

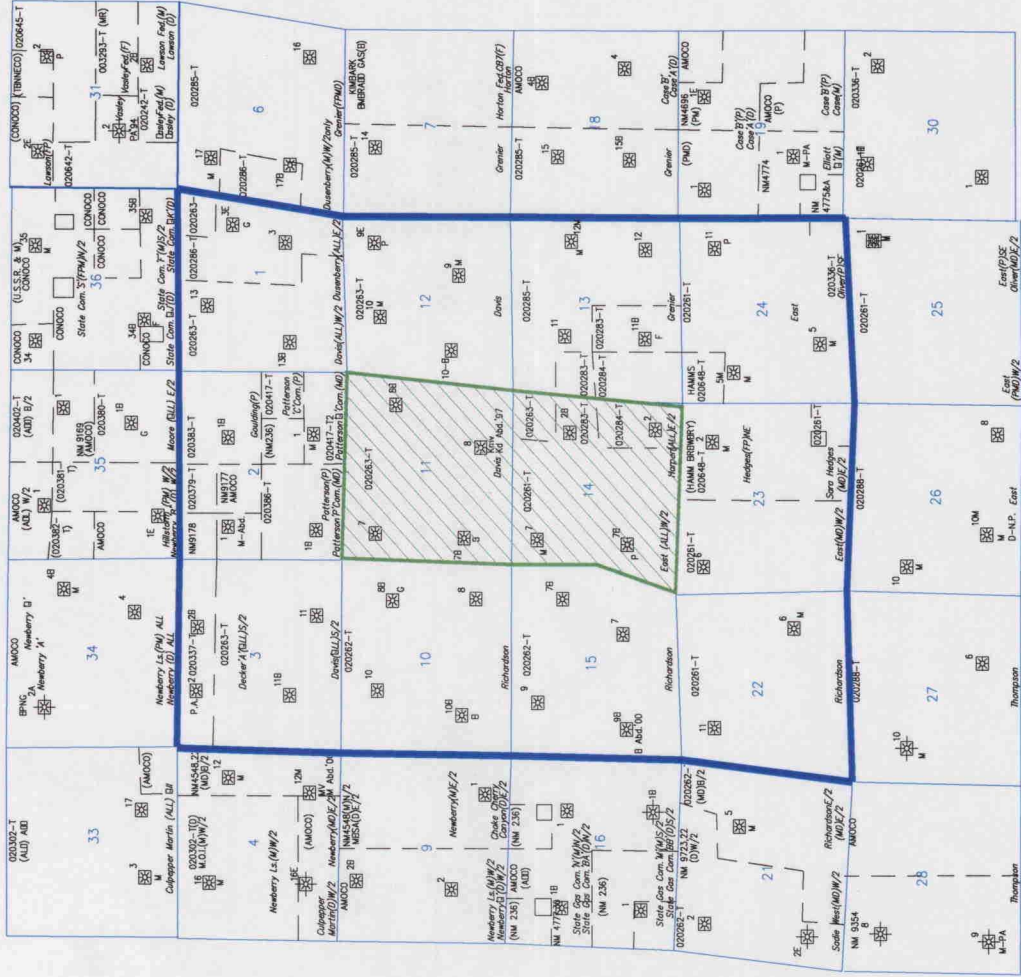
Culpepper Pilot Summary

- Adequate data was obtained
 - Layer pressure
 - Production rates
- Basin petrophysical model was calibrated
- Simulation model projections are more certain
- 80-Acre commingles are break-even

Culpepper Reservoir Model

- 3 layer, dual porosity model
 - Two Wells
 - Paguate
 - Lower Cubero
- History match and base projection
 - 47 x 68 x 3 grid
 - 12 sections
 - 42 existing wells
- 3rd and 4th well per GPU forecast
 - 2 sections, 8 existing wells
 - 8 increased density wells

SIMULATION AREA **CULPEPPER MARTIN DAKOTA INCREASE DENSITY** **SEC: 1 - 3, 10 - 15 & 22 - 24, T31N, R12W**



DAKOTA

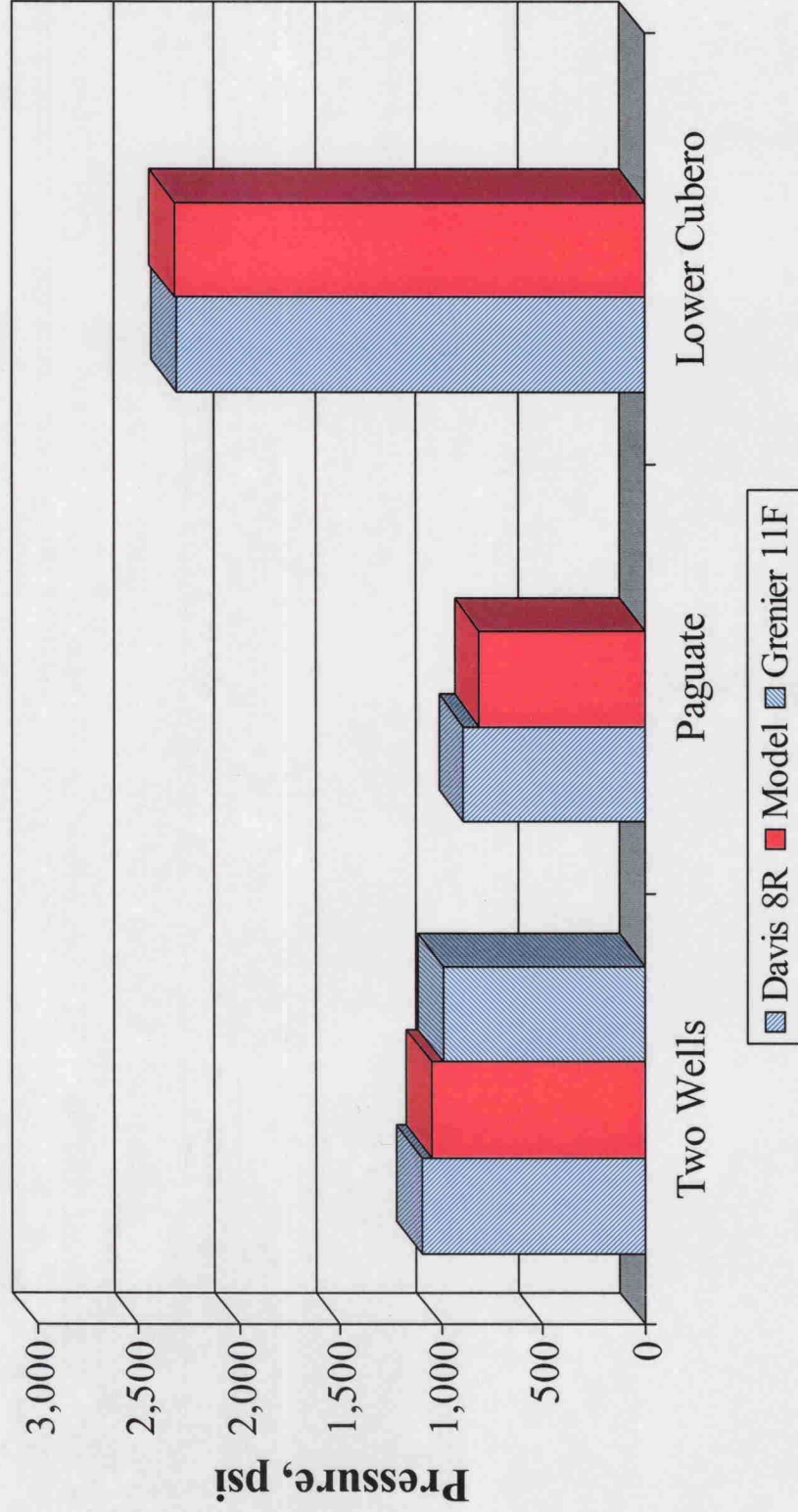
Focus Area

Project Area

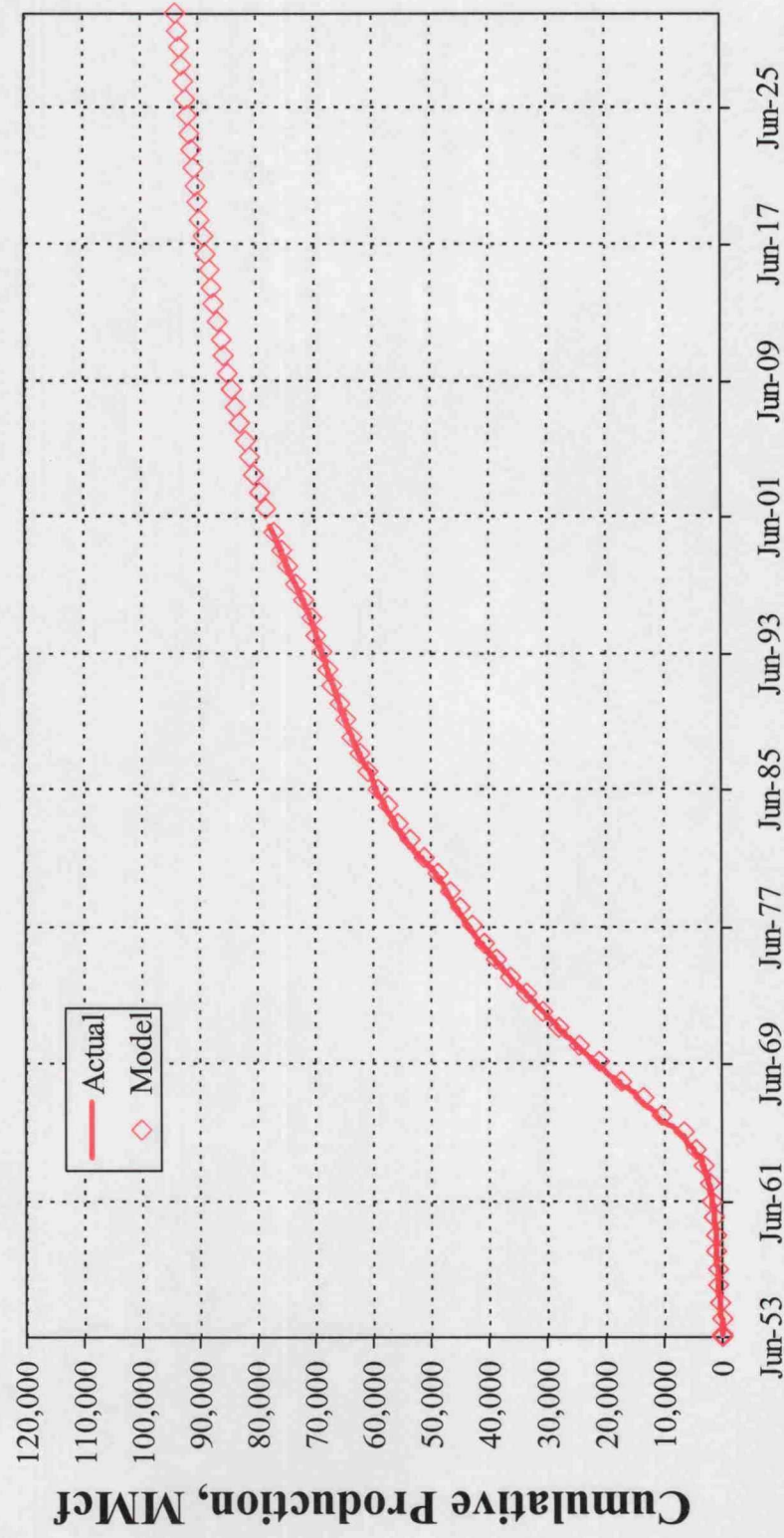
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- 990 – 1100 psi
– Pagate
- 830 – 890 psi
– Lower Cubero
- 2300 psi

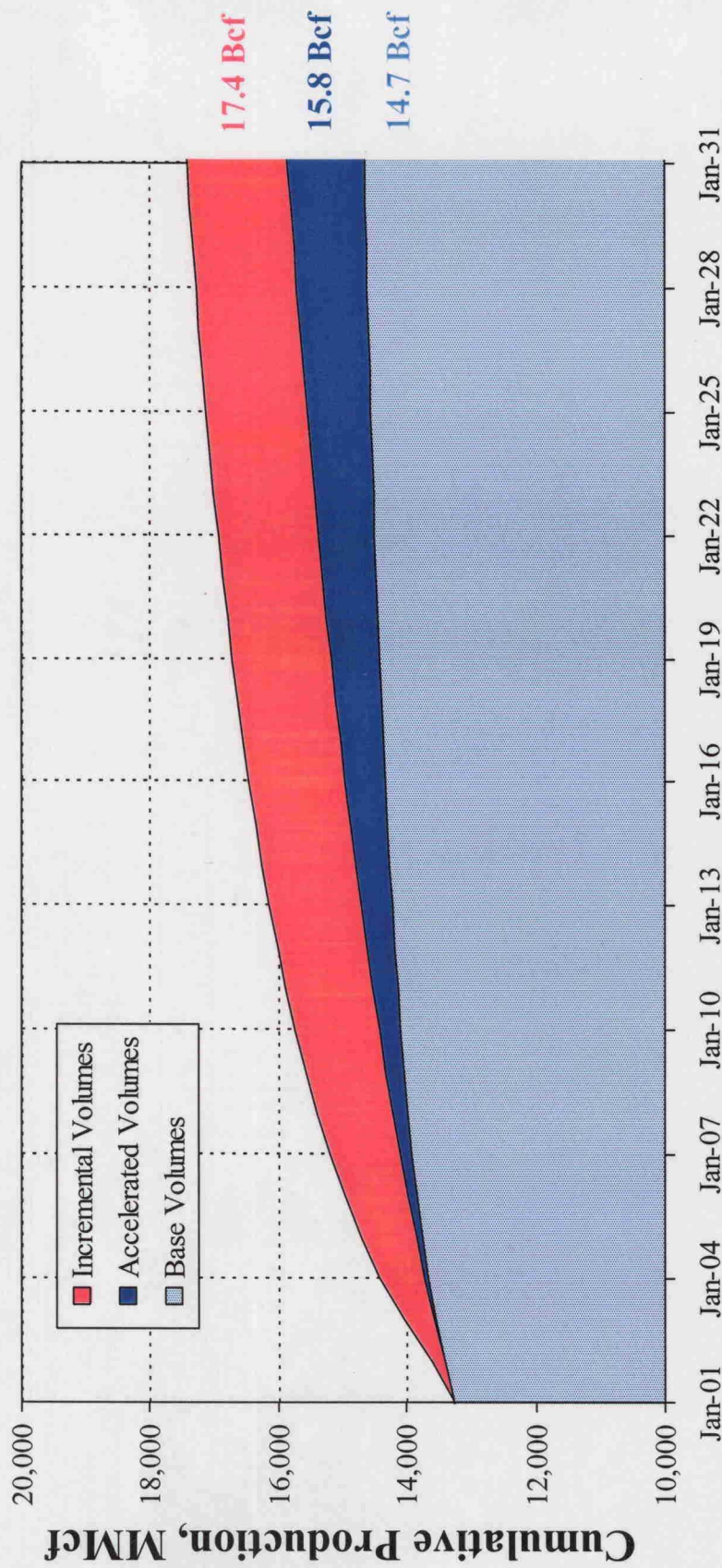
Culpepper Pressure Match



Culpepper History Match and Base Projection

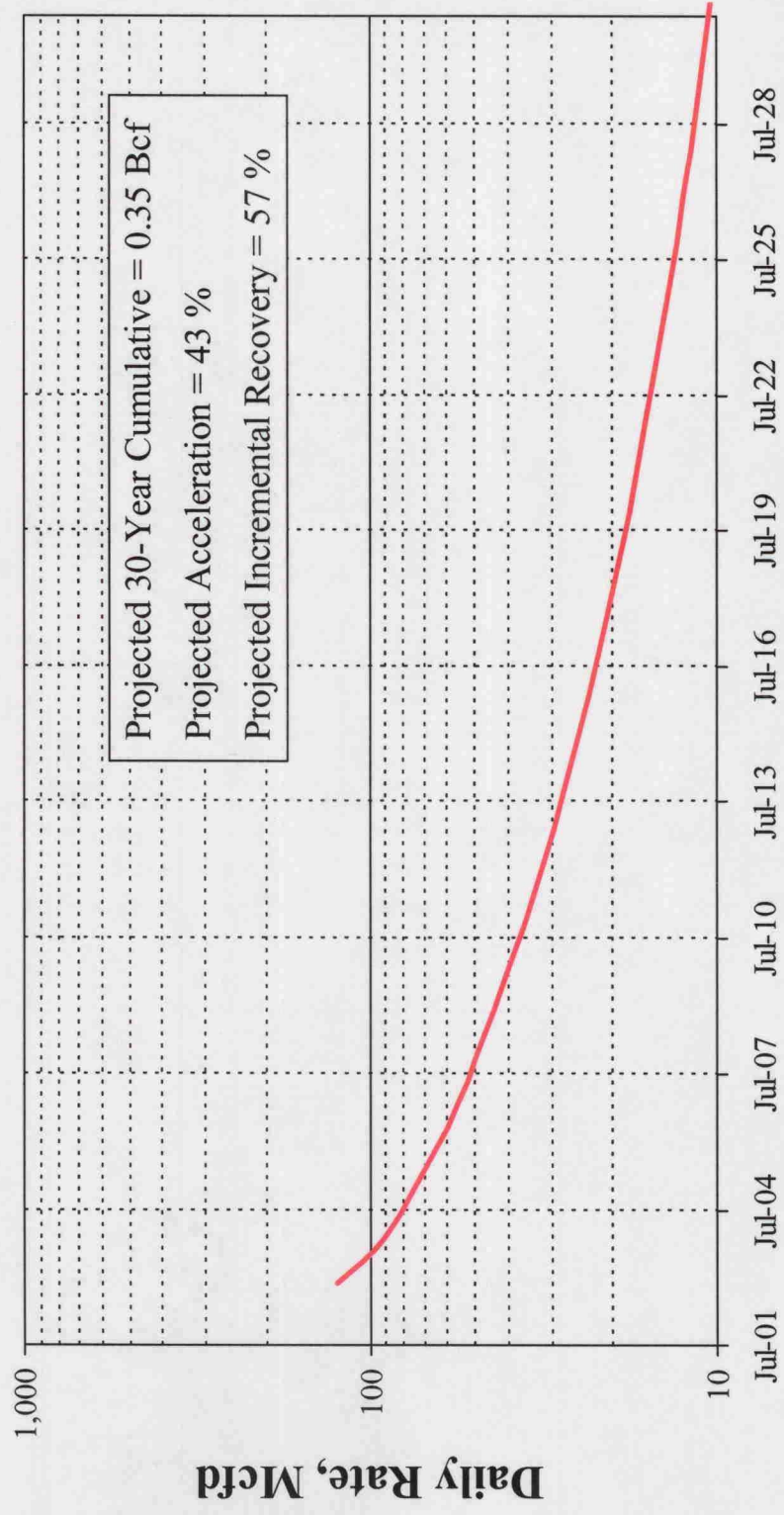


Culpepper Increased Density Recovery Profile



4 Wells per GPU in Sections 11 and 14 of T31NR12W

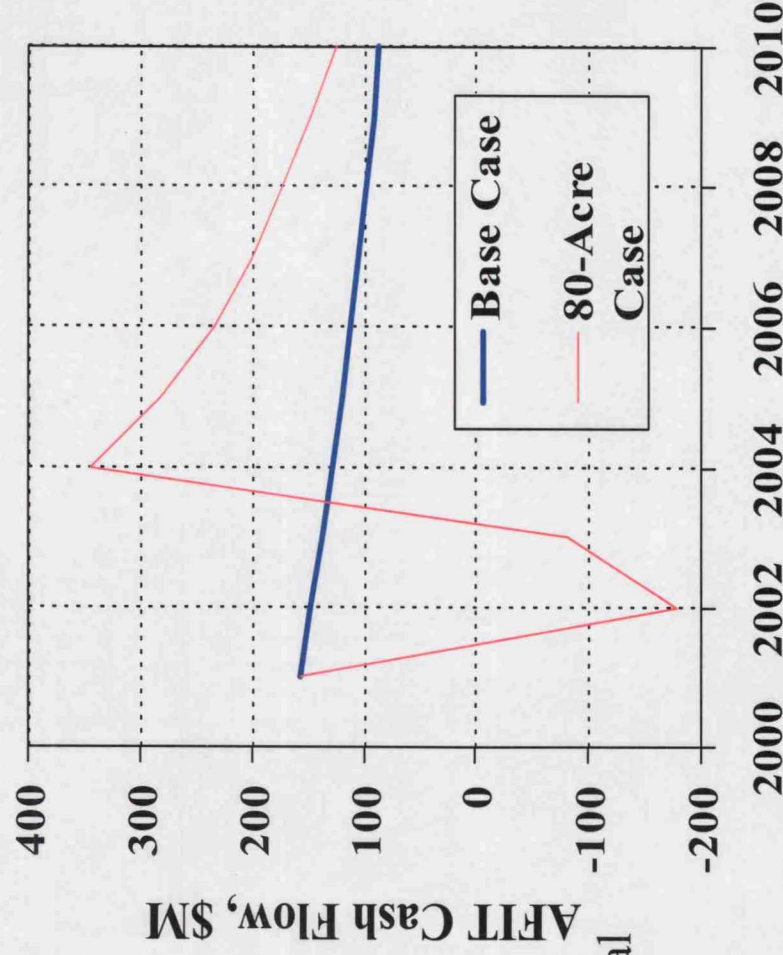
Culpepper Individual Well Projection



Average of 3rd and 4th wells per GPU

Culpepper 80-Acre Economics are Break-Even

- **Base case NPV = \$1.0 MM**
 - 8 existing wells
 - No additional development
- **80-Acre case NPV = \$1.0 MM**
 - 8 existing wells
 - 8 80-acre tails
- **Primary Economic Inputs**
 - \$2.75/mmbtu gas price
 - \$190,000/well incremental capital for Dakota tail
 - \$400/well/month op costs



Based on Sections 11 and 14 of T31NR12W

Culpepper 80-Acre Dakota Potential

- 48 potential 80-acre locations
 - Incremental reserves of 10 Bcf
 - Accelerated reserves of 7 Bcf
- Total 80-Acre reserve potential of 17 Bcf