

STATE GO GAS COM WELL NO. 1

1980' FNL & 660' FWL, Section 2, Unit E, T-23-S, R-28-E

EDDY COUNTY, NEW MEXICO

DST NO. 3 11509-11616 ATOKA CLOSED CHAMBER TST TO EVALUATE SN DRLG BREAK 11521-11526: ON 6 MIN INITIAL PRE-FLOW VERY LOW FLOW RATE OF GAS WAS INDICATED WITH AVERAGE CALCULATED VOLUME 6.2 MCFPD. RAN 90 MIN ISIBHP WITH NO GAS OBSERVED BREAKING OUT FROM SURF PRS INDICATIONS. ON 32 MIN FINAL FLOW AVERAGE RATE OF 3.0 MCFPD WAS CALCULATED WITH INDICATIONS OF VERY LOW FLOW OF GAS. RAN 120 MIN FSIBHP WITH SURF PRS BEHAVIOR INDICATING GAS BREAKING OUT OF W CUSHION WITH PRS INCR TO 0.25 PSI. BLOWDOWN INDICATED REC OF NO LIQUID. REC 1516 FT OR 11.54 BBLS OF SLIGHTLY GAS-CUT W CUSHION WITH CHLORIDES 12000 MPL AND RESISTIVITY 2.5 AT 70 DEG F AND 90 FT OR 0.44 BBLS OF SLIGHTLY GAS-CUT MUD 58000 MPL AND 1.0 AT 71 DEG F. SAMPLE CHAMBER REC AT 300 PSI OF 1.34 CU FT OF GAS AND 410 CC DRLG MUD WITH CHLORIDES 112000 MPL AND RESISTIVITY 0.06 AT 70 DEG F VS PIT MUD 115000 MPL AND 0.06 AT 70 DEG F. IHH 7402 PSI. 6 MIN IFBHP 861-861 PSI. 90 MIN ISIBHP 2232 PSI. 32 MIN FFBHP 843-843 PSI. 120 MIN FSIBHP 1683 PSI. FHH 7457 PSI. BHT 180 DEG F. VISUAL INTERPLETATION OF CHART VERY TIGHT LOW PERMEABILITY FORMATION WITH BOTH INITIAL AND FINAL SHUT-INS STILL BUILDING.

DST NO. 4 11682-11743 ATOKA CLOSED CHAMBER TEST TO EVALUATE SAND DRILLING BREAK 11730-11740: ON 5 MIN INITIAL PRE-FLOW AVERAGE FLOW RATE OF 238 MCFPD WAS CALCULATED WITH INDICATIONS OF TIGHT FORMATION. RAN 91 MIN ISIBHP WITH SURF PRS BEHAVIOR INDICATING GAS BREAKING OUT OF WATER CUSHION. BLOWDOWN INDICATED RECOVERY OF 1 BBL. ON 60 MIN FINAL FLOW AVERAGE FLOW RATE OF 170 MCFPD WAS CALCULATED. OPENED ON SURFACE ON 1/4" CHOKE AFTER 21 MINS AT STABILIZED SURFACE RATE OF 62.5 MCFPD WITH GAS BREAKING THROUGH WATER CUSHION THROUGHOUT TEST. RAN 180 MIN FSIBHP WITH SURF PRS BEHAVIOR INDICATING GAS BREAKING THROUGH WATER CUSHION. BLOWDOWN INDICATED RECOVERY OF 1 BBL. RECOVERED 1580 FT OF GAS-CUT WATER CUSHION WITH CHLORIDES 8000 MPL AND RESISITIVITY 0.14 AT 54 DEG F AND 90 FT OF GAS AND WATER-CUT DRLG MUD WITH 105000 MPL AND 0.07 AT 60 DEG F. PIT MUD CHLORIDES 134000 MPL AND RESISTIVITY 0.10 AT 44 DEG F. SAMPLE CHAMBER RECOVERY AT 200 PSI OF 1.25 CU FT OF GAS. IHH 7465 PSI. 5 MIN IFBHP 726-726 PSI. 91 MIN ISIBHP 7259 PSI APPROACHING STABILIZATION. 60 MIN FFBHP 726-726 PSI. 180 MIN FSIBHP 7259 PSI APPROACHING STABILIAZTION. FHH 7485 PSI. BHT 198 DEG F. VISUAL INTERPRETATION OF CHART INDICATES FAIRLY TIGHT FORMATION WITH LOW FLOW OF GAS.