

INFORMAL REPORT AND INDEX OF  
NAVIGATION, DEPTH AND MAGNETIC DATA

(Issued November 22, 1978)

MARIANA EXPEDITION

LEG 3

Honolulu, Hawaii (7 September 1978)

to

Apra, Guam (20 September 1978)

R/V T. Washington

Chief Scientist - J. L. Coatsworth

Resident Marine Tech - J. L. Coatsworth

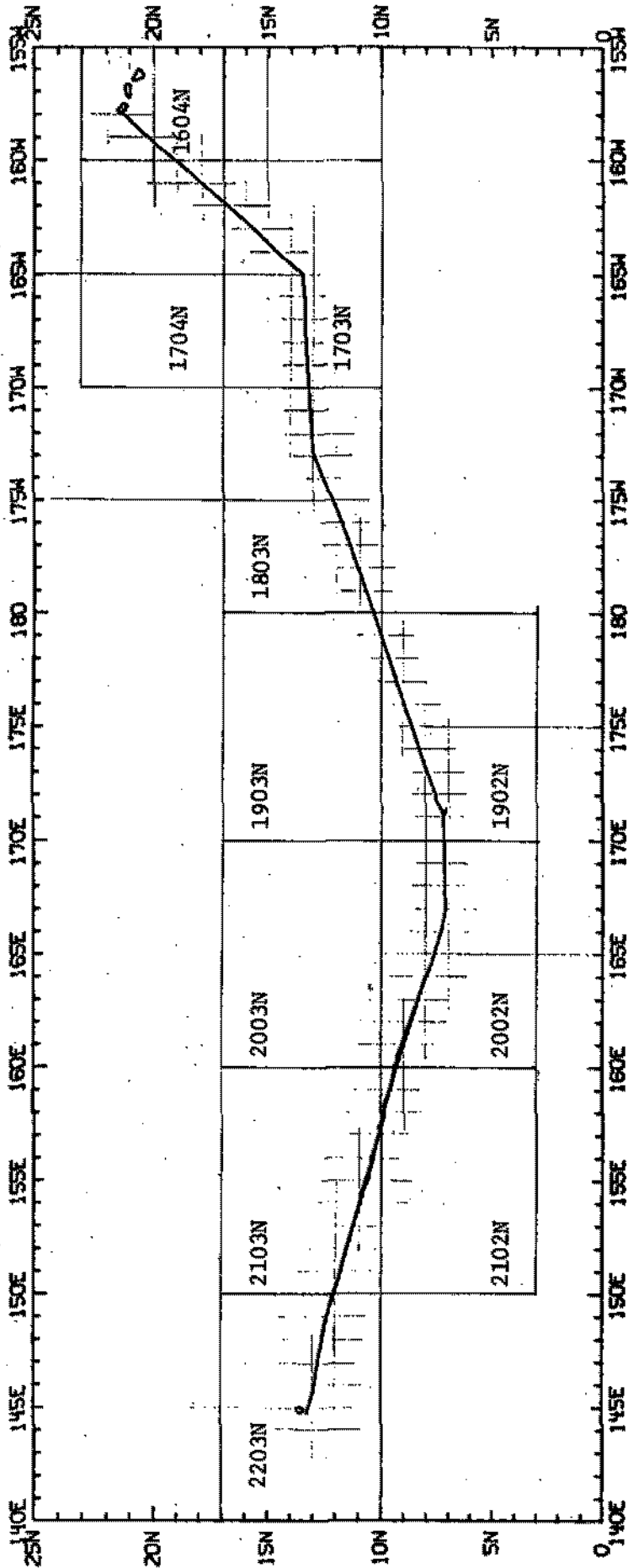
Post-Cruise Processing and Report Preparation  
by S.I.O. Geological Data Center

Data Collection Funded by NSF

Grant Number OCE76-10177

Data Processing Funded by SIA, NSF, ONR

NOTE: This is an index of underway geophysical data edited and processed shortly after the completion of the cruise leg and is intended primarily for informal use within the institution. This document is not to be reproduced or distributed outside Scripps without prior approval of the Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093.



MARIANA EXPEDITION  
LEG 3

Chief Scientist - J. L. Coatsworth  
 Ports: Honolulu, Hawaii - Apra, Guam  
 Dates: 07 September - 20 September 1978  
 Ship: R/V T. Washington

TOTAL MILEAGE

- 1) Cruise - 3748 miles
- 2) Bathymetry - 3651 miles
- 3) Magnetism - 3638 miles
- 4) Seismic Reflection - none collected
- 5) Gravity - none collected

Informal Report and Index of Navigation, Depth, Magnetic and Subbottom Profiler Data\*

Contents:

- Index Chart - gives track of cruise leg and boundaries of depth compilation plots (see below).
- Track Charts - annotated with dates (day/month) and hour ticks. The scale is .3"/deg. long.
- Profiles - Depth and magnetic anomaly vs. distance. Dates (day/month) and positions of major course changes (greater than 30 degrees) are annotated. Sections of track having subbottom profiler (airgun) records have a solid black line along the bottom of the profile.

For information on the availability and reproduction costs of data in the following forms contact S. M. Smith, Curator, Geological Data Center, Scripps Institution of Oceanography La Jolla, California 92093. Phone: (714) 452-2752.

1. Navigation listing of times and positions of course and speed changes, fixes and drift velocity.

2. Depth compilation plots - in fathoms (assumed sound velocity of 800 fm./sec.) at approximately 1 mile spacing, plotted at 4"/degree with standard U. S. Navy Oceanographic Office BC series boundaries (see index chart).

3. Plots of magnetic anomaly profiles along track - map scale = 1.2"/degree; anomaly scale between 15°N and 15°S latitude = 500 gamm/inch; anomaly scale north of 15°N and south of 15°S = 1000 gamm/inch; from values retrieved at approximately 1 mile spacing and regional field removed using the 1975 IGRF.

4. Card decks of navigation, depth and magnetics (for specific formats, contact S. M. Smith, Geological Data Center).

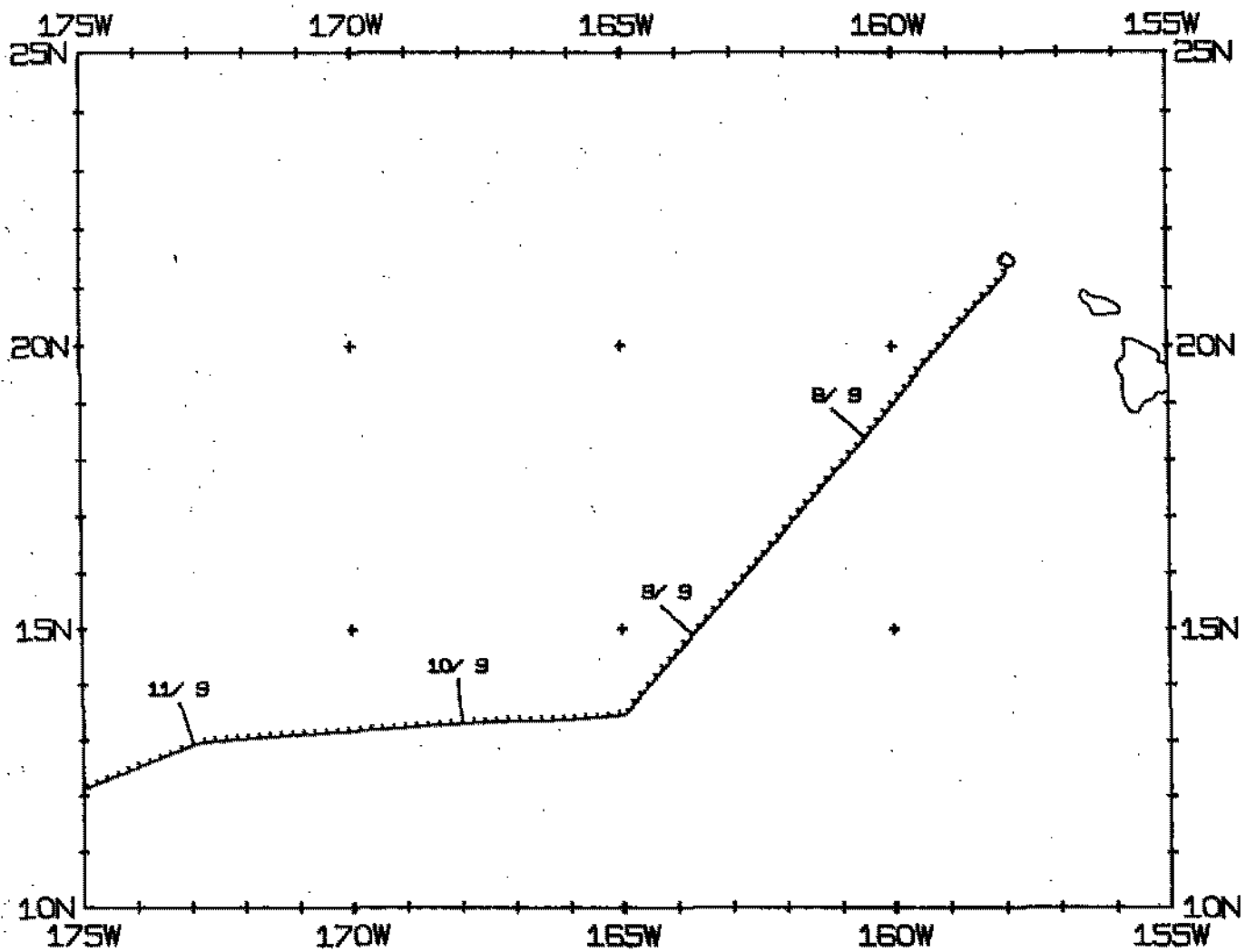
5. S. I. O. Sample Index - list of beginning and end times and positions of all underway records as well as all other samples (geology, biology, physical oceanography, etc.) collected on the cruise leg.

6. Microfilm or Xerox copies of:

- a. Echosounder records - 12 and 3.5 kHz frequency
- b. Subbottom profiler records (airgun)
- c. Magnetometer records
- d. Underway Data Log

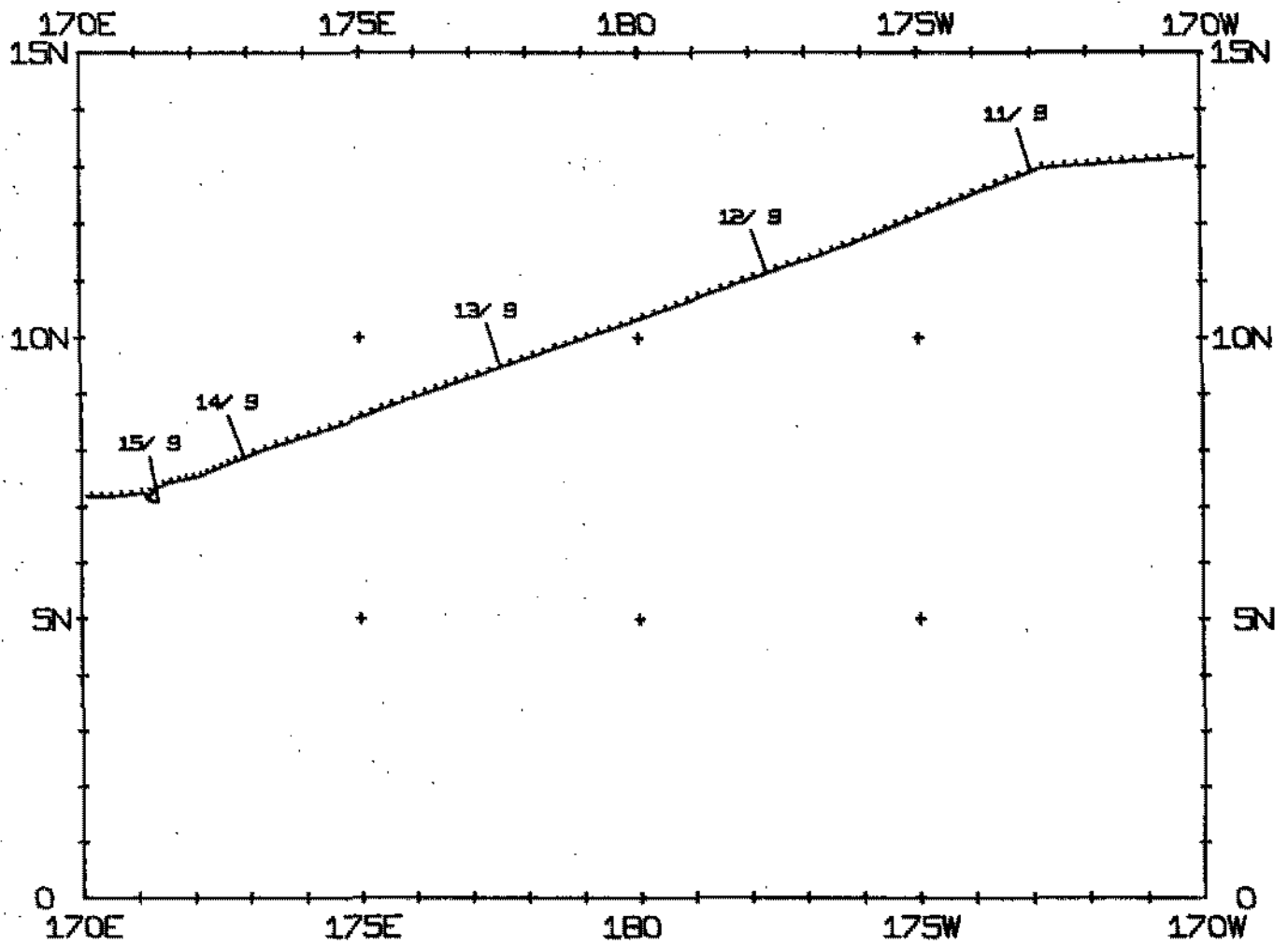
MARA03WT TRACK PLOT (1 OF 4)

MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE



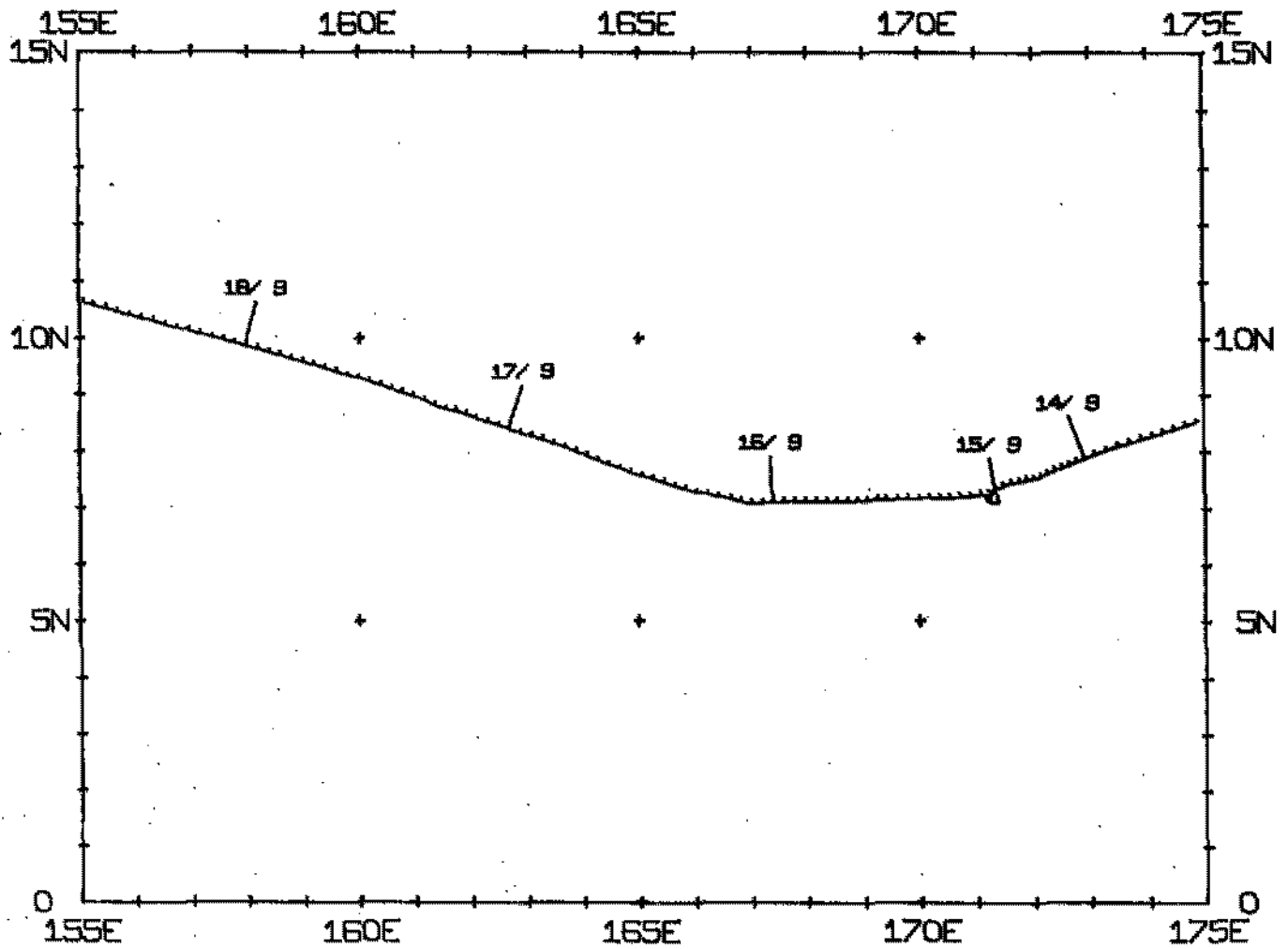
MARAO3WT TRACK PLOT (2 OF 4)

MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE



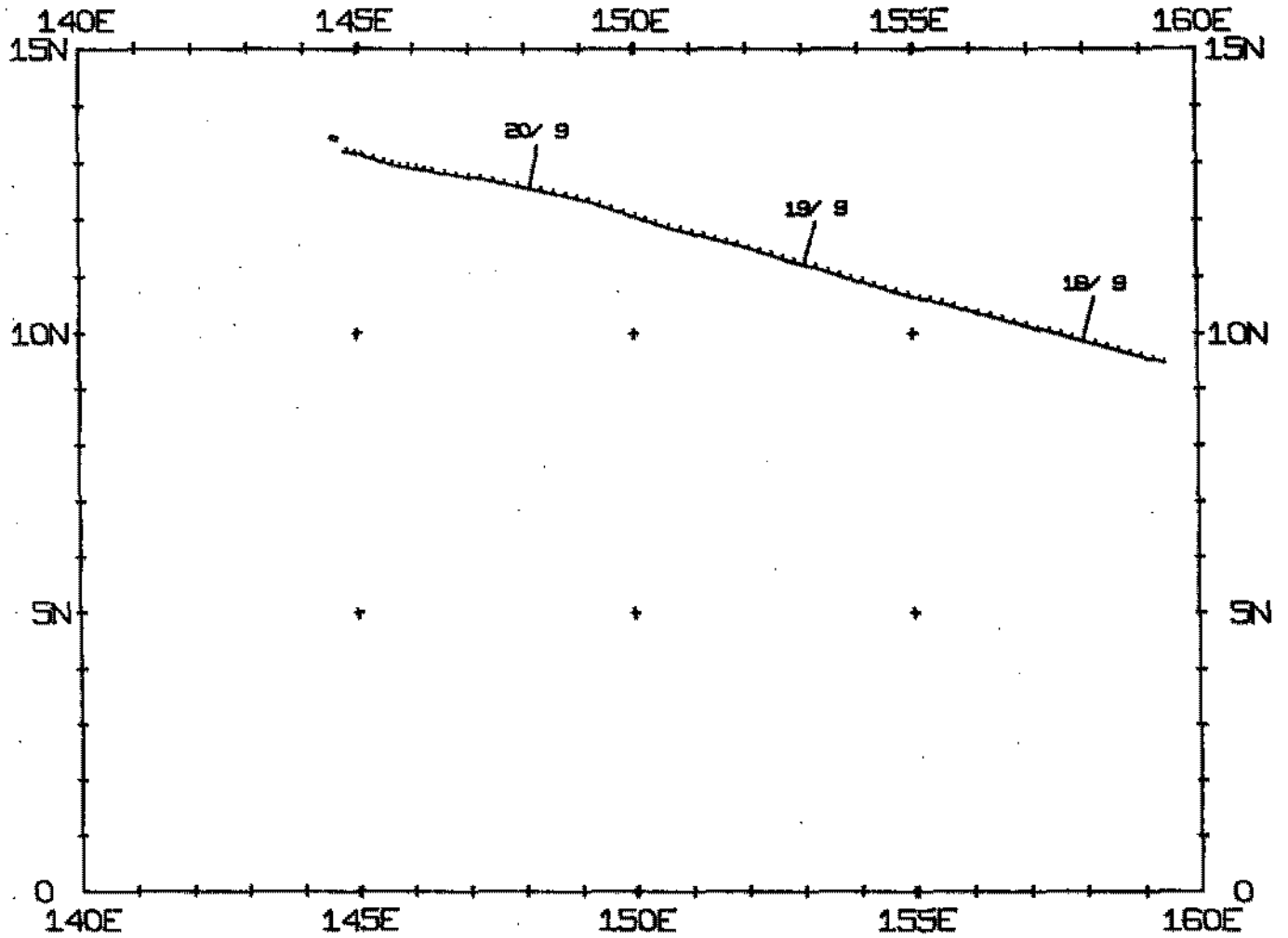
MARAO3WT TRACK PLOT (3 OF 4)

MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE

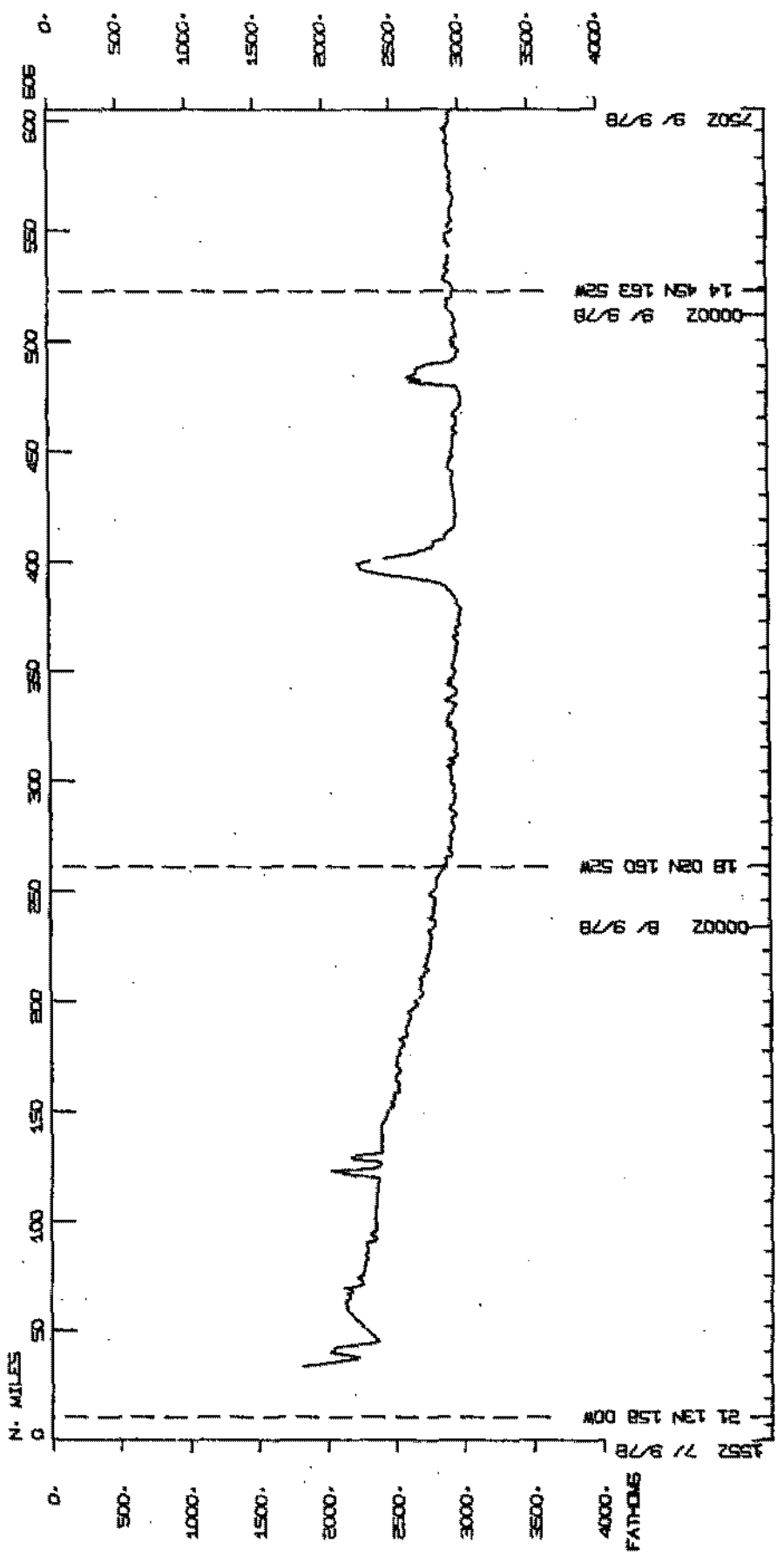
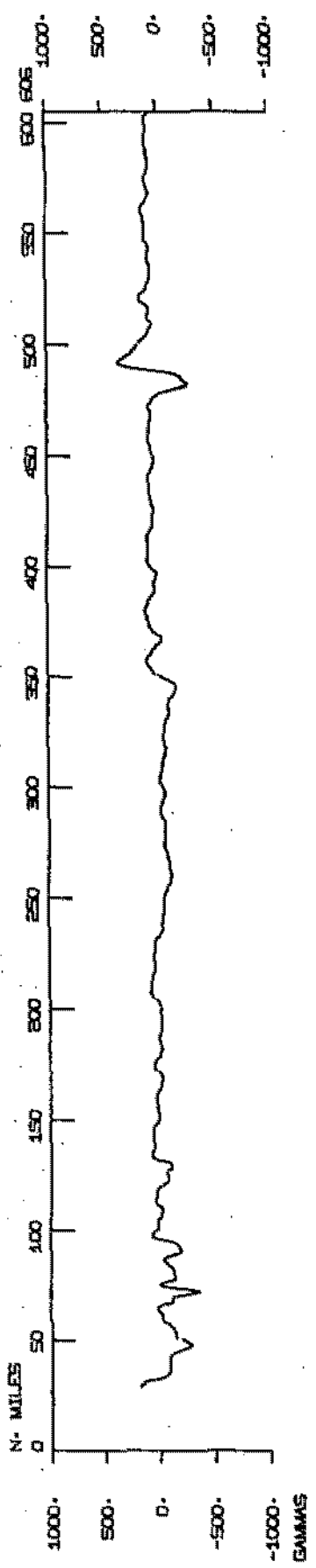


MARADSWT TRACK PLOT (4 OF 4)

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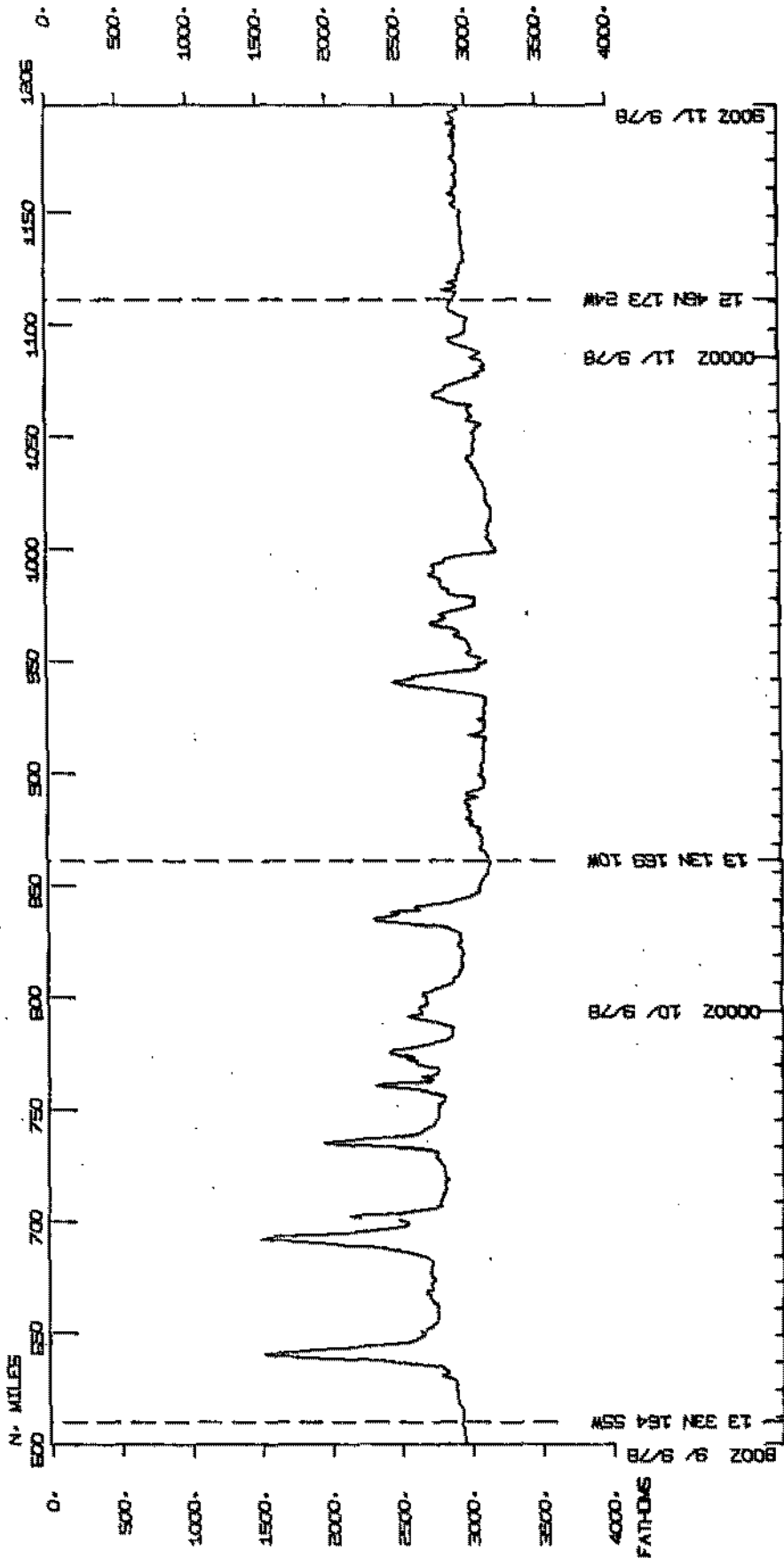
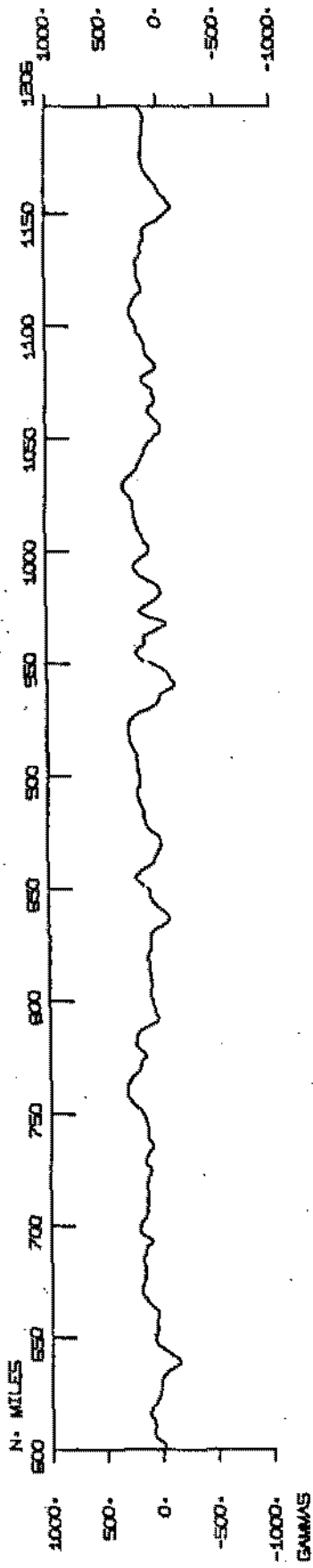


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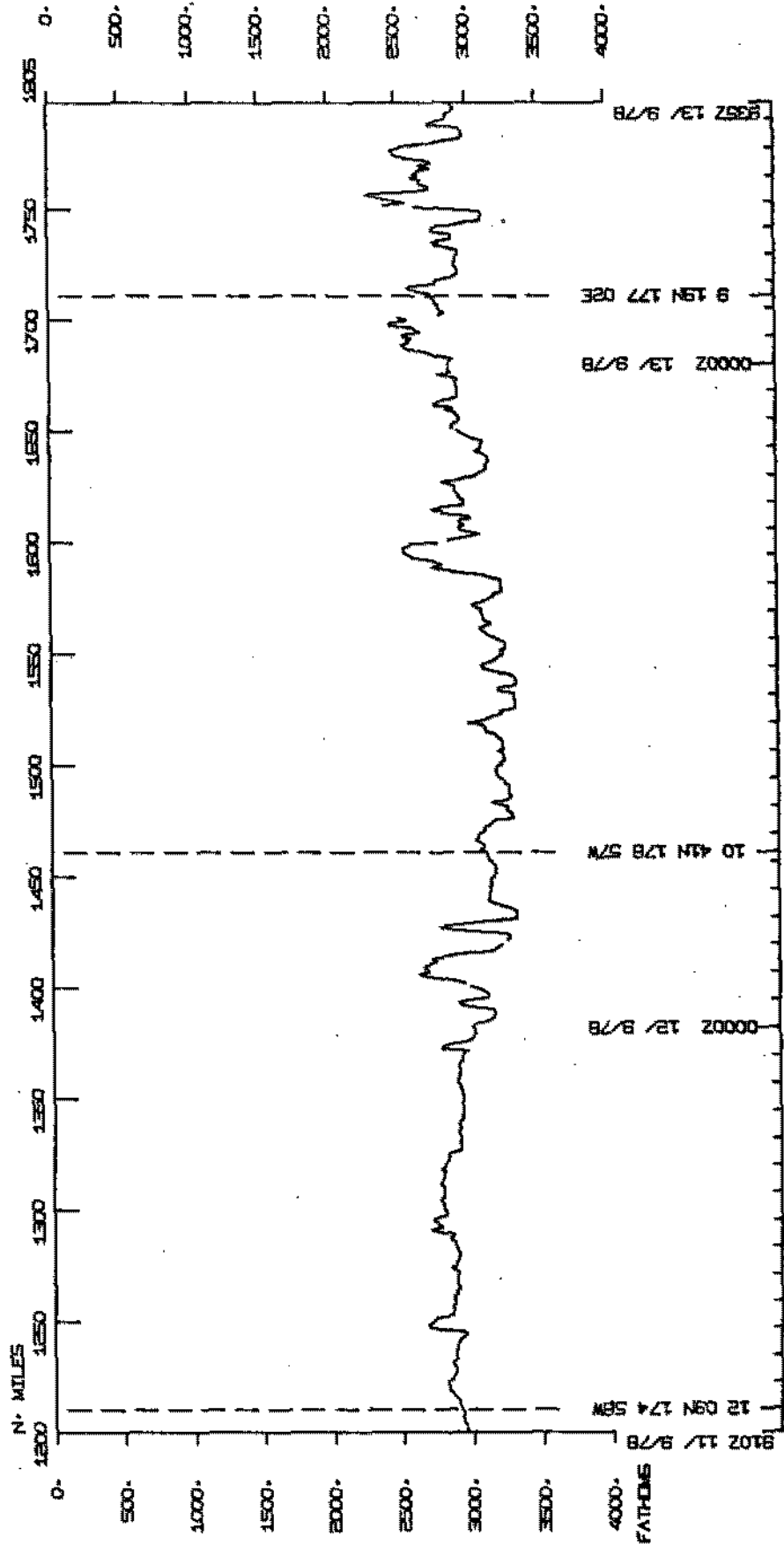
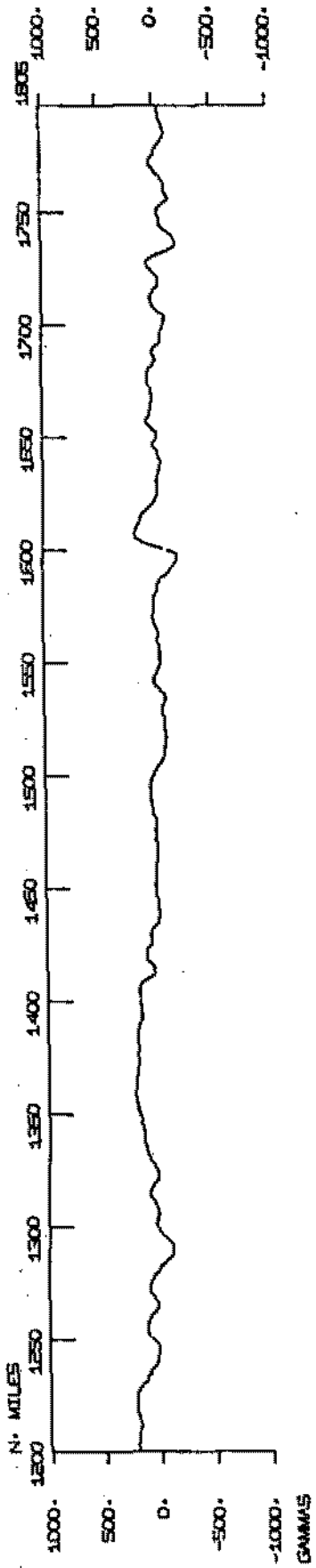




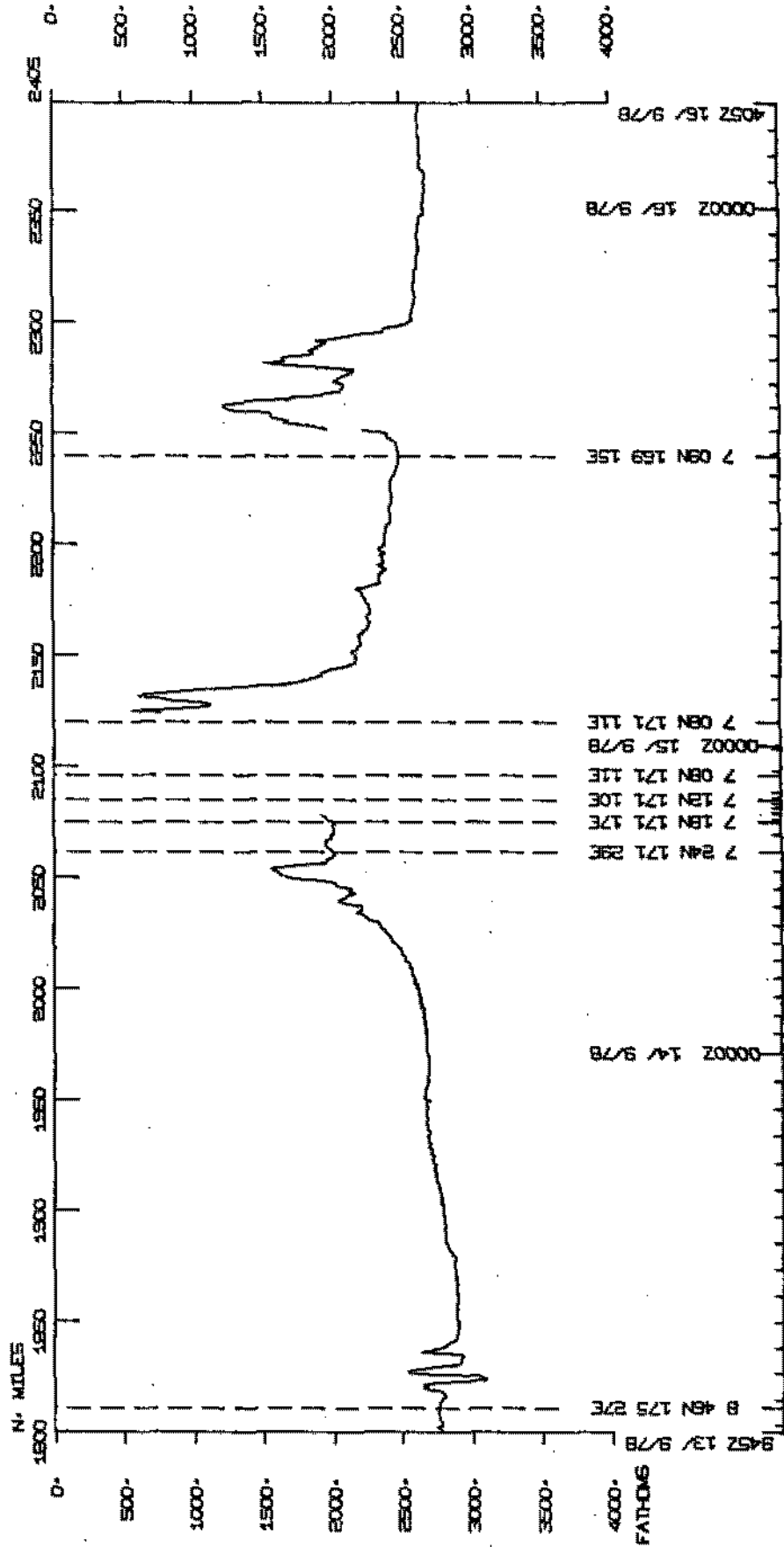
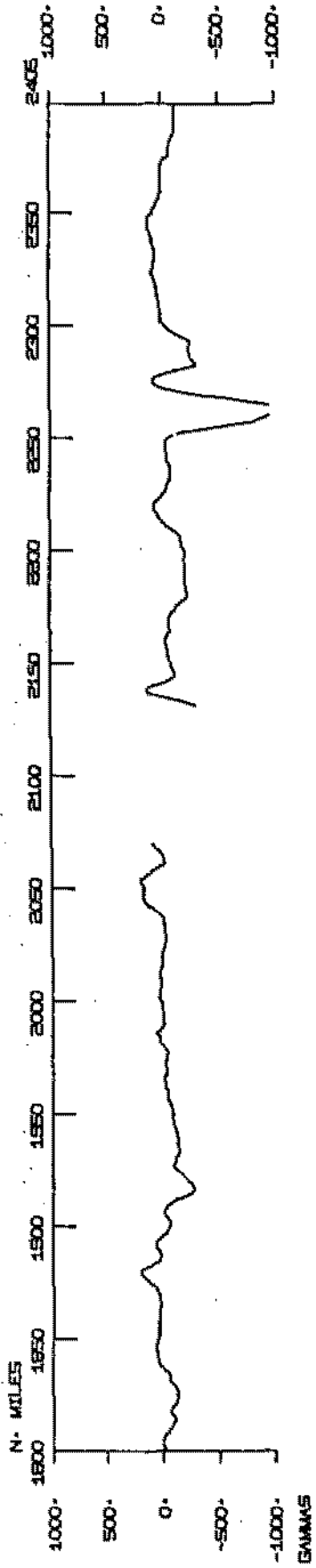
# MARIANA LEG B



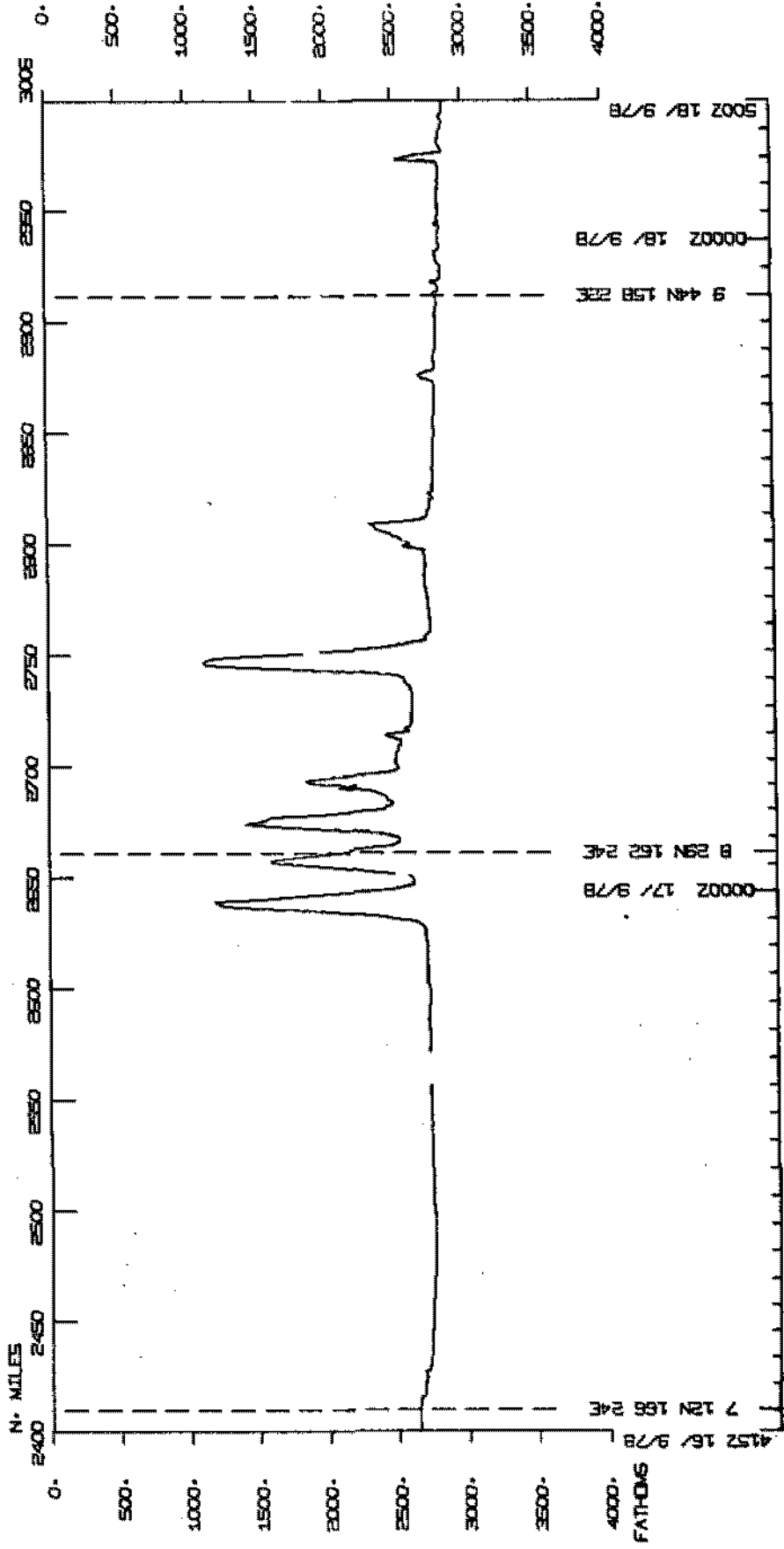
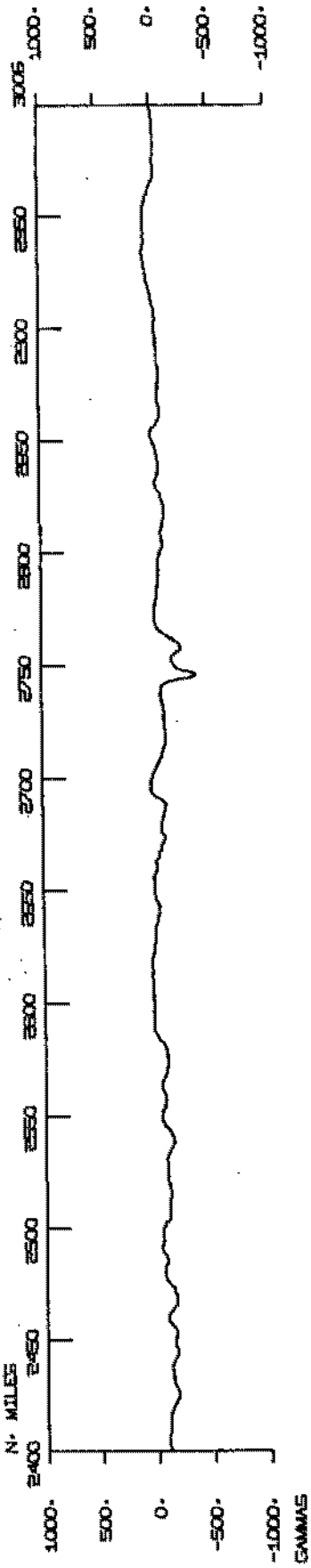
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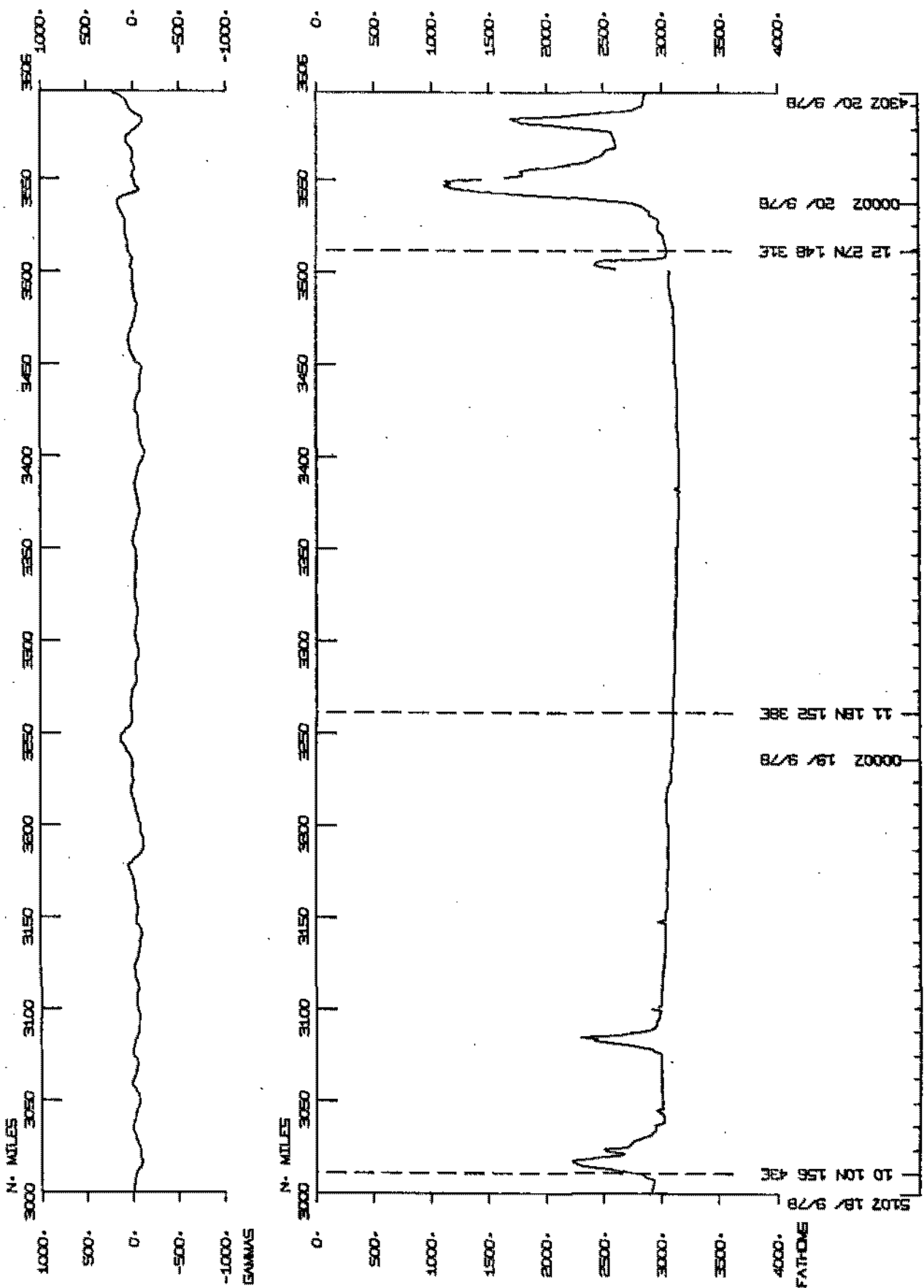
# MARIANA LEG 3



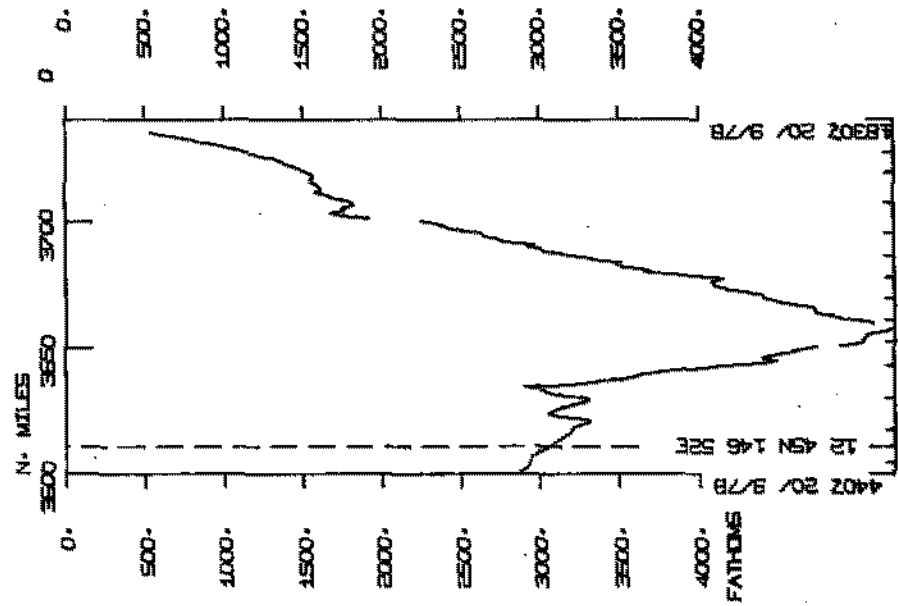
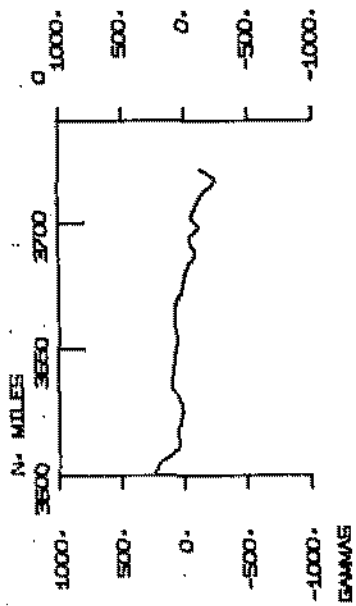
# MARIANA LEG B



# MARIANA LEG 3



# MARIANA LEG 3



402 20 / 9/78

15 51 16 51 E

402 20 / 9/78

S.I.O. SAMPLE INDEX

(Issued November 22, 1978)

MARIANA EXPEDITION

LEG 3

Honolulu, Hawaii (7 September 1978)  
to  
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R/V T. Washington

Chief Scientist - J. L. Coatsworth

Resident Marine Tech - J. L. Coatsworth

Post-Cruise Processing and Report Preparation  
by S.I.O. Geological Data Center

Index Encoding Funded by NSF  
Grant Number OCE76-80618  
Index Processing and Report Preparation  
Funded in part by SIA

The Sample Index is a first level interdisciplinary listing of time, position, sample identification and disposition of all samples, records and measurements collected on this cruise leg. The index data are encoded at sea by the Resident Technician and processed on shore by the S.I.O. Geological Data Center shortly after the completion of the cruise leg.

Positions are interpolated on the basis of sample time by comparison to a single, edited navigation file. Samples beginning at one time and position and ending at another are entered on two consecutive cards. Disposition and sample type are represented by three and four character codes to permit future computer searches on these parameters. (Listings defining these codes are available from the Geological Data Center.)

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S.I.O. SAMPLE INDEX

GENERATED 21NOV78

\*\*\* MARIANA LEG 03 SAMPLE INDEX

(MARA03WT) \*\*\*

	60E	120E	180	120W	60W	0W	
.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....							
'X' = SHIP'S TRACK BY 5 DEGREE SQUARE							
85N							85N
80N					0 0000		80N
75N		0		0 00000	0000000000		75N
70N		000000000000		0000 0 00 0	000000000		70N
65N	0000 0000000000000000000000000000000000			000000000000000000	00 0000 0		65N
60N	00			000000000000000000	00 00		60N
55N	0 00000000000000000000000000 00		0	00000000	000	0	55N
50N	0000000000000000000000000000 0			00000000 0000		00	50N
45N	0000000000 000000000000000000			000000000000 0			45N
40N	0 00 00 00000000000000 0			000000000000			40N
35N	0 0000 00000000000000 0			000000000		0	35N
30N	000 0000000000000000 0			00000000		00	30N
25N	0000000000 00000000000000			0000 0		000	25N
20N	0000000 0000 000 00000			0 00		000	20N
15N	00000000 00 0 00 0			00 0		000	15N
10N	00000000 0 0 0 XXX XXXX			0		000	10N
5N	000000000		XX X		00000	000	5N
0N	0000000	00 00			000000		0N
5S	000000	0 0 0 00			0000000		5S
10S	00000	0 00			000000000		10S
15S	00000	0 0			0000000		15S
20S	000000 0	00000			000000		20S
25S	0000 0	0000000			000000		25S
30S	00	00000000			0000		30S
35S	00	00 000 0			00000		35S
40S		00 0			000		40S
45S		0			00		45S
50S					00		50S
55S					0		55S
60S							60S
65S							65S
70S	00 0000000000				0		70S
75S	00			0 00000	0000		75S
80S	00			0000000000000000000000	0000000		80S
85S	00			00			85S
90S	00						90S
.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....							
	60E	120E	180	120W	60W	0W	

07SEP78 - HONOLULU, HAWAII  
 TO  
 20SEP78 - APRA, GUAM

CHIEF SCIENTIST - J. COATSWORTH MTG  
 SHIP - R/V THOMAS WASHINGTON (SID)

PRODUCED BY GEOLOGICAL DATA CENTER, SCRIPPS INSTITUTION  
 OF OCEANOGRAPHY, LA JOLLA, CALIFORNIA 92093



NUMBER OF SAMPLES OF CLASS 'TYPE' GOING TO DESTINATION 'DISP'

DISP	TYPE					TOTAL		
	BT	DP	LB	MG	PE			
GDC	1		3	1	2	1	6	
MTG	1					2	1	2
NPX	1					1	1	1
SIO	1	7				1	1	7
SIX	1					1	1	1
TOTAL	1	7	3	1	2	4	1	17

SAMPLE 'TYPE' CODES USED ABOVE

BT = BATHYTHERMOGRAM  
 DP = DEPTH  
 LB = LOG BOOKS  
 MG = MAGNETICS (TOWED VEHICLE, SURFACE, TOTAL FIELD)  
 PE = PERSONNEL IN SCIENTIFIC PARTY

SAMPLE 'DISP' CODES USED ABOVE

GDC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 2752)  
 MTG = MARINE TECHNOLOGY GROUP (EXT 4194)  
 NPX = NORTH PACIFIC EXPERIMENT (EXT. 3226)  
 SIO = SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA, CAL. 92093  
 SIX = SCRIPPS INSTITUTION NON-EMPLOYEE -(CONTACT DORCAS UTTER EXT. 2356)

## MARIANA LEG 03 SAMPLE INDEX

MARA03WT

## \*\*\* PORTS \*\*\*

0635 070978	LGPT B HONOLULU, HAWAII	21 18 N 157 52 W F	MARA03WT
1834 20 978	LGPT E APRA, GUAM	13 27 N 144 37 E F	MARA03WT
1310 14 978	LGUS B MAJURO, MARSHALL IS.	7 06 N 171 15 E F	MARA03WT
320 15 978	LGUS E MAJURO, MARSHALL IS.	7 06 N 171 15 E F	MARA03WT

## \*\*\*PERSONNEL\*\*\*

PECS	J. COATSWORTH	MTG	MARA03WT
PECT	A. HENRY	MTG	MARA03WT
PES	M. VAN WOERT	NPX	MARA03WT
PEVL	L. MICHAEL	SIX	MARA03WT

\*\*\* NOTE \*\*\* TIME ZONES AND MINUTES OF LATITUDE AND LONGITUDE ARE LISTED  
IN TENTHS (E.G. 10.6 IS LISTED AS 106)

\*\*\* NOTE \*\*\* AN 'X' IN THE (B)EGIN/(E)ND COLUMN FOLLOWING THE SAMPLE  
CODE INDICATES NO SAMPLE OR DATA RECOVERED

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
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## UNDERWAY DATA CURATOR - STUART M. SMITH (EXT.2752)

## \*\*\* LOG BOOKS \*\*\*

635	7	978		LBWU	B UNDERWAY LOG	GDC	20	542N 158 183W	S MARA03WT
1755	20	978		LBWU	E UNDERWAY LOG	GDC	13	117N 144 482E	S MARA03WT

## \*\*\* FATHOGRAMS \*\*\*

630	7	978		DPR3	B UGR 3.5 KHZ R-01	GDC	20	547N 158 175W	S MARA03WT
207	9	978		DPR3	E UGR 3.5 KHZ R-01	GDC	14	349N 164 16W	S MARA03WT
239	9	978		DPR3	B UGR 3.5 KHZ R-02	GDC	14	303N 164 58W	S MARA03WT
1642	16	978		DPR3	E UGR 3.5 KHZ R-02	GDC	7	543N 164 76E	S MARA03WT
1813	16	978		DPR3	B UGR 3.5 KHZ R-03	GDC	8	12N 163 500E	S MARA03WT
1800	20	978		DPR3	E UGR 3.5 KHZ R-03	GDC	13	118N 144 474E	S MARA03WT

## \*\*\* MAGNETOMETER \*\*\*

612	7	978		MGR	B MAGNETICS R-01	GDC	20	572N 158 150W	S MARA03WT
908	17	978		MGR	E MAGNETICS R-01	GDC	8	594N 160 559E	S MARA03WT
924	17	978		MGR	B MAGNETICS R-02	GDC	9	3N 160 528E	S MARA03WT
2248	17	978		MGR	E MAGNETICS R-02	GDC	9	474N 158 126E	S MARA03WT

## \*\*\* BATHYTHERMOGRAPH \*\*\*

1100	9	978		BTX	B BERNSTEINS NOS.1-20	NPX	13	267N 165 200W	S MARA03WT
2310	9	978		BTX	E BERNSTEINS NOS.1-20	NPX	13	192N 167 510W	S MARA03WT
1	10	978		BTX	B BERNSTEINS NOS.21-59	NPX	13	185N 168 17W	S MARA03WT
2355	10	978		BTX	E BERNSTEINS NOS.21-59	NPX	12	562N 172 585W	S MARA03WT
156	11	978		BTX	B BERNSTEINS NOS.60-96	NPX	12	468N 173 227W	S MARA03WT
2352	11	978		BTX	E BERNSTEINS NOS.60-96	NPX	11	86N 177 403W	S MARA03WT
57	12	978		BTX	B BERNSTEINS 97-119	NPX	11	40N 177 533W	S MARA03WT
1808	12	978		BTX	E BERNSTEINS 97-119	NPX	9	522N 178 420E	S MARA03WT

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
2113	17	978		BTX	B BERNSTEINS 201-203	NPX	9 422N	158 316E	S MARA03WT
2256	17	978		BTX	E BERNSTEINS 201-203	NPX	9 478N	158 109E	S MARA03WT
29	18	978		BTX	B BERNSTEINS 204-233	NPX	9 528N	157 520E	S MARA03WT
2255	18	978		BTX	E BERNSTEINS 204-233	NPX	11 80N	153 149E	S MARA03WT
800	19	978		BTX	B BERNSTEINS 242-256	NPX	11 389N	151 254E	S MARA03WT
2008	19	978		BTX	E BERNSTEINS 242-256	NPX	12 226N	148 546E	S MARA03WT
9900					END SAMPLE INDEX				MARA03WT