

Item 8

No ancillary facilities are planned.

Item 9

Attached is a rig diagram for the Marcum Rig # 6. The pad size will be 60' to the North of the well, 200' to the South of the well, 150' East of the well, and 160' West of the well. The pit will be plastic lined and the well has been staked and flagged. BOP diagram included.

Item 10

After completion of drilling, the area will be cleaned up and levelled as nearly as possible to its original condition as stated in Item 6.

Item 11

The topography of this area is very rugged with the ground level elevation changing as much as 300' in the area near the well. The land has little commercial use except for grazing. No residences are located within a mile of the proposed location. All land which will be crossed by roads or used for the drilling pad will be government land.

Item 12

The representative responsible for assuring compliance with the approved surface use and operations plan is as follows:


Mr. B. Bernard Lankford, Jr.
300 Building of the Southwest
Midland, Texas 79701

Office Phone: (915) 682-6386
Home Phone: (915) 694-8209

Item 13

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct; and, that the work associated with the operations proposed herein will be performed by Southern Union Exploration Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

4-28-78
Date


B. Bernard Lankford, Jr.
Consulting Engineer for
Southern Union Exploration Company

APPLICATION FOR DRILLING

SOUTHERN UNION EXPLORATION COMPANY
EXXON FEDERAL A NO. 2
1650' FNL AND 1980' FWL SECTION 25 T-20S R25E

The following items are submitted in accordance with U.S.G.S. requirements (NTL-6) in support of Form 9-331C.

1. & 2. Shown on Form 9-331C.
3. The geologic surface formation is Seven Rivers.
4. A Rotary Drilling Rig will be used.
5. Shown on Form 9-331C.
6. The estimated tops of geologic markers are as follows:

San Andres	980'
Wolfcamp	7450'
Cisco	8155'
Canyon	8585'
Strawn	8840'
Atoka	9480'
Morrow Lime	9817'
Morrow Classic	9970'
Barnett Shale	10,340'

7. The expected depths at which water, oil or gas formations may be encountered are as follows:

Water	75' - 300'
Oil or Gas: Wolfcamp	7450'
Cisco	8155'
Morrow	9817'

- 8., 9. & 10. Shown on Form 9-331C.
11. See the attached Mud Program.
12. No coring or testing is anticipated. However, DST's may be run if adequate shows are encountered while drilling.
13. There are not any anticipated abnormal pressures or temperatures.
14. The spud date is approximately September 1, 1978. Drilling operations will take an estimated 45 days.

DEVELOPMENT PLAN FOR SURFACE USE

SOUTHERN UNION EXPLORATION COMPANY
EXXON FEDERAL A NO. 2
1650' FNL AND 1980' FWL OF SEC 25-20S-25E
EDDY COUNTY, NEW MEXICO

1. Existing roads are shown on the attached Topo map in blue.
2. Planned access road is shown on the attached Topo map in red.
3. Existing wells within a one mile radius are shown in blue.
4. See attached map.
5. See attached map.
6. Water will be hauled.
7. Cuttings will be disposed of into the reserve pit. Garbage and trash will be buried in a small separate pit near the reserve pit.
8. Not applicable.
9. Not applicable.
10. A rig diagram for Marcum Rig No. 6 is attached. Includes a BOP diagram.
11. All pits will be covered and the location levelled.
12. The area is hilly with very little vegetation.

Field representative responsible for compliance.

B. Bernard Lankford, Jr.
Consulting Engineer

(915) 682-6386

SOUTHERN UNION EXPLORATION COMPANY
EXXON FEDERAL A NO. 2

Mud Program

0 - 350' Use Gel-Lime spud mud treated with loss circulation material. Dry drill to casing point if loss of circulation occurs.

350' - 2500' Fresh water Ph. 10.5. Dry drill to casing point if loss circulation occurs.

2500' - 6500' Fresh water.

6500' - 9400' Add brine to increase weight to 9.0 - 9.1 ppg. Treat out hardness with soda ash and mud up with Drispac/Dextrid mud. Viscosity 32 - 33 sec and water loss 10 - 15 cc.

9400' - TD Lower water loss to less than 10 cc. Adjust viscosity as needed. Maintain weight at 9.2 - 9.6 ppg. Add 3% KCL prior to drilling Morrow.