MAMMA* Project: Basin Mastering in Regional Generative Systems of Sub-Saharan Africa

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Abstract

As part of the TOTAL global basin mastering initiative, the Merging Africa Maturity MAps (MAMMA) project was launched to capitalize on our knowledge and understanding of Sub-Saharan Africa SR presence, potential and maturity for key stratigraphic intervals. The ultimate goal of this project was to help capture acreage in new or revisited areas thanks to the identification and characterization of potentially efficient but unexpected HC generative systems. This transverse project involved a multi-disciplinary and multi-site team of geoscientists and cartographers over a 2 year period, covering 46 basins extending from Mauritania to South and East Africa, focusing primarily on late Mesozoic and Tertiary sourced petroleum systems. As a consequence, previous basin-specific evaluations were updated, both in terms of maturity and the identification of potential source rock intervals, facilitating a regionally coherent approach to basin play evaluation and ranking within TOTAL. This paper will share the objectives and methodology employed during the project, revealing the value of regionally consistent petroleum systems evaluation, leveraging the basin mastery and collective intelligence of our exploration teams.