

Shell Oil Company
 Royal Unit # 1
 NE/4, SE/4, Sec. 24-10S-34E
 Lea County, New Mexico

DST # 1: 4850' - 4948' (98' San Andres). Tool open 30 minutes thru 5/8" BC, 3/8" TC, 4 1/2" DS. Opened w/strong blow, continued throughout test. NGTS. Recovery 810' (11.3 bbls.) water cut drilling mud; 180' (2.5 bbls.) mud cut salt water; 1440' (18.7 bbls.) salt water. Recovery water titrated 73,600 ppm Cl⁻. Pit mud 4000 ppm Cl⁻. BHT 116 deg. F. 30 minutes ISIBHP 1896 psi. FBHP 745 - 1158 psi. 61 minutes FSIBHP 1744 psi. HMP 2373 - 2342 psi.
Conclusive Test. (Cook)

DST # 2A: 9900' - 9988' (88' Pennsylvanian). Packer failed.

DST # 2B: 9959' - 9988' (129' Pennsylvanian). Packer failed.

DST # 2: 10,274' - 10,361' (87' Pennsylvanian). Tool open 1 hour thru 5/8" BC, 1" TC, 4 1/2" DP w/good blow decreasing to weak in 15 minutes. NGTS. Recovery 220' gas cut mud. Recovery mud titrated 76,000 & 103,000 ppm Cl⁻. Pit mud titrated 64,000 ppm Cl⁻. 60 minutes ISIBHP 2950 psi. FBHP 128 psi. 90 minutes FSIBHP 1550 psi. HMP in/out 5190/5140 psi. BHT 158 deg. F.
Conclusive Test. (Cook)

DEVIATION RECORD

360' = 3/4 deg.	4750' = 1/4 deg.	8930' = 1 deg.
800' = 3/4 deg.	4930' = 3/4 deg.	9060' = 1 1/2 deg.
1161' = 1 deg.	5175' = 1 1/2 deg.	9130' = 3/4 deg.
1700' = 3/4 deg.	5660' = 1/4 deg.	9240' = 1 deg.
2050' = 3/4 deg.	5900' = 1/4 deg.	9400' = 1/2 deg.
2510' = 1/2 deg.	6200' = 1/4 deg.	9730' = 1/2 deg.
2900' = 1/2 deg.	7020' = 1/4 deg.	10,000' = 3/4 deg.
3520' = 1 1/2 deg.	7420' = 1/2 deg.	10,091' = 1 deg.
4020' = 1 1/4 deg.	8250' = 1 deg.	10,260' = 3/4 deg.

September 5, 1962

R.A. Lowery
 R. A. Lowery
 District Exploitation Engineer