

20<sup>th</sup> Sep 00:00 – 20<sup>th</sup> Sep 24:00 GMT

### 1. Location

10° 6.4697' E 55° 0.2898' N (M0059C)

BSB-3 – Lille Baelt

Water Depth: 31.2m (beneath keel)

### 2. Activity Summary

Continued coring operations at M0059C.

### 3. Science Report

Coring of the microbiology hole continued. During the day the microbiological sub-sampling continued, starting at 43 mbsf and finishing at a depth of 83 mbsf when the coring had reached the silty sandy clay, at the transition to glacial till. Microbiology and geochemistry sampling was very intensive, especially in the upper 9 mbsf, where steep changes in microbiology and in interstitial water chemistry were expected. Sampling intervals were about one sample per section, depending on the parameter. Further down the hole, the frequency decreased to one sample per core or less. The microbiologists were supported by two other scientists to enable the intense sampling and curation. Due to the multiple subsamples to be taken and treated in individual manners, coring was slowed down in the upper few tens of metres so that the team could catch up before the next core came on deck. This worked very well and the hole remained stable.

One more piston core was taken below 83 mbsf which returned c. 1.5 meters of core. From 84 mbsf the coring continued with hammer coring taking a sample for OSL dating every third metre. At 90 mbsf, one stone of gneiss was collected. Below this level the sediment varied between diamictons of different sandy and clayey composition. The sampling interval of three meters will be maintained down to c 145 mbsf where the possible Eemian sequence is predicted (based on the logging data). The type of sediments in this unit will dictate how to proceed further with coring.

### 4. Core Recovery Details

Hole	M0059C
Cores recovered	19
Drilled length (Coring)	39.4 m
Drilled length (Open hole)	13.4 m
Recovered length	41.45 m
Recovery	105.2 %
Depth at midnight	99.62 m

### 5. Weather

Fair with isolated showers, wave heights of 0.2 – 0.4 m; wind direction variable WSW to NW, winds of 6 - 10 kts gusting 8 -12 kts; 15°C.

Next 24 hrs: Fair with isolated showers, wave heights of 0.3 – 0.6 m, wind direction NW swinging WNW, winds of 10 – 13 kts, gusting 12 - 16 kts. 15°C.

Low pressure will move through Denmark before weakening and moving east. High pressure will interact with the next incoming low, producing increased westerly winds.

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

Continue coring operations M0059C.

7. Photo of the day



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