

New Mexico SUBMITTAL Division District 7  
1005 To French Drive  
Hobbs, NM 88240  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTSUBMIT IN TRIPLICATE\*  
(Other instructions on  
reverse side)FORM APPROVED  
OMB NO. 1004-0136  
Expires: February 28, 1995

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. <b>NM-770601</b>
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR <b>Pogo Producing Company</b>		7. UNIT AGREEMENT NAME
3. ADDRESS AND TELEPHONE NO. <b>P. O. Box 10340, Midland, TX 79702-7340 (915)685-8100</b>		8. FARM OR LEASE NAME, WELL NO. <b>Red Tank 33 Federal #2</b>
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface <b>1650' FNL &amp; 660' FEL, Section 33</b> At proposed prod. zone <b>Same</b>		9. API WELL NO. <b>30-025-36062</b>
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* <b>30 air miles west of Eunice, NM</b>		10. FIELD AND POOL, OR WILDCAT <b>W. Red Tank Delaware</b>
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drg. unit line, if any) <b>1650'</b>	16. NO. OF ACRES IN LEASE <b>1160</b>	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <b>Section 33, T22S, R32E</b>
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. <b>840'</b>	19. PROPOSED DEPTH <b>9000'</b>	12. COUNTY OR PARISH <b>Lea</b>
21. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>3610' GR</b>		13. STATE <b>NM</b>
23. PROPOSED CASING AND CEMENTING PROGRAM		20. ROTARY OR CABLE TOOLS <b>Rotary</b>
22. APPROX. DATE WORK WILL START* <b>Upon approval</b>		

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2	13-3/8	54.5#	800'	sufficient to circulate
11	8-5/8	32#	4500'	sufficient to circulate
7-7/8	5-1/2	17#	9000'	to tie back 200' into 8-5/8

Per Conditions Of Approval

After setting production casing, pay zone will be perforated and stimulated as necessary.

See attached for:  
Supplemental drilling data  
BOP Sketch  
Surface use and operations plan  
Hydrogen sulfide drilling operations planOPER. OGRID NO. **17891**  
PROPERTY NO. **17271**  
POOL CODE **51689**  
EFF. DATE **12-2-02**  
API NO. **30-025-36062**APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

IN ABOVE SPACE DESCRIBE PROGRAM: If proposal is to deepen, 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 <u>Cathy Lambert</u>	TITLE <u>Sr. Operation Tech</u>	DATE <u>10/09/02</u>
(This space for Federal or State office use)		
PERMIT NO. <u>Chin Williams</u>	APPROVAL DATE _____	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
CONDITIONS OF APPROVAL, IF ANY:APPROVED BY /s/ MARIA KETSON FOR FIELD MANAGER DATE NOV 29 2002

\*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

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.

BUREAU OF LAND MANAGEMENT  
ROSWELL OFFICE

2002 OCT 10 AM 9:06

RECEIVED

WYOMING

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Instruction on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-025-36062</b>	Pool Code <b>51689</b>	Pool Name <b>UNDES. WEST RED TANK DELAWARE</b>
Property Code <b>17271</b>	Property Name <b>RED TANK "33" FEDERAL</b>	Well Number <b>2</b>
OGRID No. <b>17891</b>	Operator Name <b>POGO PRODUCING CO.</b>	Elevation <b>3610</b>

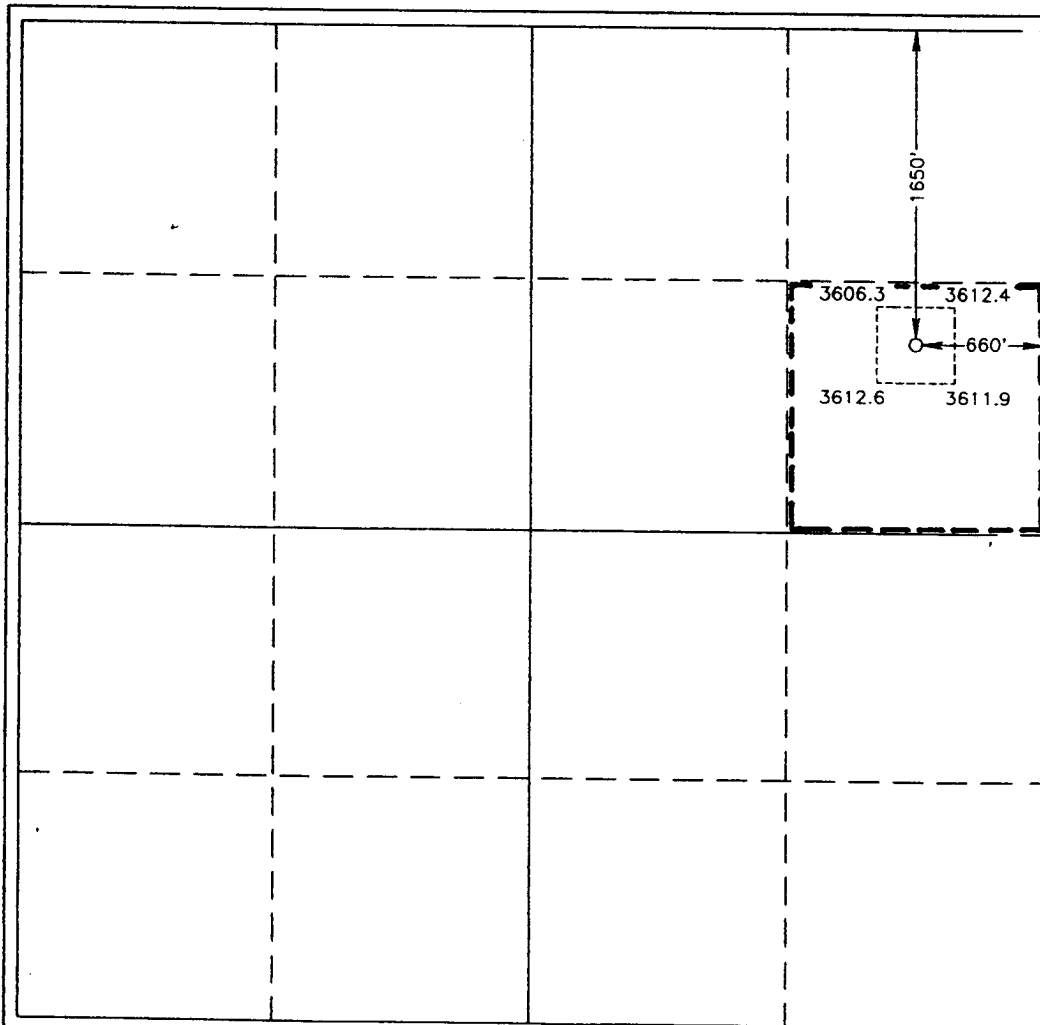
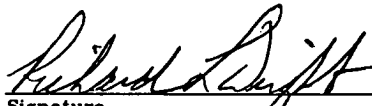
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>H</b>	<b>33</b>	<b>22 S</b>	<b>32 E</b>		<b>1650</b>	<b>NORTH</b>	<b>660</b>	<b>EAST</b>	<b>LEA</b>

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres <b>40</b>	Joint or Infill <b>N</b>	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<b>OPERATOR CERTIFICATION</b>  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  Division Operations Mgr. Title  June 15, 1995 Date
	<b>SURVEYOR CERTIFICATION</b>  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 belief.  FEBRUARY 20, 1995 Date Surveyed  G. EIDSON Signature  Professional Surveyor Seal of NEW MEXICO 12641 3-30-95 W.C. Num. 95-12641 Certificate  JOAN K. WEST EIDSON 12641

SUPPLEMENTAL DRILLING DATA  
POGO PRODUCING COMPANY  
RED TANK 33 FEDERAL WELL NO. 2

1. SURFACE FORMATION: Quaternary.

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Anhydrite	800'
Delaware Lime	4700'
Cherry Canyon	6100'
Brushy Canyon	7400'
Bone Springs	8800'

3. ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONES:

Delaware	Oil
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4. PROPOSED CASING AND CEMENTING PROGRAM:

CASING SIZE	SETTING DEPTH		WEIGHT	GRADE	JOINT
	FROM	TO			
13-3/8"	0	800'	54.5#	J-55	STC
8-5/8"	0	4300'	32#	J-55	STC
"	4300'	4500'	32#	S-80	STC
5-1/2"	0	1000'	17#	N-80	LTC
"	1000'	7000'	17#	J-55	LTC
"	7000'	9000'	17#	N-80	LTC

MINIMUM  
 DESIGN FACTORS: COLLAPSE 1.1 BURST 1.1 TENSION 1.2

13-3/8" casing to be cemented with 500 sacks of light cement tailed in with 200 sacks of Class "C" with 2% CaCl. Cement to circulate.

8-5/8" casing to be cemented with 1200 sacks of light cement with 10% salt tailed in with 200 sacks of premium cement with 1% CaCl. Cement to circulate.

5-1/2" production casing is to be cemented with approximately 500 sacks

of light cement followed by 400 sacks of premium cement. Cement to tie back to 3600 feet.

If, during drilling operations, need for stage cementing of casing is indicated, staging tool(s) will be run and positioned to best suit hole conditions at time casing is run.

Cement volumes may be adjusted and cement may have lost circulation and/or other additives depending on hole conditions at the time casing is run.

5. PRESSURE CONTROL EQUIPMENT:

Blowout prevention equipment, while drilling the 11" hole, will be either a 3000 psi working pressure double ram type preventer or a 3000 psi working pressure annular type preventer.

Blow out prevention equipment, while drilling below the 8-5/8" casing seat, will be a 3000 psi working pressure BOP stack. A BOP sketch is attached.

6. CIRCULATING MEDIUM:

Surface to 800 feet: Fresh water base fluid with gel and paper sweeps for hole cleaning.  
Mud wgt 8.4 ppg - 8.6 ppg  
Viscosity 28 - 32 seconds per quart.

800 feet to 4500 feet: Brine water base fluid with salt gel and paper sweeps for hole cleaning.  
Mud wgt 10.0 ppg - 10.2 ppg  
Viscosity 28 - 32 seconds per quart.

4500 feet to T.D.: Fresh water base fluid with gel and paper sweeps for hole cleaning.  
Mud wgt 8.4 ppg - 8.6 ppg  
Viscosity 28 - 32 seconds per quart.

7. AUXILIARY EQUIPMENT:

A mud logging trailer will be in use while drilling below the interdediate casing.

8. TESTING, LOGGING, AND CORING PROGRAM:

Drill stem tests will be made when well data indicate a test is warranted.

It is planned that electric logs will include GR-CNL-Density logs and GR-DLL logs.

No coring is planned.

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

No abnormal pressures or temperatures are expected.

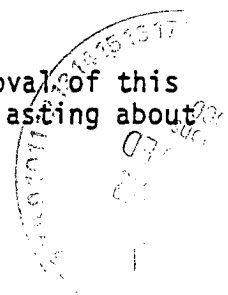
Expected bottom hole pressure is about 3600 psi.

Expected bottom hole temperature is about 125 degrees Fahr.

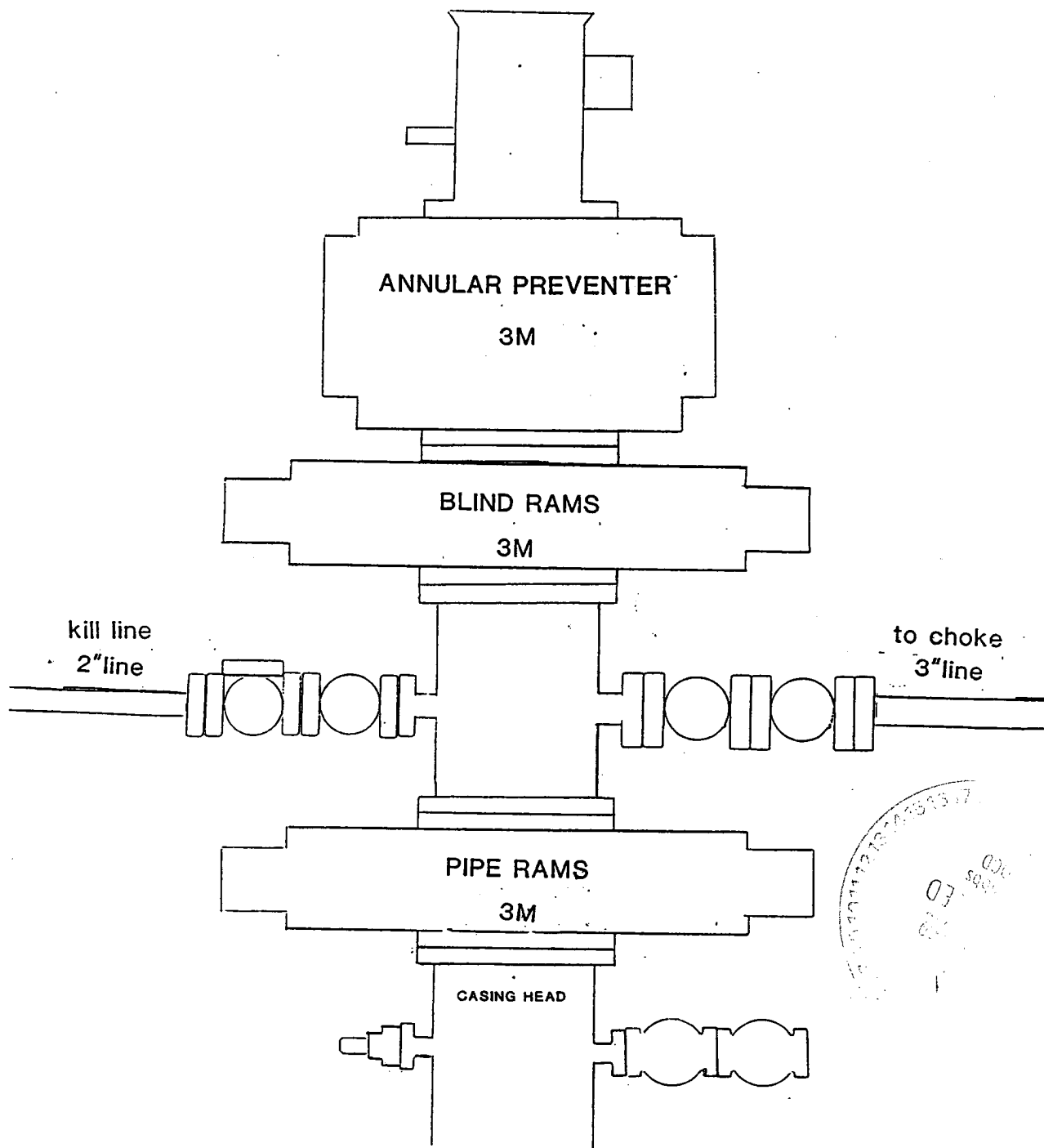
No hydrogen sulfide gas is expected. The production stream of Pogo Producing Company's wells in this area have been tested specifically for hydrogen sulfide gas and test results were negative. However, since it is possible that low-volume hydrogen sulfide gas may be present in permeable water zones of the Castile formation, drilling operations below the surface casing will be in accordance with the attached "HYDROGEN SULFIDE DRILLING OPERATIONS PLAN" until intermediate casing is set and cemented and this possible source of hydrogen sulfide gas is cased off.

10. ANTICIPATED STARTING DATE:

It is planned that operations will commence upon approval of this application, with drilling and completion operations lasting about 30 days.



POGO PRODUCING COMPANY  
RED TANK 33 FEDERAL WELL NO. 2

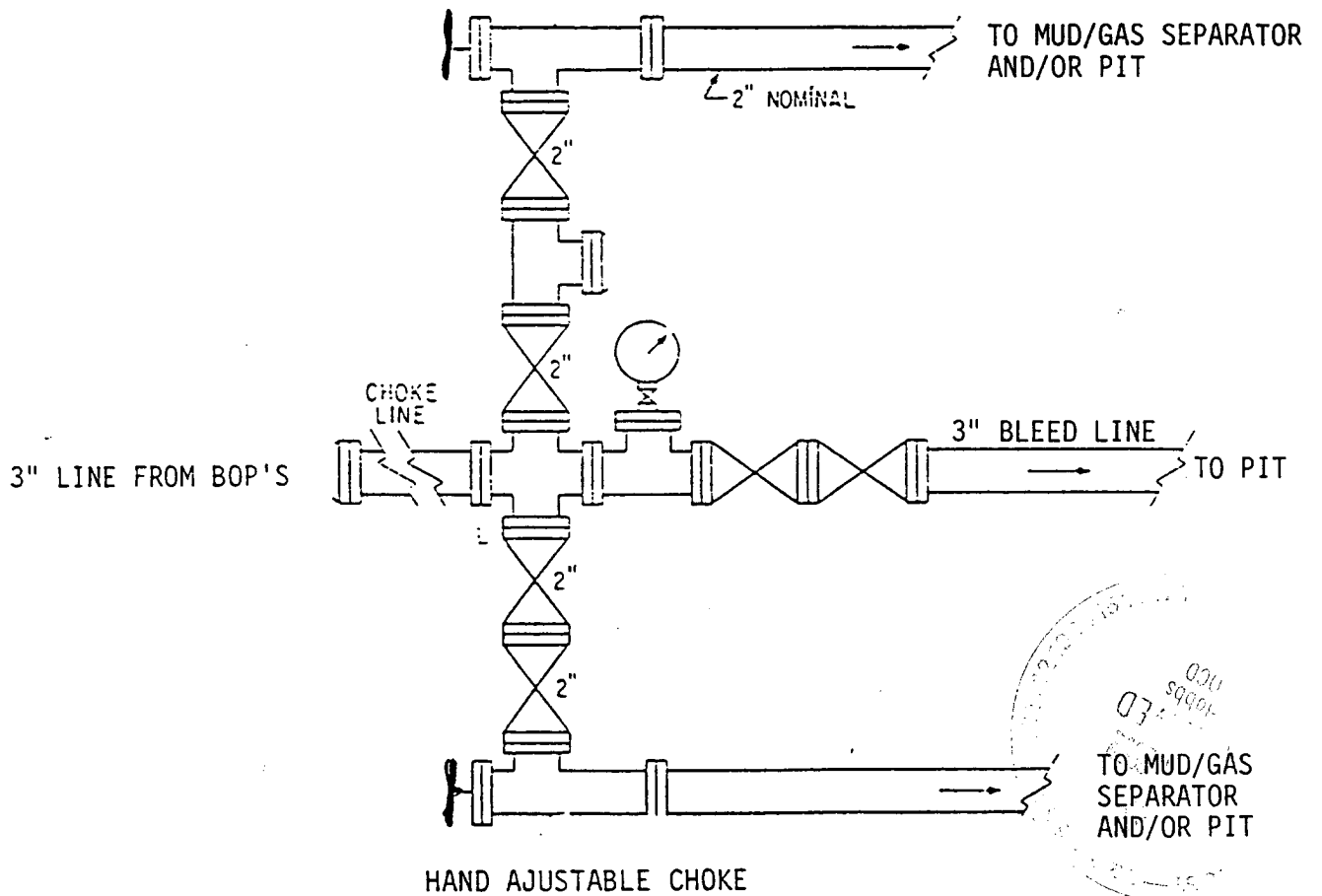


# POGO PRODUCING CO

## 3M CHOKE MANIFOLD

RED TANK 33 FEDERAL WELL NO. 2

HAND AJUSTABLE CHOKE



## HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

### APPLICABILITY:

The provisions of this plan are effective when drilling operations are conducted in areas where zones may be penetrated that are known to contain, or may be reasonably expected to contain, hydrogen sulfide gas in concentrations of 100 parts per million or more.

### TRAINING REQUIREMENTS:

A. When conducting drilling operations in an area where hydrogen sulfide gas might be encountered, all personnel at the well site will have had proper training in the following areas:

1. The hazards and characteristics of hydrogen sulfide gas (H<sub>2</sub>S).
2. Toxicity of hydrogen sulfide and sulfur dioxide.
3. Hydrogen sulfide gas detectors, warning systems, evacuation procedures, and proper use and maintenance of personal protective equipment.
4. Proper rescue procedures, first aid, and artificial respiration.

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

1. The effects of hydrogen sulfide 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 Hydrogen Sulfide Drilling Operations Plan and the Public Protection Plan.

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

WELL SITE DIAGRAM:

A. Attached is a detailed well site diagram showing:

- Drilling rig orientation
- Prevailing wind direction (Southwest)
- Location of briefing areas
- Location of Caution/Danger Signs
- Location of hydrogen sulfide monitors
- Location of wind direction Indicators

HYDROGEN SULFIDE SAFETY EQUIPMENT:

- A. All safety equipment and systems will be installed, tested, and deemed operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone reasonably expected to contain hydrogen sulfide.
- B. During drilling operations, a flare line will be routed from the BOP manifold to the reserve pit. Should suspected sour gas be vented through the flare line, a flare pistol will be used to ignite the flare.
- C. Protective equipment for essential personnel will be installed and maintained as follows:
1. 30-minute air packs will be maintained on the rig floor and near the briefing area.
  2. 30-minute work units will be maintained at the H2S trailer and/or on the rig floor.
  3. 30-minute escape units will be maintained on the rig floor.
  4. 300 cu.ft. air cylinders will be maintained in the H2S trailer.
  5. Associated breathing air equipment will also be installed and maintained.
  6. Hydrogen sulfide monitor will be located in the dog house on the rig floor with sensors placed on the rig floor, at the bell nipple, the shale shaker, and in the pit area.
  7. An audible /visual alarm will be located near the dog house on the rig floor.

VISUAL WARNING SYSTEMS:

- A. High visibility Caution/Danger signs will be posted on roads providing direct access to the well location.
- B. Green, yellow, and red condition flags to be displayed to denote Normal Conditions, Potential Danger, and Danger, H2S Present.
- C. Wind socks to be located at the protection center and in the pit area to continuously indicate wind direction.

CIRCULATING MEDIUM:

- A. Drilling fluid to be conditioned to minimize the volume of H2S circulated to the surface,

SPECIAL WELL CONTROL EQUIPMENT:

- A. In addition to the normal BOP stack and choke manifold, a drilling head will be used to help control an H2S contaminated drilling fluid.

WELL TESTING:

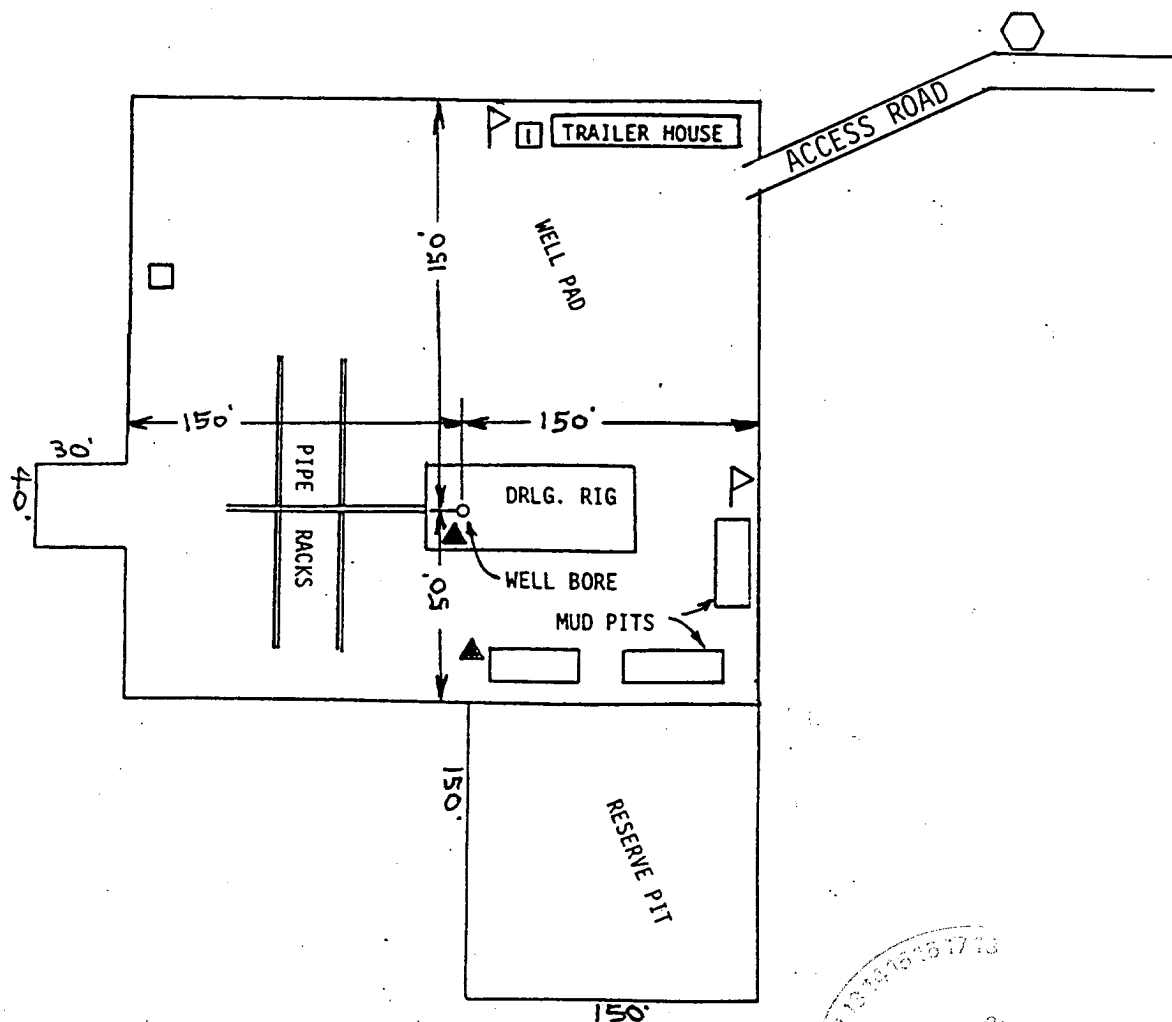
- A. Drill stem testing of zones known, or reasonably expected, to contain hydrogen sulfide in concentrations of 100 ppm or more will use the closed chamber method of testing.

COMMUNICATION:

- A. Radio communication will be available at the drilling rig and also in company vehicles.

ADDITIONAL INFORMATION:

- A. Additional information concerning Emergency Reaction Steps, Ignition Procedures, Training Requirements, and Emergency Equipment Requirements will be available on location at the well site.



LEGEND:

- ⬡ Caution/Danger Sign
- Briefing Area
- Briefing Area - Primary
- ▲ H2S Monitor
- ▷ Wind Sock

Prevailing Wind  
Direction - Southwest

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN  
DRILL SITE DIAGRAM

POGO PRODUCING COMPANY  
RED TANK 33 FEDERAL WELL NO. 2

SCALE: None

SURFACE USE AND OPERATIONS PLAN

FOR

POGO PRODUCING COMPANY  
RED TANK 33 FEDERAL WELL NO. 2  
1650' FNL & 660' FEL SEC. 33, T. 22 S., R. 32 E.  
LEA COUNTY, NEW MEXICO

LOCATED: 30 miles west of Eunice, New Mexico.

FEDERAL LEASE NUMBER: NM-77060.

LEASE DATE: September 1, 1988.

ACRES IN LEASE: 1160.

SURFACE OWNERSHIP: Federal.

GRAZING PERMITTEE: J. C. Mills  
P. O. Box 190  
Abernathy, Texas 79311

POOL: Undesignated West Red Tank Delaware.

POOL RULES: Statewide Rules. 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. The proposed well site can be reached by, either going south off US 62-180, or by going north off State 128. Point "A" on the plat is on 62-180 at Milepost 66.8, approximately 38 miles west of Hobbs, New Mexico, where Lea County road C-29 goes south. Also see Exhibits "B" and "D". To go to the proposed well site from this point, exit 62-180 to the south on the paved road and go 14 miles to where Eddy 797 (Mills Ranch road) goes southwest and a caliche road goes northeast (Point "B"). Turn northeast and go, mainly easterly, 5.2 miles to where a caliche road goes southeast. Turn southeast and go 1.7 miles to arrive at Pogo Producing Company's Red Tank 34 Federal well No. 1. Turn west and go 0.5 mile, passing well No. 14 at 0.2 mile, to arrive at well No. 13. The proposed well site is 1240 feet south and 1320 feet west of this well.

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

### 2. PLANNED ACCESS ROAD:

A. Length and Width: The new road will be 12 feet wide and about 1900 feet long, and is shown labeled and color coded red on Exhibit "B". The centerline of the proposed new road is staked and flagged.

B. Surfacing Material: Caliche. Watered, compacted and graded.

C. Maximum Grade: Approximately two percent.

D. Road Turnouts: Probably two.

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

F. Culverts: Not needed.

G. Cuts and Fills: Not necessary.

H. Gates and Cattle Guards: A cattle guard is to be installed in the fence which parallels the west line of section 34 as indicated on Exhibit "B".

### 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. Production from this well will be delivered to the existing tank battery located on the well pad at well No. 2. The flow line will be 3" SDR-7

polyethylene pipe laid on the ground alongside existing and proposed roads and extend from the well to the tank battery as indicated on Exhibit "B". The anticipated flow line pressure is about 60 psi.

B. An electric power line is planned for construction alongside the planned access road, as shown on Exhibit "B", to extend from the proposed well site east to near proposed well No. 15 and then northeast to the existing line at well No. 13. The electric line is to be 3-phase primary at 12,470 volts with step-down transformers at the well site.

#### 5. LOCATION AND 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 400'x 400' work area. Otherwise, caliche will be taken from an existing pit on State land in Section 16, T.22 S., R.32 E., Lea 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, and reserve pits, and the location of major drilling rig components.

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

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 from the well site. 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.

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

11. OTHER INFORMATION:

A. Topography: The land surface in the general area is gently undulating and dunny. In the immediate area of the well site the land surface slopes gently to the northwest. Regionally, drainage is to the west and southwest.

B. Soil: Top soil at the well site is sand.

C. Flora and Fauna: The vegetative cover is moderate and includes mesquite, shinnery oak, sand sage, yucca, weeds, 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: There are no rivers, lakes, ponds, or streams in the area.

E. Residences and Other Structures: There are no occupied dwellings or other structures within a mile of the proposed well site.

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

G. Land Use: Grazing and wildlife habitat.

H. Surface Ownership: Federal.

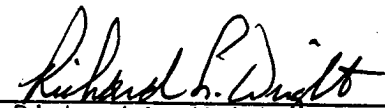
12. OPERATOR'S REPRESENTATIVE:

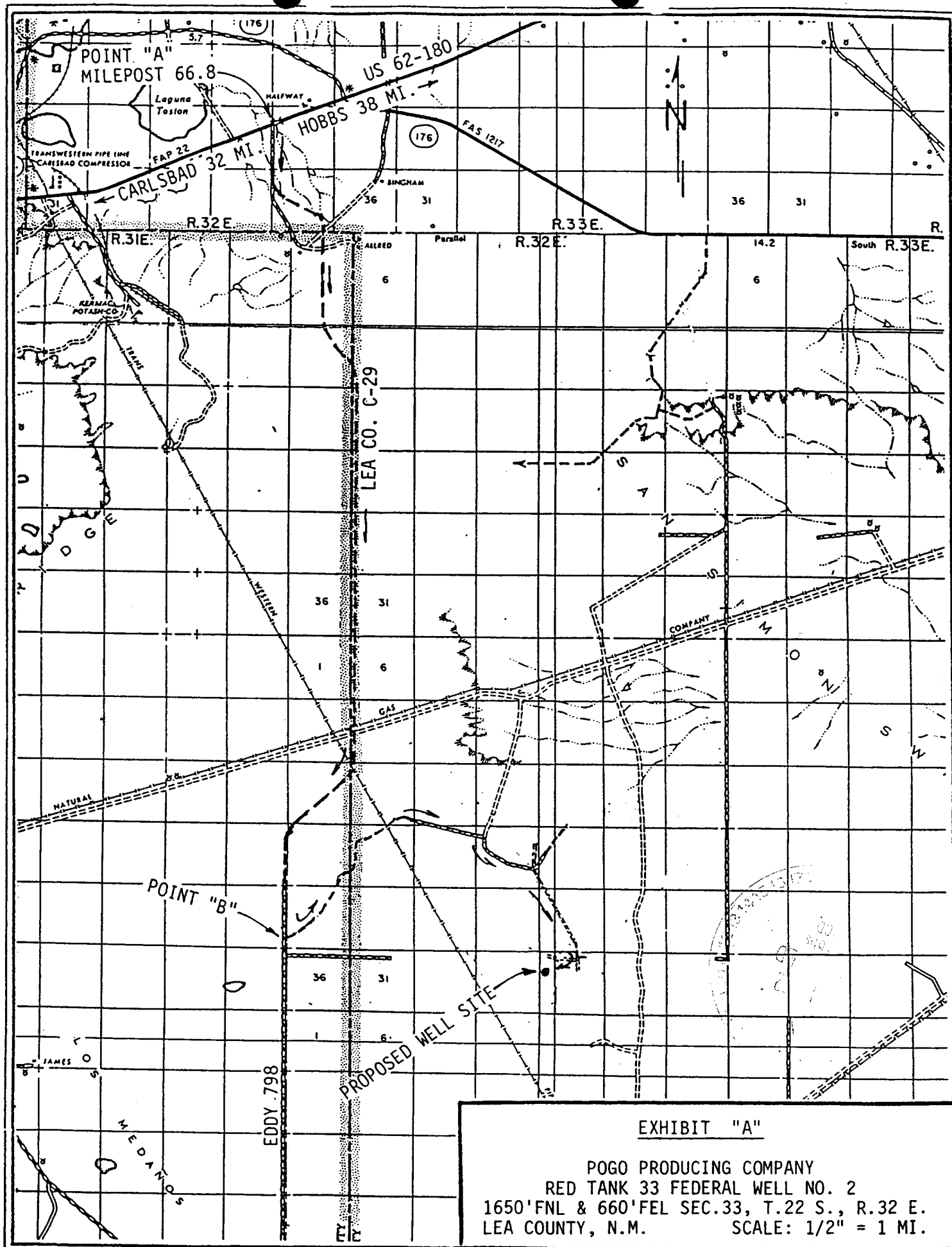
Richard L. Wright  
Division Operations Manager  
Pogo Producing Company  
P. O. Box 10340  
Midland, Texas 79702  
Office Phone: 915- 685-8100

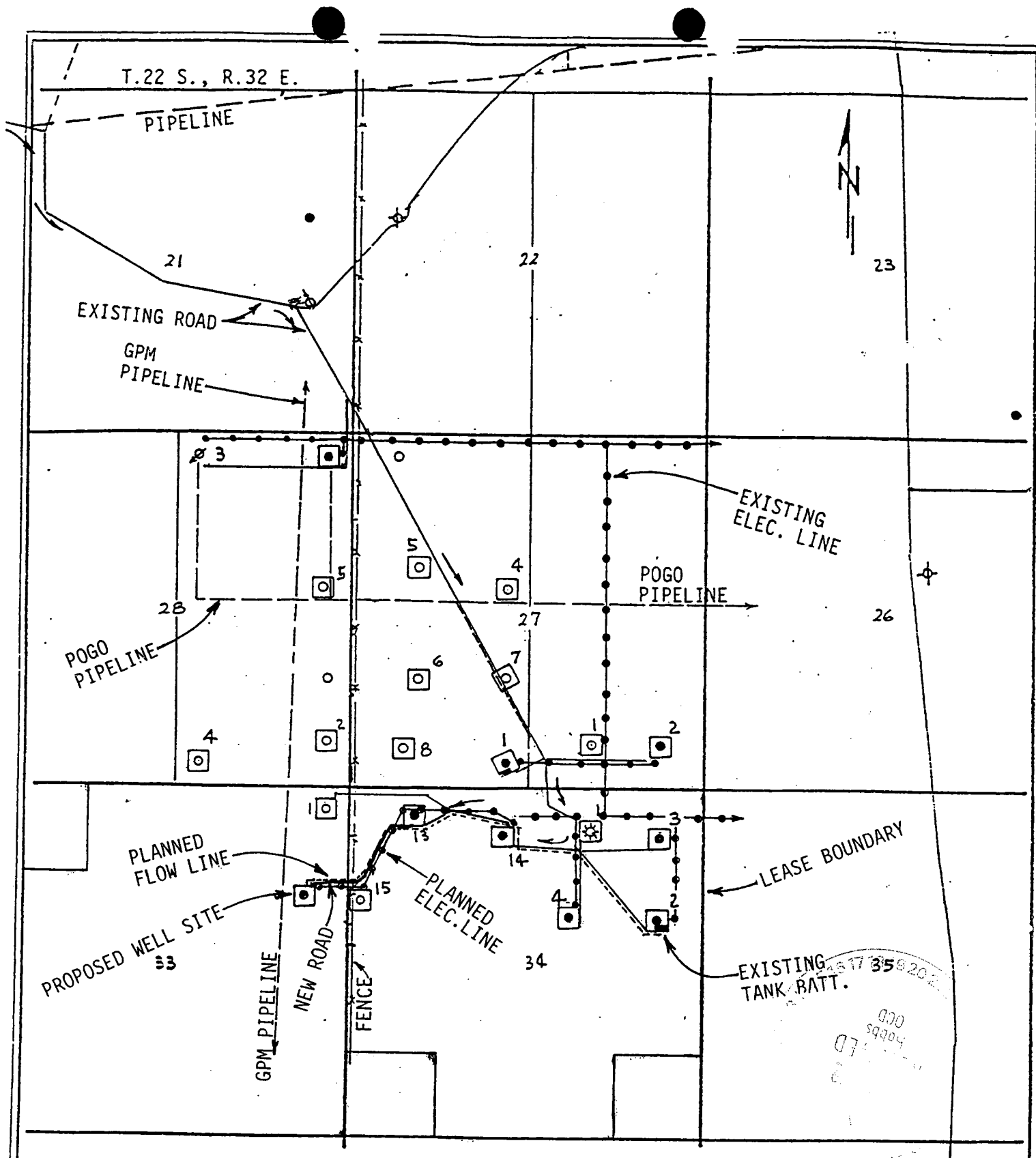
13. CERTIFICATION:

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.

June 16, 1995  
Date:

  
\_\_\_\_\_  
Richard L. Wright  
Division Operations Manager



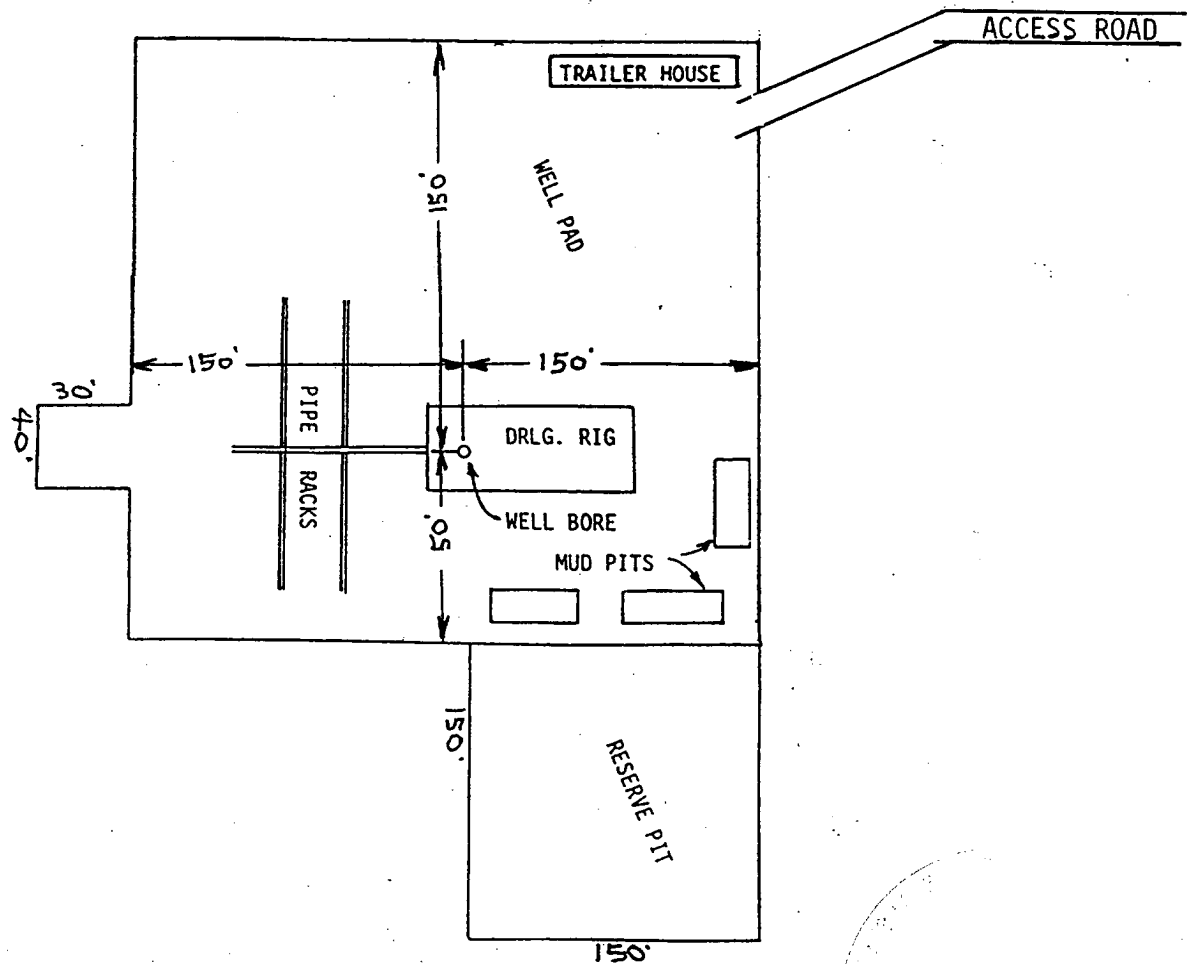


LEGEND:

- Oil Well
- ⊕ Plugged Well
- Proposed Well
- Existing Caliche Road
- Proposed New Road
- - - Planned Flow Line

EXHIBIT "B"

POGO PRODUCING COMPANY  
 RED TANK 33 FEDERAL WELL NO. 2  
 1650' FNL & 660' FEL SEC. 33, T.22 S., R.32 E.  
 LEA COUNTY, N.M. SCALE: 1" = 2000'



### EXHIBIT "C"

POGO PRODUCING COMPANY  
RED TANK 33 FEDERAL WELL NO. 2

DRILLING RIG LAYOUT  
SCALE: None

