



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

14th February 2010 0000 - 2400 local time

### 1. Location

Site HYD\_01C Site 6 (Site M0031)

Time zone: Brisbane Australia Time, UTC +10

Position at midnight:

Latitude: 19° 40.737' E

Longitude: 150° 14.3772' S

### 2. Activity summary

Drilling continued initially at M0030A. However in the early morning the core barrel became stuck and the decision was taken to move to the next site. After deploying the down hole camera, coring operations commenced at M0031A.6

### 3. Science report

Core 3R (M0030B) 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 core catcher. The coral was likely in growth position and with well preserved corallites exposed on the upper surface.

We started coring at 14:00 at new site M0031A in 90 m of water on a carbonate sediment-covered seafloor about 20 m landward of the -90m reef edge. Core 1R drilled 3 mbsf recovering no sediments. Core 2R advanced a further 3 m and recovered 30 cm of pebbles sized bioclastic sediments (corals, gastropods, etc) with some living crusts of coralline algae. A 5 cm massive shallow water (<5 m) *Acropora* (sp. *palifera/cuneata*) coral and lithified limestone fragments were jammed in the core catcher. Core 3R advanced to 9 mbsf and recovered only 20 cm of carbonate sand and pebbles - pieces of broken coral fragments, some stained and covered by serpulid worms. Core 4R cored to 12 mbsf and recovered about 25 cm of coarse pebble sized bioclastic sediments (corals, echinoids) some of which are stained brown-orange. Fragments of broken grainstones with identifiable serpulids, bivalves, echinoids were also common in this sediment.

#### 4. Core recovery details

<b>Hole</b>	M0030B	M0031A
<b>Cores recovered</b>	1	4
<b>Drilled length</b>	3m	12m
<b>Recovered length</b>	0.18m	1.09m
<b>Recovery</b>	6%	9.08%
<b>Depth at midnight</b>	9m	12m

#### 5. Weather

Sea state: moderate (4) with swell of 1 - 2m; wind direction NE swinging to NNE 11-16 kts. Generally overcast and cloudy with periodic sunny intervals and intermittent heavy showers; 30°C.

Next 24 hrs: Sea state moderate with swell of ~1.2m; wind direction N/NE 10-15kt; scattered showers and isolated thunderstorms.