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NC-186 seismic interpretation (2D), a case studies in Murzuq Basin, Western Libya

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Block NC-186 is located in the northeast of the intracratonic Murzuq basin of SW Libya figure 1. The area was previously studied by Gulf Oil Libya and four wells were drilled between 1958-1961, each well encountered oil shows in Ordovician and or Devonian sandstones.

REPSOL EXPLORACION MURZUQ SA (REMSA) began a new exploration campaign in the area following the award of NC-186 during 1996.

Six exploration wells were drilled between 1999-2002, three wells were declared as a discovery with A1-186 the first discovery, one suspended and two wells were declared as dry holes.

Total oil in place discovered to date in the area is significant and considered as a large discoverers, two of them founded in the middle Ordovician Hawaz formation with only one being found in the upper Ordovician Mamuniyat formation.

Structures are related mainly to the Palaeo-topographic relief of the middle Ordovician Hawaz formation.

This paper observes the 2D seismic interpretation of NC-186, investigates the existing structures, and look at risk associated with seal, source rock distribution, charging, reservoir, and timing of structure, also explains the dry wells and their implication for hydrocarbon exploration in the area, that can be applicable in the rest of Murzuq basin.

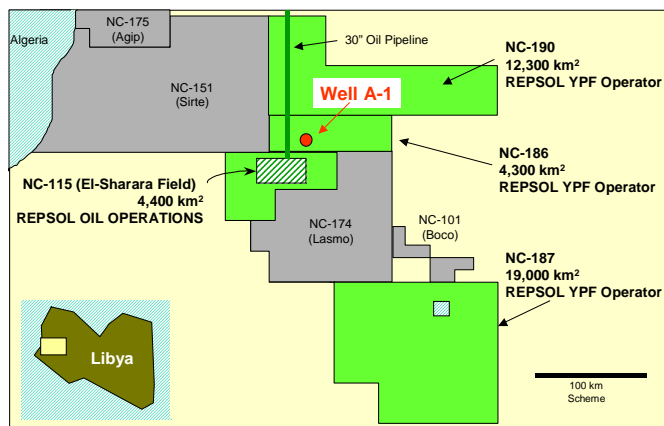


Figure 1 Murzuq Basin western Libya NC-186