L12-80'
Taney Seamount

Tanner Seamount

L12-80-7-1A (B, C, etc...)

Mn coated and replaced (?) shell form, smooth but "porous" textured surface, average 115 mm length, 65 mm width at widest end, 8-20 mm thick. Brown - dark brown color, with yellow-tan internal specs; no internal structure, some substrate appears to have been replaced by Mn oxide.

L12-80-7-2A (B, C, etc...)

Flat, rounded Mn coated forms - perhaps weathered or eroded 'shell forms. Irregular but generally smooth surface. Average 80 mm length (longest dimension), 65 mm width (shortest) up to 23 mm thick. Samples appear to be layered "concentrically" around what remains of (assumed) substrate - now incompetent. Colors brown with some tan surface alteration (?), yellow-tan-white substrate particles. Replacement by Mn as above.

L12-80-7-5A (B, C, etc...)

Manganese nodules. Some elongate - not quite spherical, but all concentrically layered. 60-65 mm in diameter or longest dimension. Nucleus material variable - fine "cobble" (volcanic? siliceous?) to pure Mn oxide. Layering color variable - perhaps reflecting inclusion of siliceous or carbonaceous (yellow-tan) material. Otherwise color is typically Mn dark-brown.

L12-80-7-6A (B, C, etc...)

Manganese crusts (without substrate). Surfaces "pock-marked" but otherwise weathered smooth. Crusts up to 70 mm thick. Finely laminated with crystalline material below 10-15 mm zone of surface alteration (?) Colors - brown mixed with orange at surface - progressing to dark brown-grey-black Mn oxide

L12-80-7-3A (B, C, etc...)

Mn-coated coral (?) forms; generally smooth but irregular, bulbous surfaces; some forms cylindrical - others amorphous but elongated. 70-100 mm "length," 30-50 mm "width." Layering is irregular but distinguishable around substrate form. Colors deep brown with internal color depending upon presense of Mn (dk. brown or substrate (yellowish-tan). Internal features unidentifiable - requires chem. identification.

L12-80-7-4A (B, C, etc...)

Mn encrusted "tubes", some with hollowed centers, others solid throughout. Surfaces weathered smooth, but with some "brain" textures as with 7-3 samples - i.e. bulbous forms but of less distinction. Some forms with curled "tail," others just fecal-like. 100-110 mm length (max), 15-35 mm diameter. Some concentric layering. Substrate? Dark brown color, lighter substrate? particles internally.

Jason,

For each Mn sample

1) 20 gms of bulk material (powdered) for chem
2) large cross-section for photo, polishing, etc.
3) representative chip or slab for pts
4) store excess material and large cross-section slab in the office
5) 20 gms in glass vial
6) PTS chip in plastic vial or bag

R

All PTS chips and photo x-sections will require epoxy impregnating to prevent sample "crumbling."

MANGANESE FOR XRD

L3-80-NP 4-17 4 spots marked on rock

L3-80-NP 4-15 three spots marked top, central, bottom

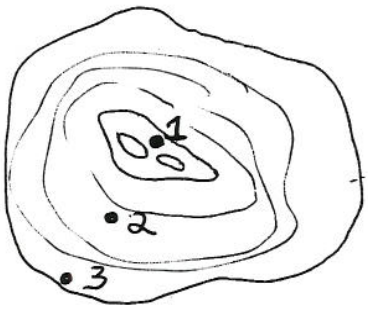
L3-80-NP 3-7 one spot

L3-80-NP 4-14 two spots marked top and bottom

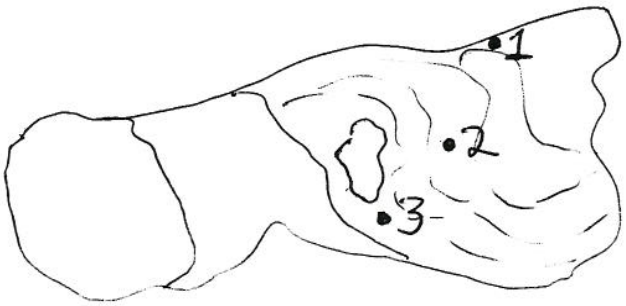
L3-80-NP 3-6 two spots on crust

Ll2- 80-NP 1-7 three spots thru crust, marked on sample with white # tags 1,2, and3

Ll2-80-WF-6 Nodule, three spots labeled 1, 2, and 3 as shown in drawing below



Ll2-80-4-10A Three spots labeled 1,2, and 3 as shown below



Ll2-80-4-17 four spots labeled 1,2,3,4; with 1 from the top to 4 at the bottom of the crust

Samples will be run at the following settings on the XRD:

TC 1, 600cps, Ul 7, Ll 4, 2° 2θ/min., 1"/min, from 4 to 65 or 70 deg.

Randolph

Northern California Seamounts

Taney Smts. L12-80-WF-4, L12-80-WF5 Chris Gutmacher: for dredge logs

Davidson L2-79-NC-3, L2-79-NC-1, S5-79-D12, S5-79-D13

Pioneer S4-78-D4, S4-78-D6

Guide S4-78-D1, S4-78-D2

Rodriguez L2-79-NC-4,

see Gary Greene for dredge logs

Jim, these are the cruise ID's for the dredges on more northerly seamounts. I have quite a bit of the L12-80-WF, and L2-79 materials in my rock collection. The remainder is either stored at MARFAC or may be in Brent Dalrymple's rock storage room. I will try to figure out where it all is.

Dave

MDIG 1/77

U.S.G.S. STATION OPERATIONS LOG

STATION * 4 page 1

SHIP/LEG S.P. Lee AREA Pacific - Taney Seamounts LAT (ST/ED) 36° 48.86 start

D 316 CHIEF SCI. Normark CRUISE LOCATOR (COL. 73-78) L12 - 80 ID. YR. AREA CODE (COL. 79-80) WF LONG (ST/ED) 125° 35.17

PUNCH FLAG	TIME & POSITION * JULIAN DAY	GMT TIME HR.-MIN.	LINE NO.	STA. NO. OR SHOT POINT	SPEC. CODE 3 LET.	EQUIP. CODE 4 LETTERS	SAMPLE ** ATTEMPT NO. 5 LET./NO.	'X' IN ONE BOX ONLY SAMPLING LOCATION DISCRETE E.G., DART CORE	VARIABLE E.G., DREDGE STRT	END	OPERATIONS, COMMENTS, OR DATA MEASUREMENTS	STATION DATA ONLY RECOVERY? Y/N	WATER DEPTH 4 NO.	DEPTH UNIT LET
X	316	1638		4	NAV	STAT	* 004		X		START STATION 004		*	
	316	1638		4	SAM	CHAN	004-1		✓		IN THE WATER		2880	M
	316	1646		4	SAM	CHAN	4-1				TDR IN WATER		2782	M
X	316	1712		4	SAM	CHAN	4-1		X		ON BOTTOM, WIRE OUT 2780		2715	M
	316	1713		4	SAM	CHAN	4-1		✓		SHIP AT 2.5 KT ~~WIRE~~		2715	M
	316	1713		4	SAM	CHAN	4-1				WIRE OUT 60 M PER MIN		2715	M
	316	1723		4	SAM	CHAN	4-1		✓		STOP WINCH		2580	M
	316	1731		4	SAM	CHAN	4-1				DREDGE IS MOVING		2470	M
	316	1736		4	SAM	CHAN	4-1				BITE 5000 LB		2400	M
	316	1741		4	SAM	CHAN	4-1				BITE 5300 LB		2347	M
	316	1744		4	SAM	CHAN	4-1				BITE 6600 LB		2332	M
	316	1745		4	SAM	CHAN	4-1				BITE 7000 LB		2325	M
	316	1749		4	SAM	CHAN	4-1				BITE 7300 LB		2310	M
	316	1750		4	SAM	CHAN	4-1				STARTING UP 50 M / MIN		2310	M
	316	1750		4	SAM	CHAN	4-1				BITE 8500 LB		2310	M
	1-3	5-8	12-15	16-19	21-23	25-28	29-33	36	37	38	41-64	66	67-70	71

REMARKS: EQUIP., OPERATION, WEATHER, ETC.

WIND ~10 KT from 350° ; WIRE OUT 3500 M

* PLEASE RIGHT-JUSTIFY THESE ENTRIES

** FORMAT FOR SAMPLE LABEL IS: CRUISE LOCATOR-SAMPLE ATTEMPT # (E.G., S2-76-103)

U.S.G.S. STATION OPERATIONS LOG

STATION # 4 page

SHIP/LEG S.P.Lee AREA Pacific - Taney Seamounts

JD 316 CHIEF SCI. Normark CRUISE LOCATOR (COL. 73-78) L12 - 80 (ID. / YR.) AREA CODE (COL. 79-80) WF

from Loran: LAT (ST/ED) end 36°49.63 LONG (ST/ED) 125°35.55

PUNCH FLAG	TIME & POSITION * JULIAN DAY	GMT TIME HR.-MIN.	LINE NO.	STA. NO. OR SHOT POINT	SPEC. CODE 3 LET.	EQUIP. CODE 4 LETTERS	SAMPLE ** ATTEMPT NO. 5 LET./NO.	'X' IN ONE BOX ONLY SAMPLING LOCATION DISCRETE E.G., DART CORE	VARIABLE E.G., DREDGE STRT	END	OPERATIONS, COMMENTS, OR DATA MEASUREMENTS	STATION DATA ONLY RECOVERY? Y/N	WATER DEPTH 4 NO.	DEPTH UNITS LE
	316	1801		4	SAM	CHAN	* 4-1				BITE 6500 LB		* 2317	M
	316	1802		4	SAM	CHAN	4-1				BITE 7200 LB		2317	M
	316	1802		4	SAM	CHAN	4-1				BITE 8400 LB		2317	M
X	316	1806		4	SAM	CHAN	4-1			X	OFF BOTTOM UP 100 M/MIN		2325	M
	316	1828		4	SAM	CHAN	4-1				TDR OUT OF WATER			
	316	1833		4	SAM	CHAN	4-1				DREDGE OUT OF WATER	Y		
X	316	1850		4	NAV	STAT	4			X	END STATION 4			
	1-3	5-8	12-15	16-19	21-23	25-28	29-33	36	37	38	41-64	66	67-70	71

REMARKS: EQUIP., OPERATION, WEATHER, ETC.

Basalt (5 bags)

Biological specimen resembling worm ~ 16 cm long 2 cm diam. (in jar #6)

MDIG 1/

U.S.G.S. STATION OPERATIONS LOG

STATION # 5 PAGE

SHIP/LEG S.P. Lee AREA Pacific - Taney Seamount LAT (ST/ED) 36°51.014N/36°52.

CHIEF SCI. Normark CRUISE LOCATOR (COL. 73-78) L12 - 80 (ID. / YR.) AREA CODE (COL. 79-80) WF LONG (ST/ED) -125°35.575W/125

PUNCH FLAG	TIME & POSITION * JULIAN DAY	GMT TIME HR.-MIN.	LINE NO.	STA. NO. OR SHOT POINT	SPEC. CODE 3 LET.	EQUIP. CODE 4 LETTERS	SAMPLE ** ATTEMPT NO. 5 LET./NO.	X'IN ONE BOX ONLY SAMPLING LOCATION DISCRETE E.G., DART CORE	VARIABLE E.G. DREDGE STRT	VARIABLE E.G. DREDGE END	OPERATIONS, COMMENTS, OR DATA MEASUREMENTS	STATION DATA ONLY RECOVERY? Y/N	WATER DEPTH 4 NO.	DEPTH UNITS LEVEL
	1-3	5-8	12-15	16-19	21-23	25-28	29-33	36	37	38	41-64	66	67-70	71
X	316	2057		5	NAN	STAT	* 005		X		ON STATION 5		*	
	316	2058		5	SAM	CHAN	005-1				DREDGE IN WATER		2611	M
	316	2105		5	SAM	CHAN	5-1				TDR IN WATER		2611	M
X	316	2130		5	SAM	CHAN	5-1		X		ON BOTTOM WIRE OUT 2600		2588	M
	316	2130		5	SAM	CHAN	5-1				UP SPEED TO 2 KT		2588	M
	316	2130		5	SAM	CHAN	5-1				PAY OUT AT 60 M PER MIN		2588	M
	316	2141		5	SAM	CHAN	5-1				STOP WINCH AT 3300 M		2543	M
	316	2202		5	SAM	CHAN	5-1				SERIES SMALL BITES <4K		2419	M
	316	2204		5	SAM	CHAN	5-1				4800 LB BITE		2419	M
	316	2205		5	SAM	CHAN	5-1				4400 LB BITE		2419	M
	316	2208		5	SAM	CHAN	5-1				SERIES SMALL BITES <4K		2440	M
	316	2215		5	SAM	CHAN	5-1				STOP SHIP		2468	M
	316	2215		5	SAM	CHAN	5-1				UP WIRE AT 40 M PER MIN		2468	M
	316	2216		5	SAM	CHAN	5-1				BITE 4400 LB TWO OF THEM		2468	M
	316	2217		5	SAM	CHAN	5-1				BITE 5000 LB		2468	M

REMARKS: EQUIP., OPERATION, WEATHER, ETC.

WIND 10 KT, FROM 310°

MDIG 1/7

U.S.G.S. STATION OPERATIONS LOG

STATION # 5 page 2

SHIP/LEG SPLee AREA Taney seamount - Pacific

CHIEF SCI. Normark CRUISE LOCATOR (COL. 73-78) L12 - 80 ID. YR. AREA CODE (COL. 79-80) WF

LAT (ST/ED) 36° 51.014' N / 36° 52.25

LONG (ST/ED) 125° 35.575' W / 125° 36

PUNCH FLAG	TIME & POSITION * JULIAN DAY	GMT TIME HR.-MIN.	LINE NO.	STA. NO. OR SHOT POINT	SPEC. CODE 3 LET.	EQUIP. CODE 4 LETTERS	SAMPLE ** ATTEMPT NO. 5 LET./NO.	X IN ONE BOX ONLY SAMPLING LOCATION DISCRETE E.G., DART CORE	VARIABLE E.G., DREDGE STRT	DREDGE END	OPERATIONS, COMMENTS, OR DATA MEASUREMENTS	STATION DATA ONLY RECOVERY? Y/N	WATER DEPTH 4 NO.	DEPTH UNIT LET
	1-3	5-8	12-15	16-19	21-23	25-28	29-33	36	37	38	41-64	66	67-70	71
X	316	2225		5	SAM	CHAN	* 5-1			X	OFF BOTTOM UP AT 100 MPM		* 2453	M
	316	2249		5	SAM	CHAN	5-1				TDR OFF OF WATER		2370	M
	316	2255		5	SAM	CHAN	5-1				DREDGE OUT OF WATER	Y	2370	M
X	316	2306		5	NAV	STAT	5			X	END STATION 5		23	M

REMARKS: EQUIP., OPERATION, WEATHER, ETC.

Mn crusts, a couple of basalts + some(?) bedded ash.

2 bags rocks

MDIG 1/

U.S.G.S. STATION OPERATIONS LOG

STATION # 6 page 2

SHIP/LEG SP Lee AREA Pacific - Taney Seamounts LAT (ST/ED) end 36° 45.27

CHIEF SCI. Normark CRUISE LOCATOR (COL. 73-78) L12 - 80 ID. YR. AREA CODE (COL. 79-80) WF LONG (ST/ED) end 125° 22.23

PUNCH FLAG	TIME & POSITION * JULIAN DAY	GMT TIME HR.-MIN.	LINE NO.	STA. NO. OR SHOT POINT	SPEC. CODE 3 LET.	EQUIP. CODE 4 LETTERS	SAMPLE ** ATTEMPT NO. 5 LET./NO.	X'IN ONE BOX ONLY SAMPLING LOCATION DISCRETE E.G., DART CORE	VARIABLE E.G. DREDGE STRT	VARIABLE E.G. DREDGE END	OPERATIONS, COMMENTS, OR DATA MEASUREMENTS	STATION DATA ONLY RECOVERY? Y/N	WATER DEPTH 4 NO.	DEPTH UNITS LET
	317	0210		6	SAM	CHAN	* 6-1				6800 LB BITE		*3375	M
	317	0219		6	SAM	CHAN	6-1				STOP WINCH - AHEAD SLOWLY		3375	M
	317	0228		6	SAM	CHAN	6-1				WIRE IN 30 M PER MIN		3277	M
	317	0231		6	SAM	CHAN	6-1				WIRE IN 50 M PER MIN		3277	M
X	317	0234		6	SAM	CHAN	6-1			X	OFF BOTTOM UP 100 M/MIN		3277	M
	317	0325		6	SAM	CHAN	6-1				TDR OUT OF WATER			
	317	0331		6	SAM	CHAN	6-1				DREDGE OUT OF WATER	Y		
X	317	0345		6	NAV	STAT	6			X	END STATION 6			
	1-3	5-8	12-15	16-19	21-23	25-28	29-33	36	37	38	41-64	66	67-70	71

REMARKS: EQUIP., OPERATION, WEATHER, ETC.

Wire out 3650 when we started up 100M/min — dredge may not have been on bottom after ~0215Z,

U.S.G.S. STATION OPERATIONS LOG

STATION * 7 page 1

SHIP/LEG S. P. LEE AREA Pacific - Taney Seamount LAT (ST/ED) 36° 45.02' start

CHIEF SCI. NORMARK CRUISE LOCATOR (COL. 73-78) L12 - 80 ID. YR. AREA CODE (COL. 79-80) WF LONG (ST/ED) 125° 22.20'

PUNCH FLAG	TIME & POSITION * JULIAN DAY	GMT TIME HR.-MIN.	LINE NO.	STA. NO. OR SHOT POINT	SPEC. CODE 3 LET.	EQUIP. CODE 4 LETTERS	SAMPLE ** ATTEMPT NO. 5 LET./NO.	'X' IN ONE BOX ONLY SAMPLING LOCATION DISCRETE E.G., DART CORE	VARIABLE E.G. DREDGE STRT	VARIABLE E.G. DREDGE END	OPERATIONS, COMMENTS, OR DATA MEASUREMENTS	STATION DATA ONLY RECOVERY? Y/N	WATER DEPTH 4 NO. *	DEPTH UNITS LET
	1-3	5-8	12-15	16-19	21-23	25-28	29-33	36	37	38	41-64	66	67-70	71
X	317	0406		7	NAV	STAT	* 7		X		START STATION 7			
	317	0410		7	SAM	CHAN	7-1				DREDGE IN WATER		3260	M
	317	0418		7	SAM	CHAN	7-1				TDR IN WATER		3180	M
	317	0418		7	SAM	CHAN	7-1				WIRE OUT 100 M/MIN		3180	M
X	317	0458		7	SAM	CHAN	7-1		X		ON BOTTOM WIRE OUT 3400		3037	M
	317	0458		7	SAM	CHAN	7-1				AHEAD 2 KT		3037	M
	317	0458		7	SAM	CHAN	7-1				WIRE OUT 40 M/MIN		3037	M
	317	0512		7	SAM	CHAN	7-1				STOP WINCH		3000	M
	317	0515		7	SAM	CHAN	7-1				DREDGE MOVING ON BOTTOM		3000	M
	317	0539		7	SAM	CHAN	7-1				WIRE IN 30 M/MIN		2947	M
	317	0539		7	SAM	CHAN	7-1				8000 LB BITE		2947	M
	317	0541		7	SAM	CHAN	7-1				7500 LB BITE		2947	M
	317	0543		7	SAM	CHAN	7-1				9000 LB BITE		2947	M
	317	0544		7	SAM	CHAN	7-1				9.5K BITE		2947	M
	317	0548		7	SAM	CHAN	7-1				7.5K BITES		2947	M

REMARKS: EQUIP., OPERATION, WEATHER, ETC.
wind 16 KT from 350° ; wire out 3900 M

U.S.G.S. STATION OPERATIONS LOG

STATION * 7 page 2

SHIP/LEG S. P. Lee AREA Pacific - Tanner Seamounts LAT (ST/ED) _____

CHIEF SCI. Normark CRUISE LOCATOR (COL. 73-78) L12 ID. - 80 YR. AREA CODE (COL. 79-80) WF LONG (ST/ED) _____

PUNCH FLAG	TIME & POSITION * JULIAN DAY	GMT TIME HR.-MIN.	LINE NO.	STA. NO. OR SHOT POINT	SPEC. CODE 3 LET.	EQUIP. CODE 4 LETTERS	SAMPLE ** ATTEMPT NO. 5 LET./NO.	'X' IN ONE BOX ONLY SAMPLING LOCATION DISCRETE E.G., PART CORE	VARIABLE E.G. DREDGE STRT	END	OPERATIONS, COMMENTS, OR DATA MEASUREMENTS	STATION DATA ONLY RECOVERY? Y/N	WATER DEPTH 4 NO.	DEPT UNI LET
	317	0600		7	SAM	CHAN	* 7-1				HUNG UP WINCHING BACK		*3000	M
	317	0611		7	SAM	CHAN	7-1				>13K BITE		3000	M
	317	0611		7	SAM	CHAN	7-1				FREE - WIRE IN 50M/MIN		3000	M
X	317	0619		7	SAM	CHAN	7-1			X	OFF BOTTOM ~~WIRE IN 100~~			
	317	0620		7	SAM	CHAN	7-1				WIRE IN 100 M/MIN			
	317	0645		7	SAM	CHAN	7-1				TDR OUT OF WATER			
	317	0651		7	SAM	CHAV	7-1				DREDGE OUT OF WATER	Y		
X	317	0652			NAV	STAT	7			X	END STATION 7			
	1-3	5-8	12-15	16-19	21-23	25-28	29-33	36	37	38	41-64	66	67-70	71

REMARKS: EQUIP., OPERATION, WEATHER, ETC.

recovery 3 bags - mostly Mn

MDIG 1/7

U.S.G.S. STATION OPERATIONS LOG

STATION # 8 & 7

SHIP/LEG S.P. Lee AREA Pacific–Taney Seamounts LAT (ST/ED) 36°40.429 N/36°41.
CHIEF SCI. Normark CRUISE LOCATOR (COL. 73-78) L12 – 80 (ID. / YR.) AREA CODE (COL. 79-80) WF LONG (ST/ED) 125°16.946 W/125°1

PUNCH FLAG	TIME & POSITION * JULIAN DAY	GMT TIME HR.-MIN.	LINE NO.	STA. NO. OR SHOT POINT	SPEC. CODE 3 LET.	EQUIP. CODE 4 LETTERS	SAMPLE ** ATTEMPT NO. 5 LET./NO.	X'IN ONE BOX ONLY SAMPLING LOCATION DISCRETE E.G., DART CORE	VARIABLE E.G., DREDGE STRT	VARIABLE E.G., DREDGE END	OPERATIONS, COMMENTS, OR DATA MEASUREMENTS	STATION DATA ONLY RECOVERY? Y/N	WATER DEPTH 4 NO.	DEPTH UNITS LET
X	317	0828		8	NAV	STAT	* 8		X		START STATION 8		* 3230	M
	317	0834		8	SAM	CHAN	8-1				DREDGE IN WATER		3263	M
	317	0843									TDR IN WATER		3323	M
X	317	0917		8	SAM	CHAN	8-1		X		ON BOTTOM WIRE OUT 3300		3260	M
	↓	0917									SPEED UP SHIP TO 2.6 KT		3260	M
		0917									WIRE OUT AT 60 MPM		3260	M
		0924									STOP WINCH WIRE OUT 3700		3188	M
		0958									BITE 5500 LB ?		2963	M
	↓	1025			↓	↓					UP WIRE 50 MPM		2978	M
X	317	1035		8	SAM	CHAN	8-1			X	UPWIRE 100 MPM OFF BTM		2978	M
	↓	1106			↓	↓					TDR OUT OF WATER		3015	M
	↓	1109			↓	↓					DREDGE OUT OF WATER	N	3020	M
X	317	1125		8	NAV	STAT	8			X	END STATION 8		2993	M
	1-3	5-8	12-15	16-19	21-23	25-28	29-33	36	37	38	41-64	66	67-70	71

REMARKS: EQUIP., OPERATION, WEATHER, ETC.

WIND 15 KT FROM 350° Base Krision 4K

SAMPLE DESCRIPTION

Cruise Id: L12-80-WF Size: _____ Location: Taney Seamount

Sample Id: L12-80-7-2C Weight: _____ Depth: 3037-2947m

Mn Crust Description

Surface Texture: smooth to granular

Mn Crust Thickness:

Min: 3 Max: 7 Ave: 4

Layers (Outer to Inner):

	Min	Max	Ave	Texture
1.				
2.				
3.				
4.				
5.				
6.				

Taney Seamounts
L12-80-7-2C

Comments and XRD Mineralogy:

Crust/Nodule around [illegible] only small piece still intact don't know original size

Substrate Description

Rock Type: Sand

Description:

ANALYSES

Subsample & Type	Analysis	Weight

Described By: JSM Subsampled By:

L12 - 80 - 7 - 1 A (B, C, etc...)

Mn coated and replaced (?) shell form, smooth but "porous" textured surface, average 115 mm length, 65 mm width at widest end, 8 - 20 mm thick. Brown - dark brown color, with yellow-tan internal specs; no internal structure, some substrate appears to have been replaced by Mn oxide.

L12 - 80 - 7 - 2 A (B, C, etc...)

Flat, rounded Mn coated forms - perhaps weathered or eroded shell forms. Irregular but generally smooth surface. Average 80 mm length (longest dimension), 65 mm width (shortest), up to 23 mm thick. Samples appear to be layered "concentrically" around what remains of (assumed) substrate - now incompetent. Colors brown with some tan surface alteration (?), yellow-tan-white substrate particles. Replacement by Mn as above.

SAMPLE DESCRIPTION

Cruise Id: L12-80-WF Size: _____ Location: Taney Seamount

Sample Id: L12-80-7-3A Weight: _____ Depth: 3037m - 2947m

Mn Crust Description

Surface Texture: Smooth

Mn Crust Thickness:

Min: 7mm Max: 11mm Ave: 7mm

Layers (Outer to Inner):

	Min	Max	Ave	Texture
1.				
2.				
3.				
4.				
5.				
6.				

Tamy Seamounts
L12-80-7-3A

Comments and XRD Mineralogy:

Laminae visible [illegible]

Very Knobby nodule with clay [illegible]

Substrate Description

Rock Type: Light yellow Brown clay

Description:

ANALYSES

Subsample & Type	Analysis	Weight
L12-80-7-3A, Bulk,	CC, 17gms	(used already powdered) sample
		XRD

Described By: JSM Subsampled By:

L12-80-7-3A (B, C, etc...)

Mn-coated coral (?) forms; generally smooth but irregular, bulbous surfaces; some forms cylindrical - others amorphous but elongated. 70-100 mm "length," 30-50 mm "width." Layering is irregular but distinguishable around substrate form. Colors deep brown with internal color depending upon presense of Mn (dk. brown) or substrate (yellowish-tan). Internal features unidentifiable - requires chem. identification.

L12-80-7-4A (B, C, etc...)

Mn encrusted "tubes", some with hollowed centers, others solid throughout. Surfaces weathered smooth, but with some "grain" textures as with 7-3 samples - i.e. bulbous forms but of less distinction. Some forms with curled "tail," others just fecal-like. 100-110 mm length (max), 15-35 mm diameter. Some concentric layering. Substrate? Dark brown color, lighter substrate? particles internally.

SAMPLE DESCRIPTION

Cruise Id: L12-80-WF Size: _____ Location: Taney Seamount

Sample Id: L12-80-7-4B Weight: _____ Depth: 3037-2947 M

Mn Crust Description

Surface Texture: _____

Mn Crust Thickness:

Min: _____ Max: _____ Ave: _____

Layers (Outer to Inner):

	Min	Max	Ave	Texture
1.				
2.				
3.				
4.				
5.				
6.				

Taney Seamounts
L12-80-7-4B

Comments and XRD Mineralogy:

Strange hollowed tube (clear [illegible] like or stalactite like form) with concentric rings

Substrate Description

Rock Type: ?

Description:

ANALYSES

Subsample & Type	Analysis	Weight
L12-80-7-4B, Bulk, CC, 16gm (used already powdered sample) XRD		

Described By: JM

Subsampled By:

L12-80-7-5A (B, C, etc...)

Manganese nodules. Some elongate - not quite spherical, but all concentrically layered. 60-65 mm in diameter or longest dimension. Nucleus material variable - fine "cobble" (volcanic? siliceous?) to pure Mn oxide. Layering color variable - perhaps reflecting inclusion of siliceous or carbonaceous (yellow-tan) material. Otherwise color is typically Mn dark-brown.

L12-80-7-6A (B, C, etc...)

Manganese crusts (without substrate). Surfaces "pock-marked," but otherwise weathered smooth. Crusts up to 70 mm thick. Finely laminated with crystalline material below 10-15 mm zone of surface alteration (?) Colors - brown mixed with orange at surface - progressing to dark brown-grey-black Mn oxide.

SAMPLE DESCRIPTION

Cruise Id: L12-80-WF Size: _____ Location: Taney Seamount

Sample Id: L12-80-7-5B Weight: _____ Depth: 3037 - 2947 M

Mn Crust Description

Surface Texture: _____

Mn Crust Thickness:

Min: _____ Max: _____ Ave: _____

Layers (Outer to Inner):

	Min	Max	Ave	Texture
1.				
2.				
3.				
4.				
5.				
6.				

L12-80-7-5B
TANEY SEAMOUNT

Comments and XRD Mineralogy:

Substrate Description

Rock Type: _____

Description:

ANALYSES

Subsample & Type	Analysis	Weight
L12-80-7-5BA, BULK, CC, 26gm (used already powdered sample)		
L12-80-7-5BB, Outer layers, CC, 54gms (0-7 & 0-20 mm whole Nodule ½ used) XRD		
L12-80-7-5BC, Nucleus, CC, 28gms, XRD		

Described By: Subsampled By:

This ½ of Sample For Chemistry

L12-80-7-5B

TANEY SEAMOUNT

SAMPLE DESCRIPTION

Cruise Id: L12-80-WF Size: _____ Location: Taney Seamount

Sample Id: L12-80-7-6A Weight: _____ Depth: 3037-2947M

Mn Crust Description

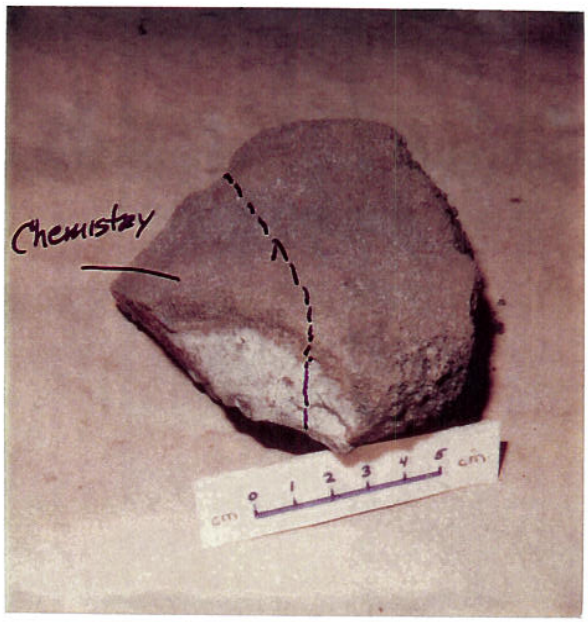
Surface Texture: _____

Mn Crust Thickness:

Min: ~ Max: 50mm Ave: _____

Layers (Outer to Inner):

	Min	Max	Ave	Texture
1.	18mm	30mm	20mm	Laminated
2.	12	18	15	Massive
3.				
4.				
5.				
6.				



L12-80-7-6A

Comments and XRD Mineralogy:

Outer layers laminated, porous, will Fe staining between laminae. Contact w/ lower layer is gradational. Chemistry sample, of outer and inner separated where the laminated layers broke evenly off the lower layer.

Substrate Description

Rock Type: _____

Description:

ANALYSES TANEY SEAMOUNT

Subsample & Type	Analysis	Weight
L12-80-7-6AA; Bulk, CC, (used already powdered sample)		20gm;
L12-80-7-6AB; Outer Layers;		0-25mm, 10.1gms, CC, XRD
L12-80-7-6AC; Inner Layers,		25-40mm, 5.3gms, CC,

Described By: Subsampled By:

MANGANESE FOR XRD

L3-80-NP 4-17 4 spots marked on rock

L3-80-NP 4-15 three spots marked top, central, bottom

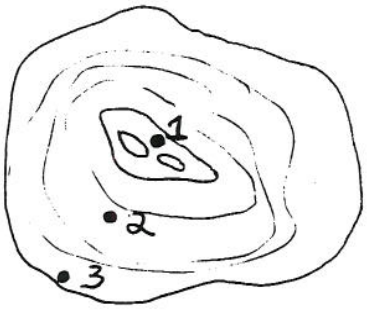
L3-80-NP 3-7 one spot

L3-80-NP 4-14 two spots marked top and bottom

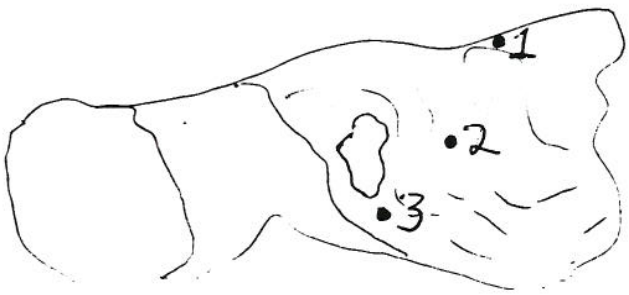
L3-80-NP 3-6 two spots on crust

L12- 80-NP 1-7 three spots thru crust, marked on sample with white # tags 1,2, and3

L12-80-WF-6 Nodule, three spots labeled 1, 2, and 3 as shown in drawing below



L12-80-4-10A Three spots labeled 1,2, and 3 as shown below



L12-80-4-17 four spots labeled 1,2,3,4; with 1 from the top to 4 at the bottom of the crust

Samples will be run at the following settings on the XRD:

TC 1, 600cps, Ul 7, Ll 4, 2° 2θ/min., 1"/min, from 4 to 65 or 70 deg.

Sample number	WF4 -1-7#1	WF4-1-7#2	WF4-1-7#3	80-4-10A#1	4-10A#2	4-10A#3	4-17#1	4-17#2	4-17#3	4-17#4	WF-6#1	#2	#3
Mineral													
Todorokite						X				?	X	X	X
Birnessite					X			X		?	X		
MnO_2	X	X	X	X	X		X		X	?		?	
Quartz	X	X	X	X	X	X	X	X	X	X	X	X	X
Plag.	?	X	?				X	X	X	X	?	X	?
Smectite													
Phillipsite					X								
Cryptomelane													
Dahlite													

\+ Identified, abundant

X Identified, not abundant

? Possible Identification

MDIG 1/77

U.S.G.S. STATION OPERATIONS LOG

STATION * 4 page 1

SHIP/LEG S.P Lee AREA Pacific - Tanner Seamounts

JD 316 CHIEF SCI. Normark CRUISE LOCATOR (COL. 73-78) L12 - 80 (ID. / YR.) AREA CODE (COL. 79-80) WF

LAT (ST/ED) 36° 48.86 start

LONG (ST/ED) 125° 35.17

PUNCH FLAG	TIME & POSITION * JULIAN DAY	GMT TIME HR.-MIN.	LINE NO.	STA. NO. OR SHOT POINT	SPEC. CODE 3 LET.	EQUIP. CODE 4 LETTERS	SAMPLE ** ATTEMPT NO. 5 LET./NO.	'X' IN ONE BOX ONLY SAMPLING LOCATION DISCRETE E.G., DART CORE	VARIABLE E.G., DREDGE STRT	VARIABLE E.G., DREDGE END	OPERATIONS, COMMENTS, OR DATA MEASUREMENTS	STATION DATA ONLY RECOVERY? Y/N	WATER DEPTH 4 NO.	DEPTH UNIT LET
	1-3	5-8	12-15	16-19	21-23	25-28	29-33	36	37	38	41-64	66	67-70	71
X	316	1638		4	NAV	STAT	* 004		X		START STATION 004		*	
	316	1638		4	SAM	CHAN	004-1				IN THE WATER		2880	M
	316	1646		4	SAM	CHAN	4-1				TDR IN WATER		2782	M
X	316	1712		4	SAM	CHAN	4-1		X		ON BOTTOM WIRE OUT 2780		2715	M
	316	1713		4	SAM	CHAN	4-1				SHIP AT 2.5 KT ~~WIRE~~		2715	M
	316	1713		4	SAM	CHAN	4-1				WIRE OUT 60 M PER MIN		2715	M
	316	1723		4	SAM	CHAN	4-1				STOP WINCH		2580	M
	316	1731		4	SAM	CHAN	4-1				DREDGE IS MOVING		2470	M
	316	1736		4	SAM	CHAN	4-1				BITE 5000 LB		2400	M
	316	1741		4	SAM	CHAN	4-1				LITE 5300 LB		2347	M
	316	1744		4	SAM	CHAN	4-1				BITE 6600 LB		2332	M
	316	1745		4	SAM	CHAN	4-1				BITE 7000 LB		2325	M
	316	1749		4	SAM	CHAN	4-1				BITE 7300 LB		2310	M
	316	1750		4	SAM	CHAN	4-1				STARTING UP 50 M / MIN		2310	M
	316	1750		4	SAM	CHAN	4-1				BITE 8500 LB		2310	M

REMARKS: EQUIP., OPERATION, WEATHER, ETC.

WIND ~10 KT From 350° WIRE OUT 3500 M

* PLEASE RIGHT-JUSTIFY THESE ENTRIES

** FORMAT FOR SAMPLE LABEL IS: CRUISE LOCATOR-SAMPLE ATTEMPT # (E.G., S2-76-103)

MDIG 1/77

U.S.G.S. STATION OPERATIONS LOG

STATION # 4 page 2

SHIP/LEG S.P. Lee AREA Pacific - Taney Seamounts

JP 316 CHIEF SCI. Normark CRUISE LOCATOR (COL. 73-78) L12 ID. - 80 YR. AREA CODE (COL. 79-80) WF

from Loran LAT (ST/ED) end 36° 49.63 LONG (ST/ED) 125° 35.55

PUNCH FLAG	TIME & POSITION * JULIAN DAY	GMT TIME HR.-MIN.	LINE NO.	STA. NO. OR SHOT POINT	SPEC. CODE 3 LET.	EQUIP. CODE 4 LETTERS	SAMPLE ** ATTEMPT NO. 5 LET./NO.	'X' IN ONE BOX ONLY SAMPLING LOCATION DISCRETE E.G., DART CORE	VARIABLE E.G. DREDGE STRT	END	OPERATIONS, COMMENTS, OR DATA MEASUREMENTS	STATION DATA ONLY RECOVERY? Y/N	WATER DEPTH 4 NO.	DEPTH UNIT LET
	316	1801		4	SAM	CHAN	* 4-1				BITE 6500 LB		* 2317	M
	316	1802		4	SAM	CHAN	4-1				BITE 7200 LB		2317	M
	316	1802		4	SAM	CHAN	4-1				BITE 8400 LB		2317	M
X	316	1806		4	SAM	CHAN	4-1			X	OFF BOTTOM UP 100 M/MIN		2325	M
	316	1828		4	SAM	CHAN	4-1				TDR OUT OF WATER			
	316	1833		4	SAM	CHAN	4-1				DREDGE OUT OF WATER	Y		
X	316	1850		4	NAV	STAT	4			X	END STATION 4			
	1-3	5-8	12-15	16-19	21-23	25-28	29-33	36	37	38	41-64	66	67-70	71

REMARKS: EQUIP., OPERATION, WEATHER, ETC.

Basalt (5 bags)

Biological specimen resembling worm ~ 16 cm long 2 cm diam. (in jar in reefer)

* PLEASE RIGHT-JUSTIFY THESE ENTRIES

** FORMAT FOR SAMPLE LABEL IS: CRUISE LOCATOR-SAMPLE ATTEMPT # (E.G., S2-76-103)

MDIG 1/77

U.S.G.S. STATION OPERATIONS LOG

STATION # 5 PAGE 1

SHIP/LEG S.P. Lee AREA Pacific - Taney Seamount

CHIEF SCI. Normark CRUISE LOCATOR (COL. 73-78) L12 - 80 ID. YR. AREA CODE (COL. 79-80) WF

LAT (ST/ED) 36°51.014N/36°52.250

LONG (ST/ED) -125°35.575W/125°36.8

PUNCH FLAG	TIME & POSITION * JULIAN DAY	GMT TIME HR.-MIN.	LINE NO.	STA. NO. OR SHOT POINT	SPEC. CODE 3 LET.	EQUIP. CODE 4 LETTERS	SAMPLE ** ATTEMPT NO. 5 LET./NO.	'X' IN ONE BOX ONLY SAMPLING LOCATION DISCRETE E.G. DART CORE	VARIABLE E.G. DREDGE STRT	END	OPERATIONS, COMMENTS, OR DATA MEASUREMENTS	STATION DATA ONLY RECOVERY? Y/N	WATER DEPTH 4 NO.	DEPTH UNIT LET
	1-3	5-8	12-15	16-19	21-23	25-28	29-33	36	37	38	41-64	66	67-70	71
X	316	2057		5	NAN	STAT	* 005		X		ON STATION 5		*	
	316	2058		5	SAM	CHAN	005-1				DREDGE IN WATER		2611	M
	316	2105		5	SAM	CHAN	5-1				TDR IN WATER		2611	M
X	316	2130		5	SAM	CHAN	5-1		X		ON BOTTOM WIRE OUT 2600		2588	M
	316	2130		5	SAM	CHAN	5-1				UP SPEED TO 2 KT		2588	M
	316	2130		5	SAM	CHAN	5-1				PAY OUT AT 60 M PER MIN		2588	M
	316	2141		5	SAM	CHAN	5-1				STOP WINCH AT 3300 M		2543	M
	316	2202		5	SAM	CHAN	5-1				SERIES SMALL BITES <4K		2419	M
	316	2204		5	SAM	CHAN	5-1				4800 LB BITE		2419	M
	316	2205		5	SAM	CHAN	5-1				4400 LB BITE		2419	M
	316	2208		5	SAM	CHAN	5-1				SERIES SMALL BITES <4K		2440	M
	316	2215		5	SAM	CHAN	5-1				STOP SHIP		2468	M
	316	2215		5	SAM	CHAN	5-1				UP WIRE AT 40 M PER MIN		2468	M
	316	2216		5	SAM	CHAN	5-1				BITE 4400 LB TWO OF THEM		2468	M
	316	2217		5	SAM	CHAN	5-1				BITE 5000 LB		2468	M

REMARKS: EQUIP., OPERATION, WEATHER, ETC.

WIND 10 KT, FROM 310°

* PLEASE RIGHT-JUSTIFY THESE ENTRIES

** FORMAT FOR SAMPLE LABEL IS: CRUISE LOCATOR-SAMPLE ATTEMPT # (E.G., S2-76-103)

MDIG 1/77

U.S.G.S. STATION OPERATIONS LOG

STATION * 5 page 2

SHIP/LEG SPLCE AREA Taney seamount - Pacific

CHIEF SCI. Normark CRUISE LOCATOR (COL. 73-78) L12 ID. - 80 YR. AREA CODE (COL. 79-80) WF

LAT (ST/ED) 36° 51.014 N / 36° 52.250

LONG (ST/ED) 125° 35.575 W / 125° 36.8

PUNCH FLAG	TIME & POSITION * JULIAN DAY	GMT TIME HR.-MIN.	LINE NO.	STA. NO. OR SHOT POINT	SPEC. CODE 3 LET.	EQUIP. CODE 4 LETTERS	SAMPLE ** ATTEMPT NO. 5 LET./NO.	'X' IN ONE BOX ONLY SAMPLING LOCATION: DISCRETE E.G., DART CORE	VARIABLE F.G., DREDGE: STRT	END	OPERATIONS, COMMENTS, OR DATA MEASUREMENTS	STATION DATA ONLY: RECOVERY? Y/N	WATER DEPTH 4 NO.	DEPTH UNIT LET
X	316	2225		5	SAM	CHAN	* 5-1			X	OFF BOTTOM UP AT 1000 MPM		* 2453	M
	316	2249		5	SAM	CHAN	5-1				TDR OFF OF WATER		2370	M
	316	2255		5	SAM	CHAN	5-1				DREDGE OUT OF WATER	Y	2370	M
X	316	2306		5	NAV	STAT	5			X	END STATION 5		23	M
	1-3	5-8	12-15	16-19	21-23	25-28	29-33	36	37	38	41-64	66	67-70	71

REMARKS: EQUIP., OPERATION, WEATHER, ETC.

Mn crusts, a couple of basalts + some (?) bedded ash.

2 bags rocks

* PLEASE RIGHT-JUSTIFY THESE ENTRIES

* * FORMAT FOR SAMPLE LABEL IS: CRUISE LOCATOR-SAMPLE ATTEMPT # (E.G., S2-78-103)

MDIG 1/77

U.S.G.S. STATION OPERATIONS LOG

STATION * 6 p1

SHIP/LEG S.P. Lee AREA PACIFIC - TANEY Seamounts. LAT (ST/ED) 36°45.049

CHIEF SCI. Normark CRUISE LOCATOR (COL. 73-78) L12 - 80 (ID. / YR.) AREA CODE (COL. 79-80) WF LONG (ST/ED) 125°23.572

PUNCH FLAG	TIME & POSITION * JULIAN DAY	GMT TIME HR.-MIN.	LINE NO.	STA. NO. OR SHOT POINT	SPEC. CODE 3 LET.	EQUIP. CODE 4 LETTERS	SAMPLE ** ATTEMPT NO. 5 LET./NO.	'X' IN ONE BOX ONLY SAMPLING LOCATION: DISCRETE E.G., DART CORE	VARIABLE E.G., DREDGE: STRT	END	OPERATIONS, COMMENTS, OR DATA MEASUREMENTS	STATION DATA ONLY: RECOVERY? Y/N	WATER DEPTH 4 NO.	DEPTH UNIT LET
	1-3	5-8	12-15	16-19	21-23	25-28	29-33	36	37	38	41-64	66	67-70	71
X	317	0042		6	NAV	STAT	0006		X		START STATION 6		*3998	M
	317	0042		6	SAM	CHAN	6-1				DREDGE IN WATER		3998	M
	317	0050		6	SAM	CHAN	6-1				TDR IN WATER		3675	M
X	317	0129		6	SAM	CHAN	6-1		X		ON BOTTOM WIRE OUT 3750		3650	M
	317	0130		6	SAM	CHAN	6-1		"		UP SPEED TO 2.5 KT		3650	M
	317	0130		6	SAM	CHAN	6-1		"		WIRE OUT AT 60 M / MIN		3650	M
	317	0133		6	SAM	CHAN	6-1				WIRE OUT 40 M PER MIN		3650	M
	317	0141		6	SAM	CHAN	6-1				STOP WINCH 4300M		3607	M
	317	0146		6	SAM	CHAN	6-1				DREDGE MOVING		3550	M
	317	0154		6	SAM	CHAN	6-1				SMALL BITES ~6000 LB		3375	M
	317	0156		6	SAM	CHAN	6-1				STOP SHIP		3375	M
	317	0201		6	SAM	CHAN	6-1				WIRE IN 20 M PER MIN		3375	M
	317	0203		6	SAM	CHAN	6-1				SMALL BITES ~6000 LB		3375	M
	317	0207		6	SAM	CHAN	6-1				6400 LB BITE		3375	M
	317	0209		6	SAM	CHAN	6-1				WIRE IN 30 M PER MIN		3375	M

REMARKS: EQUIP., OPERATION, WEATHER, ETC.

Wind ~15 KT from 000° ; WIRE OUT 4300

* PLEASE RIGHT-JUSTIFY THESE ENTRIES

** FORMAT FOR SAMPLE LABEL IS: CRUISE LOCATOR-SAMPLE ATTEMPT # (E.G., S2-76-103)

MDIG 1/77

U.S.G.S. STATION OPERATIONS LOG

STATION * 6 page 2

SHIP/LEG SP Lee AREA Pacific - Taney Seamounts LAT (ST/ED) end 36° 45.27

CHIEF SCI. Normark CRUISE LOCATOR (COL. 73-78) L12 ID. - 80 YR. AREA CODE (COL. 79-80) WF LONG (ST/ED) end 125° 22.23

PUNCH FLAG	TIME & POSITION * JULIAN DAY	GMT TIME HR.-MIN.	LINE NO.	STA. NO. OR SHOT POINT	SPEC. CODE 3 LET.	EQUIP. CODE 4 LETTERS	SAMPLE ** ATTEMPT NO. 5 LET./NO.	X IN ONE BOX ONLY SAMPLING LOCATION DISCRETE E.G. DART CORE	VARIABLE E.G. DREDGE STRT	VARIABLE E.G. DREDGE END	OPERATIONS, COMMENTS, OR DATA MEASUREMENTS	STATION DATA ONLY RECOVERY? Y/N	WATER DEPTH 4 NO.	DEPTH UNIT LET
	317	0210		6	SAM	CHAN	* 6-1				6800 LB BITE		* 3375	M
	317	0219		6	SAM	CHAN	6-1				STOP WINCH - AHEAD SLOWLY		3375	M
	317	0228		6	SAM	CHAN	6-1				WIRE IN 30 M PER MIN		3277	M
	317	0231		6	SAM	CHAN	6-1				WIRE IN 50 M PER MIN		3277	M
X	317	0234		6	SAM	CHAN	6-1			X	OFF BOTTOM UP 100 M/MIN		3277	M
	317	0325		6	SAM	CHAN	6-1				TDR OUT OF WATER			
	317	0331		6	SAM	CHAN	6-1				DREDGE OUT OF WATER	Y		
X	317	0345		6	NAV	STAT	6-6			X	END STATION 6			
	1-3	5-8	12-15	16-19	21-23	25-28	29-33	36	37	38	41-64	66	67-70	71

REMARKS: EQUIP., OPERATION, WEATHER, ETC.

Wire out 3375 when we started up 100 M/min — dredge may not have been on bottom after 0215 Z,

Trouble with winch on way up. 1 rock in white sample bag a little mud in plastic bag.

* PLEASE RIGHT-JUSTIFY THESE ENTRIES

** FORMAT FOR SAMPLE LABEL IS: CRUISE LOCATOR-SAMPLE ATTEMPT # (E.G., S2-76-103)

MDIG 1/77

U.S.G.S. STATION OPERATIONS LOG

STATION * 7 page 1

SHIP/LEG S. P. LEE AREA Pacific - Taney Seamount LAT (ST/ED) 36° 45.02' start

CHIEF SCI. NORMARK CRUISE LOCATOR (COL. 73-78) L12 - 80 (ID. / YR.) AREA CODE (COL. 79-80) NF LONG (ST/ED) 125° 22.20'

PUNCH FLAG	TIME & POSITION * JULIAN DAY	GMT TIME HR.-MIN.	LINE NO.	STA. NO. OR SHOT POINT	SPEC. CODE 3 LET.	EQUIP. CODE 4 LETTERS	SAMPLE ** ATTEMPT NO. 5 LET./NO.	'X' IN ONE BOX ONLY SAMPLING LOCATION DISCRETE E.G., DART CORE	VARIABLE E.G., DREDGE STRT	END	OPERATIONS, COMMENTS, OR DATA MEASUREMENTS	STATION DATA ONLY RECOVERY? Y/N	WATER DEPTH 4 NO.	DEPTH UNIT LET
	1-3	5-8	12-15	16-19	21-23	25-28	29-33	36	37	38	41-64	66	67-70	71
X	317	0406		7	NAV	STAT	* 7		X		START STATION 7		*	
	317	0410		7	SAM	CHAN	7-1				DREDGE IN WATER		3260	M
	317	0418		7	SAM	CHAN	7-1				TDR IN WATER		3180	M
	317	0418		7	SAM	CHAN	7-1				WIRE OUT 100 M/MIN		3180	M
X	317	0458		7	SAM	CHAN	7-1		X		ON BOTTOM WIRE OUT 3400		3037	M
	317	0458		7	SAM	CHAN	7-1				AHEAD 2 KT		3037	M
	317	0458		7	SAM	CHAN	7-1				WIRE OUT 40 M/MIN		3037	M
	317	0512		7	SAM	CHAN	7-1				STOP WINCH		3000	M
	317	0515		7	SAM	CHAN	7-1				DREDGE MOVING ON BOTTOM		3000	M
	317	0539		7	SAM	CHAN	7-1				WIRE IN 30 M/MIN		2947	M
	317	0539		7	SAM	CHAN	7-1				8000 LB BITE		2947	M
	317	0541		7	SAM	CHAN	7-1				7500 LB BITE		2947	M
	317	0543		7	SAM	CHAN	7-1				9000 LB BITE		2947	M
	317	0544		7	SAM	CHAN	7-1				9.5K BITE		2947	M
	317	0548		7	SAM	CHAN	7-1				7.5K BITES		2947	M

REMARKS: EQUIP., OPERATION, WEATHER, ETC.
wind 16 KT from 3500 ; wire out 3700 M

* PLEASE RIGHT-JUSTIFY THESE ENTRIES

** FORMAT FOR SAMPLE LABEL IS: CRUISE LOCATOR-SAMPLE ATTEMPT # (E.G., S2-76-103)

MDIG 1/77

U.S.G.S. STATION OPERATIONS LOG

STATION # 7 page 2

SHIP/LEG S. P. Lee AREA Pacific - Tarey Seamounts LAT (ST/ED) _____

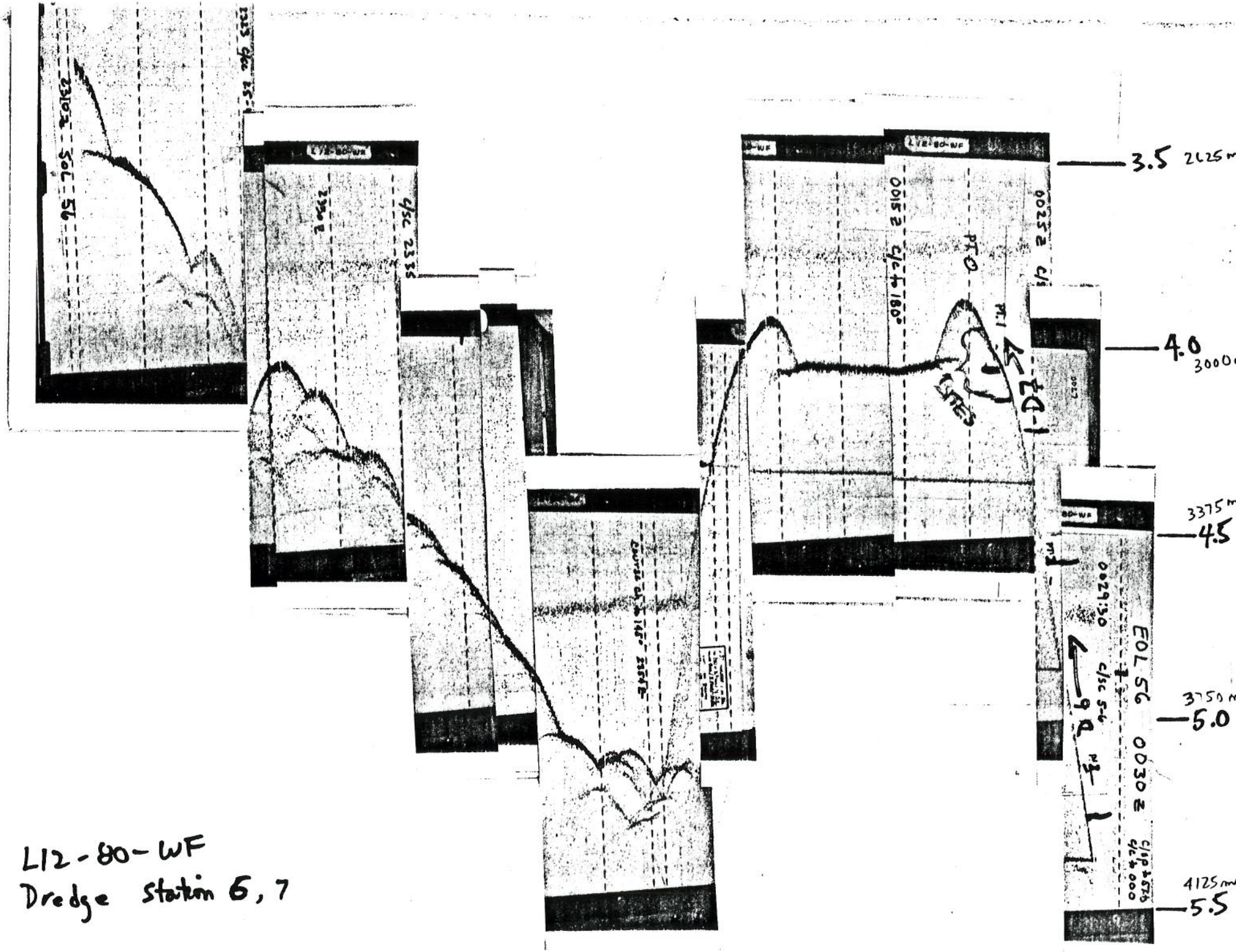
CHIEF SCI. Normark CRUISE LOCATOR (COL. 73-78) L12 ID. - 80 YR. AREA CODE (COL. 79-80) WF LONG (ST/ED) _____

PUNCH FLAG	TIME & POSITION * JULIAN DAY	GMT TIME HR.-MIN.	LINE NO.	STA. NO. OR SHOT POINT	SPEC. CODE 3 LET.	EQUIP. CODE 4 LETTERS	SAMPLE ** ATTEMPT NO. 5 LET./NO.	'X' IN ONE BOX ONLY SAMPLING LOCATION DISCRETE E.G. DART CORE	VARIABLE E.G. DREDGE STRT	END	OPERATIONS, COMMENTS, OR DATA MEASUREMENTS	STATION DATA ONLY RECOVERY? Y/N	WATER DEPTH 4 NO.	DEPTH UNIT LET
	317	0600		7	SAM	CHAN	* 7-1				H.U.N.G. U.P. W.I.N.C.H.I.N.G. B.A.C.K.		* 3000	M
	317	0611		7	SAM	CHAN	7-1				>13K BITE		3000	M
	317	0611		7	SAM	CHAN	7-1				F.R.E.E. - W.I.R.E. I.N. 50M/M.I.N.		3000	M
X	317	0619		7	SAM	CHAN	7-1			X	O.F.F. B.O.T.T.O.M ~~W.I.R.E. I.N. 100~~			
	317	0620		7	SAM	CHAN	7-1				W.I.R.E. I.N. 100. M/M.I.N.			
	317	0645		7	SAM	CHAN	7-1				T.D.R. O.U.T. O.F. W.A.T.E.R.			
	317	0651		7	SAM	CHAN	7-1				D.R.E.D.G.E. O.U.T. O.F. W.A.T.E.R.	Y		
X	317	0652			NAV	STAT	7			X	E.N.D. S.T.A.T.I.O.N. 7			
	1-3	5-8	12-15	16-19	21-23	25-28	29-33	36	37	38	41-64	66	67-70	71

REMARKS: EQUIP., OPERATION, WEATHER, ETC.

recovery 3 bags - mostly Mn

(* FORMAT FOR SAMPLE LABELS: CRUISE LOCATOR SAMPLE ATTEMPT # (E.G., S2-76-103))



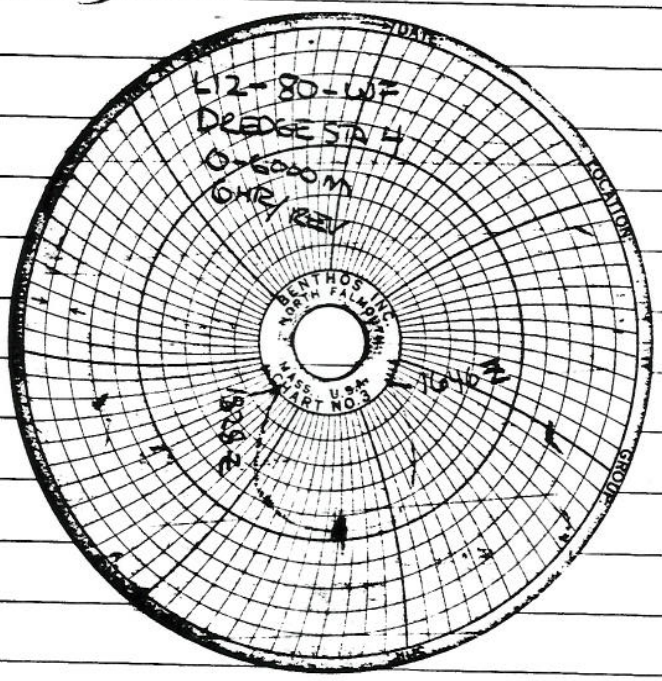
L12-80-WF
Dredge station 6, 7

STATION 4

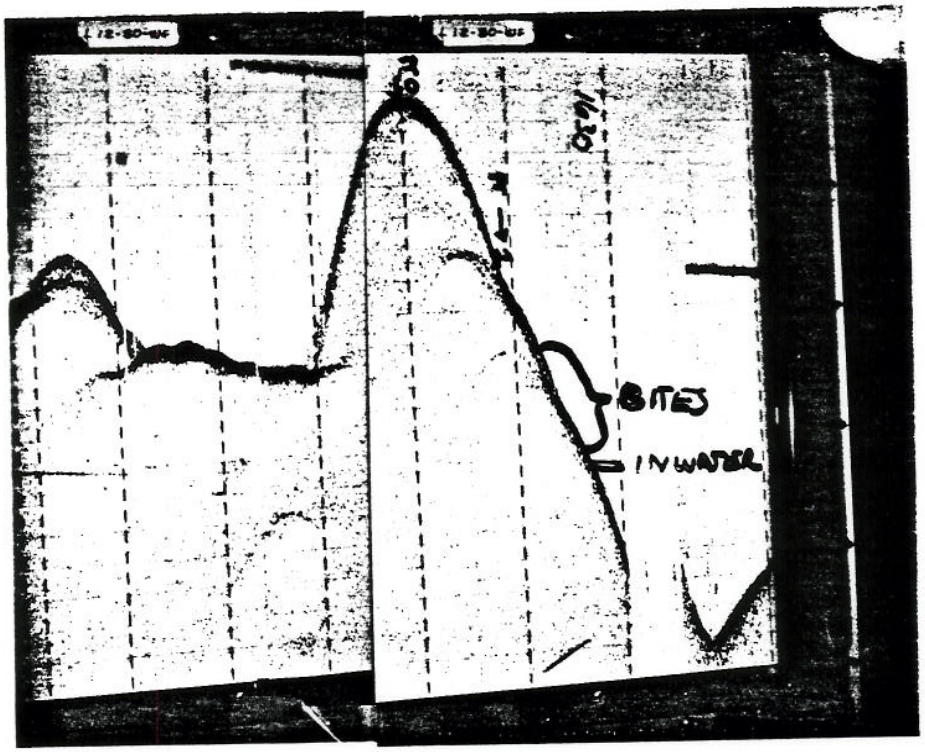
Start 316 / 1638

END 316 / 1854

recovered rocks & a biological specimens about 16 cm long & 2 cm in diam. resembling a worm - has little nubs along body



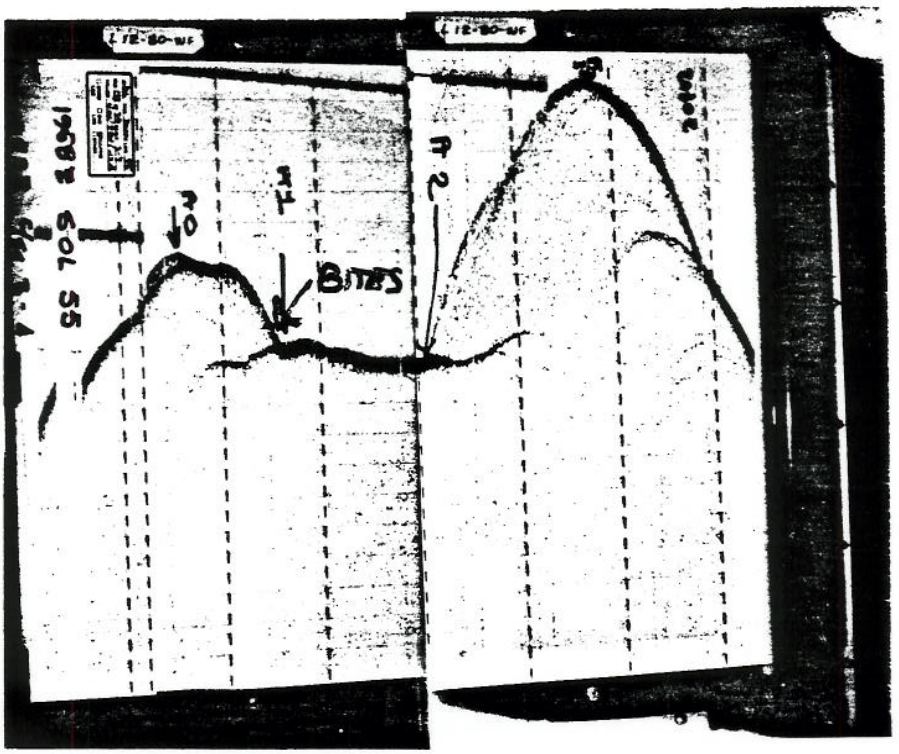
STATION 4

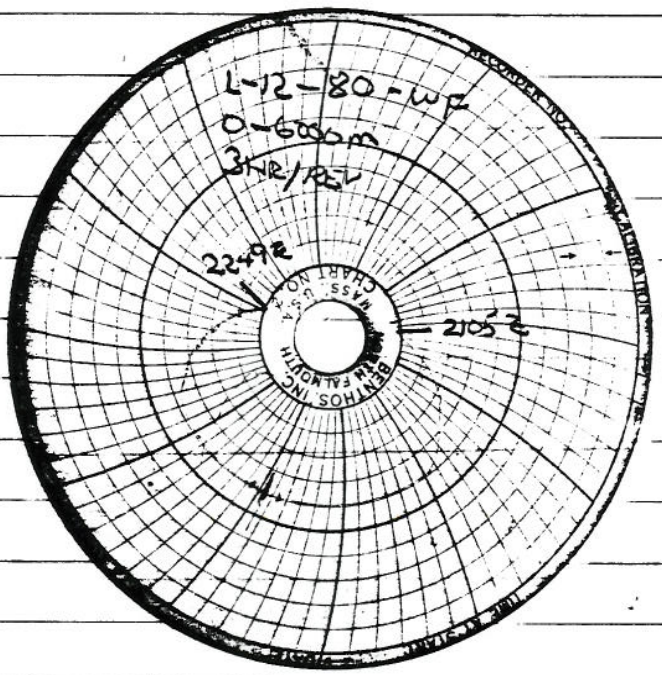


STATION 5 JD 316

START AT 2057 36° 51.014 N / -125° 35.575 W

END AT 2306

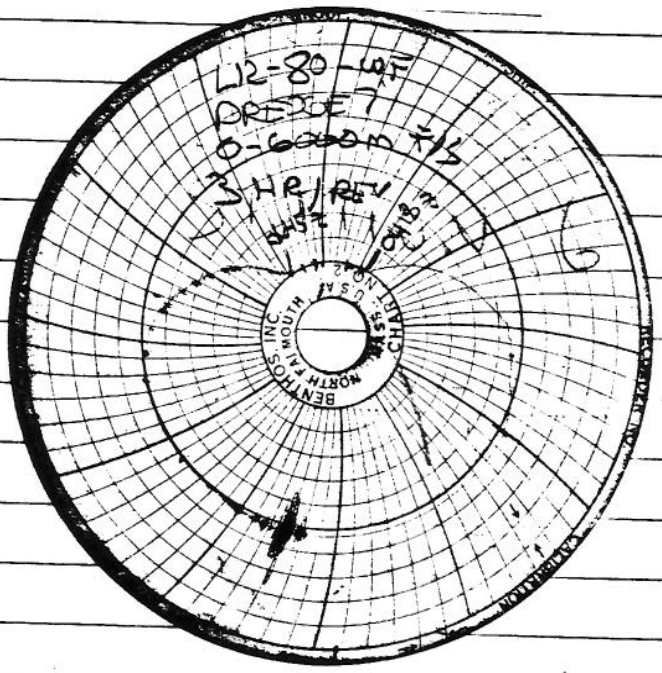




Dredge Station 7 JD 317

		depth (sec)	depth (m)	time
Start 0406	Pt 0	3.87	2902.5	
End 0652	Pt 1	4.01	3007.5	

Station 7 is a continuation upslope from STA 6. Recovered 3 bags - a lot of mud



JD 317

0345 – 0406 Spot welded the pin in shackle that supports sheave for dredge wire. Same problem as before. Kevin noticed that safety wire had broken and pin was backing out during station 6. Between stations 6 & 7, Capt Cuff and Bob Wilson used 4x4 again for working seat on A-frame. Terry said pin was out several full revolutions once after tightening. Re-welded pin & plastic tie-wrap was added to provide visible marker -- if tie-wrap breaks it may mean that pin is backing out again (and that weld broke)

SAMPLE DISPOSITION

SAMPLE NUMBER L12-80-WF-6 #1- center

ROCK TYPE Mn Nodule

LOCALITY

SAMPLE TYPE

NOTEBOOK/PHOTO REF.

COLLECTED BY

DISPOSITION	INITIALS	DATE
Microscopy:		
Binoc. Exam.		
Thin Section		
Pol. Thin Sect.		
Polished Sect.		
Photomicrograph		
U-stage		
Stained Sect.		
Modal Analysis		
XRD	R6.	3/81
SEM		
Mode/Slab		
Minerals Identified/Occurrence		
Birnessite / todorokite		
Qtz, Plag?		

DISPOSITION		INITIALS		DATE
Chemical Analysis:				
Semi-quant. Spec.				
Quant. Spec.				
XRF				
Rapid Rock				
Microprobe				
Other				
Density				
Stable Isotope	Oxygen			
	Hydrogen			
	Sulfur			
	Carbon			
Age Dates	K/Ar			
	Rb/Sr			
	U/Pb			
	Other			
Mineral Sep.	1.			
	2.			
	3.			
	4.			
Miscellaneous				

Notes