

REPORT AND INDEX OF
UNDERWAY MARINE GEOPHYSICAL DATA

AVON EXPEDITION

LEG 1

(AVON01MV)

R/V Melville

(Issued June 1999)

Ports:

San Diego, California (6 January 1999)

to

Majuro, Marshall Islands (23 January 1999)

Chief Scientist:

Peter Lonsdale, Scripps Institution
email:plonsdale@ucsd.edu

Computer Technician - Jim Charters

Post-Cruise Processing and Report Preparation by the
Geological Data Center, Scripps Institution of Oceanography
La Jolla, California 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 I.D.# 284

**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.

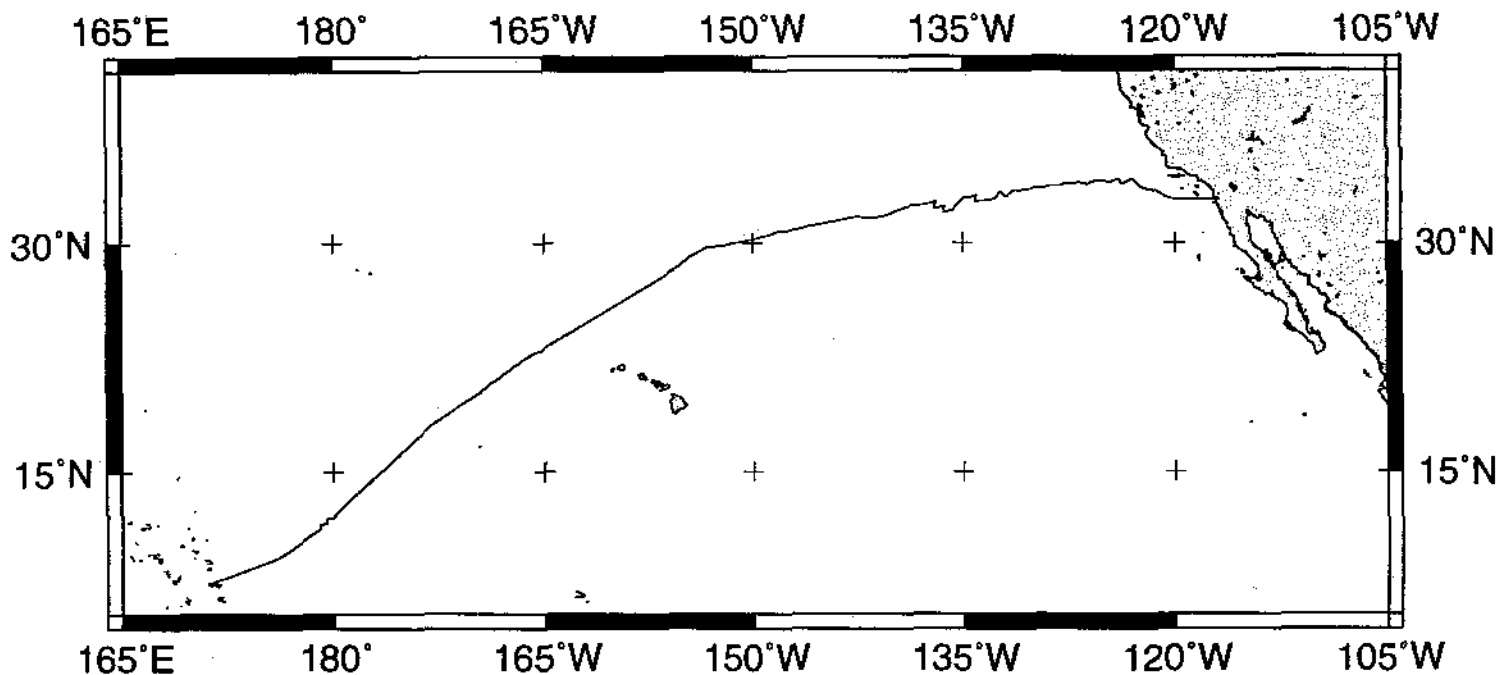
NOTE: One or more of the underway data types may not be collected on a given leg. For information on the availability and reproduction costs of data in the following forms, contact S.M. Smith, Curator, Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093-0223. Phone: (619)534-2752, FAX: (619)534-6500, Internet email: ssmith@ucsd.edu

1. Files via ftp or on 8mm (Exabyte) and 4mm (DAT) magnetic tape:
 - 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 (35 mm flowfilm) or hard copies of:
 - a) Underway watch log book.
 - b) SeaBeam vertical beam profile/Sidescan records.
 - c) 3.5 kHz and 12 kHz echosounder records.
 - d) Seismic reflection profiler records.

3. Navigation listing with times and positions of fixes and course and speed changes.

4. Custom plots in Mercator projection:
 - a) Track plots.
 - b) SeaBeam depth contour plots.
 - c) Depth, magnetic or gravity values printed or profiled along track.



AVON EXPEDITION LEG 1 (AVON01MV)

CHIEF SCIENTIST: Peter Lonsdale, Scripps Institution

PORTS: San Diego, Calif. - Majuro, Marshall Islands

DATES: 06 - 23 January 1999

SHIP: R/V Melville

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

Cruise - 4522 miles

Magnetics - 2178 miles

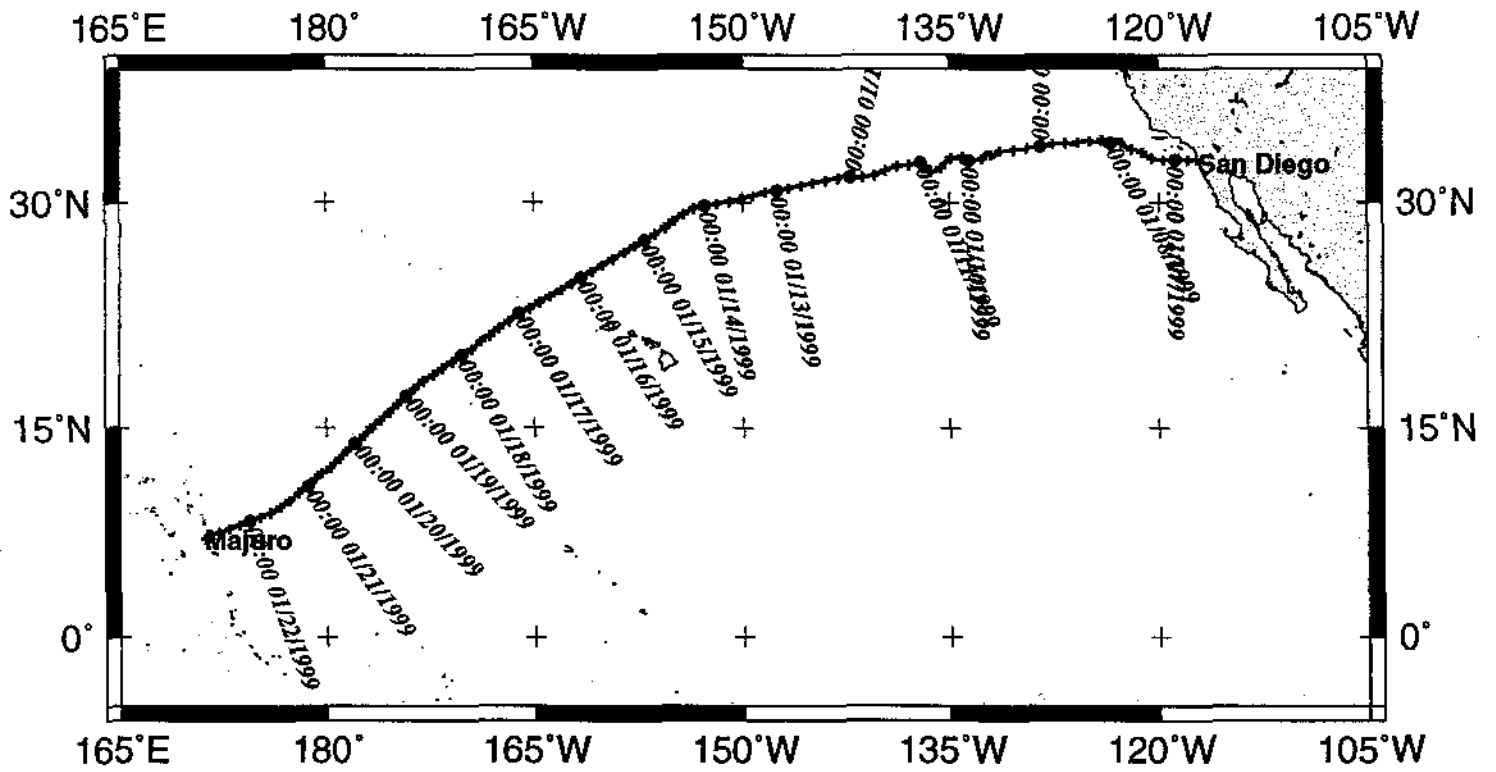
Bathymetry - 4497 miles

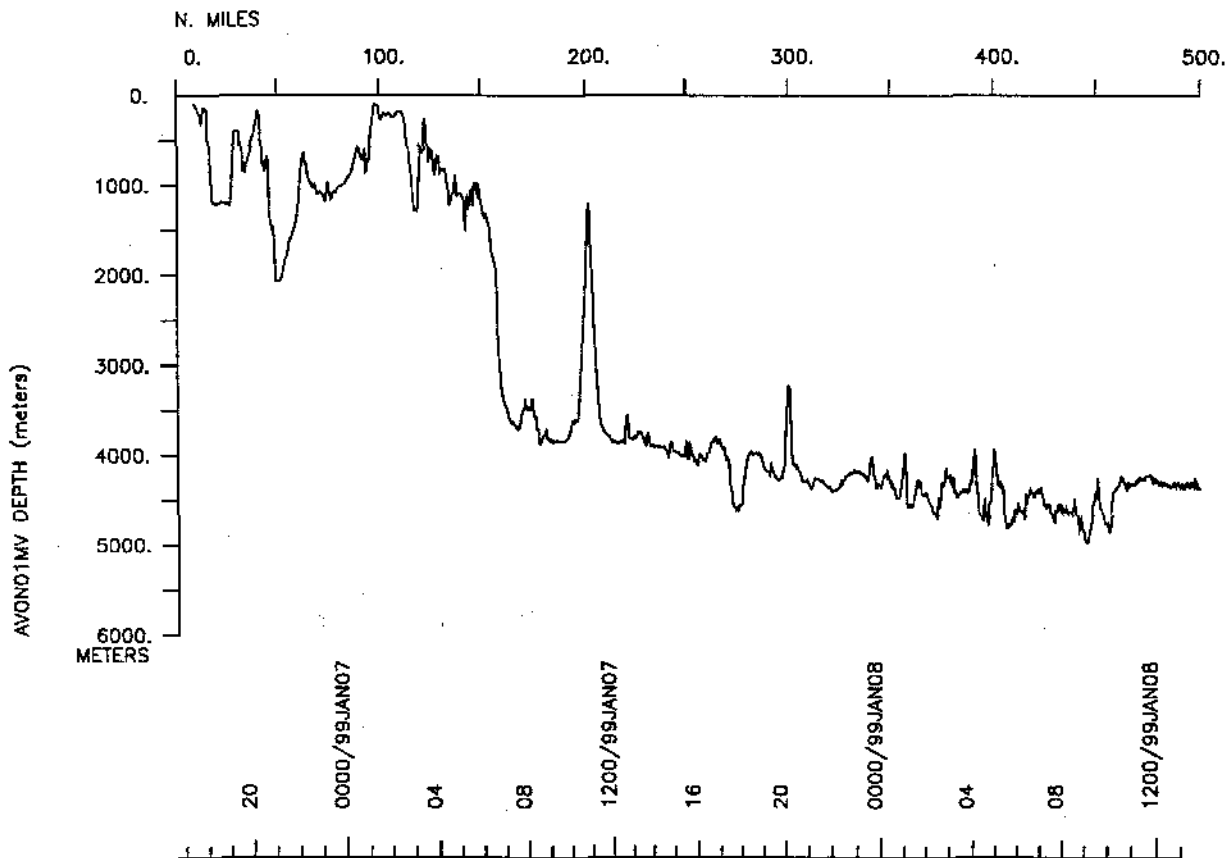
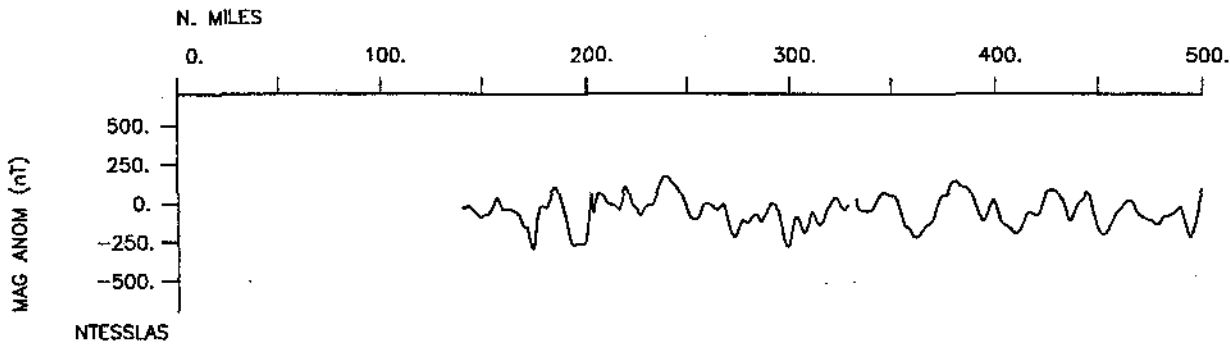
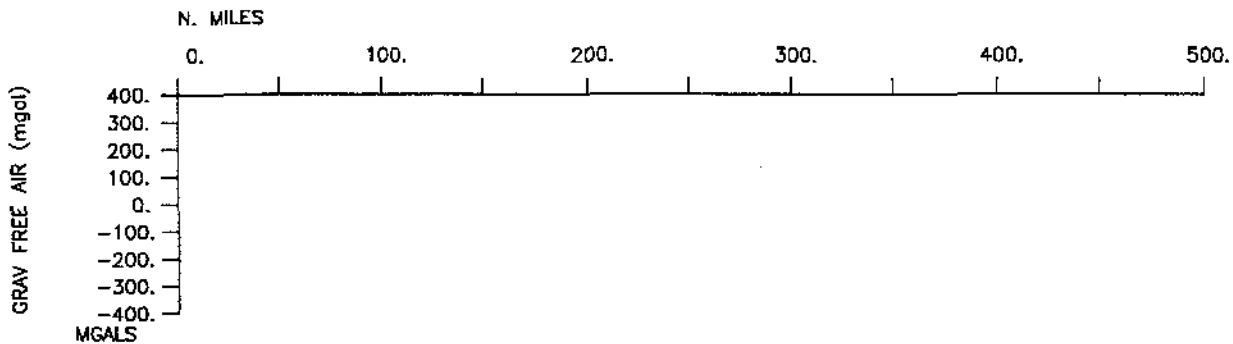
Seismic Reflection - none collected

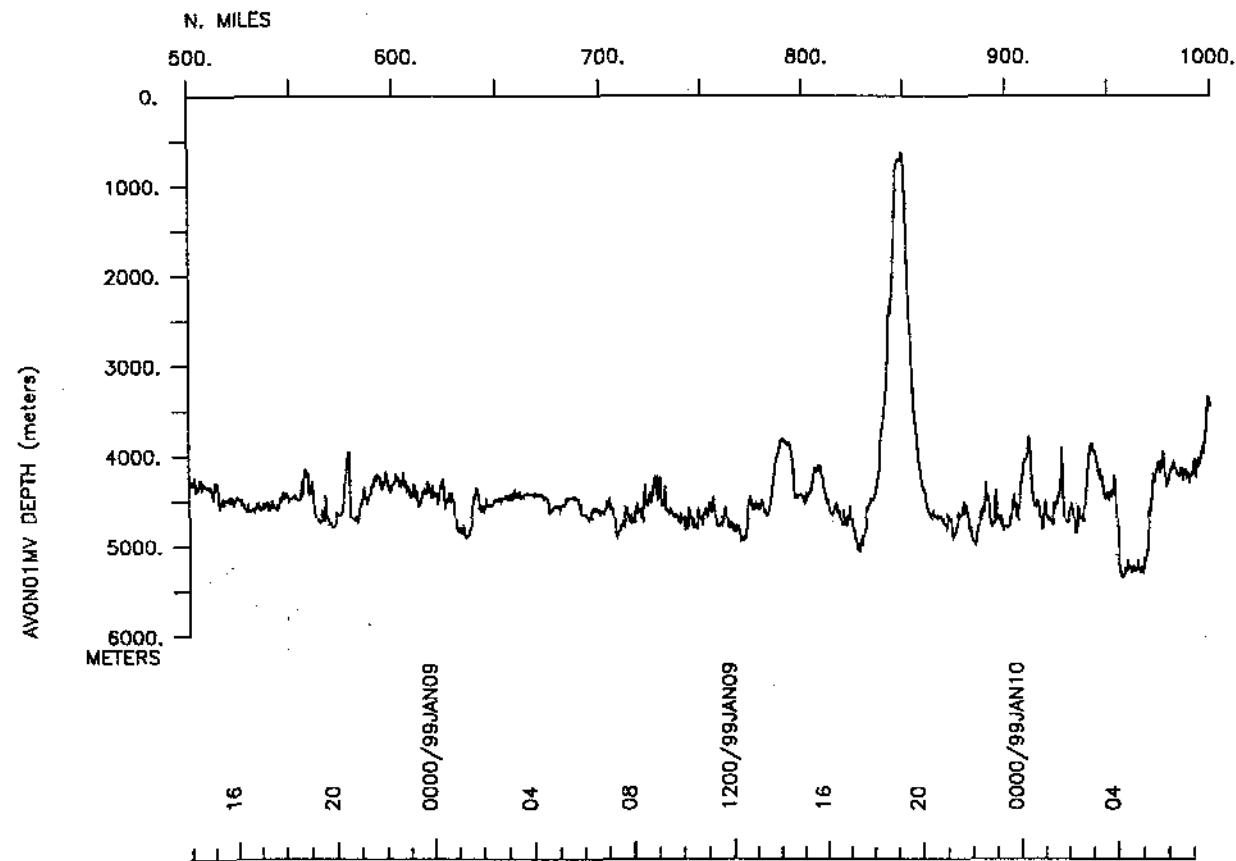
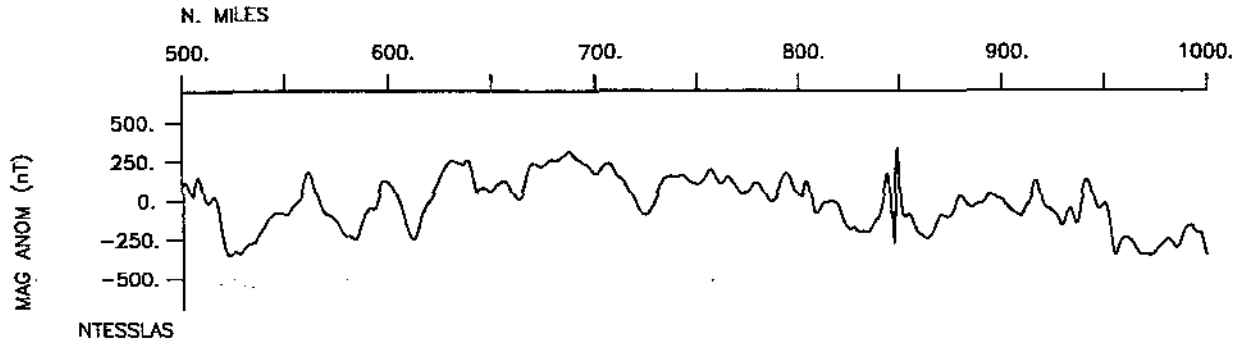
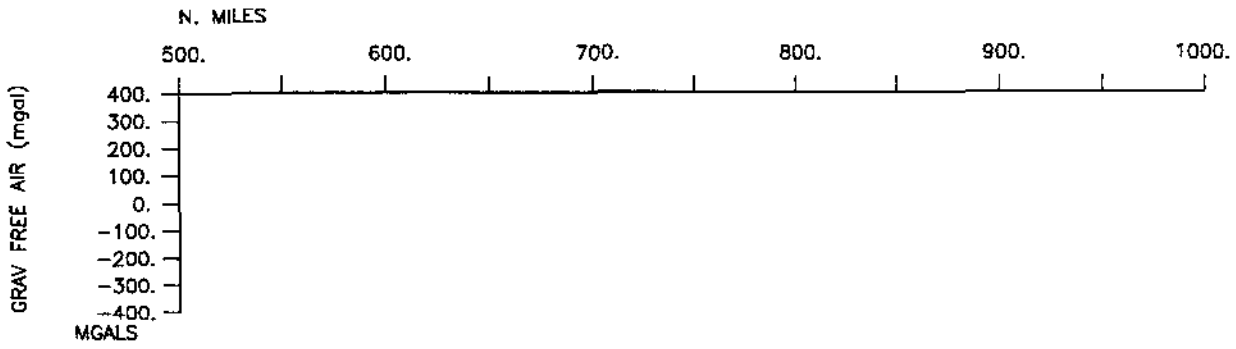
Sea Beam - 4497 miles

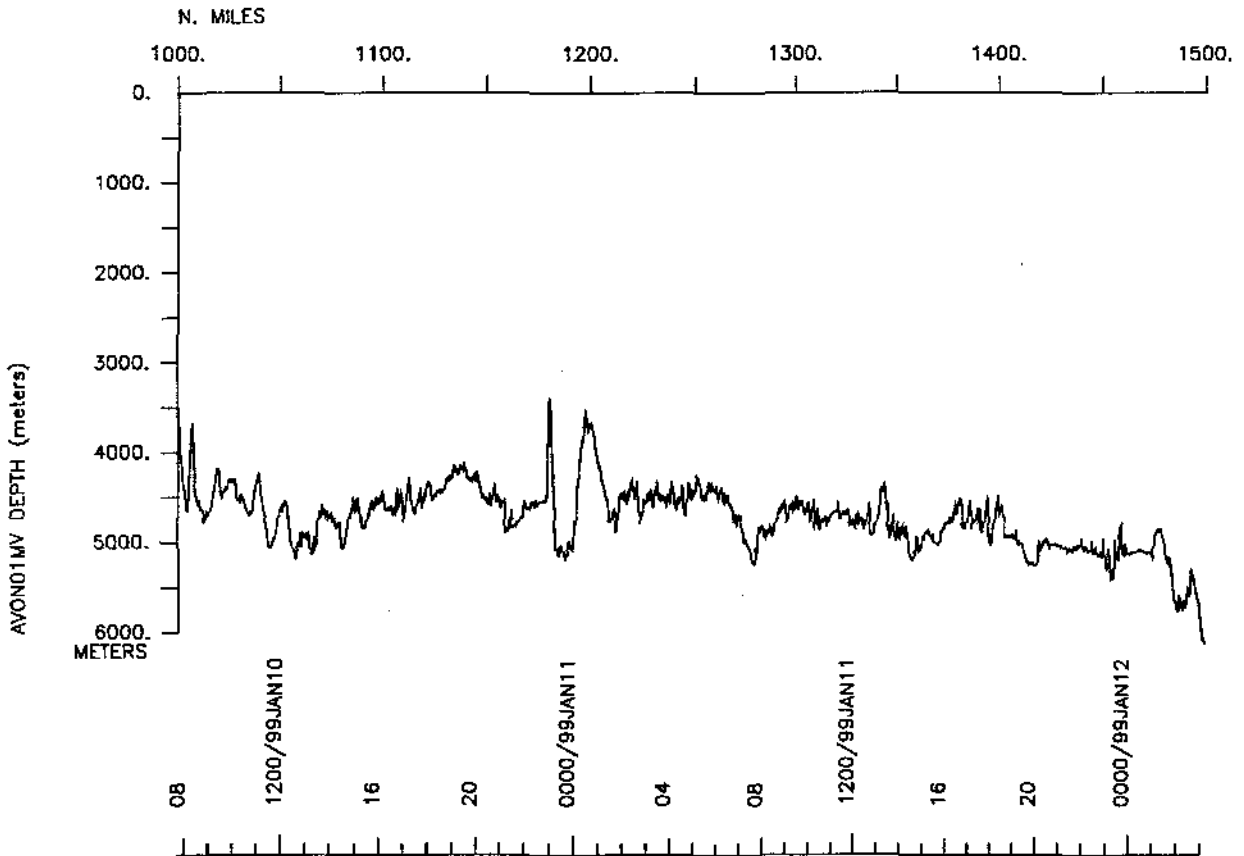
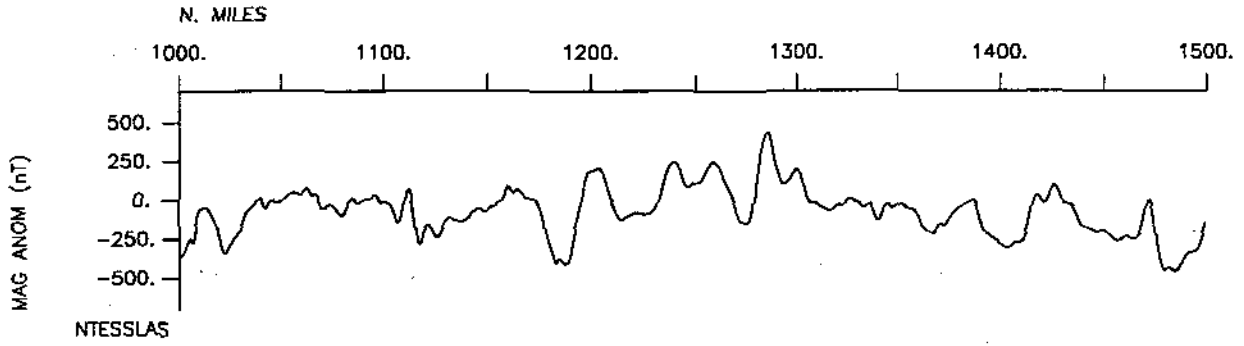
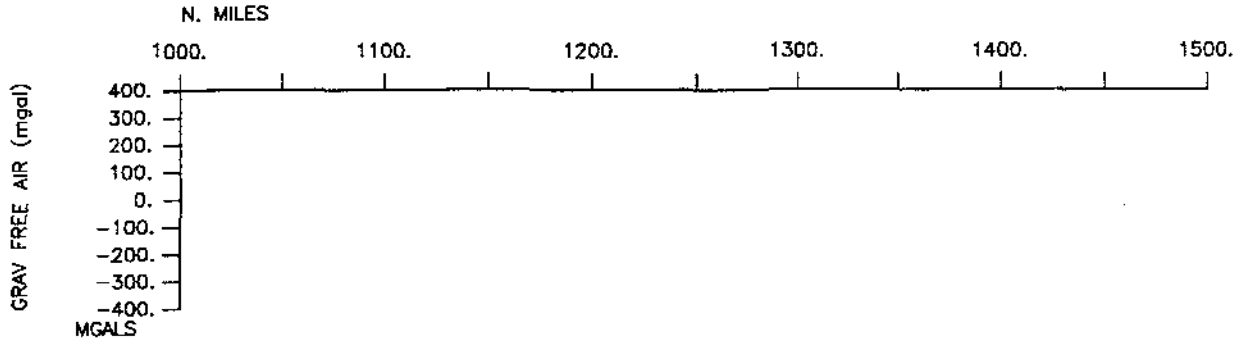
Gravity - 2842 collected

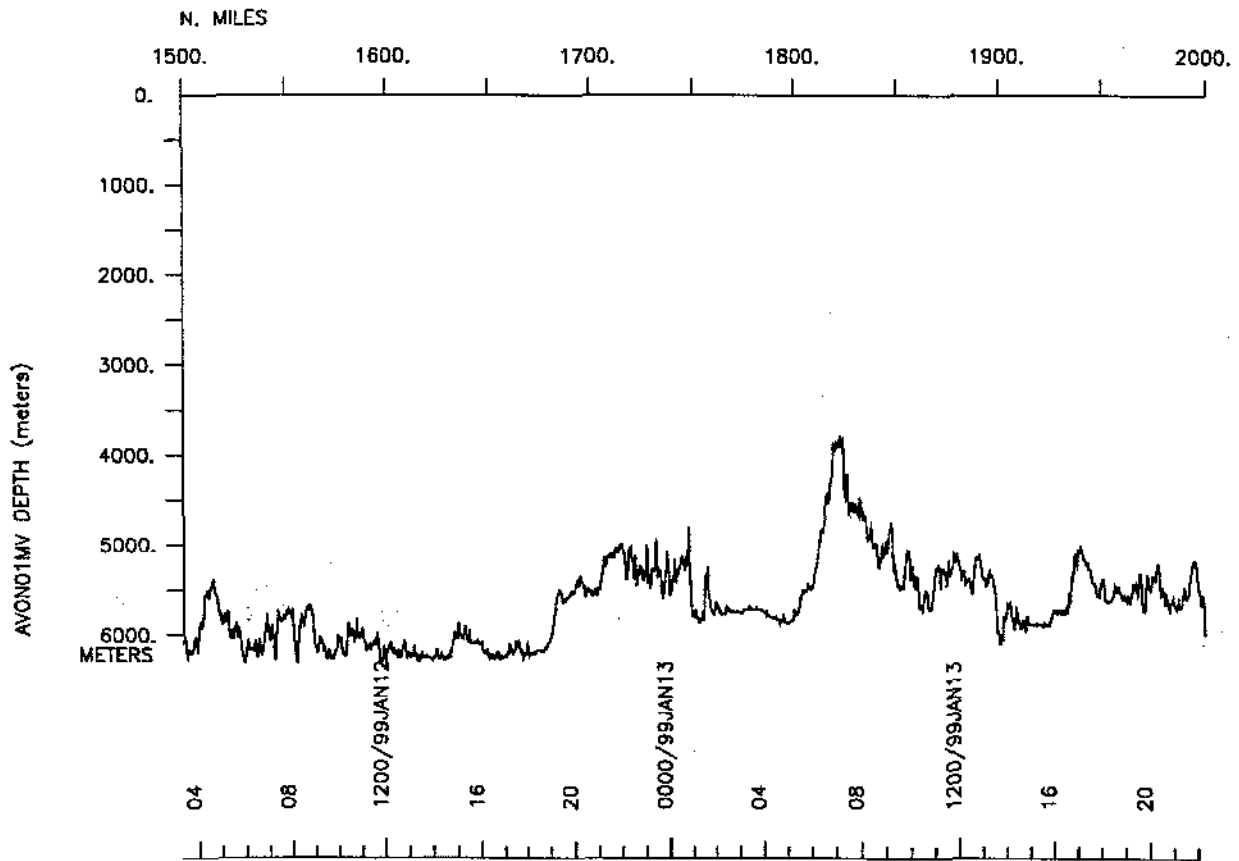
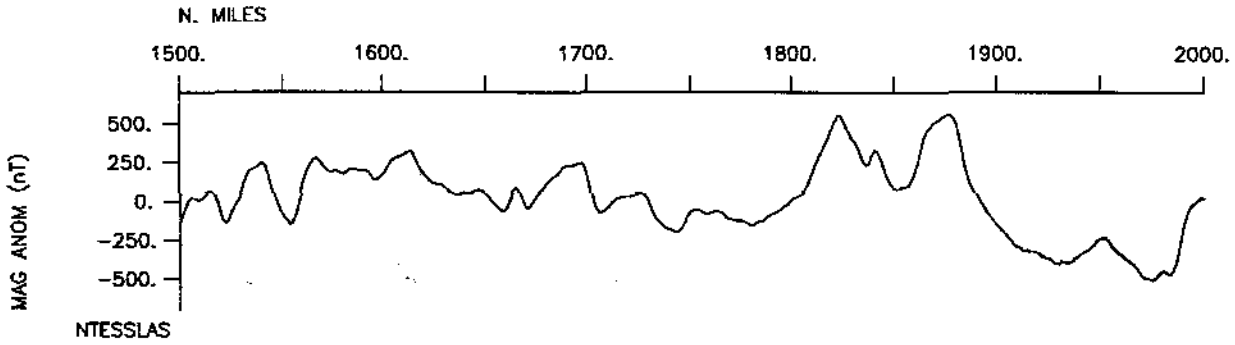
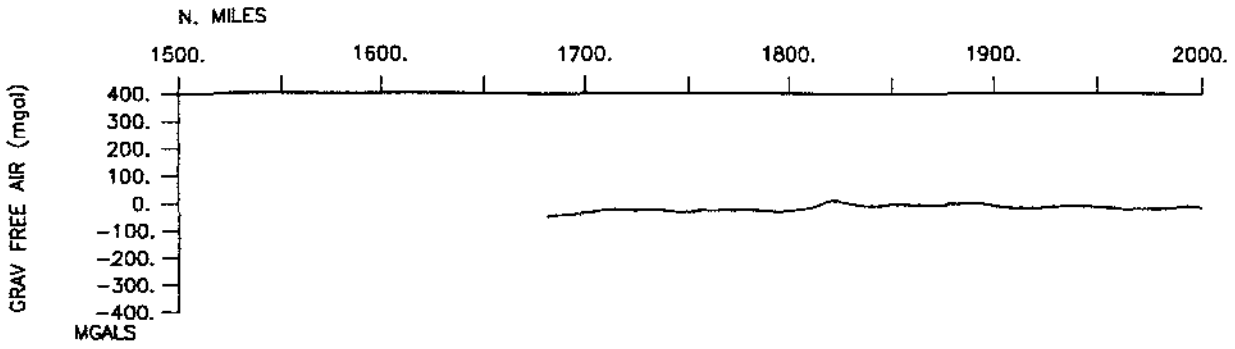
AVON01MV Track

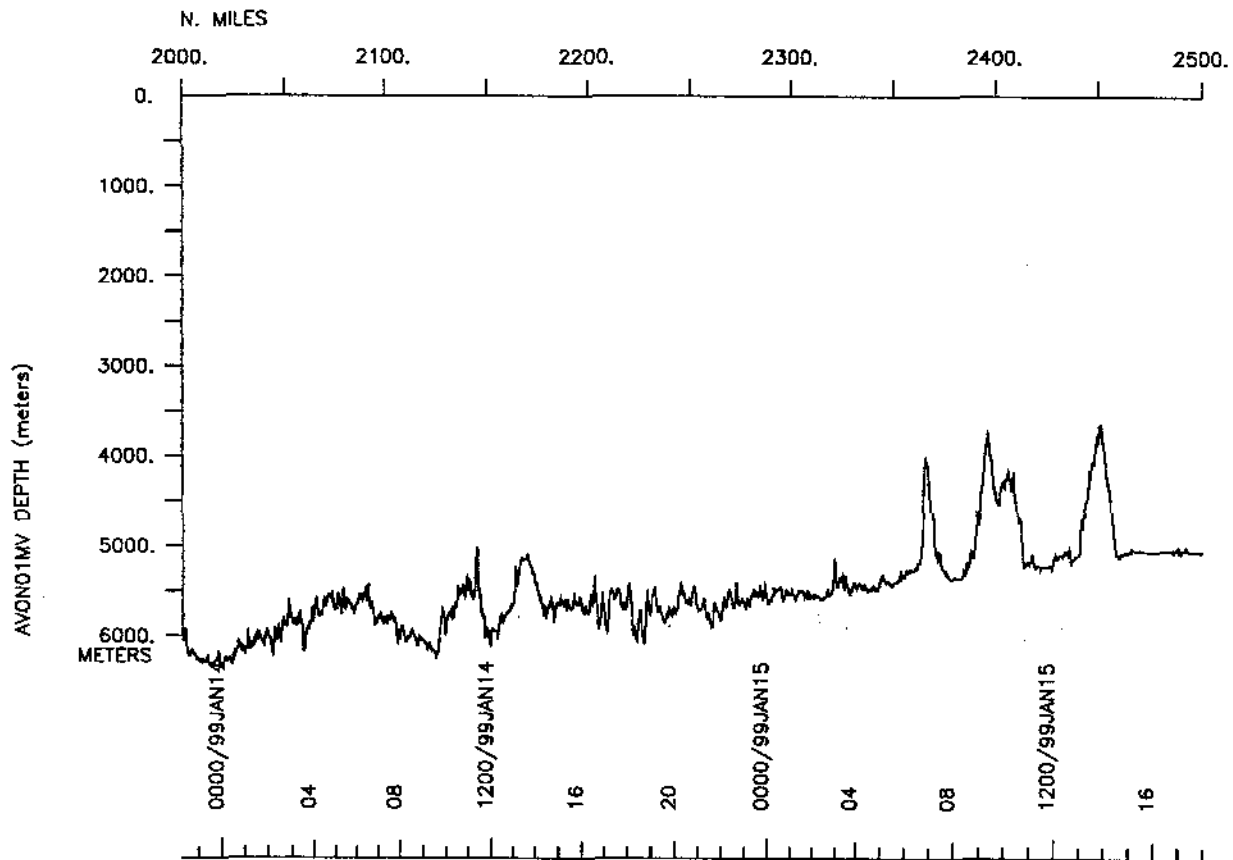
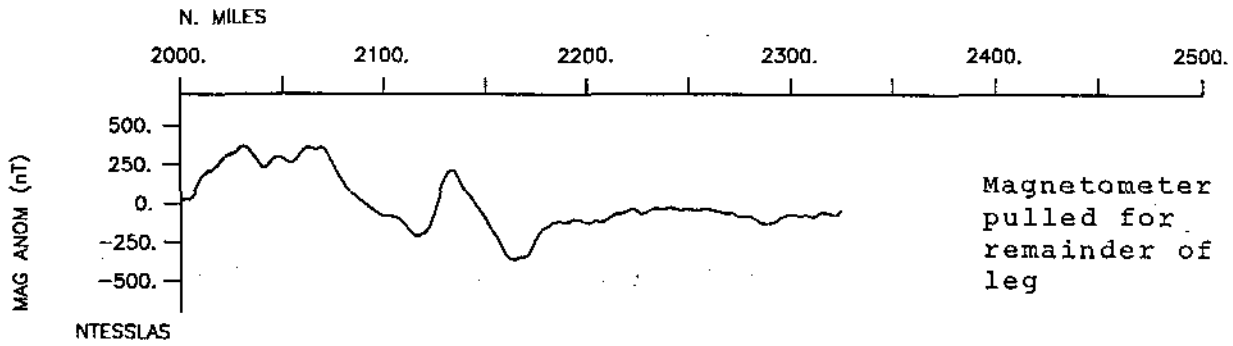
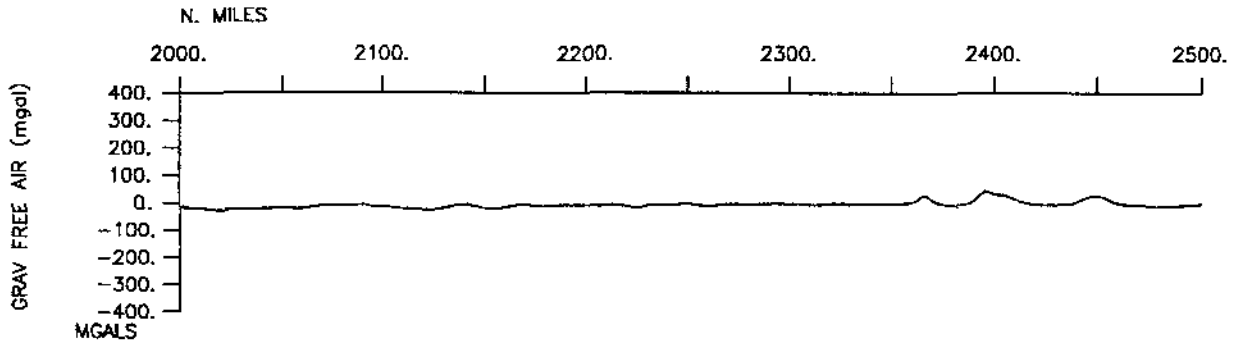


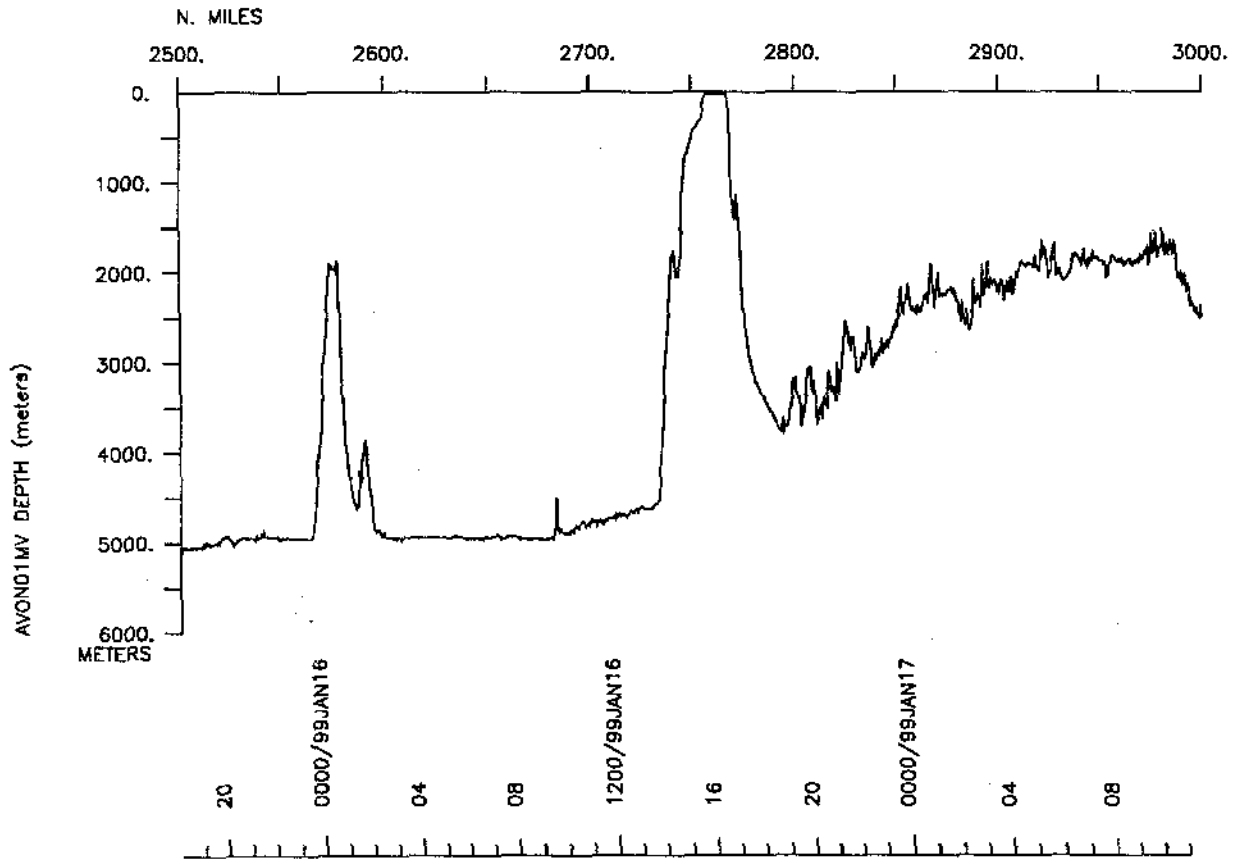
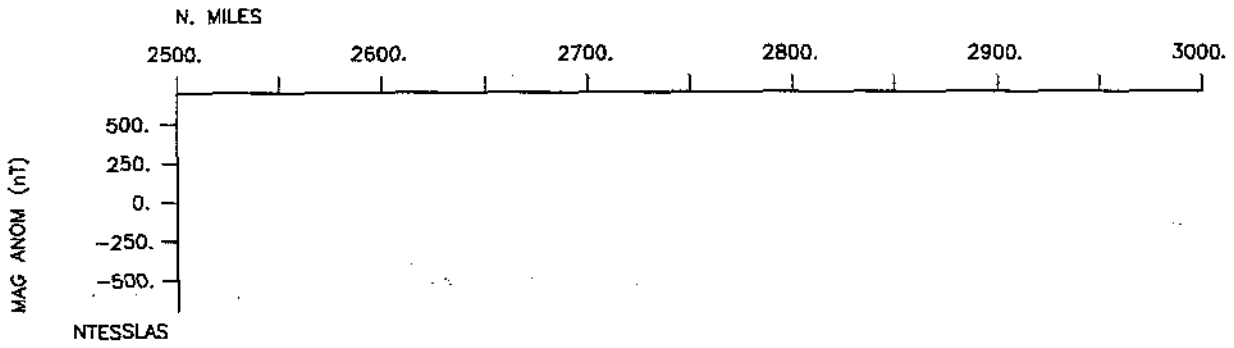
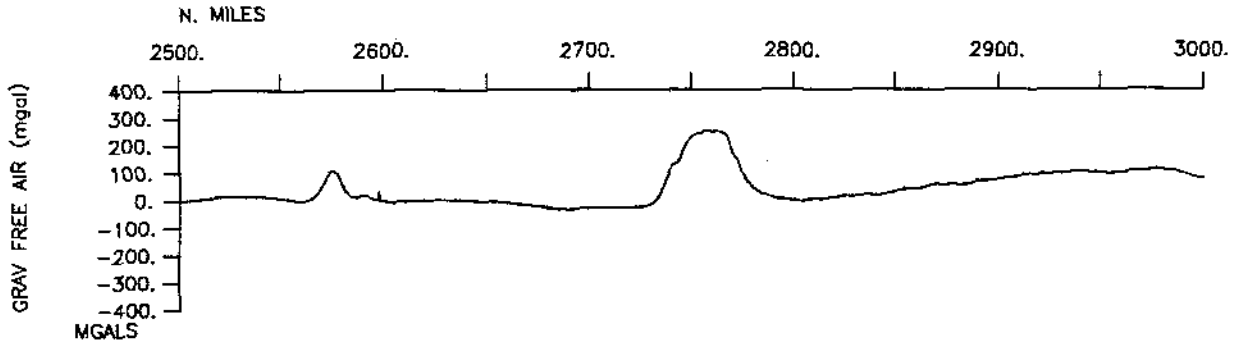


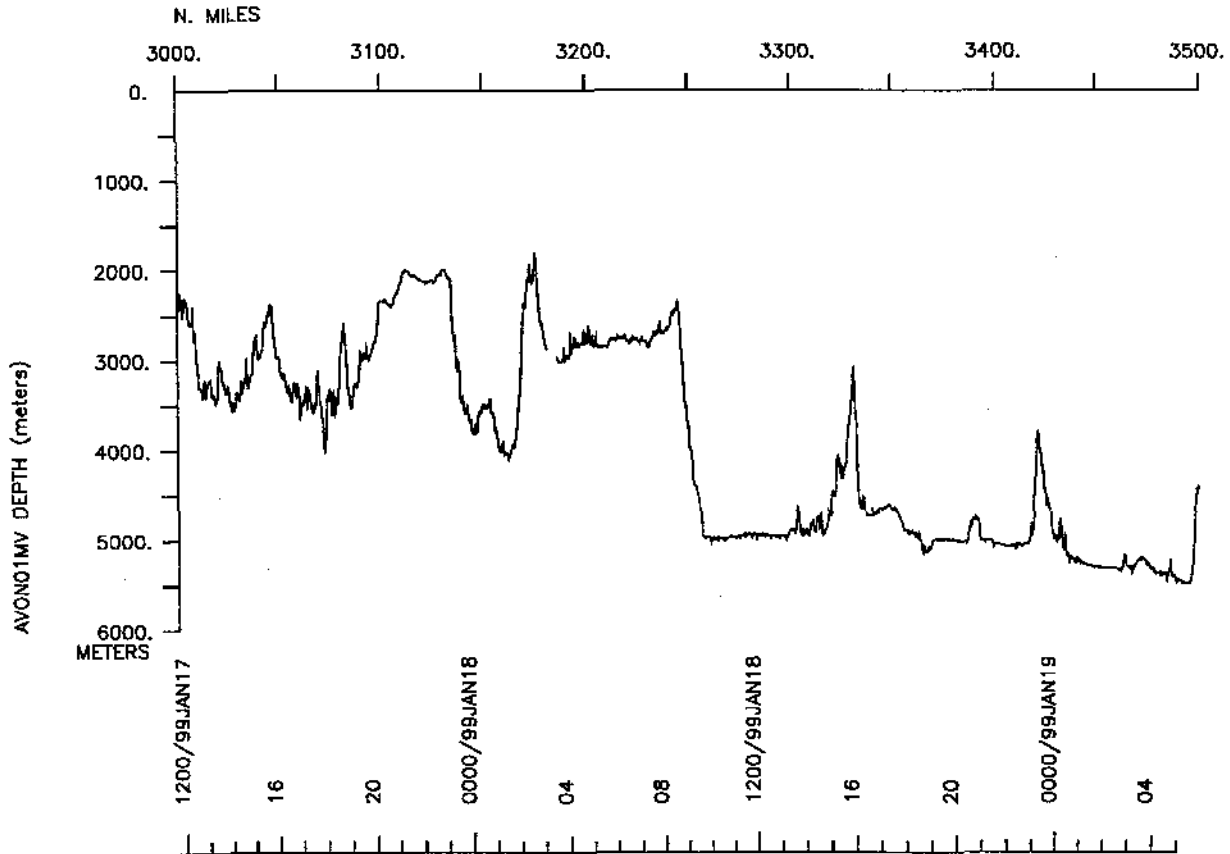
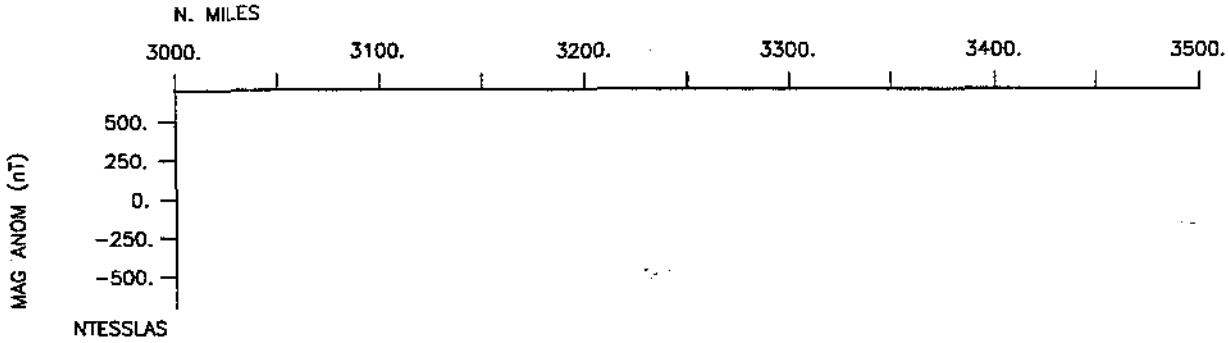
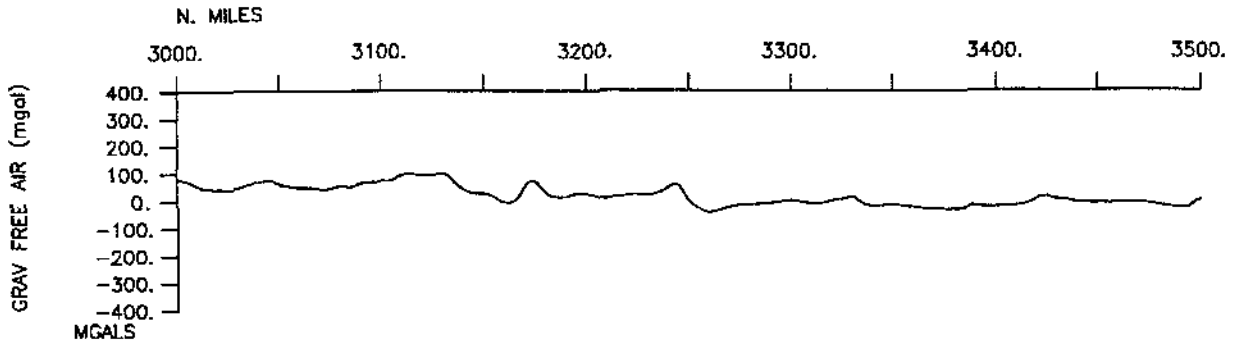


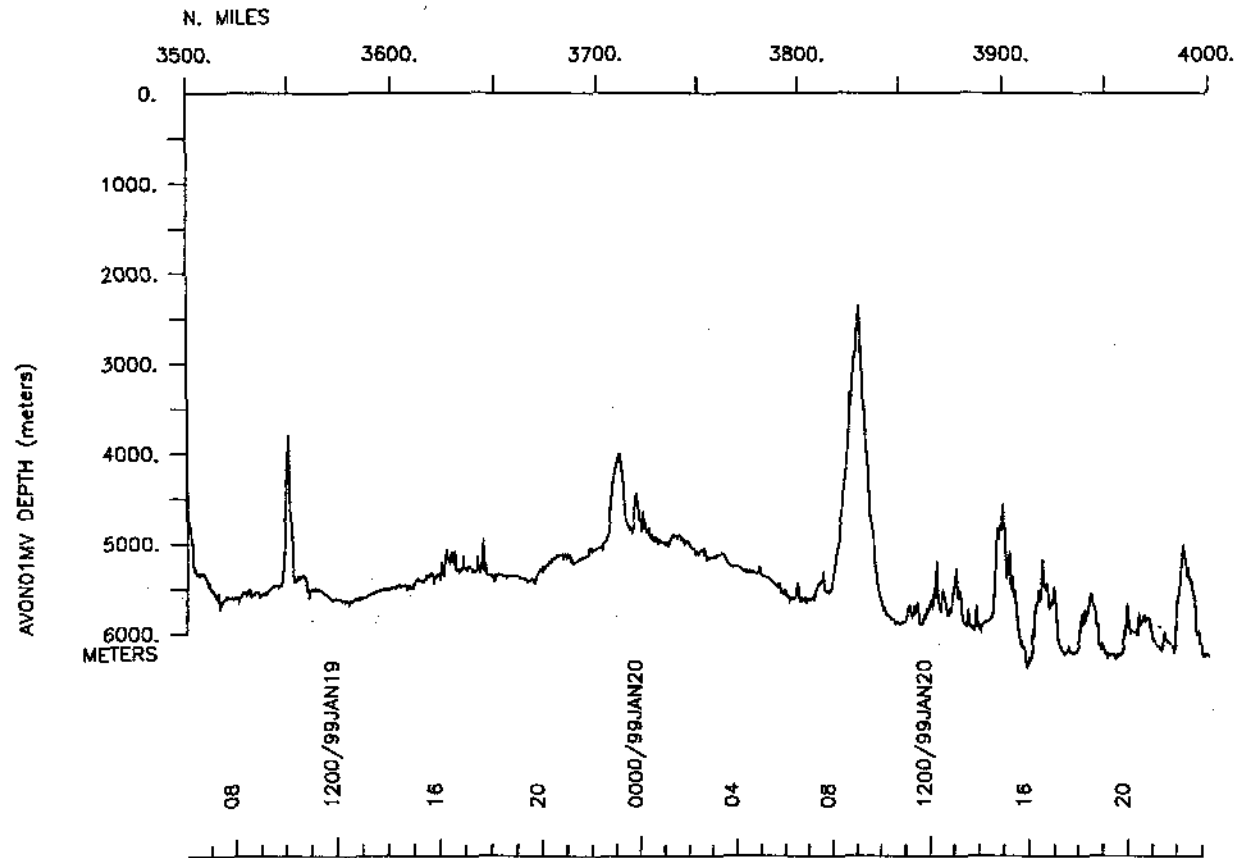
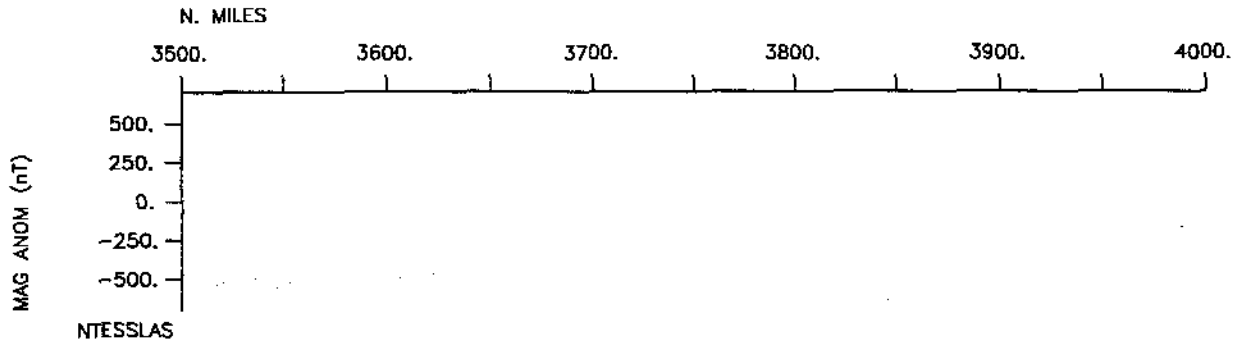
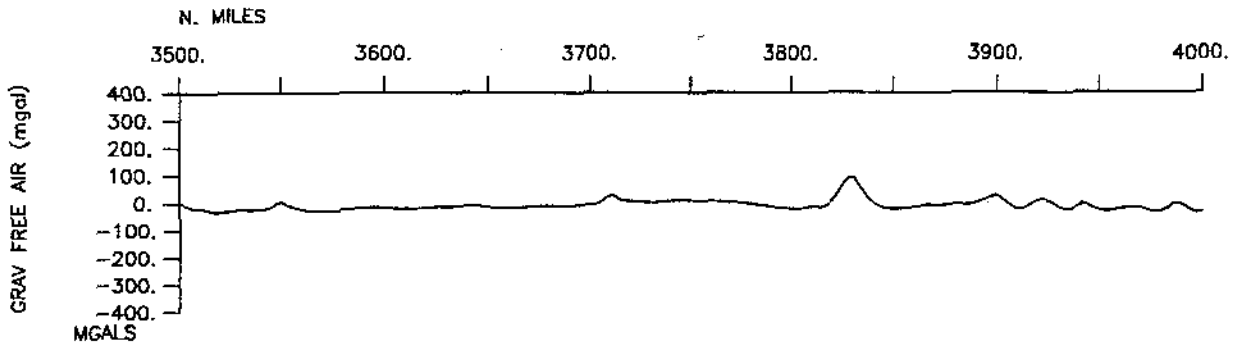


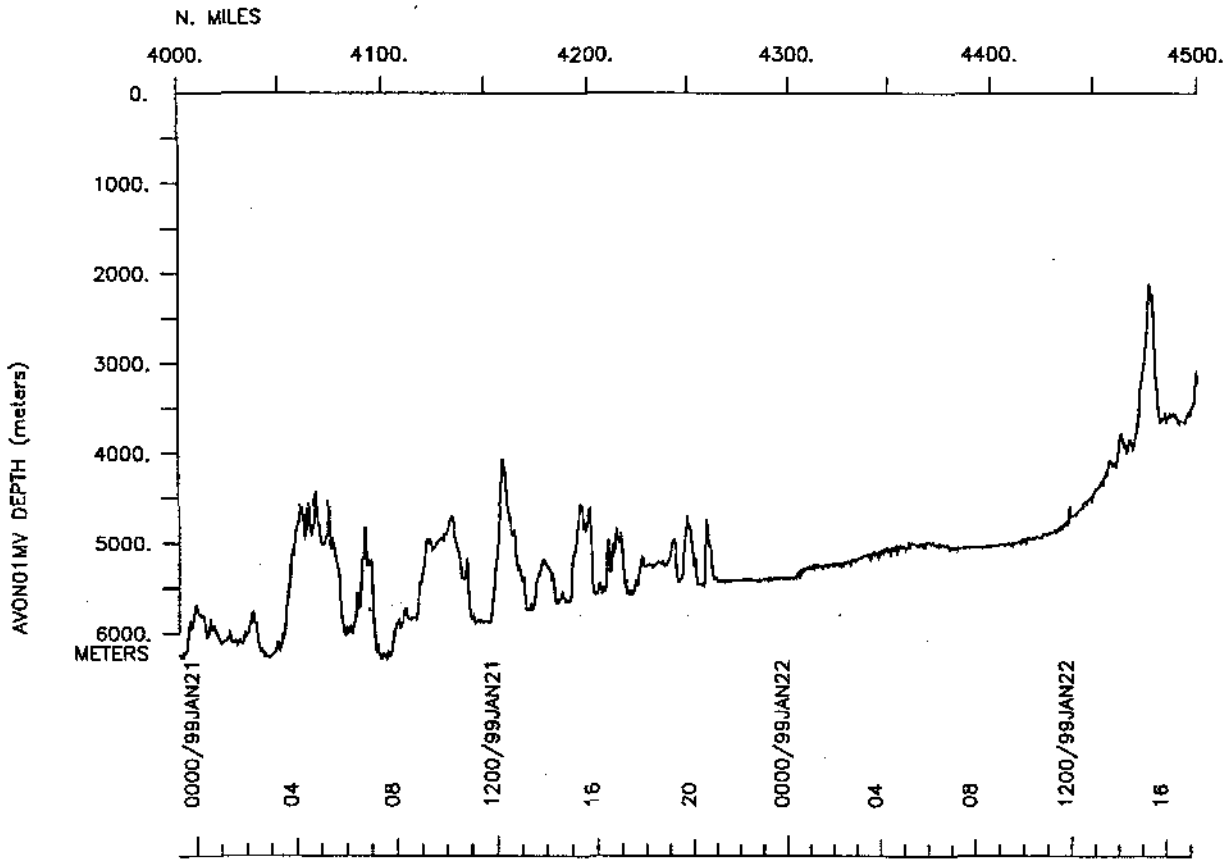
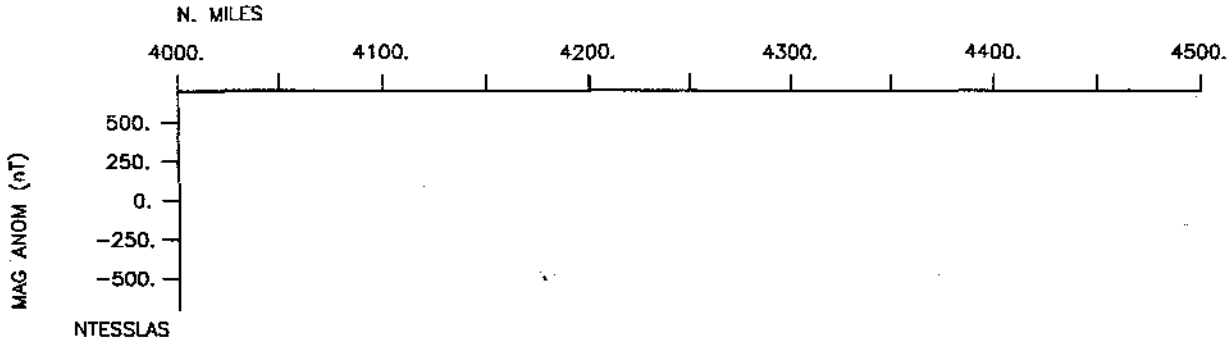
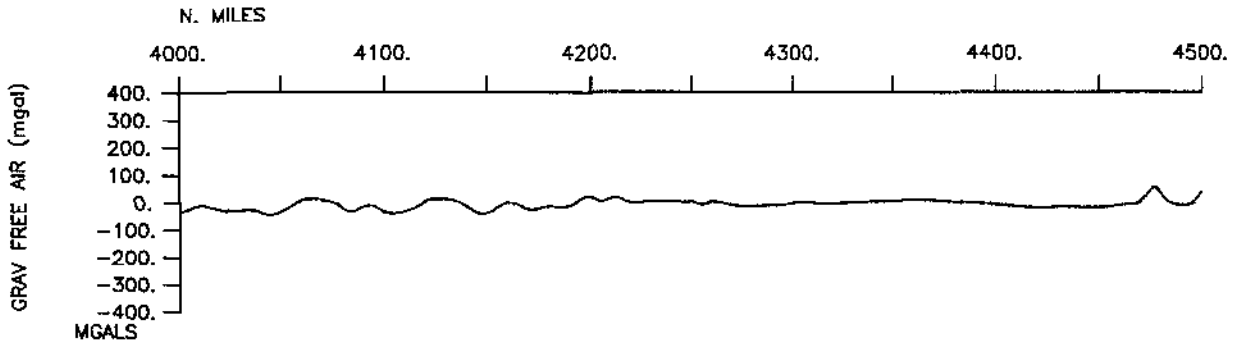


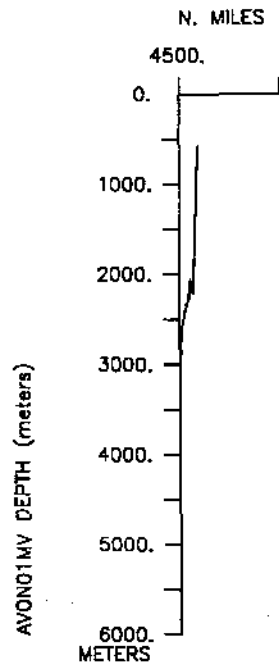
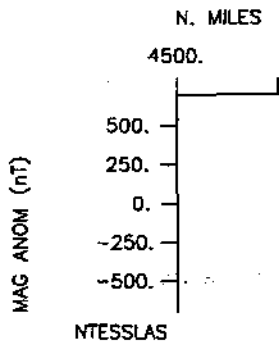
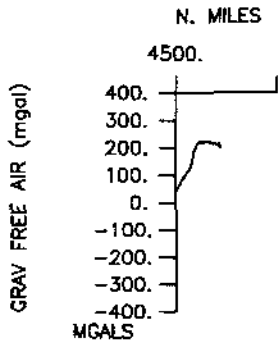












S.I.O. SAMPLE INDEX

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Ports:

San Diego, California (6 January 1999)

to

Majuro, Marshall Islands (23 January 1999)

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.# 284

**** Ports ***

| | | | | | | | |
|------|--------|--------|-----------------------|-----------|------------|---|----------|
| 1600 | 060199 | LGPT B | San Diego, California | 32-40.00N | 117-14.00W | f | AVON01MV |
| 2045 | 220199 | LGPT E | Majuro, Marshall Is. | 07-06.00N | 171-15.00E | f | AVON01MV |

**** Personnel ***

| # | *****NAME***** | *****TITLE***** | *****AFFILIATION***** | **CRID** |
|----------|--------------------|-----------------|-----------------------|----------|
| PECS MPL | Lonsdale, Peter | Chief Scientist | Scripps Institution | AVON01MV |
| PECT STS | Charters, Jim | Computer tech | Scripps Institution | AVON01MV |
| PEST MPL | Massell, Christine | Student | Scripps Institution | AVON01MV |

**** NOTES ***

#An 'X' in the (B)egin/(E)nd column following the sample code indicates no
 #sample or data recovered. A 'C' indicates continuation of data collection
 #from before the beginning or after the end of a particular leg. (Moored
 #bottom instruments, for example.) The number appearing in the columns
 #between the sample identifier and the disposition code, for many sample
 #entries, is the water depth in corrected meters.

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

**** Underway Data Curator - S. M. Smith/Geological Data Center ext. 42752 ****

**** Log Books ***

| | | | | | | | | | |
|------|--------|---|--------|-------------------|-----|-----------|------------|---|----------|
| 0531 | 060199 | 0 | LBUW B | Underway Log Book | GDC | 32-42.44N | 117-14.20W | g | AVON01MV |
| 1815 | 220199 | 0 | LBUW E | Underway Log Book | GDC | 7-12.70N | 171-11.02E | g | AVON01MV |

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

| | | | | | | | | | |
|------|--------|---|--------|----------------------|-----|-----------|------------|---|----------|
| 1743 | 060199 | 0 | MBSR B | v.beam&sidescan r-01 | GDC | 32-37.31N | 117-23.23W | g | AVON01MV |
| 1645 | 140199 | 0 | MBSR E | v.beam&sidescan r-01 | GDC | 28-20.55N | 155-46.94W | g | AVON01MV |
| 1645 | 140199 | 0 | MBSR B | v.beam&sidescan r-02 | GDC | 28-20.55N | 155-46.94W | g | AVON01MV |
| 1745 | 220199 | 0 | MBSR E | v.beam&sidescan r-02 | GDC | 7-12.56N | 171-11.55E | g | AVON01MV |

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

| | | | | | | | | | |
|------|--------|---|--------|---------------|-----|-----------|------------|---|----------|
| 0459 | 070199 | 0 | MGDR B | Magnetic data | GDC | 32-37.83N | 119-54.74W | g | AVON01MV |
| 2134 | 150199 | 0 | MGDR E | Magnetic data | GDC | 25-26.20N | 161-09.78W | g | AVON01MV |

**** Digital Gravity ***

| | | | | | | | | | |
|------|--------|---|--------|--------------|-----|-----------|------------|---|----------|
| 1900 | 120199 | 0 | GVDR B | Gravity data | GDC | 30-56.31N | 146-22.58W | g | AVON01MV |
| 2348 | 230199 | 0 | GVDR E | Gravity data | GDC | 7-05.16N | 171-21.93E | g | AVON01MV |

| | | | | | | | | | |
|---|--|--|--|------------------|--|--|--|--|----------|
| # | | | | End Sample Index | | | | | AVON01MV |
|---|--|--|--|------------------|--|--|--|--|----------|