

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL  
WELL ☒

GAS  
WELL ☐

OTHER

SINGLE  
ZONE ☒

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

Terra Resources, Inc. /

3. ADDRESS OF OPERATOR

10 Desta Drive, Suite 500 West Midland, Texas 79705

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface  
1980' FWL & 660' FNL

At proposed prod. zone  
same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

15 miles north east of Artesia

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

660'

18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

4100'

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

Ground level = 3642.7'

5. LEASE DESIGNATION AND SERIAL NO.

NM - 30067

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Pennzoil Federal

9. WELL NO.

X-1

10. FIELD AND POOL, OR WILDCAT

Diamond Mound

11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREA

Sec. 9, T-16-S R-28-E

12. COUNTY OR PARISH

Eddy

13. STATE

NM

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

320

20. ROTARY OR CABLE TOOLS

Rotary

22. APPROX. DATE WORK WILL START\*

4-15-87

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT        |
|--------------|----------------|-----------------|---------------|---------------------------|
| 17-1/2       | 13.375         | 48.0            | 300           | 320 sx (422 CF) CIRCULATE |
| 11           | 8.625          | 24.0            | 1800          | 525 sx (915 CF) CIRCULATE |
| 7-7/8"       | 5.5            | 15.5 & 17.0     | 9600          | 740 sx (1231 CF)          |

- 1) Drill 17½" hole to 300' w/fresh water mud. Set & cement 13-3/8" casing. Circulate cement to surface.
- 2) Drill 11" hole to 1800' w/brine water. Set 8-5/8" casing at 1800' & circulate cement to surface.
- 3) Drill 7-7/8" hole to 9600' w/cut brine and brine based mud. Set 5-1/2" casing @ 9600' and circulate cement back into 8-5/8" casing in two stages.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

Vern M. Comer

TITLE

Operations Engineer

DATE

4-3-87

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

4/15/87

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Post ID-1  
NL, API  
4-17-87

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

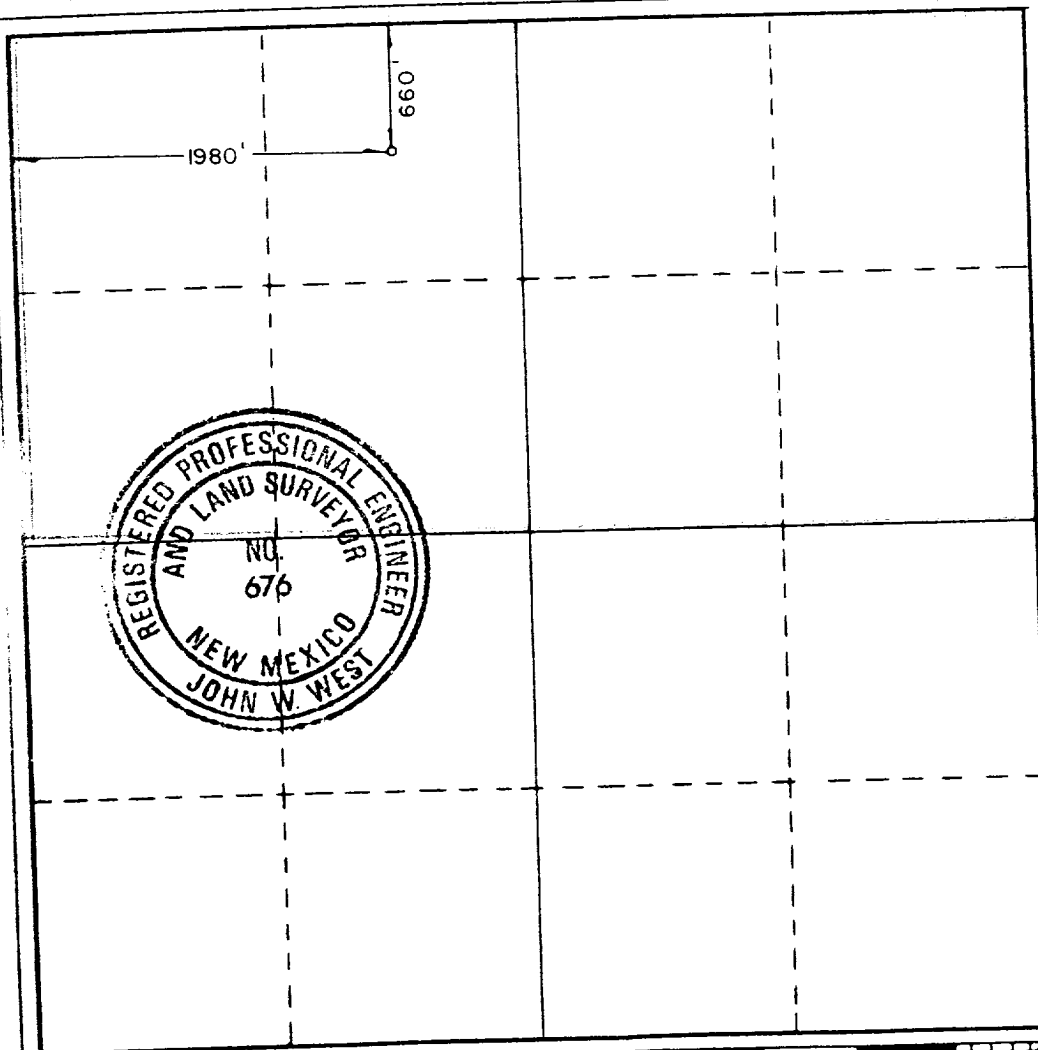
|   |   |                             |  |                              |  |
|---|---|-----------------------------|--|------------------------------|--|
| Operator<br><b>Terra Resources, Inc.</b>  |   |                             | Lease<br><b>Pennzoil/Federal</b>               |                              | Well No.<br><b>1</b>                   |
| Unit Letter<br><b>C</b>   | Section<br><b>9</b>                       | Township<br><b>16 South</b> | Range<br><b>28 East</b>                        | County<br><b>Eddy County</b> |  |
| Actual Footage Location of Well:<br><b>660</b> feet from the <b>North</b> line and <b>1980</b> feet from the <b>West</b> line |   |                             |  |                              |  |
| Ground Level Elev.<br><b>3642.7</b>   | Producing Formation<br><b>Morrow Sand</b> |                             | Pool<br><b>Diamond Mound - Olefin (Morrow)</b> |                              | Dedicated Acreage:<br><b>320</b> Acres |

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes    ☐ No    If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



**CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

*Skip Coyner*  
Name  
**Skip Coyner**  
Position  
**Operations Engineer**  
Company  
**Terra Resources, Inc.**  
Date  
**4-3-87**

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed  
**March 20, 1987**  
Registered Professional Engineer and/or Land Surveyor  
*John W. West*  
Certificate No. **JOHN W. WEST, 676**  
**RONALD J. EIDSON, 3239**

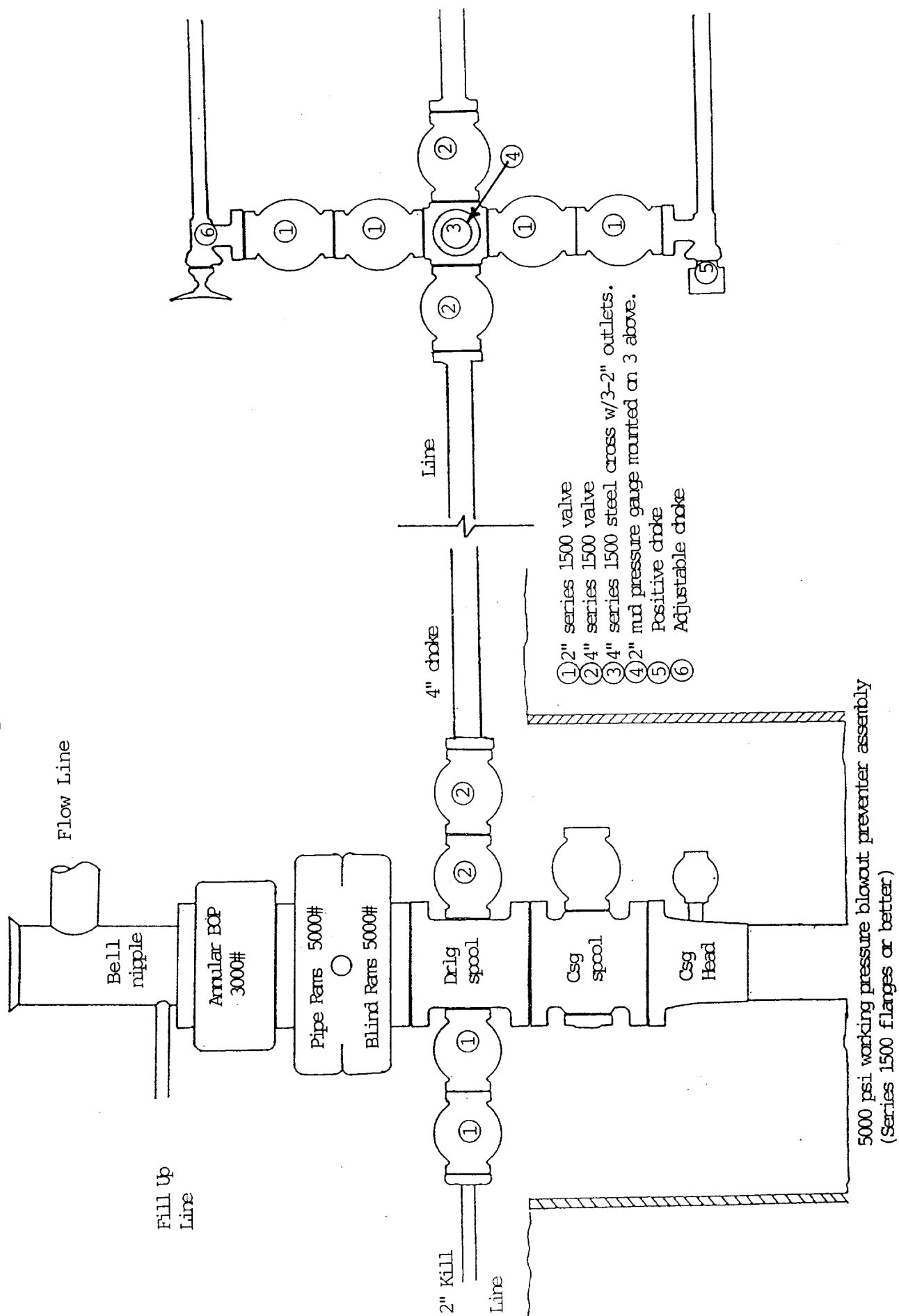
0 200 400 600 800 1000 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000

PRESSURE CONTROL EQUIPMENT

Pennzoil Federal 9-1

1980' FWL &amp; 660' FNL Sec. 9 T-16-S R-28-E

Eddy County, New Mexico



Terra Resources, Inc.  
Pennzoil Federal 9-1  
1980' FWL & 660' FNL  
Sec. 9, T-16-S, R-28-E  
Eddy County, New Mexico

In conjunction with form 3160-3, **Application For Permit to Drill**, Terra Resources, Inc. submits the following ten items of pertinent information in accordance with USGG requirements:

1. The geologic surface formation is Permian (Artesia Group)
2. The estimated tops of geologic markers are as follows:

|            |       |              |       |
|------------|-------|--------------|-------|
| Yates      | 370'  | Tubb         | 4550' |
| 7 Rivers   | 900'  | Abo          | 5320' |
| Queen      | 1080' | Wolfcamp     | 6580' |
| Graybury   | 1500' | Strawn       | 8690' |
| San Andres | 1750' | Atoka        | 8980' |
| Glorietta  | 3320' | Morrow Sands | 9200' |
|            |       | Chester Lm   | 9500' |
3. The estimated depths at which anticipated fresh water, oil or gas formations are expected to be encountered:  
fresh water: surface to 300' feet.  
Oil or gas:

|          |       |
|----------|-------|
| Wolfcamp | 6580' |
| Strawn   | 8690' |
| Atoka    | 8980' |
| Morrow   | 9200' |
4. Proposed casing and cementing program: See Exhibit E
5. Pressure control equipment: See Exhibit F
6. Mud program: See Exhibit G
7. Auxiliary equipment: none
8. Testing, logging and coring programs:
  - a) No cores are planned.
  - b) Drill Stem Tests (When justified by a valid show of oil or gas)

|          |       |
|----------|-------|
| Wolfcamp | 6580' |
| Strawn   | 8690' |
| Atoka    | 8980' |
| Morrow   | 9200' |
  - c) Open hole logs:

|  |              |
|--|--------------|
| Gamma ray - caliper - neutron - Density Porosity Log | 1800' - TD   |
| Gamma ray - Neutron Log                              | Surf - 1800' |
| Gamma ray - Dual laterolog - Micro laterolog         | 1800' - TD   |
9. No abnormal pressures or temperatures are anticipated.
10. Anticipated starting date: as soon as possible.

EXHIBIT B  
Topographic Map  
Terra Resources Inc.  
Pennzoil Federal 9-1  
1980' FWL & 660' FNL  
Sec. 9 T-16-S R-28-E  
Eddy Co., New Mexico

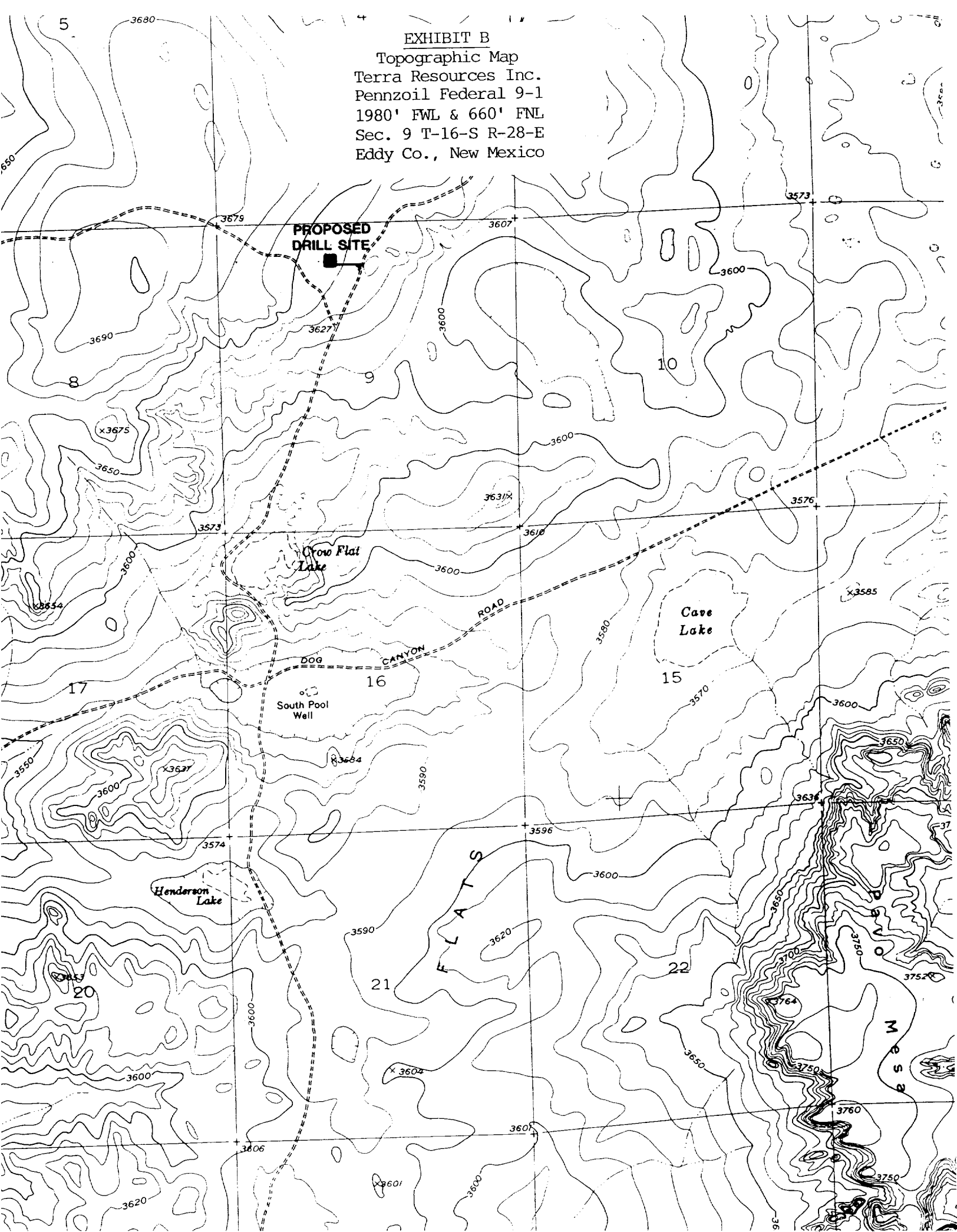


EXHIBIT D  
Location Layout  
Terra Resources Inc.  
Pennzoil Federal 9-1  
1980' FWL & 660' FNL

Sec. 9, T-16-S R-28-E  
Eddy Co., NM

