

Exploring the Ortoire Block, Onshore SE Trinidad

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New wave of Onshore Exploration

From 1857 to present, some 13000 oil wells have been drilled onshore Southern Basin of Trinidad producing in excess of 1.5 billion barrels of oil todate, primarily from Late Miocene to Pleistocene deltaic sandstones. Just under 2000 of those wells drilled and tested Middle Miocene deepwater turbidites, with less than a hundred testing Cretaceous reservoirs. With scores of old, abandoned and to some extent stratigraphically mature fields scattered along its length and breadth, and the ever increasing rate of decline of the country's oil production, the basin required a new wave of exploration, to stratigraphically older and deeper reservoirs.

Theory / Method / Workflow

In 2013, the Ministry of Energy launched an Onshore Bid Round, the first in just 15 years. Three blocks adjacent to established oilfields with production primarily from Middle Miocene Herrera deepwater turbidite sandstones, were marketed and 11 bids were received. The Rio Claro Block was awarded to Lease Operators Limited, the St. Mary's Block was awarded to Range Resources and the Ortoire Block was awarded to Touchstone Exploration. Each block entailed minimum work obligations of 4 exploration wells each to targets of at least 5000ft.

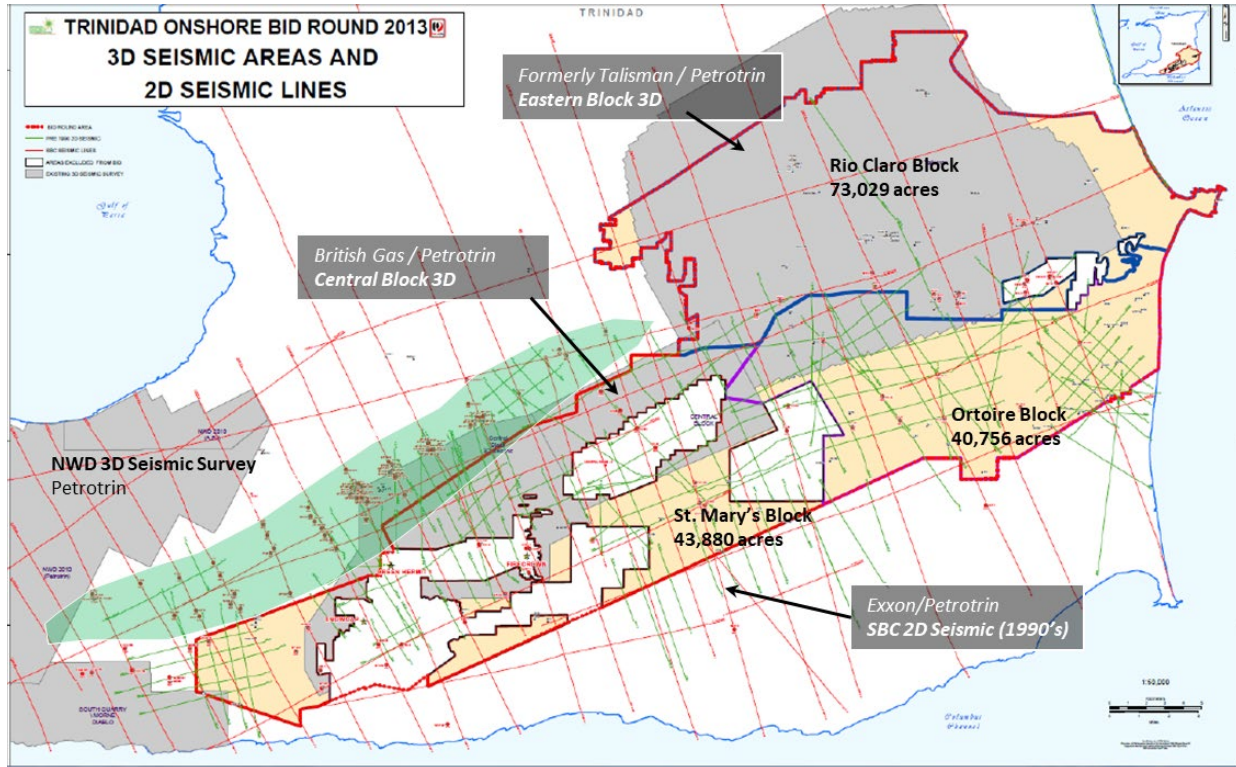


Fig 1: Trinidad Onshore Bid Round 2013

Results, Observations, Conclusions

Subsurface mapping on the Talisman 3D seismic survey, Cometra 3D seismic survey and numerous Southern Basin Consortium 2D seismic lines, integrated with surface geology, regional well data, and fold and thrust belt models have revealed numerous potential Middle Miocene Herrera plays within the block. To name a few, from north to south, Touchstone Exploration has identified an eastern extension of the prolific highly imbricated Penal Barrackpore oilfield in the Cascadura area, a subthrust north verging anticline at Coho, a south easterly verging subthrust anticline at Royston and an eastern extension of the Carapal Ridge north verging subthrust anticline at Chinook. At COHO-1, CAS-1 ST1, and CAS DEEP-1 initial tests and extended tests have been completed and commercial discovery notifications have been submitted to the Ministry of Energy and Energy Industries.

Touchstone will spud its fifth exploration well, ROYSTON-1 in Q2 targeting the largest anticlinal structure on the block to date, with a potential upside of 2 Tcf.

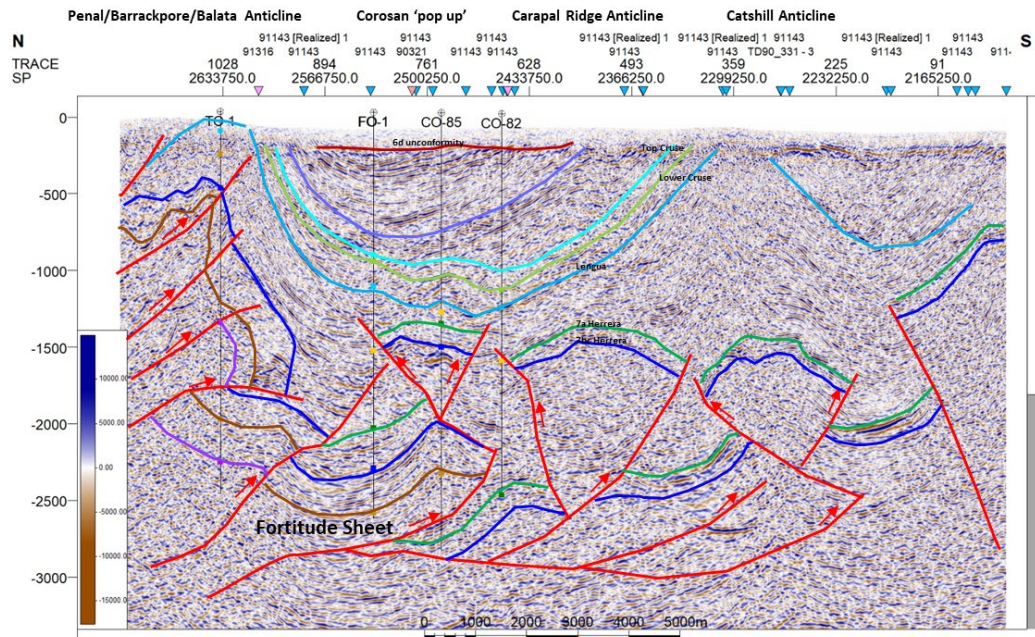


Fig 2: Model driven interpretation of Southern Basin Consortium 2D Seismic Line TD91143

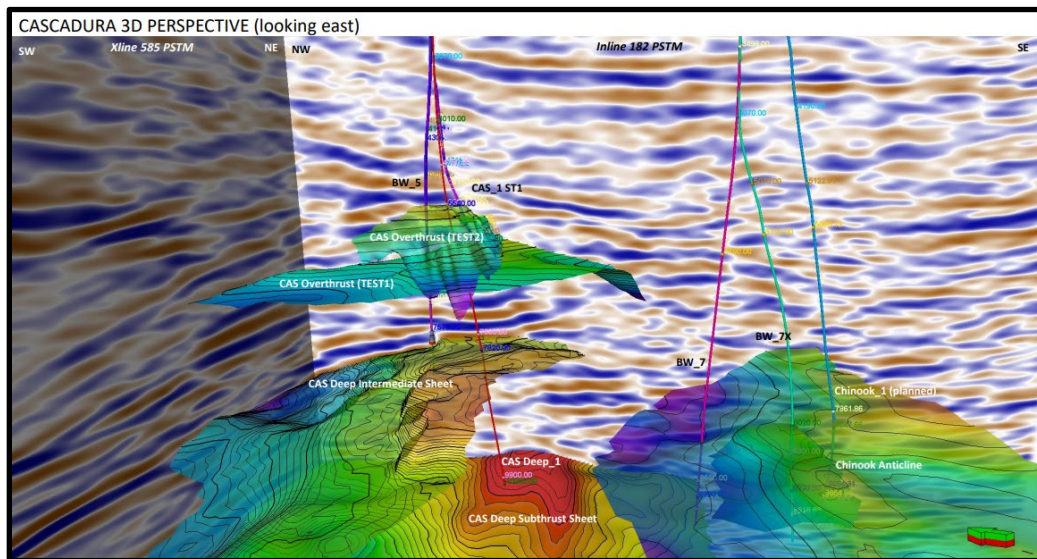


Fig 3: 3D Seismic Perspective of the Cascadura and Chinook Anticlines



Fig 4: Drone footage of the COHO-1 Exploration Wellsite



Fig 4: Drone footage of the CASCADURA DEEP-1 Well Test

Novel/Additive Information



Acknowledgements

Heritage Petroleum - Partners on the Ortoire Block
Ministry of Energy and Energy Industries Trinidad & Tobago