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Shallow drilling in North-East Barents Sea

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The Norwegian Petroleum Directorate (NPD), as a governmental institution, have the opportunity to collect geological data and mapping in areas, which are not open for petroleum activities and NPD has done this since the directorate was established in 1973. The geological exploration of the Norwegian Barents Sea region started in the mid 1970s with acquisition of 2D seismic data, followed by scientific geological sampling by shallow drilling. On the Norwegian Continental Shelf, shallow drilling is restricted to a maximum of 200 meters below seafloor.

Following the agreement with Russia on the boundary in the former areas with overlapping claims in 2011, the NPD has acquired more than 30 000 km of 2D seismic the new areas. Poor knowledge of the geology in this vast area, necessitate geological sampling by drilling in order to the seismic mapping and the geological evolution.

Due to this, NPD undertook a drilling campaign in the North-East part of the Norwegian Barents Sea (fig 1) in September 2015. The shallow drilling locations are located between latitude 79° 30 and 80° 40 north. This are the northernmost locations of any geological sampling on the Norwegian Continental Shelf which has ever been undertaken. The drillings sites were chosen based on prominent seismic reflectors outcropping on the seabed, (fig.2).

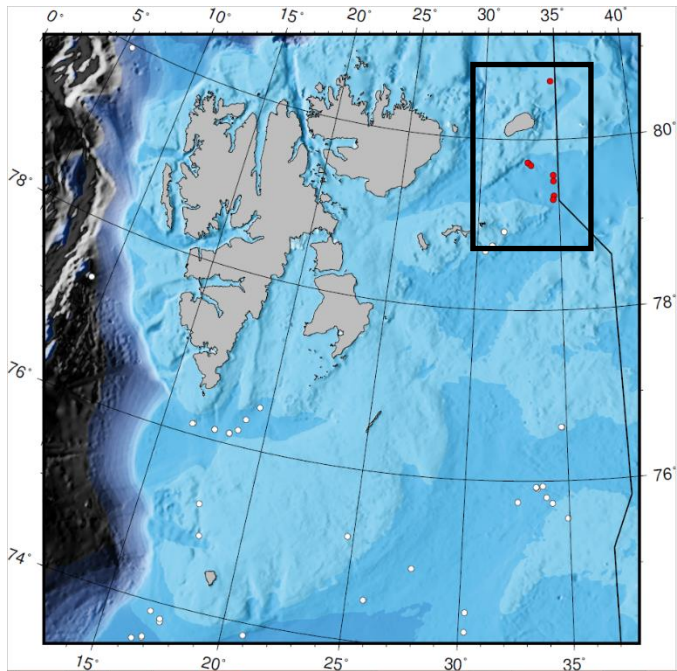


Fig.1. Red dots upper right show the new shallow sites

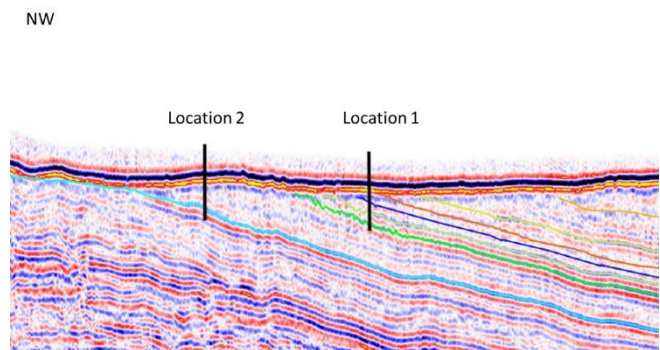


Fig.2. Drilling sites based on outcropping reflectors.

The operation was very successful. Cores from seven shallow drilling sites were acquired, varying 52-200 meters in length, and a total of 1048m. The water depths varied between 300 – 400 meters.

The cores are now being analysed, sampled for biostratigraphy, palynology and organic geochemistry.

