INFORMAL REPORT AND INDEX OF
NAVIGATION, DEPTH, MAGNETIC AND SUBBOTTOM PROFILER DATA
(ISSUED JUNE 1981)

RAMA EXPEDITION

LEG 12

Cebu City, Philippines (30 March 1981)
to
Agana, Guam (5 May 1981)

R/V T. Washington

Chief Scientist - E. A. Silver (UCSC)

Resident Marine Tech - W. Keith

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

Data Collection Funded by NSF
Grant Number OCE80-24472
Data Processing Funded by NSF

GDC Cruise I.D.# - 181

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 of 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).

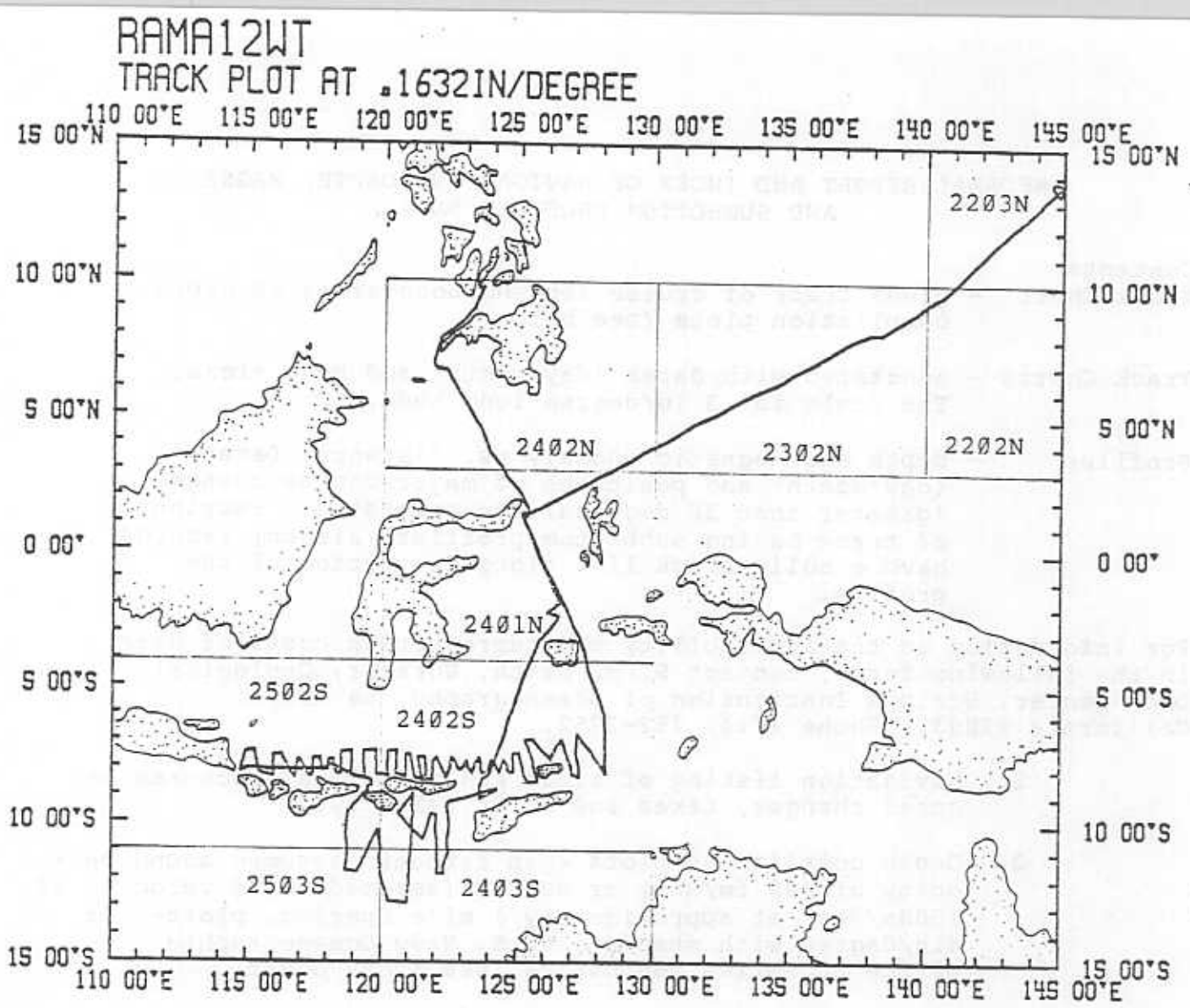
5. S.I.O. Sample Index - list of beginning and end times and positions of all underway records as well as all other samples (geology, biology, physical oceanography, etc.) collected on the cruise leg.

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

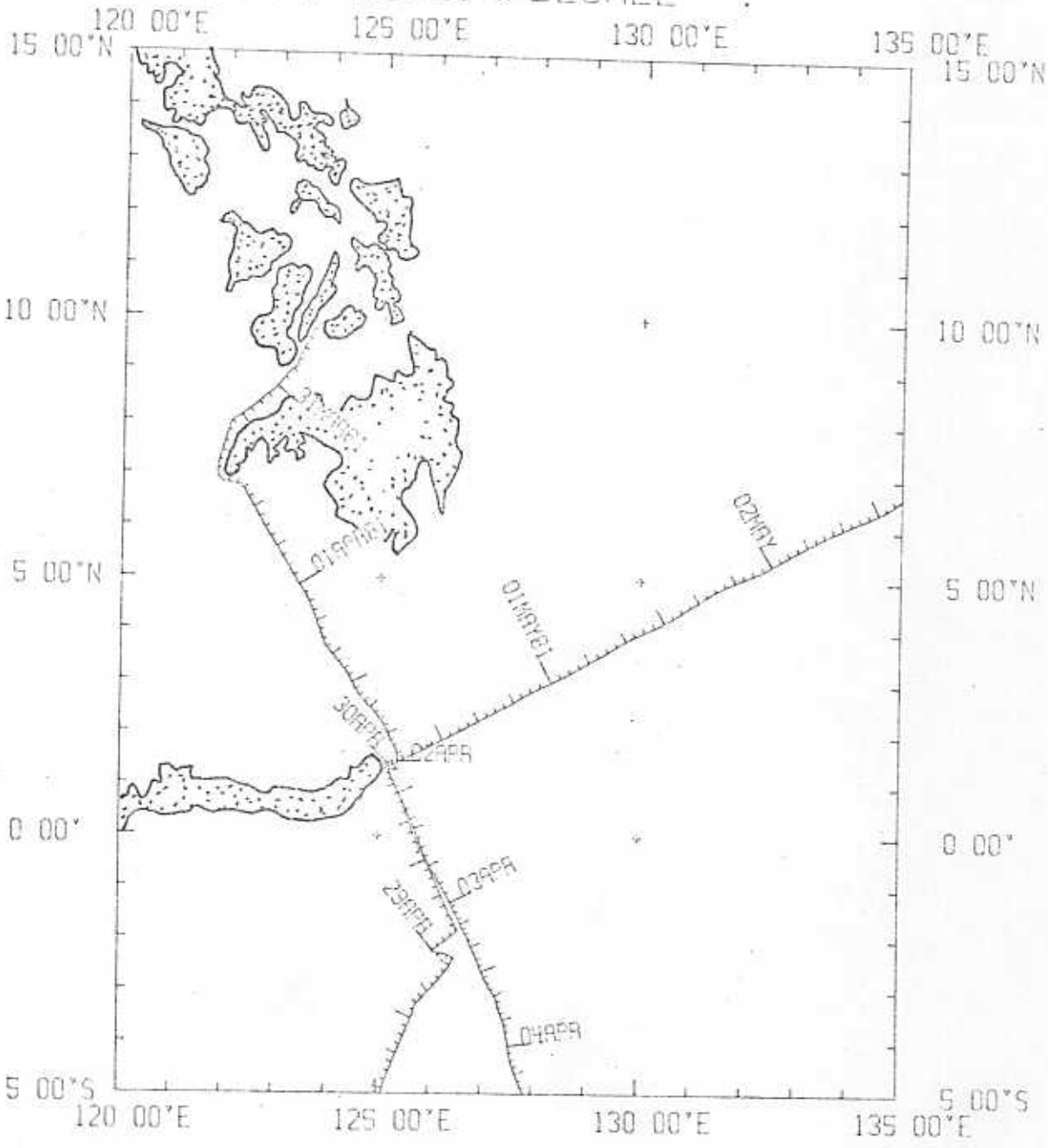


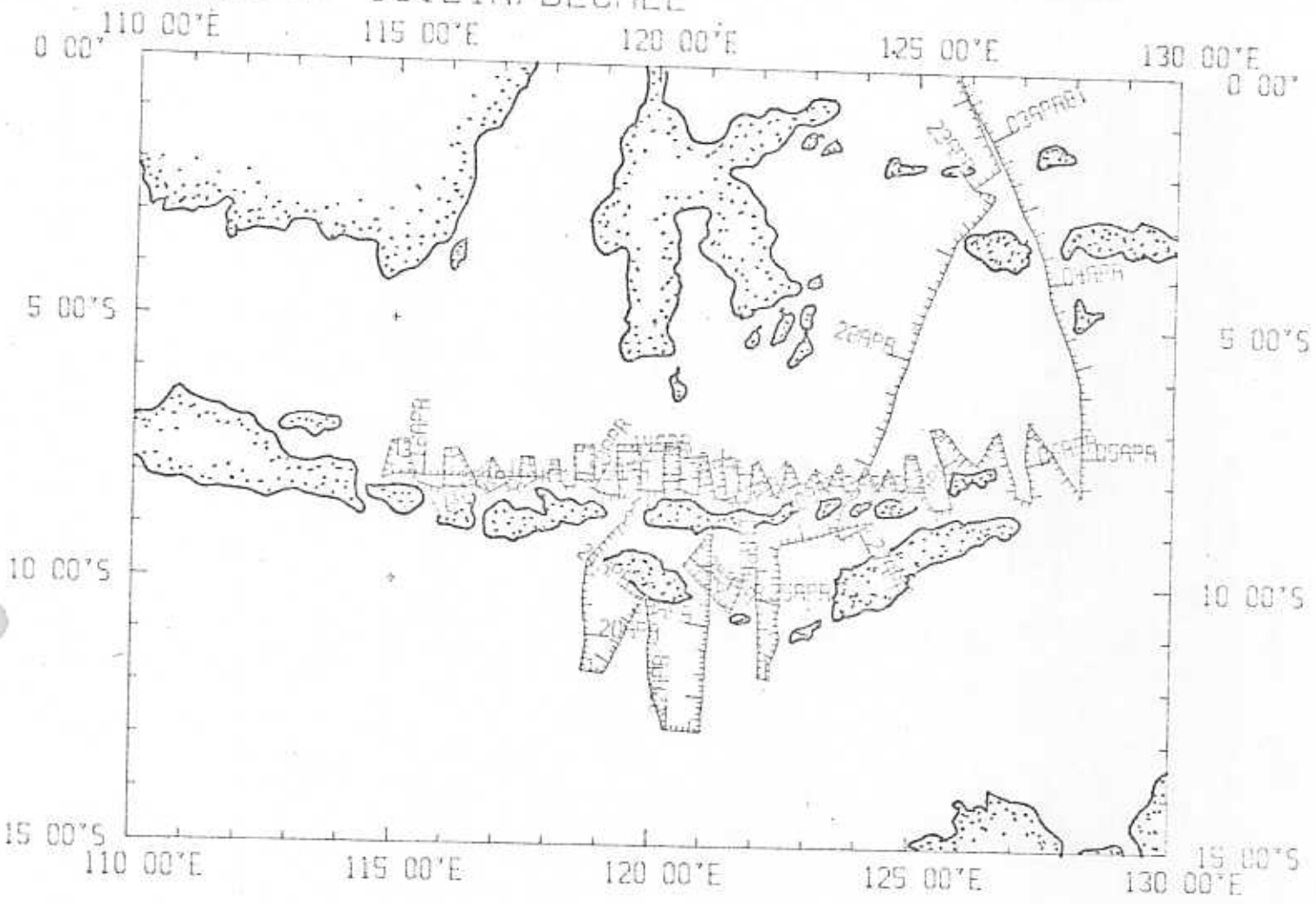
RAMA EXPEDITION
LEG 12

Chief Scientist: E. A. Silver (UCC)
Ports: Cebu City, Philippines to Agana, Guam
Dates: 30 March - 5 May 1981
Ship: R/V Melville

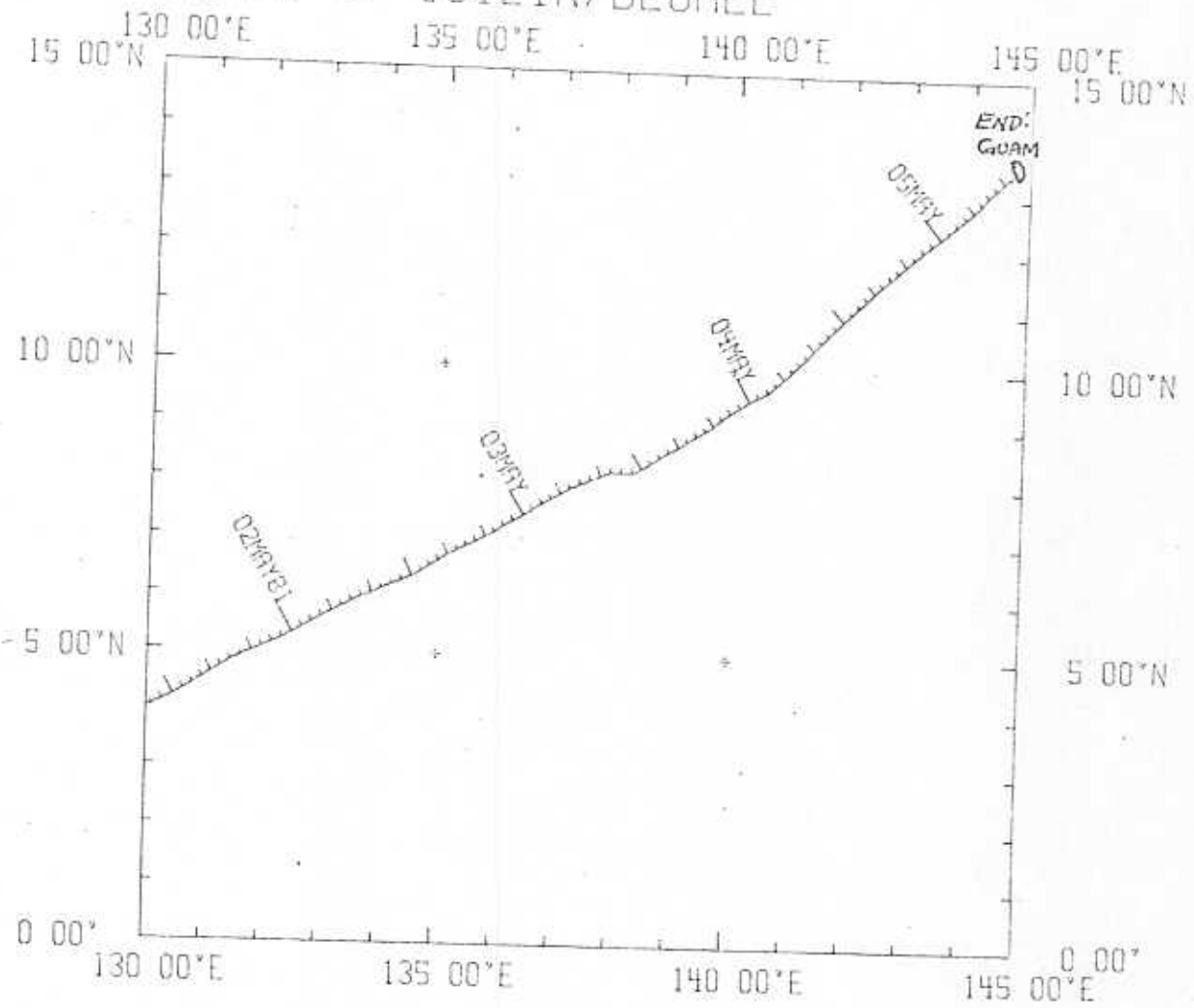
TOTAL MILEAGE OF UNDERWAY DATA COLLECTED
1) Cruise - 7504 miles
2) Bathymetry - 7464 miles
3) Magnetics - 6551 miles
4) Seismic Reflection - 4640 miles
5) Gravity - 7334 miles

RAMA12WT (PLOT 1 OF 3)
TRACK AT .312IN/DEGREE



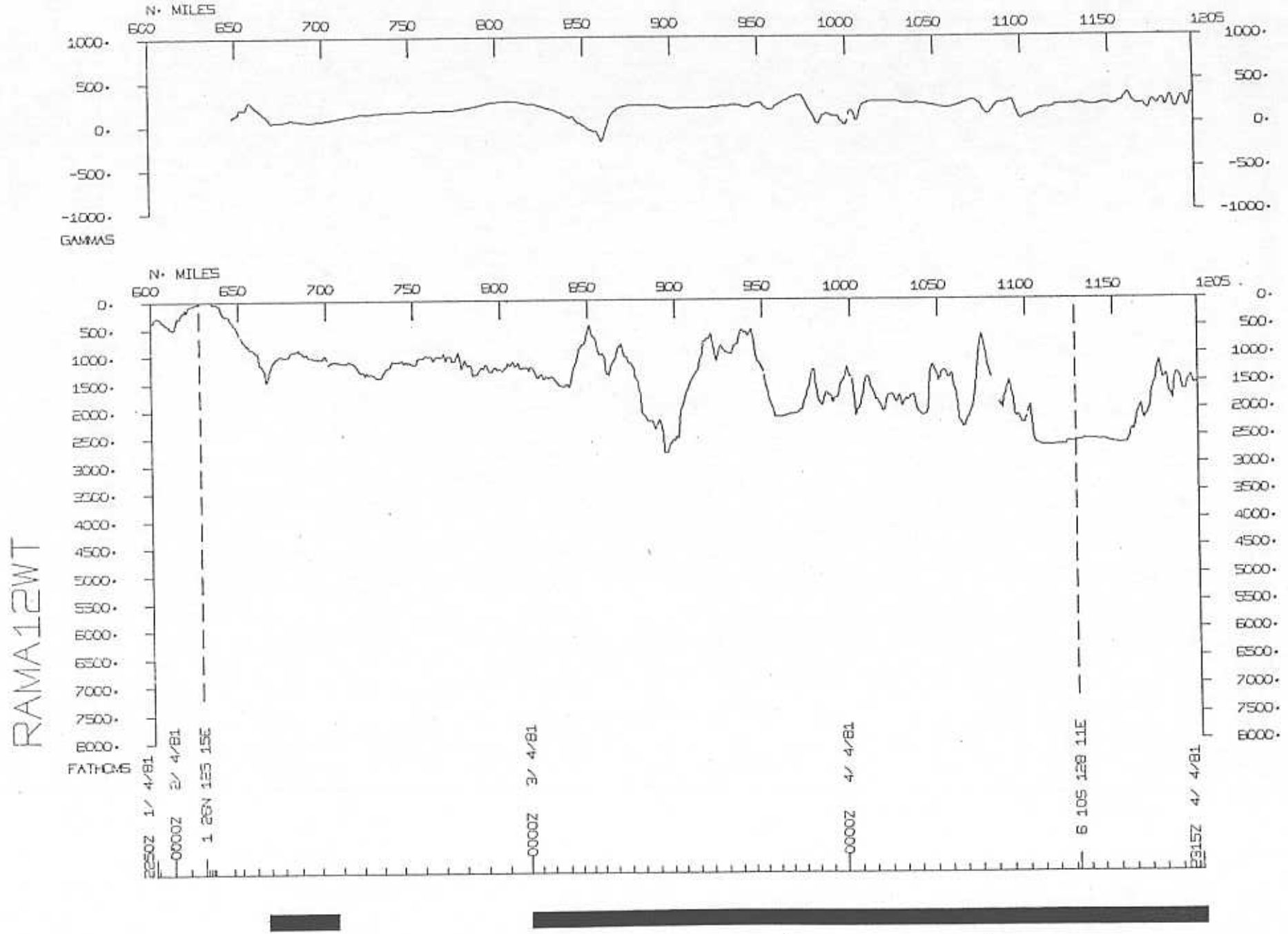

RAMA12WT (PLOT 2 OF 3)
TRACK AT .312IN/DEGREE
110 00'E
115 00'E
120 00'E
125 00'E
130 00'E
0 00'
5 00'S
10 00'S
15 00'S

RAMA12WT (PLOT 3 OF 3)
TRACK AT .312IN/DEGREE



RAMA12WT

FATHOMS
N. MILES
GAMMAS
17452 30/ 3/81
9 03N 123 19E
00002 31/ 3/81
7 58N 122 04E
6 55N 121 50E
6 45N 122 18E
00002 1/ 4/81
22402 1/ 4/81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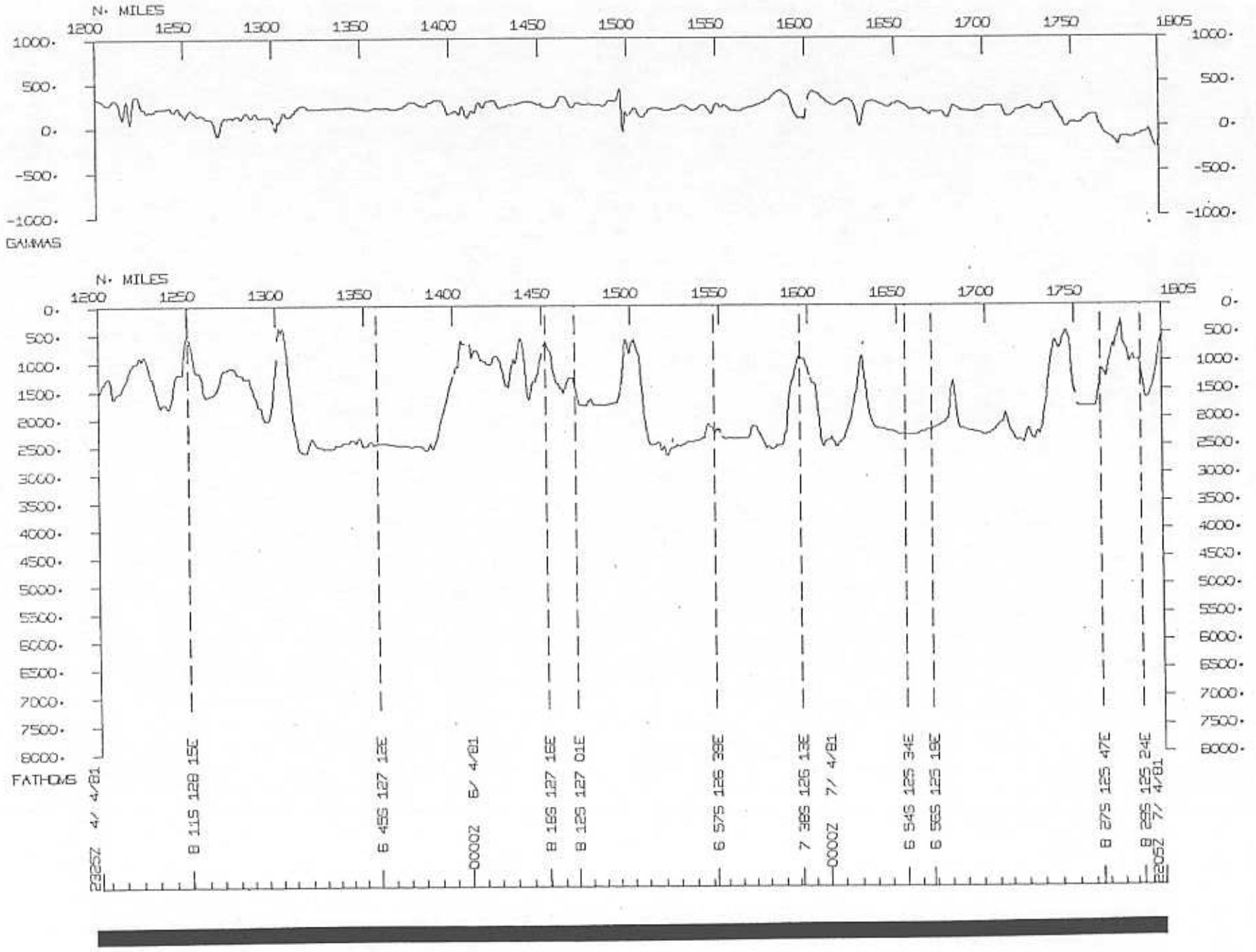
650
700
750
800
850
900
950
1000
1050
1100
1150
1205
1000.
500.
0.
-500.
-1000.
GAMMAS
N. MILES
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
4500.
5000.
5500.
6000.
6500.
7000.
7500.
8000.
FATHOMS
RAMA12WT
2250Z 1/ 4/81
00002
2/ 4/81
1 26N 12S 15E
00002
3/ 4/81
00002
4/ 4/81
6 10S 12E 11E
2315Z 4/ 4/81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1300
1350
1400
1450
1500
1550
1600
1650
1700
1750
1805
1000.
500.
0.
-500.
-1000.
GAMMAS
FATHOMS
RAMA12WT
2325Z 4/ 4/81
B 115 128 15E
B 455 127 12E
0000Z 6/ 4/81
B 165 127 16E
B 125 127 01E
B 575 126 39E
7 385 126 13E
0000Z 7/ 4/81
B 545 125 34E
B 565 125 19E
B 275 125 47E
B 295 125 24E
2205Z 7/ 4/81

RAMA12WT

N. MILES
GAMMAS
FATHOMS
22152 7/ 4/81
00002 8/ 4/81
7 255 125 05E
7 255 124 52E
8 065 124 53E
8 075 124 43E
7 415 124 32E
8 085 124 21E
7 585 124 17E
00002 9/ 4/81
7 395 124 06E
8 095 123 56E
8 085 123 43E
7 375 123 37E
8 095 123 21E
7 435 123 10E
00002 10/ 4/81
7 355 122 35E
8 195 122 24E
7 365 122 03E
7 445 121 55E
8 245 121 54E
00002 11/ 4/81
8 255 121 30E
3402 11/ 4/81

RAMA12WT

GAMMAS
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500.
0.
-500.
-1000.
N. MILES
2400
2450
2500
2550
2600
2650
2700
2750
2800
2850
2900
2950
3005
FATHOMS
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
4500.
5000.
5500.
6000.
6500.
7000.
7500.
8000.
350Z 11/ 4/81
7 34S 121 21E
7 34S 121 37E
8 17S 121 38E
8 20S 121 15E
00002 12/ 4/81
7 28S 120 55E
8 17S 120 53E
8 11S 120 32E
7 20S 120 32E
7 22S 120 13E
00002 13/ 4/81
8 17S 120 15E
8 13S 119 47E
7 20S 119 47E
00002 14/ 4/81
8 19S 119 23E
8 13S 118 52E
1215Z 14/ 4/81

RAMA12WT

FATHOMS
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7500.
7000.
6500.
6000.
5500.
5000.
4500.
4000.
3500.
3000.
2500.
2000.
1500.
1000.
500.
0.
N. MILES
3000
3050
3100
3150
3200
3250
3300
3350
3400
3450
3500
3550
3606
12252 14/ 4/81
7 21S 118 52E
7 23S 118 29E
00002 15/ 4/81
8 11S 118 18E
7 39S 118 12E
7 40S 118 03E
8 01S 118 00E
8 02S 117 46E
7 36S 117 43E
7 37S 117 28E
8 16S 117 23E
00002 16/ 4/81
7 33S 116 56E
8 19S 116 46E
7 28S 116 15E
7 30S 115 58E
00002 17/ 4/81
8 08S 115 27E
7 20S 115 16E
13552 17/ 4/81
GAMMAS
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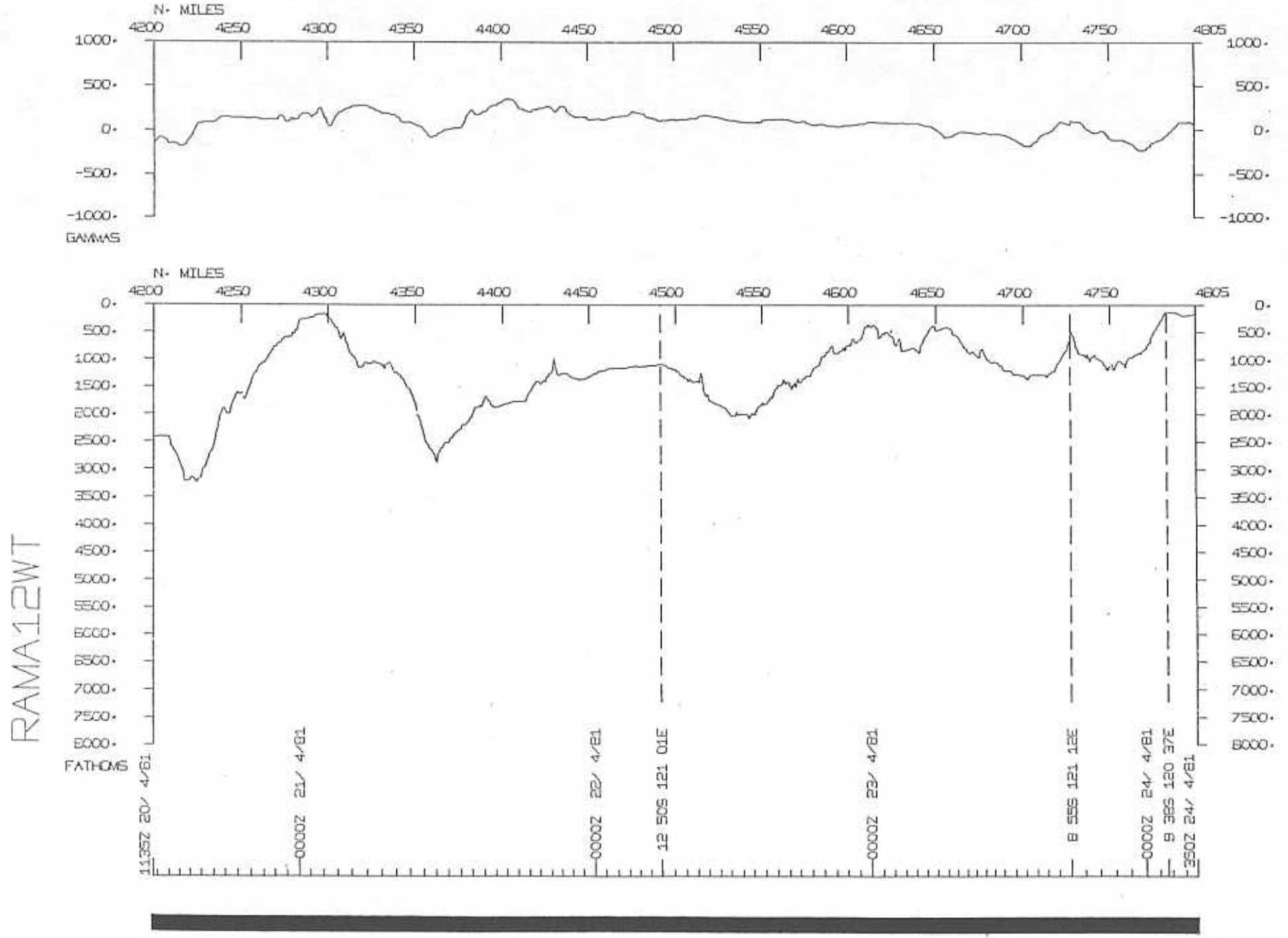
0.
-500.
-1000.

RAMA12WT

FATHOMS
N. MILES
GAMMAS
1405Z 17/ 4/81
B 055 114 47E
20000Z 18/ 4/81
7 585 117 59E
7 515 118 13E
20000Z 19/ 4/81
B 225 119 34E
B 365 119 38E
B 495 119 30E
9 355 119 45E
20000Z 20/ 4/81
11 415 118 40E
11 445 119 08E
1125Z 20/ 4/81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4450
4500
4550
4600
4650
4700
4750
4805
1000.
500.
0.
-500.
-1000.
GAMMAS
N. MILES
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
4500.
5000.
5500.
6000.
6500.
7000.
7500.
8000.
FATHOMS
1135Z 20/ 4/81
00002 21/ 4/81
00002 22/ 4/81
12 505 121 01E
00002 23/ 4/81
8 555 121 12E
00002 24/ 4/81
9 385 120 37E
3502 24/ 4/81
RAMA12WT

RAMA12WT

FATHOMS
8000.
7500.
7000.
6500.
6000.
5500.
5000.
4500.
4000.
3500.
3000.
2500.
2000.
1500.
1000.
500.
0.
4600
4650
4700
4750
4800
4850
4900
4950
5000
5050
5100
5150
5200
5250
5300
5350
5406
N. MILES
4002 24/ 4/81
10 33S 121 34E
9 39S 121 52E
9 40S 122 02E
0000Z 25/ 4/81
11 47S 122 05E
11 48S 122 21E
0000Z 26/ 4/81
9 13S 122 30E
8 44S 124 15E
0000Z 27/ 4/81
9 05S 123 39E
4202 27/ 4/81
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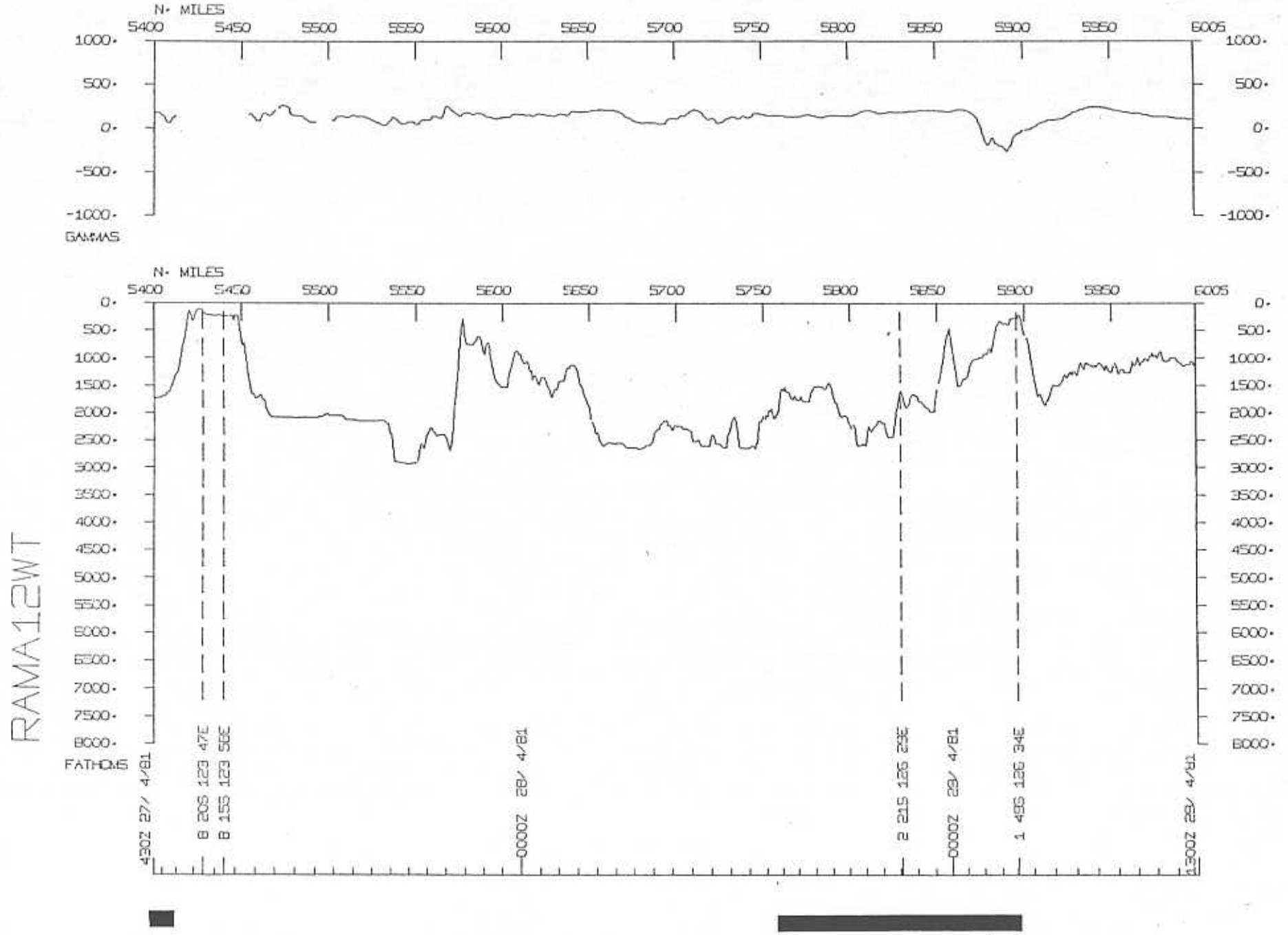
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5650
5700
5750
5800
5850
5900
5950
6005
1000.
500.
0.
-500.
-1000.
GAMMAS
N. MILES
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
4500.
5000.
5500.
6000.
6500.
7000.
7500.
8000.
FATHOMS
4302 27/ 4/81
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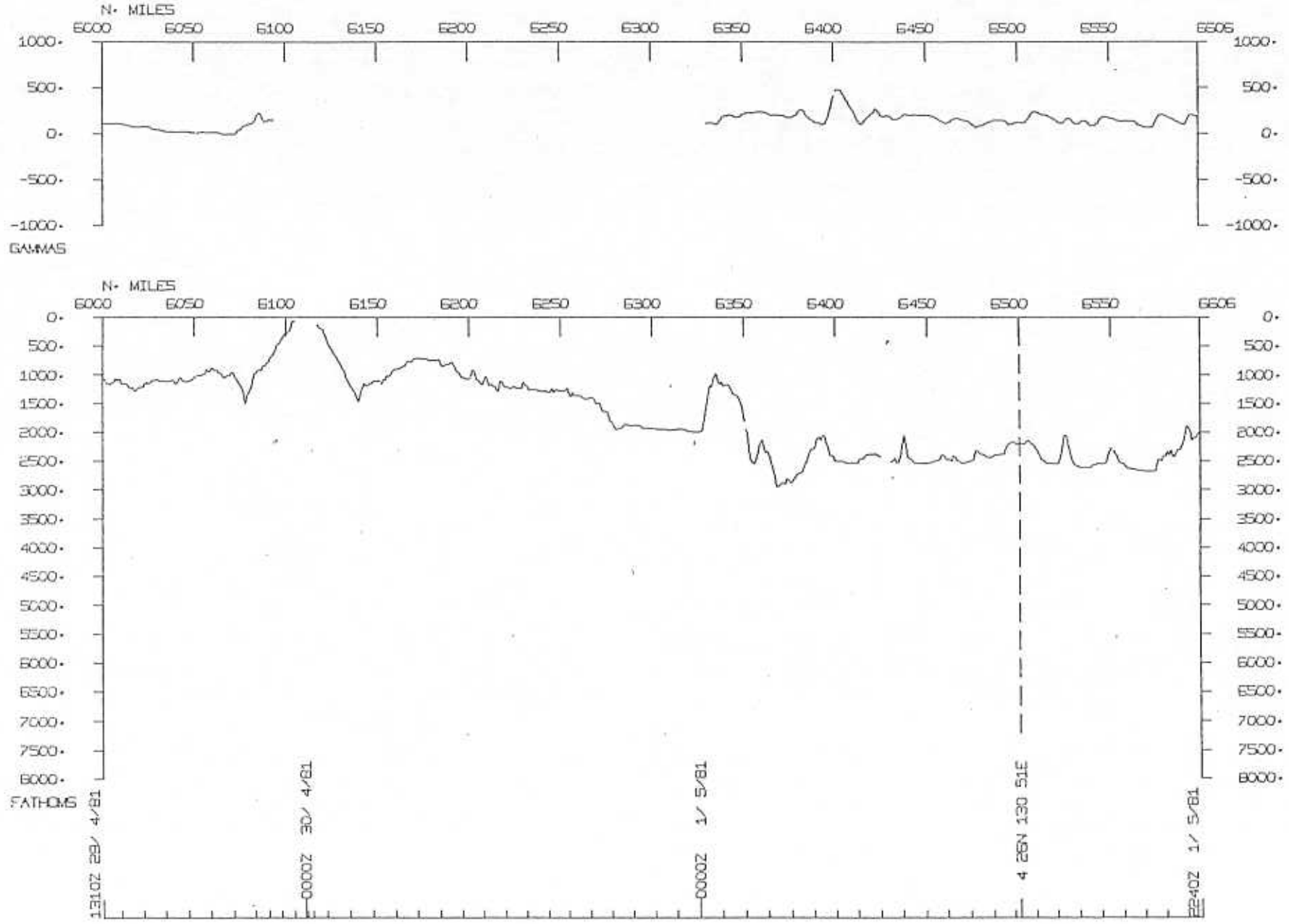
B 155 123 56E
00002 28/ 4/81
2 215 126 23E
00002 29/ 4/81
1 495 126 34E
13002 29/ 4/81
RAMA12WT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6400
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6550
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500.
0.
-500.
-1000.
GAMMAS
N. MILES
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
4500.
5000.
5500.
6000.
6500.
7000.
7500.
8000.
FATHOMS
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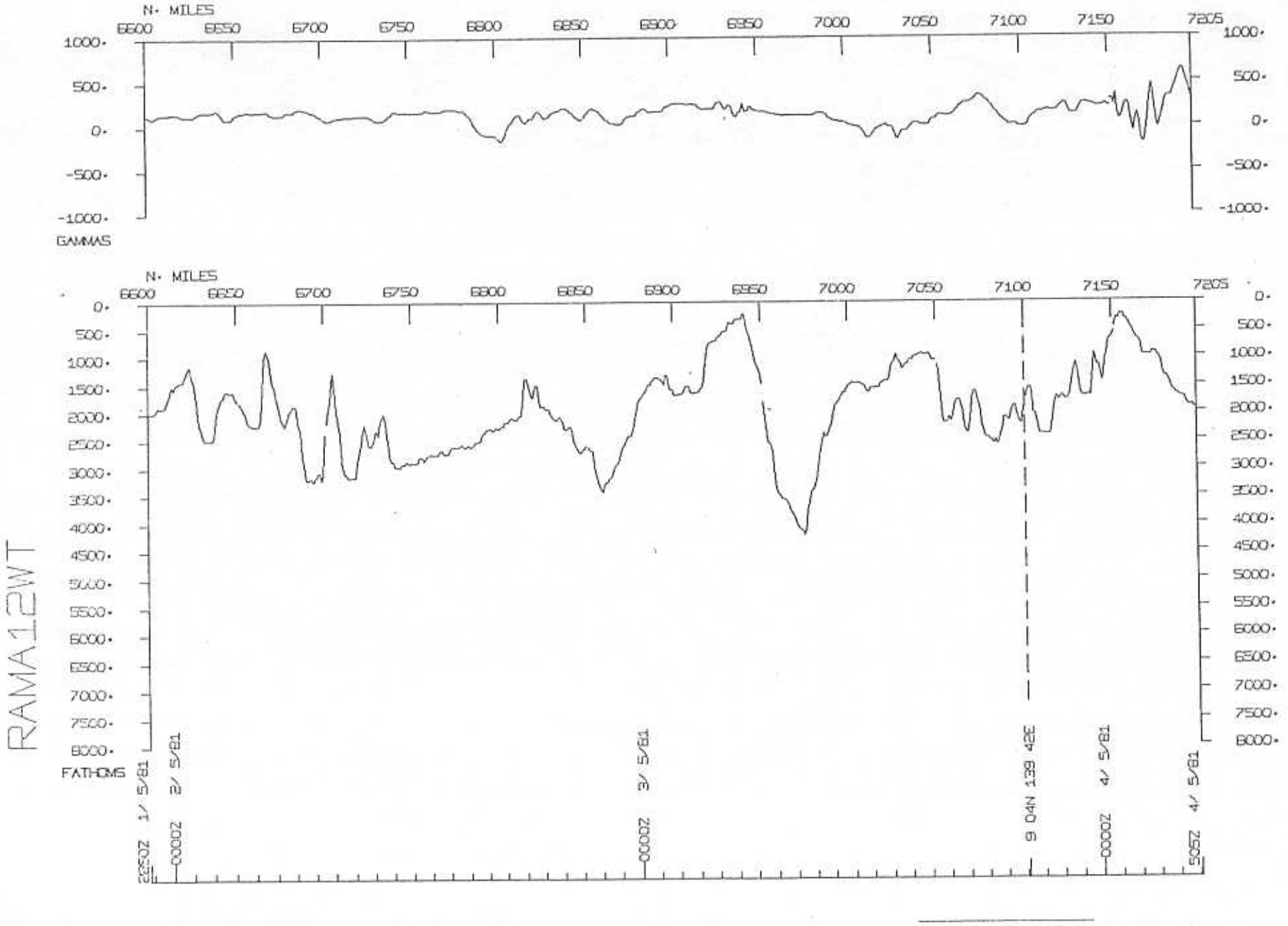
00002 1/ 5/81
4 26N 130 51E
22402 1/ 5/81

RAMA12WT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7100
7150
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1000.
500.
0.
-500.
-1000.
GAMMAS
N. MILES
6600
6650
6700
6750
6800
6850
6900
6950
7000
7050
7100
7150
7205
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
4500.
5000.
5500.
6000.
6500.
7000.
7500.
8000.
FATHOMS
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0000Z 2/ 5/81
0600Z 3/ 5/81
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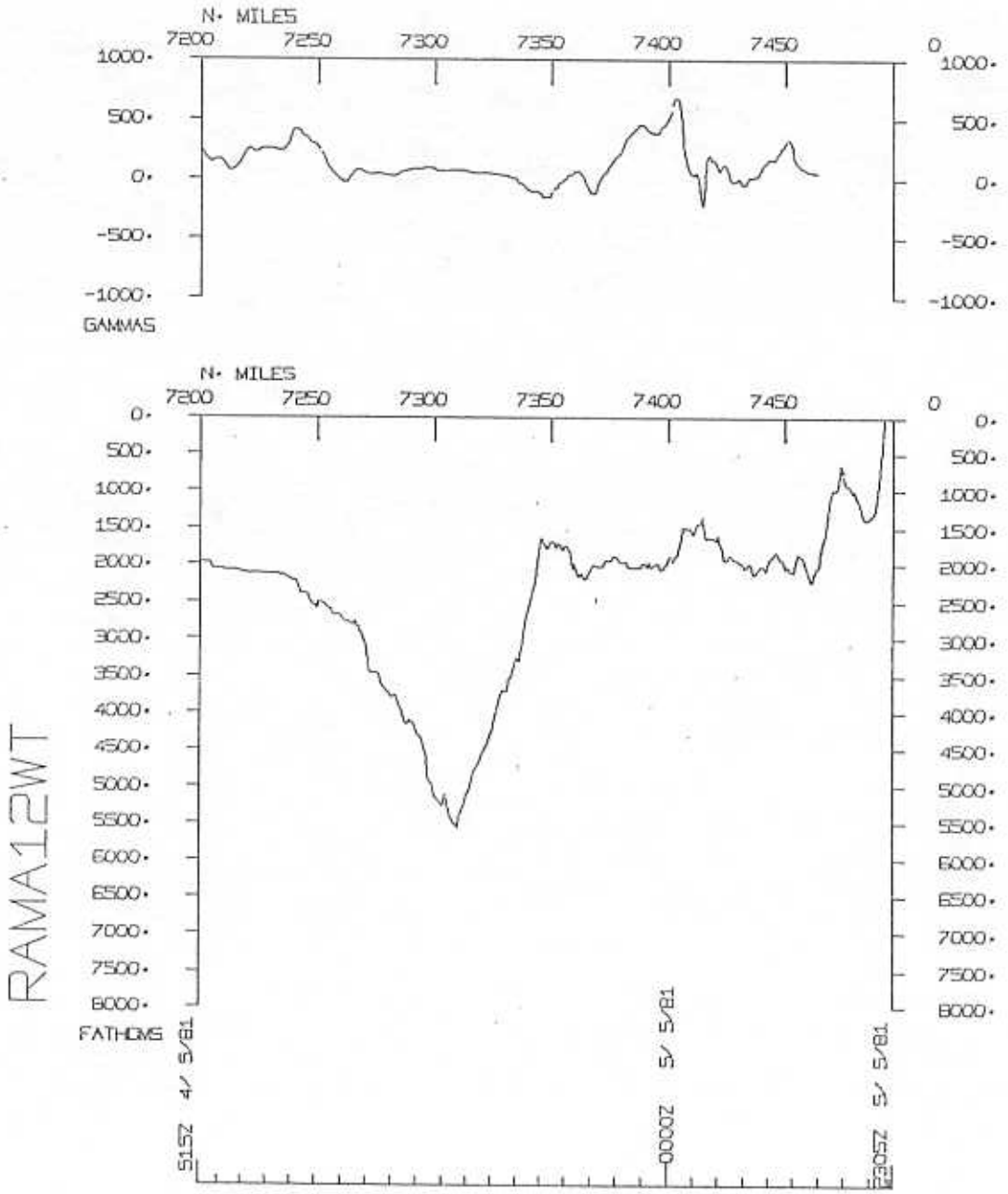
0000Z 4/ 5/81
505Z 4/ 5/81
RAMA12WT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7400
7450
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500.
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-1000.
GAMMAS
N. MILES
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
4500.
5000.
5500.
6000.
6500.
7000.
7500.
8000.
FATHOMS
RAMA12WT
5152 4/ 5/81
00002 5/ 5/81
23057 5/ 5/81

S.I.O. Sample Index

(Issued June 1981)

RAMA EXPEDITION

LEG 12

Cebu City, Philippines (30 March 1981)
to
Agana, Guam (5 May 1981)

R/V T. Washington

Chief Scientist - E. A. Silver (UCC)

Resident Marine Tech - W. Keith

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

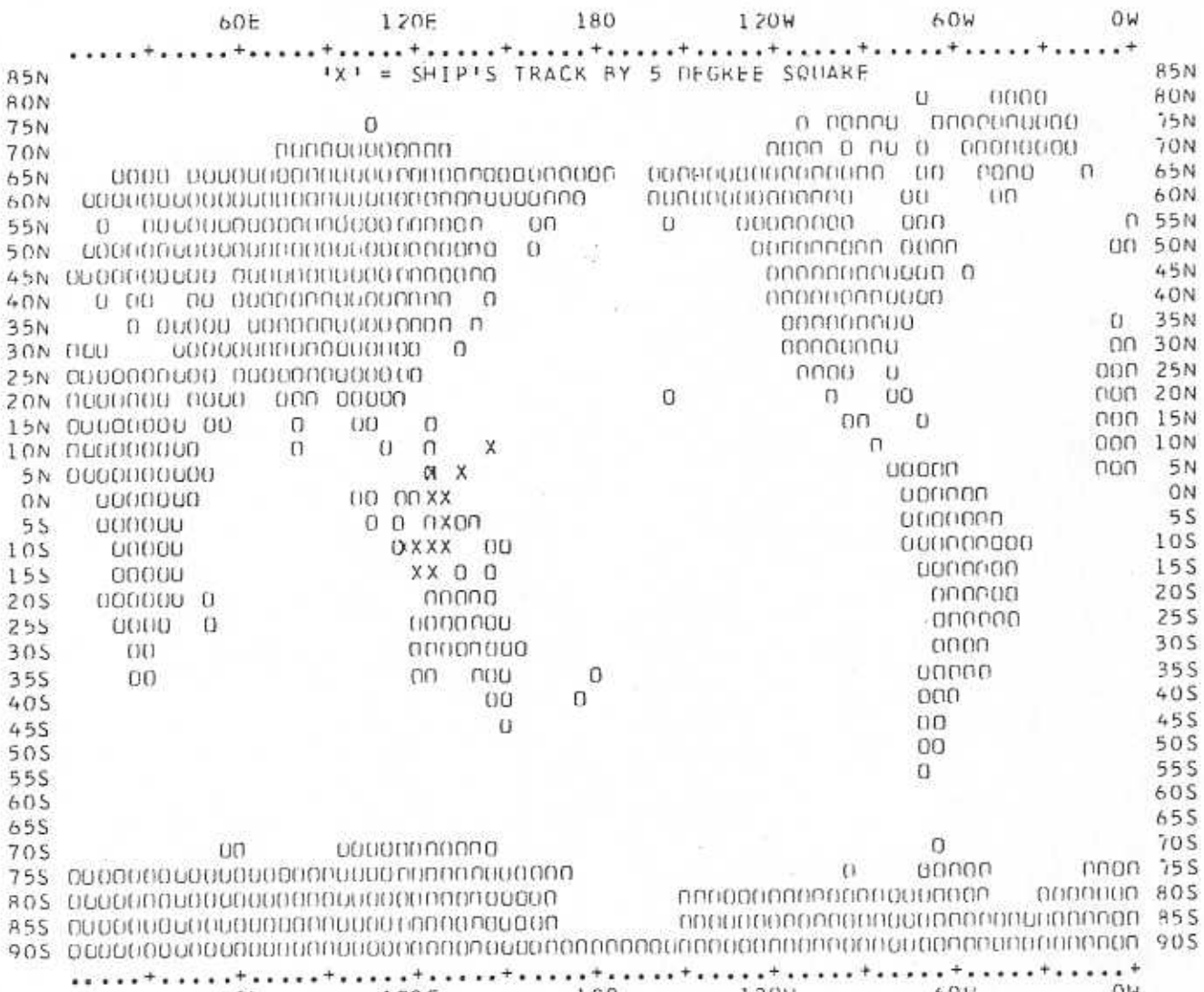
Index Encoding Funded by NSF
Grant Number OCE80-22996
Index Processing and Report Preparation
funded in part by SIA

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.)

S.I.O. SAMPLE INDEX GENERATED 26JUN81

*** RAMA LEG 12 SAMPLE INDEX (RAMA12WT) ***



30MAR81 - CEBU CITY, P.I.

TO

05MAY81 - AGANA, GUAM

CHIEF SCIENTIST - SILVER,F.A. UCC

SHIP - R/V THOMAS WASHINGTON (SIO)

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
	DP	GB	GV	LB	MG	PE	SB	SP	
GDC	6			1	4			110	121
IDU						3			3
MTG						3			3
SCG								1	1
SIU						1			1
UCC		1	3	1		7	7		19
TOTAL	6	1	3	2	4	14	7	111	148

SAMPLE 'TYPE' CODES USED ABOVE

DP = DEPTH
GB = GRAB SAMPLE
GV = GRAVITY
LB = LOG BOOKS
MG = MAGNETICS (TOWED VEHICLE, SURFACE, TOTAL FIELD)
PE = PERSONNEL IN SCIENTIFIC PARTY
SB = SEISMIC BUOY
SP = SEISMIC REFLECTION PROFILE AIRGUN

SAMPLE 'DISP' CODES USED ABOVE

GDC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 2752)
IDU = INDONESIAN
MTG = MARINE TECHNOLOGY GROUP (EXT 4194)
SCG = SHIPBOARD COMPUTER GROUP (EXT. 4195)
SIU = SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA, CAL. 92093
UCC = UNIV. CALIF. SANTA CRUZ

GMT D /M /Y TIME DATE	LOC LOC TIME TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
			RAMA LEG 12 SAMPLE INDEX				RAMA12WT
*** PORTS ***							
1530 30/ 3/81		LGPT	B CEBU CITY, P.I.		10 18. N	123 54. E	F RAMA12WT
0915 5/ 5/81		LGPT	E AGANA, GUAM		13 27. N	144 37. E	F RAMA12WT
0200 2/ 4/81		LGSS	B RITUNG, SULUWESI		01 30. N	124 50. E	F RAMA12WT
0700 02/04/81		LGSS	E RITUNG, SULUWESI		01 30. N	124 50. E	F RAMA12WT
2255 29/04/81		LGSS	B RITUNG, SULUWESI		01 30. N	124 50. E	F RAMA12WT
0545 30/04/81		LGSS	E RITUNG, SULUWESI		01 30. N	124 50. E	F RAMA12WT

PERSONNEL *** NAME ***	*** TITLE ***	*** AFFILIATION ***	
1 SILVER,E.A.	CHIEF SCIENTIST	UNIV. CALIF. SANTA CRUZ	
2 KEITH,W.E.	RESIDENT TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA	CAL. 92093
3 CHARTERS,J.S.	COMPUTER TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA	CAL. 92093
4 CRAMPTON,P.J.S.	SR. DVLMT. ENG.	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA	CAL. 92093
5 BLACKMAN,D.	STUDENT	UNIV. CALIF. SANTA CRUZ	
6 BOX,S.E.	GRAD. STUDENT	UNIV. CALIF. SANTA CRUZ	
7 HODGES,S.M.	GRAD. STUDENT	UNIV. CALIF. SANTA CRUZ	
8 MCCAFFREY,R.	GRAD. STUDENT	UNIV. CALIF. SANTA CRUZ	
9 RYAN,H.F.	GRAD. STUDENT	UNIV. CALIF. SANTA CRUZ	
10 REED,D.L.	GRAD. STUDENT	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA	CAL. 92093
11 ZENDER,C.	GRAD. STUDENT	UNIV. CALIF. SANTA CRUZ	
12 JOYODIWIRYO,Y.S	GEOPHYSICIST	INDONESIAN	
13 UTUMO,D.	NAVAL OFFICER	INDONESIAN	
14 HARJONO,H.	GEOLOGIST	INDONESIAN	

NOTES AN 'X' IN THE (B)EGIN/(F)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 TIME DATE	LOC TIME TZ	LOC CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
**** UNDERWAY DATA CURATOR - STUART M. SMITH EXT. 2752 ***							
*** LOG BOOKS ***							
1530 30/ 3/81		LBUW B	UNDERWAY LOG		GDC 09 50.6N	123 39.8E	S RAMA12WT
0840 5/ 5/81		LBUW E	UNDERWAY LOG		GDC 13 26.5N	144 38.5E	S RAMA12WT
1500 30/ 3/81		LBSC B	SILVER'S LOG		UCC 09 50.6N	123 39.8E	S RAMA12WT
0915 5/ 5/81		LBSC E	SILVER'S LOG		UCC 13 26.0N	144 39.4E	S RAMA12WT
*** FATHOGRAMS ***							
1540 30/ 3/81		DPR3 B	UGR 3.5KHZ	R-01	GDC 09 50.6N	123 39.8E	S RAMA12WT
2335 5/ 4/81		DPR3 E	UGR 3.5KHZ	R-01	GDC 07 33.2S	127 10.6E	S RAMA12WT
0000 6/ 4/81		DPR3 B	UGR 3.5KHZ	R-02	GDC 07 36.7S	127 11.3E	S RAMA12WT
1809 14/ 4/81		DPR3 E	UGR 3.5KHZ	R-02	GDC 07 22.5S	118 38.2E	S RAMA12WT
1830 14/ 4/81		DPR3 B	UGR 3.5KHZ	R-03	GDC 07 22.7S	118 35.3E	S RAMA12WT
1534 20/ 4/81		DPR3 E	UGR 3.5KHZ	R-03	GDC 11 13.4S	119 25.3E	S RAMA12WT
1555 20/ 4/81		DPR3 B	UGR 3.5KHZ	R-04	GDC 11 11.4S	119 26.4E	S RAMA12WT
0825 27/ 4/81		DPR3 E	UGR 3.5KHZ	R-04	GDC 08 15.9S	123 58.0E	S RAMA12WT
0844 27/ 4/81		DPR3 B	UGR 3.5KHZ	R-05	GDC 08 12.8S	123 59.4E	S RAMA12WT
1111 27/ 5/81		DPR3 E	UGR 3.5KHZ	R-05	GDC 06 17.9N	134 24.7E	S RAMA12WT
0140 2/5		GDe	12KHZ	R-01			
0636 2/5		GDe	12KHZ	R-01			
1112 2/ 5/81		DPRT B	UGR 12 KHZ	R-01	GDC 06 17.9N	134 24.8E	S RAMA12WT
0842 5/ 5/81		DPRT E	UGR 12 KHZ	R-01	GDC 13 26.6N	144 38.7E	S RAMA12WT
*** MAGNETOMETER ***							
0049 1/ 4/81		MGRA B	MAGNETICS	R-01	GDC 04 43.5N	123 31.7E	S RAMA12WT
0751 5/ 4/81		MGRA E	MAGNETICS	R-01	GDC 07 49.2S	128 00.3E	S RAMA12WT
0755 5/ 4/81		MGRA B	MAGNETICS	R-02	GDC 07 48.8S	128 00.0E	S RAMA12WT
1233 16/ 4/81		MGRA E	MAGNETICS	R-02	GDC 07 59.6S	116 33.0E	S RAMA12WT
1238 16/ 4/81		MGRA B	MAGNETICS	R-03	GDC 07 59.0S	116 32.7E	S RAMA12WT
0850 28/ 4/81		MGRA E	MAGNETICS	R-03	GDC 04 04.7S	125 27.0E	S RAMA12WT
0855 28/ 4/81		MGRA B	MAGNETICS	R-04	GDC 04 03.8S	125 27.3E	S RAMA12WT
0600 5/ 5/81		MGRA E	MAGNETICS	R-04	GDC 13 06.7N	144 16.8E	S RAMA12WT

GMT TIME	D /M /Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.		CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
GRAVIMETRIC RECORDS										
1540	30/ 3/81			GVRA B	GRAVITY	R-01	UCC	09 50.6N	123 39.8E	S RAMA12WT
0145	11/ 4/81			GVRA E	GRAVITY	R-01	UCC	08 23.8S	121 29.6E	S RAMA12WT
0154	11/ 4/81			GVRA B	GRAVITY	R-02	UCC	08 22.7S	121 29.3E	S RAMA12WT
0844	1/ 5/81			GVRA E	GRAVITY	R-02	UCC	03 54.0N	129 52.3E	S RAMA12WT
0846	1/ 5/81			GVRA B	GRAVITY	R-03	UCC	03 54.2N	129 52.6E	S RAMA12WT
1200	5/ 5/81			GVRA E	GRAVITY	R-03	UCC	13 25.6N	144 39.8E	S RAMA12WT
*** SEISMIC REFLECTION PROFILES ***										
0908	2/ 4/81			SPRS B	AIRGUN-5SEC PSR	R01	GDC	01 10.4N	125 13.8E	S RAMA12WT
0725	6/ 4/81			SPRS E	AIRGUN-5SEC PSR	R01	GDC	08 09.3S	127 00.3E	S RAMA12WT
0740	6/ 4/81			SPRS B	AIRGUN-5SEC PSR	R02	GDC	08 07.3S	127 00.2E	S RAMA12WT
0630	8/ 4/81			SPRS E	AIRGUN-5SEC PSR	R02	GDC	07 25.4S	125 01.1E	S RAMA12WT
0648	8/ 4/81			SPRS B	AIRGUN-5SEC PSR	R03	GDC	07 25.5S	124 58.7E	S RAMA12WT
1627	18/ 4/81			SPRS E	AIRGUN-5SEC PSR	R03	GDC	07 59.1S	117 59.8E	S RAMA12WT
0645	19/ 4/81			SPRS B	AIRGUN-5SEC PSR	R04	GDC	08 50.2S	119 29.9E	S RAMA12WT
0408	29/ 4/81			SPRS E	AIRGUN-5SEC PSR	R04	GDC	01 49.4S	126 33.9E	S RAMA12WT
1030	2/ 4/81			SPRS B	AIRGUN-5SEC EPC1	R01	GDC	01 00.0N	125 18.0E	S RAMA12WT
1030	3/ 4/81			SPRS E	AIRGUN-5SEC EPC1	R01	GDC	02 28.4S	126 56.5E	S RAMA12WT
0210	4/ 4/81			SPRS B	AIRGUN-5SEC EPC1	R02	GDC	04 22.7S	127 35.5E	S RAMA12WT
0330	5/ 4/81			SPRS E	AIRGUN-5SEC EPC1	R02	GDC	07 58.5S	128 14.6E	S RAMA12WT
0349	5/ 4/81			SPRF B	AIRGUN-4SEC EPC1	R03	GDC	08 01.4S	128 14.9E	S RAMA12WT
1220	8/ 4/81			SPRF E	AIRGUN-4SEC EPC1	R03	GDC	08 05.8S	124 54.2E	S RAMA12WT
1228	8/ 4/81			SPRF B	AIRGUN-4SEC EPC1	R04	GDC	08 06.2S	124 53.4E	S RAMA12WT
2119	11/ 4/81			SPRF E	AIRGUN-4SEC EPC1	R04	GDC	07 53.6S	121 09.5E	S RAMA12WT
2132	11/ 4/81			SPRF B	AIRGUN-4SEC EPC1	R05	GDC	07 51.9S	121 09.0E	S RAMA12WT
0305	15/ 4/81			SPRF E	AIRGUN-4SEC EPC1	R05	GDC	08 04.0S	118 16.2E	S RAMA12WT
0315	15/ 4/81			SPRF B	AIRGUN-4SEC EPC1	R06	GDC	08 02.8S	118 16.0E	S RAMA12WT
1249	18/ 4/81			SPRF E	AIRGUN-4SEC EPC1	R06	GDC	08 01.2S	117 26.3E	S RAMA12WT
1302	18/ 4/81			SPRF B	AIRGUN-4SEC EPC1	R07	GDC	08 01.2S	117 28.3E	S RAMA12WT
1201	21/ 4/81			SPRF E	AIRGUN-4SEC EPC1	R07	GDC	11 37.6S	119 59.5E	S RAMA12WT
1213	21/ 4/81			SPRF B	AIRGUN-4SEC EPC1	R08	GDC	11 38.9S	119 59.6E	S RAMA12WT
1805	24/ 4/81			SPRF E	AIRGUN-4SEC EPC1	R08	GDC	09 40.1S	121 51.6E	S RAMA12WT
1815	24/ 4/81			SPRF B	AIRGUN-4SEC EPC1	R09	GDC	09 39.9S	121 52.8E	S RAMA12WT
0048	29/ 4/81			SPRF E	AIRGUN-4SEC EPC1	R09	GDC	02 08.6S	126 10.4E	S RAMA12WT

GMT TIME	D /M /Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
0054	29/ 4/81			SPRF B	AIRGUN-4SEC EPC1 R10	GDC	02 08.1S	126 11.1E	S RAMA12WT
0407	29/ 4/81			SPRF E	AIRGUN-4SEC EPC1 R10	GDC	01 49.4S	126 34.0E	S RAMA12WT
1110	3/ 4/81			SPRS B	AIRGUN-5SEC EPC3 R01	GDC	02 33.0S	126 58.4E	S RAMA12WT
0202	4/ 4/81			SPRS E	AIRGUN-5SEC EPC3 R01	GDC	04 21.5S	127 35.3E	S RAMA12WT
1902	7/ 4/81			SPRS B	A.G.(10)REV.EPC3 R-2	GDC	08 29.1S	125 35.0E	S RAMA12WT
0735	8/ 4/81			SPRS E	A.G.(10)REV.EPC3 R-2	GDC	07 25.7S	124 52.6E	S RAMA12WT
1714	28/ 4/81			SPRS B	A.G.(4)REV. EPC3 R-3	GDC	02 52.0S	126 08.4E	S RAMA12WT
0407	29/ 4/81			SPRS E	A.G.(4)REV. EPC3 R-3	GDC	01 49.4S	126 34.0E	S RAMA12WT
SINGLE-CHANNEL DIGITAL SEISMIC TAPES									
0941	2/ 4/81			SPST B	SINGLE-CHANNEL TAPES	SCG	01 06.1N	125 15.4E	S RAMA12WT
0408	29/ 4/81			SPST E	REEL 0001-0054	SCG	01 49.4S	126 33.9E	S RAMA12WT
*** SONOBUOY ***									
0840	8/ 4/81			SBSD	SONOBUOY RAMA 12-1	UCC	07 34.7S	124 51.1E	S RAMA12WT
1029	8/ 4/81			SBSD	SONOBUOY RAMA 12-2	UCC	07 50.2S	124 52.8E	S RAMA12WT
2000	12/ 4/81			SBSD	SONOBUOY RAMA 12-3	UCC	07 31.6S	120 13.7E	S RAMA12WT
0613	22/ 4/81			SBSD	SONOBUOY RAMA 12-4	UCC	12 48.5S	121 01.4E	S RAMA12WT
1951	24/ 4/81			SBSD	SONOBUOY RAMA 12-5	UCC	09 42.1S	122 02.9E	S RAMA12W
0454	26/ 4/81			SBSD	SONOBUOY RAMA 12-6	UCC	09 43.8S	122 30.9E	S RAMA12W.
1221	26/ 4/81			SBSD	SONOBUOY RAMA 12-7	UCC	09 06.5S	122 59.9E	S RAMA12WT
*** SEISMIC REFLECTION LINE, DIGITAL, SINGLE CHANNEL ***									
0928	2/ 4/81			SPSL B	SEIS.REFLECT.LINE-01	GDC	01 07.8N	125 14.7E	S RAMA12WT
1249	2/ 4/81			SPSL E	SEIS.REFLECT.LINE-01	GDC	00 42.4N	125 26.7E	S RAMA12WT
0118	3/ 4/81			SPSL B	SEIS.REFLECT.LINE-02	GDC	01 24.0S	126 27.2E	S RAMA12WT
1400	4/ 4/81			SPSL E	SEIS.REFLECT.LINE-02	GDC	05 59.3S	128 11.2E	S RAMA12WT
1404	4/ 4/81			SPSL B	SEIS.REFLECT.LINE-03	GDC	05 59.8S	128 11.4E	S RAMA12WT
0454	5/ 4/81			SPSL E	SEIS.REFLECT.LINE-03	GDC	08 11.2S	128 15.9E	S RAMA12WT
0454	5/ 4/81			SPSL B	SEIS.REFLECT.LINE-04	GDC	08 11.2S	128 15.9E	S RAMA12WT
1801	5/ 4/81			SPSL E	SEIS.REFLECT.LINE-04	GDC	06 45.2S	127 12.9E	S RAMA12WT
1805	5/ 4/81			SPSL B	SEIS.REFLECT.LINE-05	GDC	06 45.8S	127 12.9E	S RAMA12WT
0452	6/ 4/81			SPSL E	SEIS.REFLECT.LINE-05	GDC	08 18.4S	127 17.3E	S RAMA12WT
0455	6/ 4/81			SPSL B	SEIS.REFLECT.LINE-06	GDC	08 18.3S	127 16.8E	S RAMA12WT
0700	6/ 4/81			SPSL E	SEIS.REFLECT.LINE-06	GDC	08 12.2S	127 01.0E	S RAMA12WT
0701	6/ 4/81			SPSL B	SEIS.REFLECT.LINE-07	GDC	08 12.1S	127 01.0E	S RAMA12WT
1616	6/ 4/81			SPSL E	SEIS.REFLECT.LINE-07	GDC	06 57.2S	126 39.1E	S RAMA12WT

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1620	6/ 4/81			SPSL B	SEIS.REFLECT.LINE-08	GDC	06 57.6S	126 38.7E	S RAMA12WT
2211	6/ 4/81			SPSL E	SEIS.REFLECT.LINE-08	GDC	07 38.1S	126 13.8E	S RAMA12WT
2211	6/ 4/81			SPSL B	SEIS.REFLECT.LINE-09	GDC	07 38.1S	126 13.8E	S RAMA12WT
0502	7/ 4/81			SPSL E	SEIS.REFLECT.LINE-09	GDC	06 54.7S	125 34.0E	S RAMA12WT
0502	7/ 4/81			SPSL B	SEIS.REFLECT.LINE-10	GDC	06 54.7S	125 34.0E	S RAMA12WT
0646	7/ 4/81			SPSL E	SEIS.REFLECT.LINE-10	GDC	06 56.3S	125 19.6E	S RAMA12WT
0646	7/ 4/81			SPSL B	SEIS.REFLECT.LINE-11	GDC	06 56.3S	125 19.6E	S RAMA12WT
1730	7/ 4/81			SPSL E	SEIS.REFLECT.LINE-11	GDC	08 27.0S	125 47.0E	S RAMA12WT
1730	7/ 4/81			SPSL B	SEIS.REFLECT.LINE-12	GDC	08 27.0S	125 47.0E	S RAMA12WT
2022	7/ 4/81			SPSL E	SEIS.REFLECT.LINE-12	GDC	08 29.8S	125 25.0E	S RAMA12WT
2022	7/ 4/81			SPSL B	SEIS.REFLECT.LINE-13	GDC	08 29.8S	125 25.0E	S RAMA12WT
0602	8/ 4/81			SPSL E	SEIS.REFLECT.LINE-13	GDC	07 25.3S	125 04.7E	S RAMA12WT
0602	8/ 4/81			SPSL B	SEIS.REFLECT.LINE-14	GDC	07 25.3S	125 04.7E	S RAMA12WT
0735	8/ 4/81			SPSL E	SEIS.REFLECT.LINE-14	GDC	07 25.7S	124 52.6E	S RAMA12WT
0735	8/ 4/81			SPSL B	SEIS.REFLECT.LINE-15	GDC	07 25.7S	124 52.6E	S RAMA12WT
1219	8/ 4/81			SPSL E	SEIS.REFLECT.LINE-15	GDC	08 05.7S	124 54.2E	S RAMA12WT
1219	8/ 4/81			SPSL B	SEIS.REFLECT.LINE-16	GDC	08 05.7S	124 54.2E	S RAMA12WT
1352	8/ 4/81			SPSL E	SEIS.REFLECT.LINE-16	GDC	08 07.2S	124 43.6E	S RAMA12WT
1352	8/ 4/81			SPSL B	SEIS.REFLECT.LINE-17	GDC	08 07.2S	124 43.6E	S RAMA12WT
1731	8/ 4/81			SPSL E	SEIS.REFLECT.LINE-17	GDC	07 41.8S	124 32.5E	S RAMA12WT
1731	8/ 4/81			SPSL B	SEIS.REFLECT.LINE-18	GDC	07 41.8S	124 32.5E	S RAMA12WT
2057	8/ 4/81			SPSL E	SEIS.REFLECT.LINE-18	GDC	08 08.1S	124 22.1E	S RAMA12WT
2058	8/ 4/81			SPSL B	SEIS.REFLECT.LINE-19	GDC	08 08.2S	124 22.0E	S RAMA12WT
0121	9/ 4/81			SPSL E	SEIS.REFLECT.LINE-19	GDC	07 39.6S	124 06.3E	S RAMA12WT
0121	9/ 4/81			SPSL B	SEIS.REFLECT.LINE-20	GDC	07 39.6S	124 06.3E	S RAMA12WT
0521	9/ 4/81			SPSL E	SEIS.REFLECT.LINE-20	GDC	08 09.2S	123 56.5E	S RAMA12WT
0521	9/ 4/81			SPSL B	SEIS.REFLECT.LINE-21	GDC	08 09.2S	123 56.5E	S RAMA12WT
0715	9/ 4/81			SPSL E	SEIS.REFLECT.LINE-21	GDC	08 08.7S	123 43.3E	S RAMA12WT
0715	9/ 4/81			SPSL B	SEIS.REFLECT.LINE-22	GDC	08 08.7S	123 43.3E	S RAMA12WT
1130	9/ 4/81			SPSL E	SEIS.REFLECT.LINE-22	GDC	07 37.0S	123 37.6E	S RAMA12WT
1130	9/ 4/81			SPSL B	SEIS.REFLECT.LINE-23	GDC	07 37.0S	123 37.6E	S RAMA12WT
1616	9/ 4/81			SPSL E	SEIS.REFLECT.LINE-23	GDC	08 10.3S	123 21.3E	S RAMA12WT
1616	9/ 4/81			SPSL B	SEIS.REFLECT.LINE-24	GDC	08 10.3S	123 21.3E	S RAMA12WT
1951	9/ 4/81			SPSL E	SEIS.REFLECT.LINE-24	GDC	07 43.8S	123 09.9E	S RAMA12WT
1951	9/ 4/81			SPSL B	SEIS.REFLECT.LINE-25	GDC	07 43.8S	123 09.9E	S RAMA12WT
2302	9/ 4/81			SPSL E	SEIS.REFLECT.LINE-25	GDC	08 01.6S	122 58.8E	S RAMA12WT

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2302	9/ 4/81			SPSL B	SEIS.REFLECT.LINE-26	GDC	08 01.6S	122 58.8E S	RAMA12WT
2359	9/ 4/81			SPSL E	SEIS.REFLECT.LINE-26	GDC	08 01.7S	122 51.9E S	RAMA12WT
2359	9/ 4/81			SPSL B	SEIS.REFLECT.LINE-27	GDC	08 01.7S	122 51.9E S	RAMA12WT
0406	10/ 4/81			SPSL E	SEIS.REFLECT.LINE-27	GDC	07 35.6S	122 35.7E S	RAMA12WT
0406	10/ 4/81			SPSL B	SEIS.REFLECT.LINE-28	GDC	07 35.6S	122 35.7E S	RAMA12WT
1018	10/ 4/81			SPSL E	SEIS.REFLECT.LINE-28	GDC	08 19.9S	122 24.5E S	RAMA12WT
1018	10/ 4/81			SPSL B	SEIS.REFLECT.LINE-29	GDC	08 19.9S	122 24.5E S	RAMA12WT
1619	10/ 4/81			SPSL E	SEIS.REFLECT.LINE-29	GDC	07 36.1S	122 03.2E S	RAMA12WT
1619	10/ 4/81			SPSL B	SEIS.REFLECT.LINE-30	GDC	07 36.1S	122 03.2E S	RAMA12WT
1746	10/ 4/81			SPSL E	SEIS.REFLECT.LINE-30	GDC	07 44.4S	121 55.0E S	RAMA12WT
1746	10/ 4/81			SPSL B	SEIS.REFLECT.LINE-31	GDC	07 44.4S	121 55.0E S	RAMA12WT
2231	10/ 4/81			SPSL E	SEIS.REFLECT.LINE-31	GDC	08 24.2S	121 53.9E S	RAMA12WT
2231	10/ 4/81			SPSL B	SEIS.REFLECT.LINE-32	GDC	08 24.2S	121 53.9E S	RAMA12WT
0130	11/ 4/81			SPSL E	SEIS.REFLECT.LINE-32	GDC	08 25.6S	121 30.1E S	RAMA12WT
0130	11/ 4/81			SPSL B	SEIS.REFLECT.LINE-33	GDC	08 25.6S	121 30.1E S	RAMA12WT
0755	11/ 4/81			SPSL E	SEIS.REFLECT.LINE-33	GDC	07 34.4S	121 21.6E S	RAMA12WT
0755	11/ 4/81			SPSL B	SEIS.REFLECT.LINE-34	GDC	07 34.4S	121 21.6E S	RAMA12WT
0939	11/ 4/81			SPSL E	SEIS.REFLECT.LINE-34	GDC	07 34.2S	121 37.6E S	RAMA12WT
0939	11/ 4/81			SPSL B	SEIS.REFLECT.LINE-35	GDC	07 34.2S	121 37.6E S	RAMA12WT
1446	11/ 4/81			SPSL E	SEIS.REFLECT.LINE-35	GDC	08 17.0S	121 39.2E S	RAMA12WT
1446	11/ 4/81			SPSL B	SEIS.REFLECT.LINE-36	GDC	08 17.0S	121 39.2E S	RAMA12WT
1751	11/ 4/81			SPSL E	SEIS.REFLECT.LINE-36	GDC	08 21.4S	121 15.5E S	RAMA12WT
1751	11/ 4/81			SPSL B	SEIS.REFLECT.LINE-37	GDC	08 21.4S	121 15.5E S	RAMA12WT
0030	12/ 4/81			SPSL E	SEIS.REFLECT.LINE-37	GDC	07 28.5S	121 03.9E S	RAMA12WT
0030	12/ 4/81			SPSL B	SEIS.REFLECT.LINE-38	GDC	07 28.5S	121 03.9E S	RAMA12WT
0120	12/ 4/81			SPSL E	SEIS.REFLECT.LINE-38	GDC	07 28.3S	120 55.8E S	RAMA12WT
0120	12/ 4/81			SPSL B	SEIS.REFLECT.LINE-39	GDC	07 28.3S	120 55.8E S	RAMA12WT
0707	12/ 4/81			SPSL E	SEIS.REFLECT.LINE-39	GDC	08 17.3S	120 53.5E S	RAMA12WT
0707	12/ 4/81			SPSL B	SEIS.REFLECT.LINE-40	GDC	08 17.3S	120 53.5E S	RAMA12WT
1000	12/ 4/81			SPSL E	SEIS.REFLECT.LINE-40	GDC	08 11.4S	120 32.3E S	RAMA12WT
1000	12/ 4/81			SPSL B	SEIS.REFLECT.LINE-41	GDC	08 11.4S	120 32.3E S	RAMA12WT
1623	12/ 4/81			SPSL E	SEIS.REFLECT.LINE-41	GDC	07 20.4S	120 32.9E S	RAMA12WT
1623	12/ 4/81			SPSL B	SEIS.REFLECT.LINE-42	GDC	07 20.4S	120 32.9E S	RAMA12WT
1850	12/ 4/81			SPSL E	SEIS.REFLECT.LINE-42	GDC	07 22.0S	120 13.7E S	RAMA12WT
1850	12/ 4/81			SPSL B	SEIS.REFLECT.LINE-43	GDC	07 22.0S	120 13.7E S	RAMA12WT
0105	13/ 4/81			SPSL E	SEIS.REFLECT.LINE-43	GDC	08 12.9S	120 14.1E S	RAMA12WT

GMT TIME	D /M /Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.		LEG-SHIP CRUISE
0959	13/ 4/81			SPSL B	SEIS.REFLECT.LINE-44	GDC	08 15.0S	120 13.0E	S	RAMA12WT
1302	13/ 4/81			SPSL E	SEIS.REFLECT.LINE-44	GDC	08 13.4S	119 47.7E	S	RAMA12WT
1302	13/ 4/81			SPSL B	SEIS.REFLECT.LINE-45	GDC	08 13.4S	119 47.7E	S	RAMA12WT
1930	13/ 4/81			SPSL E	SEIS.REFLECT.LINE-45	GDC	07 20.0S	119 47.7E	S	RAMA12WT
1930	13/ 4/81			SPSL B	SEIS.REFLECT.LINE-46	GDC	07 20.0S	119 47.7E	S	RAMA12WT
2300	13/ 4/81			SPSL E	SEIS.REFLECT.LINE-46	GDC	07 21.1S	119 19.4E	S	RAMA12WT
2300	13/ 4/81			SPSL B	SEIS.REFLECT.LINE-47	GDC	07 21.1S	119 19.4E	S	RAMA12WT
0555	14/ 4/81			SPSL E	SEIS.REFLECT.LINE-47	GDC	08 19.6S	119 23.0E	S	RAMA12WT
0555	14/ 4/81			SPSL B	SEIS.REFLECT.LINE-48	GDC	08 19.6S	119 23.0E	S	RAMA12WT
0950	14/ 4/81			SPSL E	SEIS.REFLECT.LINE-48	GDC	08 13.7S	118 52.0E	S	RAMA12WT
0950	14/ 4/81			SPSL B	SEIS.REFLECT.LINE-49	GDC	08 13.7S	118 52.0E	S	RAMA12WT
1623	14/ 4/81			SPSL E	SEIS.REFLECT.LINE-49	GDC	07 21.7S	118 52.8E	S	RAMA12WT
1623	14/ 4/81			SPSL B	SEIS.REFLECT.LINE-50	GDC	07 21.7S	118 52.8E	S	RAMA12WT
1912	14/ 4/81			SPSL E	SEIS.REFLECT.LINE-50	GDC	07 23.3S	118 29.7E	S	RAMA12WT
1912	14/ 4/81			SPSL B	SEIS.REFLECT.LINE-51	GDC	07 23.3S	118 29.7E	S	RAMA12WT
0048	15/ 4/81			SPSL E	SEIS.REFLECT.LINE-51	GDC	08 10.4S	118 31.1E	S	RAMA12WT
0048	15/ 4/81			SPSL B	SEIS.REFLECT.LINE-52	GDC	08 10.4S	118 31.1E	S	RAMA12WT
0216	15/ 4/81			SPSL E	SEIS.REFLECT.LINE-52	GDC	08 11.0S	118 18.8E	S	RAMA12WT
0216	15/ 4/81			SPSL B	SEIS.REFLECT.LINE-53	GDC	08 11.0S	118 18.8E	S	RAMA12WT
0603	15/ 4/81			SPSL E	SEIS.REFLECT.LINE-53	GDC	07 39.6S	118 13.1E	S	RAMA12WT
0603	15/ 4/81			SPSL B	SEIS.REFLECT.LINE-54	GDC	07 39.6S	118 13.1E	S	RAMA12WT
0722	15/ 4/81			SPSL E	SEIS.REFLECT.LINE-54	GDC	07 39.9S	118 03.1E	S	RAMA12WT
0722	15/ 4/81			SPSL B	SEIS.REFLECT.LINE-55	GDC	07 39.9S	118 03.1E	S	RAMA12WT
1000	15/ 4/81			SPSL E	SEIS.REFLECT.LINE-55	GDC	08 01.4S	118 00.6E	S	RAMA12WT
1000	15/ 4/81			SPSL B	SEIS.REFLECT.LINE-56	GDC	08 01.4S	118 00.6E	S	RAMA12WT
1200	15/ 4/81			SPSL E	SEIS.REFLECT.LINE-56	GDC	08 03.1S	117 46.7E	S	RAMA12WT
1200	15/ 4/81			SPSL B	SEIS.REFLECT.LINE-57	GDC	08 03.1S	117 46.7E	S	RAMA12WT
1516	15/ 4/81			SPSL E	SEIS.REFLECT.LINE-57	GDC	07 36.8S	117 43.2E	S	RAMA12WT
1516	15/ 4/81			SPSL B	SEIS.REFLECT.LINE-58	GDC	07 36.8S	117 43.2E	S	RAMA12WT
1707	15/ 4/81			SPSL E	SEIS.REFLECT.LINE-58	GDC	07 37.4S	117 28.0E	S	RAMA12WT
1707	15/ 4/81			SPSL B	SEIS.REFLECT.LINE-59	GDC	07 37.4S	117 28.0E	S	RAMA12WT
2203	15/ 4/81			SPSL E	SEIS.REFLECT.LINE-59	GDC	08 16.3S	117 24.2E	S	RAMA12WT
2203	15/ 4/81			SPSL B	SEIS.REFLECT.LINE-60	GDC	08 16.3S	117 24.2E	S	RAMA12WT
2302	15/ 4/81			SPSL E	SEIS.REFLECT.LINE-60	GDC	08 15.7S	117 17.0E	S	RAMA12WT
2302	15/ 4/81			SPSL B	SEIS.REFLECT.LINE-61	GDC	08 15.7S	117 17.0E	S	RAMA12WT
0409	16/ 4/81			SPSL E	SEIS.REFLECT.LINE-61	GDC	07 39.4S	116 56.6E	S	RAMA12WT

GMT TIME	D /M /Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHI CRUISE
0409	16/ 4/81			SPSL B	SEIS.REFLECT.LINE-62	GDC	07 39.4S	116 56.6E	S RAMA12WT
0430	16/ 4/81			SPSL E	SEIS.REFLECT.LINE-62	GDC	07 39.7S	116 53.7E	S RAMA12WT
0430	16/ 4/81			SPSL B	SEIS.REFLECT.LINE-63	GDC	07 39.7S	116 53.7E	S RAMA12WT
0921	16/ 4/81			SPSL E	SEIS.REFLECT.LINE-63	GDC	08 19.1S	116 46.8E	S RAMA12WT
0921	16/ 4/81			SPSL B	SEIS.REFLECT.LINE-64	GDC	08 19.1S	116 46.8E	S RAMA12WT
1044	16/ 4/81			SPSL E	SEIS.REFLECT.LINE-64	GDC	08 12.6S	116 39.3E	S RAMA12WT
1044	16/ 4/81			SPSL B	SEIS.REFLECT.LINE-65	GDC	08 12.6S	116 39.3E	S RAMA12WT
1657	16/ 4/81			SPSL E	SEIS.REFLECT.LINE-65	GDC	07 28.6S	116 16.4E	S RAMA12WT
1657	16/ 4/81			SPSL B	SEIS.REFLECT.LINE-66	GDC	07 28.6S	116 16.4E	S RAMA12WT
1853	16/ 4/81			SPSL E	SEIS.REFLECT.LINE-66	GDC	07 30.1S	115 59.6E	S RAMA12WT
1853	16/ 4/81			SPSL B	SEIS.REFLECT.LINE-67	GDC	07 30.1S	115 59.6E	S RAMA12WT
0017	17/ 4/81			SPSL E	SEIS.REFLECT.LINE-67	GDC	08 16.4S	115 58.3E	S RAMA12WT
0017	17/ 4/81			SPSL B	SEIS.REFLECT.LINE-68	GDC	08 16.4S	115 58.3E	S RAMA12WT
0424	17/ 4/81			SPSL E	SEIS.REFLECT.LINE-68	GDC	08 08.8S	115 28.1E	S RAMA12WT
0424	17/ 4/81			SPSL B	SEIS.REFLECT.LINE-69	GDC	08 08.8S	115 28.1E	S RAMA12WT
1024	17/ 4/81			SPSL E	SEIS.REFLECT.LINE-69	GDC	07 20.5S	115 17.0E	S RAMA12WT
1024	17/ 4/81			SPSL B	SEIS.REFLECT.LINE-70	GDC	07 20.5S	115 17.0E	S RAMA12WT
1243	17/ 4/81			SPSL E	SEIS.REFLECT.LINE-70	GDC	07 22.0S	114 58.3E	S RAMA12WT
1243	17/ 4/81			SPSL B	SEIS.REFLECT.LINE-71	GDC	07 22.0S	114 58.3E	S RAMA12WT
1814	17/ 4/81			SPSL E	SEIS.REFLECT.LINE-71	GDC	08 05.8S	114 47.0E	S RAMA12WT
1814	17/ 4/81			SPSL B	SEIS.REFLECT.LINE-72	GDC	08 05.8S	114 47.0E	S RAMA12WT
2020	17/ 4/81			SPSL E	SEIS.REFLECT.LINE-72	GDC	07 59.9S	115 03.4E	S RAMA12WT
2020	17/ 4/81			SPSL B	SEIS.REFLECT.LINE-73	GDC	07 59.9S	115 03.4E	S RAMA12WT
1627	18/ 4/81			SPSL E	SEIS.REFLECT.LINE-73	GDC	07 59.1S	117 59.8E	S RAMA12WT
0647	19/ 4/81			SPSL B	SEIS.REFLECT.LINE-74	GDC	08 50.4S	119 29.7E	S RAMA12WT
1415	19/ 4/81			SPSL E	SEIS.REFLECT.LINE-74	GDC	09 35.7S	118 45.8E	S RAMA12WT
1415	19/ 4/81			SPSL B	SEIS.REFLECT.LINE-75	GDC	09 35.7S	118 45.8E	S RAMA12WT
0550	20/ 4/81			SPSL E	SEIS.REFLECT.LINE-75	GDC	11 41.8S	118 40.7E	S RAMA12WT
0550	20/ 4/81			SPSL B	SEIS.REFLECT.LINE-76	GDC	11 41.8S	118 40.7E	S RAMA12WT
1004	20/ 4/81			SPSL E	SEIS.REFLECT.LINE-76	GDC	11 44.4S	119 08.6E	S RAMA12WT
1004	20/ 4/81			SPSL B	SEIS.REFLECT.LINE-77	GDC	11 44.4S	119 08.6E	S RAMA12WT
0111	21/ 4/81			SPSL E	SEIS.REFLECT.LINE-77	GDC	10 13.4S	119 54.7E	S RAMA12WT
0111	21/ 4/81			SPSL B	SEIS.REFLECT.LINE-78	GDC	10 13.4S	119 54.7E	S RAMA12WT
2324	21/ 4/81			SPSL E	SEIS.REFLECT.LINE-78	GDC	12 48.3S	120 17.7E	S RAMA12WT
2324	21/ 4/81			SPSL B	SEIS.REFLECT.LINE-79	GDC	12 48.3S	120 17.7E	S RAMA12WT
0555	22/ 4/81			SPSL E	SEIS.REFLECT.LINE-79	GDC	12 50.5S	121 01.1E	S RAMA12WT

GMT TIME	D /M /Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
0555	22/ 4/81			SPSL B	SEIS.REFLECT.LINE-80	GDC	12 50.5S	121 01.1E S	RAMA12WT
1905	23/ 4/81			SPSL E	SEIS.REFLECT.LINE-80	GDC	08 56.3S	121 11.7E S	RAMA12WT
1905	23/ 4/81			SPSL B	SEIS.REFLECT.LINE-81	GDC	08 56.3S	121 11.7E S	RAMA12WT
0134	24/ 4/81			SPSL E	SEIS.REFLECT.LINE-81	GDC	09 38.6S	120 37.8E S	RAMA12WT
0134	24/ 4/81			SPSL B	SEIS.REFLECT.LINE-82	GDC	09 38.6S	120 37.8E S	RAMA12WT
1120	24/ 4/81			SPSL E	SEIS.REFLECT.LINE-82	GDC	10 33.3S	121 35.0E S	RAMA12WT
1120	24/ 4/81			SPSL B	SEIS.REFLECT.LINE-83	GDC	10 33.3S	121 35.0E S	RAMA12WT
1805	24/ 4/81			SPSL E	SEIS.REFLECT.LINE-83	GDC	09 40.1S	121 51.6E S	RAMA12WT
1805	24/ 4/81			SPSL B	SEIS.REFLECT.LINE-84	GDC	09 40.1S	121 51.6E S	RAMA12WT
1937	24/ 4/81			SPSL E	SEIS.REFLECT.LINE-84	GDC	09 40.2S	122 02.8E S	RAMA12WT
1937	24/ 4/81			SPSL B	SEIS.REFLECT.LINE-85	GDC	09 40.2S	122 02.8E S	RAMA12WT
1030	25/ 4/81			SPSL E	SEIS.REFLECT.LINE-85	GDC	11 47.9S	122 05.8E S	RAMA12WT
1030	25/ 4/81			SPSL B	SEIS.REFLECT.LINE-86	GDC	11 47.9S	122 05.8E S	RAMA12WT
1234	25/ 4/81			SPSL E	SEIS.REFLECT.LINE-86	GDC	11 49.4S	122 21.1E S	RAMA12WT
1234	25/ 4/81			SPSL B	SEIS.REFLECT.LINE-87	GDC	11 49.4S	122 21.1E S	RAMA12WT
0845	26/ 4/81			SPSL E	SEIS.REFLECT.LINE-87	GDC	09 13.4S	122 30.8E S	RAMA12WT
0845	26/ 4/81			SPSL B	SEIS.REFLECT.LINE-88	GDC	09 13.4S	122 30.8E S	RAMA12WT
2150	26/ 4/81			SPSL E	SEIS.REFLECT.LINE-88	GDC	08 44.6S	124 16.5E S	RAMA12WT
2150	26/ 4/81			SPSL B	SEIS.REFLECT.LINE-89	GDC	08 44.6S	124 16.5E S	RAMA12WT
0221	27/ 4/81			SPSL E	SEIS.REFLECT.LINE-89	GDC	09 06.2S	123 39.5E S	RAMA12WT
0221	27/ 4/81			SPSL B	SEIS.REFLECT.LINE-90	GDC	09 06.2S	123 39.5E S	RAMA12WT
0551	27/ 4/81			SPSL E	SEIS.REFLECT.LINE-90	GDC	08 35.7S	123 40.2E S	RAMA12WT
1342	28/ 4/81			SPSL B	SEIS.REFLECT.LINE-91	GDC	03 16.2S	125 45.7E S	RAMA12WT
2104	28/ 4/81			SPSL E	SEIS.REFLECT.LINE-91	GDC	02 21.5S	126 29.6E S	RAMA12WT
2104	28/ 4/81			SPSL B	SEIS.REFLECT.LINE-92	GDC	02 21.5S	126 29.6E S	RAMA12WT
2351	28/ 4/81			SPSL E	SEIS.REFLECT.LINE-92	GDC	02 13.7S	126 03.7E S	RAMA12WT
2351	28/ 4/81			SPSL B	SEIS.REFLECT.LINE-93	GDC	02 13.7S	126 03.7E S	RAMA12WT
0408	29/ 4/81			SPSL E	SEIS.REFLECT.LINE-93	GDC	01 49.4S	126 33.9E S	RAMA12WT
GRAB SAMPLE									
0200	13/ 4/81			GBGS	SURF.SAM. FLORES IS.	UCC	08 17.1S	120 15.0E F	RAMA12WT
9900					END SAMPLE INDEX				RAMA12WT