

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/25/2016

Expedition: 362

Observer: KLM

Site: U1481

Hole: A

Core: —

Sect.: —

Interval: "131" PAL

Sediment Name: clayey silt - but a drilling mixed material

Smear Slide	Thin Section	Coarse Fraction	Grain Mount

Select one and check.

Granular Sediment		
Siliciclastic	Volcaniclastic	Pelagic
<u>100</u>		

Select one and check.

Other material	Percent Texture		
	Sand	Silt	Clay
	<u>5</u>	<u>60</u>	<u>35</u>

Percent	Composition
	Major Siliciclastic Grain Types
<u>40</u>	Quartz
<u>30</u>	Feldspars
<u>20</u>	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
<u>5</u>	Metamorphic lithic
	Plutonic lithic
<u>5</u>	<u>carb. monocrystals</u>
	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	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)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: a few carb. monocrystals are euhedral - ?

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

miner

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/25/2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A Core: 2R Sect.: 2

Interval: 92

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
<u>100</u>					<u>30</u>	<u>70</u>

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
<u>20</u>	Quartz
<u>10</u>	Feldspars
<u>68</u>	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
	Microelite
	Lathwork
	Altered volcanic (palagonite)

Percent	Composition
	Pelagic Grains
	Calcareous
	Nannofossils
	Foraminifers
	Siliceous
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	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
<u>1</u>	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
<u>1</u>	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: greenish mud - did not fully disaggregate, some intact pieces

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

M. word

Sediment Smear Slide / Thin Section Description Sheet

Date: ²⁶ 9/25/2016

Expedition: 362

Observer: KLM FA10

Site: U1480

Hole: A

Core: 3R

Sect.: 1A

Interval: 111

Sediment Name: clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
X			

Select one and check.

Granular Sediment			Other material	Percent Texture		
Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
100				3	97	

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
18	Quartz
9	Feldspars
71	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
	Microplitic
	Lathwork
	Altered volcanic (palagonite)

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

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

Brownish mud - traces of organic matter.

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

Sediment Smear Slide / Thin Section Description Sheet

Date: ²⁶ 9/ /2016

Expedition: 362

Observer: *Loriel*

Site: U1480 Hole: *A* Core: *6R* Sect.: *2A*

Interval: *24*

Sediment Name: *very fine sand (clay to medium sand)*

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
<input checked="" type="checkbox"/>				<i>100</i>				<i>23</i>	<i>70</i>	<i>5</i>

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
<i>50</i>	Quartz
<i>30</i>	Feldspars
<i>2</i>	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
<i>5</i>	Metamorphic lithic
	Plutonic lithic
<i>5</i>	<i>carbonate crystals</i>
	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
<i>2</i>	Carbonate mud (apart from nannos)

Percent	Composition
	Minor Grain Types
<i>1</i>	Dense minerals ¹
	Micas (biotite, musc, chl)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
<i>1</i>	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
<i>1</i>	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

minor photo of carb

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/26/2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A

Core: 11R Sect.: 2

Interval: 75

Sediment Name: silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				95	5	

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
55	Quartz
24	Feldspars
	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
5	Carbonate mud (apart from nannos)

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: auth carb (euhedra?) in form of 2-3 um crystals - hi relief - ? siderite?

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

↓
+ also microspherules

✱

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/27/2016

Expedition: 362

Observer: Koval

Site: U1481 Hole: A Core: 13A Sect.: 1A

Interval: 36

Sediment Name: very fine sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X				100				50	47	3

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
50	Quartz
25	Feldspars
	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
3	Metamorphic lithic
	Plutonic lithic
4	Carbonate crystals
	Volcaniclastic Grains
1	Vitric fragments
	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
3	Carbonate mud (apart from nannos)

Percent	Composition
	Minor Grain Types
	Dense minerals ¹
2	Micas (biotite, musc, chl)
	Glauconite
	Phosphate (bones, teeth, etc)
6	Opaque Grain
4	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
8	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: 27 9/ /2016

Expedition: 362

Observer:

Site: U1481 Hole: A

Core: 15R Sect.: 2A

Interval: 32

Sediment Name: Silt with sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				10	90	

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
50	Quartz
37	Feldspars
	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
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	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)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
1	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
	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

Silt-size monocrystals

minor ✓

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/27/2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A Core: 16R Sect.: 3

Interval: 71

Sediment Name: clayey silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				60	40	

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
30	Quartz
20	Feldspars
40	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
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
16	Carbonate mud (apart from nannos)

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: lighter mud - bioturbated

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

silt-size,
mostly

Minor ✓

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/27/2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A Core: 16R Sect.: 6

Interval: 52

Sediment Name: sandy silty clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				10	90	60

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
30	Quartz
17	Feldspars
50	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
1	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
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
1	Carbonate mud (apart from nannos)

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: did not fully disaggregate - green mud

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

major ✓

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/27/2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A Core: 17R Sect.: 2

Interval: 32

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100					30	70

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
20	Quartz
15	Feldspars
58	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
tr	Nannofossils
	Foraminifers
	Siliceous
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
5	Carbonate mud (apart from nannos)

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: darker mud

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

Major

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/27/2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A Core: 19R Sect.: 1

Interval: 10

Sediment Name: silt + clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				25	75	

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
20	Quartz
10	Feldspars
64	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
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
5	Carbonate mud (apart from nannos)

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: gray mud

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

major ✓

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/27/2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A Core: 19R Sect.: 4

Interval: 55

Sediment Name: sandy silt w/ clay (very fine sand with clay)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				30	55	15

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
41	Quartz
30	Feldspars
15	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
5	Metamorphic lithic
	Plutonic lithic
2	carb. monocrysts
	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	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)
	Glauconite
	Phosphate (bones, teeth, etc)
1	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
	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: minor auth. carb is 2-3 um euhedra

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

Sediment Smear Slide / Thin Section Description Sheet

M2509

Date: 9/26/2016

Expedition: 362

Observer: FAWD

Site: U1481 Hole: A Core: 20R Sect.: 1

Interval: 84

Sediment Name: very fine sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X					100			60	38	2

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
57	Quartz
32	Feldspars
	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
3	Metamorphic lithic
	Plutonic lithic
4	Carbonate crystals
	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
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
2	Carbonate mud (apart from nannos)

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Traces of dense mineral grains

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

major

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/28 /2016

Expedition: 362

Observer: Ferd

Site: U1481 Hole: A Core: 20R Sect.: 1A

Interval: 104

Sediment Name: clay with silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
									<u>30</u>	<u>80</u>

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
<u>18</u>	Quartz
<u>9</u>	Feldspars
<u>40</u>	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
<u>2</u>	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)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
<u>1</u>	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
	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

MASOL

Date: 9/28/2016

Expedition: 362

Observer: Ferr

Site: U1481 Hole: A Core: 21R Sect.: 2A

Interval: 117

Sediment Name: Very FINE SANDSTONE

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X				100				70	30	

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
61	Quartz
28	Feldspars
	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
2	Metamorphic lithic
2	Plutonic lithic
	<u>CARBONATE GLYCS</u>
	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
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
2	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nannos)

Percent	Composition
	Minor Grain Types
3	Dense minerals ¹
1	Micas (biotite, musc, chl)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
1	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
1	Pyrite (euhedra)
	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: 9/28/2016

Minor

Expedition: 362

Observer: FAUO

Site: U1481 Hole: A

Core: 22R Sect.: 3

Interval: 120

Sediment Name: silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X				100				100		

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
90	Quartz
39	Feldspars
	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
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
7	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)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
1	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
2	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: 9/20/2016

Expedition: 362

Observer: Fouid

Site: U1481 Hole: A Core: 23R Sect.: 2A

Interval: 85? was 82

Sediment Name: very fine sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X				100				85	10	5

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
52	Quartz
34	Feldspars
	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
2	Metamorphic lithic
	Plutonic lithic
1	Carbonate cists
	Volcaniclastic Grains
2	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
3	Silt or sand-size carbonate allochem fragment (unspecified)
1	Carbonate mud (apart from nannos)

Percent	Composition
	Minor Grain Types
1	Dense minerals ¹
1	Micas (biotite, musc, chl)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
2	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

majol

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/27/2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A Core: 24R Sect.: 2

Interval: 104

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100					25	75

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
20	Quartz
10	Feldspars
67	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
2	Carbonate mud (apart from nannos)

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: gray mud

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

silt-size

minor



Sediment Smear Slide / Thin Section Description Sheet

Date: 9/2/2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A Core: 24R Sect.: 3

Interval: 38

Sediment Name: silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				99	1			5	90	5

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
55	Quartz
33	Feldspars
5	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
3	Metamorphic lithic
	Plutonic lithic
	Volcaniclastic Grains
	Vitric fragments
1	Clear glass
tr	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
1	Carbonate mud (apart from nannos)

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: auth. n-carb on mica surfaces; glass uncertain

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/28/2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A Core: 24R Sect.: 5

Interval: 116

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				99	1			40	60	

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
30	Quartz
17	Feldspars
50	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
	Volcaniclastic Grains
	Vitric fragments
1	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
1	Carbonate mud (apart from nannos)

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: speckled gray mud

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/18/2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A Core: 24R Sect.: 6

Interval: 93

Sediment Name: clay w/ silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				99	1			10	90	

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
12	Quartz
8	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
	Microlite
	Lathwork
1	Altered volcanic (palagonite)

Percent	Composition
	Pelagic Grains
	Calcareous
	Nannofossils
	Foraminifers
	Siliceous
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	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)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: red mud

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

major



Sediment Smear Slide / Thin Section Description Sheet

Date: ⁰⁶²⁸ 9/ /2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A Core: 26R Sect.: 2

Interval: 15

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100					20	75

Select one and check.

Select one and check.

30 70

Percent	Composition
	Major Siliciclastic Grain Types
20	Quartz
15	Feldspars
65	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
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nannos)

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: green mud

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

minor



Sediment Smear Slide / Thin Section Description Sheet

Date: 9/28/2016

Expedition: 362

Observer: KLM

Site: U1481

Hole: A

Core: 262

Section: 2

Interval: 150

Sediment Name:

silty clay - calcite-cemented

Smear Slide	Thin Section	Coarse Fraction	Grain Mount

Select one and check.

Granular Sediment			Other material	Percent Texture		
Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
100				25	75	

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
20	Quartz
10	Feldspars
40	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	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)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
	Pyrite (grain coating)
30	Calcite <u>carb</u>
	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

minor

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/16/2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A Core: 26R Sect.: 4

Interval: 91

Sediment Name: silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100					100	

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
60	Quartz
30	Feldspars
	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
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
5	Carbonate mud (apart from nannos)

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: purple Zircon + formaline + rutite + apatite

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

Sediment Smear Slide / Thin Section Description Sheet

Date: ²⁸ 9/ 72016

Expedition: 362

Observer: FANID

Site: U1481 Hole: A Core: 27R Sect.: 1A

Interval: 30

Sediment Name: silt with clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X				100				80	10	

Select one and check.

Select one and check.

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

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: 28 9/ /2016

Expedition: 362

Observer: Foid

Site: U1481 Hole: A Core: 27R Sect.: 1A

Interval: 98

Sediment Name: Clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
<u>X</u>				<u>100</u>						<u>100</u>

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
<u>28</u>	Quartz		Calcareous		Dense minerals ¹
<u>10</u>	Feldspars		Nannofossils		Micas (biotite, musc, chl)
<u>62</u>	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom		Opaque Grain
	Chert		Radiolarian		Marine organic matter
	Mudstone		Silicoflagellate		Terrestrial organic matter
	Siltstone/sandstone		Sponge Spicule		Other (specify):
	Limestone		Other bioclasts		
	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)		Pyrite (grain coating)
	Volcaniclastic Grains				Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics				
	Felsitic				
	Microlitic				
	Lathwork		Silt or sand-size carbonate allochem fragment (unspecified)		
	Altered volcanic (palagonite)				
			Carbonate mud (apart from nanos)		

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: 29 / 9 / 2016

Expedition: 362

Observer: Fazio

Site: U1481 Hole: A Core: 29R Sect.: 1A Interval: 105

Sediment Name: Clay with silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
									<u>85</u>	<u>80</u>

Select one and check. Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
<u>30</u>	Quartz		Calcareous		Dense minerals ¹
<u>10</u>	Feldspars		Nannofossils		Micas (biotite, musc, chl)
<u>60</u>	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom		Opaque Grain
	Chert		Radiolarian		Marine organic matter
	Mudstone		Silicoflagellate		Terrestrial organic matter
	Siltstone/sandstone		Sponge Spicule		Other (specify):
	Limestone		Other bioclasts		
	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)		Pyrite (grain coating)
	Volcaniclastic Grains				Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics				
	Felsitic				
	Microlite		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)		Carbonate mud (apart from nannos)		

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

Remarks: white nodular oolites found to quartz concretions?

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

Minnon

Sediment Smear Slide / Thin Section Description Sheet

Date: 29 9/ /2016

Expedition: 362

Observer: Fazio

Site: U1481 Hole: A Core: 28R Sect.: 1A

Interval: 38

Sediment Name: Silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X				100				90	10	

Select one and check.

Select one and check.

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

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

Memo 1

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/7/2016

Expedition: 362

Observer: Farid

Site: U1481 Hole: A

Core: 2BR Sect.: 2A

Interval: 35

Sediment Name:

"tuffaceous" Silty clay with ...

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
X			

Select one and check.

Granular Sediment		
Siliciclastic	Volcaniclastic	Pelagic
58	2	0

Select one and check.

Other material	Percent Texture		
	Sand	Silt	Clay
		40	60

Percent	Composition
	Major Siliciclastic Grain Types
54	Quartz
56	Feldspars
2.8	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
	Volcaniclastic Grains
	Vitric fragments
2	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	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)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
10	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

trace of carbonate

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

11/20/16

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/ /2016

Expedition: 362

Observer:

Site: U1481 Hole: A

Core: 28R Sect.: 2A

Interval: 49

Sediment Name: Gray

Smear Slide	Thin Section	Coarse Fraction	Grain Mount

Select one and check.

Granular Sediment			Other material
Siliciclastic	Volcaniclastic	Pelagic	

Select one and check.

Percent Texture		
Sand	Silt	Clay
	<u>5</u>	<u>85</u>

Percent	Composition
<u>18</u>	Major Siliciclastic Grain Types
<u>8</u>	Quartz
<u>10</u>	Feldspars
	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
	Volcaniclastic Grains
<u>1</u>	Vitric fragments
	Clear glass
	Colored glass
	Pumice
	Volcanic lithics
	Felsitic
	Microplitic
	Lathwork
	Altered volcanic(palagonite)

Percent	Composition
	Pelagic Grains
	Calcareous
<u>2</u>	Nannofossils
	Foraminifers
	Siliceous
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
<u>1</u>	Carbonate mud (apart from nannos)

Percent	Composition
	Minor Grain Types
	Dense minerals ¹
	Micas (biotite, musc, chl)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
	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

Memo

29

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/ /2016

Expedition: 362

Observer: Farid

Site: U1481 Hole: A

Core: 2-8 Sect.: SA

Interval: 21

Sediment Name:

= "clay"

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
X			

Select one and check.

Granular Sediment			Other material	Percent Texture		
Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
98	2			5	95	

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
24	Quartz
7	Feldspars
60	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
7	Carbonate mud (apart from nannos)

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

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: 9/20 /2016

Expedition: 362

Observer: Farid

Site: U1481 Hole: A Core: 282 Sect.: 5A Interval: 88

Sediment Name: "suffaceous" 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
<u>10</u>	<u>2</u>				<u>25</u>	<u>75</u>

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
<u>25</u>	Quartz
<u>10</u>	Feldspars
<u>63</u>	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
	Volcaniclastic Grains
<u>2</u>	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	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)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
	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: 9/ /2016

Expedition: 362

Observer: _____

Site: U1481 Hole: A

Core: 29 Sect.: 1A

Interval: 69

Sediment Name: clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X				100						100

Select one and check.

Select one and check.

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

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: 9/ /2016

Expedition: 362

Observer:

Site: U1481 Hole: A

Core: 39R Sect: ZA

Interval: 69

Sediment Name: Ash layer

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
								100	90	

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

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: 9/28 2016

Expedition: 362

Observer: Ferd

Site: U1481 Hole: A

Core: 29R Sect.: 2A

Interval: 20

Sediment Name: ash layer

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
					100			60	40	

Select one and check.

Select one and check.

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

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: 9/28 /2016

Expedition: 362

Observer: Faid

Site: U1481 Hole: A

Core: 23E Sect.: 2A

Interval: 97

Sediment Name: Clay with silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
									<u>8</u>	<u>92</u>

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
<u>21</u>	Quartz		Calcareous		Dense minerals ¹
<u>8</u>	Feldspars		Nannofossils		Micas (biotite, musc, chl)
<u>71</u>	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom		Opaque Grain
	Chert		Radiolarian		Marine organic matter
	Mudstone		Silicoflagellate		Terrestrial organic matter
	Siltstone/sandstone		Sponge Spicule		Other (specify):
	Limestone		Other bioclasts		
	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)		Pyrite (grain coating)
	Volcaniclastic Grains				Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics				
	Felsitic				
	Microlite		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)		Carbonate mud (apart from nanos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

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

majors ✓

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/29/2016

Expedition: 362

Observer: JLLM

Site: U1481 Hole: A Core: 30R Sect.: 1

Interval: 52

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				99	1			0	30	70

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
20	Quartz
15	Feldspars
64	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
	Volcaniclastic Grains
	Vitric fragments
1	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
tr	Carbonate mud (apart from nannos)

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: homogeneous silty mud

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

minor

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/29/2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A Core: 0302 Sect.: 3

Interval: 92

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				25	70	

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
15	Quartz		Calcareous		Dense minerals ¹
10	Feldspars		Nannofossils		Micas (biotite, musc, chl)
60	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom		Opaque Grain
	Chert		Radiolarian		Marine organic matter
	Mudstone		Silicoflagellate		Terrestrial organic matter
	Siltstone/sandstone		Sponge Spicule		Other (specify):
	Limestone		Other bioclasts		
	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)		Pyrite (grain coating)
	Volcaniclastic Grains			15	Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics				
	Felsitic				
	Microlitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic(palagonite)		Carbonate mud (apart from nannos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: light-colored mud ; auth-carb is 2-3 μm euhedra crystals

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/16/2016

Expedition: 362

Observer: Kum

Site: U1481 Hole: A Core: 30R Sect.: 7

Interval: 88

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100					25	75

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		Dense minerals ¹
5	Feldspars		Nannofossils		Micas (biotite, musc, chl)
55	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate		Terrestrial organic matter
	Mudstone		Sponge Spicule		Other (specify):
	Siltstone/sandstone				
	Limestone		Other bioclasts		
	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)		Pyrite (grain coating)
	Volcaniclastic Grains			30	Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics				
	Felsitic				
	Microlitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic(palagonite)		Carbonate mud (apart from nanos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: green mud w/ dark streaks & < 1 cm cemented bed

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/30/2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A Core: 30R Sect.: 7 Interval: 89

Sediment Name: clay w/ silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				99	1			20	80	

Select one and check.

Select one and check.

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: greenish mud w/ dark streaks

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

major ✓

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/28/2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A Core: 31R Sect.: 1

Interval: 15

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				99	1			25	75	

Select one and check.

Select one and check.

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: red mud

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/16/2016

Expedition: 362

Observer: KLM

Site: U1481 Hole: A Core: 31R Sect.: 2

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
				100				30	70	

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
75	Quartz
18	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
	Microlitic
	Lathwork
	Altered volcanic (palagonite)

Percent	Composition
	Pelagic Grains
	Calcareous
	Nannofossils
	Foraminifers
	Siliceous
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	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)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: green mud

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

Hina

Sediment Smear Slide / Thin Section Description Sheet

Date: 30
9/ /2016

Expedition: 362

Observer: Fazio

Site: U1481 Hole: A Core: 32R Sect.: 2D

Interval: 93

Sediment Name: ASH LA YEA.

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X					100			10	190	

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
	Quartz
	Feldspars
5	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
	Volcaniclastic Grains
	Vitric fragments
	Clear glass
1	Colored glass
30	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	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 (euhedra)
	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 9/ /2016

Expedition: 362

Observer: Farid

Site: U1481 Hole: A Core: 32R Sect.: 4A

Interval: 80

Sediment Name: clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X				100				5	95	

Select one and check. Select one and check.

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

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

Remarks: Brownish clay

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/30/2016

Expedition: 362

Observer: Fossil

Site: U1481 Hole: A

Core: 32 Sect.: 5A

Interval: 73

Sediment Name: silt with clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
<u>X</u>			

Select one and check.

Granular Sediment			Other material	Percent Texture		
Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
<u>98</u>	<u>2</u>			<u>80</u>	<u>20</u>	

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
<u>38</u>	Quartz
<u>38</u>	Feldspars
<u>13</u>	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
	Metamorphic lithic
	Plutonic lithic
	Volcaniclastic Grains
	Vitric fragments
<u>2</u>	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
<u>5</u>	Silt or sand-size carbonate allochem fragment (unspecified)
<u>2</u>	Carbonate mud (apart from nannos)

Percent	Composition
	Minor Grain Types
<u>1</u>	Dense minerals ¹
	Micas (biotite, musc, chl)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
<u>1</u>	Pyrite (euhedra)
	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: 9/30/2016

Expedition: 362

Observer: Fairfield

Site: U1481 Hole: A

Core: 33R Sect.: 1

Interval: 116

Sediment Name: Calcareous silt with clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
<u>X</u>			

Select one and check.

Granular Sediment		
Siliciclastic	Volcaniclastic	Pelagic
<u>90</u>		<u>10</u>

Select one and check.

Other material	Percent Texture		
	Sand	Silt	Clay
		<u>55</u>	<u>45</u>

Percent	Composition
	Major Siliciclastic Grain Types
<u>30</u>	Quartz
<u>10</u>	Feldspars
<u>10</u>	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
	Microplitic
	Lathwork
	Altered volcanic (palagonite)

Percent	Composition
	Pelagic Grains
	Calcareous
<u>10</u>	Nannofossils
	Foraminifers
	Siliceous
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
<u>40</u>	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 (euhedra)
	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 9/ /2016

Expedition: 362

Observer: Fazio

Site: U1481 Hole: A

Core: 33R Sect.: 2A

Interval: 106

Sediment Name: calcareous silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				<u>97</u>		<u>3</u>			<u>100</u>	

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
<u>30</u>	Quartz
<u>20</u>	Feldspars
	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
<u>7</u>	Nannofossils
	Foraminifers
	Siliceous
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
<u>50</u>	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)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
	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 / 9 / 2016

Expedition: 362

Observer: FARID

Site: U1481 Hole: A

Core: 33 Sect.: 6A

Interval: 44

Sediment Name: tuftaceous 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"/>									<u>30</u>	<u>70</u>

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
<u>20</u>	Quartz		Calcareous		Dense minerals ¹
<u>5</u>	Feldspars		Nannofossils		Micas (biotite, musc, chl) ¹
<u>45</u>	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom		Opaque Grain
	Chert		Radiolarian		Marine organic matter
	Mudstone		Silicoflagellate		Terrestrial organic matter
	Siltstone/sandstone		Sponge Spicule		Other (specify):
	Limestone		Other bioclasts		
	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)		Pyrite (grain coating)
	Volcaniclastic Grains				Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics				
	Felsitic				
	Microplitic				
	Lathwork		Silt or sand-size carbonate allochem fragment (unspecified)		
<u>30</u>	Altered volcanic(palagonite)				
			Carbonate mud (apart from nannos)		

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 9/ /2016

Expedition: 362

Observer: Ford

Site: U1481 Hole: A

Core: 33 Sect.: CC

Interval: 11

Sediment Name:

(Ev) facies Ash layer

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

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
<u>30</u>	Quartz		Calcareous		Dense minerals ¹
	Feldspars		Nannofossils		Micas (biotite, musc, chl)
<u>20</u>	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate		Terrestrial organic matter
	Mudstone		Sponge Spicule		Other (specify):
	Siltstone/sandstone				
	Limestone		Other bioclasts		
	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)		Pyrite (grain coating)
	Volcaniclastic Grains				Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics				
	Felsitic				
	Microplitic				
	Lathwork		Silt or sand-size carbonate allochem fragment (unspecified)		
<u>30</u>	Altered volcanic (palagonite)				
			Carbonate mud (apart from nannos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

Yellow v. thin layers.

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

Mionsl

Sediment Smear Slide / Thin Section Description Sheet

Date: 30 9/ /2016

Expedition: 362

Observer: Fouid

Site: U1481 Hole: A

Core: 39R Sect.: 2A

Interval: 149

Sediment Name: calcareous clay with silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount

Granular Sediment		
Siliciclastic	Volcaniclastic	Pelagic
<u>99</u>	<u>1</u>	

Other material	Percent Texture		
	Sand	Silt	Clay
		<u>7</u>	<u>93</u>

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
<u>22</u>	Quartz
<u>5</u>	Feldspars
<u>13</u>	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
<u>1</u>	Altered volcanic(palagonite)

Percent	Composition
	Pelagic Grains
	Calcareous
	Nannofossils
	Foraminifers
	Siliceous
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
<u>7</u>	Silt or sand-size carbonate allochem fragment (unspecified)
<u>90</u>	Carbonate mud (apart from nannos)

Percent	Composition
	Minor Grain Types
	Dense minerals ¹
	Micas (biotite, musc, chl)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
	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

minor

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/ /2016

Expedition: 362

Observer: Faw

Site: U1481 Hole: A

Core: 34R Sect.: 5A

Interval: 123

Sediment Name: Silt (or very fine sand) with ash

Smear Slide	Thin Section	Coarse Fraction	Grain Mount
X			

Select one and check.

Granular Sediment		
Siliciclastic	Volcaniclastic	Pelagic
86	14	

Select one and check.

Other material	Percent Texture		
	Sand	Silt	Clay
	20	80	

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

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

Percent	Composition
	Minor Grain Types
	Dense minerals ¹
4	Micas (biotite, musc, chl)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
2	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

majr



Sediment Smear Slide / Thin Section Description Sheet

Date: 9/30/2016

Expedition: 362

Observer: KCM

Site: U1481 Hole: A Core: 35R Sect.: 1

Interval: 95

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				99	1			40	60	

Select one and check.

Select one and check.

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Green mud

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

Minor

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/30/2016

Expedition: 362

Observer: KCM

Site: U1481 Hole: A Core: 35R Sect.: 3

Interval: 121

Sediment Name: Clayey silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100					75	25

Select one and check.

Select one and check.

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: fine parallel lamina mud

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

minor

Sediment Smear Slide / Thin Section Description Sheet

Date: 9/30/2016

Expedition: 362

Observer: Kwan Fowid

Site: U1481 Hole: A Core: 37R Sect.: 1 Interval: 76

Sediment Name: Chayog Silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				10	70	30

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
45	Quartz
31	Feldspars
20	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
1	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
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
1	Carbonate mud (apart from nanos)

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: pieces of carbonate, dense minerals, glass

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

Sediment Smear Slide / Thin Section Description Sheet

Date: **9/ /2016**

Expedition: **362**

Observer: **Fluid**

Site: **U1481** Hole: **A**

Core: **37R** Sect.: **4A**

Interval: **50**

Sediment Name: **Very fine sand**

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X				100				100		

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
96	Quartz
46	Feldspars
	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
1	Metamorphic lithic
	Plutonic lithic
	Volcaniclastic Grains
	Vitric fragments
2	Clear glass
1	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
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nannos)

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

¹List under remarks if possible

Fill percentage (Total must be 100).

Remarks: _____

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

