

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION**

**IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION FOR THE PURPOSE OF
CONSIDERING**

2006 AUG 9 AM 11 42

CASE NO. 13492 (De Novo)

**APPLICATION OF SAMSON RESOURCES COMPANY,
KAISER-FRANCIS OIL COMPANY AND MEWBOURNE
OIL COMPANY FOR CONCELLATION OF TWO DRILLING
PERMITS AND APPROVAL OF A DRILLING PERMIT
LEA COUNTY, NEW MEXICO.**

CASE NO. 13493 (De Novo)

**APPLICATION OF CHESAPEAKE OPERATING, INC.
FOR COMPULSORY POOLING,
LEA COUNTY, NEW MEXICO**

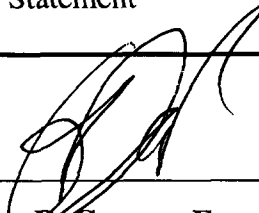
ORDER NO. R-12343-B

**CHESAPEAKE OPERATING, INC.'S
AMENDED EXHIBIT D TO ITS PREHEARING STATEMENT**

Chesapeake Operating, Inc. hereby submits the attached Amended Exhibit D to its Prehearing Statement and revised Exhibits PE-2, 12, 13 and 14 which supercede and replace such exhibits previously submitted.

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CERTIFICATE OF SERVICE

I certify that on August 9, 2006, I served a copy of the foregoing documents by:

- ☐ US Mail, postage prepaid
- ☒ Hand Delivery
- ☐ Facsimile

to the following:

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Attorney for Oil Conservation Commission

and by electronic mail to:

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Attorney for Kaiser-Francis Oil Company

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Attorney for Samson Resources Company



Earl E. DeBrine, Jr.

AMENDED ATTACHMENT "D"

CHESAPEAKE'S PETROLEUM ENGINEERING EXHIBITS

PRESSURE DATA (Exhibits 1 thru 20):

- PE-1. Cover sheet
- PE-2. BHP versus Time (**new**)
- PE-3. Map With Initial BHP of 7354 for State WEK #1 Well
- PE-4. BHP Vs. Time For State WEK #1 Well
- PE-5. Map With State WEL Com #1 Well with Initial BHP of 7080
- PE-6. BHP v Time Comparisons for WEK and WEL
- PE-7. Composite of CHK Geologic and Samson's map
- PE-8. Map with State 15-1 Well with Initial BHP of 7636
- PE-9. BHP vs. Time Comparisons of WEK and State 15-1 Wells
- PE-10. BHP vs. Time Comparison of WEL COM 1 and State 15-1 Wells
- PE-11. Map with PQ Osudo State Com with Initial BHP 6627
- PE-12. PQ Osudo State Com Well 1 Initial SBHP of 6380 PSI in Feb-90(PBU) (**new**)
- PE-13. BHP vs. Time Comparison WEK#1, State 15-1 & PQ Osudo State Com (**new**)
- PE-14. BHP vs. Time Comparisons for WEL Com #1 and PQ Osudo State Com (**new**)
- PE-15. Composite of CHK and Samson's Geologic Maps
- PE-16. Map Highlighting CC 3 State 1 Well BHP of 7300 and Other Wells
- PE-17. CC 3 State 1 PBU Analysis-Cartesian Plot
- PE-18. CC 3 State PBU-Semi-Log Plot
- PE-19. CC 3 State PBU-Log-Log Plot
- PE-20. Composite of CHK and Samson's Geologic Maps for CC 3 State #1

PRODUCTION DATA (Exhibits 21 thru 32):

- PE-21. Cover sheet
- PE-22. Map with Osudo 9-1 with BHP of 6301
- PE-23. Osudo 9 Production Plot (Gas rate vs. Time)
- PE-24. Godsey's Map with Hunger Buster 3 with BHP of 6627
- PE-25. Hunger Buster #3 Production Plot (Gas rate vs. time)
- PE-26. Composite Map of CHK and Samson's Geologic Maps
- PE-27. Map with State WEL Com 2 (Dry Hole)
- PE-28. Composite Map of CHK and Samson's Geologic Maps
- PE-29. Map highlighting KF 4 State #1 with initial BHP of 6600
- PE-30. KF 4 State Production Plot (Gas Rate vs. Time) w/Comments
- PE-31. Comparison KF 4 State and Hunger Buster Production Plots
- PE-32. Composite of CHK and Samson's Geologic Maps

GAS ANALYSIS (Exhibits 33 thru 36):

- PE-33. Cover sheet
- PE-34. Sample of 6 Gas Specific Gravity Data
- PE-35. Comparison Osudo 9, KF State 4, WEL Com 1, PQ Osudo and WEK
- PE-36. CHK's Geologic Map with Specific Gravity ID per Wellbore

VOLUMETRICS (Exhibits 37 thru 44):

- PE-37. Cover sheet
- PE-38. Recoverable Gas in Place for Each of the Six 160-acre Tracts in Section 4 Using CHK's Map.
- PE-39. Recoverable Gas in Place for Each of the Six 160-acre Tracts in Section 4 Using Samson's Map.
- PE-40. CHK's Recoverable Gas vs. Samson's
- PE-41. Recoverable Gas in Place for Area A Using CHK's Map: 26,002 ac-ft yields 33.4 BCF
- PE-42. EUR for Area A Using CHK's Map
EUR is 27.4 BCF by Decline Curve vs. 33.4 Volumetric Calc.
- PE-43. Recoverable Gas in Place Using Samson's Map (Area B)
24,408 ac-ft yields 33.9 BCF
- PE-44. EUR for Area B Using Samson's Map
EUR is 37.1 BCF by Decline Curve vs. 33.9 Volumetric Calc

BACK-UP MAPS (Exhibits 45-48):

- PE-46. CHK's Map with Net its Thickness Numbers
- PE-47. CHK's Map with its Net Thickness Numbers
- PE-48. Samson's Map with its Net Thickness Numbers