



Daily Drilling and Scientific Report for IODP Expedition 325, Great Barrier Reef Environmental Change

2nd March 2010 (0000 - 2400 local time)

1. Location

HYD_01C Site 11 (M0036A)

Time zone: Brisbane Australia Time, UTC +10

Position at midnight (drill string):

Latitude: 19° 40.34388 S

Longitude: 150° 14.63781 E

2. Activity summary

Coring operations were completed at M0036A and downhole wireline logging was conducted.

3. Science report

Cores 17-18R advanced to 26.5mbsf and were again characterised by low recoveries. They were comprised of massive coral framestones (ie. *Acropora* dominates) but with abundant microbialites. Core 19R continued to 28mbsf and recovered 45 cm of broken framestone pieces. The core catcher was composed of encrusting corals (ie. *Turbinaria*, *Montipora*) and large fragments of a coarse, dark grey grainstone/packstone. This material is well lithified and composed of *Halimeda* and benthic forams, and the surface is extensively bored and encrusted by serpulids. The depth of this horizon is somewhere between 26.6 - 28mbsf (similar to M0035A) and similar to M0035A likely represents older Pleistocene deposits. Core 20R recovered the same material. Core 21R went a further 1.5 m to 31mbsf and recovered 50 cm unlithified light grey carbonate sediments. Microbiology and pore water samples taken from these sediments. Core 22R advanced 3 m, but unstable hole conditions (likely related to unlithified sands) made further recovery impossible. Coring of M0036A finished at a depth of 34mbsf and preparation for logging commenced.

4. Core recovery details

Hole	M0036A
LAT water depth	98.89m
Cores recovered	6
Drilled length	10.5m
Recovered length	1.89m

Recovery 18%
Depth at midnight 34mbsf (final depth)

5. Weather

Sea state: slight becoming moderate (3 - 4) with swell of 0.5 – 2 m; wind direction NNE swinging NNW force 4 increasing to 5 (17 - 2 knots); partly cloudy becoming overcast; 29°C.

Next 24 hrs: Sea state moderate with swell of 1.2 – 1.7m; wind direction SW/NW 10/15 knots, tending S/SE 10/15 knots during the day; SE winds reaching 15/20 knots in the afternoon and evening: showers and possible thunderstorms.