

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

Pennzoil Company

3. ADDRESS OF OPERATOR

P. O. Drawer 1828 - Midland, Texas 79702

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

At surface

990' FNL & 2310' FEL of Sec. 33, T-17-S, R-33-E

At proposed prod. zone

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

15. DISTANCE FROM PROPOSED*

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

330'

18. DISTANCE FROM PROPOSED LOCATION*

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

900' S.W.

16. NO. OF ACRES IN LEASE

120

19. PROPOSED DEPTH

4,500'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

20. ROTARY OR CABLE TOOLS

Rotary

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

4133' G.L.

22. APPROX. DATE WORK WILL START*

4-15-78

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT	
11"	8 5/8"	24# K-55	400'	400 sx	New casing used
7 7/8"	4 1/2"	10.5# K-55	4,500'	300 sx	Used casing

SEE ATTACHED NOTE FOR COMPLIANCE WITH NTL-6

WHL.

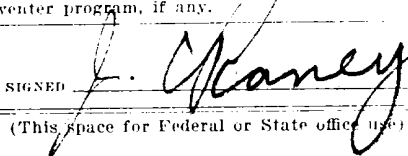
Commenced, this day 13 approval
Expires 6-21-78

CONL

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



TITLE

Adv. Petroleum Engineer

DATE

2-13-78

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

APPROVED
AS AMENDED

DATE

MAR 21 1978

D. A. F.

ACTING DISTRICT ENGINEER

RECEIVED

MAR 28 1978

OIL CONSERVATION COMM.
HOBBS, N. M.

PENNZOIL COMPANY

Phillips Federal No. 4
990' FNL & 2310' FEL
Sec. 33, T-17-S, R-33-E
Lea County, New Mexico

LEASE NM 801

The following is submitted in compliance with NTL-6 in support of Pennzoil's Application To Drill the Phillips Federal No. 4 well.

1. The surface formation is quaternary.
2. The important geologic markers are:

<u>Markers</u>	<u>Depth</u>
Anhydrite	1,290'
Yates	2,645'
Seven Rivers	3,025'
Queen	3,630'
Grayburg Shale	4,280'
Premier Sand	4,305'
San Andres	4,354'

3. The estimated depths of the anticipated water, oil & gas formations are:

Fresh water	50' to 300'
Oil & gas	4,305'-4,350'
Salt water	San Andres below 4,350'

4. See Item #23 on Form 9-331 C
5. See attached Blow Out Preventer schematic to be installed after the surface casing is set. The preventers will be tested prior to drilling below the surface casing. Operating of the preventers will be performed at least once each 24 hours.

A kill line & choke manifold will be installed.

6. See the attached mud program.
7. The following auxiliary equipment will be used during the drilling operations:
 - A. Kelly Cock
 - B. Flowline sensor to check fluid returns.
 - C. A full opening valve & sub will be on the floor at all times during drilling & completion operations.
8. No drill stem testing or coring is planned. Good quality Resistivity & Porosity logs will be run from total depth to approximately 3000'.
9. No abnormal pressures & temperatures are anticipated in this known area. Breathing apparatus equipment (Scott Air Packs) will be available should we encounter the presence of hydrogen sulfide gas.
10. The starting ~~date~~ depends on Pennzoil's securing this permit & the securing of a competent drilling contractor. Planned starting date is April 15, 1978. Drilling operations should last about 10 days, with completion work consuming an additional 7 days.

PENNZOIL COMPANY

Phillips Federal No. 4
990' FNL & 2310' FEL
Sec. 33, T-17-S, R-33-E
Lea County, New Mexico

LEASE NM 801

Proposed Mud Program:

Surface hole to 400'±

Drill with water with gel and lime added.

Production to 4,500'±

Drill out below 8 5/8" casing with a 32 to 34 sec/1000 cc viscosity native mud to control Red Bed section and add saturated brine water to the system around 1,800' to prevent eroding salt section.

For logging, the hole should be mudded up with a low solids salt gel type drilling fluid with the following characteristics:

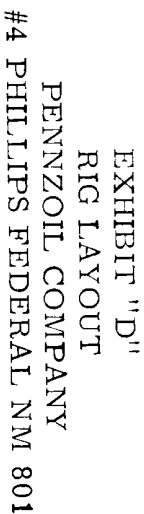
Weight	10.0 to 10.2#/gal.
Viscosity	36 - 38 sec/1000 cc
Water loss	15 cc or less

The filter cake build-up should be under control prior to drilling into the Premier Sand section.

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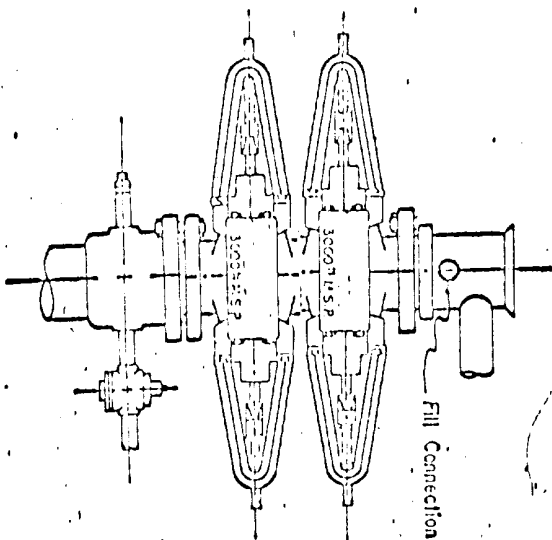
OIL CONSERVATION DIVISION
HOBBS, N. M.



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MAR 28 1978

OIL CONSERVATION COMM.
HOBBS, N. M.



3,000 PSI WORKING PRESSURE
BLOWOUT PREVENTER HOOK - UP

Series 900 Flanges, or Better

Shaffer Type E Series 900
Hydraulic B.O.P.

EXHIBIT "E"
B.O.P. LAYOUT
PENNZOIL COMPANY
#4 PHILLIPS FEDERAL NM 801

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

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

All distances must be from the outer boundaries of the Section

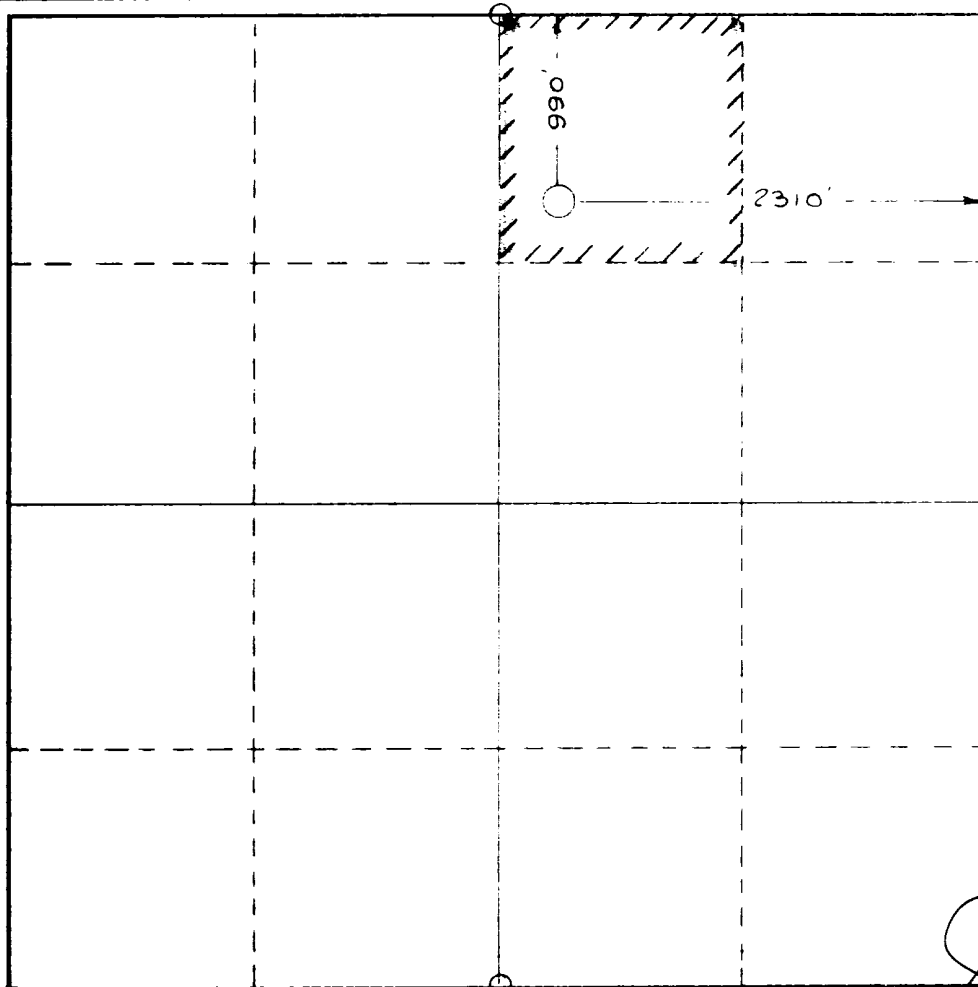
Operator PENNZOIL COMPANY		Lease Phillips - Federal		Well No. 4
Unit Letter B	Section 33	Township 17 South	Range 33 East	County Lea
Actual Footage Location of Well:				
990 feet from the North line and		2310 feet from the East line		
Ground Level Elev. 4133	Producing Formation San Andres	Pool Maljamar - Grayburg	Estimated Acreage 40 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.

J. C. Raney
J. C. Raney
Advanced Petroleum Engineer

Pennzoil Company

February 13, 1978

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
January 30, 1978

Registered Professional Engineer and/or Land Surveyor

John W. Shearn
Certificate No. **1559**



RECEIVED

MAR 28 1976

OIL CONSERVATION COMM.
HOBBS, N. M.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

PENNZOIL COMPANY
WELL NO. 4, PHILLIPS FEDERAL
990' FNL & 2310' FEL SEC. 33, T-17-S, R-33-E
LEA COUNTY, NEW MEXICO
LEASE NM 801

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of the operation so that a complete appraisal can be made of the environmental effects associated with the operation.

1. EXISTING ROADS:

- A. Exhibit "A" is a portion of the general highway map of Lea County, showing the location of the proposed well as staked. Go nineteen (19) miles west of Lovington on U.S. Highway 82 to the intersection of the county road on the west side of Sec. 28, T-16-S, R-33-E. Go south on the county road approximately six and one-quarter (6 1/4) miles to the intersection of a black top road (east-west), turn right (west) thru cattle guard on black top road, then turn left (south) immediately on existing lease road. Go south on existing road approximately one-half (1/2) mile to second road on right, turn right (south) on new road for 1/10 mile to proposed location.
- B. Exhibit "B" is a plat showing all existing roads within a one mile radius of the wellsite, and the planned access road.
- C. A portion of the existing lease road, beginning near the center of section 33 and extending 1,000 feet southeast, will be repaired. Repairs will consist of replacing the eroded caliche surface with a new caliche surface 6 inches deep and 12 feet wide, watered and compacted.

2. PLANNED ACCESS ROADS:

- A. Length and Width: New road required will be 12 feet wide and 500 feet long. This new road is labeled and color coded red on Exhibit "B". The center line of the proposed new road from the beginning to the wellsite, has been staked and flagged with the stakes being visible from any one to the next.

- B. Surfacing Material: Six inches of caliche, water, compacted, and graded.
 - C. Maximum Grade: 3 percent
 - D. Turnouts: None required.
 - E. Drainage Design: New road will have a drop of 6 inches from center line on each side.
 - F. Culverts: None required.
 - G. Cuts and Fills: None required.
 - H. Gates, Cattleguards: No gates or cattleguards are required.
3. LOCATION OF EXISTING WELLS:
- A. Existing wells within a one-mile radius are shown on Exhibit "B".
4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:
- A. Location of the existing tank battery and flow line from well No. 1 are shown on Exhibit "B". The flow line is not buried.
 - B. If the proposed well is completed for production the location of the new flow line to the existing tank battery is shown on Exhibit "B". The line will not be buried. The center line of the proposed new flow line has been staked and flagged to the north boundary of Section 33. The tank battery is located in Unit F, Sec. 28, T-17-S, R-33-E.
5. LOCATION AND TYPE OF WATER SUPPLY:
- A. Water for drilling will be purchased from Mr. Gary Caviness and transported by pipeline to the wellsite. The pipeline will be layed along the road as shown on Exhibit "C", together with the water well location. The water line will not cause additional surface disturbance and will be removed after drilling is completed.
6. SOURCE OF CONSTRUCTION MATERIALS:
- A. Caliche for surfacing the road and the well pad will be obtained from an existing pit in the NE/4 NE/4 section 31, T-17-S, R-33-E. The pit is on land owned by Caviness Cattle Account is shown on Exhibit "B".

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the drilling pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry.
- C. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.
- D. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- E. Location of trash pit is shown on Exhibit "D". Alternate - all trash, junk and other waste material will be contained to prevent scattering and will be removed and deposited in an approved sanitary landfill.
- F. All trash and debris will be buried or removed from the wellsite within 30 days after finishing drilling and/or completion operations.

8. WELLSITE LAYOUT:

- A. Exhibit "D" shows the relative location and dimensions of the well pad, mud pits, reserve pit, trash pit, and location of major rig components.
- B. Only minor levelling of the wellsite will be required. No significant cuts and fills will be necessary.
- C. The reserve pit will not be plastic lined.
- D. The pad and pit area has been staked and flagged.

9. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations all equipment and other material not needed for operations will be removed. Pits will be filled and location cleaned of all trash and junk to leave the wellsite in an aesthetically pleasing condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. After abandonment of the well, surface restoration will be in accordance with the agreement with the surface owner. Pits will be filled and location will be cleaned. The pit area, well pad, and all unneeded access road will be ripped to promote revegetation. Rehabilitation should be accomplished within 90 days after abandonment.

10. OTHER INFORMATION:

- A. Topography: Land surface is undulating to gently rolling and dunny. From an elevation of 4133 feet at the wellsite, the land surface slopes gently toward the southwest at about 200 feet per mile.
- B. Soil: Soil is a deep fine sand underlain by caliche.
- C. Flora and Fauna: The vegetative cover is generally sparse and consists of mesquite, yucca, shinnery oak, sandsage and perennial native range grasses. Wildlife in the area is that typical of semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, dove, quail, and an occasional antelope.
- D. Ponds and Streams: There are no rivers, streams, lakes or ponds in the area.
- E. Residences and Other Structures: The nearest occupied dwelling is a ranch house 2.0 miles northeast of the wellsite. The nearest water well is 1/2 mile east.
- F. Archeological, Historical and Cultural Sites: None observed in the area.
- G. Land Use: Grazing and hunting in season.
- H. Surface Ownership: Wellsite is on Fee surface and owned by Caviness Cattle Account. Approximately 500 feet of the new road will be on fee surface.

11. OPERATOR'S REPRESENTATIVE:

The field representatives responsible for assuring compliance with the approved surface use and operations plan are as follows:

Lloyd J. Murphy
P. O. Box 2404
Hobbs, New Mexico 88240

Office phone: 505-676-2281
Car phone: 505-676-3362
Home phone: 505-392-8350

J. C. Raney
P. O. Drawer 1828
Midland, Texas 79702

Office phone: 915-682-7316
Home phone: 915-694-6991

12. CERTIFICATION:

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 Pennzoil Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

February 13, 1978
Date

J. C. Raney
Name J. C. Raney

Advanced Petroleum Engineer
Title

1.15 S.

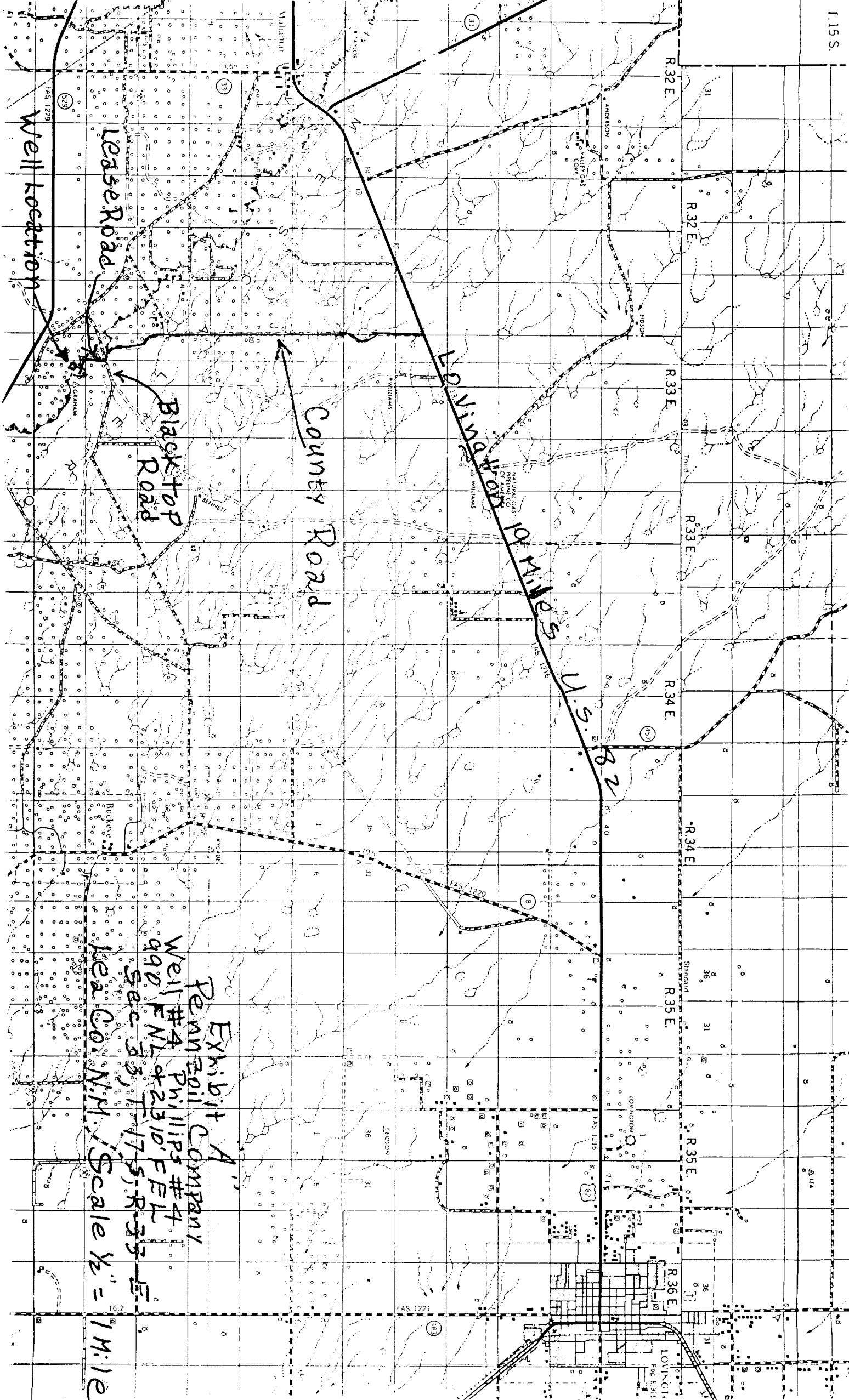
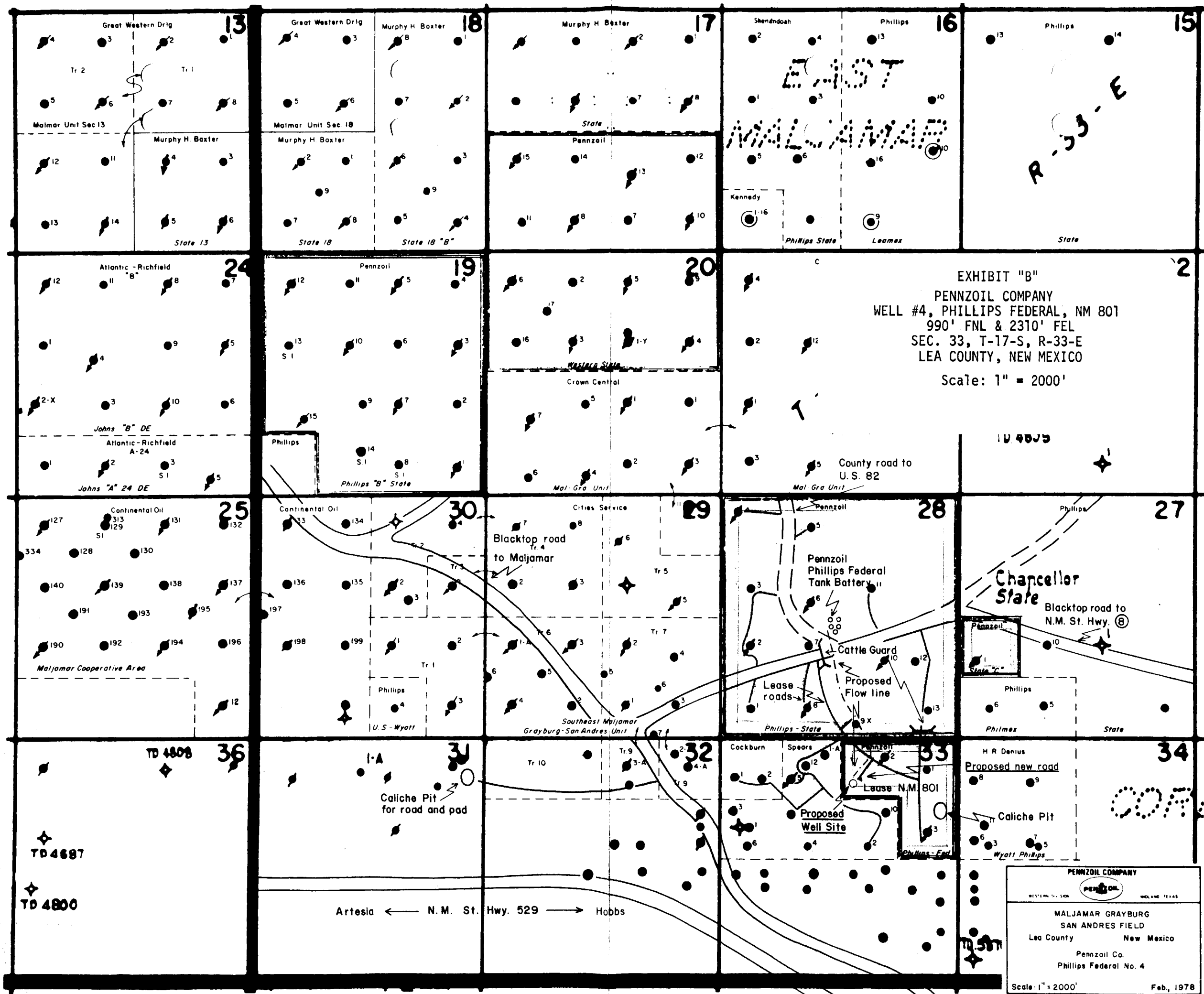


Exhibit A
Penn Oil Company
Well #4 Phillips #4
990 ENL & 2310 FEL
Sec 33, T17S, R33E
Scale 1/2" = 1 mile



NEW 100 OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form O-107
Supersedes O-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

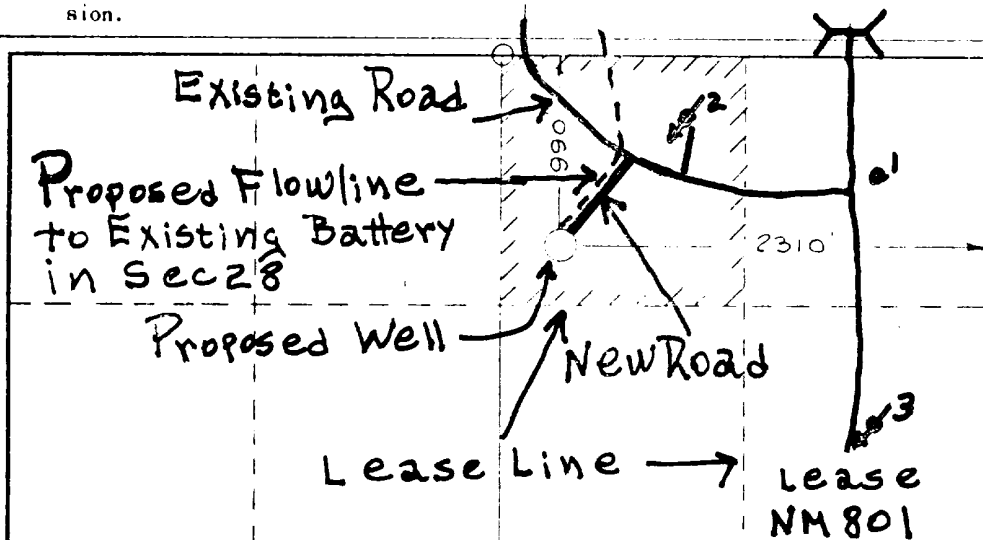
Operator PENNZOIL COMPANY		Lease Phillips - Federal		Well No. 4
Unit Letter B	Section 33	Township 17 South	Range 33 East	County Lea
Actual Footage Location of Well:				
990 feet from the North		2310 feet from the East		
Ground Level Elev. 4133	Producing Formation San Andres	Lease Maljamar - Grayburg		Section Acreage 40

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CERTIFICATION

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J. C. Raney

J. C. Raney

Advanced Petroleum Engineer

Pennzoil Company

February 13, 1978

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

January 30, 1978

Registered Professional Engineer
in the State of New Mexico

John W. Shearn

EXHIBIT "C"

PENNZOIL COMPANY
WELL #4, PHILLIPS FEDERAL, NM 801
990' FNL & 2310' FEL
SEC. 33, T-17-S, R-33-E
LEA COUNTY, NEW MEXICO

Scale: 1" = 2,000'

0 330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600

1559

PENNZOIL COMPANY

Phillips Federal No. 4
990' FNL & 2310' FEL
Sec. 33, T-17-S, R-33-E
Lea County, New Mexico

LEASE NM 801

AGREEMENT WITH LAND SURFACE OWNER

The Court House Records in Lovington, New Mexico reveal that the surface on which the proposed well is located is owned by the Caviness Cattle Account, Causey, New Mexico 88113.

On Monday, January 30, 1978 I met Mr. Gary Caviness of Maljamar, N. M., one of the brothers that owns the land on which the proposed well will be located at the drilling site. I discussed the drilling of this well and surface damages for the drilling pad and road (maximum amount of disturbed area is less than 2 acres). Mr. Caviness and I agreed on the amount that he would be paid for surface damages. Mr. Caviness and I agreed that in the event the well was non-productive or when the well was eventually plugged and abandoned, that Pennzoil Company would rip the drilling pad and unneeded access road.

A handwritten signature in black ink, appearing to read "J. Raney". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

U. S. Geological Survey

HOBBS DISTRICT

Pennzoil Company
No. 4 Phillips Federal
NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 33-17S-33E
Lea County, N. M.

Above Data Required on Well Sign

CONDITIONS OF APPROVAL

1. Drilling operations authorized are subject to compliance with the attached General Requirements for Drilling Operations on Federal Oil and Gas Leases, dated January 1, 1977.
2. Notify this office (telephone (505) 393-3612) when the well is to be spudded and in sufficient time for a representative to witness all cementing operations. Attached are names and telephone numbers of Geological Survey and Bureau of Land Management personnel who are available for consultation during construction, drilling, completion, and rehabilitation activities.
3. Immediate notice is required of all blowouts, fires, spills, and accidents involving life-threatening injuries or loss of life.
4. Secure prior approval of the District Engineer for variance from the approved drilling program and before commencing plugging operations, plug-back work, casing repair work, corrective cementing operations, or suspending drilling operations indefinitely.
5. Blowout prevention equipment is to be installed, tested, and in working order before drilling below the surface casing and shall be maintained ready for use until drilling operations are completed.
6. Operations must be in compliance with the provisions of the landowner agreement concerning surface disturbance and surface restoration.
7. 8-5/8" surface casing should be set in the Rustler Anhydrite formation and cement circulated to the surface. If surface casing is set at a lesser depth, the 4 $\frac{1}{2}$ " casing must be cemented from the casing shoe to the surface or cemented to the surface through a stage tool set at least 50 feet below the top of the Rustler, after cementing around the shoe with sufficient cement to fill to the base of the salt section.