

IODP Expedition 317  
SEDIMENT SMEAR SLIDE  
& THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1352	C	106	R	64	64	

Sediment / Rock Name	<i>Sandy marble</i>		Observer
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
15	25	10?

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
3	Foraminifera
6	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	1352	C	106	R	6	30	

Sediment / Rock Name	calcareous sandy mudstone	Observer	Lever
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
	✓

Percent Terrigenous Texture		
Sand	Silt	Clay
15	40	20

Comments:

pellets?

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
2	Foraminifera
10	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	1352	C	106	R	6	35	

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

Dominant Lithology	Minor Lithology
	✓

Percent Terrigenous Texture		
Sand	Silt	Clay
25	30	5

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
4	Foraminifera
20	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
8	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	1352	C	107	R	3	105	

Sediment / Rock Name	<i>Sandy marlstone</i>	Observer	Never
Smear Slide	Thin Section	Dominant Lithology	Minor Lithology
✓		✓	

**Comments:**

IODP Expedition 317  
SEDIMENT SMEAR SLIDE  
& THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	1352	C	107	R	3	138	

Sediment / Rock Name	sandy marlstone	Observer	hawer.
Smear Slide	Thin Section	Dominant Lithology	Minor Lithology

Comments:

Percent Terrigenous Texture		
Sand	Silt	Clay
15	25	30

↑ pellets & agg.

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
3	Calcareous
5	Foraminifera
	Nannofossils <i>altered</i> .
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
7	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	1352	C	107	R	3	148	

Sediment / Rock Name	calcareous sandy siltstone	Observer	Lever
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
	✓

Percent Terrigenous Texture		
Sand	Silt	Clay
25	45	10

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
—	Foraminifera
—	Nannofossils
—	Pteropods
—	Ostracods
—	Echinoderm
—	Bivalves
—	Bryozoans
—	Corals
—	Sponge spicules
—	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	1332	C	107	R	6	74	

Sediment / Rock Name	<i>sandy marlstone.</i>		Observer	<i>Hewer</i>
Smear Slide	<input checked="" type="checkbox"/>		Dominant Lithology	Minor Lithology
	<input checked="" type="checkbox"/>			

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
17	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
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	1352	C	108	R	3	18	

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

Dominant Lithology	Minor Lithology
	✓

Percent Terrigenous Texture		
Sand	Silt	Clay
20	30	20

Comments:

pellets?

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
3	Foraminifera
3	Nannofossils ✓ unhappy.
	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	1352	C	108	R	4	34	

Sediment / Rock Name	<i>sandy marlstone</i>				Observer	hever.	
Smear Slide	Thin Section	Dominant Lithology	Minor Lithology	Percent Terrigenous Texture			
✓		✓		Sand	Silt	Clay	
				20	40	10	

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
4	Foraminifera
4	Nannofossils <i>good pres.</i>
	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
4	Organic debris <i>amorphous organic matter</i>
	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	1352	C	109	R	1	96	

Sediment / Rock Name	sandy marlstone	Observer	hene
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
	✓

Percent Terrigenous Texture		
Sand	Silt	Clay
10	20	30

Comments:

pellets/laggs.

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
4	Foraminifera
1	Nannofossils <i>unhappy</i>
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
4	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
Others	
	Dinoflagellates
1	Pollen
4	Organic debris <i>altered - quartz</i>
	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	1352	C	109	R	I	100	

Sediment / Rock Name	<i>sandy marlstone.</i>			Observer	hever	
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Smear Slide	Thin Section
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Dominant Lithology	Minor Lithology
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Percent Terrigenous Texture		
Sand	Silt	Clay
20	30	5

Comments:

*Fine sand max. Sandy layer.*

Percent	Component
<b>SILICICLASTIC GRAINS/MINERALS</b>	
Framework minerals	
18	Quartz
15	Feldspar (undifferentiated) K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments
	Volcanic glass
Accessory/trace minerals	
	Micas
	Biotite
6	Muscovite
3	Chlorite
5	Clay sized fraction
1	Glaucite
	Ferromagnesian minerals
5	Other dense minerals
Authigenic minerals	
	Zeolite
1	Pyrite
4	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
30	Micrite <i>both v small &amp; silt sized sparry</i>
	Others

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
2	Foraminifera
2	Nannofossils <i>unhappy</i>
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
5	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	1352	C	109	R	3	79	

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

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
20	20	25

Comments:

*wavy lam/bist*

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
2	Foraminifera
4	Nannofossils <i>pos many more altered.</i>
	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
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	61352	C	112	R	1	141	

Sediment / Rock Name	<i>muddy limestone</i>		Observer	1cm
Smear Slide	Thin Section	Dominant Lithology	Minor Lithology	Pécent Terrigenous Texture
✓		✓		Sand Silt Clay

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
15	Foraminifera <i>un�aggy</i>
3	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	41352	C	112	R	2	38	

Sediment / Rock Name	<i>Sandy Marlstone</i>		Observer	1cm
Smear Slide	Thin Section	Dominant Lithology	Minor Lithology	Percent Terrigenous Texture
<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	Sand      Silt      Clay

Comments:

NA

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
30 25	Foraminifera <i>unlabeled</i>
25	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
	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	41352	C	112	DR	3	54	

Sediment / Rock Name	<i>Sandy Mafic</i>		Observer	KM
Smear Slide	Thin Section	Dominant Lithology	Minor Lithology	Percent Terrigenous Texture
✓		✓		Sand Silt Clay

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERALS</b>	
	Framework minerals
48	Quartz
48	Feldspar (undifferentiated)
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
1	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
	Biotite
5	Muscovite
1	Chlorite
26	Clay sized fraction
1	Glaucite
11	Ferromagnesian minerals
2	Other dense minerals
	Authigenic minerals
	Zeolite
1	Pyrite
	Opaque minerals (undifferentiated)
	Fe-oxide
	Carbonates
40 15	Micrite
	Others

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
5	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
	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	61352.C	113	R	2	54	

Sediment / Rock Name	<i>Sandy Limestone Marlstone</i>		Observer	1cm						
Smear Slide	Thin Section	Dominant Lithology	Minor Lithology	Pécent Terrigenous Texture						
✓		✓		<table border="1"> <tr> <th>Sand</th> <th>Silt</th> <th>Clay</th> </tr> <tr> <td>25</td> <td>25</td> <td>50</td> </tr> </table>	Sand	Silt	Clay	25	25	50
Sand	Silt	Clay								
25	25	50								

Comments:

2! 54%

Percent	Component
<b>SILICICLASTIC GRAINS/MINERALS</b>	
	Framework minerals
48	Quartz
43	Feldspar (undifferentiated) K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Volcanic glass
	Accessory/trace minerals
	Micas
	Biotite
21	Muscovite
	Chlorite
29	Clay sized fraction
1	Glaucite
	Ferromagnesian minerals
	Other dense minerals
	Authigenic minerals
	Zeolite
1	Pyrite
	Opaque minerals (undifferentiated)
	Fe-oxide
2	Carbonates
30	Micrite
	Others

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

Charged!



IODP Expedition 317  
SEDIMENT SMEAR SLIDE  
& THIN SECTION WORKSHEET

Expedition	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
317	U135a	C	113	R	3	66	

Sediment / Rock Name	<i>Sandy Marlstone</i>		Observer	1cm
Smear Slide	Thin Section	Dominant Lithology	Minor Lithology	Percent Terrigenous Texture
✓		✓	✓	Sand Silt Clay

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
3	Foraminifera
3	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
5	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	41352	C	114	R	4	53	

Sediment / Rock Name	<i>Sandy Maelstrom</i>		Observer	KM
Smear Slide	Thin Section	Dominant Lithology	Minor Lithology	Percent Terrigenous Texture

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
10	Calcareous
25	Foraminifera
	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
	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	41352	C	114	R	4	64	

Sediment / Rock Name	<i>muddy limestone</i>		Observer	km m
Smear Slide	Thin Section	Dominant Lithology	Minor Lithology	Pécent Terrigenous Texture
✓		✓		Sand Silt Clay

Comments:

NA

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
5/10	Foraminifera
	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
20	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
tr	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	1352	C	115	R	1	164	

Sediment / Rock Name	Sandy limestone.		Observer	hene.
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
	✓

Percent Terrigenous Texture		
Sand	Silt	Clay
20	30	20

Comments:

pellets?

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
3	Foraminifera
	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
6	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	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	1352	C	113	R	3	123	

Sediment / Rock Name	sandy marlstone.		Observer	Never.
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
	✓

Percent Terrigenous Texture		
Sand	Silt	Clay
10	30	30

Comments:

brown layer -  
stalactites?

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
1	Foraminifera
	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
3	Organic debris amorphous hair?
	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	1352	C	115	R	5	70	

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

Dominant Lithology	Minor Lithology
✓	

Percent Terrigenous Texture		
Sand	Silt	Clay
15	20	20

Comments:

pellets?

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
3	Foraminifera
	Nannofossils
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
7	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	1352	C	113	R	6	16	

Sediment / Rock Name	calcareous mudstone.	Observer	heuer.
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Smear Slide	Thin Section
✓	

Dominant Lithology	Minor Lithology
	✓

Percent Terrigenous Texture		
Sand	Silt	Clay
5	30	40

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
	Foraminifera
3	Nannofossils <i>very, very small</i>
	Pteropods
	Ostracods
	Echinoderm
	Bivalves
	Bryozoans
	Corals
	Sponge spicules
	Other spicules
	Bioclast (undifferentiated)
	Siliceous
	Radiolarians
	Diatoms
	Silicoflagellates
	Sponge spicules
	Siliceous debris (undifferentiated)
	Others
	Dinoflagellates
	Pollen
6	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	1352	C	115	R	7	50	

Sediment / Rock Name	<i>Sandy mudstone.</i>		Observer	Lever						
Smear Slide	Thin Section	Dominant Lithology	Minor Lithology	Percent Terrigenous Texture						
✓		✓		<table border="1"> <tr> <td>Sand</td> <td>Silt</td> <td>Clay</td> </tr> <tr> <td>20</td> <td>30</td> <td></td> </tr> </table>	Sand	Silt	Clay	20	30	
Sand	Silt	Clay								
20	30									

Comments:

*med sand matrix*

"normal"

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

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