



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



31st May 00:00 – 31st May 24:00 East Daylight Time (UTC -4)

1. Location

Position 40.8746°N, 70.2697°W @12:00 EDT 28th of May
IODP-MSP borehole M0111B
Prospectus borehole MV-03C
Water Depth: 42m

2. Operations Report

Coring operations continued from 00:00 to 15:30 hrs with 13 cores recovered advancing from 240.63m to 281.53m, with 31.1 m recovered using the HQ BHA. Mixed lithologies, particularly clays and loose sands affected recovery throughout coring.

During the afternoon 3 personnel transfers were made by helicopter with 5 Science Team members and one ESO staff leaving the vessel, and 4 Science Team and 2 ESO staff joining the vessel for Rotation 4.

From 15:30hrs until 20:00 hrs operations were halted due to unsafe working conditions caused by high winds, and at 20:00 hrs preparations for pump testing began, with the packer set at 21:20 hrs. The line was primed at 22:05 and the pump test started and continued past 00:00 hrs.

3. Science Report

15 sample sets were taken and processed on the 31st of May for interstitial water geochemistry, micropaleontology, and microbiology. 4 samples were taken from the pumping tests for salinity measurements. 23 cores were run through the MSCL.

4. Core Recovery

Hole	M0111B
Cores recovered	25
Drilled length (Coring, m)	47.8 m
Drilled length (Open hole, m)	n/a
Recovered length (m)	31.1 m
Recovery (%)	65%
Depth at midnight (mbsf)	281.53 m

5. Time Breakdown

00:00 – 15:30 Coring using HQ BHA
14:05 – 14:15 Helicopter arrival and crew transfer
15:30 – 20:00 Waiting on weather
17:15 – 17:30 Helicopter arrival and crew transfer
19:30 – 19:45 Helicopter arrival and crew transfer
20:00 Pump test preparation begins
21:20 Packers in hole
22:05 Line primed
22:10 Begin pump test
24:00 Pump test ongoing

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

In port	n/a
Transiting	n/a
Operating	19.5 hr
Technical downtime	n/a
Weather downtime	4.5 hr
Other downtime (specify)	n/a

7. Weather

Winds from the SSW and SW, building through the day from 17 to 28 kt, with gusts over 40 kt during the middle of the day. South Easterly swells were high at 3 - 4m throughout the day. Visibility cleared by late morning to horizon with broken cloud and clear skies past midnight.

8. Planned Activity for the next 24 hours

Continue with ongoing pump test

Crew transfer 1 Science Team and 2 ESO staff

9. Health and Safety and Environmental

Work halted from 15:30 to 20:00 hrs due to high winds, all personnel warned of opening doors and manual handling risks

10. Photo of the day

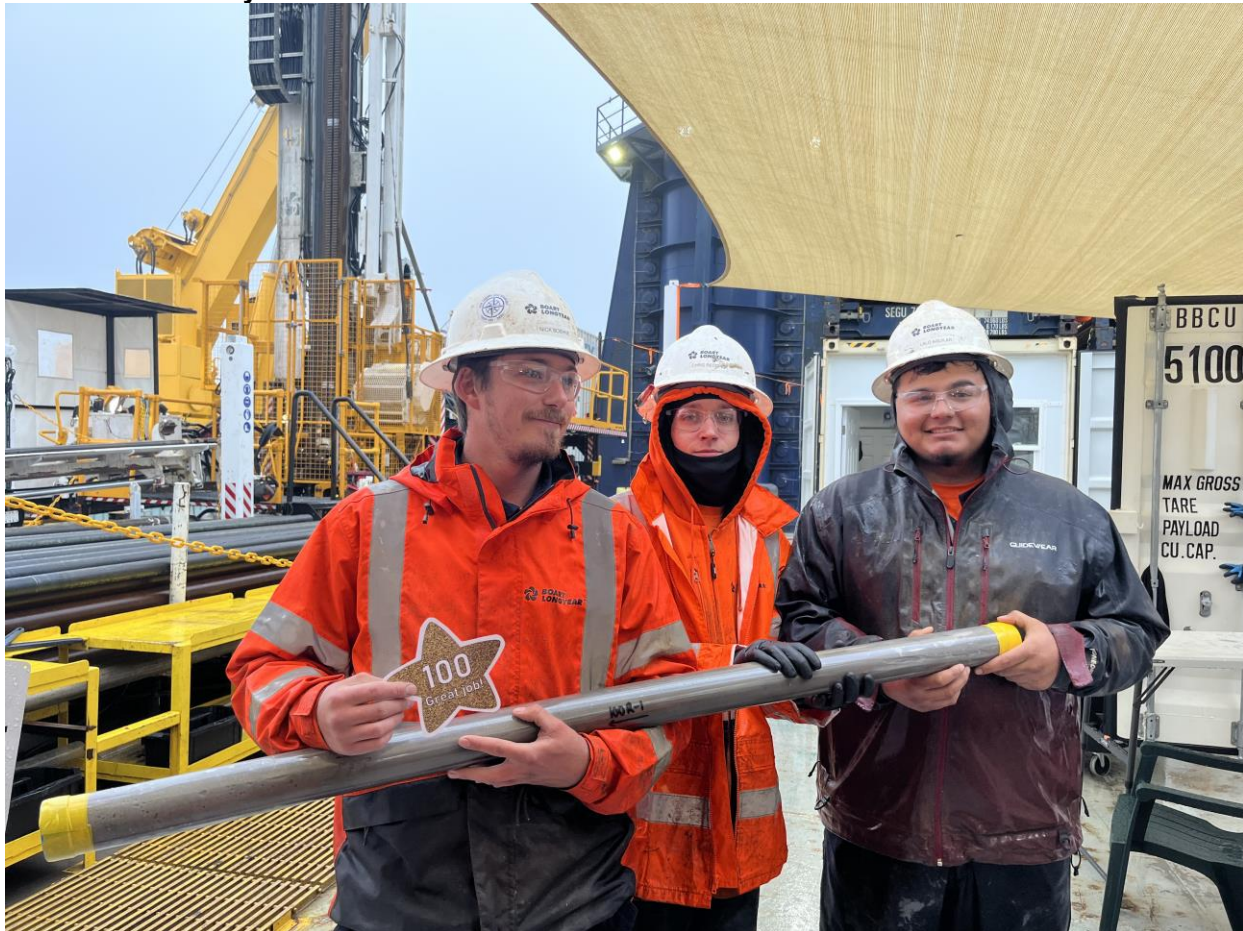


Figure 1: Members of the drill crew with the 100th core from Expedition 501;
BARBOSA@ECORD_IODP3_NSF_100th_Core