

U1344 E 1H ALL
 Site Hole Core Section Top Depth

Expedition 323
 Bering Sea

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
	59413 ↑	Diatom silty clay	S			Shattered liner	
						- 80 SS:	
					53 GM 112W	60 H 74	
					102W 68-70 Ash Mot.	A	
	124 2.5/N 130	coarse Ash			110-124 Ash Mot.		
					41-53 Lam thick		
					7-9 GM Mot. 20-36 Mot.	Crack	
							Lam 1094/1 (D. bear clay) 2.5/N Ash? Sand? 59413 Diatom silty clay

1
2
3
4

CC 3-13 Sand Mot
 Hi Dist.

Observer: _____ Date: _____

Hole A
 D bear clay 1094/1
 d silty clay 59413
 silty clay 593/2

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344E	1		H/A		80cm	

Sediment/Rock Name	diatom-silty clay	Observer	akira
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Percent Texture		
Sand	Silt	Clay
10	50	80

Comments:

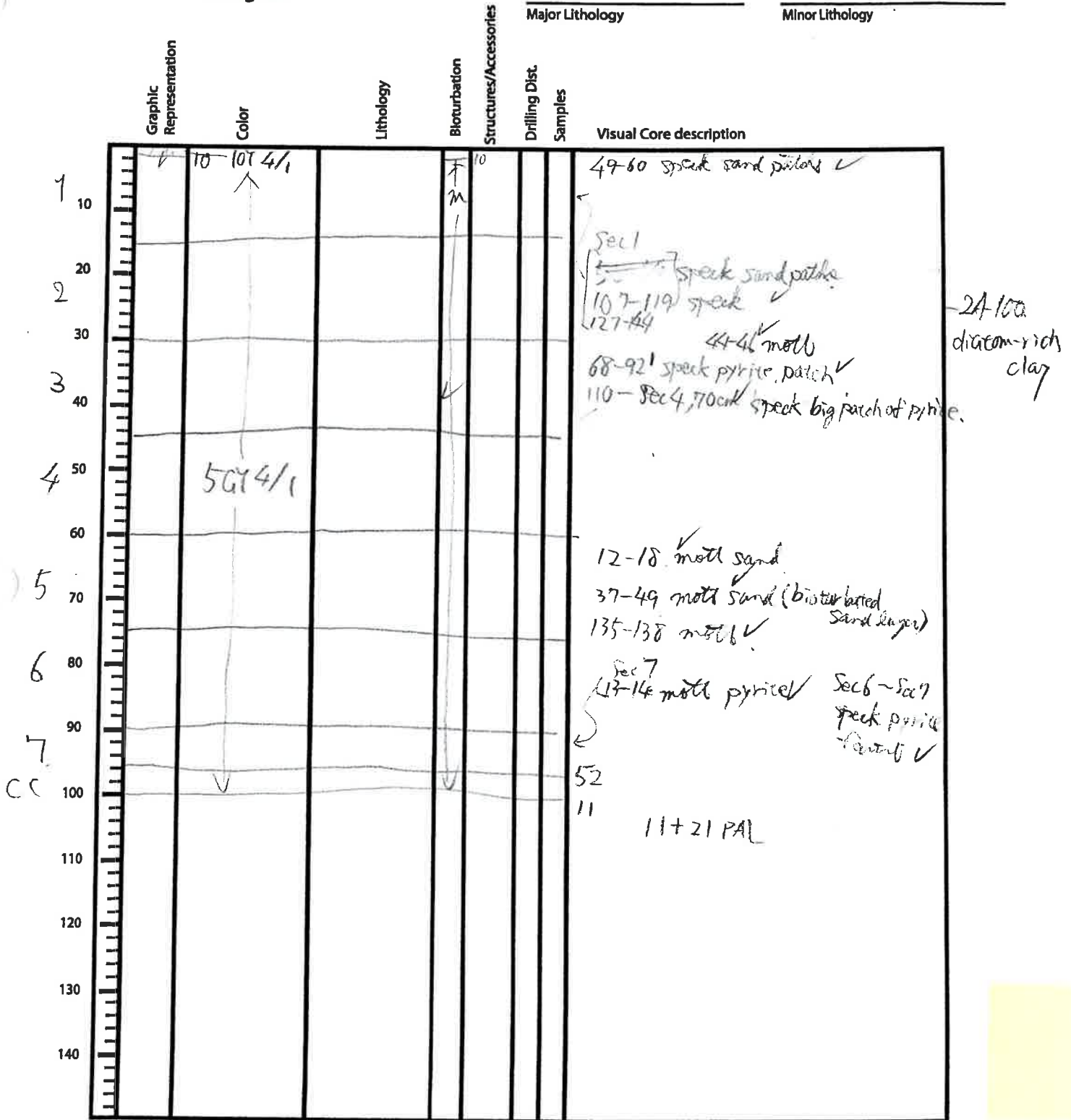
Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
10	Quartz 5
4	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments 1
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
19	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals ✓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

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

H₂S smell

1344 E 2
Site Hole Core Section Top Depth

Expedition 323
Bering Sea



Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	M344	E	2.	H	2A	100cm	

Sediment/Rock Name	Diatom-rich clay	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
5	20	75

Comments:

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

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

✓SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	V1344	E	2	H	3A	142cm	

Sediment/Rock Name	Pyrite / FeOxides	Observer	Beth
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Botryoidal

Percent Texture		
Sand	Silt	Clay

Comments:

Large smears

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

Expedition 323
Bering Sea

1344 E 3
Site Hole Core Section Top Depth

Depth (cm)	Graphic Representation	Color	Lithology	Bloturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology	Visual Core description
							Major Lithology	Minor Lithology	
1-10						212			28-30 speck pyrite ✓ 79-81 sponge mott ✓
2-30			diatom-rich clay						92-106 speck sandy
3-40		5G 4 1/1							50-143 } big! skolithos green 108-150 } 20-21 ✓ sandy layer.
4-70									7-34 (speck pyrite) 94-150)
5-100									69 15
6-110									
7-120									
8-130									
9-140									

Observer: _____ Date: _____

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IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	E	4H		3	20	20

Sediment/Rock Name	Diatom-bearing silty clay	Observer	MSC
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Sand	Percent Texture	
	Silt	Clay
5	25	70

Comments: Main lith (grey)

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

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

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	E	4H		7	20	20

Sediment/Rock Name	Diatom-rich clayey silt	Observer	MSC
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S	Percent Texture		
	Sand	Silt	Clay
3	57	40	

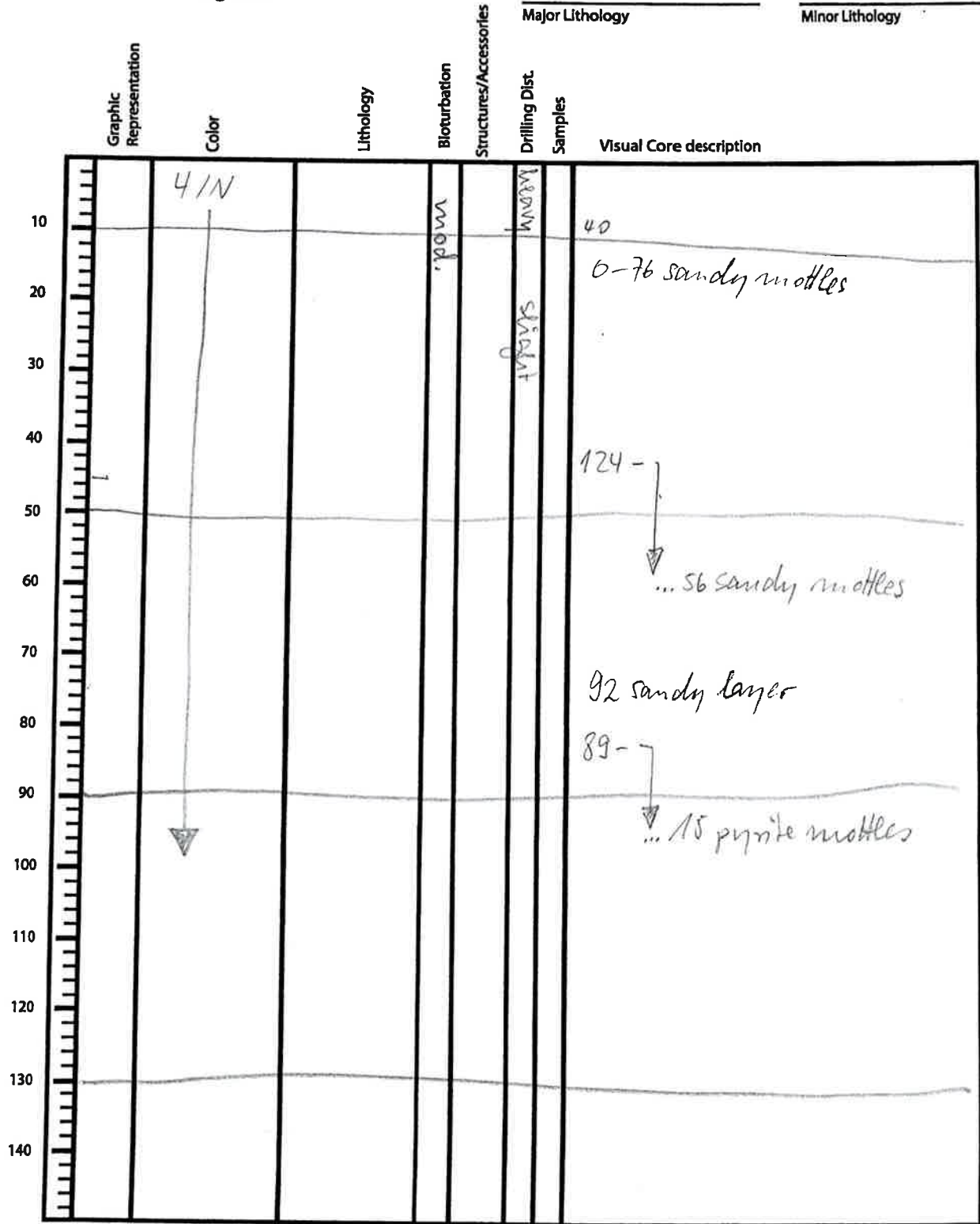
Comments: Main lith (green)

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

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

Expedition 323
Bering Sea

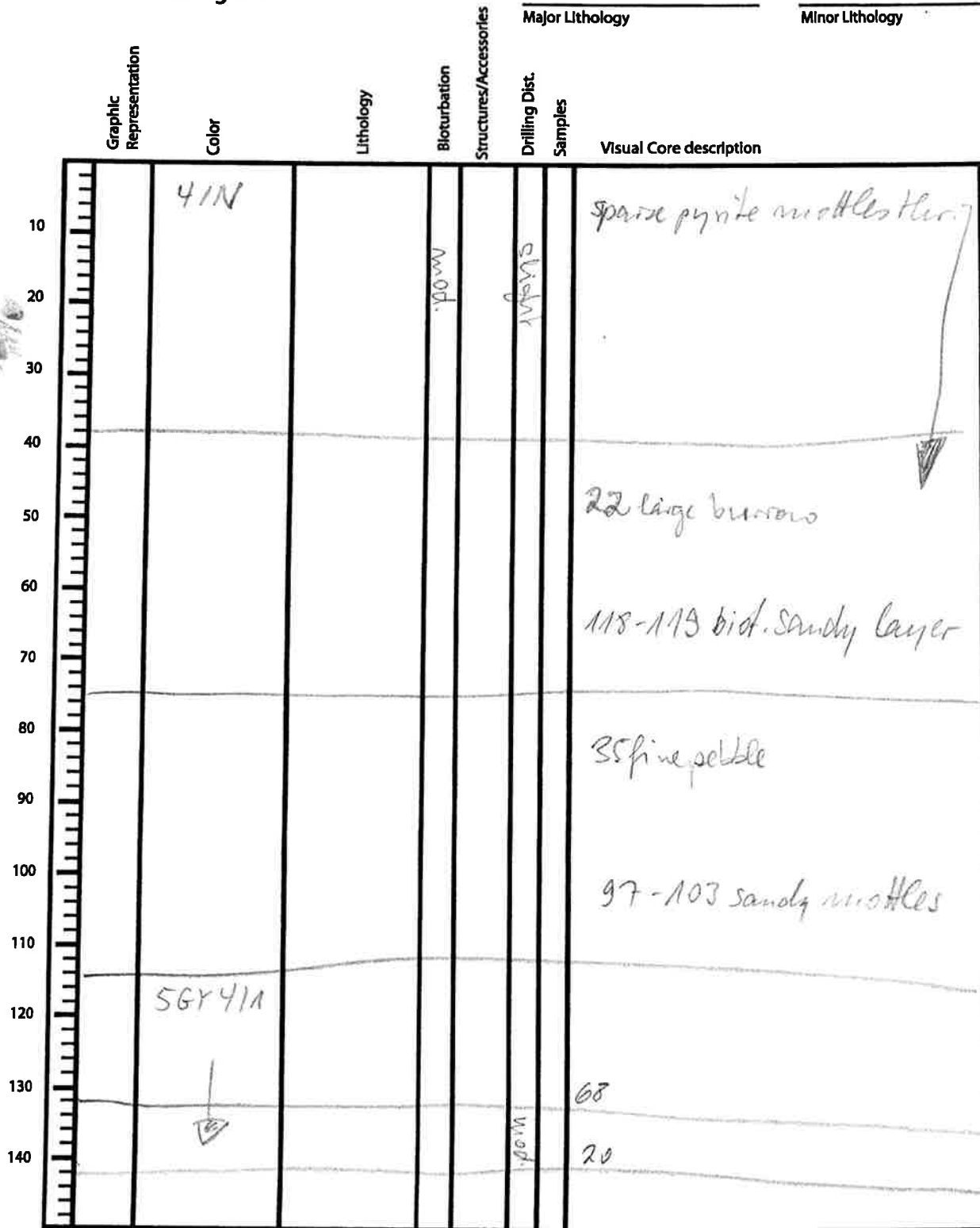
1344 Site E Hole 4H Core 1+2+3+4 Section 1+2+3+4 Top Depth



Observer: _____ Date: _____

Expedition 323
Bering Sea

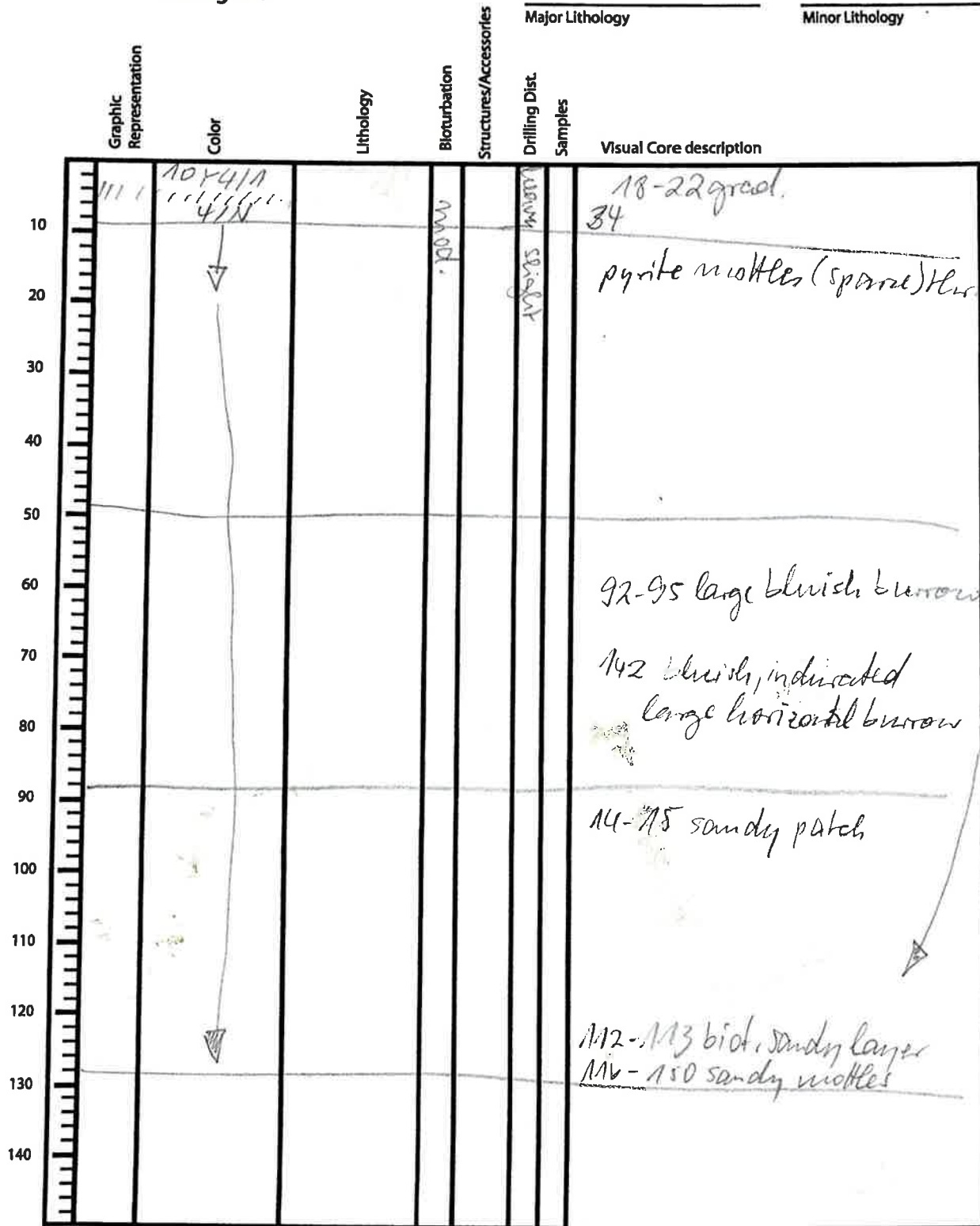
1344 E 4H 5+6+7+8+cc
Site Hole Core Section Top Depth



Observer: _____ Date: _____

Expedition 323
Bering Sea

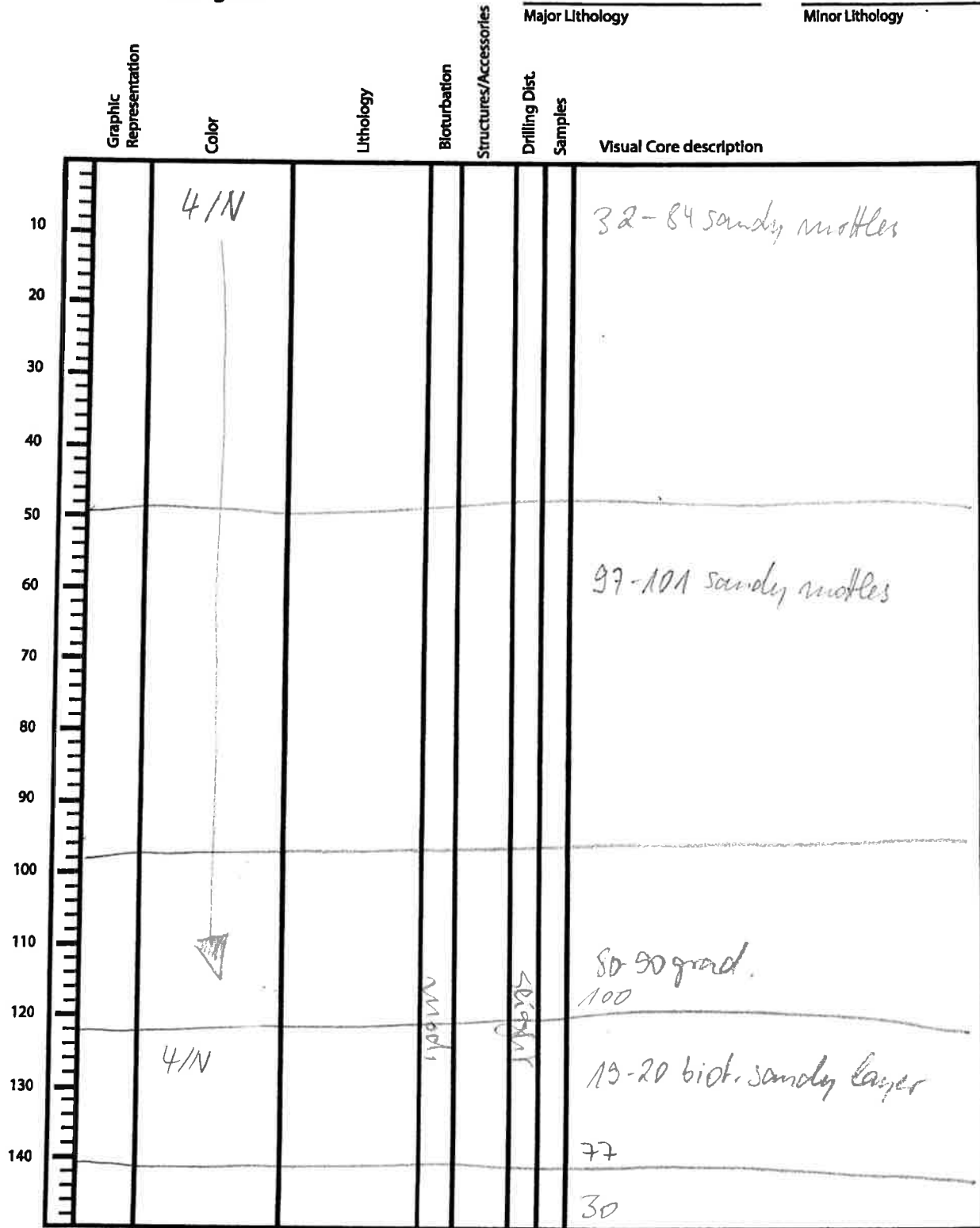
1344 E SH 1+2+3+4
Site Hole Core Section Top Depth



Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 E SH 5+6+7+8+cc
Site Hole Core Section Top Depth



Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1347	E	5H		3	20	20

Sediment/Rock Name	Diatom-rich silty clay	Observer	
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Percent Texture		
Sand	Silt	Clay
3	27	70

Comments: *Marine life*

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

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

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IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	E	SH		7	20	20

Sediment/Rock Name	Diatom-rich clayey silt	Observer	
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Sand	Percent Texture	
	Silt	Clay
15	55	30

Comments:

Mamm list

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

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

Expedition 323
Bering Sea

1344 E 6H 1+2+3+4
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	4/N						
			mod.		heavy		
						128	
						15-31 sandy mottles	
						26-78 pyrite mottles	
						128-147 " "	
						19-23 pyrite patches	
						55-150 sandy mottles	
	5G411					sandy mottles thr.	
						110-140 grad.	
	104411						

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 E 6H 5+6+7+cc
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	10Y4/1		slight		slight		134-135 biot. sandy layer
	↓						
	SGY4/1		mod.				70 biot. sandy layer
							80-130 grad. 120-150 sandy nodules
							0-47 " "
							51 fine pebble
	10Y4/1				mod.		90
							81

Observer: _____ Date: _____

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IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	E	6H		2	30	30

Sediment/Rock Name	Diatom-rich silty clay	Observer	MSC
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Percent Texture		
Sand	Silt	Clay
10	40	50

Comments: Main lith (grey)

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344		6H		6	30	30

Sediment/Rock Name	Diatom silty clay	Observer	MSC
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Percent Texture		
Sand	Silt	Clay
3	40	57

Comments: Main rock (green)

Percent	Component
58 SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
8	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
7	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
31	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
42 BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
1	✓ Nassellaria
	Diatoms
25	Centric
16	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

Expedition 323
Bering Sea

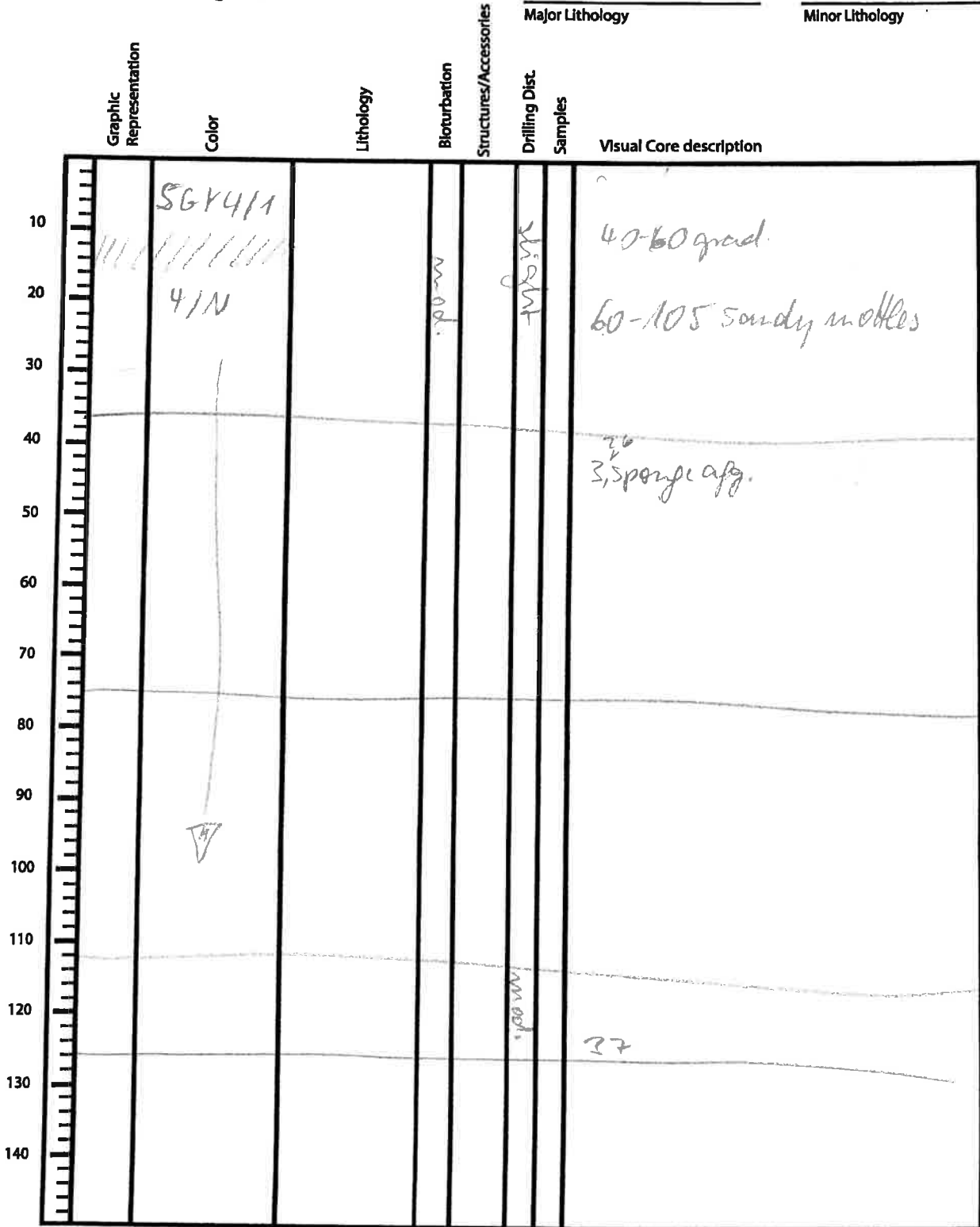
1344 E 7H 1+2+3+4
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	5G741A ↓		mud.	Level 28 Slight		
	↓					49-51 sandy nodules 60 sandy layer
	↓					104-106 sponge aggs.
	41N ↓					90-110 grad.
	↓					21 sharp 20-21 biot. sandy layer
	ADY41A 5G741A					90-95 grad.
						115-120 grad.

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 E 7H 5+6+7+CC
 Site Hole Core Section Top Depth



Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

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

Sediment/Rock Name	Diatom with clayey site	Observer	Hins
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dearing

Percent Texture		
Sand	Silt	Clay

Comments: Major (Gray)

Percent	Component
SILICICLASTIC GRAINS/MINERAL 86%	
Framework minerals	
45	Quartz 10
4	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
35	Plagioclase
	Rock fragments
14	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
35	Clay Minerals 7 15
	Chlorite
	Glaucanite
	Chert
	Zircon
35	Ferromagnesium minerals 3
	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 10	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
6	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
			7H		2A	59	74

Sediment/Rock Name	Diatom rich silty clay	Observer	Hino
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Percent Texture		
Sand	Silt	Clay

Comments: 7-8 10.5 Green
7-6 10 Major Gls
7-2 50 Major

Percent	Component
SILICICLASTIC GRAINS/MINERAL 67	
Framework minerals	
50	Quartz 10
10	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
5	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
28	Calcite 0.5
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 33	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
3	Coccoliths 0.5
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
20	4 Centric
10	2 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	B44	E	7H		4A	103	

Sediment/Rock Name	Diatom-rich clayey silt	Observer	M. L. W.
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Percent Texture		
Sand	Silt	Clay

Comments: Green.

Percent	Component
SILICICLASTIC GRAINS/MINERAL 80	
Framework minerals	
43	Quartz 20
7	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments 1
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
22	Clay Minerals 10
	Chlorite
	Glaucinite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
2	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
2	Calcite 1
	Dolomite
VOLCANICLASTIC GRAINS	
2	Crystal grain 1
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 20	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
11	5 Centric
7	3 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
2	1 Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

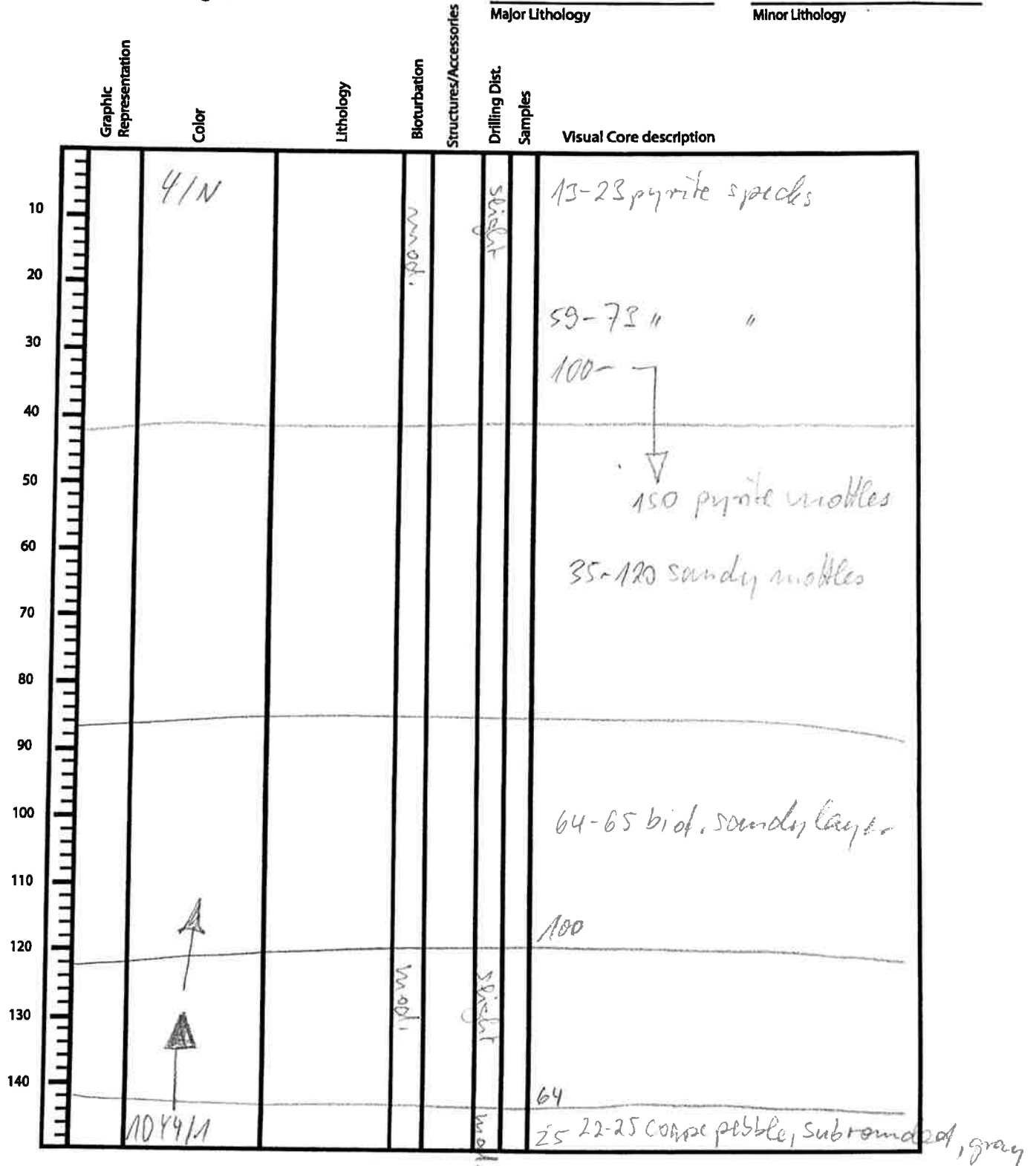
1344 E 8H 1+2+3+4
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	564411 ↓		mod.		35		
						26-27 biol. sandy layer	
						66-67 " " "	
						70-90 grad	
	4/N ↓					81 sandy layer	
						108-120 sandy nodules	
						0-27 pyrite nodules	
						80-110 " "	
						114 large bluish burrows	
						10-100 pyrite nodules	
						129-145 pyrite specks	

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 E 8H 576+718+100
Site Hole Core Section Top Depth



Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	E	8	H	4	40	

Sediment/Rock Name	Diatom-rich silty clay	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay

Comments:

Main lithology = grey

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

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	E	8	H	8	30	

Sediment/Rock Name	Diatom clayey silt	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay

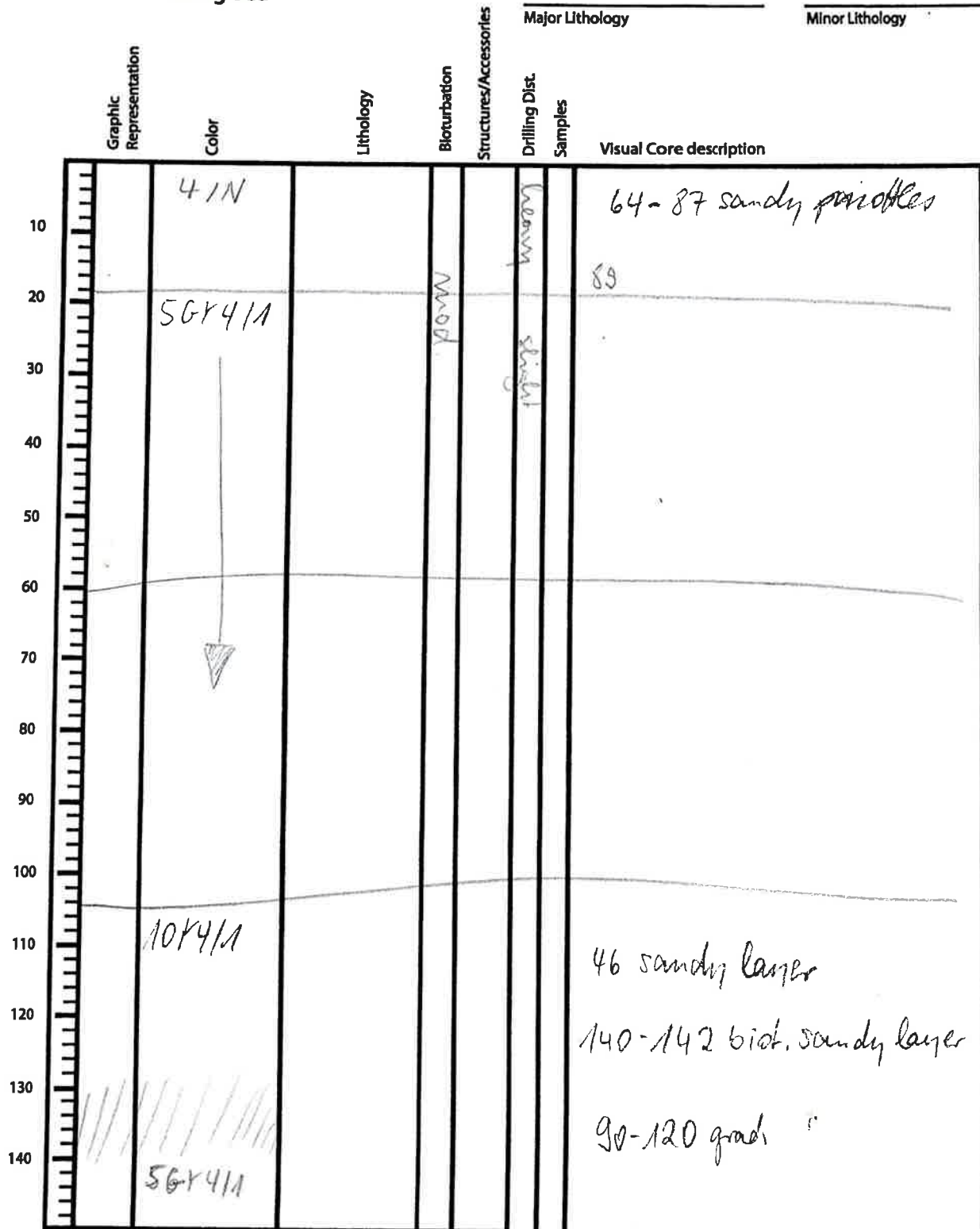
Comments:

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

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

Expedition 323
Bering Sea

1344 E 9H 1+2+3+4
Site Hole Core Section Top Depth



Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 E 9H S+6+7+cc
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	5G Y4/A					
10						5 sandy layer, biot.
20						8 " " "
30						18-19 pebble, dark, subrounded
40	4/N					70-80 grad.
50						0-75 sandy mottles
60	3/N					86-87 sandy layer, biot.
70						40-55 grad.
80	4/N					43-111 sandy mottles
90						98-118 pyrite mottles
100	↓					15-16 biot. sandy layer
110	∇					87
120						30
130						
140						

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	E	9	H	2	60	

Sediment/Rock Name	Diatom-rich clayey silt	Observer	Kelsie
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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
26	Clay Minerals
	Chlorite
	Glaucinite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
2	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
2	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
20	Diatoms
	Centric
	Pennate
	<i>Chaetoceros</i> 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	U1344	E	9	H	4	50	

Sediment/Rock Name	Diatom silty clay	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay

Comments: Main lithology

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

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	E	9	H	7	40	

Sediment/Rock Name	Diatom-bearing silty clay	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay

Comments:

Main lith

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

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

Expedition 323
Bering Sea

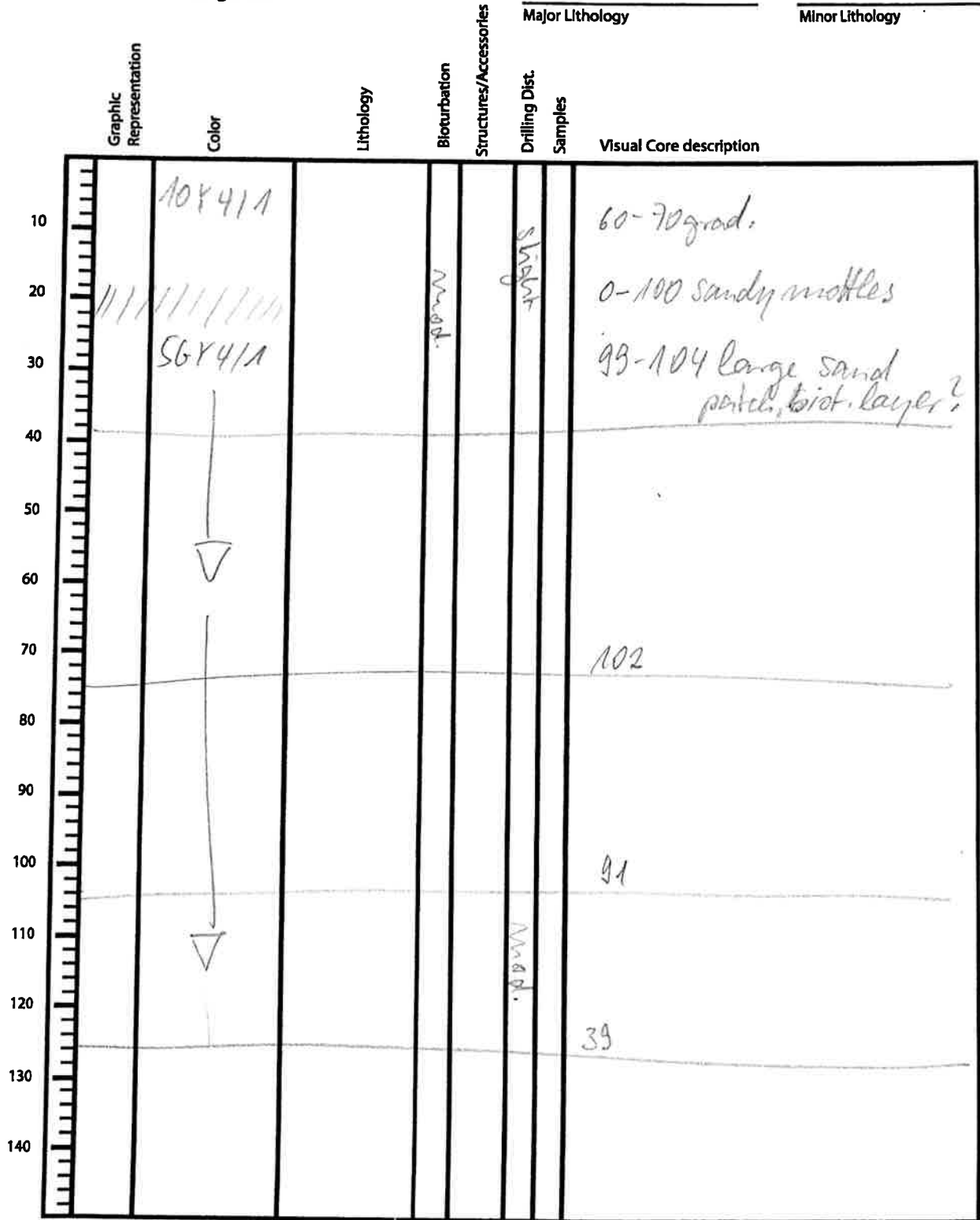
1344 E NH 1+2+3+4
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	4/N					
	↓			heavy		
			mod.			
	↓			slight		
	↓					
					pyrite nodules -	
					90-123	
					...13 sandy nodules	
					70-125 sandy nodules	
					110-121 sandy nodules	
					140-150 grad.	
	SGY 4/1				16-42 sandy nodules	
					98-101 " "	
					131-132 sandy patch with	
					clast, black, shale?	

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 E 10H 5+6+7+CC
Site Hole Core Section Top Depth



Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	E	10	H	3	55	

Sediment/Rock Name	Diatom-rich silty clay	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay

Comments:

ML

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
	Glaucanite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
1	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
2	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
25	Diatoms
	Centric
	Pennate
	<i>Chaetoceros</i> Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	E	10	H	5	60	

Sediment/Rock Name	Diatom-bearing clayey silt	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay

Comments:

ML

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

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	E	10	H	7	70	

SM

Sediment/Rock Name	Diatom-rich silty clay	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay

Comments: ML

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

Expedition 323
Bering Sea

1344 Site E Hole 12H Core 1-5 Section Top Depth

Graphic Representation	Color	Lithology	Biurbation	Structures/Accessories	Drilling Dist	Major Lithology	Minor Lithology	Visual Core description
	4/N				H			D. Dist. 0-43 High g. exp
①	4/N					43cm		ACL 10-12 Anth Carb Mottling
②	4/N	Diatom bearing silt	SR	Spick	D			0-49 Spick 65. Sandy Part
③	4/N	I						125-130 S. Layer
④	4/N	I						17 cracks (slightly cont.) 93-106 G exp Mod. 108-109 VOID
⑤	4/N	I						103-105 Sandy Layer 102-104 Anth Carb Mottles
⑥	4/N	I						Same color but sandier!!
⑦	4/N	I						25-30 Anth Carb Mottles
⑧	4/N	I						124-129 Sandy Layer
⑨	4/N	I						136-138 Sandy Layer
	5G 4/N	IL						100 purple 103-117 g. exp s.l.

X Spicks throughout
10-12 108
9

49 Sp. Apr

89 Sp. Apr.

73. 75

Observer: Hivo. Date: _____

Expedition 323
Bering Sea

1347 Site E Hole 12H Core 6-CC Section _____ Top Depth

Major Lithology

Minor Lithology

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Visual Core description
	5G 4/1	II Diatom rich clayey silt	(30)		43-44 sandy patch 89-90 " Layer → 55 35 Drich clayey silt
	4/N	I		78 79 77	→ G exp. 76-82 sl. → sandy 92-105 104 105
	4/N	I		35	0-35 Mod. drilling dis

103. 101, 109

Observer: Hiw A Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	E	12	H	4	50	50

Sediment/Rock Name	Diatom-bearing silt	Observer	MSC
--------------------	---------------------	----------	-----

Percent Texture		
Sand	Silt	Clay
3	77	20

Comments: Main lith

Percent	Component
94	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
22	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
30	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
19	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
6	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
6	Diatoms
5	Centric
1	Pennate
	<i>Chaetoceros</i> Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	E	12	H	6	35	35

SM

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

Percent Texture		
Sand	Silt	Clay
2	68	30

Comments: Main list (greenes)

Percent	Component
80	78 SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
15	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
21	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
25 25	Clay Minerals
	Chlorite
	Glaucosite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite
	Magnetite
1	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
20	20 BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils <i>Not nannosif</i>
	Coccoliths <i>(?) dark</i>
	Discoasters <i>colored in</i>
	Pteropods <i>plane pol. light</i>
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
20	Diatoms
	Centric
	Pennate
	<i>Chaetoceros</i> Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

DM
 11/14/16
 5:2

Expedition 323
 Bering Sea

1344 E 13H A-5
 Site Hole Core Section Top Depth

HS.1

D. rich silty clay

Sp. Agr.

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Major Lithology		Minor Lithology	Visual Core description	Lith. Note
				Drilling Dist	Drilling Dist	Minor Lithology		
10	4/N	I	SL	137	137		D.D. SL D-77 High	ACC Speck (Black)
20							95 G.E.	
40	4/N	I	SL	137	137			
60			SL MOD	8	141			66-67 Speck (Black)
80	4/N	I	SL MOD SP	93	146			32-33 S. Layer
100	4/N	I	SL MOD	90	145			108-109 S. Layer patch
120								
140	4/N	I	SL MOD	145	150			

Observer: H. W. A. Date: _____

Expedition 323
Bering Sea

Site _____ Hole _____ Core _____ Section _____ Top Depth _____

Major Lithology _____
Minor Lithology _____

Graphic Representation	Color	Lithology	Biurbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description	D. Dist.	Acc	Lith. note
	4/N	I	SL		51	72-51				
					72	G. exp.				
					83	Mod.				
						72-53				
						G. exp.				
						SL				
						0-98				
	4/N	I	SL		78	G. exp.				
						SL				
						111				
	4/N		SL			26				

GAS expansion

Sp. Apr
137

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	E	13	4	5	50	

Sediment/Rock Name	Diatom-rich silty clay	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay

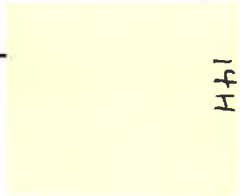
Comments: Main lith.

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

Expedition 323
Bering Sea

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



Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
1		I	S	*	SS		21, 27, 55-60 sp spec agg	
							63	
2	10Y 3/1	I	S	*	S		24-35 Sandy mottles	
							28 sp spec agg	
							77-84 "	
							56-133 Sandy mottles	
							130-138 sp spec agg	
							13	
	10YR 2/1	III	S	↑	SS		44	
3	10Y 4/1	II	SS	*	S		50	
		Diatom - silt clay					50-55 - Bioturbation - mod	
							67 sp spec agg	
							145 "	
4		II	S	*	S		46, 72, 80 "	
							105 "	
							124	
		I					6 Sandy patch	
		↑ I					19-21 Sandy laminae x 2	
							25-44 Sandy patches	
5							77-79 "	
							107 sp spec agg	
							127 Sandy patch	

Observer: Kelsie Date: _____

Expedition 323
Bering Sea

1344 E 14H 6-CC
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
6		I	S	O	S	6-20	sandy patches
						68	"
						76	sp spec agg
7		Diatom-r clayey I silt	S	O	S	118-143	sandy patches
						143	
						36	10-18" Authigenic carb-r diatom b silt
						72-87	"
CC		I	S	O	S	86	sp spec agg
						120	Sandy patch
						125	
						25	

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	E	14	H	3	to	to

Sediment/Rock Name	Diatom-rich silty clay	Observer	Hiro
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Percent Texture		
Sand	Silt	Clay

Comments: Main Lith. I

Percent	Component
SILICICLASTIC GRAINS/MINERAL 67	
Framework minerals	
28	Quartz to 13
4	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
33	Clay Minerals 15
	Chlorite
	Glaucanite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
2	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 33	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
22	Centric 10
11	Pennate 5
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	1E	14H		7	10	

Sediment/Rock Name	Diatom-bearing silt	Observer	Hins
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Percent Texture		
Sand	Silt	Clay

Comments: Auth. Carb. rich

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

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
7	3 Centric
2	1 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1374	E	144		7	20	20

SM

Sediment/Rock Name	Diatom-rich clayey silt	Observer	Hiro
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Percent Texture		
Sand	Silt	Clay

Comments:

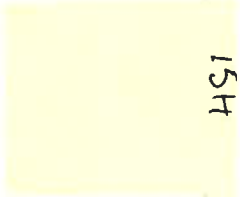
Percent	Component
SILICICLASTIC GRAINS/MINERAL 26	
Framework minerals	
48	Quartz 15
6	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
16	Clay Minerals 5
	Chlorite
	Glaucanite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
6	Pyrite 2
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 27	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
27	7 Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

U1344 E 15H 1-CC
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Biurbation	Structures/Accessories	Drilling Dist.	Major Lithology	Minor Lithology	Visual Core description
	10Y 2.5/1	I			SS			40 Fall-in Black streaky mottles throughout
		I			SS			9 Sandy patches 54-60 " 73 " 85-88 "
		I			SS			144 4-7 " 14, 39 sp spc agg 23-25 Sandy patches 44-45 " 65 "
		I			SS			4-10 " 18-19 " + 42-45 31-39 GE
		I			SS			91 21



15H

Observer: _____ Date: _____

SMV ✓

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
33	1344	E	15H		2	100	

Sediment/Rock Name	Diatom-rich Clay	Observer	Hino
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 82	
Framework minerals	
27	Quartz 3
5	Feldspar 0.5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments 0.5
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
27	Clay Minerals 3
	Chlorite
	Glaucanite
	Chert
	Zircon
18	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 18	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
18	2 Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

~~134~~ E 16
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
							23-29 mott pyrite	
					50	96	48 sand patch (mott)	
					74	129-130 sand patch (mott) sponge		
						146	14-15 mott	122-123 mott sand
	10T 4/1				139	71-73 sandy layer		
						150	96-98, 99-100 sand mott	101-102 sand layer
							62-64 sand mott	
					73	96	48-50 sand mott (bioturbated layer)	
						114	2-15 speck	
					58			
						150	28-33 mott ash	57 5/1
					42	175	27-28 mott pyrite	
					85			
						109		
						29		

-2A-2
diat
cl

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1344	E	16		2	80cm	

Sediment/Rock Name	Diatom Clay Silt	Observer	W. J. ...
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rich

Percent Texture		
Sand	Silt	Clay

Comments:

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

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	10 Diatoms
32/25	8 Centric
6	2 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

U1344 E 17H ALL
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
10	5y 3/1 v. dark gray	d-bear clayey silt	S all	79W 6-9 Sand Mot.		extruded into 1g firm
20			I			
20	10y 4/1 v. dark greenish gray			21 Saw Mot. 2 SW		
30			II			
40		diatom clayey silt		13W 129- 131W		Gas exp.
50						
60				11-44 53-70 W		Strange stone (calcite) looks like a collection of fecal pellets (close-up taken) alternation among 124-129 Sand Chm. 139 Sand Mot. 116-117-V cracks 59-127
70	10y 3/2		III			
80				12-16 50-51 W Mot 50-51 C		104-109 - P smear 132-134 P smear
90	pink dark olive gray			72-74 79.5-80.5		clast. well round < .5mm black, flat.
100						
110		d-rich clayey silt (coarser) greenish tan		2-2.5 Sand Layer 70-77 Sand Layer 104-105		11-116 W Cracks 10-122 P specK Cracks: 10-13
120						
130						
140				105W		Sand Chm.

U1344E
17H

Observer: _____ Date: _____

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	E	17	H	1A	56	

Sediment/Rock Name	diatom-bearing clayey silt	Observer	AKITA
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Percent Texture		
Sand	Silt	Clay
10	60	30

Comments:

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

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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	E	17	H	3A	50	

Sediment/Rock Name	diatom clayey silt	Observer	AKIN
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Percent Texture		
Sand	Silt	Clay
10	50	40

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
9%	Quartz 3
9%	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3%	Rock fragments 1
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
15%	Clay Minerals 5
	Chlorite
	Glaucanite
	Chert
	Zircon
3%	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
6%	Pyrite 2
	Magnetite
	Fe-oxide
Carbonates	
2%	Calcite 0.5
	Dolomite
VOLCANICLASTIC GRAINS	
3%	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
46%	Diatoms 15
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	E	17	H	6	90	

Sediment/Rock Name	diatom-rich clayey silt	Observer	Orin
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Percent Texture		
Sand	Silt	Clay
25 30	50	20

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
14 15	Quartz 7
10 11	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10 11	Rock fragments 5
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
20 22	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
6 8	Pyrite 3
	Magnetite
	Fe-oxide
Carbonates	
4	Calcite 2
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain 1
4	Vitric grain 2
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
31 26	Diatoms 12 15
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

1344 E 18
Site Hole Core Section Top Depth

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist	Samples	Major Lithology	Minor Lithology
								Visual Core description	
10		50T4/14						117-118 moll sand ✓	
20		10T4/1						123	
30		10T5/1 ✓						64-67 sandy layer ✓ 116-120 moll authigenic carbonate	-2A Authigenic carbonate-rich diatom-bearing silty clay
40								139 58-60 moll sand ✓	-3A-23 diatom-bearing authigenic carbonate- rich silty clay
50								143 46-48 moll sand ✓	-4A-110 Authigenic carbonate bearing diatom clay
60		10T4/1						150 20 sandy layer 3mm ✓ 100-102 moll sand ✓ 112-114 44-45 sponge ✓	
70								150 67 moll pyrite ✓	
80									
90								58, 60 sandy layer 3mm ✓	
100								96	
110								35 35-45 PAL	

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	V1344	E	18	H	2A	120cm	

SM

Sediment/Rock Name	Authigenic carbonate-rich diatom ^{bearing} silty clay	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
15	20	65

Comments: mott (cannot identify from color)

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

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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	V1344	E	18	H	3A	23cm	

Sediment/Rock Name	D. bearing, Authigenic carbonate-rich silty clay	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
15	20	65

Comments:

Accessory Interval

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

noodles

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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	E	10	H	4A	110cm	

Sediment/Rock Name	Authigenic carbonate bearing, nanofossil-bearing, diatom bearing clayey silt	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
20	50	30

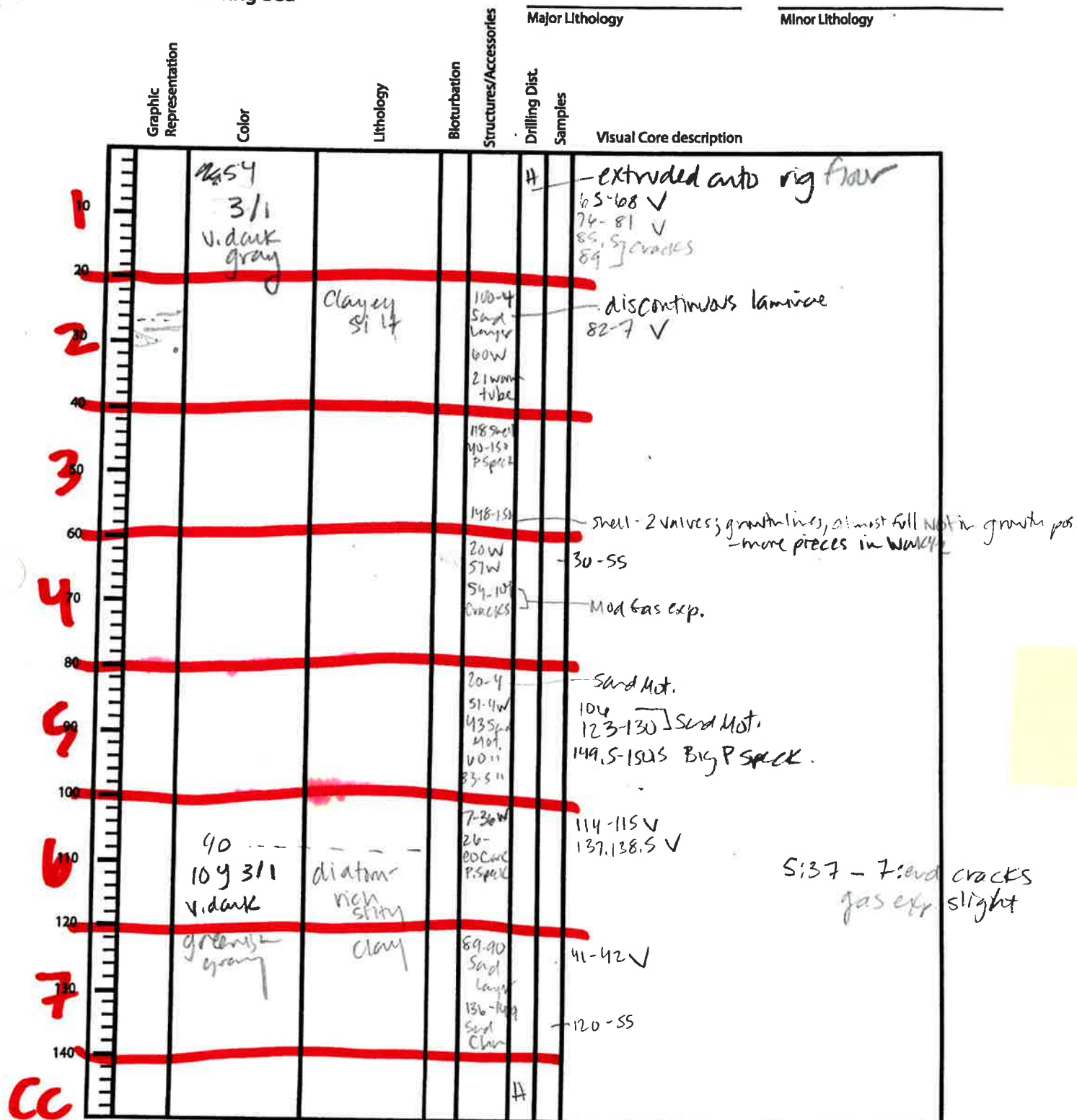
Comments:

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

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

Expedition 323
Bering Sea

U1344 E 19H AU
Site Hole Core Section Top Depth



Observer: _____ Date: _____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	E	79	H	4A	30	

Sediment/Rock Name	Clayey silt	Observer	Arora
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Percent Texture		
Sand	Silt	Clay
20	60	20

Comments:

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

Percent	Component
BIOGENIC GRAINS	
Calcareous	
5	Foraminifera 2
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
7	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	Bottom
323	1344	E	19	H	7A	120	

Sediment/Rock Name	diatom-rich silty clay	Observer	OKIWA
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Percent Texture		
Sand	Silt	Clay
5	40	55

Comments:

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

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
16	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

Expedition 323
Bering Sea

1344 E 20
Site Hole Core Section Top Depth

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
							Visual Core description	
1-10								21-22 moll pyrite ✓ 27-29 moll sand ✓
10-20						90		72-73 crack ✓ 79-80. sponge ✓
20-30						126		33-34 pebbles well rounded. ✓ 14-32 sponge scatter ✓ 131 moll sand ✓ 132-136 sandy layer ✓
30-40	1024/1					150		64-65 sponge ✓
40-50						135		31-32 moll sand ✓ 175-177 sand sponge moll ✓ 1067 sponge ✓
50-60			50			147		
60-70						140		
70-80						111		
80-90						34		37-44 PAL.
90-100	1023/1							
100-110								
110-120								
120-130								
130-140								

Observer: _____ Date: _____



X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	E	20	H	2A	30 cm	

Sediment/Rock Name	nannofossil-bearing, diatom-rich clayey silt	Observer	BEM
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Percent Texture		
Sand	Silt	Clay
20	50	30

Comments:

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

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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	V1344	E	20	H	7A	80cm	

Sediment/Rock Name	Diatom-rich sandy silt	Observer	BeM
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Percent Texture		
Sand	Silt	Clay
31	40	29

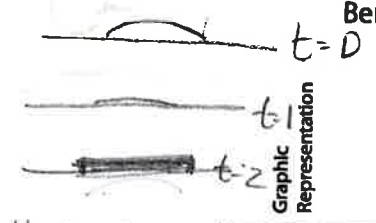
Comments:

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

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

Green Flash... Expedition 323
Bering Sea

U1344 E 21H ALL
Site Hole Core Section Top Depth



Neon green

Color	Lithology	Biurbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
10	56y 311 to 56y 411	diatom bearing clayey silt	60-62 H 66-67 Snd Mt 71 Shell			0-70cm extruded into my fur. (looks like 0-50.) lower boundary sharp, und. upper boundary sharp. Lam? Beautiful - 1 valve [1: 87 to end = W] 119-121 Snd Mt.
20	dark to v. dark greenish gray		101-103.5 Snd Mt Lam	64-66 V		57-66 Mod Gas exp.
30			29.32 Snd Mt.	95-99 V		38-84 Sl. Gas exp 84-115 Mod } Gas exp. 115-4:30 Sl. } Gas exp.
40			27.5 110 Snd Mt.	35-79 Snd Mt.		SEVERE D.D. 4:30 30 to 81 Mod. } Gas exp. 81 - 5:54 Sl. } Gas exp.
50	AC diatom rich clayey silt 75-79 AC.		82-133 Snd Mt.	54-116 Cr.		5:54 - 5:11b Mud } Gas exp. 5:11b - 2nd Slight } Gas exp.
60				98-105 Cr.		
70						
80						
90						
100						
110						
120						
130						
140						

Observer: Green Flash Lady Date: _____



X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	B44	E	21	H	3A	50	

Sediment/Rock Name	diatom-bearing clayey silt	Observer	Alina
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Percent Texture		
Sand	Silt	Clay
10	50	40

Comments:

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

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

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	E	21	H	5A	78	

SM

Sediment/Rock Name	Authigenic carbonate-rich diatom-rich clayey silt	Observer	Akima
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Percent Texture		
Sand	Silt	Clay

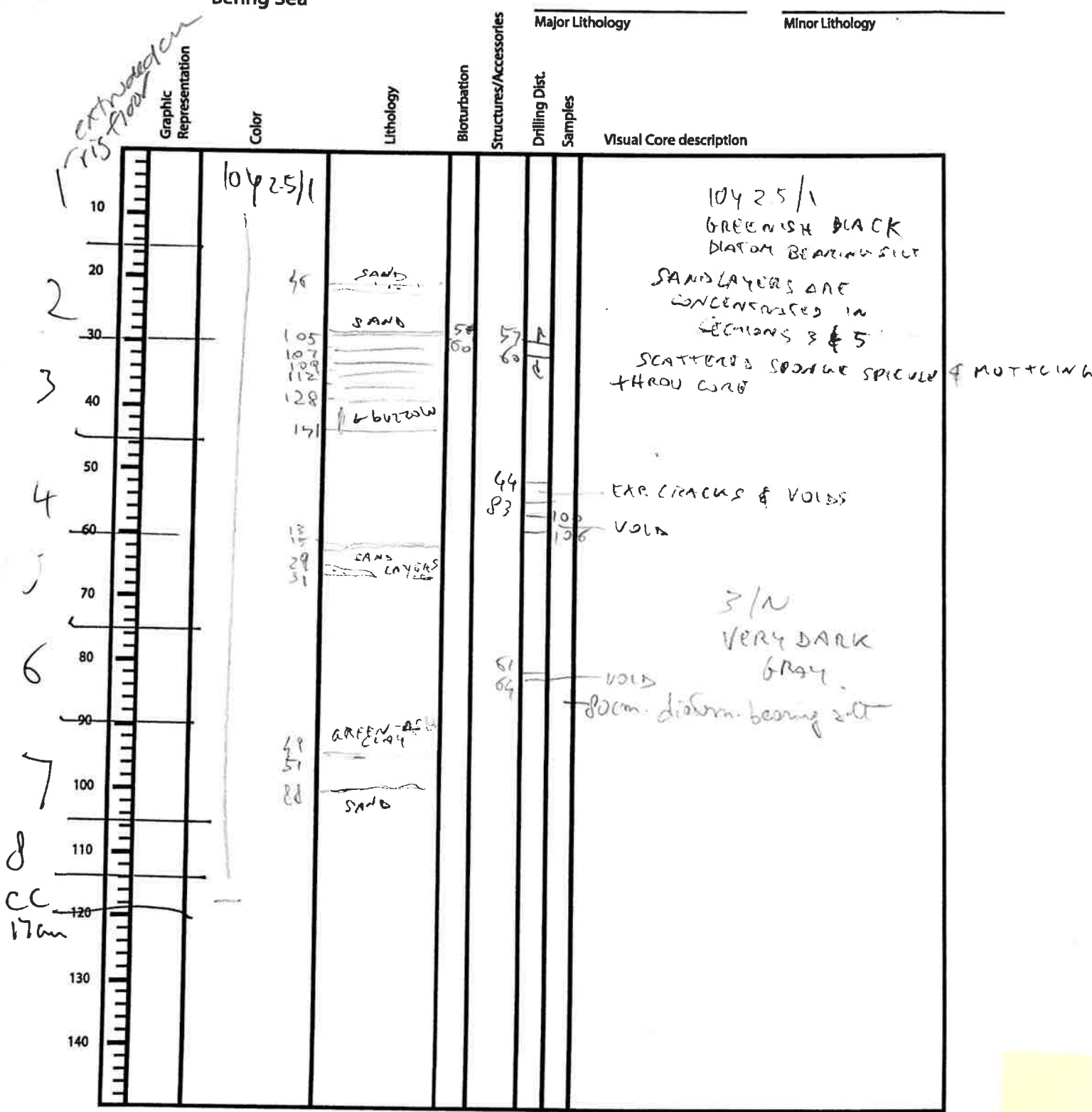
Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
9	Quartz 5
4	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4	Rock fragments 2
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
9	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
4	Pyrite 2
	Magnetite
	Fe-oxide
57	Carbonates 30.000
	Calcite aragonite?
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

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

1344 E 22 ALL
 Site Hole Core Section Top Depth

Expedition 323
 Bering Sea



Observer: _____ Date: _____



IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	B44	E	22	H	3A	30	

SM

Sediment/Rock Name	diatom-rich clayey silt.	Observer	akira
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Percent Texture		
Sand	Silt	Clay
5	45	50

Comments:

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

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

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SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1304	E	22	H	6	80	

Sediment/Rock Name	diatom-bearing silt	Observer	Rhina
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Percent Texture		
Sand	Silt	Clay
15	55	30

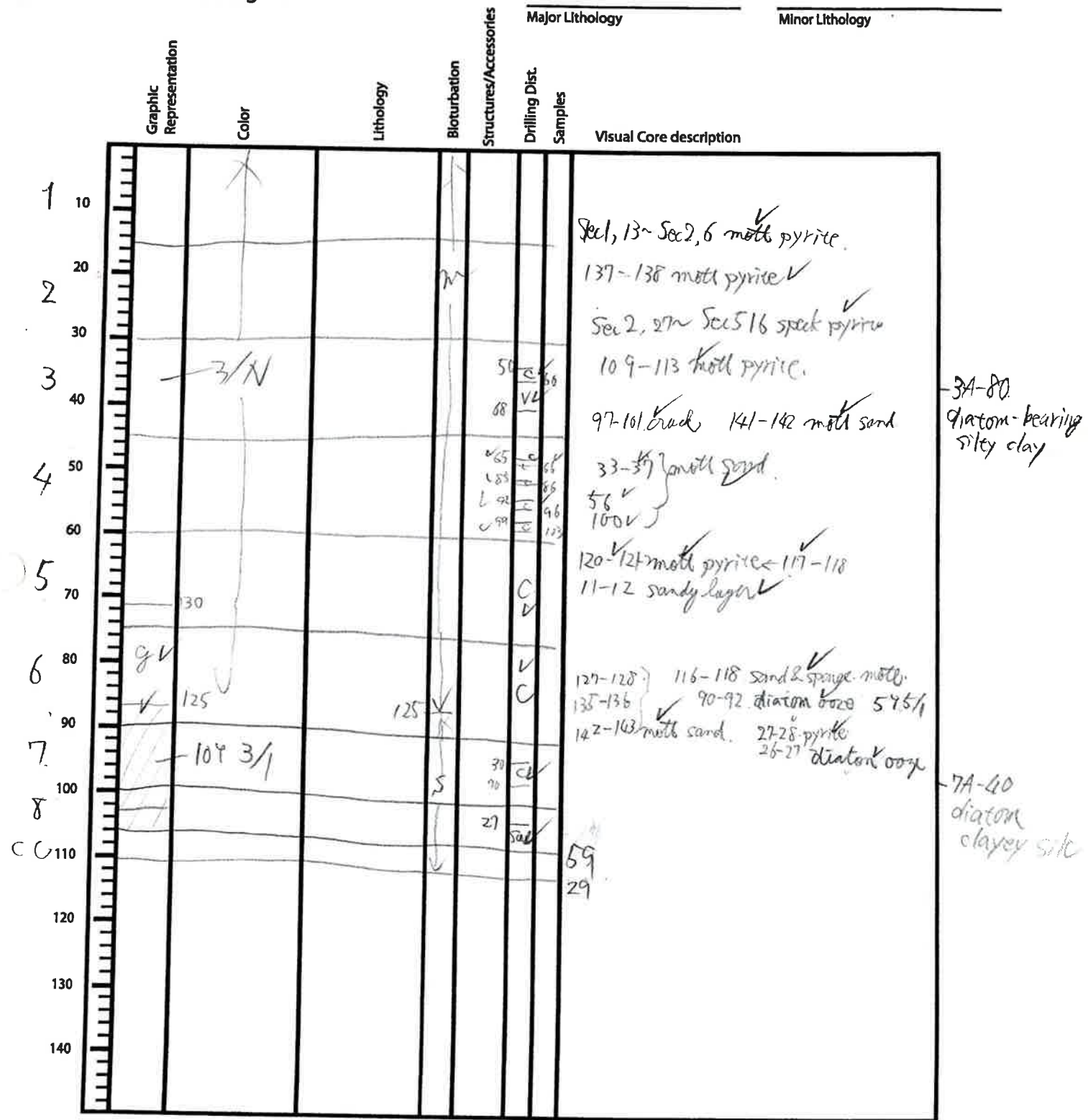
Comments:

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

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

Expedition 323
Bering Sea

~~134~~ F 23
Site Hole Core Section Top Depth



Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	E	23	H	3A	82cm	

Sediment/Rock Name	diatom-bearing silty clay	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
15	25	60

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
15	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
5	Plagioclase
11	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
40	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
8	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
4	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
9	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	01344	E	23	H	6A	27cm	

Sediment/Rock Name	Diatom ooze	Observer	Beth
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B-60

Percent Texture		
Sand	Silt	Clay

Comments:

Accessory (lighter interval)

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

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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1314	E	23	H	7A	40cm	

Sediment/Rock Name	Diatom clayey silt	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
10	50	40

Comments:

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