

**REPORT AND INDEX OF  
UNDERWAY MARINE GEOPHYSICAL DATA**

**PHOENIX EXPEDITION**

**LEG 3**

=====

R/V Melville

(Issued November 1992)

Manzanillo, Mexico (18 August 1992)  
to  
San Diego, California (7 September 1992)

Chief Scientist:

Peter Lonsdale (Scripps Institution of Oceanography)

Resident Marine Technician - Bob Wilson

Computer Technician - Jim Charters

Sea Beam/Underway Processor - Uta Albright

Post-Cruise Processing and Report Preparation by the  
Geological Data Center, Scripps Institution of Oceanography  
La Jolla, California 92093

Data Collection and Processing Funded by:  
NSF Grant Number OCE91-02183

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.

GDC Cruise I.D. # 260

# INFORMAL 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 anomaly and gravity free air anomaly vs. distance. Sections of track having subbottom profile (airgun or watergun) records have a wide black line along the bottom of the profile.

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

**NOTE:** One or more of the underway data types may not be collected on a given 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, CA 92093-0223. Phone (619)534-2752. Fax (619)534-5306. Internet EMail:ssmith@ucsd.edu

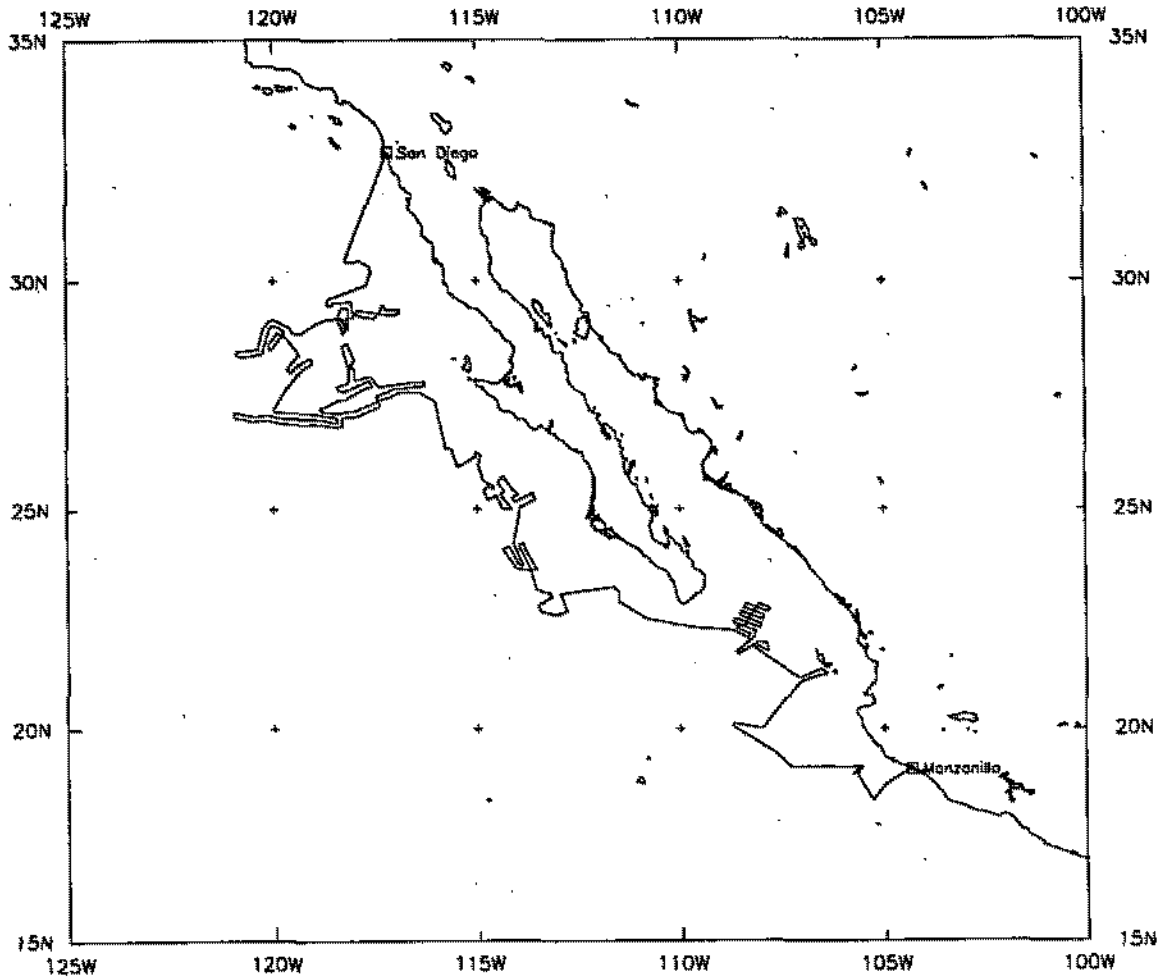
1. Navigation listing with times and positions of course and speed changes, fixes and drift velocity.
2. Depth compilation plots - compilation plots at the traditional scale of 4in/degree longitude (1:1,000,000) are no longer produced for Sea Beam cruises. Custom plots may be requested of vertical beam (2 $\frac{2}{3}$  degree beam width) depths retrieved at one minute intervals of ship time.
3. Plots of depths, magnetics or gravity profiles along track - custom plots at various map and profile scales on Mercator projection may be requested.
4. Separate time series files of navigation, depth, gravity and magnetics as well as these 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
  - c. Magnetometer records
  - d. Underway data log book

## SIO SeaBeam 2000 Data Information

The following forms are available, subject to approval of the cruise leg chief scientist:

- 1) Hardcopy of realtime contour swath records and records with vertical beam and sidescan grayscale display are available for inspection at the data center.
- 2) Microfilm (35mm flowfilm) of vertical beam/sidescan records.
- 3) Sea Beam merged tapes - Sea Beam data merged with navigation. (Navigation is edited to the extent that DR courses and speeds are edited and poor fixes are removed after inspection of drift vectors between fix pairs. No editing is done on the basis of adjusting to overlapping Sea Beam swaths.)
- 4) Archive contour plots - 16"/degree chart scale, with contour interval nominally 50m, are generated for all transit lines. Some survey areas are plotted at appropriate scales as well. Available for inspection at data center; additional copies may be generated from plot files stored on tape.
- 5) Custom generated plots of Sea Beam swaths on Mercator projection in four colors at variable plot scales and contour intervals. There are provisions to adjust positions of individual track lines and to edit out beams (bad data or overlapping data on inside of turns).

Revised November 1992



Phoenix Leg 3 [PHNX03WT]

**PHOENIX EXPEDITION LEG 3**

**CHIEF SCIENTIST:** Peter Lonsdale, Scripps Institution

**PORTS:** Manzanillo, Mexico - San Diego, Calif.

**DATES:** 18 August - 02 September 1992

**SHIP:** R/V Melville

**TOTAL MILEAGE OF UNDERWAY DATA COLLECTED**

**Cruise - 4340 miles**

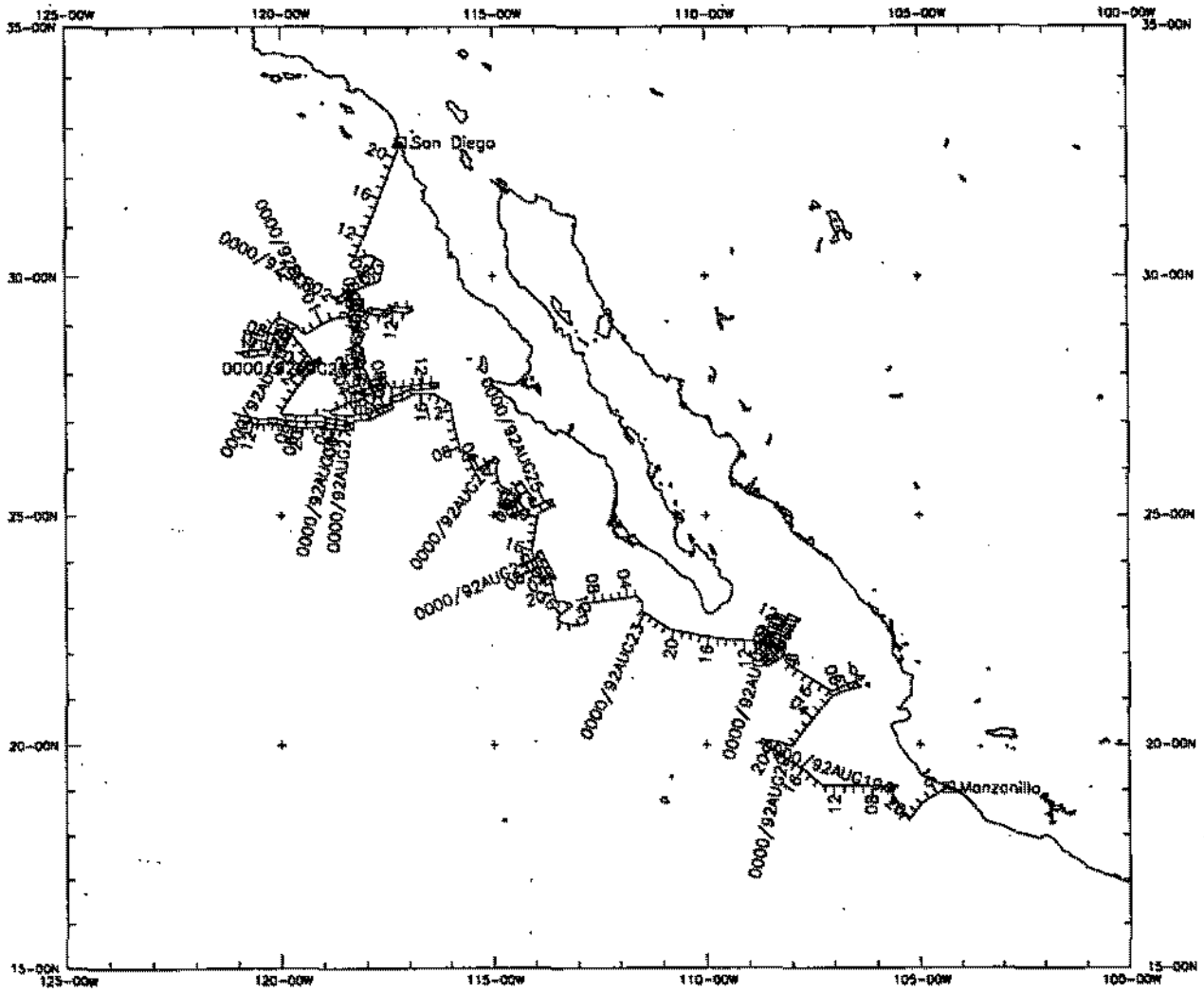
**Magnetics - 4234 miles**

**Bathymetry - 4285 miles**

**Seismic Reflection - none collected**

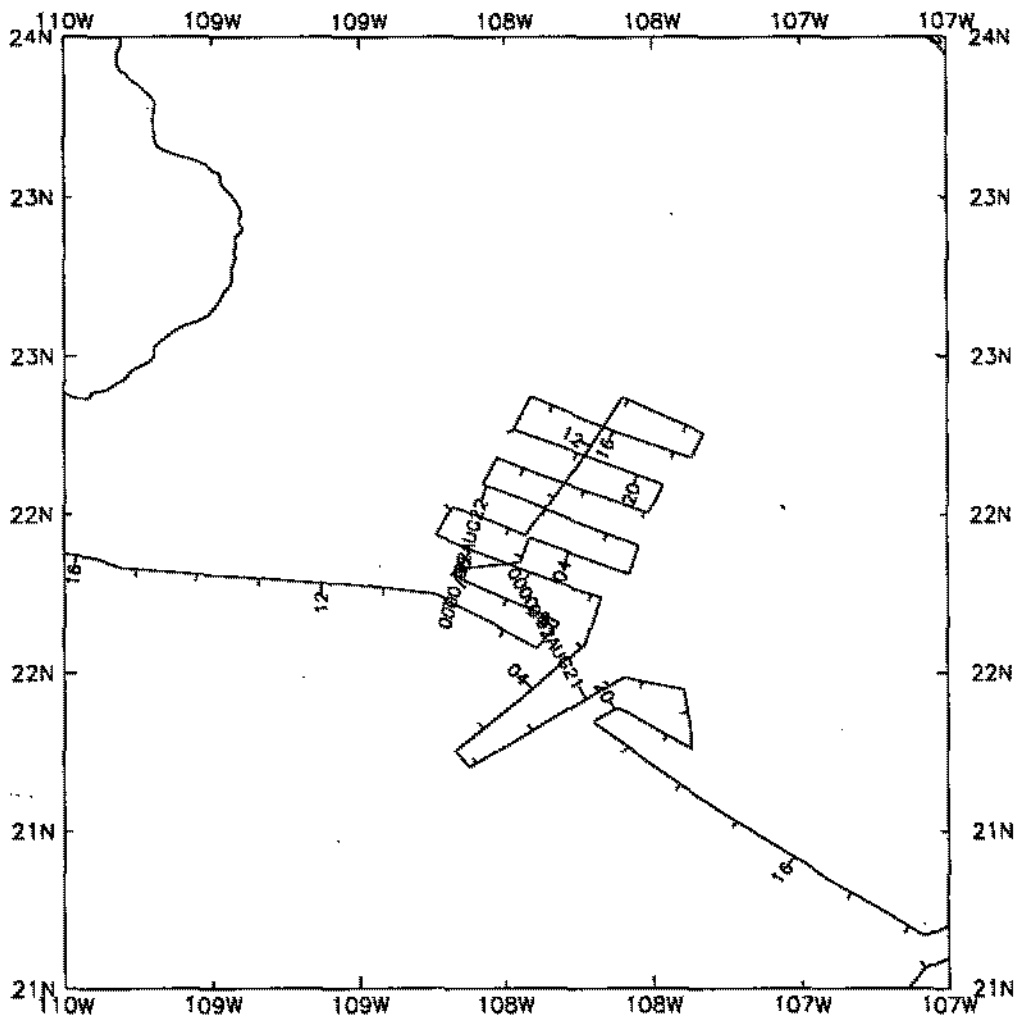
**Sea Beam - 4285 miles**

**Gravity - none collected**



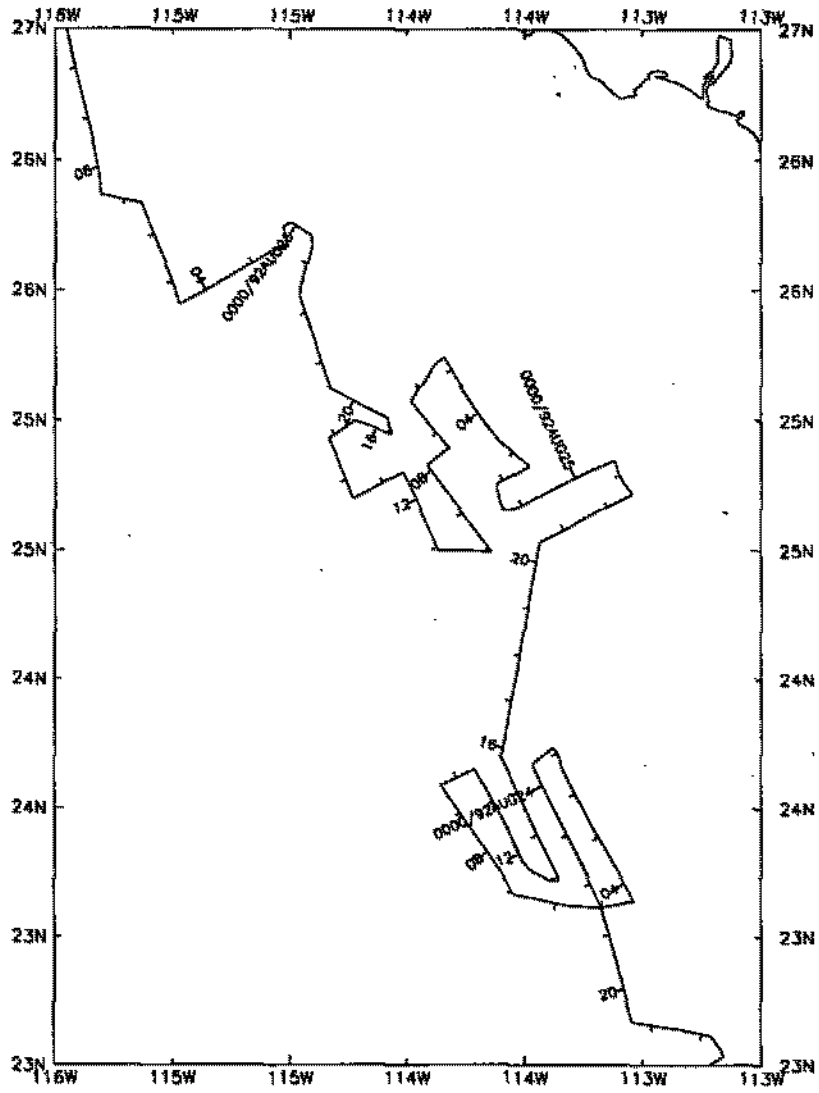
PHOENIX LEG 3 (PHNX03MV)

\*



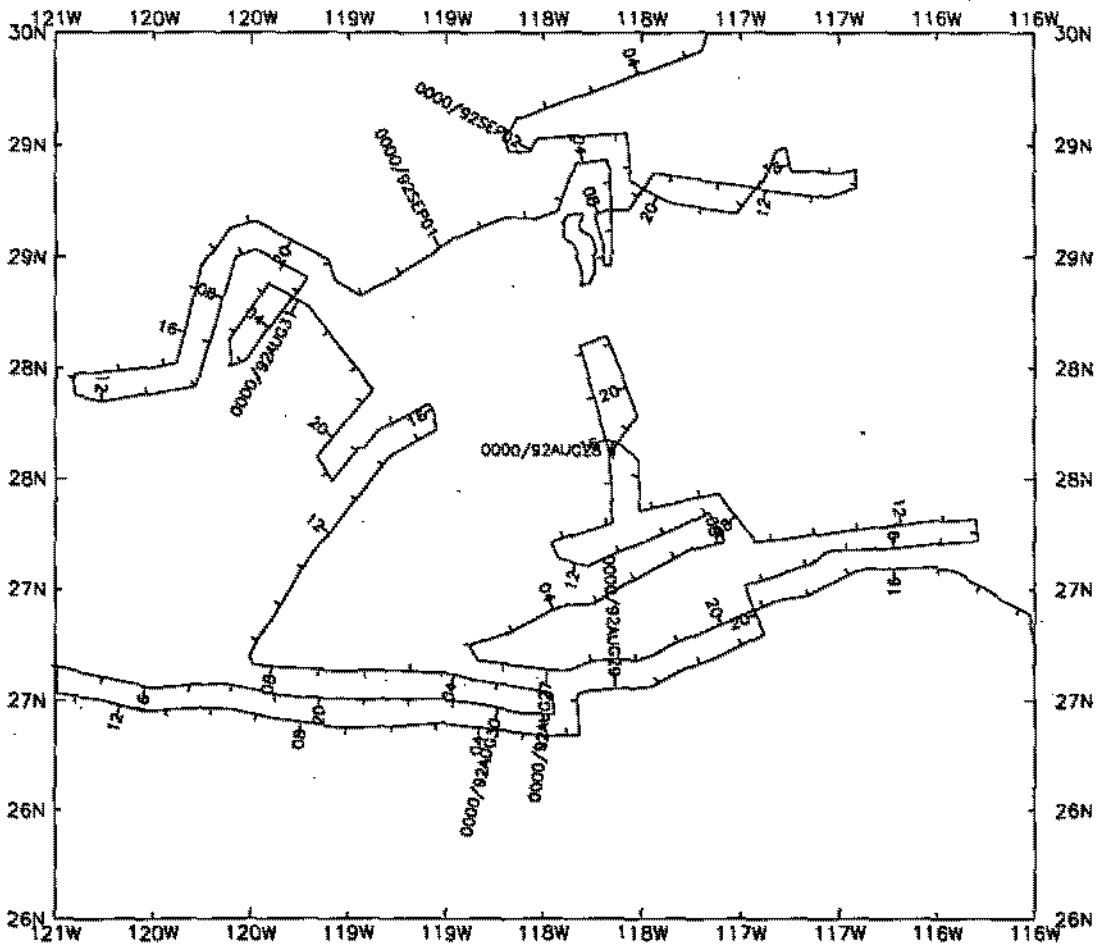
PHOENIX LEG 3 (PHNX03MV)  
Survey area 1

\*



PHOENIX LEG 3 (PHNX03MV)  
 Survey area 2

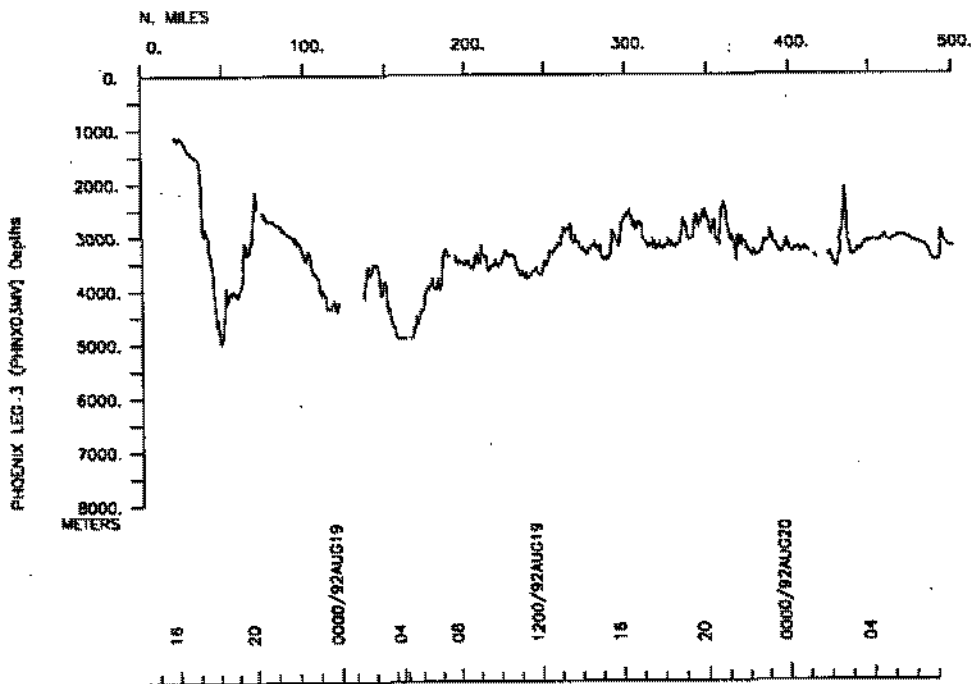
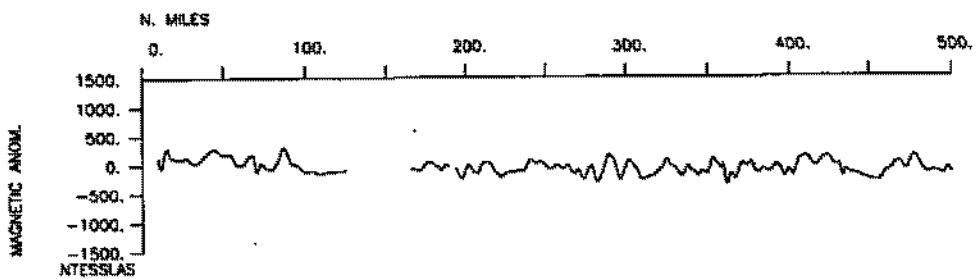
\*

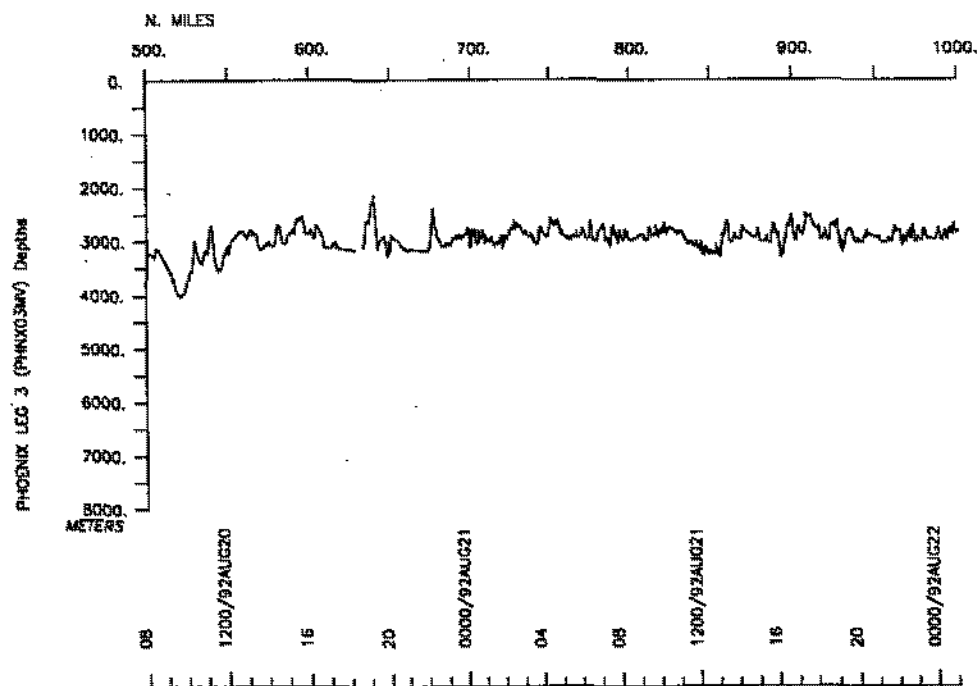
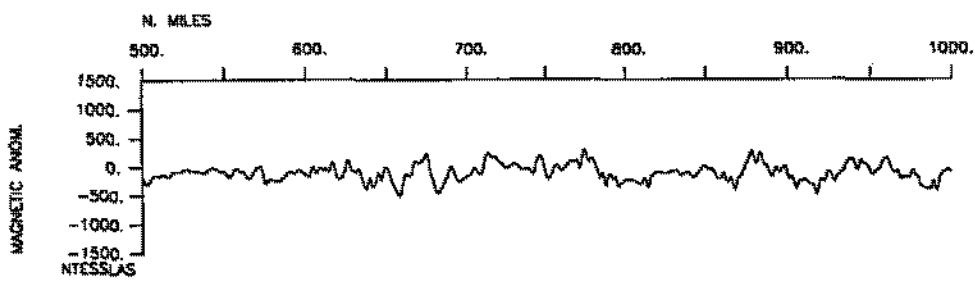


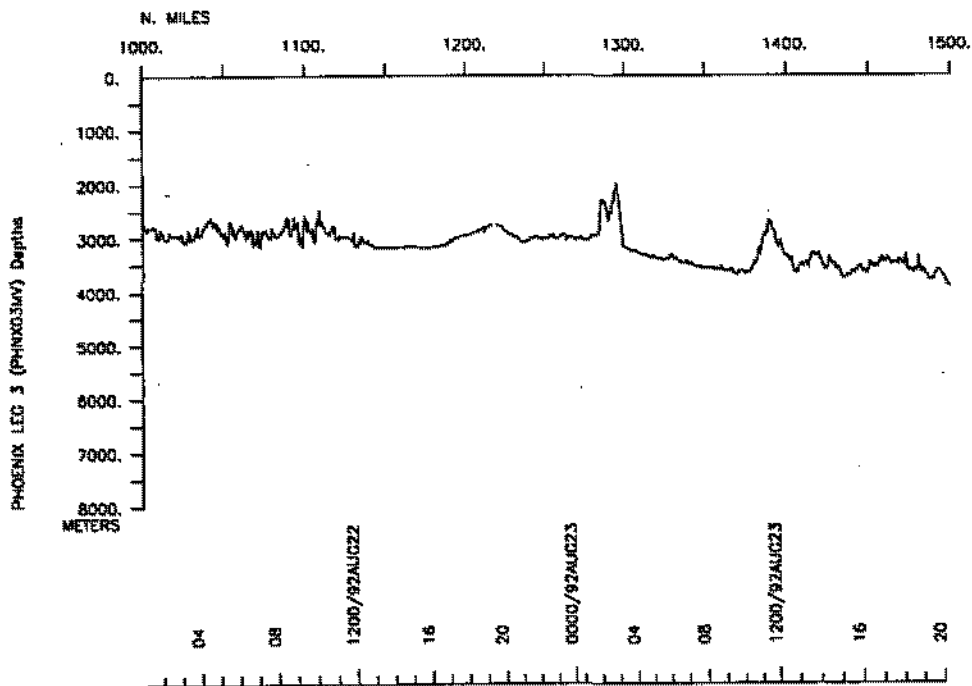
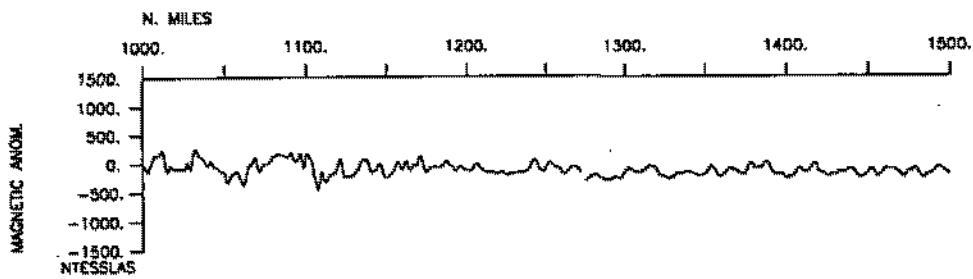
PHOENIX LEG 3 (PHNX03MV)  
 Survey area 3

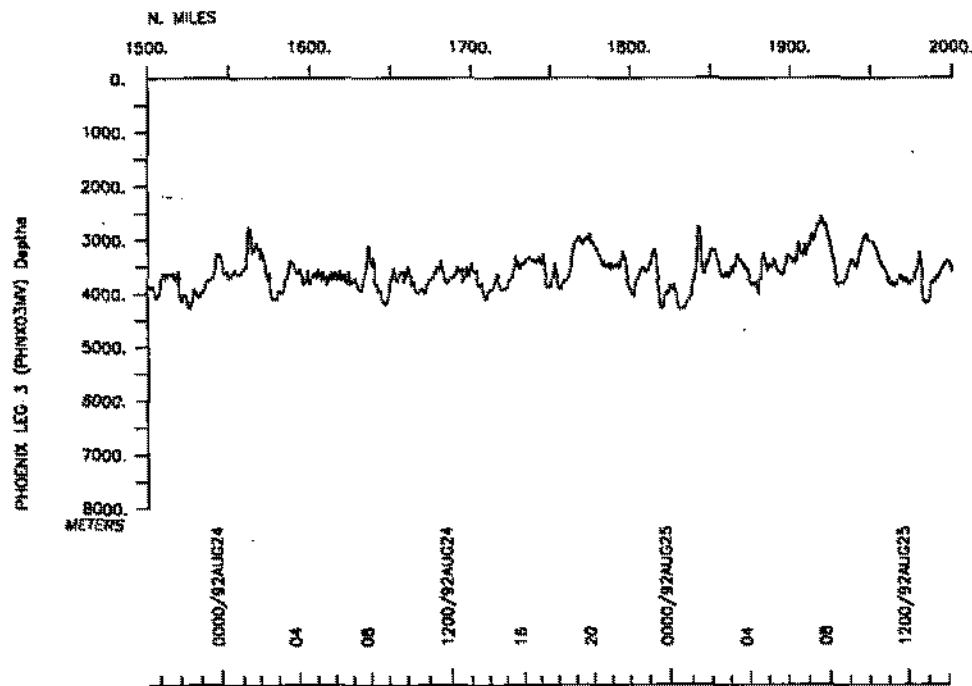
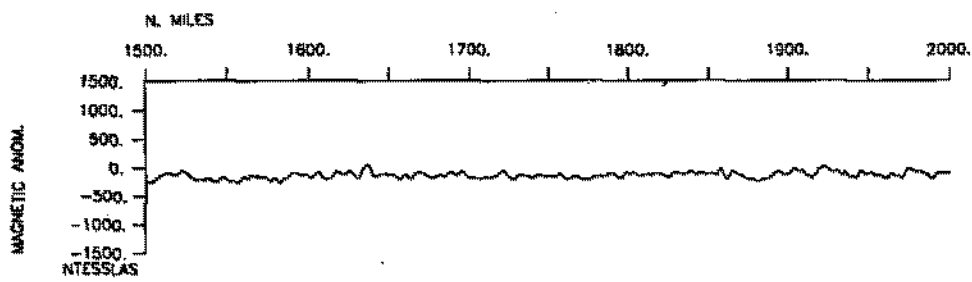
\*

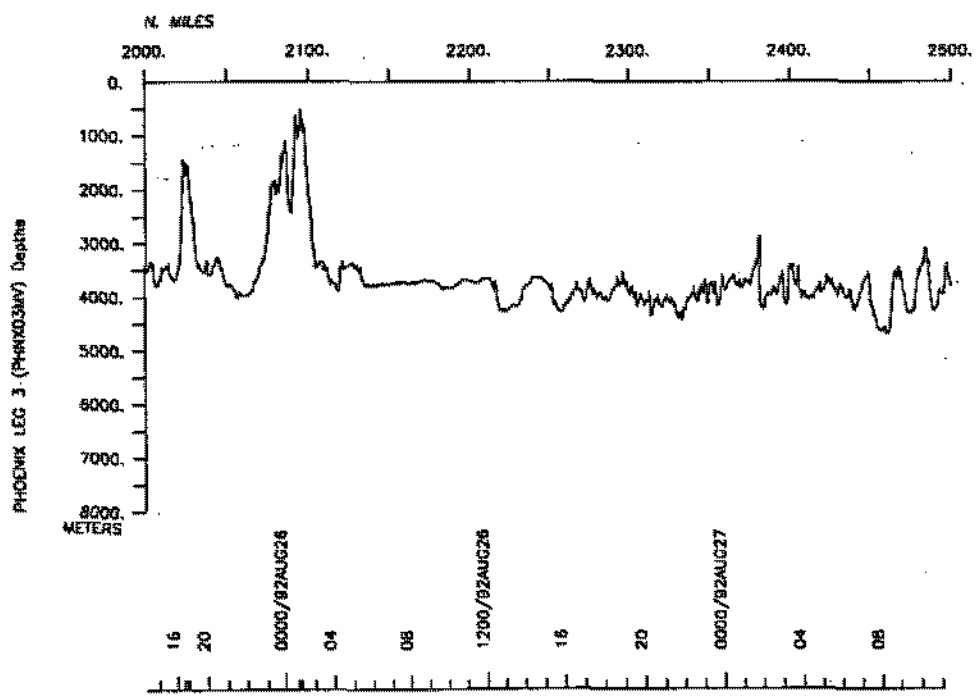
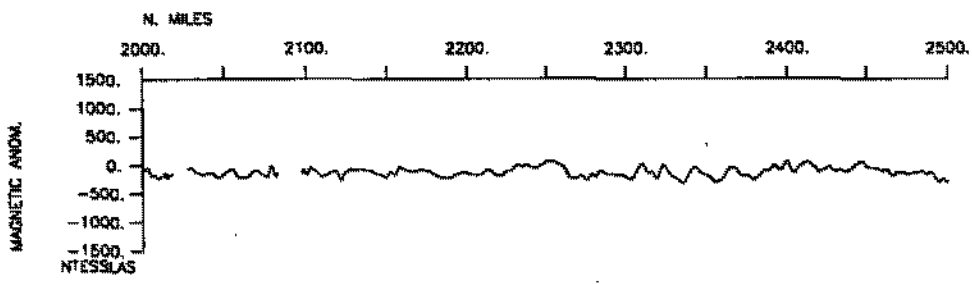


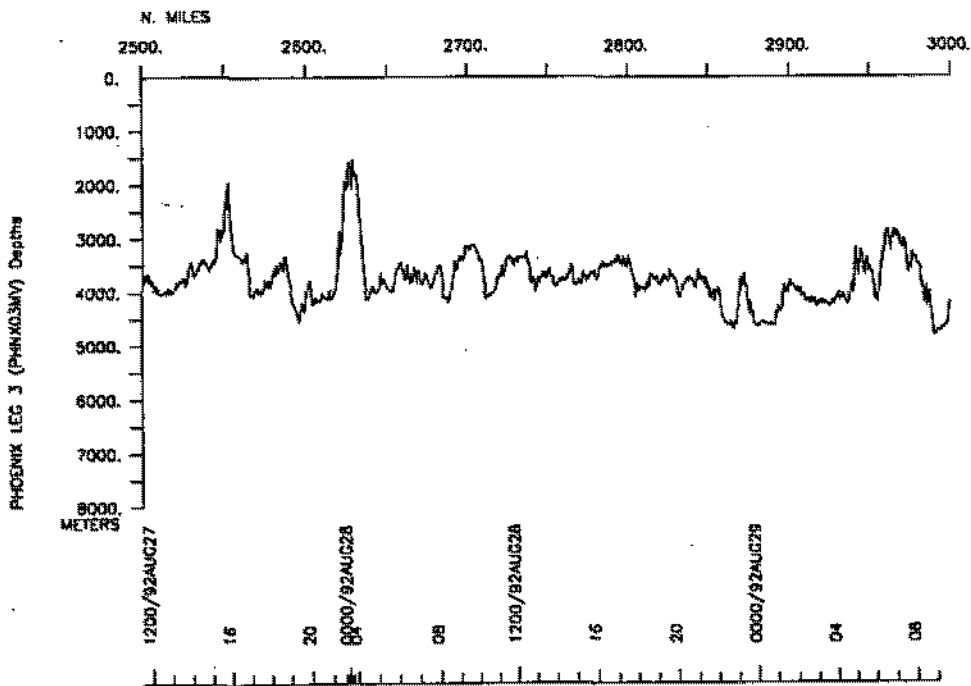
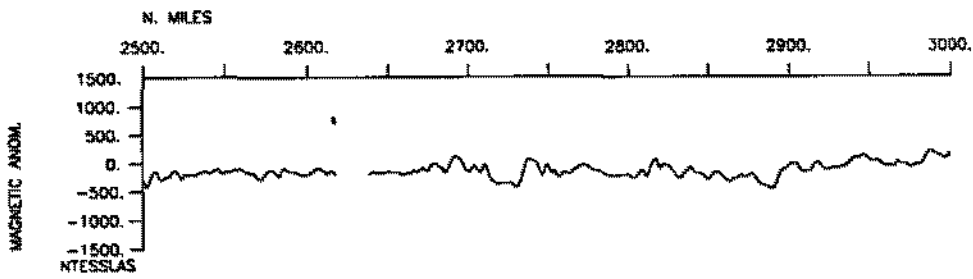


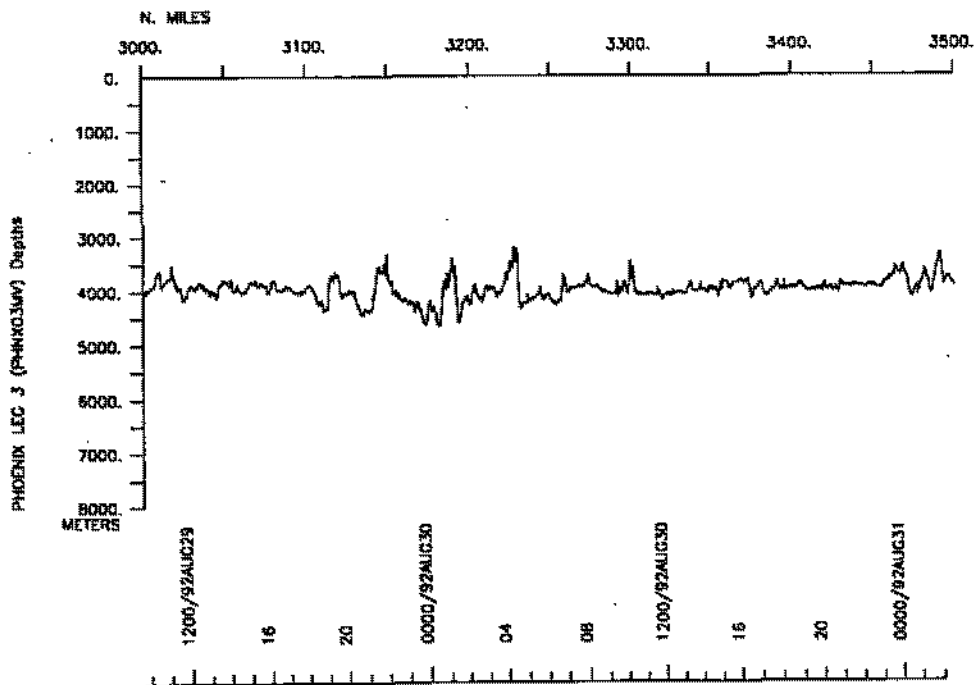
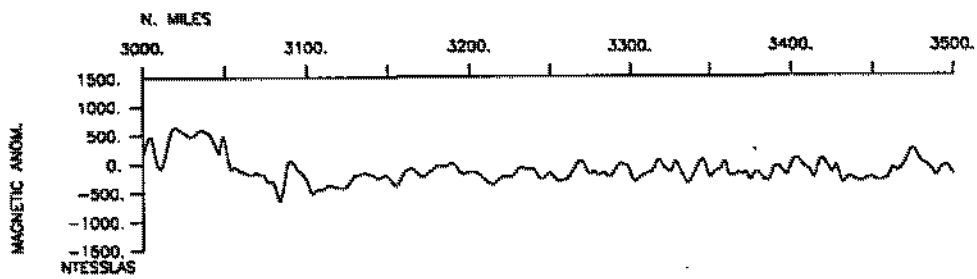


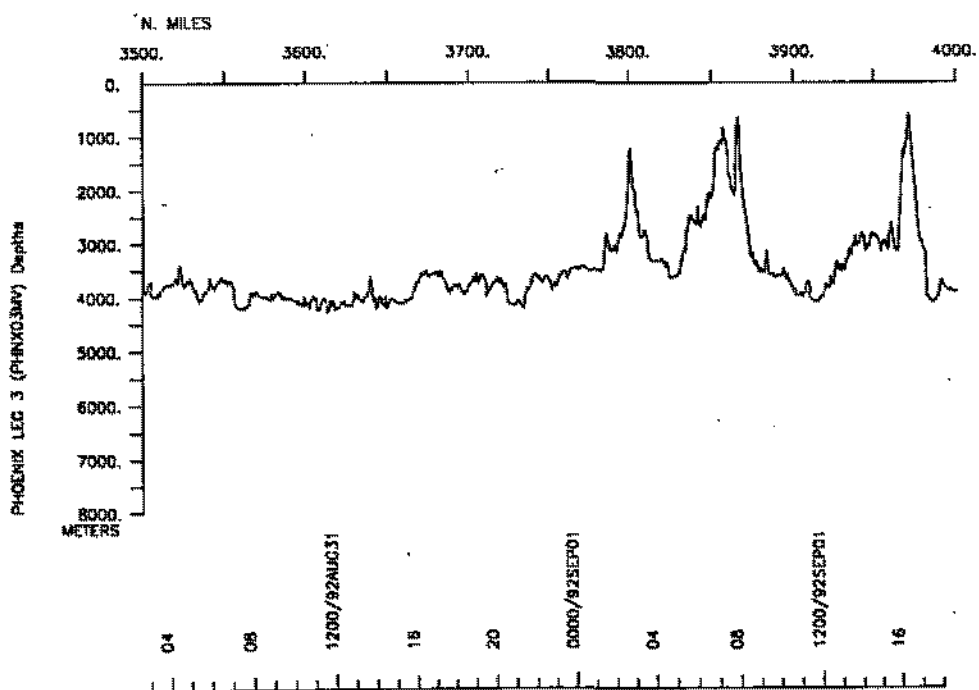
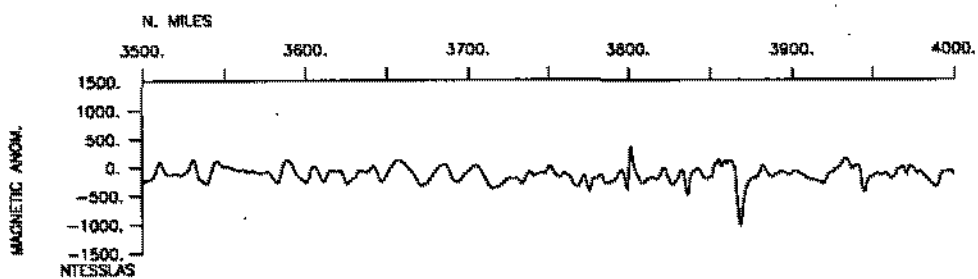




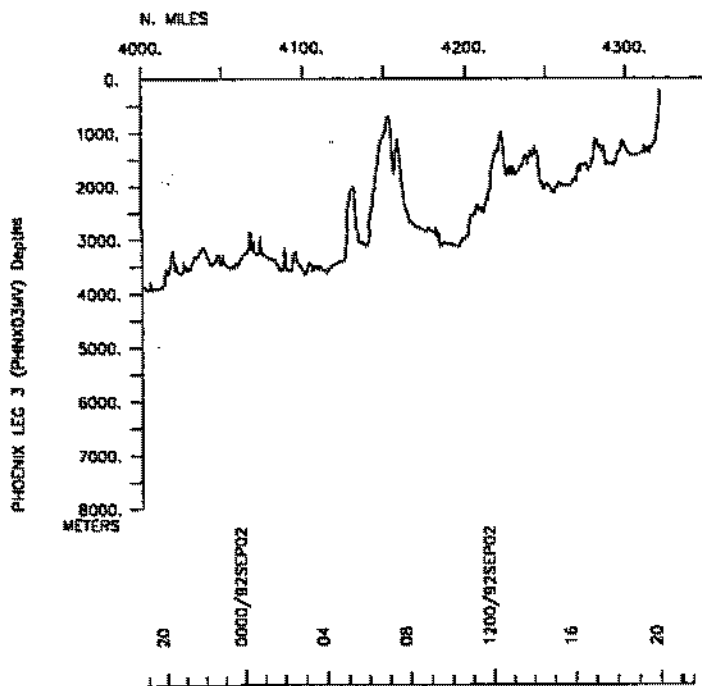
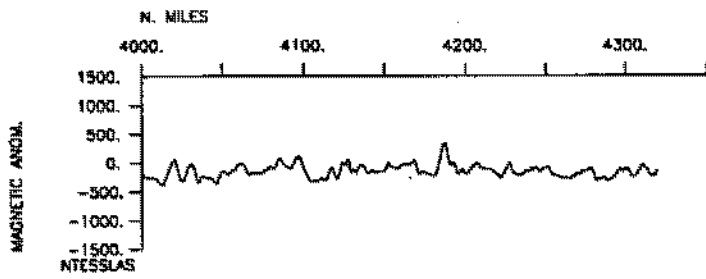












## S.I.O. SAMPLE INDEX

---

(Issued October 1992)

### PHOENIX EXPEDITION

#### Leg 3

---

R/V Melville

Manzanillo, Mexico (18 August 1992)  
to  
San Diego, California (2 September 1992)

Chief Scientist:

Peter Lonsdale (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 further computer searches on these parameters. (Listings defining these codes are available from the Geological Data Center.)*

GDC Cruise ID.# 260

\*\*\*\* PORTS \*\*\*\*

1500	180892	0	LGPT B	Manzanillo, Mexico	19-03	N 104-20	W f	PHNX03MV
2311	020992	0	LGPT E	San Diego, Calif.	32-43	N 117-11	W f	PHNX03MV

\*\*\*\* Personnel \*\*\*\*

#	*****NAME*****	*****TITLE*****	*****AFFILIATION*****	**CRID**
PECS MPL	Lonsdale, P.	Chief Scientist	Scripps Institution	PHNX03MV
PECT STS	Charters, J.	Computer tech	Scripps Institution	PHNX03MV
PEBE STS	Skinner, J.	Seabeam engineer	Scripps Institution	PHNX03MV
PEBO STS	Albright, U.	Seabeam operator	Scripps Institution	PHNX03MV
PEST SIO	O'Brian, M.	Student	Scripps Institution	PHNX03MV
PEST SIO	Small, C.	Student	Scripps Institution	PHNX03MV
PEST SIO	Tikku, A.	Student	Scripps Institution	PHNX03MV
PESP SIX	Staff, A.	Seabeam tech	Seabeam Instr. Inc.	PHNX03MV
PEXN CCS	Delgado, L.	Observer	CISESE, Ensenada	PHNX03MV
PEXN MEX	Fernandez, A.	Observer	FISCA, Mexico	PHNX03MV
PEXN MEX	Frias, J.	Observer	INE, Mexico	PHNX03MV
PEXN MEX	Gamez, E.	Observer	Sec. de Marina, Mex	PHNX03MV
PEXN CCS	Mendoza, R.	Observer	CISESE, Ensenada	PHNX03MV
PEXN MEX	Torrero, F.	Observer	SEDECOL, Mexico	PHNX03MV
PEXN MEX	Sanchez, O.	Observer	Inst. de Ocean., Mex	PHNX03MV

\*\*\*\* 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 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 - S. M. Smith ext. 42752 ***										
#*** Log Books ***										
1409	180892	0	LBUW	B Underway log book	GDC	19-03.65N	104-17.73W	g		PHNX03MV
2009	020992	0	LBUW	E Underway log book	GDC	32-26.02N	117-19.73W	g		PHNX03MV
#*** Echo Sounder Records ***										
1553	180892	0	MBSB	B SeaBeam monitor-01	GDC	18-55.39N	104-35.98W	g		PHNX03MV
1908	240892	0	MBSB	E SeaBeam monitor-01	GDC	24-48.05N	113-59.08W	g		PHNX03MV
1911	240892	0	MBSB	B SeaBeam monitor-02	GDC	24-48.59N	113-58.97W	g		PHNX03MV
0216	300892	0	MBSB	E SeaBeam monitor-02	GDC	27-03.17N	118-34.44W	g		PHNX03MV
0216	300892	0	MBSB	B SeaBeam monitor-03	GDC	27-03.17N	118-34.44W	g		PHNX03MV
2009	020992	0	MBSB	E SeaBeam monitor-03	GDC	32-26.02N	117-19.73W	g		PHNX03MV
#*** Sea Beam 200 and Vertical Beam Records ***										
1600	180892	0	MBSR	B SB Sidescan roll 01	GDC	18-54.72N	104-37.27W	g		PHNX03MV
0150	240892	0	MBSR	E SB Sidescan roll 01	GDC	24-04.94N	113-48.07W	g		PHNX03MV
0200	240892	0	MBSR	B SB Sidescan roll 02	GDC	24-03.28N	113-47.18W	g		PHNX03MV
1935	020992	0	MBSR	E SB Sidescan roll 02	GDC	32-20.09N	117-22.50W	g		PHNX03MV
#*** Magnetics (Earth Total Field) Records ***										
1505	180892	0	MGRA	B Magnetics r-01	GDC	19-00.31N	104-26.82W	g		PHNX03MV
1455	240892	0	MGRA	E Magnetics r-01	GDC	24-02.86N	114-01.37W	g		PHNX03MV
1504	240892	0	MGRA	B Magnetics r-02	GDC	24-04.38N	114-02.13W	g		PHNX03MV
0030	020992	0	MGRA	E Magnetics r-02	GDC	29-28.03N	118-40.66W	g		PHNX03MV
0042	020992	0	MGRA	B Magnetics r-03	GDC	29-30.20N	118-41.42W	g		PHNX03MV
2009	020992	0	MGRA	E Magnetics r-03	GDC	32-26.02N	117-19.73W	g		PHNX03MV
#*** Rock Dredge ***										
0141	280892	0	DRRO	Dredge 130	2108M GDC	28-07.34N	118-08.53W	g		PHNX03MV
#*** End Sample Index PHNX03MV										