Conclusions

Reservoir Performance

•MATRIX
  •Facies
    •Lineament/channel focusing
    •Coal distribution
•FRACTURE
  •Lithology
  •Lineament Proximity

•RESERVOIR COMPONENTS
•PERFORATION PRACTICES
•STIMULATION PRACTICES

Economic success is measured by improved well recovery and reduced cost through site selection, pay determination, natural fracture characterization, completion optimization, and recompletion potential. These are achieved by:

- Designing appropriate 3-D Seismic for target interval.

- Determining areas of accommodation (faults, linear features, paleo-lows, interval thickness).

- Integrating with existing data and maps to determine favorable depositional and petrophysical facies.

  - Targeting channel areas of high matrix quality.

  - Intersecting linear features in the Almond bar.

  - Avoiding lower Main Almond sandstones unless precautions are taken for overpressure. Recalculate Rw and Sw for proper formation interpretation.

- Running mud and open hole logs including FMI* for fracture interpretation.

- Drilling non-vertical wellbores.

- Utilizing staged hydraulic stimulation techniques with a minimum perforation density of 4 shots per foot.

$$$$ Bottom line impact?

Implementing the information presented in this study will increase asset value through improved well recovery, higher initial rates (IP), and a decrease in drilling and operational costs. This is accomplished through better infill drilling location selection and advantageous completion practices. As a result, average infill locations will recover greater than .5 to 1.5 BCF per well over historical Almond well completions.

*Mark of Schlumberger

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