

IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1352	B	33	H	2	27	

Sediment / Rock Name	mud	Observer	hewer.
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
5	40	45

Comments:

gray mud

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
18	Quartz
13	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
1	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
	Biotite
5	Muscovite
2	Chlorite
45	Clay sized fraction
	Glauconite
	Ferromagnesian minerals
2	Other dense minerals
	Authigenic minerals
	Zeolite
1	Pyrite
3	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
2	Micrite <i>irregular</i>
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
1	Foraminifera
2	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
3	Other spicules
1	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
1	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	Pollen
	Organic debris
1	Plant debris
	Fish remains (teeth, bones, scales)
	Others

IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	8	3+	H	1	70	

Sediment / Rock Name	<i>muol.</i>	Observer	<i>Leves.</i>
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Smear Slide	Thin Section
<input checked="" type="checkbox"/>	

Dominant Lithology	Minor Lithology
<input checked="" type="checkbox"/>	

Percent Terrigenous Texture		
Sand	Silt	Clay
10	35	45

Comments:

slumped mud

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
12	Quartz
10	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
	Biotite
4	Muscovite
10	Chlorite
45	Clay sized fraction
	Glauconite
	Ferromagnesian minerals
3	Other dense minerals
	Authigenic minerals
	Zeolite
	Pyrite
3	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
1	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
2	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
1	Sponge spicules
2	Other spicules
3	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	Pollen
	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others

✓

IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	8	36	H	1	28	

Sediment / Rock Name	<i>mud.</i>	Observer	<i>hew.</i>
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
1	20	60

Comments:

*gray mud
 in fall: a shell hash?*

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
10	Quartz
5	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
	Biotite
2	Muscovite
1	Chlorite
55	Clay sized fraction
	Glauconite
1	Ferromagnesian minerals
1	Other dense minerals
	Authigenic minerals
	Zeolite
	Pyrite
2	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
10	Micrite <i>irregular</i>
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
1?	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
10	Other spicules <i>diamonds & whale</i>
3	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	Pollen
	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others

✓

IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	37	H	1	20	

Sediment / Rock Name	<i>mud.</i>	Observer	<i>hove.</i>
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
2	40	55

Comments:

gray mud.

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
10	Quartz
9	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Volcanic glass
	Accessory/trace minerals
3	Micas
	Biotite
10	Muscovite
5	Chlorite
55	Clay sized fraction
	Glauconite
	Ferromagnesian minerals
2	Other dense minerals
	Authigenic minerals
	Zeolite
	Pyrite
3	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
2	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
1	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
1	Pollen
2	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others



IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	38	4	2	77	

Sediment / Rock Name	mud.	Observer	lower
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
10	40	45

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
16	Quartz
10	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
2	Biotite
10	Muscovite
3	Chlorite
75	Clay sized fraction
1	Glauconite
	Ferromagnesian minerals
2	Other dense minerals
	Authigenic minerals
	Zeolite
	Pyrite
4	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
2	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
2	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
1	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	Pollen
	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others

✓

IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	8	39	H	2	70	

Sediment / Rock Name	<i>mud.</i>	Observer	<i>hever.</i>
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Smear Slide	Thin Section
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Dominant Lithology	Minor Lithology
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Percent Terrigenous Texture		
Sand	Silt	Clay
1	51	45

Comments:

gray mud.

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
20	Quartz
16	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
	Biotite
5	Muscovite
4	Chlorite
45	Clay sized fraction
	Glauconite
	Ferromagnesian minerals
4	Other dense minerals
	Authigenic minerals
	Zeolite
	Pyrite
3	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
1	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
1	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	Pollen
1	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others



IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	40	H	1	100	

Sediment / Rock Name	<i>mud.</i>	Observer	<i>Leaver</i>
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
3	70	50

Comments:

gray mud.

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
17	Quartz
13	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
	Biotite
7	Muscovite
4	Chlorite
50	Clay sized fraction
	Glauconite
	Ferromagnesian minerals
2	Other dense minerals
	Authigenic minerals
	Zeolite
1	Pyrite
3	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
2	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
1	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
2	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
1	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	Pollen
	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others

IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1355	B	41	H	1	100	

Sediment / Rock Name	marl	Observer	Hever.
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
3	20	35

Comments:

shelly, sandy interval
 highly rounded shells
 ← bioclasts

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
10	Quartz
5	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
	Biotite
3	Muscovite
1	Chlorite
30	Clay sized fraction
	Glauconite
1	Ferromagnesian minerals
2	Other dense minerals
	Authigenic minerals
	Zeolite
2	Pyrite <i>spheres...</i>
4	Opaque minerals (undifferentiated)
	Fe-oxide
7	Carbonates <i>articulation + 100 grains</i>
8	Micrite <i>irregular x-labs</i>
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
4	Foraminifera
5	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
9	Other spicules <i>mostly pieces</i>
8	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
1	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	Pollen
	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others

IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	42	H	1	14	

Sediment / Rock Name	sandy marl	Observer	hever.
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
20	20	30

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
12	Quartz
7	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
	Biotite
3	Muscovite
6	Chlorite
25	Clay sized fraction
1	Glauconite
	Ferromagnesian minerals
2	Other dense minerals
	Authigenic minerals
	Zeolite
2	Pyrite
4	Opaque minerals (undifferentiated)
	Fe-oxide
7	Carbonates
6	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
3	Foraminifera
3	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
1	Sponge spicules
8	Other spicules
10	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	Pollen
	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others

IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	43	H	1		

Sediment / Rock Name	shell bed.	Observer	Hever.
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
10	20	

Comments:

disturbed? shell hash.

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
10	Quartz
7	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
	Biotite
1	Muscovite
5	Chlorite
	Clay sized fraction
	Glauconite
1	Ferromagnesian minerals
1	Other dense minerals
	Authigenic minerals
	Zeolite
	Pyrite
3	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
20	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
50	Bioclast (undifferentiated) ^{at least} _{partly}
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	Pollen
1	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others

✓

IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	44	X	CC	10	

Sediment / Rock Name	shell hash.	Observer	haver.
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
10	10	

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
7	Quartz
5	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
	Biotite
1	Muscovite
3	Chlorite
	Clay sized fraction
2	Glauconite
	Ferromagnesian minerals
	Other dense minerals
	Authigenic minerals
	Zeolite
	Pyrite
3	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
25	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
50	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	Pollen
4	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others



IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	45	H	2	100	

Sediment / Rock Name	<i>mud.</i>	Observer	<i>Kevin</i>
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
3	45	45

Comments:

mud.

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
12	Quartz
10	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
	Biotite
5	Muscovite
12	Chlorite
40	Clay sized fraction
	Glauconite
	Ferromagnesian minerals
3	Other dense minerals
	Authigenic minerals
	Zeolite
	Pyrite
6	Opaque minerals (undifferentiated) <i>pyrite</i>
	Fe-oxide
	Carbonates
	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
1	Foraminifera
8	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
2	Other spicules
2	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	Pollen
2	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others

✓

IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	46	H	2	70	

Sediment / Rock Name	<i>mud.</i>		Observer	<i>Hever.</i>
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
	✓

Percent Terrigenous Texture		
Sand	Silt	Clay
5	40	45

Comments:

pellets!

blue gray.

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
16	Quartz
10	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
1	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
1	Biotite
4	Muscovite
8	Chlorite
45	Clay sized fraction
	Glauconite
1	Ferromagnesian minerals
2	Other dense minerals
	Authigenic minerals
	Zeolite
1	Pyrite <i>Promord</i>
3	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
2	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
3	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
2	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	Pollen
1	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others



IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	46	f1	3	140	

Sediment / Rock Name	<i>sandy mud.</i>	Observer	<i>Leves.</i>
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Smear Slide	Thin Section
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Dominant Lithology	Minor Lithology
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Percent Terrigenous Texture		
Sand	Silt	Clay
20	50	30

Comments:

*more calcareous - esp higher nannofossils
 more silty & sandy*

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
Framework minerals	
22	Quartz
20	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4	Rock fragments
	Volcanic glass
Accessory/trace minerals	
Micas	
1	Biotite
6	Muscovite
9	Chlorite
30	Clay sized fraction
	Glauconite
2	Ferromagnesian minerals
2	Other dense minerals
Authigenic minerals	
	Zeolite
2	Pyrite
3	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
Calcareous	
2	Foraminifera
5	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
1	Other spicules
1	Bioclast (undifferentiated)
Siliceous	
	Radiolarians
	Diatoms
	Silicoflagellates
1	Sponge spicules
	Siliceous debris (undifferentiated)
Others	
	Dinoflagellates
	Pollen
	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others



IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	8	47	4	1	20	

Sediment / Rock Name	<i>sandy marl.</i>	Observer	<i>hewer.</i>
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
10	20	30

Comments:

green sandy shelly.

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
15	Quartz
13	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
	Biotite
2	Muscovite
3	Chlorite
20	Clay sized fraction
1	Glauconite
3	Ferromagnesian minerals
1	Other dense minerals
	Authigenic minerals
	Zeolite
	Pyrite
4	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
15	Micrite <i>some could be bioclast piece.</i>
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
4	Foraminifera
3	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
10	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
1	Pollen
3	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others



IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1553	B	48	H	1	107	

Sediment / Rock Name	sand	Observer	Heuer
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
90	10	

Comments:

angular
 dirty, altered volcanic granular grains (RF)

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
40	Quartz
34	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
1	Biotite
2	Muscovite
5	Chlorite
	Clay sized fraction
	Glauconite
1	Ferromagnesian minerals
4	Other dense minerals
	Authigenic minerals
	Zeolite
3	Pyrite
	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	Pollen
	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others



IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	50	X	CC	22	

Sediment / Rock Name	<i>Sandy mud.</i>	Observer	<i>LQ</i>
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
30	40	30

Comments:

dy ind

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
20	Quartz
16	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
	Biotite
5	Muscovite
8	Chlorite
30	Clay sized fraction
	Glauconite
1	Ferromagnesian minerals
3	Other dense minerals
	Authigenic minerals
	Zeolite
	Pyrite
3	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
4	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	Pollen
	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others



IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	51	11	1	24	

Sediment / Rock Name	<i>calcareous muddy sand</i>	Observer	<i>hewer</i>
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Smear Slide	Thin Section
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Dominant Lithology	Minor Lithology
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Percent Terrigenous Texture		
Sand	Silt	Clay
40	30	10

Comments:

grain stably sorting

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
20	Quartz
17	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
7	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
	Biotite
4	Muscovite
6	Chlorite
10	Clay sized fraction
	Glauconite
1	Ferromagnesian minerals
8	Other dense minerals
	Authigenic minerals
	Zeolite
	Pyrite
3	Opaque minerals (undifferentiated)
	Fe-oxide
2	Carbonates <i>alteration</i>
	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
15	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
3	Other spicules
25	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
1	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	Pollen
	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others

✓

IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	S2	H	2	6	

Sediment / Rock Name	<i>sands calc mud.</i>	Observer	<i>Leves</i>
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
15	10	60

Comments:

*occasional rounded grains
 bimodal*

sand

gy mud.

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
Framework minerals	
10	Quartz
8	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Volcanic glass
Accessory/trace minerals	
	Micas
	Biotite
4	Muscovite
5	Chlorite
50	Clay sized fraction
	Glaucinite
1	Ferromagnesian minerals
4	Other dense minerals
Authigenic minerals	
	Zeolite
	Pyrite
4	Opaque minerals (undifferentiated)
	Fe-oxide
2	Carbonates
	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
10	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
2	Other spicules
	Bioclast (undifferentiated)
Siliceous	
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
Others	
	Dinoflagellates
	Pollen
	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others



IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	53	H	1	80	60

Sediment / Rock Name	<i>sandy mud.</i>	Observer	<i>hever</i>
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
15	50	30

Comments:

shelly sandy mud.

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
Framework minerals	
20	Quartz
15	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase <i>twinned</i>
7	Rock fragments <i>shelly, metal mesh</i>
	Volcanic glass
Accessory/trace minerals	
	Micas
	Biotite
4	Muscovite
10	Chlorite
30	Clay sized fraction
	Glauconite
2	Ferromagnesian minerals
4	Other dense minerals
Authigenic minerals	
	Zeolite
	Pyrite
3	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
2	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
2	Other spicules
1	Bioclast (undifferentiated)
Siliceous	
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
Others	
	Dinoflagellates
	Pollen
	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others



IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	54	H	1	50	

Sediment / Rock Name	<i>sandy mud</i>	Observer	<i>Lever</i>
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
25	40	30

Comments:

RF's not metabasals

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
Framework minerals	
10	Quartz
9	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase <i>ferried</i>
10	Rock fragments <i>including striae & heavy min.</i>
	Volcanic glass
Accessory/trace minerals	
2	Micas
1	Biotite
10	Muscovite
8	Chlorite
30	Clay sized fraction
	Glauconite
1	Ferromagnesian minerals
10	Other dense minerals
Authigenic minerals	
	Zeolite
	Pyrite
2	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
Calcareous	
1	Foraminifera
2	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
1	Other spicules
2	Bioclast (undifferentiated)
Siliceous	
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
1	Siliceous debris (undifferentiated)
Others	
	Dinoflagellates
	Pollen
	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others

✓

IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	SS	H	2	110	

Sediment / Rock Name	<i>muddy sand</i>	Observer	<i>here</i>
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
43	30	20

Comments:

*med fine
 & poorly sorted
 sand.*

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
Framework minerals	
20	Quartz
15	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
12	Rock fragments
	Volcanic glass
Accessory/trace minerals	
	Micas
	Biotite
6	Muscovite
7	Chlorite
20	Clay sized fraction
	Glauconite
2	Ferromagnesian minerals
4	Other dense minerals
Authigenic minerals	
	Zeolite
1	Pyrite
2	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
Calcareous	
2	Foraminifera
2	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
1	Other spicules
2	Bioclast (undifferentiated)
Siliceous	
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
1	Siliceous debris (undifferentiated)
Others	
	Dinoflagellates
	Pollen
2	Organic debris
1	Plant debris
	Fish remains (teeth, bones, scales)
	Others



IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	56	X	1	135	

Sediment / Rock Name	<i>Sandy mud</i>	Observer	<i>KAM</i>
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Smear Slide	Thin Section
<i>X</i>	

Dominant Lithology	Minor Lithology
<i>X</i>	

Percent Terrigenous Texture		
Sand	Silt	Clay
<i>35</i>	<i>40</i>	<i>25</i>

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
Framework minerals	
<i>20</i>	Quartz
<i>20</i>	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
<i>64</i>	Rock fragments <i>met./argillit.</i>
	Volcanic glass
Accessory/trace minerals	
	Micas
	Biotite
<i>5</i>	Muscovite
<i>2</i>	Chlorite
<i>20</i>	Clay sized fraction
	Glaucinite
<i>3</i>	Ferromagnesian minerals
<i>15</i>	Other dense minerals
Authigenic minerals	
	Zeolite
	Pyrite
	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
<i>10</i>	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
Calcareous	
<i>1</i>	Foraminifera
<i>3</i>	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
<i>40</i>	Bioclast (undifferentiated)
Siliceous	
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
Others	
	Dinoflagellates
	Pollen
	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others

IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	57	X	1	58	

Sediment / Rock Name	<i>Sandy mud</i>	Observer	<i>KMM</i>
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Smear Slide	Thin Section	Dominant Lithology	Minor Lithology	Percent Terrigenous Texture		
<i>X</i>		<i>X</i>		Sand	Silt	Clay
				<i>20</i>	<i>55</i>	<i>25</i>

Comments:

glacial flour

Some v. fine silt of b & r folds

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
	Framework minerals
<i>20</i>	Quartz
<i>20</i>	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
<i>05</i>	Rock fragments
	Volcanic glass <i>met. / argill.</i>
	<i>cal. alt. plagioclase</i>
	Accessory/trace minerals
	Micas
<i>1/10</i>	Biotite
<i>3/10</i>	Muscovite
<i>25</i>	Chlorite
	Clay sized fraction
	Glaucanite
<i>30</i>	Ferromagnesian minerals
<i>10</i>	Other dense minerals
	<i>epidote, sphen.</i>
	Authigenic minerals
	Zeolite
<i>1</i>	Pyrite
	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
	Calcareous
<i>tr</i>	Foraminifera
	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
<i>1</i>	Other spicules
	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
<i>tr</i>	Pollen
	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others

IODP Expedition 317
 SEDIMENT SMEAR SLIDE
 & THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1353	B	58	X	1	86	

Sediment / Rock Name	<i>Sandy Mud</i>	Observer	<i>KMM</i>
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Smear Slide	Thin Section

Dominant Lithology	Minor Lithology
<i>X</i>	

Percent Terrigenous Texture		
Sand	Silt	Clay
<i>20</i>	<i>60</i>	<i>20</i>

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERALS	
Framework minerals	
<i>20</i>	Quartz
<i>20</i>	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
<i>75</i>	Rock fragments <i>met.</i>
	Volcanic glass
Accessory/trace minerals	
	Micas
<i>1</i>	Biotite
<i>5</i>	Muscovite
<i>3</i>	Chlorite
<i>20</i>	Clay sized fraction
<i>75</i>	Glaucanite
<i>3</i>	Ferromagnesian minerals
<i>15</i>	Other dense minerals
Authigenic minerals	
	Zeolite
<i>20</i>	Pyrite
	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
	Micrite
	Others

Percent	Component
BIOGENIC GRAINS	
Calcareous	
<i>2</i>	Foraminifera
<i>75</i>	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
<i>2</i>	Bioclast (undifferentiated)
Siliceous	
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
Others	
	Dinoflagellates
	Pollen
	Organic debris
	Plant debris
	Fish remains (teeth, bones, scales)
	Others