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Oblique rifting and the Late Eocene-Oligocene demise of Laurasia with inception of Molloy Ridge: Deformation of Forlandsundet Basin, Svalbard

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
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**Oblique rifting and the Late Eocene-Oligocene demise of Laurasia with inception of Molloy****Ridge: Deformation of Forlandsundet Basin, Svalbard**

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**ABSTRACT**

Final breakup of the Laurasian supercontinent occurred within a residual continental bridge that spanned Svalbard, Greenland and Arctic Canada from Late Cretaceous to Oligocene time, but the timing and precise kinematics of that breakup have remained obscure. Dextral oblique motion between Svalbard and northeastern Greenland initially generated the West Spitsbergen Fold-Thrust Belt (a transpressional orogen) but evolved into oblique rifting until the ultimate demise of the continental bridge with the Early Miocene formation of the Molloy Ridge. The Forlandsundet basin stands as a critical entity within the Svalbard continental margin whose fill captured the progressive transition between oblique convergence and divergence. The basin originated as a Late Eocene piggyback basin within the fold-thrust belt during deposition of the oldest unit, the fluvio-deltaic Sarsbukta conglomerate. Structural

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