

INFORMAL REPORT AND INDEX OF
NAVIGATION, DEPTH, MAGNETIC AND SUBBOTTOM PROFILER DATA
(Issued May 1983)

BENTHIC EXPEDITION

LEG 6

Papeete, Tahiti (18 March 1983)
to
Papeete, Tahiti (5 April 1983)
R/V Melville

Co-Chief Scientists - J. Orcutt and T. Jordan (SIO)

Resident Marine Tech - R. Wilson

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

Data Collection Funded by NSF
Grant Number USN N00014-83-K-0151
Data Processing funded by SIA and NSF

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.

GDC Cruise I.D.# - 204

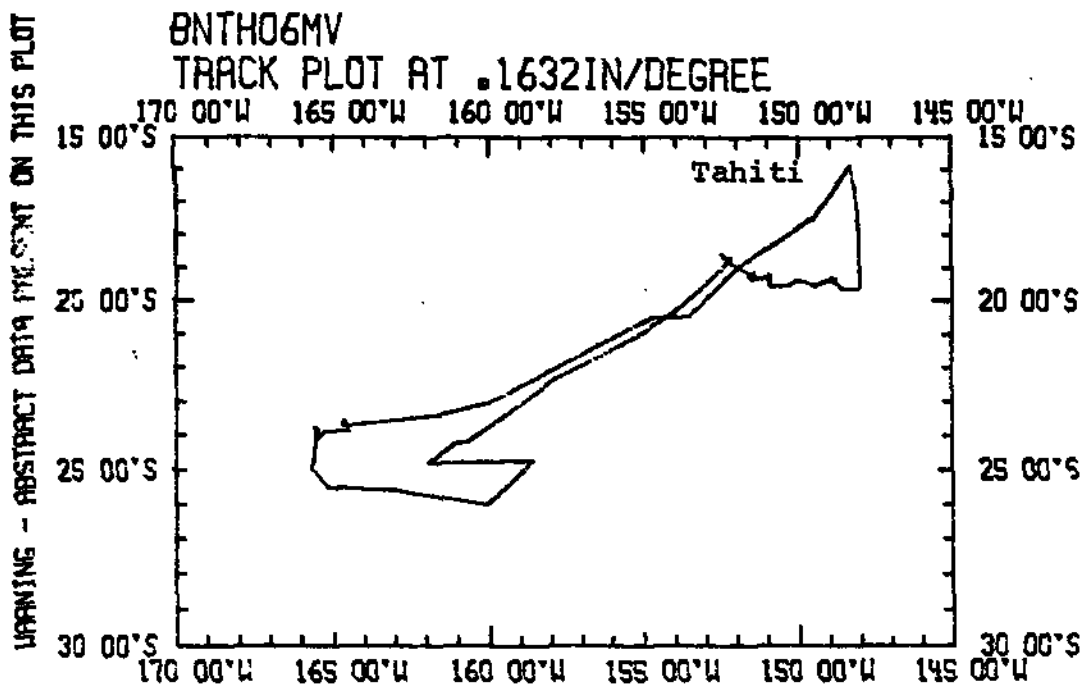
INFORMAL REPORT AND INDEX OF NAVIGATION, DEPTH,
MAGNETIC AND SUBBOTTOM PROFILER DATA

Contents:

- Index Chart - gives track of cruise leg, dates, ports, and mileage of each type of data collected.
- Track Charts - annotated with dates (day/month) and hour ticks. The scale is .312 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 wide black line along the bottom of the profile. Sections having Sea Beam are indicated by a narrow line.
- 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.

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 - Compilation plots at the traditional scale of 4"/degree longitude (1:1,000,000) are no longer produced for Sea Beam cruises. Custom plots may be requested of vertical beam (2 $\frac{2}{3}$ degree beam width) depths retrieved at one minute intervals of ship time.
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 1980 IGRF.
4. Separate time series files of navigation, depth and magnetics of data merged in the MGD77 Exchange format on magnetic tape.
5. 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



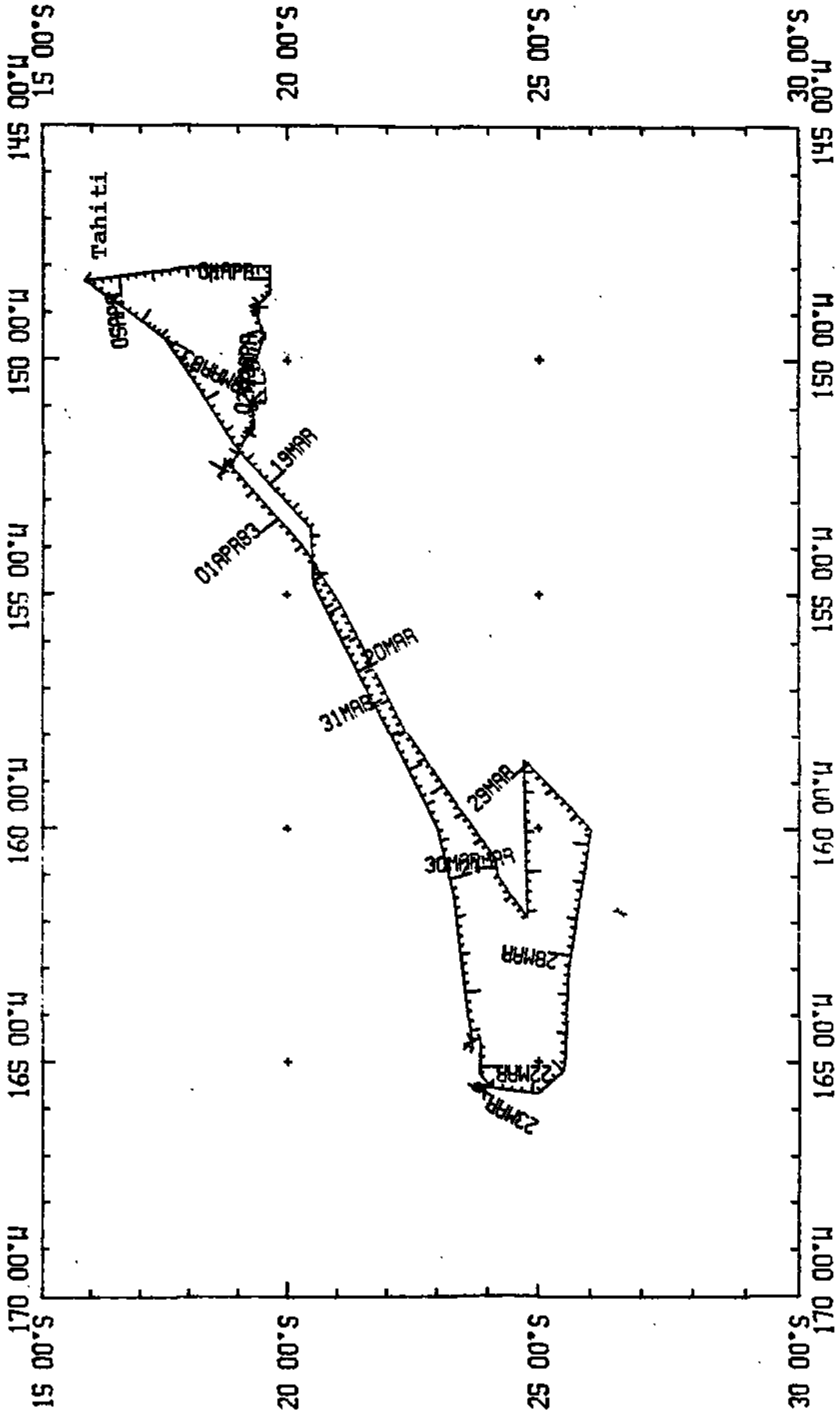
**BENTHIC EXPEDITION
 LEG 6**

Co-Chief Scientists: J. Orcutt and T. Jordan (SIO)
 Ports: Papeete - Papeete, Tahiti
 Dates: 18 March - 5 April 1983
 Ship: R/V Melville

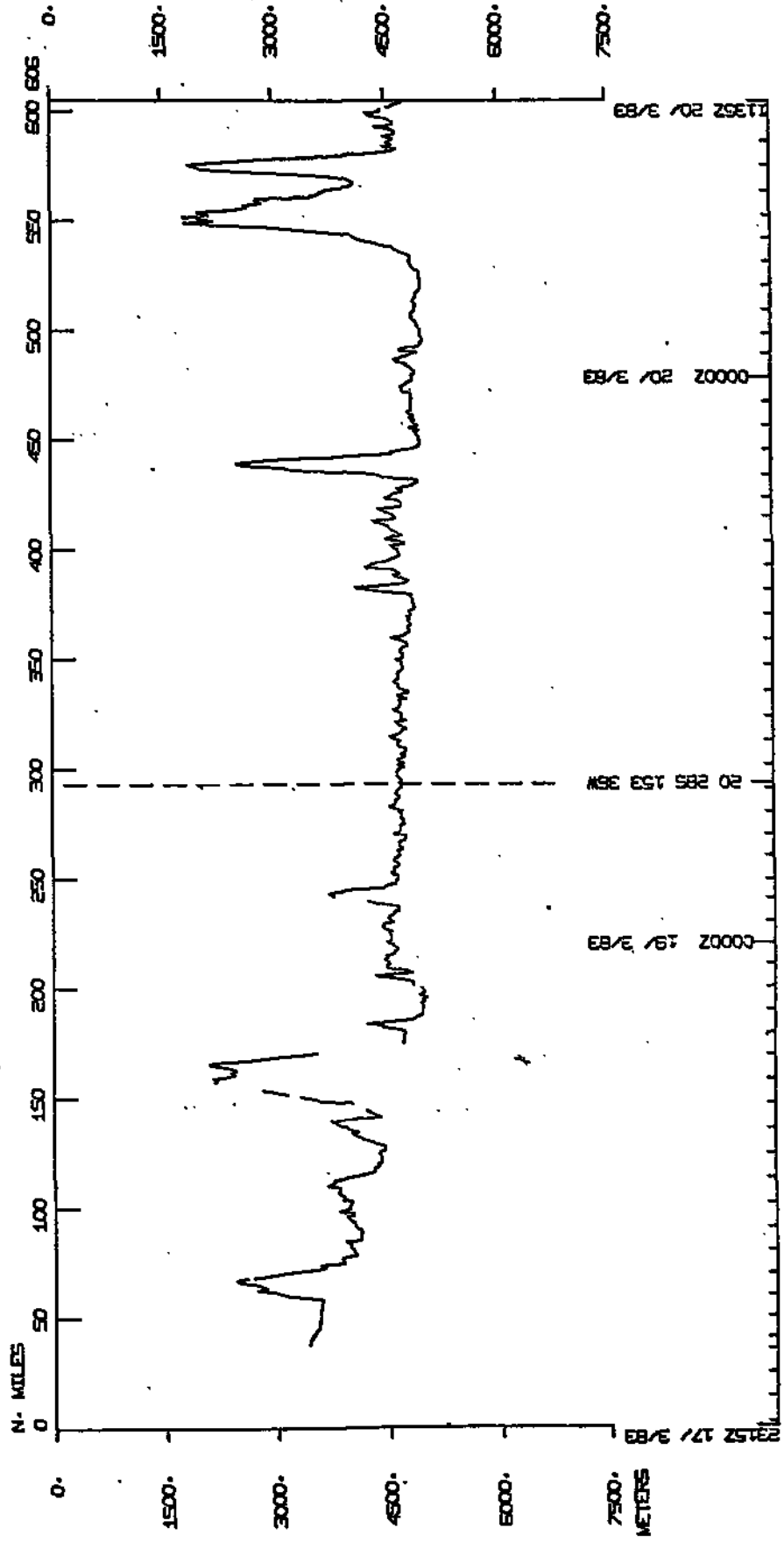
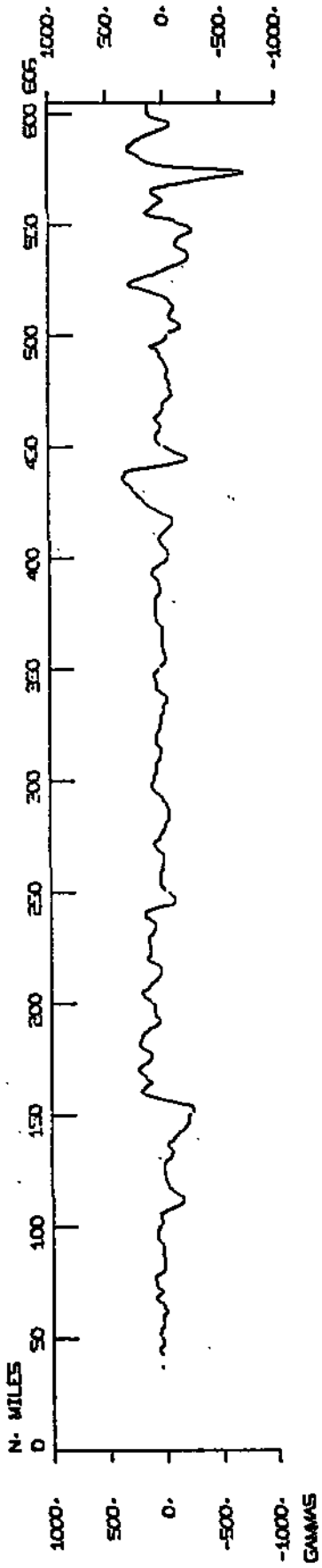
TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

- 1) Cruise - 3364 miles
- 2) Bathymetry - 3174 miles
- 3) Magnetics - 2969 miles
- 4) Seismic Reflection - 2274 miles
- 5) Gravity - 3334 miles

BENTHIC LEG 6
TRACK PLOT AT 312 IN/DEGREE



WARNING - ABSTRACT DATA PRESENT ON THIS PLOT



BNTHOBMV

1362 20 3/83

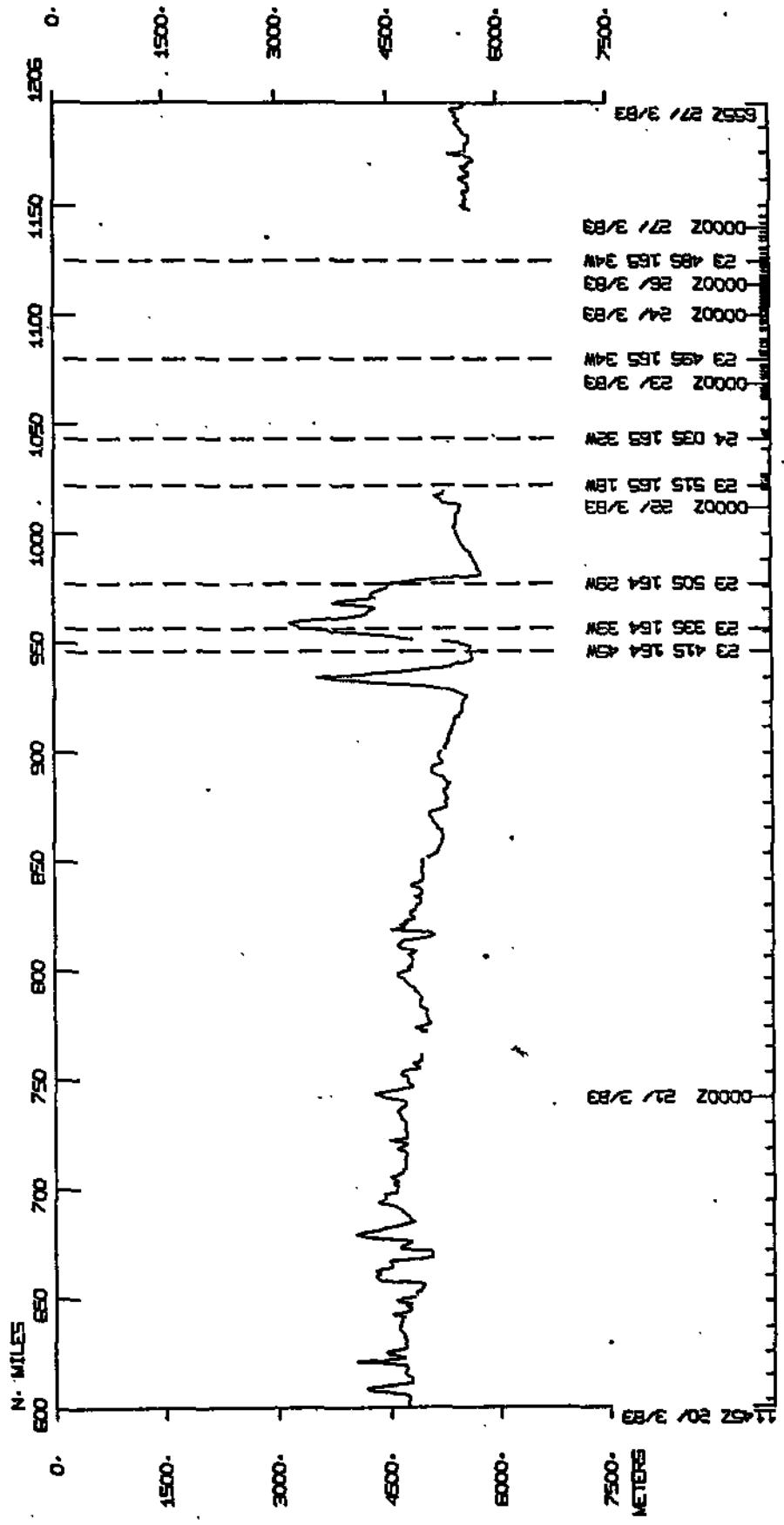
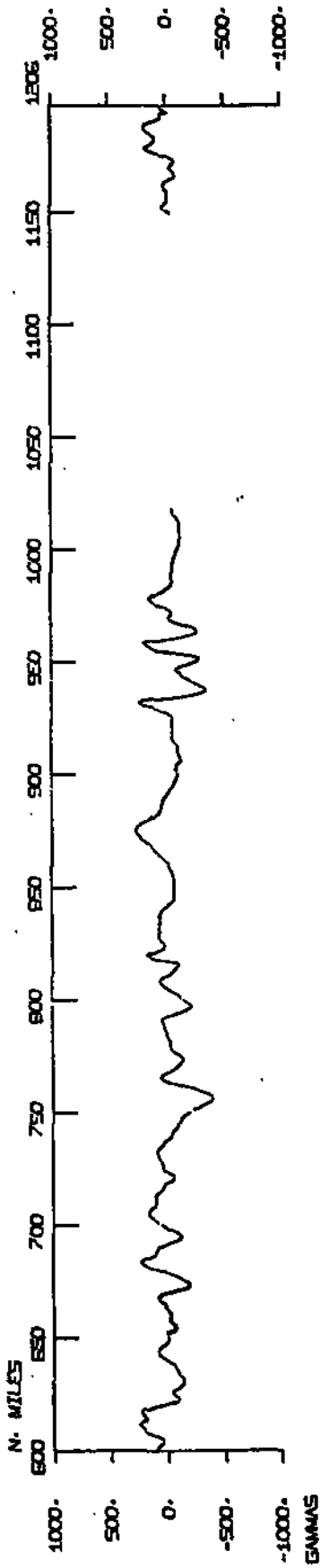
0002 20 3/83

20 285 153 381

0002 19 3/83

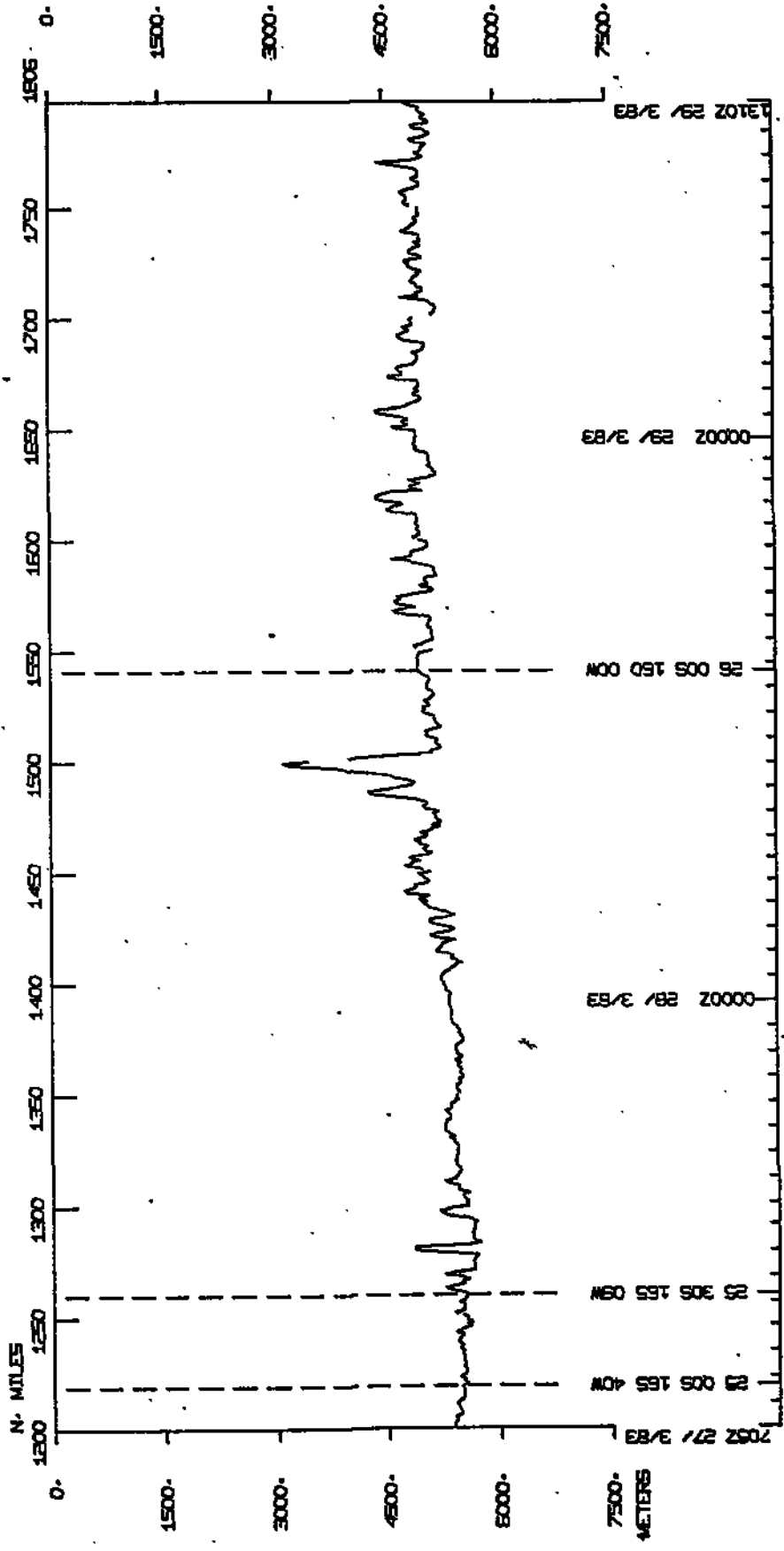
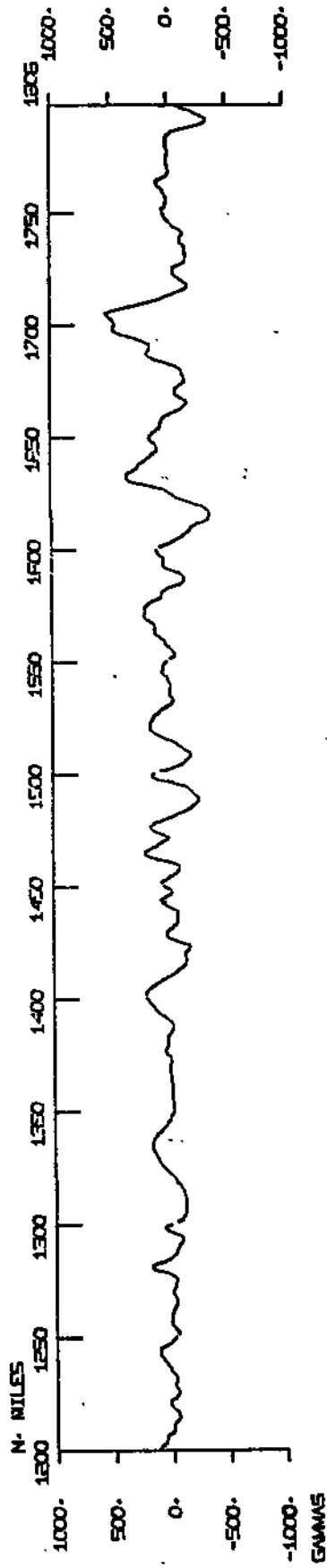
2452 17 3/83

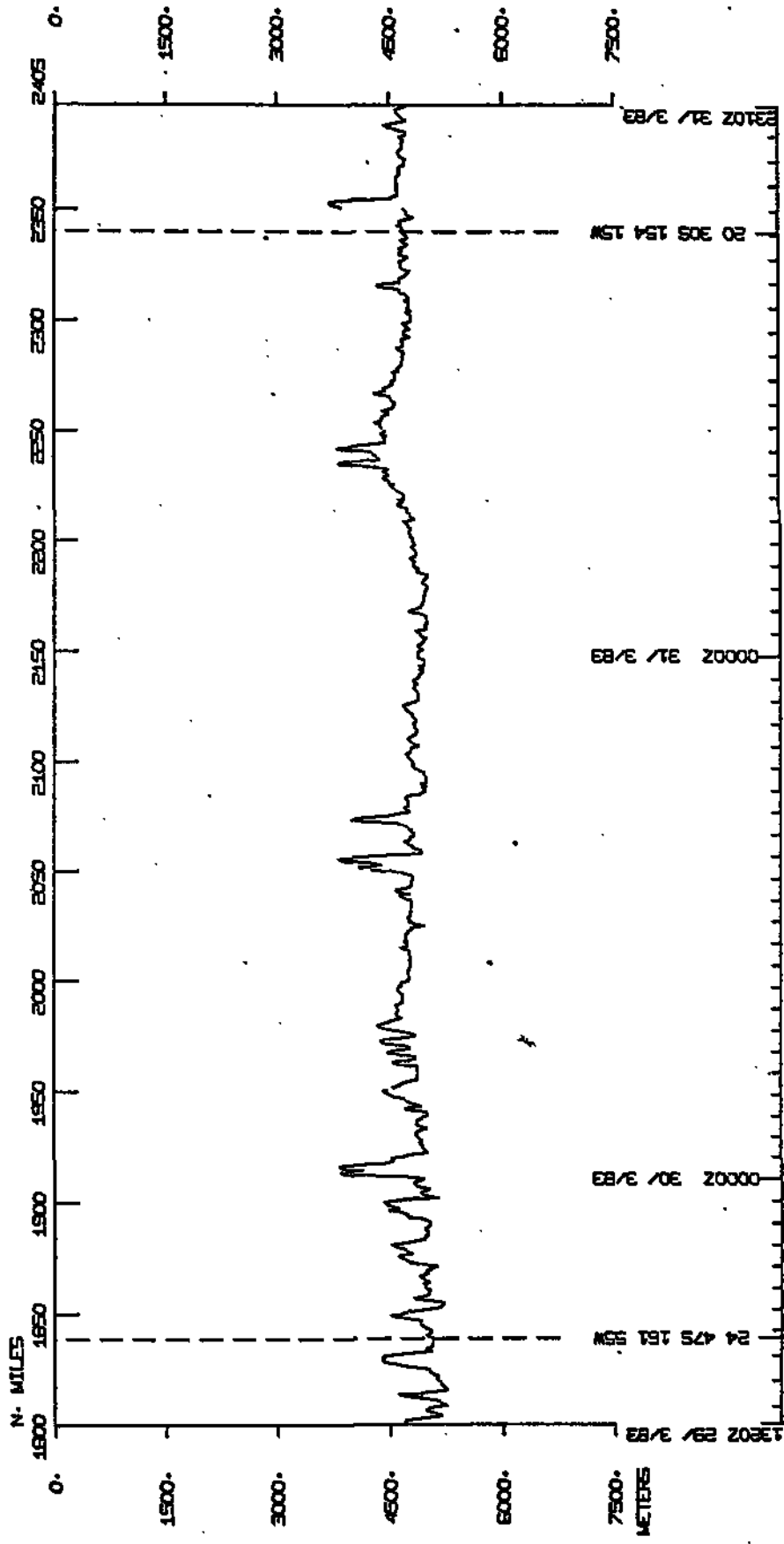
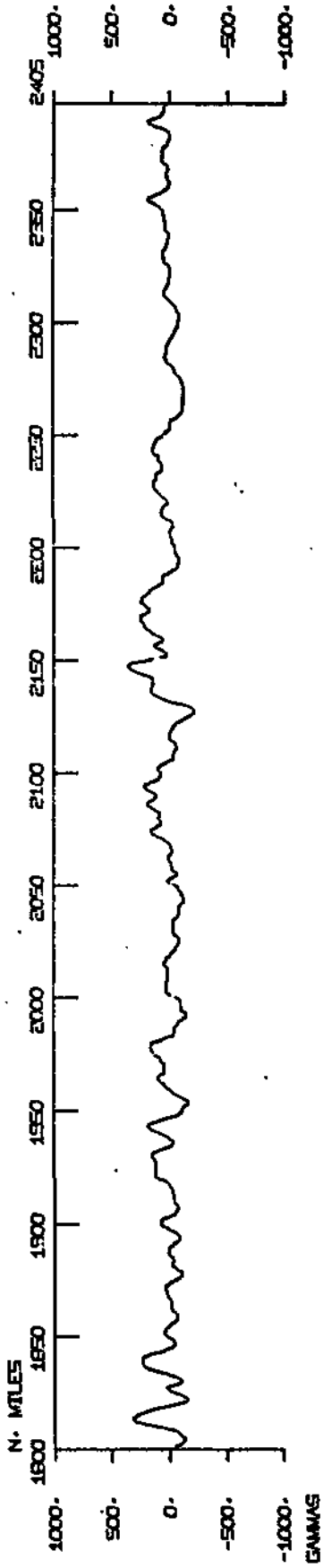




BNTHOBMV

ENTHOBMV

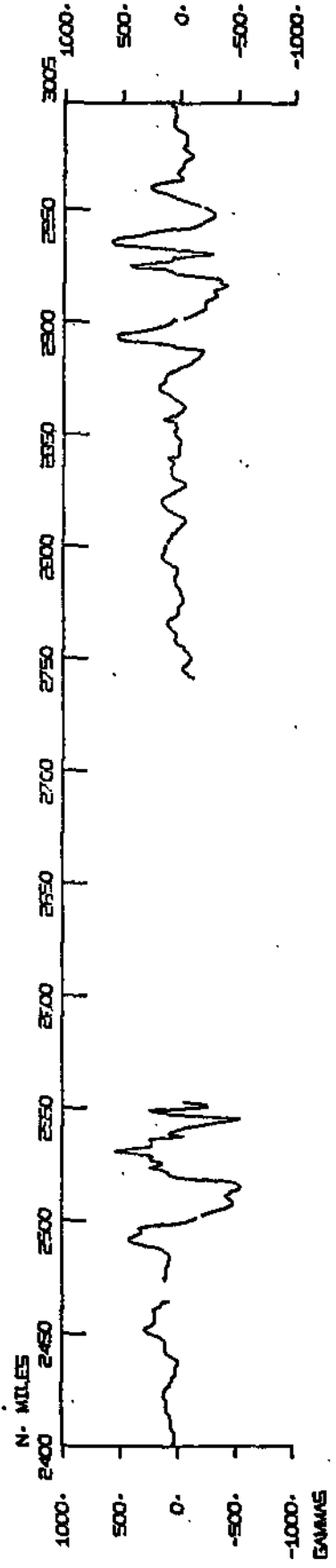
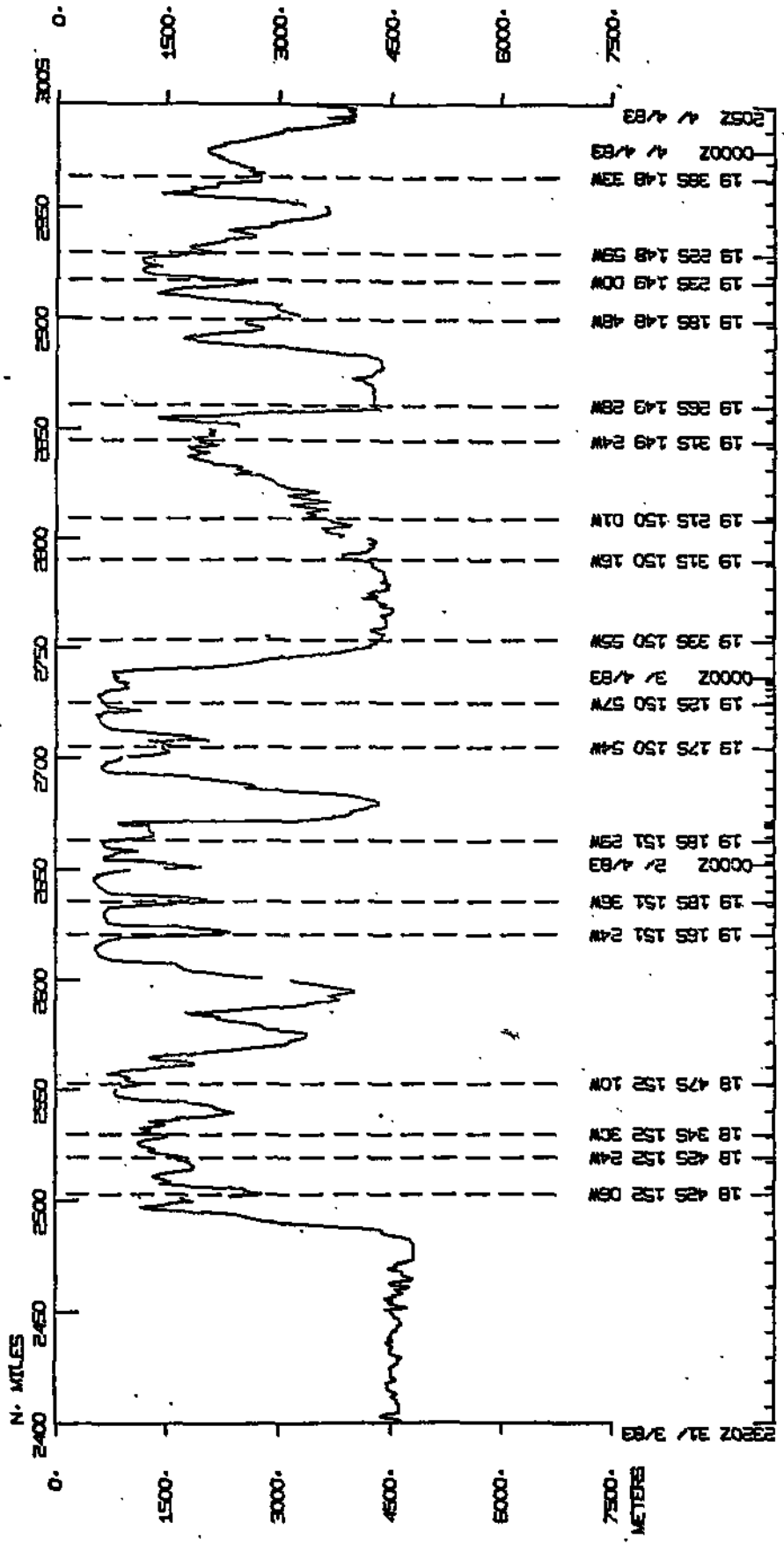




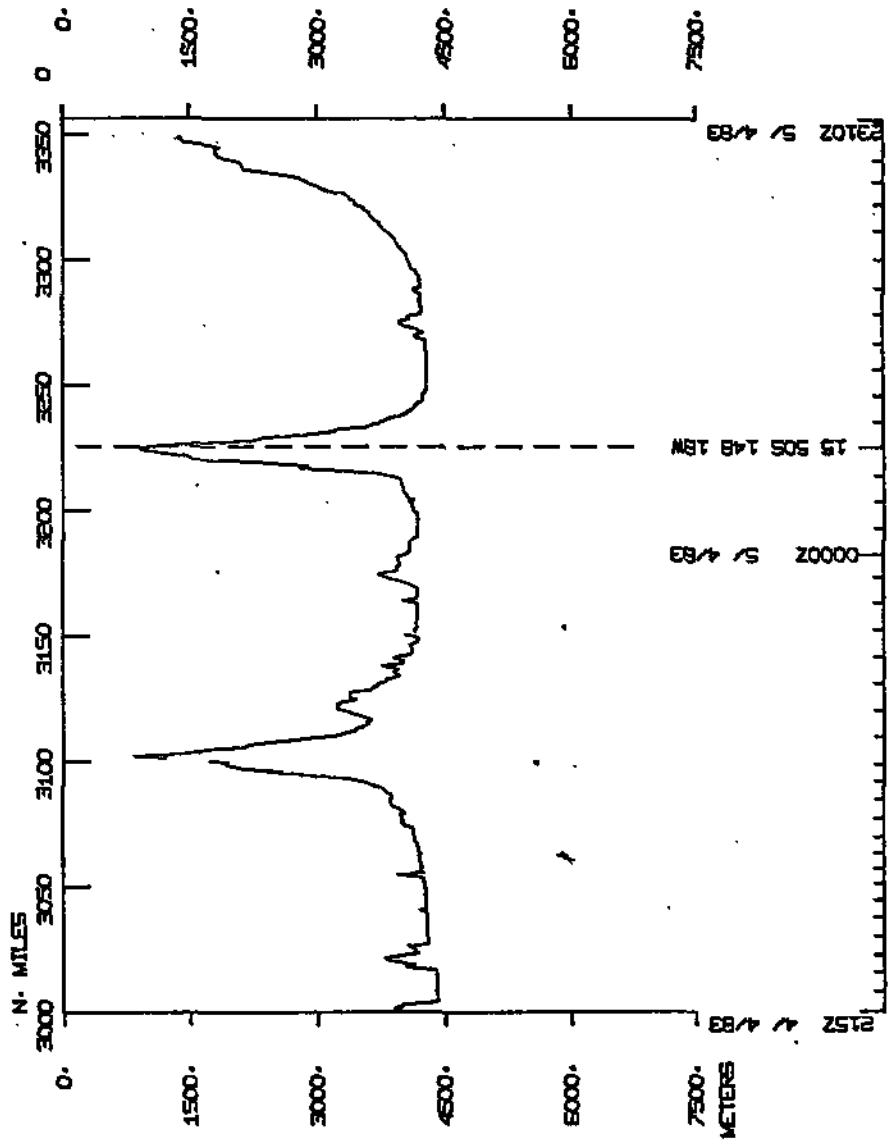
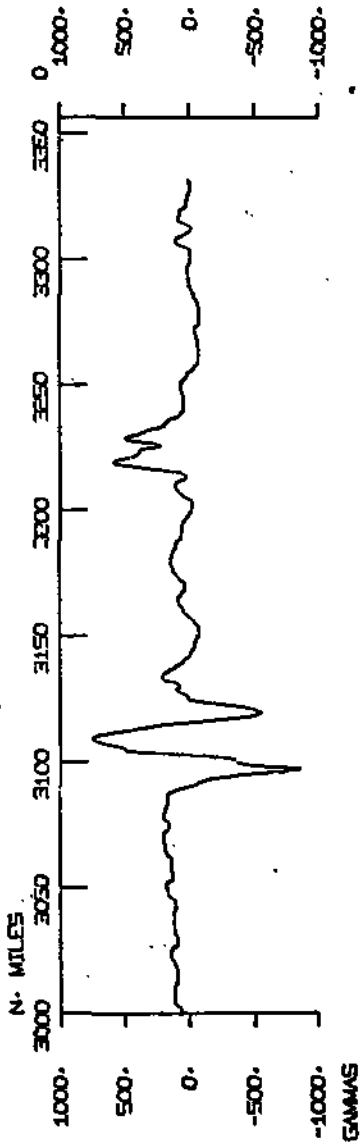
BNTHOBMV



BNTHOBMV



ENTHOBMV



S.I.O. Sample Index

(Issued May 1983)

BENTHIC EXPEDITION

Leg 6

Papeete, Tahiti (18 March 1983)
to
Papeete, Tahiti (5 April 1983)

R/V Melville

Co-Chief Scientists - J. Orcutt and T. Jordan (SIO)

Resident Marine Tech - R. Wilson

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

Index Encoding Funded by NSF
Grant Number OCE80-22995
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.)

GDC Cruise I.D.# -204

S.I.O. SAMPLE INDEX

GENERATED 03JUN83

*** BENTHIC LEG 6 SAMPLE INDEX

(BNTH06MV) ***

	60E	120E	180	120W	60W	0W	
	+.....+.....+.....+.....+.....+.....+						
	'X' = SHIP'S TRACK BY 5 DEGREE SQUARE						
85N							85N
80N					0 0000		80N
75N		0		0 0000	0000000000		75N
70N		0000000000		0000 0 00 0	00000000		70N
65N	0000	00000000000000000000000000000000		00000000000000000000	00 0000 0		65N
60N	000000000000000000000000000000000000			0000000000000000	00 00		60N
55N	0 0000000000000000000000000000		00	0 00000000	000		55N
50N	00000000000000000000000000000000		0	0000000000	0000		50N
45N	0000000000 000000000000000000000000			000000000000 0			45N
40N	0 00 00 0000000000000000 0			000000000000			40N
35N	0 00000 00000000000000 0			0000000000			35N
30N	000 000000000000000000 0			0000000000			30N
25N	0000000000 00000000000000			0000 0			25N
20N	0000000 0000 000 00000		0	0 00			20N
15N	00000000 00 0 00 0			00 0			15N
10N	0000000000 0 0 0 0			0			10N
5N	0000000000 0				00000		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		XX	000000		20S
25S	0000 0	0000000		XXXX	000000		25S
30S	00	00000000		X	0000		30S
35S	00	00 000	0		00000		35S
40S		00 0	0		000		40S
45S		0			00		45S
50S					00		50S
55S					0		55S
60S							60S
65S							65S
70S	00	00000000000			0		70S
75S	000000000000000000000000000000000000				0 00000	0000	75S
80S	000000000000000000000000000000000000			000000 00000000000000000000	0000	0000000	80S
85S	000000000000000000000000000000000000			000000000000000000000000000000000000			85S
90S	000000000000000000000000000000000000			000000000000000000000000000000000000	000000000000000000000000000000000000		90S
	+.....+.....+.....+.....+.....+.....+						
	60E	120E	180	120W	60W	0W	

18MAR83 - PAPEETE, TAHITI
 TO
 05APR83 - PAPEETE, TAHITI

CHIEF SCIENTISTS - ORCUTT, J. GRD
 JORDAN, T. GRD

SHIP - R/V MELVILLE (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	DR	GV	LB	MG	NV	PE	SB	SP			
GCR	1		4								1	4
GDC	1	4		1	3					4	1	12
GRD	1						4	6			1	10
IMR	1						1				1	1
MIT	1		2				1				1	3
MTG	1						1				1	1
SCG	1						1				1	1
SGG	1						1				1	1
SIO	1						4				1	4
SIX	1						10				1	10
USN	1						1	2	3		1	6
TOTAL	1	4	4	2	1	3	1	25	9	4	1	53

SAMPLE 'TYPE' CODES USED ABOVE

DP = DEPTH
 DR = DREDGE
 GV = GRAVITY
 LB = LOG BOOKS
 MG = MAGNETICS (TOWED VEHICLE, SURFACE, TOTAL FIELD)
 NV = NAVIGATION
 PE = PERSONNEL IN SCIENTIFIC PARTY
 SB = SEISMIC PUOY
 SP = SEISMIC REFLECTION PROFILE AIRGIN

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)
 IMR = INSTITUTE MARINE RESOURCES (EXT. 2866)
 MIT = MASS. INST. TECHNOLOGY
 MTG = MARINE TECHNOLOGY GROUP (EXT 4194)
 SCG = SHIPBOARD COMPUTER GROUP (EXT. 4195)
 SGG = SHIPBOARD GEOPHYSICAL GROUP—P. CRAMPTON (EXT.2079)
 SIO = SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA, CAL. 92093
 SIX = SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D. UTTER (EXT.3675)
 USN = UNITED STATES NAVY

03JUN83 PAGE 1

GMT TIME	D / M / Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
	/ / 000			BENTHIC LEG 6	SAMPLE INDEX		00 00.	00 00.	BNTH06MV

*** PORTS ***

0234	18/ 3/83			LGPT B	PAPEETE, TAHITI		17 32. S	149 34. W	F BNTH06MV
1649	5/ 4/83			LGPT E	PAPEETE, TAHITI		17 32. S	149 34. W	F BNTH06MV

PERSONNEL
 *** NAME ***

*** TITLE ***

*** AFFILIATION ***

1	ORCUTT, J.	CHIEF SCIENTIST	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL.	92093
2	JORDAN, T.	CHIEF SCIENTIST	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL.	92093
3	WILSON, R.	RESIDENT TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL.	92093
4	CARTER, M.	COMPUTER TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL.	92093
5	CRAMPTON, P.	AIRGUN TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL.	92093
6	BECK, M. (GOULD, INC.)	ENGINEER	SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D.	UTTER (EXT.3675)
7	BURNETT, M.	STUDENT	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL.	92093
8	DAY, J. (GOULD, INC.)	ENGINEER	SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D.	UTTER (EXT.3675)
9	ENDRESS, A.	ENG. (TELEDYNE)	SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D.	UTTER (EXT.3675)
10	HARRIS, M. (NORDA)	PROG MANAGER	UNITED STATES NAVY	
11	IRELAND, K. (GLOBAL)	ROUGHNECK	SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D.	UTTER (EXT.3675)
12	KIM, I.	STUDENT	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL.	92093
13	KISER, E. (GLOBAL)	OPS SUPERINTEND.	SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D.	UTTER (EXT.3675)
14	MCNUTT, M.	PROFESSOR	MASS. INST. TECHNOLOGY	
15	MENARD, H.	PROFESSOR	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL.	92093
16	MOORE, R.	ENGINEER	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL.	92093
17	SCHANZLE, J. (EG+G)	ENGINEER	SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D.	UTTER (EXT.3675)
18	SHEAKER, P.	STUDENT	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL.	92093
19	SMITH, D.	STUDENT	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL.	92093
20	STONE, M.	ELECTRONICS TECH	UNITED STATES NAVY	
21	THURMAN, R. (PENGO)	SERVICE REP	SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D.	UTTER (EXT.3675)
22	WALLERSTEDT, R.	ENGINEER (GLOBAL)	SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D.	UTTER (EXT.3675)
23	WILLOUGHBY, D.	ELECTRONIC TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL.	92093
24	ZEIGLER, J. (GLOBAL)	ROUGHNECK	SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D.	UTTER (EXT.3675)
25	ZEIGLER, B. (GLOBAL)	ROUGHNECK	SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D.	UTTER (EXT.3675)

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 T2	SAMP		DISP			CRUISE

UNDERWAY DATA CURATOR - STUART SMITH (EXT.2752)

*** LOG BOOKS ***

0234 18/ 3/83	LBUM B UNDERWAY DATA	GDC 17 31.7S 149 34.2W S BNTH06MV
1600 5/ 4/83	LBUM E UNDERWAY DATA	GDC 17 29.1S 149 35.7W S BNTH06MV

*** FATHOGRAMS ***

0234 18/ 3/83	DPRT B EDD 12KHZ R-01	GDC 17 31.7S 149 34.2W S BNTH06MV
2048 28/ 3/83	DPRT E EDD 12KHZ R-01	GDC 25 09.9S 159 00.6W S BNTH06MV
2101 28/ 3/83	DPRT B EDD 12KHZ R-02	GDC 25 08.4S 158 58.9W S BNTH06MV
1600 5/ 4/83	DPRT E EDD 12KHZ R-02	GDC 17 29.1S 149 35.7W S BNTH06MV

0422 19/ 3/83	DPR3 B EDD 3.5KHZ R-01	GDC 20 06.8S 153 14.2W S BNTH06MV
0314 30/ 3/83	DPR3 E EDD 3.5KHZ R-01	GDC 23 56.6S 160 22.2W S BNTH06MV

0323 30/ 3/83	DPR3 B EDD 3.5KHZ R-02	GDC 23 55.7S 160 21.0W S BNTH06MV
2034 1/ 4/83	DPR3 E EDD 3.5KHZ R-02	GDC 19 17.6S 151 34.0W S BNTH06MV

*** MAGNETOMETER ***

0617 18/ 3/83	MGRA B MAGNET ICS R-01	GDC 17 50.3S 150 04.9W S BNTH06MV
1915 18/ 3/83	MGRA E MAGNET ICS R-01	GDC 19 03.7S 152 03.5W S BNTH06MV
2131 18/ 3/83	MGRA B MAGNET ICS R-02	GDC 19 19.6S 152 22.1W S BNTH06MV
0145 29/ 3/83	MGRA E MAGNET ICS R-02	GDC 24 43.4S 158 44.3W S BNTH06MV
0148 29/ 3/83	MGRA B MAGNET ICS R-03	GDC 24 43.5S 158 44.9W S BNTH06MV
1414 5/ 4/83	MGRA E MAGNET ICS R-03	GDC 17 16.2S 149 24.8W S BNTH06MV

*** SEISMIC PROFILER ***

0640 18/ 3/83	SPRS B WATERGUN 10SEC. R-01	GDC 17 51.2S 150 06.3W S BNTH06MV
1934 3/ 4/83	SPRS E WATERGUN 10SEC. R-01	GDC 19 21.8S 149 05.6W S BNTH06MV
1340 3/ 4/83	SPRS B WATERGUN 10SEC. R-02	GDC 19 21.6S 149 04.5W S BNTH06MV
1405 5/ 4/83	SPRS E WATERGUN 10SEC. R-02	GDC 17 15.6S 149 24.1W S BNTH06MV

0644 18/ 3/83	SPRF B WATERGUN 4SEC. R-01	GDC 17 51.4S 150 06.7W S BNTH06MV
1328 3/ 4/83	SPRF E WATERGUN 4SEC. R-01	GDC 19 22.1S 149 06.6W S BNTH06MV

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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1332	3/ 4/83			SPRF B	WATERGUN 4SEC. R-02	GDC 19	21.9S	149 05.9W	S BNTH06MV
1405	5/ 4/83			SPRF E	WATERGUN 4SEC. R-02	GDC 17	15.6S	149 24.1W	S BNTH06MV

GRAVIMETRIC RECORDS

0512	18/ 3/83			GVRA B	GRAVITYMETER R-01	MIT 17	44.3S	149 56.2W	S BNTH06MV
0347	20/ 3/83			GVRA E	GRAVITYMETER R-01	MIT 21	41.2S	157 19.8W	S BNTH06MV
0357	20/ 3/83			GVRA B	GRAVITYMETER R-02	MIT 21	42.0S	157 21.6W	S BNTH06MV
1600	5/ 4/83			GVRA E	GRAVITYMETER R-02	MIT 17	29.1S	149 35.7W	S BNTH06MV

*** NAVIGATIONAL INSTRUMENT ***

0234	18/ 3/83			NVXX C	ATNAV TRANSPONDER	USN 17	31.7S	149 34.2W	S BNTH06MV
2310	26/ 3/83			NVXX E	ATNAV TRANSPONDER	USN 23	48.5S	165 36.3W	S BNTH06MV

*** SEISMIC REFLECTION SURVEY ***

0234	18/ 3/83			SBOB C	MOOR. SEIS. BOT. PACK.	USN 17	31.7S	149 34.2W	S BNTH06MV
1802	26/ 3/83			SROB B	MOOR. SEIS. BOT. PACK.	USN 23	45.3S	165 38.5W	S BNTH06MV
1649	5/ 4/83			SROB C	DUMMY MSS 83 BPP	USN 17	32.3S	149 34.5W	S BNTH06MV
2130	24/ 3/83			SROB E	MSS 83 BPP	USN 23	48.8S	165 31.4W	S BNTH06MV

SONOBUOY - OCEAN BOTTOM SEISMOMETER

0234	18/ 3/83			SROB C	OBS SIZY	GRD 17	31.7S	149 34.2W	S BNTH06MV
0552	22/ 3/83			SROB E	OBS SUZY	GRD 23	52.0S	165 18.3W	S BNTH06MV
0234	18/ 3/83			SROB C	OBS JUAN	GRD 17	31.7S	149 34.2W	S BNTH06MV
1121	22/ 3/83			SROB E	OBS JUAN	GRD 24	02.6S	165 31.8W	S BNTH06MV
0234	18/ 3/83			SROB C	OBS JANICE	GRD 17	31.7S	149 34.2W	S BNTH06MV
1542	22/ 3/83			SROB E	OBS JANICE	GRD 23	49.4S	165 31.5W	S BNTH06MV
0234	18/ 3/83			SROB C	OBS KAREN	GRD 17	31.7S	149 34.2W	S BNTH06MV
0642	23/ 3/83			SROB E	OBS KAREN	GRD 23	48.5S	165 33.6W	S BNTH06MV
0234	18/ 3/83			SROB C	OBS PHRED	GRD 17	31.7S	149 34.2W	S BNTH06MV
0750	23/ 3/83			SROB E	OBS PHRED	GRD 23	49.2S	165 34.0W	S BNTH06MV
0234	18/ 3/83			SROB C	OBS LYNN	GRD 17	31.7S	149 34.2W	S BNTH06MV
1040	23/ 3/83			SROB E	OBS LYNN	GRD 23	48.7S	165 33.8W	S BNTH06MV

*** DREDGES *** CURATOR - W. RIEDEL EXT. 4386

0037	2/ 4/83			DRRD B	DREDGE DRO6	1460M	GCR 19	10.8S	151 26.7W	S BNTH06MV
0205	2/ 4/83			DRRD E	ROCK DRO6	1460M	GCR 19	10.3S	151 28.0W	S BNTH06MV
0529	2/ 4/83			DRRD B	DREDGE DRO7	1140M	GCR 19	19.3S	151 29.2W	S BNTH06MV
0648	2/ 4/83			DRRD E	ROCK DRO7	865M	GCR 19	19.4S	151 29.8W	S BNTH06MV

GMT TIME	D / M / Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
1830	2 / 4 / 83			DRRO B	DREDGE DRO8	940M	GCR 19 16.3S	150 54.1W	S BNTH06MV
1925	2 / 4 / 83			DRRO E	ROCK DRO8	809M	GCR 19 16.1S	150 54.7W	S BNTH06MV
2042	2 / 4 / 83			DRRO B	DREDGE DRO9	790M	GCR 19 16.0S	150 55.0W	S BNTH06MV
2259	2 / 4 / 83			DRRO E	ROCK DRO9	800M	GCR 19 16.0S	150 55.1W	S BNTH06MV
9900					END SAMPLE INDEX				BNTH06MV
	/ /	000					00 00.	00 00.	