

Core Photo

Site 1151 Hole A Core 2R										Cored 78.0-83.7 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOM-BEARING CLAYEY SILT The core has a homogenous lithology with abundant foraminifers, an olive-green color, and a soft lithification. Section 1: This section is disturbed by coring. Section 2: 108 cm: pebble Section 3: 82 cm: discontinuous dark gray silt layer 97 cm: wood fragment
1.1									SS		
2									SS		
3									IW		
4									PAL		

1151A-1W WASH CORE

[illegible]

Site 1151 Hole A Core 4R								Cored 93.3-102.9 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1				X				W	SS		GLASS AND DIATOM-BEARING SILTY CLAY
1.1				X							The core has a homogenous lithology, an olive-green color, and a soft lithification.
1.11-112 cm											Section 1: 111-112 cm: light gray ash patch
2								W			Section 2: 10-12 and 14-15 cm: light gray ash patch
2.10-12 and 14-15 cm								W			
3								W			
3.17-18, 22-23, and 36-38 cm								W			Section 5: 17-18, 22-23, and 36-38 cm: ash patches
4				X							
4.17-18, 22-23, and 36-38 cm				X							
5											
5.17-18, 22-23, and 36-38 cm											
6									PAL		

VISUAL CORE DESCRIPTIONS, SITE 1151

Core Photo

Site 1151 Hole A Core 5R							Cored 102.9-112.6 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES ICHNO. FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 1 2 3								GLASS AND DIATOM-BEARING SILTY CLAY The core has a homogeneous lithology, an olive-green color, and a soft lithification. Section 1: 53 cm: sponge spicule Section 2: 127-134 cm: light gray pumice layer, disturbed by coring; a few grains are scattered below the layer 144-145 cm: silt/sand patch

Core Photo

Site 1151 Hole A Core 6R										Cored 112.6-122.2 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											GLASS AND DIATOM-BEARING SILTY CLAY The core has a homogenous lithology, an olive-green color, and a soft lithification. Section 1: 80 cm: angular bluish green-gray pebble, 1 cm in diameter (glauconite-bearing) Section 2: 10-11 cm: white silt-sized volcanic ash, mottled 83-121 cm: light greenish-gray patches of volcanic ash with 2 small white patches at 108 cm (1 cm diameter); diffuse boundaries Section 3: 51 cm: black rounded pebble, 3-7 mm in diameter 78-79 cm: ash patch; black in the lower part, light gray in the upper part, 1 cm in diameter, silt-size grains 99-100 cm: black sand patch, 1 cm in diameter 130 cm: dark gray rounded granule, 3 mm in diameter 135-140 cm: 3 black silt accumulations Section 4: 2 cm: dark gray silt accumulation, 3 mm in diameter 18-22 cm: dark gray silt accumulation 26-28 cm: light gray volcanic ash patch, sand grain size, lower boundary sharp, upper boundary grading into clay 56-60 cm: 3 small black silt patches with diffuse boundaries 61-63 cm: gray volcanic ash layer, lower boundary sharp but not erosive, upper boundary grading into major lithology Section CC: 3 cm: dark gray silt patch, diffuse, 7 mm in diameter
1.1									SS		
2									SS		
3											
4											
5									PAL		

6

Site 1151 Hole A Core 7R								Cored 122.2-131.8 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
										GLASS AND DIATOM-BEARING SILTY CLAY The core has a homogenous lithology, an olive green color, and a soft lithification. Section 1: 8-11 cm: black accumulation of silt grains 34-38 cm: disturbed volcanic ash layer, lower boundary sharp, upper boundary gradational, fining upward and becoming lighter gray, base gray and top light gray 109 cm: dark gray silt patch 114-116 cm: angular black pyrite patches, 4 mm long each Section 2: 19 cm: pyrite patch, 2 mm in diameter 63-98 cm: finer grained, light-grayish olive green lithology 67 cm: disturbed dark gray silt patch Section 3: 90 cm: white volcanic ash patch, 2 mm in diameter 101-105 cm: gray to dark gray volcanic ash and silt layer, both boundaries diffuse, upper boundary grading into major lithology, lower boundary subhorizontal

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Site 1151 Hole A Core 8R										Cored 131.8-141.4 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											GLASS AND DIATOM-BEARING SILTY CLAY The core has a homogenous lithology, an olive-green color, and a soft lithification. Section 1: 11-13 cm: light gray fine-grained volcanic ash patch, top and bottom diffuse 115-118 cm: dark gray silt patch Section 2: 81 cm: diffuse dark silt accumulation 105, 110 cm: 2 dark gray silt patches 117-118 cm: dark gray round silt patch with white fine-grained volcanic ash patch beside Section 3: 25 and 67 cm: dark gray to black pyrite patches 85-86 cm: dark gray silt accumulation, very diffuse Section 4: 8-13 cm: white fine-grained ash, mottled and distributed 13 cm and below: some small ash mottles (<2 mm in diameter)
1.1									SS		
2											
3									IW		
4											
5									PAL		

Site 1151 Hole A Core 10R							Cored 151-160.6 mbsf				
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1				(P)	+						GLASS, DIATOM, AND SPICULE-BEARING SILTY CLAY
1				X	Py						The core has a homogenous lithology, an olive-green color, and a soft lithification.
2				(P)							Section 1:
2											0-26 cm: dark green rounded granules (2-3 mm in diameter), some white rounded pumice granules
2											30-32 cm: dark gray sand accumulation
2											32-36 cm: pumice accumulation, small rounded grains
2											44-45 cm: black sand accumulation
2											91 and 92 cm: pyrite patch
2											106-107 cm: pumice pebble, 1 cm in diameter
2											105-111 cm: accumulation of rounded white pumice granules and minor pebbles
2											119, 135 cm: pumice granules
3											Section 2:
3											4 cm: rounded pumice pebble
3											5-7 cm: black sand accumulation
3											12-16 cm: distributed black sand-sized grains
3											44-50 cm: several silt patches and black granules, 3 mm in diameter
3											84 cm: rounded gray granule, 5 mm in diameter
3											100-106 cm: distributed sand grains
3											106 cm: rounded gray pebble, 7 mm in diameter
3											115 cm: white rounded pumice granule
4											Section 3:
4											8-14 cm: dark gray distributed sand grains
4											11-12 cm: green gray angular granules
4											39-42 cm: dark gray silt patches
4											51-52 cm: dark gray silt accumulation
4											70-76 cm: dark gray distributed silt grains
4											90-95 cm: mottled white and black ash and sand
4											110-114 cm: black sand layer, sharp lower boundary, diffuse upper boundary
4											112 cm: white rounded pebble
4											137 cm: pyrite patch, 2 mm in diameter
5											Section 4:
5											65-71 cm: very diffuse gray silt patches
5											121 cm: black subrounded pebble, 5 mm in diameter
5											140 cm: silt accumulation
6											Section 5:
6											0-4 cm: gray volcanic ash layer, erosional inclined base (~20 degrees), gradational top, silt-sized grains
6											36-37 cm: white volcanic ash layer, sharp lower boundary, grading rapidly into major lithology, silt-sized grain size
6											112-118 cm: several volcanic ash accumulations with rare pumice granules (1 mm in diameter)
6											119 cm: dark gray rounded pebble (1 cm in diameter)
7											Section CC:
7											6-8 cm: brownish fine-grained patch

Core Photo

Site 1151 Hole A Core 11R										Cored 160.6-170.2 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1				Py							GLASS, DIATOM, AND SPICULE-BEARING SILTY CLAY The core has a homogenous lithology, an olive-green color, and a soft lithification. Section 1: 0-10 cm: small black pyrite patches 93-96 cm: white volcanic ash patch, elongated shape, fine grained Section 2: 16-19 cm: black silt accumulation 40 cm: black silt accumulation 41 cm: white round pebbles 83-86 cm: black silt accumulation Section 3: 80-84 cm: black and white diffuse volcanic ash and sand patches, sharp boundaries, silt grain size 91-93 cm: diffuse white volcanic ash patch 121 cm: white rounded pumice granule 137-139 cm: dark gray sand layer with some pumice granules Section 4: 74-77 cm: light gray volcanic ash layer, top and bottom boundaries are diffuse and gradational Section 5: 60 cm: accumulation of white pumice granules 100-104 cm: white volcanic ash patch, sand-sized grains, sharp boundaries Section 6: 9-16 cm: white pumice, sand and granule accumulation, denser concentration of grains in lower part
1.1											
2											
2.1											
3									IW		
3.1											
4									SS		
4.1											
5											
5.1											
6											
6.1											
7											
7.1											
8									PAL		

Site 1151 Hole A Core 12R							Cored 170.2-179.8 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
										GLASS AND DIATOM-BEARING CLAYEY SILT The core has a homogenous lithology and a soft lithification. The color is olive green color, except in Section 4, 0-70 cm, where the color changes to brownish olive-green. Section 2: 120-150 cm: greenish gray volcanic ash accumulation, 30 cm vertical extent, 3 cm broad 138 cm: black sand patch Section 3; 17-23 cm: white pumice granule accumulation, rounded to subrounded grains 33 cm: black rounded pebble, 2 cm in diameter 34 cm: black sand-silt accumulation 54-55 cm: dark gray silt accumulation 90-100 cm: several blue-green glauconite patches, 3-5 mm in diameter 106 cm: rounded pumice granule, 2 mm in diameter Section 4: 123 cm: several black pyrite patches Section 5: 59-64 cm: light gray fine-grained volcanic ash patches Section 7: 53-55 cm: fine-grained volcanic ash accumulation
1				X						
1.1				X						
2				X						
2.1				X						
3				X						
3.1				X						
4				X						
4.1				X						
5				X						
5.1				X						
6				X						
6.1				X						
7				X						
7.1				X						
8				X						
8.1				X						
9				X						
9.1				X						
10				X						
10.1				X						
11				X						
11.1				X						
12				X						
12.1				X						
13				X						
13.1				X						
14				X						
14.1				X						
15				X						
15.1				X						
16				X						
16.1				X						
17				X						
17.1				X						
18				X						
18.1				X						
19				X						
19.1				X						
20				X						
20.1				X						
21				X						
21.1				X						
22				X						
22.1				X						
23				X						
23.1				X						
24				X						
24.1				X						
25				X						
25.1				X						
26				X						
26.1				X						
27				X						
27.1										

Site 1151 Hole A Core 15R								Cored 199.2-208.9 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
				G1	 (P)					DIATOM-BEARING SILTY CLAY The core has a homogenous lithology, an olive-green color, and a soft lithification. Section 1: 5-8 cm: white pumice pebbles and glauconitic sand 16-18 cm: pebble, angular, 2 cm diameter 42-43 cm: gravel, rounded, 3 cm diameter 64 cm: rounded pebbles, 1 cm diameter 145-148 cm: silt-sized light gray ash patches Section 2: 0-5 cm: light gray ash patches, 2-4 mm in diameter Section 3: 49 cm: pumice pebbles, 8 mm diameter 55-59 cm: ash layer, fining up from sand sized at base to very fine-grained at top. Color change from gray to light gray up-section. 62 cm: light gray ash patch 88 cm: white very fine-grained ash patches with diffuse boundaries Section 4: 14 cm: pumice, 3 mm diameter 83 cm: pumice 107-110 cm: bioturbated ash layer 120 cm: small ash patch Section 5: 13-18 cm: light gray to gray fine-grained ash layer with inclined erosional base and irregular top 42 cm: ash patch 60-61 cm: greenish-gray ash patch 89-125cm: a number of ash patches Section 6: 11-14 cm: gray fine-grained ash layer with sharp base and irregular top. 17-47 cm: ash patches 110-111 and 127-128 cm: ash patch 145 cm: pumice
1				 (P)				— SS		
2				(P)						
3				Py						
4				(P) ↑ F						
5				 (P)						
6				(P)						
7				 (P)						
8				 (P)						
9				 (P)						
10				 (P)						
11				 (P)						
12				 (P)						
13				 (P)						
14				 (P)						
15				 (P)						
16				 (P)						
17				 (P)						
18				 (P)						
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21				 (P)						
22				 (P)						
23				 (P)						
24				 (P)						
25				 (P)						
26				 (P)						
27				 (P)						
28				 (P)						
29				 (P)						
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31				 (P)						
32				 (P)						
33				 (P)						
34				 (P)						
35				 (P)						
36				 (P)						
37				 (P)						
38				 (P)						
39				 (P)						
40				 (P)						
41				 (P)						
42				 (P)						
43				 (P)						
44				 (P)						
45				 (P)						
46				 (P)						
47				 (P)						
48				 (P)						
49				 (P)						
50		</								

Site 1151 Hole A Core 17R								Cored 218.5-228.1 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOM, SPICULE, AND GLASS-BEARING SILTY CLAY
1.18									SS		The core has a homogenous lithology, an olive-green color, and a soft lithification. Section 1: 18 cm: pebble, 0.7 cm diameter 27 cm: pebble, 0.25 cm diameter
2.18											Section 2: 72-118 cm: a number of scattered pebbles, including pumice, 0.25-1.5 cm diameters. 140-142 cm: gray ash patch, 2 cm diameter
3.18									IW		Section 3: 65-66 cm: pumice pebbles, 1.5 cm diameter 105-106 cm: light gray coarse ash patch with sharp boundaries 110-112 cm: light gray coarse ah patch with diffuse boundaries
4.18									PAL		

Site 1151 Hole A Core 18R										Cored 228.1-237.7 mbsf										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION									
1				X					SS		SPICULE-BEARING DIATOMACEOUS SILTY CLAY									
1.1				X							The core has a homogenous lithology, an olive-green color, and a soft lithification.									
2				X																
2.1				X																
3				X							Section 3: 85-86 cm: dark green sand patch									
3.1				X																
4				X																
4.1				X																
5				X																
5.1				X																
6				X																
6.1				X							Section 6: 148 cm: small shell fragments									
7				X																
7.1				X																
8				X																
8.1				X																
9				X							Section 7: 16-17 cm: 2 pumice grains, 1 mm in diameter 35-45 cm: bioturbated fine-grained ash patches									
9.1				X																
10				X					PAL											

Site 1151 Hole A Core 20R								Cored 247.3-256.9 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											SPICULE-BEARING DIATOMACEOUS SILTY CLAY
1.1									SS		The core has a homogenous lithology, an olive-green color, and a firm lithification.
2											Section 2: 40-41 cm: grain of pumice, pebble-sized
3									IW		
4											
5									PAL		Section CC: 9 cm: light to dark gray ash patch

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Core Photo

Site 1151 Hole A Core 22R										Cored 266.6-276.2 mbsf	
MEETERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											SPICULE-BEARING DIATOMACEOUS SILTY CLAY The core has a homogenous lithology, an olive-green color, and a firm lithification. Section 1: 35-43 cm: two light gray, very fine-grained ash layers, top and bottom boundaries are scoured Section 2: 20-24 cm: pyrite disseminations Section 3: 10-22 cm: bioturbated dark gray silt patches Section 5: 132-134 cm: dark gray silt accumulation
1.1									SS		
2					P _y						
2.1											
3											
3.1											
4											
4.1											
5											
5.1											
6											
6.1											
7											
7.1											
8											
8.1											
9											
9.1											
									PAL		

Core Photo

Site 1151 Hole A Core 23R									Cored 276.2-285.9 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1				X							SPICULE AND GLASS-BEARING DIATOMACEOUS SILTY CLAY
1.1				X							
2				X							The core has a homogenous lithology, an olive-green color, and a firm lithification.
2.1				X							
3				X							Section 1: 17-18 cm: dark gray silt layer, disturbed by drilling
3.1				X							
4				X							Section 3: 46-48 cm: altered gray pumice pebble, vesicular, 2 cm in length 61 cm: pumice granule layer, 3 mm thickness
4.1				X							
5				X							Section 4: 122 cm: light gray pumice pebble, broken, 1 cm in length
5.1				X							
6				X							Section 5: 55 cm: oxidized red pyrite accumulation 147 cm: dark gray subangular pebble, 7 mm in diameter
6.1				X							
7				X							Section 6: 118 cm: dark gray silt accumulation, layer-like
7.1				X							
8				X							
8.1				X							

[illegible]

Site 1151 Hole A Core 25R								Cored 295.6-305.3 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											SPICULE-BEARING DIATOMACEOUS CLAYEY SILT and GLASS, DIATOM, AND CLAY BEARING CARBONACEOUS OOZE
1.1									SS		The core contains spicule-bearing diatomaceous clay silt, except in Section 6, 0-100 cm, where the lithology is a clay bearing carbonaceous ooze. The color varies from olive-green to brownish. The core has a firm lithification.
2											Section 2: 9-12 cm: dark gray to light gray silty-sandy volcanic ash layer, sharp lower boundary, gradational upper boundary, fining and lightening color upward 98-108 cm: shapeless volcanic ash accumulations, lower part dark gray, upper part light gray and finer grained
3											Section 3: 86 cm: rounded pumice pebble, 3 mm in diameter
4											Section 4: 22 cm: dark band, horizontal and 2 mm in thickness 96-105 cm: light olive green carbonate patches
5											
6									SS		
7											
8											
9											
10									PAL		

Core Photo

Site 1151 Hole A Core 26R										Cored 305.3-314.9 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1				X							GLASS AND SPICULE-BEARING DIATOMACEOUS SILTY CLAY The core has a homogenous lithology, an olive green or patchy olive-green (when bioturbated) color, and a firm lithification. Section 1: 105-106 and 106-126 cm: volcanic ash layers. The lower layer becomes finer grained upward and changes color from gray to light gray. In the upper 5 cm of this layer, bedding lamination is visible and is slightly inclined. The upper contact of this layer is also inclined. The lower boundary is uneven, but sharp and erosional, whereas the upper boundary is gradational. Section 3: 26 cm: light olive-green carbonate patch 145 cm: dark band, horizontal and 5 mm thick Section 4: 26-34 cm: light olive-green carbonaceous patches of cm-size 74 cm: light gray and white pumice pebble with holes and vesicles, 2 cm long, 6 mm high Section 5: 5-6, 12-13 cm: carbonaceous patches, light olive-green and horizontally elongated 28-30 cm: gray to light gray volcanic ash layer, sharp bottom and top 93 cm: pumice granule, 3 mm long
1				X							
2				X							
2				X							
3				X							
3				X							
4				X							
4				X							
5				X							
5				X							
6				X							
6				X							
7				X							
7				X							

Core Photo

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Core Photo

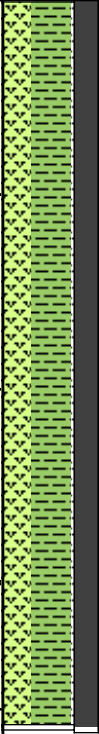
Site 1151 Hole A Core 31R										Cored 353.6-363.2 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											SPICULE-BEARING DIATOMACEOUS SILTY CLAY The core has a homogenous lithology, an olive-green color, and a firm lithification. Section 2: 48 cm: shell fragments Section 3: 20-26 cm: light gray very fine-grained bioturbated ash layer with irregular top and basal boundaries 100-103 cm: gray fine-grained ash layer with a sharp slightly scoured top and a sharp basal boundary Section 4: 122-123 cm: angular fragments of yellow altered pumice
1.1											
2											
2.1											
3									SS		
3.1											
4											
4.1											
5											
5.1											
6											
6.1											
7											
7.1											
									PAL		

Core Photo

Site 1151 Hole A Core 32R								Cored 363.2-372.9 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											SPICULE-BEARING DIATOMACEOUS SILTY CLAY
1									SS		The core has a homogenous lithology, an olive-green color, and a firm lithification.
2											
2											
3											
3											Section 3: 42-45 cm: dark gray medium-grained clay-bearing sandy silt layer, rich in lithic fragments, with a sharp irregular base and a gradational top; a few diffuse patches of sandy-silt occur below the layer 56-58 cm: light gray medium-grained ash patch (originally a layer?), with some pumice grains; sharp contacts
									PAL		

[illegible]

Core Photo

Site 1151 Hole A Core 34R										Cored 382.5-392.1 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 1.1 2 2.1 3 3.1 4 4.1 5											SPICULE, CARBONATE, AND DIATOM-BEARING SILTY CLAY The core has a homogenous lithology and an olive green color with light green bioturbation patches. The lithification is firm.

Core Photo

Site 1151 Hole A Core 35R										Cored 392.1-401.4 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 1.1 2 2.1 3 3.1									— WH — IW — SS — PAL		DIATOM, NANNOFOSSIL, AND GLASS-BEARING SILTY CLAY The core has a homogenous lithology, an olive-green color, and a firm lithification. Section 2: 70 cm: 2 pumice granules

Core Photo

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Site 1151 Hole A Core 37R								Cored 411.0-420.6 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											SPICULE AND DIATOM-BEARING SILTY CLAY The core has a homogenous lithology, a patchy olive-green color, and a firm lithification. Section 2: 13-26 cm: light gray to gray volcanic ash patches, fine-grained Section 3: 49-50 cm: thin discontinuous volcanic ash layer, sharp bottom and top
1.1											
2											
3											
3.1											
4											

Site 1151 Hole A Core 38R								Cored 420.6-430.3 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1				X							DIATOM-BEARING SILTY CLAY The core has a homogenous lithology, a patchy olive-green color, and a firm lithification. Section 1: 86 cm: several white rounded pumice granules, each 2 mm in diameter 108-112 cm: two parallel horizontal sand-granule accumulations, the granules are white pumice Section 2: 72-80 cm: two parallel horizontal sand-granule layers, below which are several granules and grains accumulations Section 3: 114-116 cm: gray green volcanic ash layer, mixed with clay, silt grain size 133 cm: light brown carbonaceous patch Section 3: 19 cm: pumice pebble 56-64 cm: sparsely distributed black sand grains
2				X							
3				X							
4				X							
5				X							

	METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
	0-3		[Green patterned lithology]		X X X X G I X X X X				/ / O O — SS — PAL			DIATOM AND SPICULE-BEARING CLAYEY SILT The core has a homogenous lithology, a patchy olive-green color, and a firm lithification. Section 1: 0-55 cm: set of parallel steep dipping artificial open fractures (drilling induced, ~70 degrees apparent dip) 75-90 cm: sparsely distributed black glauconitic sand grains

Site 1151 Hole A Core 41R								Cored 449.5-459.2 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
0											DIATOM, SPICULE, AND GLASS-BEARING SILTY CLAY
1											The core has a homogenous lithology, a patchy olive-green color, and a firm lithification.
1											Section 1: 7-9 cm: gray small round volcanic ash patches, < 1 cm in diameter 102-103 cm: white rounded pumice pebbles
2											Section 2: 0-20 cm: black glauconitic sand grains distributed, with one locally accumulated layer-like feature (at 14 cm) 40-55 cm: scoured, wavy joint, 70 degrees apparent dip angle, 1 mm thick black infill 60 cm: black silt patch 85-86 cm: green-blue glauconite patch 93, 96, and 147 cm: white rounded pumice pebbles and granules 115-117 cm: white fine-grained volcanic ash patches, sharp boundaries
3											Section 3: 124 cm: light gray rounded pumice granule, 2 mm in diameter
4											
5											Section 4: 19, 21, 41, and 43 cm: white rounded pumice granules and pebbles 54 and 62 cm: gray volcanic ash patches, flat and horizontally elongated

Core Photo

Site 1151 Hole A Core 42R							Cored 459.2-468.8 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES ICHNO. FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
								DIATOM AND SPICULE-BEARING SILTY CLAY The core has a homogenous lithology, a patchy olive-green color, and a firm lithification. Section 1: 0-50 cm: artificial open fractures; at 19 cm there is a steep dipping fault plane with slickenside striae that indicate dip slip motion; at 40 cm there is an artificial open fracture with horizontal striae on a steep dipping plane, indicating strike slip movement 20 cm: scoured black sand-silt accumulation 50-51 cm: washed out volcanic ash layer, with a few remaining white sand-sized grains Section 2: 7 cm: white pumice granule, subrounded, 2 mm in diameter 100-150 cm: black scattered glauconitic sand grains 144 cm: bluish green glauconite patches, 2 mm in diameter each Section 3: 0-90 cm: black glauconitic sand grains occur sparsely 8-9 cm: sand and pumice granules layer, white and gray 57-58 cm: light gray small volcanic ash patches, sharp boundaries, < 3 mm in diameter 60 cm: artificial fracture with horizontal slickenside striae on the fault plane Section 4: 26 cm: oval shaped pumice pebble, 1.5 cm long, rounded edges

Core Photo

Site 1151 Hole A Core 43R								Cored 468.8-478.4 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1					GI	X					SPICULE AND NANNOFOSSIL-BEARING SILTY CLAY
1					GI	X					The core has a homogenous lithology, a patchy olive green color, and a firm lithification. Sparse black glauconitic sand grains are scattered throughout all sections.
2					GI	X					Section 1: 0-8 cm: light gray, fine-grained volcanic ash layer, sharp lower boundary this is not erosional, partly lithified material 8-40 cm: high amount of scattered black glauconitic sand grains 28-31, 83, 99, 113, and 124 cm: white pumice pebbles and granules, rounded, 2-10 mm in diameter, single grains or accumulations
3					GI	X					Section 2: 0-22 and 130-140 cm: black glauconitic sand accumulations and scattering
4					GI	X					Section 3: 18 cm: accumulation of rounded white pumice granules, 1-2 mm in diameter 20-24 cm: light gray volcanic ash patches, diffuse boundaries 53-54 cm: light gray fine-grained volcanic ash layer, disturbed, sharp top, uncertain bottom
									SS		
									PAL		

Site 1151 Hole A Core 44R								Cored 478.4-488 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
0											DIATOM, SPICULE, AND GLASS-BEARING SILTY CLAY The core has a homogenous lithology, a patchy olive green color, and a firm lithification.
1											
2									IW		Section 2: 50 cm: black dissolution-precipitation rim, 4 cm in diameter
3											
4											Section 3: 67-68 cm: gray volcanic ash patches, very fine-grained, sharp boundaries
5											
6									SS		Section 5: This section contains very small greenish white volcanic ash patches.
7											
8											
9									PAL		

Core Photo

Site 1151 Hole A Core 45R									Cored 488-497.6 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 1.1 2 2.1 3 3.1 4											GLASS, SPICULE, AND DIATOM-BEARING SILTY CLAYSTONE The core has a homogenous lithology, a dark olive green color, and a firm lithification. Section 2: 26 cm: light bluish dissolution-precipitation rim, 2 cm in diameter SS PAL

Core Photo

Site 1151 Hole A Core 47R										Cored 507.2-516.8 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											SPICULE, DIATOM, AND CARBONATE-BEARING SILTY CLAY The core has a homogenous lithology, an olive green color, and a firm lithification. Sponge spicules are common throughout the core. Section 1: 64-65 cm: brownish-gray fine-grained ash patch
1.1											
2									SS		
2.1											
3											
3.1											
4									W		
4.1											
5											
5.1											
6											
6.1											
7											
7.1											
8											
8.1											
									PAL		Section 6: 121-122 cm: light gray fine-grained ash patch

Site 1151 Hole A Core 48R							Cored 516.8-526.4 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
0										DIATOM AND SPICULE-BEARING SILTY CLAY The core has a homogenous lithology, an olive green color, and a firm lithification. Sponge spicules are scattered infrequently throughout the core.
1				X X						
1.1				X X						
2				X X						Section 2: 87-88 cm: light gray fine-grained ash layer 92-94 cm: white to light gray very fine-grained ash layer, with sharp base and irregular top. 128-130 cm: light gray to gray very fine-grained ash layer
2.1				X X						
2.2				X X						
2.3				X X						
2.4				X X						
2.5				X X						
2.6				X X						
2.7				X X						
2.8				X X						
2.9				X X						
3				X X						
3.1				X X						
3.2				X X						
3.3				X X						
3.4				X X						
3.5				X X						
3.6				X X						
3.7				X X						
3.8				X X						
3.9				X X						
4				X X						
4.1				X X						
4.2				X X						
4.3				X X						
4.4				X X						
4.5				X X						
4.6				X X						
4.7				X X						
4.8				X X						
4.9				X X						
5				X X						
5.1				X X						
5.2				X X						
5.3				X X						
5.4				X X						
5.5				X X						
5.6				X X						
5.7				X X						
5.8				X X						
5.9				X X						
6				X X						
6.1				X X						
6.2				X X						
6.3				X X						
6.4				X X						
6.5				X X						
6.6				X X						
6.7				X X						
6.8				X X						
6.9				X X						
7				X X						
7.1				X X						
7.2				X X						
7.3										

Core Photo

[illegible]

Site 1151 Hole A Core 50R							Cored 536-545.7 mbsf												
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES		DESCRIPTION							
1 1.1 2 3 4 5												SPICULE AND DIATOM-BEARING SILTY CLAY The core has a homogenous lithology, an olive green color, and a firm lithification. Section 2: 20-23 cm: light gray pumice and ash layer, with a sharp but bioturbated base and a diffuse and irregular upper boundary Section 3: 96-97 cm: scattered pumice granules 123-126 cm: light gray fine-grained ash layer with a sharp base and scoured top boundary Section 4: 60-82 cm: displacement on fault is more than 20 cm							
							G.I.	PAL											

Site 1151 Hole A Core 52R										Cored 555.4-565.1 mbsf											
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION										
												DIATOM AND GLASS-BEARING SILTY CLAY The core has a homogenous lithology, an olive green color, and a firm lithification. Section 1: 35-36 cm: dark gray silt thin layer Section 5: 46-46.5 cm: white rounded pumice pebble									

[illegible]

Core Photo

Site 1151 Hole A Core 54R										Cored 574.7-584.3 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1										/a	GLASS AND DIATOM-BEARING SILTY CLAY and SPICULE AND GLASS-BEARING SILTY CLAY The core contains olive green glass- and diatom-bearing silty clay in Sections 1-4 and grayish olive green spicule- and glass-bearing silty clay in Sections 5 and 6. Sections 1 to 4 have relatively homogenous thin planar laminations (~2-mm thick) that alternate between lighter and darker olive green and grayish and brownish colored laminae. The lithification is firm. Section 1: 4 cm: gray, fine-grained, discontinuous volcanic ash layer 33-34 cm: black silt layer 75-120 cm: set of parallel artificial open fractures with 65 degrees apparent dip angles, no visible fault infill, slickenlines on fault plane indicate dip slip movement Section 2: 5-28, 65-74, and 88-106 cm: artificial open fractures, apparent dip angles between 45 and 60 degrees 24-30 cm: black distributed sand grains with central denser layerlike accumulation at 26 cm 137-138 cm: dark gray sand-silt patches Section 3: 20 cm: artificial open fracture, horizontal fault trace, but steeply dipping into core, no infill, striae indicating almost pure dip slip 72 cm: dark silt patches, horizontally elongated and flat Section 4: 26-30 cm: dark sand grains, distributed and at 28 cm accumulated 74 cm: black silt layer, 2 mm thickness Section 5: 0-150 cm and Sect. 6: 0-61 cm: slightly greyish olive green colored spicule- and glass-bearing silty clay 15-55 cm: disturbed part with split surface parallel fracturing and sparse slickenlines on fracture planes, strike slip movement on these planes 44-57 cm: open fracture, formerly a normal fault, offsets black silt layer vertically about 1.5 cm, 60 degrees apparent dip angle 107 cm: dark gray silt layer, 3 mm thickness Section 6: 22 cm: dark gray silt patch, 2 mm thick, 3 cm long, horizontal
1.1										/a	
2										/a	
2.1										/a	
3										/a	
3.1										/a	
4										/a	
4.1										/a	SS
5										/a	
5.1										/a	
6										/a	
6.1										/a	
7										/a	
7.1										/a	PAL
8										/a	
8.1										/a	
9										/a	
9.1										/a	
10										/a	

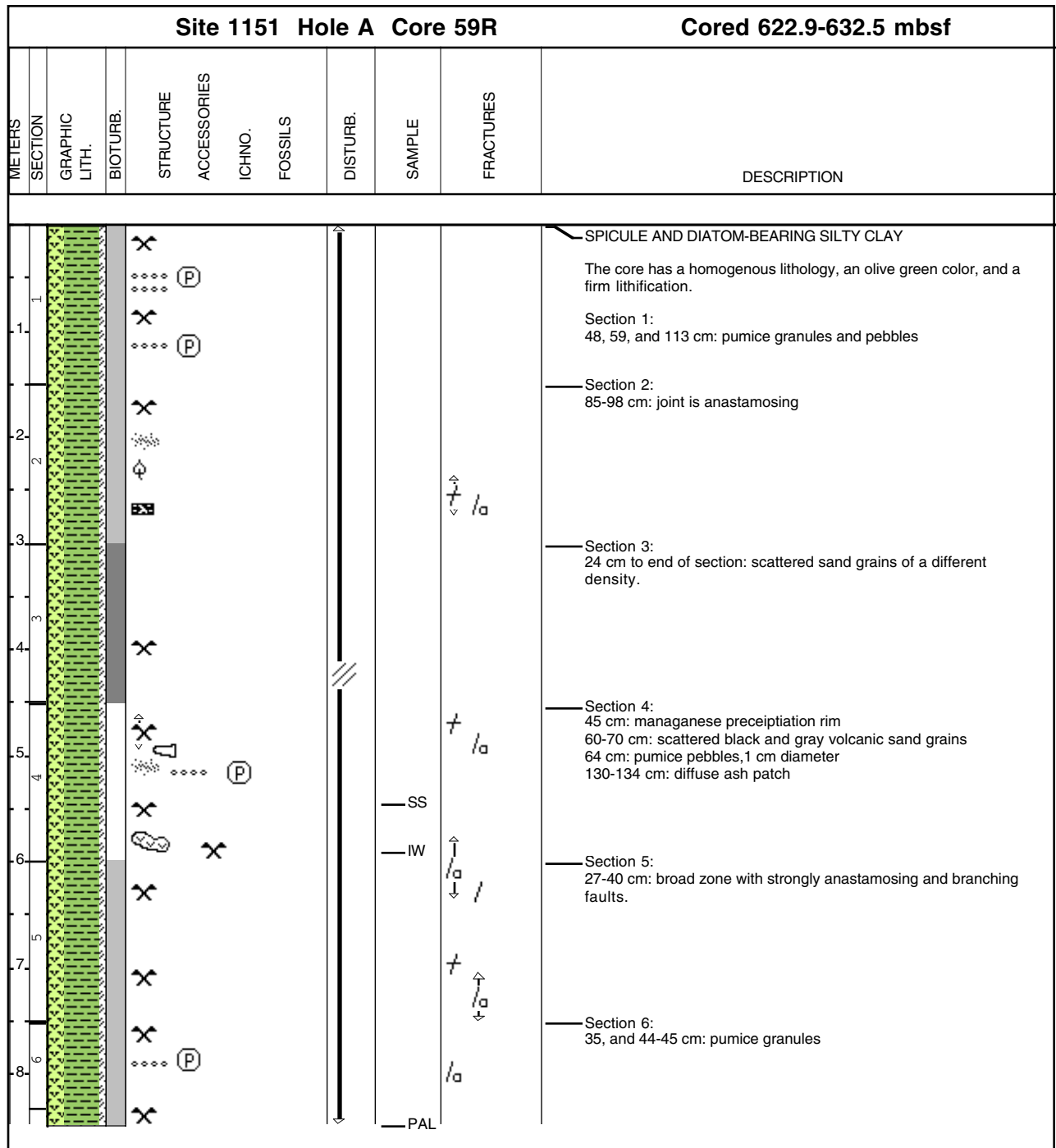
Site 1151 Hole A Core 55R								Cored 584.3-593.9 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
											GLASS, DIATOM, AND SPICULE-BEARING SILTY CLAY The core has a homogenous lithology, an olive green color, and a firm lithification.

Core Photo

Site 1151 Hole A Core 57R										Cored 603.5-613.2 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											NANNOFOSSIL AND SPICULE-BEARING SILTY CLAY and CLAYEY VOLCANIC ASH The core contains olive green nannofossil- and spicule-bearing silty clay, except in parts of Section 3, which is a clayey volcanic ash. The core has a firm lithification. Section 1: 60-150 cm: sparse black and gray sand grains Section 2: 11 and 19 cm: white subrounded pumice granules 30-37 and 75-82 cm: anastomosing joints 92 cm: black silt patch 117-149 cm: set of parallel and branching, steep and wavy, curved normal faults, offset visible at bioturbation structures between 5-15 mm Section 3: 0-150 cm: scattered black and gray sand grains, locally accumulated; at 98 cm a smear slide indicates that most of Section 3 is a clayey volcanic ash (texture: sand-bearing clayey silt) 93-97 cm: accumulation of white subrounded pumice pebbles 106 cm: white subrounded pumice pebble 110-113 cm: disturbed black sand layer with some pumice granules 122-123 cm accumulation of several white rounded pumice granules 127-129 cm: disturbed volcanic ash layer, light gray, cut by steep normal fault with vertical offset at least 3 cm 128-133 cm: strongly anastomosing joint Section 4: 0-80 cm: high amount of black and gray sand grains and dark olive green color 28-54 cm: set of closely spaced parallel joints, strongly anastomosing each and filled with thin dark infill 70 cm: light gray volcanic ash patch, sand grain sized grains Section 5: 15-51 cm: black scattered sand grains

Core Photo

Site 1151 Hole A Core 58R									Cored 613.2-622.9 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
0											GLASS, DIATOM, AND SPICULE-BEARING SILTY CLAY
1											The core has a homogenous lithology, a dark olive green color, and a firm lithification.
1											Section 1: 53-56 and 117-123 cm: black precipitation rims, manganese rich 101-117 cm: bleached grayish patch 105-112 cm: accumulation of black sand and silt grains 146-150 cm: white subrounded pumice pebbles and granules
2											Section 2: 20-29 cm: sharp joint trace 22 cm: white pumice granule 82 cm: greenish blue glauconite patches, 2 mm in diameter each 126 cm: 1.5 cm long altered pyrite accumulation 126 cm: white and gray subrounded pumice pebble
3											Section 3: 6 and 12-20 cm: white rounded pumice granules, at 18 cm accumulation 8 cm: silt patch 40-50 cm: light gray diffuse volcanic ash patches 70-86 cm: bleached grayish patch
4											Section 4: 18-25 cm: deformed greenish light gray volcanic ash layer, diffuse curved boundaries
5											Section 5: 74-80 cm: diffuse dark silt patches 122-130 cm: washed out silt patches, 2 mm in diameter each
6											Section 6: 93 and 110 cm: gray silt patches 95 cm: white rounded pumice granule
7											Section 7: 24-27 cm: disturbed gray volcanic ash patch, sharp boundaries, moderately fractured



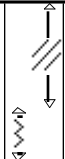
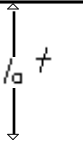
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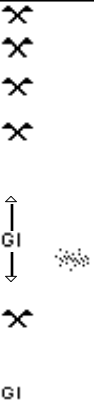
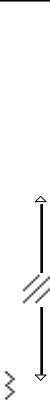
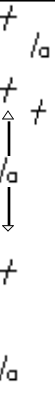
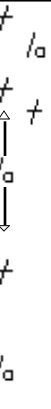
Core Photo

Site 1151 Hole A Core 61R								Cored 642.1-651.6 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1					(P)	X					DIATOM, SPICULE AND GLASS-BEARING SILTY CLAY
1					(P)	X			SS		The core has a homogenous lithology, an olive green color, and a firm lithification. Sponge spicules are extremely common throughout the core.
2					GI	X					Section 1: 13-14, 19, and 65-66 cm: pumice pebbles
3					GI	X					
4						X					
5					(P)	X					Section 4: 128-130 cm: pumice pebbles
6					(P)	X					
5						X					

Core Photo

Site 1151 Hole A Core 62R										Cored 651.6-661.2 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 1.1											DIATOM, SPICULE, GLASS, AND PYRITE-BEARING CLAYEY SILT The core has a homogenous lithology, an olive green color, and a firm lithification. Section 1: 0-3 cm: dolomite fragments (their concentration at the top of the core is a drilling artifact)

Core Photo

Site 1151 Hole A Core 63R										Cored 661.2-670.8 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 1.1 2 2.1 3											DIATOM, SPICULE, AND CARBONATE-BEARING CLAYEY SILT The core has a homogenous lithology, an olive green color, and a firm lithification.

Core Photo

Site 1151 Hole A Core 64R										Cored 670.8-680.2 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOM, SPICULE, AND CARBONATE-BEARING CLAYEY SILT The core has a homogenous lithology, an olive green color, and a firm lithification.

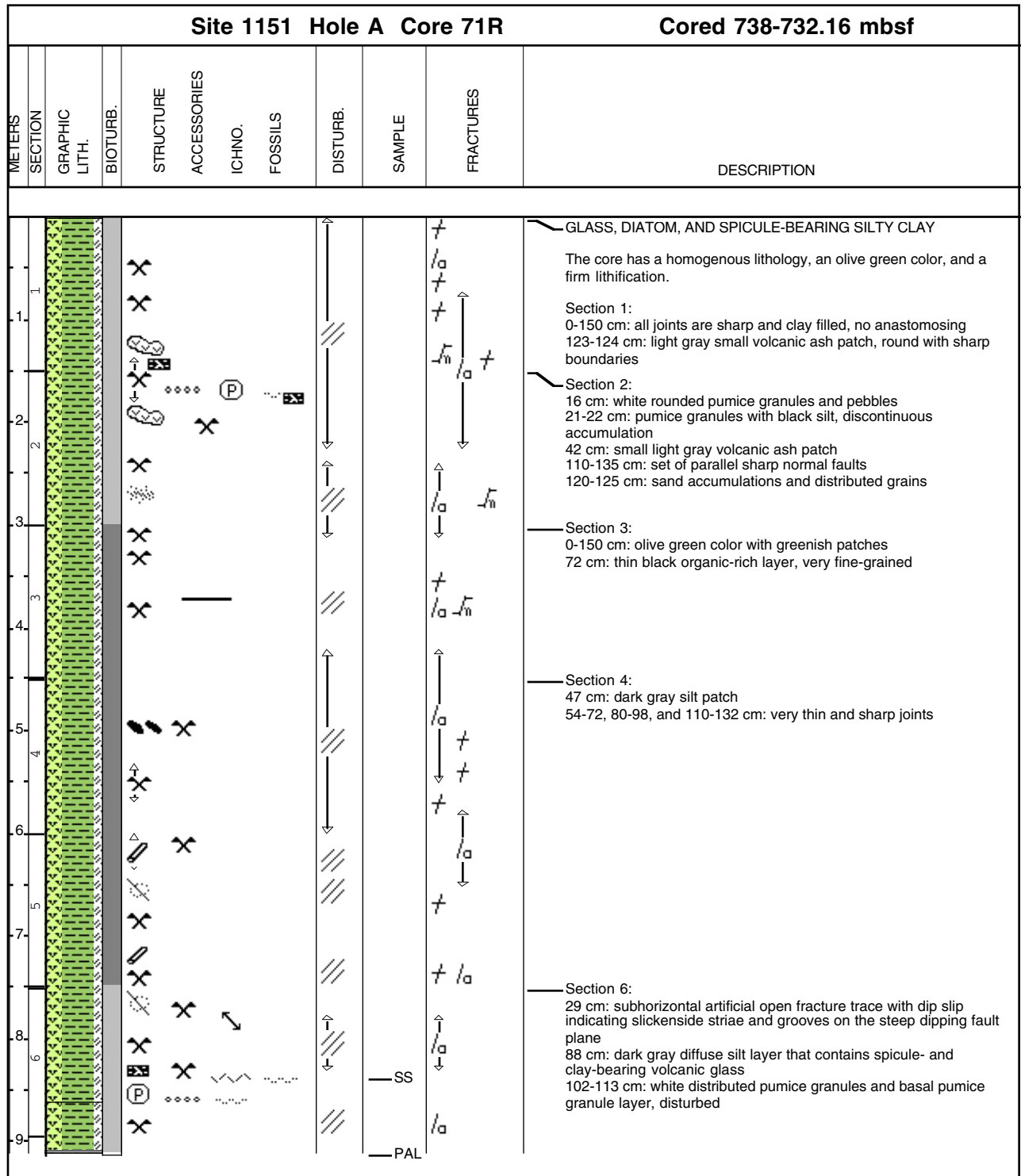
Site 1151 Hole A Core 65R								Cored 680.2-689.8 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1		[Green hatched pattern]		GI [X] [dotted]			/ //	+ /a		DIATOM AND SPICULE-BEARING SILTY CLAY The core has a homogenous lithology, an olive green color, and a firm lithification. Sponge spicules occur throughout the core but are particularly common in Sections 3 and 4.
1.1				X [X] [dotted]			//	->		
2				X GI X [dotted]			//	a		Section 2: 123-125 cm: light gray very fine-grained bioturbated ash layer
2.1				X GI X [dotted]						
3				X GI X [dotted]				a		
3.1				X GI X [dotted]						
4				X GI X [dotted]			//	+ +		
4.1				X GI X [dotted]			//	+ +		
5				X GI X [dotted]				a +		Section 5: 51-55 cm: light gray very fine-grained bioturbated ash layer
5.1				X GI X [dotted]				+ +		
6				X GI X [dotted]				+ +		
6.1				X GI X [dotted]				+ +		
7				X GI X [dotted]				PAL		
7.1				X GI X [dotted]						
8				X GI X [dotted]						

Site 1151 Hole A Core 66R								Cored 689.8-699.4 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
										DIATOM, SPICULE, AND GLASS-BEARING CLAYEY SILT The core has a homogenous lithology, an olive green color, and a firm lithification. Sponge spicules are found throughout the core. Section 1: 43 and 49 cm: pumice 128 cm: light gray very fine-grained ash patch SECTION 2: 45-46 CM: dark gray-black silt 127-128 cm: dark silt
1				X (P) ...				SS		
1.1				X				IW		
2				X						
2.1				X						
3				X				PAL		

Site 1151 Hole A Core 67R										Cored 699.4-709 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
0											DIATOM, GLASS, SPICULE, AND CARBONATE-BEARING CLAYEY SILT
1											The core has a homogenous lithology, an olive green color, and a firm lithification. Sponge spicules are found throughout the core except in Section 4.
1.5											Section 1: 0-7 cm: dolomite fragment
2											Section 2: 51 and 56 cm: pumice pebbles
3											Section 3: 62 cm: pumice pebbles
4											
5											
6											Section CC: 0-9 cm: scattered light gray pumice granules

Site 1151 Hole A Core 69R								Cored 718.6-728.3 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
0 1 2 3 4 5 6 7										GLASS, DIATOM, AND SPICULE-BEARING SILTY CLAY
										The core has a homogenous lithology, a patchy olive green color, and a firm lithification. Fractures are commonly healed with dark gray thin infill and are sharp and straight.
										Section 1: 32 cm: black band 42 cm: subhorizontal fault trace with striae indicating dip slip motion on the fault plane 84-92 cm: dark gray mottled silt 123-130 cm: accumulated and distributed black sand grains
										Section 2: 10-15 cm: pale glue green glauconite patches 94-96 cm: layerlike black sand accumulation
										Section 3: 19-20 cm: black silt patch 70-145 cm: several normal faults, one dipping subvertically with 5 mm vertical offset
										Section 4: 0-150 cm: extreme high amount of light brownish olive green, very big burrows 19-33 and 85-104 cm: two normal faults, 3 and 5 mm vertical offset
										Section 5: 33-36 cm: dark gray manganese precipitation rims 60-70 cm: subvertical normal fault, 3 cm vertical offset 80 cm: light gray mottled volcanic ash

Site 1151 Hole A Core 70R							Cored 728.3-738 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
										SPICULE-BEARING GLASSY SILTY CLAY The core has a homogenous lithology, a patchy olive green color, and a firm lithification. Section 1: 0-12 cm: normal fault Section 2: 0-30 cm: three sets of parallel closely spaced normal faults, offsetting burrows and offsetting a light gray very fine-grained volcanic ash layer at 10-17 cm 123-124 cm: dark gray silt patch Section 3: 10-68 cm: complex anastomosing and branching fault and joint pattern
1										
2										
3										
								SS		
								PAL		



Site 1151 Hole A Core 72R										Cored 747.7-755.48 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
											GLASS, SPICULE, AND DIATOM-BEARING SILTY CLAY The core has a homogeneous lithology, an olive green color, and a firm lithification.
1										/a +	
1										/a +	
2										/a +	Section 2: 60-83 cm: artificial open fracture with striae and grooves on the fault plane indicating strike slip displacement
2										/a	
2										/a	
3									IW	↑ /a	Section 3: 0-150 cm: all normal faults are straight and thinly infilled, anastomosing rarely 10 cm: diffuse greenish gray volcanic ash layer
3										↕ /a	
4										↑	
4										/a ↕	Section 4: 10-25 cm: shear zone consisting of a set of closely spaced parallel normal faults; the interfault sediment is slightly rotated and deformed in a ductile way, faulted light olive green layer shows drag bending, sum of vertical offsets 2 cm 110-114 cm: diffuse black silt layer
5									SS	↕	
5										↕ +	
6										↑	Section 5: 0-57 cm: two sets of parallel closely spaced joints, crosscutting at 20 cm
6										↓	
6										↑	
6										↓	
7										↑	Section 6: 3-30 cm: two thick sharp joints 40-58 cm: normal fault with offset > 7 cm
7										↓	
7										↑	
7										↓	
7									PAL	↕	

Site 1151 Hole A Core 73R										Cored 757.3-766.9 mbsf											
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION										
												SPICULE-BEARING SILTY CLAY The core has a homogeneous lithology, an olive green color, and a firm lithification. 10-11 cm: chondrites Section 3: 100-104 cm: greenish-gray ash layer, coarse-grained, with diffuse boundaries 52-54, 123-125 cm: chondrites SS PAL									

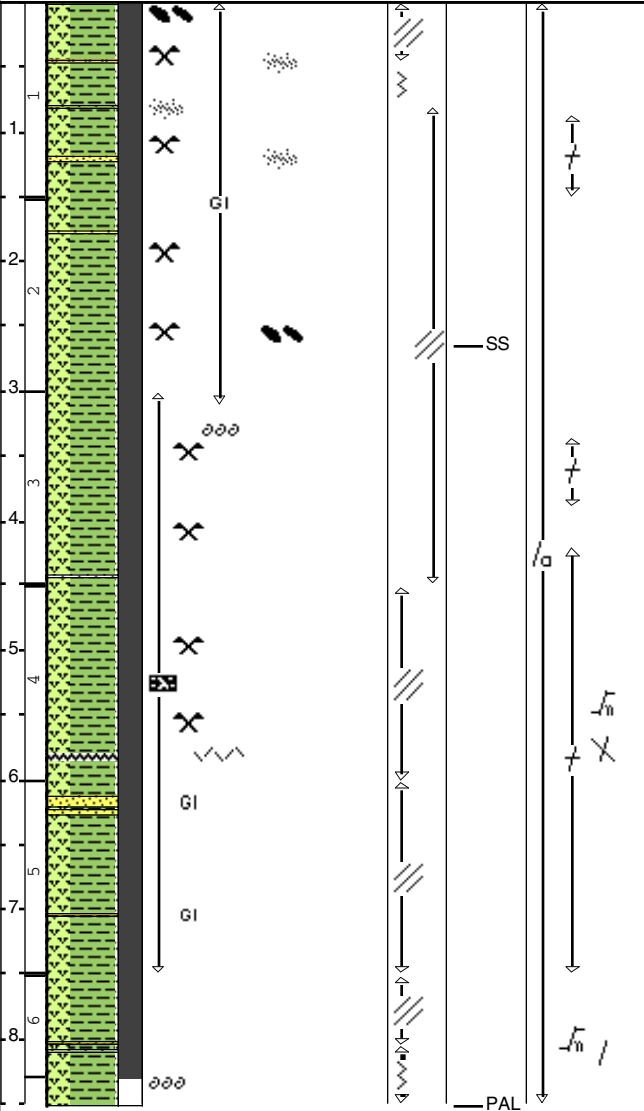
Core Photo

Site 1151 Hole A Core 74R										Cored 766.9-776.5 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOM, SPICULE, AND GLASS-BEARING CLAYEY SILT. The core has a homogeneous lithology, an olive green color, and a firm lithification. Section 1: 23-24 cm: light gray fine-grained ash layer Section 2: 91-93 cm: dark gray fine-grained ash layer Section 3: 12 cm: gray sand accumulation Section 4: 53-55 cm: dark gray silty-very fine sandy layer (disturbed by coring) Section 5: 28-29 cm: light gray very fine-grained ash layer, with sharp but bioturbated top and basal boundaries. 44 cm: shell fragments 122-124 cm: gray fine ash layer (disturbed by coring) Section 6: 27-40 cm: glauconite-rich layer
1.1									SS		
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2.1											
3											
3.1											
4											
4.1											
5											
5.1											
6											
6.1											
7											
7.1									PAL		

Core Photo

Site 1151 Hole A Core 75R										Cored 776.5-786.1 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOM AND SPICULE-BEARING SILTY CLAY The core has a homogeneous lithology, an olive green color, and a firm lithification. Section 1: Glanconite scattered throughout this section. Section 2: 111-116 cm: dark gray medium- to fine-grained ash layer Section 3: Light gray fine-grained ash patches occur in this section. 102-104 cm: light gray ash patches Section 5: 55-57 cm: dark gray silt accumulated layer 132-138 cm: gray to dark gray ash layer with bioturbated top and base
1.1									SS		
2											
2.3									IW		
3											
4											
5											Section 5: 55-57 cm: dark gray silt accumulated layer 132-138 cm: gray to dark gray ash layer with bioturbated top and base
6											
7											
6									PAL		

Core Photo

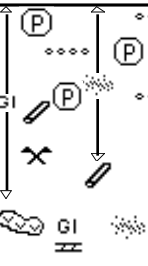
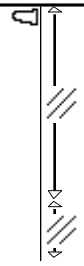
Site 1151 Hole A Core 76R										Cored 786.1-795.7 mbsf											
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION										
												DIATOM AND SPICULE-BEARING CLAYEY SILT The core has a homogenous lithology, an olive green color, and a firm lithification. Sponge spicules are common throughout Sections 1-4. 45-46 cm: greenish gray bioturbated silty layer 118-124 cm: bioturbated glauconitic sandy layer Section 2: 137-141 cm: glauconite-rich interval Section 3: 141-144 cm: light gray, fine-grained bioturbated ash layer Section 4: 129-133 cm: light gray, very fine-grained bioturbated ash layer, with scoured and bioturbated upper and lower boundaries Section 5: 13-21 cm: inclined glauconitic sandy layer 20-23 cm: inclined white very fine-rgrained bioturbated ash layer 26 and 103 cm: glauconitic sandy layer Section 6: 53-55 cm: glauconitic sandy layer cut by a normal fault 57-60 cm: light gray bioturbated very fine-grained ash layer, cut by a fault									

Site 1151 Hole A Core 77R							Cored 795.7-805.4 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
0										DIATOM-BEARING SILTY CLAY
1										The core has a homogenous lithology, an olive green color, and a firm lithification.
1.1										Section 1:
1.2										54., 60, 135 cm: glauconite-rich layer
1.3										98-100: bioturbated very-fine white ash layer, but by a normal fault
1.4										117, 124 cm: glauconitic sand-rich layer
2										Section 2:
2.1										85-90 cm: inclined glauconitic sand layer
2.2										101-105: glauconite-rich sand scattering
2.3										106-108: gray, fine ash layer with an erosional base; top was lost by coring
2.4										125-126: glauconite sand layer
3										Section 3:
3.1										39-40 cm: bioturbated light gray ash
3.2										107 cm: glauconite sand layer
3.3										117 cm: granule-size glauconite
4										
4.1										
4.2										
4.3										
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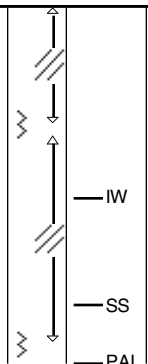
Core Photo

Site 1151 Hole A Core 78R								Cored 805.4-815 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1										DIATOM, SPICULE, AND GLASS-BEARING CLAYEY SILT
1								SS	/	The core has a homogenous lithology, an olive green color, and a firm lithification.
										Section 1: 13-16, 40-47 cm: glauconitic sand-rich layers 58-59 cm: glauconitic sand filled burrow
2										Section 2: Glauconite sand scattered throughout section.
2										132-137 cm: healed joints; rich in glauconitic sand between joint 133-150: glauconite sand-rich interval
3										Section 3: 31-36 cm: bioturbated light gray fine-grained ash layer with sharp base and top 42-43 cm: glauconite sand-rich patch 46-47 cm: bioturbated white very fine sah layer with sharp but bioturbated top and base 70, 73, and 77 cm: brownish gray pumice pebble 80-130 cm: scattered glauconite sand grains
3										Section 4: 70-150 cm: abundant sand-sized glauconite grains 5-17 cm: scattered pumice granules with erosional base 50-66 cm: scattered pumice granules 123-124 cm: glauconitic sand layer
4										Section 5: 88-89 cm: gray fine ash patch 144-150 cm: light gray pumice granules
5								IW		Section 6: 0-10 cm: scattered pumice 45-70 cm: light gray pumice granules and pebbles 70-73 cm: coarse-grained light gray ash layer with sharp base and scoured top 118-119 cm: light gray pumice pebble 138-141 cm: yellowish brown carbonatic silt? patches
5										Section 7: 9 cm: brownish pumice
6										
7										
8										
9								PAL		

Core Photo

Site 1151 Hole A Core 79R										Cored 815-824.6 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 1.1 2											DIATOM, SPICULE, AND GLASS-BEARING CLAYEY SILTSTONE The core has a homogenous lithology, an olive green color, and a hard lithification. Section 1: 0-150 cm: Glauconitic sand; grading downward from 0-20 cm; silty part from 20-120 cm 0-10 cm: light bluish-green patches from bleaching and precipitation 4-12 cm: light gray scattered pumice granules 34-40 cm: light gray greenish clay with pumice pebbles and granules, rounded 70-75 cm: 3 pumice pebbles 80-145 cm: glauconite filled burrows Section 2: 18-21 cm: bioturbated white fine-grained ash 21-26 cm: glauconitic sand 26-45 cm: dolomitic layer, color change to khaki

Core Photo

Site 1151 Hole A Core 81R										Cored 834.2-843.8 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 1.1 2											GLASS, DIATOM, AND SPICULE-BEARING SILTY CLAYSTONE The core has a homogenous lithology, an olive green color, and a hard lithification. Section 1: 51 cm: gray volcanic ash patch 70 cm: very thin disturbed ash layer, sand grain sized 74 cm: slight oblique dip slip indicating slickenline on open fault plane 105-130 cm: towards depth increasing amount of scattered pumice granules Section2: 31 cm: small elongated silt patch 90-98 cm: scattered black sand grains 94-98 cm: scattered white pumice granules

Core Photo

Site 1151 Hole A Core 82R										Cored 843.8-853.4 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											GLASS, DIATOM, AND SPICULE-BEARING SILTY CLAYSTONE The core has a homogenous lithology, an olive green color, and a hard lithification. Section 1: 84 cm: grayish bleached patch, oval shape Section 2: 12 cm: diffuse dark sand patch 77-80 cm: layerlike accumulation of black sand grains Section 3: 0-150 cm: grayish olive green color due to higher concentration of volcanic glass Section 5: 5-20 cm: normal fault with vertical offset of 2 cm
1.1									SS		
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6											
6.1											
7											
7.1									PAL		

1151A-83R NO RECOVERY

Site 1151 Hole A Core 84R										Cored 863.1-872.8 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
0											GLASS, SPICULE, AND DIATOM-BEARING SILTY CLAYSTONE
1											The core has a homogenous lithology, an olive green color, and a hard lithification.
1.5											Section 1: 84-86 cm: volcanic ash layer that is disturbed by coring
2								WH			Section 2: 51-54 cm: greenish gray volcanic ash layer, clayey, diffuse boundaries 120-126 cm: distributed black sand grains 128-131 cm: pumice pebble and granules
3											Section 3: 28-30 cm: pumice granules and pebble 43-46 cm: pumice granules mixed with several sponge spicules
4								SS			
5								IW			Section 4: 10-15 cm: black and brown precipitation rim 26-43 cm: scattered and accumulated pumice granules 86-91 cm: gray mottled sand
6											Section 5: 28-30 cm: inclined black diffuse silt layer
7											
8											Section 6: 30 cm: pumice granules and sponge spicules mixed 36 cm: pumice pebble 72-85 cm: black and white scattered sand grains that increase in amount with depth; layerlike accumulation at 85 cm
9								PAL			Section CC: 7 cm: dark gray silt patch 8-9 cm: diffuse greenish gray volcanic ash layer

Core Photo

Site 1151 Hole A Core 86R							Cored 882.3-891.9 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
0										SPICULE AND GLASS-BEARING SILTY CLAYSTONE
1										The core has a homogenous lithology, a patchy olive green color, and a hard lithification.
2										Section 1: 104-112 cm: white to light gray volcanic ash layer, fractured and only partly recovered; distributed small ash accumulations below
3								SS		Section 2: 18-26 cm: normal fault with 4 cm vertical displacement 98 cm: ash sand accumulation, layer-like 125 cm: precipitation rim around open artificial fracture
4										Section 3: 6-8 cm: black sand accumulation 64-72 cm: open artificial fracture with slickenside striae indicating normal dip slip movement on the plane 86 cm: black precipitation rim 110 cm: angular white pumice pebbles and granules
								PAL		

Site 1151 Hole A Core 87R								Cored 891.9-901.6 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 1.1 2 2.1 3 3.1 4 4.1 5 5.1											SPICULE AND GLASS-BEARING SILTY CLAY and SPICULE-BEARING GLASSY SILTY CLAY The core contains patchy olive green spicule- and glass-bearing silty clay in Sections 1 and 2 and patchy grayish olive green spicule-bearing glassy silty clay below this. The lithification is hard. Section 1: 59-65 cm: conjugate set of moderate dipping normal faults 120-127 cm: black sand patches, around some distributed sand grains Section 2: 85 cm: open artificial fracture plane with slickenside striae indicating normal dip slip movement 114-121 cm: black silt patches Section 3: 30 cm: piece with sand acucumulation 60-65 cm: piece with fragment of fracture Section 4: 12-13, 22, and 26 cm: glauconite patches, green blue 44 cm: silt patch, black 55 cm: sand accumulation

Site 1151 Hole A Core 89R										Cored 911.2-920.8 mbsf										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION									
1				GI							DIATOM-BEARING CLAYEY SILTSTONE									
1.1									SS		The core has a homogenous lithology and an olive-green color. Many light brownish and dark gray burrow patches throughout.									
1.18											Section 1: 18 cm: green glauconite patches									
2											Section 2: 5-6 cm: gray very fine-grained ash patch 10 cm: green glauconite patch 15-80 cm: large light brownish unknown burrows 87 cm: thin dark gray silty layer 124-126 cm: gray medium-grained ash layer with sand and glauconitic sand; erosional base and scoured top									
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1151 Hole A Core 90R							Cored 920.8-930.4 mbsf				
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOM- AND SPICULE-BEARING SILTY CLAYSTONE
1.1											The core has a homogenous lithology and an olive green color with light brownish and dark gray burrow patches throughout core. The core is heavily fractured by coring.
1.2											Section 1: 25-90 cm: dolomite fragments; their concentration at the top of the core is a drilling artifact 28 cm: shell fragment
1.3											90-95 cm: light gray pumice granules and grains 90-135 cm: scattered glauconitic sand grains 110-115 cm: dark silt accumulation
1.4											Section 2: 30-32, 130 cm: green glauconite patches 85 cm: pyrite patch 126 cm: dark gray silt patch
1.5											Section 3: 0-82 cm: large light brownish burrows 126 cm: rounded gray pumice granules
1.6											Section 4: 10 cm: dark glauconitic silt accumulation

Core Photo

Site 1151 Hole A Core 91R									Cored 930.4-940.1 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1				(P)					— SS	/a	DIATOM AND SPICULE-BEARING SILTY CLAYSTONE The majority of the core has a homogenous lithology and an olive green color. Pyrite occurs frequently throughout the core. Glauconitic silt or sand grains, associated with pumice and sand are scattered throughout the core, in low concentration in Sections 1-4, and in high concentration from Section 5-CC. Section 1: 52, 58, 65, 68, 72, and 111 cm: white pumice grains and pebbles 97 cm: white to dark gray subrounded pumice pebbles with silt 95 cm: green glauconite patch Section 2: 10-14, 23 cm: bioturbated dark gray silt-sand layer 30-39 and 47-48 cm: light gray ash grains filling in open fractures 40-46 cm: white irregular pumice granules with silt and sand grains 85-89 cm: Zoophycos burrows 100-110 cm: scattered granules of pumice 122-150: scattered white pumice granules with dark color sand Section 3: 0-2 cm: sharp-based layer of white, inclined pumice granules with dark and light gray sand 5-7 cm: green glauconite patches 25-40 cm: scattered white pumice granules 39 cm: a pumice pebble 61-62 cm: dark gray silt accumulation 75 cm: shell fragment 100-150 cm: scattered glauconitic sand grains 120-134 cm: scattered white pumice granules Section 4: 0-10 cm silt and glauconitic sand accumulation 0-60 cm: Zoophycos burrows 22 cm: Zoophycos burrow filled by black silt 27-45 cm: scattered white pumice granules 65-70 cm: Chondrites 134 cm: green glauconite patch 140-150 cm scattered glauconitic sand Section 5: Glauconite grains scattered throughout core. 60-150 cm: scattered white pumice, in low concentration Section 6: 0-36 cm: scattered white pumice granules; rich in 27-35 cm with sand and glauconitic sand 27-28 cm: glauconitic sand-Orich layer 40, 48, 49, 114 cm: green glauconite patch 70-83 cm: scattered green glauconite patch and grains 110-150 cm: dark gray sand, and glauconite-rich sand 130 cm: dark gray sand accumulation Section CC: Dark gray sand, silt, and glauconitic sand scattered in high concentration.
1.1				(P)	GI	(P)				/a	
1.2										/a	
1.3										/a	
1.4										/a	
1.5										/a	
1.6										/a	
1.7										/a	
1.8										/a	
1.9										/a	
2.0										/a	
2.1										/a	
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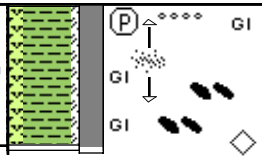
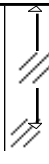
Core Photo

Site 1151 Hole A Core 93R										Cored 949.7-959.3 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1					GI					/	DIATOM, GLASS, AND SPICULE-BEARING SILTY CLAYSTONE The core has a homogenous lithology and a olive green color with gray patches. Section 1: 20 cm: green glauconite patch 58-59 cm: silt patch 68-86 cm: green glauconite patch and light gray sand grains scattered 90-98 cm: light gray pumice granules scattered Section 2: 23-39 cm: glauconitic sand, pyrite, and sandy silt 60 cm: glauconite patch Section 3: 0-6 cm: dark gray silt scattered and patch of dark green glauconite 63 cm: dark glauconite patch Section CC: 14-22 cm: scattered green glauconitic sand
1.1					GI					/a	
2					GI					/a	
2.1					GI					/a	
2.2					GI					/a	DIATOM, GLASS, AND SPICULE-BEARING SILTY CLAYSTONE The core has a homogenous lithology and a olive green color with gray patches. Section 1: 20 cm: green glauconite patch 58-59 cm: silt patch 68-86 cm: green glauconite patch and light gray sand grains scattered 90-98 cm: light gray pumice granules scattered Section 2: 23-39 cm: glauconitic sand, pyrite, and sandy silt 60 cm: glauconite patch Section 3: 0-6 cm: dark gray silt scattered and patch of dark green glauconite 63 cm: dark glauconite patch Section CC: 14-22 cm: scattered green glauconitic sand
2.3					GI					/a	
2.4					GI					/a	
2.5					GI					/a	
2.6					GI					/a	DIATOM, GLASS, AND SPICULE-BEARING SILTY CLAYSTONE The core has a homogenous lithology and a olive green color with gray patches. Section 1: 20 cm: green glauconite patch 58-59 cm: silt patch 68-86 cm: green glauconite patch and light gray sand grains scattered 90-98 cm: light gray pumice granules scattered Section 2: 23-39 cm: glauconitic sand, pyrite, and sandy silt 60 cm: glauconite patch Section 3: 0-6 cm: dark gray silt scattered and patch of dark green glauconite 63 cm: dark glauconite patch Section CC: 14-22 cm: scattered green glauconitic sand
2.7					GI					/a	
2.8					GI					/a	
2.9					GI					/a	
3					GI					/a	DIATOM, GLASS, AND SPICULE-BEARING SILTY CLAYSTONE The core has a homogenous lithology and a olive green color with gray patches. Section 1: 20 cm: green glauconite patch 58-59 cm: silt patch 68-86 cm: green glauconite patch and light gray sand grains scattered 90-98 cm: light gray pumice granules scattered Section 2: 23-39 cm: glauconitic sand, pyrite, and sandy silt 60 cm: glauconite patch Section 3: 0-6 cm: dark gray silt scattered and patch of dark green glauconite 63 cm: dark glauconite patch Section CC: 14-22 cm: scattered green glauconitic sand
3.1					GI					/a	
3.2					GI					/a	
3.3					GI					/a	
3.4					GI					/a	DIATOM, GLASS, AND SPICULE-BEARING SILTY CLAYSTONE The core has a homogenous lithology and a olive green color with gray patches. Section 1: 20 cm: green glauconite patch 58-59 cm: silt patch 68-86 cm: green glauconite patch and light gray sand grains scattered 90-98 cm: light gray pumice granules scattered Section 2: 23-39 cm: glauconitic sand, pyrite, and sandy silt 60 cm: glauconite patch Section 3: 0-6 cm: dark gray silt scattered and patch of dark green glauconite 63 cm: dark glauconite patch Section CC: 14-22 cm: scattered green glauconitic sand
3.5					GI					/a	
3.6					GI					/a	
3.7					GI					/a	
3.8					GI					/a	DIATOM, GLASS, AND SPICULE-BEARING SILTY CLAYSTONE The core has a homogenous lithology and a olive green color with gray patches. Section 1: 20 cm: green glauconite patch 58-59 cm: silt patch 68-86 cm: green glauconite patch and light gray sand grains scattered 90-98 cm: light gray pumice granules scattered Section 2: 23-39 cm: glauconitic sand, pyrite, and sandy silt 60 cm: glauconite patch Section 3: 0-6 cm: dark gray silt scattered and patch of dark green glauconite 63 cm: dark glauconite patch Section CC: 14-22 cm: scattered green glauconitic sand
3.9					GI					/a	
4					GI					/a	
4.1					GI					/a	

Core Photo

Site 1151 Hole A Core 94R										Cored 959.3-968.9 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1					GI					+	DIATOM, GLASS, AND SPICULE-BEARING SILTY CLAYSTONE
1.1										+	The core has a homogenous lithology and an olive green color.
2										+	Section 1:
										+	30 cm: green glauconite patch
										+	75 and 82 cm: inclined silt layers
										+	90 cm: vein structure
										+	90-100 cm: slickenside striae on open fracture fault plane
2.2										+	Section 2:
										+	20-45 cm: light gray scattered pumice granules
										+	43-44 cm: dark gray sand scattered
										+	73-115 cm: dense pattern of branching and anastomosing joints
										+	75-105 cm: open artificial fractures with slickenside striae common;
										+	at 90 cm slickensides indicate strike-slip movement
										+	85 cm: light gray pumice granule
										+	106-108 cm: glauconite patch
3										+	Section 3:
										+	20-45 cm: slickensides on open artificial fault planes
										+	46 cm: subrounded white pumice granule
										+	58 cm: silt patch

Core Photo

Site 1151 Hole A Core 95R										Cored 968.9-978.6 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 1											DIATOM, SPICULE, AND GLASS-BEARING SILTY CLAYSTONE The core has a homogenous lithology and is olive green in color. Section 1: 6, 12 cm: pumice granules 10-20 cm: glauconitic sand and silt scattered 30 cm: glauconitic silt patch 33-77 cm: scattered glauconitic silt and sand 65-66 cm: glauconitic silt patch 93 cm: glauconitic sand patch 107-110 cm: dolomite lithoclast

Site 1151 Hole A Core 96R								Cored 978.6-988.2 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1										DIATOM-BEARING GLASSY CLAYSTONE
1.5										The core has a homogenous lithology and an olive green color with brownish patches.
2										Section 1: 54-56 cm: distributed sand and silt 60-65 cm: black ash accumulation 98 cm: black silt patch 110-118 cm: black silt patches
2.5										Section 2: 33 cm: thin sand-silt layer 67-82 cm: distributed black and white sand grains, at 76 and 79 cm there are two thin disturbed layers, inclined slightly 99 cm: mottled white volcanic ash 107-109 cm: drilling disturbed and partly recovered white volcanic ash layer; below this are some brownish white patches of ash
3										Section 3: 56 cm: black silt patches

Core Photo

Site 1151 Hole A Core 97R								Cored 988.2-997.8 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIO TURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
0 1 2 3 4 5 6 7					(P)				SS IW PAL		GLASSY SILTY CLAYSTONE and GLASSY CARBONACEOUS SILTSTONE The core has a homogenous lithology and a patchy olive green. In Section 5, a light olive green glassy carbonaceous siltstone occurs. Section 1: 13 cm: sand accumulation with fault drag 24-25 cm: pumice granules and pebbles 49 cm: silt patch 69-71 cm: black disturbed sand-silt layer 72-90 cm: several blue green glauconitic patches 75 cm: silt mottling Section 2: 15 pumice granules, rounded 42-45 cm: distributed sand grains 58-68 cm: black accumulated sand grains 72-73 cm: dark gray sand patch Section 3: 23-26 cm: white volcanic ash patches 113 cm: silt patch 123 cm: bleached blueish gray patch Section 4: 0-25 cm: light olive green color 13-15 cm: gray sand patch 20-25 cm: silt patches 132-136 cm: black silt patches and layer offset by complex set of crosscutting and parallel normal faults Section 5: 0-150 cm: light olive green color glassy carbonaceous siltstone 20 cm: silt patch

Core Photo

Site 1151 Hole A Core 98R								Cored 997.8-1007.4 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											GLASS AND SPICULE-BEARING SILTY CLAYSTONE
1.1											The core has a homogenous lithology and a patchy olive green color.
1.2											Section 1:
1.3											83 cm: sand accumulation
1.4											100-145 cm: layerlike black sand accumulations, offset by steep fault, drag of layers indicates normal fault movement
1.5											138-145 cm: black sand patches
2											
2.1											
2.2											
2.3											
2.4											
2.5											
2.6											
2.7											
2.8											
2.9											
2.10											
2.11											
2.12											
2.13											
2.14											
2.15											
2.16											
2.17											
2.18											
2.19											
2.20											
2.21											
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2.23											
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2.27											
2.28											
2.29											
2.30											
2.31											
2.32											
2.33											
2.34											
2.35											
2.36											
2.37											
2.38											
2.39											
2.40											
2.41											
2.42											
2.43											
2.44											
2.45											
2.46											
2.47											

Site 1151 Hole A Core 100R							Cored 1017.0-1026.6 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 2 3				GI GI				SS PAL		GLASSY SILTY CLAYSTONE The core has a homogenous lithology, a patchy bluish green to brownish olive-green color, and a firm lithification. Glauconite enriched bluish green layers occur commonly throughout. Section 1: 10-20 and 46-52 cm: glauconite enriched 'layers', bluish green 74-95 cm: sparsely distributed black sand grains Section 2: 80-104 cm: 3 cm broad shear zone composed of strongly branching and anastomosing faults; interfault material is lengthened and partly rotated into movement direction 119 cm: brownish sand layer 120-136 cm: conjugate set of normal faults

Core Photo

Site 1151 Hole A Core 101R								Cored 1026.6-1028.8 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIO TURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1								SS		NANNOFOSSIL AND GLASS-BEARING CLAYSTONE and LIMESTONE The core contains nannofossil- and glass-bearing claystone and, in Section 2, limestone. The color is bluish gray, gray, or dark grayish olive green. Section 1: 11-13 cm: blugreen glauconitic precipitation rim around black sand patch 20-30 cm: color changes from patchy grayish-bluish olive green to a lighter version of the same colors 60-70 cm: color changes back to darker grayish-bluish olive green 91-95 cm: sand accumulation 109 cm: gray sand layer Section 2: 12-16 cm: fissile fractures, vertically oriented, strongly branching after ~5 mm 20 cm: color change from bluish gray to light gray 20-60 cm: lithology change to 25-50 cm: branching scoured white filled calcite vein, upper part with normal displacement, lower part without displacement 54-57 cm: black sparsely distributed sand grains 60 cm: slow color change to gray and to grayish olive green

Site 1151 Hole A Core 102R							Cored 1036.2-1045.9 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1				GI				SS		DIATOM AND SPICULE-BEARING SILTY CLAYSTONE The core has a dominant olive-green color with bioturbated patches of light brown and gray. This core has 15 faults with slickenside striae. Section 1: 0-2 cm: dolomite fragments, their concentration at the top of the core is a drilling artifact. 0-33 cm: scattered dark green glauconite 12-19, 20-43, 44-50, 54-66, 127-134, and 138-140 cm: faults with slickenside striae 79-100 cm: dark green glauconite grains scattered in light brownish gray burrows Section 1, 140 cm to Section 2, 55 cm is a fractured and fragmented fault zone Section 2: 0-10, 21-28, 35, 50-55 cm: faults with slickenside striae (dip slip) 90-100 cm: scattered dark green glauconite Section 3: 5-45 cm: four faults with slickenside striae on the fault planes (dip slip) 30-33 cm: dark gray silt accumulation
1				GI				IW		
3				GI				PAL		

Core Photo

Site 1151 Hole A Core 103R										Cored 1045.9-1055.6 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 1.1 2											DIATOM AND SPICULE-BEARING SILTY CLAYSTONE Much of the core has a homogenous lithology and an olive green color. There are obvious vein structures in Section 1 (interval 120-150 cm) and Section 2 (0-60 cm). Section 1: 8-10 cm: dark green mud-rich interval with burrows 12-23 cm: scattered coarse white pumice granules 44-150 cm: scattered dark green glauconite 102-105, 110-113 cm dark green glauconite-rich intervals Section 2: 0-57 cm: ten vein structures 93 cm: dark green glauconite patch 107-127 cm: heavily fragmented by faulting and coring Section CC: 0-15 cm: scattered white and black pumice granules

Core Photo

Site 1151 Hole A Core 104R										Cored 1055.6-1065.3 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1				(P) GI							DIATOM, GLASS, GLAUCONITE-BEARING SILTY CLAYSTONE
1				GI							The majority of the core has a homogenous lithology. The dominant color is olive-green with bluish-green and brown patches due to bioturbation.
1				GI	X				SS		Section 1: 0-9 cm: web-like healed joints 0-15 cm: scattered light gray pumice granules 8-10 cm: veins 12-15 cm: horizontal joints (shear veins) 13-23 cm: scattered dark gray glauconite 18-19 cm: dark gray glauconite-rich 60-61 cm: scattered dark green glauconite 61-63, 82-82 cm: dark green clay layer 62 cm: dark green silty glauconite 100-115 cm: healed shear vein
2				GI							Section 2: 16 cm: dark silt patch 19-34 cm: Chondrites burrows 32-34 cm: dark burrows 33-45 cm: scattered dark green glauconitic silt 72 cm: dark silt 93-96 cm: medium- to coarse-grained gray to dark gray ash layer with sand and glauconitic sand; a sharp erosional base 100-108, 143-150 cm: scattered dark green glauconite 116-135 cm: veins
3				GI							Section 3: 18 cm: dark gray silt layer 35-40 cm: brownish burrows 36-46 cm: bright green colored interval 40-50 cm: scattered glauconite 74-75 cm: black angular pumice pebble 89-95 cm: inclined light gray carbonaceous layer with brownish top and base 110-112 cm: tornado-like dark green glauconitic burrow 112-132 cm: scattered white pumice granules 140-150 cm: scattered white pumice granules
4				GI	(P)						Section 4: 0-40 cm: scattered dark green glauconite grains and green glauconite patches 40-50 cm: scattered dark silt 50-51 cm: dark gray silt-sand and glauconitic sand accumulation
5				GI	(P)						Section CC: 0-19 cm: scattered glauconite 14-75 cm: dark green glauconitic silt accumulation
5				GI					PAL		

Core Photo

Site 1151 Hole A Core 105R									Cored 1065.3-1075 mbsf		
METERS	SECTION	GRAPHIC LITH.	BIOBURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
0 1 2 3 4 5 6 7 8 9										DIATOM, SPICULE, AND GLASS-BEARING SILTY CLAY The core is dominantly an olive-green color, with patches of lighter and darker green, gray and brown, all of which are mottled by bioturbation. Section 1: 14 cm: dark gray planar joint 17-18 cm: scattered dark green silty glauconite 40-42 cm dark greenish silty layer with small Chondrites burrows 43-95 cm: scattered dark green glauconitic silt-sand 54-68 cm: scattered white to light gray pumice granules 78-79 cm: dark irregular shape gray silt patches 84-85, 112-113 cm: dark green glauconite with burrows Section 2: Glauconite scattered through section in low concentration. 88 cm: dark gray silty layer 114, 117 cm: dark green burrow with glauconite grains Section 3: Glauconitic silt-sand grains scattered throughout core. 2-3, 18-37, 96-126 cm: rich in scattered glauconite 128-130, 137-138, and 142-145 cm: white pumice granules Section 4: 0-66 and 73-94 cm: scattered white pumice granules 66-73 cm: white angular to subrounded granule to pebble-sized layer of scattered pumice 144, 118-119, 129, and 136 cm: white pumice granules Section 5: Glauconite scattered throughout section. 32-34 cm: light gray/greenish gray fine ash layer 49-50 cm: bioturbated dark greenish silty layer; glauconite grains abundant at the edge of base 50 cm: light gray pumice pebble 66-68 cm: bioturbated dark greenish silt layer 86-110 cm: light gray sand and glauconite; rich in burrows 111-113 cm: bioturbated gray fine sand and ash layer 113-130 cm: scattered light gray pumice granules 136-142 cm: white coarse-grained ash grains and scattered pumice Section 6: Glauconite scattered throughout core. 32-41 cm: glauconite and silt-rich accumulation 53-59 cm: light gray bioturbated ash layer with gradational upper and lower boundaries 50, 59-60 cm: glauconite-rich 70 cm: light gray to gray angular pumice 83-94 cm: scattered glauconite-rich sand 143-144 cm: dark green silty layer Section CC: 0-2 cm: dark green silty layer 2-19 cm: greenish claystone	

Core Photo

[illegible]

Site 1151 Hole A Core 107R										Cored 1084.6-1093.99 mbsf										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION									
1											GLASS AND SPICULE-BEARING SILTY CLAYSTONE									
1											The core has a homogenous lithology and a green-blue and brown patchy color.									
2											Section 1: 0-14 cm: gray carbonaceous patches, 1 cm in diameter 23-45 cm: distributed white sand grains 40-44 cm: black sand patches 46-48 cm: black sand layer 60-77 cm: distributed black sand grains 74-77 cm: black sand patches 116 and 127 cm: pumice granule and pebble									
2											Section 2: 33-43 cm: distributed gray sand grains 56 cm: pumice pebble 120-127 cm: normal faults, hanging wall of uppermost fault is strongly brecciated									
3									—WH		Section 3: 80-110 cm: normal fault, steep with vertical displacement of 10 cm									
4																				
4											Section 4: 19-22 cm: black silt patch 35-40 cm: black precipitation rim around brown patches 40-43 cm: scattered dark sand grains 65 cm: disturbed volcanic ash patch, below this is dark sand 73 cm: white pumice granule									
5									—SS											
6											Section 5: 10-43 cm: sparse black sand grains 73 and 140-142 cm: black silt patch 100 cm: black precipitation rim 130-150 cm: white pumice pebbles									
7											Section 6: 21 cm: gray sand patch 23-24 cm: gray inclined volcanic ash layer, some ash patches below 28-32, 99-104, 113-125, and 145-150 cm: distributed gray and black sand grains 41 and 90 cm: white pumice pebbles 64 cm: silt patch									
8																				
9											Section 7: 0-12 cm: distributed black sand grains 11-16 cm: white pumice granules 40-55 cm: distributed black sand grains									
									—PAL		Section CC: 3-6 cm: black precipitation rim									

Core Photo

Site 1151 Hole A Core 108R										Cored 1094.3-1104.1 mbsf
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1										GLASSY SILTY CLAYSTONE
1.1										The core has a homogenous lithology and a patchy bluish green color with occasional brownish patches.
1.2										Section 1:
1.3										42 cm: black silt patch
1.4										67-72 cm: diffuse greenish white volcanic ash layer
1.5										106-117 cm: large fault with white slickensides on fault plane, color changes in neighboring rocks from dark greenish blue to light greenish blue; porosity in footwall rock is visibly higher
1.6										137 cm: pumice pebble
2										Section 2:
2.1										30 cm: altered pumice pebble
2.2										64 cm: pumice pebble
2.3										101-150 cm: black sand grains scattered allover
2.4										147 cm: white pumice granule, rounded
3										Section 3:
3.1										22-23 cm: black scattered sand grains
3.2										30 cm: pumice pebble
3.3										48-51 cm: black offset silt patches, sharp boundaries
3.4										65-75 cm: scattered black sand grains
3.5										113-120 angular black silt patches, sharp boundaries
4										Section 4:
4.1										22-24 cm: distributed gray and white sand grains
4.2										25 cm: gray sand patch
4.3										61-62 cm: pumice granule
4.4										90-97 cm: gray remainings of a partially recovered sand layer
4.5										140 cm: pumice granule
5										Section 5:
5.1										20 cm: gray brown ash patch
5.2										23-40 cm: distributed black sand grains, amount increasing to depth
5.3										37-41 cm: disturbed black sand layer
5.4										44 cm: two white rounded pumice granules
5.5										47-70 cm: distributed white sand grains
5.6										83 cm: pumice pebble
5.7										107-140 cm: distributed black sand grains
6										Section 6:
6.1										13-20 cm: shear zone with several pumice granules in between the branching faults
6.2										22, 30, and 128 cm: subrounded pumice pebbles and granules
6.3										47 cm: black sand grains and black sand patch in the hanging wall of a normal fault
6.4										70-110 cm: distributed black sand grains
7										Section 7:
7.1										55-57 cm: black silt patches
7.2										62-67 cm: light gray carbonate patches
7.3										80-105 cm: conjugate set of normal faults with the longer fault propagating from a silt/sand patch at 80 cm; 1.5 cm vertical offset
8										Section CC:
8.1										5-9 cm: distributed white pumice grains
8.2										7-11 and 19 cm: black silt patches

Core Photo

Site 1151 Hole A Core 109R										Cored 1103.9-1113.5 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1									SS	f _n	SPICULE AND GLASS-BEARING SILTY CLAYSTONE The core has a homogenous lithology and a frequently changing color, ranging from light greenish, grayish to brownish olive green with khaki patches. Section 1: Light khaki calcareous burrows occur throughout this section. 0-29 and 55-130 cm: dark green scattered glauconitic sand grains 26-28 cm: light gray to gray volcanic ash layer of silt grain size 48 cm: dark gray silt patch 61-62 cm: 2 grains of gray pumice granules 90-94 cm: dark glauconitic sand layer, bioturbated Section 2: 6-7, 9-12, 62-63, and 105-116 cm: white to light gray pumice pebbles, subrounded and rounded 26-31 cm: calcareous burrows, khaki in color 34-35 and 97-100 cm: thin volcanic ash layers, light gray, bioturbated top, base lost or diffuse Section 3: 8-9, 75-78, and 124-130 cm: khaki carbonate concretion/burrow infill 36-38 and 45-58 cm: white pumice granules 75-77 cm: glauconite rich sand Section 4: 10-12, 42-43, 48-49, and 78 cm: light khaki carbonaceous burrows 20-50 and 70-77 cm: dark sand scattered, glauconitic 62-70 and 123-135 cm: scattered pumice granules, white and subangular 98 cm: dark gray silt patch Section 5: 2-57 and 61-75 cm: pumice granules scattered 41-43 and 56-57 cm: dark gray and light gray sand scattered, partly with glauconite 67-68 and 100-102 cm: carbonaceous burrows of khaki color Section 6: 0-85 and 110-150 cm: pumice granules scattered 22, 35-37, 57-63, 61, and 83-87 cm: glauconite rich intervals, partly patches, partly scattered sand grains Section 7: 2-3 and 53-59 cm: white pumice pebbles, subrounded 30-50 and 65-68 cm: khaki carbonaceous burrows
1.1										f _a	
2										f _a	
2.1										f _a	
3									WH	f _n	
3.1										f _a	
4										f _n	
4.1										f _a	
5										f _n	
5.1										f _a	
6										f _n	
6.1										f _a	
7										f _n	
7.1										f _a	
8										f _n	
8.1										f _a	
9										f _n	
9.1									PAL	f _a	

HOLE 1151B DRILLED, NOT CORED

Site 1151 Hole C Core 1H										Cored 0.0-2.2 mbsf
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1										GLASS-BEARING DIATOMACEOUS SILTY CLAY
1.1										The core has a homogenous lithology and an olive green color. The lithification is very soft.
1.2										Section 1:
1.3										104-107 cm: dark gray diffuse silt patches
1.4										110-150 cm: gradually increasing amount of distributed black silt grains, and color becomes slightly darker
1.5										112 cm: light gray ash patch
1.6										134-136 cm: black silt patches
2										Section 2:
2.1										0-47 cm: black and dark gray silt and sand distributed and locally accumulated as diffuse patches, the density of scattering becomes higher with increasing depth (continued into Section CC)
2.2										10, 18-19, 32-33, and 39 cm: rounded white pumice pebbles
2.3										33-36 cm: fine-grained elongated green glauconite patch
2.4										Section CC:
2.5										0-13 cm: black and gray sand and silt grains distributed and locally accumulated as diffuse patches

Core Photo

Site 1151 Hole C Core 2H										Cored 2.2-11.7 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1	1										DIATOM AND GLASS-BEARING CLAYEY SILT
1.1											The core has a homogenous lithology, with a texture that is sandy in some intervals, and olive green color. The lithification is soft.
1.2											Section 1:
1.3											0-150 cm: sparsely distributed white sand-sized fossil fragments (sponge?)
1.4											40-87 cm: several gray silt accumulations and patches
1.5											66-67, 78-80, and 138-142 cm: greenish blue glauconite patches with diffuse or sharp boundaries; the lowermost occurrence is associated with silt patches
1.6											100-137 cm: rounded and subrounded pumice pebble and granule
2	2										Section 2:
2.1											0-109 cm: several patches of dark gray silt, <1 cm in diameter
2.2											0-150 cm: white accumulations of fine-grained fossil fragments
2.3											69-70 cm: sand layer with wavy boundaries
3	3										Section 3:
3.1											0-150 cm: section appears slightly more fine grained than other sections
3.2											40 and 115 cm: white and light gray pumice granules
3.3											55 cm: silt patch
3.4											76 and 94-110 cm: black pyrite patches, small in diameter
4	4										Section 4:
4.1											28 cm: black pyrite patch, 3 mm in diameter
4.2											110-120 cm: black precipitation rim around brownish patch (possibly a burrow)
4.3											123 cm: bluish green glauconite patch
4.4											138-140 cm: silt accumulations
5	5										Section 5:
5.1											0-150 cm: small black pyrite patches throughout section
5.2											14-18 cm: diffuse greenish white ash accumulation with some gray silt and pumice granules
5.3											20 cm: white volcanic ash patch
5.4											35, 98, and 145-150 cm: white fossil fragments
6	6										Section 6:
6.1											0-80 cm: color is brownish olive green
6.2											0-150 cm: sparsely scattered white fossil fragments throughout this section
6.3											9-10 and 132 cm: dark gray silt patches
6.4											49-50, 55-56, and 59-60 cm: silt layers, sharp lower boundaries, gradational upper boundaries
6.5											80-150 cm: olive green color
6.6											115 cm: pumice granule
7	7										Section 7:
7.1											0-47 cm: small black pyrite patches are scattered throughout this section
7.2											31 and 34 cm: flat patches of dark gray silt, mixed of white and black grains
7.3											36-50 cm: dark gray to gray silty sand layer, sharp lower boundary, gradational upper boundary
8	8										Section CC:
8.1											0-25 cm: small black pyrite patches

Site 1151 Hole C Core 3H							Cored 11.7-21.2 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIO TURB.	STRUCTURE ACCESSORIES ICHNO. FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
								DIATOM-BEARING SILTY CLAY The core has a homogenous lithology and an olive green color with yellowish patches due to bioturbation. Nannofossils comprise >10% of the lithology in some intervals. The lithification is soft. Section 1: 28 and 65-96 cm: small black pyrite patches scattered, diameter < 2 mm 40-44 cm: gray volcanic ash layer, sharp bottom and top; slightly lighter color at the top Section 2: 0-25 and 46-60 cm: black pyrite patches 110-114 cm: sand-silt accumulation 129-138 cm: diffuse black silt accumulations 144-148 cm: black silt layer, sharp lower boundary, gradational upper boundary Section 3: 4, 6, 21, 42, and 52-56 cm: black silt patches, round or flat 29 cm: round bluish green glauconite patch, 1 cm in diameter 110-120 cm: very small white ash patches Section 4: 0-150 cm: small black pyrite patches 111 cm: light gray fine-grained ash patch Section 6: 146-150 cm: black sand accumulations Section 7: 10, 30, and 43 cm: white fine-grained fossil fragments 24 cm: white coarse pumice sand patch

Core Photo

Site 1151 Hole C Core 4H								Cored 21.2-30.7 mbsf
METERS	SECTION	GRAPHIC LITH.	BIOSTRAT.	STRUCTURE ACCESSORIES ICHNO. FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1	1	[Green hatched pattern]						DIATOM-BEARING SILTY CLAY The core has a homogenous lithology and an olive green color. The lithification is soft. Section 1: 52 cm: shell fragments
2	2	[Green hatched pattern]						Section 2: 0-150 cm: white fossil fragments sparsely scattered throughout 78-80 cm: silt patch
3	3	[Green hatched pattern]						Section 3: 0-150 cm: small black pyrite patches scattered throughout 75 cm: dark gray silt patch 86-90 cm: dark gray coarse-grained ash layer, bottom sharp, top diffuse and wavy 92-99 cm: gray very coarse ash layer top and bottom light gray, bottom sharp, top gradational 108 and 126 cm: black rounded pebbles
4	4	[Green hatched pattern]						Section 4: 0-150 cm: black small pyrite patches 22, 47, 77-84, and 100-110 cm: black and dark gray silt patches 36-38 cm: diffuse light gray ash patches 60-65 cm: black silt layer, sharp lower boundary and top 75 cm: black rounded granule (basaltic lithoclast) 87-89 cm: dark silt layer, lower boundary sharp and wavy, upper boundary gradational 146-150 cm: black sand layer, diffuse upper boundary, lower boundary not visible
5	5	[Green hatched pattern]						Section 5: 19 and 100-110 cm: black silt patches
6	6	[Green hatched pattern]						Section 6: 0-70 cm: scattered white fossil fragments 101-104 cm: black silt accumulation 137-140 cm: light gray ash patch with mixed white and black sand-sized grains
7	7	[Green hatched pattern]						Section 7: 30 cm: white volcanic ash patch 67 cm: black silt patch
8	8	[Green hatched pattern]						Section CC: 0-45 cm: black diffuse silt patches
9	9	[Green hatched pattern]						
10	10	[Green hatched pattern]						

Site 1151 Hole C Core 5H								Cored 30.7-40.2 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOM AND GLASS-BEARING SILTY CLAY The core has a homogenous lithology and an olive-green color. Sponge spicules comprise up to 10% of the lithology in some intervals. The lithification is soft. Section 1: 45, 58, and 65 cm: black and gray silt patches 142-150 cm: light gray ash layer becoming even light gray upward, silt grain size, wavy erosional bottom, diffuse upper boundary Section 2: 5-10 cm: light gray ash patch silt sized grains Section 3: 75-78 cm: very small white ash patches, 2 mm in diameter each 82 cm: black rounded granule 102-106 cm: black silt patches Section 4: 30 cm: flat diffuse silt patch 43-47 cm: light gray ash layer with a diffuse upper boundary and a scoured lower boundary 50 cm: light gray ash patch 78-79 cm: rounded pumice granules 100-104 cm: small black silt patches 107-108 cm: olive green sand patch 120 cm: black sand patches 138 cm: fine-grained black patches of organic material 144-147 cm: fine-grained white ash patch with diffuse boundaries Section 5: 7 cm: white ash patch 21 cm: gray angular granule 52-54 cm: dark gray to black silt patches 108 cm: black silt patches 135, 146 cm: black pyrite patches Section 6: 0-122 cm: small black pyrite patches 20-30 cm: diffuse gray silt patches 90 cm: color change to dark olive green Section 7: 14-15 cm: light green ash distributed in clay 16 cm: very fine-grained ash patch, bright white, diffuse and flat Section CC: 11-14 cm: greenish light gray ash patch, diffuse

Core Photo

Site 1151 Hole C Core 6H							Cored 40.2-49.7 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOBURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1										DIATOM AND GLASS-BEARING SILTY CLAY
1				GI						The core has a homogenous lithology and an olive green color. Sponge spicules comprise up to 10% of the lithology in some intervals. The lithification is soft.
2				(P) + + + +						Section 1: 26-27 cm: gray silt patch 84-85 cm: black silt patch 93-95 cm: bluish green glauconite patch 104 cm: small gray silt patch
2				+ + + + (P)						Section 2: 24 and 64 cm: rounded white pumice granule 90 cm: black rounded granule 113 cm: diffuse gray patch 131-135 cm: disturbed black sand layer 145 cm: gray sand patch
3				+ + + +						Section 3: 7 and 81 cm: gray rounded granule 15, 20, 30, and 122-124 cm: gray and black silt patches 9-13 cm: dark gray sand layer, base sharp, top gradational 46-50 and 55-57 cm: olive green-gray sand accumulation 64-72 cm: white ash layer, coarse grained, lower part gray, top gradational, bottom sharp and even 74, 82, 87, and 88 cm: white ash patches with sharp boundaries 115 cm: black sand layer
3				Py + + + +						Section 4: 7 and 88-89 cm: dark gray silt patches 10-11 cm: black diffuse sand patch 73-74 cm: silt-sand patch with black granule, 1 cm in diameter
4				Py + + + +						Section 5: 25 cm: very thin gray ash layers, 3 mm thick each 57-62 cm: white diffuse fine-grained ash patches 64-68 and 72 cm: black silt patches
4				Py + + + +						Section 6: 30 cm: two thin silt layers, disturbed 40-42 cm: gray silt patches 48 cm: pumice granule, rounded 63-64 cm: black silt patches 64-70 cm: white distributed ash patches/mottling 100 cm: diffuse black patch
5				Py + + + +						Section 7: 12-13 cm: diffuse silt accumulation 23 cm: dark gray silt patch
5				Py + + + +						
6				Py + + + +						
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Core Photo

Site 1151 Hole C Core 7H										Cored 49.7-59.2 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1					Py						DIATOM AND GLASS-BEARING SILTY CLAY The core has a homogenous lithology and an olive green color. Sponge spicules and carbonate comprise up to 10% of the lithology in some intervals. The lithification is soft. Section 1: 23, 26, 27, 53, and 143-144 cm: black and dark gray silt patches 67-70 cm: diffuse black silt accumulations 124-129 cm: white fine-grained ash layer, diffuse boundaries 132-136 cm: black sand accumulation Section 2: 67 cm: black silt accumulation 100-101, 103, 112, and 122 cm: diffuse black silt patches Section 3: 34 cm: gray lithoclastic pebble, rounded 38-44 cm: white and fine-grained ash mottling 66 cm: black silt patch 118 cm: diffuse greenish blue glauconite accumulation 132 cm: black silt patch Section 4: 5 cm: silt accumulation 80-84 cm: greenish gray fine-grained ash layer, sharp lower boundary, diffuse upper boundary 102-103 cm: diffuse greenish blue glauconite accumulation 103-107 cm: black silt patches 116-124 cm: white mottled ash 118 cm: black silt layer 126 cm: black silt patch Section 5: 25 cm: pumice pebble, rounded and 12 mm in diameter 49 cm: gray ash patch 70-72 cm: diffuse fine-grained white ash layer 86-87 cm: glauconite patch 110 cm: black silt patch 117 cm: very light diffuse glauconite patch 124 and 126 cm: white small ash mottling 136 and 138 cm: sand with fossil fragments Section 6: 5-27 cm: white fossil fragments associated with black silt accumulations 54 cm: glauconite patch 78 cm: gray rounded pebbles Section 7: 12 cm: small glauconite patch 50 cm: subrounded pebble 62 cm: thin dark lamination band, 1 mm in thickness 100 cm: gray rounded pebble Section CC: 6-8 cm: black silt accumulated around subrounded pumice pebbles
1.1					Py						
2					Py						
2.1					Py						
3					Py						
3.1					Py						
4					Py						
4.1					Py						
5					Py						
5.1					Py						
6					Py						
6.1					Py						SS
7					Py						
7.1					Py						
8					Py						
8.1					Py						
9					Py						
9.1					Py						
10					Py						
10.1					Py						
11					Py						
11.1					Py						
12					Py						PAL
12.1					Py						
13					Py						
13.1					Py						
14					Py						
14.1					Py						
15					Py						
15.1					Py						
16					Py						
16.1					Py						
17					Py						

Core Photo

Site 1151 Hole C Core 8H										Cored 59.2-68.7 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1	1										DIATOM AND GLASS-BEARING SILTY CLAY
1											The core has a homogenous lithology and a olive green or dark olive green color. Sponge spicules and carbonate comprise up to 10% of the lithology in some intervals. The lithification is soft.
2	2										Section 1: 19-21 cm: ash distribution, white fine grained, some mottled ash below 70 and 96 cm: gray sand patch 100-150 cm: black small pyrite patches scattered infrequently 113 cm: sponge spicules
3											Section 2: 13, 41, and 43 cm: white fossil fragments 115-130 cm: scattered pumice granules, rounded to subrounded, white and gray, accumulation at 123-125 cm along core liner
4	3										Section 3: 3, 9, 20, 36, and 137 cm: black silt patches 16, 38, 47, and 83-84 cm: white fossil fragments 68-70 cm: white fine-grained ash patch
5	4										Section 4: 0-13 cm: distributed white and gray sand grains and silt patches 50-52 cm: black layerlike discontinuous sand and silt patch 58 and 123 cm gray rounded and subrounded pebbles 64 cm: silt patch 82-85 cm: ash layer; top is white, diffuse, and fine-grained; bottom is black and coarse grained; lower boundary is sharp and below this is some white scattered mottled ash 142-144 cm: distributed black silt grains
6											Section 5: 16, 123, and 140 cm: black silt patches 59-69 cm: small white and fine-grained ash patches 80 cm: white fossil fragment 94 and 104-105 cm: pyrite patches, 3 mm in diameter
7	5										Section 6: 0-150 cm: frequent scatter of small black pyrite patches, < 2 mm in diameter each 70-80 cm: black silt patch 130-132 cm: black patch of clay grain size material
8	6										Section 7: 18-22 cm: ash layer, lower 3 cm dark gray sand-sized grains, upper part white fine-grained and very diffuse, lower boundary sharp 40 cm: bright white ash patches 79-80 cm: white and gray ash layer that was only partially recovered by coring, lower boundary sharp, top diffuse; the layer lies above some distributed white ash
9	7										Section CC: 0-28 cm: frequently scattered pyrite patches; < 2 mm diameter 18-23 cm: homogeneous gray ash layer, bottom sharp, top gradational, silt sized grains
10											

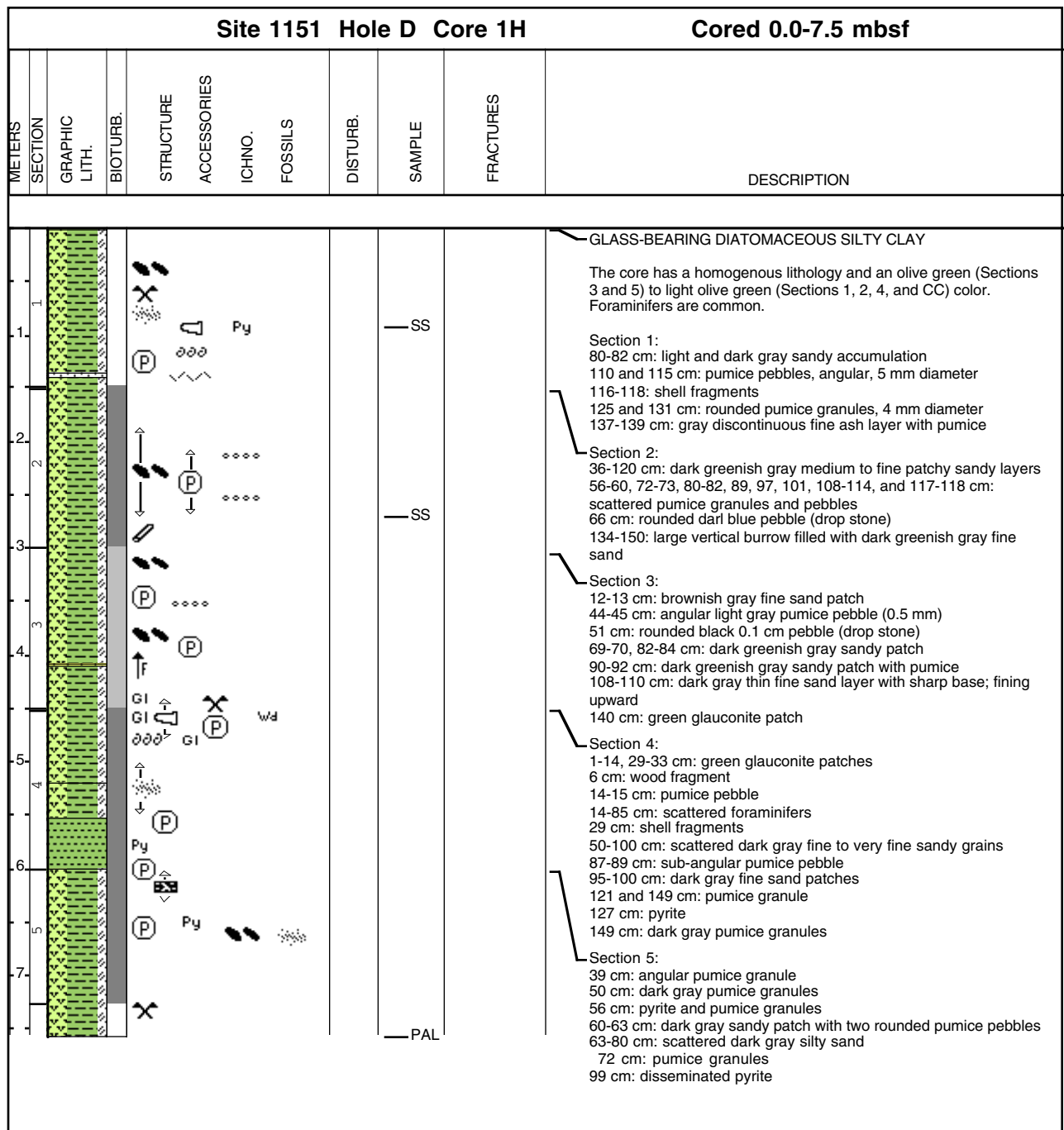
Core Photo

Site 1151 Hole C Core 9H										Cored 68.7-78.2 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOM AND GLASS-BEARING SILTY CLAY
1											The core has a homogenous lithology and an olive green color. Sponge spicules comprise >10% of the lithology in some intervals. Lithification is soft.
2											Section 1: 0-150 cm: small black scattered pyrite patches 5-16 cm: coarse-grained dark gray to fine-grained white ash layer, bottom sharp and inclined, top diffuse 37-39 cm: inclined silt layer, discontinuous, with white fossil fragments 137-140 cm: gray silty ash patch
3											Section 2: 0-150 cm: scattered black small pyrite patches, frequently < 2 mm in diameter 90-95 cm: black silt patches 104-110 cm: white silty ash patch 132 cm: gray silt patch
4											Section 3: 14-19 cm: sand-sized ash layer, bottom sharp, top gradational 35 cm: gray silt patch 43-46 cm: accumulation of pumice granules and ash 56 cm: rounded gray pebble 80 cm: coarse-grained gray ash patch 90-101 cm: very coarse-grained ash layer, bottom sharp erosional, top gradational 103 cm: gray rounded pumice pebble, 5 cm long, 2 cm broad 106 cm: bluish green glauconite patch
5											Section 4: 0-150 cm: pyrite patches with < 2 mm diameters scattered frequently 27-29 cm: small white diffuse ash patches 56-58 cm: silt patches 121-124 cm: light green-gray clay patch 140-150 cm: black and white ash patch, black silt patch, pumice granule
6											Section 5: 0-150 cm: scattered black pyrite patches, < 1 mm in diameter 47 cm: black silt patch 110-118 cm: fossil fragments (white) and silt patches (black) 120-123 cm: black sand layer 123-126 cm: olive green sand layer 140-150 cm: bright white ash layer, base sharp, top diffuse, some mottling below
7											Section 6: 0-150 cm: black pyrite patches scattered, at bottom of section the patches become larger 0-2 cm: gray ash patch 76-78 and 81-84 cm: white diffuse and sharp ash patches 100 cm: pumice pebble
8											Section 7: 0-49 cm: black pyrite patches scattered 6-7 cm: black silt patch
9											Section CC: 8 cm: black pyrite patch 12 cm: gray silt patch

Core Photo

Site 1151 Hole C Core 10H								Cored 78.2-87.7 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1	1										DIATOM AND GLASS-BEARING SILTY CLAY
1	1								SS		The core has a homogenous lithology and an olive green color.
2	2										Section 1: 27-28 cm: light gray ash patch, 1 cm diameter, sharp boundaries 28-30 cm: black organic fragment, 2 cm diameter 55, 57 cm: pumice pebbles, 0.3 cm diameter 106, 107, and 127 cm: dark gray silt patches, 0.5 cm diameter
2	2										Section 2: 119-123 cm: white, very fine-grained vitirc ash layer with sharp base and irregular top 133-137 cm: white, very fine-grained vitric ash layer with sharp base and irregular top
3	3										Section 3: 28-47 cm: scattered gray granule-sized pumice
4	4										Section 4: 11-12 cm: fine grained gray ash patch 15-18 cm: light gray fine-grained ash layer with sharp base and irregular top 111-120 cm: light gray to gray fine-coarse grained ash layer with very fine-grained basal part, sharp top and basal boundaries.
5	5										Section 5: 68-70 cm: light gray fine-grained ash layer
6	6										Section 6: 15 and 17 cm: light gray pumice pebble 87-88 and 133-136 cm: gray sub-rounded pumice pebble
7	7										Section 7: 21 cm: sub-rounded pumice granule 29-35 cm: scattered layer of light gray pumice granules
8	8										Section 8: 8-19 cm: very fine-grained light gray ash patch 24-26 cm: light gray pumice pebbles and granules
9	9										
10	10										
									PAL		

Site 1151 Hole C Core 11H										Cored: 87.7-97.2	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											NANNOFOSSIL, FORAMINIFER, AND CLAY-BEARING DIATOM OOZE AND DIATOM AND GLASS-BEARING SILTY CLAY The core contains yellowish olive-green nannofossil-, foraminifer-, and clay-bearing diatom ooze in Sections 2 and 4, and olive green diatom- and glass-bearing silty clay in the other sections.
1.1											
2									SS		Section 2: 34-35 cm: light gray subrounded pumice granule 46-50 cm: light gray fine-grained ash patch
3											Section 3: 38 cm: gray rounded pumice granules 76-80 cm: scattered light gray granule-sized subrounded pumice
4											
5											Section 4: 134-135 cm: gray, granule-sized subrounded pumice
6											Section 5: 13, 21, and 22 cm: rounded pumice granule 44 cm: yellow-gray fine-grained ash patch 46-54 cm: ash layer, dark to light gray and fine to medium grained 60 cm: angular pumice pebble 80 cm: pumice granule
7											
8											Section 6: 11-15 cm: light gray ash patch 20-24 cm: light brown and white fine-to-very-fine grained ash layer with an erosional base and an irregular top 117-119 cm: ash patch, fine grained and light gray
9											
10									PAL		



Site 1151 Hole D Core 2H										Cored 7.5-17.0 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											GLASS-BEARING DIATOMACEOUS SILTY CLAY
1.1									SS		The core has a homogenous lithology, and an olive green color in Sections 2 and 5, a light olive green color in Sections 1, 3, and 7, and an olive green color in Sections 4 and 6. Section 1: 28-29 cm: dark gray silty sand patch 38-44, 48, and 53 cm: green glauconite patches 85 cm: angular pumice pebble (0.7 cm)
2											Section 2: 103 cm: sub-angular pumice 104-106 cm: white bioturbated fine-grained ash 115 cm: light gray pumice 130-137 cm: dark greenish gray silty sand patch 140-143 cm: rounded dark gray pebble (drop stone)
3											Section 3: 41-44 cm: diffused gray sand patch 98-107 cm: light to dark gray medium-grained ash layer with erosional base and sharp top 132-135 cm: scattered pyrite
4											Section 4: 22-29 cm: gray angular pumice granules and pebbles 42-43 cm: light gray medium-grained ash patch with sand 130 cm: dark gray silt patch
5											Section 5: 61-62 cm: light olive clayey layer 60-150 cm: scattered dark gray silt/sand grains and patches 80-100 cm: scattered foraminifers 108 cm: dark gray patch 126-128, and 131-133 cm: dark greenish gray patch/layer
6											Section 6: Small dark patches are scattered throughout the section. 34 and 60 cm: pumice clast, 5-7 mm diameter 69-73, and 86 cm: dark colored patches
7											Section 7: 5 and 11-12 cm: dark olive gray patches
8											Section CC: 11-13 cm: burrows
9											
10									PAL		

Core Photo

SITE 1151 HOLE D CORE 3H										CORED 17.0-26.5
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
										GLASS-BEARING DIATOMACEOUS CLAYEY SILT
								SS		The core has a homogenous lithology and an olive green color. Nannofossils content is >10% in some intervals. Foraminifers are scattered throughout the core. 27 cm: black burrow
										Section 2: Patchy burrows throughout this section. 10-11 cm: light yellowish gray burrow 24-34 cm: bluish green burrows
										Section 3: 26-35 cm: dark gray silty sand patches 51-52 cm: dark gray silty sand patches 100-130 cm: scattered foraminifers
										Section 4: 64-65 cm: rounded dark blue pebble (0.1 x 5 cm)
										Section 5: 0-100 cm: scattered foraminifers 16 cm: thin light gray fine-grained sandy layer 79-80 cm 3 mm thick, 2 cm wide very dark gray dropstone 130-140 cm: disseminated pyrite 145 cm: dark gray silt patch
										Section 6: 4-8 cm: diffused small greenish burrows 81-87 cm: light to dark gray medium-grained, graded, fining upward ash layer, with an erosional base 132-137 cm: bioturbated gray to dark gray fine-grained ash
										Section 7: Foraminifers are scattered throughout this section. 5-7 cm: light colored patch 32 cm: dark volcanic clast (0.6 mm)
								PAL		Section CC: Common foraminifers throughout the section.

Core Photo

Site 1151 Hole D Core 4H										Cored 26.5-36.0 mbsf	
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOM-BEARING SILTY CLAY
1											The core has a homogenous lithology and an olive green color. Nannofossils and foraminifers comprise >10% of the lithology in some intervals.
2											29-31 cm: rounded dark gray to brownish gray pumice pebbles
2											37, 57 cm: rounded to subrounded light gray pumice granules
2											48 cm: rounded dark blue granule (drop stone)
2											82-84, 87-94 cm: dark greenish gray glauconite, glass, pyrite-bearing sandy silt layers
2											97 cm: subrounded dark gray pumice pebble
2											109-111, 119-123 cm: dark gray to light gray silty sand patches
2											114 cm: green glauconite patch
2											126-129, 127-140 cm: dark greenish sandy silt layer with a sharp base
3											Section 2:
3											4, 84, 90-97cm: green glauconite patch
3											6-8 cm: dark greenish gray silt patches
3											22 cm: dark green silt patch
3											24 cm: subrounded dark colored pumice granule
3											41-42 green patches
3											84-90 cm: layer of angular pumice grains
3											100-150 cm: scattered green glauconite patches
4											Section 3:
4											42-50 cm: scattered dark gray sandy silt
4											71 cm: green glauconite patch
4											90-93 cm: light gray to gray medium-grained ash layer with a sharp base and top boundary
4											101-105, 122-126 cm: dark gray silt patch
5											Section 4:
5											122 cm: green glauconite patch
6											Section 5:
6											14-15 cm: dark gray sandy silt patches
6											24-32 cm: yellowish gray fine-grained ash layer with dark minerals (biotite?), very sharp base and top boundaries.
6											32-47 cm: scattered brownish silt and sand
7											Section 6:
7											37-38 cm: dark green silty interval
7											78 cm: subrounded gray pebble (6 mm)
7											90-120 cm: scattered foraminifers
8											Section 7:
8											Foraminifers are scattered throughout the section.
8											2-3, 58-59 cm: dark gray fine-grained sand layers
8											65-68 cm: light colored fine- to medium sand-sized ash layer with common biotite
9											Section CC:
9											0-1 cm: light colored fine- to medium-grained ash layer with biotite
9											8-9 cm: light colored ash patches

Site 1151 Hole D Core 5H										Cored 36.0-45.5
METERS	SECTION	GRAPHIC LITH.	BIO TURB.	STRUCTURE ACCESSORIES	ICHNO.	FOS SILLS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1										DIATOM AND GLASS-BEARING SILTY CLAY The core has a homogenous lithology and an olive green color. Foraminifers comprise >10% of the lithology in some intervals. Section 1: 58 cm: rounded dark blue dropstone 81-85 cm: light gray very fine-grained ash patch 85-86 cm: brownish gray ash patch 129-139 cm: subrounded basaltic cobble, possibly an ice-rafterd dropstone Section 2: 8 cm: light gray fine-grained sand 0-20 cm: scattered small green patches 10 cm: disseminated pyrite 43 cm: green glauconite patch 121-125 cm: dark greenish gray sandy silt with a sharp base 136 cm: dark greenish gray sandy silt patch Section 3: 0-5 cm: scattered small pyrite and green glauconite patches 80 and 88 cm: angular dark gray pumice granules Section 4: 42-44 cm: dark gray subangular pumice pebbles 92-98 cm: light yellow gray very fine-grained ash patches 102-105 cm: gray angular pumice pebbles Section 5: 13, 15-16, 121-122, and 133-145 cm: dark gray silt patches 32-35 cm: light yellowish gray very fine-grained diffuse ash patch with no clear boundaries 36 cm: small white ash 85-86 cm: drk gray silt with pyrite 96-97 cm: 0.8 cm dark blue rounded dropstone 100-140 cm: scattered green glauconite patches 125-126 cm: dark gray silt with dark gray pebbles Section 6: 4-5 cm: rounded gray pebble (0.8 cm) 46 cm: subrounded gray pebble (0.5 cm) 149-150 cm: dark gray silty sand patches Section 7: 0-4 cm: dark to light gray silt 9-20 cm: green glauconite patches 33 cm: yellowish gray angular pebble (0.5 cm) 36-37 cm: dark gray silt patch
1								SS		
2										
3										
4										
5										
6										
7										
8										
9								PAL		

Site 1151 Hole D Core 6H								Cored 45.5-55.0 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIO TURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
											DIATOM AND GLASS-BEARING SILTY CLAY
1											The core has a homogenous lithology and a dominantly olive green color with variations to lighter olive green and yellow brownish olive.
1									SS		Section 1: 5-6 cm: light gray very fine-grained ash patch 70-88 cm: light gray fine-grained ash patch 90-92 cm: dark gray silt patch 98-100 cm: dark greenish gray silt layer with a sharp erosional base
2											Section 2: 0-13 cm: dark gray sandy silt patches 32 cm: subrounded pumice pebbles 73 cm: shell fragments 80-89 cm: scattered light gray round pumice granules
3											Section 3: 5, 10, 19-20, 26, 50, 53, 60, and 62 cm: dark silt patch 30-40 cm: yellowish olive colored interval 42-46 cm: slightly darker silty interval 128 cm: dark blue round pebble (5 x 2 cm) 132 cm: gray angular pebble (1 x 5 x 1 cm) 134-135 cm: thin dark greenish gray silt layer
4											Section 4: 16-20 cm: pumice granules 24-28 cm: light yellowish gray very fine to fine grained ash patches 52-150 cm: chondrites 84 cm: dark burrows
5											Section 5: 24-30, 42-45, and 48-62 cm: ash patches 86-88 cm: accumulation of pumice granules 114-116 cm: dark gray silt patches
6											Section 6: 0-40 cm: patchy burrows 34 cm: rounded dark gray pebble (0.8 cm) 36 cm: angular pumice pebble 46-56 and 56-64 cm: ash patches 64-67 cm: dark gray to light gray fine-grained sandy patches 71-74, and 79-81 cm: dark greenish gray sandy silt 133-137 cm: scattered green patch
7											Section 7: 55 cm: yellowish gray pumice
8											
9											
									PAL		

Core Photo

Site 1151 Hole D Core 7H								Cored 55.0-64.5		
METERS	SECTION	GRAPHIC LITH.	BIO TURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1 1.1 2 3 4 5 6 7 8 9				**** Py ~~~~~ ~~~~~ (P) **** Py ~~~~~ Py ~~~~~ (P) ~~~~~ ~~~~~ (P) X ~~~~~ ~~~~~ (P) GI ~~~~~ Py ~~~~~ <						

Core Photo

Site 1151 Hole D Core 8H									Cored 64.5-74.0		
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOM-BEARING SILTY CLAY
1											The core has a homogenous lithology and a color which varies between olive green, light olive green, and yellowish olive green. Sponge spicules are scattered throughout the core.
											Section 1: 0-8 cm very fine-grained ash patches
2											Section 2: 31-36 cm: ash layer, grading upwards, coarse to very fine-grained, light gray colored, with a sharp base and eorsional top
2											
3											Section 3: 20-25 cm: light gray fine-grained ash patches 83-84 cm: light gray fine-grained ash patch
3											
4											Section 4: 34-35, 40, and 48-50 cm: pumice pebbles, 0.5 cm diameter
4											
5											
5											Section 5: 4-5 cm: fine-grained ash patch 5-26 cm: scattered pumice granules 20-27 cm: light gray and yellow gray ash patches 48-49 cm: light gray to gray fine-grained ash layer 50-75 cm: light gray scattered ash and pumice 76-80 cm: fine-grained ash layer with a gray top and a light gray base; the layer has a very sharp base, a diffuse top, and a fining up texture 80-95 cm: scattered pumice and ash particles 95-106 cm: ash layer, fining up from coarse sand at the base, with a color change upward from dark to light gray.
6											Section 6: gray very fine-grained ash layer with sharp basal and upper boundaries
6											
7											Section 7: 43-45 cm: fine-grained ash layer with a sharp base and scoured top
7											
8											Section 8: 7-11 cm: bioturbated light gray yellowish ash 12-18 cm: ash layer, sharp base, scoured top; the interval 12-13 cm is coarse ash of yellowish light gray color; from 14-18 cm there is gray and light gray coarse ash
8											
9											
9											
10											
10											

Core Photo

Site 1151 Hole D Core 9H							Cored 74.0-83.5 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
										DIATOM AND GLASS-BEARING SILTY CLAY
										The core has a homogenous lithology and an olive green color with variation to light olive green and yellowish olive green.
1				G1 (P)						Section 1:
1				Py (P)				SS		4-8 cm: ash patches
1				(P)						15 cm: pumice granule
1				(P)						15-16 cm: greenish glauconitic clay interval
1										38 cm: black rounded pebble
2					X					40-73 cm: scattered dark gray and green pumice granules with dark gray silty sand
2										110-117 cm: scattered yellowish light gray pumice
2										143-145 cm: dark gray pumice granules
3				(P) G1						Section 2:
3				(P)						22-24 cm: dark gray silty sand patch
3										55-61 cm: ash layer, top is light gray in color, medium to very fine-grained
3										110 cm: angular pumice pebble
3										118-120 cm: angular pumice pebble
3										126, 136, 140, and 144 cm: rounded dark gray pumice granules
3										134 cm: greenish glauconite patch
4				Py (P)						Section 3:
4										9 cm: light gray pumice granules
4										10-18 cm: pumice pebbles
4										30 and 36-37 cm: dark gray silt patches
4										44-45, 58-59, and 66-69 cm: dark gray to greenish gray pumice pebbles and patches
4										45-48 cm: dark gray medium-grained sand accumulation
4										48-58 cm: yellowish to brownish silty sand patches
4										149-150 cm: yellowish light gray fine ash layer (continues to Section 4).
5				Wd (P)						Section 4:
5										0-5 cm: yellowish light gray ash layer, scoured top and base
5										10, 29, 73-74, and 136 cm: pumice grains and pebbles
5										43-46 cm: yellowish light gray ash patch
5										71-72 cm: dark brown wood fragment; light green patch
5										119-120 cm: scattered dark gray sand
5										125-134 cm: green glauconitic silt patches
6				(P) G1						Section 5:
6				(P)						5, 9-10, 98, 99, 101, and 126-128 cm: pumice granules and pebbles
6										19 cm: thin gray sand layer
6										36-42 cm: light to dark gray coarse ash layer with sharp top and base
6										53-76, 86-112 cm: scattered dark gray silt and sand
6										77-78 cm: dark gray sand patch
7				Py (P)						Section 6:
7										24-25, 30, 95-96, and 110-120 cm: dark silt/sand patches
7										33 cm: light gray pumice pebbles and granules
7										45 and 118 cm: dark gray subrounded pumice pebble
7										70 cm: dark greenish gray patch
7										74-79 cm: dark greenish gray to light gray medium-sand layer
8				(P)						Section 7:
8										13-17 cm: white very fine-grained ash layer with sharp base and irregular top
8										22-24 cm: dark greenish silt patch
8										46 cm: green glauconite patch
9				G1 (P)						Section CC:
9										18-20 cm: scattered light gray pumice granules

Core Photo

Site 1151 Hole D Core 10H								83.5-93.0 mbsf			
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	ICHNO.	FOSSILS	DISTURB.	SAMPLE	FRACTURES	DESCRIPTION
1											DIATOM AND GLASS-BEARING SILTY CLAY This core has a homogenous lithology and an olive green, dark olive, and yellowish olive color. Nannofossils comprise up to 10% of the lithology in some intervals. Section 1: 93-96 cm: light yellowish gray, very fine-grained ash layer with a scoured top and bottom 102-107 and 142 cm: silt patches Section 2: 6 cm: light yellowish gray sand patch 18 cm: dark gray pumice granule 23 cm: silt patch 30 cm: greenish glauconitic silty clay patch 33-34 cm: silt patch and light gray ash patch 100 cm: green glauconitic clay patch 110-114 cm: light yellowish gray ash layer, very fine grained, irregular top and bottom, bioturbated Section 3: 93, 104, 109, 124, and 129 cm: pumice granules and grains Section 4: 13 and 48 cm: light gray pumice granules and pebble 82-84 cm: dark gray sandy silty ash layer with sharp base and diffuse top 120 cm: sub-angular granitic pebble (dropstone?) Section 5: 5-12 cm: light gray fine-grained ash layer with scoured base and top 25-26 cm: light brownish gray, very fine-grained ash layer 34 cm: pumice pebble 73-80 cm: inclined (possibly a drilling artifact) green glauconitic layers, light green clay in the upper layer, green clay in the middle layer, and black clay and dark green clay in the bottom layers Section 6: 20-30 cm: a big burrow 75-77 cm: light and dark gray fine-grained ash layer with scoured top and base 100-102 cm: dark gray silty sand patch Section 7: 27-28 cm: dark greenish gray silty sand layer 50-56 and 59-60 cm: dark gray silty sand patches
1.1					Py						
2					Py GI						
2.1					Py						
2.2					Py						
2.3					Py						
2.4					Py						
2.5					Py						
2.6					Py						
2.7					Py						
2.8					Py						
2.9					Py						
3					Py						SS
3.1					Py						
3.2					Py						
3.3					Py						
3.4					Py						
3.5					Py						
3.6					Py						
3.7					Py						
3.8					Py						
3.9					Py						
4					Py						
4.1					Py						PAL
4.2					Py						
4.3					Py						
4.4					Py						
4.5					Py						
4.6					Py						
4.7					Py						
4.8					Py						
4.9					Py						
5					Py						
5.1					Py						
5.2					Py						
5.3					Py						
5.4					Py						
5.5					Py						
5.6					Py						
5.7					Py						
5.8					Py						
5.9					Py						
6					Py						
6.1					Py						
6.2					Py						
6.3					Py						
6.4					Py						
6.5					Py						
6.6					Py						
6.7					Py						
6.8					Py						
6.9					Py						
7					Py						

Sample					Lithology (D=dominant, M=Minor)	Texture			Components				Mineral												Biogenic							Rock		Sediment Name	
Core	Type	Section	Top interval (cm)	Depth (mbsf)		Sand (%)	Silt (%)	Clay (%)	Biogenic (%)	Siliciclastic (%)	Volcaniclastic (%)	Others (%)	Clay (%)	Quartz (%)	Feldspar (%)	Hornblende (%)	Pyroxene (%)	Mica (%)	Glauconite (%)	Volcanic Glass (%)	Palagonite (%)	Pyrite (%)	Hematite (%)	Calcite (%)	Dolomite (%)	Opauques (%)	Diatoms (%)	Siliceous Sponge Spicules (%)	Radiolarians (%)	Silicoflagellates (%)	Foraminifers (%)	Nannofossils (%)	Carbonate Grains (%)		Rock Fragment (%)
186-1151A-																																			
2	R	1	97	78.97	D	5	15	80	55	31	5		20	3	5	1		1	1	5		2	1			1	15	7	2	1	10	20	5		Diatom-foram-clay-nanno-bearing contaminated
2	R	2	97	80.47	D	12	40	48	24	55	10	6	22	15	10	5		1	2	10		5	1			10	3		*	8	3	5		Diatom-bearing clayey silt with foraminifer	
3	R	2	97	86.17	D	5	25	70	35	46	10	4	35	5	3	2			1	10		3	1			20	7	2	1	5		5		Glass-diatom-bearing silty clay	
3	R	4	96	89.16	D	3	35	62	42	47	7	4	38	5	2	1			1	7		3	1			10	5			7	20			Diatom-nannofossil-bearing silty clay	
4	R	1	97	94.27	D	5	40	55	25	60	10	3	34	15	7	3			1	10		3	*			20	5	*	*	*	*	2		Glass-diatom-bearing silty clay	
5	R	1	97	103.87	D	5	30	65	23	56	10	4	41	5	7	2			1	10		3	1			15	5		*	3		7		Diatomaceous silty clay	
6	R	1	97	113.57	D	10	35	55	21	60	15	4	53	3		*		1	3	15	*	4				10	7			*	4			Glass + diatom bearing silty clay	
6	R	2	97	115.07	D	12	37	51	24	53	20	3	48	2	1		1	*	1	20		3	*			15	8					1		Glass + diatom-bearing silty clay	
7	R	2	100	124.7	D	5	37	58	23	59	12	5	56	2	*			*	1	12		5		1		10	8			*	5			Glass + diatom-bearing silty clay	
8	R	1	97	132.77	D	7	43	50	29	49	20	2	47	1		*	*	1	*	20		2		*		20	9			*	*			Glass + diatom-bearing silty clay	
9	R	2	97	143.87	D	3	42	55	27	56	15	1	51	1			2	1	1	15		1		1		15	5					7		Glass + diatom-bearing silty clay	
10	R	3	97	154.97	D	5	40	55	29	56	13	2	52	1	1	*	*	1	1	13		2				16	12					1		Glass-diatom-spicule-bearing silty clay	
11	R	3	97	164.57	D	6	34	60	26	55	15	3	54			*		*	1	15		3		1		13	10					3		Glass-diatom-spicule-bearing silty clay	
12	R	6	98	178.68	D	3	52	45	30	48	20	2	42	2				1	3	20		2				18	8					4		Glass + diatom-bearing clayey silt	
13	R	4	98	185.28	D	3	52	45	38	45	15	2	41	1				1	2	15		2				20	12					6		Diatom-spicule-glass-bearing clayey silt	
14	R	3	97	193.47	D	7	35	58	35	52	7	6	34	7	5	2	2		2	7		5	1			25	7	*	*	2	1			Diatomaceous silty clay	
15	R	1	97	200.17	D	5	30	65	32	54	8	4	38	7	5	2	1	*	1	7	1	3	1			20	5			2	5	2		Diatom-bearing silty clay	
16	R	1	90	209.8	D	5	45	50	36	48	5	6	38	5	3	1			1	5		3	2			15	10	3	1		7	5	1	Diatom-spicule-nannofossil-bearing silty clay	
16	R	2	50	210.9	D	10	40	50	37	28	6	4	19	5	3				1	5	1	3	1			20	10			2	5	25		Diatom-spicule-bearing calcareous clayey silt	
17	R	1	97	219.47	D	5	35	60	31	51	11	7	37	7	5	2				10	1	5	2			15	10			3	3			Diatom-spicule-glass-bearing silty clay	
18	R	1	90	229	D	10	35	55	41	48	7	4	34	7	5	1			1	7		3	1			25	10	1		2	3			Spicule-bearing diatomaceous silty clay	
19	R	1	90	238.6	D	5	35	60	39	46	8	4	37	5	3				1	7	1	3	1			20	10	2	*	2	5	3		Diatom-spicule-bearing silty clay	
20	R	1	90	248.2	D	7	40	53	36	56	6	2	37	10	7	1			1	5	1	1	1			25	10			1				Spicule-bearing diatomaceous silty clay	
21	R	1	90	257.8	D	7	35	58	31	34	6	4	15	10	7	1			1	5	1	3	1			15	10		1	2	3	25		Diatom-spicule-bearing calcareous clayey silty clay	

Sample					Lithology (D=dominant, M=Minor)	Texture			Components				Mineral														Biogenic						Rock		Sediment Name
Core	Type	Section	Top interval (cm)	Depth (mbsf)		Sand (%)	Silt (%)	Clay (%)	Biogenic (%)	Siliciclastic (%)	Volcaniclastic (%)	Others (%)	Clay (%)	Quartz (%)	Feldspar (%)	Hornblende (%)	Pyroxene (%)	Mica (%)	Glauconite (%)	Volcanic Glass (%)	Palagonite (%)	Pyrite (%)	Hematite (%)	Calcite (%)	Dolomite (%)	Opakes (%)	Diatoms (%)	Siliceous Sponge Spicules (%)	Radiolarians (%)	Silicoflagellates (%)	Foraminifers (%)	Nannofossils (%)	Carbonate Grains (%)	Rock Fragment (%)	
22	R	1	90	267.5	D	5	40	55	41	44	6	4	35	5	3				1	5	1	3	1				30	7		*	1	3	5		Spicule-bearing diatomaceous silty clay
23	R	3	97	280.17	D	10	40	50	38	51	10	1	49	1		*		1	*	10	*	1	*				25	13				*			Spicule + glass-bearing diatomaceous silty clay
24	R	4	97	291.37	D	3	37	60	35	52	10	3	47	2		1		1	1	10		3		*			25	10				*			Spicule + glass-bearing diatomaceous silty clay
25	R	1	97	296.57	D	8	50	42	47	39	9	3	37	2		*		*	*	9	*	3	*	2			35	12							Spicule-bearing diatomaceous clayey silt
26	R	3	97	309.27	D	7	38	55	37	49	12	2	45	1	1	1		1	*	12		2	*	*			25	11				1			Glass + spicule-bearing diatomaceous silty clay
27	R	3	97	318.87	D	7	48	45	36	49	13	2	40	3		1		2	3	13		2	*				25	9			1	1			Glass-bearing diatomaceous clayey silt
28	R	3	97	328.57	D	4	51	45	44	44	9	3	40	2	1			*	1	9		3	*	*			20	20				4			Diatom and spicule-bearing clayey silt
29	R	4	97	339.67	D	5	40	55	43	44	6	4	26	10	7				1	5	1	3	1				25	10		1	2	5	3		Spicule-bearing diatomaceous silty clay
30	R	3	115	348.05	D	7	30	63	39	51	6	4	38	5	3	1		1	3	5	1	3	1				25	10			2	2			Spicule-bearing diatomaceous silty clay
31	R	2	133	356.43	D	10	40	50	46	37	8	6	25	5	3	2			2	7	1	5	1				25	10		2	2	7	3		Spicule-bearing diatomaceous silty clay
32	R	1	128	364.48	D	7	40	53	44	38	8	7	19	10	7			1	1	7	1	5	2				25	10			2	7	3		Spicule-bearing diatomaceous silty clay
33	R	1	128	374.18	D	7	40	53	44	38	8	7	19	10	7			1	1	7	1	5	2				25	10		*	2	7	3		Spicule-bearing diatomaceous silty clay
33	R	2	33	374.73	D	10	40	50	34	42	12	7	19	10	7	2		1	3	10	2	5	2				20	7	1		1	5	5		Glass-diatom-bearing silty clay
34	R	2	61	384.61	D	5	35	60	41	37	6	6	23	7	5	1		1		5	1	5	1				20	10	1	1	2	7	10		Spicule-carb.grain-diatom-bearing silty clay
35	R	2	28	393.88	D	10	40	50	35	39	14	7	22	7	5	1		2	2	10	4	5	2				15	7		1	2	10	5		Diatom-nannofossil-glass-bearing silty clay
36	R	1	28	401.68	D	10	35	55	40	31	18	6	16	7	5				3	15	3	5	1				25	8	1		3	3	5		Glass-spicule-bearing diatomaceous silty clay
37	R	1	106	412.06	D	15	30	55	36	43	7	6	33	1	5	2		1	1	5	2	5	1				20	10	5			1	7		Spicule + diatom-bearing silty clay
38	R	2	97	423.07	D	3	37	60	30	58	10	2	56	2				*	*	9	1	2					20	8				2			Diatom-bearing silty clay
39	R	2	90	432.7	D	6	49	45	40	50	8	1	45			1		*	4	8		1	*				20	15				5	1		Diatom + spicule-bearing clayey silt
40	R	3	90	443.8	D	5	40	55	31	57	11	1	52	1	1	*		1	2	10	1	1	*				15	15	1				*		Diatom-spicule-glass-bearing silty clay
41	R	3	97	453.47	D	3	47	50	35	51	10	3	45	1				*	5	10		3					20	10				5			Diatom-spicule-glass bearing silty clay
42	R	3	97	463.17	D	4	46	50	34	50	10	3	46	*		*		*	4	9	1	3					12	17				5	3		Diatom-spicule-bearing silty clay
43	R	3	97	472.77	D	3	42	55	32	57	7	4	51	2			*	*	4	7		4	*				8	12				12			Spicule-nannofossil-bearing silty clay
44	R	4	98	483.88	D	3	43	54	28	59	10	1	51	1	3			*	4	10	*	1	*				18	10			*		2		Diatom-spicule-glass-bearing silty clay

Sample					Lithology (D=dominant, M=Minor)	Texture			Components				Mineral														Biogenic						Rock		Sediment Name
Core	Type	Section	Top interval (cm)	Depth (mbsf)		Sand (%)	Silt (%)	Clay (%)	Biogenic (%)	Siliciclastic (%)	Volcaniclastic (%)	Others (%)	Clay (%)	Quartz (%)	Feldspar (%)	Hornblende (%)	Pyroxene (%)	Mica (%)	Glauconite (%)	Volcanic Glass (%)	Palagonite (%)	Pyrite (%)	Hematite (%)	Calcite (%)	Dolomite (%)	Opauques (%)	Diatoms (%)	Siliceous Sponge Spicules (%)	Radiolarians (%)	Silicoflagellates (%)	Foraminifers (%)	Nannofossils (%)	Carbonate Grains (%)	Rock Fragment (%)	
45	R	2	120	490.7	D	3	42	55	30	54	10	4	50	1	1			2	10	*	4	*				12	18			*		2		Diatom-spicule-glass-bearing silty clay	
46	R	1	54	498.14	D	3	45	52	30	48	9	6	23	7	15	2	1		7	2	5	1				20	10					7		Spicule-diatom-bearing clayey silt	
47	R	1	140	508.6	D	3	35	62	26	49	7	8	30	7	7	1	1	3	5	2	7	1				15	10		1			10		Carbonate grains-diatom-spicule-bearing silty clay	
48	R	3	32	520.12	D	15	30	55	29	48	7	9	30	7	7		1	3	5	2	7	2				10	15	1	1	2		7		Diatom-spicule-bearing silty clay	
49	R	4	122	532.12	D	15	35	50	37	47	7	4	25	10	7		1	4	5	2	3	1				20	10	1	1		5	5		Spicule-diatom-bearing silty clay	
50	R	1	20	536.2	D	15	35	50	34	46	8	7	22	10	7		2	5	5	3	5	2				20	10			1	3	5		Spicule-diatom-bearing silty clay	
51	R	1	43	546.13	D	15	30	55	40	35	12	6	19	7	5	1		3	10	2	5	1				25	10			2	3	7		Spicule-bearing diatomaceous silty clay	
52	R	1	76	556.16	D	5	40	55	20	54	13	8	36	7	5	1	1	4	10	3	5	3				10	7	3				5		Diatom-glass-bearing silty clay	
53	R	2	103	567.63	D	2	41	57	33	57	9	1	54	1	*		*	2	9		1	*				15	18							Diatom-spicule-bearing silty clay	
54	R	2	97	577.17	D	2	40	58	34	54	10	2	50	1	1			2	10		2					17	15					2		Glass-diatom-spicue-bearing silty clay	
56	R	2	70	595.43	D	3	37	60	33	56	10	1	54	1	1	*	*	*	10		1					8	15					10		Glass-spicule-bearing silty clay	
57	R	2	98	605.98	D	2	43	55	32	59	8	1	51	3	2		*	3	8		1					8	12					12	*	Nannofossil-spicule-bearing silty clay	
58	R	3	98	617.18	D	4	40	56	25	59	15	1	52	1	2	*	*	4	15		1					14	8					3	*	Diatom-glass-bearing silty clay	
58	R	6	98	621.68	D	4	41	55	31	55	12	2	49	1	1		*	4	12		2					15	13					3	*	Glass-diatom-spicule-bearing silty clay	
59	R	4	95	628.35	D	7	30	63	31	54	8	4	42	5	5		1	1	7	1	3	1				15	10			1	5	3		Spicule-diatom-bearing silty clay	
60	R	1	120	633.7	D	5	30	65	30	48	8	5	33	5	3		4	3	7	1	5			2		15	10					5	7	Spicule-diatom-bearing silty clay	
61	R	1	63	642.73	D	10	35	55	27	52	10	4	33	10	5	1	1	2	10		3	1				10	15					2	7	Diatom-spicule-glass-bearing silty clay	
62	R	1	32	651.92	D	5	50	45	21	54	10	11	26	15	10		2	1	10		10	1		1		10	10	1					3		Diatom-spicule-glass-pyrite-bearing clayey silt
63	R	1	82	662.02	D	5	45	50	32	41	7	5	19	7	10	1	2	2	5	2	3	2				15	15	1	1				15		Diatom-spicule-carbonate-bearing clayey silt
65	R	5	70	686.9	D	5	45	50	26	56	9	4	34	7	10		2	3	7	2	3	1		2		15	10			1			3		Diatom-spicule-bearing silty clay
66	R	1	70	690.5	D	5	50	45	31	46	12	6	12	10	15		2	7	10	2	5	1				15	10			1	5	5		Diatom-spicule-glass-bearing clayey silt	
67	R	3	56	702.76	D	7	40	53	27	48	12	3	22	10	12	1	1	2	10	2	2	1				10	10					7	10		Diatom-spicule-glass-carb-bearing clayey silt
68	R	1	110	710.1	D	5	30	65	28	55	6	2	39	5	7	1	1	2	5	1	1	1		2		10	7			1	10	7		Diatom-nannofossil-bearing silty clay	

Sample					Lithology (D=dominant, M=Minor)	Texture			Components				Mineral														Biogenic						Rock		Sediment Name
Core	Type	Section	Top interval (cm)	Depth (mbsf)		Sand (%)	Silt (%)	Clay (%)	Biogenic (%)	Siliciclastic (%)	Volcaniclastic (%)	Others (%)	Clay (%)	Quartz (%)	Feldspar (%)	Hornblende (%)	Pyroxene (%)	Mica (%)	Glauconite (%)	Volcanic Glass (%)	Palagonite (%)	Pyrite (%)	Hematite (%)	Calcite (%)	Dolomite (%)	Opal (%)	Diatoms (%)	Siliceous Sponge Spicules (%)	Radiolarians (%)	Silicoflagellates (%)	Foraminifers (%)	Nannofossils (%)	Carbonate Grains (%)	Rock Fragment (%)	
69	R	3	98	722.28	D	4	39	57	25	57	15	2	50	2	2	*		*	3	15		2	*				11	12					2	1	Diatom-glass-spicule-bearing silty clay
69	R	4	104	723.84	D	5	52	43	31	45	20	4	37	2	2			*	4	20	*	3	1				15	14					2	*	Diatom-glass-spicule-bearing silty clay
70	R	2	130	731.1	D	2	38	60	17	57	25	1	54	1	*			*	2	25	*	1	*				6	10			*	1			Spicule-bearing glassy silty clay
71	R	6	88	746.38	D	3	49	48	32	51	14	3	44	2	1	*	*	1	3	14	*	3	*				16	11					5		Diatom-glass-spicule-bearing silty clay
72	R	4	98	752.66	D	4	40	56	25	57	15	2	53	1	1	*	*	*	2	15	*	2	*				12	10					3	1	Diatom-glass-spicule-bearing silty clay
73	R	4	98	762.78	D	2	40	58	26	64	8	2	50	3	5	*	*	*	6	8	*	2	*				9	13					4	*	Spicule-bearing silty clay
74	R	1	122	768.12	D	15	40	45	30	50	11	2	18	15	10	1		1	5	10	1	1	1				15	10					5	7	Diatom-glass-spicule-bearing clayey silt
75	R	1	75	777.25	D	5	40	55	25	60	8	4	36	7	10	1		1	5	7	1	3	1				12	10					3	3	Diatom-spicule-bearing silty clay
76	R	2	114	788.74	D	5	50	45	34	45	9	6	21	7	12	1		1	3	7	2	5	1		1		20	10	1				3	5	Diatom-spicule-bearing clayey silt
77	R	2	50	797.7	D	10	40	50	23	55	7	10	36	5	7	1		1	5	7	*	3	7				10	7	1	1	1		3	5	Diatom-bearing silty clay
78	R	1	70	806.1	D	15	40	45	25	48	10	10	16	10	15	1		1	5	10		3	7				10	10					5	7	Diatom-spicule-glass-bearing clayey silt
78	R	4	40	810.3	D	20	50	30	19	52	7	10	16	10	15			1	10	7			10				12	7						12	Diatom-glass-limonite-carb-bearing clayey silt
80	R	4	98	830.08	D	2	43	55	19	54	25	2	49	2	2	*		*	1	25		2					9	10			*		*		Spicule-bearing glassy silty clay
81	R	2	80	836.5	D	2	38	60	21	57	20	2	53	1	1			*	2	20		2					10	11							Glass-diatom-spicule-bearing silty clay
82	R	1	98	844.78	D	2	40	58	27	58	12	2	51	2	3			*	2	12		2	*				12	15						1	Diatom-glass-spicule-bearing silty clay
84	R	3	98	867.08	D	3	42	55	28	51	18	3	46	2	2			*	1	18		3					10	18					*		Glass-diatom-spicule-bearing silty clay
85	R	3	98	876.78	D	2	40	58	25	52	20	3	46	1	2	*		*	3	20		3	*				10	15							Diatom-glass-spicule-bearing silty clay
86	R	2	110	884.9	D	2	60	38	23	58	16	3	53	1	2				2	16		3					9	13					1		Spicule glass-bearing silty clay
87	R	2	98	894.38	D	4	46	50	23	49	25	1	42	2	3			*	2	25	*	1	*		2		5	17					1		Spicule-bearing glassy silty clay
88	R	1	84	902.44	D	5	30	65	25	55	7	10	37	5	7			1	5	7		3	7				10	15					3		Diatom-spicule-bearing silty clay
89	R	1	112	912.32	D	5	40	55	23	57	5	8	25	10	15				7	5		3	5				15	7		1			7		Diatom-bearing clayey silt
90	R	1	28	921.08	D	7	40	53	20	62	8	7	36	7	10	2		2	5	7	1	2	5				10	10					3		Diatom-spicule-bearing silty clay
91	R	1	88	931.28	D	15	45	40	22	51	11	9	25	7	12	1		1	5	10	1	3	6				10	10			2		7		Diatom-spicule-glass-bearing clayey silt
92	R	1	110	941.2	D	5	35	60	23	53	12	9	29	12	7				5	10	2	3	6				10	12			1		3		Diatom-spicule-glass-bearing silty clay
96	R	2	98	980.91	D	3	37	60	15	57	26	1	50	3	1	*		*	3	26		1	*				5	8					2	1	Glassy silty clay
97	R	3	98	992.18	D	4	43	53	15	57	26	2	49	2	3	*		*	3	26		1	1				7	7					1		Glassy silty clay

Sample					Lithology (D=dominant, M=Minor)	Texture			Components				Mineral														Biogenic						Rock		Sediment Name
Core	Type	Section	Top interval (cm)	Depth (mbsf)		Sand (%)	Silt (%)	Clay (%)	Biogenic (%)	Siliciclastic (%)	Volcaniclastic (%)	Others (%)	Clay (%)	Quartz (%)	Feldspar (%)	Hornblende (%)	Pyroxene (%)	Mica (%)	Glauconite (%)	Volcanic Glass (%)	Palagonite (%)	Pyrite (%)	Hematite (%)	Calcite (%)	Dolomite (%)	Opakes (%)	Diatoms (%)	Siliceous Sponge Spicules (%)	Radiolarians (%)	Silicoflagellates (%)	Foraminifers (%)	Nannofossils (%)	Carbonate Grains (%)	Rock Fragment (%)	
98	R	3	98	1001.78	D	1	39	60	18	61	16	4	50	2	5			*	4	16		4					6	10					2	1	Glass-and spicule-bearing silty clay
99	R	1	98	1008.38	D	0	24	76	15	59	22	2	52	*				7	22		2	*				4	7				*	4	2	Glass-bearing clay	
100	R	2	98	1019.48	D	3	42	55	14	58	25	3	50	2	3			3	25		3	*				5	8					1		Glassy silty clay	
101	R	1	98	1027.58	D	1	24	75	24	50	20	0	47	1	1			1	20		*	*				5	9				*	10	6	Nannofossil- and glass-bearing	
102	R	1	105	1037.25	D	5	35	60	25	61	6	6	47	7	5			2	5	1	2	4				10	15						2	Diatom-spicule-bearing silty clay	
104	R	1	90	1056.5	D	10	30	60	21	58	11	9	35	5	7	1		10	10	1	2	7				15	5					1	1	Diatom-glass-spicule-bearing silty clay	
105	R	2	140	1068.2	D	5	30	65	23	53	20	4	29	7	5	1	1	10	20		1	3				10	12	1						Diatom-glass-spicule-glauconite-bearing silty clay	
106	R	1	94	1075.94	D	4	41	55	12	57	30	0	52	2	3	*	*		30		*	*				7	5						1	Glassy silty clay	
107	R	4	98	1089.67	D	2	38	60	15	58	22	5	51	2	4	*	*	1	22		4	1				5	10							Glass + spicule-bearing silty clay	
108	R	2	86	1096.66	D	4	36	60	13	64	20	3	58	2	2		*	2	20		2	1				5	8							Glass-bearing silty clay	
108	R	4	98	1099.61	D	7	43	50	11	52	31	4	45	3	3	*	*	1	31		3			1	4	7						2		Glassy silty clay	
109	R	1	40	1104.3	D	2	38	60	15	63	18	4	57	2	2	1	*	1	18		4	*				5	10					*		Spicule + glass-bearing silty clay	

Sample						Texture			Mineral												Biogenic								Rock	
Core	Type	Section	Top interval (cm)	Depth (mbsf)	Lithology (D=dominant, M=Minor)	Sand (%)	Silt (%)	Clay (%)	Clay (%)	Quartz (%)	Feldspar (%)	Hornblende (%)	Mica (%)	Glauconite (%)	Volcanic Glass (%)	Palagonite (%)	Pyrite (%)	Hematite (%)	Organic Calcite (%)	Opakes (%)	Diatoms (%)	Siliceous Sponge Spicules (%)	Radiolarians (%)	Silicoflagellates (%)	Foraminifers (%)	Nannofossils (%)	Carbonate Grains (%)	Sediment Name		
186-1151C-																														
1	H	1	98	0.98	D	10	48	42	40	3	4	1	1	2	5			1		2	25	8				2	6	Sand-bearing diatomaceous silty clay		
2	H	2	98	4.68	D	10	45	45	41	5	5	1	1	1	12		1	1			18	8		5	1			Diatom-glass-sand-bearing clayey silt		
3	H	4	98	17.18	D	3	25	72	39	1	1		*	1	6		2	1			15	7		*	*	26	1	Diatom-bearing nannofossileous silty clay		
4	H	4	98	26.71	D	6	45	49	45	3	1		*	2	8		2	1			20	9	*	*	*	4	5	Diatom-bearing silty clay		
5	H	3	98	34.68	D	4	47	49	47	1			*		5		2	1			25	11					8	Spicule-bearing diatomaceous silty clay		
6	H	4	98	45.68	D	5	46	49	46	1	2	*	1	1	10		2	1		1	18	13		*	*	1	3	Diatom-glass-spicule-bearing silty clay		
7	H	4	98	55.18	D	3	50	47	39	2	2	*	1	*	10		3	*		1	19	13		*	*		10	Diatom-spicule-carbonate-bearing clayey silt		
8	H	4	98	64.68	D	3	47	50	45	2	1	*	*	1	12		1	1			18	15		1	*		3	Diatom-spicule-glass-bearing clayey silt		
9	H	4	98	74.18	D	3	45	52	41	3	2	1	*	*	10		2	1			25	10				2	3	Spicule-glass-bearing diatomaceous silty clay		
10	H	1	92	79.12	D	10	40	50	38	6	11	4	2	1	10		3				15	5	1			1	3	Diatom-glass-bearing silty clay		
11	H	2	42	89.62	D	10	50	40	19	5	7	3			7		3				25	7	1	*	10	10	3	Nanno-foram-bearing diatomaceous clayey silt		
186-1151D-																														
1	H	1	90	0.90	D	10	40	50	25	5	5			2	10		3	1			25	5				12	7		Foraminifer-glass-sand-bearing silty clay	
1	H	2	118	2.68	M	75	15	10	10	10	30	20		15	15														Glass-clay-hornbl-fsp-qtz-bear. silty sand	
2	H	1	90	8.40	D	10	40	50	22	6	5	1	1	2	10		3	2			30	10	2	1	2	2	1	Glass-spicule-bearing diatomaceous silty clay		
3	H	1	90	17.90	D	10	40	50	26	1	5		1	10	10		5	1			20			1	5	10	5	Nannofossil-glass-diatom-bearing silty clay		
4	H	4	103	32.03	D	15	30	55	32	5	3	1	2	5	5		3	3			10	5		1	10	15		Diatom-foram-nanno-sand-bearing silty clay		
5	H	1	90	36.90	D	10	20	70	43	3	1	1	1	2	10		2	3			10		1		10	3	10	Diatom-foram-calc-glass-bearing clay		
6	H	1	120	46.70	D	10	50	40	28	5	12	1	1	2	10		2	3			15	7	1	1	5		7	Diatom-sand-glass-bearing clayey silt		
7	H	1	120	56.20	D	5	30	65	25	5	5	1	1	1	15		2	2			10	5	1	1	8	10	8	Diatom-nanno-foram-calc-bearing silty clay		
8	H	2	56	66.56	D	5	30	65	37	3	5		1	5	7		2	3			15	5		1	3	3	10	Glass-sand-bearing diatomaceous silty clay		
9	H	1	90	74.90	D	7	40	53	36	7	10	1		5	15		2	3			10	5		1			5	Diatom-glass-bearing silty clay		
10	H	1	90	84.40	D	15	45	40	24	7	12	2		2	15	2	2	1	7		10	5			1	10		Diatom-nanno-glass-bearing silty clay		