

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

LEG 7

(WEST07MV)

R/V MELVILLE

(Issued February 1995)

Ports:

Nuku'alofa, Tonga (5 October 1994)
to
Dunedin, New Zealand (12 November 1994)

Chief Scientist:

Peter Lonsdale - Scripps Institution of Oceanography

Resident Marine Technician - Seth Mogk
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*

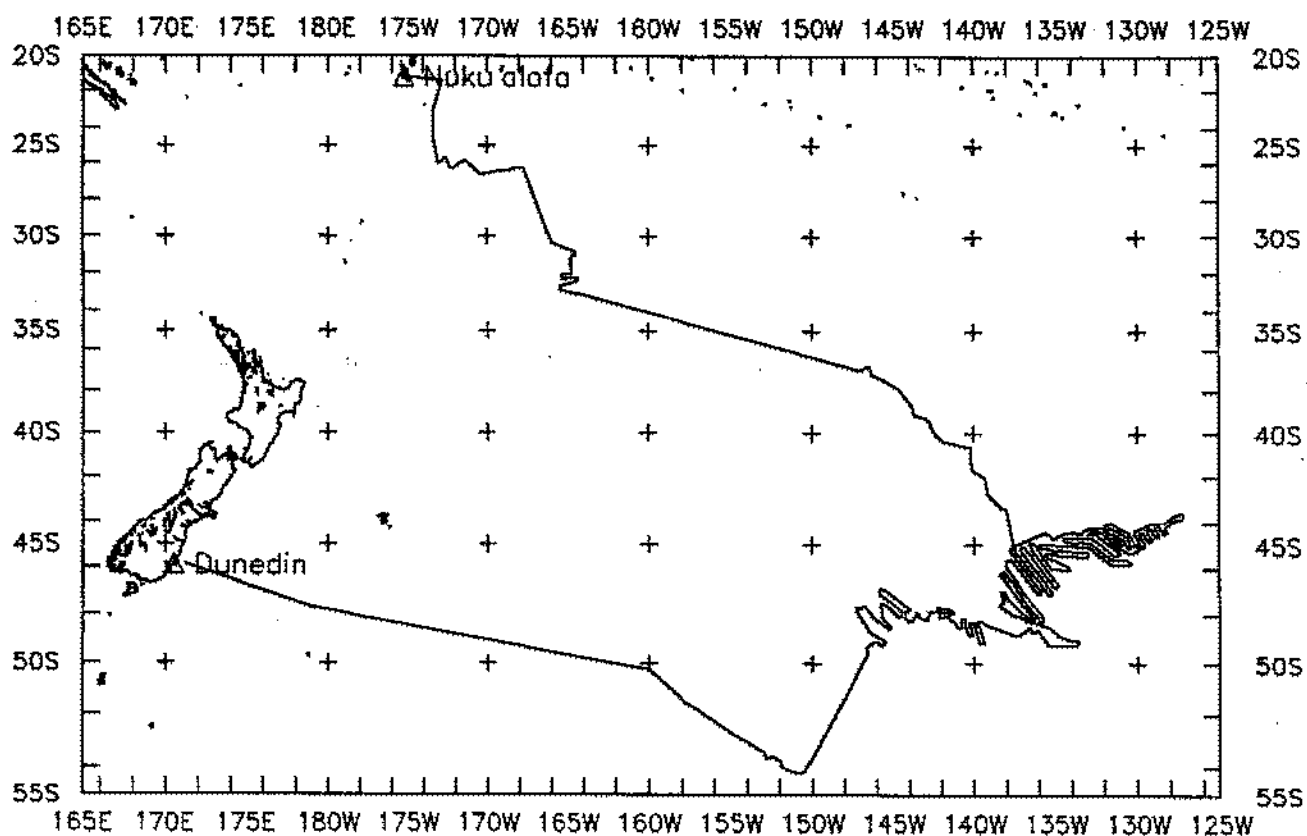
GDC Cruise I.D.# 266

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 (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 50 m, 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 1993



WESTWARD EXPEDITION LEG 7 (WEST07MV)



WESTWARD EXPEDITION LEG 7

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CHIEF SCIENTIST: Peter Lonsdale, Scripps Institution

PORTS: Nuku'alofa, Tonga - Dunedin, New Zealand

DATES: 5 October - 12 November 1994

SHIP: R/V Melville

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

Cruise - 10780 miles

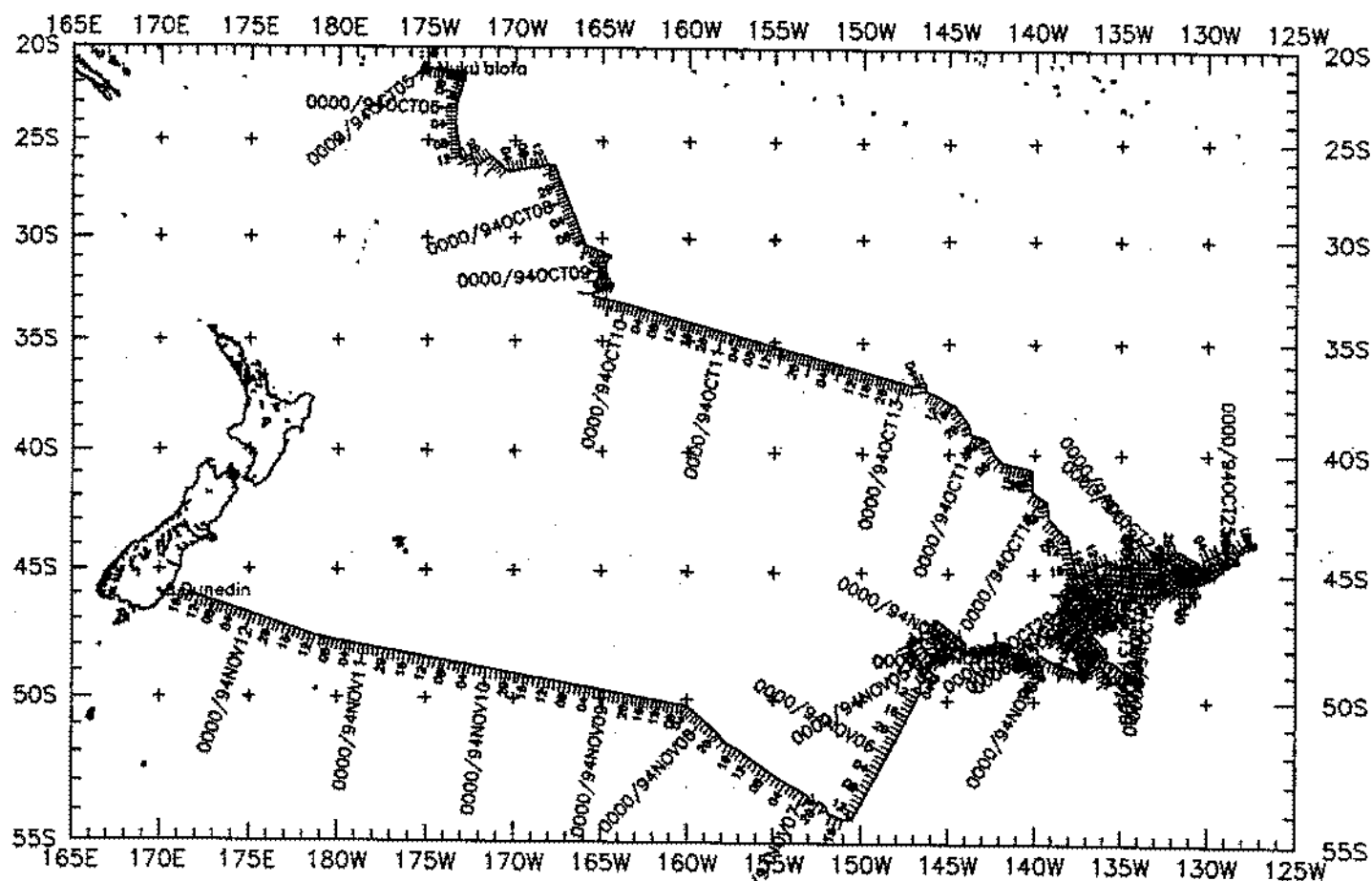
Magnetics - 10327 miles

Bathymetry - 10770 miles

Seismic Reflection - 575 miles

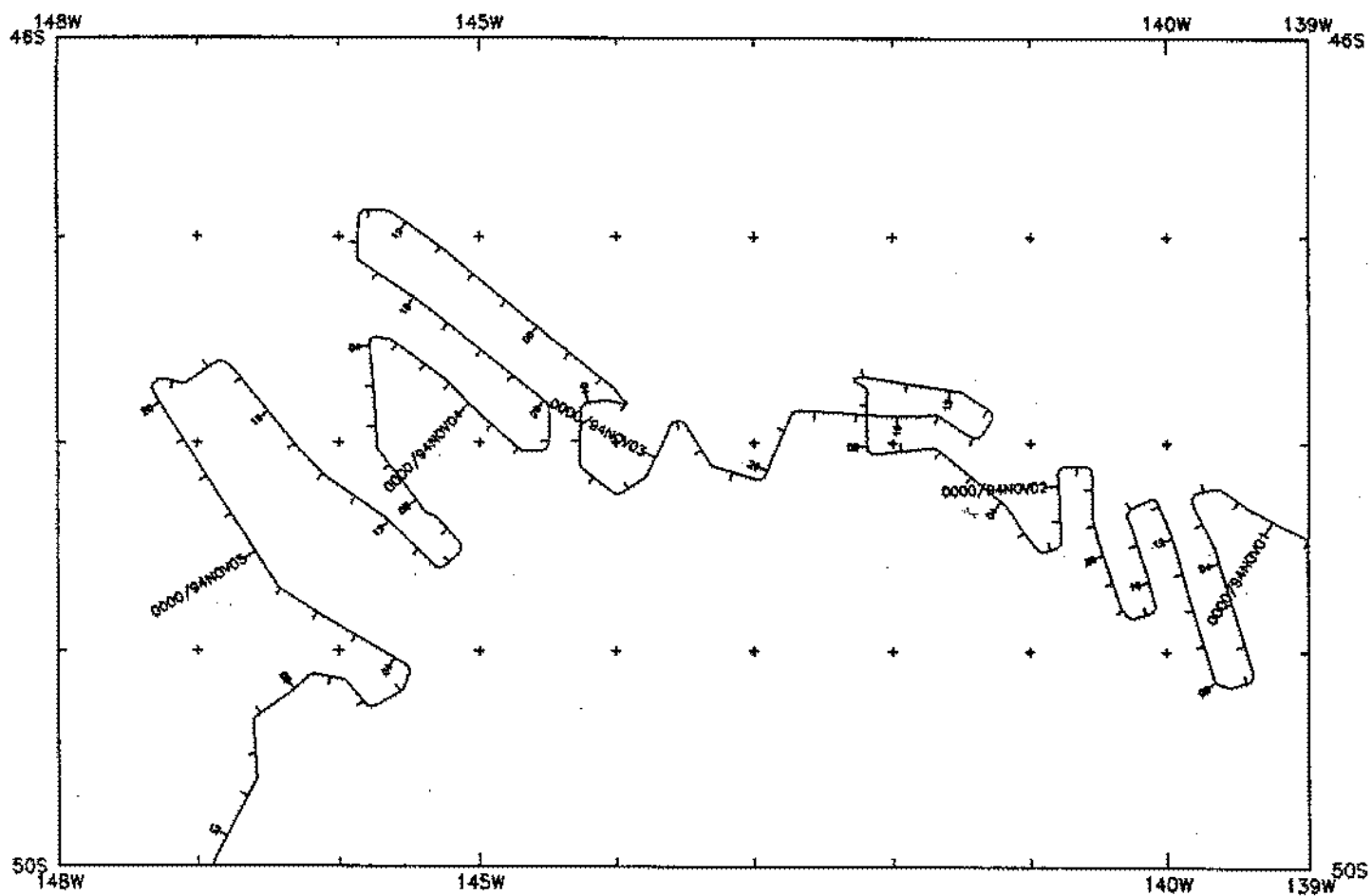
Sea Beam - 10770 miles

Gravity - 10754 miles

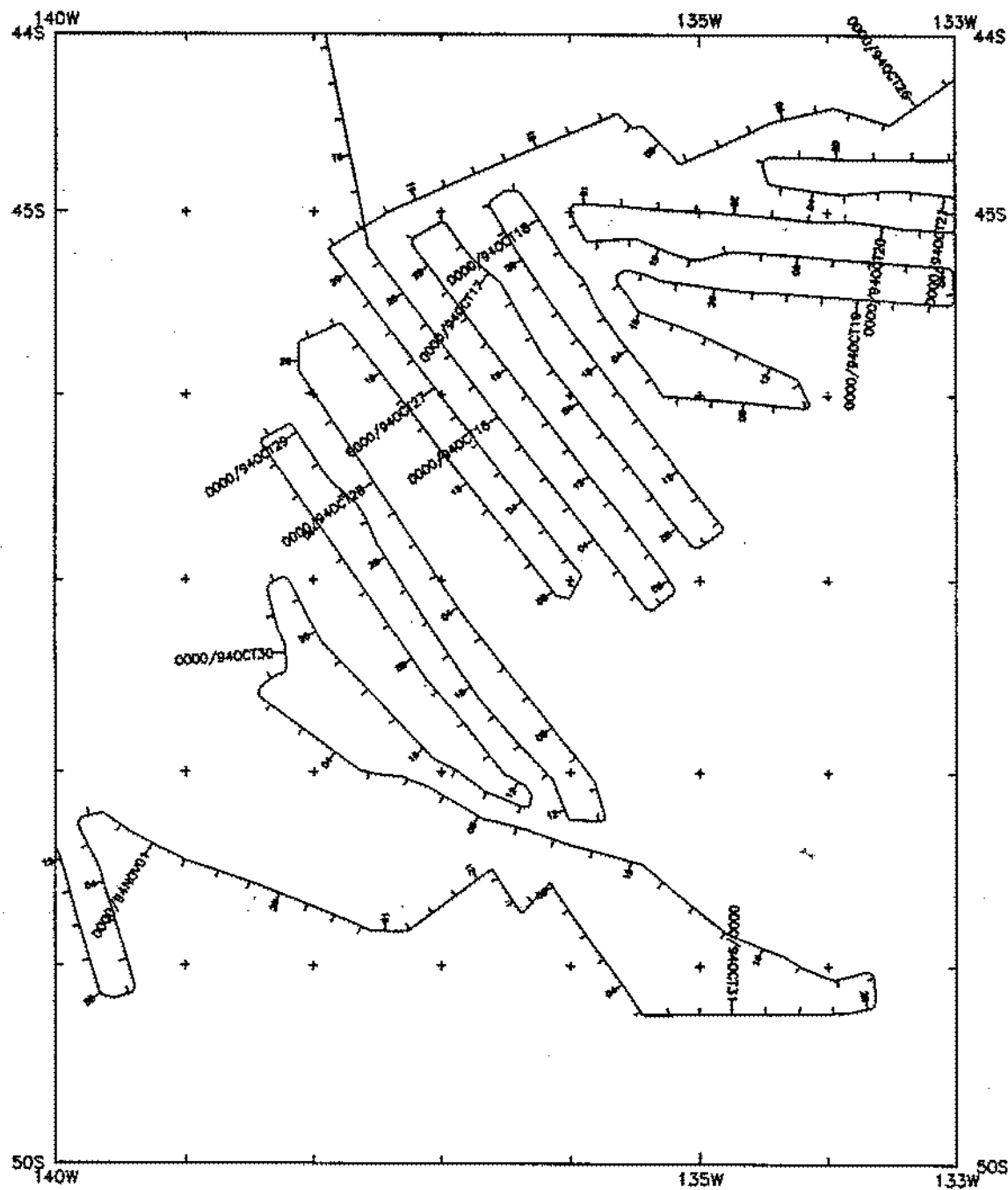


WESTWARD EXPEDITION LEG 7 (WEST07MV)

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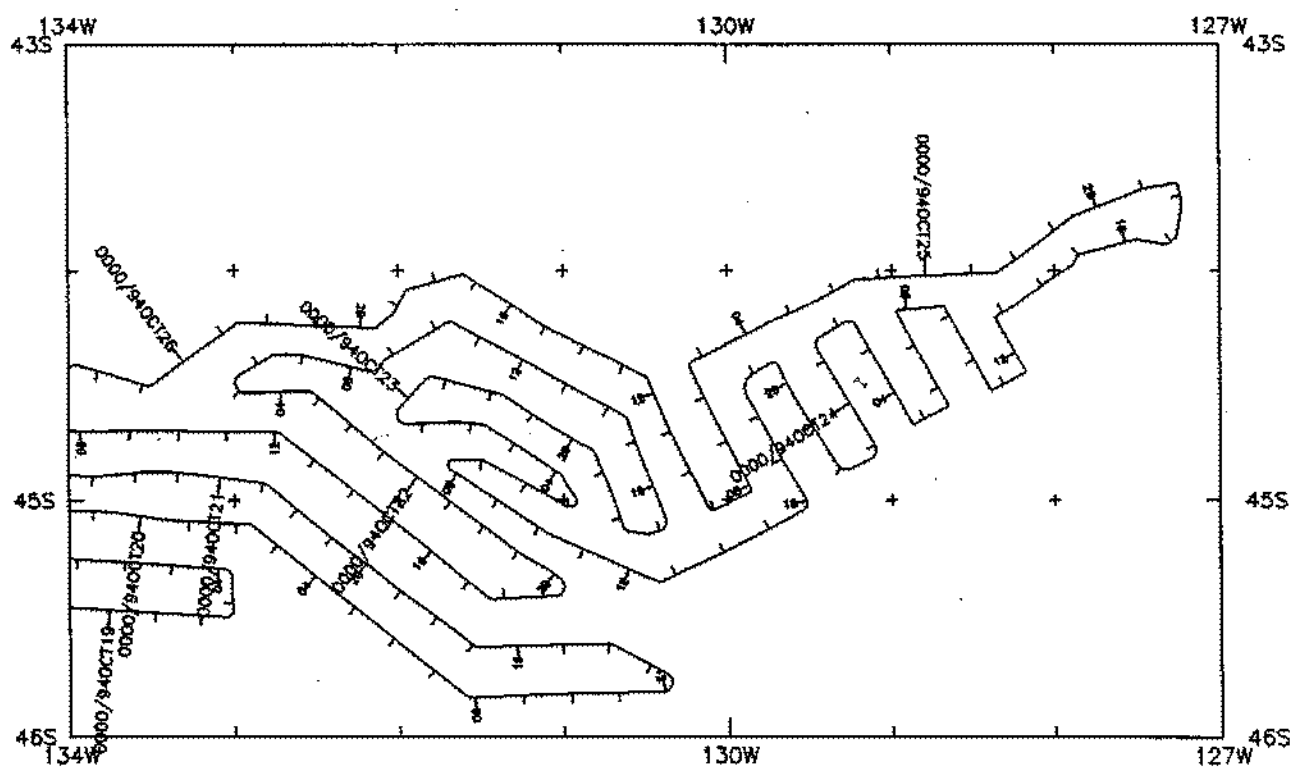


WESTWARD EXPEDITION LEG 7 (WEST07MV)
Survey Area 1



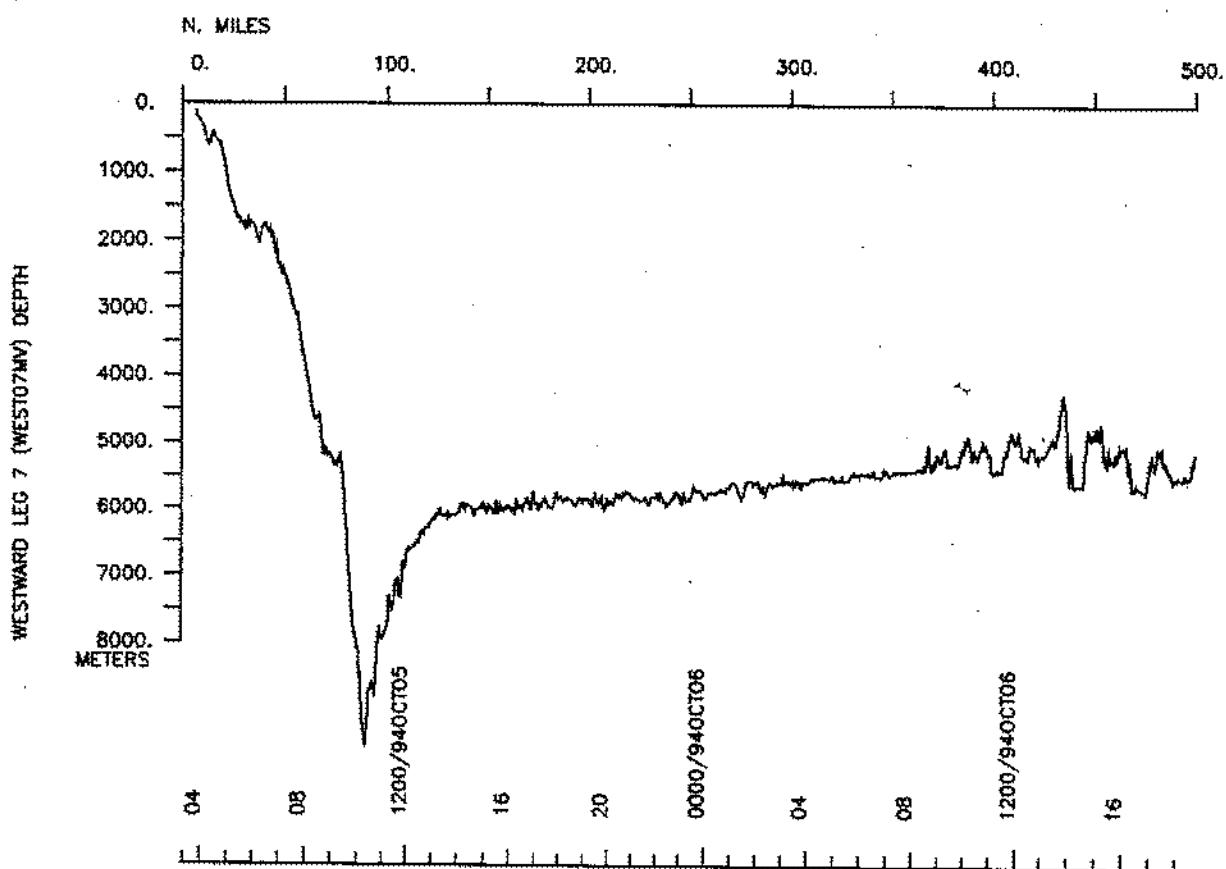
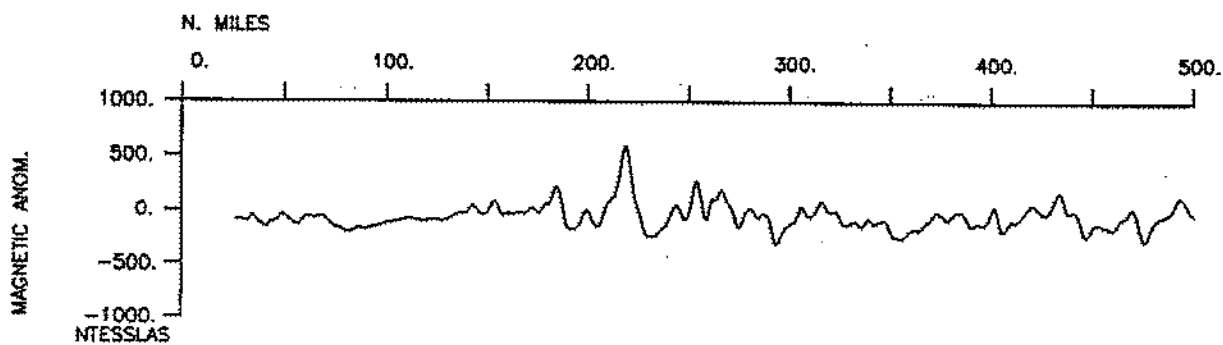
WESTWARD EXPEDITION LEG 7 (WEST07MV)
Survey Area 2

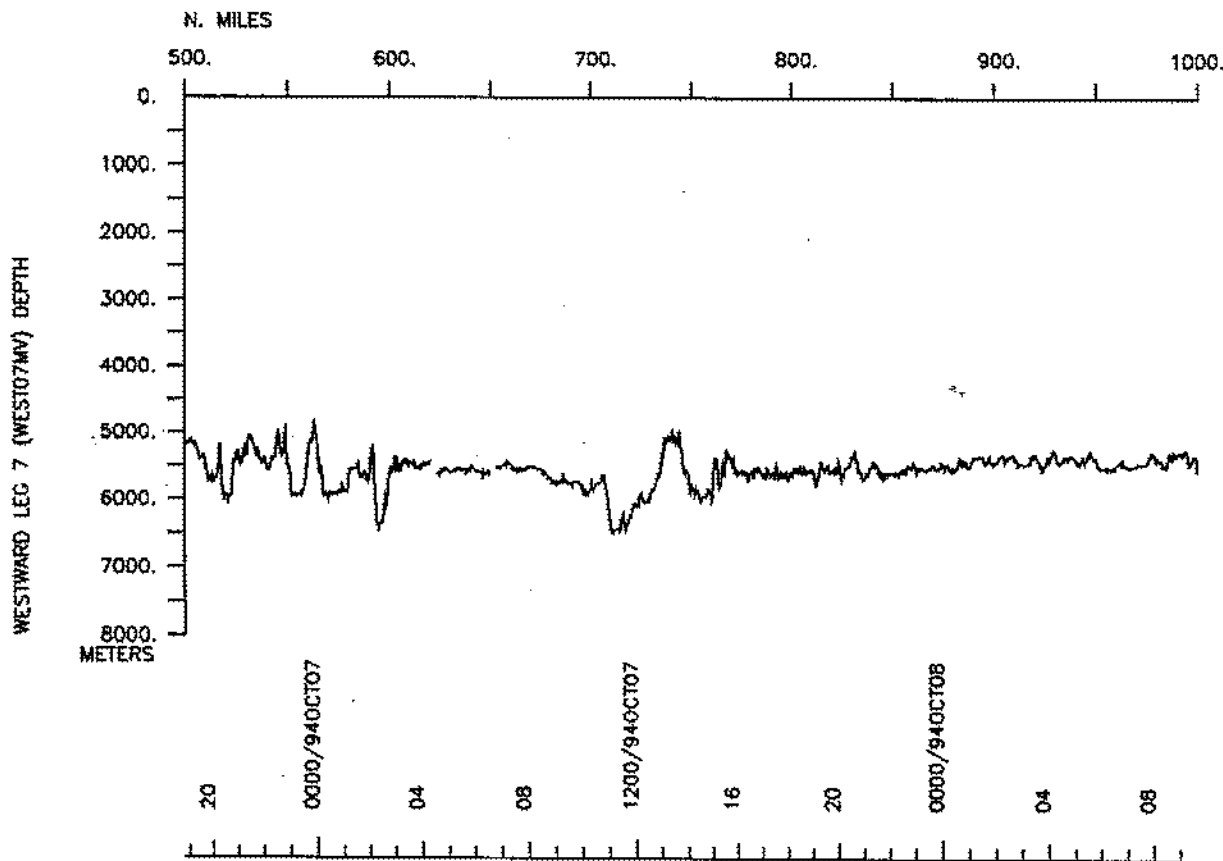
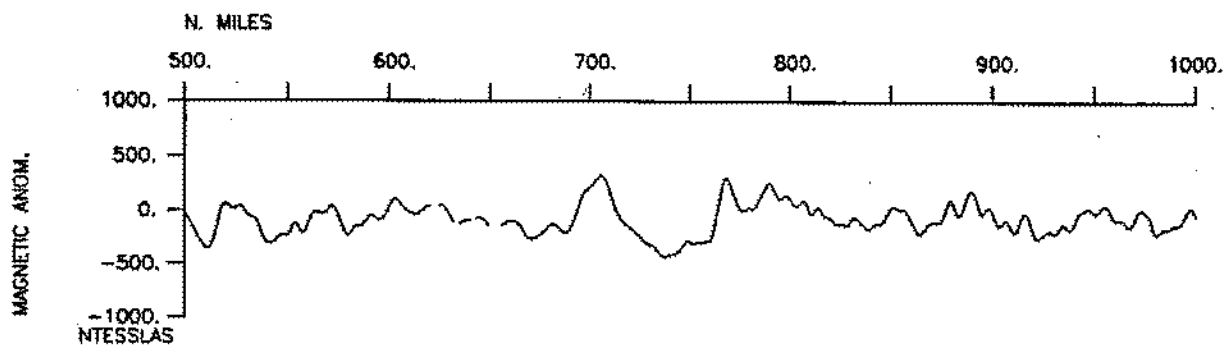
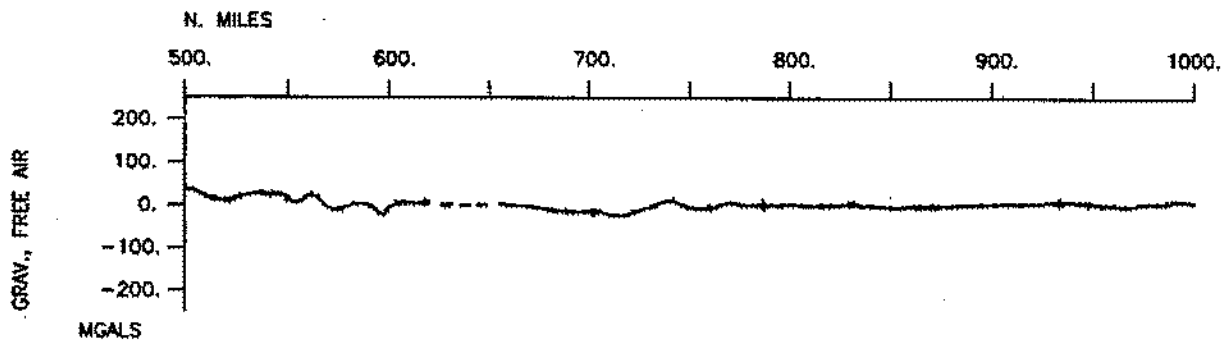
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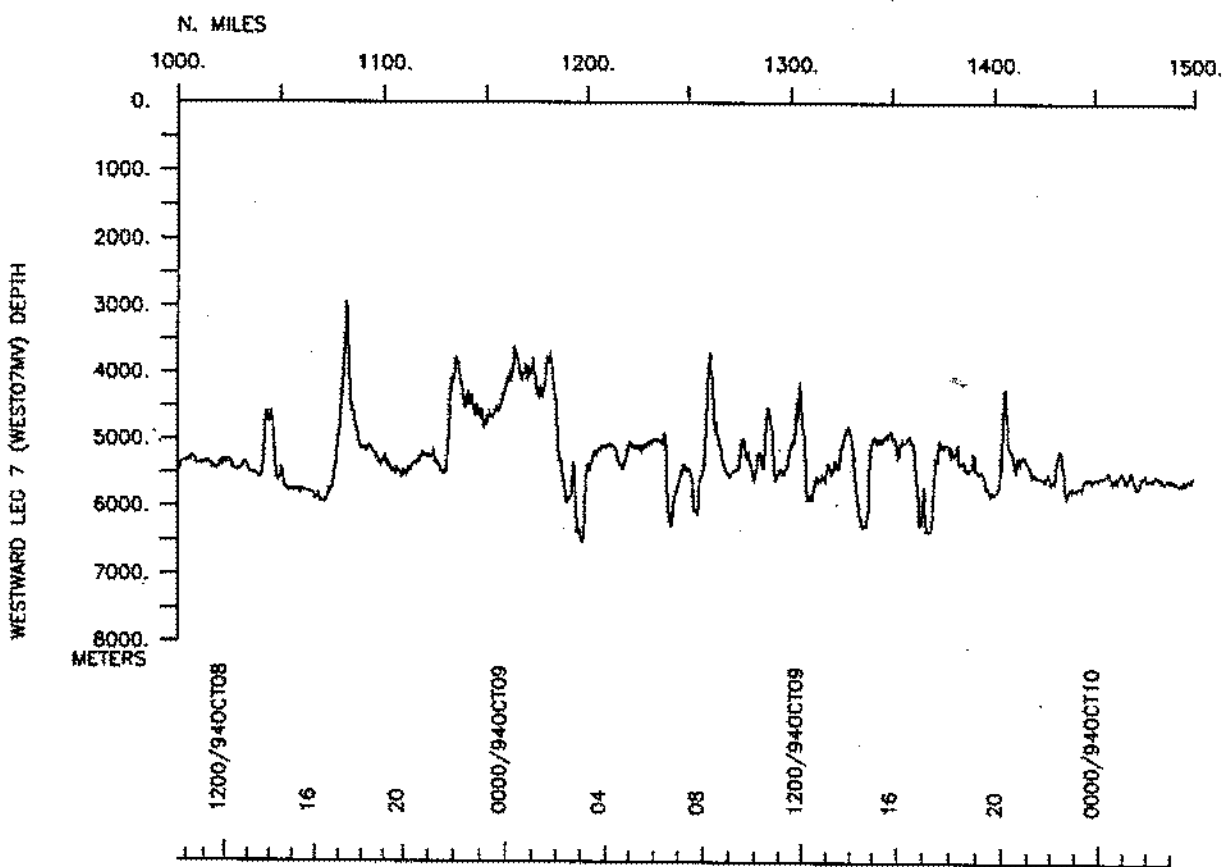
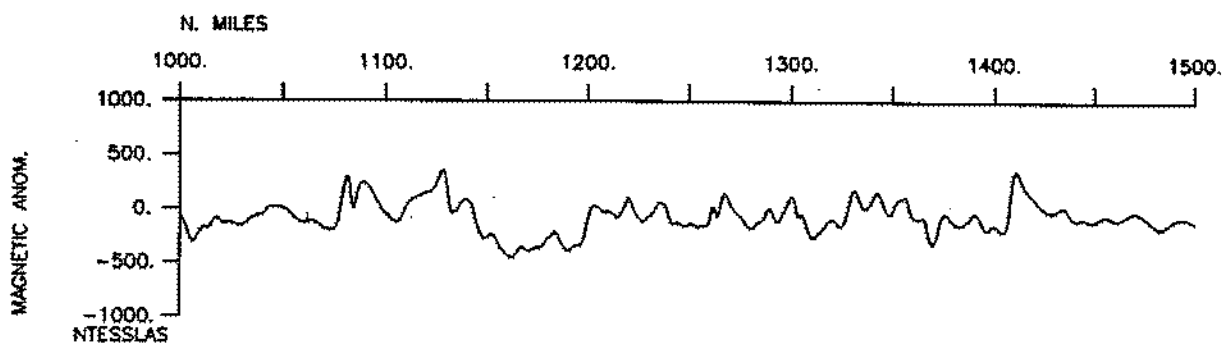
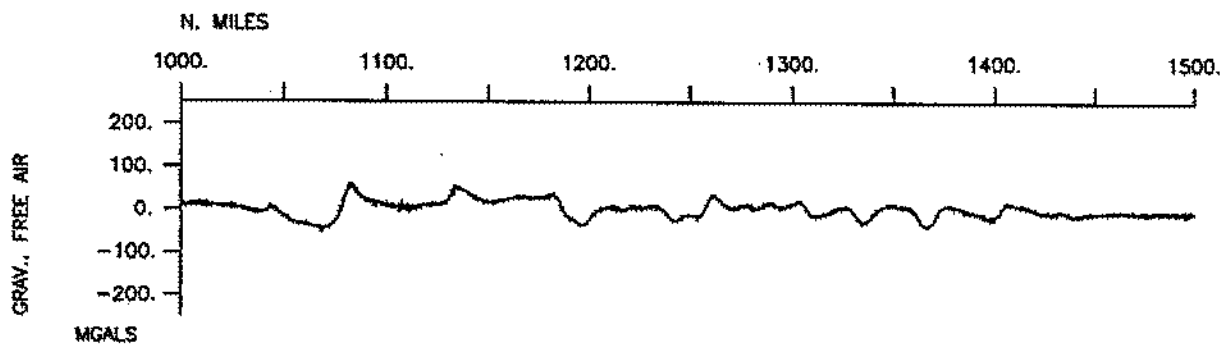


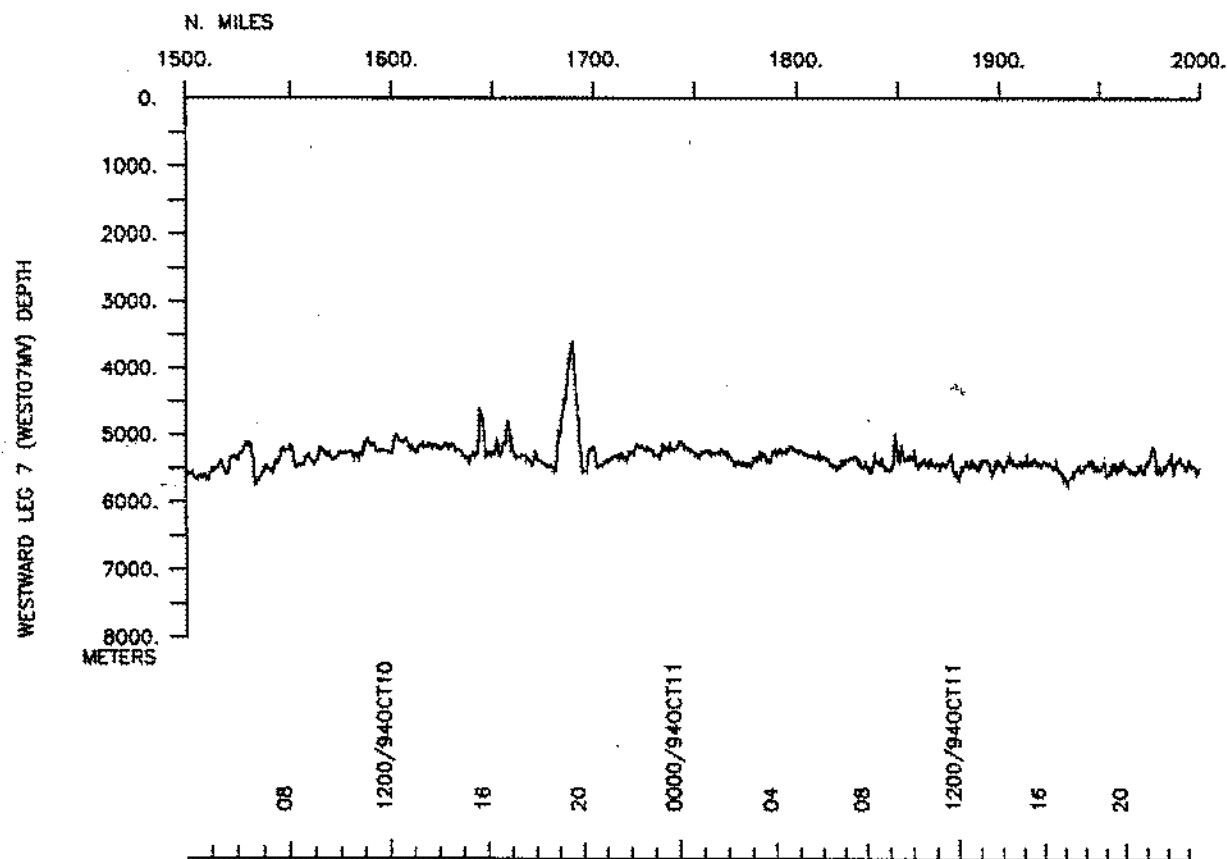
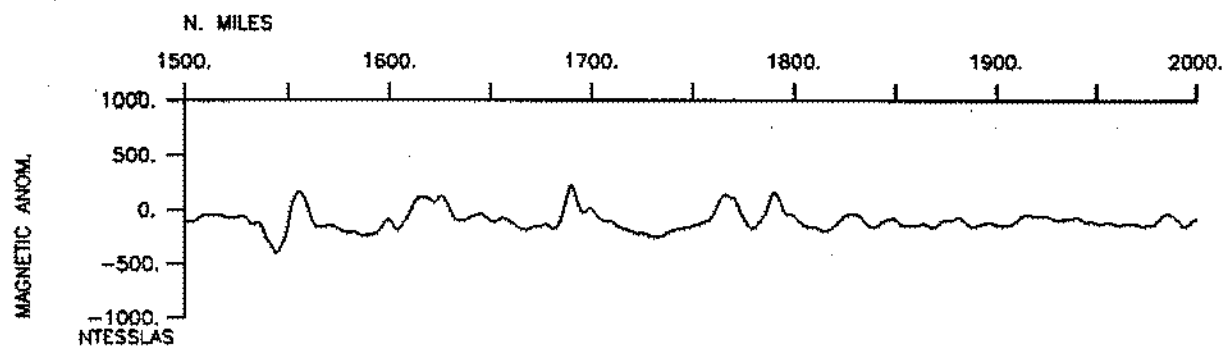
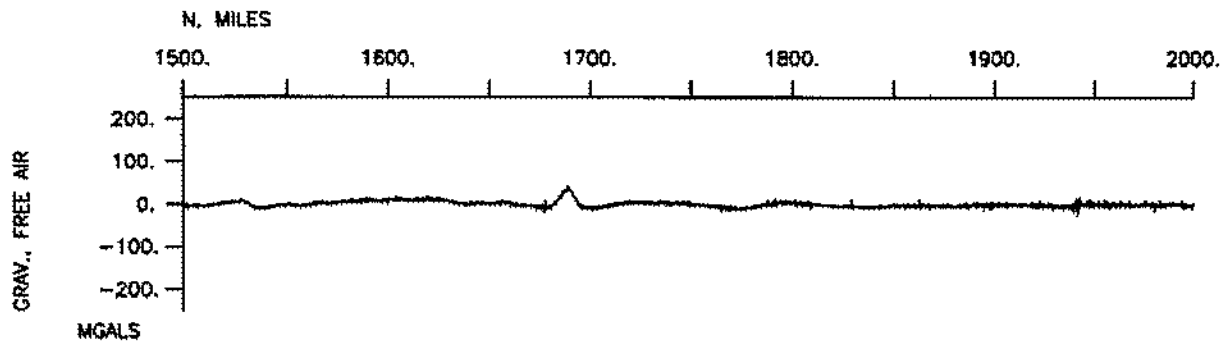
WESTWARD EXPEDITION LEG 7 (WEST07MV)
Survey Area 3

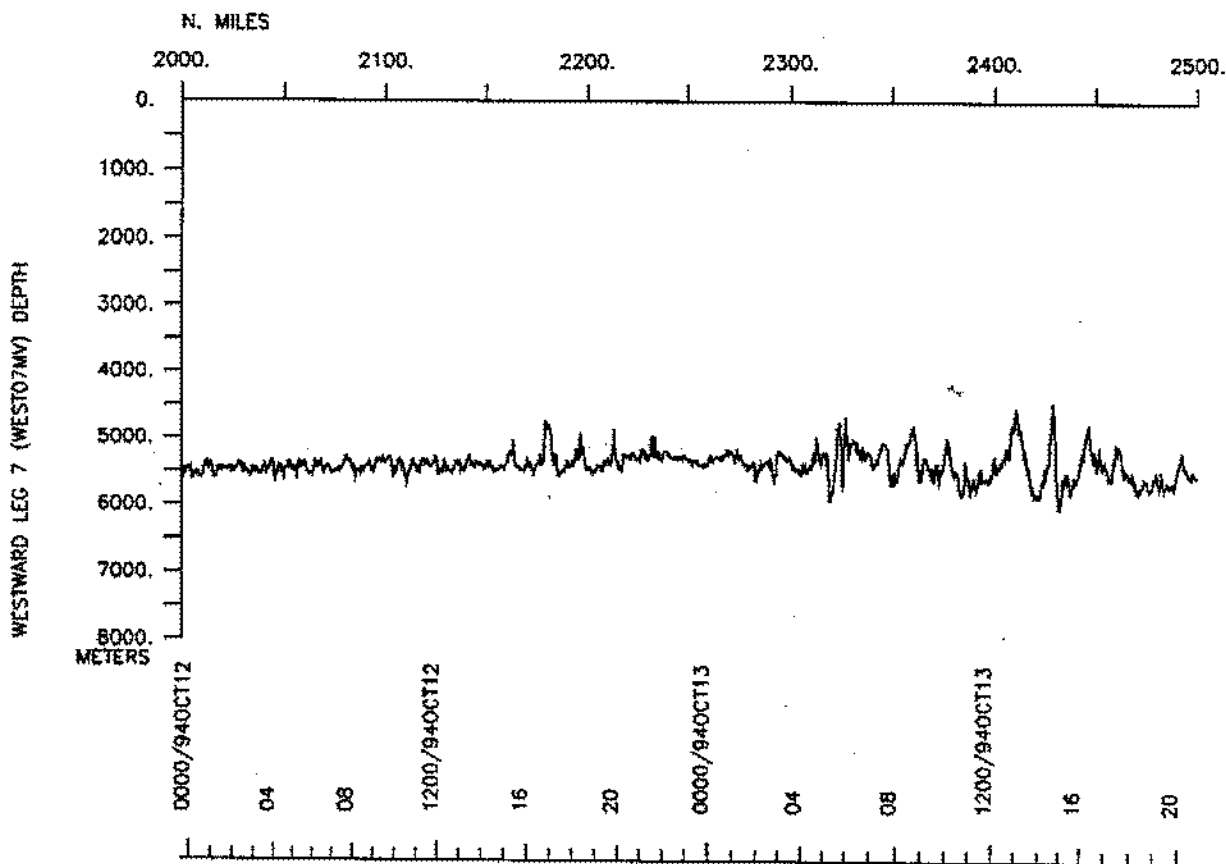
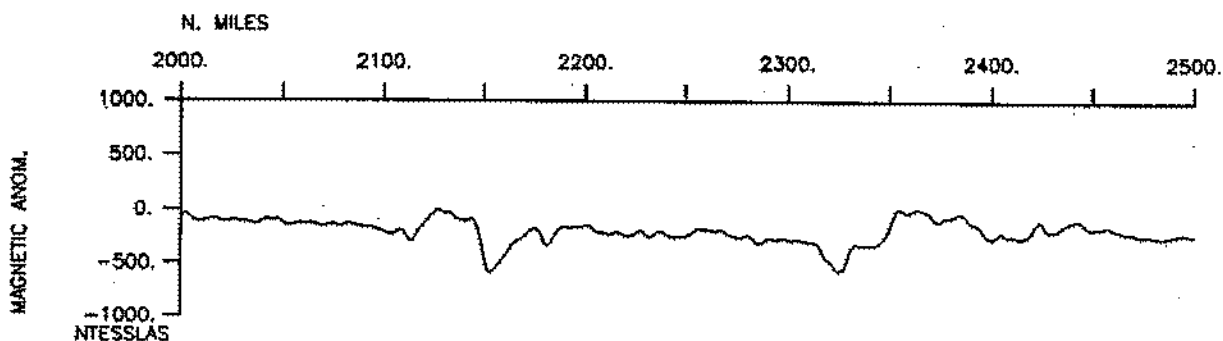
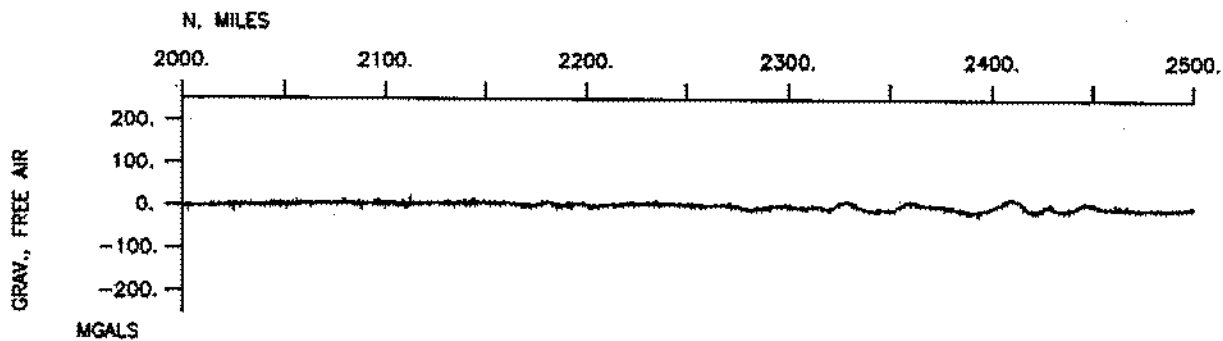
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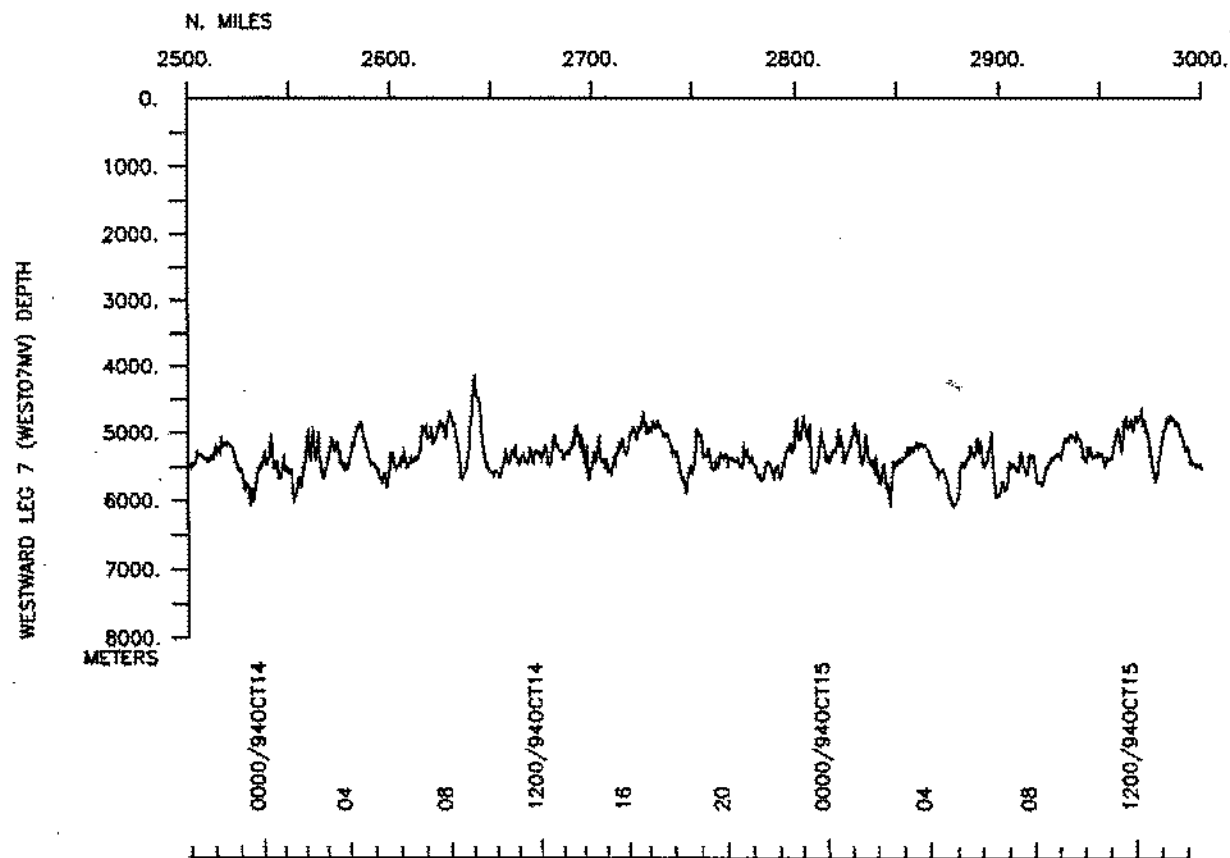
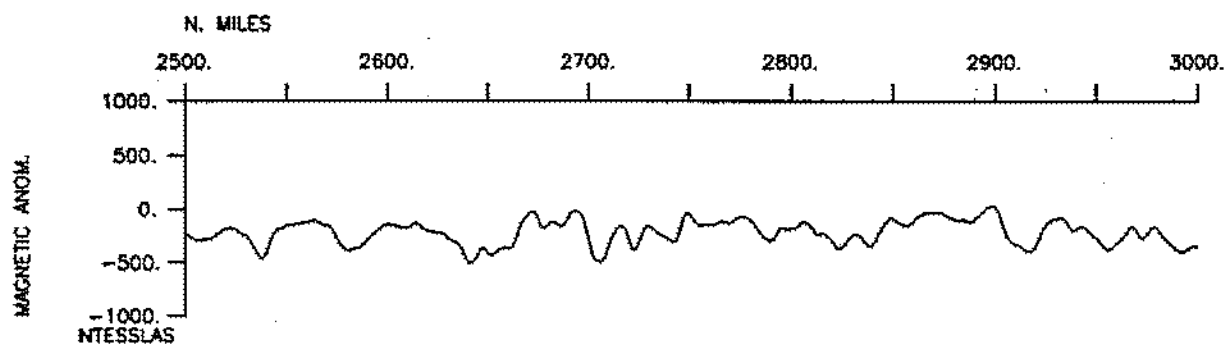
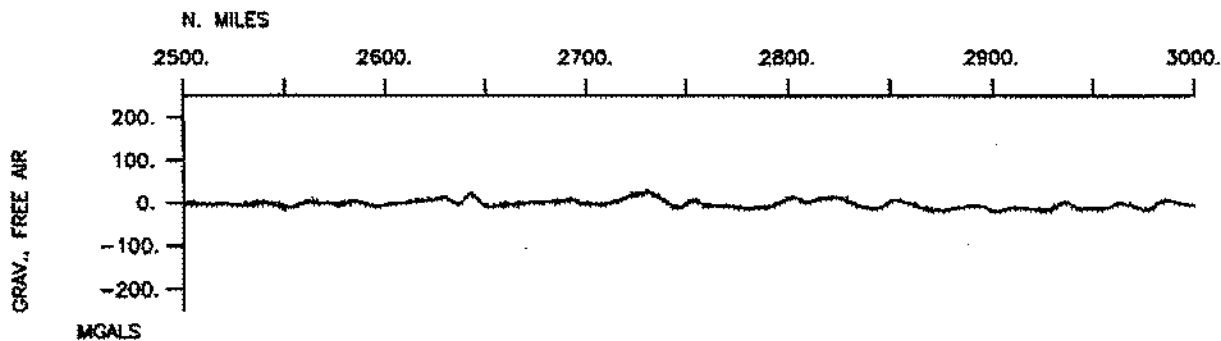


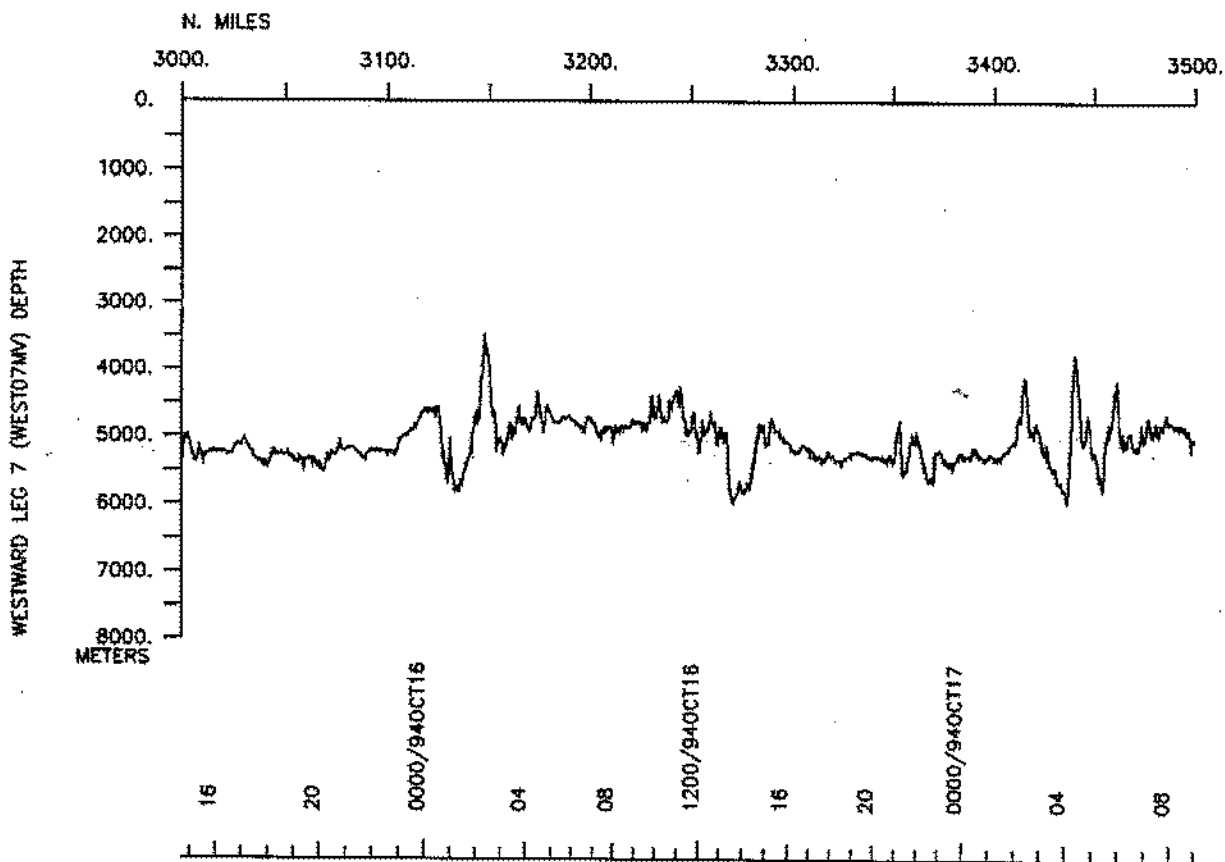
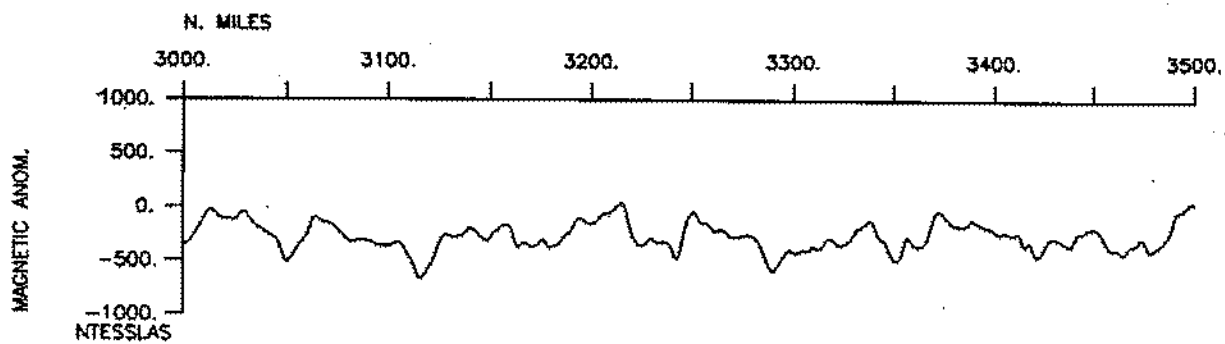
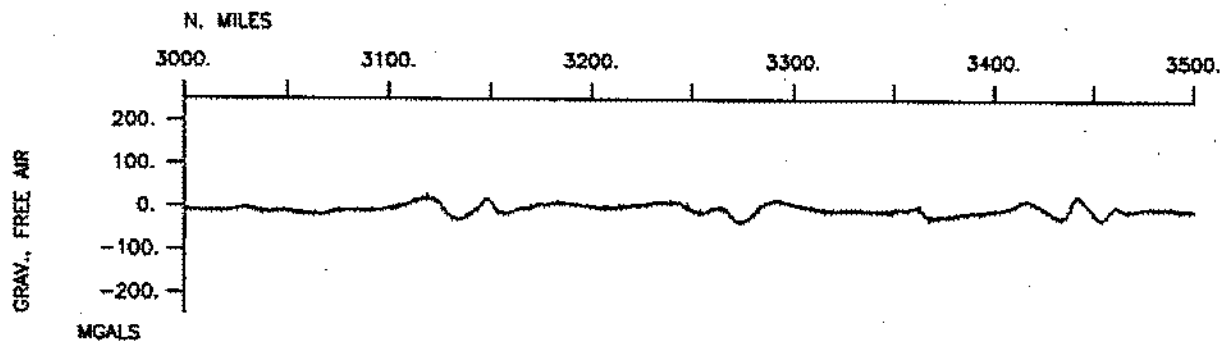


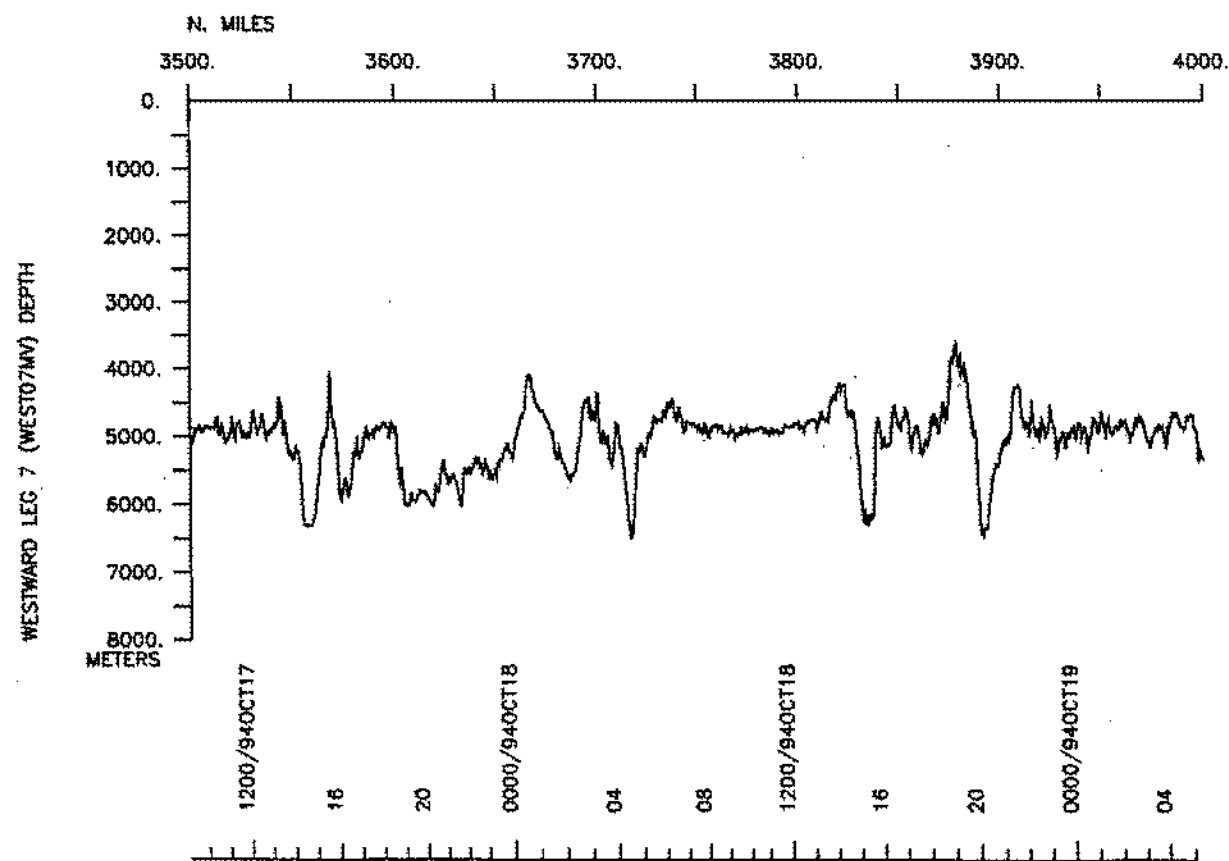
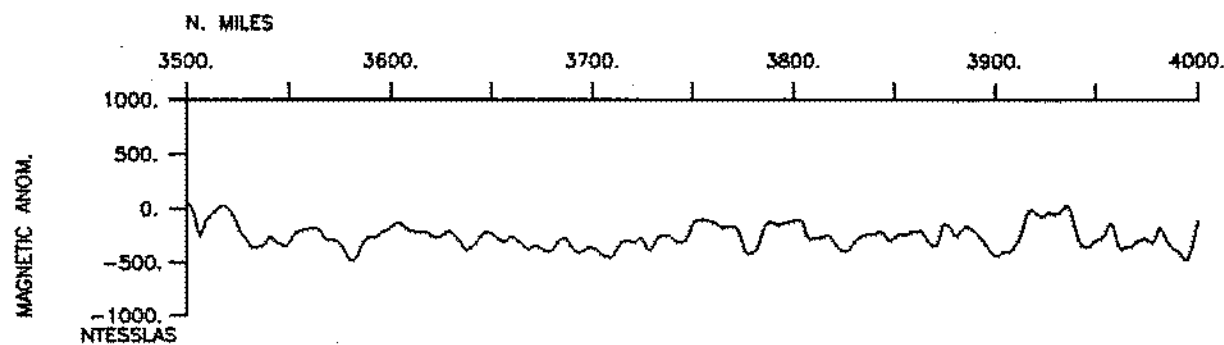
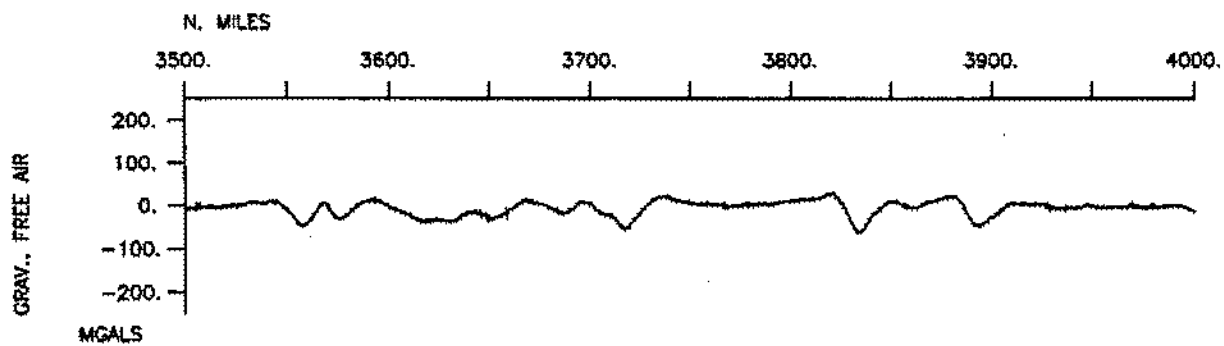


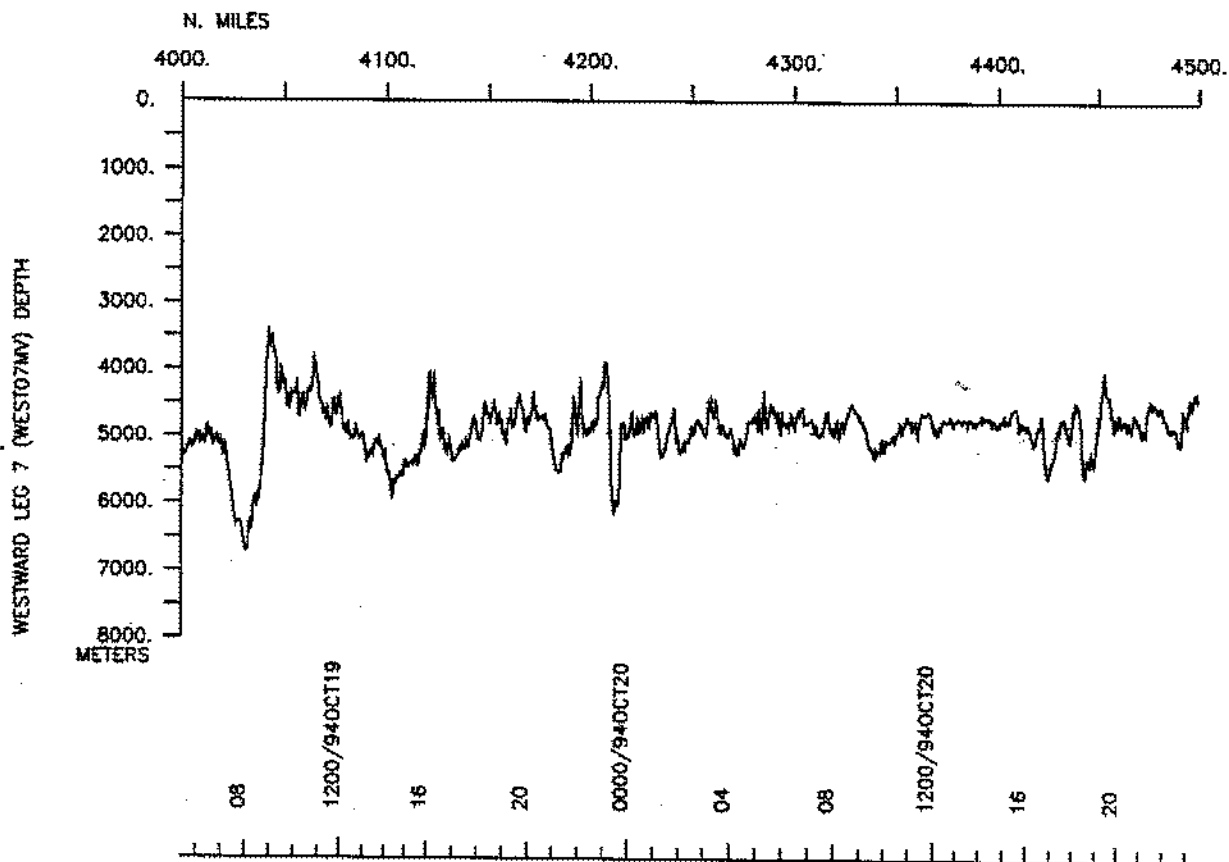
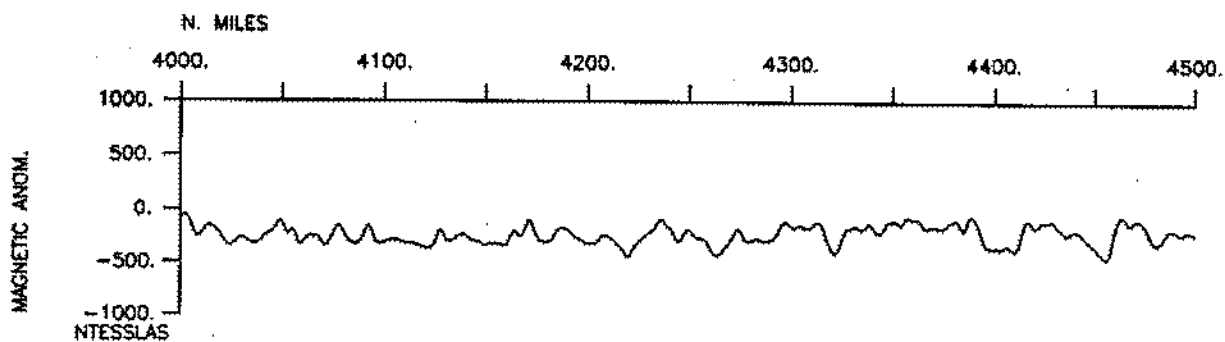
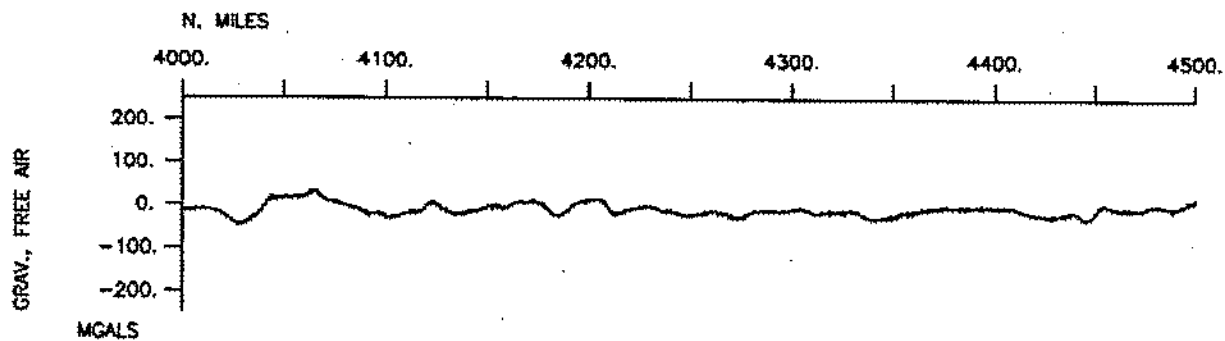


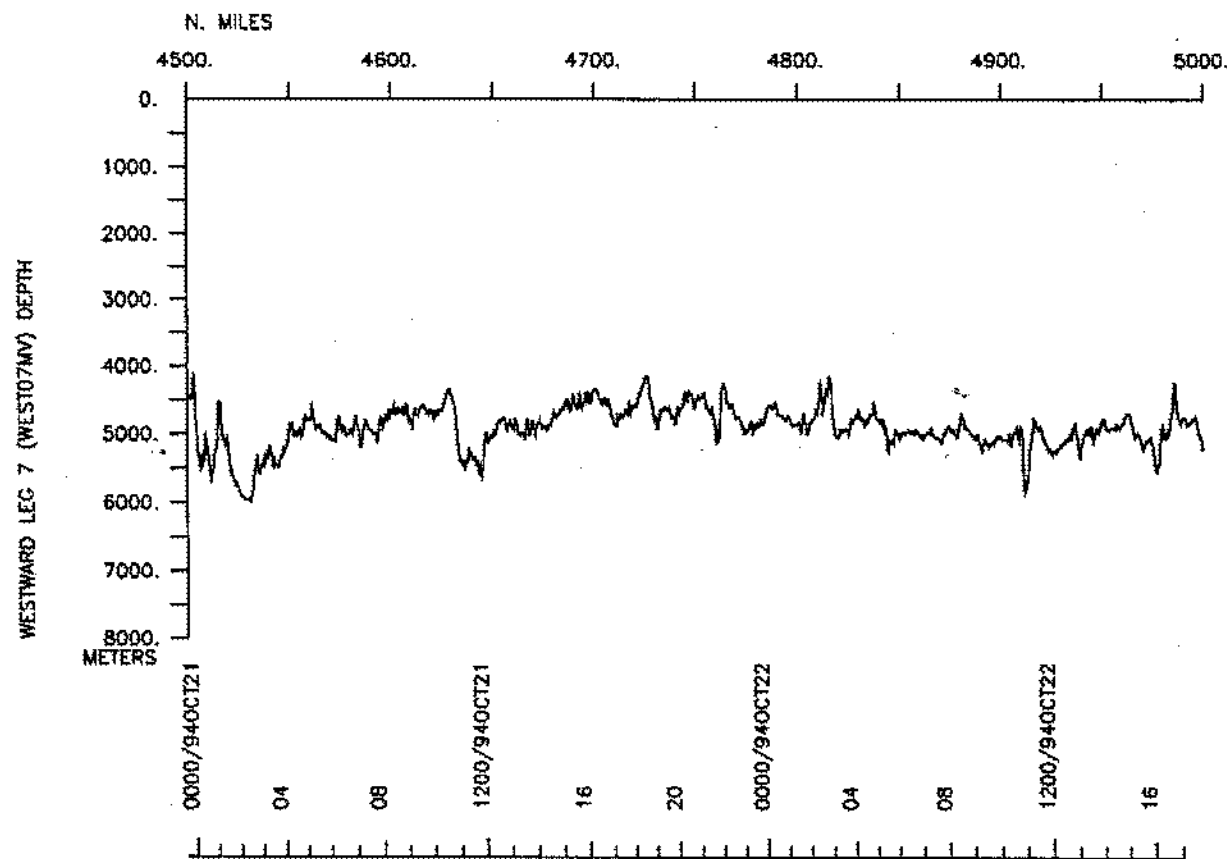
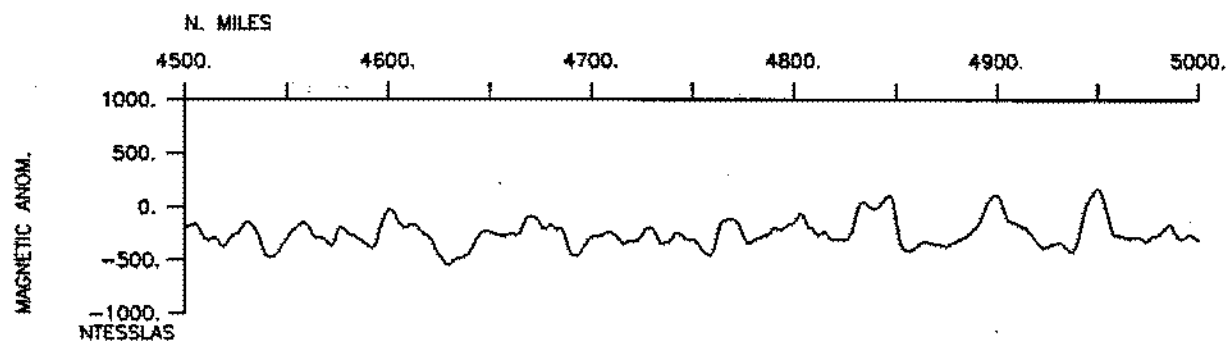
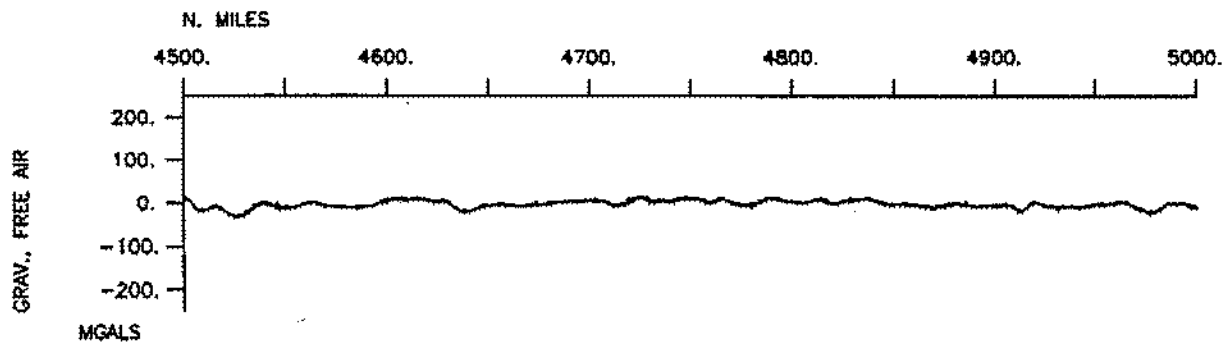


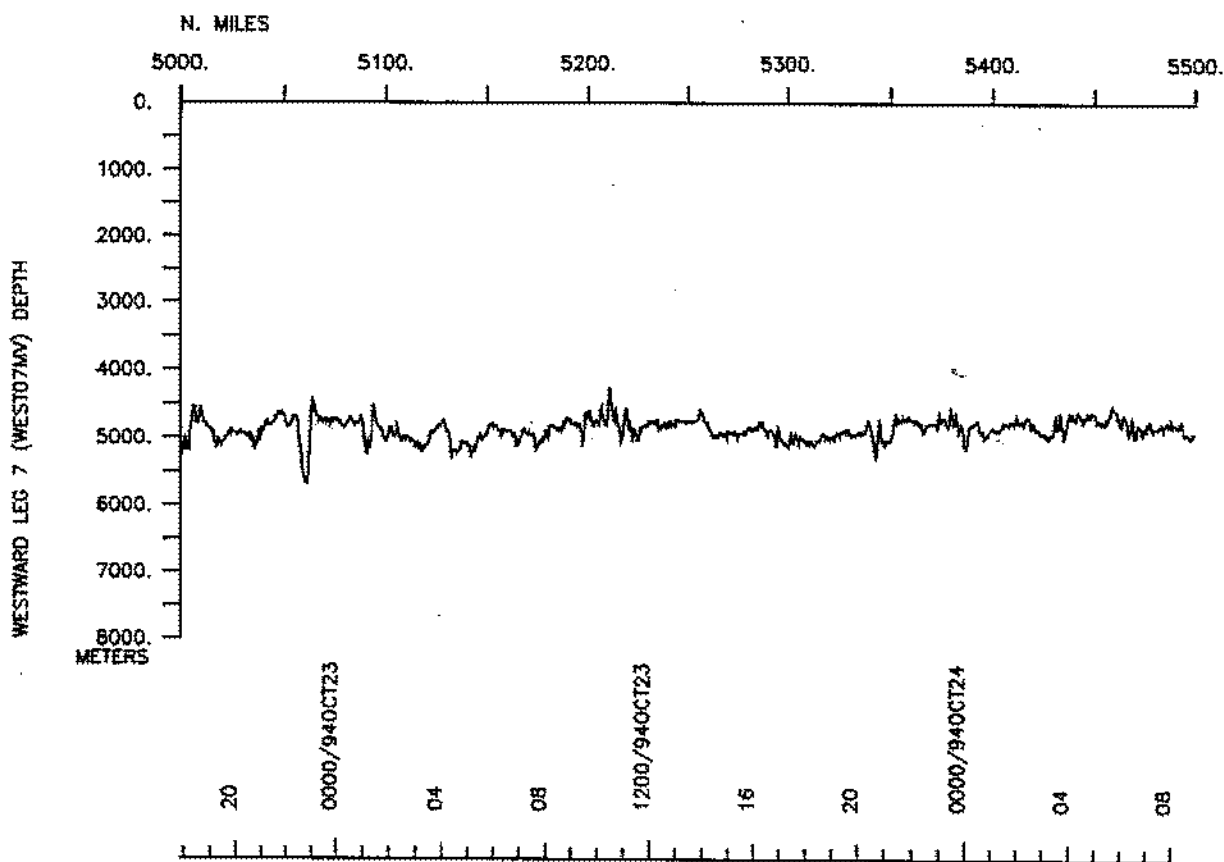
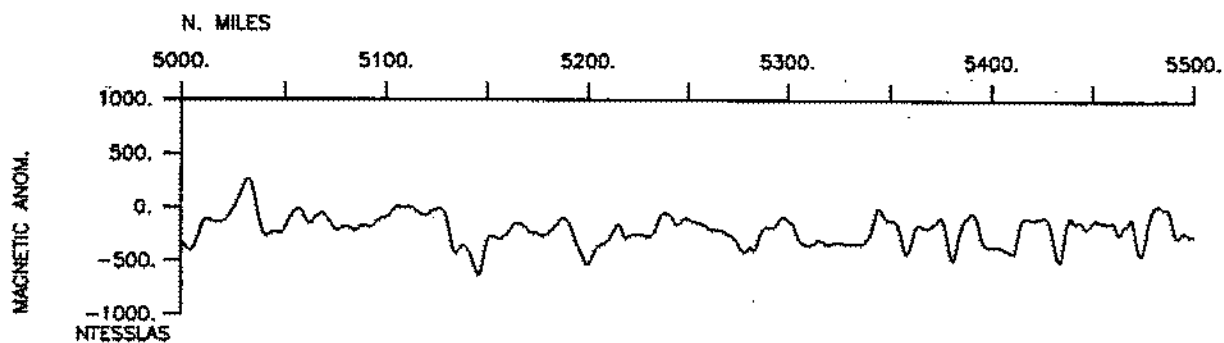
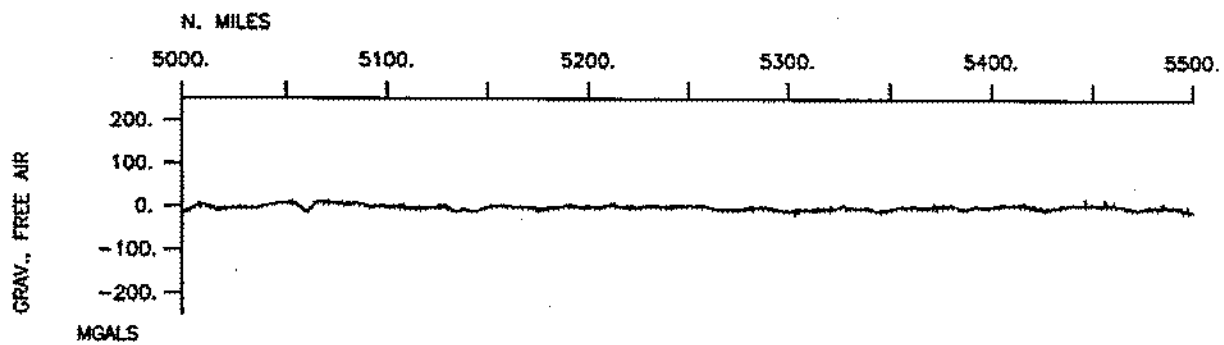


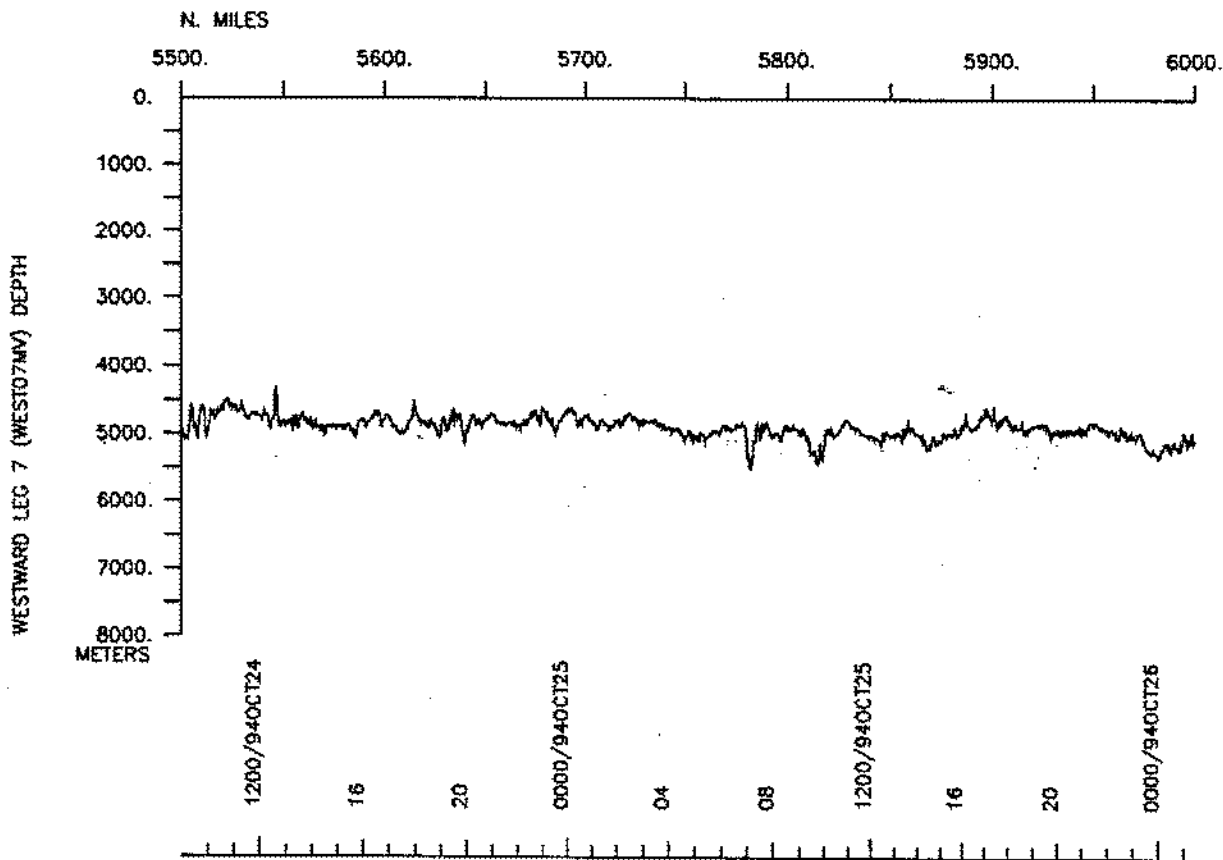
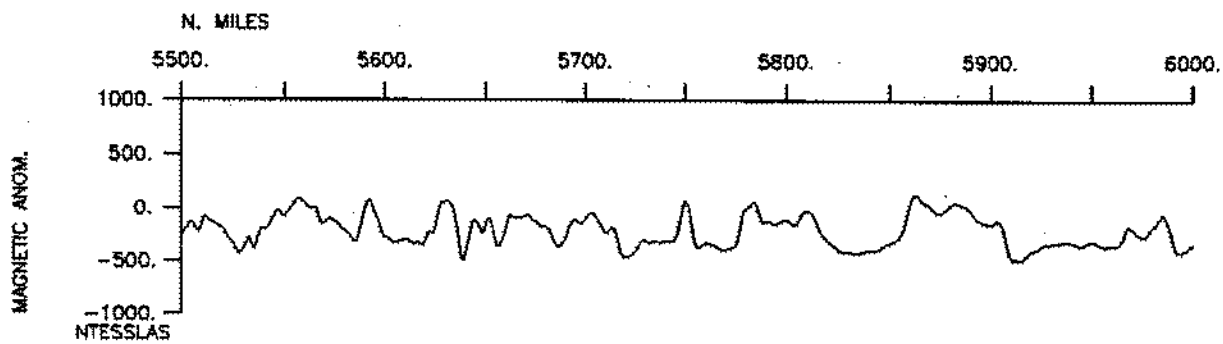
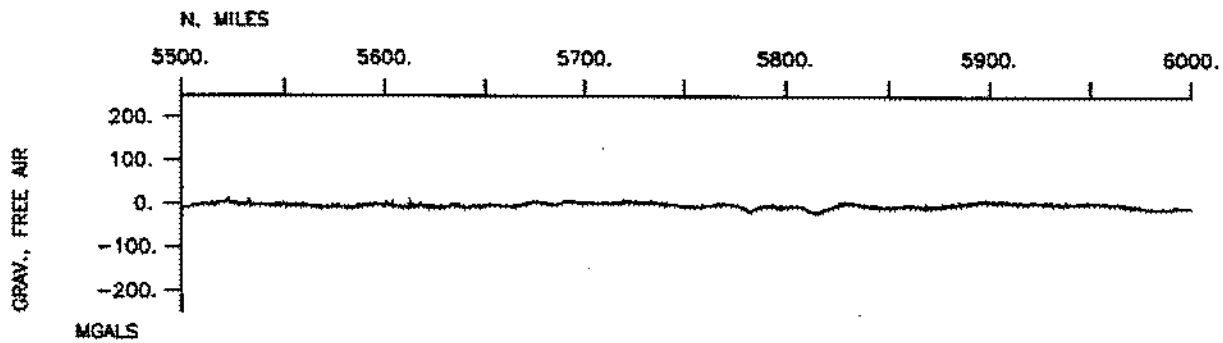


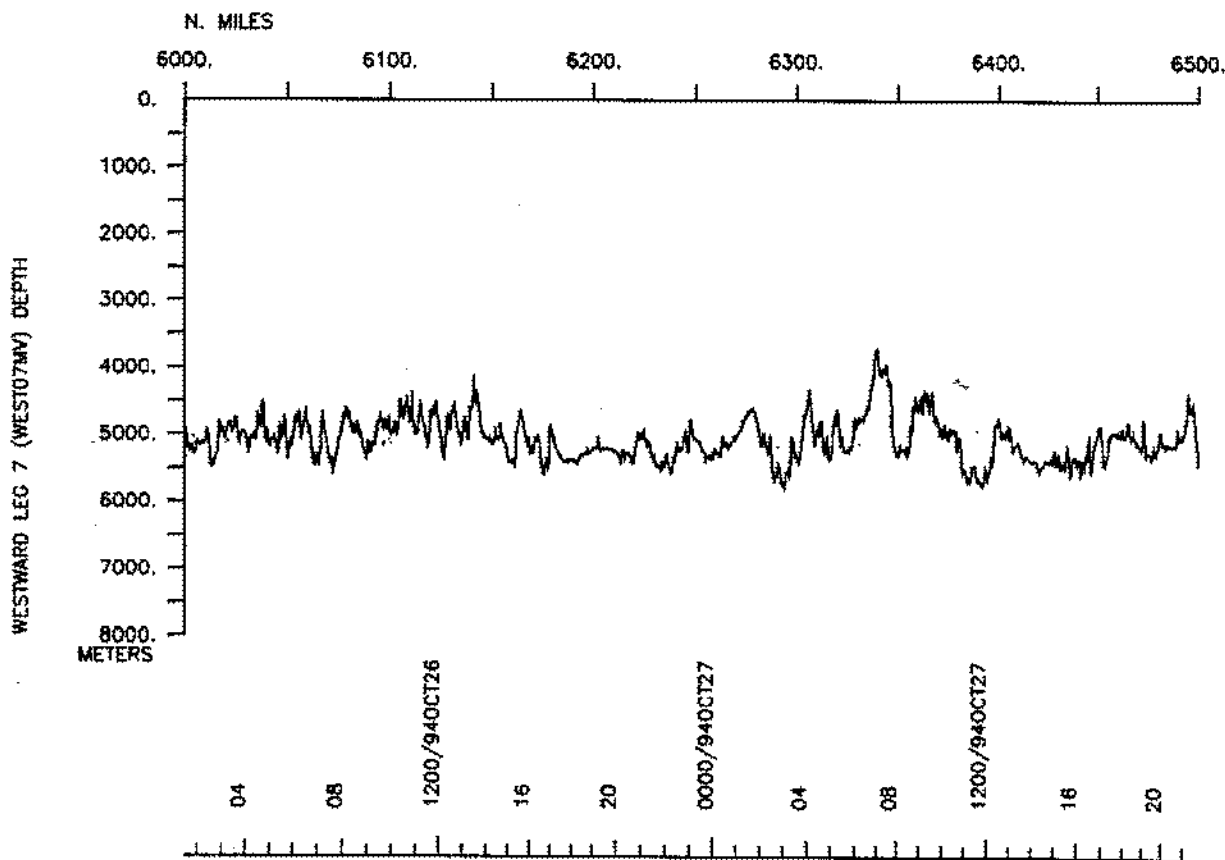
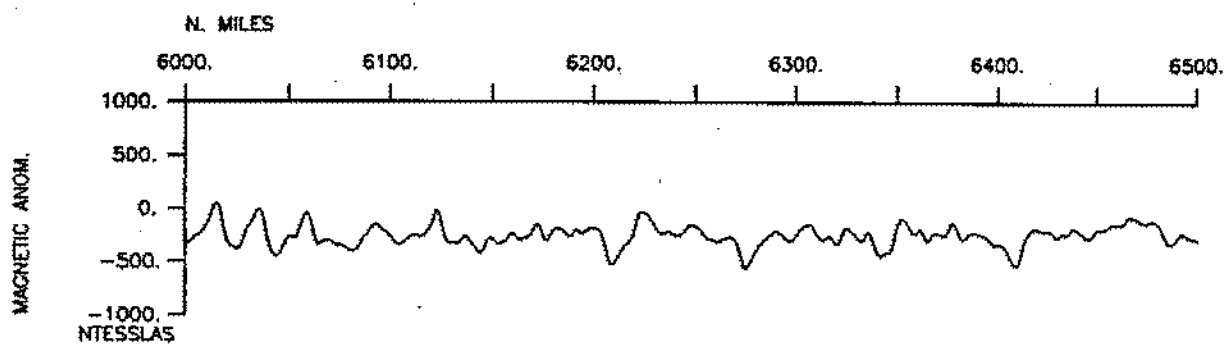
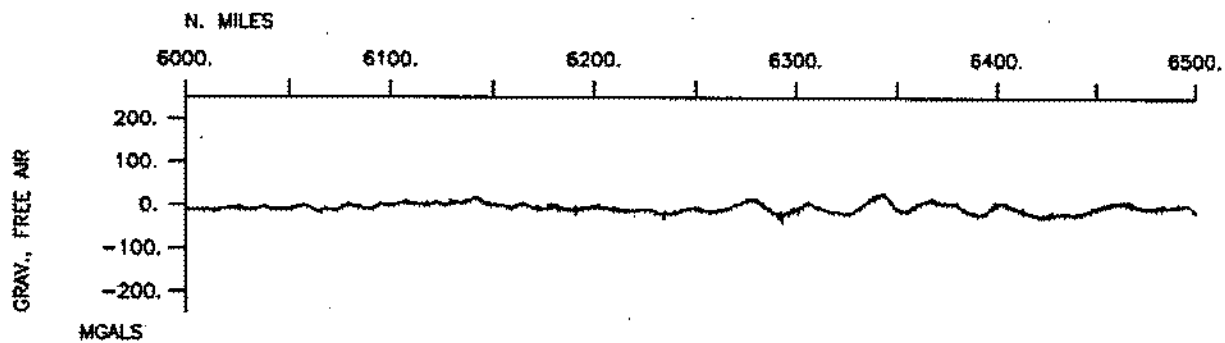


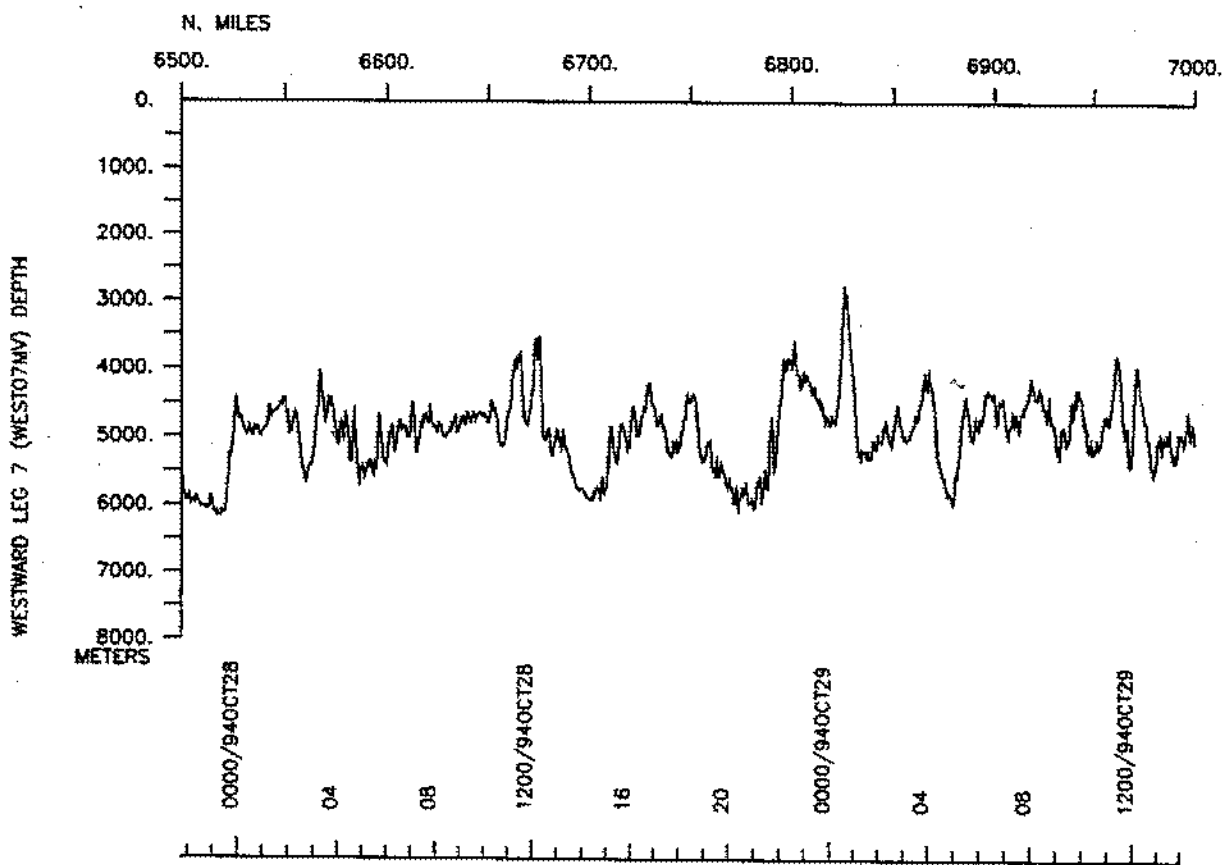
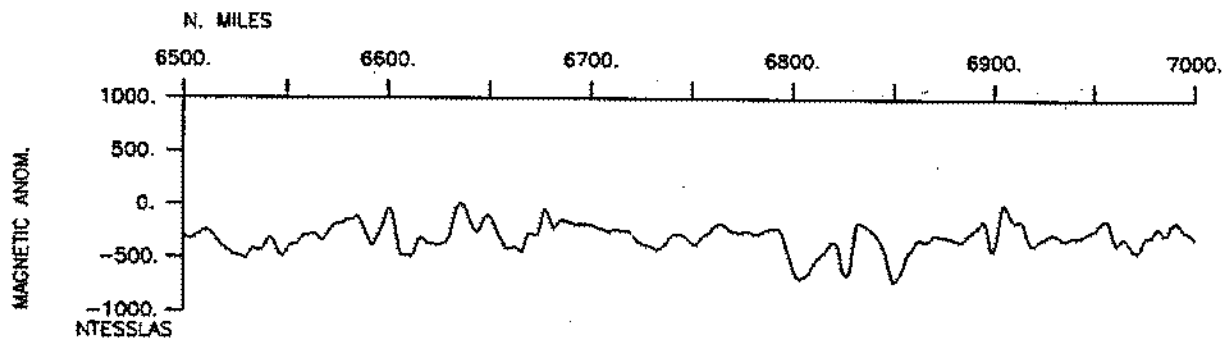
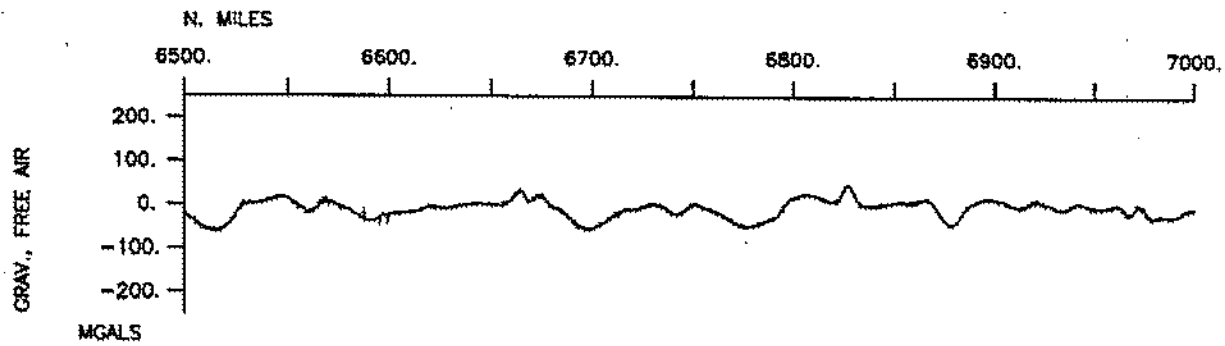


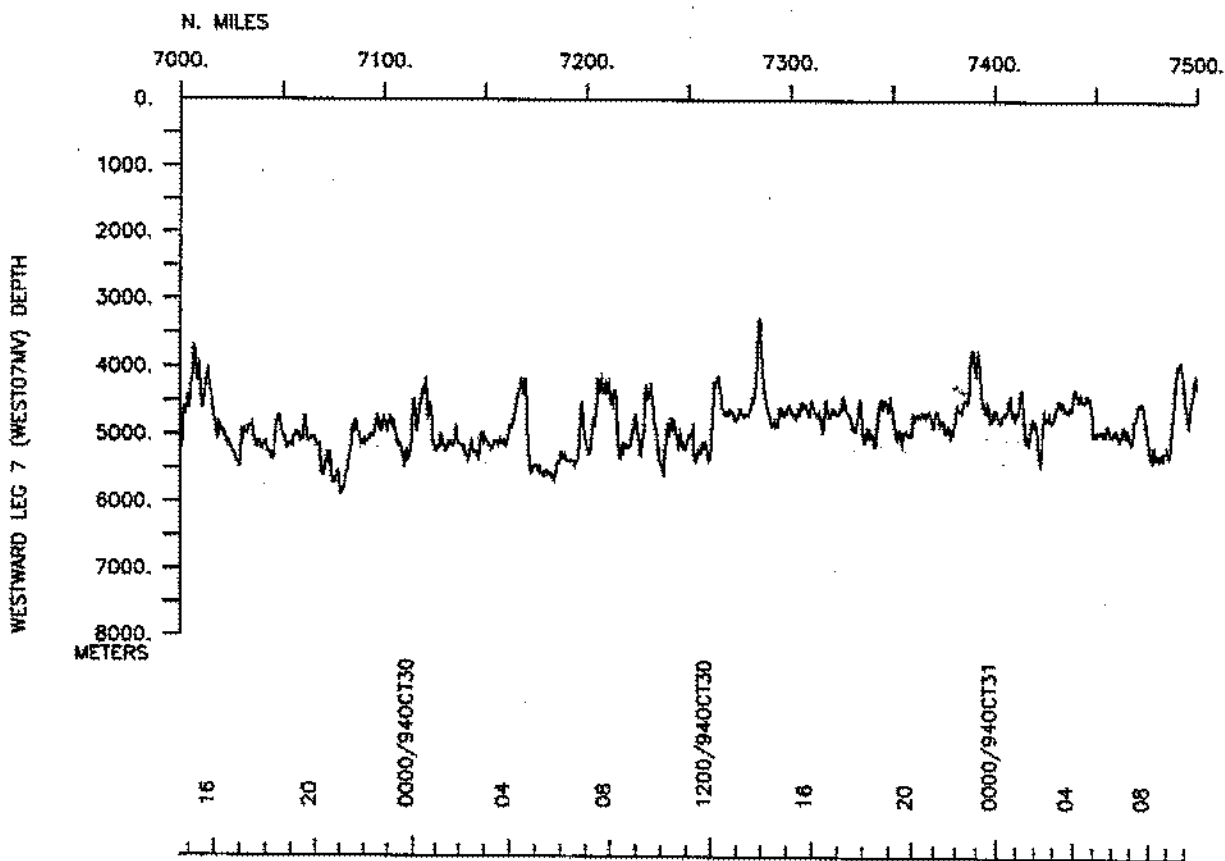
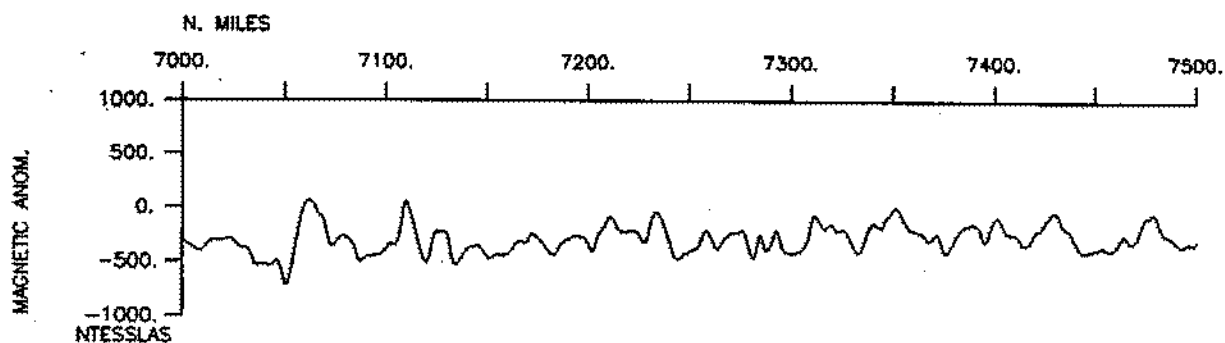
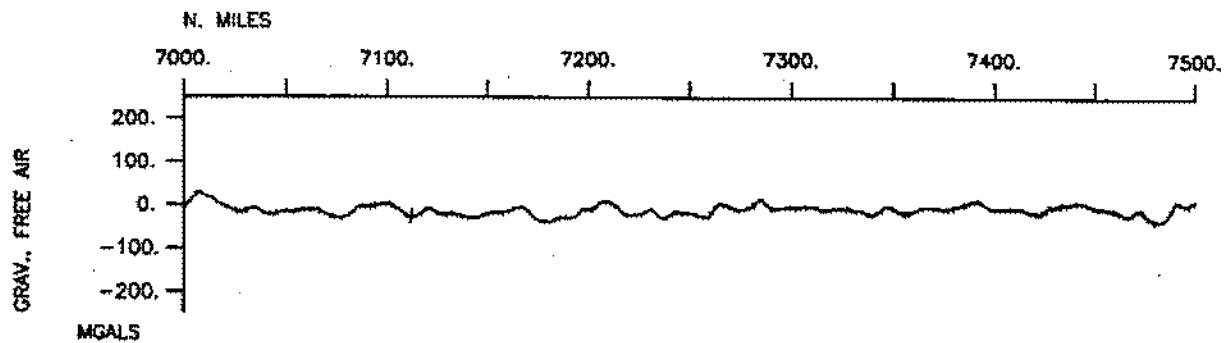


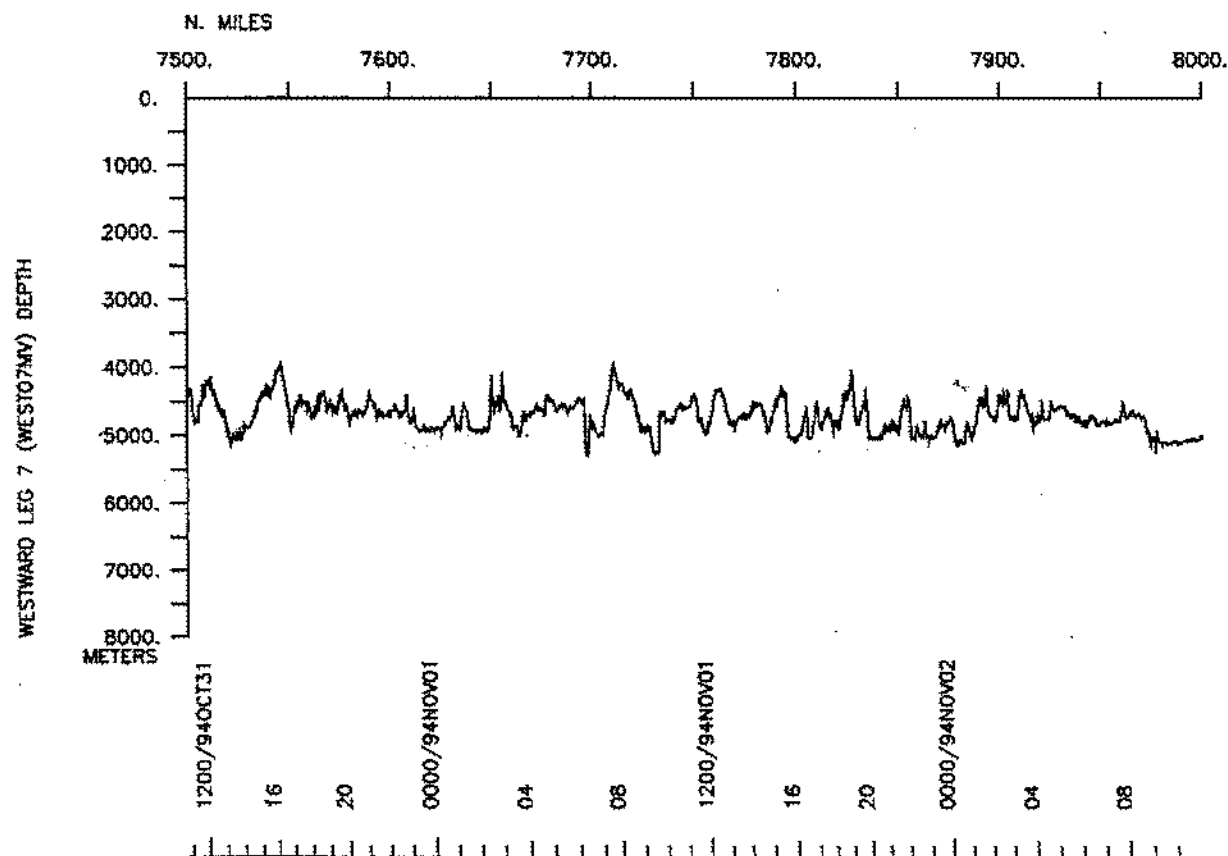
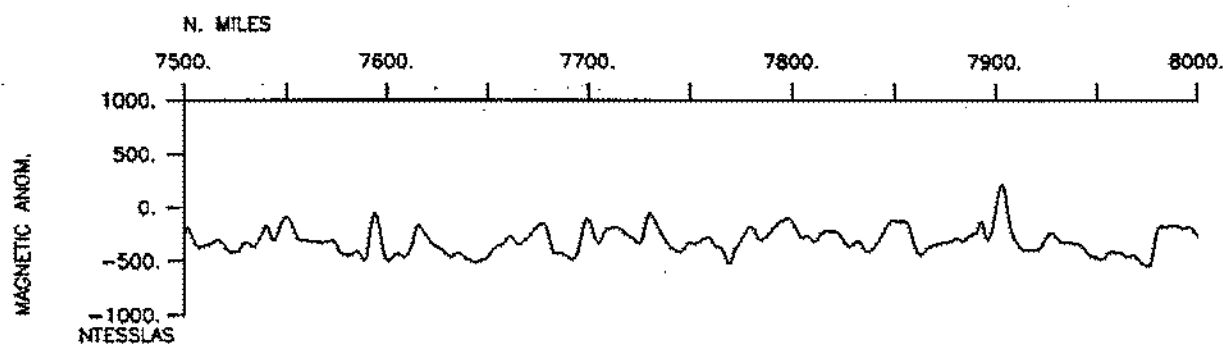
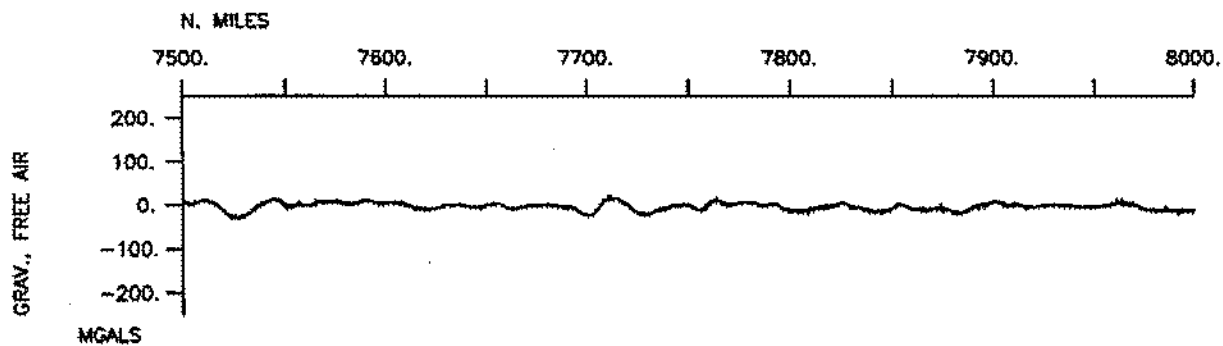


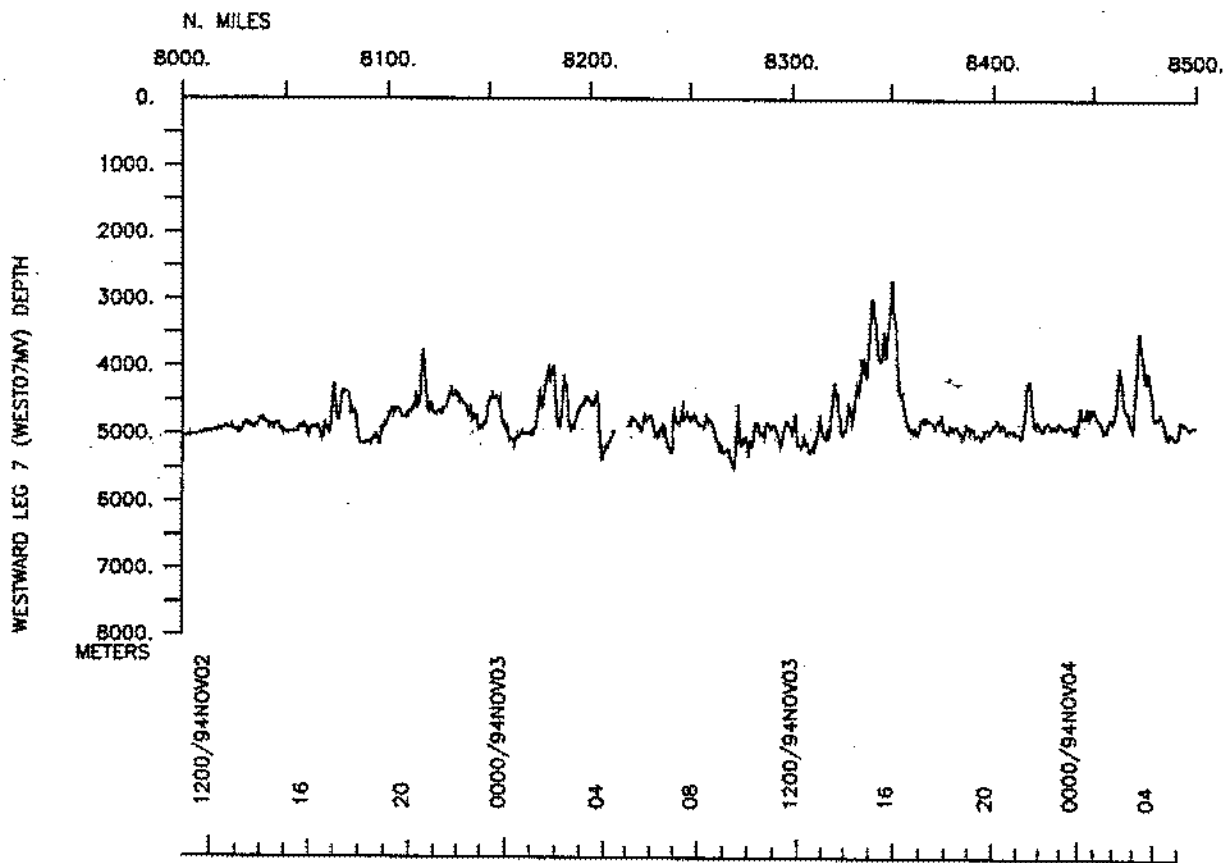
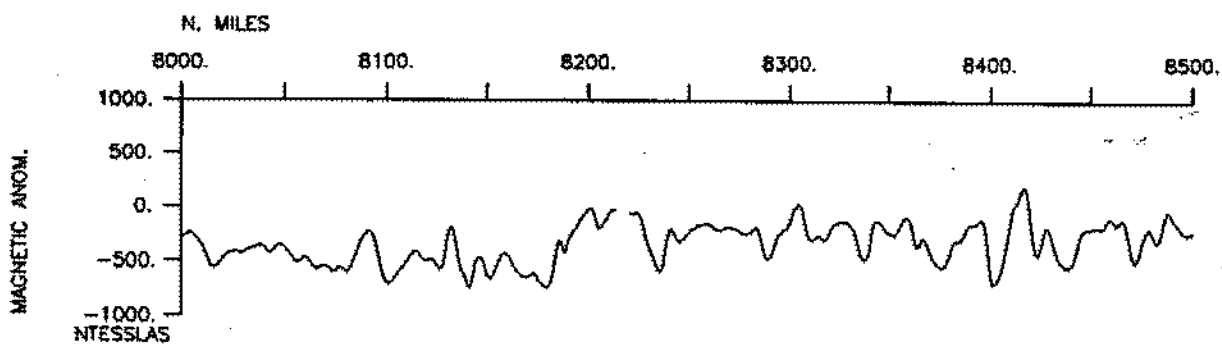
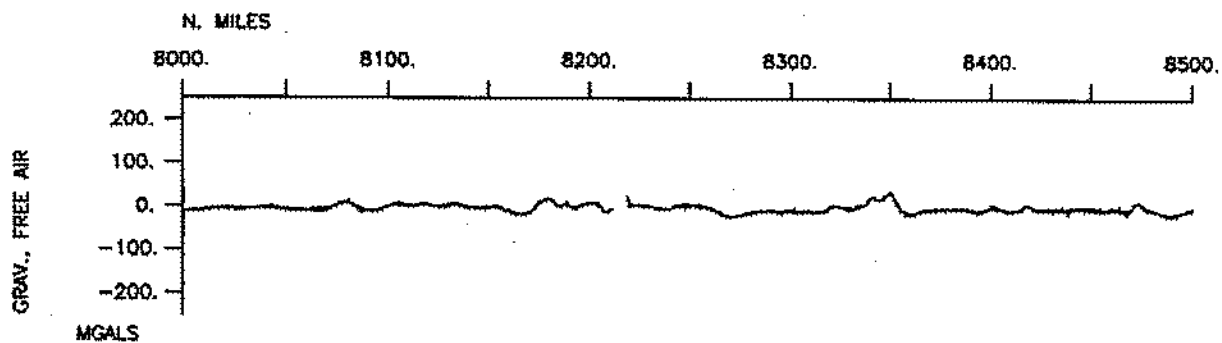


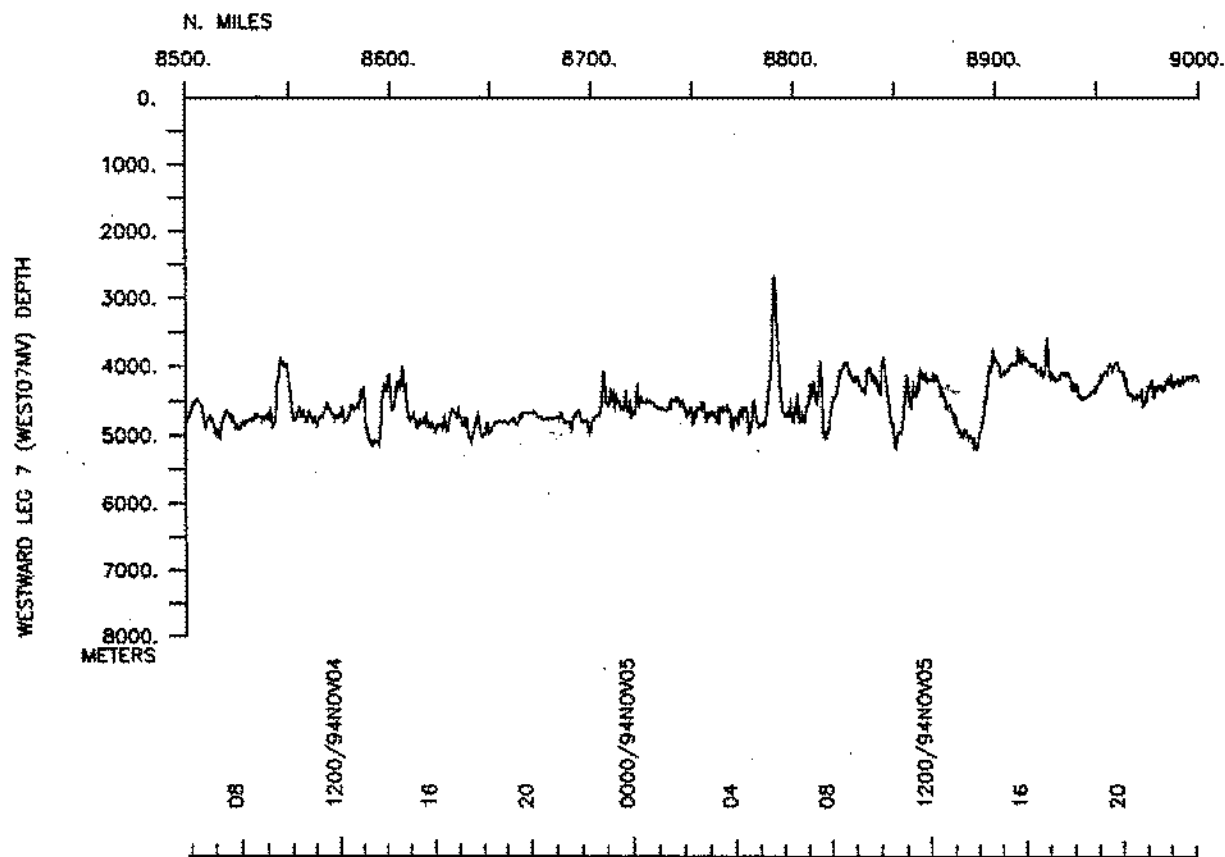
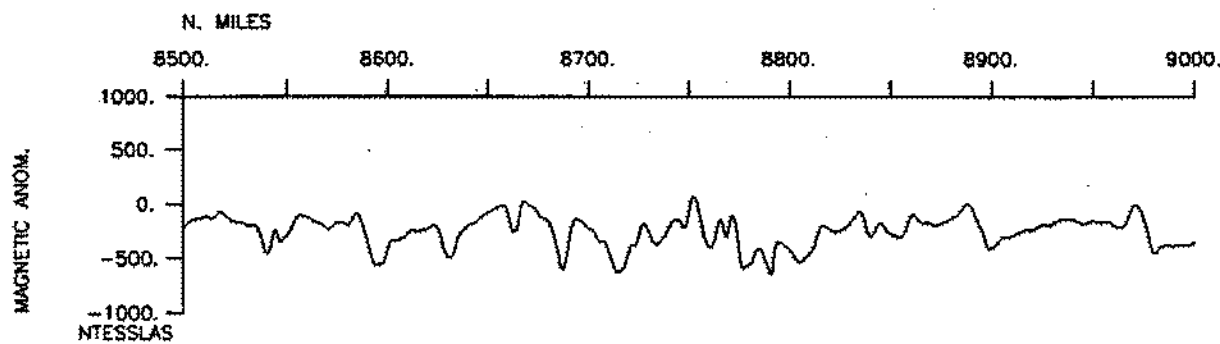


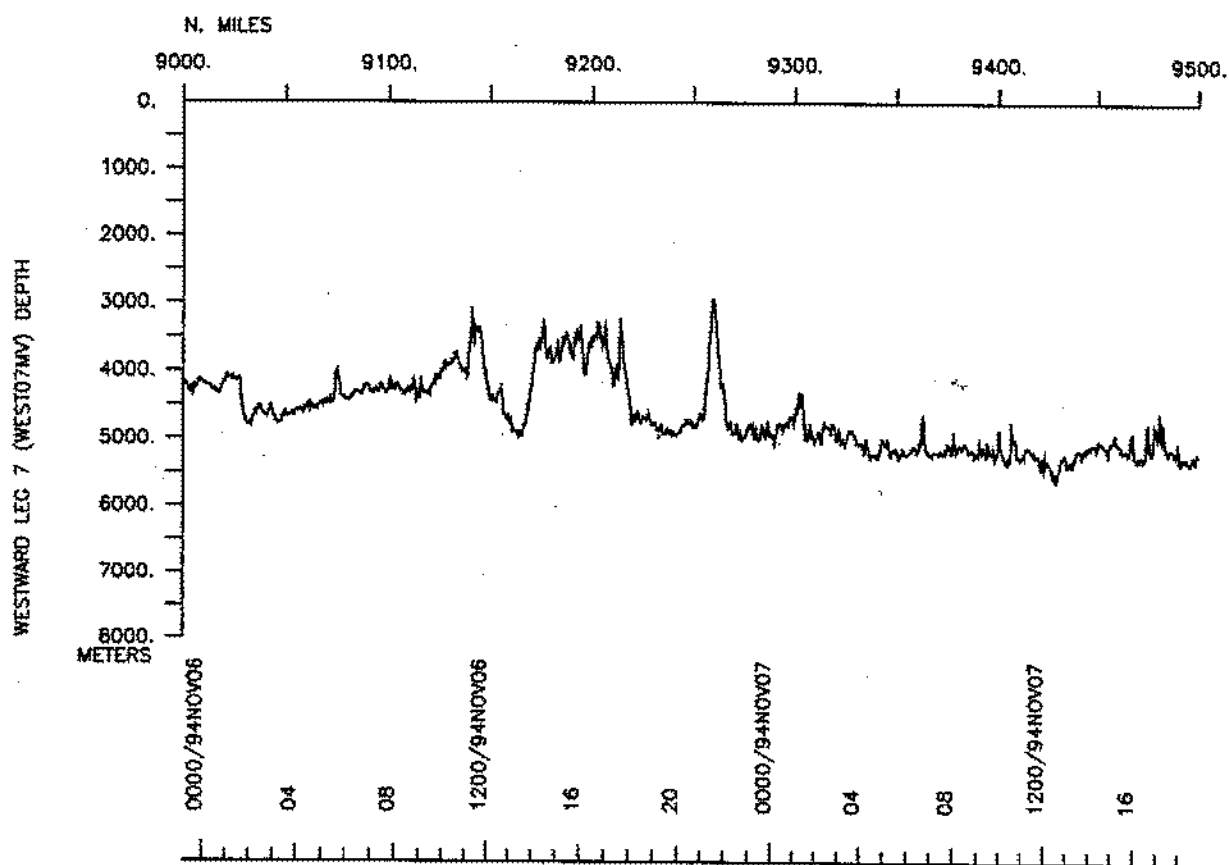
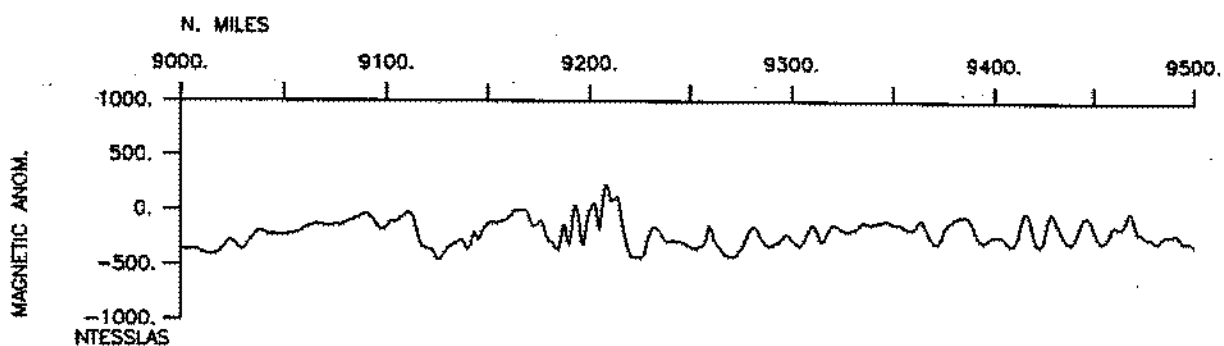
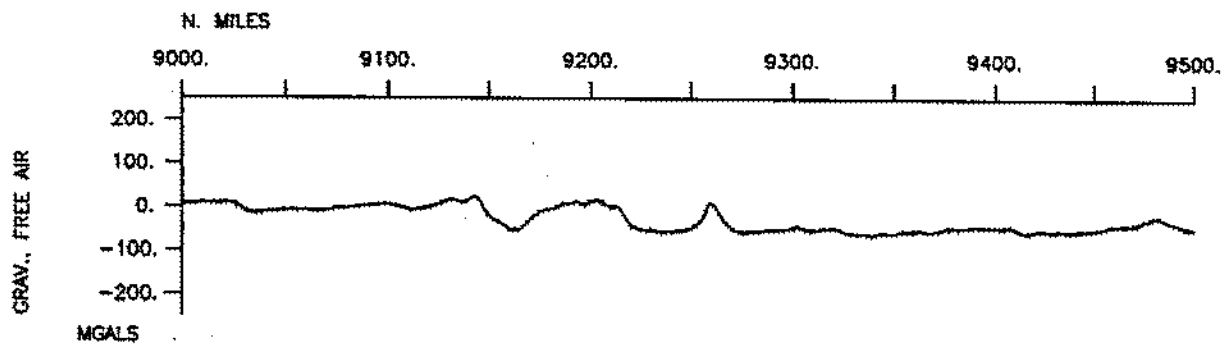


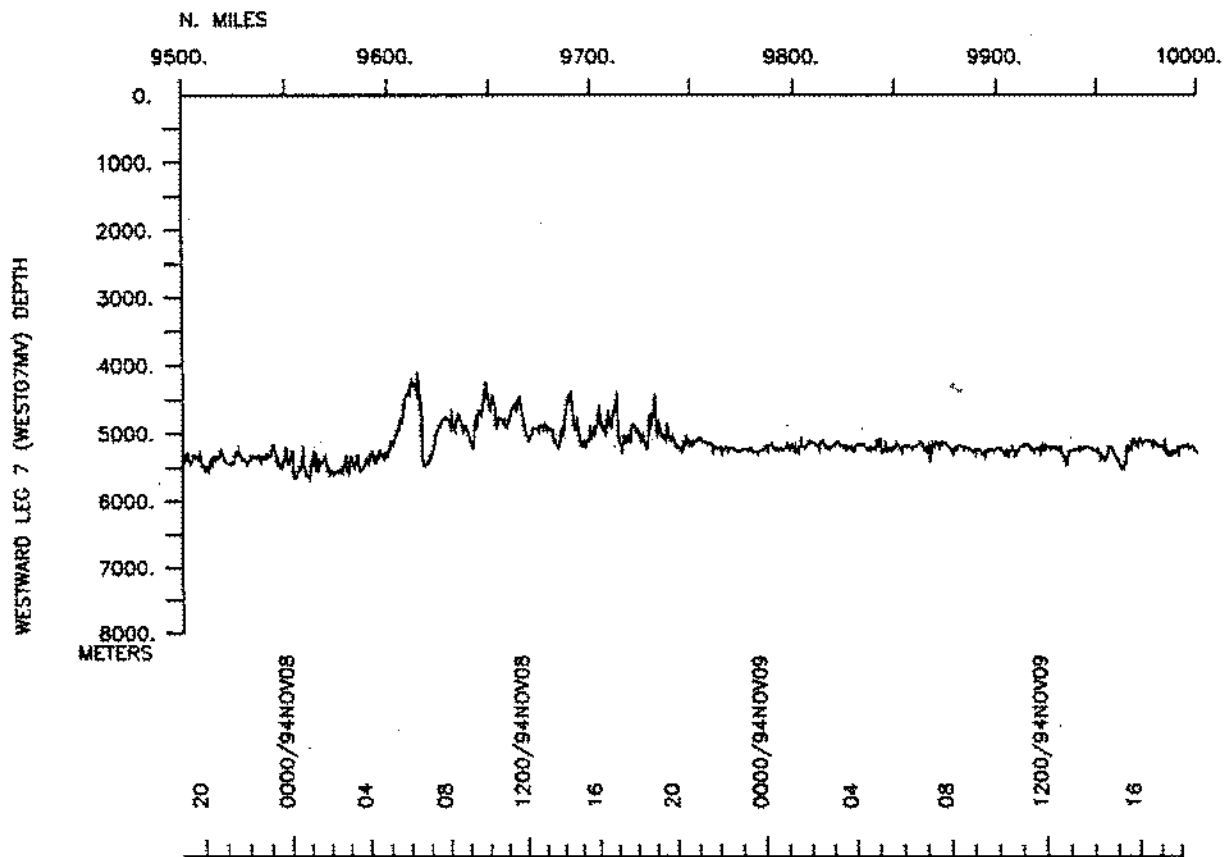
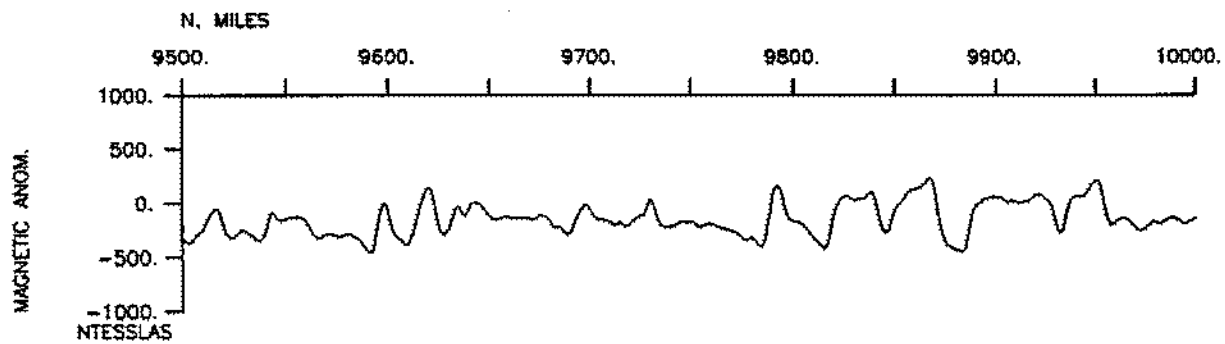
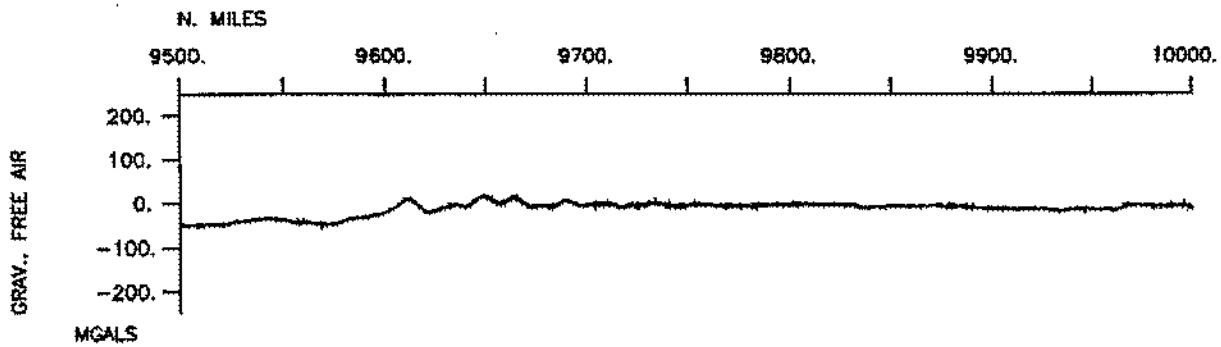


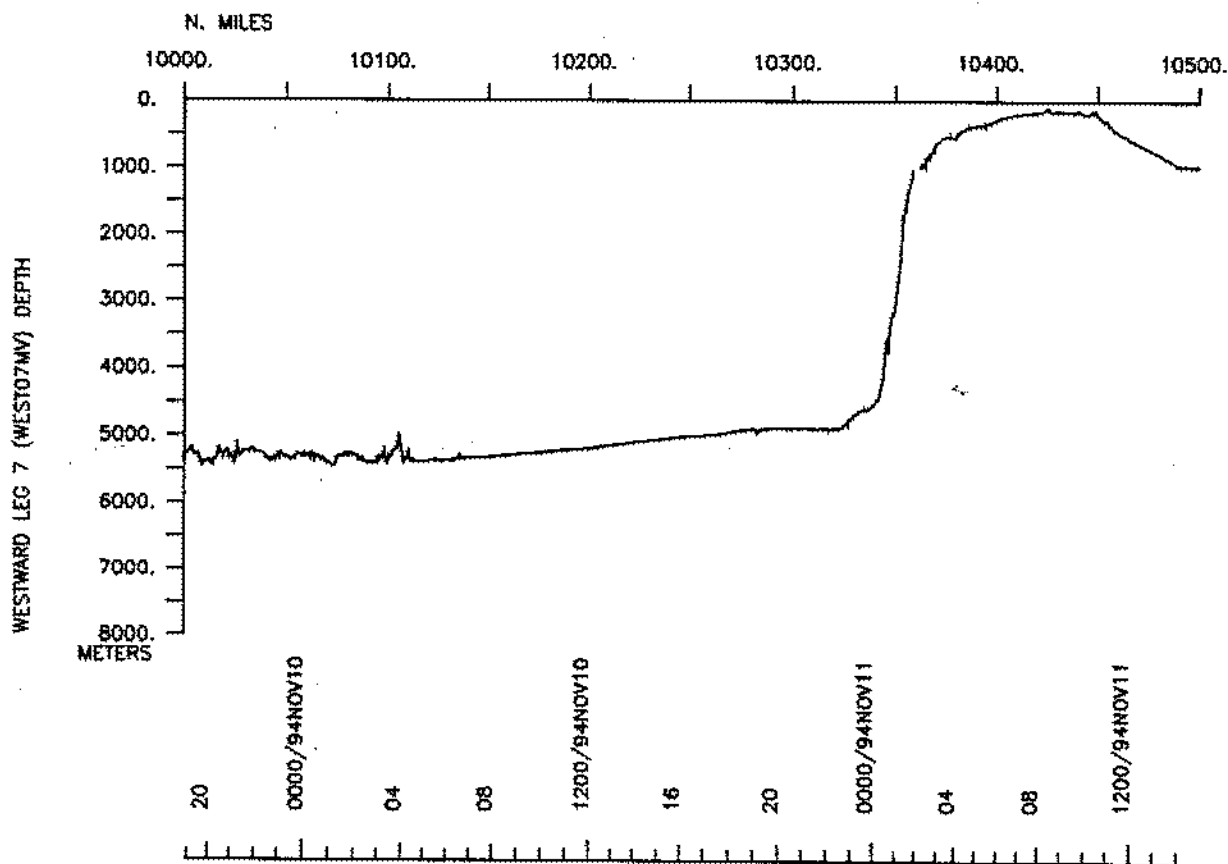
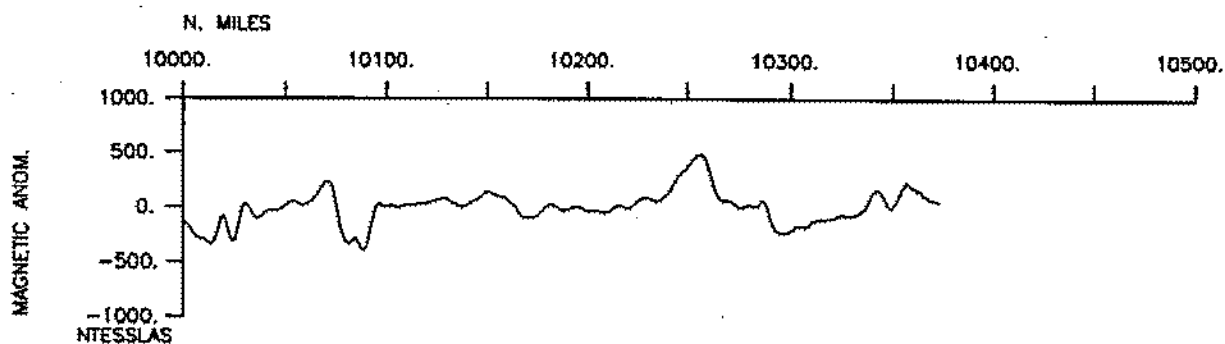
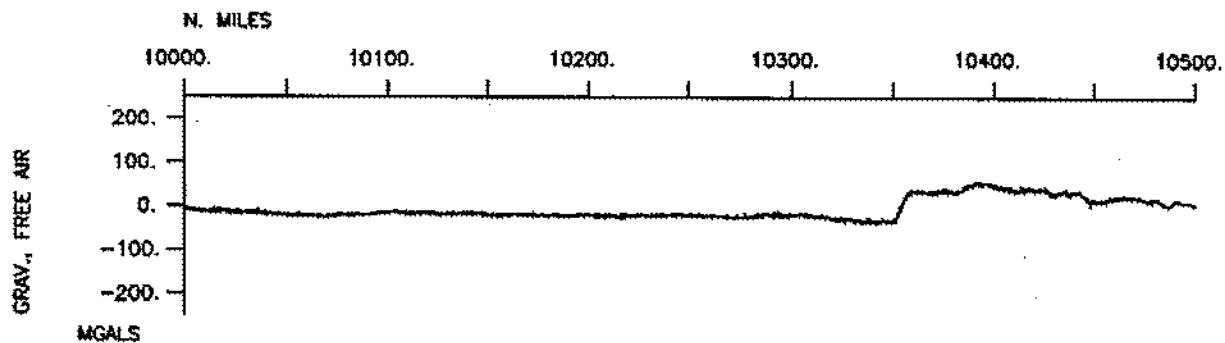


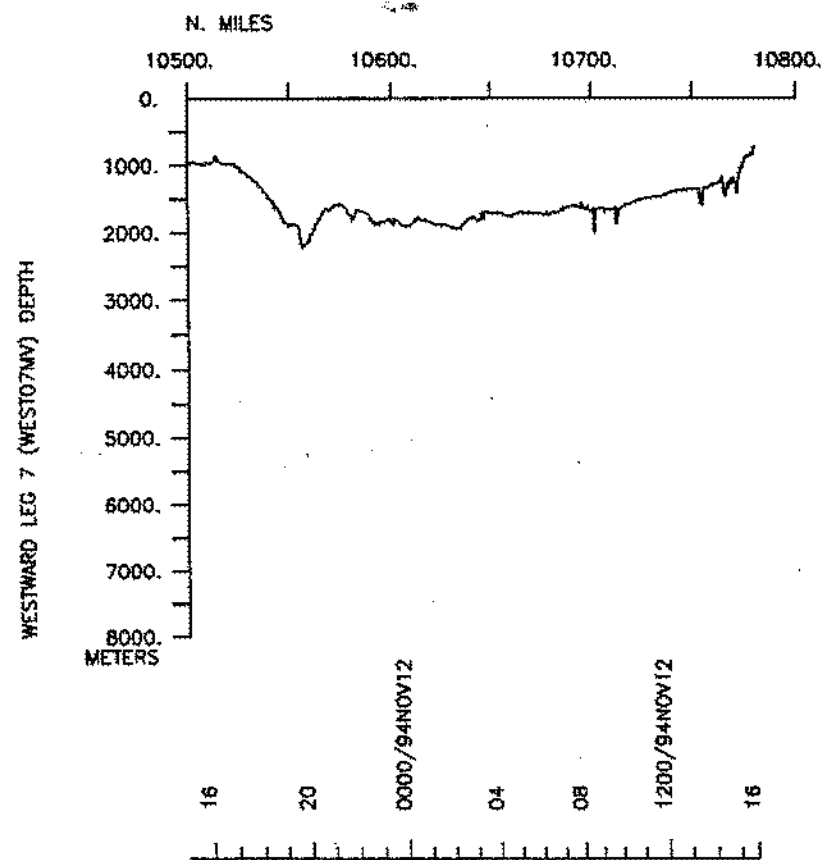
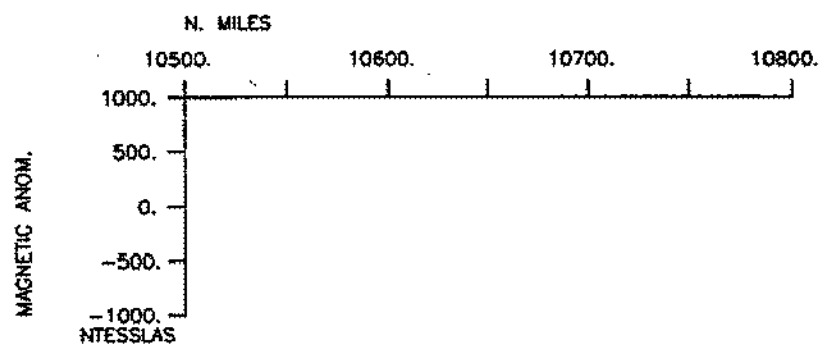
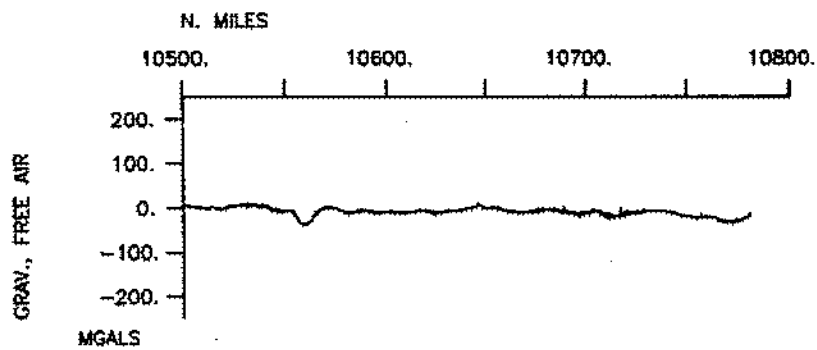












S.I.O. SAMPLE INDEX

(Issued February 1995)

WESTWARD EXPEDITION

Leg 7 (WEST07MV)

R/V Melville

**Nuku'alofa, Tonga (5 October 1994)
to
Dunedin, New Zealand (12 November 1994)**

**Chief Scientist:
Peter Lonsdale (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 ***

0300	051094	0	LGPT B	Nuku'alofa, Tonga	21-08.00S	175-12.00W	f	WEST07MV
0400	131194	0	LGPT E	Dunedin, New Zealand	45-53.00S	170-31.00E	f	WEST07MV

#*** Personnel ***

#	*****NAME*****	*****TITLE*****	*****AFFILIATION*****	**CRID**
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PECS MPL	Lonsdale, P.	Chief Scientist	Scripps Institution	WEST07MV
PECT STS	Heckman, E.	Hardware tech	Scripps Institution	WEST07MV
PECT STS	Moe, R.	Computer tech	Scripps Institution	WEST07MV
PERT STS	Mogk, S.	Resident tech	Scripps Institution	WEST07MV
PEST SIX	Welch, R.	Grad student	U. of Cincinnati	WEST07MV
PEST MPL	Williams, K.	Grad student	Scripps Institution	WEST07MV
PEST GRD	Russel, J.	Grad student	Scripps Institution	WEST07MV
PEST STS	Taranto, M.	Undergrad	Scripps Institution	WEST07MV
PESP SIX	Weber, W.	Electronics tech	Antarctic Rsch Assc	WEST07MV

#*** 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 DDMYY	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***

0500	051094	0	LBUW B	Underway watch log	GDC	21-09.39S	174-50.68W	g	WEST07MV
0345	121194	0	LBUW E	Underway watch log	GDC	46-32.78S	174-07.80E	g	WEST07MV

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

0345	051094	0	MBSR B	v.beam&sidescan r-01	GDC	21-06.62S	175-06.49W	g	WEST07MV
1605	101094	0	MBSR E	v.beam&sidescan r-01	GDC	34-05.27S	159-51.97W	g	WEST07MV
1607	101094	0	MBSR B	v.beam&sidescan r-02	GDC	34-05.36S	159-51.50W	g	WEST07MV
0948	171094	0	MBSR E	v.beam&sidescan r-02	GDC	46-42.78S	134-49.52W	g	WEST07MV
0948	171094	0	MBSR B	v.beam&sidescan r-03	GDC	46-42.78S	134-49.52W	g	WEST07MV
1741	271094	0	MBSR E	v.beam&sidescan r-03	GDC	45-37.31S	137-46.34W	g	WEST07MV
1741	271094	0	MBSR E	v.beam&sidescan r-04	GDC	45-37.31S	137-46.34W	g	WEST07MV
1600	121194	0	MBSR E	v.beam&sidescan r-04	GDC	45-50.75S	171-11.82E	g	WEST07MV

#GMT	DDMMYY	SAMP	B	SAMPLE	DISP				p	CRUISE
#TIME	DATE	TZ	CODE	E IDENTIFIER	CODE	LATITUDE	LONGITUDE		c	LEG-SHIP

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

0500	051094	0	MGR	B Magnetics roll 01	GDC	21-09.39S	174-50.68W	g	WEST07MV
0342	121094	0	MGR	E Magnetics roll 01	GDC	35-50.94S	152-08.31W	g	WEST07MV
0347	121094	0	MGR	B Magnetics roll 02	GDC	35-51.17S	152-07.32W	g	WEST07MV
0523	231094	0	MGR	E Magnetics roll 02	GDC	44-59.49S	131-04.05W	g	WEST07MV
0524	231094	0	MGR	B Magnetics roll 03	GDC	44-59.39S	131-04.31W	g	WEST07MV
2345	301094	0	MGR	E Magnetics roll 03	GDC	49-14.70S	134-41.41W	g	WEST07MV
2347	301094	0	MGR	B Magnetics roll 04	GDC	49-14.70S	134-41.93W	g	WEST07MV
2328	041194	0	MGR	E Magnetics roll 04	GDC	48-25.55S	146-41.08W	g	WEST07MV
2331	041194	0	MGR	B Magnetics roll 05	GDC	48-26.10S	146-40.54W	g	WEST07MV
1757	091194	0	MGR	E Magnetics roll 05	GDC	49-03.29S	169-53.32W	g	WEST07MV
1800	091194	0	MGR	B Magnetics roll 06	GDC	49-03.19S	169-54.01W	g	WEST07MV
0335	111194	0	MGR	E Magnetics roll 06	GDC	47-53.07S	179-22.45W	g	WEST07MV

**** Seismic Reflection Records ****

1052	081094	0	SPRF	B Fast Seismic roll 1	GDC	30-11.37S	166-03.87W	g	WEST07MV
0155	021194	0	SPRF	E Fast Seismic roll 1	GDC	48-30.36S	140-50.21W	g	WEST07MV
1052	081094	0	SPRS	B Slow Seismic roll 1	GDC	30-11.37S	166-03.87W	g	WEST07MV
0155	021194	0	SPRS	E Slow Seismic roll 1	GDC	48-30.36S	140-50.21W	g	WEST07MV

**** Seismic Reflection Survey Lines ****

1052	081094	0	SPSV	B Seismic line 1	GDC	30-11.37S	166-03.87W	g	WEST07MV
1945	081094	0	SPSV	E Seismic line 1	GDC	30-54.01S	164-28.74W	g	WEST07MV
0532	161094	0	SPSV	B Seismic line 2	GDC	47-00.46S	135-34.24W	g	WEST07MV
2210	161094	0	SPSV	E Seismic line 2	GDC	45-04.11S	136-57.53W	g	WEST07MV
1815	211094	0	SPSV	B Seismic line 3	GDC	45-25.19S	131-19.38W	g	WEST07MV
0525	221094	0	SPSV	E Seismic line 3	GDC	44-27.27S	132-57.68W	g	WEST07MV
0724	011194	0	SPSV	B Seismic line 4	GDC	49-09.71S	139-30.42W	g	WEST07MV
0155	021194	0	SPSV	E Seismic line 4	GDC	48-30.36S	140-50.21W	g	WEST07MV

#GMT DDMYY	SAMP B SAMPLE	DISP		p CRUISE
#TIME DATE	TZ CODE E IDENTIFIER	CODE LATITUDE	LONGITUDE	c LEG-SHIP
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*** Expendable Bathythermographs ***				
0008 061094	0 BTXP XBT 01	GDC 23-19.27S	173-22.60W	g WEST07MV
2336 061094	0 BTXP XBT 02	GDC 26-00.85S	171-08.91W	g WEST07MV
2314 071094	0 BTXP XBT 03	GDC 27-53.51S	167-03.58W	g WEST07MV
2328 081094	0 BTXP XBT 04	GDC 31-30.67S	164-46.42W	g WEST07MV
2306 091094	0 BTXP XBT 05	GDC 33-09.81S	163-51.11W	g WEST07MV
2328 101094	0 BTXP XBT 06	GDC 34-28.64S	158-10.13W	g WEST07MV
2300 111094	0 BTXP XBT 07	GDC 35-37.75S	153-06.70W	g WEST07MV
2215 121094	0 BTXP XBT 08	GDC 36-43.72S	148-12.98W	g WEST07MV
2343 131094	0 BTXP XBT 09	GDC 39-08.57S	143-38.43W	g WEST07MV
2258 141094	0 BTXP XBT 10	GDC 41-46.30S	139-53.68W	g WEST07MV
2210 151094	0 BTXP XBT 11	GDC 45-48.65S	136-53.75W	g WEST07MV
2223 161094	0 BTXP XBT 12	GDC 45-05.20S	136-56.44W	g WEST07MV
2244 171094	0 BTXP XBT 13	GDC 44-53.16S	136-30.34W	g WEST07MV
2123 181094	0 BTXP XBT 14	GDC 45-26.22S	134-29.45W	g WEST07MV
2136 191094	0 BTXP XBT 15	GDC 45-02.13S	134-16.07W	g WEST07MV
1752 211094	0 BTXP XBT 16	GDC 45-25.36S	131-23.31W	g WEST07MV
2223 221094	0 BTXP XBT 17	GDC 44-30.54S	131-32.74W	g WEST07MV
2349 231094	0 BTXP XBT 18	GDC 44-36.60S	129-13.58W	g WEST07MV
2134 241094	0 BTXP XBT 19	GDC 43-53.97S	128-08.00W	g WEST07MV
2212 251094	0 BTXP XBT 20	GDC 44-13.74S	132-51.26W	g WEST07MV
2107 261094	0 BTXP XBT 21	GDC 45-30.94S	137-32.89W	g WEST07MV
2323 271094	0 BTXP XBT 22	GDC 46-22.08S	137-37.94W	g WEST07MV
2210 281094	0 BTXP XBT 23	GDC 46-30.53S	137-48.21W	g WEST07MV
2116 291094	0 BTXP XBT 24	GDC 47-03.21S	138-09.23W	g WEST07MV
0121 311094	0 BTXP XBT 25	GDC 49-14.79S	135-05.32W	g WEST07MV
0012 011194	0 BTXP XBT 26	GDC 48-21.11S	139-18.20W	g WEST07MV
2355 011194	0 BTXP XBT 27	GDC 48-11.26S	140-47.53W	g WEST07MV
2343 021194	0 BTXP XBT 28	GDC 48-01.12S	143-40.68W	g WEST07MV
2235 031194	0 BTXP XBT 29	GDC 47-57.42S	144-50.25W	g WEST07MV
2316 041194	0 BTXP XBT 30	GDC 48-23.40S	146-43.16W	g WEST07MV
2202 051194	0 BTXP XBT 31	GDC 51-37.39S	148-12.75W	g WEST07MV
2218 061194	0 BTXP XBT 32	GDC 53-33.13S	152-54.56W	g WEST07MV
2203 071194	0 BTXP XBT 33	GDC 50-59.49S	158-41.45W	g WEST07MV

#	End Sample Index	WEST07MV
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