**Central Sable Subbasin**

- **Lower Cretaceous shelf-edge trajectories very difficult to map, but are defined by well-exposed canyons and terminations of fluvial channels (from 3D seismic)**
- **Profile selected to cross-shelf-edge canyons, commonly the only indicator of shelf-edge effects on a heavily glaciated breakup succession**
- **Canyons incised into sandy turbidite**
- **Pruned canyon seaward of delta system**

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**B**: Composite seismic profile B-B'

- **Seafloor**
- **Sable Slope Canyon 10 km**
- **Composite seismic profile B-B’**

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**Breaching the shelf edge - linking shelf and deepwater depositional systems:**

Evidence from cores for the transfer of Lower Cretaceous sediment into deeper-water settings is strong, particularly for the Middle Cretaceous (late Albian-early Campanian). Shallow-marine deposits found in coring sites on the shelf edge and adjacent to the Middle Cretaceous Saline Slope Basin include sands and siltstones, shales, and evaporites. These deposits are thought to be the result of sediment funneling into the basin and the transfer of sediment from shallower-water settings. The presence of these deposits in the cores suggests that there was significant sediment transport from the shelf edge to the deepwater basin.

**Conclusions:**

We conclude that there is strong evidence to support the transfer of marine sediments from continental shelf settings to the deepwater setting. This transfer is thought to have been facilitated by the shallow-marine deposits in the cores, which are believed to have been transported into the basin via the shelf edge. The presence of these deposits in the cores suggests that there was significant sediment transport from the shelf edge to the deepwater basin.

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**References:**


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**Additional Notes:**

- The presence of shallow-marine deposits in the cores suggests that there was significant sediment transport from the shelf edge to the deepwater basin.
- Breaching the shelf edge is thought to have facilitated this transport.
- The transfer of sediment from the shelf edge to the deepwater basin is supported by the evidence from cores.

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**Images:**

- Composite seismic profile B-B’
- Seafloor with Sable Slope Canyon
- Cretaceous G-24, 42 m net sand in Lower Cretaceous succession
- Cross-section time-thickness maps