

The Subsurface Character of Volcanic Tuffs in the Faroe Shetland Basin and their Importance in Hydrocarbon Exploration

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ABSTRACT

In volcanic rifted margins, major hydrocarbon discoveries can occur in close spatial association with volcanic deposits. Research has traditionally focused on the distribution of flood basalts and magma plumbing systems, though explosive volcanic deposits (tuffs and volcanoclastics) are a key aspect of the volcanism preserved within these basins. Tuffs are recognised in almost all rifted margins, and due to their airborne transportation, can be correlated into non-volcanic basins too. This work focuses on Palaeogene tuffs in the Faroe-Shetland Basin (FSB), a volcanic rifted margin, located offshore along the North Atlantic Margin of Europe.