

REPORT AND INDEX OF
UNDERWAY MARINE GEOPHYSICAL DATA
WESTWARD EXPEDITION

LEG 8

(WEST08MV)

R/V MELVILLE

(Issued March 1995)

Ports:

Dunedin, New Zealand (16 November 1994)
to
Fremantle, Australia (5 December 1994)

Chief Scientist:

John Orcutt (Scripps Institution)

Resident Marine Technician - Gene Pillard

Computer Technician - Ronald Moe

Post-Cruise Processing and Report Preparation by the
Geological Data Center, Scripps Institution of Oceanography
La Jolla, California 92093-0223

Data Collection and Processing Funded by:
NSF OCE94-00707

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 I.D.# 266

**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 if 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, California 92093-0223.

Phone: (619)534-2752, FAX: (619)534-5306, Internet email: ssmith@ucsd.edu

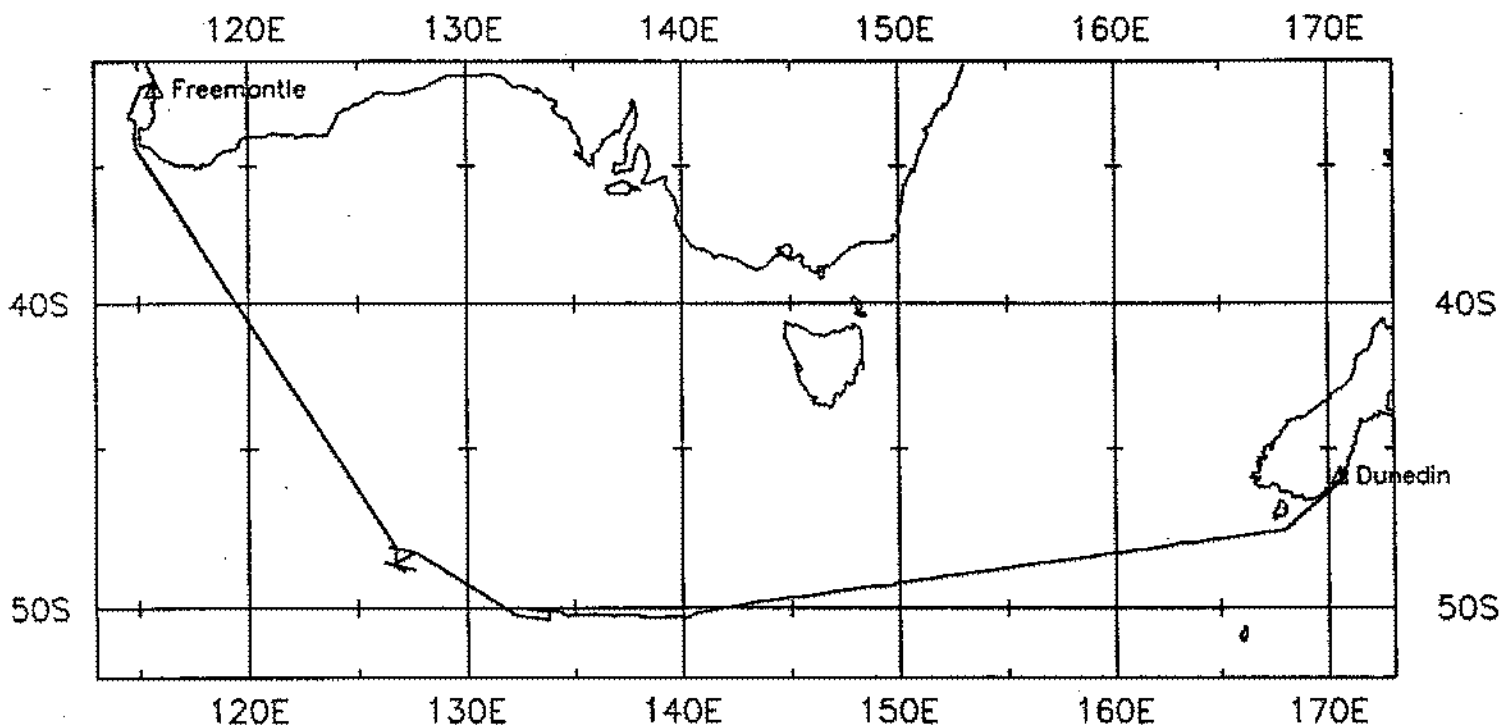
1. Files on Exabyte, DAT or 1/2 inch magnetic tape:
 - a) Separate time series ASCII files of navigation, single beam depth, gravity and magnetics.
 - b) These same data in a merged ASCII file in the MGD77 Exchange Format.
 - c) SeaBeam depth data (binary, Sun byte order) in SIO Swath Bathymetry Format (not available on 1/2" tape).
 - d) SeaBeam Sidescan data (not available on 1/2" tape).
2. Microfilm (35 mm flowfilm) or hard copies of:
 - a) Underway watch log book
 - b) SeaBeam vertical beam profile/Sidescan records.
 - c) Echosounder records - 3.5 kHz frequency.
 - d) Magnetometer records.
 - e) Seismic reflection profiler records.
3. Navigation listing with times and positions of fixes and course and speed changes.
4. Plots:
 - a) Copies of archived track plots.
 - b) Copies of archived SeaBeam contour plots.
 - c) Custom plots in Mercator projection:
 - 1) Track plots.
 - 2) SeaBeam depth contour plots.
 - 3) Depth, magnetic or gravity values printed or profiled along track.

SIO SEABEAM 2000 DATA INFORMATION

The following items are available, subject to the 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 (35 mm flowfilm) of vertical beam/sidescan records.
- 3) SeaBeam merged tapes - SeaBeam data merged with GPS-based navigation. (Navigation is edited to the extent that DR courses and speeds are edited and poor fixes are removed after inspection of speeds and drift vectors between fix pairs. No editing is done on the basis of adjusting to overlapping SeaBeam swaths.)
- 4) Archive contour plots - 8 inches/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 SeaBeam 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 February 1994



WESTWARD EXPEDITION LEG 8

CO-CHIEF SCIENTISTS: John Orcutt, Scripps Institution
 Jason Phipps-Morgan, Scripps Institution

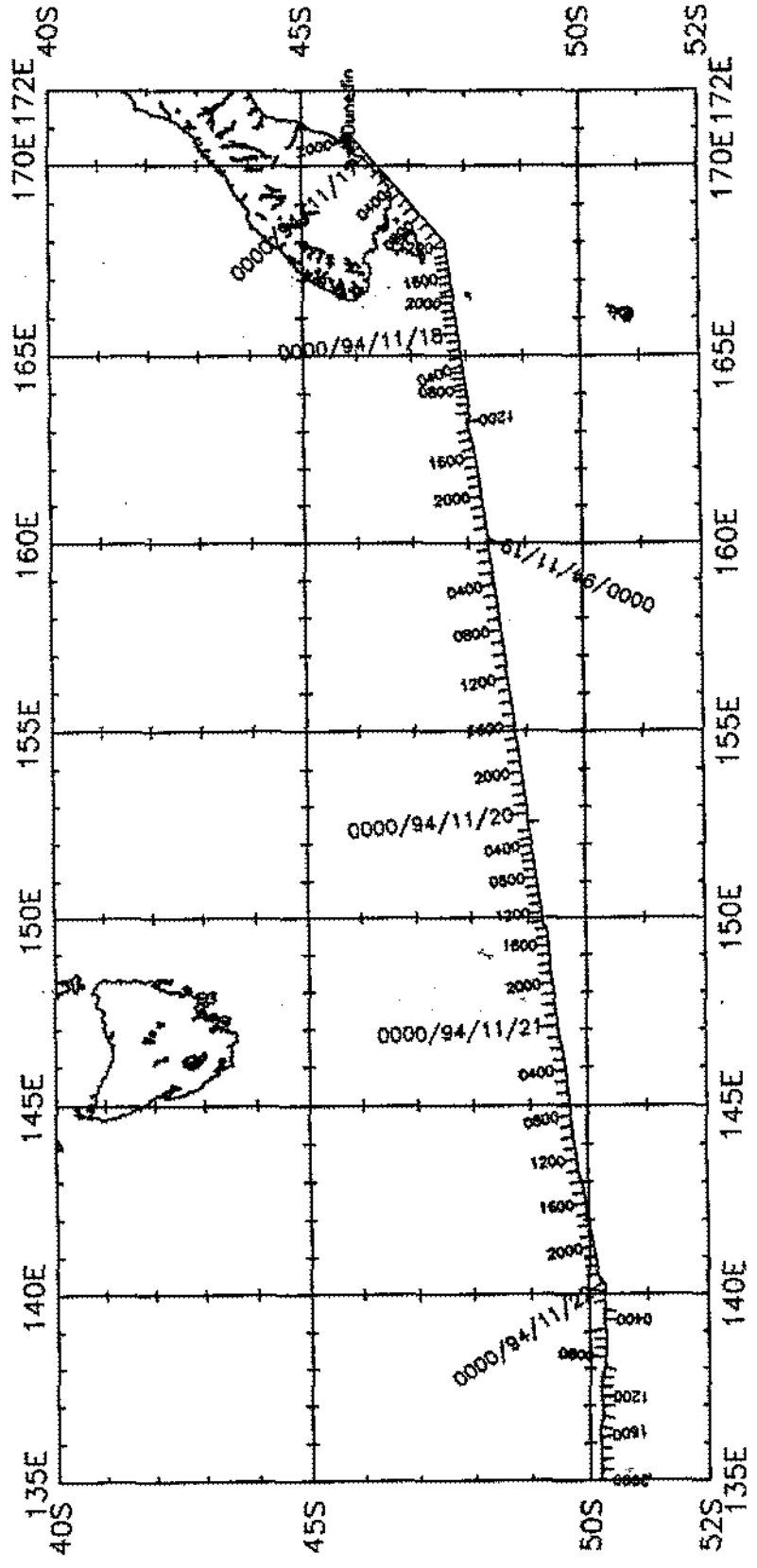
PORTS: Dunedin, New Zealand - Fremantle, Australia

DATES: 16 November - 5 December 1994

SHIP: R/V Melville

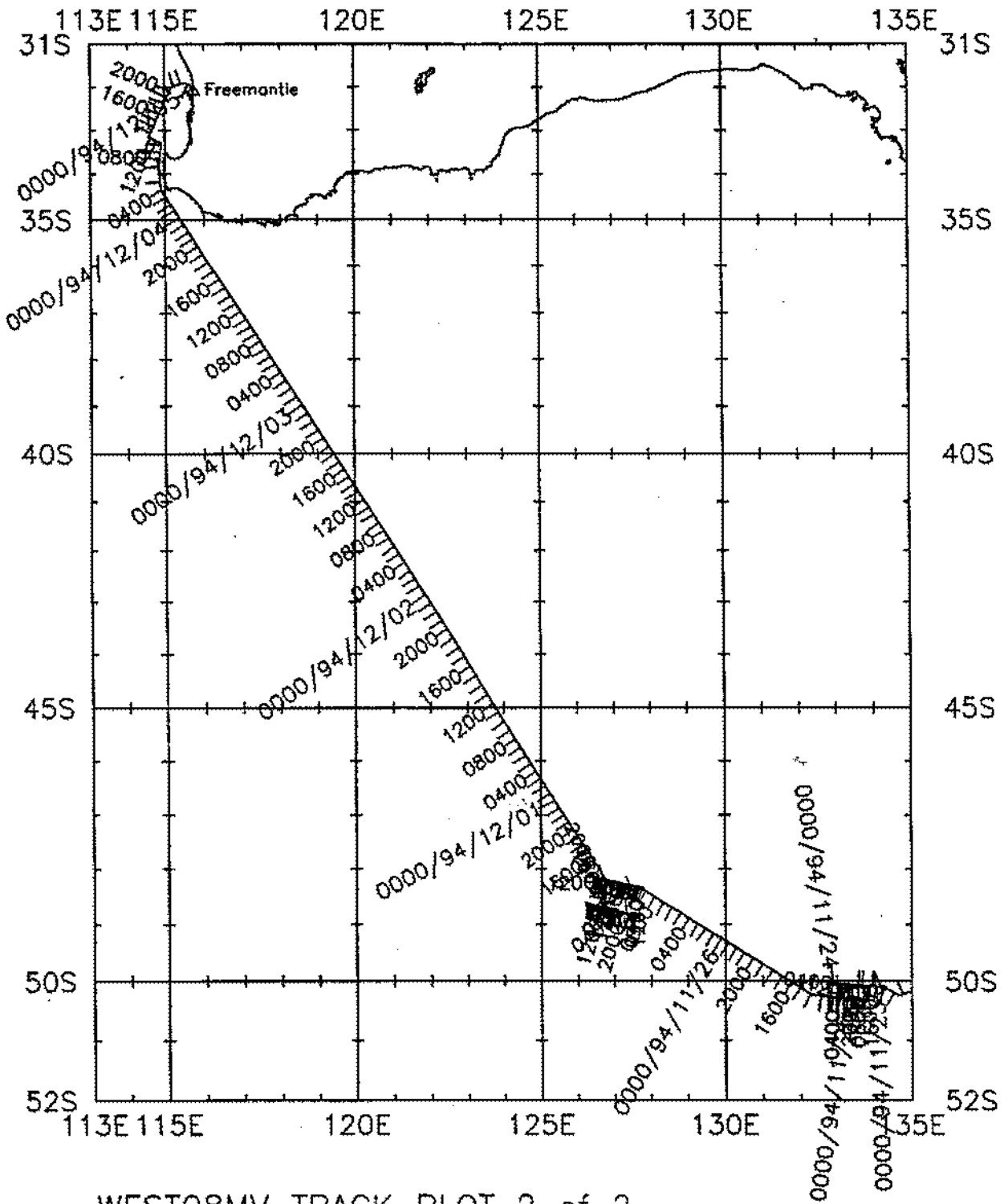
TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

Cruise - 3820 miles	Magnetics - 2520 miles
Bathymetry - 3450 miles	Seismic Reflection - none collected
Sea Beam - 3450 miles	Gravity - 3768 miles



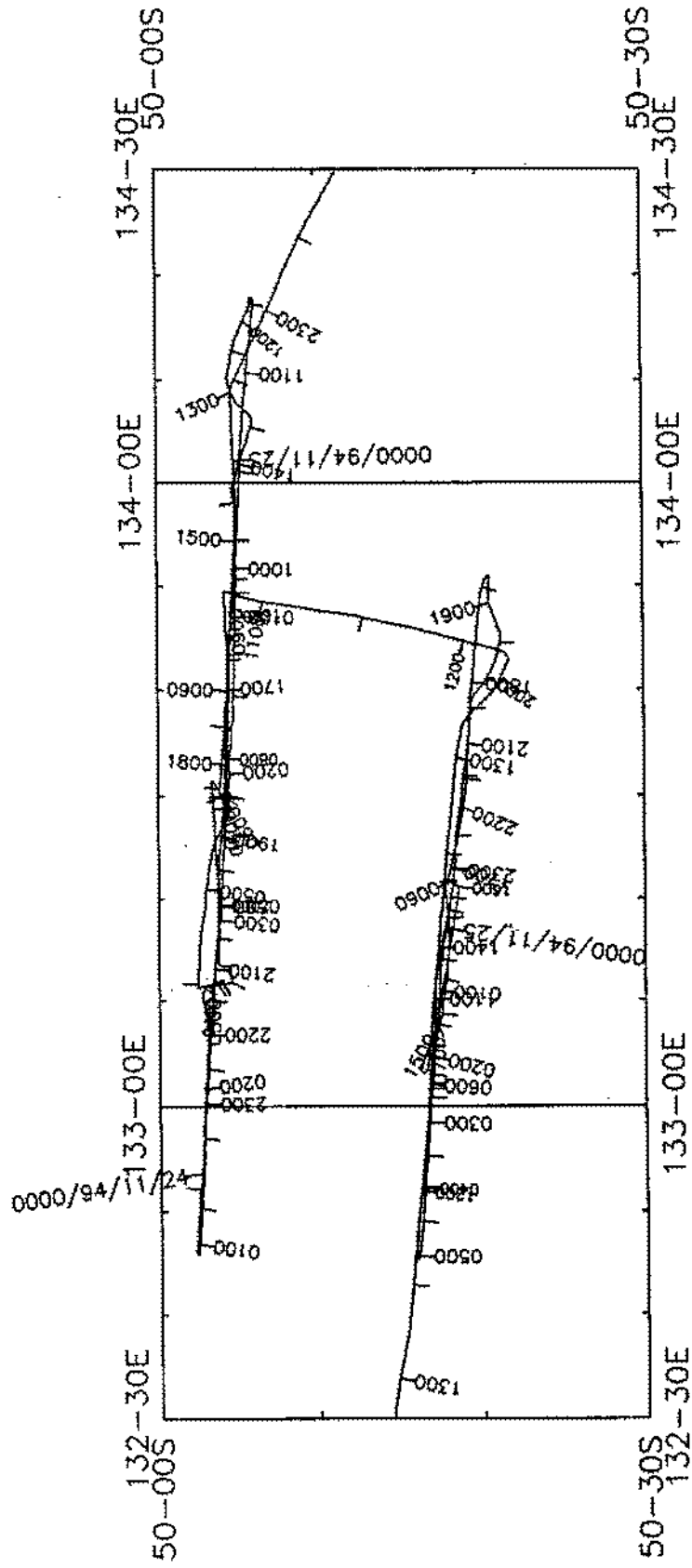
WEST08MV Track 1 of 2

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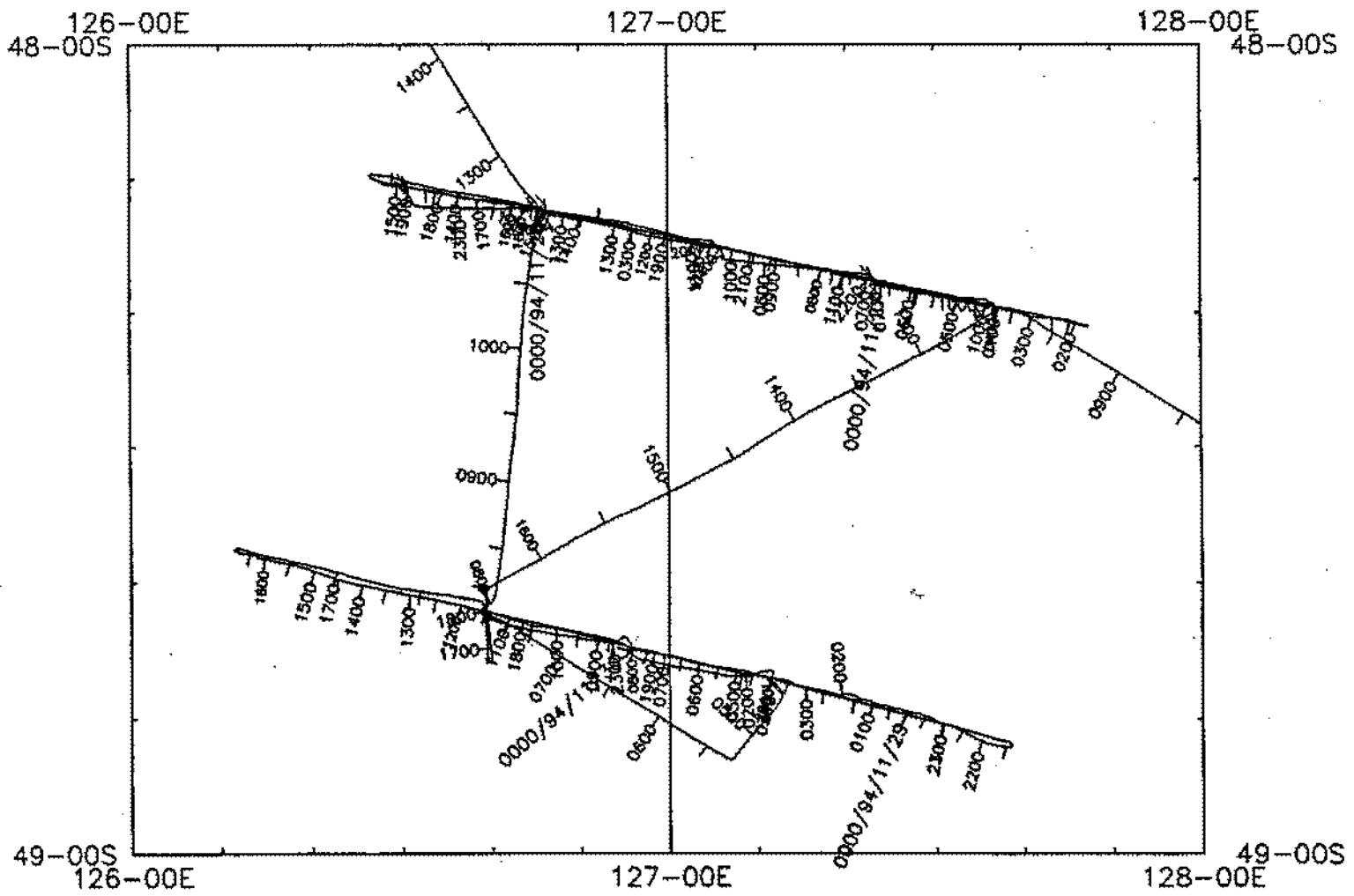
WEST08MV TRACK PLOT 2 of 2

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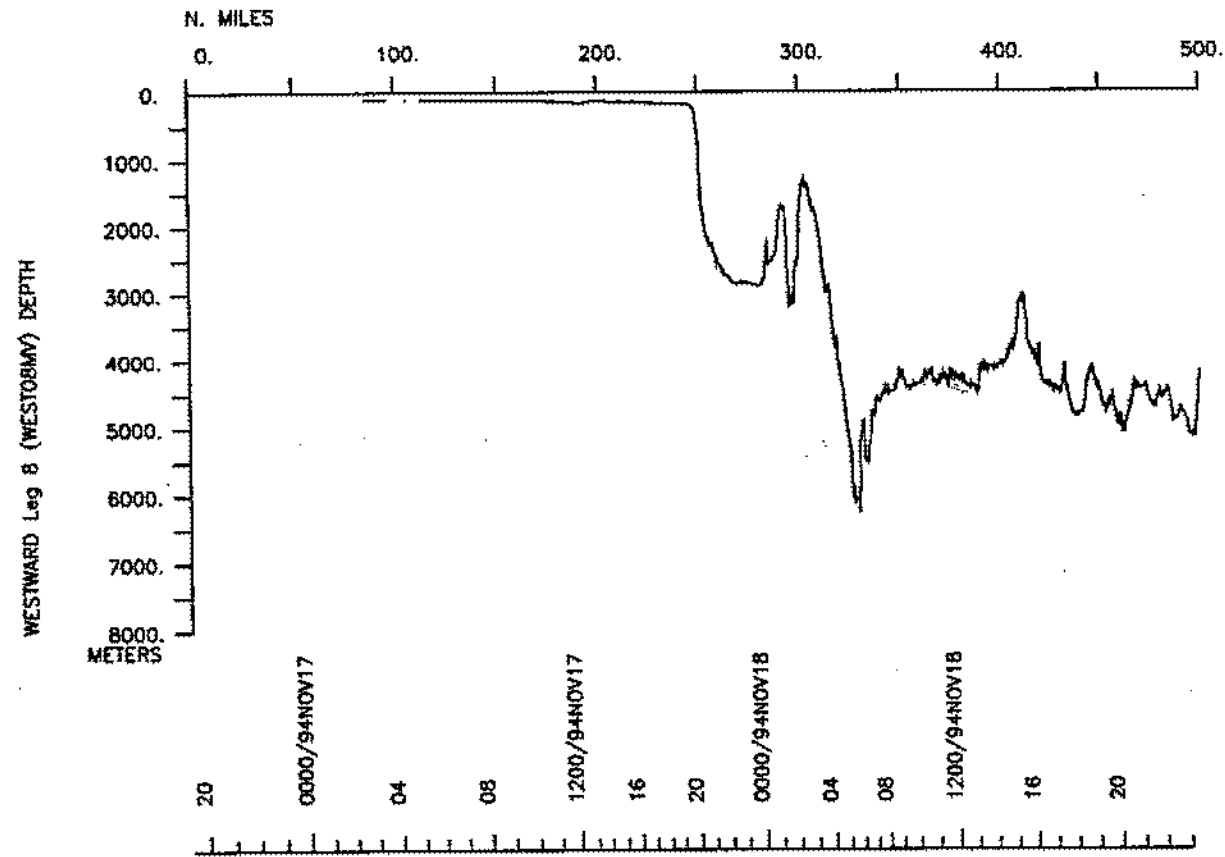
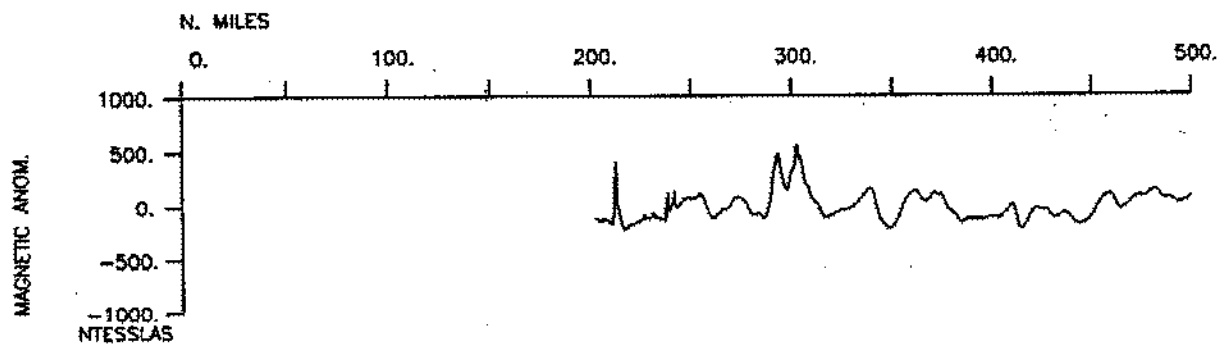
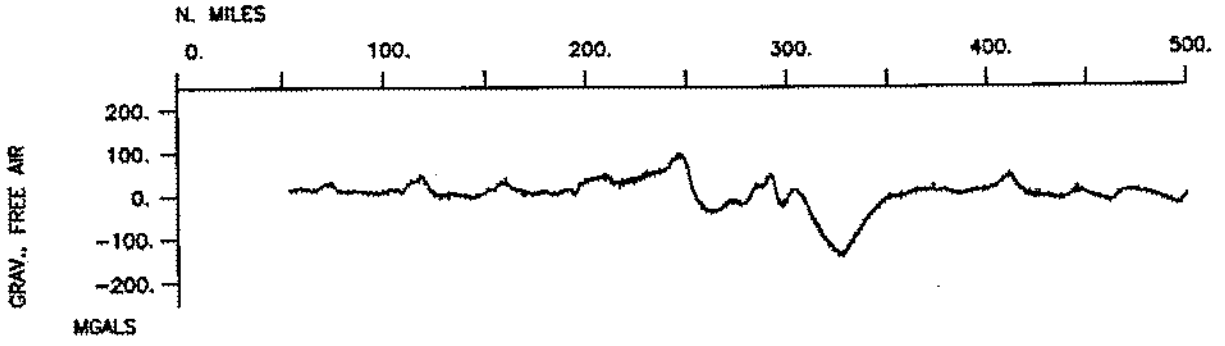
WEST08MV Survey 1

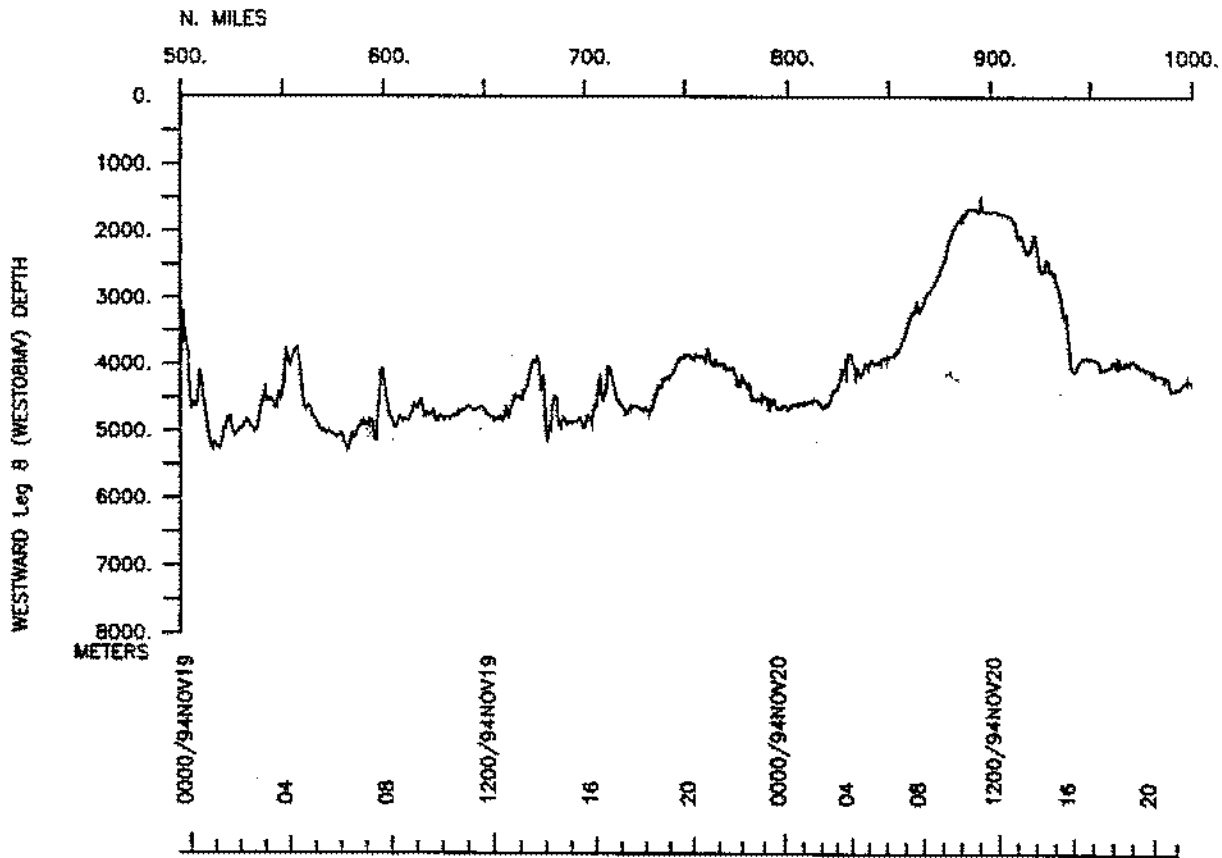
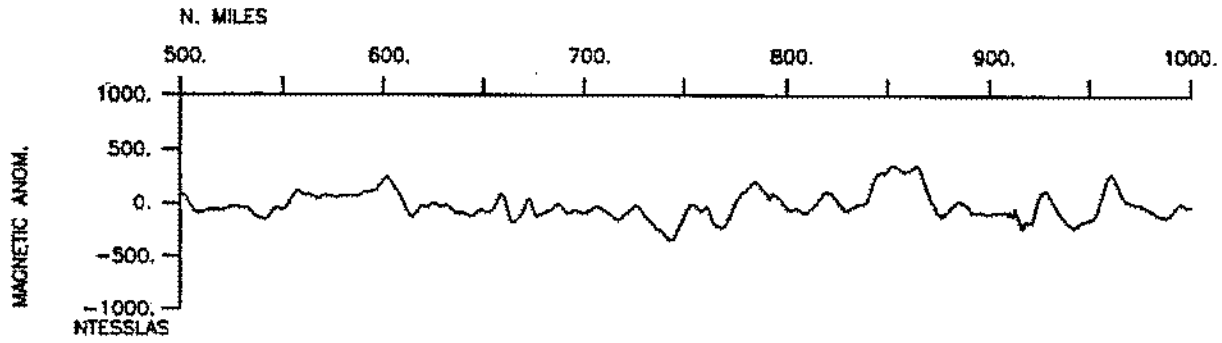
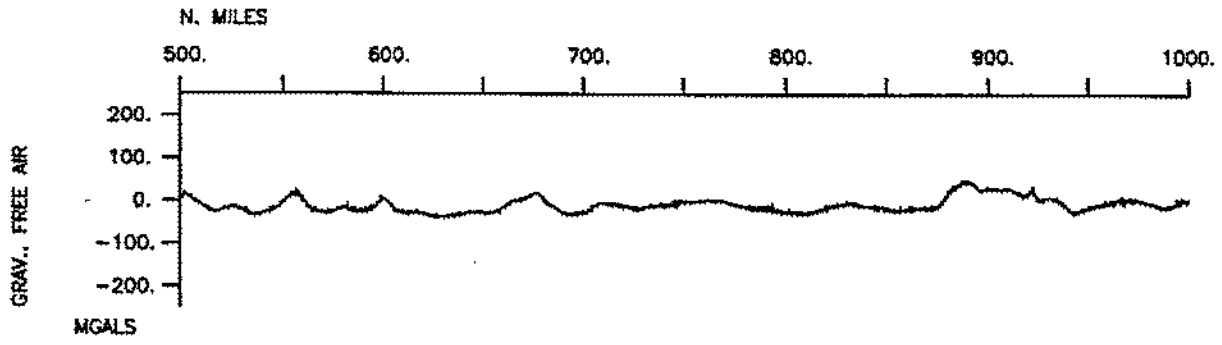
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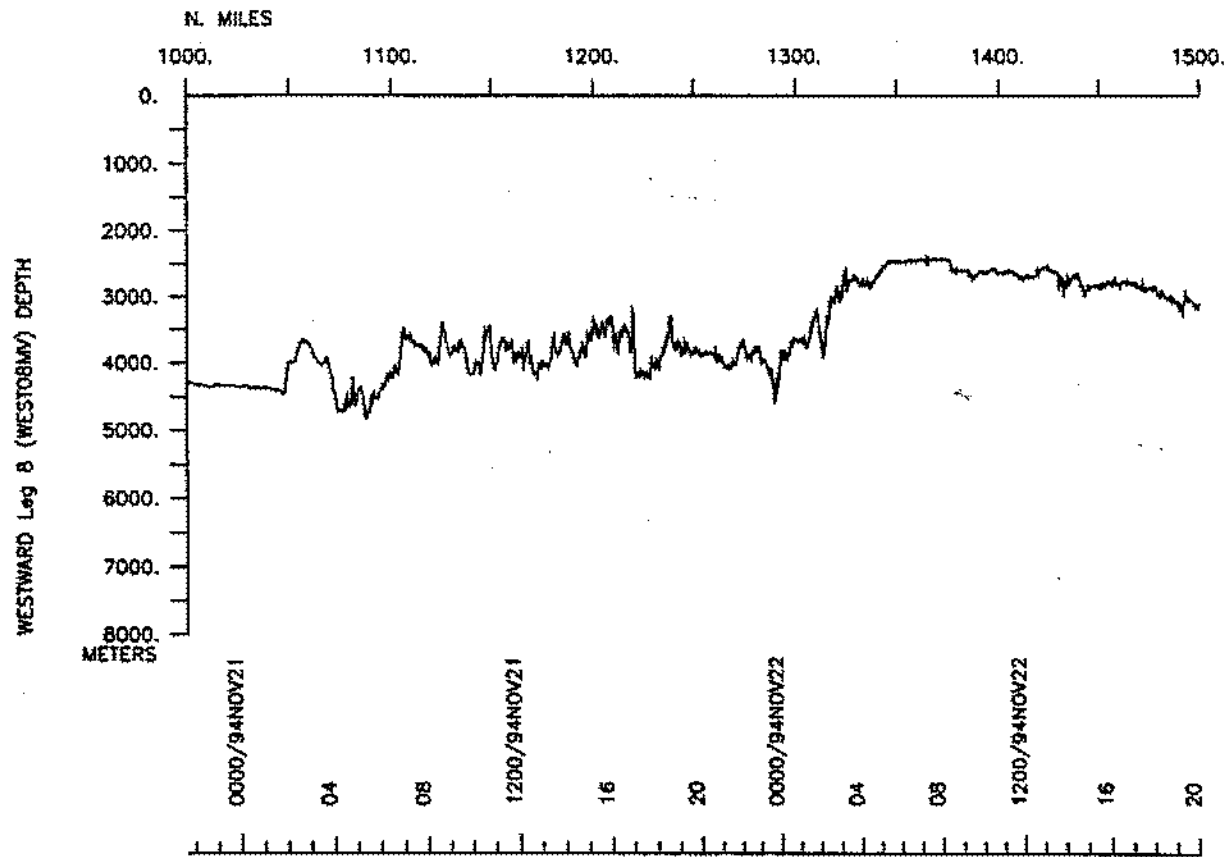
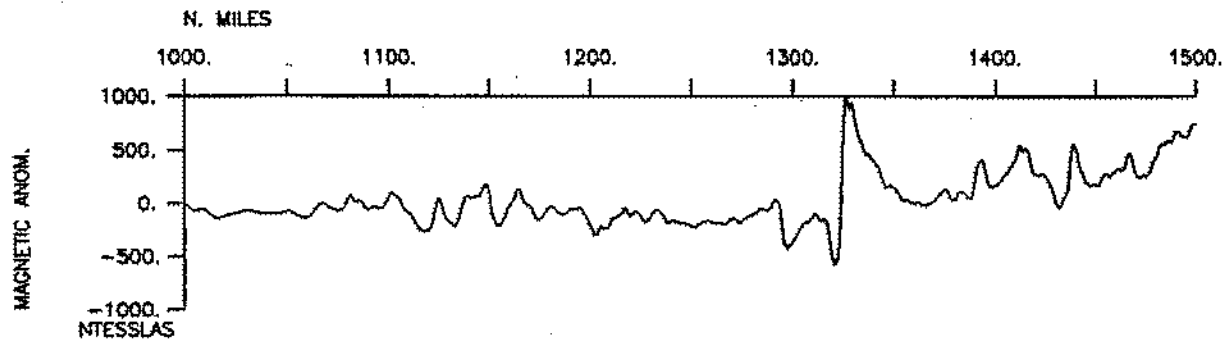
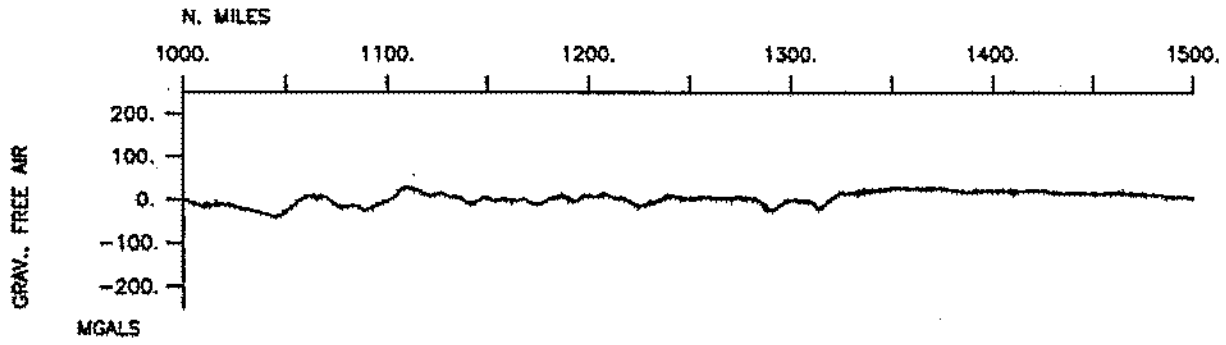


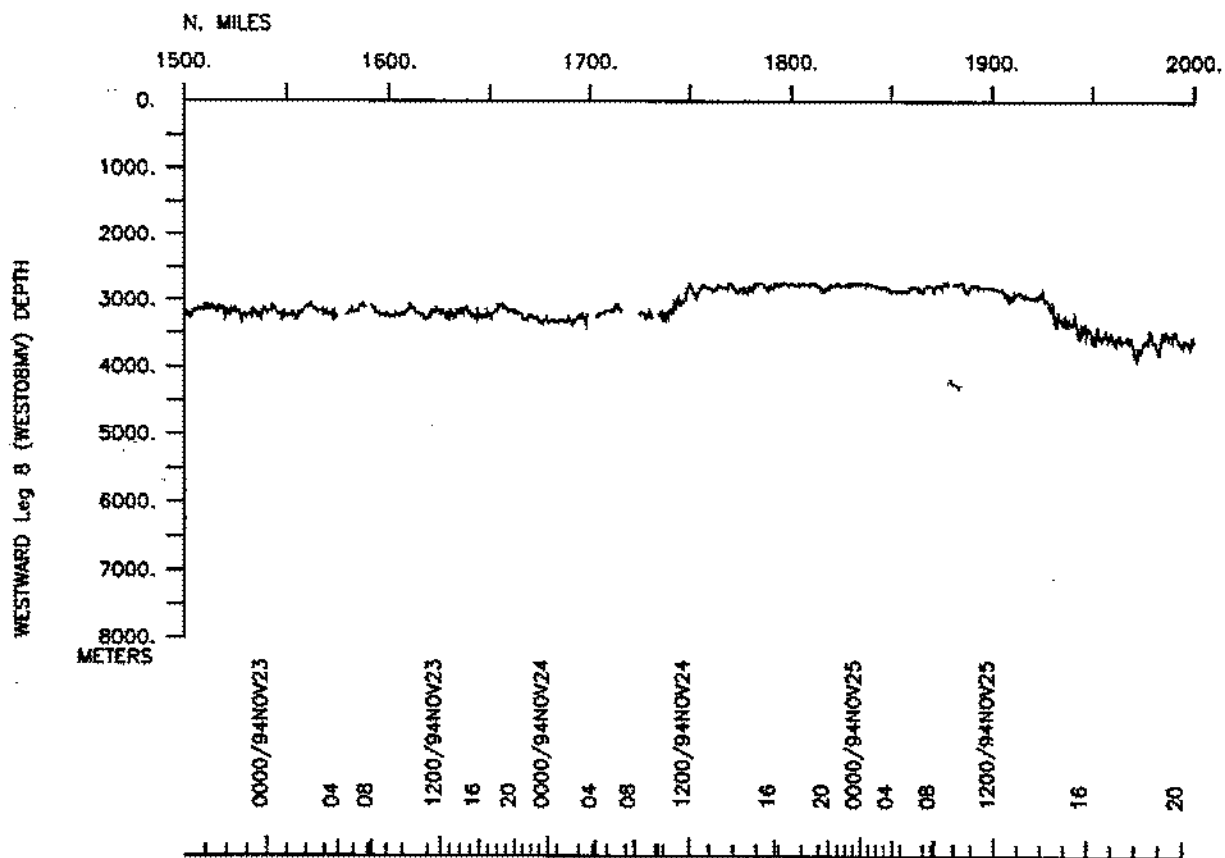
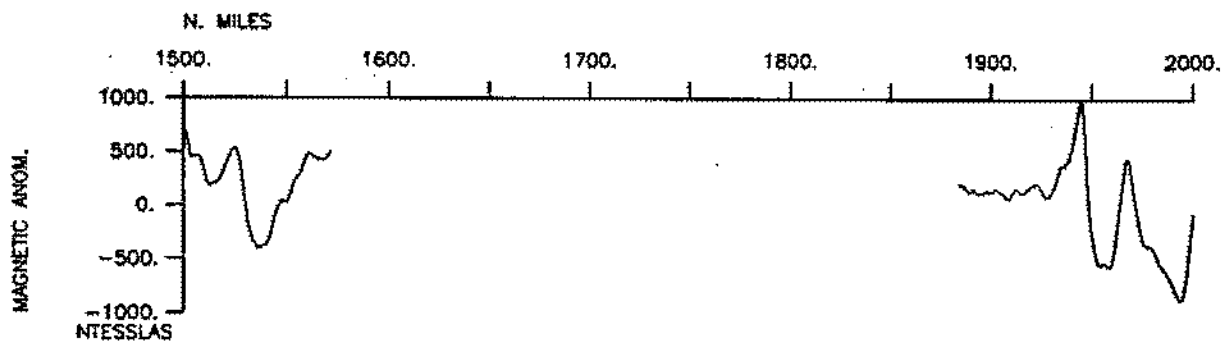
WEST08MV Survey 2

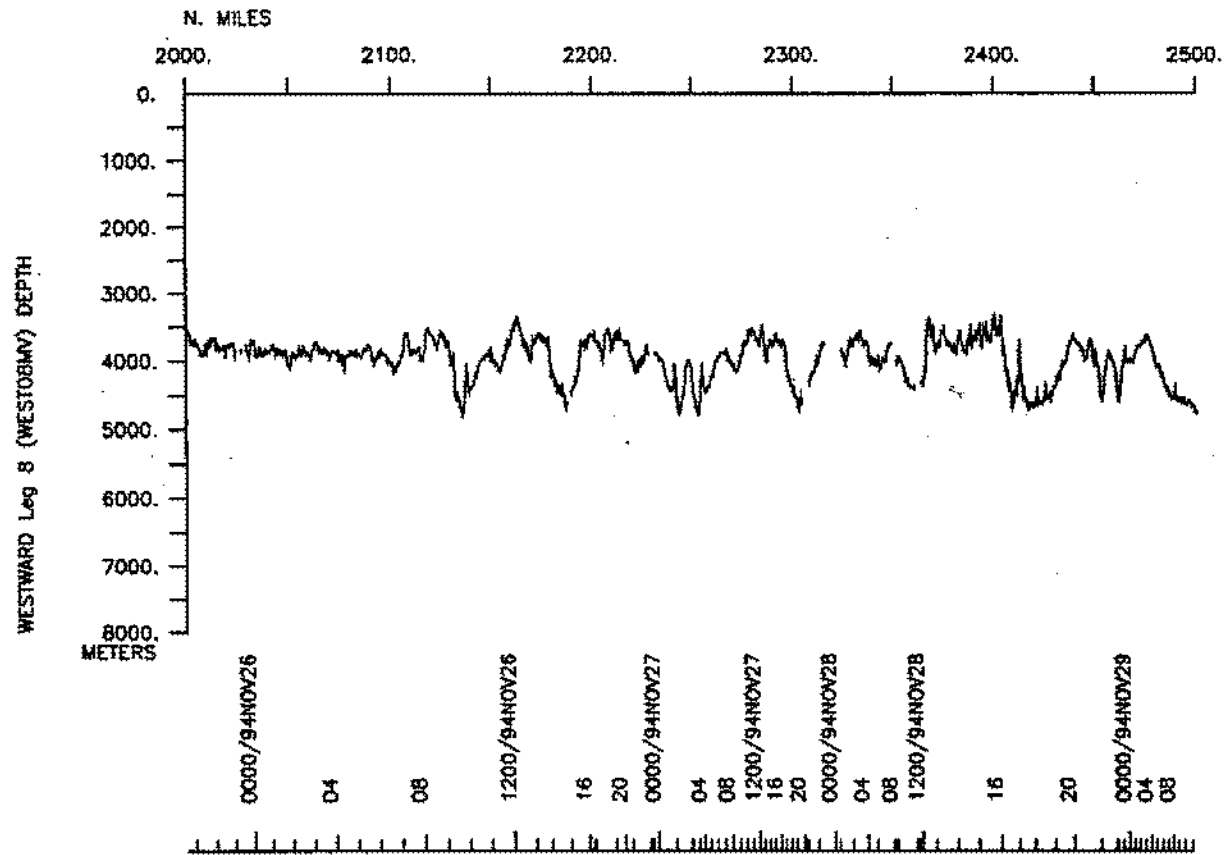
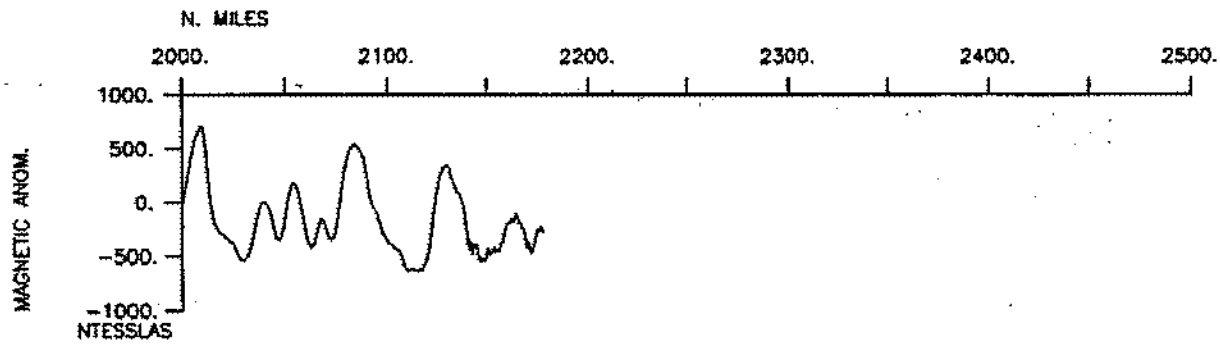
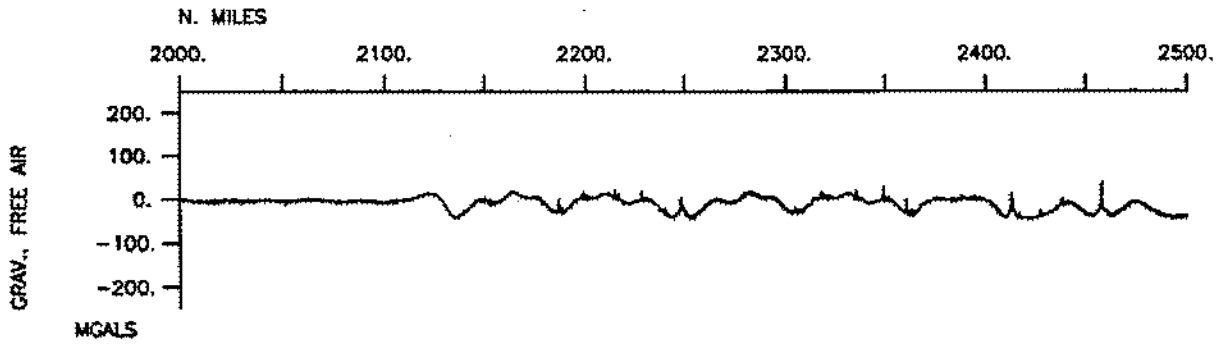
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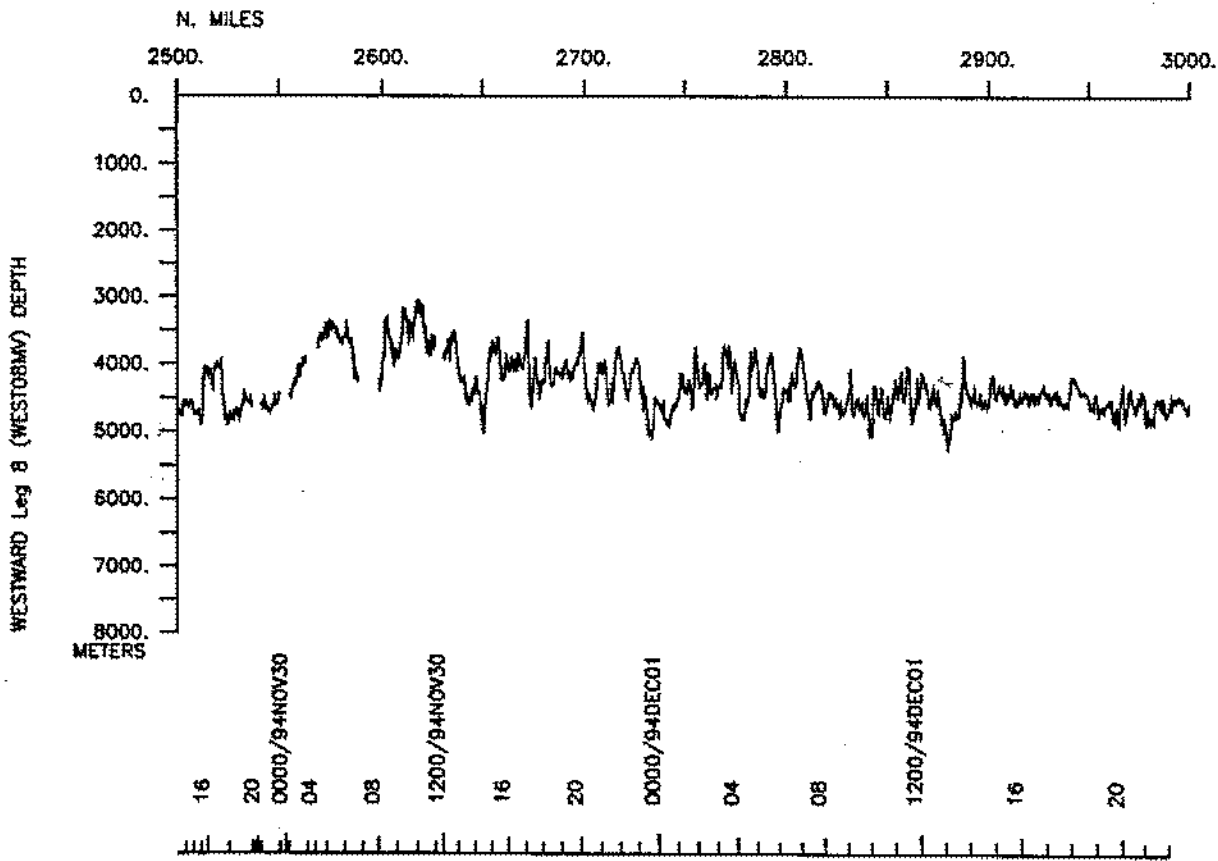
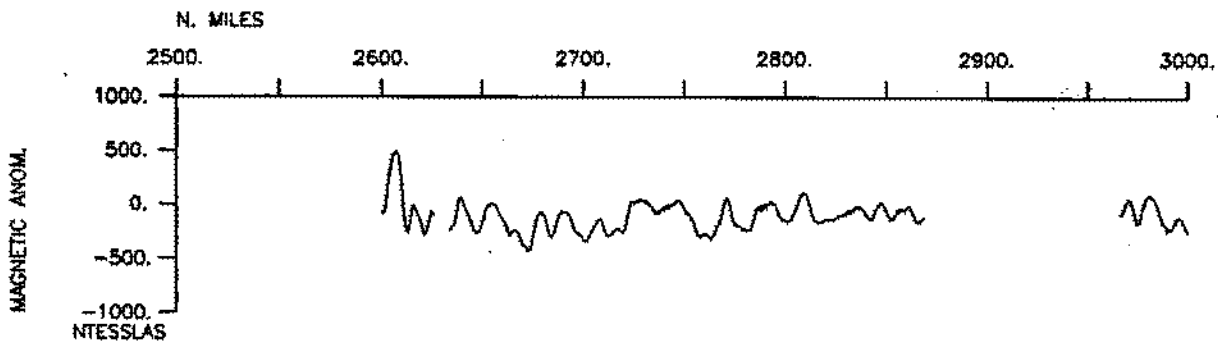
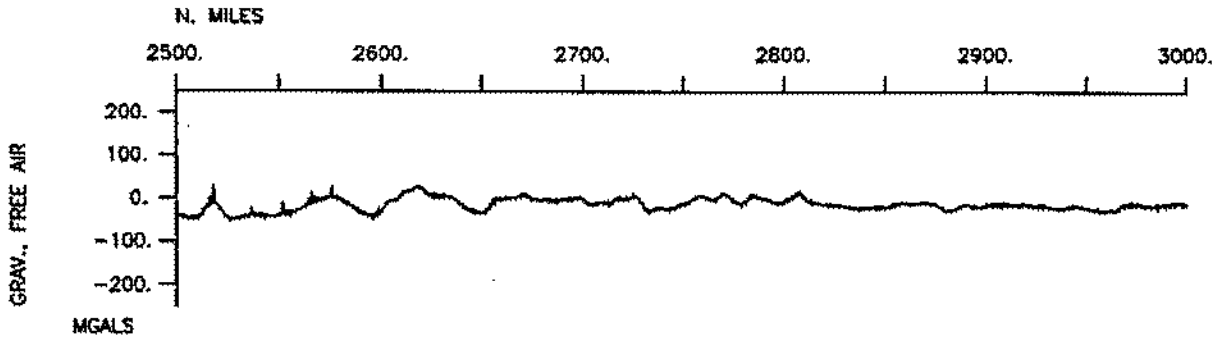


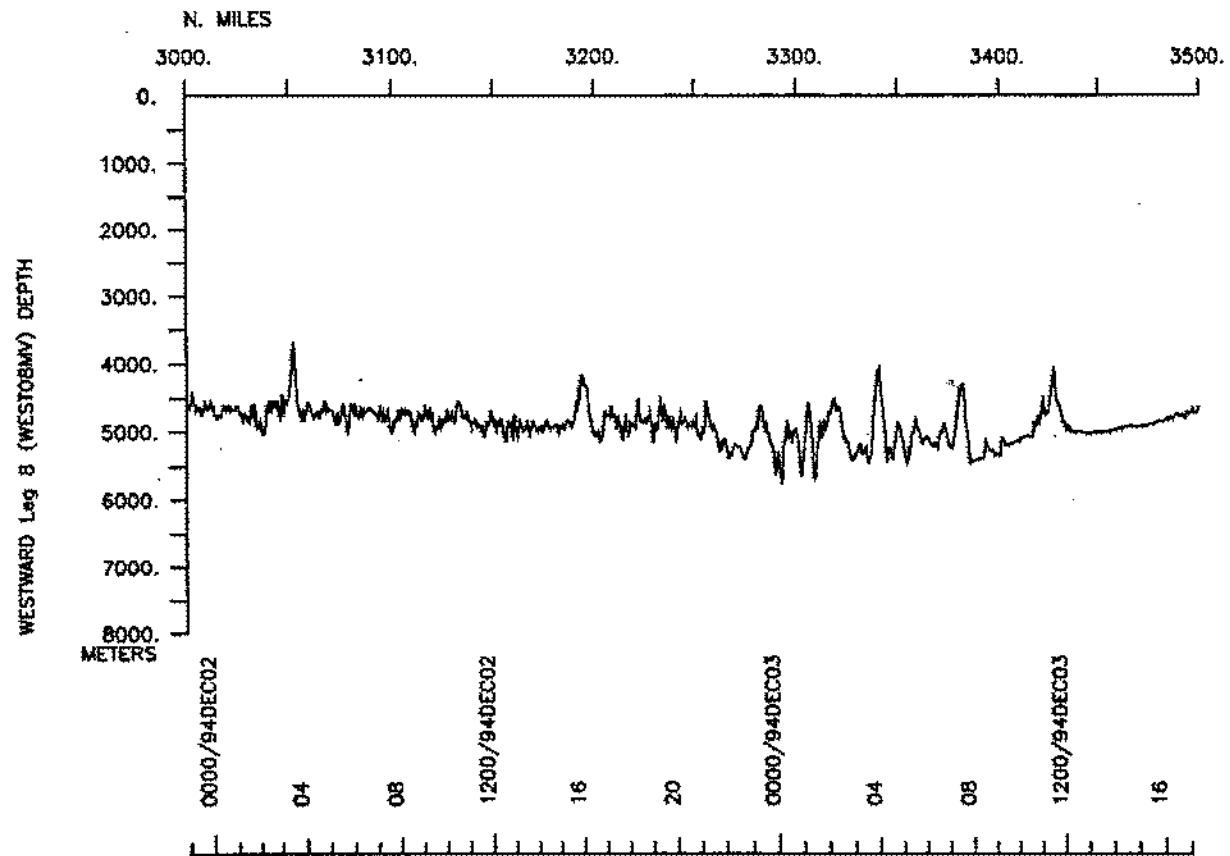
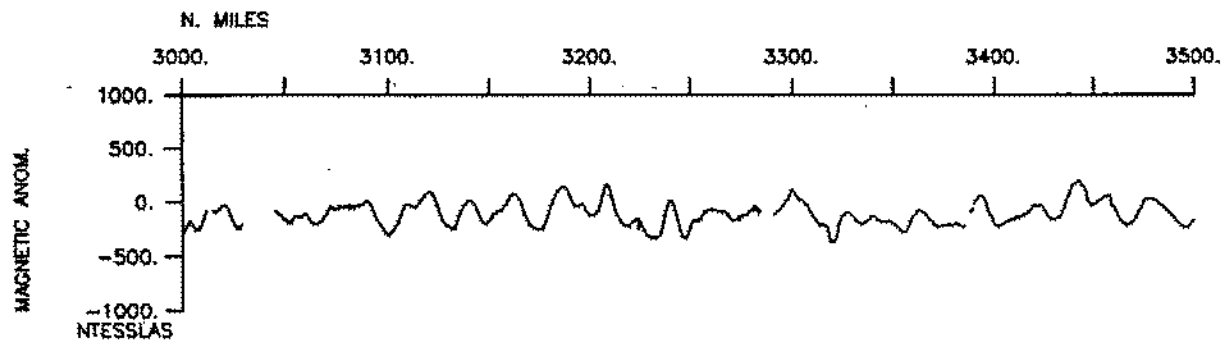
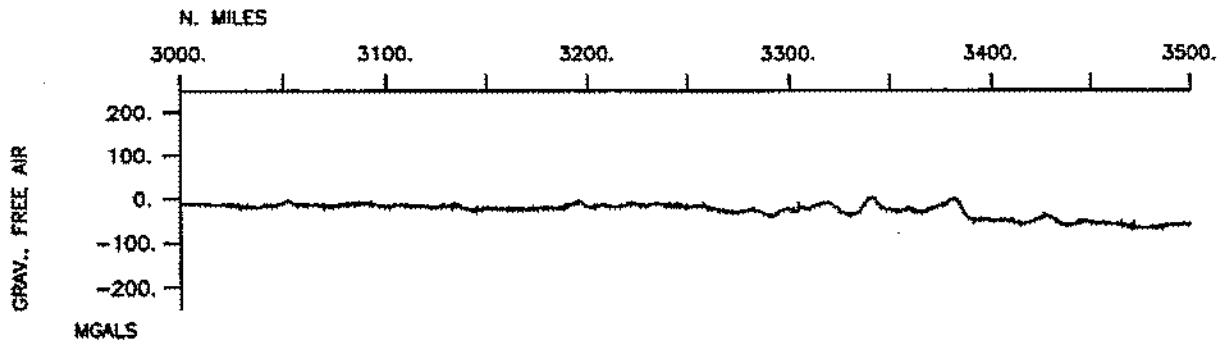


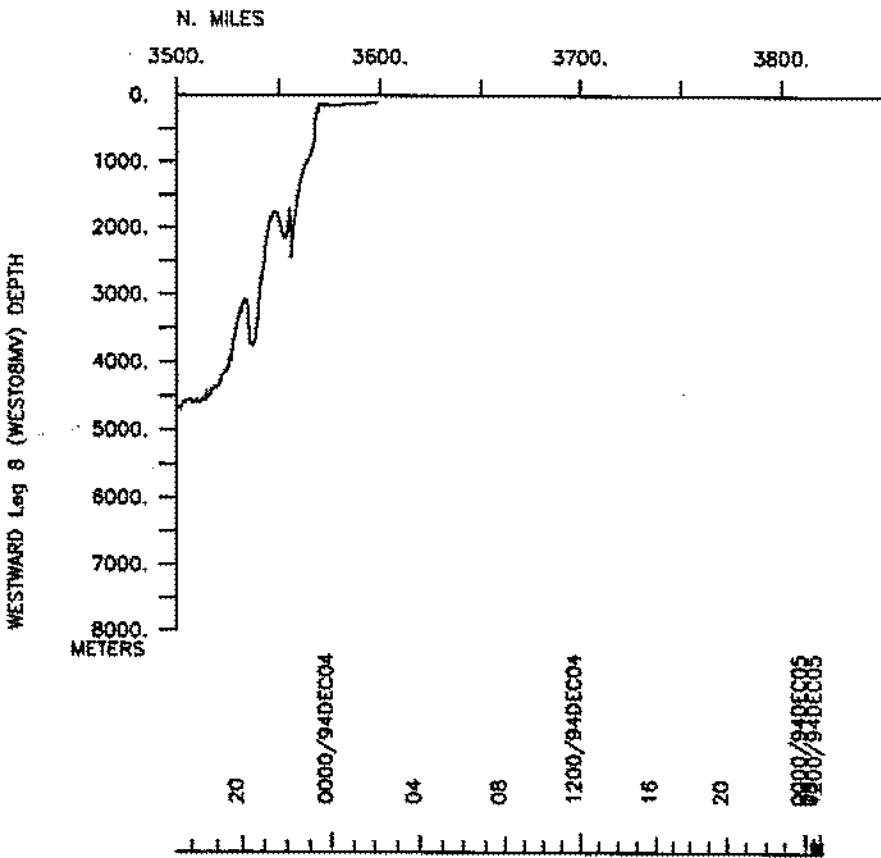
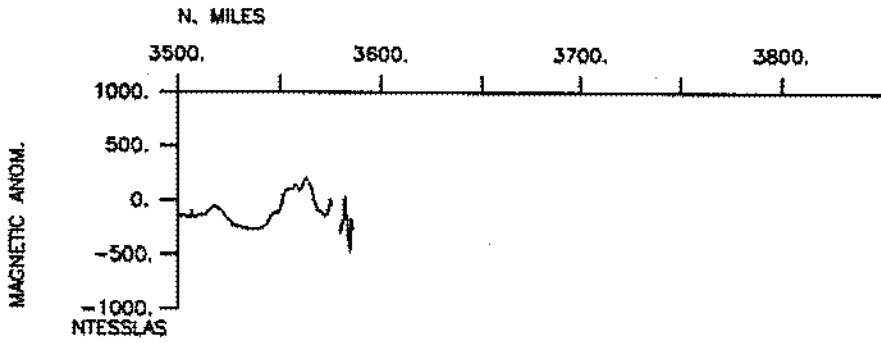
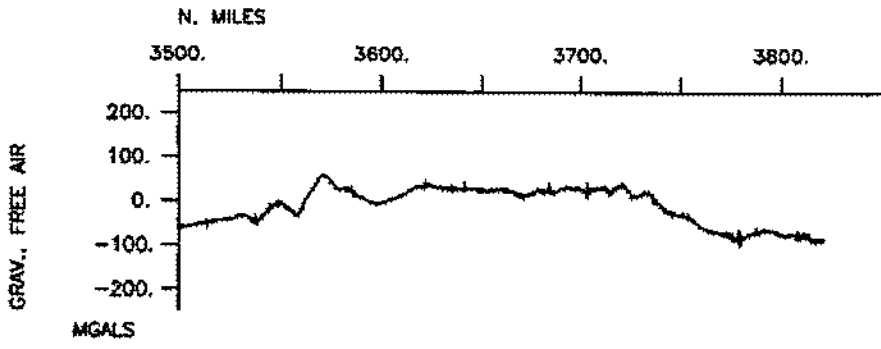












S.I.O. SAMPLE INDEX

(Issued March 1995)

WESTWARD EXPEDITION

Leg 8

(WEST08MV)

R/V Melville

Dunedin, New Zealand (16 November 1994)

to

Fremantle, Australia (5 December 1994)

Chief Scientist: John Orcutt (Scripps Institution)

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 I.D.# 266

**** Ports ***

1900	161194	LGPT B Dunedin, New Zealand	45-53.00S	170-31.00E	f	WEST08MV
0030	051294	LGPT E Fremantle, Australia	32-03.00S	115-45.00E	f	WEST08MV

**** Personnel ***

*****NAME***** *****TITLE***** *****AFFILIATION***** **CRID**
#-----#

PECS	IGPP	Orcutt, J.	Chief Scientist	Scripps Institution		WEST08MV
PESP	IGPP	Avendonk, H	Res Asst	Scripps Institution		WEST08MV
PESP	STS	Babcock, J.	Res Asst	Scripps Institution		WEST08MV
PESP	IGPP	Blackman, D	Postdoctoral	Scripps Institution		WEST08MV
PEAT	STS	Crampton, P	Airgun Tech	Scripps Institution		WEST08MV
PEXN	VOL	Hanna, A	Volunteer	Univ of Sydney, Aus		WEST08MV
PESP	IGPP	Harding, A.	Geophysist	Scripps Institution		WEST08MV
PESP	IGPP	Hollinshead, C.	Dev Engineer	Scripps Institution		WEST08MV
PECT	STS	Moe, R.	Computer Engr	Scripps Institution		WEST08MV
PEXN	VOL	Muller, D.	Volunteer	Univ of Sydney, Aus		WEST08MV
PECS	IGPP	Phipps-Morgan, J.	Co-Chief Sci	Scripps Institution		WEST08MV
PERT	STS	Pillard, G.	Resident Tech	Scripps Institution		WEST08MV
PESP	IGPP	Posilova, L.	Res Asst	Scripps Institution		WEST08MV
PESP	IGPP	Price, E.	Res Asst	Scripps Institution		WEST08MV
PESP	IGPP	Ravine, M.	Res Asst	Scripps Institution		WEST08MV
PEBE	STS	Skinner, J.	Hrdwr Engr	Scripps Institution		WEST08MV
PESP	IGPP	Tolstoy, M.	Res Asst	Scripps Institution		WEST08MV
PESP	IGPP	Willoughby, D.	Dev Engineer	Scripps Institution		WEST08MV
PESP	IGPP	Yale, M.	Res Asst	Scripps Institution		WEST08MV
PESP	IGPP	Zimmer, P.	Dev Tech	Scripps Institution		WEST08MV

**** 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. Positions are in tenths
#of minutes.

#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***										
1338	171194	0	LBUW	B Underway Watch Log	GDC	47-40.44S	167-32.57E	g		WEST08MV
0247	041294	0	LBUW	E Underway Watch Log	GDC	34-32.30S	115-02.43E	g		WEST08MV
#*** Magnetics (Earth Total Field) Records ***										
1340	171194	0	MGRA	B Magnetics r-01	GDC	47-40.46S	167-32.23E	g		WEST08MV
1402	221194	0	MGRA	E Magnetics r-01	GDC	50-13.63S	136-41.47E	g		WEST08MV
1411	221194	0	MGRA	B Magnetics r-02	GDC	50-13.43S	136-38.88E	g		WEST08MV
0053	041294	0	MGRA	E Magnetics r-02	GDC	34-48.97S	115-15.46E	g		WEST08MV
#*** Continuous Recorded Gravity ***										
1338	171194		GVCR	C Gravity data	GDC	47-40.44S	167-32.57E	g		WEST08MV
0247	041294		GVCR	C Gravity data	GDC	34-32.30S	115-02.43E	g		WEST08MV
#*** Sea Beam Records (vertical beam and side scan) ***										
1945	161194	0	MBSR	B v.beam&sidescan r-01	GDC	45-49.77S	170-37.25E	g		WEST08MV
0248	041294	0	MBSR	E v.beam&sidescan r-01	GDC	34-32.14S	115-02.31E	g		WEST08MV
#*** Seismic Run, Refraction and/or Reflection ***										
1337	231194	0	SRCS	B WEST08 Line -01	IGPP	50-05.79S	134-04.55E	g		WEST08MV
0027	241194	0	SRCS	E 6 AG, 2 SBOH, 1 SBOB	IGPP	50-02.59S	132-50.66E	g		WEST08MV
1919	241194	0	SRCS	B WEST08 Line -02	IGPP	50-21.16S	133-45.82E	g		WEST08MV
0416	251194	0	SRCS	E 6 AG, 2 SBOH,	IGPP	50-16.35S	132-50.49E	g		WEST08MV
0218	271194	0	SRCS	B WEST08 Line -03	IGPP	48-20.50S	127-44.40E	g		WEST08MV
1910	271194	0	SRCS	E 6 AG, 2 SBOH, 3 SBOB	IGPP	48-10.50S	126-30.29E	g		WEST08MV
2206	281194	0	SRCS	B WEST08 Line -04	IGPP	48-51.47S	127-34.66E	g		WEST08MV
1531	291194	0	SRCS	E 6 AG, 3 SBOH,	IGPP	48-38.62S	126-17.39E	g		WEST08MV

#GMT	DDMMYY	SAMP	B	SAMPLE	DISP				p	CRUISE
#TIME	DATE	TZ	CODE	E IDENTIFIER	CODE	LATITUDE	LONGITUDE		c	LEG-SHIP
#										
#*** Seismic Buoy, Seafloor Hydrophone ***										
0400	231194	0	SBOH	B OBS Night Train	IGPP	50-03.39S	133-11.53E	g		WEST08MV
0424	241194	0	SBOH	E hydrophone only	IGPP	50-03.63S	133-11.53E	g		WEST08MV
0721	231194	0	SBOB	B OBS Karen hydrophone	IGPP	50-04.03S	133-29.87E	g		WEST08MV
0730	241194	0	SBOB	E with 3 seismometers	IGPP	50-04.28S	133-29.68E	g		WEST08MV
0945	231194	0	SBOH	B OBS Blue Nun	IGPP	50-04.74S	133-49.20E	g		WEST08MV
1041	241194	0	SBOH	E hydrophone only	IGPP	50-04.78S	133-49.05E	g		WEST08MV
1507	241194	0	SBOH	B OBS Night Train	IGPP	50-17.23S	133-07.86E	g		WEST08MV
0748	251194	0	SBOH	E hydrophone only	IGPP	50-17.42S	133-07.89E	g		WEST08MV
1635	241194	0	SBOH	B OBS Blue Nun	IGPP	50-18.18S	133-21.58E	g		WEST08MV
1006	251194	0	SBOH	E hydrophone only	IGPP	50-18.37S	133-21.65E	g		WEST08MV
1508	261194	0	SBOH	B OBS Night Train	IGPP	48-10.51S	126-30.21E	g		WEST08MV
2235	271194	0	SBOH	E hydrophone only	IGPP	48-11.82S	126-31.43E	g		WEST08MV
1627	261194	0	SBOB	B OBS Judy hydrophone	IGPP	48-12.16S	126-45.09E	g		WEST08MV
1155	301194	0	SBOB	E with 3 seismometers	IGPP	48-13.50S	126-46.90E	g		WEST08MV
1940	261194	0	SBOB	B OBS Karen hydrophone	IGPP	48-15.02S	127-05.27E	g		WEST08MV
0532	281194	0	SBOB	E with 3 seismometers	IGPP	48-15.76S	127-06.29E	g		WEST08MV
2245	261194	0	SBOB	B OBS Phred hydrophone	IGPP	48-17.47S	127-22.63E	g		WEST08MV
0910	281194	0	SBOB	E with 3 seismometers	IGPP	48-18.05S	127-23.68E	g		WEST08MV
0050	271194	0	SBOH	B OBS Blue Nun	IGPP	48-19.52S	127-36.06E	g		WEST08MV
1212	281194	0	SBOH	E hydrophone only	IGPP	48-19.85S	127-36.58E	g		WEST08MV
1739	281194	0	SBOH	X Night Train LOST	IGPP	48-42.13S	126-39.38E	g		WEST08MV
1843	281194	0	SBOH	B OBS Blue Nun	IGPP	48-44.56S	126-55.14E	g		WEST08MV
0110	301194	0	SBOH	E hydrophone only	IGPP	48-45.22S	126-55.84E	g		WEST08MV
1955	281194	0	SBOH	B OBS T Bird	IGPP	48-47.00S	127-11.15E	g		WEST08MV
0423	301194	0	SBOH	E hydrophone only	IGPP	48-47.98S	127-12.35E	g		WEST08MV
#*** Expendable Bathythermographs **										
0004	181194	0	BTXP	xbt 01	GDC	47-51.40S	165-34.38E	g		WEST08MV
0325	191194	0	BTXP	xbt 02	GDC	48-25.78S	159-04.39E	g		WEST08MV
2248	211194	0	BTXP	xbt 03	GDC	50-08.83S	140-35.38E	g		WEST08MV
0732	011294	0	BTXP	xbt 04	GDC	45-39.90S	124-22.18E	g		WEST08MV
0313	021294	0	BTXP	xbt 05	GDC	42-21.85S	121-26.24E	g		WEST08MV
0524	031294	0	BTXP	xbt 06	GDC	38-02.29S	117-48.93E	g		WEST08MV
#***	End Sample Index									WEST08MV