

# APPLICATION FOR DRILLING

## BETTIS, BOYLE & STOVALL

### CROWFLATS FED COM "15" NO. 1 2180 FNL AND 660' FEL SECTION 15, T-16-S, R-28-E EDDY COUNTY, NEW MEXICO

In conjunction with form 3160-3, Application for Permit to Drill subject well, Bettis, Boyle & Stovall submits the following items of pertinent information in accordance with USGS requirements.

1. The geological surface formation is on a hummocky landform with surficial deposits composed of sandy loams, loamy sands and sandy clay loams.

2. The estimated top(s) of geological markers are as follows:

Yates	450'	Canyon	8000'
San Andres	1900'	Strawn	8640'
Glorieta	3300'	Atoka	9030'
Drinkard	4540'	Morrow	9200'
ABO	5250'	Chester	9600'
Wolfcamp	6750'	Total Depth	9600'
Cisco	7590		

3. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered.

Water	Surface water between 100' and 350'
Oil	Wolfcamp below 6750'
Gas	Strawn below 8640'

4. Proposed casing program: See attached form 3160-3 and Exhibit E.
5. Pressure control equipment: See attached form 3160-3 and Exhibit E.
6. Mud Program: See attached form 3160-3.
7. Auxiliary equipment: Kelly cock and drill pipe/collar safety valve with appropriate connections for each.
8. Testing and logging programs:

Possible DST(s):	Wolfcamp and the Cisco if justified by valid show of oil and/or gas.
Open hole logs:	Gamma ray, compensated neutron, formation density, laterlog, dual spaced sonic and/or others as required to evaluate formation and productivity.

9. No abnormal pressures or temperatures are anticipated.
10. Anticipated spud date: On or before September 20, 1990.