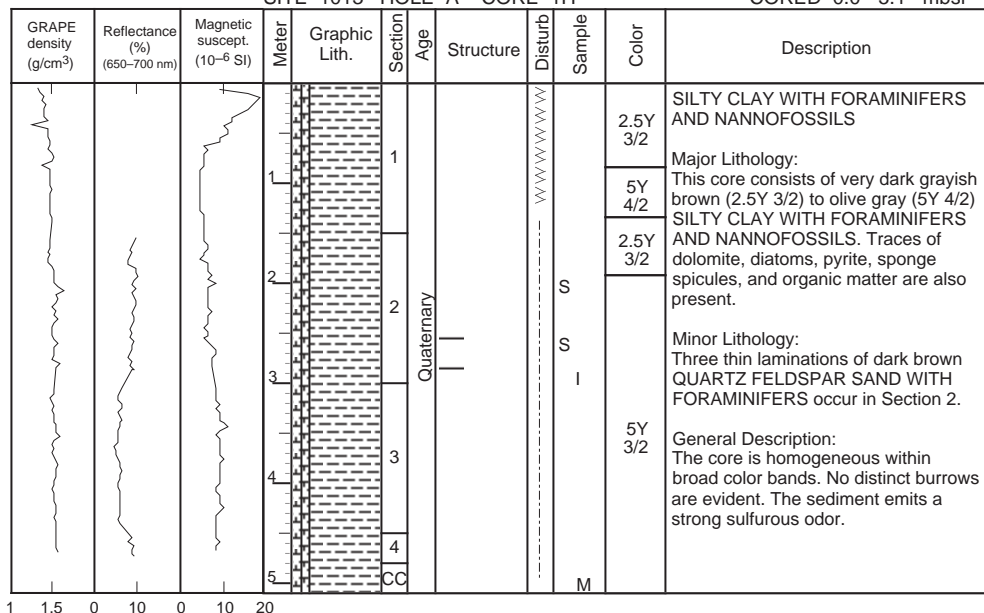


SITE 1013 HOLE A CORE 1H CORED 0.0 - 5.1 mbsf



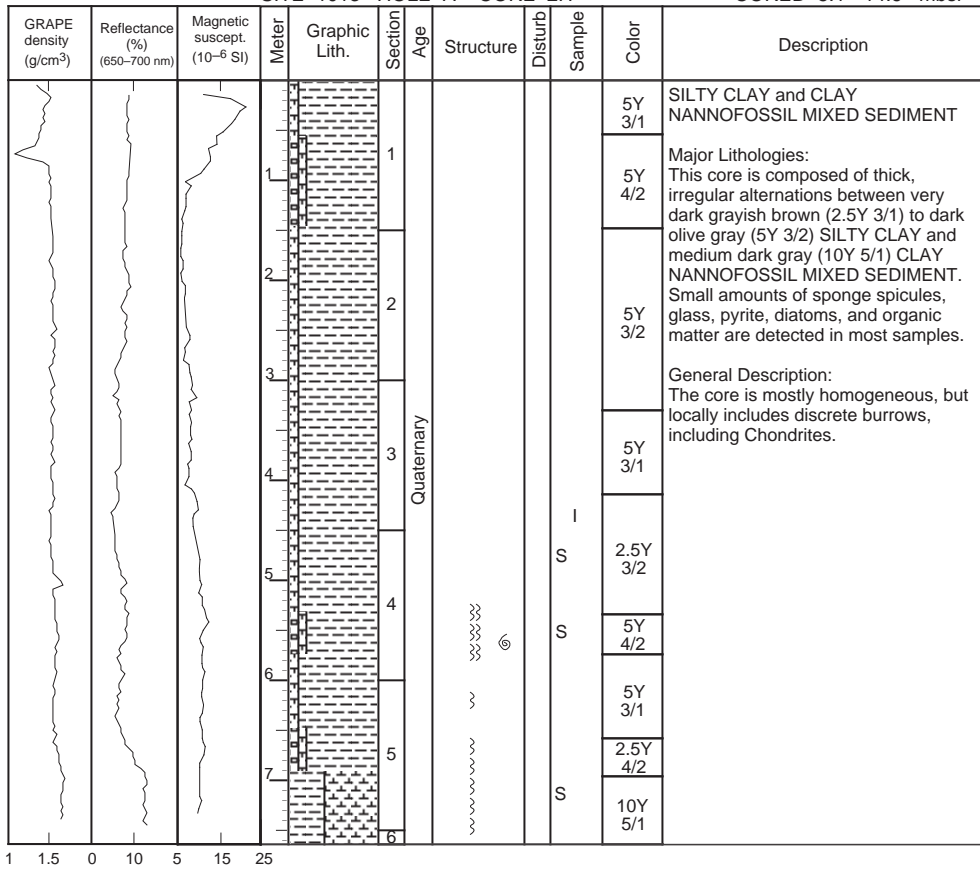
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SITE 1013 HOLE A CORE 2H

CORED 5.1 - 14.6 mbsf

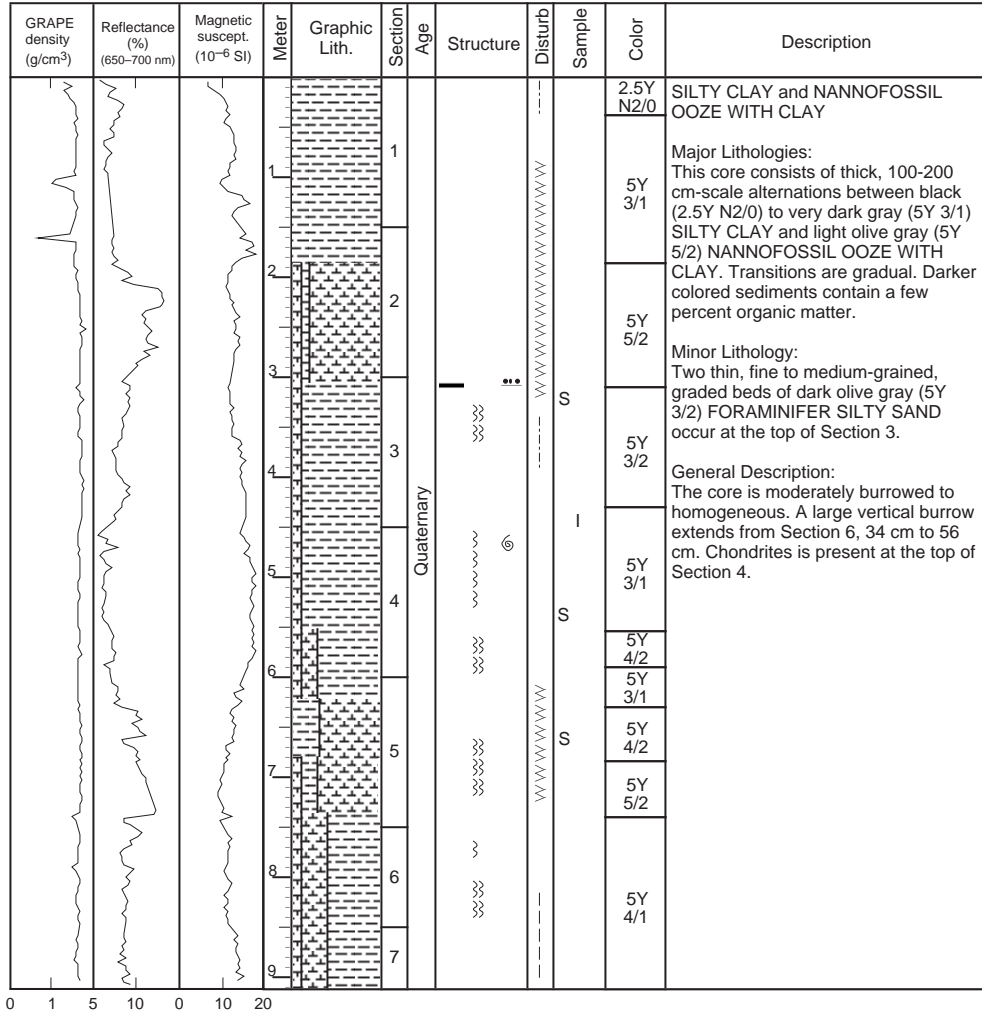


SITE 1013 HOLE A CORE 3H

CORED 14.6 - 24.1 mbsf

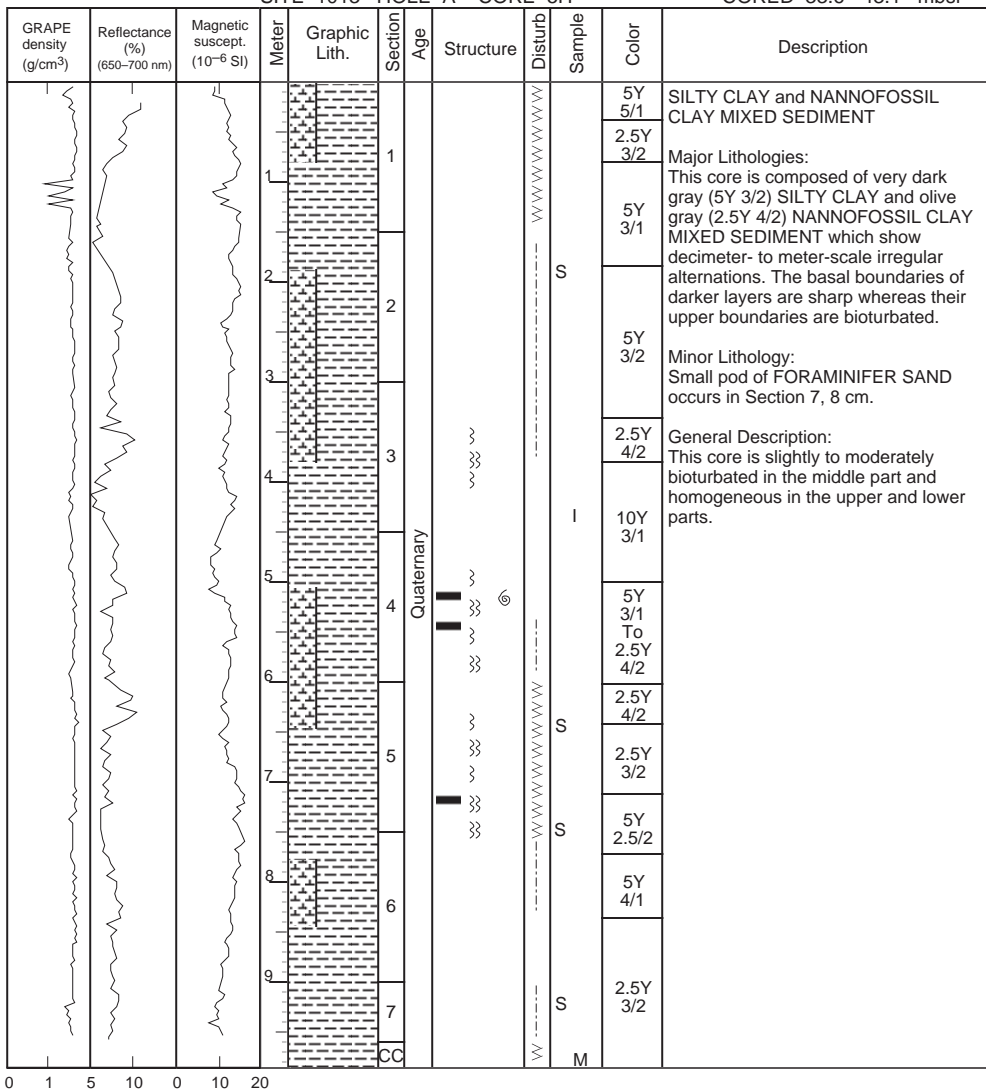
GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 1.5 5 10 0 10 20			1		1			S I S M	10Y 4/1	SILTY CLAY and CLAYEY NANNOFOSSIL MIXED SEDIMENT WITH FORAMINIFERS	
			2		5Y 4/2	Major Lithologies: This core consists of uneven 20-100 cm alternations between very dark grayish brown (2.5Y 3/2) to dark olive gray (5Y 3/2) SILTY CLAY and olive gray (5Y 5/2) CLAYEY NANNOFOSSIL MIXED SEDIMENT WITH FORAMINIFERS. Color transitions are gradational.					
			3		5Y 3/2						
			4		5Y 4/1	Minor Lithology: A thin lamination of QUARTZ FELDSPAR SAND WITH FORAMINIFERS occurs near the top of Section 3.					
			5		5Y 3/2						
			6		5Y 5/3	General Description: Cm-scale laminations occur near the base of Section 5. Chondrites trace fossils are present at the top of Section 4. The sulfurous odor is replaced by a petroliferous odor in this core.					
			7		2.5Y 3/2						
			8		5Y 3/1						
			9		5Y 5/2						
			10		5Y 3/1 To 5Y 4/2						

SITE 1013 HOLE A CORE 4H CORED 24.1 - 33.6 mbsf



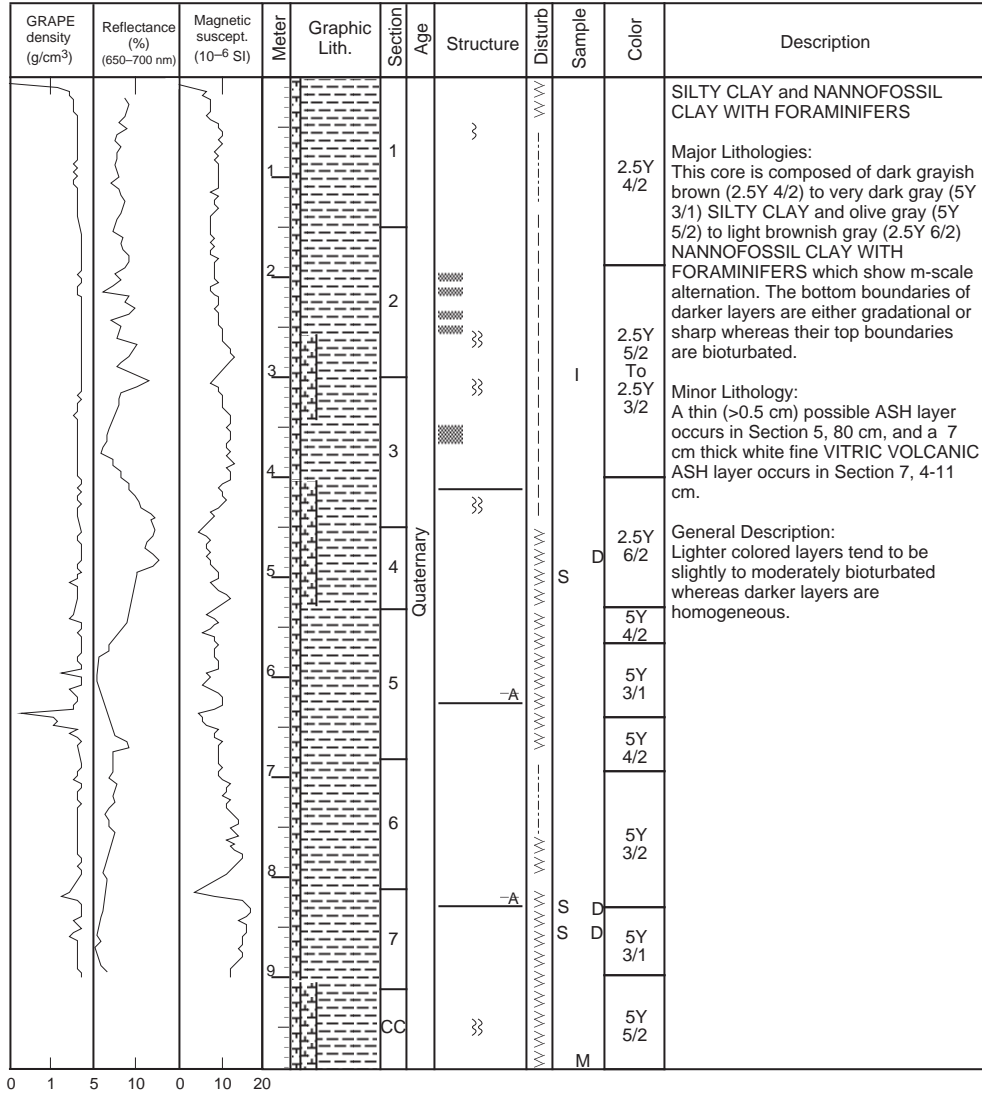
SITE 1013 HOLE A CORE 5H

CORED 33.6 - 43.1 mbsf



SITE 1013 HOLE A CORE 6H

CORED 43.1 - 52.6 mbsf

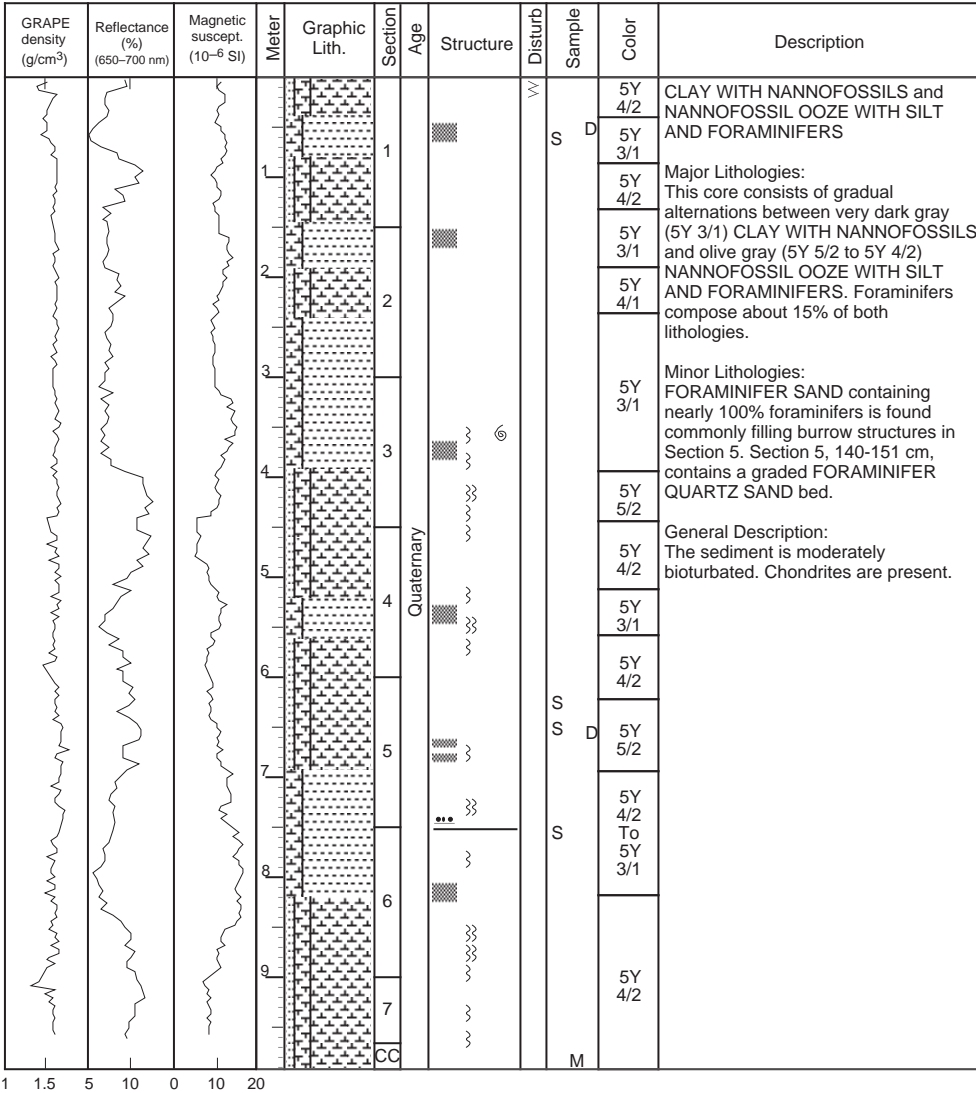


SITE 1013 HOLE A CORE 7H CORED 52.6 - 62.1 mbsf

GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
0 1 0 10 0 10 20			1		1		}}	W W W W		5Y 4/1	<p>CLAY and NANNOFOSSIL OOZE WITH CLAY</p> <p>Major Lithologies: This core is composed of m-scale alternations of dark grayish brown (2.5Y 4/2) to very dark gray (5Y 3/1) CLAY and light olive gray (5Y 6/2) to olive gray (5Y 5/2) NANNOFOSSIL OOZE WITH CLAY. The boundaries are gradational.</p> <p>General Description: The core is slightly to moderately bioturbated.</p> <p>Note: Gas expansion of sediments beyond core liner occurred in Sections 4 and 5. Expanded material (150-153 cm) is stored separately.</p>
			2		2		}}	W W W		2.5Y 3/2 To 2.5Y 5/2	
			3		3		}}	W W W		5Y 3/1	
			4		3		}}	W W W	A*	5Y 6/3 5Y 5/2	
			5		4	Quaternary	}}	W W		2.5Y 4/2	
			6		4		}}	W W		5Y 4/1	
			6		5		}}	W W		5Y 3/2	
			7		5		}}	W		5Y 3/1	
			8		6		}}	W		5Y 4/1	
			9		6		}}	S		5Y 6/2	
					7		}}	S		2.5Y 4/2	
					7		}}	M		5Y 3/1	

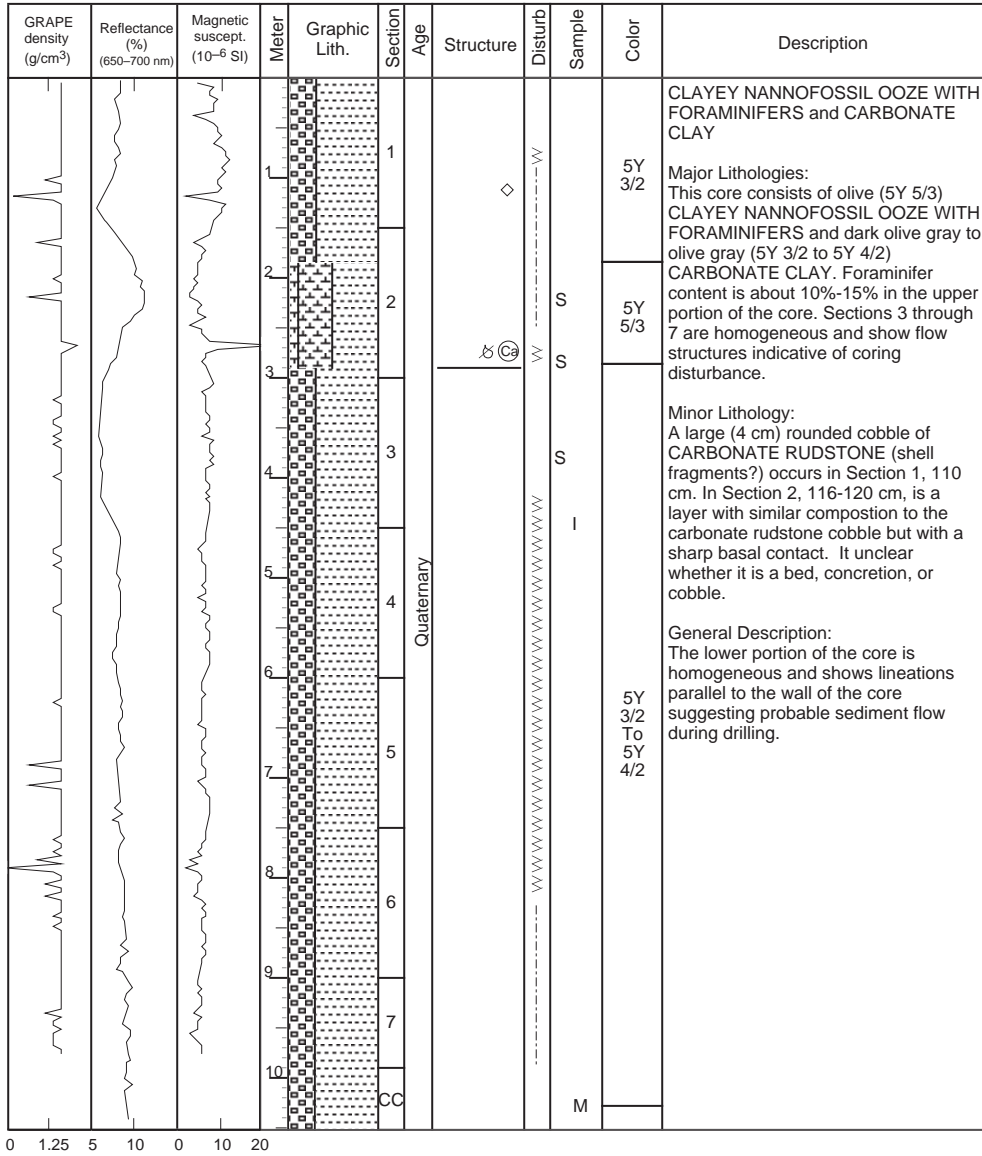
SITE 1013 HOLE A CORE 8H

CORED 62.1 - 71.6 mbsf

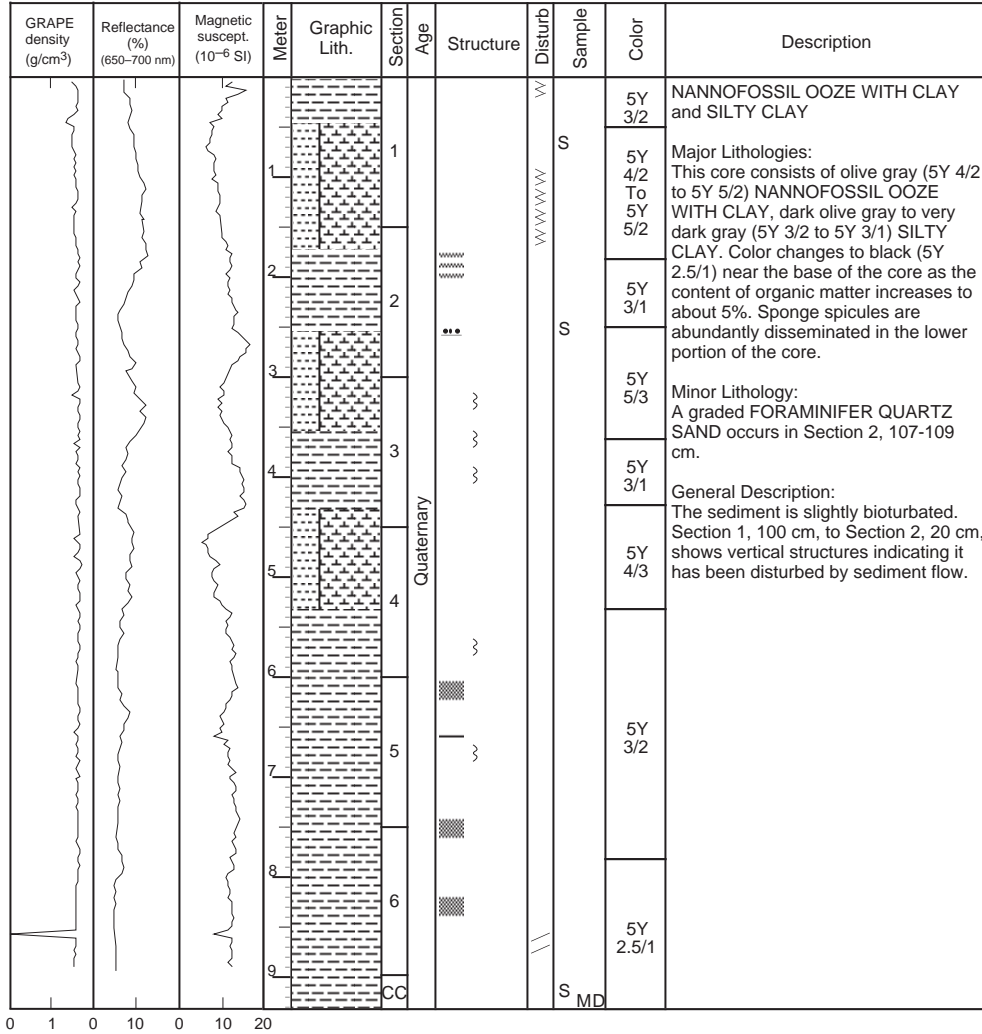


SITE 1013 HOLE A CORE 9H

CORED 71.6 - 81.1 mbsf

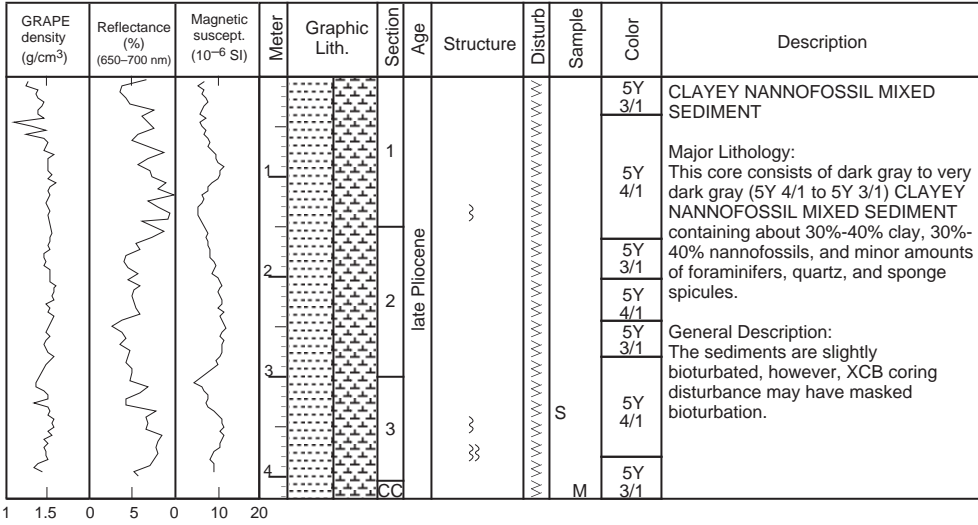


SITE 1013 HOLE A CORE 10H CORED 81.1 - 90.6 mbsf



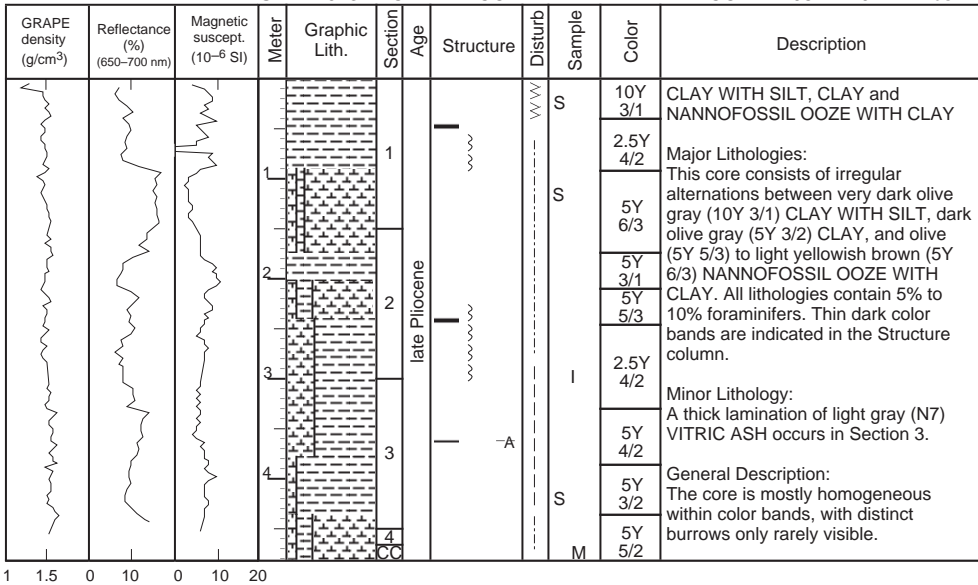
SITE 1013 HOLE A CORE 11X

CORED 90.6 - 98.1 mbsf

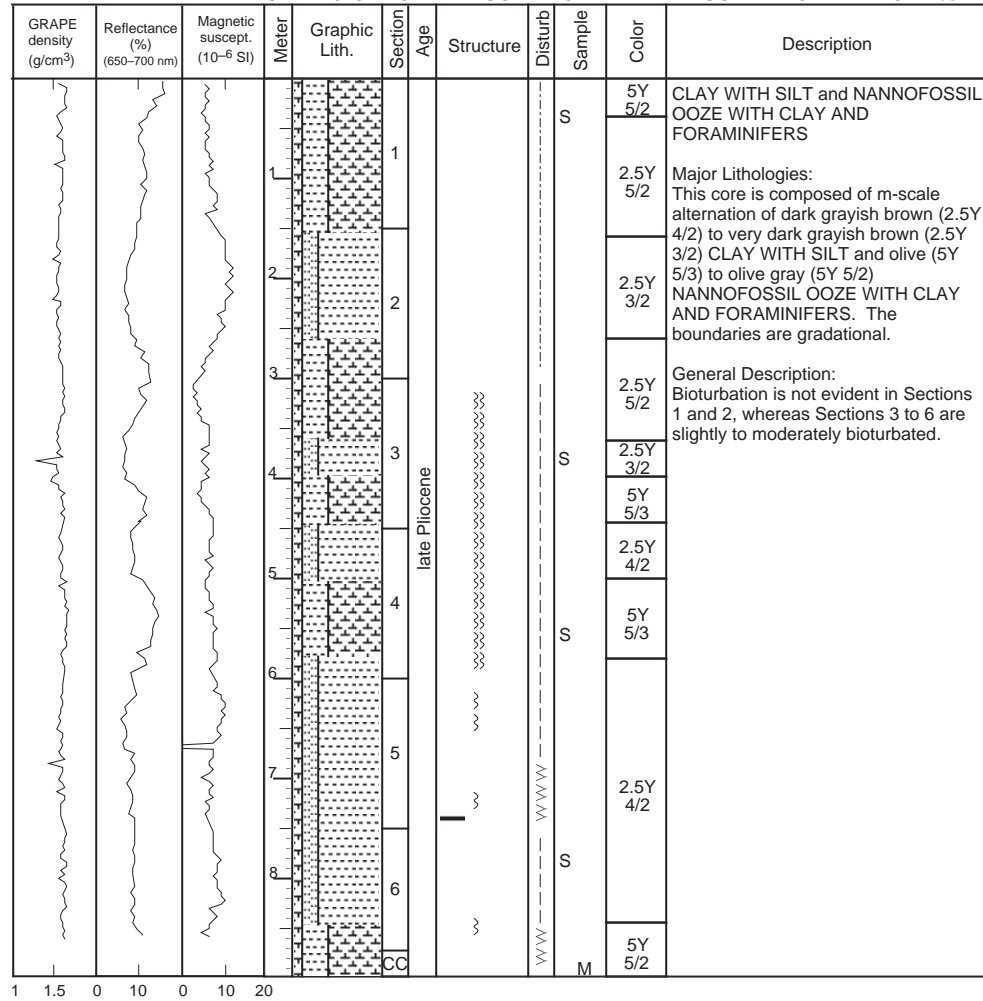


SITE 1013 HOLE A CORE 12X

CORED 98.1 - 107.7 mbsf

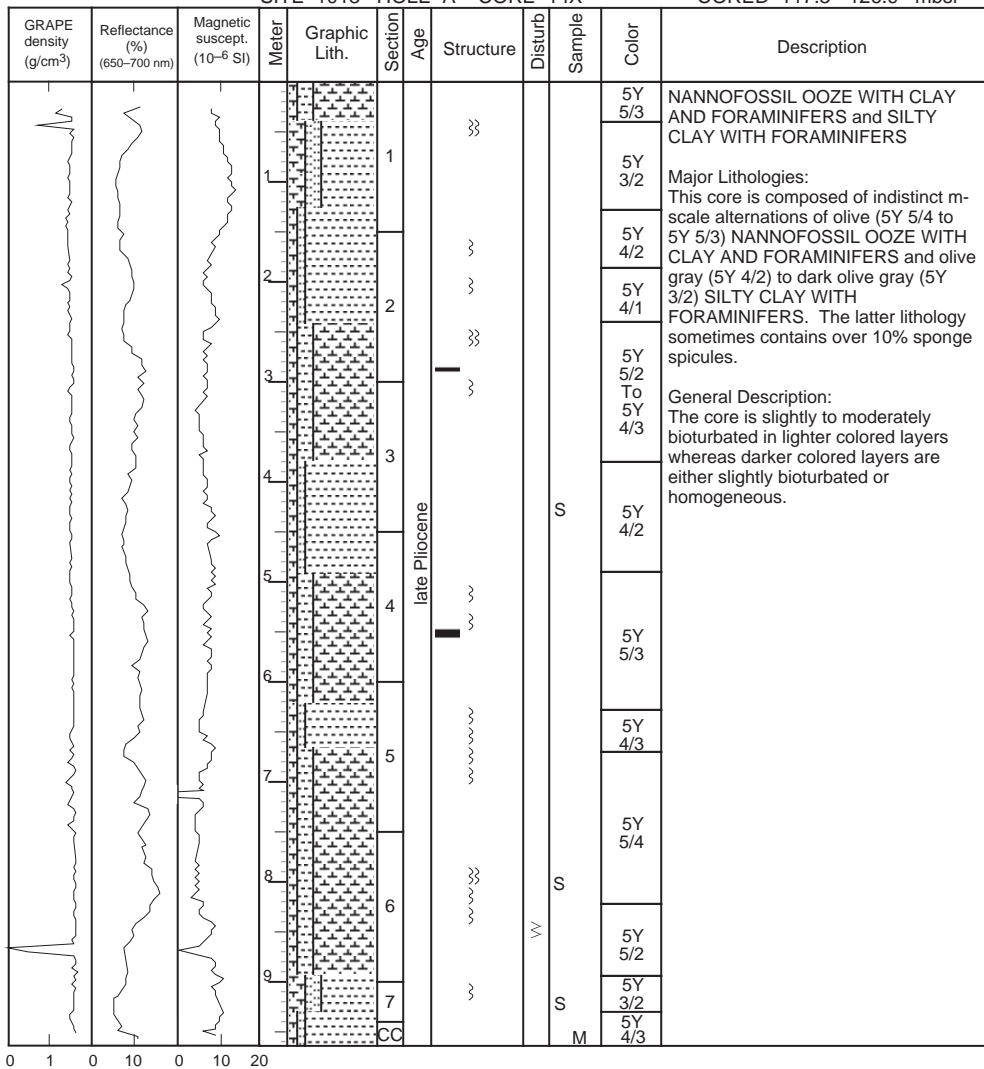


SITE 1013 HOLE A CORE 13X CORED 107.7 - 117.3 mbsf

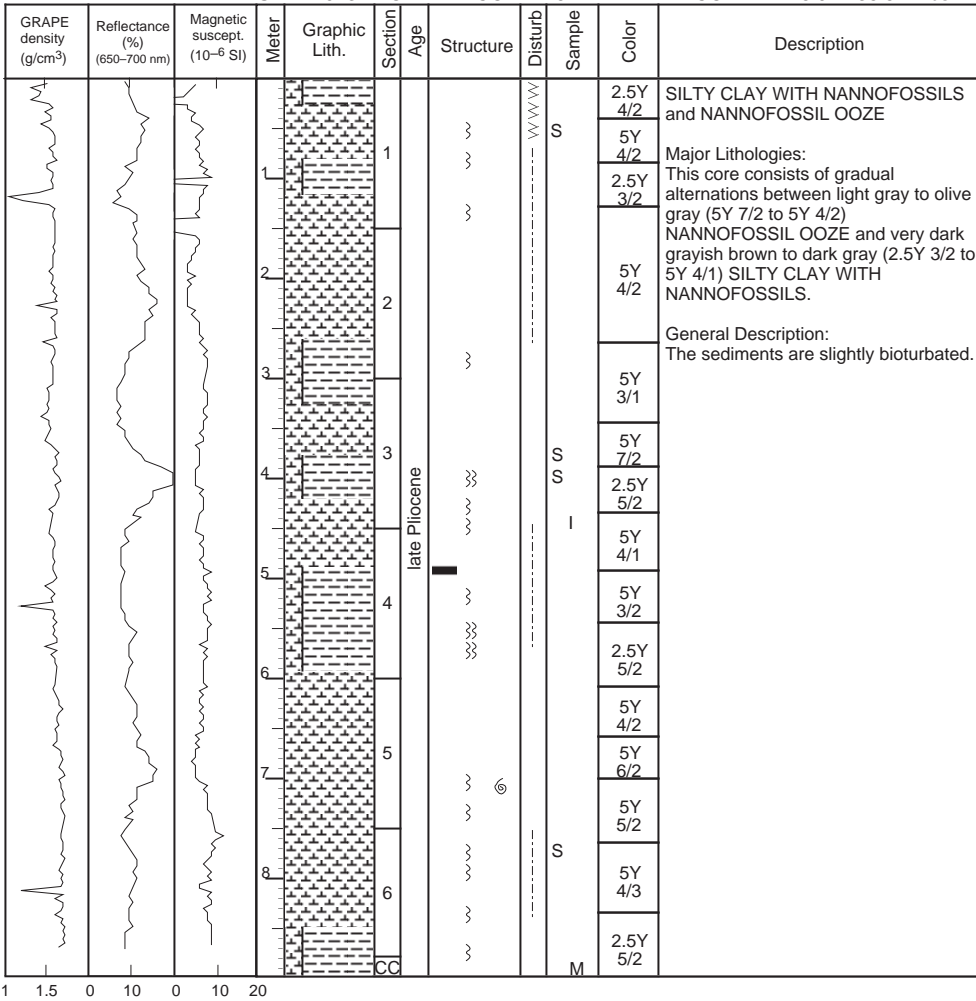


SITE 1013 HOLE A CORE 14X

CORED 117.3 - 126.9 mbsf

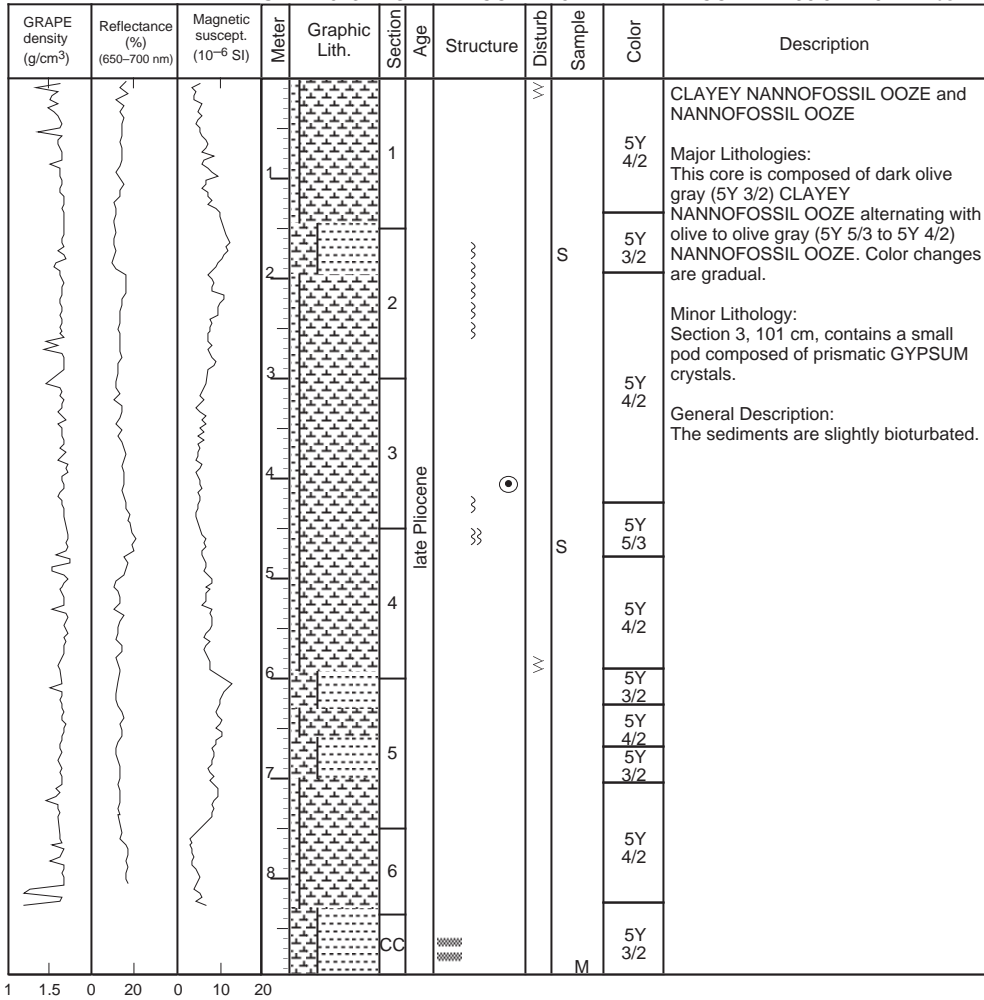


SITE 1013 HOLE A CORE 15X CORED 126.9 - 136.5 mbsf

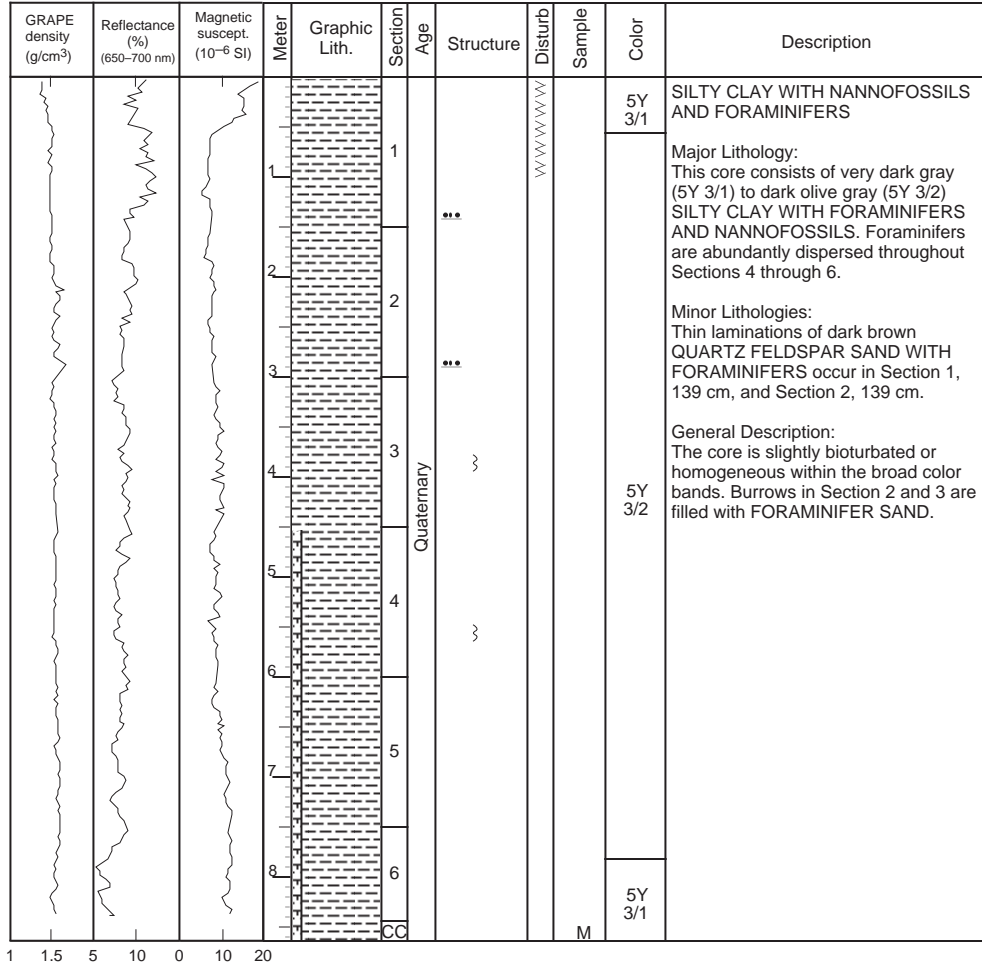


SITE 1013 HOLE A CORE 16X

CORED 136.5 - 146.1 mbsf



SITE 1013 HOLE B CORE 1H CORED 0.0 - 8.6 mbsf



SITE 1013 HOLE B CORE 2H

CORED 8.6 - 18.1 mbsf

GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
			1	[Hatched]	1		}}			5Y 3/2	<p>SILTY CLAY and CLAYEY NANNOFOSSIL MIXED SEDIMENT</p> <p>Major Lithologies: This core consists of dark gray to very dark gray (5Y 4/1 to 5Y 3/1) to olive gray (5Y 4/2) SILTY CLAY and light olive gray to olive gray (5Y 6/2 to 5Y 4/2) CLAYEY NANNOFOSSIL MIXED SEDIMENT. Color changes are gradational.</p> <p>Minor Lithology: Thin laminations of dark brown QUARTZ FELDSPAR SAND WITH FORAMINIFERS occur in Section 1 and 4.</p> <p>General Description: The sediment is slightly bioturbated.</p>
			2	[Hatched]	2	•••	}}			5Y 3/1	
			3	[Hatched]	3		}}			5Y 4/2	
			4	[Hatched]	3		}}			5Y 4/1	
			5	[Hatched]	4	•••	}}			5Y 6/2	
			6	[Hatched]	4	•••	}}			5Y 4/2	
			7	[Hatched]	5	•••	}}			5Y 5/2	
			8	[Hatched]	5		}}			5Y 3/2	
			9	[Hatched]	6		}}			5Y 4/2	
			10	[Hatched]	7		}}			5Y 3/2	

1.4 1.6 0 10 0 10 20

CC

M

SITE 1013 HOLE B CORE 3H CORED 18.1 - 27.6 mbsf

GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
			1		1		~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~			5Y 3/1	SILTY CLAY and CLAYEY NANNOFOSSIL MIXED SEDIMENT WITH FORAMINIFERS Major Lithologies: This core consists of very dark gray to dark grayish olive (5Y 3/1 to 10Y 4/2) SILTY CLAY gradationally alternating with olive gray to light olive gray (5Y 5/2 to 5Y 6/2) CLAYEY NANNOFOSSIL MIXED SEDIMENT WITH FORAMINIFERS. Minor Lithologies: Section 7, 25-39 cm, contains an interval of QUARTZ FELDSPAR SAND WITH FORAMINIFERS. General Description: The core is slightly bioturbated within broad color bands.
			10Y 5/2								
			5Y 3/2								
			10Y 5/2								
			10Y 3/1								
			10Y 5/2								
			5Y 3/2								
			5Y 4/2								
			10Y 5/2								
			5Y 3/1								
			10Y 6/2								
			10Y 4/2								

1 1.5 0 10 0 10 20

SITE 1013 HOLE B CORE 4H

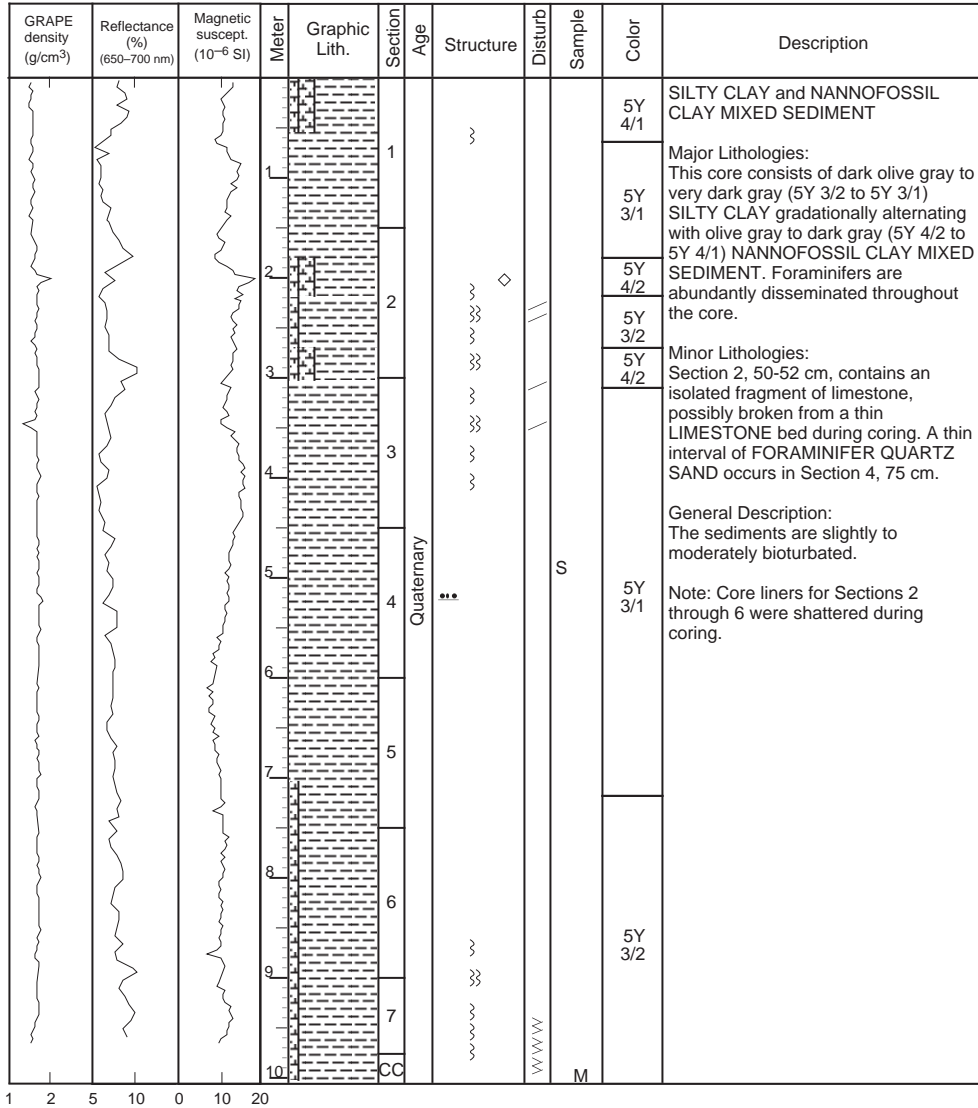
CORED 27.6 - 37.1 mbsf

GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section Age	Structure	Disturb	Sample	Color	Description
			1		1				5Y 3/2	<p>SILTY CLAY and NANNOFOSSIL OOZE WITH CLAY</p> <p>Major Lithologies: This core consists of gradual alternations between very dark gray (5Y 3/1) SILTY CLAY and dark gray to dark olive gray (5Y 4/1 to 5Y 3/2) NANNOFOSSIL OOZE WITH CLAY.</p> <p>General Description: The sediments are slightly bioturbated.</p>
			2		5Y 3/1					
			3		5Y 3/2					
			4		5Y 4/3 To 5Y 4/2					
			5							
			6		5Y 3/2					
			7							
			8		5Y 3/1					
			9		5Y 3/2 To 5Y 4/1					
			10							

1.4 1.6 0 10 0 10 20

SITE 1013 HOLE B CORE 5H

CORED 37.1 - 46.6 mbsf



SITE 1013 HOLE B CORE 6H

CORED 46.6 - 56.1 mbsf

GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
			1		1		*** } }			5Y 3/1	SILTY CLAY and NANNOFOSSIL CLAY WITH FORAMINIFERS
			2		2		} }			5Y 4/2	Major Lithologies: This core consists of gradual alternations between very dark grayish brown to dark olive gray (2.5Y 3/2 to 5Y 3/2) SILTY CLAY and olive to olive gray (5Y 4/3 to 5Y 4/2) NANNOFOSSIL CLAY WITH FORAMINIFERS.
			3		3		} -A			5Y 3/1	Minor Lithologies: Section 1, 75 cm, contains a QUARTZ FORAMINIFER SAND layer. A thin (>0.5 cm) VITRIC ASH interval (layer?) occurs in Section 2. Section 4 contains a 7 cm thick white fine VITRIC ASH layer.
			4		4					5Y 3/2	
			5		5	Quaternary	-A			2.5Y 3/2	General Description: The sediment shows slight bioturbation in the upper portion of the core. The lower interval is moderately bioturbated.
			6		6		} }				
			7		7		} }			5Y 4/3	
			8		8		} }			5Y 3/2	
			9		9		} }			5Y 4/1 To 5Y 4/2	
			10		10	CC	} }		M		

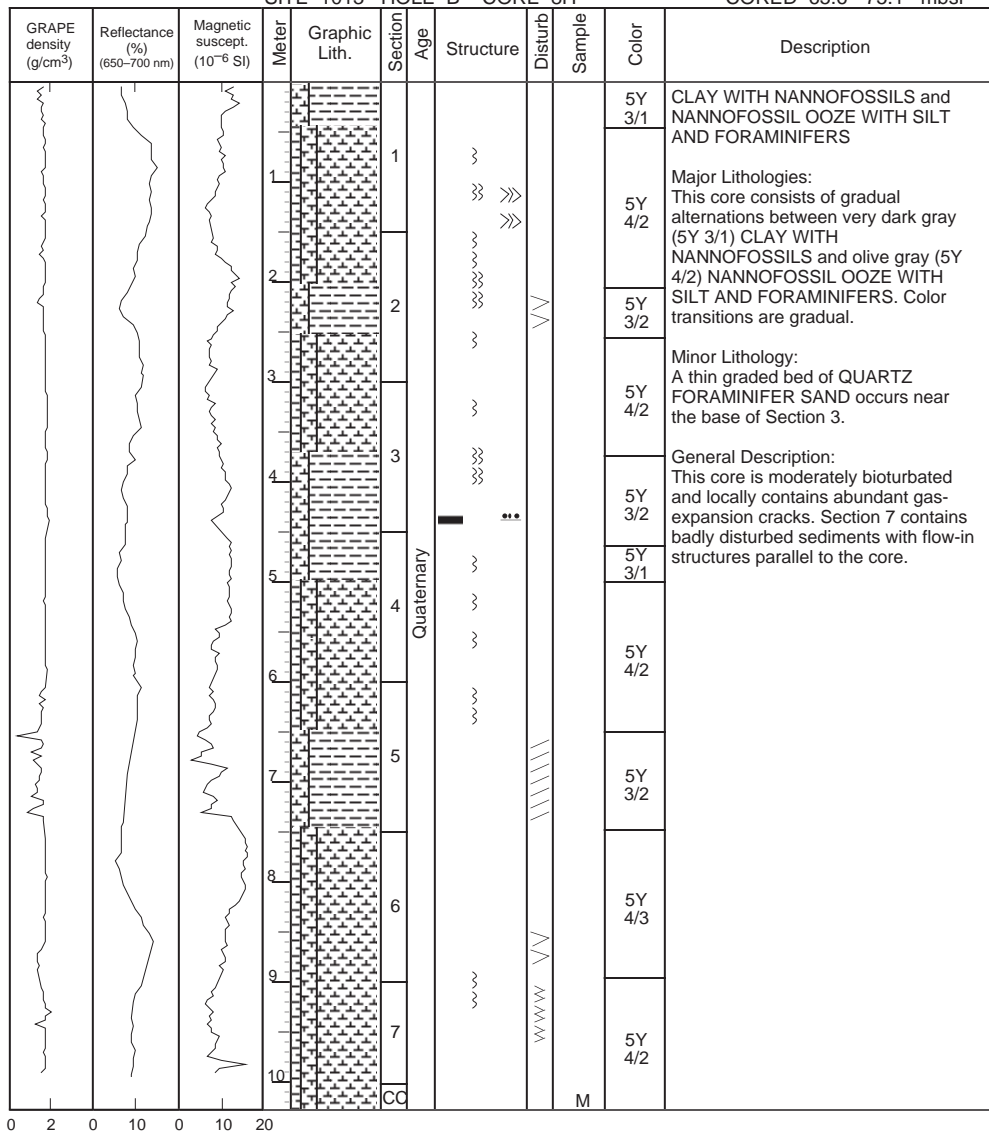
0 1 5 10 0 10 20

SITE 1013 HOLE B CORE 7H CORED 56.1 - 65.6 mbsf

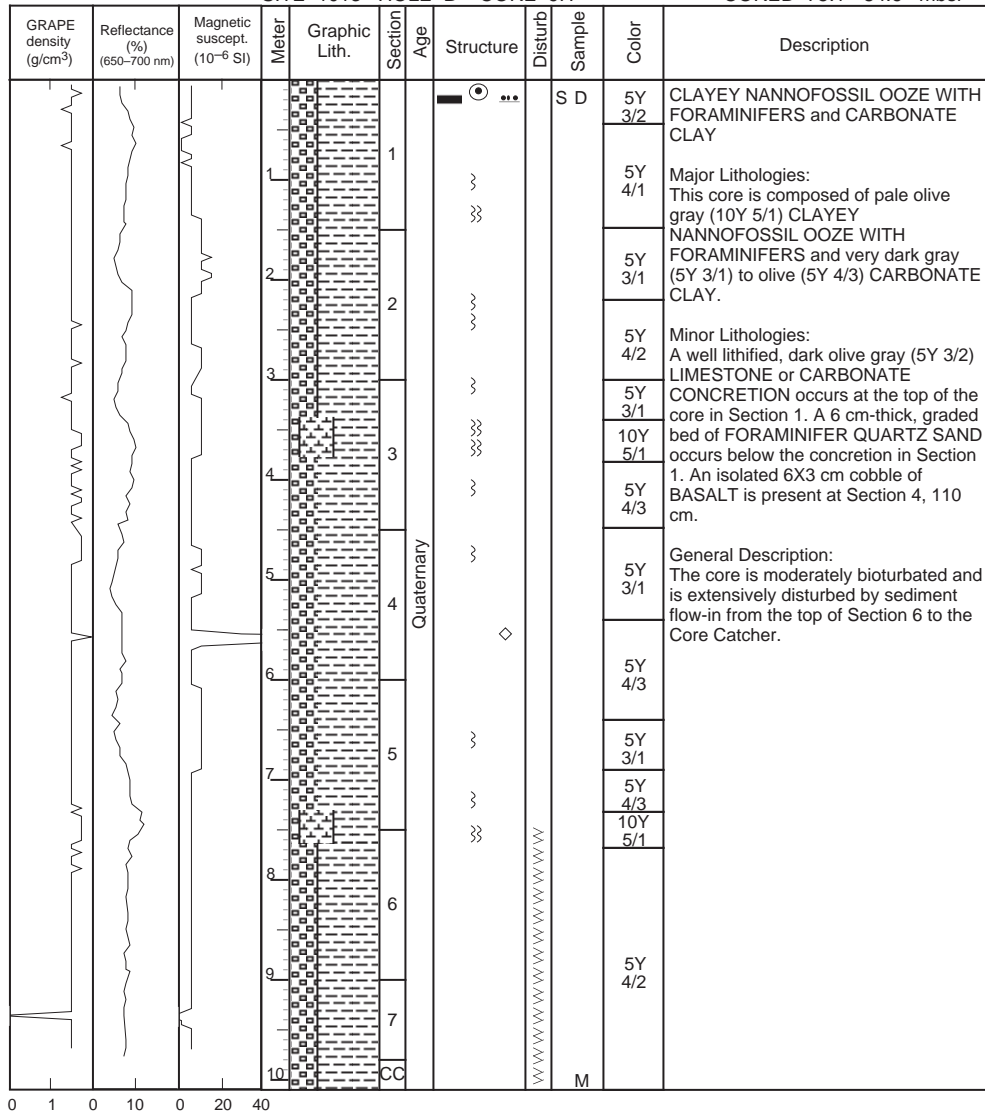
GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description		
			1		1		}}				<p>CLAY WITH NANNOFOSSILS and NANNOFOSSIL OOZE WITH FORAMINIFERS</p> <p>Major Lithologies: This core consists of dark olive gray (5Y 3/2) CLAY WITH NANNOFOSSILS gradationally alternating with olive gray to dark olive gray (5Y 4/2 to 5Y 4/1) NANNOFOSSIL OOZE WITH FORAMINIFERS.</p> <p>General Description: The sediment is slightly to moderately bioturbated. Zoophycos are found in Section 4.</p>		
			2		2	}}						10Y 4/1 To 5Y 4/2	
			3		3	}}							5Y 3/2
			4		4	}}	Quaternary	}}					10Y 5/1
			5		5	}}		}}					5Y 3/1
			6		6	}}		}}					5Y 4/2
			7		7	}}		}}					5Y 3/1
			8		8	}}		}}					5Y 4/2
			9		9	}}		}}					5Y 3/2
			10		10	}}		}}					5Y 3/1
			11		11	}}		}}					
			12		12	}}		}}					

SITE 1013 HOLE B CORE 8H

CORED 65.6 - 75.1 mbsf

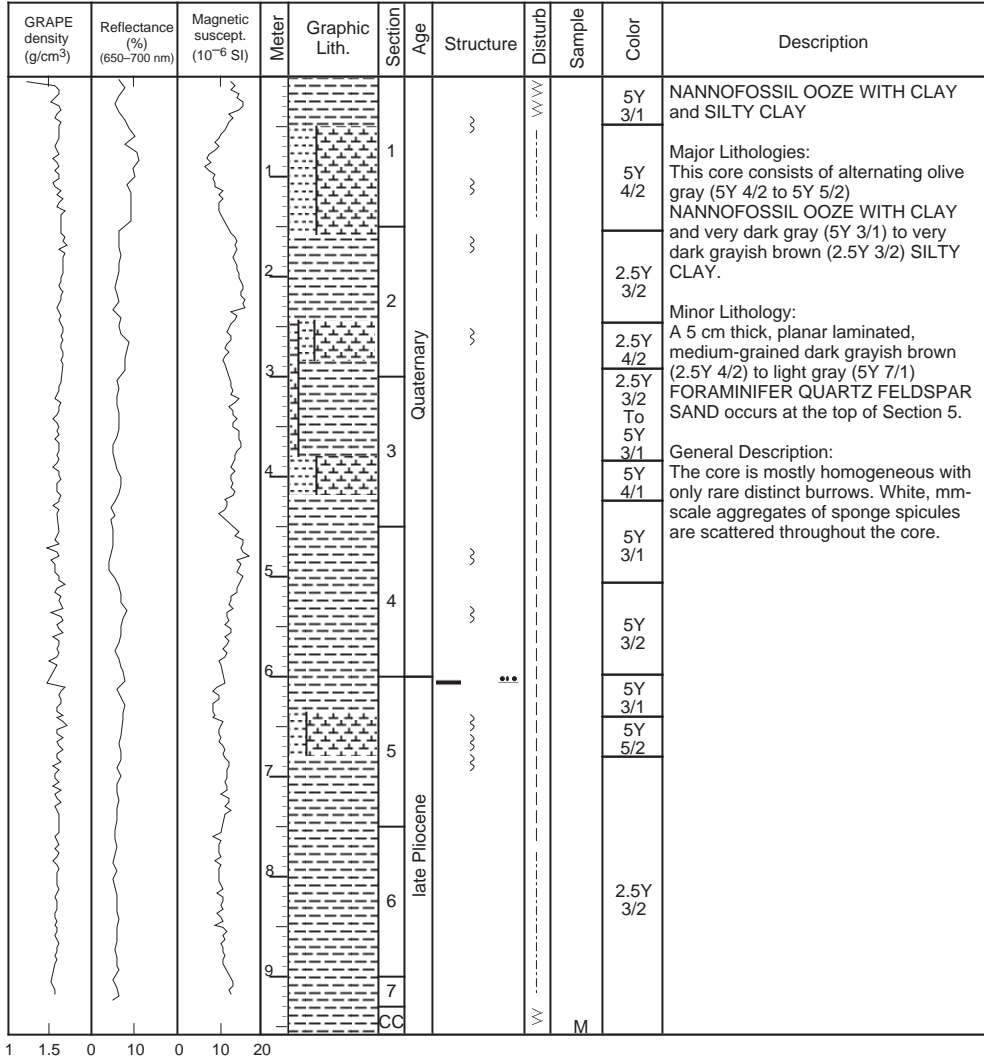


SITE 1013 HOLE B CORE 9H CORED 75.1 - 84.6 mbsf



SITE 1013 HOLE B CORE 10H

CORED 84.6 - 94.1 mbsf



1 1.5 0 10 0 10 20

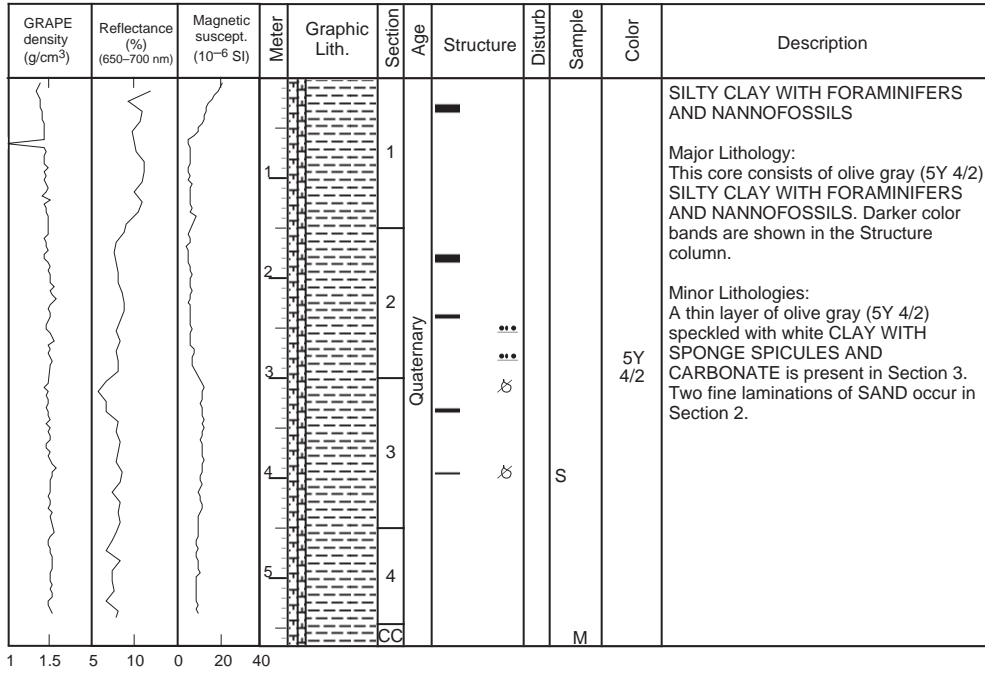
SITE 1013 HOLE B CORE 11X CORED 94.1 - 103.8 mbsf

GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description		
			1		1					2.5Y 3/2	CLAYEY NANNOFOSSIL MIXED SEDIMENT and CLAYEY NANNOFOSSIL OOZE		
			2							2.5Y 4/2	Major Lithologies: This core consists of very dark grayish brown (2.5Y 3/2) to olive gray (2.5Y 4/2) CLAYEY NANNOFOSSIL MIXED SEDIMENT and olive gray (5Y 5/2) to olive (5Y 5/3) CLAYEY NANNOFOSSIL OOZE. Color transitions are gradational.		
			3							2.5Y 3/2		2.5Y 4/2	Minor Lithologies: A small pod of VITRIC ASH occurs near the top of Section 4 and a thin bed of SILTY CLAY near the base of Section 3. Thin, banded layer of fibrous CARBONATE occurs near the top of Section 5.
			4									5Y 5/1	
			5									2.5Y 3/2	
			6									5Y 5/2	
			7									2.5Y 3/2	
			8									2.5Y 4/2	
			9									2.5Y 5/2	
			10									5Y 4/1	
			11									5Y 5/3	
			12									5Y 4/2	
										5Y 5/3			
										5Y 4/2			

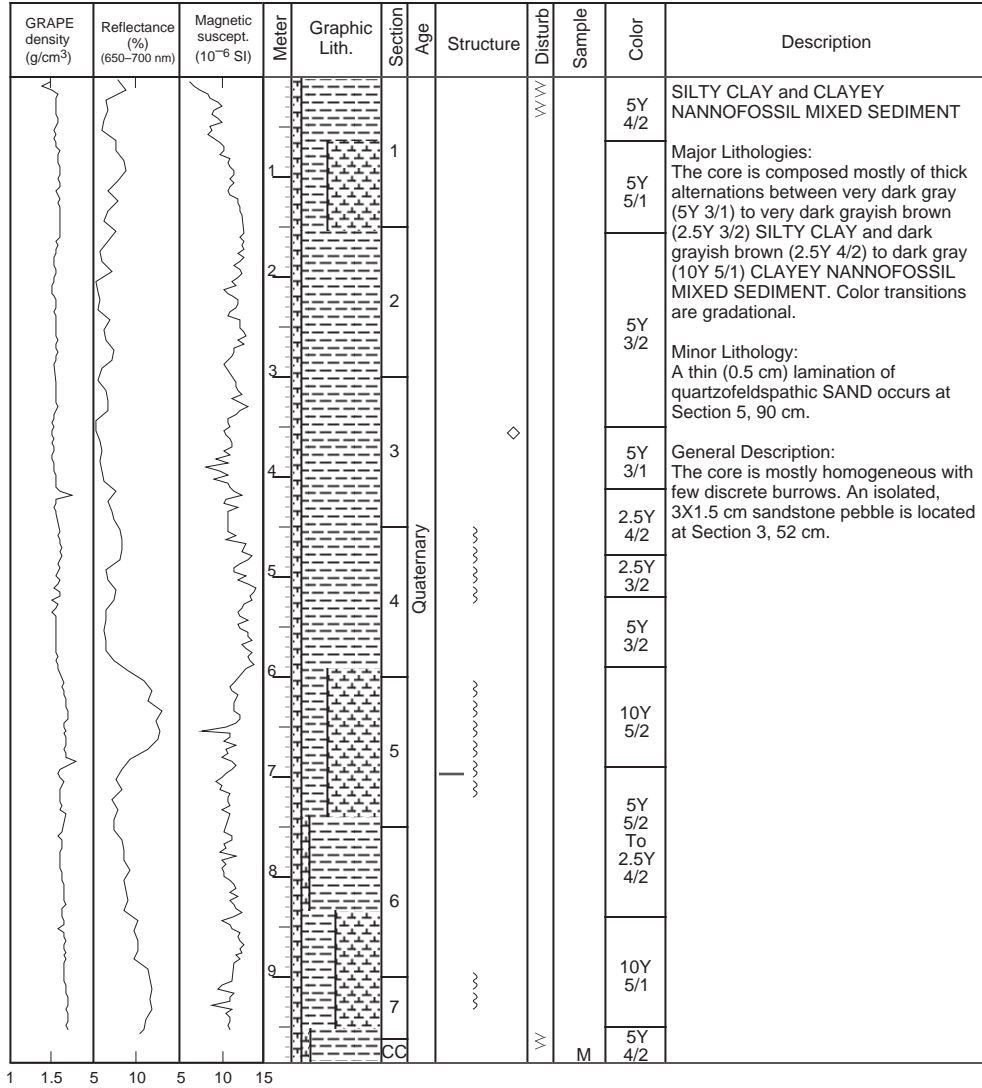
1 1.5 0 10 0 10 20

SITE 1013 HOLE C CORE 1H

CORED 0.0 - 5.7 mbsf

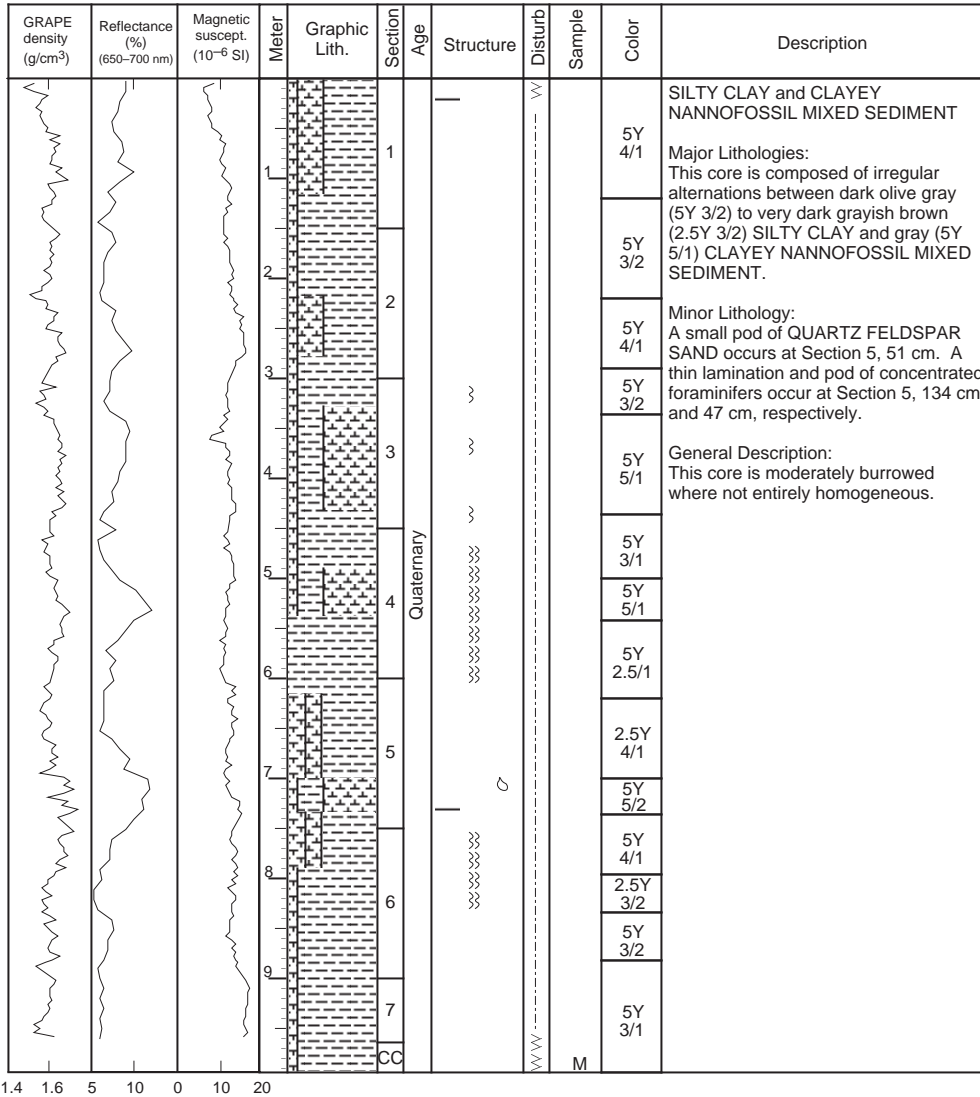


SITE 1013 HOLE C CORE 2H CORED 5.7 - 15.2 mbsf

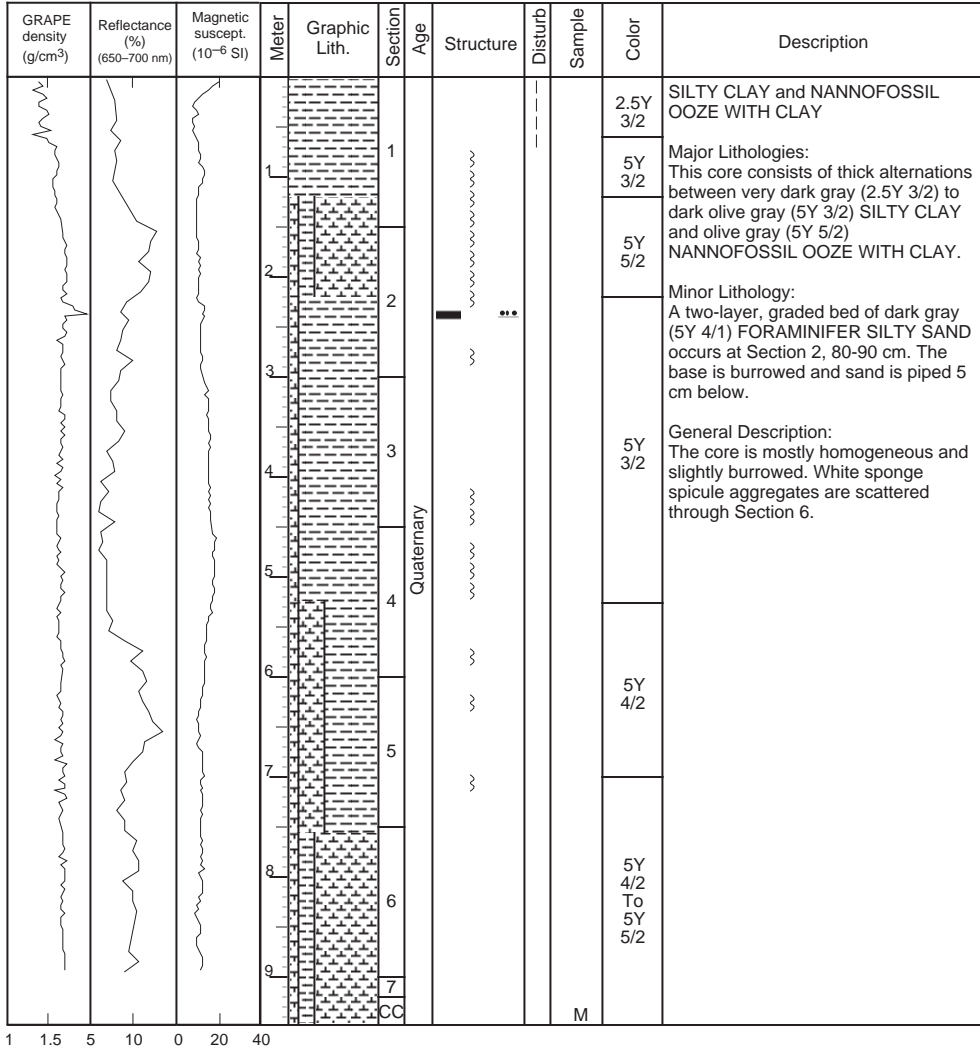


SITE 1013 HOLE C CORE 3H

CORED 15.2 - 24.7 mbsf



SITE 1013 HOLE C CORE 4H CORED 24.7 - 34.2 mbsf



SITE 1013 HOLE C CORE 5H

CORED 34.2 - 43.7 mbsf

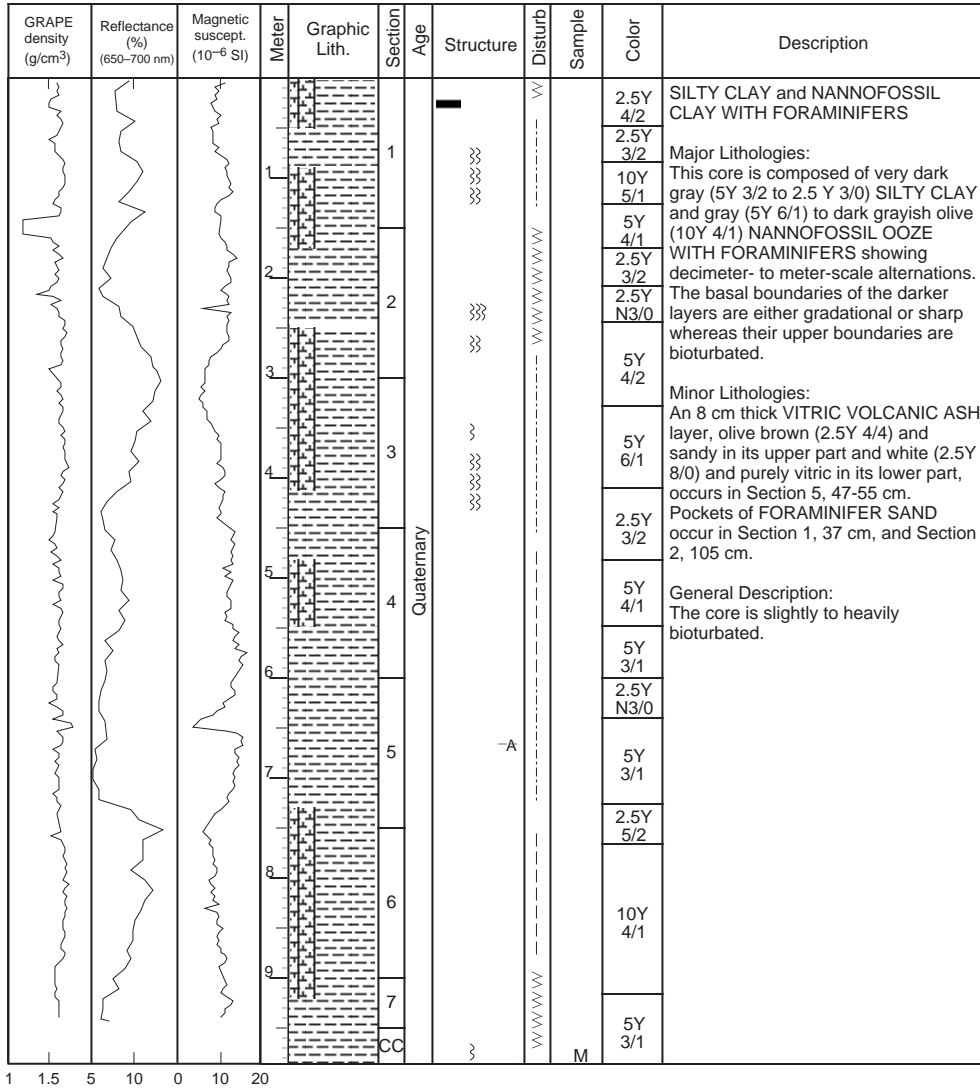
GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
			1		1	Quaternary	~~~ ~~~ ~~~ ~~~ ~~~ ~~~ ~~~ ~~~	~~~ ~~~ ~~~ ~~~ ~~~ ~~~ ~~~ ~~~	2.5Y N3/0	SILTY CLAY and NANNOFOSSIL CLAY MIXED SEDIMENT	
			2		5Y 4/1				Major Lithologies: This core is composed of very dark gray (5Y 3/2) to black (5Y 2.5/1) SILTY CLAY and olive gray (5Y 4/2) to gray (5Y 5/1) NANNOFOSSIL CLAY MIXED SEDIMENT which show meter scale alternations. The basal boundaries of darker layers are sharp whereas their upper boundaries are bioturbated.		
			3		5Y 2.5/1						
			4		5Y 4/2				Minor Lithology: Small pockets of FORAMINIFER SAND occur in Section 5, 78 cm, and Section 6, 103 cm.		
			5		5Y 5/1						
			6		5Y 3/1				General Description: The core is moderately bioturbated in the middle part whereas no burrows are observable in the upper and lower parts.		
			7		5Y 4/1						
			8		5Y 3/2						
			9								

1 1.5 5 10 0 10 20

CC

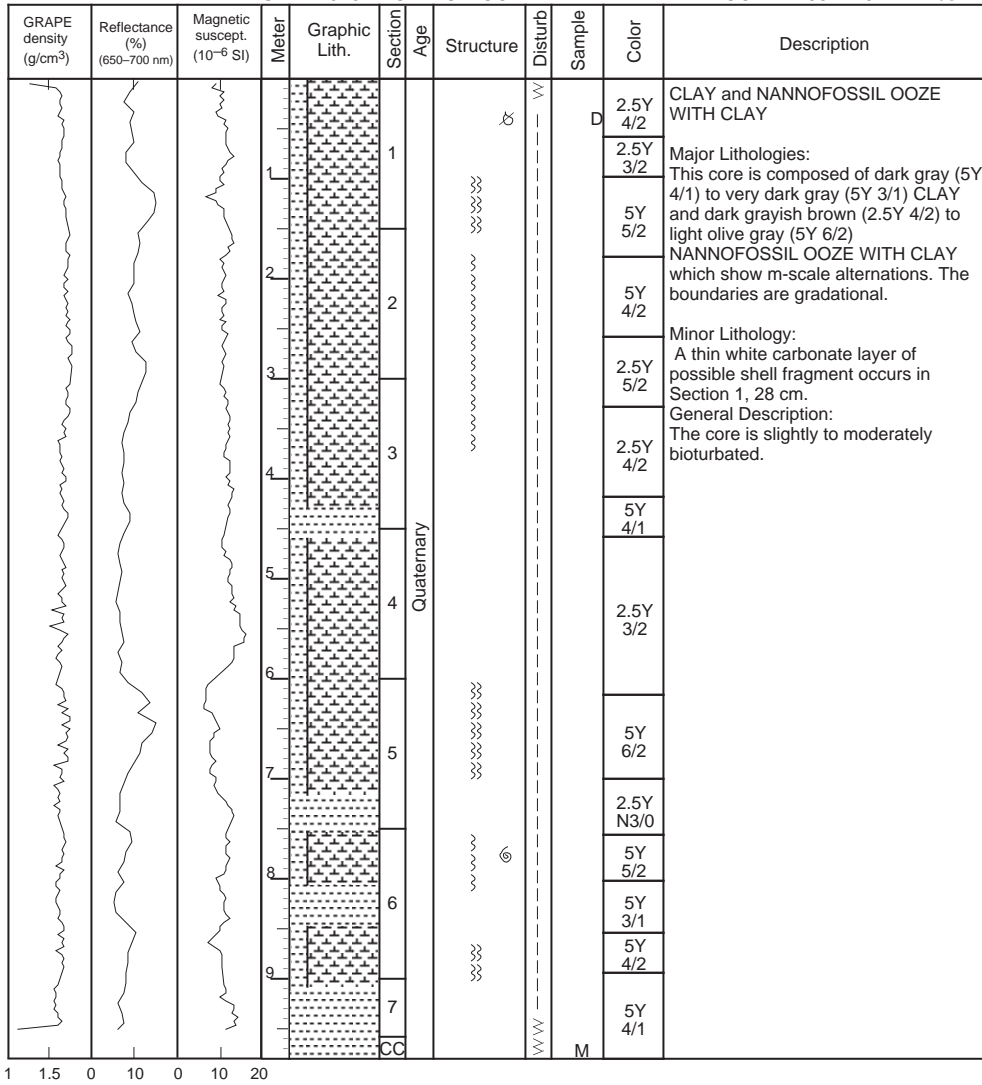
M

SITE 1013 HOLE C CORE 6H CORED 43.7 - 53.2 mbsf

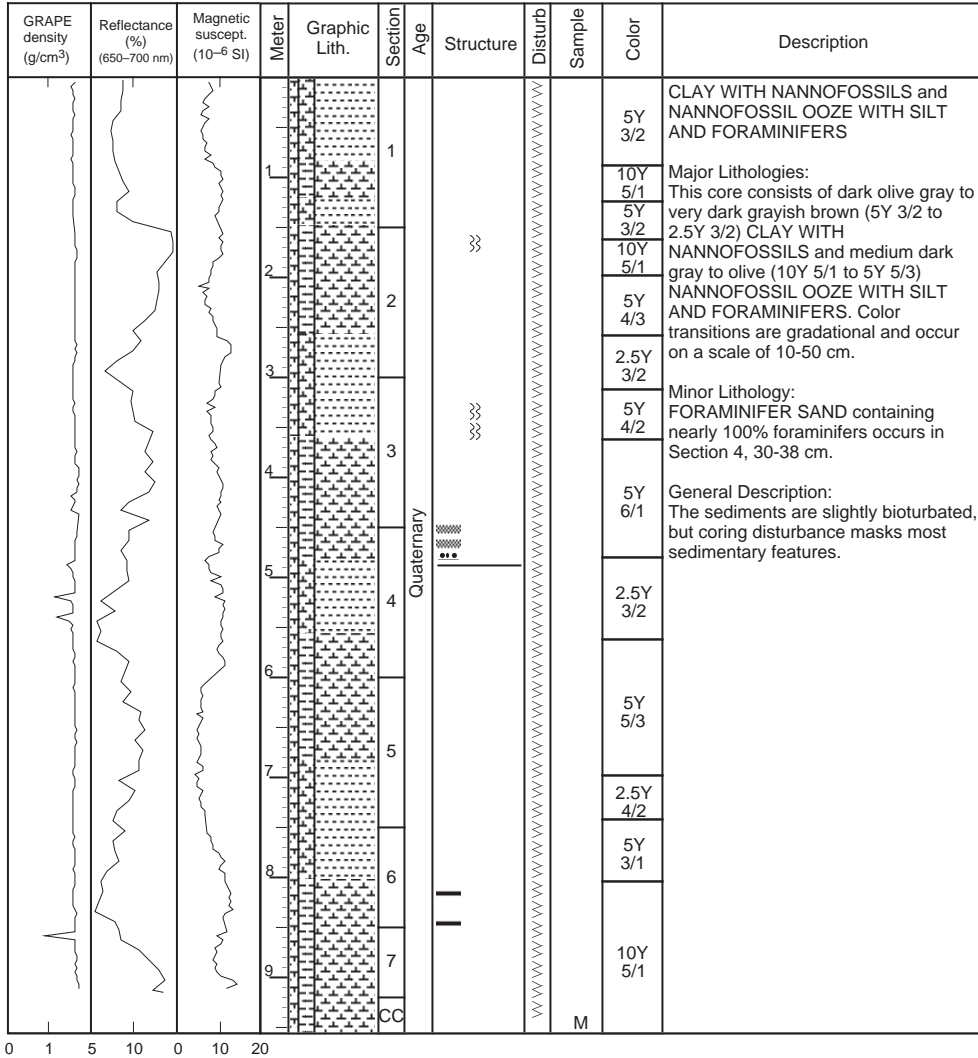


SITE 1013 HOLE C CORE 7H

CORED 53.2 - 62.7 mbsf



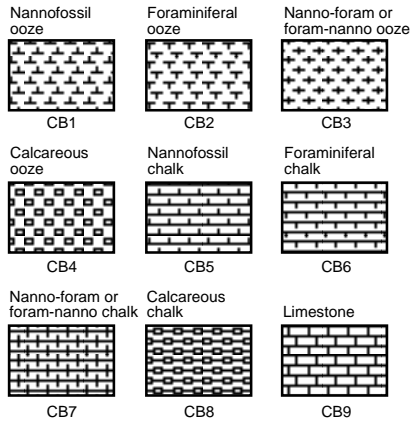
SITE 1013 HOLE C CORE 8H CORED 62.7 - 72.2 mbsf



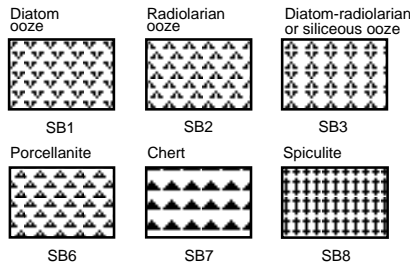
Key to symbols used in the “Graphic Lithology” column on the core description sheets.

Biogenic pelagic sediments

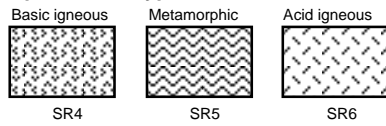
Calcareous



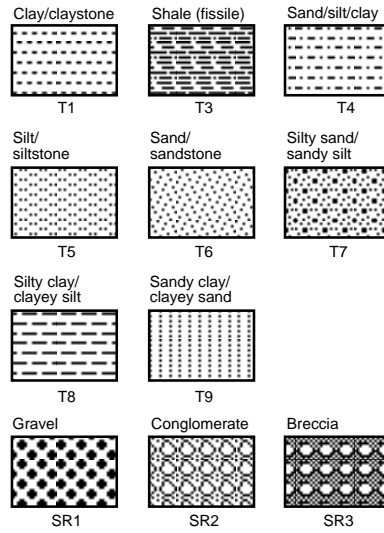
Siliceous



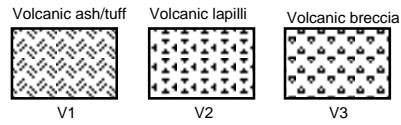
Special rock types



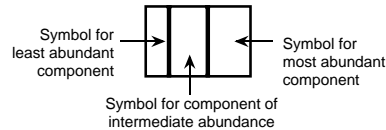
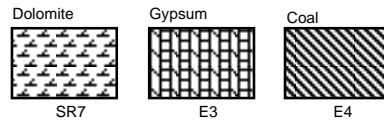
Siliciclastic sediments



Volcaniclastic sediments



Chemical and other sediments



Key to symbols used in the “Structures” column on the core description sheets.

Drilling disturbance symbols	Sedimentary structures cont.	
Soft sediments		
- - - - -	↑ F	Fining-upward sequence
- · - · - · -	↑	Interval over which primary sedimentary structure occur
~ ~ ~ ~ ~		Planar laminae
o o o o o	/ / / / /	Wedge-planar laminae/beds
Hard sediments		
/ / / / /	● ● ●	Graded bedding (normal)
	● ● ●	Graded bedding (reversed)
+ + + + +	—	Sharp contact
~ ~ ~ ~ ~	- - - - -	Gradational contact
+ + + + +	~ ~ ~ ~ ~	Scoured, sharp contact
~ ~ ~ ~ ~	~ ~ ~ ~ ~	Scoured contact with graded bed
x x x x x	■	Thick color bands (sharp contact)
	■	Thick color bands (gradational contact)
	■	Medium color bands (sharp contact)
	■	Medium color bands (gradational contact)
	■	Thin color bands (sharp contact)
	■	Thin color bands (gradational contact)
		Laminations (mm scale)
	■	Individual thick color band
	■	Individual medium color band
	■	Individual thin color band
	—	Individual lamination
	~ ~ ~ ~ ~	Wavy lamination
	/ / / / /	Cross laminae
	/ / / / /	Cross stratification
	/ / / / /	Cross bedding
	~ ~ ~ ~ ~	Convoluted/contorted bedding
	~ ~ ~ ~ ~	Flaser bedding
	△	Graded interval, normal
	<	Veins
	~ ~ ~ ~ ~	Water escape structure
	∩	Scour
	◇	Isolated pebbles/cobbles
	◆	Isolated mud clasts
	~ ~ ~ ~ ~	Slump blocks or slump folds
	~ ~ ~ ~ ~	Contorted slump
	X X X X X	Probable compaction fracture
	/ / / / /	Microfault (normal)
	/ / / / /	Microfault (thrust)
	/ / / / /	Macrofault
	/ / / / /	Fracture
	X X X X X	Totally fractured
	~ ~ ~ ~ ~	Vein structures
	~ ~ ~ ~ ~	Color mottles
	~ ~ ~ ~ ~	Dolomite nodule/concretion
	D	Disseminated dolomite
	(P)	Pyrite nodule/concretion
	P	Disseminated pyrite
	(G)	Glauconite
	●	Concretions/nodules
	(Ba)	Barite nodule/concretion
	Ba	Disseminated barite
	(Ca)	Calcite nodule/concretion
	(C)	Carbonate nodule/concretion
	(Ch)	Chert nodule/concretion
	A●	Ash/pumice pods
	-A	Ash layer

Drilling disturbance symbols

Soft sediments

Slightly disturbed

Moderately disturbed

Highly disturbed

Soupy

Hard sediments

Slightly fractured

Moderately fractured

Highly fragmented

Drilling breccia

Sedimentary structures

Burrows, rare (<30% surface area)

Burrows, common (30%–60% surface area)

Burrows, abundant (>60% surface area)

Discrete *Zoophycos* trace fossil

Discrete *Chondrites* trace fossil

Sagarites sponge

Gastropods

Other bivalves

Shell fragments

Wood fragments

Fish debris