

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

|                                                                                                                                                              |  |  |                                                                                |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------|--|
| 1a. TYPE OF WORK<br>DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>                             |  |  | 5. LEASE DESIGNATION AND SERIAL NO.<br>NM -0367781 - B                         |  |
| b. TYPE OF WELL<br>OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>                             |  |  | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME                                           |  |
| 2. NAME OF OPERATOR<br>Southwestern Natural Gas, Inc.                                                                                                        |  |  | 7. UNIT AGREEMENT NAME                                                         |  |
| 3. ADDRESS OF OPERATOR<br>900 Bank of the Southwest, Midland, Texas                                                                                          |  |  | 8. FARM OR LEASE NAME<br>Shell Federal 35                                      |  |
| 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)<br>At surface<br>1980' FNL & 660' FWL<br>At proposed prod. zone |  |  | 9. WELL NO.<br>1                                                               |  |
| 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE<br>Same<br>16 Miles West of Milnesand, New Mexico                                       |  |  | 10. FIELD AND POOL, OR WILDCAT<br>Wildcat                                      |  |
| 10. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.<br>(Also to nearest drlg. unit line, if any) 660' FWL                            |  |  | 11. SEC. T., R., M., OR BLK. AND SURVEY OR AREA<br>Section 35, T-7-S<br>R-32-E |  |
| 18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.<br>-0-                                         |  |  | 12. COUNTY OR PARISH<br>Roosevelt                                              |  |
| 21. ELEVATIONS (Show whether DF, RT, GR, etc.)<br>4483' GR                                                                                                   |  |  | 13. STATE<br>New Mex.                                                          |  |
| 16. NO. OF ACRES IN LEASE<br>80                                                                                                                              |  |  | 17. NO. OF ACRES ASSIGNED TO THIS WELL<br>80                                   |  |
| 19. PROPOSED DEPTH<br>9500                                                                                                                                   |  |  | 20. ROTARY OR CABLE TOOLS<br>Rotary                                            |  |
| 22. APPROX. DATE WORK WILL START*<br>4-15-68                                                                                                                 |  |  |                                                                                |  |

| 23. PROPOSED CASING AND CEMENTING PROGRAM |                |                 |               |                    |
|-------------------------------------------|----------------|-----------------|---------------|--------------------|
| SIZE OF HOLE                              | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
| 17-1/2"                                   | 13-3/4"        | 48#             | 420           | 330 sks            |
| 11 "                                      | 8-5/8"         | 32#             | 4800          | 1400 sks           |
| 7-7/8"                                    | 4-1/2"         | 11.60#          | TD            | See below          |

1. Drill 17-1/2" hole to 410' (Anhydrite). Cement 13-3/8", 48# casing to surface (circulate)
2. Test casing to 1000psi for 30 minutes.
3. Drill 11" hole to 4800'. Run 8-5/8", 32# casing to 4800' with DV packer above possible loss circulation zones. Two stage cement with sufficient cement on second stage to fill above DV Packer to base of salt.
4. Run temperature survey. Pressure test DV tool to 1000 psi for 30 minutes, drill out and test 8-5/8" casing to 1000 psi for 30 minutes.
5. Drill 7-7/8" hole to total depth of approximately 9500'. Run & cement 4-1/2", 11.60# casing with sufficient cement to fill annulus above Bough "C" formation.
6. Proper blow-out preventions will be used of sufficient capacity to meet all normal down hole conditions to be expected.

OVER

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. John R. Cannon SIGNED Office Manager TITLE 4-9-68 DATE

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_

APPROVED  
APR 11 1968  
A. R. BROWN  
DISTRICT ENGINEER

\*See Instructions On Reverse Side

**General:** This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

**Item 1:** If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 14:** Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

**Items 15 and 18:** If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

**Item 44:** Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

★ U.S. GOVERNMENT PRINTING OFFICE : 1963-O-711-396

☆ U.S. GOVERNMENT PRINTING OFFICE : 1963—O-711-396

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

PERMIT TO DRILL, DEEPEN OR FILL

DEEPEN

THIS PERMIT IS GRANTED TO THE FOLLOWING PARTY:

Verbal approval obtained 4-11-68 from Mr. Brown with the U.S.G.S., Hobbs, New Mexico.

3. Deviation surveys will be made on every trip or 500' which ever is first. Maximum deviation allowed is 6°.

TO BE FILLED IN BY THE DRILLER

DATE OF PERMIT: 4-11-68

NAME OF DRILLER: [Blank]

ADDRESS OF DRILLER: [Blank]

CITY: [Blank] STATE: [Blank] ZIP: [Blank]

PHONE: [Blank]

TYPE OF DRILL: [Blank]

DEPTH OF DRILL: [Blank]

REMARKS: [Blank]

PROPOSED CASING AND CEMENTING PROGRAM

| DEPTH (FEET) | WEIGHT (LBS) | TYPE OF CASING |
|--------------|--------------|----------------|
| 0-100        | 11.00#       | 4" X 11"       |
| 100-200      | 12.5#        | 4" X 11"       |
| 200-300      | 14.0#        | 4" X 11"       |
| 300-400      | 15.5#        | 4" X 11"       |
| 400-500      | 17.0#        | 4" X 11"       |

PROPOSED CEMENTING PROGRAM

| DEPTH (FEET) | WEIGHT (LBS) | TYPE OF CEMENT |
|--------------|--------------|----------------|
| 0-100        | 11.00#       | 4" X 11"       |
| 100-200      | 12.5#        | 4" X 11"       |
| 200-300      | 14.0#        | 4" X 11"       |
| 300-400      | 15.5#        | 4" X 11"       |
| 400-500      | 17.0#        | 4" X 11"       |

PROPOSED CEMENTING PROGRAM

| DEPTH (FEET) | WEIGHT (LBS) | TYPE OF CEMENT |
|--------------|--------------|----------------|
| 0-100        | 11.00#       | 4" X 11"       |
| 100-200      | 12.5#        | 4" X 11"       |
| 200-300      | 14.0#        | 4" X 11"       |
| 300-400      | 15.5#        | 4" X 11"       |
| 400-500      | 17.0#        | 4" X 11"       |

PROPOSED CEMENTING PROGRAM

| DEPTH (FEET) | WEIGHT (LBS) | TYPE OF CEMENT |
|--------------|--------------|----------------|
| 0-100        | 11.00#       | 4" X 11"       |
| 100-200      | 12.5#        | 4" X 11"       |
| 200-300      | 14.0#        | 4" X 11"       |
| 300-400      | 15.5#        | 4" X 11"       |
| 400-500      | 17.0#        | 4" X 11"       |

\*See Instructions On Reverse Side

NEW CO 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.

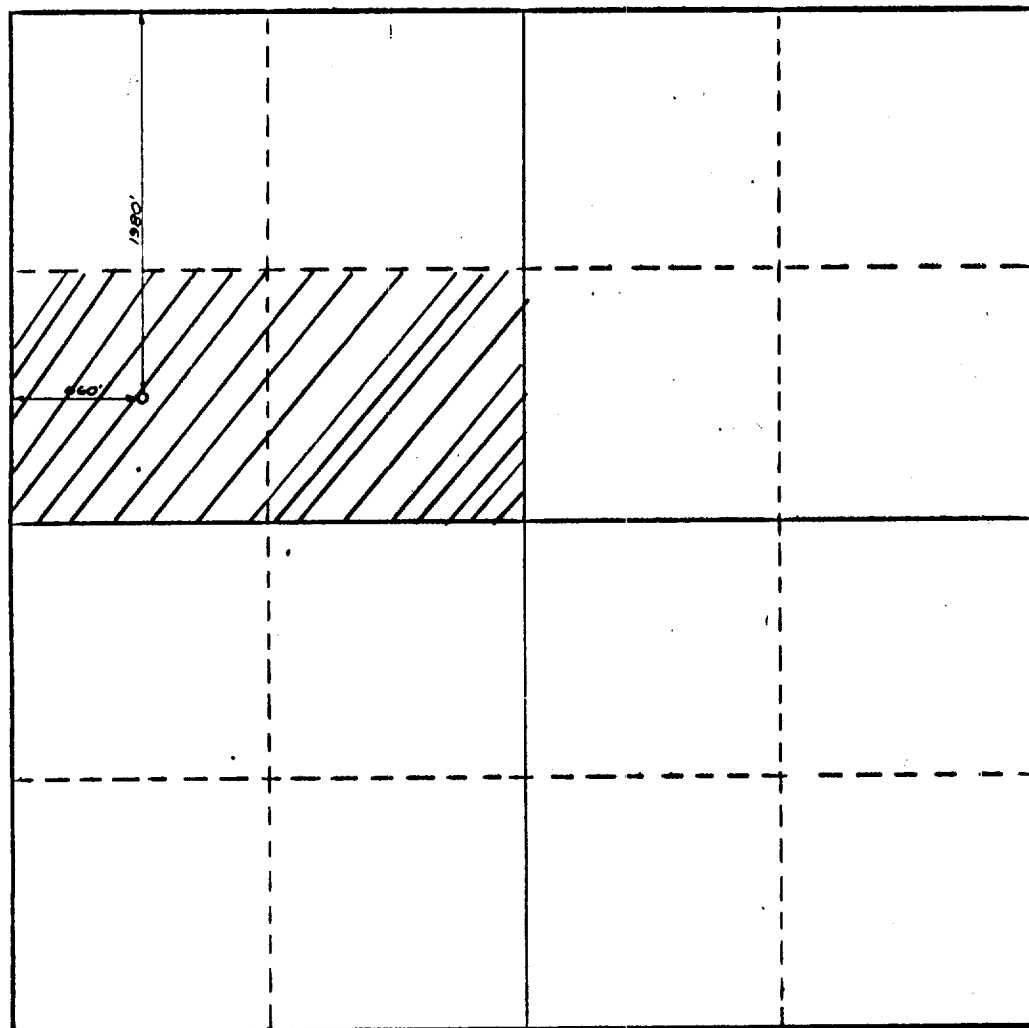
|                                                                                                                               |                                         |                            |                                    |                            |                                       |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------|------------------------------------|----------------------------|---------------------------------------|
| Operator<br><b>Southwestern Natural Gas, Inc.</b>                                                                             |                                         |                            | Lease<br><b>Shell Federal (35)</b> |                            | Well No.<br><b>1</b>                  |
| Unit Letter<br><b>E</b>                                                                                                       | Section<br><b>35</b>                    | Township<br><b>7 South</b> | Range<br><b>32 East</b>            | County<br><b>Roosevelt</b> |                                       |
| Actual Footage Location of Well:<br><b>1980</b> feet from the <b>north</b> line and <b>660</b> feet from the <b>west</b> line |                                         |                            |                                    |                            |                                       |
| Ground Level Elev.<br><b>4483</b>                                                                                             | Producing Formation<br><b>Bough "C"</b> |                            | Pool<br><b>Wildcat</b>             |                            | Dedicated Acreage:<br><b>80</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.) Farmout of Leasehold

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.

*F. L. Dischler*  
Name  
**F. L. DISCHLER**  
Position  
**Geologist**  
Company  
**Southwestern Natural Gas, Inc.**  
Date  
**April 9, 1968**

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 **April 3, 1968**

Registered Professional Engineer and/or Land Surveyor

*Kenneth E. Edwards*  
Certificate No. **1411** *12-2-68*

0 200 400 600 800 1000 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 3800 4000