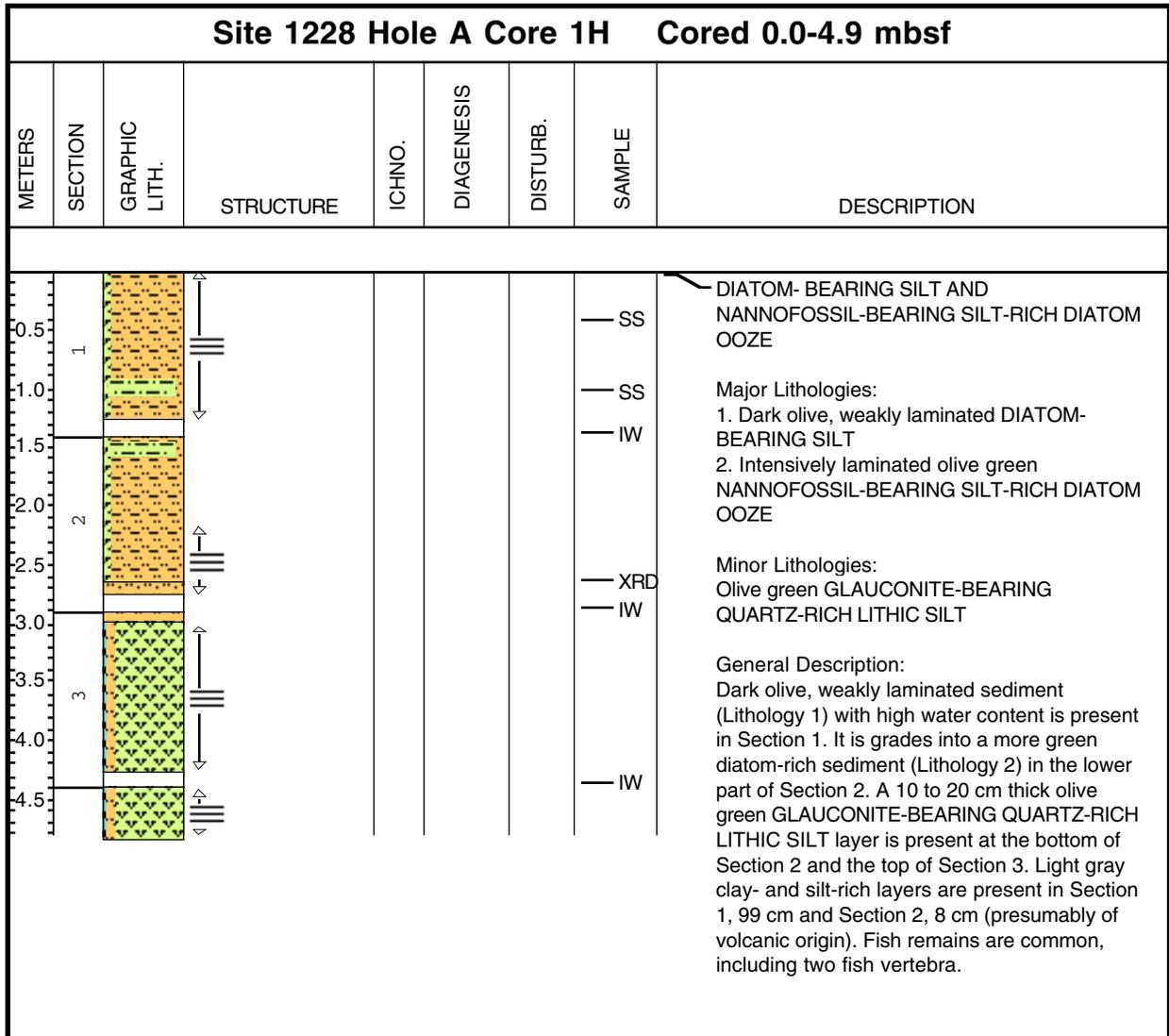
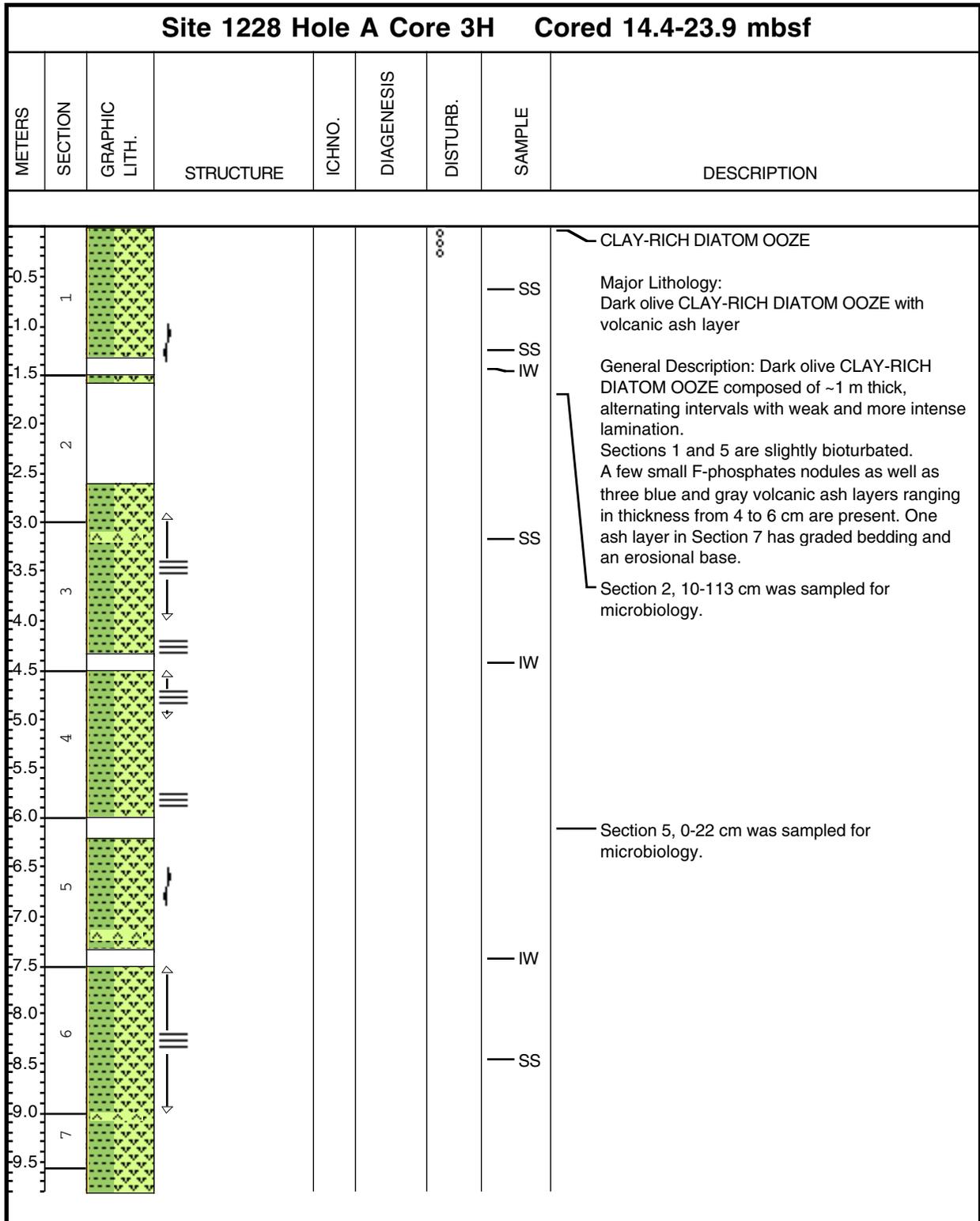


Core Photo

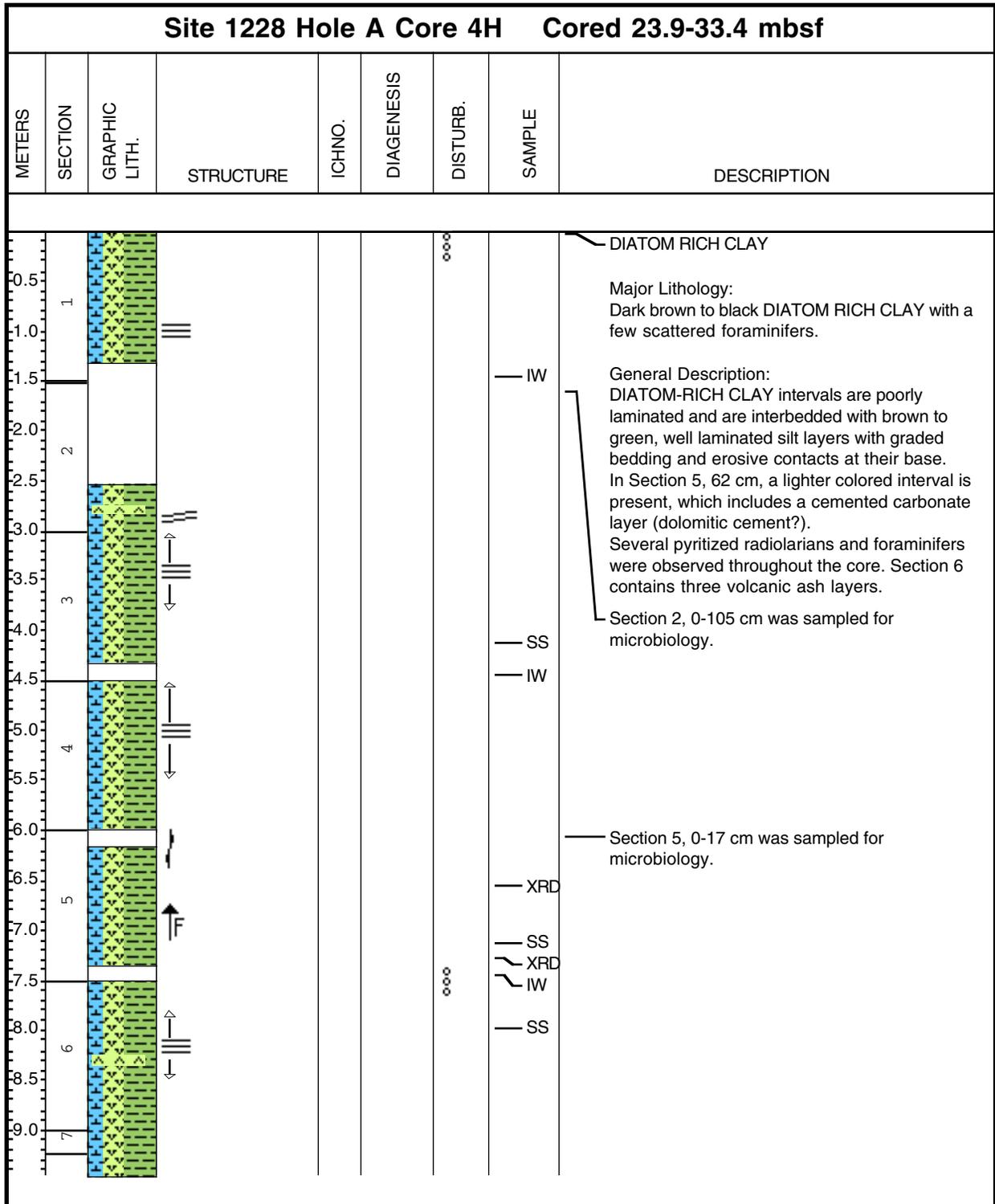




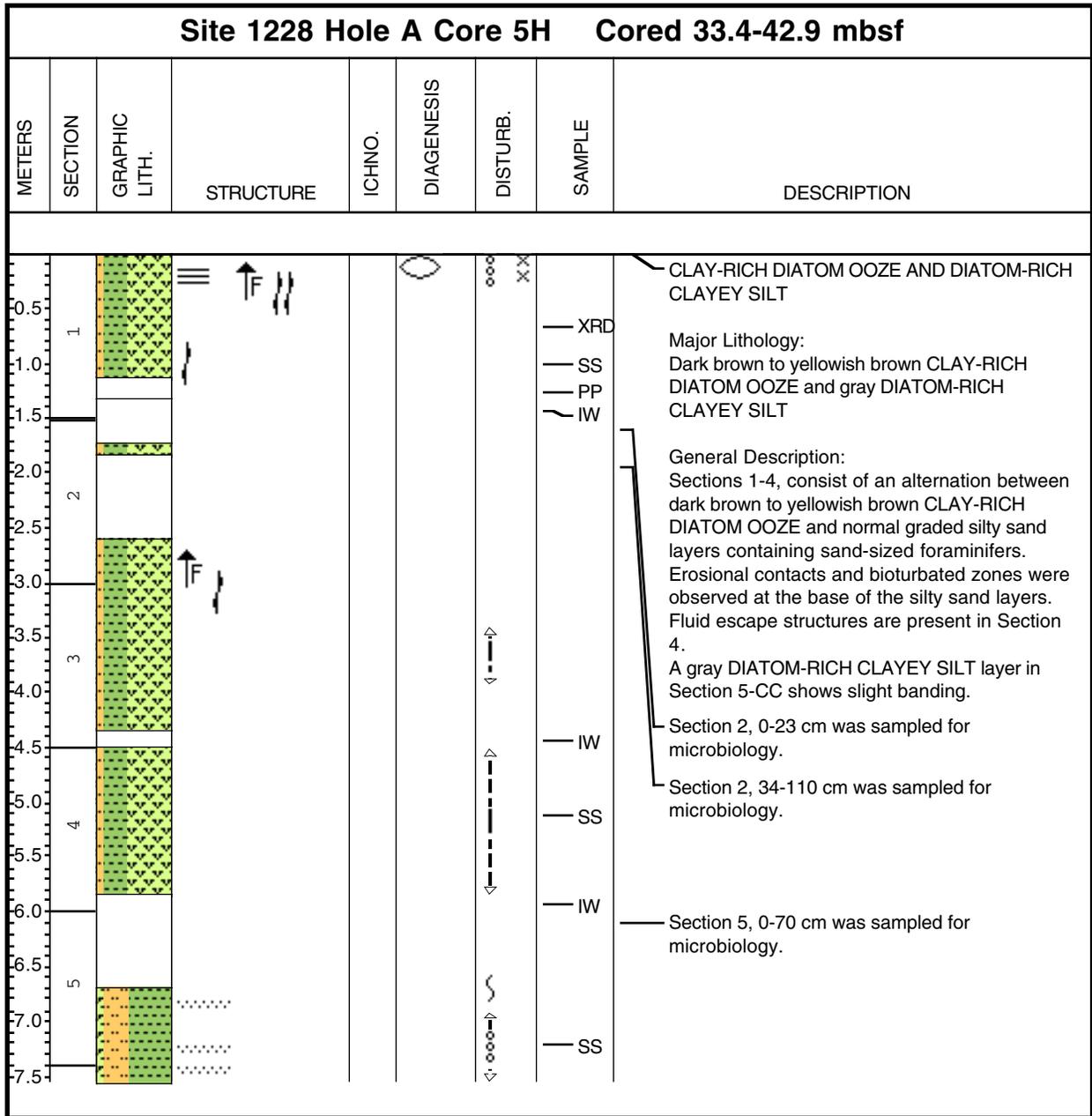
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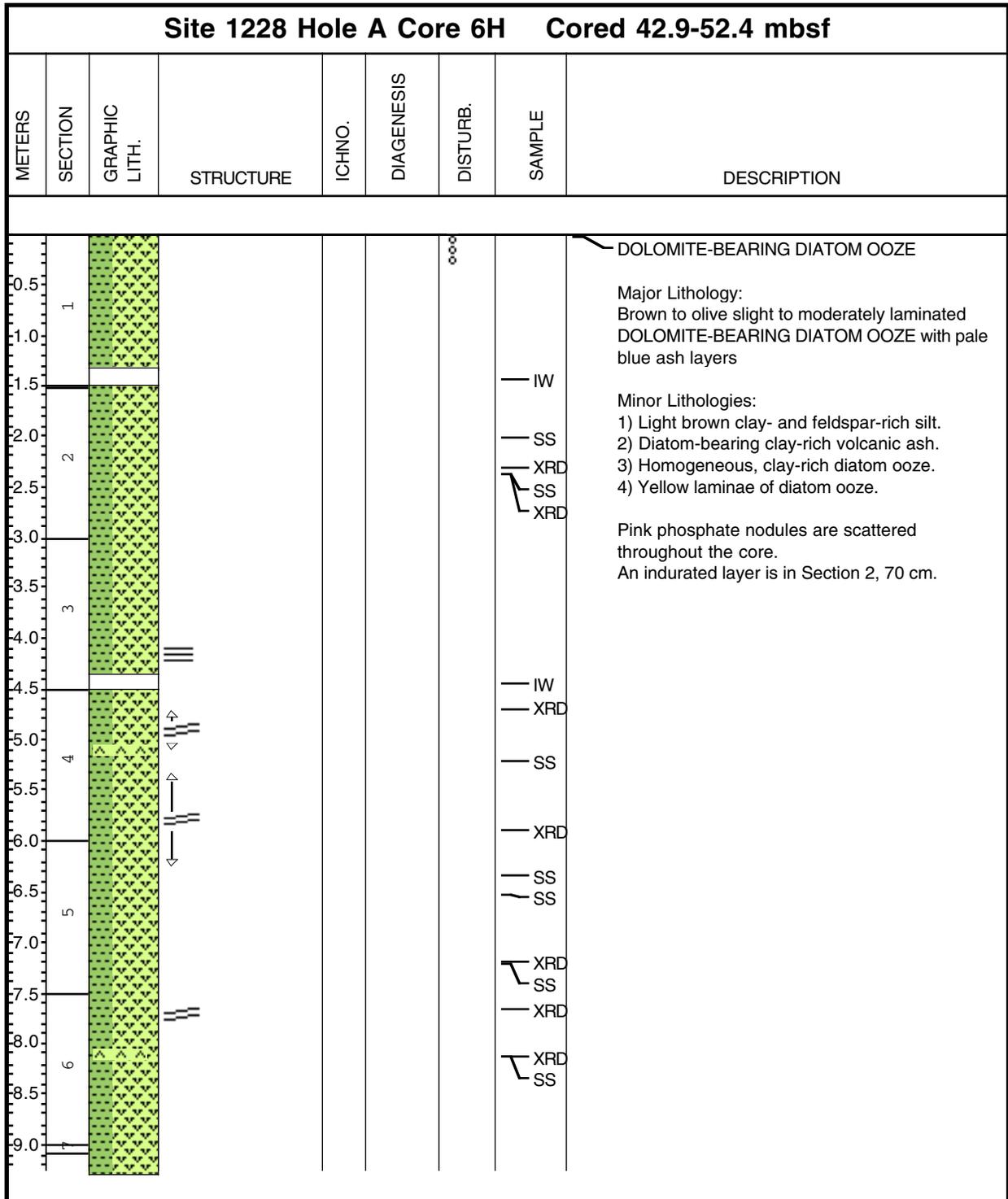
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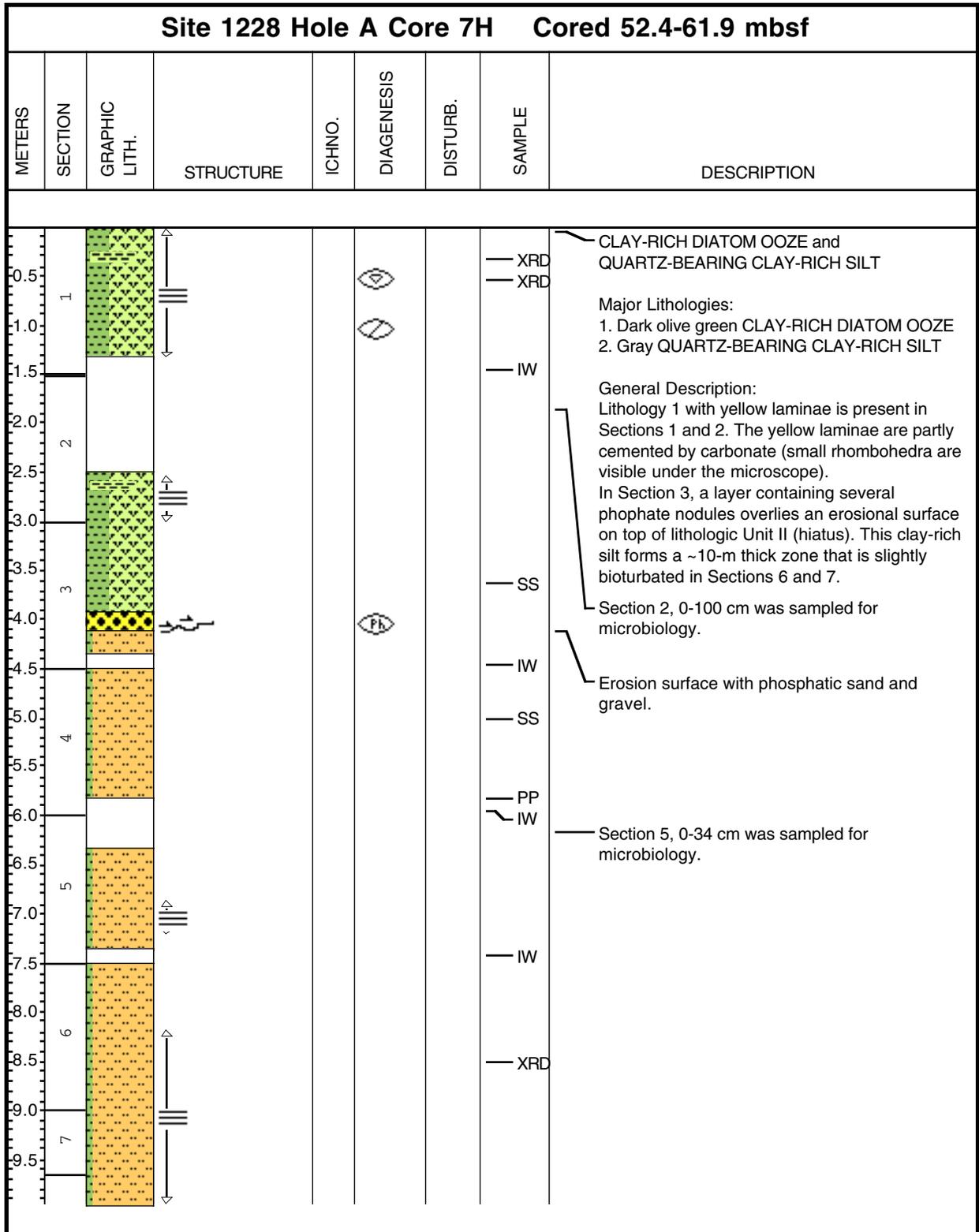
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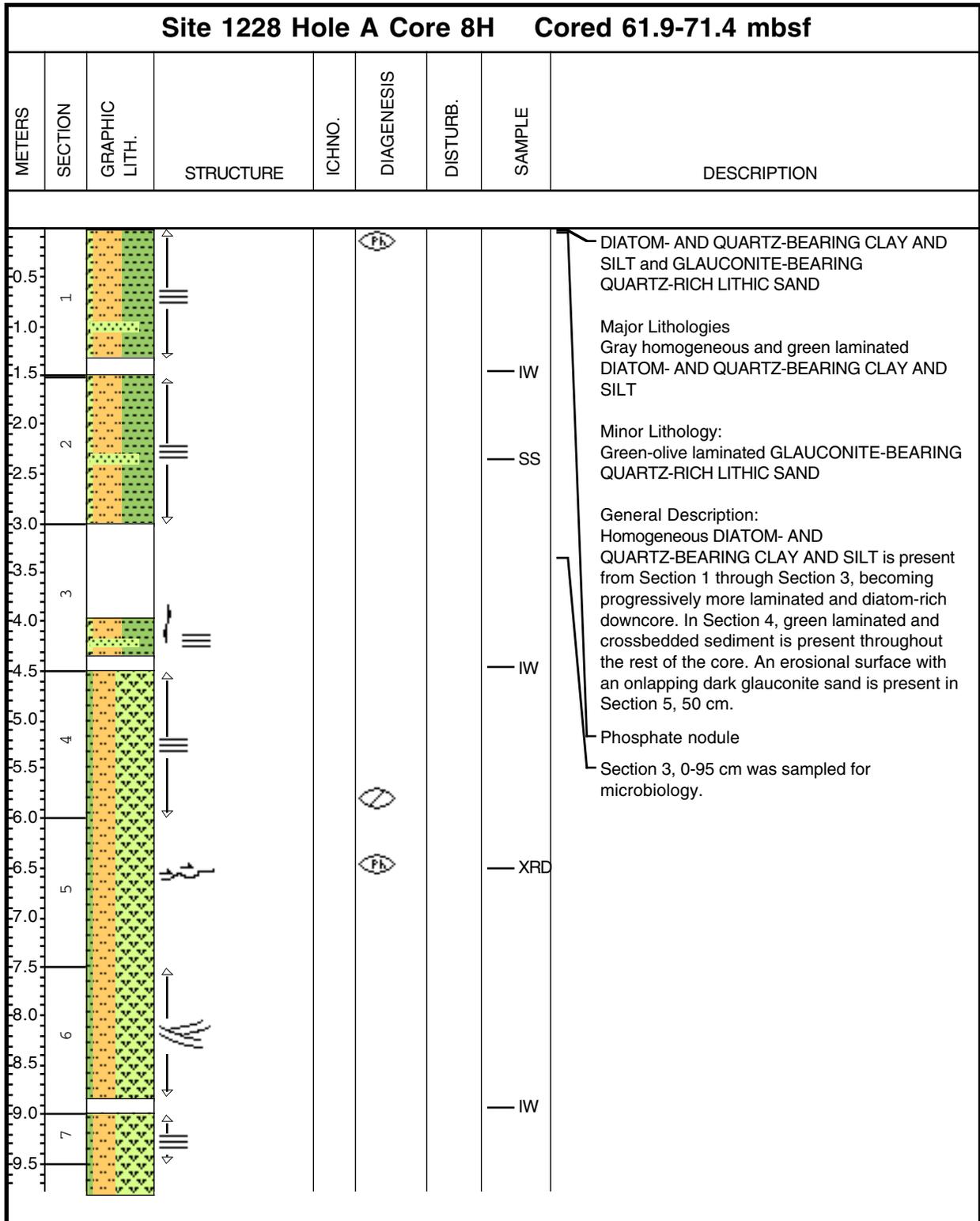
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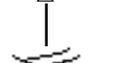
Core Photo



Core Photo

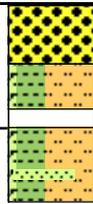


Core Photo

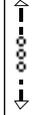
Site 1228 Hole A Core 9H Cored 71.4-80.9 mbsf								
METERS	SECTION	GRAPHIC LITH.	STRUCTURE	ICHNO.	DIAGENESIS	DISTURB.	SAMPLE	DESCRIPTION
0.5	1							<p>DIATOM- AND QUARTZ-BEARING SILTY CLAY</p> <p>Major Lithology:                      Gray and olive DIATOM- AND QUARTZ-BEARING SILTY CLAY</p> <p>General Description:                      Dark olive green DIATOM- AND QUARTZ-BEARING SILTY CLAY grades into grayish, more clay-rich sediment toward the top of the core. Crossbedding is present in Section 3-5. Glauconite as well as few disseminated dolomite rhombohedra are present throughout the core.</p> <p>The top of the core is disturbed by drilling and is filled with gravel from higher stratigraphic levels.</p> <p>Section 2, 0-78 cm was sampled for microbiology.</p>
1.0								
1.5								
2.0	2							
2.5								
3.0								
3.5	3							
4.0								
4.5								
5.0	4							
5.5								
6.0								
6.5								
								<p>IW</p> <p>IW</p> <p>SS</p>



**Core Photo**

Site 1228 Hole A Core 11H Cored 90.4-99.9 mbsf								
METERS	SECTION	GRAPHIC LITH.	STRUCTURE	ICHNO.	DIAGENESIS	DISTURB.	SAMPLE	DESCRIPTION
0.5 1.0 1.5	1						IW	<p>DIATOM-BEARING CLAY-RICH SILT</p> <p>Major Lithology:                      Homogeneous green olive DIATOM-BEARING CLAY-RICH SILT</p> <p>General Description:                      The top 50 cm of Section 1 consists of a soupy mix of gravel and thick-walled bivalve shells. These components most likely originate from higher stratigraphic levels and represent drilling artifacts. Several sandy layers are present in Section 2.</p>

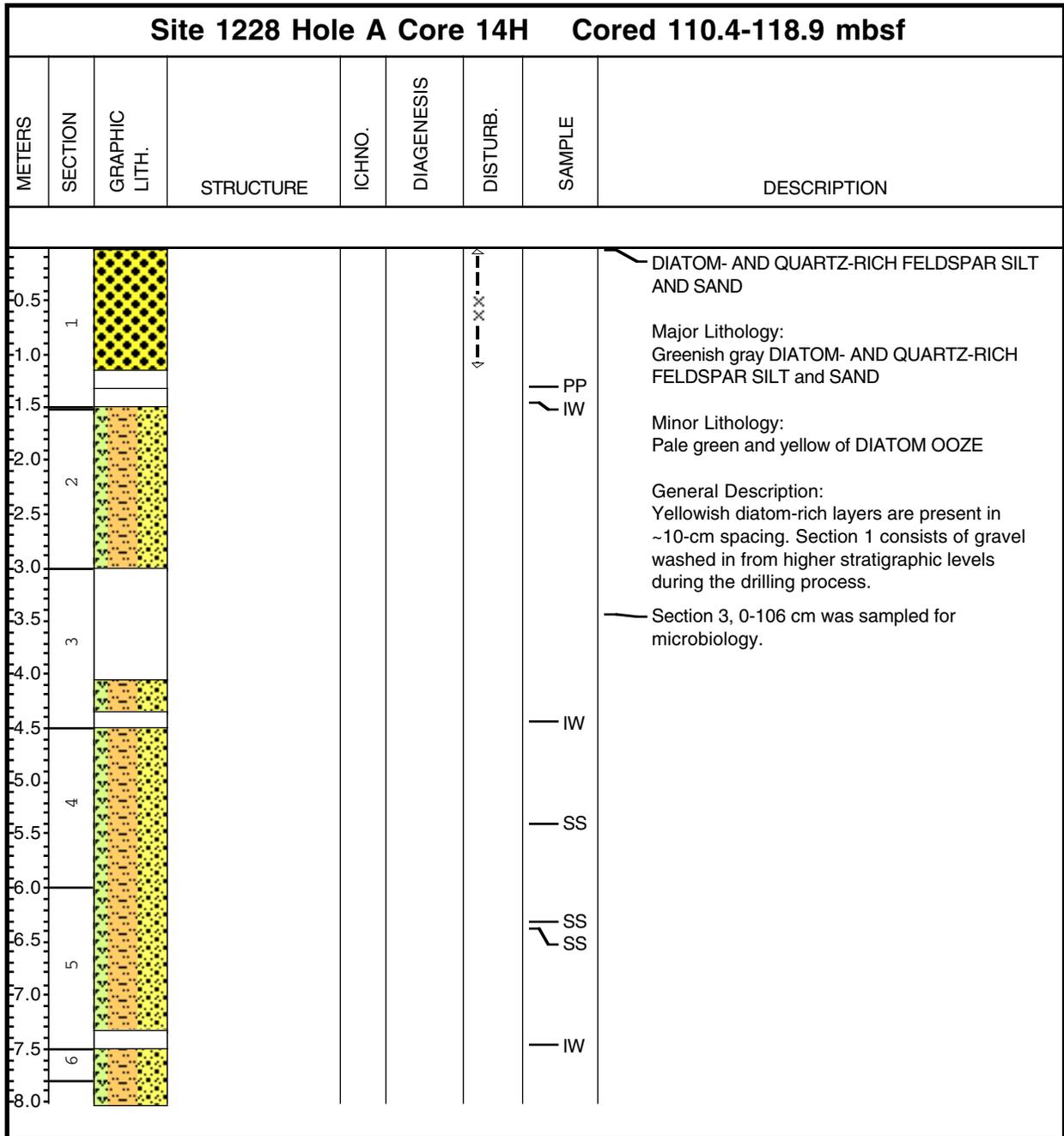
**Core Photo**

Site 1228 Hole A Core 12H Cored 99.9-109.4 mbsf								
METERS	SECTION	GRAPHIC LITH.	STRUCTURE	ICHNO.	DIAGENESIS	DISTURB.	SAMPLE	DESCRIPTION
0.5 1.0	1						IW	<p>DIATOM-BEARING CLAY-RICH SILT</p> <p>Major Lithology:                      Green olive DIATOM-BEARING CLAY-RICH SILT</p> <p>General Description:                      Recovery only in Section 2, 0-24 cm. Section 1 consists of gravel washed in from higher stratigraphic levels by the drilling process. Gravel contains angular chert fragments and well rounded rock pebbles.</p>

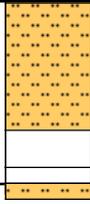
**Core Photo**

Site 1228 Hole A Core 13M Cored 109.4-110.4 mbsf								
METERS	SECTION	GRAPHIC LITH.	STRUCTURE	ICHNO.	DIAGENESIS	DISTURB.	SAMPLE	DESCRIPTION
	1					ooo		GRAVEL  Well rounded as well as angular polymictic gravel, washed from higher stratigraphic levels recovered by the Fugro pressure corer.

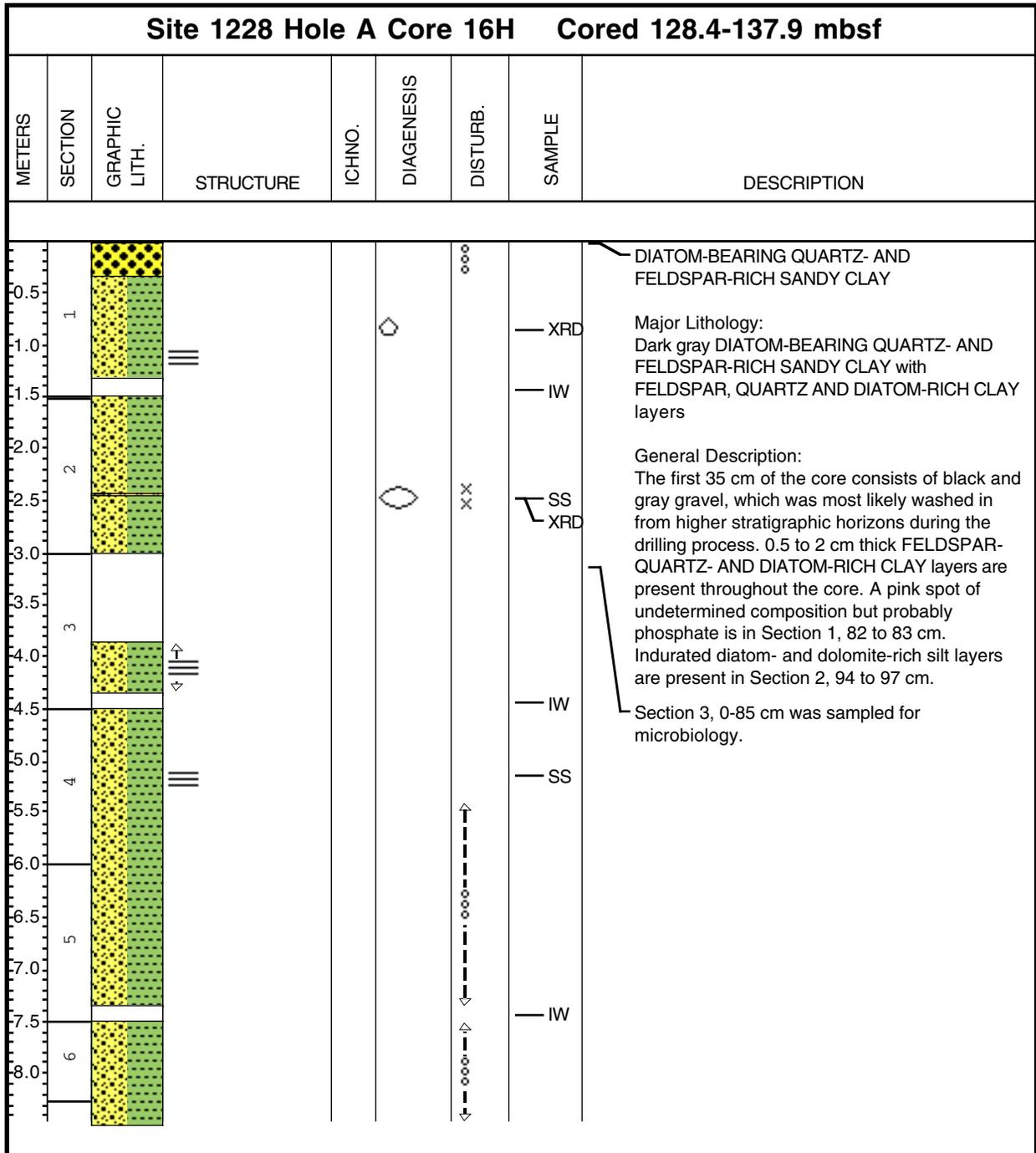
Core Photo



**Core Photo**

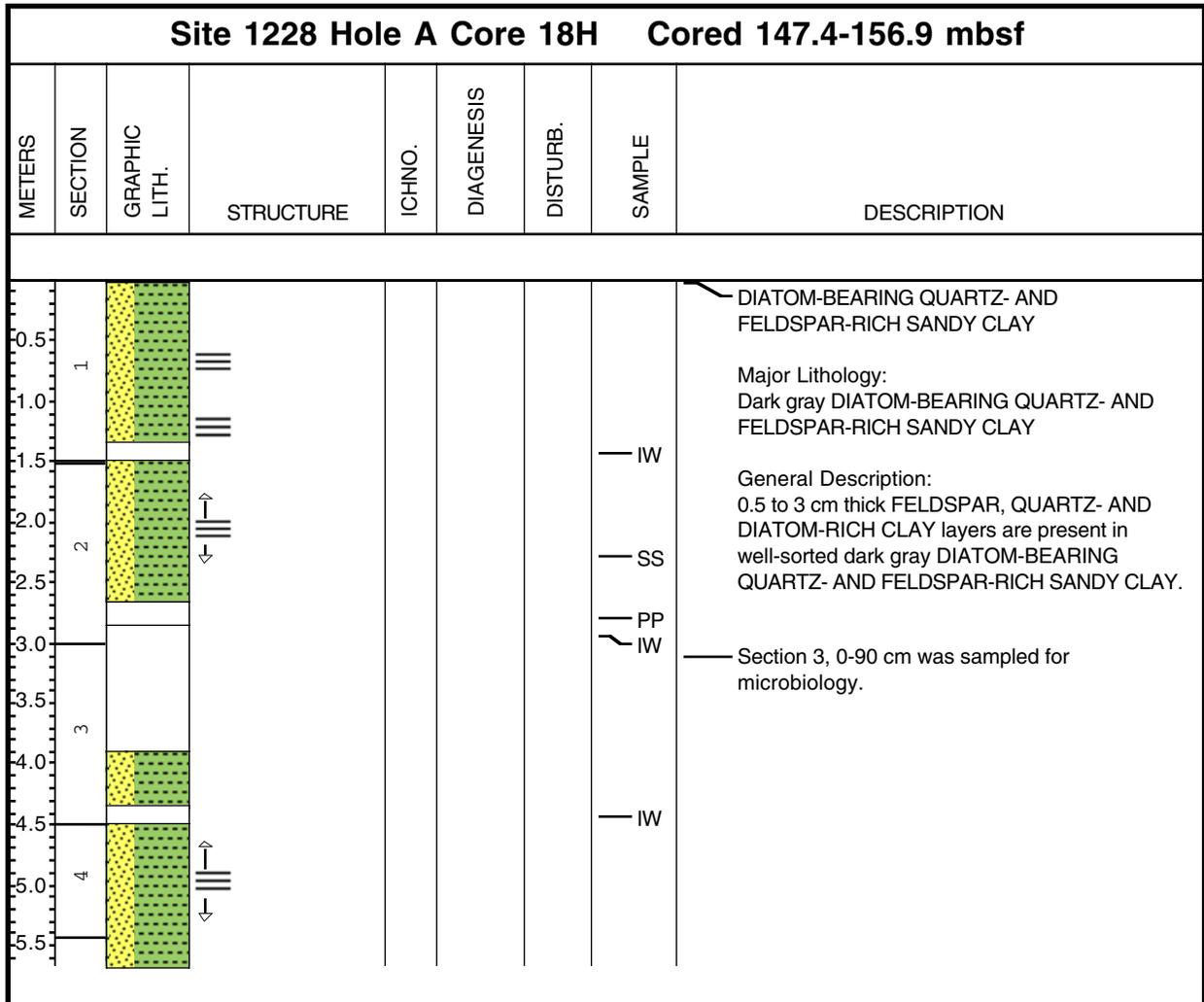
Site 1228 Hole A Core 15H Cored 118.9-128.4 mbsf								
METERS	SECTION	GRAPHIC LITH.	STRUCTURE	ICHNO.	DIAGENESIS	DISTURB.	SAMPLE	DESCRIPTION
0.5 1.0 1.5	1							<p>SILT</p> <p>Major Lithology:                      Dark gray silt. Very disturbed and soupy.</p> <p>Section 1, 100-131 cm was sampled for microbiology.</p> <p>IW</p>

Core Photo

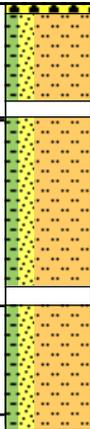
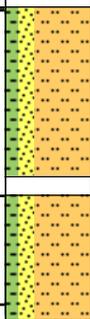
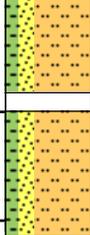


1228A-17H NO RECOVERY

**Core Photo**

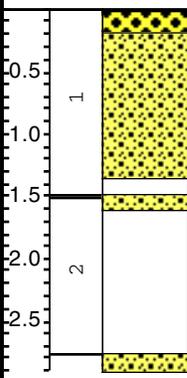


**Core Photo**

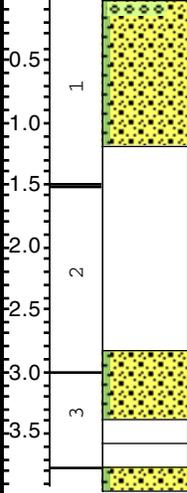
Site 1228 Hole A Core 19H Cored 156.9-166.4 mbsf								
METERS	SECTION	GRAPHIC LITH.	STRUCTURE	ICHNO.	DIAGENESIS	DISTURB.	SAMPLE	DESCRIPTION
0.5	1							<p>FELDSPAR- AND QUARTZ-RICH SANDY SILT</p> <p>Major Lithology:                      Dark brown to dark gray well-sorted FELDSPAR- AND QUARTZ-RICH SANDY SILT</p> <p>General Description:                      The top 10 cm of Section 1 are rich in gravel, which was most likely washed in from higher stratigraphic horizons during the drilling process. Entire core has soupy texture due to drilling disturbance.</p>
1.0	2						IW	
2.5	3						IW	



**Core Photo**

Site 1228 Hole A Core 21H Cored 175.9-185.4 mbsf								
METERS	SECTION	GRAPHIC LITH.	STRUCTURE	ICHNO.	DIAGENESIS	DISTURB.	SAMPLE	DESCRIPTION
0.5 1.0 1.5 2.0 2.5	1 2						SS IW	<p>CLAY-BEARING QUARTZ-FELDSPAR SAND</p> <p>Major Lithology:                      Green-gray weakly laminated CLAY-BEARING QUARTZ-FELDSPAR SAND</p> <p>General Description:                      Poor recovery with gravel in the top 20 cm of the core.</p> <p>Entire Section 2 was sampled for microbiology.</p>

**Core Photo**

Site 1228 Hole A Core 22H Cored 185.4-194.9 mbsf								
METERS	SECTION	GRAPHIC LITH.	STRUCTURE	ICHNO.	DIAGENESIS	DISTURB.	SAMPLE	DESCRIPTION
0.5 1.0 1.5 2.0 2.5 3.0 3.5	1 2 3						SS IW PP IW	<p>CLAY-BEARING QUARTZ-FELDSPAR SAND</p> <p>Major Lithology:                      Green gray and dark gray layered                      CLAY-BEARING QUARTZ-FELDSPAR SAND</p> <p>General Description:                      A ~5-cm large dolomite nodule as well as disseminated dolomite rhombohedra in the surrounding sediment are present in Section 1.</p> <p>Section 2, 0-132 cm was sampled for microbiology.</p>

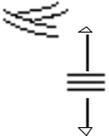
**Core Photo**

Site 1228 Hole A Core 23P Cored 198.9-200.9 mbsf								
METERS	SECTION	GRAPHIC LITH.	STRUCTURE	ICHNO.	DIAGENESIS	DISTURB.	SAMPLE	DESCRIPTION
						ooo		Poor recovery due to gravel infill from higher stratigraphic levels during the drilling process.

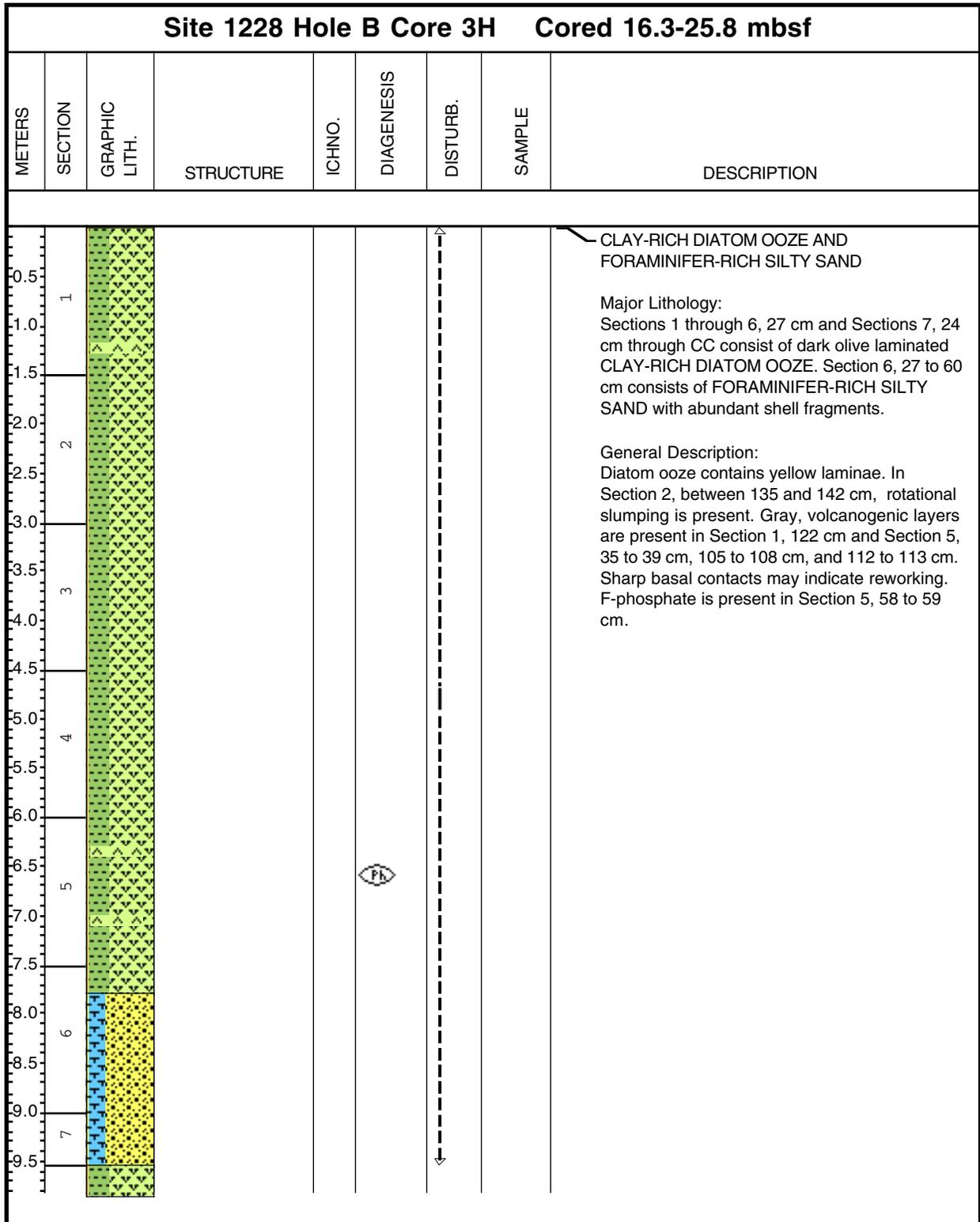
**Core Photo**

Site 1228 Hole B Core 1H Cored 0.0-6.8 mbsf								
METERS	SECTION	GRAPHIC LITH.	STRUCTURE	ICHNO.	DIAGENESIS	DISTURB.	SAMPLE	DESCRIPTION
0.0	1							<p>DIATOM-BEARING SILT AND NANNOFOSSIL-BEARING SILT-RICH DIATOM OOZE</p> <p>Major Lithologies:                      Dark brown DIATOM-BEARING SILT (Section 1 and Section 2, 0-70 cm)                      Greenish to brown NANNOFOSSIL-BEARING SILT-RICH DIATOM OOZE (below Section 2, 70 cm)</p> <p>A pink phosphate nodule is present in Section 2 at 50 cm. Sandy silt layers with sand-sized foraminifers are present in Sections 2 and 3.</p>
0.5	1							
1.0	1							
1.5	2							
2.0	2							
2.5	2							
3.0	3							
3.5	3							
4.0	3							
4.5	3							
5.0	4							
5.5	4							
6.0	5							
6.5	5							

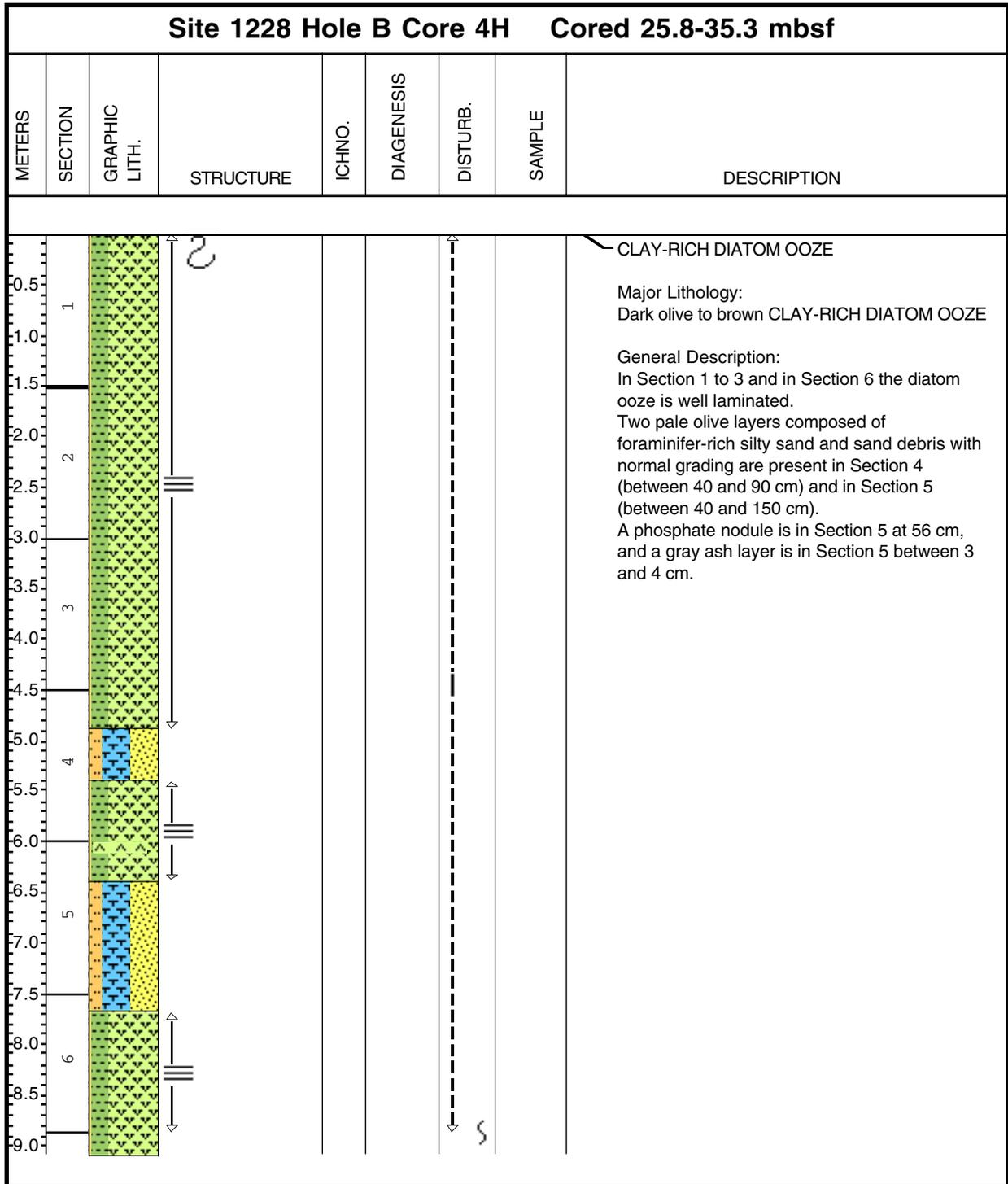
Core Photo

Site 1228 Hole B Core 2H Cored 6.8-16.3 mbsf								
METERS	SECTION	GRAPHIC LITH.	STRUCTURE	ICHNO.	DIAGENESIS	DISTURB.	SAMPLE	DESCRIPTION
0.5	1							<p>CLAY-RICH DIATOM OOZE</p> <p>Major Lithology:                      The core consists of weakly laminated to homogeneous brown to green CLAY-RICH DIATOM OOZE.</p> <p>General Description:                      Several laminae show low-angle cross lamination. A phosphate nodule is present in Section 3 at 50 cm, and a carbonate nodule is present in Section 5 at 130 cm.</p>
1.0								
1.5								
2.0	2							
2.5								
3.0								
3.5	3							
4.0								
4.5								
5.0	4							
5.5								
6.0								
6.5	5							
7.0								
7.5								
8.0	6							
8.5								
9.0								
9.5	7							

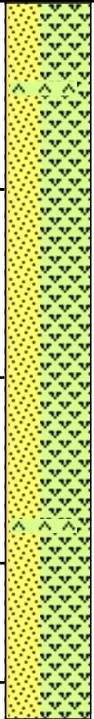
Core Photo



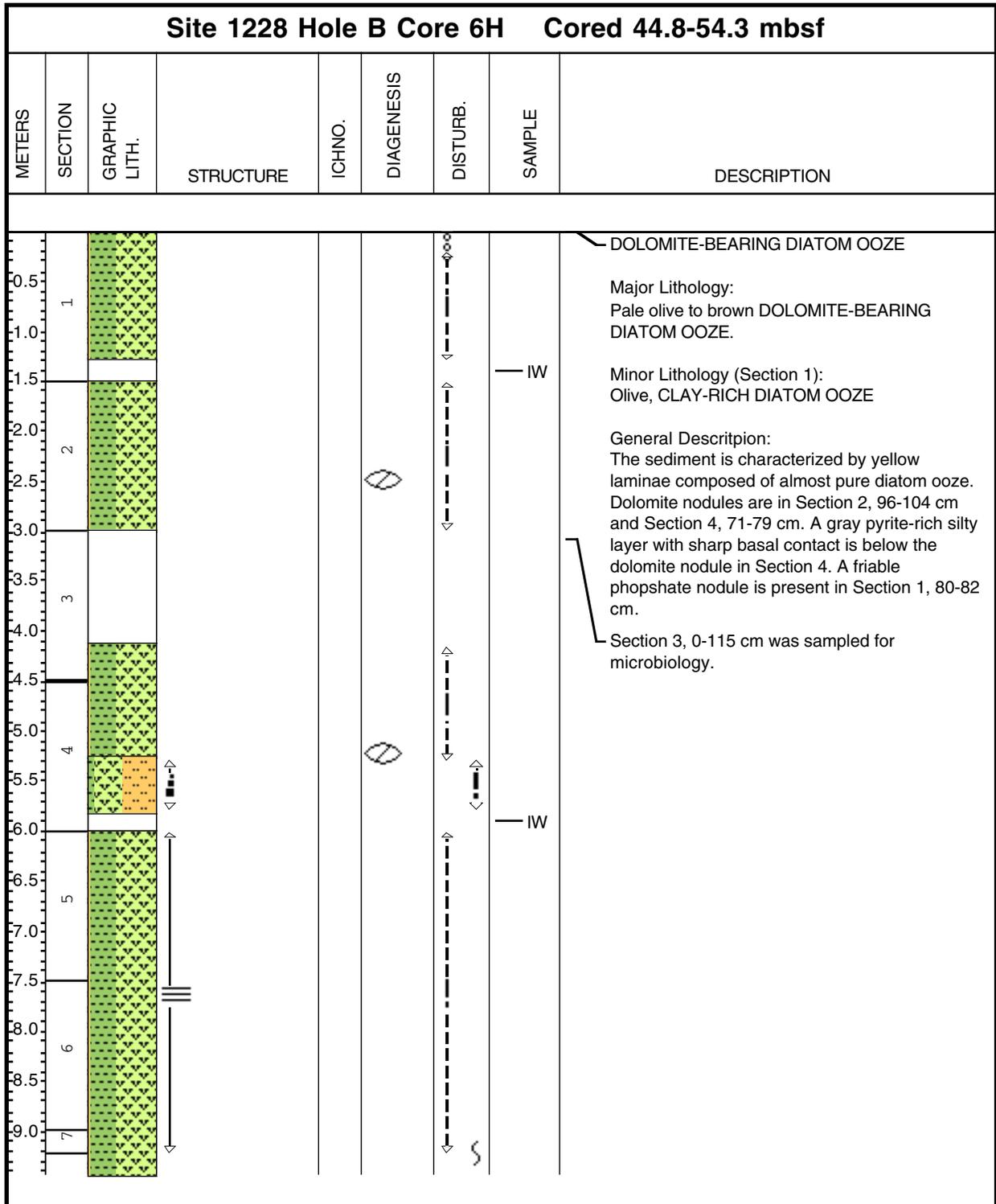
**Core Photo**



**Core Photo**

Site 1228 Hole B Core 5H Cored 35.3-44.8 mbsf								
METERS	SECTION	GRAPHIC LITH.	STRUCTURE	ICHNO.	DIAGENESIS	DISTURB.	SAMPLE	DESCRIPTION
0.5	1							<p>FELDSPAR-BEARING CLAY-RICH DIATOM OOZE</p> <p>Major Lithology:                      Dark olive to brown FELDSPAR-BEARING CLAY-RICH DIATOM OOZE.</p> <p>General Description:                      The sediment is weakly laminated and has discontinuous gray layers (Section 3) some of which have sharp basal contacts (Section 1). Two small phosphate nodules are present in Section 4 at 28 cm and 81 cm.</p>
1.0								
1.5	2							
2.0								
2.5								
3.0	3							
3.5								
4.0								
4.5								
5.0	4							
5.5								

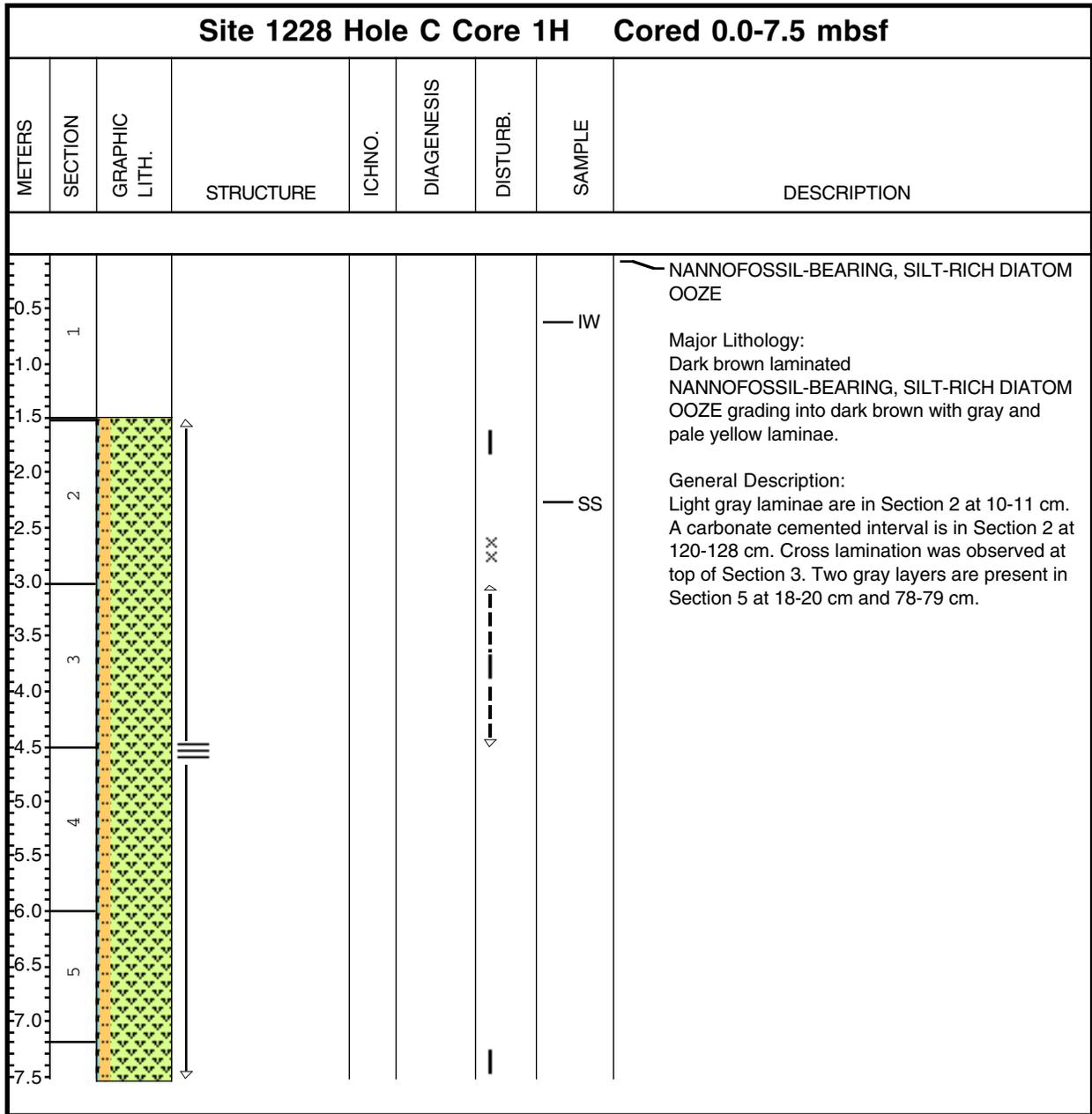
Core Photo



**Core Photo** 

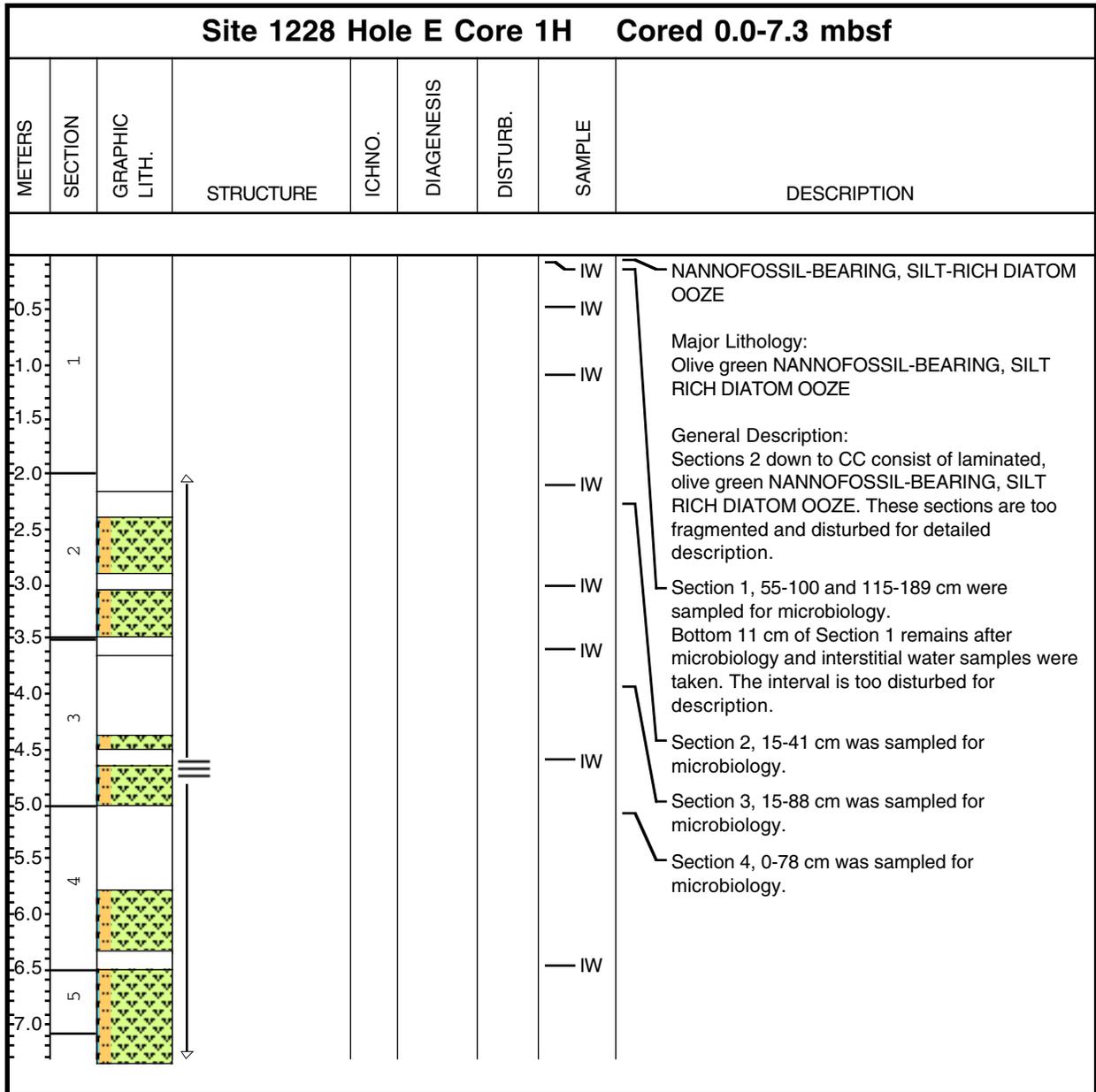
Site 1228 Hole B Core 7M Cored 54.3-55.3 mbsf								
METERS	SECTION	GRAPHIC LITH.	STRUCTURE	ICHNO.	DIAGENESIS	DISTURB.	SAMPLE	DESCRIPTION
1								Gravel and mud due to drilling disturbance.

Core Photo

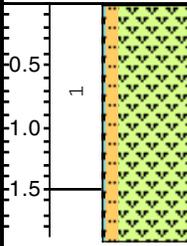
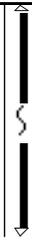


Hole 1228D - Cores from this hole were not split on board. They were shipped to the Gulf Coast Repository as complete sections for postcruise sampling.

Core Photo



**Core Photo**

Site 1228 Hole E Core 2M Cored 7.3-8.3 mbsf								
METERS	SECTION	GRAPHIC LITH.	STRUCTURE	ICHNO.	DIAGENESIS	DISTURB.	SAMPLE	DESCRIPTION
0.5 1.0 1.5								<p>NANNOFOSSIL-BEARING SILT-RICH DIATOM OOZE</p> <p>Major Lithology:                      olive green NANNOFOSSIL-BEARING SILT-RICH DIATOM OOZE</p> <p>General Description:                      This core was recovered with the Fugro pressure corer and the original texture was destroyed by this process.</p>

Sample	Core	CT	Set	Top (cm)	Depth (mbsf)	Lithology	Texture			Mineral							Biogenic					Rock				Comments		
							Sand	Silt	Clay	Clay Mineral (47)	Dolomite (62)	Feldspar (71)	Glaucouite (82)	Opaques (140)	Plagioclase (159)	Pyrite (169)	Quartz (172)	Diatoms (58)	Foraminifers (78)	Nannofossils (132)	Radiolarians (173)	Silicoflagellates (189)	Clay Size Particles (255)	Lithoclast (107)	Organic Debris/Matter (142)		Silt (191)	Volcanic Glass Shard (246)
<b>Hole A</b>																												
1	H	1	40	0.40	D		90	10					15				8	3					7			67	Diatom-bearing Silt with Opaque Clasts	
1	H	1	99	0.99	M		90	10					5									10	20	55	10	Diatom-bearing Volcanic Glass-rich Silt		
1	H	2	132	2.73	M	10	80	10				5				10	*	1				40	44			Glaucouite-bearing Quartz-rich Lithic Silty Sand		
2	H	6	126	13.66	D									*		20			2	*		20	*			58	Diatom- and Clay-rich Silt	
2	H	7	29	14.19	D							10				10				*		10				70	Clay- and Diatom-rich Silt	
2	H	7	37	14.27	D									*		*	5					30				65	Diatom-bearing Clayey Silt	
3	H	1	60	15.00	D								*			60						35				5	Clay-rich Diatom Ooze	
3	H	1	123	15.63	D	50	45	5			40	1	10			*	35									14	Pyrite-bearing Diatom- and Feldspar-rich Silt	
3	H	3	14	17.54	M		60	40			50	*	10			*	2					20				18	Feldspar Silt	
3	H	6	94	22.84	M										*		10							90			Organic Matter	
4	H	3	110	28.00	D				10	2	25		*		*	*	30	3	25			5					40	Clay- Feldspar- and Nannofossil-rich Diatom Ooze
4	H	5	110	31.00	M					70	*		*			*		30										Foraminifer-rich Dolomite
4	H	6	49	31.89	M			*					*			*	90			*		10						Clay-rich Diatom Ooze
5	H	1	100	34.40	M						85		*			15												Diatom-rich Dolomite
5	H	4	60	38.50	D				20		5		*		1	*	60	2				12						Feldspar-bearing Clay-rich Diatom Ooze
5	H	5	119	40.59	D	50	40	10	5	*	*	20	*			10						25			40			Diatom- and Clay-rich Silty Sand
6	H	2	50	44.90	D				30	2		*				63						5						Clay-rich Diatom Ooze
6	H	2	85	45.25	M					79			3	3		5					*	10						Diatom- and Clay-rich Dolomite
6	H	4	70	48.10	M										15	5					*	10				70	Diatom-bearing Pyrite- and Clay-rich Diatom Ooze	
6	H	5	33	49.23	D					10		*				85						5						Dolomite-bearing Diatom Ooze
6	H	5	52	49.42	D		60	40			*		1			40						24			35			Diatom- and Clay-rich Silt
6	H	5	119	50.09	M											100												Diatom Ooze
6	H	6	62	51.02	M		90	10		88	1					1	5									5		Diatom- and Volcanic glass-bearing Dolomite
7	H	3	61	56.01	D		53	47					2			1	50					47						Clay-rich Diatom Ooze
7	H	4	50	57.40	D		90	10								5						10						Quartz-bearing Clay-rich Silt
8	H	2	84	64.24	M							5	5			30						50		10	*			Glaucouite-bearing Quartz-rich Lithic Sand
9	H	5	20	77.60	D							5		*	10							50			34	*		Glaucouite-bearing Quartz- and Silt-rich Clay
10	H	3	29	84.19	M		60	40						5		5	5									84		Quartz- and Plagioclase- and Diatom-bearing Volcanic glass
10	H	3	40	84.30	D							5	5			5	10					45			30			Diatom-rich Silty Clay
10	H	5	30	87.20	D							2	2			2	4					45				45		Diatom-bearing Silty Clay
14	H	4	90	115.80	M										4		94				1	1						Diatom Ooze
14	H	5	39	116.79	D					1	30	*			5	14	10									40		Diatom- and Quartz-rich Feldspar-Silt
16	H	2	97	130.87	M	10	70	20	15	20	4				4	*	10									47		Diatom- and Dolomite-rich Silt
16	H	4	62	133.52	D	30	5	65			30		4			10	5					51						Diatom-bearing Quartz- and Feldspar-rich Sandy Clay
18	H	2	78	149.68	D		40	60	15		20		*		*	10	25					30						Quartz- Feldspar- and Diatom-rich Clay
20	H	2	70	168.45	D	20	65	15		*	30		5	*		20	*					5				40		Feldspar- and Quartz-rich Sandy Silt
21	H	1	50	176.40	D		90	10			45					45						10						Clay-bearing Feldspar- and Quartz-Silt
22	H	1	78	186.18	M		100				90	5				5	*											Quartz- and Feldspar-bearing Dolomite Silt
<b>Hole C</b>																												
1	H	2	75	2.25	D				5		*	10	5		*	5	10									65	*	Quartz- and Clay-bearing Feldspar- and Diatom-rich Silt