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## **Seismostratigraphic Analysis, Quintuco Formation, Loma La Lata Field, Neuquén Basin, Argentina**

This paper shows the results obtained from the seismostratigraphic analysis made over the Quintuco and Vaca Muerta formations, Tithonian-Berrisian age, in Loma La Lata field, center of Neuquén Basin and the best oil and gas producer in Argentina. Vaca Muerta formation is the main source rock in this basin, whereas the Quintuco formation is an oil producer and has exploratory potential. The objective of this study is to get a prospective model by integrating paleoenvironments and lithofacies, interpreted by e-logs data and 3D seismostratigraphic analysis. According to preexistent models, these formations contain a number of piled up and discontinuous reservoirs, with low permeability and porosity originated in slope, carbonated and mixed shelf environment. These deposits belong to shallow and stable basin environment. The marls of Vaca Muerta formation are representative of slope and basin center, and the overlying carbonates of Quintuco formation, correspond to shelf sediments. In the carbonate complex of Quintuco and Vaca Muerta formations, it is possible to define three different sections, which could be correlated with regional eustatic events. The basal section has an arrangement of prograding sequences from southeast to northwest, where it is possible to distinguish the offlap break and the associated facies. The mid sequence in the Quintuco formation is represented by flood deposits on a shallow carbonated shelf, with tidal bars in a northwest-southeast direction, where are located the biggest carbonates thicknesses. The upper section is aggradational and shallow, in the internal shelf.