

F. DRAKE EXPEDITION

LEG 4

R/V MELVILLE

INFORMAL REPORT AND INDEX OF
NAVIGATION, DEPTH AND MAGNETIC DATA

Balboa, Canal Zone (14 May 1975)

to

Manzanillo, Mexico (21 May 1975)

Chief Scientist - W. Keith

Resident Marine Tech - W. Keith

Post-Cruise Processing by - S. Smith,
U. Albright, G. Psaropulos, R. Lingley

Prepared By

Underway Data Processing Group

S.I.O. Geological Data Center

Scripps Institution of Oceanography

La Jolla, California

August 8, 1975

Preliminary Report and Index of Navigation, Depth, Magnetic and Subbottom Profiler Data*

Contents:

Index Chart - gives track of cruise leg and boundaries of depth compilation plots (see below).

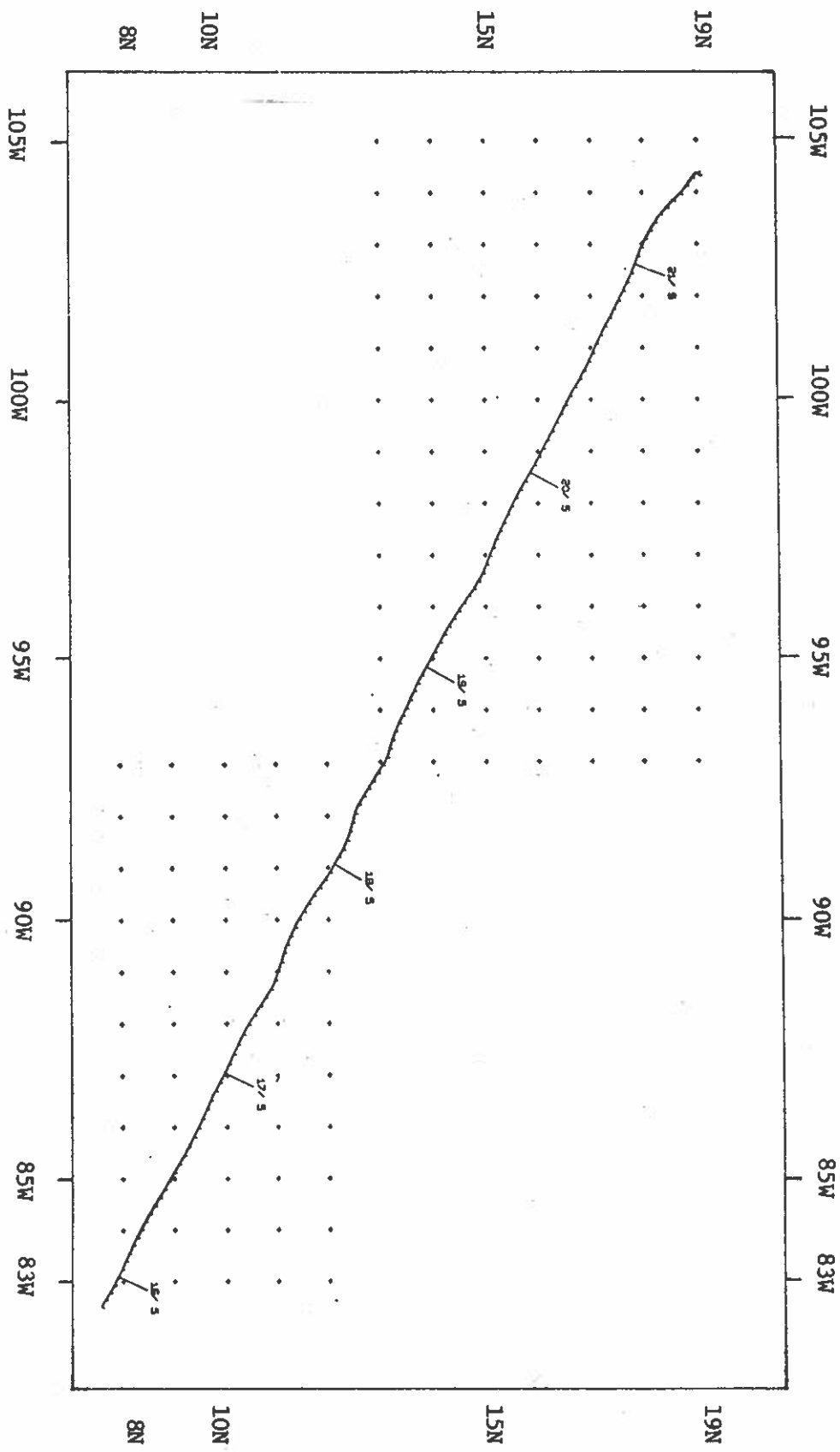
Track Charts - annotated with dates (day/month) and hour ticks. The scale (.3"/deg. long) is the same as the index charts of previous SIO cruises published as Report IMR TR-25.

Profiles - Depth and magnetic anomaly vs. distance. Dates (day/month) and positions of major course changes (greater than 30 degrees) are annotated. Sections of track having subbottom profiler (airgun) records have a solid black line along the bottom of the profile.

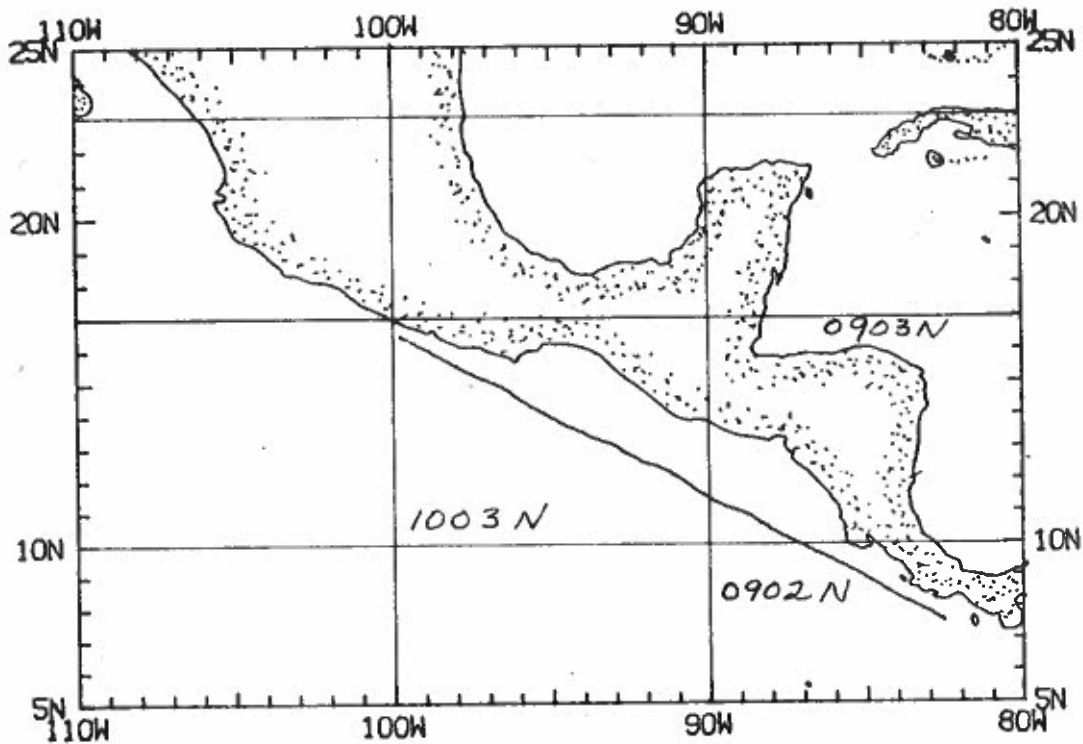
For information on the availability and reproduction costs of data in the following forms, contact T. E. Chase, Curator, Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92037 (714-453-2000, Ext. 1534):

1. Navigation listing of times and positions of course and speed changes, fixes and drift velocity.
2. Depth compilation plots - in fathoms (assumed sound velocity of 800 fm./sec.) at approximately 1 mile spacing, plotted at 4" degree with standard U.S. Navy Oceanographic Office BC series boundaries (see index chart).
3. Plots of magnetic anomaly profiles along track-map scale = 1.2"/degree; anomaly scale between 15°N and 15°S latitude = 500 gamma/inch; anomaly scale north of 15°N and south of 15°S = 1000 gamma/inch) from values retrieved at approximately 1 mile spacing and regional field removed using the 1965 IGRF.
4. Card Decks of navigation, depth and magnetics (for specific formats, contact S. M. Smith, Geological Data Center).
5. S.I.O. Sample Index - list of beginning and end times and positions of all underway records as well as all other samples (geology, biology, physical oceanography, etc.) collected on the cruise leg.
6. Microfilm or Xerox copies of:
 - a. Echosounder records - 12 and 3.5 kHz frequency
 - b. Subbottom profiler records (airgun)
 - c. Magnetometer records
 - d. Underway Data Log

* No Subbottom Profiler Data Taken



F. DRAKE EXPEDITION Leg 4 Track Plot (1 of 1)



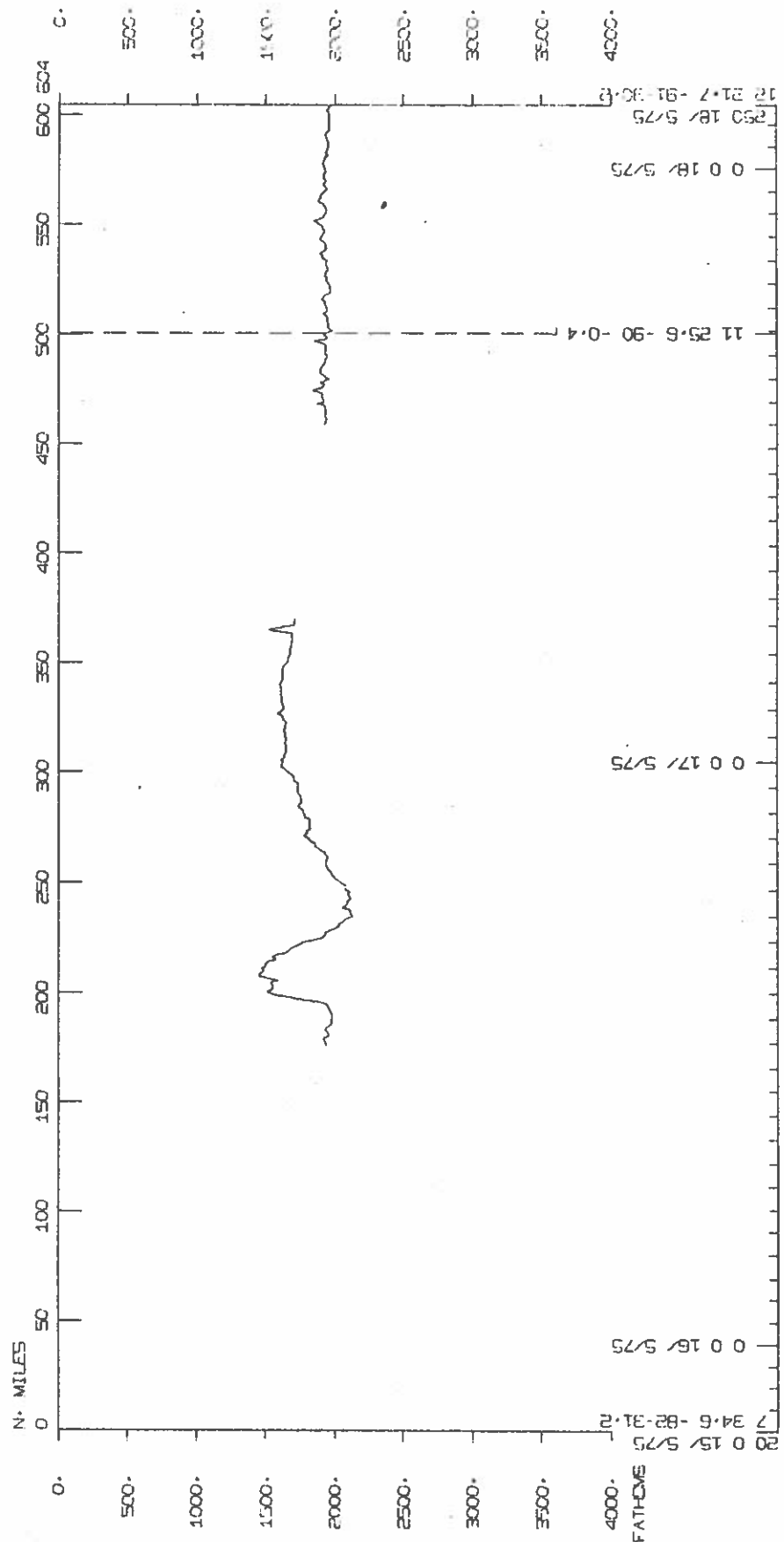
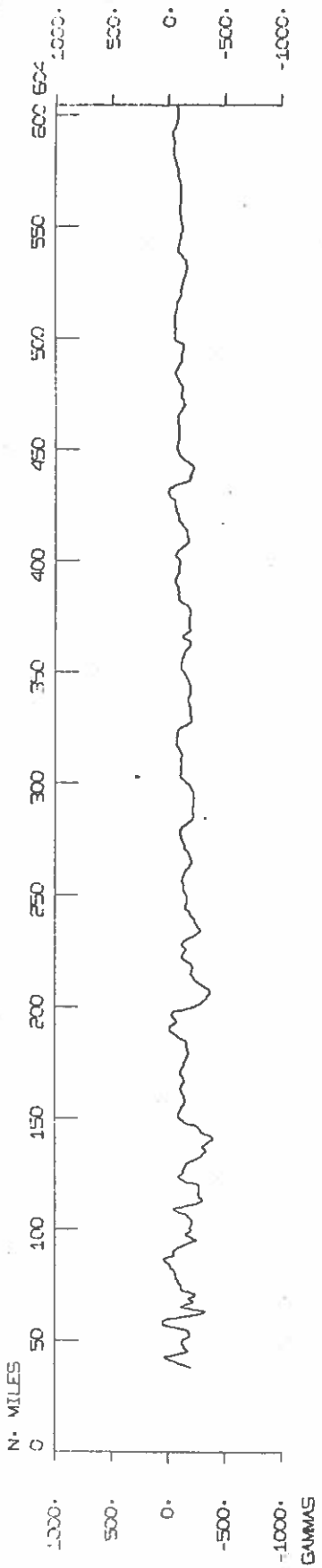
F. DRAKE EXPEDITION
Leg 4

Chief Scientist - W. Keith
Balboa, C.Z. - Manzanillo, Mexico (14 May - 21 May 1975)

TOTAL MILEAGE

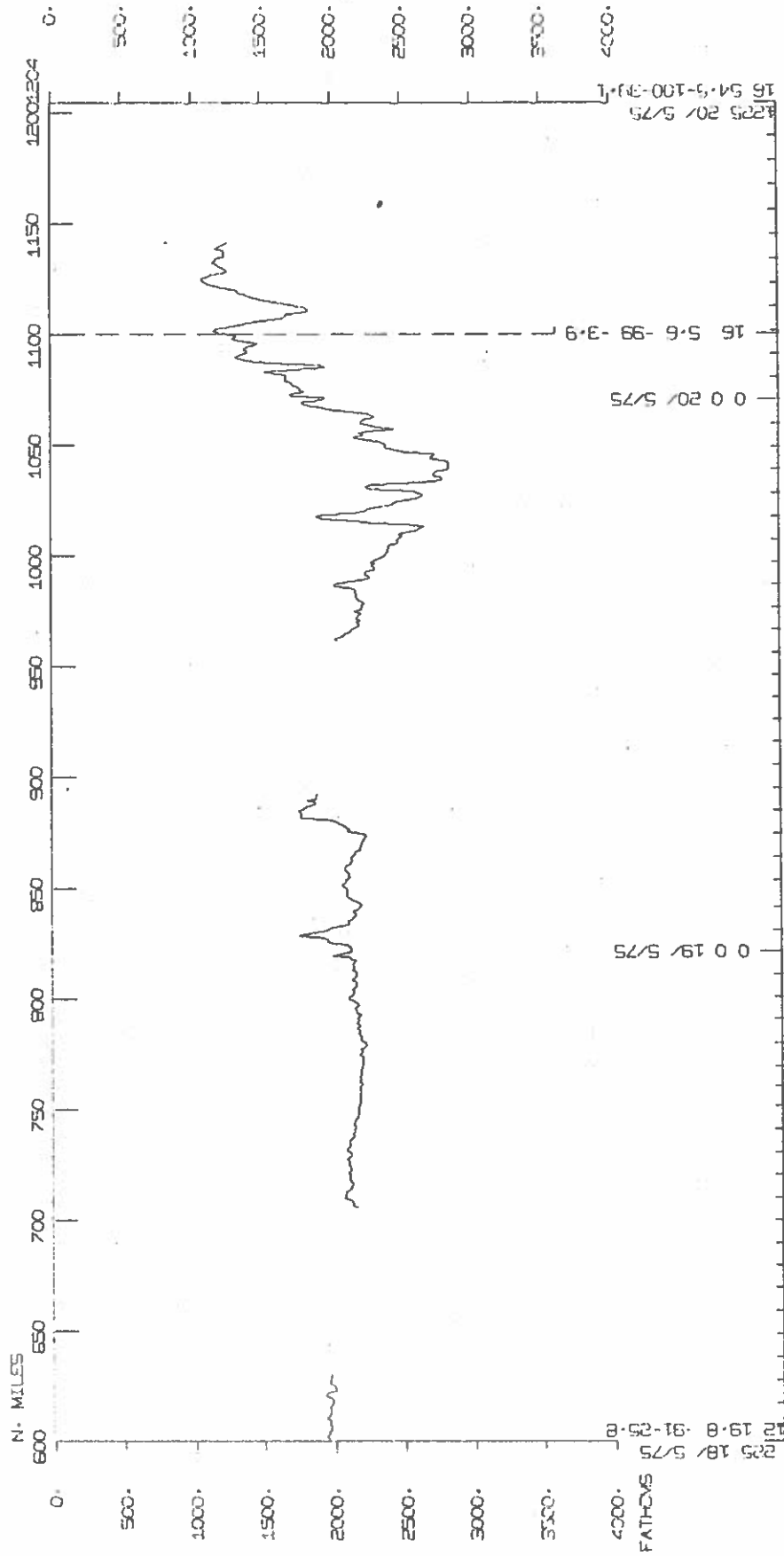
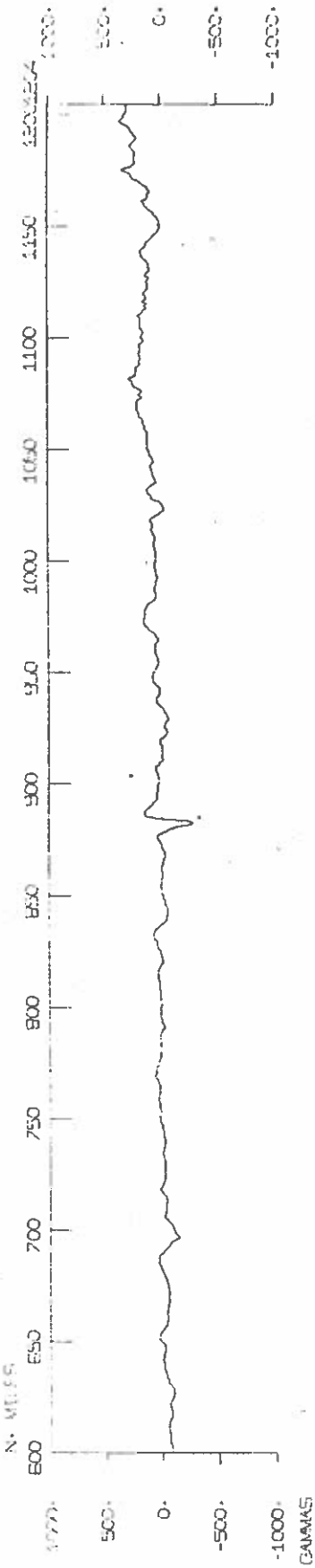
- 1) Cruise - 1460 miles
- 2) Bathymetry - 740 miles
- 3) Magnetics - 1330 miles
- 4) Seismic Reflection - none collected

F. DRAKE LEG 4



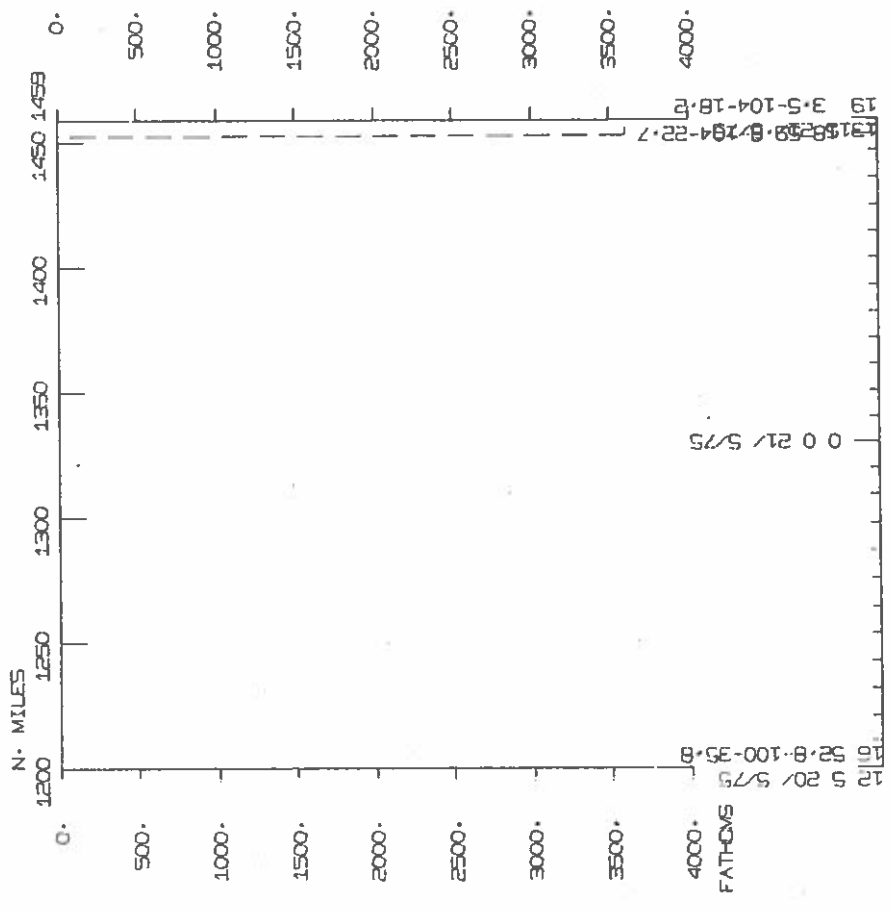
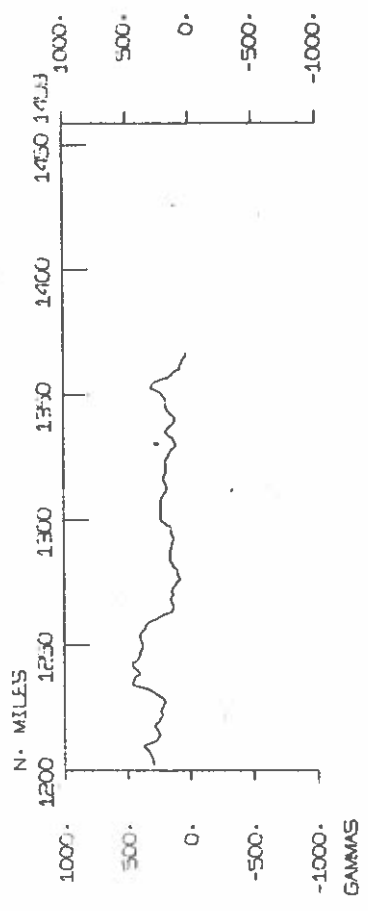
20 0 15/ 5/75
 7 34.6 -82-31.2
 0 0 16/ 5/75
 0 0 17/ 5/75
 11 25.6 -90 -0.4 7
 0 0 18/ 5/75
 250 18/ 5/75
 12 21.7 -91-30.8

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225 18/ 5/75
 12 19-8 :91-25-B
 0 0 19/ 5/75
 0 0 20/ 5/75
 16 5-6 -99 -3-9
 16 54-5-100-31-1

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12 5 20 / 5/75
 01 32.8-100-35.8
 13 18 25.8-114-22.7
 19 3.5-104-18.5

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LEG 4

SAMPLE DATA INDEX

2000 140575 LG04 B BALBOIA, CANAL ZONE 08-570N 079-340W FRDK04MV
 1300 210575 LG04 E MANZANILLO, MEXICO 19-020N 104-210W FRDK04MV

PERSONNEL

PERT KEITH, WARREN FRDK04MV
 PECT MOE, RONALD FRDK04MV

*** NAVIGATION PLOTS ***

15 5751328 50 NVBP B BRIDGE PLOT 1 GDC 7 345N 82 309W S FRDK04MV
 17 575 110 60 NVBP E BRIDGE PLOT 1 GDC 10 407N 88 227W S FRDK04MV
 17 575 110 60 NVBP B BRIDGE PLOT 2 GDC 10 407N 88 227W S FRDK04MV
 20 5751700 60 NVBP E BRIDGE PLOT 2 GDC 17 471N 102 273W S FRDK04MV
 20 5751700 60 NVBP B BRIDGE PLOT 3 GDC 17 471N 102 273W S FRDK04MV
 20 5752244 60 NVBP E BRIDGE PLOT 3 GDC 18 123N 103 236W S FRDK04MV

***FATHOGRAMS ***

1302 16 575 DPRT B GDR 12KHZ R-1 GDC 8 597N 85 85W S FRDK04MV
 645 20 575 DPRT E GDR 12KHZ R-1 GDC 16 253N 99 423W S FRDK04MV

*** MAGNETOMETER ***

1956 15 575 MGR B MAGNETICS R-1 GDC 7 345N 82 309W S FRDK04MV
 340 21 575 MGR E MAGNETICS R-1 GDC 18 69N 103 137W S FRDK04MV

BATHY THERMOGRAPH - CURATOR CAROL CONWAY (EXT.2087)

0000 16 575 BTX NO. OF SAMPLE=2 CBC 7 543N 83 59W S FRDK04MV
 0000 17 575 BTX NO. OF SAMPLE=1 CBC 9 578N 87 35W S FRDK04MV
 0000 18 575 BTX NO. OF SAMPLE=2 CBC 12 58N 91 17W S FRDK04MV
 0000 19 575 BTX NO. OF SAMPLE=2 CBC 13 519N 94 509W S FRDK04MV
 0000 20 575 BTX NO. OF SAMPLE=2 CBC 15 512N 98 362W S FRDK04MV
 0000 21 575 BTX NO. OF SAMPLE=1 CBC 17 509N 102 373W S FRDK04MV

99

END SAMPLE INDEX

*** NOTE *** TIME ZONES AND MINUTES OF LATITUDE AND LONGITUDE ARE LISTED
 IN TENTHS (E.G. 10.6 IS LISTED AS 106)