NOTE: SAMPLE 0-20cm BAGGED ON 6-18-92 -

CRUISE: G-87-2-6 M; CORE: 10BC-1-2; CROSS SECTION: 6.5 cm; PAGE: 1 OF 1

SARAN WRAP

13 STOPPER W/SARAN WRAP

SM & MED SIZED INCLUSIONS THROUGHOUT

DEPTH (cm)	TEST	RESULTS	REMARKS	TEST	RESULTS	REMARKS
0						
5	TS 1.65		SAMPLE FLOWED AFTER EXTRUSION			
	σ'_c = 10 kPa					
10	TS 1.66					
	SAMPLE TOO DISTURBED TO TRIM					
15						
20	CRSC	C.R0.73	σ'_{vm} = 24 kPa			
	SHEAR		OCR = 23.1			
	SEM	W = 61%	C_c = 0.43			
30						
40						
50						
60						
70						
80						
90						
100						
200						

UNSUITABLE: QUESTIONABLE: VOID: TESTED:

4-22-87
MARK ON LINER INDICATES NO COMPACTION; DRY AROUND PERIMETER & SL. PULLED AWAY FR LINER; STIFFER SOFT;

CRUISE: G-87-2-G M ; CORE: 10PC-1-1 ; CROSS SECTION: 6.9 cm ; PAGE: 1 OF 1

DEPTH (cm)	58 TEST	RESULTS	REMARKS	100 TEST	RESULTS	REMARKS
0						
60	TS165					
65						
10						
70						
	TS166					
75						
20	CRSC	CR074	σ'_{vm} = 6.3 kPa			
80	SMEAR		OCR = 1.9			
	SEM	W = 95 %	C_c = 0.89			
83						
30						
40						
50						
60	TS165					
	TS166					
70						
80						
90						
100						

FAINT CRACK

CLEAR THROUGHOUT

UNSUITABLE: QUESTIONABLE: VOID: 200 TESTED:

STRONG H_2S ODOR;
4-22-87
STIFF

CRUISE: G-87-2-G m ; CORE: 10PC-1-2 ; CROSS SECTION: 6.7cm ; PAGE: 1 OF 1

DEPTH (cm)	TEST	RESULTS	REMARKS	TEST	RESULTS	REMARKS
0						
215						
220						
225						
230	CRSC SMEAR SEM	CR0756-8710 ω = 132 %	σ'_{vm} = 10.0 kPa OCR = 1.1 C_c = 1.50			
235						
30						
40						
50						
60						
70						
80						
90						
100						

210 100 200

CRACKS 215 –

SOME INCLUSIONS CRACK 220 10

CRACKING AROUND EDGES 225 –

230 20

235

UNSUITABLE: QUESTIONABLE: VOID: TESTED:

(moved to reefer 6-18-92)

CRUISE: G-87-2-6 M; CORE: 11BC-1-1 ; CROSS SECTION: 6.9 cm ; PAGE: 1 OF 1

REMOVED FOR WYLIE: STYROFOAM PLUG INSERTED

DEPTH (cm)	TEST	RESULTS	REMARKS	100 TEST	RESULTS	REMARKS
0						
5						
10						
15						
20						
30						
40						
50						
60						
70						
80						
90						
100				200		

SHELL ?

FAINT LAYER

SHELLS - CLASTS ?

SPIDER-LIKE CRACKING (WAX ??)

REMOVED FOR TEXAS A&M (FROZEN !!)

ONLY CORE

CR076

W = 176%

σ'vm = 2.9 kPa
OCR = 11.6
Cc = 1.33

CR076 } BAGGED & WAXED

NOTE: MOVED TO REEFER 6-18-92

CRSC SMEAR SEM

UNSUITABLE: QUESTIONABLE: VOID: TESTED:

CRUISE: G-87-2-6 m ; CORE: 11PC-1-1 ; CROSS SECTION: 6.9 cm ; PAGE: 1 OF 1

DEPTH (cm)	84 TEST	RESULTS	REMARKS	100 TEST	RESULTS	REMARKS
0						
85						
FAINT LAYER						
90						
SM INCLUSIONS						
95 10						
100						
105 20	CASC. SMEAR SEM	CR 0.77 ω = 140 %	σ'_{vm} = 5.0 kPa OCR = 1.4 C_c = 1.1			
109						
30						
40						
50						
60						
70						
80						
90						
100				200		

UNSUITABLE: QUESTIONABLE: VOID: TESTED:

CRUISE: G-87-2-G m ; CORE: 11PC-1-2 ; CROSS SECTION: 6.7cm ; PAGE: 1 OF 1

DEPTH (cm)	236 TEST	RESULTS	REMARKS	100 TEST	RESULTS	REMARKS
0						
240						
245						
10						
250						
255						
20	CRSC SMEAR SEM	CR078 ω = 130 %	σ'vm = OCR = Cc =			
260						
261						
30						
40						
50						
60						
70						
80						
90						
100				200		

LONGITUDINAL CRACK ?

V. SMALL INCLUSIONS THROUGHOUT

WORM TUBES ? DENSER LAYER

LESS DENSE LAYER

UNSUITABLE: QUESTIONABLE: VOID: TESTED:

wet around top cap

CRUISE: G-87-2-G M; CORE: 30BC-1-2 ; CROSS SECTION: 6.9 cm ; PAGE: 1 OF 1

DEPTH (cm)	TEST	RESULTS	REMARKS	100 TEST	RESULTS	REMARKS
0						
10						
20	CRSC SEM. SMEAR	CR079 $w = 166\%$	$\bar{\sigma}_{vm} = 3.1$ kPa OCR = 4.9 $C_c = 1.59$			
25						
30						
40						
50						
60						
70						
80						
90						
100				200		

LESS DENSE LAYERS

LESS DENSE THROUGHOUT THAN PREVIOUS CORES

UNSUITABLE: QUESTIONABLE: VOID: TESTED:

CRUISE: G-87-2-G M ; CORE: 31PC-1-1 ; CROSS SECTION: 6.8 cm ; PAGE: 1 OF 1

DEPTH (cm)	41 TEST	RESULTS	REMARKS	100 TEST	RESULTS	REMARKS
0						
45						
50						
10						
55						
VOID ?						
60						
20	CRSC	CR080	σ'_{vm} = 7.9 kPa			
	SEM		OCR = 3.8			
	SMEAR	W = 158%	C_c = 1.34			
65						
66						
30						
40						
50						
60						
70						
80						
90						
100						
200						

SOME INDISTINCT THICK LAYERS THROUGHOUT

UNSUITABLE: QUESTIONABLE: VOID: TESTED:

CRUISE: G-87-2-G.M ; CORE: 31PC-1-2 ; CROSS SECTION: 6.8 cm ; PAGE: 1 OF 1

DEPTH (cm)	193 TEST	RESULTS	REMARKS	100 TEST	RESULTS	REMARKS
0						
195						
200						
10						
205						
	CRSC SEM SMEAR	CR081 W=111%	σ'_{vm} = 3.3 OCR = 3.8 Cc = 0.87			
210						
20						
215	CRSC SEM SMEAR	CR081	CRACKS			
218						
30						
40						
50						
60						
70						
80						
90						
100				200		

SMALL CLASTS/SHELLS THROUGHOUT

INDISTINCT THICK LAYERING THROUGHOUT

THIN CRACKS

NOTE: MOVED TO REFER 6-18-92

UNSUITABLE: QUESTIONABLE: VOID: TESTED:

SARAH JAAP CRUISE: G-87-2-G m ; CORE: 32BC-1-2 ; CROSS SECTION: 6.9cm ; PAGE: 1 OF 1

DEPTH (cm)	TEST	RESULTS	REMARKS	100 TEST	RESULTS	REMARKS
0						
5						
10						
15						
20	CASC SEM SMEAR	CR082 $w = 187\%$	$\sigma'_{vm} = 5.3$ kPa OCR = 9.6 $C_c = 1.39$			
25						
30						
40						
50						
60						
70						
80						
90						
100				200		

SOUPY

LESS DENSE

SM CLASTS THROUGHOUT

LESS DENSE THROUGHOUT

UNSUITABLE: QUESTIONABLE: VOID: TESTED:

STRONG H_2S ODOR

NOTE: MOVED TO REEFER 6-18-92

CRUISE: G-87-2-G m ; CORE: 33PC-1-1 ; CROSS SECTION: 6.9 cm ; PAGE: 1 OF 1

DEPTH (cm)	TEST	RESULTS	REMARKS	TEST	RESULTS	REMARKS
0						
115						
120	TS 1.66?					
10						
125						
130	CRSC SMEAR SEM	CR086 W = 113 %	σ'_{vm} = 390 kPa OCR = 68.5 C_c = 1.31			
20	CRSC SMEAR SEM	CR083 W = 123 %	σ'_{vm} = 8.5 kPa OCR = 1.6 C_c = 1.24			
135						
137						
30						
40						
50						
60						
70						
80						
90						
100						

POCKMARKED FR: GAS ESCAPE CRACKS: STIFF

CARBONATE RUBBLE THROUGHOUT GAS ???

DENSER

NOTE: MOVED TO REEFER 6-18-92

UNSUITABLE: QUESTIONABLE: VOID: TESTED:

(NOTE: SECTION MOVED TO REEFER 6-18-92)

CRUISE: G-87-2-6 m ; CORE: 33PC-1-2 ; CROSS SECTION: 6.9 cm ; PAGE: 1 OF 1

DEPTH (cm)	TEST	RESULTS	REMARKS	TEST	RESULTS	REMARKS
179				100		
180						
185						
190	TS 666?		TOO FRACTURED TO SAMPLE			
195	CRSC SMEAR SEM	CR084 W= 202 %	σ'vm = 8.3 kPa OCR = 1 Cc = 0.92			
200						
204						
10						
20						
30						
40						
50						
60						
70						
80						
90						
100						
200						

SLIDE H_2O; GAS POCKET

SARAN WRAP

CARBONATE RUBBLE

LOST LARGE AMOUNT OF CORE DUE TO GAS ESCAPE?

NOTE: MOVED TO REEFER 6-18-92

UNSUITABLE: QUESTIONABLE: VOID: TESTED:

MANY CRITTERS (WORMS) ON SURFACE

CRUISE: G-87-2-G m; CORE: 34BC-1-2; CROSS SECTION: 6.8cm ?; PAGE: 1 OF 1

SARAN WRAP

DEPTH (cm)	TEST	RESULTS	REMARKS	100 TEST	RESULTS	REMARKS
0						
10						
20	CRSC	CR106 w = 187 %	σ'vm = 7.8 kPa OCR = 15 Cc = 1.55			
	CRSC SMEAR SEM	CR085 w = 158 %	σ'vm = 3.4 kPa OCR = 5.3 Cc = 1.19			
30						
40						
50						
60						
70						
80						
90						
100						
200						

~LT OLIVE GRAY

BLACK ORGANIC

LG SHELL

INCLUSIONS/ SHELLS THROUGHOUT

UNSUITABLE: QUESTIONABLE: VOID: TESTED:

— 6.6 cm ID

4-7-87

W.O. = WIPE-OUT ZONE
N.W.O. = NON-WIPE-OUT ZONE
P.C. = PISTON CORE
B.C. = BOX CORE (PUSH CORE)

4-14-87

GEOTECH CORES (G-87-2)

STA	AREA	CORE TYPE	LENGTH	DEPTH	SEDIMENT TYPE	W TAKEN?	DISTURBANCE	COMMENTS
10	(272) W.O.	P.C.	10"	BOTT. SEC 1	MUD	Y		H_2S, CRACKS - CHEESE CAKE
		P.C.	10"	BOTT SEC 2		Y		H_2S, CRACKS - CHEESE CAKE
11	(272) N.W.O.	P.C.	10"	BOTT. SEC 1	MUD	Y		
		P.C.	10"	BOTT. SEC 2		Y		
						— sta 10 - other core - soupy to 1cm (removed)		
— 10	(272) W.O.	B.C.	10"			N		
6.9cm ID? — 11	(272) N.W.O.	B.C.	10"	— TOP 1½ cm REMOVED FOR WILEY - THIS CORE ONLY 1 CORE TAKEN foram rich?		N		
— 30	(192-234) ?	B.C.	10"			N		
31	(184) N.W.O.	P.C.	10"	BOTT. SEC 1	MUD	Y		
		P.C.	10"	BOTT SEC 2		Y		
						— sta 32	1½cm removed from other core - fecal pellets	
— 32	(184) N.W.O.	B.C.	10"			N		
33	(184) W.O.	P.C.	10"	BOTT SEC 1		?	VERY	GAS HYDRATES, EXPANSION, CARB. RU
		P.C.	10"	BOTT SEC 2		?	GAS VOID	" " "
— 34	(184) W.O.	B.C.	10"					OILY, SEEPAGE SITE
			GEOTECH. SEC.					
	W.O.	P.C.	2 ? (+ 2 DISTURBED)					
	W.O.	B.C.	2 (+1)			13 GEOTECH		
	N.W.O.	P.C.	4					
	N.W.O.	B.C.	2 (+1)					

4-7-87

W.O. = WIPE-OUT ZONE

N.W.O. = NON-WIPE-OUT ZONE

P.C. = PISTON CORE

B.C. = BOX CORE (PUSH CORE)

GEOTECH CORES (G-87-2)

STA	AREA	CORE TYPE	LENGTH	DEPTH	SEDIMENT TYPE	W TAKEN ?	DISTURBANCE	COMMENTS		
10	(272) W.O.	P.C.	10"	BOTT. SEC 1	MUD	Y		H_2S, CRACKS - CHEESE CAKE		
		P.C.	10"	BOTT SEC 2		Y		H_2S, CRACKS - CHEESE CAKE		
11	(272) N.W.O.	P.C.	10"	BOTT. SEC 1	MUD	Y				
		P.C.	10"	BOTT. SEC 2		Y				
10	(272) W.O.	B.C.	10"			N				
? 11	(272) N.W.O.	B.C.	10"			N		ONLY 1 CORE TAKEN		
30	(192-234) ?	B.C.	10"			N				
31	(184) N.W.O.	P.C.	10"	BOTT. SEC 1	MUD	Y				
		P.C.	10"	BOTT SEC 2		Y				
32	(184) N.W.O.	B.C.	10"			N				
33	(184) W.O.	P.C.	10"	BOTT SEC 1		?	VERY	GAS HYDRATES, EXPANSION, CAME PUR		
		P.C.	10"	BOTT SEC 2		?	GAS VOID	"	"	, "
34	(184) W.O.	B.C.	10"					OILY, SEEPAGE SITE		
			GEOTECH. SEC.							
	W.O.	P.C.	2 ? (+ 2 DISTURBED)							
	W.O.	B.C.	2 (+1)			13 GEOTECH				
	N.W.O.	P.C.	4							
	N.W.O.	B.C.	2 (+1)							

4-16-87

2½ cm

20 cm

17.5 cm

11 BC-1-1

lookout 1.5 cm

total length ~19.0 cm

LITHOGRAPHED IN U.S.A.—ADDISON-WESLEY PUBLISHING COMPANY, INC., READING, MASS. A-W Dataform® 10V

w/ Bob Commeau 7-9-87
Re: Carbonate Rubble Formation Fr: Gulf Of Mexico

Thermogenically Derived Methane Gas (From Cracking Of Petroleum) Seeps Upward

That Has Been Oxidized By Biologic Activity (Bacteria)
In An Anoxic Anerobic Sulfate Reduction Zone

Sulfate CH_3 → Carbonate CO_3

Combines w/ Calcium + Magnesium To Form A Precipitate

⇒ $CaCO_3$, $MnCO_3$?

⇒ Carbonate Rubble

5-6-87

Geotech Sample Intervals
Piston Cores
G-87-2

Piston Core Geotech Section	Calc. Distance from Top of Core
10 BC-1-2	
10PC-1-1	58-83cm ✓
10PC-1-2	210-235cm ✓
11 BC-1-1	
11PC-1-1	84-109cm ✓
11PC-1-2	236-261cm ✓
30BC-1-2	
31PC-1-1	41-66cm ✓
31PC-1-2	193-218cm ✓
32BC-1-2	
33PC-1-1	112-137cm ✓
33PC-1-2	179-204cm ✓
34 BC-1-2	

Samples

1-4-90

Piston Core # 10PC-1 Area 272 Wipe out Zone

Lat: 27° 40.52'N
Lon: 91° 31.58'W
Hit 1127LT (3/02)
11561.8 27174.1

Meters of wire: 698
Water depth:

Penetration: To top of fins (whole bomb) ~ 7.32m (24ft)
Recovery: (4 sections) 5.46 meters

	Foram Layer	D-Tubes Working	D-Tubes Archive
Section 1 - Sample # 1, 2, 3, Geotech		Working	Archive
" 2 - Sample # 1, 2, Geotech		"	"
" 3 - Sample # 1, 2		"	"
" 4 - Sample # 1, 2, 3		"	"

Piston Core # 11PC-1 Area 272 Non wipe out zone

Lat: 27° 39.91'N
Lon: 91 29.99'W
1318LT (3/02)
11569.0 27187.3

Meters of wire: 709
Water depth:

Penetration: To top of fins (whole bomb) ~ 7.32m (24ft)
Recovery: (4 sections) 5.75 meters

	Foram Layer	D-Tubes Working	D-Tubes Archive
Section 1 - Sample # 1, 2, 3, Geotech		Working	Archive
" 2 - Sample # 1, 2, 3, Geotech		"	"
" 3 - Sample # 1, 2 ← Sand + Silt Layer		"	"
4 - Sample # 1, 2, 3 ← Black Zone		"	"

Piston Core # 31PC-1 Area 184 Non wipe out zone

Lat: 27° 47.7'N
Lon: 91° 30.65'W
Hit 1345LT (3/11)

Meters of wire: 566
Water depth:

Penetration: To top of fins (whole bomb) ~ 7.32m (24ft)
Recovery: (4 sections) meters

	Foram Layer	D-Tubes Working	D-Tubes Archive
Section 1 - Sample # 1, 2, Geotech		Working	Archive
" 2 - Sample # 1, Geotech		"	"
" 3 - Section uncut - Refrig. storage in Texas			
" 4 - " " - " " "			

ston Core 33PC-1 Area 184 Wipe out zone
it 1448 LT (3/11) Lat: 27°46.93'N Meters of wire: 553M
Lon: 91° 30.39'W Depth:

Penetration: To top of fins (Whole Bomb) ~ 7.32 m (24 ft.)
Recovery: (4 sections) meters

	D-Tubes Working	D-Tubes Archive
Section 1 — Sample # 1, 2, 3, 4, Geotech		
Section 2 — Sample # 1, 2, Geotech	"	"
Section 3 — Sample # 1, 2, 3 4, Geotech	"	"
Section 4 — Section uncut — Refr. storage in Texas		

Box Core 10BC-1 Area 272 Wipe out zone
Hit 1201 LT (3/02) Lat: 27° 40.39'N Meters of wire: 685M
Lon: 91° 31.80'W Depth:
11561.8 27171.3
2 Push Cores: 10BC-1-1 Not waxed {D-Tubes Archive + Working
10BC-1-2 Waxed Geotech

Box Core 11BC-1 Area 272 Non-wipeout zone
Lat: 27° 40.34'N Meters of wire: 696m
Lon: 91° 29.93'W Depth:
11568.1 27190.0
1 Push Core: 11BC-1-1 Not waxed Geotech

Box Core 30BC-1 Area 190-234 Non-wipeout zone
Lat: 27° 44.1'N Meters of wire: 604m
Lon: 91° 15.2'W Depth:
11613.4 27354.
2 Push Cores: 30 BC-1-1 Not waxed {D-Tubes Archive + Working
30BC-1-1 Waxed Geotech

Box Core 32BC-1 Area 184 Non wipeout zone
Lat: 27°48.1'N Meters of wire: 532m
Lon: 91° 30.7'W Depth:
11543.6 27216.0
2 Push Cores: 32BC-1-1 Not Waxed {D-Tubes Archive & Wo
32BC-1-1 waxed

Box Core 34BC-1 Area 184 Wipe out zone
Lat: 27° 47.05'N Meters of wire: 542m
Lon: 91°-30.5'W
11547.5 27213.8
2 Push Cores: 34BC-1-1 Not waxed {D-Tubes Archive & Working
34BC-1-1 waxed