NM OIL CONS. COMMISSION
Drawer DD
Artesia, NM 88210

30-015-27327

Form 3160-3
(November 1983)
(formerly 9-331C)

SUBMIT IN LICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

RECEIVED
FEB 26 1993
O. C. D.
ARTESIA, OFFICE

5. LEASE DESIGNATION AND SERIAL NO.: NM-18038

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: NEL

9. WELL NO.: 9

10. FIELD AND POOL, OR WILDCAT: UNDES. EAST LOVING DELAWARE

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SEC.9, T.23 S., R.28 E.

12. COUNTY OR PARISH: EDDY COUNTY

13. STATE: NEW MEXICO

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: POGO PRODUCING COMPANY

3. ADDRESS OF OPERATOR: P.O. BOX 10340, MIDLAND, TEXAS 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1980' FNL AND 1650' FEL OF SECTION 9
At proposed prod. zone:

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: TWO MILES NORTH OF LOVING, NEW MEXICO

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 330'

16. NO. OF ACRES IN LEASE: 1199.09

17. NO. OF ACRES ASSIGNED TO THIS WELL: 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.:

19. PROPOSED DEPTH: 6450'

20. ROTARY OR CABLE TOOLS: ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3044.6' GR

22. APPROX. DATE WORK WILL START*: UPON APPROVAL

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	550'	SUFFICIENT TO CIRCULATE
7-7/8"	5-1/2"	15.5#	6450'	SUFFICIENT TO CIRCULATE

AFTER SETTING PRODUCTION CASING, PAY ZONE WILL BE PERFORATED AND STIMULATED AS NECESSARY.

SEE ATTACHED FOR: SUPPLEMENTAL DRILLING DATA
BOP SKETCH
HYDROGEN SULFIDE DRILLING OPERATIONS PLAN
SURFACE USE AND OPERATIONS PLAN

JAN 25 10 59 AM '93
CARLSBAD, NEW MEXICO

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 Richard L Wright TITLE Division Operations Supr. DATE January 22, 1993

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY Orig. Signed by Richard L Manus TITLE _____ DATE 2-25-93

CONDITIONS OF APPROVAL, IF ANY:
APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

*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

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
POGO PRODUCING CO.	NEL	9

Unit Letter	Section	Township	Range	County
G	9	23 SOUTH	28 EAST NMPM	EDDY

Actual Footage Location of Well:
1980 feet from the NORTH line and 1650 feet from the EAST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3044.6'	DELAWARE	UNDES. EAST LOVING DELAWARE	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

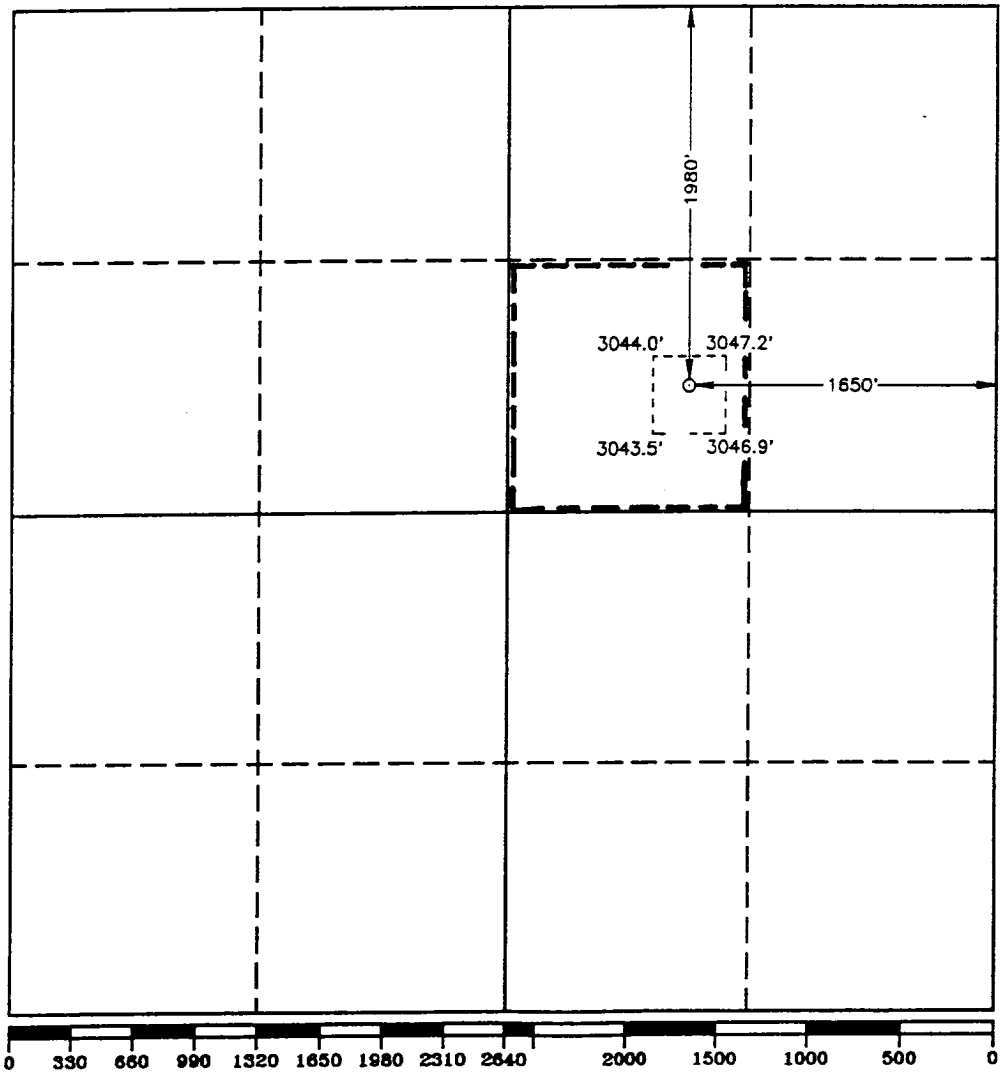
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest 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 of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary. _____

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



OPERATOR CERTIFICATION

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

Signature: Richard L. Wright

Printed Name: Richard L. Wright

Position: Division Operations Supr.

Company: POGO PRODUCING COMPANY

Date: January 22, 1993

SURVEYOR CERTIFICATION

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 supervison, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: SEPTEMBER 29, 1992

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. JOHN W. WEST. 676
RONALD J. EIDSON. 3239
GARY L. JONES. 7977

92-11-1468

SUPPLEMENTAL DRILLING DATA

POGO PRODUCING COMPANY
NEL WELL NO. 9

1. SURFACE FORMATION: Quaternary.

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Rustler	1025'
Base Salt	2420'
Delaware Lime	2570'
Bell Canyon	2610'
Cherry Canyon	3550'
Brushy Canyon	4700'

3. ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONES:

BRUSHY CANYON	Oil

4. PROPOSED CASING AND CEMENTING PROGRAMS:

CASING SIZE	SETTING DEPTH FROM	TO	WEIGHT	GRADE	JOINT
8-5/8"	0	550'	24#	J-55	STC
5-1/2	0	6450'	15.5#	J-55	STC

MINIMUM DESIGN FACTORS: COLLAPSE 1.125 BURST 1.1 TENSION 1.7

8-5/8" casing is to be cemented with approximately 200 sacks of Light cement tailed in with 200 sacks of Premium cement. Cement to circulate.

5-1/2" casing is to be cemented in two stages with stage tool set at about 3200 feet. First stage to be 350 sacks of 50-50 Poz A with 5# of salt per sack. Second stage is to be 600 sacks of Light cement with 5# salt per sack tailed in with 100 sacks of Premium. Cement to circulate.

5. PRESSURE CONTROL EQUIPMENT:

BOP stack will be 3000 psi working pressure.

A BOP sketch is attached.

6. CIRCULATING MEDIUM:

Surface to 550 feet: Fresh water gel and lime. Paper for seepage.
Weight: 8.4-8.6
Viscosity: 34-36
pH: 10-11

550 feet to total depth: Brine. Paper to control seepage. Lime to control pH.
Weight: 10.0-10.2
Viscosity: 28-32
Filtrate: 20-15 cc
pH: 9.5-10

7. AUXILIARY EQUIPMENT:

Geolograph from surface to total depth.

A mud logging trailer will be in use while drilling lower part of hole.

8. TESTING, LOGGING, AND CORING PROGRAMS:

No drill stem tests are planned.

Electric logs will include GR-CNL, Litho Density log, and Induction logs.

No coring is planned.

9. ABNORMAL PRESSURES, TEMPERATURES, OR HYDROGEN SULFIDE GAS:

No abnormal pressures or temperatures are anticipated.

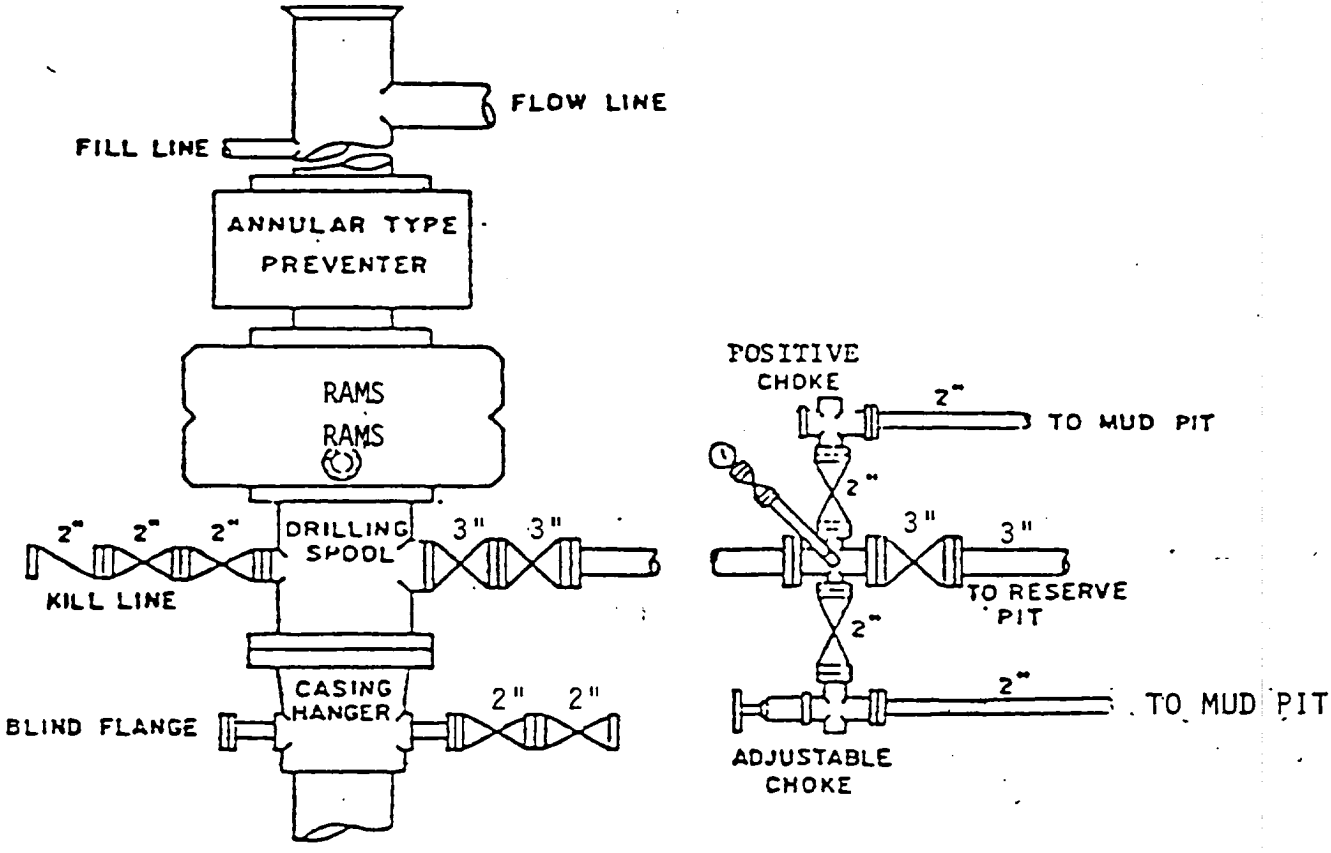
Inasmuch as hydrogen sulfide has been found present in this area, drilling operations are to be in accordance with the attached "HYDROGEN SULFIDE DRILLING OPERATIONS PLAN". Additional information concerning Emergency Reaction Steps, Ignition Procedures, Training Requirements, and Emergency Equipment Requirements will be available on location at the well site.

Expected bottom hole pressure is about 2700 psi.

Expected bottom hole temperature is about 110 degrees Fahr.

10. ANTICIPATED STARTING DATE:

Plans are that operations will commence upon approval of this application, with drilling and completion operations lasting about 30 days.



BOP STACK

3000 PSI WORKING PRESSURE

BOP ARRANGEMENT

POGO PRODUCING COMPANY

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

I. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H2S).

2. The proper use and maintenance of personal protective equipment and life support systems.

3. The proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.

4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.

2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.

3. The contents and requirements of the H2S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weeekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II. H2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S.

1. Well Control Equipment:

   A. Flare line with electronic igniter or continuous pilot.

   B. Choke manifold with a minimum of one remote choke.

   C. Blind rams and pipe rams to accomodate all pipe sizes with properly sized closing unit.

   D. Auxillary equipment to include: annular preventer, mud-gas separator, rotating head, and flare gun with flares.

2. Protective equipment for essential personnel:

   A. Mark II Surviveair 30-minute units located in the dog house and at briefing areas, as indicated on well site diagram.

3. H2S detection and monitoring equipment:

   A. 2 - portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.

   B. 1 - portable SO2 monitor positioned near flare line.

4. Visual warning systems:

   A. Wind direction indicators as shown on well site diagram.

   B. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

5. Mud program:

   A. The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

   B. A mud-gas separator and an H2S gas buster will be utilized.

6. Metallurgy:

A. All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitablel for H2S service.

B. All elastomers used for packing and seals shall be H2S trim.

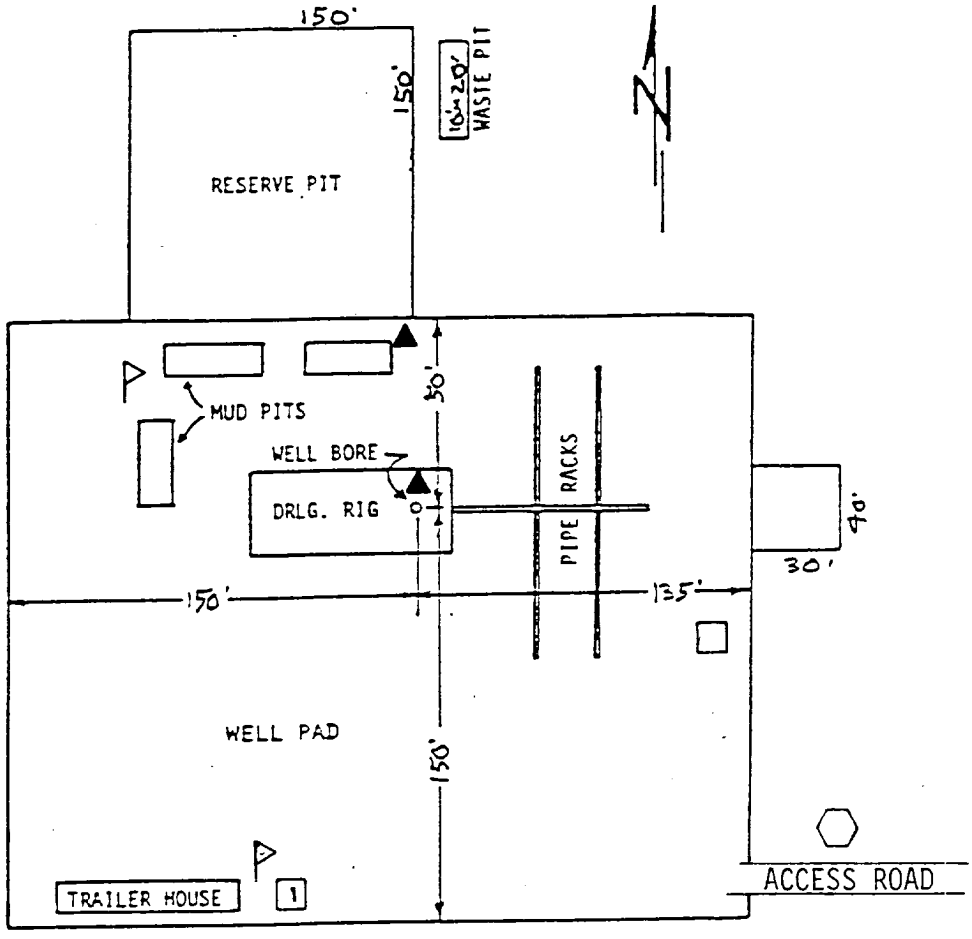
7. Communication:

A. Radio communications in company vehicles including cellular telephone and 2-way radio.

B. Land line (telephone) communications at field office.

8. Well testing:

A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill stem testing operations conducted in an H2S environment will use the closed chamber method of testing.



LEGEND:

- Caution/Danger Sign
- Briefing Area
- 1 Briefing Area - Primary
- H2S Monitor
- Wind Sock

Prevailing Wind
Direction - Southwest

POGO PRODUCING COMPANY
NEL WELL NO. 9

DRILLING RIG LAYOUT
SCALE: None

SURFACE USE AND OPERATIONS PLAN

FOR

POGO PRODUCING COMPANY
NEL WELL NO. 9
1980'FNL & 1650'FEL SEC.9, T.23 S., R.28 E.
EDDY COUNTY, NEW MEXICO

LOCATED: Two miles north of Loving, New Mexico.

FEDERAL LEASE NUMBER: NM-18038.

LEASE DATE: April 1, 1973. Lease is in producing status by communitization.

ACRES IN LEASE: 1199.09.

RECORD LESSEE: Pogo Producing Company.

SURFACE OWNERSHIP: Federal.

GRAZING PERMITTEE: Curtis K. Skeen
1508 Riverside Drive
Carlsbad, New mexico 88220

POOL: Undesignated East Loving Delaware.

POOL RULES: Statewide. 40 acre spacing for oil.

EXHIBITS: A. Road Map
B. Plat Showing Existing Wells and Existing Roads
C. Drilling Rig Layout
D. Topo Plat

1. EXISTING ROADS:

A. Exhibit "A" is a portion of a road map showing the location of the proposed well as staked. Point "A" on the plat is on US-285 at Milepost 23.4, approximately 10 miles southeast of Carlsbad, New Mexico, where State highway 31 goes east. To go to the proposed well site from this point, go east on State 31 two miles to Milepost 2 where a caliche road goes north. Exit State 31 to the north through the cattle guard (also see Exhibits "B" and "D") and go 0.4 mile to arrive at Pogo's NEL COM No. 1 on the west side of the road at about 120 feet. Continue north about 0.25 mile and the proposed well site will be on the west side of the road at about 1000 feet.

B. Exhibit "B" shows existing pertinent roads in the vicinity of the proposed well site. Existing roads are color coded.

2. PLANNED ACCESS ROAD:

A. Length and Width: The access route, north off State highway 31, is shown on Exhibits "A", "B", and "D". The new road will be 12 feet wide and about 900 feet long, and is shown labeled and color coded red on Exhibit "B". The center line of the proposed new road is staked and flagged.

B. Surfacing Material: Caliche will be used if the on-site material is not suitable.

C. Maximum Grade: Less than one percent.

D. Turnouts: Not needed.

E. Drainage Design: The new road will be crowned with drainage to the side.

F. Culverts: None needed.

G. Cuts and Fills: Not required.

H. Gates and Cattle Guards: None needed. No fences involved.

3. LOCATION OF EXISTING WELLS:

A. Existing wells in the immediate area are shown on Exhibit "B".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A. Necessary production facilities for this well will be located on the well pad.

5. LOCATION ANF TYPE OF WATER SUPPLY:

A. It is not planned that a water well will be drilled. Water necessary for drilling operations will be purchased and trucked to the well site, or will be moved to the well site by temporary pipeline laid on the ground alongside existing and proposed roads.

6. SOURCE OF CONSTRUCTION MATERIALS:

A. Caliche needed for construction work will be taken, if present, from a pit opened on-site within the archaeologically cleared work area. Otherwise, caliche will be taken from an existing pit on privately owned land in the NW¼SW¼ of Section 10, T.23 S., R.28 E., Eddy County, New Mexico, and will be trucked to the well site over existing and proposed roads.

7. METHODS OF HANDLING WASTE MATERIAL:

A. Drill cuttings will be disposed of in the drilling pits.

B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.

C. Water produced during tests will be disposed of in the drilling pits or will be stored in tanks for disposal in an approved disposal system.

D. Oil produced during tests will be stored in test tanks until sold.

E. All trash, junk, and other waste material will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary land fill.

8. ANCILLARY FACILITIES:

A. None necessary.

9. WELL SITE LAYOUT:

A. Exhibit "C" shows the relative location and dimensions of the well pad, mud pits, reserve pit, and waste pit, and the location of major drilling rig components.

B. Clearing and levelling of the pad and pit area will be necessary.

C. The pad and pit area is staked and flagged.

10. 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 the location will be cleaned of all trash and junk to leave the well site in an as aesthetically pleasing condition as possible.

B. Any unguarded pits containing fluids will be fenced until the pits are dry.

C. After abandonment, all equipment, trash and junk will be removed and and the well site will be cleaned. Any special rehabilitation and/or special revegetation requirements of the surface management agency will be complied with and will be accomplished as rapidly as possible.

11. OTHER INFORMATION:

A. Topography: The general area of the proposed well site is a gently undulating landscape. In the immediate area of the well site land slope is to the west and north.

B. Soil: Top soil in the immediate area of the well site is a gravelly loam.

C. Flora and Fauna: The vegetative cover is moderate and includes mesquite, snake weed, other desert plants, and range grasses. Wildlife in the area is that typical of semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, dove and quail.

D. Ponds and Streams: The Pecos River at its nearest point is about 0.4 mile west-northwest. There are no other ponds or streams in the area.

E. Residences or Other Structures: The nearest occupied dwelling is about 0.5 mile southwest.

F. Archaeological, Historical, and Cultural Sites: None observed. However, an archaeological reconnaissance is to be accomplished and a report furnished.

G. Land Use: Grazing and wildlife habitat.

H. Surface Ownership: Federal.

12. OPERATOR's REPRESENTATIVE:

Richard L. Wright
Division Operations Supervisor
Pogo Producing Company
P. O. Box 10340
Midland, Texas 79702
Office Phone: 915-682-6822

13. CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently 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 Pogo Producing Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

January 25, 1993
Date:

Richard L. Wright
Division Operations Supervisor

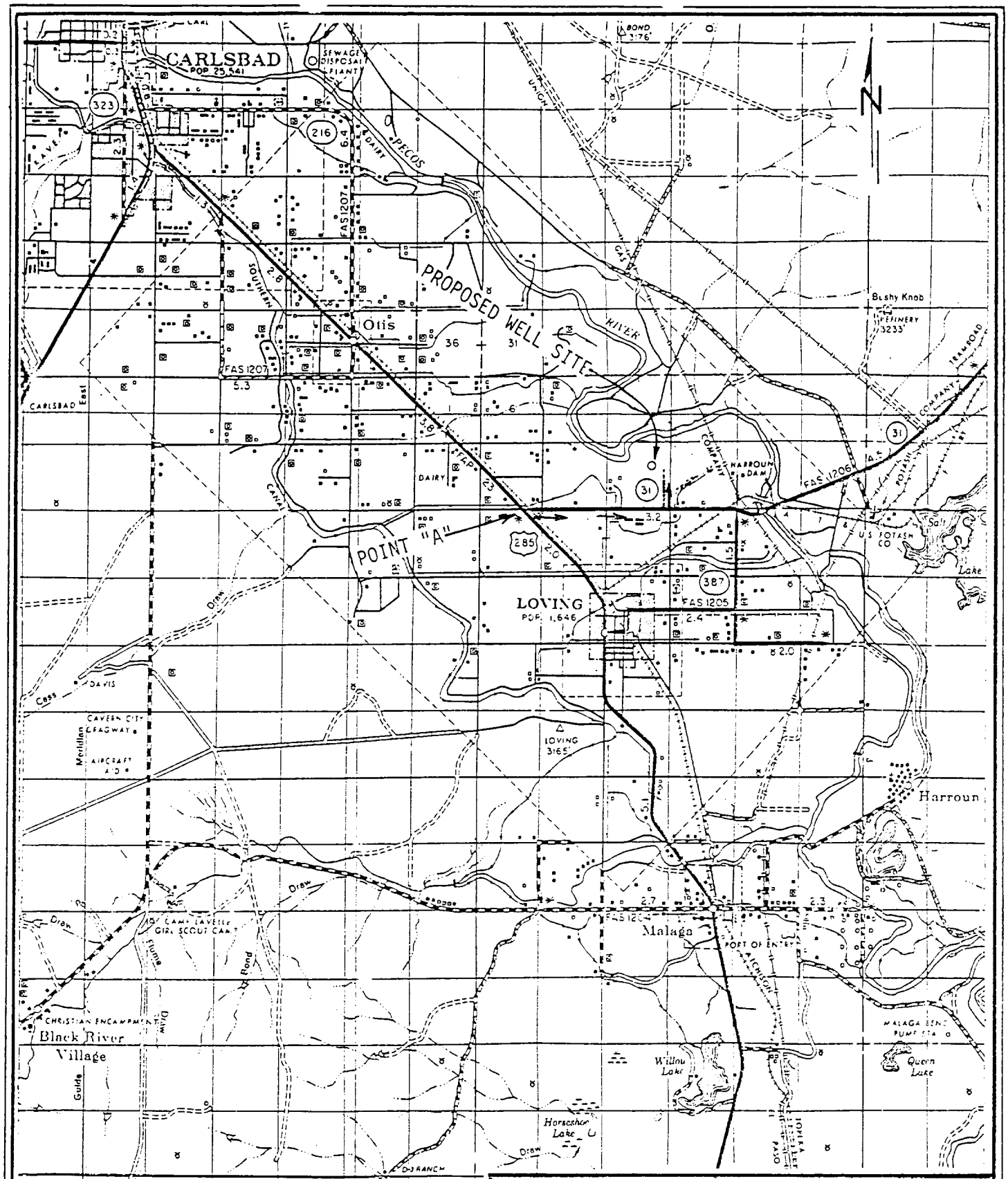


EXHIBIT "A"

POGO PRODUCING COMPANY
NEL LEASE WELL NO. 9
1980'FNL & 1650'FEL SEC.9, T.23 S., R.28 E.
EDDY COUNTY, N.M. SCALE: 1/2" = 1 MI.

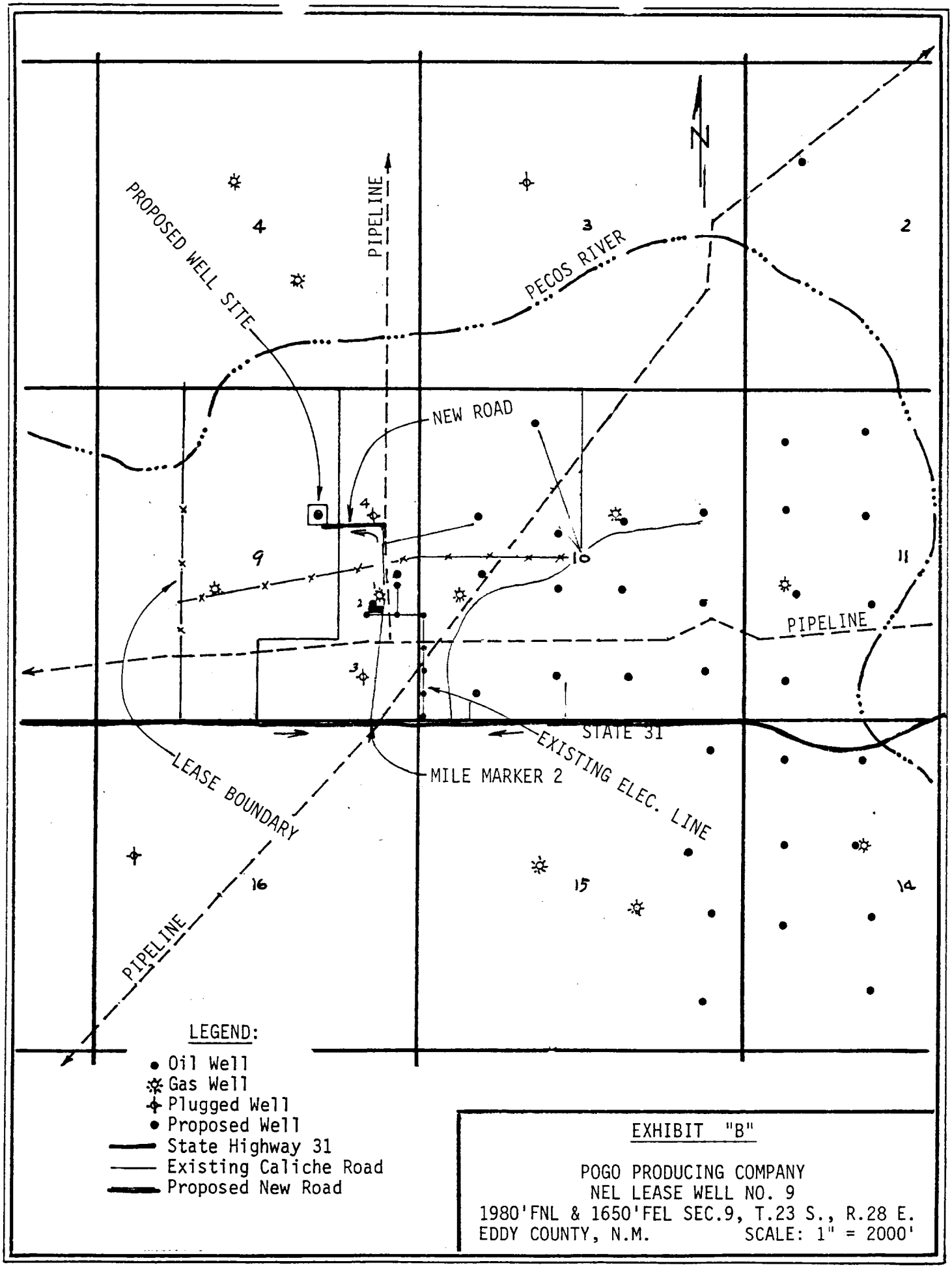


EXHIBIT "B"

POGO PRODUCING COMPANY
NEL LEASE WELL NO. 9
1980'FNL & 1650'FEL SEC.9, T.23 S., R.28 E.
EDDY COUNTY, N.M. SCALE: 1" = 2000'

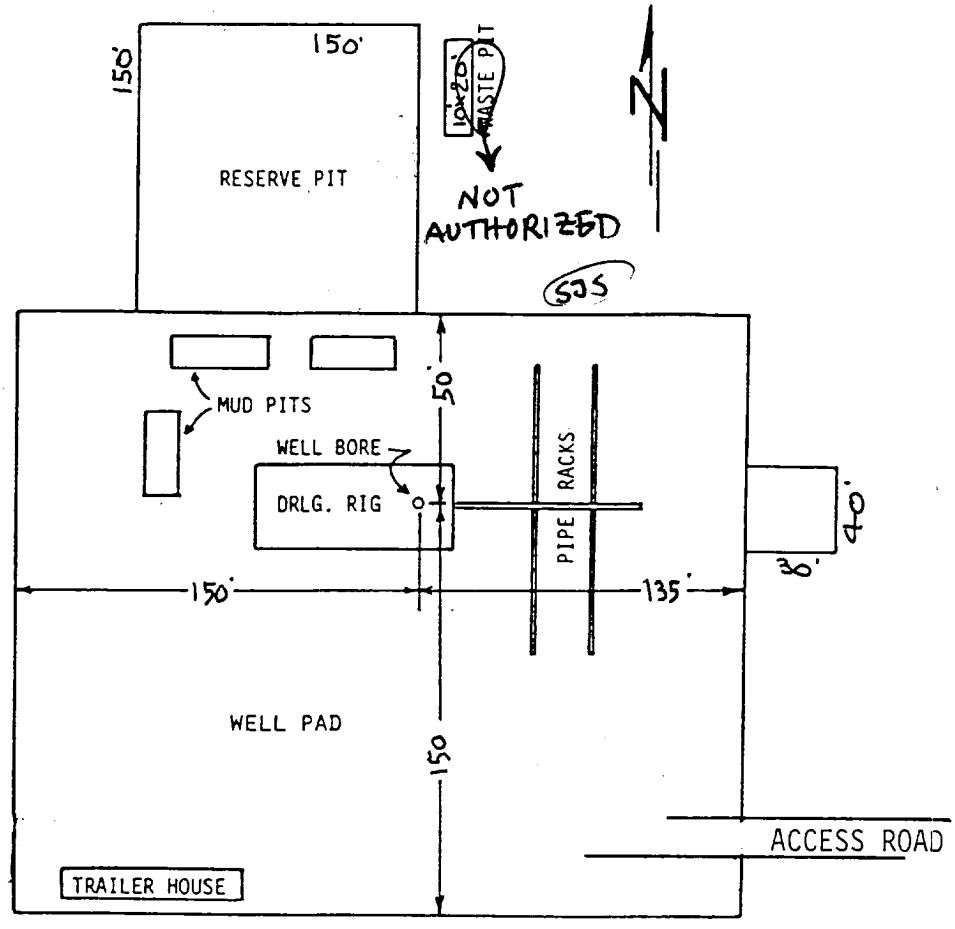


EXHIBIT "C"

POGO PRODUCING COMPANY
NEL WELL NO. 9

DRILLING RIG LAYOUT
SCALE: None

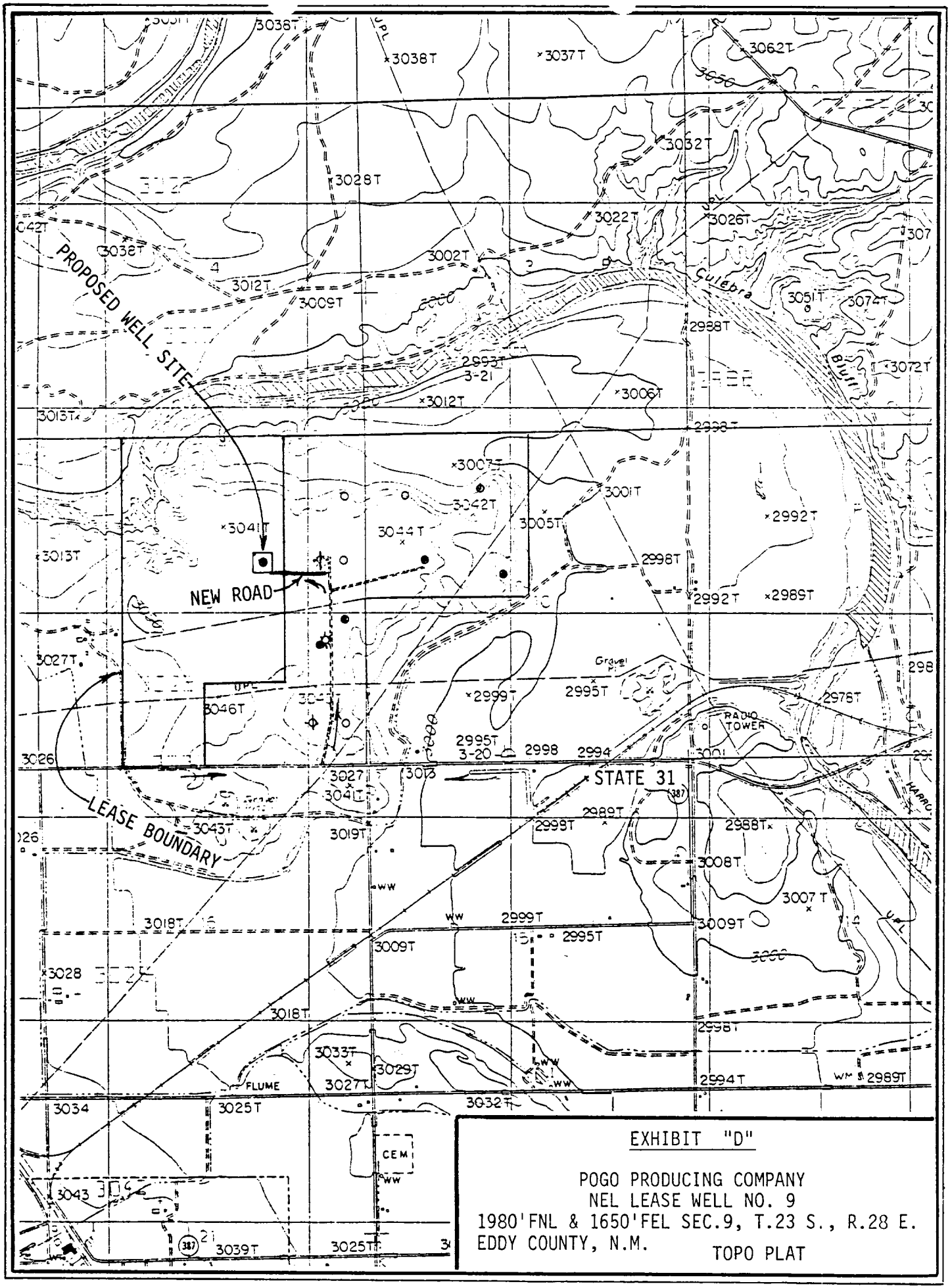


EXHIBIT "D"

POGO PRODUCING COMPANY
NEL LEASE WELL NO. 9
1980'FNL & 1650'FEL SEC.9, T.23 S., R.28 E.
EDDY COUNTY, N.M.
TOPO PLAT