

APPLICATION FOR DRILLING  
MANZANO OIL CORPORATION  
PBIC Federal, Well No. 1  
1780' FSL & 800' FWL, Sec. 7-T18S-R31E  
Eddy County, New Mexico  
Lease No.: NM-64595  
(Development Well)

In conjunction with Form 9-331C, Application for Permit to Drill subject well, Manzano Oil Corporation submits the following items of pertinent information in accordance with BLM requirements:

1. The geologic surface formation is recent Permian with Quaternary alluvium and other surficial deposits.

2. The estimated tops of geologic markers are as follows:

Rustler Anhyd.	445'	Delaware sand	3545'
Base of Salt	1590'	Top Bone Spring	5045'
Yates	1870'	1st Bone Spring	7172'
Queen	2880'	2nd Bone Spring	7768'
Grayburg	3430'	T.D.	8800'

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

Water: Fresh water from 100 to 300 feet.

Gas: Possible in Bone Spring.

Oil: Possible in Bone Springs: 7175' - 7275'  
7770' - 7870'

4. Proposed Casing Program: See Form 9-331C.
5. Proposed Control Equipment: See form 9-331C and Exhibit "E".
6. Mud Program: See Form 9-331C.
7. Auxiliary Equipment: Blowout preventer, gas detector, kelly cock, pit level monitor, flow sensors and stabbing valve.
8. Testing, Logging and Coring Program:

Drill Stem Tests: One planned in the Bone Spring formation.

Logging: Surface to T.D.: Gamma Ray.  
Inter. Casing to T.D.: DLL, CNL-FDC, MSFL

Coring: Bone Spring: 7300' - 7360'  
Bone Spring: 8270' - 8330'

9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight.
10. Anticipated starting date: December 31, 1987.  
Anticipated completion of drilling operations: Approximately 3 weeks.