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## **Deepwater Channelized Lobe Complexes : Architecture and Reservoir Potential. Some Insights From One Shallow 3D Seismic Example**

Deepwater lobe elements are genetically related to channelized elements. They range the span from simple to complex morphologies and architectures. Simple lobes occur within shallow 3D seismic sections as 1 or 2 high amplitude reflections with a lenticular geometry. Depending on their relative position to parent-channel, they can be defined as crevasse-splay, avulsion or terminal lobes. Simple lobe types form excellent reservoirs in both continuity and connectivity with generally good reservoir properties. Unfortunately with limited thickness and spatial extension, they barely pass economic thresholds in deepwater field developments unless associated to channelized reservoirs. Given high sediment influx, simple lobes may evolve to form compound lobes : channelized lobe complexes. These compound lobes are larger in size and more heterogeneous in both lithology and architecture. They consist of an association of different Architectural Elements (A.E.) : (1) basal debris flow, (2) extensive sand sheets dissected and/or overlain by (3) distributary channels with or without (4) levees, the whole capped by (5) hemipelagites. The distributary channels radiate from one single point (avulsion, crevasse or channel-mouth). They are narrow in proximal areas, may develop relatively thick levees and are mostly filled with relatively coarse-grained material. Downdip, distributary channels are wider with lower levees, if present, and are barely visible on seismic sections. Combination of various type of seismic attributes, mainly amplitude and coherency, mapping applied to one shallow example allow the identification and characterization of the A.E. and a better understanding of the architecture of these compound lobes.