

Core Photo

1121A-1H 0-8.4 mbsf										
Leg 181 Site 1121 Hole A Core 1H										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ICHNO.	FOSSILS	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
1										<p>SILTY CLAY, FORAMINIFER-BEARING SAND, FORAMINIFER-BEARING SANDY SILT, and SILT-BEARING CLAY</p> <p>Lithology This core contains brown (10YR 5/3) FORAMINIFER-BEARING SAND, brown (10YR 5/3) FORAMINIFER-BEARING SANDY SILT, dark yellowish brown (10YR 4/4) SILTY CLAY, and dark yellowish brown (10YR 4/4) SILT-BEARING CLAY.</p> <p>General Description Sections 1 and 2 are soupy. The upper 20 cm of Section 1 contain FORAMINIFER-BEARING SAND which grades downcore to a FORAMINIFER-BEARING SANDY SILT. SAND present at the top of Section 3 has a sharp contact with the SILTY SAND which grades to SILTY CLAY, below which is a bioturbated base with the SILT-BEARING CLAY below. In Section 4, 4 to 12 cm, there is a manganese pavement composed of manganese cemented sand grains. The rest of the core is SILT-BEARING CLAY which contains lighter colored layers, with sharp top and bottom contacts, in Section 5 (105 to 110cm) and Section 6 (2 to 12 cm). Mica is visible throughout the core and the SILT-BEARING CLAY is heavily mottled. Trace fossils include Zoophycus and Thalassinoides.</p>
2										
3										
4										
5										
6										
7										
8										

Core Photo

1121B-1H 0-9.5 mbsf										
Leg 181 Site 1121 Hole B Core 1H										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ICHNO.	FOSSILS	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
1	1								SS	<p>SILTY CLAY, SANDY CLAY, FORAMINIFER-BEARING SILTY SAND, CLAYEY SILT, SILTY SAND, FORAMINIFER-BEARING SAND, SAND, and CLAY</p> <p>Lithology Five major lithologies comprise this core: dark yellowish brown (10YR 4/4) SILTY CLAY, grayish brown (10YR 5/2) FORAMINIFER-BEARING SAND, light yellowish brown (10YR 6/4) SILTY SAND, brownish yellow (10YR 6/6) zeolitic SAND, and yellow (10YR 7/6) CLAY.</p> <p>Detailed Description Manganese nodules occur throughout Sections 1 to 4, varying in size from <2 cm to at least 6 cm long and 7 cm wide. The lithology in Section 1 grades downcore from grayish brown (10YR 5/2) FORAMINIFER-BEARING SAND to FORAMINIFER-BEARING SILTY SAND, SILT and finally to slightly mottled dark yellowish brown (10YR 4/4) SILTY CLAY, which continues through to Section 3, 30 cm. SANDY CLAY is then present to Section 3, 100 cm, where this bed grades to a brown (10YR 5/3) color. The top of Section 4 is a yellowish brown (10YR 5/4) SANDY CLAY which has a sharp contact with the underlying manganese nodule-containing, dark (N 8) sand layer. This sand grades into light yellowish brown (10YR 6/4) SILTY SAND (may be sorted silt) which has a bioturbated base with brown (10YR 4/4) SANDY CLAY. In Section 5, there is brown (10YR 7/6) SANDY CLAY which has a bioturbated contact with a light yellow (10YR 7/6) SILTY CLAY. There are Thalassinoides burrows throughout the bioturbated base. The remainder of the core is brown (10YR 4/4) SANDY CLAY which is bioturbated with yellow (10YR 7/6) SILTY CLAY in Section 6, 44 to 55 cm, and in Section 7, 50 to 70 cm. The top 4 cm of the core catcher are brownish yellow (10YR 6/6) zeolitic SAND (clinoptilolite) which has an extremely sharp contact with the underlying yellow (10YR 7/6) CLAY.</p>
2	2									
3	3									
4	4									
5	5								SS IW	
6	6									
7	7									
8	8									
9	8								PAL SS PAL SS PAL	


Core Photo

1121B-2H 9.5-19 mbsf										
Leg 181 Site 1121 Hole B Core 2H										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ICHNO.	FOSSILS	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
10	1									<p>SILTY CLAY, CLAY, SILTY SAND, and SAND</p> <p>Lithology Sediment in this core is dark brown (10YR 4/4), light yellowish brown (10YR 6/4), and light reddish brown (5YR 6/3) SILTY CLAY, light yellowish brown (10YR 6/4) SILTY SAND, and pale yellow (2.5Y 7/4) CLAY.</p> <p>General Description Mica is visible throughout the core. The top of the core is mottled dark brown (10YR 4/4) SILTY CLAY with light yellowish brown banding and traces of Thalassinoides. Light yellowish brown (10YR 6/4) SILTY CLAY beds are present in Section 2, 65 to 70 cm, and 108 to 125 cm. SAND-filled Thalassinoides are present in Section 2, 60 cm. In Section 3, 15 cm, light yellowish brown SILTY CLAY grades in color to dark brown (10YR 4/4). A microfault with normal displacement, is present in Section 3, between 20 and 60 cm. There is a gradational contact in Section 3, 110 cm, to light reddish brown (5YR 6/3) SILTY CLAY, which in turn grades to light yellowish brown (10YR 6/4) SILTY SAND, and then reverse grading to SILTY CLAY of the same color. Section 4 contains brown (10YR 4/4) SILTY CLAY which is heavily mottled and banded with light yellowish brown SILTY CLAY. There is a bioturbated contact with pale yellow (2.5Y 7/4) CLAY in Section 4, 117 cm. Section 5 contains this same pale yellow CLAY with faint banding of lighter CLAY and some sparse black (N 8) pyrite (?) smears. Chert nodules are present in Section 5. Section 6, 80 cm, to the base, is flow-in.</p>
12	2									
14	3									
16	4									
18	5									
	6									
	7									
	8									

Core Photo

1121B-4X 23.0-23.5 mbsf										
Leg 181 Site 1121 Hole B Core 4X										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ICHNO.	FOSSILS	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
										<p>— PAL —</p> <p>CHERT and SILTY CLAY</p> <p>Lithology This very short core consists of light gray (2.5Y 7/2) CHERT and dark brown (10YR 4/3) SILTY CLAY.</p> <p>It is possible that this core is a sample of a cave-in. Thalassinoides is present in the SILTY CLAY at the top of the core catcher.</p>

Core Photo

1121B-5X 23.5-32.7 mbsf										
Leg 181 Site 1121 Hole B Core 5X										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ICHNO.	FOSSILS	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
										<p>— PAL — GRAVEL</p> <p>Lithology There is no sediment in the core. It contains only core cave-in GRAVEL and a large manganese nodule.</p>

Core Photo

1121B-6X 32.7-42.3 mbsf										
Leg 181 Site 1121 Hole B Core 6X										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ICHNO.	FOSSILS	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
34	1									<p>NANNOFOSSIL OOZE, NANNOFOSSIL DIATOM OOZE, and DIATOM OOZE</p> <p>Lithology The lithologies present in this core are white (10YR 8/2) NANNOFOSSIL OOZE, light greenish gray (5GY 7/1) NANNOFOSSIL DIATOM OOZE, and grayish green (5G 5/2) DIATOM OOZE.</p> <p>General Description Section 1 is highly disturbed white (10YR 8/2) NANNOFOSSIL OOZE with small amounts of cave-in gravel and a single manganese nodule. White (10 YR 8/2) NANNOFOSSIL OOZE continues in Section 2, with a darker band in Section 2, between 10 to 14 cm, and a sharp contact in Section 2, 87 cm, with light greenish gray (5GY 7/1) NANNOFOSSIL DIATOM OOZE. In Section 3, 60 cm, the NANNOFOSSIL DIATOM OOZE grades in color to grayish green (5G 5/2) and lightens to a pale green (5G 6/2) at the base. There is a slight mottling of the grayish green unit. Planolites are present in Section 3.</p>
34	2									
36	3									
36	4									

Core Photo

1121B-7X 42.3-52.0 mbsf										
Leg 181 Site 1121 Hole B Core 7X										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ICHO.	FOSSILS	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
44	1									<p>— NANNOFOSSIL DIATOM OOZE and CHERT</p> <p>Lithology This core is composed of light greenish gray (5G 7/1) NANNOFOSSIL DIATOM OOZE and pale yellow (2.5Y 7/4) CHERT.</p> <p>General Description The upper 7 cm of the core contain broken (probably by drilling) pale yellow (2.5Y 7/4) CHERT. The rest of the core contains light greenish gray (5G 7/1) NANNOFOSSIL DIATOM OOZE with a few scattered grayish green (5GY 5/2) lamina <1 cm thick. Incipient biscuits are present in Sections 2 through 6. Bioturbation was difficult to ascertain; Planolites is possibly present in Section 5.</p>
46	2									
48	3									
	4									
	5								SS	
	6								IW SS	
50	7								PAL	

Core Photo

1121B-8X 52.0-61.6 mbsf										
Leg 181 Site 1121 Hole B Core 8X										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ICHNO.	FOSSILS	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
54	1									<p>NANNOFOSSIL DIATOM OOZE and CHERT</p> <p>Lithology The dominant lithology present in this core is light greenish gray (5GY 7/1) NANNOFOSSIL DIATOM OOZE with color banding in grayish green (5G 5/2) and pale green (5G 6/2), and with scattered pyrite smears.</p> <p>Description NANNOFOSSIL DIATOM OOZE is present throughout this core with many color changes. It is light greenish gray (5G 7/1) in Sections 1 to 3, Section 3, 30 cm, to Section 4, 30 cm, Section 5, 110 cm, to base. Grayish green (5G 5/2) and pale green (5G 6/2) NANNOFOSSIL DIATOM OOZE are present in Section 3, 10 to 30 cm, while the ooze is pale green (5G 6/2) in Section 4, 30 cm through Section 5, 80 cm. It changes to a grayish green (5G 5/2) color until Section 5, 110 cm. Thin lamina (~1 cm thick) of gray (5Y 5/1) ooze with pyritized contacts are present in Section 6 at 22, 39, 52, and 60 cm. The color changes are bounded gradationally. Where bioturbation is observed (at the boundaries of light and dark layers), Thalassinoides, Palaeophycus, and Skolithos are present. Two small CHERT beds are present in Section 6, 52 to 53 cm, and 59 to 60 cm.</p>
54	2									
56	3									
56	4									
58	5									
58	6									
60	7									






Core Photo

1121B-9X 61.6-71.2 mbsf										
Leg 181 Site 1121 Hole B Core 9X										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ICHNO.	FOSSILS	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
62	1									<p>NANNOFOSSILDIATOMOOZE and CHERT</p> <p>Lithology The main lithology present in this core is light greenish gray (5G 7/1) NANNOFOSSIL DIATOM OOZE with color banding in grayish green (5G 5/2 to 5G 6/2) and gray (5Y 6/1)</p> <p>Description This is a uniform sequence broken by color banding with gradational contacts. Pyrite-stained patches are scattered throughout, and CHERT clasts and manganese nodules are present at the top of Section 1 which are probably cave-in debris.</p> <p>— IW — SS — PAL</p>
64	2									
66	3									
68	4									
70	5									
	6									
	7									
	8									

Core Photo

1121B-10X 71.2-80.9 mbsf										
Leg 181 Site 1121 Hole B Core 10X										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ICHNO.	FOSSILS	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
72	1									<p>DIATOMOOZE and CHERTBRECCIA</p> <p>Lithology The dominant lithology is greenish gray (5G 6/1) DIATOM OOZE with interbeds of grayish green (5G 5/2) color.</p> <p>General Description Grayish green (5G 5/2) DIATOM OOZE interbeds are present in Section 2, 100 cm, through Section 3, 80 cm. The remaining core is greenish gray (5G 6/1) DIATOM OOZE. Core is disturbed due to the presence to hard chert layers between Sections 4 and 5 and possibly in the base of core which has washed CHERT BRECCIA. Dominant lithologies have color banding and mottling which may have resulted from bioturbation. There are stained pyrite zones scattered throughout the core.</p>
74	2									
	3									
76	4									
	5									
	6									
							<p>Py</p> <p>Py</p> <p>Py</p>	<p>SS</p> <p>IW</p> <p>SS</p> <p>PAL</p>		

Core Photo

1121B-11X 80.9-90.5 mbsf										
Leg 181 Site 1121 Hole B Core 11X										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ICHNO.	FOSSILS	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
82	1									<p>DIATOMOOZE and CHERT BRECCIA</p> <p>Lithology The dominant lithology in this core is greenish gray (5GY 6/1) DIATOM OOZE with sporadic color bands in pale green (5G 7/2) to grayish green (5G 5/2).</p> <p>General Description The color banded sequences usually have graded contacts. Bioturbation is evident only where color differences are marked and pyrite stains are scattered throughout the core. CHERT BRECCIA, probably representing a layer broken up by the drilling process, is present at the core top and drilling biscuits are incipient throughout.</p>
84	2									
	3									
86	4									
85	5									
										<p>— IW</p> <p>— SS</p> <p>— PAL</p>




Core Photo

1121B-13X 100.1-109.7 mbsf										
Leg 181 Site 1121 Hole B Core 13X										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ICHNO.	FOSSILS	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
1									PAL	DIATOMOOZE and CHERT Lithology This core is light greenish gray (5G 7/1) DIATOM OOZE. General Description This core is highly disturbed with large (>1 cm) fragments of greenish gray CHERT and manganese nodules (cave-in).

Core Photo

1121B-14X 109.7-119.4 mbsf										
Leg 181 Site 1121 Hole B Core 14X										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ICHNO.	FOSSILS	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
110	1								PAL	DIATOMOOZE and CHERT Lithology This core is composed of light greenish gray (5G 7/1) DIATOM OOZE with large (>1 cm) fragments of greenish gray (5G 6/1) CHERT fragments. General Description This core is highly disturbed.

Core Photo

1121B-16X 126.0-130.0 mbsf										
Leg 181 Site 1121 Hole B Core 16X										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ICHNO.	FOSSILS	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
	1								SS PAL	<p>NANNOFOSSIL OOZE and CALCIUM CARBONATE CONCRETIONS</p> <p>Lithology This core contains light greenish gray (5GY 7/1) NANNOFOSSIL OOZE.</p> <p>General Description Fractured CALCIUM CARBONATE CONCRETIONS are present in Section 1, 8 to 14 cm, 31 to 41 cm, 76 to 88 cm, and 99 to 104 cm. There is slightly mottling in Section 1 between 55 and 66 cm.</p>

Core Photo

1121B-17X 130.0-139.7 mbsf										
Leg 181 Site 1121 Hole B Core 17X										
METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ICHNO.	FOSSILS	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
132	1									<p>NANNOFOSSIL OOZE, NANNOFOSSIL-BEARINGCLAY</p> <p>Lithology This core consists of light greenish gray (5GY 7/1) NANNOFOSSIL OOZE and greenish gray (5GY 5/1 to 5GY 6/1) NANNOFOSSIL-BEARINGCLAY.</p> <p>General Description A manganese nodule cave-in occurs at the top of Section 1. Layers of chert (?) breccia occur throughout. Sections 1 and 2 contain light greenish gray (5GY 7/1) NANNOFOSSIL OOZE, with greenish gray (5GY 5/1) chert (?) breccias. Towards the base of Section 2, 120 cm, a bioturbated, gradational contact from NANNOFOSSIL OOZE to NANNOFOSSIL-BEARING CLAY is present. Section 3 is comprised of greenish gray (5GY 5/1) NANNOFOSSIL-BEARING CLAY which grades to greenish gray (5GY 6/1) in Section 3, 70 cm. The color grades back to greenish gray (5GY 5/1) in the core catcher. The trace fossil <i>Anconichnus</i> is present in the top 10 cm of Section 3.</p>
132	2									
134	3									
134	4									

Site 1121 Smear Slides								Texture			Mineral											Biogenic								Rock		Comments													
Leg	Site	Hole	Core	Type	Section	Interval (cm)	Depth (mbsf)	Lithology	Sand	Silt	Clay	Calcite (30)	Carbonate (35)	Chlorite (45)	Clay (47)	Clinoptilolite (48)	Feldspar (71)	Glauconite (82)	Heavy Minerals (89)	Manganese (111)	Mica (118)	Opales (140)	Oxides (146)	Pyrite (169)	Quartz (172)	Volcanic Glass (81)	Zeolite (222)	Zircon (223)	Bryozoa (24)	Diatoms (58)	Foraminifers (78)		Nannofossils (132)	Ostracod (144)	Radiolarians (173)	Silicoflagellates (189)	Skeletal Debris (192)	Sponge Spicules (199)	Fecal Pellet (70)	Lithic Fragments (106)					
181	1121	A	1	H	1	7	0.07	D	5	25	70				P	C					P				C						C		P		C		P	P							
181	1121	A	1	H	1	63	0.63	D	R	10	90					P			P												R	P					P	P							
181	1121	A	1	H	1	75	0.75	D	10	20	70			P	R	C									C					R	P														
181	1121	A	1	H	1	100	1	D	5	15	80					P	C		P	P	P								*		P			*					P						
181	1121	A	1	H	3	8	3.08	D	10	30	60						C									P																			
181	1121	A	1	H	3	64	3.64	D	10	30	60						C		*			P			P																				
181	1121	A	1	H	5	100	7	M	R	10	90					P	C	C							C	P															P				
181	1121	B	1	H	1	40	0.4	D	5	40	55		P			P	C			P	P				C				C	R	P		P						C						
181	1121	B	1	H	4	75	5.25	M	3	42	45				A	P	P				P	P			P																				
181	1121	B	1	H	CC	4	9.74	D	30	30	40						A			P	P	P			A			*														P			
181	1121	B	1	H	CC	10	9.8	D	5	20	75						C									P																P			
181	1121	B	2	H	3	120	13.7	D	5	40	55				P	A	P			P	P	P			P																	P			
181	1121	B	2	H	5	30	15.8	D	10	30	60					A	C			P	P	R	P										R												
181	1121	B	2	H	6	30	17.3	D	5	25	70				P	A	P								P						R											P			
181	1121	B	3	H	2	65	21.15	D	5	25	70						A								A																		C		
181	1121	B	6	X	2	23	34.43	D	15	5	80											R																							
181	1121	B	6	X	3	63	36.33	D	20	5	75		*		P																C														
181	1121	B	7	X	4	70	47.5	D	10	30	60																																		
181	1121	B	7	X	5	10	48.4	M	10	30	60																																		
181	1121	B	8	X	1	70	52.7	D	10	30	60																																		
181	1121	B	8	X	3	14	55.14	M	10	30	60																																		
181	1121	B	8	X	5	104	59.04	M	20	20	60					P	P	P				R				P						P				C	P								
181	1121	B	9	X	5	65	68.25	M	20	20	60														P	P																			
181	1121	B	10	X	2	113	73.83	M	5	15	80														P	P																			
181	1121	B	10	X	3	64	74.84	M	5	30	65														P																				
181	1121	B	11	X	4	67	86.07	M	10	5	85											A																							
181	1121	B	12	X	2	62	92.62	M	20	10	70																																		
181	1121	B	15	X	1	41	119.81	D	R	5	95							*							*	*									D										
181	1121	B	15	X	2	8	120.98	D	R	5	95							*							*	*										D									
181	1121	B	15	X	2	26	121.16	M	5	5	90							*							*	*										D									
181	1121	B	15	X	2	41	121.31	D	R	5	95							*							*	*										D									
181	1121	B	15	X	2	90	121.8	D	R	R	100																																		
181	1121	B	16	X	1	54	126.54	D	R	5	95				*			*																											
181	1121	B	17	X	1	23	130.23	D	R	5	95				P		R					R	R			R																			
181	1121	B	17	X	1	40	130.4	D	R	5	95				P		R								R																				
181	1121	B	17	X	3	14	133.14	D	2	5	93				A		P				P	P				P																			
181	1121	B	17	X	CC	20	134.37	D	R	5	95				A		R								R																				

CORE DESCRIPTIONS
SMEAR SLIDES, SITE 1121