



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

20th May 2009 (0000-2400, local time)

1. Location

Hole MAT-1A (Hole M0027A).

Time zone: US Eastern Time, UTC -4

Position at midnight:

Latitude: 39° 38.04606' N

Longitude: 73° 37.30146' W

2. Activity summary

Currently logging Hole MAT-1A (M0027A). Through-pipe gamma ray, open-hole resistivity, spectral gamma, magnetic susceptibility, sonic and acoustic imagery logging of the lowermost interval is complete. All of the above with the exception of the acoustic imaging were also completed for the majority of the middle interval. Acoustic imaging and VSP logging will follow.

3. Science report

Today was the second day of the logging operations in the hole. To complement the resistivity and the magnetic susceptibility data we ran yesterday, we acquired, in the bottom section (634-418m) sonic velocity, acoustic imaging and spectral gamma ray logs. We pulled up the pipe opening the middle section (418-195m) up by late afternoon, and started running the suite of the logging tools in open hole. Very early in the operation, a bridge formed at 347m in the hole, along a pebbly horizon at an unconformity, resulting in us losing 71m of logging.

The raw data of the documented sections look very promising. They will help to tie the core to the hole and to define lithologic boundaries precisely and to document the evolution in depth of the porosity, the density, the sand/clay ratio etc. The new acoustic televiewer has proved very useful in quantifying subtle changes in the hole geometry that may affect our measurements.

4. Core recovery details

NA

5. Weather

Sea swell 2 ft; wind direction variable; wind speed 5-10 kt; dry and sunny; 20°C.

Next 24 hrs: SW winds 5 to 10 kt becoming S 15 to 20 kt with occasional gusts up to 25 kt in the afternoon. Sea swell 2-4 ft; dry; 18°C.