

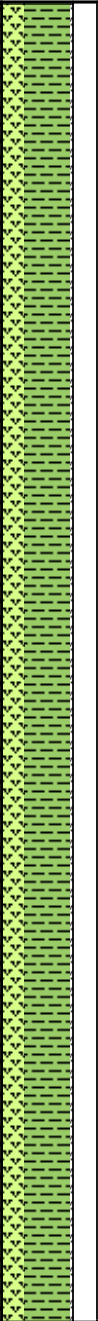
Core Photo

Site 1150 Hole A Core 1H								Cored 0.0-7.7 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
0.0	1								SS		CLAY-BEARING DIATOMACEOUS SILTY OOZE The core is homogenous and an olive-green color.
0.1				X					SS		
0.2	2								SS		Section 2: 8 cm: round pebble, 3 mm in diameter 17 cm: white patch 70 cm: black patch 117 cm: shell fragment
0.3									SS		
0.4	3								SS		Section 3: 40 cm: fossil fragment 140-145 cm: pumice
0.5	4								IW		Section 4: 54-57 cm: ash layer, containing granule and coarse grained volcanic glass. 110-140 cm: scattered pyrite patches
0.6									SS		
0.7	5								SS		Section 5: scattered pyrite patches throughout section. 17 cm: round pebble
0.8									PAL		Section 6: 13 cm: dark ash patch

Core Photo

Site 1150 Hole A Core 4H								Cored 26.7-36.2 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1									SS		CLAY-BEARING DIATOMACEOUS SILTY OOZE
-1											The core has a homogenous lithology and an olive-green color.
2											Section 1: 9-13 cm: fine-grained gray ash layer with an erosive lower boundary and gradational upper boundary; Some ash patches found below lower boundary 28-31 cm: dark gray, fine-grained ash layer, with irregular upper boundary 110-113 cm: coarse sandy ash layer, fining upward. Sharp lower boundary, irregular upper boundary
3											Section 2: 0-90 cm: aggregations of sponge spicules scattered throughout 90-95 cm: white ash layer, heavily bioturbated 127-137 cm: black ash layer, heavily bioturbated
4											Section 3: 2-6 cm: burrow infilled with dominant lithology 55 cm: pyrite patch 113, 120 132 cm: sponge spicule aggregates 130-135: burrow infilled with dominant lithology
5									SS		Section 4: 16 and 65 cm: aggregation of sponge spicules 70, 97, and 147 cm: pyrite patches 130 cm: shell fragment 140 cm: small amount of plant debris
6											Section 5: 45-63 cm: light-colored ash patches 85-97 cm: fine-grained white ash patches 126-130 cm: aggregations of sponge spicules 140-146 cm: coarse-grained gray sandy ash, fining upwards
7											Section 6: 23-26 cm: patches of dark gray ash 65 cm: aggregate of sponge spicules 78-79 cm: aggregates of sponge spicules 118-126 cm: small patches of pyrite
8											Section 7: aggregates of sponge spicules
9											Section CC: 1-11 cm: pyrite patches
10									PAL		

Core Photo

Site 1150 Hole A Core 5H									Cored 36.2-45.7 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOMACEOUS SILTY CLAY
1									SS		The core has homogenous lithology and an olive-green color.
2									SS		Section 1: 16 cm: angular gray granule 36 cm: angular gray pebble 66 cm: angular gray granule 93 cm: pumice pebble 145 cm: dark colored pumice pebble
3									SS		Section 2: 12 cm: angular granule 40 cm: angular granule 58, 102, 111, 123, and 130 cm: small pyrite patches
4									SS		Section 3: 12, 16 cm: angular granule 40-41 cm: pyrite patch 83 cm: bright gray pieces of pumice 111-112: open void due to drilling disturbance 142 cm: pyrite patches 145 cm: ash patch
5									SS		Section 4: 12-14 cm: black patches of pyrite 22-23 cm: black accumulation of pyrite 47, 51-52 cm: fracture due to drilling disturbance/gas 81 cm: small lenses of dark gray ash 92-93 cm: void/fracture due to drilling disturbance and gas 119, 137 cm: black patches of pyrite
6									SS		Section 5: 40 cm: patch of black and some white coarser-grained material 41, 42 cm: voids/fractures due to drilling disturbance and gas 63 cm: angular gray pebble 66 cm: void/fracture 91 cm: white rounded granule 98 cm: gray subrounded granule brought up by splitting the core 120 cm: accumulation of pyrite 143 cm: voids/fractures due to drilling.
7									SS		Section 6: Olive-green color grades into darker shade of green down section. 21 cm: bright olive green colored rounded granule 43-46 cm: black patches of pyrite 117 cm: black and white ash patches grading up into dominant clay lithology
8									SS		Section 7: Small fractures throughout. 63 cm: white patch of ash
9									SS		Section CC: Small back patches of pyrite distributed throughout.
10									PAL		

Core Photo

Site 1150 Hole A Core 6H										Cored 45.7-55.2 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1	1				Py			///			<p>DIATOM AND GLASS-BEARING SILTY CLAY (Adara temperature tool used)</p> <p>The core has a homogenous lithology and an olive-green color.</p> <p>Section 1: Scattered pyrite patches of 1-2 mm diameter throughout section. 134-145 cm: dark gray to black patches of sand (1 cm diameter)</p> <p>Section 2: Color changes from olive-green to dark olive at 100 cm. 44-70 cm: distributed patches of dark gray to black pyrite 47-66 cm: white particles of sponge spicules 136 and 150 cm: dark gray rounded and angular granules (2 mm diameter)</p> <p>Section 3: Dark olive-green color grades into brownish olive-green at 20 cm and into dark olive-green at 90 cm. 93 cm: patches of very fine grained white ash 65, 69, 102, and 112 cm: open drilling induced fractures (voids 2 mm)</p> <p>Section 4: Dark olive-green color changing to olive-green at 20 cm and to dark olive at 130 cm. 18 cm: dark gray rounded pebble, 6 mm diameter 27 cm: white sponge particles 38-43 cm: bright gray ash accumulation, diffuse boundaries 60 cm: black pyrite patches 95 cm: dark patch of ash 98-102: white coarse-grained ash layer with 2-3 mm thick darker interbedded layers, fining upwards, lower boundary is sharp, upper is diffuse 103-109 cm: white fine-grained ash with lower sharp and upper diffuse boundaries 137 cm: white, mm-sized particles of sponge</p> <p>Section 5: Olive-green changing to dark olive-green at 125 cm. 22 cm: dark gray patches of pyrite 51 cm: black rounded pebble (6 mm diameter) 78-82 cm: coarse grained accumulation of ash-sand 94 cm: gray rounded pebble (5 mm diameter)</p> <p>Section 6: 12, 38-41, and 79 cm: white particles of sponge spicule 15 cm: dark gray patch of pyrite (15 mm wide) 92 and 101 cm: gray rounded granule (2 mm diameter) and pebble (5 mm diameter)</p> <p>Section 7: 50-64 cm: black pyrite patches</p> <p>Section CC: 20-24 cm: white fine-grained ash accumulations with diffuse boundaries 26 cm: gray angular pebble (1 cm diameter)</p>
2	2				Py	X		///			
3	3							///			
4	3							///			
5	4				Py	X		///	IW		
6	4							///			
7	5							///			
8	5							///			
9	6				Py	X		///	HS		
10	6							///			
11	7							///			
12	7				Py	X		///			
13	7							///			
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Core Photo

Site 1150 Hole A Core 7H									Cored 55.2-64.7 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1	1										DIATOM, GLASS, AND SPICULE-BEARING SILTY CLAY
1					◆◆◆◆			///			The core has a homogenous lithology and an olive-green color
2					◆◆◆◆ Py			///			Section 1: 35, 99, 134, and 136 cm: black angular pebbles 99 cm: white rounded pebbles
2					Py			///			Section 2: 22-27, 81, and 93 cm: black pyrite patches 145-150 cm: dark gray coarse-grained ash-sand
3					vvv X			///			Section 3: 38-42 cm: dark coarse-grained ash-sand mixed with white fine grained ash, sharp lower erosional boundary, diffuse upper boundary, grading and fining upwards 48 cm: white fine-grained ash patch 117-118 cm: dark gray coarse-grained ash-sand, minor white components 137-138 cm: scattered white fine-grained ash
4					↑ F X Py			///			Section 4: 22-23 cm: white fine-grained ash, distributed 30-33 cm: black and white (minor) interbedded ash-sand layer, sharp lower boundary, grading and fining upward 62-63, 128 cm: black fine-grained ash patch 139-142 cm: scattered black fine-grained ash
5					vvv X			///			Section 5: 100-105 cm: interbedded 1 cm beds. Basal bed is black and fine grained, overlain by a white coarse-grained layer, overlain by a dark gray coarse-grained layer, overlain by a white fine-grained layer. Lower boundary is sharp and wavy, upper boundary is gradational, grading over a small distance into olive-green clay 144 cm to 5 cm in Section 6: dark gray to black, coarse grained ash-sand layer, erosional or load casted lower boundary, grading and fining upward into clay
6					vvv X			///	THS		Section 6: 5-10 cm: white and gray coarse-grained ash-sand in diffuse patches 15-17 cm: white patch of ash, 2 cm thick. 24-27 cm: dark gray, coarse-grained ash-sand layer, fining and grading upward into green clay, lower boundary sharp and erosional 60-61 cm: white and gray, fine grained ash, diffuse 72 cm: black, sandy ash patch, 8 mm diameter 129-130 cm: gray distributed ash 132-137 cm: dark gray ash-sand layer, fining and grading upward into clay, lower boundary sharp and erosional
7					vvv X			///	SS		Section 7: 32-37 cm: dark gray ash-sand accumulation, no sharp boundaries, diffuse downwards, grading upwards into clay 50-53 cm: white, very fine-grained ash, diffuse upper boundary 55 cm: white patches of very fine-grained ash 78-80 cm: dark gray, coarse ash-sand, no sharp lower boundary, fining and grading upward into clay
8					↑ F Py			///	HS		
9					vvv			///	WH		
10					vvv			///	PAL		

Core Photo

Site 1150 Hole A Core 12H								Cored 102.7-112.2 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOMACEOUS SILTY CLAY The core is homogenous and an olive-green color.
1-1									SS		Section 1: Fine patches of pyrite occur throughout the section. 1-2 cm: white fine-grained ash, dispersed 34-43, 130 cm: white and black, rounded granules and pebbles, 1.5 to 5 mm diameter 90-96 cm: accumulations of white sponge particles
2					Py				SS		Section 2: 30-32 cm: white sponge particle accumulations and large patches of pyrite 40-43 cm: light greenish gray clayey volcanic ash layer 58-65 cm: accumulation of light olive-green volcanic glass-bearing clay 91, 104, 107 cm: white rounded and angular pebbles 92 cm: white sponge particles accumulation
3											Section 3: 10-20 cm: small white and light gray patches of ash (1 mm diameter) 76-77 cm: black distributed sand-ash with sparse white granules (< 2 mm diameter) 82-85 cm: gray, coarse-grained sand-ash layer, sharp lower boundary, upper boundary grading over 1 cm into clay; basal thin white layer 107-112 cm: small white accumulations of ash (2 mm diameter in general)
4											146-1 cm (Section 4): very light gray ash-sand layer, sharp lower boundary, diffuse upper boundary
5											Section 4: 14-16, 40-56, 103, and 128 cm: white and black granules and pebbles. 68-71 cm: white coarse-grained ash layer, sharp lower boundary (erosional), diffuse upper boundary; fining upward 141 cm: white sponge particle accumulation
6									IW		Section 5: 3 and 35 cm: white granules of pumice 7-12 cm: white patches of ash 77 and 120 cm: gray and black coarse-grained sand accumulation (1 cm thick at 120 cm) 78 cm: black pyrite patch (1 cm broad, 0.4 cm high) 98 cm: white, fine-grained ash accumulation 102-112 cm: several diffuse accumulations of white-gray rounded pebbles and white fine-grained ash
7					Py						Section 6: 26 cm: carbonaceous concretion (4 cm diameter) and olive-green carbonaceous ooze; lower boundary resembles a loadcast shape 29 cm: white-gray rounded pebble 30-70 cm: soupy interval 96 cm: white and black, coarse-grained diffuse sand accumulation
8											Section 7: 20-25 cm: white and black angular and subrounded pebbles
9											Section CC: 10 cm: white-gray accumulation of coarse ash-sand; above: distributed white sand grain-sized particles; below: black and white, subrounded and rounded pebbles and granules; color changes from olive-green to dark olive-green. 22-38 cm: black and white granules (glassy fragments), distributed very sparsely
									PAL		






Core Photo

Site 1150 Hole A Core 13X								Cored 112.2-116.4 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOMACEOUS CLAYEY SILT
1.1									SS		<p>The core has a homogenous lithology and an olive-green color.</p> <p>Section 1: Color grades into light olive-green from 30 to 57 cm, with a sharp change to dark olive at 57 cm. 17-34 cm: several patches of fine-grained gray to white ash with diffuse boundaries 57 cm: light gray ash, fine-grained, with spheroidal voids due to gas expansion 74-118 cm: several occurrences of single or multiple white rounded pebbles (5-10 mm diameter)</p> <p>Section 2: Color is dark olive-green, changing to olive-green at 33-47 cm and to dark olive-green at 130 cm. 0-17 cm: patches of blue-green glauconite 20-47 cm: accumulations of dark sand 33 cm: dark angular pebble 64-71 cm: scattered coarse white and gray grains 90 cm: fractured white pebble (4 cm diameter)</p> <p>Section 3: 13-18 cm: carbonate concretion, 5 cm in diameter 61 cm: gray rounded pebble</p> <p>Section 4: 25 cm: two white-gray angular pebbles</p>
2											
3											
4									HS		
5									PAL		

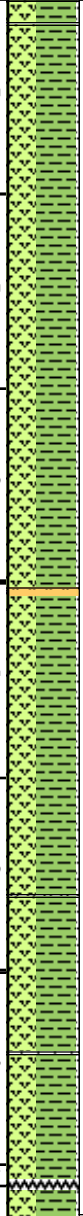

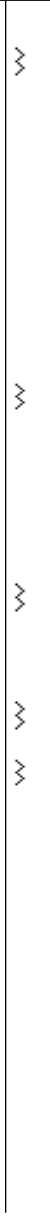
Core Photo

Site 1150 Hole A Core 14X								Cored 116.4-126 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOM, SPICULE, AND GLASS-BEARING SILTY CLAY
1.1											The core has a homogenous lithology and an olive-green color, locally changing to light olive-green and dark olive-green. (DVTP run between Core 13X and Core 14X)
2											Section 1: Olive-green color, changing gradually to light olive-green at 35 cm, and back to olive-green at 75 cm. 34, 85, and 126 cm: dark gray angular pebbles; fine-grained volcaniclastic pebble at 34 cm 103-108 cm: scattered dark sand grains, sparse accumulations 116 and 118 cm: dark gray sand accumulation
2.2											Section 2: 11-14 and 40 cm: dark gray and white pebbles, rounded 80-110 cm: slightly increasing sand-content 112 cm: black-gray sand accumulation
3											Section 3: 47-57 and 64-70 cm: white rounded granules and pebbles 137-139 cm: black coarse-grained sand/ash accumulation 150 cm: white-gray angular pebble
4											Section 4: 18 cm: dark gray discontinuous layered ash accumulation, 0.5 cm thickness 58 and 108 cm: white subangular small pebbles (pumice)
5											Section 5: 134 cm: black thin streaks/laminae
6											Section 6: Very small, diffuse dark patches of pyrite scattered throughout the section. 57 cm: change of color from olive-green to dark brownish olive-green
7											Section CC: 8 cm: white, subrounded pebble, 1 cm diameter
8											

Core Photo

Site 1150 Hole A Core 15X								Cored 126-135.6 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>GLASS-BEARING DIATOMACEOUS SILTY CLAY</p> <p>The core has a homogenous lithology and an olive-green color.</p> <p>Section 2: 3-5 cm: gray pumice, layered, angular pieces 116-118 cm: gray fine-grained ash-silt layer, very sharp erosional base, upper boundary scoured 130-150 cm: gray fine-grained ash patches</p> <p>Section 3: 1-3 cm: dark gray sand layer, sharp erosional base 34-50 cm: fine sand patches</p>
1.1									SS		
2									IW		
3											
3											
4									PAL		



Core Photo

Site 1150 Hole A Core 17X								Cored 145.2-154.8 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>DIATOMACEOUS SILTY CLAY</p> <p>The core has a homogenous lithology and an olive-green color.</p> <p>Section 1: 8 cm: dark gray patch, 1 cm diameter 85 cm: light gray patch, 1 cm diameter, possibly altered ash</p> <p>Section 2: 8-9 cm: white patch, altered ash, 1 cm diameter 60 cm: white patch, altered ash, 0.5 cm diameter 131 cm: dark gray ash patch</p> <p>Section 3: 41 cm: dark gray patch, 0.25 cm diameter, possibly altered ash. 89-90 cm: 2 dark gray patches, 0.25 cm each in diameter 107 cm: light gray diffuse region of silt accumulation, 1 cm in diameter 126 cm: dark gray ash patch, 0.25 cm diameter</p> <p>Section 4: 5-9 cm: gray diffuse silt layer, gradational base and top 16 cm: very fine-grained gray ash patch, 0.75 cm diameter 19 cm: brighter green colored diffuse ash patch, 1 cm diameter 43 cm: dark gray ash patch, 0.75 cm diameter</p> <p>Section 5: 21-28 cm: diffuse dark gray patches of silt accumulation 92 cm: dark gray ash layer, 0.75 cm thick 128 cm: dark gray ash patch, 0.5 cm in diameter</p> <p>Section 6: 10-11 cm: dark gray ash patch, 0.75 cm diameter 63-65 cm: fine-grained light gray ash layer 146 cm: white pebble, sub-rounded, 0.5 cm diameter</p> <p>Section 7: 10 cm: 2 white subangular pebbles, 1 cm diameter 15-16 cm: light gray ash layer with irregular sharp base</p>
1.1											
2									SS		
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									PAL		

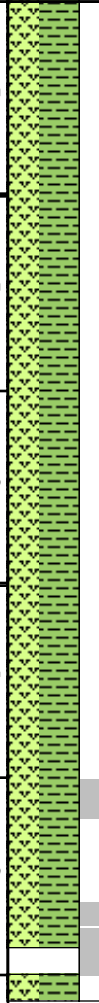
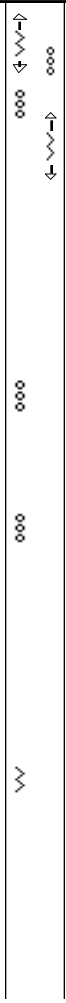







Core Photo

Site 1150 Hole A Core 21X							Cored 183.6-192.06 mbsf				
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											SPICULE-BEARING DIATOMACEOUS CLAYEY SILTY OOZE
1.1									SS		The core has a homogenous lithology and an olive-green color.
2									SS		Section 1: 69 cm: sponge spicule aggregates 115 cm: silt clast
2.1											Section 2: 40-42cm: bioturbated dark gray silt 45-47 cm: bioturbated light gray fine ash 47-49 cm: moderately bioturbated 79-150 cm: slightly lighter colored olive-green
3											Section 3: 2-4 cm: bioturbated ash patch 25-33 cm: bioturbated ash patch 100 and 136 cm: sponge spicule aggregates
4									IW		
5											
6									HS		Section 5: 13-15 cm: light gray ash patch 44, 50, 76, 109, and 112 cm: sponge spicules aggregates 115 cm: dark gray pebble (5 mm in diameter)
7											
8											Section 6: 4-10 cm: bioturbated fine ash patch 22 cm: dark gray ash patch
									PAL		

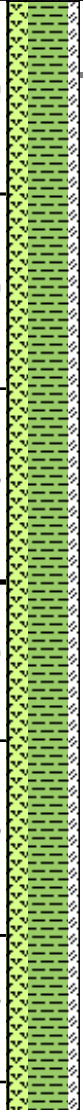
Core Photo

Site 1150 Hole A Core 24X								Cored 212.5-222.2 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
											<p>DIATOMACEOUS SILTY CLAY</p> <p>The core has a homogenous lithology and an olive-green color.</p> <p>Section 1: 20 cm: dark gray, flat rounded pebble, 5 cm diameter</p>
									PAL		























Core Photo

Site 1150 Hole A Core 26X 231.9-241.5 mbsf											
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>QUARTZ-BEARING DIATOMACEOUS SILTY CLAY</p> <p>The core has a homogenous lithology and an olive-green color. Common aggregations of sponge spicules scattered throughout Sections 3, 4, and 5.</p> <p>Section 2: 20 cm: light gray colored mud clast 50-115 cm: soupy white mud contamination from liner</p> <p>Section 3: 16, 29, 37, 40, 98, 108, 120, 143, and 146 cm: sponge spicules</p> <p>Section 4: 100-104 cm: gray pumice pebbles, 0.3-1 cm in diameter 30, 74, 80, 86, 110, 123, 124 and 145 cm: sponge spicules</p> <p>Section 5: 19, 21, 32, 38, 42, 60, 78, 90 and 112 cm: sponge spicules</p>
1.1									SS		
2											
3											
4											
5											
6					(P)						
7											
									WHC		
									PAL		












Core Photo

Site 1150 Hole A Core 29X								Cored 260.8-270.4 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1									SS		<p>DIATOM, SPICULE, AND GLASS-BEARING SILTY CLAY</p> <p>The core has a homogenous lithology and an olive-green color.</p> <p>Section 1: 0-2 cm: very dark gray sub-rounded pebble, 2.5 cm long axis and 1.5 cm short axis 57-61 cm: light gray discontinuous patchy layer due to bioturbation</p> <p>Section 2: 41-44 cm: thin (mm scale) very dark gray streak</p> <p>Section 4: 31-63 cm: drilling disturbance: slight bowing of beds</p> <p>Section 6: 65-67 cm: dark gray patch of altered ash, 2 cm long, 2 mm wide</p>
1.1											
2											
3											
4											
5											
6											
7											
8											
									PAL		




















Core Photo

Site 1150 Hole A Core 31X								Cored 280.1-289.7 mbsf			
MEIERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>DIATOMACEOUS CLAY The core has a homogenous lithology and an olive-green color. The lithification is firm. Drilling biscuits occur throughout the core.</p>
1.1											
2											
2.2											
3											
3.3											
4											
4.4											
5											
5.5											
6											
6.6											
7											
7.7											
8											
8.8											
9											
9.9											
								 SS  IW  OD  PAL			

Core Photo

Site 1150 Hole 1150A Core 41X								Cored 376.4-386 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>GLASS-BEARING DIATOMACEOUS SILTY CLAYEY OOZE</p> <p>The core has homogenous lithology and an olive-green color.</p> <p>Section 1: core disturbance throughout due to crushed liner 23 cm: accumulation of dark gray coarse sand 72 cm: changes from light gray to white ash-sand layer</p> <p>Section 2: 15 and 31 cm: horizontal dark laminae (organic?) 15-16, 42-44 and 82-95 cm, core partly lost</p>
1									SS		
2										PAL	
2											


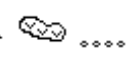

Core Photo

Site 1150 Hole A Core 43X								Cored 395.6-405.2 mbsf			
MEIERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>DIATOMACEOUS SILTY CLAY</p> <p>The core has a homogenous lithology and an olive-green color.</p> <p>Section 2: 38-49 cm: gray coarse sand layer with diffuse boundaries 51 cm: black patch of coarse sand with sharp boundaries</p> <p>Section 6: 126-150 cm: accumulations of dark gray, coarse diffuse sand grains</p>
1.1											
2									SS		
2											
3											
4									IW		
5											
6											
7											
8											
9									SS		
											
											
											
											
											
											
											
											




Core Photo

Site 1150 Hole A Core 46X								Cored 424.4-434.1 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>DIATOMACEOUS SILTY CLAY</p> <p>The core has a homogenous lithology and an olive-green color with two turbidite horizons.</p> <p>Section 1: 65-89 cm: turbidite, with 2 layers of pumice, sand and glauconite at 71-77 cm and 83-89 cm 90-105 cm: turbidite, with a layer of rounded pebbles (less than 5 mm diameter) 102-106 cm: sand and glauconite 119 cm: black organic matter (plant debris)</p> <p>Section 2: 85 cm: pumice pebble 96-98 cm: glauconite-rich sediment 55-110 cm: turbidite with a sharp base; contains granule-sized material 130-140 cm: glauconite rich interval</p> <p>Section 3: Glauconite scattered throughout section. 16-18 cm: glauconite sand patch 27-122 cm: turbidite, including sand, pumicious pebbles and granules, and common glauconite 45-46, 72-73, 93-100, 112-117, and 122 cm: rounded pebble and granule-sized pumice</p>
1.1					↑ F GI GI						
2					↑ F GI				SS		
3					↑ F GI						
3					↑ F GI						
4					↑ F GI				PAL		



Core Photo

Site 1150 Hole A Core 47X								Cored 434.1-443.7 mbsf			
MEIERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											GLASS AND SPICULE-BEARING DIATOMACEOUS SILTY OOZE
1.1											The core has a homogenous lithology, an olive-green color, and a firm lithification.
2											Section 1: 119-122 cm: ash patch 129 cm: dark gray rounded volcanic pebble
2									SS		Section 2: 42-59 cm: turbiditic dolomitic layer with sharp lower boundary and diffuse upper boundary
3									SS		
4											
4									IW		Section 4: 96 cm: gray silt patch
5											
6											Section 5: 15 and 120 cm: silt patches
7											
8											
9											
									PAL		





Core Photo

Site 1150 Hole A Core 50X								Cored 462.9-472.6 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1									PAL		DIATOMACEOUS SILTY CLAY The core has a homogenous lithology, an olive-green color, and a firm lithification. Section CC: 0-12 cm: white angular carbonate pebbles occur commonly throughout section

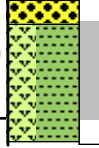
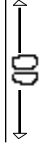
Core Photo

Site 1150 Hole A Core 52X								Cored 482.3-492 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1			♦♦♦♦						SS PAL		<p>GLASS AND SPICULE-BEARING SILTY CLAY</p> <p>The core has a homongeous lithology, an olive-green color, and a firm Lithification. Petroliferous color and fluorescence in acetone visible.</p> <p>Section CC: 0-8 cm: angular dark gray carbonate pebble (drilling induced)</p>


Core Photo

Site 1150 Hole A Core 53X								Cored 492-501.7 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>DIATOM, GLASS, AND SPICULE-BEARING CLAY</p> <p>The core has a homogenous lithology and an olive-green color and a firm lithification.</p> <p>Section CC: 0-18 cm: concentration of white angular carbonate pebbles and dark gray rounded pebbles, drilling artifact</p>

Core Photo

Site 1150 Hole A Core 57X								Cored 530.6-540.3 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>DIATOMACEOUS SILTY CLAY The core has a homogenous lithology, an olive-green in color, and a firm lithification.</p> <p>Section 1: 0-20 cm: gravel, white, subangular (pumice) and black, rounded pebbles; the concentration of pebbles at the top of this and several other cores in this interval is an artifact of drilling.</p>
1									PAL		

Core Photo





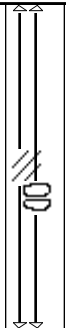
Site 1150 Hole A Core 58X										Cored 540.3-549.9 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1									PAL		GRAVEL Section CC: This concentration of gravel is thought to be an artifact of drilling. The gravel consists of subrounded white pebbles and sparse rounded black pebbles.

1150A-59X NO RECOVERY



Core Photo

Site 1150 Hole A Core 60X								Cored 559.5-569.1 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											GLASS, DIATOM AND SPICULE-BEARING-SILTY CLAY
1.1											The core has a homogenous lithology, an olive-green color, and a firm lithification in biscuited pieces.
2											Section 1: 0-10 cm: gravel, white subangular pebbles, minor dark gray rounded pebbles, occurring in several cores at that depth interval; the concentration of gravel at the top of the core is an artifact of drilling
2.2											Section 2: 96 cm: dark thin laminae, associated with locally occurring bioturbation
3											
3.3											
3.3											
4											
4											Section CC: 28-30 cm: dark gray sand accumulation


Core Photo

Site 1150 Hole A Core 61X								Cored 569.1-578.7 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>DIATOMACEOUS SILTY CLAY: The core has a homogenous lithology, an olive-green color, and a firm lithification.</p> <p>Section 1: 0-9 cm: white subangular pumice pebbles and minor amounts of black rounded glass</p> <p>Section 2: Bioturbation is visible in broken pieces. 34-38 cm: fine-grained gray ash layer 68-70 cm: accumulation of black sand/silt</p> <p>Section 3: Scattered white granules.</p>
1-1											
2											
											

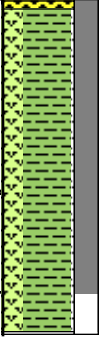



Core Photo

Site 1150 Hole A Core 63X								Cored 588.4-598 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 1									SS PAL		<p>SPICULE-BEARING, GLASSY DIATOMACEOUS SILTY CLAYEY OOZE</p> <p>The core has a homogenous lithology, an olive-green color, and a firm lithification.</p> <p>Section 1: 0-5 cm: light gray subrounded carbonate pebbles, drilling artifact 15 cm: dark gray rounded pebble</p> <p>Section CC: 22-26 cm: brownish and light gray mixture of carbonate layers and turbiditic ash-sand, lowermost part fine-grained gray ash-silt</p>





Core Photo

Site 1150 Hole A Core 66X								Cored 617.3-626.9 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOM, SPICULE, AND GLASS-BEARING SILTY CLAY
1.1									SS		The core has a homogenous lithology and an olive-green color. Bioturbation is common throughout. Sponge spicules occur infrequently throughout.
2											Section 2: 133-134 cm: fine-grained dark gray ash patch
3											
4											
5											Section 4: 130-150 cm: fracture 143-144 cm: very fine-grained, light gray patch
6									IW		Section 5: 69-90 cm: fracture
7											
8											Section 6: 50-60 cm: fracture 104-105 cm: dark gray silt-sand patch
9											
									PAL		

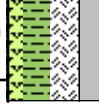
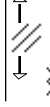
Core Photo

Site 1150 Hole A Core 73X									Cored 684-693.7 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>QUARTZ AND DIATOM-BEARING SILTY CLAY</p> <p>The core has a homogenous lithology, olive-green color, and a firm lithification.</p> <p>Section 1: 0-8 cm: gravel, consisting of white and black rounded pebbles, the concentration of pebbles at the top of the core is a drilling artifact 20-24 cm: dark gray accumulation of sand-ash grains between drilling biscuits</p> <p>Section CC: 10-22 cm: black thin (1 mm) laminae, slightly bowed upwards</p>
1.1									SS		
2									PAL		

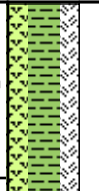



Core Photo

Site 1150 Hole B Core 2R								Cored 709.7-719.3 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1				X				XX			<p>DIATOM-BEARING GLASSY SILTY CLAYSTONE</p> <p>The core has a homogenous lithology and an olive-green color.</p> <p>Section 1: 110 cm: joint, small apparent dip angle, continues with steep dip in core, 1 mm thick dark clayey infill</p> <p>Section 2: 62-67 cm: white and light gray diffuse accumulation of sand grains and rounded granules (pumice) 72-81 cm: fault, very thin dark gray infill</p>
1-1				X				SS	#		
2				X	(P)						
2-2				X				PAL	/		

Core Photo

Site 1150 Hole B Core 3R								Cored 719.3-729 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
	1										<p>VOLCANIC GLASS-BEARING DIATOMACEOUS SILTY CLAYSTONE</p> <p>The core has a homogenous lithology and an olive-green color.</p> <p>Section 1: 18-26 cm: healed thin black fault planes, with 10-50 degrees apparent dip 41 cm: fossil fragment 55 cm: fossil fragment 54 cm: small accumulation of white granules 62 cm: fossil fragment</p>

Core Photo

Site 1150 Hole B Core 5R								Cored 738.6-748.3 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 -1									SS PAL		<p>GLASSY DIATOMACEOUS SILTY CLAYSTONE</p> <p>The core has a homogenous lithology and an olive-green color.</p> <p>Section 1: 8 cm: white rounded granules, occurring in layers 33-50 cm: white rounded pebbles and granules, 2-3 mm in diameter, sparsely scattered 45-55 cm: shear zone, dipping at 60 degrees and anastomosing in its central part 62 and 64 cm: white granules 73-75 cm: fossil fragments 97-100 cm: patch of white fine-grained ash 102 cm: fossil fragment 113-115 cm: dark gray patch of coarser material 120 cm: joint</p> <p>Section CC: Two shear fractures, dipping at 60 degrees</p>

Core Photo

Site 1150 Hole B Core 7R								Cored 757.9-767.6 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 1									SS PAL		<p>DIATOMACEOUS SILTY CLAYSTONE</p> <p>The core has a homogenous lithology and an olive-green color.</p> <p>Section1: 34-40 and 94-100 cm: faults 75-76 cm: gray silt patch 50-51 and 135-145 cm: joints</p>

Core Photo

Site 1150 Hole B Core 8R								Cored 767.6-777.2 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>DIATOMACEOUS SILTY CLAYSTONE</p> <p>The core has a homogenous lithology and an olive-green color.</p> <p>Section 1: 0-10 cm: concentration of light gray carbonaceous pebbles, drilling artifact 13-47 cm: four moderate to steep dipping faults 70-90 and 128-140 cm: faults</p> <p>Section 2: 25-30 and 73-75 cm: faults</p>
1.1											
2											

Core Photo

Site 1150 Hole B Core 9R									Cored 777.2-786.9 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>SPICULE-BEARING DIATOMACEOUS SILTY CLAYSTONE</p> <p>The core has a homogenous lithology and an olive-green color with local changes to lighter and darker olive-green due to bioturbation.</p> <p>Section 1: 20-30 cm: joints and faults, 56 and 78 degrees apparent dip 50-60 cm: fault, 58 degrees apparent dip 77-86 cm: anastomosing and branching joints 100-108 cm: fault, 47 degrees apparent dip</p> <p>Section 2: 7-29 cm: fault offsetting several silty layers and accumulations, 80 degrees apparent dip 40-60 cm: joints, showing anastomosing and branching, major joint: 73 degrees apparent dip 60-100 cm: several joints and faults building a complex pattern, the apparent dip varies from subhorizontal to 53 degrees</p> <p>Section 3: 0-45 cm: several faults and normal faults, offset of 0.5 cm, seen at locally darker olive-green color of rock, the apparent dip varies from subhorizontal to 75 degrees 17 cm: anastomosing faults 55-56 cm: light gray fine-grained ash, bioturbated 83 and 95-100 cm: silt accumulations</p> <p>Section CC: 6-11 cm: normal fault with 0.5 cm offset of thin silt-rich layer 17-23 cm: two black silt laminae, each 2 mm thick</p>
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3											
4									PAL		

Core Photo

Site 1150 Hole B Core 17R								Cored 854.2-863.8 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>DIATOM-BEARING SILTY CLAYSTONE</p> <p>The core contains olive-green diatom-bearing silty claystone and brownish patches of nannofossil-bearing silty claystone.</p> <p>Section 1: 50-62, 70-76, 112-122, and 135-140 cm: faults, most with normal offset, 50-60 degrees apparent dip.</p> <p>Section 2: 55-66 cm: joint, anastomosing, slightly flexured, with very thin branches 115-130 cm: thin joint, apparent dip 60 degrees 125-140 cm: normal fault, slickenside striae on clay infill visible on open fracture along the fault plane; the fault plane has an uneven surface with slickenlines that have an apparent dip 60 degrees</p> <p>Section 3: 3, 118-120, and 141-142 cm: sand accumulations 20 cm: fault 60-90 cm: fault zone: very intensely fractured zone, carbonaceous patches provide the displacement directions, dense pattern of joints and faults 98-105 cm: normal fault, vertical offset approximately 2 cm, apparent dip 50 degrees</p> <p>Section 4: 4-14 and 60-70 cm: faults 32-40 cm: gray to light gray coarse-grained patches of volcanic ash 35-42 cm: normal fault, apparent dip 50 degrees 53-56 cm: white rounded pebbles</p>
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Core Photo

Site 1150 Hole B Core 24R								Cored 921.5-931.1 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>DIATOM-BEARING SILTY CLAYSTONE</p> <p>The core has a homogenous lithology and an olive-green color.</p> <p>Section 1: 20-30 cm: very scoured shear fault 26, 55, and 60 cm: fossil fragment</p> <p>Section 2: 25-40 cm: highly anastomosing shear fracture 55 cm: white-gray coarse-grained ash 'region', patchy or layered nature not visible due to brecciation 66 cm: fossil fragment 73-77 cm: widely distributed white rounded pebbles and granules</p>
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2											
2											

Core Photo

Site 1150 Hole B Core 25R									Cored 931.1-940.7 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1	1										<p>DIATOMACEOUS SILTY CLAYSTONE</p> <p>The core has a homogenous lithology and an olive-green color, with darker patches. Light brownish patches of carbonaceous silty clay throughout all sections.</p> <p>Section 1: 3-25 cm: fault set, apparent dip 60 degrees 20-55 cm: complex pattern of crosscutting normal faults and joints 55-84 cm: parallel set of faults, apparent dip 70 degrees 95-105 cm: normal fault, apparent dip 45 degrees 100-115 cm: sets of small joints 120-150 cm: set of subparallel normal faults, apparent dip 40-60 degrees</p> <p>Section 2: 3-20 cm: several anastomosing joints, moderate to steeply dipping 70-95 cm: two sets of conjugate normal faults, anastomosing, apparent dip 60 degrees 124-130 cm: set of parallel, flat dipping joints.</p> <p>Section 3: Displacement of faults throughout section is less than 1 cm. 3-17 cm: anastomosing normal fault, apparent dip 60 degrees 4-8 cm: layer of clay-bearing volcanic ash 20-35, 63-75 and 90-104 cm: conjugate normal fault sets, apparent dip 45-60 degrees, mostly sharp fault traces, locally branching and slightly curved 36-50 cm: parallel fault set, apparent dip 45 degrees 110-120 cm: fault, apparent dip 45 degrees 122-140 cm: listric normal fault, average apparent dip 70 degrees</p> <p>Section 4: 4-15, 27-35, 54-64, and 72-83 cm: faults, slightly anastomosing, conjugate, sharp, apparent dip 45-60 degrees 14-24 cm: conjugate set of faults 90-100 and 114-122 cm: normal faults, 55 and 60 degrees apparent dip</p> <p>Section 5: 5-20 and 45-60 cm: joint and parallel joint set, anastomosing, apparent dip 55-70 degrees 24-35 and 78-102 cm: normal faults and other minor faults, apparent dip 50, 70, and 55 degrees 122 cm: layer of clay-bearing volcanic ash.</p> <p>Section 6: 0-9, 35-58, and 66-90 cm: normal faults and fault set, moderate to steeply dipping, lowermost fault is anastomosing with a dip of 70 degrees.</p> <p>Note: Barrel sheet recreated by ODP staff.</p>
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Core Photo

Site 1150 Hole B Core 27R									Cored 950.3-959.9 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1	1										DIATOM-BEARING CLAYSTONE
1.1											The core has a homogenous lithology and an olive-green color.
2	2										Section 1: Steep, strongly anastomosing, major and minor faults and joint sets occur throughout section. 8-9 cm: sand/silt accumulation 55-70 cm: faults 115-125 cm: conjugate fault set
3											Section 2: 12-25 cm: anastomosing joint and fault 50-150 cm: several single faults and joints, partly related and crosscutting, commonly anastomosing.
4	3								—WH		Section 3: 30-60 cm: faults, anastomosing and crosscutting 75-105 cm: major and minor joints, very scoured and branched 100-110 and 135-145 cm: fault 110-120 cm: silt accumulation 120-130 cm: scattered pumice granules 133-134 cm: pumice granules layer 140-141 cm: sand patch
5	4								—SS		Section 4: 0-25 cm: steep dipping joint, branching, scoured 25-55 cm: closely spaced fault sets, crosscutting each other, apparent dips are moderate to steep 58-69 cm: glauconite sand accumulation scattered throughout major lithology 70-87 cm: lithoclast, silty sandy lithology, strongly bioturbated, elongated shape, 2 cm wide 90-122 cm: set of open artificial fractures, drilling induced, steep apparent dip angles
6	5										Section 5: 0-45 cm: parallel set of coring induced open fractures, steep apparent dip 0-10 cm: joint, flat apparent dip 40-50 cm: silt accumulation 40-64 cm: normal faults and minor joints, highly branching and anastomosing 90-118 cm: steep, drilling induced, open fracture 110 and 134-141 cm: normal faults
7									—PAL		

Core Photo

Site 1150 Hole B Core 28R								Cored 959.9-969.5 mbsf			
MEIERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1.1											DIATOM AND GLASS-BEARING CLAYSTONE and NANNOFOSSIL-BEARING CLAYSTONE
1.1											The core contains olive-green diatom and glass-bearing claystone with patches of nannofossil-bearing claystone.
2.0											Section 1: 5-20 cm: joint, steep apparent dip 40-47 cm: dark gray silt accumulation 99 cm: 3-mm thick band of organic material, apparent dip 10 degrees 112-132 cm: artificial open fracture, drilling induced, apparent dip angle 80 degrees
3.0											Section 2: 60-70, 80-90, and 110-120 cm: faults, anastomosing, 40 to 50 degrees apparent dip angle 130-134 cm: dark gray silt accumulation
4.0											Section 3: 5-13 cm: normal fault, apparent dip 75 degrees 17-32 cm: joint, apparent dip 75 degrees 45-48 cm: fault, flat apparent dip 55-65 cm: fault set, apparent dip 50 degrees 85-92 and 115-120 cm: faults, flat apparent dips
5.0									IW		Section 4: 25 cm: fault set, overlapping and joining at accommodation zone 55 and 120-150 cm: faults, moderate apparent dip angles (25-50 degrees) 70-85 cm: joint with scoured trace, apparent dip 70 degrees
6.0											Section 5: 5-10 cm: joint set, subvertically dipping 32-46, 73-90, and 135-150 cm: faults, moderate to steep apparent dip angle, sharp or anastomosing 55-62 and 97-122 cm: normal faults, 45 to 60 degrees apparent dip angle 115 cm: fault with slickenside striae indicating pure normal fault movement on the fault plane 55 cm: white fine-grained, small volcanoclastic ash patch
7.0									SS		Section 6: 10-75, 133-140 cm: patches of calcareous nannofossil bearing clay 65-90 cm: normal faults, apparent dip 70 to 45 degree, strongly anastomosing and crosscutting 90-105 cm: faults, sharp, apparently dipping 25 and 15 degrees 120-142 cm: discontinuous joints, scoured traces, steep and flat dipping 135 cm: fault, apparently flat dipping
8.0									SS		Section CC: 5-15 cm: very thin, sharp normal fault displacing two different lithologies, >10 cm vertical displacement 10-15 cm: patches of calcareous nannofossil bearing clay 10-20 cm: thin normal faults and joints, steep fissile fractures
									PAL		

Core Photo

Site 1150 Hole B Core 30R								Cored 979.1-988.7 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1									SS		<p>DIATOM AND GLASS-BEARING CLAYSTONE</p> <p>The core has a homogenous lithology, an olive-green color, and has patches of carbonaceous nannofossil-bearing claystone throughout.</p> <p>Section 1: 55-60 cm: normal fault, apparent dip 30 degrees 80-95 cm: normal fault, apparent dip 60 degrees 115-125 cm: normal fault, apparent dip 50 degrees 129-130 cm: joint 140 cm: white and gray altered pebbles</p> <p>Section 2: 45-55 cm: sharp normal fault, apparent dip 25 degrees 65-85 cm: normal fault, apparent dip 75 degrees; some releasing and restraining bends; accomodation zone with left-stepping fracture continuation 100-110 cm: blue-green angular patches with detrital glauconite 130 cm: strongly anastomosing joint with apparent dip of 30 degrees 135-145 cm: normal fault, sharp and straight, apparent dip of < 65 degrees</p> <p>Section 3: 0-10 cm: dark laminae and interbedded more silty and more clayey layers 25-35 cm: normal fault, apparent dip 50 degrees 35-45 cm: normal fault, apparent dip 50 degrees 90-100 cm: normal fault, apparent dip 40 degrees 100-110 cm: reverse fault, apparent dip 50 degrees</p> <p>Section 4: 0-10 cm: distributed ash, light gray color 20 cm: white fine-grained patches of clay bearing volcanic ash 25-30 cm: fault, < 40 degrees apparent dip 50-65 cm: fault, apparent dip < 65 degrees 105-115 cm: sharp thin joint, < 65 degrees apparent dip 120-125 cm: parallel set of sharp thin shear fault with apparent dip < 70 degrees</p> <p>Section 5: 0-15 cm: faults with apparent dip of < 50 degrees 25-35 cm: fault with apparent dip of < 60 degrees 50-60 cm: joint, apparent dip of < 45 degrees 60-70 degrees: fault with apparent dip of < 45 degrees 60-70 cm: small joints with no visible displacement 130-150 cm: normal fault, apparent dip < 70 degrees</p> <p>Section 6: 55-80 cm: healed joints, with clay infill, no visible displacement. 135-150 cm: steep dipping parallel set of joints, no visible displacement</p> <p>Section 7: 0-12 cm: joints, scoured, very thin and anastomosing</p>
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Core Photo

Site 1150 Hole B Core 31R								Cored 988.7-998.3 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>DIATOM AND GLASS-BEARING SILTY CLAYSTONE</p> <p>The core has a homogenous lithology and an olive-green color. Carbonate patches occur commonly in Sections 1 and 2.</p> <p>Section 1: 25-35 cm: fault, apparent dip 55 degrees 33-43 cm: normal fault, apparent dip 50 degrees 50-65 cm: joints, apparent dip 45 degrees</p> <p>Section 2: 25, 85, 105-115, and 123 cm: scattered accumulations of sand grains 35-50 cm: normal faults 65-80 cm: normal faults, apparent dip 55-60 degrees 85-95 cm: fault, apparent dip 65 degrees 95-125 cm: joint, apparent dip of 75 degrees 120-130 cm: normal fault, apparent dip 80 degrees 130-132 cm: normal fault, apparent dip 10 degrees 138-145 cm: joint, apparent dip 66 degrees 143-147 cm: fault: apparent dip 80 degrees</p> <p>Section 3: 0-5 cm: light gray sand accumulation 10-35 cm: normal faults and joints with apparent dip of 65-70 degrees 45-60 cm: anastomosing joint, apparent dip 65 degrees 60-65 cm: fracture</p> <p>Section CC: 10 cm: dark coarse-grained sand accumulation</p>
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Core Photo

Site 1150 Hole B Core 33R								Cored 1007.9-1017.5 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 1											<p>DIATOM, GLASS, AND QUARTZ-BEARING SILTY CLAYSTONE</p> <p>The core has a homogenous lithology and an olive-green color. Aggregations of sponge spicules are common throughout.</p> <p>Section 1: 15-20 cm: joints above veins 45-50 cm: joint 48-55 cm: burrows 80-84 cm: dark green silty layer with a bioturbated base, containing glauconite (clay-quartz-feldspar-diatom bearing sandy siltstone) 105-110 cm: dark green silty layer 119-120 cm: joint</p>

Core Photo

Site 1150 Hole B Core 34R									Cored 1017.5-1027.1 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											<p>DIATOM, GLASS, AND SPICULE-BEARING CLAYSTONE</p> <p>The core has a homogenous lithology and an olive-green color. Burrows are dominated by chondrites. Aggregations of sponge spicules are rare.</p> <p>Section 1: 93-99 cm: joint 107 cm: joint 130-139 cm: joint</p> <p>Section 2: 10 cm: sand/silt accumulation 10-20 cm: joints 50-51 cm: burrow (Chondrites) infilled by brownish silty clay 55 cm: joint 60-78 cm: joint</p>
2											

Core Photo

Site 1150 Hole B Core 37R								Cored 1046.5-1056.3 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1									SS		<p>DIATOM AND GLASS-BEARING SILTY CLAYSTONE</p> <p>The core has a homogenous lithology and an olive-green color.</p> <p>Section 1: 20-55 cm: steep branching joints 60-95 cm: joints and faults, occurring close together 75 cm: dark silt patch 110-142 cm: strongly branching joints</p> <p>Section 2: 0-45 and 55-85 cm: strongly anastomosing joints 10-16 and 47-60 cm: artificial open fractures 15-25 cm: fault, 60 degrees apparent dip 84-90 cm: accumulation of silt grains 85-130 cm: parallel sets of closely spaced normal faults, 65 degrees apparent dip</p> <p>Section 3: 0-25 cm: anastomosing normal fault, steep apparent dip 39-43 cm: thin normal fault 45-75 cm: joints and conjugate faults</p>
1.1									IW		
2									SS		
3									PAL		

Core Photo

Site 1150 Hole B Core 41R								Cored 1085.3-1094.9 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOM AND GLASS-BEARING SILTY CLAYSTONE
1.1											The core has a homogenous lithology and an olive-green color.
2											Section 1: 4-15 cm: joint 11-17 cm: reverse fault, apparent dip 25 degrees; offsetting normal fault dipping at 65 degrees 60-70 and 75-90 cm: sets of normal faults, moderate to flat apparent dips, one with 2 mm broad clayey infill; lowermost fault has listric shape 105-112 cm: normal fault, 45 degrees apparent dip
3											Section 2: 8-16, 35-43, 80-84, 92-95, and 115-125 cm: faults, mostly adjacent to white sand accumulations, 30-45 degrees apparent dip 20-33, 50-60, 95-115, and 130-145 cm: moderately dipping normal faults, mostly anastomosing. In lower part of section, parallel closely spaced fault sets offset sand layers and accumulations.
4											Section 3: 0-5, 12-22, and 26-35 cm: parallel set of faults, widely spaced, 50 degrees apparent dip 5-15, 20-27 cm: single normal faults, anastomosing and joining, forming an accommodation zone 40-78 cm: a steep major normal fault (2.5 cm displacement) crosscutting a closely spaced set of anastomosing minor faults 112-120 cm: black diffuse sand accumulation
5									—IW		Section 4: 0-15 cm: set of three parallel normal faults, 55 degrees apparent dip, one with 5 mm vertical displacement 28-45 cm: normal fault, 3 cm displacement, 70 degrees apparent dip, just below associated strongly anastomosing set of joints (same dip angle) 66 cm: carbonaceous patch, concretion-like 85-97 cm: conjugate set of faults, 55 degrees apparent dip. 100-112 cm: thick anastomosing joint, 50 degrees apparent dip 122-123 cm: pumice granules
6									—SS		Section 5: 6-20 and 40-50 cm: normal faults, 60 and 50 degrees apparent dip, 2.5 and 3 cm vertical displacement 30-36 and 62-100 cm: faults, anastomosing, branching and rejoining, 40-60 degrees apparent dip, crosscutting sand layer and accumulations
7											Section 6: 17 cm: sand accumulation and glauconitic detrital grains 20-35 cm: joint, 70 degrees apparent dip 31-42 cm: fault, 45 degrees apparent dip 31-55 cm: normal fault, slightly curved, 80 degrees apparent dip 65-75 cm: fault, 50 degrees apparent dip 77-90 cm: precipitation rims, bluish and reddish, crossed by two burrows 90-102 cm: normal fault, 2 mm displacement, 50 degrees apparent dip 118 cm: gray sand layer 120-140 cm: two anastomosing normal faults, 65 and 45 degrees dip
8									—SS		Section CC: 10-26 cm: pebbles and granules and a white fine-grained volcaniclastic ash patch at 20 cm
9									—PAL		

Core Photo

Site 1150 Hole B Core 44R								Cored 1114.2-1123.9 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 1											<p>DIATOM AND GLASS-BEARING CLAYEY SILTSTONE</p> <p>The core has a homogenous lithology and an olive-green color.</p> <p>Section 1: 0-75, 93-108, and 125-140 cm: dense pattern of thin anastomosing joints 30-53 cm: open artificial fractures 36-39 cm: silt patch 40-50 cm: normal faults</p>

Core Photo

Site 1150 Hole B Core 46R								Cored 1133.5-1143.1 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	IC.HNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1										/	DIATOM, GLASS, AND QUARTZ-BEARING SILTY CLAYSTONE
1.1									SS	+	The core has a homogenous lithology and an olive-green color.
2										+	Section 1: 8-21 cm: branching and anastomosing faults 24-30 cm: silt accumulation 66-68 cm: joint 70-77 cm: silt patch and sand accumulation 124-143 cm: joints with a scoured shape
2.2										/	Section 2: 5-15 cm: manganese precipitation rim, dark patch 25-28 cm: volcaniclastic ash accumulation 36, 93 cm: pumice pebble 45-48 cm: silt patches 55-58 cm: volcaniclastic ash layer, disturbed 71-75 cm: silt accumulation 95-125 cm: faults 115-134 cm: scattered pumice pebbles
3										+	Section 3: 0-20 cm: big burrows 12-14 cm: silt and sand accumulation 28-32 cm: strongly anastomosing joints 35-45 cm: normal fault, vertical displacement 1 cm 64-76 cm: joints which have a wavy shape 79-130 cm: dense pattern of single and sets of normal faults, most common displacement 2-5 mm
3.1										+	Section 4: There is a dense pattern of strongly anastomosing joints and fractures, mostly parallel, closely spaced and of moderate apparent dips, throughout this section.
4										+	Section CC: 13-18 cm: accumulation of sandy volcaniclastic ash
4.1										+	
5										+	
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									PAL	+	

Core	Sample					Lithology (D=dominant, M=Minor)	Texture			Components				Mineral											Biogenic						Rock				Other	Sediment Name											
	Type	Section	Top interval (cm)	Depth (mbsf)			Sand (%)	Silt (%)	Clay (%)	Biogenic (%)	Siliclastic (%)	Volcaniclastic (%)	Others (%)	Clay (%)	Quartz (%)	Feldspar (%)	Hornblende (%)	Pyroxene (%)	Mica (%)	Glauconite (%)	Volcanic Glass (%)	Palagonite (%)	Pyrite (%)	Hematite (%)	Carbonate (%)	Aragonite (%)	Dolomite (%)	Apatite (%)	Accessory Minerals (%)	Diatoms (%)	Siliceous Sponge Spicules (%)	Radiolarians (%)	Silicoflagellates (%)	Foraminifers (%)	Nannofossils (%)		Bioclasts (%)	Carbonate Grains (%)	Rock Fragment (%)	Shell Debris (%)	Volcanic Fragments (%)	Unknown (%)					
34	X	3	97	313.07	D	2	40	58	43	44	10	3	23	10	10	1													35	8				*										Qz-feld-glass-bearing diatomaceous silty clay			
34	X	5	49	315.59	M	8	62	30	1	30	69	0	30						69									1																Clayey volcanic ash			
36	X	2	100	330.67	D	10	50	40	49	34	10	6	26	5	3			*	10		5	1						30	7	2	*			10										Glass-nanno-bearing diatomaceous silty clay			
37	X	2	108	340.58	D	15	35	50	30	55	10	5	45	5	3	2			*	10		5		*				20	5	1		1	3											Diatom-glass-bearing silty clay			
38	X	4	92	353.02	D	10	30	60	30	43	20	7	31	7	5					20			5	2				20	10															Diatom-glass-spicule-bearing silty clay			
39	X	3	22	360.42	M	1	84	15	6	10	83	1	10						83		1							5	1															Clay-bearing volcanic ash			
39	X	5	97	364.17	D	5	42	53	28	50	20	2	50	*				*	20		2	*						25	3					*											Glass-bearing diatomaceous silty clay		
40	X	1	97	367.77	D	5	37	58	23	61	12	3	56	3	1		*	1	*	12		3						17	5					1											Diatom-glass-bearing silty clay		
41	X	2	29	377.73	D	7	40	53	42	40	11	7	30	5	3	1		1		10	1	4	1	2			30	7	2				3												Glass-bearing diatomaceous silty clay		
42	X	1	97	386.97	M	2	60	38	0	0	98	2							98							2																				Volcanic ash	
42	X	4	97	391.47	D	7	33	60	30	49	20	0	47	2			*	*	20				*					27	3																	Glass-bearing diatomaceous silty clay	
43	X	2	46	397.56	M	5	45	50	14	60	10	15	53	7					10		15						10	4					*													Diatom-glass-pyrite-bearing silty clay	
43	X	2	97	398.07	D	5	35	60	35	60	3	2	55	5					3		2						30	3					2													Diatomaceous silty clay	
43	X	6	97	404.07	D	5	30	65	41	57	1	1	50	7					1		1						30	10					1													Spicule-bearing diatomaceous silty clay	
44	X	5	97	412.17	D	5	30	65	25	70	0	5	60	10							5						20	5																		Diatom-quartz-bearing silty clay	
45	X	4	98	420.28	D	10	40	50	24	54	15	6	38	10	5	1		*	15		5	1					15	7	1	*	1	*														Diatom-glass-qz-bearing silty clay	
46	X	2	43	426.05	D	3	45	52	33	45	8	14	36	5	3				1	7	1	3	1		3		30	3			*						7								Diatomaceous silty clay		
47	X	2	55	436.15	M	1	29	70	2	63	5	30	63						5								1	1									30									Calcareous clay	
47	X	2	90	436.50	D	15	40	45	40	39	11	10	30	5	3				1	10	1	5					30	10										5								Glass-spicule-bearing diatomaceous silty clay	
48	X	1	97	444.67	D	6	39	55	23	57	17	3	51	3			1	2	15	2	3						12	10					1													Diatom-glass-spicule-bearing silty clay	
49	X	2	97	455.77	D	5	40	55	30	57	9	3	51	2		1	*	*	3	8	1	3					18	10					2													Diatom-spicule-bearing silty clay	
51	X	1	91	473.51	D	2	40	58	22	55	20	3	50	2			*	3	20		3						15	7																		Diatom-glass-bearing silty clay	
52	X	CC	15	482.45	D	7	40	53	25	50	20	3	49	1		*	*	*	*	20		3					20	5																			Diatom-glass-bearing silty clay
53	X	CC	21	492.21	D	8	34	58	29	57	10	3	53	2		*	*	*	2	10		3					18	10					1													Diatom-glass-spicule-bearing silty clay	
54	X	4	97	507.19	D	20	30	50	62	24	7	7	14	5	3	1		1	7		3	1					50	7	3	*	1	1		3												Clay-bearing diatomaceous ooze	
55	X	3	97	515.18	D	1	29	70	25	58	15	2	58	*			*		15		2						17	8					*														Diatom-glass-bearing silty clay

