

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

**ENCORE EXPEDITION**

**LEG 1**

**=====**

**R/V Thomas Washington**

**(Issued June 1992)**

**San Diego, California (2 April 1992)  
to  
Manzanillo, Mexico (7 May 1992)**

**Chief Scientist:**

**LeRoy Dorman (Scripps Institution of Oceanography)**

**Resident Marine Technician - John Boaz**

**Computer Technician - George Bouchard**

**No Sea Beam/Underway Processor on board**

**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 OCE91-03919**

**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.# 257**

**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 Sea Beam Data Information**

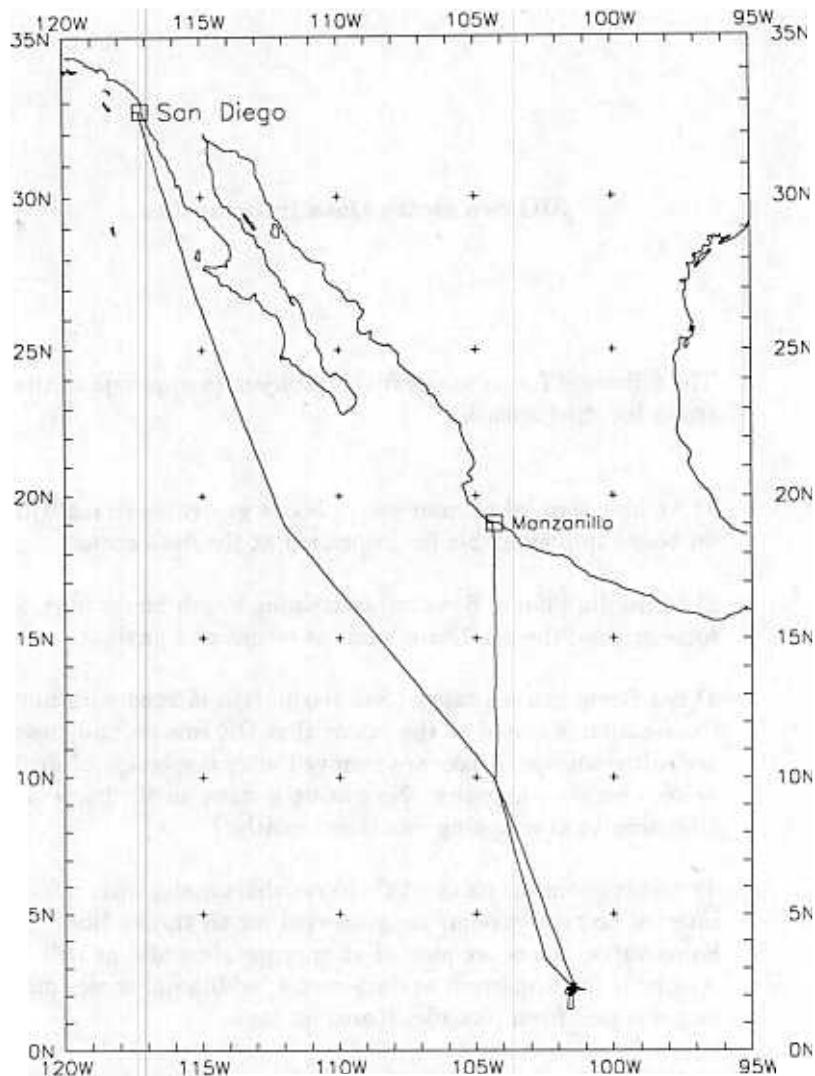
The following forms are available, subject to approval of the cruise leg chief scientist:

- 1) Archive copy of contour swath books generated in real time on board ship available for inspection at the data center.
- 2) Microfilm (35mm flowfilm) containing swath books plus, for some cruises, the Sea Beam monitor record and navigation list.
- 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 October 1986

**NOTE:** Sea Beam data collection and processing were not funded by extramural grants on this leg. Instead, they have been collected and processed in "transit mode" by the SIO Shipboard Technical Support group as part of an experimental program to optimize ship usage and to increase the amount of available Sea Beam data. At this time, policies for processing these data are under review. For more information, contact the Geological Data Center curator.

April 1989



ENCORE Leg 1 (ENCR01WT)

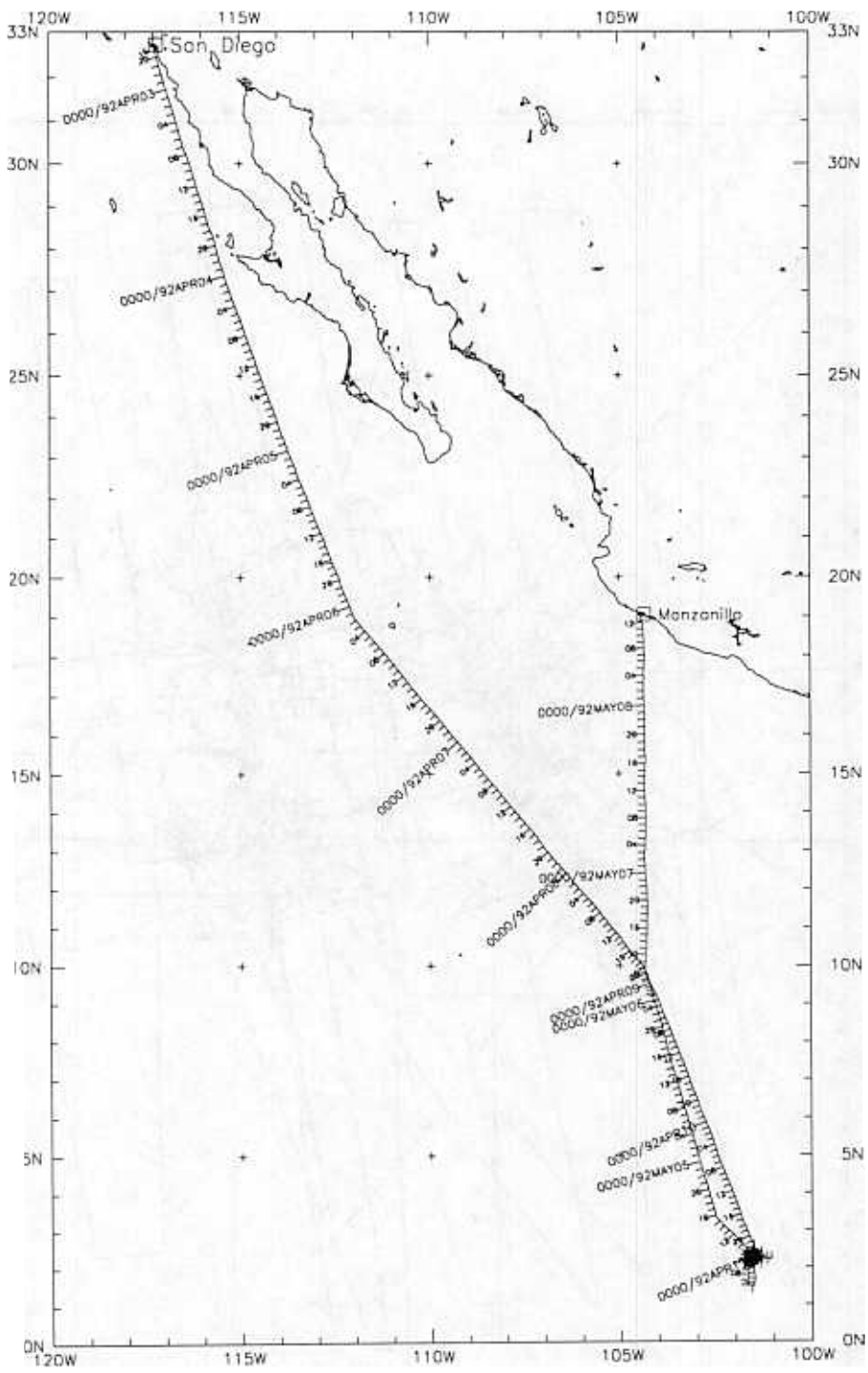
\*

ENCORE EXPEDITION LEG 1

CHIEF SCIENTIST: LeRoy Dorman  
 Scripps Institution of Oceanography  
 PORTS: San Diego - Manzanillo, Mexico  
 DATES: 2 April - 7 May 1992  
 SHIP: R/V T. Washington

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

Cruise - 4675 miles	Magnetics - 2425 miles
Bathymetry - 3960 miles	Seismic Reflection - none collected
Sea Beam - 3960 miles	Gravity - <del>none</del> collected by IGPP

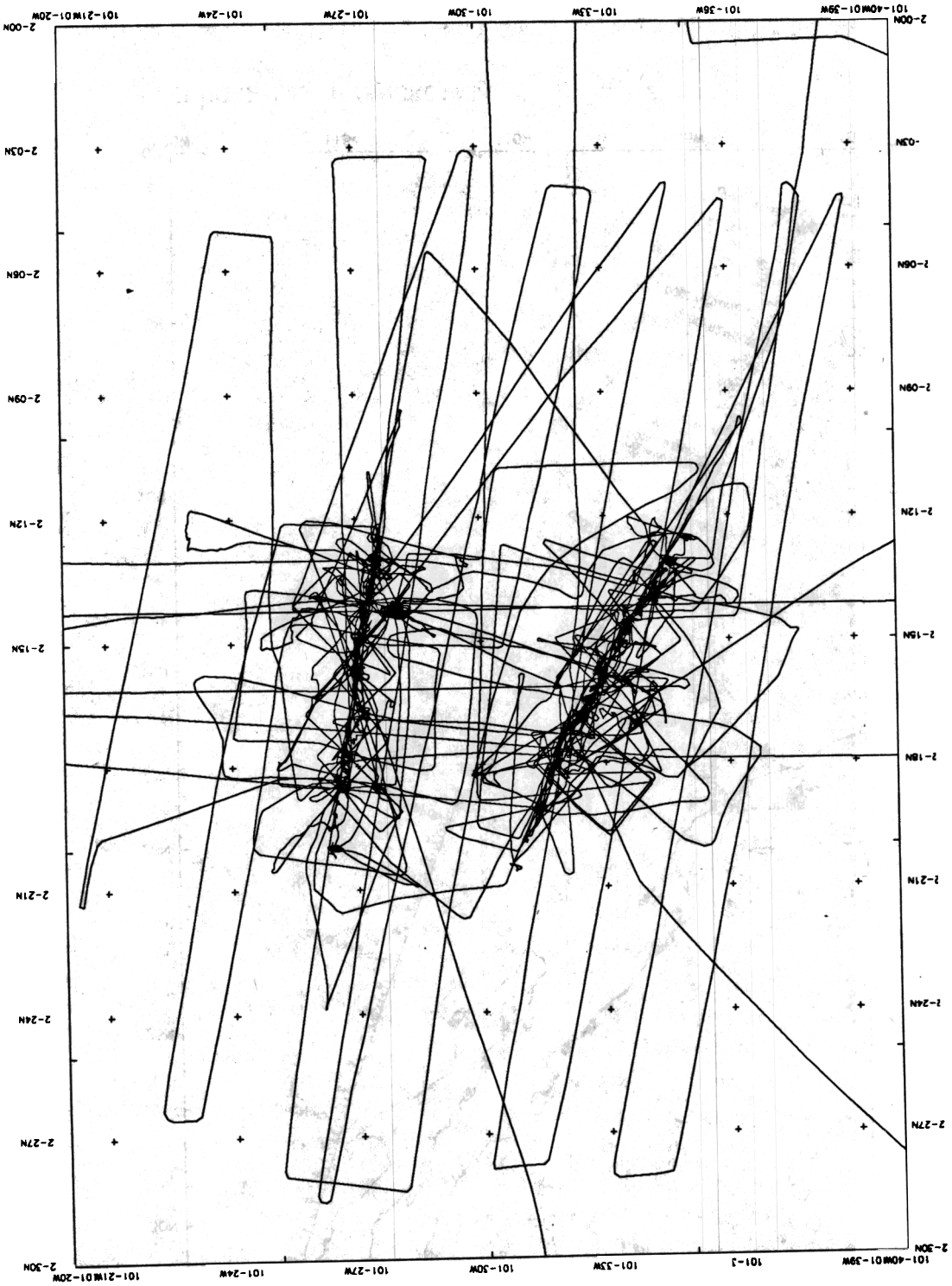


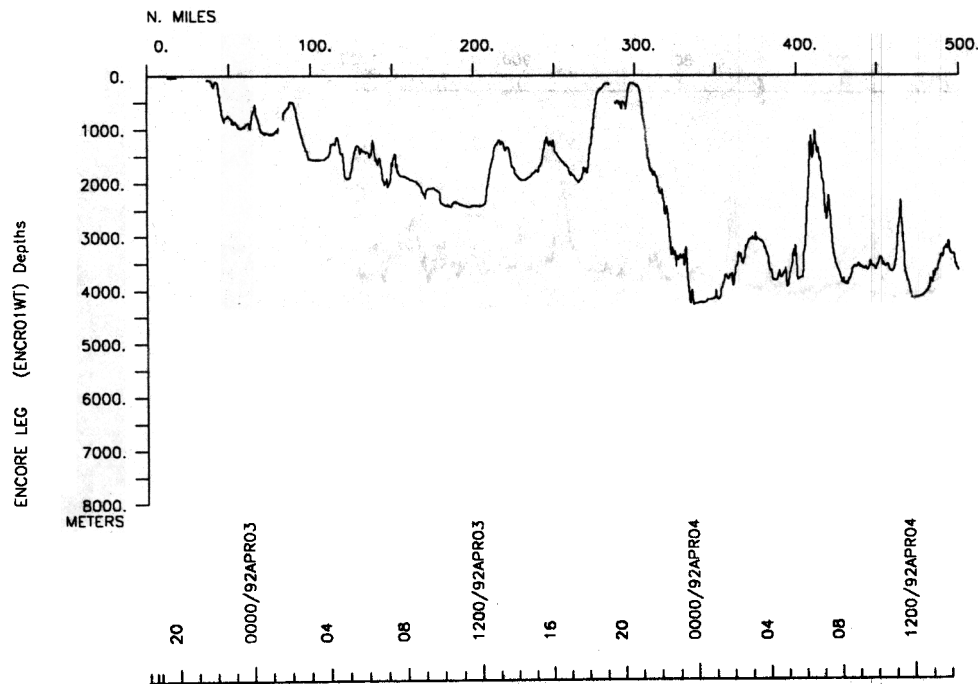
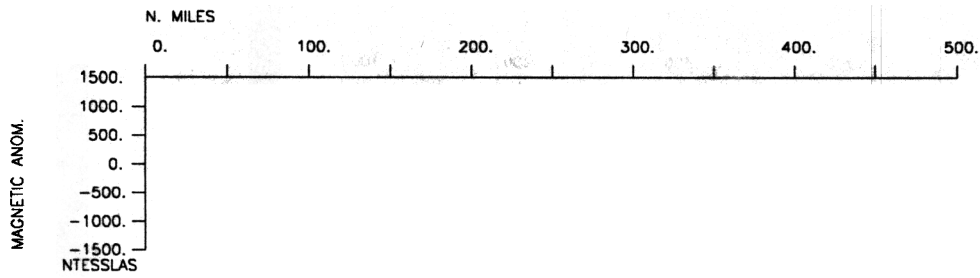
ENCORE Leg 1 (ENCRO1WT)

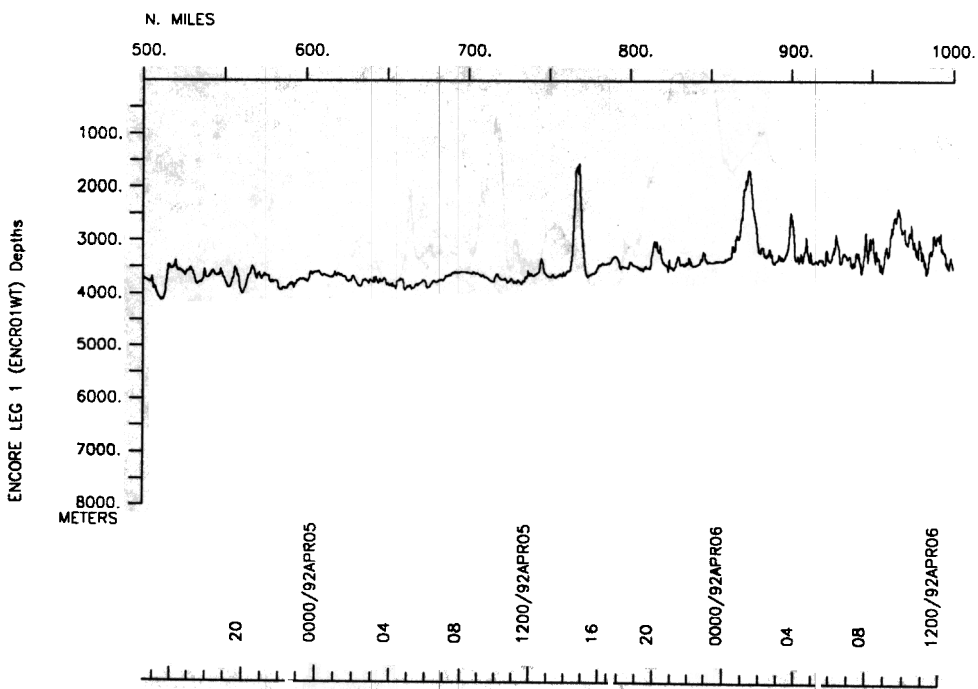
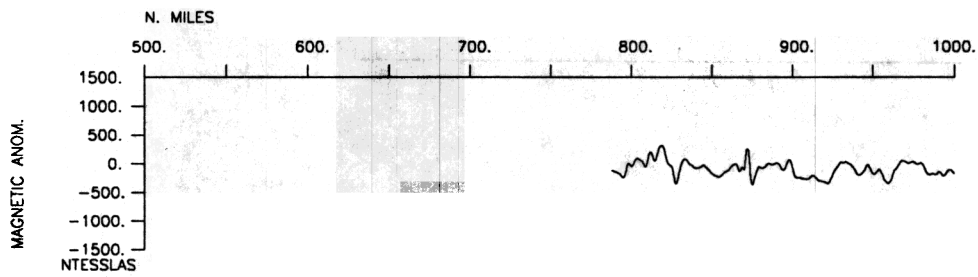
\*

ENCORE Leg 1 Survey Area (ENCRO1WT)

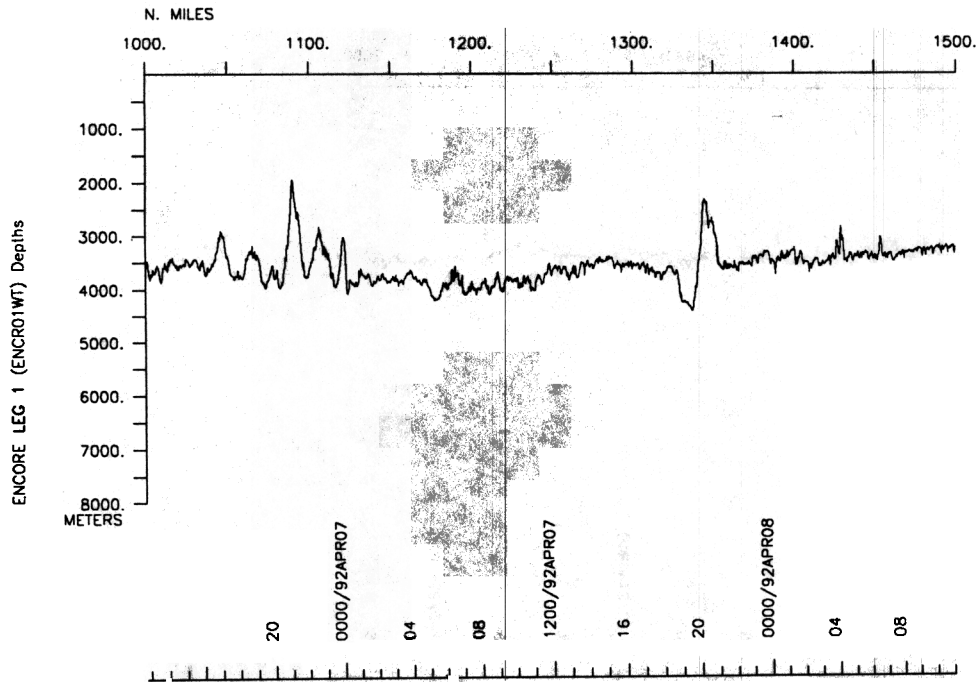
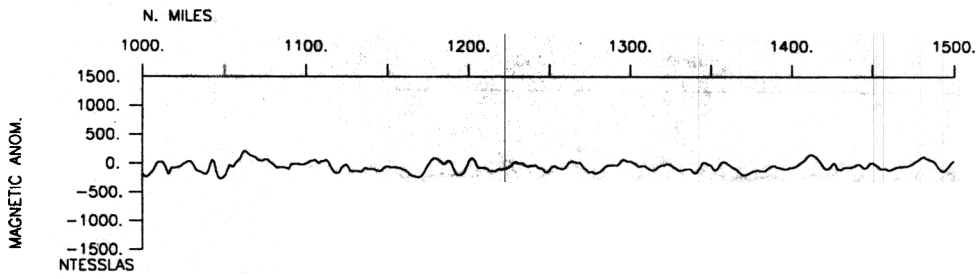
\*

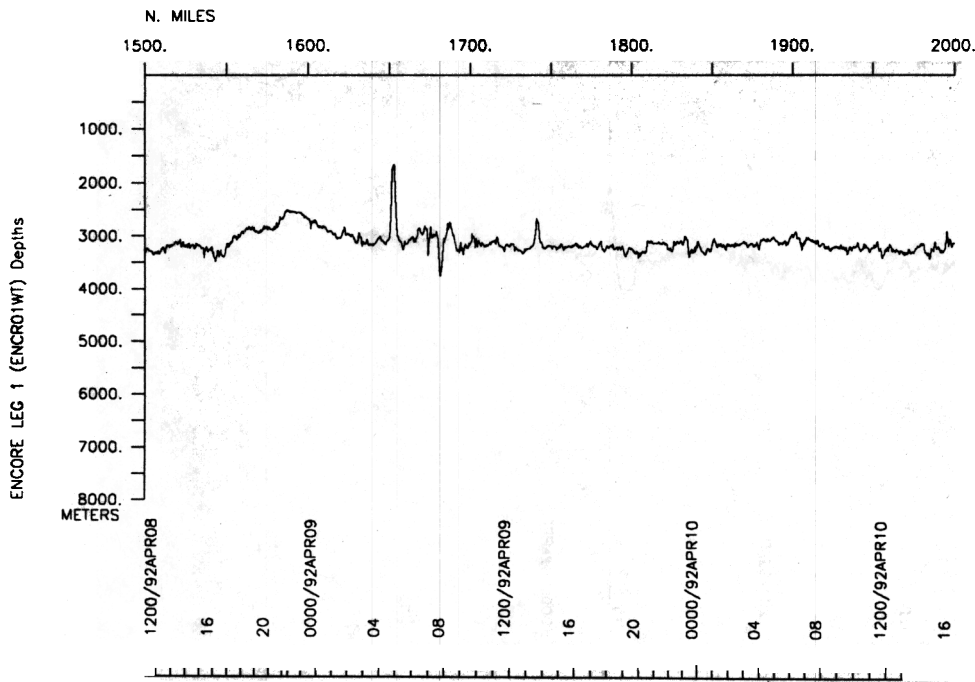
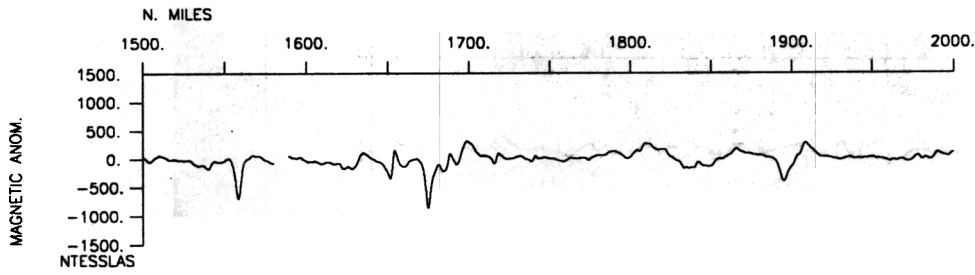


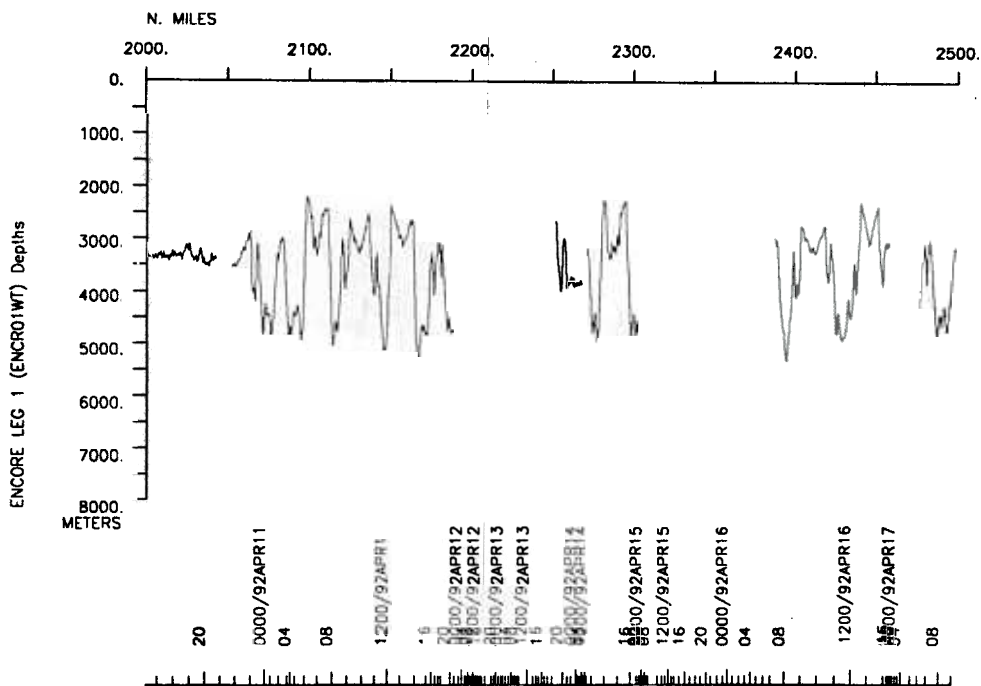
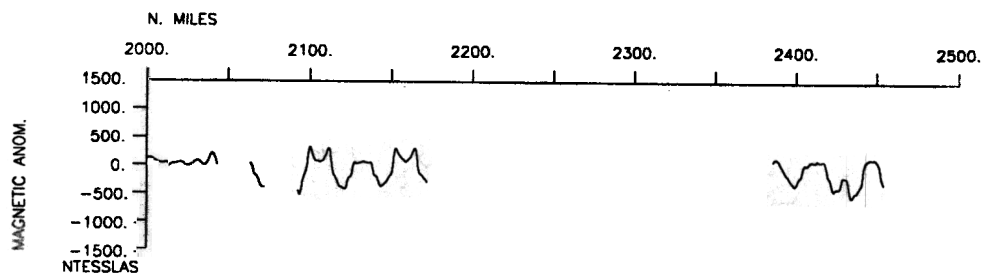


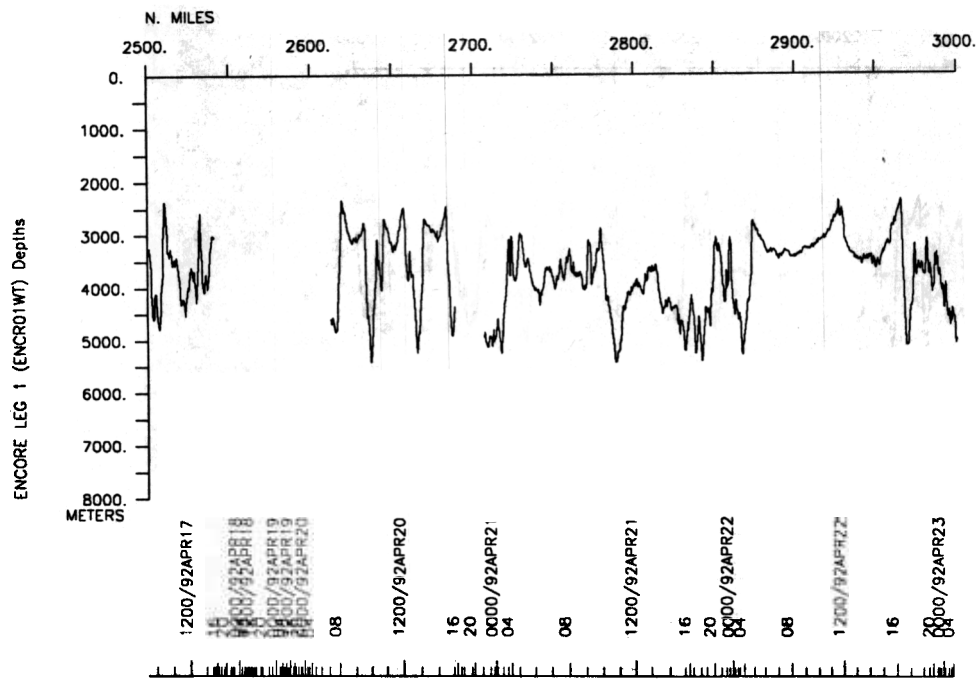
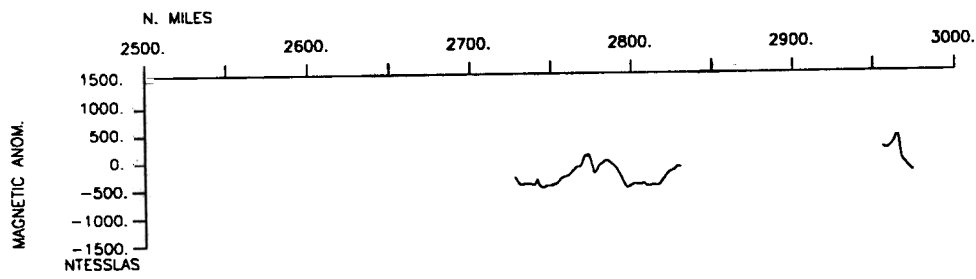


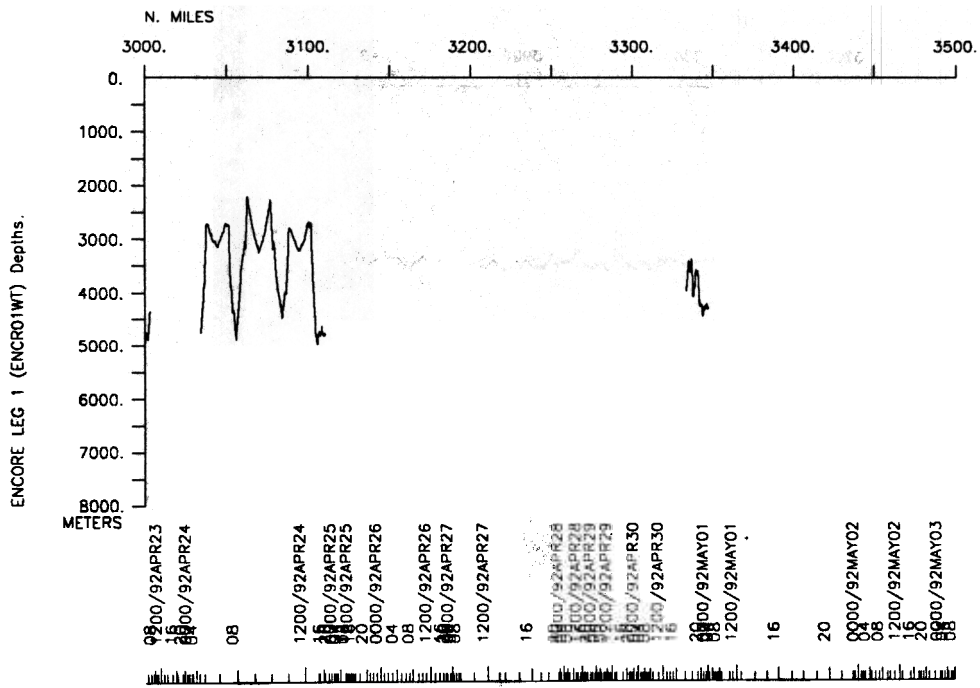
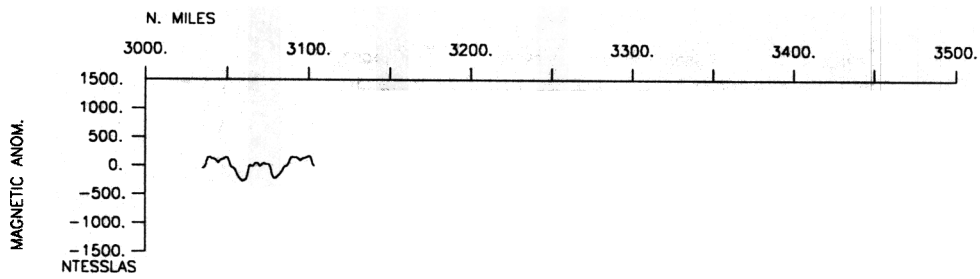


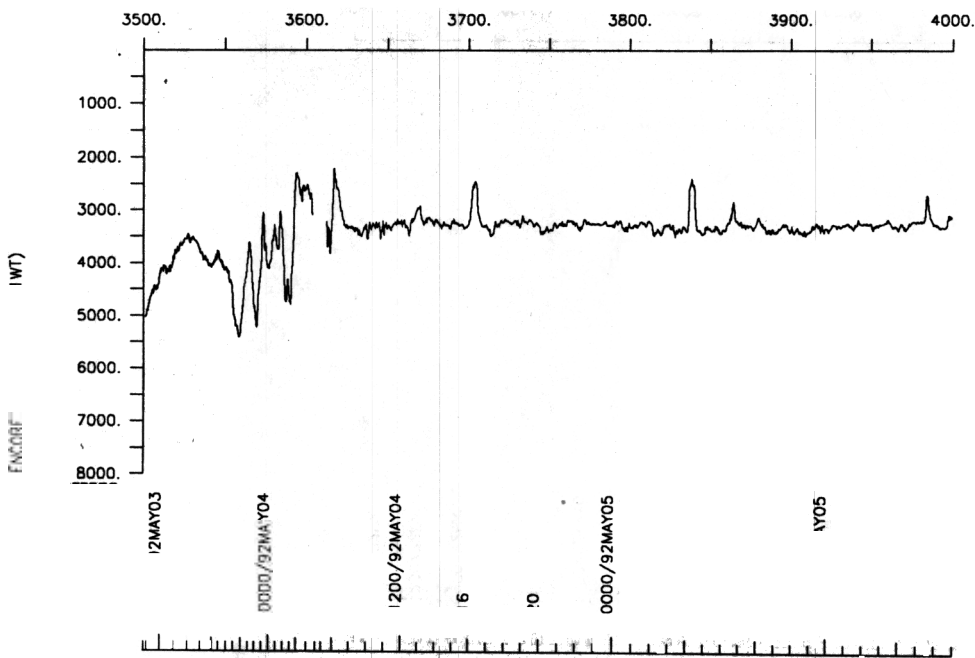
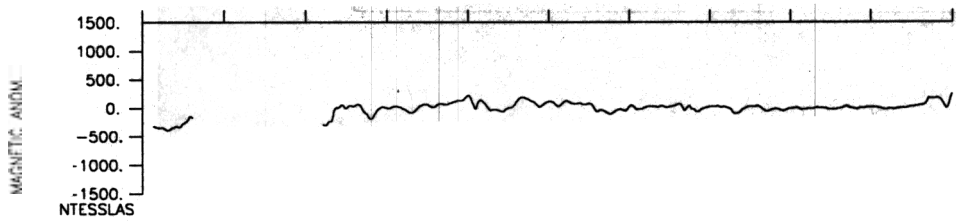


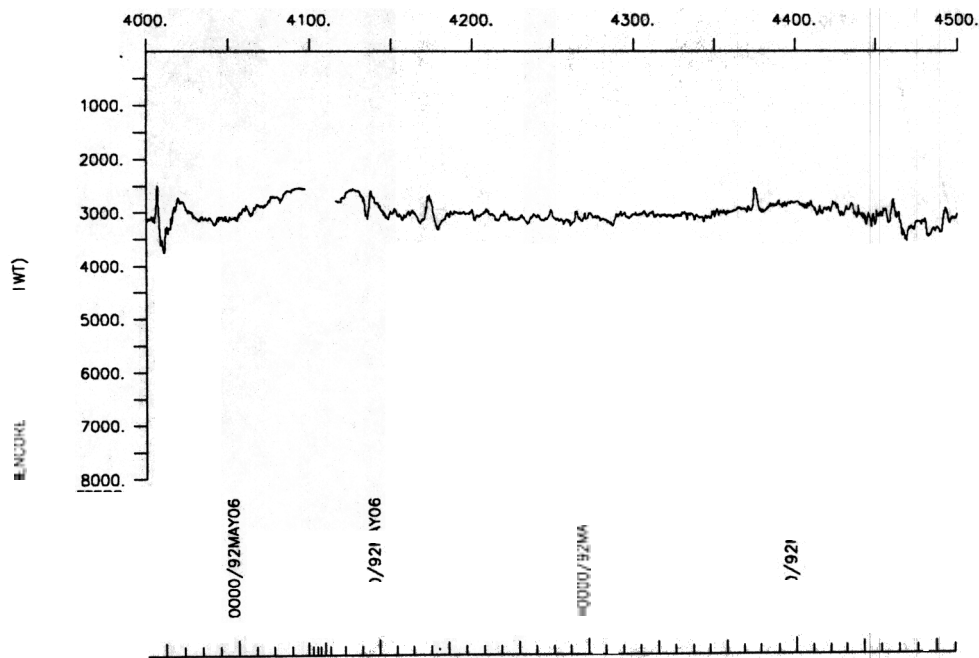
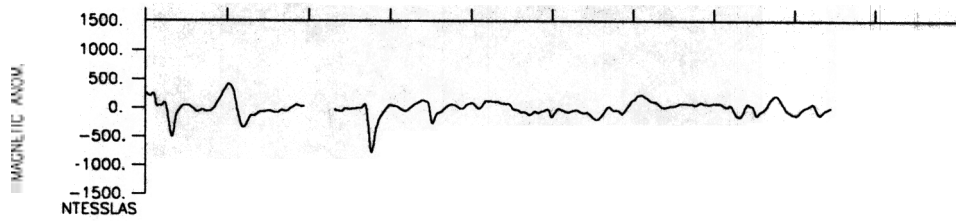


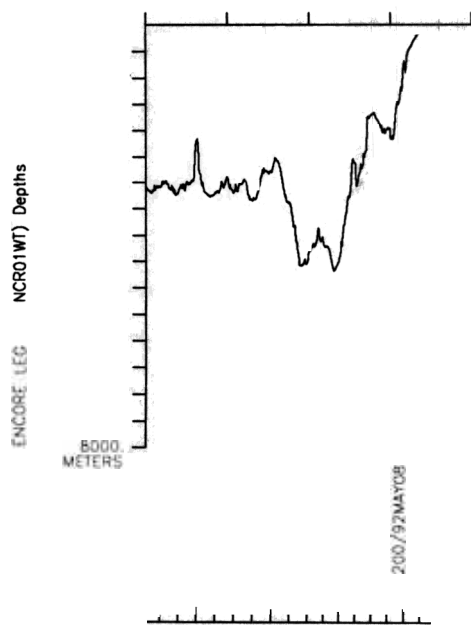
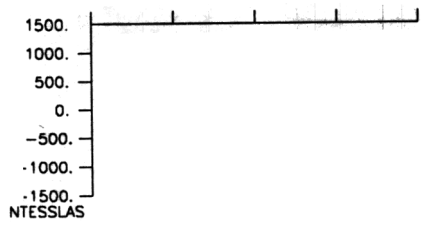














S.I.O. SAMPLE INDEX

---

(Issued June 1992)

ENCORE EXPEDITION

Leg 1

---

R/V T. Washington

San Diego, California (2 April 1992)  
to  
Manzanillo, Mexico (7 May 1992)

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

GDC Cruise I.D.# 257

\*\*\* Ports \*\*\*

1500	020492	LGPT B San Diego, Ca.	32-423N 117-142W	sENCRO1WT
1400	080592	LGPT E Manzanillo, Mex.	19-042N 104-191W	sENCRO1WT

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

#	*** Name ***	*** Title ***	*** Affiliation ***	**Crid**
PECS GRD	Dorman, L.	Chief Scientist	Scripps Institution	ENCRO1WT
PERT STS	Boaz, J.	Resident tech	Scripps Institution	ENCRO1WT
PECT STS	Bouchard, G.	Computer tech	Scripps Institution	ENCRO1WT
PEST GRD	Canuteson, E.	Student	Scripps Institution	ENCRO1WT
PEAT STS	Crampton, P.	Airgun tech	Scripps Institution	ENCRO1WT
PESP MPL	Hildebrand, J.	Scientist	Scripps Institution	ENCRO1WT
PEST GRD	Mcdonald, M.	Student	Scripps Institution	ENCRO1WT
PESP MPL	Sauter, A.	Specialist	Scripps Institution	ENCRO1WT
PESP MPL	Schreiner, A.	Specialist	Scripps Institution	ENCRO1WT
PEST MPL	Wiggins, S.	Student	Scripps Institution	ENCRO1WT

\*\*\* 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	LOC	T	SAMP	SAMPLE	DISP	LAT.	LONG.	CRUISE
#TIME	DATE	TIME	Z	CODE	IDENTIFIER	CODE	(TENTHS OF MINS)	LEG-SHIP	

\*\*\* Underway Data Curator - S. M. Smith ext. 42752 \*\*\*

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

# Sea Beam was operating but neither swath books nor EPC records were collected.  
 # Both echo sounders were used for the seismic explosive work.

\*\*\* Magnetics (Earth Total Field) Records \*\*\*

1736	050492	MGRA B Magnetics r-01	GDC 20-206N 112-337W	sENCRO1WT
1400	070592	MGRA E Magnetics r-01	GDC 14-550N 104-199W	sENCRO1WT

#GMT	DDMMYY	LOC	T	SAMP	SAMPLE	DISP	LAT.	LONG.	CRUISE
#TIME	DATE	TIME	Z	CODE	IDENTIFIER	CODE	(TENTHS	OF MINS)	LEG-SHIP

\*\*\* Expendable Bathythermographs \*\*\*

0150	040492			BTXP	xbt 0001 probe t-4	GDC	27-015N	115-167W	sENCR01WT
1947	090492			BTXP	xbt 0002 probe t-4	GDC	6-286N	102-591W	sENCR01WT

\*\*\* Shipboard gravity \*\*\* *on Laoste - Romberg gravimeter*

1800	020492			GVXX	B Gravity	IGP	32-385N	117-134W	sENCR01WT
1500	080592			GVXX	E Gravity	IGP	19-036N	104-180W	sENCR01WT

\*\*\* Sea Quake Bottom Seismometer \*\*\*

2210	080492			SQBS	X rumble-meter	MPL	9-479N	104-174W	sENCR01WT
------	--------	--	--	------	----------------	-----	--------	----------	-----------

\*\*\* Seismic Buoy, Ocean Bottom Seismometer \*\*\*

0351	110492			SBOB	B obs 8, site 3	GRD	2-155N	101-268W	sENCR01WT
1506	170492			SBOB	E obs 8, site 3	GRD	2-184N	101-265W	sENCR01WT
0511	110492			SBOB	B obs 9, site 1	GRD	2-140N	101-272W	sENCR01WT
1722	180492			SBOB	E obs 9, site 1	GRD	2-150N	101-247W	sENCR01WT
1526	110492			SBOB	B obs 6, site 2	GRD	2-149N	101-271W	sENCR01WT
1833	170492			SBOB	E obs 6, site 2	GRD	2-151N	101-270W	sENCR01WT
1621	110492			SBOB	B obs 7, site 5	GRD	2-177N	101-267W	sENCR01WT
2100	180492			SBOB	E obs 7, site 5	GRD	2-146N	101-271W	sENCR01WT
1712	110492			SBOB	B obs 4, site 4	GRD	2-167N	101-271W	sENCR01WT
1632	170492			SBOB	E obs 4, site 4	GRD	2-178N	101-263W	sENCR01WT
1822	110492			SBOB	B obs 15, site 6	GRD	2-186N	101-266W	sENCR01WT
1455	170492			SBOB	E obs 15, site 6	GRD	2-184N	101-265W	sENCR01WT
2348	200492			SBOB	B obs 9, site 7	GRD	2-138N	101-341W	sENCR01WT
2150	010592			SBOB	E obs 9, site 7	GRD	2-146N	101-345W	sENCR01WT
1554	210492			SBOB	B obs 8, site 9	GRD	2-153N	101-328W	sENCR01WT
2320	010592			SBOB	E obs 8, site 9	GRD	2-139N	101-341W	sENCR01WT

#GMT #TIME #	DDMMYY DATE	LOC TIME	T Z	SAMP CODE	SAMPLE IDENTIFIER	DISP CODE	LAT. (TENTHS OF MINS)	LONG. (TENTHS OF MINS)	CRUISE LEG-SHIP
2152	210492			SBOB B	obs 11, site 11	GRD	2-167N	101-325W	sENCR01WT
1410	020592			SBOB E	obs 11, site 11	GRD	2-167N	101-324W	sENCR01WT
2246	210492			SBOB B	obs 5, site 13	GRD	2-171N	101-320W	sENCR01WT
1458	020592			SBOB E	obs 5, site 13	GRD	2-167N	101-324W	sENCR01WT
2322	210492			SBOB B	obs 7, site 14	GRD	2-179N	101-318W	sENCR01WT
1753	020592			SBOB E	obs 7, site 14	GRD	2-179N	101-317W	sENCR01WT
0308	220492			SBOB B	obs 4, site 10	GRD	2-158N	101-328W	sENCR01WT
0030	020592			SBOB E	obs 4, site 10	GRD	2-146N	101-336W	sENCR01WT
0337	220492			SBOB B	obs 6, site 8	GRD	2-145N	101-335W	sENCR01WT
2235	010592			SBOB E	obs 6, site 8	GRD	2-138N	101-340W	sENCR01WT
1831	220492			SBOB X	obs 10, site 15	GRD	2-183N	101-316W	sENCR01WT
1932	220492			SBOB B	obs 1, site 16	GRD	2-190N	101-313W	sENCR01WT
1840	020592			SBOB E	obs 1, site 16	GRD	2-186N	101-314W	sENCR01WT
2349	220492			SBOB B	obs 2, site 18	GRD	2-169N	101-337W	sENCR01WT
0200	020592			SBOB E	obs 2, site 18	GRD	2-159N	101-329W	sENCR01WT
0930	230492			SBOB X	obs 13, site 17	GRD	2-142N	101-281W	sENCR01WT

#GMT	DDMMYY	LOC	T	SAMP	SAMPLE	DISP	LAT.	LONG.	CRUISE
#TIME	DATE	TIME	Z	CODE	IDENTIFIER	CODE	(TENTHS	OF MINS)	LEG-SHIP

\*\*\* Seismic Reflection with Explosives \*\*\*

0607	120492			SPXX	explosive shot se1	GRD	2-128N	101-275W	sENCRO1WT
0123	130492			SPXX	explosive shot se2	GRD	2-134N	101-273W	sENCRO1WT
0425	130492			SPXX	explosive shot se3	GRD	2-137N	101-272W	sENCRO1WT
0629	130492			SPXX	explosive shot se4	GRD	2-145N	101-271W	sENCRO1WT
0825	130492			SPXX	explosive shot se5	GRD	2-151N	101-270W	sENCRO1WT
2259	140492			SPXX	explosive shot se6	GRD	2-157N	101-270W	sENCRO1WT
0040	150492			SPXX	explosive shot se7	GRD	2-162N	101-269W	sENCRO1WT
0245	150492			SPXX	explosive shot se8	GRD	2-170N	101-270W	sENCRO1WT
0416	150492			SPXX	explosive shot se9	GRD	2-173N	101-269W	sENCRO1WT
0553	150492			SPXX	explosive shot se10	GRD	2-179N	101-266W	sENCRO1WT
1948	160492			SPXX	explosive shot se11	GRD	2-183N	101-265W	sENCRO1WT
2123	160492			SPXX	explosive shot se12	GRD	2-188N	101-264W	sENCRO1WT
2242	160492			SPXX	explosive shot se13	GRD	2-191N	101-264W	sENCRO1WT
0037	170492			SPXX	explosive shot se14	GRD	2-194N	101-262W	sENCRO1WT
2140	230492			SPXX	explosive shot sw15	GRD	2-125N	101-350W	sENCRO1WT
1820	240492			SPXX	explosive shot sw16	GRD	2-131N	101-345W	sENCRO1WT
2020	240492			SPXX	explosive shot sw17	GRD	2-136N	101-342W	sENCRO1WT
2230	240492			SPXX	explosive shot sw18	GRD	2-143N	101-338W	sENCRO1WT
2111	260492			SPXX	explosive shot sw19	GRD	2-148N	101-335W	sENCRO1WT
2320	260492			SPXX	explosive shot sw20	GRD	2-154N	101-330W	sENCRO1WT
0121	270492			SPXX	explosive shot sw21	GRD	2-160N	101-326W	sENCRO1WT
0350	270492			SPXX	explosive shot sw22	GRD	2-168N	101-323W	sENCRO1WT
0640	270492			SPXX	explosive shot sw23	GRD	2-171N	101-321W	sENCRO1WT
2330	270492			SPXX	explosive shot sw24	GRD	2-177N	101-318W	sENCRO1WT
0140	280492			SPXX	explosive shot sw25	GRD	2-184N	101-316W	sENCRO1WT
0400	280492			SPXX	explosive shot sw26	GRD	2-191N	101-312W	sENCRO1WT
0630	280492			SPXX	explosive shot sw27	GRD	2-198N	101-310W	sENCRO1WT
2056	290492			SPXX	explosive shot sw28	GRD	2-140N	101-340W	sENCRO1WT
2320	290492			SPXX	explosive shot sw29	GRD	2-145N	101-337W	sENCRO1WT
0140	300492			SPXX	explosive shot sw30	GRD	2-151N	101-334W	sENCRO1WT
0410	300492			SPXX	explosive shot sw31	GRD	2-156N	101-329W	sENCRO1WT
0600	300492			SPXX	explosive shot sw32	GRD	2-162N	101-327W	sENCRO1WT
1725	300492			SPXX	explosive shot sw33	GRD	2-204N	101-306W	sENCRO1WT
1831	300492			SPXX	explosive shot sw34	GRD	2-169N	101-336W	sENCRO1WT
1935	300492			SPXX	explosive shot sw35	GRD	2-168N	101-331W	sENCRO1WT
2012	300492			SPXX	explosive shot sw36	GRD	2-167N	101-328W	sENCRO1WT
2101	300492			SPXX	explosive shot sw37	GRD	2-159N	101-332W	sENCRO1WT
0313	010592			SPXX	explosive shot sw38	GRD	2-164N	101-324W	sENCRO1WT
0525	010592			SPXX	explosive shot sw39	GRD	2-175N	101-320W	sENCRO1WT

#GMT	DDMMYY	LOC	T	SAMP	SAMPLE	DISP	LAT.	LONG.	CRUISE
#TIME	DATE	TIME	Z	CODE	IDENTIFIER	CODE	(TENTHS	OF MINS)	LEG-SHIP

Seismic Reflection Survey \*\*\*

1240	130492			SPSV	B airguns to obs	GRD	2-105N	101-278W	SENCR01WT
1813	130492			SPSV	E airguns to obs	GRD	2-207N	101-257W	SENCR01WT
0931	150492			SPSV	B airguns to obs	GRD	2-171N	101-318W	SENCR01WT
0621	160492			SPSV	E airguns to obs	GRD	2-130N	101-298W	SENCR01WT
1958	250492			SPSV	B airguns to obs	GRD	2-102N	101-360W	SENCR01WT
1401	260492			SPSV	E airguns to obs	GRD	2-153N	101-315W	SENCR01WT
1050	300492			SPSV	B airguns to obs	GRD	2-159N	101-330W	SENCR01WT
1551	300492			SPSV	E airguns to obs	GRD	2-167N	101-308W	SENCR01WT
1634	030592			SPSV	B seismic survey	GRD	2-143N	101-188W	SENCR01WT
0402	040592			SPSV	E seismic survey	GRD	2-080N	101-283W	SENCR01WT

Sea Floor Gravity \*\*\*

0527	140492			GVXX	sea floor grav e1	MPL	2-199N	101-263W	SENCR01WT
0717	140492			GVXX	sea floor grav e2	MPL	2-195N	101-263W	SENCR01WT
0026	180492			GVXX	sea floor grav e4	MPL	2-121N	101-275W	SENCR01WT
0555	180492			GVXX	sea floor grav e5	MPL	2-129N	101-273W	SENCR01WT
0804	180492			GVXX	sea floor grav e6	MPL	2-135N	101-273W	SENCR01WT
1037	180492			GVXX	sea floor grav e7	MPL	2-140N	101-272W	SENCR01WT
0827	190492			GVXX	sea floor grav e9	MPL	2-149N	101-270W	SENCR01WT
1045	190492			GVXX	sea floor grav e10	MPL	2-154N	101-270W	SENCR01WT
1813	190492			GVXX	sea floor grav e12	MPL	2-166N	101-270W	SENCR01WT
2022	190492			GVXX	sea floor grav e13	MPL	2-174N	101-267W	SENCR01WT
0824	250492			GVXX	sea floor grav w1	MPL	2-133N	101-344W	SENCR01WT
1008	250492			GVXX	sea floor grav w2	MPL	2-137N	101-341W	SENCR01WT
1229	250492			GVXX	sea floor grav w3	MPL	2-141N	101-339W	SENCR01WT
1448	250492			GVXX	sea floor grav w4	MPL	2-145N	101-335W	SENCR01WT
1359	280492			GVXX	sea floor grav w5	MPL	2-148N	101-335W	SENCR01WT
1524	280492			GVXX	sea floor grav w6	MPL	2-149N	101-334W	SENCR01WT
1935	280492			GVXX	sea floor grav w7	MPL	2-154N	101-331W	SENCR01WT
2113	280492			GVXX	sea floor grav w8	MPL	2-157N	101-329W	SENCR01WT
2314	280492			GVXX	sea floor grav w9	MPL	2-161N	101-328W	SENCR01WT
0125	290492			GVXX	sea floor grav w10	MPL	2-166N	101-324W	SENCR01WT
0433	290492			GVXX	sea floor grav w11	MPL	2-169N	101-321W	SENCR01WT
0713	290492			GVXX	sea floor grav w12	MPL	2-181N	101-316W	SENCR01WT
0928	290492			GVXX	sea floor grav w13	MPL	2-190N	101-313W	SENCR01WT

End Sample Index

SENCR01WT