

STATE "DR" WELL NO. 3

660' FNL & 660' FEL, SECTION 16, UNIT A, T-19-S, R-32-E

LEA COUNTY, NEW MEXICO

DST RESULTS

DST NO. 1 10670-10300 WOLFCAMP CLOSED CHAMBER TEST TO EVALUATE DRILLING BREAK 10708-10773. ON 7 MIN INITIAL PRE-FLOW AVERAGE FLOW RATE OF 7310 BPD WAS CALCULATED WITH HIGH FLOW RATE OF LIQUID INDICATED. RAN 62 MIN ISIBHP WITH SURFACE PRESSURE INCREASING SLIGHTLY DURING PERIOD INDICATING SMALL AMOUNT OF GAS BREAKING OUT. ON 15 MIN FINAL FLOW AVERAGE FLOW RATE OF 4430 BPD WAS CALCULATED WITH LIQUID FILL UP RATE DECREASING ***RAN 60 MIN FSIBHP WITH SURFACE PRESSURE SLIGHTLY BUILDING DUE TO SMALL AMOUNT OF GAS BREAKING OUT. BLOW DOWN INDICATED LIQUID RECOVERY OF 65 BBLS. REVERSED OUT 200 FT OR 2.75 BBLS OF SLIGHTLY OIL-CUT WATER WITH RESISTIVITY 0.10 AT 50 DEG F AND CHLORIDES 98000 MPL AND 5.874 FT OF 73 BBLS SLIGHTLY GAS-CUT DRILLING FLUID WITH RESISTIVITY 0.09 0.10 AT 50 DEG F AND CHLORIDES 105000-103000 MPL. SAMPLE CHAMBER RECOVERY AT 110 PSI OF 2300 CC OF DRILLING FLUID WITH SULFUR ODOR AND NO SHOWS OF HYDRO-CARBONS. IHH 5310 PSI. 7 MIN IFBHP 1065 -1777 PSI. 62 MIN ISIBHP 4336 PSI APPROACHING STABILIZATION. 15 MIN FFBHP 2027-3150 PSI. 60 MIN FSIBHP 4325 PSI APPROACHING STABILIZATION. FHH 5310 PSI. BHT 147 DEG F. VISUAL INTERPRETATION OF CHART INDICATED VERY GOOD PERMEABILITY.

DST 2 12550-12460 MORROW CLOSED CHAMBER TEST TO EVALUATE PRINCIPAL DRILLING BREAK 12575-12583 AND SECONDARY BREAK 12594-12610: ON 5.5 MIN INITIAL PRE-FLOW AVERAGE FLOW RATE OF 131 BPD WAS CALCULATED WITH LOW FLOW OF LIQUID INDICATED. RAN 60 MIN ISIBHP. ON 61.5 MIN FINAL FLOW AVERAGE FLOW RATE OF 307 BPD WAS CALCULATED WITH LINEAR RISE IN PRESSURE INDICATING A LIQUID RECOVERY. RAN 150 MIN. FSIBHP. SURFACE PRESSURE STABILIZED AT 0.5 PSI FOR 35 MINS THEN BEGAN RISING DUE TO VERY SMALL AMOUNT OF GAS BREAKING THROUGH WATER CUSHION. RECOVERED 3020 FRESH WATER CUSHION AND 120 FT SLIGHTLY GAS-CUT DRILLING FLUID WITH CHLORIDES 5000 MPL AND RESISTIVITY 1.7 AT 52 DEG F IN TOP AND MIDDLE AND 43000 MPL AND 0.16 AT 46 DEG F IN BOTTOM OF DRILLPIPE RECOVERY. SAMPLE CHAMBER RECOVERY AT 825 PSI OF 0.97 CU FT OF GAS AND 1860 CC OF DILUTED DRILLING FLUID WITH CHLORIDES 42000 AND RESISTIVITY 0.16 AT 46 DEG F VS PIT MUD CHLORIDES 175000 MPL AND RESISTIVITY 0.07 AT 46 DEG F. IHH 6975 PSI. 5.5 MIN IFBHP 1213-1250. 60 MIN ISIBHP 5800 PSI APPROACHING STABILIZATION. 61.5 MIN FFBHP 1268-1433 PSI. 150 MIN FSIBHP 5709 PSI APPROACHING STABILIZATION. FHH 6993 PSI. BHT 175 DEG F. VISUAL INTERPRETATION OF CHART INDICATES GOOD PRESSURE BUT LOW PERMEABILITY.