

APPLICATION FOR DRILLING  
THE SUPERIOR OIL COMPANY  
CAVERNS FEDERAL WELL #1  
EDDY COUNTY, NEW MEXICO

In conjunction with Form 9-331C, application for permit to drill subject well, The Superior Oil Company submits the following items of pertinent information in accordance with USGS requirements:

1. The geologic surface formation is Permian.
2. The estimated tops of geologic markers are as follows:

Ochoan	Surface
Delaware Mt. Group	1800'
Bone Spring	4500'
Wolfcamp	7600'
Pennsylvania	9650'
Atoka	10050'
Morrow	10950'

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

water:	less than 500'
	Capitan Reef above 1800'
gas:	Atoka - Morrow 10,000 - 11,450'

4. Proposed casing program: See Form 9-331C and Exhibit F.
5. Pressure control equipment: See Form 9-331C and Exhibit E.
6. Mud Program: See Exhibit G.
7. Auxiliary equipment: See Exhibit H.
8. Testing, Logging and Coring programs:

Drill Stem Tests (all DST's to be justified by a valid show of oil or gas):

Morrow 10,900'

Logging:

Mud Logging unit from 1800' to T.D.

Electrical Log Program:

GR	-	BHL
FDC	-	CNL
DLL	-	MSFL