TENNESSEE GAS AND OIL COMPANY
PROGNOSIS TO DRILL AND COMPLETE

Lease: State Monsanto Well No.: 1

District: Hobbs Field: Paduca Area

Location: 660' FEL & 1980' FSL, Sec. 16, T-25-S, R-32-E, Lea County, New Mexico

Projected Horizon: Delaware Sand Estimated Elevation: 3420' GL

Estimated TD: 4800'

Drilling, Casing, and Cement:

1. Drill 13 3/4" hole to approximately 350'.
2. Cement 9 5/8" casing at approximately 350' w/sufficient volume to circulate.
3. WOC 24 hours. Release pressure and install BOP after 12 hours. Pressure test casing w/600 psi for 30 minutes after 24 hours.
4. Drill 7 7/8" hole to Delaware Sand core point at approximately 4600'. Exact coring depth to be determined by well-site Exploitation Engineer.
5. Core from 4600' to 4800' w/6 3/4" diamond bit.
6. Set 4 1/2" casing at TD w/150 sx of cement.
7. WOC 24 hours. Release pressure and run temperature survey after WOC 8 hours.
8. Run tubing and pressure test casing w/1500 psig for 30 minutes.
9. Displace water with oil.
10. Release rotary rig.

Drilling Mud:

1. Drill w/fresh water native mud to TD. Mud properties will be adjusted to meet requirements for good samples, coring, and drill stem tests. Before coring or running a drill stem test, the mud should have the following properties: Viscosity 35-40, water loss 10cc or less in 30 minutes, F C 2/32 or less.
2. No oil will be added without consent of well-site Exploitation Engineer.

Drill Stem Tests:

1. One drill stem test may be run in the Delaware Sand between 4600' and 4700'.

Drilling Time:

1. Record 1' drilling time from surface to TD using Geolograph.
2. Record 1' drilling time in addition to Geolograph while coring.

Drill Pipe Measurement:

1. Tally drill pipe on last two trips prior to reaching casing point.
2. Tally drill pipe in strain under company supervision at all casing points, coring points, drill stem test points, and at TD.

[illegible]
[illegible]

Lessee: [illegible] | Well No. 1

Location: [illegible] | Field: Taluca Area

[illegible] 1980' [illegible], Sec. [illegible], T-[illegible], R-[illegible], Lea County, New Mexico

Prospective Objective: [illegible] | Estimated Elevation: 3410' [illegible]

Total Depth: [illegible]'

Drilling, Casing, and Cementing

1. Drill 12-1/4" hole to approximately 350'.
2. Cement 9-5/8" casing at approximately 350' w/sufficient volume to circulate.
3. WOC 18 hours. Release pressure and install BOP after 12 hours. Pressure test casing w/1000 psi for 30 minutes after 24 hours.
4. Drill 7-7/8" hole to Delaware Sand core point at approximately 4500'. Exact coring depth to be determined by well-site Exploitation Engineer.
5. Core from [illegible]' to [illegible]' w/[illegible] diamond bit.
6. Set 4-1/2" casing at TD w/[illegible] sx of cement.
7. WOC 24 hours. Release pressure and run temperature survey after [illegible] hours.
8. Run tubing and pressure test casing w/1500 psig for 30 minutes.
9. Displace water with oil.
10. Release rotary rig.

Drilling Mud

1. Drill w/fresh water [illegible] mud properties will be adjusted to meet requirements for good samples, coring, and drill stem tests. Before coring or running a drill stem test, the mud should have the following properties: Viscosity 35-40, water loss 10cc or less in 30 minutes, [illegible] 2% or less.
2. No oil will be added without consent of well-site Exploitation Engineer.

Drill Stem Tests

1. One drill stem test may be run in the Delaware Sand between [illegible]' and [illegible]'.

Drilling Time

1. Record 1' drilling time from surface to TD using Geolograph.
2. Record 1' drilling time in addition to Geolograph while coring.

Drill Pipe Measurement

1. Tally drill pipe on last two trips prior to reaching casing point.
2. Strap drill pipe in derrick under company supervision at all casing points, coring points, drill stem test points, and at TD.

Samples:

1. Catch two sets of 10' drilling samples from 4300' to TD unless otherwise directed by well-site Exploitation Engineer.
2. No time lag will be made in catching samples and 15 minute circulating samples will be caught for a period of one hour while circulating unless otherwise directed by the well-site Exploitation Engineer.
3. Samples will be washed thoroughly, sacked, and labeled as directed by the well-site Exploitation Engineer.
4. Two one-quart samples will be caught and labeled of any fluid recovered by drill stem tests.

Hole Deviation:

1. Run hole deviation survey on each trip for bit or every 500', whichever occurs sooner.
2. Maximum hole deviation from surface to TD shall be 4°.
3. If hole deviation changes more than 1 1/2 degrees in any 100' interval, a string reamer will be run to wipe out dog leg.
4. If hole deviation changes more than 2 degrees in any 100' interval, the hole shall be plugged back and straightened out.

Survey:

1. Run GR/Sonic log from casing to TD and Latereleg from approximately 4400' to TD.
2. Run temperature survey on 4 1/2" casing string after WOC 8 hours.
3. Run GR correlation log through pay section after cementing 4 1/2" casing.

Completion:

1. Rig up P.U.
2. Pull tubing to 4300'.
3. Run GR correlation log through pay section. Lower tubing to within 100' of pay zone.
4. Perforate selected intervals w/4 holes per foot.
5. Wash pay with 500 gals mud clean-out agent, if necessary.
6. Swab well for test.
7. Frac down 2" tubing w/5000 gals refined oil and 10,000 lbs of 20-40 mesh sand.
8. Swab well in.

APPROVED: _____
C. W. Mance

APPROVED: _____
D. W. Coffey

CWM/lm

Samples:

1. Catch two sets of 10' drilling samples from 4900' to TD unless otherwise directed by well-site Exploration Engineer.
2. No time lag will be made in catching samples and 15 minute circulating samples will be caught for a period of one hour while circulating unless otherwise directed by the well-site Exploration Engineer.
3. Samples will be washed thoroughly, sacked, and labeled as directed by the well-site Exploration Engineer.
4. Two one-quart samples will be caught and labeled of any fluid recovered by drill stem tests.

Hole Deviation:

1. Run hole deviation survey on each trip for bit or every 500', whichever occurs sooner.
2. Maximum hole deviation from surface to TD shall be 4°.
3. If hole deviation changes more than 1 1/2 degrees in any 100' interval, a string reamer will be run to wipe out dog legs.
4. If hole deviation changes more than 2 degrees in any 100' interval, the hole shall be plugged back and straightened out.

Surveys:

1. Run IES/Sonic log from casing to TD and Microlog from approximately 4900' to TD.
2. Run temperature survey on 4 1/2' casing string after WOC 6 hours.
3. Run GR correlation log through pay section after cementing 4 1/2" casing.

Completion:

1. Rig up P.U.
2. Run tubing to 4900'.
3. Run GR correlation log through pay section. Lower tubing to within 100' of pay zone.
4. Perforate selected intervals w/4 holes per foot.
5. Wash pay with 500 gals mud clean-out agent, if necessary.
6. Swab well for test.
7. Frac down 2" tubing w/5000 gals refined oil and 10,000 lbs of 20-40 mesh sand.
8. Shut well in.

APPROVED: ____________________
C. W. Nance

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T. J. Coffey