

ATTACHMENT TO C-105
SHELL OIL COMPANY
ANTELOPE RIDGE UNIT 34-1

SEP 30 1964

DST #1: 11,930'-12,243' (313' Atoka) packer set in casing at 11,880'. Tool open 1 hour 40 minutes thru 5/8" BC. Recovered 700' (4.6 barrels) Drilling Mud. 60 MISINHP 2115 psi, FHP 328-427 psi, 135 MFSINHP 2403 psi. BHP In/Out 8234/8169 psi. Pit mud titrated 2000 ppm Cl⁻. Recovered mud 2000 ppm Cl⁻. Conclusive test (HOWCO).

DST #2: 11,930'-12,351' (set packer in casing at 11,875') (421' Atoka). Tool open 1 1/2 hours with fair blow continued throughout. GTS 23 minutes, TSTM. Used 2000' water blanket. Recovered 2000' Heavily Gas Cut water blanket + 1473' (21 barrels) Very Heavily Gas Cut Mud. 3 Hour 10 Minute FSHHP 3910 psi (increasing). BHP 8170-8138 psi. BHT 162 degrees F. Recovered and pit mud titrated 2000 ppm Cl⁻. Conclusive test (HOWCO).

DST #3: 11,930'-12,450' (520' Atoka) packer set in casing at 11,860', used 3000' water blanket. Tool open 1 hour 35 minutes thru 5/8" BC x 1/8" TC x 4 1/2" DP, opened with fair blow. GTS 26 minutes. Flowed at rate 20 to 40 MCFFD. Recovered 7300' GAS + 3000' Heavily Gas Cut water blanket + 1500' (13 barrels) Heavily Gas Cut mud. BHT 168 degrees F. 60 MISINHP 6058 psi, FHP 2404-2532 psi, 60 MFSINHP 5321 psi, BHP In/Out 8042/8010 psi. Recovered mud titrated 2500 ppm Cl⁻. Pit mud titrated 2000 ppm Cl⁻. Conclusive test (HOWCO).

DST #4: 12,840'-13,006' (166' Atoka). Used 3000' N₂ blanket pressured to 1700 psi at surface. Tool open 4 hours thru 5/8" BC x 5/8" TC x 4 1/2" with strong blow. GTS 10 minutes. Flowed at stabilized rate for 1 hour at 3.6 MCFFD thru 5/8" choke. FTP 710 psi. Last 30 minutes increased to 3.68 MCFFD, FTP 735 psi. Recovered 530' (5.2 barrels) Heavily Gas Cut Mud. BHT 174 degrees F. 75 MISINHP 8851 psi, FHP 2586-1468 psi. 210 MFSINHP 8191 (increasing) psi. BHP In/Out 9907/9841 psi. Conclusive test (HOWCO).

DST #5: 13,039'-13,397' (358' Morrow). Tool open 1 1/2 hours (used 4000' N₂ blanket pressure to 2000 psi) thru 5/8" BC x 5/8" TC x 4 1/2" DP with no blow. No gas to surface. Recovered 300' (1.5 barrels) mud with no shows. 60 MISINHP 3365 psi (increasing sharply). FHP 2724-2756 psi. 120 MFSINHP 3653 psi (increasing sharply). BHP 10,219 psi. Temperature 186 degrees F. Recovered mud titrated 1800 ppm Cl⁻. Pit mud titrated 1500 ppm Cl⁻. Conclusive test (HOWCO).

DST #6: 8242'-14,057' (DST tool set at 8232' in 7" liner.). Tool open 60 minutes. 5 MIF. 40 MISINHP 695 psi. FHP 652-652 psi. 30 MFSINHP 652 psi. BHP 6296-6258 psi (HOWCO).

DST #7: 30 MISIBHP 8818 psi, FBHP 3504-1666 psi, 390 MFSIBHP 6168 psi (increasing). BHP In/Out 10,236/10,302 psi. Recovered mud and water titrated 3900 ppm Cl⁻. Pit mud titrated 600 ppm Cl⁻. Conclusive test (HOWCO).

DST #8: (to test top of liner) Set packer at 8169'. Tool open 3 hours thru 5/8" BC x 5/8" TC x 4 1/2" DP. OTS 13 minutes. Initial rate 300 MCFFD at 180 psi FSP. After 1 hour gas rate 125 MCF/day. During second hour flowed 2 barrels greenish-brown distillate, 50.5° API Gravity. During third hour flowed 5 barrels mud and water. Gas rate at end of test: 40 MCFFD with 60 psi FSP. Reversed out 4 1/2 barrels mud and water with no shows. 30 MISIBHP 3520 psi, FBHP 577-462 psi, 1 hour FSIHHP 1545 psi, BMH 3543-3542 psi. Recovered gas was sweet with gravity of 0.680. Conclusive test (HALLIBURTON).

DST #9: 14,845'-14,931' (86' Silurian). Tool open 2 1/2 hours thru 5/8" BC, 3/8" and 3/4" TC, 4 1/2" DP. Tool opened with strong blow. OTS 3 minutes. Flowed 1 hour 12 minutes on 3/8" choke; initial rate 958 MCF/day at 330 psi, final rate 780 MCFFD at 250 psi. Then flowed 1 hour 18 minutes thru 3/4" choke; initial rate 1275 MCFFD at 2000 psi, final rate 330 MCFFD at 75 psi. Recovered 780' (3.7 barrels) Gas Cut sulphur water. 90 MISIBHP 4647 psi (increasing). FBHP 690-230 psi. 180 MFSIBHP 2403 psi (increasing). BMH 7178-7178 psi. Maximum temperature 201 degrees F. Recovered water titrated 2500 ppm Cl⁻. Pit mud titrated 500 ppm Cl⁻. Conclusive test (HOWCO).

