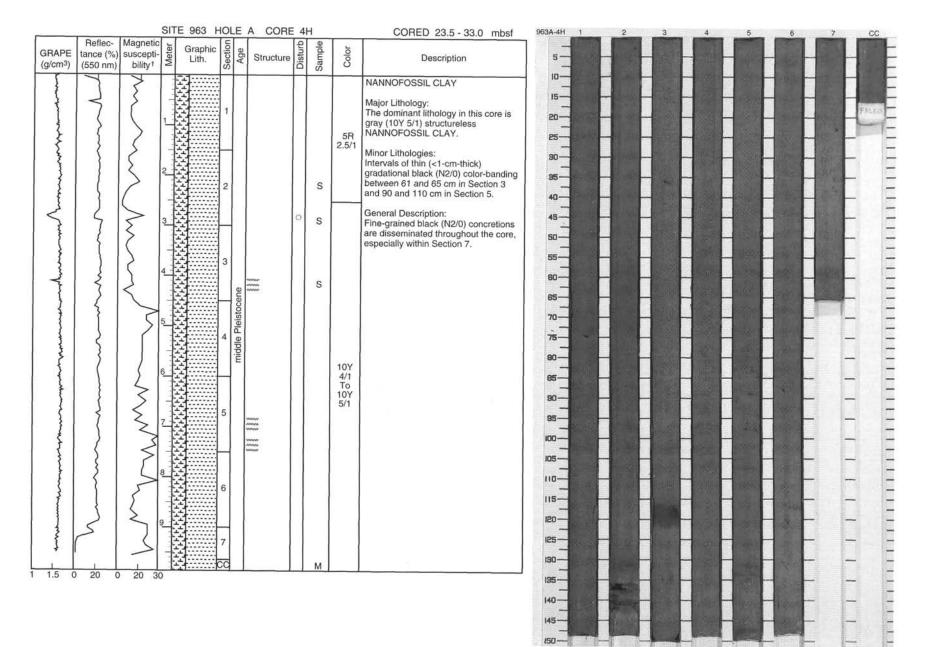


			SIT	E 963 H	IOLI	E A CC	RE 2	H		CORED 4.5 - 14.0 mbsf	963A-2H 1 2 3	4 5	6 7	CC
GRAPE (g/cm ³)	Reflec- tance (% (550 nm)	Magnetic	-	Graphic Lith.	Section		6		Color	Description	s			E
	Monten Manual - 20	March March - 15			1 2 3 4 5 6 7 CC	late Pleistocene		S S I M	5Y 6/3	NANNOFOSSIL CLAY Major Lithology: The sediment in this core is composed of pale olive (5Y 6/3) structureless NANNOFOSSIL CLAY. General Description: Fine-grained black (N2/0) concretions are disseminated throughout the core.				

		SITE 963 H	HOLE	A CORE				CORED 14.0 - 23.5 mbsf	963A-3H 1 2 3 4 5 6 7 CC
GRAPE tance (* (g/cm ³) (550 nr	6) suscepti-	Graphic Lith.	Section	Structure	Disturb	Sample	Color	Description	s=
mutanalymenter was more and the second of the second secon			2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4			S S I S M	5GY 5/1	NANNOFOSSIL CLAY Major Lithology: The sediment in this core consists of gray (5GY 5/1) structureless NANNOFOSSIL CLAY. Minor Lithologies: A coarse-grained (2 mm) quartz sand horizon occurs between 55 and 60 cm in Section 5. General Description: Small black (N2/0) concretions are disseminated throughout the core.	



150---

APE tance (% cm ³) (550 nn	Magnetic 🛌	E 963 HO Graphic Lith.	Section	Structure	Disturb	Sample	Color	CORED 33.0 - 42.5 mbsf Description
			1 1 2 3 4 middle Pleistocene	3		S	10	NANNOFOSSIL CLAY Major Lithology: Sediment in this core consists of gray to light gray (10Y 6/1 to 10Y 7/1) NANNOFOSSIL CLAY. General Description: Thin black (N2/0) color banding (gradational boundaries) occurs between 54 and 60 cm in Section 5 and between 70 and 80 cm in Section 6 6. Faint color mottling occurs between 40 and 80 cm in Section 3. Shell fragments and fine-grained black (N2/0) concretions are disseminated throughout the core.
			5 6 7 CC			S	10Y 6/1	

		SIT	E 963	HO	LE	A COR	E 6			CORED 42.5 - 52.0 mbsf	963A-6H 1 2 3	4 5	6 <u>7</u> C	00
GRAPE tance (% (g/cm ³) (550 nm) suscept	et -	Graph Lith.	Section	Age	Structure	Disturb	Sample	Color	Description	5			E
proprovide and the second seco					middle Pleistocene	-A		S S I	10Y 6/1	NANNOFOSSIL CLAY Major Lithology: This core consists of gray (10Y 6/1) NANNOFOSSIL CLAY. Minor Lithologies: Coarse fragments of ASH, up to 2 mm, consisting of angular quartz, pumice, basaltic(?) glass and minor gypsum. Moderately well sorted with minor upward fining to silt composed predominantly of glass shards. General Description: The core is occasionally speckled with bluish-black flecks and contains bluish- black bands. Sections 3–5 are sparsely mottled with olive-colored sediment. Rare foraminifer-rich patches occur.				

540

SITE 963

1		HOLE	A COF				CORED 52.0 - 61.5 mbsf	963A-7H 1 2	3 4	5	6
GRAPE tance (%) s (g/cm ³) (550 nm)	bility ¹ ≥	Section	Structur	a Disturb	Sample	Color	Description	5			
		9 9 2 4 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			S	10Y 5/1	NANNOFOSSIL CLAY Major Lithology: This core consists of gray (10Y 6/1) NANNOFOSSIL CLAY. General Description: The core is uniformly structureless with occasional bluish-black flecks and rare black bands. Occasional foraminifer- rich horizons.				

S NANNOFOSSIL CLAY Major Lithology: This core consists of greenish gray (5GY 5/1) to gray (5Y 5/1) mainly homogeneous NANNOFOSSIL CLAY. Minor Lithologies: Coarse sandy ASH (up to 2 mm) composed of quartz, pumice, and grading to silt sized pumice (Section 1, 86–96 cm). A bioturbated quartz and pumice ash is present in Section 3, 55–57 cm. Consent Description:					E 963 H			CC					CORED 61.5 - 71.0 mbsf	963A-8H 1 2 3 4 5 6 7 CC
S NANNOFOSSIL CLAY Major Lithology: This core consists of greenish gray (5GY 5/1) to gray (5Y 5/1) mainly homogeneous NANNOFOSSIL CLAY. SGY SGY SGY SGY SGY SGY SGY SGY		E tance (%)	suscepti-	Meter	Graphic Lith.	Section	Age	Struct	ture	Disturb	Sample	Color	Description	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	1 1.5	- 20				2 3 4 5 6 7	0	\$			s s	5/1 5GY 6/1 5GY 5/1	Major Lithology: This core consists of greenish gray (5GY 5/1) to gray (5Y 5/1) mainly homogeneous NANNOFOSSIL CLAY. Minor Lithologies: Coarse sandy ASH (up to 2 mm) composed of quartz, pumice, and gypsum with minor accessory minerals grading to silt sized pumice (Section 1, 86–96 cm). A bioturbated quartz and pumice ash is present in Section 3, 55–57 cm. General Description: Bioturbation is evident from the redistribution of the ash horizons and is especially evident in Sections 4–5, where one 5–7 mm-wide burrow	

	<i>a</i> . <i>M</i> .		TE 963 H							CORED 71.0 - 80.5 mbsf
APE tance	eflec- Magne ce (%) suscep 0 nm) bility	ti- te	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
				2	early Pleistocene-middle Pleistocene	ی پی سر مر		s s s M	5GY 5/1 5Y 5/1 5Y 6/2 5Y 5/3 5/1 5Y 6/1 5Y 6/1	NANNOFOSSIL CLAY Major Lithology: This core consists of gray (5GY 5/1) to light olive gray (5Y 6/2) homogeneous NANNOFOSSIL CLAY. Minor Lithologies: A 12-cm thick graded ASH horizon occurs at Section 6, 30-42 cm. It consists of very angular sand (80%) and silt (20%) primarily composed of glass shards (60%) and pumice (25%) with minor quartz and accessory minerals. General Description: The core is uniformly structureless with occasional bluish-black flecks and rare black bands. Occasional foraminifer-rich and shelly horizons occur. More bioturbation is more apparent than in previous cores.

				E 963 H			CORE				CORED 80.5 - 90.0 mbsf	963A-10H 1 2 3 4 5 6 7 CC
GRAPE (g/cm ³)	tance (%)	Magnetic suscepti- bility1	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description	5
man grander and man and					1		8		S	5GY 5/1	NANNOFOSSIL CLAY Major Lithology: This core consists of gray (5Y 6/1) and greenish gray (5GY 5/1) NANNOFOSSIL CLAY. The paler color is present in more nannofossil-rich sediment. General Description: The core contains common bluish- black flecks throughout. Numerous small shell fragments are present in Sections 1 through 4.	
*****			4.		3	ddle Pleistocene	P			5Y 6/1		
marking between and a second and		Muni	5 6 7 8 8		4	early Pleistocene-middle Pleistocene	***		S	5GY 5/1		
1 1.5	0 20	0 20 3	9		7		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		M	5Y 6/1		

9	Reflec- tance (%) (550 nm)	Magneti suscepti bility ¹	Meter	E 963 I Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description	s — -		
1.5 My My monore many many many many many many many many					1 2 3 4 6 00	early Pleistocene-middle Pleistocene	~~~~~ @ @@ ~~~~~ ~~ @ @@ @@		S	5G 6/1 5GY 6/1 5G 6/1 5G 6/1	NANNOFOSSIL CLAY Major Lithology: This core consists of greenish gray (5GY 6/1 to 5G 6/1) and gray (5Y 6/1) bioturbated and homogeneous NANNOFOSSIL CLAY. Minor Lithologies: 6 horizons of pyrite concentrations are recognized. General Description: The core is uniformly structureless with occasional bluish-black flecks and rare black bands. Occasional foraminifer- rich and shelly horizons occur. Trace fossils A prominent echiuran (?) burrow occurs in Section 1, 23–58 cm.			

145---150--- CC

Deflee	SITE 963 HOLE	A CORE			CORED 98.6 - 108.1 mbsf	963A-12H 1 2 3	4 5	6 7
RAPE tance (%) su	agnetic scepti- bility ¹ Graphic Lith. be	Structure	Disturb	Color	Description	5-Verb		
/(cm ³) (550 nm)		(P) (P) (P) (P) (P) (P) (P) (P) (P) (P)	\square	5Y 5/1 5Y 6/1 5Y 6/1 5Y 6/1 5Y 6/1	NANNOFOSSIL CLAY Major Lithology: This core consists of gray to pale gray (SY 5/1 to 5Y 6/1) NANNOFOSSIL CLAY. Minor Lithologies: Thin, nannofossil-rich ash at Section 1, 97–100 cm. General Description: The core contains common bluish- black flecks and rare black bands. Burrowing is accentuated near the boundaries of color changes present in Sections 3 and 4.			

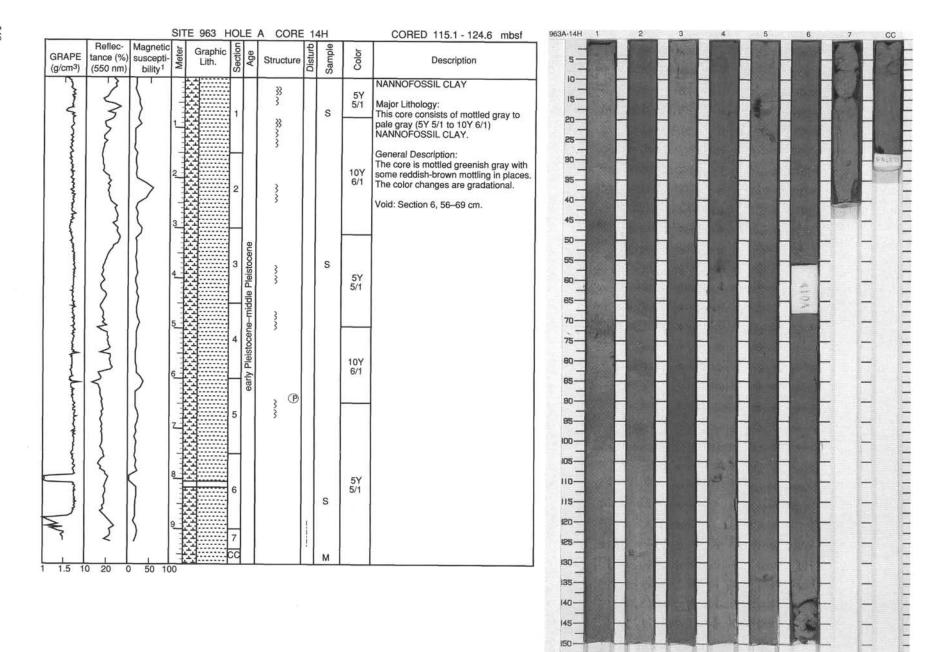
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		SIT	E 963 H	101	LE	A CORE	13	ЗH		CORED 108.1 - 115.1 mbsf	963A-13H 1	2 3	4	5
GRAPE tance (%) (g/cm ³) (550 nm)	Magnetic suscepti- bility ¹	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description	5		-	-
		The second second		1 2 3 4 5	early Pleistocene-middle Pleistocene	₽ >> ₽ >> > > > ₽ >> > > > ₽ > > > > ₽		S S	5GY 5/1	NANNOFOSSIL CLAY Major Lithology: This core consists of greenish gray (5GY 5/1) NANNOFOSSIL CLAY. General Description: Disseminated black flecks occur throughout in addition to pyritized burrows. A reddish brown mottling occurs in Section 4, 45–70 cm and in Section 5.				

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		SITE 963	HOLE	A COR				CORED 124.6 - 133.6 mbsf	963A-15H 1 2	3 4	5	6 CC
GRAPE tance (%) (g/cm ³) (550 nm)	Magnetic suscepti- bility ¹	Graphic Lith.	Section	Structure	Disturb	Sample	Color	Description	- 5			
M			1	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			10Y 5/1 10Y 6/2	NANNOFOSSIL CLAY Major Lithology: This core consists of gray to light gray (10Y 5/1 to 10Y 6/2) NANNOFOSSIL CLAY.				
- Anna - Anna	{		2 2	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		s	10Y 5/1	General Description: The core is speckled with bluish black. In the gradational zones between pale flecks to dark color changes, burrows are evident. A 2 cm by 5 mm piece of partly pyritized charcoal is present in Section				entres Autorite Male
	}	4	S middle Plais	Nor		S	10Y 6/1 10Y	5, 37 cm.	50 — — — 55 — — — 80 — —			
	$\left\{ \right.$	5	φατίν Plaistoreno - middla Plaistoreno	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		S	5/1 10Y 4/2					
		6		β β		L	10Y 5/1					
	}		5				10Y					
1 1.5 0 20 0	I 0 50 10	8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	cc			М	4/1					
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									190 — — — — — — — — — — — — — — — — — — —			= -
									140	IW		

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SITE 963 HOLE A CORE 16H CORED 133.6 -	143.1 mbsf 963A-16H 1 2 3 4 5 6 7 CC
Reflec- GRAPE Magnetic tance (%) to suscepti- bility1 to to W Graphic Lith. Co BO W Bructure BC Structure C Dife C Dife C Descript	
ANNOFOSSIL CLAY Major Lithology: This core is composed and the lock and shell disseminated through Sight bioturbation alte black fields and shell disseminated through Sight bioturbation alte black color banding, et Sections 2 to 6. 10Y 6/2 10Y 6/1 10Y 6/1 10Y 10Y 10Y 10Y 10Y 10Y 10Y 10	of gray to light /2) structureless ragments are ut the core. 35

550

		SITE	= 963 F		A CORE				CORED 143.1 - 151.5 mbsf	963A-17H 1	2	3	4	5	6
GRAPE tance (% (g/cm ³) (550 nm)	Magnetic suscepti- bility ¹	Meter	Graphic Lith.	Section	Structure	Disturb	Sample	Color	Description	5					
				1	400000 A00000 400000			10Y 5/1	NANNOFOSSIL CLAY Major Lithology: Sediment in this core consists of gray to light gray (10Y 5/1 to 10Y 6/2) NANNOFOSSIL CLAY. General Description:	- 10 					
	<pre>}</pre>			cene c	3			10Y 6/2	Black flecks and shell fragments are disseminated throughout the core. Black color banding occurs in Section 1 at 100 crn. Levels of bioturbation increase downcore, especially through Sections 5 and 6.						
	Lun			cene-middle Pleistocene											
		10 10 10 10 10 10 10 10 10 10 10 10 10 1		early Pleistocene-	3			10Y 5/1		70					
hutran	ł	CELECECECECECECECECECECECECECECECECECEC		5	33					90— 					- - - :7
Marrie Marrie	5	100 100 100 100 100 100 100 100 100 100		6 CC	33					105					1

SITE 963

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Defle			E 963 H	Te			Lol			CORED 151.5 - 156.5 mbsf		ACCOUNT OF STREET	i Strinne	
(g/cm ³) Reflec- tance (%) (550 nm)	Magnetic suscepti- bility ¹	Meter	Graphic Lith.	Section	Age	Structure	Disturt	Sample	Color	Description	5	-		
- Wring		4 5 0		1 2 3 4 CC	early Pleistocene-middle Pleistocene	33		I	5Y 5/1 5Y 6/2	NANNOFOSSIL CLAY Major Lithology: The sediment in this core is dominated by gray (5Y 5/1) and light olive gray (5Y 6/2) moderately to well- bioturbated NANNOFOSSIL CLAY. General Description: Black flecks and shell fragments are disseminated throughout the core. A pyritized shell fragment occurs at Section 2, 7 cm.				

			SIT	E 963 H			A CORE				CORED 156.5 - 162.5 mbsf	963A-19H	1	2	3	4	5
GRAPE tance (g/cm ³) (550	lec- ∋ (%) nm)	Magnetic suscepti- bility ¹	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description	5-					
	}				1					5Y 6/1 To 5Y 7/1	NANNOFOSSIL CLAY Major Lithology: The sediment in this core consists of moderately bioturbated gray (5Y 5/1) and light gray (5Y 7/1) NANNOFOSSIL CLAY. Many of the gray (5Y 5/1)			A CONTRACT			
)	<	2 3		2	Pleistocene	33				intervals contain burrows which are infilled/highlighted with light gray (5Y 7/1) sediment. General Description: A 41 cm void occurs at the bottom of Section 1. Black flecks and shell fragments are disseminated throughout the core.						
		$\langle \rangle$	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		3	early	33			5Y 5/1 To 5Y 7/1		50 55 60 1 65					
		{	5		4		ø		м								
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GRAPE	Reflec- tance (%) (550 nm)	Magnetic suscepti- bility ¹	Meter	Graphic Lith.	Section	B Structu	Disturb	Sample	Color	Description	s		
Exmense-	~	5			1	······································		s s	5Y 7/1 To 5Y 5/1	NANNOFOSSIL CLAY Major Lithology: This core is composed of gray and very dark gray (5Y 3/1 and 5Y 5/1) pyrite-rich NANNOFOSSIL CLAY alternating with light gray (5Y 7/1)			
		$\left \right\rangle$	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		2				5Y 7/1 To 5Y 5/1	NANNOFOSSIL ČLAY. The upper boundaries of the dark colored horizons are gradational and in most cases, highlighted by moderate levels of bioturbation. General Description: Black flecks and shell fragments are	30		Paulte
the second second	$\left\{ \right\}$	5	4		3	y Pleistocene		s		disseminated throughout the sediment in this core. Drilling slurry occurs at the base of the Core Catcher.	50 — — — — — — — — — — — — — — — — — — —	-	-
winner			5		4	early			5Y 7/1 To 5Y 3/1		70 — — — — — — — — — — — — — — — — — — —		-
	{	$\left \right\rangle$	6		5	*		s			85— — — 80— — — 85— — —		E
ł	5	5	2		co				5Y 7/1				-
1.5	0 20	0 50 1	00				×	M					-

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GRAPE (g/cm ³)	Reflec- tance (%) (550 nm)	Magnetic suscepti- bility ¹	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description	5 — 10 —			
Man man to a proper and a proper and a proper and a second and the second secon	and the second s		1 2 4 5 6 00		1 2 3 4	early Pleistocene	3 - P 3 P		S S S	5Y 7/1	NANNOFOSSIL CLAY Major Lithology: This core consists of light gray (5Y 7/1) slightly bioturbated NANNOFOSSIL CLAY. A very dark gray pyrite-rich NANNOFOSSIL CLAY horizon occurs in Section 2 between 20 and 65 cm. The upper 10 cm of the interval is moderately to heavily bioturbated . From 40 to 60 cm the dark colored horizon is color-banded (less than 0.5–1 cm in thickness). General Description: Black flecks and shell fragments are disseminated throughout the core.	10 20 25			

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SITE 963

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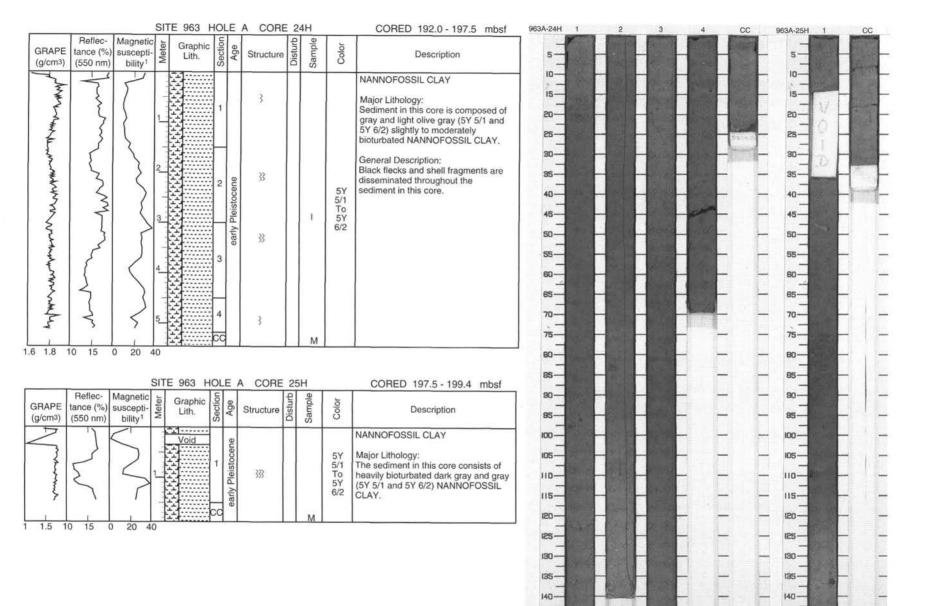
GRAPE (g(cm)) Telecondo Magnetic (source) isource)				SIT	E 963	HOI	E	A CORE	2	ЗH		CORED 186.0 - 192.0 mbsf	963A-23H 1	2	3	4
ANNNOFOSSIL CLAY Major Linblogy: The sediment in this core consists of gray and dark gray (5Y 6/1 and 5Y 4/1) moderately biotucated MANNOFOSSIL CLAY. In Section 1, 15 the sediment in this core consists of gray and dark gray (5Y 6/1 and 5Y 4/1) moderately biotucated NANNOFOSSIL CLAY. In Section 1, 15 the sediment in this core consists of gray and dark gray (5Y 6/1 and 5Y 4/1) moderately biotucated NANNOFOSSIL CLAY. In Section 1, 15 the sediment in this core consists of gray and dark gray (5Y 6/1 and 5Y 4/1) moderately biotucated NANNOFOSSIL CLAY. In Section 1, 15 the sediment in the core consists of gray and dark gray (5Y 6/1 and 5Y 4/1) moderately biotucated NANNOFOSSIL CLAY. In Section 1, 15 the sediment in the core consists of gray and dark gray (5Y 6/1 and 5Y 4/1) moderately biotucated Solutionary and a merging lower boundary and a merging lower boundary. The horizon contains no visible structures. Solutionary and a merging lower boundary and a merg		tance (%)	suscepti-	Meter		Section	Age	Structure	Disturb	Sample	Color	Description	-			
	- However and provident way	Vir many my man -5	0 25	1		3	early Pleistocene				4/1	Major Lithology: The sediment in this core consists of gray and dark gray (5Y 6/1 and 5Y 4/1) moderately bioturbated NANNOFOSSIL CLAY. In Section 1, 16 through 64 cm an interval of pyrite- rich NANNOFOSSIL CLAY occurs. This horizon has a sharp upper boundary and a merging lower boundary. The horizon contains no visible structures. General Description: Black flecks are disseminated				

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			SITE 963	HO	LE	B CORE	E 11	H		CORED 0.0 - 9.0 mbsf	963B-1H 1	2	3 4	5	6 CC
GRAPE (g/cm ³)	Reflec- tance (%) (550 nm)	Magnetic suscepti- bility1	Maraph Maraph Lith.		Age	Structure	Disturb	Sample	Color	Description	5-	- 655 - [
	man -2			1	late Pleistocene			М	5Y 6/3 5Y 5/2	NANNOFOSSIL CLAY Major Lithology: The sediment in this core consists of olive gray (5Y 5/2) and pale olive (5Y 6/3) structureless NANNOFOSSIL CLAY. General Description: Black flecks are disseminated in the sediment below Section 2.					

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135-

140-145-150-

-21

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SITE 963 HOLE B CORE 2H CORED 9.0 - 18.5 mb	st 963B-2H 1 2 3 4 5 6 7 CC
Reflec- (g/cm ³) Magnetic (s50 nm) Magnetic suscepti- bility ¹ Graphic W D Structure W D Structure	
NANNOFOSSIL CLAY Major Lithology: This core consists of olive gray (5Y 52) structureless NANNOFOSSIL CLAY. This core consists of olive gray (5Y 52) structureless NANNOFOSSIL CLAY. Black flexis and disseminated throughout the sediment in this core between 140 and 150 cm. 5 5 5 5 5 5 5 5 5 5 5 5 5	

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			SITE 963			B CORE			CORED 18.5 - 28.0 mbsf	963B-3H 1 2 3	4 5
GRAPE (g/cm ³)	Reflec- tance (%) (550 nm)	Magnetic suscepti- bility ¹	Wete Lith	hic .	Age	Structure	Disturb	Color	Description	5	
1	}	{	200		Π				NANNOFOSSIL CLAY	10	
munture	mon		1 2	2					Major Lithology: The sediment in this core consists of olive gray and gray (5Y 5/2 and 5Y 6/1) structureless NANNOFOSSIL CLAY. Minor Lithology: Two ash beds are present in this core: 20–40 cm in Section 3 and between 20 and 40 cm in Section 7.		
many from	Yw			3		-A			General Description: Black flecks are disseminated throughout the sediment in this core.		
warman and a state of the state				4	late Pleistocene			5Y 5/2 To 5Y 6/1			
			6 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	5							
	1	$\left\{ \right\}$		6							
<u>}</u>	4	>	9 	7		-A		4			
1.5	0 20	0 20 4	0								

GRAPE Reflex: Susception Signed by Susception Signed by Susception (g(pm)) Signed by Susception Signed by Susception Signed by Susception Signed by Susception (g(pm)) Signed by Susception Signed by Susception Signed by Susception Signed by Susception (g(pm)) Signed by Susception Signed by Susception Signed by Susception Signed by Susception (g(pm)) Signed by Susception Signed by Susception Signed by Susception Signed by Susception (g(pm)) Signed by Susception Signed by Susception Signed by Susception Signed by Susception (g(pm)) Signed by Susception Signed by Susception Signed by Susception Signed by Susception (g(pm)) Signed by Susception Signed by						B COR				CORED 28.0 - 37.5 mbsf	963B-4H 1	2 3	4	5	6	CC
ANNOPOSSIL CLAY Misc core existent of ray well bits bits core existent of ray well bits core existent of ray well bits bits core existent of ray well bits core existent of ra	GRAPE tance	(%) suscepti	Meter T	aphic ith.	Age	Structure	Disturb	Sample	Color	Description						
	Munumul -				1 2 3 4 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	www www waa	9		5/1 To 5Y	Major Lithology: This core consists of gray and light olive gray (5Y 5/1 and 5Y 6/2) structureless NANNOFOSSIL CLAY. General Description: Black concretions are disseminated						

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		SITE 963	HOLE	B CORE			CORED 37.5 - 47.0 mbsf	963B-5H 1 2 3 4 5 6 7 CC
GRAPE tance (g/cm ³) (550 r	ec- (%) suscepti- bility ¹	Graphic Graphic Lith.	Section	Structure	Disturb Sample	Color	Description	
	0 25		D L 9 1 5 7 1 <th1< th=""> <th1< th=""> <th1< th=""> <th1< th=""></th1<></th1<></th1<></th1<>	3	м	5Y 6/2 5Y 6/1 5Y	NANNOFOSSIL CLAY Major Lithology: The sediment in this core consists of olive gray (5Y 6/1 and 5Y 6/2) structureless NANNOFOSSIL CLAY. General Description: Occasional black pyritic flecks and minor banding are disseminated throughout this core.	

	5	SITE 963 HOL						CORED 47.0 - 56.5 mbsf	963B-6H 1	2 3	4 5	6	CC
GRAPE tance (%) su	agnetic scepti- bility ¹	Graphic Cection	Age	Structure	Disturb	Sample	Color	Description	5				
			early Pleistocene-middle Pleistocene	↑ F -А Р 8 8 Р (Р)		М	5GY 5/1	NANNOFOSSIL CLAY Major Lithology: This core consists of greenish gray (5GY 5/1) structureless NANNOFOSSIL CLAY. Minor Lithology: A coarse grained 12-cm-thick upward- fining tuff with a sharp bottom and gradational upper contact occurs at 10 cm depth. The major components of this tuff are quartz, pumice, and obsidian fragments up to 2 mm in size. General Description: Black flecks and shell fragments are disseminated throughout this core. Isolated thin bands of finely disseminated pyrite are also present.					

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		SI	TE 963 H	OLE	B CORE	7H		CORED 56.5 - 66.0 mbsf	963B-7H 1	2 3	4	5 CC	0
GRAPE tan	eflec- Magn ce (%) susce 50 nm) bilit	pti- te	Graphic Lith.	Section Age	Structure	Sample	Color	Description	5				2-
1 1.5 0		- 2_ 3_ - 4_ - 5_ - - 5_ - - - - - - - - - - - - -		C C C C C C C C C C C C C C C C C C C	Р Р Р Р Р Р Р Р Р Р Р Р Р	M	5GY 5/1	NANNOFOSSIL CLAY Major Lithology: This core consists of structureless olive gray (5Y 5/1) NANNOFOSSIL CLAY with occasional thin bands and nodules of finely disseminated pyrite. Minor Lithology: A coarse-grained TUFF, 6 cm thick, occurs at 14 cm in Section 5. It consists of coarse sand-sized fragments of quartz, pumice, and obsidian and exhibits crude normal grading from a sharp base.	20-				

150-

15-14-1

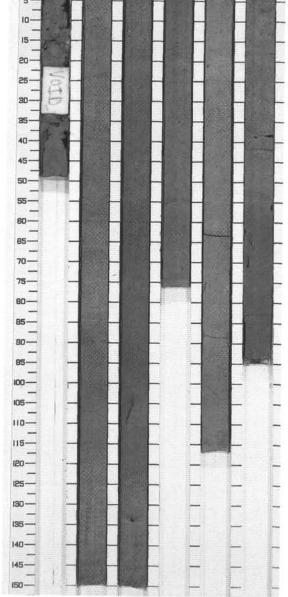
SITE 963

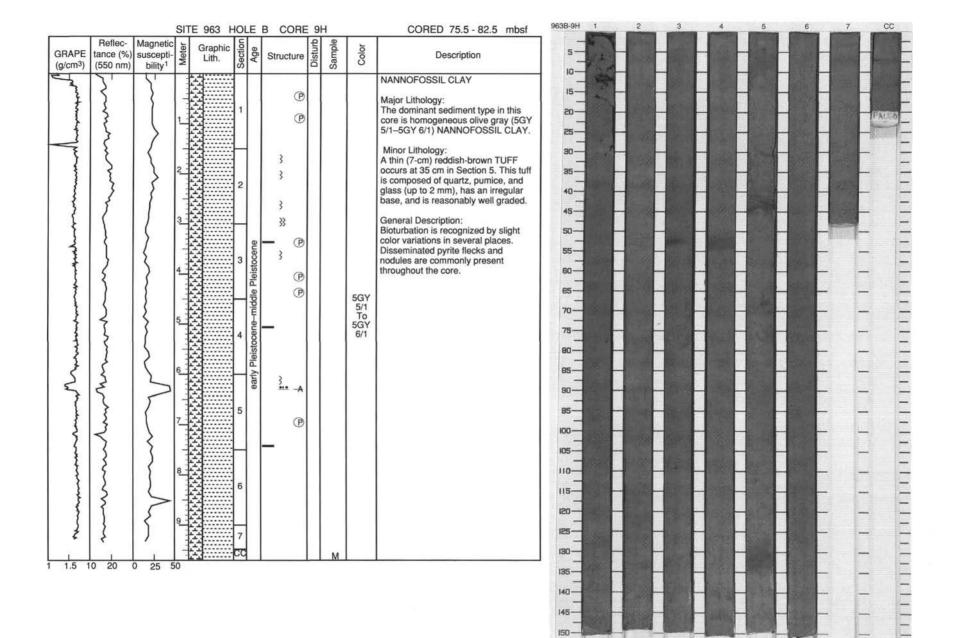
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No.14

		SITE	E 963 H	HOL	E	B CORE	8			CORED 66.0 - 73.0 mbsf	963B-8H 1	2	3	4	5	CC
GRAPE tance (%) (g/cm ³) (550 nm)	Magnetic suscepti- bility ¹				Age	Structure	Disturb	Sample	Color	Description	5			H	-	
1.5 10 20 0	25 50			2	early Pleistocene-middle Pleistocene	∝ [∞] [∞] [∞] [∞] [∞] [∞] [∞]		M	5Y 5/1 To 5Y 6/1	NANNOFOSSIL CLAY Major Lithology: The sediment in this core is structureless olive gray (5Y 5/1–5Y 6/1) NANNOFOSSIL CLAY. General Description: The sediment in this core contains occasional disseminated pyrite nodules and exhibits minor bioturbation. Void: Section 1, 20–35 cm.						





SITE 963 HOLE B CORE 10H CORED 82.5 - 92.0 mbsf	963B-10H 1 2 3 4 5 6	7	
GRAPE (g/cm ³) Reflec- suscepti- bility ¹ Magnetic tap bility ¹ tap bility ¹ Graphic bility ¹ tap bility ¹ <thtap bility¹ <thtap bility¹ <th colu<="" td=""><td></td><td></td></th></thtap </thtap 	<td></td> <td></td>		
ANNOFOSSIL CLAY Major Lithology: The sediments in this core are olive gray (57 5/1–57 6/1) homogeneous NANNOFOSSIL CLAY Major Lithology: The sediments in this core are olive gray (57 5/1–57 6/1) homogeneous NANNOFOSSIL CLAY General Description: Occasional paler horizons and black flecks of disseminated pyrite are present throughout the core. A small normal fault with a throw of a few cm occurs toward the base of Section 3. 51,75 10 20 0 20 40 Major Lithology: The sediments in this core are olive gray (57 5/1–57 6/1) homogeneous NANNOFOSSIL CLAY General Description: Occus toward the base of Section 3. 51,75 10 20 0 20 40 M			

135 | 140 | 145 |

150-

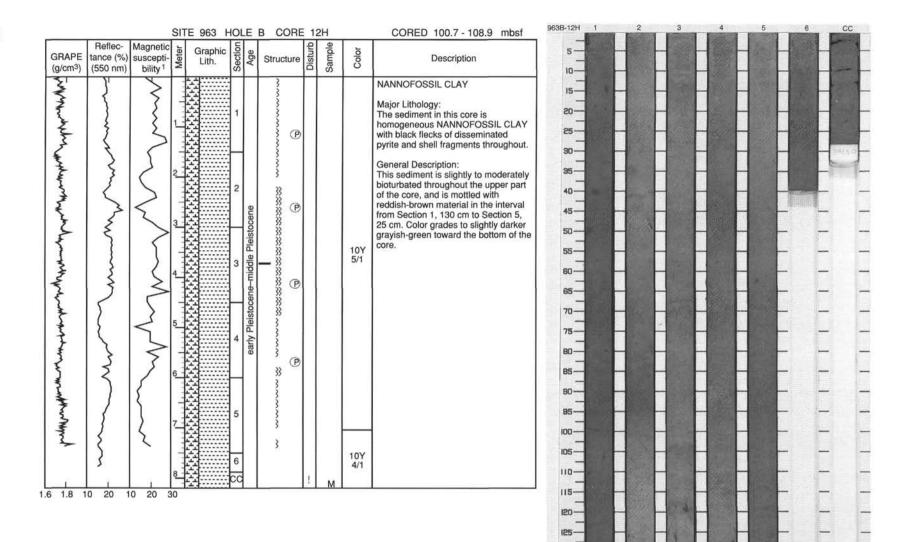
181

Sile Sile Sile Sile Sile Sile Sile Sile GRAPE tance (%) suscepti- bility1 to bility1 to bility1 Sile Sile Sile Sile Sile Graphic Sile Sile Sile Sile Sile Sile Sile Sile Graphic Sile Sile Sile Sile Sile Sile Sile Graphic Sile Sile Sile Sile Sile Sile Sile	5- 10-
ANNNOFOSSIL CLAY Major Lithology: The sediment in this core is gray homogeneous (10% 5/1 to 5Y 6/2) NANNOFOSSIL CLAY with concessional black flecks of disseminated pyrite throughout. General Description: Trace tossils are present in Section 2 from 50 to 82 cm; Chondrites fill large vertical burrows.	

140-145-150-

SITE 963

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570

GRAPE tance (%) (g/cm ³) (550 nm)	Magnetic suscepti- bility ¹	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description	5			
				1	early Pleistocene-middle Pleistocene	P <p< td=""><td>1</td><td>М</td><td>10Y 5/1 To 10Y 6/1</td><td>NANNOFOSSIL CLAY Major Lithology: The sediment in the core is gray (10Y 5/1 to 10Y 6/1) homogeneous NANNOFOSSIL CLAY. General Description: Black flecks of pyrite and shell fragments are disseminated throughout this core.</td><td>15-14-</td><td></td><td></td><td></td></p<>	1	М	10Y 5/1 To 10Y 6/1	NANNOFOSSIL CLAY Major Lithology: The sediment in the core is gray (10Y 5/1 to 10Y 6/1) homogeneous NANNOFOSSIL CLAY. General Description: Black flecks of pyrite and shell fragments are disseminated throughout this core.	15-14-			

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130 | 135 | 140 |

145--150-

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	SITE 963 I						CORED 116.9 - 126.4 mbsf	963B-14H 1	2 3	4	5	6 7
GRAPE tance (%) suscepti- (g/cm ³) (550 nm) bility ¹	Graphic Lith.	Section	Structure	Disturb	Sample	Color	Description	s				
- Approxim Jan million and marked and the month of the second sec				•	м	5/2	NANNOFOSSIL CLAY Major Lithology: The sediment in this core is homogeneous, gray to very dark gray (10Y 5/1 to 10Y 4/1) NANNOFOSSIL CLAY. General Description: Black flecks and small shell fragments are disseminated throughout this core. Bioturbation is slight to moderate. This sediment shows flow-in structure (core disturbance) through Sections 6 and 7.	15 15 20 25				

Image: Second			S	ITE 963					CORED 126.4 - 135.9 mbsf	963B-15H 1	2 3	4	5	6	7 CC	
Image: Section of the section of t	GRAPE (g/cm ³	E tance (%) su (550 nm)	agnetic uscepti- bility 1	Graphic Lith.	Section	Structure	Disturb	Color	Description	-100						E
					4 http://www.concepted.inforce.com	× ************************************	5	10Y 5/1 10Y 6/1 10Y 5/1 5/2 5/2 5/2 5/1 5Y 4/1	Major Lithology: The sediment in this core is a gray to dark gray (10Y 5/1 to 5Y 4/1) NANNOFOSSIL CLAY. General Description: Black flecks and small shell fragments are disseminated throughout the core. All color changes are gradational except that at the top of Section 5 (5Y 4/1 to 10Y 5/1), which is a sharp color							

	SITE 963 H			-			CORED 135.9 - 142.4 mbsf	963B-16H 1	2	3	4	5	CC
GRAPE Reflec- Magnet suscept g/cm ³) (550 nm) bility ¹	ic a Graphic i- Hat Graphic Lith.	Section	Structure	Disturb	Sample	Color	Description	5		-			
The second secon		1 2 3 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	****		м	5Y 5/1 To 5Y 6/1	NANNOFOSSIL CLAY Major Lithology: The sediment in this core is gray (5Y 5/1 to 5Y 6/1) NANNOFOSSIL CLAY. General Description: Black flecks and shell fragments are disseminated throughout this core. This sediment is often moderately bioturbated, with <i>Planolites</i> and <i>Chondrites</i> common; <i>Zoophycos</i> burrows are common in Section 2, 25 cm; vertical burrow in Section 3.						

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	SITE 963						CORED 142.4 - 148.9 mbsf	963B-17H 1	2	3	4	5	CC
GRAPE tance (%) susce (g/cm ³) (550 nm) bilit	pti- y ¹ Sraphic Lith.	Section	Structur	Disturb	Sample	Color	Description	5		1	H		
		2 2 3	early Pleistocene	M	м	5Y 5/1 5/1	NANNOFOSSIL CLAY Major Lithology: The sediment in this core is a gray (5Y 5/1 to 5Y 6/1) NANNOFOSSIL CLAY. General Description: Black flecks are disseminated throughout the sediment in this core.	10					

145-150-

1 1.5 10 20 20 40 60

SITE 963

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			E 963 H	IOL	EE	B CORE				CORED 148.9 - 158.4 mbsf	963B-18H 1 2 3 4 5 6 7 CC
GRAPE tance (% (550 nm)) Magnetic) suscepti) bility ¹	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description	
Marine -20				1 2 3 4 5 6 7 CC	early Pleistocene		0 0 0	М	5Y 6/1 To 5Y 5/1	NANNOFOSSIL CLAY Major Lithology: The sediment in this core is gray (5Y 6/1 to 5Y 5/1) NANNOFOSSIL CLAY. General Description: Black flecks and shell fragments are disseminated throughout the core, and a whole gastropod shell is present at Section 6,136 cm. The sediment is disturbed with flow-in Section 6.	

GRAPE (g/cm ³)	Reflec- tance (%) (550 nm)		Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	CORED 158.4 - 165.4 mbsf Description	963B-19H
					1			×		5Y 6/1	NANNOFOSSIL CLAY Major Lithology: The sediment in this core is a gray to dark gray (5Y 6/1 to 5Y 4/1) NANNOFOSSIL CLAY.	10
	{	ζ	2111		2		***			5Y 4/1	General Description: Slight to heavy bioturbation (including Zoophycos) occurs throughout the core. Black flecks and shell fragments	30
	}	{			-	Pleistocene	*****			5Y 6/1	are present throughout the core. This core exhibits large scale gradational color banding from gray to dark gray. One distinct 3-cm-thick dark band crosses the core obliquely at Section 1, 57 cm.	40 45 50
and	$\left\{ \right $	5	4		3	early Ple	° *****			5Y 4/1		55
	}	{	5				***			5Y 6/1		65—
	$\langle $	\geq			4		***			5Y 4/1		
		\leq	6 1 1 1	Void	5		***			5Y 6/1		85
3)	7	1	<u>.</u>			**		м	0/1		85-

1 2 0 20 0 50 100

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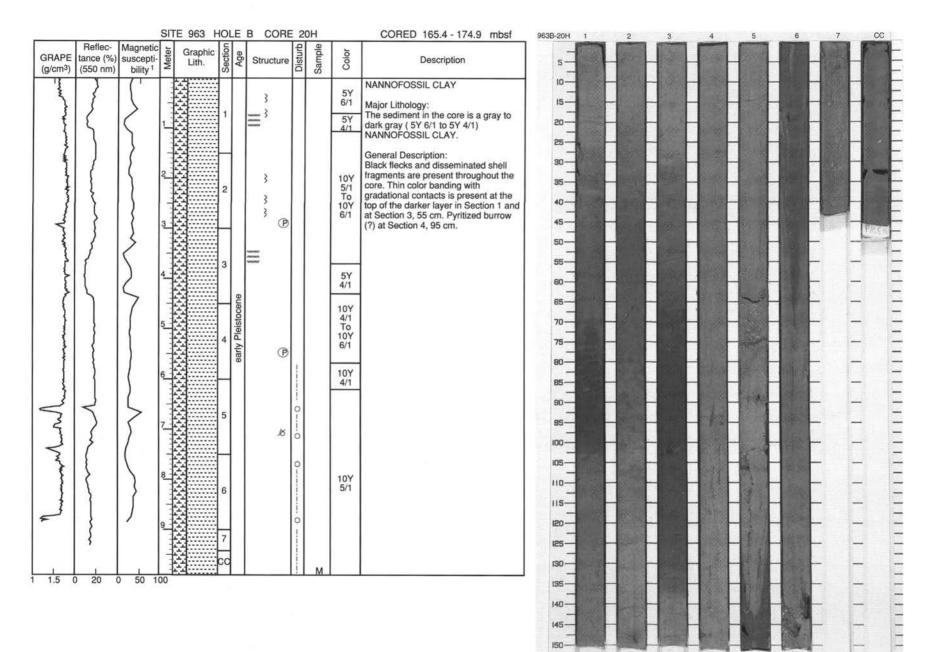
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SITE 963

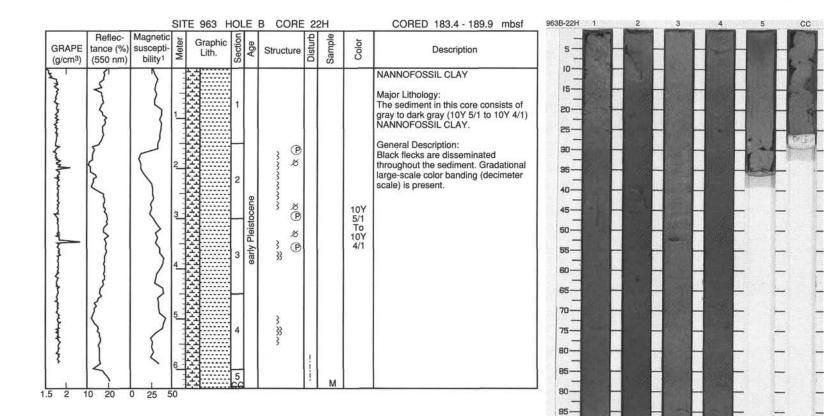


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SITE 963

	SITE 963	HOL	E B CC				CORED 174.9 - 183.4 mbsf	963B-21H 1 2	3 4 5	6	7	0	00
GRAPE (3/2007) (g/cm ³) (550 nm) (3/2007) (g/cm ³) (3/2007)	i ^c a Graphi i- W Lith.	Section	B Struct	ure	Sample	Color	Description	5			H		
			early Pleistocene	P P	M	5Y 6/1	NANNOFOSSIL CLAY Major Lithology: The sediment in this core is homogeneous gray (5Y 6/1) NANNOFOSSIL CLAY. General Description: Black flecks and shell fragments are disseminated throughout this heavily bioturbated core.						

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-120--125-130-135-140-145-150-

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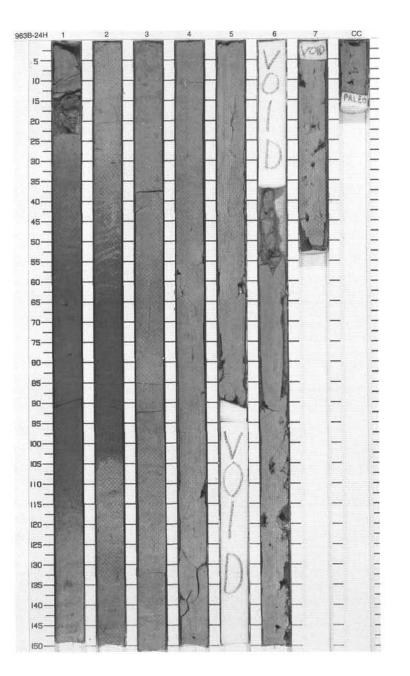
GRAPE Reflec: Magnetic Graphic Graphic			SIT	E 963 H			ORE	2			CORED 189.9 - 197.5 mbsf	963B-23H	1	2 3	3	4	5	CC
A A <td>tance (%)</td> <td>suscepti-</td> <td>Meter</td> <td>Graphic Lith.</td> <td>Section</td> <td>B Struc</td> <td>ture</td> <td>Disturb</td> <td>Sample</td> <td>Color</td> <td>Description</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	tance (%)	suscepti-	Meter	Graphic Lith.	Section	B Struc	ture	Disturb	Sample	Color	Description							
				Void	3			WWWWWW WW	S	6/1 5Y 4/1	Major Lithology: The sediment in this core consists of light gray and gray (5Y 6/1 and 5Y 4/1) moderately bioturbated NANNOFOSSIL CLAY. The interval between Section 1, 140 cm and Section 2, 70 cm is darker in color (gray) and is a pyrite-bearing NANNOFOSSIL CLAY. General Description: Black flecks are disseminated							

SITE 963

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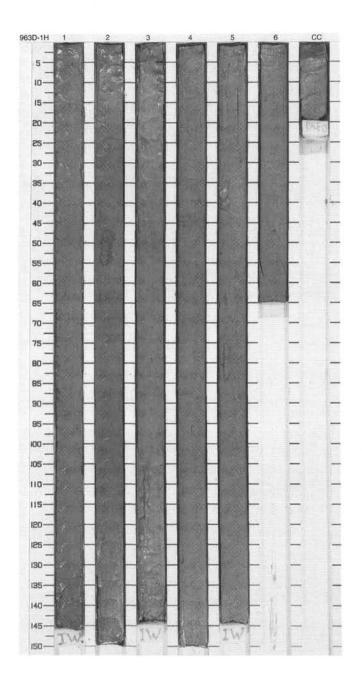
INIAIAI	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
and and and		1		3 »» 33 »» P	H		5Y 5/1 5Y 4/1	NANNOFOSSIL CLAY Major Lithology: The sediment of this core is a dark gray (5Y 5/1–5Y 6/1) NANNOFOSSIL CLAY.
TATA ATA ATA ATA ATA ATA ATA ATA ATA AT		2		ॐ ≫ ■ P P		S S	8	Minor Lithologies: Two darker pyrite-bearing horizons occur in Section 1, 70–120 cm, and Section 2, 40–110 cm. Both are heavily bioturbated (<i>Zoophycos</i> and <i>Chondrites</i> (?)) toward the top. The latter is laminated below the bioturbated zone.
it is a second second		3	tocene	} P			5Y 5/1 To 5Y 6/1	General Description: Disseminated pyrite flecks and occasional significant bioturbation are present throughout this core.
Three Lands and a state of the		4	early Pleistocene		×			
TITLET TITLE		5			XXX			
ard rate	Void	_						
Trifferan In		6			XXXXX		5Y 6/1	
11111		7 CC			(XXX) XXX	м		

Hole 963C was not described.



	_	FE 963 H						1	CORED 0.0 - 8.4 mbsf
suscepti- bility1	Meter	Graphic Lith.	Sectio	Age	Structure	Distur	Sample	Color	Description
}	1		1					10YR 6/2 To 10YR 6/4	NANNOFOSSIL CLAY Major Lithology: The sediments in this core are light brown gray to greenish gray (10YR 6/2-5GY5/1) homogeneous
Marry	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		2		P } P		1	5GY 2/1	NANNOFOSSIL CLAY. General Description: Scattered black flecks and thin diffuse bands of disseminated pyrite are common throughout.
22			3		_ } ®		1	5GY 5/1	
$\left\{ \right\}$	5		4		@ _			10YR 6/4	
			5		} P		1	5GY 6/1	
	Magnetic suscepti-	Magnetic suscepti-	Magnetic a Graphic suscepti-	Magnetic suscepti- bility ¹					

1.2 1.4 0 10 20



SITE 963