

## APPLICATION FOR DRILLING

HARVEY E. YATES COMPANY  
Young Deep 3 Federal #4  
Sec. 3, T-18S, R-32E  
Lea County, N. M.

In conjunction with Form 9-331C, Application for Permit to Drill the Subject Well in Section 3, Township 18 South, Range 32 East, Lea County, New Mexico, Harvey E. Yates Company submits the following tem items of pertinent information in accordance with Bureau of Land Management.

1. The geologic surface formation is quaternary alluvium and bolson deposits and other surficial deposits.
2. The estimated tops of geologic markers are as follows:

Rustler	1244	Main	8394
Cowden	2331	T/2nd B Sp Sd	8545
Yates	2694	B/2nd B Sp Sd	8966
Yates "A"	2749	T/3rd B Sp Sd	9137
Seven Rivers	3139	Wolfcamp	9424
Bowers	3594	Penn Marker	10844
Queen	3874	Strawn	11469
Penrose	4122	Atoka	11754
Grayburg	4407	Morrow Lime	12214
Basin facies of the S.A.	4733	Morrow Clastics	12404
Bone Spring	6067	Chester	12869
T/1st B Sp Sd	7867	PTD	13000
B/1st B Sp Sd	8039		

3. We do not anticipate finding water but have listed the formations in which we anticipate finding oil or gas.

Morrow Lime	12,214	Morrow Clastics	12,404
-------------	--------	-----------------	--------

4. Proposed casing program: See Form 9-331C
5. Pressure control equipment: See Exhibit C
6. Mud program: See Form 9-331C.
7. Auxiliary equipment: Blowout preventer.
8. Testing, logging and coring programs: 9 possible DST's - 5 in the Bone Springs, 2 in the wolfcamp, 1 in the strawn and 1 in the Morrow. We are not planning any cores. Planned logs are Comp. Neutron-Densilog w/Gamma-Ray and Caliper; Dual Induction Focused log with SP and Caliper.
9. No abnormal pressures or temperatures are anticipated.
10. Anticipated starting date: November 15, 1983.