

APPLICATION FOR DRILLING

MANZANO OIL CORPORATION  
Federal 31-G, Well No. 3  
990' FNL & 990' FEL, Sec. 31-T19S-R33E  
Lea County, New Mexico  
Lease No.: NM-67110  
(Development Well)

In conjunction with Form 3160-3, 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	1255'	Seven Rivers	3160'
Top/Salt	1356'	San Andres	3740'
Base/Salt	2760'	Delaware Sand	5050'
Yates	2923'	T.D.	5800'

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

Water: Surface water between 100' - 350'.

Oil: Possible in the Yates, Seven Rivers and Delaware.

Gas: None expected.

4. Proposed Casing Program: See Form 3160-3.

5. Proposed Control Equipment: See Form 3160-3 and Exhibit "E".

6. Mud Program: See Form 3160-3.

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: None unless warranted.

Logging: Gamma Ray/neutron: Surface casing to T.D.  
DLL-MSFL, CNL-LTD Below 8 5/8" to T.D.

Coring: None planned.

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. Estimated: BHP = 2200 psi, BH temp. = 105°

10. H<sub>2</sub>S: None expected based on previously drilled wells.

11. Anticipated starting date: September 7, 1992.  
Anticipated completion of drilling operations: Approx. 3 weeks.

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