

WELL PROGNOSIS

OPERATOR: Read & Stevens, Inc.

WELL: #2 State BG

FIELD & DEPTH: Quail Queen - 5,600'

LOCATION: 1980' FNL & 1680' FEL Sec. 14, T-19S, R-34-E, Lea County, New Mexico

CONTRACTOR: Cactus Drilling Company - Rig #66

ELEVATION: 3957.4 GR - 3967' RKB

ESTIMATED FORMATION TOPS

T/Anhydrite	1852' (+2115)
T/Salt	1984' (+1983)
B/Salt	3324' (+643)
T/Yates	3606' (+361)
T/Queen sand	4832' (-865)
T/Penrose sands	5120' (-1153)
B/Penrose sands	5487' (-1520)

CASING PROGRAM

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt. Per Foot</u>	<u>Setting Depth</u>	<u>Cement</u>
12 1/4"	8 5/8"	24#	400'	150 sx. Circul.
7 7/8"	4 1/2"	10.5#	5,600'	785 sx. (2 stages)

MUD PROGRAM

0'-400'	Spud mud with gel/lime slurry. Mud wt. 8.6#-9.0#, Vis. 34-36, WL no control. If circulation is lost and cannot be regained, dry drill to 400' and set surface casing.
400'-4,600'	Clear water and native mud. Mud wt. 8.4#, Vis. 28, WL no control.
4,600'-5,600'	Salt gel mud system. Mud wt. 9.5#-10.2#, Vis. 36-38, WL 8-9.

DRILLING AND CEMENTING PROGRAM

1. Drill 12 1/4" hole to 400' and set 8 5/8", 24#, S.T.&C. casing at 400' cemented with 150 sx. Class C cement with 2% CaCl₂ and 8# salt per sx. Cement will be circulated.
2. Drill 7 7/8" hole to 5,600' and, if production is indicated, set 4 1/2" casing to total depth. Run DV tool at 2000'. Cement first stage from total depth to 3200' with 440 sx. Class C pozmix with 1/4# floreal and 6# salt per sx. with .5 of 1% CFR-2. Cement second stage from 2000' to 400' with 345 sx. Halliburton lite with 1/4# floreal and 10# salt per sx.

EVALUATION PROGRAM

Start salt gel mud system at 4600' for increased sample quality and in preparation for coring operations. Cut 60' core of Queen sand at tentative coring point of 4835'. Cut second 60' core at tentative coring oint of 5120'. Cut third 60' core at tentative coring point of 5180'. Drill to total depth and run logs.

LOGGING PROGRAM

Run Schlumberger Simultaneous Gamma Ray-Caliper, Compensated Neutron Formation Density as porosity tool with Dual Laterolog as Resistivity tool. Detail from base of 3,500' to total depth.

BLOWOUT PREVENTER SYSTEM

Drilling rig will be equipped with a 10" Cameron Series 900, Model SS blowout preventer with double rams and rated to 3000# working pressure.

WELL SUPERVISION

Well site supervision will be maintained from surface to total depth. Samples will be caught, washed and sacked from below surface string at 400' to total depth at 10 foot intervals. Mechanically recorded drilling time will be maintained from surface to total depth. Blowout preventer stack and casing head will be independently pressure tested before drilling into the Queen Formation. A daily check of the blowout preventer system will be made from 4,600 feet to total depth.