Sediment Smear Slide / Thin Section Description Sheet

Date: Apr, 30, 2013

Expedition: 338 Observer: YS, KO, OF

Site: C0002 Hole: H Core: 1R Sect.: 1 Interval: 103 – 104

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Feaction	Grain Mounrt

Select one and check.

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Peragic	Neritic

Select one and check.

Percent Texture		
Sand	Silt	Clay

Select one and check.

Percent	Composition
	Siliclastic Grain
	Minerals
	Quartz
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rholitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Sillicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragmen
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Graing
	Sideritic Graing

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
	Pyrite Grain
	Opaque Grain

Fill percentage (Total must be 100).

Remarks: 1/6

C0002H Core 1R-Sec.1 Int. 103-104 TSS

It displays two or three fault zones, generally straight and about several millimeters thick. They normally offset the burrows. Within the fault zones some tiny linear or elliptical clasts appear subparallel to the fault planes.

Sediment Smear Slide / Thin Section Description Sheet

Date Apr. 30, 2013

Expedition: 338 Observer: YS, OF, KO

Site: C0002 Hole: H Core: 1R Sect.: 1 Interval: 104–106

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Feaction	Grain Mounrt

Select one and check.

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Peragic	Neritic

Select one and check.

Percent Texture		
Sand	Silt	Clay

Select one and check.

Percent	Composition
	Siliclastic Grain
	Minerals
	Quartz
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rholitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Sillicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragmen
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Graing
	Sideritic Graing

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
	Pyrite Grain
	Opaque Grain

Fill percentage (Total must be 100).

Remarks: 2/6

C0002H Core 1R-Sec.1 Int. 104-106 TSS

It shows a similar feature as previous thin-section, C0002H Core 1R-Sec.1 Int. 104-106 TSS.

Sediment Smear Slide / Thin Section Description Sheet

Date Apr. 30. 2013

Expedition: 338 Observer: Yr. Of. Ko

Site: C0002 Hole: H Core: 1R Sect.: 1 Interval: 106 — 108.5

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Feaction	Grain Mounrt

Select one and check.

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Peragic	Neritic

Select one and check.

Percent Texture		
Sand	Silt	Clay

Select one and check.

Percent	Composition
	Siliclastic Grain
	Minerals
	Quartz
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rholitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Sillicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragmer
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Graing
	Sideritic Graing

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
	Pyrite Grain
	Opaque Grain

Fill percentage (Total must be 100).

Remarks: 3/6

C0002H Core 1R-Sec.1 Int. 106-108.5 TSS

See the description of C0002H Core 1R-Sec.1 Int. 103-104 TSS for more information.

Sediment Smear Slide / Thin Section Description Sheet

Date Apr. 30, 2013

Expedition: 338 Observer: YS. OF. KO

Site: C0002 Hole: ~~A~~ J Core: 1R Sect.: 3 Interval: 2.5 – 4.5

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Feaction	Grain Mounrt

Select one and check.

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Peragic	Neritic

Select one and check.

Percent Texture		
Sand	Silt	Clay

Select one and check.

Percent	Composition
	Siliclastic Grain
	Minerals
	Quartz
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rholitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Sillicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragmen
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Graing
	Sideritic Graing

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
	Pyrite Grain
	Opaque Grain

Fill percentage (Total must be 100).

Remarks: 4/6

C0002J Core 1R-Sec. 3 Int. 2.5-4.5 TSS

It illustrates a network of subshear bands in silty mudstone that makes up a shear zone. In each bands, about several millimeter thick, crushing of tiny foraminifer fossils are evident, and weakly aligned.

Sediment Smear Slide / Thin Section Description Sheet

Date Apr. 30. 2013

Expedition: 338 Observer: YS, KO, OF

Site: C0002 Hole: J Core: 1R Sect.: 3 Interval: 14 – 15

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Feaction	Grain Mounrt

Select one and check.

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Peragic	Neritic

Select one and check.

Percent Texture		
Sand	Silt	Clay

Select one and check.

Percent	Composition
	Siliclastic Grain
	Minerals
	Quartz
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rholitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Sillicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragmer
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Graing
	Sideritic Graing

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
	Pyrite Grain
	Opaque Grain

Fill percentage (Total must be 100).

Remarks: 5/6

C0002J Core 1R-Sec. 3 Int. 14-15 TSS

It well displays a ca. 0.5cm-thick shear zone in silty mudstone, where crushing of tiny foraminifer fossils are evident. The zone was reversely offset by a <0.1mm-thick fault that has no visible microscopic feature.

Sediment Smear Slide / Thin Section Description Sheet

Date Apr. 30. 2013

Expedition: 338 Observer: YS. DF. KO

Site: C0002 Hole: J Core: 1R Sect.: 4 Interval: 7.5 – 9.5

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Feaction	Grain Mounrt

Select one and check.

Granular Sediment		Chemical Sediment	
Siliciclastic	Volcaniclastic	Peragic	Neritic

Select one and check.

Percent Texture		
Sand	Silt	Clay

Select one and check.

Percent	Composition
	Siliclastic Grain
	Minerals
	Quartz
	Feldspars
	Micas
	Ferromagnesian Minerals
	Glauconite
	Clay Minerals
	Zeolites
	Heavy Minerals
	Pyrite
	Phospholite
	Aragonite
	Calcite
	Oolites
	Lithic Grain
	Sedimentary Lithic Grain
	Igneous Lithic Grain
	Metamorphic Lithic Grain
	Volcaniclastic Grain
	Scoria / Pumice
	Scoria
	Pumice
	Volcaniclastic Lithic Grain
	Picritic Lithic Grain
	Basaltic Lithic Grain
	Andesitic Lithic Grain
	Dacitic Lithic Grain
	Rholitic Lithic Grain
	Crystal Grain
	Vitric Grain

Percent	Composition
	Pelagic Grain
	Calcareous Grain
	Nannofossils
	Foraminifers
	Siliceous Grain
	Diatom
	Radiolarians
	Sillicoflagellates
	Sponge Spicule
	Neritic Grain
	Ooid
	Spherical Particles
	Elliptical Particles
	Bioclast
	Molluscan
	Algal
	Pellet
	Molluscs
	Echinoderms
	Others
	Intraclast
	Carbonate Rock Fragmer
	Peloid
	Pisolite
	Calcareous Grain
	Dolomitic Grain
	Araginitic Graing
	Sideritic Graing

Percent	Composition
	Others
	Gypsiferous Grain
	Calcareous Grain
	Sapropelic Grain
	Mn Nodules/ Crusts
	Pyrite Grain
	Opaque Grain

Fill percentage (Total must be 100).

Remarks: 6/6

C0002J Core 1R-Sec. 4 Int. 7.5-9.5 TSS

It shows a good exposure of half of a shear zone, about 0.8cm thick, in silty mudstone. Foraminifer fossils, as the largest clasts in the rock, remain in most cases intact in the wallrock, but are generally crushed into smaller angular pieces within the zone. No pressure solution is visible on these complete or broken fossils.