

APPLICATION FOR PERMIT TO DRILL

MATADOR OPERATING COMPANY

**Brantley Federal #1
660' FNL; 1500' FWL
Sec 34, T20S, R26E
Eddy 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. Geological Name of Surface Formation: Permian
2. Estimated Tops of Important Geological Markers:

	Subsea	Measured Depth	
Queen Sand	+2707	532 MD	
San Andres	+1665	1574 MD	
Bone Spring LS	+610	2624 MD	
1st Bone Spring SS	-1670	4909 MD	
2nd Bone Spring SS	-2506	5745 MD	
3rd Bone Spring SS	-3842	7081 MD	
Wolfcamp	-4226	7465 MD	
Cisco Reef	-4900	8139 MD	
Morrow Clastics	-6661	9900 MD	
Morrow "B" Sands	-6761	10000 MD	*
Morrow "C" Sands	-6961	10200 MD	*
Barnett Shale	-7011	10250 MD	
PTD	-7311	10550 MD	

* Primary Reservoir Targets

3. Estimated Depth of Anticipated Fresh Water, Oil or Gas:

Wolfcamp	7465'	Gas
Cisco	8139'	Gas
Morrow	10,000'	Gas

* Groundwater to be protected by 13-3/8" surface casing with cement circulated to the surface.

** Potentially productive horizons to be protected by 5-1/2" production casing with cement top at approximately 6000'.