

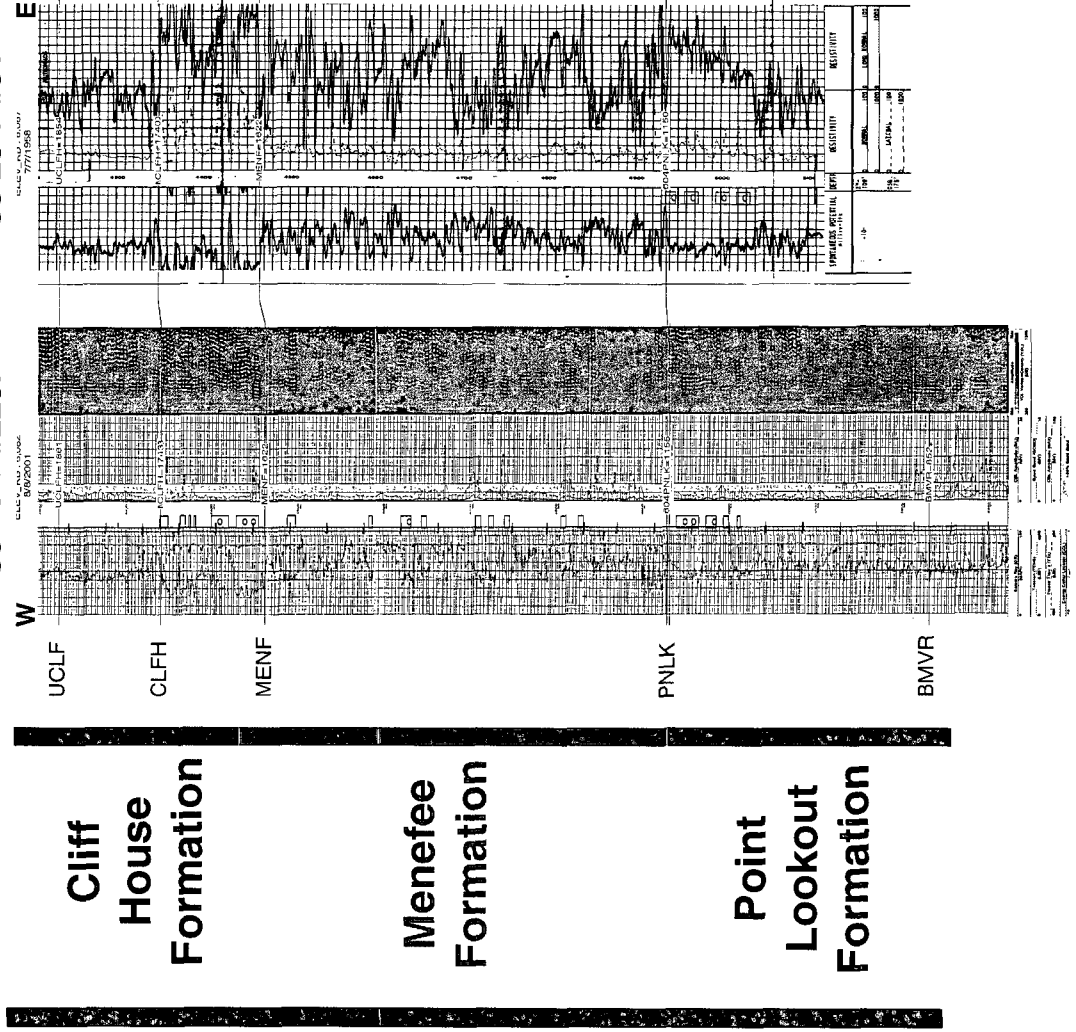
# Case Assessments

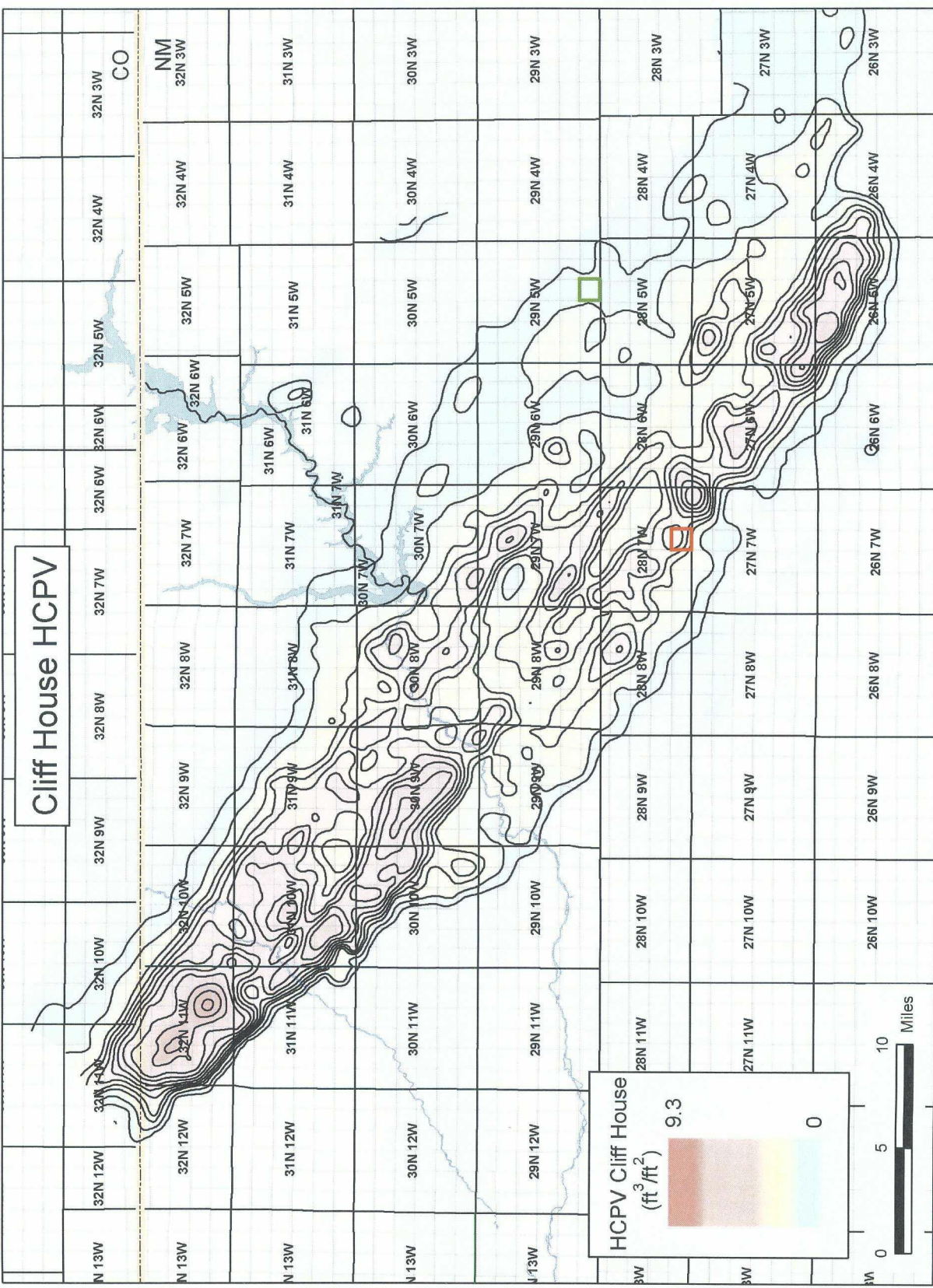
- **General**
  - Well locations and general land situation
  - Geologic setting
  - Well completions and production
- **Correlative rights**
  - Drainage areas mapped (as applicable) using no-flow boundaries from relative rate calculations (*Well Performance*, 2<sup>nd</sup> Edition, Golan and Whitson, 124-125)
  - Maps validated using flowing material balance
- **Incremental recoveries – 50 year forecasts from numerical models show lower final pressures/incremental recoveries by producing all wells as opposed to shutting in certain wells to achieve compliance with pool rules.**

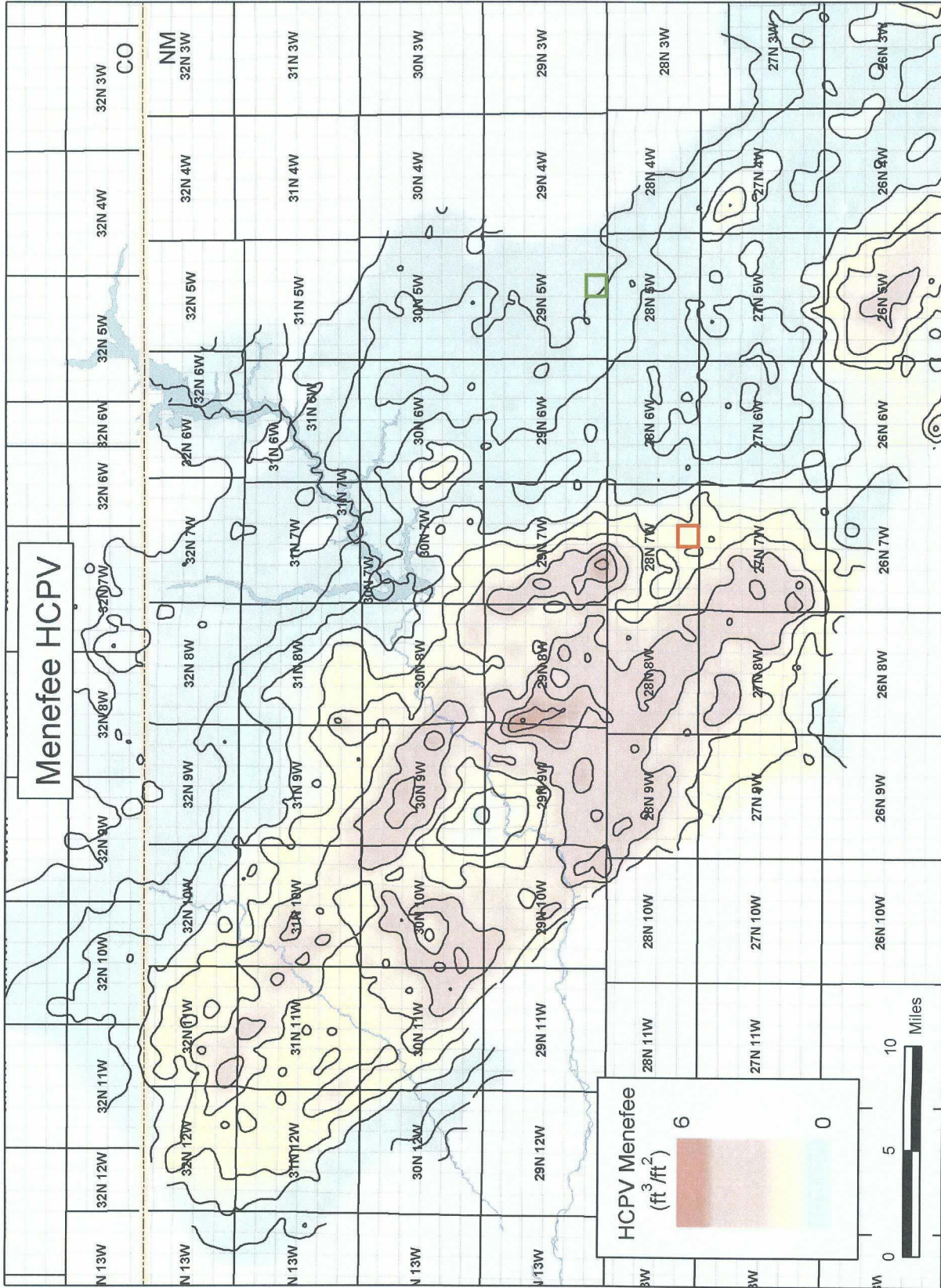


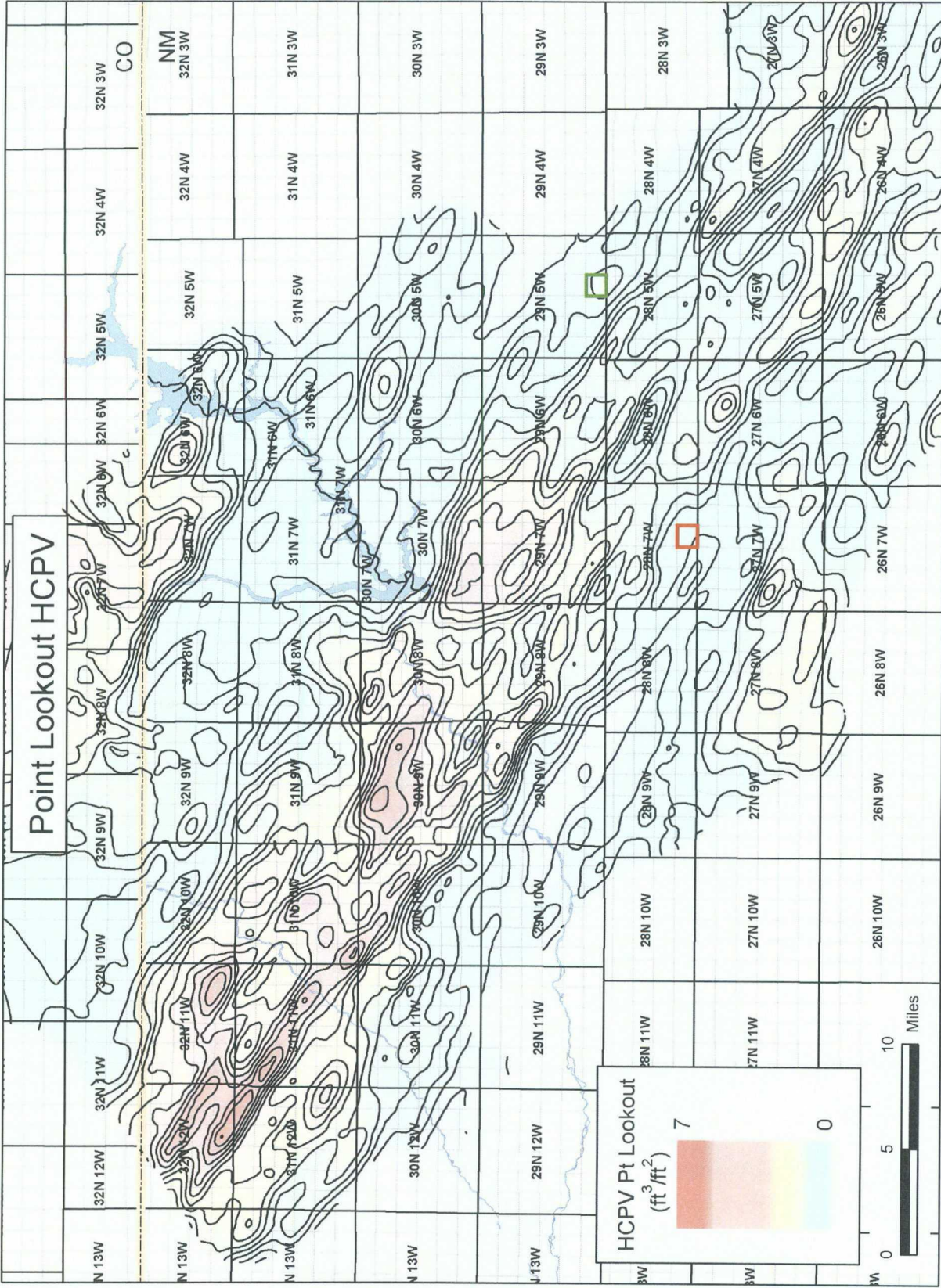
# NE/4 S34 T28N-R7W Mesaverde

Mesa Verde Group

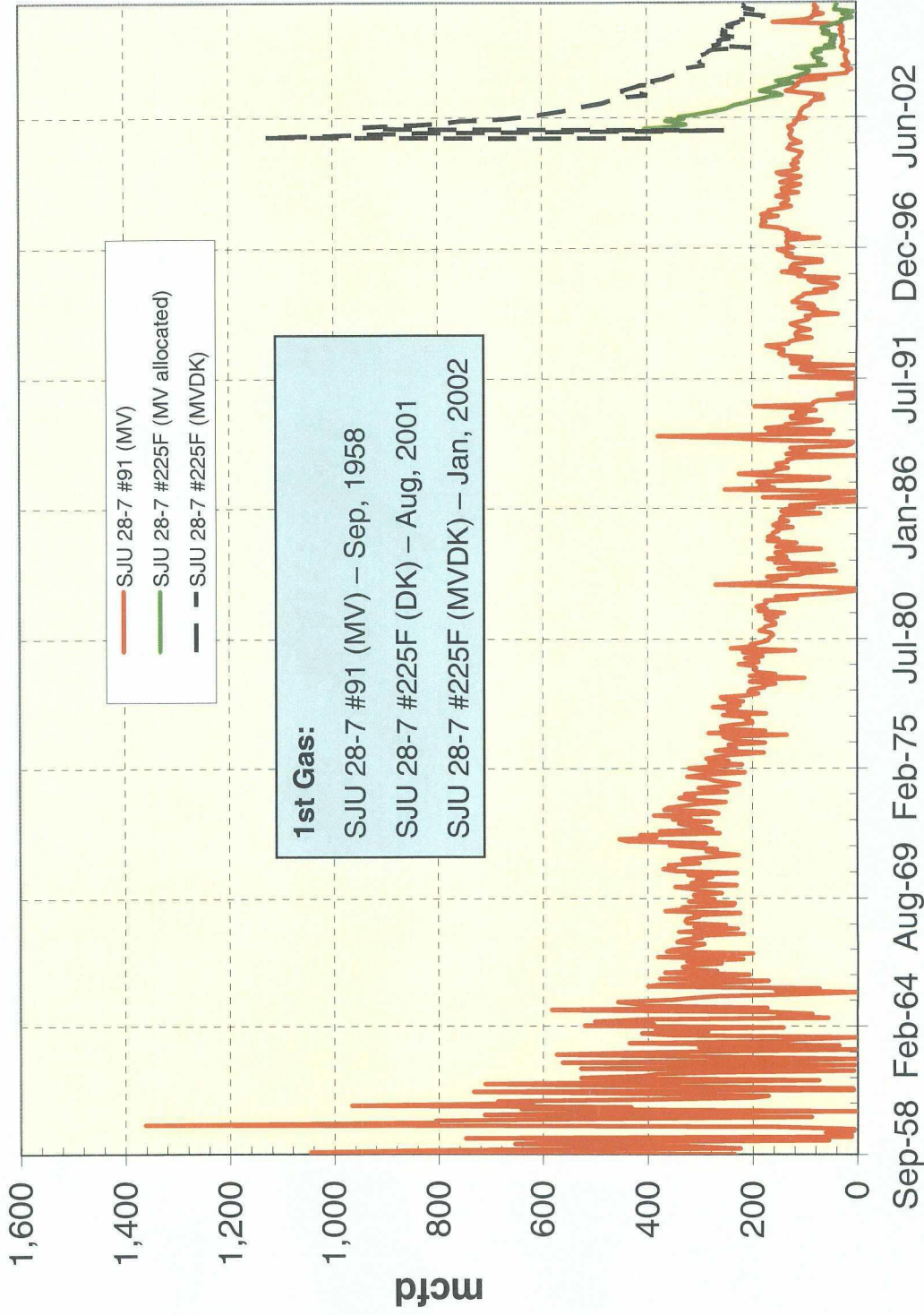






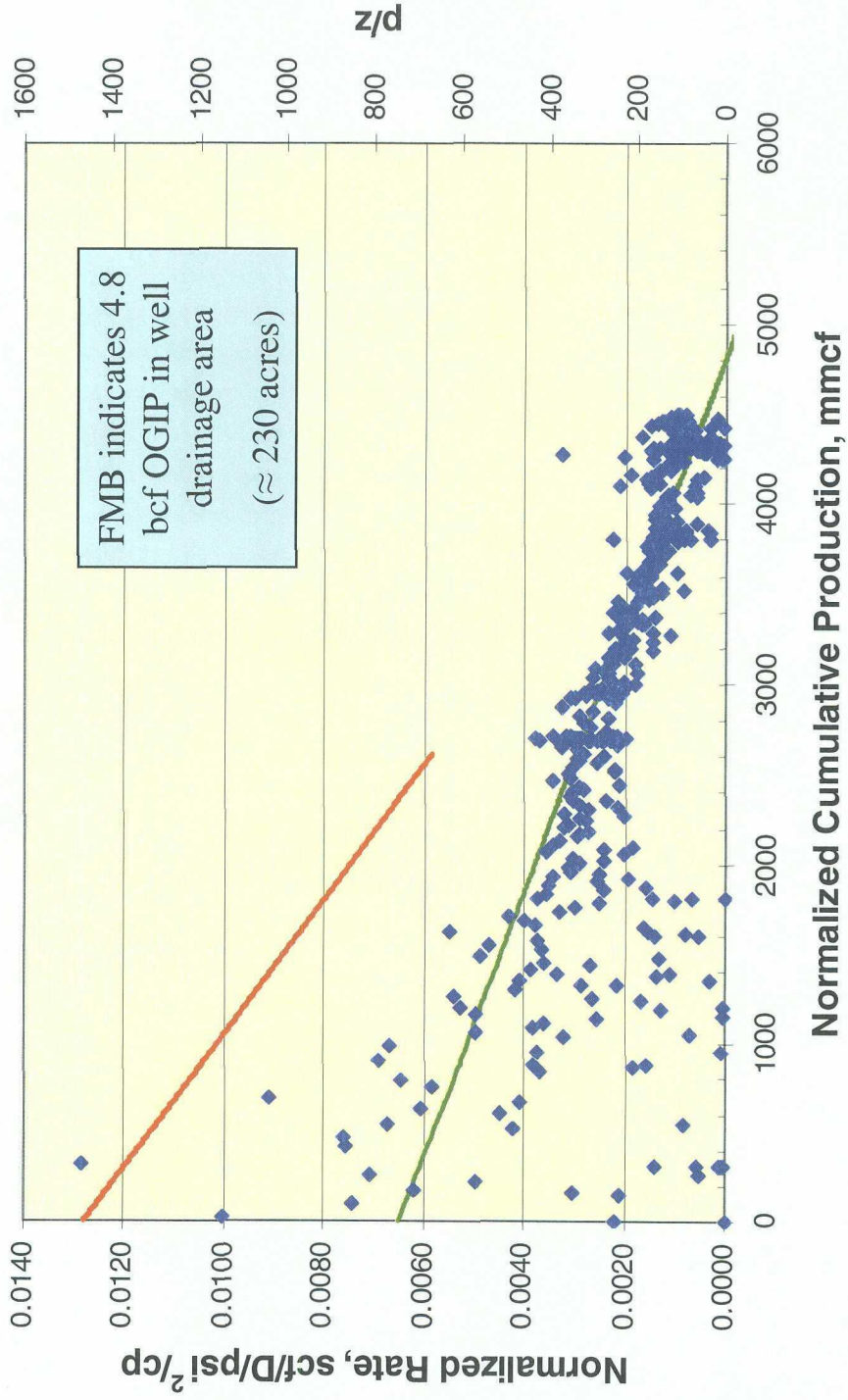


# NE/4 S34 T28N-R7W Mesaverde



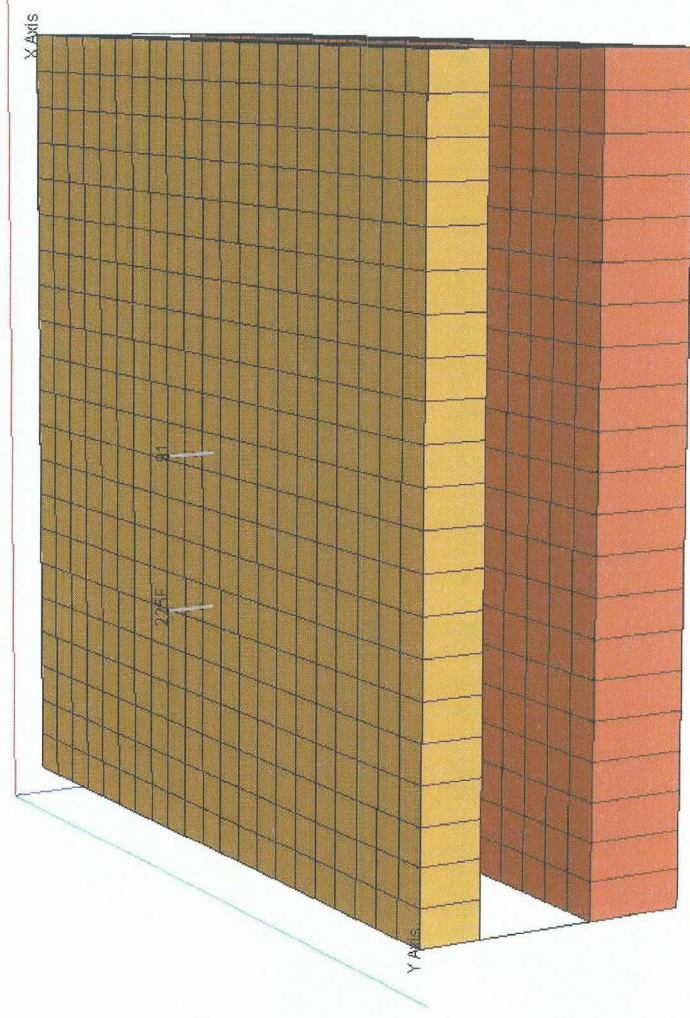
# Flowing Material Balance

San Juan 28-7 Unit 91





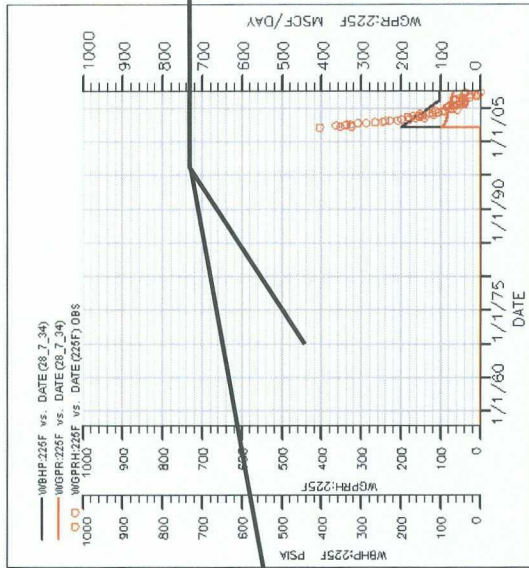
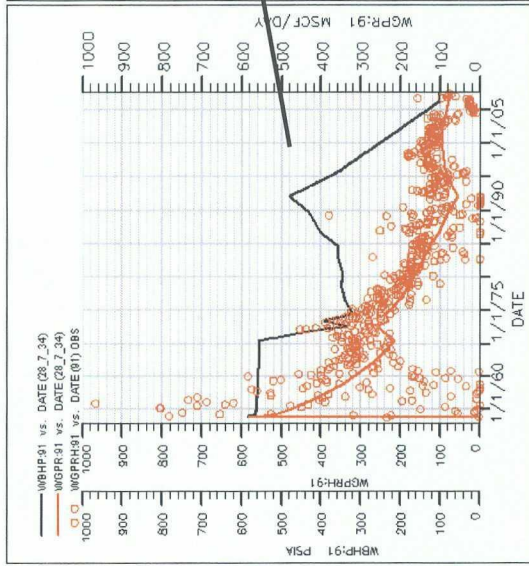
# Numerical Simulation



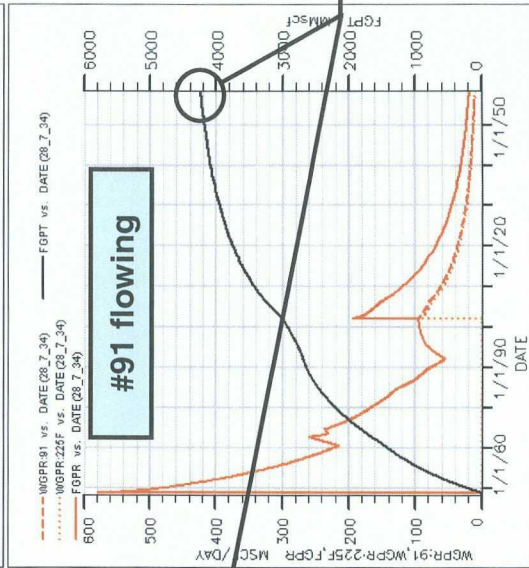
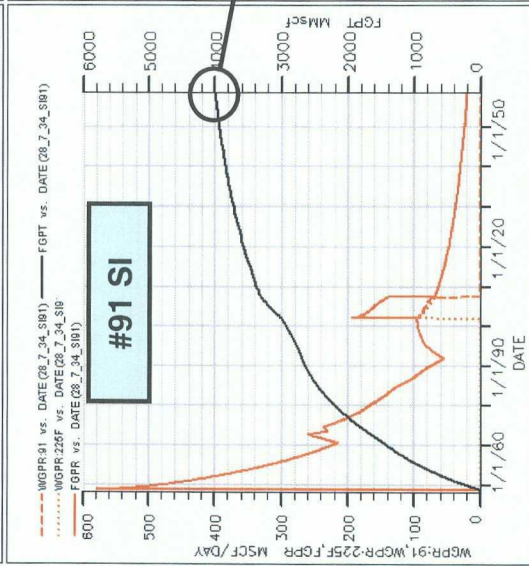
Pressure (PSIA)

- 2 layers (Cliff House and Point Lookout)
- Same input as FMB analysis
- 230 acres
- Assume constant drainage area

# Numerical Simulation

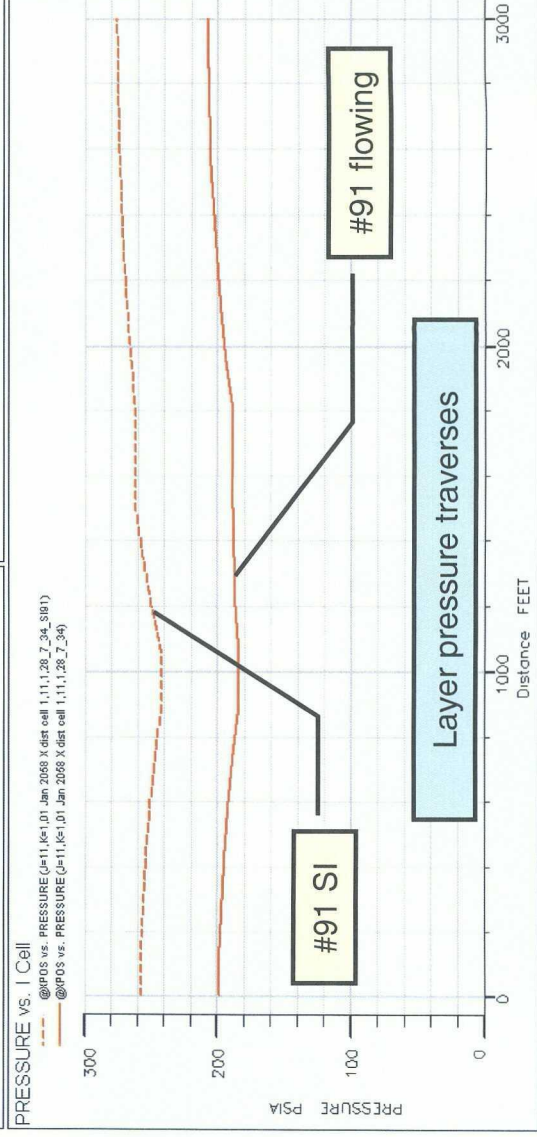
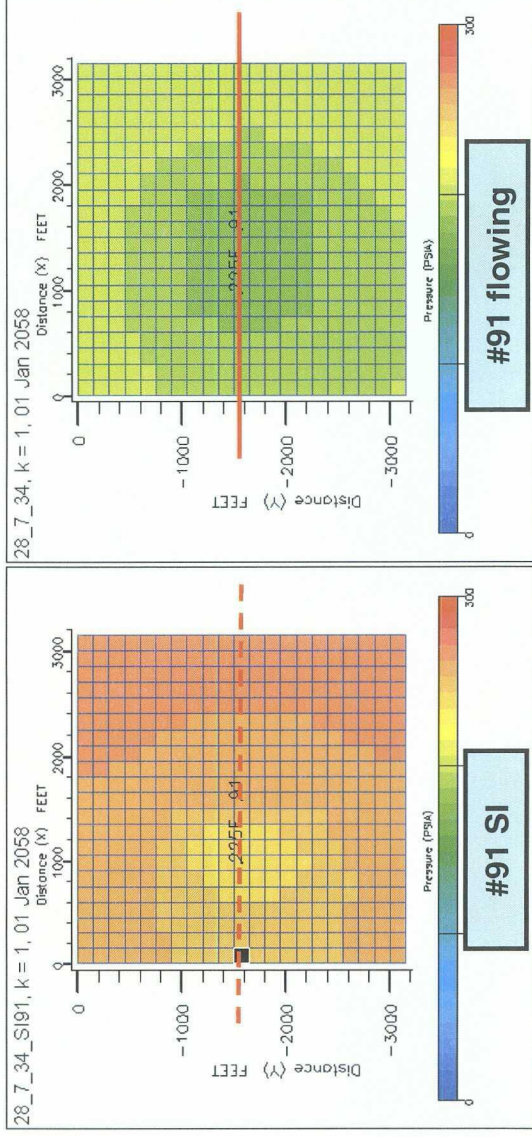


Wells are reasonably matched (on BHP control)

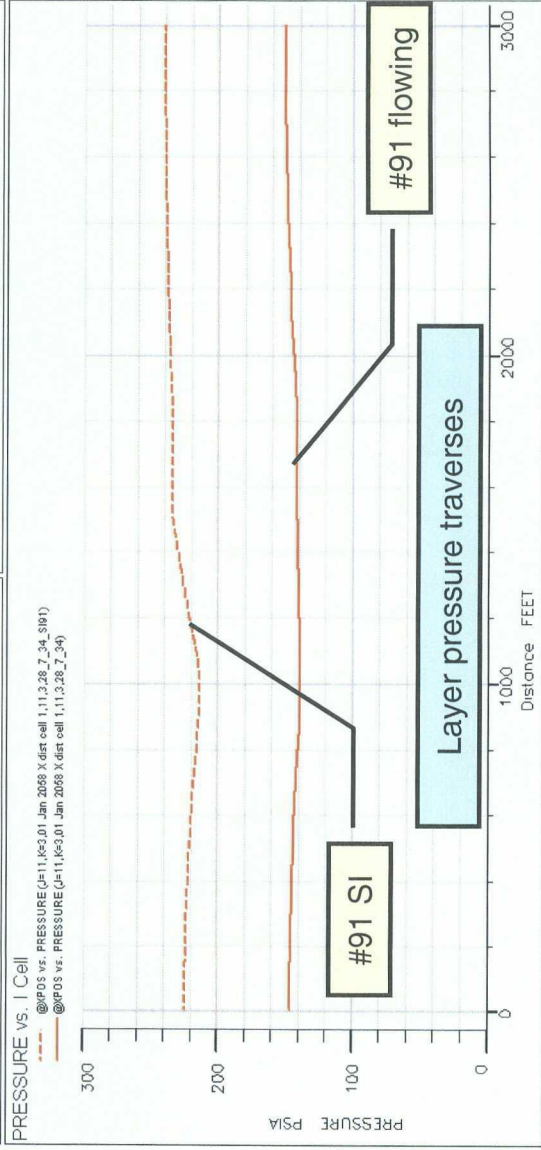
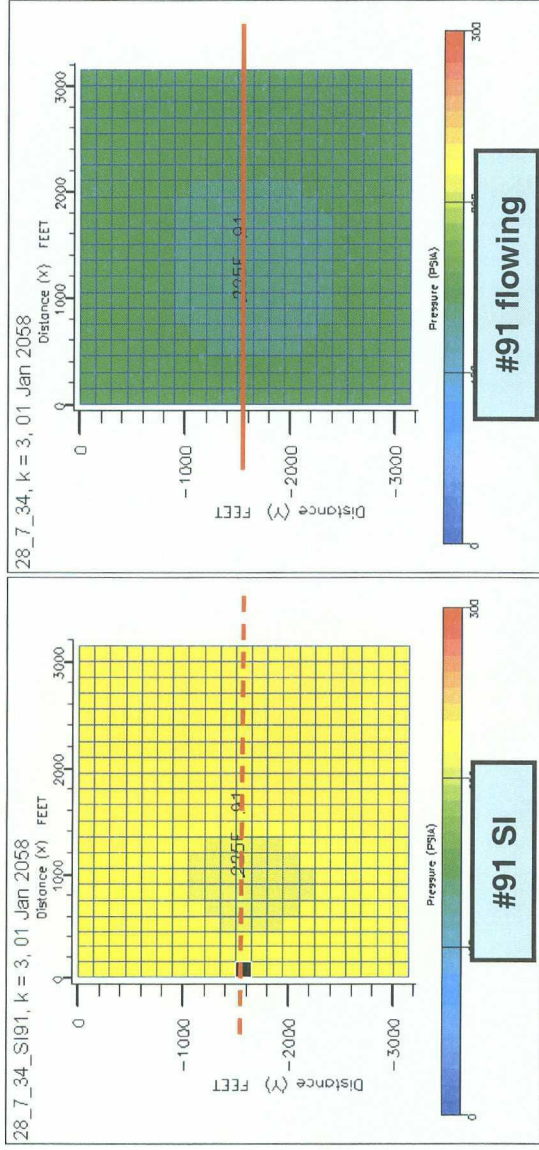


Incremental recovery

# Cliff House Layer Pressure 2058



# Point Lookout Layer Pressure 2058



# Conclusions/Recommendation

- No correlative rights issues (interior to unit)
- Abandonment of San Juan 28 7 Unit 91  
Mesaverde would result in a loss of reserves  
(estimate approximately 240 mmscf)
- Request waiver to produce San Juan 28 7  
Unit 91