

INFORMAL REPORT AND INDEX OF
NAVIGATION, DEPTH, MAGNETIC AND SUBBOTTOM PROFILER DATA
(Issued July 1989)

HYDROS EXPEDITION

LEG 4

=====

R/V Melville

Montevideo, Uruguay (13 March 1989)
to
Barbados, Lesser Antilles (19 April 1989)

Chief Scientist - Lynne Talley (SIO)

Resident Marine Technician - Seth Mogk

Post-Cruise Processing and Report Preparation
by Geological Data Center, Scripps Institution of Oceanography

Data Collection and Processing Funded by NSF
Grant Number OCE86-16368

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.

GDC Cruise I.D.# 244

INFORMAL 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.

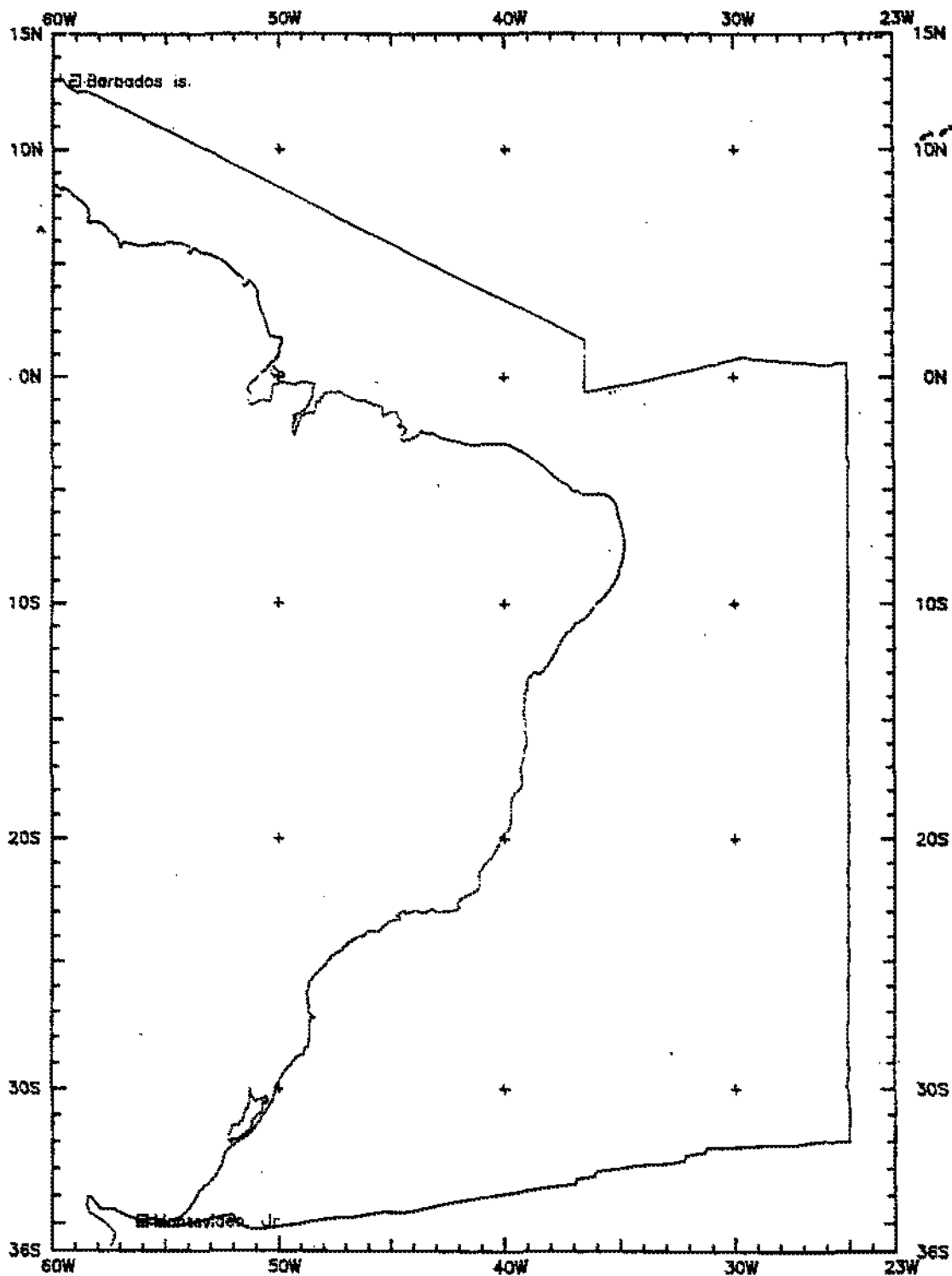
Profiles - depth, magnetic anomaly and gravity free air anomaly vs. distance. Sections of track having subbottom profiles (airgun or watergun) records have a wide black line along the bottom of the profile. Sections having Sea Beam are indicated by a narrow black line.

Sample Index - list of beginning and end times and positions of all underway records as well as all other samples and measurements (geology, biology, physical oceanography, etc.) collected on the cruise leg.

NOTE: One or more of the underway data types may not be collected on a given cruise 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, CA 92093. Phone (619)534-2752.

1. Navigation listing with times and positions of course and speed changes, fixes and drift velocity.
2. Depth compilation plots - compilation plots at the traditional scale of 4in/degree longitude (1:1,000,000) are no longer produced for Sea Beam cruises. Custom plots may be requested of vertical beam (2 $\frac{2}{3}$ degree beam width) depths retrieved at one minute intervals of ship time.
3. Plots of depths, magnetics or gravity profiles along track - custom plots at various map and profile scales on Mercator projection may be requested.
4. Separate time series files of navigation, depth, gravity and magnetics as well as these data merged in the MGD77 Exchange format on magnetic tape.
5. Microfilm or Xerox copies of:
 - a. Echosounder records - 12 and 3.5 kHz frequency
 - b. Subbottom profiler records
 - c. Magnetometer records
 - d. Underway data log book

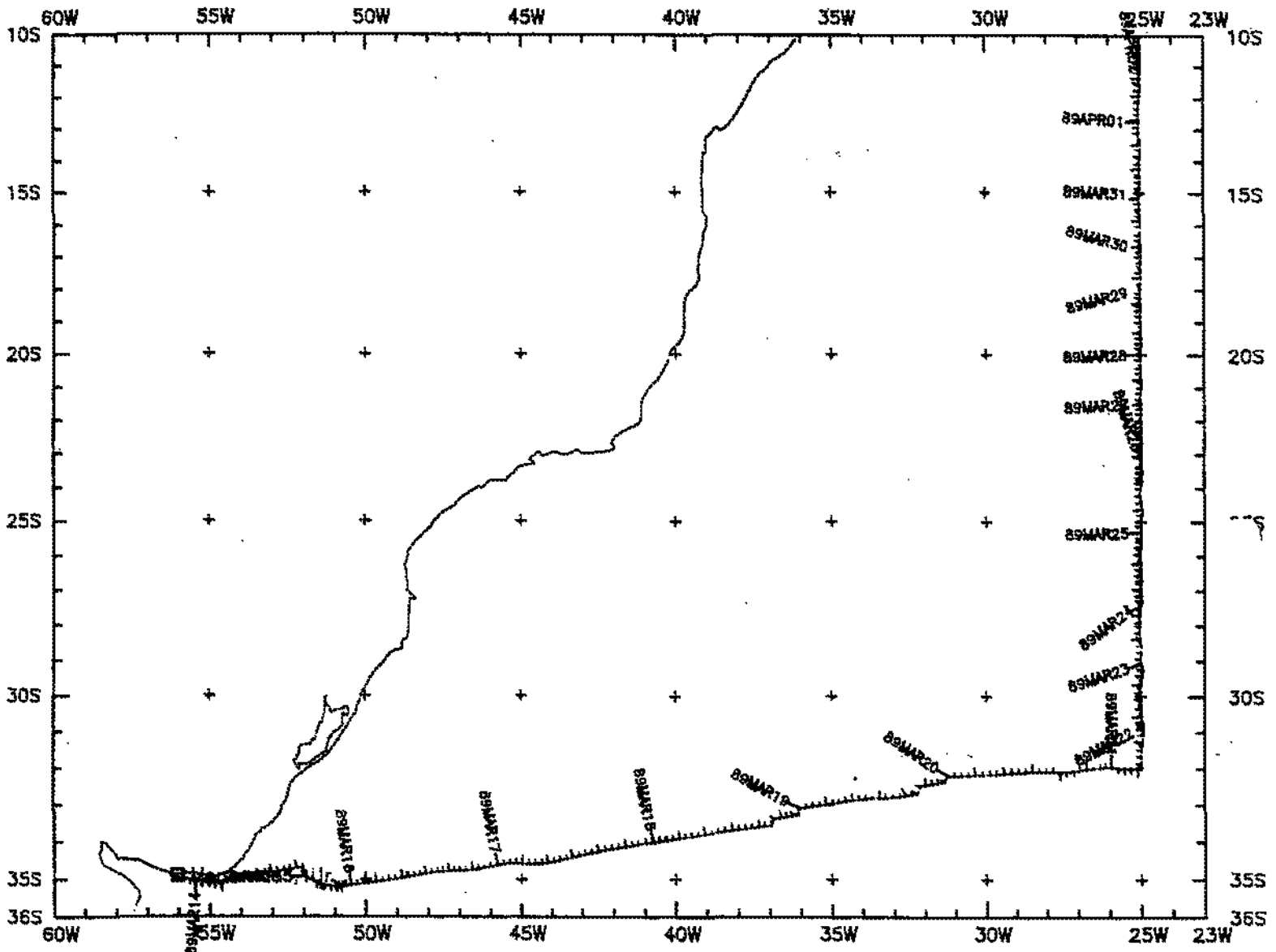


HYDROS EXPEDITION LEG 4

CHIEF SCIENTIST: L. Talley (SIO)
 PORTS: Montevideo, Uruguay - Barbados, Lesser Antilles
 DATES: 13 March - 19 April 1989
 SHIP: R/V Melville

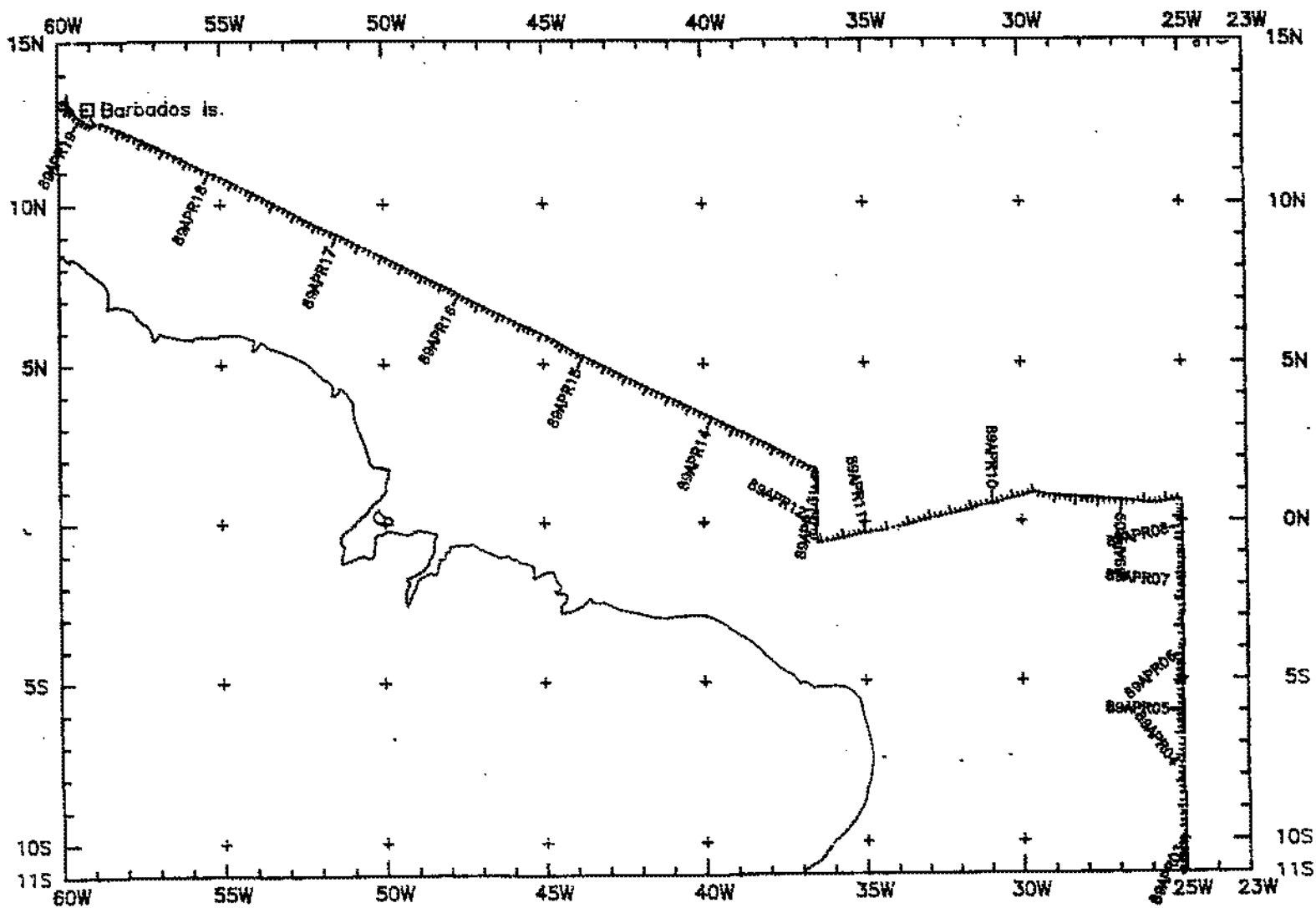
TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

- 1) Cruise - 6189 miles
- 2) Bathymetry - 5274 miles
- 3) Magnetics - none collected
- 4) Seismic Reflection - none collected
- 5) Gravity - none collected



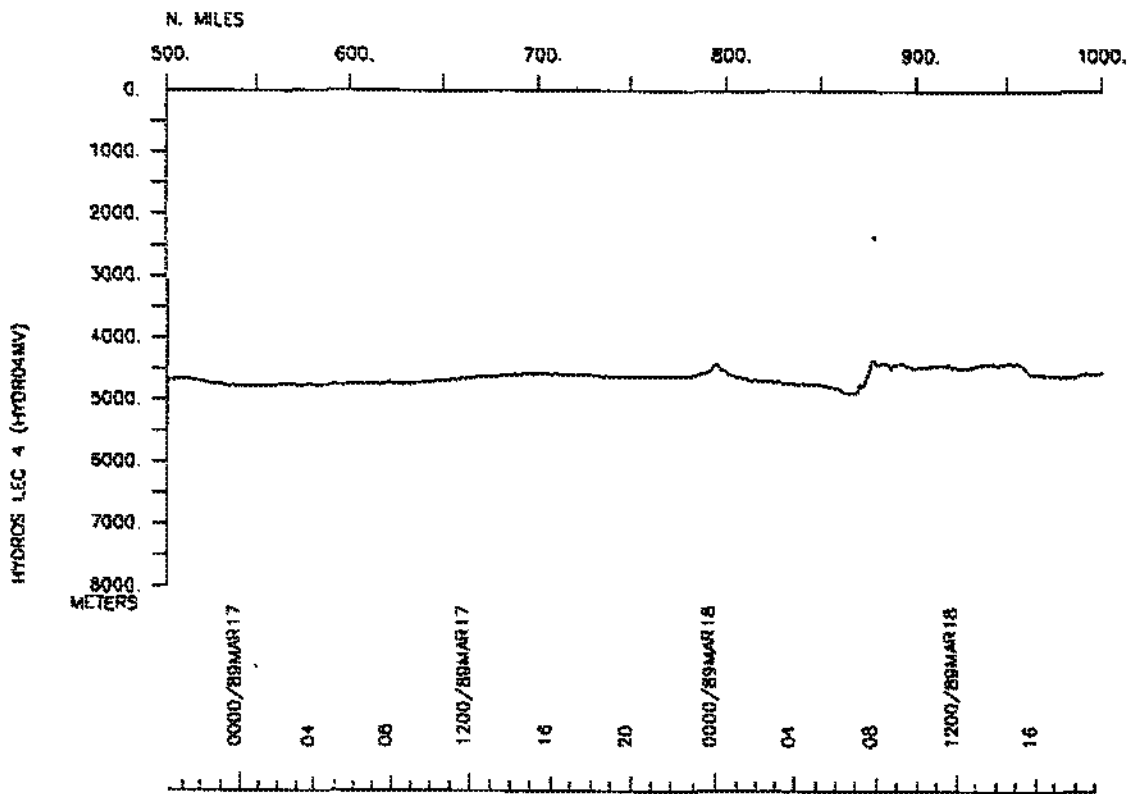
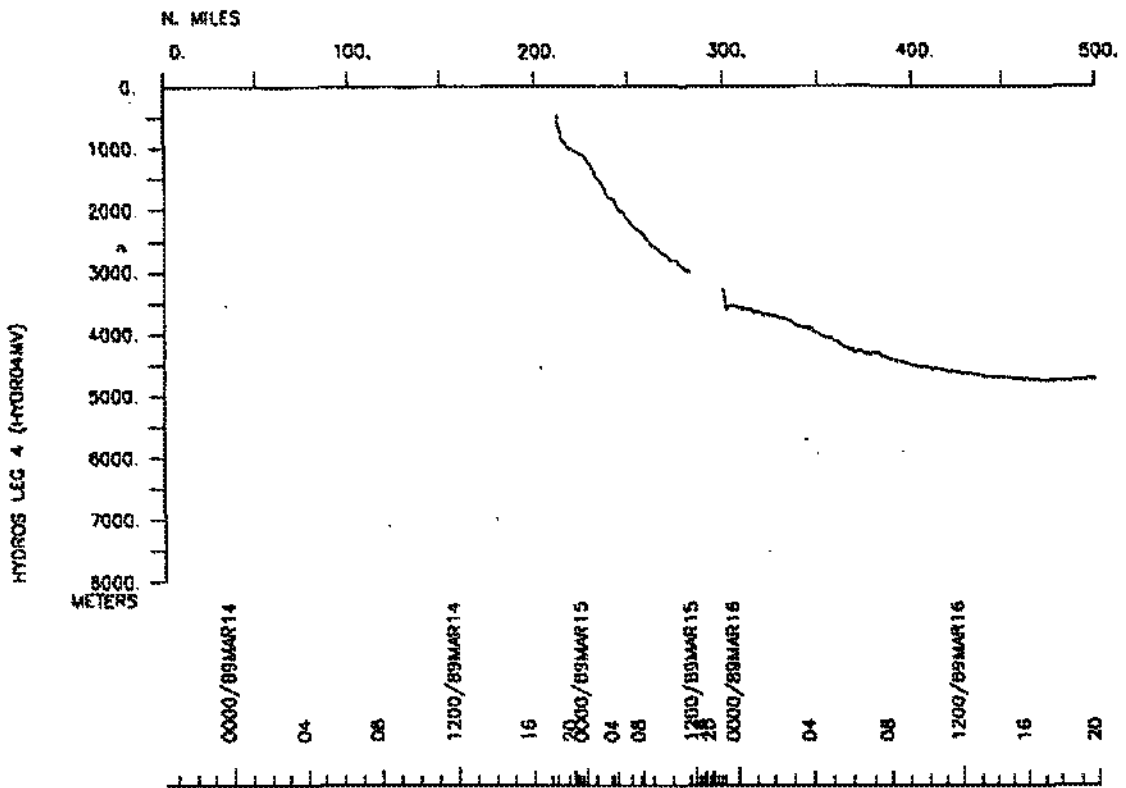
HYDROS LEG 4 (HYDR04MV)

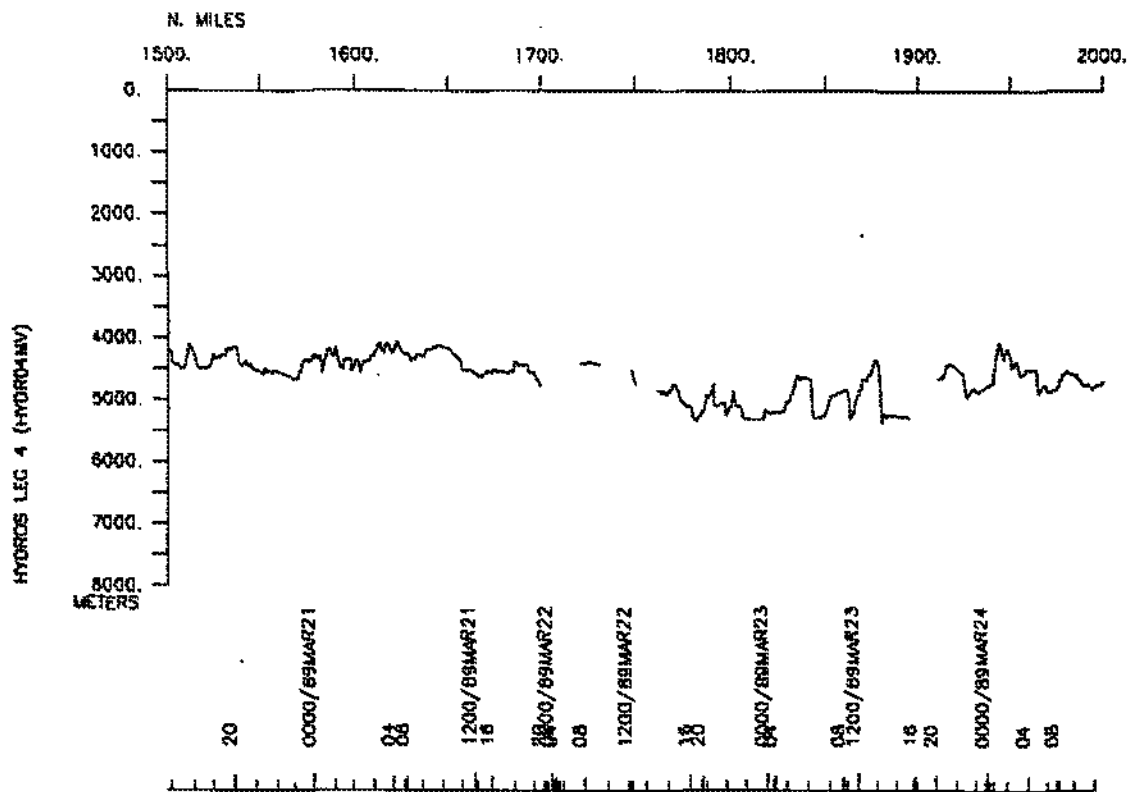
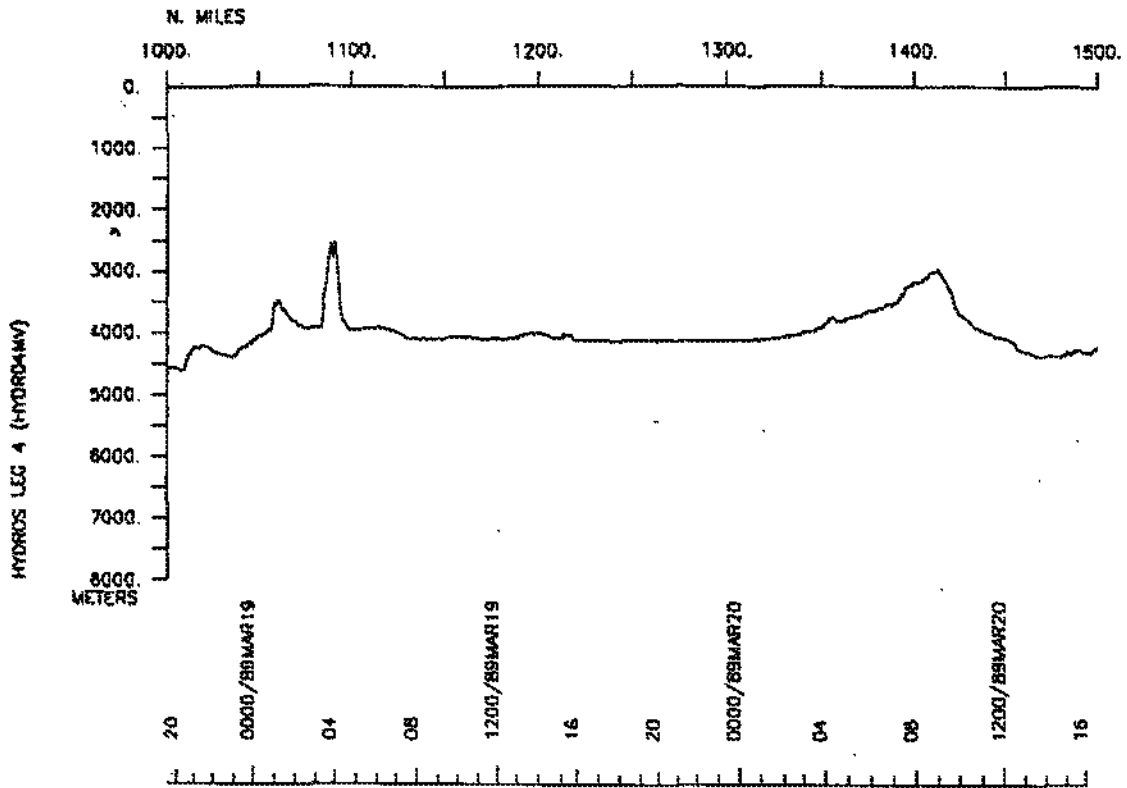
Track 1 of 2

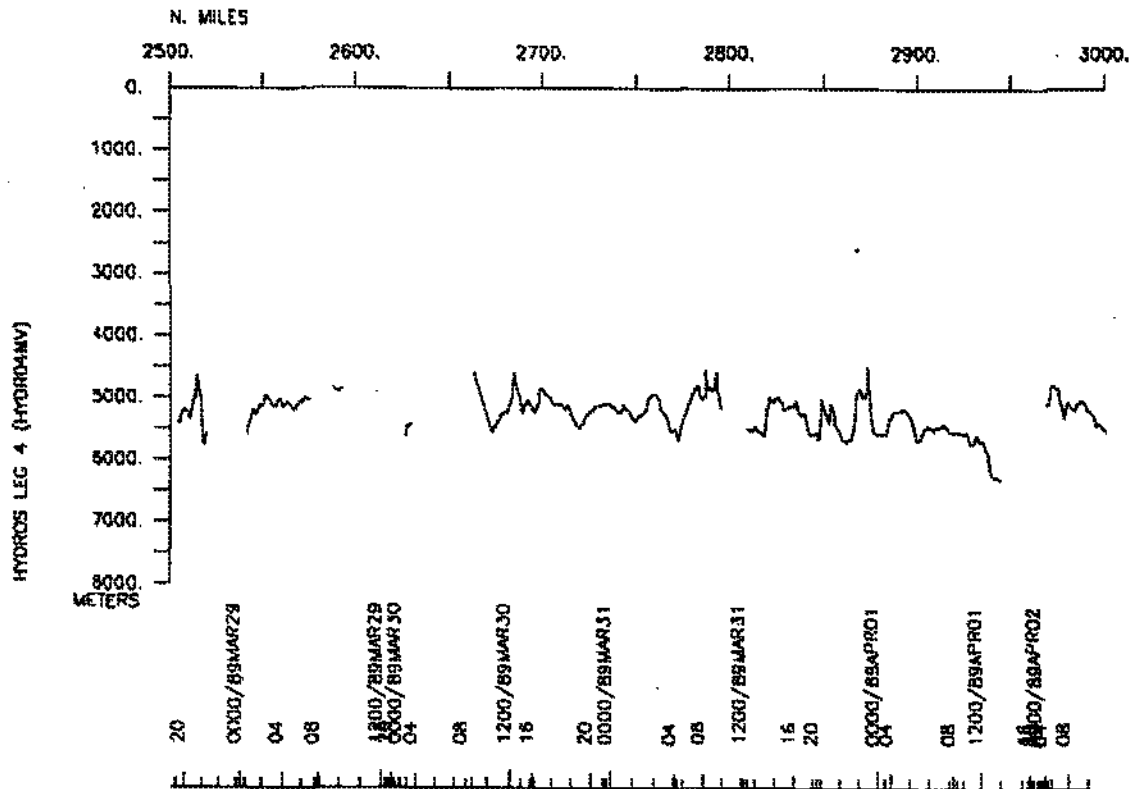
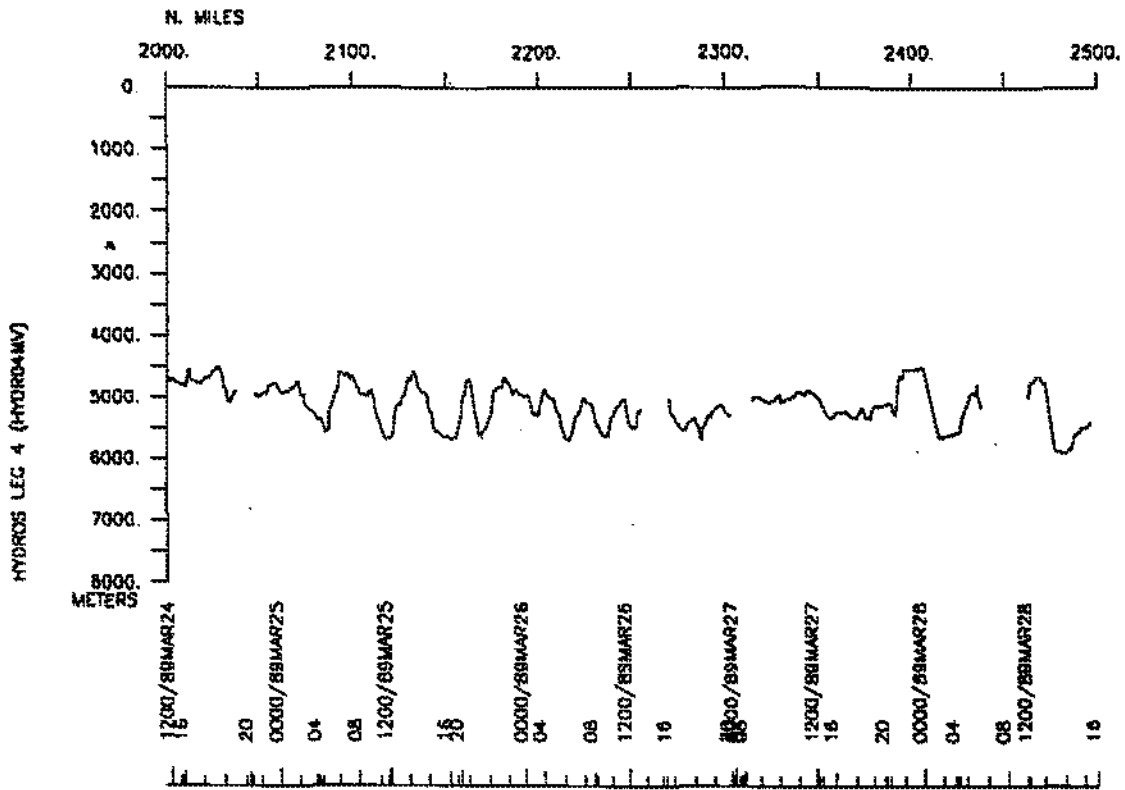


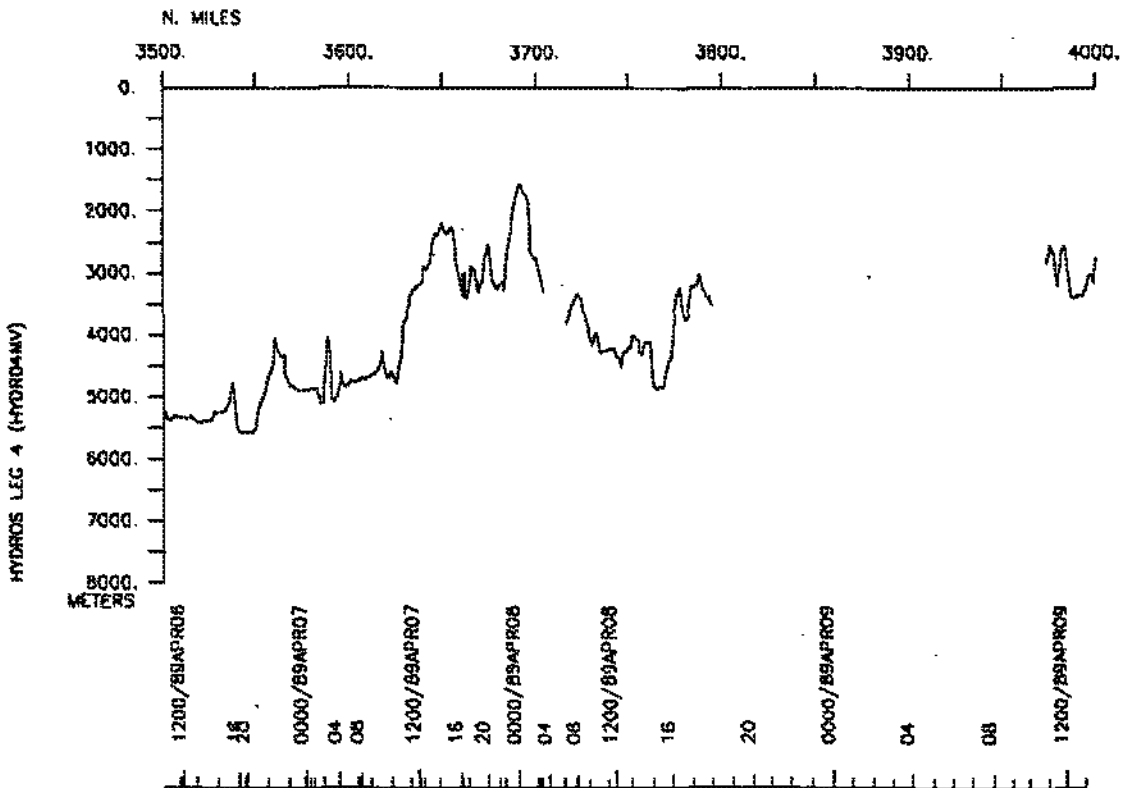
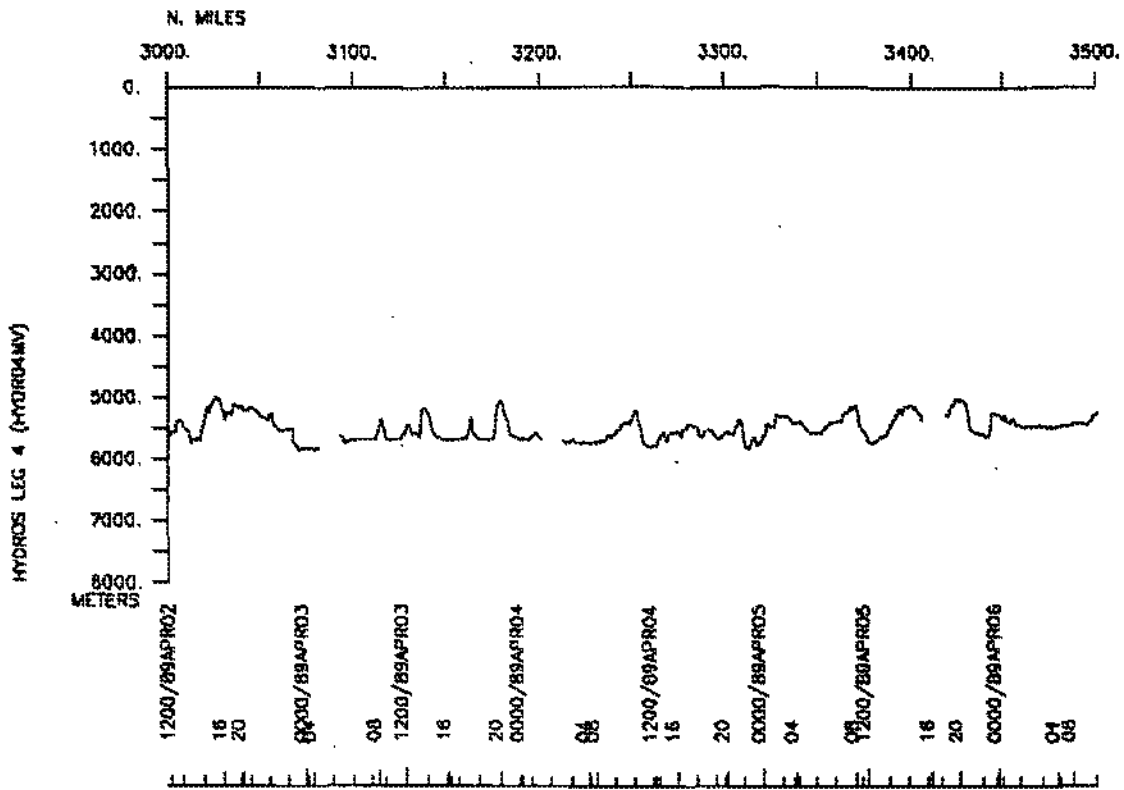
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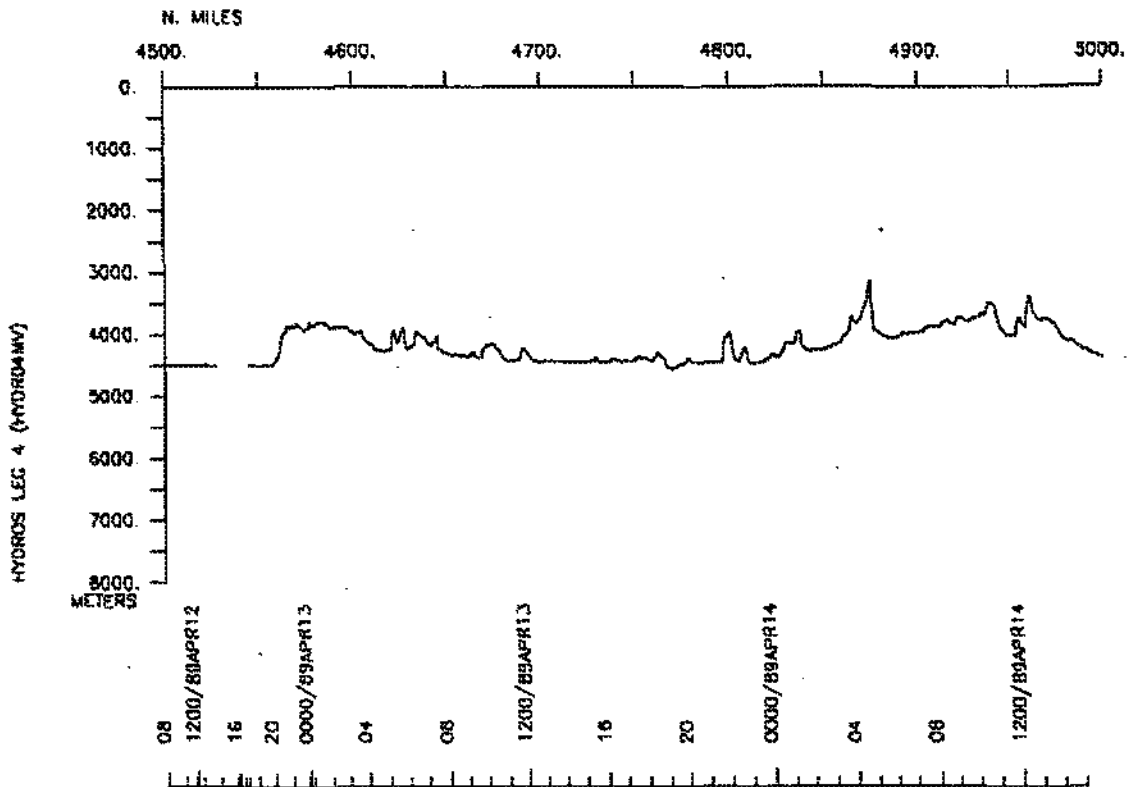
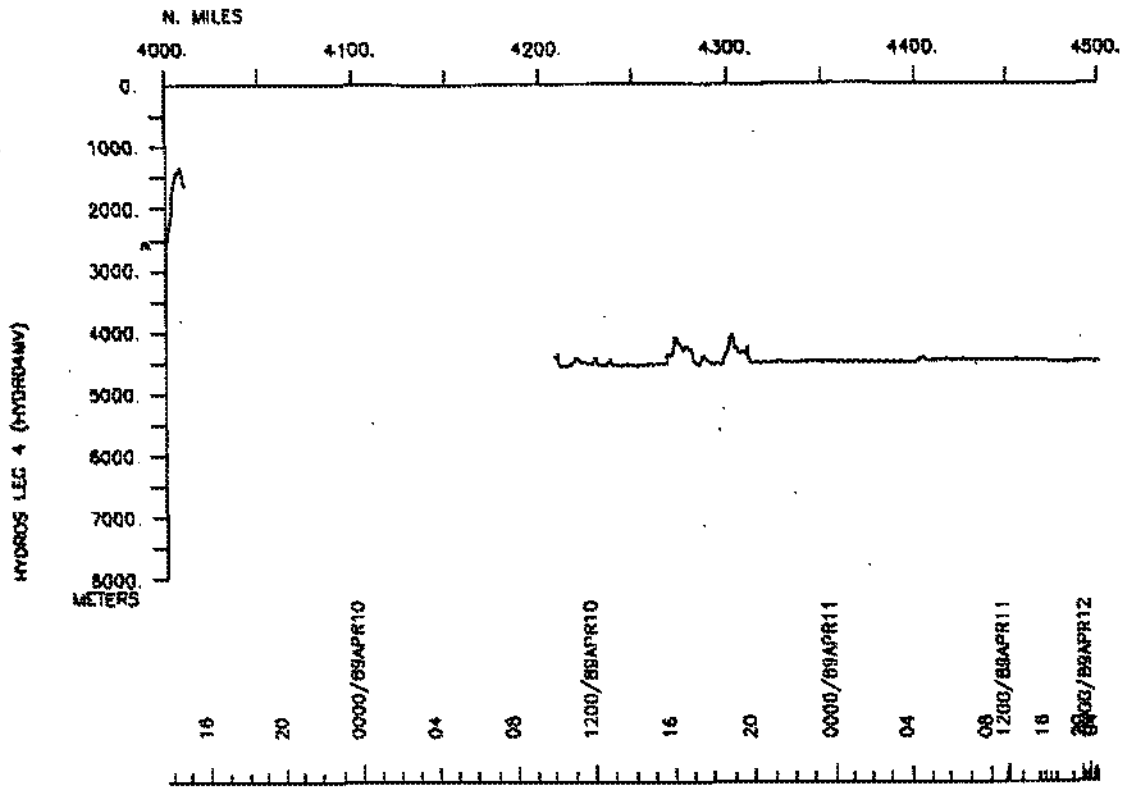
Track 2 of 2

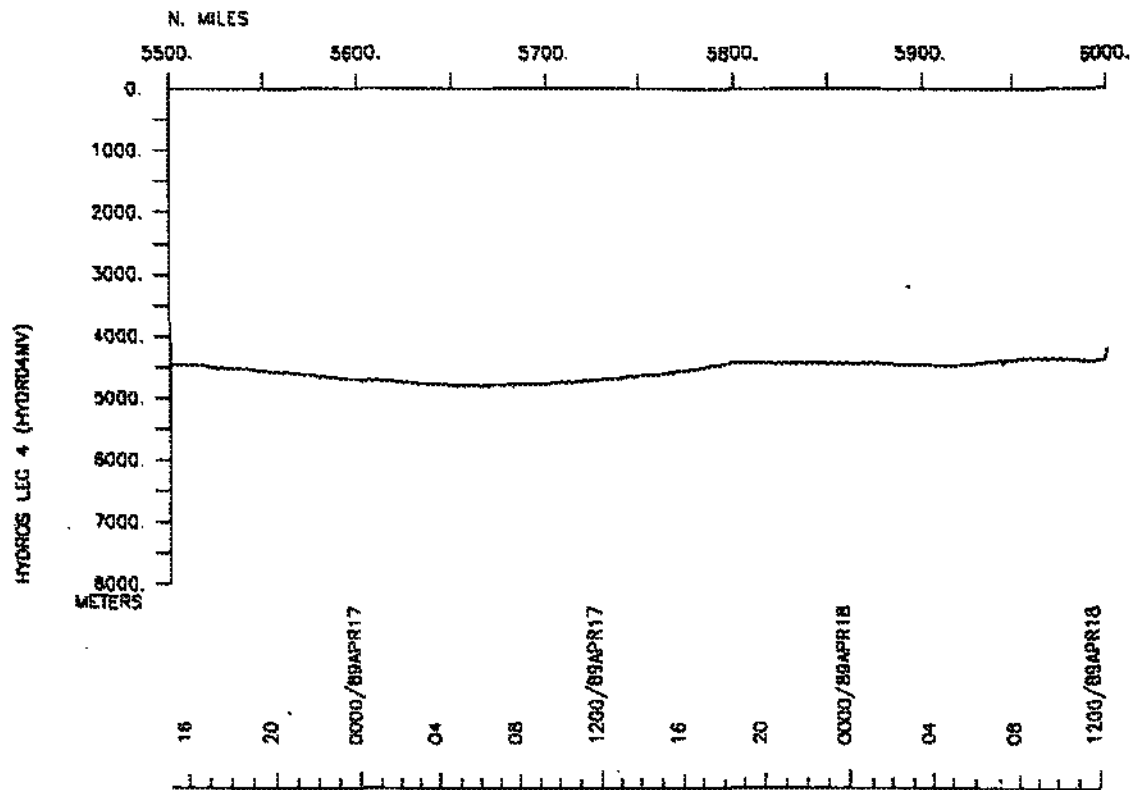
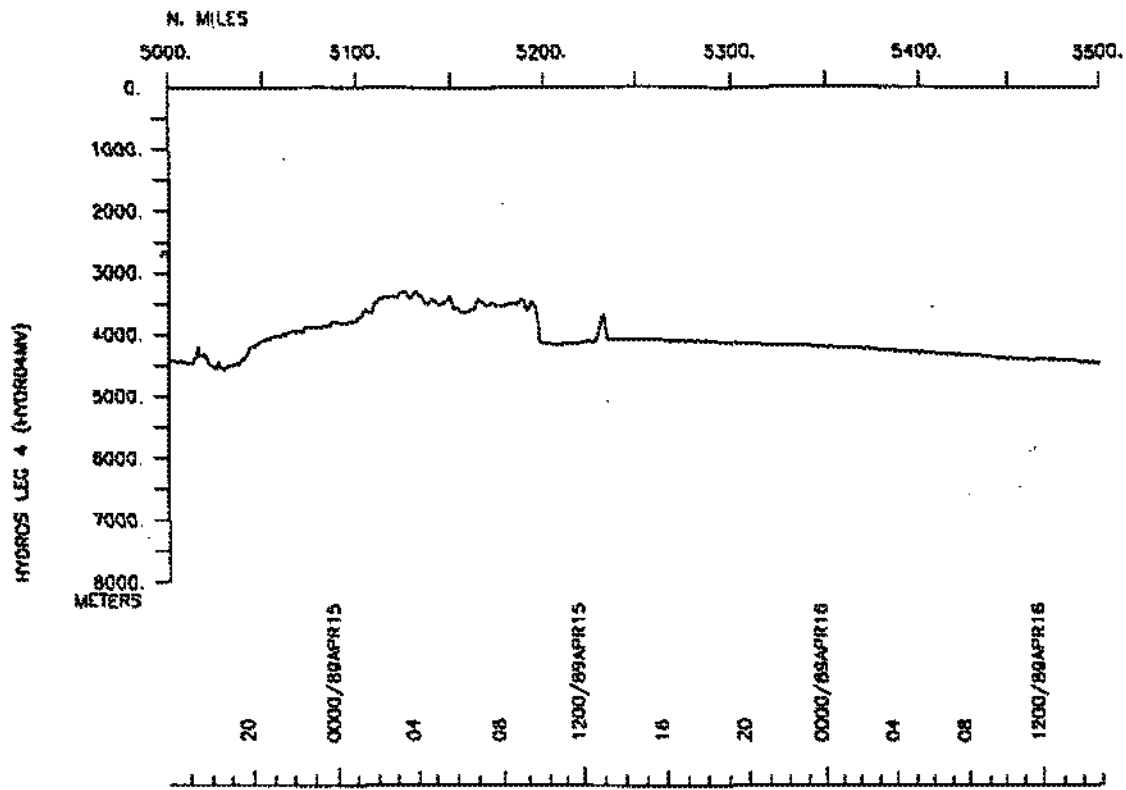


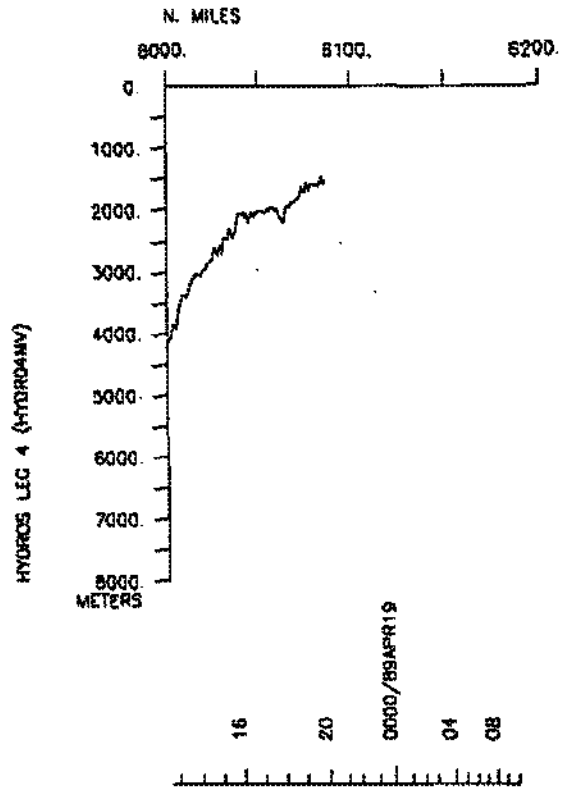












S.I.O. SAMPLE INDEX

(Issued July 1989)

HYDROS EXPEDITION

Leg 4

R/V Melville

Montevideo, Uruguay (13 March 1989)
to
Barbados, Lesser Antilles (19 April 1989)

Chief Scientist - L. Talley

Scripps Institution of Oceanography

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 further computer searches on these parameters. (Listings defining these codes are available from the Geological Data Center.)

GDC Cruise I.D.# 244

*** PORTS ***

1700 140389	LGPT B MONTEVIDEO, URUGUAY	34-54 S	56-13 W	fHYDRO4MV
1200 260489	LGPT E MIAMI, FLA	25-47 N	80-11 W	fHYDRO4MV
1200 190489	LGSS B BRIDGETOWN, BARBADOS	13-133N	59-416W	sHYDRO4MV
1400 200489	LGSS E BRIDGETOWN, BARBADOS	13-133N	59-416W	sHYDRO4MV

PERSONNEL

	NAME	***TITLE***	***AFFILIATION***	**CRID**
PECS ORD	TALLEY, L.	CHIEF SCIENTIST	SCRIPPS INSTITUTION	HYDRO4MV
PERT STS	BOAZ, J.	RESIDENT TECH	SCRIPPS INSTITUTION	HYDRO4MV
PEST SIX	BOSLEY, K.	STUDENT	LAMONT-DOHERTY	HYDRO4MV
PESP ORD	DENHAM, M.	RESEARCH ASSO.	SCRIPPS INSTITUTION	HYDRO4MV
PEST SIX	DONEY, S.	STUDENT	WOODS HOLE	HYDRO4MV
PESP STS	HALLMAN, C.	LAB ASS.	SCRIPPS INSTITUTION	HYDRO4MV
PESP STS	HESTER, A.	RESEARCH ASSO.	SCRIPPS INSTITUTION	HYDRO4MV
PESP STS	JOHNSON, M.	RESEARCH ASSO.	SCRIPPS INSTITUTION	HYDRO4MV
PEET STS	MANSIR, F.	ELEC. TECH.	SCRIPPS INSTITUTION	HYDRO4MV
PENT STS	MASTEN, D.	MARINE TECH	SCRIPPS INSTITUTION	HYDRO4MV
PESP STS	MUUS, D.	RESEARCH ASSO.	SCRIPPS INSTITUTION	HYDRO4M
PESP SIX	NOONAN, M.	RESEARCH ASSO.	LAMONT-DOHERTY	HYDRO4M
PESP SIX	RAZNIEWSKI, J.	RESEARCH ASSO.	LAMONT-DOHERTY	HYDRO4MV
PESP GRD	SALAMEH, P.	RESEARCH ASSO.	SCRIPPS INSTITUTION	HYDRO4MV
PESP SIX	TRUNKELL, M.	ENGINEER	LAMONT-DOHERTY	HYDRO4MV
PESP IMR	TSUCHIYA, M.	OCEANOGRAPHER	SCRIPPS INSTITUTION	HYDRO4MV
PEST ORD	YJAN, X.	STUDENT	SCRIPPS INSTITUTION	HYDRO4MV
PECT STS	MOORE, M.	COMPUTER TECH	SCRIPPS INSTITUTION	HYDRO4MV
PESP ORD	CARTWRIGHT, L.	VOLUNTEER	SCRIPPS INSTITUTION	HYDRO4MV
PESP SIX	ORR, J.	POST DOC	PRINCETON UNIV.	HYDRO4MV
PEOB SIX	BARREIRA, I.	OBSERVER	URUGUAYAN NAVY	HYDRO4MV

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	DDMMYY	LOC, T	SAMP	SAMPLE	DISP			CRUISE
#TIME	DATE	TIME Z	CODE	IDENTIFIER	CODE	LAT.	LONG.	LEG-SHIP

***UNDERWAY DATA CURATOR - S. M. SMITH EXT. 42752

LOG BOOKS

1830	140389		LBUW B	UNDERWAY WATCH LOG	GDC 34-460S	52-006W	sHYDRO4MV
2000	180489		LBUW E	UNDERWAY WATCH LOG	GDC 12-299N	58-504W	sHYDRO4MV

*** ECHO SOUNDER RECORDS ***

1400	140389		DPRT B	12 KHZ ROLL 1	GDC 34-468S	52-375W	sHYDRO4MV
1345	270389		DPRT E	12 KHZ ROLL 1	GDC 20-536S	24-598W	sHYDRO4MV
1419	270389		DPRT B	12 KHZ ROLL 2	GDC 20-536S	25-000W	sHYDRO4MV
2257	130489		DPRT E	12 KHZ ROLL 2	GDC 3-131N	39-342W	sHYDRO4MV
022	130489		DPRT B	12 KHZ ROLL 3	GDC 3-153N	39-386W	sHYDRO4MV
1500	250489		DPRT E	12 KHZ ROLL 3	GDC 13-133N	59-416W	sHYDRO4MV

*** CONDUCTIVITY, TEMPERATURE, DEPTH WITH OXYGEN SENSOR **

1747	140389		TDOT	309-1	261M R12	ORD 34-437S	52-009W	sHYDRO4MV
1958	140389		TDOT	310-1	1018M R17	ORD 34-514S	51-554W	sHYDRO4MV
0245	150389		TDOT	311-1	1801M R17	ORD 35-039S	51-424W	sHYDRO4MV
0659	150389		TDOT	312-1	2335M R20	ORD 35-100S	51-270W	sHYDRO4MV
1715	150389		TDOT	313-2	3130M R24	ORD 35-129S	50-480W	sHYDRO4MV
0609	210389		TDOT	314-1	4296M R36	ORD 32-000S	24-596W	sHYDRO4MV
1304	210389		TDOT	315-1	4581M R36	ORD 31-235S	24-599W	sHYDRO4MV
0115	220389		TDOT	316-2	4642M R36	ORD 30-478S	24-572W	sHYDRO4MV
1112	220389		TDOT	317-1	4350M R36	ORD 30-132S	25-028W	sHYDRO4MV
1819	220389		TDOT	318-1	5358M R36	ORD 29-384S	25-021W	sHYDRO4MV
54	230389		TDOT	319-1	5256M R36	ORD 29-032S	25-019W	sHYDRO4MV
0923	230389		TDOT	320-1	4943M R36	ORD 28-294S	25-023W	sHYDRO4MV

#GMT #TIME	DDMMYY DATE	LOC. T TIME Z	SAMP CODE	SAMPLE IDENTIFIER	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
1655	230389		TDOT	321-1	5322M R36	ORD 27-540S	25-028W	sHYDRO4MV
0005	240389		TDOT	322-1	4850M R36	ORD 27-176S	24-593W	sHYDRO4MV
0708	240389		TDOT	323-1	4861M R36	ORD 26-431S	25-000W	sHYDRO4MV
1356	240389		TDOT	324-1	4909M R36	ORD 26-086S	25-024W	sHYDRO4MV
2041	240389		TDOT	325-1	4985M R36	ORD 25-341S	25-002W	sHYDRO4MV
0339	250389		TDOT	326-1	5395M R36	ORD 24-597S	24-586W	sHYDRO4MV
1104	250389		TDOT	327-1	5711M R36	ORD 24-240S	25-001W	sHYDRO4MV
1646	250389		TDOT X	328-1	ABORT	ORD 23-493S	24-597W	sHYDRO4MV
1835	250389		TDOT	328-2	5266M R36	ORD 23-488S	25-000W	sHYDRO4MV
0112	260389		TDOT	329-1	5023M R36	ORD 23-143S	25-008W	sHYDRO4M.
0758	260389		TDOT	330-1	5498M R36	ORD 22-385S	25-004W	sHYDRO4MV
1447	260389		TDOT	331-1	5186M R36	ORD 22-029S	25-005W	sHYDRO4MV
0258	270389		TDOT	332-2	5358M R36	ORD 21-305S	25-008W	sHYDRO4MV
1314	270389		TDOT	333-1	4963M R36	ORD 20-536S	24-599W	sHYDRO4MV
2008	270389		TDOT	334-1	5176M R36	ORD 20-191S	25-017W	sHYDRO4MV
0325	280389		TDOT	335-1	5606M R36	ORD 19-450S	25-005W	sHYDRO4MV
1025	280389		TDOT	336-1	5050M R36	ORD 19-097S	25-004W	sHYDRO4MV
1717	280389		TDOT	337-1	5405M R36	ORD 18-319S	25-004W	sHYDRO4MV
0015	290389		TDOT	338-1	5498M R36	ORD 17-565S	25-017W	sHYDRO4MV
0700	290389		TDOT	339-1	5102M R36	ORD 17-228S	24-597W	sHYDRO4MV
1841	290389		TDOT	340-2	5750M R36	ORD 16-468S	25-004W	sHYDRO4MV
0806	300389		TDOT	341-1	5153M R36	ORD 16-137S	25-010W	sHYDRO4MV

#GMT #TIME	DDMMYY DATE	LOC. T TIME Z	SAMP CODE	SAMPLE IDENTIFIER	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
1458	300389		TDOT	342-1	5409M R36	ORD 15-396S	25-004W	sHYDRO4MV
2203	300389		TDOT	343-1	5003M R36	ORD 15-034S	24-597W	sHYDRO4MV
0434	310389		TDOT	344-1	5570M R36	ORD 14-294S	24-591W	sHYDRO4MV
1144	310389		TDOT	345-1	M R36	ORD 13-533S	25-000W	sHYDRO4MV
1841	310389		TDOT	346-1	5523M R36	ORD 13-188S	25-010W	sHYDRO4MV
0143	010489		TDOT	347-1	5611M R36	ORD 12-438S	25-015W	sHYDRO4MV
0848	010489		TDOT	348-1	5549M R36	ORD 12-088S	25-006W	sHYDRO4MV
1943	010489		TDOT	349-2	5352M R36	ORD 11-339S	25-003W	sHYDRO4MV
41	020489		TDOT	350-1	5570M R36	ORD 10-592S	24-592W	sHYDRO4MV
1826	020489		TDOT	351-1	5231M R36	ORD 10-240S	24-596W	sHYDRO4MV
0133	030489		TDOT	352-1	5882M R36	ORD 9-494S	24-599W	sHYDRO4MV
0846	030489		TDOT	353-1	5747M R36	ORD 9-133S	24-591W	sHYDRO4MV
1537	030489		TDOT	354-1	5734M R36	ORD 8-388S	24-590W	sHYDRO4MV
2229	030489		TDOT	355-1	5729M R36	ORD 8-041S	25-003W	sHYDRO4MV
0526	040489		TDOT	356-1	5788M R36	ORD 7-292S	25-003W	sHYDRO4MV
1244	040489		TDOT	357-1	5830M R36	ORD 6-552S	24-591W	sHYDRO4MV
1958	040489		TDOT	358-1	5655M R36	ORD 6-192S	25-004W	sHYDRO4MV
0304	050489		TDOT	359-1	5476M R36	ORD 5-433S	24-597W	sHYDRO4MV
0946	050489		TDOT	360-1	5524M R36	ORD 5-091S	25-008W	sHYDRO4MV
1641	050489		TDOT	361-1	5462M R36	ORD 4-321S	25-006W	sHYDRO4MV
2309	050489		TDOT	362-1	5336M R36	ORD 3-580S	24-584W	sHYDRO4MV
10	060489		TDOT	363-1	5550M R36	ORD 3-292S	25-003W	sHYDRO4MV
1116	060489		TDOT	364-1	5364M R36	ORD 3-004S	24-595W	sHYDRO4MV

#GMT #TIME	DDMMYY DATE	LOC TIME	T Z	SAMP CODE	SAMPLE IDENTIFIER	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
1746	060489			TDOT	365-1	5617M R36	ORD 2-289S	24-589W	sHYDRO4MV
0008	070489			TDOT	366-1	4938M R36	ORD 1-582S	24-590W	sHYDRO4MV
0624	070489			TDOT	367-1	4709M R36	ORD 1-296S	24-594W	sHYDRO4MV
1214	070489			TDOT	368-1	3223M R36	ORD 1-012S	24-597W	sHYDRO4MV
1700	070489			TDOT	369-1	3354M R36	ORD 0-391S	24-596W	sHYDRO4MV
2133	070489			TDOT	370-1	3296M R36	ORD 0-200S	24-596W	sHYDRO4MV
0204	080489			TDOT	371-1	3258M R36	ORD 0-007N	25-013W	sHYDRO4MV
0646	080489			TDOT	372-1	3492M R36	ORD 0-206N	25-000W	sHYDRO4MV
1130	080489			TDOT	373-1	4271M R36	ORD 0-396N	25-001W	sHYDRO4MV
1025	110489			TDOT	374-1	4480M R36	ORD 0-394S	36-289W	sHYDRO4MV
1540	110489			TDOT	375-1	4503M R36	ORD 0-204S	36-318W	sHYDRO4MV
0209	120489			TDOT	376-2	4522M R36	ORD 0-006N	36-296W	sHYDRO4MV
1055	120489			TDOT	377-1	4523M R36	ORD 0-197N	36-300W	sHYDRO4MV
1619	120489			TDOT	378-1	4523M R36	ORD 0-389N	36-302W	sHYDRO4MV
2252	120489			TDOT	379-1	3945M R36	ORD 1-108N	36-291W	sHYDRO4MV
*** LARGE VOLUME GEOCHEMICAL SAMPLE ***									
2250	140389			GCLV	310-2	1091M G09	ORD 34-546S	51-567W	sHYDRO4MV
1339	150389			GCLV	313-1	3066M G09	ORD 35-133S	50-514W	sHYDRO4MV
2020	150389			GCLV	313-3	3179M G05	ORD 35-127S	50-435W	sHYDRO4MV
2229	150389			GCLV	313-4	3224M G04	ORD 35-117S	50-400W	sHYDRO4MV

#GMT #TIME	DDMMYY DATE	LOC, T TIME Z	SAMP CODE	SAMPLE IDENTIFIER	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
2112	210389		GCLV	316-1	4709M G09	ORD 30-495S	24-587W	sHYDRO4MV
0514	220389		GCLV	316-3	4637M G09	ORD 30-458S	24-584W	sHYDRO4MV
2236	260389		GCLV	332-1	5220M G09	ORD 21-292S	25-009W	sHYDRO4MV
0638	270389		GCLV	332-3	4994M G09	ORD 21-305S	25-018W	sHYDRO4MV
1427	290389		GCLV	340-1	5768M G09	ORD 16-486S	25-004W	sHYDRO4MV
0006	300389		GCLV	340-3	5761M G09	ORD 16-466S	25-007W	sHYDRO4MV
1612	010489		GCLV	349-1	5319M G09	ORD 11-334S	24-587W	sHYDRO4MV
0046	020489		GCLV	349-3	5611M G09	ORD 11-346S	25-014W	sHYDRO4MV
0524	020489		GCLV	349-4	5369M G09	ORD 11-336S	25-016W	sHYDRO4MV
2218	110489		GCLV	376-1	4522M G09	ORD 0-002S	36-285W	sHYDRO4MV
0551	120489		GCLV	376-3	4522M G09	ORD 0-001N	36-298W	sHYDRO4MV

#***

END SAMPLE INDEX