

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/15/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 2 Sect.: 1

Interval: 26

Sediment Name: clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100		+			15	85

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
5	Quartz		Calcareous		Dense minerals ¹
2	Feldspars		Nannofossils	2	Micas (biotite, musc, chl) ¹
80	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom	2	Opaque Grain
	Sedimentary Lithics		Radiolarian	1	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
3	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				Some pass spires
	Altered volcanic (palagonite)				
		5	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

OK

Date: 8/15/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 2 Sect.: 1

Interval: 60

Sediment Name: v. fine sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				<u>100</u>				<u>85</u>	<u>15</u>	

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
<u>60</u>	Quartz
<u>25</u>	Feldspars
	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
<u>5</u>	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)
<u>5</u>	Carbonate mud (apart from nannos)
	<u>→ silt-size monocrystals</u>

Percent	Composition
	Minor Grain Types
<u>2</u>	Dense minerals ¹
<u>3</u>	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

019

Sediment Smear Slide / Thin Section Description Sheet

Date: 08/14/16

Expedition: 362

Observer: A'KLM

Site: V1480 Hole: F Core: 2 Sect.: 4

Interval: 140

Sediment Name: fine sand

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	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
60	Quartz		Calcareous	2	Dense minerals ¹
30	Feldspars		Nannofossils	3	Micas (biotite, musc, chl) ¹
	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		
5	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		Other carbonate allochems		Dolomite
	Clear glass		Peloid		Zeolites
	Colored glass		Intraclast		Fe/Mn oxide
	Pumice				Other (specify):
	Volcanic lithics				
	Felsitic				
	Microplitic		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

06

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/15/16

Expedition: 362

Observer: KLUM

Site: V148

Hole: F

Core: 3

Sect.: 3

Interval: 30

Sediment Name: well-sorted 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	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
<u>65</u>	Quartz		Calcareous	<u>3</u>	Dense minerals ¹
<u>25</u>	Feldspars		Nannofossils	<u>2</u>	Micas (biotite, musc, chl) ¹
	Clay minerals		Foraminifers	<u>tr</u>	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		Other carbonate allochems		Dolomite
	Clear glass		Peloid		Zeolites
	Colored glass		Intraclast		Fe/Mn oxide
	Pumice				Other (specify):
	Volcanic lithics				
	Felsitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Microlite				
	Lathwork				
	Altered volcanic (palagonite)				
			<u>5</u>		
			Carbonate mud (apart from nanos)		
			<u>monosilt</u>		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/15/16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 3 Sect.: 3 Interval: 62

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				10	60	30

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	3	Dense minerals ¹
20	Feldspars		Nannofossils	2	Micas (biotite, musc, chl) ¹
30	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				
	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: _____

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

~~quartz~~ *OK* ~~pyrorene~~ ~~muscovite~~ schist *KLM sample*
lithic fragments

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/15/16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 3 Sect.: 3 Interval: 68

Sediment Name: Clay

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	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
3	Quartz		Calcareous		Dense minerals ¹
2	Feldspars	1	Nannofossils		Micas (biotite, musc, chl) ¹
88	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom	1	Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate	tr	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		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)				
		5	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

016

YRD

Sediment Smear Slide / Thin Section Description Sheet

Date: 18 8/15/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F

Core: 3 Sect.: 3

Interval: 129

Sediment Name: clay

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
3	Quartz
2	Feldspars
90	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)
3	Carbonate mud (apart from nannos) ↓ monocrystals

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

OW

XRD

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-15-16

Expedition: 362

Observer: KLM

Site: V1480 Hole: F Core: 3 Sect.: 4

Interval: 129

Sediment Name: Sandy silt w/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	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
50	Quartz		Calcareous	3	Dense minerals ¹
25	Feldspars		Nannofossils	2	Micas (biotite, musc, chl) ¹
15	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		
2	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)				
		3	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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/15/16

Expedition: 362 Observer: _____

Site: U1480 Hole: F Core: 3 Sect.: 6 Interval: 40

Sediment Name: v. fine sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				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
60	Quartz		Calcareous	2	Dense minerals ¹
25	Feldspars		Nannofossils	3	Micas (biotite, musc, chl) ¹
	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		
10	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 nannos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: disturbed - contains undisaggregated mud

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

OW

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/15/16

Expedition: 362

Observer: KLM

Site: V1480

Hole: F

Core: 4

Sect.: 1

Interval: 62

Sediment Name: Sandy silt

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	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
60	Quartz		Calcareous	3	Dense minerals ¹
25	Feldspars		Nannofossils	2	Micas (biotite, musc, chl) ¹
	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		
5	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)	3	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)				
		2	Carbonate mud (apart from nannos)		
			silt, none		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

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

amazingly fine

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/15/16

Expedition: 362 Observer: _____

Site: V1480 Hole: F Core: 4 Sect.: 1 Interval: 75

Sediment Name: Clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				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
3	Quartz		Calcareous		Dense minerals ¹
1	Feldspars	tr	Nannofossils		Micas (biotite, musc, chl) ¹
90	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom		Opaque Grain
	Chert		Radiolarian	tr	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	2	Pyrite (framboids)
			Benthic foraminifer	1	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				
	Microclitic				
	Lathwork		Silt or sand-size carbonate allochem fragment (unspecified)		
	Altered volcanic (palagonite)				
		3	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

FIXED It is not in the SAMPLE MANAGER!!!

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/15/16

Expedition: 362

Observer: KCM

Site: U1480 Hole: F Core: 4 Sect.: 2

Interval: 70

Sediment Name: Sandy silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				25	70	5

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	3	Dense minerals ¹
30	Feldspars		Nannofossils	2	Micas (biotite, musc, chl) ¹
5	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom	3	Opaque Grain
	Chert		Radiolarian		Marine organic matter
	Mudstone		Silicoflagellate		Terrestrial organic matter
	Siltstone/sandstone		Sponge Spicule		Other (specify):
	Limestone		Other bioclats		
	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		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)				
			Carbonate mud (apart from nannos)		
			silt/clay, mono		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

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

04

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/15/16

Expedition: 362 Observer:

Site: U1480 Hole: F Core: 4 Sect: 4 Interval: 62

Sediment Name: Silt w/ sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				15	80	5

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	3	Dense minerals ¹
45	Feldspars		Nannofossils		Micas (biotite, musc, chl) ¹
5	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		
5	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		Other carbonate allochems		Dolomite
	Clear glass		Peloid		Zeolites
	Colored glass		Intraclast		Fe/Mn oxide
	Pumice				Other (specify):
	Volcanic lithics				
	Felsitic				
	Microclitic				
	Lathwork	1	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:

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

005

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-15-16

Expedition: 362

Observer: KLM

Site: V1480 Hole: F Core: 5 Sect.: 1

Interval: 47

Sediment Name: clay w/ calcite

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100					15	85

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
5	Quartz		Calcareous		Dense minerals ¹
3	Feldspars		Nannofossils		Micas (biotite, musc, chl) ¹
85	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom	1	Opaque Grain
	Chert		Radiolarian	tr	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)
	Volcaniclastic Grains		Other bioclast (specify)		Pyrite (grain coating)
	Vitric fragments				Calcite
	Clear glass		Other carbonate allochems		Dolomite
	Colored glass		Peloid		Zeolites
	Pumice		Intraclast		Fe/Mn oxide
	Volcanic lithics				Other (specify):
	Felsitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Microlitic				
	Lathwork				
	Altered volcanic (palagonite)				
		6	Carbonate mud (apart from nannos)		
			- mud silt + clay		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

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

04

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-15-16

Expedition: 362

Observer: KLM

Site: V1480 Hole: F Core: 5 Sect.: 1

Interval: 64

Sediment Name: silt w/ clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				5	80	15

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
50	Quartz		Calcareous	1	Dense minerals ¹
30	Feldspars		Nannofossils	1	Micas (biotite, musc, chl) ¹
15	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom		Opaque Grain
	Chert		Radiolarian	TV	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	2	Pyrite (euhedra)
	Volcaniclastic Grains		Other bioclast (specify)	3	Pyrite (grain coating)
	Vitric fragments				Calcite
	Clear glass		Other carbonate allochems		Dolomite
	Colored glass		Peloid		Zeolites
	Pumice		Intraclast		Fe/Mn oxide
	Volcanic lithics				Other (specify):
	Felsitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Microlitic				
	Lathwork				
	Altered volcanic (palagonite)				
		3	Carbonate mud (apart from nannos)		
			monocryst. silt		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: dark interval in upper part of ~2 cm fining upwards interval

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

df

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-15-16

Expedition: 362

Observer: KLM

Site: U1480

Hole: F

Core: 5

Sect.: 1

Interval: 65

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	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
55	Quartz		Calcareous	3	Dense minerals ¹
30	Feldspars		Nannofossils	2	Micas (biotite, musc, chl) ¹
	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		
5	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
	Volcaniclastic Grains		Other bioclast (specify)	2	Pyrite (grain coating)
	Vitric fragments				Calcite
	Clear glass		Other carbonate allochems		Dolomite
	Colored glass		Peloid		Zeolites
	Pumice		Intraclast		Fe/Mn oxide
	Volcanic lithics				Other (specify):
	Felsitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Microplitic				
	Lathwork				
	Altered volcanic (palagonite)				
		3	Carbonate mud (apart from nannos)		
			<i>monocryst. silt</i>		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: light material @ base of 2cm fining up interval

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-15-16

Expedition: 362

Observer: KLM

Site: V 1482 Hole: F Core: 5 Sect.: 1

Interval: 88

Sediment Name: silt (well sorted)

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
5	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)
2	Carbonate mud (apart from nanos)
	monocryst. silt

Percent	Composition
	Minor Grain Types
	Dense minerals ¹
2	Micas (biotite, musc, chl) ¹
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	Authigenic components
	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: light layer from zone of climbing ripples

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

? use for report

DW

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-15-16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 5 Sect.: 1

Interval: 93

Sediment Name: Silt w/ sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				15	85	

Select one and check.

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
50	Quartz
30	Feldspars
	Clay minerals
Lithic Grains	
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
5	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)
	monocyst. silt

Percent	Composition
Minor Grain Types	
2	Dense minerals ¹
5	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)
3	Pyrite (grain coating)
	Calcite
	Dolomite
	Zeolites
	Fe/Mn oxide
	Other (specify):

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: dark layer from zone of climbing ripples

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

OW CALCITE 0.88 clay 15.18 Feld 33.23 200.51 50.51 XRD

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-15-16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 5 Sect.: 1

Interval: 130

Sediment Name: silty sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				55	40	5

Select one and check.

Select one and check.

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

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

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

XRD

dy

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-15-16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 5 Sect.: 2

Interval: 3

Sediment Name: clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				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
3	Quartz		Calcareous		Dense minerals ¹
2	Feldspars		Nannofossils		Micas (biotite, musc, chl) ¹
87	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom		Opaque Grain
	Chert		Radiolarian		Marine organic matter
	Mudstone		Silicoflagellate	1	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)
	Volcaniclastic Grains		Other bioclast (specify)	2	Pyrite (grain coating)
	Vitric fragments				Calcite
	Clear glass		Other carbonate allochems		Dolomite
	Colored glass		Peloid		Zeolites
	Pumice		Intraclast		Fe/Mn oxide
	Volcanic lithics				Other (specify):
	Felsitic				
	Microlite		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)				
		5	Carbonate mud (apart from nannos)		
			mesosilt + clay		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: poss. good for OM photo

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

XRD-KLM

04

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-15-16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 5 Sect.: 2

Interval: 63

Sediment Name: clay

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	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
5	Quartz		Calcareous		Dense minerals ¹
3	Feldspars		Nannofossils		Micas (biotite, musc, chl) ¹
87	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)	2	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)		
	Altered volcanic(palagonite)				
		1	Carbonate mud (apart from nannos)		
			mono clay		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-15-16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 5 Sect.: 4

Interval: 70

Sediment Name: sandy silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				40	55	5

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 ¹
35	Feldspars		Nannofossils	2	Micas (biotite, musc, chl) ¹
	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		
3	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)	2	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)				
		2	Carbonate mud (apart from nannos)		
			mond.		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

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

OW

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-15-16

Expedition: 362 Observer: KCM

Site: V1480 Hole: F Core: 6 Sect.: 1 Interval: 47

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
				100					15	85

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
6	Quartz		Calcareous		Dense minerals ¹
4	Feldspars		Nannofossils		Micas (biotite, musc, chl) ¹
84	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)		1 Pyrite (grain coating)
	Volcaniclastic Grains				Calcite
	Vitric fragments		Other carbonate allochems		Dolomite
	Clear glass		Peloid		Zeolites
	Colored glass		Intraclast		Fe/Mn oxide
	Pumice				Other (specify):
	Volcanic lithics				
	Felsitic				
	Microlitic				
	Lathwork				
	Altered volcanic(palagonite)				
		5	Carbonate mud (apart from nannos)		
			monocrystals		

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: 8-15-16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 6 Sect.: 1

Interval: 66

Sediment Name: silt w/ clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				5	80	15

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
54	Quartz		Calcareous	1	Dense minerals ¹
25	Feldspars		Nannofossils	2	Micas (biotite, musc, chl) ¹
15	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		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic(palagonite)				
		3	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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8.16.16

Expedition: 362

Observer: Ford

Site: W1480 Hole: F Core: 6H Sect.: 1A

Interval: 14/5

Sediment Name: Pyrite + organic material in silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				45	30	25

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
	Feldspars		Nannofossils		Micas (biotite, musc, chl)
25	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	10	Pyrite (framboids)
			Benthic foraminifer	30	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)	5	organic matter?
	Lathwork				
	Altered volcanic (palagonite)		Carbonate mud (apart from nannos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Pyrite and organic matter. The pyrite is product of a authigenic process (early diagenesis)

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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-15-16

Expedition: 362

Observer: Fould

Site: U1480 Hole: F Core: FH Sect.: 1A

Interval: 33-40

Sediment Name: Fine sandstone (MAX. SIZE MEDIUM SAND)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				30	5	5

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
48	Quartz
39	Feldspars
5	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
20	Metamorphic lithic
	Plutonic lithic
	Volcaniclastic Grains
	Vitric fragments
	Clear glass
	Colored glass
	Pumice
	Volcanic lithics
	Felsitic
	Microitic
	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 nanos)

Percent	Composition
	Minor Grain Types
5	Dense minerals ¹
2	Micas (biotite, musc, chl) ¹
	Glauconite
	Phosphate (bones, teeth, etc)
1	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
3	ANPABOLE, EPIDOTE, ZINCO, ARATITE
	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: 16.8.16

Expedition: 362

Observer: Fauld

Site: 01480 Hole: F Core: 10F Sect.: 1A

Interval: 26-27

Sediment Name: Silty sand with 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"/>				100				95	90	15

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
<u>95</u>	Quartz
<u>33</u>	Feldspars
<u>15</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
	Silt or sand-size carbonate allochem fragment (unspecified)
<u>2%</u>	Carbonate mud (apart from nannos)

Percent	Composition
	Minor Grain Types
<u>4</u>	Dense minerals ¹
	Micas (biotite, musc, chl)
	Glaucanite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
<u>tr</u>	Other (specify): <u>horoblasts, zircon</u>
	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

mk

Sediment Smear Slide / Thin Section Description Sheet

Date: 8.16.16

Expedition: 362

Observer: Ford

Site: U1480 Hole: F Core: 12F Sect.: 2A

Interval: 22-23

Sediment Name: Silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				5	90	5

Select one and check.

Select one and check.

Percent	Composition
43	Major Siliciclastic Grain Types
	Quartz
30	Feldspars
5	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)
10	Carbonate mud (apart from nannos)

Percent	Composition
1	Minor Grain Types
	Dense minerals
	Micas (biotite, musc, chl)
	Glauconite
	Phosphate (bones, teeth, etc)
1	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify): Hornblende, Apatite, Epidote
	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: Pyrite (?)

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

DM

Sediment Smear Slide / Thin Section Description Sheet

Date: 8.16.16

Expedition: 362

Observer: Ferd

Site: U1480 Hole: F Core: 12F Sect.: 1A Interval: 48-49

Sediment Name: Silty 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"/>				100				47	43	10

Select one and check. Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
48	Quartz		Calcareous	1	Dense minerals ¹
37	Feldspars		Nannofossils	1	Micas (biotite, musc, chl)
10	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		
2	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm	1	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 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

015

Sediment Smear Slide / Thin Section Description Sheet

Date: 8.16.16

Expedition: 362

Observer: Fauriol

Site: 01480 Hole: F Core: 12F Sect.: 2A

Interval: 33.34

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				10	90	

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
93	Quartz
80	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
	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)
fr	Carbonate mud (apart from nanos)

Percent	Composition
	Minor Grain Types
	Dense minerals
	Micas (biotite, musc, chl)
	Glauconite
	Phosphate (bones, teeth, etc)
1	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
fr	Other (specify): epidote, opalidk
	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

AT

Sediment Smear Slide / Thin Section Description Sheet

Date: 8.16.16

Expedition: 362

Observer: Fanid

Site: U480 Hole: F Core: 12F Sect.: 3A

Interval: 92-43

Sediment Name: Silty sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				75	40	5

Select one and check.

Select one and check.

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

Percent	Composition
	Pelagic Grains
	Calcareous
	Nannofossils
	Foraminifers
	Siliceous
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	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
2	Dense minerals ¹
1	Micas (biotite, musc, chl)
	Glauconite
	Phosphate (bones, teeth, etc)
10	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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8.16.16

Expedition: 362

Observer: FAND

Site: U1480

Hole: F

Core: BF

Sect.: 2A

Interval: 80-81

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		10		3	97	

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
13	Feldspars		Nannofossils		Micas (biotite, musc, chl)
65	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate	<i>TA</i>	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				
	Microitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)				
		10	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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-16-16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 15 Sect.: 3

Interval: 125

Sediment Name: clayey nannofoss ooze

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

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
10	Quartz		Calcareous		Dense minerals ¹
5	Feldspars	50	Nannofossils		Micas (biotite, musc, chl)
30	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				
	Microlitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic(palagonite)				
		5	Carbonate mud (apart from nannos)		
			silt		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: nice discoasters

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-16-16

Expedition: 362

Observer: KLM/FA7D

Site: U1480 Hole: F Core: 16 Sect.: 1 Interval: 22

Sediment Name: silt w/clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				80	20	

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
39	Quartz
34	Feldspars
20	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
1	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
2	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nannos)

Percent	Composition
2	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)
	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: 8-16-16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 16 Sect.: 1 Interval: 79

Sediment Name: clay w/ nanno. f.

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				<u>80</u>		<u>20</u>				

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
<u>10</u>	Quartz
<u>5</u>	Feldspars
<u>60</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
<u>20</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>5</u>	Carbonate mud (apart from nannos)
	<u>- monoclyt silt</u>

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

04

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-16-16

Expedition: 362

Observer: WLM

Site: U1480 Hole: F Core: 16 Sect.: 1

Interval: 84

Sediment Name: nanofossil-clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				70		30			25	75

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
10	Quartz
5	Feldspars
45	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
30	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
	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: light-colored material burrow-mixed into darker

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

7

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-16-16

Expedition: 362

Observer: KLM

Site: 01480 Hole: F Core: 16 Sect.: 1 Interval: 86

Sediment Name: silty clay w/ nanno f.

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				<u>80</u>		<u>20</u>			<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>10</u>	Quartz		Calcareous		Dense minerals ¹
<u>5</u>	Feldspars	<u>20</u>	Nannofossils		Micas (biotite, musc, chl)
<u>50</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		Other carbonate allochems		Dolomite
	Clear glass		Peloid		Zeolites
	Colored glass		Intraclast		Fe/Mn oxide
	Pumice				Other (specify):
	Volcanic lithics				
	Felsitic				
	Microlite				
	Lathwork				
	Altered volcanic (palagonite)				
		<u>15</u>	Silt or sand-size carbonate allochem fragment (unspecified)		
			Carbonate mud (apart from nannos)		
			<u>- silty + clay miner.</u>		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: darker sand burrows - mixed w/ lighter

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

1

OK

XRD

Sediment Smear Slide / Thin Section Description Sheet

Date: *8-16-16*

Expedition: *362*

Observer: *KLM*

Site: *V1480* Hole: *F* Core: *16* Sect.: *1*

Interval: *107*

Sediment Name: *silty clay*

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

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
<i>20</i>	Quartz
<i>10</i>	Feldspars
<i>60</i>	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)
<i>9</i>	Carbonate mud (apart from nanos) <i>silt + clay monol.</i>

Percent	Composition
	Minor Grain Types
	Dense minerals
	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)
	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

04

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-16-16

Expedition: 362

Observer: KLM

Site: 151480 Hole: F Core: 16 Sect.: 2

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	75	

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
15	Feldspars		Nannofossils		Micas (biotite, musc, chl)
60	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)	21	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				
	Microclitic				
	Lathwork		Silt or sand-size carbonate allochem fragment (unspecified)		
	Altered volcanic(palagonite)				
		5	Carbonate mud (apart from nannos)		
			silt + clay matrix		

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: 8-16-16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 16 Sect.: 2 Interval: 125

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
18	Quartz		Calcareous		Dense minerals ¹
13	Feldspars		Nannofossils		Micas (biotite, musc, chl)
62	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate	TV	Terrestrial organic matter
	Mudstone		Sponge Spicule		Other (specify):
	Siltstone/sandstone				
	Limestone		Other bioclats		
	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)	<1	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)				
		5	Carbonate mud (apart from nannos)		
			none		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

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

photo

AW

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-16-16

Expedition: 362

Observer: KCM

Site: U1480

Hole: F

Core: 17

Sect.: 1

Interval: 28

Sediment Name: v. fine sand

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	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
59	Quartz		Calcareous	1	Dense minerals ¹
35	Feldspars		Nannofossils	1	Micas (biotite, musc, chl)
	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom	1	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)
3	cal. monocyst		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		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

AT

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-16-16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 17 Sect.: 1 Interval: 63

Sediment Name: clay

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	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)
82	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom	1	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				
	Microinite		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic(palagonite)				
		2	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

015

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-16-16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 17 Sect.: 2 Interval: 15

Sediment Name: v. fine sed w/ silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				75	15	10

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
50	Quartz		Calcareous	1	Dense minerals
30	Feldspars		Nannofossils	1	Micas (biotite, musc, chl)
10	Clay minerals		Foraminifers		Glaucinite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate		Terrestrial organic matter
	Mudstone		Sponge Spicule		Other (specify):
	Siltstone/sandstone				
	Limestone		Other bioclasts		
5	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				
	Microclitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)				
		3	Carbonate mud (apart from nannos)		
			monocry		

List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

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

Photo - OM, spiky M

OL

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-16-16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 18 Sect: 1 Interval: 22

Sediment Name: Silty sand w/ clay

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

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
45	Quartz		Calcareous	2	Dense minerals ¹
25	Feldspars		Nannofossils	5	Micas (biotite, musc, chl)
15	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate	+v	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)	2	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)				
		1	Carbonate mud (apart from nannos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: probably mixed by drilling disturbance; contains chunks of undrained, rejected mud

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-16-16

Expedition: 362

Observer: KLM

Site: U1400 Hole: F Core: 18 Sect.: 2

Interval: 50

Sediment Name: clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				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
5	Quartz		Calcareous		Dense minerals ¹
3	Feldspars		Nannofossils		Micas (biotite, musc, chl)
89	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom		Opaque Grain
	Chert		Radiolarian		Marine organic matter
	Mudstone		Silicoflagellate	tr	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)	1	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				
	Altered volcanic(palagonite)				
		2	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

photo-met lithic; good slide for grain types

Date: 8-16-16

Sediment Smear Slide / Thin Section Description Sheet

Expedition: 862 Observer: KLM

Site: U1480 Hole: F Core: 19 Sect.: 1 Interval: 6

Sediment Name: v-fine sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				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
60	Quartz		Calcareous	5	Dense minerals ¹
28	Feldspars		Nannofossils	2	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		
5	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)		Pyrite (grain coating)
					Calcite
	Volcaniclastic Grains				Dolomite
	Vitric fragments				Zeolites
	Clear glass		Other carbonate allochems		Fe/Mn oxide
	Colored glass		Peloid		Other (specify):
	Pumice		Intraclast		
	Volcanic lithics				
	Felsitic				
	Microclite				
	Lathwork		Silt or sand-size carbonate allochem fragment (unspecified)		brown tourmaline
	Altered volcanic (palagonite)				green bioclasts
					garnet
			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

OK

there is a XRD sample at 55m:

clay 9tz feld cal
66 9 13 2.5

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-16-16

Expedition: 362

Observer: KLM

Site: U1480

Hole: F

Core: 19

Sect.: 1

Interval: 50

Sediment Name: clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
									5	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
3	Feldspars		Nannofossils		Micas (biotite, musc, chl)
75	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate	tr	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				
	Microlitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic(palagonite)				
		10	Carbonate mud (apart from nannos)		
			monocry.		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

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

OK

XRD

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-17-16

Expedition: 362

Observer: FARID

Site: U1480 Hole: F

Core: 26F Sect.: LA

Interval: 28-29

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
7	Quartz		Calcareous		Dense minerals ¹
	Feldspars		Nannofossils	1	Micas (biotite, musc, chl)
92	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		Algae		Pyrite (framboids)
			Echinoderm		Pyrite (euhedra)
			Benthic foraminifer		Pyrite (grain coating)
	Volcaniclastic Grains		Other bioclast (specify)		Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics		Ooid		
	Felsitic				
	Microlitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)				
		tr	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: 8- -16

Expedition: 362 Observer: fanio

Site: U1480 Hole: F Core: 26F Sect.: 1A Interval: 83-84

Sediment Name: fine sand cult

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
50	Quartz		Calcareous	5	Dense minerals ¹
42	Feldspars		Nannofossils	3	Micas (biotite, musc, chl)
	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous	1	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): <u>Zn con, epidote, apatite</u>
	Limestone		Other bioclasts		
1	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Algae		Pyrite (framboids)
			Echinoderm		Pyrite (euhedra)
			Benthic foraminifer		Pyrite (grain coating)
	Volcaniclastic Grains		Other bioclast (specify)		Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics		Ooid		
	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: fine sand to very fine sand

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-17-16

Expedition: 362 Observer: Ferid

Site: U1480 Hole: F Core: 26F Sect.: 2A Interval: 20-21

Sediment Name: Silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				4	96	

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
47	Quartz		Calcareous	2	Dense minerals ¹
46	Feldspars		Nannofossils	2	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): <u>rutile, magnetite, amphibole(?)</u>
	Limestone		Other bioclasts		Authigenic components
2	Metamorphic lithic		Mollusk		Pyrite (framboids)
	Plutonic lithic		Algae		Pyrite (euhedra)
			Echinoderm		Pyrite (grain coating)
			Benthic foraminifer		Calcite
			Other bioclast (specify)		Dolomite
	Volcaniclastic Grains				Zeolites
	Vitric fragments		Other carbonate allochems		Fe/Mn oxide
	Clear glass		Peloid		Other (specify):
	Colored glass		Intraclast		
	Pumice		Ooid		
	Volcanic lithics				
	Felsitic				
	Microlitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)				
		2	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

OK clay qtz feld cal XRD
30.7 5.2 3.2 61

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-17-16

Expedition: 362 Observer: Farid

Site: U1480 Hole: F Core: 26 F Sect.: 2A Interval: 118-199

Sediment Name: Volcanic Ooze

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
	Quartz	94	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	Algae		Pyrite (framboids)	
		Echinoderm		Pyrite (euhedra)	
		Benthic foraminifer		Pyrite (grain coating)	
	Volcaniclastic Grains	Other bioclast (specify)		Calcite	
	Vitric fragments			Dolomite	
	Clear glass	Other carbonate allochems		Zeolites	
	Colored glass	Peloid		Fe/Mn oxide	
	Pumice	Intraclast		Other (specify):	
	Volcanic lithics	Ooid			
	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: _____

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

016

There is a XRD sample class to this, at 126 (?)

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-17-16

Expedition: 362

Observer: Foid

Site: U1480 Hole: F Core: 27F Sect.: 1A Interval: 130-131

Sediment Name: Fine sand silt with clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
								25	65	10

Select one and check.

Select one and check.

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

Percent	Composition
	Minor Grain Types
	Dense minerals ¹
3	Micas (biotite, musc, chl)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify): <u>APATITE</u>
	Authigenic components
	Pyrite (framboids)
	Pyrite (euhedra)
72	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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-17-16

Expedition: 362

Observer: Fauid

Site: U1480 Hole: F

Core: 27H Sect.: 1A

Interval: 144-145

Sediment Name: 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	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
55	Quartz		Calcareous	2	Dense minerals ¹
38	Feldspars		Nannofossils	3	Micas (biotite, musc, chl)
	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
2	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		Algae		Pyrite (framboids)
			Echinoderm		Pyrite (euhedra)
			Benthic foraminifer		Pyrite (grain coating)
	Volcaniclastic Grains		Other bioclast (specify)		Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics		Ooid		
	Felsitic				
	Microlitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)				
		tr	Carbonate mud (apart from nannos)		

Zircon, bipyx

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: _____

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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-17-16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 31F Sect.: 1 Interval: 55

Sediment Name: fine sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				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
60	Quartz		Calcareous	3	Dense minerals ¹
30	Feldspars		Nannofossils	2	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		
5	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Algae		Pyrite (framboids)
			Echinoderm		Pyrite (euhedra)
			Benthic foraminifer		Pyrite (grain coating)
	Volcaniclastic Grains		Other bioclast (specify)		Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics		Ooid		
	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: _____

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

Sediment Smear Slide / Thin Section Description Sheet

OK

Date: 8-17-16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 33 Sect.: 1 Interval: 18

Sediment Name: clay

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

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

OK

Date: 8-17-16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 33F Sect.: 1 Interval: 80

Sediment Name: silty sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				<u>100</u>				<u>60</u>	<u>30</u>	<u>10</u>

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
<u>55</u>	Quartz
<u>30</u>	Feldspars
<u>10</u>	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
<u>4</u>	Metamorphic lithic
	Plutonic lithic
	Volcaniclastic Grains
	Vitric fragments
	Clear glass
	Colored glass
	Pumice
	Volcanic lithics
	Felsitic
	Microclitic
	Lathwork
	Altered volcanic (palagonite)

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

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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-17-16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 34 Sect.: CC Interval: 27

Sediment Name: Clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				15	85	

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
8	Quartz		Calcareous		Dense minerals
4	Feldspars		Nannofossils		Micas (biotite, musc, chl)
85	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		Algae		Pyrite (framboids)
			Echinoderm		Pyrite (euhedra)
			Benthic foraminifer		Pyrite (grain coating)
			Other bioclast (specify)		Calcite
	Volcaniclastic Grains				Dolomite
	Vitric fragments		Other carbonate allochems		Zeolites
	Clear glass		Peloid		Fe/Mn oxide
	Colored glass		Intraclast		Other (specify):
	Pumice		Ooid		
	Volcanic lithics				
	Felsitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Microlitic				
	Lathwork				
	Altered volcanic (palagonite)				
		3	Carbonate mud (apart from nannos)		
			none silt + clay		

Fill percentage (Total must be 100).

under remarks if possible

Remarks:

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

good slide for lithic photos: ^{+dense min} brown to marlone
 922 tectonite

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/ /16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 35x Sect.: 1

Interval: 38

Sediment Name: fine sd

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
55	Quartz
30	Feldspars
	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
7	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
5	Dense minerals ¹
3	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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/17/16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 35X Sect.: 1

Interval: 62

Sediment Name: Sandy silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				20	65	15

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
50	Quartz
30	Feldspars
15	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)
3	Carbonate mud (apart from nanos)

Percent	Composition
	Minor Grain Types
2	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:

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

Sediment Smear Slide / Thin Section Description Sheet

JK

Date: 8/ /16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 36F Sect.: 1

Interval: 100

Sediment Name: fine sand w/silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
								75	20	5

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
60	Quartz		Calcareous	2	Dense minerals ¹
30	Feldspars		Nannofossils		Micas (biotite, musc, chl)
5	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)
					Calcite
	Volcaniclastic Grains				Dolomite
	Vitric fragments		Other carbonate allochems		Zeolites
	Clear glass		Peloid		Fe/Mn oxide
	Colored glass		Intraclast		Other (specify):
	Pumice				
	Volcanic lithics				
	Felsitic				
	Microlite		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic(palagonite)				
		3	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: 8/ /16

Expedition: 362 Observer: KLM

Site: U1480 F Core: 36F Sect.: 3 Interval: 80

Sediment Name: silty sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
								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
60	Quartz		Calcareous	2	Dense minerals ¹
30	Feldspars		Nannofossils	2	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		
5	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)		
	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

OK

XRD samples at 87, 88, end 92

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/17/16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 41F Sect.: 1

Interval: 90

Sediment Name: fine sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				85	15	

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
65	Quartz		Calcareous	3	Dense minerals ¹
28	Feldspars		Nannofossils	1	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		
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				more garnet than above?
	Microlite		Silt or sand-size carbonate allochem fragment (unspecified)		less mica?
	Lathwork				less carb?
	Altered volcanic(palagonite)		Carbonate mud (apart from nannos)		
		tr			

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

05

Date: 8/17/16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 41F Sect.: 2

Interval: 63

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
				100				15	85	

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
8	Quartz		Calcareous		Dense minerals ¹
3	Feldspars		Nannofossils	1	Micas (biotite, musc, chl)
85	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)		1 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				
	Altered volcanic (palagonite)				
		2	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

photo - MTR F

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/ /16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 43F Sect.: 1

Interval: 40

Sediment Name: v. fine sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				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
60	Quartz		Calcareous	5	Dense minerals ¹
30	Feldspars		Nannofossils	2	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 bioclats		
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				garnets ¹
	Microlite				
	Lathwork		Silt or sand-size carbonate allochem fragment (unspecified)		
	Altered volcanic(palagonite)				
		tr	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

OK

Date: 8/17/16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 47

Sect.: 1

Interval: 24

Sediment Name: Fine Sand w/ ~10% med sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				<u>100</u>				<u>85</u>	<u>10</u>	<u>5</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>60</u>	Quartz		Calcareous	<u>2</u>	Dense minerals ¹
<u>30</u>	Feldspars		Nannofossils	<u>2</u>	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		
<u>5</u>	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)		Pyrite (grain coating)
					Calcite
	Volcaniclastic Grains				Dolomite
	Vitric fragments				Zeolites
	Clear glass		Other carbonate allochems		Fe/Mn oxide
	Colored glass		Peloid		Other (specify):
	Pumice		Intraclast		
	Volcanic lithics				
	Felsitic				
	Microlite				
	Lathwork		Silt or sand-size carbonate allochem fragment (unspecified)		
	Altered volcanic (palagonite)				
			Carbonate mud (apart from nannos)		
		<u>1</u>	<u>mono</u>		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: highly disturbed

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

AK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/17/16

Expedition: 362 Observer: KLM

Site: U1480 F Core: 47 Sect.: 1 Interval: 74

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
				<u>100</u>					<u>15</u>	<u>85</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>10</u>	Feldspars		Nannofossils		Micas (biotite, musc, chl)
<u>70</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				
	Altered volcanic (palagonite)				
		<u>tr</u>	Carbonate mud (apart from nannos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: highly disturbed

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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/23/16

Expedition: 362

Observer: Fano

Site: U1480 Hole: F Core: 48F Sect.: 1A

Interval: 36

Sediment Name: Sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				80	15	5

Select one and check.

Select one and check.

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

Percent	Composition
	Pelagic Grains
	Calcareous
	Nannofossils
	Foraminifers
	Siliceous
	Diatom
	Radiolarian
	Silicoflagellate
	Sponge Spicule
	Other bioclasts
	Mollusk
	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
6	Dense minerals ¹
1	Micas (biotite, musc, chl)
	Glauconite
	Phosphate (bones, teeth, etc)
1	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify):
	50% garnet, sp, 2-100m
	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

IID → OH

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-17-16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F

Core: 49 Sect.: 1

Interval: 100

Sediment Name: clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				15	85	

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
15	Quartz		Calcareous		Dense minerals ¹
10	Feldspars		Nannofossils		Micas (biotite, musc, chl) ¹
75	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		Algae		Pyrite (framboids)
			Echinoderm		Pyrite (euhedra)
			Benthic foraminifer		Pyrite (grain coating)
	Volcaniclastic Grains		Other bioclast (specify)		Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics		Ooid		
	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: no carb

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-17-16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 49 Sect.: 1 Interval: 112

Sediment Name: clay w/ nannof.

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

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
10	Quartz		Calcareous		Dense minerals ¹
6	Feldspars	10	Nannofossils	2	Micas (biotite, musc, chl) ¹
70	Clay minerals	tr	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		Algae		Pyrite (framboids)
			Echinoderm		Pyrite (euhedra)
			Benthic foraminifer	1	Pyrite (grain coating)
	Volcaniclastic Grains		Other bioclast (specify)		Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics		Ooid		
	Felsitic				
	Microlite		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: discosi

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

clay qtz feld cal
61.9 24.5 12.8 0.8
XRD at 138

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-17-16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 49 Sect.: 1

Interval: 132

Sediment Name: silty clay

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

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
15	Quartz		Calcareous		Dense minerals
10	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	1	Terrestrial organic matter
	Mudstone		Sponge Spicule		Other (specify):
	Siltstone/sandstone				
	Limestone		Other bioclasts		
	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Algae	1	Pyrite (framboids)
			Echinoderm		Pyrite (euhedra)
			Benthic foraminifer		Pyrite (grain coating)
	Volcaniclastic Grains		Other bioclast (specify)		Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics		Ooid		
	Felsitic				
	Microlitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)				
			Carbonate mud (apart from nannos)		

List under remarks if possible

Fill percentage (Total must be 100).

Remarks: distinct brownish color - unlike muds higher in core

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

gk

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-17-16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 52X Sect.: CC Interval: 15

Sediment Name: fine sand

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
50	Quartz
30	Feldspars
	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
10	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
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nanos)

Percent	Composition
	Minor Grain Types
3	Dense minerals ¹
2	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

Q1

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-17-16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 53x Sect.: 1 Interval: 26

Sediment Name: Silty sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				70	20	10

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
50	Quartz
35	Feldspars
10	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
2	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
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
3	Carbonate mud (apart from nannos)
	man silt

Percent	Composition
	Minor Grain Types
3	Dense minerals
2	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: 8/17/16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 49 Sect.: 1

Interval: 36

Sediment Name: Well-sorted v. fine sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				<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>60</u>	Quartz		Calcareous	<u>3</u>	Dense minerals ¹
<u>30</u>	Feldspars		Nannofossils	<u>2</u>	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	<u>1</u>	Terrestrial organic matter
	Mudstone		Sponge Spicule		Other (specify):
	Siltstone/sandstone				
	Limestone		Other bioclasts		
<u>4</u>	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 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: 8-17-16

Expedition: 362 Observer: KLW

Site: U1480 Hole: F Core: 53 Sect.: 1 Interval: 50

Sediment Name: Clay w/ sil

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				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) ¹
70	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		Algae		Pyrite (framboids)
			Echinoderm		Pyrite (euhedra)
			Benthic foraminifer		Pyrite (grain coating)
			Other bioclast (specify)		Calcite
	Volcaniclastic Grains				Dolomite
	Vitric fragments				Zeolites
	Clear glass		Other carbonate allochems		Fe/Mn oxide
	Colored glass		Peloid		Other (specify):
	Pumice		Intraclast		
	Volcanic lithics		Ooid		
	Felsitic				
	Microlitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic(palagonite)				
		tr	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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-17-16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 53 Sect.: 2 Interval: 27

Sediment Name: well-sorted v. fine sand

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	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
55	Quartz		Calcareous	3	Dense minerals ¹
30	Feldspars		Nannofossils	2	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		
10	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Algae		Pyrite (framboids)
			Echinoderm		Pyrite (euhedra)
			Benthic foraminifer		Pyrite (grain coating)
			Other bioclast (specify)		Calcite
	Volcaniclastic Grains				Dolomite
	Vitric fragments		Other carbonate allochems		Zeolites
	Clear glass		Peloid		Fe/Mn oxide
	Colored glass		Intraclast		Other (specify):
	Pumice		Ooid		
	Volcanic lithics				
	Felsitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Microlite				
	Lathwork		Carbonate mud (apart from nannos)		
	Altered volcanic(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

OK

Date: 8-17-16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 53x Sect.: 2 Interval: 51

Sediment Name: Clay

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

Select one and check.

Select one and check.

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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-17-16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F

Core: 53 Sect.: 2

Interval: 64

Sediment Name: Zeolitic clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				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
12	Quartz		Calcareous		Dense minerals ¹
8	Feldspars		Nannofossils		Micas (biotite, musc, chl) ¹
50	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		Algae		Pyrite (framboids)
			Echinoderm		Pyrite (euhedra)
			Benthic foraminifer		Pyrite (grain coating)
	Volcaniclastic Grains		Other bioclast (specify)		Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems	30	Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics		Ooid		
	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:

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

UNIT III

Sediment Smear Slide / Thin Section Description Sheet

Date: 8-18-16

Expedition: 362 Observer: Fazio

Site: U1480 Hole: F Core: 54 Sect.: 1A Interval: 88

Sediment Name: cheyeg salt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				58	99	

Select one and check. Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
25	Quartz
30	Feldspars
4/4	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
	Algae
	Echinoderm
	Benthic foraminifer
	Other bioclast (specify)
	Other carbonate allochems
	Peloid
	Intraclast
	Ooid
	Silt or sand-size carbonate allochem fragment (unspecified)
	Carbonate mud (apart from nannos)

Percent	Composition
	Minor Grain Types
	Dense minerals
1	Micas (biotite, musc, chl)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
	Terrestrial organic matter
	Other (specify): <u>Ferrous, low Mn-sulfate</u>
	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

OH

Date: 8- -16

Expedition: 362 Observer: FAN 10

Site: U1480 Hole: F Core: 54 Sect.: 2A Interval: 117

Sediment Name: clay (green?)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
<input checked="" type="checkbox"/>				100				1	99	

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
	Quartz		Calcareous		Dense minerals ¹
98	Feldspars		Nannofossils	1	Micas (biotite, musc, chl)
	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
1	Sedimentary Lithics		Diatom	1	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		Algae		Pyrite (framboids)
			Echinoderm		Pyrite (euhedra)
			Benthic foraminifer	tr	Pyrite (grain coating)
			Other bioclast (specify)		Calcite
	Volcaniclastic Grains				Dolomite
	Vitric fragments				Zeolites
	Clear glass		Other carbonate allochems		Fe/Mn oxide
	Colored glass		Peloid		Other (specify):
	Pumice		Intraclast		
	Volcanic lithics		Ooid		
	Felsitic				
	Microlite		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic(palagonite)				
		tr	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: 8-18-16

Edition: 362

Observer: EARID

Site: U1480 Hole: F

Core: 54 Sect.: 3 A

Interval: 11b

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
	Quartz		Calcareous		Dense minerals ¹
92	Feldspars		Nannofossils	1	Micas (biotite, musc, chl)
	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
7	Sedimentary Lithics		Diatom	fr	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		Algae		Pyrite (framboids)
			Echinoderm		Pyrite (euhedra)
			Benthic foraminifer		Pyrite (grain coating)
	Volcaniclastic Grains		Other bioclast (specify)		Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics		Ooid		
	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:

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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362

Observer: fsnio

Site: U1480 F

Core: 54 X Sect.: 4A

Interval: 116

Sediment Name: calcareous ooze

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
									1	98

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
1	Quartz	98	Calcareous	tr	Dense minerals ¹
	Feldspars		Nannofossils		Micas (biotite, musc, chl) ¹
	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				
	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: The nannofossils are partially dissolved

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362

Observer: Fered

Site: U1480 F

Core: 54

Sect.: 3A

Interval: 16

Sediment Name: Zeolite clayey silt (ash layer)

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

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
<u>15</u>	Quartz		Calcareous		Dense minerals ¹
<u>15</u>	Feldspars		Nannofossils		Micas (biotite, musc, chl)
<u>10</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	<u>30</u>	Other (specify): <u>Zeolite</u>
	Limestone		Other bioclasts		Authigenic components
	Metamorphic lithic		Mollusk		Pyrite (framboids)
	Plutonic lithic		Echinoderm		Pyrite (euhedra)
			Benthic foraminifer		Pyrite (grain coating)
			Other bioclast (specify)		Calcite
	Volcaniclastic Grains				Dolomite
	Vitric fragments				Zeolites
	Clear glass		Other carbonate allochems		Fe/Mn oxide
	Colored glass		Peloid		Other (specify):
	Pumice		Intraclast		
	Volcanic lithics				
	Felsitic				
	Microlite				
	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:

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

Sediment Smear Slide / Thin Section Description Sheet

[Handwritten signature]

Date: 8/18/16

Expedition: 362

Observer: Ferid

Site: U1480 F

Core: SSX Sect.: 4A

Interval: 9

Sediment Name: Silty Vase sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				80	20	

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
<u>95</u>	Quartz		Calcareous		Dense minerals ¹
<u>50</u>	Feldspars		Nannofossils	<u>21%</u>	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	<u>21%</u>	Other (specify): <u>Hornblende,</u>
	Siltstone/sandstone			<u>4%</u>	<u>zircon,</u>
	Limestone		Other bioclasts		<u>pyroxene,</u>
	Metamorphic lithic		Mollusk		<u>turmelin,</u>
	Plutonic lithic		Echinoderm		<u>brown</u>
			Benthic foraminifer		<u>VOLCANIC</u>
			Other bioclast (specify)		<u>CLAST.</u>
	Volcaniclastic Grains				
	Vitric fragments				
	Clear glass				
	Colored glass		Other carbonate allochems		
	Pumice		Peloid		
	Volcanic lithics		Intraclast		
	Felsitic				
	Microlite				
	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: _____

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362

Observer: Farid

Site: U1480 F

Core: SSX

Sect.: SA

Interval: b3

Sediment Name:

clay (gray)

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					100	

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
10	Quartz
10	Feldspars
75	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
5	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

04

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362

Observer: Fouad

Site: U1480 F

Core: SSX

Section: SA

Interval: 100

Sediment Name: clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
									<u>1</u>	<u>99</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>12</u>	Quartz		Calcareous		Dense minerals ¹
<u>8</u>	Feldspars		Nannofossils	<u>1</u>	Micas (biotite, musc, chl)
<u>78</u>	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom		Opaque Grain
	Chert		Radiolarian	<u>1</u>	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)
	Volcaniclastic Grains		Other bioclast (specify)		Pyrite (grain coating)
	Vitric fragments				Calcite
	Clear glass		Other carbonate allochems		Dolomite
	Colored glass		Peloid		Zeolites
	Pumice		Intraclast		Fe/Mn oxide
	Volcanic lithics				Other (specify):
	Felsitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Microplitic				
	Lathwork		Carbonate mud (apart from nanos)		
	Altered volcanic (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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362

Observer: Janic

Site: U1480 F

Core: 56x

Sect.: 1A

Interval: 105

Sediment Name: clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount

Granular Sediment			Other material	Percent Texture		
Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
<u>100</u>					<u>10</u>	<u>90</u>

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
<u>5</u>	Quartz
<u>4</u>	Feldspars
<u>90</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
	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
<u>1</u>	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: 8/18/16

Expedition: 362

Observer: Fazio

Site: U1480 F

Core: 56X Sect.: 2A

Interval: 44

Sediment Name: Silty sand (ash layer)

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
<u>X</u>					<u>X</u>			<u>60</u>	<u>90</u>	

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
	Quartz		Calcareous		Dense minerals ¹
	Feldspars		Nannofossils	<u>1</u>	Micas (biotite, musc, chl)
	Clay minerals		Foraminifers		Glaucinite
	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	<u>55</u>	<u>zeolite</u>
	Metamorphic lithic		Mollusk		<u>zircon other</u>
	Plutonic lithic		Echinoderm		<u>minerals</u>
			Benthic foraminifer		Authigenic components
			Other bioclast (specify)		Pyrite (framboids)
					Pyrite (euhedra)
					Pyrite (grain coating)
					Calcite
<u>94</u>	Volcaniclastic Grains		Other carbonate allochems		Dolomite
	Vitric fragments		Peloid		Zeolites
	Clear glass		Intraclast		Fe/Mn oxide
	Colored glass				Other (specify):
	Pumice				
	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:

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

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Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362

Observer: Ferid

Site: U1480 F

Core: 56X Sect.: 2A

Interval: 97

Sediment Name: Sandy Silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				<u>100</u>				<u>40</u>	<u>60</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>45</u>	Quartz		Calcareous		Dense minerals ¹
<u>45</u>	Feldspars		Nannofossils	<u>3</u>	Micas (biotite, musc, chl)
	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian	<u>2</u>	Marine organic matter
	Chert		Silicoflagellate		Terrestrial organic matter
	Mudstone		Sponge Spicule		Other (specify): <u>Proximal?, epibiot.</u>
	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
<u>1</u>	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: _____

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

[Handwritten signature]

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/ /16

Expedition: 362

Observer: Fazio

Site: U1480 F

Core: S6X Sect.: 3A

Interval: 1/6

Sediment Name: Silty clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
<input checked="" type="checkbox"/>				100				5	40	55

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
20	Feldspars		Nannofossils		Micas (biotite, musc, chl)
55	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian	3	Marine organic matter
	Chert		Silicoflagellate		Terrestrial organic matter
	Mudstone		Sponge Spicule		Other (specify): <u>210/200</u>
	Mudstone/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
2	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)				
			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

OK

Date: 8/18/16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 58

Sec.: 1

Interval: 20

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
15	Quartz		Calcareous		Dense minerals ¹
5	Feldspars	5	Nannofossils	1	Micas (biotite, musc, chl)
70	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate	1	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)		
	Altered volcanic (palagonite)				
		3	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: 8/18/16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 59

Sect.: 1

Interval: 121

Sediment Name: clay w/ nannos

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				90		10			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
6	Quartz		Calcareous		Dense minerals ¹
2	Feldspars	10	Nannofossils		Micas (biotite, musc, chl)
80	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		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic(palagonite)				
		2	Carbonate mud (apart from nannos)		
			monocrysts		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: grayish brown clay; discs + other nannos

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 59

Sect.: 1

Interval: 27

Sediment Name: fine sand

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

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		Dense minerals
35	Feldspars		Nannofossils	82	Micas (biotite, musc, chl)
5	Clay minerals		Foraminifers		Glaucinite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate		Terrestrial organic matter
	Mudstone		Sponge Spicule		Other (specify):
	Siltstone/sandstone				
	Limestone		Other bioclasts		
2	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 nannos)		
		1			

List under remarks if possible

Fill percentage (Total must be 100).

Remarks: micas & heavy reduced compared to above

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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362

Observer: KLM / FDTIO

Site: U1480 Hole: F Core: 60 Sect.: 1 Interval: 9

Sediment Name: Zeolite ash core

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
	Quartz		Calcareous	<u>1</u>	Dense minerals ¹
	Feldspars		Nannofossils	<u>1</u>	Micas (biotite, musc, chl)
<u>50</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	<u>~10</u>	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 granule-size mass in disturbed zone - highly zeolitic

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

similar radiating prismatic crystals as seen before, but lower bn

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/16/16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 60

Sect.: 1

Interval: 25

Sediment Name: clay

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	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)
75	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom		Opaque Grain
	Chert		Radiolarian		Marine organic matter
	Mudstone		Silicoflagellate	Ar	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 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

orb

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/ /16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 60 Sect.: 2

Interval: 25

Sediment Name: silty fine sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				70	20	10

Select one and check.

Select one and check.

*525
60
25*

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
60	Quartz		Calcareous	2	Dense minerals ¹
35	Feldspars		Nannofossils		Micas (biotite, musc, chl)
10	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				
	Microinite		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic(palagonite)				
		5	Carbonate mud (apart from nannos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: mica + heaves much - reduced compared to higher intervals
also fewer MRFs

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 61

Sect.: 1

Interval: 23

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				95		5			30	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
5	Feldspars	5	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	tv	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)				
		5	Carbonate mud (apart from nannos)		
			monocrysts		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

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

Good for ompics

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Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 61

Sect.: CC

Interval: 41

Sediment Name: sandy silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				20	70	10

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
50	Quartz		Calcareous	1	Dense minerals ¹
30	Feldspars		Nannofossils	3	Micas (biotite, musc, chl) ¹
10	Clay minerals		Foraminifers		Glaucinite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate	2	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)	1	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)				
		3	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: 8/18/16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 62

Sect.: CC

Interval: 8

Sediment Name: Well-sorted, v. fine sand

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	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
60	Quartz		Calcareous	1	Dense minerals ¹
34	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		
5	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)		
	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: 8/ /16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 62 Sect.: CC

Interval: 49

Sediment Name: Silty clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
									<u>25</u>	<u>75</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>15</u>	Quartz		Calcareous		Dense minerals ¹
<u>7</u>	Feldspars		Nannofossils		Micas (biotite, musc, chl)
<u>78</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				
	Microlite		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic(palagonite)				
		<u>3</u>	Carbonate mud (apart from nannos)		
			<u>mono silt</u>		

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

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Date: 8/18/16

Expedition: 362

Observer: KLM

Site: U1480 F

Core: 63

Sept.: CC

Interval: 51

Sediment Name: v. fine sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				80	20	

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
52	Quartz		Calcareous	2	Dense minerals ¹
35	Feldspars		Nannofossils	1	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		
5	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)				
		5	Carbonate mud (apart from nannos)		
			mono silt		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: _____

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

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 64 Sect.: 1 Interval: 49

Sediment Name: silly 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
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
	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
	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: 8/18/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 64X Sect.: 1

Interval: 34

Sediment Name: silty sand

poorly-sorted - ? disturbed

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				60	30	10

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
90	Quartz		Calcareous	1	Dense minerals ¹
35	Feldspars		Nannofossils	1	Micas (biotite, musc, chl)
10	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		
2	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				
	Microcline				
	Lathwork		Silt or sand-size carbonate allochem fragment (unspecified)		
	Altered volcanic (palagonite)				
			Carbonate mud (apart from nannos)		
			meso silt		

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: 8/18/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 64 Sect.: 1

Interval: 43

Sediment Name: nannofoss. clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				70		30			15	85

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
15	Quartz		Calcareous		Dense minerals ¹
10	Feldspars	30	Nannofossils		Micas (biotite, musc, chl)
40	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		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic(palagonite)	5	Carbonate mud (apart from nannos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: Coccos + Discos

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 65 Sect.: CC Interval: 20

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
				<u>95</u>		<u>5</u>			<u>15</u>	<u>85</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>15</u>	Quartz		Calcareous		Dense minerals ¹
<u>10</u>	Feldspars	<u>5</u>	Nannofossils		Micas (biotite, musc, chl) ¹
<u>66</u>	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom		Opaque Grain
	Chert		Radiolarian		Marine organic matter
	Mudstone		Silicoflagellate	<u>1</u>	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				
	Microlicite				
	Lathwork		Silt or sand-size carbonate allochem fragment (unspecified)		
	Altered volcanic(palagonite)				
		<u>3</u>	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: 8/18/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 65 Sect.: CC Interval: 41

Sediment Name: v. fine sand

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

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
56	Quartz		Calcareous	3	Dense minerals ¹
25	Feldspars		Nannofossils		Micas (biotite, musc, chl)
15	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		
5	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				
	Altered volcanic (palagonite)				
		3	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

good for ~~am~~ pres

(Handwritten scribbles)

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 66 Sect.: CC

Interval: 12

Sediment Name: silty sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				60	30	10

Select one and check.

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
50	Quartz
30	Feldspars
10	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)
3	Carbonate mud (apart from nannos)

Percent	Composition
	Minor Grain Types
1	Dense minerals ¹
3	Micas (biotite, musc, chl)
	Glauconite
	Phosphate (bones, teeth, etc)
	Opaque Grain
	Marine organic matter
2	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:

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8 / 16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 67 Sect.: 1

Interval: 12

Sediment Name: silty sand

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				50	40	10

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
50	Quartz
30	Feldspars
10	Clay minerals
	Lithic Grains
	Sedimentary Lithics
	Chert
	Mudstone
	Siltstone/sandstone
	Limestone
2	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)
1	Carbonate mud (apart from nanos)

Percent	Composition
	Minor Grain Types
5	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:

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F

Core: 67

Sect: 1

Interval: 109

Sediment Name: silty clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount

Select one and check.

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

Select one and check.

Percent	Composition
Major Siliciclastic Grain Types	
20	Quartz
12	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
	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)
10	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: recrystallized nannos? dark mud

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362

Observer: KCM

Site: U1480 Hole: F

Core: 67 Sect.: CC

Interval: 7

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	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
20	Quartz		Calcareous		Dense minerals ¹
15	Feldspars		Nannofossils		Micas (biotite, musc, chl)
65	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				
	Microclitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)				
		tr	Carbonate mud (apart from nannos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: lighter mud

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

Sediment Smear Slide / Thin Section Description Sheet

ONT

Date: 8/18/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 68 Sect.: 1

Interval: 71

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	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)
50	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate	tr	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		Other carbonate allochems		Dolomite
	Clear glass		Peloid		Zeolites
	Colored glass		Intraclast		Fe/Mn oxide
	Pumice				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: brown mud from a section dominated by brown mud

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 68 Sect.: 3 Interval: 52

Sediment Name: clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100					15	85

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
20	Quartz		Calcareous		Dense minerals [†]
15	Feldspars		Nannofossils		Micas (biotite, musc, chl)
65	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				
	Microlitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)				
		tr	Carbonate mud (apart from nannos)		

[†] List under remarks if possible

Fill percentage (Total must be 100).

Remarks: gray clay - in an overall gray section

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362

Observer: RLM

Site: U1480 Hole: F

Core: 68 Sect.: 3

Interval: 20

Sediment Name: Silty sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				60	30	10

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
60	Quartz		Calcareous	1	Dense minerals ¹
30	Feldspars		Nannofossils	2	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	3	Terrestrial organic matter
	Mudstone		Sponge Spicule		Other (specify):
	Siltstone/sandstone				
	Limestone		Other bioclasts		
4	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				
	Microfite				
	Lathwork		Silt or sand-size carbonate allochem fragment (unspecified)		
	Altered volcanic (palagonite)				
		tr	Carbonate mud (apart from nannos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: much of om is near -opaque; micas heavily oxidized?

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/19/16

Expedition: 362

Observer: Ferrel

Site: U1480 Hole: F Core: 69X Sect.: 2A Interval: 115

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	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
	Feldspars		Nannofossils	20	Micas (biotite, musc, chl)
70	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom	fn	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	tr	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 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: 8/19/16

Expedition: 362

Observer: Farid

Site: U1480 Hole: F Core: 63X Sect.: 3A

Interval: 64

Sediment Name: clayey silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X				100				5	70	25

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
50	Quartz		Calcareous	2	Dense minerals ¹
24	Feldspars		Nannofossils	2	Micas (biotite, musc, chl)
25	Clay minerals		Foraminifers		Glaucinite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate		Terrestrial organic matter
	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)		
	Altered volcanic (palagonite)				
		2	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: 8/19/16

Expedition: 362

Observer: Farid

Site: U1480 Hole: F

Core: 691 Sect.: CC A

Interval: 43

Sediment Name: silty fine sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
								50	40	10

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
50	Quartz		Calcareous	1/2	Dense minerals
30	Feldspars		Nannofossils		Micas (biotite, musc, chl)
	Clay minerals		Foraminifers		Glaucanite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate		Terrestrial organic matter
	Mudstone		Sponge Spicule		Other (specify): epidote, zircon
	Siltstone/sandstone				
	Limestone		Other bioclasts		
	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)		fa 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:

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

Sediment Smear Slide / Thin Section Description Sheet

OK

Date: 8/13/16

Expedition: 362

Observer: Ferd

Site: U1480 Hole: F Core: 22x Sect.: CCA

Interval: 22

Sediment Name: Salty sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
								65	27	8

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
54	Quartz		Calcareous	2	Dense minerals
30	Feldspars		Nannofossils	2	Micas (biotite, musc, chl)
8	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
2	Lithic Grains		Diatom	1	Opaque Grain
	Sedimentary Lithics		Radiolarian	1	Marine organic matter
	Chert		Silicoflagellate	1	Terrestrial organic matter
	Mudstone		Sponge Spicule		Other (specify):
	Siltstone/sandstone				<i>opaque, + iron, epoxide</i>
	Limestone		Other bioclasts		Authigenic components
	Metamorphic lithic		Mollusk		Pyrite (framboids)
	Plutonic lithic		Echinoderm		Pyrite (euhedra)
			Benthic foraminifer		Pyrite (grain coating)
			Other bioclast (specify)		Calcite
	Volcaniclastic Grains				Dolomite
	Vitric fragments				Zeolites
	Clear glass		Other carbonate allochems		Fe/Mn oxide
	Colored glass		Peloid		Other (specify):
	Pumice		Intraclast		
	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: _____

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/18/16

Expedition: 362

Observer: Feriel

Site: U1480 Hole: F Core: 73x Sect.: CC Interval: 36

Sediment Name: clayey silt

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

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
45	Quartz		Calcareous	1	Dense minerals ¹
20	Feldspars		Nannofossils	2	Micas (biotite, musc, chl)
30	Clay minerals		Foraminifers		Glaucinite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom	1	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		Other carbonate allochems		Dolomite
	Clear glass		Peloid		Zeolites
	Colored glass		Intraclast		Fe/Mn oxide
	Pumice				Other (specify):
	Volcanic lithics				
	Felsitic				
	Microplitic		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

Sediment Smear Slide / Thin Section Description Sheet

OK

Date: 8/19/16

Expedition: 362

Observer: Fazio

Site: U1480 Hole: F

Core: 24X Sect.: 1-A

Interval: 60

Sediment Name: Silty 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"/>				100				40	30	

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
50	Quartz		Calcareous	3	Dense minerals ¹
25	Feldspars		Nannofossils	4	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		
P	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)	2	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)		
	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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/19/16

Expedition: 362

Observer: FANIO

Site: U1480 Hole: F Core: 24X Sect.: 2A Interval: 46

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
X				100				18	82	

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
6	Feldspars		Nannofossils	1	Micas (biotite, musc, chl)
82	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian	1	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)	FR			
			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

OW

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/19/16

Expedition: 362

Observer: Fossil

Site: U1480 Hole: F Core: 78 Sect.: 1A Interval: 77

Sediment Name: clay with calcareous

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X				100				2	98	

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
	Feldspars		Nannofossils		Micas (biotite, musc, chl)
84	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom		Opaque Grain
	Chert		Radiolarian	1%	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)	AR	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)				
		10%	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: 8/19/16

Expedition: 362

Observer: Fauid

Site: U1480 Hole: F

Core: 78 Sect.: 1A

Interval: 64

Sediment Name: sandy silt with 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"/>				100				40	40	20

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
<u>45</u>	Quartz		Calcareous	<u>1/2</u>	Dense minerals ¹
<u>25</u>	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				
	Microlite		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)	<u>8</u>	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: 8/19/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F

Core: 80 Sect.: 66

Interval: 22

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
15	Quartz		Calcareous		Dense minerals ¹
10	Feldspars	?	Nannofossils	tr	Micas (biotite, musc, chl) ¹
70	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate	tr	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)	tr	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)				
		5	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

OW

Date: 8/19/16

Expedition: 362 Observer: KLM

Site: U1480 Hole: F Core: 81 Sect.: CC Interval: 14

Sediment Name: Sandy silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				30	65	5

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
50	Quartz		Calcareous	2	Dense minerals ¹
45	Feldspars		Nannofossils	2	Micas (biotite, musc, chl)
	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom	1	Opaque Grain
	Chert		Radiolarian		Marine organic matter
	Mudstone		Silicoflagellate	tr	Terrestrial organic matter
	Siltstone/sandstone		Sponge Spicule		Other (specify):
	Limestone		Other bioclasts		
tr	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)				
		tr	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: 8/18/16

Expedition: 362

Observer: KLM

Site: U1480

Hole: F

Core: 85

Sept.: CC

Interval: 2

Sediment Name: ? ? unknown material

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

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
	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		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:

small (~1 cm) contorted mass in top of CC - contains euhedral carb. crystals & ? Fe/Mn oxide coating? low-birefringent material. Poss chert, poss. barite, other?

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

forms ~1 cm flake, ~1 mm thick

OK

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/20/16

Expedition: 362

Observer: fluid

Site: U1480

Hole: F

Core: 83x

Sept.: CCA

Interval: 33

Sediment Name: silt clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X				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
19	Quartz		Calcareous		Dense minerals ¹
50	Feldspars		Nannofossils		Micas (biotite, musc, chl)
30	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom	1	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	5	Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)	5	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: 8/10/16

Expedition: 362

Observer: FANU

Site: U1480 Hole: F

Core: 89X Sect.: CCA

Interval: 25

Sediment Name: Silt sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X				100				55	45	

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
39	Quartz		Calcareous	5	Dense minerals ¹
50	Feldspars		Nannofossils		Micas (biotite, musc, chl)
	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom	1	Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate		Terrestrial organic matter
	Mudstone		Sponge Spicule		Other (specify):
	Siltstone/sandstone				<u>zircon</u>
	Limestone		Other bioclasts		
10	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: _____

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

Sediment Smear Slide / Thin Section Description Sheet

OK

Date: 8/20/16

Expedition: 362

Observer: Freid

Site: U1480 Hole: F

Core: 91X Sect.: 1A

Interval: 38

Sediment Name: clay with organic matter

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	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
6	Quartz		Calcareous		Dense minerals ¹
6	Feldspars		Nannofossils		Micas (biotite, musc, chl)
84	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian	8	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				
	Microfite				
	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: _____

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/20/16

Expedition: 362

Observer: Ferrel

Site: U1480 Hole: F

Core: B1X Sect.: CCA

Interval: 5-6

Sediment Name: clay

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	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
90	Quartz		Calcareous		Dense minerals ¹
	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		
	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)				
		2	Carbonate mud (apart from nanos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: layer is disturbed by the

injection of drilling mud.

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/20/16

Expedition: 362

Observer: Friend

Site: U1480

Hole: F

Core: 81X

Sept.: CCA

Interval: 8-9

Sediment Name: clay with pyrite

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

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
	Quartz		Calcareous		Dense minerals ¹
	Feldspars		Nannofossils		Micas (biotite, musc, chl)
85	Clay minerals		Foraminifers		Glaucinite
	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)		15 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				
	Microclitic		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

Sediment Smear Slide / Thin Section Description Sheet

OK

Date: 8/20/16

Expedition: 362

Observer: Farid

Site: U1480 Hole: F Core: S1x Sect.: CCA Interval: 21

Sediment Name: clay with calcareous

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
5	Quartz
	Feldspars
79	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)
15	Carbonate mud (apart from nannos)

Percent	Composition
	Minor Grain Types
	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)
	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: 8/10/16

Expedition: 362

Observer: FA710

Site: U1480 Hole: F

Core: 31X Sect.: CCA

Interval: 30

Sediment Name: sandy silt

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				30	60	10

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	1	Dense minerals ¹
35	Feldspars		Nannofossils	1	Micas (biotite, musc, chl)
10	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian	1	Marine organic matter
	Chert		Silicoflagellate		Terrestrial organic matter
	Mudstone		Sponge Spicule		Other (specify):
	Siltstone/sandstone				
	Limestone		Other bioclasts		
1	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)				
		8	Carbonate mud (apart from nannos)		
			(part of this)		

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

[Handwritten signature]

Date: 8/20/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 92 Sect.: 1 Interval: 35

Sediment Name: Silty sand w/ clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				75	20	15

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
50	Quartz		Calcareous	1	Dense minerals ¹
29	Feldspars		Nannofossils		Micas (biotite, musc, chl)
15	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)				
		5	Carbonate mud (apart from nannos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: poss. small nanno component - recrystallized?

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/20/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F

Core: 92 Sect.: 1

Interval: 60

Sediment Name: clay w/ nannos

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				95		5			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
70	Feldspars	5	Nannofossils	1	Micas (biotite, musc, chl)
6.2	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate	tv	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				
	Microclite				
	Lathwork		Silt or sand-size carbonate allochem fragment (unspecified)		
	Altered volcanic(palagonite)				
		2	Carbonate mud (apart from nanos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: discos - clearly dissolved

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/20/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 92 Sect.: 3

Interval: 82

Sediment Name: Clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				<u>98</u>		<u>2</u>			<u>15</u>	<u>85</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>15</u>	Quartz		Calcareous		Dense minerals ¹
<u>5</u>	Feldspars	<u>3</u>	Nannofossils		Micas (biotite, musc, chl)
<u>75</u>	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian		Marine organic matter
	Chert		Silicoflagellate	<u>tr</u>	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				
	Altered volcanic(palagonite)				
		<u>2</u>	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: 8/20/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F

Core: 93 Sect.: 2

Interval: 11

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>95</u>		<u>5</u>			<u>30</u>	<u>70</u>

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
<u>30</u>	Quartz
<u>15</u>	Feldspars
<u>49</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
<u>5</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)
	Carbonate mud (apart from nannos)

Percent	Composition
	Minor Grain Types
	Dense minerals ¹
<u>1</u>	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: Greenish mud

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/20/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 93 Sect.: 2

Interval: 36

Sediment Name: well-sorted 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	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
55	Quartz		Calcareous	2	Dense minerals ¹
30	Feldspars		Nannofossils	2	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		
5	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)		1 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				
	Microsite		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)				
		5	Carbonate mud (apart from nanos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: light layer

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/20/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F

Core: 193

Sect.: 2

Interval: 53

Sediment Name: _____

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					10	90

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
15	Quartz
10	Feldspars
74	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)
1	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: darker mud

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/20/16

Expedition: 362

Observer: KLW

Site: U1480 Hole: F Core: 13 Sect.: CC

Interval: 14

Sediment Name: fine sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				80	20	

Select one and check.

Select one and check.

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

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Sediment Smear Slide / Thin Section Description Sheet

Date: 8/20/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F

Core: 94 Sect.: 1

Interval: 30

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
				100				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
15	Feldspars		Nannofossils		Micas (biotite, musc, chl)
59	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		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic(palagonite)		Carbonate mud (apart from nanos)		
		1			

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: gicconish

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/22/16

Expedition: 362

Observer: KLm

Site: U1480 Hole: F Core: 94 Sect.: 1

Interval: 111

Sediment Name: clay

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	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)
50	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				
	Microinite		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: dark mud

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/20/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 94 Sect.: 3

Interval: 13

Sediment Name: silty sand

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
60	Quartz		Calcareous	2	Dense minerals ¹
30	Feldspars		Nannofossils	2	Micas (biotite, musc, chl)
	Clay minerals		Foraminifers		Glaucinite
	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)
3	carb monocrystals		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:

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/20/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 94 Sect.: 4

Interval: 44

Sediment Name: fine sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				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
55	Quartz		Calcareous	1	Dense minerals ¹
29	Feldspars		Nannofossils	1	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		
5	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)	2	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)				
		2	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: 8/20/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 95 Sect.: 1

Interval: 13

Sediment Name: Silty cl.

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
<u>70</u>	Quartz		Calcareous		Dense minerals ¹
<u>10</u>	Feldspars		Nannofossils	<u>1</u>	Micas (biotite, musc, chl)
<u>6</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		Silt or sand-size carbonate allochem fragment (unspecified)		
	Lathwork				
	Altered volcanic (palagonite)				
		<u>1</u>	Carbonate mud (apart from nannos)		

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks: dark clay

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/26/16

Expedition: 362

Observer: KLN

Site: U1480 Hole: F

Core: 95 Sect.: 1

Interval: 40

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
100				30	70	

Select one and check.

Percent	Composition
	Major Siliciclastic Grain Types
36	Quartz
15	Feldspars
36	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
2	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: *greenclay*

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/20/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 95 Sect.: CC

Interval: 16

Sediment Name: Silty Sand w/clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				60	20	20

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
50	Quartz		Calcareous		Dense minerals ¹
28	Feldspars		Nannofossils		Micas (biotite, musc, chl) ¹
20	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom		Opaque Grain
	Chert		Radiolarian		Marine organic matter
	Mudstone		Sillicoflagellate		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		Other carbonate allochems		Dolomite
	Clear glass		Peloid		Zeolites
	Colored glass		Intraclast		Fe/Mn oxide
	Pumice				Other (specify):
	Volcanic lithics				
	Felsitic				
	Microclitic				
	Lathwork				
	Altered volcanic (palagonite)				
		2	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: 8/20/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F Core: 96 Sect.: 1

Interval: 17

Sediment Name: Sandstone

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				80	20	

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
20	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		
	Metamorphic lithic		Mollusk		Authigenic components
	Plutonic lithic		Echinoderm		Pyrite (framboids)
			Benthic foraminifer		Pyrite (euhedra)
			Other bioclast (specify)		Pyrite (grain coating)
	Volcaniclastic Grains			40	Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics				
	Felsitic				
	Microclitic		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: massively cemented w/ 1-5um calcite

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/20/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F

Core: 96

Sect.: 1

Interval: 24

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					10	90

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
10	Quartz		Calcareous		Dense minerals ¹
5	Feldspars		Nannofossils		Micas (biotite, musc, chl) ¹
35	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			30	Calcite
	Vitric fragments				Dolomite
	Clear glass		Other carbonate allochems		Zeolites
	Colored glass		Peloid		Fe/Mn oxide
	Pumice		Intraclast		Other (specify):
	Volcanic lithics				
	Felsitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Microlitic				
	Lathwork		Carbonate mud (apart from nannos)		
	Altered volcanic (palagonite)				

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

cemented (?) w/ microcrystalline (1-5um) calcite

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/20/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F

Core: 96

Sect.: 1

Interval: 25

Sediment Name: _____

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	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)
60	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			25	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:

auth. 4-crystal cal. ? same as above but gray

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/20/16

Expedition: 362

Observer: KLM

Site: U1480 Hole: F

Core: 96

Sect.: 1

Interval: 38

Sediment Name: silty sd w/ clay

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				100				50	40	30

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
45	Quartz		Calcareous		Dense minerals ¹
29	Feldspars		Nannofossils		Micas (biotite, musc, chl)
25	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				
	Lathwork		Silt or sand-size carbonate allochem fragment (unspecified)		
	Altered volcanic(palagonite)				
		1	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: 8/21/16

Expedition: 362

Observer: FANIO

Site: U1480 Hole: F

Core: 36X Sect.: 2A

Interval: 36

Sediment Name: FINE SAND

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
<u>7</u>				<u>100</u>				<u>80</u>	<u>20</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>40</u>	Quartz		Calcareous	<u>5</u>	Dense minerals ¹
<u>45</u>	Feldspars		Nannofossils	<u>2</u>	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		<u>Forams, rubble; apatite</u>
<u>7</u>	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	<u>1</u>	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: 8/21/16

Expedition: 362

Observer: FORD

Site: U1480 Hole: F Core: 96X Sect.: CC Interval: 36

Sediment Name: clay.

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				<u>100</u>					<u>20</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>2</u>	Quartz		Calcareous		Dense minerals ¹
<u>7</u>	Feldspars		Nannofossils	<u>1</u>	Micas (biotite, musc, chl)
<u>84</u>	Clay minerals		Foraminifers		Glauconite
	Lithic Grains		Siliceous		Phosphate (bones, teeth, etc)
	Sedimentary Lithics		Diatom	<u>20</u>	Opaque Grain
	Chert		Radiolarian	<u>10</u>	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		Other carbonate allochems		Dolomite
	Clear glass		Peloid		Zeolites
	Colored glass		Intraclast		Fe/Mn oxide
	Pumice				Other (specify):
	Volcanic lithics				
	Felsitic				
	Microlicite		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: 8/20/16

Expedition: 362

Observer: KEM

Site: U1480 Hole: F Core: 96 Sect.: CC

Interval: 110

Sediment Name: fine sand

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
				<u>100</u>				<u>85</u>	<u>10</u>	<u>5</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>55</u>	Quartz		Calcareous	<u>3</u>	Dense minerals ¹
<u>30</u>	Feldspars		Nannofossils	<u>2</u>	Micas (biotite, musc, chl)
<u>5</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		
<u>5</u>	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				
	Microclitic				
	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: We got two smear slides (they have similar characteristics).

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

Sediment Smear Slide / Thin Section Description Sheet

Date: 8/21/16

Expedition: 362

Observer: Fanio

Site: U1480 Hole: F Core: 36X Sect.: 1A

Interval: 30-31

Sediment Name: clay with microfossils

Smear Slide	Thin Section	Coarse Fraction	Grain Mount	Granular Sediment			Other material	Percent Texture		
				Siliciclastic	Volcaniclastic	Pelagic		Sand	Silt	Clay
X				80		20		2	98	

Select one and check.

Select one and check.

Percent	Composition	Percent	Composition	Percent	Composition
	Major Siliciclastic Grain Types		Pelagic Grains		Minor Grain Types
0	Quartz		Calcareous		Dense minerals ¹
1	Feldspars	20	Nannofossils		Micas (biotite, musc, chl)
71	Clay minerals		Foraminifers		Glauconite
			Siliceous		Phosphate (bones, teeth, etc)
	Lithic Grains		Diatom		Opaque Grain
	Sedimentary Lithics		Radiolarian	1	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)
	Volcaniclastic Grains		Other bioclast (specify)		Pyrite (grain coating)
	Vitric fragments				Calcite
	Clear glass		Other carbonate allochems		Dolomite
	Colored glass		Peloid		Zeolites
	Pumice		Intraclast		Fe/Mn oxide
	Volcanic lithics				Other (specify):
	Felsitic		Silt or sand-size carbonate allochem fragment (unspecified)		
	Microlitic		Carbonate mud (apart from nannos)		
	Lathwork				
	Altered volcanic(palagonite)				

¹ List under remarks if possible

Fill percentage (Total must be 100).

Remarks:

most of microfossils have been recrystallized

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