

## **Stratigraphic Interpretation of North Atlantic Conjugate Margins**

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### **Abstract**

The recent multi-million barrel discoveries offshore Newfoundland (Flemish Pass) made by Statoil and partners have stimulated interest in the petroleum systems evaluation of the conjugate European and Canadian Atlantic margins. However, the North Atlantic conjugate margins lack a unified stratigraphic framework. CGG Robertson has, with industry support and the encouragement of the Irish, Canadian and Portuguese licensing authorities, undertaken a petroleum geological review of the Neogene to Palaeozoic succession of the North Atlantic margins.

Multiple bioevents have been identified, based on micropalaeontological, nannopalaeontological and palynological studies, associated with the re-interpretation of old reports, revisiting archived slides and analysing new samples from Canada, Ireland and Portugal. These robust bioevents allow detection, quantification and differentiation of hiatal surfaces across the conjugate margin. The identification of the geographical extent and relationships between the pre-rift, syn-rift and post-rift successions has provided exciting new insights into the rifting history of the North Atlantic region and has implications for future deepwater exploration of the Tertiary and Mesozoic succession.