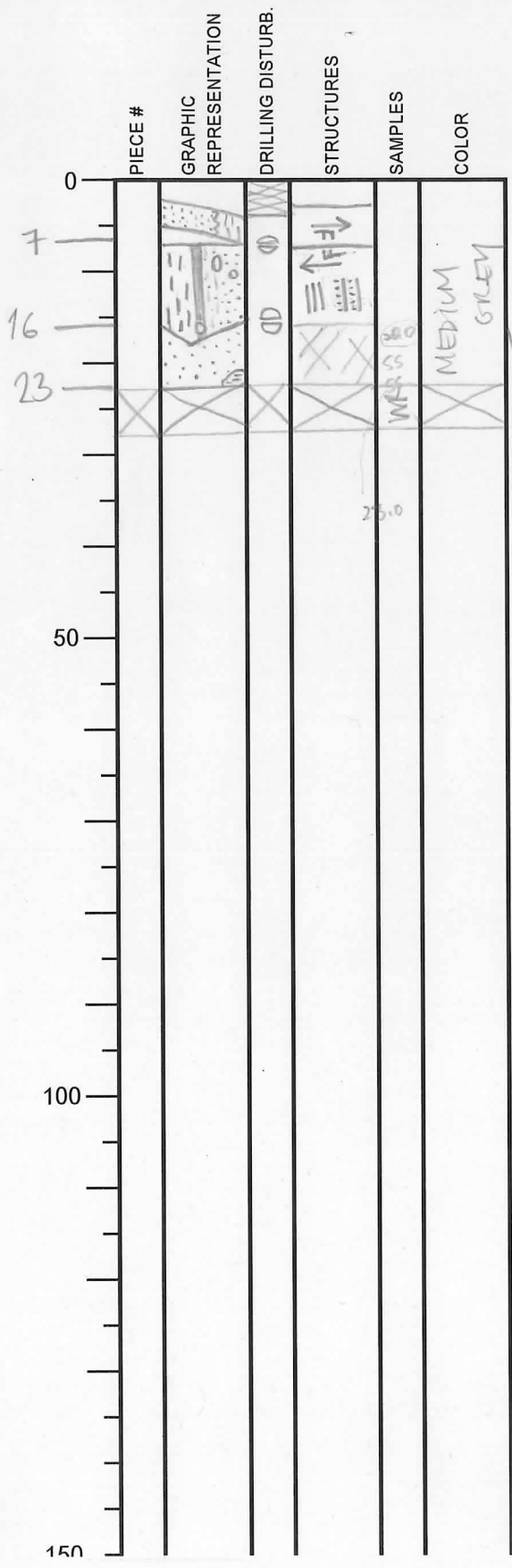
SILTY CLAYSTONE

CLUSTER SAMPLE @ 2.5-5 CM
 (XRD, XRF, CARB)

Integrated Ocean Drilling Program

Visual Core Description

NO. 2
 DATE: 25/12/20 13
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 1R
 SECTION: CC
 TOP DEPTH (m CSF):



SECTION DESCRIPTION

OBSERVER: ANA

FINE-GRAINED TURBIDITIC DEPOSITS:
 3-16 cm:
 → VERY FINE-FINE SANDSTONE, FINING
 INTO SILTY CLAYSTONE (MUDSTONE),
 VERY STEEPLY BEDDED, COMMON
 ROUND CLASTS AND LENSES OF
 SANDSTONE, COMMON WHITE NODULES
 (SHELL FRAGMENTS/CARB MATERIAL?),
 MODERATELY HARD.

16-23 cm:
 → SANDSTONE: FINE GRAINED,
 CRUMBLY/FRIABLE, ABUNDANT
 WEB-LIKE STRUCTURES (SEE
 STRUCTURE GEOLOGY), FIRM-SOFT,
 POORLY CONSOLIDATED.

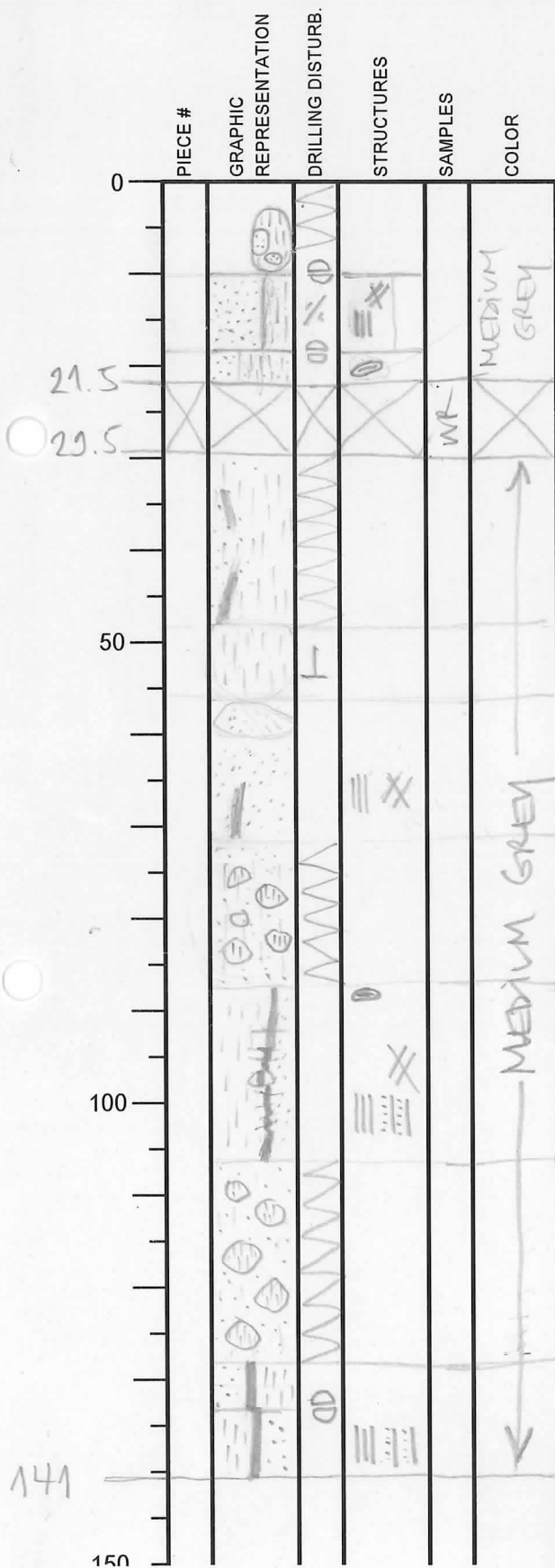
WEB-LIKE STRUCTURES: DARK COLOURED
 BANDS WITHIN SANDSTONE, W/ SEVERAL
 DIFFERENT ORIENTATIONS.

NOTE: OPPOSITE SIZE GRADATION DIRECTIONS
 CAUSED BY CORE ROTATION INSIDE
 THE BARREL

Integrated Ocean Drilling Program

Visual Core Description

NO. 3
 DATE: 25/12/2013
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 2R
 SECTION: 1
 TOP DEPTH (m CSF):



SECTION DESCRIPTION

OBSERVER: ANA

→ VERY STEEP BEDS OF FINE SANDSTONE AND SILTY CLAYSTONE
 SANDSTONE W/ WEB-LIKE STRUCTURES

→ MIXTURE OF SANDSTONE AND SILTY CLAYSTONE
 ↳ BLACK COLOUR BANDING IN PLACES

→ SILTY CLAYSTONE, RARE WHITE SPECKS (FOSSILS? CARB MATERIAL?)

→ SANDSTONE

→ MIXTURE OF SANDY MATERIAL WITH PIECES OF HARDER SILTY CLAYSTONE (HIGHLY FRACTURED).

→ SANDSTONE / SILTY CLAYSTONE VERTICAL CONTACT - BLACK BED DEFORMED BY SMALL FRACTURES (WEB-LIKE STRUCTURES)

HARDER SILTY CLAYSTONE PIECES WITHIN SANDY MATERIAL - HIGHLY FRACTURED

→ SANDSTONE / SILTY CLAYSTONE CONTACT (BLACK BED)

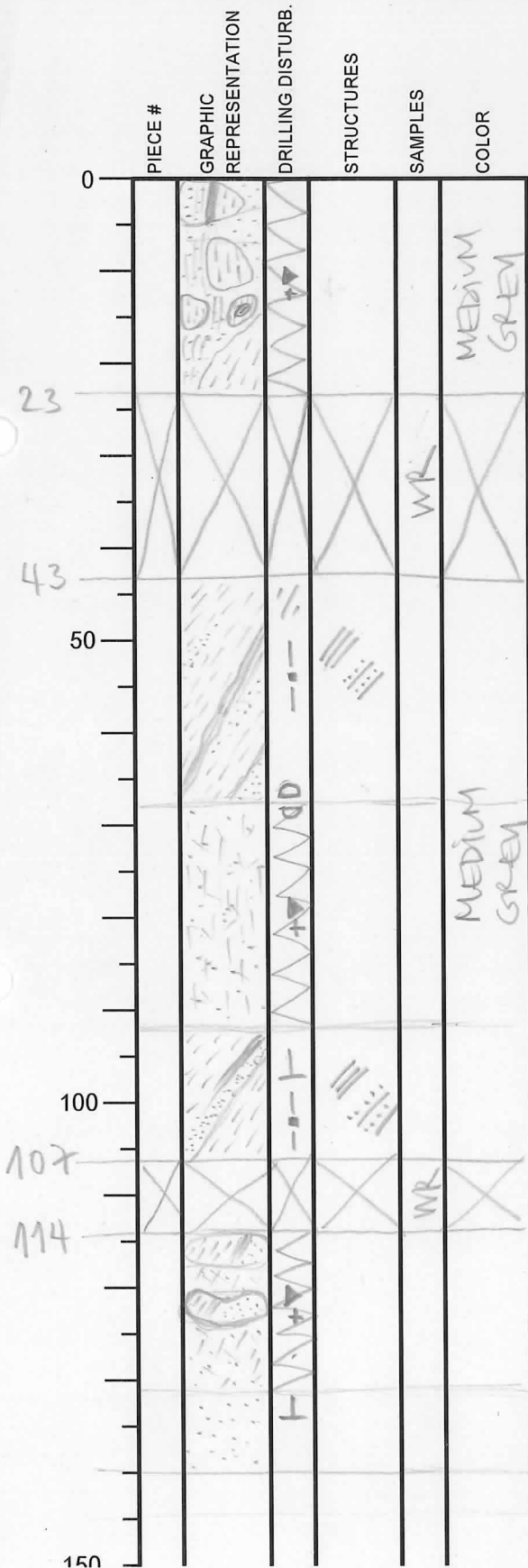
↳ ROTATION OF CORE INSIDE BARREL

⊖ = SHELL NODULAR FRAGMENT?

Integrated Ocean Drilling Program

Visual Core Description

NO. 4
 DATE: 25/12/2013
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 2R
 SECTION: 2
 TOP DEPTH (m CSF):



SECTION DESCRIPTION

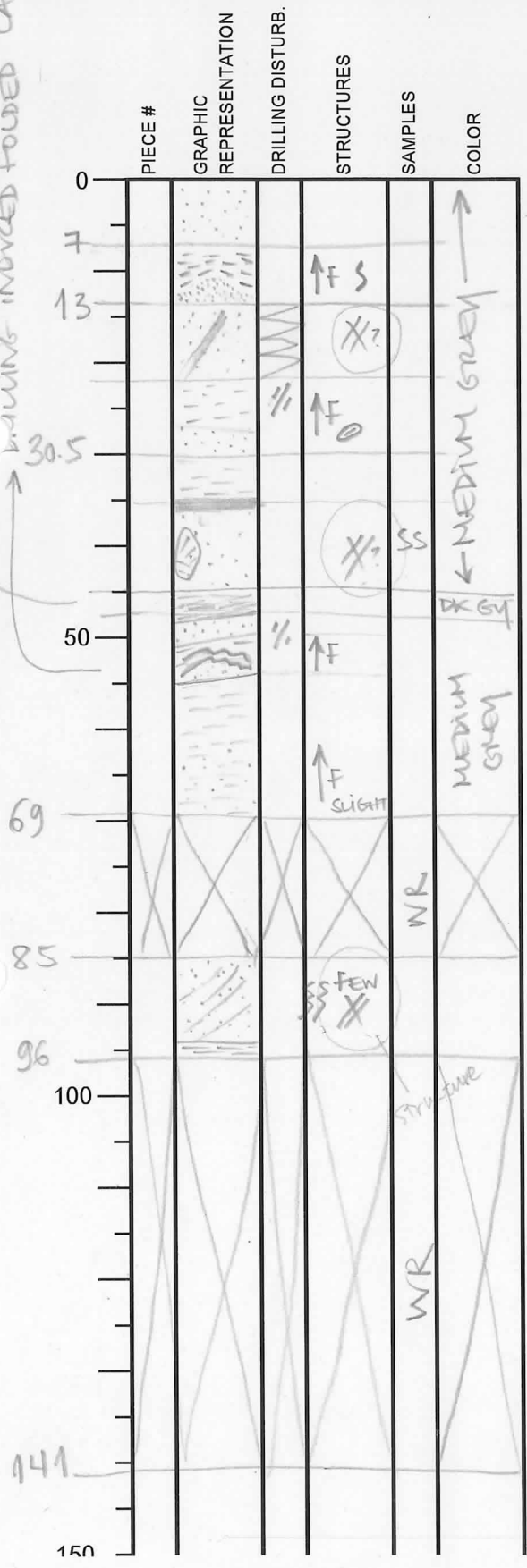
OBSERVER: ANA

- HIGHLY FRACTURED PORTION: HARDER SILTY CLAYSTONE PIECES WITHIN HIGHLY DEFORMED SANDSTONE
 - ↳ FOLDING AND FRACTURING OBSERVED IN BLACK LAMINA WITHIN SANDSTONE
 - ↳ DRILLING INDUCED DEFORMATION
 - ↳ MOSTLY HIGHLY DIPPING BEDS
- SANDSTONE / SILTY CLAYSTONE BEDS
 - BLACK-COLOURED LAMINA
 - ↳ SLIGHT DRILLING INDUCED DEF.
 - ↳ HIGHLY DIPPING BEDS
- HIGHLY FRACTURED / DEFORMED PORTION:
 - ⊗ MIXTURE OF SILTY CLAYSTONE PIECES WITHIN SANDY MATERIAL
 sandstone or not?
- SANDSTONE / SILTY CLAYSTONE BEDS
 - HIGHLY DIPPING BEDS
 - BLACK-COLOURED LAMINA
 - MOD. DRILLING INDUCED DEF.
- = ⊗
- FRACTURED SANDSTONE
 DRILLING INDUCED

Integrated Ocean Drilling Program Visual Core Description

NO. 5
 DATE: 25/12/2013
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 2R
 SECTION: 3
 TOP DEPTH (m CSF):

SILTY CLAYSTONE: FISSILE
 DRILLING INDUCED FOLDED LAMINAE



SECTION DESCRIPTION

OBSERVER: ANA / ANJA

→ SANDSTONE

→ TURBIDITIC INTERVAL: FINE GRAINED SANDSTONE GRADING INTO SILTY CLAYSTONE, SLIGHTLY BISTURBATED

→ HIGHLY DEFORMED SANDSTONE; WEB-LIKE STRUCTURES (NATURAL / ARTIFICIAL?)

TURBIDITIC INTERVAL

SANDSTONE / SILTY CLAYSTONE BEDS

↳ CONTACT BLACK LAMINAE - SMALL PIECES OF CLAYSTONE

→ SANDSTONE W/ STEEP DIPPING BLACK LAMINAE, FEW WEB-LIKE STRUCTURES

X = WEB-LIKE STRUCTURE

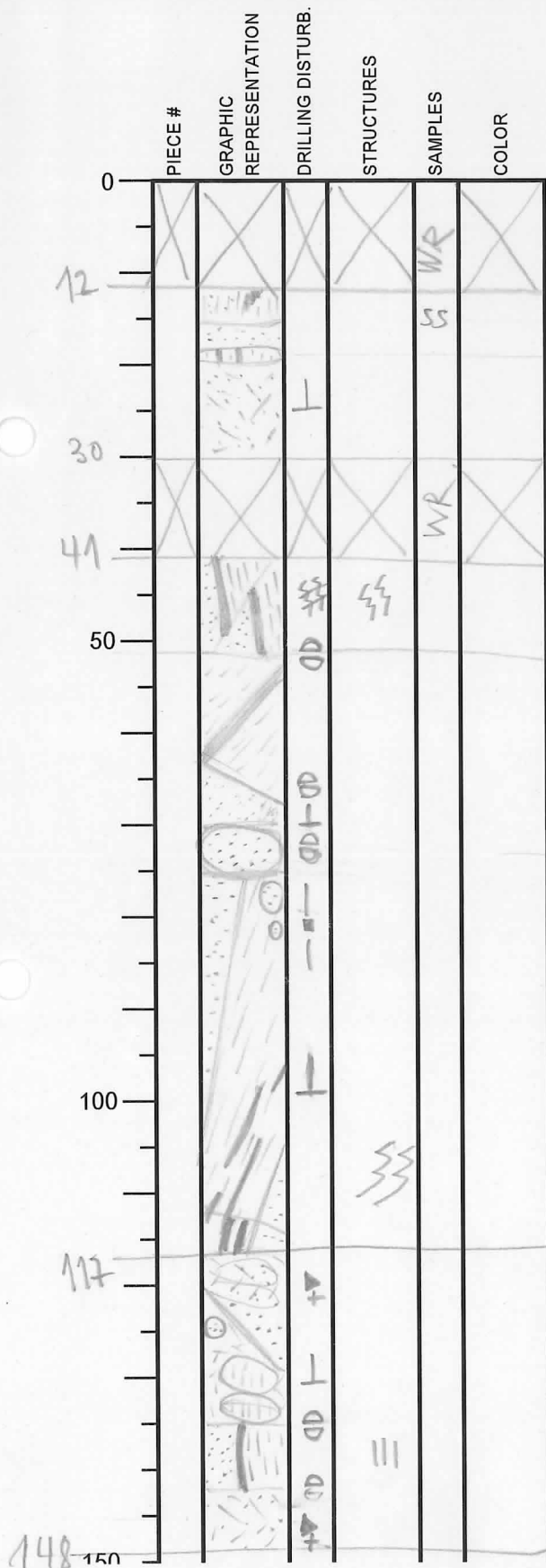
Drill shear ?

Integrated Ocean Drilling Program

Visual Core Description

NO. 6
 DATE: 25/12/2013
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 2R
 SECTION: 4
 TOP DEPTH (m CSF): 11

OBSERVER: ANA/ANJA



SECTION DESCRIPTION

- FEW BLACK SPECKS
 → SILTY CLAYSTONE W/ BLACK LAMINAE
 → MODERATELY DEFORMED PORTION: MIX SILTY CLAYSTONE AND SANDSTONE

→ FAULT

→ SANDSTONE W/ ABUNDANT BLACK SPECKS

→ HIGHLY DIPPING FRACTURES (DRILLING INDUCED?)

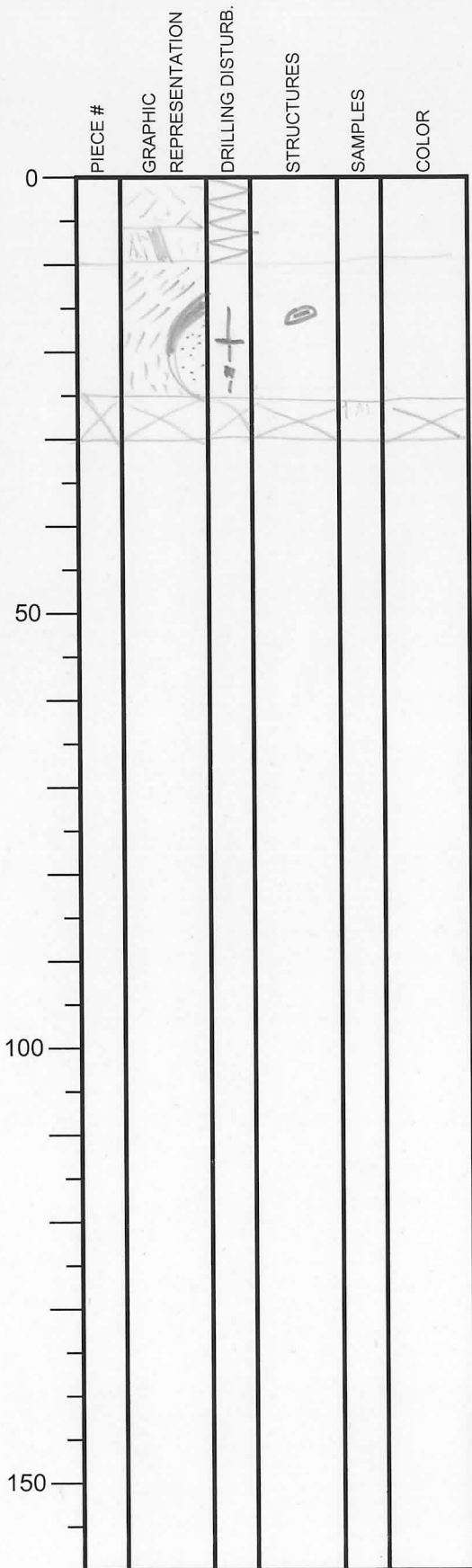
→ BLACK LAMINAE WITHIN SILTY CLST



= MIXTURE OF SILTY CLST W/ SANDSTONE

Integrated Ocean Drilling Program Visual Core Description

NO. 7
 DATE: 25/12/2013
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 348 ZP
 SECTION: CC
 TOP DEPTH (m CSF):



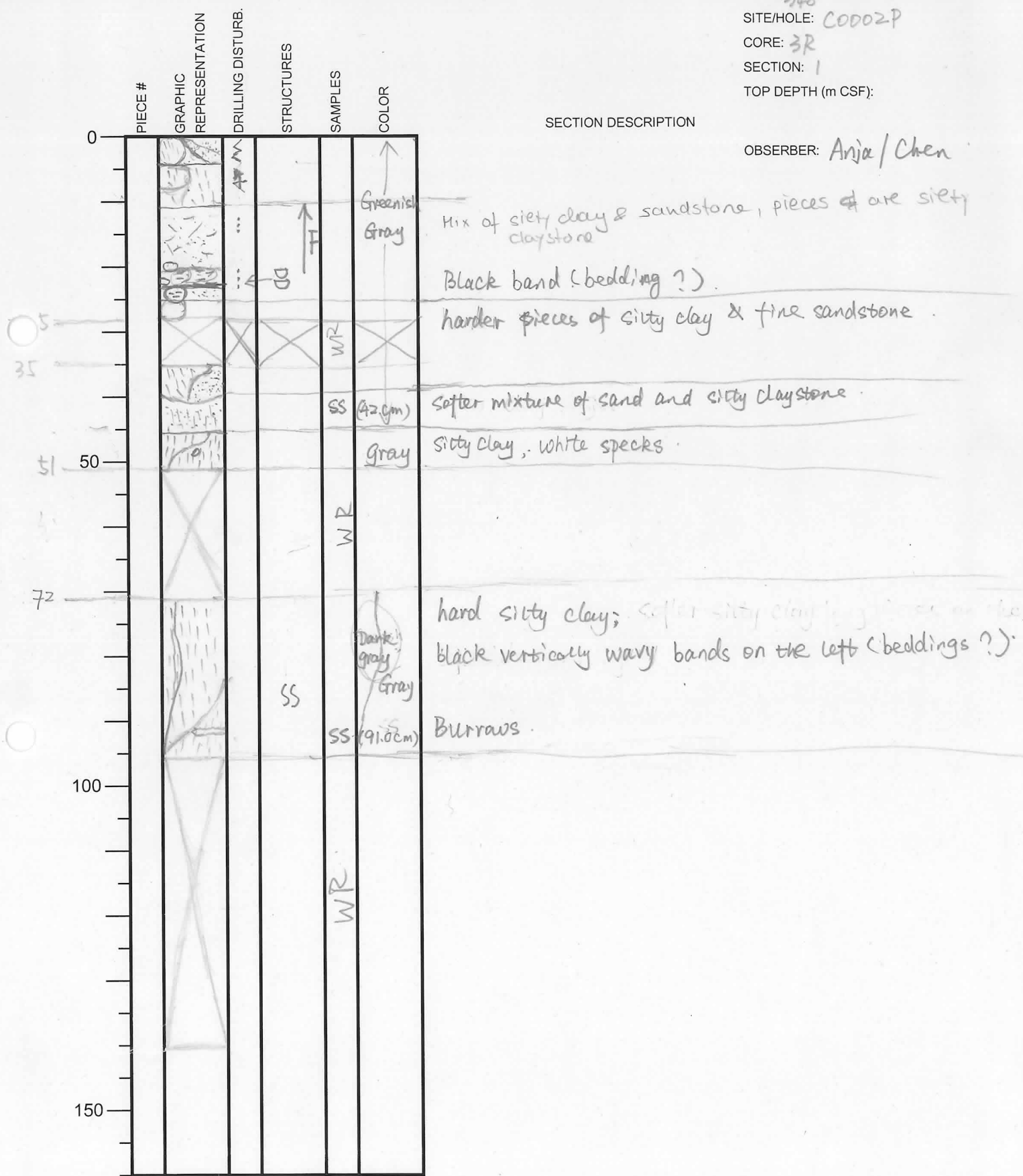
SECTION DESCRIPTION

OBSERVER: ANA/ANJA

DEFORMED PORTION: MIXTURE OF
 SANDSTONE W/ SILTY CLAYSTONE
 ↳ OCCASIONALLY OBSERVED
 BEDDING AND BLACK BAND

Integrated Ocean Drilling Program Visual Core Description

NO. 8
 DATE: 12/25/2013
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 3R
 SECTION: 1
 TOP DEPTH (m CSF):



OBSERVER: Anja / Chen

Integrated Ocean Drilling Program Visual Core Description

NO. 10
 DATE: 12/27/20
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 3R
 SECTION: C.C.
 TOP DEPTH (m CSF):

	PIECE #	GRAPHIC REPRESENTATION	DRILLING DISTURB.	STRUCTURES	SAMPLES	COLOR
0						
9		X			PAL	
10		[Hand-drawn texture]		// ⊥		
50						
100						
150						

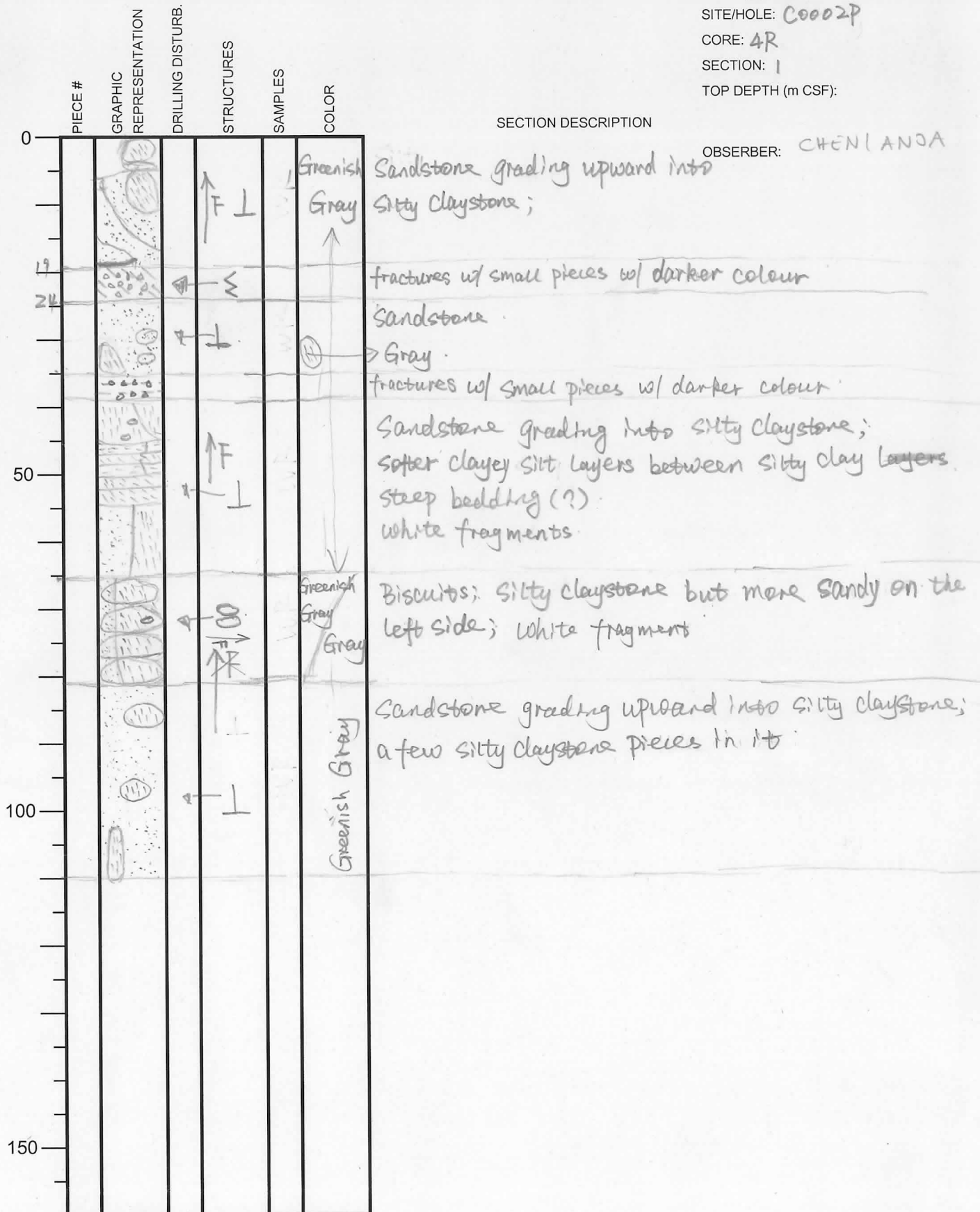
SECTION DESCRIPTION

OBSERVER: Anja/Chen

Sandstone (major) with silty claystone.
 Black thin laminae following bedding (?)
 Black speck.
 Lightly to moderate fractures.

Integrated Ocean Drilling Program Visual Core Description

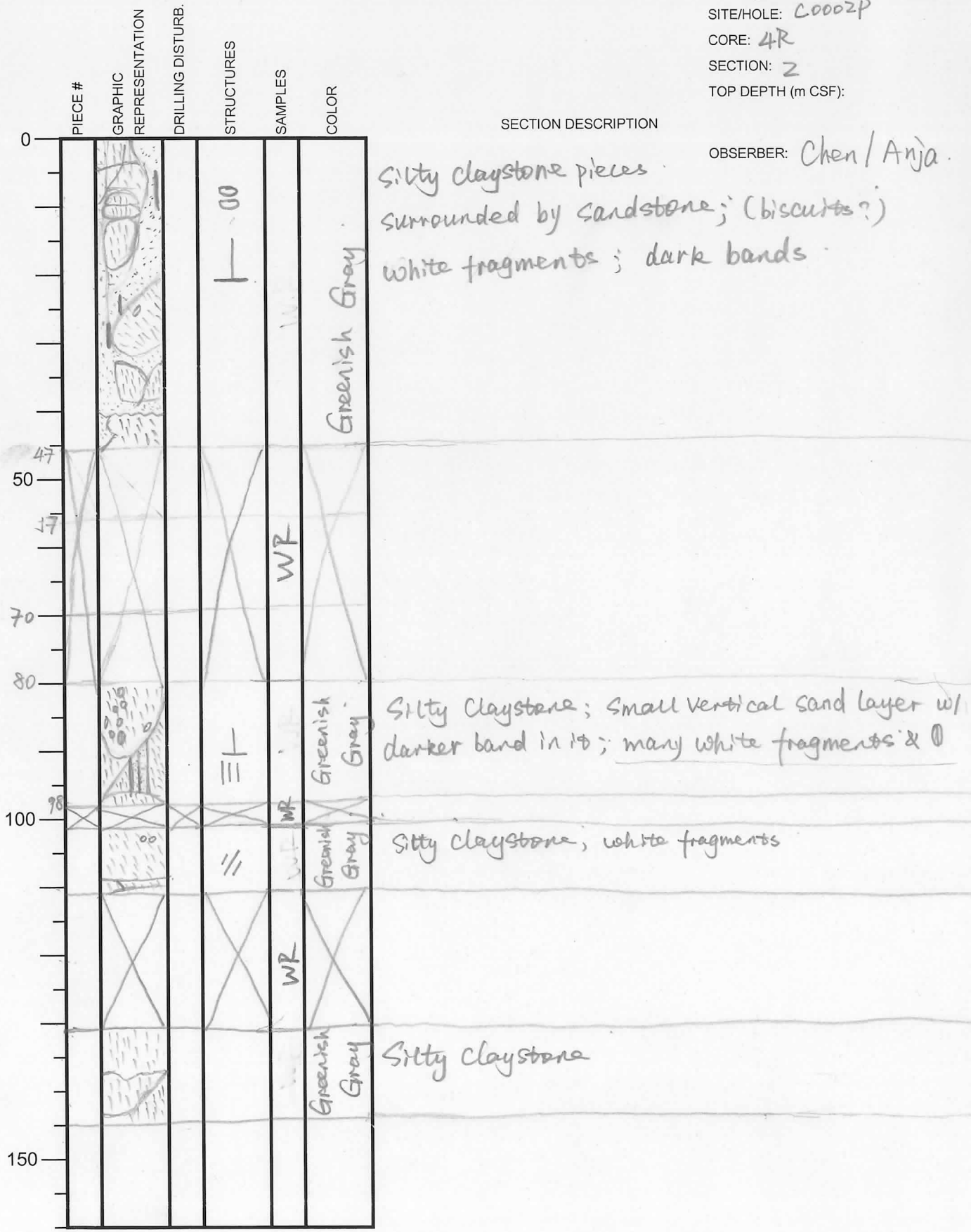
NO. 11
 DATE: 12/25/20
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 4R
 SECTION: 1
 TOP DEPTH (m CSF):



Integrated Ocean Drilling Program Visual Core Description

NO. 12
 DATE: 12/25/20
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 4R
 SECTION: 2
 TOP DEPTH (m CSF):

OBSERVER: Chen / Anja

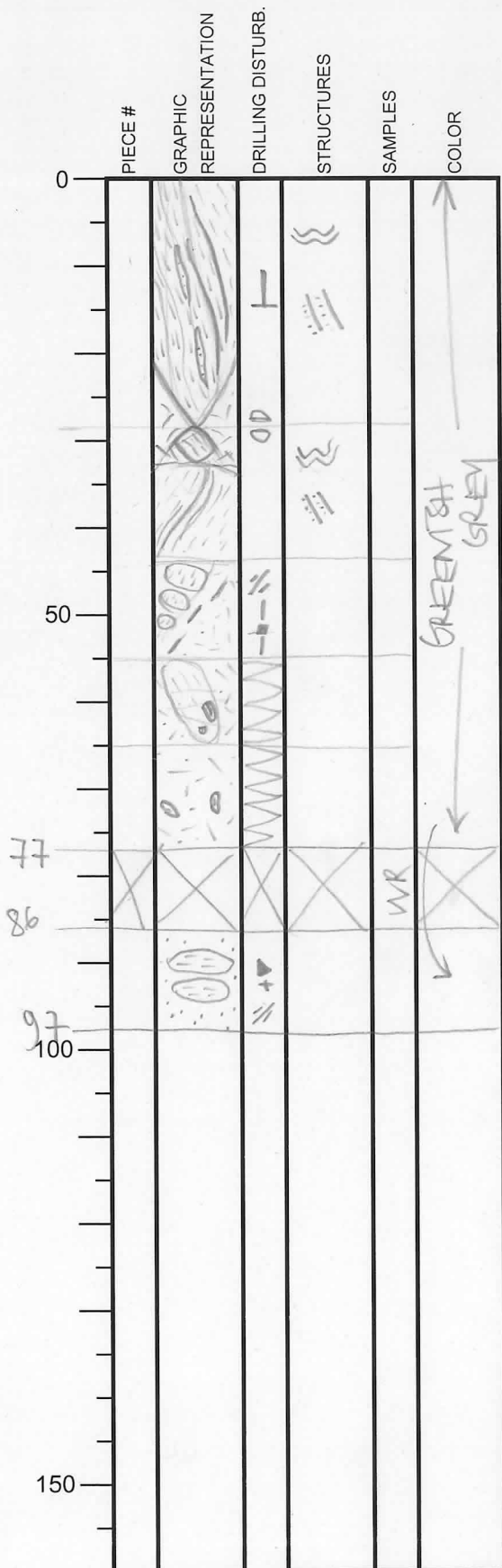


Integrated Ocean Drilling Program

Visual Core Description

NO. 13
 DATE: 12/27/20
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 4R
 SECTION: 3
 TOP DEPTH (m CSF):

OBSERVER: Ana/Chen/Anja



SECTION DESCRIPTION

→ SILTY CLAYSTONE WITH WAVY BEDDING, AND SLIGHTLY COARSER-GRAINED LENSES, INCLUDING WHITE SPECKS

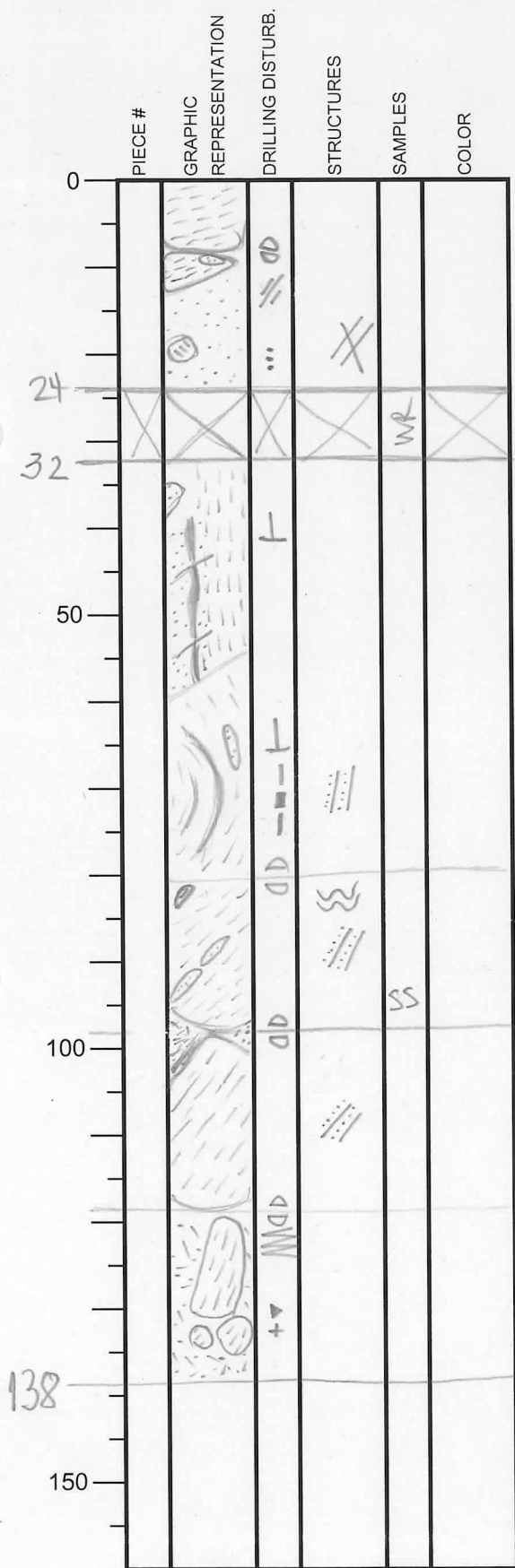
→ DEFORMED PORTION: SILTY CLAYSTONE BISWITS WITHIN A MIX OF SILTY CLAYSTONE (MORE ABUNDANT) AND SANDS

→ SILTY CLAYSTONE BISWITS WITHIN SANDY MATERIAL (SAND MORE ABUNDANT)

Integrated Ocean Drilling Program Visual Core Description

NO. 14
 DATE: 25/12/2013
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 4R
 SECTION: 4
 TOP DEPTH (m CSF):

OBSERVER: ANA/CHEN/ANJA

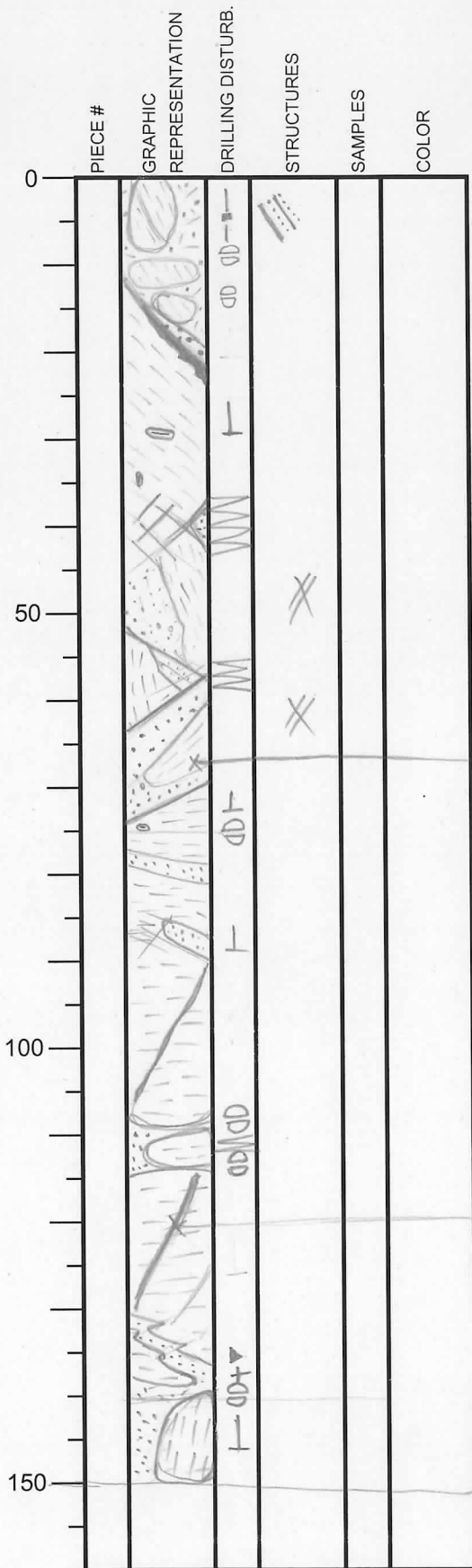


SECTION DESCRIPTION

- SILTY CLAYSTONE BISCUITS
- SANDSTONE W/ WEB-LIKE STRUCTURES
- SILTY CLAYSTONE AND SANDSTONE BEDS, VERTICALLY DIPPING, BLACK BAND ON CONTACT
- SILTY CLAYSTONE, DRILLING-DEFORMED, WITH BLACK LAMINAE
- SILTY CLAYSTONE, WAVY BEDDING, FINE SAND LENSES
- SILTY CLAYSTONE W/ COLOUR BANDING / DARK LAMINAE
- DEFORMED PORTION: SILTY CLAYSTONE BISCUITS WITHIN MIXED LITHOLOGIES (SANDY MATERIAL)

Integrated Ocean Drilling Program Visual Core Description

NO. 15
 DATE: 26/12/2013
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 4R
 SECTION: C
 TOP DEPTH (m CSF):



SECTION DESCRIPTION

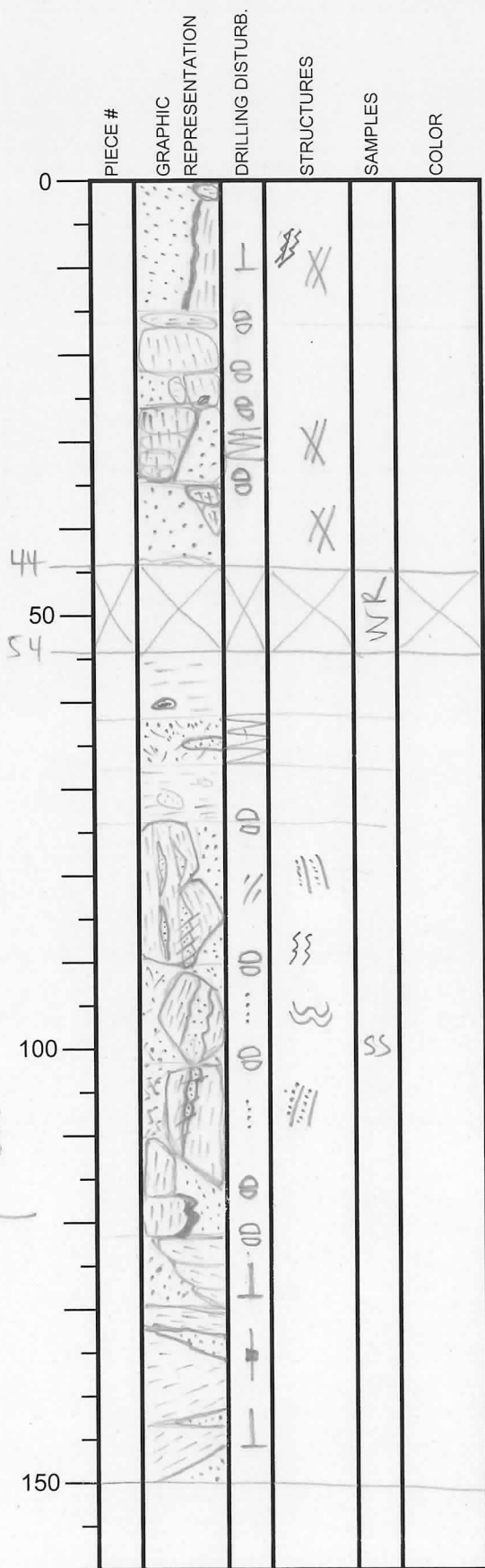
OBSERVER: ANA

- DEFORMED PORTION: SILTY CLAYSTONE BISCUITS WITHIN MIXED LITHOLOGIES (SILTY CLAYS + SANDS)
- SILTY CLAYSTONE, THIN BLACK BAND ON TOP, COMMON SHELL FRAGMENTS
- SILTY CLAYSTONE / FINE SANDSTONE CONTACT, ALMOST VERTICAL; WEB-LIKE STRUCTURE IN SANDSTONE (POSS. DRIVING-INDUCED?).
- SILTY CLAYSTONE - POLISHED BREAK SURFACES (POSS. SLIKENLINES)
- SILTY CLAYSTONE, NO VISIBLE BEDDING.
- FAULT SURFACE (SEE STRUCTURAL GEOLOGY)
- SILTY CLAYSTONE BISCUIT IN DEFORMED SANDY MATERIAL

Integrated Ocean Drilling Program Visual Core Description

NO. 16
 DATE: 26/12/2013
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 4R
 SECTION: 6
 TOP DEPTH (m CSF):

OBSERVER: ANA



SECTION DESCRIPTION

→ SILTY CLAYSTONE / SANDSTONE BEDS, ALMOST VERTICAL CONTACT



DEFORMED PORTION: BISCUITS OF SILTY CLAYSTONE AND SANDSTONE
 ↳ BRITTLE FRACTURES IN SILTY CLST
 WEB-LIKE STRUCTURES IN SST

→ SILTY CLAYSTONE - NO VISIBLE BEDDING

→ DEFORMED - MIX OF LITHOLOGIES

→ SILTY CLAYSTONE: NO VISIBLE BEDDING, w/ SANDY PATCHES

→ VERY FINE SANDSTONE BED WITHIN SILTY CLAYSTONE, AFFECTED BY SMALL FAULTS (VERY THIN WHITE VEN. AT THE BASE)

→ BISCUIT: VERY FINE SANDSTONE BED (FOSSIL-RICH) BETWEEN SILTY CLAYSTONE; MIXED LITHOLOGIES AROUND BISCUIT



DEFORMED PORTION: ROTATED BISCUITS OF SILTY CLAYSTONE / SANDSTONE BEDS

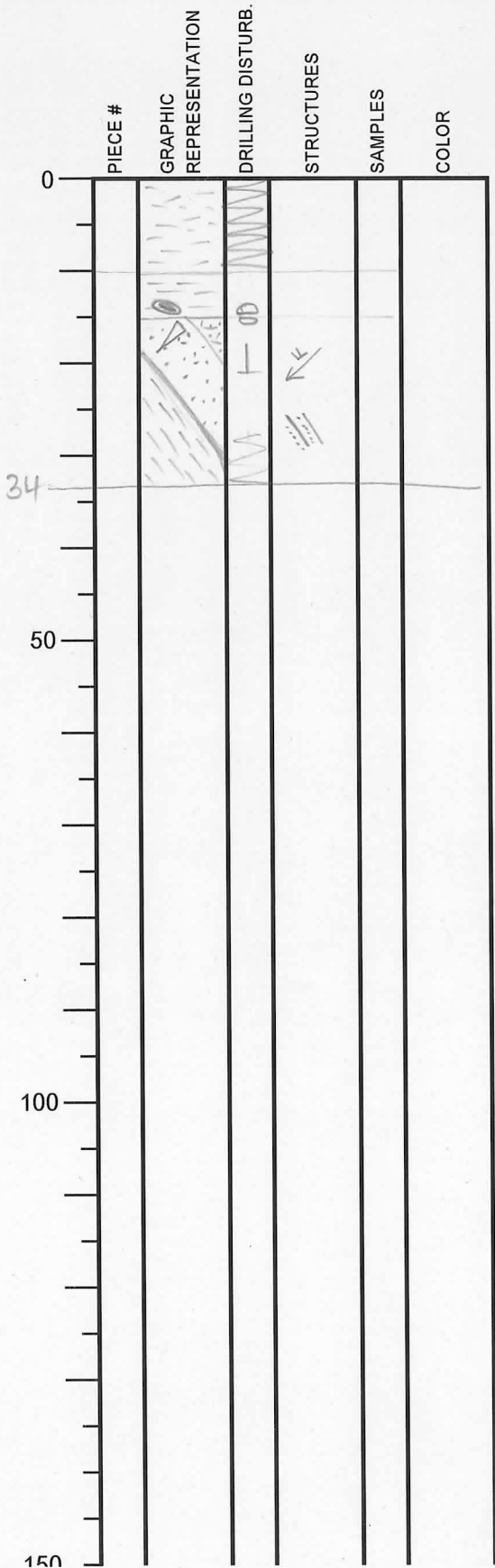
THIN BLACK BAND

Integrated Ocean Drilling Program

Visual Core Description

NO. 17
 DATE: 26/12/2013
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 4R
 SECTION: CC
 TOP DEPTH (m CSF):

OBSERVER: ANA



SECTION DESCRIPTION

→ SILTY CLAYSTONE - NO VISIBLE BEDDING

→ SILTY CLAYSTONE: VERY STEEPLY DIPPING,
 DARK COLOURED LAMINAE - MOTTLED TEXTURE

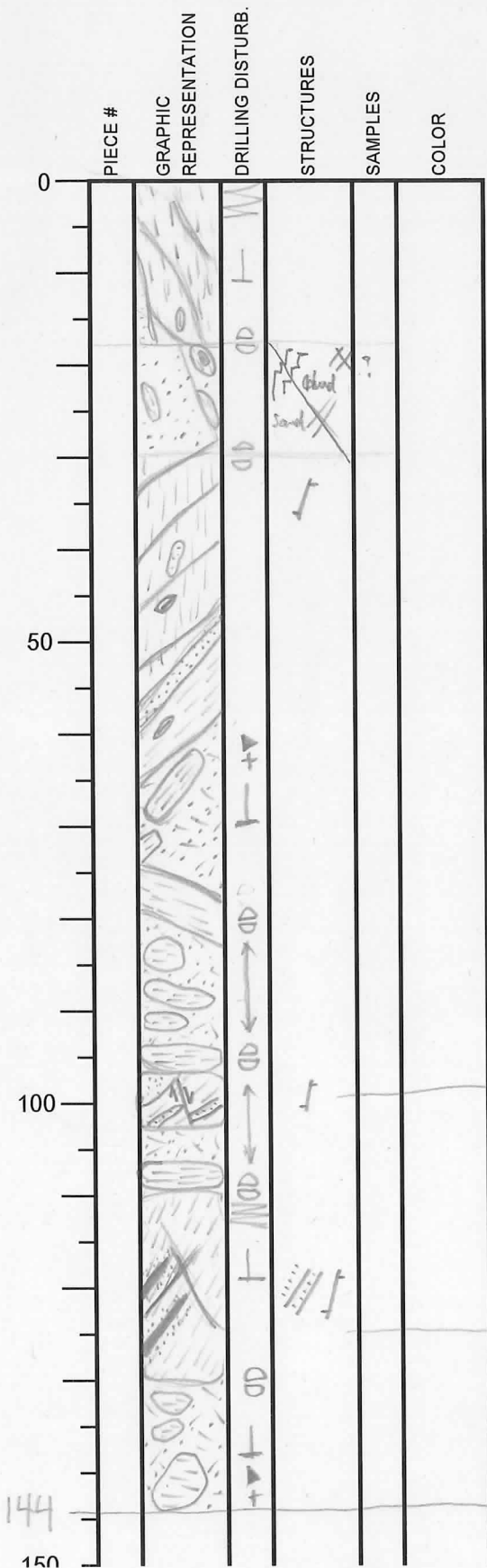
→ GRAIN GRADATION IN SANDSTONE
 (FINING TOWARDS SILTY CLAYSTONE)

Integrated Ocean Drilling Program

Visual Core Description

NO. 18
 DATE: 2/17/2013
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: SR
 SECTION: 1
 TOP DEPTH (m CSF):

OBSERVER: ANA



SECTION DESCRIPTION

MOSTLY SILTY CLAYSTONE WITH COMMON SANDSTONE LENSES / PATCHES, OLD BLACK LAMINAE AND SPECKS, FEW SHELL FRAGMENTS, COLOUR BANDING IN PLACES

- OBSERVED SMALL SHEAR FRACTURES (FAULTS) THAT OFFSET BEDDING
- FREQUENT SILTY CLAYSTONE BISCUITS IN SANDY MIXED MATERIAL

→ POSSIBLE SMALL FAULT?

→ BLACK LAMINATIONS, POSSIBLY OFFSET BY SMALL FAULT

Integrated Ocean Drilling Program

Visual Core Description

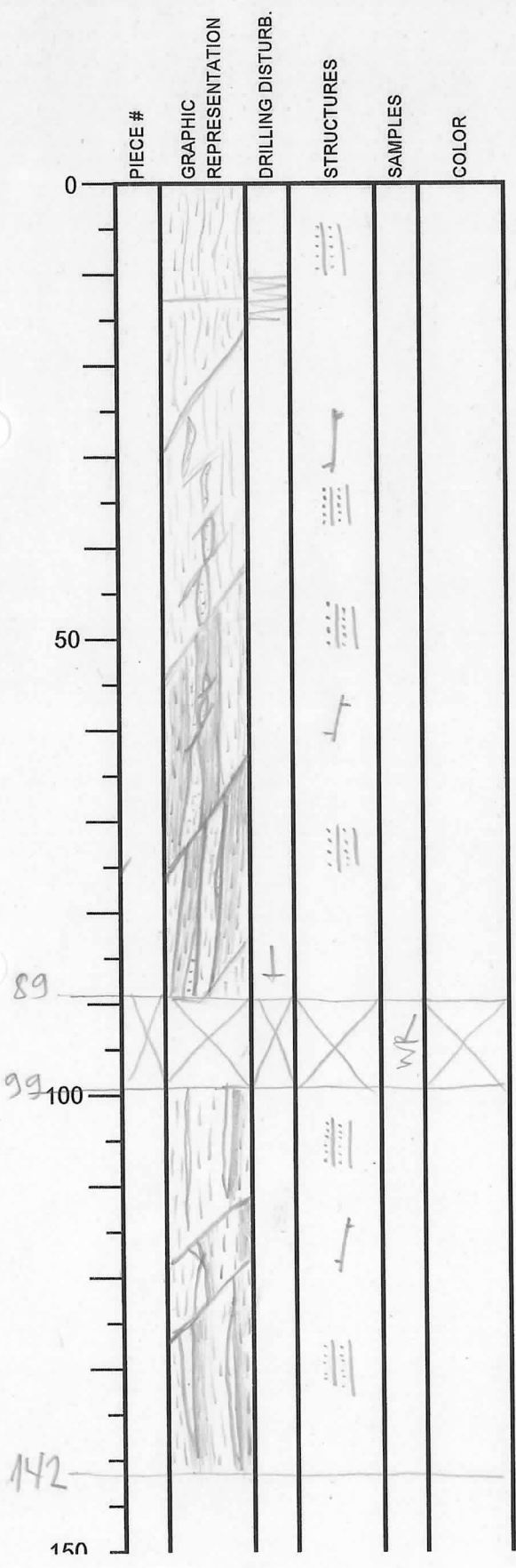
NO. 19
 DATE: 26/11/2013
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 5R
 SECTION: 2
 TOP DEPTH (m CSF):

OBSERVER: Ana

SECTION DESCRIPTION

SILTY CLAYSTONE, VERTICALLY
 DIPPING, WITH COLOUR BANDING AND
 OCCASIONAL VERY FINE SANDSTONE
 LENSES / THIN BANDS

↳ STEEP SHEAR SURFACES OFFSETTING
 BANDING (SEE STRUCTURE)



X Deformation band (structure)

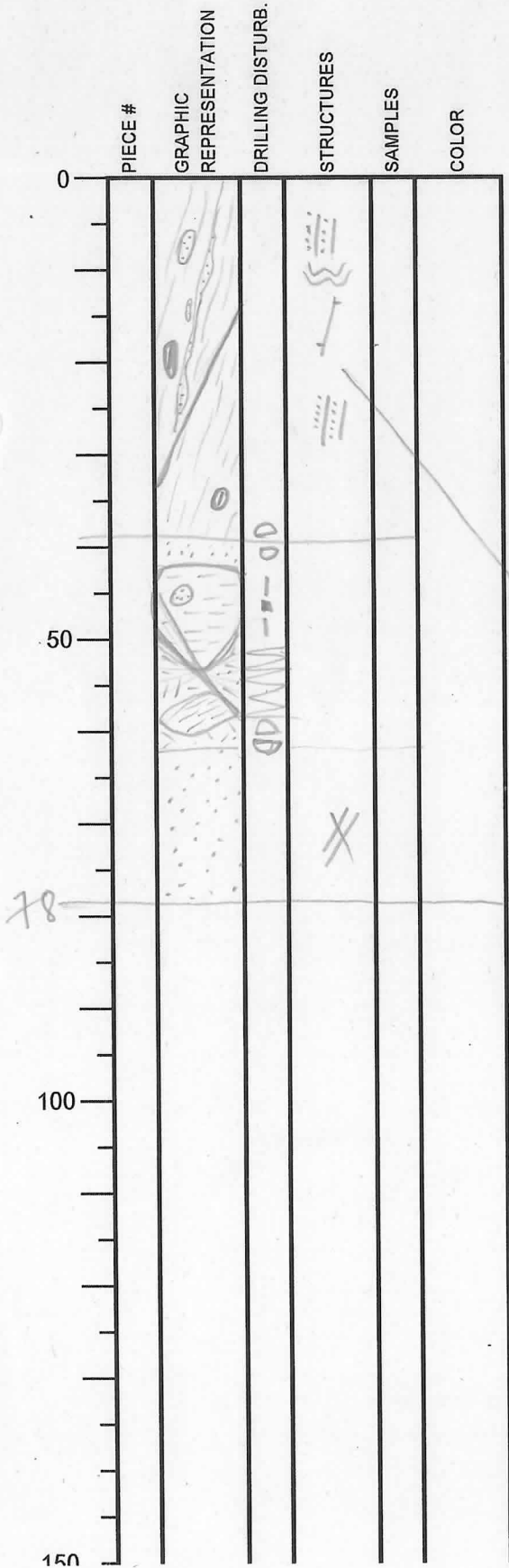
shear fracture (structure)

Integrated Ocean Drilling Program

Visual Core Description

NO. 20
DATE: 25/12/2013
EXP.: 348
SITE/HOLE: C0002P
CORE: 5R
SECTION: 3
TOP DEPTH (m CSF):

OBSERVER: ANA



SECTION DESCRIPTION

COLOUR-BANDED SILTY CLAYSTONE, ALMOST VERTICAL BEDDING, WITH OCCASIONAL VERY FINE SANDSTONE THIN LAMINAE / LENSES, SOMEWHAT CONVOLUTED OR BIOTURBATED (?) BEDDING IN PLACE

→ POSS. SHEAR SURFACE

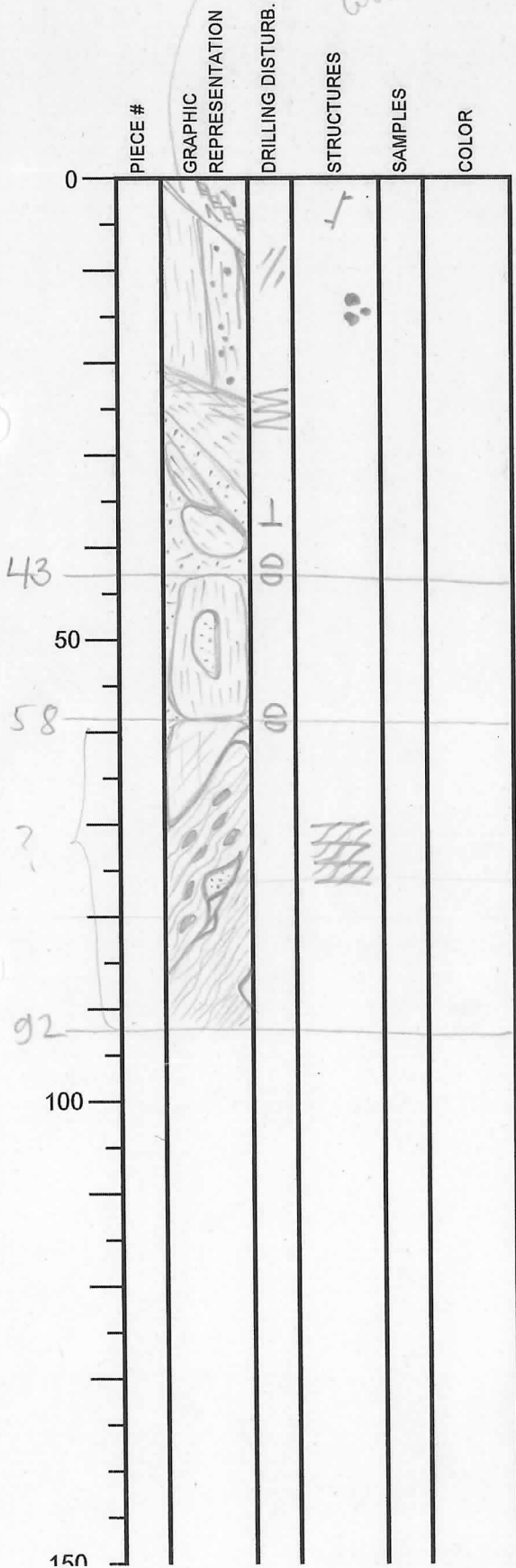
→ SANDSTONE WITH WEB-LIKE STRUCTURES

Integrated Ocean Drilling Program

Visual Core Description

NO. 21
 DATE: 26/12/2013
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: SR
 SECTION: 4
 TOP DEPTH (m CSF):

*What is matrix?
 What is lithology?*



SECTION DESCRIPTION

OBSERVER: ANA/ANJA

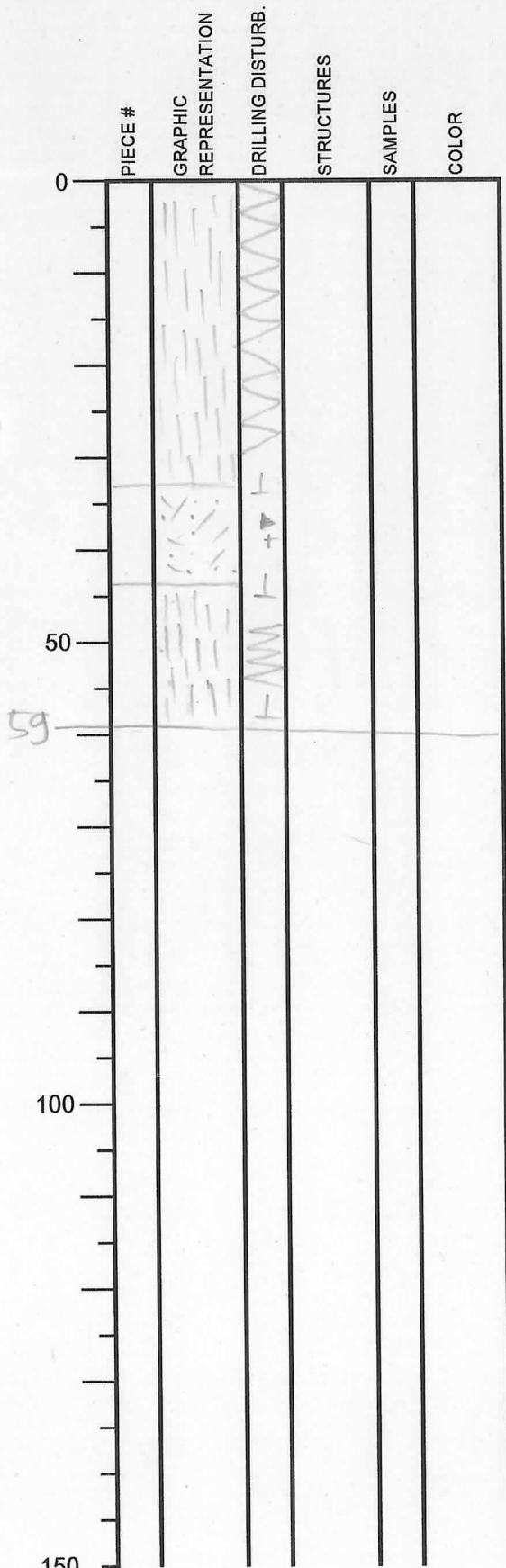
→ SMALL SHEARED SURFACE - NORMAL FAULTING
 → SILTY CLAYSTONE: HIGHLY STEEPING BEDDING, WITH MOTTLED TEXTURE IN PLACE

— SHEAR ZONE - HIGHLY FRACTURED AND DEFORMED (BRECCIATED)
 — SANDSTONE SIGMOIDAL CLAST
 — COMMON DEFORMED CALCITE VEINS

~

Integrated Ocean Drilling Program Visual Core Description

NO. 22
 DATE: 26/12/2013
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: SR
 SECTION: 5
 TOP DEPTH (m CSF):



SECTION DESCRIPTION

OBSERVER: ANA

SILTY CLAYSTONE real breccia ??

→ HIGHLY DISTURBED SECTION:
 LIMER BROKE WHILE REMOVING CORE CATCHER BELOW

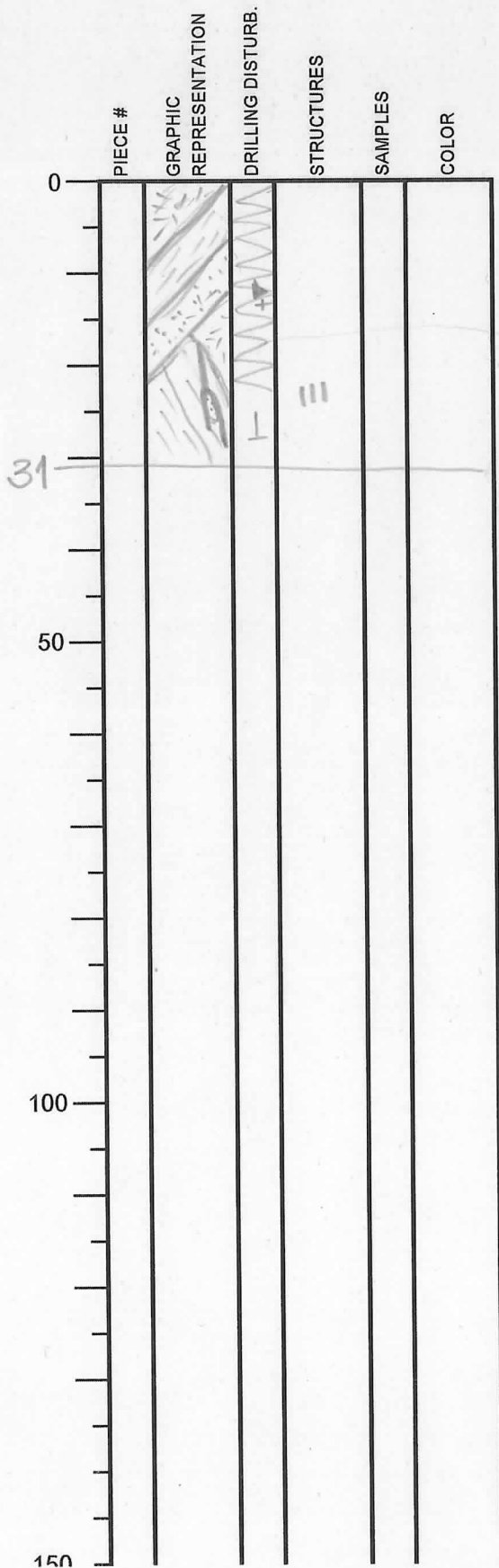
→ SILTY CLAYSTONE WITH SANDY SMEARS (DRIVING INDUCED)

↳ NO VISIBLE BEDDING, BUT PRESUMABLY ALMOST VERTICAL (AS CORE SECTIONS ABOVE)

Integrated Ocean Drilling Program Visual Core Description

NO. 23
 DATE: 26/12/2013
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 5R
 SECTION: CC
 TOP DEPTH (m CSF):

OBSERVER: ANA



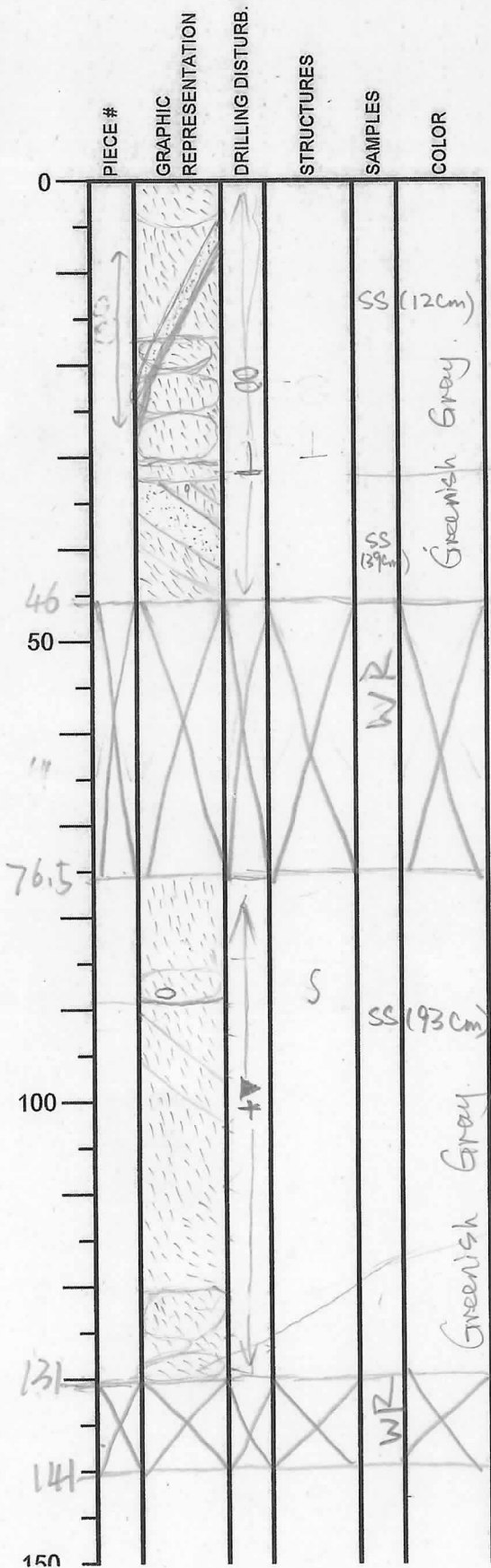
SECTION DESCRIPTION

Highly fracture by
 → Silty clay stone with few sandy Lenses

Integrated Ocean Drilling Program Visual Core Description

NO. 24
 DATE: 12/26/20
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 6P
 SECTION: 1
 TOP DEPTH (m CSF):

OBSERVER: Anja/Chen



SECTION DESCRIPTION

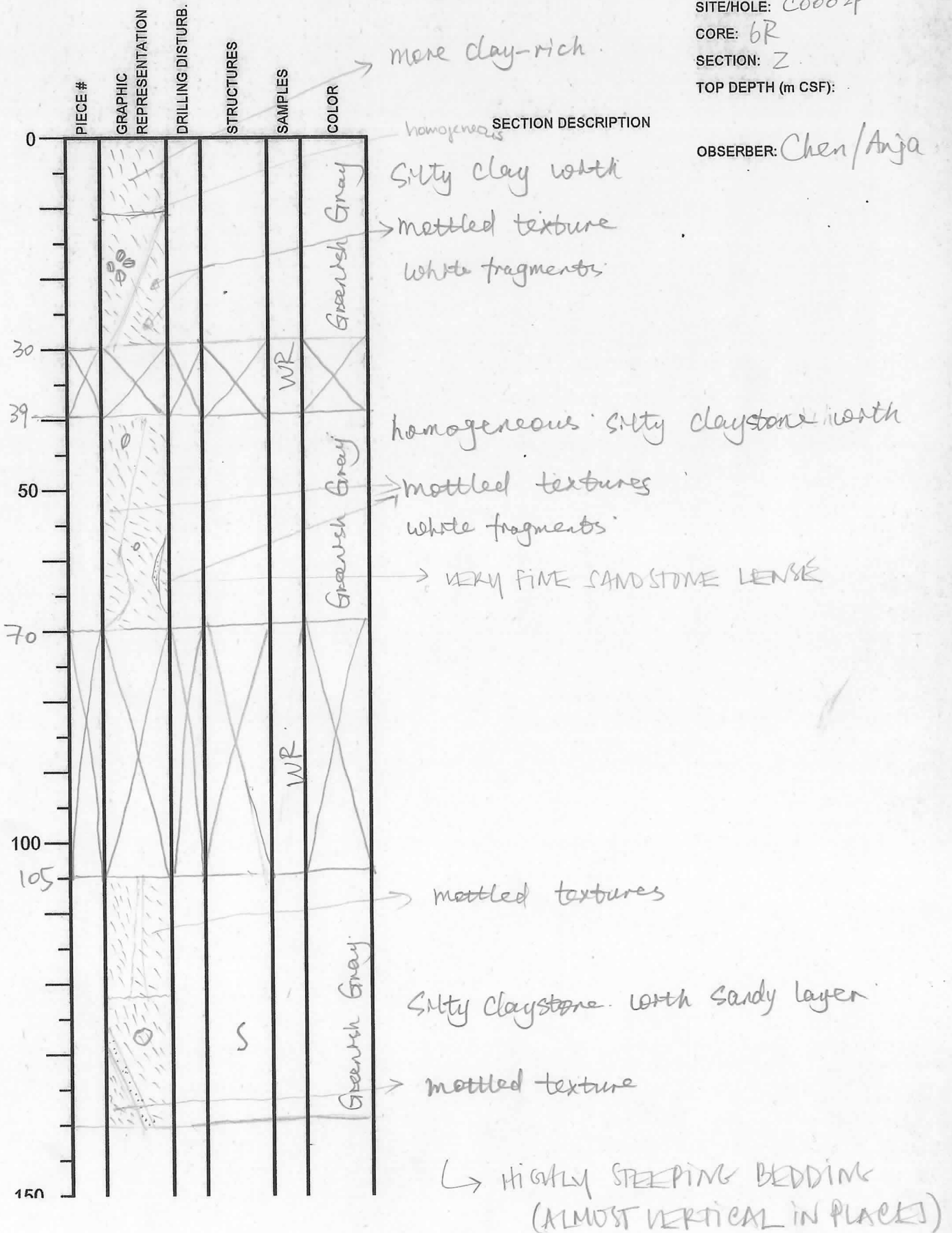
Silty claystone w/ a sandy layer (bedding?), following w/ mottled texture. Biscuits
 → softer layer (clayey silt).
 white fragment.
 ↓ shell fragment?

Silty claystone with silty claystone pieces

Integrated Ocean Drilling Program Visual Core Description

NO. 25
 DATE: 12/26/20
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 6R
 SECTION: Z
 TOP DEPTH (m CSF):

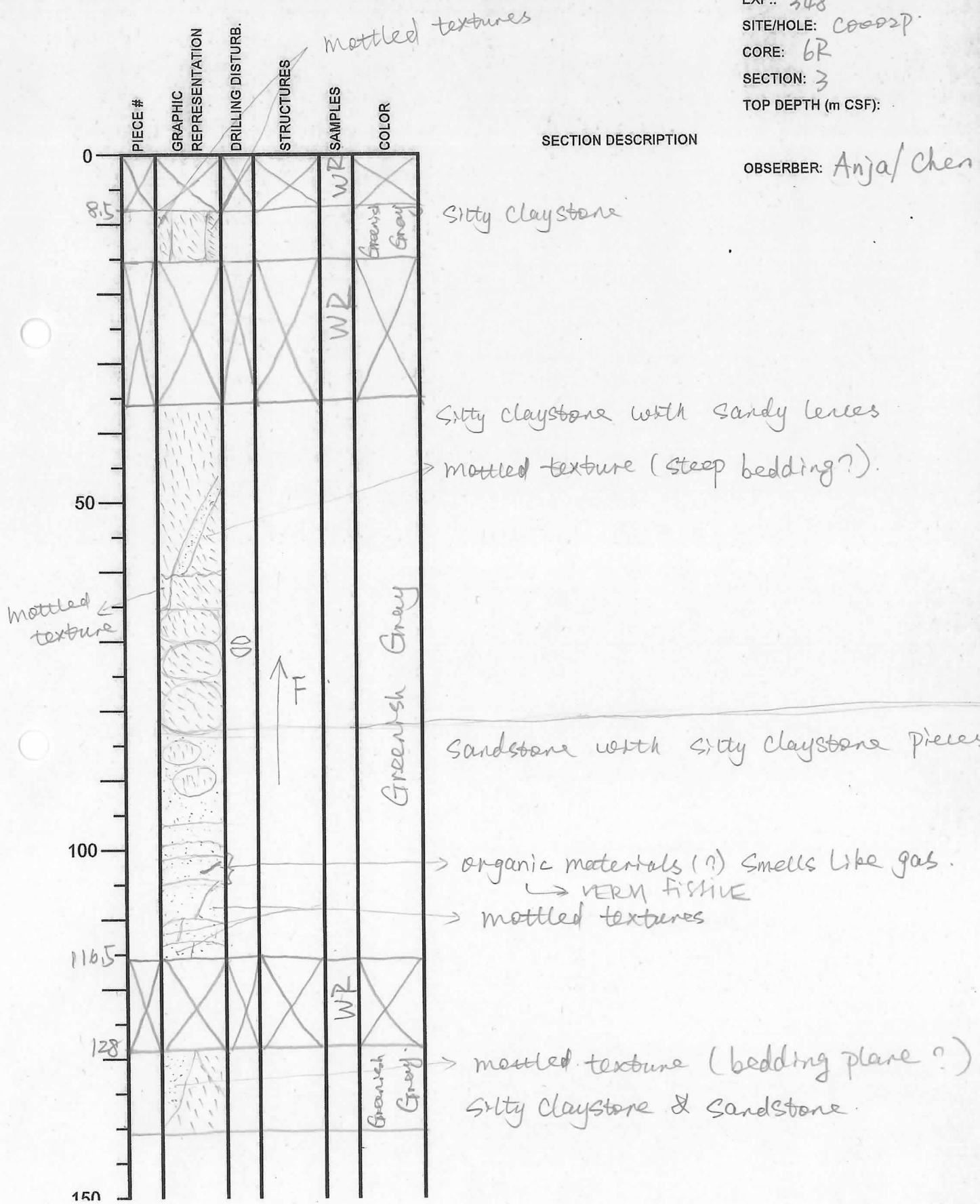
OBSERVER: Chen/Anja



Integrated Ocean Drilling Program Visual Core Description

NO. 26
 DATE: 2/26/20
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 6R
 SECTION: 3
 TOP DEPTH (m CSF):

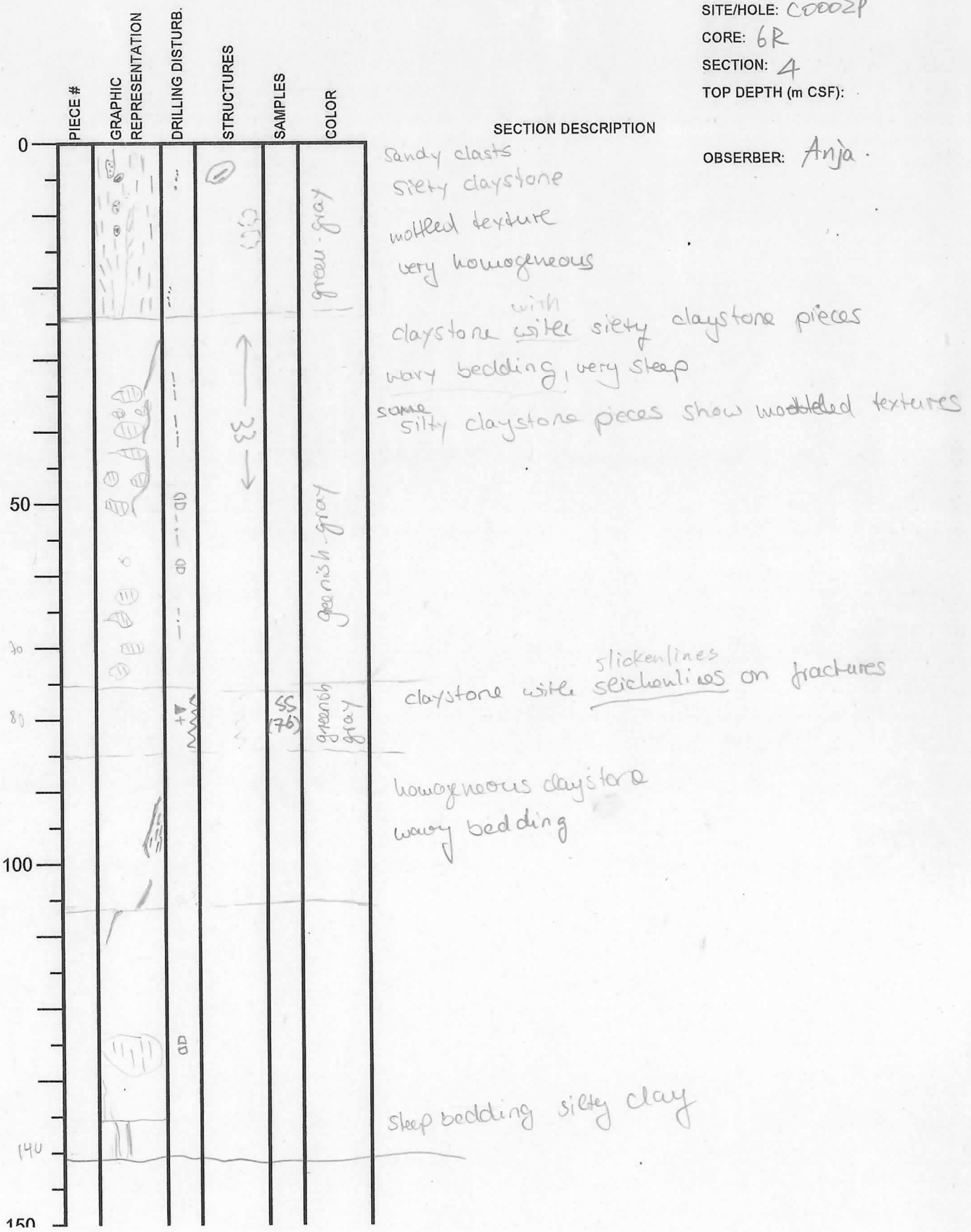
OBSERVER: Anja/Chen



Integrated Ocean Drilling Program Visual Core Description

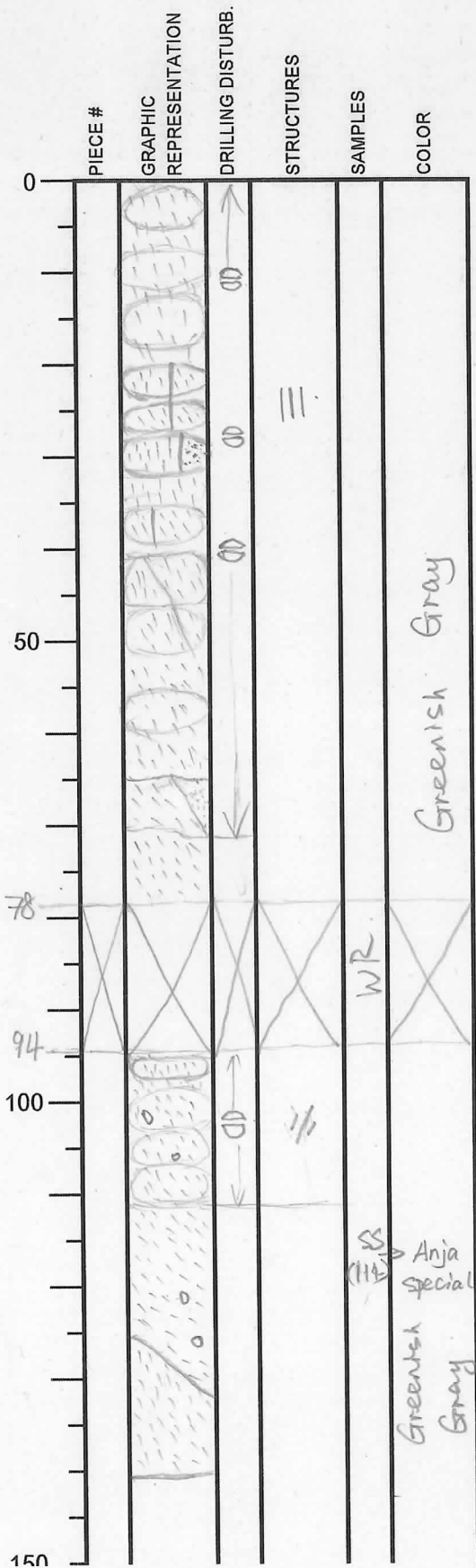
NO. 27
 DATE: 12/24/20
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 6R
 SECTION: 4
 TOP DEPTH (m CSF):

OBSERVER: Anja



Integrated Ocean Drilling Program Visual Core Description

NO. 28
 DATE: 12/21/20
 EXP.: 348
 SITE/HOLE: C0002D
 CORE: 6R
 SECTION: 5
 TOP DEPTH (m CSF):



SECTION DESCRIPTION

Silty claystone
 steep (vertical) bedding plane
 mottled texture thru the whole section
 Sandstone pieces near the bedding plane

OBSERVER: Anja / Chen

Silty claystone
 white fragments

SS (H+) Anja special

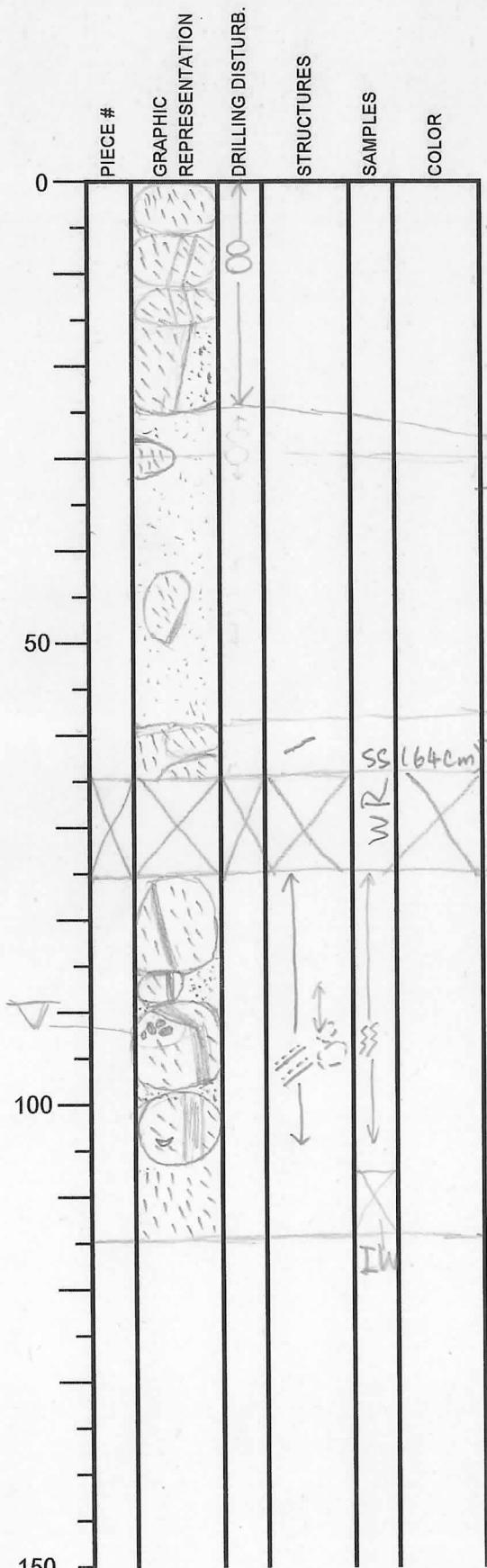
Greenish Gray

Integrated Ocean Drilling Program

Visual Core Description

NO. 29
 DATE: 12/26/20
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 6R
 SECTION: 6
 TOP DEPTH (m CSF):

OBSERVER: Chen / Anja



SECTION DESCRIPTION

→ Silty claystone
 steep bedding changing angle
 slightly due to biscuiting;
 steep angles are visible in biscuits

→ Sandstone with silty claystone pieces

→ Silty claystone w/ organic matters on the bottom and smells like gas.

→ mixture w/ silty claystone and sandstone
mottled texture.
 Dark bands showing steep bedding, which
 * changes angles due to biscuiting.

Integrated Ocean Drilling Program

Visual Core Description

NO. 30
 DATE: 6/12/20
 EXP.: 348
 SITE/HOLE: C0002P
 CORE: 6
 SECTION: CC
 TOP DEPTH (m CSF):

