



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

13th February 2010 0000 - 2400 local time

1. Location

Site HYD_01C Site 5 (Site M0030).

Time zone: Brisbane Australia Time, UTC +10

Position at midnight:

Latitude: 19° 40.914' E

Longitude: 150° 14.274' S

2. Activity summary

Dynamic positioning tests continued. Down hole camera was deployed prior to drilling, and then coring operations commenced. Coring continued until midnight.

3. Science report

We started coring M0030A in 84 m of water depth on a largely carbonate sediment-covered seafloor. Core 1R drilled 3 m below the sea floor (mbsf). Only about 5cm of coralgal-bryozoan-serpulid boundstone was recovered in the core catcher. The outer surface was covered by a thin coating of living biota (coralline algae, sponges and bryozoans and benthic forams). Core 2R drilled to 6 mbsf and recovered only coarse bioclastic (mollusc, bryozoan, foraminifera, serpulid, echinoids) gravel-pebble sediments.

After some technical problems, coring began on M0030B at the same position. Cores 1R and 2R cored to 6 m and again recovered only a small amount of pebble sized bioclastic sediments of similar composition. Core 3R drilled to 9 m, recovering coarse pebble sized bioclastic sediments with a 4 cm massive shallow water (<5 m) *Acropora* (sp. *palifera/cuneata*) coral jammed in the coral catcher. The coral was likely in growth position and with well preserved corallites exposed on the upper surface. Coring results from M0030A & B, albeit with very poor recovery, combined site survey seismic data, suggest about 9 m of unlithified carbonate sediments overlying a buried shallow fossil reef at ~ 95 m below sea level.

4. Core recovery details

Hole	M0030A	M0030B
Cores recovered	2	3
Drilled length	6m	9m
Recovered length	0.24m	0.55m
Recovery	4%	6.11%
Depth at midnight		6m

5. Weather

Sea state: moderate (4) with swell of 1 - 2m; wind direction E swinging to ESE to NE 13-17 kts. Generally overcast and cloudy with periodic sunny intervals; 30°C.

Next 24 hrs: Sea state moderate with swell of ~1m; wind direction E/NE 10-15kt; scattered showers and isolated thunderstorms.