

WELL PROGNOSIS

OPERATOR: READ & STEVENS, INC.
WELL: #1 UT STATE
FIELD & DEPTH: Quail Queen - 5,400'
LOCATION: 660' FSL & 1980' FEL, Sec. 2, T-19-S, R-34-E,
Lea County, New Mexico
CONTRACTOR: WEK Drilling Company - Rig #3
ELEVATION: 3973.7' GR - 3984' RKB

ESTIMATED FORMATION TOPS

T/Anhydrite	1845' (+2139)
T/Salt	1960' (+2024)
B/Salt	3280' (+704)
T/Yates	3560' (+424)
T/Queen Sand	4695' (-711)
T/Penrose Sands	4960' (-976)

CASING PROGRAM

Hole Size	Casing Size	Wt. Per Foot	Setting Depth	Cement
17-1/2"	12-3/4"	34#	30'	10 sx. Circulated
11"	8-5/8"	24#	1,900'	575 sx. Circulated
7-7/8"	5-1/2"	15.5#	5,400'	550 sx.

MUD PROGRAM

0' - 1,900' Spud mud with gel/lime slurry. Mud wt. 9.0#-9.5#, Vis. 32-34, WL no control.
1,900' - 4,600' Clear water and native mud. Mud wt. 10.0#-10.2#, Vis. 28-32, WL no control.
4,600' - 5,400' Salt gel mud system. Mud wt. 9.5#-10.2#, Vis. 36-38, WL 10-20.

DRILLING AND CEMENTING PROGRAM

1. Drill 17-1/2" hole to 30' and set 12-3/4", 34# conductor casing at 30' cemented to surface with ready mix.
2. Drill 11" hole to 1,900' and set 8-5/8", 24#, S.T.&C. casing at 1,900' cemented with 575 sx. Class "C" cement with 2% CaCl_2 and 8# salt per sx. Cement will be circulated.
3. Drill 7-7/8" hole to 5,400' and, if production is indicated, set 5-1/2" casing to total depth. Cement from total depth to 3,200' with 550 sx. Class "C" pozmix with 1/4# floreal and 6# salt per sx. with .5 of 1% CFR-2.

EVALUATION PROGRAM

Start salt gel mud system at 4,600' for increased sample quality and in preparation for coring operations. Cut 60' core of Queen sand at tentative coring point of 4,695'. Cut second 60' core at tentative coring point of 4960'. Cut third 60' core at tentative coring point of 5020'. Cut additional cores as necessary. Drill to total depth and run logs.

LOGGING PROGRAM

Run Simultaneous Gamma Ray-Caliper, Compensated Neutron Formation Density as porosity tool with Dual laterolog as Resistivity tool. Detail from 3,400' to total depth.