

*Report and Index of
Underway Marine Geophysical Data*

Hahnaro Expedition

Leg 18

(HNRO18RR)

R/V Revelle

(Issued October 2000)

Ports:

Honolulu, Hawaii (25 May 2000)

to

San Diego, California (28 June 2000)

Chief Scientist: Brian Popp

University of Hawaii

Computer Tech – Marc Silver

Resident Marine Tech -- Steve Rusk

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# 285

**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.

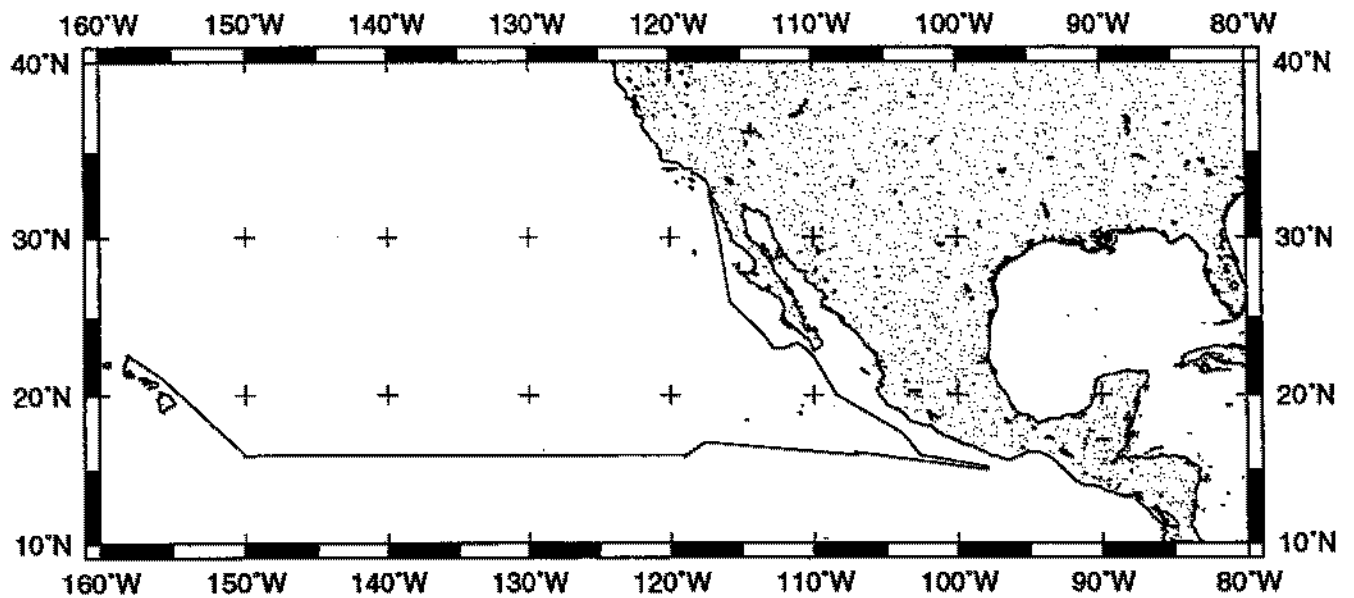
Track Charts– annotated with dates and hour ticks

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: ualbright@ucsd.edu or 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.



HAHNARO EXPEDITION LEG 18 (HNRO18RR)

CHIEF SCIENTIST: Brian Popp, University of Hawaii

PORTS: Honolulu, Hawaii - San Diego, Calif.

DATES: 25 May - 28 June 2000

SHIP: R/V Revelle

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

Cruise-5643 miles

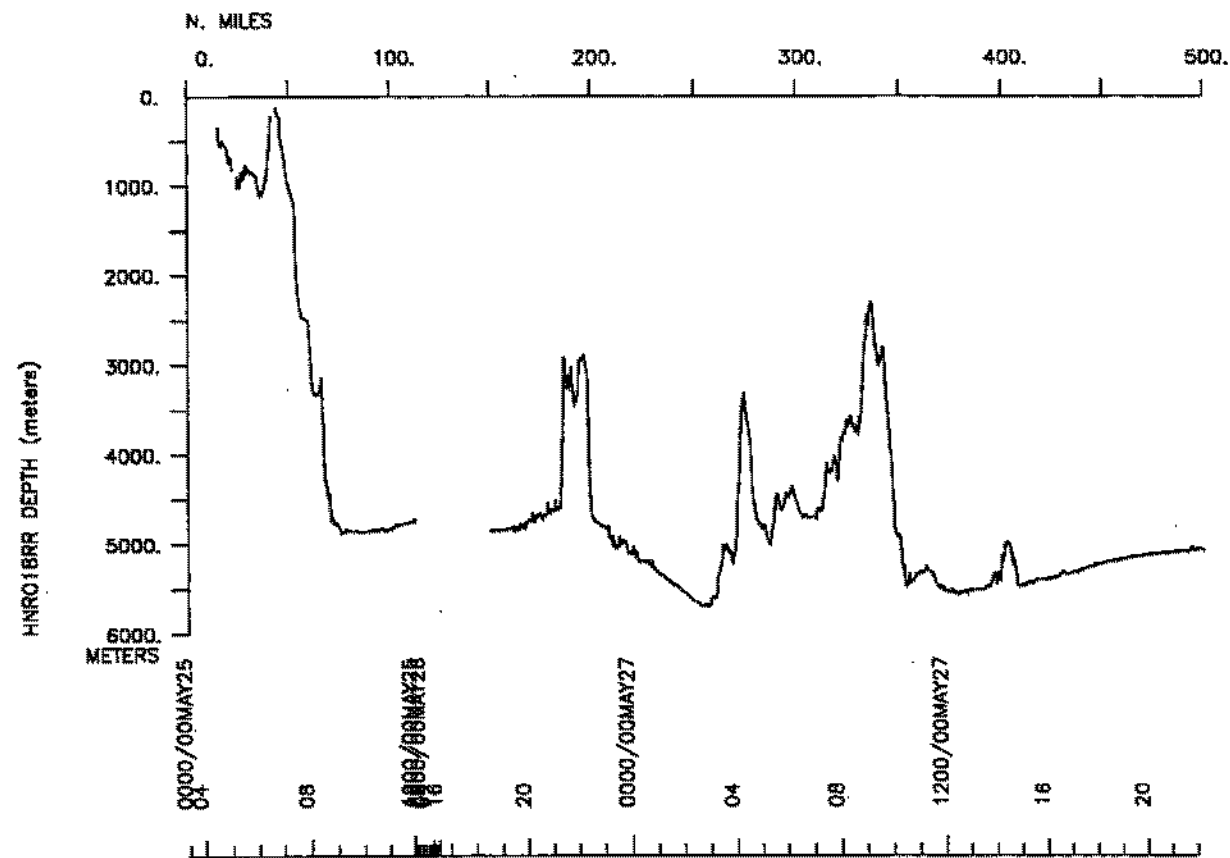
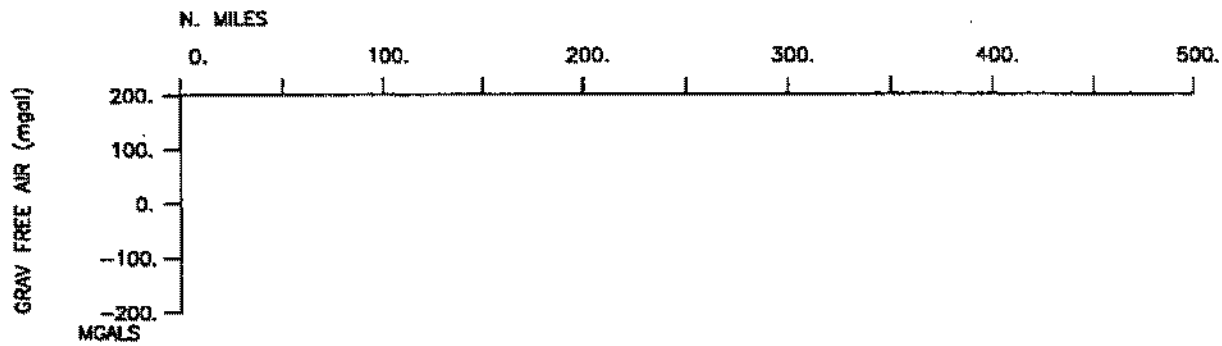
Magnetics-4618 miles

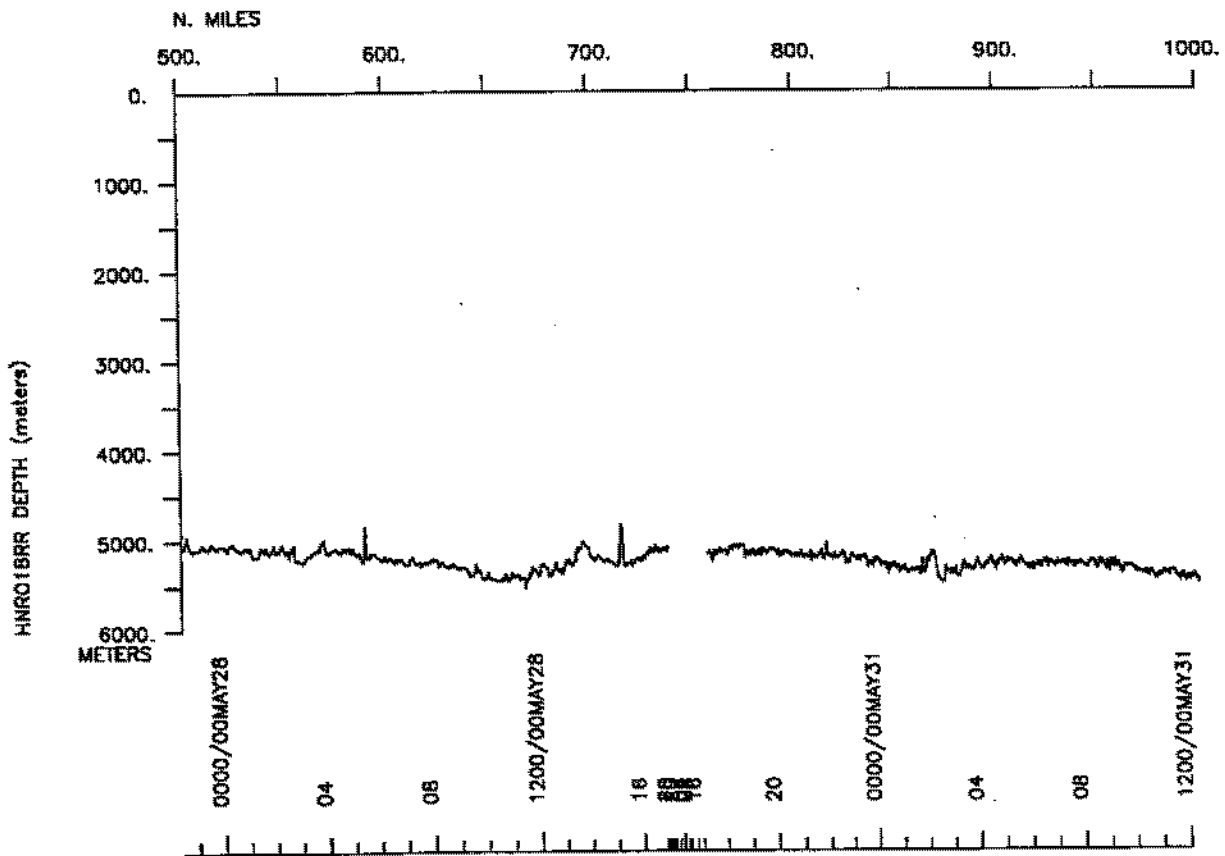
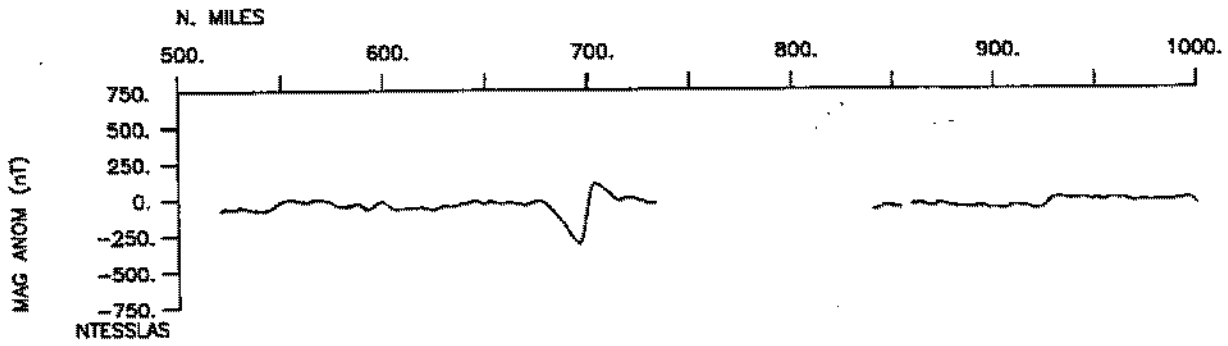
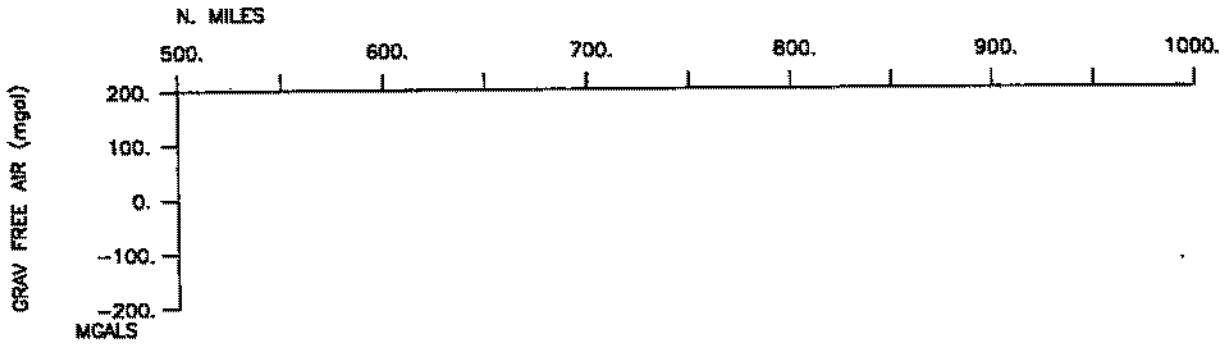
Bathymetry-3538 miles

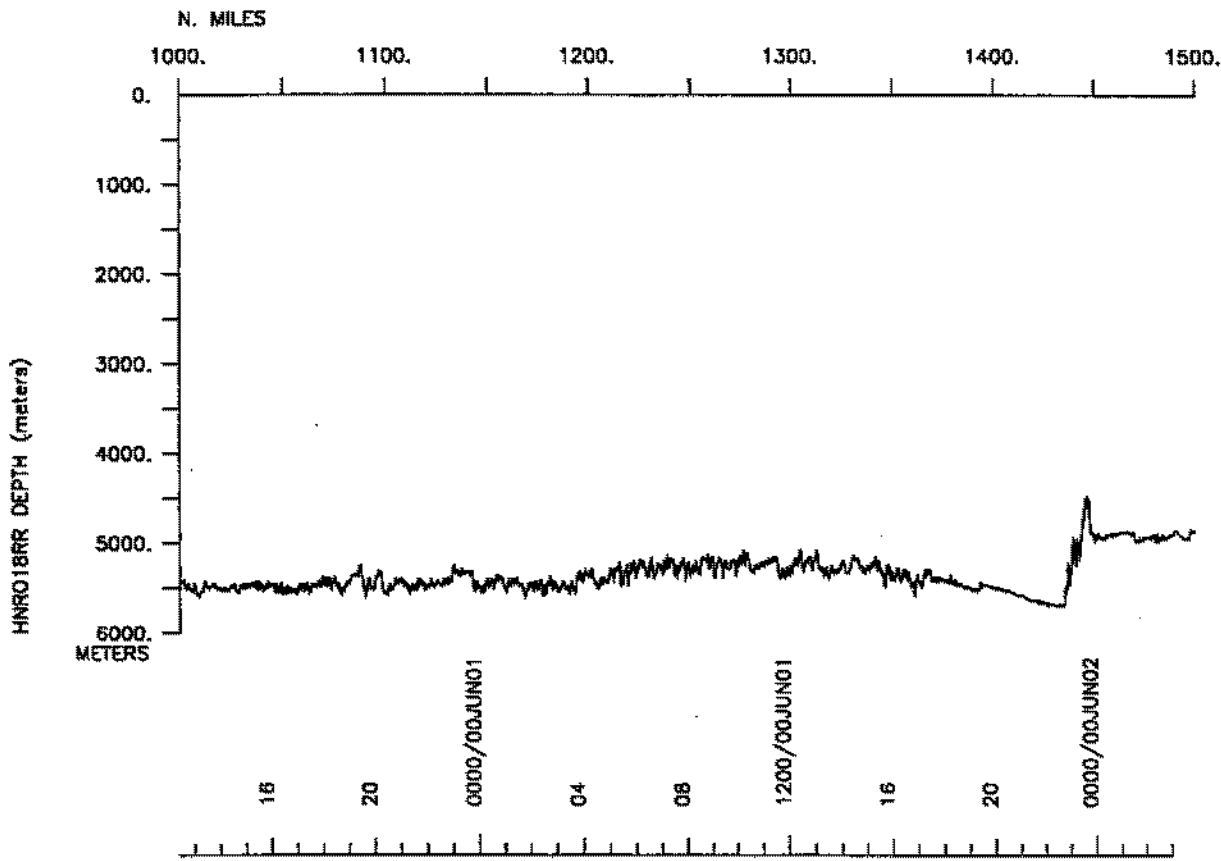
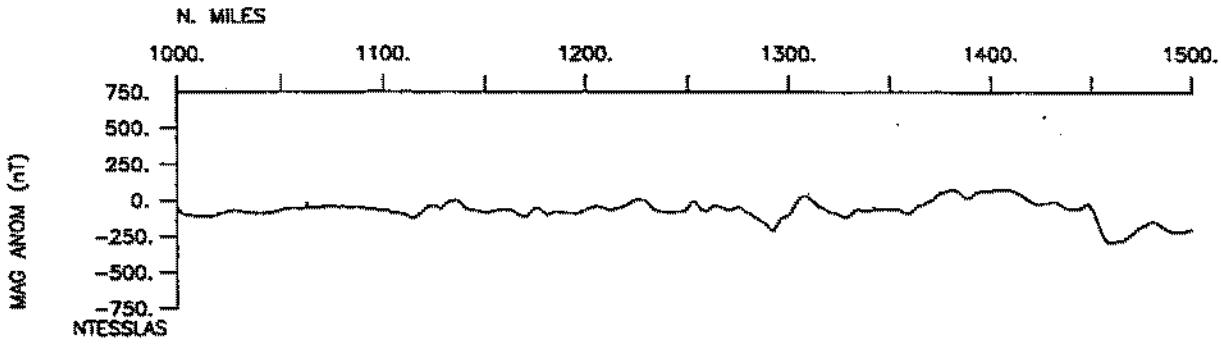
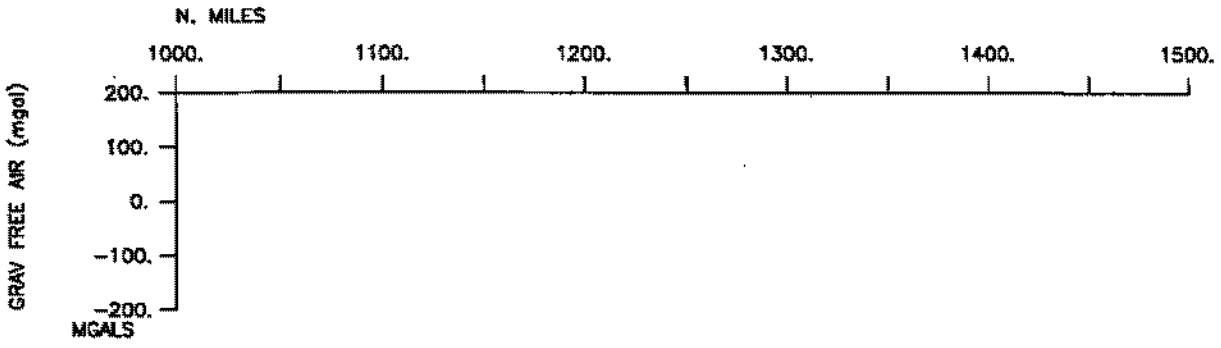
Seismic Reflection-none collected

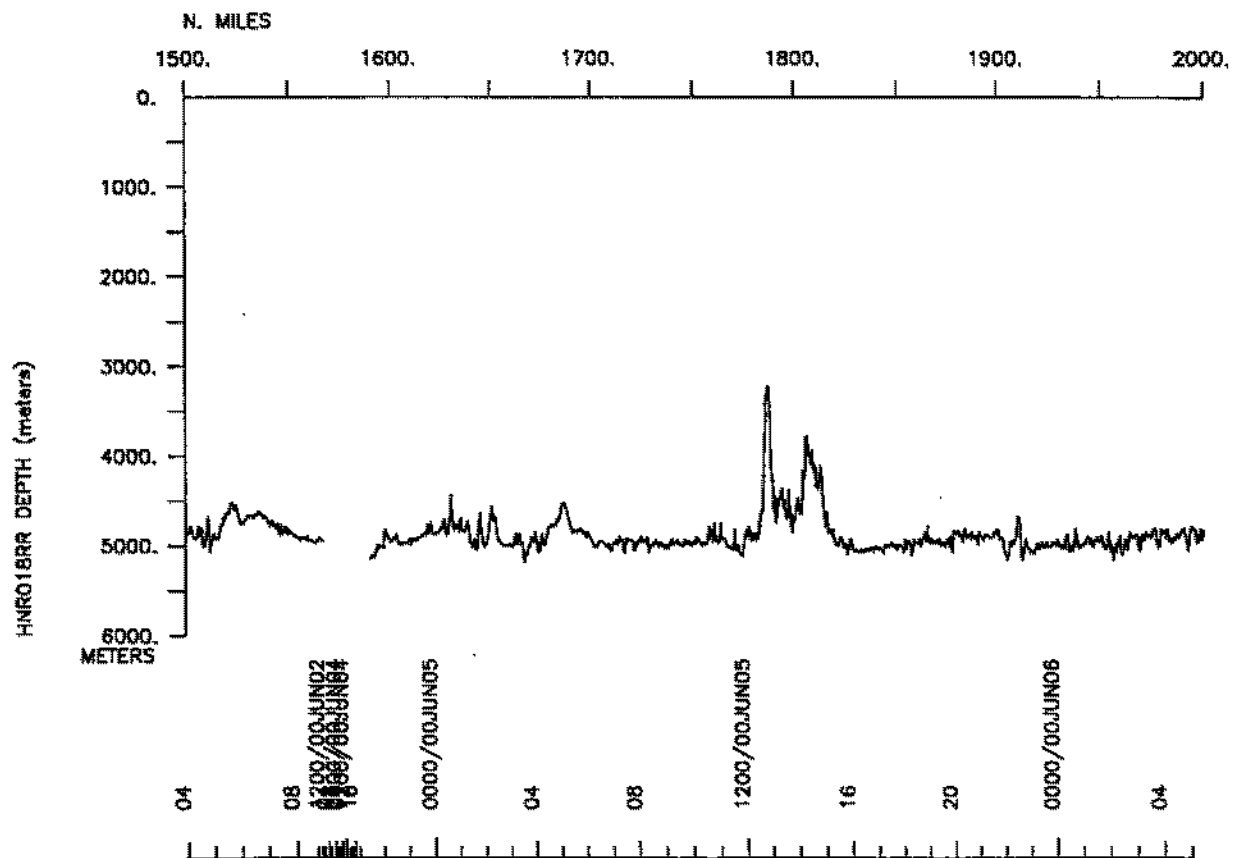
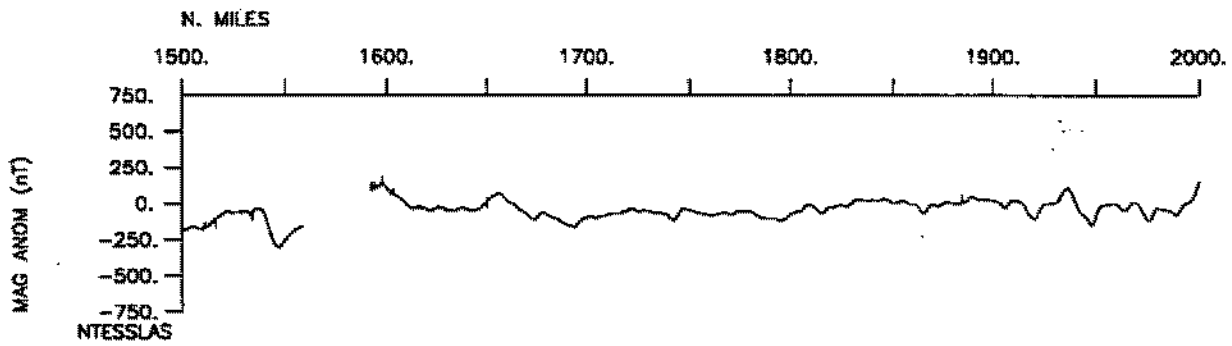
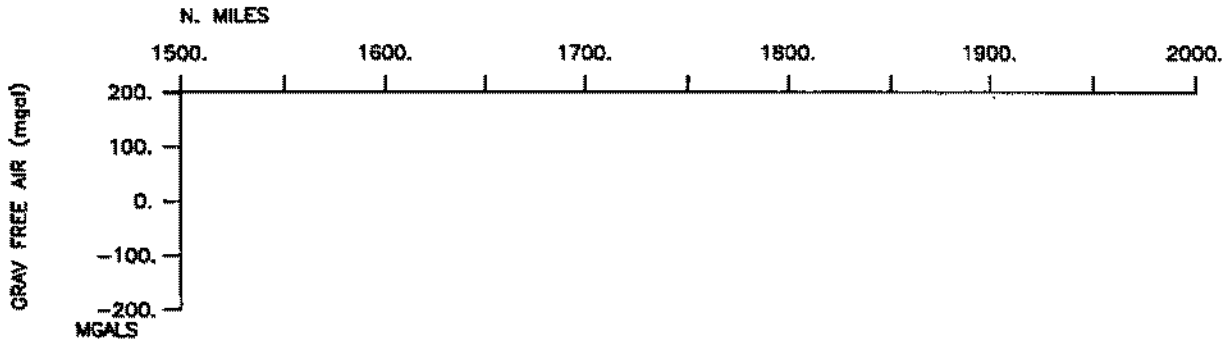
Sea Beam-3538 miles

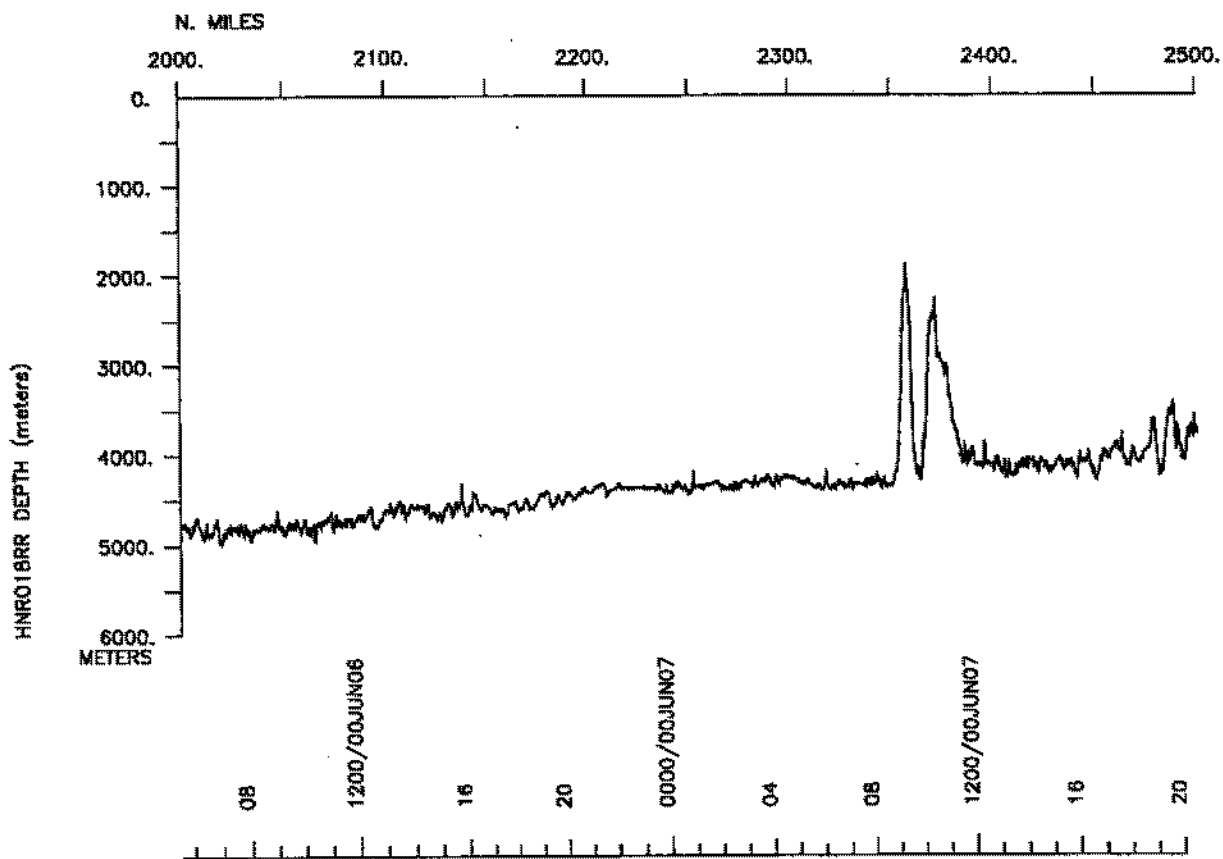
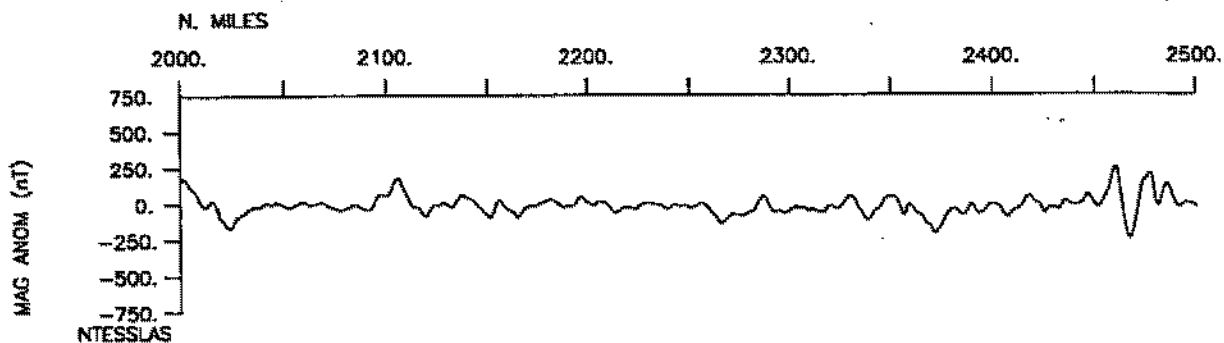
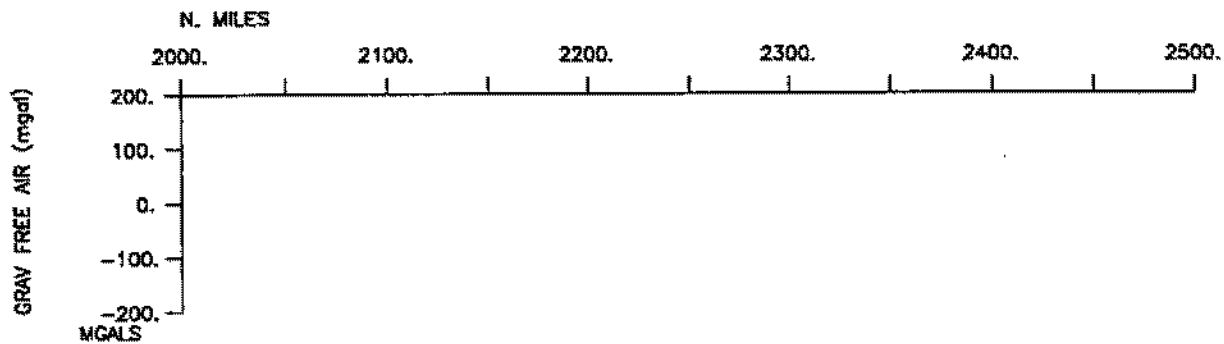
Gravity-none collected

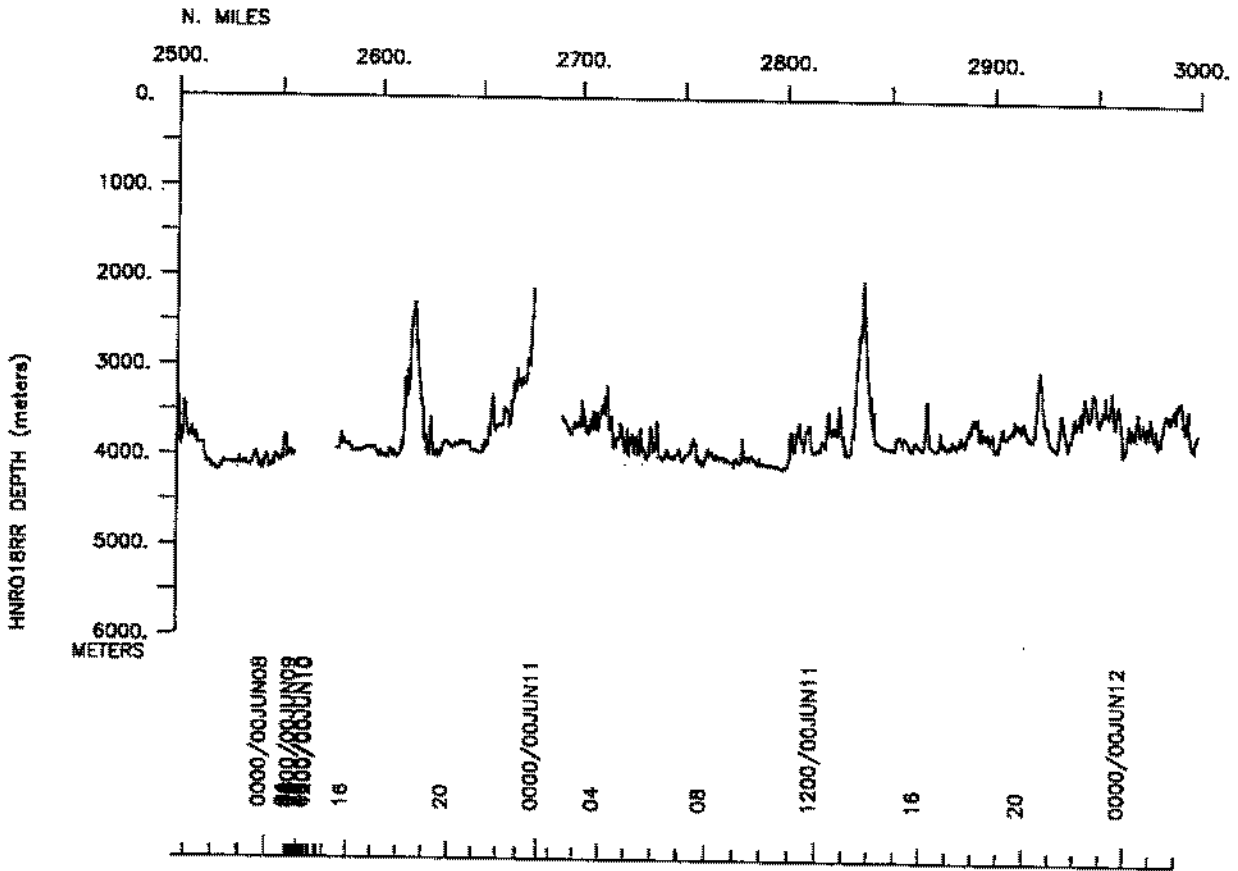
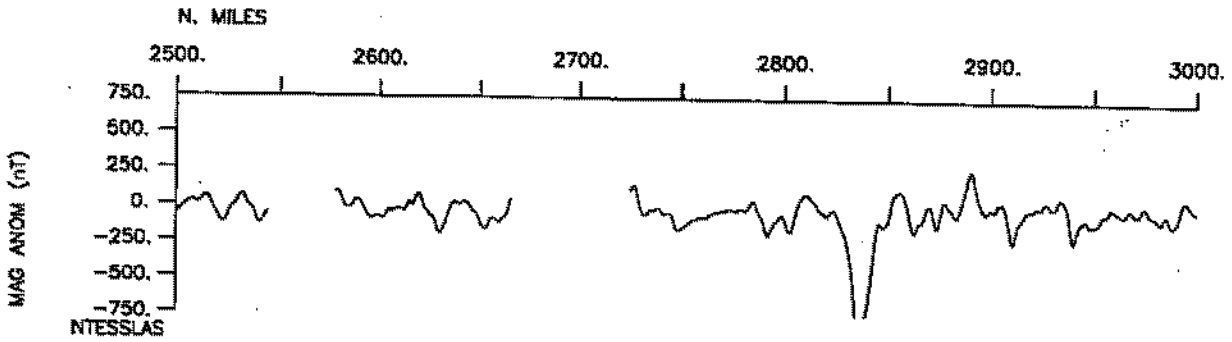
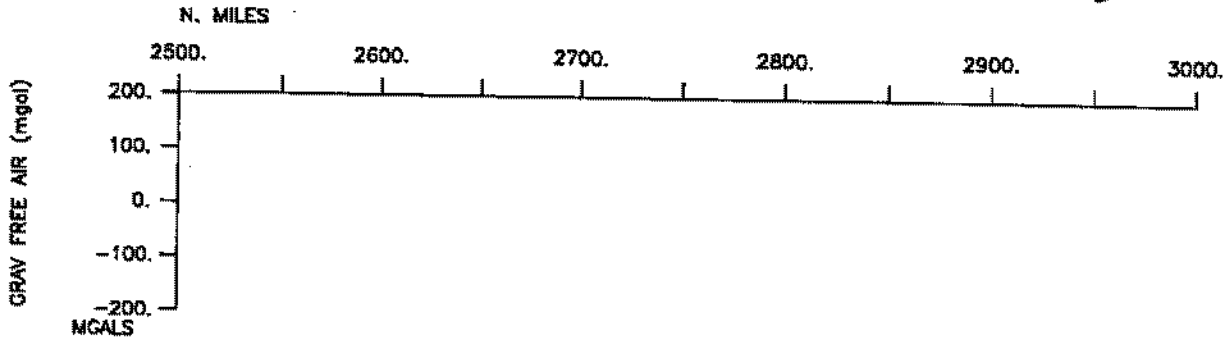


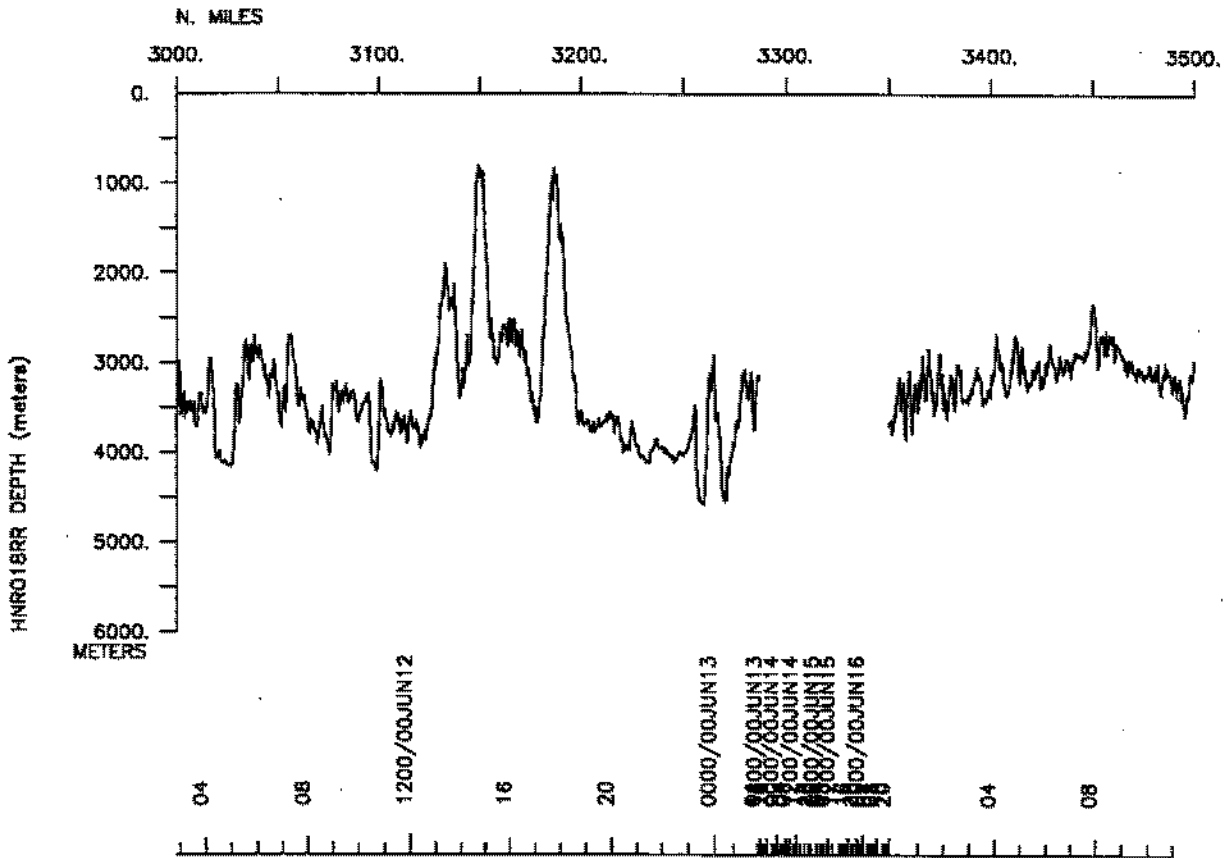
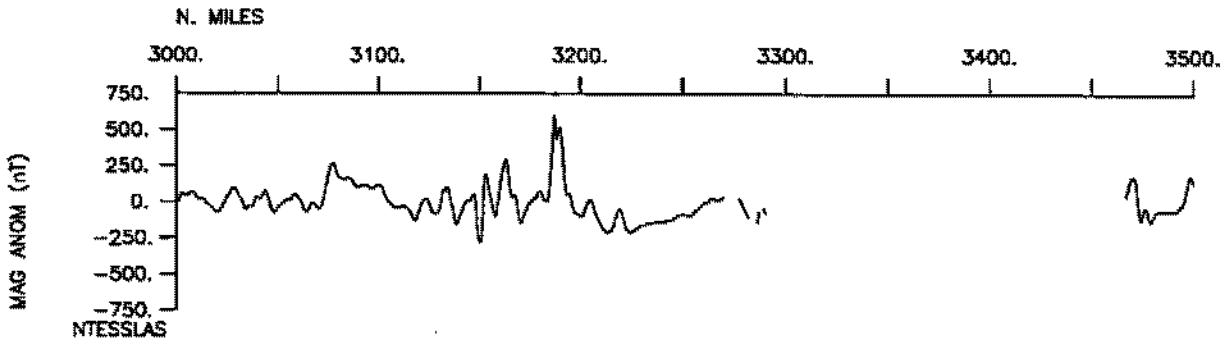
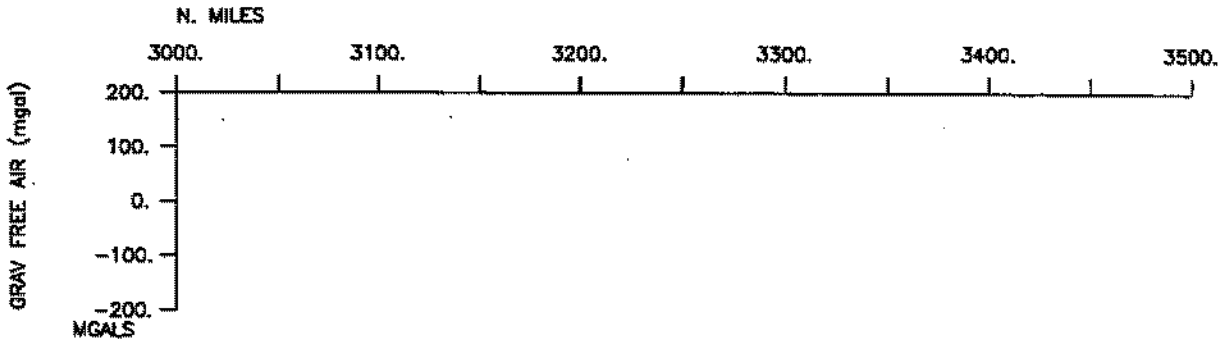


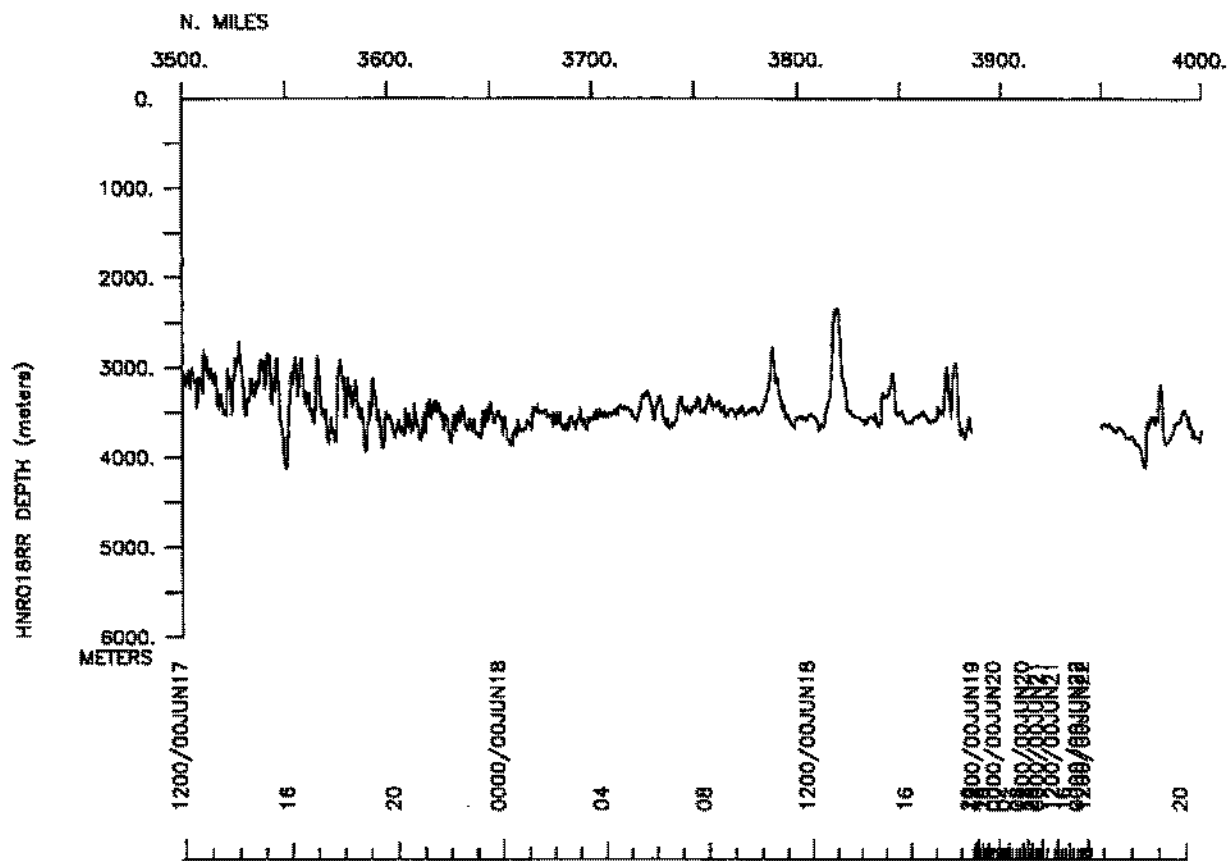
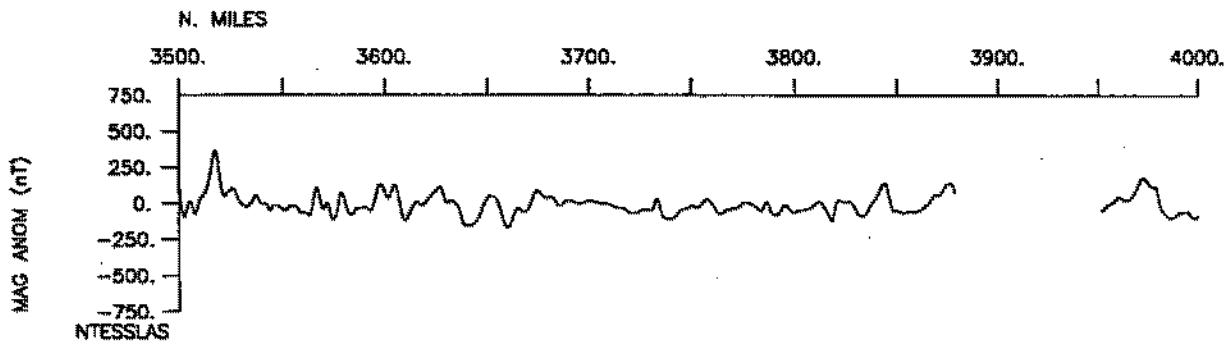
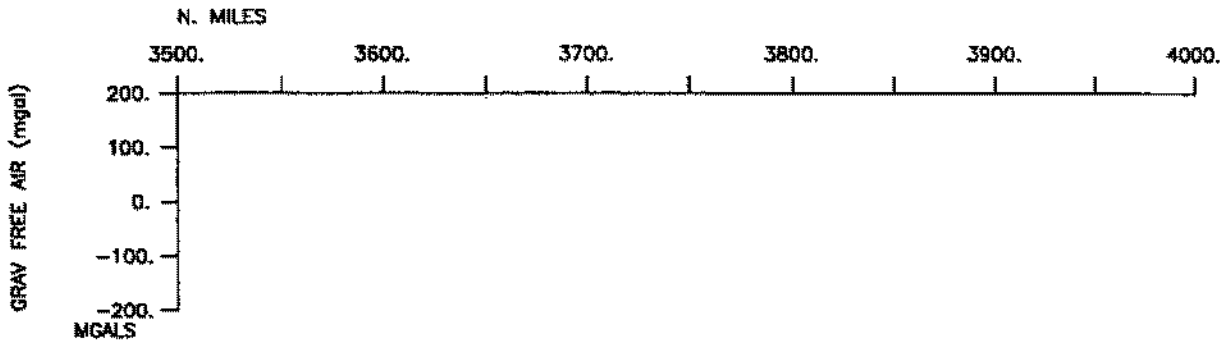


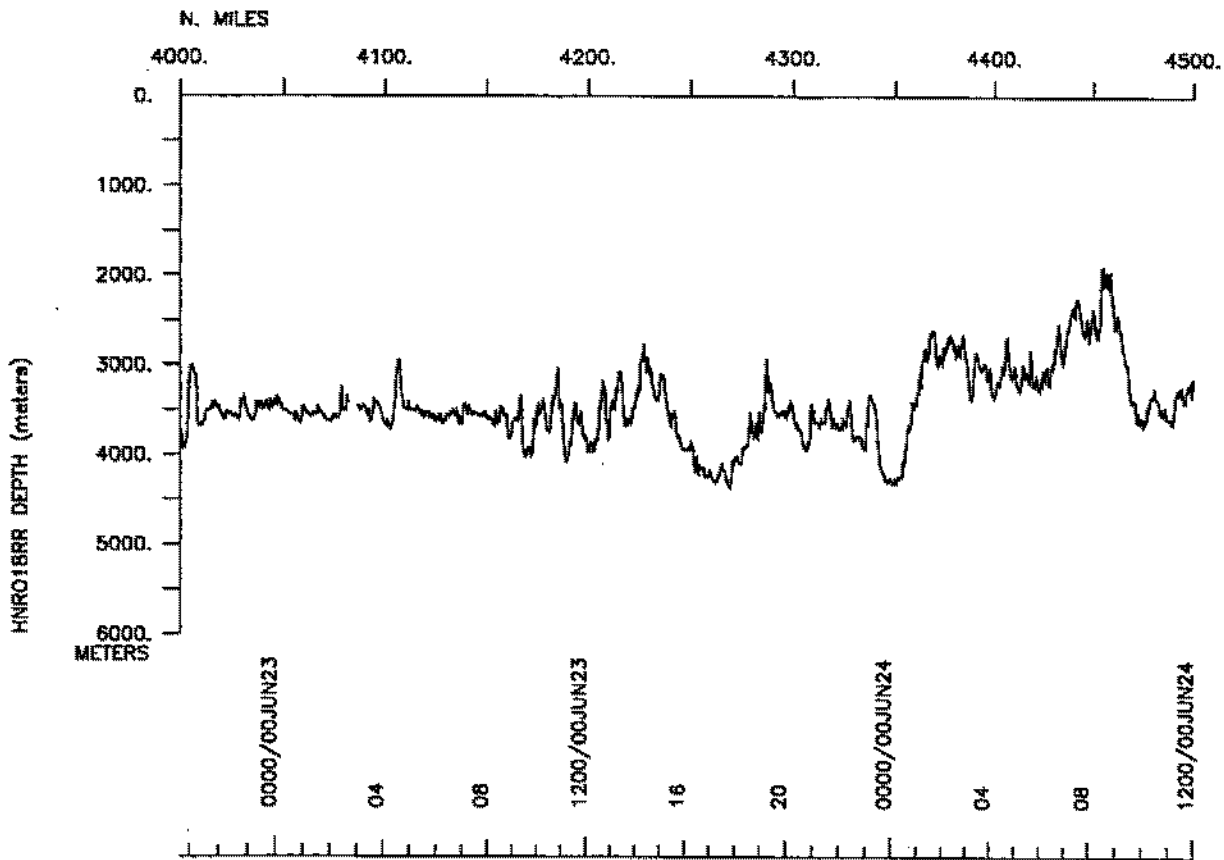
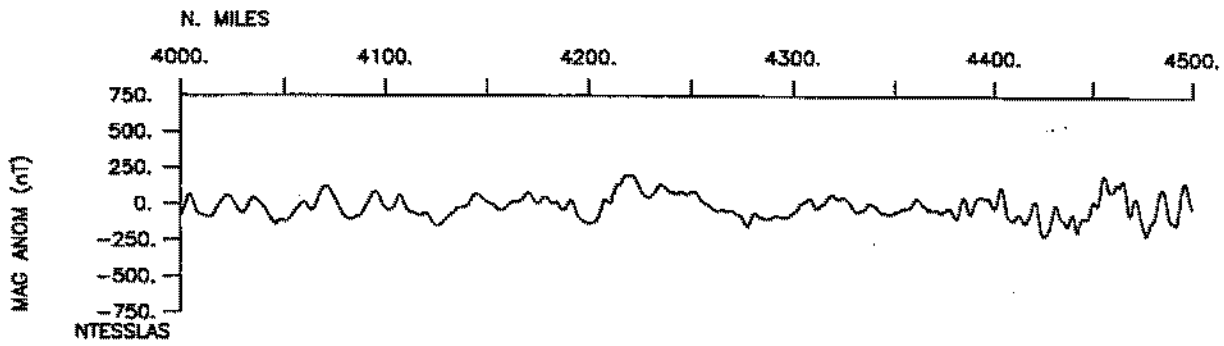
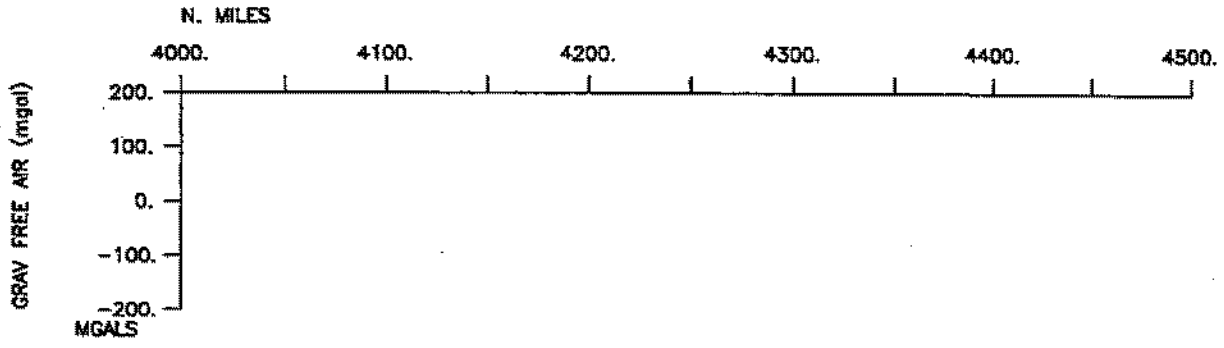


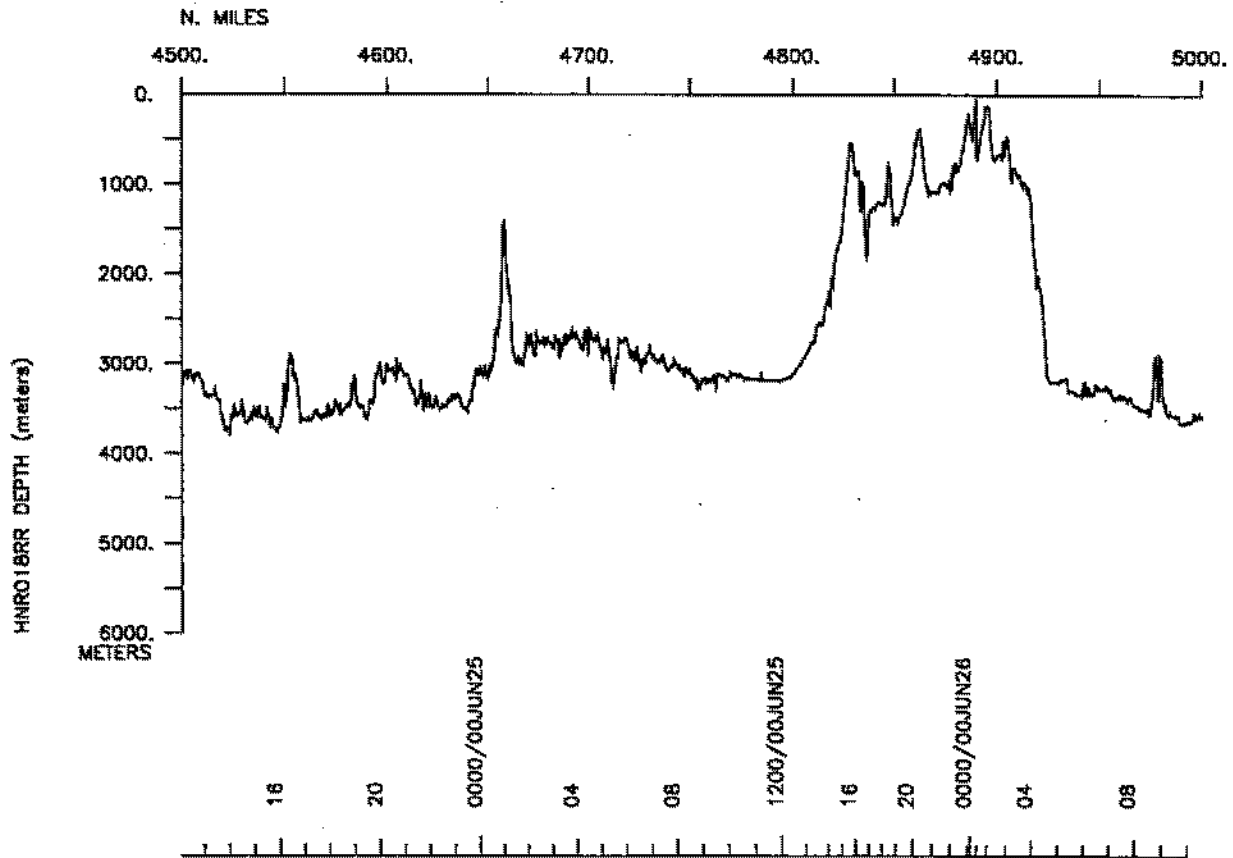
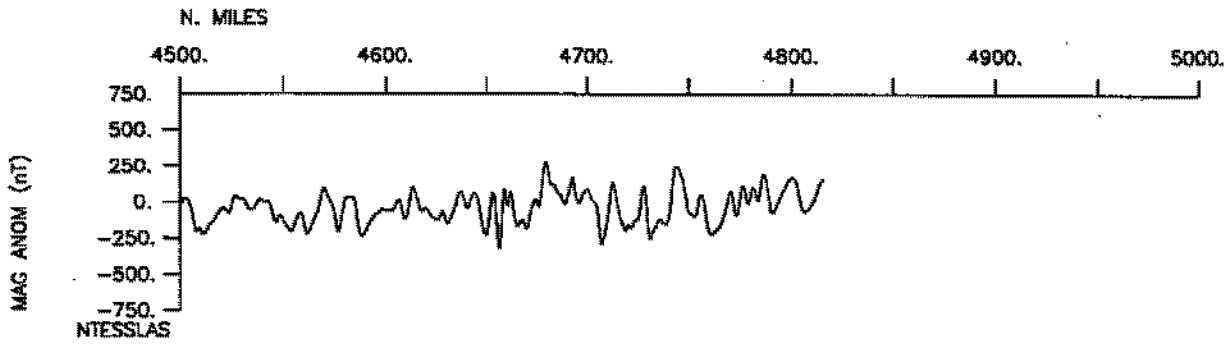
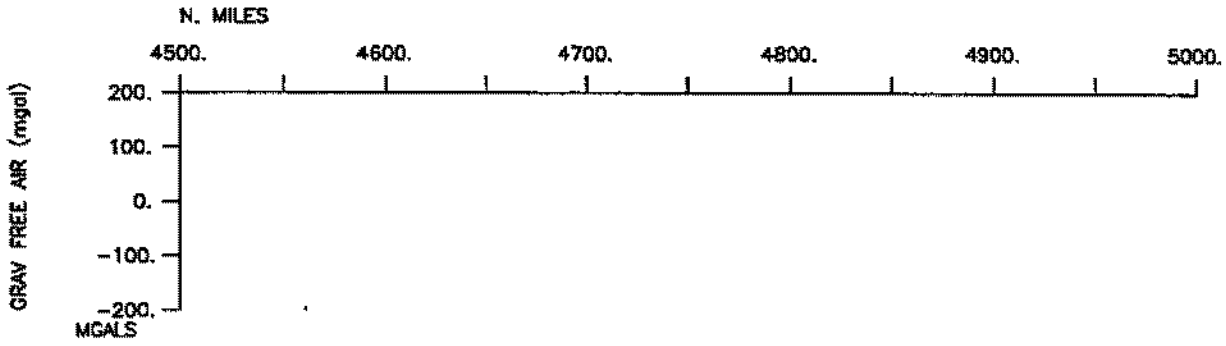


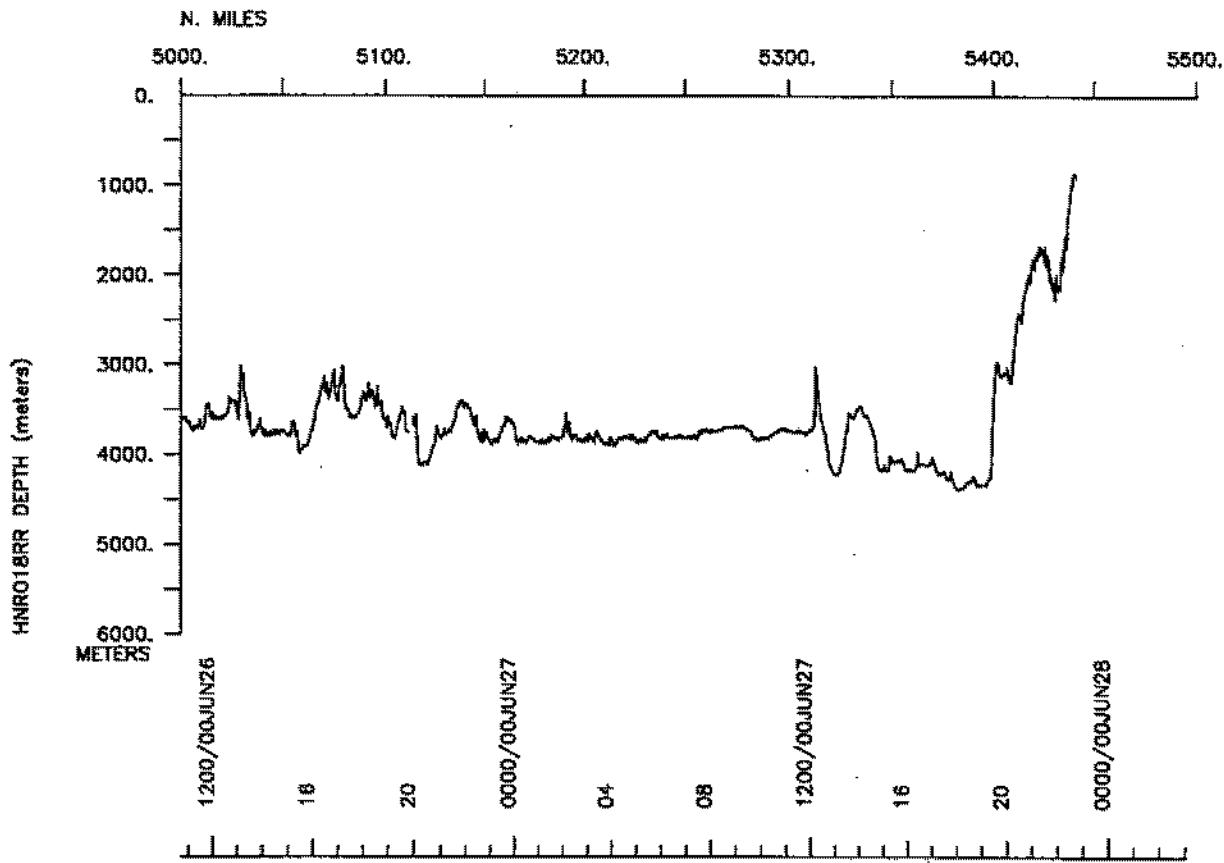
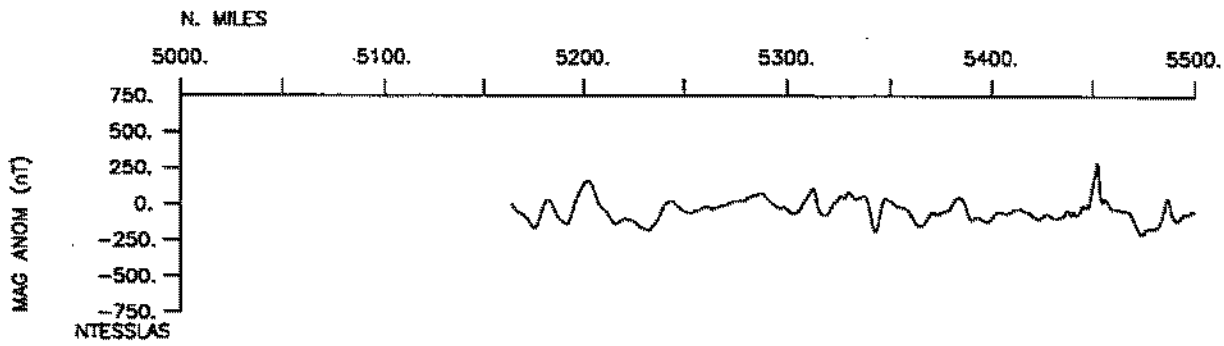
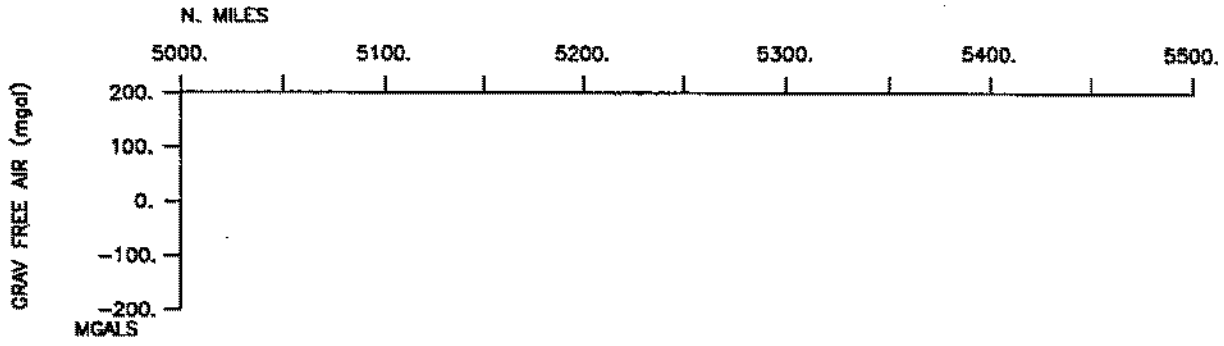


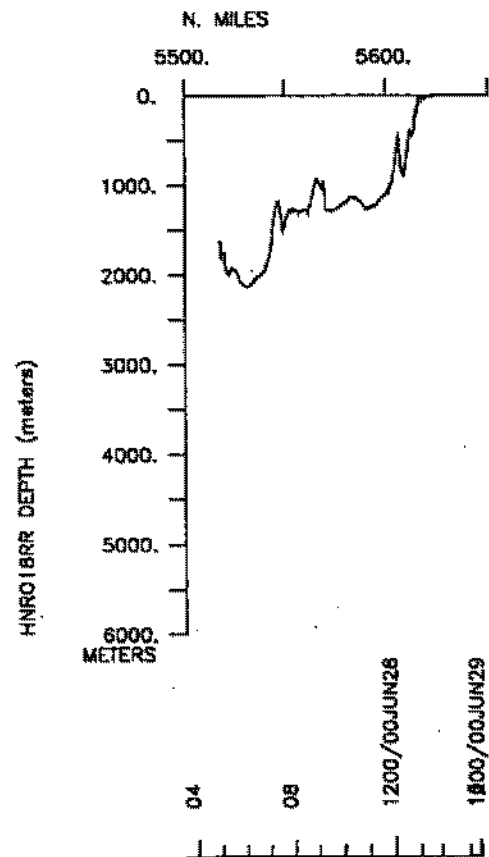
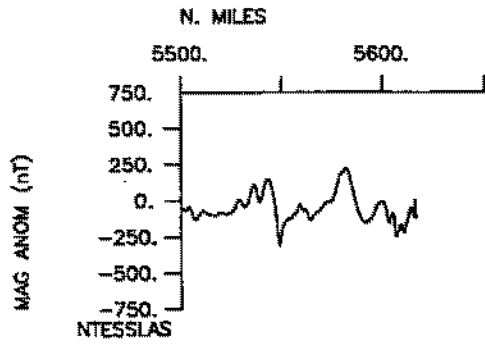
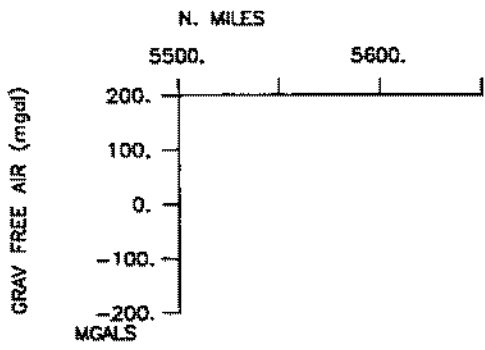












S.I.O. Sample Index

Hahnaro Expedition

Leg 18

(HNRO18RR)

R/V Revelle

(Issued August 2000)

PORTS:

Honolulu, Hawaii (25 May 2000)
to
San Diego, California (28 June 2000)

Chief Scientist:

Brian Popp
University of Hawaii

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# 285

**** Ports ***

```
0312 250500 0 LGPT B Honolulu, Hawaii      21-18.88N 157-52.66W g HNRO18RR
1536 280600 0 LGPT E San Diego, Calif      32-42.40N 117-14.17W g HNRO18RR
```

**** Personnel ***

```
# *****NAME***** *****TITLE***** *****AFFILIATION***** **CRID**
#-----
PECS UHI Popp, Brian Chief scientist Univ. of Hawaii HNRO18RR
PECS SIX Ostrom, Nathaniel Co-Chief scientist Michigan St. Univ. HNRO18RR
PECS UHI Sansone, Frank Co-Chief scientist Univ. of Hawaii HNRO18RR
PESP UHI Rust, Terry Lab manager Univ. of Hawaii HNRO18RR
PEST SIX Graham, Brittany Grad studen Michigan St. Univ. HNRO18RR
PESP UHI Gaso, Anne Post-Doc Univ. of Hawaii HNRO18RR
PEST UHI Napp, Nils Student Univ. of Hawaii HNRO18RR
PEST LDEO Bronzan, James Grad student Lamont Doherty HNRO18RR
PEST MEX Volf, Diego Grad student U. Autonoma de Baja HNRO18RR
PESP UHI Decarlo, Eric Professor Univ. of Hawaii HNRO18RR
PEST UHI Beltran, Vincent Grad student Univ. of Hawaii HNRO18RR
PEVL SIO Tharin, Richard Volunteer Scripps Institution HNRO18RR
PEST UHI Westley, Marian Grad student Univ. of Hawaii HNRO18RR
PEST SIX Saladin, Nathaniel Grad student Michigan St. Univ. HNRO18RR
PESP UHI Carmody, Rebecca Analytical spec. Univ. of Hawaii HNRO18RR
PEST SIX Gedeon, Michelle Grad student Michigan St. Univ. HNRO18RR
PEST SIX Russ, Mary Grad student Michigan St. Univ. HNRO18RR
PEVL SIO Desjardins, Erika Volunteer Scripps Institution HNRO18RR
PESP UHI Bohnet, Darwin Instructor Univ. of Hawaii HNRO18RR
PEST UHI Plancherel, Yves Student Univ. of Hawaii HNRO18RR
PEST UCI Blanton, Doug Student U. C. Irvine HNRO18RR
PEMT SIO Rusk, Steven Res tech Scripps Institution HNRO18RR
PESP SIO Patrick, Ronald CTD tech Scripps Institution HNRO18RR
PECT SIO Silver, Marc Computer tech Scripps Institution HNRO18RR
```

**** 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.
```

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

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

```
0427 250500 0 MBSR B vbeam&sidescan r-01 GDC 21-13.82N 158-03.61W g HNRO18RR
1452 280600 0 MBSR E vbeam&sidescan r-01 GDC 32-35.67N 117-13.80W g HNRO18RR
```

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

```
2355 270500 0 MGDR B Magnetics-digital GDC 20-16.22N 108-35.32W g HNRO18RR
1300 280600 0 MGDR E Magnetics-digital GDC 29-37.88N 116-31.85W g HNRO18RR
0000 250600 0 MGMT B Surface Mags. (MSU) SIX 20-16.22N 108-35.32W g HNRO18RR
0000 280600 0 MGMT E Surface Mags. (MSU) SIX 29-37.88N 116-31.85W g HNRO18RR
```

**** Acoustic Doppler Current Profiler ***

```
0312 250500 0 ADCP B ADCP data GDC 21-18.88N 157-52.66W g HNRO18RR
1536 280600 0 ADCP E ADCP data GDC 32-42.40N 117-14.17W g HNRO18RR
```

#GMT	DDMMYY	SAMP	B	SAMPLE	DISP				p	CRUISE
#TIME	DATE	TZ	CODE	E IDENTIFIER	CODE	LATITUDE	LONGITUDE		c	LEG-SHIP
#-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
*** Integrated Meteorological Acquisition System ***										
0312	250500	0	IMET	B Weather data coll.	GDC	21-18.88N	157-52.66W	g		HNRO18RR
1536	280600	0	IMET	E Weather data coll.	GDC	32-42.40N	117-14.17W	g		HNRO18RR
*** Expendable Bathythermographs ***										
0312	250500	0	BTXP	B XBT daily-transit	GDC	21-18.88N	157-52.66W	g		HNRO18RR
1536	280600	0	BTXP	E XBT daily-transit	GDC	32-42.40N	117-14.17W	g		HNRO18RR
*** Conductivity, Temperature, Depth ***										
1232	250500	0	TDCT	B CTD S1C1 ros 24 btl	SIO	22-42.00N	158-00.00W	g		HNRO18RR
1320	250500	0	TDCT	E CTD S1C1 300 meters	SIO	22-42.00N	158-00.00W	g		HNRO18RR
1513	250500	0	TDCT	B CTD S1C2 ros 24 btl	UHI	22-42.00N	158-00.00W	g		HNRO18RR
1540	250500	0	TDCT	E CTD S1C2 165 meters	UHI	22-42.00N	158-00.00W	g		HNRO18RR
2110	250500	0	TDCT	B CTD S1C3 ros 24 btl	SIO	22-41.84N	158-00.90W	g		HNRO18RR
2220	250500	0	TDCT	E CTD S1C3 1000 meters	SIO	22-41.84N	158-00.90W	g		HNRO18RR
0010	260500	0	TDCT	B CTD S1C4 ros 24 btl	UHI	22-41.48N	158-02.83W	g		HNRO18RR
0055	260500	0	TDCT	E CTD S1C4 325 meters	UHI	22-41.48N	158-02.83W	g		HNRO18RR
0402	260500	0	TDCT	B CTD S1C5 ros 24 btl	SIO	22-40.98N	158-04.43W	g		HNRO18RR
0521	260500	0	TDCT	E CTD S1C5 1000m	SIO	22-40.98N	158-04.43W	g		HNRO18RR
0807	260500	0	TDCT	B CTD S1C6 ros 24 btl	UHI	22-40.15N	158-07.64W	g		HNRO18RR
0912	260500	0	TDCT	E CTD S1C6 400m	UHI	22-40.15N	158-07.64W	g		HNRO18RR
1240	260500	0	TDCT	B CTD S1C7 ros 24 btl	SIO	22-40.27N	158-08.16W	g		HNRO18RR
1358	260500	0	TDCT	E CTD S1C7 1500m	SIO	22-40.27N	158-08.16W	g		HNRO18RR
1826	280500	0	TDCT	B CTD S2C1 ros 24 btl	UHI	16-00.00N	149-59.99W	g		HNRO18RR
1920	280500	0	TDCT	E CTD S2C1 400m	UHI	16-00.00N	149-59.99W	g		HNRO18RR
2300	280500	0	TDCT	B CTD S2C2 ros 24 btl	SIO	16-00.00N	149-59.99W	g		HNRO18RR
0006	290500	0	TDCT	E CTD S2C2 1000m	SIO	16-00.00N	149-59.99W	g		HNRO18RR
0359	290500	0	TDCT	B CTD S2C3 ros 24 btl	UHI	16-00.00N	149-59.99W	g		HNRO18RR
0447	290500	0	TDCT	E CTD S2C3 325m	UHI	16-00.00N	149-59.99W	g		HNRO18RR
0659	290500	0	TDCT	B CTD S2C4 ros 24 btl	SIO	16-00.00N	149-59.99W	g		HNRO18RR
0834	290500	0	TDCT	E CTD S2C4 500m	SIO	16-00.00N	149-59.99W	g		HNRO18RR
1000	290500	0	TDCT	B S2C5 cast ros 24 btl	UHI	16-00.00N	149-59.99W	g		HNRO18RR
1121	290500	0	TDCT	E Cast S2C5 155m	UHI	16-00.00N	149-59.99W	g		HNRO18RR
1400	290500	0	TDCT	B S2C6 CTD ros 24 btl	SIO	15-59.99N	149-59.99W	g		HNRO18RR
1445	290500	0	TDCT	E S2C6 CTD 300m	SIO	16-00.04N	150-00.00W	g		HNRO18RR
1549	290500	0	TDCT	B S2C7 CTD ros 24 btl	UHI	16-00.00N	149-59.99W	g		HNRO18RR
1614	290500	0	TDCT	E S2C7 CTD 135m	UHI	16-00.00N	149-59.99W	g		HNRO18RR
2022	290500	0	TDCT	B CTD S2C8 ros 24 btl	SIO	16-00.26N	150-00.58W	g		HNRO18RR
2219	290500	0	TDCT	E CTD S2C8 1800m	SIO	16-00.26N	150-00.58W	g		HNRO18RR

#GMT #TIME #	DDMMYY DATE	TZ	SAMP CODE	B E	SAMPLE IDENTIFIER	DISP CODE	LATITUDE	LONGITUDE	p c	CRUISE LEG-SHIP
0040	300500	0	TDCT	B	CTD S2C9 ros 24 btl	UHI	16-00.26N	150-00.58W	g	HNRO18RR
0222	300500	0	TDCT	E	CTD S2C9 1800m	UHI	16-00.27N	150-00.59W	g	HNRO18RR
0405	300500	0	TDCT	B	CTD S2C10 ros 24 btl	SIO	15-59.12N	150-02.61W	g	HNRO18RR
0523	300500	0	TDCT	E	CTD S2C10 1000m	SIO	15-59.12N	150-02.61W	g	HNRO18RR
1155	300500	0	TDCT	B	CTD S2C11 ros 24 btl	UHI	15-58.64N	150-03.46W	g	HNRO18RR
1300	300500	0	TDCT	E	CTD S2C11 900m	UHI	15-58.64N	150-03.46W	g	HNRO18RR
0929	020600	0	TDCT	B	CTD S3C1 ros 24 btl	SIO	16-00.00N	136-00.00W	g	HNRO18RR
1015	020600	0	TDCT	E	CTD S3C1 400m	SIO	16-00.00N	136-00.00W	g	HNRO18RR
1210	020600	0	TDCT	B	CTD S3C2 ros 24 btl	UHI	16-00.00N	136-00.00W	g	HNRO18RR
1237	020600	0	TDCT	E	CTD S3C2 225m	UHI	16-00.00N	136-00.00W	g	HNRO18RR
1908	020600	0	TDCT	B	CTD S3C3 ros 24 btl	SIO	16-00.01N	136-00.16W	g	HNRO18RR
2016	020600	0	TDCT	E	CTD S3C3 1000m	SIO	16-00.01N	136-00.16W	g	HNRO18RR
2305	020600	0	TDCT	B	CTD S3C4 ros 24 btl	UHI	15-59.86N	135-59.69W	g	HNRO18RR
2347	020600	0	TDCT	E	CTD S3C4 325m	UHI	15-59.87N	135-59.69W	g	HNRO18RR
0404	030600	0	TDCT	B	CTD S3C5 ros 24 btl	SIO	15-59.41N	135-58.40W	g	HNRO18RR
0437	030600	0	TDCT	E	CTD S3C5 test	SIO	15-59.41N	135-58.40W	g	HNRO18RR
0502	030600	0	TDCT	B	CTD S3C5A ros 24 btl	UHI	15-59.41N	135-58.40W	g	HNRO18RR
0507	030600	0	TDCT	E	CTD S3C5A test	UHI	15-59.41N	135-58.40W	g	HNRO18RR
0511	030600	0	TDCT	B	CTD S3C5A ros 24 btl	SIO	15-59.41N	135-58.40W	g	HNRO18RR
0653	030600	0	TDCT	E	CTD S3C5A 1900m	SIO	15-59.41N	135-58.40W	g	HNRO18RR
0748	030600	0	TDCT	B	CTD S3C5B ros 24 btl	UHI	15-59.41N	135-58.40W	g	HNRO18RR
0753	030600	0	TDCT	E	CTD S3C5B test	UHI	15-59.41N	135-58.40W	g	HNRO18RR
0800	030600	0	TDCT	B	CTD S3C6 ros 24 btl	SIO	15-59.41N	135-58.40W	g	HNRO18RR
0915	030600	0	TDCT	E	CTD S3C6 1000m	SIO	15-59.41N	135-58.40W	g	HNRO18RR
1139	030600	0	TDCT	B	CTD S3C7 ros 24 btl	UHI	15-59.42N	135-58.28W	g	HNRO18RR
1214	030600	0	TDCT	E	CTD S3C7 350m	UHI	15-59.42N	135-58.28W	g	HNRO18RR
1318	030600	0	TDCT	B	CTD S3C8 ros 24 btl	SIO	15-59.42N	135-58.28W	g	HNRO18RR
1337	030600	0	TDCT	E	CTD S3C8 85m	SIO	15-59.42N	135-58.28W	g	HNRO18RR
1602	030600	0	TDCT	B	CTD S3C9 ros 24 btl	UHI	15-58.19N	135-55.94W	g	HNRO18RR
1717	030600	0	TDCT	E	CTD S3C9 350m	UHI	15-58.19N	135-55.94W	g	HNRO18RR
1950	030600	0	TDCT	B	CTD S3C10 ros 24 btl	SIO	15-58.19N	135-55.94W	g	HNRO18RR
2141	030600	0	TDCT	E	CTD S3C10 1900m	SIO	15-58.19N	135-55.94W	g	HNRO18RR
0010	040600	0	TDCT	B	CTD S3C11 ros 24 btl	UHI	15-57.98N	135-55.06W	g	HNRO18RR
0122	040600	0	TDCT	E	CTD S3C11 400m	UHI	15-57.98N	135-55.06W	g	HNRO18RR
0406	040600	0	TDCT	B	CTD S3C12 ros 24 btl	SIO	15-57.95N	135-53.45W	g	HNRO18RR
0644	040600	0	TDCT	E	CTD S3C12 2411m	SIO	15-57.95N	135-53.45W	g	HNRO18RR
1204	040600	0	TDCT	B	CTD S3C13 ros 24 btl	UHI	15-57.20N	135-52.01W	g	HNRO18RR
1300	040600	0	TDCT	E	CTD S3C13 900m	UHI	15-57.20N	135-52.01W	g	HNRO18RR

#GMT #TIME #	DDMMYY DATE	TZ	SAMP CODE	B E	SAMPLE IDENTIFIER	DISP CODE	LATITUDE	LONGITUDE	p c	CRUISE LEG-SHIP
1900	040600	0	TDCT	B	CTD S3C14 ros 24 btl	SIO	15-57.73N	135-51.32W	g	HNRO18RR
2010	040600	0	TDCT	E	CTD S3C14 1000m	SIO	15-57.73N	135-51.32W	g	HNRO18RR
0138	080600	0	TDCT	B	CTD S4C1 ros 24 btl	UHI	16-00.00N	119-00.00W	g	HNRO18RR
0259	080600	0	TDCT	E	CTD S4C1 1000m	UHI	16-00.00N	119-00.00W	g	HNRO18RR
0425	080600	0	TDCT	B	CTD S4C2 ros 24 btl	SIO	16-00.00N	119-00.00W	g	HNRO18RR
0623	080600	0	TDCT	E	CTD S4C2 2000m	SIO	16-00.00N	119-00.00W	g	HNRO18RR
1000	080600	0	TDCT	B	CTD S4C4 ros 24 btl	UHI	16-00.00N	119-00.00W	g	HNRO18RR
1023	080600	0	TDCT	E	CTD S4C4 200m	UHI	16-00.00N	119-00.00W	g	HNRO18RR
1137	080600	0	TDCT	B	CTD S4C5 ros 24 btl	SIO	16-00.00N	119-00.00W	g	HNRO18RR
1211	080600	0	TDCT	E	CTD S4C5 320m	SIO	16-00.00N	119-00.00W	g	HNRO18RR
1632	080600	0	TDCT	B	CTD S4C6 ros 24 btl	UHI	15-59.38N	119-00.40W	g	HNRO18RR
1746	080600	0	TDCT	E	CTD S4C6 1000m	UHI	15-59.39N	119-00.40W	g	HNRO18RR
2100	080600	0	TDCT	B	CTD S4C7 ros 24 btl	SIO	15-59.02N	119-00.44W	g	HNRO18RR
2140	080600	0	TDCT	E	CTD S4C7 300m	SIO	15-59.02N	119-00.44W	g	HNRO18RR
0030	090600	0	TDCT	B	CTD S4C8 ros 24 btl	UHI	15-58.35N	119-00.62W	g	HNRO18RR
0300	090600	0	TDCT	E	CTD S4C8 2100m	UHI	15-58.34N	119-00.61W	g	HNRO18RR
0402	090600	0	TDCT	B	CTD S4C9 ros 24 btl	SIO	15-58.12N	119-00.67W	g	HNRO18RR
0514	090600	0	TDCT	E	CTD S4C9 400m	SIO	15-58.12N	119-00.67W	g	HNRO18RR
1000	090600	0	TDCT	B	CTD S4C10 ros 24 btl	UHI	15-57.62N	119-00.88W	g	HNRO18RR
1030	090600	0	TDCT	E	CTD S4C10 210m	UHI	15-57.62N	119-00.88W	g	HNRO18RR
1150	090600	0	TDCT	B	CTD S4C11 ros 24 btl	SIO	15-57.53N	119-00.91W	g	HNRO18RR
1209	090600	0	TDCT	E	CTD S4C11 150m	SIO	15-57.53N	119-00.91W	g	HNRO18RR
1704	090600	0	TDCT	B	CTD S4C12 ros 24 btl	UHI	15-56.64N	119-01.44W	g	HNRO18RR
1825	090600	0	TDCT	E	CTD S4C12 1000m	UHI	15-56.64N	119-01.44W	g	HNRO18RR
2100	090600	0	TDCT	B	CTD S4C13 ros 24 btl	SIO	15-56.05N	119-01.81W	g	HNRO18RR
2148	090600	0	TDCT	E	CTD S4C13 500m	SIO	15-56.05N	119-01.81W	g	HNRO18RR
0815	100600	0	TDCT	B	CTD S4C14 ros 24 btl	UHI	15-55.85N	119-02.20W	g	HNRO18RR
0905	100600	0	TDCT	E	CTD S4C14 725m	UHI	15-55.86N	119-02.20W	g	HNRO18RR
0234	130600	0	TDCT	B	CTD S5C1 ros 24 btl	SIO	16-00.02N	107-00.01W	g	HNRO18RR
0349	130600	0	TDCT	E	CTD S5C1 1000m	SIO	16-00.00N	107-00.00W	g	HNRO18RR
0511	130600	0	TDCT	B	CTD S5C2 ros 24 btl	UHI	16-00.00N	107-00.00W	g	HNRO18RR
0945	130600	0	TDCT	E	CTD S5C3 350m	UHI	16-00.07N	107-00.05W	g	HNRO18RR
1040	130600	0	TDCT	B	CTD S5C5 ros 24 btl	SIO	16-00.07N	107-00.05W	g	HNRO18RR
1114	130600	0	TDCT	E	CTD S5C5 300m	SIO	16-00.07N	107-00.05W	g	HNRO18RR
1204	130600	0	TDCT	B	CTD S5C5a ros 24 btl	UHI	16-00.07N	107-00.05W	g	HNRO18RR
1234	130600	0	TDCT	E	CTD S5C5a 300m	UHI	16-00.07N	107-00.05W	g	HNRO18RR
1803	130600	0	TDCT	B	CTD S5C6 ros 24 btl	SIO	16-00.56N	107-01.02W	g	HNRO18RR
1916	130600	0	TDCT	E	CTD S5C6 1000m	SIO	16-00.77N	107-00.97W	g	HNRO18RR

#GMT	DDMMYY	SAMP	B	SAMPLE	DISP				p	CRUISE
#TIME	DATE	TZ	CODE	E IDENTIFIER	CODE	LATITUDE	LONGITUDE		c	LEG-SHIP
#										
0037	140600	0	TDCT	B CTD S5C7 ros 24 btl	UHI	16-04.75N	107-04.89W	g		HNRO18RR
0123	140600	0	TDCT	E CTD S5C7 300m	UHI	16-04.92N	107-04.87W	g		HNRO18RR
2210	140600	0	TDCT	B CTD S5C8/9 ros 24btl	SIO	16-10.19N	107-02.16W	g		HNRO18RR
2339	140600	0	TDCT	E CTD S5C8/9 500m	SIO	16-10.20N	107-02.17W	g		HNRO18RR
0142	150600	0	TDCT	B CTD S5C10 ros 24 btl	UHI	16-10.34N	106-59.54W	g		HNRO18RR
0414	150600	0	TDCT	E CTD S5C10 2062m	UHI	16-10.04N	106-59.48W	g		HNRO18RR
1155	150600	0	TDCT	B CTD S5C12 ros 24 btl	SIO	16-07.05N	107-01.61W	g		HNRO18RR
1210	150600	0	TDCT	E CTD S5C12 100m	SIO	16-06.94N	107-01.92W	g		HNRO18RR
1705	150600	0	TDCT	B CTD S5C13 ros 24 btl	UHI	16-06.74N	107-09.64W	g		HNRO18RR
1935	150600	0	TDCT	E CTD S5C13 2000m	UHI	16-07.87N	107-10.76W	g		HNRO18RR
0112	160600	0	TDCT	B CTD S5C14 ros 24 btl	SIO	16-09.41N	107-10.96W	g		HNRO18RR
0350	160600	0	TDCT	E CTD S5C14 2000m	SIO	16-09.77N	107-10.85W	g		HNRO18RR
1100	160600	0	TDCT	B CTD S5C15 ros 24 btl	UHI	16-11.03N	107-08.15W	g		HNRO18RR
1140	160600	0	TDCT	E CTD S5C15 500m	UHI	16-11.03N	107-08.16W	g		HNRO18RR
1650	160600	0	TDCT	B CTD S5C16 ros 24 btl	SIO	16-12.64N	107-09.54W	g		HNRO18RR
1848	160600	0	TDCT	E CTD S5C16 2000m	SIO	16-12.05N	107-09.28W	g		HNRO18RR
1900	180600	0	TDCT	B CTD S6C1 ros 24 btl	UHI	14-59.99N	98-00.00W	g		HNRO18RR
1940	180600	0	TDCT	E CTD S6C1 250m	UHI	14-59.99N	97-59.99W	g		HNRO18RR
2301	180600	0	TDCT	B CTD S6C2 ros 24 btl	SIO	15-00.00N	97-59.99W	g		HNRO18RR
0100	190600	0	TDCT	E CTD S6C2 1900m	SIO	15-00.00N	98-00.00W	g		HNRO18RR
0317	190600	0	TDCT	B CTD S6C3 ros 24 btl	UHI	15-00.00N	98-00.00W	g		HNRO18RR
0413	190600	0	TDCT	E CTD S6C3 300m	UHI	15-00.00N	98-00.00W	g		HNRO18RR
0527	190600	0	TDCT	B CTD S6C4 ros 24 btl	SIO	15-00.00N	98-00.00W	g		HNRO18RR
0609	190600	0	TDCT	E CTD S6C4 250m	SIO	15-00.00N	98-00.00W	g		HNRO18RR
0820	190600	0	TDCT	B CTD S6C5 ros 24 btl	UHI	15-00.00N	98-00.00W	g		HNRO18RR
0845	190600	0	TDCT	E CTD S6C5 300m	UHI	15-00.00N	98-00.00W	g		HNRO18RR
0955	190600	0	TDCT	B CTD S6C6 ros 24 btl	SIO	14-59.68N	98-00.39W	g		HNRO18RR
1030	190600	0	TDCT	E CTD S6C6 300m	SIO	14-59.67N	98-00.37W	g		HNRO18RR
1129	190600	0	TDCT	B CDT S6C7 ros 24 btl	UHI	14-59.66N	98-00.37W	g		HNRO18RR
1253	190600	0	TDCT	E CDT S6C7 1400m	UHI	14-59.69N	98-00.38W	g		HNRO18RR
1355	190600	0	TDCT	B CTD S6C8 ros 24 btl	SIO	14-59.69N	98-00.38W	g		HNRO18RR
1522	190600	0	TDCT	E CTD S6C8 1000m	SIO	14-59.88N	98-00.45W	g		HNRO18RR
0800	200600	0	TDCT	B CTD S6C09 ros 24 btl	UHI	15-06.63N	97-52.78W	g		HNRO18RR
0835	200600	0	TDCT	E CTD S6C09 300m	UHI	15-06.83N	97-52.51W	g		HNRO18RR
0945	200600	0	TDCT	B CTD S6C10 ros 24 btl	SIO	15-06.94N	97-52.45W	g		HNRO18RR
1020	200600	0	TDCT	E CTD S6C10 300m	SIO	15-07.24N	97-52.14W	g		HNRO18RR
1605	200600	0	TDCT	B CTD S6C11 ros 24 btl	SIO	15-09.44N	97-51.86W	g		HNRO18RR
1651	200600	0	TDCT	E CTD S6C11 220m	UHI	15-09.30N	97-51.63W	g		HNRO18RR
2005	200600	0	TDCT	B CTD S6C12 ros 24 btl	SIO	15-08.11N	97-52.70W	g		HNRO18RR
2057	200600	0	TDCT	E CTD S6C12 500m	SIO	15-07.99N	97-53.02W	g		HNRO18RR

#GMT #TIME #	DDMMYY DATE	TZ	SAMP CODE	B E	SAMPLE IDENTIFIER	DISP CODE	LATITUDE	LONGITUDE	p c	CRUISE LEG-SHIP
0911	210600	0	TDCT	B	CTD S6C13 ros 24 btl	UHI	15-07.06N	97-55.10W	g	HNRO18RR
0955	210600	0	TDCT	E	CTD S6C13 350m	UHI	15-07.06N	97-55.10W	g	HNRO18RR
1106	210600	0	TDCT	B	CTD S6C14 ros 24 btl	SIO	15-07.96N	97-58.18W	g	HNRO18RR
1120	210600	0	TDCT	E	CTD S6C14 50m	SIO	15-07.96N	97-58.18W	g	HNRO18RR
1920	210600	0	TDCT	B	CTD S6C15 ros 24 btl	UHI	15-14.47N	98-01.79W	g	HNRO18RR
2005	210600	0	TDCT	E	CTD S6C15 1000m	UHI	15-14.47N	98-01.79W	g	HNRO18RR
2230	210600	0	TDCT	B	CTD S6C16 ros 24 btl	SIO	15-13.41N	98-01.11W	g	HNRO18RR
2336	210600	0	TDCT	E	CTD S6C16 1000m	SIO	15-13.41N	98-01.11W	g	HNRO18RR
1541	220600	0	TDCT	B	CTD S6C17 ros 24 btl	UHI	15-12.10N	98-02.57W	g	HNRO18RR
1624	220600	0	TDCT	E	CTD S6C17 220m	UHI	15-12.09N	98-02.58W	g	HNRO18RR

*** Bouyed Set Line ***

1710	250500	0	SLBO		S1 Array deployed	UHI	22-41.86N	158-00.95W	g	HNRO18RR
1630	260500	0	SLBO		S1 Array aboard T	UHI	22-39.35N	158-10.13W	g	HNRO18RR
1722	290500	0	SLBO		S2 Array deployed	UHI	16-00.26N	150-00.55W	g	HNRO18RR
1647	300500	0	SLBO		Array aboard	UHI	15-56.44N	150-05.93W	g	HNRO18RR
1435	020600	0	SLBO		S3 array deployed T	UHI	16-00.00N	136-00.15W	g	HNRO18RR
1449	030600	0	SLBO		Array deployed T	UHI	15-58.94N	135-57.63W	g	HNRO18RR
1452	040600	0	SLBO		Array Aboard (48 hr)	UHI	15-57.61N	135-49.88W	g	HNRO18RR
1556	040600	0	SLBO		Array Aboard (24 hr)	UHI	15-57.73N	135-51.32W	g	HNRO18RR
1347	080600	0	SLBO		48 hr array deployed	UHI	15-59.78N	119-00.16W	g	HNRO18RR
1320	090600	0	SLBO		Array deployed	UHI	15-56.90N	119-01.25W	g	HNRO18RR
1350	130600	0	SLBO		72 hr Array deployed	UHI	16-00.22N	107-00.47W	g	HNRO18RR
1322	150600	0	SLBO		24 hr Array deployed	UHI	16-05.31N	107-04.37W	g	HNRO18RR
1344	160600	0	SLBO		Array (72 hr) aboard	UHI	16-12.84N	107-09.72W	g	HNRO18RR
1424	160600	0	SLBO		Array (24 hr) aboard	UHI	16-12.87N	107-09.66W	g	HNRO18RR
1206	200600	0	SLBO		48 hr Array deployed	UHI	15-08.02N	97-51.60W	g	HNRO18RR
1219	210600	0	SLBO		24 hr Array deployed	UHI	15-08.86N	97-59.17W	g	HNRO18RR
1240	220600	0	SLBO		24 hr Array aboard	UHI	15-12.76N	98-02.24W	g	HNRO18RR
1327	220600	0	SLBO		48 hr Array aboard	UHI	15-12.08N	98-02.50W	g	HNRO18RR

*** Plankton Pump ***

0204	260500	0	PHIS	B	Challenger IN SITU	UHI	22-41.23N	158-03.99W	g	HNRO18RR
0342	260500	0	PHIS	E	pump (Particles)	UHI	22-41.23N	158-03.99W	g	HNRO18RR
1959	280500	0	PHIS	B	Challenger IN SITU	LDEO	16-00.00N	149-59.99W	g	HNRO18RR
2208	280500	0	PHIS	E	pump (Particles)	LDEO	16-00.00N	149-59.99W	g	HNRO18RR
0105	290500	0	PHIS	B	Challenger IN SITU	UHI	16-00.00N	149-59.99W	g	HNRO18RR
0235	290500	0	PHIS	E	pump (Particles)	UHI	16-00.00N	149-59.99W	g	HNRO18RR
2234	290500	0	PHIS	B	Challenger IN SITU	LDEO	16-00.26N	150-00.58W	g	HNRO18RR
0020	300500	0	PHIS	E	pump (Particles)	LDEO	16-00.26N	150-00.59W	g	HNRO18RR
1537	020600	0	PHIS	B	Challenger IN SITU	UHI	16-00.01N	136-00.16W	g	HNRO18RR
1730	020600	0	PHIS	E	pump (Particles)	UHI	16-00.01N	136-00.16W	g	HNRO18RR
2100	020600	0	PHIS	B	Challenger IN SITU	LDEO	16-00.01N	136-00.16W	g	HNRO18RR
2220	020600	0	PHIS	E	pump (Particles)	LDEO	16-00.01N	136-00.16W	g	HNRO18RR
0103	030600	0	PHIS	B	Challenger IN SITU	UHI	15-59.86N	135-59.69W	g	HNRO18RR
0251	030600	0	PHIS	E	pump (Particles)	UHI	15-59.86N	135-59.69W	g	HNRO18RR
1736	030600	0	PHIS	B	Challenger IN SITU	LDEO	15-58.19N	135-55.94W	g	HNRO18RR
1933	030600	0	PHIS	E	pump (Particles)	LDEO	15-58.18N	135-55.94W	g	HNRO18RR

#GMT	DDMMYY	SAMP	B	SAMPLE	DISP			p	CRUISE
#TIME	DATE	TZ	CODE	E IDENTIFIER	CODE	LATITUDE	LONGITUDE	c	LEG-SHIP
#									
2207	030600	0	PHIS	B Challenger IN SITU	UHI	15-57.98N	135-55.06W	g	HNRO18RR
2350	030600	0	PHIS	E pump (Particles)	UHI	15-57.98N	135-55.06W	g	HNRO18RR
0150	040600	0	PHIS	B Challenger IN SITU	LDEO	15-57.99N	135-54.26W	g	HNRO18RR
0342	040600	0	PHIS	E pump (Particles)	LDEO	15-57.99N	135-54.26W	g	HNRO18RR
1659	040600	0	PHIS	B Challenger IN SITU	UHI	15-57.73N	135-51.32W	g	HNRO18RR
1838	040600	0	PHIS	E pump (Particles)	UHI	15-57.73N	135-51.32W	g	HNRO18RR
1419	080600	0	PHIS	B Challenger IN SITU	LDEO	15-59.80N	119-00.19W	g	HNRO18RR
1615	080600	0	PHIS	E pump (Particles)	LDEO	15-59.50N	119-00.38W	g	HNRO18RR
1851	080600	0	PHIS	B Challenger IN SITU	UHI	15-59.02N	119-00.44W	g	HNRO18RR
2012	080600	0	PHIS	E pump (Particles)	UHI	15-59.02N	119-00.44W	g	HNRO18RR
2200	080600	0	PHIS	B Challenger IN SITU	LDEO	15-58.75N	119-00.51W	g	HNRO18RR
0002	090600	0	PHIS	E pump (Particles)	LDEO	15-58.75N	119-00.51W	g	HNRO18RR
0536	090600	0	PHIS	B Challenger IN SITU	UHI	15-58.12N	119-00.67W	g	HNRO18RR
0726	090600	0	PHIS	E pump (Particles)	UHI	15-58.12N	119-00.67W	g	HNRO18RR
1435	090600	0	PHIS	B Challenger IN SITU	LDEO	15-56.82N	119-01.32W	g	HNRO18RR
1631	090600	0	PHIS	E pump (Particles)	LDEO	15-56.81N	119-01.32W	g	HNRO18RR
1849	090600	0	PHIS	B Challenger IN SITU	UHI	15-56.25N	119-01.69W	g	HNRO18RR
2036	090600	0	PHIS	E pump (Particles)	UHI	15-56.25N	119-01.69W	g	HNRO18RR
2300	090600	0	PHIS	B Challenger IN SITU	LDEO	15-56.00N	119-02.11W	g	HNRO18RR
0051	100600	0	PHIS	E pump (Particles)	LDEO	15-56.00N	119-02.11W	g	HNRO18RR
0459	100600	0	PHIS	B McLane IN SITU	UHI	15-56.00N	119-02.11W	g	HNRO18RR
0732	100600	0	PHIS	E pump (Particles)	UHI	15-56.00N	119-02.11W	g	HNRO18RR
1506	130600	0	PHIS	B Challenger IN SITU	LDEO	16-00.32N	107-00.80W	g	HNRO18RR
1656	130600	0	PHIS	E pump (Particles)	LDEO	16-00.34N	107-00.80W	g	HNRO18RR
2000	130600	0	PHIS	B Challenger IN SITU	UHI	16-01.14N	107-01.45W	g	HNRO18RR
2125	130600	0	PHIS	E pump (Particles)	UHI	16-01.14N	107-01.49W	g	HNRO18RR
0205	140600	0	PHIS	B Challenger IN SITU	LDEO	16-04.44N	107-05.15W	g	HNRO18RR
0353	140600	0	PHIS	E pump (Particles)	LDEO	16-04.47N	107-05.04W	g	HNRO18RR
0503	140600	0	PHIS	B McLane IN SITU	UHI	16-05.27N	107-05.11W	g	HNRO18RR
1010	140600	0	PHIS	E Pump (Partilces)	UHI	16-05.35N	107-04.66W	g	HNRO18RR
1532	140600	0	PHIS	B Challenger IN SITU	LDEO	16-10.57N	107-03.90W	g	HNRO18RR
1730	140600	0	PHIS	E pump (Particles)	LDEO	16-10.57N	107-03.90W	g	HNRO18RR
1913	140600	0	PHIS	B Challenger IN SITU	UHI	16-10.52N	107-03.83W	g	HNRO18RR
2100	140600	0	PHIS	E pump (Particles)	UHI	16-10.51N	107-03.82W	g	HNRO18RR
0546	150600	0	PHIS	B McLane IN SITU	LDEO	16-09.96N	106-59.53W	g	HNRO18RR
0925	150600	0	PHIS	E pump (Particles)	LDEO	16-08.26N	106-59.86W	g	HNRO18RR
1448	150600	0	PHIS	B Challenger IN SITU	UHI	16-05.82N	107-05.87W	g	HNRO18RR
1650	150600	0	PHIS	E pump (Particles)	UHI	16-06.60N	107-09.19W	g	HNRO18RR

#GMT #TIME #	DDMMYY DATE	TZ	SAMP CODE	B E	SAMPLE IDENTIFIER	DISP CODE	LATITUDE	LONGITUDE	p c	CRUISE LEG-SHIP	
1955	150600		PHIS	B	Challenger IN SITU	LDEO	16-07.87N	107-10.96W	g	HNRO18RR	
2145	150600		PHIS	E	pump (Particles)	LDEO	16-07.88N	107-11.12W	g	HNRO18RR	
0525	160600		PHIS	B	McLane IN SITU	UHI	16-09.78N	107-10.76W	g	HNRO18RR	
1014	160600		PHIS	E	pump (Particles)	UHI	16-11.04N	107-08.16W	g	HNRO18RR	
1450	160600		PHIS	B	Challenger IN SITU	LDEO	16-12.88N	107-09.63W	g	HNRO18RR	
1632	160600		PHIS	E	pump (Particles)	LDEO	16-12.74N	107-09.57W	g	HNRO18RR	
1916	160600		PHIS	B	Challenger IN SITU	UHI	16-11.80N	107-09.33W	g	HNRO18RR	
2115	160600		PHIS	E	pump (Particles)	UHI	16-11.45N	107-09.35W	g	HNRO18RR	
2030	180600		PHIS	B	Challenger IN SITU	LDEO	15-00.00N	97-59.99W	g	HNRO18RR	
2230	180600		PHIS	E	pump (Particles)	LDEO	15-00.00N	97-59.99W	g	HNRO18RR	
0110	190600		PHIS	B	Challenger IN SITU	UHI	15-00.00N	98-00.00W	g	HNRO18RR	
0257	190600		PHIS	E	pump (Particles)	UHI	15-00.00N	98-00.00W	g	HNRO18RR	
0636	190600		PHIS	B	Challenger IN SITU	LDEO	15-00.00N	98-00.00W	g	HNRO18RR	
0805	190600		PHIS	E	pump (Particles)	LDEO	15-00.00N	98-00.00W	g	HNRO18RR	
1400	200600		PHIS	B	Challenger IN SITU	UHI	15-08.45N	97-51.63W	g	HNRO18RR	
1553	200600		PHIS	E	pump (Particles)	UHI	15-09.39N	97-51.79W	g	HNRO18RR	
1803	200600		PHIS	B	Challenger IN SITU	LDEO	15-09.04N	97-51.66W	g	HNRO18RR	
1940	200600		PHIS	E	pump (Particles)	LDEO	15-08.26N	97-52.38W	g	HNRO18RR	
2150	200600		PHIS	B	Challenger IN SITU	UHI	15-07.00N	97-52.37W	g	HNRO18RR	
2334	200600		PHIS	E	pump (Particles)	UHI	15-06.99N	97-52.37W	g	HNRO18RR	
0128	210600		PHIS	B	McLane IN SITU	LDEO	15-06.95N	97-53.07W	g	HNRO18RR	
0841	210600		PHIS	E	Pump (Particles)	LDEO	15-06.97N	97-53.06W	g	HNRO18RR	
1300	210600		PHIS	B	Challenger IN SITU	UHI	15-08.94N	97-59.22W	g	HNRO18RR	
1502	210600		PHIS	E	pump (Particles)	UHI	15-11.14N	98-01.04W	g	HNRO18RR	
1645	210600		PHIS	B	Challenger IN SITU	LDEO	15-13.92N	98-03.74W	g	HNRO18RR	
1804	210600		PHIS	E	pump (Particles)	LDEO	15-14.57N	98-03.39W	g	HNRO18RR	
0012	220600		PHIS	B	McLane IN SITU	UHI	15-12.89N	98-01.09W	g	HNRO18RR	
0930	220600		PHIS	E	Pump (Particles)	UHI	15-12.42N	98-00.89W	g	HNRO18RR	
1348	220600		PHIS	B	Challenger IN SITU	LDEO	15-12.11N	98-02.57W	g	HNRO18RR	
1533	220600		PHIS	E	pump (Particles)	LDEO	15-12.10N	98-02.57W	g	HNRO18RR	
*** Gravity Cores (Michigan State University)***											
0945	300500		COGV		Core 1	5190m	SIX	15-58.64N	150-03.46W	g	HNRO18RR
0932	040600		COGV		Core 2	5066m	SIX	15-57.94N	135-53.45W	g	HNRO18RR
0300	100600		COGV		Core 3	3954m	SIX	15-56.00N	119-02.11W	g	HNRO18RR
2254	160600		COGV		Core 4	3690m	SIX	16-11.33N	107-09.34W	g	HNRO18RR
1053	220600		COGV		Core 5	3320m	SIX	15-12.95N	98-00.72W	g	HNRO18RR
***					End Sample Index						HNRO18RR