USGS DREDGE LOG

San Marcos

SHIP/LEG F7 87 SC

STATION # 05

DREDGE # 05

DEPTH INTERVAL(m) 4080-3045

DEPTH(m)corrected _____

DATE JD 340 LOCAL 12 16 87

TIME GMT 2240z- LOCAL 2:40pm

LATITUDE 32 33.21 TO 121 30.39

LONGITUDE 32 32.9 TO 121 30.2

TOTAL WEIGHT: DREDGE 255 Kg CRUST 20

PERCENTAGE OF ROCK COVERED BY CRUST 85% stained 15% w/ crusts to 35 mm

PERCENT BROKEN FROM: OUTCROP 5% TALUS 95%

THICKNESS OF MN CRUST: MAXIMUM 35 mm MINIMUM <1 mm AVERAGE 8 mm on the 15% <1 mm on rest of some

DOMINANT SURFACE TEXTURE patina, smooth, coarsly Granular on sides

SUBSTRATE LITHOLOGY olivine basalt, phosphoride, volcanic breccia rare, glass

NODULES PRESENT ∅

REMARKS: some [illegible] (yellow brown and [illegible]), crusts are massive to laminated, brown to black,

150 kg Tossed Basalt

local 12-6-87

CRUISE I.D. F7 87 SC

STATION NO. 05 SAN MARCOS SMT.

DREDGE NO. D5

Hein / Ozanne-Torres

Depth Interval: 4080 - 3045 m

	ON STATION	DREDGE ON BOTTOM	DREDGE OFF BOTTOM	OFF STATION
GMT	2240	0344 Z	0635 Z	341 - 0753
LATITUDE	32° 30.93	32° 33.21'	32 32.9	
LONGITUDE	121° 27.29	121° 30.39'	121 30.2	
H_2O DEPTH		3385 m	3435 m	

OPERATION (ON/OFF BOTTOM, BITES)	GMT	DEPTH (M)	TENSION	W/O (m)	COMMENTS (and lat/lon)
Dredge, H_2O	2300	4080		0	32 30.7/121 26.9
	0019	4075			getting blown off line, repositioning
	0304	3490		3700	reaching some slopes, will begin paying wire
	0310	3480		3900	
	0324	3410		4400	going to hold w/o for a bit, then let out to 4500,
ON BOTTOM	0344	3385		4500	
1st Bite	0401	3210	3.9, 3.1, 3.4	4500	32 33.7/121 30.6 going to bring in wire to 4100.
	0420		3.1		
	0423	3085		4300	32 33.5 / 121 30.78
	0428		4.2, 4.5, 4.0		
	0435		4.0, 4.9, 3.8	4200	
			3.9, 4.5		
	0451	3045	4.6 5.0	4197	32 33.60 121 30.87
	0433-0435	3045	4.1, 4.5, 5.1	4153	2 or 3 at 5.1, 5.0, 5.3, 5.3, 5.4 w/o = 4134 4.8, 4.15
	0439	3085	4.8 4.9, 5.1	4025	wire & looks good, topography dropping off
bite	0445		3.9, 4.4	3985	
	0447			3900	pulling in wire
	0449		4.6, 5.0, 5.2	3895-65	32 33.56/121 30.85 5.6 5.7, 5.8, 4.7, 4.9
HUNG UP	0450		5.1	3850	32 33.52 / 121 30.82 backing ship up, reeling wire slowly in
still hung up	0457	3070 ± deepening	4.5 pull constant	3806	
"	0459		4.7 4.6	3785	wire ∠ vertical
"	0501	3100	5.9, 5.5	3760	

OTHER COMMENTS: Wind and currents were keeping ship off line. Repositioned @ 1900 to use main engines & dredge without thrusters.

Rx FROM ~~3435~~ 3435m to 3385m on SAN MARCOS ALONG line SM1

✓ Most Rx from 3400-3435 m

12 6 87

STA 5

D5 continued.

CRUISE I.D. F7 87 SC

STATION NO. 05

DREDGE NO. D5

	ON STATION	DREDGE ON BOTTOM	DREDGE OFF BOTTOM	OFF STATION
GMT				
LATITUDE				
LONGITUDE				
H_2O DEPTH				

OPERATION	On/Off Bottom, Bites	GMT	DEPTH (M)	TENSION	W/O	COMMENTS
HANGS UP STILL		0501		5.0-6.0	3760	heaving, tension in 5.0-6.0 range
"		0507	3125	6.1, 6.3	3742	paying out line 32° 33.46 / 121° 30.74
"		0530	3180		3675	32 33.27 / 121 30.67
"		0550	3255		3601	creeping in - may or may not be hung up still
off ??		0628	3400	2.4	3501	Vieing for history's longest dredge
OFF BOTTOM		1635	3435			

OTHER COMMENTS:

USGS DREDGE LOG San Marcos

SHIP/LEG F7-87-SC

STATION # 6

DREDGE # D6

DEPTH INTERVAL(m) 2305m - 2170m

DEPTH(m)corrected _____

DATE JD 341 LOCAL Dec 7 1987

TIME GMT 0837 LOCAL 0037

LATITUDE 32°34.30 TO 32°34.66

LONGITUDE 121°31.76 TO 121°32.20

TOTAL WEIGHT: DREDGE 500 kg CRUST 60 kg

PERCENTAGE OF ROCK COVERED BY CRUST 95% (mostly pelagic)

PERCENT BROKEN FROM: OUTCROP 10% TALUS 90%

THICKNESS OF MN CRUST: MAXIMUM 5 mm MINIMUM Stain AVERAGE 8

DOMINANT SURFACE TEXTURE smooth to granular

SUBSTRATE LITHOLOGY Basalt, Volcanic Breccia, minor layered sed Rock. Bulk of the Dredge is Basalt, vesicular - Amygdaloidal Volcanic Breccia: Tan Mud on some of the rocks, pumice,

NODULES PRESENT Maybe

REMARKS: ~150 kg discarded - basalt

local DEC. 7

CRUISE I.D. F7 87 SC

STATION NO. 6 SAN MARCOS SMT.

DREDGE NO. db

Chief Sci & MT Hein/O'Toole

p. 1 of 2

	ON STATION	DREDGE ON BOTTOM	DREDGE OFF BOTTOM	OFF STATION
GMT	0837	0924	1115	1155
LATITUDE	32° 34.23	32° 34.30	32° 34.66	32° 34.98'
LONGITUDE	121° 31.60	121° 31.76	121° 32.20	121° 32.70'
H_2O DEPTH		2305 m	2170 m	

OPERATION (ON/OFF BOTTOM, BITES)	GMT	DEPTH (M)	TENSION	W/O	COMMENTS
Dredge in Water	0837	2435m	–	–	–
Holding position	0900	2435 ?			Lowering dredge bag
Dredge on bottom	0924	2305		2450m	
SCOPE OUT	0938		[illegible]	3000m	
	0947	2170			TAKING UP SLACK.
	0957	2165			MOVING SLOWLY UP THE LINE. TAKING UP SLACK.
DREDGING	1000	2165			SLACK TAKEN UP TENSION IS UP A BIT.
	1006	[illegible]	<2		SMALL BITES CHIPPING AT SURFACE
	1010		2.7		2.1 2.2 SMALL BITES
	1011		2.6		
	1012		2.6, 2.7		
	1013				SERIES ~2.5, THEN BREAKING OFF.
	1015	2215			DEEPENED A LITTLE.
	1018		2.7, 2.8		
	1020-22		3.4		[illegible]
	1025	2170	2.7		
	1028		2.6		
	1029		2.9		
	1030		2.5-3.0		
	1034	2110			HUNG UP
	1042				DECIDED TO WORK LOOSE
	1045	2140			

OTHER COMMENTS:

Most Rocks from 2200 - 2155 m over steepest bathy

local DEC. 7

CRUISE I.D. F7 87 SC

Chief Sci & MT WEIN & O'TOOLE

STATION NO. 6 SAN MARCOS SMT.

DREDGE NO. 6 CONT.

	ON STATION	DREDGE ON BOTTOM	DREDGE OFF BOTTOM	OFF STATION
GMT	0837	0924	1115	1155
LATITUDE	32° 34.23	32° 34.30	32° 34.66	32° 34.98'
LONGITUDE	121° 31.60	121° 31.76	121° 32.20	121° 32.70
H_2O DEPTH		2305m	2170m	

OPERATION (ON/OFF BOTTOM, BITES)	GMT	DEPTH (M)	TENSION W/O	COMMENTS
	1055	2155		STILL HUNG UP.
	1100	2175		
	1104	2155		BROKE FREE OFF OF HANG UP. MAX. PULL WAS 5.
				BRINGING IN CABLE.
	1115	2155		BAG OFF BOTTOM.
	1155			DREDGE ON DECK.

OTHER COMMENTS: