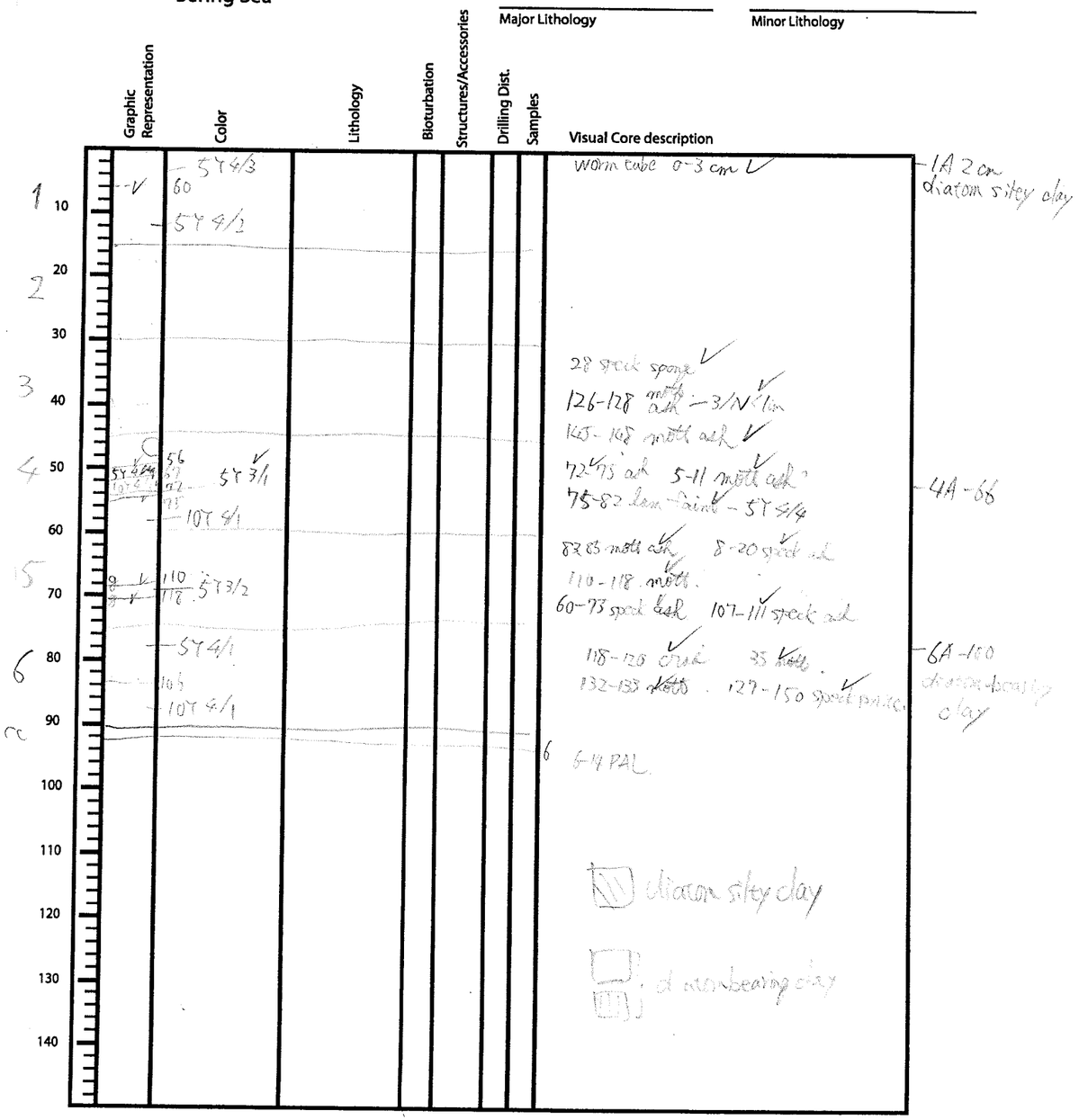
13~~4~~A 1
Site Hole Core Section Top Depth

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	Interval (cm) Bottom
	1344	A	1	H	1	2cm	

SM

Sediment/Rock Name	DIATOM SILTY CLAY	Observer	IWA

Percent Texture		
Sand	Silt	Clay
15	20	65

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
18% 10	Framework minerals
9	5 Quartz
7	4 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	1 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
27%	15 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
54%	30 Diatoms
36	20 Centric
18	10 Pennate
	Chaetoceros Resting Spores
	X 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

X

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
	1344	A	1	H	6	100 cm	

JM

Sediment/Rock Name	DIATOM-BEARING CLAY

Observer	LMA

Percent Texture		
Sand	Silt	Clay
5	25	70

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15%	5 Quartz
9%	3 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
6%	2 Micas
	Biotite
	Muscovite
61%	20 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
	2 Spumellaria
	Nassellaria
9%	Diatoms
6	3 Centric
3	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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
	U344	A	1		4	65 cm	

SM

Sediment/Rock Name	Observer
CLAYSTONE	LMS

SILTY CLAY

Percent Texture Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
10	Framework minerals
10%	3 Quartz
6%	2 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
16%	5 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
48%	15 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
6%	2 Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

32

48%

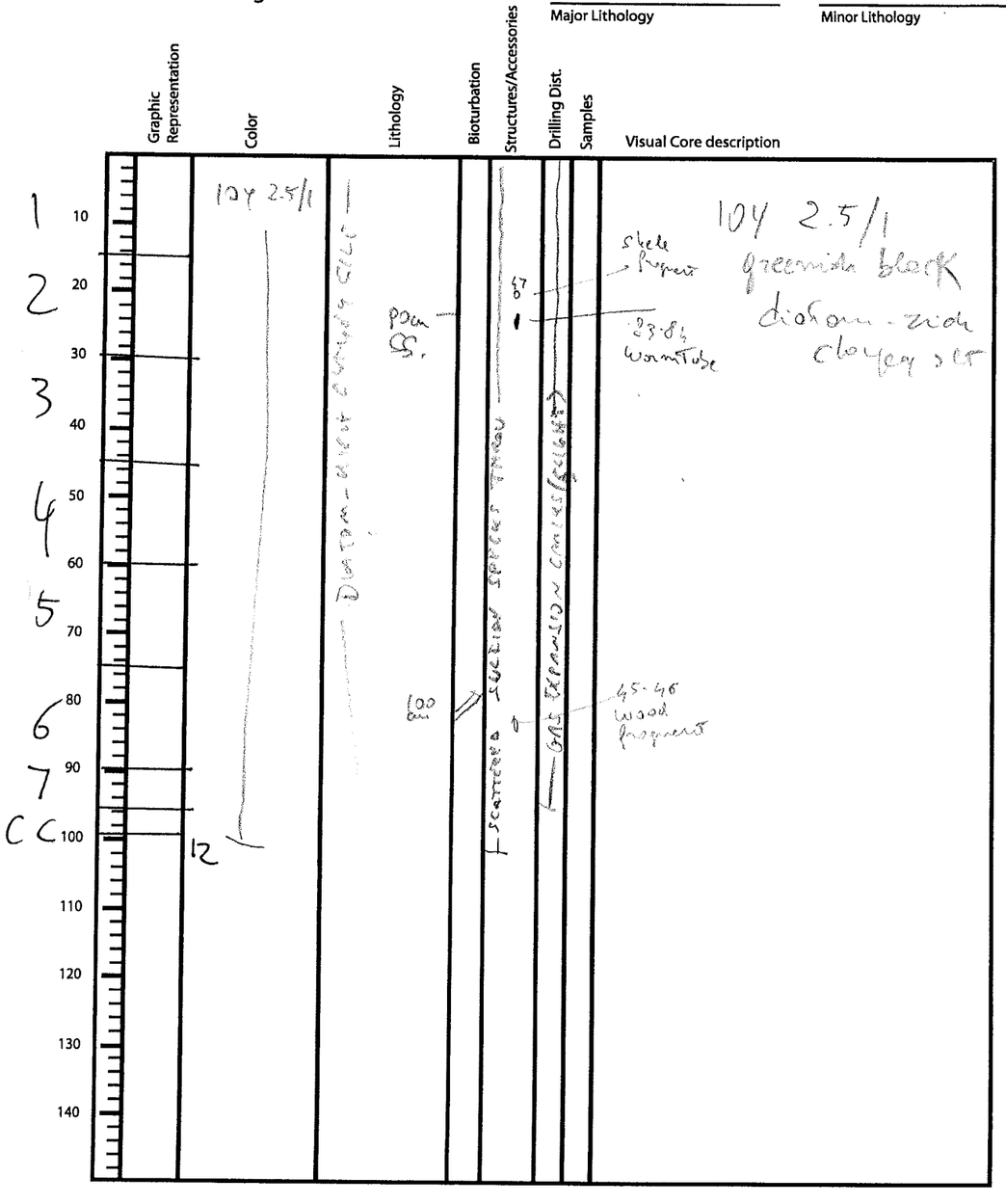
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
6%	2 Centric
3%	1 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
3%	1 Sponge spicules (abundant)
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 A 2 ALL
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	Interval (cm) Bottom
323	1344	A	2	H	5	90	

SIP7

Sediment/Rock Name	diatom-rich clayey silt

Observer	

Percent Texture		
Sand	Silt	Clay
3	40	60

Comments:

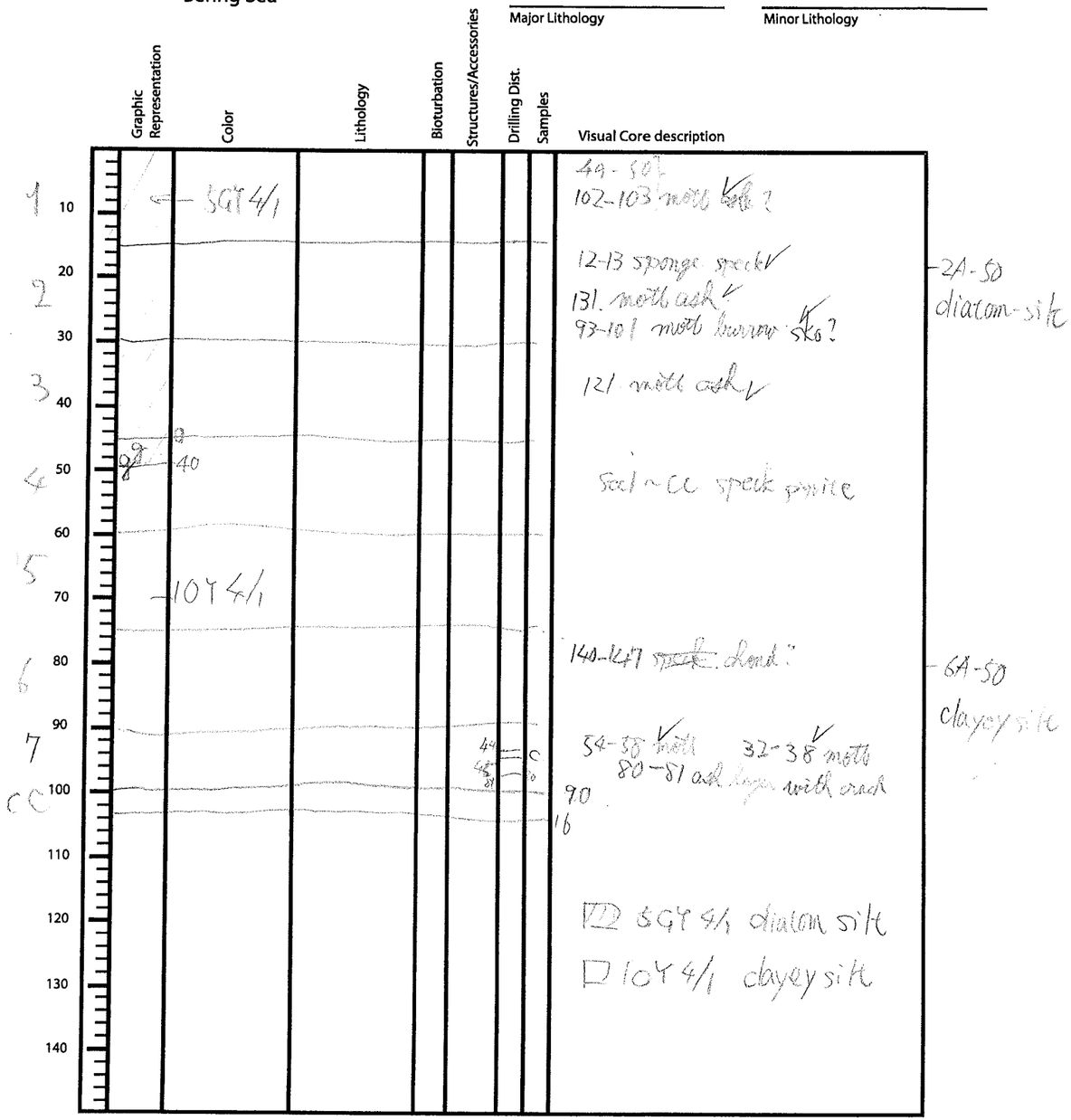
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
11	Quartz 3
7	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
36	Clay Minerals *7 16
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
7	Pyrite 2
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
11	Vitric grain 13
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians ✓
	Spumellaria
	Nassellaria
25	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

1344 A 3 ____ ____
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	Interval (cm) Bottom
	1344	A	3	H	2	50 cm	

SM

Sediment/Rock Name	DIATOM SILT

Observer	LWA

Percent Texture Sand	Silt	Clay
15	60	25

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
10	Framework minerals
21% 5	Quartz
42% 17% 4	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4% 1	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
13% 3	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
4 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
42% 10	Diatoms
28% 7	Centric
13% 3	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
	1344	A	3	H	6	50cm	

SH

Sediment/Rock Name	CLAY SILT

Observer	LWA

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
25	Framework minerals
17	Quartz
15	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
15	Rock fragments
	Accessory/trace minerals
2	Micas
	Biotite
	Muscovite
57 25	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
2	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

57

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
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

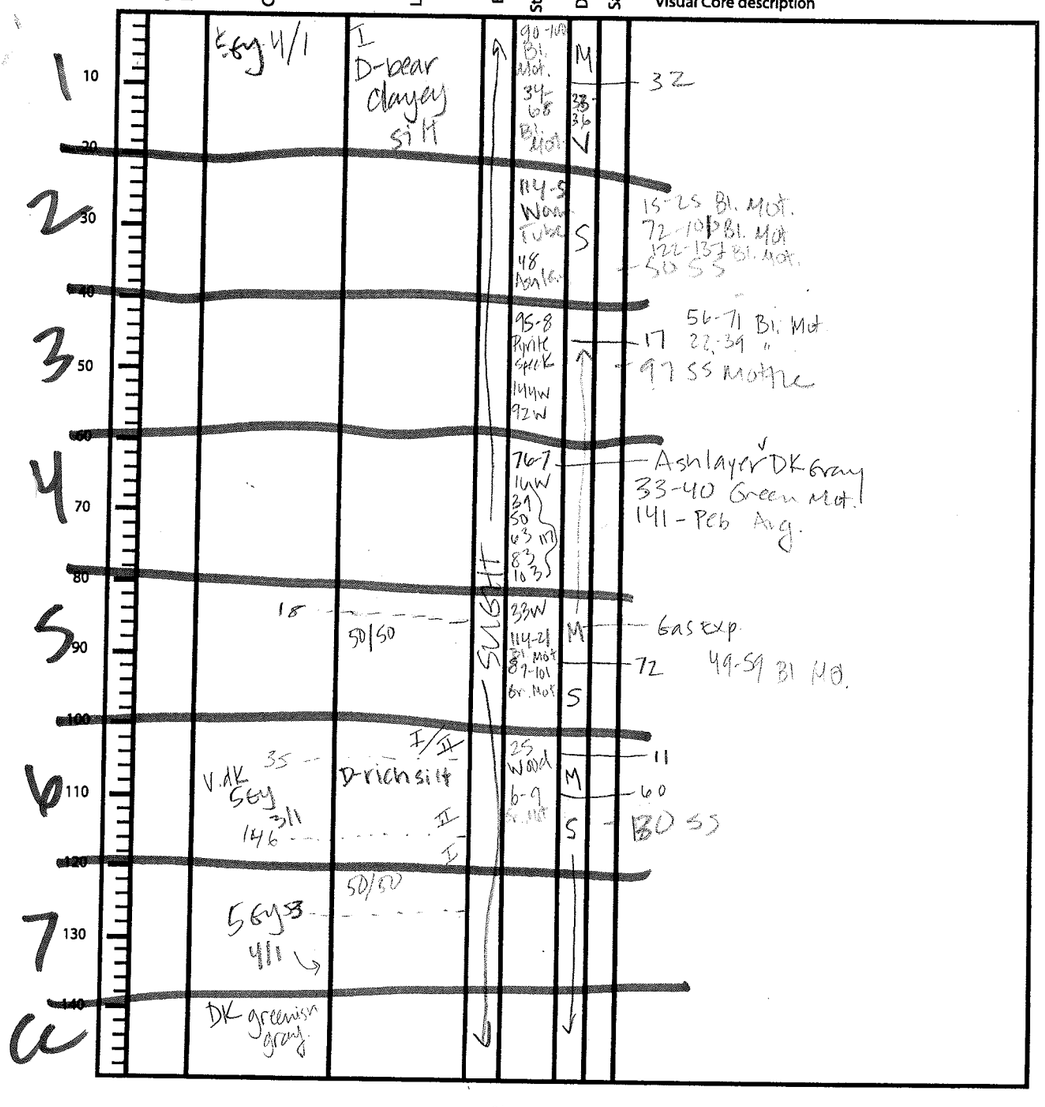
1344 A 4H
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology

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



Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1348	A	4	H	2	50	

SM

Sediment/Rock Name	diatom-bearing clayey silt

Observer	Klein

Percent Texture		
Sand	Silt	Clay
9	45	45
2	>10	≥10

Comments:

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
10	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

X

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1356	A	4	H	3A	97	

Sediment/Rock Name	pyrite-rich diatom rich silt

Observer	Akira

Percent Texture Sand	Silt	Clay
0	60	40

Comments: black spot. 2 0 ← sea ice diatom! Bacterosira fragilis

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians V
	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	4	H	6	130	

SM

Sediment/Rock Name	diatom-rich silt

Observer	akorg

Percent Texture Sand	Silt	Clay
41	41	18
7	7	3

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20 7	Quartz
11 2	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
9 3	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
14 5	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
3 1	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
9 3	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
14 5	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
20 7	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

Expedition 323
Bering Sea

Site	Hole	Core	Section	Top Depth
1344	A	5H	1+2	

Major Lithology:

Minor Lithology:

Depth	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
0–20		10GY 4/1 ↓				heavy		
30–45				mod.		slight		50 mottled thr., bluish-greenish burrows + pyrite mottles
50								106 large greenish burrow
70								130, 137 sponge agg.

Observer:

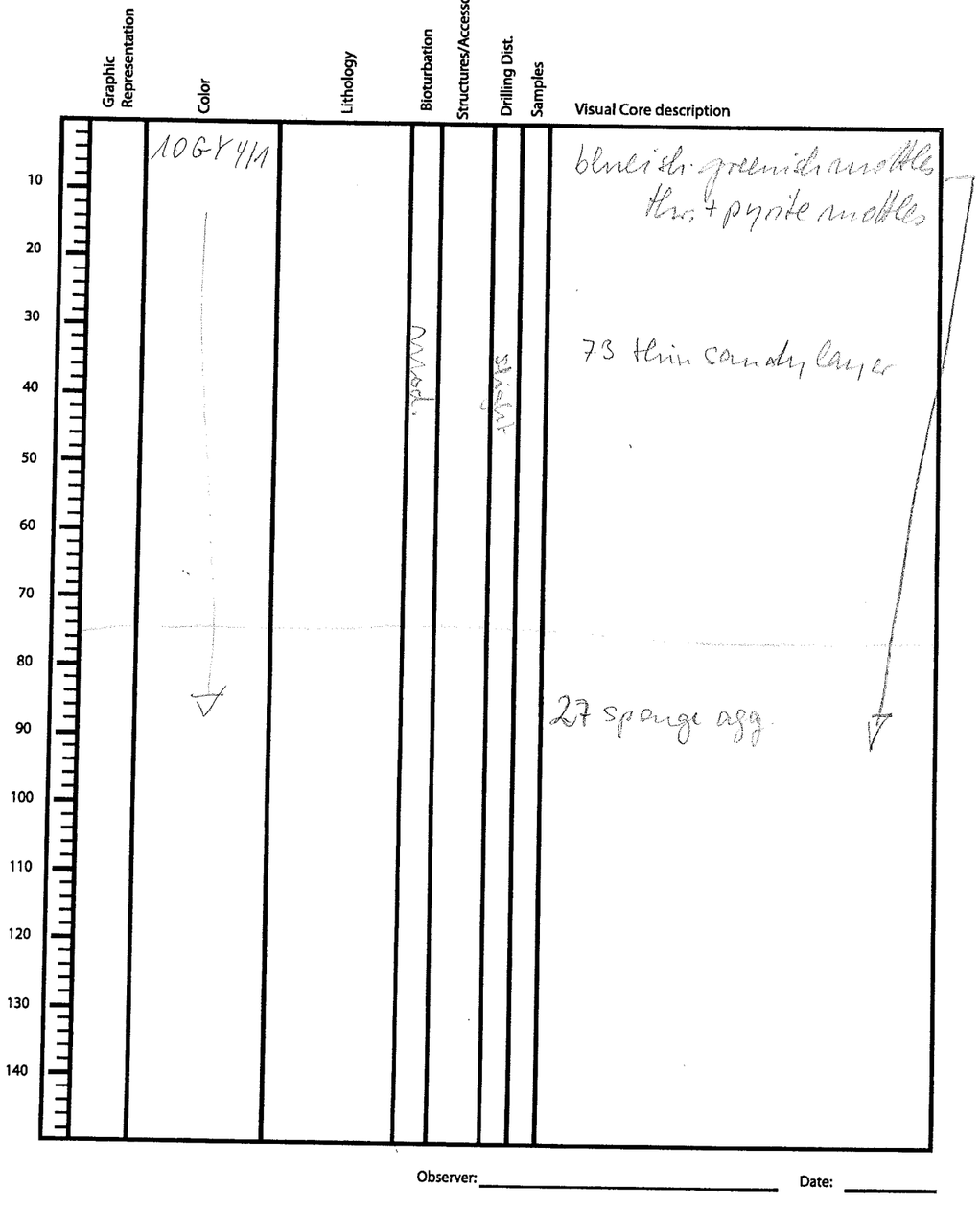
Date:

U1344A
5H

1344 / Site — A / Hole — 5H / Core — 3+4 / Section — _____ / Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: _____ Date: _____

1344 A 5H 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
10	10GY 4/1						7 sponge agg.
20							
30							17-32 sandy mottles
40							
50							64 sponge agg. 75 " " 121, 126, 133 " "
60							
70							
80							7-9 sandy layer
90							
100							
110							
120							119-120 sandy layer
130							97-104 pyrite mottles 128 large bluish burrow
140	4/N						100-130 grad.

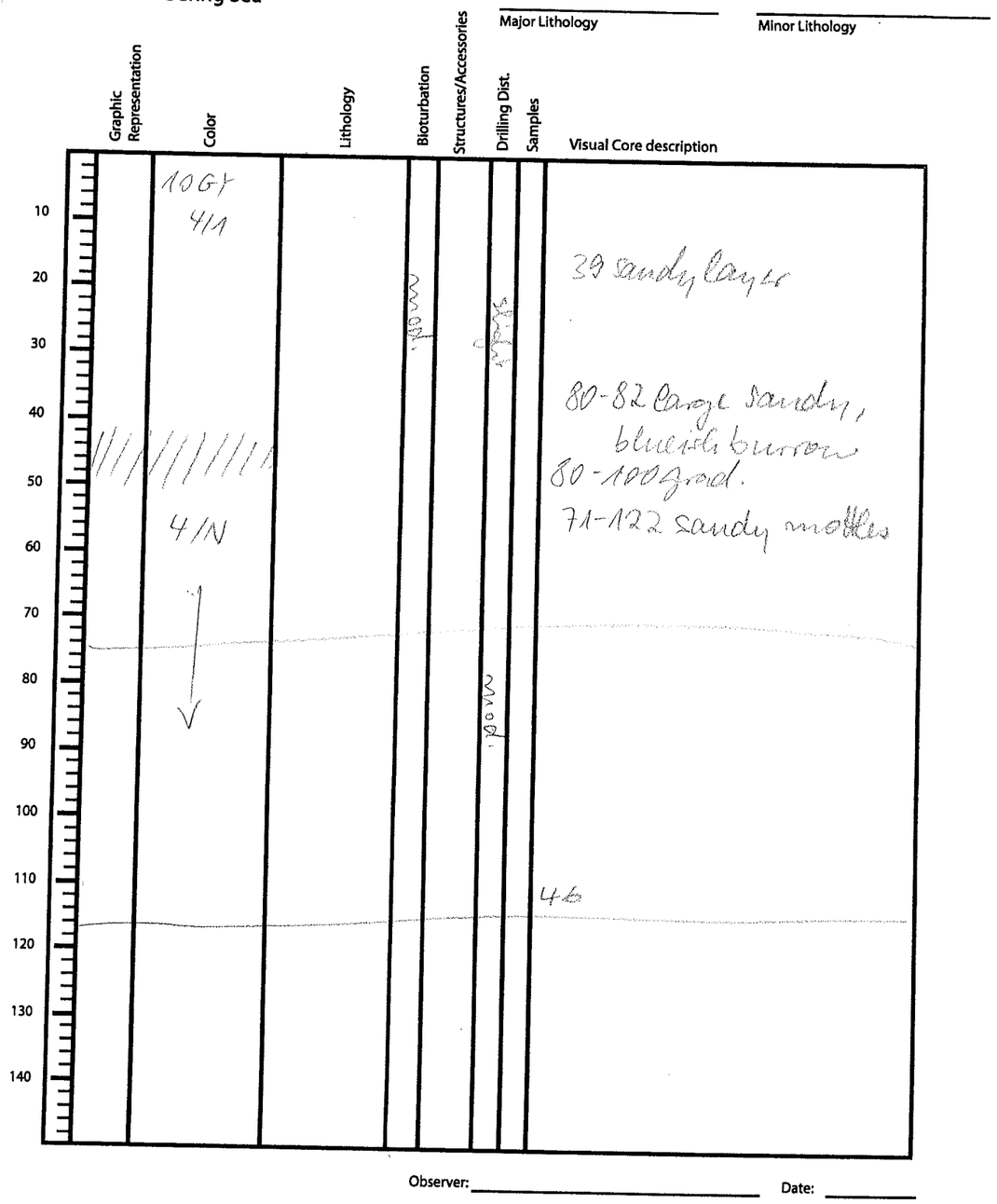
Observer: ____ Date: ____

1344 A 5H 7+cc
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
	1264	A	5H		3A	70	70

SM

Sediment/Rock Name	Diatom rich silt

Observer	H.A

Percent Texture		
Sand	Silt	Clay
20	75	5

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
73	Quartz 20
	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
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
18	5 Centric
7	2 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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
	1344	A	5H		7	110	

SM

Sediment/Rock Name	Diatom - bearing Sandy Silt

Observer	HA

Percent Texture		
Sand	Silt	Clay
20	70	10
7	25	3

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 92
	Framework minerals
60	Quartz 30
4	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
6	Rock fragments 3
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
11	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
11	Ferromagnesium minerals ≈ 5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

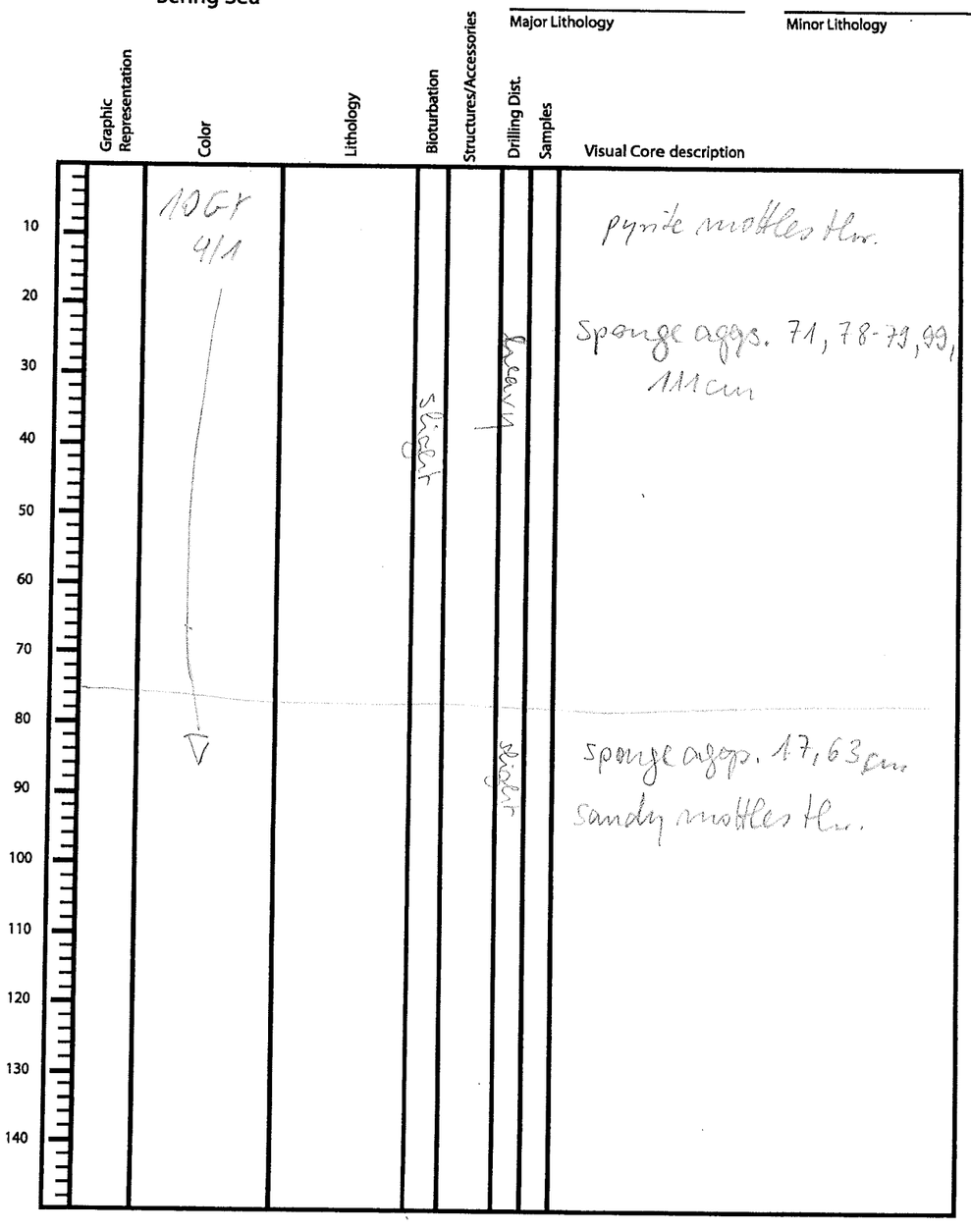
Percent	Component
	BIOGENIC GRAINS 8
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
1	Radiolarians
	Spumellaria
	Nassellaria
7	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

1344 + 6H 1#2
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

1344 A 6H 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
	10Y 4/1		slight		slight		5, 76, 88, 94–97, 139 cm Sponge aggs.
							115-121 yellowish patches, some are indurated, probably auth. carb.
							140-150 grad.

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

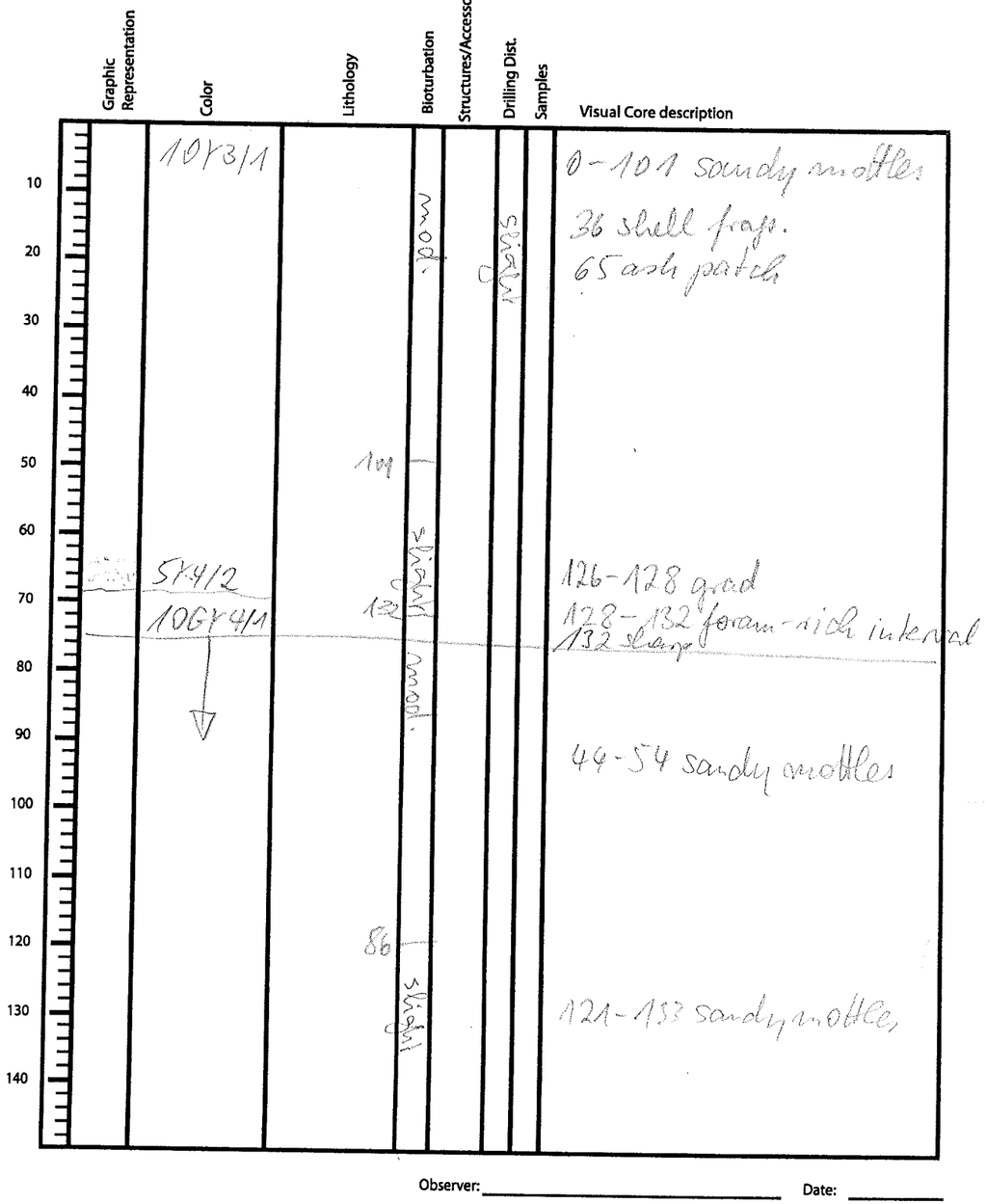
Observer:

Date:

1344 / Site — A / Hole — 6H / Core — 5+6 / Section — ___ / Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



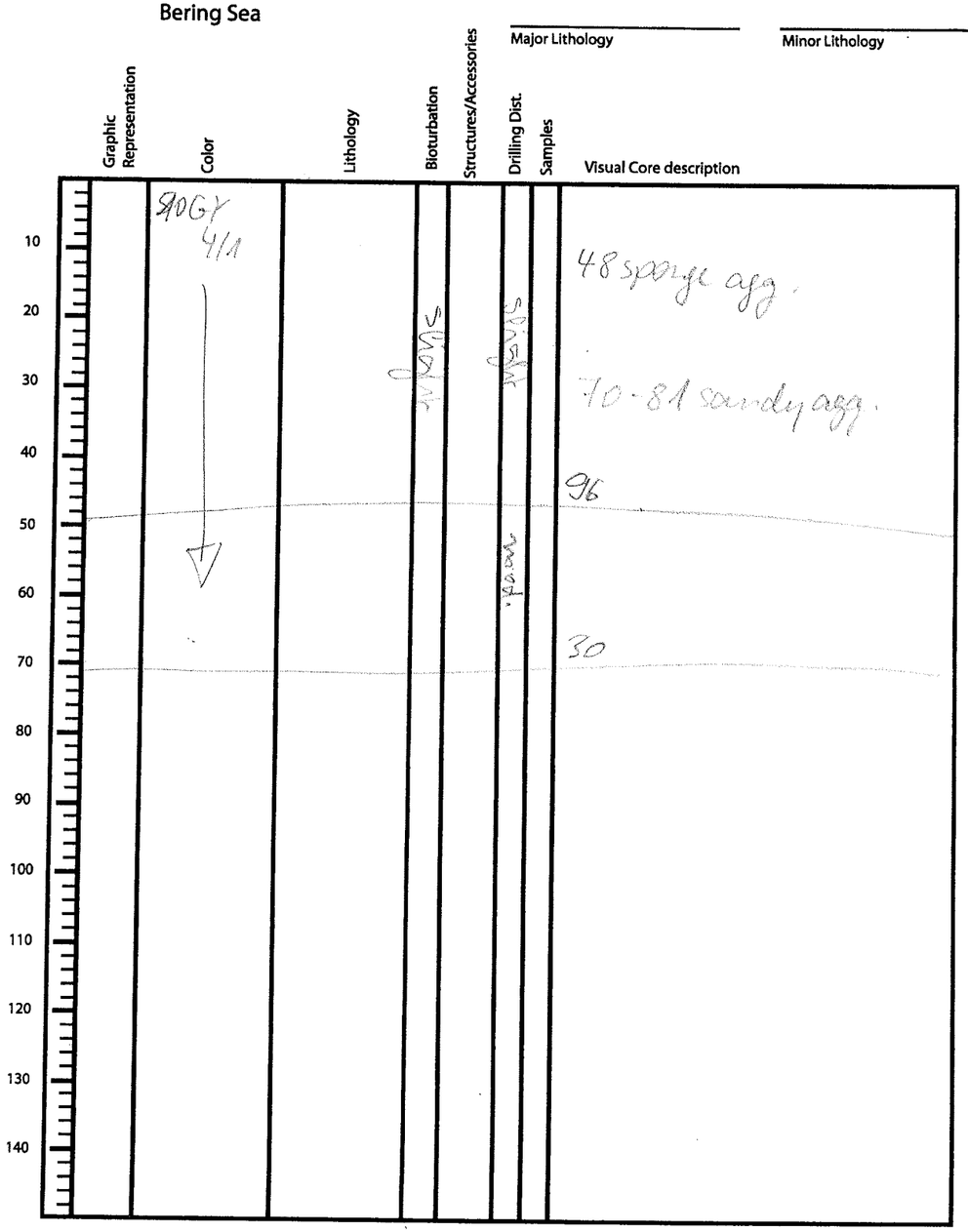
Observer: _____ Date: _____

1344 A 6H 7+cc
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	6	H	2	45	45

SM

Sediment/Rock Name	Diatom-rich silt

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
0	80	20

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
20	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
20	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	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
5	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
1	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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	6	H	4	50	50

SM

Sediment/Rock Name	Diatom silt

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Main lith

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
20	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
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
1	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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	6	H	5	130	130

Sediment/Rock Name	Foram-r diatom-rich clayey silt

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Light-col section.

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
20	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
15	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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	6	H	7	80	

SM

Sediment/Rock Name	Diatom-b clayey silt

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Main lithology

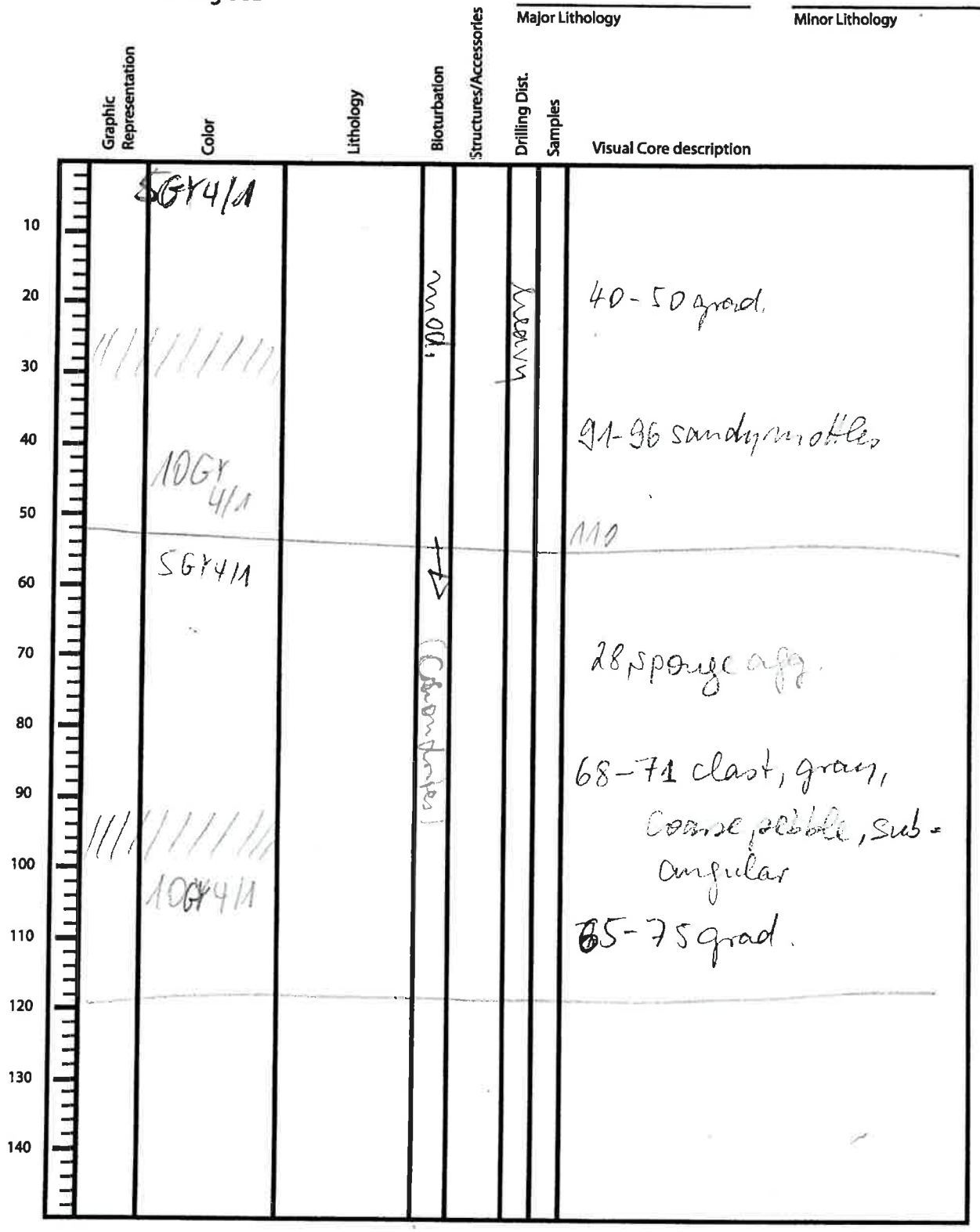
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
20	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
40	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
1	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
1	Radiolarians
	Spumellaria
	Nassellaria
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 A 7H 1+2 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

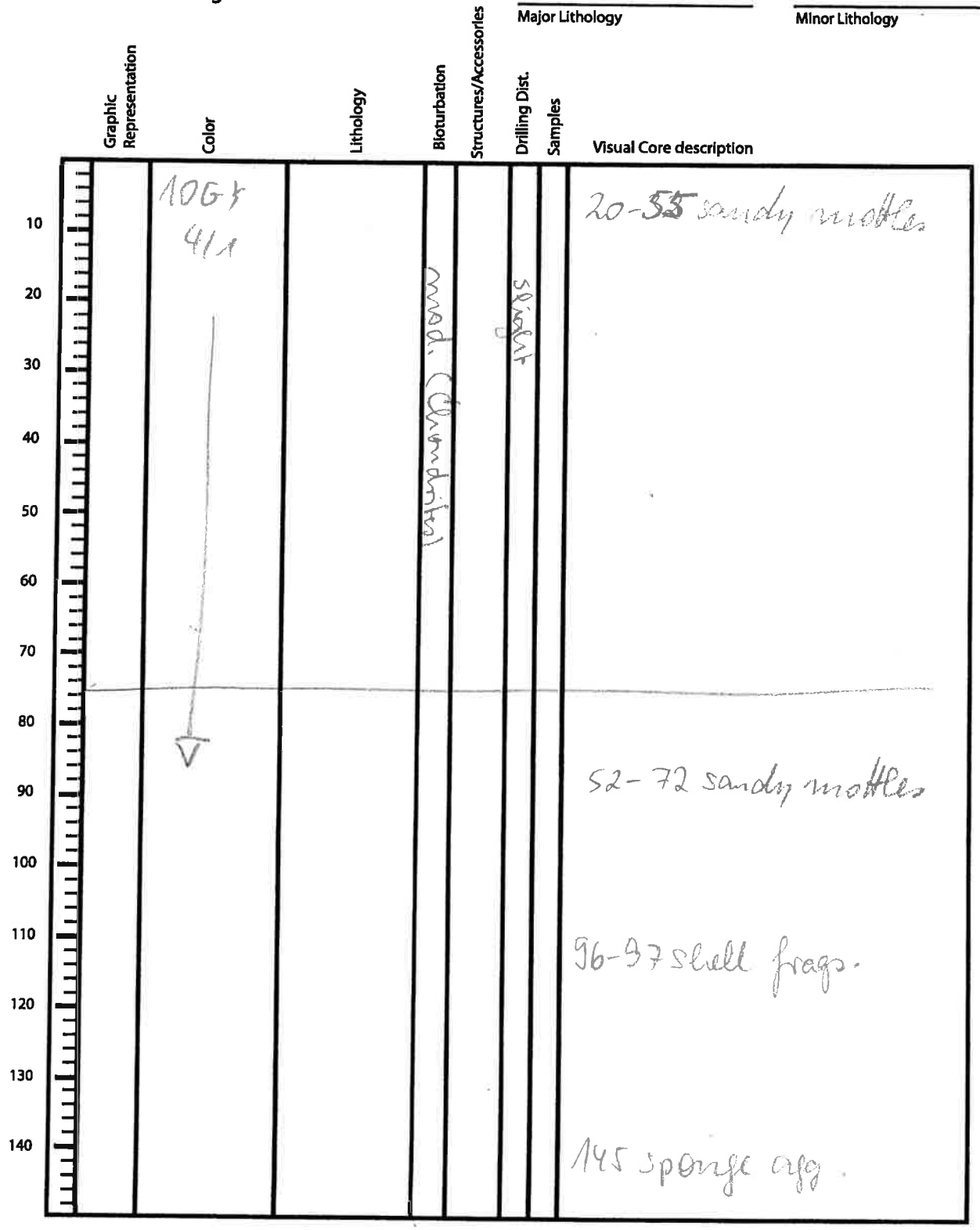


Observer: _____ Date: _____

1344 A 7H 3+4 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

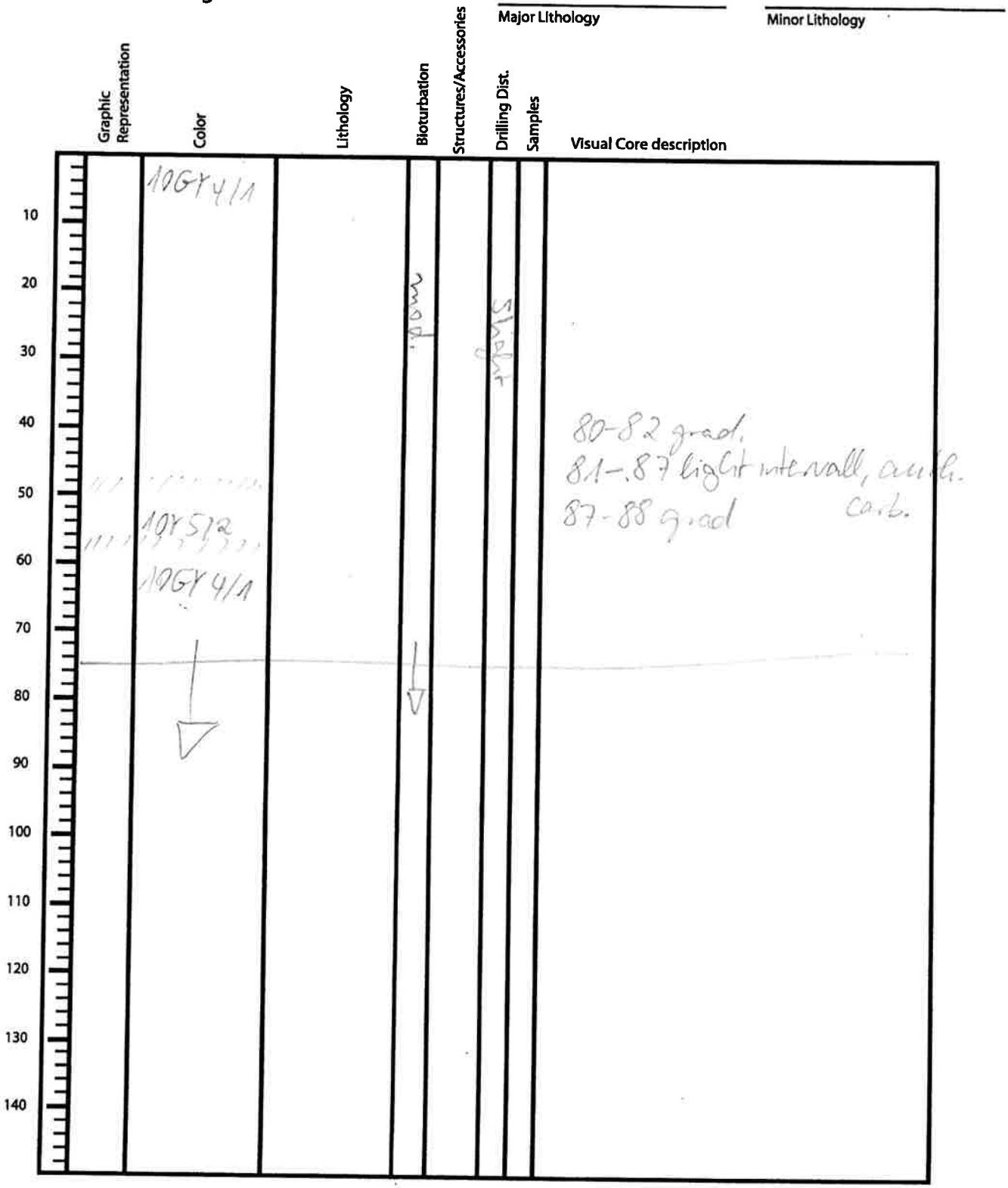


Observer: _____ Date: _____

1344 A 7H 5+6 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



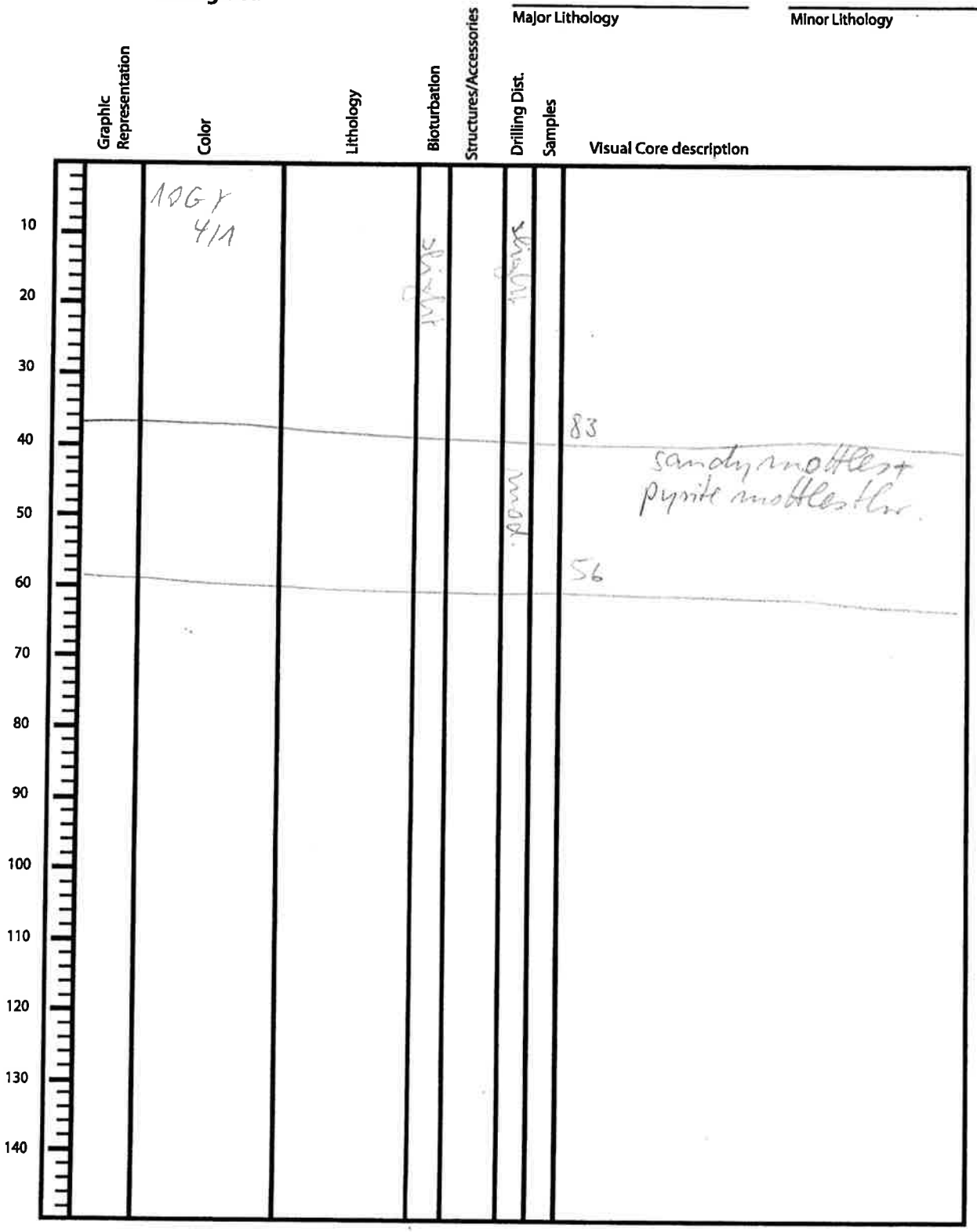
Observer: ____ Date: ____

1344 A 7H 7+CC
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	Interval (cm) Bottom
			7H		2	26	26

SM

Sediment/Rock Name	Diatom rich silty clay

Observer	Hiw A

Percent Texture		
Sand	Silt	Clay
10	20	70

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 82
55	Framework minerals
	Quartz 3
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
18	Rock fragments /
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3 ~~12~~ 9	Pyrite 0.5
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 18
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
18	Diatoms
~~2~~ 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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
			7H		4	73.	

SM

Sediment/Rock Name	Diatom bearing sandy silt

Observer	Ting

Percent Texture		
Sand	Silt	Clay
30	60	10

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 92
	Framework minerals
60	Quartz 10
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
11	Rock fragments 2
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
5	Clay Minerals 1
	Chlorite
	Glauconite
	Chert
	Zircon
11 5	Ferromagnesium minerals 2
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5 +1	Pyrite 1
	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
	Diatoms
6	Centric
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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
~~32~~ 323	1344	A	~~5~~ 7H		6	30	

Sediment/Rock Name	Diatom rich silty clay	Observer	Hino.

Percent Texture		
Sand	Silt	Clay
~~20~~ 10	~~30~~ 40	50

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL ~~70~~ 43
	Framework minerals
17 ~~19~~	Quartz 3
11 ~~12~~	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
~~8~~	
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
39 ~~47~~	Clay Minerals 7
	Chlorite 1
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals 5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
11 ~~19~~	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

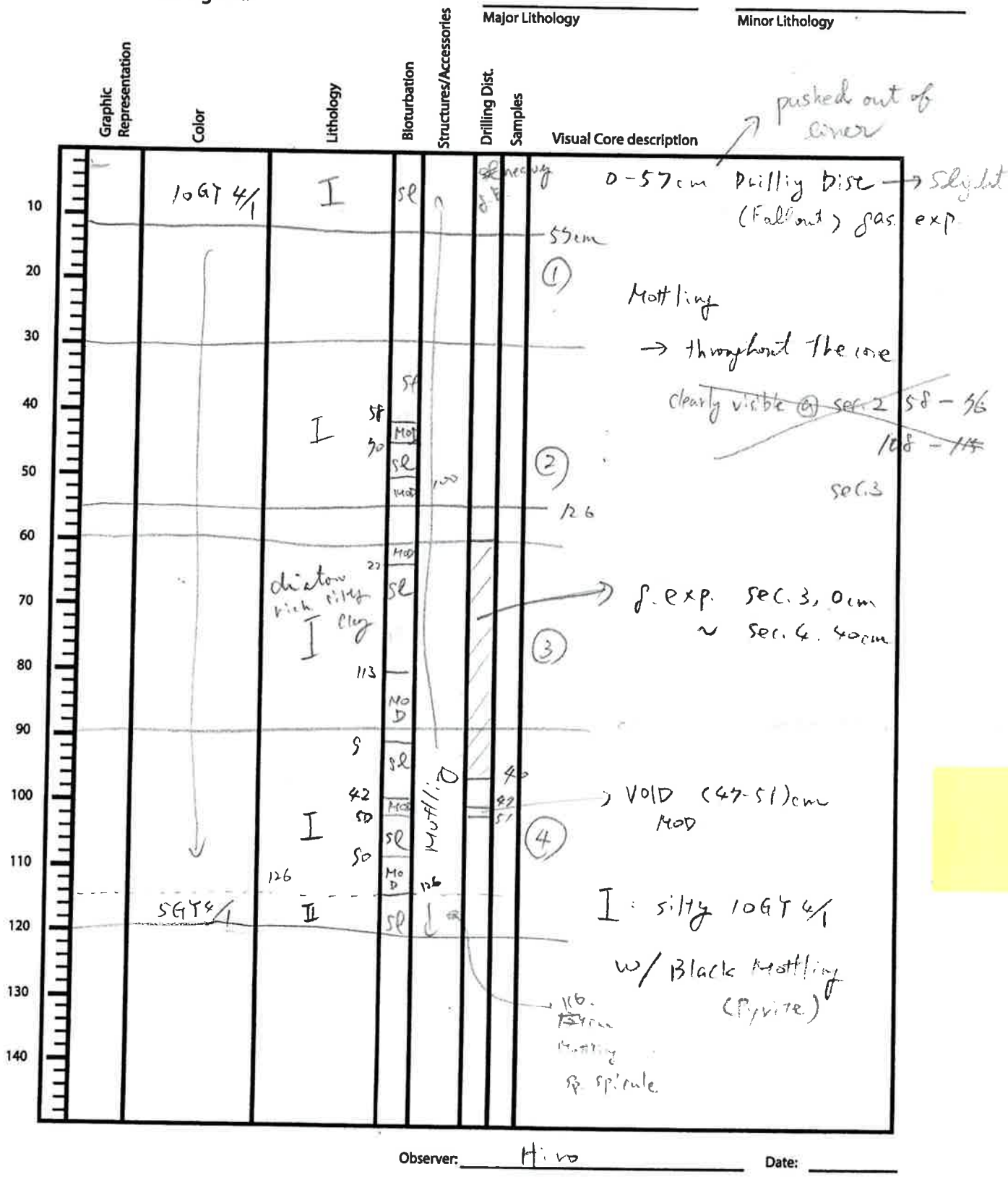
Percent	Component
	BIOGENIC GRAINS 17
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
17	3 Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

344	A	8H	1-4	
Site	Hole	Core	Section	Top Depth

Major Lithology

Minor Lithology



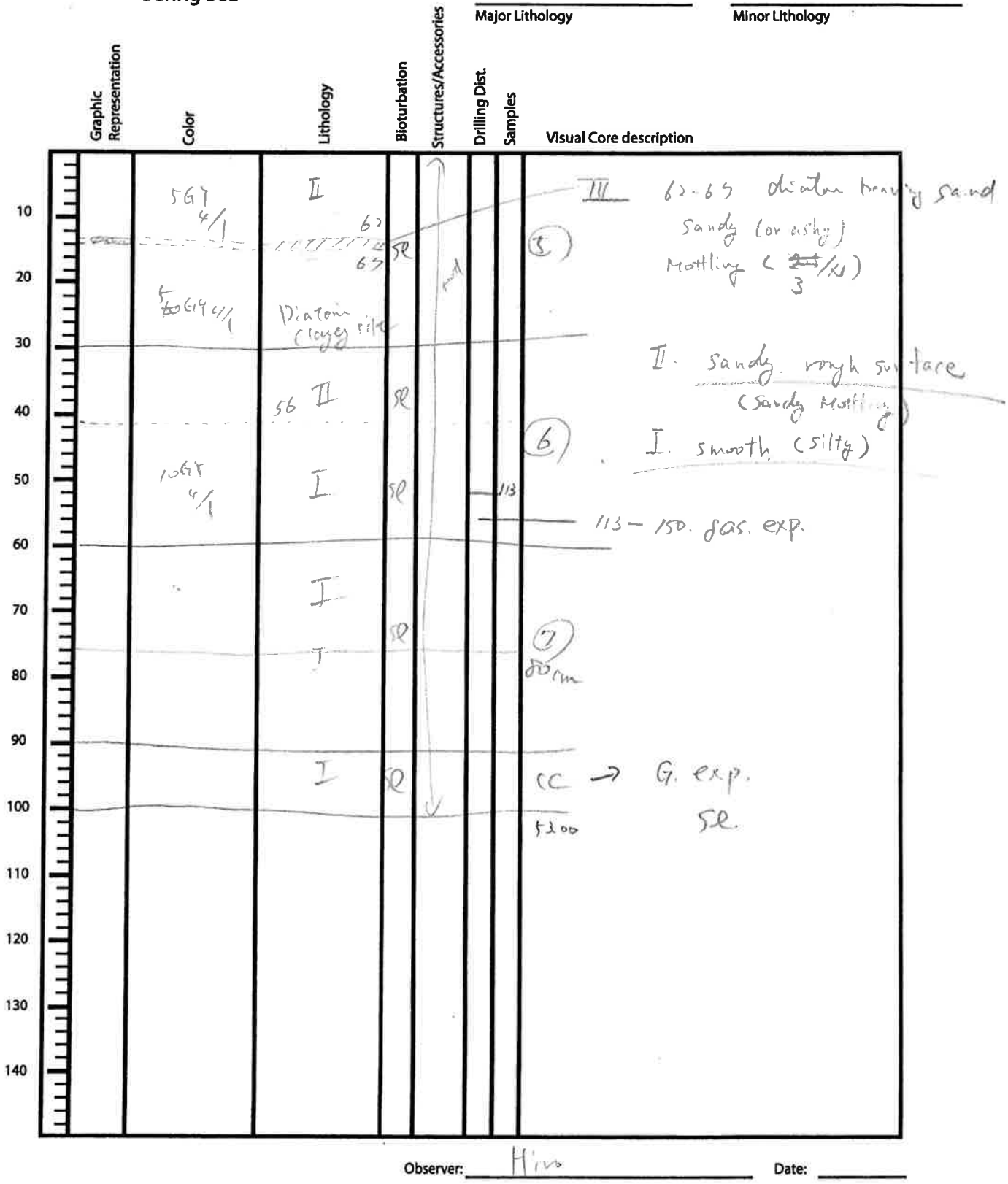
Observer: Hino

Date:

1347	A	8H	5-CC	
Site	Hole	Core	Section	Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: Hino Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	8	H	3	70	70

SM

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
10	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
45	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
1	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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	8	H	5	67	

SM

Sediment/Rock Name	Diatom-bearing sand

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
80	20	

Comments: Sandy area

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
40	Quartz
15	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
40	Rock fragments
	Accessory/trace minerals
1	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
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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	8	H	5	90	90

SM

Sediment/Rock Name	Diatom clayey silt

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Main lith.

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
1	Micas
	Biotite
	Muscovite
20	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
1	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
45	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 A 9H 1-4

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
	10Y 4/1	I	M				Sec. 1 → pushed out due to pos exp
							① → 76
	10Y 4/1	diatom rich clayey silt (72)	22				23cm sandy patch
							61-62 pebble 2 cm rounded volcanic
	10Y 4/1	texture change I'	Sl				55cm Sandy layer
							② 54cm S. Spec assist
	?					IW	→ 131
	5GY 5/1	II	Sl 79 127 Mo D	Moll	118 134		59cm Sandy Mottling
							③ Sandy Mottling
							134
	5GY 5/1	Silty clay 38	52 58 Sl	Moll	76		127 - Sec. 4,3 8 Mott Black Mod B.7
							④ 76-58cm Sandy layer
							※ 58 79 Light color Mottles

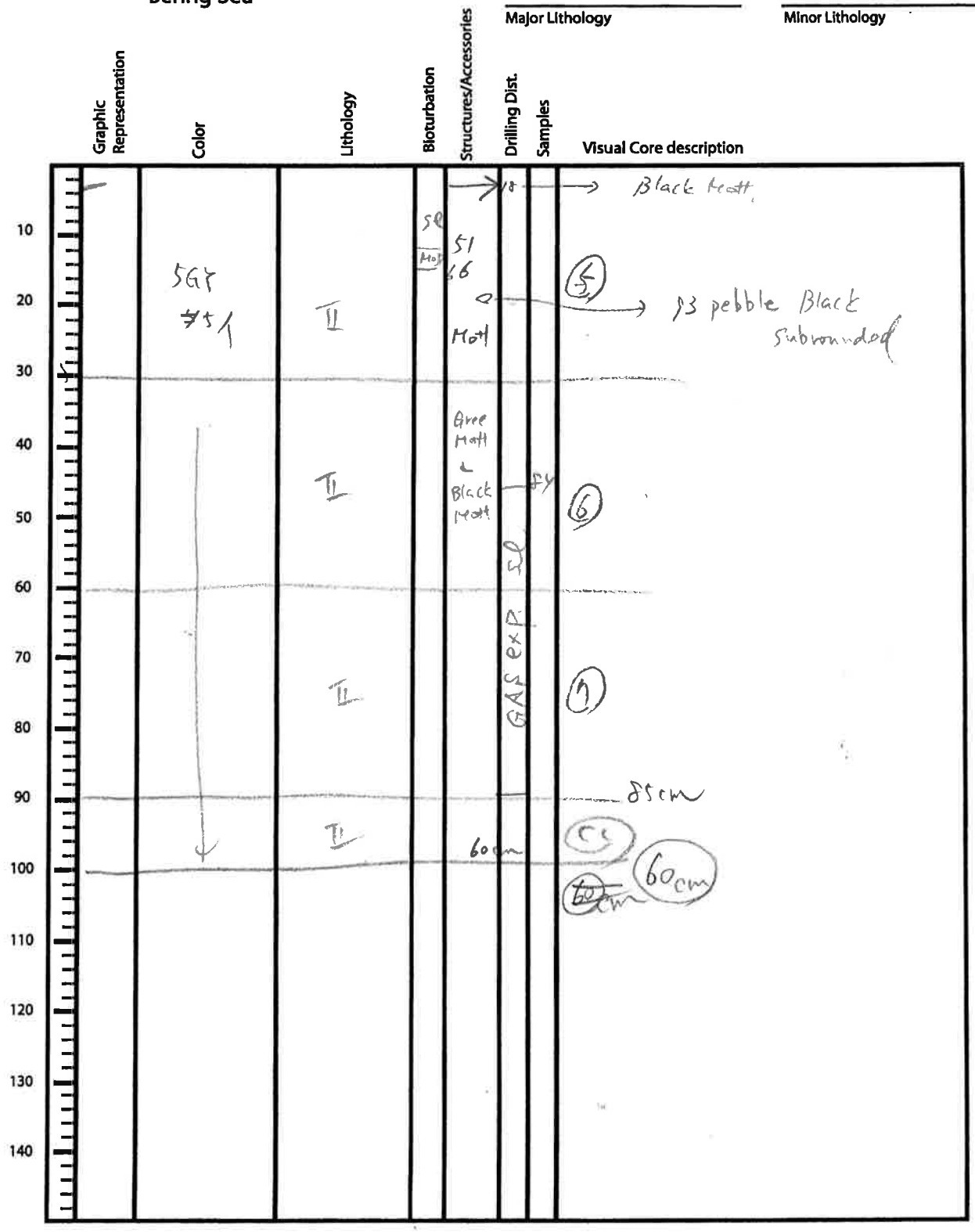
Observer: [signature]

Date:

1347	A	9H	5-CC	
Site	Hole	Core	Section	Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	9	H	2	10	10

SM

Sediment/Rock Name	Diatom-rich clayey silt

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
10	60	30

Comments: Main lith.

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
15	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
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
35	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

X

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	9	H	4	67	

Sediment/Rock Name	silty clay

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
0	25	75

Comments: Main lithology

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
75	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
2	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
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

Site: 344 | Hole: A | Core: 10H | Section: | Top Depth:

Expedition 323
Bering Sea

Major Lithology:

Minor Lithology:

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

Depth scale (cm): 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140

Color: 14/N (0–~22 cm); 10GY 4/1 (~30–57 cm); 10GY 4/1 (~62–89 cm); 10GY 4/1 (~90–120 cm)

Lithology: I (0–20 cm); 110 II (~22 cm); II; II; II

Bioturbation: Mod; sl; sl; sl

Structures/Accessories: Mottled (Black); Mott; Mott

Drilling Dist.: 100

Samples: 40/42; 51/55; 84/110; 131/132; 105

Sec. 1. Dr. Dist. gas. exp (pushed out)

40–42 → VOID

① 128

I : Diatom rich clayey silt

→ sp. Agr. 4–6 cm 34–38 cm 50–52 cm 68–69 cm 80–84 cm

②

③ 30 → 26–24 ichnophore

(51–55)

③ → Puncture

→ G. exp. sl

→ "

④ → G. exp sl

II : Diatom rich silt

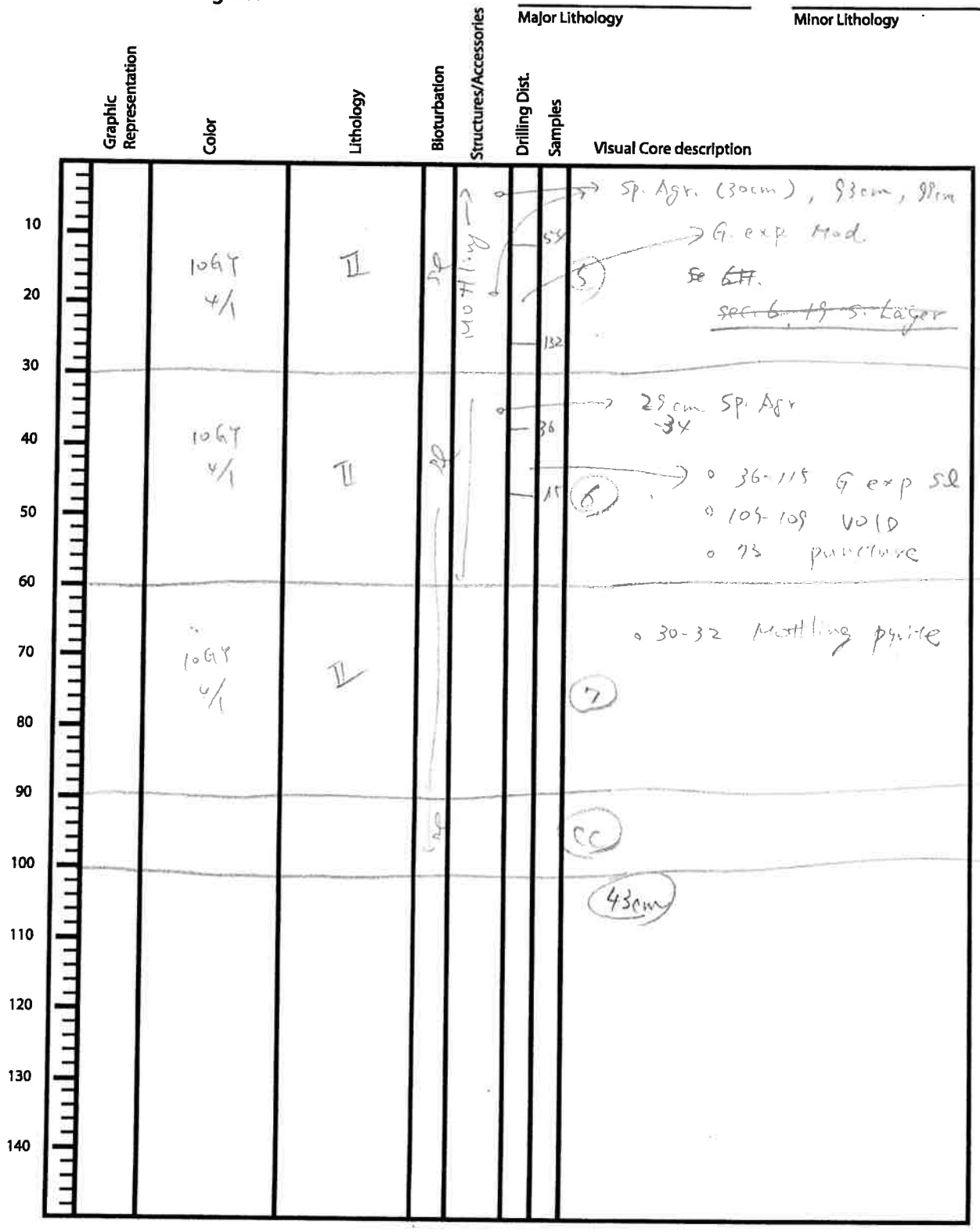
Observer: Hiro A

Date:

Site ____ Hole ____ Core 16H Section ____ Top Depth ____

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



Observer: Hino Date: ____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	A	10	1	A	31	31

Sediment/Rock Name	Diatom-rich clayey silt

Observer	MSC

S

Percent Texture		
Sand	Silt	Clay
5	65	30

Comments: Marn R (Ecology (Grey)

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

Percent	Component
15	**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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	A	10	H	5	38	38

SM

Sediment/Rock Name	diatom-rich silt

Observer	MSC

Percent Texture		
Sand	Silt	Clay
10	70	20

S

Comments: Main lithology (greenish grey)

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

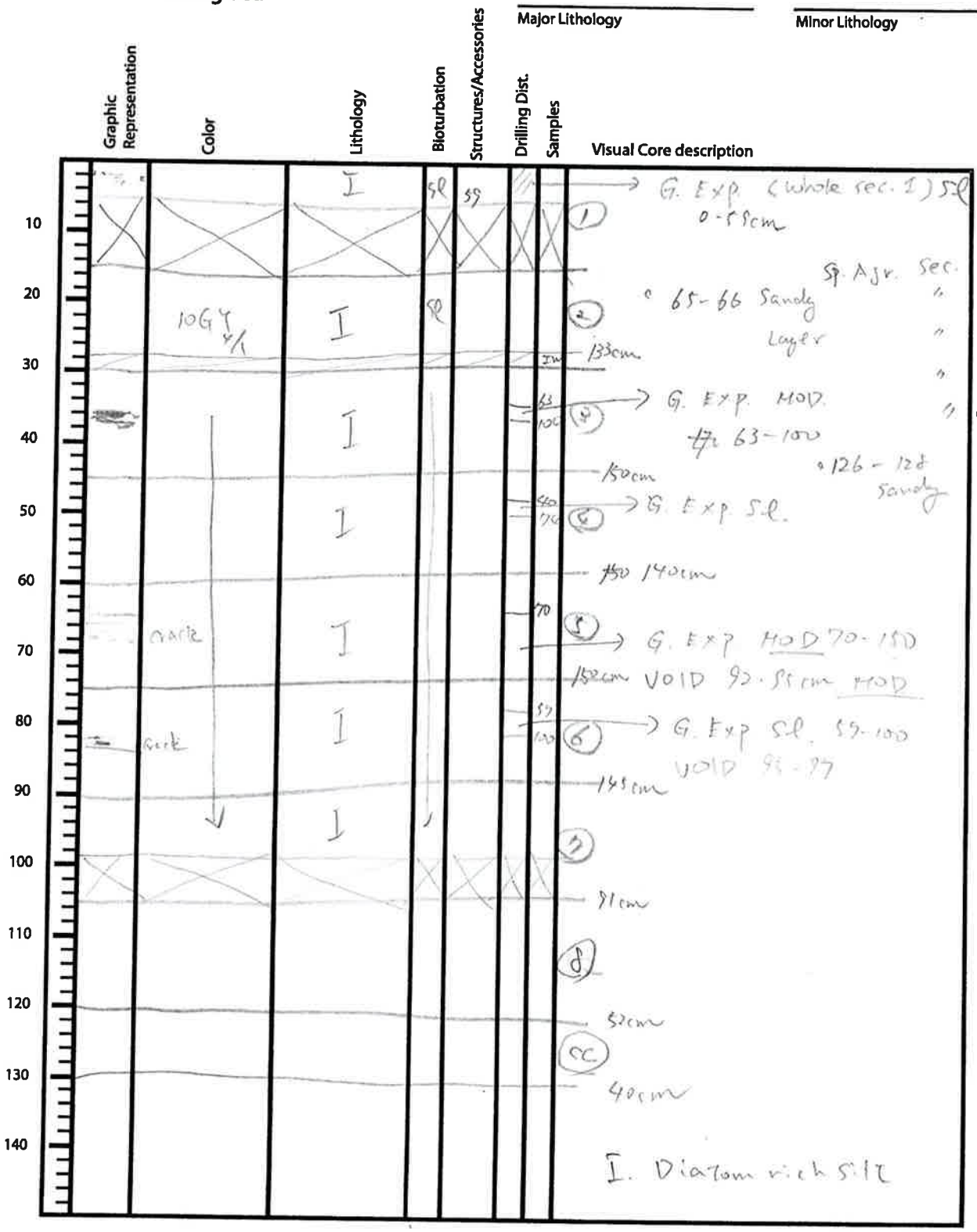
Percent	Component
20	**BIOGENIC GRAINS**
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
10	Centric
10	Pennate
	✓ *Chaetoceros* Resting Spores
	Silicoflagellates
	Sponge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

Expedition 323
Bering Sea

1344	A	11H	1-CC	
Site	Hole	Core	Section	Top Depth

Major Lithology

Minor Lithology



Observer: Hino

Date:

Expedition 323
Bering Sea

Site	Hole	Core	Section	Top Depth
1344	A	12H (~~CC~~)	1-CC	

Major Lithology:

Minor Lithology:

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

10YR 4/1

98 cm

① • G. EXP. (Pushed out)

② [130] • 11-12 Sandy Layer
• 110-130 MOD. B.T

③ [143] • 71-86 MOD. B.T.
• 53 → Puncture Sl

④ [145] → G.E. Sl 81-⑤
• 130-145 Mod. B.T.

⑤ [144] • 91-98 Mod. B.T

⑥ [150] G. Exp. 58-110

⑦ [125]

CC M → pebble [36]

Sandy patch | S Ag.

30-31
55-56
68-69
13-14
79 ~~81~~
→ 11-12 (Layer)
18-19 | 122 135-1..
55-56 66-67 | ~~45~~ 4
19 | 67
77-78 (S Layer) | 130
13-32
110

Observer: Hiro

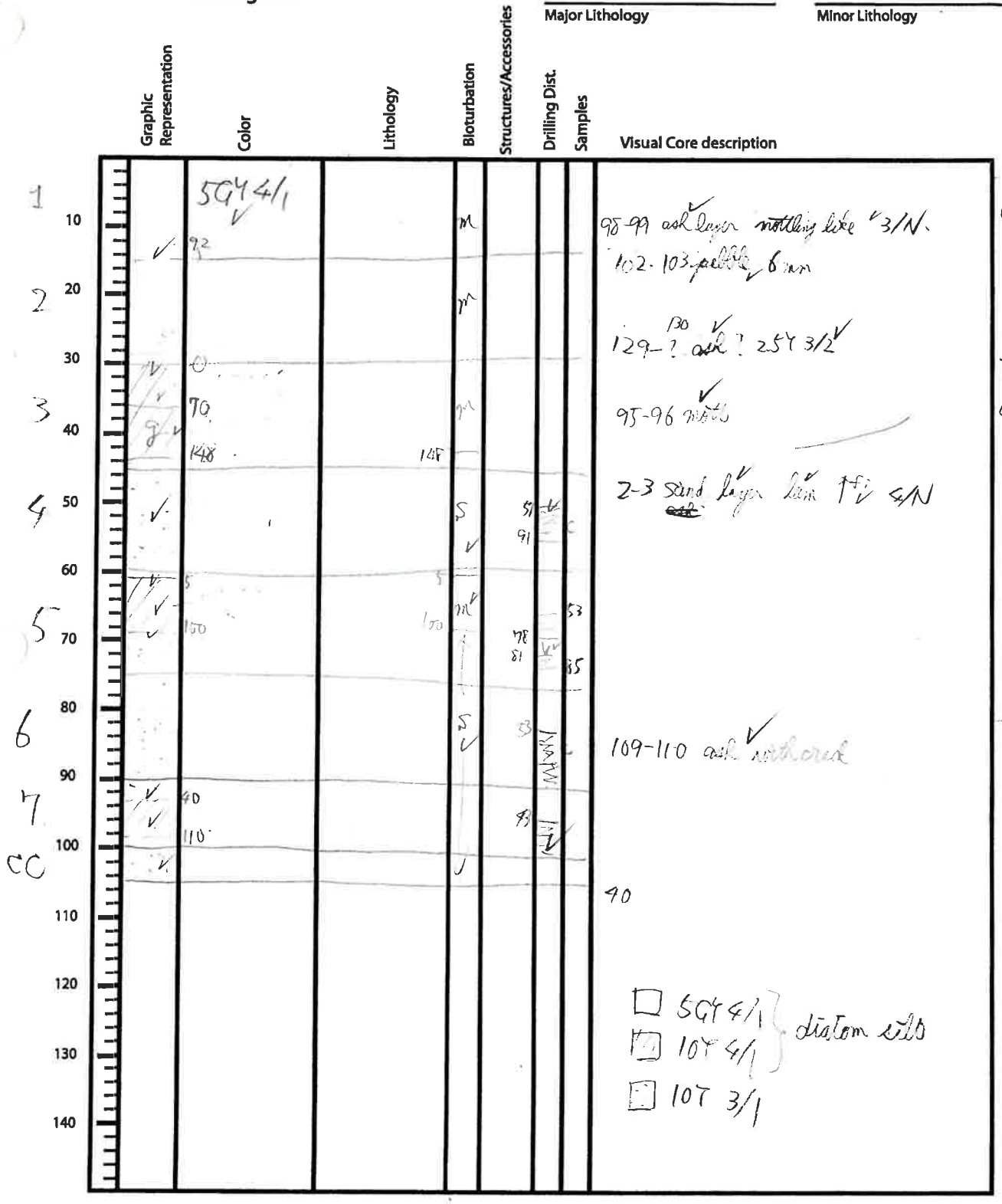
Date:

~~X not uploaded~~

1344 A 13 ___ ___
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ___ Minor Lithology ___



Observer: ___ Date: ___

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1314	A	13	H	1A	60cm	

SM

Sediment/Rock Name	Diatom silt

Observer	Bohaty

Percent Texture		
Sand	Silt	Clay
10	80	10

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
5	Plagioclase
10	Rock fragments
	Accessory/trace minerals
3	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
2	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
4	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
25	Centric inc. P. curvirostris
15	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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	A	13	H	3A	30cm	

SM

Sediment/Rock Name	diatom silt

Observer	BETH

Percent Texture		
Sand	Silt	Clay
8	80	12

Comments:

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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1314	A	13	H	6A	30cm	

SM

Sediment/Rock Name	Diatom rich clayey silt

Observer	Beth

Percent Texture		
Sand	Silt	Clay
2	68	30

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	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
5	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
10	Vitric grain
	Lithic grain

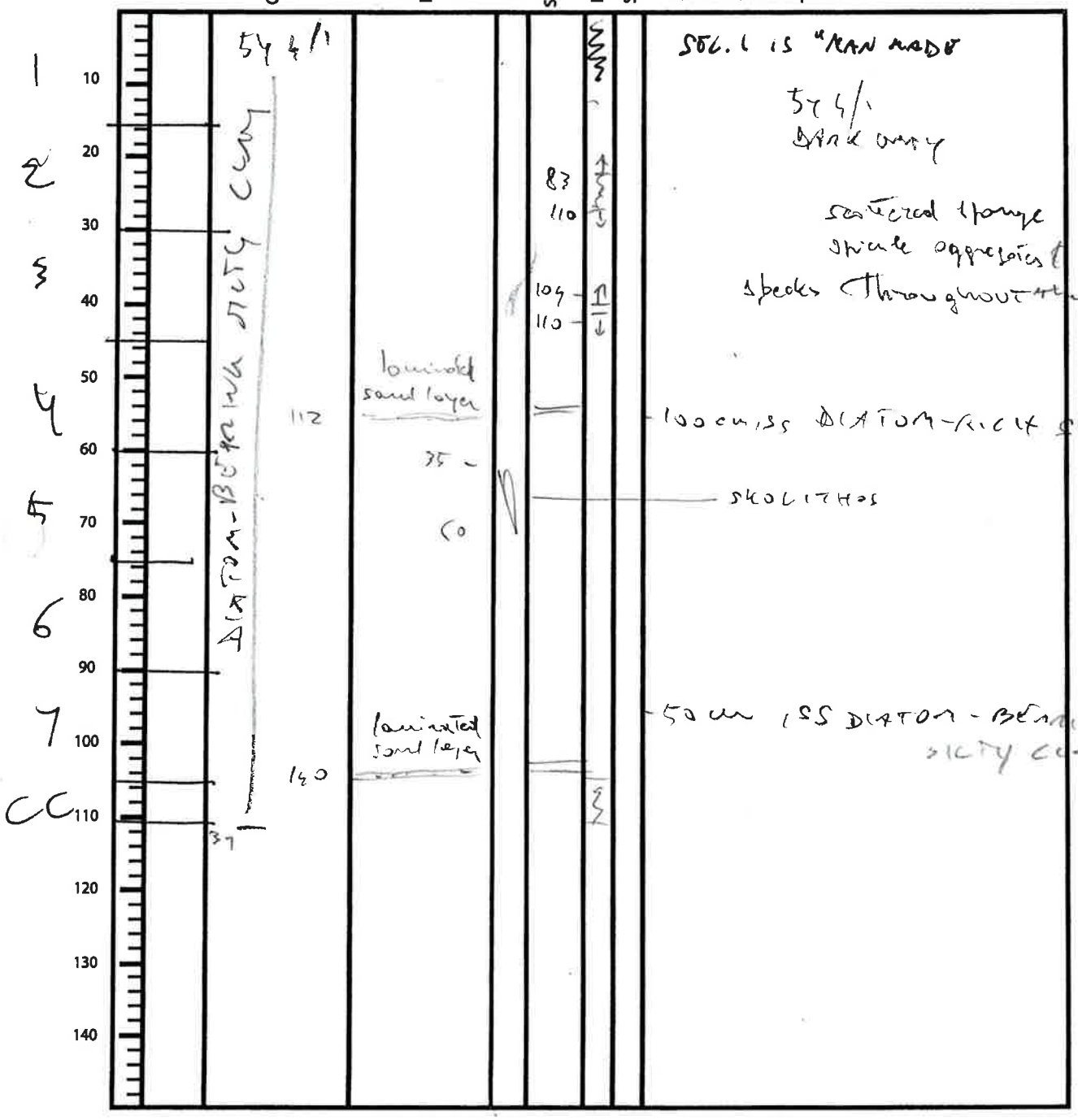
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
3	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
15	Centric
10	Pennate
	Chaetoceros Resting Spores
2	Silicoflagellates
	Sponge spicules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

1344 A 14 ALL
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: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	14	H	4	100	

SM

Sediment/Rock Name	diatom-rich silty clay (bearing)

Observer	alexa

Percent Texture		
Sand	Silt	Clay
5	35	60

Comments:

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
20	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1347	A	4	H	7A	50	

SM

Sediment/Rock Name	diatom-bearing silty clay

Observer	Obrien

Percent Texture		
Sand	Silt	Clay
10	40	50

Comments:

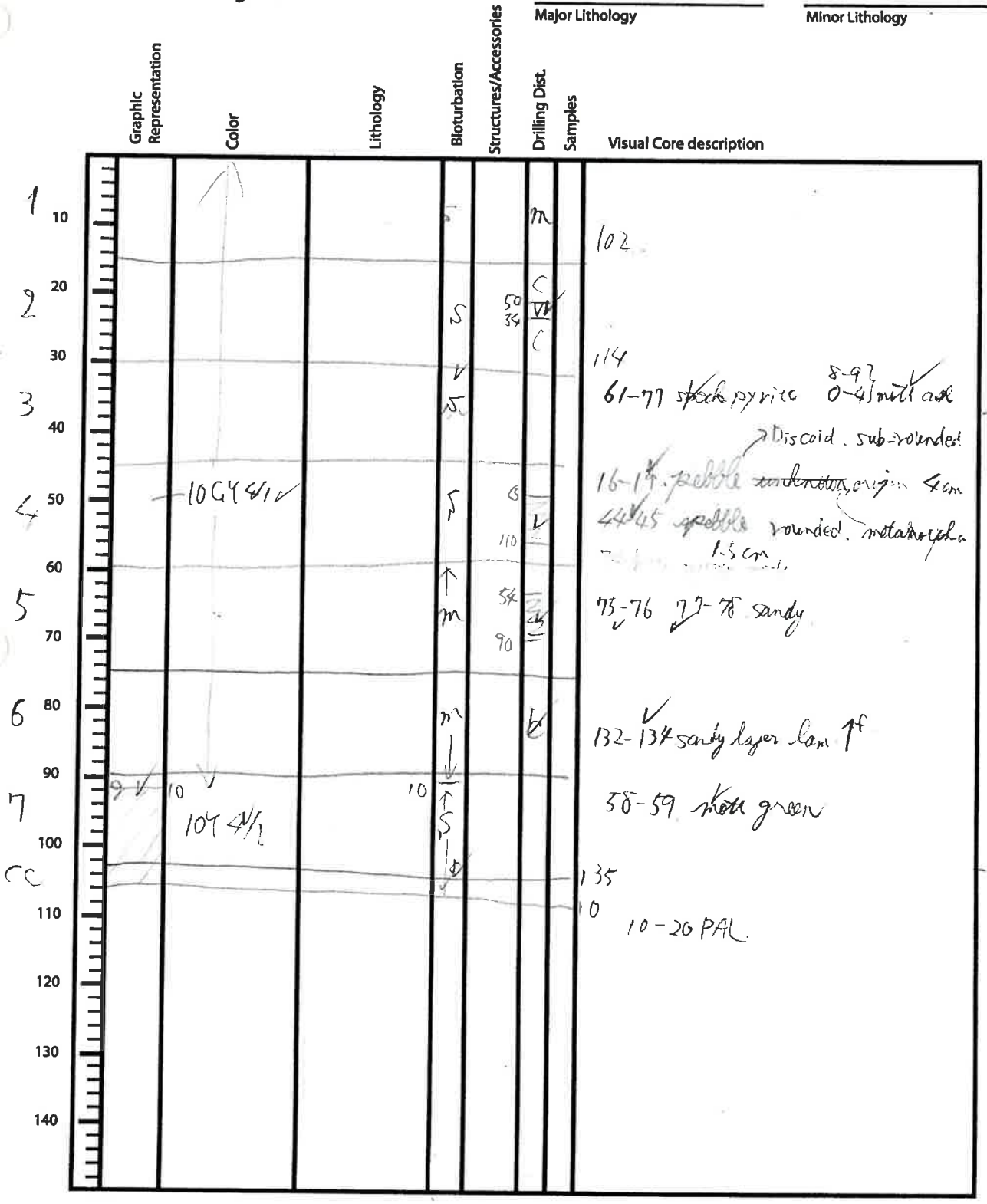
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
20	Framework minerals
	Quartz 5
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
40	Clay Minerals 16
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
8	Pyrite 2
	Magnetite
	Fe-oxide
	Carbonates
8	Calcite 2
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
12	
	Vitric grain 3
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians 4
	Spumellaria
	Nassellaria
12	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

1344 A 15 ____ ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



Observer: ____ Date: ____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	A	15	H	3A	50cm	

SM

Sediment/Rock Name	Diatom-bearing clayey silt

Observer	BETH

Percent Texture		
Sand	Silt	Clay
10	60	30

Comments:

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
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
15	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
15	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
	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

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1314	A	15	H	7A	110cm	

SM

Sediment/Rock Name	Diatom-rich silt

Observer	BETH

B - 32
S - 58
V - 10

Comments:

Percent Sand	Percent Silt	Percent Clay
5	95	

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

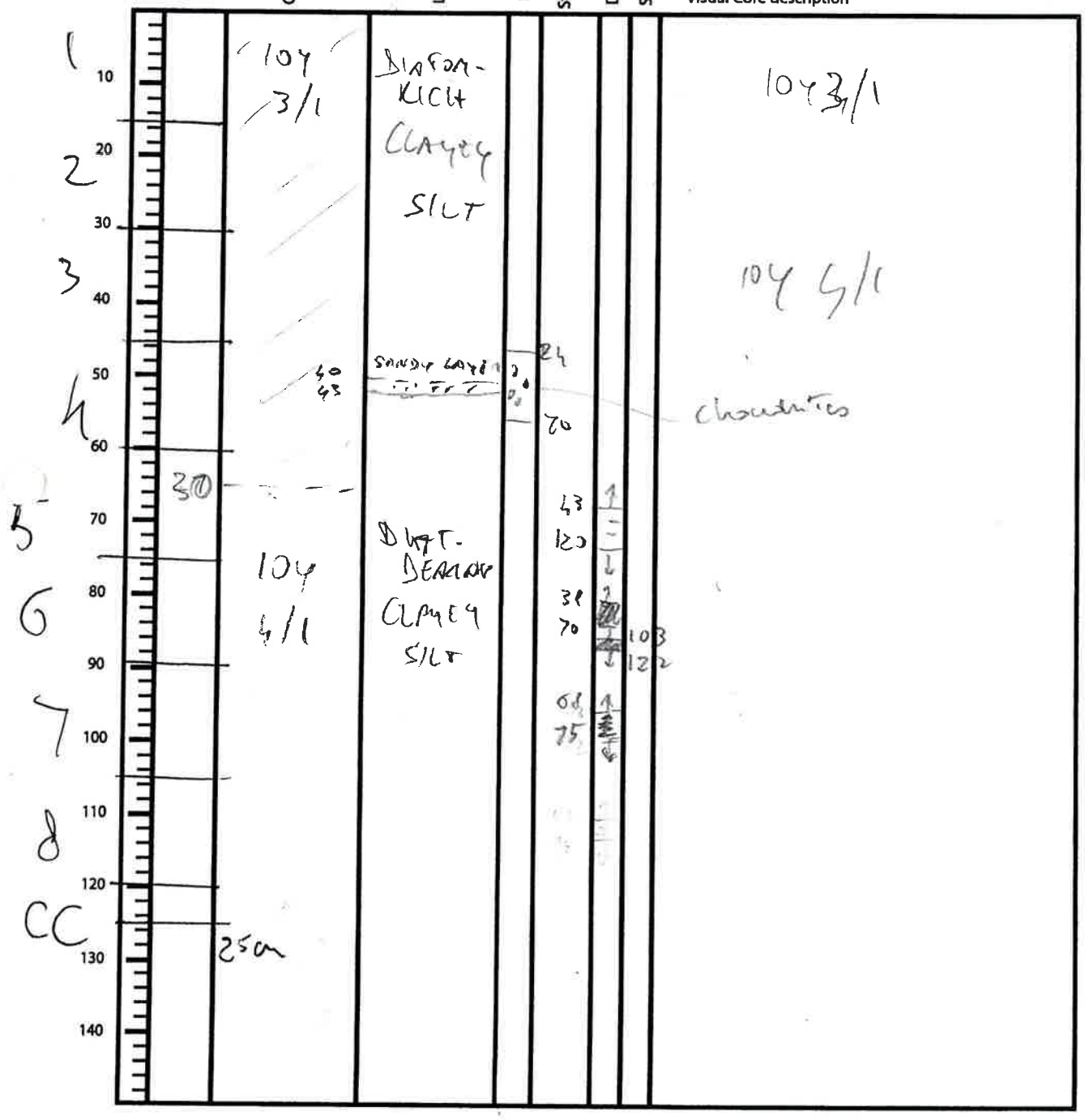
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
15	Centric
15	Pennate
	Chaetoceros Resting Spores
2	Silicoflagellates
	Sponge spicules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

Expedition 323
Bering Sea

1344 A 16 ALL
Site Hole Core Section Top Depth

Major Lithology | Minor Lithology

EXP. CRACKS



Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

X

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	A	16	H	3A	60cm	

Sediment/Rock Name	diatom-rich clayey silt	Observer	akira

Percent Texture		
Sand	Silt	Clay
3	15	10

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
18	Quartz 5
11	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
7	Rock fragments 2
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
23	Clay Minerals 7
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals 0.5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
7	Pyrite 32
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
4	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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1	A	16	H	7A	50	

SM

Sediment/Rock Name	diatom-bearing clayey silt	Observer	Oweis

Percent Texture		
Sand	Silt	Clay
8	54	38
1	7	5

Comments:

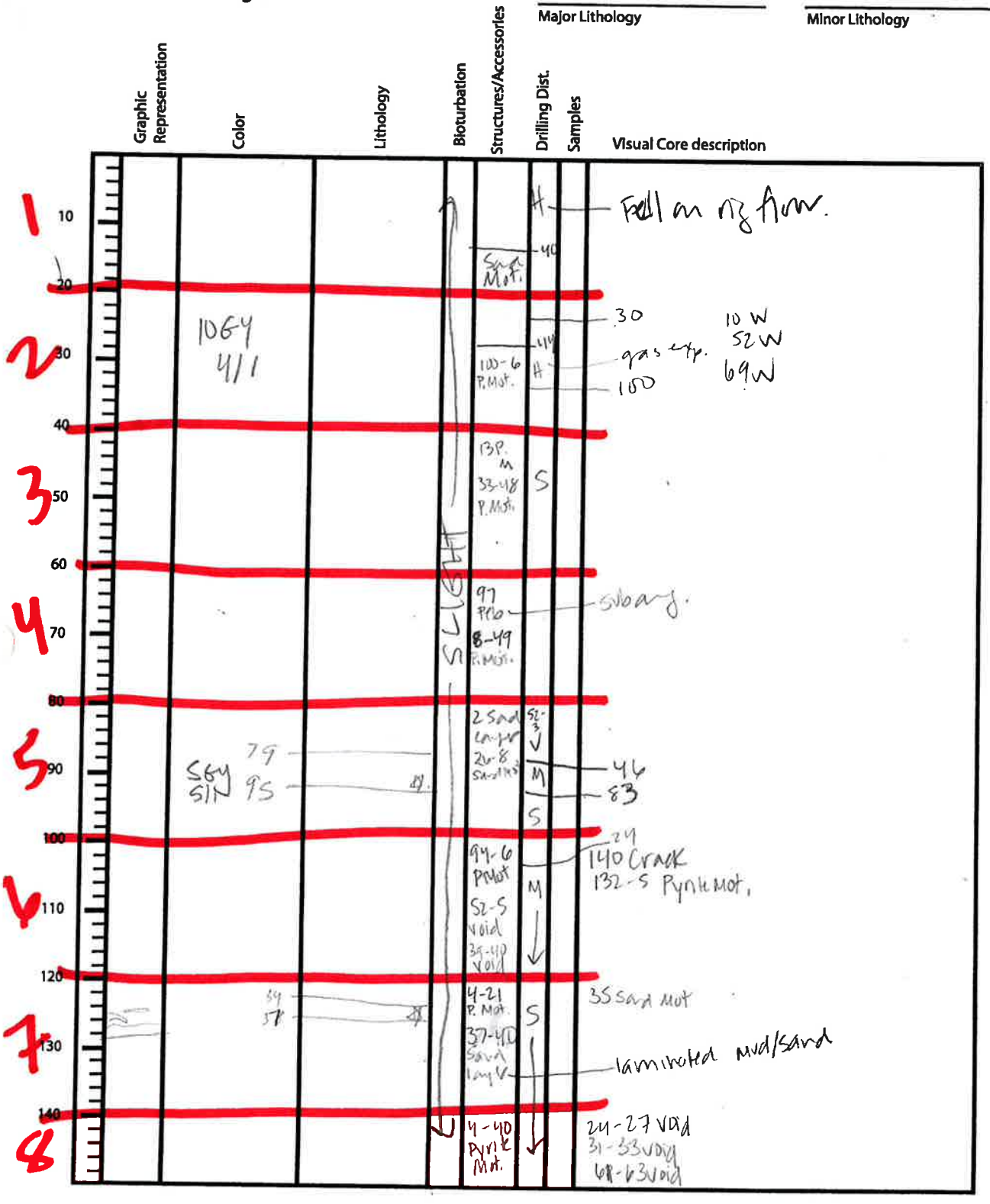
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
21	Quartz 5
9	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
13	Rock fragments 3
	Accessory/trace minerals
4	Micas 1
	Biotite
	Muscovite
21	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
4	Ferromagnesium minerals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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
13	Diatoms 13
	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

323U1344A | 17 | A/W | ____
Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



Observer: ____ Date: ____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

X

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	17	H	3	120	

Sediment/Rock Name	diatom-bearing clayey silt	Observer	akira

Percent Texture		
Sand	Silt	Clay
3	15	10

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
30	Quartz 7
13	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
9	Rock fragments 2
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
30	Clay Minerals 7
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals 0.5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
4	Pyrite 1
	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
13	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

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	B#	A	17	H	5	87	

SM

Sediment/Rock Name	Aragonite filling diatom ooze.

Observer	Alexia

Percent Texture		
Sand	Silt	Clay
5	30	65
-0	30	70

Comments: 2ndary lithology

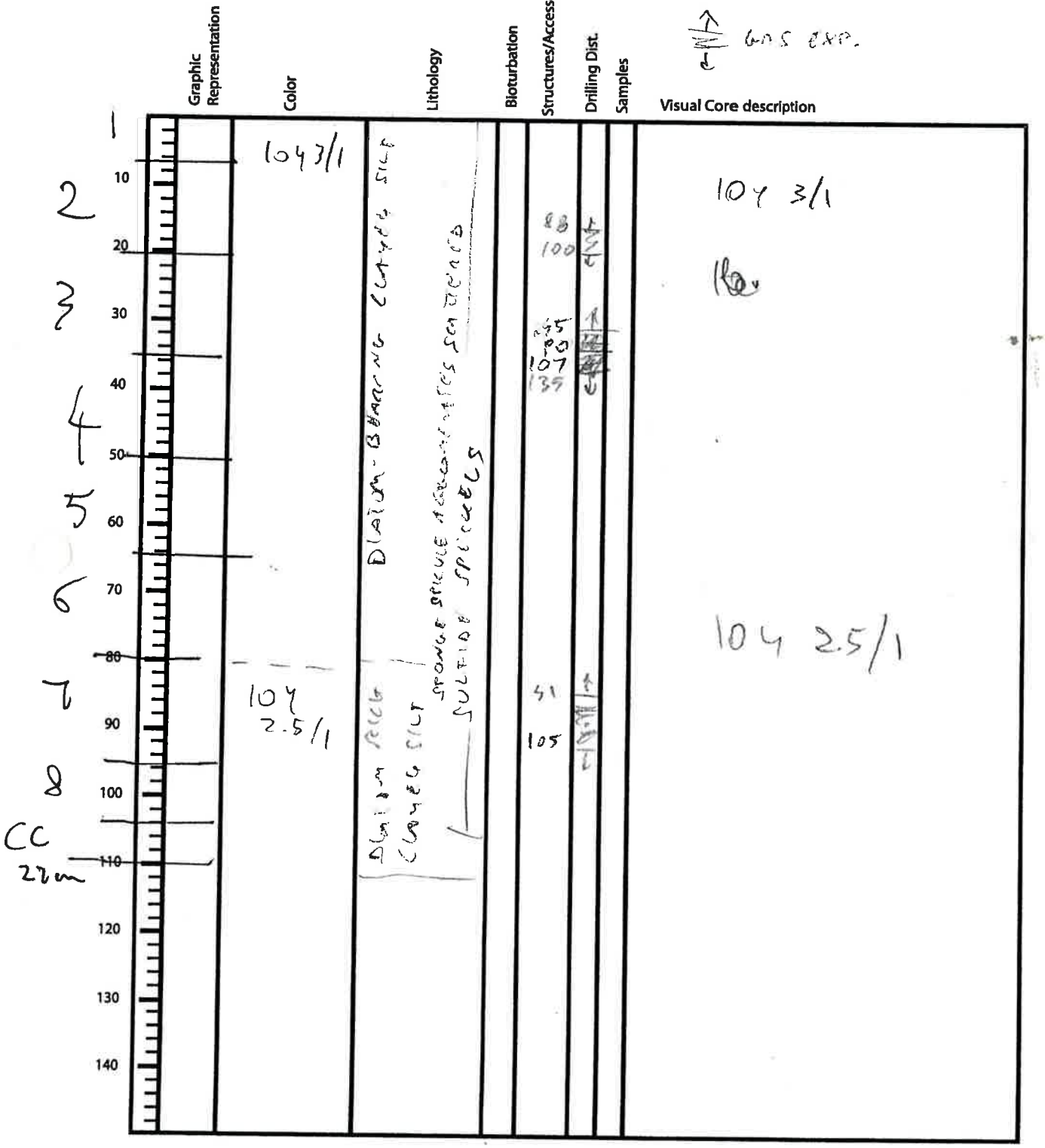
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
6	Quartz 3
2	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite 1
	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
20	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 A 18 ALL
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	Interval (cm) Bottom
323	1344	A	18	H	3A	30	

SM

Sediment/Rock Name	diatom-bearing clayey silt

Observer	akerg

Percent Texture		
Sand	Silt	Clay
23	15	15

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
27	Quartz 9
12	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
8	Rock fragments 2
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
19	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
4	Ferromagnesium minerals 1
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
8	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
19	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

X

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	18	H	7	120	

SM

Sediment/Rock Name	diatom-rich clayey silt	Observer	Akira

Percent Texture		
Sand	Silt	Clay
3	15	7

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz 3
7	Feldspar 2
	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
7	Pyrite 2
	Magnetite
	Fe-oxide
	Carbonates
7	Calcite 2
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
17	Vitric grain 2
	Lithic grain

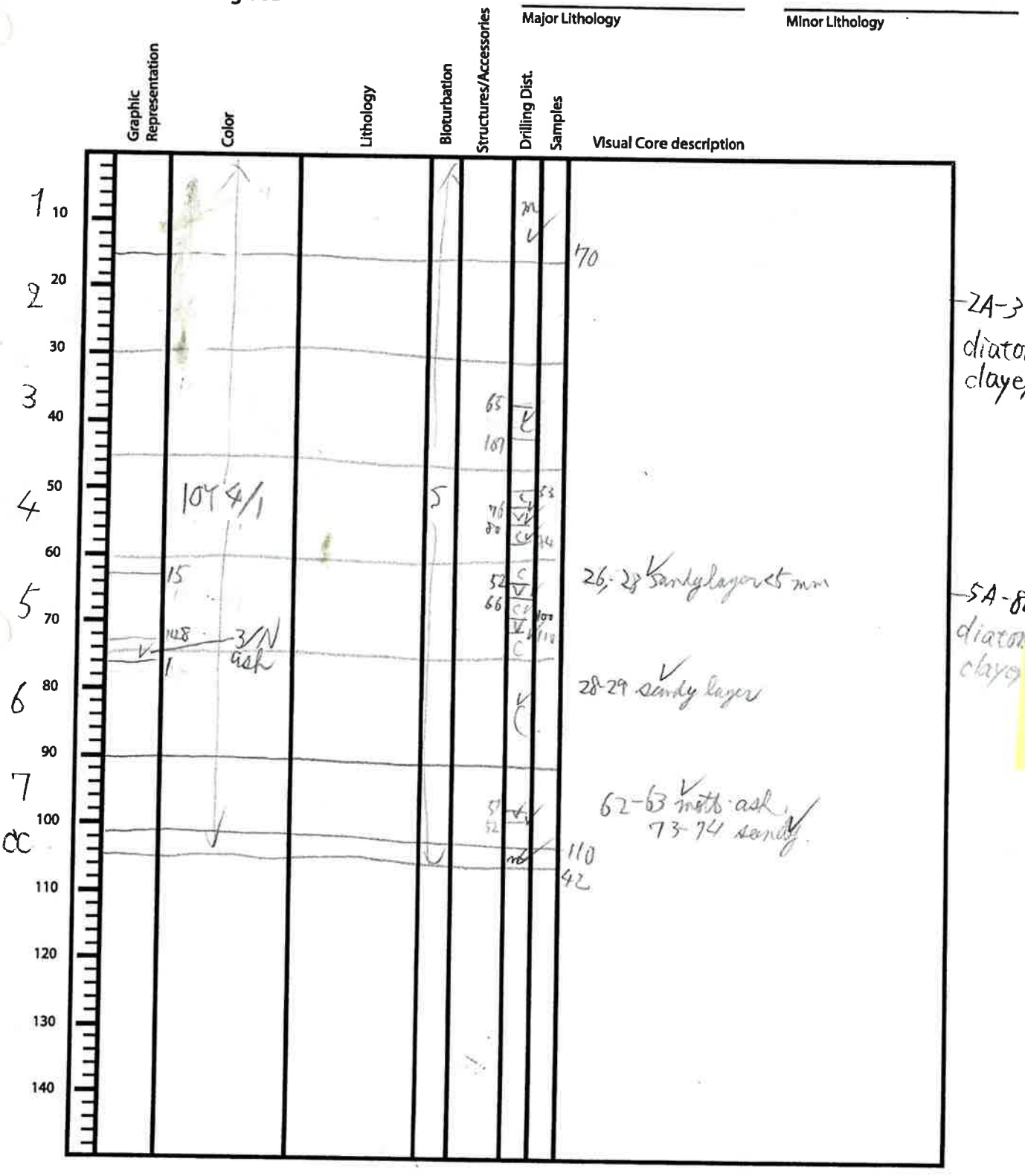
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
34	Diatoms 10
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

~~Not uploaded~~

Expedition 323
Bering Sea

1344 A 19 ____ ____
Site Hole Core Section Top Depth

Major Lithology ____ Minor Lithology ____



Observer: ____ Date: ____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

X

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1314	A	19	H	2A	40cm	

SM

Sediment/Rock Name	Diatom-rich clayey silt

Observer	BETH

Percent Texture		
Sand	Silt	Clay
10	70	20

Comments:

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
2	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
10	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

X

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	A	19	H	SA	80cm	

Sediment/Rock Name	Diatom-rich clayey-silt

Observer	BETH

Percent Texture		
Sand	Silt	Clay
10	90	40

Comments:

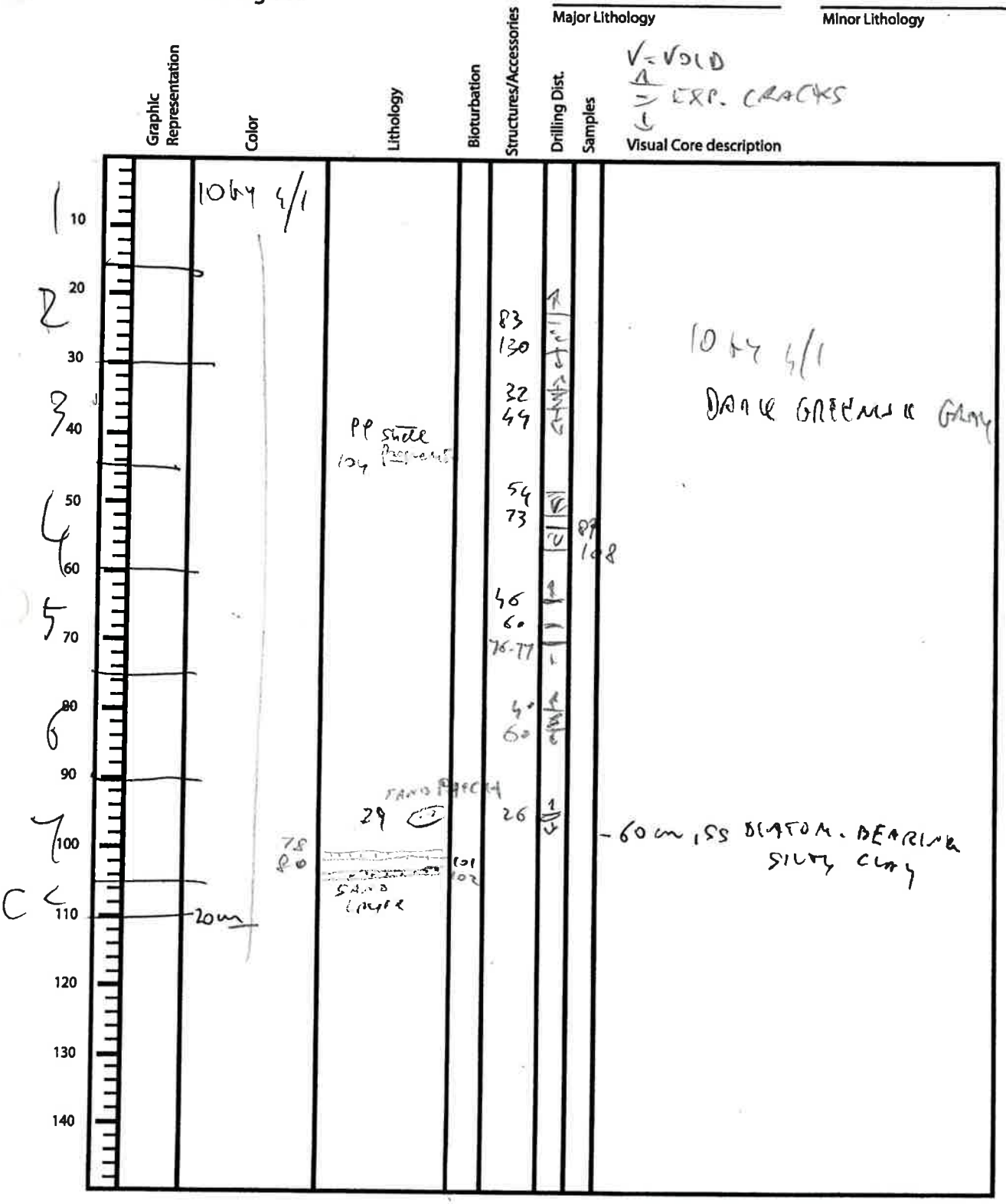
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
5	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic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

1364 A 20 ALC
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
	1344	A	20	H	7	60 cm	

SM

Sediment/Rock Name	DIATOM-BEARING SILTY CLAY

Observer	CWA

Percent Texture		
Sand	Silt	Clay

Comments:

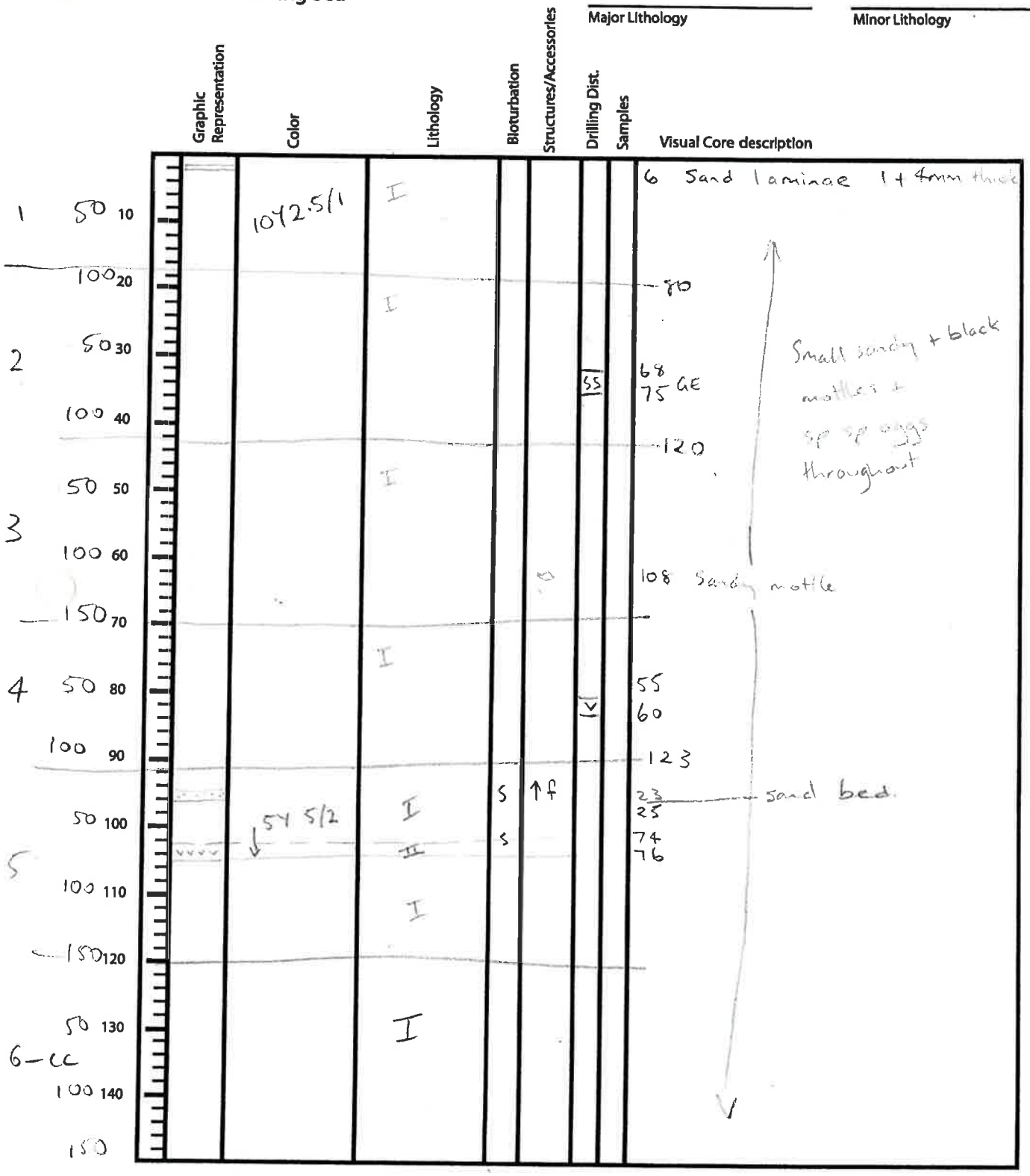
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
?	Framework minerals
16%	3 Quartz
32% 16%	3 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5%	1 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
53%	10 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium 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
11%	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

323 | 1344 | A | 21 | 1-CC
Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology | Minor Lithology



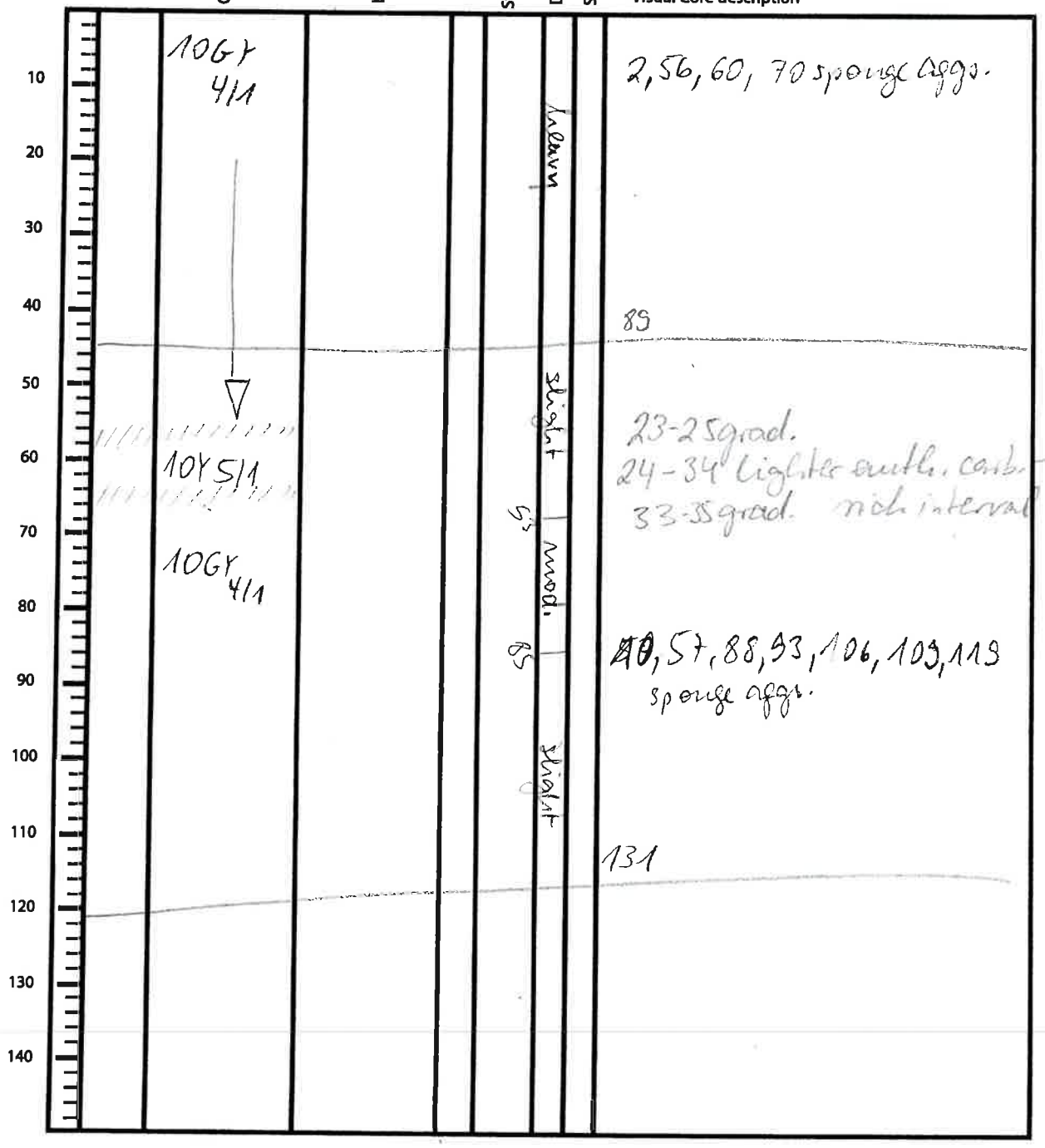
Observer: Kelsie Date:

C-21

1344 A 22H 1+2 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

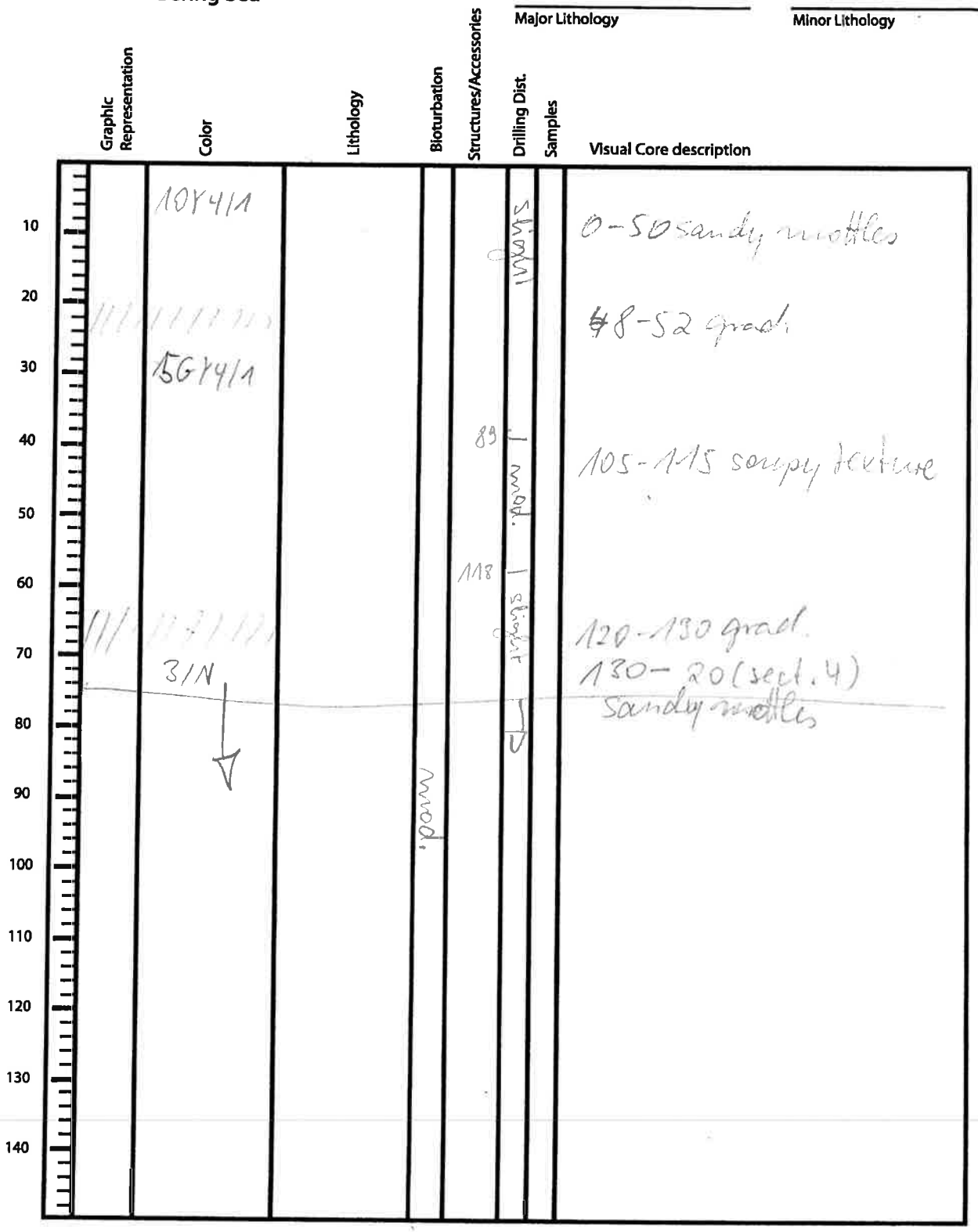


Observer: _____ Date: _____

1344 (Site) A (Hole) 22H (Core) 3+4 (Section) ____ (Top Depth)

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

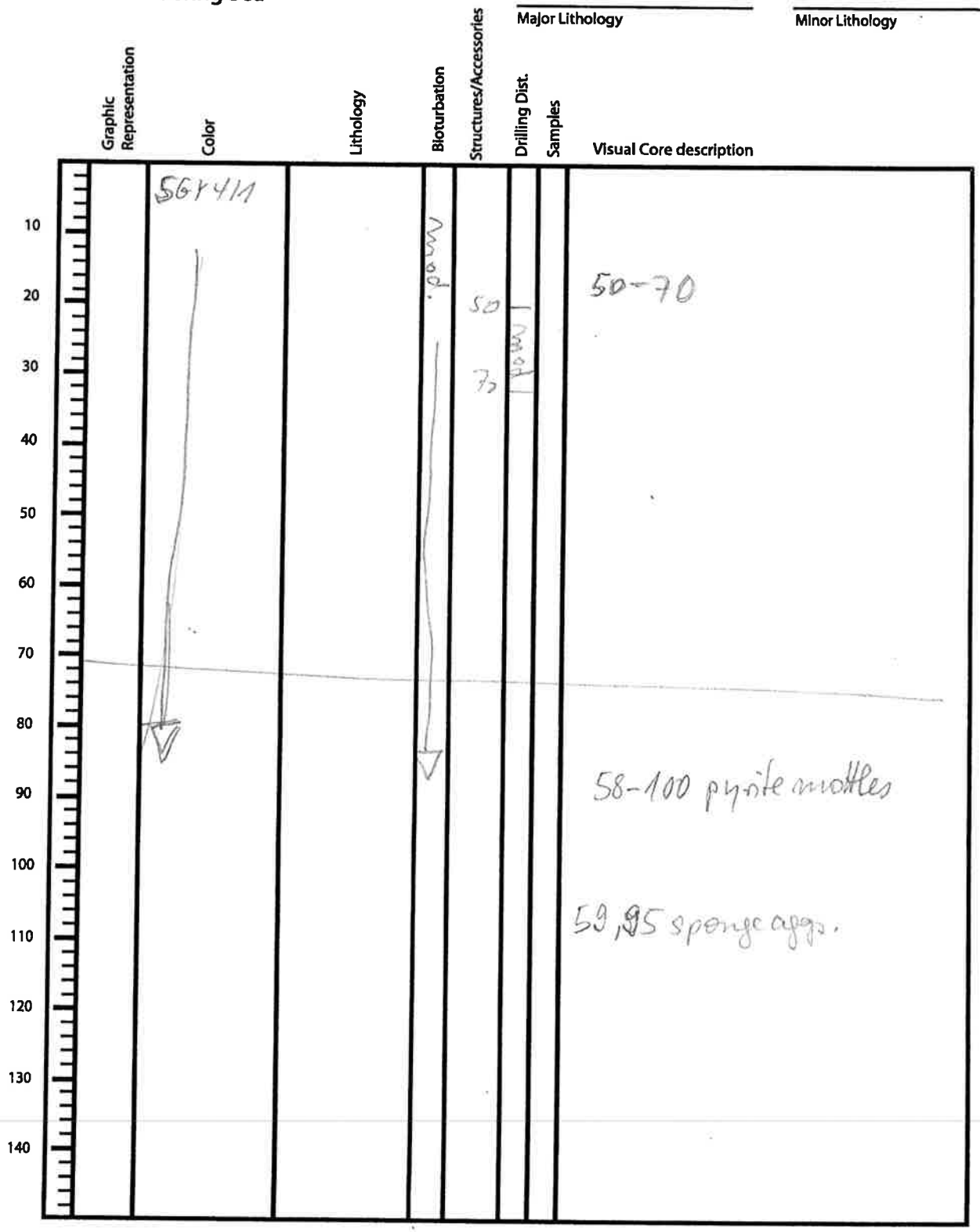


Observer: ____ Date: ____

1344 (Site) A (Hole) 22H (Core) 5+6 (Section) _____ (Top Depth)

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



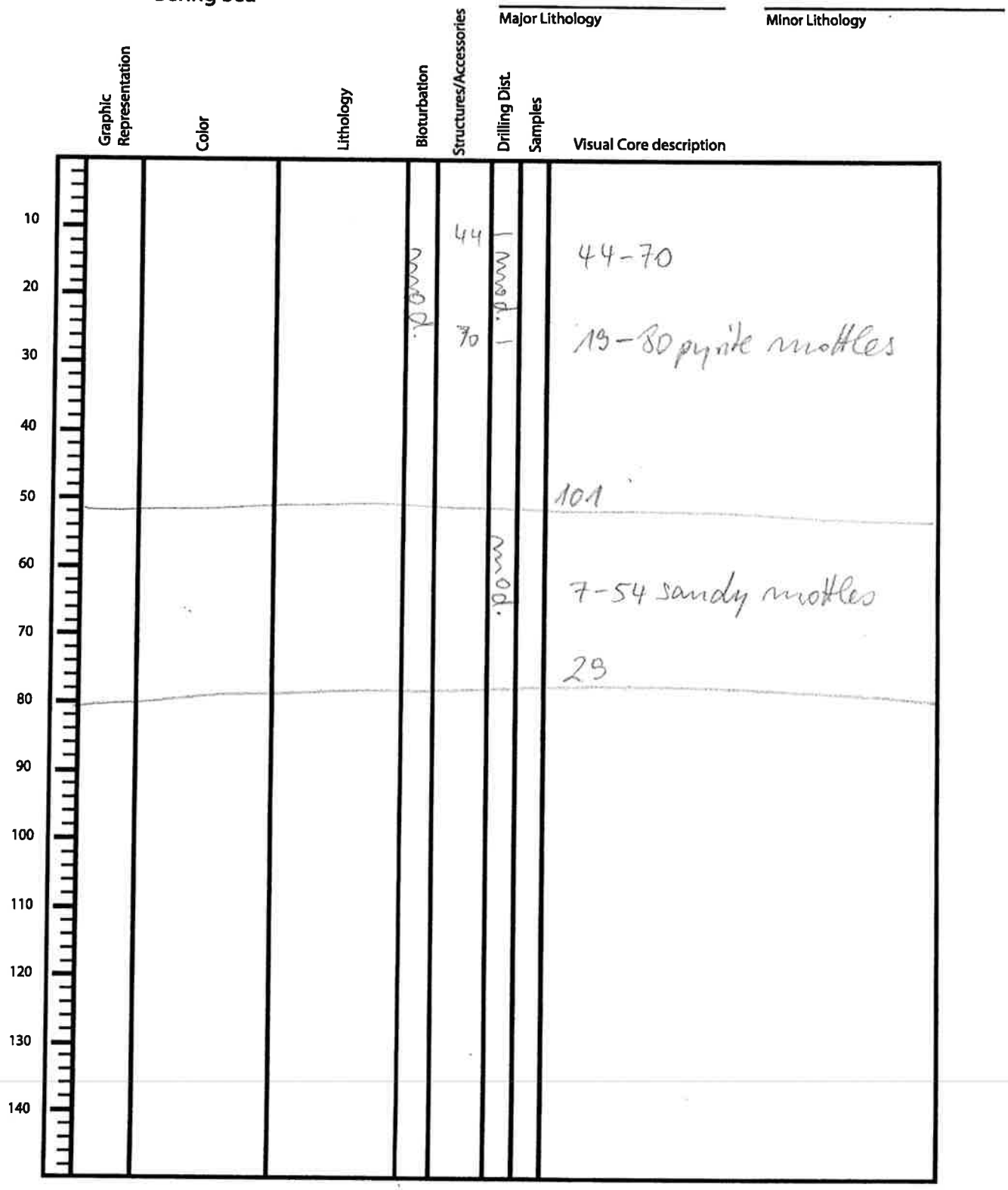
Observer: _____ Date: _____

1344 A 22H 7+8+cc
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
			22H		3	50	

SM

Sediment/Rock Name	Diatom rich sandy silt

Observer	H.A

Percent Texture		
Sand	Silt	Clay
30	50	20

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 89
	Framework minerals
72 ~~73~~	Quartz 20
4	Feldspar 1
(1)	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
7	Rock fragments 2
13	
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
4	Ferromagnesium minerals 1
6	
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite 0.5
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 11
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
4	1 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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
		A	224		6A	48	48

SM

Sediment/Rock Name	Diatom bearing Sandy Clay

Observer	H.A

Percent Texture		
Sand	Silt	Clay
20	10	70

Comments:

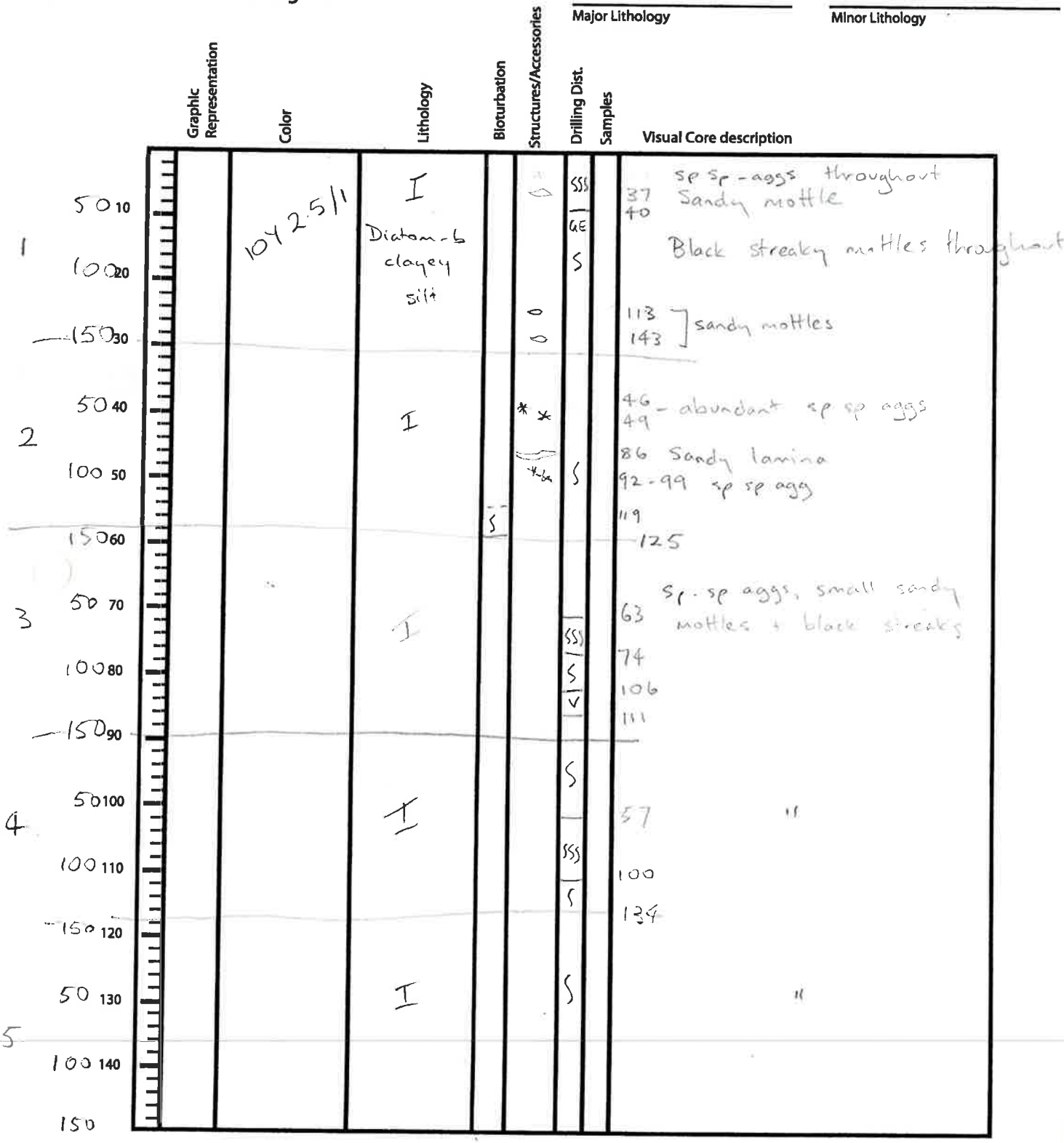
Percent	Component
	SILICICLASTIC GRAINS/MINERAL ~~95~~ 94
	Framework minerals
64 ~~69~~	Quartz 5
2	Feldspar /
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4	Rock fragments 2
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
22	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium 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 5 Σ
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
5 ~~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 A 23 1-5 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



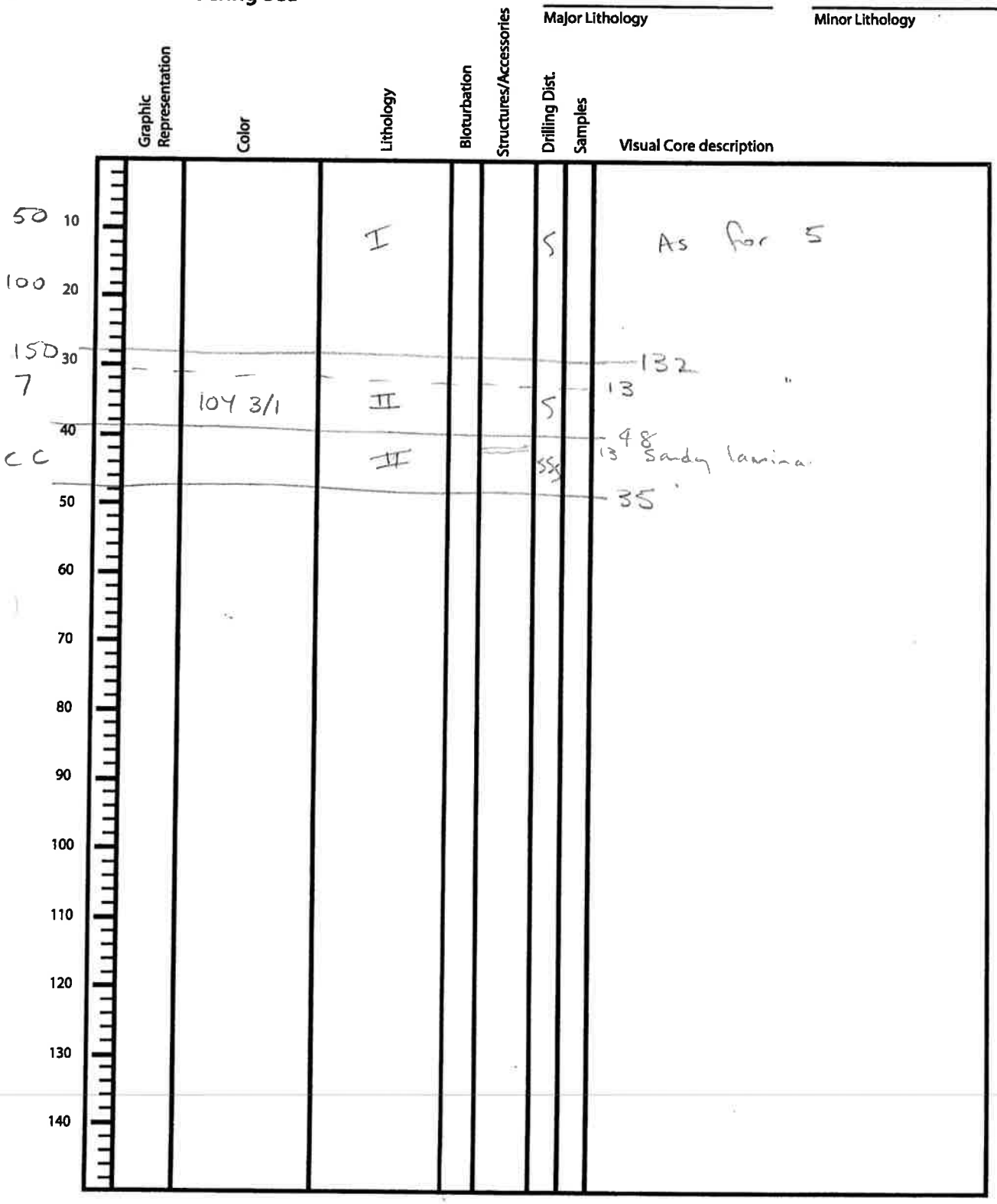
Observer: Kelsie Date: ____

1344 | A | 23 | 6-CC

Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology: _____ Minor Lithology: _____



6

Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	23	H	CC	8	

SM

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
1	Micas
	Biotite
	Muscovite
50	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
1	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

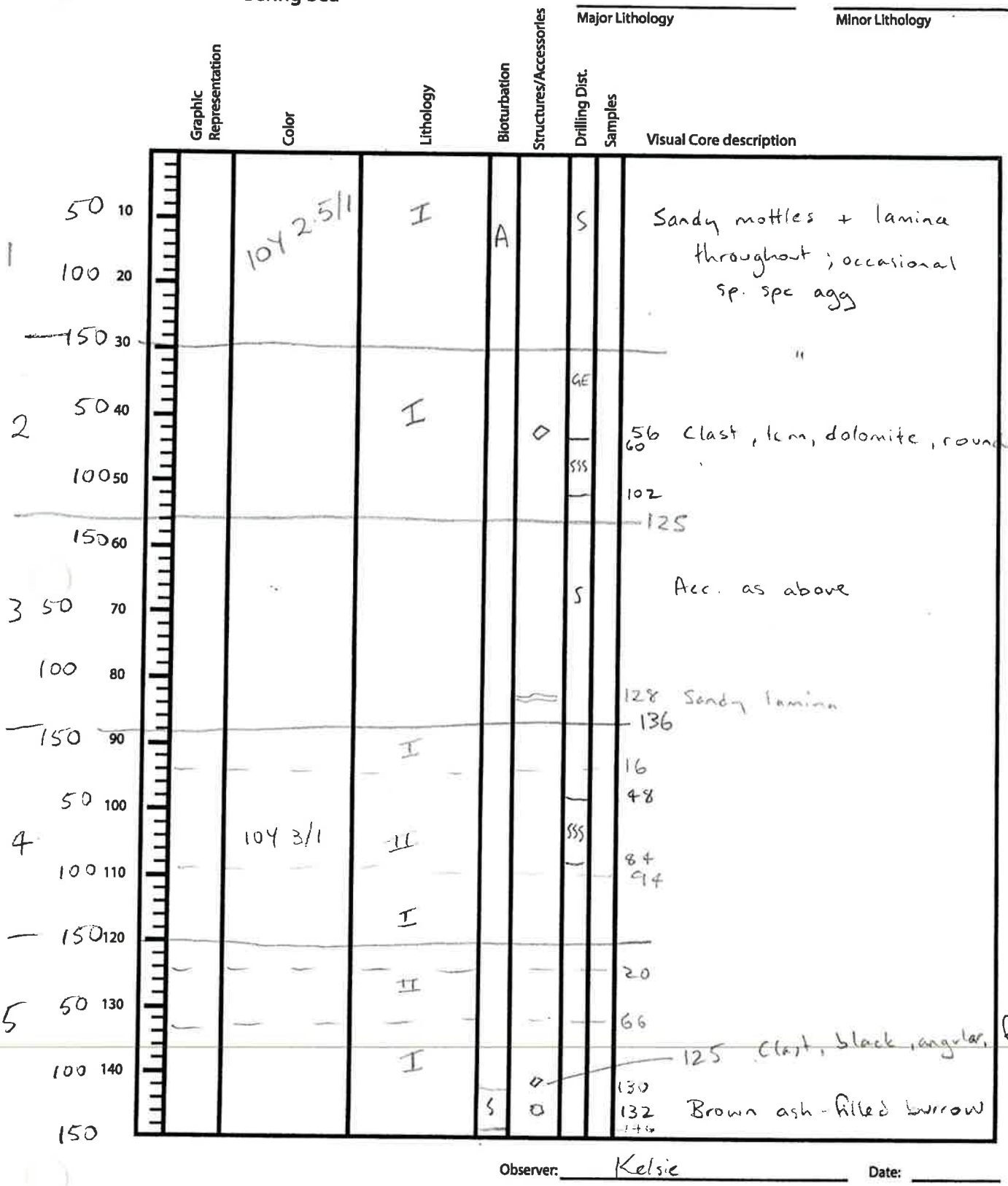
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
1	Radiolarians
	Spumellaria
	Nassellaria
20	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

1344 A 24H 1-5
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: Kelsie Date:

Site	Hole	Core	Section	Top Depth
1344	A	24H	6+cc	

Expedition 323
Bering Sea

Major Lithology

Minor Lithology

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
			I			S		
6 50 10		3/N	Sand	S	↑f			23 26 43
			I			SS		
100 20								84
cc			I			SSS		
30								34
40								
50								
60								
70								
80								
90								
100								
110								
120								
130								
140								

Observer: ______________ Date: ______

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1314	A	24H		3A	56	56

SM

Sediment/Rock Name	Diatom rich sandy silt

Observer	H.A

Percent Texture		
Sand	Silt	Clay
30	50	20

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
60	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
5	Micas
	Biotite
	Muscovite
3	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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
17	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	24H		5	30	50

SM

Sediment/Rock Name	Auth. Carb. rich Sandy Silt (diatom-rich)	Observer	H.A

Percent Texture		
Sand	Silt	Clay
35	40	25

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 36
	Framework minerals
45	Quartz 15
	Feldspar
tr	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments 1
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
tr	Chert
	Zircon
3	Ferromagnesium minerals 1
	Authigenic minerals
	Barite
	Phosphorite/Apatite
tr	Zeolite
	Opaque minerals
3	Pyrite 1
	Magnetite
	Fe-oxide
22/21	Carbonates 7 (Auth. Carb.)
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

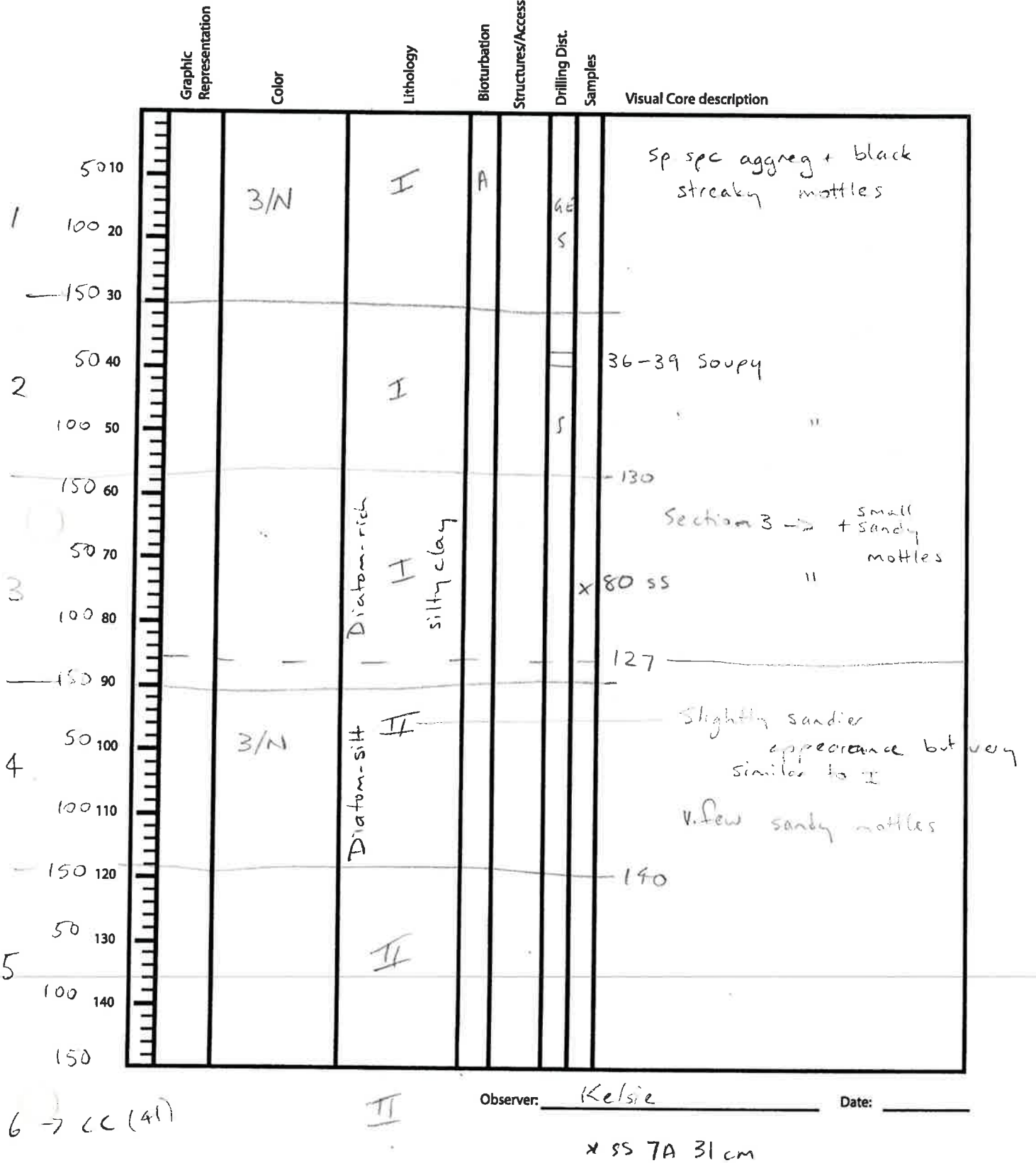
Percent	Component
	BIOGENIC GRAINS 24
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
15	5 Centric
9	6 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 A 25H 1-CC
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: Kelsie Date:

x ss 7A 31 cm

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1349	A	2H		2	8	80

SM

Sediment/Rock Name	Diatom-rich silty clay	Observer	H.A

Percent Texture		
Sand	Silt	Clay
0	30	40

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 77
	Framework minerals
40	Quartz 7
	Feldspar
41	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments 0.5
	Accessory/trace minerals
	Micas
	Biotite
5	Muscovite
25	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5 tr	Pyrite 1
	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
	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

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1364		25H		7A	31	

SM

Sediment/Rock Name	Diatom silt

Observer	H.A

Percent Texture		
Sand	Silt	Clay
10	80	10

Comments:

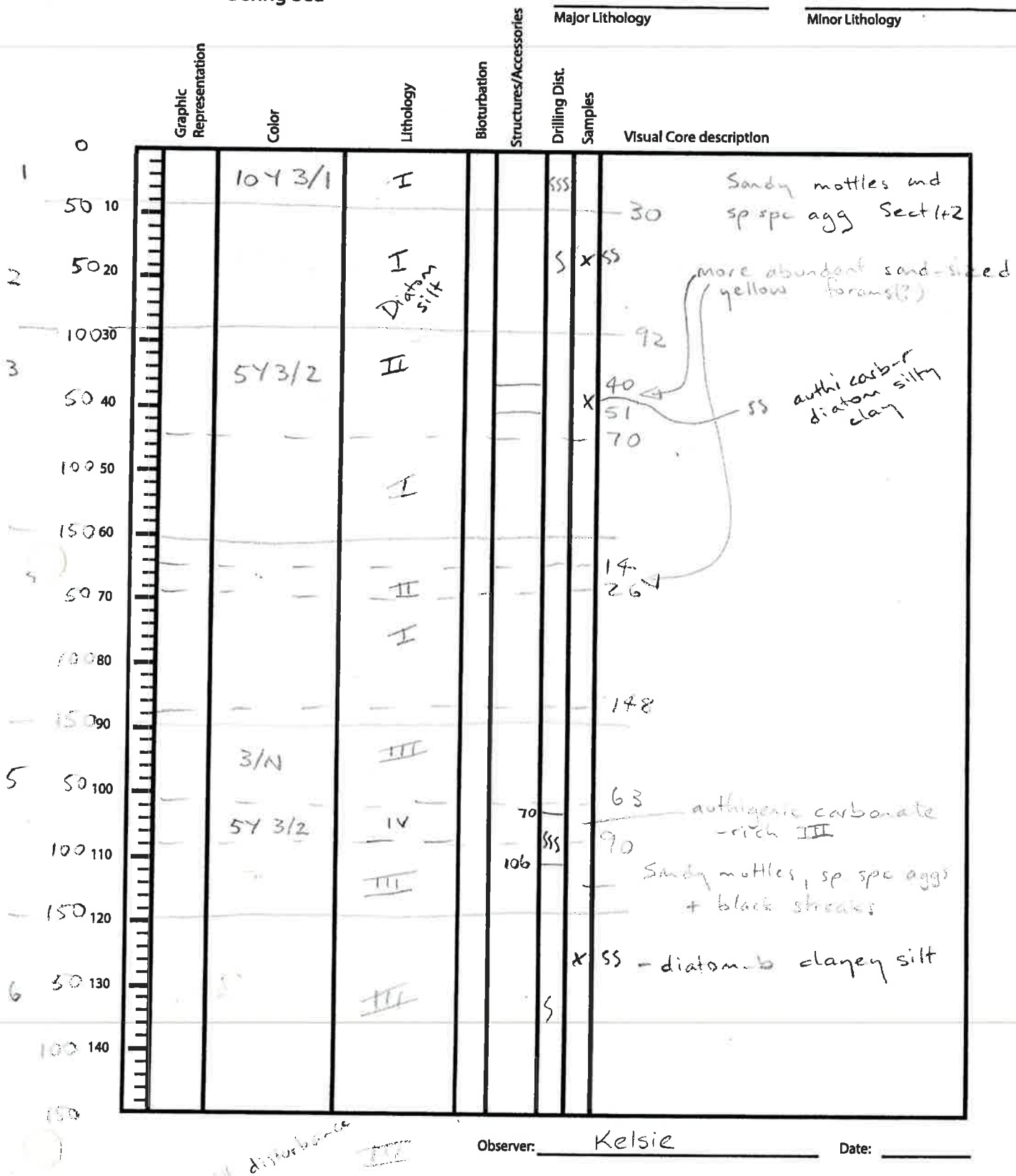
Percent	Component
	SILICICLASTIC GRAINS/MINERAL 60
	Framework minerals
49	Quartz 10 15
	Feldspar
50	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments 1
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
10 7	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	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 40
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
31 ~~10~~	Centric
8 ~~3~~	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 / A / 26H / 1-LC
Site / Hole / Core / Section / Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: Kelsie Date: _____

7-CC (40) sediment drill disturbance

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	26		2	39	39

SM

Sediment/Rock Name	Diatom silt

Observer	H.A

Percent Texture		
Sand	Silt	Clay
20	75	5

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
50 ~~60~~	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
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
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
40 ~~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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1364	A	26		3	50	

Sediment/Rock Name	Auth. Carb. rich Diatom silty Clay	Observer	

Percent Texture		
Sand	Silt	Clay
5	25	70

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	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
30	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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
~~323~~ 323	B44	A	26H		6A	50	

SM

Sediment/Rock Name	Diatom-bearing Clayey Silt	Observer	

Percent Texture		
Sand	Silt	Clay
20	~~40~~ 50	30

Comments:

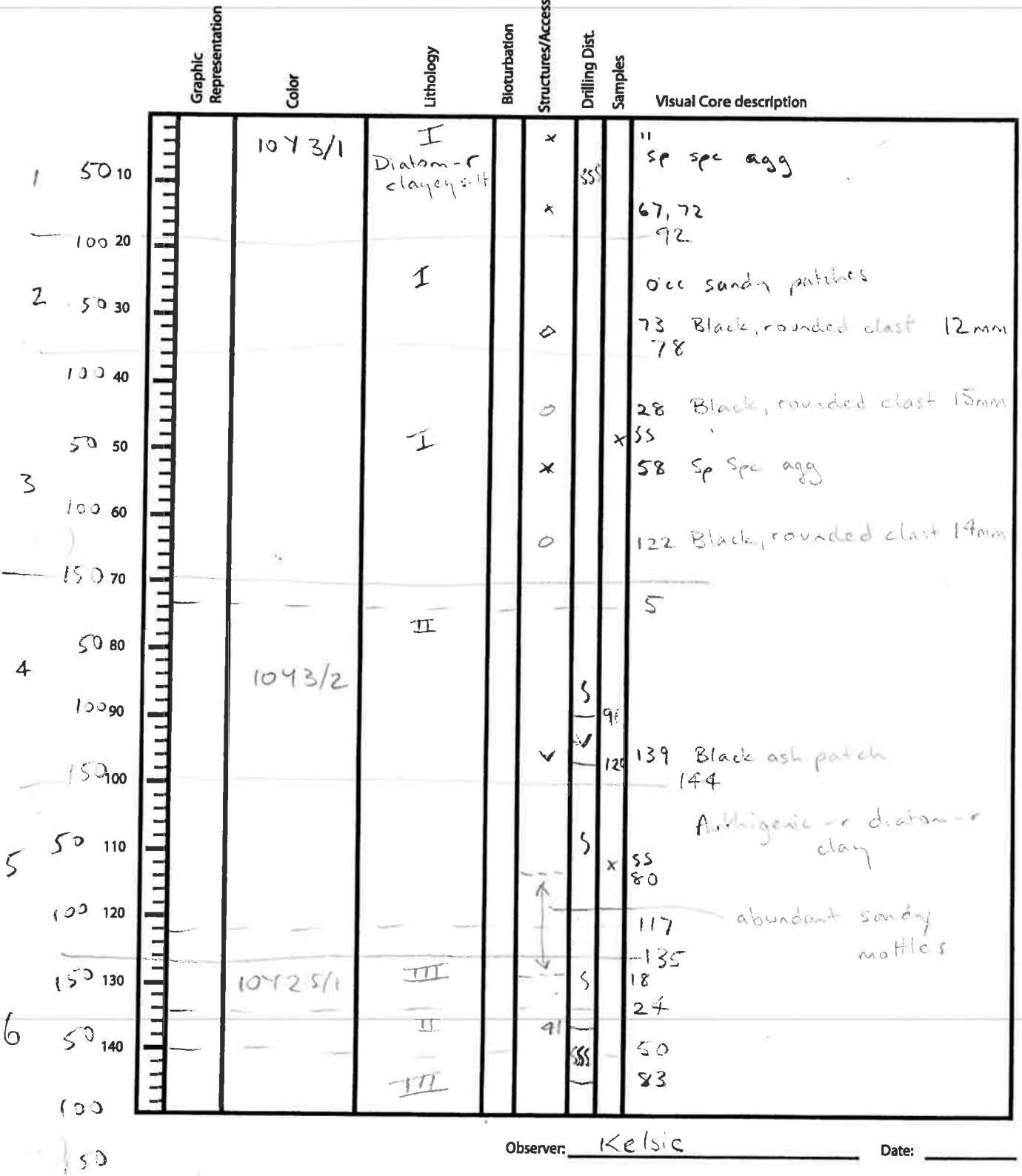
Percent	Component
	SILICICLASTIC GRAINS/MINERAL 50
	Framework minerals
49	Quartz 15
7	Feldspar 2
16	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
21	Muscovite
22 ~~33~~	Clay Minerals 7
	Chlorite
	Glauconite
	Chert
	Zircon
10	Ferromagnesium minerals 3
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite 0.5
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 10
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
10 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

1344 A 27H 1-6 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



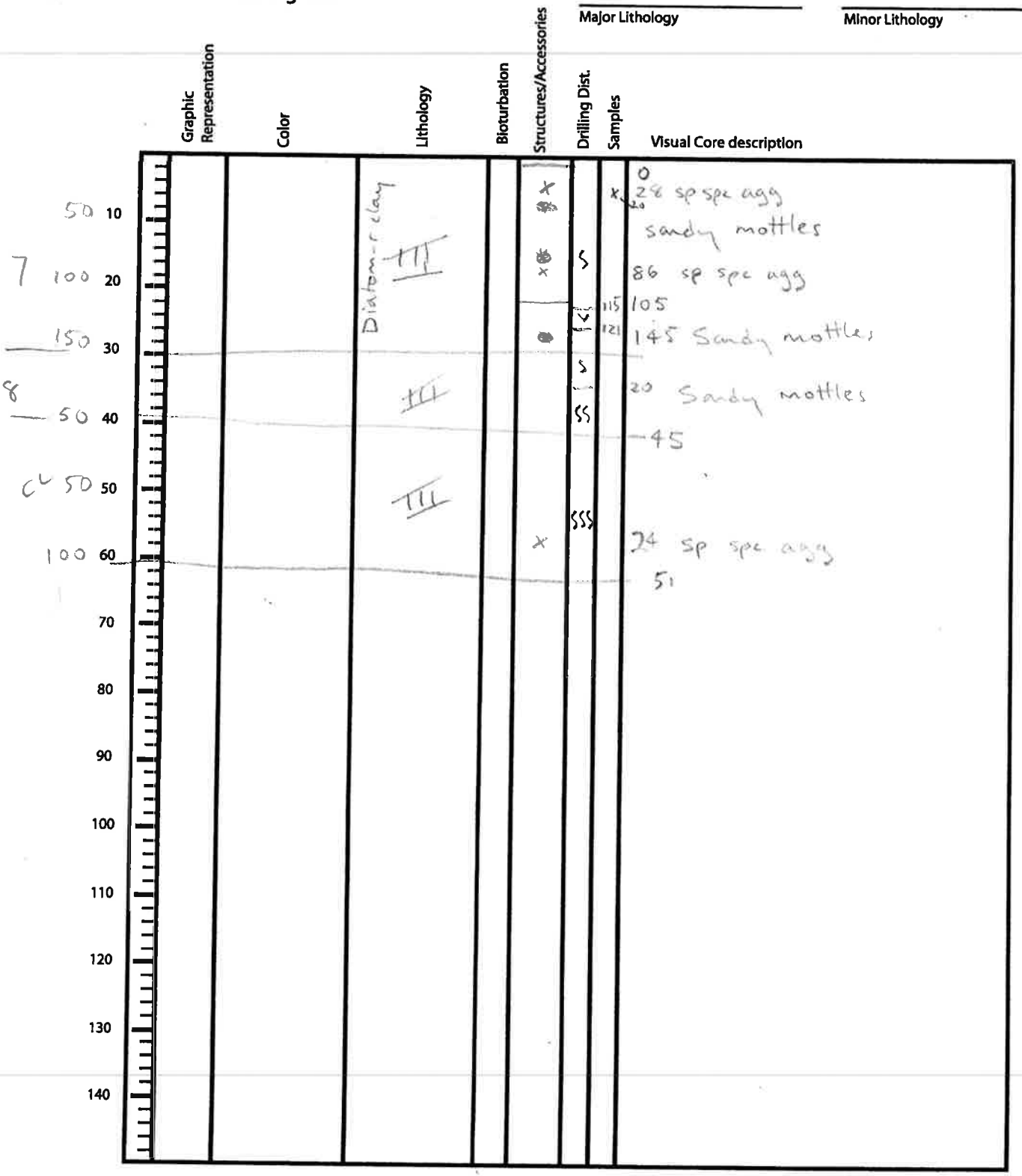
Observer: Kelsic Date: ____

1344 A 27H 7- CC
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
			27H		2A	30	

SM

Sediment/Rock Name	Auth. Carb. rich ± diatom rich silty clay

Observer	H.A

Percent Texture		
Sand	Silt	Clay
10	30	60

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 5
	Framework minerals
11	Quartz 5
2	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals 1
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
4	Pyrite 2
	Magnetite
	Fe-oxide
65	Carbonates 30
	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
	Diatoms
11	5 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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	A	27		3	65	

SM

Sediment/Rock Name	Diatom-rich (clayey) silt	Observer	H.M.

Percent Texture		
Sand	Silt	Clay
25	35	40

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 70
	Framework minerals
56	Quartz 29
3	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
36	Rock fragments 2
61	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
8	Pyrite 3
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS ~~28~~ 30
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
~~28~~ to 7	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	A	27H		5	70	

Sediment/Rock Name	~~D~~

Observer	H.A

Auth. Carb. rich Diatom-rich Clay

Percent Texture		
Sand	Silt	Clay
5	5	90

Comments:

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

Percent	Component
	BIOGENIC GRAINS 15
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
15	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

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	A	27		6	20	

SM

Sediment/Rock Name	Diatom-rich Clay

Observer	MA

Percent Texture		
Sand	Silt	Clay
5	10	~~85~~

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 65
	Framework minerals
47	Quartz 4
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
12	Rock fragments 1
+5	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
6	Pyrite 0.5
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 35
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
35 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

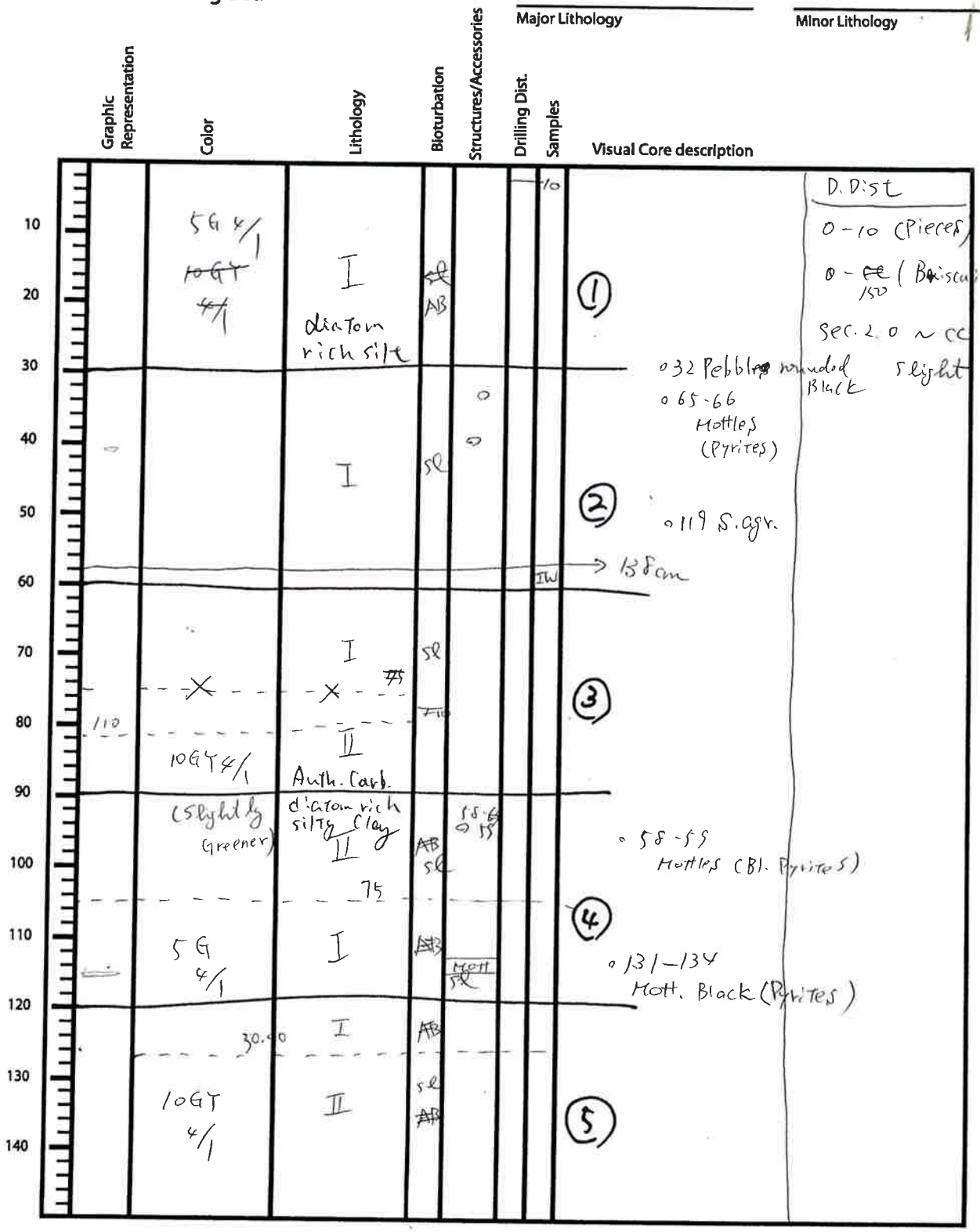
1344 A 28X 1-5

Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



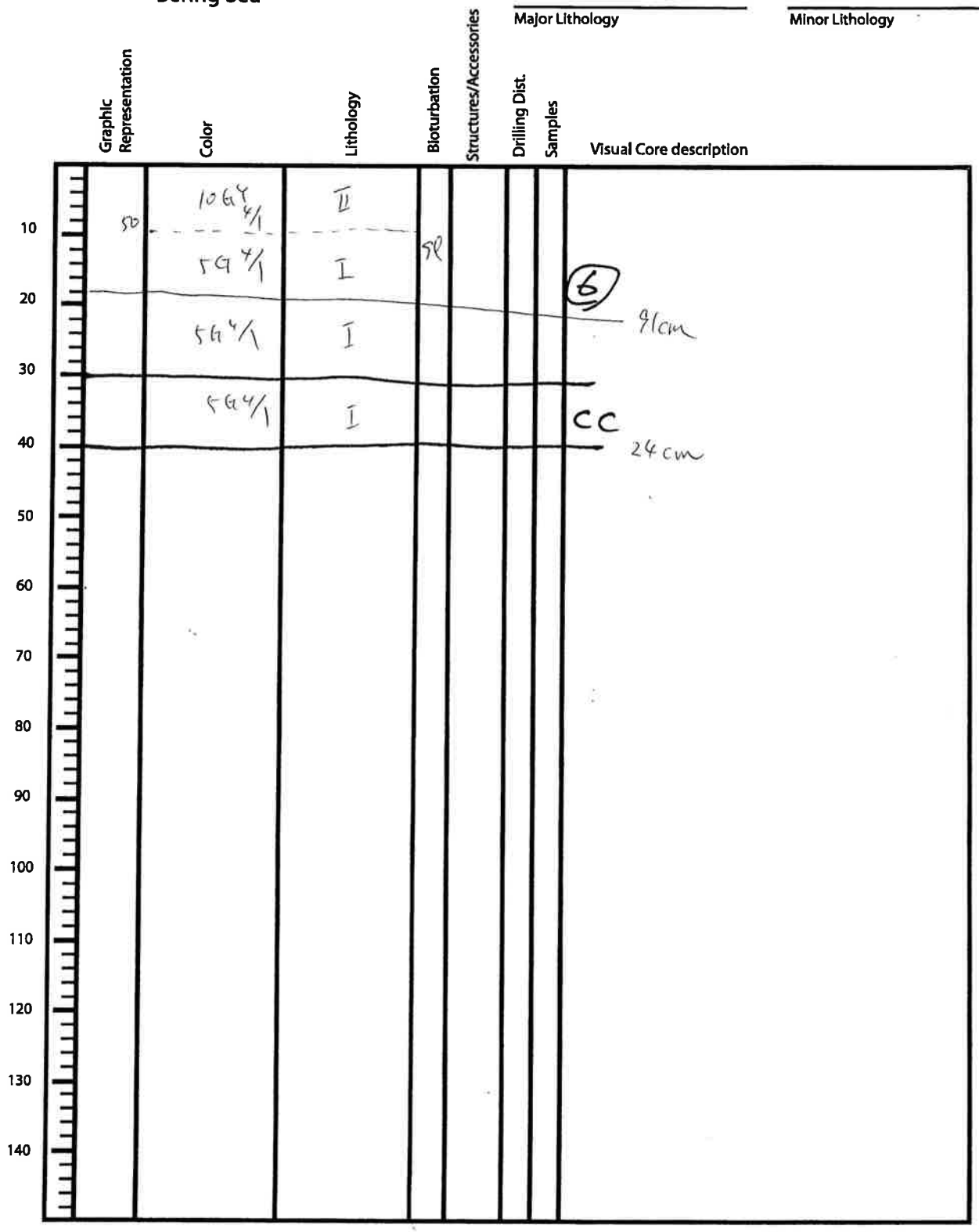
Observer: Hivo

Date:

134Y	A	28X		
Site	Hole	Core	Section	Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: Hino Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	28X		3A	40	40

SM

Sediment/Rock Name	diatom-rich silt

Observer	HA

Percent Texture		
Sand	Silt	Clay
10	85	5

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 68
	Framework minerals
48	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments /
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
10	Clay Minerals 2
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals 2 1
	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 32
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
3 2	32 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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	28X	4A		50	50

SM

Sediment/Rock Name	Auth. Carb. rich Diatom rich silty clay

Observer	HA

Percent Texture		
Sand	Silt	Clay
10	30	60

Comments:

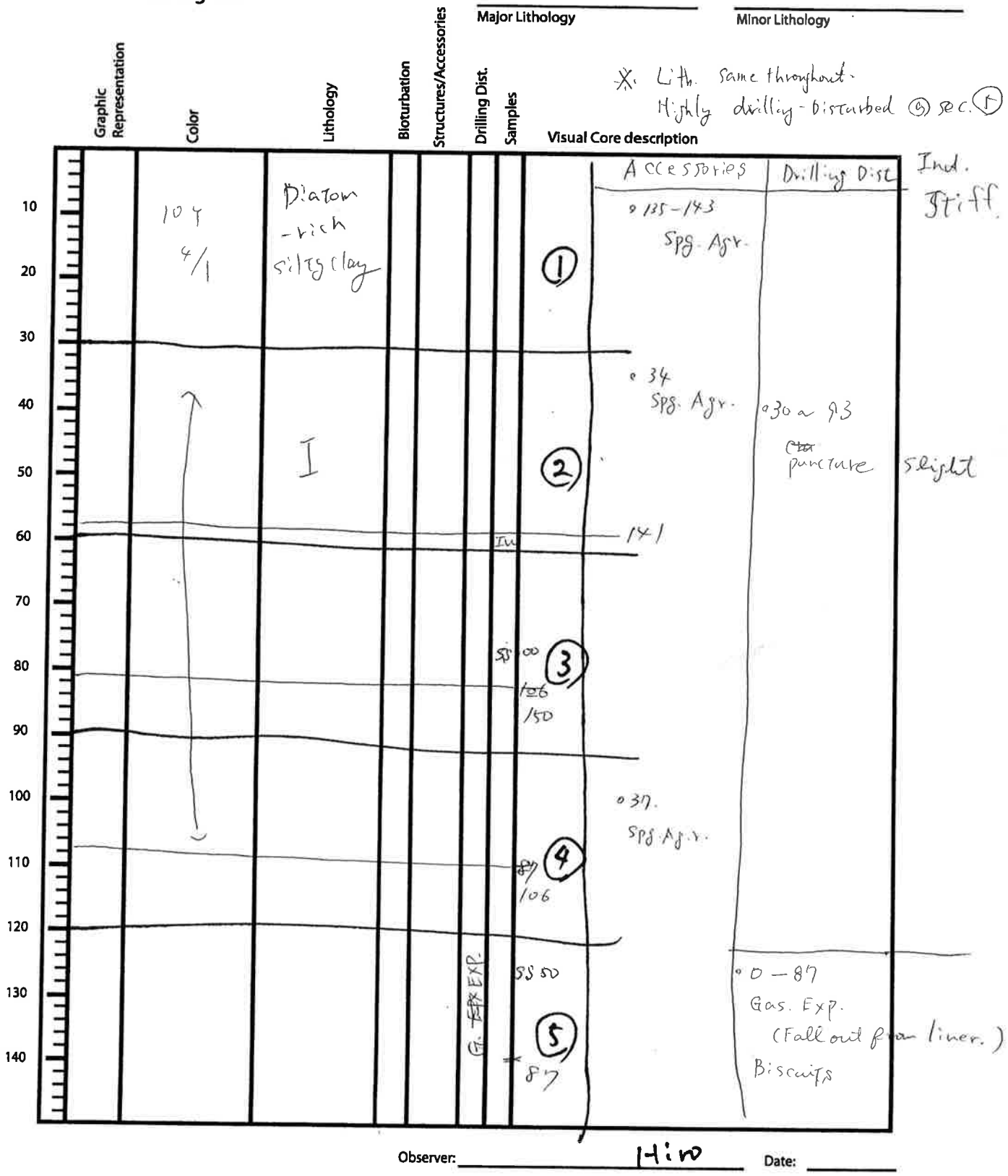
Percent	Component
	SILICICLASTIC GRAINS/MINERAL ~~88~~ 58
	Framework minerals
13	Quartz 5
3	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
1	Plagioclase
3	Rock fragments 1
	Accessory/trace minerals ~~3~~
	Micas
	Biotite
14	Muscovite
5	Clay Minerals 2
	Chlorite
	Glauconite
2	Chert
	Zircon
3	Ferromagnesium minerals 1
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
51 ~~28~~	Carbonates Auth. Carbs. 20
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 22
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
12 ~~13~~	5 Centric
10	35 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 | A | 25X | | |
Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology | Minor Lithology



Observer: Hino Date:

Heavily Dist. G. Exp. ← CC 23cm

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	~~29X~~ 29X	~~29~~ 29	3	100	100

SM

Sediment/Rock Name	Diatom-rich silty clay

Observer	Hino. A

Percent Texture		
Sand	Silt	Clay
5	45	50

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
40	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
5	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
40	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

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
	1344	A	29X		5	50	50

SM

Sediment/Rock Name	Diatom-rich silty clay

Observer	H+W

Percent Texture		
Sand	Silt	Clay
5	~~30~~ 45	~~65~~ 50

Comments:

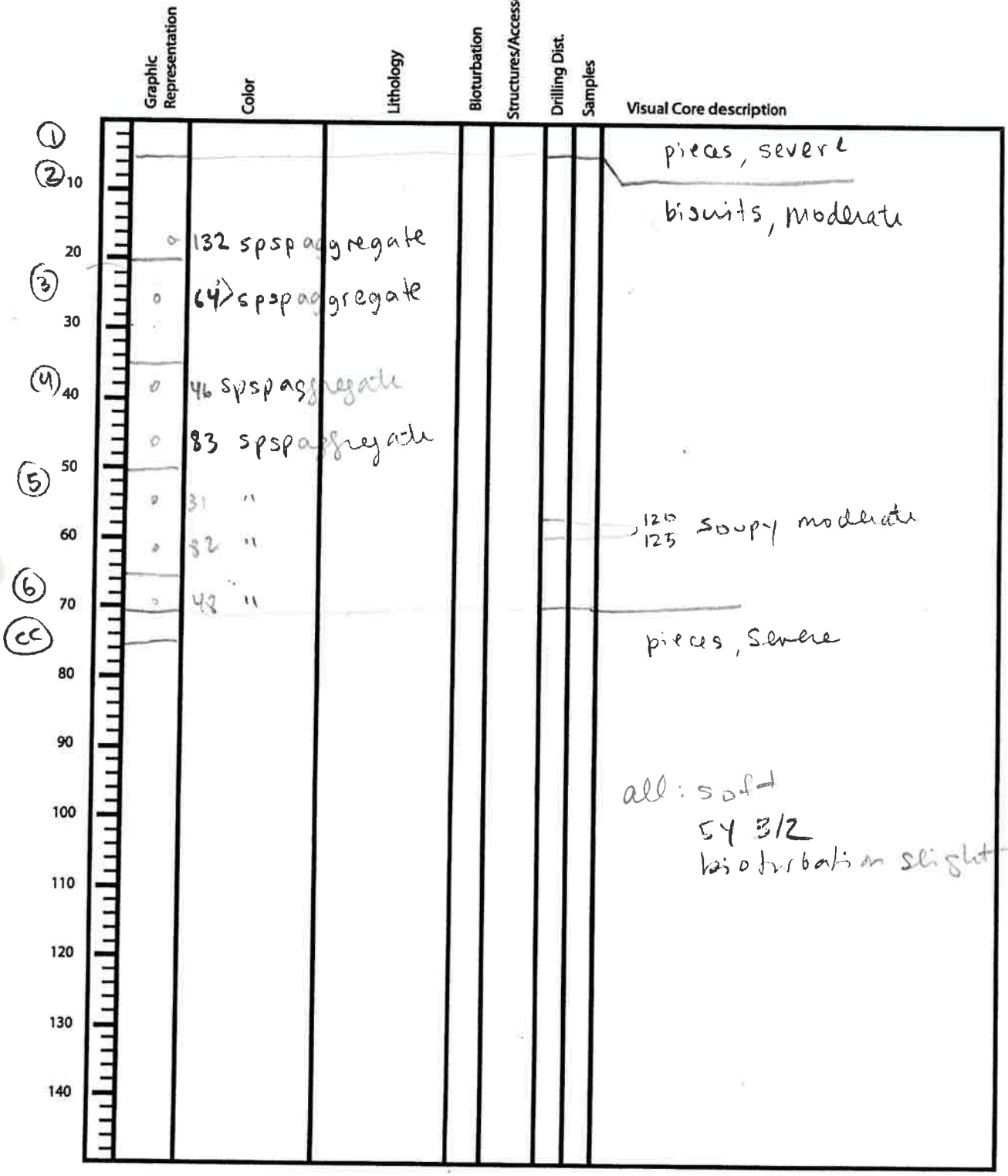
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals 53
40 ~~58~~	Quartz ~~5~~ 10
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments 0.5
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
8	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite 0.5
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 47
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
33	7 Centric
14	3 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

U1344A – 30X – A11
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Diatom-bearing clayey silt
Major Lithology Minor Lithology



Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	A	30	X	4	60	60

SM

Sediment/Rock Name	Diatom-rich clayey silt

Observer	MSC

S

Percent Texture		
Sand	Silt	Clay
3	57	40

Comments:

Percent	Component
78	**SILICICLASTIC GRAINS/MINERAL**
	Framework minerals
20	Quartz
21	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
20	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
5	Pyrite
	Magnetite
1	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

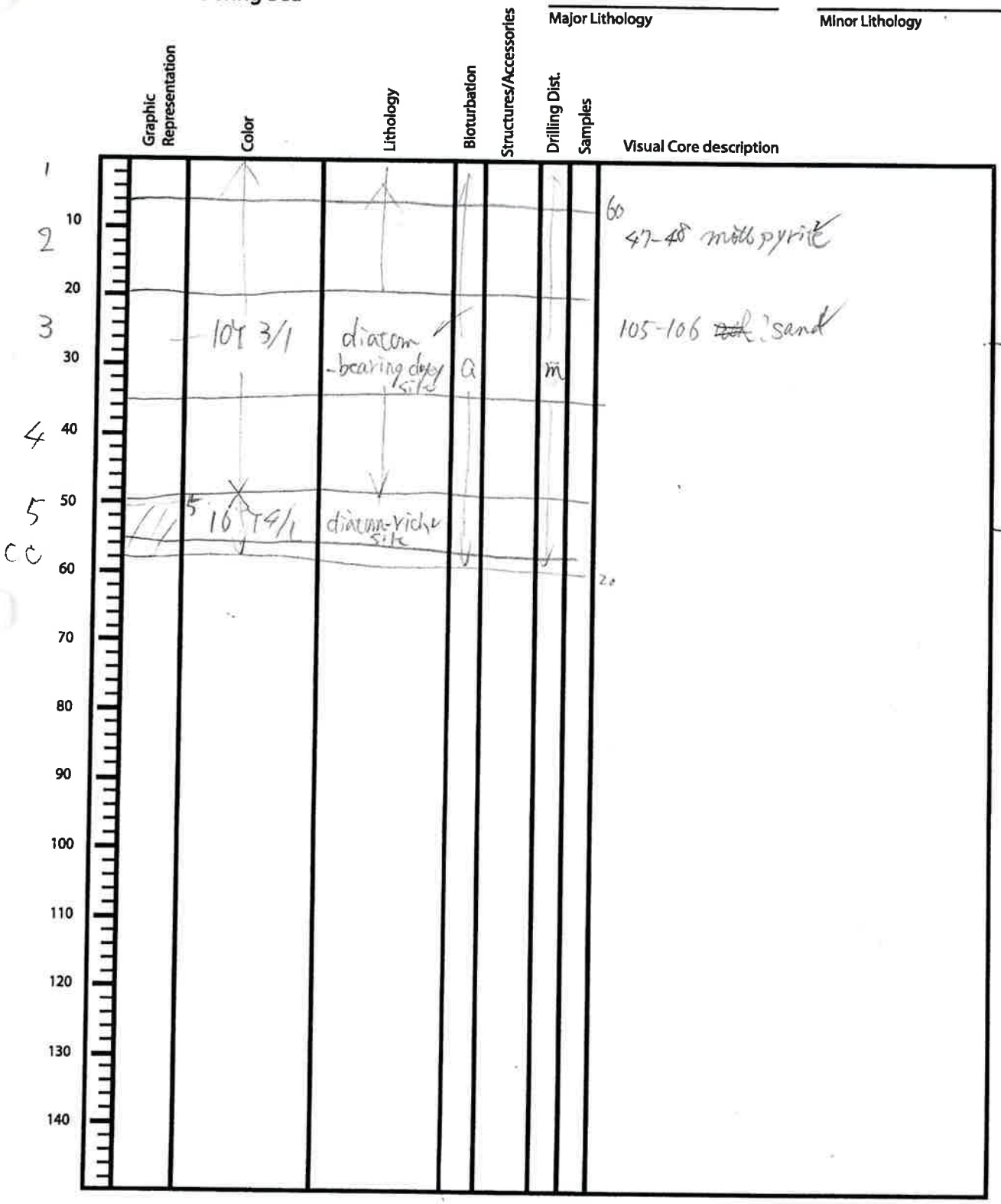
Percent	Component
22	**BIOGENIC GRAINS**
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
22	Diatoms
15	Centric
7	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge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

1344 A 3X
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	A	31	X	3A	106	

SM

Sediment/Rock Name	Sand

Observer	Beth

Percent Texture		
Sand	Silt	Clay

Comments: Sand layer

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
30 %	Quartz
10 %	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
40 %	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
10 %	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
7	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
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

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	A	31	X	5A	32 cm	

SM

Sediment/Rock Name	Diatom-rich silt	Observer	BCH

Percent Texture		
Sand	Silt	Clay
5	80	15

Comments:

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

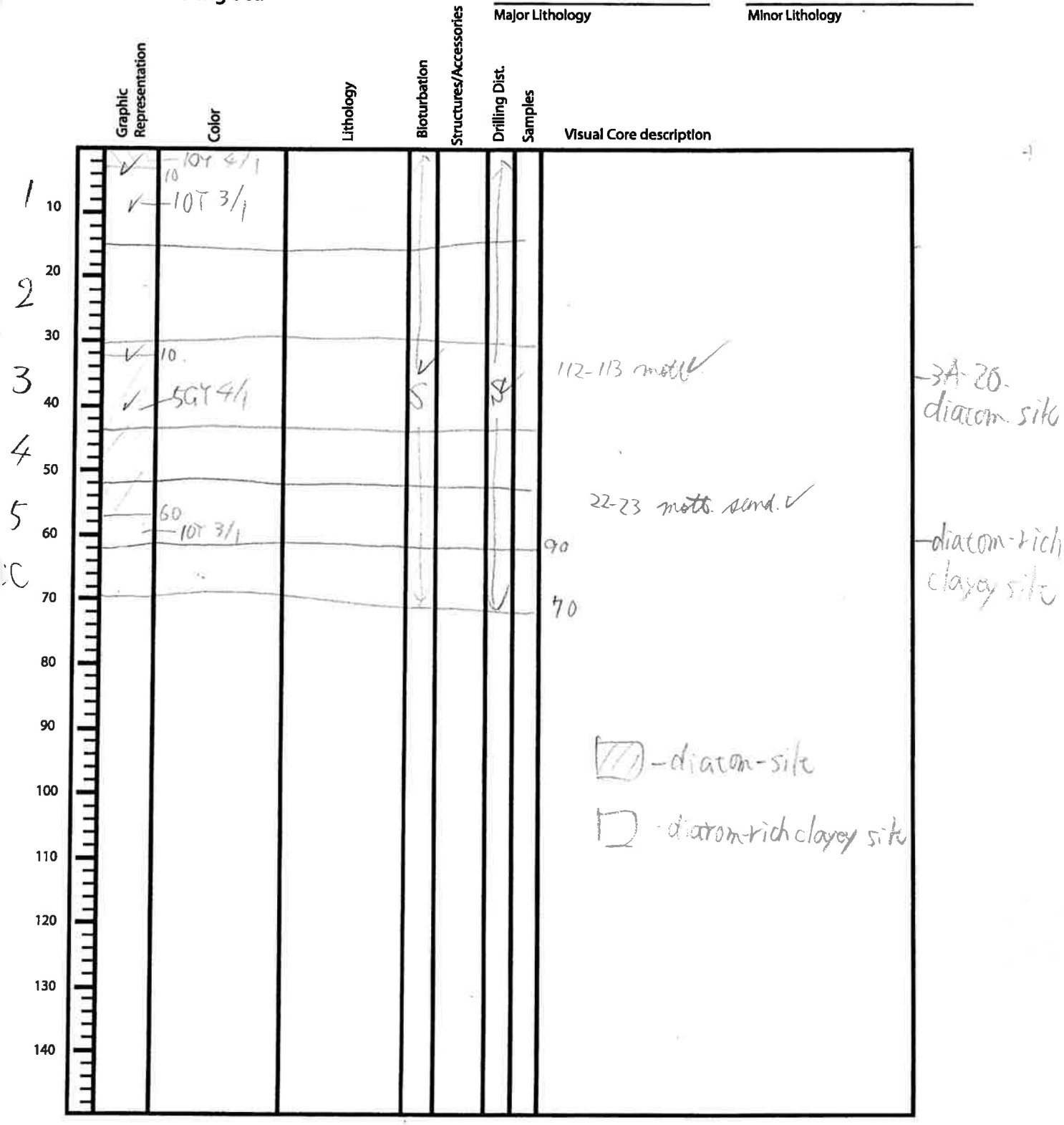
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
25	Centric
10	Pennate
10	*Chaetoceros* Resting Spores
	Silicoflagellates
	Sponge spicules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

1344 A 32X
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	A	32	X	3	20	

SM

Sediment/Rock Name	diatom silt

Observer	Okira

Percent Texture		
Sand	Silt	Clay
5	80	15

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
29	Quartz 10
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments 2
	Accessory/trace minerals
2	Micas 1
	Biotite
	Muscovite
7	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals 1
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
12	Pyrite 5
	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
48	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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	A	32	X	5A	30	

SM

Sediment/Rock Name	diatom ~~bearing~~ rich clayey silt	Observer	Akira

Percent Texture		
Sand	Silt	Clay
0	60	40

Comments:

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

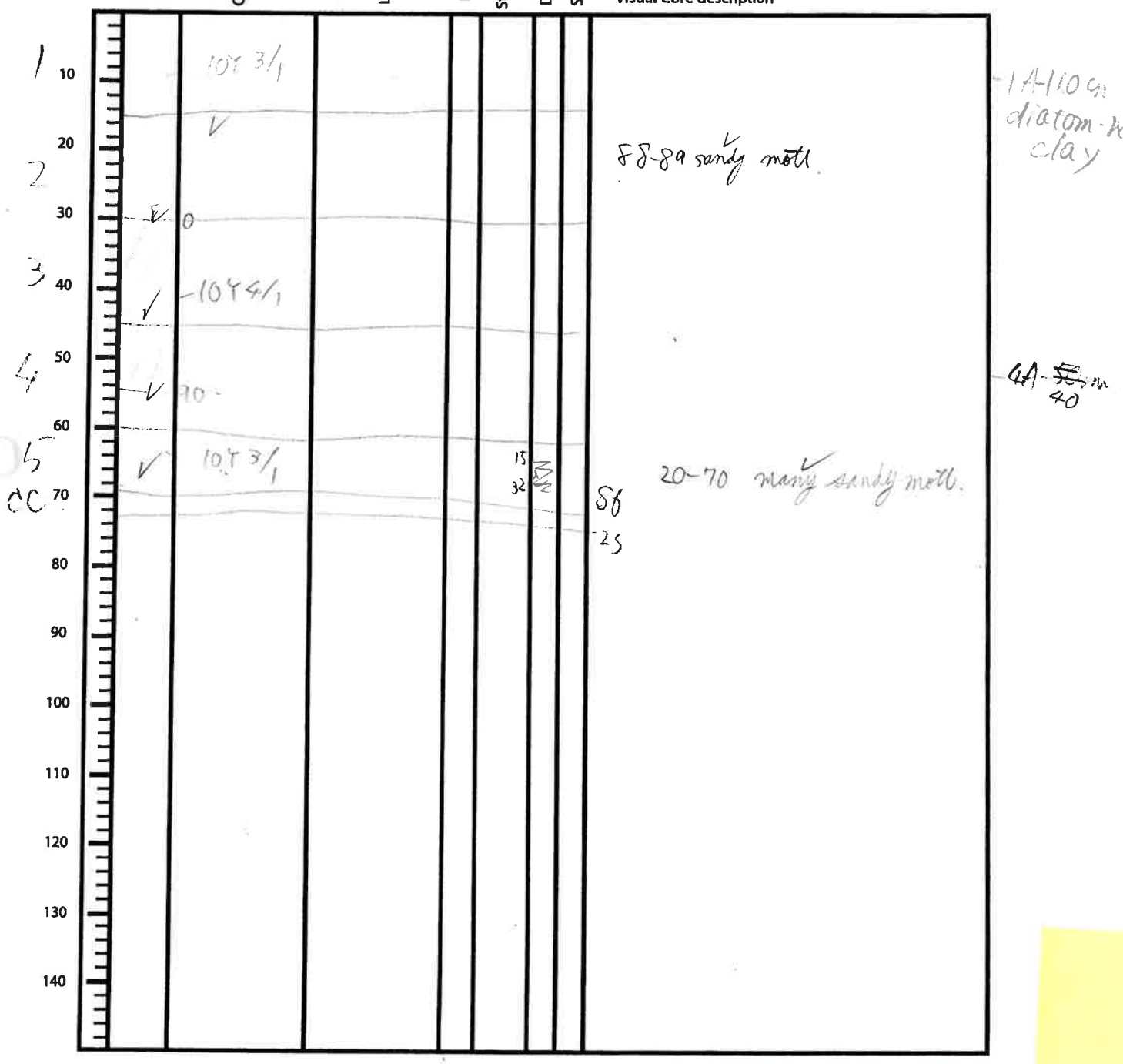
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
35	Diatoms ~~20~~ 15
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 A 33X

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	Interval (cm) Bottom
	1344	A	33	X	1	110 cm	

SM

Sediment/Rock Name	DIATOM-RICH CLAY

Observer	IWA

Percent Texture		
Sand	Silt	Clay
10	25	65

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
10	Framework minerals
23 (7 10)	3 Quartz
16 30	7 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
47	20 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	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
23%	10 Diatoms
16	7 Centric
7	3 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

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
	1344	A	33	H	4	40 cm	

SM

Sediment/Rock Name	DIATOM-RICH CLAY

Observer	CLM

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
7%	Quartz
3%	Feldspar
(3%)	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3%	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
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
3%	Calcite
	Dolomite
10%	ACICULAR CARBONATE
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
15%	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

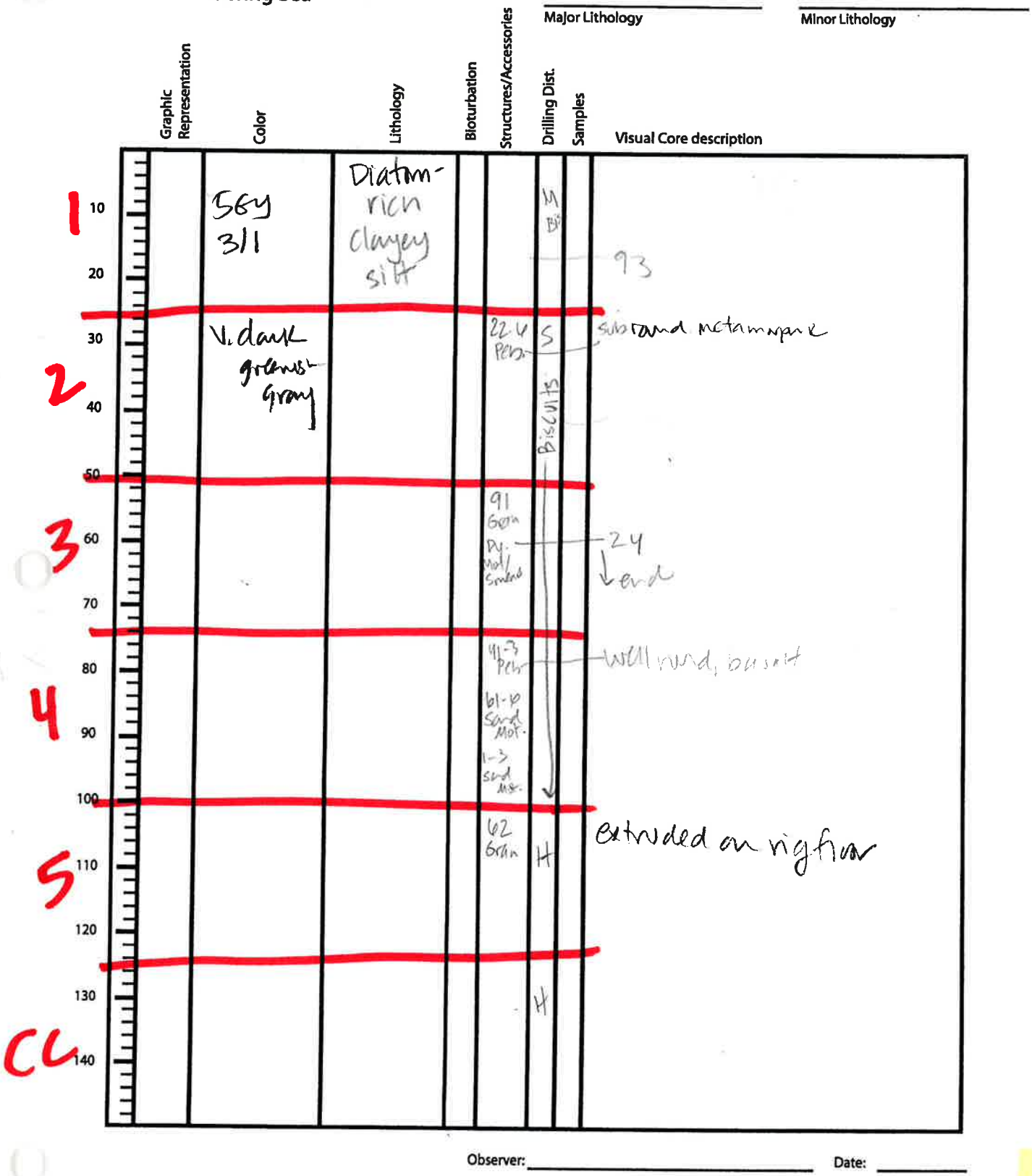
1344 A 34X ALL

Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	A	34	X	2A	80cm	

SM

Sediment/Rock Name	Diatom-rich clayey silt

Observer	Beth

B - 25
S - 65
V - 10

Comments:

Percent Texture		
Sand	Silt	Clay

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

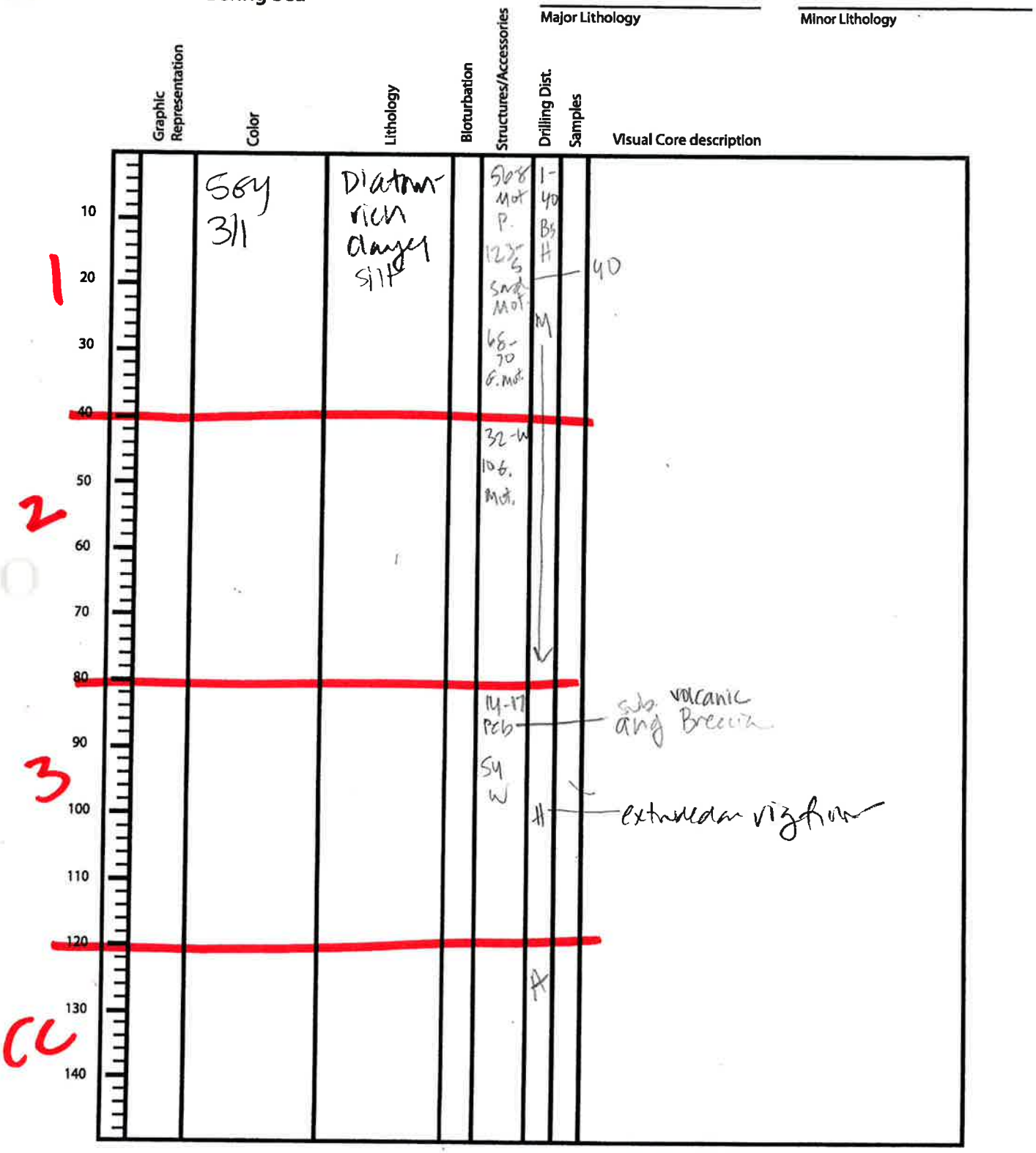
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
15	Centric
5	Pennate
5	*Chaetoceros* Resting Spores
	Silicoflagellates
	Sponge spicules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

U1344 A 35X ALL

Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

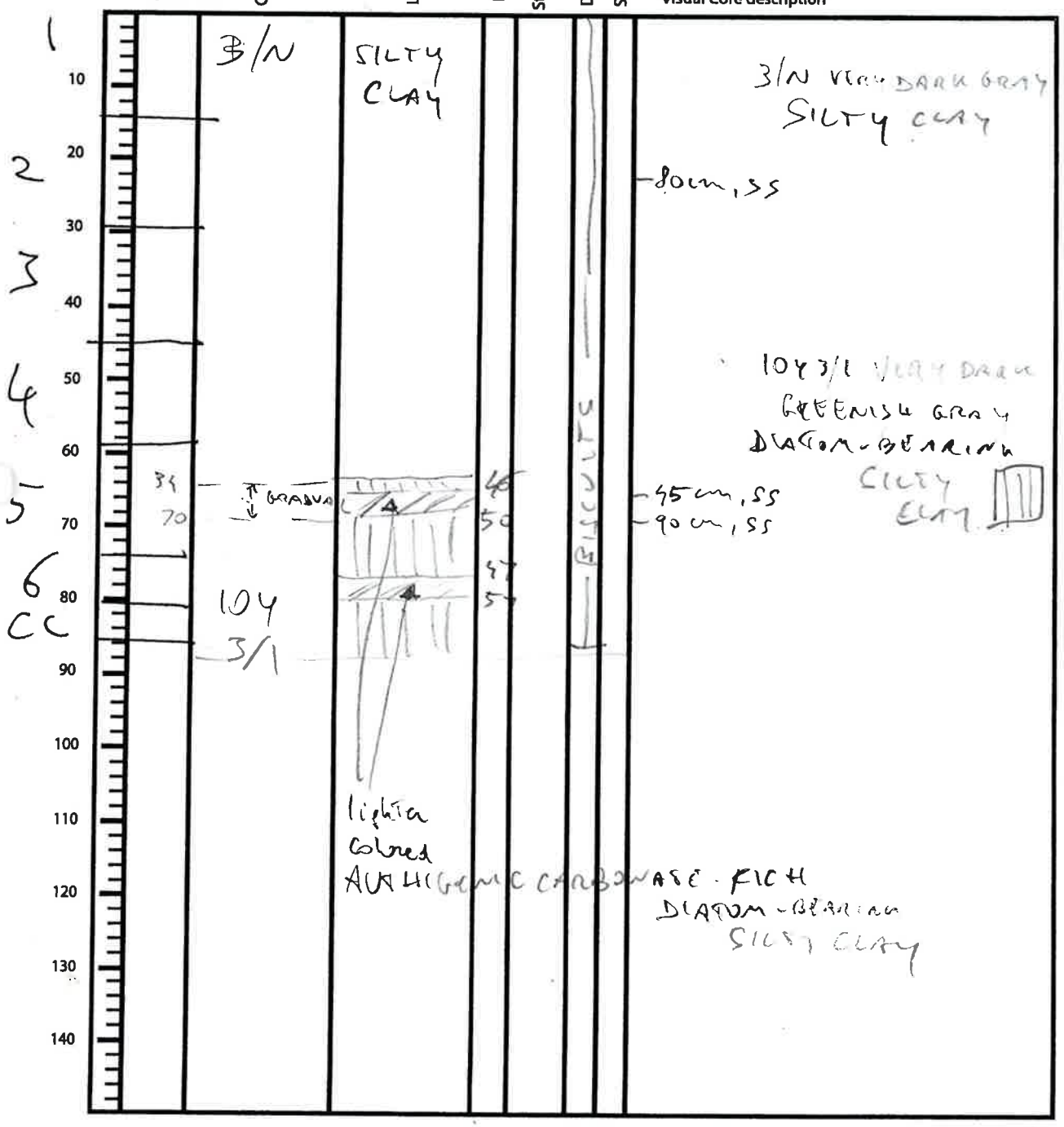


Observer: _____ Date: _____

1344 A 36X ALL
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	A	36	X	2	80	

SM

Sediment/Rock Name	diatom-bearing silty clay

Observer	akira

Percent Texture		
Sand	Silt	Clay
14	43	43
5	15	15

Comments:

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
11	Diatoms 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

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	36	H	3A	90	

SM

Sediment/Rock Name	diatom-rich silty clay

Observer	Akira

Percent Texture		
Sand	Silt	Clay
5	30	65

Comments:

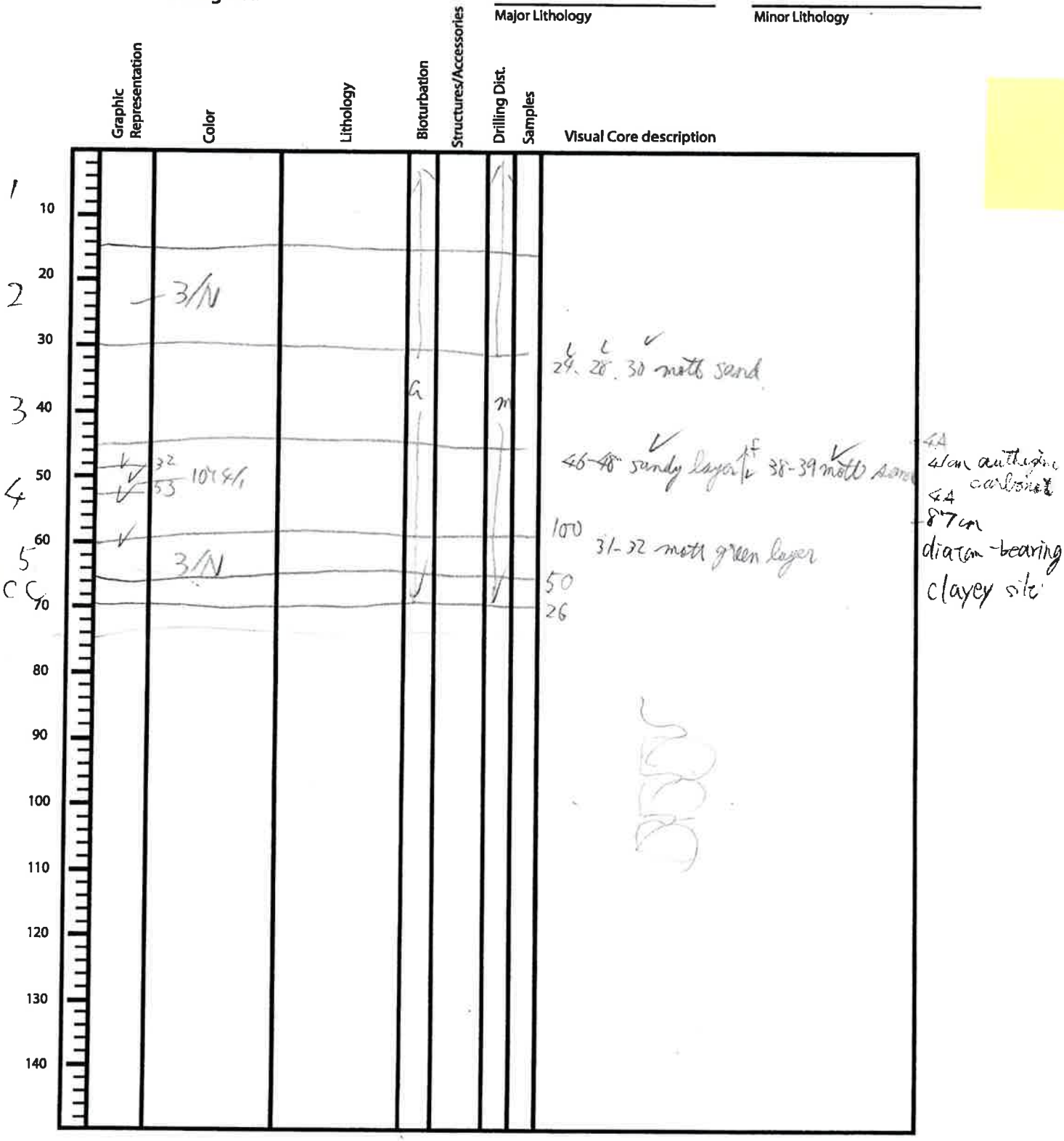
Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
17	Quartz 5
7	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
33	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic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

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
33	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

~~1354~~ A 37
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
	1344	A	37	X	4	87cm	

SM

Sediment/Rock Name	DIATOM-BEARING CLAY SILT	Observer	[illegible]

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
46	Framework minerals
25%	6 Quartz
17%	4 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
47	1 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
42%	10 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

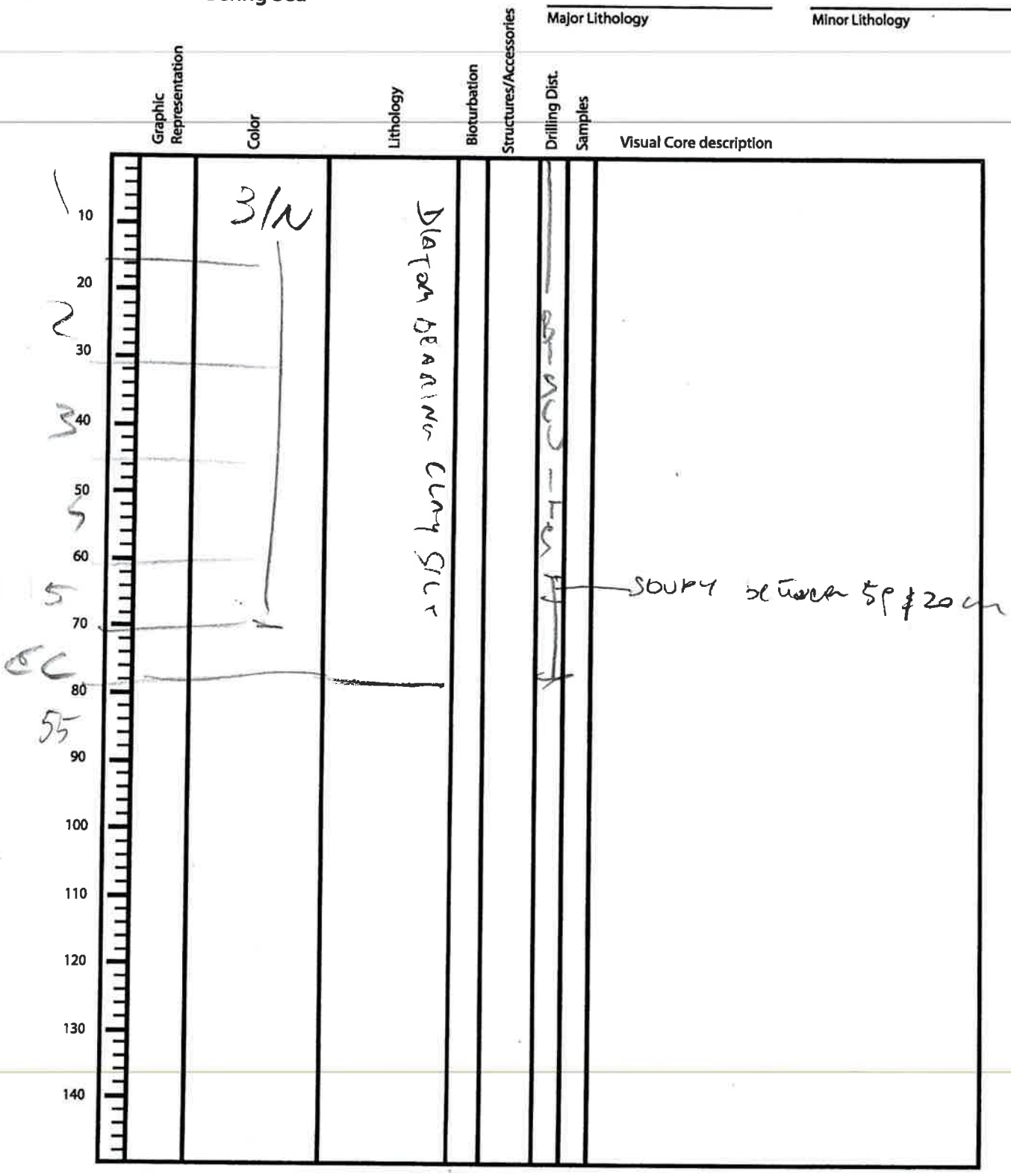
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
12%	3 Diatoms
R	2 Centric
4	1 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

3gA A1C

Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology | Minor Lithology



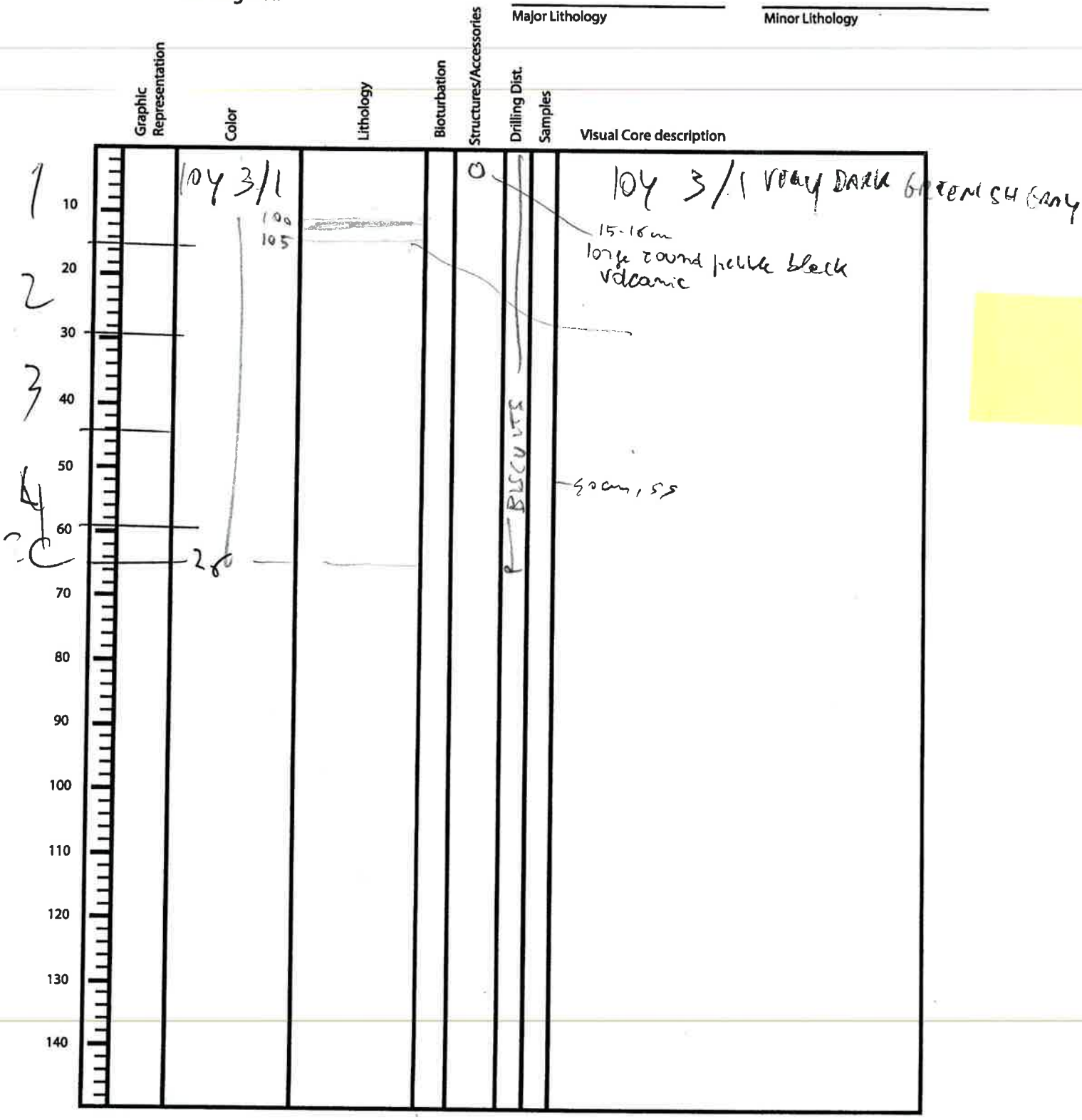
Observer: _____ Date: _____

1344 A 3PX ALL
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	A	39	X	4A	40cm	

SM

Sediment/Rock Name	Diatom-rich silty clay

Observer	Beth

Percent Texture		
Sand	Silt	Clay
10	25	65

Comments:

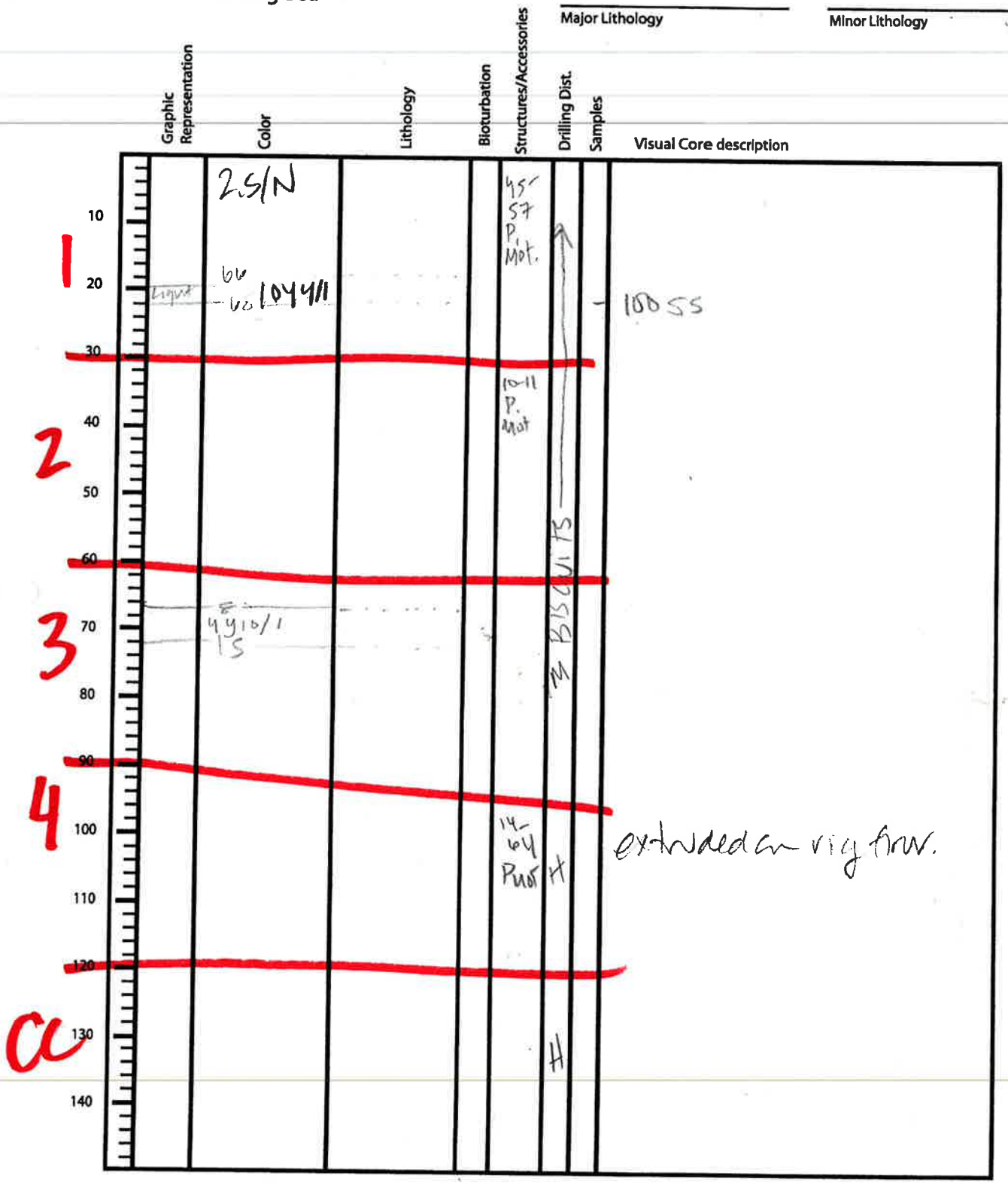
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
21	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
14	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
11	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
6	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
3	Zeolite
	Opaque minerals
14	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
7	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
14	Centric
7	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
1	Sponge spicules Calcareous
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

U1344 A 40X ALL
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1364	A	40	X	1	100	

SM

Sediment/Rock Name	diatom-bearing clayey silt	Observer	Alexia

Percent Texture		
Sand	Silt	Clay
3	40	57

Comments:

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
10	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	U1344	A	40	X	3A	12	

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

aragonitized

Comments:

Percent Texture		
Sand	Silt	Clay
9	30	61
3	10	20

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
3	Quartz 1
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
9	Rock fragments 3
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
9	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite 0.5
	Magnetite
	Fe-oxide
62	Carbonates 20
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

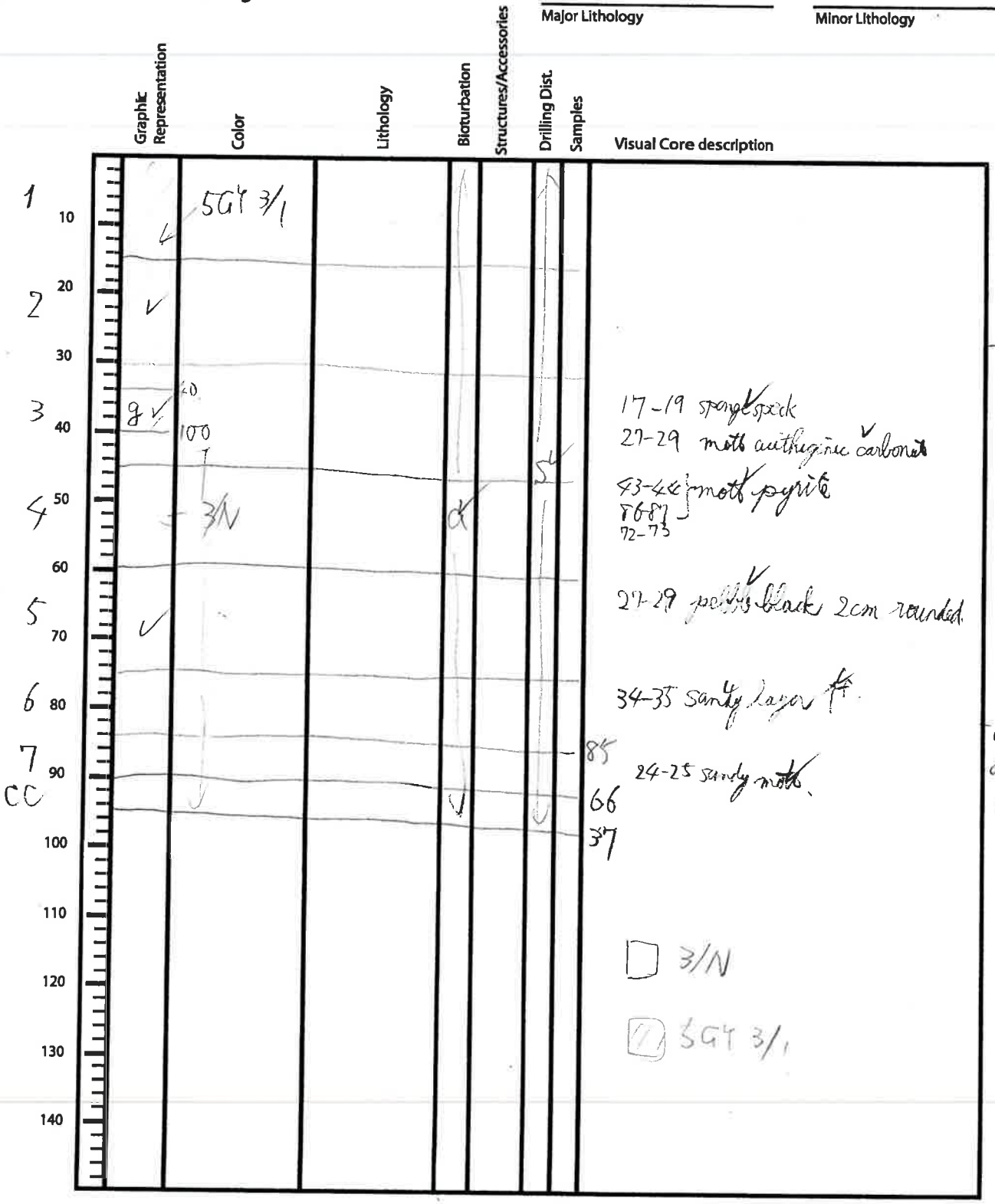
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
15	Diatoms 5
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

1344 A 41
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



2A-100 diatom-rich clayey silt

6A-70 diatom-bearing clayey silt

Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	A	41	X	2A	100cm	

SM

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
30 %	Quartz
10 %	Feldspar
5	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10 %	Rock fragments
	Accessory/trace minerals
2 %	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
3 %	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
7 %	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
8 %	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
2	Radiolarians
	Spumellaria
	Nassellaria
4	Diatoms
13	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1314	A	41	H	6	A 70cm	

SM

Sediment/Rock Name	Diatom-bearing clayey silt

Observer	Beth

Percent Texture		
Sand	Silt	Clay
10	65	25

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
15	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
15	Rock fragments
	Accessory/trace minerals
5	Micas
	Biotite
	Muscovite
20	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
3	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
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

1344 A 42X

Site	Hole	Core	Section	Top Depth
1344	A	42X		

Expedition 323
Bering Sea

Major Lithology ______ Minor Lithology ______

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
1 (10)	10Y 3/1						
2 (20)							
3 (40)				91 / 96			31 mott ash; 138 mott sponge and sand
4 (50)							
5 (70)							
6 (80)						100	
7 (90)						70	
CC (100)						20	

3A-130 cm diatom-rich clayey silt

Observer: ______ Date: ______

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	A	42	X	3A	130cm	

SM ✓

Sediment/Rock Name	Diatom-rich clayey silt

Observer	Beth

Percent Texture		
Sand	Silt	Clay
10	50	40

Comments:

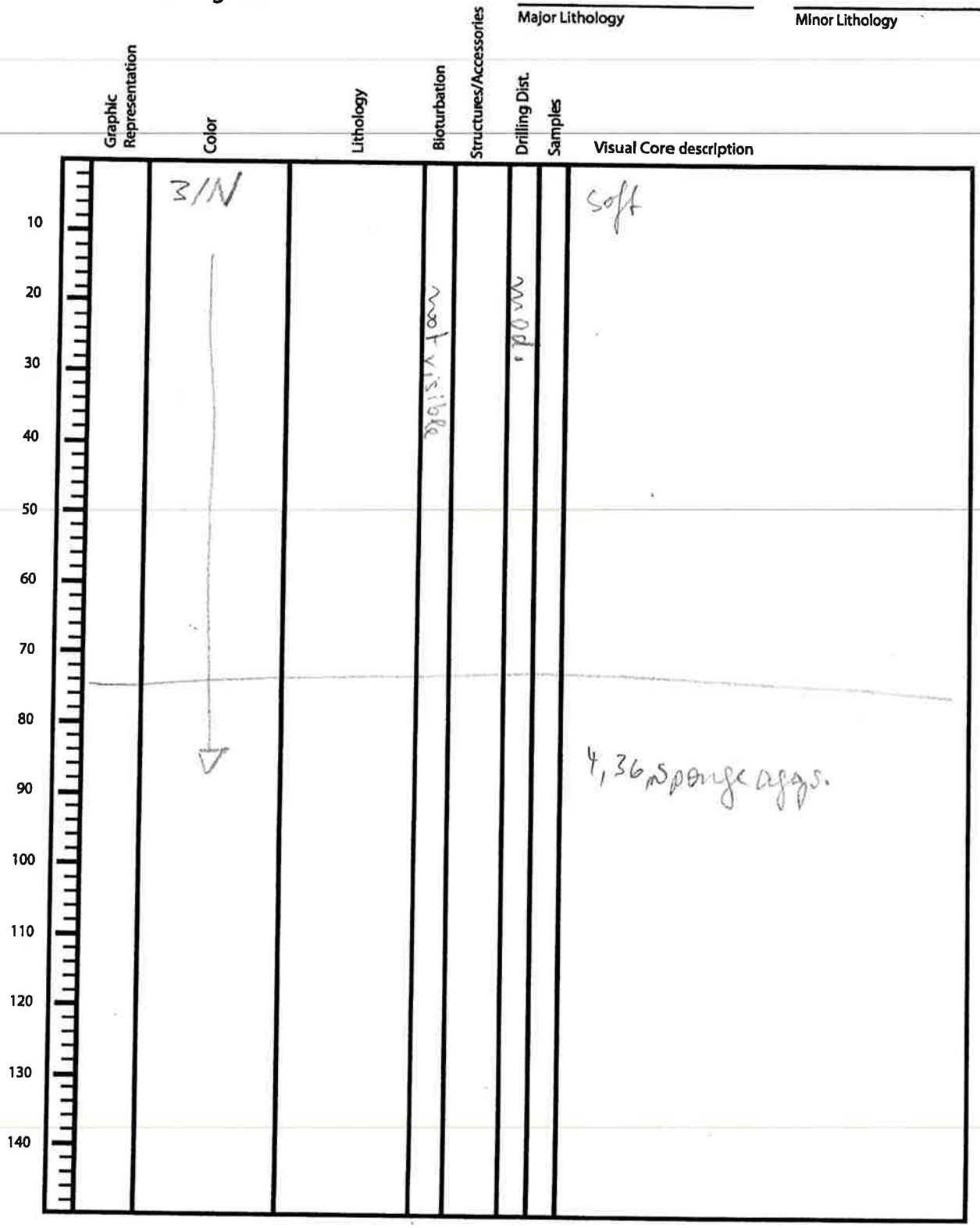
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
20	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
13	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
10	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
10	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
7	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
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 Site | A Hole | 43X Core | 1H2 Section | ____ Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



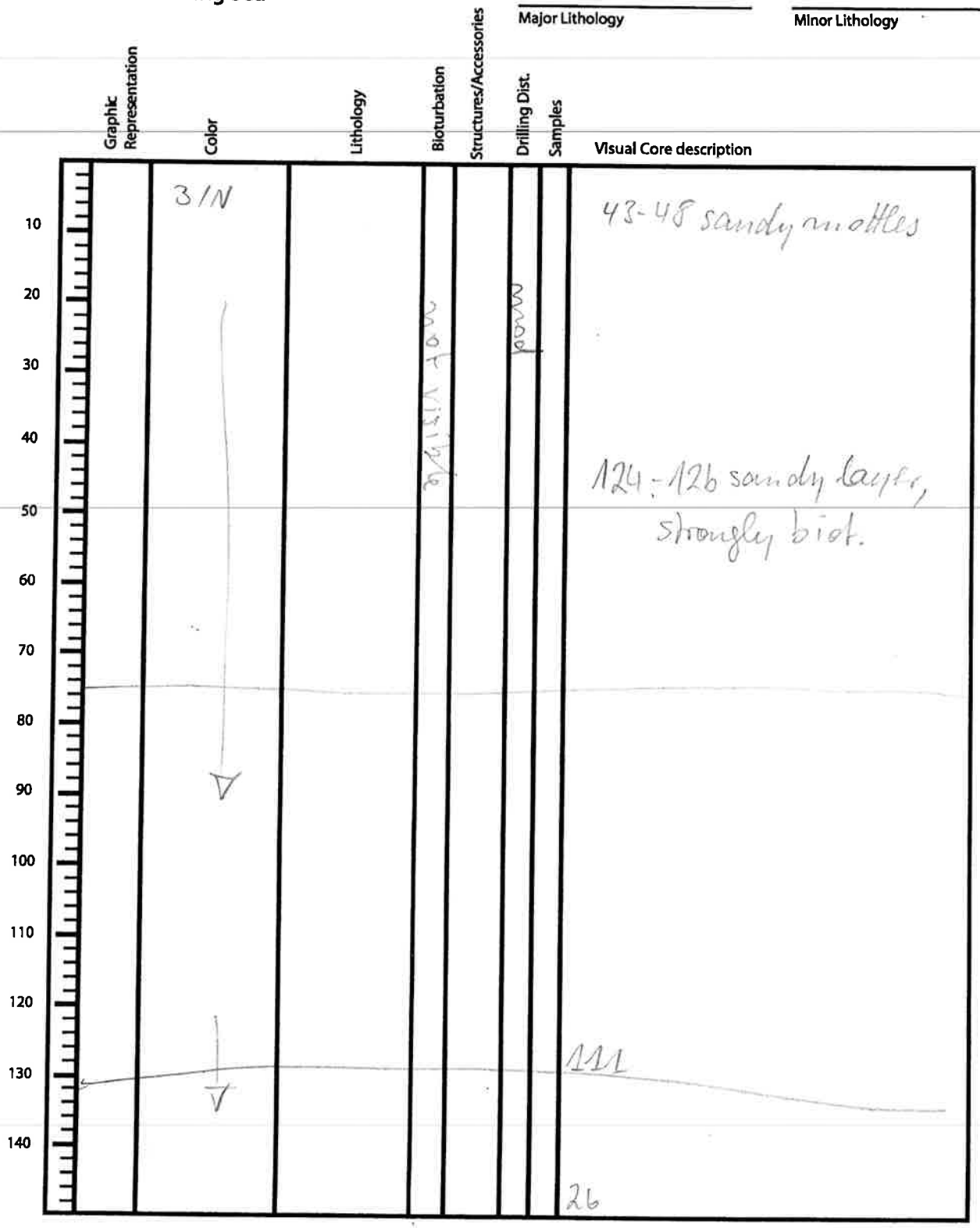
Observer: ____ Date: ____

1344 A 43X 3+4+cc
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	Interval (cm) Bottom
323	1344	A	43 X		4	95	

SM ✓

Sediment/Rock Name	Auth. Carb. rich Diatom rich Silty Clay	Observer	

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
31 Y	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
15 ?	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
8 TR	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
56	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
21 5 Y	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	43X	'	1	120	

SM ✓

Sediment/Rock Name	Diatom bearing silt

Observer	

Percent Texture		
Sand	Silt	Clay
10	80	10

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
83	Quartz 20
4	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
4	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
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

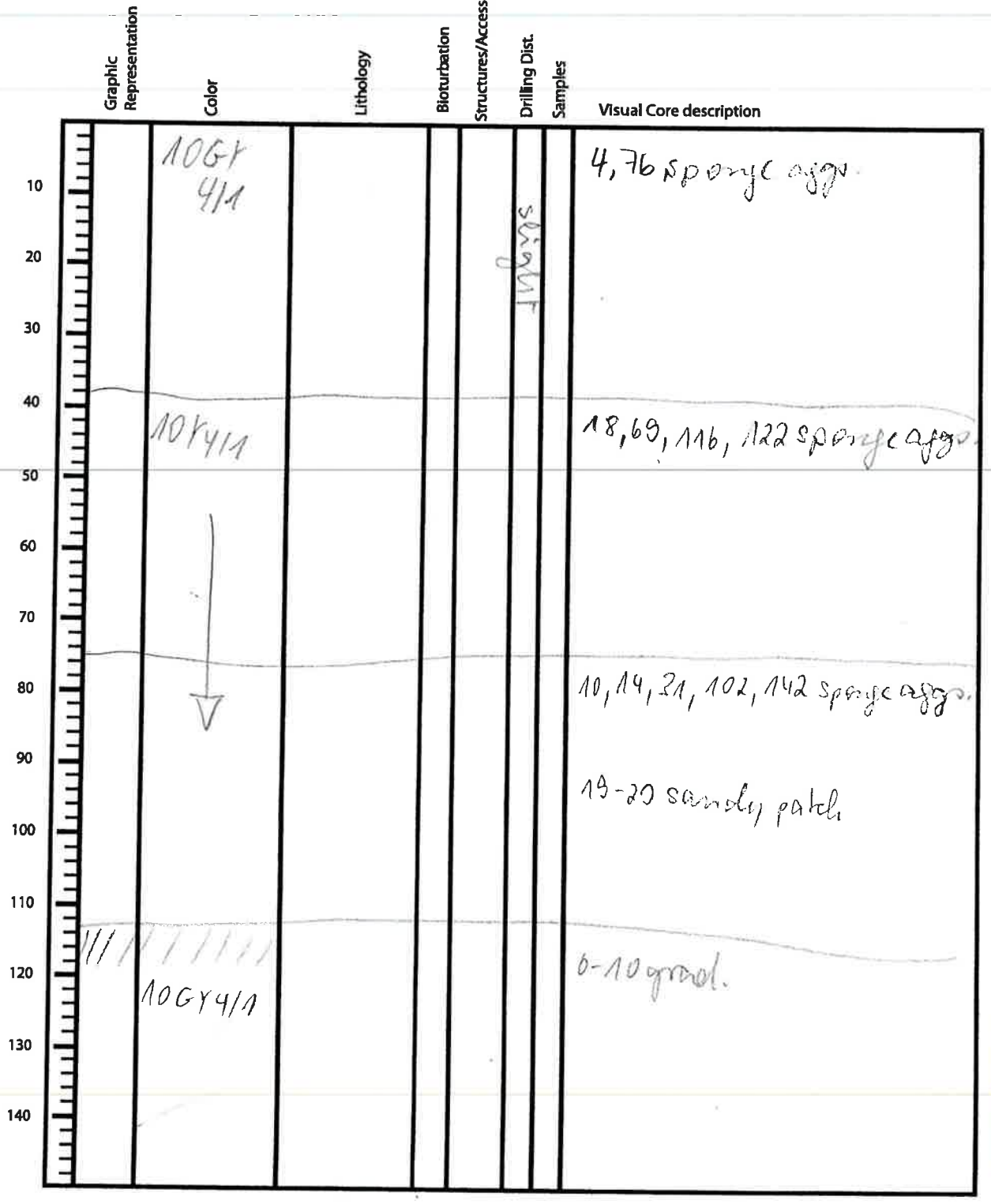
1344 | A | 44X | 1+2+3+4

Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



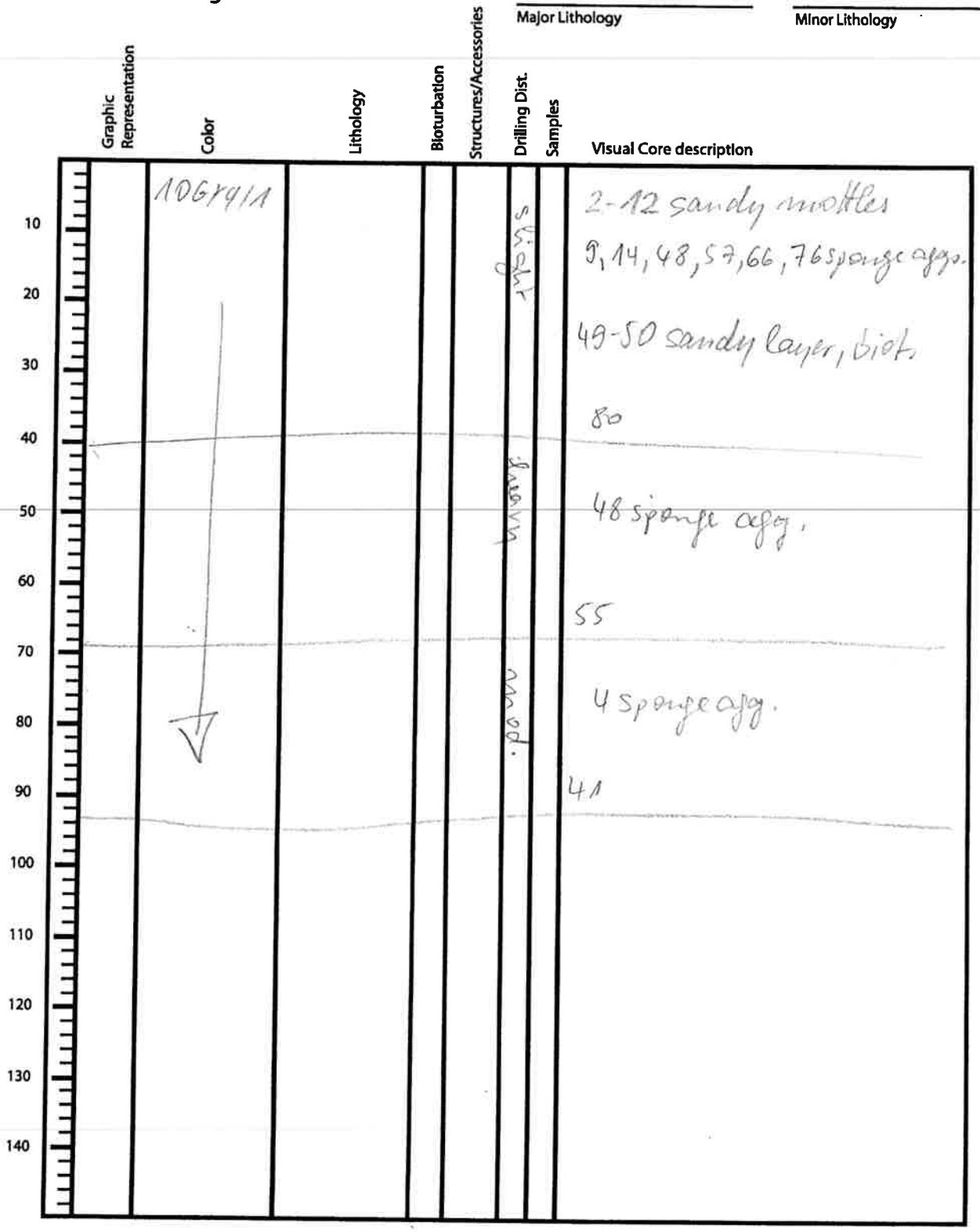
Observer: _____ Date: _____

1344 A 44X 5+6+CC
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	1344		44X		3	60	

SM ✓

Sediment/Rock Name	Diatom-rich silt (clayey)	Observer	

Percent Texture		
Sand	Silt	Clay
5	60	35

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 66
	Framework minerals
15	Quartz 3
	Feldspar
17	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments 0.15
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
49	Clay Minerals 10
	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 34
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
34	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1364	A	44X		5	35	

SM ✓

Sediment/Rock Name	Diatom-rich silt	Observer	H.A

Percent Texture		
Sand	Silt	Clay
10	80	10

Comments:

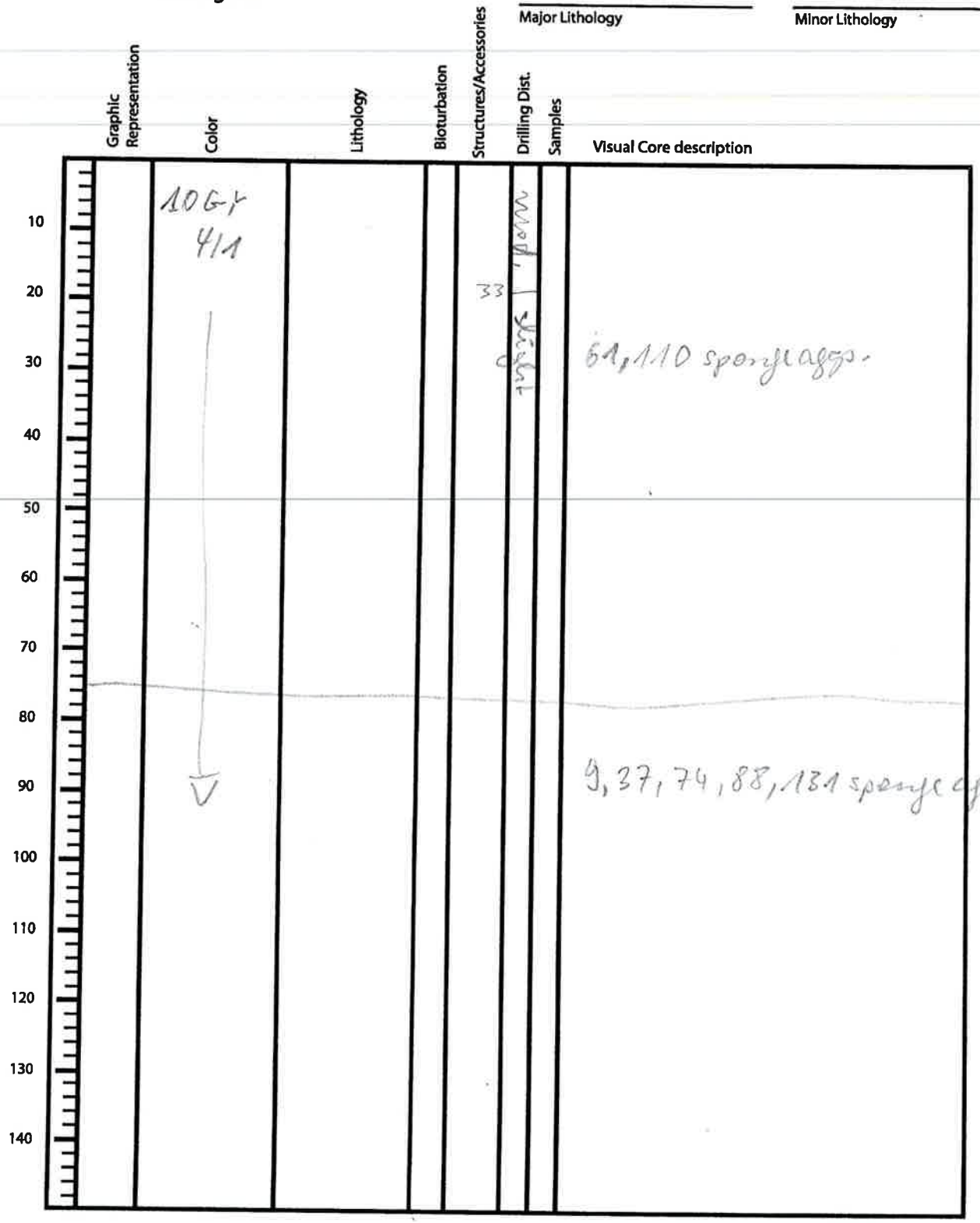
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals 54
20	Quartz 3
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
34 33	Rock fragments 5
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic 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 46
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
5	~~5~~ Diatoms
33	5 Centric
13	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

1344 A 45X 172 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

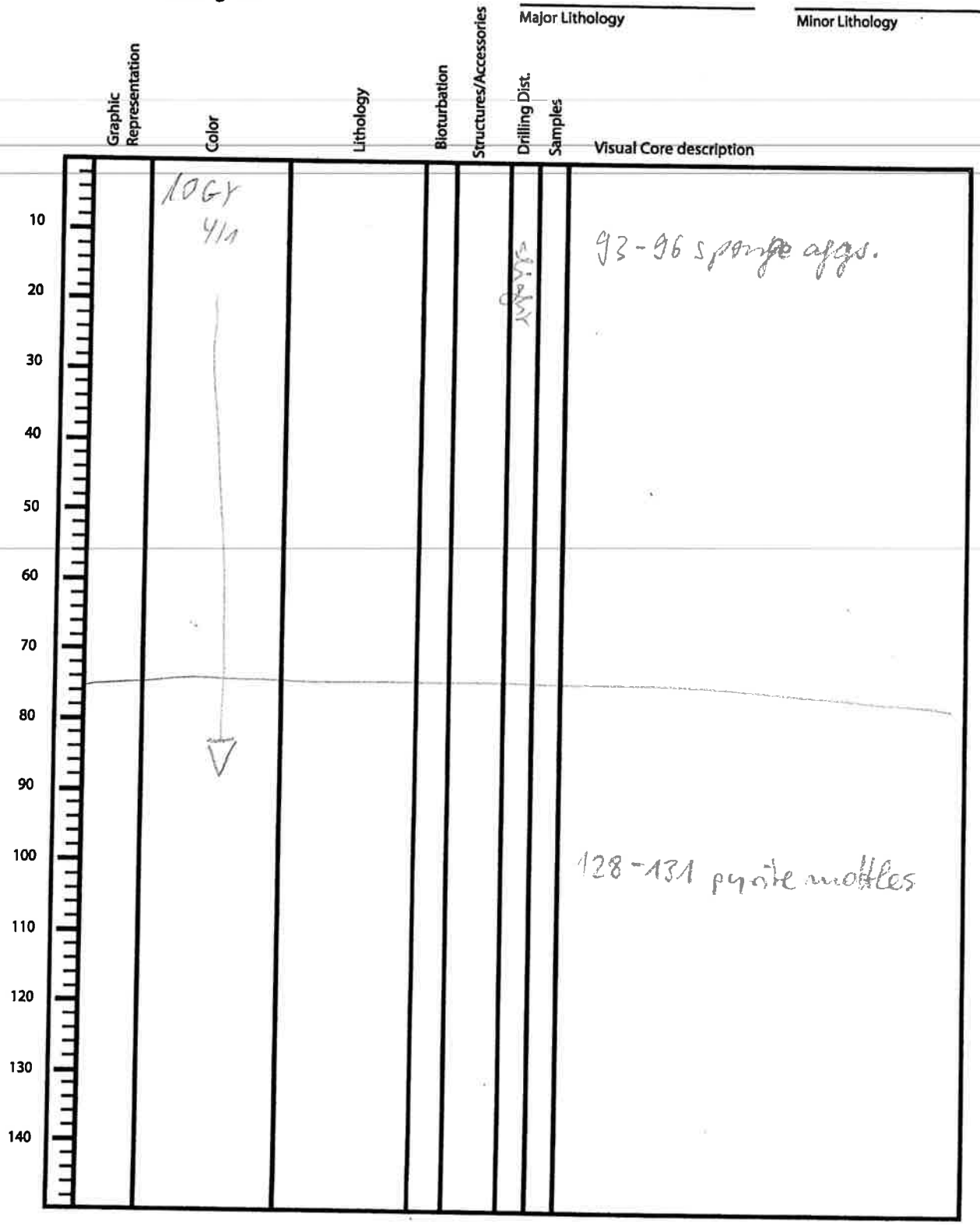


Observer: _____ Date: _____

1344 Site | A Hole | 45X Core | 3+4 Section | Top Depth

Expedition 323
Bering Sea

Major Lithology | Minor Lithology



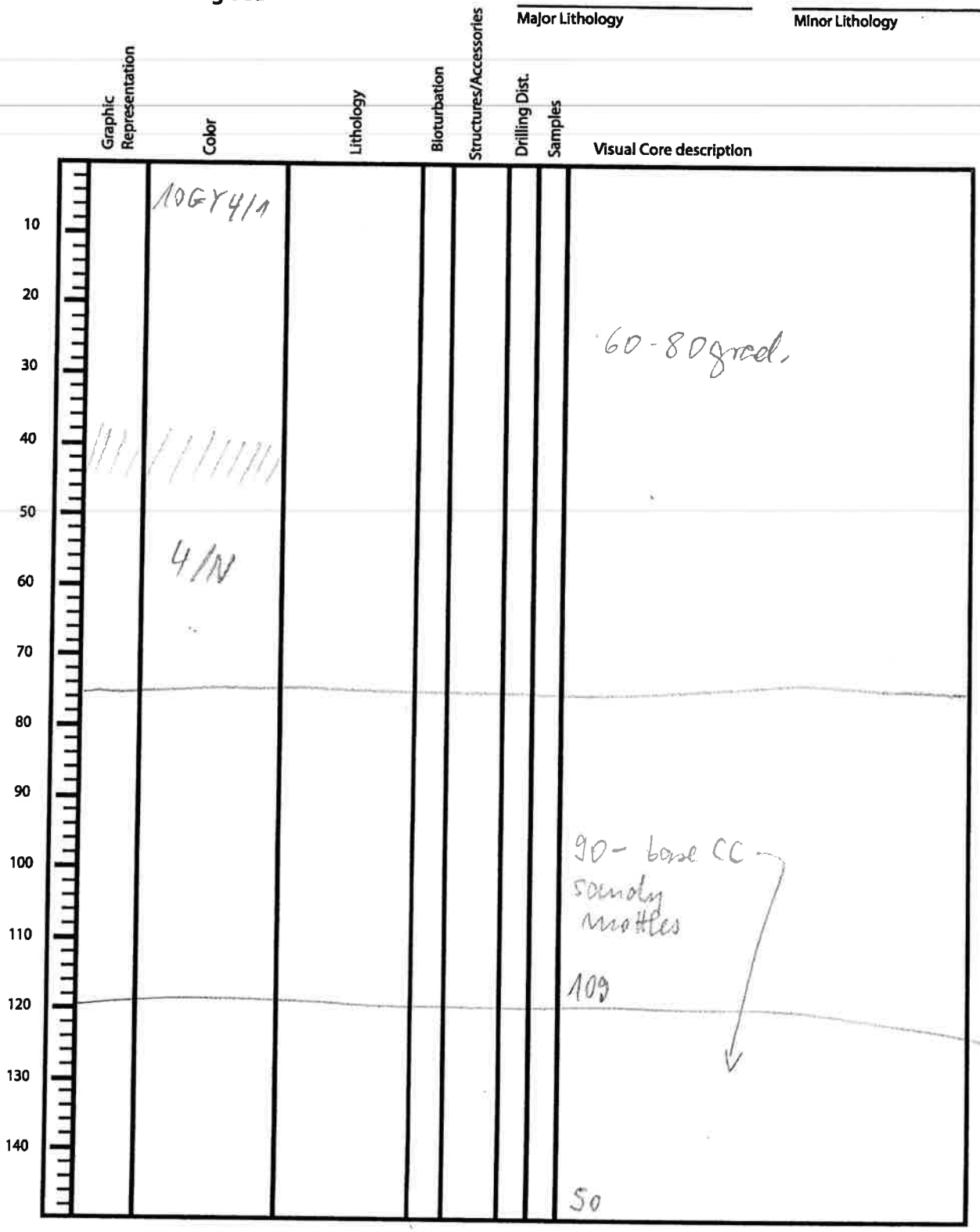
Observer: _____ Date: _____

1344 A 45X 5+6+cc
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	Interval (cm) Bottom
323	1344	A	45	X	5	70	

SM ✓

Sediment/Rock Name	Diatom-rich silty clay.	Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Main lith - more greyish

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
35	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
1	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	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
40	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	A	45	X	2	70	

SM ✓

Sediment/Rock Name	Diatom-rich clayey silt

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Main lith - more greenish

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	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
1	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

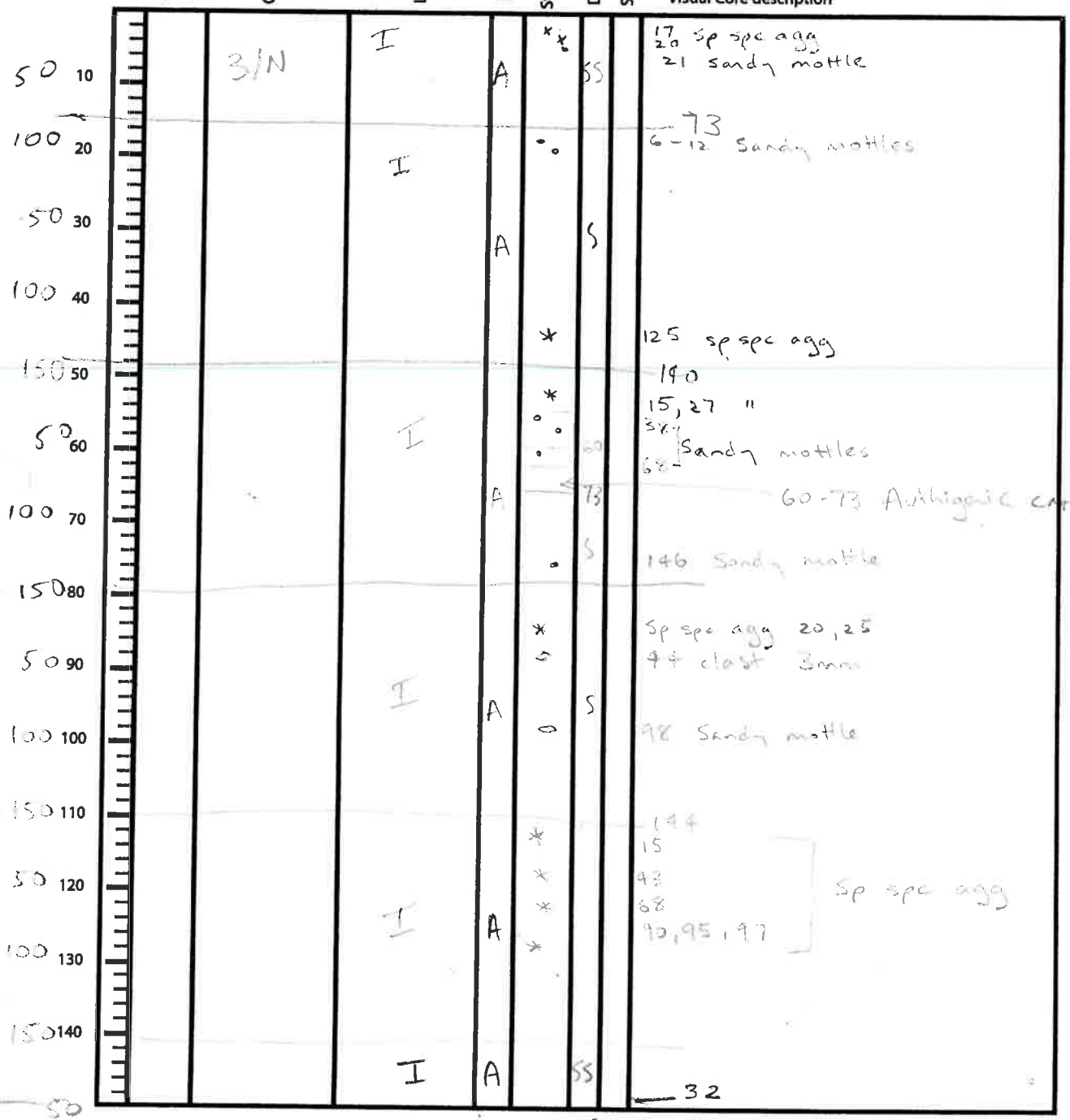
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
40	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
1	Sponge spicules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

1344 A 46X 1-CC
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: SSS Kelsie Date:

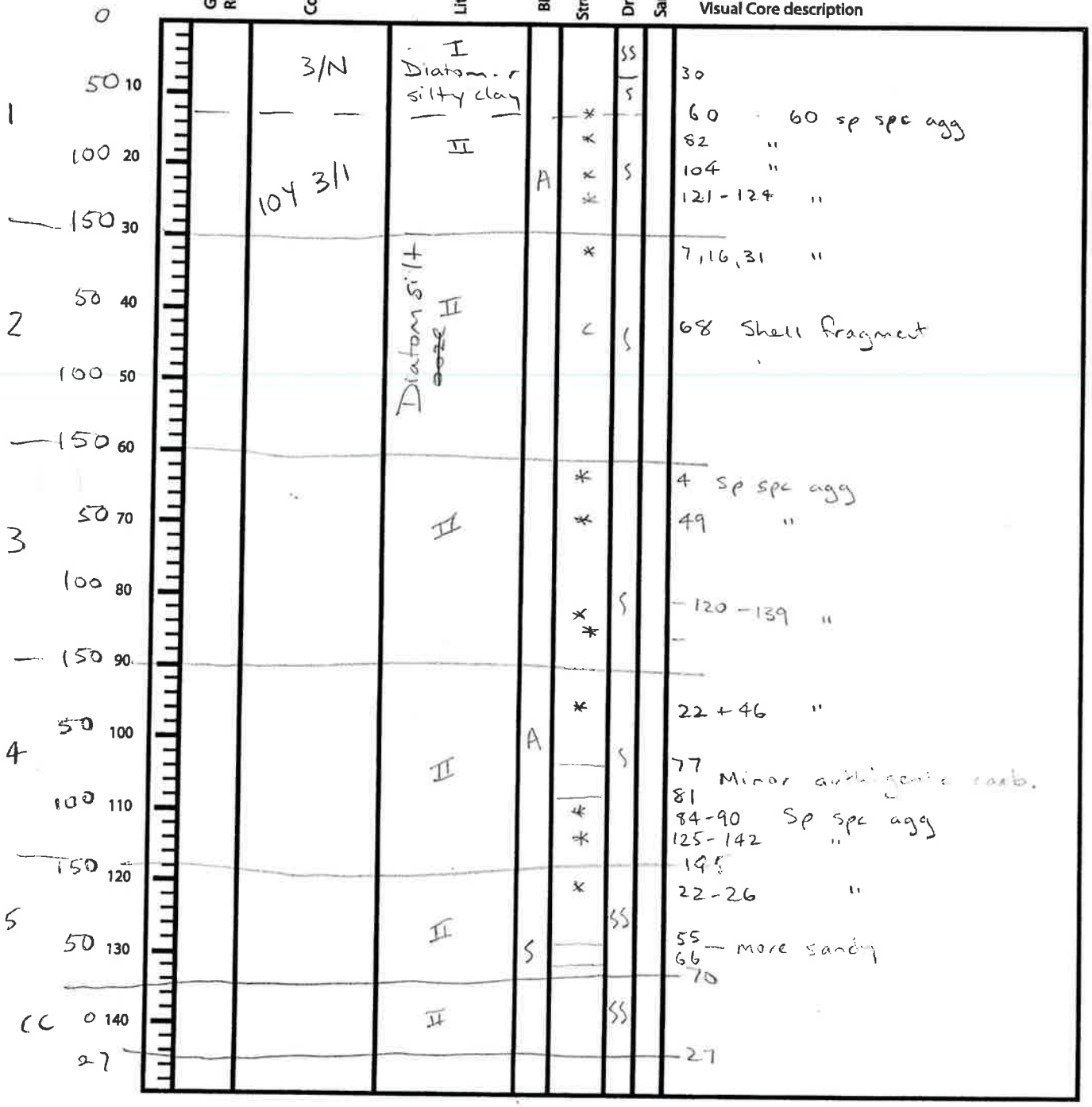
CC 0-60

1344 A 47X 1-CC
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: Kelsie Date:

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	A	47	X	3	56	56

SM ✓

Sediment/Rock Name	Diatom ~~ooze~~ silt	Observer	MSC

Percent Texture		
Sand	Silt	Clay
2	78	20

S

Comments: Main lithology (green)

Percent	Component
50	**SILICICLASTIC GRAINS/MINERAL**
	Framework minerals
15	Quartz
15	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
13	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	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
50	**BIOGENIC GRAINS**
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
24	Centric
24	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
2	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

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	A	47	X	5	59	59

SM ✓

Sediment/Rock Name	Diatom-bearing Sandy Silt

Observer	MSC

Percent Texture		
Sand	Silt	Clay
S 20	70	10

Comments: Main lithology (ash?)

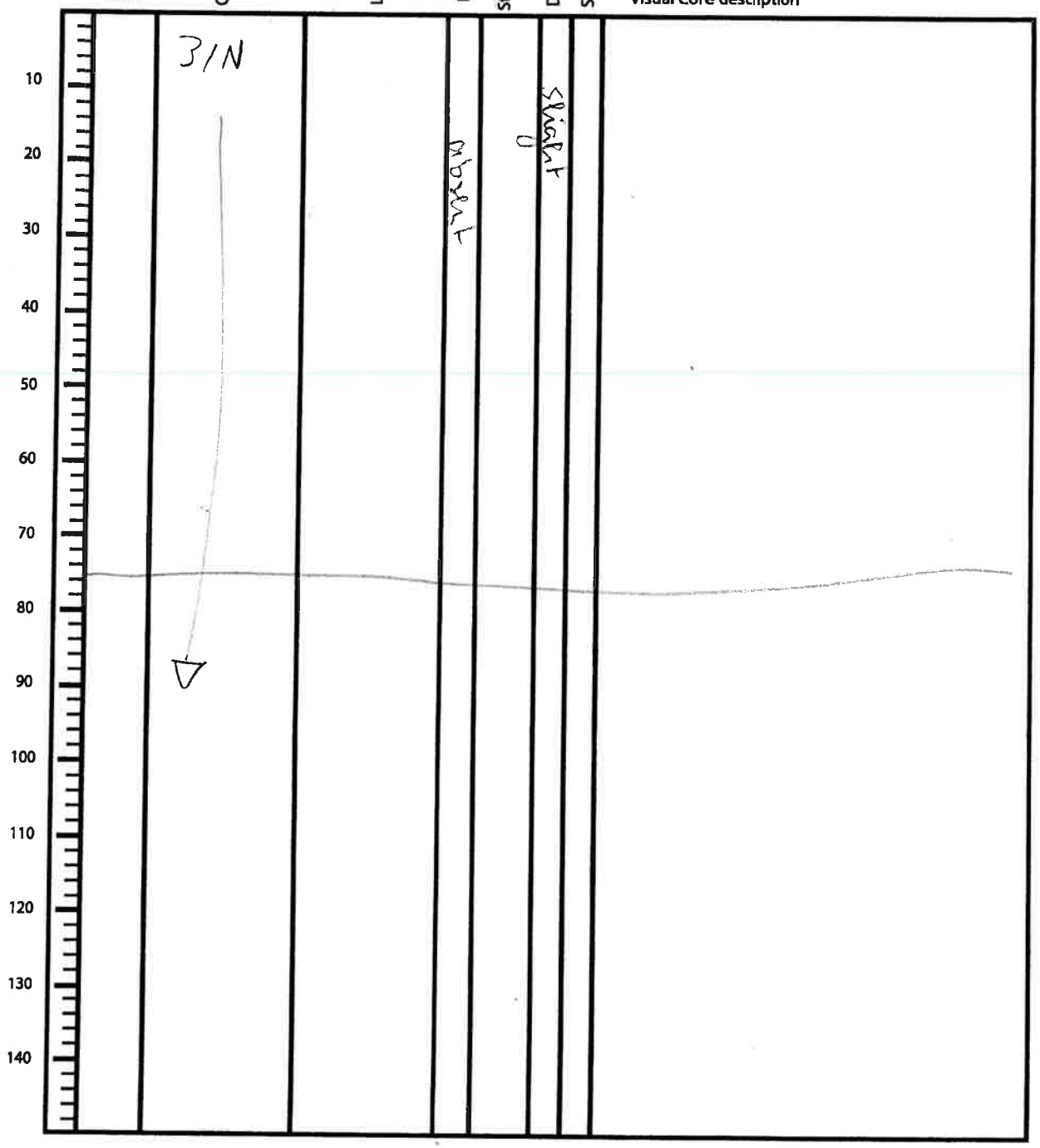
Percent	Component
97	**SILICICLASTIC GRAINS/MINERAL**
	Framework minerals
30	Quartz
32	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
30	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic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

Percent	Component
6	**BIOGENIC GRAINS**
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
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

1344 Site | A Hole | 48X Core | 1+2 Section | ____ Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



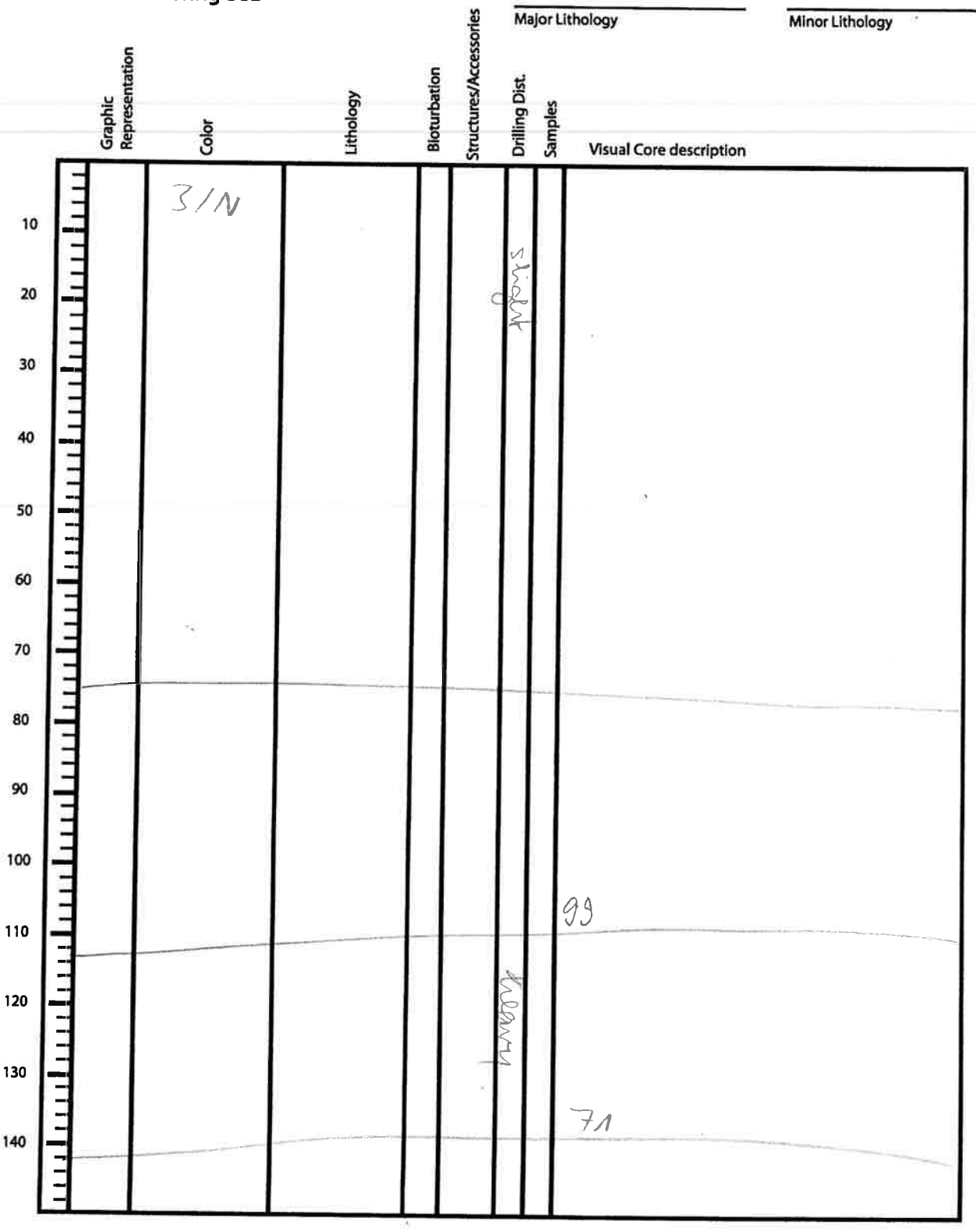
Observer: _____ Date: _____

1344 A 48X 3+4+5
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



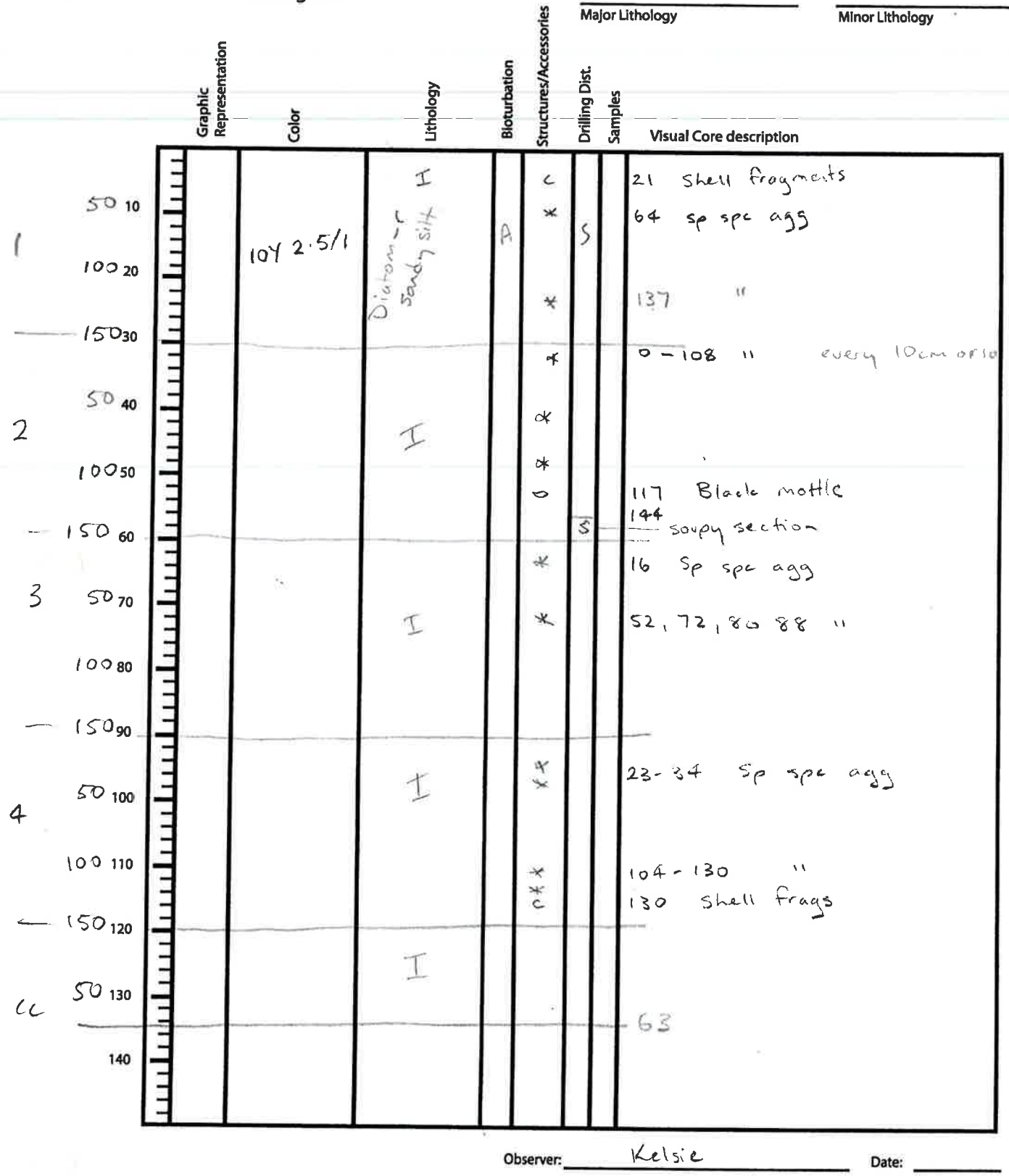
Observer: _____ Date: _____

1344 A 49X 1-CC
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: Kelsie Date:

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1314	A	6H	X	3	50	

54

Sediment/Rock Name	Diatom-rich sandy silt

Observer	HinA

Percent Texture		
Sand	Silt	Clay
40	35	~~20~~ 25

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 56
	Framework minerals
60	Quartz ~~5~~ 15
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4	Rock fragments 1
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
12	Clay Minerals 3
	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

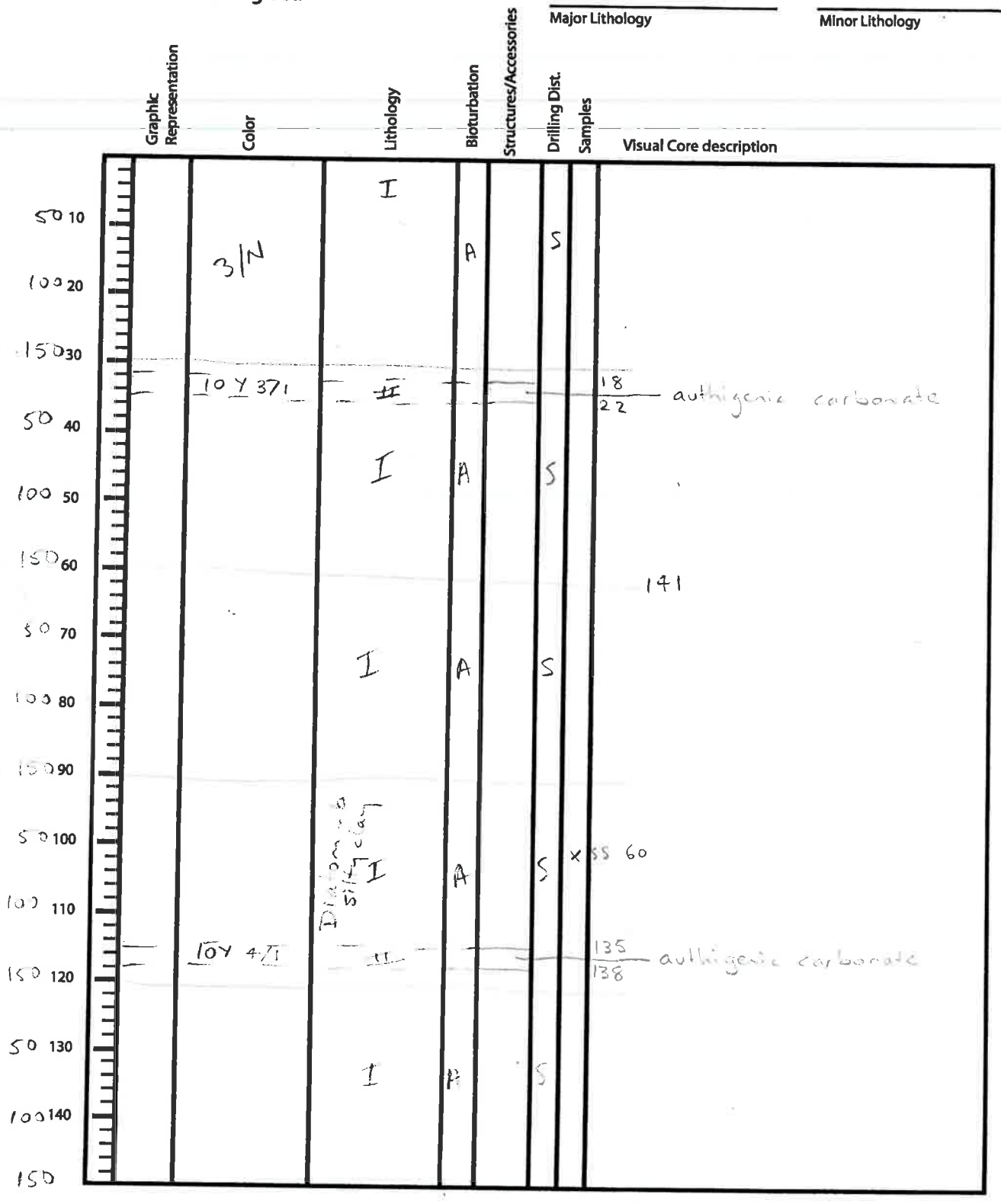
Percent	Component
	BIOGENIC GRAINS 24
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
12	3 Centric
12	3 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

6A-39 SS

1344 A 50X 1-5 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

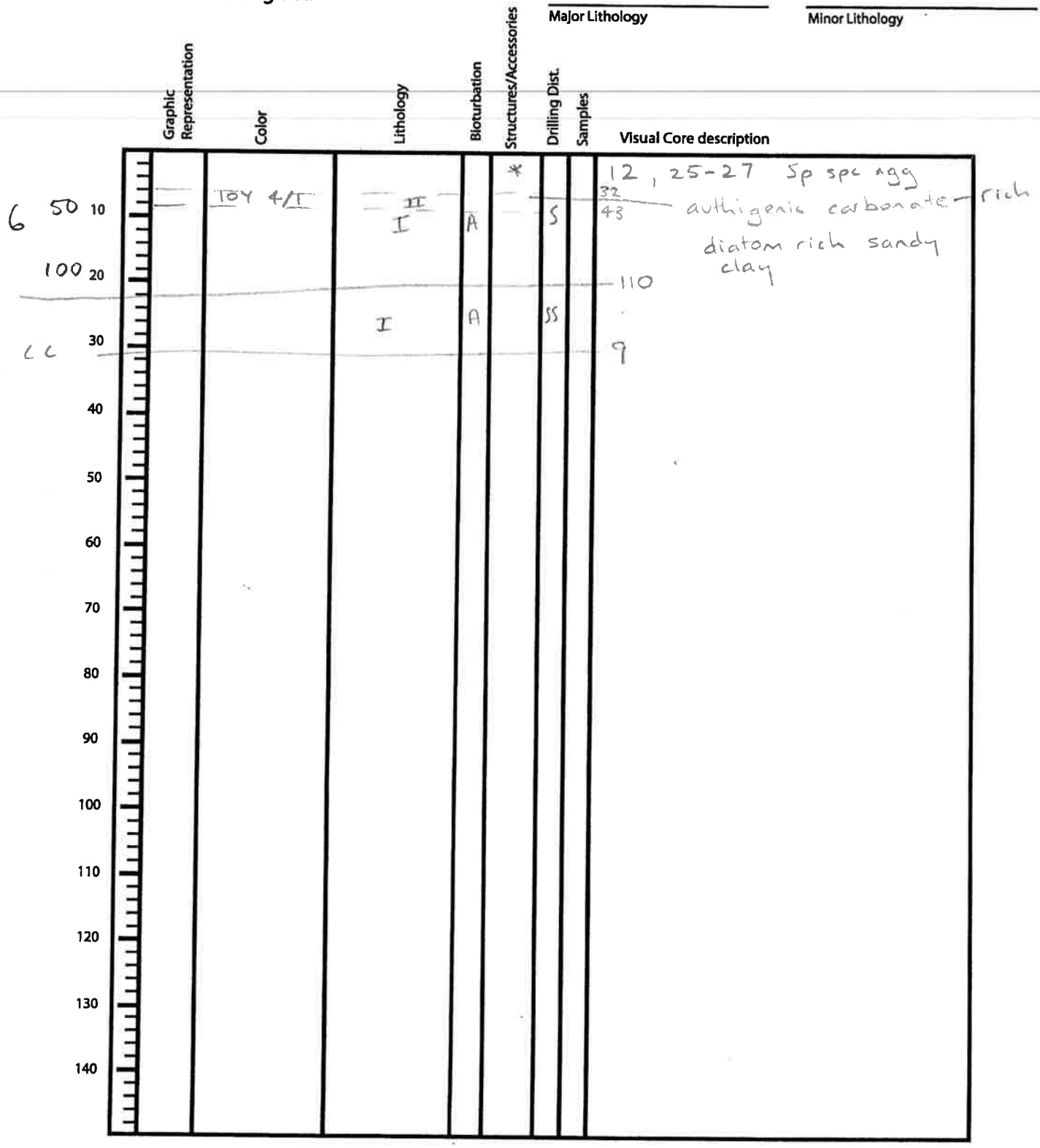


Observer: Kelsie Date: ____

1344 (Site) A (Hole) 50X (Core) 6+cc (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	Interval (cm) Bottom
323	1344	A	~~50~~ X		6A	39	39

SM ✓

Sediment/Rock Name	Observer
Diatom-rich Sandy Clay Auth Carb rich	H.A

Percent Texture		
Sand	Silt	Clay
30	10	60

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 27
	Framework minerals
7	Quartz 3
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
7	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
	Pyrite
	Magnetite
	Fe-oxide
73	Carbonates Auth Carb
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 13
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
13	Diatoms
10 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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U344	A	50X		4	60	

SJ

Sediment/Rock Name	Diatom-bearing silty clay

Observer	

Percent Texture		
Sand	Silt	Clay
20	30	50

Comments:

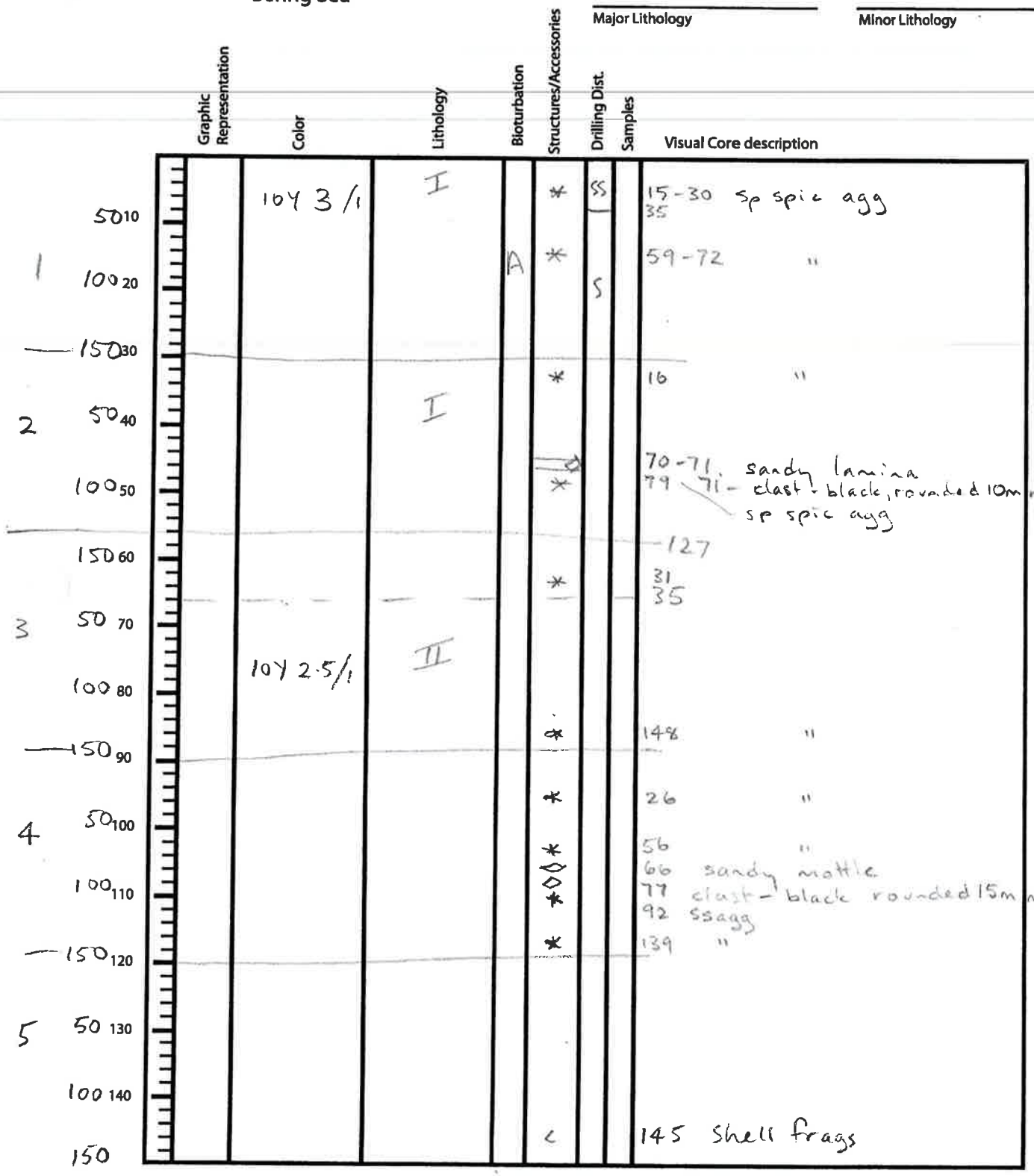
Percent	Component
	SILICICLASTIC GRAINS/MINERAL 94
	Framework minerals
94	Quartz 15
3	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
9	Rock fragments ≤ 3
	Accessory/trace minerals
	Micas
	Biotite
≤1	Muscovite
29	Clay Minerals 15
	Chlorite
	Glauconite
	Chert
	Zircon
9	Ferromagnesium minerals 3
	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 →	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 A 51X 1-5 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



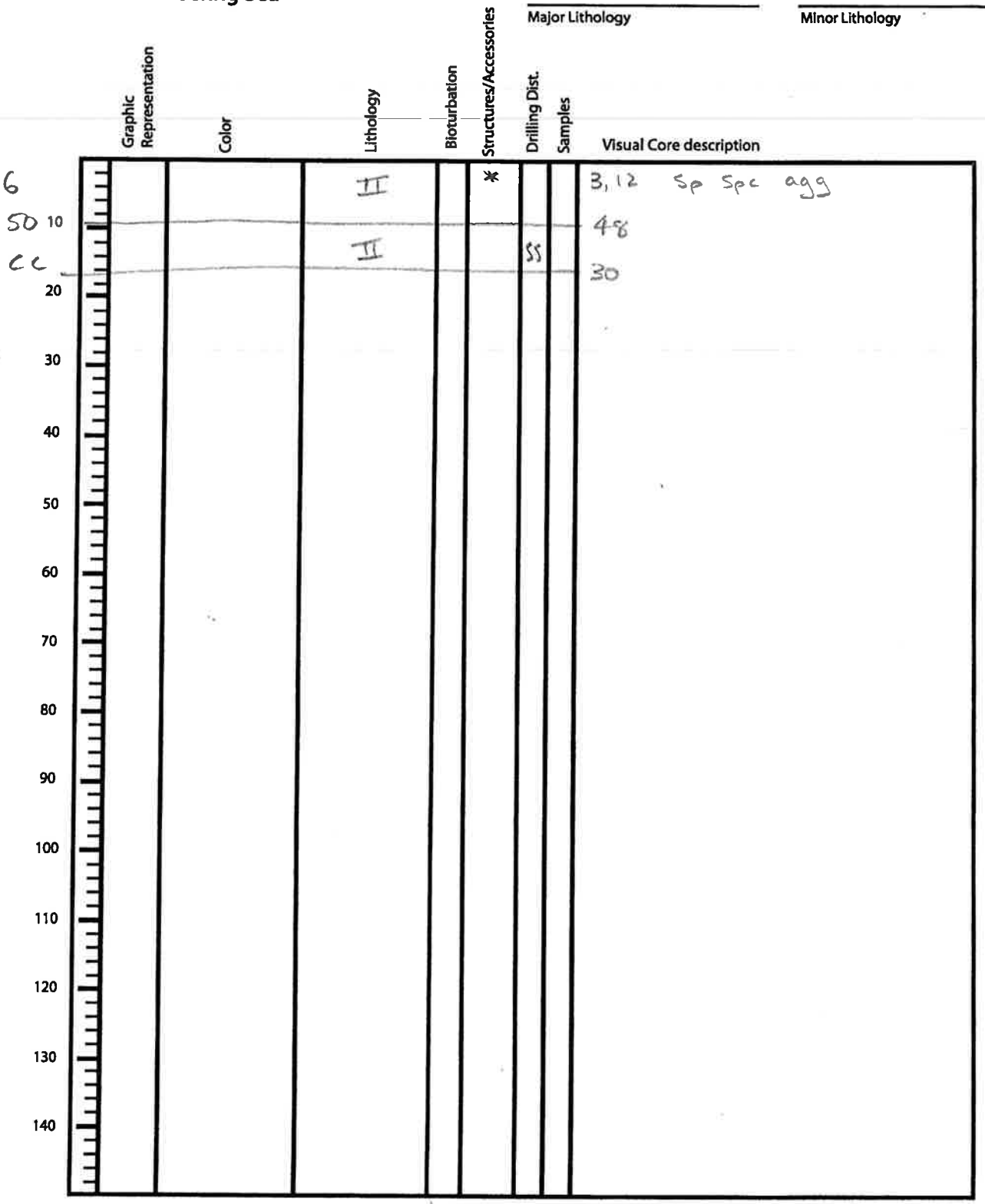
Observer: Kelsie Date: ____

1344 A 51X 6+CC
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	Interval (cm) Bottom
323	1314	A	5	X	2A	10	20

SM

Sediment/Rock Name	Diatom-rich silty clay

Observer	H. Wo. A

Percent Texture		
Sand	Silt	Clay
25	35	40

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 50
	Framework minerals
50	Quartz 30 10
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
15	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals 1
	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 30
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
30	Diatoms 6
	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

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	5 (X		5A	90	90

39

Sediment/Rock Name	Diatom silt

Observer	LFA

Percent Texture		
Sand	Silt	Clay
~~20~~ 10	~~50~~ 75	~~30~~ 15

Comments:

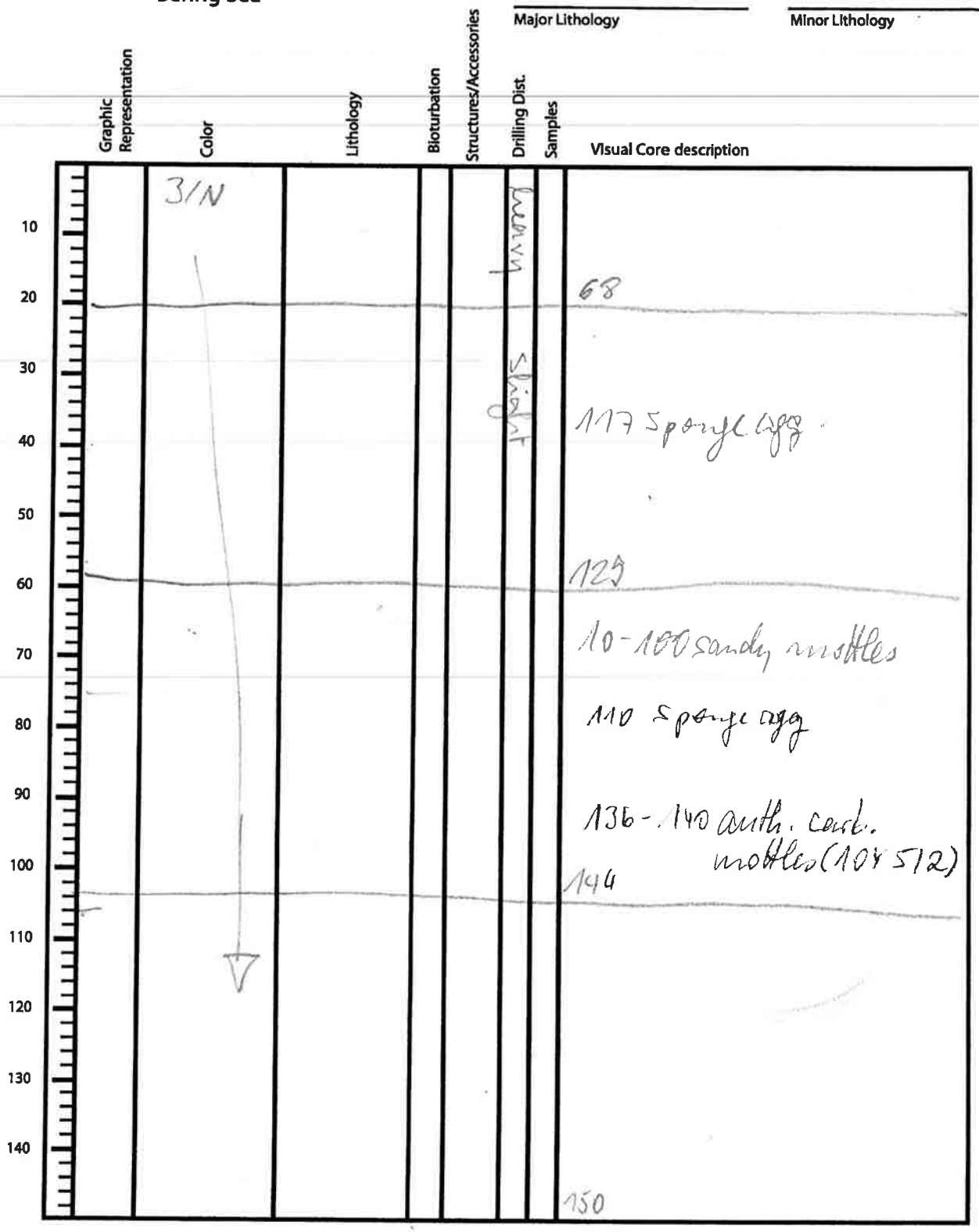
Percent	Component
	SILICICLASTIC GRAINS/MINERAL 5%
	Framework minerals
20	Quartz 10
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
~~1~~	Biotite
	Muscovite
29	Clay Minerals 15
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals 1
	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 65%
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
39 ~~70~~	Centric
10 ~~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

1346 A 52X 1+2+3+4
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



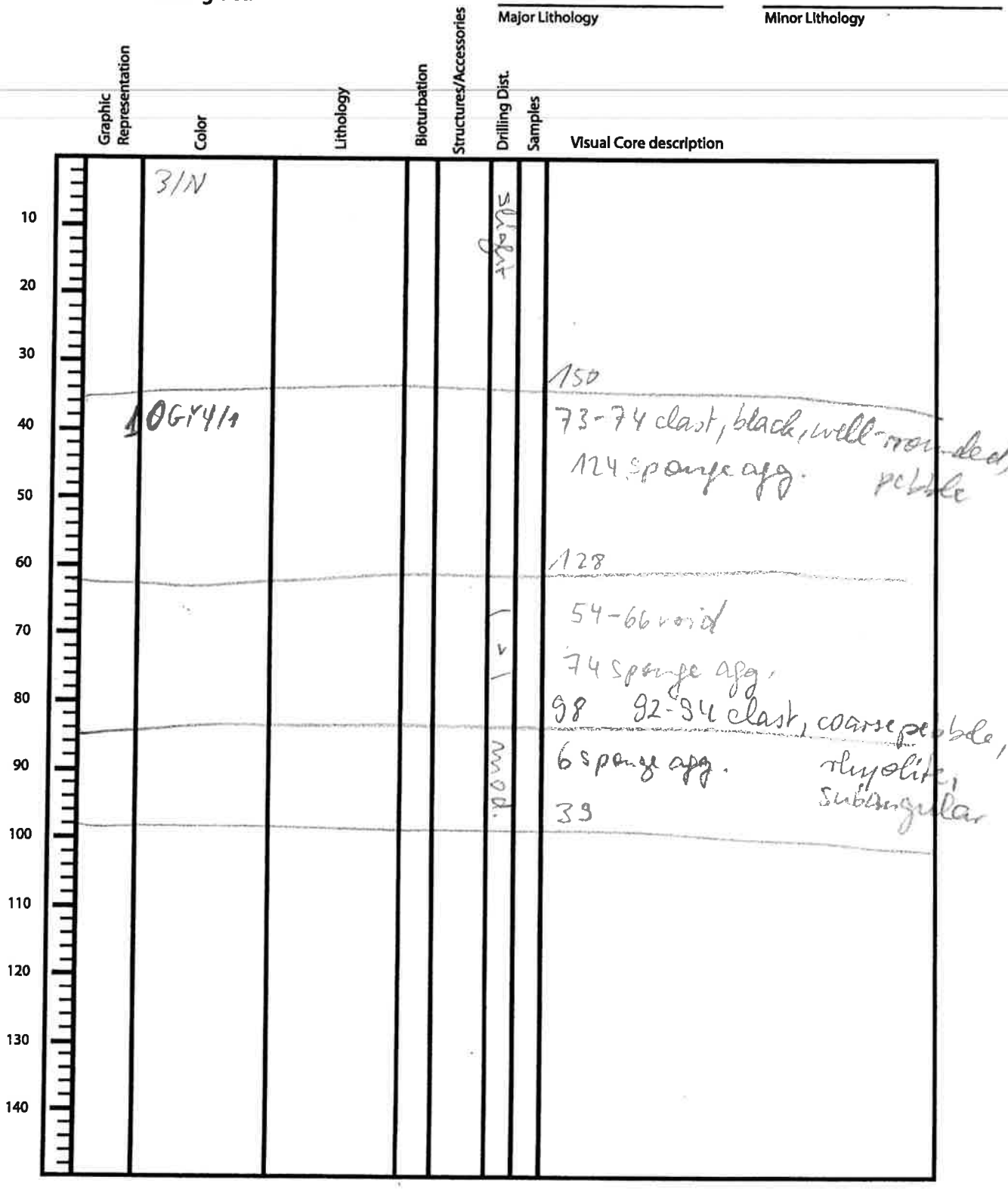
Observer: _____ Date: _____

1344 A 52X 5+6+7+cc
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	1344	A	52	X	2	76	

SM

Sediment/Rock Name	Diatom-rich silty clay

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
5	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	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
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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	A	52	X	7	24	

SM

Sediment/Rock Name	Diatom-rich silty clay

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
	40	60

Comments:

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

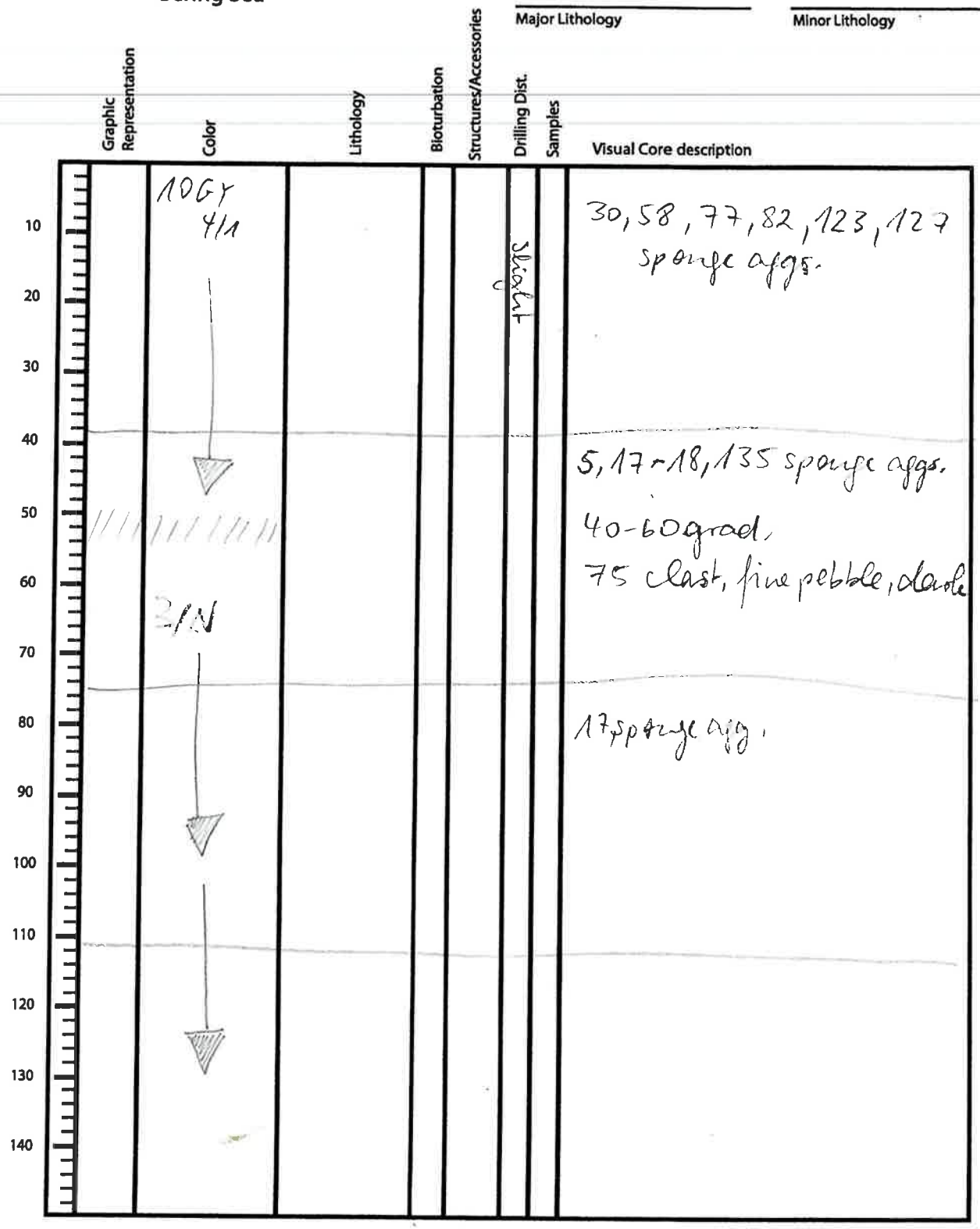
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
40	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

1344 (Site) A (Hole) 53X (Core) 1+2+3+4 (Section) (Top Depth)

Expedition 323
Bering Sea

Major Lithology

Minor Lithology

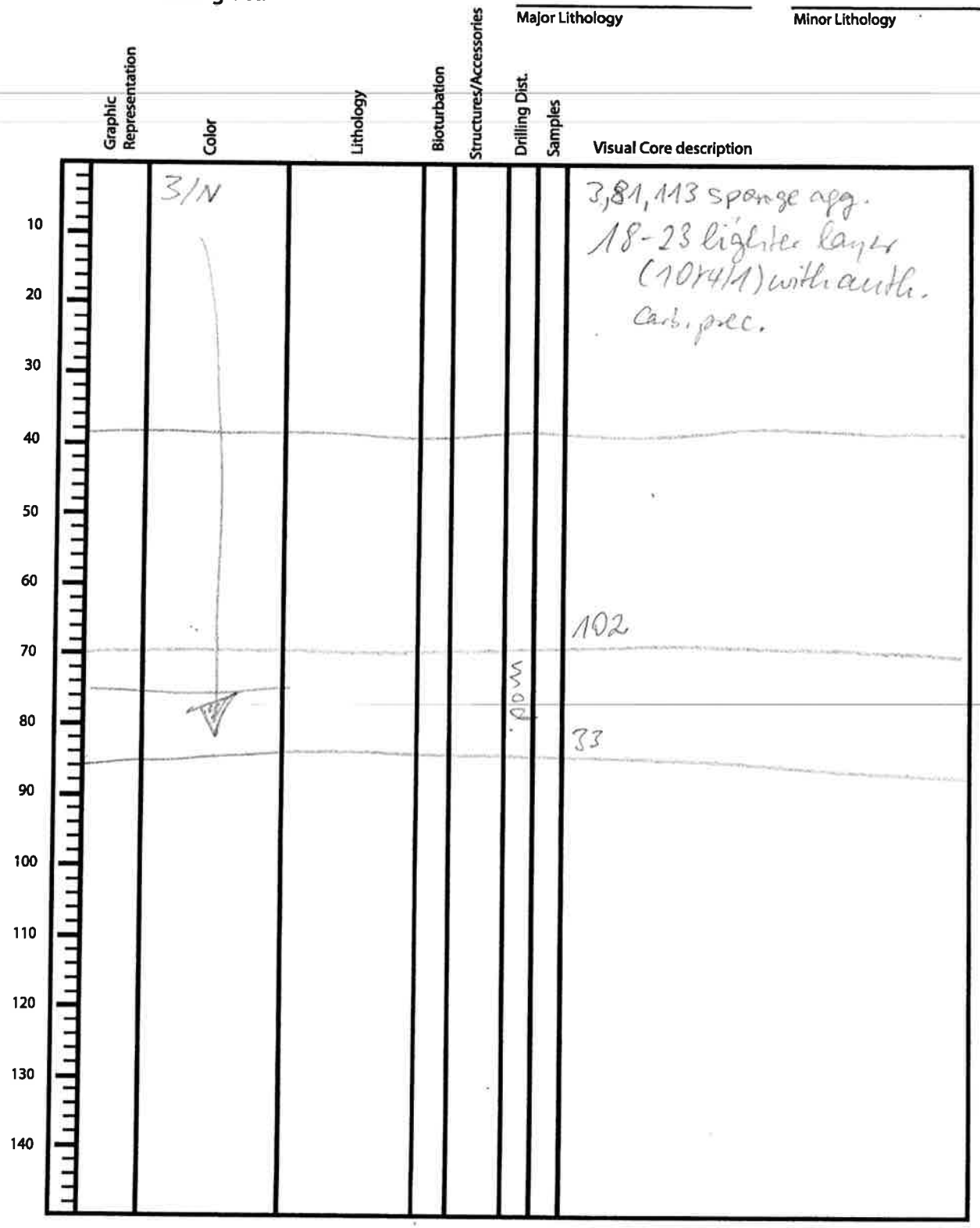


Observer: _____ Date: _____

1344 A 53X 5+6+ CC
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM ✓

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	53	X	1	86	86

Sediment/Rock Name	Diatom-rich silty clay

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments:

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
40	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
1	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
4	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
1	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	Interval (cm) Bottom
323	1344	A	53	X	5	72	

✓ SM

Sediment/Rock Name	Diatom-bearing clayey silt

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
	60	40

Comments: Main lithology

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

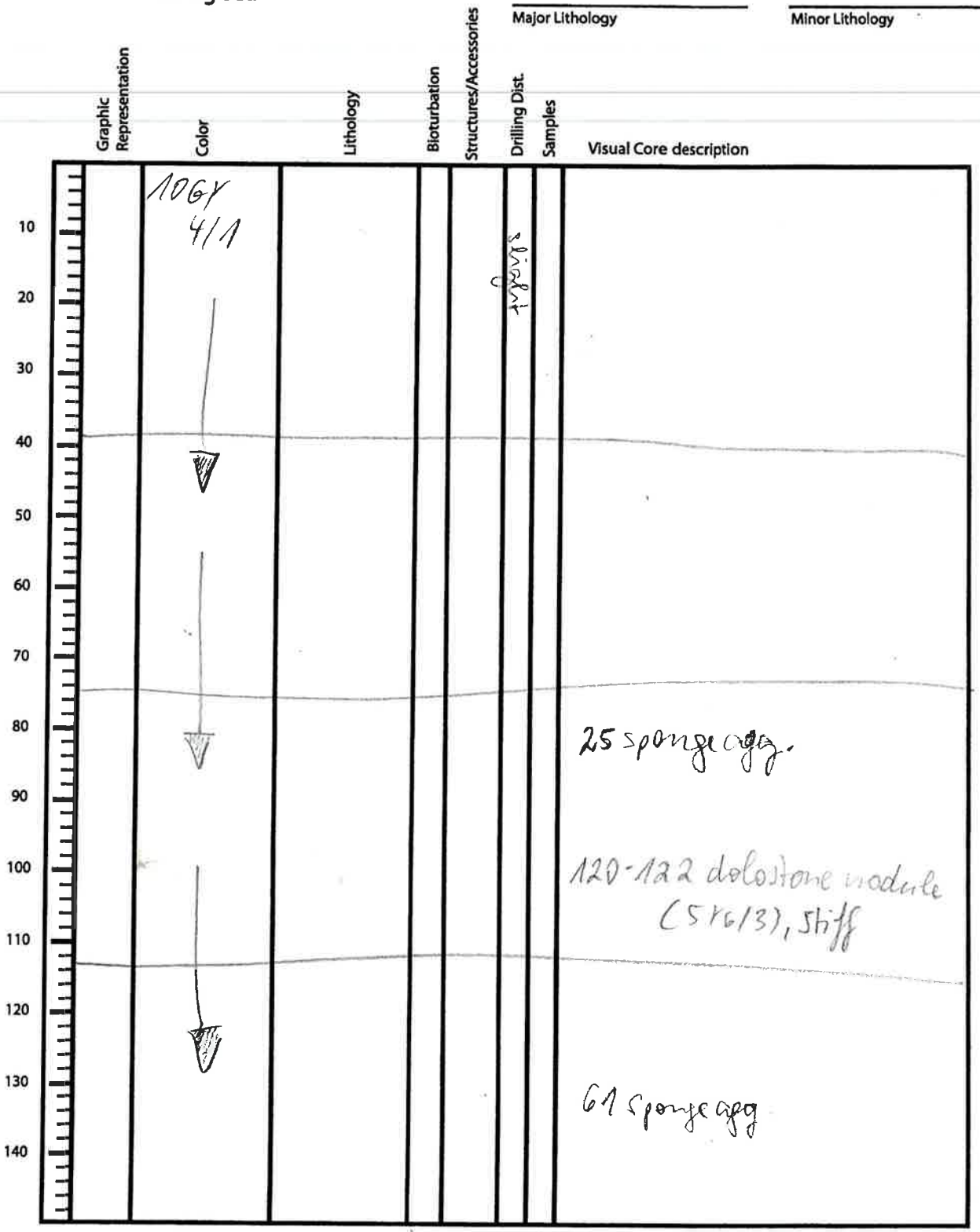
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
10	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

1344 A 54X 1+2+3+4
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology

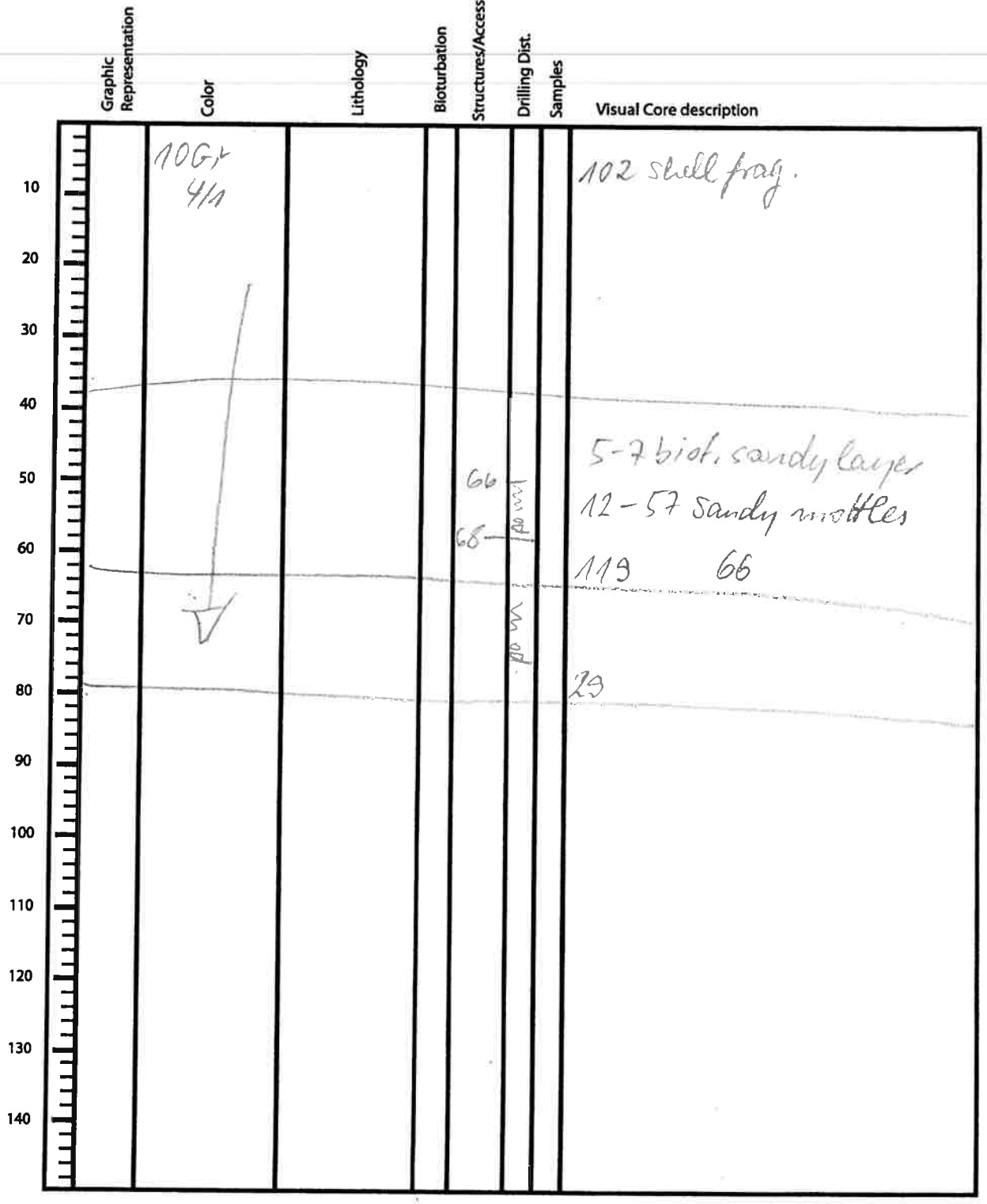


Observer: _____ Date: _____

1344 A 54X 5+6+cc
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	Interval (cm) Bottom
323	1344	A	54	X	4	50	50

√SM

Sediment/Rock Name	Diatom silty clay	Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: ML

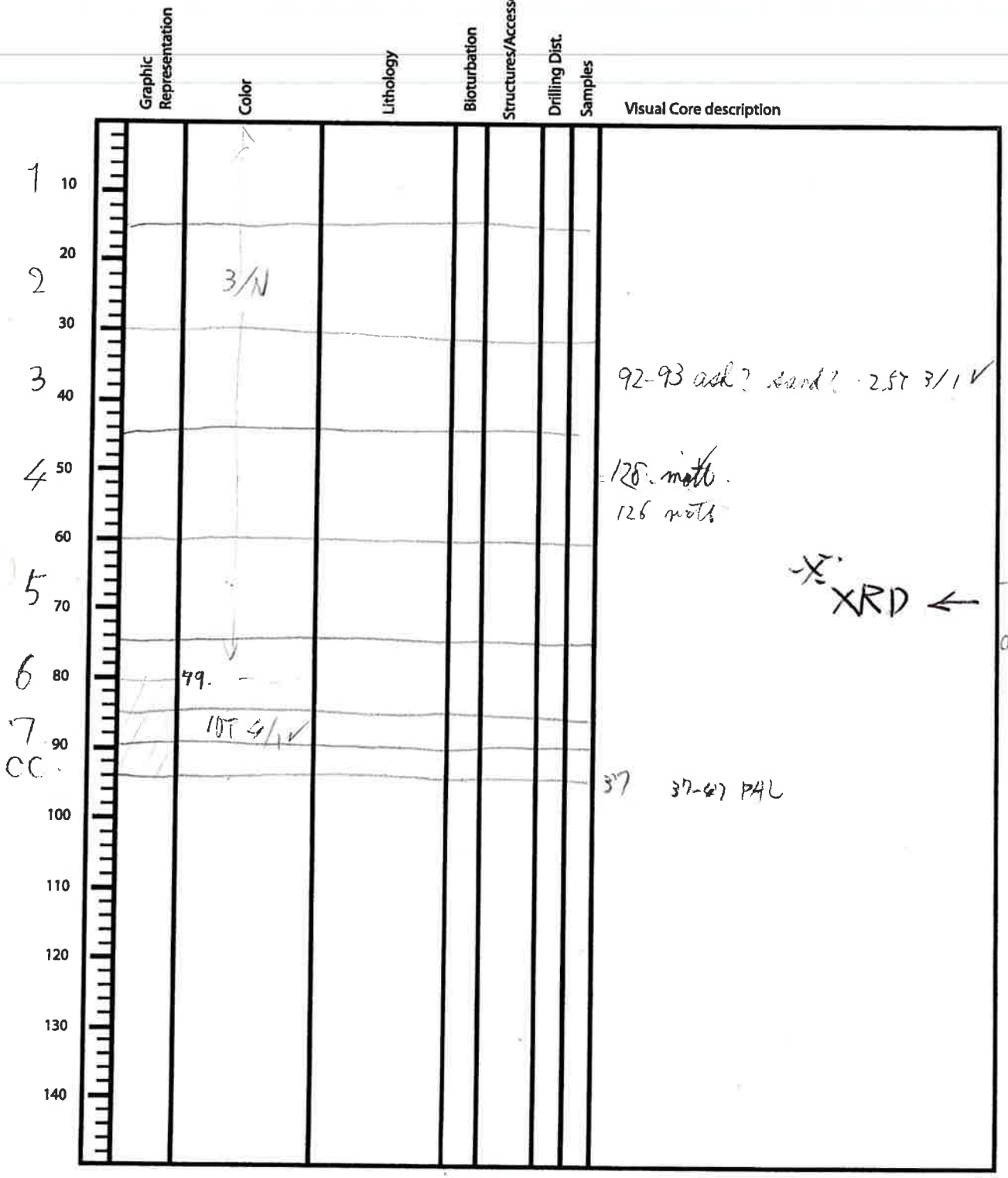
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
5	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
30	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
1	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	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
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

Expedition 323
Bering Sea

1344 A 55 ____ ____
Site Hole Core Section Top Depth

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	U1344	A	5S	X	3A	92cm	

Sediment/Rock Name	Silty Sand

Observer	Beth

Percent Texture		
Sand	Silt	Clay
60	40	

Comments: accessory layer

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
35	Quartz
15	Feldspar
	K-feldspar (Orthoclase, Microcline...)
10	Plagioclase
	Rock fragments
	Accessory/trace minerals
5	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
15	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
15	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
	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

? XRD

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	A	55	X	5A	84cm	

Sediment/Rock Name	Diatom-rich clayey silt	Observer	Bet

Percent Texture		
Sand	Silt	Clay
	60	40

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
13	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments
	Accessory/trace minerals
12	Micas
	Biotite
	Muscovite
30	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	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
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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1314	A	55	X	7A	18cm	

Sediment/Rock Name	Diatom-rich silty clay

Observer	Bek

Percent Texture		
Sand	Silt	Clay
10	20	70

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
10	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
45	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

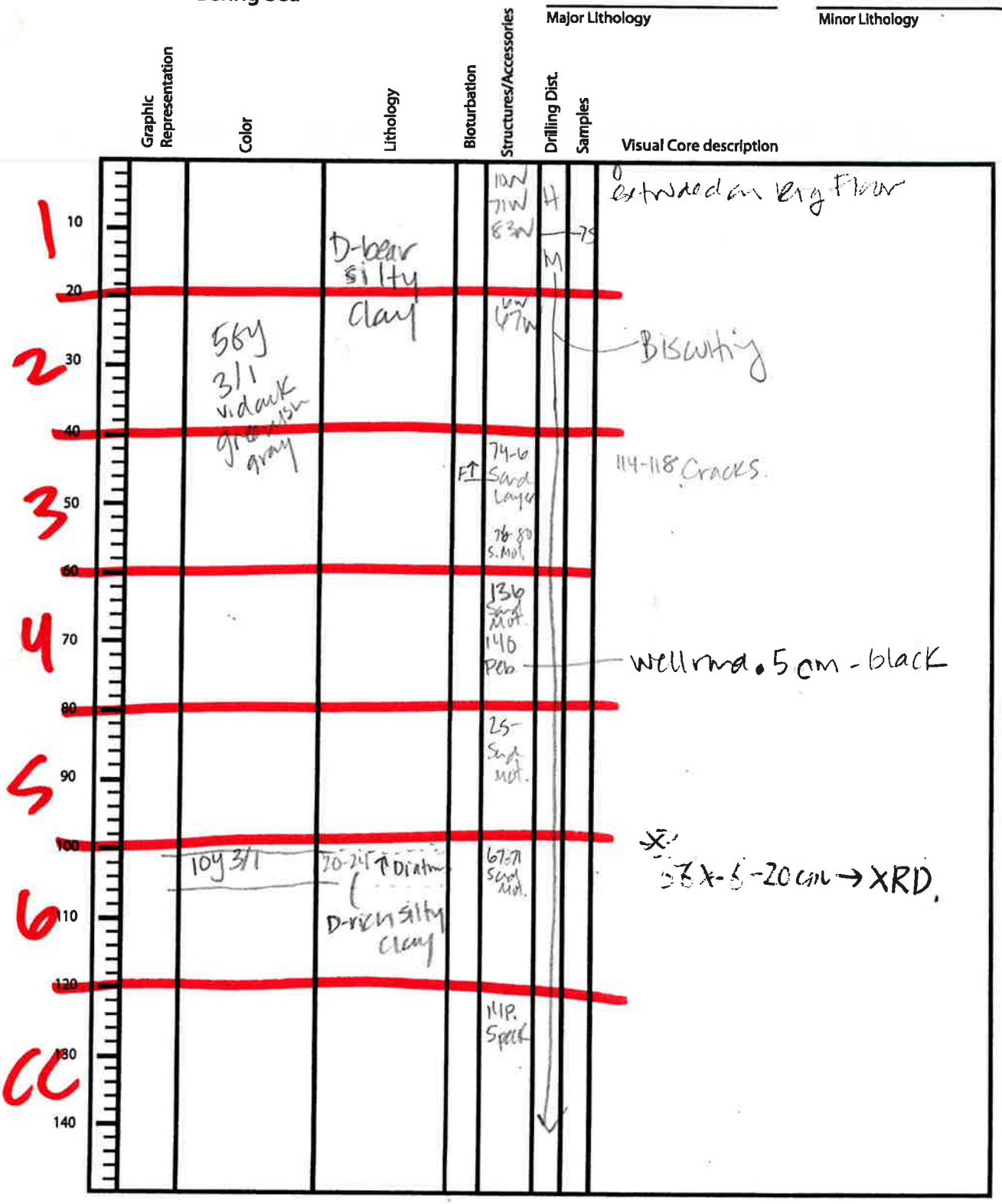
Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
20	Centric
10	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

U1344 A 56X AM
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	1364	A	56	X	3A	75	

Sediment/Rock Name	sand

Observer	Abeira

Percent Texture		
Sand	Silt	Clay
80	20	

Comments: layer

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
30	Quartz 7
13	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
43	Rock fragments 10
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
13	Ferromagnesium minerals 3
	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

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1347	A	56	X	5A	40	

Sediment/Rock Name	Silty clay (diatom-bearing?)

Observer	Alexis

Percent Texture		
Sand	Silt	Clay
3	37	60

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
25	Quartz 5
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
3	Micas 0.5
	Biotite
	Muscovite
30	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium minerals 0.5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
10	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
10	Diatoms 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

→ +RD

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1344	A	56	X	6	20	

Sediment/Rock Name	diatom-rich silty clay

Observer	Akira

Percent Texture		
Sand	Silt	Clay
0	40	60

Comments:

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

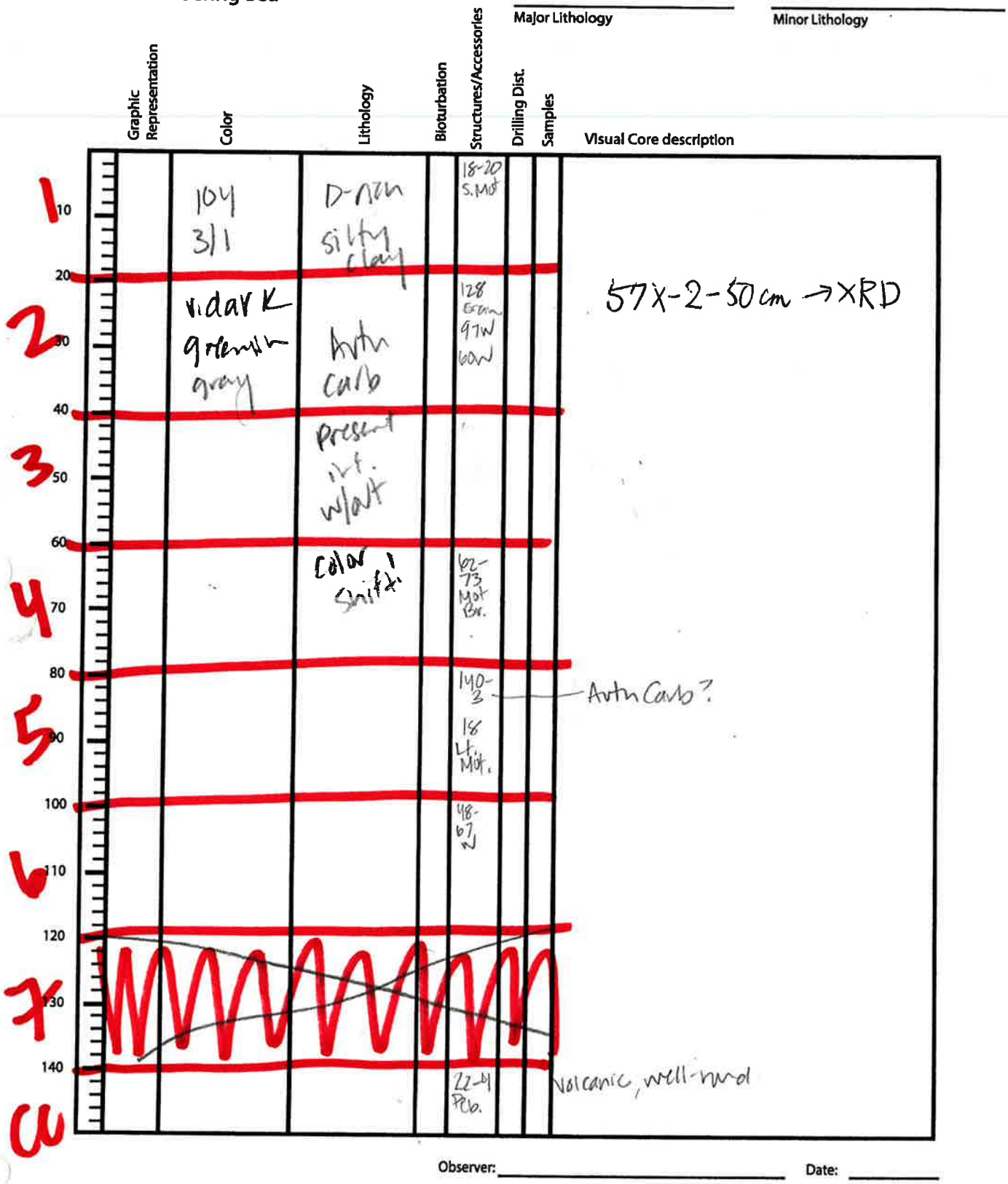
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
38	Diatoms 10
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

U1344A 57X ALL
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

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SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	A	57	X	5A	49cm	

Sediment/Rock Name	Diatom-rich silty clay	Observer	Beth

Percent Texture		
Sand	Silt	Clay
5	45	55

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
10	Plagioclase
10	Rock fragments
	Accessory/trace minerals
3	Micas
	Biotite
	Muscovite
30	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
10	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
2	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
	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	U1314	A	57	X	5A	143cm	

Sediment/Rock Name	Auth carb-rich diatom clay

Observer	BeTm

Percent Texture		
Sand	Silt	Clay

Comments: Carbonates

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	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
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
60	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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	A	57	X	6A	59cm	

Sediment/Rock Name	Observer
Auth- carb & diatom-rich silty clay	Beth

Percent Texture		
Sand	Silt	Clay
15	40	45

Comments:

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

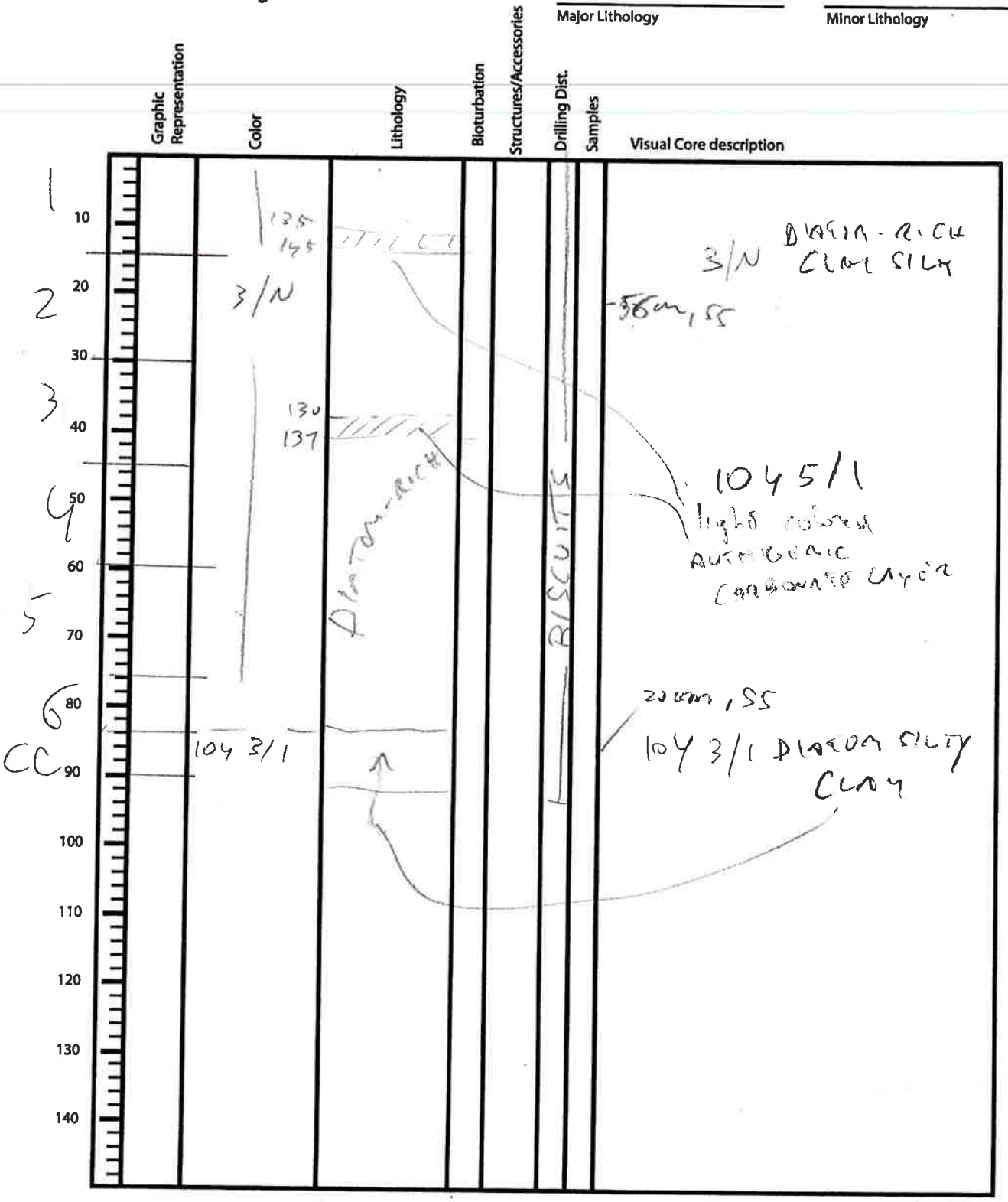
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
25	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
3	Sponge spicules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

1344 A 58X ALL
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

X

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IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	58	X	2A	56	

Sediment/Rock Name	diatom-rich clayey silt	Observer	Olivia

Percent Texture		
Sand	Silt	Clay
4	38	58
1	10	15

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
24	Quartz 75
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments 1
	Accessory/trace minerals
	Micas ✓
	Biotite
	Muscovite
24	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals 1
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite 1
	Magnetite
	Fe-oxide
	Carbonates
2	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
34	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	A	58	X	CC	20	

Sediment/Rock Name	diatom silty clay

Observer	Cabrera

Percent Texture		
Sand	Silt	Clay
20	30	50

Comments:

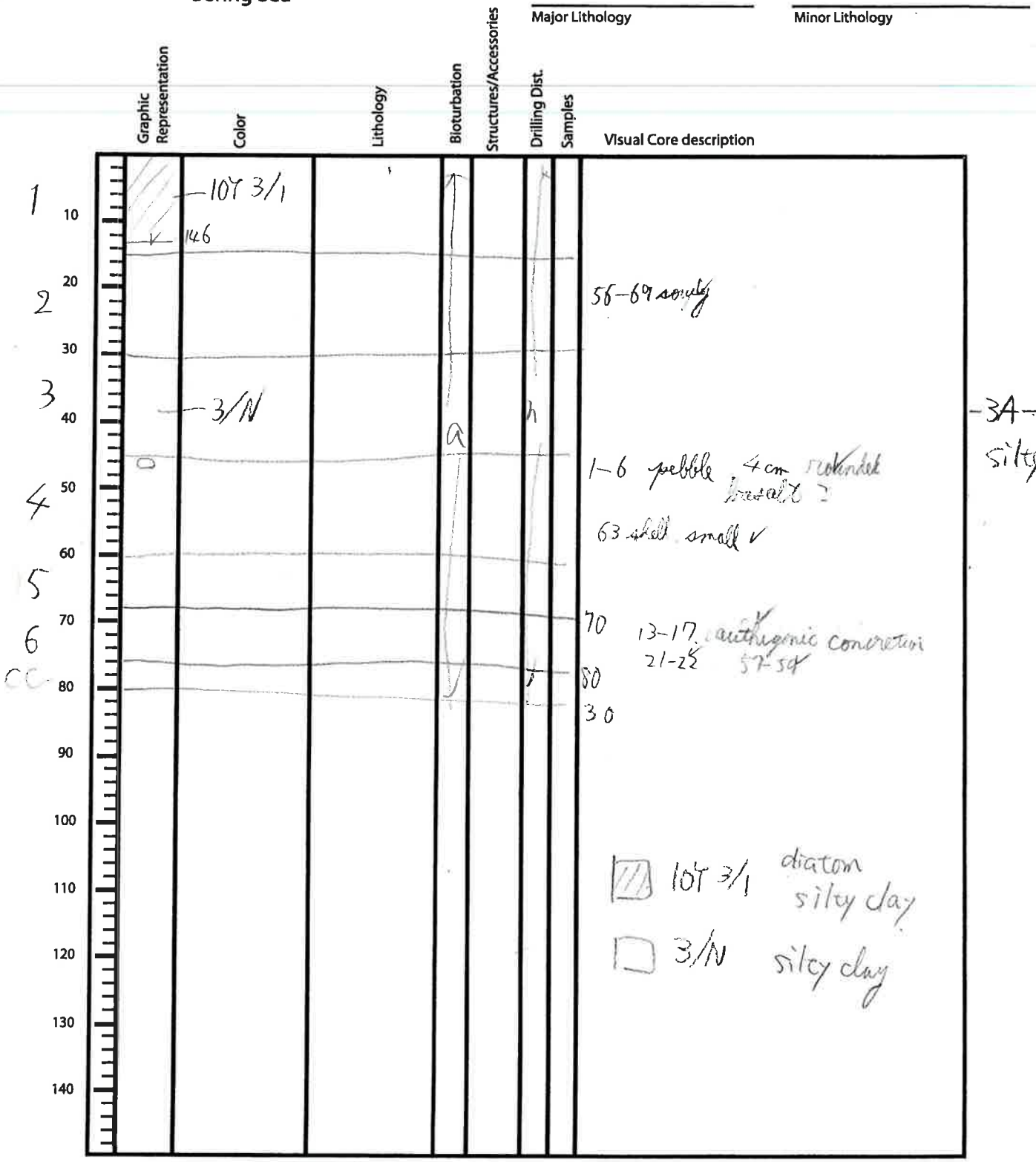
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz 4
8	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments 1
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
25	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite 1
	Magnetite
	Fe-oxide
	Carbonates
3	Calcite 1
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
8	Vitric grain 3
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
49	Diatoms 17
	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

Expedition 323
Bering Sea

1344 A 59 ____ ____
Site Hole Core Section Top Depth

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
	1344	A	5PX	-3	A	80 cm	

Sediment/Rock Name	SILTY CLAY	Observer	Iwa

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
25%	Framework minerals
15%	4 Quartz
10%	3 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
60%	20 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
3%	1 Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

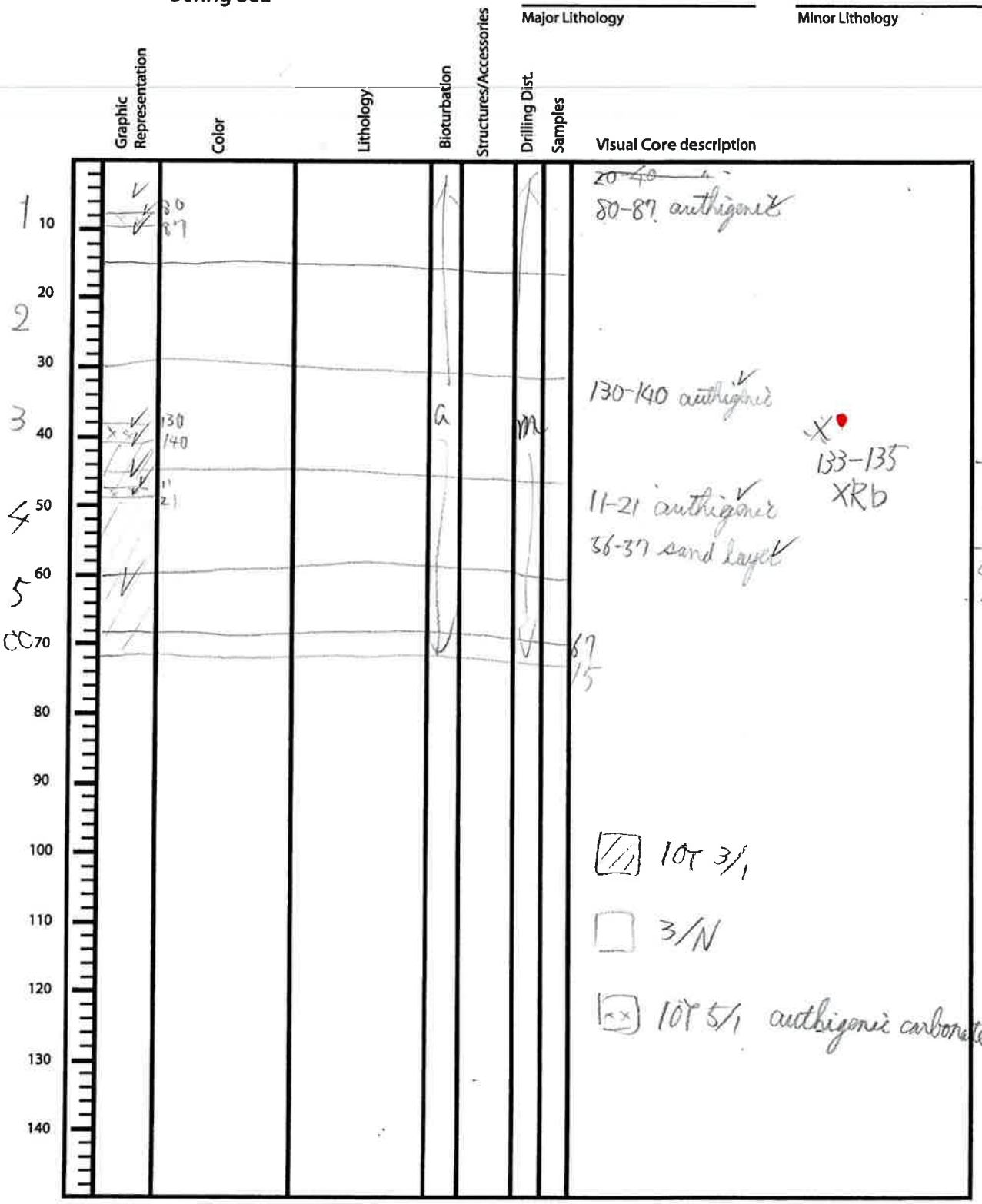
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
7%	2 Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

1344 A 60X
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

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SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1444	A	60	X	3	134	cm

Sediment/Rock Name	authigenic carbonate - clay

Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Comments: "needles"

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

5M

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	A	60	X	4	40 cm	

Sediment/Rock Name	Diatom-rich silty clay	Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Comments:

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

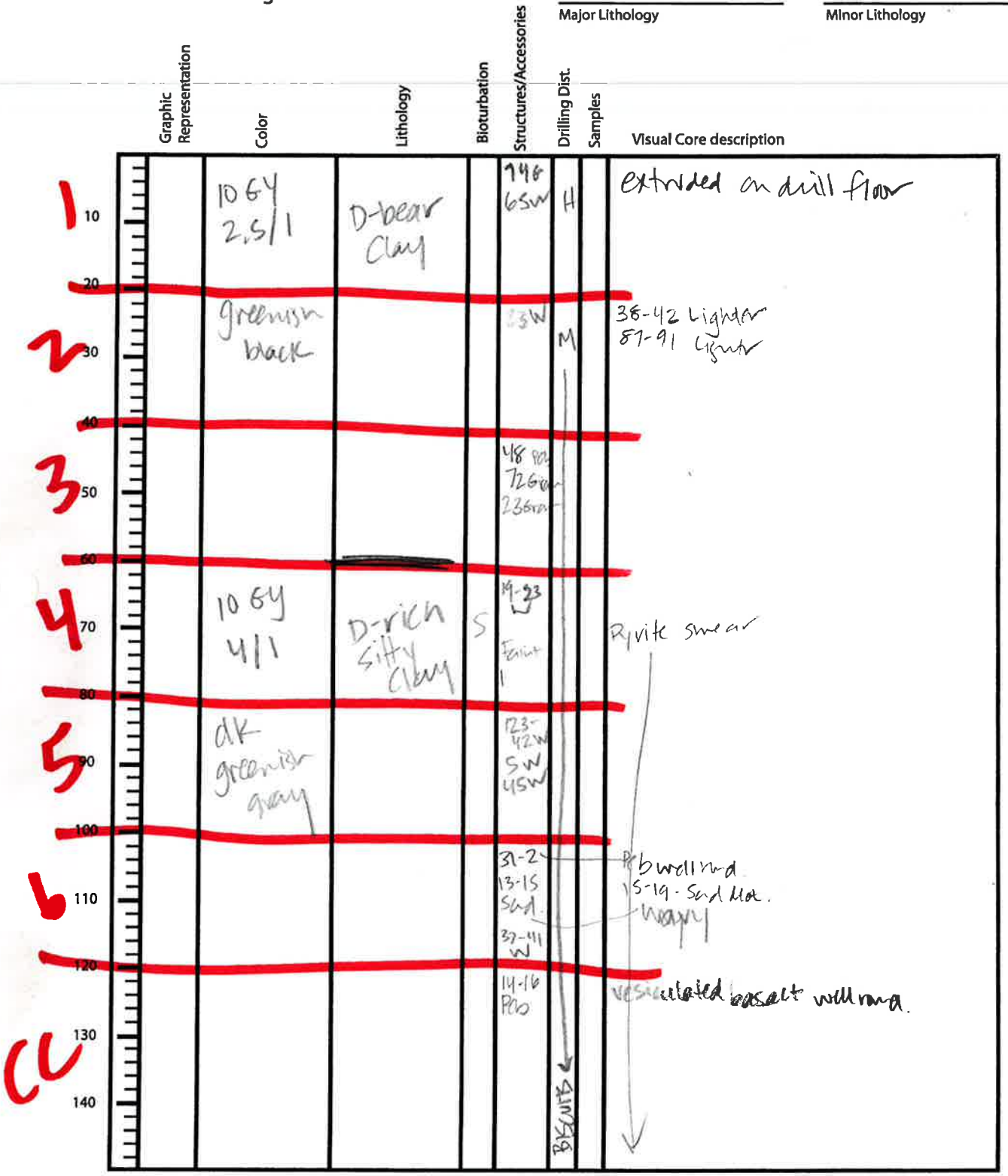
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
25	x Diatoms (a lot broken)
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates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

U1344 A 61X ALL
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

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
	1334	A	61	X	3	64 cm	

Sediment/Rock Name	DIATOM-BEARING CLAY

Observer	

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10%	2 Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
75%	15 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%	Diatoms
10	2 Centric
5	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

Duplicate

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
	1344	A	61	X	3	64	

Sediment/Rock Name	DIATOM-BEARING CLAY

Observer	IWA

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
8%	1 Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
77%	10 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
15%	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

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
	1344	A	61	X	5	60a	

Sediment/Rock Name	DIATOM-RICH SILTY CLAY	Observer	IWA

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
12%	5 Quartz
12%	5 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2%	1 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
47%	20 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

26

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
23%	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

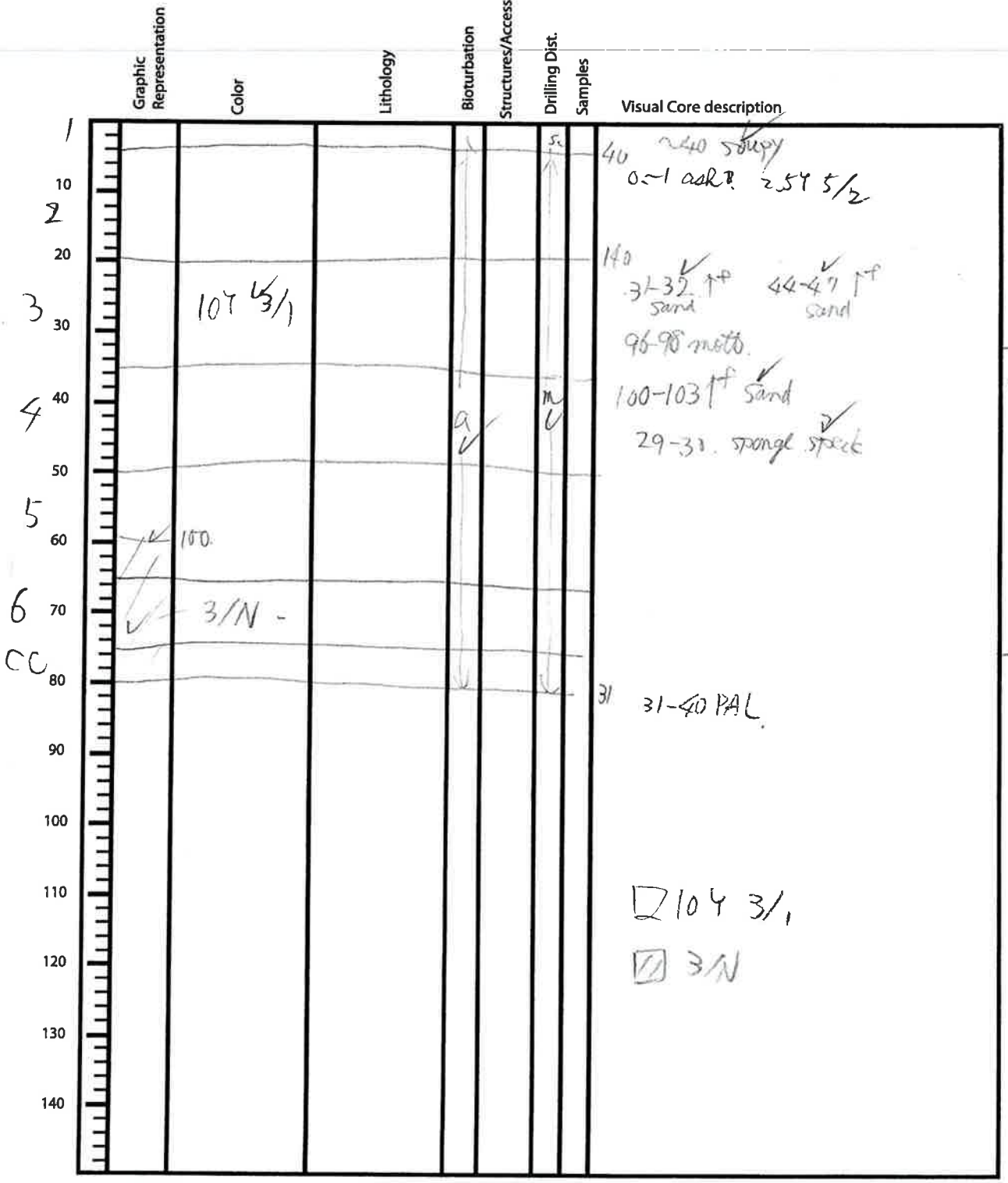
28

3-10
5-25

Expedition 323
Bering Sea

1344 A 62 ____ ____
Site Hole Core Section Top Depth

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
	1344	A	62	X	3	80cm	

Sediment/Rock Name	DIATOM-BEARING SILTY CLAY	Observer	

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
9%	Framework minerals
12%	2 Quartz
	3 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
14%	3 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
50%	7 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
12%	3 Centric
5%	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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1344	A	62	X	6	78	

Sediment/Rock Name	diatom clayey silt (rich)	Observer	Akira

Percent Texture		
Sand	Silt	Clay
10	60	40

Comments:

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

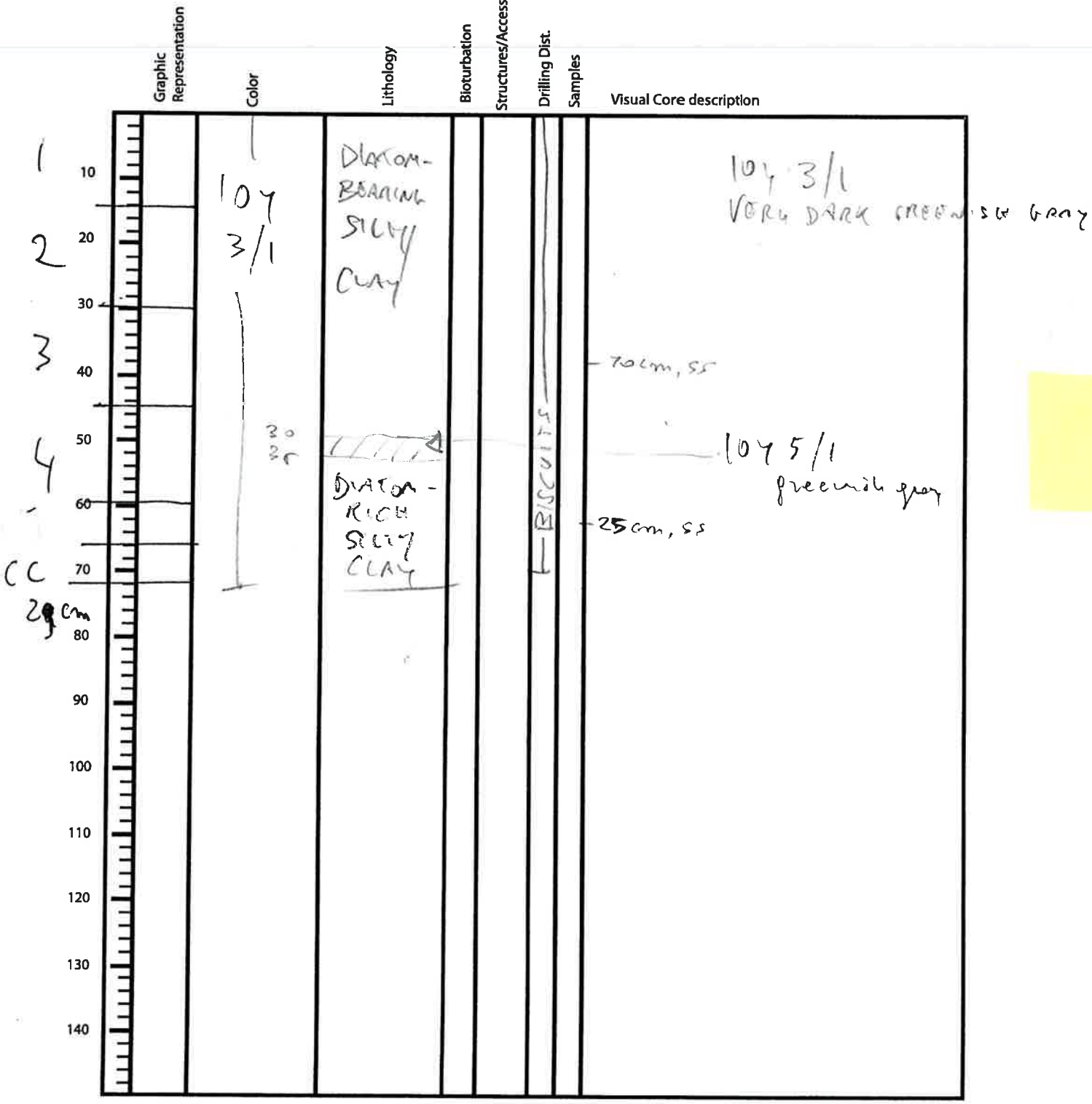
Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
29	Diatoms 7
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

1344 A 63X 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	A	63	X	3A	70	

Sediment/Rock Name	diatom-rich silty clay

Observer	Okuno

Percent Texture		
Sand	Silt	Clay
5	40	55

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15	Quartz 3.
10	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
15	Rock fragments 3
	Accessory/trace minerals
	Micas 0.5
	Biotite
	Muscovite
50	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium minerals 0.5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite 1
	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 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	Interval (cm) Bottom
323	1344	A	63	X	5	85	

Sediment/Rock Name	diatom-bearing silty clay

Observer	Alexa

Percent Texture		
Sand	Silt	Clay
3	40	57

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
9	Quartz 2
9	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
14	Rock fragments 3
	Accessory/trace minerals
2	Micas 0.5
	Biotite
	Muscovite
45	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite 1
	Magnetite
	Fe-oxide
	Carbonates 0
2	Calcite 0.5
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

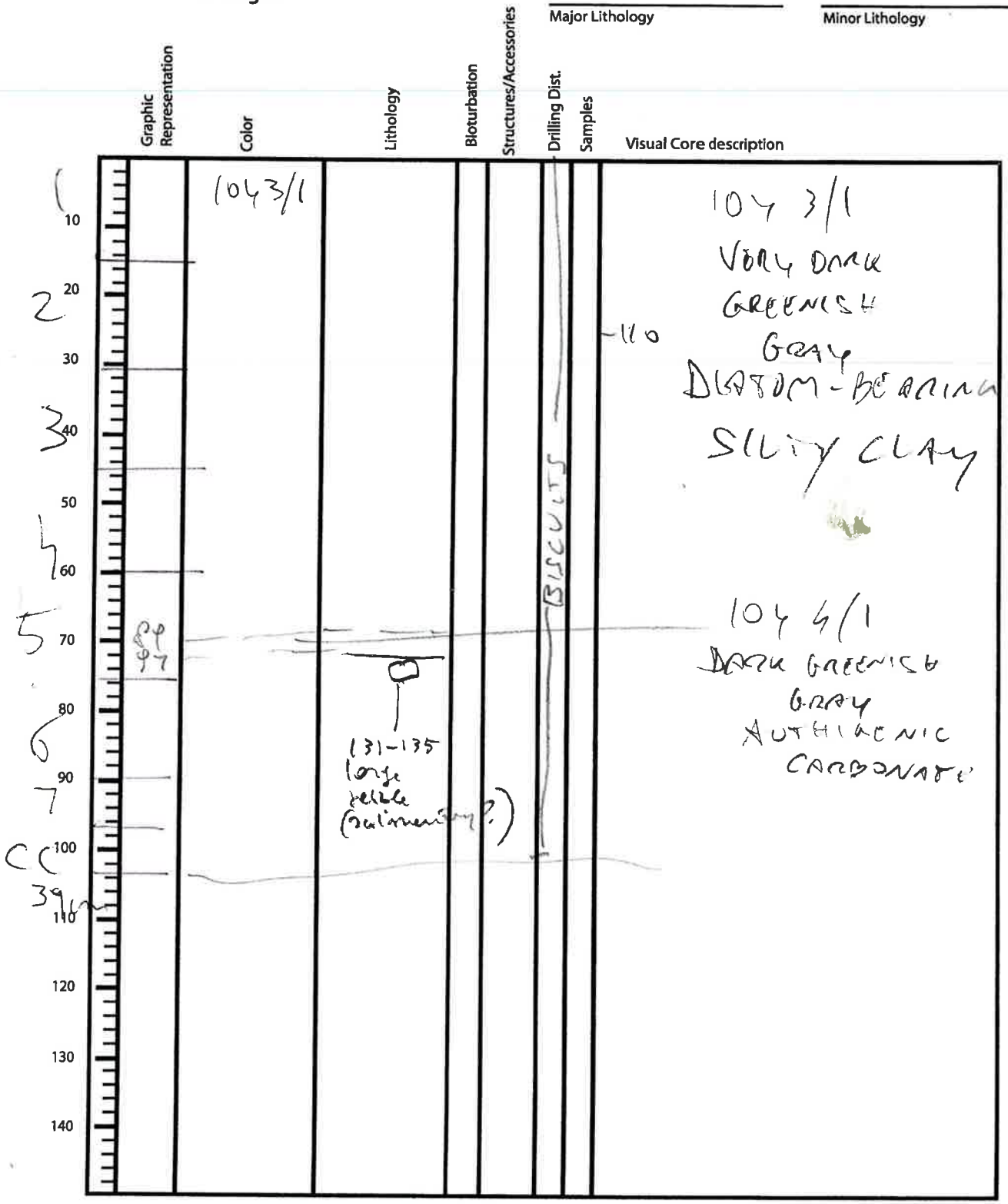
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
14	Diatoms 3
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

1344 A 54x 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
	1344	A	6H	X	2	110 cm	

Sediment/Rock Name	DIATOM BEARING SILTY CLAY	Observer	LWA

Percent Texture		
Sand	Silt	Clay

Comments:

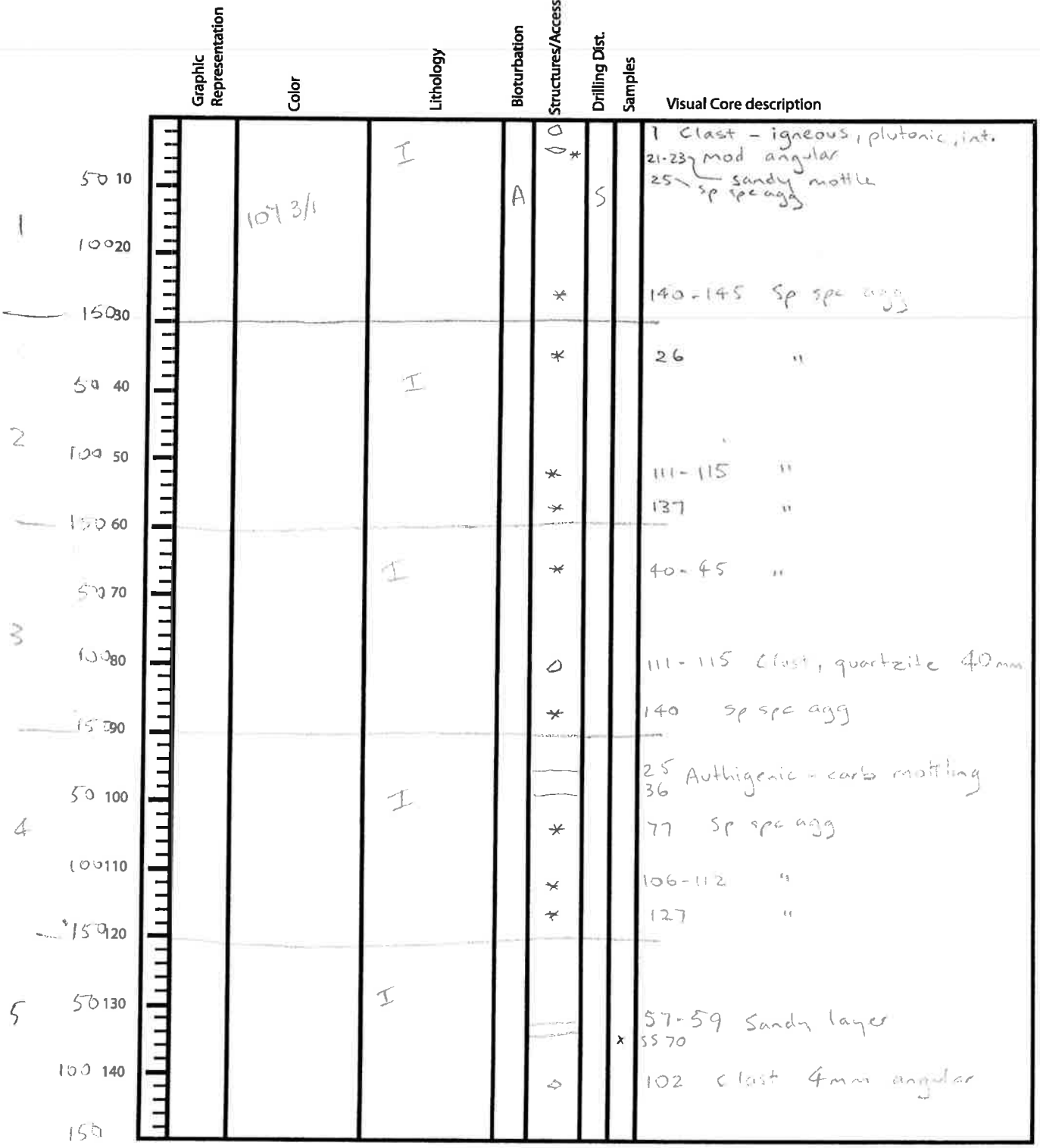
Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
14%	3 Quartz
10%	2 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10%	2 Rock fragments
	Accessory/trace minerals
	R Micas
	Biotite
	Muscovite
48%	10 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	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
10	2 Centric
5	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 A 65X 1- _____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

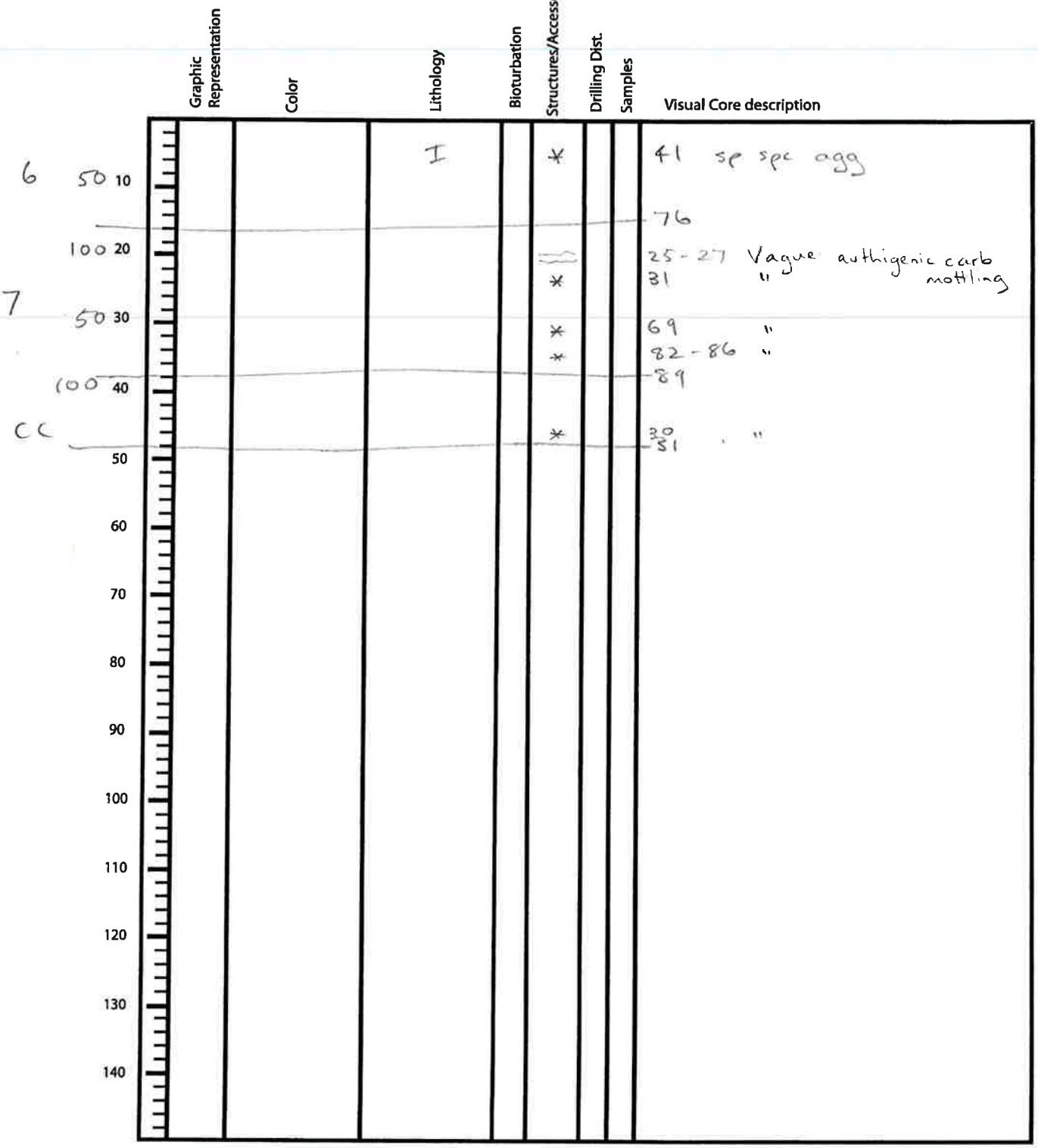


Observer: Kelsie Date: _____

1344 A 65X 6-CC
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: _____ Date: _____

SIH ✓

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	A	61		5	50	

Sediment/Rock Name	Diatom-rich clayey silt	Observer	Lilin

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 36
	Framework minerals
30	Quartz 20
5	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
8	Rock fragments 3
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
13	Ferromagnesium minerals 5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

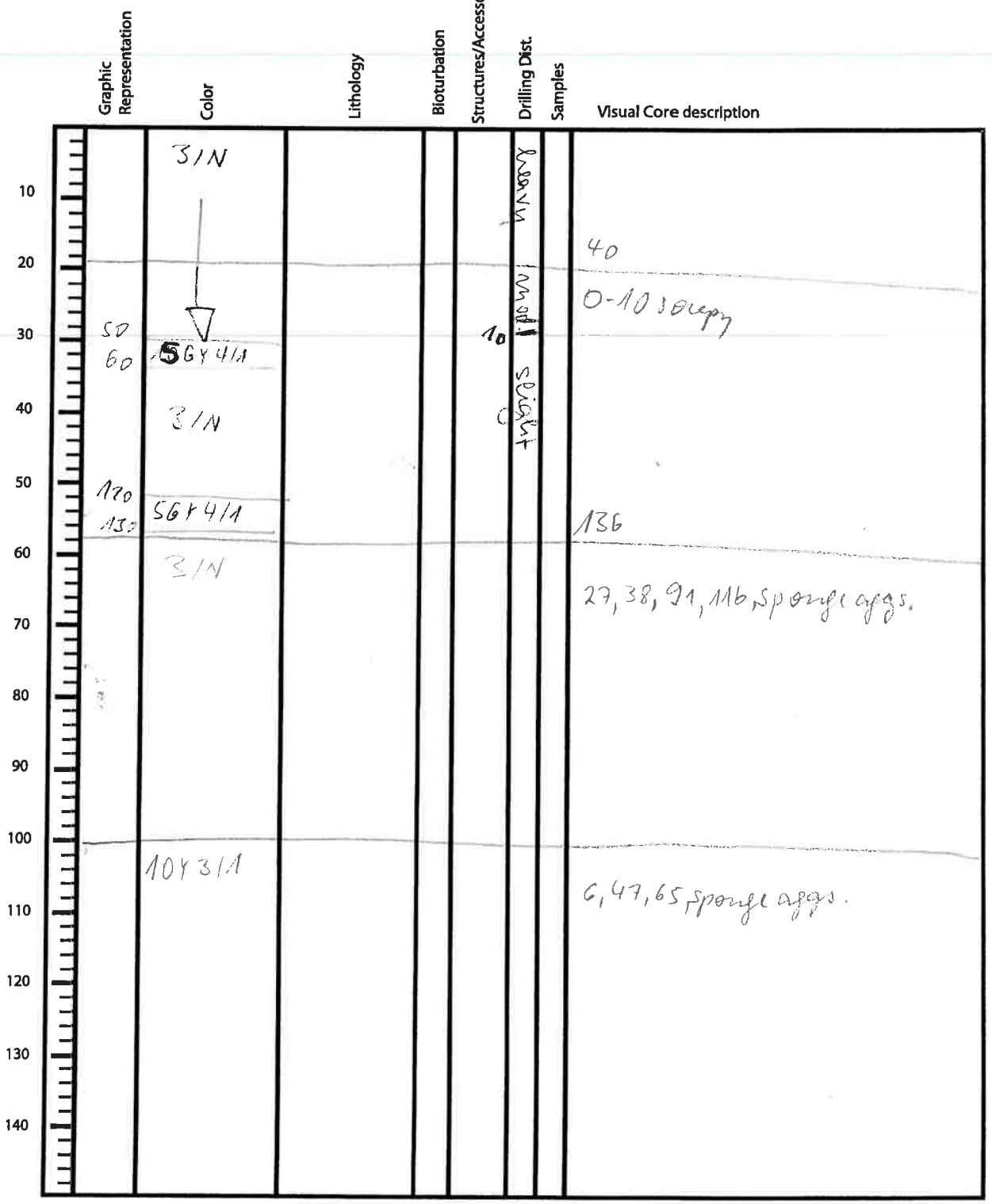
Percent	Component
	BIOGENIC GRAINS 24
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
24	10 Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 A 68X 1+2+3+4
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



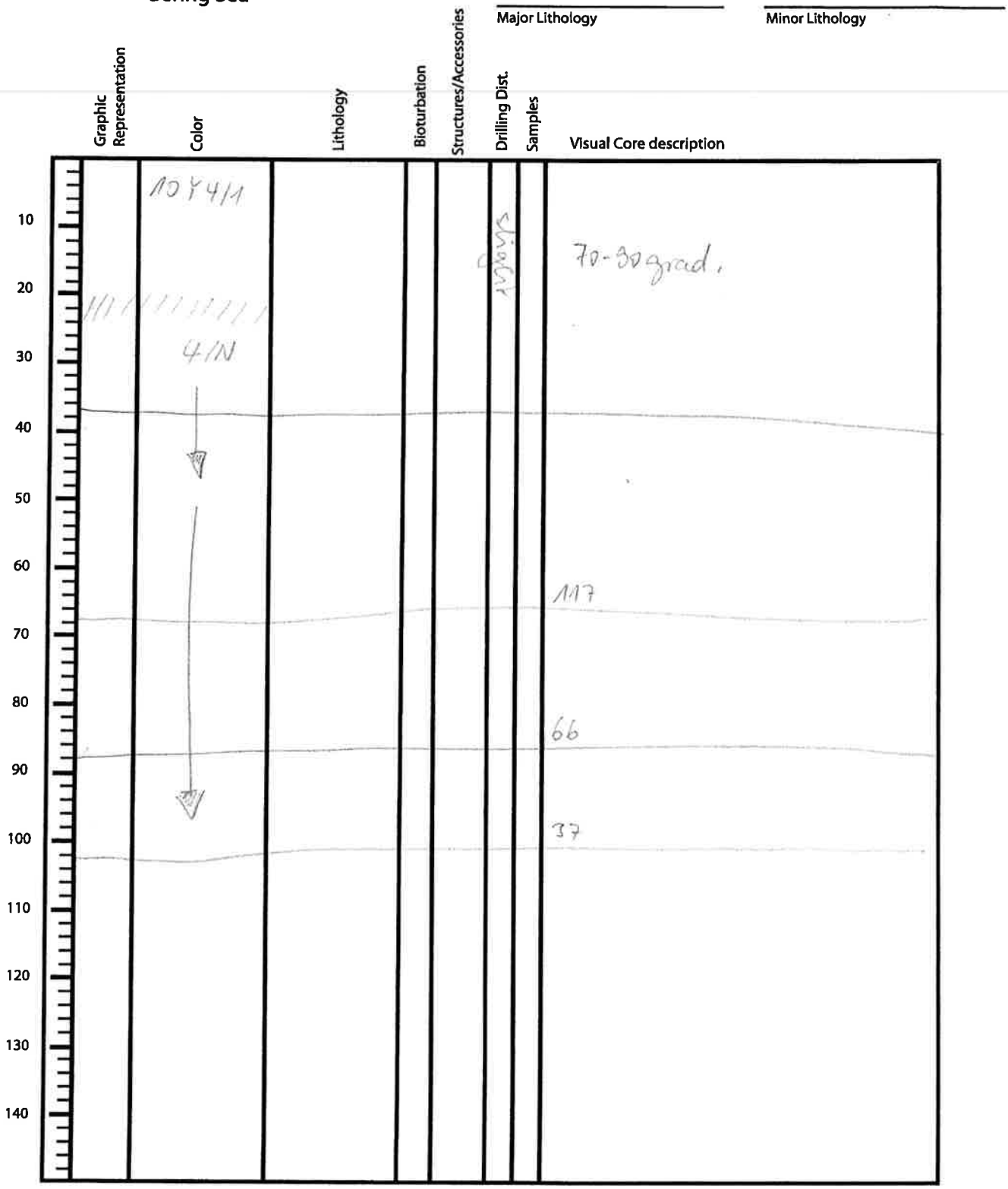
Observer: _____ Date: _____

1344 A 68X 5+6+7+CC
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

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	BW	A	68		4	60	

Sediment/Rock Name	Diatom bearing Silt	Observer	

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
50	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	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
	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
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

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	BYY	A	68X		6	90	

Sediment/Rock Name	Diatom bearing Silty Clay	Observer	

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
30	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
30	Rock fragments 36
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
27	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

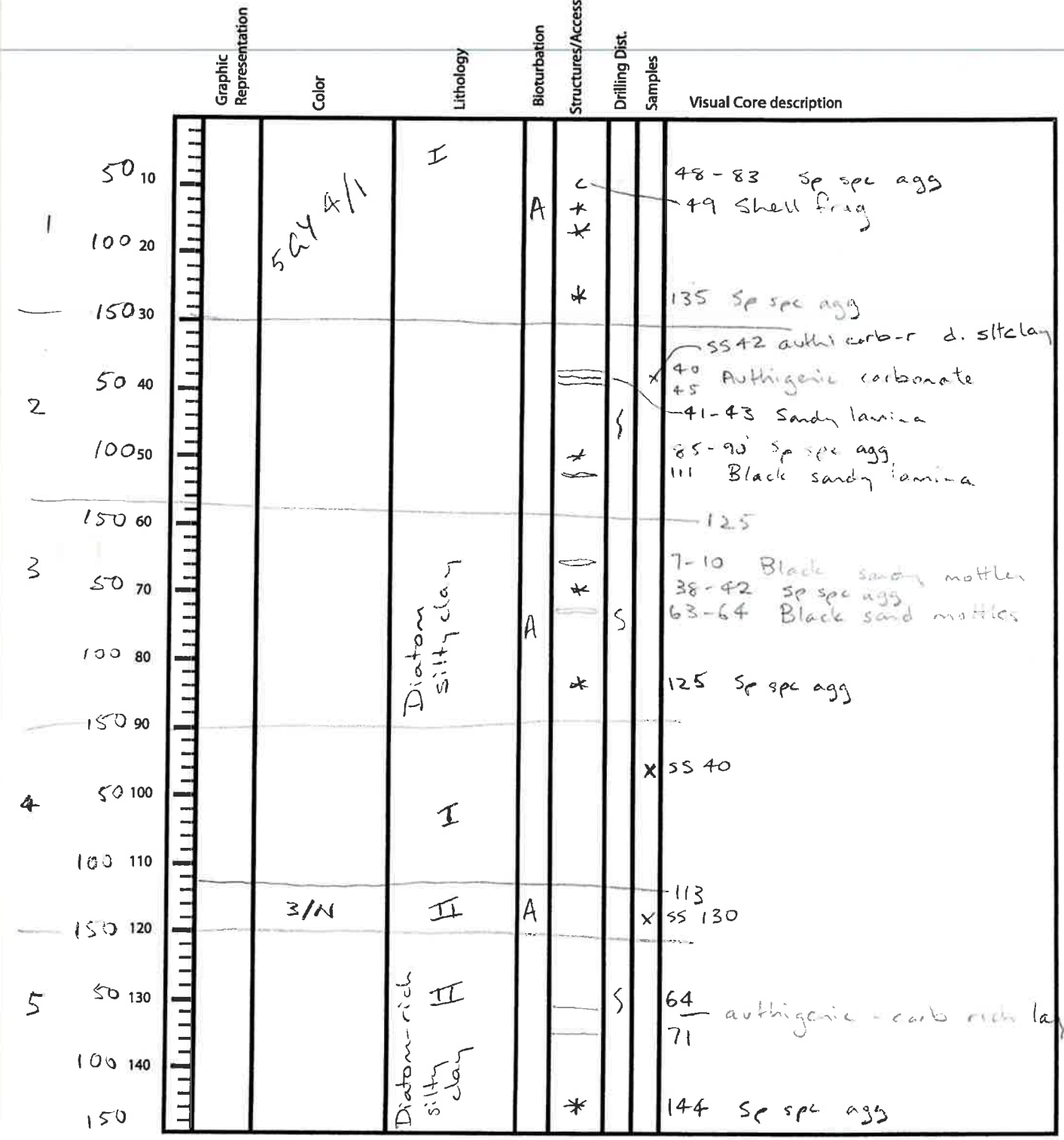
Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
8 ~~25~~	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Yuskey

1344 | A | 70X | 1-5 | ____
Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



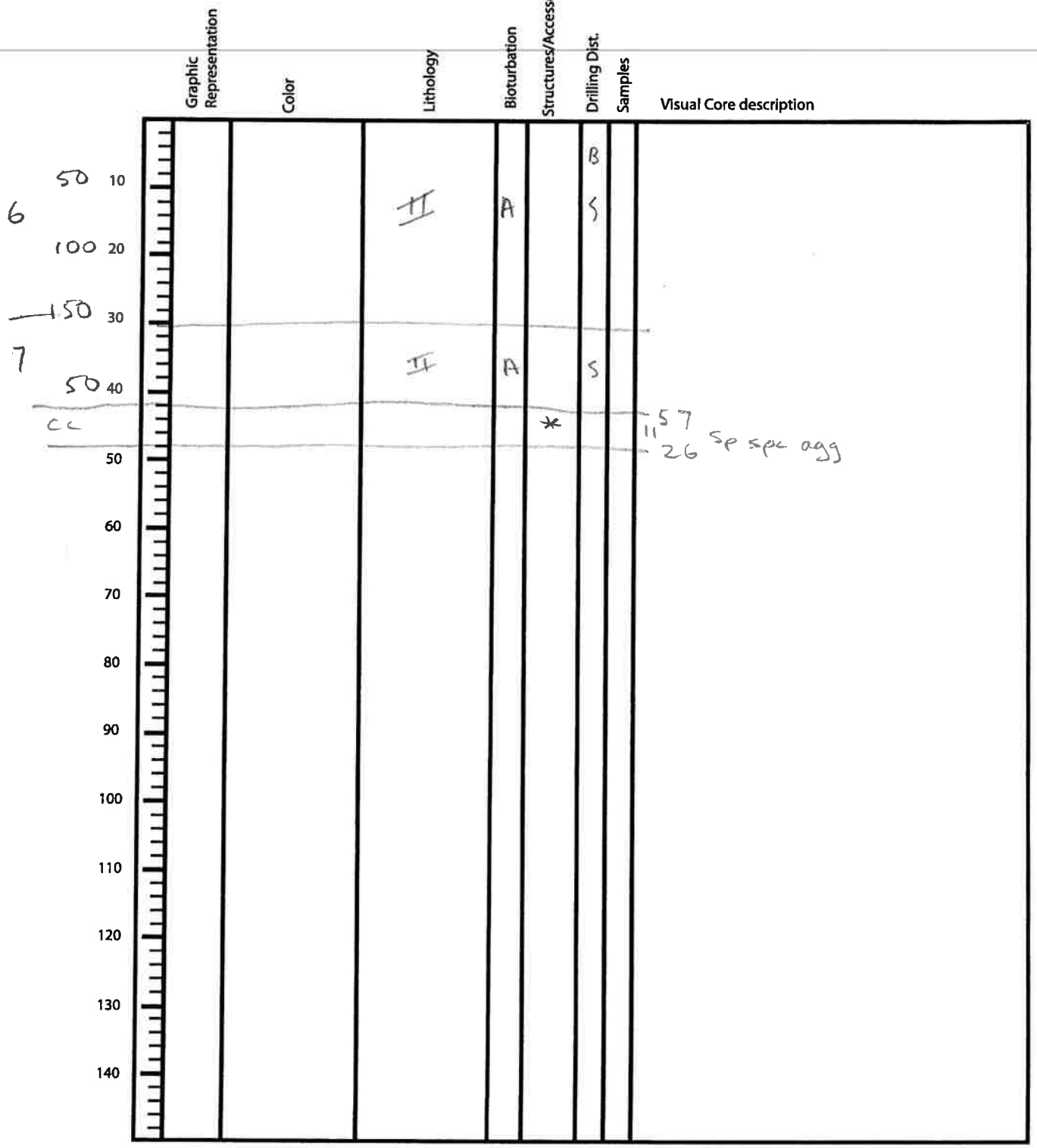
Observer: Kelsie Date: ____

1344 A 70X 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	A	20X		2	42	

Sediment/Rock Name	Diatom-rich sandy silt. Auth. Carb. rich	Observer	Hiro.

Percent Texture		
Sand	Silt	Clay
30	50	20

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 52
	Framework minerals
35	Quartz 30
6	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
6	Ferromagnesium minerals 5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
35	Carbonates 30
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 48
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
12	10 Centric
6	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

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	A	30X		4	60	

Sediment/Rock Name	Diatom Silty Clay	Observer	HA

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 12
	Framework minerals
36	Quartz 15
12	Feldspar ←
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
5	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 48%
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
48	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	A	7	ox	4	130	

Sediment/Rock Name	Diatom rich silty clay	Observer	Hiwa

Percent Texture		
Sand	Silt	Clay

Comments:

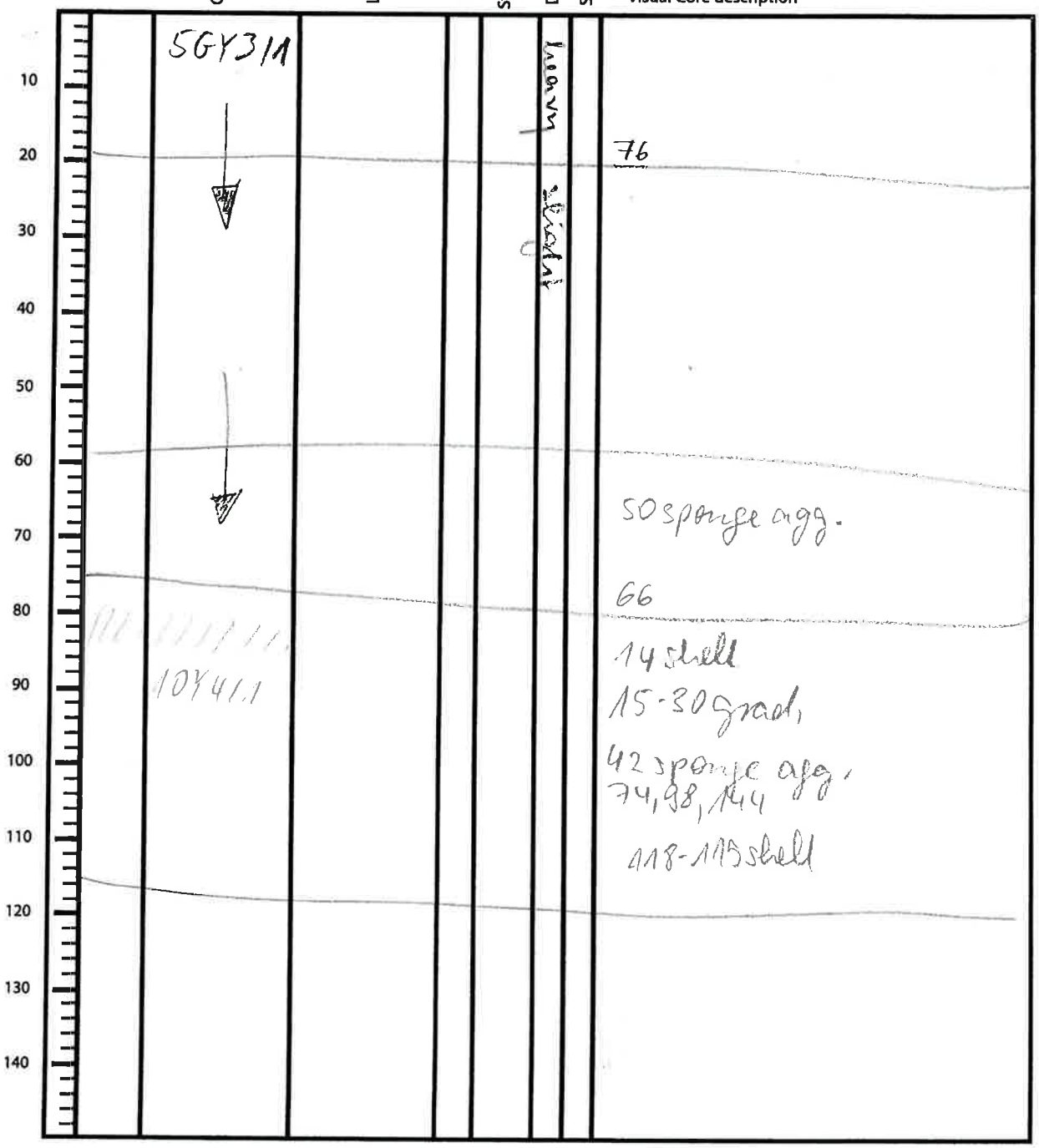
Percent	Component
	SILICICLASTIC GRAINS/MINERAL 77
	Framework minerals
32	Quartz 30
5	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
20 22	Clay Minerals 20
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals 5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite 5
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
5	Vitric grain 5
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 37 23
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
13 15	Centric
6 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

1344 A 7HX 1+2+3+4
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



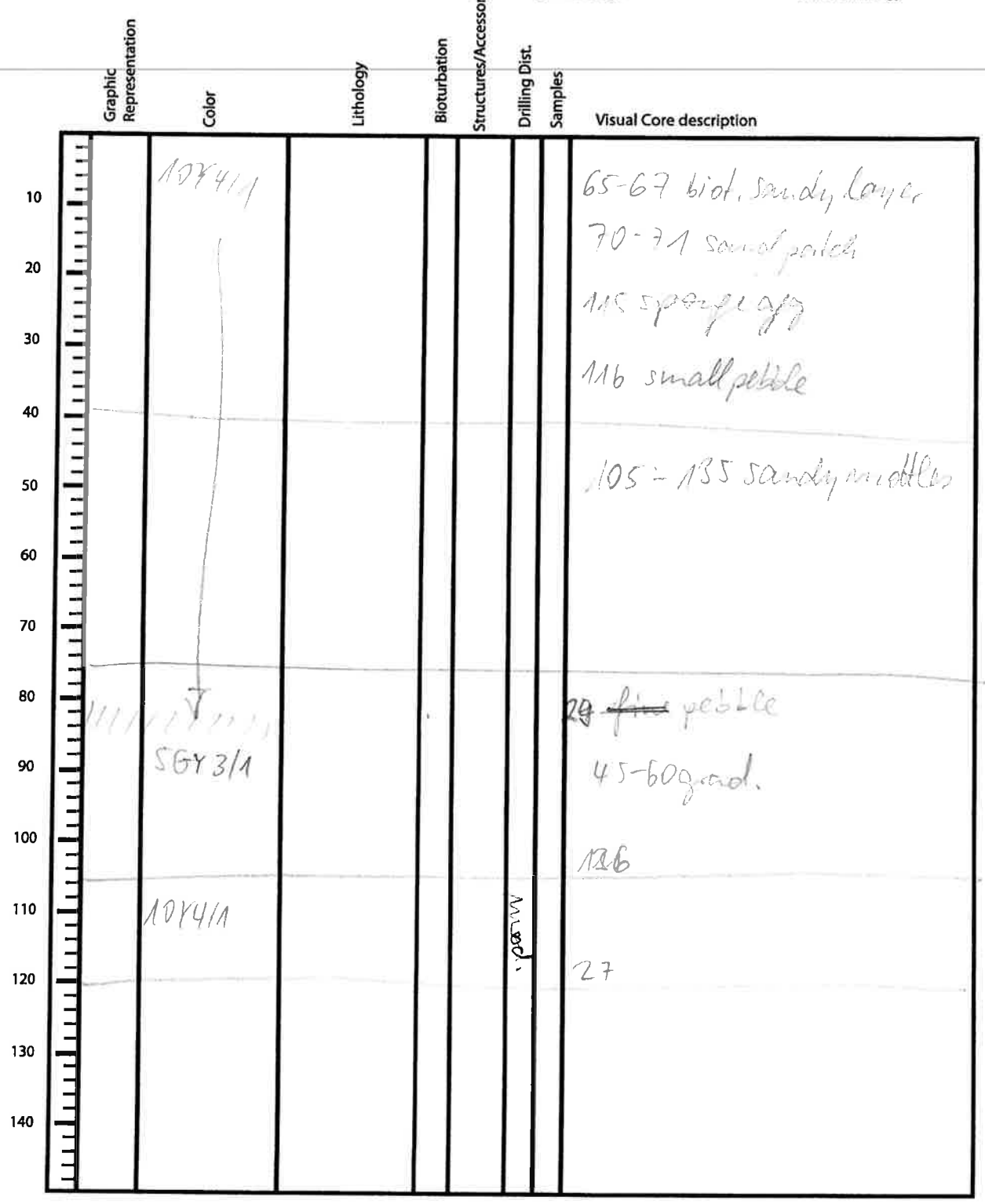
Observer: _____ Date: _____

1344 A 71X 5+6+7+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	A	71X		5A	60	

Sediment/Rock Name	Diatom Clay	Observer	

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 51
	Framework minerals
34	Quartz 16
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	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
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
10	Calcite 3
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

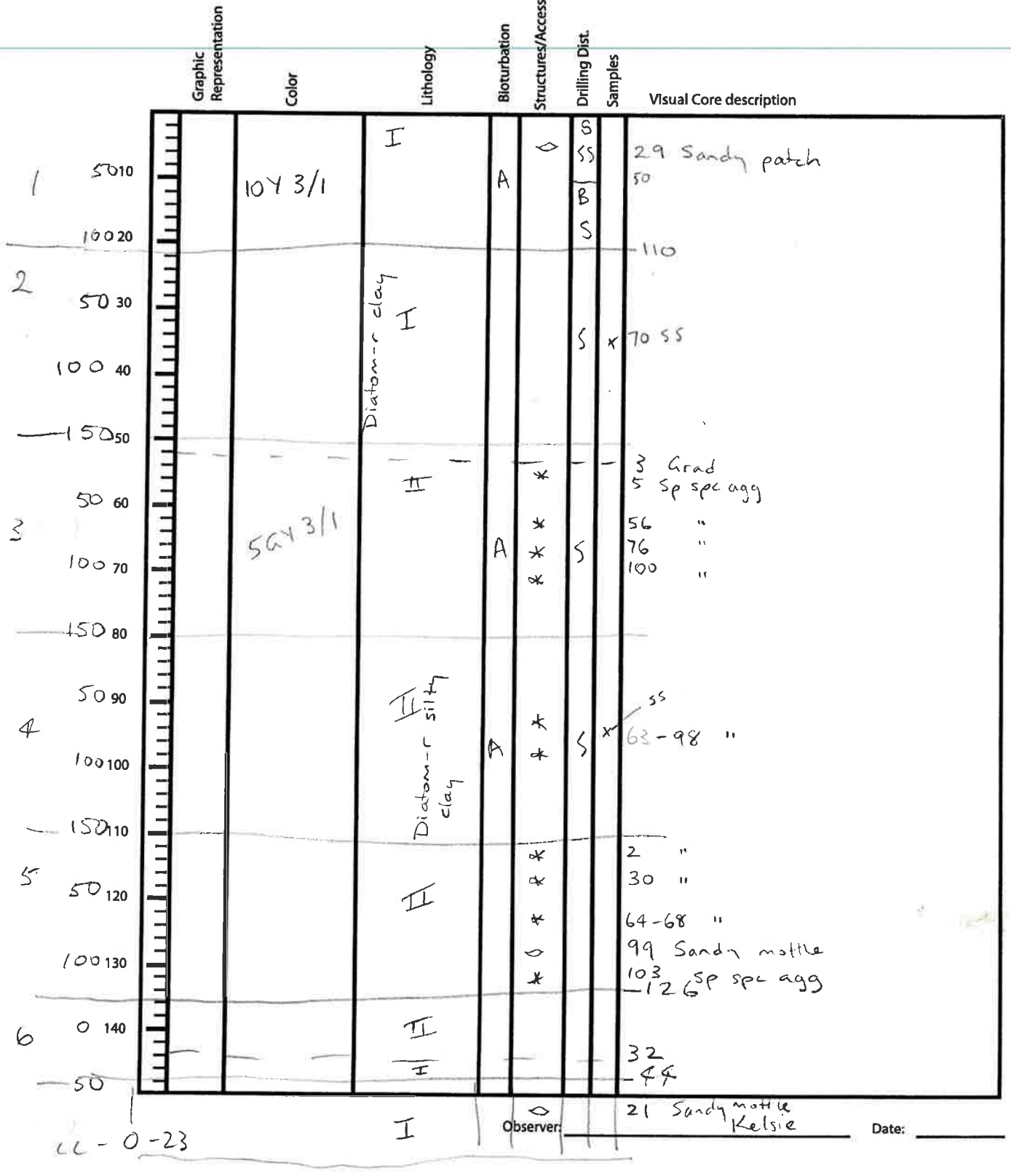
Percent	Component
	BIOGENIC GRAINS 49
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
~~45~~ ~~42~~ 46	15 Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
3	1 Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1344 A 72X 1-CC
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	A	72	X	2	70	

Sediment/Rock Name	Diatom-rich clay

Observer	H/SW

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 80
	Framework minerals
60	Quartz 20
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments /
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
15	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
2 ≥ 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 20
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
20	7 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

A

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	~~A~~	72X		4	70	

Sediment/Rock Name	Diatom-rich clay (silty)

Observer	HA

Percent Texture		
Sand	Silt	Clay

Comments:

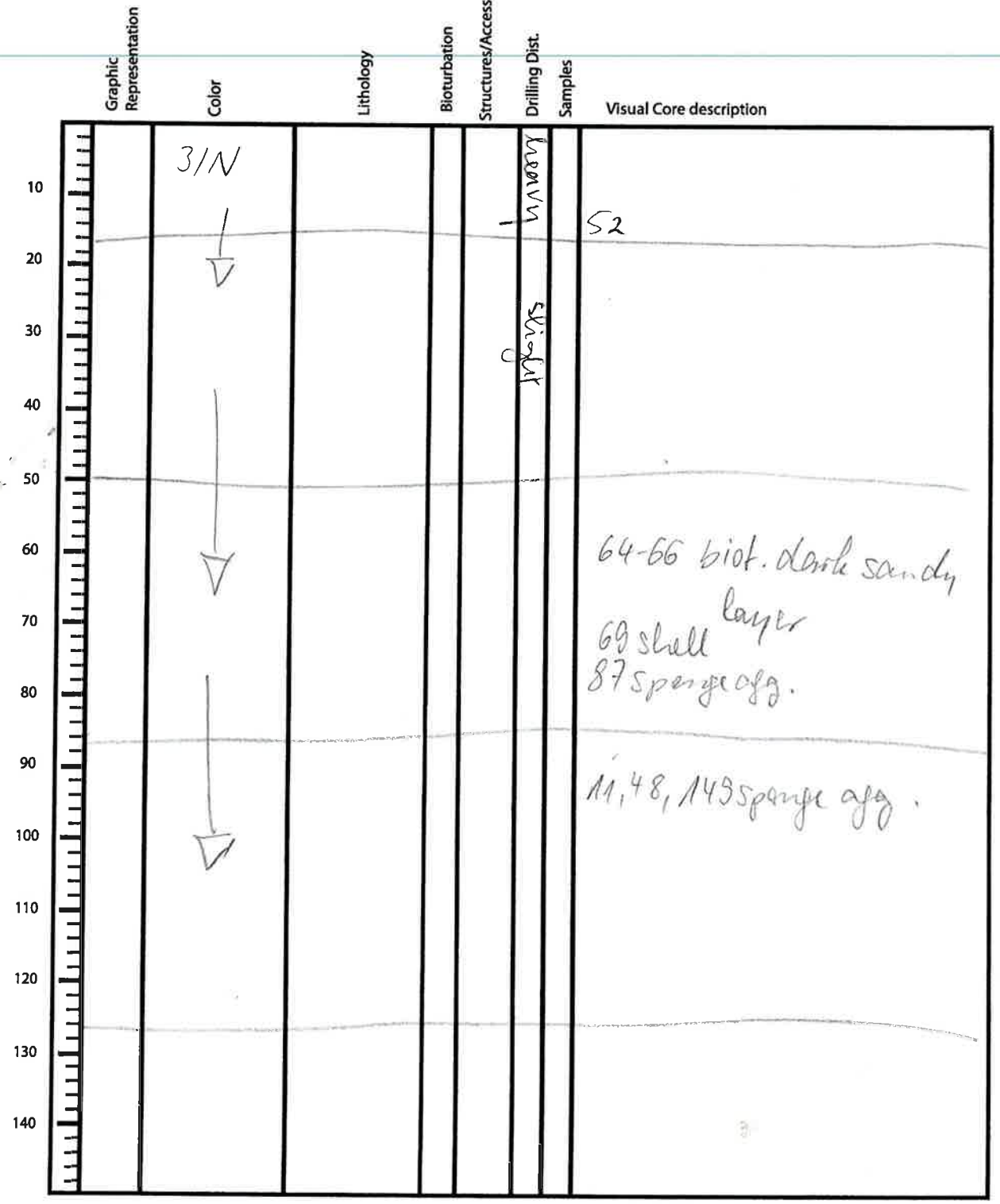
Percent	Component
SILICICLASTIC GRAINS/MINERAL 63	
	Framework minerals
16	Quartz 3
5	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
11	Rock fragments 2
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
26	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals 1
	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 37	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
37	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 A 73X 1+2+3+4
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

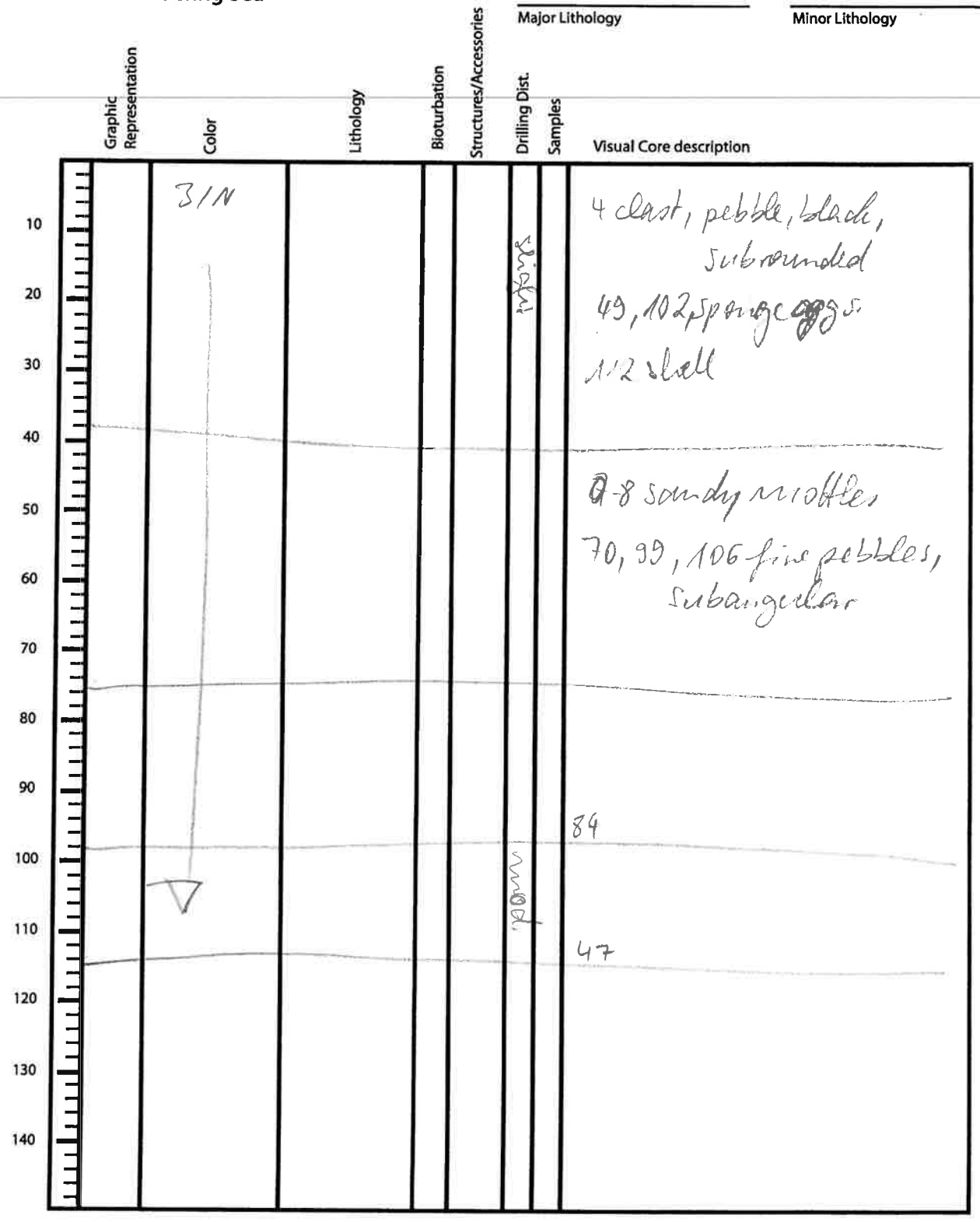


Observer: _____ Date: _____

1346 A 73X 5+6+7+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	1354	A	73	X	4A	77	

Sediment/Rock Name	Diatom silty Clay

Observer	H. mA

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 56%
	Framework minerals
30 ~~25~~ %	Quartz 7
9 5 %	Feldspar /
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
13%	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
9 %	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 44%
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
44 %	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

SML

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344		73X		6A	55	

Sediment/Rock Name	Diatom-rich silty clay	Observer	H. wA

Percent Texture		
Sand	Silt	Clay

Comments:

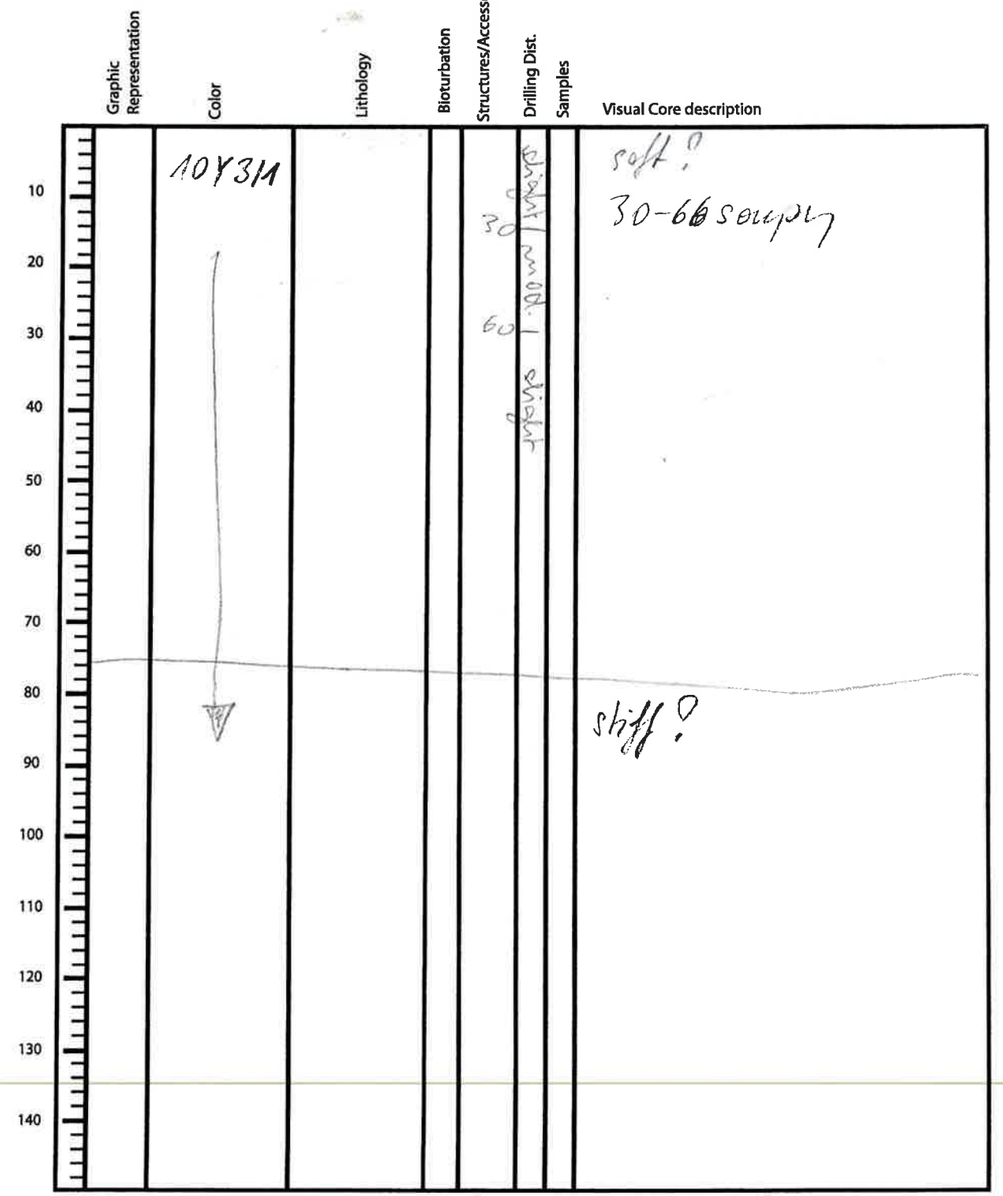
Percent	Component
	SILICICLASTIC GRAINS/MINERAL ~~77~~ 83
	Framework minerals
48	~~56~~ Quartz 20
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	~~3~~ 3 Rock fragments /
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
12	~~14~~ Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
2 3	Ferromagnesium minerals /
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5 6	Pyrite 2
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS ~~23~~ 17
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
~~23~~ 7	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

1344 A 74X 1+2 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: _____ Date: _____

1344 (Site) A (Hole) 74X (Core) 3+4 (Section) ____ (Top Depth)

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
	10Y3/1				slight		5-8 sandy layer, dark, biot., graded, biot. top, sharp base 141 shell
	10Y4/1						30 clast, pebble, black, angular

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

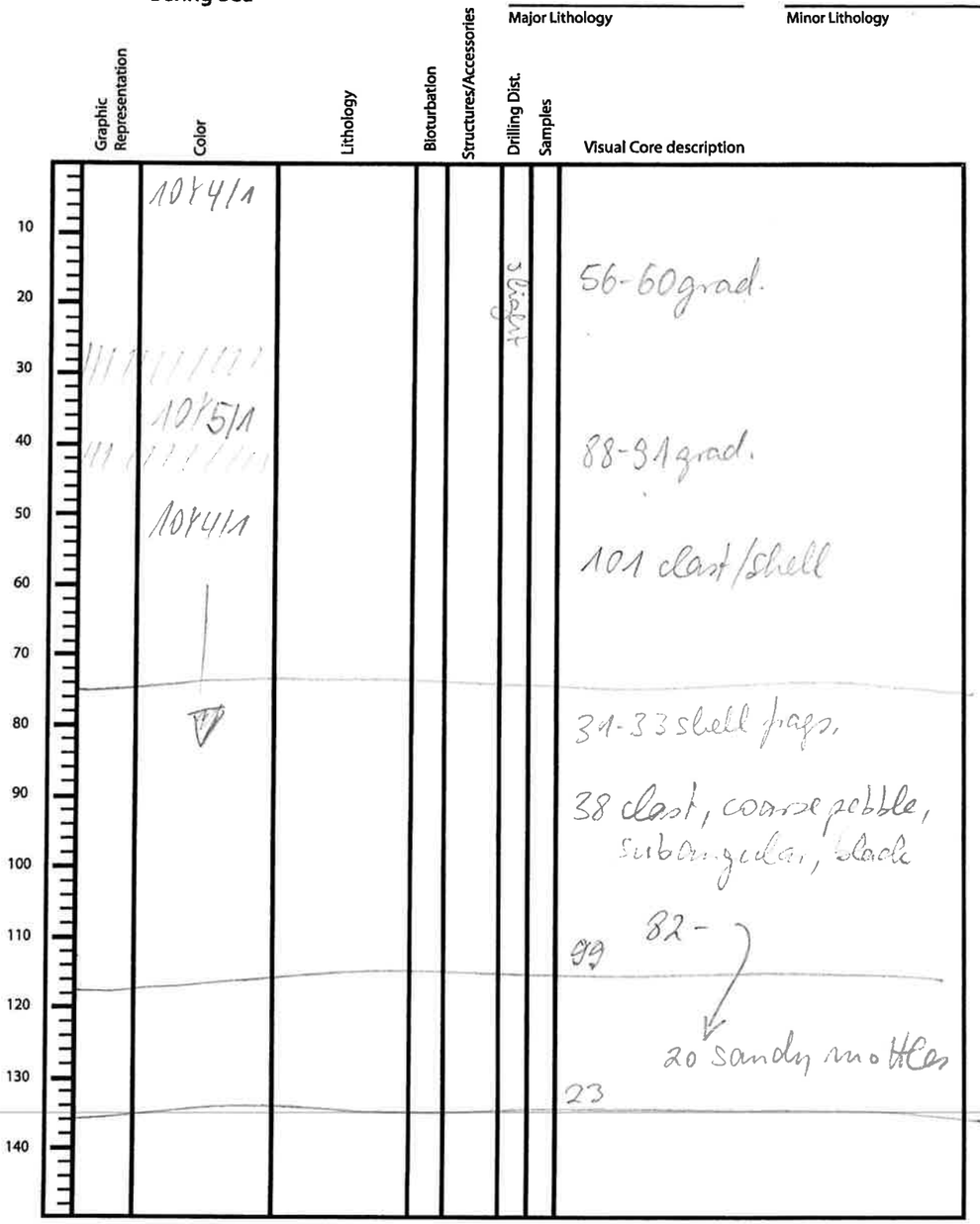
Observer: _____ Date: _____

1344 A 74X 5+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	1344	A	7H		2A	80	

Sediment/Rock Name	Diatom-rich silty Clay	Observer	Kino

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 65
	Framework minerals
33	Quartz 7
5	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
9	Rock fragments 2
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
14	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
4 5	Ferromagnesium minerals 1
	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 35
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
33 ~~2~~	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
2 ~~0.5~~	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	A	7FX		4	40	

Sediment/Rock Name	Diatom-rich silt	Observer	H. Imai

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 40
	Framework minerals
50	Quartz 25
10	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
10	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
6	Chlorite
	Glauconite
	Chert
	Zircon
4	Ferromagnesium minerals 2
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
6	Pyrite 3
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 30
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
30 FF	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

5H✓

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1344	A	~~34~~ X		5A	80	

Sediment/Rock Name	Auth. Carb. rich, Diatom rich Sandy clay	Observer	Hino. A

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 76
	Framework minerals
16	Quartz 10
3	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments 1
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
8	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
~~68~~47	Carbonates Auth. carb 30
	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
24 25	Diatoms 15
	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 A 75

Site	Hole	Core	Section	Top Depth
1344	A	75		

Expedition 323
Bering Sea

Major Lithology

Minor Lithology

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

1 10

2 20

30

3/N

3 40

a

4 50

135
140

V

60

5 20

70

6 10Y 3/1

7 80

CC

33

90

100

110

120

130

140

20-30 mottles authigenic 10Y 3/1

2A-60 diatom-rich clayey silt

5A 37 diatom-rich clayey silt

3/N

10Y 3/1

Observer: Date:

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	A	75	X	2A	29	

Sediment/Rock Name	Authigenic carbonate rich diatom silt

Observer	Beth

Percent Texture		
Sand	Silt	Clay

Comments: Accessary - Mottle

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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	A	7S	X	2A	60cm	

Sediment/Rock Name	Diatom-rich clayey silt

Observer	Beth

Percent Texture		
Sand	Silt	Clay
15	60	25

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
5	Plagioclase
10	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
10	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
5	Zeolite
	Opaque minerals
15	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
20	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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1349	75	X	SA	37	cm	

Sediment/Rock Name	Diatom-rich clayey silt	Observer	Beth

Percent Texture		
Sand	Silt	Clay
10	70	20

Comments:

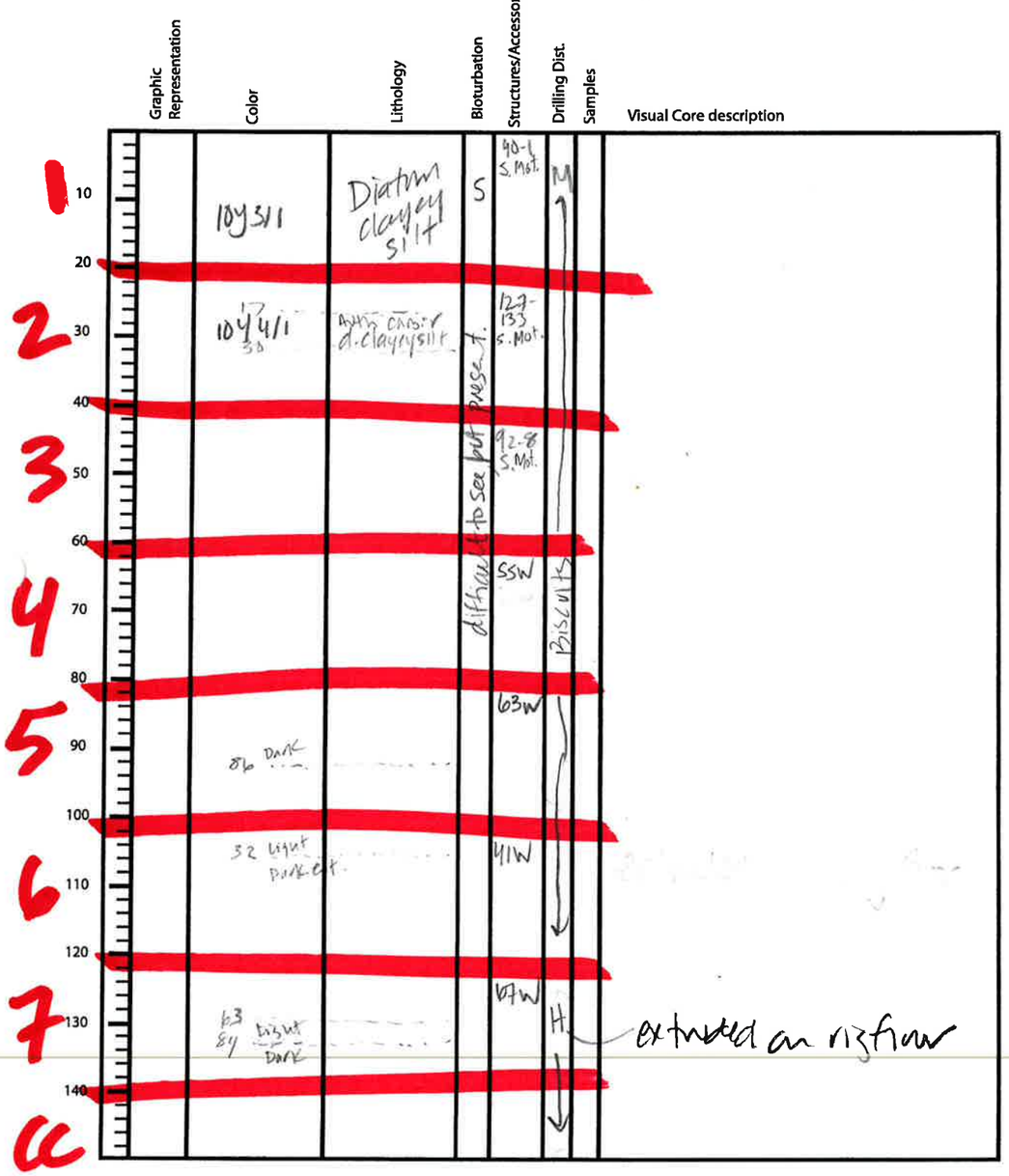
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments
	Accessory/trace minerals
5	Micas
	Biotite
	Muscovite
15	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals
	Authigenic 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
2.2	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

U1344 A 76X 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
	1345	A	76	X	2	29 cm	

Sediment/Rock Name	diatom clayey silt authigenic carbonate?

Observer	

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
9	Quartz 3
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments 1
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
9	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
1	Ferromagnesium minerals 0.5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite 2 1
	Magnetite
	Fe-oxide
45	Carbonates 15
	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 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

SM

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1447	A	76	X	6A	20	

Sediment/Rock Name	diatom clayey silt	Observer	Akira

Percent Texture		
Sand	Silt	Clay
0	50	50

Comments:

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

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
48	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

SM

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	B44	A	7H	X	7	20	

Sediment/Rock Name	diatom clayey silt	Observer	Akira

Percent Texture Sand	Silt	Clay
23	45	32
5	10	7

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
16	Quartz 10
8	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
8	Rock fragments 5
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
16	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite 3
	Magnetite
	Fe-oxide
	Carbonates
2	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
47	Diatoms 36
	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 77X ALL

Site	Hole	Core	Section	Top Depth
1344	77X		ALL	

Expedition 323
Bering Sea

Major Lithology

Minor Lithology

Section	Depth	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
1	10			D-rich Silty clay			Biscuits Soupy		extruded onto rig floor.
2	30					147 P.			
3	50								
4	70				SLIGHT		M		
5	90		10Y 3/1; 80; 10Y 4/1	Diatom clayey		89-90 Sand			Silty sand.
6	110		120; 10Y 3/1	silt; light; dark; D-rich silty clay		28-29; 20; 10-20 P. streak			light layer; Dark Ash(?) Mot. 109-P. streak
7	130		38; 10Y 4/1	light; D clayey silt			M; 40; S		80; SS
CC							M		

Observer:

Date:

1344A 77X

SM

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	A	77	X	2	90 cm	

Sediment/Rock Name	Diatom- rich silty-clay

Observer	G.B

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
20	x Quartz
	Feldspar
5	x K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
45	x Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
5	x 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

85

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
20	x 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

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	A	77	X	5A	89cm	

Sediment/Rock Name	Silty Sand

Observer	Beth

Percent Texture		
Sand	Silt	Clay
60	40	

Comments: sand layer - accessory

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
20	Quartz
20	Feldspar
	K-feldspar (Orthoclase, Microcline...)
5	Plagioclase
30	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
20	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	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
	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	A	77	X	6	19cm	

Sediment/Rock Name	Diatom-rich silty fine ash

Observer	Bcm

Percent Texture		
Sand	Silt	Clay
20	80	

Comments: Accessory-Mottle

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
10	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
5	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
65	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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	A	77	X	7	80cm	

Sediment/Rock Name	Diatom-[illegible] clayey silt

Observer	G.B

Percent Texture		
Sand	Silt	Clay
	x	

Comments:

Percent		Component
SILICICLASTIC GRAINS/MINERAL		
		Framework minerals
15	x	Quartz
		Feldspar
5	x	K-feldspar (Orthoclase, Microcline...)
		Plagioclase
		Rock fragments
		Accessory/trace minerals
		Micas
		Biotite
		Muscovite
40	x	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
38	x	Diatoms
		Centric
		Pennate
		Chaetoceros Resting Spores
		Silicoflagellates
2	x	Sponge spicules
		Dinoflagellates
		Others
		Pollen
		Organic debris
		Plant debris
		Ebridians
		Echinoderm
		Fish remains (teeth, bones, scales)
		Bryozoans
		Bivalves
		Others

62

8

1344 Site A Hole 78 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
				20	20		131-136 139 motts 5Y 5/3
	10Y 3/1						61-62 sand; 67 mott 5Y 5/3
							25-29 mott 5Y 5/3
	10Y 3/N						100
							10 10-20 PAL

2-28cm authigenic calcite clay

4A-64 dia

10Y 3/1 diatom-rich silty clay

3/N diatom rich clay

Observer:

Date:

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1344	A	78	X	2	28 cm	

Sediment/Rock Name	authigenic calcare clay

Observer	G.D.

Percent Texture		
Sand	Silt	Clay

Comments: Needles

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

SM

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1346	A	78	X	4	64 cm	

Sediment/Rock Name	Diatom. rich Clay.	Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Comments:

Percent		Component
SILICICLASTIC GRAINS/MINERAL		
		Framework minerals
5	x	Quartz
		Feldspar
2	x	K-feldspar (Orthoclase, Microcline...)
		Plagioclase
		Rock fragments
		Accessory/trace minerals
		Micas
		Biotite
		Muscovite
52 40	x	Clay Minerals
		Chlorite
		Glauconite
		Chert
		Zircon
3	x	Ferromagnesium minerals
		Authigenic minerals
		Barite
		Phosphorite/Apatite
		Zeolite
		Opaque minerals
		Pyrite
		Magnetite
		Fe-oxide
		Carbonates
		Calcite
		Dolomite
VOLCANICLASTIC GRAINS		
		Crystal grain
10	x	Vitric grain
		Lithic grain

77 - ?2,?

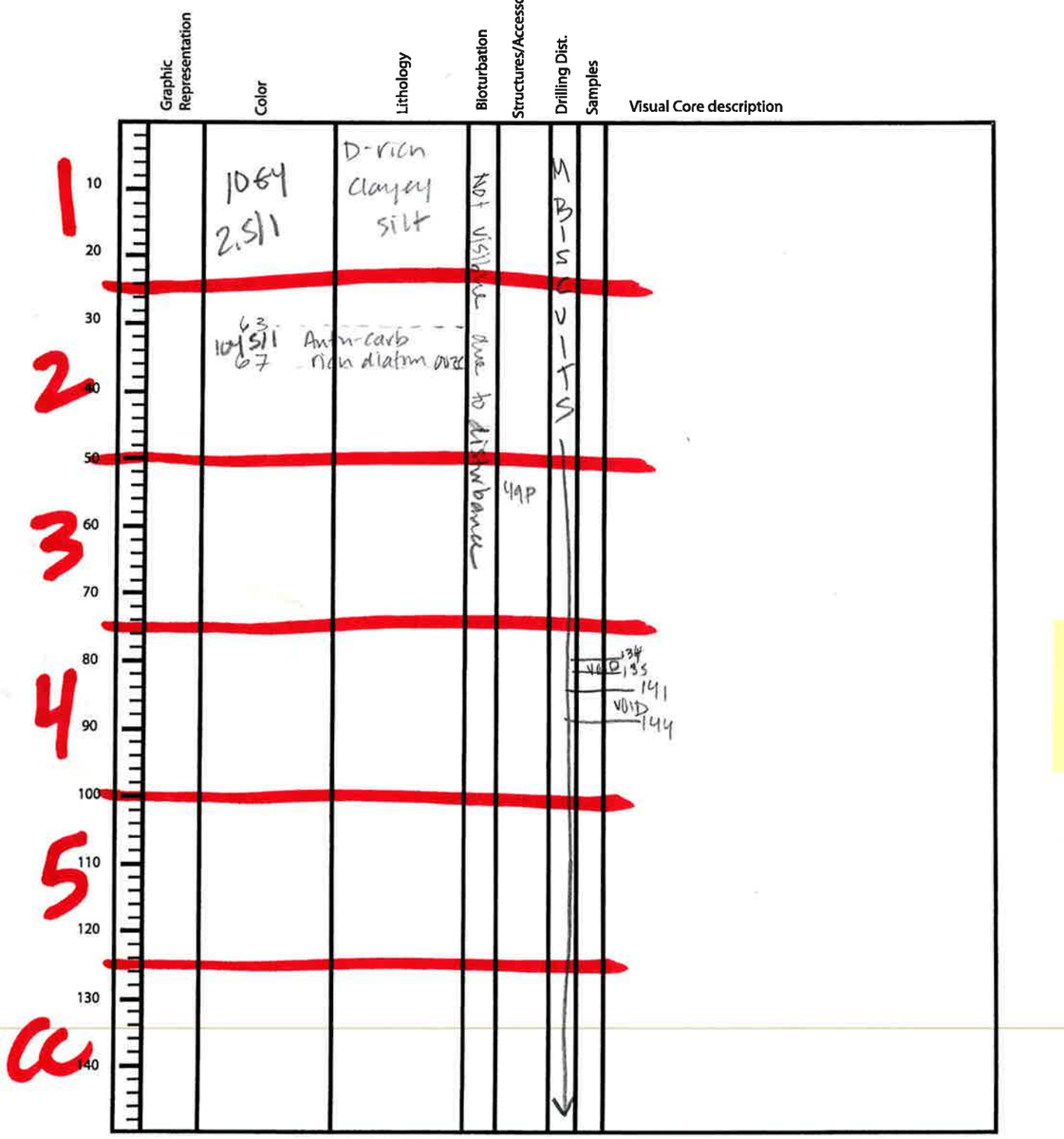
Percent		Component
BIOGENIC GRAINS		
		Calcareous
		Foraminifera
		Planktonic foraminifera
		Benthic foraminifera
		Nannofossils
		Coccoliths
		Discoasters
		Pteropods
		Siliceous
		Radiolarians
		Spumellaria
		Nassellaria
30	x	Diatoms
		Centric
		Pennate
		Chaetoceros Resting Spores
		Silicoflagellates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

U1344A 79X ALL
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

SM

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1314	A	79	X	2A	65cm	

Sediment/Rock Name	Authigenic carbonate-rich diatom ooze

Observer	Beth

Percent Texture		
Sand	Silt	Clay

Comments: Secondary lithology

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
	Quartz
5	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
80	Calcite muddy
	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
15	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	A	79	X	4A	60cm	

Sediment/Rock Name	diatom-rich clayey silt

Observer	BETH

Percent Texture Sand	Silt	Clay
0	70	30

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals 10
20	Quartz
10	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
10	Plagioclase 5
4	Rock fragments 2
	Accessory/trace minerals
6	Micas 3
	Biotite
	Muscovite
10	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
12	Pyrite 6
	Magnetite
	Fe-oxide
	Carbonates
6	Calcite 3
	~~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 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