

INFORMAL REPORT AND INDEX OF  
NAVIGATION, DEPTH AND MAGNETIC DATA

(Issued January 24, 1978)

INDOMED EXPEDITION

LEG 1

San Diego, Cal. (24 September, 1977)  
to  
Balboa, Canal Zone (31 October, 1977)

R/V Melville

Chief Scientist - F. Spiess (SIO)

Resident Marine Techs - W. Keith, S. Witherow

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

Data Collection Funded by NSF  
Grant Number OCE76-04724  
Data Processing Funded by SIA, ONR 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 the institution without prior approval of the Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093.

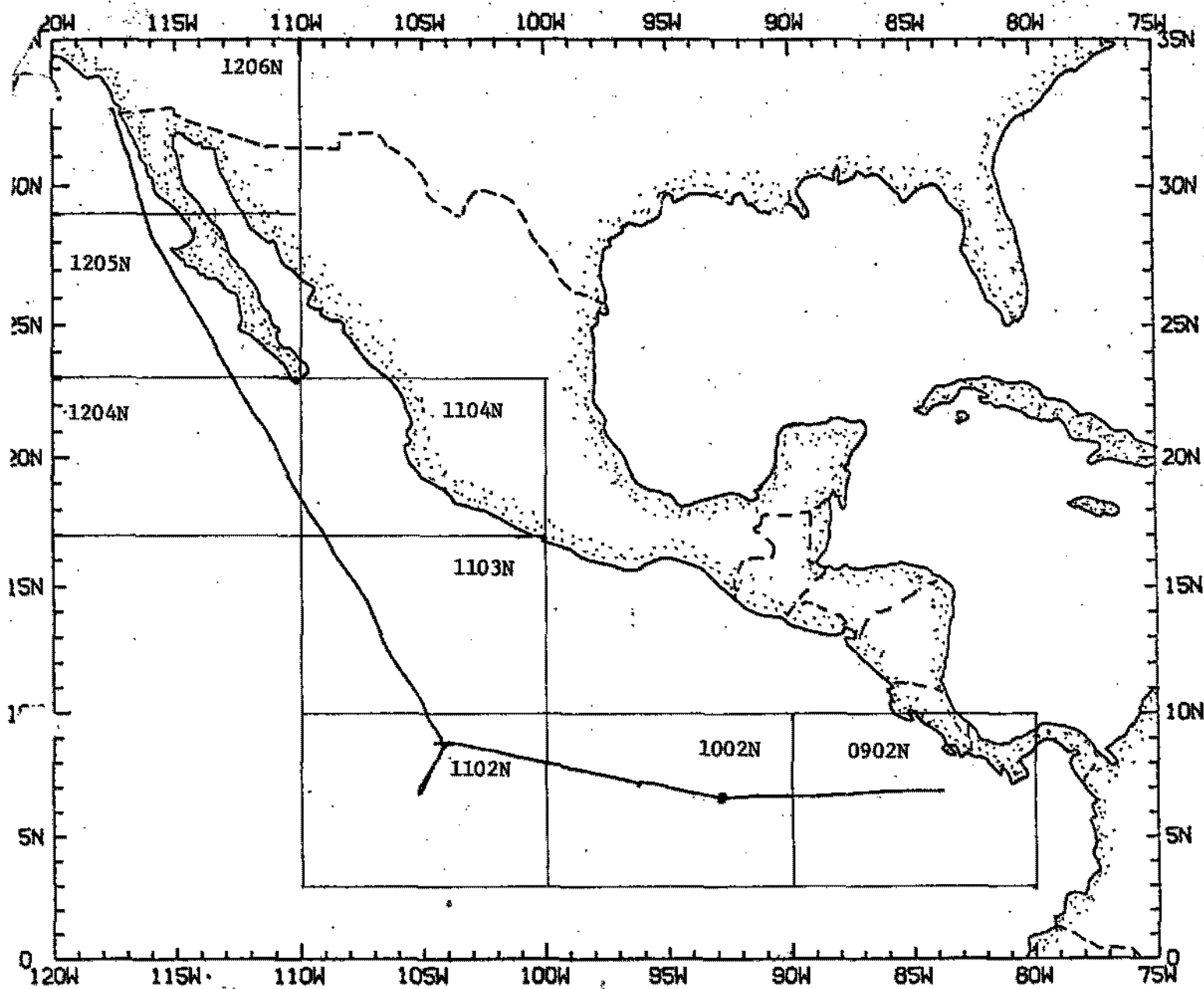
## Informal Report and Index of Navigation, Depth, Magnetic and Subbottom Profiler Data

### 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 gamm/inch; anomaly scale north of 15°N and south of 15°S = 1000 gamm/inch; from values retrieved at approximately 1 mile spacing and regional field removed using the 1975 IGRF.
4. Card decks of navigation, depth and magnetics (for specific formats, contact S. M. Smith, Geological Data Center).
5. S. I. O. Sample Index - list of beginning and end times and positions of all underway records as well as all other samples (geology, biology, physical oceanography, etc.) collected on the cruise leg.
6. Microfilm or Xerox copies of:
  - a. Echosounder records - 12 and 3.5 kHz frequency
  - b. Subbottom profiler records (airgun)
  - c. Magnetometer records
  - d. Underway Data Log



INDOMED EXPEDITION  
LEG 1

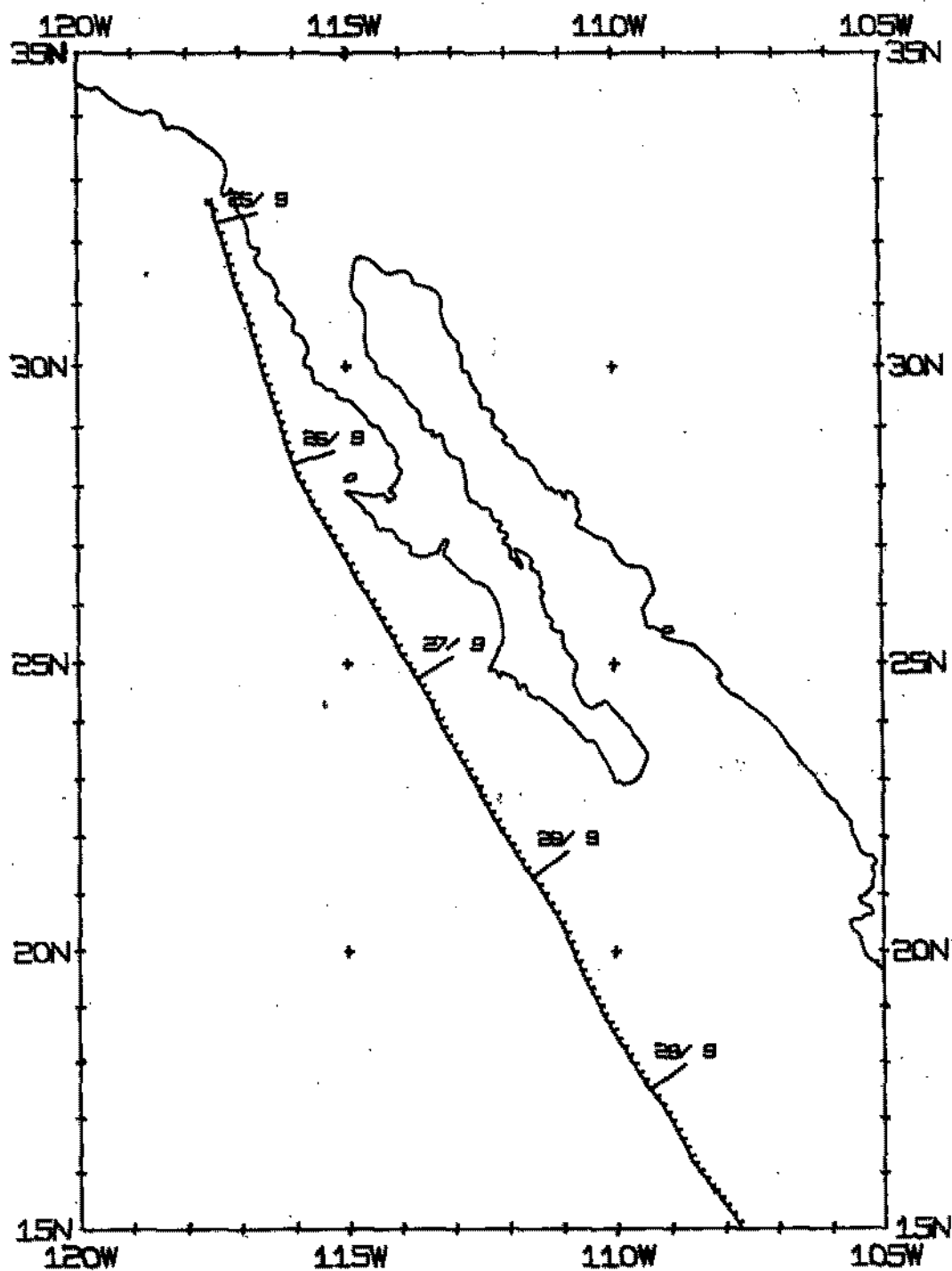
Chief Scientist - F. Spiess (SIO)  
Ports: San Diego, Cal. to Balboa, Canal Zone  
Dates: 24 September to 31 October 1977

TOTAL MILEAGE

- 1) Cruise - 4406 miles
- 2) Bathymetry - 2895 miles
- 3) Magnetics - 1466 miles
- 4) Seismic Reflection - none collected

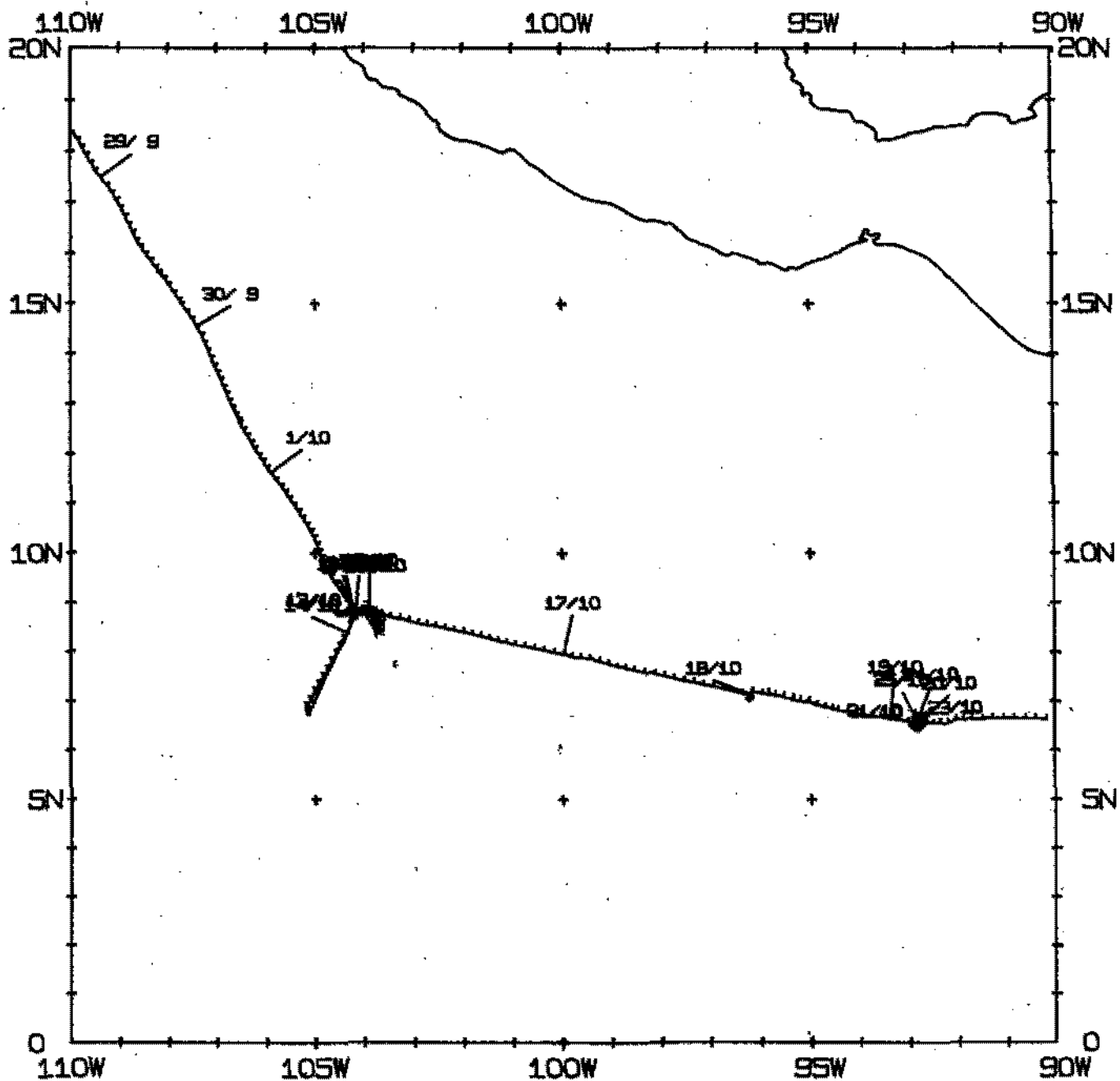
INM001MV TRACK PLOT (1 OF 3)

MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE



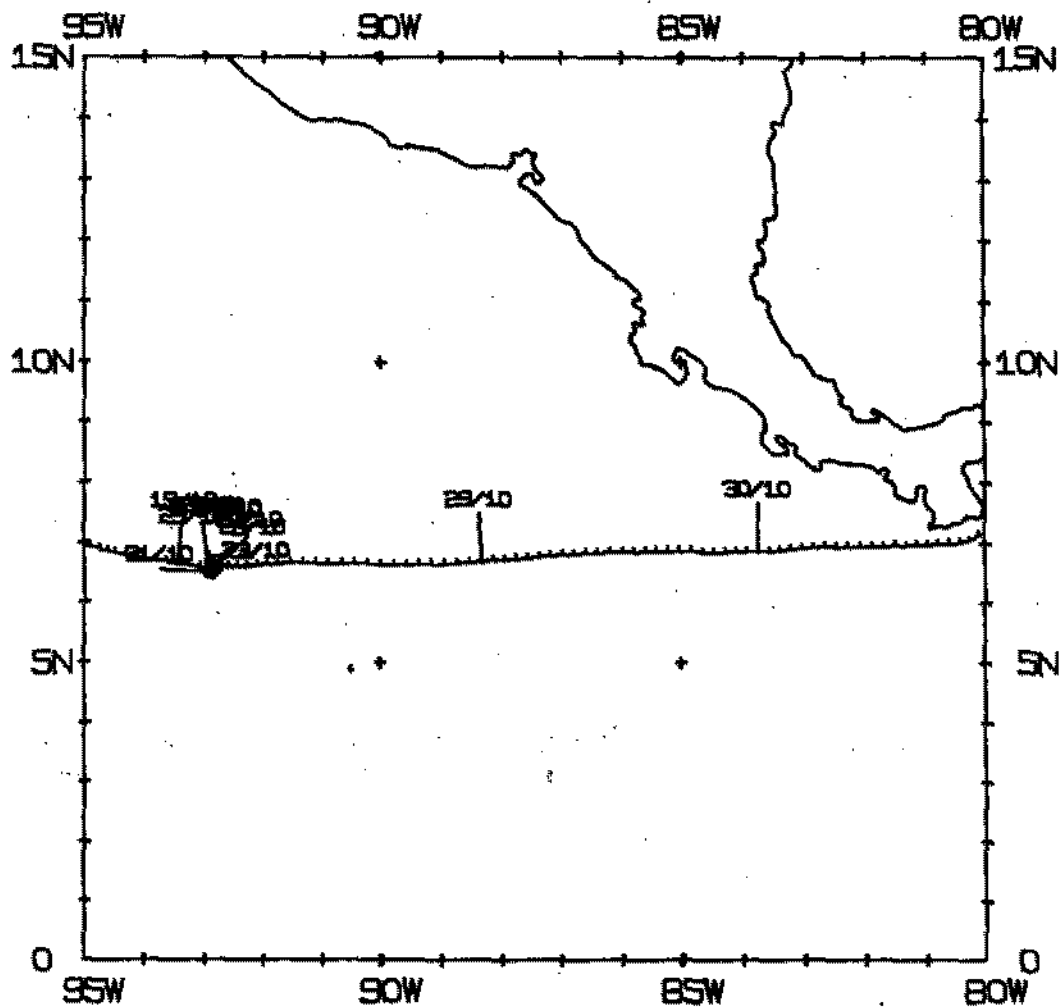
INMD01MV TRACK PLOT (2 OF 3)

MERCATOR PROJECTION, SCALE= 0.822 IN/DEG LONGITUDE

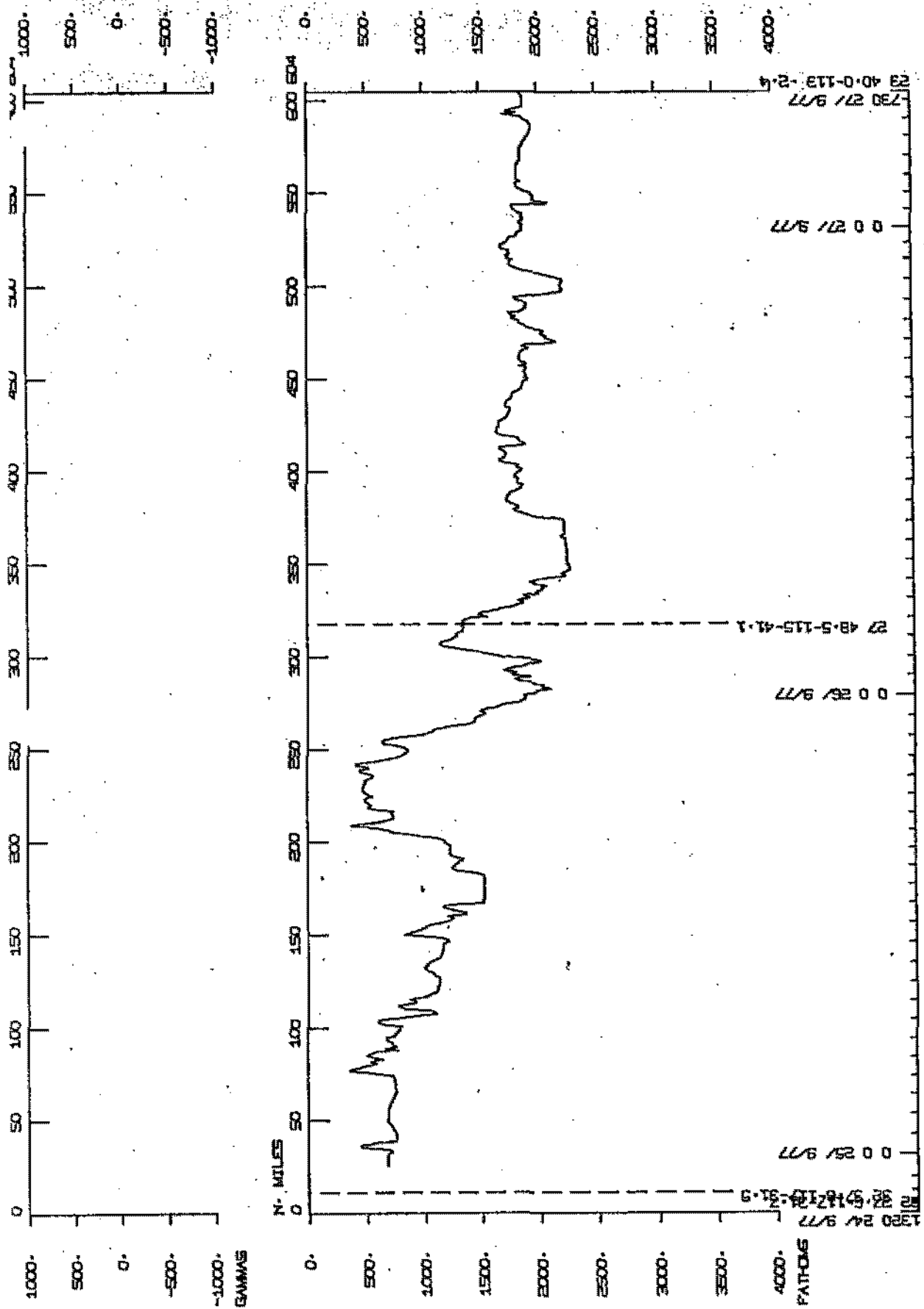


INM001MV TRACK PLOT (3 OF 3)

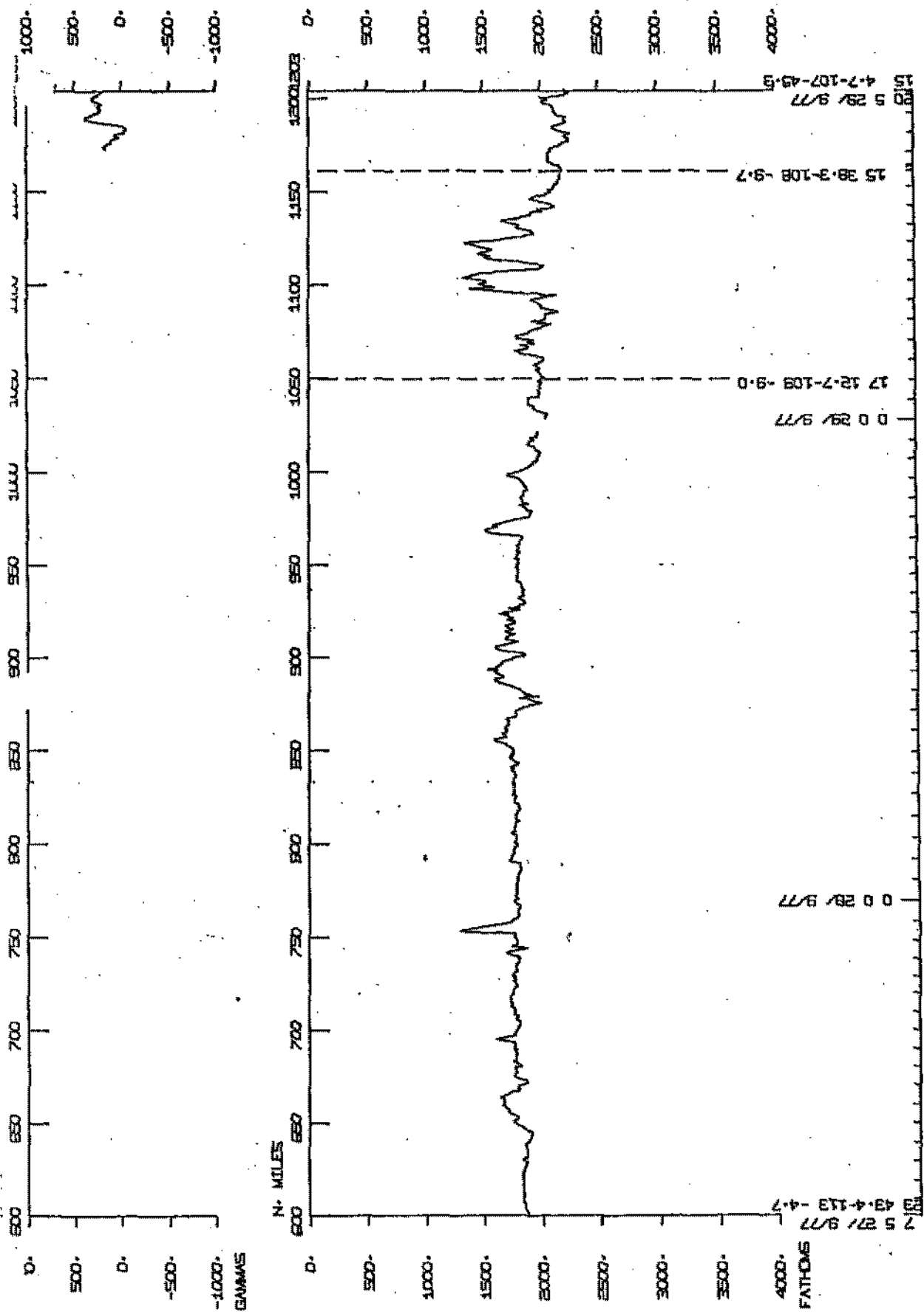
MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE



# INDOMED LEG 1



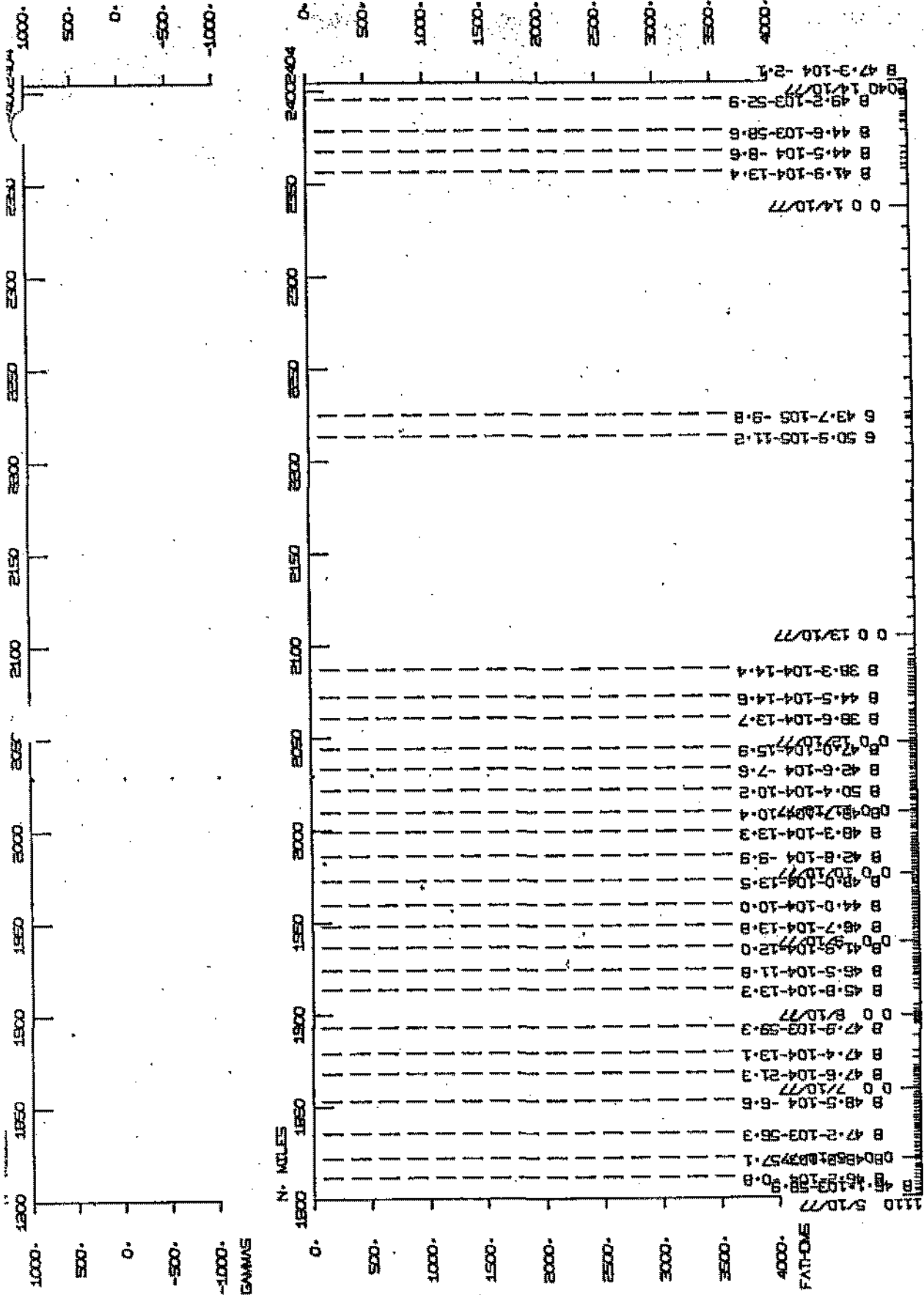
# INCOMED LEG 1



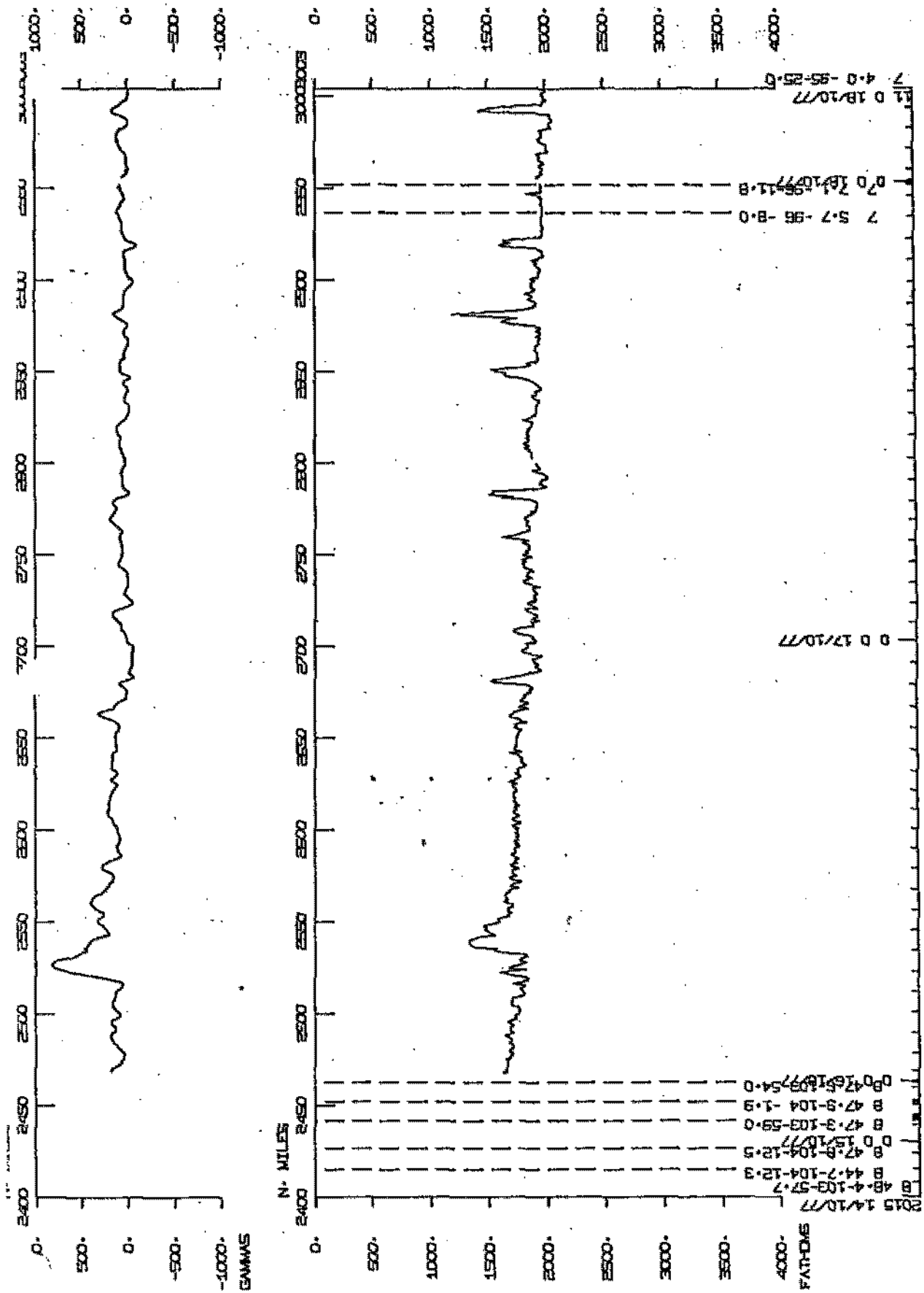




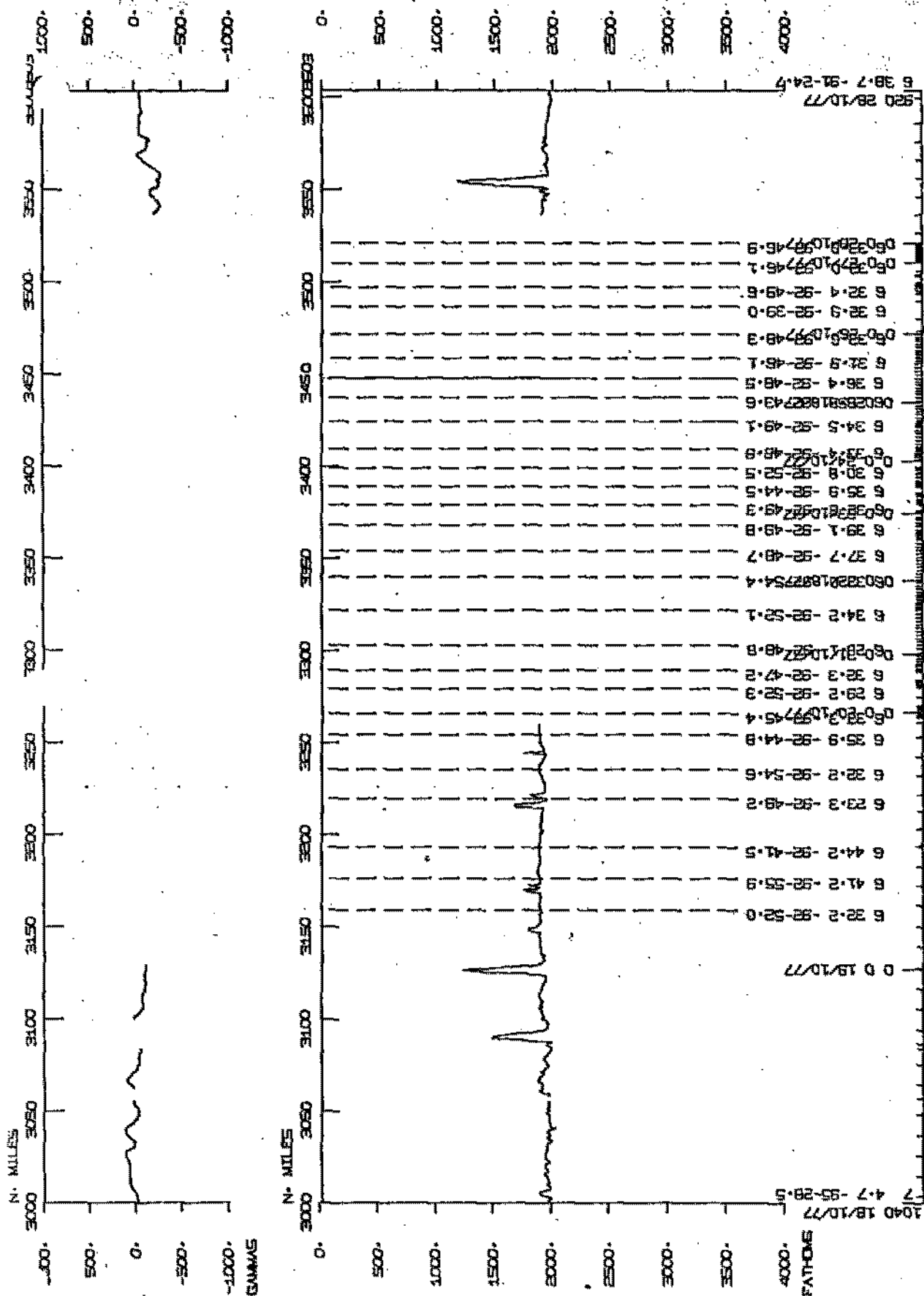
INDOMED LEG 1



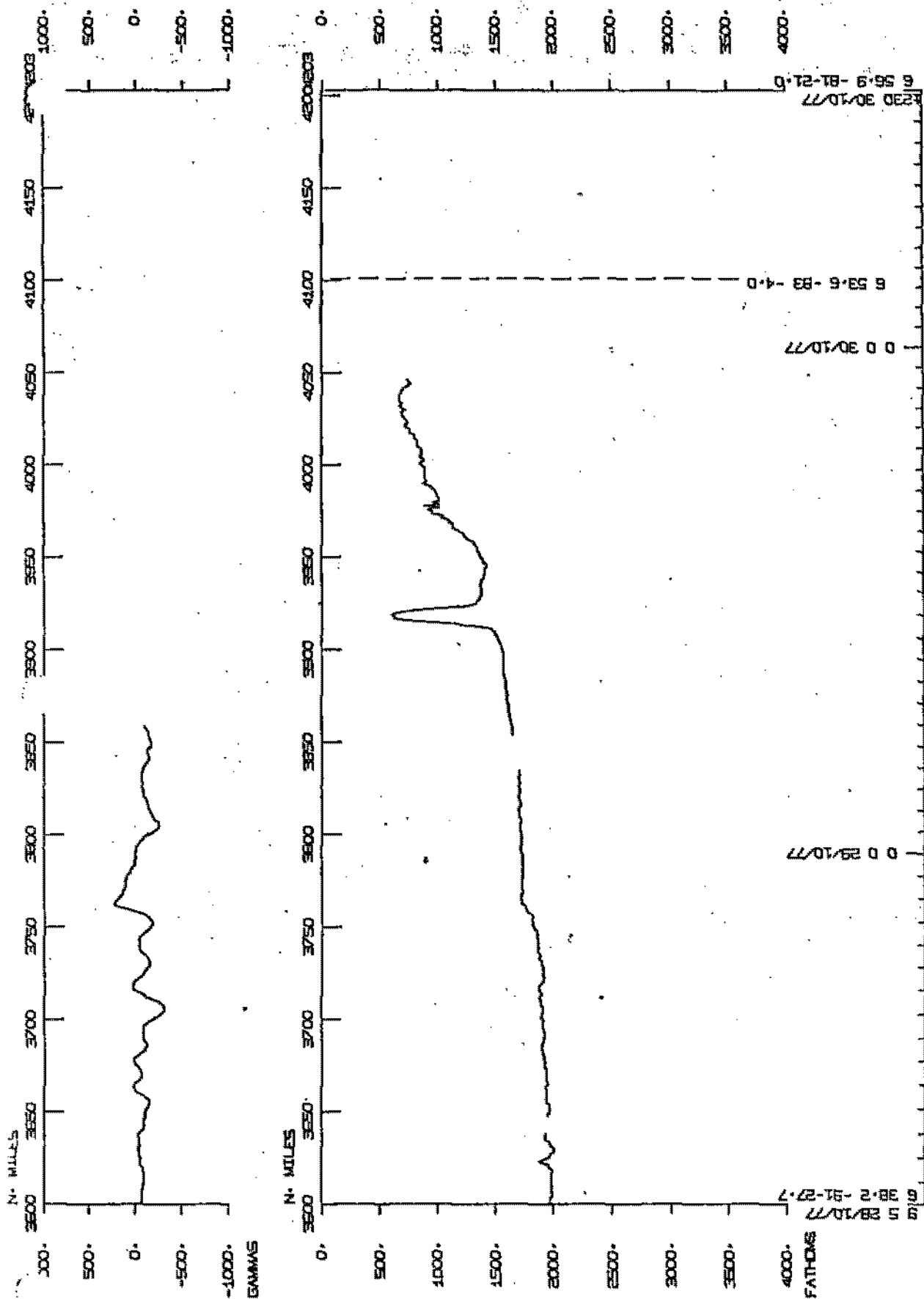
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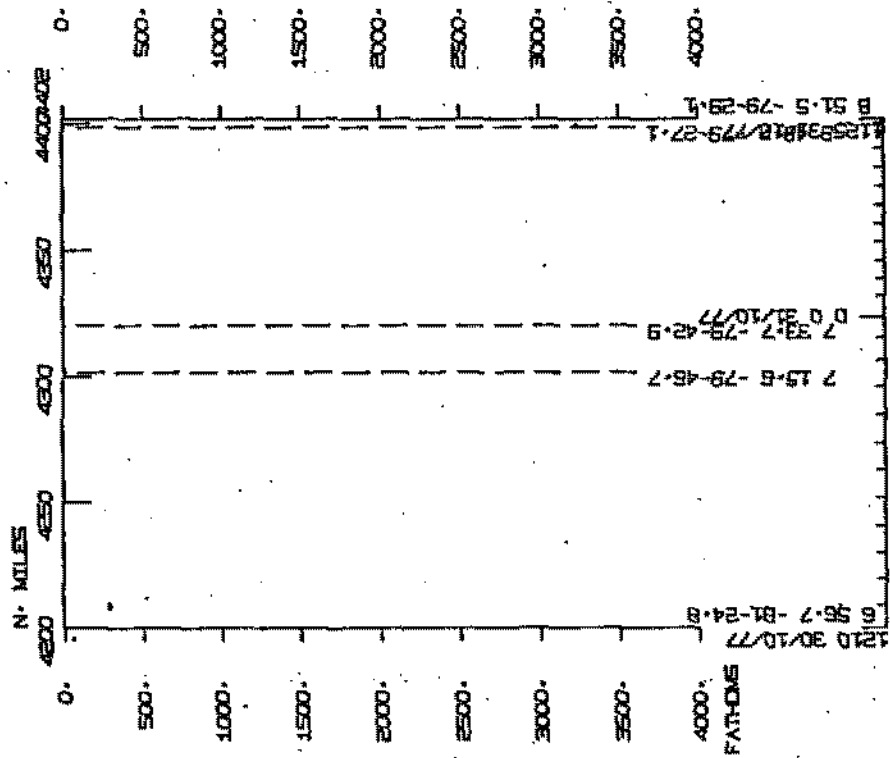
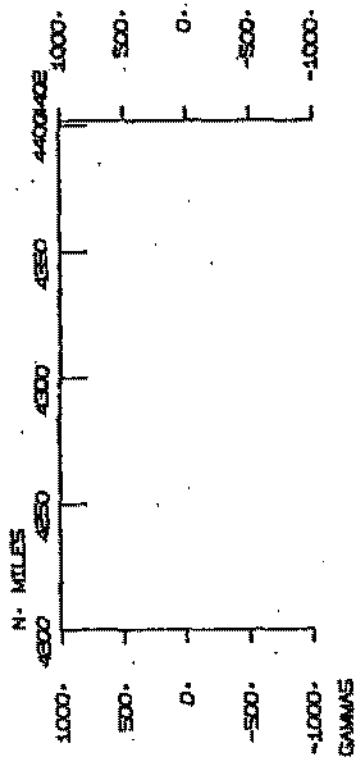
# INDOMED LEG 1



# INDOMED LEG 1



# INDOMED LEG 1



## S.I.O. SAMPLE INDEX

(Issued January 24, 1978)

### INDOMED EXPEDITION

#### LEG 1

San Diego, Calif. (24 September, 1977)  
to  
Balboa, Canal Zone (31 October 1977)  
R/V Melville

Chief Scientist - F. Spiess (SIO)

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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 onshore 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.)

NOTE: This document is intended primarily for informal use within the institution and 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.

GENERATED 18 JAN 78

( INMD01MV) \*\*\*

24SEP77 - SAN DIEGO, CALIF  
TO  
31OCT77 - BALBOA, CANAL ZONE

SHIP - R/V MELVILLE (SID)

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



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

DISP	TYPE										TOTAL
	CM	CO	OP	DR	DT	HC	LB	MG	PE		
DCP	I					19			1	I	20
DTG	I	6			10					I	16
GCR	I		43		1					I	44
GDC	I			7			1	1		I	9
GRD	I								2	I	2
JPN	I								1	I	1
LDO	I								2	I	2
MPL	I								9	I	9
MTG	I								1	I	1
SIO	I								1	I	1
SIX	I								3	I	3
UWA	I								5	I	5
TOTAL	I	6	43	7	1	10	1	1	25	I	113

SAMPLE 'TYPE' CODES USED ABOVE

CM = CURRENT MEASUREMENT  
 CD = CORE (SEE ALSO TYPE DH\*\*)  
 DP = DEPTH  
 DR = DREDGE  
 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

DCP = DATA COLLECTION, PROCESSING GROUP -- F. WILKES (EXT. 3668)  
 DTG = DEEP TOW GROUP (MAR. PHYSICAL LAB) -- J. MUDIE (EXT. 2850)  
 GCR = GEOLOGICAL CURATING FACILITY -- W. RIEDEL, (EXT. 4386)  
 GDC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 2752)  
 GRD = GEOLOGICAL RESEARCH DIVISION (EXT. 3360)  
 JPN = JAPAN  
 LDO = LAMONT-DOHERTY GEOPHYSICAL OBSERVATORY, COLUMBIA UNIVERSITY  
 MPL = MARINE PHYSICAL LAB. (EXT 2305)  
 MTG = MARINE TECHNOLOGY GROUP (EXT 4194)  
 SIO = SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA, CAL. 92093  
 SIX = SCRIPPS INSTITUTION NON-EMPLOYEE -(CONTACT DORCAS UTTER EXT. 2356)  
 UWA = UNIV. OF WASHINGTON, SEATTLE

# INDOMED 01MV SAMPLE INDEX

INMDO1MV

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

800 24 977  
1447 311077

LGPT B SAN DIEGO, CALIF  
LGPT E BALBOA, CANAL ZONE

32 425N 117 143W F INMDO1MV  
8 57 N 79 34 W F INMDO1MV

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

PECS	SPIESS, F.	MPL	INMDO1MV
PERT	KEITH, W.	GRD	INMDO1MV
PERT	WITHEROW, S.	GRD	INMDO1MV
PECT	OTT, J.	MTG	INMDO1MV
PE	BENDER, M.	SIX	INMDO1MV
PE	BENSON, M.	MPL	INMDO1MV
PE	BOWSER, C.	UWA	INMDO1MV
PE	EMERSON, S.	UWA	INMDO1MV
PE	FORD, J.	SIO	INMDO1MV
PES	FROELICH, F.	LDO	INMDO1MV
PES	HARRIS, T.	SIX	INMDO1MV
PEXN	IWASHITA, A.	JPN	INMDO1MV
PES	JAHNKE, R.	UWA	INMDO1MV
PES	KADKO, D.	LDO	INMDO1MV
PES	KARAS, M.	MPL	INMDO1MV
PE	KLINKHAMMER, G.	SIX	INMDO1MV
PE	LONSDALE, P.	MPL	INMDO1MV
PE	LOWENSTEIN, C.	MPL	INMDO1MV
PE	PAVLICEK, V.	MPL	INMDO1MV
PE	POOLE, X.	MPL	INMDO1MV
PE	ROGERS, J.	MPL	INMDO1MV
PE	ROWE, A.	DCP	INMDO1MV
PES	SETLOCK, G.	UWA	INMDO1MV
PES	WELKIE, C.	UWA	INMDO1MV
PES	ZAMPOL, J.	MPL	INMDO1MV

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

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

TIME GMT	DATE D.M.Y.	TIME T2 LOC	SAMP LOC CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
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# UNDERWAY DATA CURATOR - STUART SMITH (EXT.2752)

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

810 24 977	LBUW B UNDERWAY LOG	GDC 32 376N 117 317W S	INMD01MV
2230 291077	LBUW E UNDERWAY LOG	GDC 6 506N 83 577W S	INMD01MV

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

2340 24 977	DPR3 B EDR 3.5KHZ R-01	GDC 32 232N 117 259W S	INMD01MV
2137 11077	DPR3 E EDR 3.5KHZ R-01	GDC 8 480N 104 163W S	INMD01MV
2315 11077	DPR3 B EDR 3.5KHZ R-02	GDC 8 453N 104 98W S	INMD01MV
1230 21077	DPR3 E EDR 3.5KHZ R-02	GDC 8 442N 104 329W S	INMD01MV
240 161077	DPR3 B EDR 3.5KHZ R-03	GDC 8 475N 103 494W S	INMD01MV
830 171077	DPR3 E EDR 3.5KHZ R-03	GDC 7 372N 98 250W S	INMD01MV
900 171077	DPR3 B EDR 3.5KHZ R-04	GDC 7 358N 98 190W S	INMD01MV
1300 191077	DPR3 E EDR 3.5KHZ R-04	GDC 6 331N 92 501W S	INMD01MV
301 281077	DPR3 B EDR 3.5KHZ R-05	GDC 6 349N 92 321W S	INMD01MV
1100 281077	DPR3 E EDR 3.5KHZ R-05	GDC 6 390N 91 25W S	INMD01MV
1300 281077	DPR3 B EDR 3.5KHZ R-06	GDC 6 388N 90 359W S	INMD01MV
340 291077	DPR3 E EDR 3.5KHZ R-06	GDC 6 442N 87 338W S	INMD01MV
408 291077	DPR3 B EDR 3.5KHZ R-07	GDC 6 447N 87 284W S	INMD01MV
2230 291077	DPR3 E EDR 3.5KHZ R-07	GDC 6 506N 83 577W S	INMD01MV

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

300 281077	MGR B MAGNETICS R-01	GDC 6 349N 92 322W S	INMD01MV
603 291077	MGR E MAGNETICS R-01	GDC 6 466N 87 61W S	INMD01MV

## \*\*\* CORES \*\*\*

1747 71077	COBX INMD13	IM178C13	GCR 8 477N 103 599W S	INMD01MV
201 81077	COBX INMD15	IM178C15	GCR 8 479N 103 597W S	INMD01MV
933 151077	COBX INMD20	IM178C20	GCR 8 479N 103 600W S	INMD01MV
454 181077	COBX INMD23	IM188C23	GCR 7 74N 96 108W S	INMD01MV
2222 191077	COBX INMD25	IM198C25	GCR 6 331N 92 457W S	INMD01MV
136 191077	COBX INMD26	IM198C26	GCR 6 360N 93 54W S	INMD01MV
826 191077	COBX INMD27	IM198C27	GCR 6 255N 92 466W S	INMD01MV
2027 261077	COBX INMD33	IM198C33	GCR 6 350N 92 488W S	INMD01MV

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
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240	271077			COBX	INMD34	IM198C34	GCR	6 338N	92 469W	S INMD01MV
1552	271077			COBX	INMD36	IM198C36	GCR	6 337N	92 476W	S INMD01MV
2204	71077			COP	INMD14		GCR	8 480N	103 598W	S INMD01MV
1802	141077			COP	INMD19		GCR	8 490N	103 547W	S INMD01MV
1800	191077			COP	INMD24		GCR	6 325N	92 469W	S INMD01MV
1359	261077			COP	INMD32		GCR	6 327N	92 486W	S INMD01MV
745	271077			COP	INMD35		GCR	6 341N	92 470W	S INMD01MV
2040	271077			COP	INMD37		GCR	6 323N	92 483W	S INMD01MV
2204	71077			COPG	INMD14		GCR	8 480N	103 598W	S INMD01MV
1802	141077			COPG	INMD19		GCR	8 490N	103 547W	S INMD01MV
1800	191077			COPG	INMD24		GCR	6 325N	92 469W	S INMD01MV
1359	261077			COPG	INMD32		GCR	6 327N	92 486W	S INMD01MV
745	271077			COPG	INMD35		GCR	6 341N	92 470W	S INMD01MV
2040	271077			COPG	INMD37		GCR	6 323N	92 483W	S INMD01MV
1210	24 977			COG	INMD01	IM11GC1	GCR	32 376N	117 317W	S INMD01MV
1320	24 977			COG	INMD02	IM12GC2	GCR	32 376N	117 317W	S INMD01MV
1410	24 977			COG	INMD03	IM12GC3	GCR	32 377N	117 314W	S INMD01MV
1505	24 977			COG	INMD04	IM12GC4	GCR	32 378N	117 316W	S INMD01MV
1638	24 977			COG	INMD05	IM12GC5	GCR	32 370N	117 378W	S INMD01MV
1722	24 977			COG	INMD06	IM12GC6	GCR	32 370N	117 373W	S INMD01MV
1823	24 977			COG	INMD07	IM13GC7	GCR	32 376N	117 317W	S INMD01MV
2029	24 977			COG	INMD08	IM13GC8	GCR	32 376N	117 317W	S INMD01MV
2142	24 977			COG	INMD09	IM14GC9	GCR	32 376N	117 316W	S INMD01MV
1441	29 977			COG	INMD10	IM15GC10	GCR	15 381N	108 89W	S INMD01MV
1440	30 977			COG	INMD11	IM16GC11	GCR	12 402N	106 327W	S INMD01MV
2002	31077			COG	INMD12	IM17GC12	GCR	8 487N	104 15W	S INMD01MV
145	101077			COG	INMD16	IM17GC16	GCR	8 436N	104 133W	S INMD01MV
915	141077			COG	INMD17	IM17GC17	GCR	8 464N	103 596W	S INMD01MV
1252	141077			COG	INMD18	IM17GC18	GCR	8 484N	104 9W	S INMD01MV
1802	141077			COG	INMD19	IM17GC19	GCR	8 490N	103 547W	S INMD01MV
1219	151077			COG	INMD21	IM17GC21	GCR	8 479N	103 596W	S INMD01MV
2015	151077			COG	INMD22	IM17GC22	GCR	8 478N	104 16W	S INMD01MV

349	231077			COFF B	INMD28	STA09	GCR	6 329N	92 493W	S INMD01MV
520	231077			COFF E	INMD28	STA09	GCR	6 337N	92 496W	S INMD01MV
407	231077			COFF B	FFC29	STA09	GCR	6 330N	92 494W	S INMD01MV
538	231077			COFF E	FFC29	STA09	GCR	6 337N	92 496W	S INMD01MV
413	231077			COFF X	FFC30	STA09	GCR	6 330N	92 494W	S INMD01MV
419	231077			COFF B	FFC31	STA09	GCR	6 331N	92 494W	S INMD01MV
545	231077			COFF E	FFC31	STA09	GCR	6 336N	92 495W	S INMD01MV

\*\*\* DREDGE \*\*\*

2346	151077			ORR	B INMD01	1822M	GCR	8 478N	103 540W	S INMD01MV
204	161077			ORR	E INMD01	1822M	GCR	8 482N	103 535W	S INMD01MV

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

2217	11077		CMAB B 01CM		DTG	8 473N	104 123W	S INMD01MV
2345	141077		CMAB E 01CM		DTG	8 476N	104 127W	S INMD01MV
- 26	21077		CMAB B 02CM		DTG	8 441N	104 120W	S INMD01MV
1415	141077		CMAB E 02CM		DTG	8 478N	104 9W	S INMD01MV
2352	31077		CMAB B 03CM		DTG	8 483N	104 13W	S INMD01MV
2015	141077		CMAB E 03CM		DTG	8 484N	103 577W	S INMD01MV
1308	191077		CMAB B 04CM		DTG	6 331N	92 499W	S INMD01MV
2257	261077		CMAB E 04CM		DTG	6 333N	92 495W	S INMD01MV
1344	191077		CMAB B 05CM		DTG	6 319N	92 486W	S INMD01MV
1640	261077		CMAB E 05CM		DTG	6 319N	92 484W	S INMD01MV
1611	201077		CMAB B 06CM		DTG	6 313N	92 483W	S INMD01MV
1620	261077		CMAB E 06CM		DTG	6 319N	92 484W	S INMD01MV

\*\*\*\* DEEP TOW SURVEY \*\*\*\* CURATOR STEVE MILLER (EXT. 4892)

1115	21077		DTS B SITE M		DTG	8 451N	104 331W	S INMD01MV
1741	31077		DTS E SITE M		DTG	8 425N	103 531W	S INMD01MV
740	41077		DTS B SITE M		DTG	8 469N	103 580W	S INMD01MV
830	41077		DTS E SITE M		DTG	8 459N	103 581W	S INMD01MV
1153	41077		DTS B SITE M		DTG	8 493N	104 5W	S INMD01MV
842	71077		DTS E SITE M		DTG	8 468N	104 200W	S INMD01MV
1509	81077		DTS B SITE EPR CREST		DTG	8 463N	104 129W	S INMD01MV
1410	101077		DTS E SITE EPR CREST		DTG	8 485N	104 99W	S INMD01MV
1911	101077		DTS B SITE EPR CREST		DTG	8 479N	104 134W	S INMD01MV
0	111077		DTS E SITE EPR CREST		DTG	8 495N	104 107W	S INMD01MV
325	111077		DTS B SITE EPR CREST		DTG	8 491N	104 135W	S INMD01MV
927	121077		DTS E SITE EPR CREST		DTG	8 400N	104 124W	S INMD01MV
1040	121077		DTS B SITE EPR CREST		DTG	8 450N	104 131W	S INMD01MV
2120	121077		DTS E SITE EPR CREST		DTG	8 360N	104 113W	S INMD01MV
1730	201077		DTS B SITE H		DTG	6 320N	92 474W	S INMD01MV
2230	221077		DTS E SITE H		DTG	6 359N	92 518W	S INMD01MV
1258	231077		DTS B SITE H		DTG	6 359N	92 446W	S INMD01MV
2315	231077		DTS E SITE H		DTG	6 308N	92 525W	S INMD01MV

