

HISTORY OF OIL OR GAS WELL

ATTACHMENT FOR FEDERAL FORM 9-330

Shell Oil Company
Henshaw Deep Unit 3A
NE/4 SW/4, Sec. 24,
T-16-S, R-30-E, Eddy
County, New Mexico

Henshaw Deep Unit 3A was spudded @ 10:00 AM, 9-4-61 w/Cable Tools. Drilled 24" hole to 62'. Cemented 20" Conductor Pipe @ 62' w/12 cu. yds. of Ready mix. Released Cable Tools & moved in Rotary Tools. Began drilling 17 1/2" hole w/Rotary Tools @ 5:00 PM, 9-6-61. Lost complete returns @ 319'. Drilled blind to 525'. Cemented 13 3/8" casing @ 525' w/350 sx. After WOC 8 hours re-cemented w/50 Units HYS-400 followed by 100 sx. Regular Lone Star w/2% CaCl. Began drilling 12 1/4" hole. Air drilled to 2330'. Foam drilled 2632' - 2598'. Drilled w/SW 2598' - 3110'. Cemented 9 5/8" casing @ 3109' w/1100 sx. Found gas channeling in 9 5/8" - 13 3/8" annulus. Dumped 15 sx. cement down annulus, pressured to 1000 psi. Released pressure, squeeze bad. Re-squeezed w/35 sx. 8% Incor. Pressured to 1000 psi for 3 1/2 hours, released pressure, squeeze bad. Cut off 13 3/8" - set 13 3/8" head - packed off annulus. Tested 9 5/8" casing w/1500 psi/30 minutes/OK. Dry drilled to 3900', converted to foam. Drilled to 8024'. Ran DST # 1: 7741' - 8024' (283' Wolfcamp). Tool open 2 hours thru 1/2" TC, 5/8" BC, 4 1/2" DP. Opened w/weak blow continuing throughout test. NGTS. Recovery 330' (2 bbls.) DM + 30' (1/2 bbl.) sli oil cut mud. 60 minutes ISIBHP 3046 psi. FBHP 232 - 320 psi. 60 minutes FSIBHP 2401 psi. HMH 3810 - 3790 psi. Recovery mud titrated 13,200 ppm Cl⁻. Pit mud titrated 16,700 ppm Cl⁻. Maximum temperature 150° F. Conclusive Test. (Cook). Drilled 8 3/4" hole to 8685'. Cut Core # 1: 8685' - 8725' (40'); Core # 2: 8725' - 8761' (36'); Core # 3: 8761' - 8824' (63'); Core # 4: 8824' - 8839' (15'); Core # 5: 8839' - 8854' (15'); Core # 6: 8854' - 8913' (59'); Core # 7: 8913' - 8933' (18'); Core # 8: 8933' - 8959' (26'); Core # 9: 8959' - 8964' (5'); Core # 10: 8964' - 8973' (9'); Core # 11: 8973' - 8974' (1'). Drilled from 8974' - 9024'. Cut Core # 12: 9024' - 9025' (1'). Drilled 9025' - TD 9600'. SIM: 9600' = 9610' (Corrected). Ran Schlumberger I-LL-8 & ML & PGAC GR/N logs. Cemented 4 1/2" casing @ 9527' w/600 sx. PBTD 9490'. Ran 2" tubing open ended to 9431'. Spotted 300 gallons 15% BDA on bottom, pulled tubing. Ran Ram Guns GR/CCL log 9493' - 7500'. Perforated 9225' - 9231', 9378' - 9385', 9392' - 9394', 9413' - 9416', 9422' - 9425' w/2 JSPP. Ran 2" tubing w/retrievable bridge plug @ 9441', packer @ 8937'. Treated w/300 gallons 15% BDA. Swabbed 100% water. Set Baker CIBP @ 9062' & capped w/1 sx. cement. Perforated 8843' - 8845', 8852' - 8854' w/4 JSPP. Ran 2" tubing & hung @ 8870', packer 8773' - 77'. Treated w/500 gallons 15% BDA followed by 2000 gallons 15% NEA. Swabbed at rate of 5 BF/hour, cut 75 - 80% water. Treated perforations 8843' - 8854' w/4000 gallons 15% NEA. Swabbed at rate of 2 BF/hour, cut 98% water. Set Baker CIBP @ 8830' & capped w/1 sx. cement. Perforated 8711' - 8715', 8735' - 8740' w/4 JSPP. Hung 2" tubing @ 8745', packer @ 8612' - 8619'. Treated w/500 gallons 15% Spearhead acid. Recovered load.

On OPT flowed 136 BOPD + 3 BWPD thru 20/64" choke. FTP 400 - 225 psi.
Gravity 40.6 deg. API. Official Completion Date 11-4-61.


V. L. King
Acting District Exploitation Engineer