



Daily Drilling and Scientific Report for IODP Expedition 313 New Jersey Shallow Shelf

6th June 2009 (0000-2400, local time)

1. Location

Hole MAT-2D (Hole M0028A).

Time zone: US Eastern Time, UTC -4

Position at midnight:

Latitude: 39° 33.94279' N

Longitude: 73° 29.83481' W

2. Activity summary

Continuing drilling down and coring at MAT-2D (M0028A), re-assessing drilling operations as the lithology and drilling conditions demanded.

3. Science report

Material was recovered from a plugged HQ barrel while drilling through infill that had accumulated at the bottom of the hole. This included a thick (12 mm) bivalve shell wider than the diameter of the core (60 mm). We believe it may have been part of an oyster bank that together with loose sand intervals may help explain the challenging drilling conditions. When coring resumed with Core 71R (403.79 - 404.52 mbsf) we met considerable difficulty in drilling down. Recovery down to Core 75R (414.02 - 416.65 mbsf) was limited. However, a great surprise met us at 406 mbsf - preliminary assessment indicates we cored a carbonate-bearing algal mat. This would be consistent with shallow-water indication of the overlying oyster beds and possible lagoonal facies, and makes us anxious to see what lies further down.

4. Core recovery details

Hole	M0028A
Cores recovered	5
Drilled length	12.86m
Recovery length	0.63m
Recovery	4.9%
Depth at midnight	416.65 mbsf

5. Weather

Sea swell 4 - 6 ft diminishing by late afternoon to 1 – 3 ft; wind direction variable – SW by later afternoon; wind speed 10 - 20 kt; sun with patchy cloud; 21°C.

Next 24 hrs: Sea swell 2 - 3 ft; SW winds around 5 - 10 kt becoming S by the afternoon; 25°C.