

**Daily Drilling and Scientific Report for IODP Expedition 357
Atlantis Massif Serpentinization and Life, 2015**



19th Nov 00:00 - 24:00 Local Time (-2 GMT)

1. Location

29° 48.49' N 42° 46.66' W

IODP-MSP: N/A – waiting on weather

Prospectus borehole: N/A - waiting on weather

Water Depth: ~5600m

2. Science Report

RD2 penetrated 4.3m at Site M0071B (proposal site AM-04) before a hydraulic leak forced coring to stop. No logging operations could be conducted, but an attempt was made to install a short borehole packer system into the hole. Three cores of variably fractured mylonitic porphyroclastic serpentinites and minor gabbro were recovered with a total of 2.31m and 53.6 % recovery. Two whole round core samples were collected for ephemeral microbiology, geochemistry and contamination testing, 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, dissolved oxygen, and redox while drilling.

Due to deteriorating weather conditions and repair work for the rock drills, drilling operations halted and a short multibeam survey was conducted across the Atlantis Fracture Zone.

3. Core Recovery Details

Hole	M0071B
Cores recovered	3
Drilled length (Coring, m)	4.3
Drilled length (Open hole, m)	0
Recovered length (m)	2.31
Recovery (%)	53

4. Weather

Wind SW swinging to S and then to SSE varying between 10 – 25 knots steady but with stronger gusts. Freshening towards the evening with the increasing influence of a developing low pressure system. Heavy rain in the early morning and late evening, with squalls and lightning. The day was dry with good visibility. Moderate seas with a building swell. Maximum temperature of 24°C.

Next 24 hours: Forecast is for strengthening winds, possibly to Force 8, with increasing swell, both above operational limits.

5. Planned Activity for the next 24 hours

Waiting on weather

6. Health and Safety and Environmental

Waiting on weather

7. Photo of the day



Not from today – but this is what we're waiting for – calm seas and glorious sunrises!
CarolCotterill@ECORD_IODP