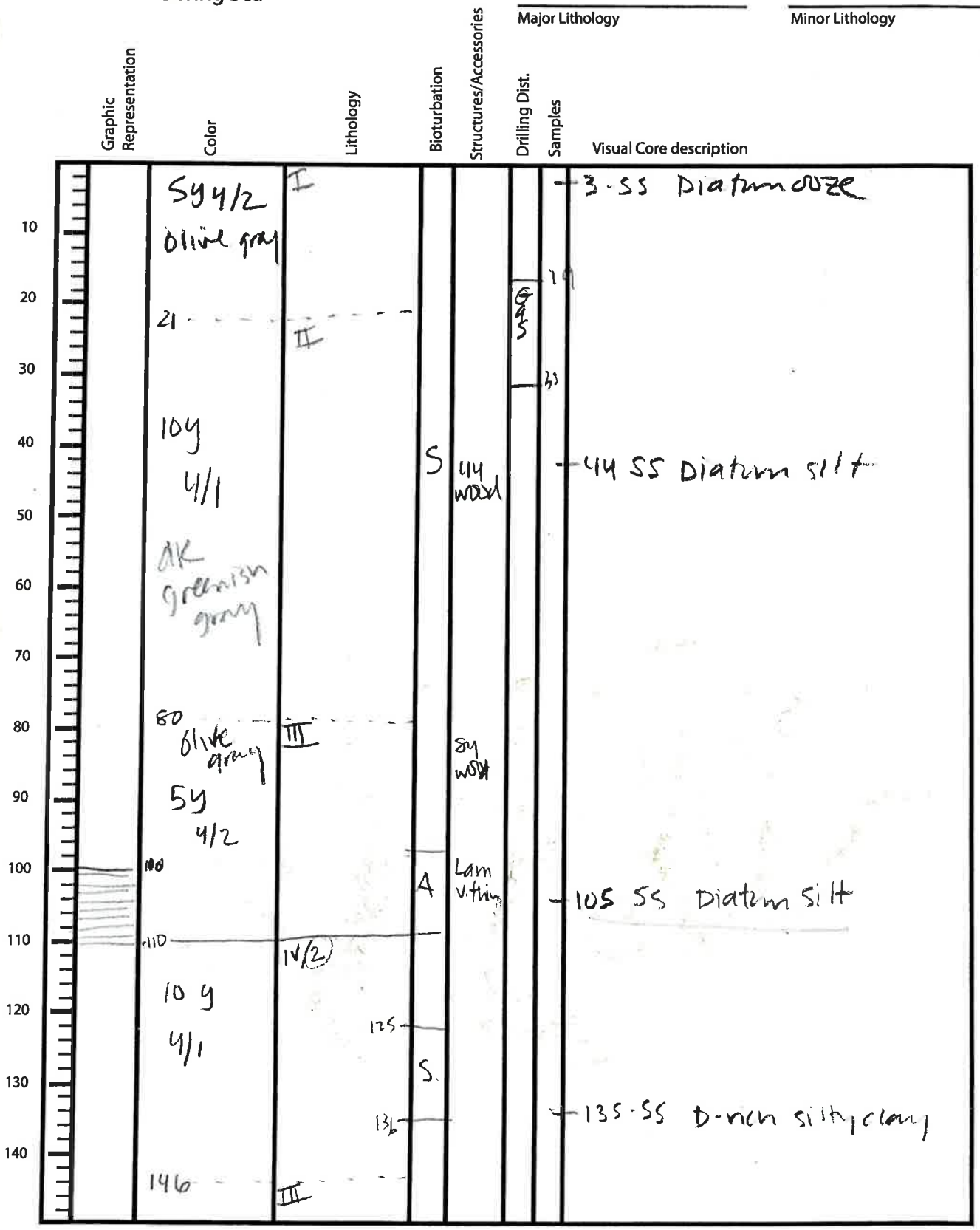
U1343 A 1H 1 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

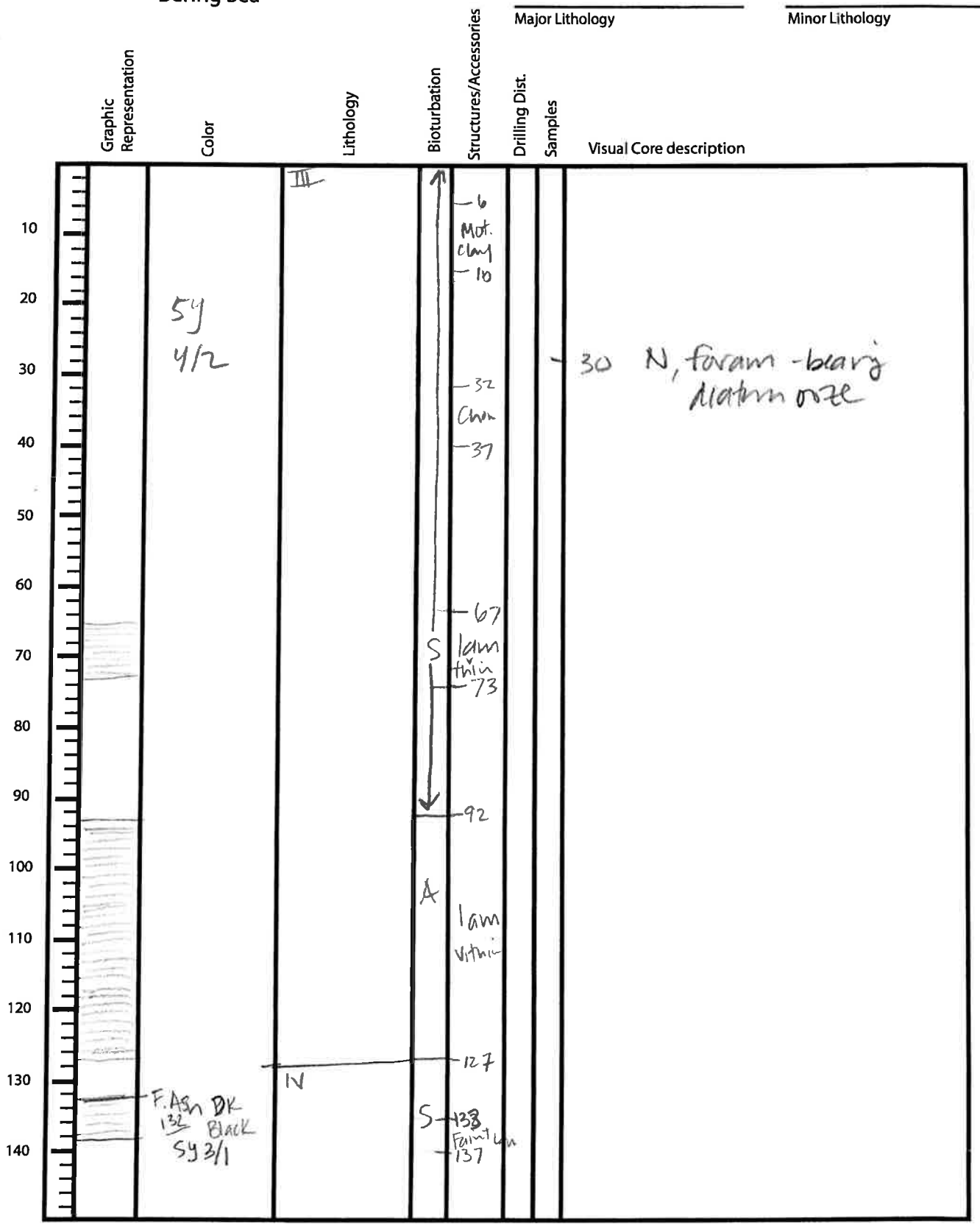


Observer: ____ Date: ____

U 1343 A 1H 2 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

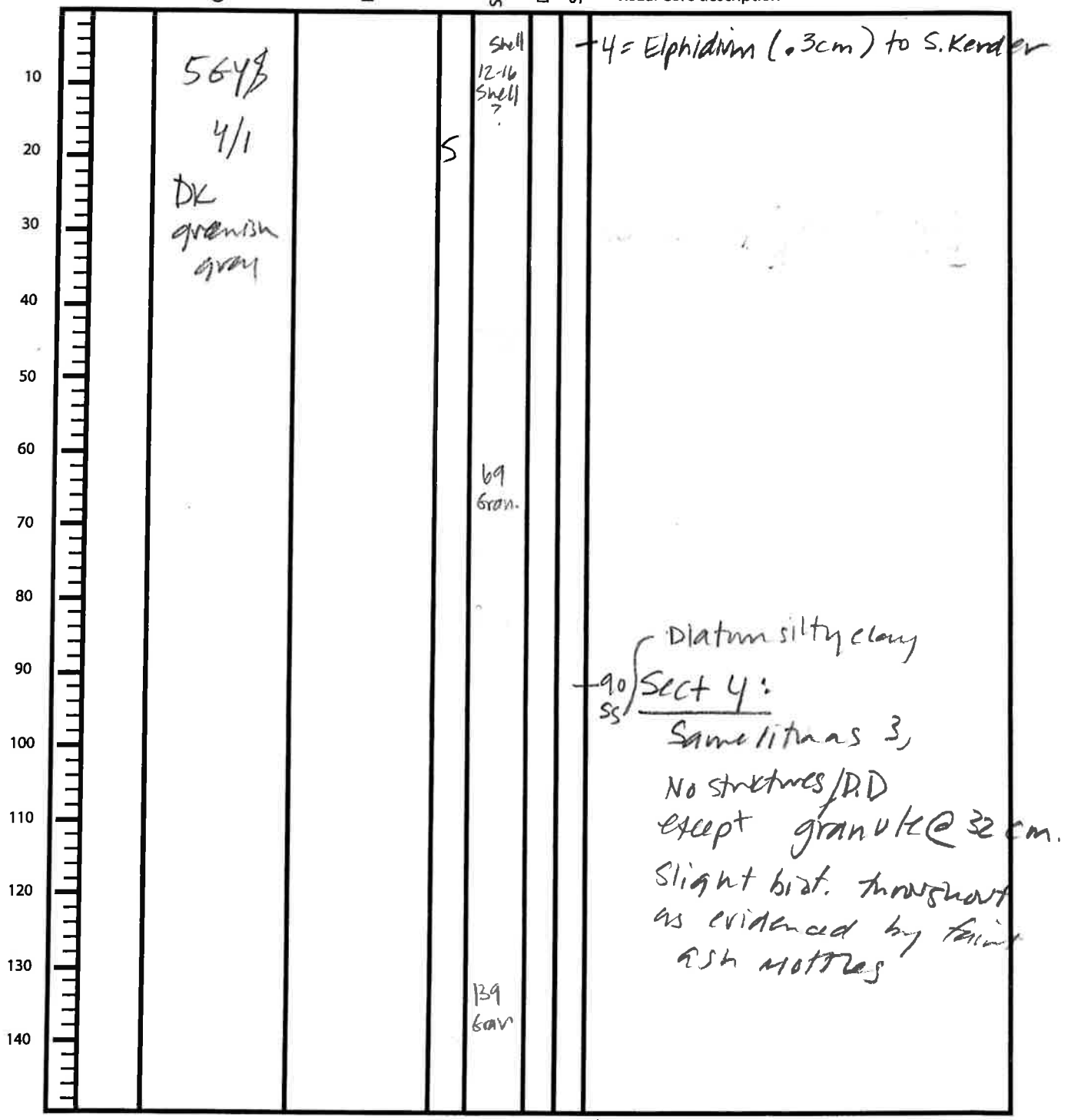


Observer: _____ Date: _____

U1343 A 1H 3 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



Observer: Both Date: ____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	1	H	1A	3cm	

Sediment/Rock Name	Diatom ooze	Observer	Beth

B 60
S 35
V S

Comments:

Percent Texture		
Sand	Silt	Clay

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	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
5	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
25	Pennate
14	*Chaetoceros* Resting Spores
	Silicoflagellates
1	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	1	H	1A	44cm	

Sediment/Rock Name	Diatom silt

Observer	Beth

B-45
S-57
V-3

Comments:

Percent Texture		
Sand	Silt	Clay
	80	20

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
3	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
20	Centric
10	Pennate
10	*Chaetoceros* Resting Spores
	Silicoflagellates
1	Sponge spicules Calc & Siliceous
	Dinoflagellates
	Others
	Pollen
1	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	U1343	A	1	H	1A	10 5cm	

Sediment/Rock Name	Diatom silty clay

Observer	Beth

B 53
S-37
V-10

Comments:

Percent Texture		
Sand	Silt	Clay
	40	60

Myr Lithology

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
10	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
3	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
10	Centric
10	Pennate
17	*Chaetoceros* Resting Spores
	Silicoflagellates
3	Sponge spicules Calcareous
	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	U1343	A	1	H	1	105 cm	

Sediment/Rock Name	Diatom-rich, Foram.-bearing, Clay-

Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Comments:

not cultured (duplicate)

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

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

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	1	H	1A	135cm	

Sediment/Rock Name	Diatom rich silty clay

Observer	Ben

S 65
V 10

Percent Texture		
Sand	Silt	Clay
	30	70

Comments: B 25

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
13	Quartz
15	Feldspar
	K-feldspar (Orthoclase, Microcline...)
2	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
10	Clay Minerals
2	Chlorite
	Glauconite
	Chert
	Zircon
3	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
5	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
5	Centric
10	Pennate
3	*Chaetoceros* Resting Spores
	Silicoflagellates
2	Sponge spicules Calc
	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	U1343	A	1	H	2A	30cm	

Sediment/Rock Name	Nanno; Foram-bearing diatom ooze	Observer	Beth

B 68
S 29
V 3

Comments:

Percent Texture		
Sand	Silt	Clay

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

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

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	1	H	3A	90cm	

Sediment/Rock Name	Diatom silty clay

Observer	Beth

Percent Texture		
Sand	Silt	Clay
	40	60

Comments: B - 43
S - 67
V - 0

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

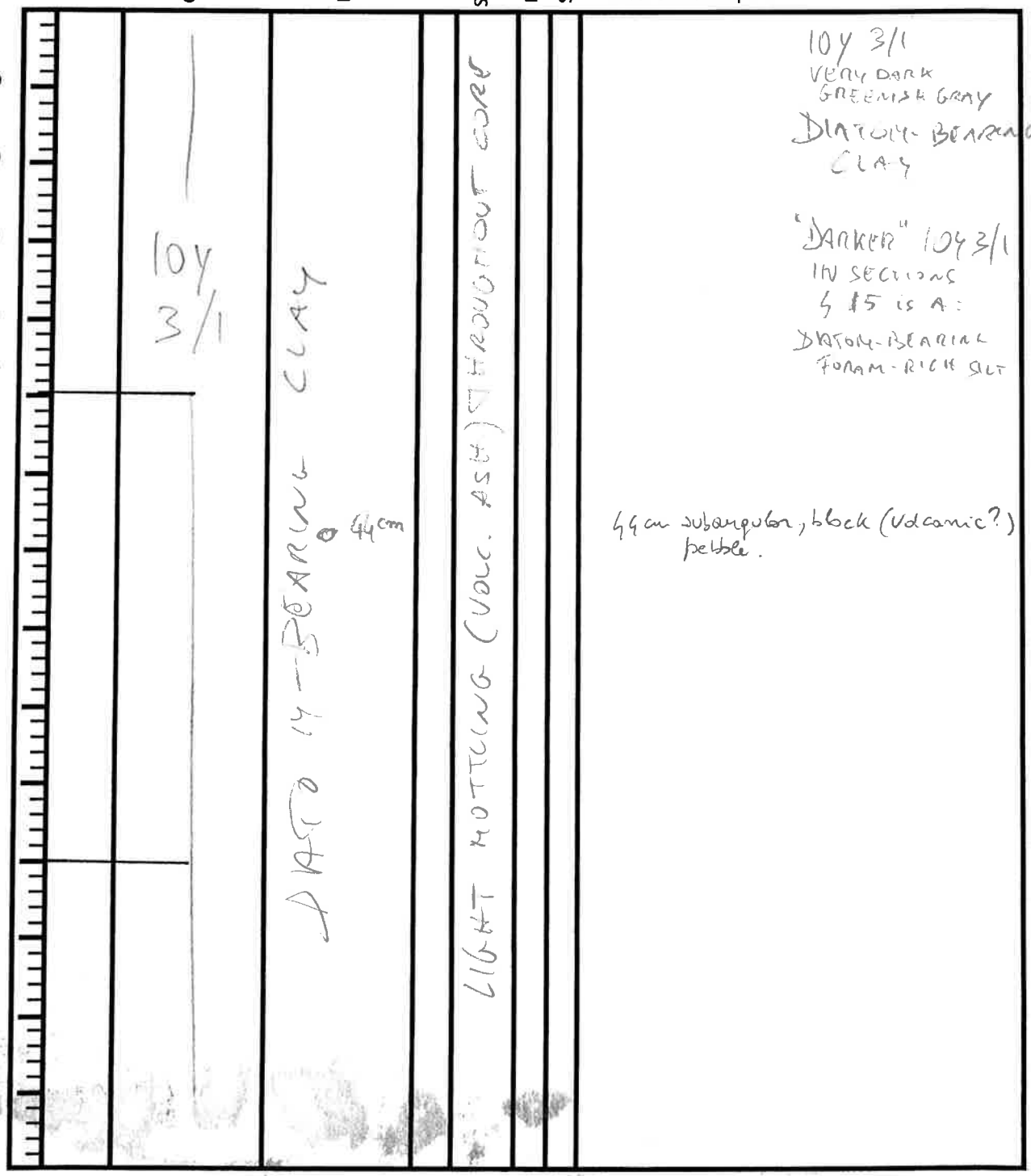
Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
3	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
2	Nassellaria
	Diatoms
13	Centric
15	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

4,130cm 55-107 cm
4,183cm

Expedition 323
Bering Sea

1343 Site | A Hole | 2 Core | 1-2 Section | ___ Top Depth

Major Lithology ___ Minor Lithology ___

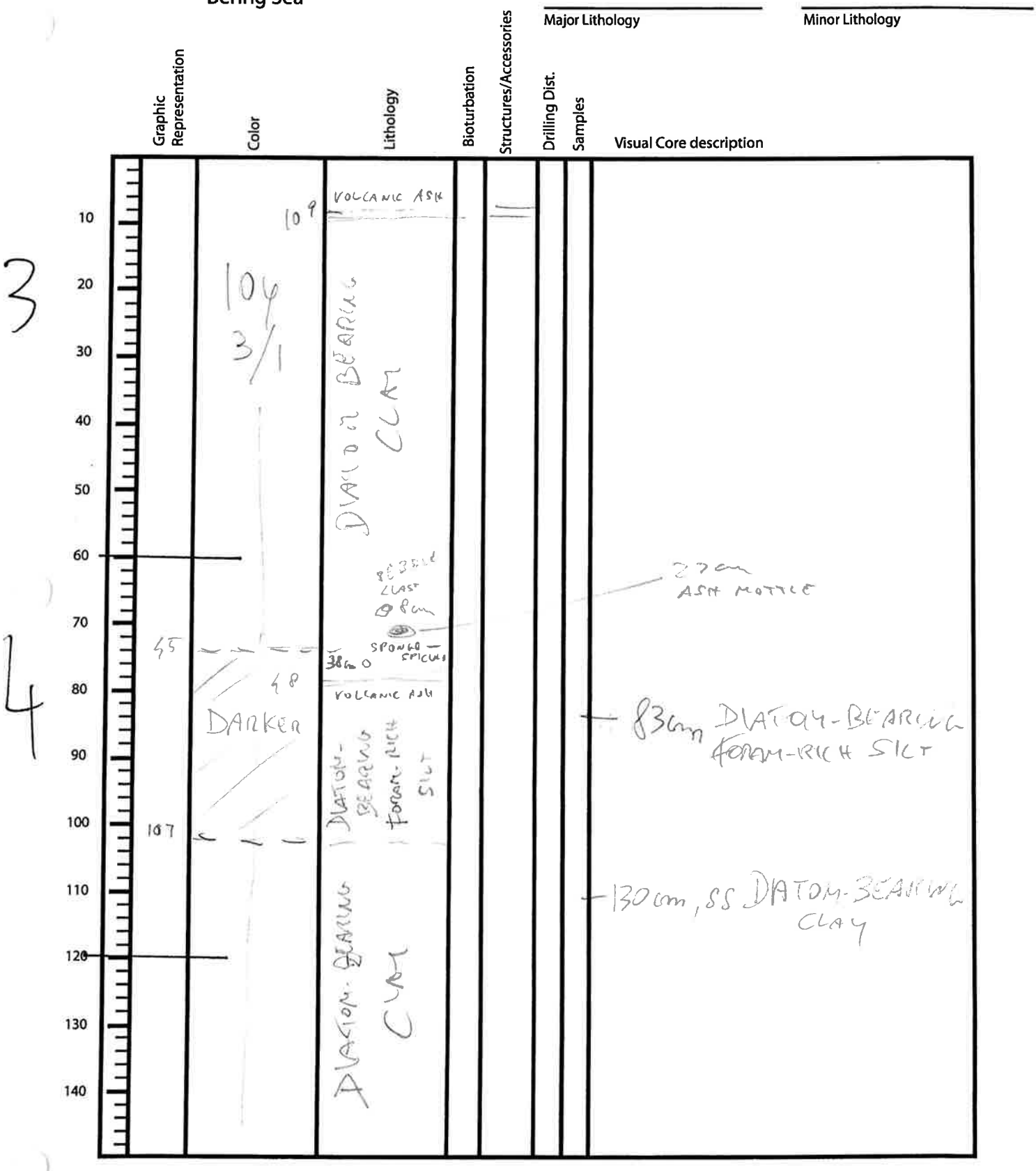


Observer: ___ Date: ___

1343 A 2 3-4 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

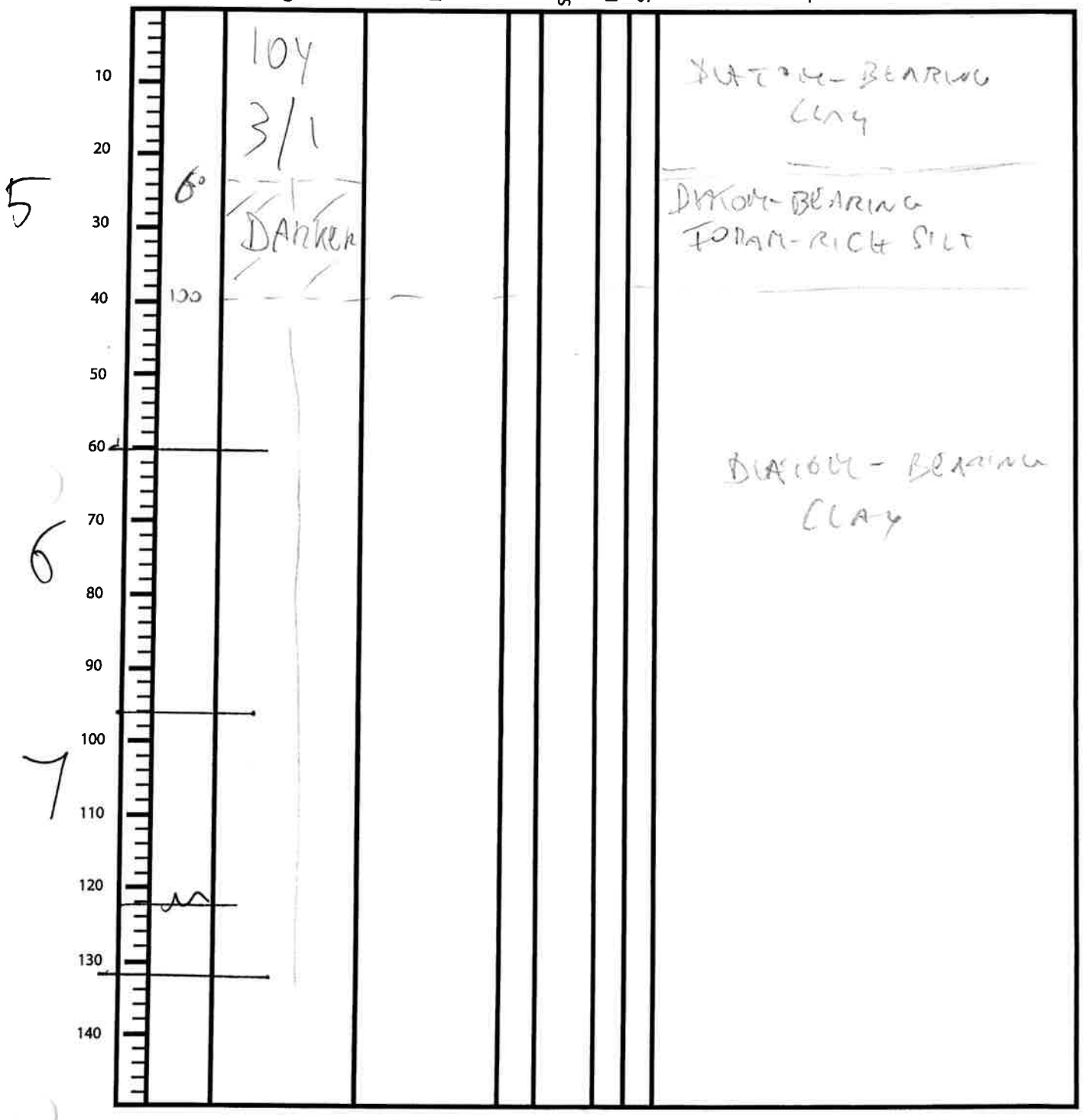


Observer: ____ Date: ____

1343 A 2 5- ____
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	U1343	A	2	H	4	83cm	

Sediment/Rock Name	Foram-rich Silt Diatom-bearing

Observer	G.B.

greenish lithology.

Comments: brown

Percent Texture		
Sand	Silt	Clay

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
15	x Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
2	x Nannofossils (very few)
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
3	x 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

20 75

25

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	2	H	4	130 cm	

Sediment/Rock Name	Diatom-bearing Clay

Observer	GB

grayer lithology

Percent Texture		
Sand	Silt	Clay

Comments:

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

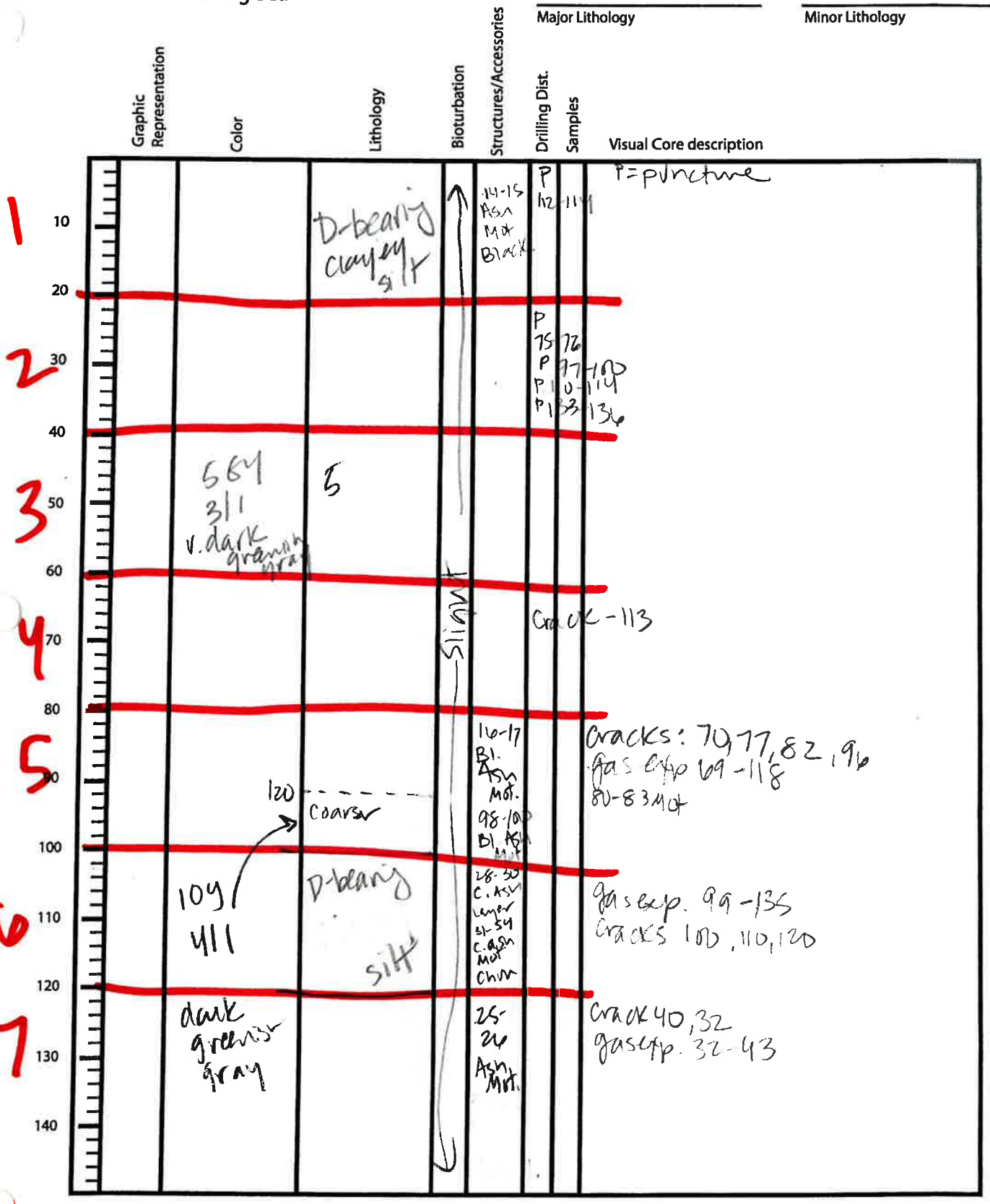
96 21 9

U1343 A 3H ALL
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



NO CC

Observer: _____ Date: _____

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	3	H	2A	60cm	

Sediment/Rock Name	Diatom bearing clayey silt

Observer	Bet

B 10
S 84
V 0

Comments:

Percent Texture		
Sand	Silt	Clay
	70	30

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz
20	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
30	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
10	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
15	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
1	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	3	H	6A	50cm	

Sediment/Rock Name	Diatom bearing silt

Observer	BeA

Percent Texture		
Sand	Silt	Clay
	80	20

Comments:

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

1343 A 4 1-CC
Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology

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

↕ EXPANSION CRACKS

10Y 3/1 VERY DARK GREENISH GRAY } DIATOM SILT
10Y 4/ DARK GRAY } DIATOM-RICH SILT

Section 1–6 (10–140 cm):
- Color: 10Y 3/1 (upper), 10Y 4/ (lower, from 57 cm in section 5)
- Lithology: DIATOM SILT; DIATOM-RICH SILT (lower)
- SPONGE AGG @ 134; pebble @ 123; pebble (base)
- 33 ASH; 147 ASH
- Expansion cracks: 74 cm, 128 cm, 71 cm, 76 cm; 50; 10; 50; 113; 20 (PUNCTURE)
- 70 cm SS DIATOM SILT
- 70 cm SS DIATOM-RICH SILT

Section 7: 10Y 3/1; DIATOM SILT; pebble @ 26; 60 SEVERAL CRACKS; 75; 87 cm
CC: 31 cm

Observer:

Date:

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	4	H	2	70 cm	

Sediment/Rock Name	Diatom Silt	Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Comments:

Percent		Component
SILICICLASTIC GRAINS/MINERAL		
		Framework minerals
20	X	Quartz
10	X	Feldspar
		K-feldspar (Orthoclase, Microcline...)
5	X	Plagioclase
4	X	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
2	X	Pyrite
		Magnetite
10	X	Fe-oxide
		Carbonates
3	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
40	X	Diatoms
		Centric
		Pennate
		Chaetoceros Resting Spores
1	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

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	4	H	6	70 cm	

Sediment/Rock Name	Diatom- rich Silt.

Observer	G.B

Percent Texture		
Sand	Silt	Clay

Comments:

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
1	x Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
80	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

56 70

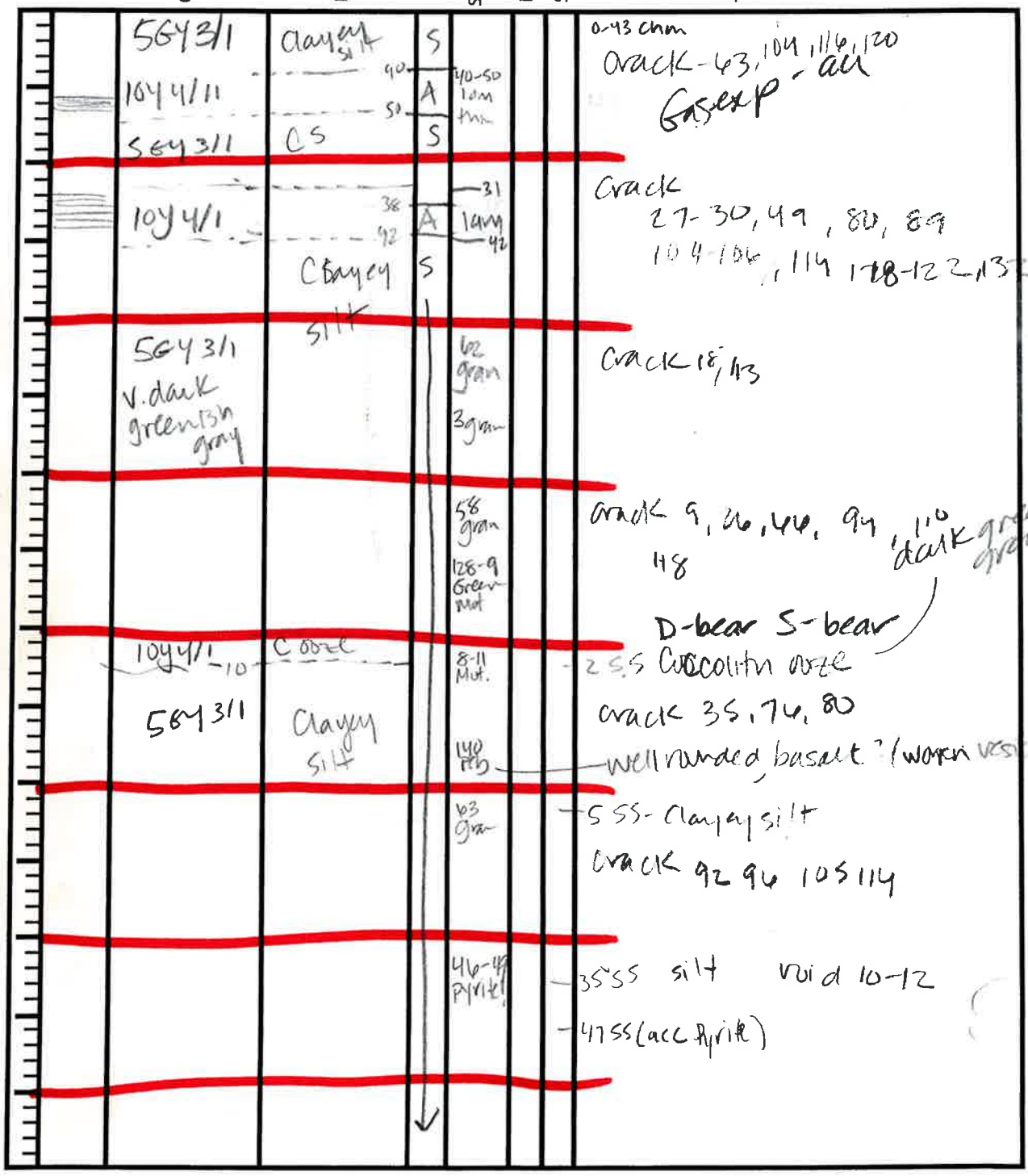
U1343 A 5 ALL

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	Interval (cm) Bottom
323	U1343	A	5	H	1	49 cm	

Sediment/Rock Name	Foram.-rich, Clay Nannof.-rich, Diatom.-bearing	Observer	GB

Percent Texture		
Sand	Silt	Clay

Comments:

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

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

X S/M

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	5	H	5	5 cm	

Sediment/Rock Name	~~Calcite rich Moonnof. rich Silt~~

Observer	G.B.

diatom - bearing
Silicof. bearing
coccolith ooze

Percent Texture		
Sand	Silt	Clay

Comments:

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
10	x Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
5	x Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
5	x 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
	1343	A	5		6	5 cm	

Sediment/Rock Name	CLAYEY SILT

Observer	IW

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20%	Quartz
30%	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
10%	Micas
	Biotite
	Muscovite
30%	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
	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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	S	H	7	35 cm.	

Sediment/Rock Name	Silt

Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Comments:

Percent		Component
SILICICLASTIC GRAINS/MINERAL		
		Framework minerals
10	X	Quartz
		Feldspar
		K-feldspar (Orthoclase, Microcline...)
		Plagioclase
10	X	Rock fragments
		Accessory/trace minerals
		Micas
		Biotite
		Muscovite
20	X	Clay Minerals
		Chlorite
		Glauconite
		Chert
		Zircon
		Ferromagnesium minerals
		Authigenic minerals
		Barite
		Phosphorite/Apatite
		Zeolite
		Opaque minerals
20	X	Pyrite
		Magnetite
10	X	Fe-oxide
		Carbonates
30	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
		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	U1343	A	5	H	7	47 cm	

Sediment/Rock Name	Pyrite	Observer	GB.

Percent Texture		
Sand	Silt	Clay

Comments: Black Spot

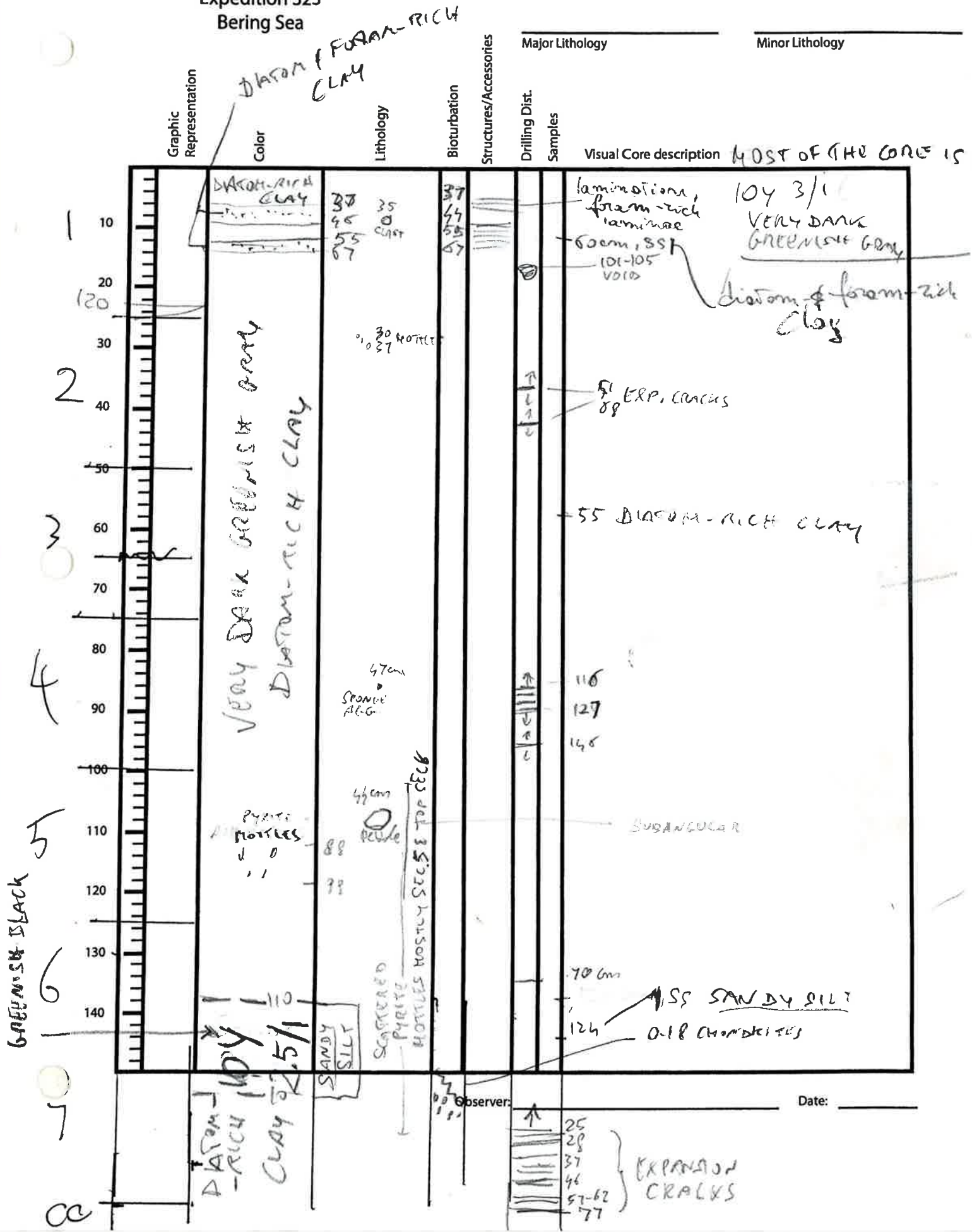
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
	Quartz
3 x	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2 x	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic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

BL3 | A | 6 | 1-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	U1343	A	6	H	1	60 cm	

Sediment/Rock Name	Diatom-rich, foram-rich, clay (siliceous-bearing)	Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Comments:

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
20	X Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
30	X Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
5	X 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	U1343	A	6	H	3	55 cm	

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

Percent Texture		
Sand	Silt	Clay

Comments:

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

15

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	6	H	6	124 cm	

Sediment/Rock Name	Sandy-silt	Observer	G.B

Percent Texture		
Sand	Silt	Clay

Comments:

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

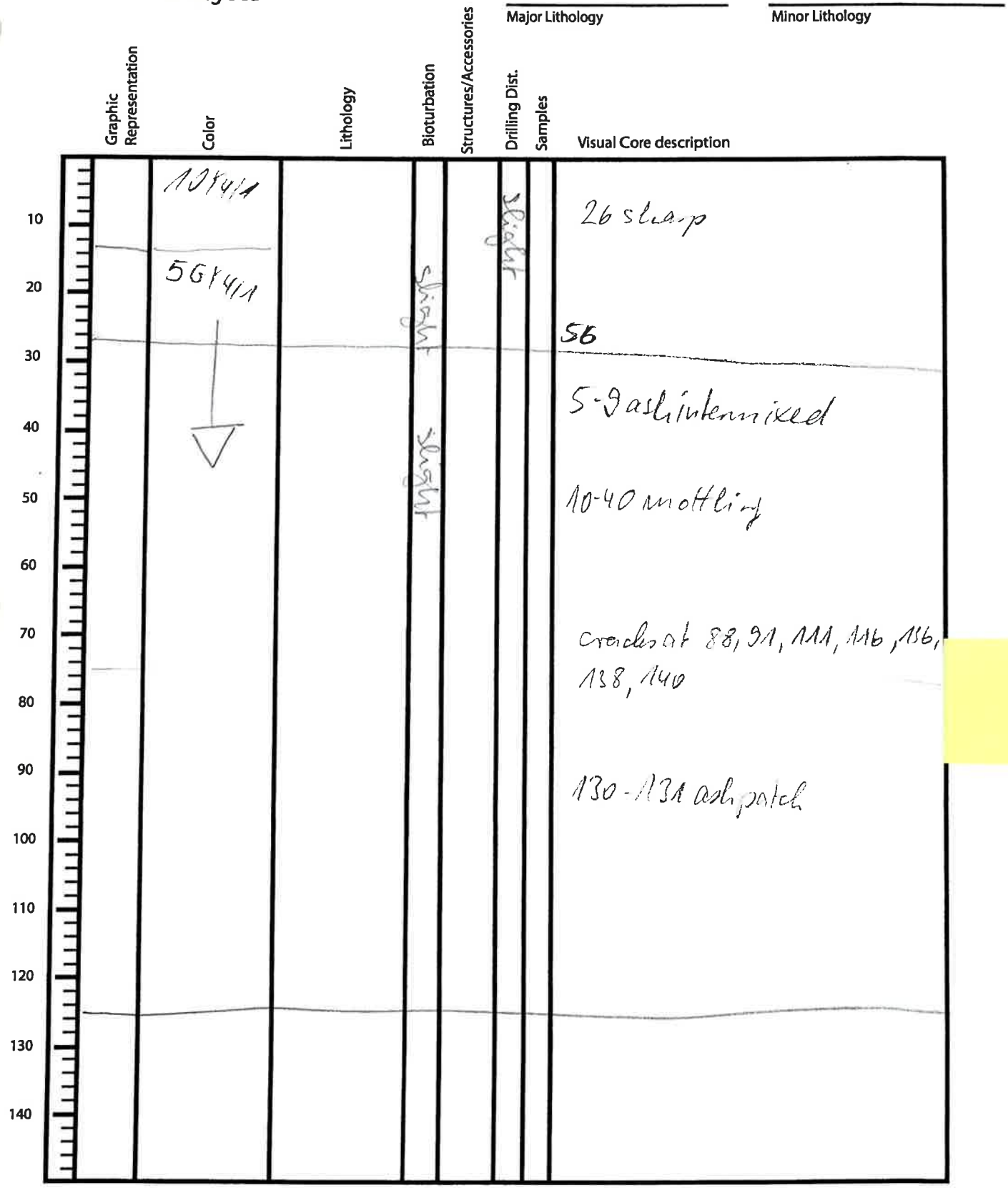
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
1 x	Radiolarians
	Spumellaria
	Nassellaria
2 x	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

65 + 65

1343 A 7H 1+2 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

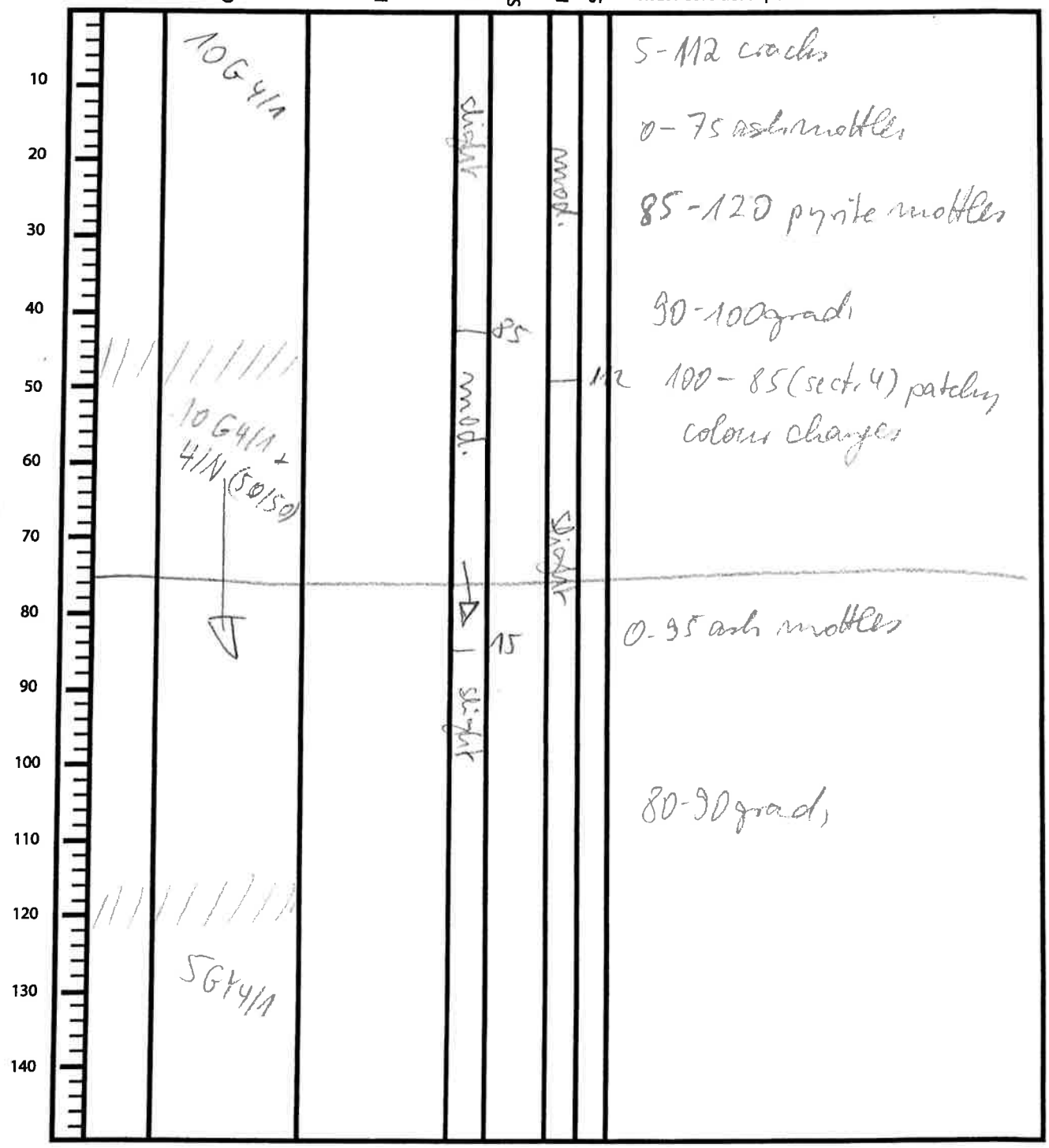


Observer: ____ Date: ____

1343 | A | 7H | 3+4 | _____
Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

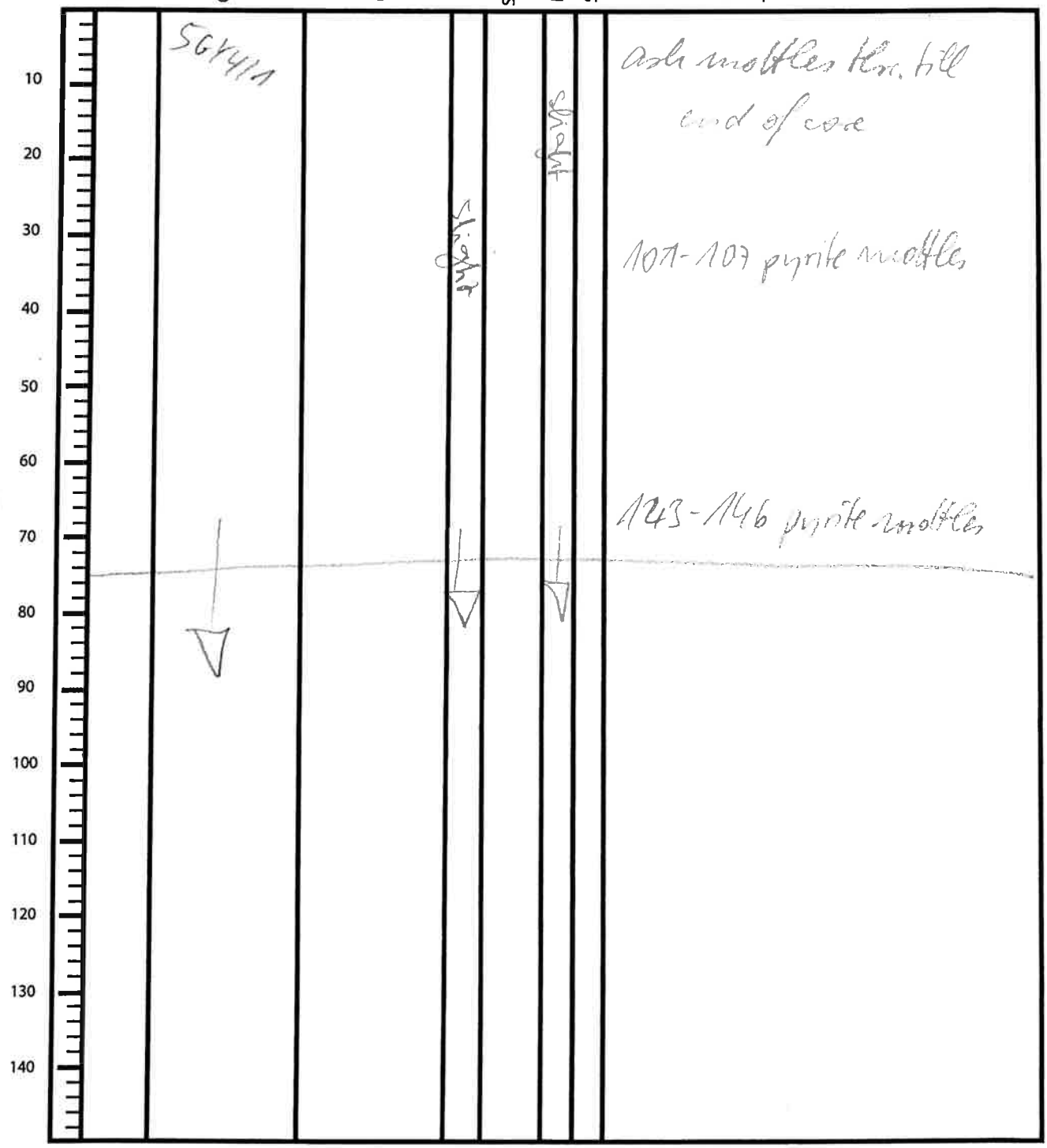


Observer: _____ Date: _____

1343 A 7H 5+6 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



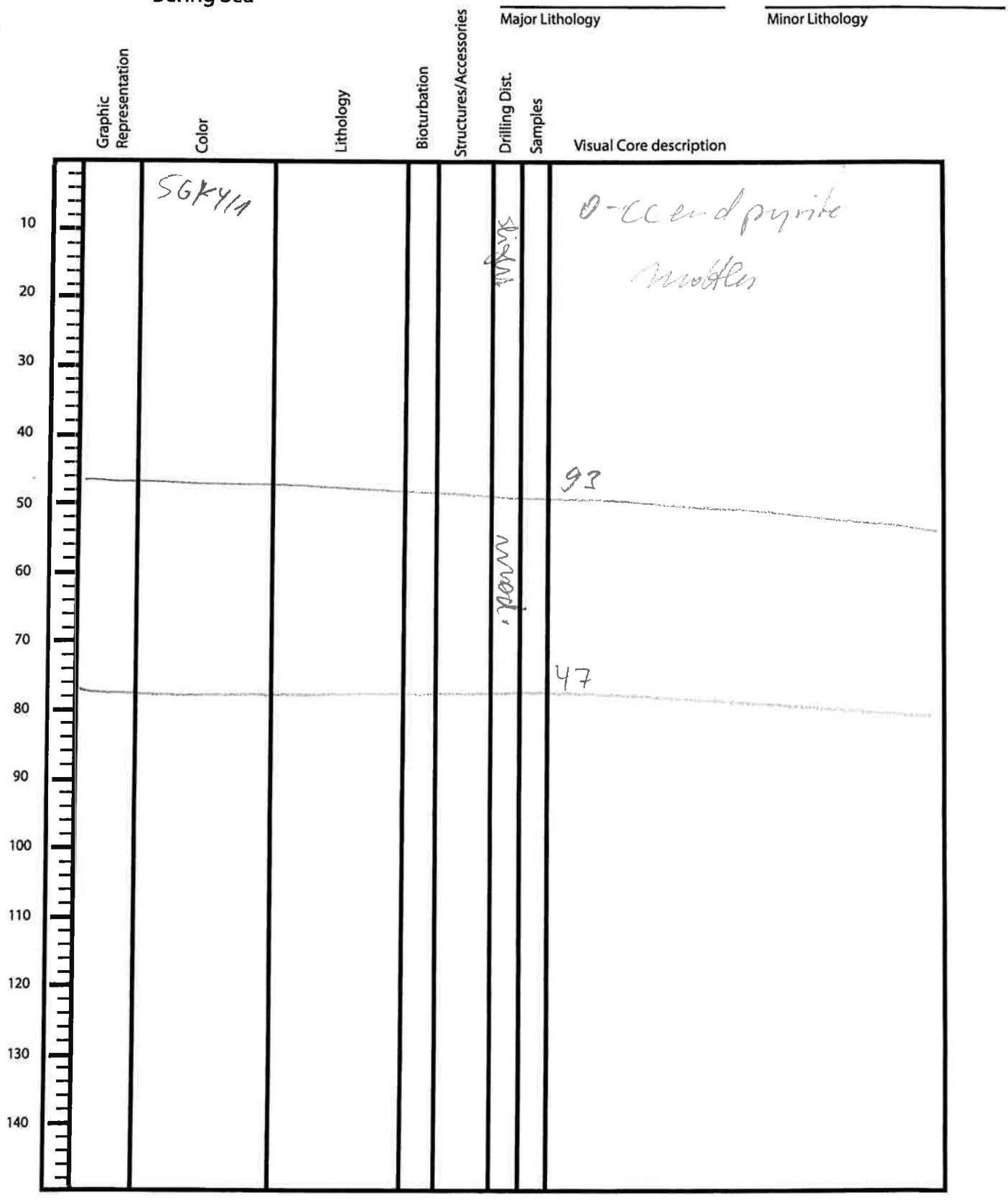
Observer: _____ Date: _____

1343 A 7H 7+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	Interval (cm) Bottom
323	1343	A	7	H	1	19	19

Sediment/Rock Name	Diatom-rich clayey silt

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
10	55	35

Comments: Main lith - slightly greener

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
1	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1343	A	7	H	4	55	55

Sediment/Rock Name	Diatom-bearing silty clay	Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
5		

Comments: Main lithol. - darker area.

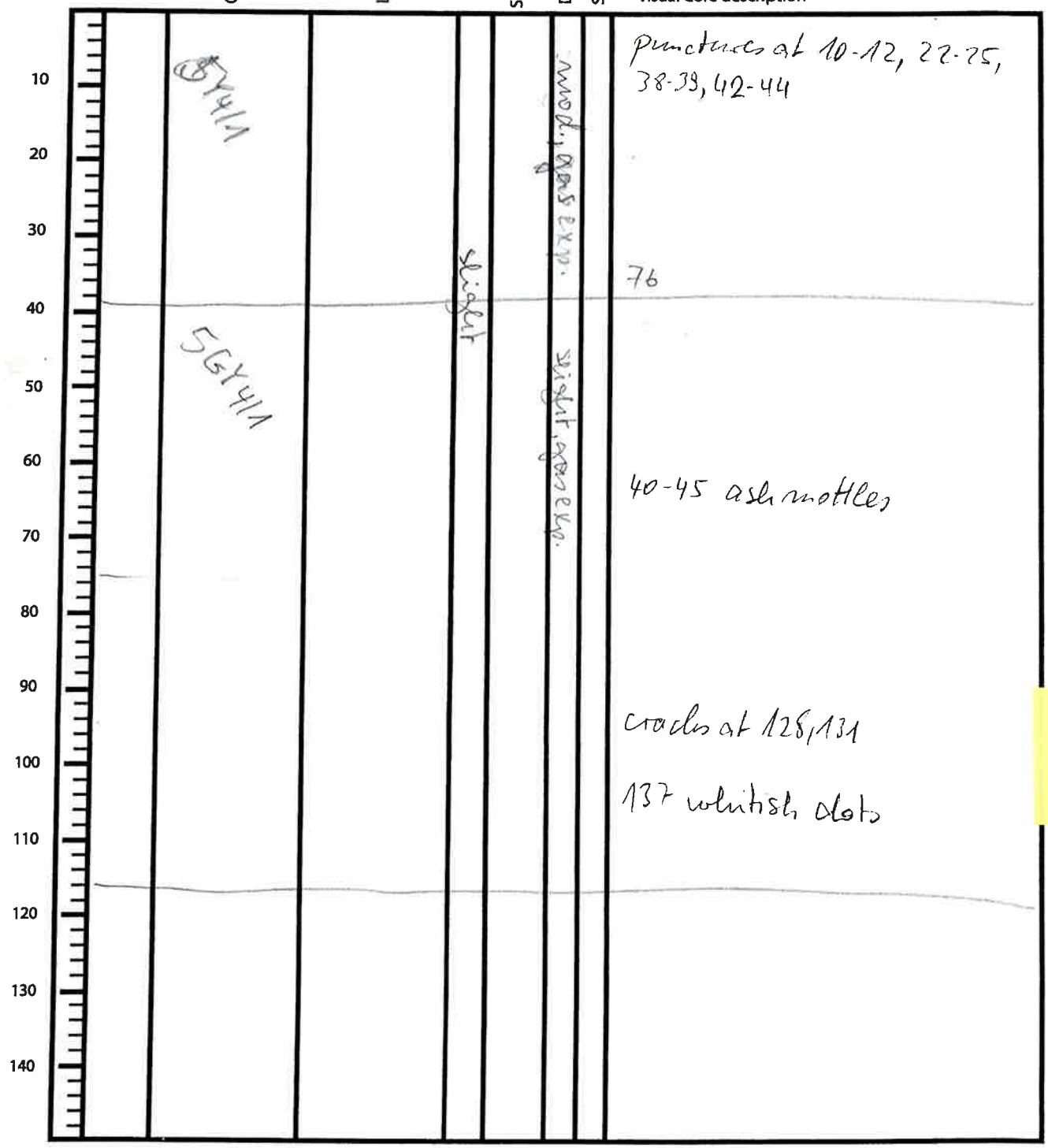
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
40	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
3	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

1343 A 8H 1+2 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

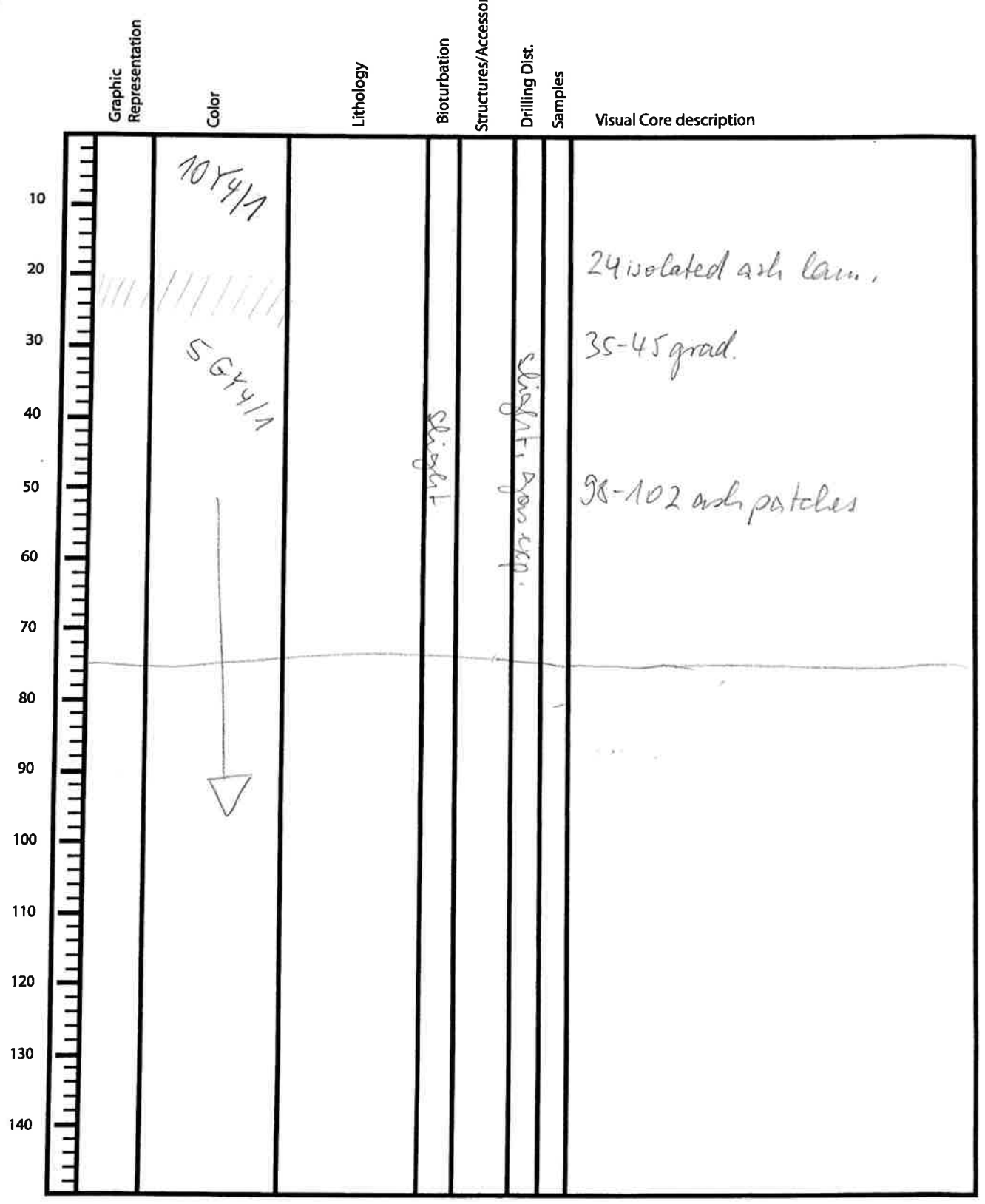


Observer: ____ Date: ____

1343 | A | 8H | 3+4 | ____
Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

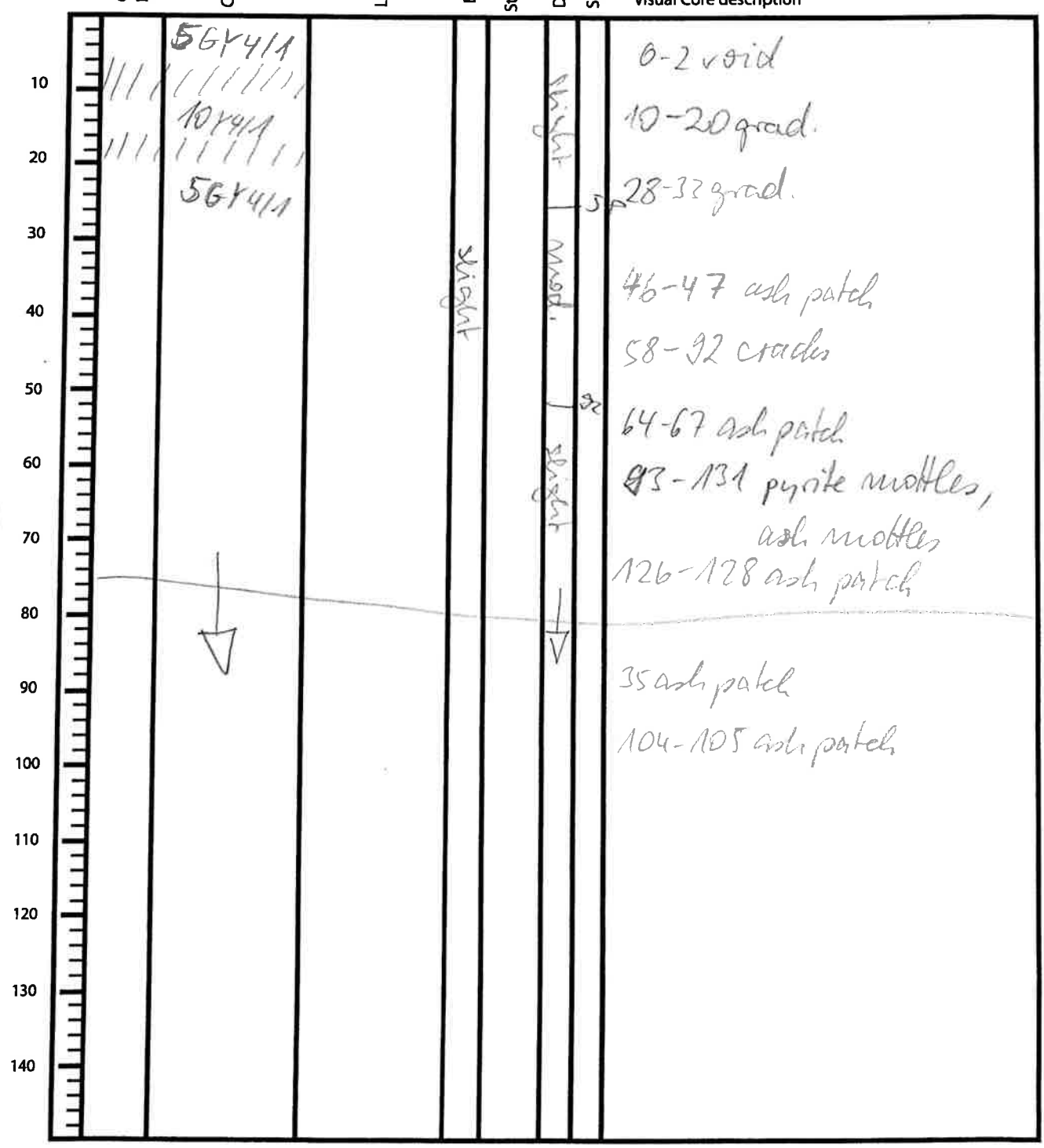


Observer: ____ Date: ____

1343 A 8H 5+6 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

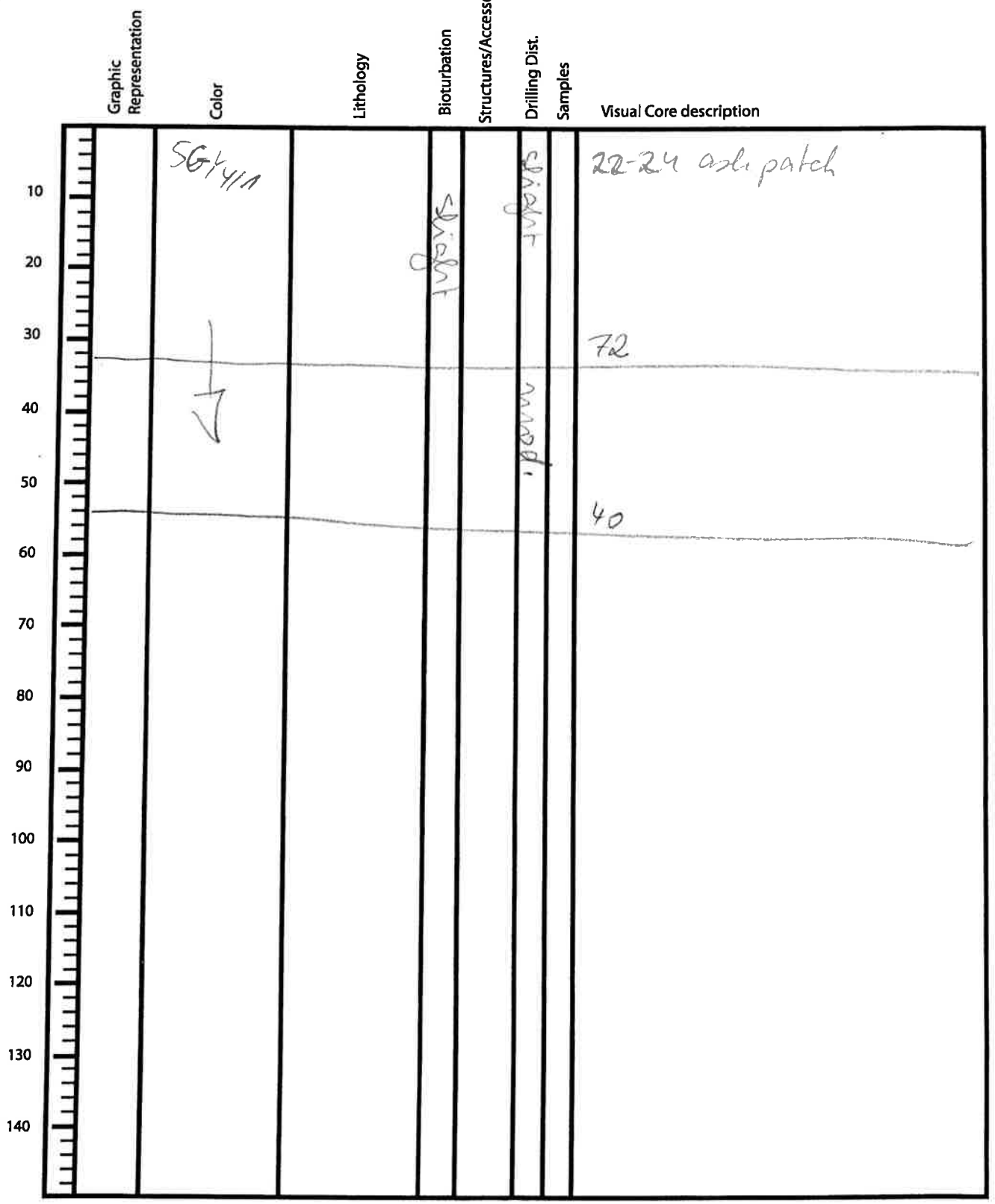


Observer: ____ Date: ____

Site ____ Hole ____ Core 8H Section 7+CC 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	Interval (cm) Bottom
323	1343	A	8	H	1	60	60

Sediment/Rock Name	Diatom-rich silt	Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
10	80	10

Comments: Main lithology - slightly greener

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

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

5H

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1343	A	8	H	3	30	30

Sediment/Rock Name	Foram-bearing diatom-rich silty clay	Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
	40	60

Comments: Main lithology - grey

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

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

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1343	A	8	H	5	26	26

Sediment/Rock Name	Foram-b diatom-r nanno ooze

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Lighter grey interval in main lith.

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
5	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
60	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1343	A	8	H	5	80	80

Sediment/Rock Name	Diatom silt

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Main lithology

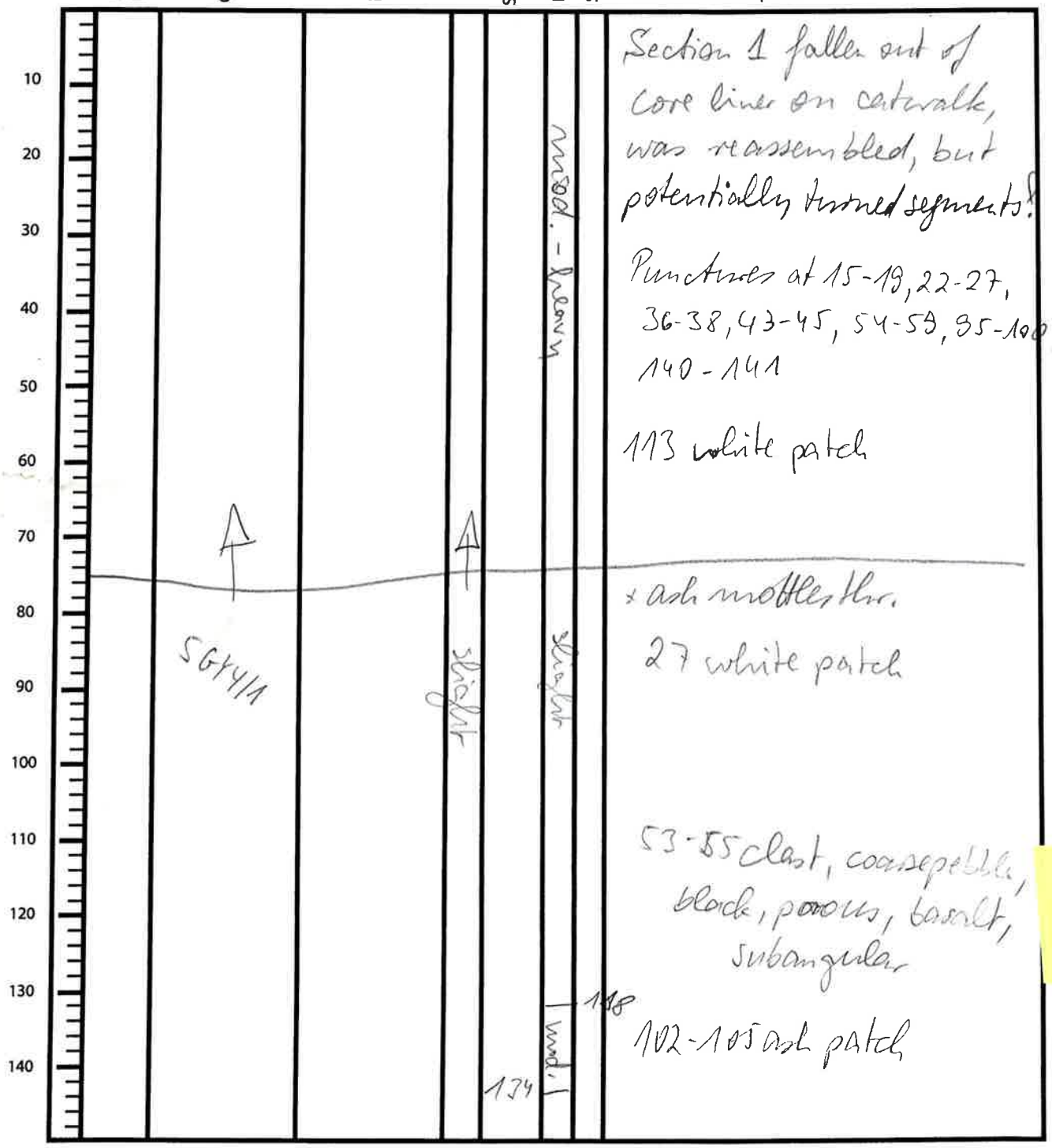
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments
	Accessory/trace minerals
10	Micas
	Biotite
	Muscovite
5	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
5	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

1343 (Site) A (Hole) 9H (Core) 1+2 (Section) ____ (Top Depth)

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

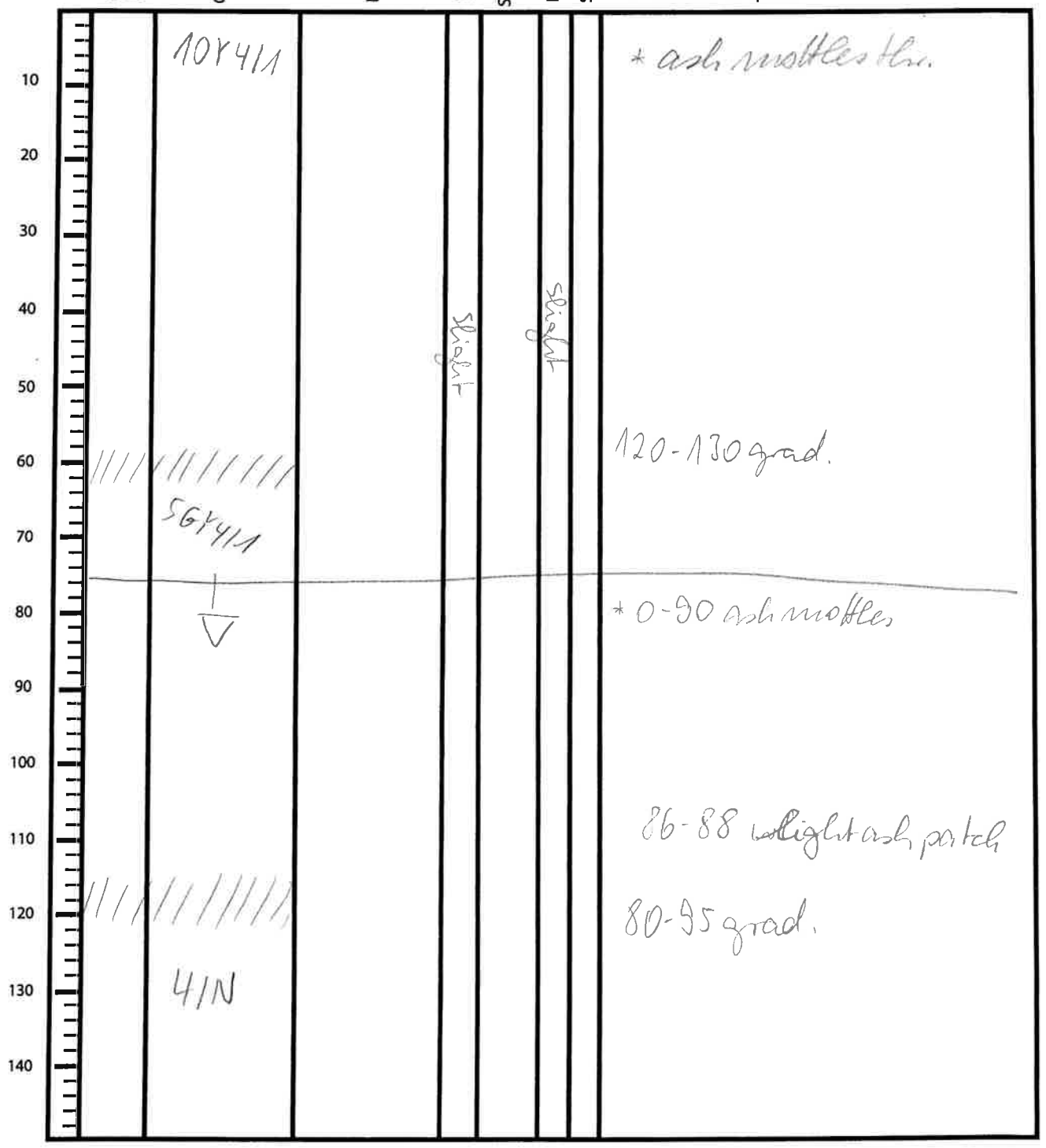


Observer: ____ Date: ____

1343 (Site) A (Hole) 9H (Core) 3+4 (Section) ____ (Top Depth)

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

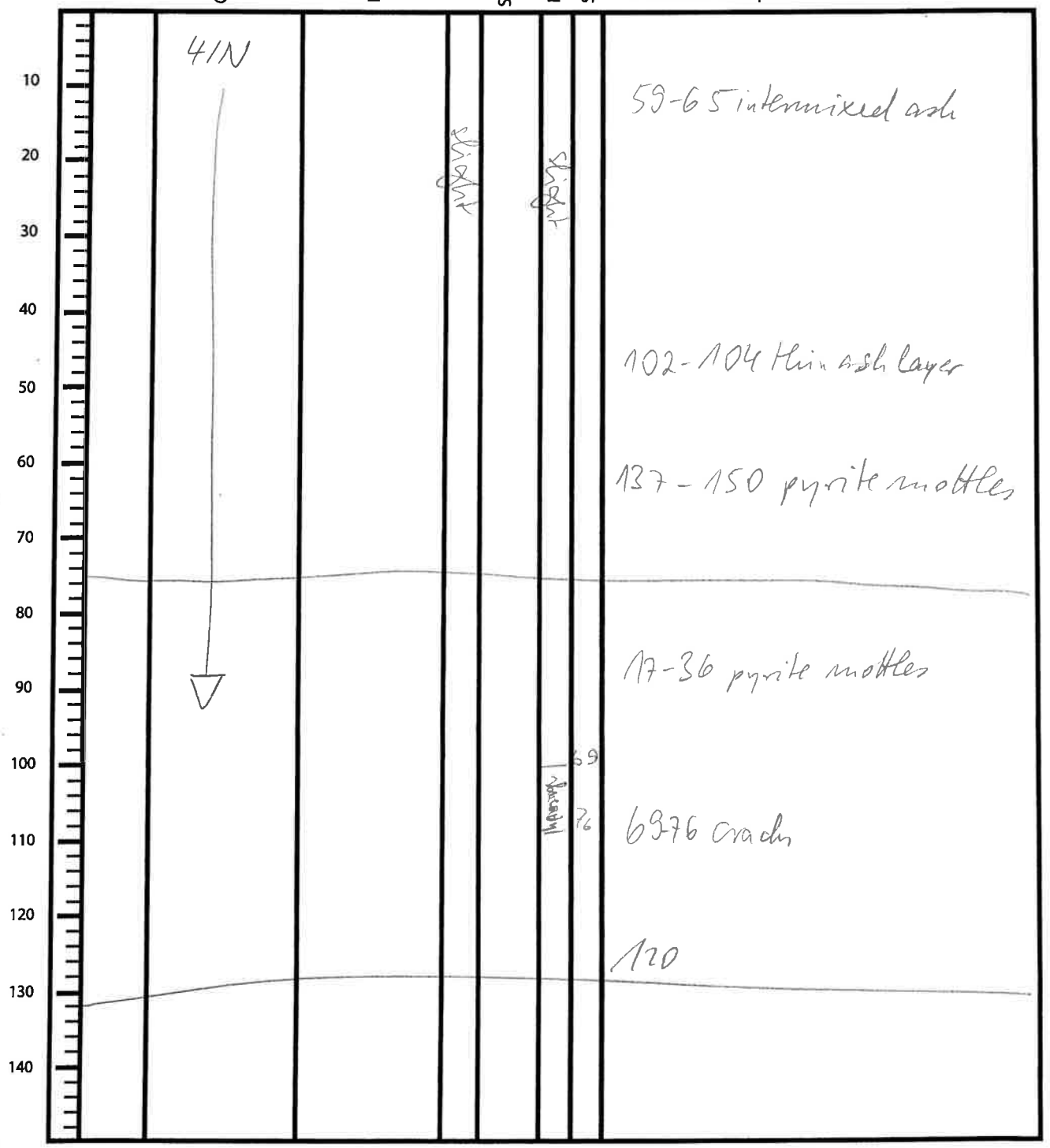


Observer: ____ Date: ____

1343 (Site) A (Hole) 9H (Core) 5+6 (Section) ____ (Top Depth)

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

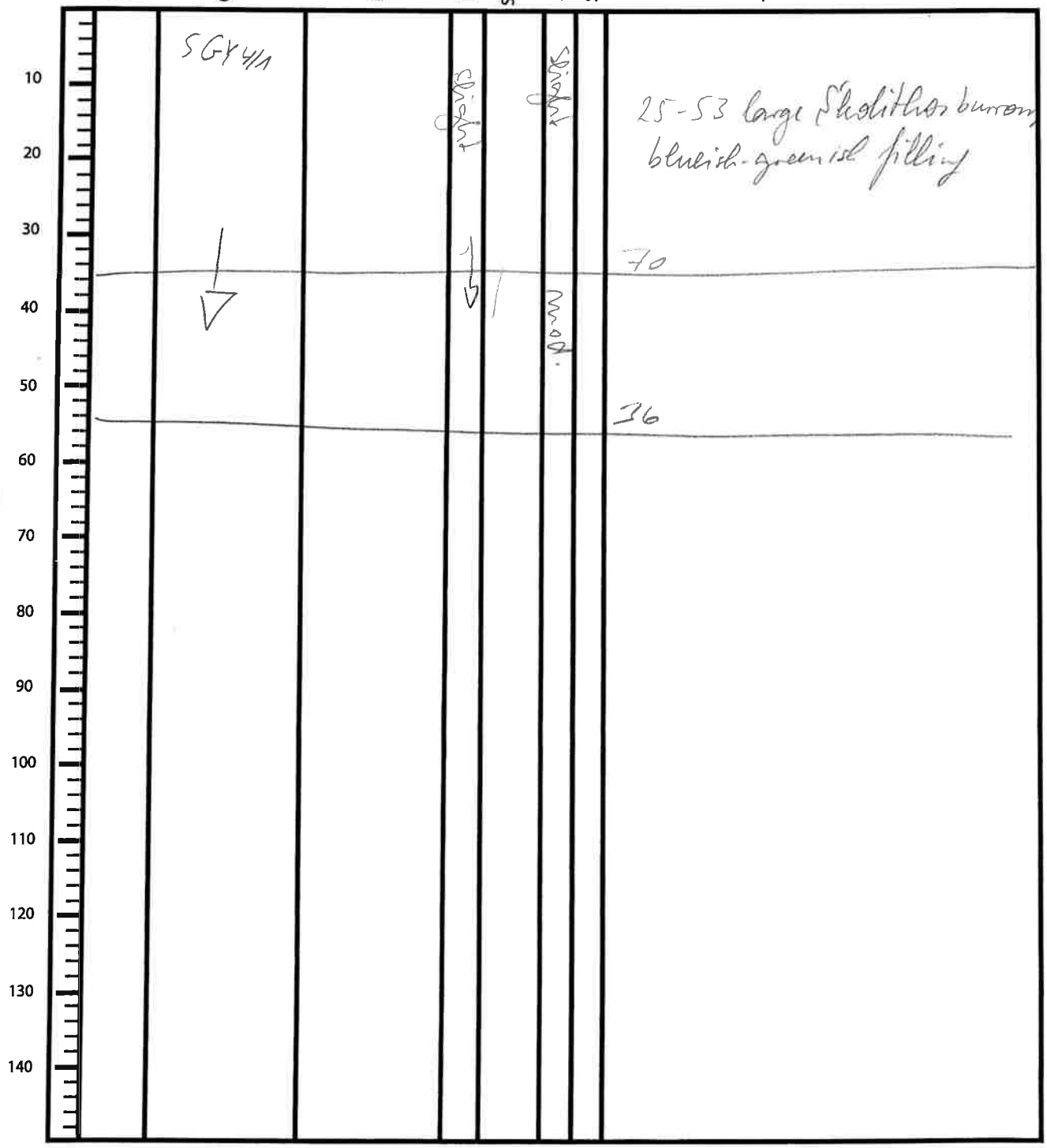


Observer: ____ Date: ____

1343 (Site) A (Hole) 9H (Core) 7+cc (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	1343	A	9	H	3	90	90

Sediment/Rock Name	Diatom-rich silt

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
	✓	

Comments: Greenish lith.

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
1	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
1	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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1343	A	9	H	6	50	50

Sediment/Rock Name	Diatom-rich clayey silt	Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
	60	40

Comments: Main lithology = grey

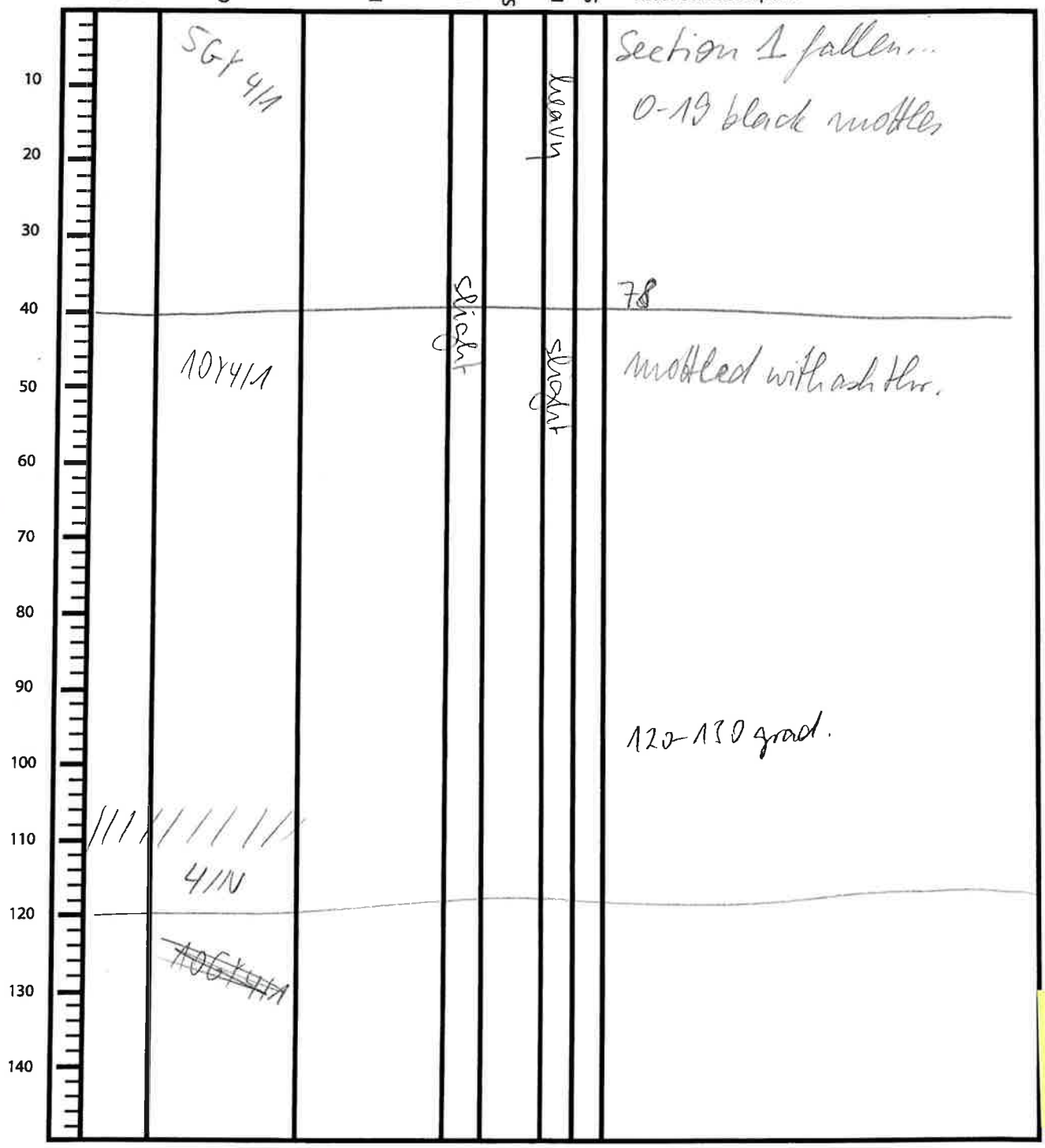
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
20	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
20	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals
	Authigenic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

1343 (Site) A (Hole) 10H (Core) 1+2 (Section) _____ (Top Depth)

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

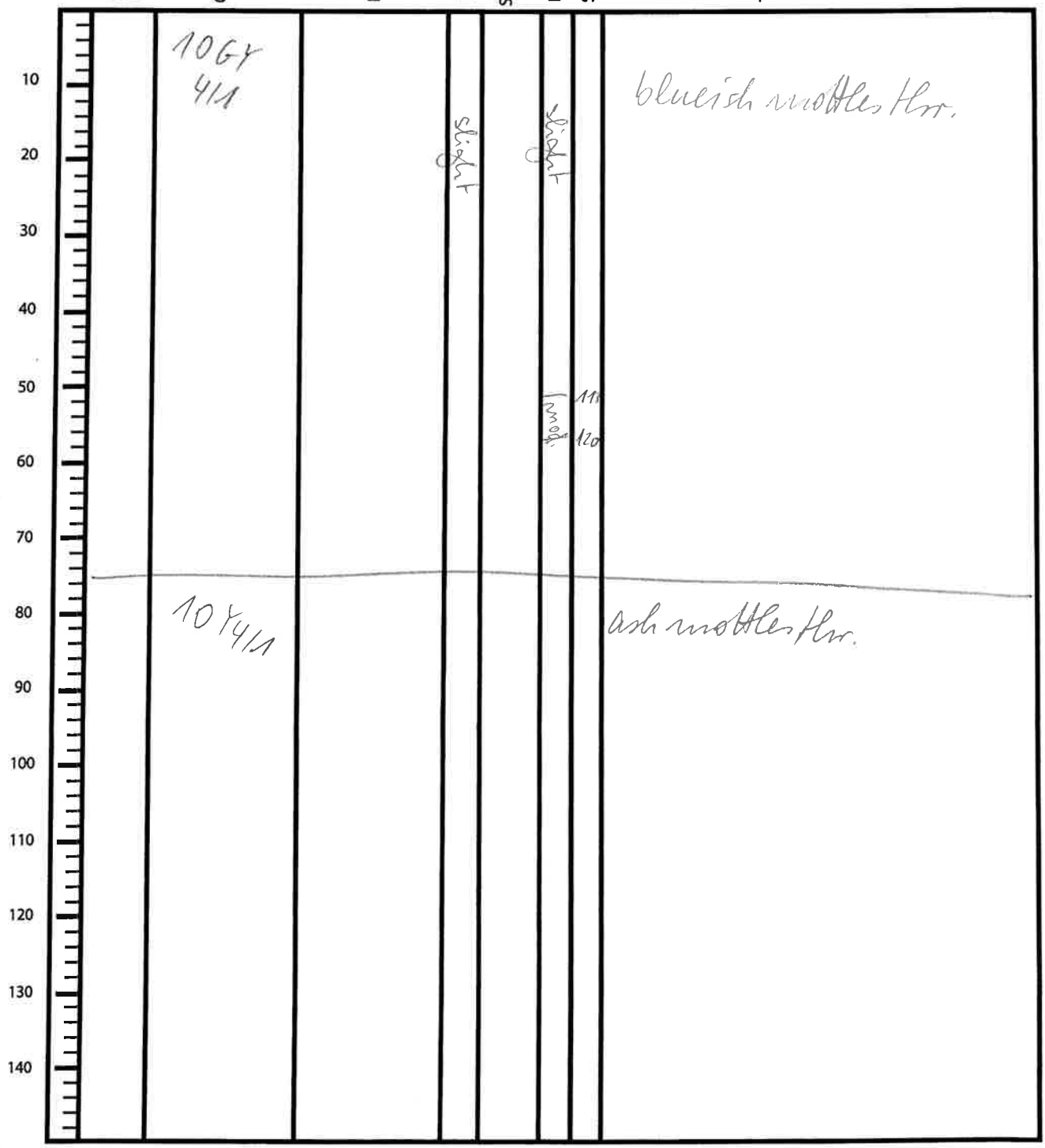


Observer: _____ Date: _____

1343 | A | 10H | 3+4 | _____
Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

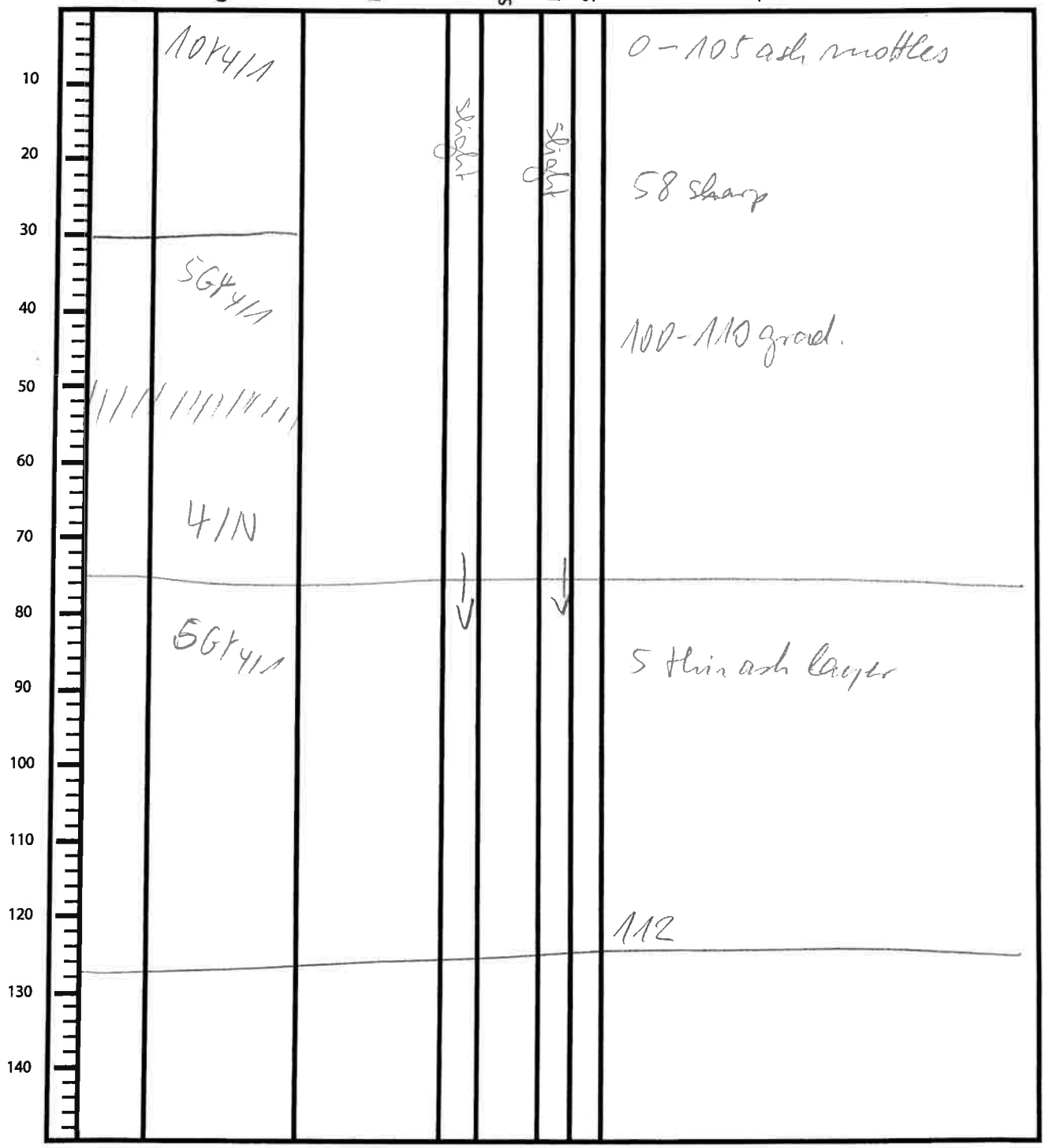


Observer: _____ Date: _____

1343 (Site) A (Hole) 10H (Core) 5+6 (Section) ____ (Top Depth)

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



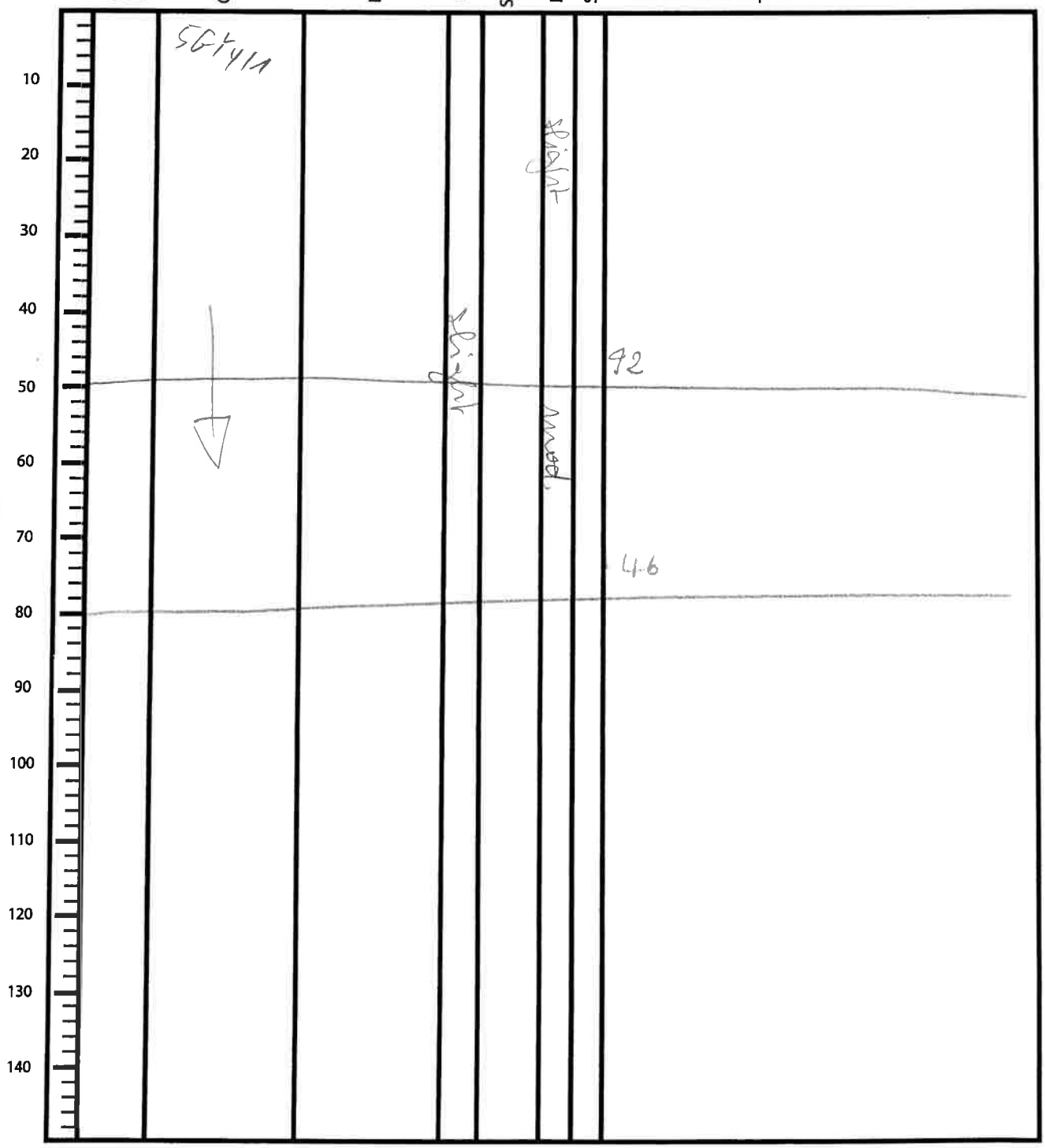
Observer: ____ Date: ____

1343 A 10H 7+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	Interval (cm) Bottom
323	1343	A	10	H	2	50	50

Sediment/Rock Name	Diatom-rich silt

Observer	

Percent Texture		
Sand	Silt	Clay

Comments: Main lith.

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
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
2	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

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1343	A	10	H	3	44	44

Sediment/Rock Name	Diatom-rich clayey silt

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
	//	✓

Comments: main lithology

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
	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

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1343	A	10	H	5	50	50

Sediment/Rock Name	Diatom-rich silt (with glauconite)	Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
25	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
10	Clay Minerals
	Chlorite
1	✓ 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

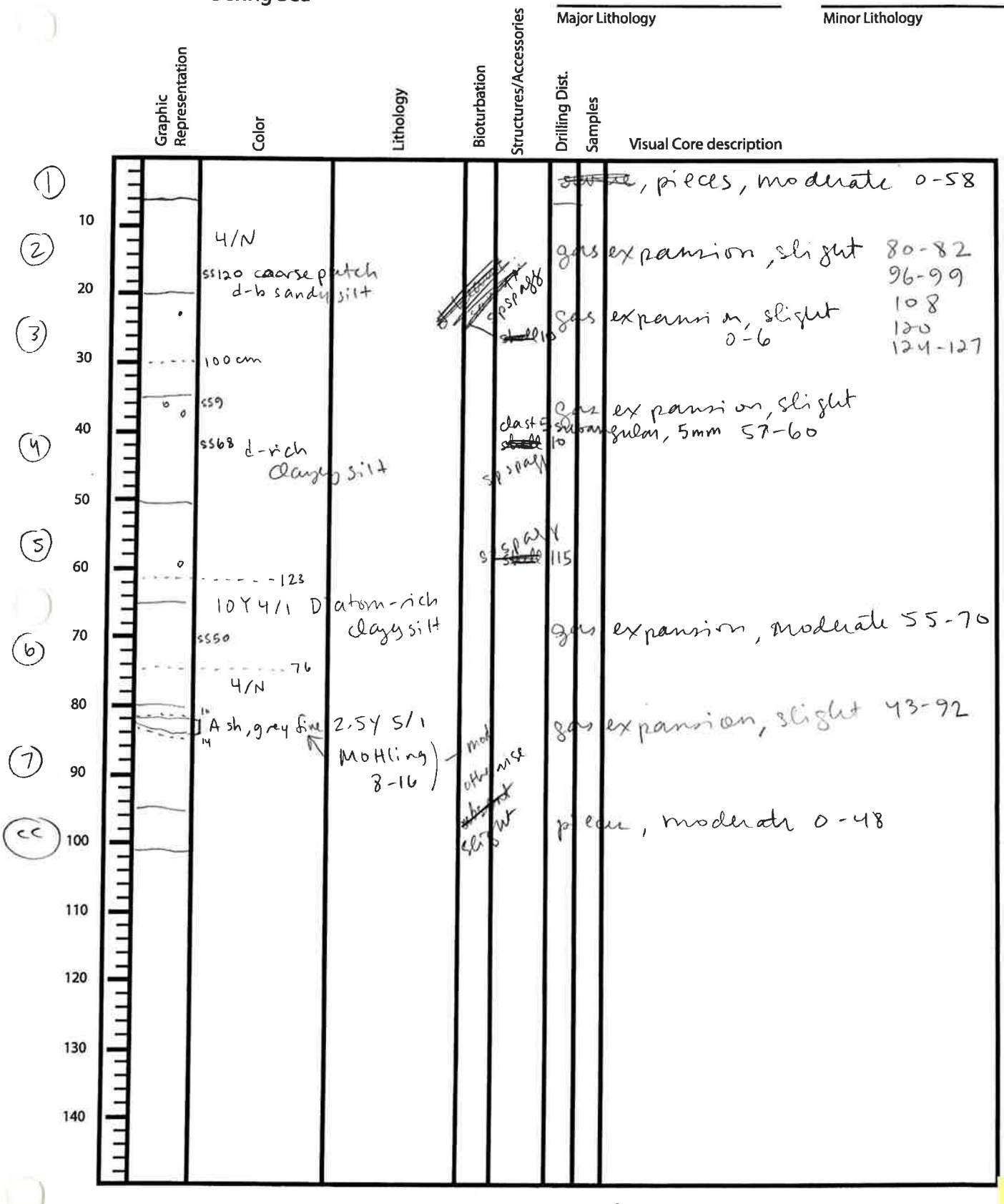
Percent	Component
	BIOGENIC GRAINS
	Calcareous
1	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
1	✓ Radiolarians
	Spumellaria
	Nassellaria
30	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

1343 A 11H ~~A-2~~ All
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: MSC Date:

√ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1343	A	11	H	1	122	122

Sediment/Rock Name	Diatom-bearing sandy silt	Observer	

Percent Texture		
Sand	Silt	Clay
20	70	10

Comments: Coarse patch.

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
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	Interval (cm) Bottom
323	1343	A	11	H	4	9	9

Sediment/Rock Name	Sponge - spicule aggregate + pyrite	Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
	→	

Comments: white spot

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
10	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
60	Sponge spicules - v. small,
	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	1343	A	11	H	4	70	70

Sediment/Rock Name	Diatom-rich clayey silt

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Main lith.

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	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
2	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
	Radiolarians
	Spumellaria
	Nassellaria
35	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

X

✓ SRM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1343	A	11	H	6	52	52

Sediment/Rock Name	Diatom rich clayey silt	Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
	80	25

Comments: More greenish part of main lithology.

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
10	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
5	Vitric grain
	Lithic grain

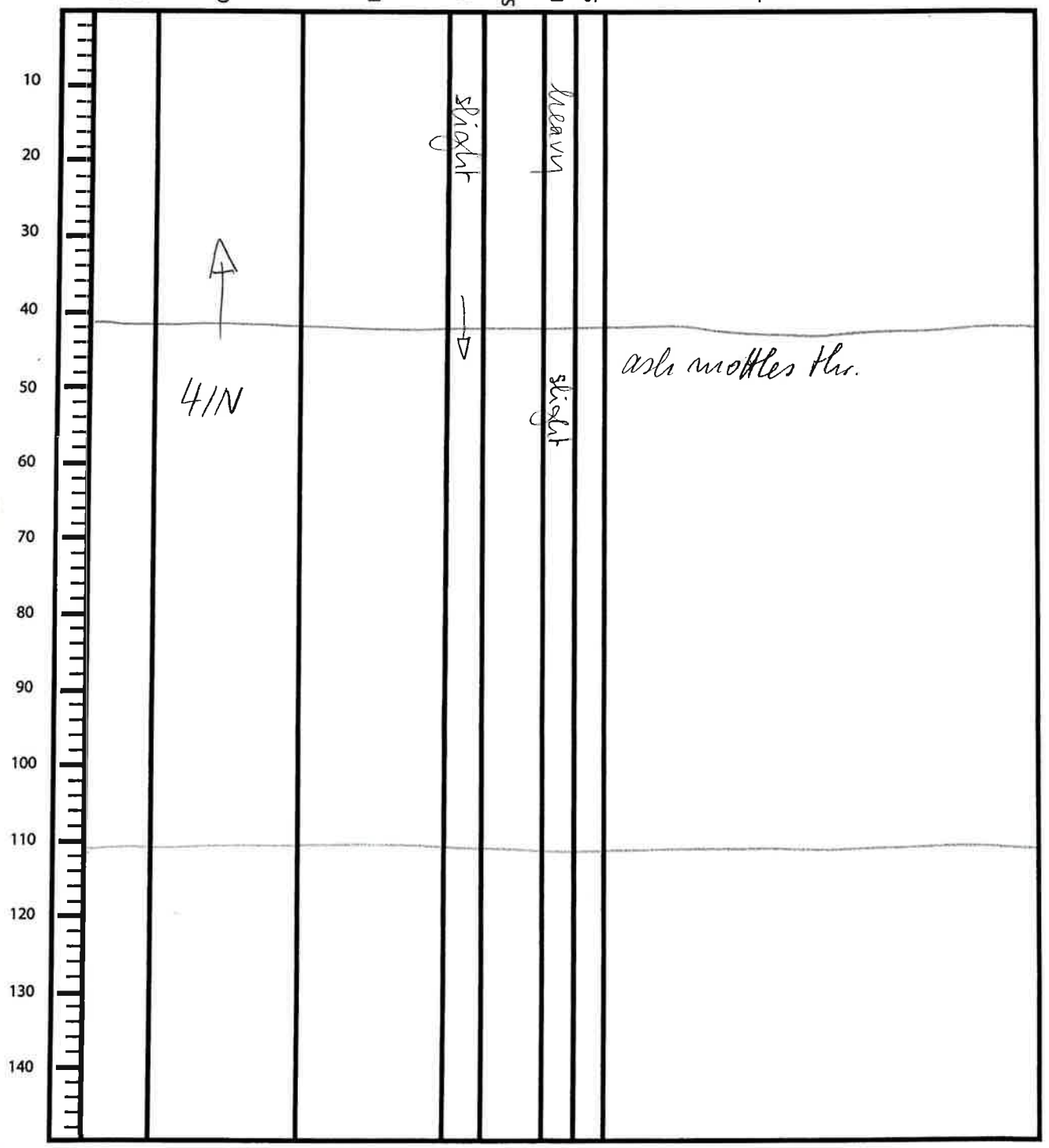
Percent	Component
	BIOGENIC GRAINS
	Calcareous
1	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
1	Radiolarians
	Spumellaria
	Nassellaria
40	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
1	Silicoflagellates
	Sponge spicules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

1343 Site | A Hole | 12H Core | 1+2 Section | ___ Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology

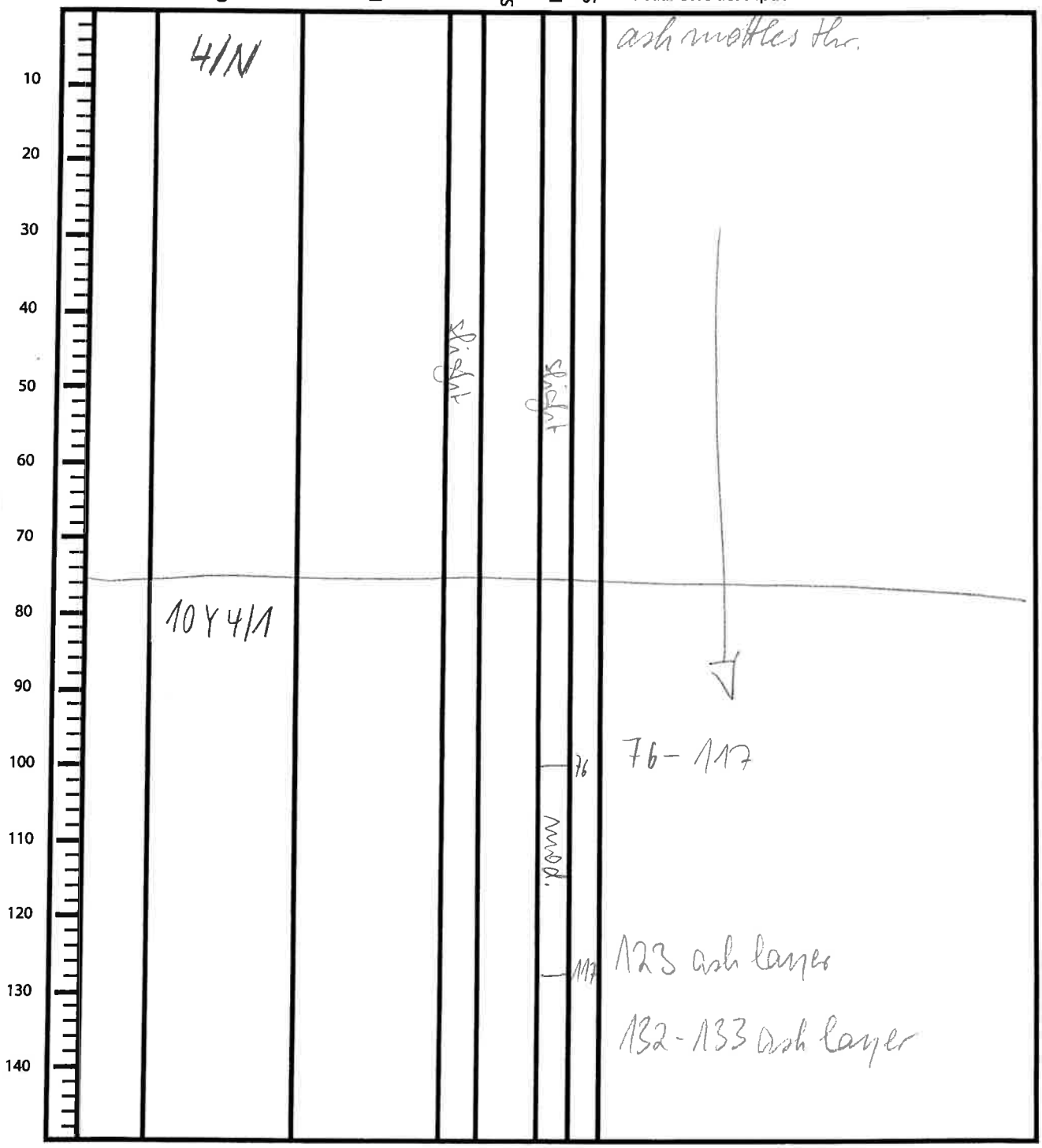


Observer: _____ Date: _____

1343 Site | A Hole | 12H Core | 3+4 Section | Top Depth

Expedition 323
Bering Sea

Major Lithology | Minor Lithology

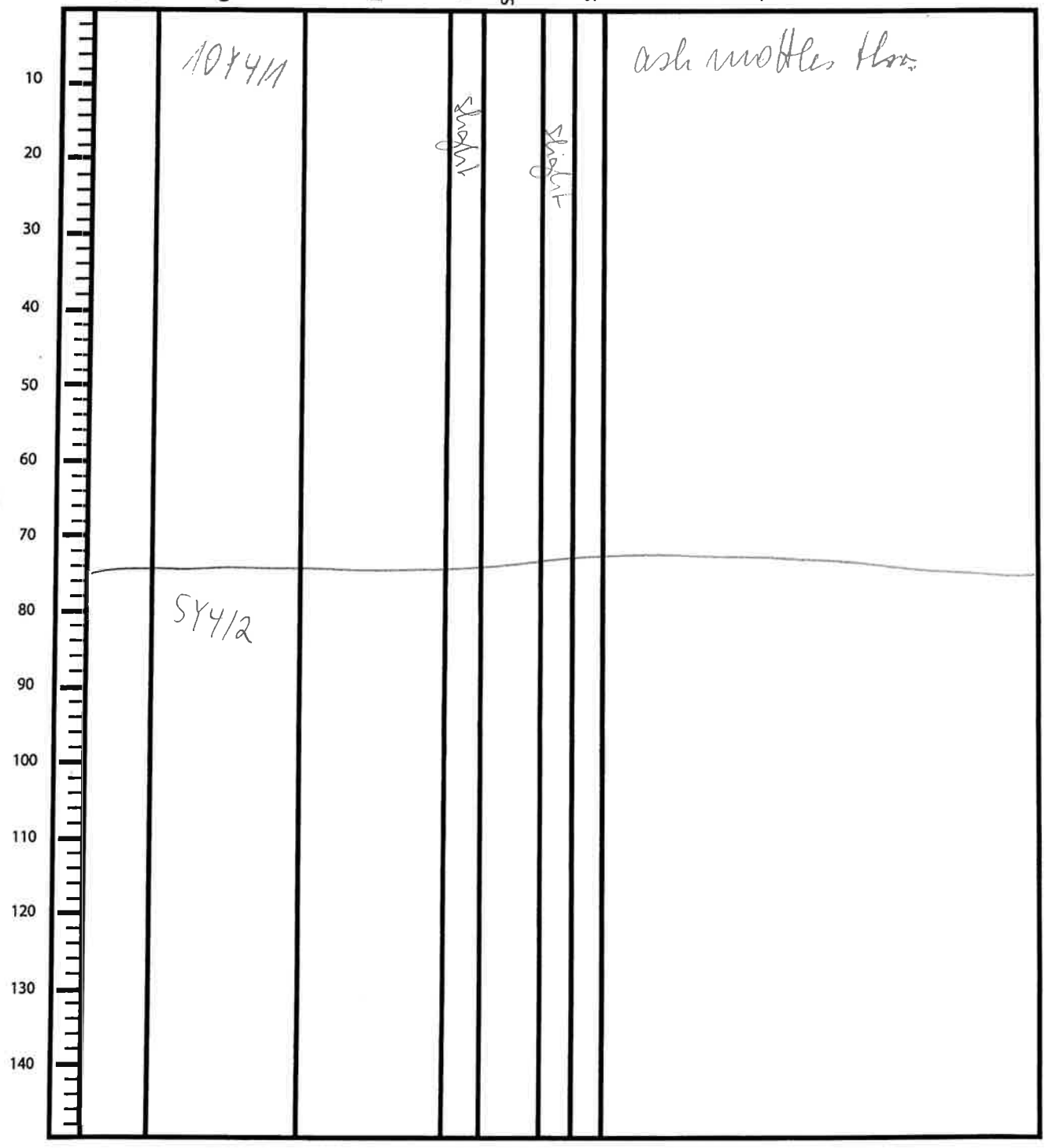


Observer: _____ Date: _____

1343 | A | 12H | 5+6 | _____
Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

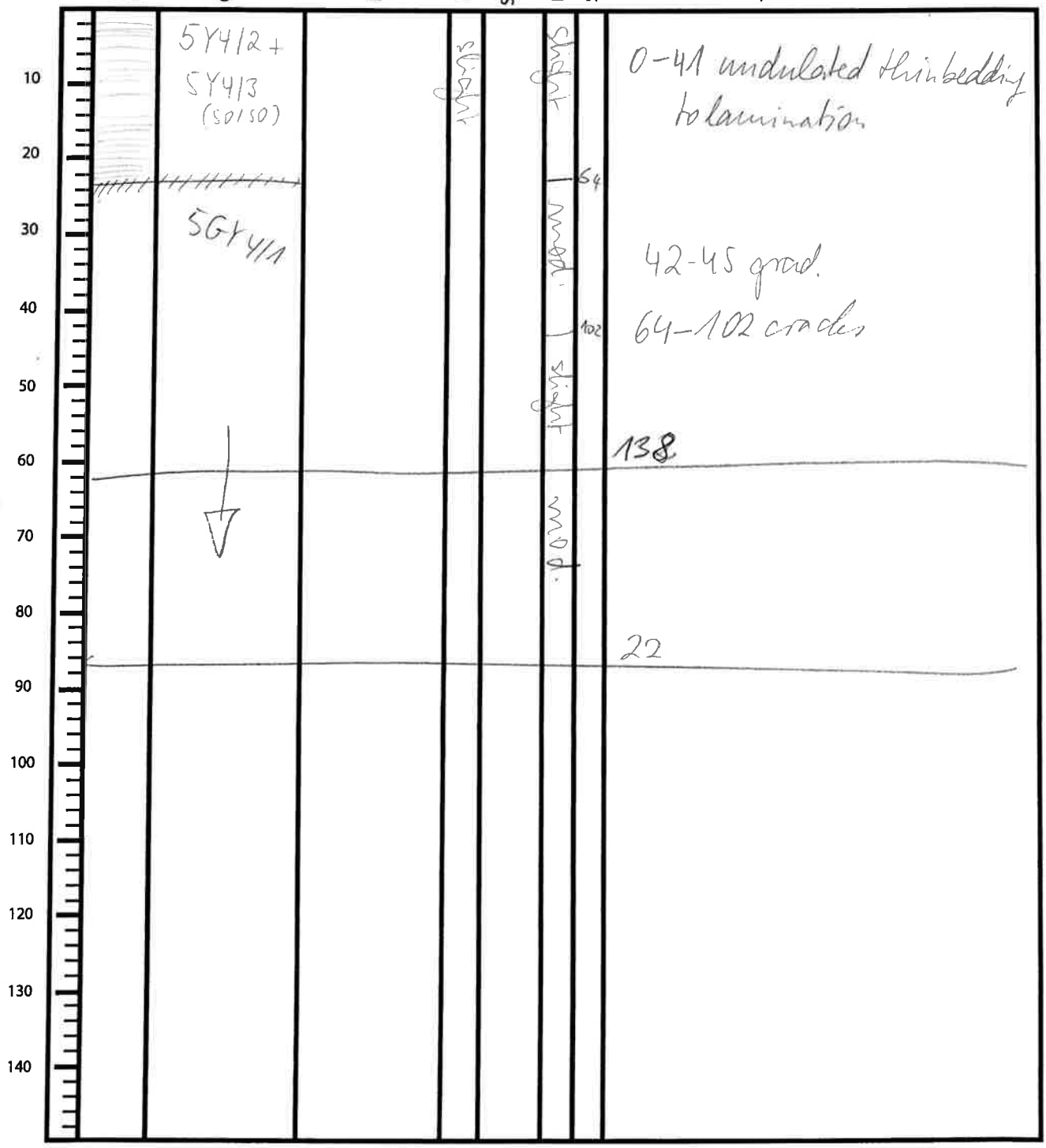


Observer: _____ Date: _____

1343 (Site) A (Hole) 12H (Core) 7+CC (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	U1343	A	12	H	3	55	

Sediment/Rock Name	Diatom-rich mud	Observer	

	Percent Texture		
	Sand	Silt	Clay
S	5	85	10

Comments: Main lith (grey)

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

Percent	Component
30	**BIOGENIC GRAINS**
	Calcareous
1	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
10	Centric
19	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	U1343	A	12	H	5	65	65

Sediment/Rock Name	Diatom-rich sandy silt

Observer	MSC

	Percent Texture		
	Sand	Silt	Clay
S	47	50	3

Comments: Main lith (grey, less fine texture)

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

Percent	Component
35	**BIOGENIC GRAINS**
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
26	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

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IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1343	A	12	H	6	113	113

Sediment/Rock Name	Foram ooze

Observer	MSC

Percent Texture		
Sand	Silt	Clay

Comments: Yellowish patch

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

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	U1343	A	12	H	7	37.5	325

Sediment/Rock Name	Diatom ooze

Observer	MSC

Percent Texture		
Sand	Silt	Clay

Comments: Main lithology - laminated

Percent	Component
29	**SILICICLASTIC GRAINS/MINERAL**
	Framework minerals
7	Quartz
7	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
5	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
4	Pyrite
	Magnetite
2	Fe-oxide
4	Carbonates Can't tell if biogenic
	Calcite or authigenic.
	Dolomite Clay-silt sized
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
71	**BIOGENIC GRAINS**
	Calcareous
3	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
2	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
40	Centric
26	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

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IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1343	A	12	H	7	98	

Sediment/Rock Name	Diatom-rich silty clay

Observer	

S

Percent Texture		
Sand	Silt	Clay
5	45	50

Comments: Main lith - grey

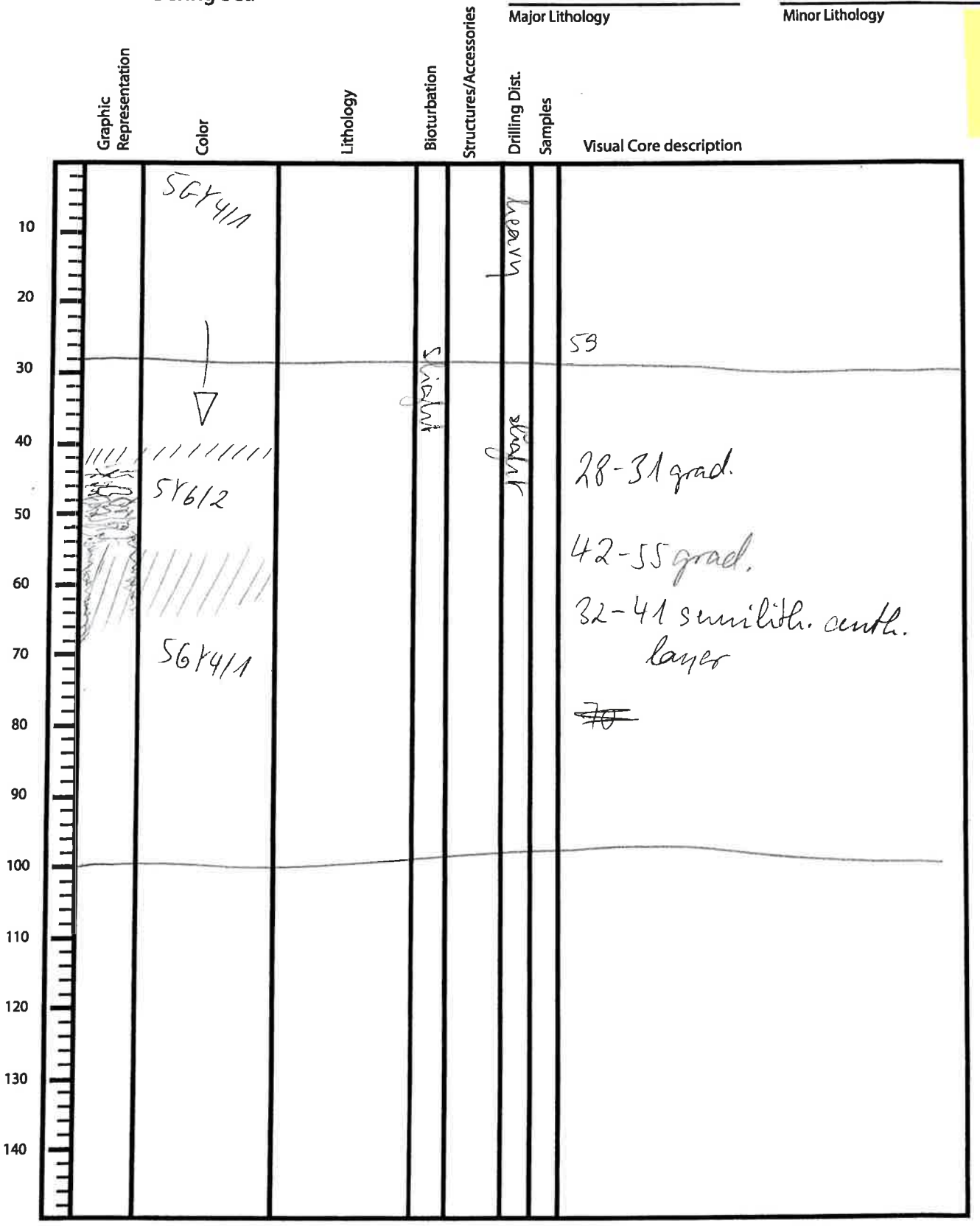
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
80	Framework minerals
10	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
10+30	Clay Minerals + clay-sized
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite
	Magnetite
2	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
15	Centric
5	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

1343 / Site — A / Hole — 13H / Core — 1+2 / Section — _____ / Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

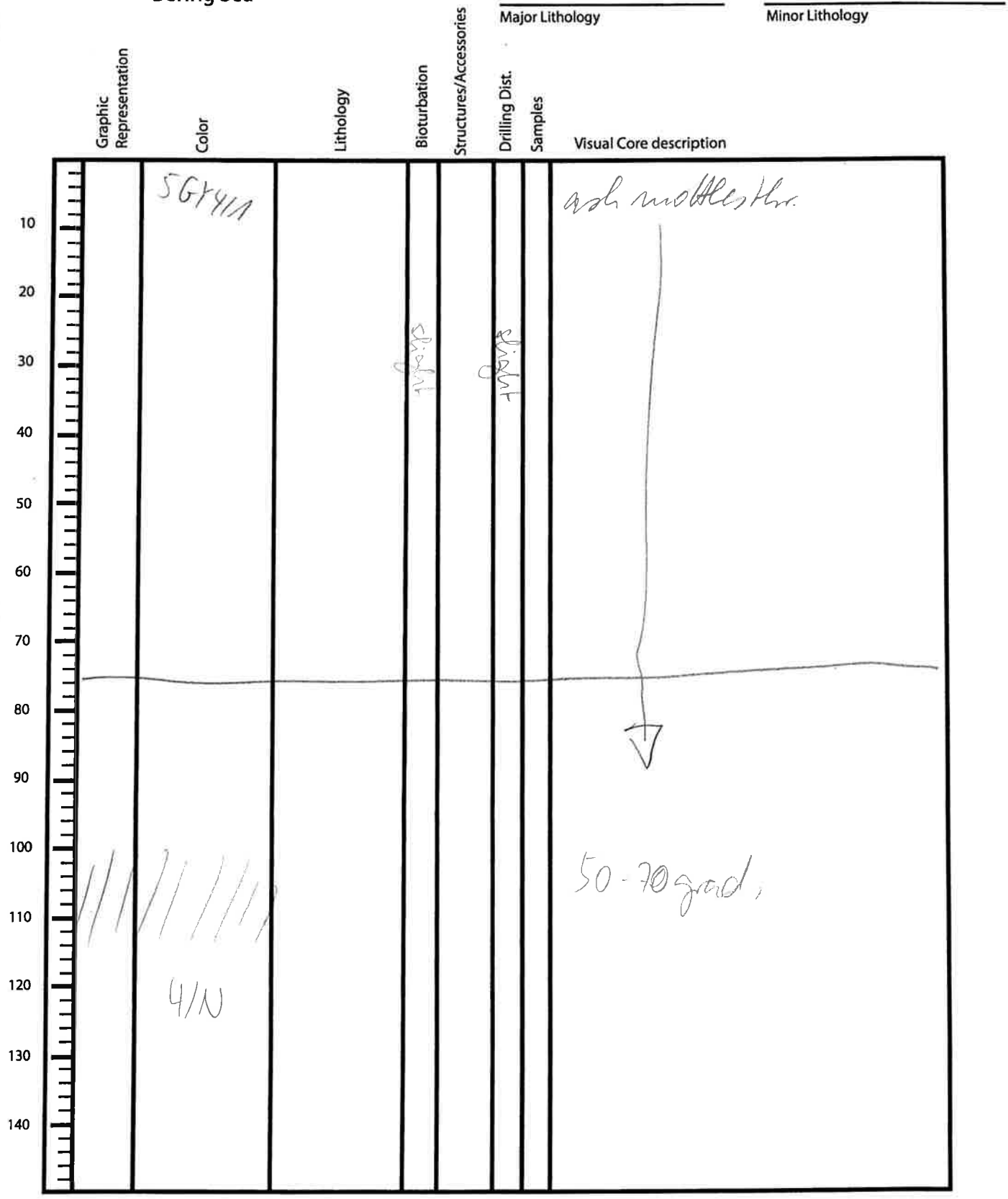


Observer: _____ Date: _____

1343 A 13H 3+4 ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

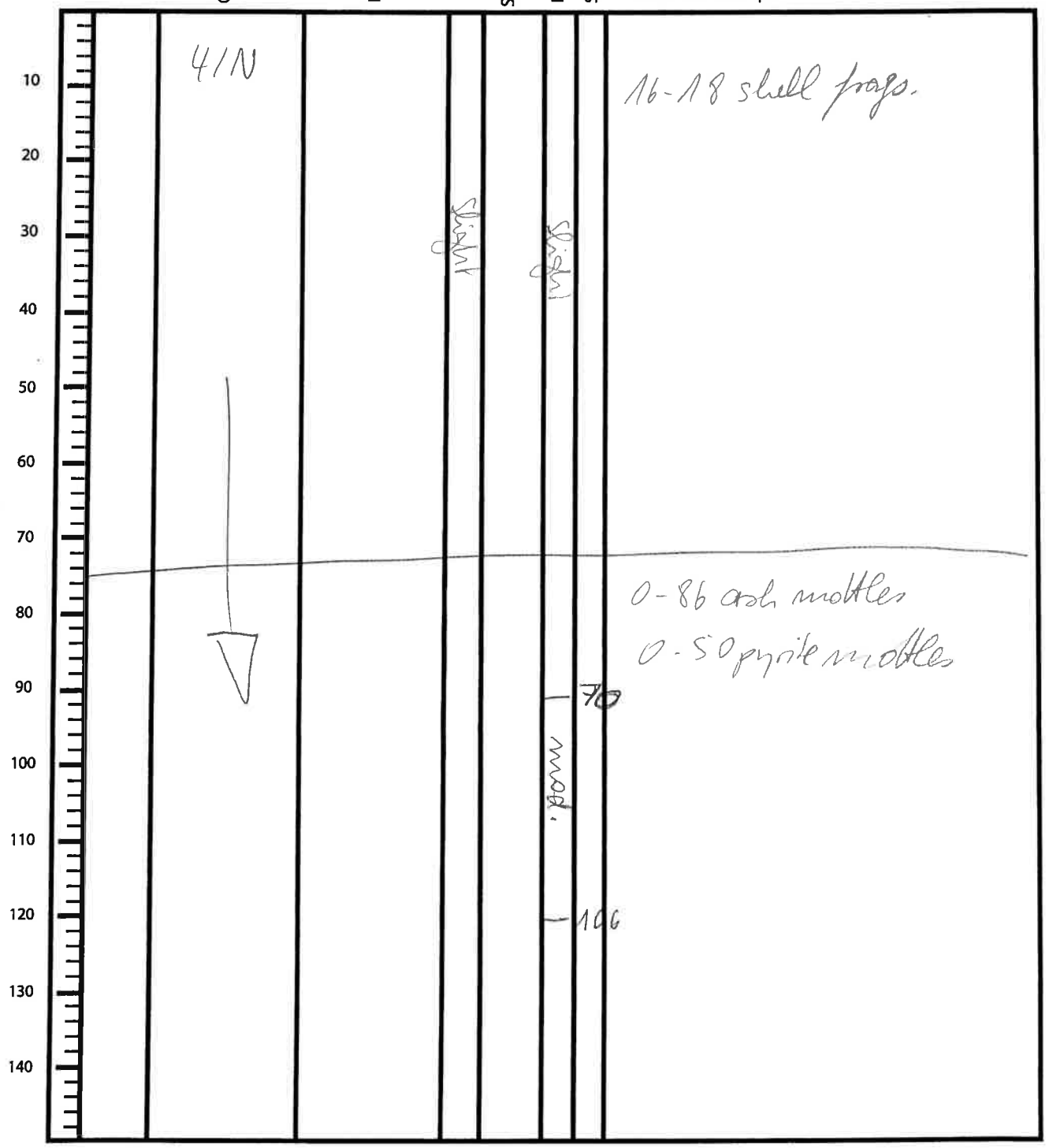


Observer: ____ Date: ____

1343 / A / 13H / 5+6 / ____
Site / Hole / Core / Section / Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

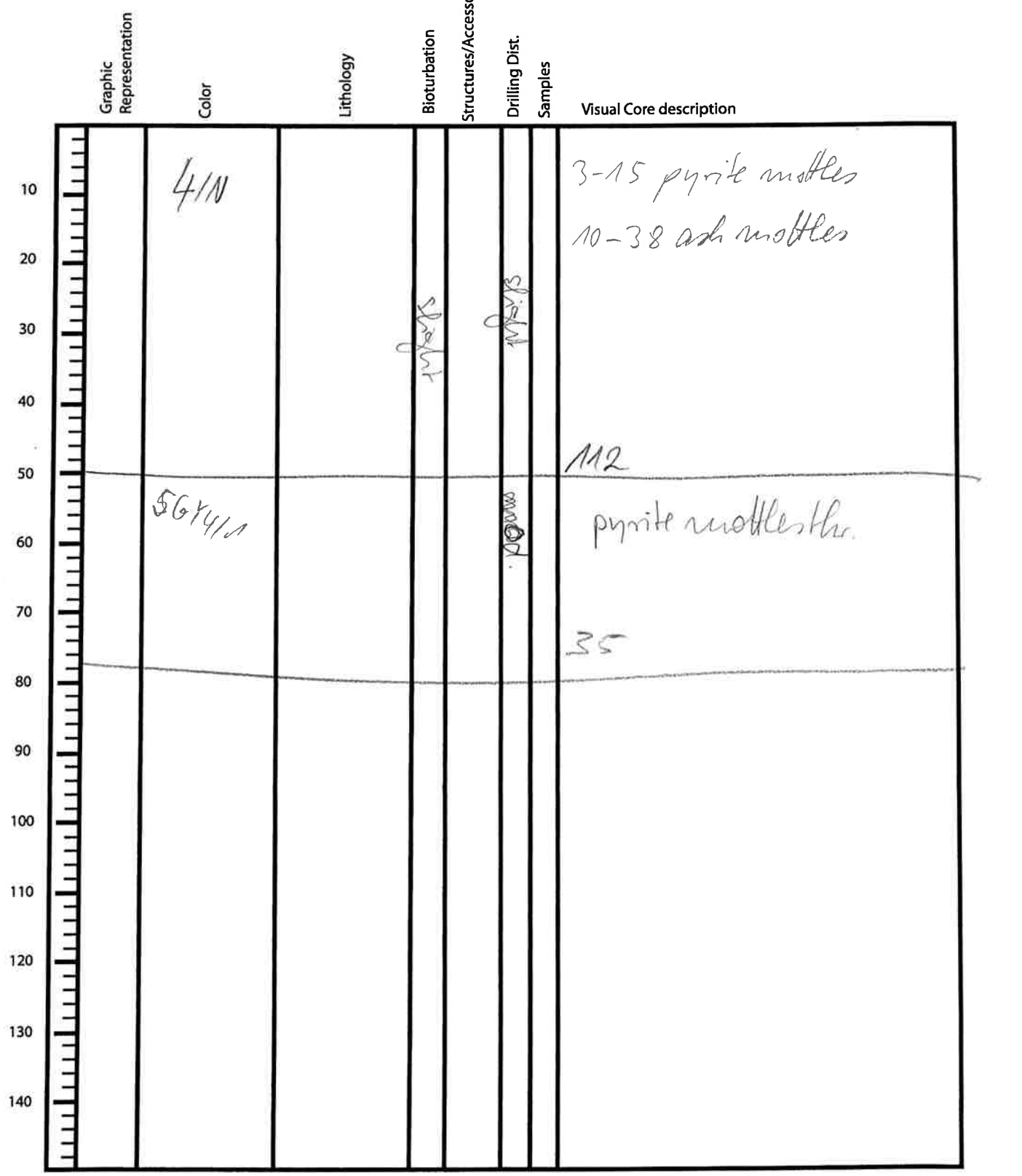


Observer: _____ Date: _____

1343 Site | A Hole | 13H Core | 7+CC 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	U1343	A	13	H	2	36	36

Sediment/Rock Name	Authigenic carbonate, prob. dolomite	Observer	MSC

Percent Texture		
Sand	Silt	Clay

Comments: Yellowish partly-lithified layer

Percent	Component
97	**SILICICLASTIC GRAINS/MINERAL**
	Framework minerals
2	Quartz
2	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
	mostly rounded, irregular
93	Carbonates crystals ~6 µm
	Calcite in diameter. Few
	Dolomite rhombs.
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
3	**BIOGENIC GRAINS**
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
3	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

✓SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1334	B	13	H	4	60	60

Sediment/Rock Name	Diatom-bearing clayey silt

Observer	MSC

S

Percent Texture		
Sand	Silt	Clay
3	50	47

Comments: Grey Main Lithology

Percent	Component
92	**SILICICLASTIC GRAINS/MINERAL**
	Framework minerals
5	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
5	Muscovite
57	Clay Minerals Clay sized
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
20	Zeolite Very thin needles, ~2 µm long
	Opaque minerals Bire fringent
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
8	**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

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	U1343	A	13	H	6	65	69

Sediment/Rock Name	Diatom-rich clayey silt	Observer	MSC

S

Percent Texture		
Sand	Silt	Clay
3	50	47

Comments: Grey Marn Lithology

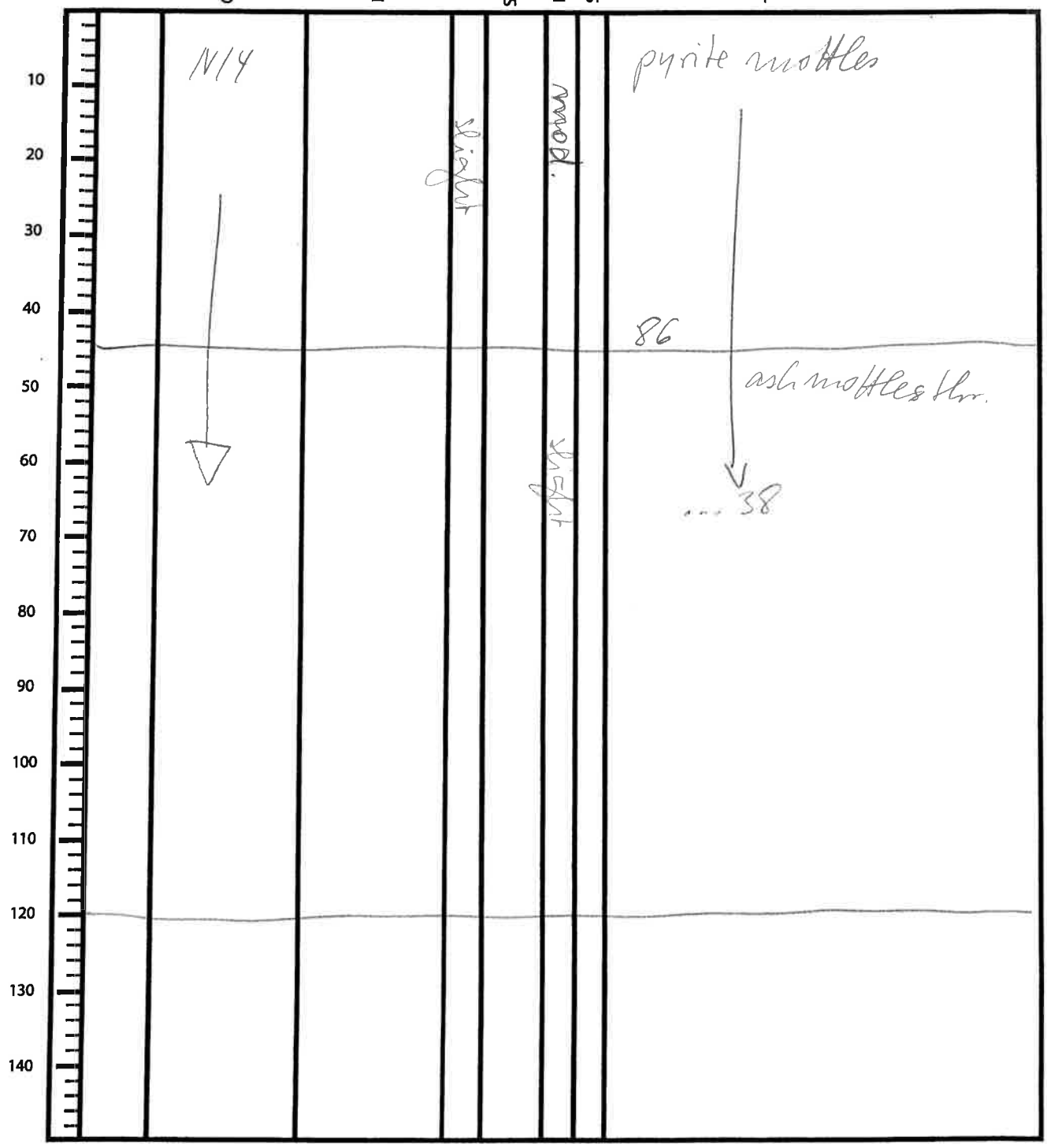
Percent	Component
75	**SILICICLASTIC GRAINS/MINERAL**
	Framework minerals
10	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
10	Micas
	Biotite
	Muscovite
40	Clay Minerals clayized
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals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

Percent	Component
25	**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

1343 (Site) A (Hole) 14H (Core) 1+2 (Section) ____ (Top Depth)

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____

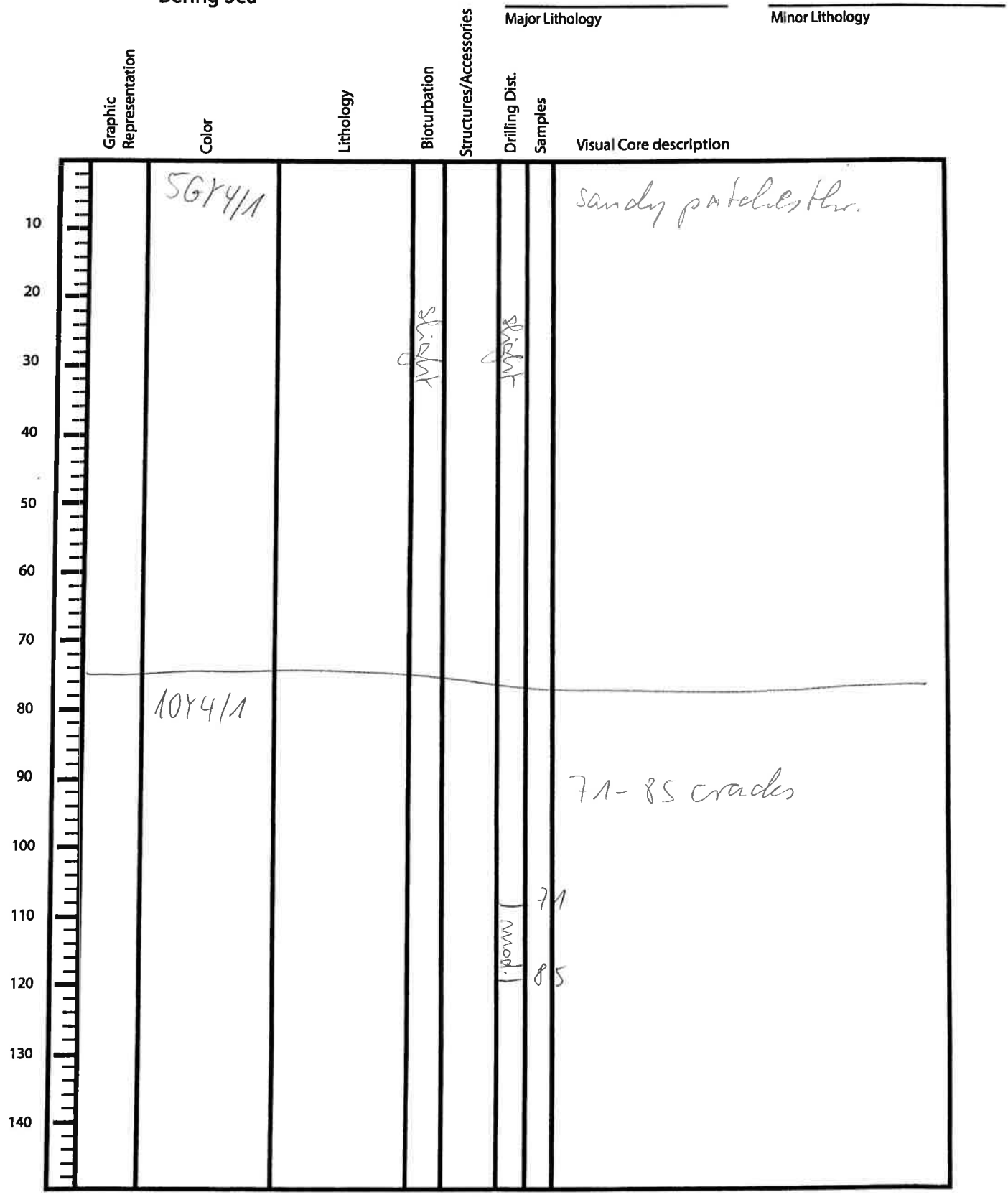


Observer: _____ Date: _____

1343 Site | A Hole | 14H Core | 3+4 Section | Top Depth

Expedition 323
Bering Sea

Major Lithology | Minor Lithology

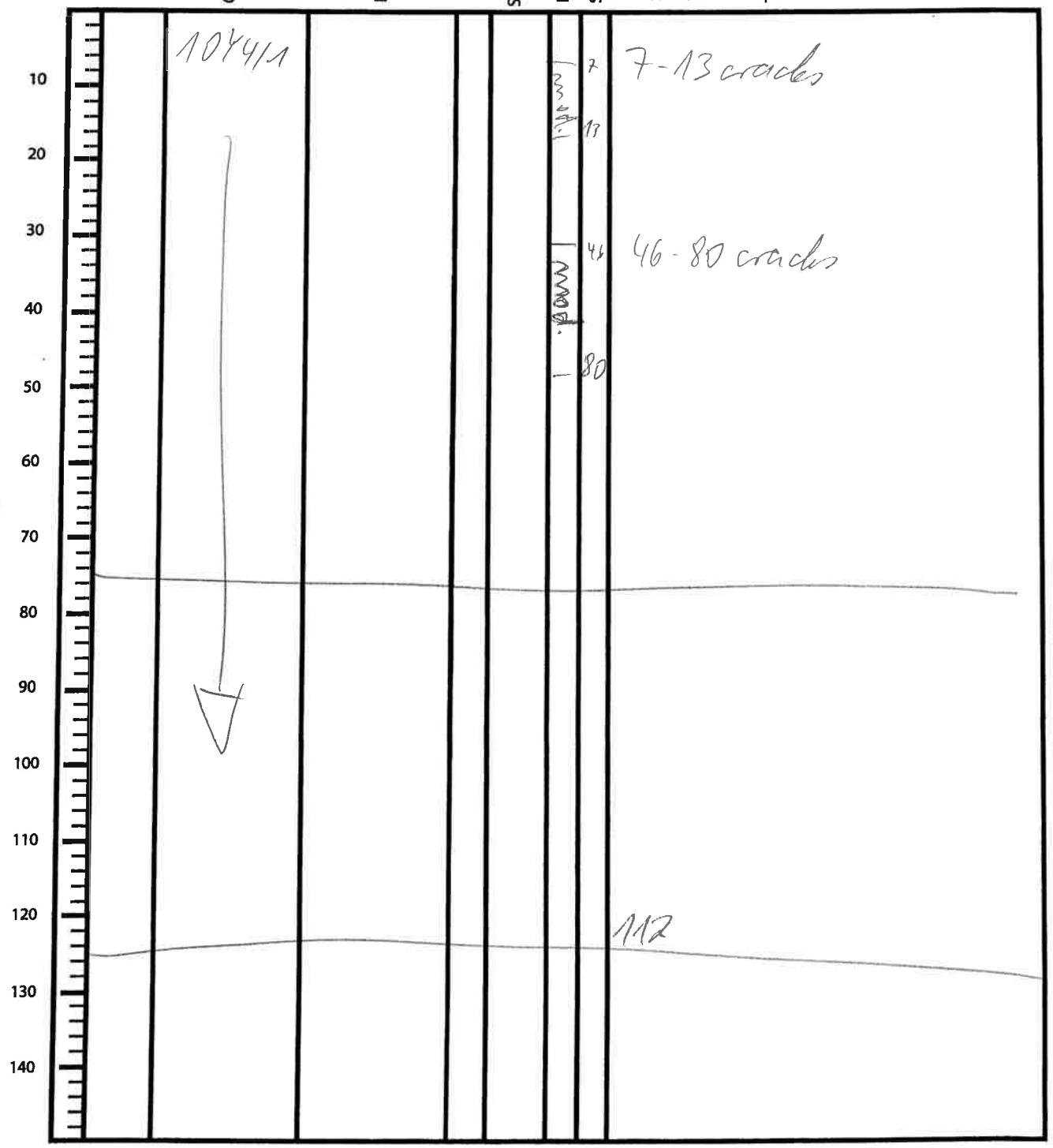


Observer: _____ Date: _____

1343 / Site — A / Hole — 14H / Core — 5+6 / Section — _____ / Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



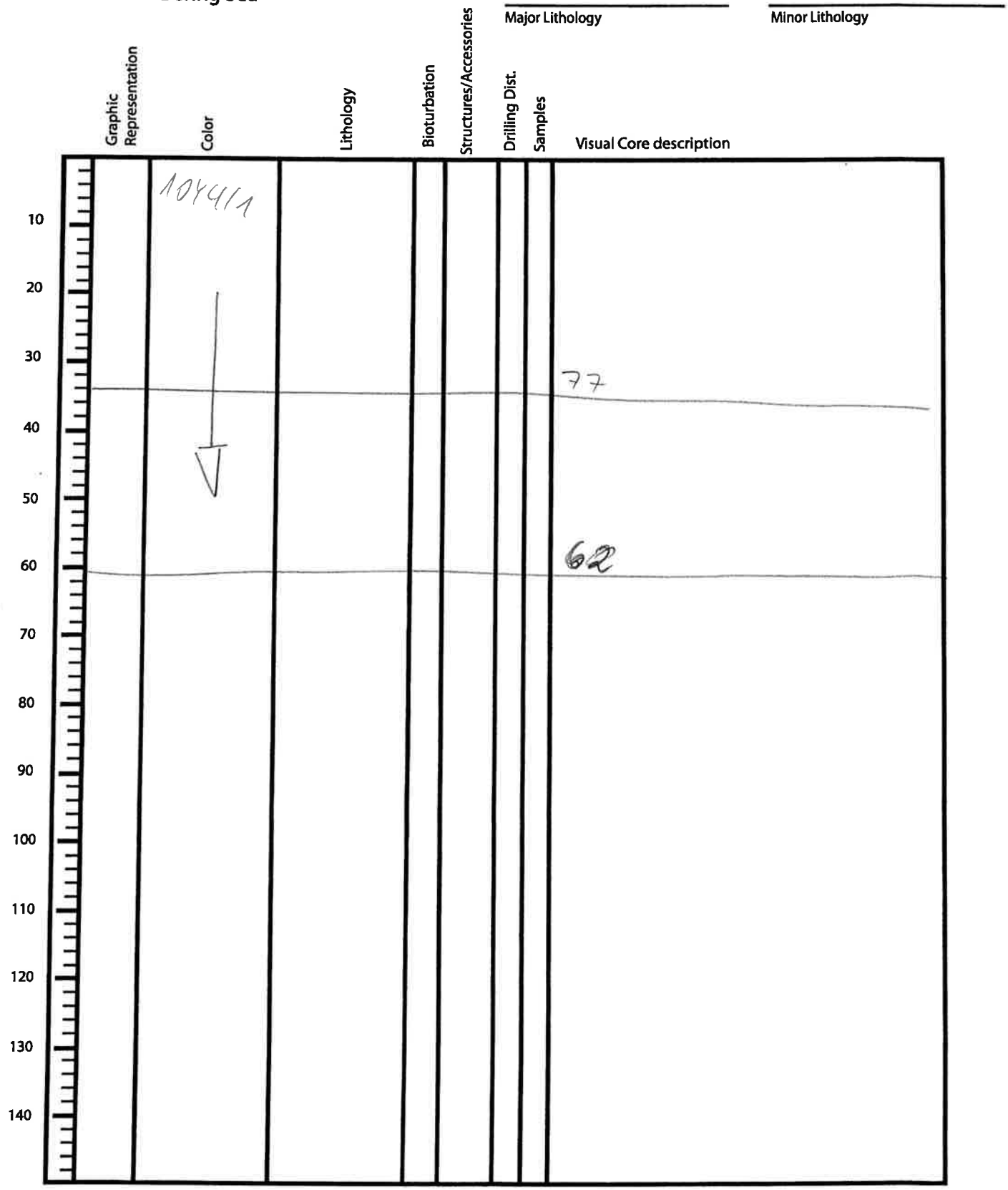
Observer: _____ Date: _____

1343 A 14H 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
323	1343	A	14H		2	25	25

Sediment/Rock Name	Diatom-rich Silt

Observer	GB.

Percent Texture		
Sand	Silt	Clay

Comments:

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

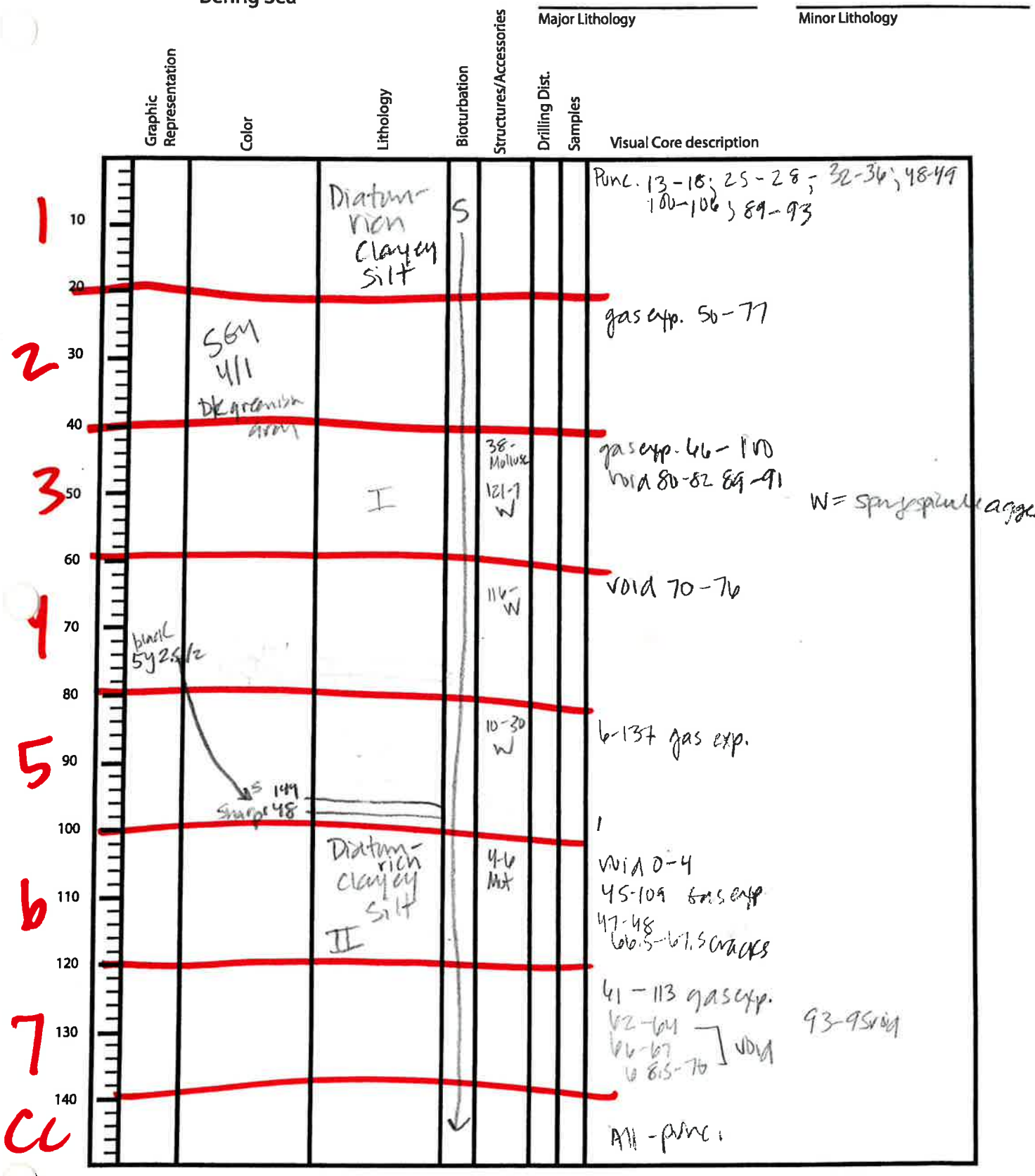
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
20 X	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

U1343A 154
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	Interval (cm) Bottom
323	1343	A	15	H	3	39	

Sediment/Rock Name	Calcite shell fragments

Observer	Beth

Percent Texture		
Sand	Silt	Clay

Comments: Accessory

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
100	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1343	A	15	H	3	60	

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
20	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
5	Plagioclase
	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
	Pyrite
	Magnetite
10	Fe-oxide
	Carbonates
10	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
4	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	15H		4A	117cm	

Sediment/Rock Name	Sponge spicule aggregate

Observer	BCH

Percent Texture		
Sand	Silt	Clay

Comments: white spot

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
2	Quartz
3	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
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
90	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	U1343	A	15	H	7A	78cm	

Sediment/Rock Name	Diatom-rich clayey silt

Observer	BETH

Percent Texture		
Sand	Silt	Clay
5	85	20

Comments:

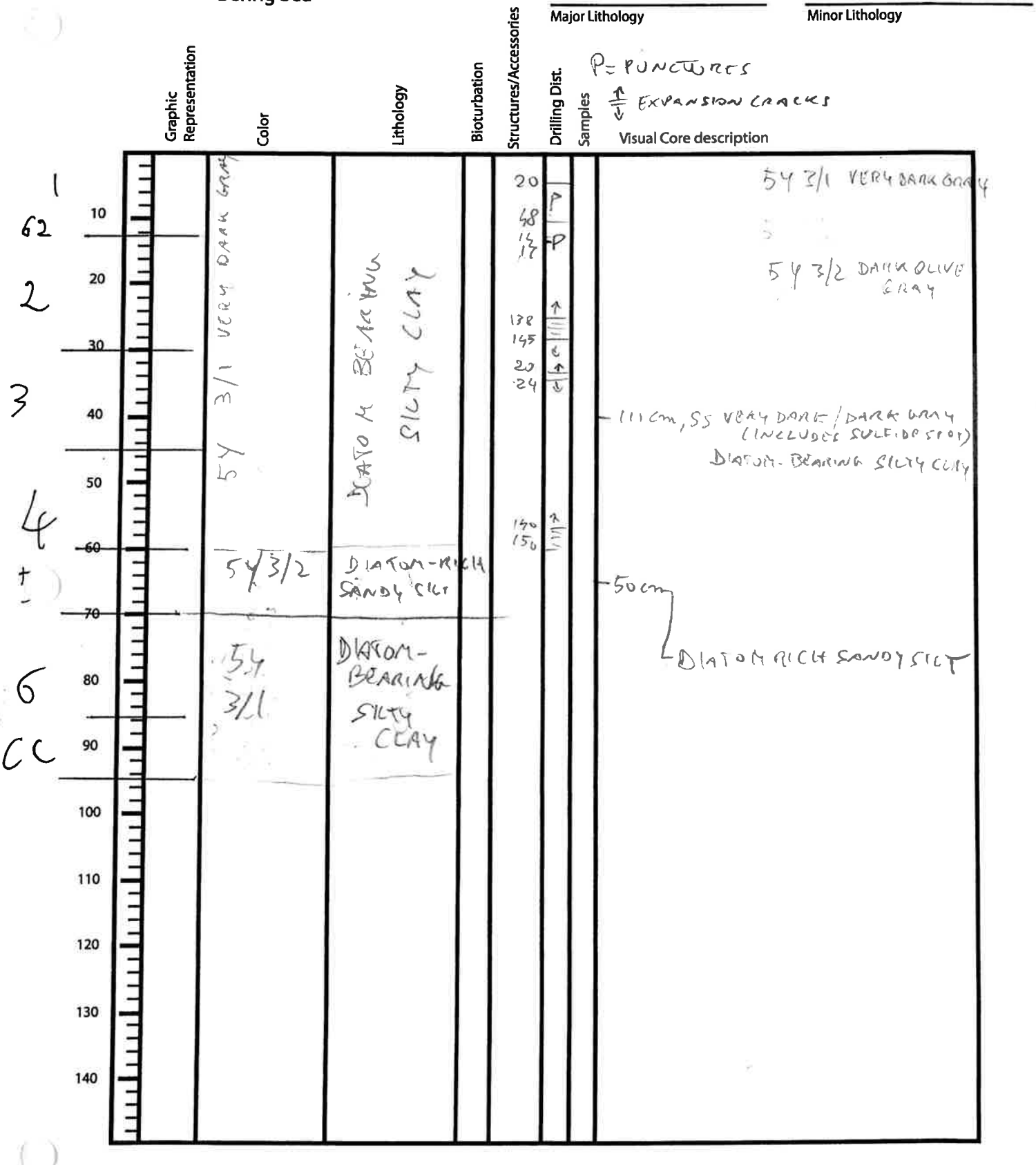
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
13	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals
	Authigenic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

1343 A 18 1-CC
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____



Observer: _____ Date: _____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	16	H	3	111 cm	

Sediment/Rock Name	Diatom- bearing SILTY CLAY

Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Comments:

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

SD. AP 30

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
2	X	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	U1343	A	16	H	5	50 cm	

Sediment/Rock Name	Diatom - rich Sandy Silt	Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Main lithology : sandy part

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
30 X	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
20 X	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 X	Radiolarians
	Spumellaria
	Nassellaria
24 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

S.R.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1343	A	17	H	4	45 cm	

Sediment/Rock Name	Diatom clay	Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Comments: Main lithology

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	X Quartz
5	X Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
20	X Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	X 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
45	X Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
1	X Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SG

X

S.M.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	17	H	5	45 cm	

Sediment/Rock Name	Diatom - rich Silt. Silt	Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Comments:

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

S.R.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1340	A	17	H	6	43 cm	

Sediment/Rock Name	Polycrystalline Qz	Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Comments: Mottle (Polycrystalline stuff)

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

5.1

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	17	H	6	51 cm	

Sediment/Rock Name	Foram-bearing, diatom-rich Clay	Observer	G.B

Percent Texture		
Sand	Silt	Clay

Comments: Minor lithology (greenish)

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

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

X

S.N.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	17	H	6	99 cm	

Sediment/Rock Name	Foram-rich, diatom-rich, clay

Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Comments: Minor lithology (brown)

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

60

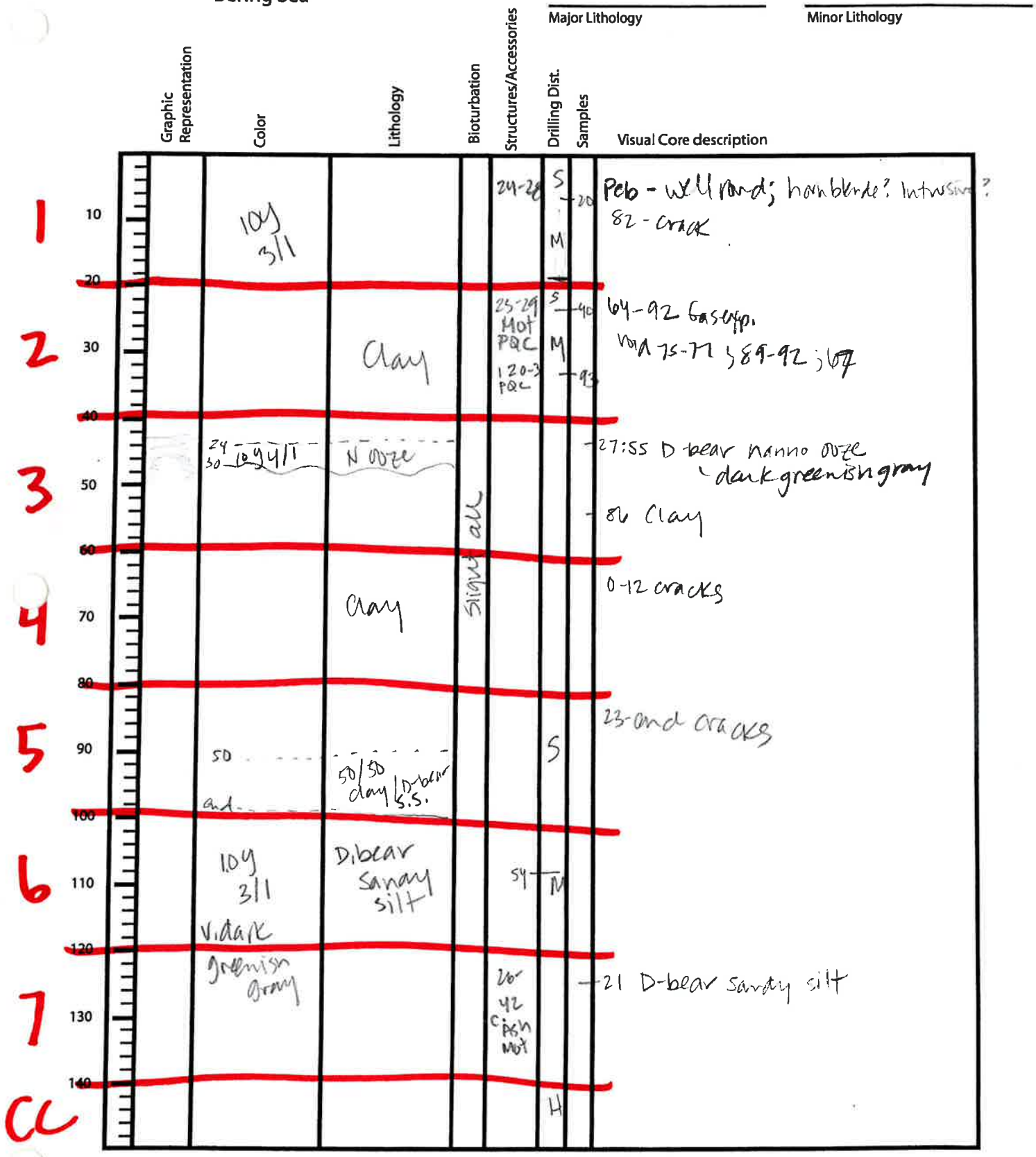
Percent		Component
BIOGENIC GRAINS		
		Calcareous
15	X	Foraminifera
		Planktonic foraminifera
		Benthic foraminifera - Cassidulina
		Nannofossils
		Coccoliths
		Discoasters
		Pteropods
		Siliceous
		Radiolarians
		Spumellaria
		Nassellaria
10	X	Diatoms
		Centric
		Pennate
		Chaetoceros Resting Spores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

25

U1343 A 18H ALL ____
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology ____ Minor Lithology ____



Observer: ____ Date: ____

X

S.P.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1343	A	18	H	3	27 cm	

Sediment/Rock Name	Diatom bearing Nannof. ooze	Observer	GB

Percent Texture		
Sand	Silt	Clay

Comments: minor green lithology

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
70 X	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

S.M.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	18	H	3	86 cm	

Sediment/Rock Name	Clay

Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
25 X	Quartz
8 X	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10 X	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
15 X	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 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

54 (67)

X

S.O.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1343	A	2	H	7	21 cm	

Sediment/Rock Name	Diatom - bearing, Sandy Silt	Observer	O.S.

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
20	X Quartz
20	V Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	X 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
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

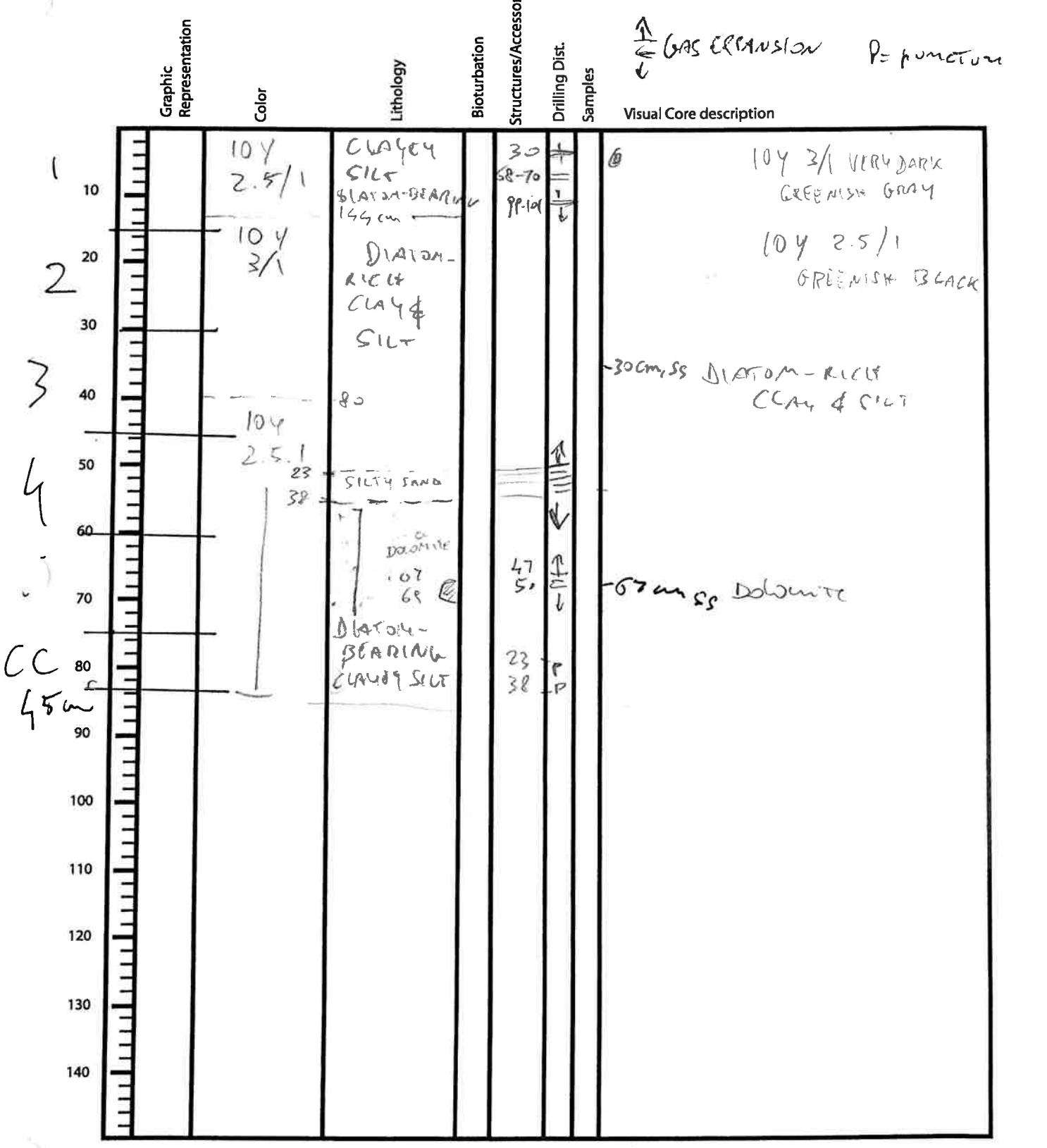
Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
10	X Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

1343 A 19 1-CC
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology | Minor Lithology

↑ ← ↓ GAS EXPANSION P= PUNCTUM



Observer: _____ Date: _____

X

5.D.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1343	A	19	H	3	30 cm	

Sediment/Rock Name	Diatom - rich Clay & Silt	Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Comments:

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

S.P.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1343	A	19	H	5	67 cm	

Sediment/Rock Name	Dolomite	Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Comments: Minor lithology

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
	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
95	X Calcite
	N Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

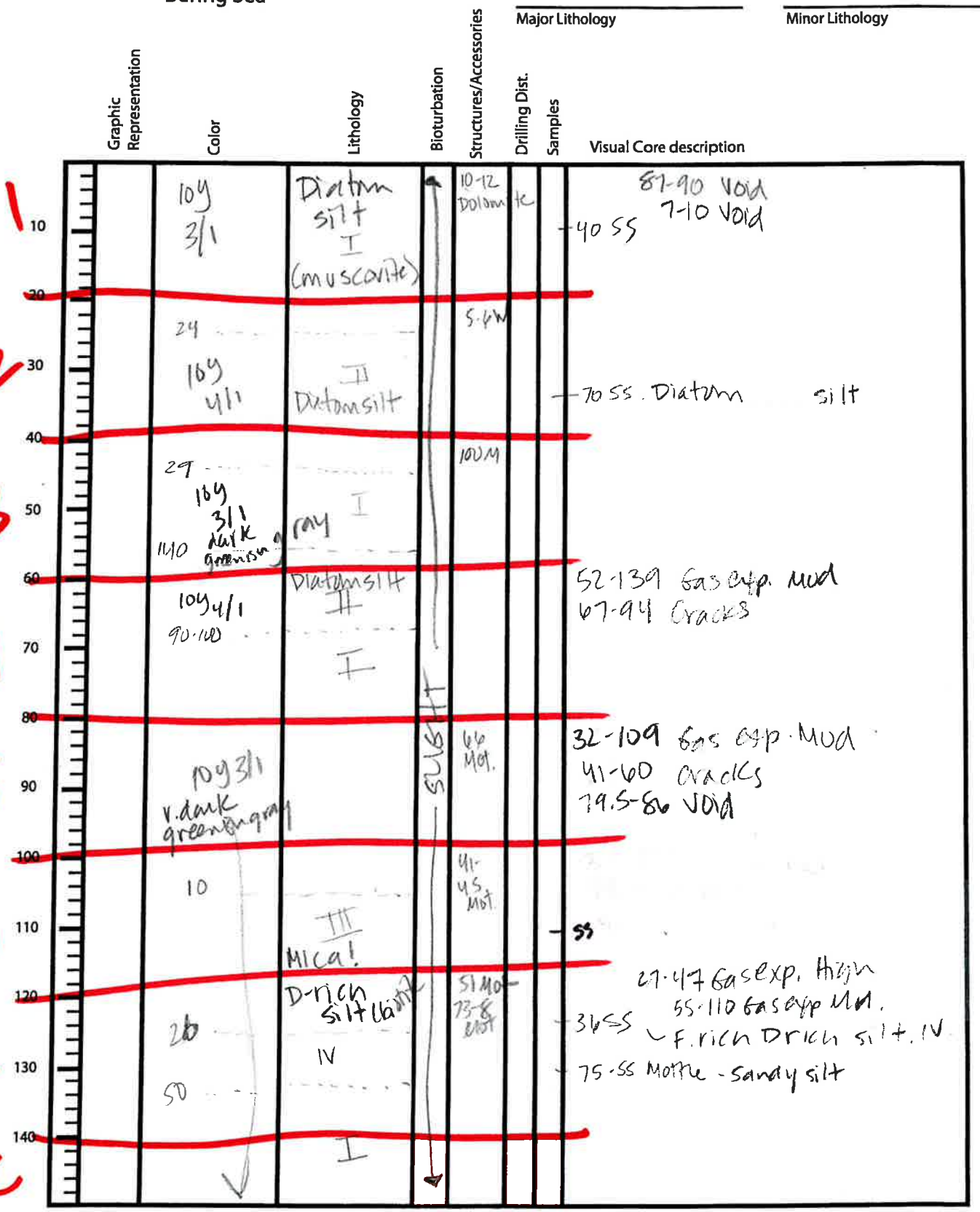
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
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

1343 A 20H ALL
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

X

5.9.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	20	H	1A	40cm	

Sediment/Rock Name	Diatom silt

Observer	Bctm

Percent Texture		
Sand	Silt	Clay
	80	20

Comments:

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

SR.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	20	H	2	70cm	

Sediment/Rock Name	Diatom - [illegible] silt	Observer	G.B

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
20 X	Quartz
18 X	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4 X	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
10 X	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
8 X	Pyrite
	Magnetite
2 X	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
2 X	Radiolarians
	Spumellaria
	Nassellaria
40 X	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
2 X	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

82 90

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1343	A	20	H	3A	18cm	

Sediment/Rock Name	?	Observer	BETH

send for XRD WD6E1349721

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
3	Quartz
2	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	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
5	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
75?	NO 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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1313	A	20	H	6A	45cm	

Sediment/Rock Name	Observer
D-rich silt	BETH

Percent Texture		
Sand	Silt	Clay
	90	10

Comments:

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

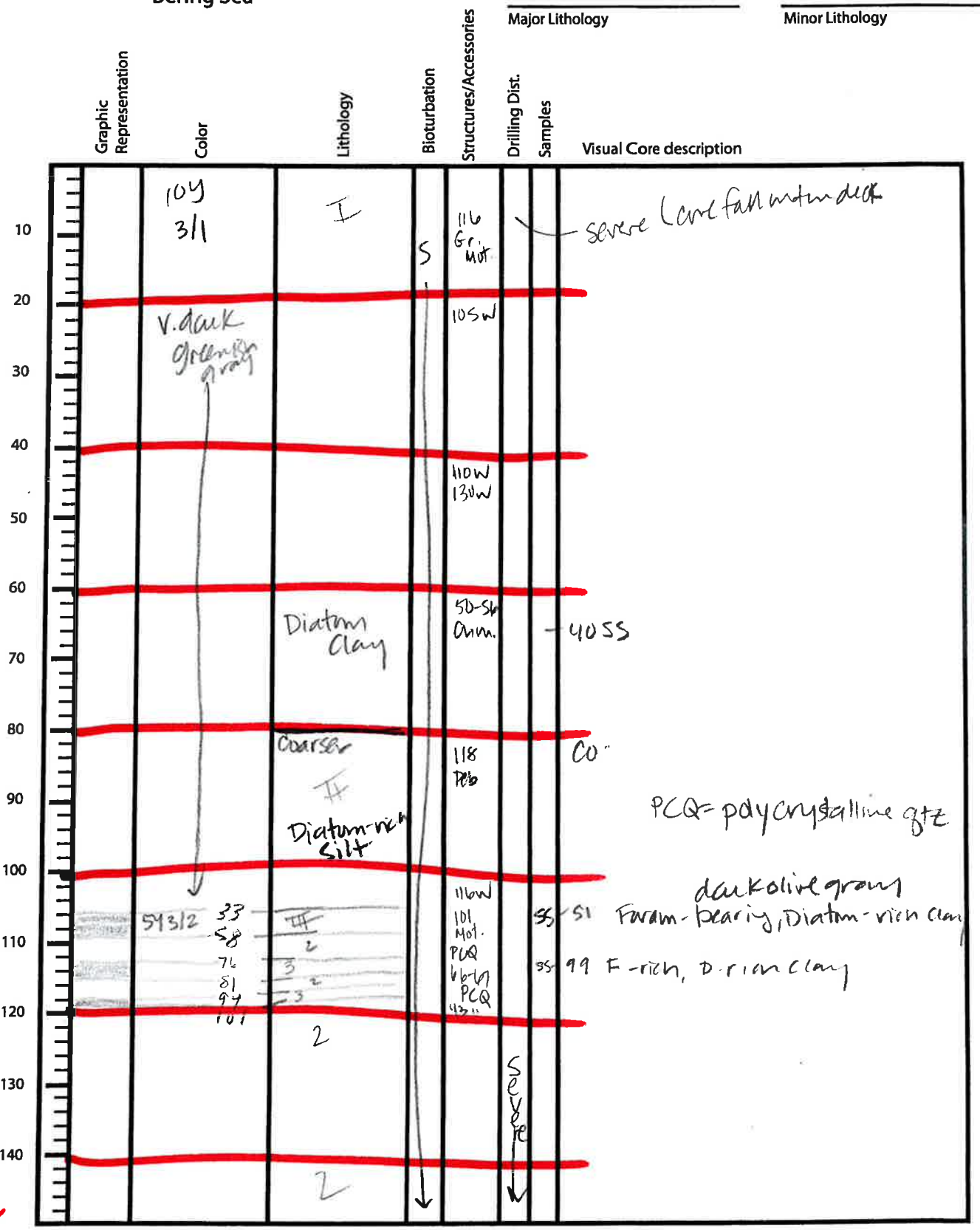
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
10	Centric
5	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules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

U1343 A 17H ALL
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology



Observer: _____ Date: _____

S.M

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	20	H	7	36 cm	

Sediment/Rock Name	Foram. rich, diatom-rich silt.	Observer	G.B.

Percent Texture		
Sand	Silt	Clay

Main Lithology

Comments: + polycrystalline Qz + Strange diatoms.

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
20 X	Planktonic foraminifera
	Benthic foraminifera + Bolivina
	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

X

S.N.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	20	H	7	75 cm	

Sediment/Rock Name	sandy-silt

Observer	GB.

Percent Texture		
Sand	Silt	Clay

Comments:

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

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
5 X	Planktonic foraminifera Rare
	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

1343 Site | A Hole | 21 Core | 1–CC Section | Top Depth

Expedition 323
Bering Sea

Major Lithology

Minor Lithology

P = puncture

EXP. CRACKS

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

10Y 3/N VERY DARK GRAY

10Y 3/2 VERY DARK GREENISH GRAY

10Y 3/N DIATOM-RICH SILT

SCATTERED PYRITE SPECKS

5 CLAST

29 SAND MOTTLE

93 100

78 94

60 cm, SS DIATOM-RICH SILT

10Y 3/2 DIATOM CLAYEY SILT

35 cm

DISTURBED

35 cm SS ("RUSTY" SILT) (MOSTLY "BROWN" MICA)

30 cm SS

110

10Y 3/N DIATOM-RICH SILT

Section scale (cm): 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140; section marks 1, 2, 3, 4, 5, 6, 7, 8, CC

Observer:

Date:

+

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
	1343	A	21		4	60	

Sediment/Rock Name	DIATOM-RICH SILT

Observer	LWA

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15%	10 Quartz
25%	15 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
6%	3 Rock fragments
	Accessory/trace minerals
7%	5 Micas
	X Biotite
	5 Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
5%	3 Zeolite
	Opaque minerals
5%	3 Pyrite
	Magnetite
	Fe-oxide
	Carbonates
5%	5 Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	X Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
5%	5 Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
20%	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
	1343	A	21		7	35	

Sediment/Rock Name	DIATOM-RICH SILT (MOSTLY BROWN & MICA "RUSTY SPOT")	Observer	IWA

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15%	Quartz
30%	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
25%	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
	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
15%	Centric
5%	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1343	A	21H		8A	30	

Sediment/Rock Name	DIATOM CLAYEY SILT	Observer	

Percent Texture		
Sand	Silt	Clay

Comments:

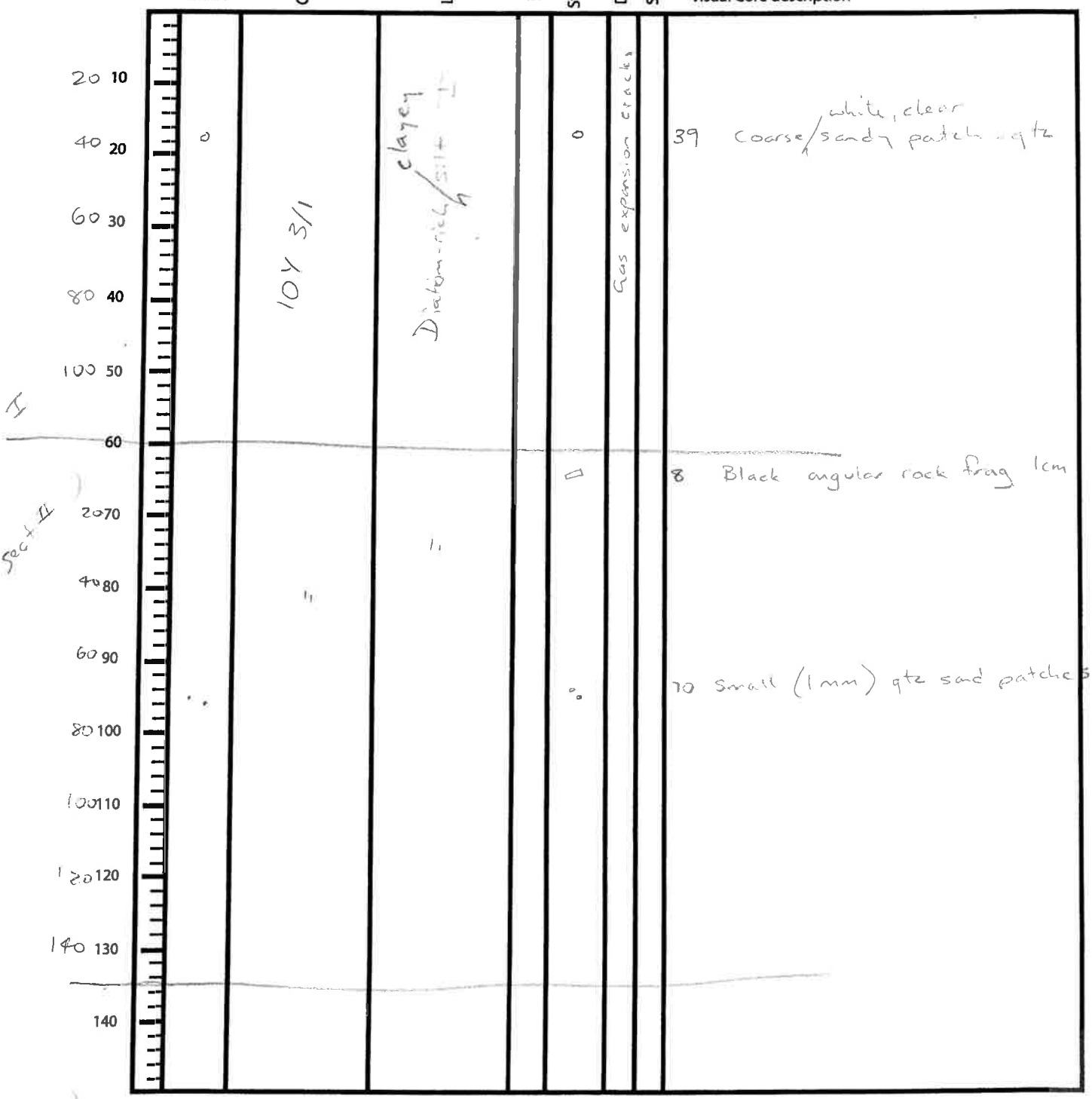
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10%	Quartz
15%	Feldspar
30%	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5%	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
20%	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5%	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
35%	Diatoms
25%	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

323 | 1343A | 22 | 1+2
Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Diatom-rich silt
Major Lithology | Minor Lithology



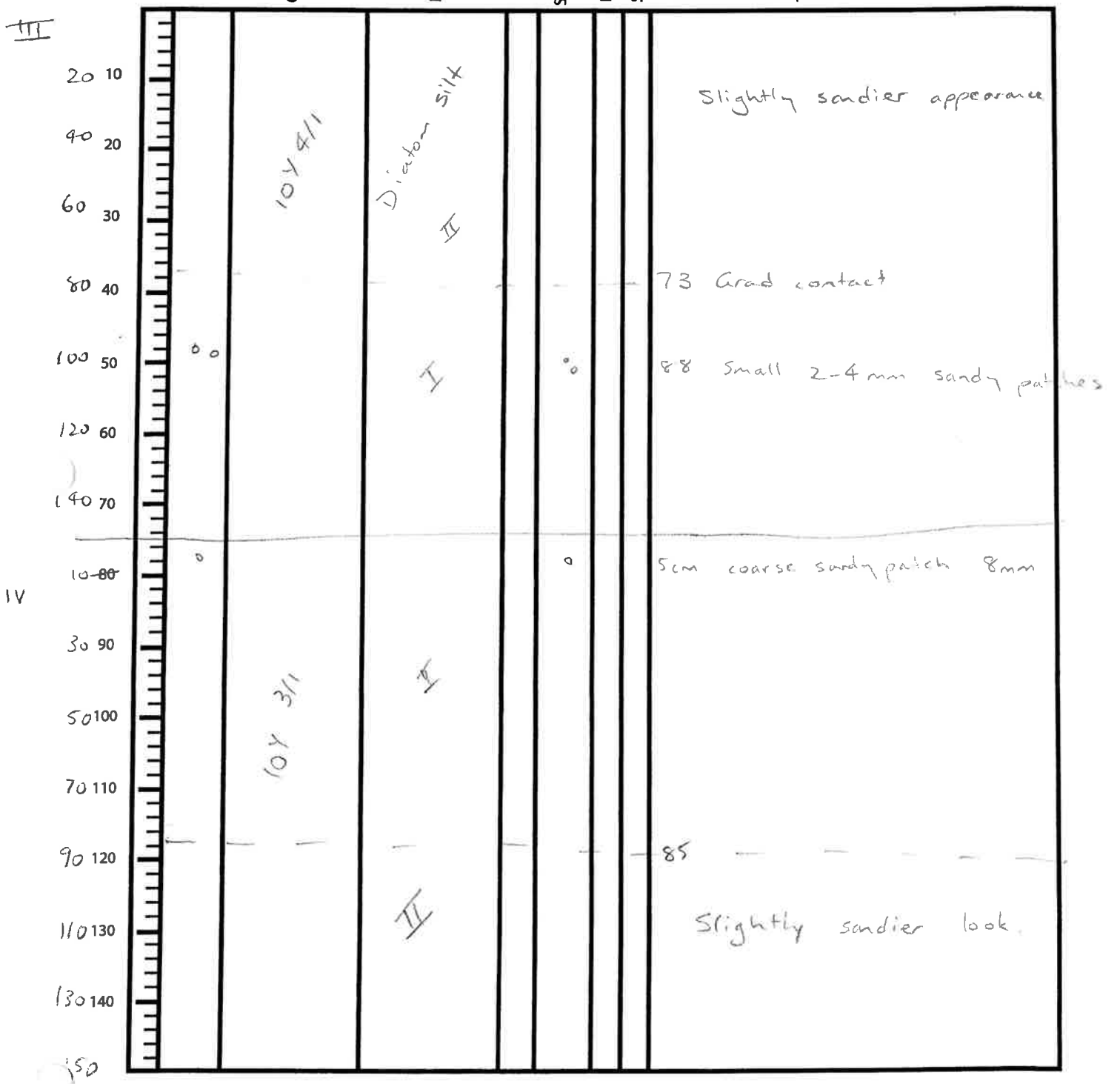
Observer: Kelsie

Date: Sometime in August 09 on a Sunday

1343 | A | 22 | 3+4 | ____
Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology: ____ Minor Lithology: ____

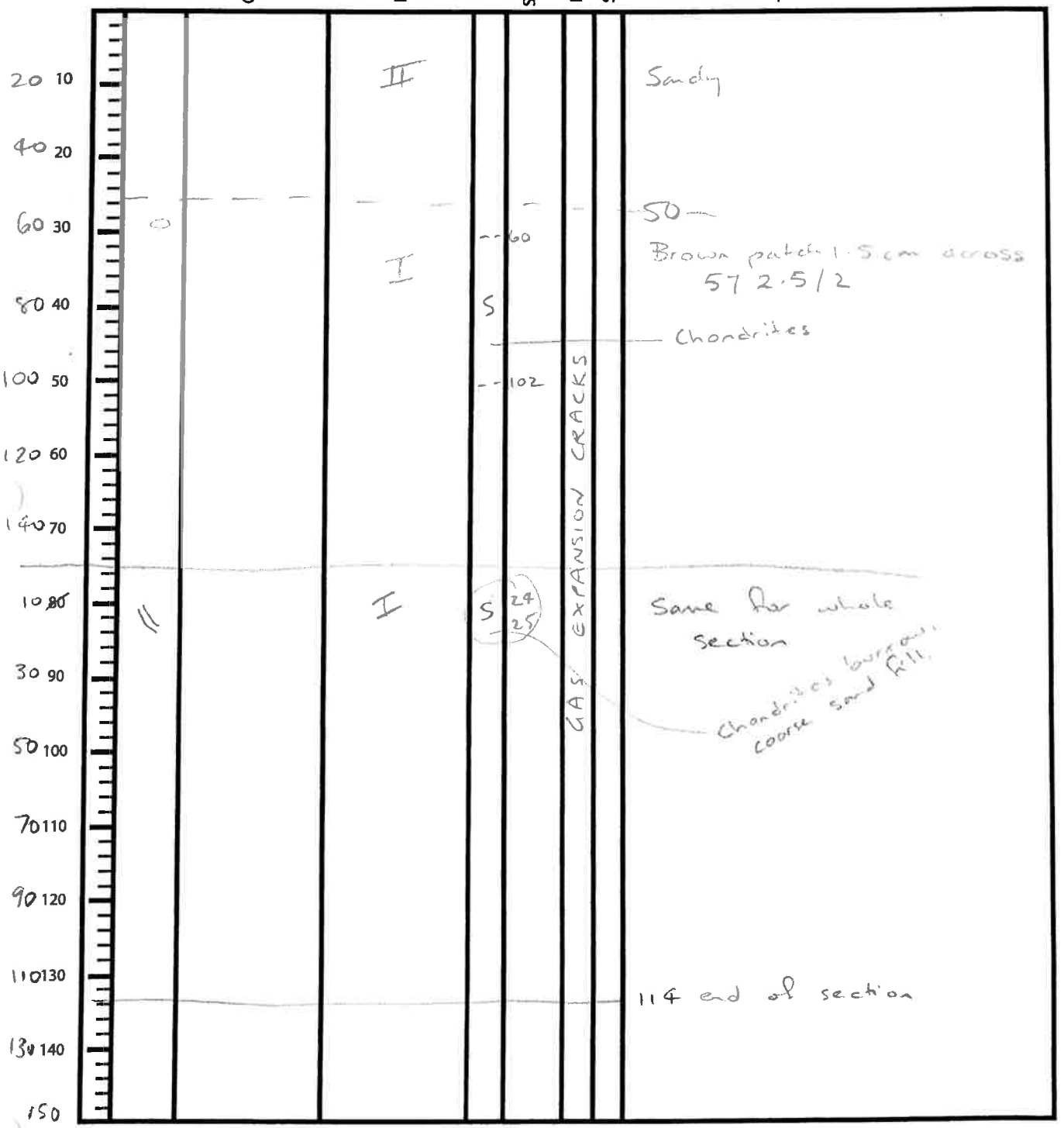


Observer: ____ Date: ____

1343 / Site | A / Hole | 22 / Core | 5+6 / Section | ____ / Top Depth

Expedition 323
Bering Sea

Major Lithology: ____ Minor Lithology: ____

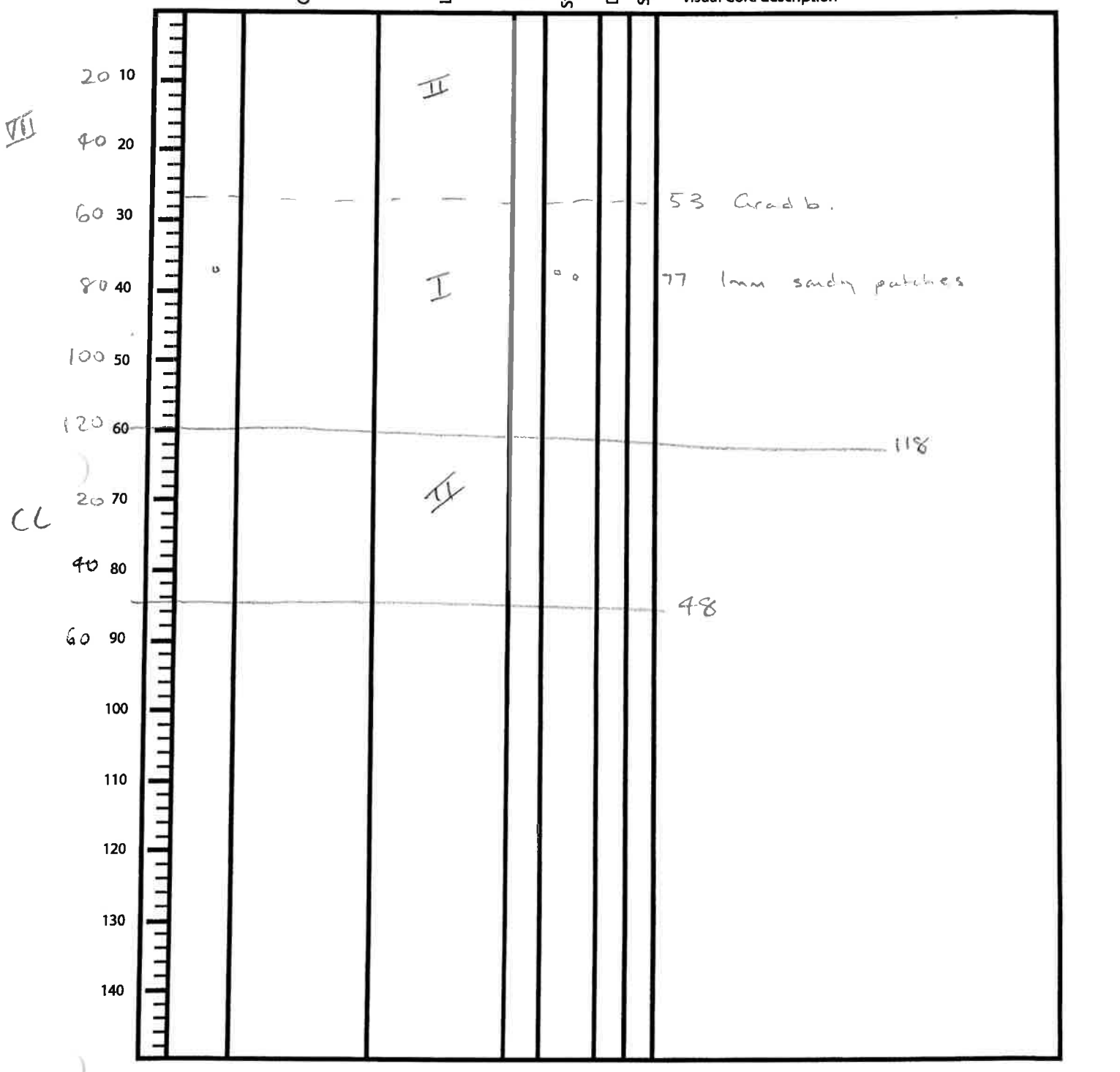


Observer: ____ Date: ____

1343 | A | 22 | 7+CC | _____
Site | Hole | Core | Section | Top Depth

Expedition 323
Bering Sea

Major Lithology _____ Minor Lithology _____

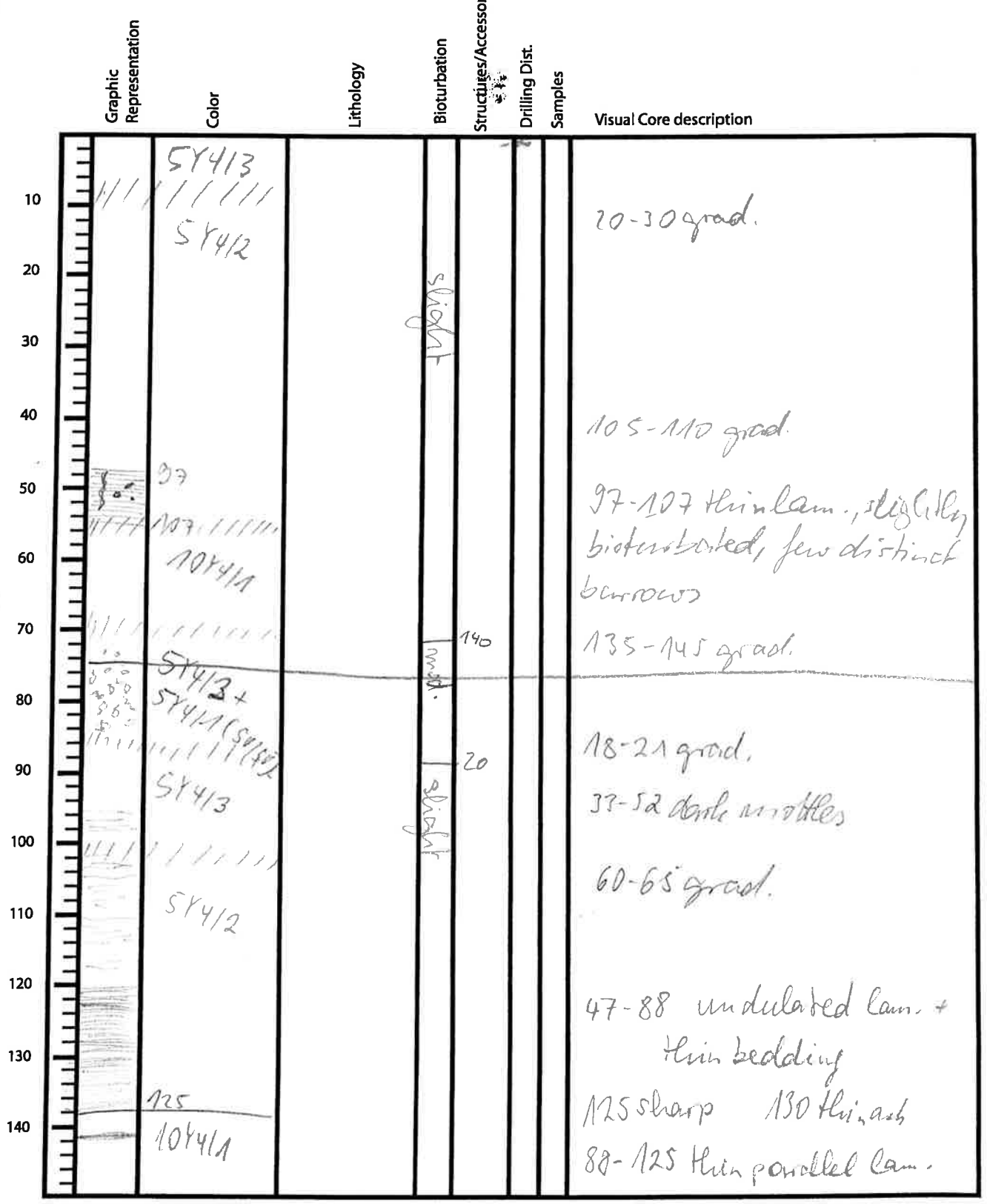


Observer: _____ Date: _____

1343 G 1H 1+2 ____
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	1343	A	21H		5	~~50~~ 75	~~50~~ 75

Sediment/Rock Name	Diatom - rich clayey Silt

Observer	Hiro

Percent Texture		
Sand	Silt	Clay
5	70	25
0.5	5	2

Comments: Gray Main Litho.

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 71
	Framework minerals
29	Quartz 3
8 ~~10~~	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
10	Biotite 1
	Muscovite
5	Clay Minerals 0.5
	Chlorite
	Glauconite
	Chert
	Zircon
19	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 29
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
29 ?	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	1343	A	22H		5A	70	70

Sediment/Rock Name	diatom ~~Foraminifer~~ silt.

Observer	Hina

Percent Texture		
Sand	Silt	Clay
~~35~~ 31	~~65~~ 55	~~10~~ 10

Comments: Greenish Main litho.

≠ 2 3 0.5

Percent	Component
	SILICICLASTIC GRAINS/MINERAL ~~45~~ 46
	Framework minerals
~~33~~ 26	Quartz 5
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4 ~~3~~	Rock fragments 0.5
	Accessory/trace minerals
	Micas
3	Biotite 0.5
3	Muscovite 0.5
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium minerals 0.5
	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 54
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms *
~~44~~ ~~53~~	47 Centric ~~10~~ 7
~~3~~ ~~2~~	7 Pennate 2
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SED3 → SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1343	B	3H	S	W1	5 10	15 10

Sediment/Rock Name	Spicule-rich silty clay

Observer	Beth

B - 20
S - 10
V - 10

Comments:

Percent Texture		
Sand	Silt	Clay
	40	60

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
10	Plagioclase
10	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
30	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	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
	Radiolarians
	Spumellaria
	Nassellaria
5	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
15	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

~~SED~~ SED1 ×SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1343	B	3	H	SW1	15 ~~80~~	15 ~~80~~

Sediment/Rock Name	N/A

Observer	Beth

Percent Texture		
Sand	Silt	Clay

Comments: 20-38 μm fraction
only a fraction of sample

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
~~20~~ 25	Feldspar
	K-feldspar (Orthoclase, Microcline...)
5	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
5 ~~10~~	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
5	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
0	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
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
5	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	U1343	B	3H	5	IW1	~~5~~ 5	15

Sediment/Rock Name	N/A

Observer	Beth

Percent Texture		
Sand	Silt	Clay

Comments: >38 μm fraction only a fraction of sample

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
5	Quartz
5	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
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
5	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
15	Centric
10	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
50	Sponge spicules – Monaxial to tetractinellids
	Dinoflagellates ~3, 4, 5, 6 apices
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others