

APPLICATION FOR PERMIT TO DRILL  
CROSS TIMBERS OPERATING COMPANY  
U. S. MINERALS #3  
500' FWL & 330' FNL  
SECTION 33, T17S, R33E, NMPM

In conjunction with Form 3160-3, Application for Permit to Drill, Cross Timbers Operating Company submits the following items of pertinent information in accordance with Onshore Oil and Gas Order No.'s 1 and 2, and with all other applicable federal and state regulations.

- 1) The geologic surface formation is Quaternary Alluvium.
- 2) The estimated geologic markers are as follows:

Rustler	1,290'	Queen	3,650'
Tansill	2,555'	Grayburg	4,110'
Yates	2,645'	San Andres	4,420'
Seven Rivers	3,130'		

- 3) The estimated depths at which water, oil or gas are expected to be encountered:

Fresh Water: None in area.  
Oil or Gas: Queen - 3,650'  
Grayburg - 4,110'-4,420'  
San Andres - 4,420'-4,600'

- 4) Proposed Casing Program:

See Form 3160-3 and Exhibit "A".

- 5) Pressure Control Equipment:

See Exhibit "B".

- 6) Mud Program:

See attached mud program detail.

- 7) Auxiliary Equipment:

Closed loop, dry discharge drilling fluid system.

- 8) Testing, Logging and Coring Program:

DST's - None anticipated.

Electric Logs - Dual Laterolog  
Density/Neutron Porosity Log  
Gamma Ray/Caliper Log