

INFORMAL REPORT AND INDEX OF
NAVIGATION, DEPTH AND MAGNETIC DATA

(Issued October 30, 1978)

INDOMED EXPEDITION

LEG 11

Cadiz, Spain (11 August 1978)
to
St. George, Bermuda (13 September 1978)

R/V Melville

Co-Chief Scientists - P. Lonsdale (SIO)
and I. McCave (Woods Hole Oceanographic Institution)

Resident Marine Technician - W. Keith

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

Data Collection Funded by ONR
Grant Number ONR 0704
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.

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 gamma/inch; anomaly scale north of 15°N and south of 15°S = 1000 gamma/inch; from values retrieved at approximately 1 mile spacing and regional field removed using the 1975 IGRF.

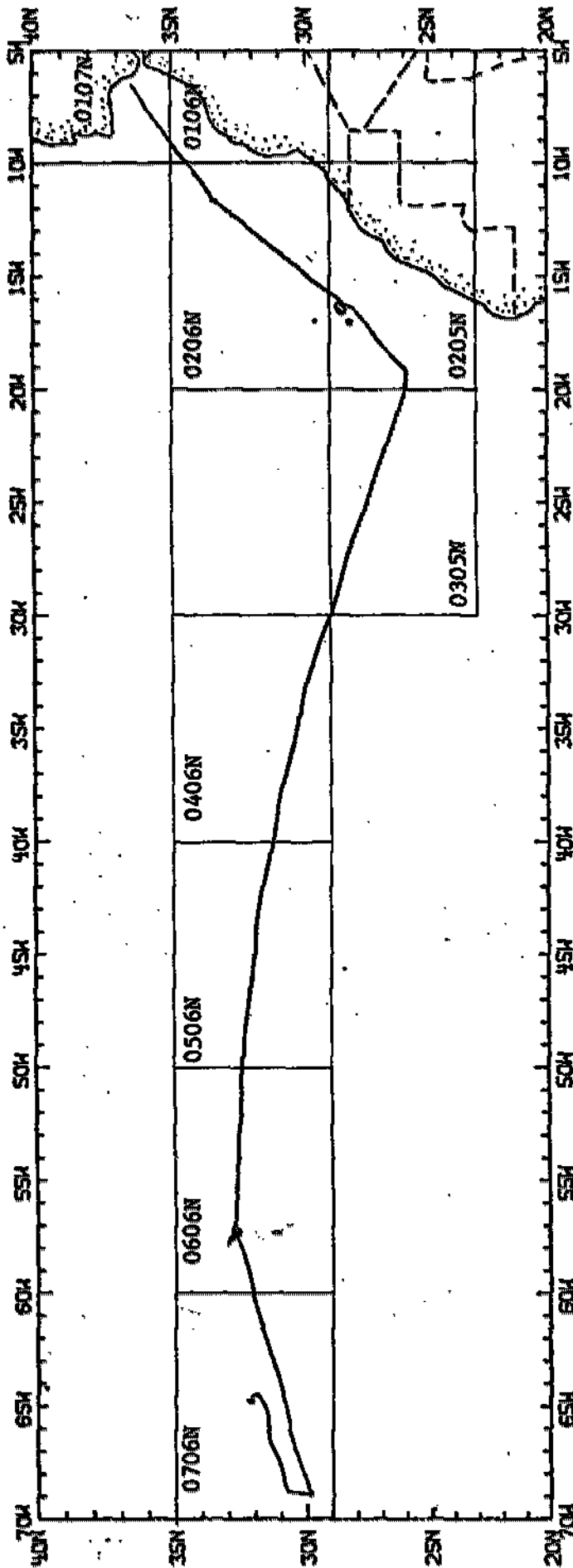
4. Card decks of navigation, depth and magnetics (for specific formats, contact S. M. Smith, Geological Data Center).

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

* NO SUBBOTTOM PROFILER DATA COLLECTED



INDOMED EXPEDITION
LEG II

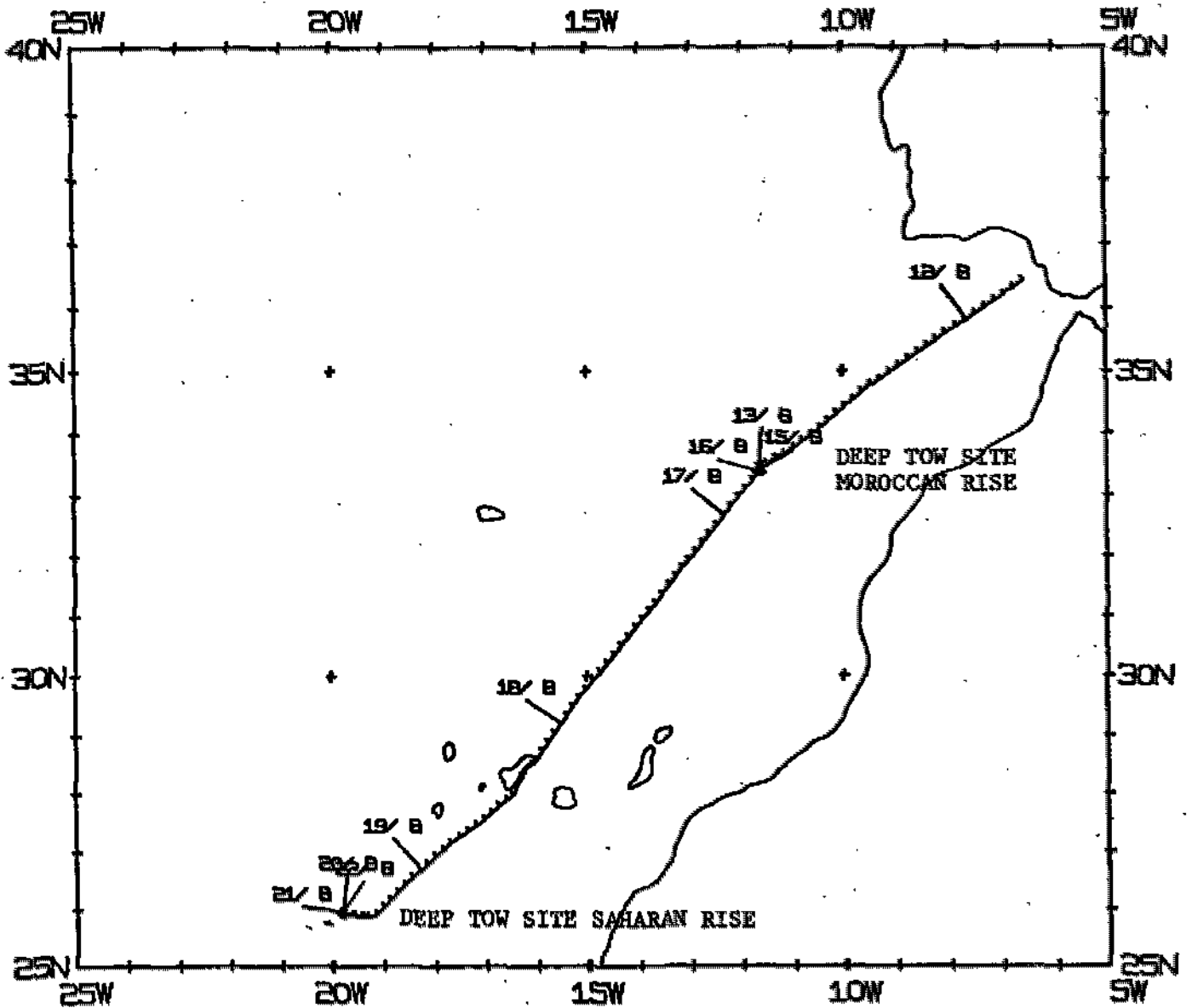
Chief Scientists: P. Lonsdale (SIO)
I. McCave (Woods Hole)
Ports: Cadiz, Spain to St. George, Bermuda
Dates: 11 August to 13 September 1978
Ship: R/V Melville

TOTAL MILEAGE

- 1) Cruise - 4763 miles
- 2) Bathymetry - 3237 miles
- 3) Magnetics - 2975 miles
- 4) Seismic Reflection - none collected
- 5) Gravity - none collected

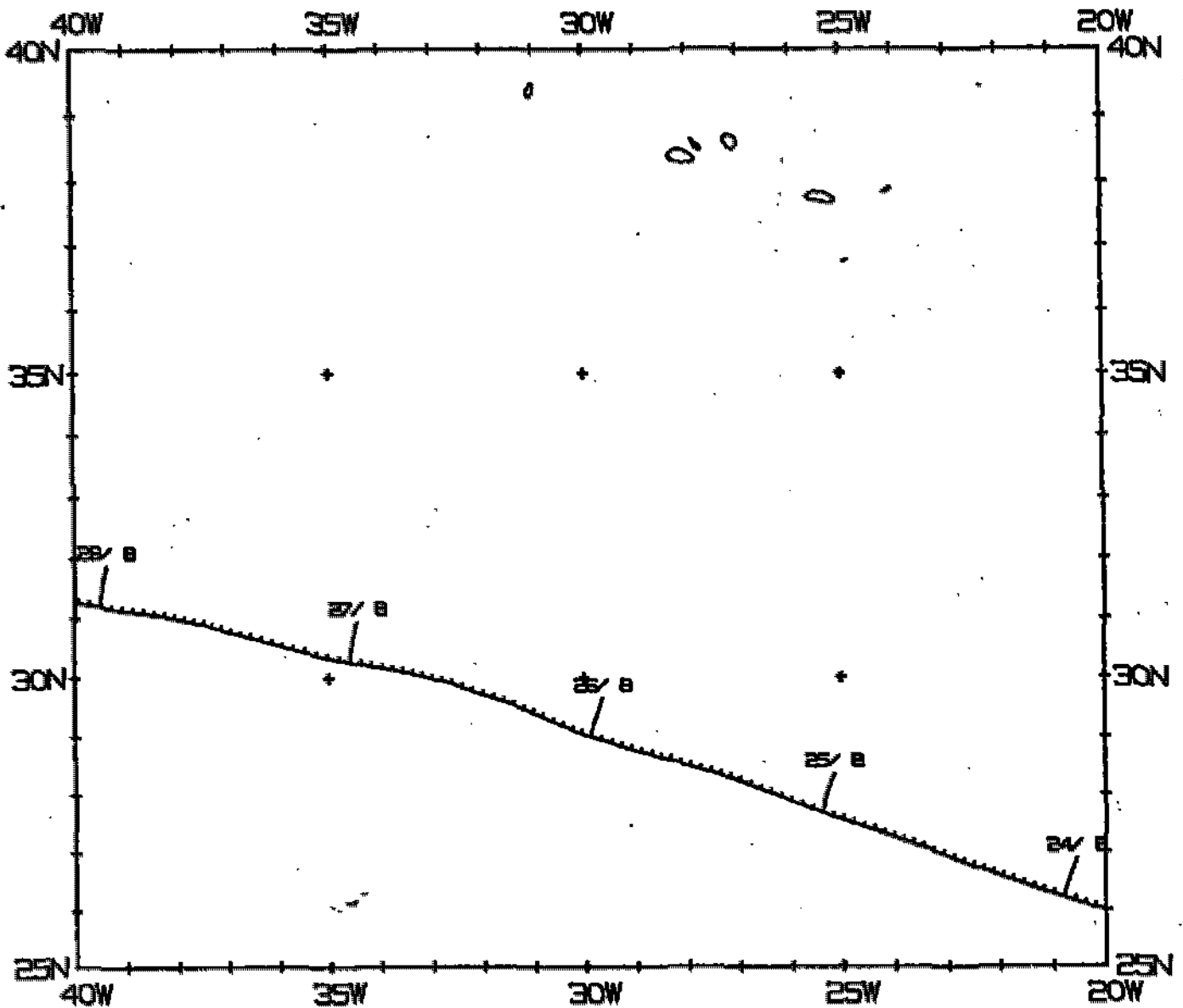
INM011MV TRACK PLOT (1 OF 4)

MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE



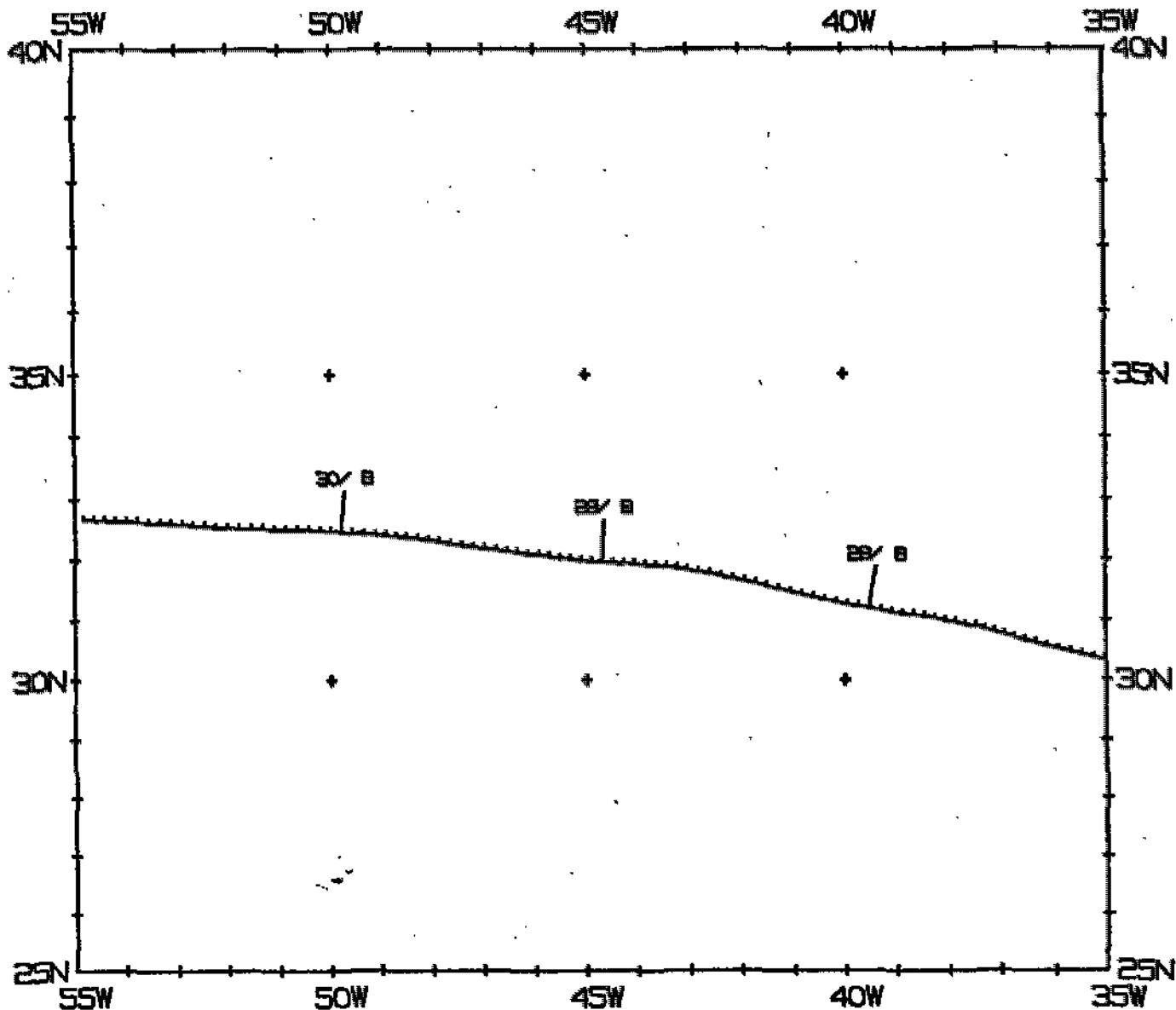
INMD11MV TRACK PLOT (2 OF 4)

MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE.



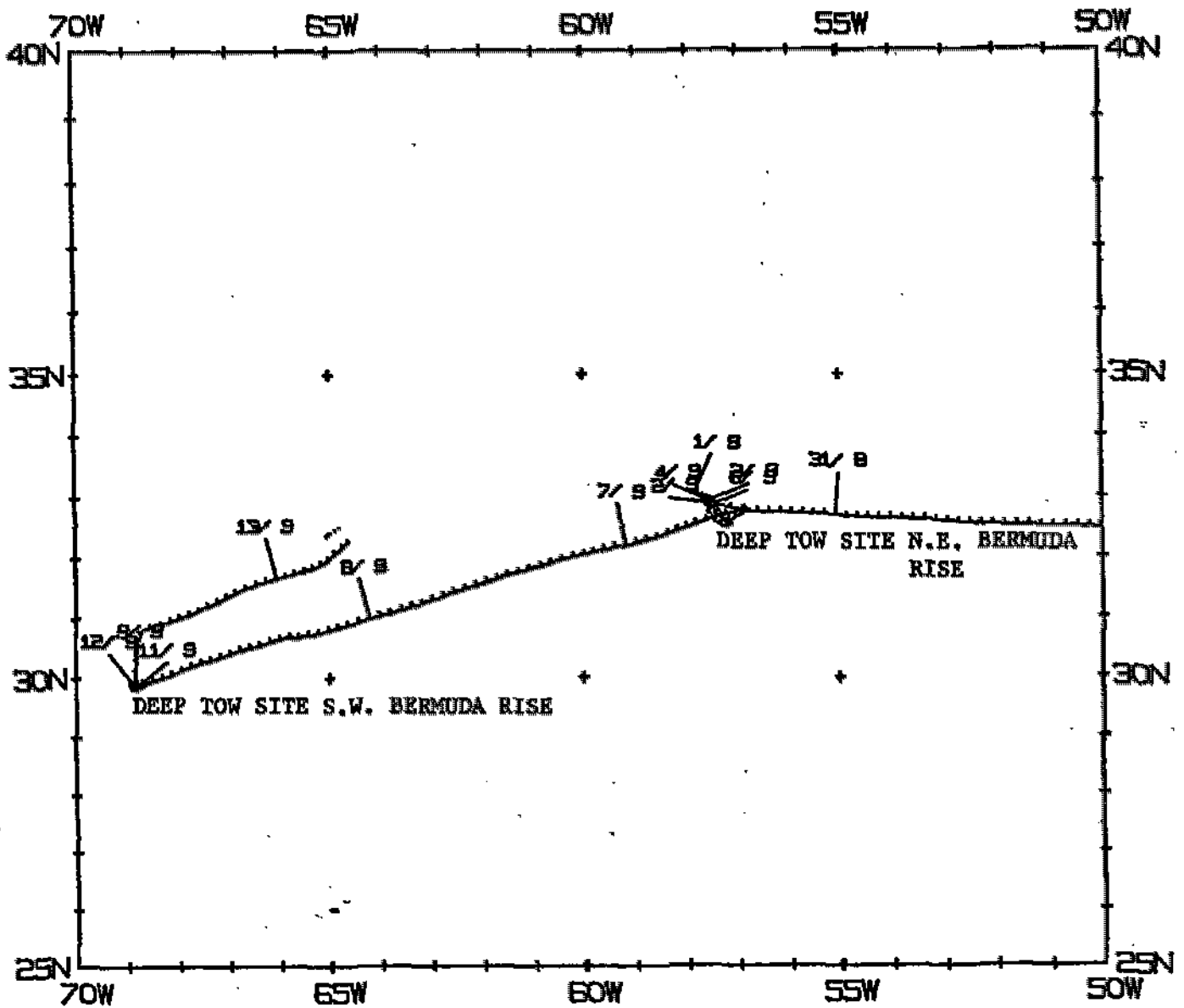
INMD11MV TRACK PLOT (3 OF 4)

MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE

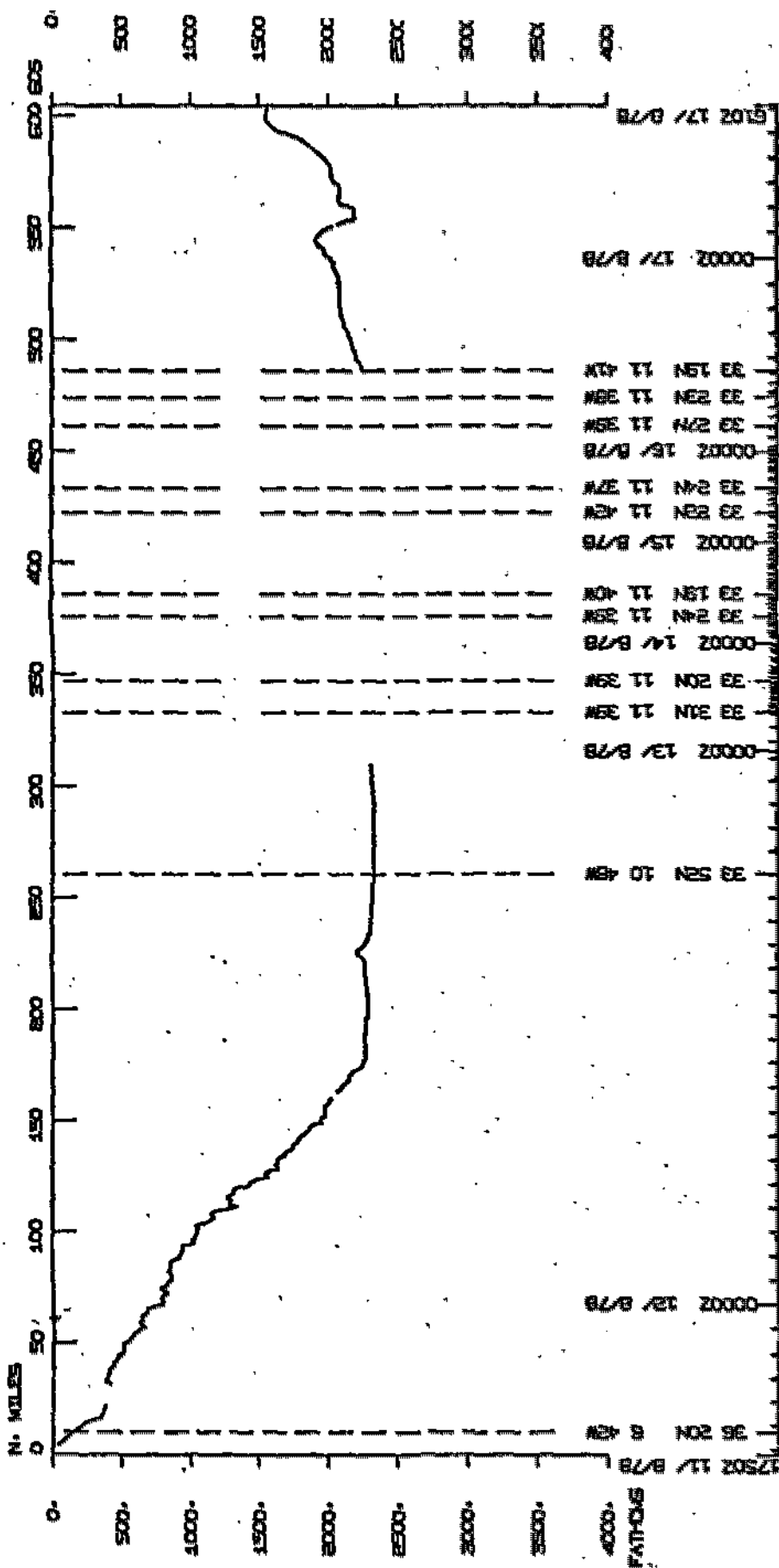
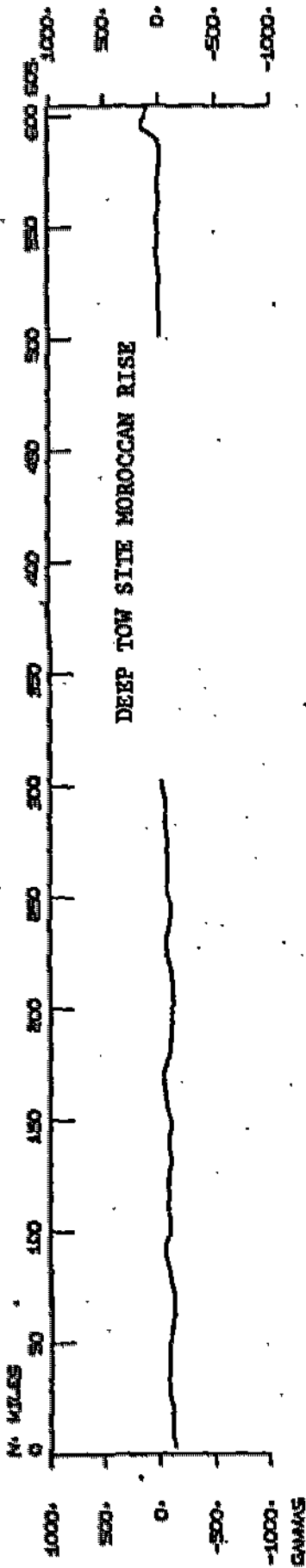


INMD11MV TRACK PLOT (4 OF 4)

MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE

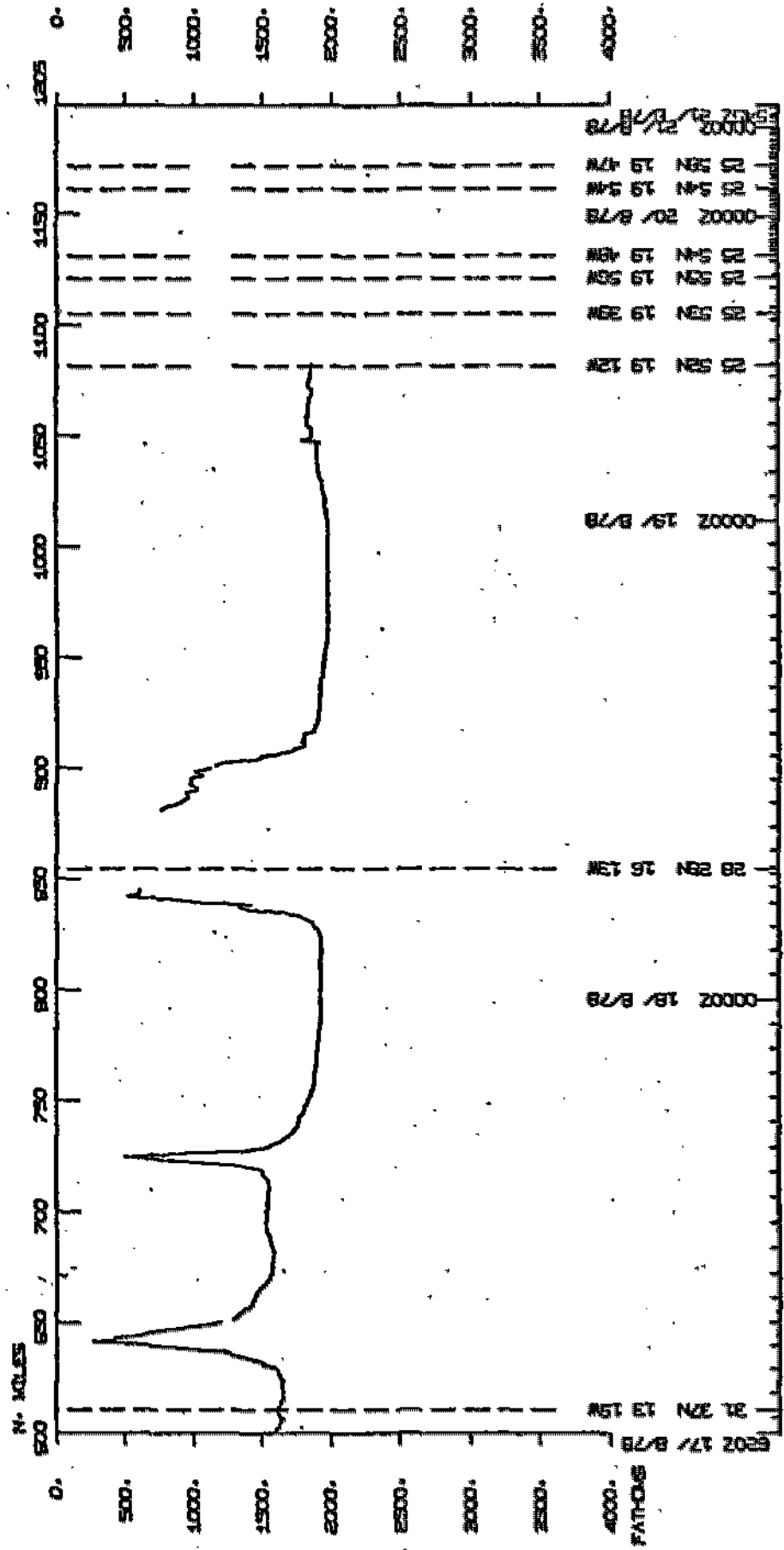
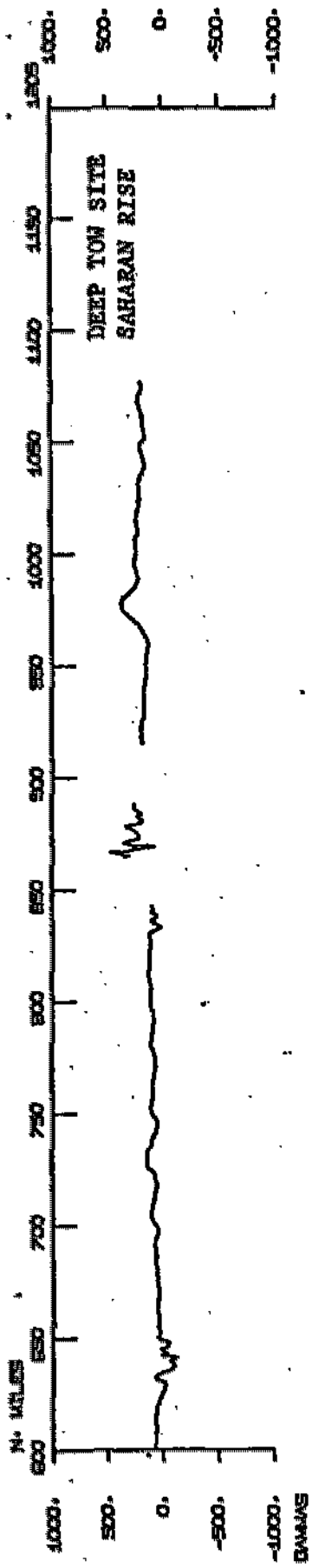


INDOMED LEG 11



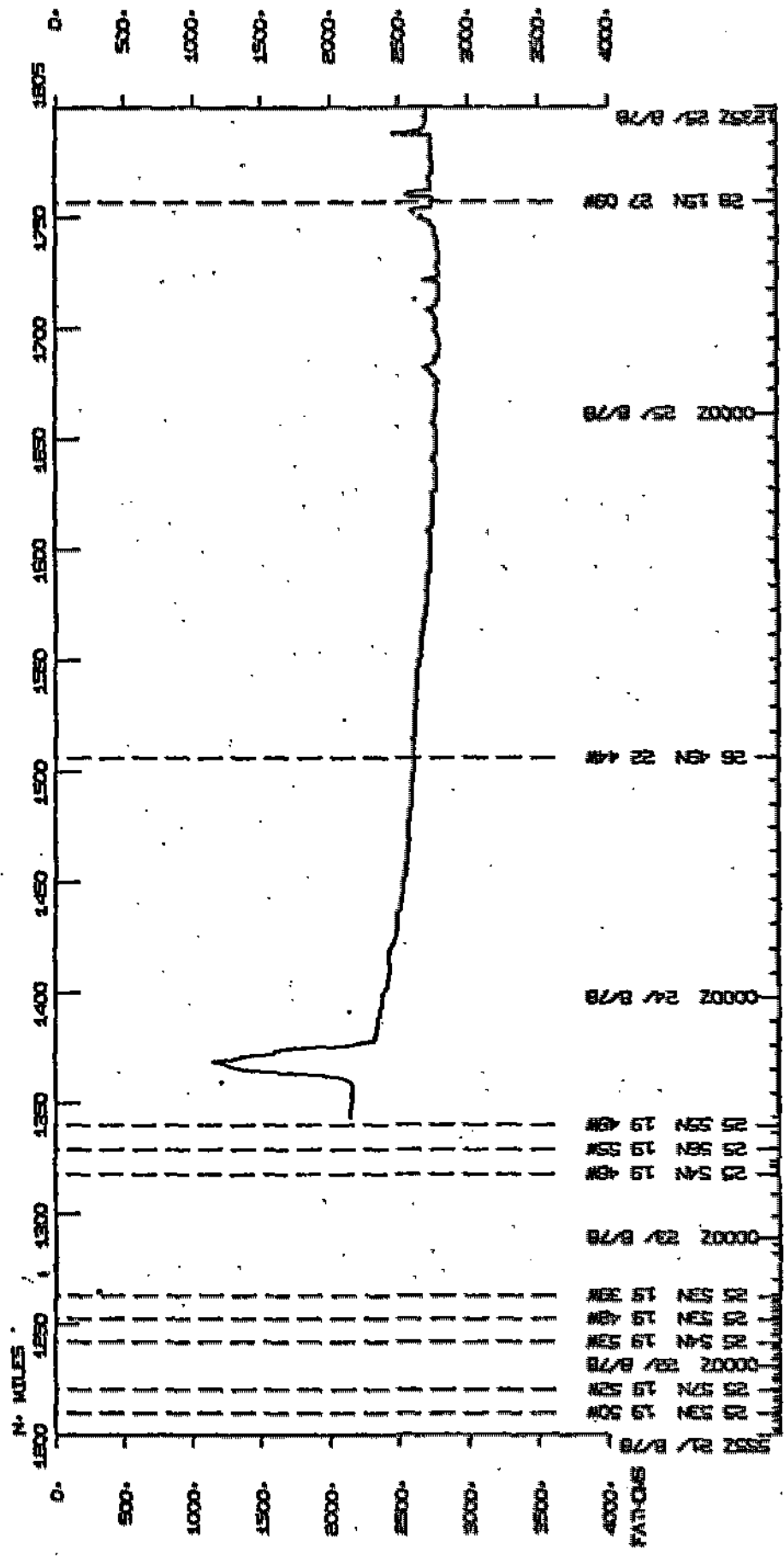
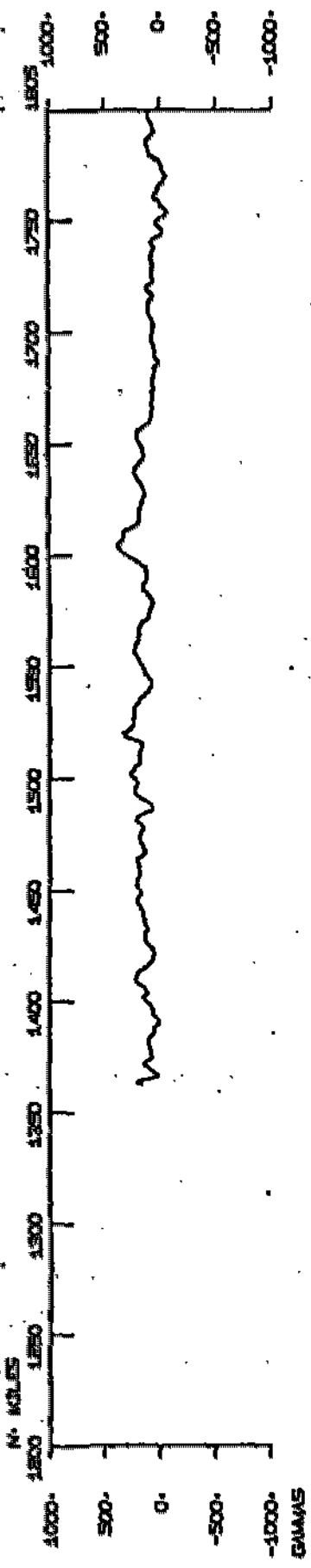
1250Z 11/ 8/78 36 201 8 49
 0000Z 12/ 8/78
 39 32N 10 49
 0000Z 13/ 8/78 39 31N 11 39N
 39 31N 11 39N
 39 32N 11 49N
 39 34N 11 59N
 39 19N 11 49N
 0000Z 15/ 8/78 39 32N 11 49N
 39 32N 11 49N
 39 34N 11 59N
 0000Z 16/ 8/78 39 32N 11 39N
 39 32N 11 39N
 39 34N 11 59N
 0000Z 17/ 8/78 39 19N 11 49N
 39 19N 11 49N
 0000Z 17/ 8/78

INDOMED LEG 11

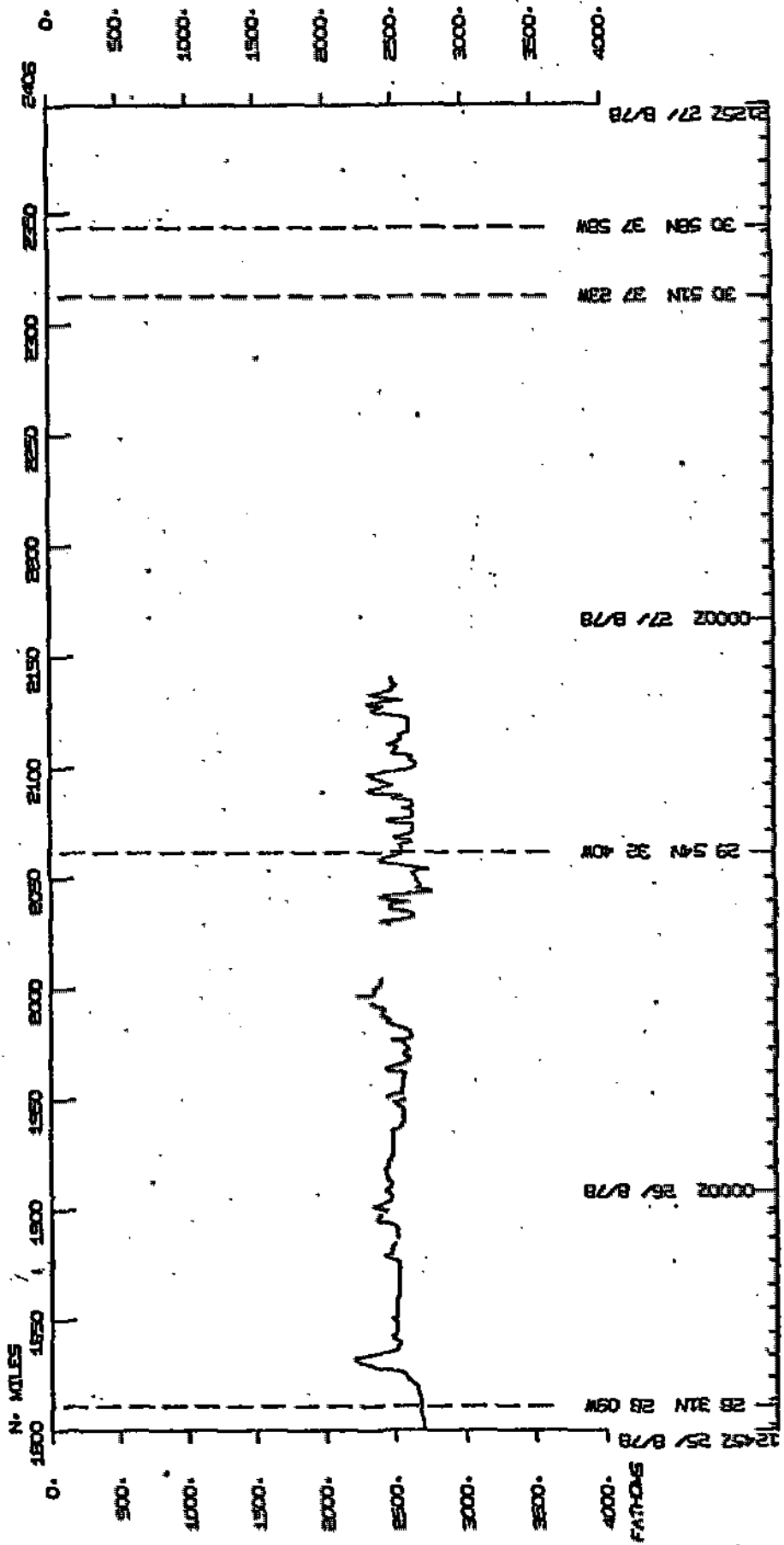
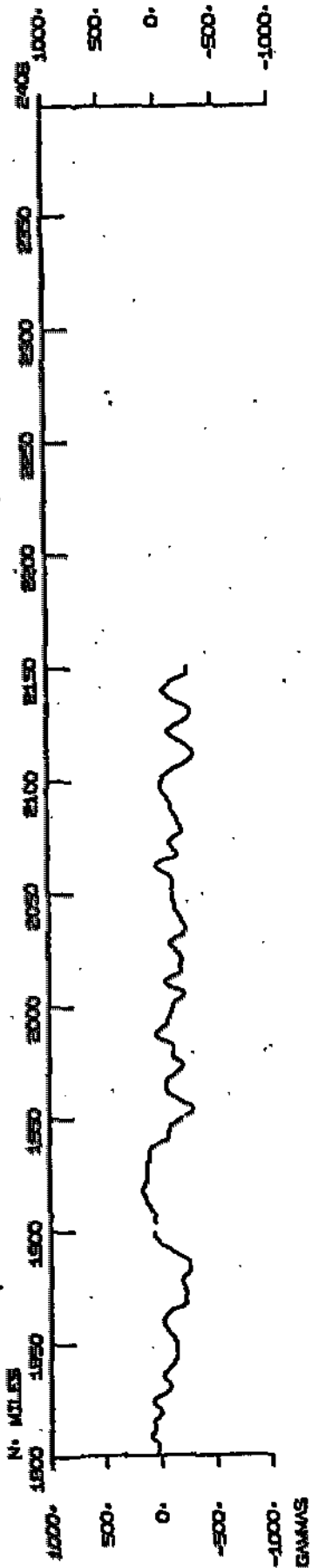


602 17/ B/78 31 2N 13 15W
 0002 18/ B/78 28 2N 16 13W
 0002 19/ B/78
 0002 20/ B/78
 0002 21/ B/78

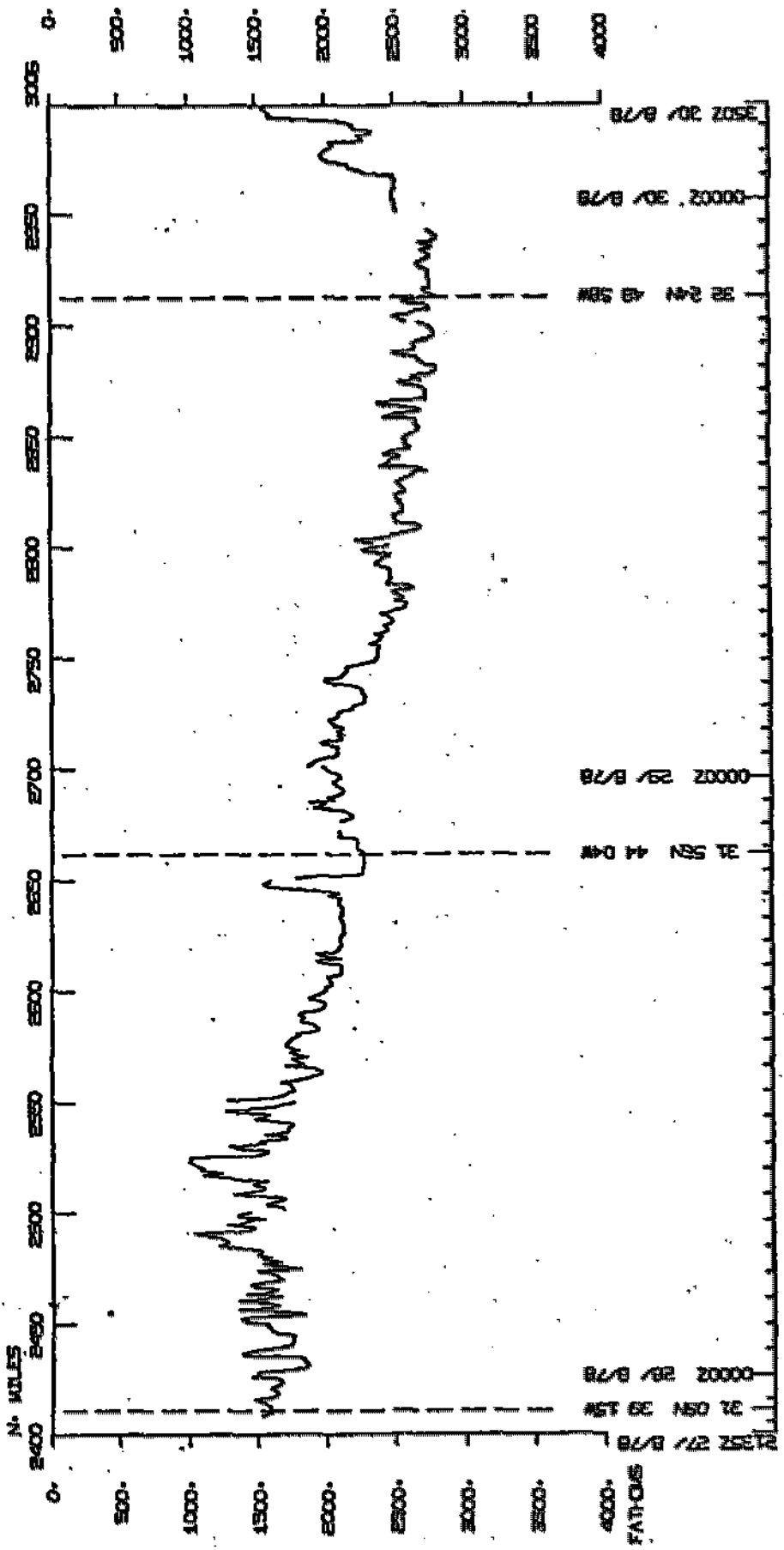
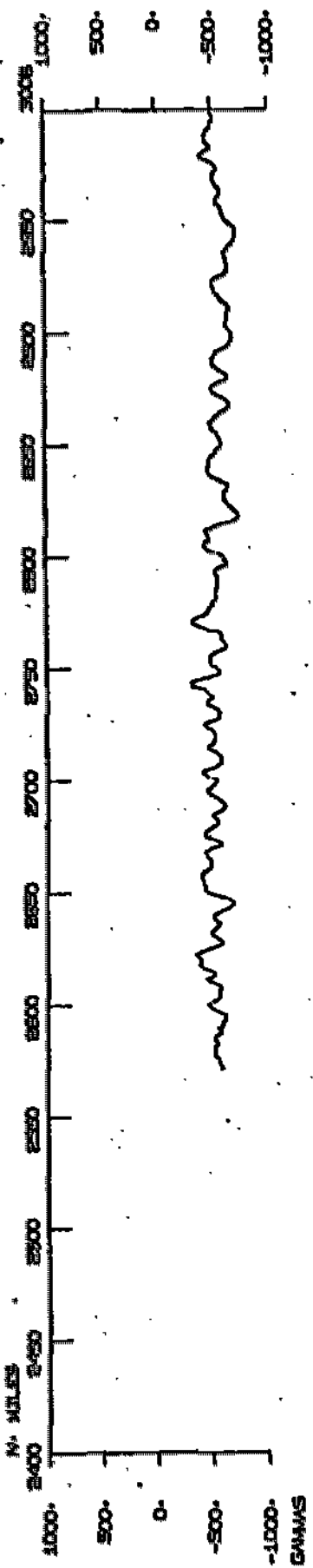
INDOMED LEG 11



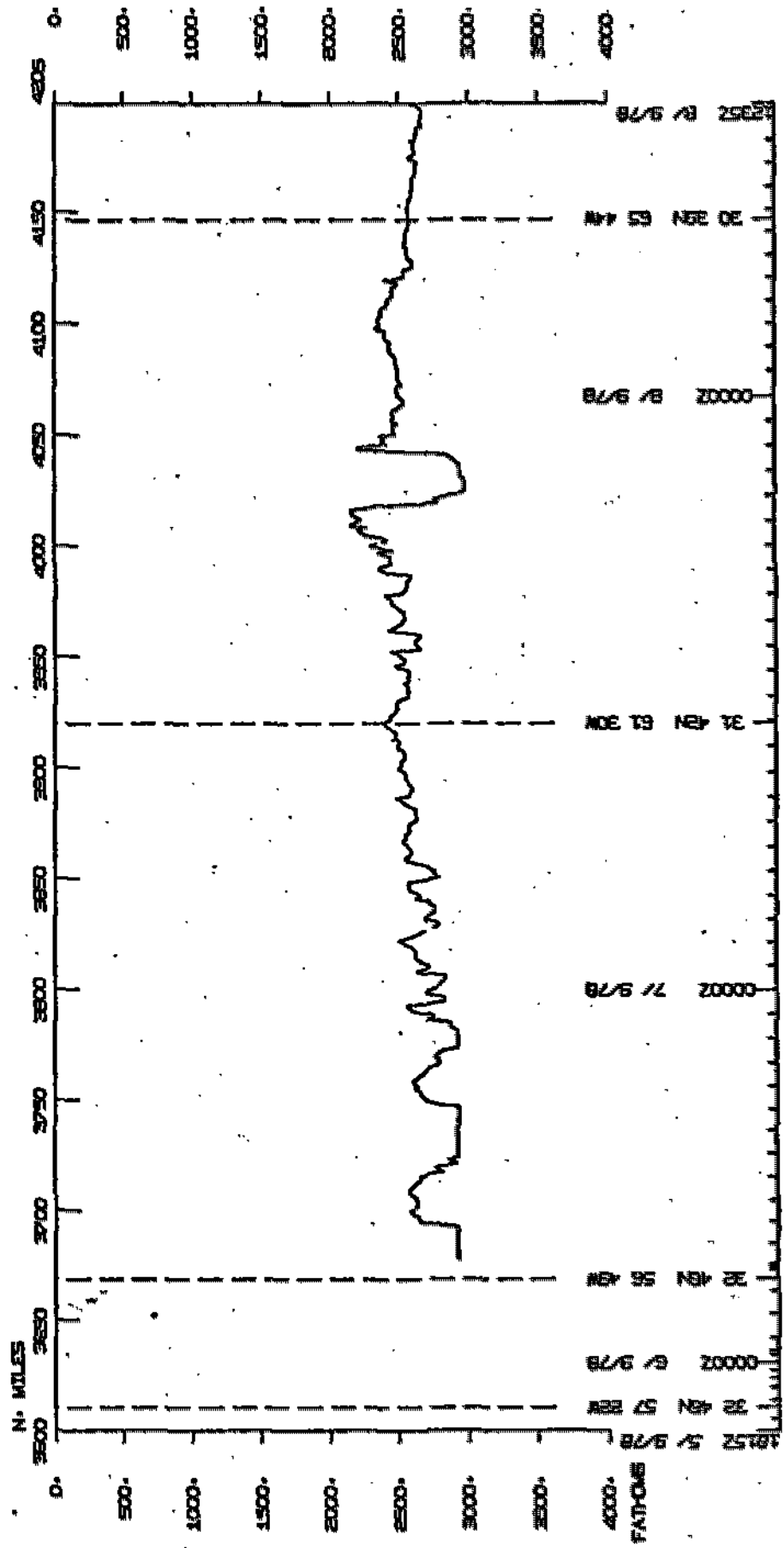
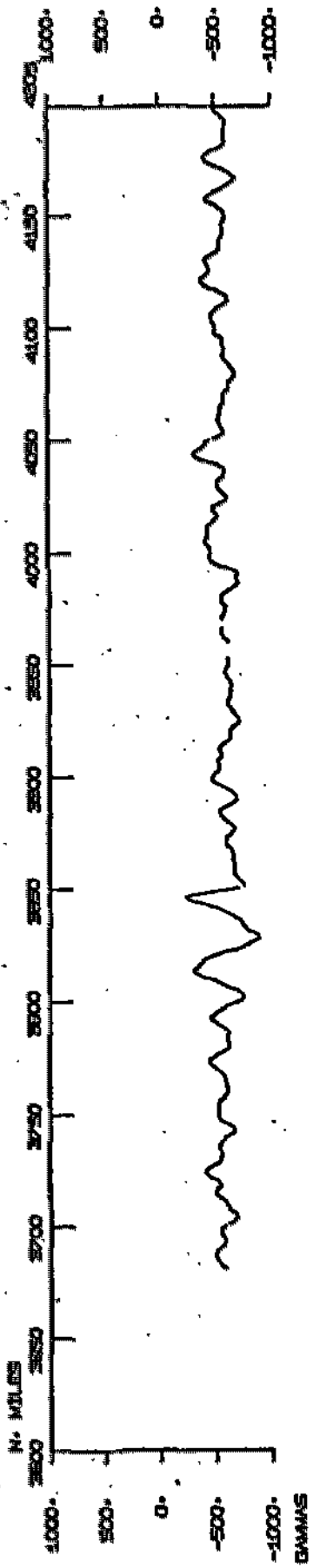
INDOMED LEG 11



INDOMED LEG 11

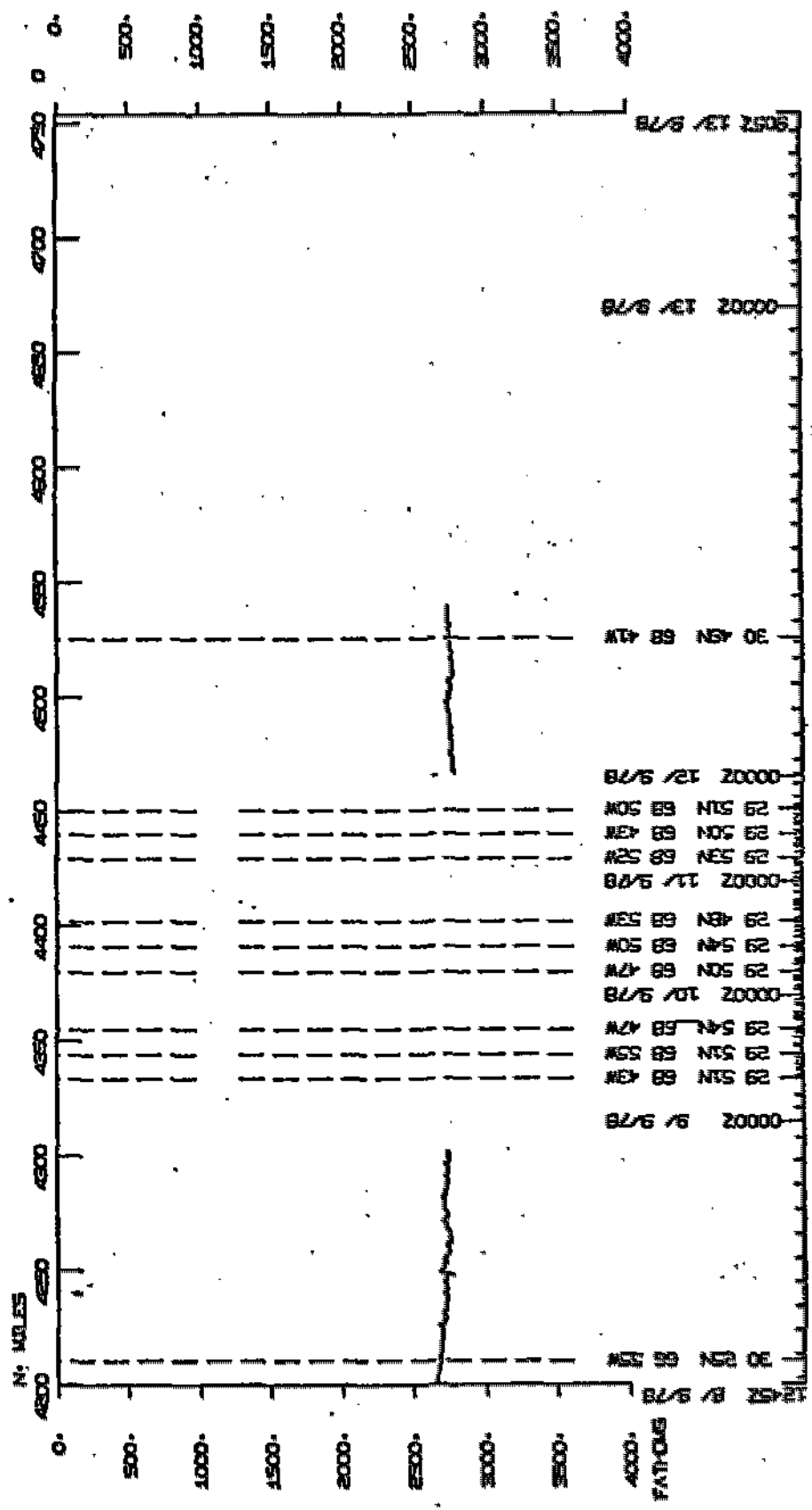
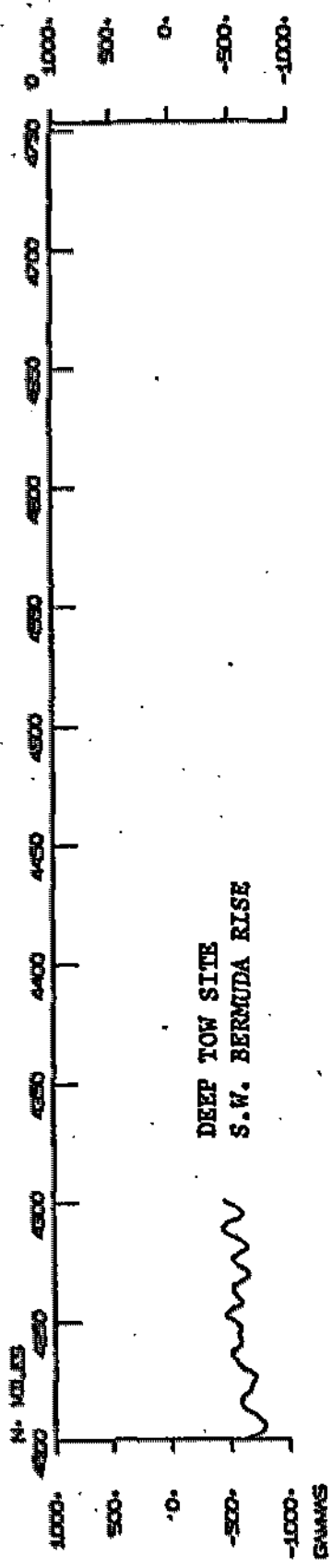


INDOMED LEG 11



1252 4 9/78
 38 42 4 9/78
 00002 9 9/78
 31 42 61 30M
 00002 7 9/78
 00002 20000 8 9/78
 38 42 4 9/78
 38 42 4 9/78
 38 42 4 9/78

INDOMED LEG 11



00002 9/ 9/78 28 52N 88 43W
 00002 10/ 9/78 28 50N 88 47W
 00002 11/ 9/78 28 52N 88 52W
 28 51N 88 49W
 28 52N 88 50W
 28 51N 88 50W
 00002 12/ 9/78 28 51N 88 50W
 28 52N 88 52W
 28 51N 88 49W
 00002 13/ 9/78 28 52N 88 49W
 00002 13/ 9/78 30 49N 88 41W

S.I.O. SAMPLE INDEX
(Issued October 30, 1978)

INDOMED EXPEDITION

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Cadiz, Spain (11 August 1978)
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Co-Chief Scientists - P. Lonsdale (SIO)
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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 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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NUMBER OF SAMPLES OF CLASS 'TYPE' GOING TO DESTINATION 'DISP'

DISP	TYPE										TOTAL	
	BU	CM	CO	DP	DT	HC	LB	MG	PE			
GCR	I		12								I	12
GDC	I			9			1	2			I	12
LDO	I									3	I	3
MPL	I		22		4						I	26
SIO	I									10	I	10
SIX	I									7	I	7
WHO	I						4				I	8
TOTAL	I	0	22	12	9	4	4	1	2	24	I	78

SAMPLE 'TYPE' CODES USED ABOVE

- BU = BUOY (OCEANOGRAPHIC) REPLACED TYPE RB MAR. 74
- CM = CURRENT MEASUREMENT
- CO = CORE (SEE ALSO TYPE DH**)
- DP = DEPTH
- DT = DEEP TOWED INSTRUMENT PACKAGE (MPL PROJECT)
- HC = HYDROGRAPHIC CAST
- LB = LOG BOOKS
- MG = MAGNETICS (TOWED VEHICLE, SURFACE, TOTAL FIELD)
- PE = PERSONNEL IN SCIENTIFIC PARTY

SAMPLE 'DISP' CODES USED ABOVE

- GCR = GEOLOGICAL CURATING FACILITY -- W. RIEDEL, (EXT. 4386)
- GDC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 2752)
- LDO = LAMONT-DOHERTY GEOPHYSICAL OBSERVATORY, COLUMBIA UNIVERSITY
- MPL = MARINE PHYSICAL LAB. (EXT 2305)
- SIO = SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA, CAL. 92093
- SIX = SCRIPPS INSTITUTION NON-EMPLOYEE -- (CONTACT DORCAS UTTER EXT. 2356)
- WHO = WOODS HOLE OCEANOGRAPHIC INSTITUTION

INDOMED LEG 11 SAMPLE INDEX

INND11MV

*** PORTS ***

1800 11 878	LGPT B CADIZ, SPAIN	36 260N	6 341W	S	INND11MV
1030 13 978	LGPT E ST. GEORGE, BERMUDA	32 163N	64 369W	S	INND11MV
600 18 878	LGUS B TENERIFE, CANARY IS.	28 281N	16 118W	S	INND11MV
930 18 878	LGUS E TENERIFE, CANARY IS.	28 254N	16 145W	S	INND11MV

PERSONNEL

PECS	LONSDALE, P.	SIO	INND11MV
PECS	MCCAVE, I.	WHO	INND11MV
PERT	KEITH, W.	SIO	INND11MV
PECT	ELSTON, M.	SIO	INND11MV
PE	BENSON, M.	SIO	INND11MV
PE	BOEGEMAN, D.	SIO	INND11MV
PE	BROWN, M.	SIX	INND11MV
PE	EDBERG, J.	SIX	INND11MV
PE	EMBLEY, R.	LOO	INND11MV
PE	FLOOD, R.	SIX	INND11MV
PE	GARDNER, W.	LOO	INND11MV
PE	HOOSE, P.	LOO	INND11MV
PE	JOHNSON, D.	WHO	INND11MV
PEOB	KIDDER, G.	SIX	INND11MV
PE	LAINE, E.	SIX	INND11MV
PE	LAWHEAD, R.	SIO	INND11MV
PES	MAYER, L.	SIO	INND11MV
PE	MILLER, S.	SIO	INND11MV
PE	NEMETH, L.	SIX	INND11MV
PES	PAOLA, C.	WHO	INND11MV
PES	RICHARDSON, M.	WHO	INND11MV
PE	ROGERS, J.	SIO	INND11MV
PE	SCHMITT, J.	SIO	INND11MV
PE	WINBUSH, M.	SIX	INND11MV

*** 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 (BEGIN/(END COLUMN FOLLOWING THE SAMPLE CODE INDICATES NO SAMPLE OR DATA RECOVERED

27OCT78 PAGE 1
 TIME DATE TIME TZ SAMP DISP CRUISE
 GMT D.M.Y. LOC LOC CODE SAMPLE IDENT. CODE LAT. LONG. LEG-SHIP

UNDERWAY DATA CURATOR - STUART M. SMITH (EXT.2752)

*** LOG BOOKS ***

1710 11 878 LBW B UNDERWAY LOG GDC 36 273N 6 319W S INMD11MV
 1140 12 978 LBW E UNDERWAY LOG GDC 30 530W 68 248W S INMD11MV

*** FATHOGRAMS ***

1740 11 878 DPR3 B EDO 3.5KHZ R-01 GDC 36 273N 6 319W S INMD11MV
 2224 12 878 DPR3 E EDO 3.5KHZ R-01 GDC 33 282N 11 354W S INMD11MV

1925 16 878 DPR3 B EDO 3.5KHZ R-02 GDC 33 189N 11 423W S INMD11MV
 255 18 878 DPR3 E EDO 3.5KHZ R-02 GDC 28 459N 15 533W S INMD11MV

303 18 878 DPR3 B EDO 3.5KHZ R-03 GDC 28 447N 15 542W S INMD11MV
 625 19 878 DPR3 E EDO 3.5KHZ R-03 GDC 25 527N 19 121W S INMD11MV

1850 23 878 DPR3 B EDO 3.5KHZ R-04 GDC 25 569N 19 516W S INMD11MV
 2230 26 878 DPR3 E EDO 3.5KHZ R-04 GDC 30 128N 34 200W S INMD11MV

2220 27 878 DPR3 B EDO 3.5KHZ R-05 GDC 31 91N 39 122W S INMD11MV
 755 31 878 DPR3 E EDO 3.5KHZ R-05 GDC 32 450N 36 498W S INMD11MV

1220 6 978 DPR3 B EDO 3.5KHZ R-06 GDC 32 464N 56 550W S INMD11MV
 2250 8 978 DPR3 E EDO 3.5KHZ R-06 GDC 29 547N 68 401W S INMD11MV

310 12 978 DPR3 B EDO 3.5KHZ R-07 GDC 29 509N 68 522W S INMD11MV
 1140 12 978 DPR3 E EDO 3.5KHZ R-07 GDC 30 530N 68 248W S INMD11MV

2045 11 878 DPRT B GDR 12 KHZ R-01 GDC 36 88N 7 35W S INMD11MV
 1301 12 878 DPRT E GDR 12 KHZ R-01 GDC 34 261N 9 594W S INMD11MV

1304 12 878 DPRT B GDR 12 KHZ R-02 GDC 34 258N 9 599W S INMD11MV
 2236 12 878 DPRT E GDR 12 KHZ R-02 GDC 33 272N 11 375W S INMD11MV

*** MAGNETOMETER ***

1736 11 878 MGR B MAGNETICS R-01 GDC 36 273N 6 319W S INMD11MV
 2230 26 878 MGR E MAGNETICS R-01 GDC 30 128N 34 200W S INMD11MV

TIME GNT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
1225	28	878		MGR B	MAGNETICS R-02	GDC 31	426N	42 184W	S INMD11MV
2227	8	978		MGR E	MAGNETICS R-02	GDC 29	558N	68 357W	S INMD11MV

*** CORES ***

542	16	878		COP	INMD-11 86P	4290M	GCR 33 225N	11 373W	S INMD11MV
542	16	878		COPG	INMD-11 86PG	4290M	GCR 33 225N	11 373W	S INMD11MV
1345	16	878		COP	INMD-11 87P	4304M	GCR 33 231N	11 368W	S INMD11MV
1345	16	878		COPG	INMD-11 87PG	4304M	GCR 33 231N	11 368W	S INMD11MV
359	23	878		COP	INMD-11 88P	3984M	GCR 25 543N	19 484W	S INMD11MV
359	23	878		COPG	INMD-11 88PG	3984M	GCR 25 543N	19 484W	S INMD11MV
815	23	878		COP	INMD-11 89P	4018M	GCR 25 541N	19 519W	S INMD11MV
815	23	878		COPG	INMD-11 89PG	4018M	GCR 25 541N	19 519W	S INMD11MV
1411	23	878		COP	INMD-11 90P	4000M	GCR 25 557N	19 486W	S INMD11MV
1411	23	878		COPG	INMD-11 90PG	4000M	GCR 25 557N	19 486W	S INMD11MV
1715	11	978		COG	INMD-11 91G	5241M	GCR 29 514N	68 503W	S INMD11MV
1917	11	978		COG	INMD-11 92G	5255M	GCR 29 512N	68 512W	S INMD11MV

HYDROGRAPHIC CAST

2330	15	878		HCNI	T TOTAL PART.MAT. 09	WHD 33	222N	11 410W	S INMD11MV
1112	31	878		HCNI	T TOTAL PART.MAT. 12	WHD 32	465N	56 509W	S INMD11MV
133	1	978		HCNI	T TOTAL PART.MAT. 12	WHD 33	25N	57 498W	S INMD11MV
200	12	978		HCNI	T TOTAL PART.MAT. 11	WHD 29	508N	68 523W	S INMD11MV

*** BUOY ***

413	1	978		BUAB E	RCVR CM ST NE	WHD 33	29N	57 501W	S INMD11MV
834	6	978		BUAB E	RCVR CM ST NE	WHD 32	455N	56 535W	S INMD11MV
1000	12	978		BUAB E	RCVR CM	WHD 30	485N	68 415W	S INMD11MV

CURRENT MEASUREMENT

2325	12	878		CMAB B	01CM 1030 P	MPL 33	239N	11 404W	S INMD11MV
1835	16	878		CMAB E	01CM 1030 P	MPL 33	232N	11 400W	S INMD11MV
2359	12	878		CMAB B	02CM 1042 L	MPL 33	240N	11 390W	S INMD11MV
1820	16	878		CMAB E	02CM 1042 L	MPL 33	219N	11 397W	S INMD11MV
34	13	878		CMAB B	03CM 1045 P	MPL 33	225N	11 409W	S INMD11MV
1820	16	878		CMAB E	03CM 1045 P	MPL 33	219N	11 397W	S INMD11MV
111	13	878		CMAB B	04CM 1005 G	MPL 33	196N	11 420W	S INMD11MV
1920	16	878		CMAB E	04CM 1005 G	MPL 33	190N	11 422W	S INMD11MV

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
222	13	878		CMAB B 05CM	1023 G	MPL 33	273N	11 398W	S INND11MV
1030	16	878		CMAB E 05CM	1023 G	MPL 33	272N	11 398W	S INND11MV
300	13	878		CMAB B 06CM	1021 G	MPL 33	303N	11 394W	S INND11MV
1135	16	878		CMAB E 06CM	1021 G	MPL 33	305N	11 395W	S INND11MV
644	19	878		CMAB B 07CM	1023 G	MPL 25	526N	19 138W	S INND11MV
2340	22	878		CMAB E 07CM	1023 G	MPL 25	522N	19 145W	S INND11MV
934	19	878		CMAB B 08CM	1045 G	MPL 25	539N	19 393W	S INND11MV
2015	22	878		CMAB E 08CM	1045 G	MPL 25	535N	19 385W	S INND11MV
1136	19	878		CMAB B 09CM	1024 L	MPL 25	557N	19 565W	S INND11MV
1250	23	878		CMAB E 09CM	1024 L	MPL 25	560N	19 554W	S INND11MV
1258	19	878		CMAB B 10CM	1005 G	MPL 25	542N	19 513W	S INND11MV
1210	23	878		CMAB E 10CM	1005 G	MPL 25	541N	19 508W	S INND11MV
1326	19	878		CMAB B 11CM	1021 G	MPL 25	539N	19 485W	S INND11MV
1750	23	878		CMAB E 11CM	1021 G	MPL 25	538N	19 483W	S INND11MV
1356	19	878		CMAB B 12CM	1042 P	MPL 25	557N	19 481W	S INND11MV
1810	23	878		CMAB E 12CM	1042 P	MPL 25	561N	19 487W	S INND11MV
1550	31	878		CMAB B 13CM	1023 P	MPL 32	362N	57 188W	S INND11MV
1815	5	978		CMAB E 13CM	1023 P	MPL 32	369N	57 173W	S INND11MV
1750	31	878		CMAB B 14CM	1045 G	MPL 32	496N	57 281W	S INND11MV
2015	5	978		CMAB E 14CM	1045 G	MPL 32	497N	57 268W	S INND11MV
1940	31	878		CMAB B 15CM	1005 G	MPL 32	508N	57 314W	S INND11MV
2043	5	978		CMAB E 15CM	1005 G	MPL 32	499N	57 298W	S INND11MV
2013	31	878		CMAB B 16CM	1030 P	MPL 32	532N	57 304W	S INND11MV
2103	5	978		CMAB E 16CM	1030 P	MPL 32	522N	57 287W	S INND11MV
2046	31	878		CMAB B 17CM	1024 G	MPL 32	538N	57 340W	S INND11MV
2152	5	978		CMAB E 17CM	1024 G	MPL 32	527N	57 324W	S INND11MV
2209	31	878		CMAB B 18CM	1021 G	MPL 32	545N	57 361W	S INND11MV
2250	5	978		CMAB E 18CM	1021 G	MPL 32	535N	57 355W	S INND11MV
2352	8	978		CMAB B 19CM	1021 G	MPL 29	528N	68 494W	S INND11MV
2315	11	978		CMAB E 19CM	1021 G	MPL 29	532N	68 502W	S INND11MV
29	9	978		CMAB B 20CM	1024 G	MPL 29	498N	68 494W	S INND11MV
2145	11	978		CMAB E 20CM	1024 G	MPL 29	511N	68 497W	S INND11MV
58	9	978		CMAB B 21CM	1045 G	MPL 29	499N	68 529W	S INND11MV
2215	11	978		CMAB E 21CM	1045 G	MPL 29	518N	68 523W	S INND11MV

27OCT78 PAGE 4
 TIME DATE TIME TZ SAMP DISP CRUISE
 GNT D.M.Y. LOC LOC CODE SAMPLE IDENT. CODE LAT. LONG. LEG-SHIP

130 9 978 CHAB B 22CM 1005 P MPL 29 528N 68 533W S INMD11MV
 2240 11 978 CHAB E 22CM 1005 P MPL 29 534N 68 534W S INMD11MV

**** DEEP TOW SURVEY **** CURATOR STEVE MILLER (EXT. 48921)

440 13 878 DTS B MOROCCAN RISE MPL 33 320N 11 401W S INMD11MV
 2025 15 878 DTS E MOROCCAN RISE MPL 33 225N 11 408W S INMD11MV

1505 19 878 DTS B SAHARAN RISE MPL 25 559N 19 480W S INMD11MV
 1938 22 878 DTS E SAHARAN RISE MPL 25 536N 19 394W S INMD11MV

831 1 978 DTS B N.E. BERMUDA RISE MPL 32 594N 57 449W S INMD11MV
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