Supporting information for

Optimizing Hydrocarbon Recovery in Mature Fields: A Comparative Simulation Study of Infill Well Placement and Performance Using Integrated Reservoir Modeling Techniques

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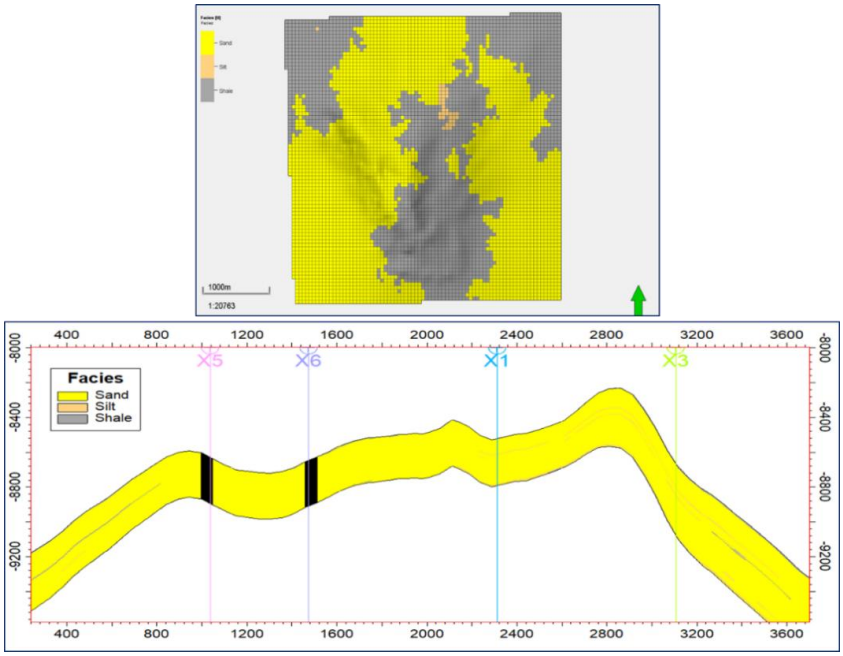

Fig. S1: The reservoir facies model. This shows the delineation of facies (sand, silt, and shale) spatially throughout the reservoir using the top view and cross-sectional view.

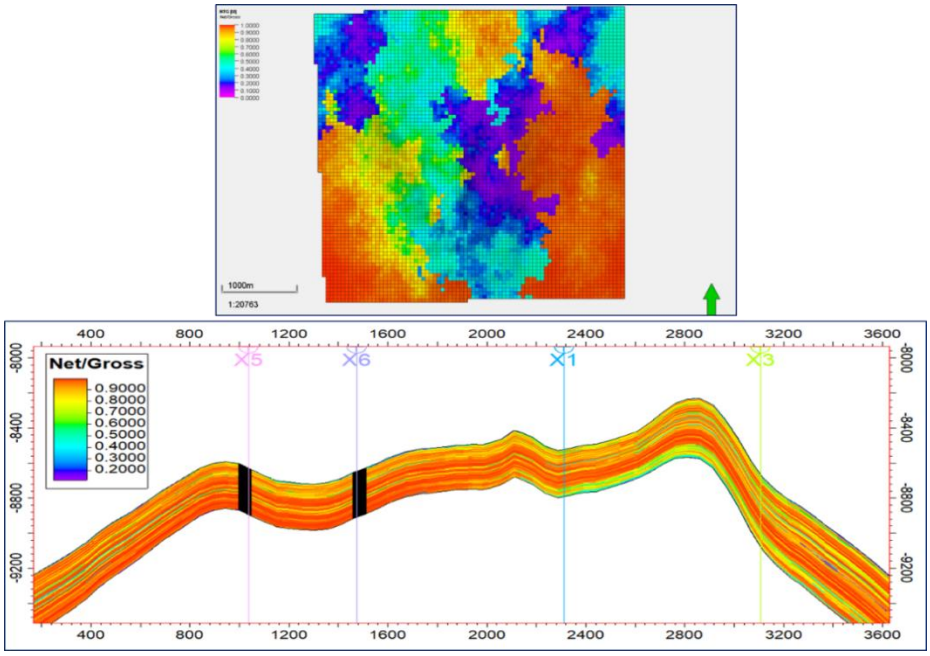

Fig. S2: NTG model. This shows the variation of net reservoir sands throughout the reservoir using a top view and a cross-sectional view, with orange-red depicting high net reservoir sand (high NTG) and blue-purple depicting low sand content.

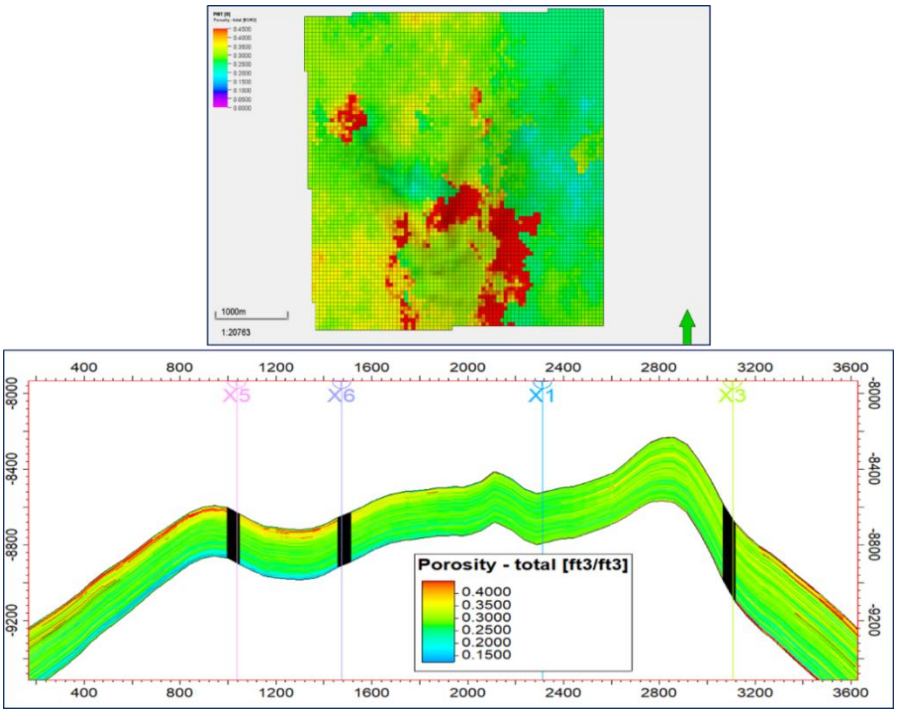

Fig. S3: PHIT model. This shows the variation of total porosity throughout the reservoir using top view and cross-sectional view, with a range of 0.1 (blue) to 0.45 (red).

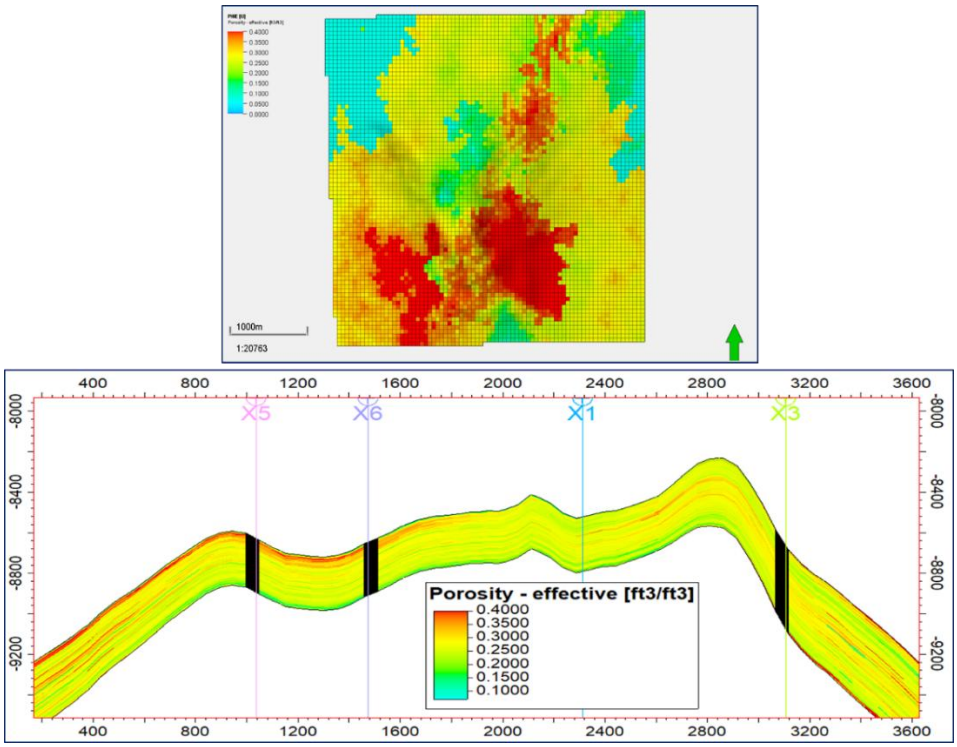

Fig. S4: PHIE model. This shows the variation of effective porosity throughout the reservoir using the top view and a cross-sectional view, with a range of 0.05 (blue) to 0.4 (red).

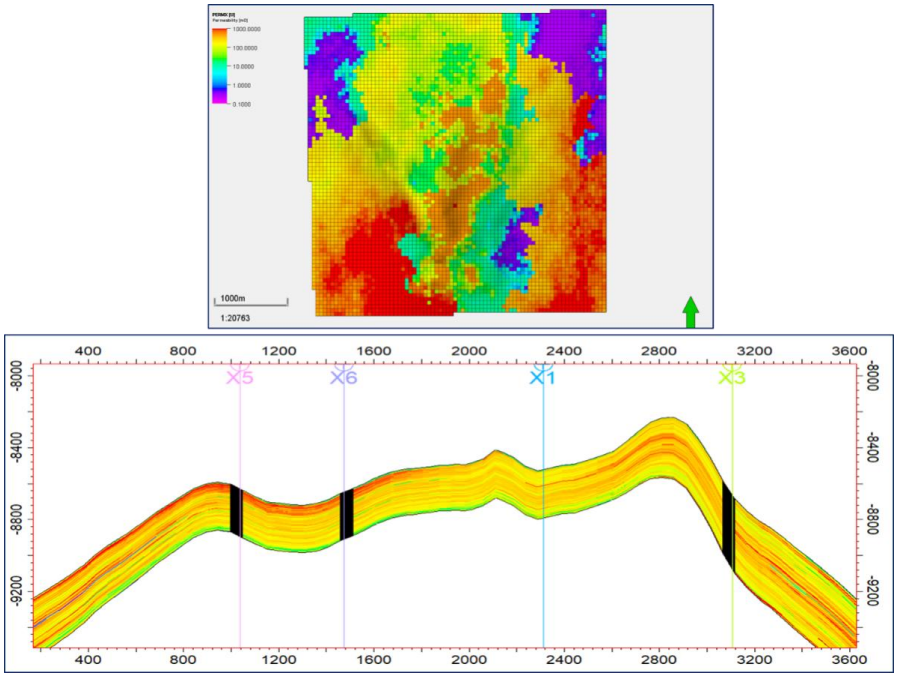

Fig. S5: Permeability model. This shows the variation of permeability throughout the reservoir using the top view and a cross-sectional view, with a range of 0.1 mD (purple) to 1,000 mD (red).

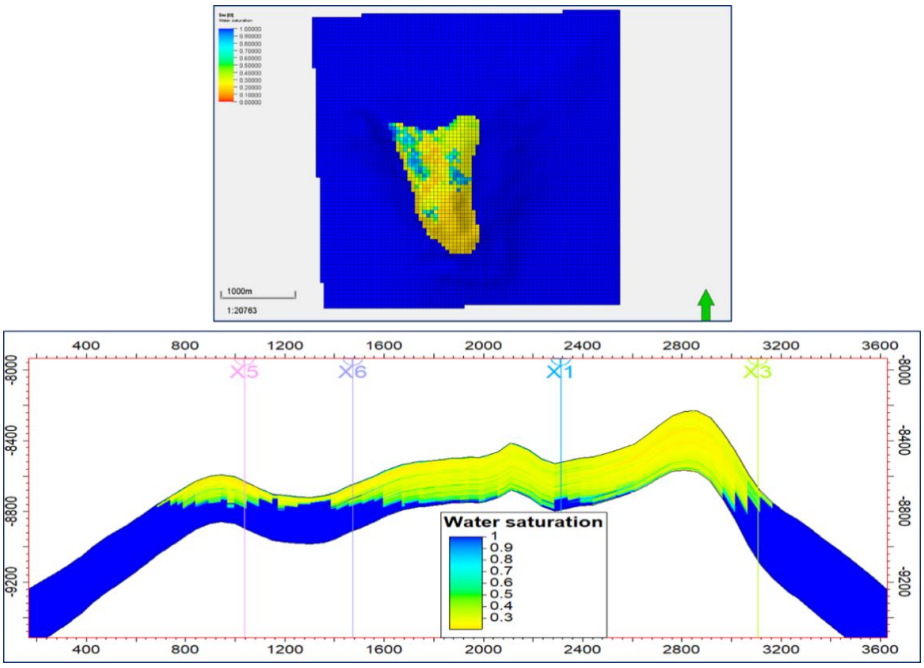

Fig. S6: Water saturation model. This shows the variation of water saturation throughout the reservoir using the top view and a cross-sectional view, with a range of 0.2 (greenish-yellow) to 1.0 (blue). The continuous blue region denotes the underlying aquifer.

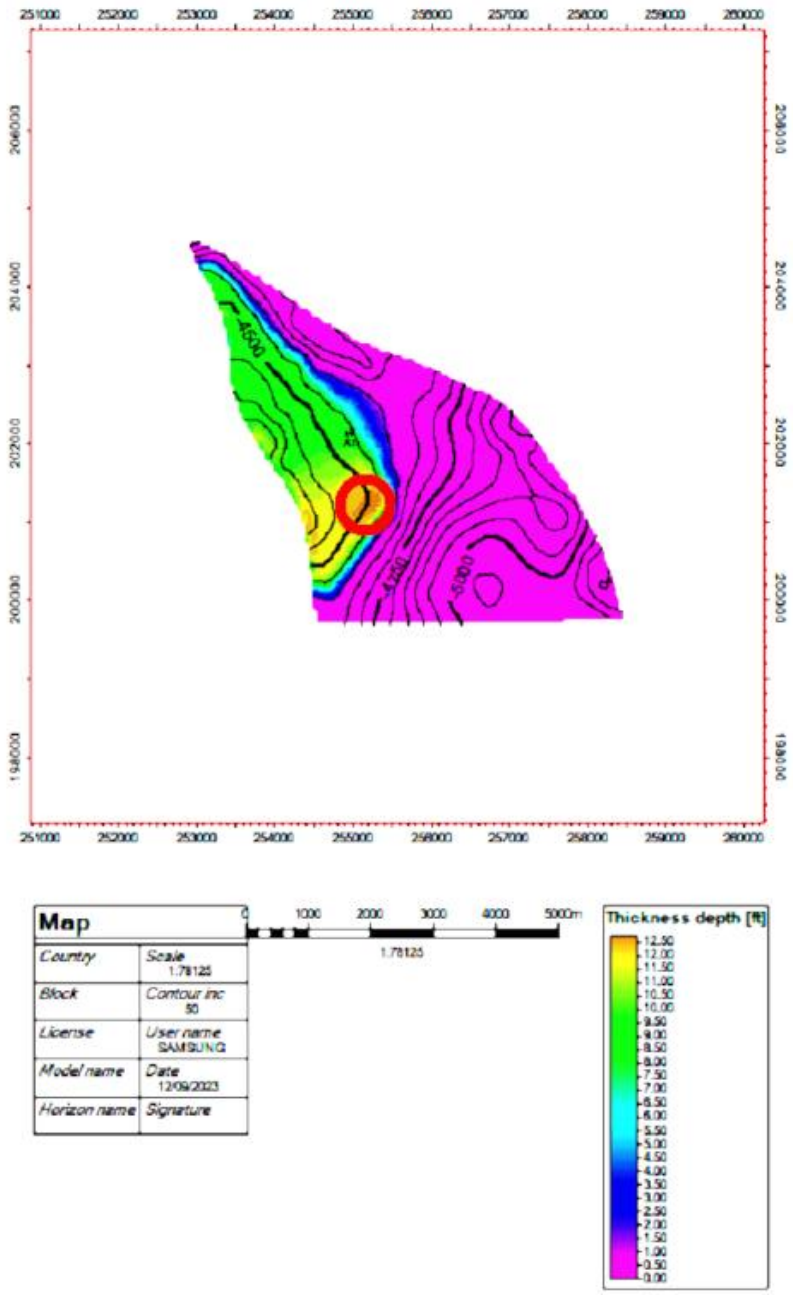

Fig. S7: Reservoir oil thickness map of field "X". This shows the oil-thickness distribution throughout the reservoir with a range of 0.00 (purple) to 12.50 (orange). The unit for the y-axis and x-axis is a meter (culled from an unpublished report).

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