

INFORMAL REPORT AND INDEX OF
NAVIGATION, DEPTH, AND MAGNETIC DATA
(ISSUED FEBRUARY 1981)

RAMA EXPEDITION

LEG 7

Singapore (31 October 1980)
to
Agana, Guam (1 December 1980)

R/V Thomas Washington

Chief Scientist - A. Yayanos (SIO)

Resident Marine Tech - R. Comer

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

Data Collection Funded by NSF
Grant Number OCE79-20482
Data Processing Funded by SIA, NSF and 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 chief scientist or the Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093.

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 in/degree longitude.

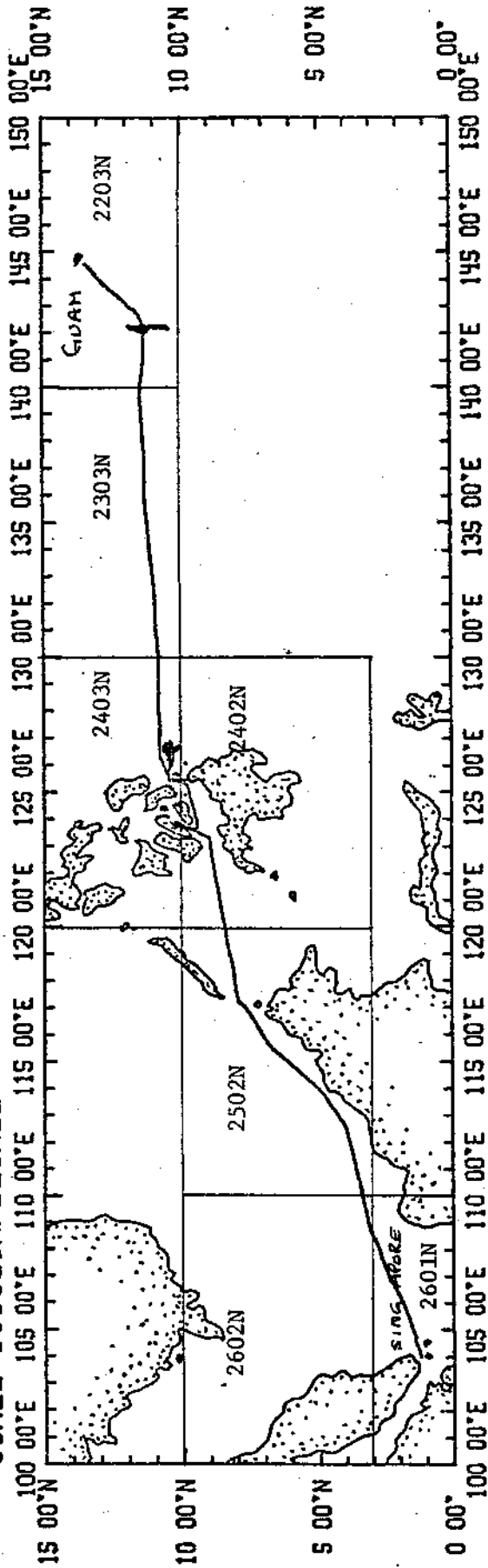
Profiles - depth and magnetic anomaly vs. distance. Dates (day/month) and positions of major course changes (greater than 30 degrees) are annotated. Sections of track having subbottom profiler (airgun) records have a solid black line along the bottom of the profile.

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) or meters (assumed sound velocity 1500m/sec) at approximately 1 mile spacing, plotted at 4in/degree with standard U. S. Navy Oceanographic Office BC series boundaries (see index chart).
3. Plots of magnetic anomaly profiles along track - map scale = 1.2inch/degree, anomaly scale between 15N and 15 S latitude = 500 gamma/inch, anomaly scale north of 15N and south of 15S = 1000 gamma/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

RAMA07WT

SCALE = 1.632 IN/DEGREE



RAMA EXPEDITION
LEG 7

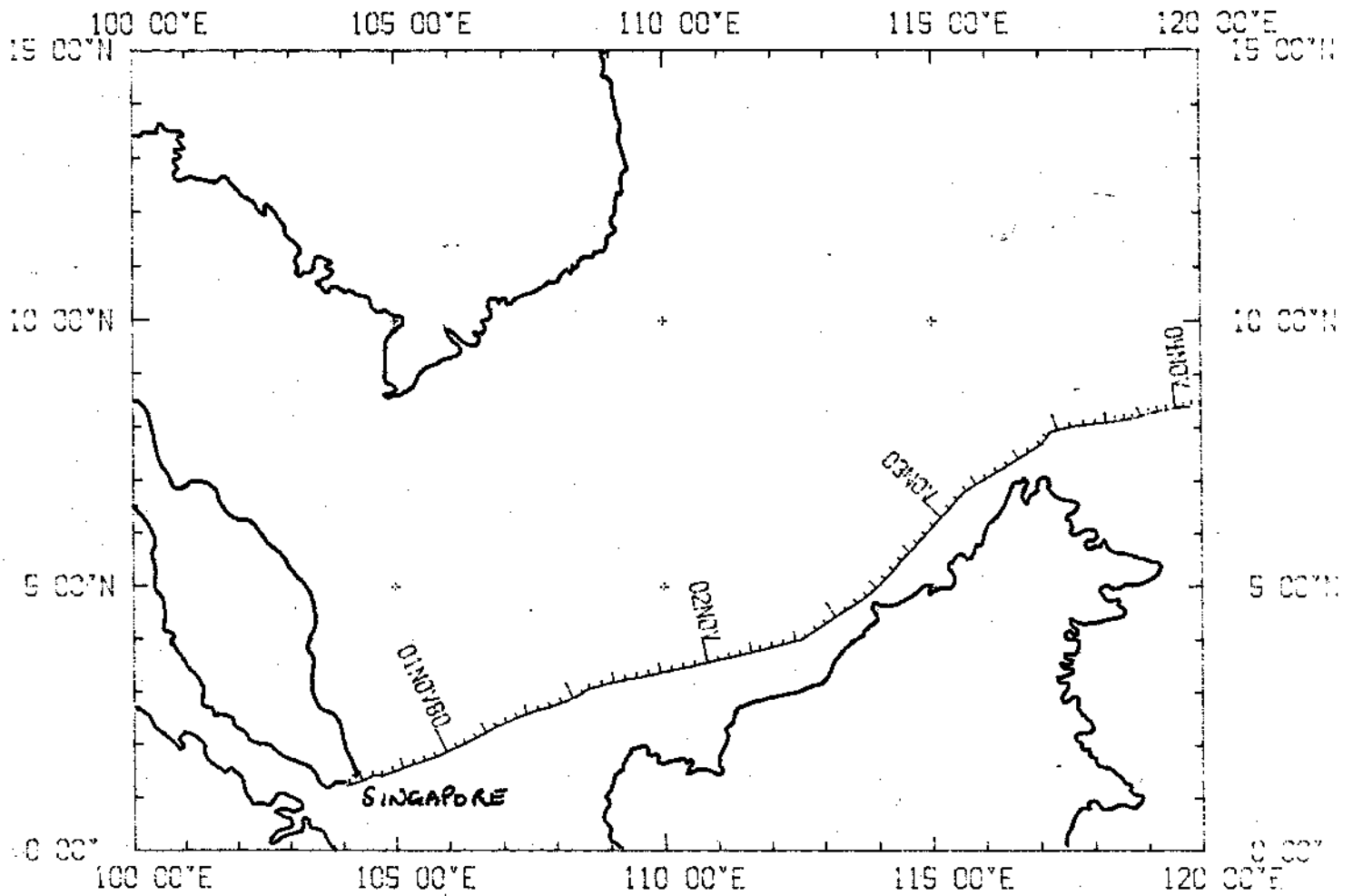
CHIEF SCIENTIST: A. Yayanos (SIO)
PORTS: Singapore - Agana, Guam
DATES: 31 October - 1 December 1980
SHIP: R/V T. Washington

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

- 1) Cruise - 4497 miles
- 2) Bathymetry - 2502 miles
- 3) Magnetics - 2147 miles
- 4) Seismic Reflection - none collected
- 5) Gravity - 3770 miles (approximately)

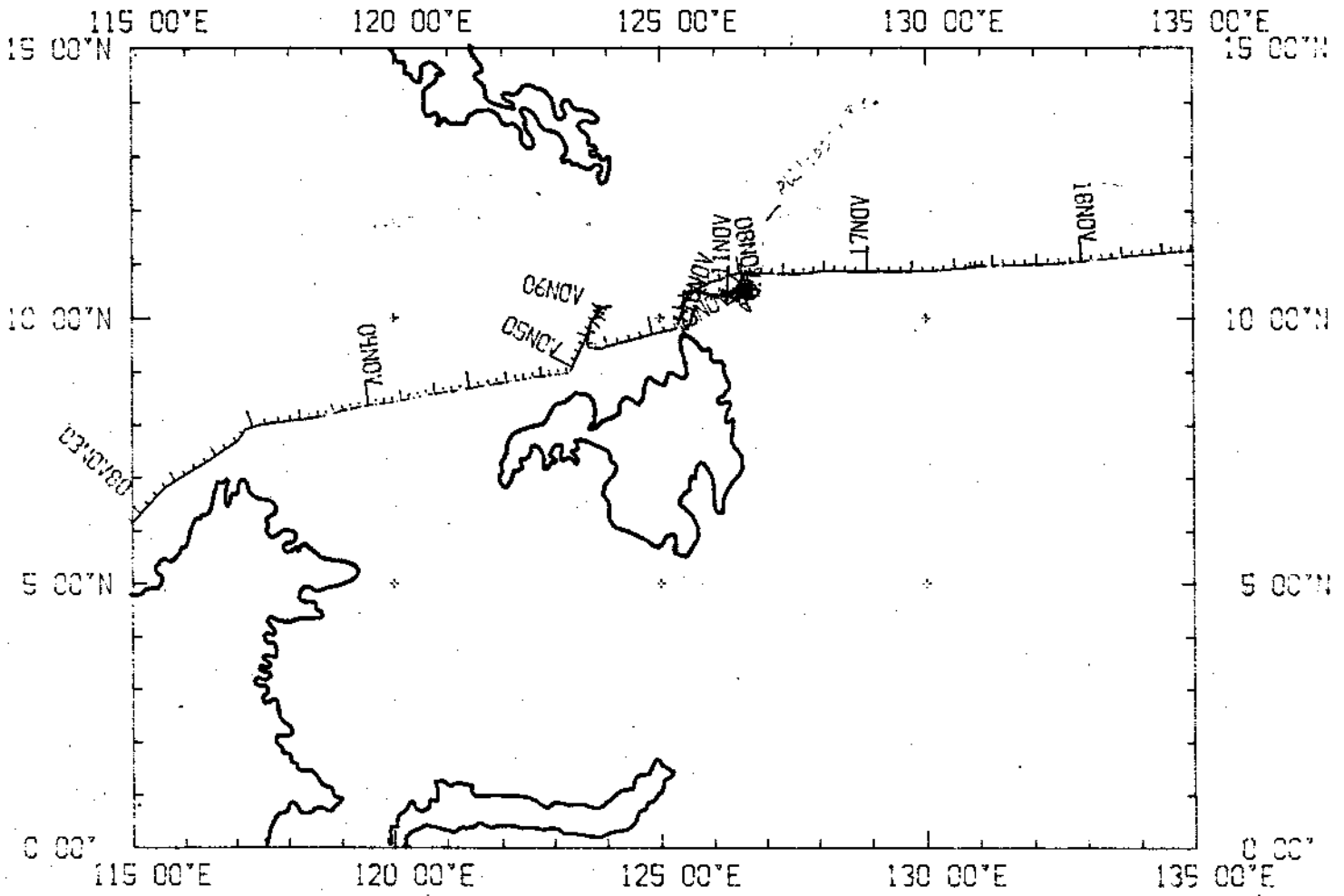
RAMA07WT (PLOT 1 OF 3)

SCALE = .312 IN/DEGREE



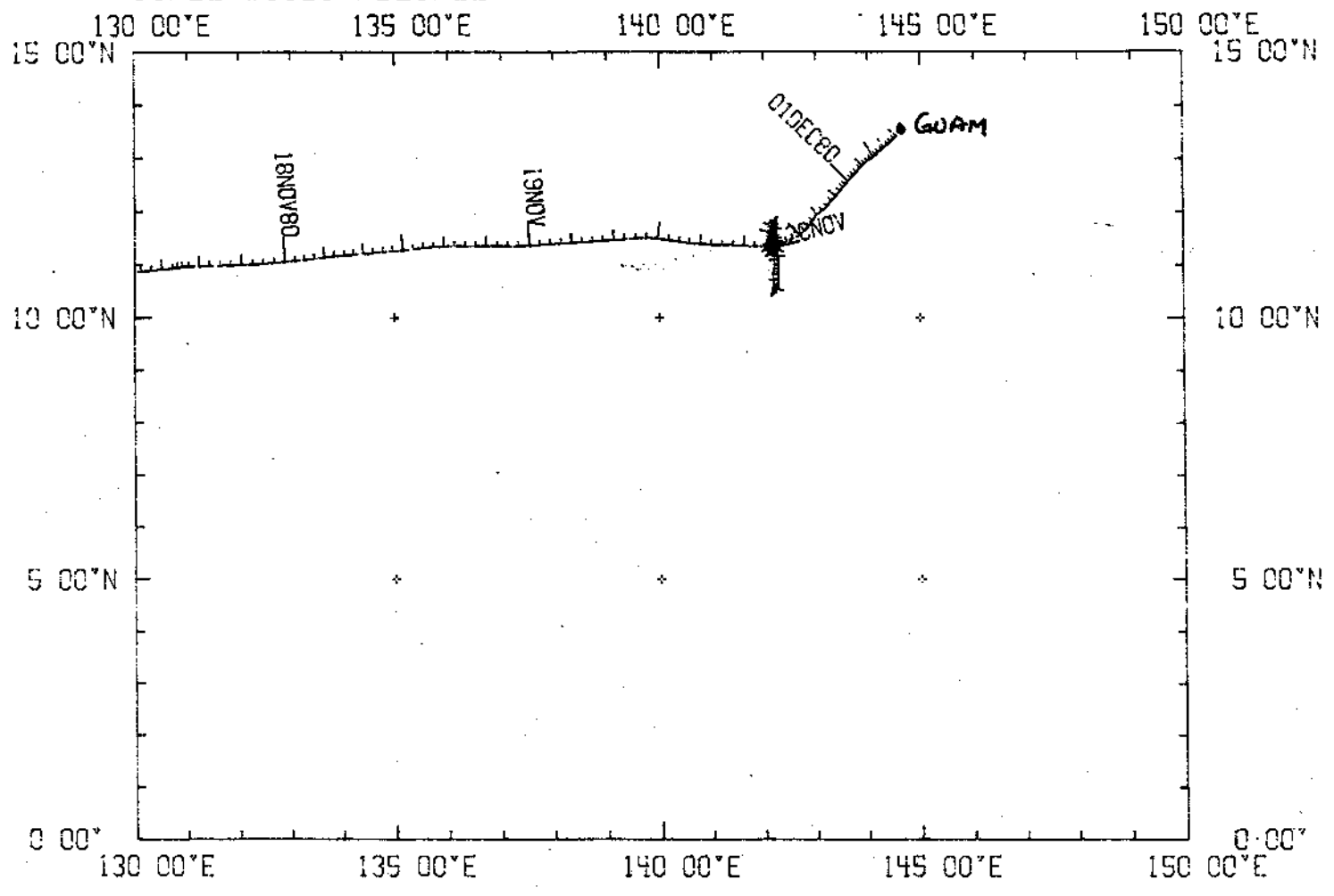
RAMA07WT (PLOT 2 OF 3)

SCALE = .312 IN/DEGREE

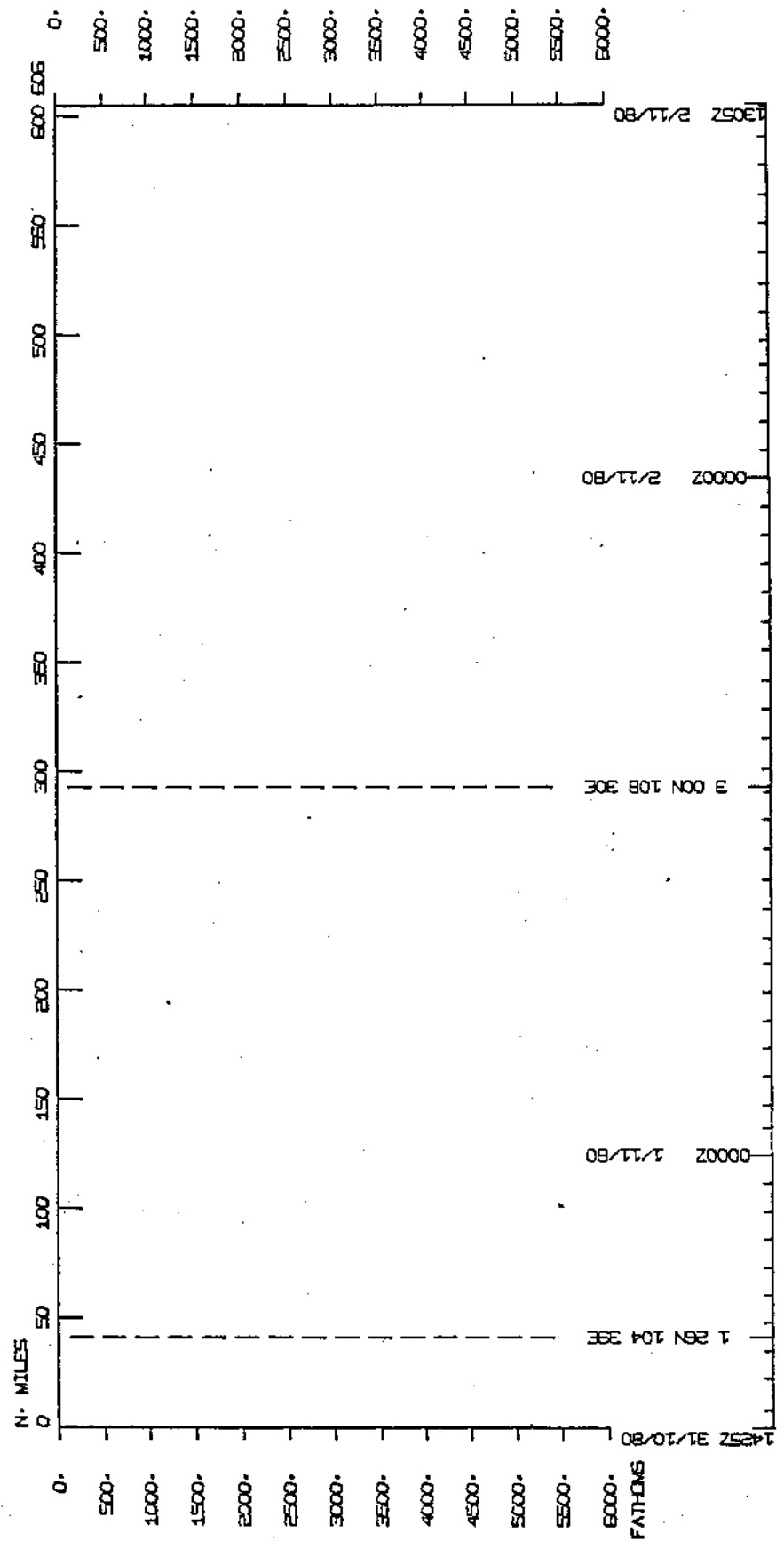
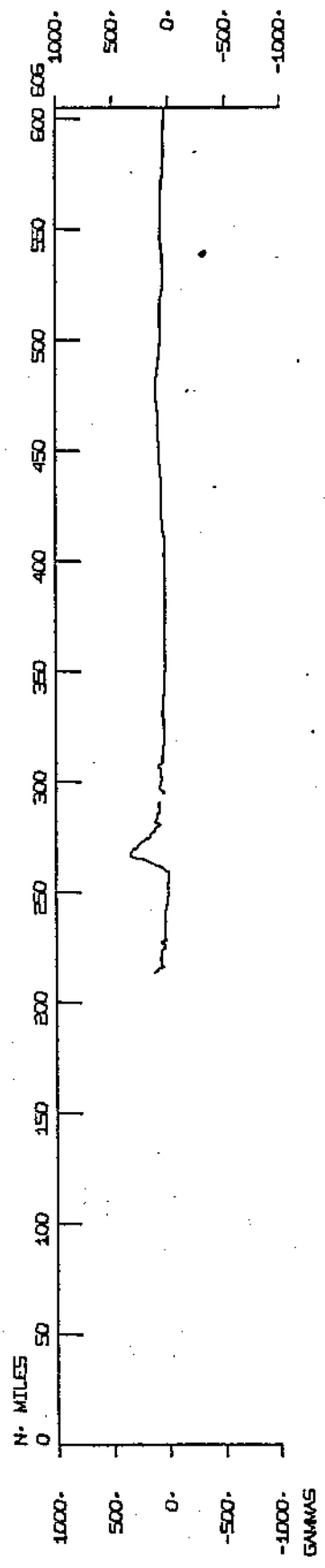


RAMA07WT (PLOT 3 OF 3)

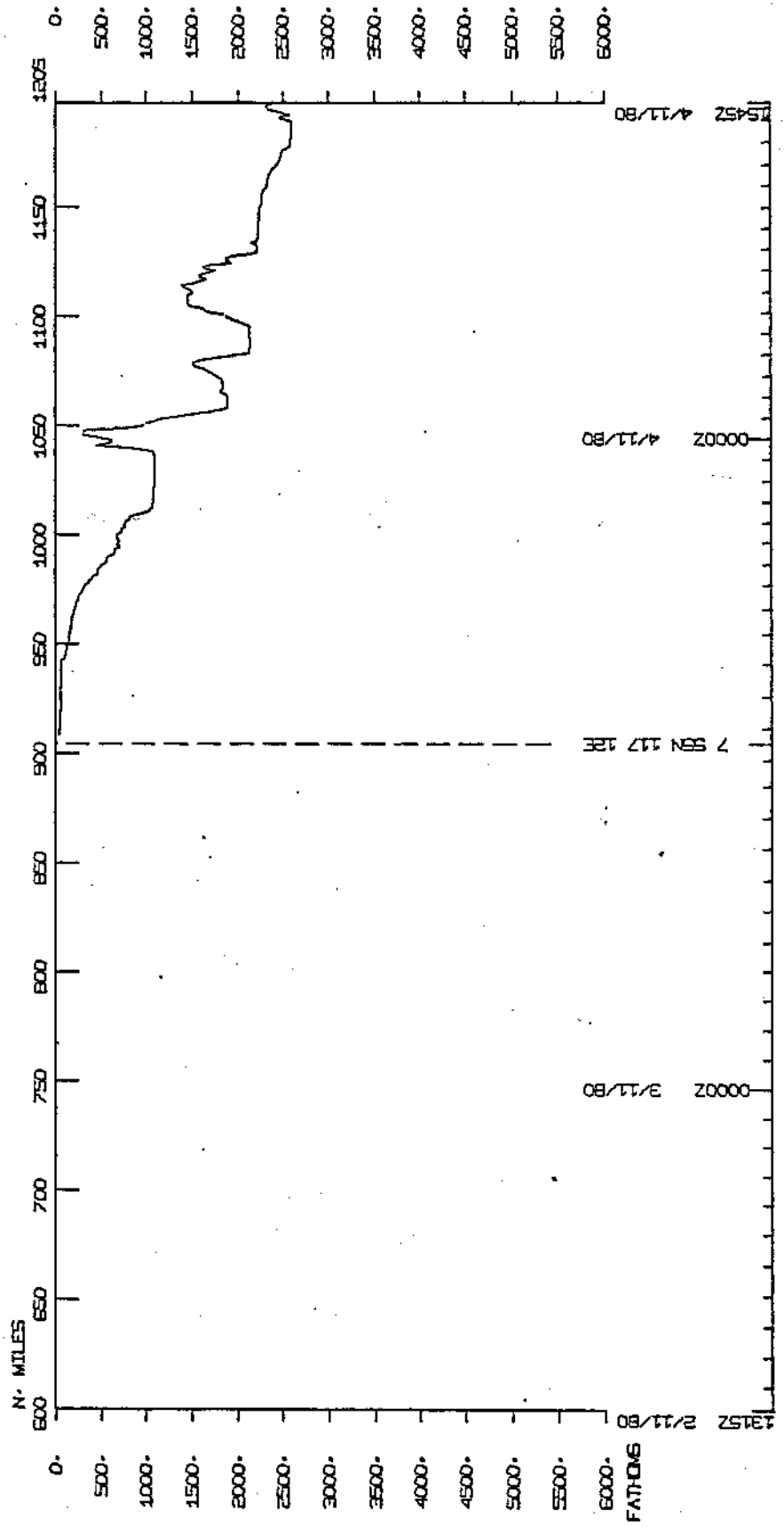
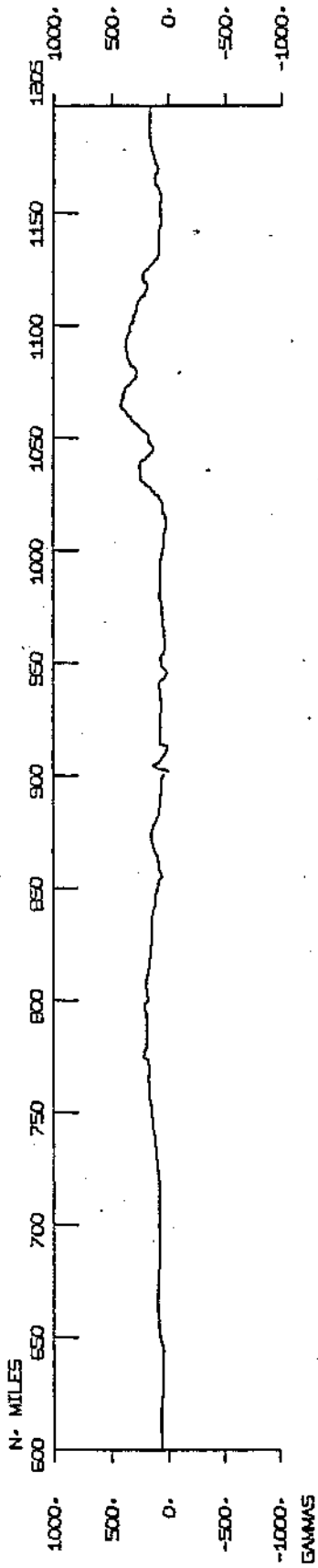
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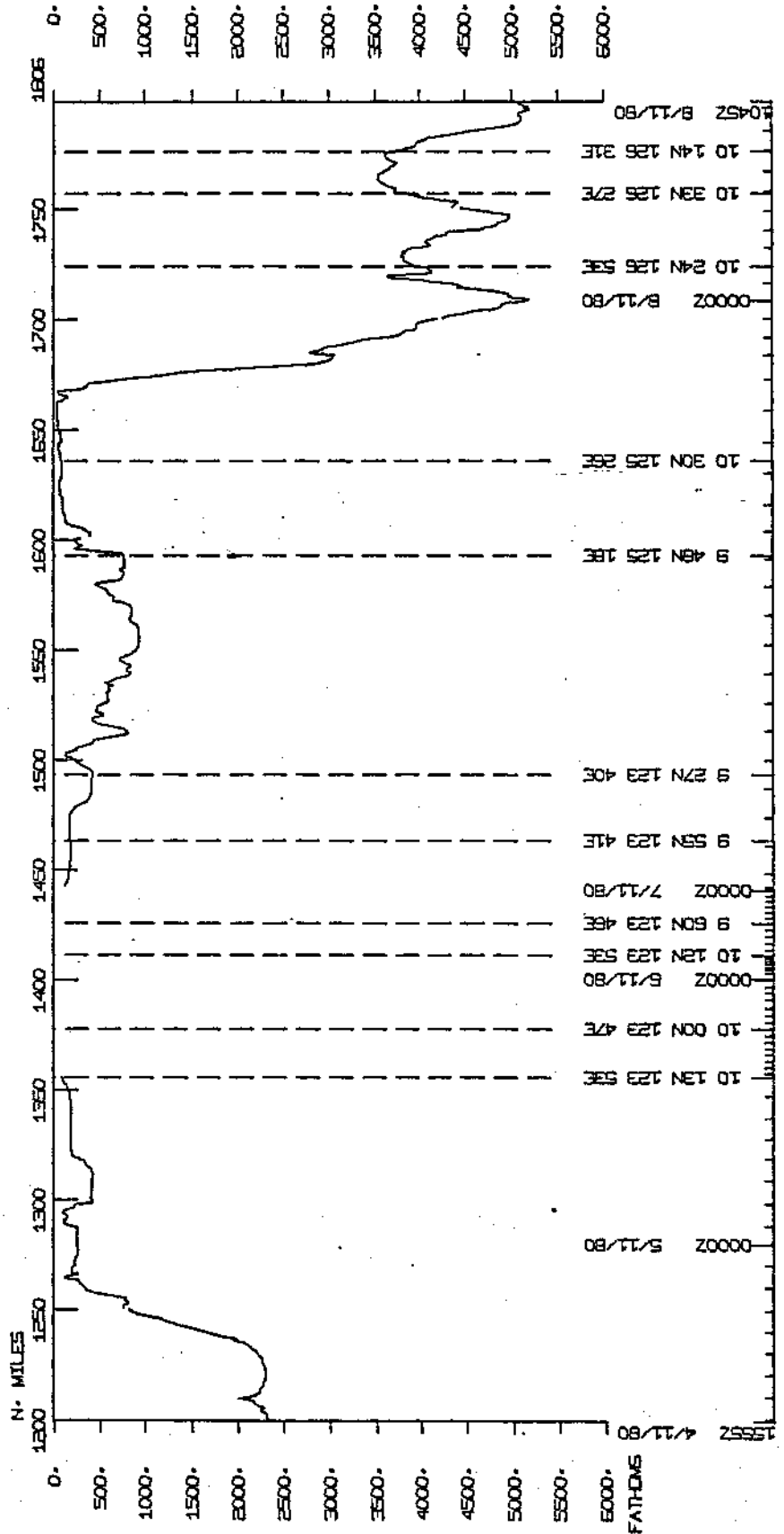
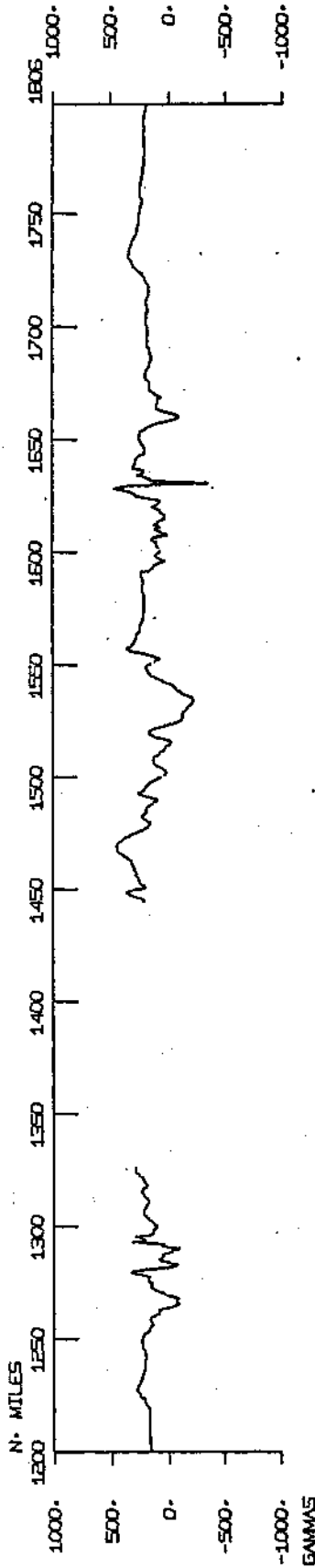
RAMA07WT



RAMA07WT

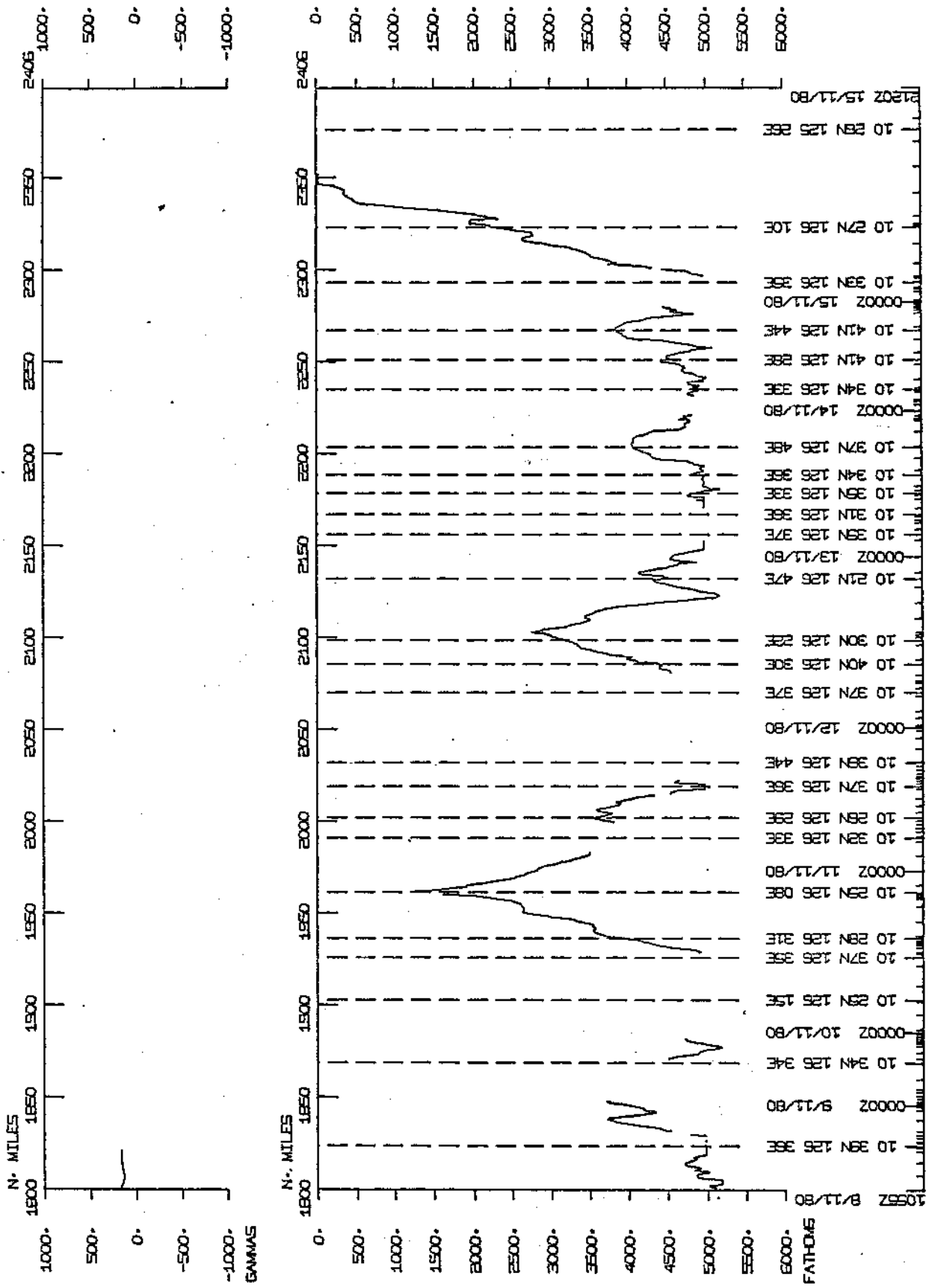


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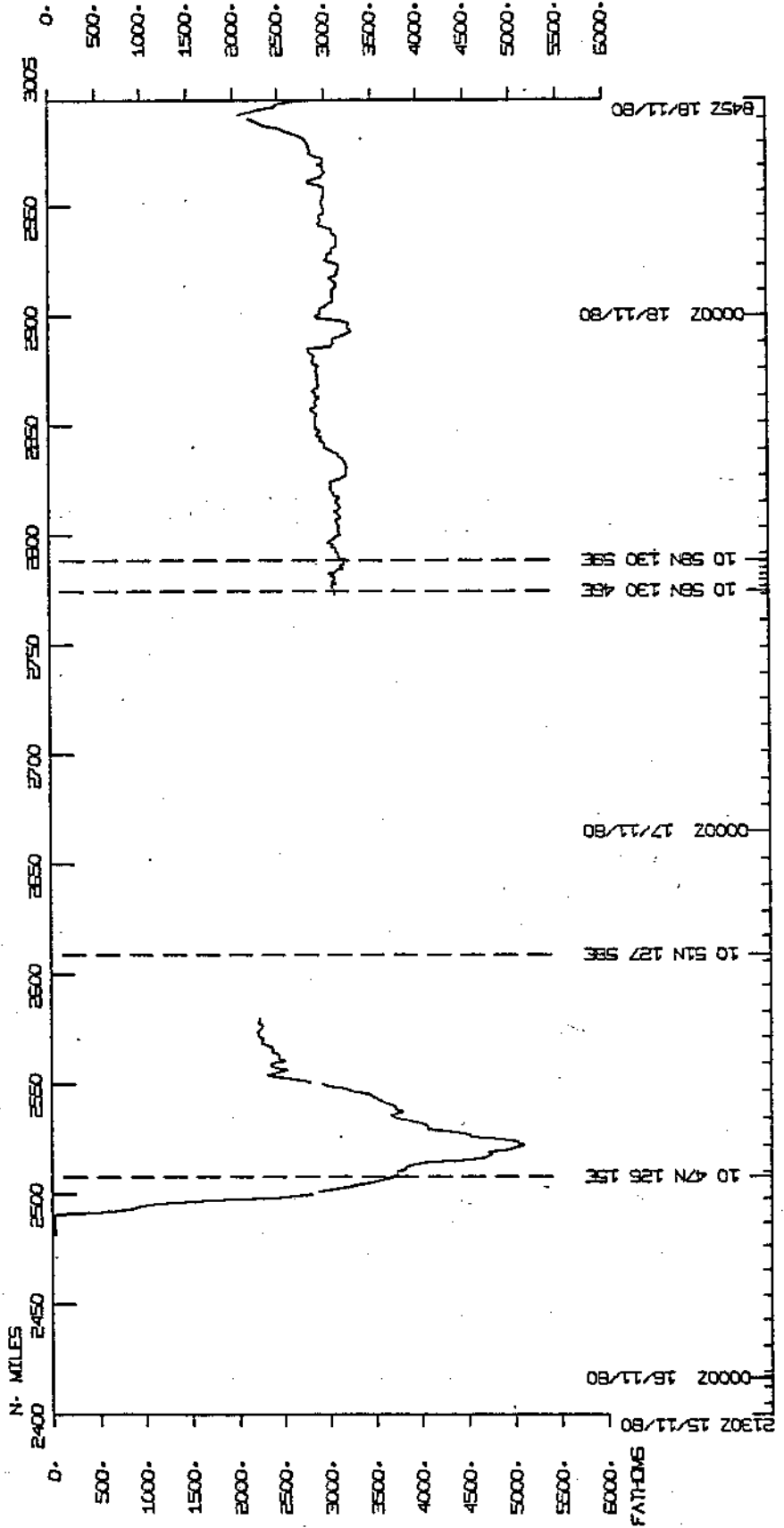
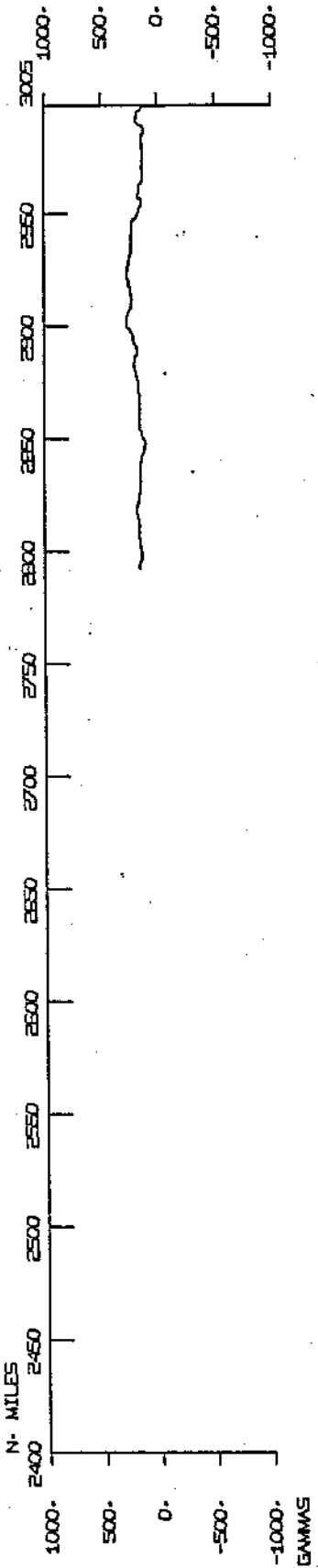


1595Z 4/11/80
 0000Z 5/11/80
 10 13N 123 58E
 10 00N 123 47E
 0000Z 6/11/80
 10 12N 123 53E
 9 50N 123 48E
 0000Z 7/11/80
 9 55N 123 41E
 9 27N 123 40E
 9 49N 123 18E
 10 30N 123 08E
 0000Z 8/11/80
 10 24N 123 53E
 10 33N 123 27E
 10 14N 123 31E
 1045Z 8/11/80

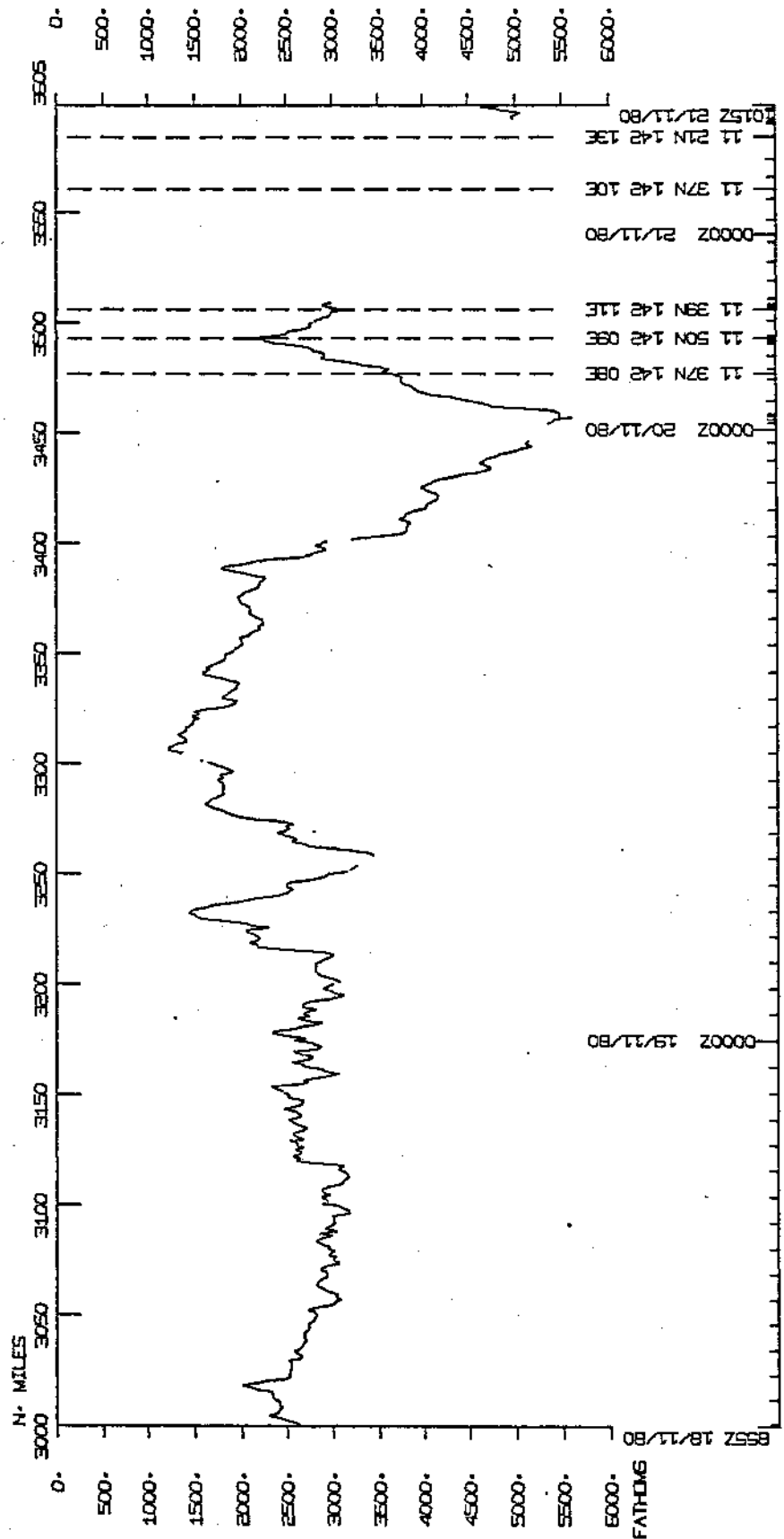
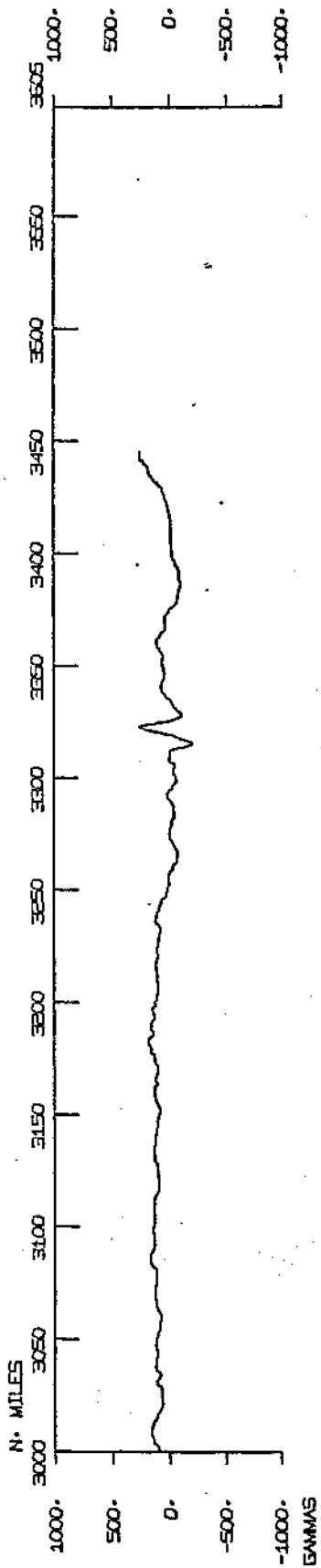
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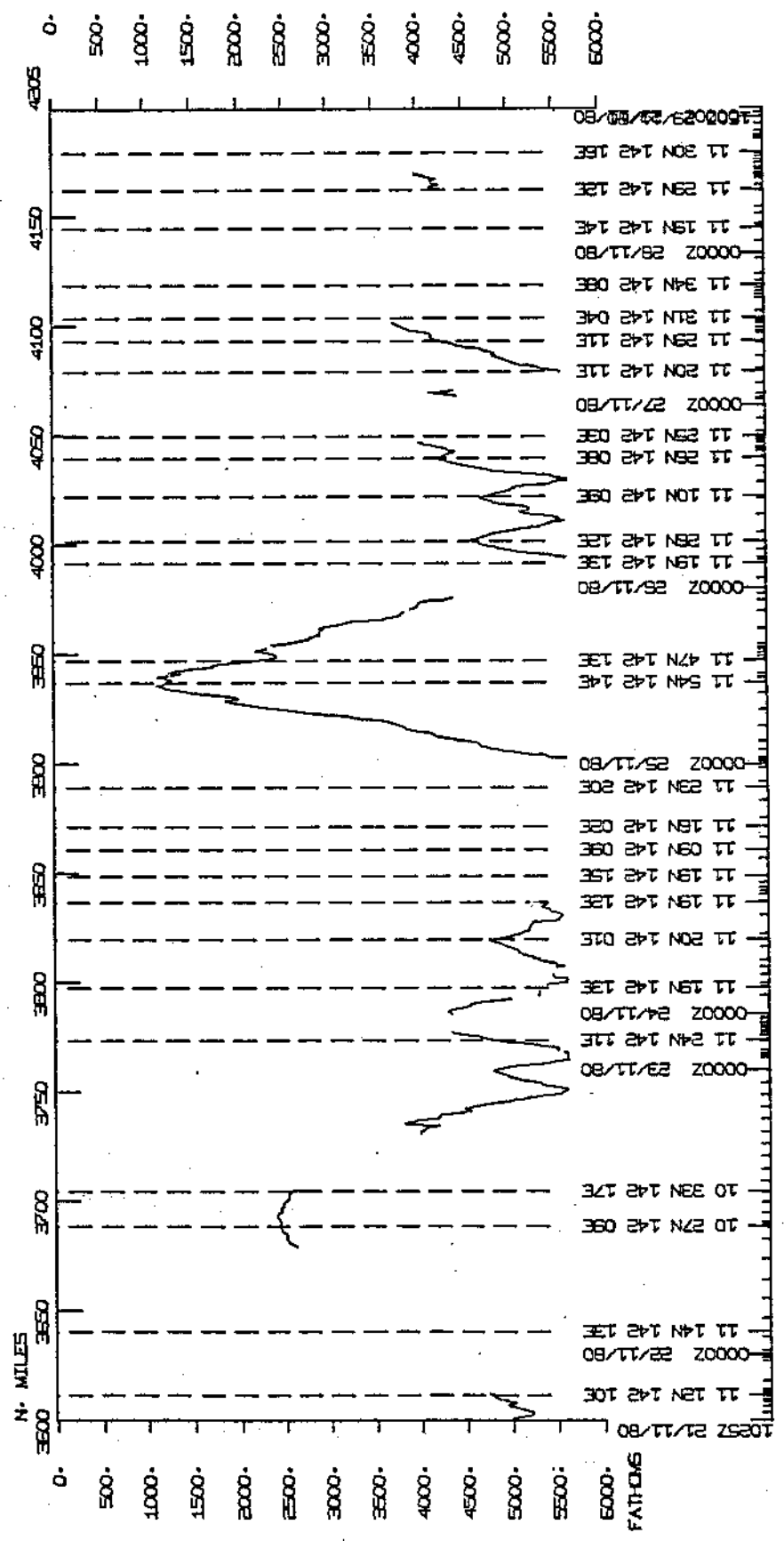
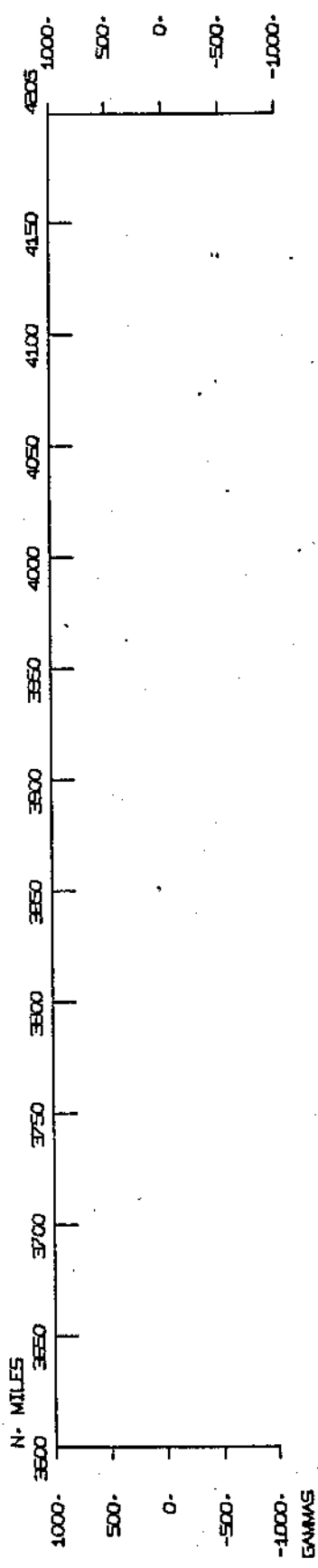
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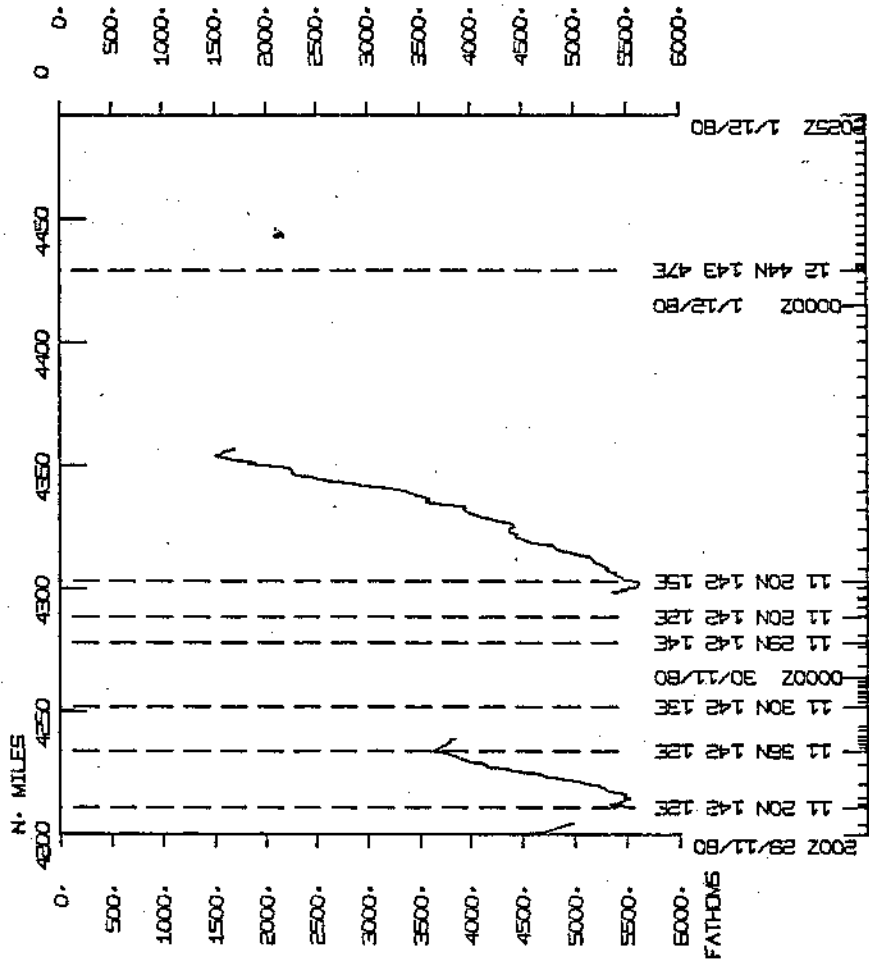
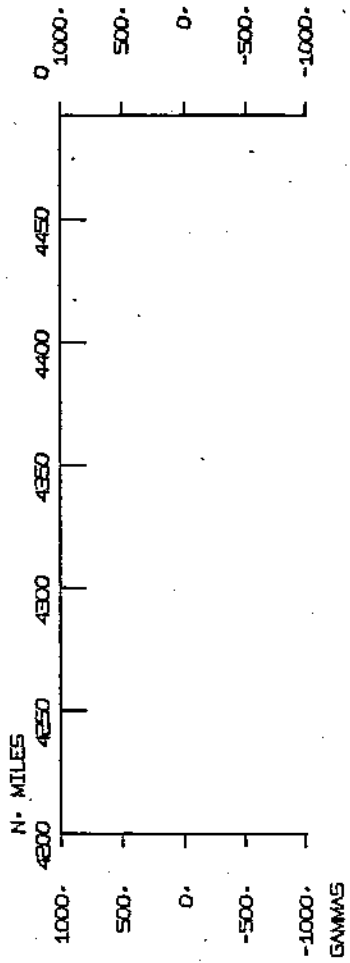
RAMA07WT



RAMA07WT



RAMAOWT



S.I.O. Sample Index
(Issued February 1981)

RAMA EXPEDITION
LEG 7

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to
Agana, Guam (1 December 1980)

R/V T. Washington

Chief Scientist - A. Yyanos (SIO)

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Post-Cruise Processing and Report Preparation
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Index Encoding Funded by NSF
Grant Number OCE77-23258
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.)

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

DISP	TYPE											TOTAL	
	DP	DR	GV	HC	LB	MG	PE	SN	TM	TR			
GCR	I		18									I	18
GDC	I	5				1	1					I	7
GRD	I							1				I	1
LMD	I		1									I	1
MIC	I							8	1			I	9
MTG	I							1				I	1
PRL	I			6				6			29	I	41
SCG	I							1				I	1
TOTAL	I	5	18	1	6	1	1	9	8	1	29	I	79

SAMPLE 'TYPE' CODES USED ABOVE

DP = DEPTH
 DR = DREDGE
 GV = GRAVITY
 HC = HYDROGRAPHIC CAST
 LB = LOG BOOKS
 MG = MAGNETICS (TOWED VEHICLE, SURFACE, TOTAL FIELD)
 PE = PERSONNEL IN SCIENTIFIC PARTY
 SN = SURFACE NET
 TM = MIDWATER TRAWL
 TR = TRAP

SAMPLE 'DISP' CODES USED ABOVE

GCR = GEOLOGICAL CURATING FACILITY -- W. RIEDEL, (EXT. 4386)
 GDC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 2752)
 GRD = GEOLOGICAL RESEARCH DIVISION (EXT. 3360)
 LMD = LEROY M. DORMAN (EXT. 2406)
 MIC = MARINE INVERTEBRATE CURATOR - A.FLEMINGER, (EXT. 2071)
 MTG = MARINE TECHNOLOGY GROUP (EXT 4194)
 PRL = PHYSIOLOGICAL RESEARCH LAB. (EXT. 2934)
 SCG = SHIPBOARD COMPUTER GROUP (EXT. 4195)

GMT D /M /Y TIME DATE	LOC LOC TIME TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT. LONG.	LEG-SHIP CRUISE
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RAMA LEG 7 SAMPLE INDEX

RAMA07WT

*** PORTS ***

1909 31/10/80		LGPT B	SINGAPORE	01	17. N 103 51. E	F RAMA07WT
2200 01/12/80		LGPT E	AGANA, GUAM	13	27. N 144 37. E	F RAMA07WT
0729 5/11/80		LGSS B	CEBU CITY, PHILIP.	10	18. N 123 54. E	F RAMA07WT
0211 7/11/80		LGSS E	CEBU CITY, PHILIP.	10	18. N 123 54. E	F RAMA07WT
2315 15/11/80		LGSS B	SURIGAO, MINDANAO	09	47. N 125 30. E	F RAMA07WT
0600 16/11/80		LGSS E	PHILIPPINES	09	47. N 125 30. E	F RAMA07WT

PERSONNEL

*** NAME ***	*** TITLE ***	*** AFFILIATION ***
1 YAYANOS, A.A.	CHIEF SCIENTIST	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
2 FISHER, R.L.	RES. GEOLOGIST	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
3 COMER, R.L.	RES. TECH.	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
4 MOE, R.	COMPUTER TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
5 DIETZ, A.S.	S/RES. ASSOC.	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
6 VAN BOXTEL, R.P.	S/RES. ASSOC.	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
7 AUMANN, M.P.	S/RES. ASSOC.	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
8 JONES, K.M.	LAB ASSIST.	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
9 CHASTAIN, R.	STUDENT	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093

NOTES AN 'X' IN THE (B)EGIN/(E)ND COLUMN FOLLOWING THE SAMPLE CODE INDICATES NO SAMPLE OR DATA RECOVERED .
 A 'C' INDICATES CONTINUATION OF DATA COLLECTION FROM BEFORE THE BEGINNING OR AFTER THE END OF THIS LEG.
 (MOORED BOTTOM INSTRUMENTS, FOR EXAMPLE).
 THE NUMBER APPEARING IN THE COLUMNS BETWEEN THE SAMPLE IDENTIFIER AND THE DISPOSITION CODE, FOR MANY SAMPLE ENTRIES, IS THE WATER DEPTH IN CORRECTED METERS.

GMT D /M /Y	LOC LOC	CODE	SAMPLE IDENT.	CODE	LAT.	LONG.	LEG-SHIP
TIME DATE	TIME TZ	SAMP		DISP			CRUISE

**** UNDERWAY DATA CURATOR ~ STUART M. SMITH EXT. 2752 ***

*** LDG BOOKS ***

1200	3/11/80		LBUW B UNDERWAY LOG P 1-152	GDC 07	57.4N	117 19.2E	S RAMA07WT
1525	30/11/80		LBUW E UNDERWAY LOG P 1-152	GDC 11	53.2N	142 58.6E	S RAMA07WT

*** FATHOGRAMS ***

1200	3/11/80		DPR3 B UGR 3.5KHZ ROLL-01	GDC 07	57.4N	117 19.2E	S RAMA07WT
0749	5/11/80		DPR3 E UGR 3.5KHZ ROLL-01	GDC 10	13.3N	123 53.2E	S RAMA07WT
0211	7/11/80		DPR3 B UGR 3.5KHZ ROLL-02	GDC 10	13.1N	123 54.0E	S RAMA07WT
0100	11/11/80		DPR3 E UGR 3.5KHZ ROLL-02	GDC 10	30.0N	126 24.0E	S RAMA07WT
0630	11/11/80		DPR3 B UGR 3.5KHZ ROLL-03	GDC 10	28.4N	126 30.6E	S RAMA07WT
1030	19/11/80		DPR3 E UGR 3.5KHZ ROLL-03	GDC 11	30.1N	139 38.7E	S RAMA07WT
1056	19/11/80		DPR3 B UGR 3.5KHZ ROLL-04	GDC 11	30.4N	139 44.2E	S RAMA07WT
1223	27/11/80		DPR3 E UGR 3.5KHZ ROLL-04	GDC 11	30.9N	142 05.4E	S RAMA07WT
0605	28/11/80		DPR3 B UGR 3.5KHZ ROLL-05	GDC 11	29.4N	142 12.1E	S RAMA07WT
1525	30/11/80		DPR3 E UGR 3.5KHZ ROLL-05	GDC 11	53.2N	142 58.6E	S RAMA07WT

*** MAGNETOMETER ***

0718	1/11/80		MGRA B MAGNETICS ROLL-01	GDC 02	32.8N	107 17.8E	S RAMA07WT
1400	18/11/80		MGRA E MAGNETICS ROLL-01	GDC 11	18.9N	135 32.7E	S RAMA07WT

GRAVIMETRIC RECORDS CURATOR L.M. DORMAN (EXT.2406)

1430	31/10/80		GVRA B GRAVITY RECORD R-01	LMD 01	13.8N	104 01.0E	S RAMA07WT
0100	23/11/80		GVRA E GRAVITY RECORD R-01	LMD 11	19.4N	142 12.6E	S RAMA07WT

*** DREDGES ***

2200	8/11/80		DRRO B DREDGE RAMA 7-06	GCR 10	37.3N	126 29.0E	S RAMA07WT
0412	9/11/80		DRRO E PHILIPPINE TRENCH	GCR 10	33.2N	126 26.4E	S RAMA07WT
1331	9/11/80		DRRO B DREDGE RAMA 7-07	GCR 10	38.4N	126 34.0E	S RAMA07WT
2028	9/11/80		DRRO E DREDGE RAMA 7-07	GCR 10	35.7N	126 30.7E	S RAMA07WT
1001	10/11/80		DRRO B DREDGE RAMA 7-08	GCR 10	31.2N	126 32.5E	S RAMA07WT
1555	10/11/80		DRRO E DREDGE RAMA 7-08	GCR 10	27.6N	126 29.9E	S RAMA07WT

GMT TIME	D / M / Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP	CRUISE
1828	10/11/80			DRRO B	DREDGE RAMA 7-09	GCR 10	28.9N	126 10.9E	S	RAMA07WT
2215	10/11/80			DRRO E	DREDGE RAMA 7-09	GCR 10	25.7N	126 08.9E	S	RAMA07WT
1339	12/11/80			DRRO B	DREDGE RAMA 7-10	GCR 10	29.8N	126 21.1E	S	RAMA07WT
1835	12/11/80			DRRO E	DREDGE RAMA 7-10	GCR 10	27.8N	126 18.9E	S	RAMA07WT
1601	13/11/80			DRRO B	DREDGE RAMA 7-11	GCR 10	36.2N	126 40.2E	S	RAMA07WT
2208	13/11/80			DRRO X	LOST	GCR 10	37.1N	126 38.6E	S	RAMA07WT
1515	14/11/80			DRRO B	DREDGE RAMA 7-12	GCR 10	36.2N	126 40.7E	S	RAMA07WT
2200	14/11/80			DRRO E	DREDGE RAMA 7-12	GCR 10	36.9N	126 40.8E	S	RAMA07WT
1206	15/11/80			DRRO B	DREDGE RAMA 7-13	GCR 10	26.9N	126 10.1E	S	RAMA07WT
1525	15/11/80			DRRO E	DREDGE RAMA 7-13	GCR 10	24.7N	126 10.1E	S	RAMA07WT
0901	20/11/80			DRRO B	DREDGE RAMA 7-14	GCR 11	48.1N	142 10.3E	S	RAMA07WT
1311	20/11/80			DRRO E	MARIANAS TRENCH	GCR 11	50.2N	142 08.5E	S	RAMA07WT
1444	20/11/80			DRRO B	DREDGE RAMA 7-15	GCR 11	39.2N	142 11.7E	S	RAMA07WT
1933	20/11/80			DRRO E	DREDGE RAMA 7-15	GCR 11	40.6N	142 09.6E	S	RAMA07WT
1244	21/11/80			DRRO B	DREDGE RAMA 7-16	GCR 11	14.1N	142 13.0E	S	RAMA07WT
1940	21/11/80			DRRO E	DREDGE RAMA 7-16	GCR 11	11.3N	142 09.8E	S	RAMA07WT
0515	23/11/80			DRRO B	DREDGE RAMA 7-17	GCR 11	23.8N	142 11.3E	S	RAMA07WT
1108	23/11/80			DRRO E	DREDGE RAMA 7-17	GCR 11	25.0N	142 08.6E	S	RAMA07WT
1000	25/11/80			DRRO B	DREDGE RAMA 7-18	GCR 11	53.5N	142 16.0E	S	RAMA07WT
1230	25/11/80			DRRO E	DREDGE RAMA 7-18	GCR 11	53.4N	142 14.6E	S	RAMA07WT
1357	25/11/80			DRRO B	DREDGE RAMA 7-19	GCR 11	47.3N	142 13.6E	S	RAMA07WT
1845	25/11/80			DRRO E	DREDGE RAMA 7-19	GCR 11	49.0N	142 09.3E	S	RAMA07WT
1241	26/11/80			DRRO B	DREDGE RAMA 7-20	GCR 11	23.8N	142 07.3E	S	RAMA07WT
1752	26/11/80			DRRO E	DREDGE RAMA 7-20	GCR 11	26.0N	142 04.6E	S	RAMA07WT
0914	27/11/80			DRRO B	DREDGE RAMA 7-21	GCR 11	28.7N	142 09.3E	S	RAMA07WT
1401	27/11/80			DRRO X	DREDGE RAMA 7-21	GCR 11	31.3N	142 04.2E	S	RAMA07WT
0821	28/11/80			DRRO B	DREDGE RAMA 7-22	GCR 11	29.7N	142 12.4E	S	RAMA07WT
1340	28/11/80			DRRO E	DREDGE RAMA 7-22	GCR 11	29.3N	142 09.4E	S	RAMA07WT
1018	29/11/80			DRRO B	DREDGE RAMA 7-23	GCR 11	36.0N	142 10.8E	S	RAMA07WT
1435	29/11/80			DRRO E	DREDGE RAMA 7-23	GCR 11	37.4N	142 09.1E	S	RAMA07WT

HYDROGRAPHIC CAST

0112	12/11/80			HCNI B	MICROBIOL. 4000M	PRL 10	28.8N	126 31.8E	S	RAMA07WT
0258	12/11/80			HCNI X	WATER SAMPLE-01	PRL 10	28.9N	126 31.5E	S	RAMA07WT
0430	14/11/80			HCNI B	MICROBIOL. 4000M	PRL 10	34.3N	126 36.0E	S	RAMA07WT
0627	14/11/80			HCNI E	WATER SAMPLE-02	PRL 10	33.5N	126 34.7E	S	RAMA07WT

GMT TIME	D / M / Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
1221	23/11/80			HCNI B	MICROBIOL. 6000M	PRL 11	25.2N	142 07.8E	S RAMA07WT
1638	23/11/80			HCNI E	WATER SAMPLE-03	PRL 11	24.9N	142 06.1E	S RAMA07WT
1901	26/11/80			HCNI B	MICROBIOL. 6000M	PRL 11	25.8N	142 03.5E	S RAMA07WT
2136	26/11/80			HCNI X	WATER SAMPLE-04	PRL 11	26.3N	142 02.6E	S RAMA07WT
0319	1/12/80			HCNI B	MICROBIOL. 2000M	PRL 12	45.0N	143 47.8E	S RAMA07WT
0417	1/12/80			HCNI E	WATER SAMPLE-05	PRL 12	45.5N	143 47.6E	S RAMA07WT
0441	1/12/80			HCNI B	MICROBIOL. 2000M	PRL 12	46.0N	143 48.2E	S RAMA07WT
0550	1/12/80			HCNI E	WATER SAMPLE-06	PRL 12	46.5N	143 47.9E	S RAMA07WT
TRAP									
1845	8/11/80			TRFV B	FREE VEH TRAP 9600M	PRL 10	34.7N	126 34.3E	S RAMA07WT
1046	9/11/80			TRFV E	NO.-01	PRL 10	33.8N	126 33.7E	S RAMA07WT
0806	9/11/80			TRFV B	FREE VEH TRAP 6163M	PRL 10	29.5N	126 21.3E	S RAMA07WT
0946	10/11/80			TRFV E	NO.-02	PRL 10	31.4N	126 32.6E	S RAMA07WT
1308	9/11/80			TRFV B	FREE VEH TRAP 9911M	PRL 10	38.6N	126 34.8E	S RAMA07WT
0439	10/11/80			TRFV E	NO.-03	PRL 10	33.7N	126 28.0E	S RAMA07WT
0900	10/11/80			TRFV B	FREE VEH TRAP 8639M	PRL 10	32.3N	126 33.3E	S RAMA07WT
0427	11/11/80			TRFV E	NO.-04	PRL 10	30.9N	126 33.4E	S RAMA07WT
0841	11/11/80			TRFV B	FREE VEH TRAP 7111M	PRL 10	28.2N	126 30.1E	S RAMA07WT
0405	12/11/80			TRFV E	NO.-05	PRL 10	27.1N	126 30.4E	S RAMA07WT
0902	12/11/80			TRFV B	FREE VEH TRAP 9606M	PRL 10	36.7N	126 36.5E	S RAMA07WT
0146	13/11/80			TRFV E	NO.-06	PRL 10	35.3N	126 37.1E	S RAMA07WT
1037	12/11/80			TRFV B	FREE VEH TRAP 9601M	PRL 10	36.5N	126 37.1E	S RAMA07WT
0407	13/11/80			TRFV E	NO.-07	PRL 10	35.1N	126 36.6E	S RAMA07WT
0903	13/11/80			TRFV B	FREE VEH TRAP 9201M	PRL 10	36.3N	126 34.2E	S RAMA07WT
0155	14/11/80			TRFV E	NO.-08	PRL 10	35.4N	126 35.5E	S RAMA07WT
1045	13/11/80			TRFV B	FREE VEH TRAP 9699M	PRL 10	35.2N	126 35.4E	S RAMA07WT
0429	14/11/80			TRFV E	NO.-09	PRL 10	34.3N	126 36.0E	S RAMA07WT
0729	14/11/80			TRFV B	FREE VEH TRAP 9653M	PRL 10	34.9N	126 34.3E	S RAMA07WT
0215	15/11/80			TRFV E	NO.-10	PRL 10	33.7N	126 35.7E	S RAMA07WT
0923	14/11/80			TRFV B	FREE VEH TRAP 9584M	PRL 10	34.8N	126 34.7E	S RAMA07WT
0445	15/11/80			TRFV E	NO.-11	PRL 10	33.6N	126 35.4E	S RAMA07WT
0051	20/11/80			TRFV B	FREE VEH TRAP 10500M	PRL 11	18.9N	142 11.9E	S RAMA07WT
0012	21/11/80			TRFV E	NO.-12	PRL 11	19.0N	142 11.2E	S RAMA07WT
0245	20/11/80			TRFV B	FREE VEH TRAP 10880M	PRL 11	20.7N	142 13.6E	S RAMA07WT
2245	22/11/80			TRFV X	NO.-13 NO SAMPLE	PRL 11	21.5N	142 15.5E	S RAMA07WT

GMT TIME	D /M /Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	02MAR81			PAGE	5
						CODE DISP	LAT.	LONG.		LEG-SHIP CRUISE
0419	20/11/80			TRFV B	FREE VEH TRAP 10570M	PRL 11	20.7N	142 12.3E	S	RAMA07WT
0020	23/11/80			TRFV E	NO.-14	PRL 11	22.6N	142 12.2E	S	RAMA07WT
0637	20/11/80			TRFV B	FREE VEH TRAP 6790M	PRL 11	37.8N	142 07.3E	S	RAMA07WT
0357	21/11/80			TRFV E	NO.-15	PRL 11	36.8N	142 05.4E	S	RAMA07WT
0700	21/11/80			TRFV B	FREE VEH TRAP 10015M	PRL 11	15.1N	142 13.6E	S	RAMA07WT
0219	22/11/80			TRFV X	NO.-16- LOST NO SAMPLE	PRL 11	15.4N	142 13.0E	S	RAMA07WT
0109	23/11/80			TRFV B	FREE VEH TRAP 10900M	PRL 11	19.5N	142 12.7E	S	RAMA07WT
0238	24/11/80			TRFV E	NO.-17	PRL 11	19.6N	142 13.3E	S	RAMA07WT
0310	23/11/80			TRFV B	FREE VEH TRAP 10900M	PRL 11	20.3N	142 13.6E	S	RAMA07WT
2256	24/11/80			TRFV X	NO.-18- LOST NO SAMPLE	PRL 11	19.6N	142 12.4E	S	RAMA07WT
0629	24/11/80			TRFV B	FREE VEH TRAP 10750M	PRL 11	19.7N	142 14.0E	S	RAMA07WT
0029	25/11/80			TRFV E	NO.-19	PRL 11	20.2N	142 12.2E	S	RAMA07WT
0322	25/11/80			TRFV B	FREE VEH TRAP 10700M	PRL 11	20.0N	142 13.6E	S	RAMA07WT
0232	26/11/80			TRFV E	NO.-20	PRL 11	19.5N	142 13.3E	S	RAMA07WT
0532	25/11/80			TRFV B	FREE VEH TRAP 18997M	PRL 11	26.0N	142 13.9E	S	RAMA07WT
0030	26/11/80			TRFV X	NO.-21- LOST NO SAMPLE	PRL 11	25.8N	142 13.2E	S	RAMA07WT
0418	26/11/80			TRFV B	FREE VEH TRAP 10600M	PRL 11	20.7N	142 13.1E	S	RAMA07WT
0223	28/11/80			TRFV E	NO.-22	PRL 11	20.6N	142 13.8E	S	RAMA07WT
0550	26/11/80			TRFV B	FREE VEH TRAP 18961M	PRL 11	26.9N	142 13.0E	S	RAMA07WT
0015	27/11/80			TRFV E	NO.-23	PRL 11	25.9N	142 11.6E	S	RAMA07WT
0320	27/11/80			TRFV B	FREE VEH TRAP 18961M	PRL 11	29.5N	142 11.8E	S	RAMA07WT
0019	28/11/80			TRFV E	NO.-24	PRL 11	29.2N	142 11.0E	S	RAMA07WT
0535	27/11/80			TRFV B	FREE VEH TRAP 10500M	PRL 11	21.5N	142 11.5E	S	RAMA07WT
0435	28/11/80			TRFV E	NO.-25	PRL 11	20.8N	142 11.4E	S	RAMA07WT
0706	28/11/80			TRFV B	FREE VEH TRAP 18058M	PRL 11	29.4N	142 12.2E	S	RAMA07WT
2352	28/11/80			TRFV E	NO.-26	PRL 11	28.7N	142 11.4E	S	RAMA07WT
0241	29/11/80			TRFV B	FREE VEH TRAP 19257M	PRL 11	27.6N	142 15.2E	S	RAMA07WT
0226	30/11/80			TRFV X	NO.-27- LOST NO SAMPLE	PRL 11	28.1N	142 14.4E	S	RAMA07WT
0429	29/11/80			TRFV B	FREE VEH TRAP 10650M	PRL 11	20.6N	142 12.4E	S	RAMA07WT
0415	30/11/80			TRFV E	NO.-28	PRL 11	20.9N	142 11.9E	S	RAMA07WT
0656	29/11/80			TRFV B	FREE VEH TRAP 10600M	PRL 11	19.7N	142 11.2E	S	RAMA07WT
0631	30/11/80			TRFV E	NO.-29	PRL 11	18.7N	142 10.7E	S	RAMA07WT

GMT TIME	D / M / Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
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*** SURFACE NET ***

1324	31/10/80			SNNU B	SNNUH RAMA 7-01	MIC 01	13.9N	103 59.6E	S RAMA07WT
1329	31/10/80			SNNU E	SNNUH RAMA 7-01	MIC 01	13.9N	103 59.6E	S RAMA07WT
0025	1/11/80			SNNU B	SNNUH RAMA 7-02	MIC 01	55.0N	106 01.7E	S RAMA07WT
0031	1/11/80			SNNU E	SNNUH RAMA 7-02	MIC 01	55.5N	106 02.8E	S RAMA07WT
1312	1/11/80			SNNU B	SNNUH RAMA 7-03	MIC 03	00.8N	108 30.0E	S RAMA07WT
1317	1/11/80			SNNU E	SNNUH RAMA 7-03	MIC 03	01.1N	108 30.0E	S RAMA07WT
1215	2/11/80			SNNU B	SNNUH RAMA 7-04	MIC 04	28.3N	113 14.6E	S RAMA07WT
1220	2/11/80			SNNU E	SNNUH RAMA 7-04	MIC 04	28.9N	113 15.6E	S RAMA07WT
1041	3/11/80			SNNU B	SNNUH RAMA 7-05	MIC 07	48.1N	117 06.3E	S RAMA07WT
1046	3/11/80			SNNU E	SNNUH RAMA 7-05	MIC 07	48.5N	117 06.6E	S RAMA07WT
0019	5/11/80			SNNU B	SNNUH RAMA 7-06	MIC 09	07.7N	123 21.8E	S RAMA07WT
0027	5/11/80			SNNU E	SNNUH RAMA 7-06	MIC 09	08.2N	123 22.1E	S RAMA07WT
0222	7/11/80			SNNU B	SNNUH RAMA 7-07	MIC 10	12.5N	123 53.8E	S RAMA07WT
0227	7/11/80			SNNU E	SNNUH RAMA 7-07	MIC 10	12.3N	123 53.6E	S RAMA07WT
1555	7/11/80			SNNU B	SNNUH RAMA 7-08	MIC 10	10.1N	125 24.6E	S RAMA07WT
1600	7/11/80			SNNU E	SNNUH RAMA 7-08	MIC 10	11.3N	125 24.7E	S RAMA07WT

*** MIDWATER TRAWL ***

0927	17/11/80			TMIK B	MIDWATER TRAWL-02	MIC 10	56.5N	130 46.7E	S RAMA07WT
1420	17/11/80			TMIK E	MIDWATER TRAWL-3000M	MIC 10	58.3N	130 59.8E	S RAMA07WT

9900

END SAMPLE INDEX

RAMA07WT