



**Daily Drilling and Scientific Report for
IODP3-NSF Expedition 501
New England Shelf Hydrogeology, 2025**



25th May 00:00 – 25th May 24:00 East Daylight Time (UTC -4)

1. Location

Position 40.8746°N, 70.2697°W @12:00 EDT 25th of May
IODP-MSP borehole M0111B
Prospectus borehole MV-03C
Water Depth: 42m

2. Operations Report

Hole M0111B was washed down until depth objective 62 mbsf was reached at 05:00. Coring commenced using the HPC and the first core on deck for Hole M0111B was received at 05:58. Coring continued with the HPC until a depth of 72.76 mbsf when it was decided to switch to Extended Nose Corer (EXN) at 10:30. However, no core was recovered, so rotary coring was continued from 11:00 until 22:40 when it was decided to switch back to the HPC. At 24:00 Hole M0111B had reached a depth of 98.76 mbsf and 21 cores retrieved, with a total recovered length of 25.34m.

3. Science Report

55 samples were taken on the 25th of May from the cores for interstitial water geochemistry, micropaleontology, physical properties, noble gas analyses and microbiology. All sample details were recorded in the mdis system. The first squeezed sample to analyse noble gas in porewater was collected and preserved in copper tubing from Core 15. 13.2m of core was run through the MSCL and photographed.

4. Core Recovery

Hole	M0111B
Cores recovered	21
Drilled length (Coring, m)	35.96
Drilled length (Open hole, m)	27.4
Recovered length (m)	25.34
Recovery (%)	70%
Depth at midnight (mbsf)	97.76

5. Time Breakdown

00:00 X501 team crossover meeting
00:00 Washing down M0111B, 34.6 mbsf
05:00 Washing down M0111B, 62 mbsf objective reached
05:00 Coring commences with HPC
05:58 First core on deck for Hole M0111B, Core 1H
10:30 Switch to EXN coring
11:05 Switch to rotary coring
11:00 Ship meeting with CC, Ops manager, EPM, Matrix and Captain
12:00 X501 team crossover meeting.
11:05 to 22:40 continued rotatory coring
22:40 switch to HPC
24:00 coring reached 98.7 mbsf

6. Hours (inc. cumulative total) – no contractual implications can be made from these figures

In port	n/a
Transiting	n/a
Operating	24
Technical downtime	n/a
Weather downtime	n/a
Other downtime (specify)	n/a

7. Weather

Wind 13 mph from WNW 1200h. Wave heights 1.05 to 2m. Visibility good to horizon with clear skies.

8. Planned Activity for the next 24 hours

Continue coring Hole M0111B

Continued sampling and MSCL protocol

9. Health and Safety and Environmental

Notice to captain of strapping loose near to working containers

Reminder to all team to wear hard hats in working area

10. Photo of the day



Curator Patrizia Geprägs noting core details in the Curation container.
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