More Oil and Gas to be discovered in Mature Fields: A Case from Offshore Abu Dhabi

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ABSTRACT

Depositional setting, diagenetic processes, structural history, hydrocarbon charging and entrapment in multi petroleum systems carbonate reservoirs is a complex process, resulting in hydrocarbon accumulation in multiple reservoirs not only in a conventional structural trap but also in unconventional traps (stratigaphic traps, combined structural and stratigraphic, monoclonal, etc). Such traps are difficult to be located and evaluated and can easily be over looked and missed even in mature oil producing fields or provinces.

This paper discusses the case history of oil discovery in Upper Jurassic section in a producing ADMA OPCO offshore oil field. The appraisal of the discovered hydrocarbon is a challenging task and innovative approach was required to appraise and delineate this discovery utilizing planned and approved new wells for other reservoirs.

The collected data has improved the understanding of the reservoir properties and reduced uncertainties associated with the size, shape, fluid type and productivity of this discovery.