



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

5th July 2009 (0000-2400, local time)

1. Location

Hole MAT-3A (Hole M0029A).

Time zone: US Eastern Time, UTC -4

Position at midnight:

Latitude: 39° 31.1705' N

Longitude: 73° 24.7925' W

2. Activity summary

Coring operations at Hole M0029A (MAT-3A).

3. Science report

The 5th of July saw continuous coring, although drilling rates decreased slightly in comparison with previous days. This is primarily due to a combination of transit times for tripping the core barrel and harder sediment lithologies. We retrieved 12 cores (143-154R) and recovered 32m of sediment between 550 and 584 mbsf. Most of the cores had ~100% recovery, although two cores were shorter (0.65m, core 144R; 1.78m, core 145R). The sediment is comprised of two main facies. Dark blackish-grey, silty clay, interlaminated with clayey silts in places (154R, 581-584 mbsf & 144-147R, 553-562 mbsf), and dark brownish-grey, very fine grained sand or silt with 1-5% of very fine to fine-grained quartz sand, containing abundant forams, lignite and micas (148-153R, 562-553 mbsf). The sand grains are quite poorly mature, subrounded to subangular. Other faunal and mineral accessories comprise fragments of bivalves and gastropods, echinoids, and traces of glauconite. We are now at the base of a large progradational package and very close to the m5.4 Lower Miocene unconformity, probably of early Burdigalian age, or at the Burdigalian/Aquitanian boundary.

4. Core recovery details

Hole	M0029A
Cores recovered	143R-154R (12 runs)
Drilled length	33.55 m
Recovered length	32.19 m
Recovery	95.65 %
Depth at midnight	584.16 mbsf

5. Weather

Sea swell ~2 ft; Predominantly S winds 8-10 kt ; strong sun with patchy cloud;
28°C.

Next 24 hours: sea swell 2-4 ft; NW winds 5-10 kt becoming SE later; 25°C.