

APPLICATION FOR PERMIT TO DRILL  
MATADOR OPERATING COMPANY  
ARCO FEDERAL "29" COM #1  
2130' FSL; 660' FEL  
SEC. 29-T18S-R33E  
LEA COUNTY, NEW MEXICO

In conjunction with Form 3160-3, Application for Permit to Drill, Matador Operating Company submits the following items of pertinent information in accordance with Onshore Oil and Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

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

Queen	4,157'	Bone Springs	7,230'
Penrose	4,420'	Wolfcamp	10,450'
Delaware	5,027'		

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

- \* - water: 150' and 275'
- \*\* - oil or gas: Penrose 4,420 - 4,450'  
Delaware 5,027 - 5,150'  
Bone Spring 7,230 - 10,100'  
Wolfcamp 10,450 - 11,300'

- \* Ground water to be protected by 13-3/8" surface casing with cement circulated to surface.

- \*\* Potentially productive horizons to be protected by 5-1/2" production casing with cement tied back to approximately 10,000' on bottom, and 7,600' on top of a 2-stage tool set at approximately 8,600'.

4. Proposed Casing Program: See form 3160-3 and Exhibit F.
5. Pressure Control Equipment: See Exhibit E.
6. Mud Program: See Exhibit G.
7. Auxiliary Equipment: Upper Kelly Cock, Lower Kelly Cock, Full Opening Stabbing Valve, Flow Sensor, PVT, Inside BOP.
8. Testing, Logging, and Coring Programs
  - DST's: 1 in Wolfcamp
  - Logging: 1-man Mud logging unit from 4,100' to TD.