Daily Drilling and Scientific Report for IODP Expedition 347, Baltic Sea Paleoenvironment

11th Oct 00:00 – 11th Oct 24:00 GMT

1. Location
18° 15.250 E   58° 37.340’ N
BSB-9 Landsort Deep

2. Activity Summary
Completed coring and logging operations at M0063A. Moved to M0063B and commenced coring.

3. Science Report
During the night we drilled down through a gravelly till with little possibility of sampling. At 115.8 mbsf hammer coring was again attempted and the corer brought back only a bit of gravel. As the hole was becoming unviable due to the risk of caving, drilling was terminated at this depth. The Manisha was moved 20 meters and drilling commenced at Hole M0063B. Here, we tried an alternative method in the gassy mud to avoid a loss of sediment due to gas expansion as a result of decompression and the high content of methane gas in the sediment.

The upper 19 mbsf cored contained a blackish sulphide charged gyttja-clay which turned out to be rich in foraminifers, diatoms, pollen and plant remnants. At some levels small bivalves and ostracods also occurred. From this level the sediment became more compact gyttja-clay, possibly laminated. The colour changed to very dark greenish and foraminifers were less abundant.

4. Core Recovery Details

<table>
<thead>
<tr>
<th>Hole</th>
<th>M0063A</th>
<th>M0063B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cores recovered</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Drilled length (Coring)</td>
<td>0.01 m</td>
<td>29 m</td>
</tr>
<tr>
<td>Drilled length (Open hole)</td>
<td>0 m</td>
<td>0 m</td>
</tr>
<tr>
<td>Recovered length</td>
<td>0.01 m</td>
<td>41.12 m</td>
</tr>
<tr>
<td>Recovery</td>
<td>100%</td>
<td>141.79%</td>
</tr>
<tr>
<td>Depth at Midnight</td>
<td>115.81 m</td>
<td>29 m</td>
</tr>
</tbody>
</table>

5. Weather
Fair, wave heights of 0.4 – 1.1 m; winds NNE to N, 9 - 16 kts, gusting to 20 kts; 14°C.
Next 24 hrs: Fair with patchy fog towards the evening, wave heights of 0.1 – 0.3 m, winds NNE becoming variable, 6 – 8 kts, gusting 8 – 10 kts. 16°C.
High pressure building with slight swells continuing.

6. Planned Activity for the next 24 hours
Transit to Nynäshamns for port call.
7. Photo of the day

Carol Cotterill©ECORD_IODP