

CRUISE REPORT

OCEANUS 113

January 26 - February 4, 1982

Brad Butman
U.S. Geological Survey
Woods Hole, MA 02543

Vessel: OCEANUS

Cruise No.: OC113

Dates of Operation: 1000 January 26 - 1300 February 4, 1982

Area of Operations: Georges Bank, Lydonia Canyon

Objectives of Cruise: The objectives of the OCEANUS cruise were:

- 1) Recover 2 tripods and 7 subsurface moorings.
- 2) Deploy 3 tripods and 10 subsurface moorings.
- 3) Deploy 3 sediment trap moorings at Mobil Lease Block 312.
- 4) Deploy 5 surface marker buoys and others as required.
- 5) Collect surface grab samples at Station A.
- 6) Conduct CTD and XBT observations around Lydonia and Oceanographer Canyons.

| | | |
|-------------------|-------------------|-----------------------------------------|
| <u>Personnel:</u> | Brad Butman | U.S. Geological Survey |
| | Mike Bothner | U.S. Geological Survey |
| | Andy Eliason | Eliason Data Services |
| | Pat Hughes | Mass. Office of Coastal Zone Management |
| | John Larson | U.S. Geological Survey |
| | Don McElroy | U.S. Geological Survey |
| | Frank Musialowski | U.S. Geological Survey |
| | Marlene Noble | U.S. Geological Survey |
| | Carol Parmenter | U.S. Geological Survey |
| | Rick Rendigs | U.S. Geological Survey |
| | Polly Shoukimas | U.S. Geological Survey |
| | Bill Strahle | U.S. Geological Survey |

Equipment: Northstar Loran-C 6000
Giffit echo sounder
XBT
Neil Brown Instrument Systems CTD with LED transmissometer
AMF Acoustic Command System

Navigation: All latitudes and longitudes were computed from Northstar 6000 Loran-C using Stations W and Y and program 5101.

Narrative:

Jan. 26 1000 Depart Woods Hole.
1350 Arrive GB S.
1415 Deploy surface buoy C.
1440 Deploy surface buoy F. Deployment of pressure mooring
delayed. Interconnecting cable lost.

Jan. 27 0530 Start bathymetry Oceanographer Canyon.
0730 Finish bathymetry at OCB, OCC.
1100 Deploy surface buoy E at OCA.
1200 Deploy surface buoy R at OCA.
1428 Deploy tripod at OCA (mooring 248).
1545 Arrive Station OCC.
1900 Deploy subsurface mooring at OCC (mooring 250).
2000 Decks secured for night.

Jan. 28 0800 Start setup for mooring 249 at OCB.
1043 Deploy subsurface mooring 249 (deep instrument package)
1100 Underway to LCP. Change to LCB.
1340 Recover deep tripod at LCB (mooring 231).
1400 Underway to LCA.
1430 Arrive LCA. One surface buoy off station; one surface buoy
with no tower.
1545 Deploy surface buoy V.
1625 Deploy tripod at LCA (mooring 240).
1700 Prepare to recover tripod at LCA.
1820 Tripod on deck (mooring 229).
2000 Arrive LCP.
2050 Recover subsurface (mooring 236)
2200 Recover tripod (mooring 237).
2230 Deck secured for night.

Jan. 29 0800 On station LCB. Too rough to recover mooring. Underway to
LCO.
1000 Arrive LCO.
1030 Pressure mooring (235) on deck.
1215 Prepare to deploy subsurface mooring at LCS (mooring 245).
1640 Deploy mooring 245. Too rough for additional mooring work.
1730 Start bathymetry at LCT.
1900 Complete bathymetry at LCT.
1930 Setup for CTD cast.
2313 Complete CTD's.

Jan. 30 0600 Underway to LCE.
0755 Recovery of subsurface mooring 232 complete. Underway to LCB.
0855 Arrive LCB.
0930 Complete CTD.
1045 Complete recovery of subsurface mooring (230) at LCB.
Underway to LCP.
1145 Recover surface buoy A.
1250 Recover surface buoy P.
1300 Underway to LCQ.
1425 Arrive LCQ.

1520 Deploy surface buoy P.
 1615 Deploy surface buoy A. Begin launch of deep instrument package at LCQ.
 2005 Deploy deep instrument package at LCQ (mooring 243). Prepare to deploy subsurface at LCR (244).
 2120 Deploy subsurface mooring 244.
 2200 Mooring disabled. Deck secured for evening.

Jan. 31 0630 CTD at LCI.
 0755 Recover mooring 234 at LCI.
 0950 Recover mooring 233.
 1020 Underway to LCL.
 1115 Arrive LCL.
 1210 Deploy tripod (mooring 251).
 1220 Underway to LCB.
 1255 Arrive LCB. Prepare to launch subsurface mooring 241.
 1425 Start streaming mooring 241.
 1601 Anchor away, mooring 241.
 1730 Start bathymetry at LCT.
 2015 Start deployment of subsurface (242) at LCI.
 2220 Anchor away.
 2230 Deck secured for night.

Feb. 1 0950 Ready to deploy mooring at LCT (246).
 1010 Anchor away.
 1055 Underway to LB312.
 1230 Arrive at LB312. (Rowan Midland).
 1255 Pickup pressure cables from Tampa VI.
 1435 Deploy sediment trap mooring 312B (mooring 254).
 1605 Deploy sediment trap mooring 312A (mooring 253).
 1850 Deploy sediment trap mooring 312C (mooring 255).
 1900 Underway to Station GBA.
 2120 Arrive GBA.
 2315 Biology grabs complete.

Feb. 2 0800 Start hydrographic transects.
 1450 Arrive LCO.
 1615 Deploy pressure mooring (247). Underway to LCA.
 1650 Search for surface buoy.
 1730 Recover surface buoy B.
 1900 Continue CTD transect.

Feb. 3 1100 Problems with CTD.
 1330 Resume CTD.
 2253 Complete CTD survey. Underway to Nantucket Shoals.

Feb. 4 0743 Arrive Station GBS. Heavy fog.
 0815 Deploy pressure mooring (252). Underway to Woods Hole.
 1315 Arrive Woods Hole.

Tabulated Information:

Days at sea: 10

Moorings deployed: 16

Moorings recovered: 9

Grabs: 5

Surface buoys recovered: 4

Surface buoys deployed: 7

CTD stations: 42

XBT stations: 31

Surface salinity samples: 51

Bathymetric surveys: OCC and OCB 0530 - 0820 Jan. 27

LCS 1105 - 1135 Jan. 29

1535 - 1612 Jan. 29

LCT 1737 - 1850 Jan. 29

1747 - 1805 Jan. 31

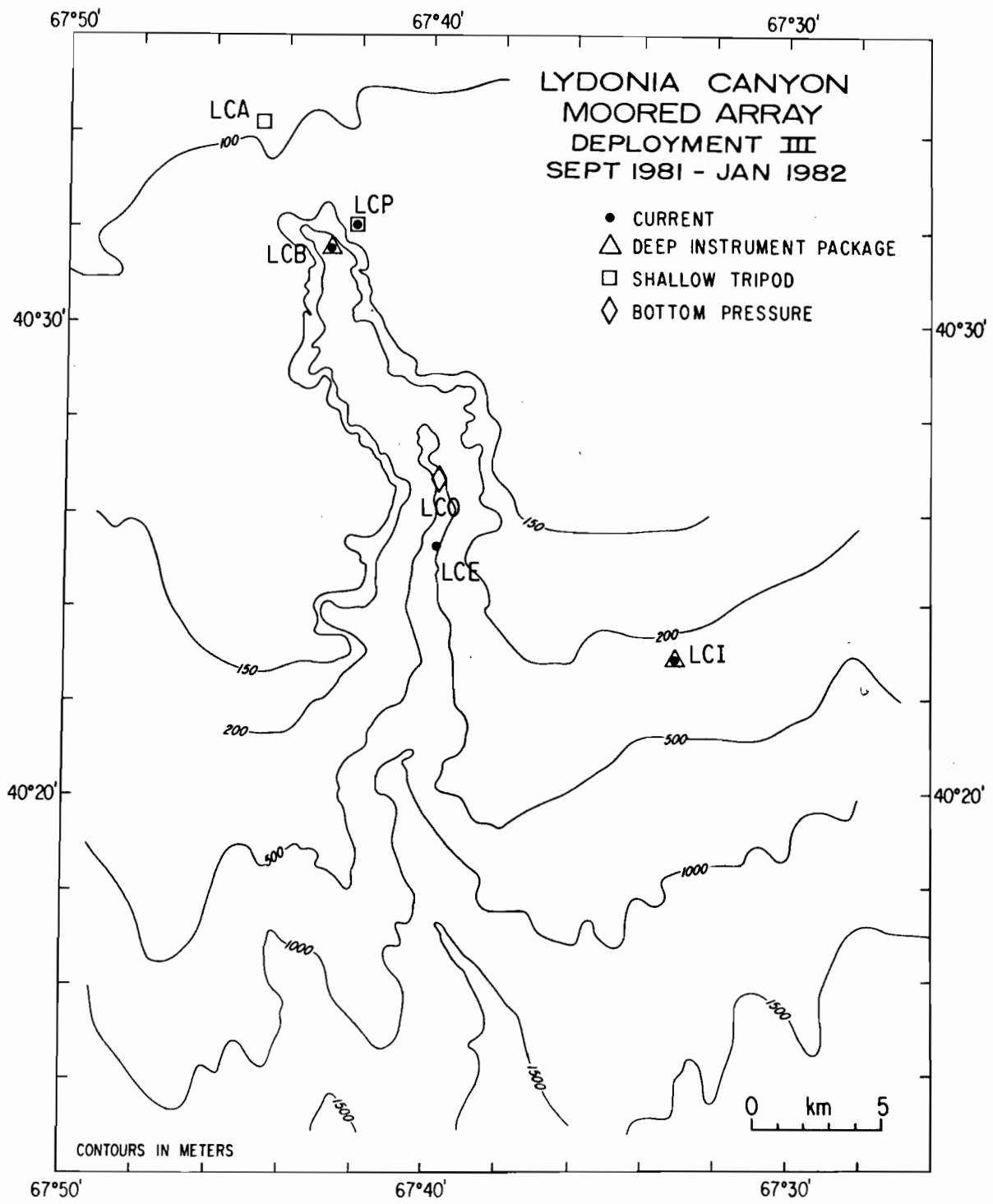


Figure 1. Lydonia Canyon experiment deployment III.
Instruments recovered on OC 113.

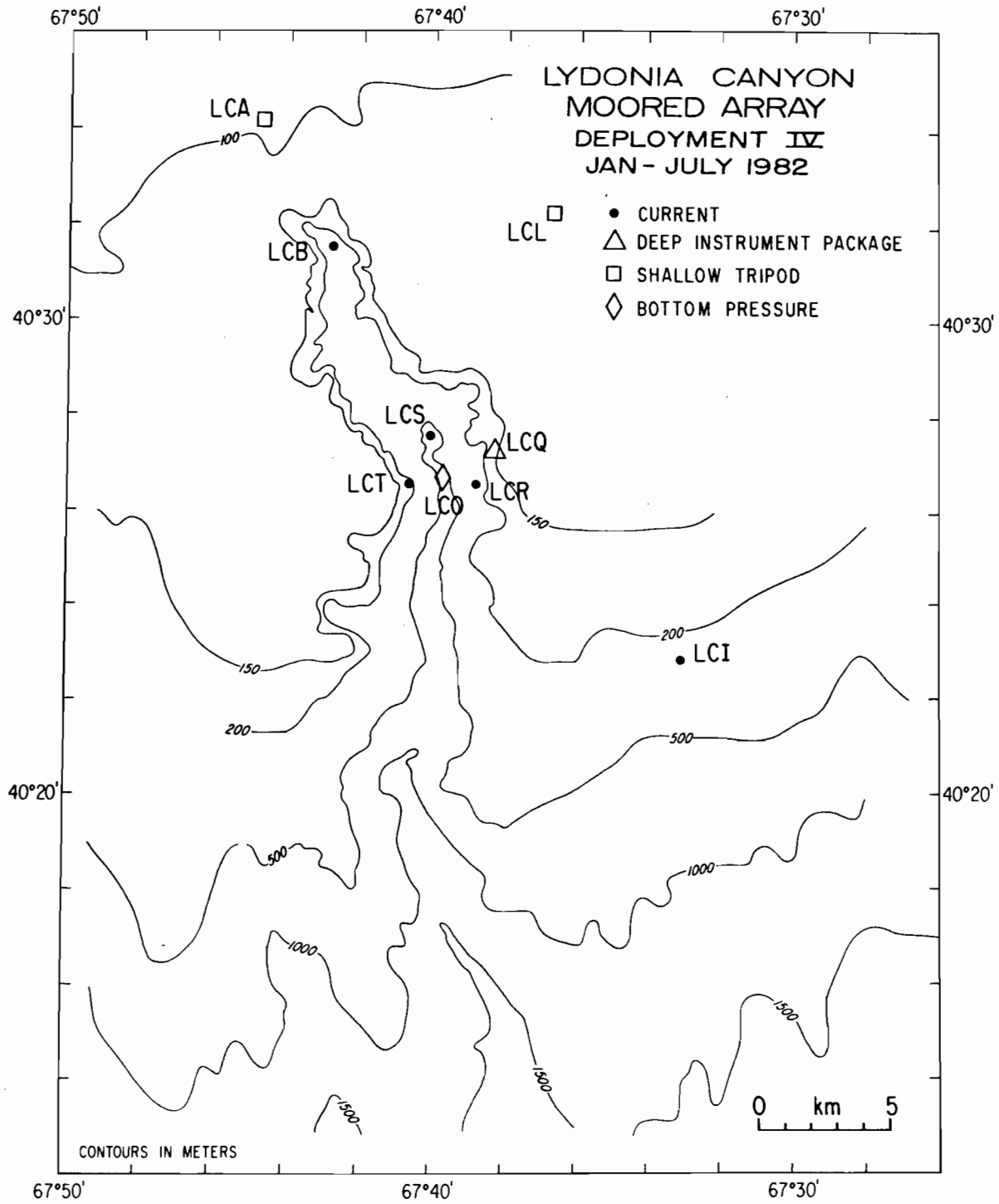


Figure 2. Lydonia Canyon experiment deployment IV. Instruments deployed on OC 113.

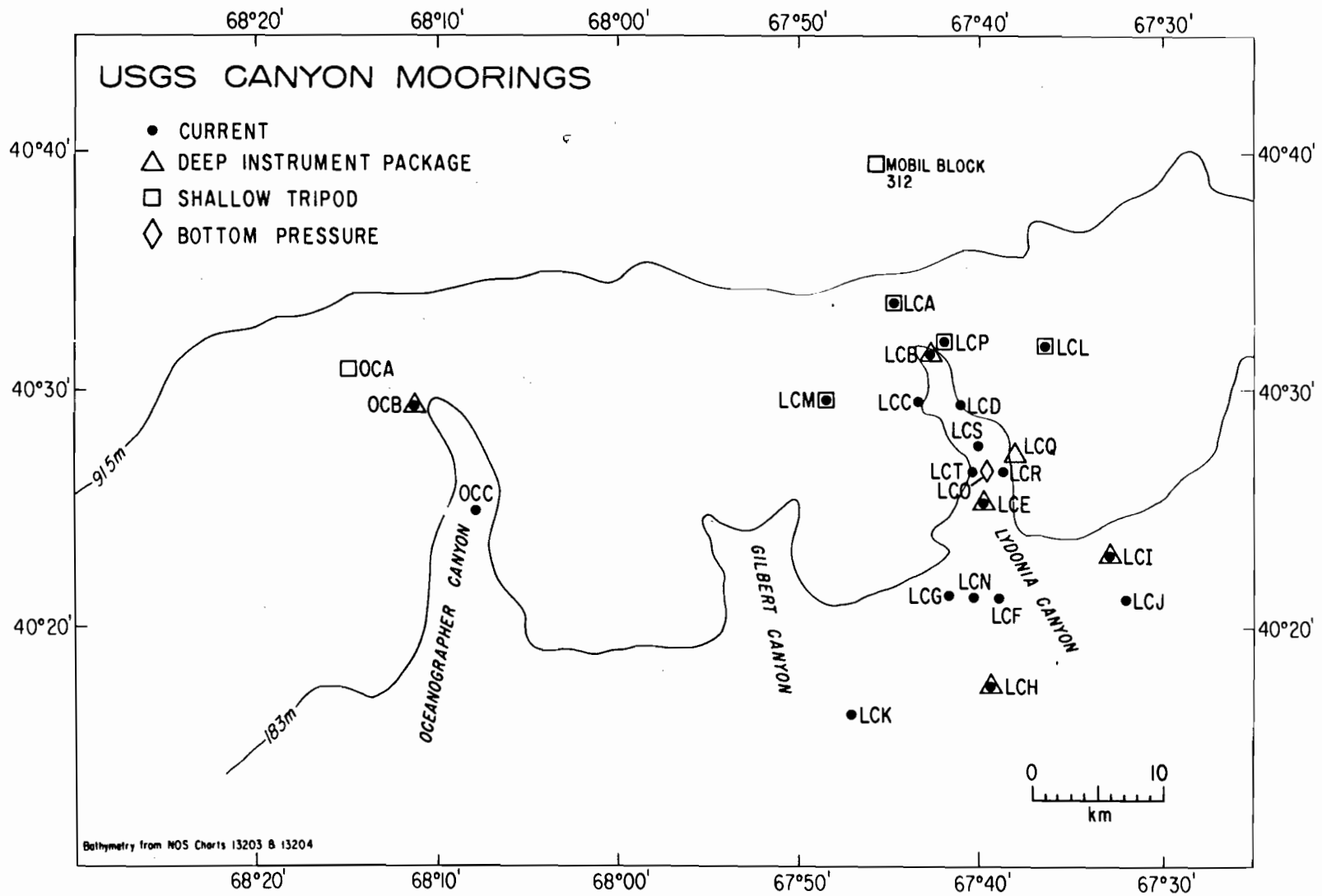


Figure 3. Oceanographer Canyon experiment deployment I. Instruments deployed on OC 113.

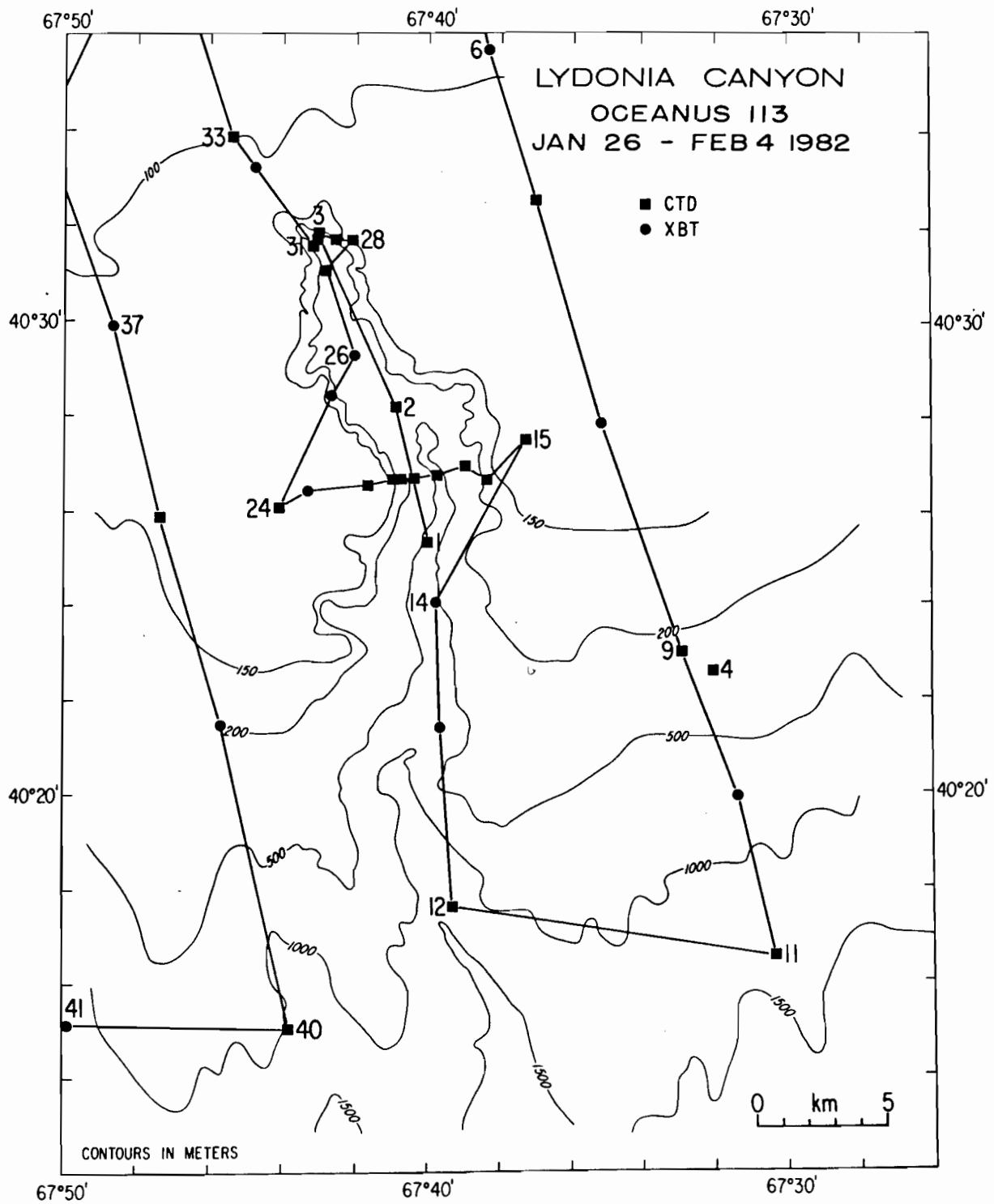


Figure 4. Hydrographic stations around Lydonia Canyon, OCEANUS 113.

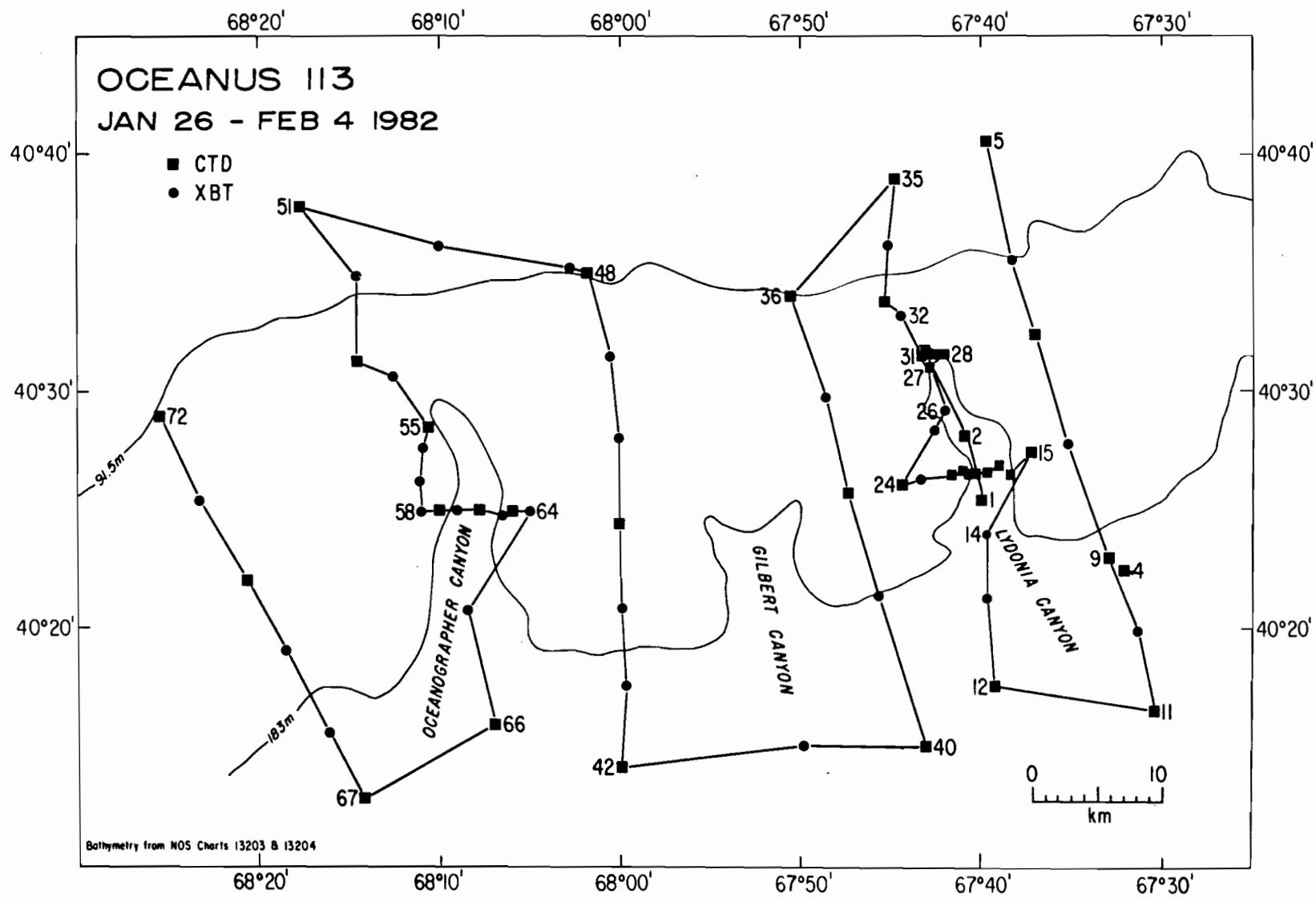


Figure 5. Hydrographic stations around Lydonia and Oceanographer Canyons, OCEANUS 113.

Lydonia Canyon Moorings, Deployment 3, OC113

| Station/ location | Moor. no. | Water depth (m) | Latitude N. | Longitude W. | Moor. type | Inst. type | Inst. Depth (m) | Inst. sn | Deployed YrMoDy | Recovered YrMoDy |
|------------------------|--------------|-----------------------|----------------|-----------------|---------------|---------------|-----------------------|-------------|--------------------|---------------------|
| LCA/ shelf | 229 | 100 | 40°34.35' | 67°44.03' | T | T | 100 | | 810926 | 820128 |
| | 238 | 101 | 40°34.37' | 67°43.50' | T | T | 101 | | 810926 | 811001 |
| LCB/ canyon head | 231 | 290 | 40°31.54' | 67°42.79' | SS | ST DIP | 270 285 | V321TC | 810927 | 820127 |
| | 230 | 295 | 40°31.50' | 67°42.74' | SS | ST | 285 | | 810927 | 820130 |
| | | | | | | VTC | 125 | V322TC | | |
| | | | | | | ST | 239 | | | |
| | | | | | | V | 245 | V422 | | |
| LCE/ axis | 232 | 590 | 40°25.40' | 67°39.84' | SS | ST | 475 | 308 | 810928 | 820130 |
| | | | | | | ST | 479 | 307 | | |
| | | | | | | ST | 483 | 306 | | |
| | | | | | | ST | 487 | 305 | | |
| | | | | | | V | 493 | V423 | | |
| | | | | | | ST | 570 | 304 | | |
| | | | | | | VT | 584 | V442T | | |
| | | | | | | ST | 586 | 303 | | |
| LCI/ slope | 234 | 247 | 40°23.11' | 67°32.60' | SS | ST | 228 | | 810927 | 820131 |
| | | | | | | DIP | 242 | V477T | | |
| | | | | | | | ST | 242 | | |
| 233 | 251 | 40°22.95' | 67°32.97' | SS | V | 55 | V493 | 810927 | 820131 | |
| | | | | | ST | 110 | 315 | | | |
| | | | | | ST | 114 | 314 | | | |
| | | | | | ST | 118 | 313 | | | |
| | | | | | ST | 122 | 312 | | | |
| | | | | | ST | 126 | 311 | | | |
| | | | | | V | 201 | V558 | | | |
| LCP/ east wall | 237 | 131 | 40°32.02' | 67°42.07' | T | T | 131 | | 810926 | 820128 |
| | 236 | 132 | 40°31.95' | 67°42.07' | SS | ST | 106 | 317 | 810928 | 820128 |
| V | | | | | | 113 | V421 | | | |
| ST | | | | | | 128 | 316 | | | |
| LCO/ axis | 235 | 555 | 40°26.74' | 67°39.75' | P | P | 555 | | 811001 | 820129 |

Lydonia Canyon Moorings, Deployment 4, 0C113

| Station/ location | Mooring no. | Water depth (m) | Latitude N. | Longitude W. | Moor. type | Inst. type | Inst. depth (m) | Inst. sn. | Deployed YrMoDy | Recovered YrMoDy |
|------------------------|----------------|-----------------------|----------------|-----------------|---------------|-----------------------------------------|-----------------------------------------------|--------------------------------------------------------------|--------------------|---------------------|
| LCA/ shelf | 240 | 100 | 40°33.78' | 67°44.76' | T | T | 100 | | 820128 | |
| LCB/ canyon head | 241 | 300 | 40°31.52' | 67°42.83' | SS | ST VTC ST V ST VTC ST | 102 108 242 248 218 294 296 | ST412 V334TC ST404 V624 ST403 V626TC ST402 | 820131 | |
| LCI | 242 | 249 | 40°23.05' | 67°32.96' | SS | V ST ST V VT ST | 59 99 193 199 243 245 | V506 ST415 ST414 V541 V443T ST413 | 820131 | |
| LCQ | 243 | 185 | 40°27.25' | 67°38.27' | SS | DIP ST | 180 180 | V518TC ST416 | 820130 | |
| LCR | 244 | 240 | 40°26.62' | 67°38.80' | SS | V V | 183 215 | V473 V485 | 820130 | |

Lydonia Canyon Moorings, Deployment 4, OC113 (Continued)

| Station/ Location | Mooring no. | Water depth (m) | Latitude N. | Longitude W. | Moor. type | Inst. type | Inst. depth (m) | Inst. sn. | Deployed YrMoDy | Recovered YrMoDy |
|----------------------|----------------|-----------------------|----------------|-----------------|---------------|---------------|-----------------------|--------------|--------------------|---------------------|
| LCS | 245 | 560 | 40°27.61' | 67°40.03' | SS | ST | 443 | ST405 | 820129 | |
| | | | | | | ST | 447 | ST411 | | |
| | | | | | | ST | 449 | ST411A | | |
| | | | | | | ST | 451 | ST410 | | |
| | | | | | | ST | 455 | ST409 | | |
| | | | | | | ST | 457 | ST409A | | |
| | | | | | | ST | 459 | ST408 | | |
| | | | | | | ST | 480 | ST408B | | |
| | | | | | | ST | 520 | ST408A | | |
| | | | | | | ST | 540 | ST407 | | |
| | | | | | | ST | 540 | ST407B | | |
| | | | | | | ST | 552 | 407A | | |
| | | | | | | V | 554 | V516T | | |
| | | | | | | ST | 556 | ST406 | | |
| LCT | 246 | 203 | 40°26.62' | 67°40.61' | SS | V | 178 | V487 | 820102 | |
| LCO | 247 | 552 | 40°26.77' | 67°39.72' | P | P | 552 | | 820202 | |
| LCL | 251 | 127 | 40°32.40' | 67°36.52' | T | T | 127 | | 820131 | |

Lease Block 312, Deployment 1, OC113

| Station/ location | Mooring no. | Water depth (m) | Latitude N. | Longitude W. | Moor. type | Inst. type | Inst. depth (m) | Inst. sn. | Deployed YrMoDy | Recovered YrMoDy |
|----------------------|----------------|-----------------------|----------------|-----------------|---------------|---------------|-----------------------|--------------|--------------------|---------------------|
| 312A | 253 | 80 | 40°39.48' | 67°45.67' | SS | ST | 55 | 422 | 820201 | |
| | | | | | | ST | 76 | 423 | | |
| 312B | 754 | 81 | 40°39.16' | 67°46.24' | SS | ST | 56 | 424 | 820201 | |
| | | | | | | ST | 77 | 425 | | |
| 312C | 255 | 78 | 40°39.76' | 67°41.54' | SS | ST | 53 | 426 | 820201 | |
| | | | | | | ST | 74 | 427 | | |

Oceanographer Canyon, Deployment 1, OC113

| Station/ Location | Mooring no. | Water depth (m) | Latitude N. | Longitude W. | Moor. type | Inst. type | Inst. depth (m) | Inst. sn. | Deployed YrMoDy | Recovered YrMoDy |
|----------------------|----------------|-----------------------|----------------|-----------------|---------------|-----------------------------------------------|------------------------------------------------------|---------------------------------------------------------------------|--------------------|---------------------|
| OCA | 248 | 104 | 40°30.76' | 68°14.83' | T | T | 104 | | 820127 | |
| OCB | 249 | 227 | 40°29.44' | 68°11.06' | SS | ST V DIP ST | 171 177 223 223 | ST419 V585 V335TC ST418 | 820128 | |
| OCC | 250 | 560 | 40°24.93' | 68°07.83' | SS | ST ST ST ST ST VTC ST ST | 454 480 520 540 550 554 556 556 | ST421 421D 4211C 421B 421A V628TC ST420 ST420A | 820127 | |

HYDROGRAPHIC STATION LIST

OCEANUS 113

| STA | TIME | P | 00000 | 20000 | 40000 | LATITUDE | LONGITUD | DEPTH | XSCR | BETAS |
|------------|------------|---------|---------|---------|----------|----------|----------|-------|------|-------|
| | | | LORAN | LORAN | LORAN | | | | | |
| YYMMDDHHMM | E | XXXXX.X | XXXXX.X | XXXXX.X | XX XX.XX | XX XX.XX | | | | |
| 1 | 8201292109 | S | 13479.2 | | 43369.8 | 40 25.29 | 67 39.97 | | | X |
| 1 | 8201292127 | B | 13481.5 | | 43369.8 | 40 25.24 | 67 40.42 | 480 | | X |
| 1 | 8201292143 | E | 13482.8 | | 43370.5 | 40 25.35 | 67 40.87 | | | X |
| 2 | 8201292225 | S | 13471.8 | | 43386.6 | 40 28.13 | 67 40.86 | | | X |
| 2 | 8201292242 | B | | | | | | 470 | | X |
| 2 | 8201292??? | E | 13475.8 | | 43387.9 | 40 28.28 | 67 41.90 | | | X |
| 3 | 8201300900 | S | 13467.0 | 24998.1 | 43408.0 | 40 31.65 | 67 43.00 | | | X |
| 3 | 8201300907 | B | 13467.5 | | 43408.1 | 40 31.65 | 67 43.0 | 270 | | X |
| 3 | 8201300920 | E | 13467.4 | | 43408.8 | 40 31.75 | 67 43.17 | 270 | | X |
| 4 | 8201310626 | S | 13456.2 | | 43350.6 | 40 22.59 | 67 32.02 | 330 | | X X |
| 4 | 8201310646 | E | 13456.6 | | 43349.6 | 40 22.47 | 67 32.03 | 330 | | X |
| 5 | 8202020835 | S | 13416.3 | | 43457.6 | 40 40.65 | 67 39.65 | | | X |
| 5 | 82020208?? | E | 13418.5 | | 43455.5 | 40 40.26 | 67 39.81 | | | X |
| 6 | 8202020918 | S | 13430.7 | | 43428.4 | 40 35.67 | 67 38.27 | | X | X |
| 7 | 8202020950 | S | 13437.7 | | 43409.2 | 40 32.5 | 67 36.95 | 126 | | X X |
| 7 | 8202020958 | E | 13439.4 | | 43408.9 | 40 32.36 | 67 37.19 | 127 | | X |
| 8 | 8202021031 | S | 13448.9 | | 43381.7 | 40 27.8 | 67 35.14 | | X | X |
| 9 | 8202021105 | S | 13458.3 | | 43353.0 | 40 22.98 | 67 32.89 | 255 | | X |
| 9 | 8202021123 | E | 13458.9 | | 43352.9 | 40 22.95 | 67 33.03 | 255 | | X |
| 10 | 8202021147 | S | 13463.6 | | 43334.8 | 40 19.94 | 67 31.34 | | X | X |
| 11 | 8202021213 | S | 13472.2 | | 43314.9 | 40 16.55 | 67 30.27 | 1310 | | X X |
| 12 | 8202021330 | S | 13506.0 | 25004.5 | 43325.1 | 40 17.61 | 67 39.28 | 1440 | | X X |
| 12 | 8202021353 | E | 13506.5 | 25004.5 | 43324.5 | 40 17.59 | 67 39.37 | 1440 | | X |
| 13 | 8202021422 | S | 13492.9 | 25002.1 | 43347.0 | 40 21.38 | 67 39.62 | | X | X |
| 14 | 8202021435 | S | 13483.1 | 25000.7 | 43362.4 | 40 24.02 | 67 39.73 | | X | X |
| 15 | 8202021??? | S | | | | 40 27.46 | 67 37.23 | 145 | | X X |
| 15 | 8202021919 | E | 13457.6 | | 43382.2 | 40 27.71 | 67 37.12 | 145 | | X |
| 16 | 8202021941 | S | 13467.1 | | 43376.5 | 40 26.60 | 67 38.31 | | | X X |
| 17 | 8202022012 | S | 13468.4 | | 43378.6 | 40 26.90 | 67 38.93 | 375 | | X X |
| 17 | 82020220?? | E | 13470.0 | | 43378.8 | 40 26.91 | 67 39.31 | 375 | | X |
| 18 | 8202022040 | S | 13472.5 | | 43377.9 | 40 26.71 | 67 39.70 | 565 | | X X |
| 18 | 82020221?? | E | 13475.2 | | 43377.7 | 40 26.64 | 67 40.28 | 275 | | X |
| 19 | 8202022108 | S | 13475.6 | | 43377.8 | 40 26.64 | 67 40.35 | 265 | | X X |
| 19 | 8202022120 | E | 13476.6 | | 43377.7 | 40 26.61 | 67 40.58 | 220 | | X |
| 20 | 8202022126 | S | 13477.2 | | 43377.8 | 40 26.60 | 67 40.69 | 195 | | X |
| 20 | 82020221?? | E | 13478.1 | | 43377.8 | 40 26.60 | 67 40.9 | 160 | | X |
| 21 | 8202022141 | S | 13478.1 | | 43377.8 | 40 26.60 | 67 40.90 | 160 | | X |
| 21 | 8202022146 | E | 13479.0 | | 43378.2 | 40 26.63 | 67 41.14 | 145 | | X |
| 22 | 8202022200 | S | 13481.7 | | 43377.6 | 40 26.49 | 67 41.64 | 145 | | X |
| 22 | 8202022200 | E | 13482.4 | | 43378.2 | 40 26.57 | 67 41.87 | | | X |
| 23 | 8202022220 | S | 13489.2 | | 43377.8 | 40 26.37 | 67 43.28 | | X | X |
| 24 | 8202022231 | S | 13493.9 | | 43376.2 | 40 26.03 | 67 44.07 | 145 | | X |
| 24 | 8202022240 | E | 13494.2 | | 43376.5 | 40 26.07 | 67 44.17 | 145 | | X |
| 25 | 8202022323 | S | 13487.5 | | 43398.0 | 40 28.37 | 67 42.63 | | X | X |
| 26 | 82020223?? | S | 13471.9 | | 43395.1 | 40 29.22 | 67 42.00 | | X | |

Type: S = Start of CTD cast; B = Bottom of cast; E = End of cast

XBT = Expendable Bathythermograph; CTD = Conductivity-Temperature-Depth transmission cast; SS = Surface Salinity sample.

 HYDROGRAPHIC STATION LIST

OCEANUS 113

| STA | Y | M | D | H | M | P | 00000 | 20000 | 40000 | LATITUDE | LONGITUD | DEPTH | BETAS | |
|-----|----|----|----|----|----|---|---------|---------|---------|----------|----------|-------|-------|-----|
| | | | | | | | TO | TO | TO | | | | | (M) |
| | | | | | | | T 19999 | 39999 | 59999 | | | | | |
| | | | | | | | Y CHAIN | CHAIN | CHAIN | | | | | |
| | | | | | | | LORAN | LORAN | LORAN | | | | | |
| | | | | | | | XXXXX.X | XXXXX.X | XXXXX.X | XX XX.XX | XX XX.XX | | | |
| 27 | 82 | 02 | 02 | 23 | 22 | S | 13468.6 | | 43404.4 | 40 31.03 | 67 42.79 | 200 | X | |
| 28 | 82 | 02 | 02 | 23 | 52 | S | 13463.1 | | 43407.5 | 40 31.64 | 67 42.07 | 145 | X | |
| 28 | 82 | 02 | 02 | 23 | 56 | E | 13464.6 | | 43407.8 | 40 31.66 | 67 42.41 | 145 | X | |
| 29 | 82 | 02 | 03 | 00 | 04 | S | 13465.1 | 24998.0 | 43407.9 | 40 31.65 | 67 42.53 | 265 | X X | |
| 29 | 82 | 02 | 03 | 00 | 12 | E | 13466.7 | | 43408.4 | 40 31.80 | 67 43.04 | 265 | X | |
| 30 | 82 | 02 | 03 | 00 | 21 | S | 13466.4 | | 43408.9 | 40 31.79 | 67 42.98 | 267 | X | |
| 30 | 82 | 02 | 03 | 00 | 36 | E | 13466.5 | 24998.0 | 43409.9 | 40 31.94 | 67 43.13 | 267 | X | |
| 30 | 82 | 02 | 03 | 00 | 36 | E | 13466.5 | 24998.0 | 43409.9 | 40 31.94 | 67 43.13 | 267 | X | |
| 31 | 82 | 02 | 03 | 00 | 53 | S | 13468.1 | 24997.3 | 43407.3 | 40 31.52 | 67 43.13 | 195 | X X | |
| 31 | 82 | 02 | 03 | 01 | 07 | E | 13470.3 | 24998.1 | 43408.1 | 40 31.58 | 67 43.68 | 195 | X | |
| 32 | 82 | 02 | 03 | 01 | 20 | S | 13468.5 | 24997.6 | 43418.1 | 40 33.19 | 67 44.75 | | X X | |
| 33 | 82 | 02 | 03 | 01 | 32 | S | 13468.6 | 24999.6 | 43422.0 | 40 33.83 | 67 45.36 | 113 | X X | |
| 33 | 82 | 02 | 03 | 01 | 41 | E | 13469.2 | | 43423.3 | 40 34.03 | 67 45.70 | 113 | X | |
| 34 | 82 | 02 | 03 | 02 | 05 | S | 13465.7 | | 43433.9 | 40 36.76 | 67 46.62 | 85 | X X | |
| 35 | 82 | 02 | 03 | 02 | 19 | S | 13456.7 | 24996.9 | 43453.4 | 40 39.08 | 67 47.53 | 82 | X X | |
| 35 | 82 | 02 | 03 | 02 | 24 | E | 13456.7 | 24996.9 | 43454.2 | 40 39.20 | 67 47.64 | 82 | X | |
| 36 | 82 | 02 | 03 | 03 | 11 | S | 13490.5 | 24998.0 | 43426.1 | 40 34.02 | 67 50.59 | 95 | X X | |
| 36 | 82 | 02 | 03 | 03 | 18 | E | 13490.8 | | 43427.1 | 40 34.15 | 67 50.67 | 95 | X | |
| 37 | 82 | 02 | 03 | 03 | 52 | S | 13498.7 | 24999.3 | 43400.9 | 40 29.86 | 67 48.67 | | X X | |
| 38 | 82 | 02 | 03 | 04 | 40 | S | 13508.9 | | 43376.8 | 40 25.82 | 67 47.39 | 152 | X X | |
| 38 | 82 | 02 | 03 | 04 | 50 | E | 13507.7 | | 43377.4 | 40 25.96 | 67 47.22 | 152 | X | |
| 39 | 82 | 02 | 03 | 05 | 32 | S | 13518.7 | | 43350.3 | 40 21.44 | 67 45.69 | | X X | |
| 40 | 82 | 02 | 03 | 06 | 24 | S | 13535.1 | | 43312.0 | 40 15.01 | 67 43.79 | 1200 | X X | |
| 41 | 82 | 02 | 03 | 07 | 19 | S | 13565.8 | | 43315.7 | 40 15.11 | 67 49.91 | 1300 | X X | |
| 42 | 82 | 02 | 03 | 07 | 59 | S | 13606.5 | | 43314.0 | 40 14.16 | 67 59.59 | 1050 | X | |
| 43 | 82 | 02 | 03 | 08 | 40 | S | 13593.8 | | 43334.8 | 40 17.63 | 67 59.7 | 260 | X X | |
| 44 | 82 | 02 | 03 | 09 | 00 | S | 13582.6 | | 43354.4 | 40 20.9 | 67 59.9 | 145 | X | |
| 45 | 82 | 02 | 03 | 09 | 20 | S | 13569.4 | | 43375.7 | 40 24.49 | 68 00.03 | 144 | X X | |
| 45 | 82 | 02 | 03 | 09 | 29 | S | 13569.7 | | 43375.7 | 40 24.48 | 68 00.10 | 144 | X | |
| 46 | 82 | 02 | 03 | 09 | 51 | S | 13557.5 | | 43397.0 | 40 28.05 | 68 00.45 | 135 | X | |
| 47 | 82 | 02 | 03 | 10 | 10 | S | 13544.9 | | 43417.0 | 40 31.43 | 68 06. | 110 | X | |
| 48 | 82 | 02 | 03 | 10 | 30 | S | 13535.6 | | 43439.1 | 40 35.08 | 68 01.78 | 108 | X | |
| 48 | 82 | 02 | 03 | 11 | 03 | E | 13535.8 | | 43439.2 | 40 35.09 | 68 01.82 | 105 | X | |
| 49 | 82 | 02 | 03 | 11 | 23 | S | 13536.5 | | 43440.2 | 40 35.22 | 68 02.08 | 95 | X X | |
| 50 | 82 | 02 | 03 | 11 | 42 | S | 13568.2 | | 43450.8 | 40 36.17 | 68 10.0 | 95 | X | |
| 51 | 82 | 02 | 03 | 13 | 32 | S | 13596.6 | 25000.2 | 43465.8 | 40 37.85 | 68 17.68 | 83 | X X | |
| 51 | 82 | 02 | 03 | 13 | 38 | E | 13596.9 | | 43466.4 | 40 37.93 | 68 17.81 | 83 | X | |
| 52 | 82 | 02 | 03 | 14 | 09 | S | 13594.1 | 25001.5 | 43446.6 | 40 34.97 | 68 14.61 | 96 | X X | |
| 53 | 82 | 02 | 03 | 14 | 54 | S | 13608.6 | 25004.1 | 43424.5 | 40 31.27 | 68 14.64 | 103 | X X | |
| 53 | 82 | 02 | 03 | 15 | 02 | E | 13608.2 | | 43425.6 | 40 31.45 | 68 14.71 | 103 | X | |
| 54 | 82 | 02 | 03 | 15 | 19 | S | 13601.7 | | 43491.3 | 40 30.62 | 68 12.55 | 110 | X X | |
| 55 | 82 | 02 | 03 | 15 | 36 | S | 13596.9 | 25004.1 | 43411.7 | 40 28.53 | 68 10.55 | 173 | X X | |
| 55 | 82 | 02 | 03 | 15 | 46 | E | 13596.5 | | 43412.9 | 40 29.73 | 68 10.65 | 173 | X | |
| 56 | 82 | 02 | 03 | 16 | 44 | S | 13605.9 | | 43400.4 | 40 27.63 | 68 10.91 | 134 | X X | |
| 57 | 82 | 02 | 03 | 16 | 22 | S | 13612.1 | | 43392.1 | 40 26.21 | 68 11.06 | 138 | X X | |

Type: S = Start of CTD cast; B = Bottom of cast; E = End of cast
 XBT = Expendable Bathythermograph; CTD = Conductivity-Temperature-Depth transmission cast; SS = Surface Salinity sample

 HYDROGRAPHIC STATION LIST

OCEANUS 113

| STA | Y | M | D | H | M | S | 00000 | 20000 | 40000 | LATITUDE | LONGITUD | DEPTH | N | |
|------|------------|-------|---------|-------|-------|-------|---------|---------|---------|----------|----------|-------|---------|-------|
| | | | | | | | TD | TD | TD | | | | A | G |
| TIME | P | LORAN | LORAN | LORAN | LORAN | LORAN | XXXXX.X | XXXXX.X | XXXXX.X | XX XX.XX | XX XX.XX | (M) | XSCR | |
| | | | | | | | | | | | | | Y CHAIN | CHAIN |
| 58 | 8202031630 | S | 13616.6 | | | | | 43384.6 | 40 | 24.98 | 68 11.05 | 143 | X | X |
| 59 | 8202031642 | S | 13611.8 | | | | | 43384.3 | 40 | 25.01 | 68 10.0 | 155 | X | X |
| 59 | 8202031649 | E | 13612.2 | | | | | 43384.3 | 40 | 25.01 | 68 10.08 | 154 | X | |
| 60 | 8202031704 | S | 13607.3 | | | | | 43383.9 | 40 | 25.03 | 68 09.00 | | X | X |
| 61 | 8202031718 | S | 13601.9 | | | | | 43383.5 | 40 | 25.08 | 68 07.86 | 535 | X | X |
| 61 | 8202031731 | E | 13602.3 | | | | | 43353.9 | 40 | 25.15 | 68 07.99 | 500 | X | |
| 62 | 8202031756 | S | 13596.8 | | | | | 43381.4 | 40 | 24.86 | 68 06.52 | | X | X |
| 63 | 8202031803 | S | 13593.6 | | | | | 43381.9 | 40 | 24.99 | 68 05.92 | 150 | X | X |
| 64 | 8202031822 | S | 13589.6 | | | | | 43381.7 | 40 | 25.02 | 68 05.02 | 148 | X | X |
| 65 | 8202031857 | S | 13620.7 | | | | | 43358.4 | 40 | 20.85 | 68 08.44 | 680 | X | X |
| 66 | 8202031932 | S | 13627.3 | | | | | 43328.6 | 40 | 16.09 | 68 05.95 | 930 | X | X |
| 67 | 8202032035 | S | 13675.3 | | | | | 43313.7 | 40 | 12.97 | 68 14.10 | 635 | X | X |
| 67 | 8202032050 | E | 13674.8 | | | | | 43313.8 | 40 | 13.00 | 68 14.01 | 620 | X | |
| 68 | 8202032111 | S | 13674.4 | | | | | 43331.0 | 40 | 15.65 | 68 16.08 | | X | |
| 69 | 8202032130 | S | 13672.6 | | | | | 43353.0 | 40 | 19.07 | 68 18.5 | | X | |
| 70 | 8202032151 | S | 13670.6 | | | | | 43372.2 | 40 | 22.04 | 68 20.52 | 123 | X | X |
| 70 | 8202032155 | E | 13670.3 | | | | | 43372.3 | 40 | 22.06 | 68 20.43 | 123 | X | |
| 71 | 8202032221 | S | 13671.3 | | | | | 43395.0 | 40 | 25.51 | 68 23.23 | 105 | X | X |
| 72 | 8202032241 | S | 13666.8 | | | | | 43417.5 | 40 | 29.01 | 68 25.42 | 95 | X | X |
| 72 | 8202032246 | E | 13666.5 | | | | | 43417.6 | 40 | 29.05 | 68 25.36 | 195 | X | |

Tupe: S = Start of CTD cast; B = Bottom of cast; E = End of cast
 XBT = Expendable Bathythermograph; CTD = Conductivity-Temperature-Depth transmission cast; SS = Surface Salinity sample

APPENDIX I
BRIDGE LOG OC113

Vessel OCEANUSPage 1Cruise # 113LORAN LOG

| Date | Time | Star | +/- | Reading | Latitude | Longitude | Remarks |
|------|------|----------------|-----|------------|----------|-----------|----------------------------------------------------------------------|
| | GMT | +5 | | | N | W | Tuesday - Jan 26, 1948 |
| | | | | | | | |
| | | | | | | | |
| | 1652 | 1152 | | | 41-15.72 | 70-46.11 | DEPARTURE Nomans Is Bury #1 depth to old s/c 105° 6' @ 220 RPM |
| | 1730 | 1230 | LC | | 41-13.55 | 70-34.93 | |
| CPS | 1755 | 1255 | LC | | 41-11.66 | 70-27.63 | % 092° |
| | 1914 | 1414 | LC | NS 6000 | 41-10.94 | 70-12.44 | LAUNCH SURF LOU C |
| | " | " | " | NS 7000 | 14053.2 | 43779.8 | |
| | 1937 | 1437 | | | | | 18 m E of "C" LAUNCH SURF LOU F |
| | 1943 | 1443 | | | | | % 181° % 5 215 RPM |
| | 2000 | 1500 | LC | | 41-07.07 | 70-12.62 | POSIT |
| | TS | 6MT | | | | | |
| | 1600 | 2100 | LC | | 4053.4 | 70-12.9 | |
| | 1700 | 2200 | LC | | 40-40.21 | 70-12.73 | C/C 177° |
| | 1800 | 2300 | LC | | 40-26.85 | 70-12.85 | |
| | 1900 | 0000 | LC | | 40-13.61 | 70-12.94 | 1911 C/C 180° 1929 RESUME 177° |

| Date | Time | Sta. | +/- | Reading | Latitude | Longitude | Remarks |
|-----------------------|-----------------|-----------------|---------------|-----------------|---------------------|---------------------|------------------------------------------------------|
| | GMT | +5 | | | | | |
| | 0112 | 2012 | | | 39-58.05 | 70-13.17 | c/c 185 2044-H-T |
| | 0150 | 2050 | | | 39-51.0 | 70-14.0 | |
| | 0215 | 2115 | | | 39-50.99 | 70-08.66 | 2055-Use ^c / ₂ of S/c 070-G |
| | 0310 | 2210 | | | 39-55.0 | 69-54.86 | |
| | 0402 | 2302 | | | 39-58.65 | 69-42.48 | |
| WEDNESDAY JAN 27 1982 | | | | | | | |
| | GMT | +5 | | | | | |
| | 0503 | 0003 | LC | | 40-03.00 | 69-27.33 | |
| | 0600 | 0100 | LC | | 40-06.95 | 69-13.55 | |
| | 0642 | 0142 | SAT | 29 ³ | 40-09.51 | 69-02.58 | |
| | 0700 | 0200 | LC | | 40-10.99 | 68-58.52 | |
| | 0800 | 0300 | LC | | 40-14.85 | 68-43.44 | c/c 065 ⁹ |
| | 0802 | 0302 | SAT | 24 ² | 40-14.94 | 68-42.76 | |
| | 0400 | 0800 | LC | | 40 19.23 | 68-28.73 | |

| Date | Time | Sta. | +/- | Reading | Latitude | Longitude | Remarks |
|------|------|-------------------------|-----|--------------------|----------|-----------|--------------------------------------------------------------|
| | + 5 | 6MT | | | NORTH | WEST | WED JAN 27, 1981 |
| | 0500 | 1000 | LC | | 40.23.63 | 68.14.80 | 0427 - 1/5 190 RPM. |
| | 0520 | 1020 | LC | | 40.24.86 | 68.11.08 | 0520 H.T. - CME SURVEY |
| | 0728 | 1228 | LC | | 40.25.8 | 68.10.97 | 0728 END SURVEY |
| | 0803 | ¹³¹² 1303 | LC | | 40.29.28 | 68.11.18 | 5/1007g - 6.0 KTS CME Bathymetric Survey Van 1/2 scale |
| | 0908 | | | | 40.31.33 | 68-15.34 | |
| | 1102 | | | 13611.1 43422.7 | 40-30.91 | 68-15.12 | OCEANOGRAPHER CANYON Set Surface Mooring "E" |
| | 1200 | | | 13619.2 43422.6 | 40-30.91 | 68-14.72 | Set Surface Mooring "B" |
| | 1300 | 1800 | LC | | 40-31.84 | 68-15.31 | |
| | 1426 | 1926 | LC | 13610.4 43421.7 | 40-30.76 | 68-14.83 | SET TRIPOD BETWEEN E+B |
| | 1500 | 2000 | LC | | 40-28.85 | 68-14.10 | |
| | 1700 | 2200 | LC | | 40.24.03 | 68.09.10 | 1700 CME DEPLOYMENTS OF SUBSURFACE MOORINGS |
| | 1800 | 2300 | LC | | 40.24.47 | 68.09.08 | 1800 DEPLOYMENT CONTINUED |

| Date | Time | Sta. | +/- | Reading | Latitude | Longitude | Remarks |
|---------------------------|------|------|-----|--------------------|----------|-----------|---------------------------------------------------------------------|
| | ±5 | GMT | | | NORTH | WEST | WED JAN 27, 1982 |
| | 1902 | 0002 | LC | 13602.5 43382.7 | 40-24.90 | 68-08.02 | 1902 LET GO ⚓ FOR SUBSURFACE MOORING STA C # 250 1934 H.T. |
| | 2204 | 0304 | LC | | 40-29.8 | 68-10.03 | |
| THURSDAY JANUARY 28, 1982 | | | | | | | |
| | 0000 | 0500 | LC | | 40-35.66 | 68-10.75 | |
| | 0100 | 0600 | LC | | 40-37.77 | 68-11.73 | |
| | 0200 | 0700 | LC | | 40-39.64 | 68-12.40 | °C 169 ^{±5} °C 174 ^{±9} VAR °S TO STA OC |
| | 0300 | 0800 | LC | | 40-36.09 | 68-11.49 | |
| | 0400 | 0900 | DR | | 40-29.5 | 68-10.5 | |
| | 0500 | 1000 | LC | | 40-27.88 | 68-09.55 | |
| | 0745 | 1245 | LC | | 40-32.44 | 68-11.99 | |
| | 1044 | 1544 | | 135996 434113 | 40-29.41 | 68-11.27 | Set S.S. Tripod mooring 1056.5/c 083.6 @ 1200 |

THURS 1-28-82

| Date | +5 Time | Z Sta. | TYPE +/- | T.D's Reading | N Latitude | W Longitude | Remarks |
|---------|------------|-----------|-------------|--------------------|---------------|----------------|----------------------------------------------------------|
| 1-28-81 | 1200 | 1700 | LC | | 40-31.08 | 67-55.18 | |
| | 1323 | 1823 | LC | 13467.2 43407.3 | 40-31.51 | 67-43.21 | RECOVERED SUBSURFACE EQUIPMENT AT LC 8. |
| | 1400 | 1900 | LC | | 40-31.43 | 67-42.73 | POSIT |
| | 1543 | 2043 | LC | 13464.8 43421.9 | 40-33.89 | 67-44.90 | SET SURFACE BOWL # "V" |
| | 1625 | 2125 | LC | — | 40-33.78 | 67-45.09 | 1625 TRIPOD ON BOTTOM - 1300Y Ø 256" T @ 0.2 MI D. |
| | 1826 | 2326 | LC | | 40-34.22 | 67-44.47 | RECOVER TRIPOD |
| | 2028 | 0128 | LC | 13462.5 43409.8 | 40-32.01 | 67-42.56 | Recover S.S. mooring h. |
| | 2157 | 0257 | LC | 13461.8 43411.4 | 40-32.26 | 67-42.65 | Recover S.S. Tripod h. |
| | 2318 | 0418 | LC | | 40-36.84 | 67-43.44 | A Long side Surface Bcg |

Vessel OCEANUSPage 6Cruise # 113LORAN LOG

FRI, JAN 29, 1982

| Date | +5 Time | Z Sta. | TYPE +/- | T.D's Reading | N Latitude | W Longitude | Remarks |
|---------|------------|-----------|-------------|--------------------|---------------|----------------|-----------------------------------------------------|
| 1-29-81 | 0000 | 0500 | LC | | 40-37.34 | 67-43.04 | H.T. |
| | 0100 | 0600 | LC | | 40-38.06 | 67-41.92 | H.T. |
| | 0300 | 0800 | LC | | 40-38.11 | 67-39.15 | VAR'S |
| | 0400 | 0900 | LC | | 40-37.88 | 67-35.82 | |
| | 0500 | 1000 | LC | | 40-35.89 | 67-32.69 | 0500 RETURN TO SITE 'P' S/L 247'g -4.0K |
| | 0600 | 1100 | LC | | 40-35.14 | 67-36.31 | |
| | 0710 | 1110 | LC | | 40-32.36 | 67-41.87 | 0710 JOGGING ABOUT SITE 'P' V/C |
| | 1027 | 1527 | | 13473.3 433787 | 40-26.81 | 67-40.22 | Reverse S.S. L.C. 0 |
| | 1200 | 1700 | LC | | 40-26.81 | 67-35.92 | NOON POS. T |
| | 1600 | 2100 | LC | | 40-27.60 | 67-40.55 | TOWING OF ARRAY CONTINUES |
| | 1639 | 2139 | LC | 13470.0 43383.2 | 40-27.60 | 67-40.02 | 1639 LET GO ⚓ # 245 ADDING LYDONIA CANYON 'S' |
| | 1900 | 0000 | | | 40-27.14 | 67-40.89 | |

| Date | Time | Sta. | +/- | Reading | Latitude | Longitude | Remarks |
|----------------------|--------------|------|-----|--------------------|----------|-----------|----------------------|
| | 5 | GMT | | | N | W | Friday - 1-29-82 |
| | 2136 | 0236 | | 13482.2 43370.5 | 40-25.32 | 67-40.96 | CTD STA |
| | 2233 | 0333 | | 13472.6 43387.0 | 40-28.13 | 67-41.29 | CTD STA |
| | 2340 | 0440 | | | 40-28.27 | 67-44.09 | 2310-FND CTD's |
| SATURDAY JAN 30 1981 | | | | | | | |
| | 0000 | 0500 | LC | | 40-28.15 | 67-44.22 | MIDNIGHT POSIT |
| | 0210 | 0710 | SAT | 43 ³ | 40-27.46 | 67-44.39 | |
| | 0300 | 0800 | LC | | 40-27.14 | 67-44.59 | POSIT |
| | 0600 | 1100 | LC | | 40-22.74 | 67-44.56 | |
| | 0637 | 1137 | LC | | 40-25.31 | 67-39.8 | 0637 HT. |
| | 0743 | 1243 | LC | | 40-25.22 | 67-40.64 | RECOVER SUBSURFACE |
| | 1012 | 1512 | LC | 13467.4 43408.5 | 40-31.69 | 67-43.4 | Recover Subsurface |
| | 1141 | 1641 | LC | | 40-31.92 | 67-42.37 | Pick up surface Buoy |
| | 1200 | 1700 | LC | | 40-33.74 | 67-43.87 | NOON POSIT |

| Date | +5 Time | Z Sta. | TYPE +/- | T-D Reading | N Latitude | W Longitude | Remarks |
|------|------------|-----------|-------------|--------------------|---------------|----------------|--------------------------------------------------------|
| | 1238 | 1738 | LC | 13447.0 43437.8 | 40-36.81 | 67-43.48 | RECOVER SURFACE BUOY "P" |
| | 1500 | 2000 | LC | — | 40-27.19 | 67-38.75 | POSIT |
| | 1518 | 2018 | LC | 13464.4 43379.3 | 40-27.12 | 67-38.19 | SET SURFACE BUOY "P" LCQ |
| | 1618 | 2118 | LC | 13483.7 43381.0 | 40-27.38 | 67-38.27 | SET SURFACE BUOY "A" ^{AWAY} BUOY 'A' 'LCQ' |
| | 2000 | 0100 | LC | 13464.5 43380.3 | 40-27.25 | 67-38.61 | Set SS. LCA 243 |
| | 2118 | 0218 | | 13469.3 43376.2 | 40-26.6 | 67-39.12 | Set SS. LCR |
| | | | | | | | |
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11/11/61

TUES, FEB 2, 1982

| Date | + 5 Time | Z Sta. | TYPE +/- | TD'S Reading | N Latitude | W Longitude | Remarks |
|------|-------------|-----------|-------------|--------------------|---------------|----------------|-----------------------------------|
| | 0000 | 0500 | LC | | 40-49.86 | 67-27.65 | MIDNIGHT POSIT |
| | 0156 | 0656 | SAT | N/A | 40-62.84 | 67-33.15 | |
| | 0200 | 0700 | LC | | 40-52.88 | 67-34.30 | |
| | 0300 | 0800 | LC | | 40-54.30 | 67-37.62 | 1/2 192° |
| | 0500 | 1000 | LC | | 40-48.25 | 67-38.28 | |
| | 0600 | 1100 | LC | | 40-44.50 | 67-38.79 | |
| | 0700 | 1200 | LC | | 40-41.73 | 67-41.30 | |
| | 0847 | | LC | | 40-40.34 | 67-40.21 | 0830-0847 - CTD |
| | 0942 | | LC | | 40-32.47 | 67-37.00 | 0942-1010 CTD |
| | 1108 | | LC | | 40-22.97 | 67-33.2 | 1101-1129 CTD |
| | 1200 | 1700 | LC | | 40-17.97 | 67-30.96 | NEAR POSIT |
| | 1212 | 1712 | LC | | 40-16.50 | 67-30.50 | 1212-1241 CTD |
| | 1329 | 1829 | LC | | 40-17.61 | 67-39.58 | 1329-1355 CTD |
| | 1500 | 2000 | LC | | 40-26.73 | 67-40.72 | POSIT |
| | 1604 | | | 13472.2 43378.2 | 40-26.77 | 67-39.65 | 1604 ANCHOR AWAY PRESS MOORING |

TUES, FEB 2, 1982

| Date | +S Time | Z Sta. | +/- | TD'S Reading | N Latitude | W Longitude | Remarks |
|------|------------|-----------|-----|-----------------|---------------|----------------|------------------------------------------------|
| | 1715 | 2215 | LC | | 40-34.37 | 67-44.67 | INJURED BUOY AT SITE 'LCA' IS ABD-CHAIN CUT |
| | 1800 | 2300 | LC | | 40-30.85 | 67-42.95 | |
| | 1840 | 2340 | LC | | 40-26.26 | 67-40.12 | H-T |
| | 1913 | 2413 | LC | | 40-27.57 | 67-37.10 | '1913 CTD AT DEPTH |
| | 1945 | 2445 | LC | | 40-26.62 | 67-38.16 | 1945 CME CTD |
| | 1953 | 2453 | LC | | 40-26.70 | 67-38.15 | 1953 END CTD |
| | 2008 | 0108 | LC | LC-6000 | 40-26.9 | 67-38.9 | 2008-2033 CTD |
| | 2041 | 0141 | LC | | 40-26.69 | 67-39.70 | CME CTD'S |
| | 2202 | 0302 | | | 40-26.52 | 67-41.67 | Continued " |
| | 2231 | 0331 | | | 40-26.04 | 67-44.10 | " " |
| | 2319 | 0419 | | | 40-31.1 | 67-42.64 | CTD |
| | 2349 | 0449 | LC | | 40-31.6 | 67-41.97 | CTD |

WED, FEB 3, 1982

| Date | +S Time | Z Sta. | +/- | T.D.'s Reading | N Latitude | W Longitude | Remarks |
|------|------------|-----------|-----|-------------------|---------------|----------------|--------------------------------------|
| | 0052 | 0552 | | | 40-31.50 | 67-43.10 | BEGIN CTD STA |
| | 0110 | 0610 | | | | | END " " |
| | 0130 | 0630 | | | 40-33.73 | 67-45.11 | BEGIN CTD STA |
| | 0145 | 0645 | | | 40-34.05 | 67 45.84 | END " " |
| | 0218 | 0718 | | | 40-39.00 | 67-47.50 | BEGIN CTD STA |
| | 0228 | 0728 | | | 40-39.23 | 67-47 68 | END " " |
| | 0311 | 0811 | | | 40-34.00 | 67-50.52 | BEGIN CTD STA |
| | 0321 | 0821 | | | 40-34 15 | 67-47.50 | END " " |
| | 0442 | 0942 | LC | | 40-25.82 | 67.47.26 | CME CTD |
| | 0451 | 0951 | LC | | 40-25.94 | 67-47.25 | END CTD CME FOG |
| | | | | | | | S165 - R/S 140RPM |
| | 0625 | 1125 | LC | | 40-15.02 | 67-43.82 | 0610 SECURE FOG S165 0625 CME CTD |
| | 0643 | 1143 | LC | | 40-15.27 | 67-43.63 | END CTD |
| | 0807 | 1307 | LC | | 40-14.26 | 67 59.61 | 0757-0828 - CTD |
| | 0921 | 1421 | LC | | 40-24.45 | 68-00.0 | 0921-0932 CTD |
| | 1030 | | | | 40-35.06 | 68-01.57 | 1030-1108 - CTD |
| | 1108 | | | | 40-35.12 | 68-01.86 | |
| | 1200 | 1700 | LC | | 40-36.90 | 68-14.96 | NORM POSIT |

WED FEB 3, 1982

| Date | Time | Sta. | +/- | TD'S Reading | N Latitude | W Longitude | Remarks |
|------|----------------------|-----------------|-----|-----------------|---------------|----------------|-------------------|
| | 1208 | 1708 | LC | | 40-37.16 | 68-15.75 | H.T. EQUIP REPAIR |
| | 1300 | 1800 | LC | | 40-37.46 | 68-17.19 | POSIT/CTD TEST |
| | 1342 | 1842 | LC | | 40-37.99 | 68-18.18 | END STA. |
| | 1451 | 1951 | LC | | 40-31.22 | 68-14-60 | BEGIN CTD STA |
| | 1504 | 2004 | LC | | 40-31.48 | 68-14.96 | END " " |
| | 1530 | 2030 | LC | | 40-29.50 | 68-10.50 | BEGIN CTD STA |
| | 1600 | 2100 | LC | | 40-29.93 | 68-10.92 | END " " |
| | | | | | | | 1629 XBT |
| | 1639 | 2139 | LC | | 40-25.01 | 68-09.99 | CME CTD STA |
| | 1647 | 2147 | LC | | 40-25.00 | 68-10.03 | END CTD STA |
| | 1720 | 2220 | LC | | 40-25.06 | 68-07.88 | CME CTD |
| | 1742 | 2242 | LC | | 40-25.22 | 68-08.15 | END CTD |
| | 1804 | 2304 | LC | | 40-25.02 | 68-05.94 | CME CTD |
| | 1812 | 2312 | LC | | 40-25.06 | 68-05.98 | END CTD |
| | ⁹ 1832 | 0032 | LC | | 40-16.07 | 68-05.98 | CME CTD |
| | 1950 | 0050 | LC | | 40-16.38 | 68-05.93 | END CTD |
| | 2034 | 0134 | | | 40-12.96 | 68-14.02 | 2032-2051 - CTD |
| | 2148 | | | | 40-22.03 | 68-20.49 | 2148-2158 - CTD |

| Date | Time | Sta. | +/- | Reading | Latitude | Longitude | Remarks |
|---------------------------|------|------|------------|-----------------|----------|-----------|---------------------------------------------------|
| | +5 | GMT | | | N | W - | Feb. 3, 1982 - WED. |
| | 2242 | 0342 | LC | | 40 29.01 | 68 25.42 | 2242-2250 CTD |
| | 2250 | | | | 40-29.0 | 68-25.35 | 2250 END CTD S _{max} S/C 280.6 @ 2250 |
| THURSDAY FEBRUARY 4, 1982 | | | | | | | |
| | 1500 | 0500 | LC | | 40-30.78 | 68-44.36 | 1/2 284° MIDNIGHT POSIT |
| | 0100 | 0600 | LC | | 40-33.26 | 68-59.54 | POSIT |
| | 0118 | 0618 | SAT | 75 ⁴ | 40-34.19 | 69-04.21 | |
| | 0130 | 0630 | LC | | 40-34.98 | 69-08.50 | 1/2 281° |
| | 0200 | 0700 | LC | | 40-36.14 | 69-15.18 | POSIT. 1/2 278° |
| | 0245 | 0745 | RA/ UIS | | — | — | NANTUCKET I.S. BRNG 186 AT 8.2 mi |
| | 0300 | 0800 | LC | | 40-38.76 | 69-30.60 | 1/2 273° |
| | 0400 | 0900 | LC | | 40-40.67 | 69-45.20 | 0459 CME FOG SIGS R _{1/2} |
| | 0500 | 1000 | LC | | 40-42.37 | 69-59.92 | 0504 '8 DS' @ 0.78 @ |
| | 0541 | 1041 | | | 40-47.28 | 70-06.75 | 1/2 315 |
| | 0600 | 1100 | | | 40-50.84 | 70-07.51 | 0540 1/2 350° |
| | 0700 | 1200 | LC | | 41-01.72 | 70-10.53 | |
| | 0750 | 1250 | LC | | 41-10.81 | 70-12.46 | 0750 AT @ OBS |

