1344 Site | D Hole | 1H Core | 1+2 (shorty) Section | Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
	5Y4/3		slight				Soupy 0-70
							2-8 dark mottling
							70-... soft
							63, 77, 83, 101 sponge aggs.
							114

10 20 30 40 50 60 70 80 90 100 110 120 130 140

Observer: ______ Date: ______

X

SMU

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U24Y	D	1H		1	70	70

Sediment/Rock Name	Diatom Ooze

Observer	H.A

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 35
	Framework minerals
27	Quartz AD #13
6	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments 1
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
tr	Zircon
4	Ferromagnesium minerals 2
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 61
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
41	Diatoms 20
20	Centric 10
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

SMU

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1348	D	11H		2	80	80

Sediment/Rock Name	Observer
Diatom Ooze	Hino

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 30
~~2~~	Framework minerals
25	Quartz 20
3	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
27	Ferromagnesium minerals 1
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite 5
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

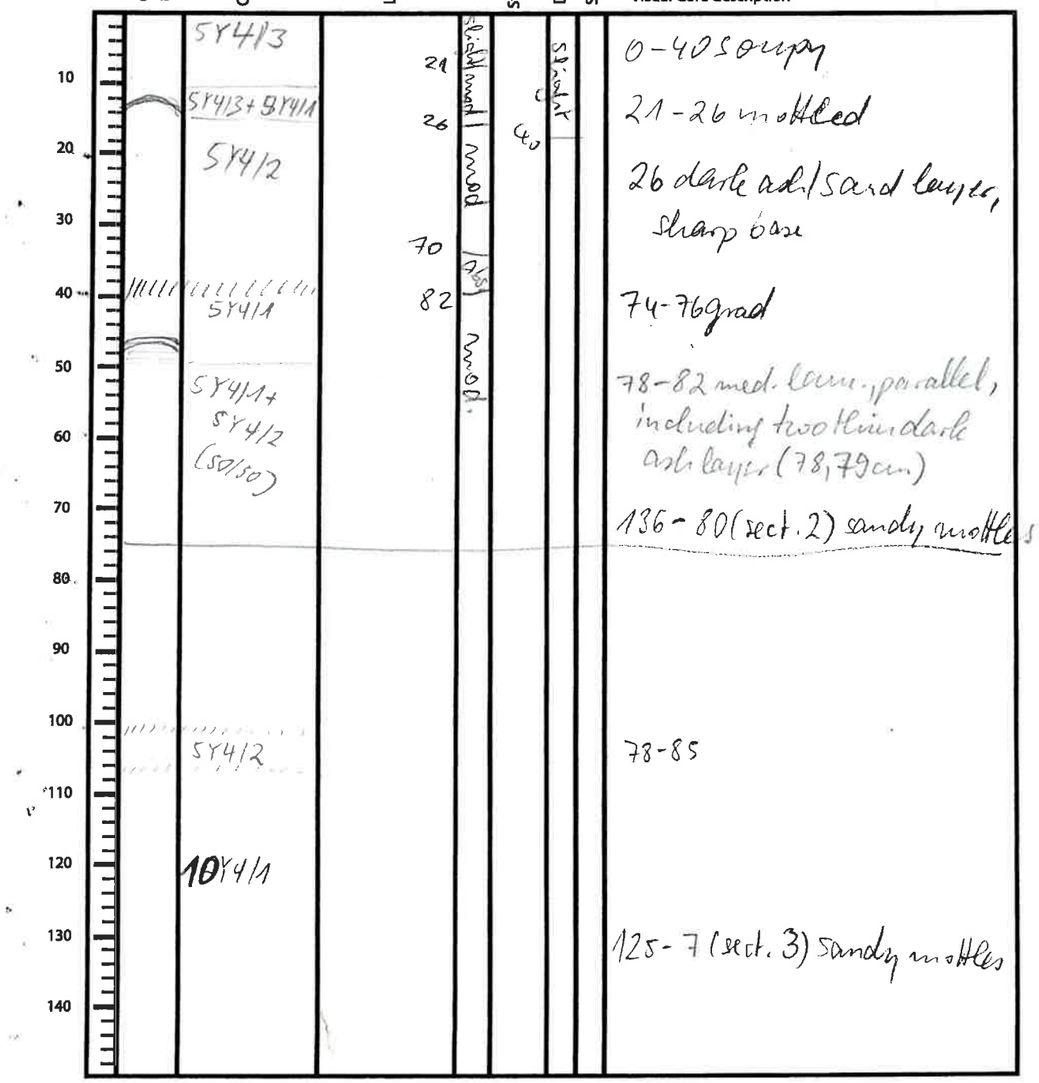
Percent	Component
	BIOGENIC GRAINS ~~67~~ 70
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
1	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
	Centric 50
63	Pennate 5
6	*Chaetoceros* Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 / D / 2H / 1+2 / ____
Site / Hole / Core / Section / Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



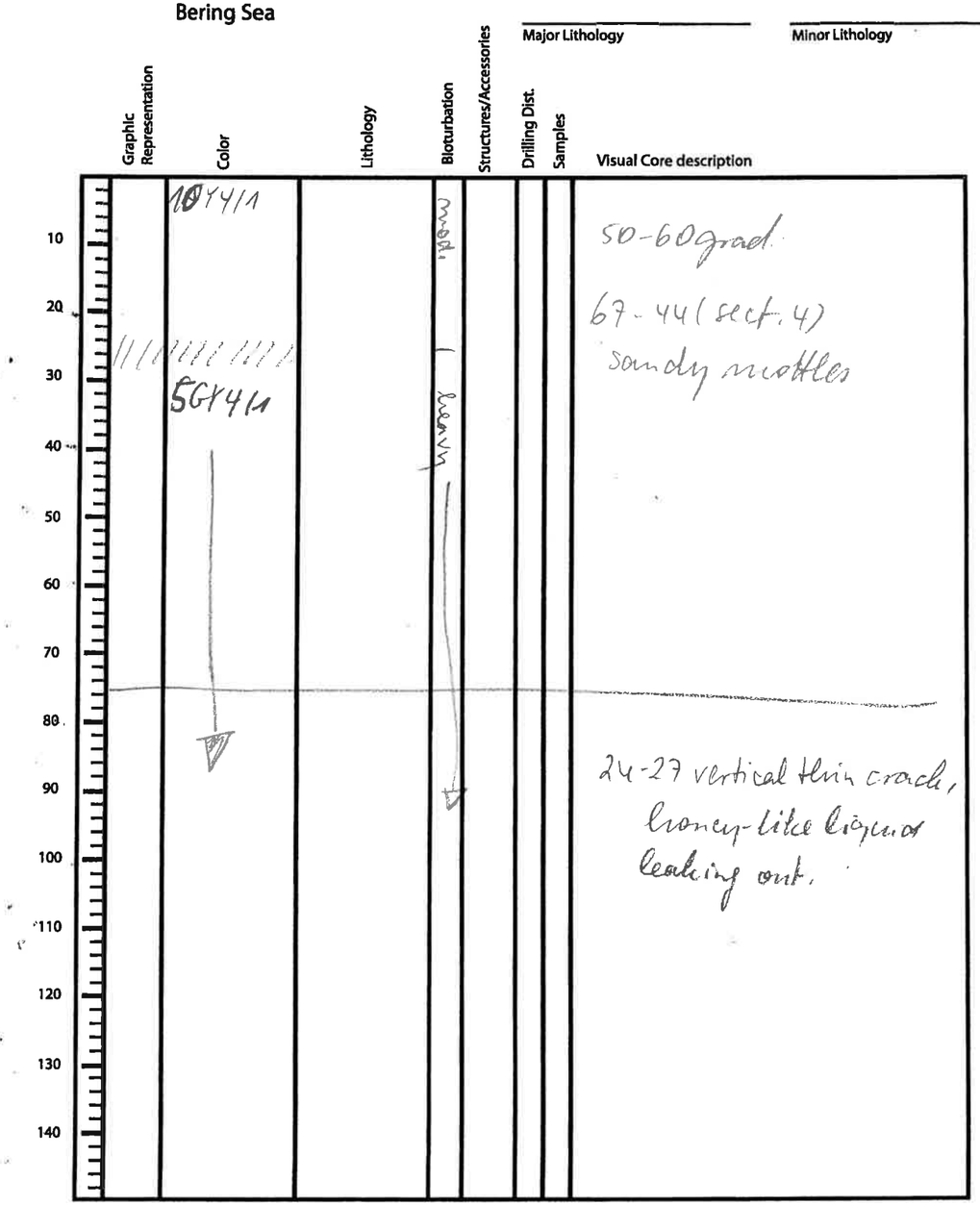
Observer: _____ Date: _____

1344 / Site — D / Hole — 2H / Core — 3+4 / Section — ___ / Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology

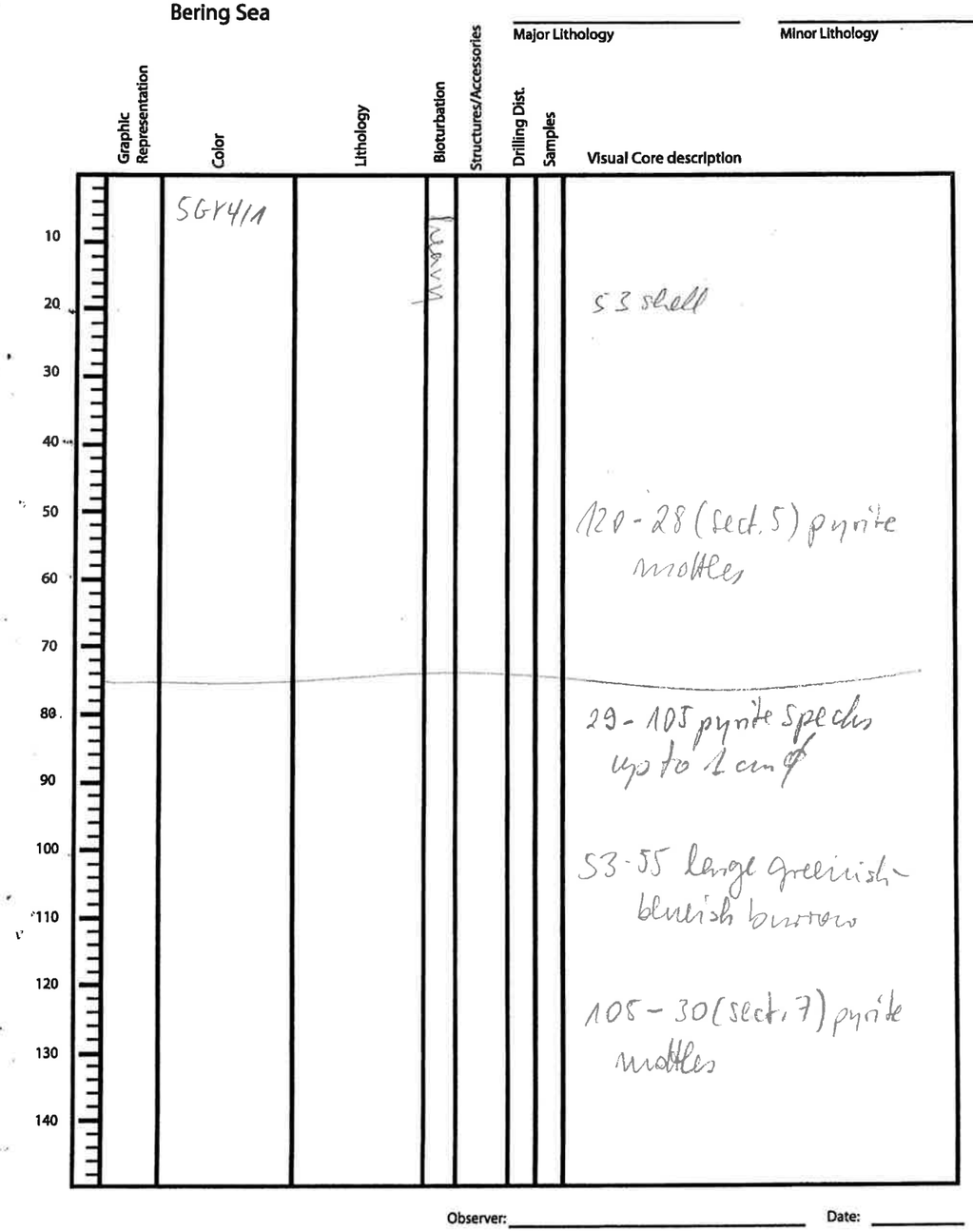


Observer: _____ Date: _____

1344 / D / 2H / 5-6 / ____
Site / Hole / Core / Section / Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



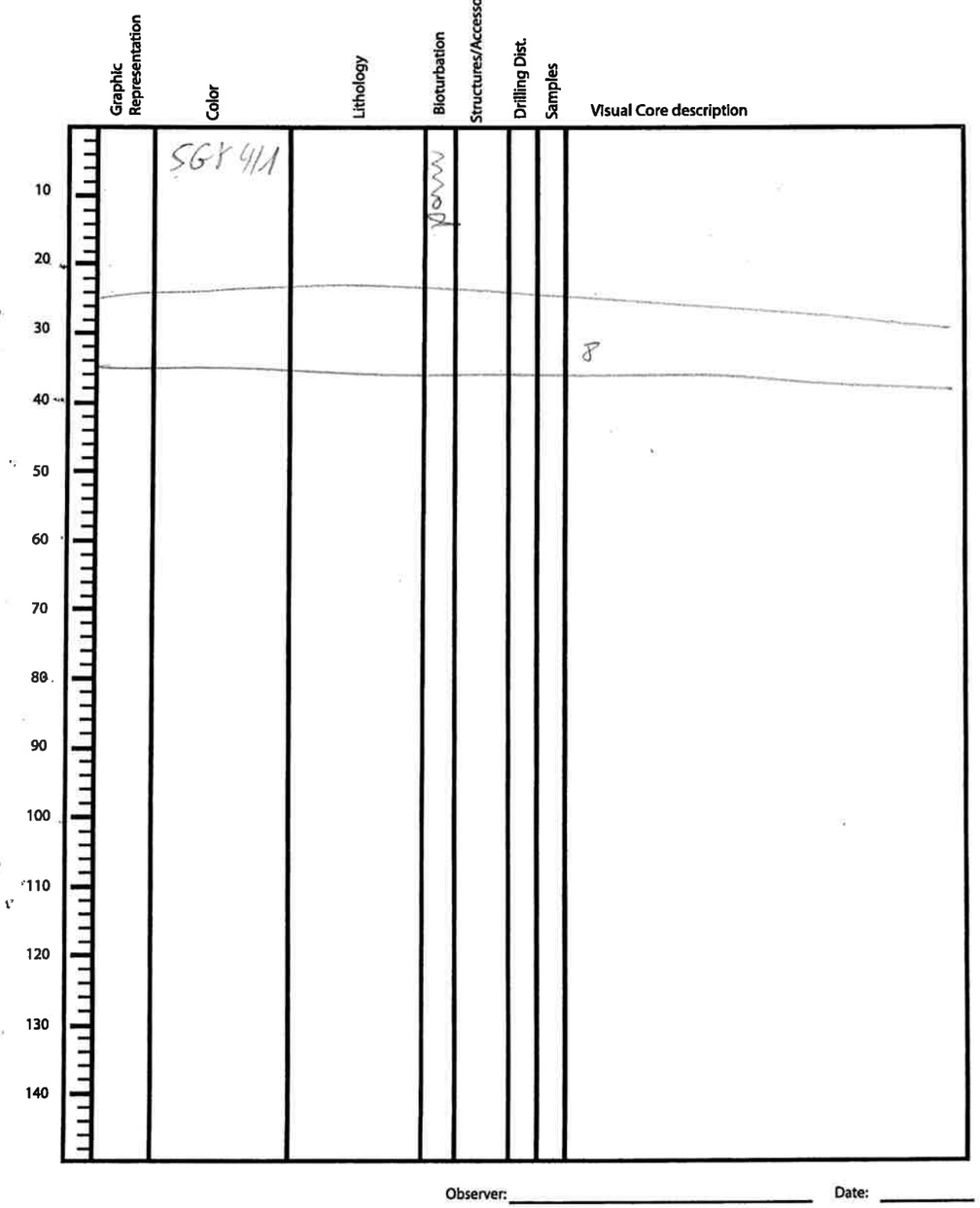
Observer: ____ Date: ____

1344 D 2H 7+cc
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	D	2H		1A	15	15

Sediment/Rock Name	Diatom silt

Observer	Hino

Percent Texture		
Sand	Silt	Clay
10	80	10

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 47
	Framework minerals
25	Quartz ~~20~~ 25
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments 2
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
12	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
4	Pyrite 3
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 53%
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
35 ~~43~~	~~30~~ 30 Centric
18 27	15 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

D 2H SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	~~2H~~	~~D~~		1	26	

Sediment/Rock Name	Sand.

Observer	H. Hino

Percent Texture		
Sand	Silt	Clay
90	~~10~~ 10	0

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 18
	Framework minerals
26 ~~20~~	Quartz
~~10~~ ~~10~~ 18	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
16 ~~10~~	Rock fragments
60	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
36 ~~20~~ 36	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 2
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
2	Diatoms
16	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
<1	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

79 SM 79

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1364	D	2H		1A	~~55~~	~~55~~

Sediment/Rock Name	Observer
Diatom bearing Sand ~~sandy~~	H. A

Percent Texture		
Sand	Silt	Clay
80	15	5

Comments: Laminated Layer

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
~~55~~ 60	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
5	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
15	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
5	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1364	D	2H		2A	30	30

Sediment/Rock Name: Diatom rich clay
silty

Observer: H.D

Percent Texture Sand	Silt	Clay
10	~~15~~ 20	~~75~~ 90

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 69
	Framework minerals 6
11	Quartz 4
5	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
16	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
53	Clay Minerals 20
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 31
	Calcareous
	Foraminifera
<1	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
26 10	Centric
5 2	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	B4Y	D	2H		5A	80	80

Sediment/Rock Name	Diatom rich silty clay

Observer	Hino.

Percent Texture		
Sand	Silt	Clay
10	30	60

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 8
	Framework minerals
2	Quartz 2F 1S
6	Feldspar 5 1
	K-feldspar (Orthoclase, Microcline...)
1	Plagioclase
1	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
2	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
6	Ferromagnesium minerals 5 2
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
7	Pyrite 3
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 2 11
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
2	// Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 / D / 3H / 1+2 / ____
Site / Hole / Core / Section / Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
	5GY 4/1		moderate		yellow		0-55 cracks pyrite mottles thr. 98 clast, pebble, black, subrounded 116-120 sandy mottles, sponge eggs.

10
20
30
40
50
60
70
80
90
100
110
120
130
140

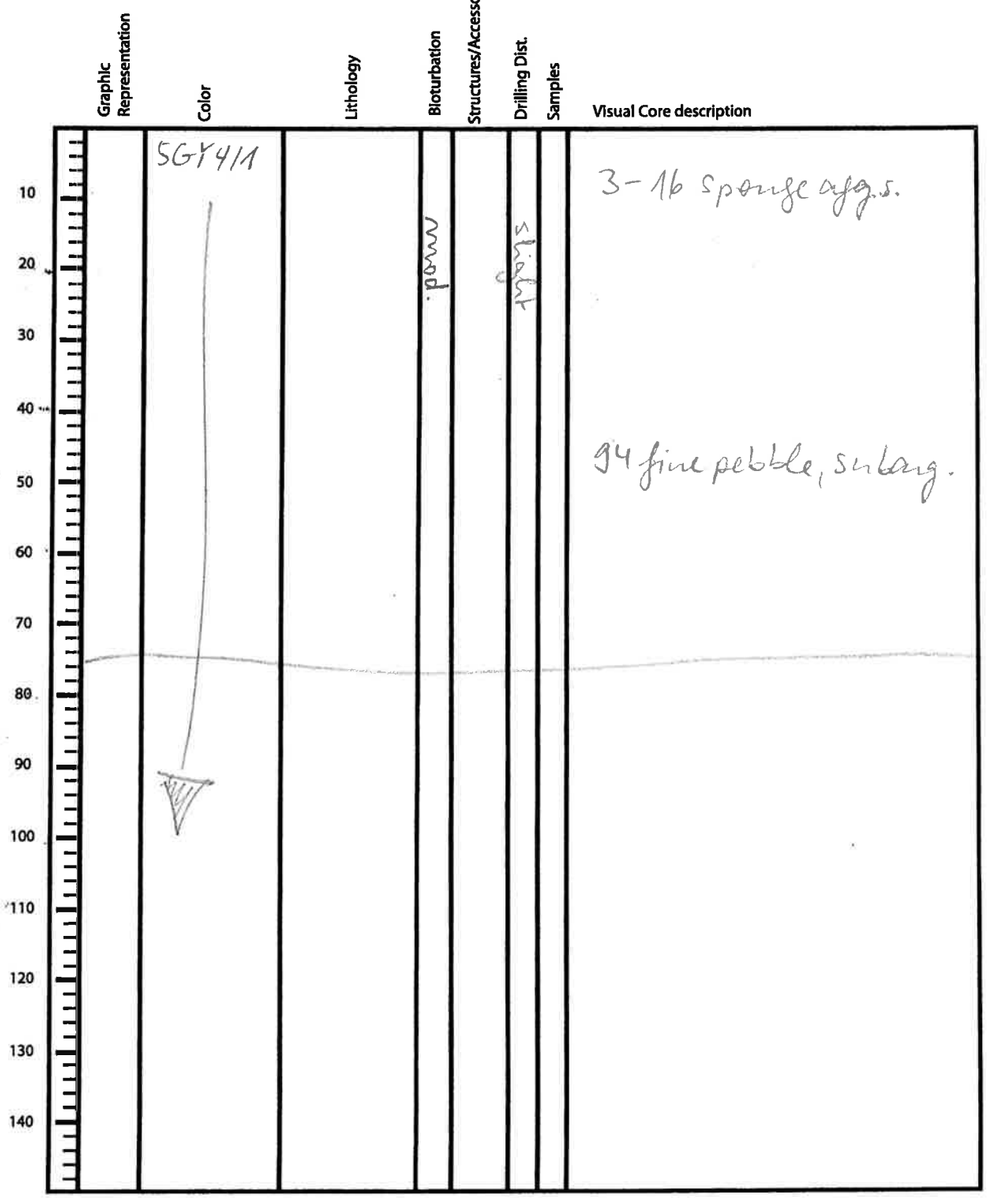
98, 116 sponge eggs.

Observer: _____ Date: _____

1344 D 3H 3+4 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



Observer: _____ Date: _____

1344 / D / 3H / 5+6 / ____
Site / Hole / Core / Section / Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
	5GY4/1		mod.		slight		15–35 sponge aggs. 26–38 sandy mottles 74–78 sponge aggs. 95 thin sandy layer, biot. 110–120 sandy mottles 124–125 sandy layer, biot. 132

10 20 30 40 50 60 70 80 90 100 110 120 130 140

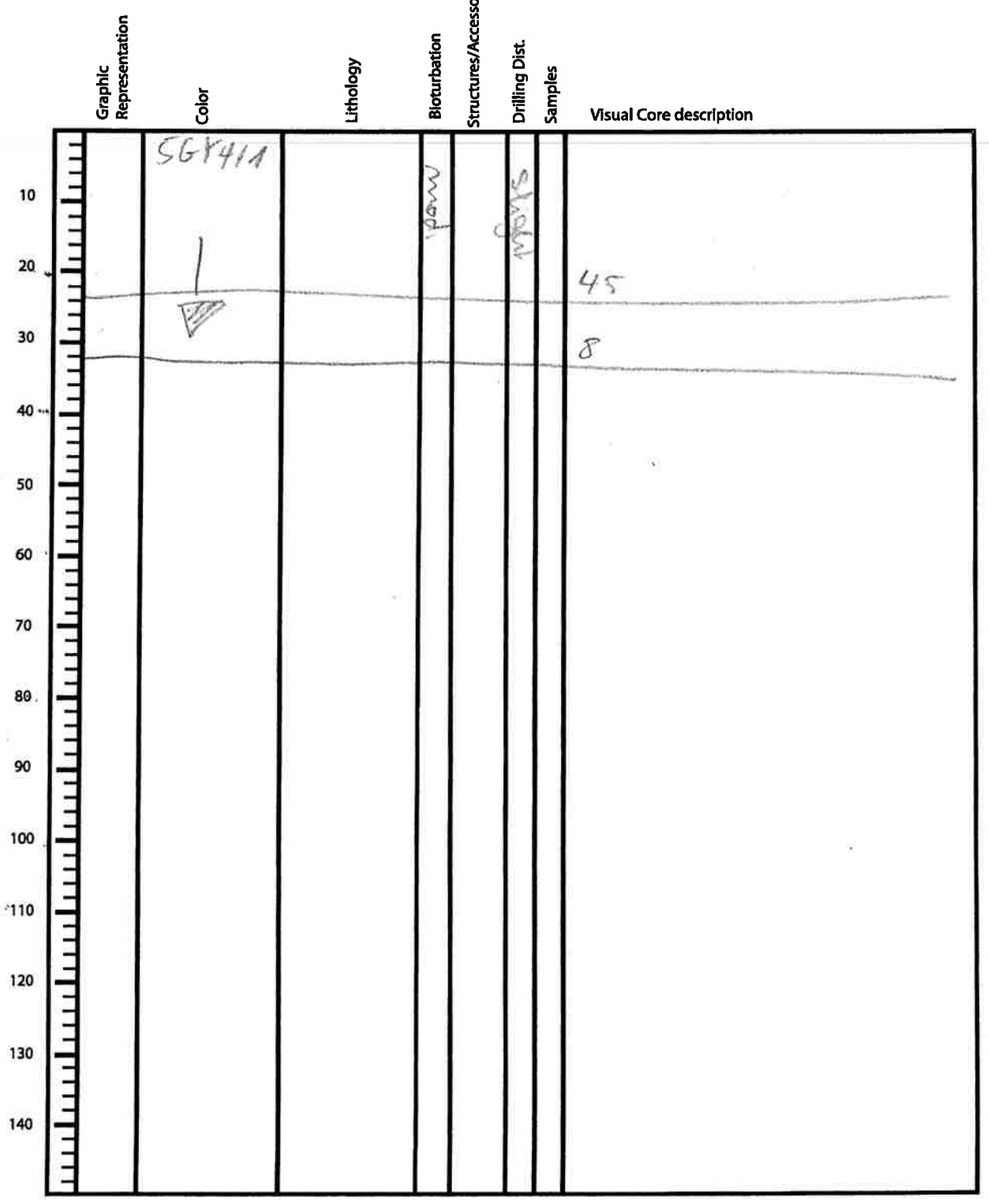
Observer: _____ Date: _____

1344 D 3H 7+CC
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	D	3	H	3	20	20

Sediment/Rock Name	Diatom-rich silty clay

Observer	MSC

S

Percent Texture		
Sand	Silt	Clay
0	33	66

Comments: Main lith (grey)

Percent	Component
70	**SILICICLASTIC GRAINS/MINERAL**
	Framework minerals
7	Quartz
7	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
6	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
46	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
4	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
30	**BIOGENIC GRAINS**
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
20	Centric
10	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	D	3	H	6	20	20

Sediment/Rock Name	Diatom-rich silty clay

Observer	MSC

S

Percent Texture		
Sand	Silt	Clay
0	40	60

Comments: Main lith (grey)

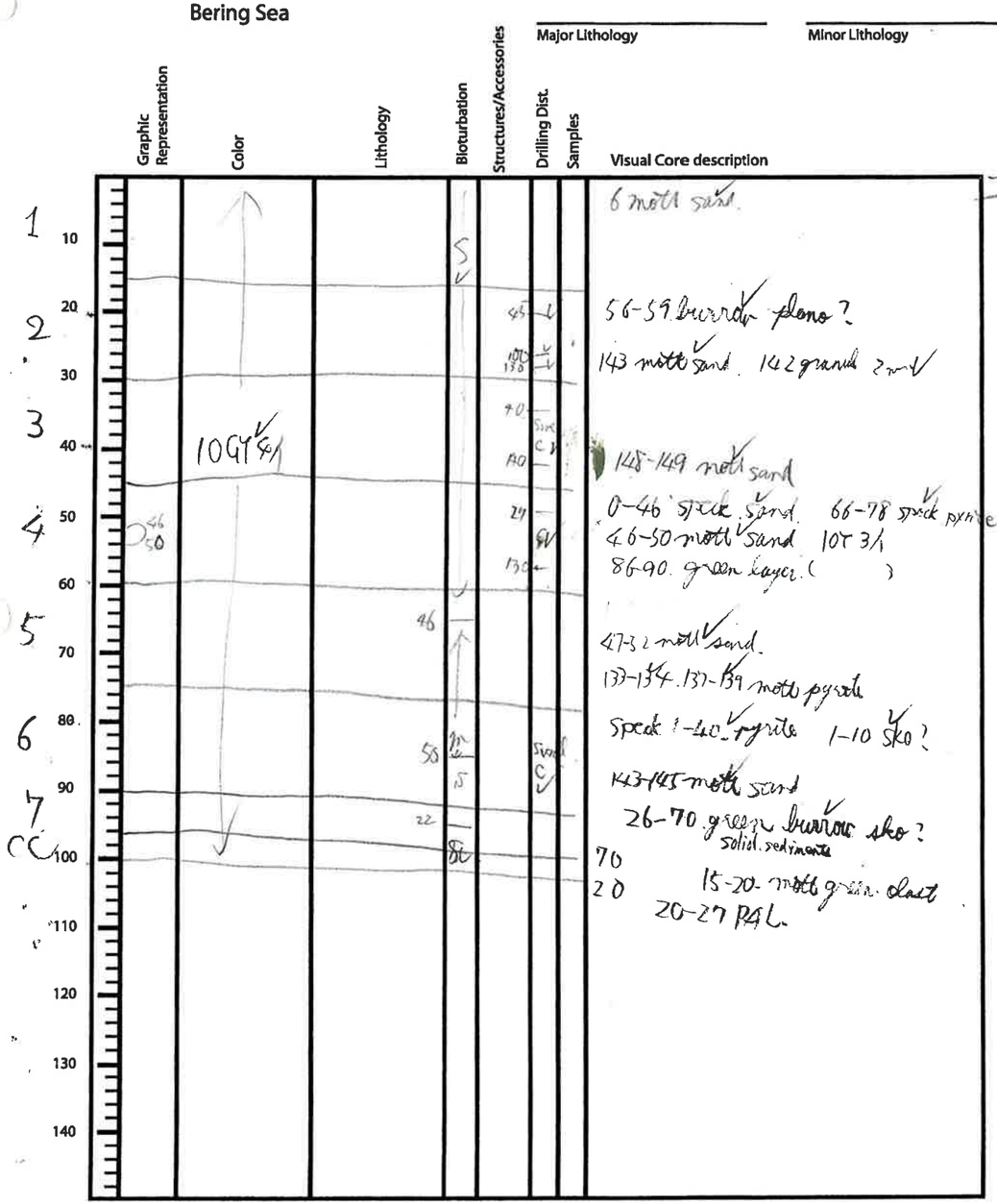
Percent	Component
60	**SILICICLASTIC GRAINS/MINERAL**
	Framework minerals
7	Quartz
7	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
6	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
36	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite
	Magnetite
1	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
40	**BIOGENIC GRAINS**
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
30	Centric
10	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 D 4H ____ ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



Observer: _____ Date: _____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
	1344	D	4		4	48 cm	

Sediment/Rock Name	SAND

Observer	IWR

Percent Texture		
Sand	Silt	Clay
80	20	

SAND LAYER

Comments: coarse silt to very fine sand

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
50%	Quartz
	Feldspar
7%	K-feldspar (Orthoclase, Microcline...)
7%	Plagioclase
36%	Rock fragments (METAMORPHIC)
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
	1344	D	4		5	57cm	

Sediment/Rock Name	SILT

Observer	CWF

Percent Texture		
Sand	Silt	Clay
7	88	5

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
45%	5 Quartz
	Feldspar
8%	1 K-feldspar (Orthoclase, Microcline...)
8%	1 Plagioclase
17%	2 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
17%	2 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
8	1 Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
5 8%	1 Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
	1344	D	4		7	42cm	

Sediment/Rock Name	CLAY

Observer	LWA

Percent Texture		
Sand	Silt	Clay
	30	70

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
9%	≥ Quartz
~~10~~	Feldspar
5%	K-feldspar (Orthoclase, Microcline...)
5%	Plagioclase
5%	Rock fragments
	Accessory/trace minerals
<1	Micas
	Biotite
	Muscovite
15	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5%	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

24

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
<1	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 D 5H

Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology

Graphic Representation | Color | Lithology | Bioturbation | Structures/Accessories | Drilling Dist. | Samples | Visual Core description

Upper 10 cm = soupy

Section	cm	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Visual Core description
1	10		10Y 4/1; 93, 95	SAND LAYER	40, 57	118, 125	SULFIDE-RICH; SULFIDE-RICH; SULFIDE-RICH; 10Y 4/1 DARK GREENISH GRAY DIATOM-RICH CLAYEY SILT
2	20			DIATOM-RICH CLAYEY SILT			
3	30–40			138 cm			flat round clast, pebble size.
4	50	60, 127	TRANSITION	sponge spicule, 5 cm			5 cm, SS DIATOM-RICH CLAYEY SILT; SCATTERED SULFIDE MOTTLES
CC	70		10Y 3/1				
	80–140			DIATOM-BEARING CLAYEY SILT			10Y 3/1 VERY DARK GREENISH GRAY DIATOM-BEARING CLAYEY SILT (Mottled throughout: dark (sulfide) spots & green (clay?) mottles.)

Observer: ____ Date: ____

U1344D 5D

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	D	5	H	4	68	

Sediment/Rock Name	diatom-rich clayey silt.	Observer	Akira

Percent Texture		
Sand	Silt	Clay
9	45	45
3	15	15

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
14	Quartz 5.
19	Feldspar 7
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
27	Clay Minerals 10.
	Chlorite
	Glauconite
	Chert
	Zircon
1	Ferromagnesium minerals Q 5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite 2
	Magnetite
	Fe-oxide
	Carbonates
3	Calcite 1
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
3	Vitric grain 1
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
27	Diatoms 10.
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 D 6
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology
Minor Lithology

Section	cm	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
1	10		10Y 4/1		S				80
2	20				M				42-43 sand layer 103-106 mottle
3	30		5GY 4/1						150 83-84 green layer 85 sandy layer 96-137 speck sand 131-132 mottle sand 138-140 pebble brown sand stone
4	40								150 39-55 sko. 70-90 speck pyrite 121-120, 140-149, 144-146 pyrite mottle
5	60								150 6-15 mottle pyrite. 31-32 pyrite mottle 75-76 sandy patch 81-140 speck pyrite
6	80	gV	40						60-126 sandy spots, speck
7	90	V	10Y 4/1		SV				84
CC	100								32

- 2A-80 diatom-clayey silt
- silty clay, high pyrite
- 3A 88 cm
- 7A-80cm diatom ooze

1344D 6H

Observer: ____ Date: ____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	D	6	H	2A	80cm	

Sediment/Rock Name	Diatom clayey silt

Observer	Beth

B - 50
S - 50
V - 0

Comments:

Percent Texture		
Sand	Silt	Clay
2	50	48

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
3	Micas
	Biotite
	Muscovite
10	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
7	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
10	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
23	Centric
16	Pennate
10	*Chaetoceros* Resting Spores
	Silicoflagellates
7	Sponge spicules Calcareous
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1314	D	6	H	3A	88cm	

Sediment/Rock Name	Silty clay (v. high botryoidal pyrite)	Observer	Beth

Percent Texture		
Sand	Silt	Clay

Comments: Accessory: green sand layer. (~~foram~~?)

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
7	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
2	Micas
	Biotite
	Muscovite
40	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
30	Pyrite Botryoidal
	Magnetite
	Fe-oxide
	Carbonates
3	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
5	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	D	6	H	7A	80cm	

Observer: BETH

Sediment/Rock Name: Diatom ooze!

Percent Texture Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
5	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
40	Centric
20	Pennate
10	*Chaetoceros* Resting Spores
	Silicoflagellates
3	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

U1344 D 7H ALL ___

Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology → SS 4A:118 D-rich silty clay

Minor Lithology: ↓7H 2A 45 F. bear diatom silty clay – lots Nannos: 4%

7H 5A:125 A uth ★ carb-rich D-rich clayey silt (aragonite)

Section	Depth	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
1	10–20	v. dark greenish gray 10Y 3/1	D-rich silty clay		43-70 Chm; 38W; 45-50 Chm	4	19; 3	Soupy extruded onto rig floor. 66-118 Sand Chm.; Sand
2	20–40	42 47 5Y4/2 olive gray	Fbear d silty clay; D-rich silty clay		107-8; 114-5 Sand Lay'r; 84-5 Peb	G. E S 1/2		14-19 Sand Mot; 116-126 Pyrite smears; well rnd, basalt?
3	40–60		clay		45-109 P. Smear; 26-9 Clay Mot Mod.	36 59; S G.E	59; 91	crack; crack; 110-115 – Chm w/ sharp sand layer 115 mm scale, bottom boundary; 123-4 Mot.; 46 W
4	60–80				21-4 Skol; 32-7 Sand Mot.	93; (M); GS		redox clay/pyrite; crack; 30-33 W; 48 W; 86 W; 120W; 140,145W; 117-131 Mot.
5	80–100	dk greenish gray; 122 10Y 4/1; 125 10Y 2.5/1; 129	Alteration ★ Sand	SLIGHT	6-120 P. smear; 56-57 Sand Mot; 70-6 Sand Mot; 132 Sand	83 87		Cracks
6	100–120	10Y 3/1 greenish black	D-rich silty clay		42W; 58-60 Mot DKG.			
7	120–140				1-26 Sand Mot.			
cc	140–					S		

Observer: ____________ Date: ________

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1364	D	7	H	2A	45	

Sediment/Rock Name: foram-bearing, diatom silty clay

Observer: akiras

B - 51
S - 49
V - D

Percent Texture		
Sand	Silt	Clay
	40	60

Comments: yellowish layer

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
8	Quartz 2
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
2	Micas 0.5
	Biotite
	Muscovite
27	Clay Minerals 7
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
12	Calcite 3 (much 0.5)
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
8	Foraminifera 2
	Planktonic foraminifera
	Benthic foraminifera
4	Nannofossils V 1
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
39	Diatoms 10
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1364A	D	7	H	2	100	

Sediment/Rock Name	diatom-bearing clayey silt

Observer	Alessia

Percent Texture		
Sand	Silt	Clay
	60	50

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
29	Quartz } 3
18	Feldspar }
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments 0.5
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
18	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
6	Ferromagnesium minerals 1
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
6	Calcite 1 (needs 0.1)
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
3	Vitric grain 0.5
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
18	Diatoms 3
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	D	7	H	4	80	

Sediment/Rock Name	diatom-rich silty clay

Observer	Akira

Percent Texture		
Sand	Silt	Clay
5	40	55
2		

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz 2
5	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments 1
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
35	Clay Minerals 7
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium minerals 0.5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite 1
	Magnetite
	Fe-oxide
3	Carbonates 0.5
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
35	Diatoms 7
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	7	H	5A	125	

Sediment/Rock Name: diatom-rich clayey silt.

Observer: Akira

Percent Texture		
Sand	Silt	Clay

authigenic carbonate.

Comments: rice shape. 50%

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
10	Quartz 5
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4	Rock fragments 2
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
10	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
4	Pyrite 2
	Magnetite
	Fe-oxide
	Carbonates
61	Calcite 30 Aragonite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
10	Diatoms 5
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates 1
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 D H 1CC ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
	10Y 3/1						10Y 3/1
	32	SAND MOTTLE					70cm, SS
		DOLOMITE					100cm SS
	5	10Y 6/1					LITHOLOGY: DIATOM-BEARING CLAYEY SILT
	9	SAND MOTTLE					LIGHTER BANDS CHARACTERIZED BY HIGHER CONCENTRATIONS OF MICRO-ACICULAR AUTHIGENIC CA.
	52						
	113-90						
	29						

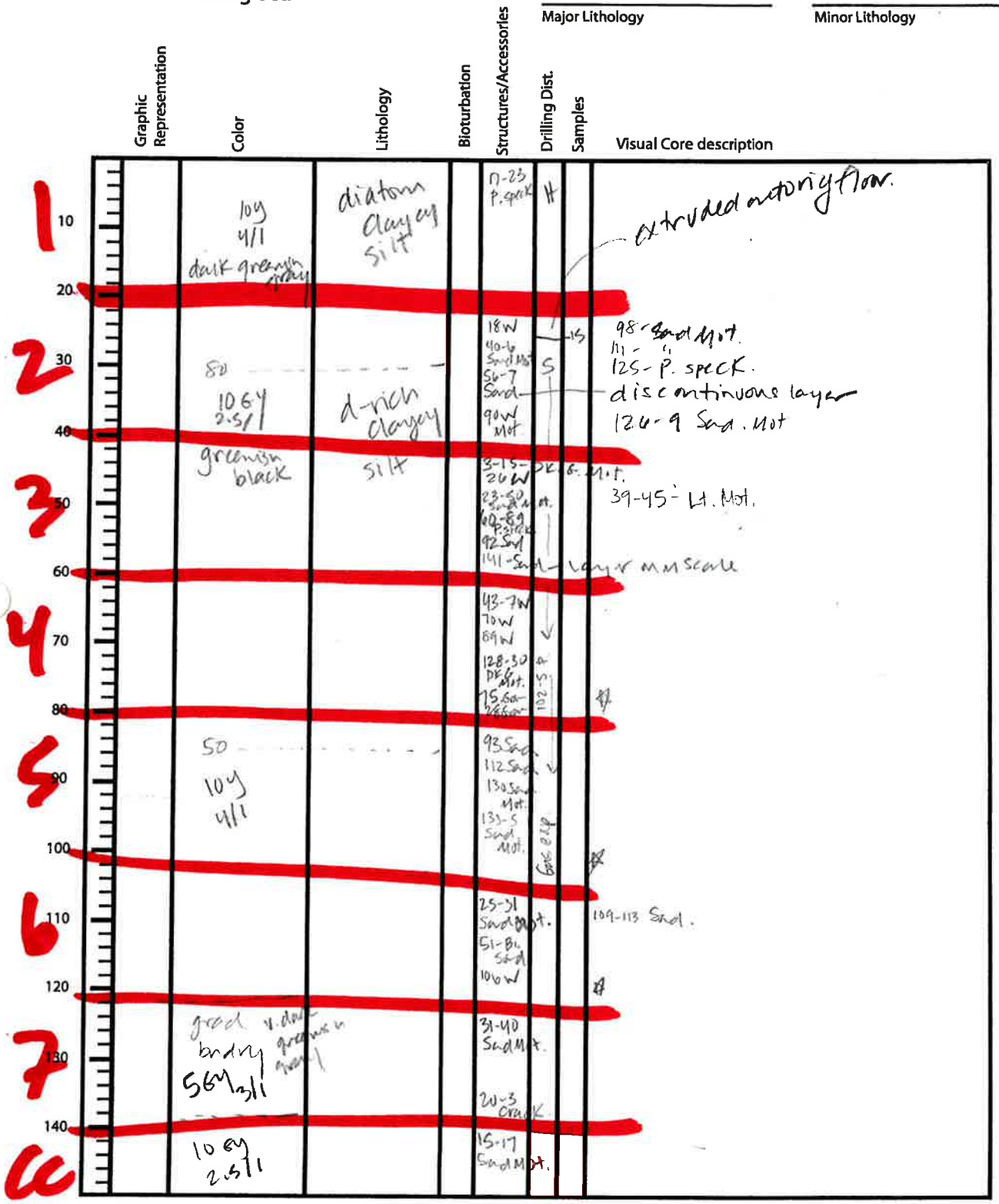
Observer: ____ Date: ____

10642.511

U1344 | D | 9H | ALL | ____
Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



Observer: ____ Date: ____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	9	H	3A	110	

Sediment/Rock Name	diatom-rich clayey silt	Observer	Alexa

Percent Texture		
Sand	Silt	Clay
13	53	26
5	20	10

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
21	Quartz 7
9	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
15	Rock fragments 5
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
21	Clay Minerals 7
	Chlorite
	Glauconite
	Chert
	Zircon
1	Ferromagnesium minerals 0.5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite 1
	Magnetite
	Fe-oxide
	Carbonates
1	Calcite 0.5
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
29	Diatoms 10
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	D	9	H	6A	60	

Sediment/Rock Name	diatom clayey silt

Observer	Akiba

Percent Texture		
Sand	Silt	Clay
15	50	35

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
12	Quartz 5
7	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
12	Rock fragments 5
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
12	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
7	Pyrite 3
	Magnetite
	Fe-oxide
	Carbonates
5	Calcite 2
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

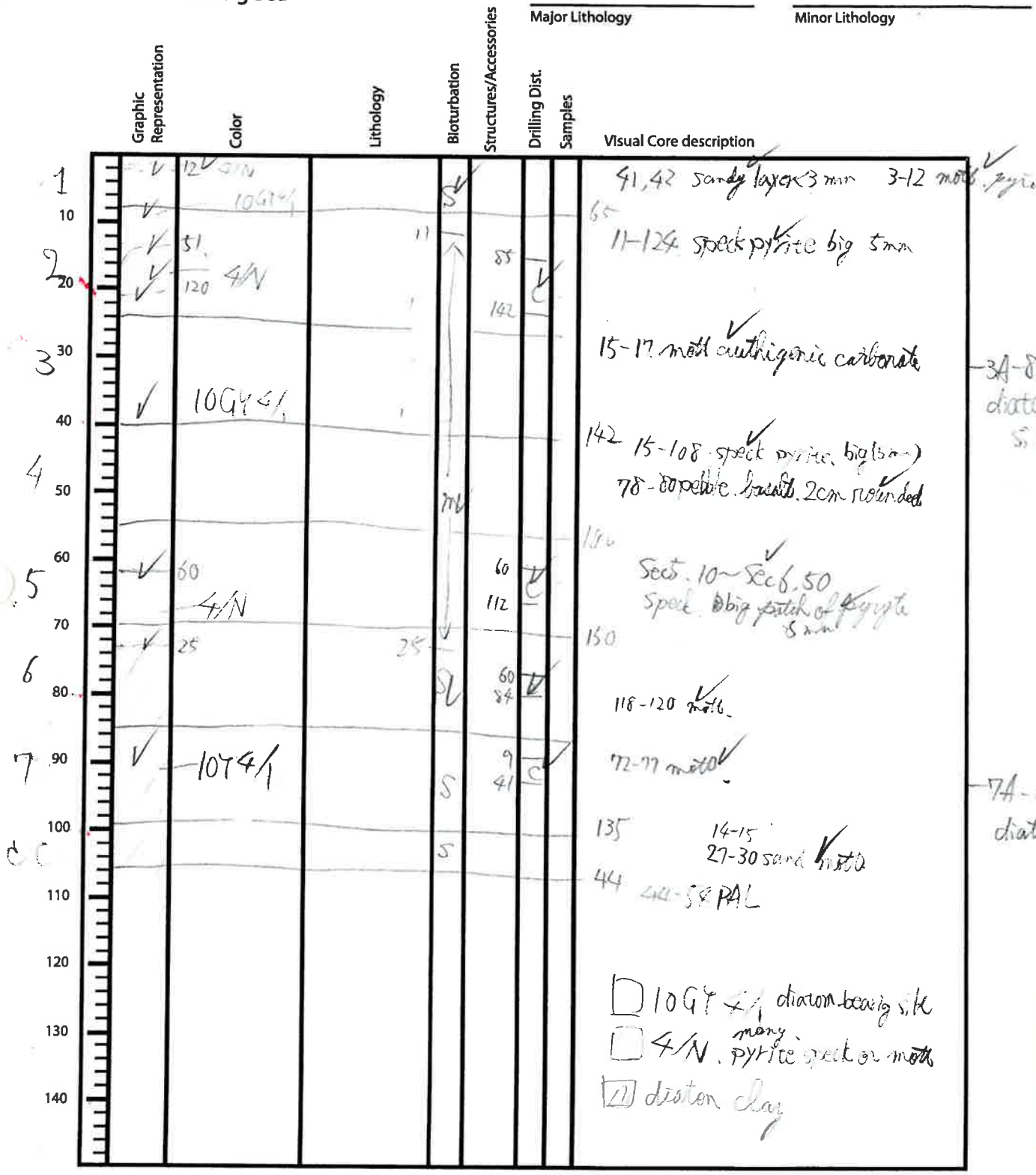
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
47	Diatoms 20
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 D 10
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
	1344	D	10	H	3	80cm	

Sediment/Rock Name	DIATOM-BEARING SILT

Observer	IWR

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
42	5 Quartz
17	2 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
8	1 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
15	1 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
8	1 Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
10	2 Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
	1344	D	10	H	7	60cm	

Sediment/Rock Name: DIATOM CLAY

Observer: IWA

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
8	5 Quartz
3	2 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
16%	Rock fragments
	Accessory/trace minerals
5	3 Micas
	Biotite
	Muscovite
33	20 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	2 Pyrite
	Magnetite
	Fe-oxide
	Carbonates
2	1 Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

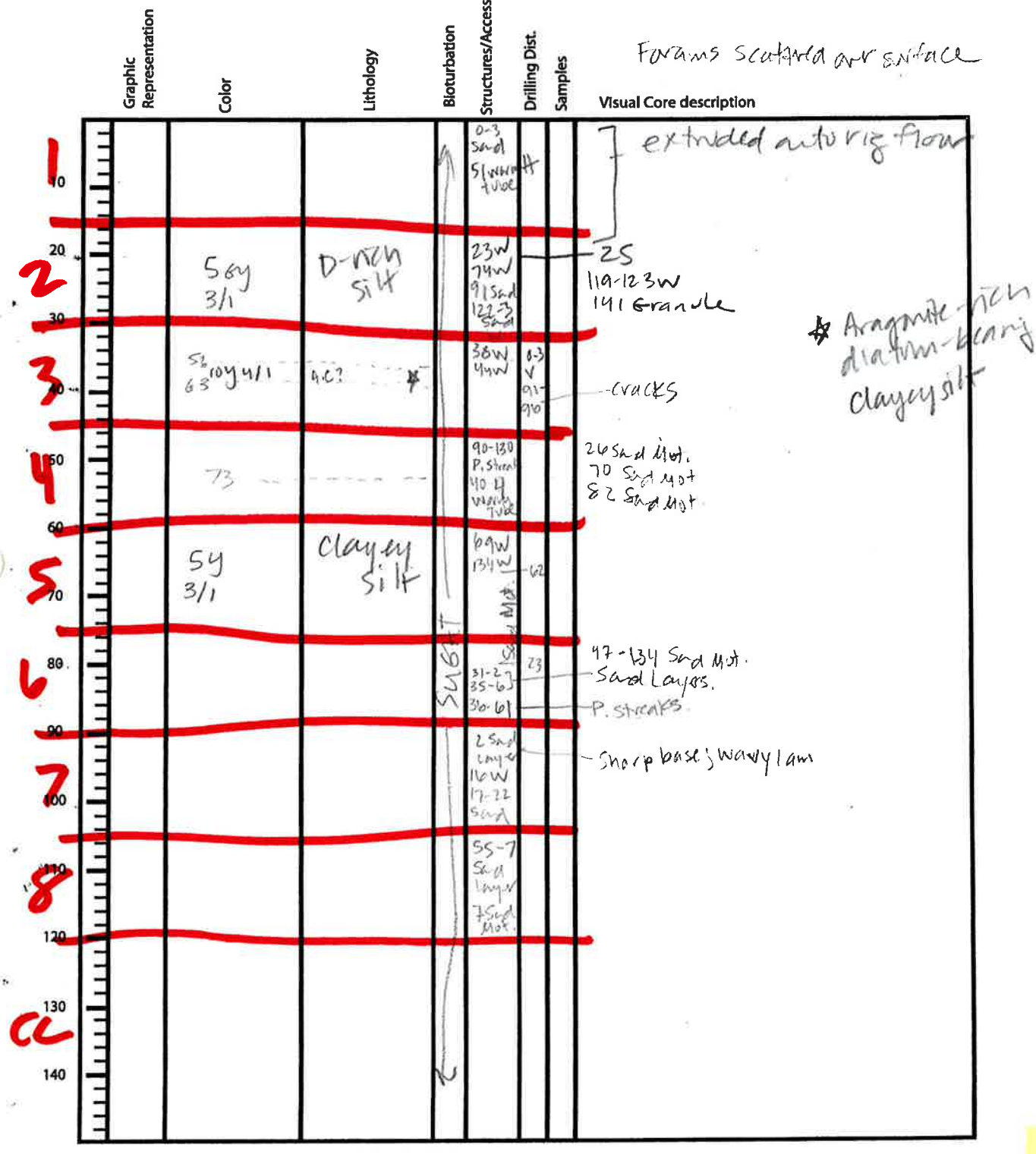
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
55%	Diatoms
12	7 Centric
33	20 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

U1344 D 11H A
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	11	H	2A	40	

Sediment/Rock Name	diatom-rich site	Observer	Akira

Percent Texture		
Sand	Silt	Clay
10	60	30

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
94	Quartz 7
10	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments 3
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
17	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals 0.5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite 1
	Magnetite
	Fe-oxide
	Carbonates
7	Calcite 2
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
3	Radiolarians 1
	Spumellaria
	Nassellaria
24	Diatoms 7
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	D	11	H	3A	60	

Sediment/Rock Name	aragonite-rich diatom-bearing clayey silt

Observer	Akeng

Percent Texture		
Sand	Silt	Clay
20		

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
12	Quartz 7
4	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments 3
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
12	Clay Minerals 7
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite 1
	Magnetite
	Fe-oxide
	Carbonates
44	Calcite 25 aragonite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain 2
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
18	Diatoms 10
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

8 8

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
	1344	D	11		5	48 cm	

Sediment/Rock Name	CLAYEY SILT

Observer	IWA

Percent Texture		
Sand	Silt	Clay
	60	40

Comments:

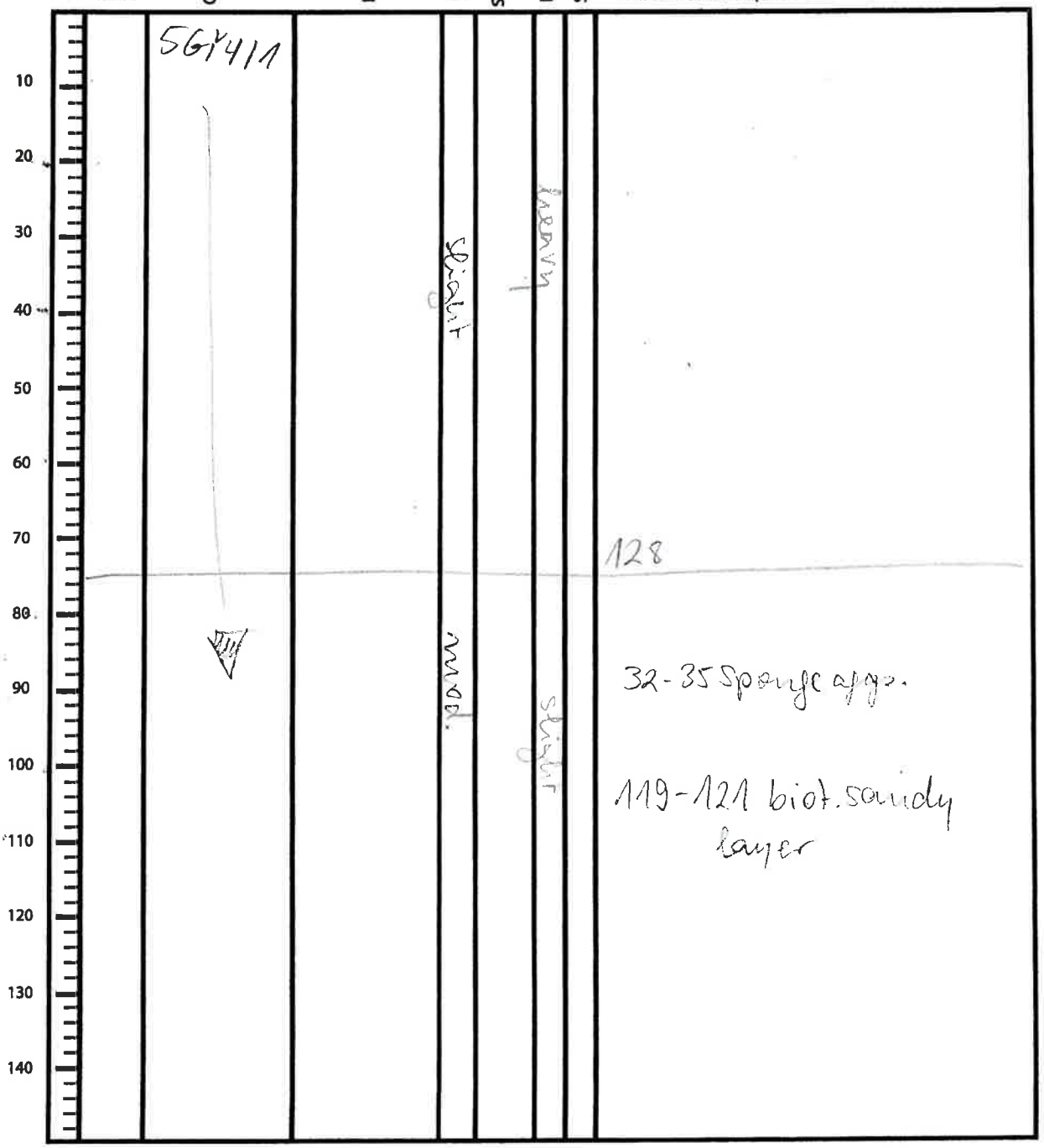
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
8	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
1	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
7	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
1	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
2	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
	Centric
1	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 D 12H 1+2 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

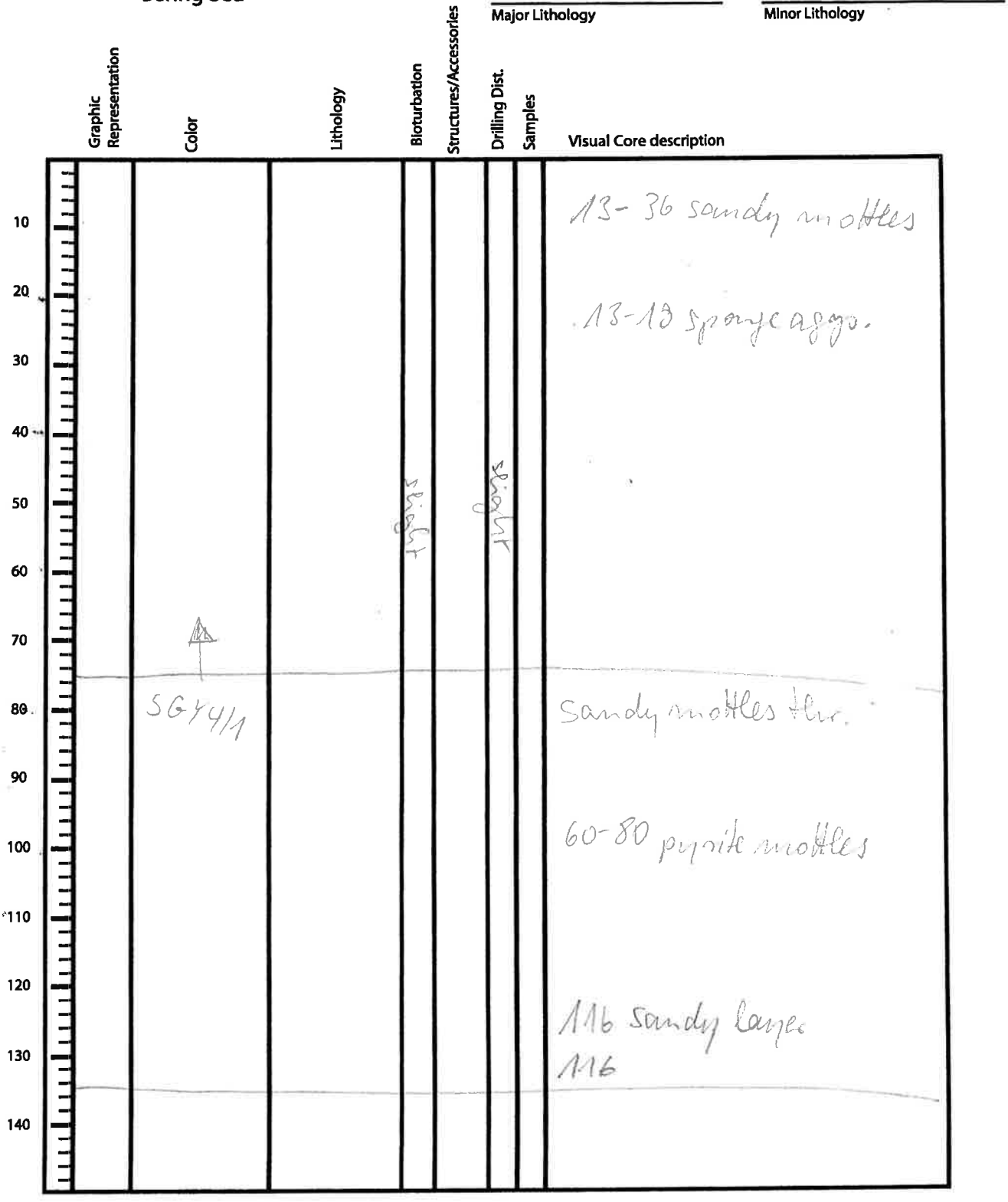


Observer: _____ Date: _____

1344 (Site) | D (Hole) | 12H (Core) | 3+4 (Section) | _____ (Top Depth)

Expedition 323
Bering Sea

Major Lithology: _____ Minor Lithology: _____

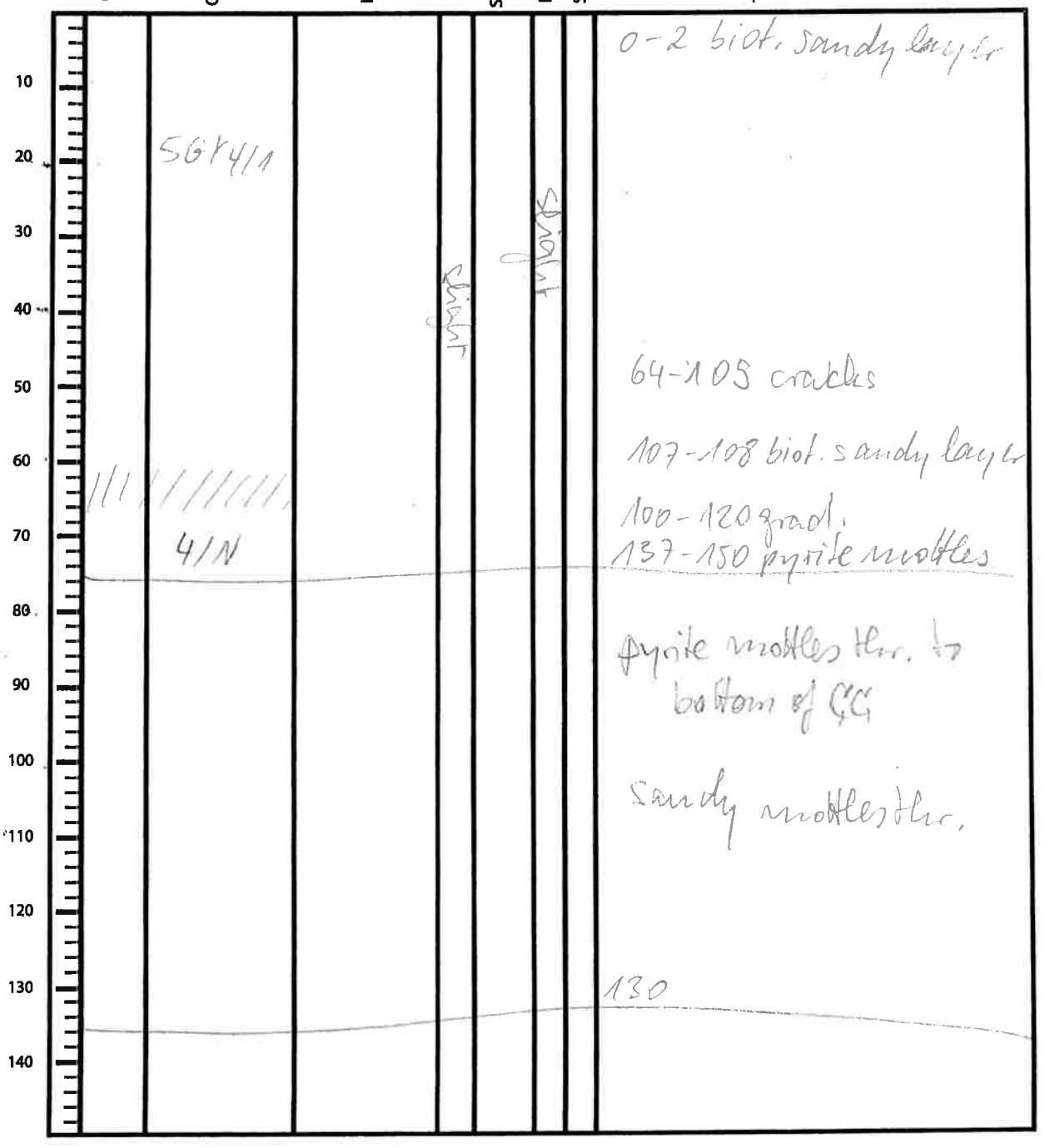


Observer: _____ Date: _____

1344 / Site — D / Hole — 12H / Core — 5+6 / Section — ____ / Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



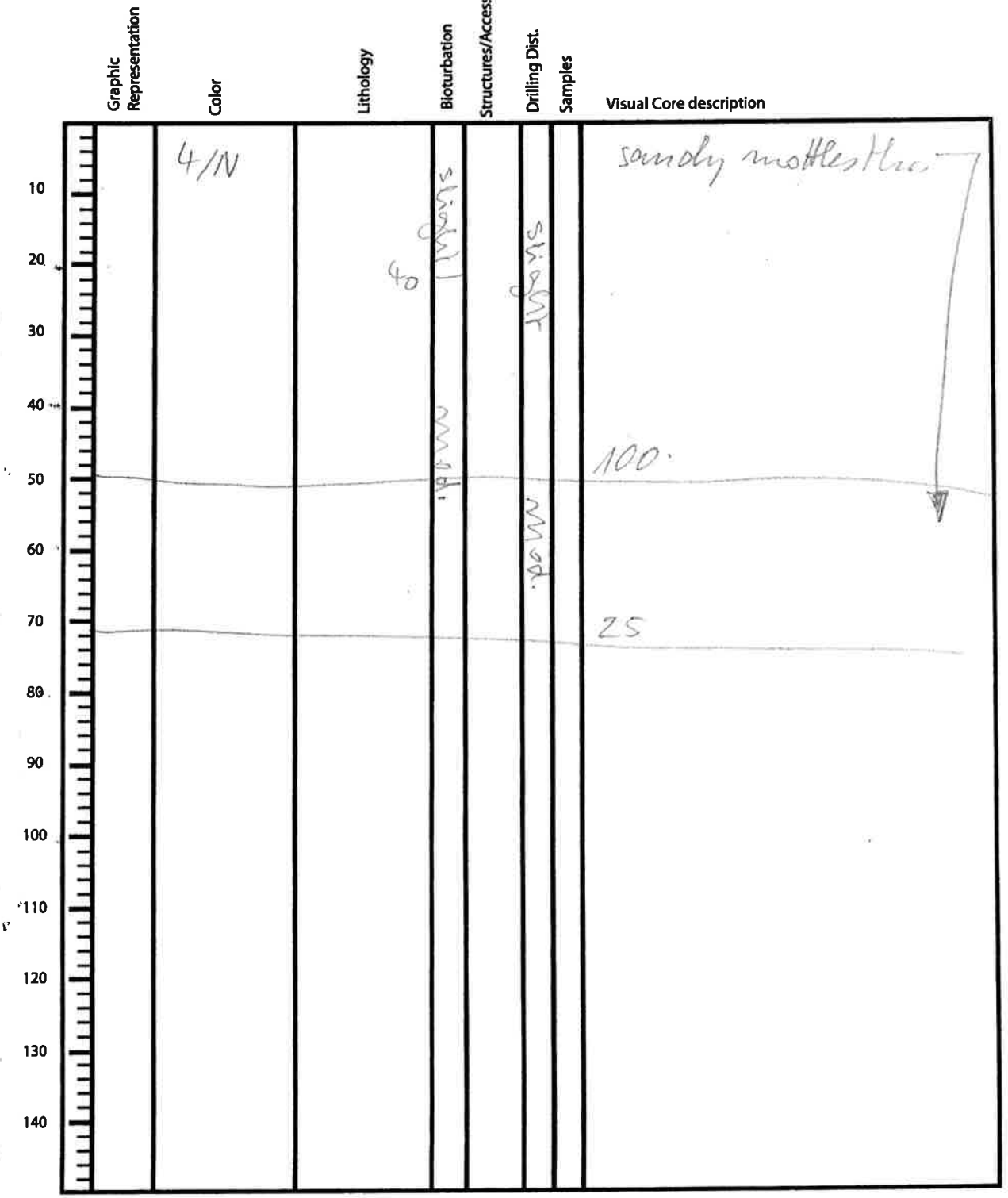
Observer: _____ Date: _____

1344 D 12H 7+cc
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

X

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	D	12H		4A	50	50

Sediment/Rock Name	Diatom-rich silty Clay

Observer	Hino

Percent Texture		
Sand	Silt	Clay

Comments:

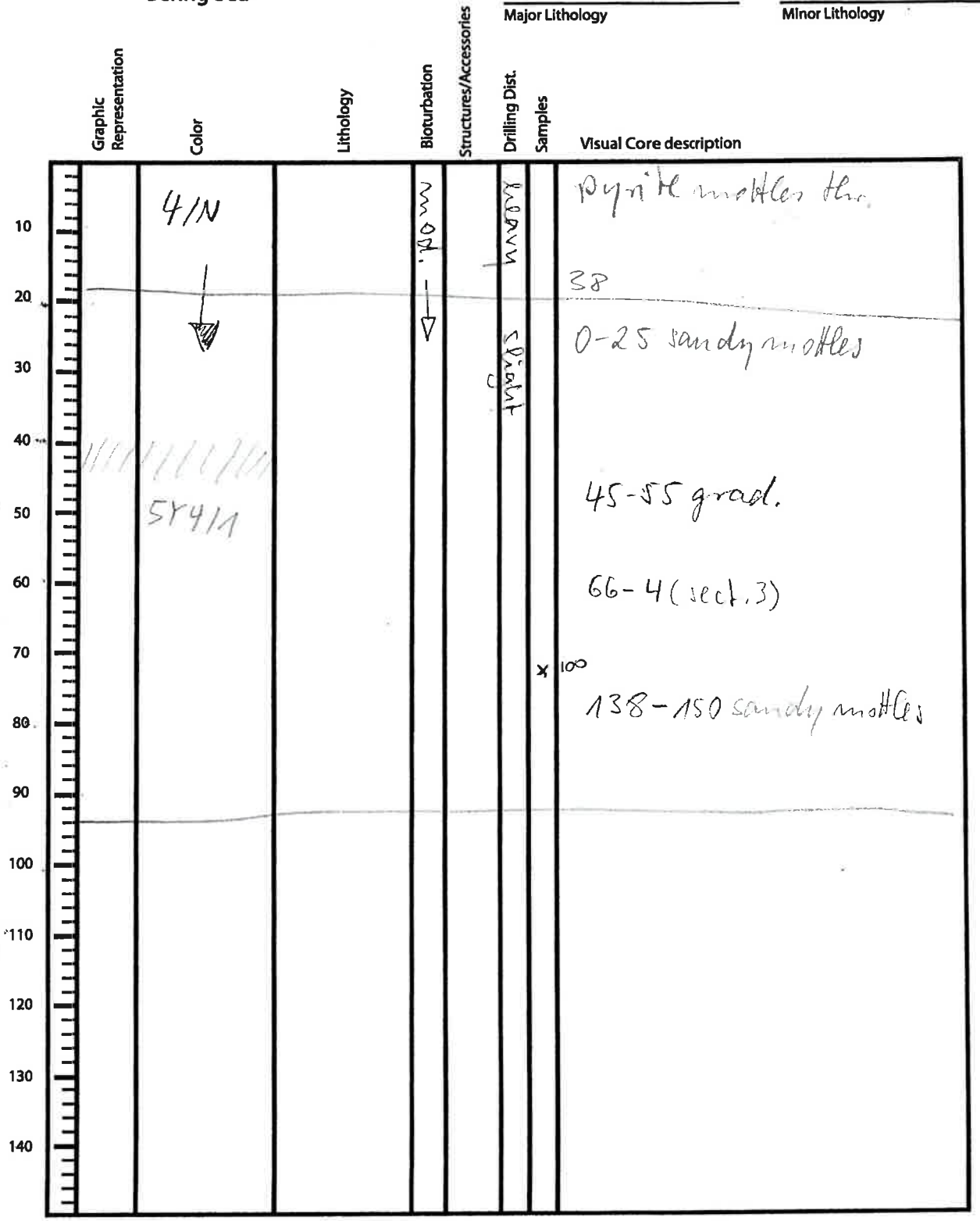
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
77	Quartz 10
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
8	Rock fragments 1
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
15 23	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 (Site) D (Hole) 13H (Core) 1+2 (Section) ____ (Top Depth)

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

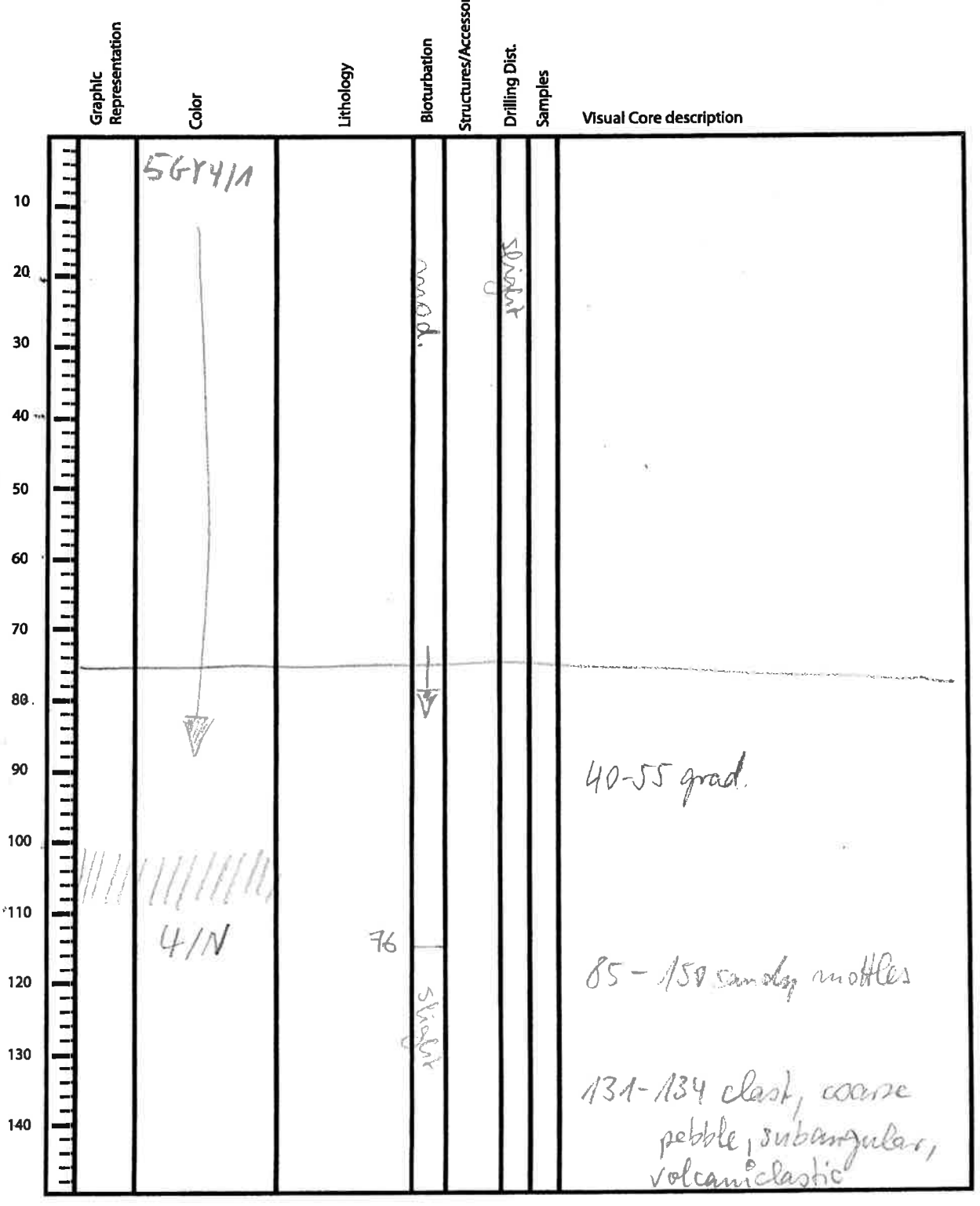


Observer: ____ Date: ____

1344 (Site) D (Hole) 13H (Core) 3+4 (Section) ____ (Top Depth)

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

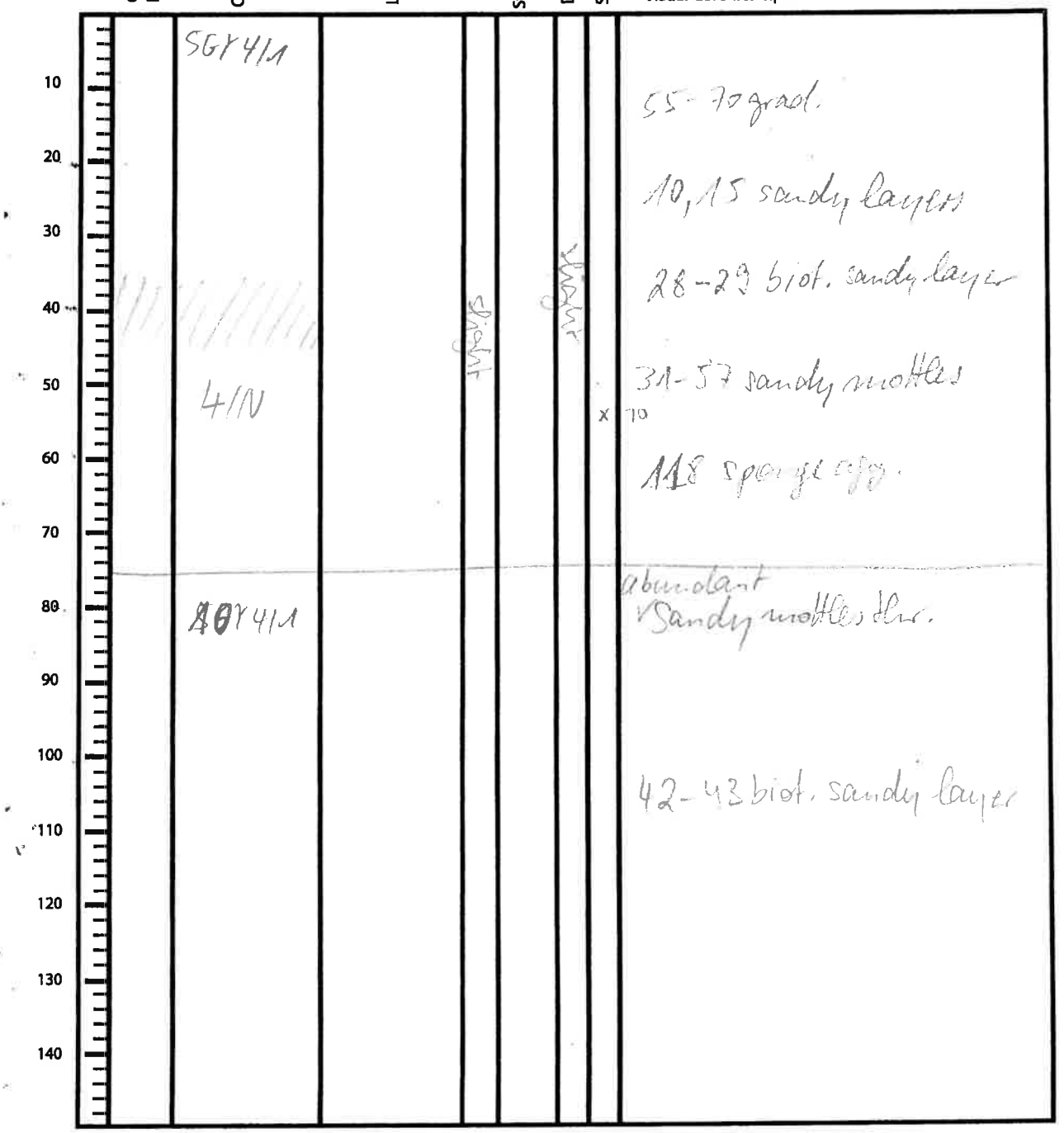


Observer: ____ Date: ____

1344 / D / 13H / 5+6 / ____
Site / Hole / Core / Section / Top Depth

Expedition 323
Bering Sea

Major Lithology: ____ Minor Lithology: ____

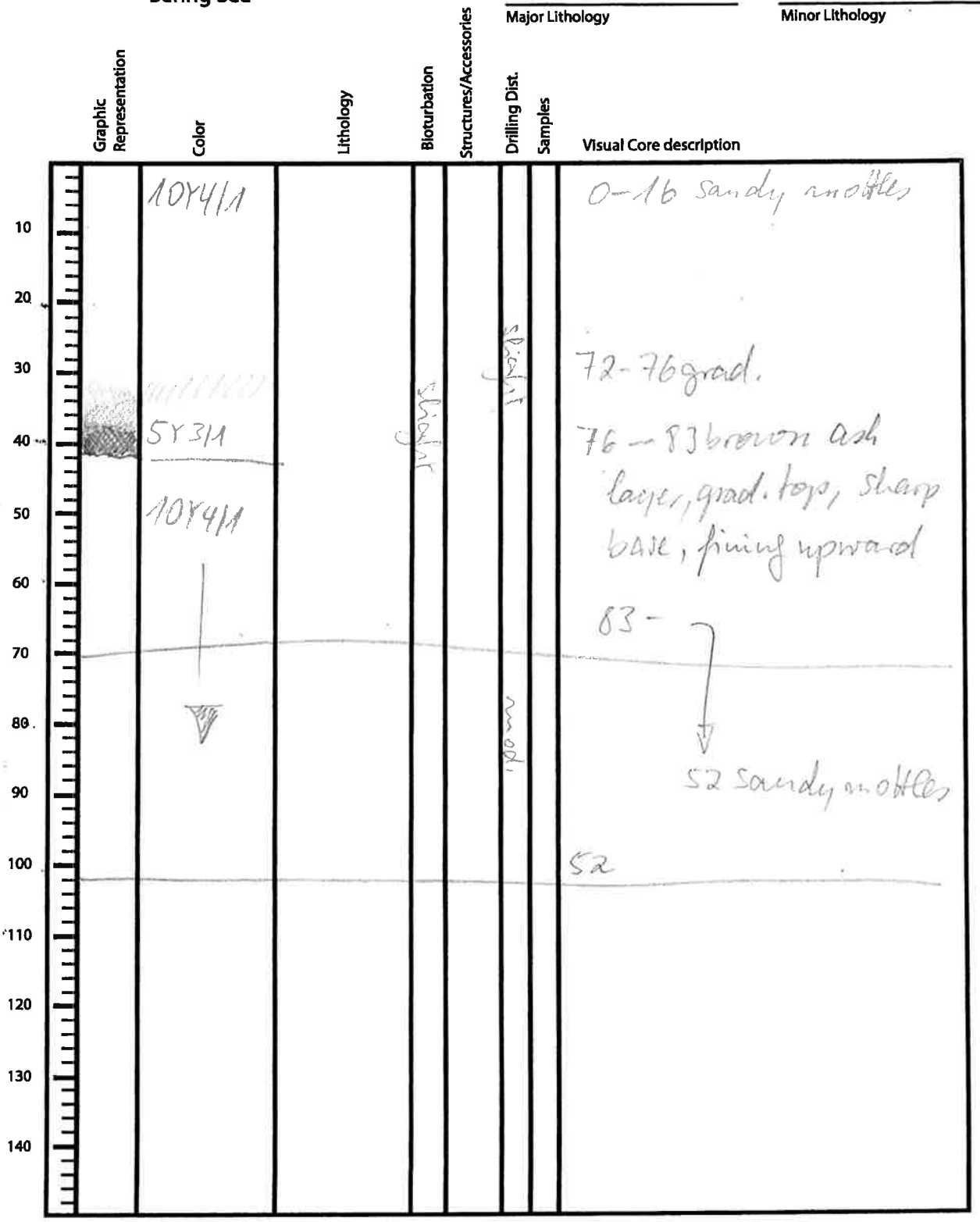


Observer: ____ Date: ____

1344 (Site) D (Hole) 13H (Core) 7+cc (Section) ____ (Top Depth)

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



Observer: ____ Date: ____

X

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	D	13H		2	100	100

Sediment/Rock Name	Diatom-rich silty clay

Observer	Hino

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 80
	Framework minerals
36	Quartz 20
4	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
36	Clay Minerals 20
	Chlorite
	Glauconite
	Chert
	Zircon
4	Ferromagnesium minerals 2
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 20
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
2	/ Radiolarians
	Spumellaria
	Nassellaria
18	10 Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

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SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	D	13H		5A	70	90

Sediment/Rock Name	Diatom-rich clayey silt

Observer	H in A

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 84
	Framework minerals
44	Quartz 20
11	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
7	Rock fragments 3
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
18	3 Clay Minerals 8
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
4	Pyrite 2
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 16
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
16	2 Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	D	13		4	30	30

Sediment/Rock Name	Diatom-rich sandy silt

Observer	Hsin

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 64
	Framework minerals
45	Quartz 20 25
4	Feldspar 2
4	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments 3
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
9	Pyrite 5
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
1 2	Vitric grain 1
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 36
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
36 20	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

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IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	13H		7A	80	

Sediment/Rock Name	silty fine ash

Observer	H. in A

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
7	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
20	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
6	Ferromagnesium minerals 5
	Authigenic minerals
1	Barite
5?	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
60	pumice
	Vitric grain
	Lithic grain

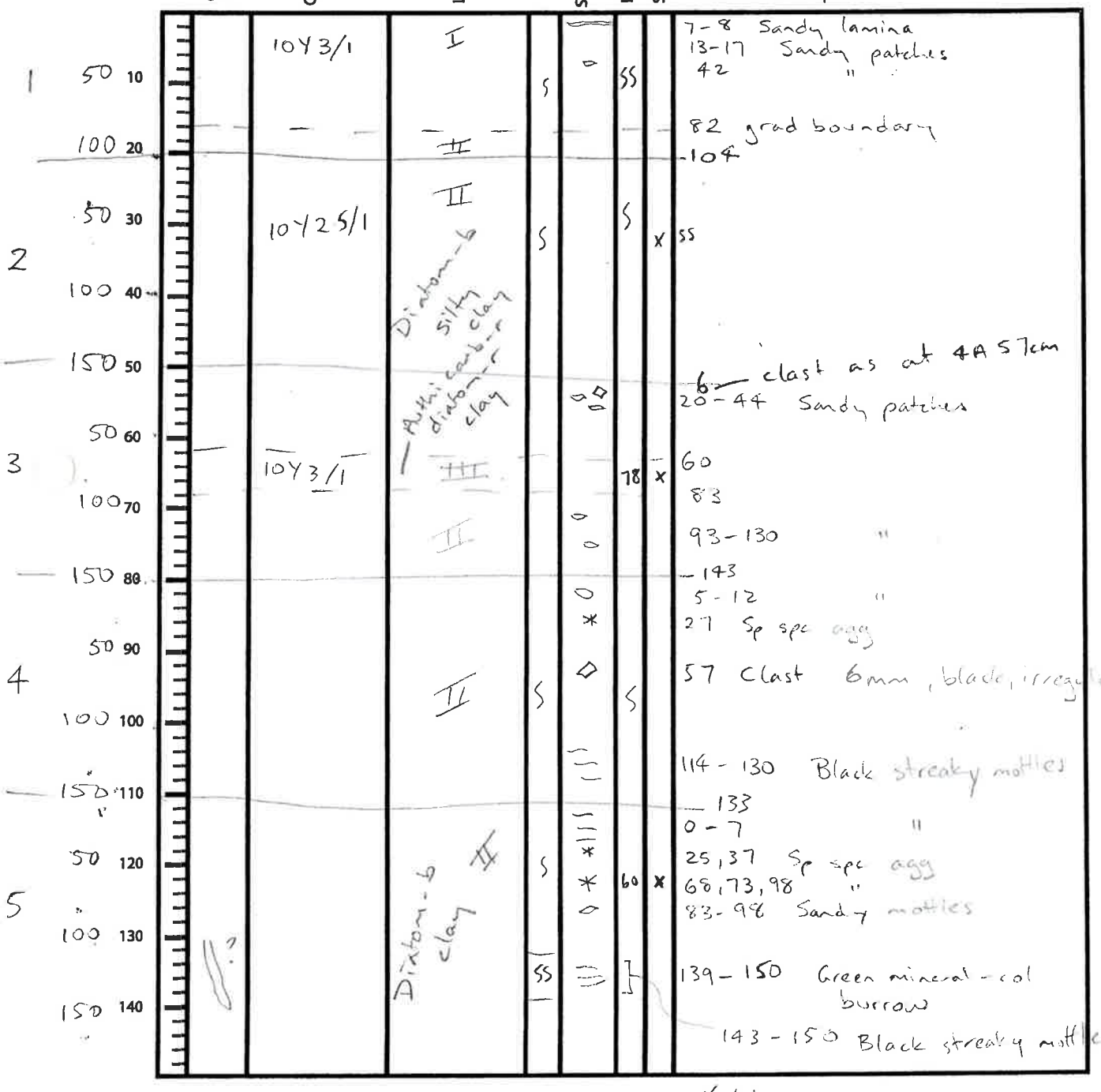
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
2	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 D 14H 1-5
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: Kelsic Date:

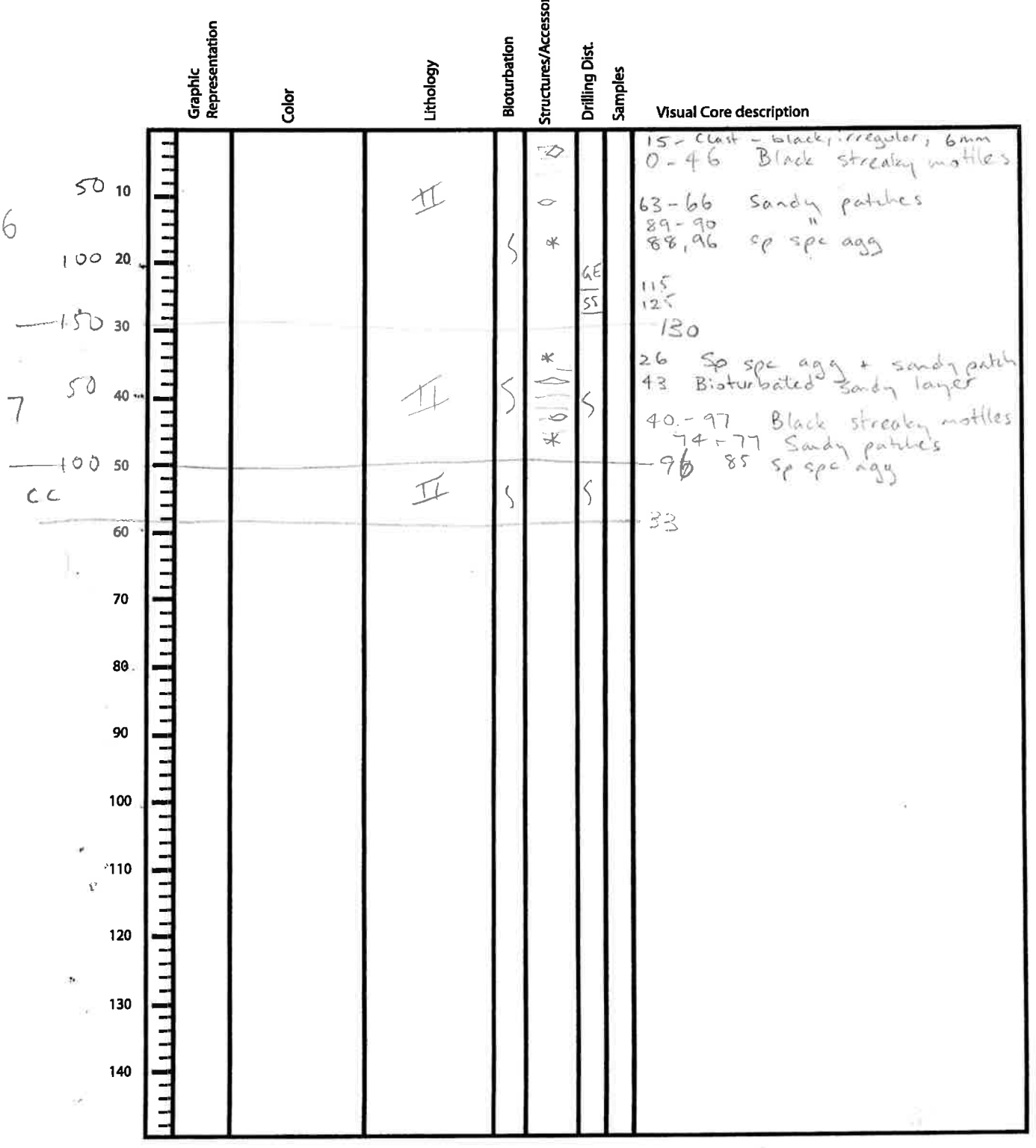
1344 | D | 14H | 6–CC

Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	D	1YH		2A	55	56

Sediment/Rock Name	Diatom bearing silty clay

Observer	H.A

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 92
	Framework minerals
56	Quartz +0.5
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
8	Rock fragments 1
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
24	Clay Minerals 3
	Chlorite
1	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
4	Pyrite 0.5
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 8
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
8 +	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SMC

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	D	14		3A	78	82

Sediment/Rock Name	Observer
Auth. Carb. rich. Diatom rich clay.	It: no

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
5	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
70	Carbonates Auth. Carb.
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
10 ~~20~~	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

5YM V

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1347	D	14H		5	60	

Sediment/Rock Name	Diatom bearing ~~silty~~ clay

Observer	HA

Percent Texture		
Sand	Silt	Clay

Comments:

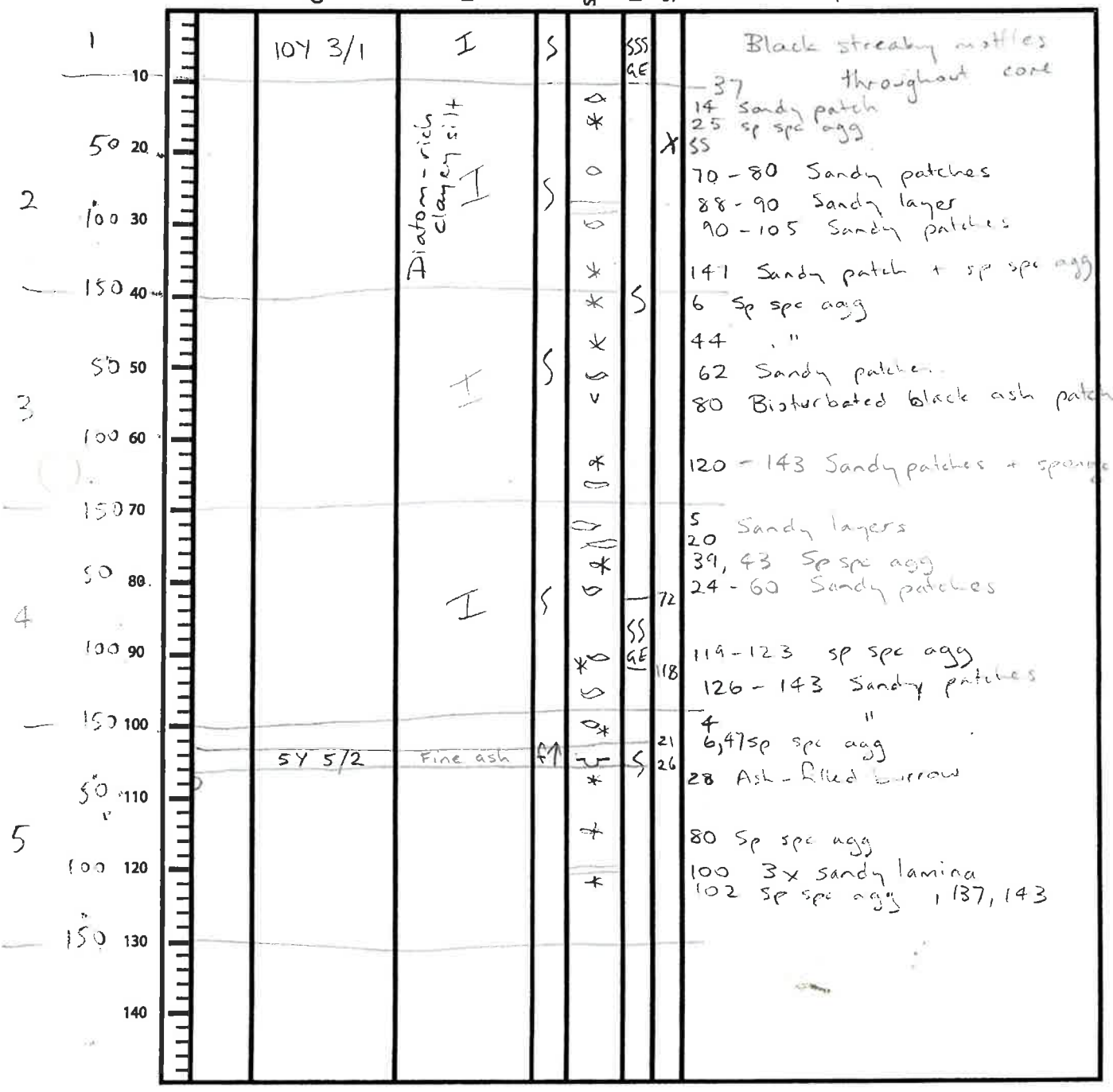
Percent	Component
	SILICICLASTIC GRAINS/MINERAL 94
	Framework minerals
48	Quartz 15
6	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
32	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
6	Ferromagnesium minerals 2
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 6
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
6	2 Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 D 15H 1-5 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

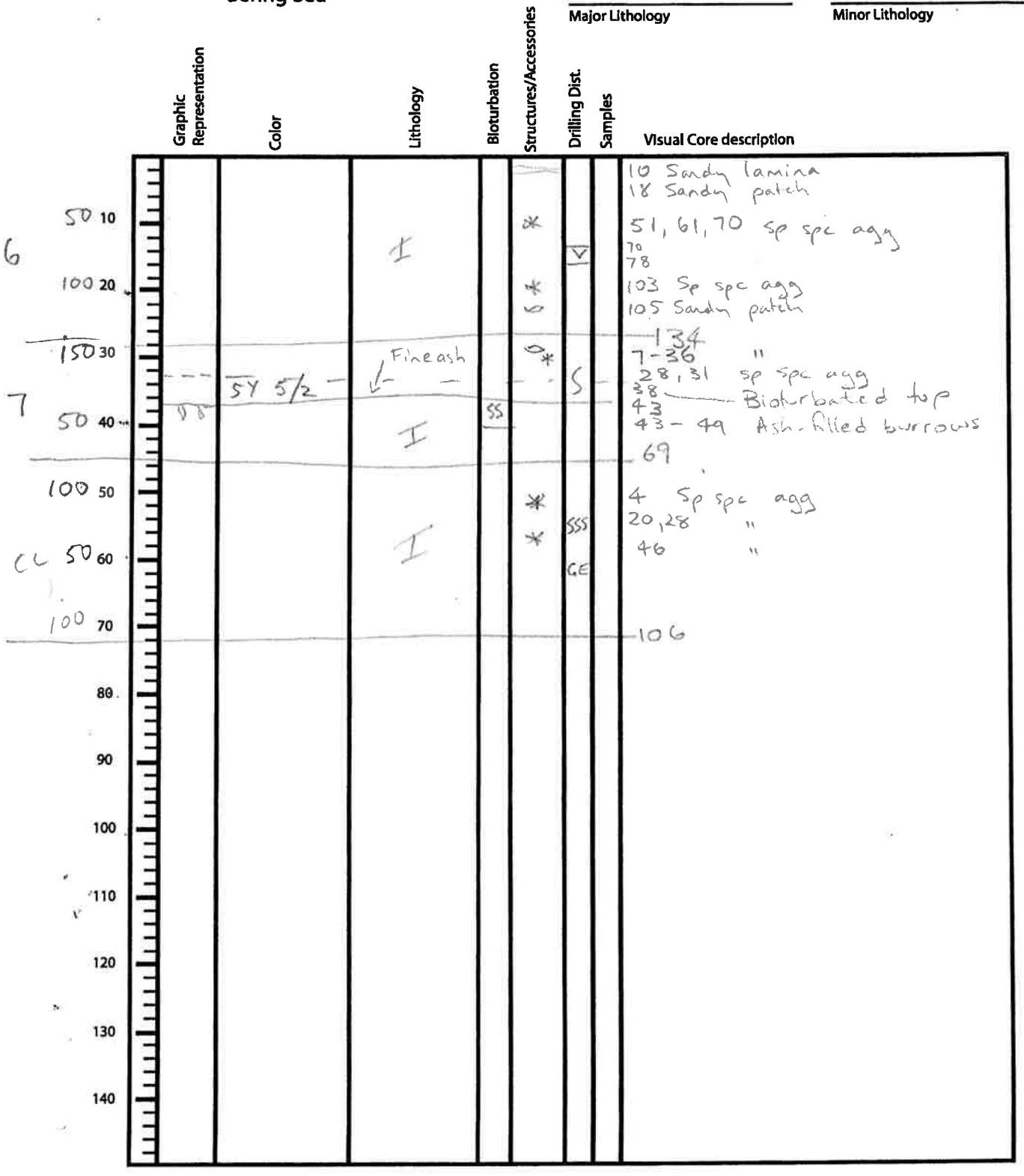


Observer: Kelsie Date: ____

1344 D 15H 6-CC
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: _____ Date: _____

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	15H		2	51	

Sediment/Rock Name	Diatom-rich clayey silt

Observer	Hino A

Percent Texture		
Sand	Silt	Clay

Comments:

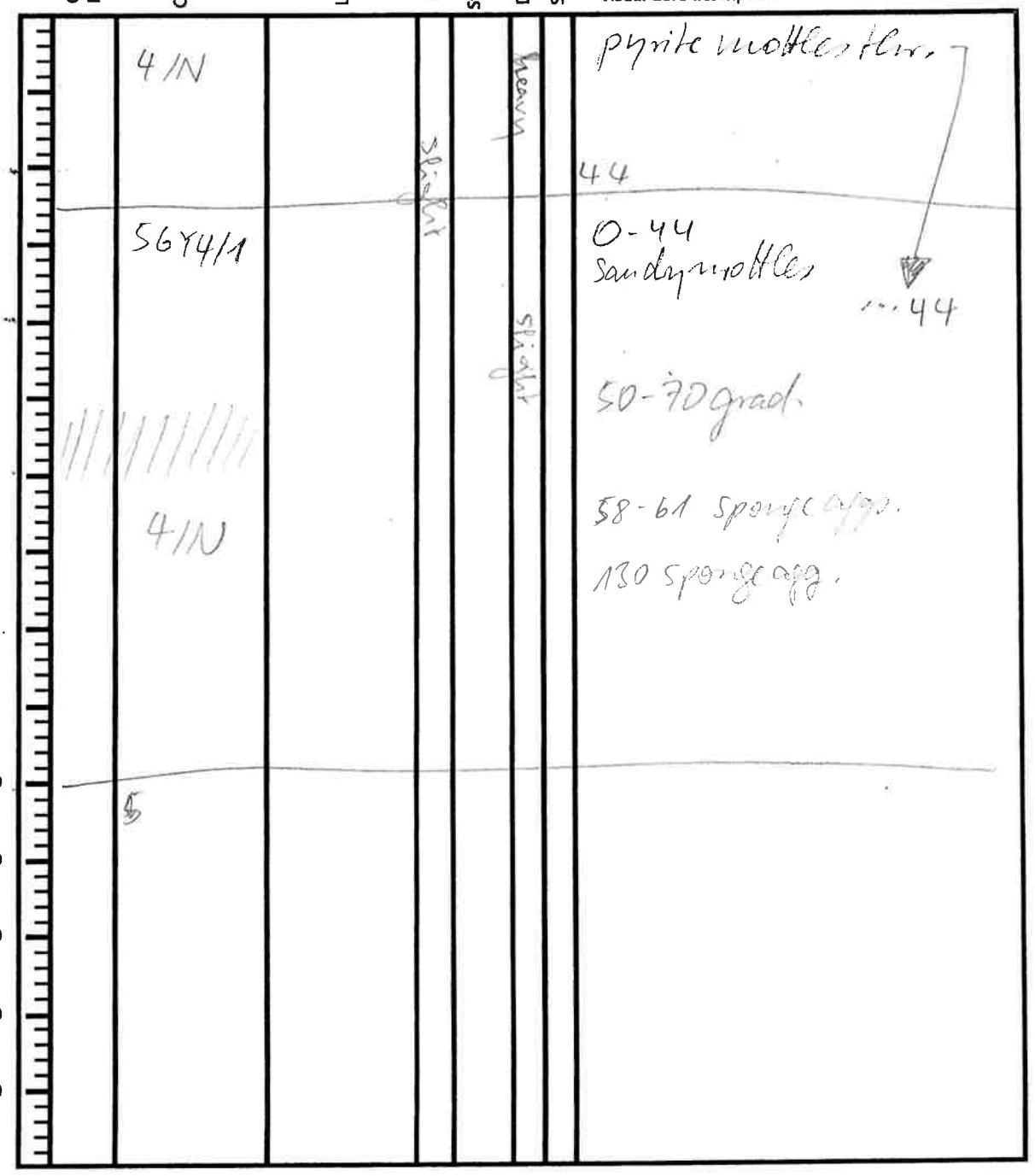
Percent	Component
	SILICICLASTIC GRAINS/MINERAL 34
	Framework minerals
49	Quartz 30
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
25	Clay Minerals 15
	Chlorite
	Glauconite
	Chert
	Zircon
4 3	Ferromagnesium minerals 2
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite 2
	Magnetite
	Fe-oxide
	Carbonates
3	Calcite 2
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 16
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
16	10 Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 (Site) D (Hole) 16H (Core) 1+2 (Section) ____ (Top Depth)

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

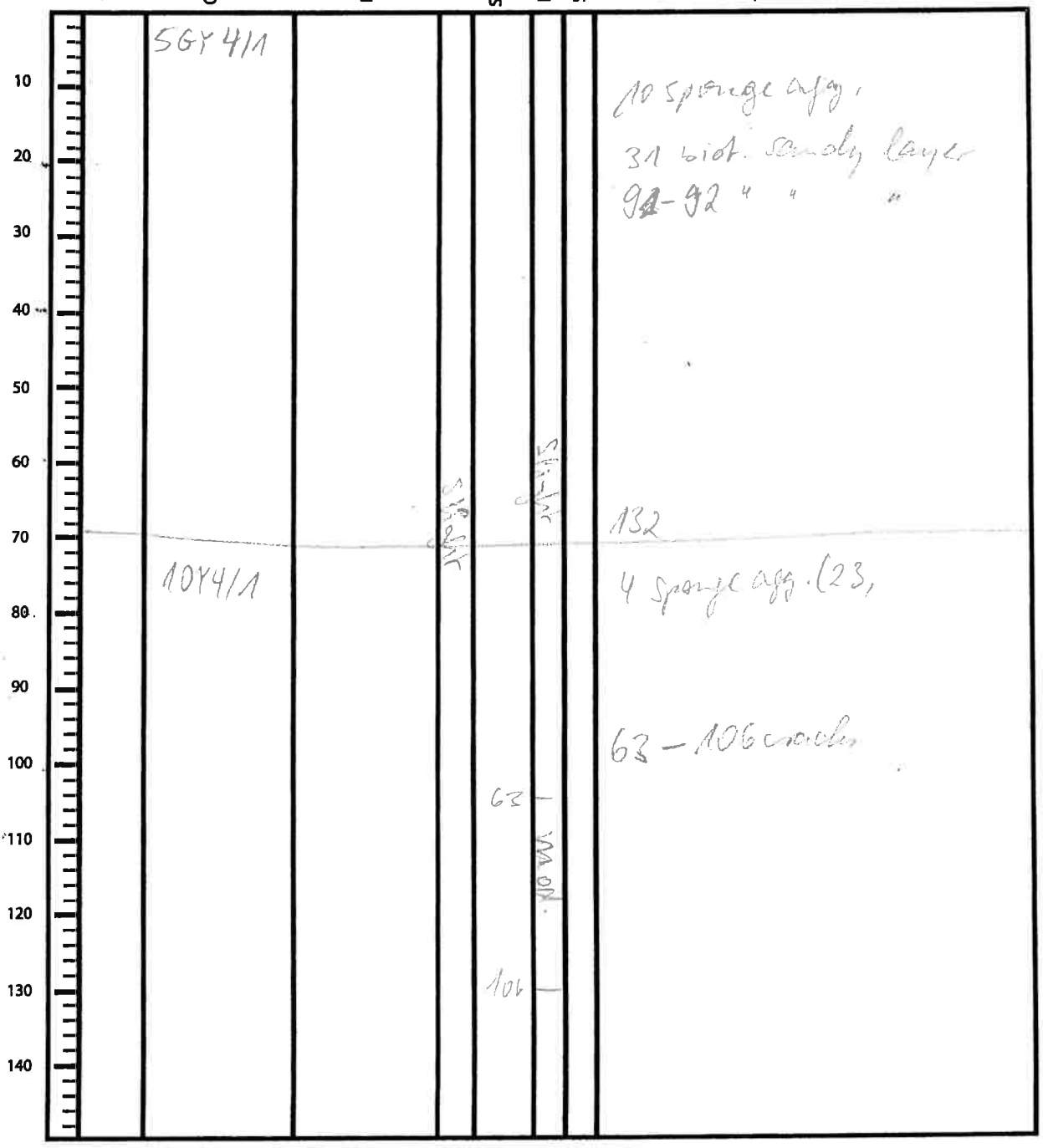


Observer: ____ Date: ____

1344 D 16H 3+4 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

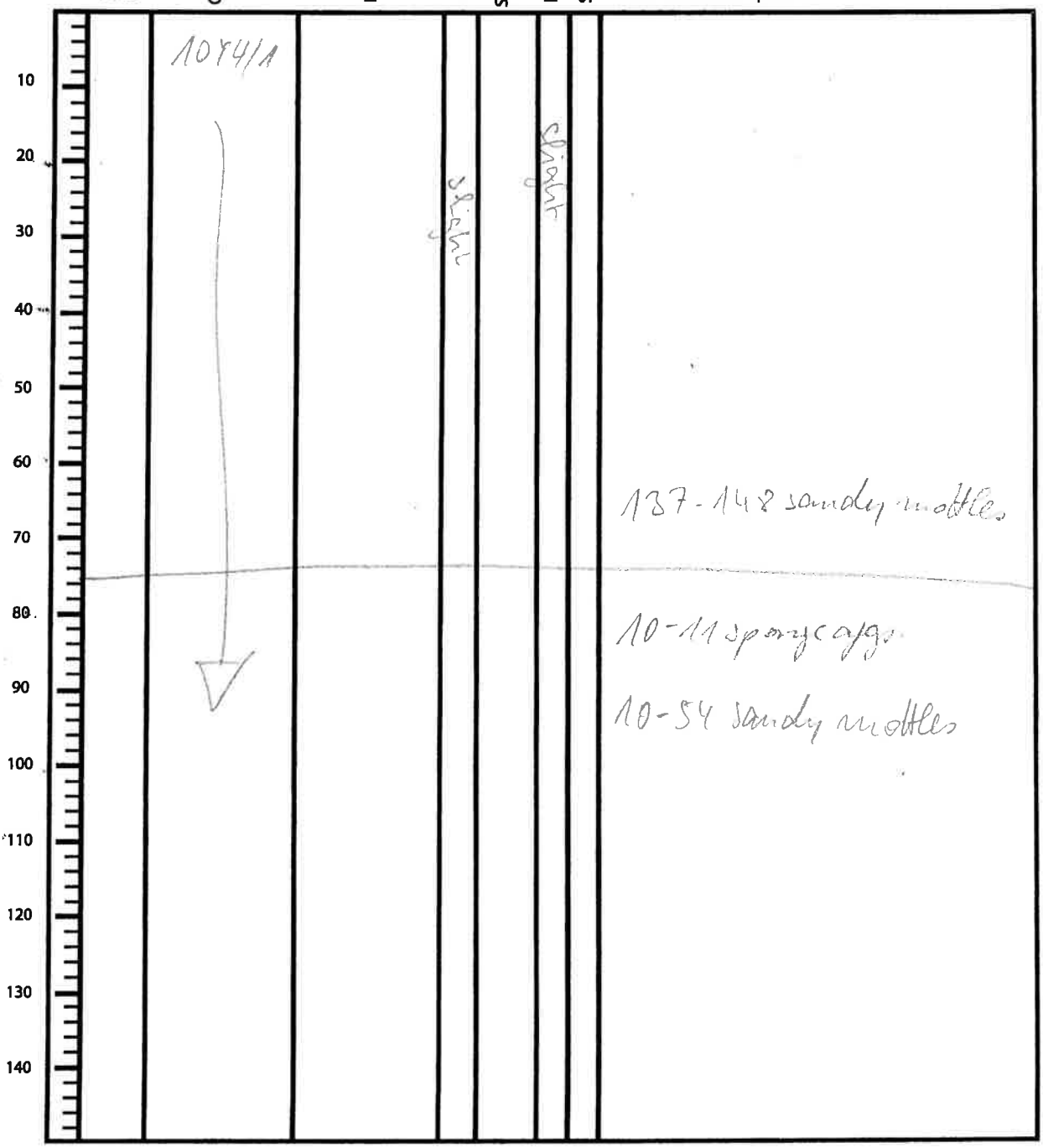


Observer: _____ Date: _____

1344 D 16H 5+6 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



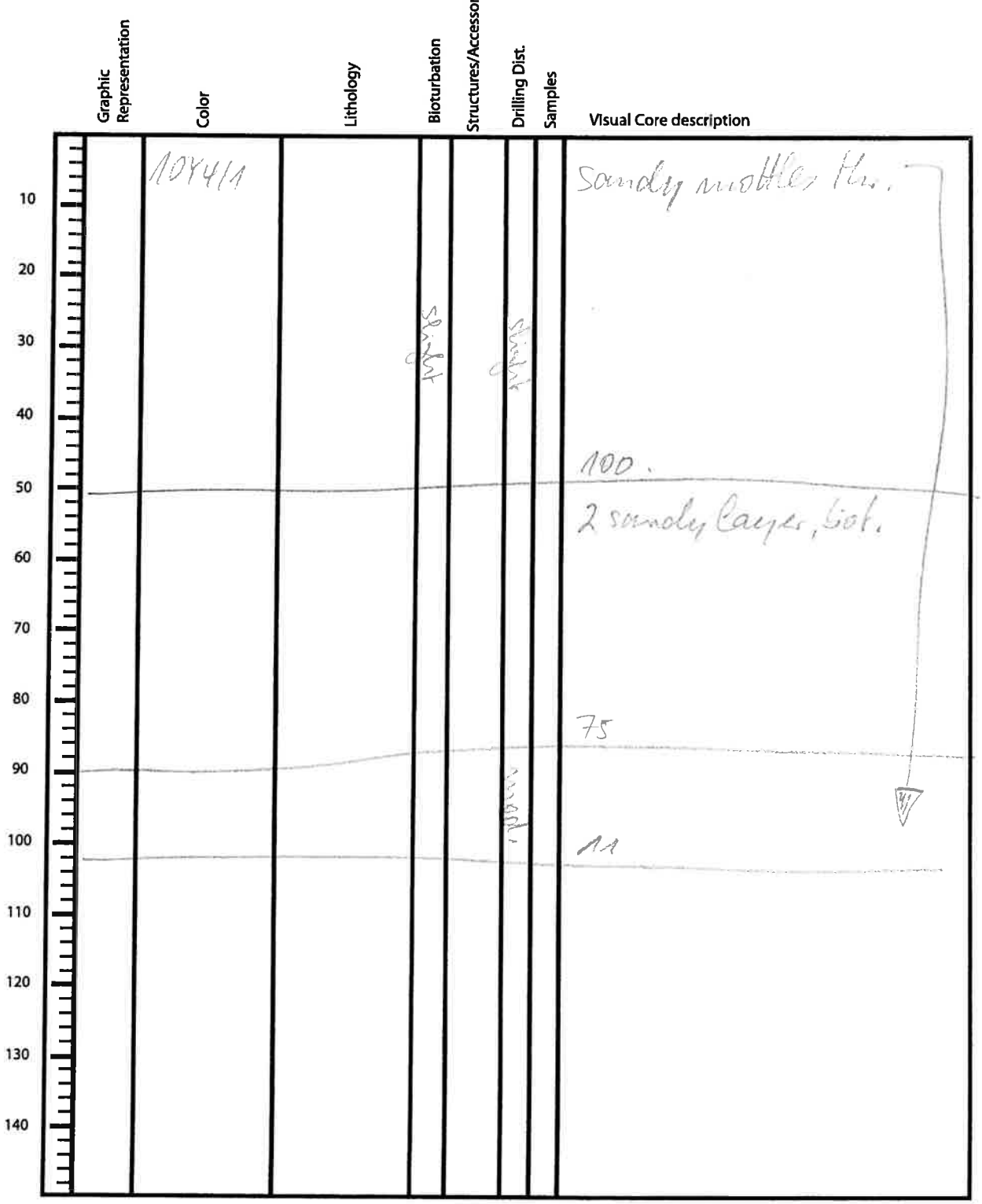
Observer: _____ Date: _____

1344 D 16H 7+8+CC
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1354	D	16H		3A	60	

Sediment/Rock Name	Diatom-rich silty clay

Observer	Hino

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 62
	Framework minerals
33 ~~35~~	Quartz 7
14 ~~15~~	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
~~5~~ ~~5~~	Rock fragments /
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
~~5~~ ~~5~~	Clay Minerals /
	Chlorite
	Glauconite
	Chert
	Zircon
~~5~~ ~~5~~	Ferromagnesium minerals /
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS ~~40~~ 38
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
~~25~~ 5 24	Centric
~~4~~ 3 14	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	16H		3A	70	

Sediment/Rock Name	Diatom silty clay

Observer	Hino.

Percent Texture		
Sand	Silt	Clay
5	40	55

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 50
	Framework minerals
~~25~~ 35	Quartz ~~10~~ 7
~~5~~ 5	Feldspar 3 /
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
~~5~~ 5	Ferromagnesium minerals /
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
~~5~~ 5	Pyrite /
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

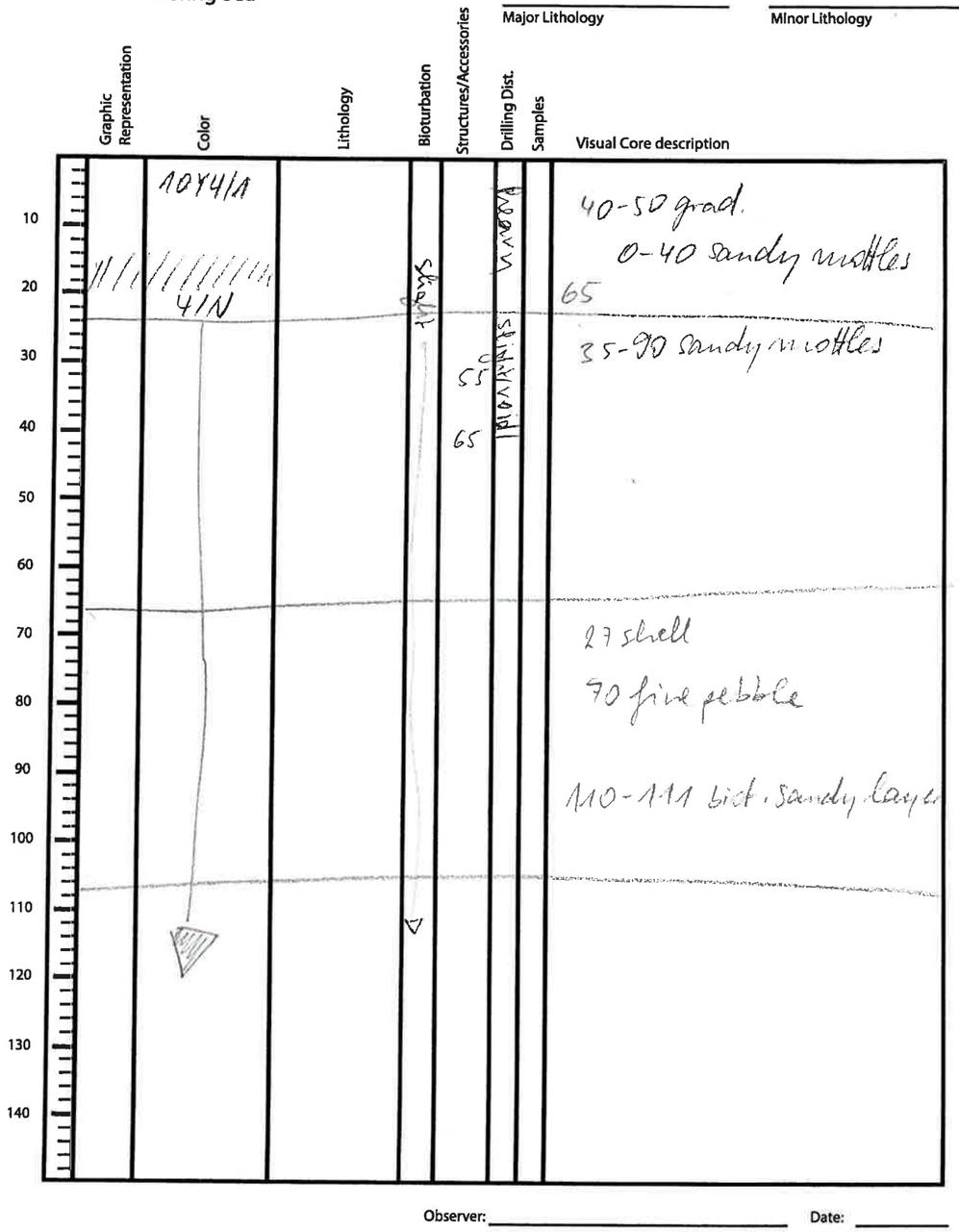
Percent	Component
	BIOGENIC GRAINS 50
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
50 ~~to 12~~ ~~4~~	Diatoms 10
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 D 17H 1+2+3+4
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

1344 / D / 17H / 5+6 / 7+cc
Site / Hole / Core / Section / Top Depth

Expedition 323
Bering Sea

Major Lithology / Minor Lithology

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
10	4/N		slight	48	mod.		107 fish scales
20							
30				96	slight		
40							
50				74	mod.		5–31 sandy mottles
60				88			32–33 coarse pebble, Subrounded, sandstone
70							61–64 Lit. sandy layer
80							104 fine pebble, well rounded
90				64	mod.		↓ 110 pyrite mottles
100				86			58 sponge. 78 " "
110							
120							
130							39
140							

Observer: _____ Date: _____

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1314	D	17H		1	30	

Sediment/Rock Name	Diatom - rich. Silty Clay

Observer	Hino

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL ~~75~~ 36
	Framework minerals
54	Quartz 15
7	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4 tr	Rock fragments 1
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
7	Ferromagnesium minerals 2
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite 0.5
	Magnetite
	Fe-oxide
	Carbonates
2	Calcite 0.5
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS ~~25~~ 24
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
17 ~~18~~	5 Centric
7	2 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	17H		2	40	

Sediment/Rock Name: Diatom. bearing clay
Auth. Carb. rich

Observer: H. Ito

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 99
	Framework minerals
10	Quartz 5
2	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
1	Rock fragments 0.5
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
20	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
4	Pyrite 2
	Magnetite
	Fe-oxide
	Carbonates
57	Calcite 30
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
2	/ Centric
4	/ Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	17H		6	30	

Sediment/Rock Name	Auth. Carb. rich clay

Observer	Hino

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
7	Quartz 3
2	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
1	Rock fragments 2
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
16	Clay Minerals 7
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
68	Calcite 30
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
2	Diatoms 1
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	17H		7A	92	

Sediment/Rock Name	Diatom-rich clayey Silt

Observer	Lying

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 02
	Framework minerals
52	Quartz 15
10	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments 1
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
10	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
7	Ferromagnesium minerals ≠ 2
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

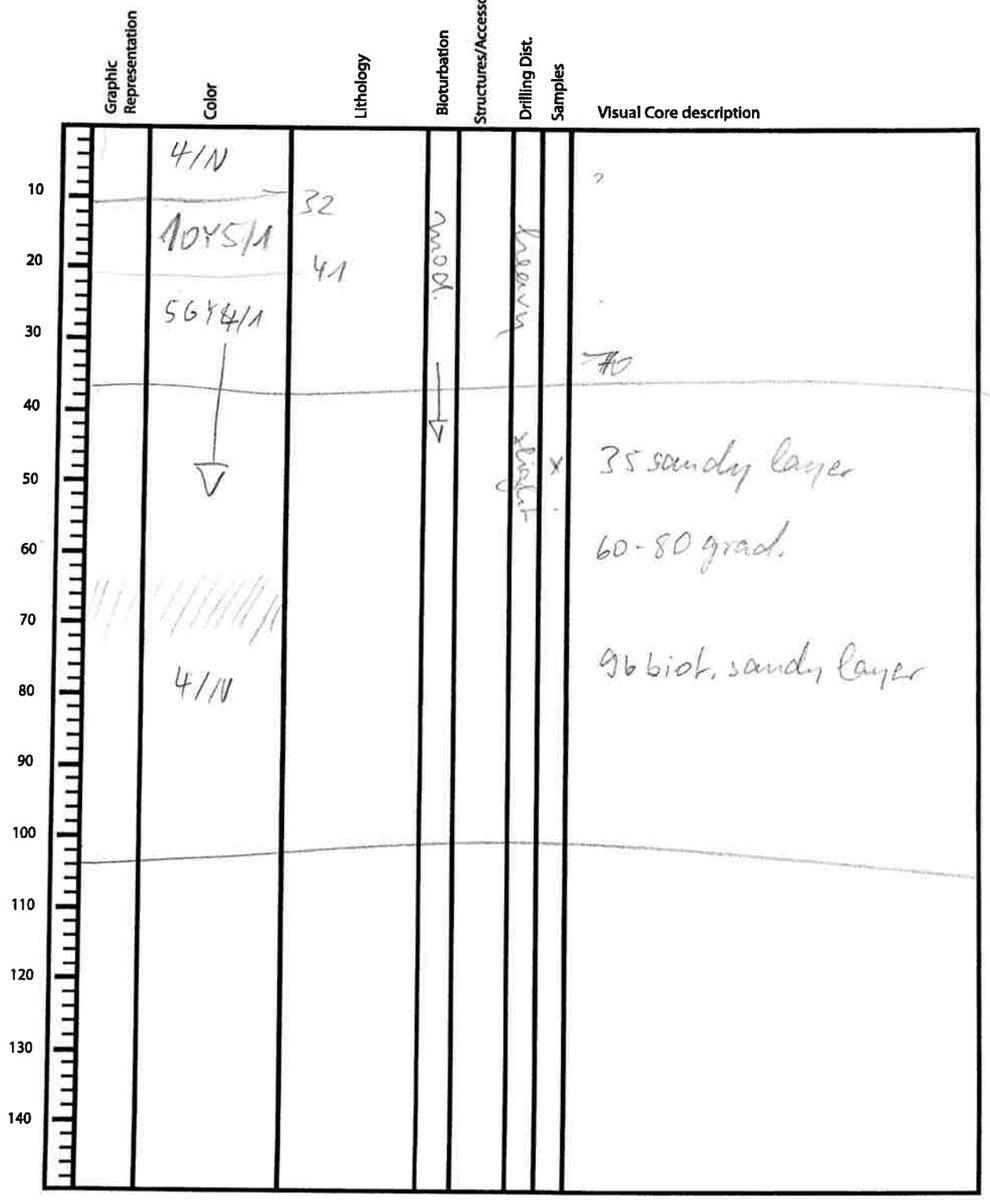
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
1f 5	Diatoms 5
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 D 18H 1+2
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

1344	D	18H	3+4	
Site	Hole	Core	Section	Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology

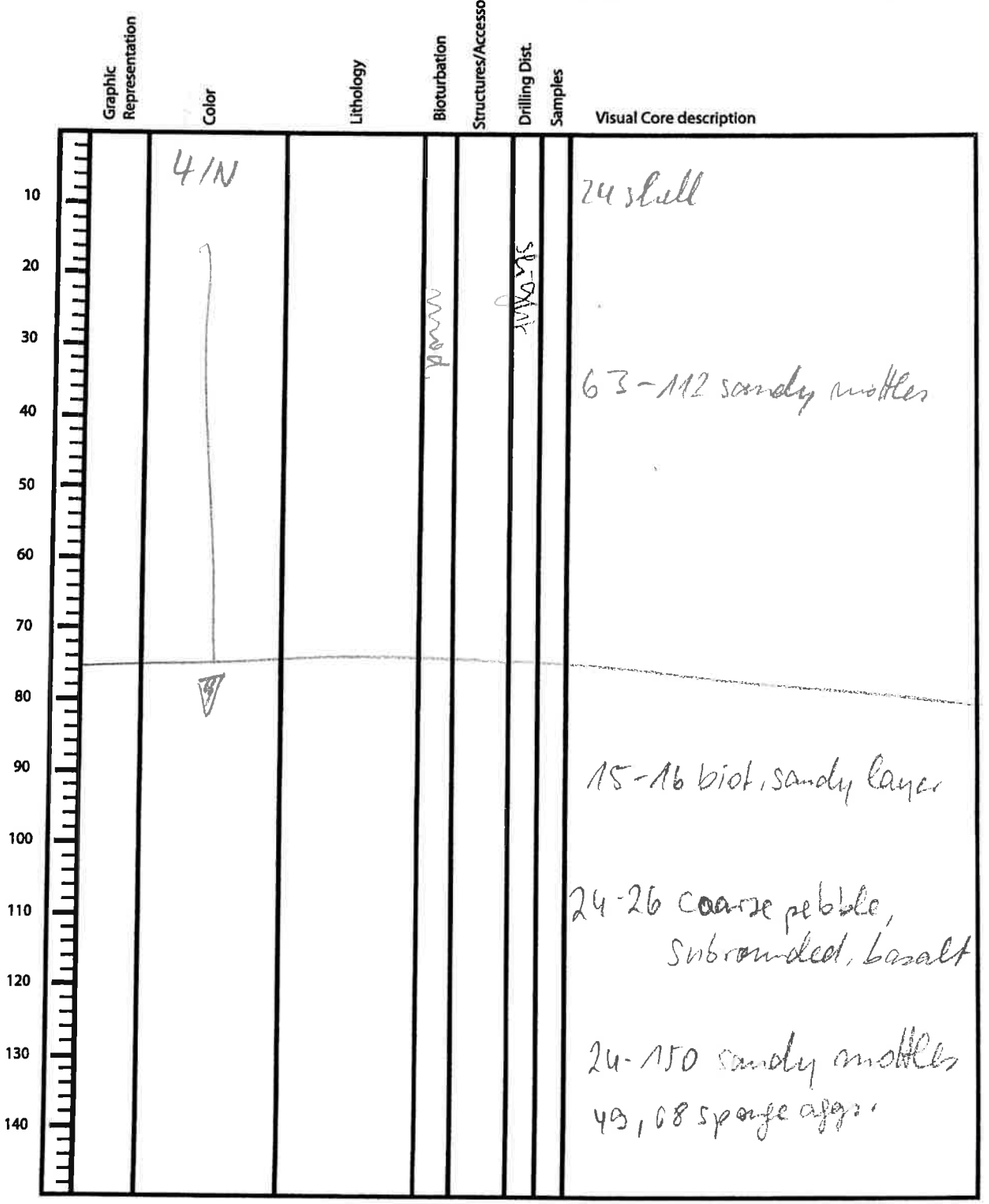
	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
10		4/N		mod				
30						slight		78-81 tilted biot. sandy layer
40								
60								113-126 pyrite mottles
80								10-24 pyrite mottles
100					56			112 - 124 sandy mottles
110						mod		
120					84			132-138 pyrite mottles
130						slight		
140								139 fine pebble

Observer: ______ Date: ______

1344 D 18H 5+6 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: _____ Date: _____

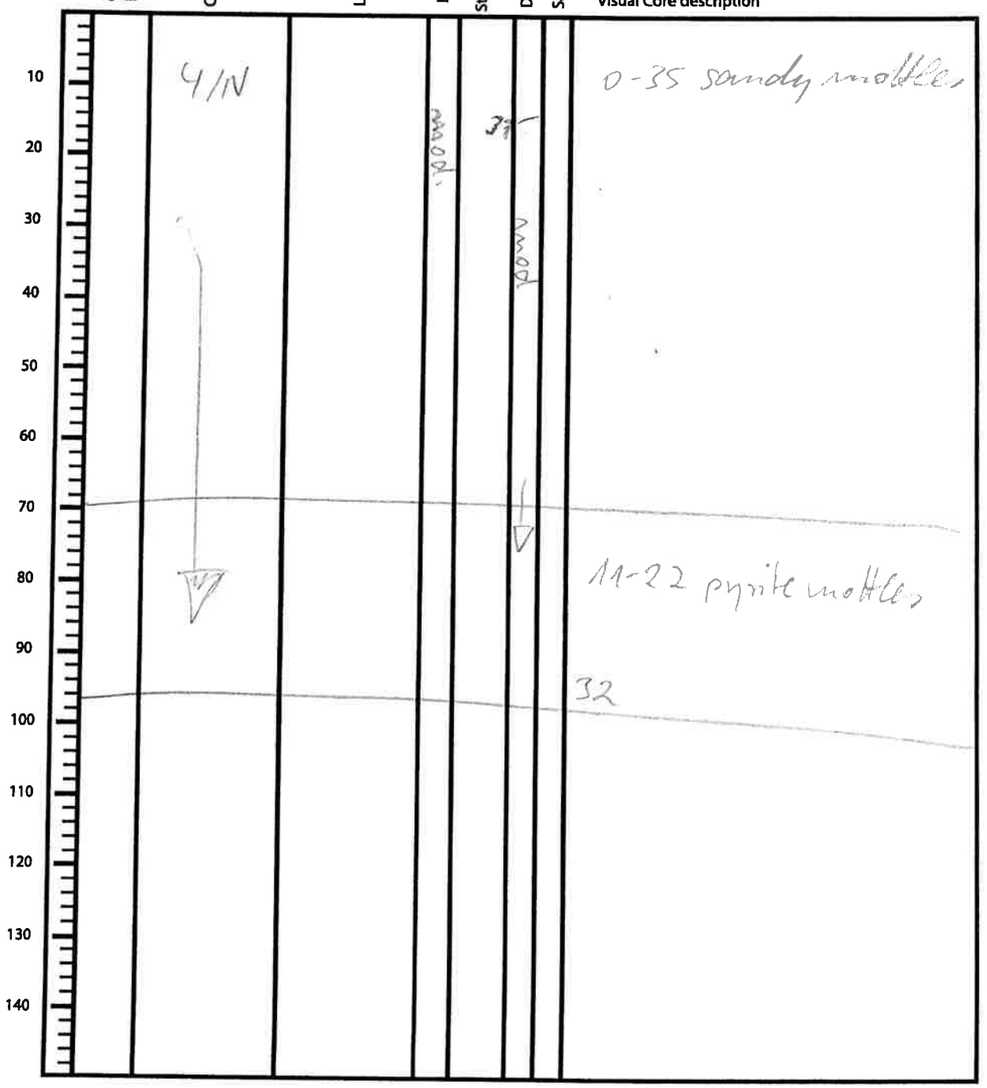
1344 / D / 18H / 7+CC
Site / Hole / Core / Section / Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology

Graphic Representation | Color | Lithology | Bioturbation | Structures/Accessories | Drilling Dist. | Samples | Visual Core description



Observer: _____ Date: _____

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	D	18H		2A	50	50

Sediment/Rock Name	Diatom-bearing clayey silt

Observer	Hino

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 95
	Framework minerals
74	Quartz 10
7	Feldspar /
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments /
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
7	Vitric grain /
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 5
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
4	0.5 Centric
1	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

S4U

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	P	18		6	50	

Sediment/Rock Name	Diatom-bearing clayey silt

Observer	Hinz.

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 92
	Framework minerals
71	Quartz /
7	Feldspar /
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
7	Ferromagnesium minerals /
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
7	Pyrite /
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 8
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
8	Diatoms /
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 D 19H 1+2 ___
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

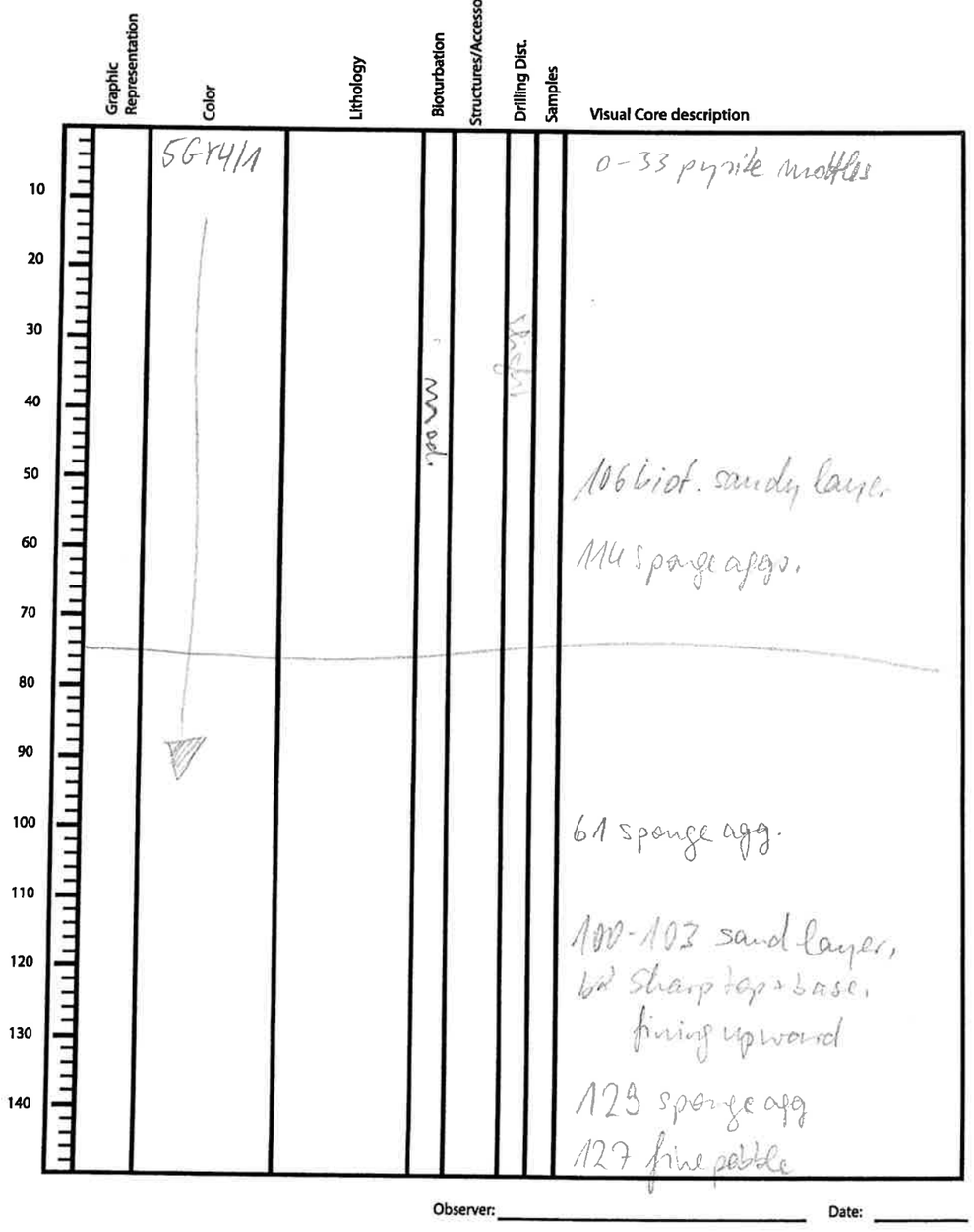
Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
10	4/N				slight		0–30 pyrite mottles
20							47 sponge agg.
30	5GY4/1						59
40			Mod.				
50					slight		68–150 pyrite mottles
60							60–70 grad.
70	4/N						93–94 biot. sandy layer
80							
90							120–130 grad.
100	3/N						
110							
120							
130							
140							

Observer: _____ Date: _____

1344 (Site) D (Hole) 19H (Core) 3+4 (Section) ____ (Top Depth)

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

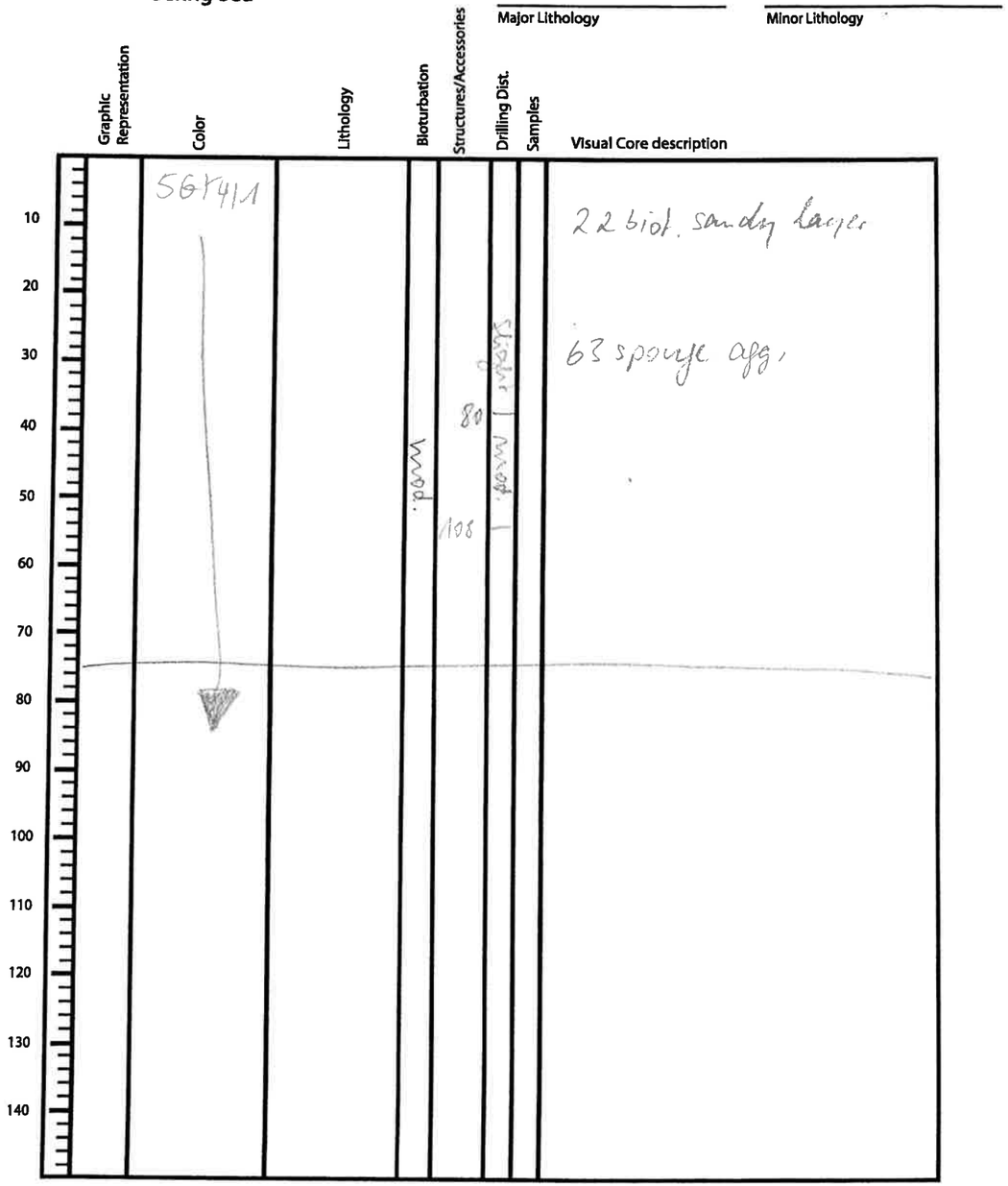


Observer: _____ Date: _____

1844 D 19H 5+6 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

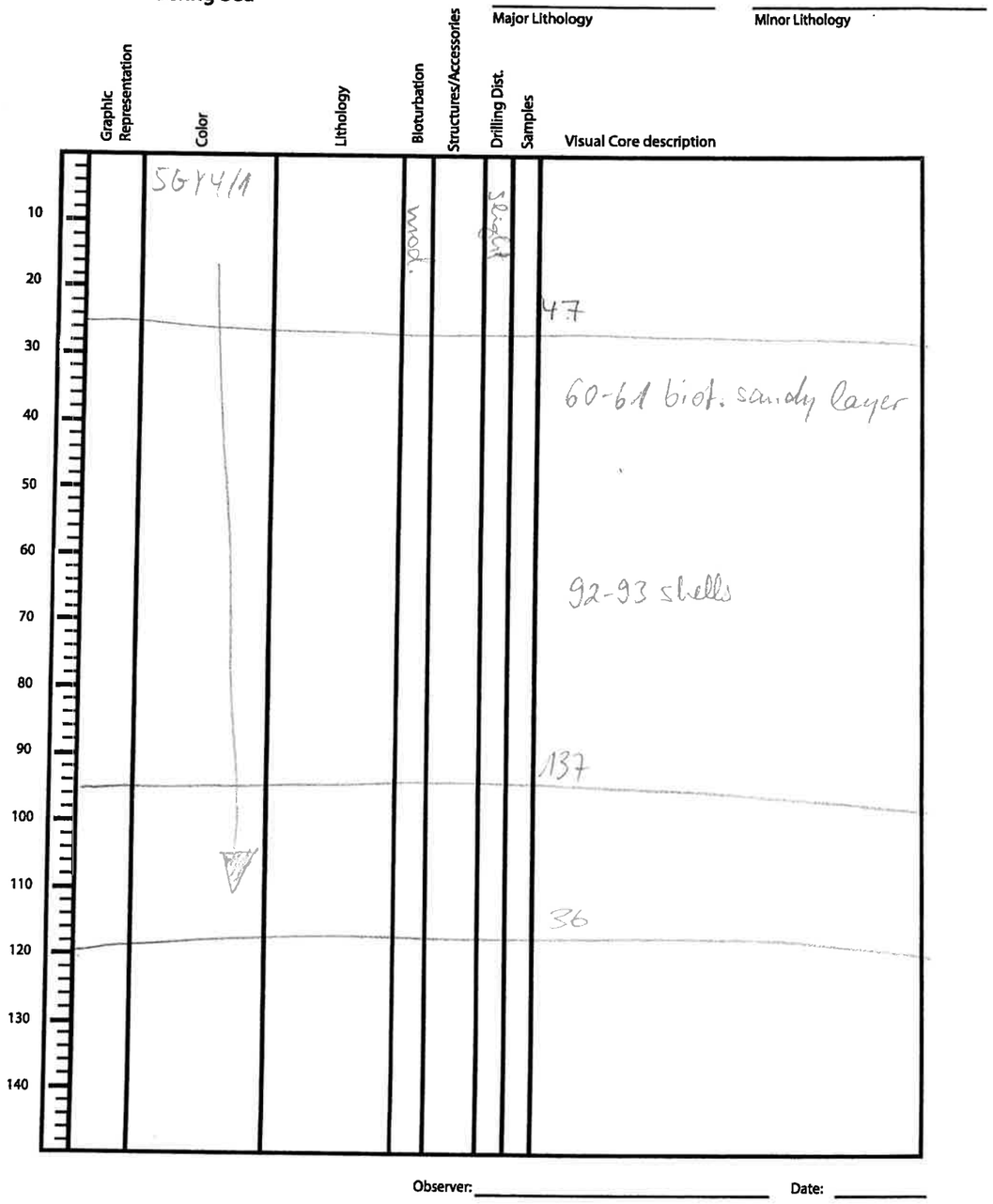


Observer: _____ Date: _____

1344 / D / 19H / 7+8+CC
Site / Hole / Core / Section / Top Depth

Expedition 323
Bering Sea

Major Lithology / Minor Lithology



Observer: _____ Date: _____

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	19	H	2	50	

Sediment/Rock Name	Diatom-rich silty clay

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Main lith.

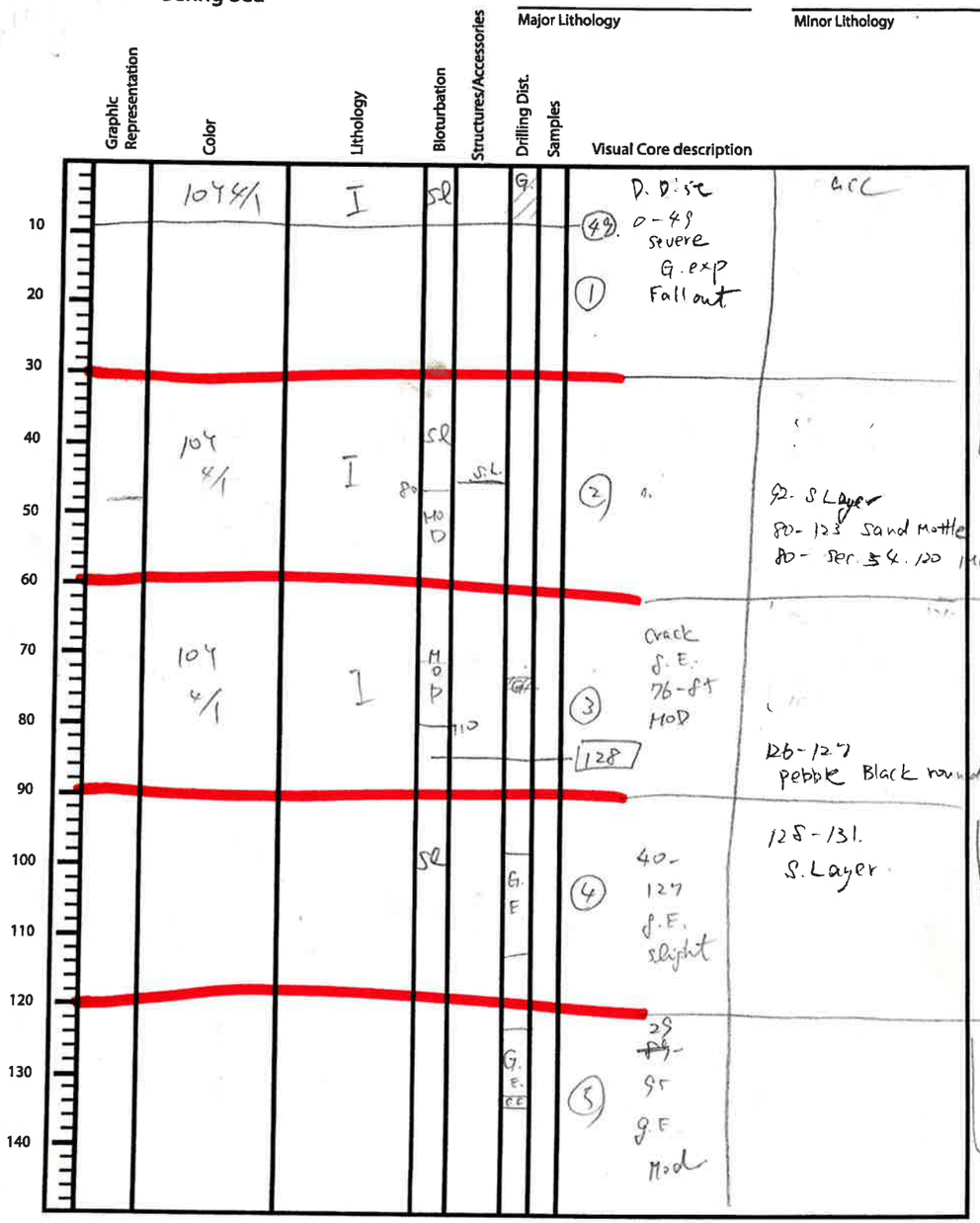
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
50	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
5	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
20	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
✓	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 / Site — D / Hole — 20H / Core — 1-4 / Section — ← / Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



S.S Aft.

S.S. Aft
27, 50, 100,
130, 134, 137,

SS. Aft
22. 73. 91
110 113 117
120. 124

1.0cm
S.S Aft.
30. 32.
62. 73 88.
99.

S.S Aft
32. 69. 78-88
101-112

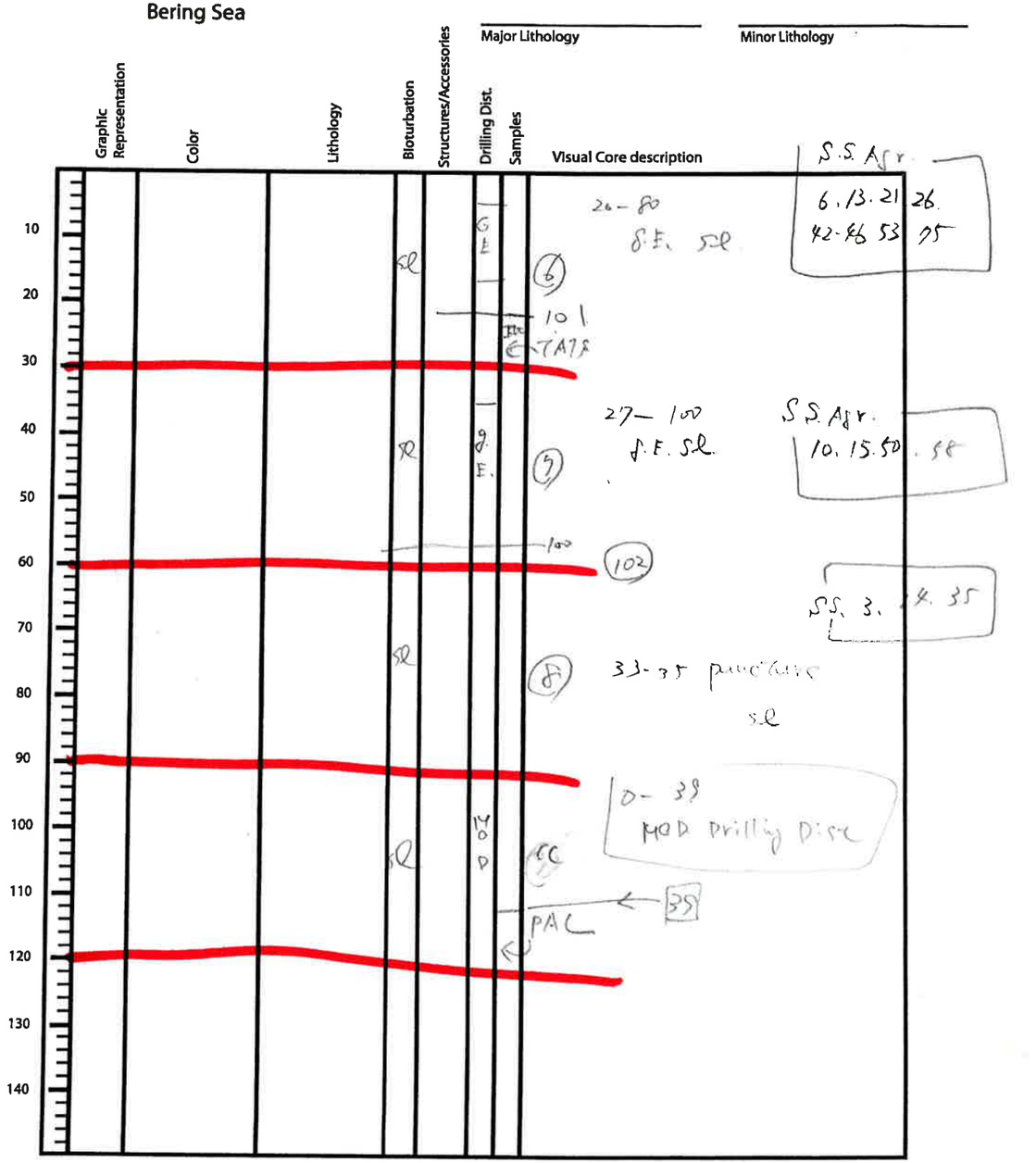
Observer: Hino A Date: ____

1344 D 20H 6-CC
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: Hino A. Date: _____

SM ✓

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1347	D	~~26~~ 20 H		2A	30	

Sediment/Rock Name	Diatom-rich silty clay

Observer	Hino

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 77
	Framework minerals
55	Quartz 7
15	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
8	Rock fragments 1
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 23
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
23	Diatoms 5
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1347	D	20H		5	85	88

Sediment/Rock Name	Diatom-rich silty Clay

Observer	Hino

Percent Texture		
Sand	Silt	Clay

Comments:

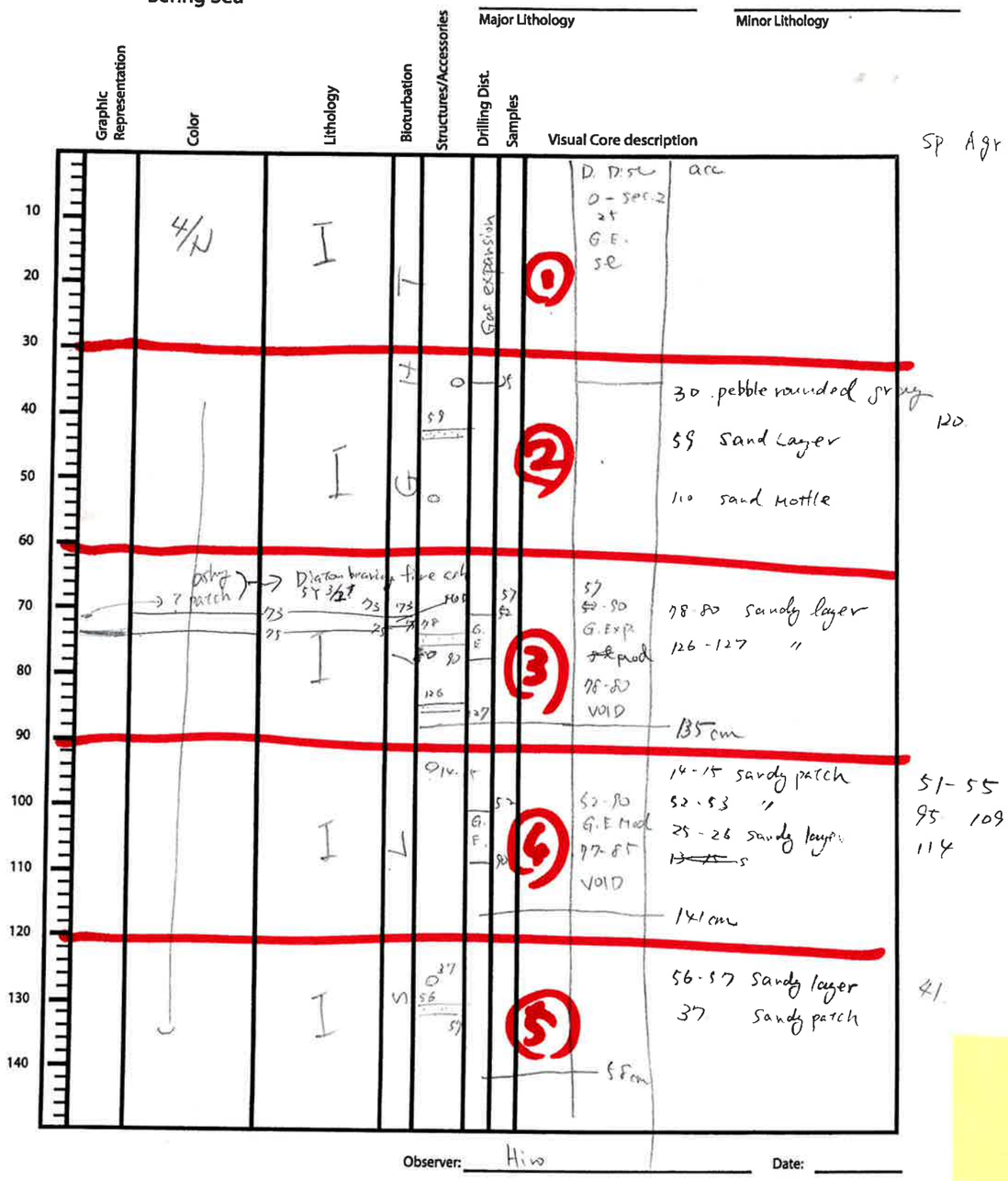
Percent	Component
	SILICICLASTIC GRAINS/MINERAL 73
	Framework minerals
48	Quartz 5
10	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
tr	Plagioclase
	Rock fragments tr
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
10	Ferromagnesium minerals 1
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
5	Calcite 0.5
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 27
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
#527 3	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

B44 | D | 21H | 1-5 | _____
Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

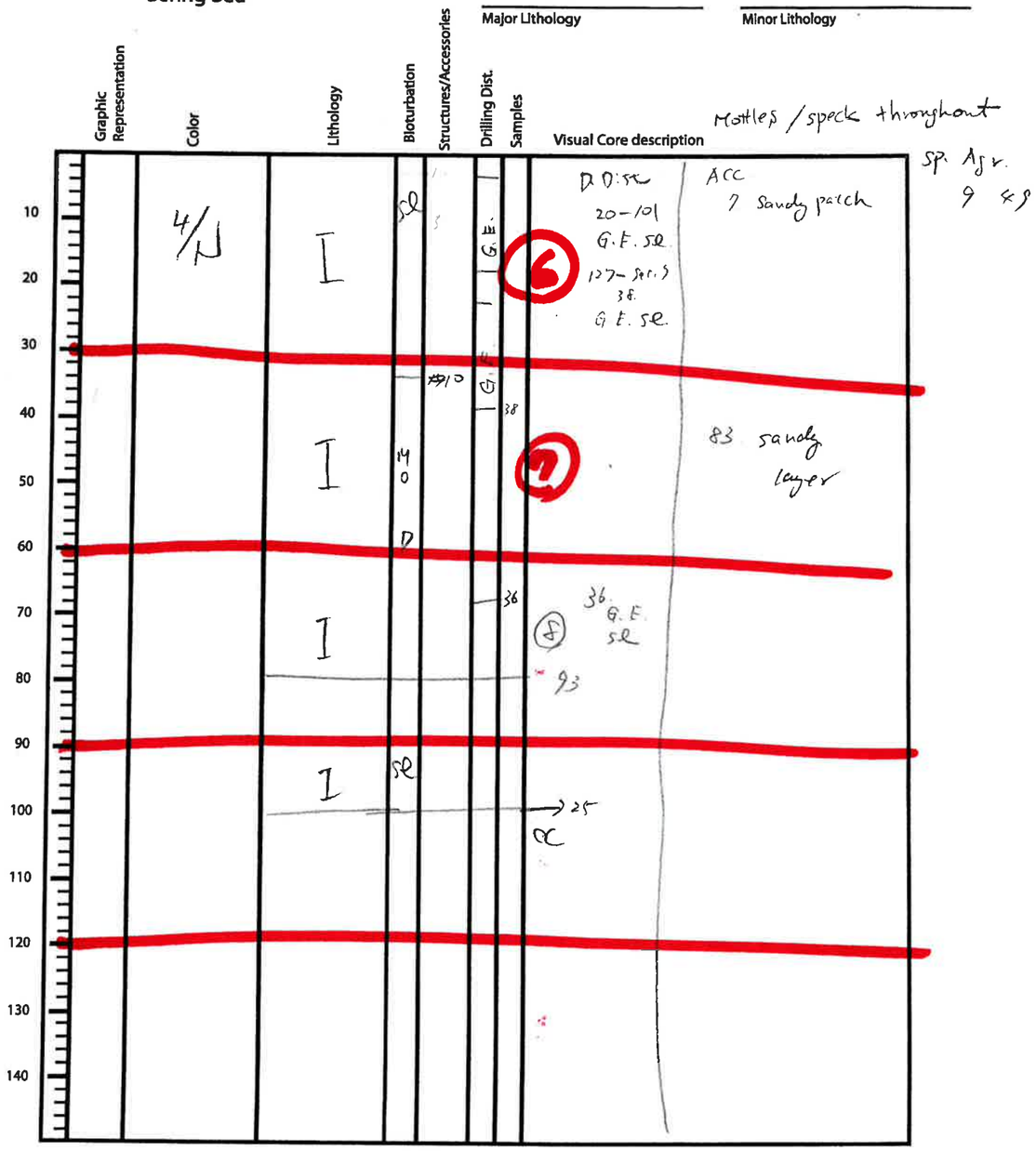


Observer: Hino _____ Date: _____

1344 | D | 21H | 6-CC | _____
Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: _____ Date: _____

✓SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	21	H	3	75	

Sediment/Rock Name	Diatom-bearing (fine ashy) silty clay

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Brown patch

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
30	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
3	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
30	Vitric grain Brown
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
5	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	D	21	H	4	39	

Sediment/Rock Name	Diatom-rich clayey silt

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Main lithology

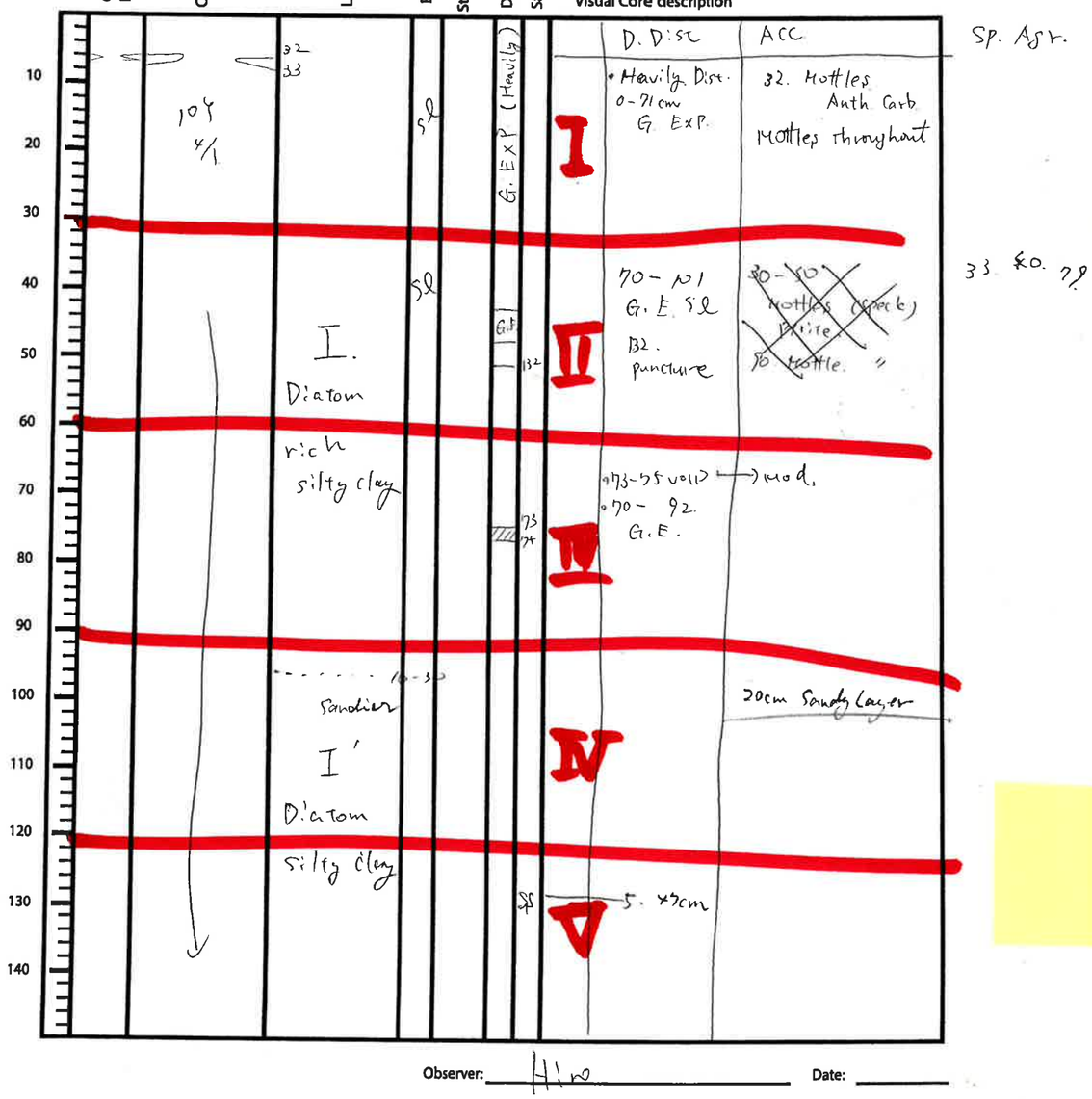
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
15	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
27	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
5	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
30	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
1	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

1344 / Site | D / Hole | 22H / Core | 1-5 / Section | / Top Depth

Major Lithology | Minor Lithology

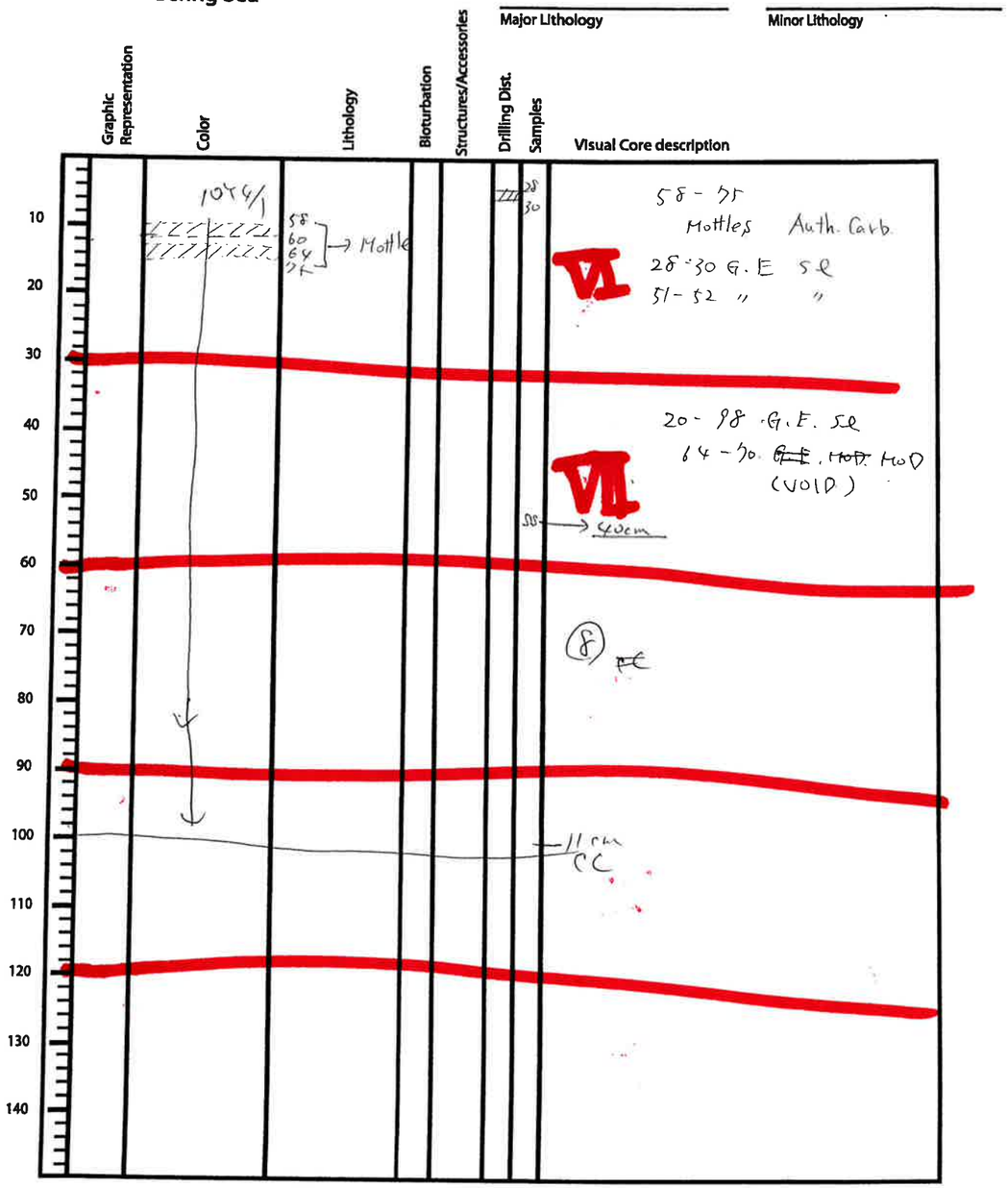


Observer: Hino Date:

1344 D 22H 6-CC
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: _____ Date: _____

✓SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	22	H	4	47	

Sediment/Rock Name	Diatom-rich silty clay

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Main lithology - smooth

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
40	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
1	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
30	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	22	H	7	40	

Sediment/Rock Name	Diatom silty clay

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Main lithology - silty

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
1	Micas
	Biotite
	Muscovite
25	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
50	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Site: 1344 | Hole: D | Core: 234 (~~244~~) | Section: 1-5 | Top Depth:

Expedition 323
Bering Sea

Major Lithology

Minor Lithology

Graphic Representation | Color | Lithology | Bioturbation | Structures/Accessories | Drilling Dist. | Samples | Visual Core description

Color: 10Y 4/1

Lithology: Diatom rich silty clay

Section markers (circled): 1, 2, 3, 4, 5

Scale: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140

Section 1:
D. D: sl Lith. Acc
80. puncture sl
98-105 g. Exp. slight
60-64 S. Layer
Bioturbation: sl
Drilling Dist.: 110
SP. Agr ~~22~~

Section 2:
22 38. 46
Bioturbation: sl
84, ~~97~~, 110
94-110 → G. Exp. ~~High~~ sl

Section 3:
Bioturbation: Mod, 35, sl
34. S Layer
37. 〃
113. 118-119 126-129 136
94, 110
94-110 G. Exp. High

Section 4:
38, 53, 75, 84, 110, 122
38-53 → G. Exp. MoD
60 sp 40-44 VOID
75-84 → G. Exp. ~~H sl~~ MoD
→ G. Exp. ~~Mod~~ sl
pebbles @ 103-105 Black rounded / ov
~~sl~~ 67-70 Sandy Layer
Bioturbation: sl

Section 5:
Bioturbation: sl
35-37 Mottle.
102 Sandy patch
55-59 Sandy patch

Observer: Date:

1344	D	23H	6-CC	
Site	Hole	Core	Section	Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology

	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
10		10Y 4/1	↓	SR				P. Disc 0-150 SR. gas. exp. ~~Mottles~~ ~~56-58~~ (spect.)
20								
30								
40		↓	↓	SR				CC 16-18. Mottles
50							20cm	
60								
70								
80								
90								
100								
110								
120								
130								
140								

Sp. Asr. 86

Observer: ____________ Date: ______

✓SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	23	H	4	60	

Sediment/Rock Name	Diatom-rich silty clay

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Main lithology !

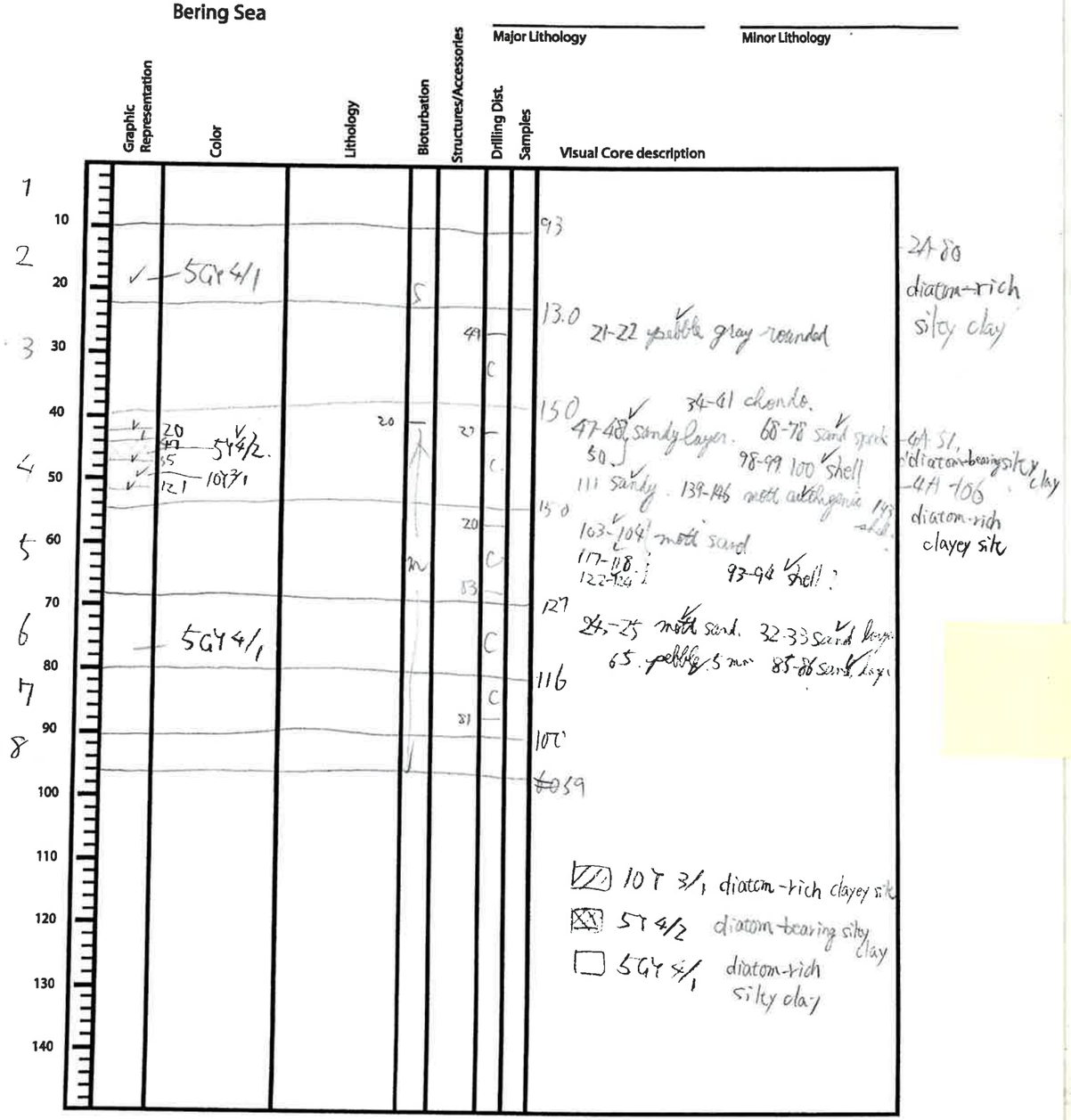
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
40	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
1	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
5	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
25	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	✓Silicoflagellates
	✓Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Site 1344 Hole 24H Core ____ Section ____ Top Depth ____

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



Observer: _____ Date: _____

✓SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1341	D	24	H	2A	80 cm	

Sediment/Rock Name	Diatom-rich silt

Observer	Bohaty

Percent Texture		
Sand	Silt	Clay
5	80	15

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
5	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
10	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite
	Magnetite
	Fe-oxide Hematite!
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
20	Centric
10	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	D	24	H	4A	51 cm	

Sediment/Rock Name	Diatom-bearing silty Clay

Observer	BETH

Percent Texture		
Sand	Silt	Clay
20	20	60

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
25	Quartz
2	Feldspar
	K-feldspar (Orthoclase, Microcline...)
1	Plagioclase
7	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
24	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
5	Zeolite
	Opaque minerals
10	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
5	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
5	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
10	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
1	Silicoflagellates
	Sponge spicules
	Dinoflagellates ?
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	D	24	H	4A	106cm	

Sediment/Rock Name	Diatom-rich clayey silt

Observer	Beth

Percent Texture		
Sand	Silt	Clay
20	50	30

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
10	Plagioclase
20	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
20	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
15	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
5	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 D 25 ALL
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

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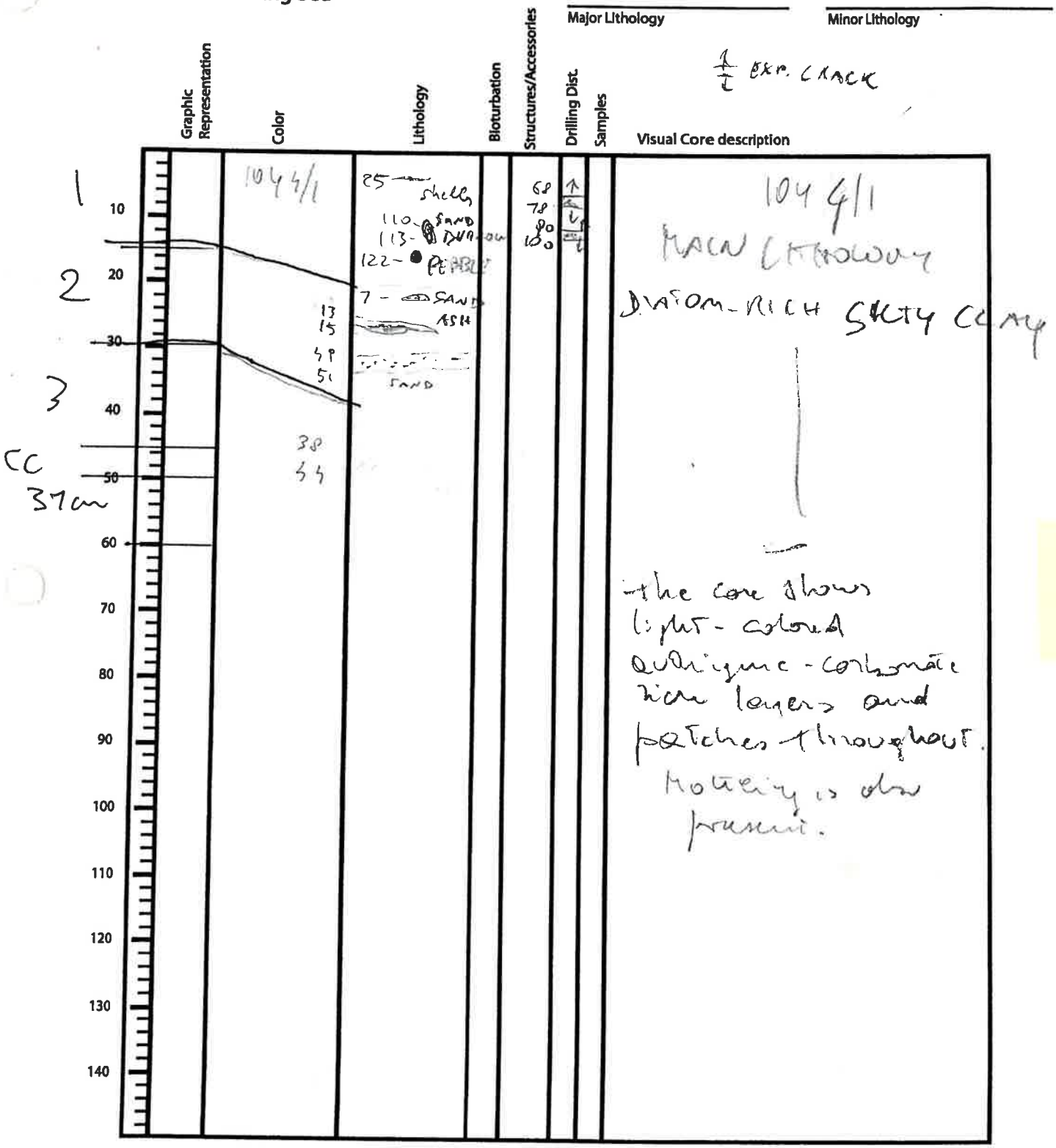


Observer: _____ Date: _____

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	D	25	H	2A	15cm	

Sediment/Rock Name	Fine Ash

Observer	Beth

Percent Texture		
Sand	Silt	Clay

Comments:

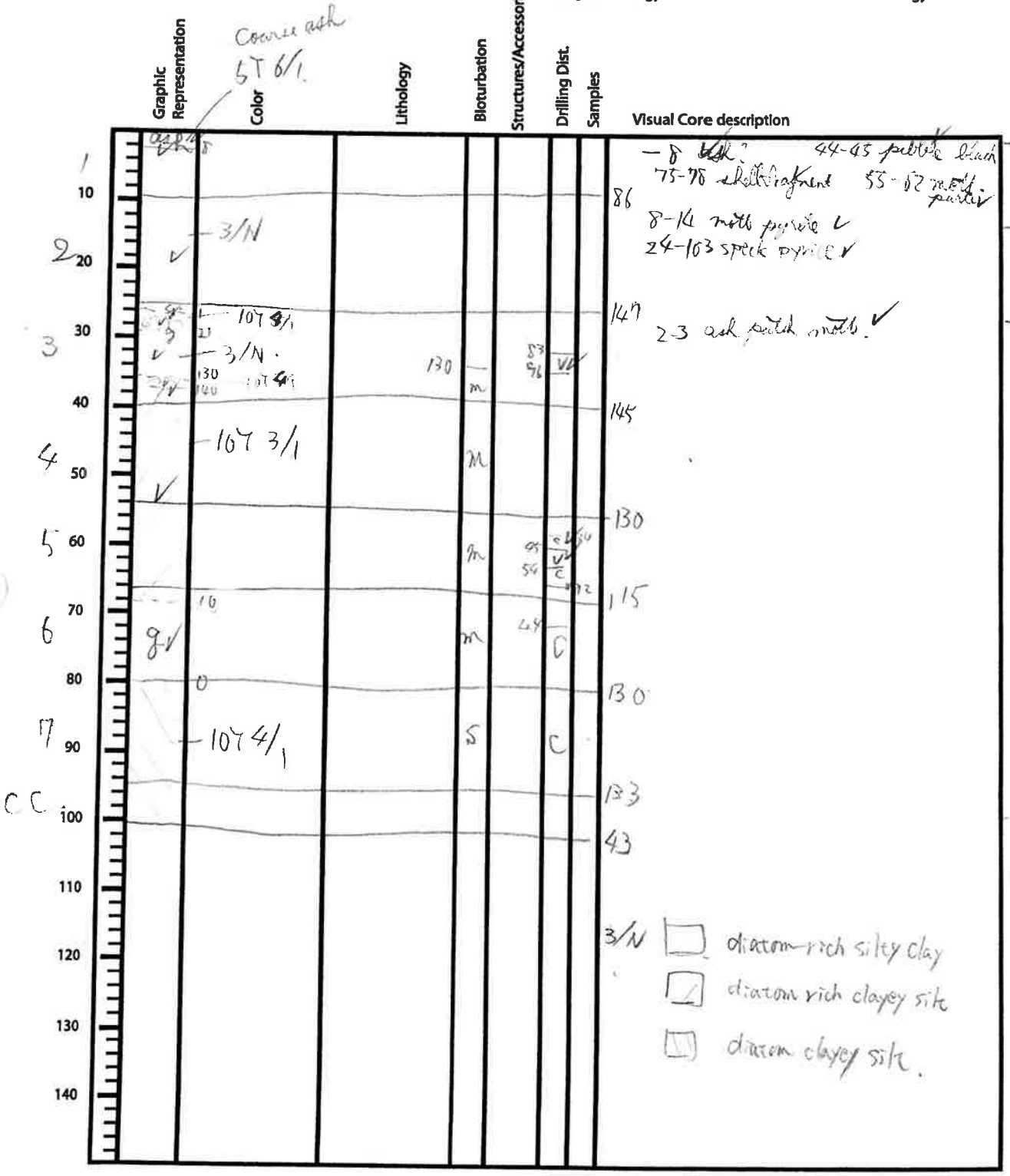
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
10	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
80	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 D 26 ____ ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



Observer: ____ Date: ____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	D	26	H	1	6cm	

SM ✓

Sediment/Rock Name	Coarse Ash

Observer	Bex

Percent Texture		
Sand	Silt	Clay
80	20	

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
5	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
95	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1314	D	26	H	2A	100cm	

Sediment/Rock Name	Diatom-rich silty clay

Observer	BETH

Percent Texture		
Sand	Silt	Clay
5	35	60

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
5	Plagioclase
10	Rock fragments
	Accessory/trace minerals
	Micas
1	Biotite
	Muscovite
30	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
7	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
5	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
15	Centric
5	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	D	26	H	3A	10cm	

Sediment/Rock Name	Diatom-rich clayey silt

Observer	Beth

Percent Texture		
Sand	Silt	Clay
15	50	35

Comments: Accessory - Carbonate? NO.

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
14	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5 tr	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
15 tr	Clay Minerals
	Chlorite
1	Glauconite !
	Chert
	Zircon
3 tr	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
1	Zeolite
	Opaque minerals
5	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
10	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
15 tr	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
1 tr	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
25	Centric
5	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	D	26	H	CCA	5cm	

Sediment/Rock Name	Diatom. clayey silt

Observer	BETH

Percent Texture		
Sand	Silt	Clay
15	60	25

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
20	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

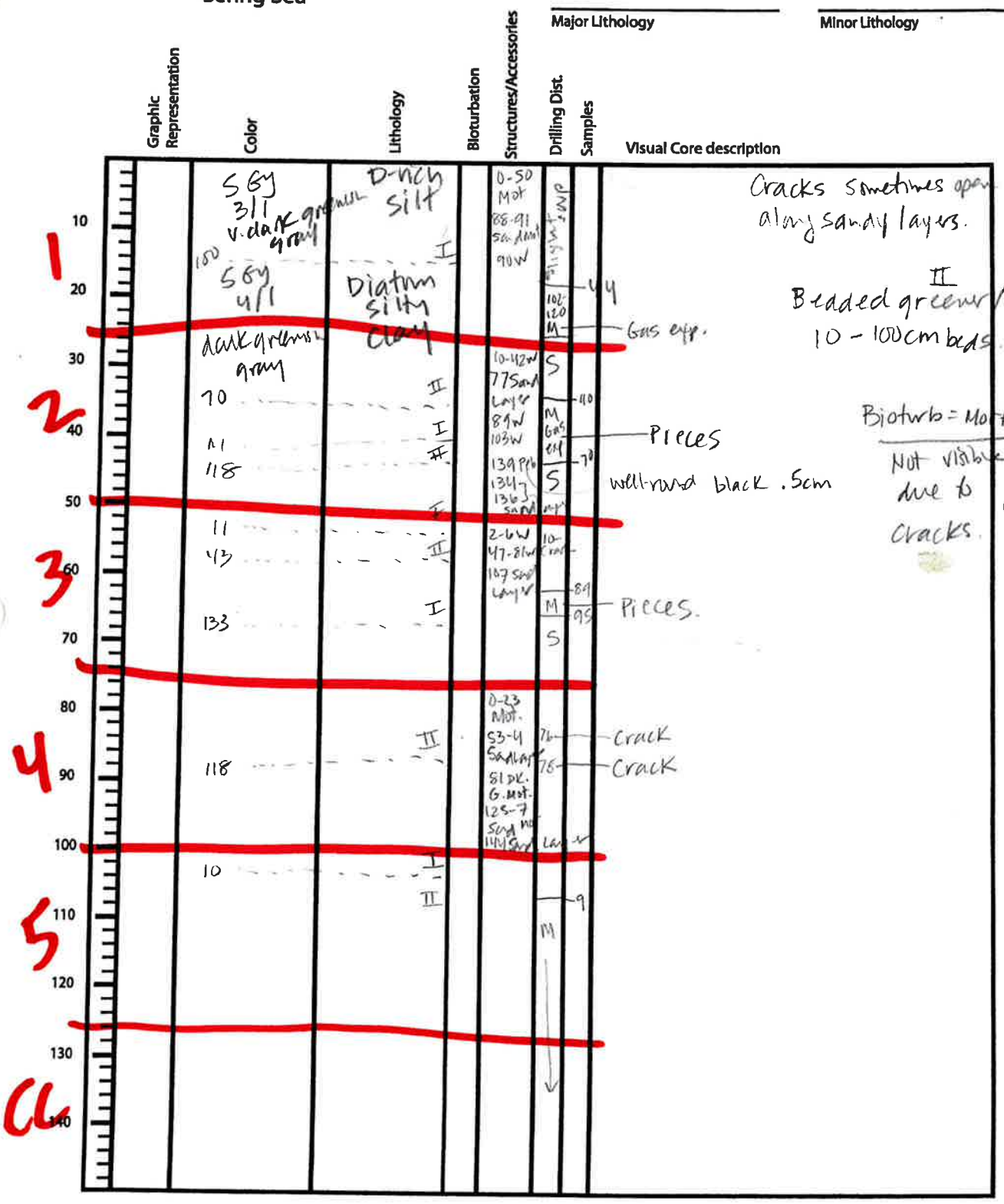
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
35	Centric
5	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

U1344 D 27H - ALL
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	27	H	1A	70	

Sediment/Rock Name	diatom-rich silt

Observer	Okita

Percent Texture		
Sand	Silt	Clay
15	80	5

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
19	Quartz 5
11	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
19	Rock fragments 5
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
4	Clay Minerals 1
	Chlorite
	Glauconite
	Chert
	Zircon
1	Ferromagnesium minerals 0.3
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
7	Pyrite 2
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
38	Diatoms 10
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	27	H	4	20	

Sediment/Rock Name	diatom silty clay

Observer	abera

Percent Texture		
Sand	Silt	Clay
5	40	55

Comments:

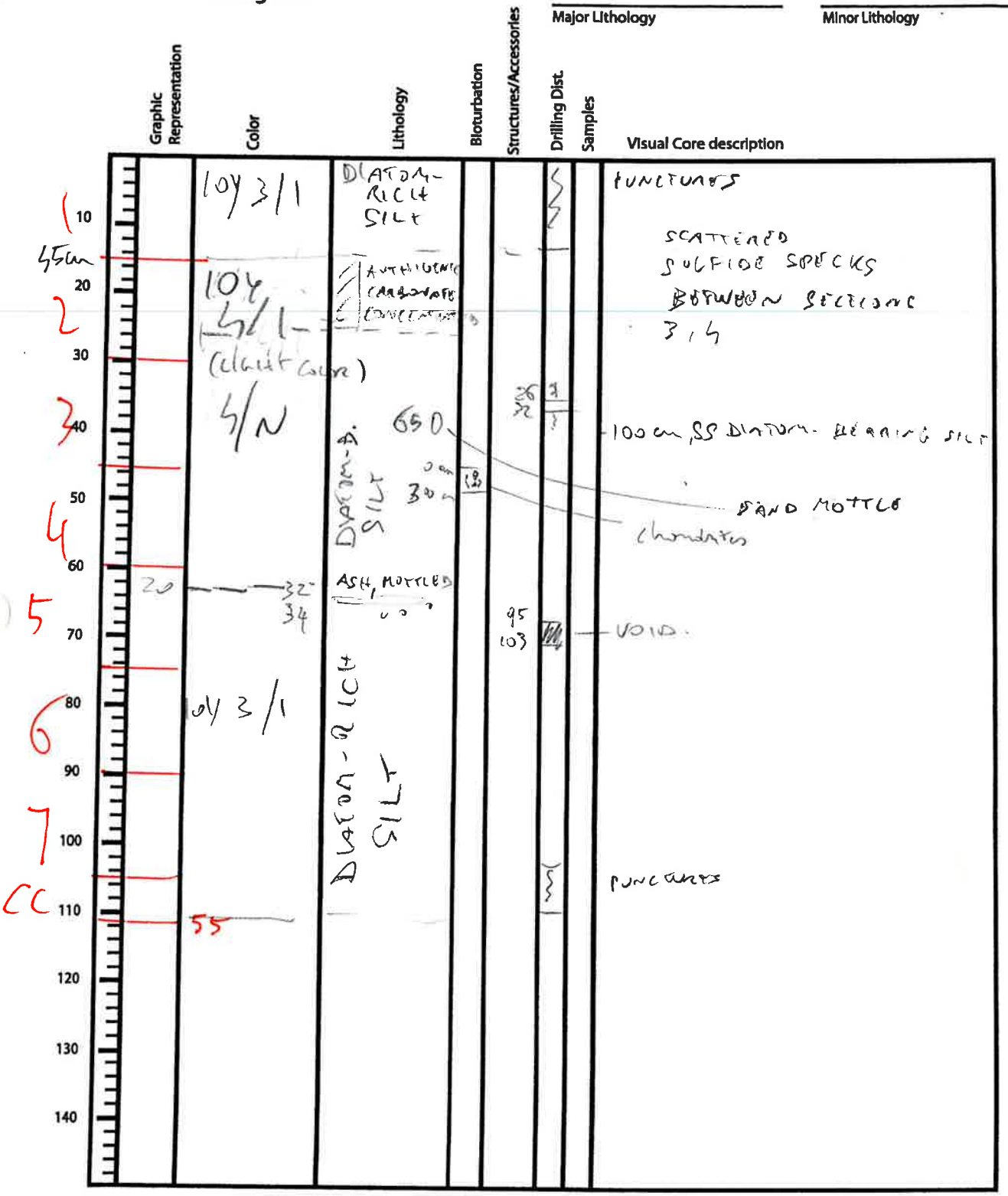
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
11	Quartz 3
7	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
26	Clay Minerals 7
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
7	Pyrite 2
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
4	Vitric grain 1
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
44	Diatoms 12
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 Site | D Hole | 28 Core | A/C Section | ____ Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



Observer: ____ Date: ____

✓SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	28	H	3A	100	

Sediment/Rock Name	diatom-bearing silty clay

Observer	Akira

Percent Texture		
Sand	Silt	Clay
	40	60

Comments:

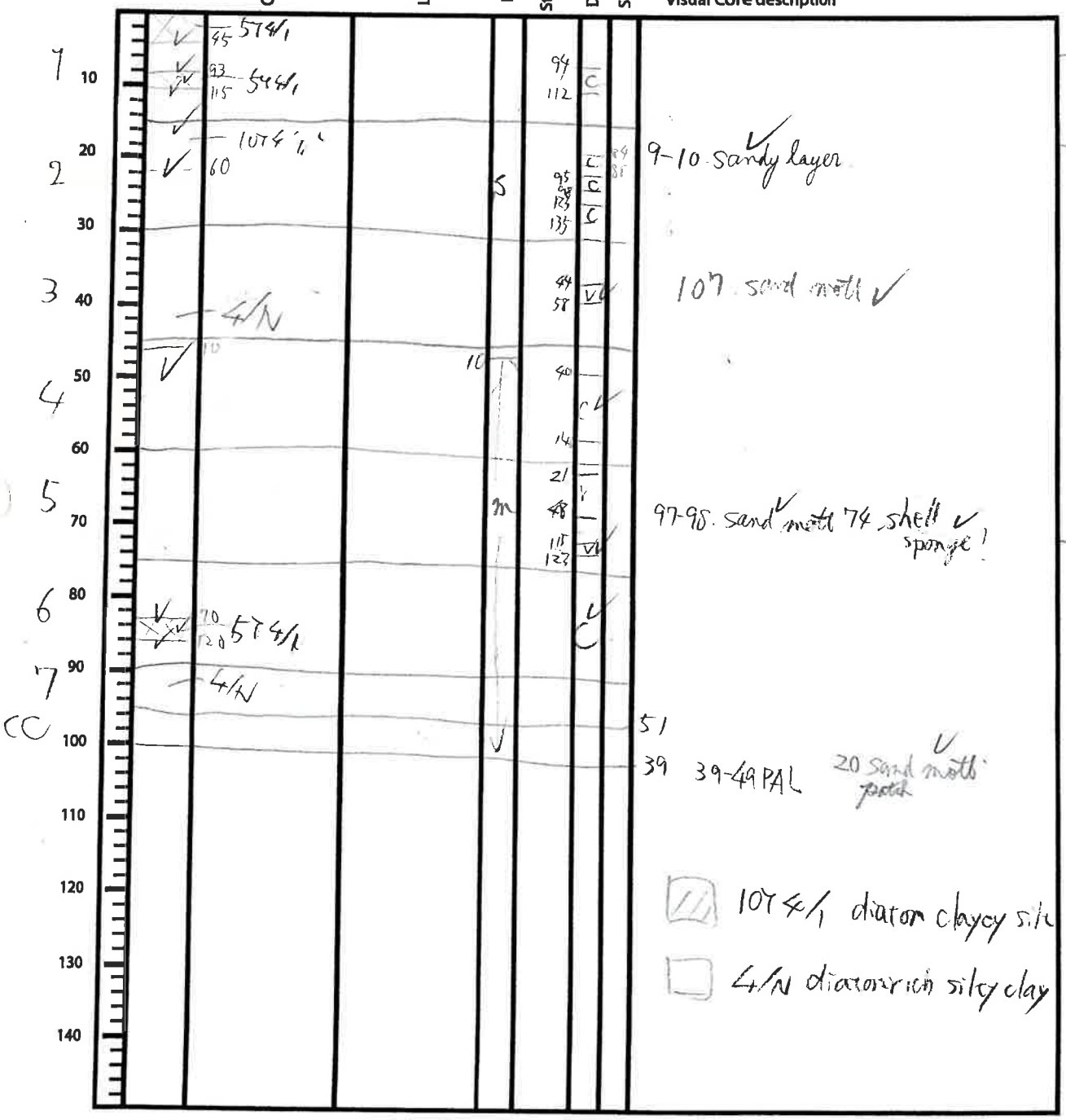
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
18	Quartz 7
13	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
39	Clay Minerals 15
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
8	Pyrite 3
	Magnetite
	Fe-oxide
	Carbonates
5	Calcite 12
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
13	Diatoms 7 5
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
3	Sponge spicules 1
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris ✓
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 D 29 ____ ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: _____ Date: _____

✓SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	D	29	H	1A	45cm	

Sediment/Rock Name	Diatom clayey silt	Observer	Beth

Percent Texture		
Sand	Silt	Clay
10	50	40

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
20.	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
5	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
35	Centric
10	Pennate
5	*Chaetoceros* Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

/ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	D	29	H	1A	107cm	

Sediment/Rock Name	Auth carbonate-rich diatom clay

Observer	Beth

Percent Texture		
Sand	Silt	Clay
	20	80

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
3	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
2	Micas
	Biotite
	Muscovite
10	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
50	Calcite Hi Mg Needles
10	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
10	Centric
5	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1314	D	29	H	5A	90cm	

Sediment/Rock Name	Diatom-rich silty clay

Observer	BETH

Percent Texture		
Sand	Silt	Clay
5	35	60

Comments:

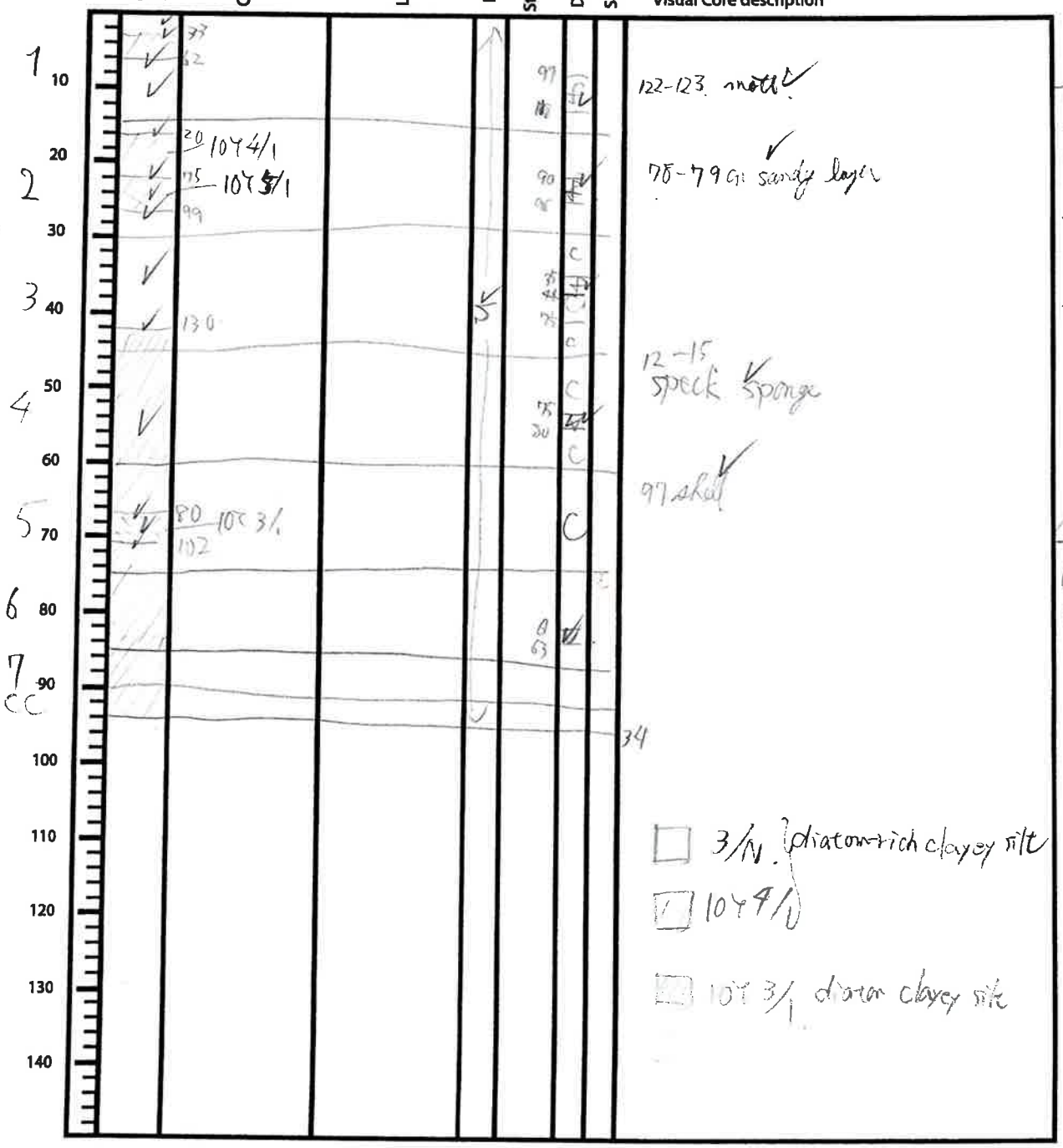
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
30	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
7	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
10	Centric
15	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1354 D 30 — Site / Hole / Core / Section / Top Depth

Expedition 323
Bering Sea

Major Lithology: _____ Minor Lithology: _____



1A-80cm diatom-rich clayey silt

2A-85cm Authigenic carbonate-rich diatom silt

5A-60cm diatom clayey silt

5A-8cm Auth. carb.-rich diatom-rich clayey silt

Observer: _____ Date: _____

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	D	30	H	1A	80 cm	

Sediment/Rock Name	Diatom-rich clayey-silt	Observer	Beth

Percent Texture		
Sand	Silt	Clay
10	40	50

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
5	Plagioclase
10	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
20	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
5	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
10	Centric
15	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	D	30	H	2A	85cm	

Sediment/Rock Name	Authigenic carbonate-rich diatom silt	Observer	BETH

Percent Texture		
Sand	Silt	Clay

Comments: Auth carbonates & 2ndary Lithology

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
5	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
10	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
65	Calcite "needles" Hi Mg?
5	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
10	Centric
	Pennate
5	*Chaetoceros* Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	D	30	H	5A	60cm	

Sediment/Rock Name	Diatom clayey silt

Observer	BETH

Percent Texture		
Sand	Silt	Clay
10	50	40

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
3	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
15	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
5	Zeolite
	Opaque minerals
7	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
30	Centric
5	Pennate
10	*Chaetoceros* Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	D	30	H	5A	81cm	

Auth carbonate-bearing

Sediment/Rock Name	Diatom-rich clayey silt

Observer	BETH

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
5	Plagioclase
	Rock fragments
	Accessory/trace minerals
2	Micas
	Biotite
	Muscovite
10	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
15	Zeolite
	Opaque minerals
5	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
10	Calcite
15	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
1	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
5	Centric
4	Pennate
5	*Chaetoceros* Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

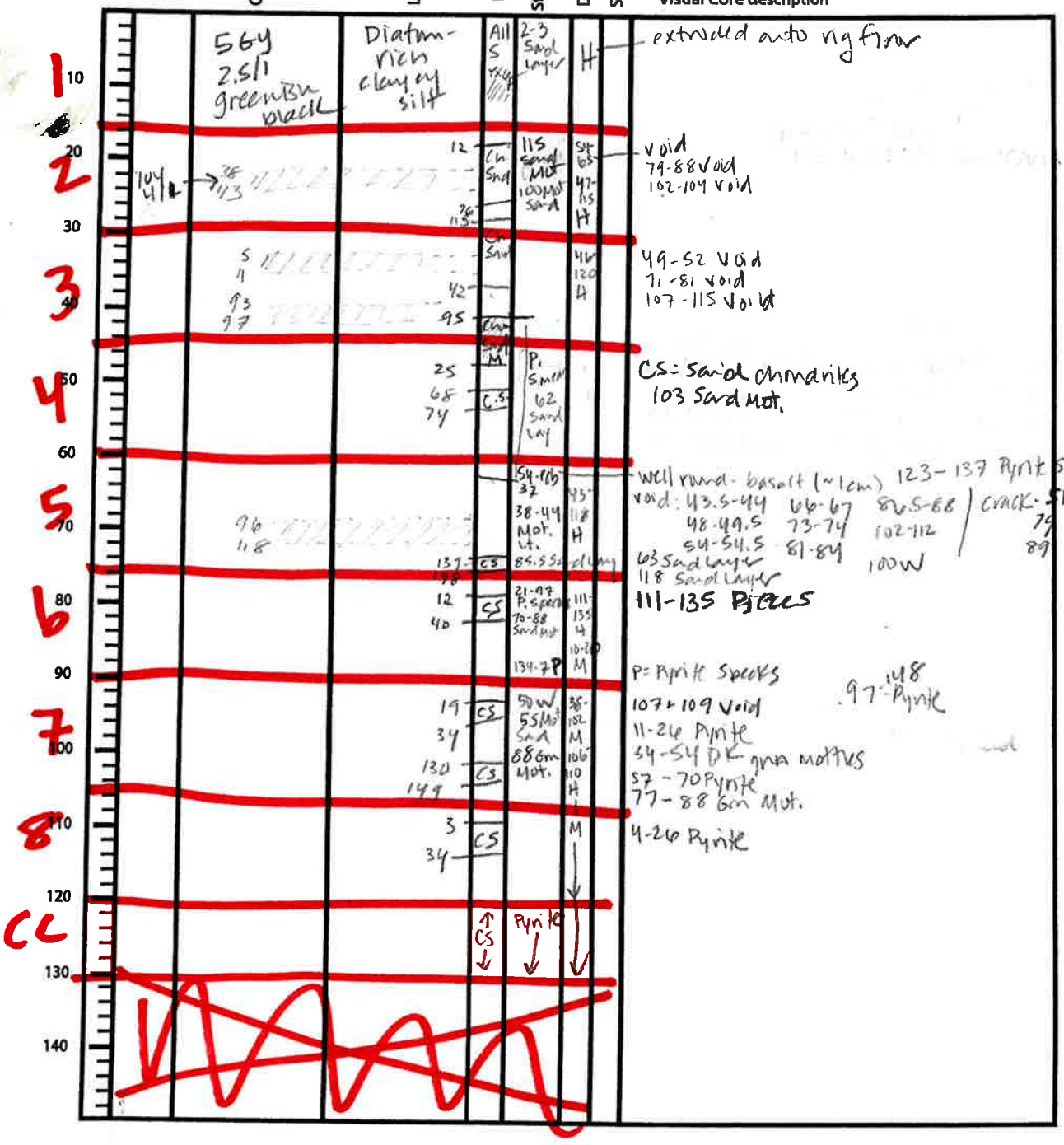
Expedition 323
Bering Sea

U1344 | D | 31H | ALL (1-8, CC)
Site | Hole | Core | Section | Top Depth

dark greenish gray Auth carb-rich diatom clayey silt

Major Lithology

Minor Lithology



Observer: _____ Date: _____

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IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	31	H	3A	6	

Sediment/Rock Name	authigenic carbonate-rich diatom clayey silt

Observer	Olivia

Percent Texture		
Sand	Silt	Clay
	40	60

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
	Quartz 2
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments 2
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
7	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals ←
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite 2
	Magnetite
	Fe-oxide
	Carbonates
60	Calcite 25, aragonite?
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
17	Diatoms ?
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

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✓SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	31	H	3	90 cm	

Sediment/Rock Name	diatom-rich clayey silt

Observer	akira

Percent Texture		
Sand	Silt	Clay
20	40	40

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
16	Quartz 5
10	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments 3
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
32	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
6	Pyrite 2
	Magnetite
	Fe-oxide
	Carbonates
3	Calcite 1
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

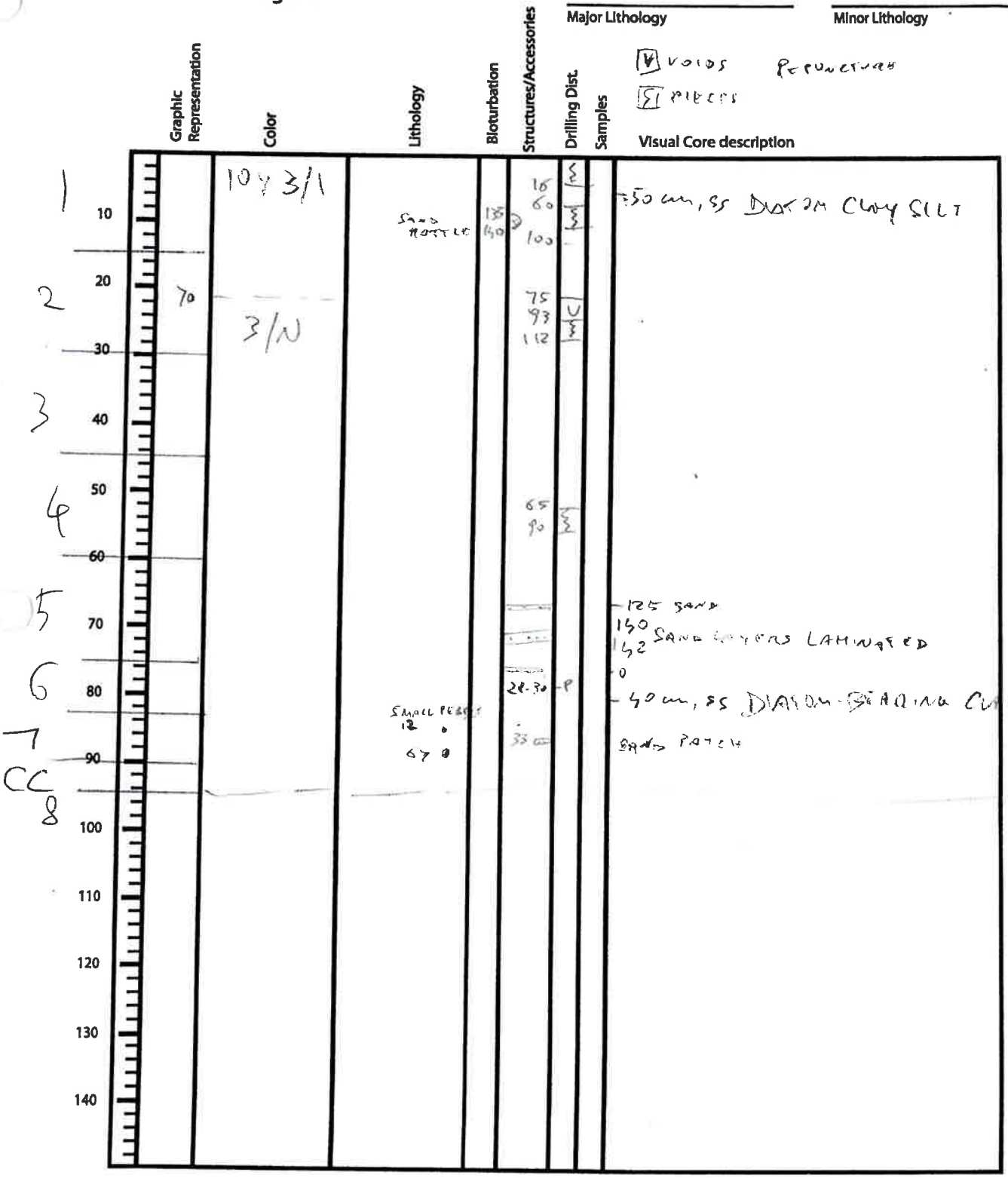
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
23	Diatoms 7
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

(344 D 32 ACC
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology Minor Lithology

[V] VOIDS PERFORATIONS
[S] PIECES



Observer: _____ Date: _____

✓SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	D	32	H	1A	50	

Sediment/Rock Name	diatom-clayey silt

Observer	Okira

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
16	Quartz 5
10	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
2	Micas 0.5
	Biotite
	Muscovite
16	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite 1
	Magnetite
	Fe-oxide
	Carbonates
2	Calcite 0.5
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
3	Vitric grain 1
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
50	Diatoms 15
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
2	Sponge spicules 0.5
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	D	32	H	6A	40	

Sediment/Rock Name	diatom-bearing clayey silt

Observer	Akira

Percent Texture		
Sand	Silt	Clay
20	60	20

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz 7
14	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
6	Rock fragments 2
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
34	Clay Minerals 15
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite 2
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
1	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
1	Radiolarians ✓ 0.5
	Spumellaria
	Nassellaria
19	Diatoms 7
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others