

Sediment Smear Slide / Thin Section Description Sheet

Date: 30. Nov. 2013.

Expedition: 348. Observer: KY

Site: C0002 Hole: N Core: 3 Sect.: SMW Interval:

Sediment Name: Silty clay.

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|------------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| V | | | | | | | 10~20% cement | | 30 | 70 |

Select one and check.

Select one and check. cement

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 20 | Quartz |
| 10 | Feldspars |
| 60 | Clay minerals |
| Lithic Grains | |
| | Sedimentary Lithics |
| | Chert |
| | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| Few | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 3 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| | Pyrite (framboids) |
| | Pyrite (euhedral) |
| ? | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 30, Nov. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: ? Sect.: SMW

Interval:

Sediment Name: Silty clay.

finer 80

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | 20~30 | | 30 | 70 |

Select one and check.

big calcite is cement.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 8 | Quartz (8) |
| 1 | Feldspars (1) |
| 28 | Clay minerals (28) |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 15 | Mudstone (15) |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 24 | Clear glass (20) |
| | Colored glass |
| | Pumice |
| | Volcanic lithics (64) |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 10 | Nannofossils (10) 4 |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| 8 | Sponge Spicule (3) |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 3 | Dense minerals ¹ (3) |
| | Micas (biotite, musc, chl) ¹ |
| 1 | Glauconite (1) |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 2 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 2 | Pyrite (framboids) (2) |
| | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 11 | Calcite (11) 6 |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |
| | 13 |

¹ List under remarks if possible

Fill percentage (Total must be 100).

26

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 30 Nov, 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 9 Sect.: SMW

Interval: _____

Sediment Name: Silty clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | 10~20% | 25 | 75 | |

Select one and check.

Select one and check.

| Percent | Composition |
|--|---------------------------------|
| Major Siliciclastic Grain Types | |
| 3 | Quartz 3 |
| 1 | Feldspars 1 |
| 34 | Clay minerals 34 |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 20 | Mudstone 20 |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 10 | Clear glass 10 |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microcline |
| | Lathwork |
| 1 | Altered volcanic (palagonite) 1 |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 5 | Nannofossils 5 |
| 3 | Foraminifers 3 |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|-------------------------------|
| Minor Grain Types | |
| 5 | Dense minerals ¹ 5 |
| 3 | Micas (biotite, musc, chl) 3 |
| | Glaucanite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 5 | Terrestrial organic matter 5 |
| | Other (specify): |
| Authigenic components | |
| | Pyrite (framboids) |
| 1 | Pyrite (euhedral) 1 |
| | Pyrite (grain coating) |
| 10 | Calcite 10 |
| | Dolomite |
| | Zeolites |
| 7 | Fe/Mn oxide 7 |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: _____

* This form is not designed for shallow water (neritic) carbonate sediments

pelagic grain
abundant

Sediment Smear Slide / Thin Section Description Sheet

Date: 1. DEC. 2013

Expedition: 348

Observer: KY

Site: C0002

Hole: N

Core: 16

Sept.: SMW

Interval:

Sediment Name: Clay

Cement

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | ✓ | 5-10 | | 20 | 80 |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 2 | Quartz ✓ 2 |
| 2 | Feldspars ✓ 2 |
| 19 | Clay minerals 19 |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone ✓ 10 |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 10 | Clear glass ✓ 10 |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microcline |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 10 | Nannofossils ✓ 10 |
| 5 | Foraminifers ✓ 5 |
| | Siliceous |
| 10 | Diatom ✓ 10 |
| | Radiolarian |
| | Silicoflagellate |
| 20 | Sponge Spicule ✓ 20 |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 3 | Dense minerals ¹ 3 |
| 3 | Micas (biotite, musc, chl) ¹ ✓ 3 |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter ✓ 1 |
| | Other (specify): |
| Authigenic components | |
| 3 | Pyrite (framboids) ✓ 3 |
| 1 | Pyrite (euhedral) ✓ 1 |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| 1 | Zeolites 1 |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

fossil abundant

Sediment Smear Slide / Thin Section Description Sheet

Date: 1. DEC. 2013.

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 18 Sect.: SMW

Interval:

Sediment Name: clay

Cement

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | 5-10 | | 15 | 85 |

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 3 | Quartz 3 |
| 1 | Feldspars ✓ |
| 27 | Clay minerals 20 |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone ✓ 10 |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 10 | Clear glass ✓ 10 |
| | Colored glass |
| 24 | Pumice 24 |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous 45 |
| 10 | Nannofossils ✓ 10 |
| 5 | Foraminifers 5 |
| | Siliceous |
| 15 | Diatom ✓ 15 |
| 5 | Radiolarian 5 |
| 20 | Sponge Spicule ✓ 20 |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 3 | Dense minerals ¹ 13 |
| 3 | Micas (biotite, musc, chl) ¹ ✓ 3 |
| 1 | Glauconite 1 |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 3 | Terrestrial organic matter ✓ |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) ✓ 5 |
| 3 | Pyrite (euhedral) ✓ 3 |
| | Pyrite (grain coating) |
| 5 | Calcite 5 |
| | Dolomite |
| 1 | Zeolites 1 |
| | Fe/Mn oxide |
| | Other (specify): 21 |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 1. DEC. 2013

Expedition: 348.

Observer: KY

Site: C0002 Hole: N Core: 20 Sect.: SMW

Interval:

Sediment Name: Clay.

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | 3~5 | | 15 | 85 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 5 | Quartz 3 |
| 3 | Feldspars 1 |
| 22 | Clay minerals 12 |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone 10 |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass 3 |
| 1 | Colored glass 1 |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microelite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 15 | Nannofossils 15 |
| 3 | Foraminifers 3 |
| | Siliceous |
| 5 | Diatom 5 |
| 3 | Radiolarian 3 |
| | Silicoflagellate |
| 15 | Sponge Spicule 15 |
| | Nonoplankton |
| Other bioclasts | |
| | Mollusk (1) |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 3 | Dense minerals ¹ 3 |
| 2 | Micas (biotite, musc, chl) ¹ 2 |
| 1 | Glaucanite 1 |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 6 | Terrestrial organic matter 6 |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) 5 |
| 2 | Pyrite (euhedral) 2 |
| | Pyrite (grain coating) |
| 19 | Calcite (19) |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |
| | 70 |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 1, DEC. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 22 Sect.: SMW

Interval: 1

Sediment Name: Silty clay.

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | 325 | | 30 | 20 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 15 | Quartz |
| 3 | Feldspars |
| 35 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 5 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 5 | Clear glass |
| 1 | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| 1 | Sponge Spicule |
| 10 | STIRCIous Nanoplankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 5 | Micas (biotite, musc, chl) ¹ |
| | Glaucanite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 6. | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 10 | Pyrite (framboids) |
| 2. | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: pelagic grains decreased

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 1, DEC, 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 24 Sect.: SMW

Interval:

Sediment Name: Silty clay.

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| V | | | | | | | 103 | | 25 | 75 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 5 | Quartz |
| 2 | Feldspars |
| 41 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 5 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| 2 | Sponge Spicule |
| 20 | Calcareous Na/No plankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 3 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 6 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: siliciclastic, calcareous, other stuff

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 1, DEC. 2013

Expedition: 34B Observer: KY

Site: C0002 Hole: N Core: 26 Sect.: SMW Interval:

Sediment Name: Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 20 | 80 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 1 | Feldspars |
| 52 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone ✓ |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 15 | Calcareous Nanoflankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| / | Dense minerals ¹ |
| / | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| 3 | Marine organic matter ✓ |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 3 | Pyrite (framboids) |
| / | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

zeolite (phlipsis?)

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 1. DEC. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 28 Sect.: SMW

Interval:

Sediment Name: clay.

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| V | | | | | | | | | 10 | 90 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 13 | Quartz |
| 3 | Feldspars |
| 51 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 6 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| 1 | Sponge Spicule |
| 8 | Calcareous Nano-Hankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 2 | Micas (biotite, musc, chl) ¹ ✓ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 2 | Terrestrial organic matter ✓ |
| | Other (specify): |
| Authigenic components | |
| 3 | Pyrite (framboids) ✓ |
| 1 | Pyrite (euhedral) ✓ |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 1. DEC. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 32 Sect.: SMW

Interval:

Sediment Name: Silty Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 25 | 75 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 2 | Feldspars |
| 51 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 13 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 7 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| 1 | Sponge Spicule ✓ |
| 5 | Calcareous Nanoplankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 2 | Micas (biotite, musc, chl) ¹ ✓ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 1. DEC. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 36 Sect.: SMW

Interval:

Sediment Name: Silty clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | 1 | 25 | 74 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 15 | Quartz |
| 3 | Feldspars |
| 39 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 12 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| 5 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microplitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| 1 | Sponge Spicule |
| 8 | Calcareous Nanoplankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 3 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 3 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 13 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2. DEC. 2013

Expedition: 348

Observer: KY.

Site: C0002 Hole: N Core: 40 Sect.: SMW

Interval:

Sediment Name: Silty clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | 26 | 74 | |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 13 | Quartz |
| 3 | Feldspars |
| 61 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 9 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 4 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 3 | Calcareous Nanno plankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 3 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2. P.E.L. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 42 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------------------------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| <input checked="" type="checkbox"/> | | | | | | | | 1 | 15 | 84 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 13 | Quartz |
| 3 | Feldspars |
| 34 | Clay minerals |
| Lithic Grains | |
| | Sedimentary Lithics |
| | Chert |
| 15 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 6 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microclite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 8 | Calcareous Nannoplankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 6 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 10 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2. DEC. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 44 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 10 | 90 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 15 | Quartz |
| 3 | Feldspars |
| 45 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 15 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 5 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 5 | Calcareous Nano Plankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 2 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 2 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2. DEC. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 48 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 10 | 90 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 3 | Feldspars |
| 53 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 7 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microplitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 5 | calcareous Nano plankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| 1 | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2-DEC-2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 52 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 10 | 90 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 3 | Feldspars |
| 60 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 1 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 5 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| 1 | Sponge Spicule |
| 3 | Calcareous Nano Plankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 2 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2 DEC. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 59 Sect.: SMW

Interval:

Sediment Name: Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | 1 | 15 | 84 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 3 | Feldspars |
| 41 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 15 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 5 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microplitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| 1 | Sponge Spicule |
| 15 | Calcareous Nano plankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chlorite Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2 DEC 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 61 Sect.: SMW Interval:

Sediment Name:

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | | | | | 25 | 25 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 3 | Feldspars |
| 60 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 5 | Calcareous Amorphous |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Pyroxene

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2 DEC 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 63 Sect.: SMW Interval:

Sediment Name: Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 10 | 90 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 5 | Quartz |
| 2 | Feldspars |
| 23 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 6 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microplitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 4 | Calcareous Nano Plankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| 1 | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2 DEC. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 65 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | | | | | 10 | 90 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 5 | Quartz |
| 1 | Feldspars |
| 91 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 5 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 3 | calcareous Nano Plankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 8 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2 DEC, 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 60 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | 10 | 90 | |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 7 | Quartz |
| 2 | Feldspars |
| 63 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 7 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 10 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 1 | Calcareous Nano plankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 3 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2 DEC 2013

Expedition: 348

Observer: KY

Site: C0002

Hole: N

Core: 69

Sept.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 10 | 90 |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 5 | Quartz |
| 2 | Feldspars |
| 20 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 5 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 7 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 2 | Calcareous Nano Plankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2 DEC. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 21 Sect.: SMW Interval:

Sediment Name:

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | 15 | 85 | |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 15 | Quartz |
| 2 | Feldspars |
| 22 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 7 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 5 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 30 | Calcareous Nano plankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| 10 | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2-DEC-2013

Expedition: 348

Observer: KY

Site: C000 Hole: N Core: 33 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 15 | 85 |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 3 | Feldspars |
| 69 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 1 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 5 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microclitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 1 | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 3 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2 DEC 2013

Expedition: 348

Observer: KX

Site: C0002 Hole: N Core: 81 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 15 | 85 |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 8 | Quartz |
| 2 | Feldspars |
| 60 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 5 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 5 | Calcareous Nannoplankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| 10 | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 2 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: biotite Muscovite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2-DEC-2010

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 83 Sect.: SMW

Interval:

Sediment Name: silty clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | 25 | 25 | |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 12 | Quartz |
| 2 | Feldspars |
| 41 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 5 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 7 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 3 | Calcareous Nanoplankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| 10. | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 10 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2-DEC-2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 85 Sect.: SMW

Interval:

Sediment Name: silty clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 25 | 25 |

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 2 | Feldspars |
| 56 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 5 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| / | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 5 | Calcareous Nano plankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| 10 | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| / | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| / | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Biotite chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2-DEC. 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 80 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | 20 | 80 | |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 3 | Feldspars |
| 4 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| 7 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microclite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| 1 | Sponge Spicule |
| 3 | Calcareous Nano Plankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| 15 | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Chlorite, Pyroxene

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2-DEC-2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 89 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 20 | 80 |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 8 | Quartz |
| 2 | Feldspars |
| 58 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 15 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| 5 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 3 | Calcareous Nano plankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| 10 | Carbonate mud (apart from nanos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| / | Dense minerals ¹ |
| / | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| / | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2-DEC-2013

Expedition: 348

Observer: KY

Site: C0002

Hole: N

Core: 91

Sect.: SMW

Interval:

Sediment Name:

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | | | | | 20 | 80 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 2 | Feldspars |
| 54 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 3 | Calcareous Nano Plancton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| 10 | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 3 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2 DEC 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 93 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 15 | 85 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 13 | Quartz |
| 2 | Feldspars |
| 47 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 6 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microplitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 3 | Calcareous Nanoplankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| 10 | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glaucanite |
| | Phosphate (bones, teeth, etc) |
| 1 | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2 DEC, 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 95 Sect.: SMW

Interval:

Sediment Name:

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 15 | 85 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 2 | Feldspars |
| 14 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 5 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 3 | Calcareous Nano plankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| 10 | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 3 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| 1 | Opaque Grain |
| | Marine organic matter |
| 6 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Biotite, Chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2 DEC. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 99 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 20 | 80 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 17 | Quartz |
| 3 | Feldspars |
| 16 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 5 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| 8 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microplitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| 5 | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| 1 | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 2 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: BIOTITE

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2 DEC. 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 99 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 10 | 90 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 3 | Feldspars |
| 59 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 3 | Diatom |
| | Radiolarian |
| 1 | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| 3 | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Biotite, Chlonite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2 DEC 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 105 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| V | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 15 | 85 |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 15 | Quartz |
| 3 | Feldspars |
| 60 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 7 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| 1 | Sponge Spicule |
| 1 | Calcareous Nano plankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| 3 | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 3 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Pyroxene, chlorite, Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2-DEC-2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 101 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 10 | 90 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 12 | Quartz |
| 2 | Feldspars |
| 70 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 7 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| 1 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| + | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Pyroxene

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2 DEC 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 115 Sect.: SMW Interval:

Sediment Name: Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| V | | | | | | | | | 15 | 85 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 15 | Quartz |
| 2 | Feldspars |
| 61 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nanos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Pyroxene, Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2 DEC. 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 11D Sect.: SMW Interval:

Sediment Name: Silty clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| V | | | | | | | | 5 | 30 | 65 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 35 | Quartz |
| 3 | Feldspars |
| 36 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| 5 | Chert |
| | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 10 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nanos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| 1 | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chlorite, Biotite, Amphibole

* This form is not designed for shallow water (neritic) carbonate sediments

29 50
35

Sediment Smear Slide / Thin Section Description Sheet

Date: 2-DEC-2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 119 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 20 | 80 |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 15 | Quartz |
| 3 | Feldspars |
| 59 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| 3 | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 3 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Chlorite, Amphibole

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 2-DEC, 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 121 Sect.: SMW Interval:

Sediment Name: Silty clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 25 | 75 |

Select one and check. Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 3 | Feldspars |
| 65 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| 1 | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible Fill percentage (Total must be 100).

Remarks: Chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3. DEC. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 123 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 15 | 85 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 5 | Quartz |
| 2 | Feldspars |
| 80 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| 1 | Calcareous Nanoplankton |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Chlorite, Pyroxene, Amphibole, Biotite, Muscovite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3. DEC. 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 125 Sect.: SMW Interval:

Sediment Name: Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 15 | 85 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 7 | Quartz |
| 3 | Feldspars |
| 62 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 15 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 2 | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Chlorite, Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 8 DEC 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 128 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| V | | | | | | | | | 20 | 80 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 2 | Feldspars |
| 71 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 7 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nanos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| 1 | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 4 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| | Pyrite (framboids) |
| | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3 DEC 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 130 Sect.: SUW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 20 | 80 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 3 | Feldspars |
| 69 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 2 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| | Pyrite (framboids) |
| | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole, Biotite, Chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 8 DEC. 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 132 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | 10 | 90 | |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 3 | Feldspars |
| 15 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 7 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| | Pyrite (framboids) |
| | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chl.

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3 DEC 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 134 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | 20 | 80 | |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 2 | Feldspars |
| 64 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 13 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| 1 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microclite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 1 | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Sillicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| | Micas (biotite, musc, chl) ¹ |
| 1 | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole, Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3 DEC. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 136 Sect.: SMW

Interval:

Sediment Name: Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 15 | 85 |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 3 | Feldspars |
| 69 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 6 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microclite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Chl., Amphibole

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3 DEC 2013

Expedition: 349 Observer: KF

Site: C0002 Hole: N Core: 138 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 10 | 90 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 3 | Feldspars |
| 62 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 5 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 9 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chl., Amphibole, Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3 DEC 2013

Expedition: 348 Observer: KY

Site: 0002 Hole: N Core: 140 Sect.: SMW Interval:

Sediment Name: Silty clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 25 | 75 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 3 | Feldspars |
| 66 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlic |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nanos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 4 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chl.

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3 DEC 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 142 Sect.: SMW Interval:

Sediment Name: Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 20 | 80 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 3 | Feldspars |
| 67 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 4 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nanos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 2 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole, Chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3 DEC 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 154 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | 20 | 80 | |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 2 | Feldspars |
| 62 | Clay minerals |
| Lithic Grains | |
| | Sedimentary Lithics |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microclitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| 1 | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| 1 | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 1 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chlorite, pyroxene, Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 8 DEC 2013

Expedition: 348

Observer: KK

Site: C0002 Hole: N Core: 156 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | 15 | 85 | |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 18 | Quartz |
| 6 | Feldspars |
| 53 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 6 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microinite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3 Dec. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 158 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 15 | 85 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 15 | Quartz |
| 5 | Feldspars |
| 58 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 4 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chl. Muscovite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3 DEC 2009

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 162 Sect.: SMW

Interval:

Sediment Name: Silty clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------------------------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| <input checked="" type="checkbox"/> | | | | | | | | | 25 | 75 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 13 | Quartz |
| 3 | Feldspars |
| 60 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 5 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| | Clear glass |
| | Colored glass |
| 1 | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microclite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| 1 | Glaucinite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 1 | Calcite |
| 5 | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole, Chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 8 DEC 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 166 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | 20 | 80 | |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 17 | Quartz |
| 4 | Feldspars |
| 52 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 15 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chl. Amphibole.

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3 DEC 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 115 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------------------------------|--------------|-----------------|-------------|
| <input checked="" type="checkbox"/> | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 15 | 85 |

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 12 | Quartz |
| 3 | Feldspars |
| 60 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 2 | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| 1 | Glaucconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 1 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Biotite, Amphibole

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3 DEC 12

Expedition: 348 Observer: KV

Site: C0002 Hole: N Core: 111 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 20 | 80 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 13 | Quartz |
| 3 | Feldspars |
| 60 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 1 | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 1 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole, Chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3-DEC-2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 182 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 20 | 80 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 5 | Feldspars |
| 66 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 5 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| 1 | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| / | Dense minerals ¹ |
| / | Micas (biotite, musc, chl) ¹ |
| / | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| / | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 1 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chlorite, Amphibole, Biotite, Hyperthene.

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3 DEC. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 184 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | 10 | 90 | |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 8 | Quartz |
| 2 | Feldspars |
| 14 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 1 | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 3 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Chlorite, Amphibole, Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3. DEC. 2013

Expedition: 348

Observer: IKY

Site: C0002 Hole: N Core: 186 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 20 | 80 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 7 | Quartz |
| 2 | Feldspars |
| 65 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 15 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 2 | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| / | Dense minerals ¹ |
| / | Micas (biotite, musc, chl) ¹ |
| / | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 4 | Pyrite (framboids) |
| / | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| / | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chl. Amphibole, tourmaline

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3 DEC. 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 188 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 20 | 80 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 7 | Quartz |
| 3 | Feldspars |
| 72 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 5 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 1 | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 4 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 1 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Hyperthene, Amphibole, Biotite, chlorite, Pyroxene

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3 Dec 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 190 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 15 | 85 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 3 | Feldspars |
| 67 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| 5 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| 1 | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| (| Micas (biotite, musc, chl) ¹ |
| 1 | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 3 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chl. Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3 Dec 2013

Expedition: 348 Observer: KX

Site: C0002 Hole: N Core: 192 Sect.: SMW Interval:

Sediment Name: Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | 8 | 92 | |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 8 | Quartz |
| 2 | Feldspars |
| 68 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 7 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 2 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nanos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 2 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| 1 | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 5 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 2 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole. Chlorite. Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 4 Dec. 2013

Expedition: 348

Observer: KY

Site: C0002

Hole: N

Core: 197

Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 10 | 90 |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 8 | Quartz |
| 2 | Feldspars |
| 10 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 5 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| 3 | Clear glass |
| | Colored glass |
| 1 | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 7 | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| 1 | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 2 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 2 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole, Chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 4 Dec 2013

Expedition: 348

Observer: KY

Site: C0002

Hole: N

Core: 199

Sect.: SMW

Interval:

Sediment Name: Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 13 | 87 |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 6 | Quartz |
| 2 | Feldspars |
| 69 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 12 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| 1 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microclite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 1 | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 2 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 2 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole, Biotite, Chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 4 Dec. 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 203 Sect.: SMW Interval:

Sediment Name: Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | 18 | 82 | |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 8 | Quartz |
| 3 | Feldspars |
| 64 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 12 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 2 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 2 | Dense minerals ¹ |
| 2 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 2 | Pyrite (framboids) |
| 3 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chlorite, Amphibole, Pyroxene

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 4 Dec. 2013

Expedition: 348

Observer: KY

Site: 0002 Hole: N Core: 205 Sect.: SUW

Interval:

Sediment Name: Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 18 | 82 |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 7 | Quartz |
| 2 | Feldspars |
| 65 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 12 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| 2 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlitic |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 2 | Dense minerals ¹ |
| 2 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 2 | Pyrite (framboids) |
| 3 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 2 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Chlorite Amphibole Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 4 Dec. 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 209 Sect.: SWW Interval:

Sediment Name: Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 13 | 87 |

Select one and check. Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 5 | Quartz |
| 1 | Feldspars |
| 75 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 7 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 2 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 1 | Nannofossils |
| | Foraminifers |
| | Siliceous |
| 1 | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| 1 | Glaucanite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 1 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 2 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible Fill percentage (Total must be 100).

Remarks: Chlorite, Amphibole, Hypersthene

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 4 Dec. 2013

Expedition: 348

Observer: KF

Site: C0002

Hole: N

Core: 211

Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 14 | 86 |

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 6 | Quartz |
| 2 | Feldspars |
| 61 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 1 | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 2 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 2 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 2 | Pyrite (framboids) |
| 3 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 1 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole, chlorite, Hypersthene

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 4 Dec. 2013

Expedition: 348.

Observer: KF

Site: C0002 Hole: N Core: 216 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 16. | 84 |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 2 | Feldspars |
| 60 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 7 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microclite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 1 | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 2 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 2 | Pyrite (framboids) |
| 3 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 1 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Biotite, Amphibole, Chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 4. Dec. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 220 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 13 | 87 |

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 6 | Quartz |
| 2 | Feldspars |
| 75 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| rare | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 2 | Micas (biotite, musc, chl) ¹ |
| | Glaucanite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 2 | Pyrite (framboids) |
| 3 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 1 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chlorite, Amphibole

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 4 Dec. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 222 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 18 | 82 |

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 8 | Quartz |
| 2 | Feldspars |
| 76 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 7 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlic |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| / | Micas (biotite, musc, chl) ¹ |
| / | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| / | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| | Pyrite (framboids) |
| | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| / | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole, chlorite.

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 4 Dec. 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 234 Sect.: SMW Interval:

Sediment Name: Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 13 | 87 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 5 | Quartz |
| 2 | Feldspars |
| 73 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 7 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| 1 | Microlite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 2 | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| 1 | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 1 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 1 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chlorite, Muscovite.

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 5 Dec. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 239 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 15 | 85 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 1 | Feldspars |
| 69 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| 1 | Microlite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 2 | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 2 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 1 | Pyrite (framboids) |
| 4 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Biotite, Chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 4 Dec. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 241 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 10 | 90 |

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 7 | Quartz |
| 2 | Feldspars |
| 10 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 13 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| 1 | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 2 | Pyrite (framboids) |
| 3 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 1 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chl or zte

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 4 Dec. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 248 Sect.: SMW

Interval: _____

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 10 | 90 |

Select one and check.

Select one and check.

| Percent | Composition | Percent | Composition | Percent | Composition |
|--|------------------------------|----------------------------------|---|------------------------------|---|
| Major Siliciclastic Grain Types | | Pelagic Grains | | Minor Grain Types | |
| 7 | Quartz | | Calcareous | | Dense minerals ¹ |
| 2 | Feldspars | | Nannofossils | 1 | Micas (biotite, musc, chl) ¹ |
| 76 | Clay minerals | | Foraminifers | | Glaucinite |
| | | | Siliceous | | Phosphate (bones, teeth, etc) |
| Lithic Grains | | | Diatom | | Opaque Grain |
| | Sedimentary Lithics | | Radiolarian | | Marine organic matter |
| | Chert | | Silicoflagellate | | Terrestrial organic matter |
| 10 | Mudstone | | Sponge Spicule | | Other (specify): |
| | Siltstone/sandstone | Other bioclasts | | | |
| | Limestone | | Mollusk | Authigenic components | |
| | Metamorphic lithic | | Algae | 2 | Pyrite (framboids) |
| | Plutonic lithic | | Echinoderm | 1 | Pyrite (euhedral) |
| | | | Benthic foraminifer | | Pyrite (grain coating) |
| | | | Other bioclast (specify) | 1 | Calcite |
| Volcaniclastic Grains | | Other carbonate allochems | | | Dolomite |
| | Vitric fragments | | Peloid | | Zeolites |
| | Clear glass | | Intraclast | | Fe/Mn oxide |
| | Colored glass | | Ooid | | Other (specify): |
| | Pumice | | Silt or sand-size carbonate allochem fragment (unspecified) | | |
| | Volcanic lithics | | Carbonate mud (apart from nannos) | | |
| | Felsitic | | | | |
| | Microlite | | | | |
| | Lathwork | | | | |
| | Altered volcanic(palagonite) | | | | |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Muscovite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 4. DEC. 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 268 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | 15 | 85 | |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 5 | Quartz |
| 1 | Feldspars |
| 72 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| | Micas (biotite, musc, chl) ¹ |
| 1 | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 4 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 2 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 4 Dec 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 290 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------------------------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| <input checked="" type="checkbox"/> | | | | | | | | | 15 | 85 |

Select one and check.

Select one and check.

| Percent | Composition | Percent | Composition | Percent | Composition |
|--|------------------------------|----------------------------------|---|------------------------------|---|
| Major Siliciclastic Grain Types | | Pelagic Grains | | Minor Grain Types | |
| 5 | Quartz | | Calcareous | | Dense minerals ¹ |
| 1 | Feldspars | | Nannofossils | 1 | Micas (biotite, musc, chl) ¹ |
| 70 | Clay minerals | | Foraminifers | | Glaucanite |
| | | | Siliceous | | Phosphate (bones, teeth, etc) |
| Lithic Grains | | | Diatom | | Opaque Grain |
| | Sedimentary Lithics | | Radiolarian | | Marine organic matter |
| | Chert | | Silicoflagellate | | Terrestrial organic matter |
| 10 | Mudstone | | Sponge Spicule | | Other (specify): |
| | Siltstone/sandstone | Other bioclasts | | | |
| | Limestone | | Mollusk | Authigenic components | |
| | Metamorphic lithic | | Algae | 5 | Pyrite (framboids) |
| | Plutonic lithic | | Echinoderm | 4 | Pyrite (euhedral) |
| | | | Benthic foraminifer | | Pyrite (grain coating) |
| | | | Other bioclast (specify) | 2 | Calcite |
| Volcaniclastic Grains | | Other carbonate allochems | | | Dolomite |
| | Vitric fragments | | Peloid | | Zeolites |
| 2 | Clear glass | | Intraclast | | Fe/Mn oxide |
| | Colored glass | | Ooid | | Other (specify): |
| | Pumice | | Silt or sand-size carbonate allochem fragment (unspecified) | | |
| | Volcanic lithics | | Carbonate mud (apart from nannos) | | |
| | Felsitic | | | | |
| | Microlitic | | | | |
| | Lathwork | | | | |
| | Altered volcanic(palagonite) | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Biomite, chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 4 Dec. 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 202 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | 15 | 85 | |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 8 | Quartz |
| 1 | Feldspars |
| 87 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 3 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 3 | Pyrite (framboids) |
| 1 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole, Chlorite, Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 4 Dec. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 274 Sect.: SMW

Interval: _____

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 23 | 77 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 8 | Quartz |
| 2 | Feldspars |
| 72 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 8 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 1 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microclite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 1 | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 2 | Pyrite (framboids) |
| 3 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 1 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole, Chlorite.

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 5 Dec. 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 206 Sect.: SMW Interval:

Sediment Name: Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 13 | 87 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 2 | Feldspars |
| 65 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 15 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| 1 | Microlite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| 1 | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 1 | Pyrite (framboids) |
| 4 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Chlorite, Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 5 Dec. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 278 Sect.: SMW Interval:

Sediment Name: Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 7 | 93 |

Select one and check.

Select one and check.

| Percent | Composition | Percent | Composition | Percent | Composition |
|--|------------------------------|----------------------------------|---|------------------------------|---|
| Major Siliciclastic Grain Types | | Pelagic Grains | | Minor Grain Types | |
| 5 | Quartz | | Calcareous | 2 | Dense minerals ¹ |
| 2 | Feldspars | | Nannofossils | 2 | Micas (biotite, musc, chl) ¹ |
| 69 | Clay minerals | | Foraminifers | | Glaucanite |
| | | | Siliceous | | Phosphate (bones, teeth, etc) |
| Lithic Grains | | | Diatom | | Opaque Grain |
| | Sedimentary Lithics | 1 | Radiolarian | | Marine organic matter |
| | Chert | | Silicoflagellate | 1 | Terrestrial organic matter |
| 10 | Mudstone | | Sponge Spicule | | Other (specify): |
| | Siltstone/sandstone | Other bioclasts | | | |
| | Limestone | | Mollusk | Authigenic components | |
| | Metamorphic lithic | | Algae | 2 | Pyrite (framboids) |
| | Plutonic lithic | | Echinoderm | 3 | Pyrite (euhedral) |
| | | | Benthic foraminifer | | Pyrite (grain coating) |
| | | | Other bioclast (specify) | | Calcite |
| Volcaniclastic Grains | | | | | Dolomite |
| | Vitric fragments | Other carbonate allochems | | | Zeolites |
| 3 | Clear glass | | Peloid | | Fe/Mn oxide |
| | Colored glass | | Intraclast | | Other (specify): |
| | Pumice | | Ooid | | |
| | Volcanic lithics | | Silt or sand-size carbonate allochem fragment (unspecified) | | |
| | Felsitic | | Carbonate mud (apart from nannos) | | |
| | Microlitic | | | | |
| | Lathwork | | | | |
| | Altered volcanic(palagonite) | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Chlorite, Biotite, Amphibole

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 5 Dec 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: IV Core: 283 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 14 | 86 |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 13 | Quartz |
| 2 | Feldspars |
| 59 | Clay minerals |
| Lithic Grains | |
| | Sedimentary Lithics |
| | Chert |
| 13 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| 2 | Microlite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 2 | Dense minerals ¹ |
| 2 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 1 | Pyrite (framboids) |
| 4 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| 1 | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chlorite, biotite, hypersthene, amphibole

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 5 Dec 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 285 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|-----------|-----------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| <u>✓</u> | | | | | | | | | <u>10</u> | <u>90</u> |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| <u>10</u> | Quartz |
| <u>2</u> | Feldspars |
| <u>10</u> | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| <u>10</u> | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microclite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| <u>2</u> | Dense minerals ¹ |
| <u>2</u> | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| <u>1</u> | Pyrite (framboids) |
| <u>3</u> | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole, Chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 5-Dec-2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 287 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 10 | 90 |

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 6 | Quartz |
| 1 | Feldspars |
| 14 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 5 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microclite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| 1 | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 2 | Dense minerals ¹ |
| 2 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 2 | Pyrite (framboids) |
| 4 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 1 | Calcite |
| | Dolomite |
| | Zeolites |
| 1 | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole, Chlorite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 3-Dec-2013

Expedition: 348

Observer: KY

Site: 0002

Hole: N

Core: 289

Sect.: SMD

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 13 | 89 |

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 7 | Quartz |
| 2 | Feldspars |
| 90 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| 1 | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 0 | Dense minerals ¹ |
| 2 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 1 | Pyrite (framboids) |
| 3 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| 1 | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chlorite, Biotite, Amphibole, Hypersthene

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 5-Dec-2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 296 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 13 | 87 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 7 | Quartz |
| 2 | Feldspars |
| 68 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| 1 | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| | Micas (biotite, musc, chl) ¹ |
| 1 | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 2 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 2 | Pyrite (framboids) |
| 3 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 4 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: biotite, Chlorite, Amphibole

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 5 Dec 2013

Expedition: 348

Observer: K5

Site: C0002 Hole: N Core: 298 Sect.: SMW

Interval: _____

Sediment Name: Silty clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 30 | 70 |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 20 | Quartz |
| | Feldspars |
| 50 | Clay minerals |
| Lithic Grains | |
| | Sedimentary Lithics |
| | Chert |
| 15 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 2 | Dense minerals ¹ |
| 2 | Micas (biotite, musc, chl) ¹ |
| 1 | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 3 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 1 | Pyrite (framboids) |
| 2 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| 4 | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Chlorite, Amphibole

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 5 Dec. 2013

Expedition: 348 Observer: KY

Site: C0002 Hole: N Core: 300 Sect.: SMW Interval:

Sediment Name: Clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 12 | 88 |

Select one and check.

Select one and check.

| Percent | Composition | Percent | Composition | Percent | Composition |
|--|-------------------------------|----------------------------------|---|------------------------------|---|
| Major Siliciclastic Grain Types | | Pelagic Grains | | Minor Grain Types | |
| 10 | Quartz | | Calcareous | 2 | Dense minerals ¹ |
| 2 | Feldspars | | Nannofossils | 2 | Micas (biotite, musc, chl) ¹ |
| 62 | Clay minerals | | Foraminifers | | Glauconite |
| | | | Siliceous | | Phosphate (bones, teeth, etc) |
| Lithic Grains | | | Diatom | | Opaque Grain |
| | Sedimentary Lithics | | Radiolarian | | Marine organic matter |
| | Chert | | Silicoflagellate | 2 | Terrestrial organic matter |
| 10 | Mudstone | | Sponge Spicule | | Other (specify): |
| | Siltstone/sandstone | | | | |
| | Limestone | Other bioclasts | | Authigenic components | |
| | Metamorphic lithic | | Mollusk | 1 | Pyrite (framboids) |
| | Plutonic lithic | | Algae | 3 | Pyrite (euhedral) |
| | | | Echinoderm | | Pyrite (grain coating) |
| | | | Benthic foraminifer | 3 | Calcite |
| | | | Other bioclast (specify) | | Dolomite |
| Volcaniclastic Grains | | Other carbonate allochems | | | Zeolites |
| | Vitric fragments | | Peloid | | Fe/Mn oxide |
| 3 | Clear glass | | Intraclast | | Other (specify): |
| | Colored glass | | Ooid | | |
| | Pumice | | Silt or sand-size carbonate allochem fragment (unspecified) | | |
| | Volcanic lithics | | Carbonate mud (apart from nannos) | | |
| | Felsitic | | | | |
| | Microlite | | | | |
| | Lathwork | | | | |
| | Altered volcanic (palagonite) | | | | |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 5 Dec 2013

Expedition: 348

Observer: KF

Site: L0002 Hole: N Core: 306 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | | 15 | 85 |

Select one and check.

| Percent | Composition |
|--|-------------------------------|
| Major Siliciclastic Grain Types | |
| 20 | Quartz |
| 3 | Feldspars |
| 77 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 5 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microclite |
| | Lathwork |
| | Altered volcanic (palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| / | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| / | Dense minerals ¹ |
| | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| / | Pyrite (framboids) |
| / | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| / | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 5-Dec-2013

Expedition: 348

Observer: KY

Site: C0002

Hole: N

Core: 308

Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 10 | 90 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 3 | Feldspars |
| 72 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nanos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 1 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 1 | Pyrite (framboids) |
| 3 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chlorite, Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 5 Dec 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 318 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount |
|-------------|--------------|-----------------|-------------|
| ✓ | | | |

Select one and check.

| Granular Sediment | | | Other material | Percent Texture | | |
|-------------------|----------------|---------|----------------|-----------------|------|------|
| Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| | | | | 8 | 92 | |

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 5 | Quartz |
| 1 | Feldspars |
| 75 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 10 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microclitic |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 2 | Dense minerals ¹ |
| 2 | Micas (biotite, musc, chl) ¹ |
| | Glaucanite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 1 | Pyrite (framboids) |
| 4 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: chlorite, Amphibole, Biotite

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 5. Dec. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 323 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 7 | 93 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 7 | Quartz |
| 2 | Feldspars |
| 65 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 6 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| Vitric fragments | |
| | Clear glass |
| | Colored glass |
| | Pumice |
| Volcanic lithics | |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 2 | Dense minerals ¹ |
| 2 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 1 | Pyrite (framboids) |
| 4 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 5 Dec. 2013

Expedition: 348 Observer: KY

Site: COOS2 Hole: N Core: 325 Sect.: SMW Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 5 | 95 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 10 | Quartz |
| 2 | Feldspars |
| 73 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| | Chert |
| 8 | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nanos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| | Dense minerals ¹ |
| 2 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 1 | Pyrite (framboids) |
| 4 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Chlorite, Biotite, Amphibole

* This form is not designed for shallow water (neritic) carbonate sediments

Sediment Smear Slide / Thin Section Description Sheet

Date: 5 Dec. 2013

Expedition: 348

Observer: KY

Site: C0002 Hole: N Core: 329 Sect.: SMW

Interval:

Sediment Name: clay

| Smear Slide | Thin Section | Coarse Fraction | Grain Mount | Granular Sediment | | | Other material | Percent Texture | | |
|-------------|--------------|-----------------|-------------|-------------------|----------------|---------|----------------|-----------------|------|------|
| | | | | Siliciclastic | Volcaniclastic | Pelagic | | Sand | Silt | Clay |
| ✓ | | | | | | | | | 10 | 90 |

Select one and check.

Select one and check.

| Percent | Composition |
|--|------------------------------|
| Major Siliciclastic Grain Types | |
| 5 | Quartz |
| 1 | Feldspars |
| 72 | Clay minerals |
| Lithic Grains | |
| Sedimentary Lithics | |
| 10 | Chert |
| | Mudstone |
| | Siltstone/sandstone |
| | Limestone |
| | Metamorphic lithic |
| | Plutonic lithic |
| Volcaniclastic Grains | |
| | Vitric fragments |
| | Clear glass |
| | Colored glass |
| | Pumice |
| | Volcanic lithics |
| | Felsitic |
| | Microlite |
| | Lathwork |
| | Altered volcanic(palagonite) |

| Percent | Composition |
|----------------------------------|---|
| Pelagic Grains | |
| | Calcareous |
| | Nannofossils |
| | Foraminifers |
| | Siliceous |
| | Diatom |
| | Radiolarian |
| | Silicoflagellate |
| | Sponge Spicule |
| Other bioclasts | |
| | Mollusk |
| | Algae |
| | Echinoderm |
| | Benthic foraminifer |
| | Other bioclast (specify) |
| Other carbonate allochems | |
| | Peloid |
| | Intraclast |
| | Ooid |
| | Silt or sand-size carbonate allochem fragment (unspecified) |
| | Carbonate mud (apart from nannos) |

| Percent | Composition |
|------------------------------|---|
| Minor Grain Types | |
| 2 | Dense minerals ¹ |
| 2 | Micas (biotite, musc, chl) ¹ |
| | Glauconite |
| | Phosphate (bones, teeth, etc) |
| | Opaque Grain |
| | Marine organic matter |
| 1 | Terrestrial organic matter |
| | Other (specify): |
| Authigenic components | |
| 2 | Pyrite (framboids) |
| 5 | Pyrite (euhedral) |
| | Pyrite (grain coating) |
| | Calcite |
| | Dolomite |
| | Zeolites |
| | Fe/Mn oxide |
| | Other (specify): |

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Amphibole, Hypersthene, Biotite, Chlorite

* This form is not designed for shallow water (neritic) carbonate sediments