

Executive Summary

Conduct an integrated reservoir study through collaborated effort to aid appraisal and development in Alkaid, Talitha and Theta West

- Develop a subsurface static model for a large 520 sq miles area of interest and three reservoir plays (SMD, SF, BFF) by integrating 3D seismic interpretations, seismic porosity, petrophysical, core, image and other data
- Evaluate P10/P50/P90 volumetrics on 50 realizations through uncertainty workflow
- Construct three sector models for simulation based on P50 static model
- Run single well reservoir simulation modeling for production forecast for Alkaid, Talitha-SMD, Theta West-BFF
- Perform sensitivity analysis to evaluate uncertainty range of production forecast.

Leverage SLB cloud and software technology to develop a 13 million cell reservoir model.



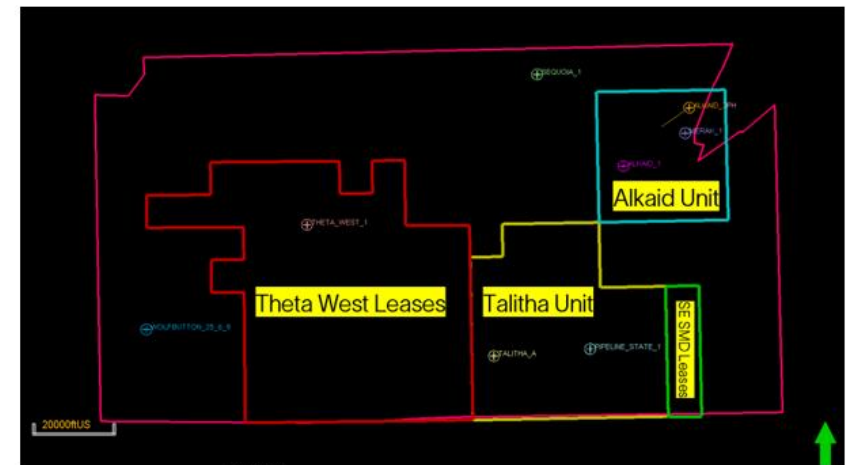
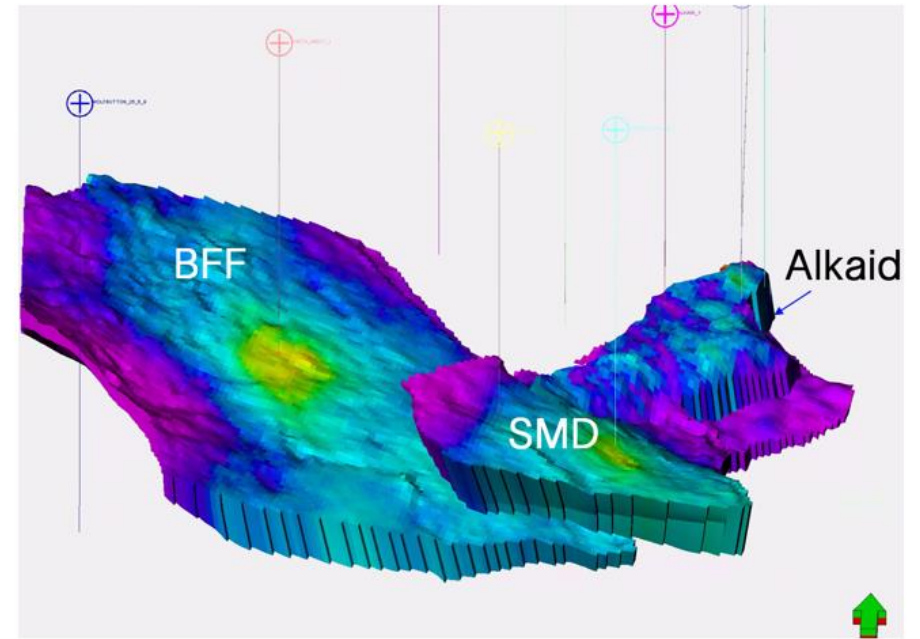
Executive Summary: Net Volumetrics

Net Lease Volumetrics	Net (OOIP BBO)
Lease Area/Unit	P50
Alkaid Unit	1.67
Theta West Lease	10.9
Talitha Unit including SE SMD	5.26
Total	17.8

Table shows volumetrics per lease area

Notes:

- Alkaid Unit includes Alkaid zone and SMD zone.
- Theta West lease area includes BFF zone and SMD zone.
- Talitha Unit includes BFF zone and SMD zone.
- Values taken from the P50 using medium polygon bounded by the lease areas.



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Single Horizontal Well Oil EUR Production Forecast (1-mile lateral length) Base Case Forecast:

- **Alkaid:** IP 30 days = 775 bopd; Oil Cum @ 30 years=1.1 MMBO
- **Theta West BFF:** IP 30 days = 1060 bopd; Oil Cum @ 30 years=1.5 MMBO
- **Talitha SMD:** IP 30 days = 791 bopd; Oil Cum @ 30 years=1.2 MMBO

Three Sector models representing each area for comparison:

- Proposed horizontal well lands on the best reservoir quality in sector model.
- In term of reservoir quality OOIP: Theta West BFF > Alkaid > Talitha SMD+SFS
- Oil cum @ 30 year: Theta West BFF > Alkaid > Talitha SMD+SFS
- More prone to high gas production: Talitha SMD+SFS > Theta West BFF > Alkaid

Key production drivers:

- The key production drivers are frac geometry, reservoir properties, and reservoir fluids.
- Matrix permeability drives long term matrix contribution to well production and recovery.

Uncertainty:

- The possible ranges for single well EUR are widely spread.
- The key uncertainties are reservoir properties, fracture geometry, and PVT of reservoir fluids.

