

27<sup>th</sup> Sep 00:00 – 27<sup>th</sup> Sep 24:00 GMT

### 1. Location

11° 40.243' E 56° 37.211' N (M0060A)

BSB-1 – Anholt

Water Depth: 31.2 m

### 2. Activity Summary

Continue coring operations at M0060A.

### 3. Science Report

From 169 mbsf to 185 mbsf hard deposits of sandy clay and clayey sand were recovered. The sediments had a lower diversity and density of foraminifera than the overlying deposits. Advanced piston coring often returned partly disturbed cores with lower recovery and seawater inside the core liner.

Preliminary analyses of interstitial water chemistry have shown that the salinity decreases gradually with depth, from seawater values of 30-32‰ at the sediment surface to a minimum of 9‰ in the middle of an interval of well-sorted, fine to medium sand at 100-145 mbsf. Below that salinity increases again. Alkalinity and ammonium show sharp peaks in the marine clay at a depth of 10-15 mbsf. Concentrations drop below the peak and remain moderate below 40 mbsf, ca. 10 mM alkalinity and 0.5 mM ammonium.

The sediment sequence recovered between 118 mbsf down to 192 mbsf varied between silty sand - pure sand - silty or sandy clay - clayey sand. This grain size succession, together with the composition of the fossil findings of both foraminifers and mollusks, indicates that the depositional environment went from shallow water to deeper water conditions and then back to more shallow water. Samples were taken for OSL dating of the sandy layers.

### 4. Core Recovery Details

Hole	M0060A
Cores recovered	5
Drilled length (Coring)	16.5 m
Drilled length (Open hole)	N/A
Recovered length	10.93 m
Recovery	66.2 %
Depth at Midnight	191.9 m

### 5. Weather

Fair, wave heights of 0.2 - 0.4 m; winds N - NNW, 7 – 13 kts, gusting 9 -16 kts; 8°C.

Next 24 hrs: Fair, wave heights of 0.2 – 0.6 m, winds NNW – ENE, 13 –14 kts, gusting 16 - 17 kts. 8°C.

High pressure moving east over Sweden and Norway. Interaction with low pressure system currently over Ireland will cause freshening winds and moderate seas by mid-week.

### 6. Planned Activity for the next 24 hours

Continue coring operations at M0060A.

7. Photo of the day



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