

DRILLING PROGRAM
ROBERT N. ENFIELD
990' HUDSON FEDERAL 31 WELL NO. 2
1040' FNL & 790' FWL Sec. 31, T18S, R33E, Lea County, NM
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The following information is filed in accordance with New Mexico Oil Conservation Rules and Regulations:

1. SURFACE FORMATION: Quaternary

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Rustler	1275'	Bone Springs	7150'	Upper Miss.	13290'
Top Yates	2940'	Wolfcamp	10300'	Lower Miss.	13640'
Top Queen	4075'	Strawn	11775'	Woodford	14225'
Top San Andres	4990'	Atoka	12210'	Devonian	14340'
Delaware	5485'	Morrow Sd	12850'		

3. ESTIMATED DEPTH TO FRESH WATER:

Possible fresh water 100'-300'.

ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONES:

Queen (below 4000')	Oil	Delaware (below 5500')	Oil
Bone Springs (below 7150')	Oil	Strawn (below 12000')	Oil
Morrow (below 12850')	Gas	Devonian (below 14000')	Oil

No other formations are anticipated to give up commercial quantities of hydrocarbons.

The fresh water sands will be protected by setting 13 3/8" casing at 375' and cemented with 375 sacks circulating back to surface. A 9 5/8" intermediate string will be run to 3500' and cemented with 1000 sacks circulating back to surface. A 5 1/2" production string will be run from surface to total depth and cemented with 2050 sacks back to 5000'.

4. PROPOSED CASING AND CEMENTING PROGRAM:

Casing:

Hole Size	Interval	Casing OD	Weight, Grade, Joint, Condition
17.5"	0-375'	13.375"	48#, H-40, ST&C, New
12.25"	0-3500'	9.625"	36#, K-55/J-55, LT&C, New & Used
8.75"	0-14600'	5.5"	17/20#, S-95, LT&C, New

Cement:

13 3/8" Surface:	Cemented with 375 sacks of Class C cement with 2% CaCl ₂ to circulate.
9 5/8" Intermediate:	Cemented with 1000 sacks of Class C with Premium Plus cement to circulate.
5 1/2" Production:	Cement with 2050 sacks of Class H and Halliburton Lite cement in two stages with DV tool set at 13500'. Cement to fill back to 5000'.

5. PRESSURE CONTROL EQUIPMENT:

Blowout prevention equipment, while drilling below surface casing depth to the setting of the 9 5/8" casing will be a 1500 psi working pressure BOP stack. A 5000 psi WP BOP stack will be installed below the 9 5/8" to TD with a Hydril and rotating head on the 5 1/2" casing. The BOP sketches are shown as Exhibits 1 and 1A.