

30th Nov 00:00 - 24:00 Local Time (-2 GMT)

1. Location

29° 55.7' N 41° 51.1' W

IODP-MSP: Conducting multibeam survey

Prospectus borehole: Conducting multibeam survey

Water Depth: 3737m

2. Science Report

RD2 drilling at Hole M0075B (proposal site AM-03) penetrated 5.7 m before suffering an issue with the computer controllers that prevented further coring and logging operations. After tripping out the drill string, a short packer was inserted into the open borehole. Three cores totaling 2.73 m were recovered (47.9% recovery), consisting of mylonitic gabbro. Two whole round core samples were taken from cores 2R and 3R for ephemeral microbiology, geochemistry and contamination testing after fast track multi-sensor core logging, with the rest of the material archived for OSP sampling. Niskin water bottles on the rock drill were collected at the end of drilling for comparative geochemistry and microbiology analyses. A sensor package on the rock drill collected logs of methane, temperature, and dissolved oxygen while drilling.

Due to maintenance issues, the MeBo drill was deployed at Hole M0074A (proposal site AM-09) in a modified configuration consisting of only one bottom hole assembly and core barrel preloaded in the drive. After penetrating 2.6 m within 20 minutes, coring ended and an attempt was made to fire the rock drill Niskin bottles, but two of the three failed to close. 0.86 m of disturbed and unconsolidated pelagic carbonate sediment was recovered in a split liner, which was sampled for ephemeral geochemistry, contamination testing, and microbiology after multi-sensor core logging, with the rest of the material archived for OSP sampling. A sensor package on the rock drill collected logs of methane, temperature, and dissolved oxygen while drilling. The tracer delivery system on the MeBo did not operate correctly during this deployment.

Due to problems with the MeBo's winch and the RD2's computer, neither drill could be deployed again; thus, drilling operations for the expedition ended. A multibeam survey began over the southern wall of the Atlantis Massif followed by the eastern conjugate.

3. Core Recovery Details

Hole	M0075B	M0074A
Cores recovered	3	1
Drilled length (Coring, m)	5.702	2.68
Drilled length (Open hole, m)	0	0
Recovered length (m)	2.73	0.86
Recovery (%)	47.88	32.09

4. Weather

Wind S becoming SSE and then SW, initially 12 knots, increasing to 16 before dropping to 10 by late evening. Fine and clear with good visibility. Slight seas and low swell. Cloud cover 2/8 increasing to 6/8 by late evening. Maximum temperature 24.5°C.

Next 24 hours: Winds staying light, swell and seas forecast to be low with scattered showers due to a passing front.

5. Planned Activity for the next 24 hours

Continue running multibeam over the Atlantis Massif area, with one CTD cast in close proximity to Lost City.

6. Health and Safety and Environmental

N/A

7. Photos of the day



Katrina photographing WRC. SusanLang@ECORD_IODP



Marianne preparing rock samples. SusanLang@ECORD_IODP



Gaye busy at the fast-track MSCL. SusanLang@ECORD_IODP