The Lower Miocene Skade Formation in the northern North Sea

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The deposition of the Skade Formation represents a significant shift in source rocks in the northern North Sea from the East Shetland Platform, occupied by an aggrading submarine fan, to the west, where the sedimentation on the continental shelf consists of deltaic deposits. This shift is marked by a distinct change in the sedimentary facies and suggests a significant change in the tectonic and climatic conditions that prevailed during the deposition of the Skade Formation.

The Skade Formation is a well-developed Lower Miocene unit that is widely distributed across the northern North Sea. It is characterized by a distinctive assemblage of benthic foraminifera, which is indicative of a transition from a deltaic to a more open marine environment.

The Skade Formation is generally absent or truncated in the outer shelf areas, but it is well developed in the inner and mid shelf areas. The thickness of the Skade Formation varies from a few meters to several tens of meters, and it is typically associated with a significant increase in the gamma ray log signature.

The Skade Formation is considered to be a valuable source rock for hydrocarbons, particularly in the northern North Sea region. It is often associated with other Lower Miocene and Pliocene source rocks, and it has been the subject of extensive exploration and development in the region.

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