TYPE LOG AMERADA HESS CORPORATION STATE "A" #5 SEC. 32-T18S-R38E ELEV. 3648 SIDEWALL GAMMA RAY NEUTRON TOP BLINEBRY -5738' Submitted by: Amerada Hess Corporation 630 psi2 BEFORE THE OIL CONSERVATION DIVISION Case No. 10444 Exhibit No. Santa Fe, New Mexico when lower confided 5905 ⁻ 57 TOP LOWER BLINEBRY -6203 ← HECOMMENDED LOWER BLINEBRY INTERVAL → TOP TUBB -6418'

BEFORE THE
OIL CONSERVATION DIVISION
Santa Fe, New Mexico

AMERADA HESS CORPORATION SOUTHWEST REGION Amerada Hess Corporation 1, 1994 Case No. 10444 LEA COUNTY, NEW MEXICO AHC FULL INTEREST, ASSIGNED RETAINING AN INTEREST HOBBS FIELD September 1, 1994 Exhibit No. AMC FULL INTEREST DRY & ABANDONED SCALE IN MILES AREA OF INTEREST September LEGEND OIL WELL GAS WELL 1,7 \square Case No. 10444 Hearing Date:_ Submitted by: Charleia Taylor Cities Service Subdiv in lots Subdiv. in lots Dunnam - 11 -Cola Pet. moco Foster Pet. 26 etal Amoco Small Fracts Jaffe Subdiv Small Practs Spears | Small Tracts Small Tracts Sanger Inv. Ltd. Skelly Skelly Moran Small, Tracts Samedan Ашосо Byers 7urher Thorpe Surface & Minerals D Exx 15 Marwin Dev - 10 -Shell Capps 27 Turner 34 State-Turner C.W. Trainer Small Tracts SHELL-GRIMES #10 28-185-38E 10/68 Perl. 6284-6324 Acidized W/3000 gols. ocid f. 12 BO, B7 BW fr. 9 hry. on 1° cnoke Byers Amoco Tomy G. Amoco choke 7 7 BO, 320 BW & SOO MCFPO (ext) on 30/64 chake GORe 71.400 Squeezed parla W/100 aks cmt. State Grimes Houston - Morris Spall-Store A FT 372-185-38E 6-659 DST: 8187-822-6226 Results: 00 PT 2 PT 2 PT PT: CTS In 19 min, ct 326 WEFP. Recovered 10° heavy ges and slighty oil our mus. 1 PT 10° PT SIE 7244 FT 2379-3829 Grimes State 28 Continental Chevron Antweil 16 Yates Pet.,etal Surface Divided Amoco Апосо State - 9 -State Gulf 2 conoco Shell =. Shell Crimes Chevron Grimes Texaco R 38 E 5 Stafe Conoco Texaco Bowers Grimes
ARCo Exxon exaco Mexico L Terry Exxon | Sweet Exxon Amerada Exxon Huston, etal Crimes U.S. Std. of Texas State Sun Sweet Marathon, Amerada Continental McKinley State - 12 McKinley
Exxon Amereda Bowers State Std of Tex Chevron' State Chevron Grimes Amoco Orcutt Техьсо Ашосо Ашосо State Shell Gulf .0 * 1 McKinley 36 Exxon * Bowers Cities Service 9 Bradley-State AHC-State A #3 32-165-38E 2.485-Perf 6204*-8275* F 35 BO, 0 BW, 1125 MCPD on 16.764* choke, FIP 866g SI BHP 19 - 2600' S.S.= 2455 psi. Chevron Hardin Ашосо Texaco Getty ARCo WcKinley Marathon Cochran Hardin 131 Shell Fowler Berry Fowler -19 18 State Cities | Cities Service Skelly Amerada Amerada McKimien Hardin State Mobil Amoco Sun Shell-McKinley & #11 19-185-386 4/70-78-48 5379-6377 Acidzed W/500 gals. Scobbed 15 BW/hr for 360 BWPD role Squeszed W/60 als omi. Lizzie Rice Amerada Texaco Shell Chevron Graham Exxon State Sup Chevron State Holt State State State State -12 13 25 Cont.1 merade | Shell Samedan Samedan Conoco Cont'l. State Exxon Texaco Fina T 18 S T 8

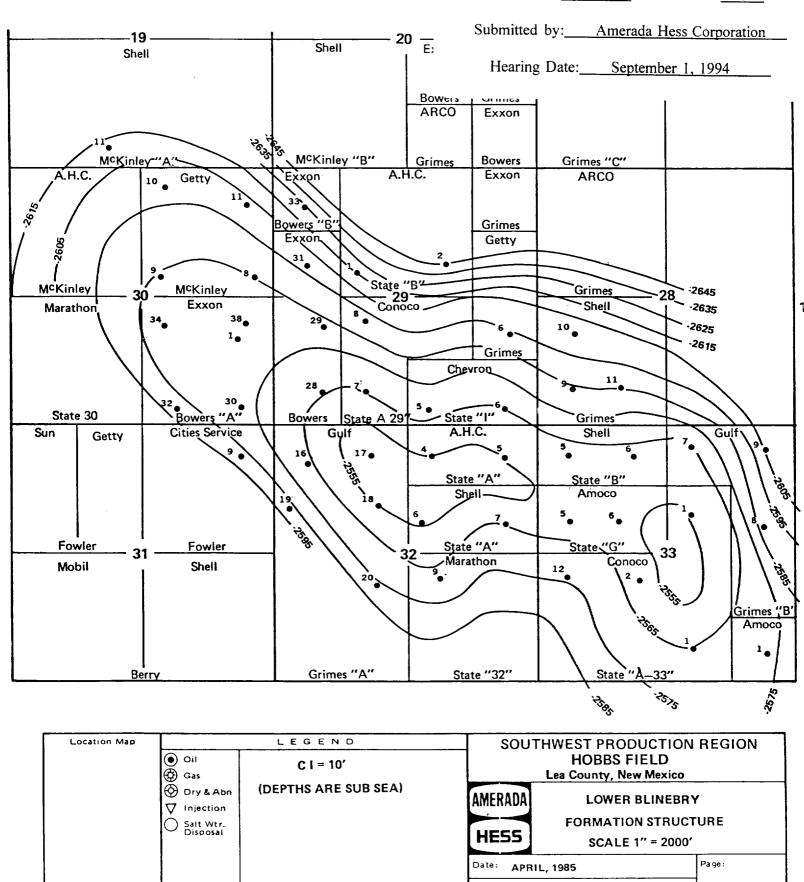
SCALE: AS SHOWN

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

R-38-E

Case No. 10444 Exhibit No. 3



Originator: E. HAAS

Volumetric Analysis Amerada Hess Corporation State A Lease Hobbs Lower Blinebry

Case No. 10444 September 1, 1994

2455 psia (Pressure transient Porosity = 0.13 (fraction) Net pay = 18 feet analysis, 3-11-85) T = 573 degrees Rankine 80 acres Area = 392 degrees Rankine Ah = 1440 acre-feet Tc = Initial GOR = 32,000 cu. ft. / bbl. Tr = 1.46 Pc =664 psia Sw = 0.25 (fraction) 3.69 Gg ≖ 0.7305 (analysis, 3-1-85) Pr =0.746 Initial Gravity = 49.4 degrees API **Z** =

Based on volumetric analysis of gas condensate reservoirs: Applied Petroleum Reservoir Engineering, Craft and Hawkins, pp. 66.

Og = 141.5 / (49.4 + 131.5)

= 0.7822

Mo = 6084/(49.4 - 5.9)

= 139.9

Initial Gas-in-Place / acre-feet of reservoir rock:

Gi = (379.4) (P) (Vb) / ((Z) (RT))

= (379.4) (2455) (43560) (0.13) (1-0.25) / ((0.746) (10.73) (573))

= 862.5 MCF / acre - feet

Mole Fraction equals volume fraction, therefore.

fg = Ng/(Ng + No)

= (GOR / 379.4) / ((GOR / 379.4) + 350 (Go / Mo))

= (32,000/379.4) / ((32,000/379.4 + 350 (0.7822) / 139.9))

= 0.9773

Initial Gas-in-Place:

OGIP = (fg)(Gi)

= (0.9733) (862.5 MCF / acre - feet)

= 842.9 MCF / acre - feet

(842.9 MCF / acre - feet) (1440 acre - feet)

OGIP = 1.21 BCF

Initial Oil-in-Place:

OOIP = OGIP/GOR

= (842,900 SCF / acre-feet) / (32,000 cu. ft. / bbl.)

= 26.34 STB / acre - feet

= (26.34 bbls. / acre - feet) (1440 acre - feet)

OOIP = 37,900 STB

Recovery of oil and gas based on an 85% recovery factor

Np = 32,200 STB

BEFORE THE OIL CONSERVATION DIVISION

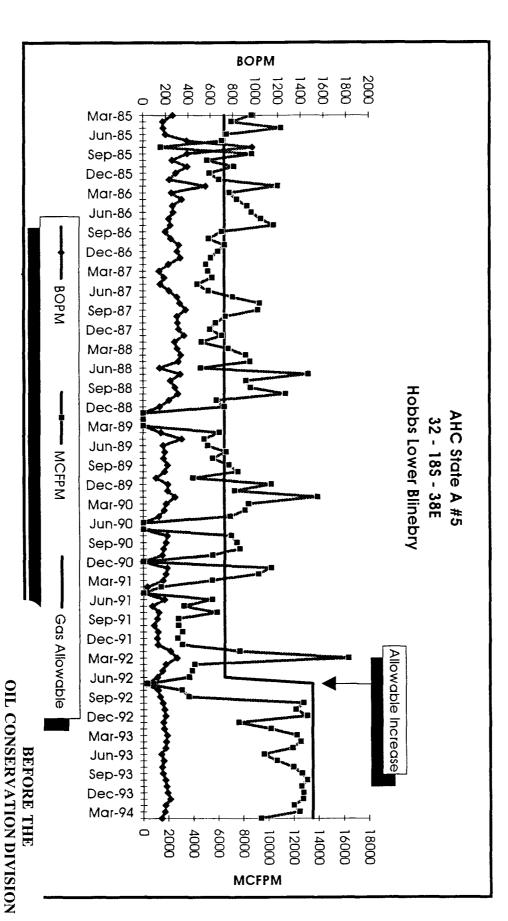
Santa Fe, New Mexico

Gp = 1.03 BCF

Case No. <u>10444</u> Exhibit No. <u>4</u>

Submitted by: Amerada Hess Corporation

Hearing Date: September 1, 1994



Submitted by:

Amerada Hess Corporation

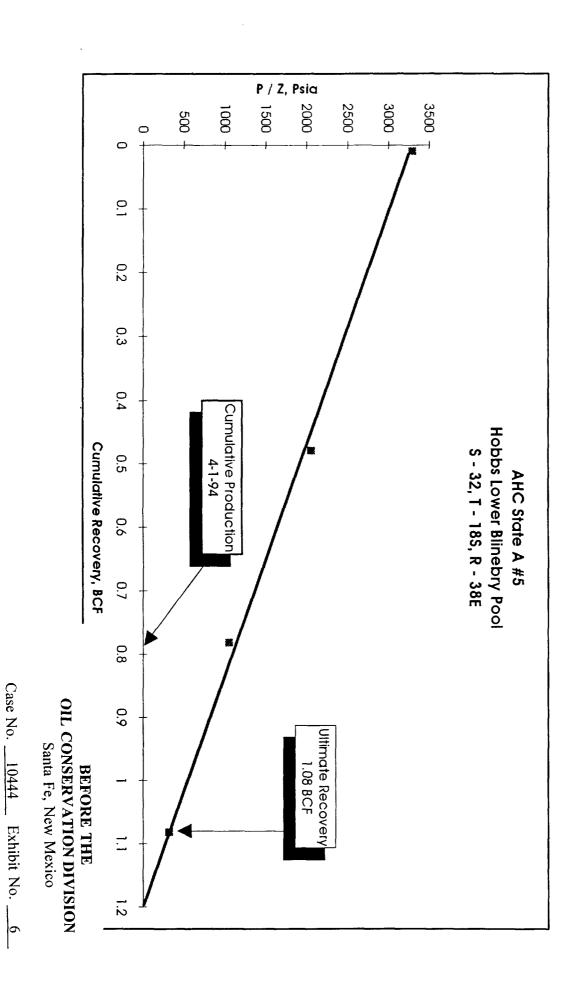
Case No.

10444 Exhibit No. _

Santa Fe, New Mexico

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Submitted by:

Amerada Hess Corporation

Hearing Date:_

September 1, 1994

Case No. 10444 September 1, 1994

Amerada Hess Corporation respectfully requests consideration of the attached Exhibits 1 - 4 for permanent adoption of new pool rules for the Hobbs Lower Blinebry Pool. On February 20, 1992, Amerada Hess Corporation gave testimony resulting in the establishment of temporary pool rules which separated the Hobbs Upper and Lower Blinebry Pools and provided for development of the Lower Blinebry Pool on 80 acre well spacing. The resulting allowable for the Lower Blinebry Pool was 222 BOPD and 444 MCFD, due to the depth bracket allowable and well spacing. The NMOCD further required that the case be reopened in June, 1994 to allow operators to appear and show cause why the temporary pool rules should not be rescinded, the pool developed on 40 acre spacing, rejoined with the Upper Blinebry Pool and redesignated the Hobbs Blinebry Pool.

The Hobbs Field is located West of Hobbs, New Mexico, see Exhibit 1. In the February, 1992 testimony, AHC showed that the volumetrically determined recovery for the AHC State A #5 is (1.03 BCF at 85% recovery factor), see Exhibit 2. Furthermore, a pressure versus cumulative plot was presented which indicated that the recovery from the AHC State A #5 would be 1.05 BCF at a 500 psia abandonment pressure. This indicated that one well is capable of efficiently draining 80 acres. Following the establishment of the temporary special pool rules, Amerada Hess Corporation produced the State A #5 at the higher allowable rate, see Exhibit 3. Production from the AHC State A #5 averaged 6 BOPD, 2 BWPD and 335 MCFD at 100 psig TP on a 24/64" choke in April, 1994. On July 14, 1994, AHC obtained a static bottom hole pressure on the State A #5 Lower Blinebry Pool and found the pressure to be 901 psia at 6275'. This allowed further refinement of recovery estimates by pressure versus cumulative plot. Exhibit 4 depicts a pressure versus cumulative plot, indicating a recovery of 1.08 BCF at a 300 psia abandonment pressure. This shows good agreement between both the volumetric analysis and pressure versus cumulative presented in February, 1992.

Based on the agreement between volumetric and pressure versus cumulative recovery estimate techniques, we believe that 80 acre well spacing provides an efficient means of recovery for the Lower Blinebry Pool. Further, requiring development on 40 acre well spacing would raise the economic limit on production and thereby reduce the recovery, resulting in waste.

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Case No. <u>104</u>	44 Exhibit No7
Submitted by: Amerada Hess Corporation	
Hearing Date:	September 1, 1994