

***Report and Index of  
Underway Marine Geophysical Data***

**Nemo Expedition**

**Leg 4**

**(NEMO04MV)**

**R/V Melville**

**(Issued October 2000)**

**Ports:**

**Puerta Caldera, Costa Rica (12 June 2000)**

**to**

**San Diego, California (28 June 2000)**

**Chief Scientist:**

**Leroy Dorman - Scripps Institution of Oceanography  
ldorman@ucsd.edu**

**Computer Tech - Dan Jacobson**

**Resident Marine Tech - Gene Pillard**

**Post-Cruise processing and report preparation by the  
Geological Data Center, Scripps Institution of Oceanography  
La Jolla, CA 92093-0223**

**NOTE: This is an index of underway geophysical data edited and processed 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 92093-0223.**

**GDC Cruise ID# 292**

**Report and Index of Navigation  
and Underway Geophysical Data**

Processed by the Geological Data Center  
Scripps Institution of Oceanography

**Contents:**

**Index Chart** – gives track of cruise leg, dates, ports, and mileage of each type of data collected.

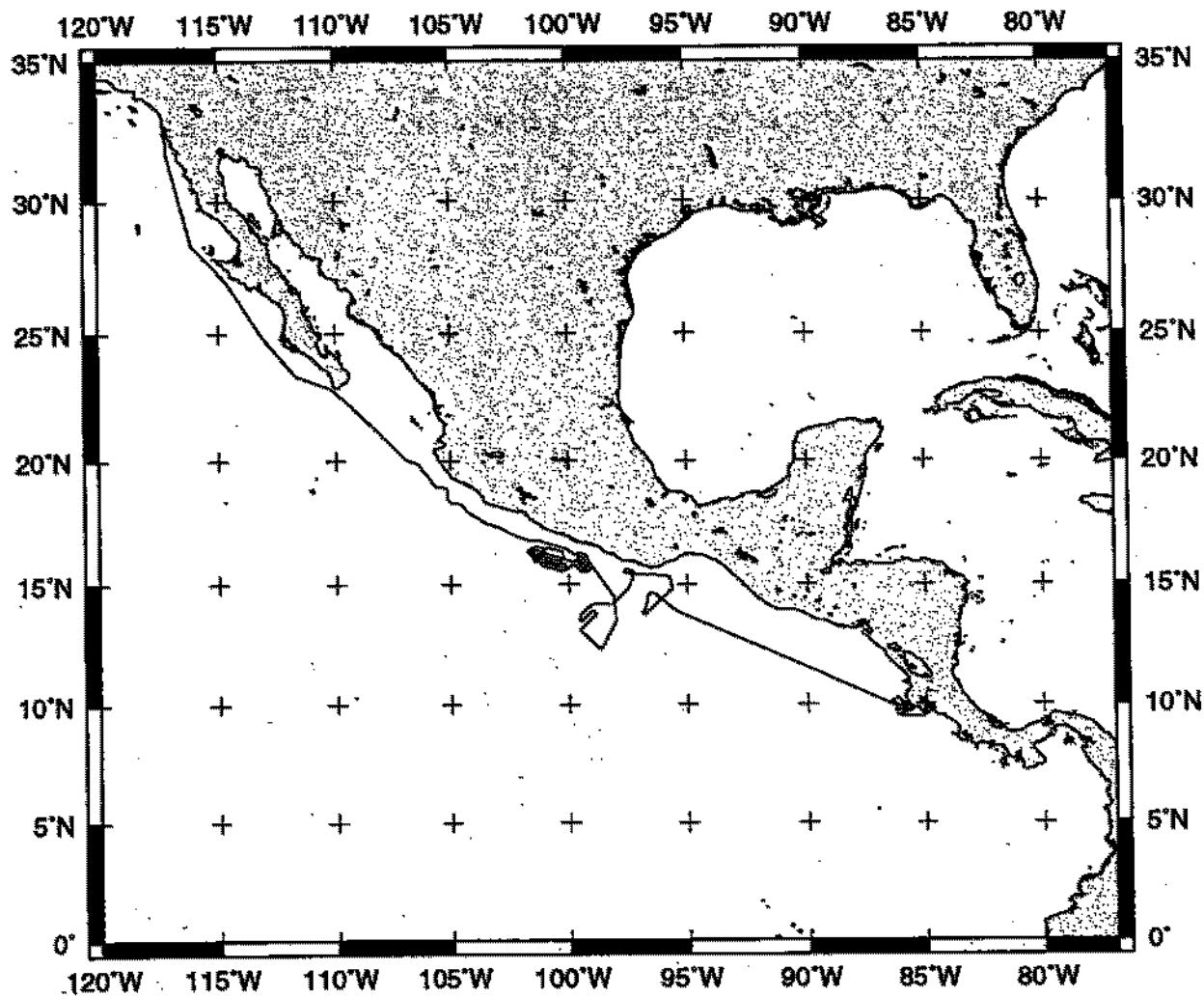
**Track Charts**– annotated with dates and hour ticks

**Profiles** – depth, magnetic and gravity free air anomaly vs. distance. (Sections of track with seismic reflection data have a wide black line along the bottom of the profile.)

**Sample Index** – list of begin/end times and positions of all underway records as well as samples and measurements from other disciplines collected on the leg.

**NOTE:** One or more of the underway data types may not be collected on a given leg. For information on the availability and reproduction costs of data in the following forms, contact the Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093-0223. Phone: (858)534-2752, Fax: (858)534-6500, internet email: [uaibright@ucsd.edu](mailto:uaibright@ucsd.edu) or [gwells@ucsd.edu](mailto:gwells@ucsd.edu)

1. Files via ftp or on 8mm (Exabyte) magnetic tape or CDrom:
  - a) Separate time series ASCII files of navigation, single beam depth, gravity and magnetics.
  - b) Above data in a single merged ASCII file in the MGD77 Exchange Format.
  - c) SeaBeam depth data (binary, Sun byte order)
  - d) SeaBeam Sidescan data.
2. Microfilm (35mm flowfilm) or hard copies of:
  - a) Underway watch log
  - b) SeaBeam vertical beam profile/Sidescan records.
  - c) 3.5 kHz and 12 kHz echosounder records.
  - d) Seismic reflection profiler records.
3. Navigation abstract listing with times and positions of major course and speed changes.
4. Custom plots in Mercator projection:
  - a) Track plots.
  - b) SeaBeam depth contour plots.
  - c) Depths, magnetic or gravity values printed or profiled along track.



**NEMO EXPEDITION LEG 4 (NEMO04MV)**

**CHIEF SCIENTIST: LeRoy Dorman, Scripps Institution**

**PORTS: Puerta Caldera, Costa Rica - San Diego, Calif.**

**DATES: 12 - 28 June 2000**

**SHIP: R/V Melville**

**TOTAL MILEAGE OF UNDERWAY DATA COLLECTED**

**Cruise- 4329 miles**

**Magnetics- 850 miles**

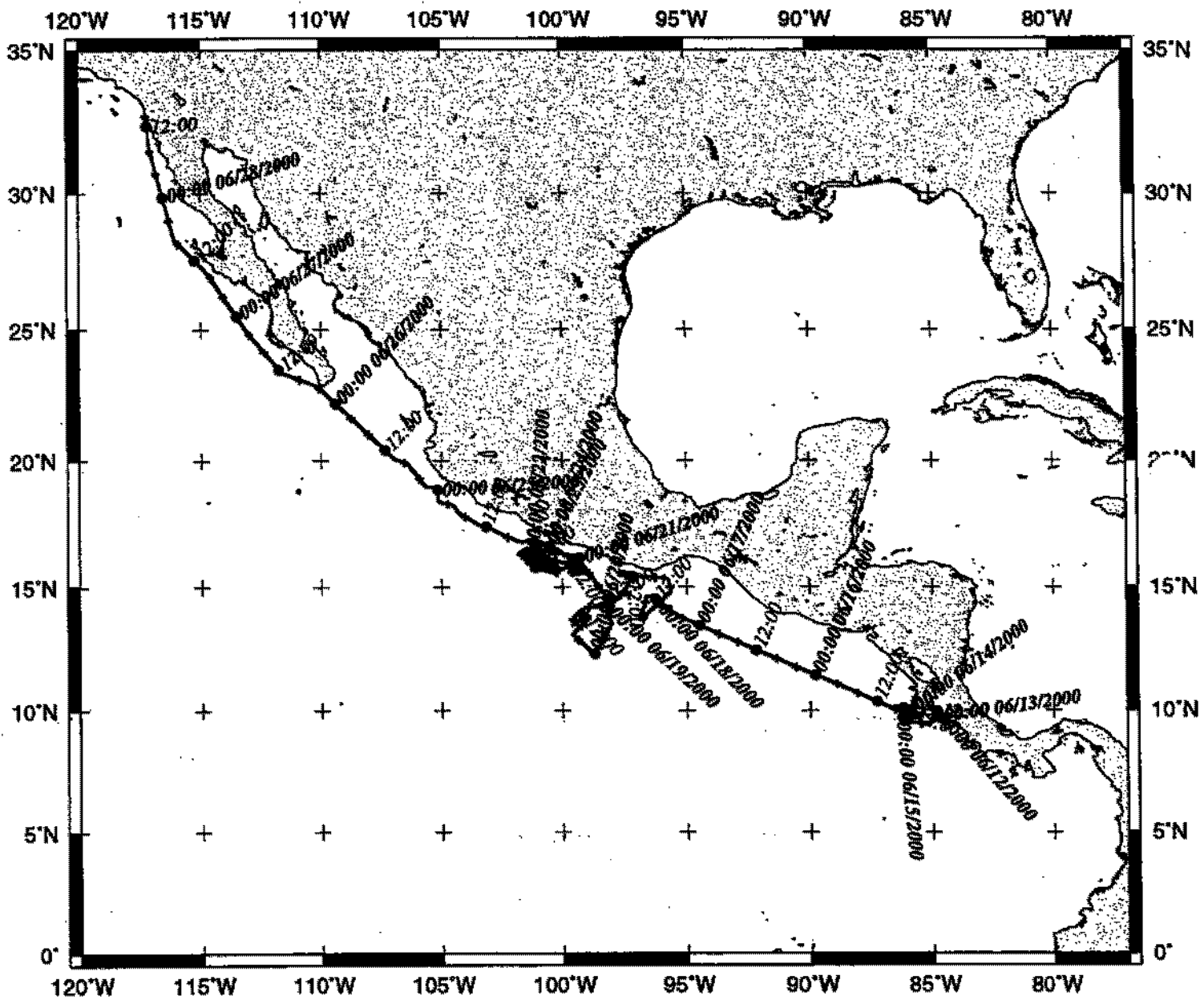
**Bathymetry- 4267 miles**

**Seismic Reflection- 175 miles**

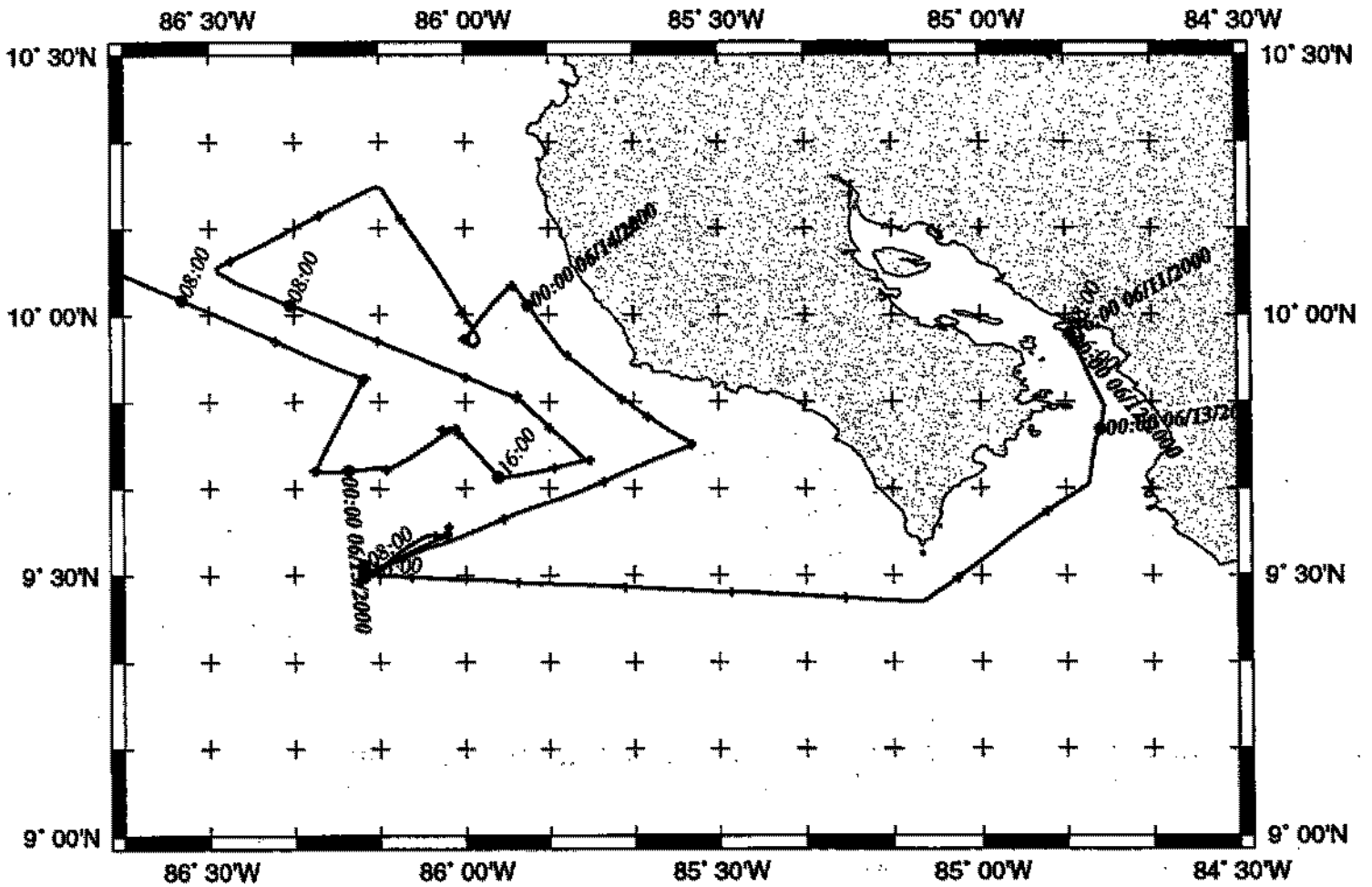
**Sea Beam- 4267 miles**

**Gravity- 4314 miles**

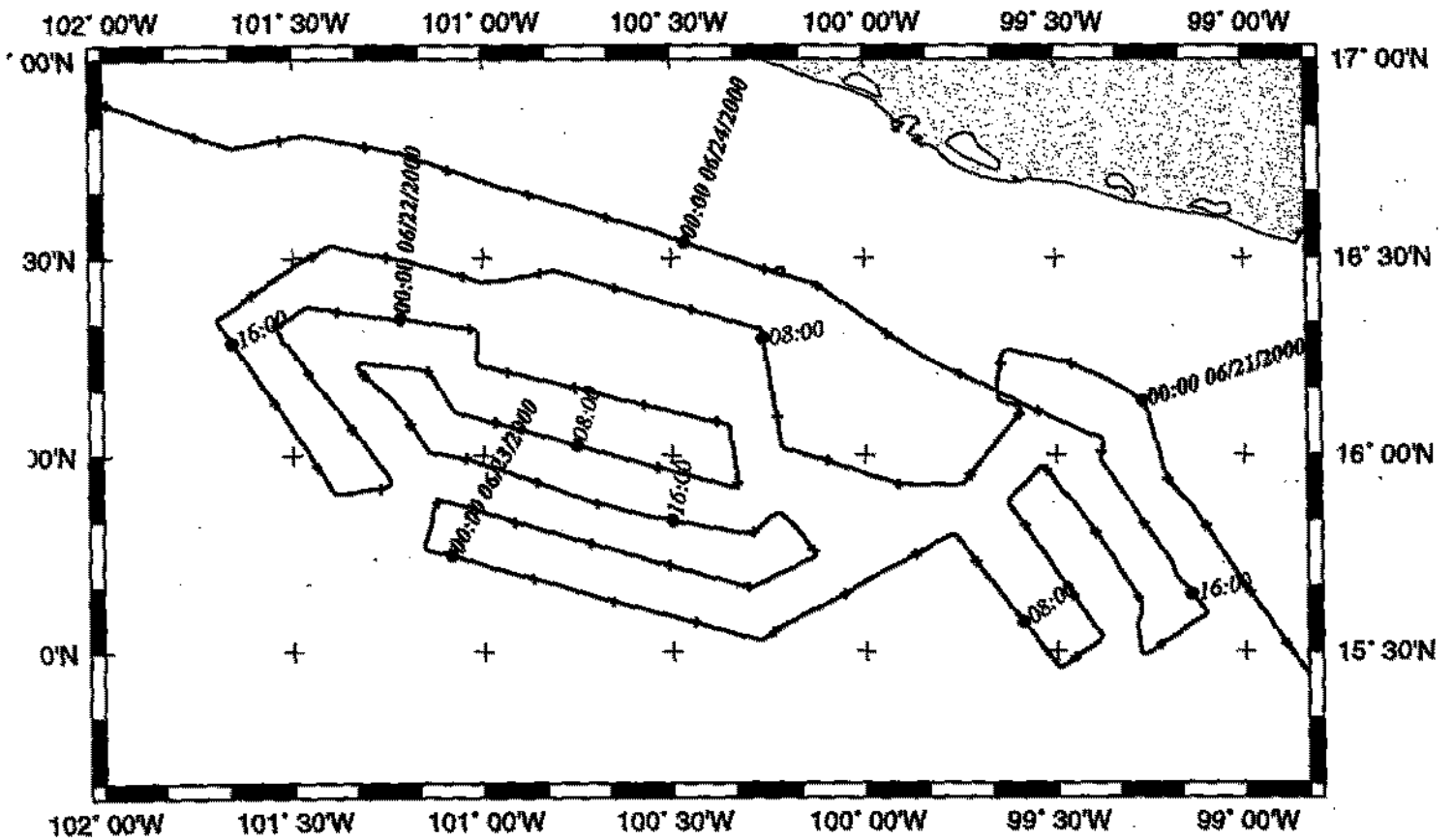
# NEMO Leg 4 Track



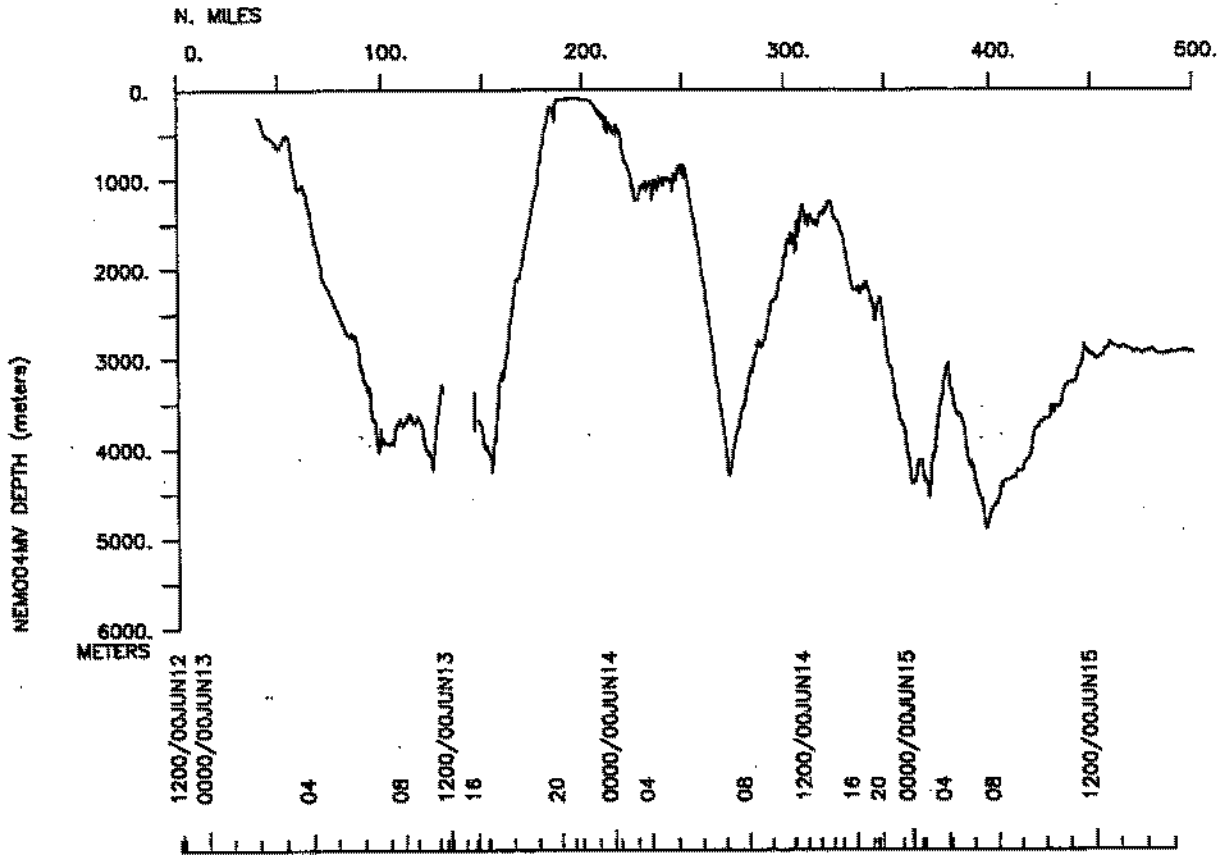
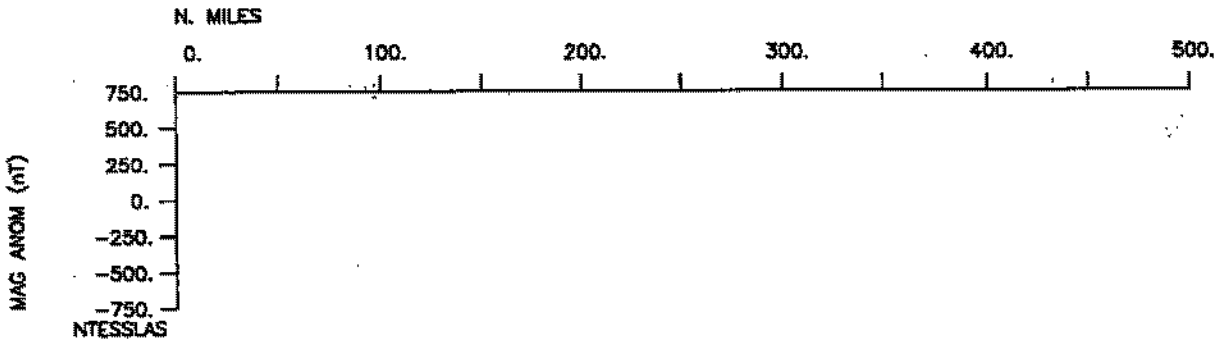
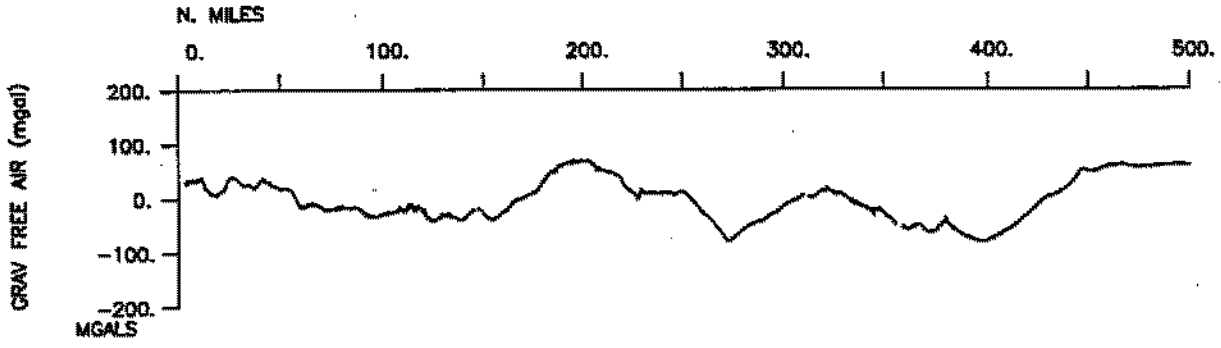
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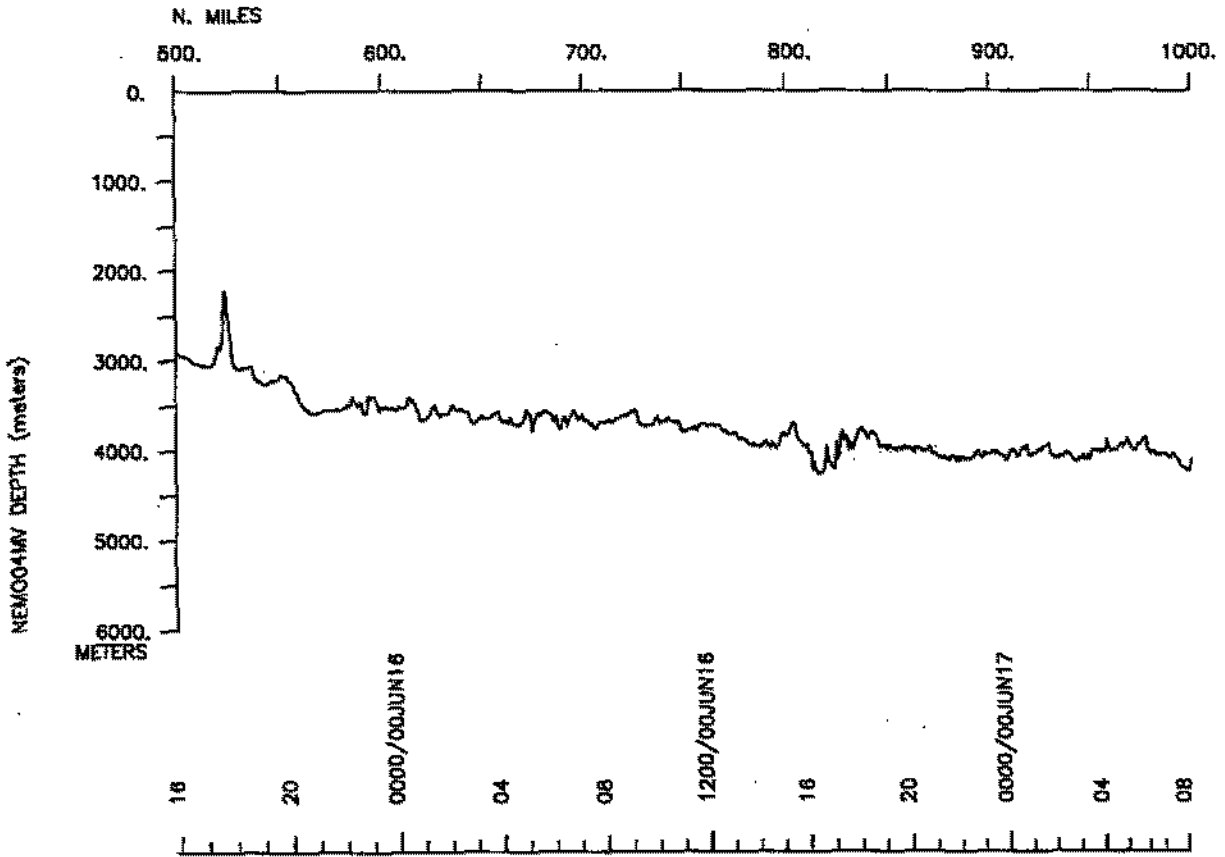
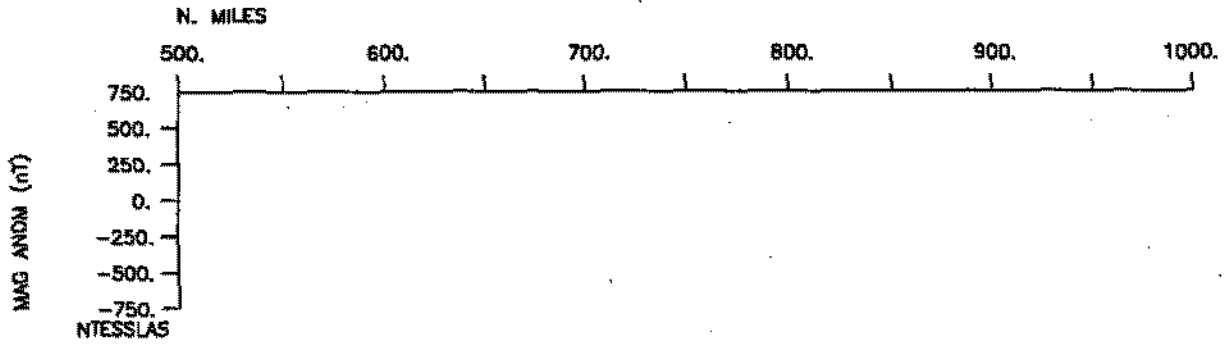


# NEMO04MV survey 2

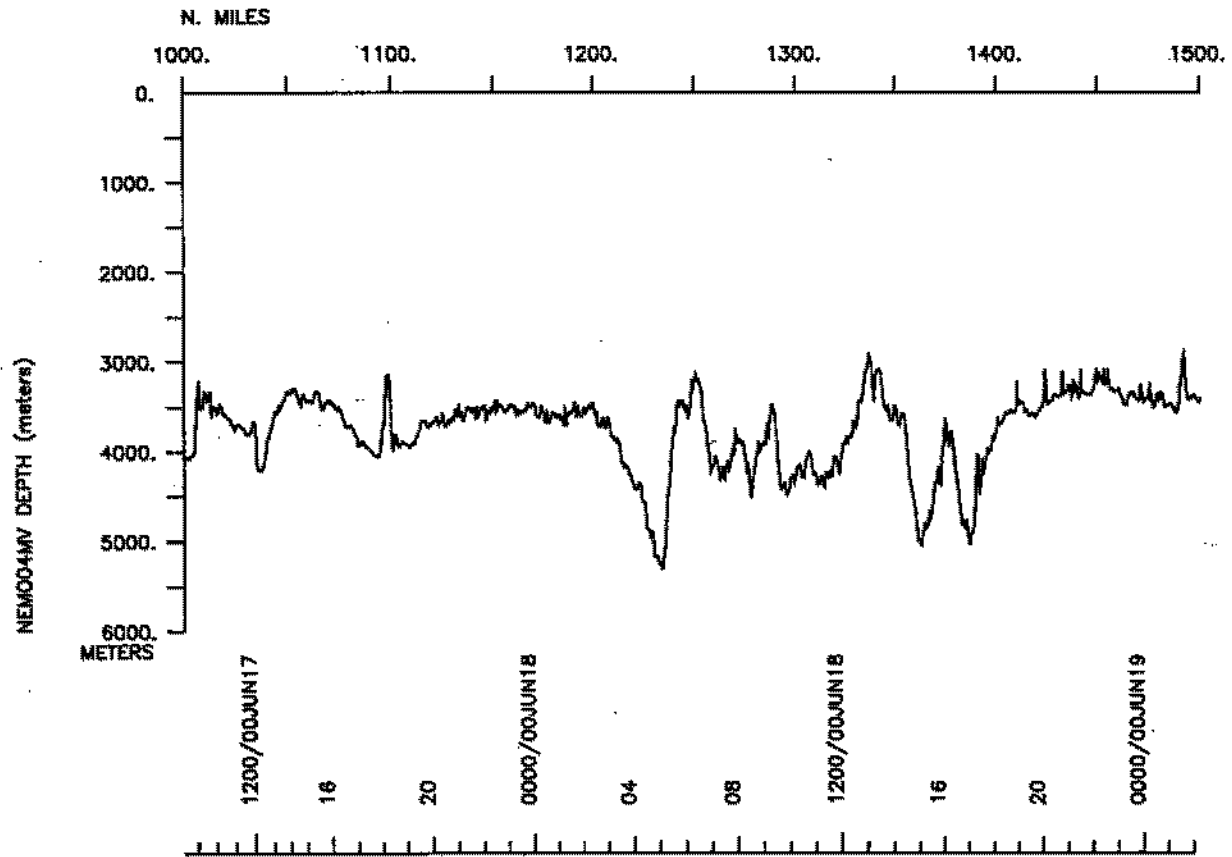
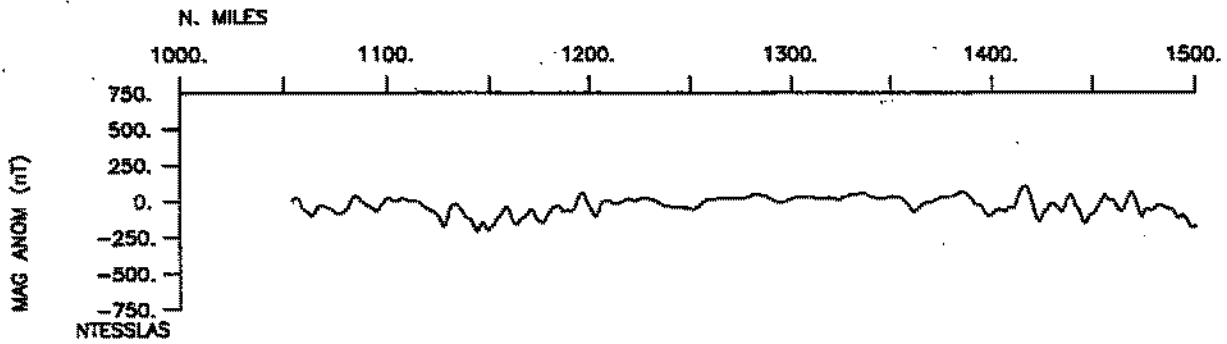


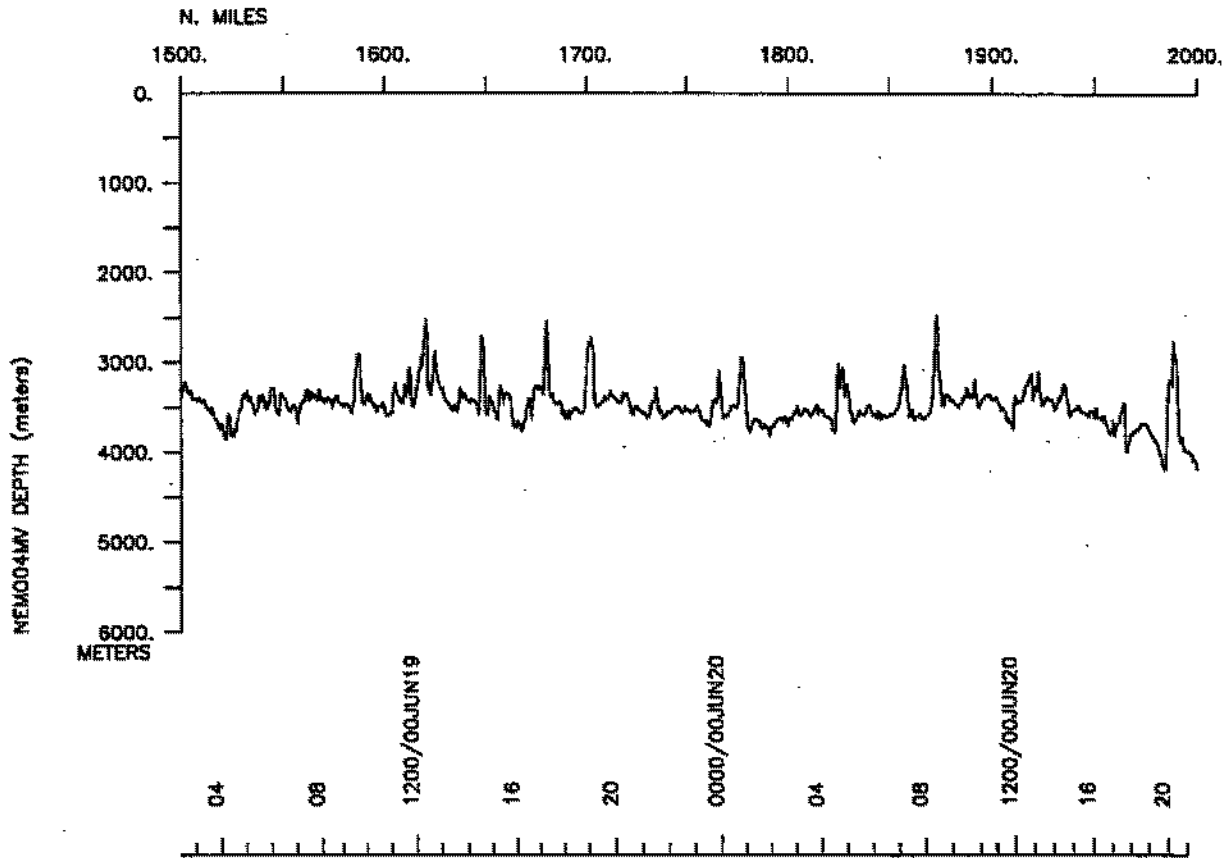
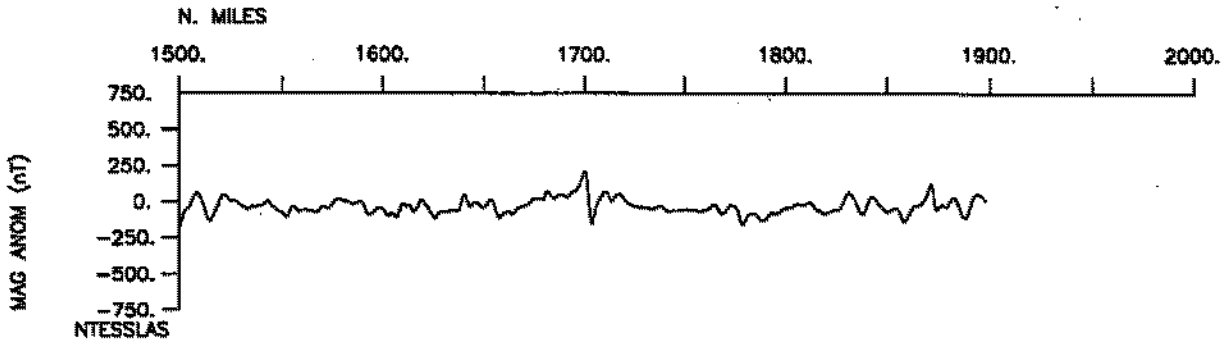
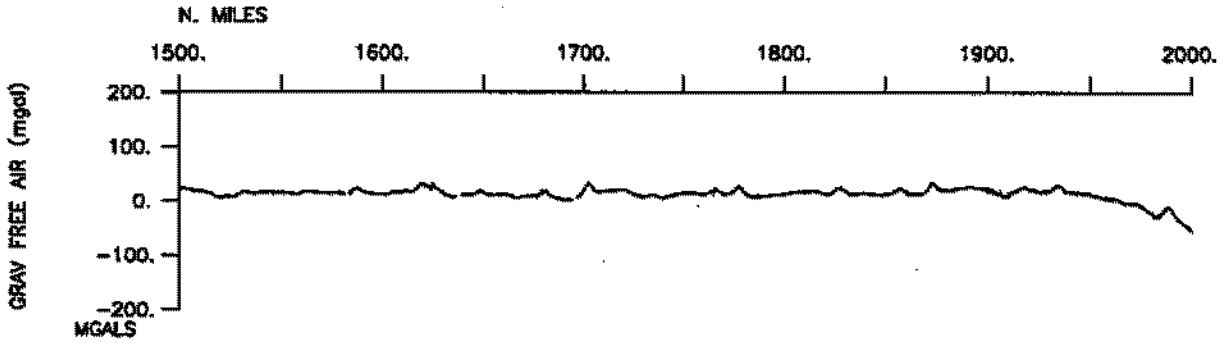
Oct 18 08:53 :Puerta Caldera, Costa Rica - San Diego, Calif. 11 - 28 Jun 2000 :

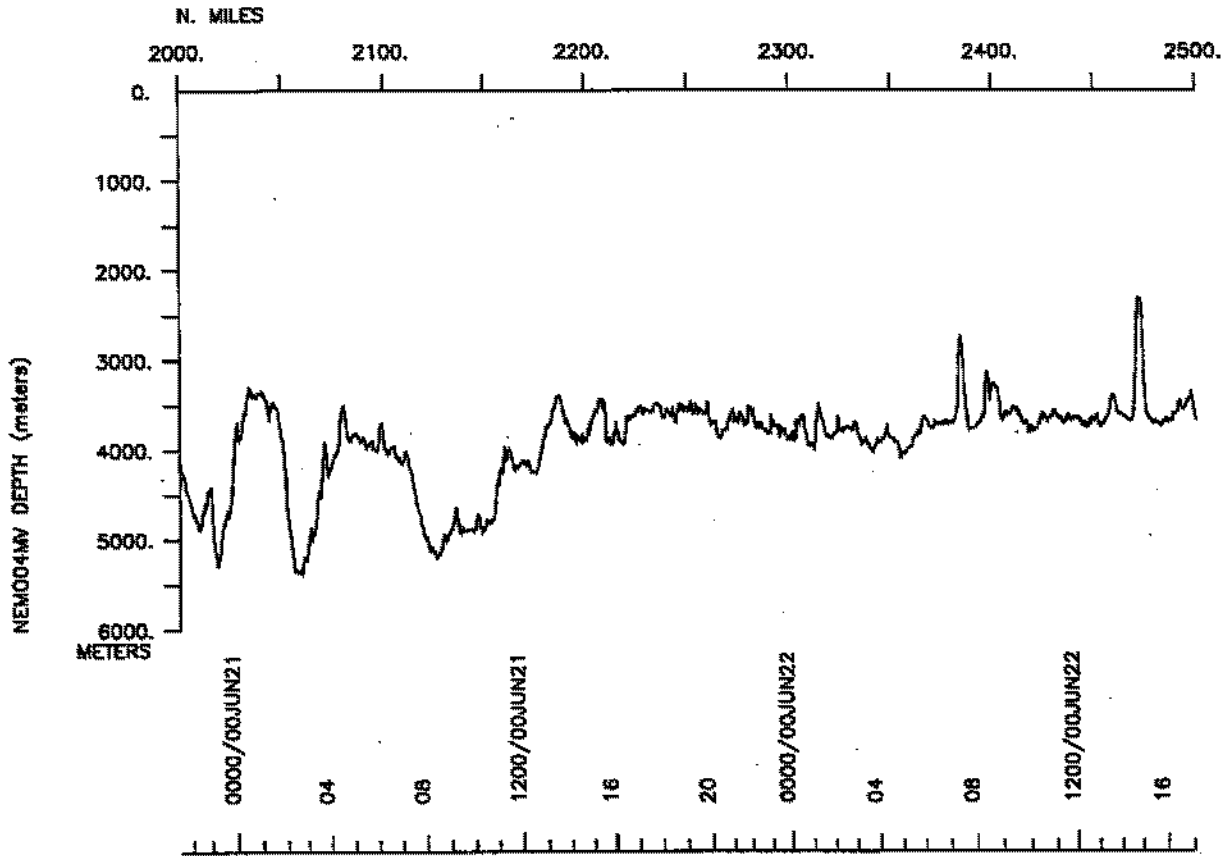
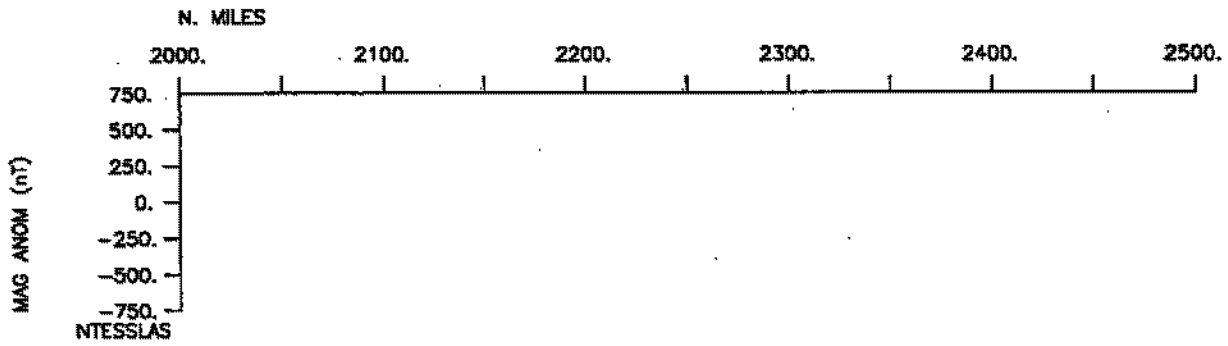
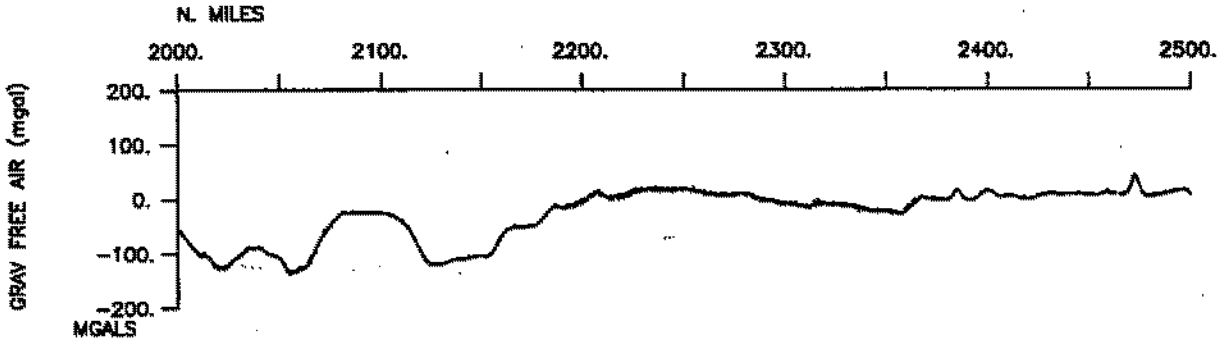


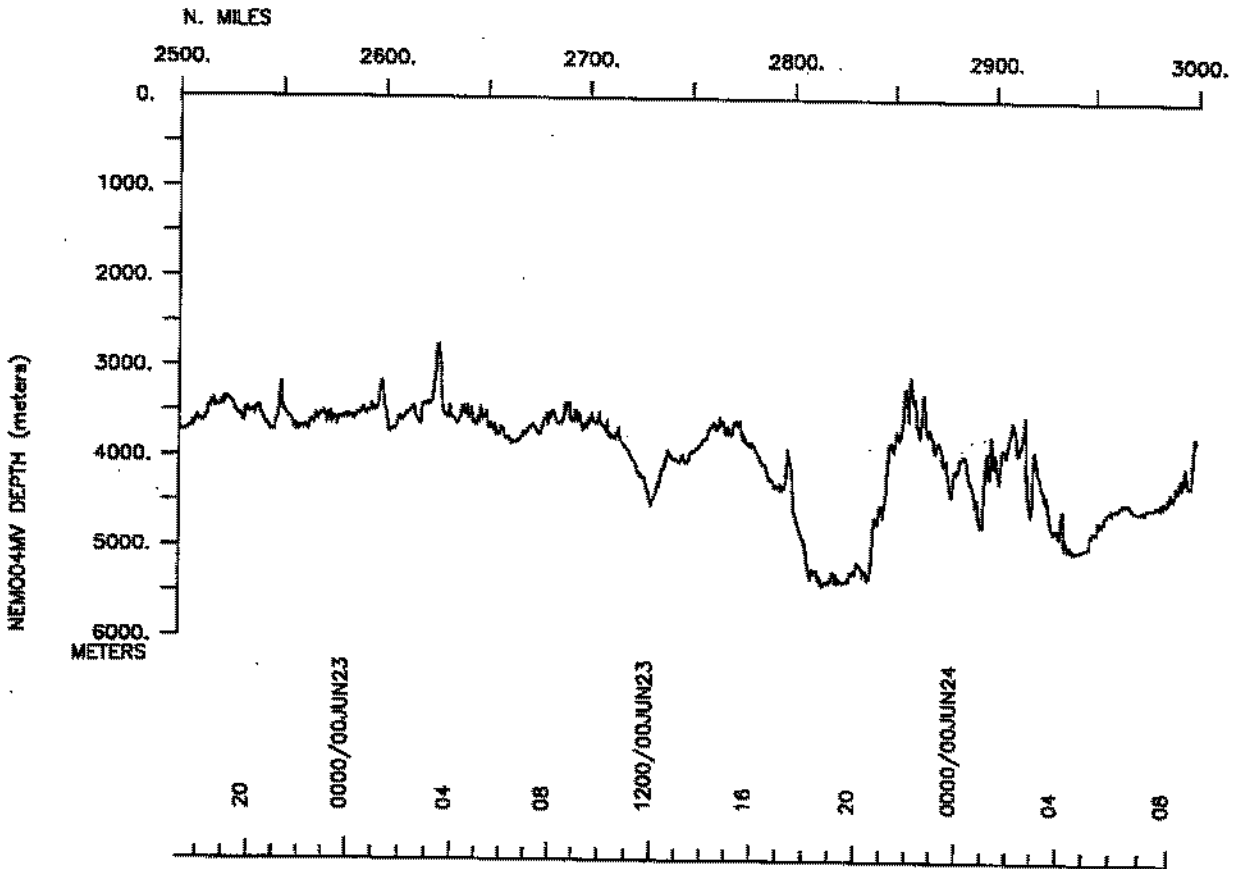
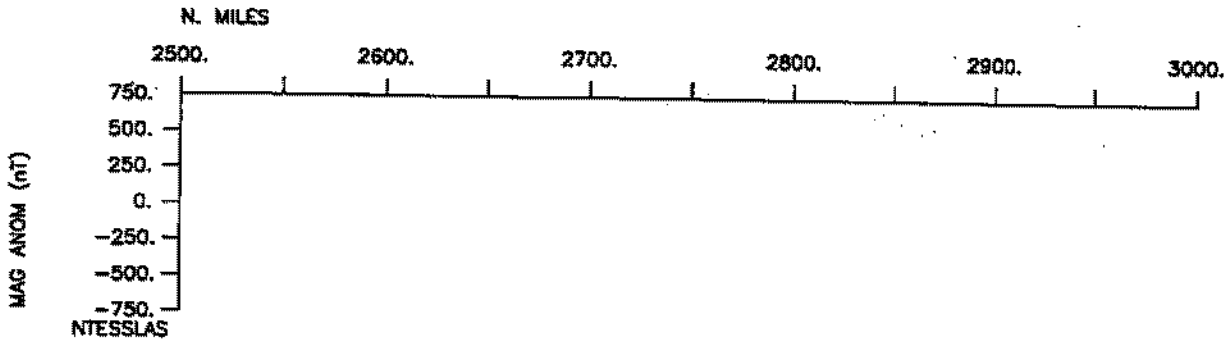
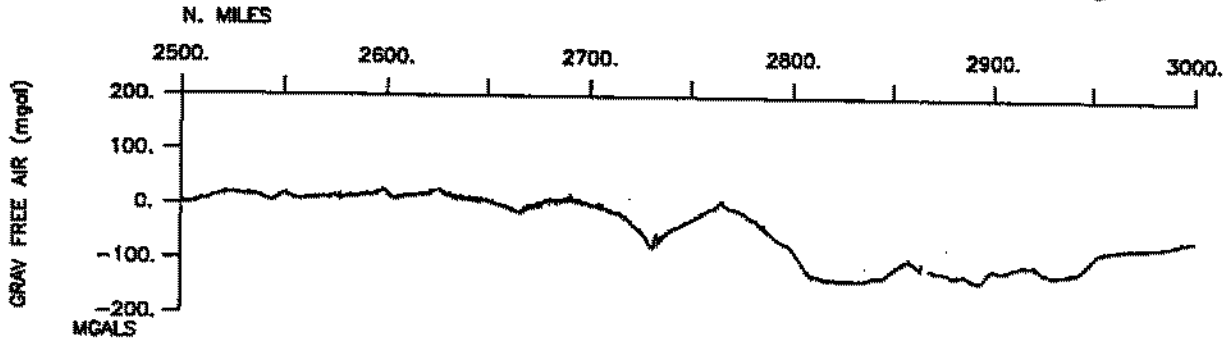


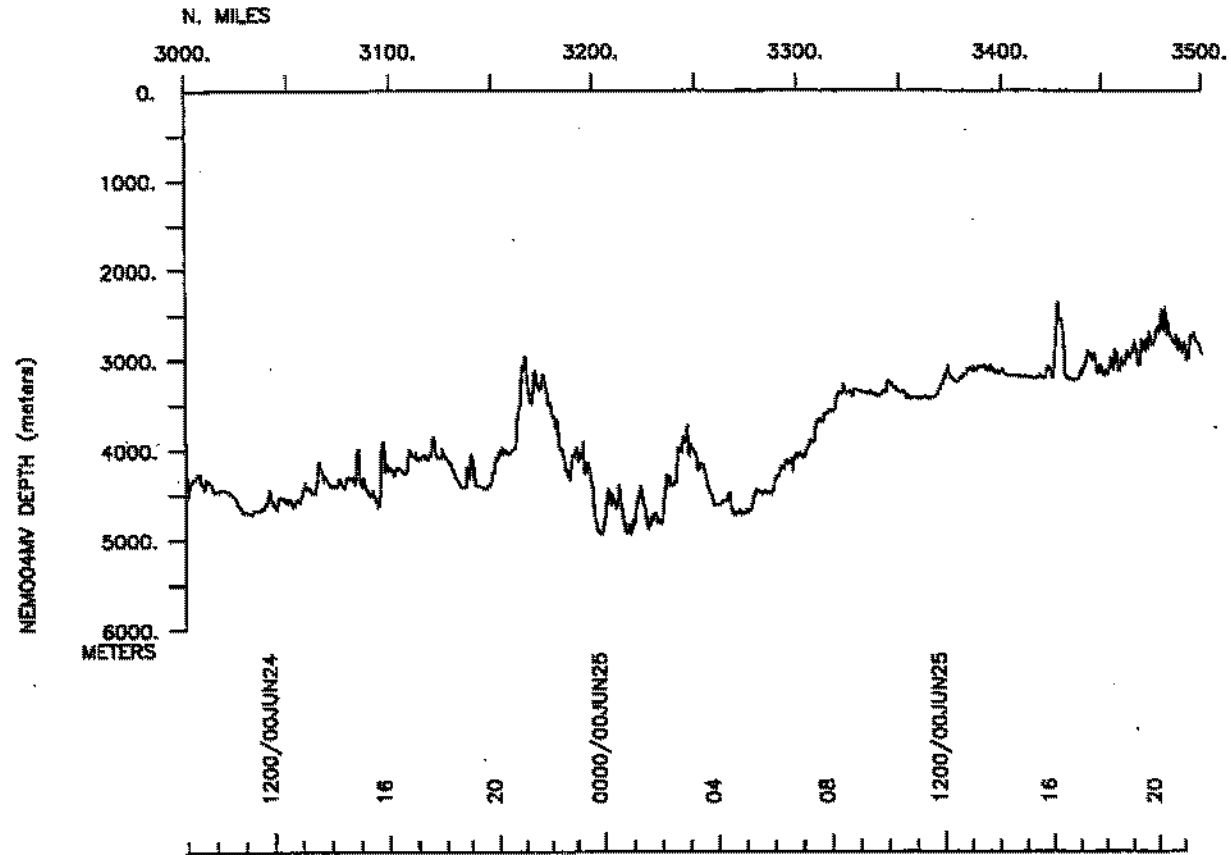
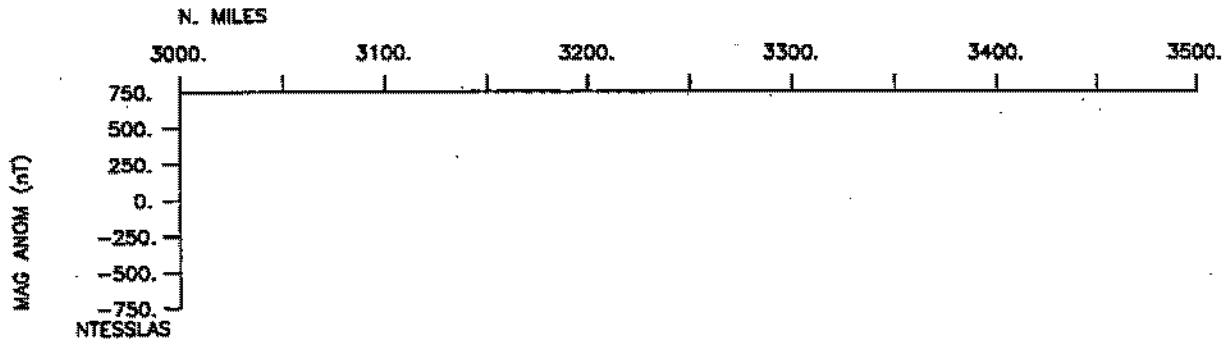
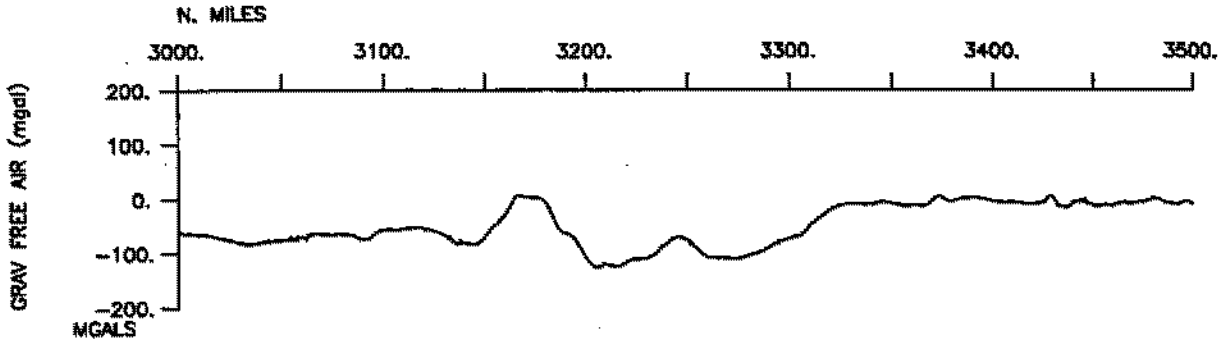


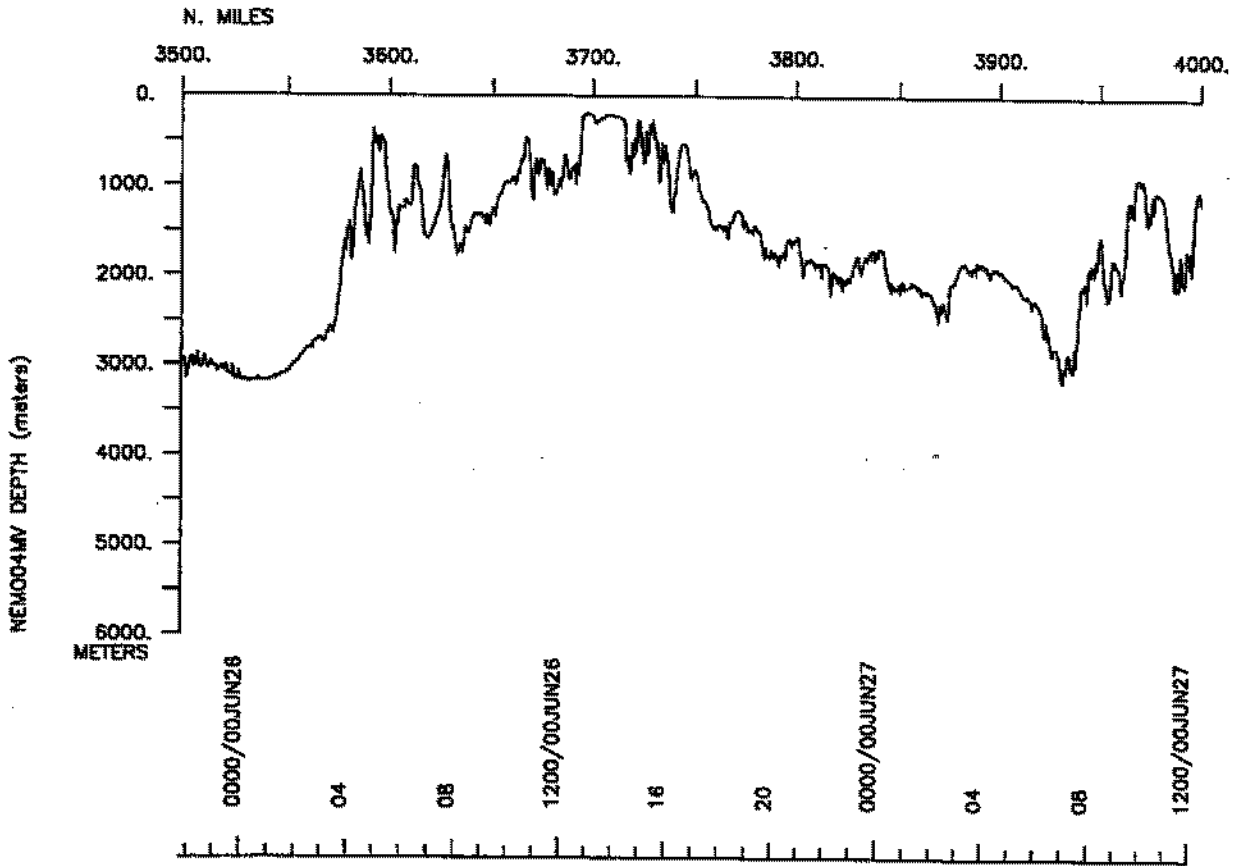
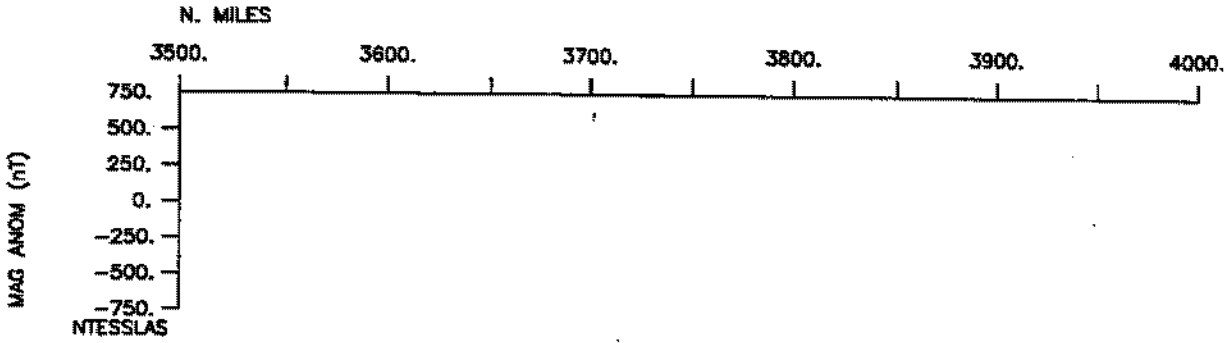
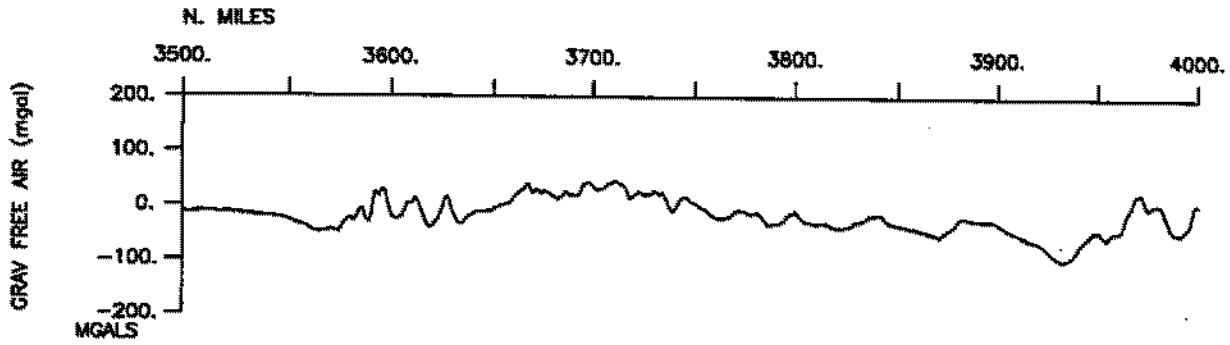


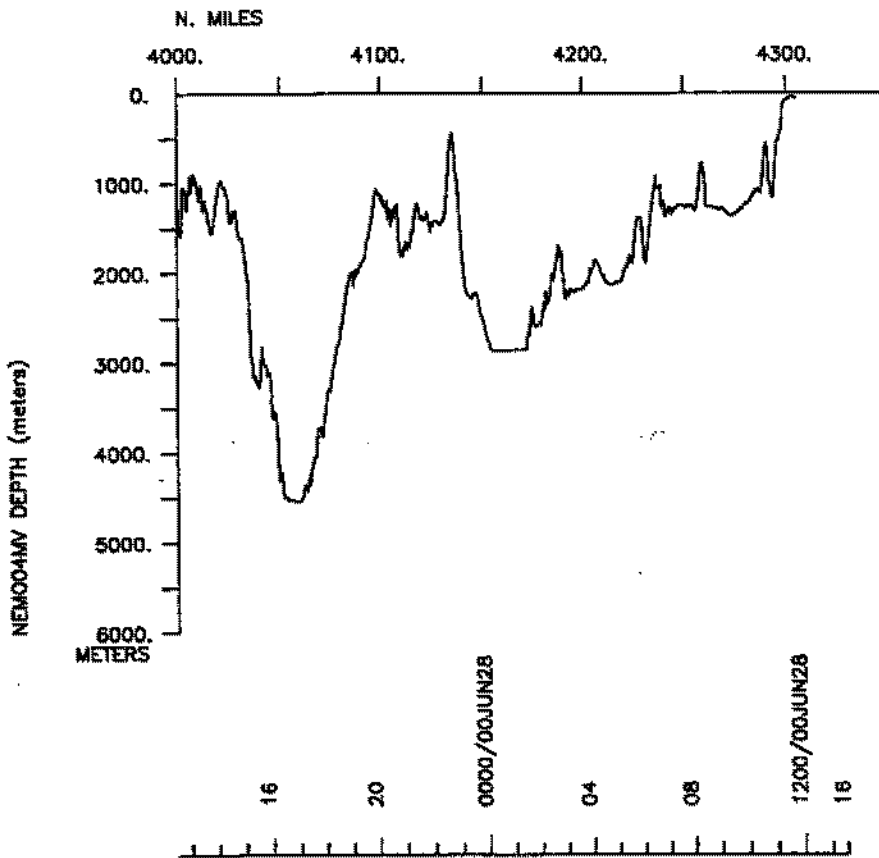
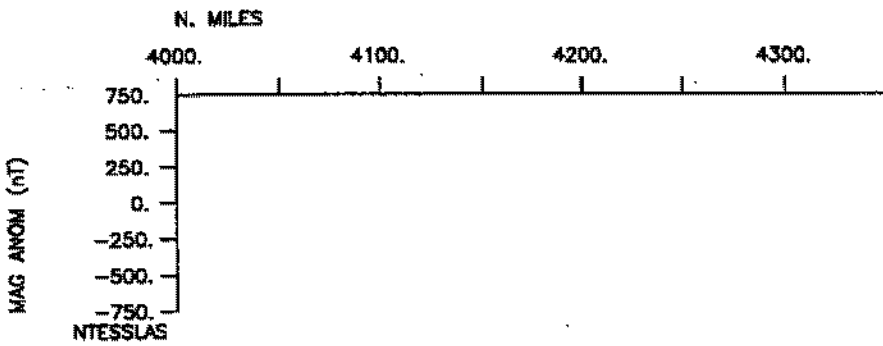
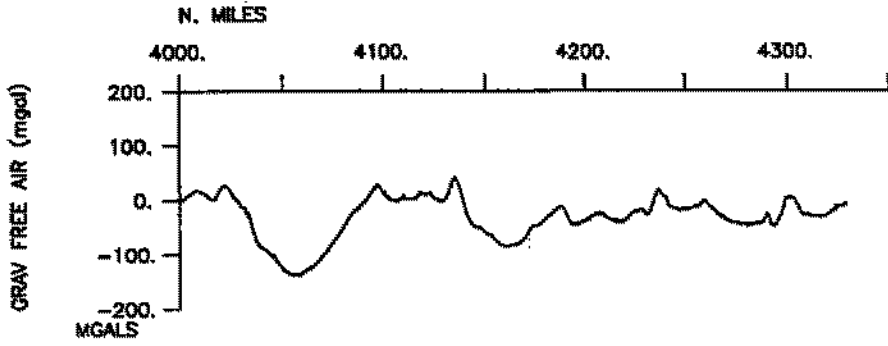












**S.I.O. Sample Index**

**NEMO Expedition**

**Leg 4**

**(NEMO04MV)**

**R/V Melville**

**(Issued October 2000)**

**PORTS:**

Puerta Caldera, Costa Rica (12 June 2000)  
to  
San Diego, California (28 June 2000)

**Chief Scientist:**

LeRoy Dorman,  
Scripps Institution of Oceanography

*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 marine 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 lines. 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 ID# 292



## \*\*\*\* Ports \*\*\*

2300	120600	LGPT B	Puntarenas, Costa Rica	9-53.00N	84-45.00W	f	NEMO04MV
1430	280600	LGPT E	San Diego, Calif.	32-40.00N	117-14.00W	f	NEMO04MV

## \*\*\*\* Personnel \*\*\*

#	*****NAME*****	*****TITLE*****	*****AFFILIATION*****	**CRID**
PECS MPL	Dorman, L.	Chief Scientist	Scripps Institution	NEMO04MV
PESP MPL	Escher, S.	Program Analyst	Scripps Institution	NEMO04MV
PESP MPL	Kanjorski, N.	Scientist	Scripps Institution	NEMO04MV
PECT STS	Jacobson, D.	Computer tech	Scripps Institution	NEMO04MV
PEAT STS	Mogk, S.	Airgun tech	Scripps Institution	NEMO04MV
PERT STS	Pillard, G.	Resident tech	Scripps Institution	NEMO04MV
PESP MPL	Sauter, A.	Scientist	Scripps Institution	NEMO04MV
PEST GRD	Tryon, M.	Graduate Student	Scripps Institution	NEMO04MV
PEST IGPP	Bherens, J.	Graduate Student	Scripps Institution	NEMO04MV
PEST GRD	Weinberg, J.	Student	Scripps Institution	NEMO04MV

## \*\*\*\* NOTES \*\*\*

#An 'X' in the (E)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 a particular 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	DDMMYY	SAMP	B	SAMPLE	DISP			p	CRUISE
#TIME	DATE	TZ	CODE	E IDENTIFIER	CODE	LATITUDE	LONGITUDE	c	LEG-SHIP

## \*\*\*\* Underway Data Curator - Geological Data Center ext. 41899 \*\*\*

## \*\*\*\* Sea Beam Records (vertical beam and side scan) \*\*\*

0209	130600	0	MBSR	B	v.beam&sidescan	r-01	GDC	9-28.48N	85-04.31W	g	NEMO04MV
1200	280600	0	MBSR	E	v.beam&sidescan	r-01	GDC	32-22.31N	117-09.92W	g	NEMO04MV

## \*\*\*\* Echo Sounder Records \*\*\*

0238	130600	0	DPR3	B	3.5kHz	r-01	GDC	9-27.05N	85-10.38W	g	NEMO04MV
1200	280600	0	DPR3	E	3.5kHz	r-01	GDC	32-22.31N	117-09.92W	g	NEMO04MV

## \*\*\*\* Digital Magnetics (Earth Total Field) \*\*\*

1630	170600	0	MGDR	B	Digital Magnetics		GDC	14-15.28N	96-42.25W	g	NEMO04MV
1040	200600	0	MGDR	E	Digital Magnetics		GDC	14-20.62N	98-06.22W	g	NEMO04MV

## \*\*\*\* Digital Gravity \*\*\*

2300	120600	0	GVDR	B	Digital Gravity		GDC	9-57.69N	84-49.43W	g	NEMO04MV
1430	280600	0	GVDR	E	Digital Gravity		GDC	32-42.45N	117-14.20W	g	NEMO04MV

## \*\*\*\* Integrated Meteorological Data Acquisition \*\*\*

2300	120600	0	IMET	B	Weather data		GDC	9-57.69N	84-49.43W	g	NEMO04MV
1430	280600	0	IMET	E	Weather data		GDC	32-42.45N	117-14.20W	g	NEMO04MV

#GMT	DDMMYY	SAMP	B	SAMPLE	DISP				P	CRUISE
#TIME	DATE	TZ	CODE	E IDENTIFIER	CODE	LATITUDE	LONGITUDE		C	LEG-SHIP
#										
**** Acoustic Doppler Current Profiler ****										
2300	120600	0	ADCP	B Acoustic Doppler	GDC	9-57.69N	84-49.43W	g		NEMO04MV
1430	280600	0	ADCP	E Acoustic Doppler	GDC	32-42.45N	117-14.20W	g		NEMO04MV
**** Seismic Reflection Data ****										
0625	170600	0	SPRS	B airgun record r-01	GDC	13-56.52N	95-32.60W	g		NEMO04MV
2216	200600	0	SPRS	E airgun record r-01	GDC	15-51.88N	99-08.25W	g		NEMO04MV
0622	170600	0	SPRS	B NEMO04-lag hs ad	MPL	13-56.41N	095-32.43W	f		NEMO04MV
1410	170600	0	SPRS	E NEMO04-lag hs ad	MPL	14-35.96N	096-32.39W	f		NEMO04MV
1110	200600	0	SPRS	B NEMO04-2ag hs ad	MPL	14-23.29N	098-06.16W	f		NEMO04MV
0600	240600	0	SPRS	E NEMO04-2ag hs ad	MPL	16-48.46N	101-45.25W	f		NEMO04MV
**** Ocean Bottom Seismometers ****										
2300	120600	0	SBOB	C OBS S2	MPL	9-57.69N	84-49.43W	g		NEMO04MV
1316	130600	0	SBOB	E Recovered OBS S2	MPL	9-34.71N	86-02.28W	g		NEMO04MV
2300	120600	0	SBOB	C OBS S1	MPL	9-57.69N	84-49.43W	g		NEMO04MV
1632	130600	0	SBOB	E Recovered OBS S1	MPL	9-30.00N	86-11.61W	g		NEMO04MV
2300	120600	0	SBOB	C OBS S14	MPL	9-57.69N	84-49.43W	g		NEMO04MV
2024	130600	0	SBOB	E Recovered OBS S14	MPL	9-45.06N	85-33.11W	g		NEMO04MV
2300	120600	0	SBOB	C OBS S13	MPL	9-57.69N	84-49.43W	g		NEMO04MV
2150	130600	0	SBOB	E Recovered OBS S13	MPL	9-50.02N	85-40.98W	g		NEMO04MV
2300	120600	0	SBOB	C OBS S12	MPL	9-57.69N	84-49.43W	g		NEMO04MV
2320	130600	0	SBOB	E Recovered OBS S12	MPL	9-55.48N	85-48.17W	g		NEMO04MV
2300	120600	0	SBOB	C OBS S11	MPL	9-57.69N	84-49.43W	g		NEMO04MV
0046	140600	0	SBOB	E Recovered OBS S11	MPL	10-03.22N	85-54.21W	g		NEMO04MV
2300	120600	0	SBOB	C OBS S10	MPL	9-57.69N	84-49.43W	g		NEMO04MV
0300	140600	0	SBOB	E Recovered OBS S10	MPL	9-57.11N	85-59.98W	g		NEMO04MV
2300	120600	0	SBOB	C OBS S9	MPL	9-57.69N	84-49.43W	g		NEMO04MV
1225	140600	0	SBOB	E Recovered OBS S9	MPL	9-50.53N	85-54.00W	g		NEMO04MV
2300	120600	0	SBOB	C OBS S8	MPL	9-57.69N	84-49.43W	g		NEMO04MV
1426	140600	0	SBOB	E Recovered OBS S8	MPL	9-43.20N	85-45.61W	g		NEMO04MV
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2300	120600	0	SBOB	C OBS S3	MPL	9-57.69N	84-49.43W	g		NEMO04MV
2330	140600	0	SBOB	E Recovered OBS S3	MPL	9-42.33N	86-09.59W	g		NEMO04MV
2300	120600	0	SBOB	C OBS S4	MPL	9-57.69N	84-49.43W	g		NEMO04MV
0250	150600	0	SBOB	E Recovered OBS S4	MPL	9-41.92N	86-17.54W	g		NEMO04MV
2300	120600	0	SBOB	C OBS S5	MPL	9-57.69N	84-49.43W	g		NEMO04MV
0542	150600	0	SBOB	E Recovered OBS S5	MPL	9-52.64N	86-11.78W	g		NEMO04MV
#				End Sample Index						NEMO04MV