

SITE 1053 HOLE A CORE 2H

CORED 9.5-19.0 mbsf

1053A-2H

MEETERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES	ACCESSORIES	ICHO FOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
0										pal YE	SILICEOUS NANNOFOSSIL OOOZE
1										lt BR	Core contains sharp color change in Section 3, 69 cm from pale yellow to light brown (5Y 8/1 to 5Y 8/2) above to very light greenish gray to white (7.5GY 8/2 to 10GY 9/1) below. The dominant lithology is SILICEOUS NANNOFOSSIL OOOZE. Burrow mottling is more apparent in the greenish sediments (tan burrows), but is ubiquitous throughout; bioturbation is heavy. Rare dark specks occur throughout.
2								SS	pal YE	Black specks	
3								SS			Sharp color change from pale yellow above to very light greenish gray below; mm gray layer occurs at the contact, but compositionally there seems to be no significant difference between this gray layer and either the yellow or green sediments.
4								IW	vlt gn GY		
5								SS			Bioturbated VITRIC ASH (17.53 mbsf)
6								SS	WH		
7								SS	vlt gn GY		
8											
9											
10											
										PAL	

METRES	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES ACCESSORIES	ICHTHOFOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
0	1									NANNOFOSSIL OOZE
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2										
3										
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							late Eocene	SS IW	vpl GN	Very pale green (5G 8/1) to pale green (5G 7/1) NANNOFOSSIL OOZE, burrow-mottled throughout with pyrite specks and streaks.
								SS	pal GN	Section 6, 116 cm: sharp color change from very pale green (5G 7/1) to pale green (5G 8/1).
								PAL		

SITE 1053 HOLE A CORE 8H

CORED 66.5-76.0 mbsf

1053A-8H

MEETERS	CORE AND SECTION LITHOLOGY	PHYSICAL STRUCTURES ACCESSORIES	ICHOFOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
0									
1							SS	pal gy GN	<p>SILICEOUS NANNOFOSSIL OOZE</p> <p>Light greenish gray (10GY 8/1) SILICEOUS NANNOFOSSIL OOZE. Bioturbated throughout with large pale brown burrows. Flecks of pyrite are disseminated throughout the core.</p>
2							SS		<p>Section 2, 76-84 cm: Grayish green (10GY 5/1) layer of CLAYEY SILICEOUS OOZE WITH NANNOFOSSILS. Sharp lower contact, bioturbated upper contact.</p>
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METERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES	ACCESSORIES	ICHOFOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
0											
1									SS		NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS AND CARBONATE GRAINS
2									SS		Very pale green (10G 8/1) to pale green (10G 7/1) NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS AND CARBONATE GRAINS with burrow mottling and pyrite specks, streaks, and blebs.
3									SS		VITRIC ASH, Section 3, 5-9 cm (79.05-79.09).
4									IW		
5											
6											
7									SS		VITRIC ASH, Section 6, 112-122 cm (84.62-84.72).
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SITE 1053 HOLE A CORE 10H

CORED 85.5-95.0 mbsf

1053A-10H

METERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES	ACCESSORIES	ICHOFOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
1									SS		<p>NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS</p> <p>Pale grayish green (5G 7/1) NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS. Very subtle color gradations (but all 5G 7/1). Bioturbated throughout.</p> <p>Numerous blebs and flecks of pyrite occur throughout the core.</p>
2											
3											
4											
5											
6											
7											
8									SS		Section 5, 134 cm (92.84 mbsf): Faint gray VITRIC ASH. Sharp lower contact, bioturbated upper contact.
9									SS		Section 6, 144 cm: Thin dark layer of fine-grained pyrite.
10									PAL		CC entirely to Paleo lab

SITE 1053 HOLE A CORE 12H

CORED 104.5-114.0 mbsf

1053A-12H

MEETERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES	ACCESSORIES	ICHO NO FOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
0	1										<p>SILICEOUS NANNOFOSSIL OOZE</p> <p>Entire core consists of very pale green (10GY 8/1) SILICEOUS NANNOFOSSIL OOZE. Intensely bioturbated throughout. Large burrows are pale olive (10Y 6/2). Pyrite-stained subhorizontal burrows are probably Zoophycos.</p> <p>Section 3, 4-8 cm: concentration of disseminated pyrite.</p>
1	2										
2	3										
3	4										
4	5										
5	6										
6	7										
7	8										
8	9										
9	10										
10											

late Eocene

IW

vpl GN

PAL

METERS	CORE AND SECTION LITHOLOGY	PHYSICAL STRUCTURES ACCESSORIES	ICHOFOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
0 1 2 3 4 5 6 7 8					←---→ o o o	late Eocene — SS — PAL		pal gn GY	SILICEOUS NANNOFOSSIL OOZE Moderately burrow-mottled, pale greenish gray (10GY 8/1) SILICEOUS NANNOFOSSIL OOZE. Burrows are gray to black (pyrite-stained) or brown to flesh-colored (more siliceous). Black framboidal pyrite specks throughout. Very faint alternations from darker to lighter pale greenish gray.

SITE 1053 HOLE A CORE 16X

CORED 139.0-144.7 mbsf

1053A-16X

METERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES	ACCESSORIES	ICHO F FOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
0.0											
0.1											SILICEOUS NANNOFOSSIL CHALK
0.2											<p>Moderately bioturbated SILICEOUS NANNOFOSSIL CHALK. Drilling biscuiting throughout in 5-7 cm biscuits, separated by 2 cm of slurry. Zoophycos and Planolites common. Pyrite specks and burrow fills scattered through the core. Brown Planolites burrows contain well preserved diatoms.</p>
0.3											
0.4											
0.5											
0.6											
0.7											
0.8											
								late Eocene		lt ye GN	Dark slurry between biscuits
											SS PAL

METERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES	ACCESSORIES	ICHO NO FOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
								late Eocene		lt gy GN	<p>SILICEOUS NANNOFOSSIL OOZE</p> <p>Light grayish green (8GY 7/1) SILICEOUS NANNOFOSSIL OOZE, severely drilling-disturbed (biscuited). Slightly to moderately bioturbated with Zoophycos, Teichichnus, and rare Chondrites. Faintly darker in Section 5, 122-150 cm. Faint, mm-scale bands of green and gray occur in Sections 2 and 5. Pyrite framboids, specks, burrow linings, and burrow fill occur throughout.</p>

SITE 1053 HOLE A CORE 18X

CORED 154.3-163.9 mbsf

1053A-18X

METERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES	ACCESSORIES	ICHOFOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
								<p>late Eocene</p>	<p>SS</p> <p>IW</p> <p>PAL</p>	<p>lt gy GN</p>	<p>SILICEOUS NANNOFOSSIL CHALK</p> <p>Light grayish green (10G 8/1) SILICEOUS NANNOFOSSIL CHALK. Highly biscuited with ~5 cm biscuits separated by 2-3 cm of slurry. Biscuits are bioturbated with Zoophycos and other burrows.</p>

METERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES	ACCESSORIES	ICHO FOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
0.0	1			Mn				late Eocene	SS	pal BR	CLAYEY FORAMINIFER OOZE WITH PHOSPHATE and SILICEOUS NANNOFOSSIL OOZE
1.0	2								SS	pal YE	Pale brown (10YR 6/3) CLAYEY FORAMINIFER OOZE WITH PHOSPHATE with severe drilling disturbance, the core is soupy throughout this lithology. From 0 to 8 cm abundant Mn nodule fragments and small Mn nodules are observed, at 21-26 cm a larger nodule is observed. From 37 cm downcore, pale yellow (2.5 8/2) SILICEOUS NANNOFOSSIL OOZE, slightly disturbed by drilling except for Section 3 that is severely disturbed. Some smectite specks and Mn blebs throughout this lithology.
2.0	3								SS		Section 2, 97-98 cm: ASH patch (2.42-2.43 mbsf)
3.0									PAL		Section 2, 120-122 cm: ASH LAYER (2.65-2.67 mbsf)

SITE 1053 HOLE B CORE 2H

CORED 3.9-13.4 mbsf

1053B-2H

METERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES	ACCESSORIES	ICHO NO FOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
0	1			Mn							<p>SILICEOUS NANNOFOSSIL OOZE</p> <p>Pale yellow (2.5Y 8/2) SILICEOUS NANNOFOSSIL OOZE that changes to light greenish gray (5G 8/1) from Section 6 to Section 7. Some smectite specks throughout core and some pyrite blebs. Bioturbation is moderate throughout. Slight drilling disturbance except in Section 1, 0-2 cm where the core is soupy and contains a Mn nodule fragment.</p>
1	2										
2	3									pal YE	
3	4										
4	5										
5	6									lt YE	
6	7									lt gn GY	
								SS			
								PAL			

METERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES ACCESSORIES	ICHO FOS SILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
							<p>late Eocene</p>	<p>SS</p>	<p>lt gn GY</p>	<p>SILICEOUS NANNOFOSSIL OOZE</p> <p>— Light greenish gray (10GY 8/1) SILICEOUS NANNOFOSSIL OOZE with minor bioturbation, including mottling with pale brown burrows. Pyrite flecks and blebs are disseminated throughout. Section 1, 0-3 cm is a slurry consisting of several Mn-nodules, pale yellow ooze, and phosphatic ooze. There are rare streaks of the pale yellow ooze from the overlying lithology in Section 1, 0-34 cm as the result of drilling disturbance.</p>

METERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES	ACCESSORIES	ICHOFOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
								<p>late Eocene</p>	<p>SS</p>	<p>lt gn GY</p>	<p>NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS AND CLAY</p> <p>Pale greenish gray (10GY 7/1) NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS AND CLAY. Bioturbated throughout with pale brown Zoophycos, Chondrites and unidentified burrows. Blebs and flecks of pyrite are disseminated throughout.</p>

SITE 1053 HOLE B CORE 6H

CORED 41.9-51.4 mbsf

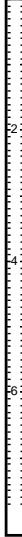
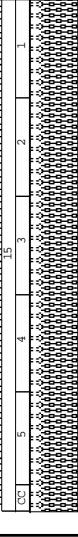
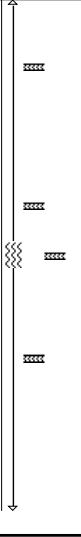

1053B-6H

MEETERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES	ACCESSORIES	ICHOINOFOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
0											<p>NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS AND CLAY</p> <p>Light greenish gray (10GY 8/1) NANNOFOSSIL OOZE WITH SILICEOUS MICROFOSSILS AND CLAY. Moderate to severe bioturbation throughout core. Lithology is homogeneous throughout with grayish pyrite-rich patches and brownish burrows. Slight drilling disturbance except for Section 1, 35-36 cm: slightly soupy, and moderate in Section 7, 30-55 cm.</p>
10											

METERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES	ACCESSORIES	ICHO NO FOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
10											<p>SILICEOUS NANNOFOSSIL OOZE WITH MICRITE and SILICEOUS NANNOFOSSIL OOZE</p> <p>Light greenish gray (10GY 8/1 to 7/1) with gradual to abrupt variation from lighter to darker (more siliceous and finer grained) intervals.</p> <p>Pyrite throughout.</p> <p>Generally homogeneous but with tan to gray burrows throughout consisting mostly of probable Zoophycos and simple burrows with an oval cross-section ~ 1 cm across.</p> <p>Phosphate nodule, 1 cm across, in slurry</p> <p>Pyrite filled burrow</p> <p>Sharp contact between relatively dark sediment above and very light sediment below; dark sediment is more siliceous and contains a higher proportion of clay-size material</p> <p>Color grades from very light at 47 cm to light at 138 cm where there is an abrupt transition back to very light</p> <p>Zoophycos?</p> <p>Sharp contact between lighter (below) and darker (above); large light patch in basal 10 cm of dark area and several 0.5 cm burrows with dark fill in top 10 cm of light area</p> <p>Zoophycos?</p>
9									vlt gn GY		
8									lt gn GY		
7									vlt gn GY		
6									lt gn GY		
5									vlt gn GY		
4									lt gn GY		
3									vlt gn GY		
2									lt gn GY		
1									vlt gn GY		
									lt gn GY		

METERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES	ACCESSORIES	ICHTHOFOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
0.0	1										<p>SILICEOUS NANNOFOSSIL OOZE</p> <p>Entire core is monotonous, structureless, light greenish gray (7.5GY 7/1) SILICEOUS NANNOFOSSIL OOZE. Tan colored burrows with faint pyrite (?) linings are common in Sections 2 and 3 and rare elsewhere in the core. Abundant dark flecks and streaks occur throughout. Other bioturbation is not recognizable, but presumably is very intense.</p>
0.2	2										
0.4	3										
0.6	4										
0.8	5										
1.0	6										
1.2	7										
							late Eocene			lt gn GY	
									SAM	lt gn GY	
									PAL		Half of the sediment at base of Sect. 7 is cut off. CC entirely consumed by micropaleontology sample.

METERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES ACCESSORIES	ICHO FOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
							<p>late Eocene</p>		<p>lt gn GY</p>	<p>SILICEOUS NANNOFOSSIL CHALK Light greenish gray (7.5GY 8/2 to 10GY 8/1). Burrow mottled throughout; burrows both tan and black, some pyrite lined; Zoophycos only trace identified. 0-30 cm-drilling disturbed, 6 cm and 3 cm phosphate nodule- assumed down hole contamination.</p>

METERS	CORE AND SECTION LITHOLOGY	PHYSICAL STRUCTURES ACCESSORIES	ICHOFOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOUR	REMARKS
						late Eocene	PAL		<p>SILICEOUS NANNOFOSSIL OOZE</p> <p>Light greenish gray (7.5GY 8/2 to 10GY 8/1).</p> <p>Burrow mottled throughout; burrows both tan (relatively enriched in siliceous microfossils) and black (relatively enriched in pyrite); some tan burrows lined with pyrite; pyrite also occurs as blebs throughout core.</p> <p>Drilling biscuitied.</p> <p>CC entirely to Paleo Lab</p>

METERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES	ACCESSORIES	ICHI NO FOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
								late Eocene		lt gn GY	<p>SILICEOUS NANNOFOSSIL OOZE</p> <p>Light greenish gray (7.5GY 8/2 to 10GY 8/1); faint dark light alternations.</p> <p>Burrow mottled throughout; burrows both and black.</p> <p>3-10 cm, slightly fractured biscuits separated by 1-5 cm of slurry throughout.</p> <p>Pyrite flecks throughout but less abundant in Sections 4-CC.</p> <p>— Biscuits darker with light burrows in lower 25 cm of Section 4.</p> <p>— 73 cm-Burrow with green halo.</p>

SITE 1053 HOLE B CORE 18X

CORED 153.5-163.1 mbsf

1053B-18X

1053B-19X

METERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES	ACCESSORIES	ICHOFOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
13.0 12.5 12.0 11.5 11.0 10.5 10.0 9.5 9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0								middle to late Eocene	SS PAL	vpl gy GN	<p>SILICEOUS NANNOFOSSIL CHALK</p> <p>0-10 cm Mn nodules (downhole contamination)</p> <p>10 cm - base biscuit SILICEOUS NANNOFOSSIL CHALK. Small burrows with pyrite infillings.</p>

SITE 1053 HOLE B CORE 19X

CORED 163.1-172.7 mbsf

METERS	CORE AND SECTION	LITHOLOGY	PHYSICAL STRUCTURES	ACCESSORIES	ICHOFOSSILS	FOSSILS	CORE DISTURBANCE	AGE	SAMPLES	COLOR	REMARKS
17.0 16.5 16.0 15.5 15.0 14.5 14.0 13.5 13.0 12.5 12.0 11.5 11.0 10.5 10.0 9.5 9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0								late Eocene	SS	lt gn GY	<p>SILICEOUS NANNOFOSSIL CHALK</p> <p>Homogeneous light greenish gray (10GY 8/1) SILICEOUS NANNOFOSSIL CHALK, moderately bioturbated throughout with pyrite lining some burrows. The entire core is biscuit and biscuits are fractured by drilling.</p>

