

# APPLICATION FOR PERMIT TO DRILL

## MATADOR OPERATING CORPORATION

DIAMANTE FEDERAL "21" #1

1650 FSL & 1650' FWL

SEC. 21, T19S, 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. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Important Geological Markers:

Upper Permian Yates Fm	3090'	+545'
Upper Permian Seven Rivers	3365'	+ 270'
Lower Permian Delaware Fm	5310'	-1675'
Lower Permian Bone Spring	7940'	-4305'
1st Bone Spring SS Mbr	9110'	-5475'
2nd Bone Spring SS Mbr	9400'	-5765'
2nd Bone Spring "Debris Flow"	9640'	-6005'
3rd Bone Spring Carbonate	10,265'	-6630'
3rd Bone Spring SS Mbr	10,626'	-6991'
Lower Permian Wolfcamp Fm	10,778'	-7143'
Lower Permian Wolfcamp "Chert"	10,930'	-7295'
Upper Penn Cisco	11,790'	-8155'
Upper Penn Canyon	11,976'	-8341'
Upper Penn Strawn Fm	12,082'	-8447'
Lower Penn Atoka Fm	12,393'	-8758'
Lower Penn Atoka LST	12,760'	-9125'
Lower Penn Morrow Fm	12,923'	-9288'
Middle Morrow Clastics	13,130'	-9495'
Lower Morrow	13,500'	-9865'
PTD	13,750'	-10,115'