



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



11th July 00:00 – 11th July 24:00 East Daylight Time (UTC -4)

1. Location

Position 40.99783°N, 70.33337°W @12:00 EDT 11th July
IODP-MSP borehole M0112B
Prospectus borehole MV-08AB
Water Depth: 41m

2. Operations Report

During the early hours of the morning of the 11th, the MP1 pump cut out. Prior to this the flow rate was seen to be reducing and the head of the water in the drill pipe also reducing. It was decided not to switch the pump on again but rather monitor changes to record any recharge. Once this had been done for a short time, the pump and sensor were recovered from the hole, followed by the packer and we commenced destructive drilling to just above the TD of the first borehole where we tripped the alien corer into the bottom hole assembly.

3. Science Report

No samples were collected or processed on the 11th. Data from the pumping operations were processed and preparations made for logging and for deploying the SCIMPI system.

4. Core Recovery

Coring using the alien corer resumed at 23:40 but core was not on deck until the 12th of July. Note the drilled length (open hole) is measured from the top of infill in the hole encountered at 248.5 mbsf at 08:40 to the top of the first alien at 319.78 mbsf. Cored length is measured from top of alien (Core 56R at 319.78 mbsf) to depth at midnight.

Hole	M0112B
Cores recovered	0
Drilled length (Coring, m)	0.42
Drilled length (Open hole, m)	69.28 (from infill)
Recovered length (m)	n/a
Recovery (%)	n/a
Depth at midnight (mbsf)	320.2

5. Time Breakdown

00:00 – 06:55 Complete water pump test & recover the packer.
06:55 – 08:25 Flush and refill the drill string with drilling mud.
08:25 – 23:20 Destructive drilling using the NCA.
23:20 - 24:00 Coring using the Alien barrel.

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	0
Weather downtime	0

Other downtime (specify)	0
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7. Weather

Winds at 7 kts from the NE at 11:00. Waves between 1 and 1.5 m. Visibility up to 2.5 nm with variable fog.

8. Planned Activity for the next 24 hours

Continue to core to c.337.78mbsf and run gamma logger and deploy the SCIMPI.

9. Health and Safety and Environmental

Reminder to X501 Team members to be aware of changing deck configurations as we move from pumping to drilling to logging and SCIMPI installation.

The vessel was searched for stranded seabirds at sunrise. None were found.

10. Photo of the day



Figure 1 Rachel Bell and Alizé Longeau inspect the packer after the pump test. STEWART@ECORD_IODP3_NSF_packer