Site 1039, Hole A, Core 1H - Cored: 0.00 - 9.00 mbsf

1039A-1H

Image: Section of the section of t									
1 1	Meters Section	Babhic lithology Graphic lithology silt clay	Alteration Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Consolidation/Lithification	Remarks
						Py		DIATOMACEO WITH SILTY S/ Major lithology: Olive green dial spicules and ra- minor lithologie 1) Silty fine: to 1 with abundant (amphibole, volc 2) Silt-to day 2) Silt-to day zone is Fe reduced vug diameter = Vug with crysta vug diameter =	US OOZE INTERBEDDED INND iomaceous ooze with sponge diolaria, silt-clay size. s: medium sand with nannofossils, juart and fledbapar, also anic glass and framboidal pyrite. size feldspathic ash layers with ossils. uudine section); brown: colored douction zone. To zown: colored douction zown. To zown: colored douction zown: co

Site	1039, Hole A, Core	2H - Core	d: 9.00 - 1	8.50 n	nbsf			
Meters Section	Gaphic lithology	Alteration Primary structures	Fossis	Samples	Diagenesis	Deformational structures	Core disturbance Consolidation/Lithification	Remarks
								DATOMACEOUS OOZE INTERBEDDED WITH ASH LAYERS Major lihology: Olive green to dark olive green diatomaceous ooze with radiolarians, sponge spicules and trace silicoflagellates, grain size is clay to silt. Minor lithologies: 1) Dark gray ash pods and layers. Ash layers are from 5 cm to 14 cm thick. Sharp basal contacts grading upward into diatomaceous ooze. 2) Thin silly layers and fine to medium sand layers with shell fragments.

252

Site 1039, Hole A, Core 3H - Cored: 18.50 - 28.00 mbsf

1039A-3H

Meters Section	Graphic tithology	Alteration Primary structures	Fossis	Samples	Diagenesis	Deformational structures	Core disturbance Consolidation/Lithification	Remarks
		₽ -₽₽₽ -₽ -₽		SS SS SS SAM	PY ↑ PY ↓ PY PY PY PY PY PY PY PY			DIATOMACEOUS OOZE INTERBEDDED WITH ASH LAYERS Major lithology: Olive green diatomaceous ooze. Grain size: silty clay. Minor lithology: Several pyrite rich ash pods and ash layers. Alteration horizon that occupies the left half (A) of the core width. The edge is irregular and outlined by a dark gray line, rich in pyrite framboids. Alteration is formed by irregularly alternating levels of lighter (refer to smear s. core 3, sec. 1, 78.5 cm) and darker (refer to smear s. core 3, sec. 5, 89 cm) material. Nodule, probably pyrite.
-7		₩ - 7 -	- 2 - 2 - 2	— SS	← <u>z</u> →0 0 0		-	 Nodule, probably pyrite. Module, probably pyrite. Nodule, probably pyrite.

S	ite	1039, Hole B, Core	1H	- Cored	d: 0.00 - 2	.00 m	bsf			
Meters	Section	Graphic tithology Branchic tithology Sand Cab	Alteration	Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance Consolidation/Lithification	Remarks
1	cc 2 1 1					⊤ss —ss —ıw вю				DIATOMACEOUS OOZE INTERBEDDED WITH SAND Major lithology: Dark olive green silty diatomaceous ooze. Minor lithology: Dark olive green coarse to medium sand that grades upward to fine sand.

1039B-1H

Site 1039, Hole B, Core 2H - Cored: 2.00 - 11.50 mbsf

1039B-2H

Meters	granule sand clay	Alteration Primary structures	Fossils Samples	Diagenesis Deformational structures	Core disturbance	Consolidation/Lithification	Remarks
		-⊽- ⊽-	⁷ −ss −ss Ω Ω 4 ⁸⁸ −ss Ω −∞→	2 & & & & & & & & & & & & & & & & & & &			DIATOMACEOUS OOZE INTERBEDDED WITH SPARSE ASH LAYERS Major lithology: Olive green diatomaceous ooze. Grain size: silty clay. Minor lithology: Olive green fine sand and dark gray clayey ash layers rich in pyrite.

Site	1039, Hole B, Core 3	H - Corec	d: 11.50 - 2	21.00 n	nbsf				
Meters Section	granule sand said	Alteration Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance	Consolidation/Lithification	Remarks
		▼ ▼ ▼ ▼ ▼ ▼		— SS — IW — IW — SS — SS — BIO					DIATOMACEOUS OOZE Major lithology: Olive green to dark olive green diatomaceous ooze with framboidal pyrite and volcanic glass. Minor lithologies: 1) Olive green fine sandy graded layers of diatomaceous ooze with foraminifers. 2) Pods of vitric ash. 2) Pods of vitric ash.

1039B-3H

Site 1039, Hole B, Core 4H - Cored: 21.00 - 30.50 mbsf

1039B-4H

Meters	Section	Graphic tithology	Alteration	Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance	Consolidation/Lithification	Remarks
2	2 1			▽		—ss —w					DIATOMACEOUS OOZE WITH RADIOLARIANS AND SPARSE ASH LAYERS Major lithology: Olive green diatomaceous ooze with radiolarians. Minor lithology: Vitric ash layers.
4	5 4 3			-2-		—ss	φ				
7 8 9	cc 7 6 1			◆ -▽- ◆ -▽- ▽		—ss —iw					

Site	1039, Hole B, Core	5H - Core	d: 30.50 - 40	.00 mbsf		
Section	granule Babhic tithology said sitt	Alteration Primary structures	Fossis	Samples Diagenesis	Deformational structures Core disturbance Consolidation/Lithification	Remarks
				-ss -wr -ss -ss -ss		SILICEOUS OOZE WITH SPARSE ASH LAYERS Major lithology: Light to medium green silty siliceous and diatomaceus ooze. 1) Vitric ash layers. 2) Vitric ash with framboidal pyrite.

Site 1039	, Hole B,	Core 6H	-	Cored:	40.00	- 49.50	mbsf
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1039B-6H

						-			
Meters Section	granule sand silt clay	Alteration Primary structures	Fossis	Samples	Diagenesis	Deformational structures	Core disturbance	Consolidation/Lithification	Remarks
	$ \begin{array}{c} $	• 							SILLEOUS OUZE Major lithology: Dark olive green siliceous ooze with diatoms, radiolarians, sponge spicules and volcanic glass. Minor lithology: Light gray vitric ash layers.

Site	1039, Hole B, Core	7H - Cored: 49.50 -	59.00 mbst		
Meters Section	Cappic littorood	Alteration Primary structures Fossils	Samples Diagenes is	Deformational structures Core disturbance Consolidation/Lithification	Remarks
+					DIATOMACEOUS OOZE WITH ASH LAYERS
· · · · · · · · · · · · · · · · · · ·			—ss		Major lithology: Olive green to dark olive green diatomaceous ooze, with radiolarians, silicoflagellates and sponge spicules. Grain size: from silty clay to clay. Minor lithology: Light to dark gray vitric ash, 10 cm thick. Grain size from silty clay to fine sand.
			—ss —wr _{Py}		Reduction spot.
4		- → → → → → → → → → → → → →	iw		
7		- <i>∞</i> <i>∞</i> + ≥ ∧	ss		Reduction spot.
9		│-~- <u></u> │↓ ↓ ∞ ↓	—ss —ss		

_			•••••						
Meters	Section	Babhic Ithology Brand	Alteration Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance Consolidation/Lithification	Remarks
2	CC 7 6 5 4 3 2 1		-⊽- <u>=</u>		— SS — SS — SS — IW — SS — SS				DIATOMACEOUS AND SILICEOUS OOZE WITH MINOR ASH LAYERS Major lithology: Silty diatomaceous ooze with pumice, radiolarians, sponge spicules. Color: olive green. Minor lithologies: 1) Light olive green interbeds and burrow fills to 2 cm thick of silty siliceous ooze. 2) Light vitric ash layers.

Site 1039, Hole B, Core 8H - Cored: 59.00 - 68.50 mbsf

1039B-8H

supports recommendations and sponge spicules. Minor limbology: State of the second s	Site	1039, Hole B, Core	9H - Core	d: 68.50 - 78.00	mbsf		
Success of the second s	Section	Caphic lithology	Alteration Primary structures	Fossils Samples	Diagenesis Deformational structures	Core disturbance Consolidation/Lithification	Remarks
							SILICEOUS OOZE WITH CARBONATE AND MINOR ASH LAYERS Major lithology: Silty siliceous ooze with carbonate, diatoms, radiolarians and sponge spicules. Minor lithology: Vitric ash layers, sand to silt size. Reduction spot: 6-9 cm.

Site	1039, Hole B, Co	re 10H	- Corec	d: 78.00 -	87.50	mbsf				
Meters	granule sand clay	Atteration	Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance	Consolidation/Lithification	Remarks
			7		— SS — WR — SS — IW — SS					DIATOMACEOUS GOZE WITH RADIOLARIA AND MINOR ASH LAYERS Major lithology: Olive green diatomaceous ooze with radiolarians, sponge spicules. Minor lithology: Vitric ash layers. Reduction spot: 8-12 cm.

1039B-10H

Site	e 1039, Hole B, Core	11H - Cor	ed: 87.50 - 9	7.00 mbsf		
Meters Section	granule sand sitt	Alteration Primary structures	Fossils	Samples Diagenesis	Deformational structures Core disturbance Consolidation/Lithification	Remarks
				$ \cdot SS \qquad $		SILTY CLAY WITH DIATOMS AND VITRIC ASH LAYERS Major lithology: Silty clay with siliceous microtossils and volcanic glass. Predominantly clay size, of apparent mixed clastic and biogenic fragment composition. Common to trace amounts of diatom and radiolarian fragments and clear volcanic glass. Minor lithology: Light gray vitric ash, silt to fine sand size, composed predominantly of volcanic glass with abundant quartz and trace amounts of feldspar, biotite, amphibole and olivine. Curviplanar "normal faults" offset zoophycos tubes.
			+ + + + + + + + + + + + + +	BIO		

1039B-11H

Site 1039, Hole B, Core 12X - Cored: 97.00 - 103.50 mbsf

1039B-12X

Meters	Section	Graphic tithology	Alteration	Primary structures		Fossils	Samples	Diagenesis	Deformational structures	Core disturbance	Consolidation/Lithification	Remarks
-1	3 2 1			-7-	<	<	—ss					SILTY CLAY WITH DIATOMS AND VITRIC ASH LAYERS Major lithology: Silty clay with siliceous microfossils and volcanic glass. Predominantly clay size, of apparent mixed clastic and biogenic composition. Common to trace amounts of diatom and radiolarian fragments and clear volcanic glass. Minor lithology: Light to dark gray vitric ash, silt to fine sand size, composed predominantly of volcanic glass with abundant quartz and trace amounts of feldspar, biotite, amphibole and olivine.
5	CC 7 6 5 4			▽	······································		—ss					

Site	e 1039, Hole E	B, Core 13X	Cored: 10	03.50 -	113.1	0 mbsf		
Meters	graphic tithology	Ateration Primary structures	Fossils	Samples	Diagenesis	Deformational structures Core disturbance	Consolidation/Lithification	Remarks
				— SS — SS — IW	<-2→			SLTY CLAY WITH SULCEOUS MICROFOSSILS AND MINOR VITRIC ASH LAYERS Major lithology: Silly clay with siliceous microfossils and volcanic glass. Predominantly clay size, of apparent mixed clastic and biogenic composition. Common to trace amounts of diatom and radiolarian fragments and clear volcanic glass. Minor lithology: Dark gray vitric ash, silt to fine sand size, composed predominantly of volcanic glass with abundant framboidal pyrite and trace amounts of feldspar, biotite, amphibole, olivine and quartz.

Site 1039, Hole B, Core 14X - Cored: 113.10 - 122.70 mbsf

1039B-14X

Meters	Section	granule sand silt	Alteration	Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance Consolidation/l ithification	Remarks
11115				▽ -⊽-						SILTY CLAY WITH SILICEOUS MICROFOSSILS Major lithology: Silty clay with radiolarians and diatoms, traces of volcanic glass, quartz, sponge spicules, and biotite. Minor lithologies: 1) Abundant framboidal pyrite in reduction spots. 2) Light to dark gray vitric ash pods and minor layers.
8	3Cl 7 6 5			-&-	↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓		Pγ			

Site	1039, Hole B, Core	e 15X	- Cored: 1	22.70	- 132.20) mbs	f	
Section	Graphic lithology	Alteration	Firmary structures Fossils	Samples	Diagenesis	Deformational structures	Core disturbance Consolidation/Lithification	Remarks
		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		— ss				SILTY CLAY WITH MINOR ASH Major lithology: Silty clay with volcanic glass. Minor lithology: Dark gray crystal-vitric ash with quartz.
				—ss —ss				
				—ss —iw				

Site 1039, Hole B, Core 16X - Cored: 132.20 - 141.80 mbsf

1039B-16X

Meters Section	Gaphic ittooogy	Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance	Remarks
-2		 ↓ ↓		—ss —ss				CLAY WITH MINOR VITRIC ASH LAYERS AND CALCAREOUS CLAY INTERBEDS Major lithologies: 1) Dark olive green calay with ash. 2) Light olive green calcareous silty clay with ash. Minor lithology: Light grayish-brown lithic-vitric ash.
-4 -5 -5 -6 -7		▽▽-		—ıw —ss				
		-⊽- ◆ -⊽-	↓ \\$	—WR				

Weeten to o o o o o o o o o o o o o o o o o o	Afteration Primary structures	F cesils Samplee	Diagenesis	Deformational structures Core disturbance Consolidation/Lithification	Remarks
		$ \begin{array}{c} & & \\ & & $	$\begin{bmatrix} a \\ c \\ a \end{bmatrix}$ $\begin{bmatrix} c \\ a \end{bmatrix}$ $\begin{bmatrix} c \\ P \\ P \\ C \\ a \end{bmatrix}$ $\begin{bmatrix} c \\ P \\ P \\ P \end{bmatrix}$ $\begin{bmatrix} c \\ P \\ P \\ P \end{bmatrix}$		CALCAREOUS OOZE AND SILTY CLAY Major lithologies: 1) Light green to light olive green calcareous oo with nannolossils. 2) Medium olive green silty clay with ash. Minor lithology: 1) Dark gray calcareous clay with nannofossils.

1039B-17X

Site 1039, Hole B, Core 18X - Cored: 151.40 - 161.10 mbsf

1039B-18X

Meters	Section	Graphic tithology	Alteration	Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance	Consolidation/Lithification	Remarks
				-⊽- =		— SS — W — SS — BIO	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				CALCAREOUS OOZE AND CLAY Major lithologies: 1) Light green to light olive green calcareous ooze with nannofossils. 2) Light olive green clay. Minor lithology: Gray calcareous clay.

Si	te1	1039, Hole B, Co	e ′	19X	- 0	Cored: 16	1.10 -	170.6	0 mbs	f		
Meters	Section	granule sand day	Atteration		Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance	Consolidation/Lithification	Remarks
1	7 6 5 4 3 1 1						— \$\$ — \$\$ — \$\$	د د د ب ب ب ب ب ب ب ب				CALCAREOUS CLAY AND SILICEOUS OOZE Major lithologies: 1) Green calcareous clay with nannofossils and ash. 2) Dark gray siliceous ooze with diatoms, sponge spicules and nannofossils. Minor lithology: Light green calcareous ooze with nannofossils and diatoms.
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1039B-19X

Site 1039, Hole B, Core 20X - Cored: 170.60 - 180.20 mbsf

1039B-20X

Meters	Caphic ittorioogy	Alteration Primary structures	Fossils Samples	Diagenesis	Deformational structures Core disturbance Consolidation/ithification	Remarks
22			× -ss			CALCAREOUS AND SILICEOUS OOZE Major lithologies: 1) Gray-brown calcareous diatomaceous ooze with ash. 2) Light olive green siliceous ooze with diatoms and sponge spicules. Minor lithology: Dark gray spicular diatomaceous ooze.
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sa sa stite site		teration imary s	sils	amples	agenes	format	ore dist	
ag s cla	/	A A	Fo	S	ä	ð	ŏŏ	Remarks
					Î			NANNOFOSSIL OOZE AND CALCAREOUS OOZE
								Major lithologies:
	*****							 Light green hannotossil ooze with diatoms ar spicules.
	· · · · · · · · · · · · · · · · · · ·							2) Light gray calcareous ooze with nannofossil
	 			\mathcal{T}^{ss}_{ss}				Minor lithologies: 1) Dark gray nannofossil ooze with diatoms and
~ ~ ~ ~ ~ ~ ~	****							spicules.
								nannofossils and diatoms, color due to phospha concentration.
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1039B-21X

Site	e 1039, Hole B,	Core 22X -	Cored: 189.80	- 199.50	Umpsr
Meters	Sand sand clay	Alteration Primary structures	Fossils Samples	Diagenesis	Deformational structures Core disturbance Consolidation/Lithification Kewave
44				Ga Py	NANNOFOSSIL OOZE WITH DIATOMS Major lithology: Light gray to ivory nannofossil ooze with diatoms and sponge spicules.

22X - Cored: 189.80 - 199.50 mbef **.**...

1039B-22X

sati pi sit	teration	issils	agenesis	ore disturbance
	imary structures	amples	sformational structures	preclidation/Lithification
2 0 0 000 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ	Remarks NANNOFOSSIL OOZE WITH DIATOMS Major lithologies: 1) lovary nanofossil ooze with diatoms and spor spicules. 2) Light green diatomaceous ooze with nanofossils. Minor lithologies: 1) Diatomaceous ooze with sponge spicules. 2) Dark gray vitric ash layer with volcanic glass quartz.

1039B-23X

311	e	TU39, HOLE B, COL	e.	247 -	Cored: 2	09.10	- 210./	ann a	SI	
Meters	Section	AB output granule sand day	Alteration	Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance	uoipepijosuo Remarks
-22	CC 6 5 4 3 2 1 1					— 55 — 1W — S5 — 1W	Ca Py Ca Py Ca			NANNOFOSSIL OOZE WITH DIATOMS Major lithology: homosoli ooze with diatoms and sponge spicules.

Site 1030 Hele B. Core 24X - Cored: 200.10 - 218.70 mbsf

1039B-24X

Site	e 1039, Hole B, Core 25X -	Cored: 218.70 - 228.40 mbsf
Meters	Primary structures	Fassis Samples Deformational structures Conrectisturbance Conrectisturbance Consolidation/Liffification
4		Image: Second

Site	1039, Hole B, Core	26X - Cored:	228.40	- 238.0	00 mbsf		
Meters Section	granule sand sitt clay	Atteration Primary structures Fossils	Samples	Diagenesis	Deformational structures	Consolidation/Lithification	Remarks
							NANNOFOSSIL OOZE WITH DIATOMS Major lithology: lvory nannofossil ooze with diatoms and sponge spicules. Minor lithology: Siliceous nannofossil ooze.

1039B-26X

Site	1039, Hole B, Core	27X - Cored:	238.00	- 247.70	mbsf		
Meters Section	eapyc ithology	Alteration Primary structures Fossils	Samples	Diagenesis	Deformational structures Core disturbance	Consolidation/Lithification	Remarks
44			→ → → → →	Ça Ça Ĉ			NANNOFOSSIL OOZE WITH DIATOMS Major lithology: Ivory nannofossil ooze with diatoms, radiolariaNS, foraminifers, and sponge spicules.
8				Ça			

1039B-27X

Site	1039.	Hole B.	Core 28X	-	Cored: 247.70 - 257.40 mbsf
one	1055,	noie D,	0016 207		COICU. 247.70 - 257.40 mb3

1039B-28X

Matare	Section	Graphic tithology Graphic tithology Sath	Alteration	Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance Consolidation/Lithification	Remarks
	3 1 2 1 1					—ss				NANNOFOSSIL OOZE WITH DIATOMS Major lithology: Ivory nannofossil ooze with diatoms, radiolarians, foraminifers, and sponge spicules.
5						— IW	Ca			

Meters Section	granule sand said clay	Alteration Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance Consolidation/Lithification	Remarks
				ss ss ss wr	Ca Ph →			DIATOMACEOUS NANNOFOSSIL OOZE Major lithology: Ivory white diatomaceous nannofossil ooze with greenish yellow, and dark gray) preserved within drilling biscuits. Some laminae are diatom aceous ooze. Minor lithologies: 1) Dark gray siliceous nannofossil ooze with diatoms, ash, and pumice fragments 2 mm in diameter at Sec. 1, 137 cm. 2) Burrow fill - greenish yellow diatomaceous ooze. 3) Pale lavender calcareous diatomaceous ooze.

1039B-29X

	,			
Meters Section	Alteration Alternation	F cssils Samples	Diagenesis Deformational structures Corre disturbance Corre didation/Lithification	Remarks
			Ca Ca	NANNOFOSSIL OOZE WITH DIATOMS Major lithology: Ivory nannofossil ooze with diatoms and sponge spicules. The whole core exhibits sparse, varicolored laminae preserved within the biscuits. Some laminae are diatom rich. Minor lithology: Yellow diatomaceous ooze with nannofossils.

Site 1039, Hole B, Core 30X - Cored: 267.10 - 276.70 mbsf

1039B-30X

Site	1039, Hole B, Cor	e 31X -	Cored: 276.	70 - 286.4	10 mbsf	
Meters	granule sand salt	Alteration Primary structures	Fossis	Samples Diagenesis	Deformational structures Core disturbance Consolidation/Lithification	Remarks
				SS Ca Ph SS NR Ca Ph SS SS		DIATOMACEOUS NANNOFOSSIL OOZE WITH MINOR ASH LAYERS Major lithology: Ivory white nannofossil ocze with diatoms, foraminifers and ash. Minor lithologies: 1) Greenish yellow calcareous diatomaceous ooze with nannofossils and foraminifers. 2) Pale lavender calcareous diatomaceous ooze with nannofossils and foraminifers. 4) Black crystal-lithic-vitric ash. 5) Green calcareous diatomaceous ooze with nannofossils and ash. 6) Light gray vitric ash layers.

Site	1039,	Hole	в,	Core	32X	-	Cored:	286.40 -	296.00	mbsf
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1039B-32X

1010	Section	Carphic ittorogy	Alteration Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance Consolidation/Lithification	Remarks
	5 4 1 3 2 1 Sec	SHI day	-∆- Pân			Dag	Det	Concentration of the second seco	Remarks NANNOFOSSIL OOZE WITH DIATOMS Major lithology: Vory white nannofossil ooze with diatoms, foraminifers and sponge spicules. Minor lithologies: 1) Olive green ooze with nannofossils, diatoms and foraminifers. 2) Dark green siliceous ooze with diatoms, foraminifers, and vitric ash. 3) Dark gray vitric ash.
					—ss				
	cc1 7 1				—ss				

site	e 1039, Hole B, Cor	e 33X -	Cored: 29	6.00	- 305.6	60 mb	sf		
Section	Graphic lithology granule sand silt clay	Alteration Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance	Consolidation/Lithification	Remarks
		-~-		— 55 — IW					NANNOFOSSIL OOZE WITH DIATOMS AND MINOR ASH LAYERS Major lithology: Ivory nannolossil ooze with diatoms, foraminifers, sponge spicules, and micrite. Minor lithology: Dark gray to black vitric ash layers with pyrite framboids.
			× ` ⊕	—ss					

Site 1039, Hole B, Core 34X - Cored: 305.60 - 315.20 mbsf

1039B-34X

Meters	Graphic tithology	Alteration Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance	Consolidation/Lithification	Remarks
				— IW — SS — SS	⊂ Ca Ca				SILICEOUS NANNOFOSSIL OOZE WITH MINOR MINOR LAYER Major lithology: Ivory nannofossil ooze with diatoms, foraminifers, sponge spicules, and micrite. Minor lithologies: 1) Dark gray vitric ash with framboids. 2) Olive green diatomaceous ooze.

Site	1039, HOLE B, COLE	- 125	Corea: 31	5.20	· 324.8	u mps	T	
Meters Section	Braphic lithology (spin-spin-spin-spin-spin-spin-spin-spin-	Alteration Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance Consolidation/Lithification	Remarks
				— \$\$ — W — \$\$ — \$\$ — \$\$	Ça Ça			SILICEOUS NANNOFOSSIL OOZE WITH MINOR ASH LAYERS Major lithology: Ivory nannofossil ocze with diatoms, foraminifers, and sponge spicules. Minor lithology: Dark grayish brown crystal-vitric ash with nannofossils.

1039B-35X

S	Site	1039, Hole B, Co	re	36X -	С	ored: 3	24.80	- 334.4	0 mbs	sf			1039
Meters	Section	granule sand sitt	Atteration	Primary structures		Fossils	Samples	Diagenesis	Deformational structures	Core disturbance	Consolidation/Lithification	Remarks	
								Ça Ça				SILICEOUS NANNOFOSSIL OOZE WITH MINOR ASH LAYERS Major lithology: lvory nannofossil ooze with diatoms, radiolarians, troraminifers, sponge spicules, carbonate and micrite grains. Minor lithology: Dark gray vitric ash with nannofossils.	

1039B-36X

granule granule sand Sabjic tithogram	Alteration Primary structures	silsso	Samples	Diagenesis	Deformational structures	Core disturbance Consolidation/Lithification	
			-ss Py -ss Py -ss Py				SILICEOUS NANNOFOSSIL OOZE Major lithology: Ivory nannofossil ooze with diatoms, radiolarian: foraminifers, sponge spicules, carbonate and micrite grains. Minor lithologies: 1) Olive green diatomaceous ooze with nannofo: and sponge spicules. 2) Dark gray diatomaceous ooze with framboids traces of siliceous fossils. 3) Siliceous nannofossil ooze with disseminated pyrite.

Site 1039, Hole B, Core 38X - Cored: 344.00 - 353.60 mbsf

1039B-38X

Meters	Graphic tithology	Alteration Primary structures Fossils	Samples Diagenesis	Deformational structures Core disturbance Consolidation/Lithification	Remarks
			Pr Pr Pr Pr Pr Pr Pr Pr Pr Pr		SILICEOUS NANNOFOSSIL OOZE Major lithology: Ivory nannofossil ooze with diatoms, radiolarians, foraminifers, sponge spicules, and carbonate grains. Minor lithologies: 1) Olive green diatomaceous ooze with nannofossils and sponge spicules. 2) Dark gray diatomaceous ooze with nannofossils. 3) Light gray diatomaceous ooze with nannofossils. 4) Pumice layer with graded bedding from matrix-supported gravel to coarse to medium sand.

and property introduction and property introduction Studenty	2					
SILCEOUS NANNOFOSSIL OOZE MINOR ASH LAYERS Major lithology: Usory nannofossil ocze with diatoms, foraminifers, sponge spicules. Minor lithologies: D Olive green diatomaceous ocze with and traces di Silceous fossils. D Light gray diatomaceous ocze with and traces di Silceous fossils. D Light gray diatomaceous ocze with and traces di Silceous fossils. D Light gray diatomaceous ocze with and traces di Silceous fossils. D Light gray diatomaceous ocze with and traces di Silceous fossils. D Light gray diatomaceous ocze with and traces di Silceous fossils. D Light gray diatomaceous ocze with and traces di Silceous fossils. D Light gray diatomaceous ocze with and traces di Silceous fossils. D Cal Pry Major lithology: D Cal Minor lithologies: D Date gran diatomaceous ocze with and traces di Silceous fossils. D Light gray diatomaceous ocze with and traces di Silceous fossils. D Cal Pry Major lithology: D Cal Minor lithologies: D Date gran diatomaceous ocze with and traces di Silceous fossils. D Cal Pry Major lithology: D Cal Minor lithology: D Date gran diatomaceous ocze with and traces di Silceous fossils. D Cal Pry Major lithology: D Cal Pry Maj	Graphic stand sand sand sand citro op op op op op op op op op op op op op	Alteration Primary structures	Fossils Samples	Diagenesis	Deformational structures Core disturbance Consolidation/l ithification	Remarks
A difference of the second sec		-\		Â		SILICEOUS NANNOFOSSIL OOZE WITH MINOR ASH LAYERS Major lithology: Ivory nannofossil ooze with diatoms, radiolarian foraminifers, sponge spicules. Minor lithologies: 1) Olive green diatomaceous ooze with nannofo and sponge spicules. 2) Dark gray diatomaceous ooze with pyrite fram and traces of siliceous fossils. 3) Light gray diatomaceous ooze with nannofos 4) Pumice layer with graded bedding from
	4 	-\- -\-	∦ ♣ —ss	Ca		matrix-supported gravel to coarse to medium sa 5) Gray vitric ash layers with nannofossils and spicules. [olive green clay, hole fill]
				Py		
		-\				
	8			¢ Ca ↓		

Site 1039, Hole B, Core 40X - Cored: 363.20 - 372.80 mbsf

1039B-40X

Meters Section	Graphic lithology	Alteration Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance Consolidation/Lithification	Remarks
					Ph Ca → ← Ca →			MATRIX SUPPORTED BRECCIA OF CALCAREOUS AND SILICEOUS OOZES WITH MINOR ASH LAYERS. Major lithology: Varicolored matrix supported breccia of nannofossil and siliceous oozes in ivory white diatomaceous ooze matrix. 1) Varicolored grain supported breccia of nannofossil and siliceous oozes in ivory white diatomaceous ooze matrix. 2) Dark gray diatomaceous silt. 3) Varicolored, finely laminated diatomaceous ooze. 4) Reddish brown vitric ash layer with diatoms and nannofossils. 5) Black lithic-vitric ash layer.

Site	1039, Hole B, Core	e 41)	X - C	Cored: 37	72.80	- 380.8	30 mbs	sf		
Meters Section	graphic lith obgy	Alteration	Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance	Consolidation/Lithification	Remarks
					— IW — SS — SS — SS — SS — SS — SS	Ça Ça Ça	8 			MATRIX SUPPORTED BRECCIA OF NANNOFOSSIL OOZE WITH MINOR ASH LAYERS Major lithology: Varicolored matrix supported breccia of nannofossil ooze in ivory white nannofossil ooze matrix. Minor lithologies 1) Light brown pumice sand and silt in siliceous and calcareous ooze matrix. 2) Greenish gray laminated ooze with diatoms and nannofossils. 3) Microcrystalline pyroxene gabbro with plagioclase glomerocrysts.

1039B-41X



Site 1039, Hole B, Core 42X, Section 1 - Cored: 380.80 - 384.30 mbsf

S	ite	1039, Hole C, Cor	e 1R	- (Cored: 36	3.10 -	372.70) mbsf			
Meters	Section	Craphic tithology	Alteration	Primary structures	Fossis	Samples	Diagenesis	Deformational structures	Core disturbance	Consolidation/Lithification	Remarks
1			2 2 2 2		× •	~ss —ss	Ca				DIATOMACEOUS NANNOFOSSIL OOZE Major lithology: Mottled ivory siliceous nannofossil ooze, with liesegang bands and concentric rings around pyritic concretions and volcanic fragments. Minor lithology: Matrix supported white siliceous nannofossil ooze breccia in light brown siliceous nannofossil ooze with ash.
2	3		v			—ss —ss —ıw	↓ ĵ®				
ŧ	4		\sim			—sam	l 🕾				

Site 1039, Hole C, Core 2R - Cored: 372.70 - 382.30 mbsf

Meters	granule sand day	Alteration Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance Consolidation/Lithification	Remarks
-1		-v- -v- -v- -v-			Î Ça ↓	7		DIATOMACEOUS NANNOFOSSIL OOZE Major lithology: lvory to pale green nannofossil ooze with diatoms and ash. Minor lithologies: 1) Light brown nannofossil ooze with ash. 2) White ash with nannofossils and diatoms.

1039C-1R

1039C-2R

SITE 1039

S	Site	1039,	Hole	C, C	ore	3R	-	Co	red:	38	2.30 -	39	.90	mbst	f			1039C-3R
Matars	Section	granul sand ⁻ silt — clay ⁻	6 Graphic lithology]	Alteration		Primary structures		Fossils		Samples	Diaranacie		Deformational structures	Core disturbance	Consolidation/Lithilication	Remarks	
1	cd 3 1 2 1										—ss —saw —ss —IW	Ph Ph	Ca Ca	4			NANNOFOSSIL OOZE WITH DIATOMS Major lithology: Mottled ivory nannofossil ooze with diatoms. Minor lithology: Black ash with microfossils.	

Site 1039, Hole C, Core 4R - Cored: 391.90 - 401.50 mbsf

Meters Section	graphic tithology sand silt	Alteration Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance Consolidation/Lithification	Remarks
1		†		—ss —ss —iw —BIO	Ca Py Ca Py Ca Py Ca Py			NANNOFOSSIL OOZE WITH DIATOMS Major lithology: Mottled ivory nannofossil ooze with diatoms. Minor lithology: Light gray ash with microfossils.

SITE 1039

1039C-4R

s	ite	1039, Hole C, Core	ə 5	ir - C	ored: 40	1.50 -	411.20) mbsf	F		
Meters	Section	Gaphic lithology	Alteration	Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance	Consolidation/Lithification	Remarks
	1						Ĉa ↓				NANNOFOSSIL OOZE WITH DIATOMS Major lithology: Mottled ivory nannofossil ooze with diatoms. Minor lithology: Dark gray tephra sand and lapilli in light brown calcareous ooze matrix.

Site 1039, Hole C, Core 6R - Cored: 411.20 - 420.80 mbsf

Meters	Section	Aboot to the series of the ser	Alteration	Primary structures	Fossils	Samples	Diagenesis	Deformational structures Core disturbance	Consolidation/Lithification	Remarks
1	CC 4 3 2 1				A A A A A A A A A A A A A A A A A A A	—ss —ss —w	Ca Ca			NANNOFOSSIL OOZE WITH DIATOMS Major lithology: Ivory to pale green nannofossil ooze with diatoms. Minor lithology: 1) Gray fine-grained diatomaceous ooze with nannofossils. 2) Light brown tephra sand and silt in siliceous and calcareous ooze matrix.

1039C-6R

1039C-5R

Site 1039, Hole C, Core 7R - Cored: 420.80 - 430.30 mbsf

1039C-7R

Meters	granule	Alteration	Primary structures	Fossils	Samples	Diagenesis	Deformational structures	Core disturbance	Consolidation/Lithification	Remarks
				₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩	ss ss ∕ sam	Ĩ € Ca Ĵ Ĉ	 ↓ ฬิ 			DIATOMACEOUS NANNOFOSSIL SPICULAR OOZE AND PYROXENE GABBRO WITH HORNFELS 1) Mottled ivory diatomaceous nannofossil spiculite. 2) Medium gray microcrystalline gabbro with plagloclase glomerocrystals. 3) Light gray, very finely crystalline hornfels with nannofossils.



Site 1039, Hole C, Core 7R, Section 2 - Cored: 421.80 - 423.23 mbsf



	Meters	Lithology	Alteration	Primary structures	Samples	Diagenesis	Deformation structures	Drilling disturbance	Remarks
core photo					THS XRD XRF				1039C-7R-3, 73-76cm Primary Mineralogy: Glomeroporphytitic plagioclase: Abundance =10%. Giomerocryst size: ≤7mm Crystal shape: Subhedral to euhedral Composition: An 93 Percent replacement: 5% Plagioclase: Abundance =43 Crystal size: ≤0.6 mm Crystal size: ≤0.6 mm Crystal size: ≤0.6 mm Crystal orientation: Often in rosettes or sprays Composition: An 83 Percent replacement: 0% Pyroxene: Abundance =40% Crystal size: ≤0.2mm Crystal shape: Euhedral stubby prisms to anhedral Crystal shape: Soft mm Composition: Augite Percent replacement: 1% Oxides: Abundance =3%; ≤1% Composition: Titanomagnetite? with exsolution lamellae Percent replacement: 0% Glass:=2% Form: Interstitial pockets Percent replacement: 0% Secondary Mineralogy Total percent =4.5%. All interstitial glass is altered to saponite with trace of chorite. Very minor replacement of

Site 1039, Hole C, Core 7R, Section 4 - Cored: 424.72 - 425.01 mbsf

core photo	See Section 170-1039C-7R-3 for description.

301



Site 1039, Hole C, Core 8R, Section 1 - Cored: 430.30 - 431.52 mbsf

	Meters	Lithology	Alteration	. Primary structures	Samples	Diagenesis	Deformation structures	Drilling disturbance	Remarks
core photo									See Section 170-1039C-8R-1 for description.

Site 1039, Hole C, Core 8R, Section 2 - Cored: 431.52 - 432.21 mbsf

	Meters	Lithology	Alteration	Primary structures	Samples	Diagenesis	Deformation structures	Drilling disturbance	Remarks
core photo		1A ▲ 1B			⊤ ^{XRF} ⊤ ^{THS}				 1039C-8R-3, 90-93 cm, Piece 1B; Primary Mineralogy: Glomeroporphyritic plagioclase: Abundance ≈5; 3% Glomeroryst size: ≤4mm; <2mm Crystal shape: Subhedral to euhedral Composition: An 84-94 Percent replacement: 10% Plagioclase: Abundance ≈50%; 42% Crystal size: ≤0.2 mm; <0.3mm Crystal size: ≤0.2 mm; <0.3mm Crystal orientation: Often in rosettes or sprays Composition: Percent replacement: 0%; 15% Pyroxene: Abundance ≈40%; 42 Crystal size: ≤0.3mm; ≤0.2mm Crystal size: ≤0.3mm; ≤0.2mm Crystal size: ≤0.2 mm Crystal shape: Euhedral stubby prisms to subhedral Crystal size: ≤0.2 mm Crystal shape: cubic and subhedral; anhedral Crystal size: ≤0.2 mm Grystal shape: cubic and subhedral; anhedral Crystal size: ≤0.2 mm Composition: Titanomagnetite? with exsolution lamellae Percent replacement: 0% Glass:=2%; 5% Form: Interstitial pockets Percent replacement: 85%; 100% Secondary Mineralogy: Total percent ≈1.5%. All interstitial glass is devitrified and generally altered to saponite with trace of chlorite. Additional Comments: Very fresh.

Site 1039, Hole C, Core 8R, Section 3 - Cored: 432.21 - 433.33 mbsf

							-		
	Meters	Lithology	Alteration	Primary structures	Samples	Diagenesis	Deformation structures	Drilling disturbance	Remarks
core photo							1		 Primary Mineralogy: Glomerocryst size: ≤4mm; <2mm Crystal shape: Subhedral to euhedral Composition: An 84-94 Percent replacement: 10% Plagioclase: Abundance =50%; 42% Crystal shape: Subhedral laths Crystal orientation: Often in rosettes or sprays Composition: Percent replacement: 0%; 15% Pyroxem: Abundance =40%; 42 Crystal size: ≤0.3mm; ≤0.2mm Crystal size: ≤0.2mm Crystal size: ≤0.2mm Crystal size: ≤0.2mm Crystal shape: Euhedral stubby prisms to subhedral Crystal shape: Euhedral stubby risms to subhedral Crystal shape: cubic and subhedral; anhedral Crystal orientation: Titanomagnetite? with exsolution lamellae Percent replacement: 0% Glass:=2%; 5% Form: Interstitial pockets Percent replacement: 5%; 100% Stat percent relacement: 5%; 100% And generally altered to saponite with trace of chlorite.

Site 1039, Hole C, Core 8R, Section 4 - Cored: 433.33 - 434.68 mbsf

	Primary structures	Samples Diagenesis	Deformation structures Drilling disturbance	Remarks
core photo		THS		 1039C-8R5; 63-67 cm, Piece 2 Primary Mineralogy: Glomeroporphyritic plagioclase: Abundance =5; 3% Glomerocryst size: ≤4mm; <2mm Crystal shape: Subhedral to euhedral Composition: An 84-94 Percent replacement: 10% Plagioclase: Abundance =50%; 42% Crystal size: ≤0.2 mm; <0.3mm Crystal shape: Euhedral laths Crystal orientation: Often in rosettes or sprays Composition: Percent replacement: 0%; 15% Pyroxene: Abundance =40%; 42 Crystal size: ≤0.3mm; ≤0.2mm Crystal shape: Euhedral stubby prisms to subhedral Crystal shape: Euhedral stubby prisms to subhedral Crystal orientation: random Composition: Augite Percent replacement: 0% Oxides: Abundance =3; 2% Crystal size: ≤0.2 mm Crystal size: ≤0.2 mm Crystal orientation: Random; in glass Composition: Titanomagnetite? with exsolution lamellae Percent replacement: 0% Glass:=2%; 5% Form: Intersitial pockets Percent replacement: 85%; 100% Secondary Mineralogy: All glass is altered to saponite. Alteration also around 3% vesicles; and around cleavage fragments of broken grains. Additional Comments: 12.5% total alteration, many larger mineral grains are fractured or show undulose extinction.

Site 1039, Hole C, Core 8R, Section 5 - Cored: 434.68 - 435.87 mbsf

Site 1039, Hole C, Core 9R, Section 1 - Cored: 435.70 - 437.11 mbsf

	Lithology	Alteration Primary structures	Samples Diagenesis	Deformation structures	Drilling disturbance Kemarks
core photo			THS	/	 1039C-9R-1, 2-4cm, Piece 1A Primary Mineralogy: Glomeroporphyritic plagioclase: Abundance =5; 3%. Giomeroprystisze: Subhedral to euhedral Composition: an 85 Percent replacement: 10%. Plagioclase: Abundance =34%; 47%. Crystal size: 20.5 mf Grystal orientation: Often in rosettes or sprays Composition: Percent replacement: 10%; 0%. Pystal shape: Euhedral stubby prisms to subhedral Crystal orientation: random Crystal orientation: random Crystal orientation: random Crystal orientation: random Crystal size: 20.3mm Crystal size: 20.3mm Crystal size: 20.3mm Crystal size: 20.3mm Crystal size: 20.1mm Crystal shape: Euhedral stubby prisms to subhedral Crystal orientation: random Crystal orientation: Random; anhedral grains in glass Composition: Titanomagnetite? with exsolution lamellae Percent replacement: 0% Glass:=10%; 5% Grom: Interstitial pockets Percent replacement: 2%. 100%. Trace opaques and sulfides in glass. Condary Mineralogy Many Larger grains fractured.

	Meters	Lithology	Alteration	Primary structures	Samples	Diagenesis	Deformation structures	Drilling disturbance	Remarks
core photo					XRF ¬THS		1		 1039C-9R-2, 45-46cm, Piece 1B Primary Mineralogy: Glomeroporphyritic plagioclase: Abundance =5; 3%. Glomeropryst size: ≤3mm; <4mm Crystal shape: Subhedral to euhedral Composition: An 85 Percent replacement: 10% Plagioclase: Abundance =34%; 47%. Crystal shape: Euhedral laths Crystal orientation: Often in rosettes or sprays Composition: Percent replacement: 10%; 0% Pyroxene; Abundance =44%; 40 Crystal size: 40.3mm Crystal size: 40.3mm Crystal shape: Euhedral stubby prisms to subhedral Crystal shape: Euhedral stubby prisms to subhedral Crystal size: 40.3mm Crystal shape: Euhedral stubby prisms to subhedral Crystal orientation: random Composition: Augite Percent replacement: 0% Oxides: Abundance =5% Crystal size: 90.1mm Crystal size: 90.1mm Crystal size: 90.1mm Crystal size: 90.1mm Crystal orientation: Random; anhedral to anhedral Crystal orientation: Random; anhedral grains in glass Composition: Titanomagnetite? with exsolution lamellae Percent replacement: 0% Glass:=10%; 5% Form: Interstitial pockets Percent replacement: 85%; 100% Trace opaques and sulfides in glass Secondary Mineralogy: Dral percent = 14%. All interstitial glass is altered to saponite with trace of chlorite. Additional Comments The poikilitic nature of some pyroxenes suggests partial cumulate origin, with sequence Plag.I, Cpx; Plag.II, glass.

Site 1039, Hole C, Core 9R, Section 2 - Cored: 437.11 - 438.24 mbsf

	Meters	Lithology	Alteration	Primary structures	Samples	Diagenesis	Deformation structures	Drilling disturbance	Remarks
core photo					THS		4		 1039C-10R-1, 64-68 cm, Piece 1D Primary Mineralogy: Glomerocryst size: 33mm Crystal shape: Subhedral to euhedral Composition: Percent replacement: 0% Plagioclase: Abundance =75% Crystal size: 50.5 mm Crystal size: 20.5 mm Crystal size: 20.5 mm Crystal size: 20.1 mm Crystal shape: Subhedral to anhedral Crystal size: 30.1 mm Crystal size: 20.1 mm Crystal size: 50.1 mm Crystal replacement: 0% Oxides: Abundance =3% Crystal size: 50.1 mm Crystal replacement: 10% Secondary Mineralogy: Total percent replacement: 100% Secondary Mineralogy: Total percent =20%. Glass completely altered to clay and chlorite. Feldspar laths significantly altered to clay. Anastomosing 1mm greinsh brown vein of altered glass. 5% vesicles, lined with altered glass.

Site 1039, Hole C, Core 10R, Section 1 - Cored: 439.90 - 441.11 mbsf

				,					
	Meters	Lithology	Alteration	Primary structures	Samples	Diagenesis	Deformation structures	Drilling disturbance	Remarks
core photo					XRD		1		 Primary Mineralogy: Glomerocryst size: S3mm Grystal shape: Subhedral to euhedral Composition: Percent replacement: 0% Plagioclase: Abundance =75% Grystal shape: Euhedral laths Crystal shape: Euhedral laths Crystal shape: Euhedral laths Crystal size: ≤0.5 mm Crystal shape: Euhedral laths Crystal orientation: Often in rosettes or sprays Composition: Percent replacement: 13% Pyroxene: Abundance =11% Crystal size: ≤0.1 mm Crystal shape: Subhedral to anhedral Crystal shape: Subhedral and anhedral Composition: Augite Percent replacement: 0% Oxides: Abundance =3% Crystal size: ≤0.1 mm Crystal size: ≤0.1 mm Crystal size: ≤0.1 mm Crystal shape: cubic, subhedral and anhedral Crystal shape: cubic, subhedral and anhedral Composition: Titanomagnetite? with exsolution lamellae Percent replacement: 0% Glass:=5% Form: Interstitial pockets 0.05-0.4 mm Percent replacement: 10% Secondary Mineralogy: Total percent =20%. Glass completely altered to clay and chlorite. Feldspar laths significantly altered glass with trace of zeolite, oxide and sulfide minerals cuts across section, breaking and rotating some grains and disaggregorating fractured wall-rock minerals. 5% vesicles, lined with altered glass.

Site 1039, Hole C, Core 10R, Section 2 - Cored: 439.90 443.00 mbsf

Site 1039, Hole C, Core 10R, Section 3 - Cored: 442.41 - 443.03 mbsf





Site 1039, Hole C, Core 11R, Section 1 - Cored: 443.00 444.22 mbsf

Site 1039, Hole C, Core 11R, Section 2 - Cored: 444.22 - 445.14 mbsf

	<u> </u>		1	,	,	,	1	1	1
	Meters	Lithology	Alteration	Primary structures	Samples	Diagenesis	Deformation structures	Drilling disturbance	Remarks
core photo		1A 1B 2			⊤ths —xrd —ths		-fil-		1039C-11R-2, 47-50 cm, Piece 1A Primary Mineralogy: Glomeroporphyritic plagioclase: Abundance ≈10% Glomeroryst size: ≤4mm Crystal shape: Subhedral to euhedral Composition: An85 Percent replacement: 5% Plagioclase: Abundance ≈40% Crystal size: ≤0.4 mm Crystal orientation: Often in rosettes or sprays Composition: Percent replacement: 0% Pyroxene: Abundance ≈5% Crystal size: ≤.8mm Crystal shape: Euhedral stubby prism Crystal size: ≤0.1mm Crystal size: ≤0.1mm Crystal Shape: subhedral Crystal size: ≤0.1mm Crystal size: ≤0.05mm Crystal size: ≤0.05mm Crystal size: ≤0.05mm Crystal shape: cubic and subhedral Crystal shape: cubic and subhedral Crystal shape: subhedral Crystal shape: cubic Crystal orientation: Random Composition: Titanomagneti
	GROUNDMASS: ≈40 Plagioclase: ≈16%. Crystal size: <0.05mm				ial melt poo ial melt poo grain bound crystallizati lag. grains ence? Seve oreaking an	Composition: An94 Percent replacement: 0% Plagioclase: Abundance ≈23% Crystal size: ≤0.6 mm Crystal shape: Euhedral laths Crystal orientation: Often in rosettes or sprays Composition: Percent replacement: 0% Pyroxene: Abundance ≈22% Crystal size: ≤ 1 mm Crystal shape: Euhedral stubby prism or subhedral Crystal orientation:random; rarely growing in rosettes Composition: Augite Percent replacement: 0% Oxides: Abundance ≈5% Crystal size: ≤0.1mm ne. Crystal shape: cubic and subhedral Crystal shape: cubic and subhedral Crystal orientation: Random; rarely in rosettes and sprays Composition: Titanomagnetite? with exsolution lamellae Percent replacement: 0% Secondary Mineralogy: Total percent ≈5%. Glass in interstitial pockets and veins is devitrified, some is altered to saponite plus chlorite.			

Figure 4, Chapter 2. Patterns and symbols used for lithology, abundance, structural features, fossils, and bioturbation in AppleCORE during Leg 170.



Figure 5, Chapter 2. Gray-scale patterns for three data types used with customized AppleCORE visual core description program.

	Alteration	Drilling disturbance	Lithification
Extreme	75-100%	Flow-in; Rubble and slurry	Lithified
Strong	50-75%	Disruption, contortion; Biscuits and slurry	Consolidated
Moderate	25-50%	Some contortion, bending; Strongly fractured	Firm
Weak	1-25%	Bending of layers; Slightly fractured	Soft
None	0%	None	Soupy
Not indicated	L		

Figure 6, Chapter 2. Symbols used with customized AppleCORE visual core description program.

PRIMARY STRUCTURES	FOSSILS	DIAGENETIC FEATURES	DEFORMATIONAL STRUCTURES
Contacts Sharp boundary	Microfossils Foraminifers (undifferentiated)	Diagenetic minerals	/ Fracture
Gradational boundary Scoured, sharp contact	 Foraminifers (benthonic) Radiolarians 	GI Disseminated glauconite D Disseminated dolomite	χ Conjugate set of fractures
Scoured contact w/graded beds	Oliatoms Calcareous Nannofossils		8 Breccia zone
Lamination	Silicoflagellates	Nodules and Concretions Nodule/concretion (general)	Sault with brecciation
Planar laminae	Spines	Calcite concretion	/ Fault
Bedding	Spores, pollen		🎢 Reverse fault
Reverse graded bedding Trough cross-stratification	Fragments Ý Plant Remains	Cements Calcite cement	Normal fault
- Various accessories	🛱 Wood Fragment	Miscellaneous Diagenetic Features	➡ Strike-slip fault
 ✓ Tephra/tuff pod −▽− Tephra layer 	Macrofossils	H Disseminated gas hydrate Gas Hydrate nodule	Fracture network
	Shell fragments	-⊡− Layered gas hydrate 且 Massive gas hydrate	Stratal disruption
Lithoclast Isolated peoples	 Molluscs (undifferentiated) 	Reaction rim	<u> </u>
 Mud clast Coal clasts 	Fish Fossils		Boudinage
Soft sediment deformation	Fish tooth		Pinch and swell
Slump Water escape pipes	Trace Fossils		ரிர Stylolite
Breccia	Zoophycos		🖈 Vein
✓ Vug	Bioturbation § Weak bioturbation		Calcite vein
Igneous textures	Adderate bioturbation		Sediment filled vein
	Strong bioturbation		Deformation band
			∧∪ Fold
			≶ Fissility
			🖇 Sigmoidal vein
			-T- Tectonized zone

Figure 7, Chapter 2. Abundance plots associated with symbols used with customized AppleCORE visual core description program.

Pervasive	4
Abundant	<>
Common	Q
Moderate	<⊳
Rare	¢b

Previous Chapter

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Next Chapter