



IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

✓ X ✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	01345	C	2	M	4	65cm	

Sediment/Rock Name	Diatom-rich clayey silt	Observer	G.B.
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Percent Texture		
Sand	Silt	Clay

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
15	✓ Diatoms
	Centric
	Pennate
	X 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

1375 C 3H  
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	✓	4/N		90 110	✓				
10-20	✓	3/N		5					
20	✓	37							
20-30	✓	38							
30-40									
40-50				✓					
50-60	✓	4							
60	✓	33							
60-70									
70-80	✓	5Y 2.5/2		60					
80-90	✓	137							
90	✓	19							
90-100	✓	37							
100	✓	50		80					
100-110	✓	50		50					
110-120									
120-130									
130-140									

37-68 lam 5Y 4/2 5Y 3/2

19-20 pebble well rounded

3A 70 site

4-33 lam 5Y 3/2 5Y 2.5/2

43-84 speck pyrite  
97-98 mod.  
43 wood

5Y 4/3 5Y 3/2

37-60 lam. 36-39 } mod. burr  
Sec. 137 Sec. 719 }  
Sandy.

74-30 Foran-rich diatom  
scab

3028

Legend:  
 □ 4/N  
 □ 5Y 4/1 main site  
 ▨ 5Y 3/2 second

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

✓ VSM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1345	C	3	H	3	70cm	

Sediment/Rock Name	SILT	Observer	lwt
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Percent Texture		
Sand	Silt	Clay
20	80	

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
17	Framework minerals
24%	5 Quartz
33%	7 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
24%	5 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	X Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
10%	2 Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
5	1 Vitric grain
	Lithic grain

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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	U1345	C	8	7	A	30 m	

✓ ✓ sm

Sediment/Rock Name	FODAM-RICH CLAYEY SILT	Observer	WVA
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Percent Texture		
Sand	Silt	Clay
	100	

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
Framework minerals	
15%	4 Quartz
26%	10 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
11%	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	
2%	1 Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
Crystal grain	
27%	1 Vitric grain
	Lithic grain

52%

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
6%	3 Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
20%	15 Centric
11%	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

53

STAGE 3 Laminations?

V1345 C 4 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
						Visual Core description	
10	56y 3/1	d-rich silty clay	↓	136 Sand Mot.	46 Core	Rynk 1:0 to 3:4 6:138 to end	
	115	d-rich clayey					26 C
20	10y 3/1	d-rich clayey	↓	66-8 DK.G. Mot.	76 C		
	116	d-rich silty clay					41-47 Sand Mot.
30	56y 3/1	d-rich silty clay	↓	81-4 Mollusc	57 C	2 valves articulated, thin shells can't pull it out. dark: Fram-bearing diatom-rich silty clay light: (Rynk rich) diatom ooze	
	84	d-bearing silty clay					132 Mollusc
40	56y 3/1	d-rich silty clay	↓	87.5 Iron	34 C		
	84	d-bearing silty clay					45 C
50	56y 3/1	d-rich silty clay	↓	135 Iron	72 C		
	84	d-rich silty clay					89 C
60	56y 3/1	d-rich silty clay	↓	120 C	120 C		
	84	d-rich silty clay					120 C
70	56y 3/1	d-rich silty clay	↓	4-5 DK.G. Mot.	6 C	134-140 - Planolites - sand filled 140-150 - sand mot.	
	84	d-rich silty clay					52-54 DK.G. Mot.
80	56y 3/1	d-rich silty clay	↓	84-6 Peb	140 C	Subbrand - 4 pebs.	
	84	d-rich silty clay					140 C
90	56y 3/1	d-rich silty clay	↓	12-13 Shell	109 C	thin frags	
	84	d-rich silty clay					88-96 sand mot. 96-102 plan.
100	56y 3/1	d-rich silty clay	↓	56-65 Iron	77 C	subbrand peb 3	
	84	d-rich silty clay					77 C
110	56y 3/1	d-rich silty clay	↓	88-91 Peb	88 C	subbrand peb 3	
	84	d-rich silty clay					88 C
120	56y 3/1	d-rich silty clay	↓	125-30	125 C	lg. peb (3cm) basalt subbrand plus small subbrand	
	84	d-rich silty clay					125 C
130	56y 3/1	d-rich silty clay	↓	51-52 Shell	68 C	green-gray bed: 40y 4/1 Diatom clay blue bed: authigen-bearing d-rich silty clay 56y 4/1	
	84	d-rich silty clay					68 C
140	56y 3/1	d-rich silty clay	↓	39 C	11 C		
	84	d-rich silty clay					11 C
U					190		

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

✓ ✓ sm

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	4	H	1A	40	

Sediment/Rock Name: diatom-rich silty clay

Observer: *Alison*

Percent Texture		
Sand	Silt	Clay
10	30	60

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
13	Diatoms 3
	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

✓ VSM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	4	H	1A	130	

Sediment/Rock Name	diatom-rich clayey silt.	Observer	akvika
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Percent Texture		
Sand	Silt	Clay
23	45	32
5	10	7

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
21	Diatoms 7
	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	1345	C	4	H	3A	47	

✓✓✓ SM

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

Observer: Ateva

Percent Texture		
Sand	Silt	Clay
	85	55

Comments: dark lam

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
21	Diatoms 7
	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

✓ ✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	4	H3A		48	

Sediment/Rock Name	diatom ooze	Observer	akira
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pyrite-rich!  
 light laminae.

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
	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
30	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
5	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
3	Foraminifera /
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
62	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	1345C		4	H5		76	

✓ ✓ SM

Sediment/Rock Name: diatom-rich silty sand

Observer: Okora

Percent Texture		
Sand	Silt	Clay
60	30	10

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
27	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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1348	C	4	H	5A	113	

✓ 15m

Sediment/Rock Name	silty sand	Observer	Akira
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Percent Texture		
Sand	Silt	Clay
60	35	5

Comments:

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

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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
393	1345	C	4	6	A	8	

✓ ✓ SM

Sediment/Rock Name: diatom-rich clay

Observer: akora

Percent Texture		
Sand	Silt	Clay
10	20	70

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
30	Diatoms 10.
	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	1345	C	4	H	6A	117	

Sediment/Rock Name	diatom silty clay	Observer	akera
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Percent Texture		
Sand	Silt	Clay
10	30	60

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
43	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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1385	C	4	A	7	23	

✓ 15m

Sediment/Rock Name: diatom clay

Observer: Okera

Percent Texture		
Sand	Silt	Clay
10	20	70

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
2	Radiolarians ✓
	Spumellaria
	Nassellaria
44	Diatoms 20
	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	1345	C	4	H	7	27	

✓  
V5m

Sediment/Rock Name	auth carb-bearing diatom-rich silty clay	Observer	ABJ
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Percent Texture		
Sand	Silt	Clay
	40	60

Comments:

blue bedding

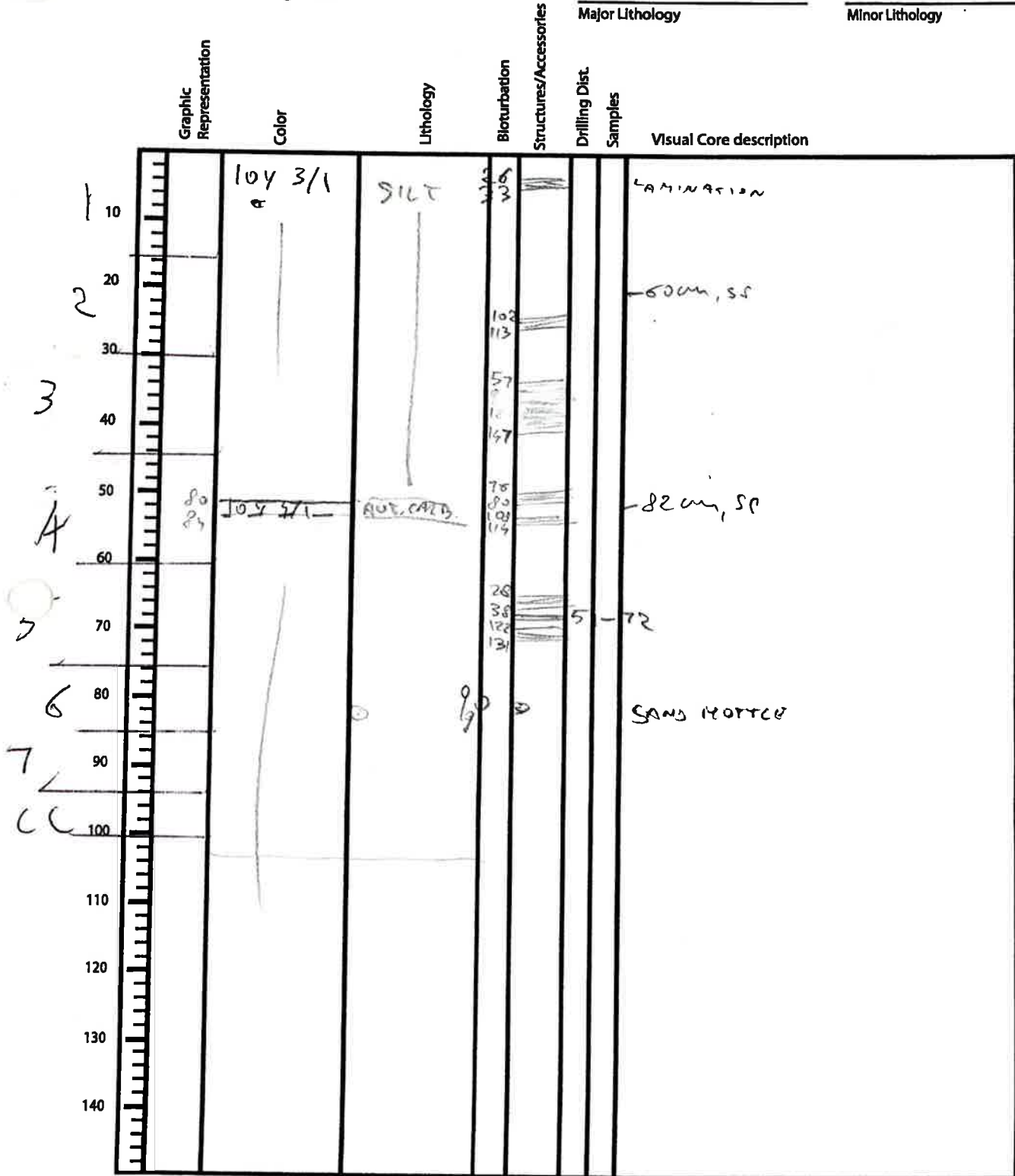
Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
	Framework minerals
16	Quartz 3
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
32	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
22	Pyrite 7
	Magnetite
	Fe-oxide
	Carbonates
11	Calcite 3 + (0.3) needles
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
3	Crystal grain 1
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
22	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



Expedition 323  
Bering Sea

1345 Site C 5 Core Section Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	B35	C	5	#	2	60cm	

Sediment/Rock Name	SILT	Observer	WLR
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Percent Texture		
Sand	Silt	Clay
20	70	10

MAIN LITHOLOGY

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
	Framework minerals
19%	5 Quartz
38%	10 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
12%	3 Rock fragments
	Accessory/trace minerals
	Micas
	<del>X</del> Biotite
	Muscovite
19%	5 Clay Minerals
	Chlorite
	Glauconite
	<del>X</del> Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
8%	2 Carbonates
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
4%	<del>X</del> Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
	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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	V1345	C	S	A	3A	71cm	

✓✓ SM

Sediment/Rock Name	Authicarbonate rich d-rich clay	Observer	Beth
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Percent Texture		
Sand	Silt	Clay

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
9	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
	13345C	5			4	82m	

Sediment/Rock Name	AUTHIGENIC CARBONATE (ARAGONITE)	Observer	WV
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Percent Texture		
Sand	Silt	Clay

Comments: LIGHTER LAYERS

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
	Framework minerals
	Quartz
3	1 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	1 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
7	2 Calcite
	Dolomite
83 25	ARAGONITE
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1345	C	5	H	6A	40cm	

Sediment/Rock Name	clayey sand
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Observer	Beth
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Percent Texture		
Sand	Silt	Clay

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	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

6A-86  
6A-80  
471149  
2A-30

Expedition 323  
Bering Sea

1345-C 6  
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	✓	58		5			60	9-26 speck. pyrite ✓	
10	✓	70		72				72-82 pyrite speck ✓	
2	✓	90		113			150		2A-30 diatom-rich site
20	✓	113							2A-130 diatom-bearing silty sand.
3	✓	3							
30	✓	148		5					
4	✓	120	120	20				120-145 mott. brown ✓	4A-148 diatom-rich sand
40	✓	140		4				4-47 mott. brown ✓	
5	✓	4		53				4-53 silt. 73-74 mott. sand ✓	
50	✓	62							
6	✓	117		5				177-89 lam. ✓	6A-40 diatom-bearing silty clay
70	✓	89						127 mott. sand ✓	61-81.5 diatom-rich silty clay
80	✓	42						144 42-53 lam. ✓	
90	✓	53							
100	✓							137 19 mott. sand. ✓	
110								32	
120								32-60 PAL.	
130								50Y 4/1 diatom-rich silt	
140								10Y 4/1 diatom-bearing silty clay	
								10T 3/1 sandy.	
								5Y 4/1	

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

LV SM

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

Sediment/Rock Name	Diatom-rich silt	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
15	75	10

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
2	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
15	Centric
3	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris wood!?
	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	V1345	C	6	H	2A	130cm	

Sediment/Rock Name	diatom-bearing Silty sand	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
50	30	20

Comments:

green lam?

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
Foraminifera	
	Planktonic foraminifera
	Benthic foraminifera
Nannofossils	
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	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	C	6	H	4A	148cm	

Sediment/Rock Name	Diatom rich sand
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Observer	Behr
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Percent Texture		
Sand	Silt	Clay

Comments:

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

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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

✓✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1345	C	6	H	6	40cm	

Sediment/Rock Name	Diatom-bearing silty clay	Observer	Beh
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Percent Texture		
Sand	Silt	Clay
	30	70

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

✓✓✓

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1345	C	6	H	6	81.5	

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

Comments:

Beautiful! *laninae*

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
	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
3	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
5	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
40	Centric
4	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

Expedition 323  
Bering Sea






1345 Site    G Hole    7H Core    1+2 Section    \_\_\_\_\_ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	41N						
	41N (80%) + 10Y4/1 (20%)		mod. absent	36	36		36-83 parallel lam., med., appears tilted in places due to reassembly of the core
	5G4/1		mod.		83		83
							95-150 sandy nodules

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1345 Site    G Hole    7H Core    3+4 Section    \_\_\_\_\_ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	5G411  3/N		mod.		slight	4-35 pyrite nodules	7-13 grad.
	  5G411					88-83 (sect. 4) sandy nodules	93-100 grad.
						15-25 pyrite nodules	

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1345 Site    5 Hole    7H Core    5+6 Section    \_\_\_\_\_ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	SGY 4/1		no w		5		8-78 coarse sandy mollus
	10Y 3/1						75-80 grad.
							75- abundant sandy mollus and streaks
							→ 62
							60-65 grad.
	11/3						

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

1345 G 7H 7+cc  
 Site Hole Core Section Top Depth

Expedition 323  
 Bering Sea

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	10Y4/1			35		
				62		
				92		
				58		

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	7H		2A	69	69

Sediment/Rock Name: Silt Sandy Silt

Observer: Hiro A

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 99</b>	
Framework minerals	
75	Quartz 20
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
8	Rock fragments 2
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
8	Ferromagnesium minerals 2
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
8	Pyrite 2
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
1	Diatoms 0.5
	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



IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

✓✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	354		3A	02	

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

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
Framework minerals	
51 <del>5</del>	Quartz 10
3	Feldspar 0.5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments 2
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	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
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
3	Vitric grain 0.5
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
25 5	Diatoms 5
	Centric
	Pennate
	Chaetoceros Resting Spores
5 + 0.5	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	1395	C	7H		5A	31	

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

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b> 92	
Framework minerals	
56	Quartz 20
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
3	Muscovite 1
28	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
23	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b> 8	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
8	Diatoms 3
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

4V Sm

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	A	7H		6A	5	5

Sediment/Rock Name	Silty sand	Observer	Hiro
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 96</b>	
	Framework minerals
72	Quartz 30
12	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
12	Ferromagnesium minerals 5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS 2</b>	
	Crystal grain
2	Vitric grain 1
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
2	Diatoms 0.5
	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

✓✓ Jm

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	L	7H		7A	44	

Sediment/Rock Name	<del>Diatom bear</del> Diatom bearing	Observer	Hiro
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~~Silt~~ clayey silt

Percent Texture		
Sand	Silt	Clay

Comments: all Diatom frustules are fragments!!

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 95</b>	
Framework minerals	
58	Quartz 30
10	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
19	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
4	Ferromagnesium minerals 2
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
4	<del>5.4</del> Pyrite 2.5
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 5</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
<del>4.4</del> 5	2 Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323  
Bering Sea

1345 C 8H 142  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	10Y 4/1		mod		heavy		sandy nodules thr. 14 pebble, angular, sandstone 41-62 pebble, angular, 72 sandstone
							... -67
	10Y 3/1				slight		68-71 grad. 70-96 sandy layer, biot.
	4/N						94-96 sharp, base of sand
	1						

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1345 Site    C Hole    8H Core    3+4 Section    \_\_\_\_\_ Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	4/N		mod.	10-15		
		104-111 4/N	155		40-150 sandy nodules  98-100 grad 100-108 unconsol. thick lam. 108-110 grad                      +auth. Carb.	

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1345 C 8H 5+6  
 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						
10							
20							
30	10Y4.1						49-51 grad. 51-56 lighter anh. carb. layer 56-58 grad.
40							
50							
60	4/N						
70							
80							
90							142 - 34 sandy nodules
100							
110	10Y4.1 + 4/N (50/50)						
120							63-98 pyrite nodules
130	4/N						67-87 undul. biot thin bedding
140							

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1345 G 8H 7+cc  
 Site Hold Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	5GY4/11		mod.		slight mod.		
	↓ ▽						
						95	
						36	

Observer: \_\_\_\_\_ Date: \_\_\_\_\_



✓✓ SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	BYS	C	8H		2A	30	

Sediment/Rock Name	<i>silty sand</i>	Observer	<i>Hiro</i>
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b> <i>SS</i>	
Framework minerals	
<i>65</i>	Quartz <i>15</i>
<i>13</i>	Feldspar <i>3</i>
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
<i>4</i>	Rock fragments <i>1</i>
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
<i>4</i>	Clay Minerals <i>1</i>
	Chlorite
	Glauconite
	Chert
	Zircon
<i>13</i>	Ferromagnesium minerals <i>3</i>
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b> <i>/</i>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
<i>1 025</i>	Diatoms <i>25</i>
	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

✓✓ SM

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	FH		2A	86	

Sediment/Rock Name	sand	Observer	H. W.
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Percent Texture		
Sand	Silt	Clay
80	20	0

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
0	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

✓✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	8H		SA	90	

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

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 84</b>	
Framework minerals	
75	Quartz 40
9	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
4	Clay Minerals 2
	Chlorite
	Glauconite
	Chert
	Zircon
6	Ferromagnesium minerals 3
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain 2
	Lithic grain

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

VSM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	8H		4A	105	

Sediment/Rock Name	Diatom <del>being</del> rich clay	Observer	H:vo
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Auth. Carb. rich      Sandy

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b> 82	
Framework minerals	
5	Quartz 3
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
?	Biotite
	Muscovite
24	Clay Minerals 15
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals 3
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
30 48	Calcite Auth. Carbonate 70 30
	Dolomite
<b>VOLCANICLASTIC GRAINS</b> 21	
Crystal grain	
21	1 Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b> 17	
Calcareous	
Foraminifera	
5	3 Planktonic foraminifera
	Benthic foraminifera
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
11	7 Diatoms
	Centric
	Pennate
Chaetoceros Resting Spores	
Silicoflagellates	
21	1 Sponge spicules
	Dinoflagellates
Others	
Pollen	
Organic debris	
Plant debris	
Ebridians	
Echinoderm	
Fish remains (teeth, bones, scales)	
Bryozoans	
Bivalves	
Others	

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	8H		5A	90	

✓✓ 5m

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

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 90</b>	
Framework minerals	
42	Quartz 20
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
42	Clay Minerals 20
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
4	Pyrite 2
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

✓ JSM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	8H		6A	79	

Sediment/Rock Name	Diatom-rich <del>silt</del> Silty Clay	Observer	Hiro
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Percent Texture		
Sand	Silt	Clay

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b> 70	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
20	Diatoms 3
	Centric
	Pennate
	<i>Chaetoceros</i> Resting Spores
	Silicoflagellates
	Sponge spicules 5
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323  
Bering Sea

1345 G 9H 1+2  
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					0-60 sandy mottles
			30 cm			70-90 grad.
	4/N ↓					98
				10/13		31 fine pbbles, subrounded light
						115-20 (sect. 3) sandy mottles

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1345 G 9H 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		smooth			
	5G+411 + 4/N (30/70)	74	st.	sketch	74 - 98 unndnl. med. thick lam.	
	4/N	120	st.		98 - 120 parallel med. lam.	
	4/N ↓		smooth		130 - sandy nodules ↳ 40 (sect. 5)	

Observer: \_\_\_\_\_ Date: \_\_\_\_\_



Expedition 323  
Bering Sea

1345 G 9H 5+6  
 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.	50	slight mod.		
	4/N + SGY411 (60/40)		absent	97	slight		50-150 thin bedding to medium lam.
	4/N		mod.				
							110-130 pyrite nodules
							130

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1345 Site G Hole 9H Core 7+cc Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	5GY4.1A ↓		mod.		slight upris		
10							12-22 pyrite nodules
20							16-18 light brownist sand patch
30							
40							
50							68 97 → pyrite nodules hor.
60							
70							
80							31
90							
100							
110							
120							
130							
140							

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

VSM

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	9H		1A	25	

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

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 54</b>	
Framework minerals	
38	Quartz 7
6	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
16	Clay Minerals 3
	Chlorite
	Glaucanite
	Chert
7	Zircon
11	Ferromagnesium minerals 2
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
3	Pyrite 0.5
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 26</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
26	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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

WJSM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	9H		3A	70	

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

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 93</b>	
Framework minerals	
64 <del>62</del>	Quartz 30
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4	Rock fragments 2
Accessory/trace minerals	
	Micas
2	Biotite 1
	Muscovite
15 <del>16</del>	Clay Minerals 7
	Chlorite
	Glaucanite
	Chert
	Zircon
2	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
2	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
4	Vitric grain ↓
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 7</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
7.67 3	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	1345	C	9H		5A	70	

✓ ✓ SM

Sediment/Rock Name	Diatom silty clay	Observer	Hin
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silty clay

Percent Texture		
Sand	Silt	Clay

Comments:

Lamination

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 50</b>	
Framework minerals	
44	Quartz 757
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
6	Clay Minerals 1
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 50</b>	
Calcareous	
	Foraminifera
6	1 Planktonic foraminifera
6	1 Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
32-37	5 Diatoms 5
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
16	1 Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323  
Bering Sea

1345 C 10H 1+2  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	10Y 3/1		Med.		Levum		Sandy nodules thr.
	10Y 4/1				Stipit		98-99 clast, angular, dark 108
	4/N						40-50 grad. <span style="float: right;">-45</span>
	10Y 3/1						65-70 grad.
	4/N ± 56Y 4/1 (60/40)		stipit				97-113 undul. brick lam.
	4/N						

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1345 C 10H 344  
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	41N		1 paw	10-12		
	10Y 3/1					50-130 sparse sandy mottles
						130-140 grad.
						130-150 abundant sandy mottles + patches
						0-62 homogeneous sandy
						35 fine pebble
						52 fine pebble, well-rounded, dark
						65-120 abundant sand mottles + patches
	31N					65-120 grad. 120-150 sparse sandy mottles

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1345 C 10H 5+6  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	31N		mod.				0-56 sandy mollus
	31N + 10Y3/1 (70/30)	56	slight				56-97 thin undul. bedding of sandy layers
	31N + 10Y3/1 (20/80)	97	mod.				97-30 (sect 6) lots of more sandst. more clayey material thoroughly mixed
	10Y4/1						15-45 grad. 30-50 (sect. 7) sandy mollus  87-88 shell

Observer: \_\_\_\_\_ Date: \_\_\_\_\_



Expedition 323  
Bering Sea

1345 C 10H 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		100m		107		
	↓				27		

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

✓✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	13x5	C	10H		2A	20	

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

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b> 80%	
Framework minerals	
65	Quartz 20
3	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
6	Rock fragments 2
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
16	Ferromagnesium minerals 5
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

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

✓ VSM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1395	C	104		4A	31	

Sediment/Rock Name	Diatom bearing silty sand	Observer	Hino
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 92</b>	
	Framework minerals
43	Quartz 15
6	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
14	Rock fragments 5
	Accessory/trace minerals 5
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
29	Ferromagnesium minerals 10
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 8</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
8	3 Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

V VSM

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	104		7A	93	

Sediment/Rock Name	Sand.	Observer	Hiro
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Percent Texture		
Sand	Silt	Clay

Comments: Sandy.

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 98</b>	
Framework minerals	
70	Quartz 30 20
4	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
17 18	Rock fragments 5
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
7	Ferromagnesium minerals 2
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 2</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
2	0.5 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

Expedition 323  
Bering Sea

1345 C    MH    1+2+3+4  
Site    Hole    Core    Section    Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist Samples	Major Lithology	Minor Lithology
	4/N					83-107 sandy mollles	
	↓				110		
	↓					35-44 sandy mollles	
	↓					68-122 pyrite mollles	
	↓						

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1345 C MH 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	
	4/N						0-40 pyrite mottles
	10Y4/1		mod.		straight		
		12 32 65	85% und. w. mod.				2-12 undul. thick lam. 32-65 thin undul. bedding
	4/N+ (50) 10Y4/1 (20)	12			mod.		12-31 thin parallel lam.

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

✓✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	114		3A	50	

Sediment/Rock Name	Diatom bearing silty sand	Observer	Hiro
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 92</b>	
Framework minerals	
69	Quartz 30
7	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5.5	Rock fragments 2
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
11	Ferromagnesium minerals 5
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 8</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
2 f	0.5 Radiolarians
	Spumellaria
	Nassellaria
6.5	2 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	1345	C	1114		6	43	

✓✓SM

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

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 29</b>	
Framework minerals	
71	Quartz 20
7	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
7	Ferromagnesium minerals 2
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
4	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 11</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
11	2 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



✓ SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	114		CC	22	

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

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 46</b>	
	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
46	<del>37 44</del> Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 54</b>	
	Calcareous
	Foraminifera
4	05 Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
50-55	<del>44</del> Diatoms 3
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

2 ✓ ✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	11H		Q	27	

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

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
24 3	Diatoms 3
	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

1345 C 12H 142  
 Site Hole Core Section Top Depth



Expedition 323  
 Bering Sea

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	SGY4/1		med. grad.				
	SY3/1 (20%) SGY4/1 (60%) + 10Y2/1 (20%)	32 45	med. grad.		heavy		32-45 wavy, undul. thick lam.
	SGY4/1		med. grad.				100'
	10Y4/1		med. grad.				0-83 sandy nodules 65-75 grad.
	SGY4/1		med. grad.				108-36 (sect. 3) med. parallel lam.
	4/N+ 10Y4/1 (60/40)	110	med. grad.				

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1345 C 12H 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+ 10Y4/1 (60/40)		about 1 m 100m		short		
	4/N 						
							118-120 biot. brownish sandy layer

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

1345 C 12H 5+6  
Site Hole Core Section Top Depth

Expedition 323  
Bering Sea

	Graphic Representation	Color	Lithology	Biurbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology				
10		4/N										
20				spaw		slight						
30												
40											73-76 bit. sandy layer	
50												
60												
70												
80												
90												
100												
110												
120												
130												
140												
												46-94 sandy nodules

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1345 C 12H 7+CC  
 Site Hole Core Section Top Depth

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
10		4/N					
20							
30		10Y4/1 + 4/N (70/30)	S1	mod. spher	spher		
40							
50			83	mod.			
60		4/N					
70		↓ ▽					135
80					mod.		
90							25
100							
110							
120							
130							
140							

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

✓✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	12H		2A	15	

Sediment/Rock Name	Diatom bearing silty sand	Observer	
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Percent Texture		
Sand	Silt	Clay
40	40	20

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 92</b>	
Framework minerals	
56	Quartz 10
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
6	Biotite 1
	Muscovite
15.4	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
15.4	Ferromagnesium minerals 3
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

✓✓SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	12H		3A	22	

Sediment/Rock Name	Diatom ooze	Observer	H. W.
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Percent Texture		
Sand	Silt	Clay

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
5	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
3	Radiolarians
	Spumellaria
	Nassellaria
80	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



✓ VSM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	124		SA	30	30

Sediment/Rock Name	Diatom bearing sandy silt	Observer	Hiro
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Percent Texture		
Sand	Silt	Clay
20	70	10

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
Framework minerals	
75 <del>90-95</del>	Quartz
3	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
0 <del>15</del>	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
Foraminifera	
	Planktonic foraminifera
	Benthic foraminifera
Nannofossils	
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
7 <del>8</del>	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	1345	C	15H		7A	111	

SM

Sediment/Rock Name	Platom bearing silt	Observer	Hiro
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 92</b>	
Framework minerals	
83	Quartz 30
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
6	Clay Minerals 2
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals 1
3	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
Foraminifera	
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
8	3 Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	13H		5A	35	

✓ ✓ SM

Sediment/Rock Name	fine ash (20% pyrite)	Observer	Hin
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Percent Texture		
Sand	Silt	Clay

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	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

1345 C 13H  
Site Hole Core Section Top Depth

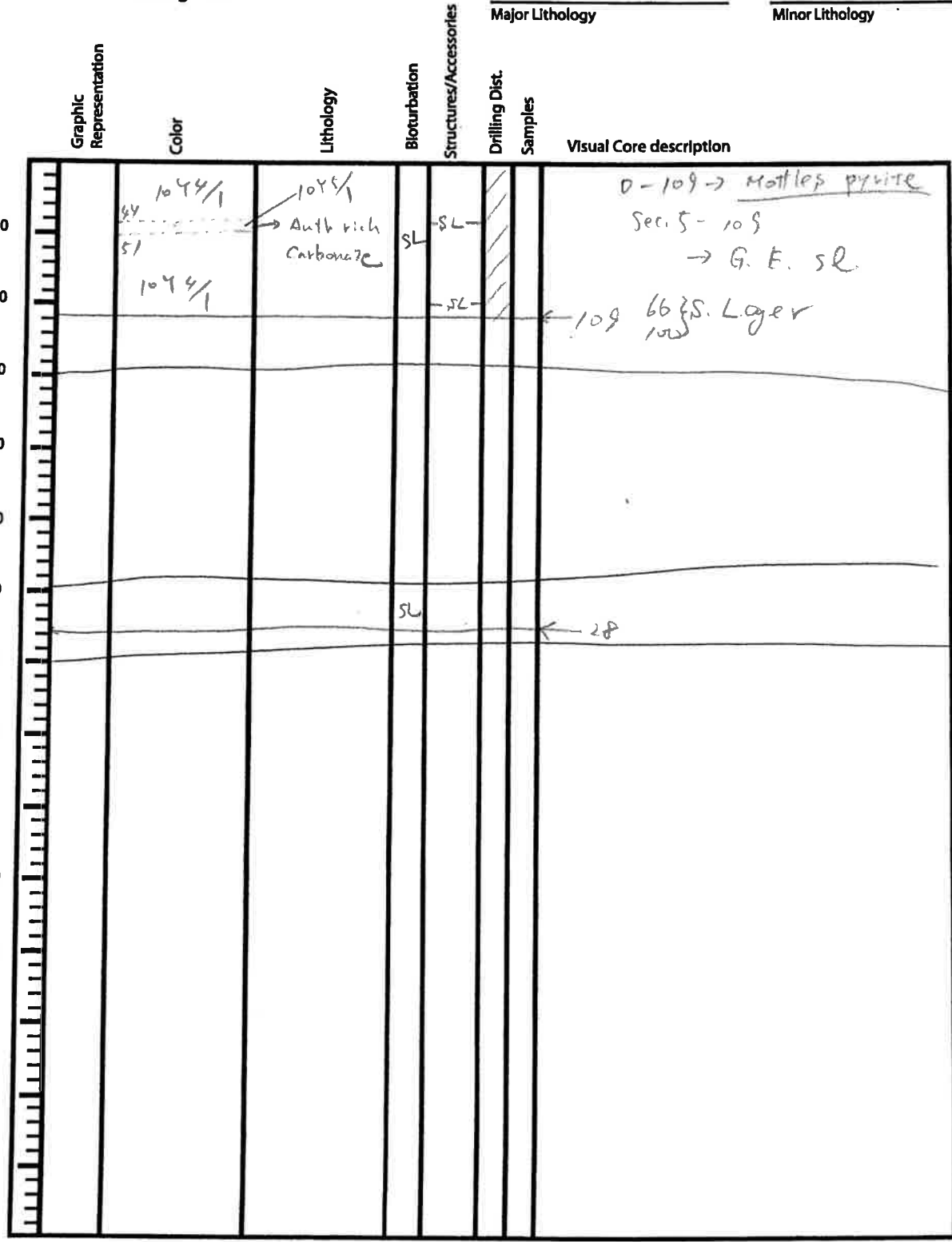
Graphic Representation	Color	Lithology	Biocurbation Structures/Accessories	Major Lithology	Minor Lithology	Drilling Dist. Samples	Visual Core description
	10Y 4/1	I					from last core diatom bearing silt
							4-5 Pebble rounded Black 1cm
①							50-100 gradational Boundary
	5GY 3/1						94-95 pebble 1.0cm subrounded Gr
							← 134
SS 11 P-bearing sandy silt	5GY 3/1	II					78- 11 SS 80 Pebble rounded 2cm Black
②							106 SS
	5GY 4/1	III					150
							30-120 Gas exp s-l
③	43	Back Ground					43- sec. 5 106 Thinly laminated
	• 5GY 4/1 (Dark Green)	IV					• 5GY 4/1 → 40%
	• 5Y 4/6 (Light Green)						• 5Y 4/6 → 25%
SS 103 D-rich silty clay	• 5Y 2/2 (Dark Green)						• 5Y 2/2 → 25%
	• 5Y 7/3 (White)						• 5Y 7/3 → 10%
④	→ SS						32-120 G.E. s-l
							10-11 shell
SS 44 D-rich silty clay	Little Bit Lighter Color						44 SS
⑤	SS Sec 4 → Sec. 5						
							106
	10Y 4/1	I					← 127

Observer: Hino Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1345 C 13H  
Site Hole Core Section Top Depth

Major Lithology Minor Lithology



6

~~7~~

C

Observer: Hino Date: \_\_\_\_\_

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	13	H	2	11	

*Diatom bearing*

Sediment/Rock Name	<i>Sandy silt</i>	Observer	<i>Kelsie</i>
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Percent Texture		
Sand	Silt	Clay
25	75	

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	13	H	3	103	

✓ S4

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

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
	Framework minerals
15	Quartz
	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
10	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
35	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	1345	C	13	H	5	44	

✓ SN

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

Percent Texture		
Sand	Silt	Clay

Comments:

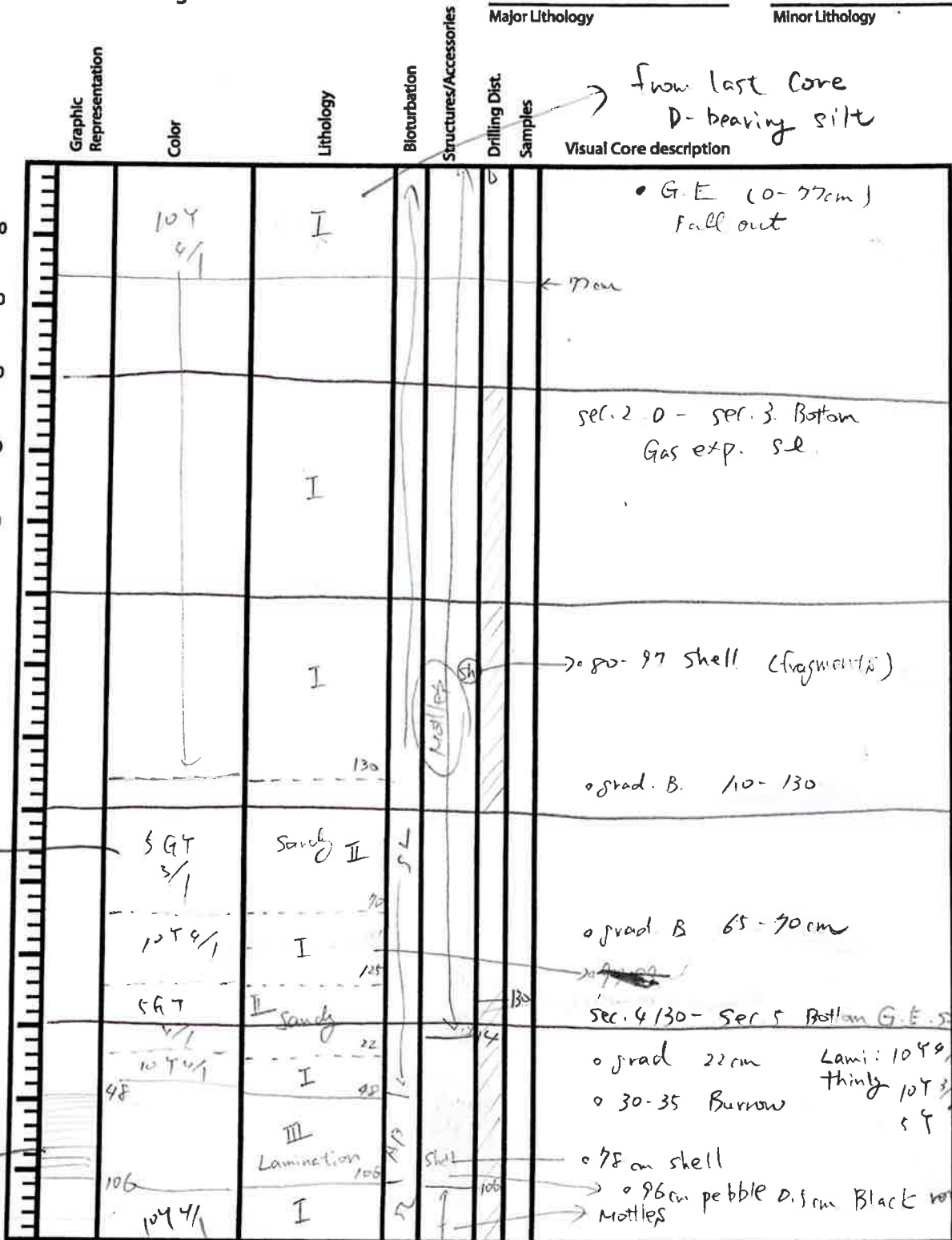
Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
	Framework minerals
10	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
37	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
2	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
50	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

1345 C 1411  
Site Hole Core Section Top Depth

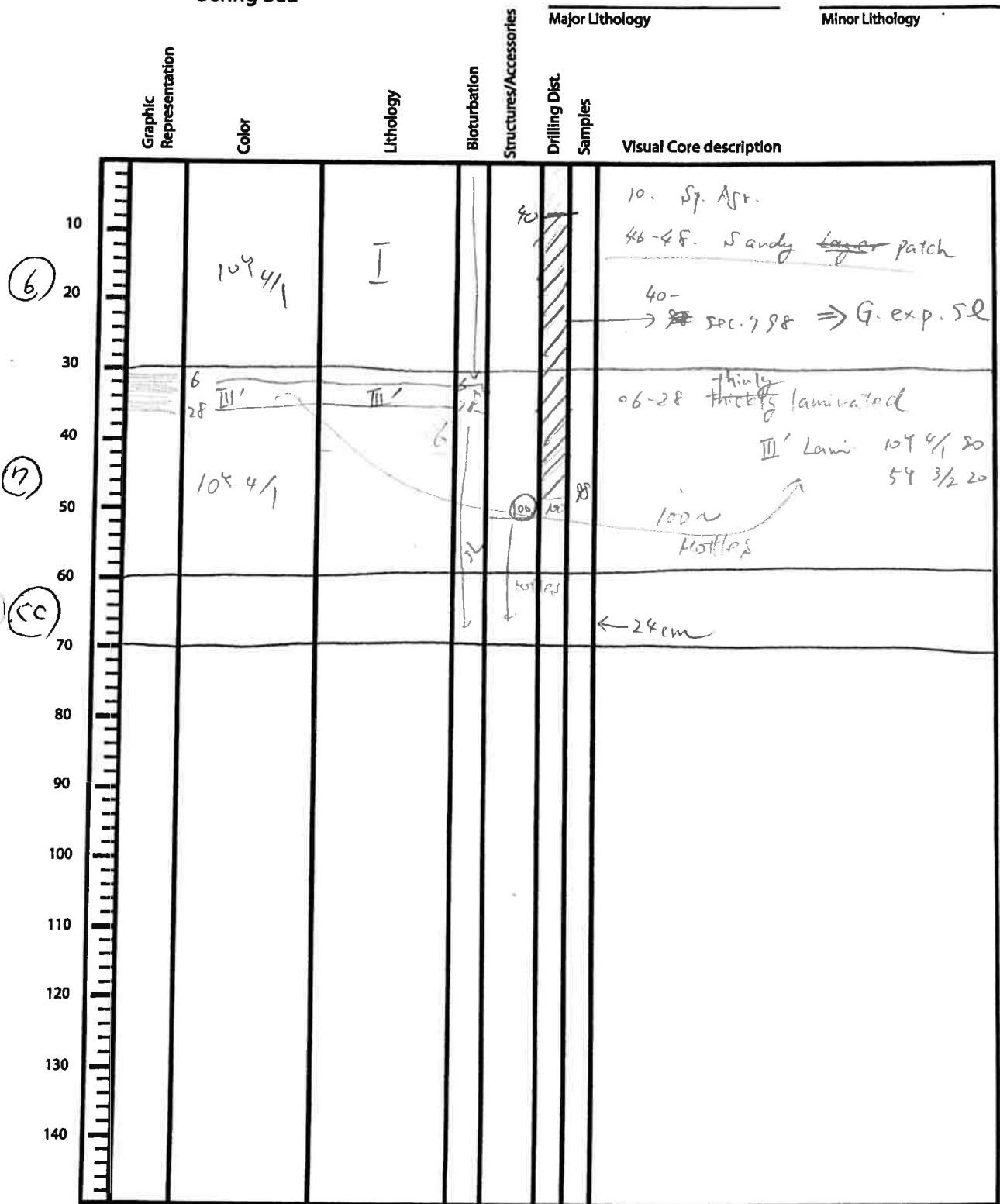


SS silt  
SS  
low rich clay

Observer: Hiro Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1345 C 14H  
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	1345	C	14	H	4	25	

Sediment/Rock Name	Silt	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay
15	70	15

Comments:

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

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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	14	H	5	90	

✓ V SL

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

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
2	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

Expedition 323  
Bering Sea

Site 1345 Hole C Core 15H Section 1-45 Top Depth

*Auth. carb. - rich clayey silt*

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
						Visual Core description	
	4/N	I					Gas exp Mod. fallout
	4/N	I					123-125 10% Auth. carb.
	4/N	I					Gas expansion Ser. 290cm → sec. 4, 103
	4/N	I					Gas exp. Mod.
	4/N	I					II. 4/N 80-90 54 4/2 10
	4/N + 54 4/2	II					94-119 thinly laminated 119-
	4/N	I					ss sandy patch
	121 104 4/1						78-90 Mottling pyrite 115-130 Greck

①

②

SS 1/36 Platina bearing clayey silt

③

④

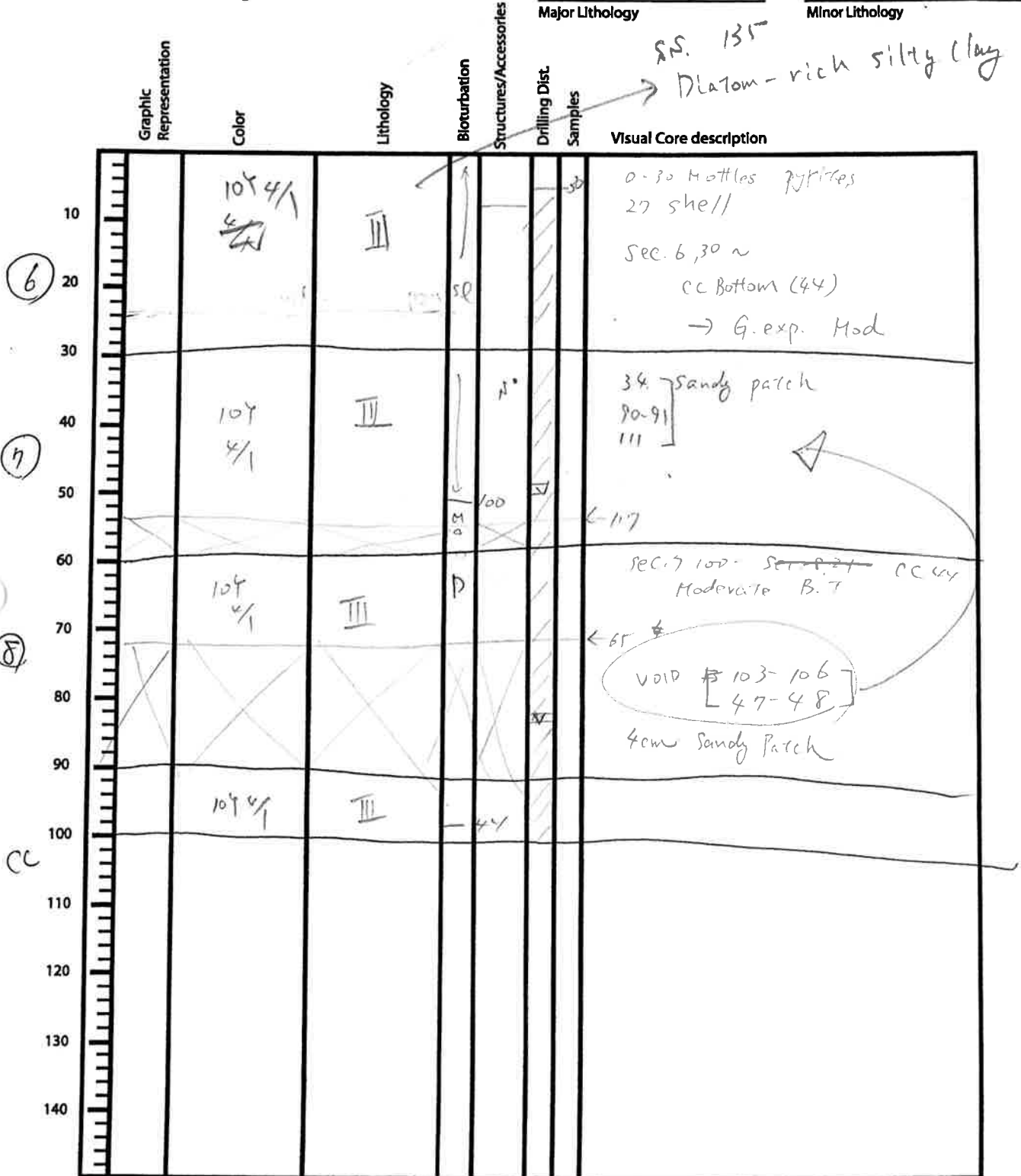
Green SS 76cm Platina ooze

⑤

Observer: Hiro A. Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1345 Site      C Hole      15H Core      6-CC Section      Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	G	15	H	2	136	136

Sediment/Rock Name	Diatom-bearing clayey silt	Observer	
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Percent Texture		
Sand	Silt	Clay
—	60	40

Comments: Main lith. grey

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
Framework minerals	
40	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
10	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
Foraminifera	
1	Planktonic foraminifera
	Benthic foraminifera
Nannofossils	
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
5	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

✓✓ SA

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	G	15	H	2	125	125

Sediment/Rock Name	Auth. carb.-rich clayey silt	Observer	
--------------------	------------------------------	----------	--

Percent Texture		
Sand	Silt	Clay
-	70	30

Comments: *Light layer*

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
Framework minerals	
3	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
25	Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
70-60	<i>Auth. carb., acicular</i>
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
Foraminifera	
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
2	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



✓✓SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	K	15H	4	4	76	76

Sediment/Rock Name	Diatom ooze	Observer	
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Percent Texture		
Sand	Silt	Clay
-	90	10

Comments: Greenish lam.

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
Foraminifera	
	Planktonic foraminifera
	Benthic foraminifera
Nannofossils	
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
75	Diatoms
(70)	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	1345	G	15H		6	135	135

✓✓ SM

Sediment/Rock Name	Diatom-rich silty clay	Observer	
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Percent Texture		
Sand	Silt	Clay
10	20	70

Comments:

Main lith.

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
Foraminifera	
	Planktonic foraminifera
2	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
30	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  
Berling Sea

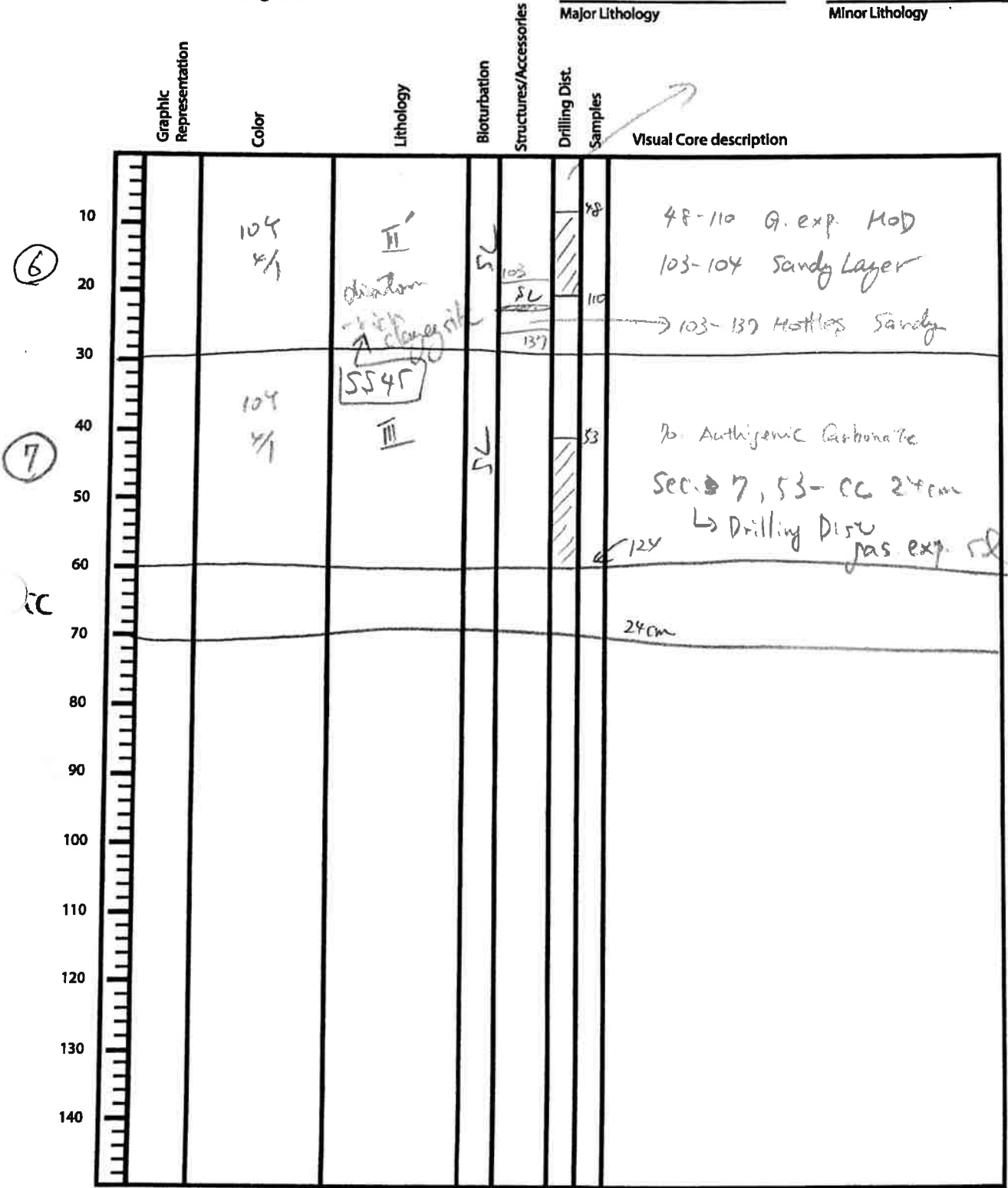
1345 Site      C Hole      1617 Core      Section      Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Visual Core description
	4/N	I			6-58 Gas exp. Mod 0-58 Mottled pyrite
①					0-58 Mottling Pyrite
	4/N	SS 50 diatom - rich silty I clay	sp		0-58 Mottling Pyrite
②					II SS 121. Authigenic carbonate rich diatom clayey site
	4/N	I	mod		6-50 Moderate B.T.
					-105-119 pumice & 5cm & fragments
③					120-143 Mottles (Pyrite) Mod. B.T.
pumice					120-143 Mottles (Pyrite) Mod. B.T.
	10Y 4/1	III	mod		21-22 } Sandy Patch } included
④		SS 4-50 diatom - rich clayey site	mod		48-50 } Mottling sand } Sec. 4, 0cm ~ Sec. 5-54cm
					88 } included
					96-99 } included
					108-127 } included
	10Y 4/1	III			141-sec. 5 124 G. exp. Mod
					8. } sandy patches
					42-43 } included
⑤					54 } included

Observer: Hiro A      Date: \_\_\_\_\_

Expedition 323  
Bering Sea

Site 1345 Hole C Core 164 Section \_\_\_\_\_ Top Depth \_\_\_\_\_



Observer: \_\_\_\_\_ Date: \_\_\_\_\_

25M

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	C	16	H	28	50.	

Sediment/Rock Name	diatom-rich silty clay	Observer	Akora
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Percent Texture		
Sand	Silt	Clay
<del>20</del>	<del>30</del>	<del>50</del>
15	35	

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
25.26	Diatoms 7
	Centric
	Pennate
	Chaetoceros Resting Spores
2	Silicoflagellates
	Sponge spicules 0.5
	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	1305	C	16	H-3A	121		

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

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
Framework minerals	
6	Quartz 3
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4 73	Rock fragments 2
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
9	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
4	Pyrite 3
	Magnetite
	Fe-oxide
56	Carbonates 30
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1305	C	16	H	4	70	

✓ SM

Sediment/Rock Name	diatom-rich silt clay	Observer	AKW
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Percent Texture		
Sand	Silt	Clay
30	30	40

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
20	Diatoms 7
	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	1345	C	16	H	6	45	

✓ 5M

Sediment/Rock Name	diatom-rich clayey silt	Observer	AKR
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Percent Texture		
Sand	Silt	Clay
5	55	40

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
Foraminifera	
	Planktonic foraminifera
	Benthic foraminifera
Nannofossils	
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians ✓
	Spumellaria
	Nassellaria
37	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