

GEOSECS EXPEDITION

LEG D

R/V MELVILLE

INFORMAL REPORT AND INDEX OF  
NAVIGATION, DEPTH AND MAGNETIC DATA

Tokyo, Japan (31 October 1973)

to

Honolulu, Hawaii (29 November 1973)

Chief Scientist, Leg D -- D. Spencer

Resident Marine Tech -- S. Witherow

Post-Cruise Processing by -- S. Smith, U. Albright, G. Psaropulos, O. McConnell

Prepared by

Underway Data Processing Group

S.I.O. Geological Data Center

Scripps Institution of Oceanography

La Jolla, California

February 27, 1974

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

### Contents:

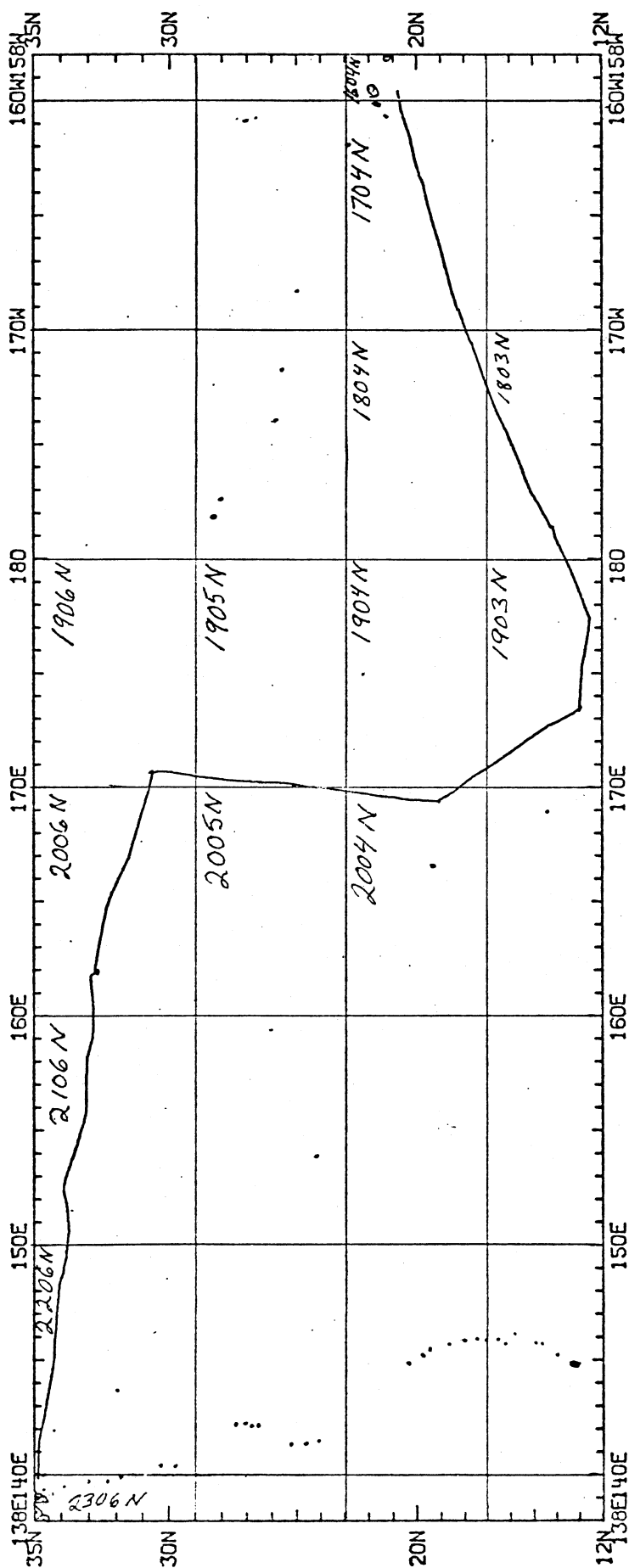
Index Chart - gives track of cruise leg and boundaries of depth compilation plots (see below).

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 EC 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
-



# GEOSECS EXPEDITION

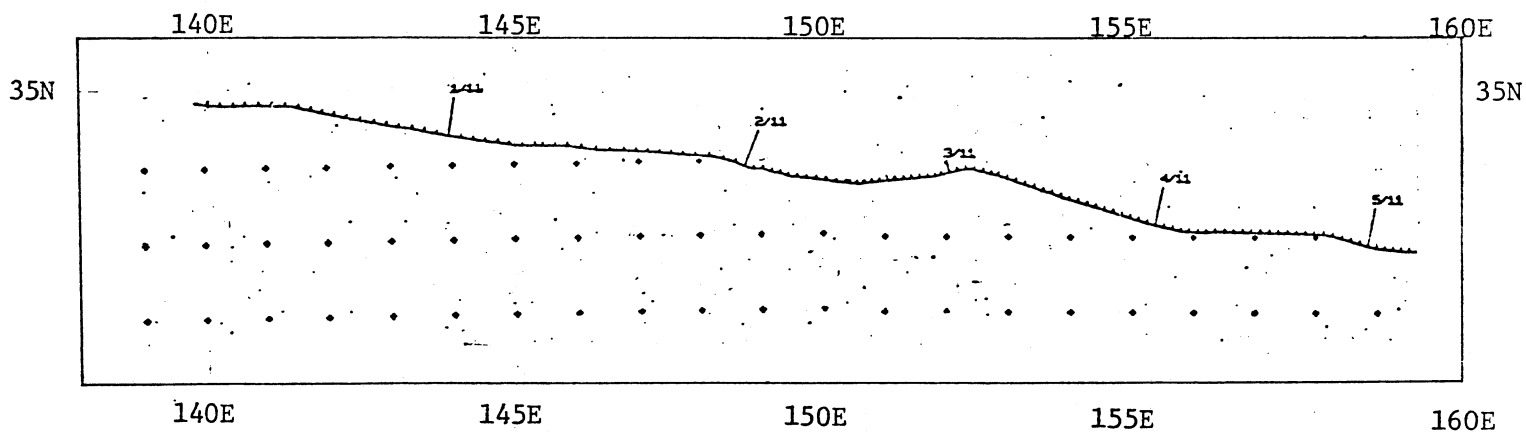
## LEG D

R/V MELVILLE

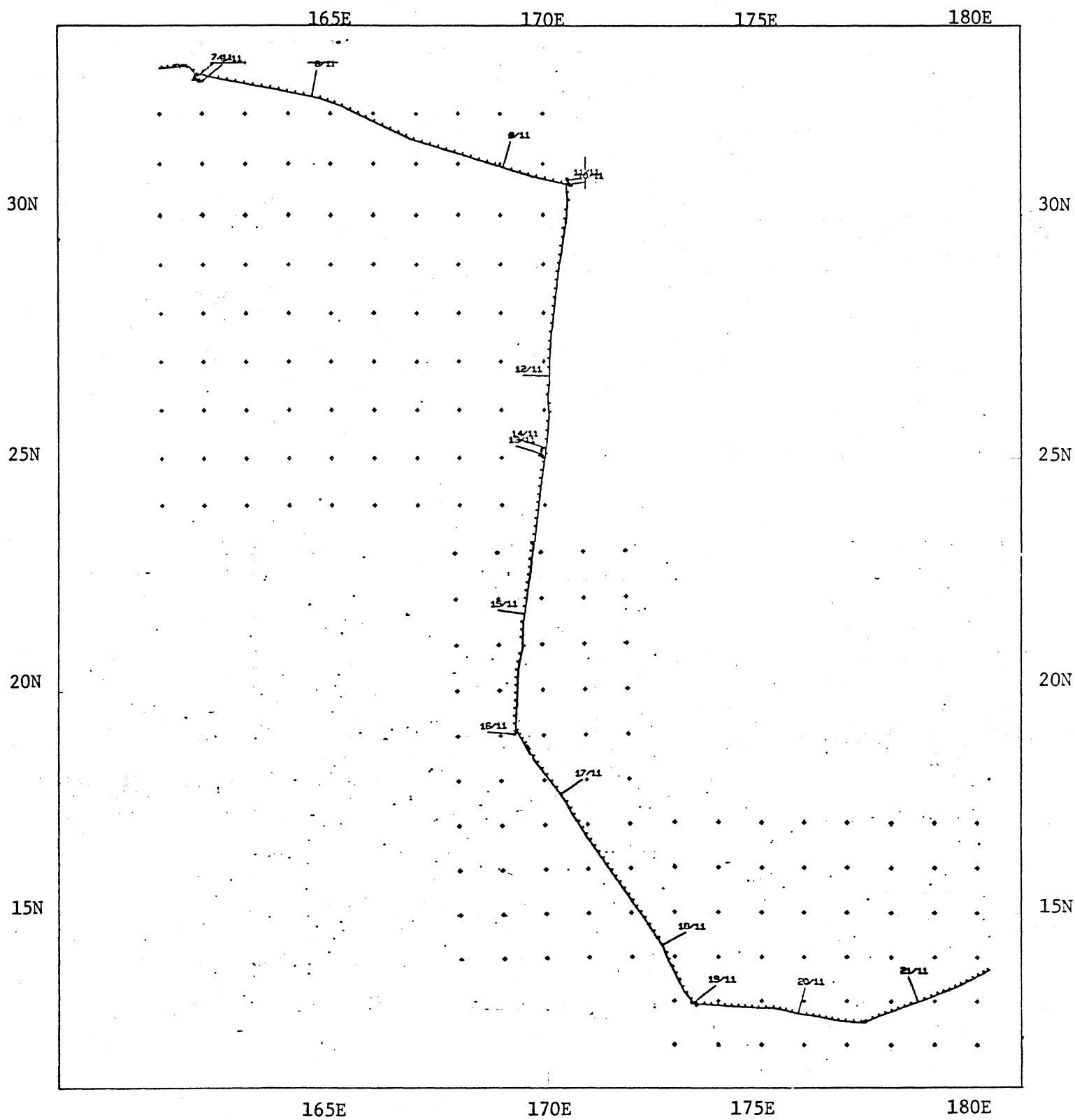
Chief Scientist - D. Spencer  
Tokyo - Honolulu (31 Oct. 1973 - 29 Nov. 1973)

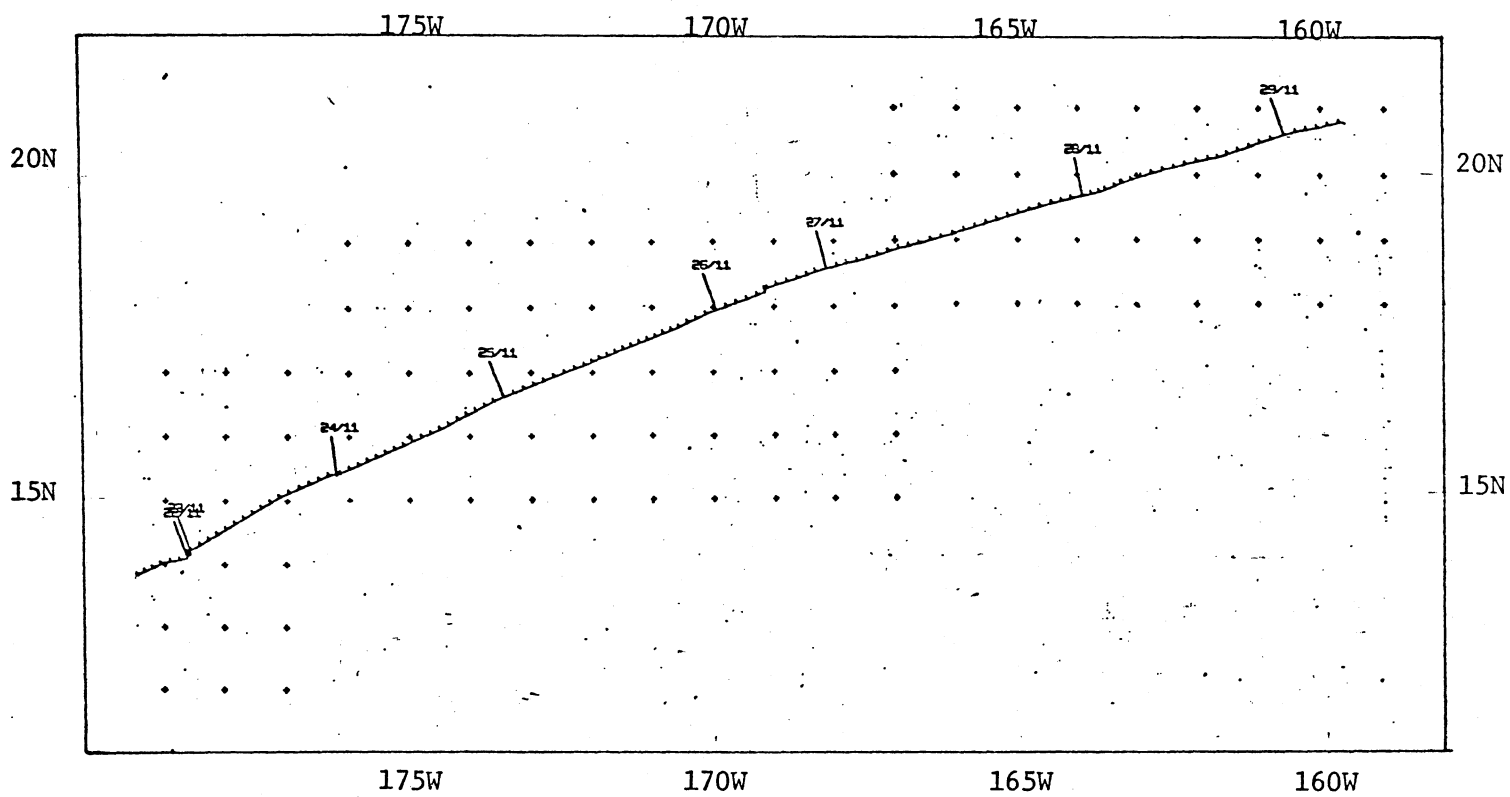
## TOTAL MILEAGE

- 1) Cruise - 4551 miles
- 2) Bathymetry - 4355 miles
- 3) Magnetics - 4330 miles
- 4) Seismic reflection - 0 miles



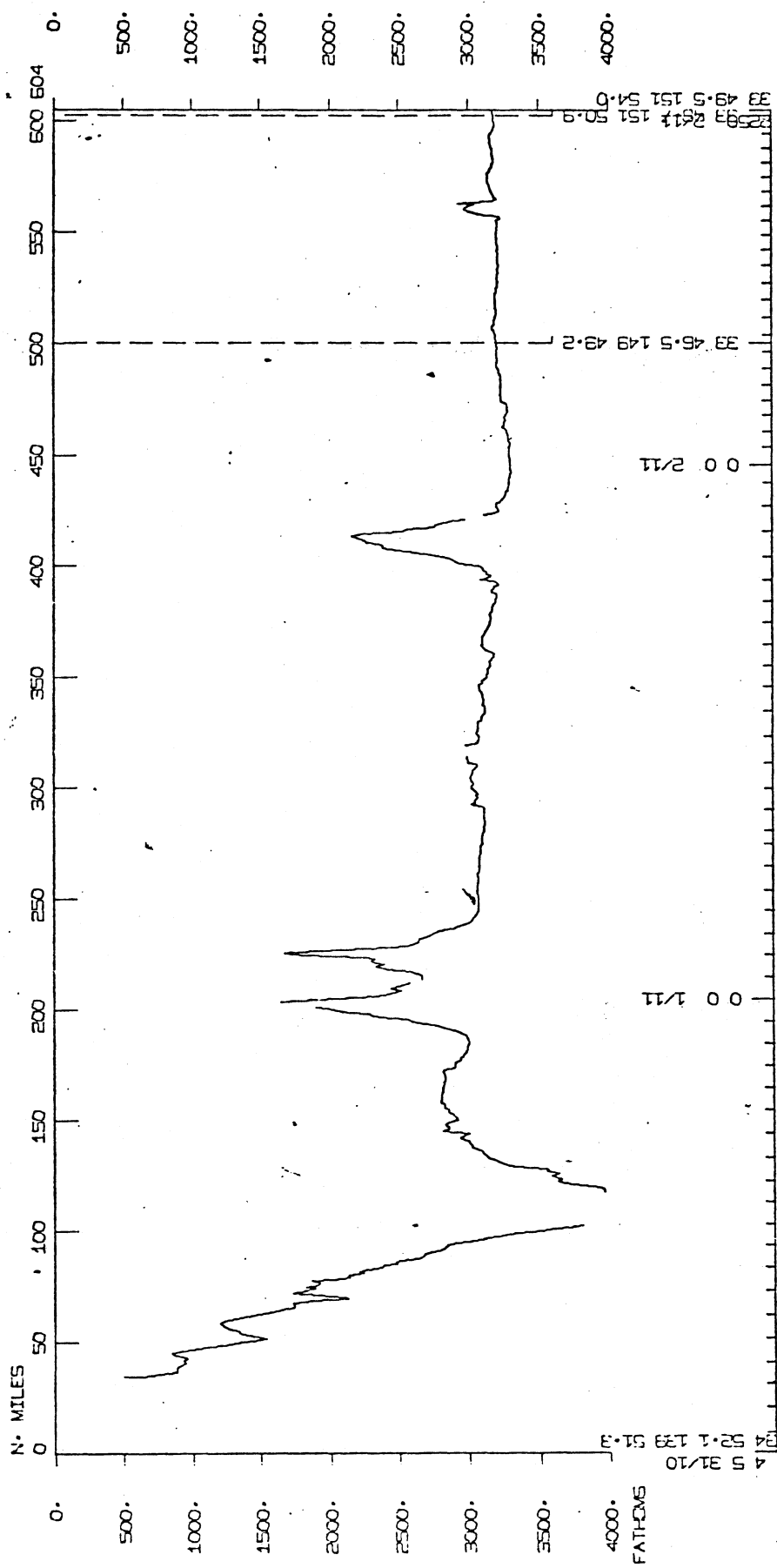
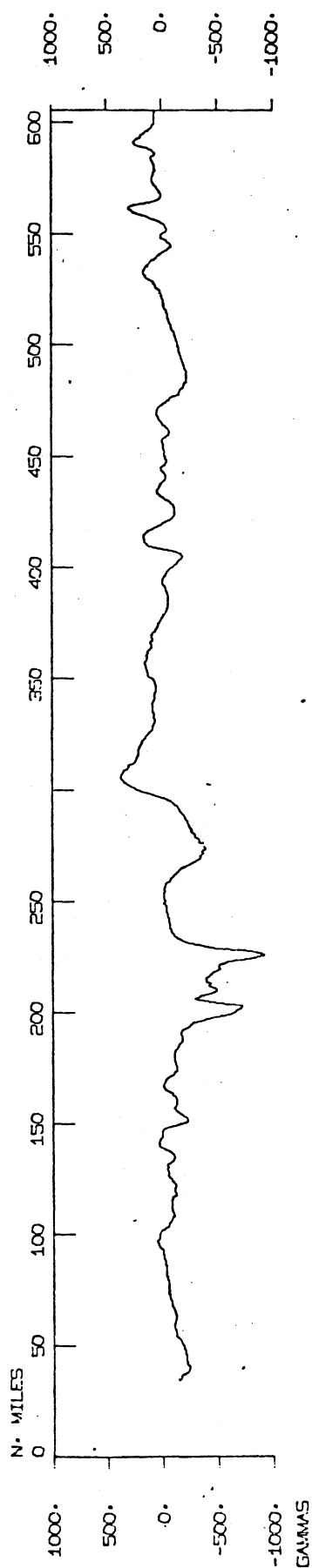
GEOSECS LEG D TRACK PLOT 1 of 3



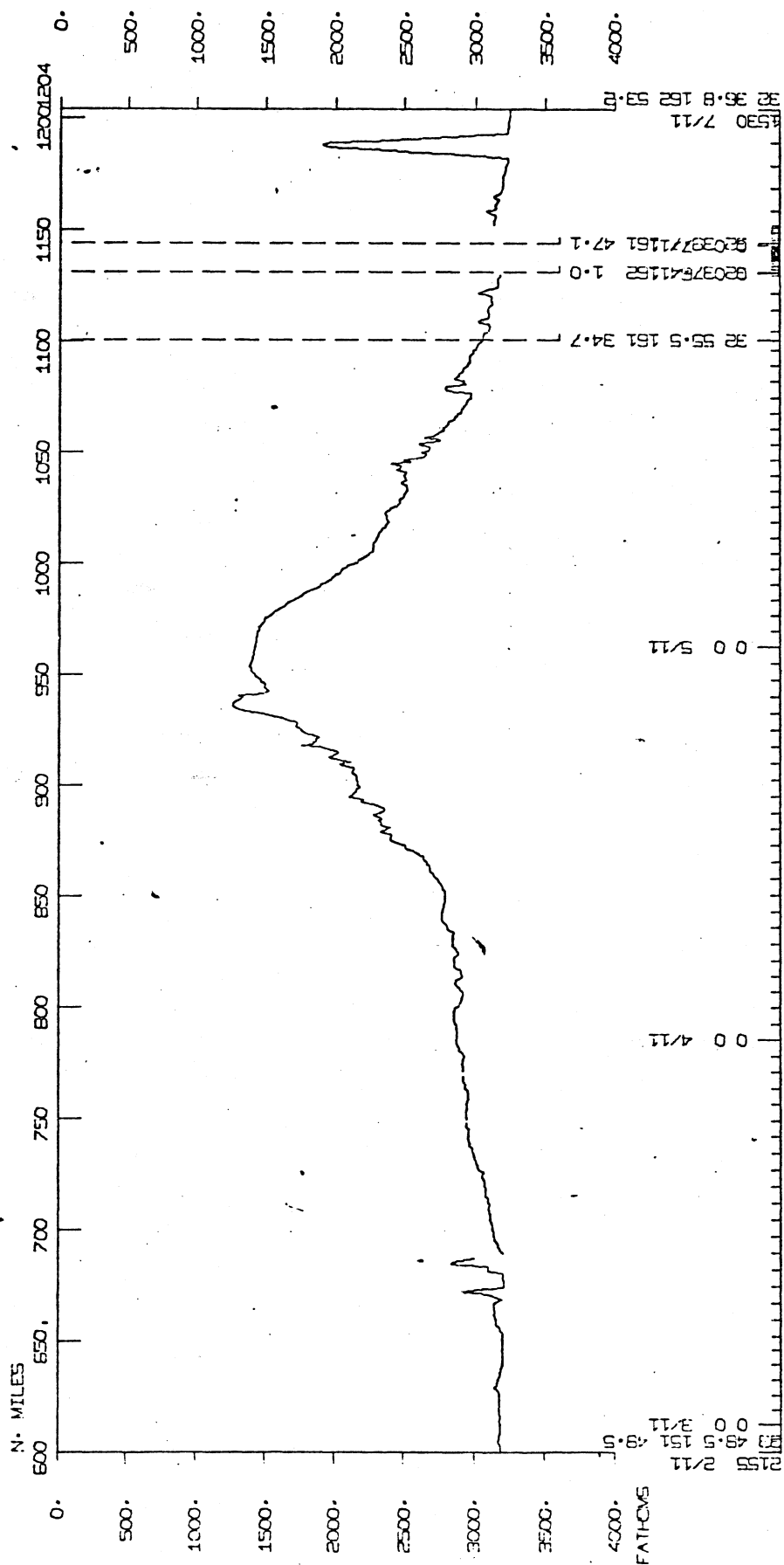
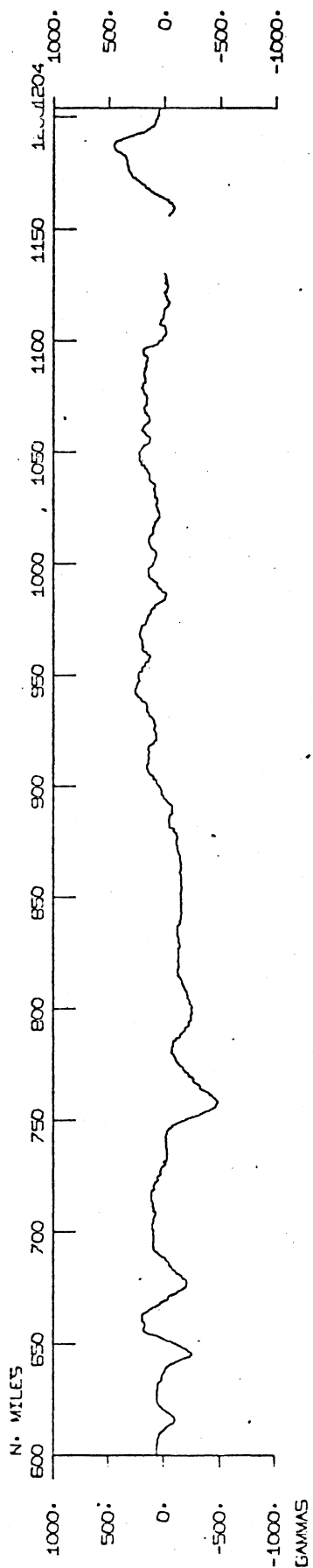


GEOSECS LEG D TRACK PLOT 3 of 3

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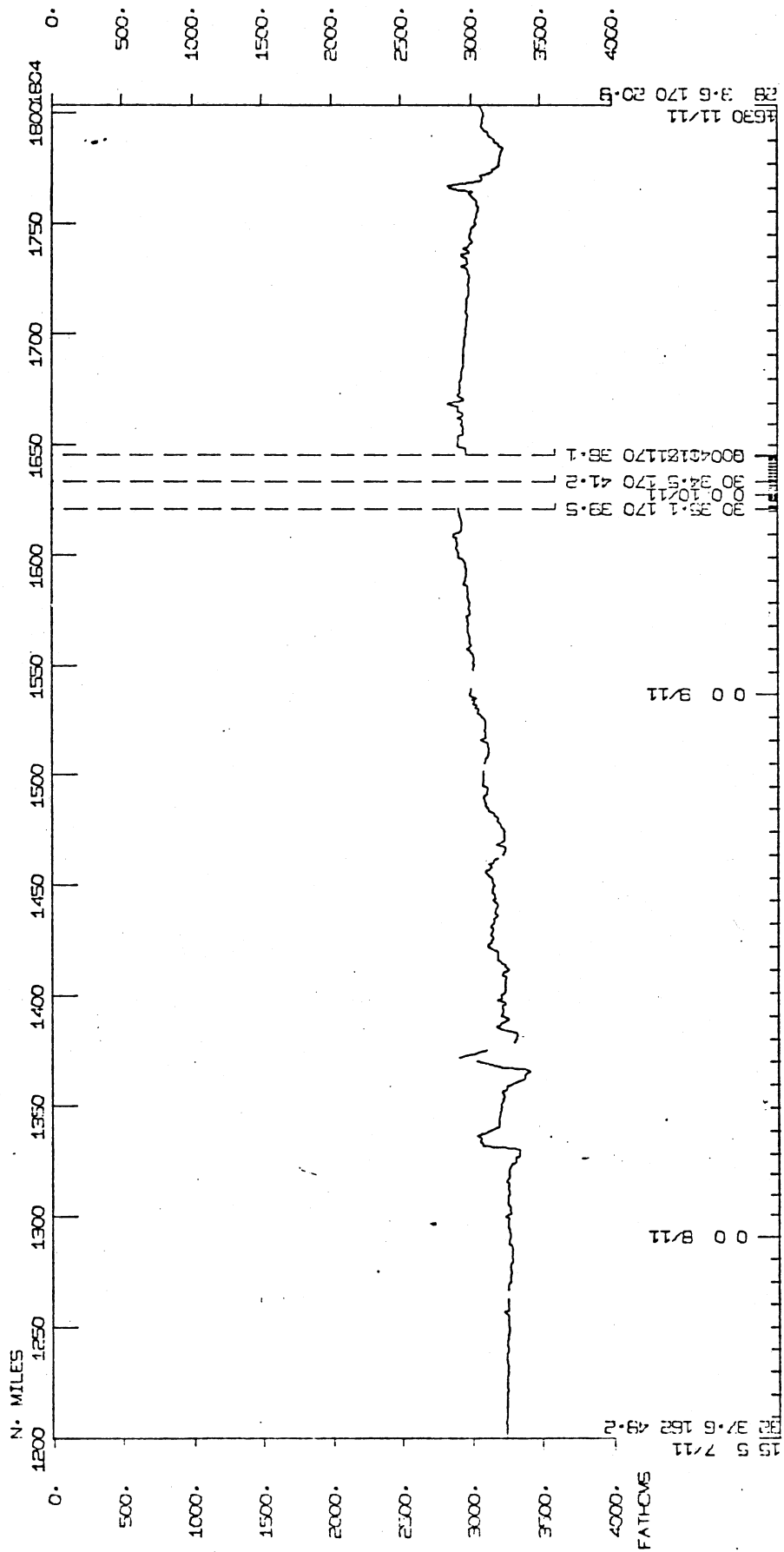
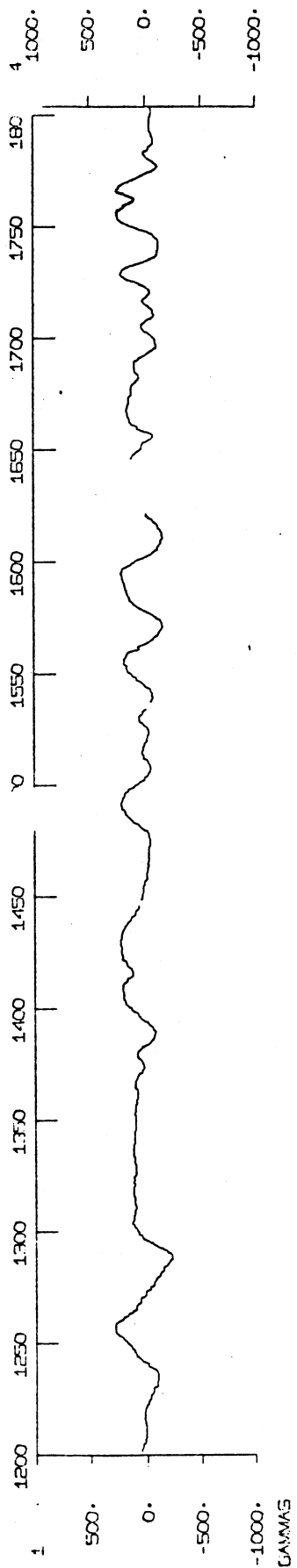


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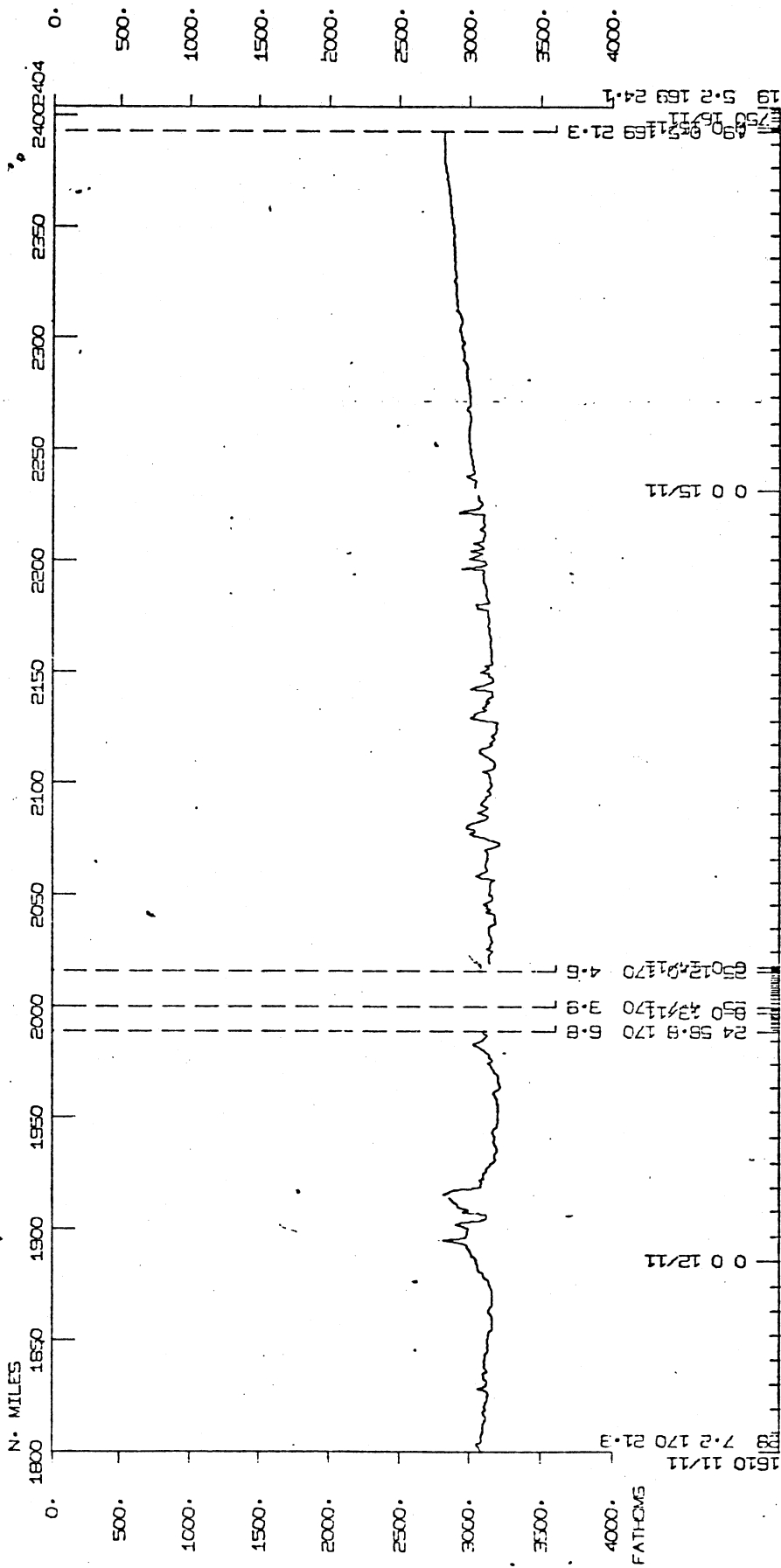
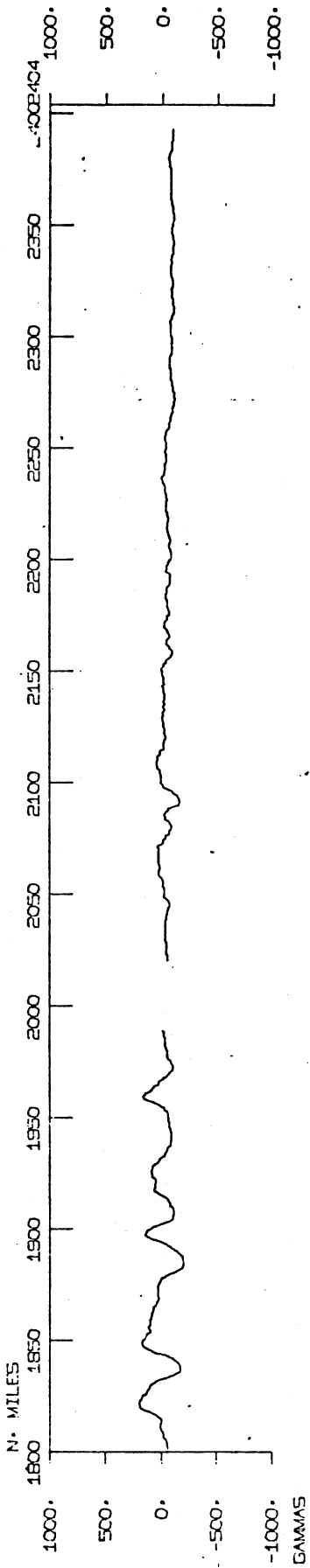




# GEOSECS LEG



# GEOSECS LEG 0



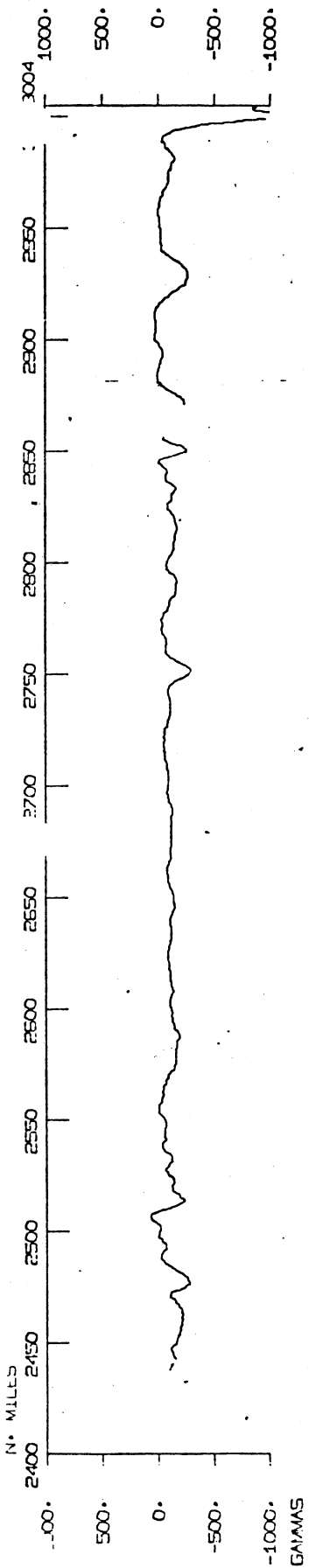
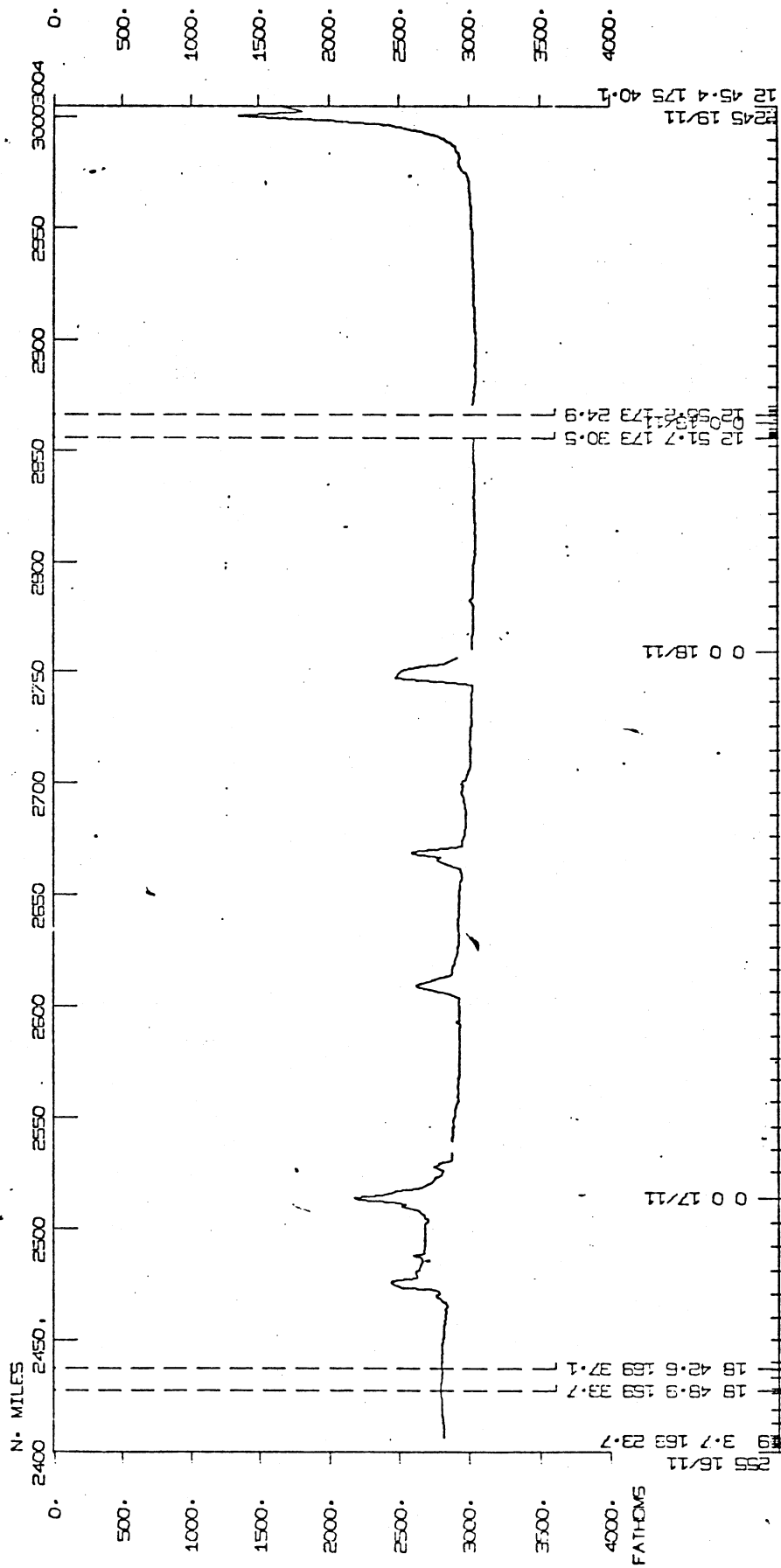
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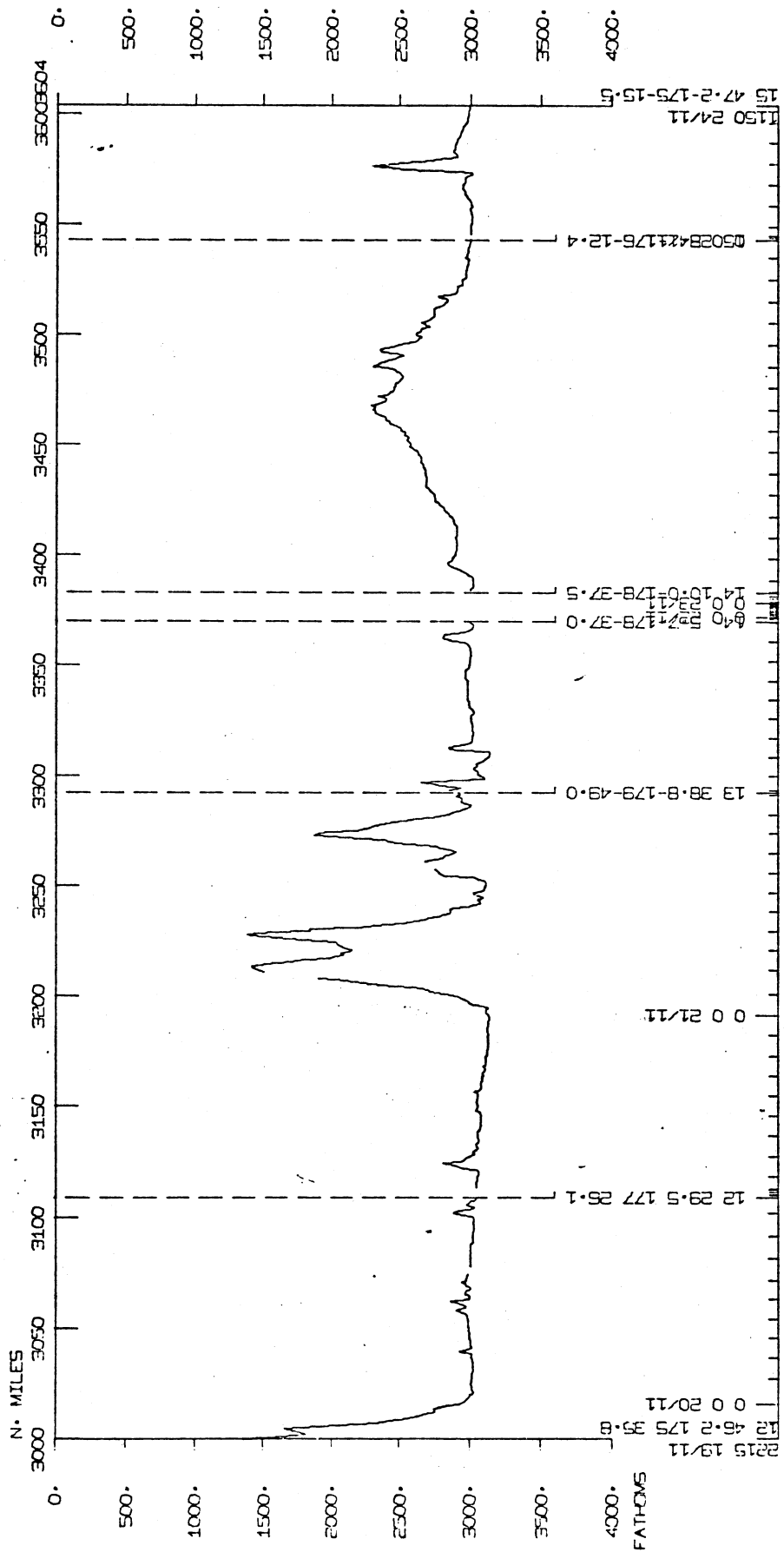
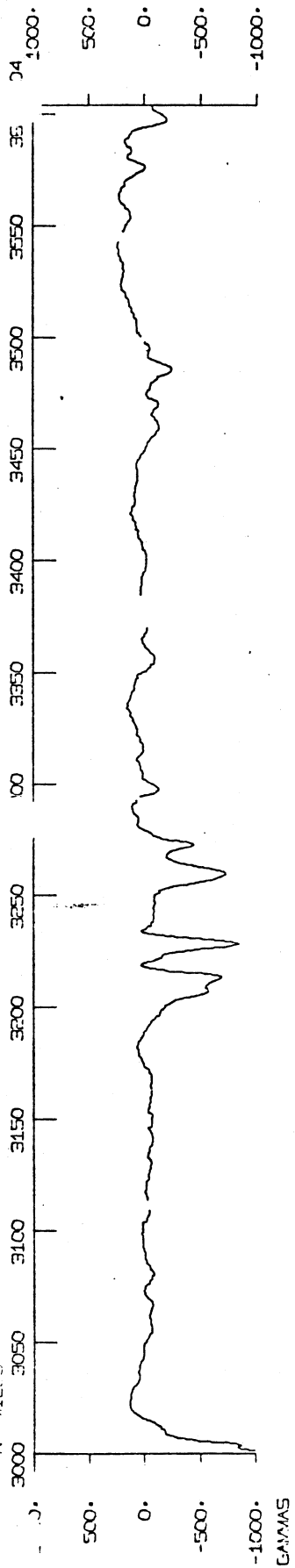
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650 12/11 4.6

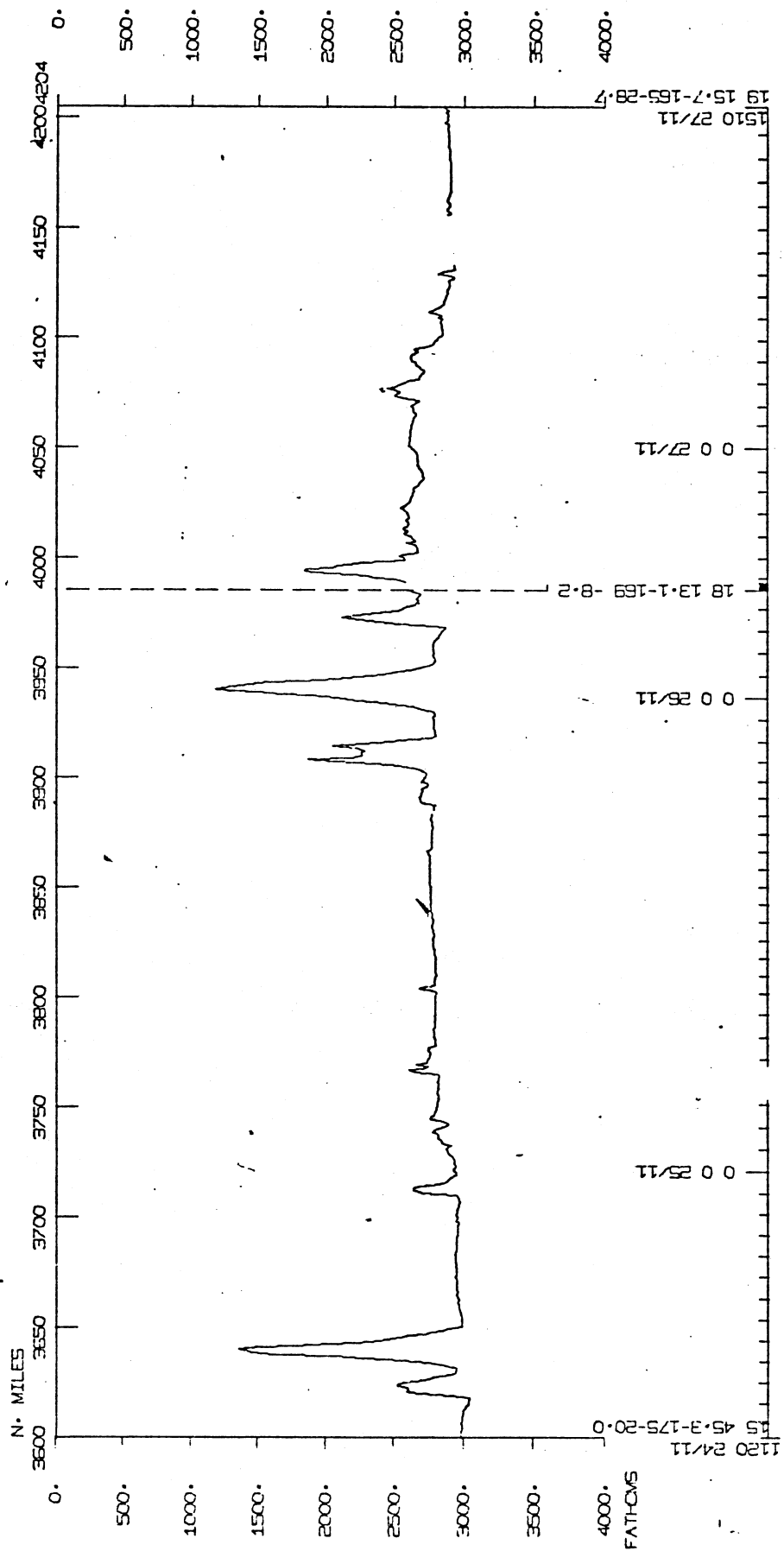
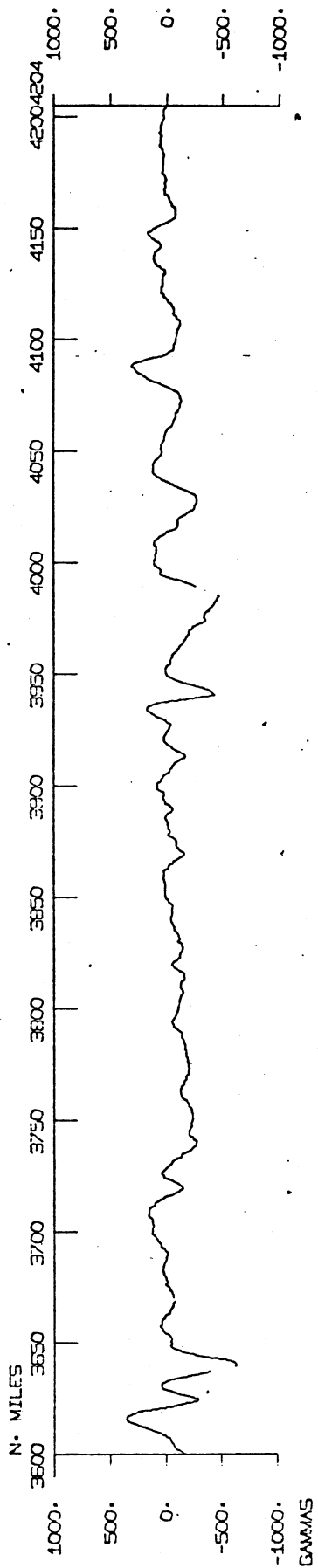
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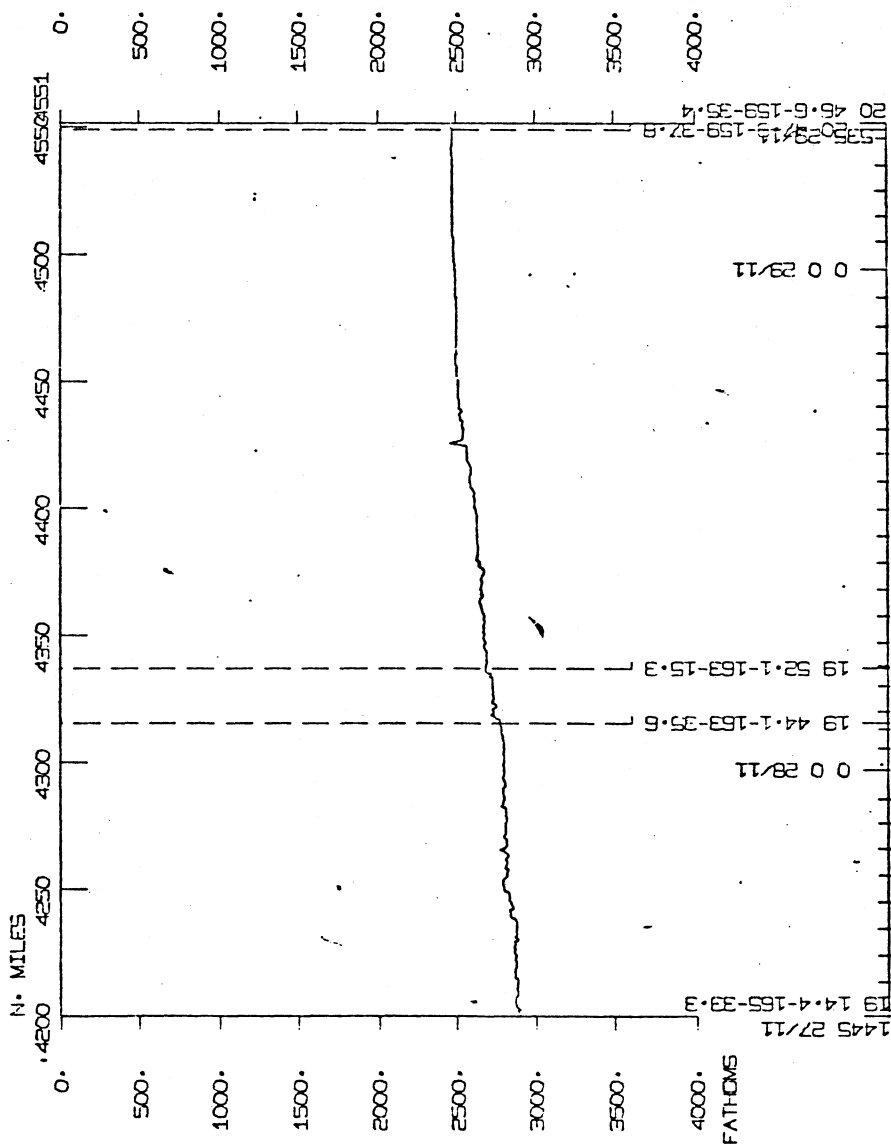
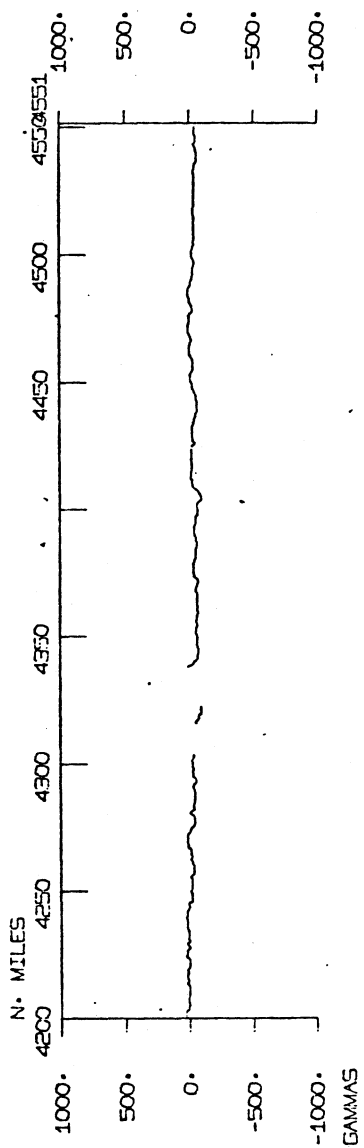
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SECS LEG 0



# GEOSECS LEG 0



LISTED 12 FEBRUARY 1974

0800 291173 LGD E HONOLULU, HAWAII 21 170N 157 531E GECS DMV  
2100 311073 LGD B TOKYO, JAPAN 35 420N 139 480E GECS DMV

\*\*\*PERSONNEL\*\*\*

PECS	D. SPENCER	WHO	GECS DMV
PERT	S. WITHEROW	GTG	GECS DMV
PECT	A. TRIST	GSX	GECS DMV
PEMT	L. CUNNINGHAM	GSX	GECS DMV
PE	K. RINDER	UHI	GECS DMV
PE	D. ROSS	GSX	GECS DMV
PE	D. BRADER	GSX	GECS DMV
PE	C. FREEZE	GSX	GECS DMV
PE	Y. CHUNG	GSX	GECS DMV
PE	D. GUBAT	GSX	GECS DMV
PE	L. GORDON	USJ	GECS DMV
PE	D. HAMMOND	LMT	GECS DMV
PE	A. HESTER	GSX	GECS DMV
PE	J. JAIN	GSX	GECS DMV
PE	B. JAMES	GSX	GECS DMV
PE	A. NANTYLA	GSX	GECS DMV
PE	R. MEAD	DCP	GECS DMV
PE	W. PRICE	GSX	GECS DMV
PE	R. RENNER	GSX	GECS DMV
PE	A. ROWE	DCP	GECS DMV
PE	E. SUNDQUIST	LMT	GECS DMV
PE	C. TAY	GSX	GECS DMV
PE	B. WHITEHOUSE	GSX	GECS DMV
PE	F. WOY	GSX	GECS DMV
PE	R. YATES	GSX	GECS DMV

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

## \*\*\* NAVIGATION PLOTS \*\*\*

TIME GMT	DATE D.M.Y.	TIME TZ	LOC LOC	SAMP CODE	IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
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1500	711173			NVRP	E BRIDGE PLOT 04-01	GDC	32	378N 162 472E	S GECS DMV
1500	711173			NVRP	B BRIDGE PLOT 04-02	GDC	32	378N 162 472E	S GECS DMV
400	111173			NVRP	E BRIDGE PLOT 04-02	GDC	30	177N 170 404E	S GECS DMV
400	111173			NVRP	B BRIDGE PLOT 04-03	GDC	30	177N 170 404E	S GECS DMV
1300	141173			NVRP	E BRIDGE PLOT 04-03	GDC	23	328N 169 538E	S GECS DMV
1300	141173			NVRP	B BRIDGE PLOT 04-04	GDC	23	328N 169 538E	S GECS DMV
1835	161173			NVRP	E BRIDGE PLOT 04-04	GDC	18	273N 169 469E	S GECS DMV
1835	161173			NVRP	B BRIDGE PLOT 04-05	GDC	18	273N 169 469E	S GECS DMV
2300	251173			NVRP	E BRIDGE PLOT 04-05	GDC	17	531N 170 62W	S GECS DMV
2300	251173			NVRP	B BRIDGE PLOT 04-06	GDC	17	531N 170 62W	S GECS DMV
2200	251173			NVRP	E BRIDGE PLOT 04-06	GDC	17	488N 170 157W	S GECS DMV

## \*\*\* FATHOGRAMS \*\*\*

TIME GMT	DATE D.M.Y.	TIME TZ	LOC LOC	SAMP CODE	IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
730	311073			DPRT	B GUR 12KHZ R-01	GDC	34	496N 140 342E	S GECS DMV
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130	311173			DPRT	B GUR 12KHZ R-02	GDC	33	537N 152 147E	S GECS DMV
2129	511173			DPRT	E GUR 12KHZ R-02	GDC	32	478N 161 509E	S GECS DMV
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816	911173			DPRT	E GUR 12KHZ R-03	GDC	30	352N 170 395E	S GECS DMV
135	111173			DPRT	B GUR 12KHZ R-04	GDC	30	406N 170 386E	S GECS DMV
917	121173			DPRT	E GUR 12KHZ R-04	GDC	24	597N 170 71E	S GECS DMV
230	141173			DPRT	B GUR 12KHZ R-05	GDC	25	105N 170 71E	S GECS DMV
2330	151173			DPRT	E GUR 12KHZ R-05	GDC	19	22N 169 198E	S GECS DMV
0	151173			DPRT	B GUR 12KHZ R-06	GDC	21	401N 169 369E	S GECS DMV
1520	151173			DPRT	E GUR 12KHZ R-06	GDC	19	25N 169 214E	S GECS DMV
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T	DATE	TIME	TZ	SAMP	DISP	CRUISE
	D.M.Y.	LOC	LOC	CODE	CODE	LEG-SHIP
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950	201173	DPRT E	GDR	12KHZ R-08	GDC 12	295N 177 261E S GECS DMV
1525	201173	DPRT B	GDR	12KHZ R-09	GDC 12	296N 177 216E S GECS DMV
2055	211173	DPRT E	GDR	12KHZ R-09	GDC 14	55N 178 373W S GECS DMV
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530	241173	DPRT B	GDR	12KHZ R-11	GDC 15	237N 176 114W S GECS DMV
115	261173	DPRT E	GDR	12KHZ R-11	GDC 18	10N 169 438W S GECS DMV
123	261173	DPRT B	GDR	12KHZ R-12	GDC 18	14N 169 424W S GECS DMV
500	261173	DPRT E	GDR	12KHZ R-12	GDC 18	131N 169 82W S GECS DMV
1745	261173	DPRT B	GDR	12KHZ R-13	GDC 18	164N 169 80W S GECS DMV
435	271173	DPRT E	GDR	12KHZ R-13	GDC 18	456N 167 204W S GECS DMV
900	281173	DPRT B	GDR	12KHZ R-14	GDC 19	525N 163 148W S GECS DMV
530	291173	DPRT E	GDR	12KHZ R-14	GDC 20	470N 159 362W S GECS DMV

\*\*\* MAGNETOMETER \*\*\*

TIME	DATE	TIME	TZ	SAMP	DISP	CRUISE
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1512	241173	MGR E	MAGNETICS	R-02	GDC 15	598N 174 452W S GECS DMV
1527	241173	MGR B	MAGNETICS	R-03	GDC 16	8N 174 430W S GECS DMV
535	291173	MGR E	MAGNETICS	R-03	GDC 20	466N 159 354W S GECS DMV

\*\*\* GEOCHEMICAL STATION LARGE VOLUME \*\*\*

TIME	DATE	TIME	TZ	SAMP	DISP	CRUISE
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813	91173	GCLV B	GE0SEC	226	GDC 30	351N 170 394E S GECS DMV
130	111173	GCLV E	GE0SEC	226	GDC 30	406N 170 385E S GECS DMV
927	121173	GCLV B	GE0SEC	227	GDC 24	588N 170 69E S GECS DMV
323	141173	GCLV E	GE0SEC	227	GDC 25	114N 170 71E S GECS DMV



T	DATE	TIME	TZ	SAMP	DISP	CRUISE
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0	25	11	73	BTX	DCP 16	369N 173 263W S GECS DMV
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0	28	11	73	BTX	DCP 19	402N 163 543W S GECS DMV
0	29	11	73	BTX	DCP 20	360N 160 351W S GECS DMV

END SAMPLE INDEX