

DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT New Mexico Oil Conservation Division, District 1

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL WELL ☒

GAS WELL ☐

OTHER ☐

SINGLE ZONE ☒

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

POGO PRODUCING COMPANY (RICHARD WRIGHT 432-685-8140) 17891

3. ADDRESS AND TELEPHONE NO.

P.O. BOX 10340 MIDLAND, TEXAS 79702-7340 (432-685-8100)

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

At surface

660' FNL & 2310' FWL SECTION 26 T22S-R32E LEA CO. NM

At proposed prod. zone 660' FNL & 330' FWL SECTION 26 T22S-R32E "C"

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

Approximately 30 miles East of Carlsbad 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

320

17. NO. OF ACRES ASSIGNED TO THIS WELL

80

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

330'

19. PROPOSED DEPTH

MD-11523' TVD-9750'

20. ROTARY OR CABLE TOOLS

ROTARY

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

3712' GR.

22. APPROX. DATE WORK WILL START\* WHEN APPROVED

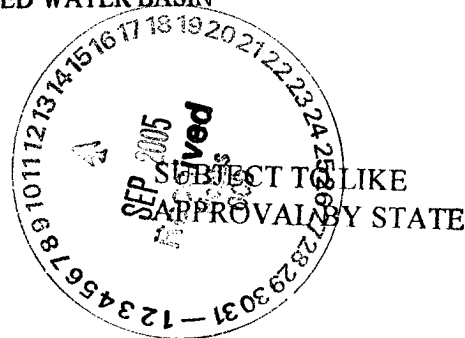
23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	Conductor 20"	NA	40'	Cement to surface W/Redi-mix
17 1/2"	H-40 13 3/8"	48#	1050'	700 Sx. circulate cement
11"	N-80, J-55 9 5/8"	40#	5050'	1500 Sx. " "
8 1/2"	N-80 7"	26#	9000'	1200 Sx. 3 stage TOC 4000' FS
6 1/8"	N-80 4 1/2"	11.6#	8800-11,523'	300 Sx. cement to top of liner

CARLSBAD CONTROLLED WATER BASIN

SEE ATTACHED SHEET

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED



IN ABOVE SPACE DESCRIBE PROPOSED 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

*Joe G. Lara*

TITLE Agent

DATE 08/16/05

(This space for Federal or State office use)

PERMIT NO.

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:

ACTING

APPROVED BY /s/ Joe G. Lara

TITLE

FIELD MANAGER

DATE

SEP - 7 2005

\*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.

1. Drill 26" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17½" hole to 1050'. Run and set 1050' of 13 3/8" 48# H-40 ST&C casing. Cement with 500 Sx. of 65/35/6 Class "C" POZ/GEL, tail in with 200 Sx. of Class "C" cement + 2% CaCl, + ¼# Flocele/Sx. Circulate cement to surface. **WITNESS**
3. Drill 11" hole to 5050'. Run and set 5050' of 9 5/8" casing as follows: 600' of 9 5/8" 40# N-80 LT&C, 4450' of 9 5/8" 40# J-55 LT&C casing. Cement with 1300 Sx. of 65/35/6 Class "C" POZ + 5% salt, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface.
4. Drill 8½" hole to 9000'. Run and set 9000' of 7" 26# N-80 LT&C casing. Cement in 3 stages, Stage tools at 6500' and 4950'. Cement 1st stage with 500 Sx. of Class "H" cement + 8# of Gilsonite/Sx, cement 2nd stage with 400 Sx. of Class "C" cement + 8# of Gilsonite/Sx. cement 3rd stage with 200 Sx. of Class "C" cement + 2% CaCl. Estimate top of cement 4000±' from surface.
5. Drill 6½" hole to a kick off point of 9275±' drill curve at 10-12° build per 100' and an azimuth of 270° to intersect pay at 9750' TVD. Drill lateral to a bottom hole location of 330' FWL & 660' FNL of section 26 T22S-R32E. Run 2725' of 4½" 11.6# N-80 LT&C liner, hang liner at 8800'±. Cement with 200 Sx. of Class "H" Premium Plus cement + additives. Cement to top of liner hanger. TVD 9750' MD 11523'

DISTRICT I  
1625 N. FRENCH DR., BOBBS, NM 88240

State of New Mexico  
Energy, Minerals and Natural Resources Department

DISTRICT II  
1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION  
1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Form C-102  
Revised JUNE 10, 2003  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

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

DISTRICT IV  
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-37447	Pool Code 51689	Pool Name RED TANK-DELAWARE WEST
Property Code 9341	Property Name RED TANK 26 FEDERAL	Well Number 13
OGRID No. 17891	Operator Name POGO PRODUCING COMPANY	Elevation 3712'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	26	22-S	32-E		660	NORTH	2310	WEST	LEA

Bottom Hole Location If Different From Surface

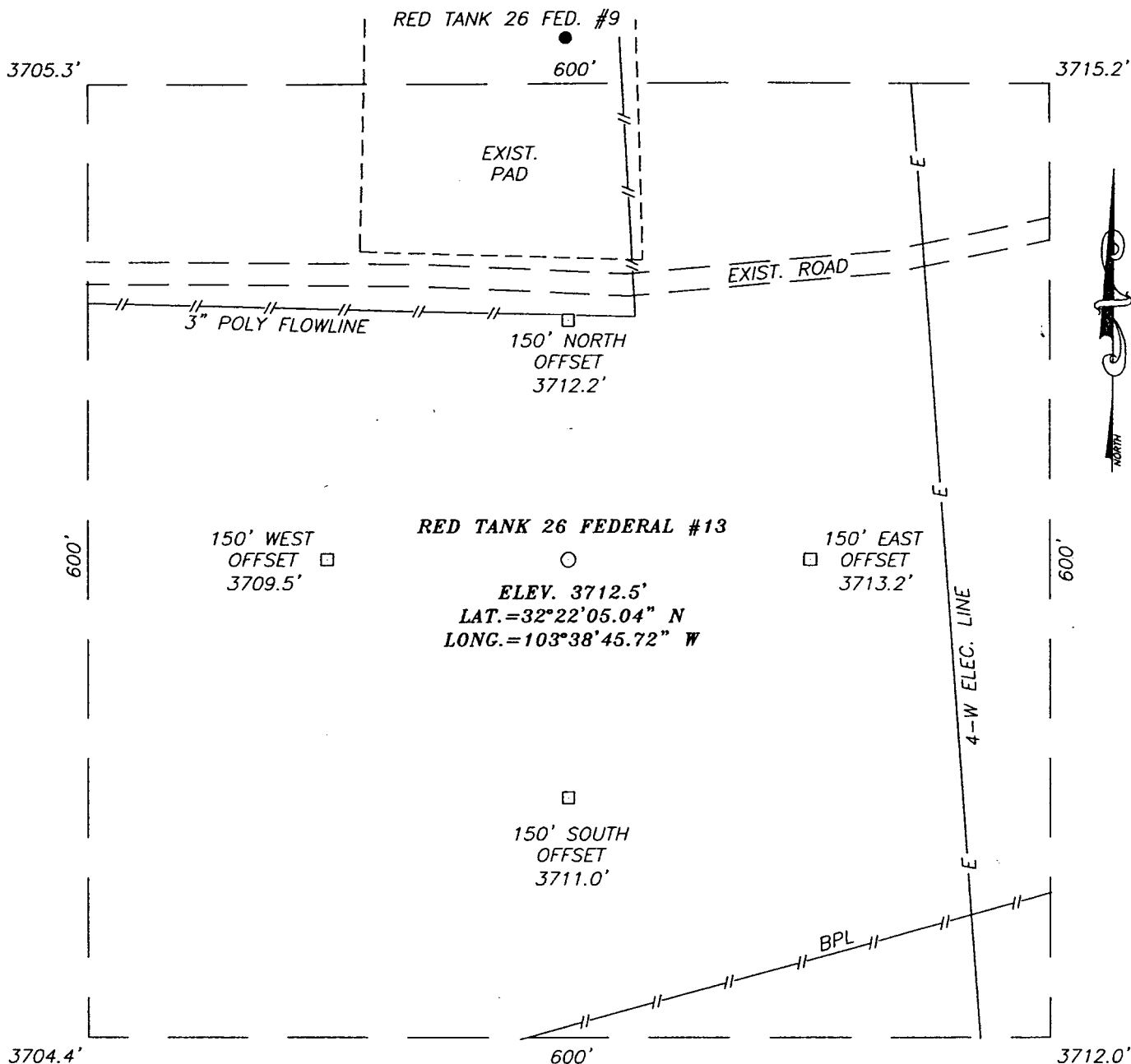
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	26	22-S	32-E		660	NORTH	330	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
80			

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

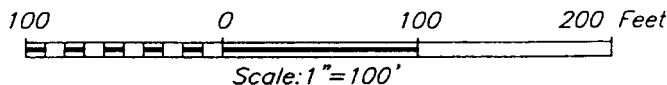
	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Joe T. Janica</i> Signature</p> <p>Joe T. Janica Printed Name</p> <p>Agent Title</p> <p>08/16/05 Date</p>
<p>BOTTOM HOLE LOCATION Y=498279.0 N X=710226.6 E</p>	<p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>JULY 21, 2005</p> <p>Date Surveyed</p> <p>Signature &amp; Seal of Professional Surveyor</p> <p><i>Gary E. Johnson</i> 7/29/05</p> <p>05.11/1122</p> <p>Certificate No. GARY E. JOHNSON 12841</p>

**SECTION 26, TOWNSHIP 22 SOUTH, RANGE 32 EAST, N.M.P.M.,**  
 LEA COUNTY, NEW MEXICO



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF ST. HWY. #128 AND PADUCA BREAKS ROAD. GO NORTHEAST ON PADUCA BREAKS ROAD APPROX. 5.6 MILES. TURN LEFT AND GO NORTHWEST APPROX. 1.5 MILES. TURN RIGHT AND GO NORTHEAST 1.4 MILES. THE ROAD BENDS LEFT, GO NORTH APPROX. 3.4 MILES. TURN LEFT AND GO WEST APPROX. 0.1 MILES. THIS LOCATION IS 150' SOUTH.



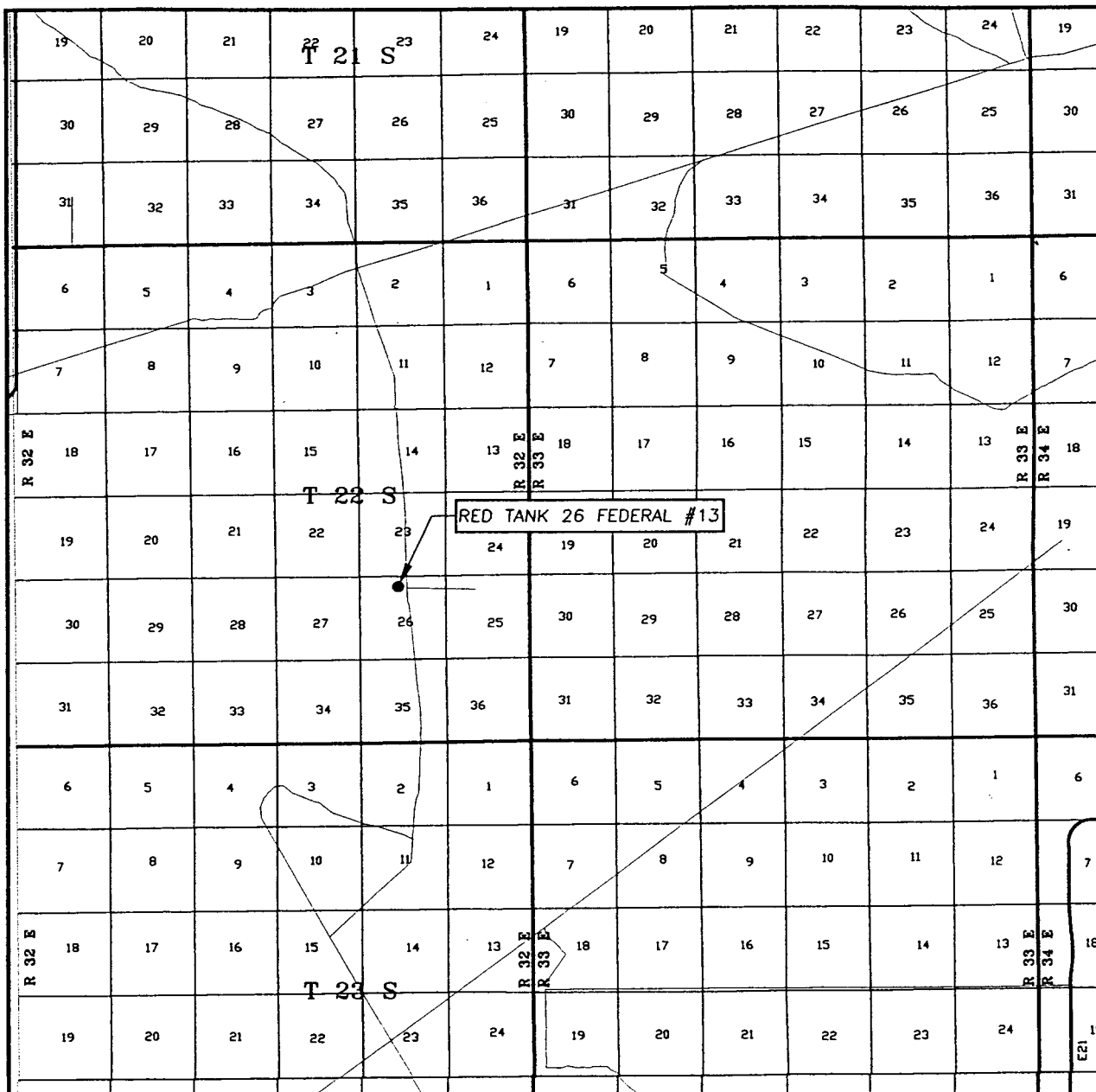
PROVIDING SURVEYING SERVICES  
 SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 393-3117

**POGO PRODUCING COMPANY**

RED TANK 26 FEDERAL #13 WELL  
 LOCATED 660 FEET FROM THE NORTH LINE  
 AND 2310 FEET FROM THE WEST LINE OF SECTION 26,  
 TOWNSHIP 22 SOUTH, RANGE 32 EAST, N.M.P.M.,  
 LEA COUNTY, NEW MEXICO.

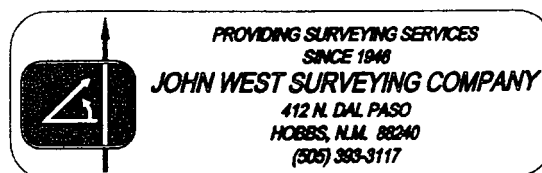
Survey Date: 7/21/05	Sheet 1 of 1 Sheets
W.O. Number: 05.11.1122	Dr By: LA Rev 1:N/A
Date: 7/26/05	Disk: CD#4 05111122 Scale: 1"=100'

# VICINITY MAP

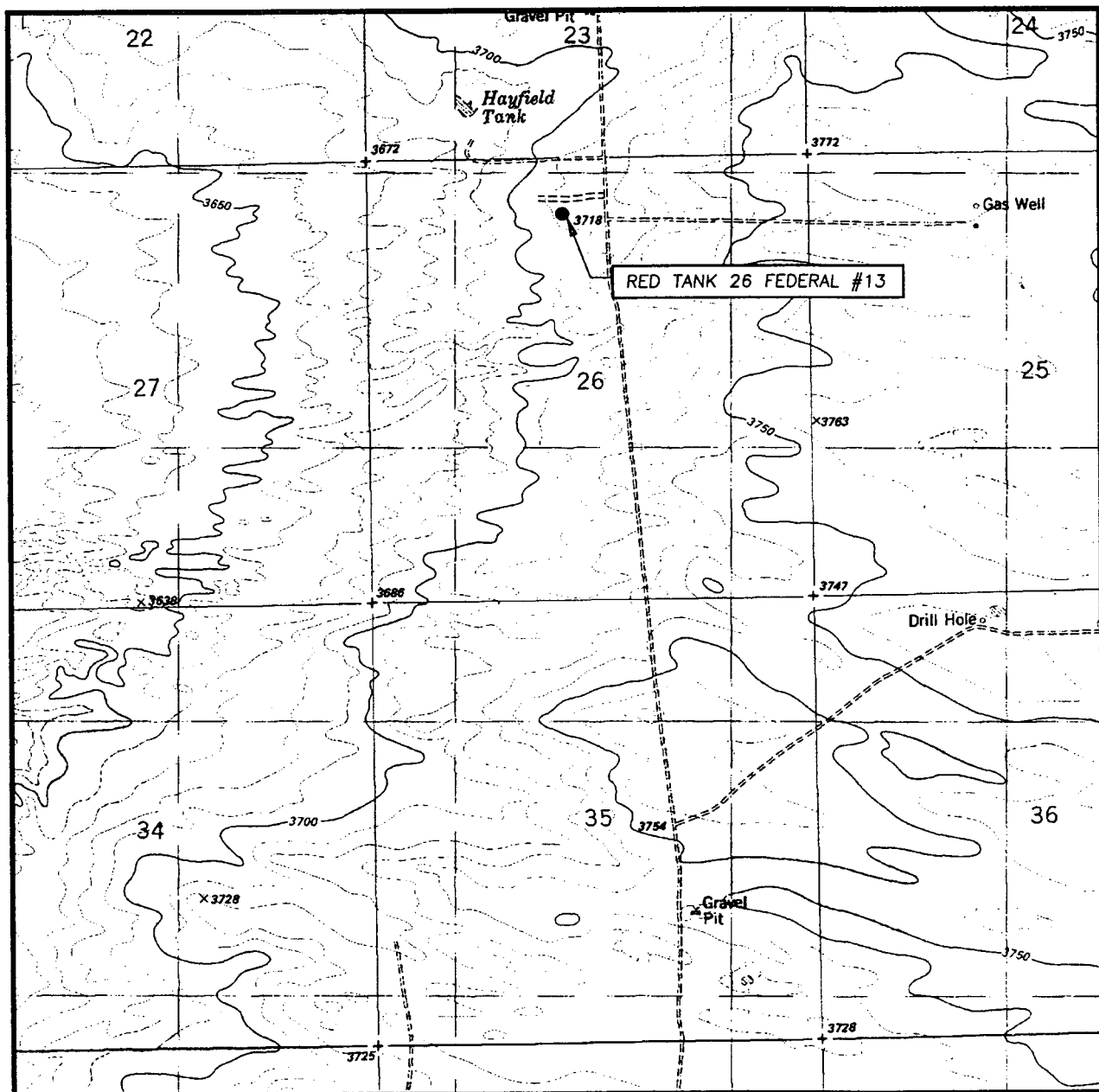


SCALE: 1" = 2 MILES

SEC. 26 TWP. 22-S RGE. 32-E  
 SURVEY N.M.P.M.  
 COUNTY LEA  
 DESCRIPTION 660' FNL & 2310' FWL  
 ELEVATION 3712'  
 OPERATOR POGO PRODUCING COMPANY  
 LEASE RED TANK 26 FEDERAL



# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
BOOTLEG RIDGE, N.M. - 10'

SEC. 26 TWP. 22-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA

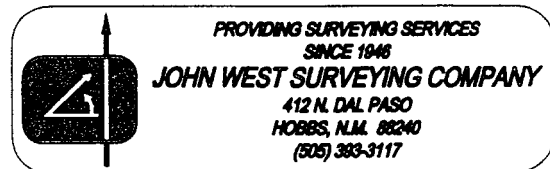
DESCRIPTION 660' FNL & 2310' FWL

ELEVATION 3712'

OPERATOR POGO PRODUCING COMPANY

LEASE RED TANK 26 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP  
BOOTLEG RIDGE, N.M.



## APPLICATION TO DRILL

POGO PRODUCING COMPANY  
 RED TANK "26" FEDERAL # 13  
 UNIT "C" SECTION 26  
 T22S-R32E LEA CO. NM

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is provided for your consideration.

1. Location of well: Surface: 660' FNL & 2310' FWL SEC. 26 T22S-R32E Lea Co. NM  
 Bottom hole 660' FNL & 330' FWL SEC. 26 T22S-R32E Lea Co.
2. Ground Elevation above Sea Level: 3712' GR.
3. Geological age of surface formation: Quaternary Deposits:
4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium to remove solids from hole.
5. Proposed drilling depth: TVD 9750±'  
 MD 11,523'±
6. Estimated tops of geological markers:

Basal Anhydrite	4460'	Brushy Canyon	6950'
Delaware Lime	4780'	Bone Spring	8700'
Bell Canyon	4810'	1st Bone Spring Sd.	9700'
Cherry Canyon	5700'		
7. Possible mineral bearing formations:

Bell Canyon	Oil
Cherry Canyon	Oil
1st Bone Spring	Oil
8. Casing Program:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade
26"	0-40'	20"	NA	NA	NA	Conductor
17½"	0-1050'	13 3/8"	48#	8-R	ST&C	H-40
11"	0-5050'	9 5/8"	40#	8-R	LT&C	J-55 N-80
8½"	0-9000'	7"	26#	8-R	LT&C	N-80
6 1/8"	8800-11,523	4½"	11.6	8-R	LT&C	N-80

## APPLICATION TO DRILL

POGO PRODUCING COMPANY  
 RED TANK "26" FEDERAL # 13  
 UNIT "C" SECTION 26  
 T22S-R32E LEA CO. NM

9. CASING SETTING DEPTHS & CEMENTING:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Set 1050' of 13 3/8" 48# H-40 ST&C casing. Cement with 500 Sx. of 65/35/6 Class "C" POZ, tail in with 200 Sx. of Class "C" cement + 2% CaCl, + 1/2# Flocele/Sx. circulate cement to surface. <b>WITNESS</b>
9 5/8"	1st Intermediate	Set 5050' of 9 5/8" 40# casing as follows: 600' of 9 5/8" 40# N-80 LT&C, 4450' of 9 5/8" 40# J-55 LT&C casing. Cement with 1300 Sx. of Class "C" 65/35/6 POZ/GEL, + 5% salt, tail in with 200 Sx. of Class "C" cement + 2% CaCl, + 1/2# Flocele/Sx. circulate cement to surface.
7"	2nd Intermediate	Set 9000' of 7" 26# N-80 LT&C casing. Cement in three stages with DV Tools at 6500 & 4950'±. Cement 1st stage with 500 Sx. of Class "H" cement + 8# Gilsonite/Sx. Cement 2nd stage with 400 Sx. of Class "C" cement + 8# Gilsonite/Sx. Cement 3rd stage with 200 Sx. of Class "C" cement + additives, estimate top of cement 400' from surface.
4 1/2"	Production liner	Set 2725' of 4 1/2" 11.6# N-80 LT&C casing. Cement with 200 Sx. of Class "C" cement + additives, cement to top of liner hanger.

10. PRESSURE CONTROL EQUIPMENT:

Exhibit "E" shows a 900 series 3000 PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams, and bottom pipe rams. This B.O.P. will be nipped up on the 13 3/8" surface casing and tested to API specifications. The b.o.p. will be operated at least once in each 24 hour period and the blind rams will be operated when the drill pipe is out of hole on trips. Full opening stabbing valve and upper kelly cock will be available in case of need. Exhibit "E-1" shows a hydraulically operated closing unit and a 3" 3000 PSI choke manifold with adjustable chokes. No abnormal pressures or temperatures are expected in this well. No problems occurred in offset wells.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-1050'	8.4-8.7	29-36	NC	Fresh water spud mud add paper to control seepage.
1050-5050'	10.0-10.2	29-38	NC	Brine water use paper to control seepage and high viscosity sweeps to clean hole.

# APPLICATION TO DRILL

POGO PRODUCING COMPANY  
RED TANK "26" FEDERAL # 13  
UNIT "C" SECTION 26  
T22S-R32E LEA CO. NM

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
5050'-9000'	8.4-8.7	29-38	NC	Fresh water mud use paper to control seepage, use high viscosity sweeps to clean hole.
9000-11,523'	8.4-8.7	29-40	NC*	Same as above if water if water loss control is needed use a Polymer.

\* Water loss control may have to be used in order to log well , run logs, casing and DST's if run.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, and casing, the viscosity and water loss may have to be adjusted to meet these needs.

## 12. LOGGING , TESTING, AND CORING PROGRAM:

- Open hole logs: Dual Laterlog, CNL, LDT, Caliper and Gamma Ray from 5050 back to 13 3/8" casing shoe. Gamma Ray, Neutron from 13 3/8" casing shoe to surface.
- Dual Induction, LDT, CNL, MICRO SFL, Gamma Ray , Caliper from 9000' to back to 9 5/8" casing shoe, same from 11.523' back to 7" casing shoe.
- No planned DST's, no cores planned. Mud logger on hole at 5050' to TD.

## 13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known H<sub>2</sub>S in this area. If H<sub>2</sub>S is encountered the operator will comply with the provision of Onshore Oil & Gas Order No. 6. No lost circulation is expected to occur. All personell will be familiar with all aspects pf safe operation of equipment used to drill this well. Estimated BHP \_\_\_\_\_ PSI, and Estimated BHT \_\_\_\_\_.

## 14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Spud date will be as soon after BLM approval and as soon as a rig is available. Move in operation and drilling is expected to take \_\_\_\_\_ days. If production casing is run an additional \_\_\_\_\_ days will be needed to complete the well and construct production facilities.

## 15. OTHER FACETS OF OPERATION:

After running casing, cased hole logs will be run over all potential pays. The zones of interest will be perforated and stimulated in order to establish production. The Delaware formation is the primary zone of interest at this time.

## HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H<sub>2</sub>S safety instructor to the following:
  - A. Characteristics of H<sub>2</sub>S
  - B. Physical effects and hazards
  - C. Proper use of safety equipment and life support systems.
  - D. Principle and operation of H<sub>2</sub>S detectors, warning system and briefing areas.
  - E. Evacuation procedure, routes and first aid.
  - F. Proper use of 30 minute pressure demand air pack.
2. H<sub>2</sub>S Detection and Alarm Systems
  - A. H<sub>2</sub>S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
3. Windsock and/or wind streamers
  - A. Windsock at mudpit area should be high enough to be visible.
  - B. Windsock at briefing area should be high enough to be visible.
  - C. There should be a windsock at entrance to location.
4. Condition Flags and Signs
  - A. Warning sign on access road to location.
  - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H<sub>2</sub>S present in dangerous concentration. Only emergency personnel admitted to location.
5. Well control equipment
  - A. See exhibit "E"
6. Communication
  - A. While working under masks chalkboards will be used for communication.
  - B. Hand signals will be used where chalk board is inappropriate.
  - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.
7. Drillstem Testing
  - A. Exhausts will be watered.
  - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
  - C. If location is near any dwelling a closed D.S.T. will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects  $H_2S$  has on tubular goods and other mechanical equipment.
9. If  $H_2S$  is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with  $H_2S$  scavengers if necessary.

## SURFACE USE PLAN

POGO PRODUCING COMPANY  
RED TANK "26" FEDERAL # 13  
UNIT "C" SECTION 26  
T22S-R32E LEA CO. NM

1. EXISTING ROADS & PROPOSED ROADS: Area maps; Exhibit "B" is a reproduction of a County General Hi-way Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.
  - A. Exhibit "A" shows the proposed well site as staked.
  - B. From Hobbs New Mexico take U.S. High-way 62-180 West toward Carlsbad New Mexico go 38± miles to CR C29, turn South go 14 miles to Mills Ranch Road, turn East follow lease road 7.2 miles, turn South (Right) go 1.3 miles, turn West (Right) and well location is on the South side of road.
  - C. Flow lines and power lines will be constructed along existing R-O-W's.
2. PLANNED ACCESS ROADS: No new roads will be require for this location.
  - A. The access roads will be crowned and ditched to a 12' wide travel surface with a 40' Right-of-Way.
  - B. Gradient of all roads will be less than 5.00%.
  - C. If turn-outs are necessary they will be constructed.
  - D. If needed roads will be surfaced with a minimum of 4" of caliche. This material will be obtained from a local source.
  - E. Center-line for new roads will be flagged. Earth-work will be will be done as field conditions require.
  - F. Culverts will be placed in the access road if they are necessary. The roads will be constructed to utilize low water crossings for drainage as required by topography.
3. LOCATIONS OF EXISTING WELLS IN A ONE MILE RADIUS. EXHIBIT "A-1"
  - A. Water wells - One approximately 2 miles North of location.
  - B. Disposal wells - None known
  - C. Drilling wells - None known
  - D. Producing wells - As shown on Exhibit "A-1"
  - E. Abandoned wells - As shown on Exhibit "A-1"

## SURFACE USE PLAN

POGO PRODUCING COMPANY  
RED TANK "26" FEDERAL # 13  
UNIT "C" SECTION 26  
T22S-R32E LEA CO. NM

4. If on completion this well is a producer the operator will lay pipelines and construct powerlines along existing road R-O-W's or other existing R-O-W's. Possible routes of pipelines, flowlines and powerlines are shown on Exhibit "C".

### 5. LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the access roads or piped to location in flexible lines laid on top of the ground.

### 6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction material will be obtained from the excavation of drill site, if additional material is needed it will be obtained from a local source and transported over the access roads as shown on Exhibit "C".

### 7. METHODS OF HANDLING WASTE MATERIAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in a approved sanitary land fill.
- C. Salts remaining after completion of well will be picked up by the supplier, including broken sacks.
- D. Waste water from living quarters will be drained into holes with a minium of 10'. These holes will be covered during drilling and will be back filled when the well is completed. A Porto-John will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- E. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for furthred drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approve disposal site. Later pips will be broken out to speed drying. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in storage tanks and sold.

### 8. ANCILLARY FACILITIES:

- A. No camps or air strips will be constructed on location.

## SURFACE USE PLAN

POGO PRODUCING COMPANY  
RED TANK "26" FEDERAL # 13  
UNIT "C" SECTION 26  
T22S-R32E LEA CO. NM

### 9. WELL SITE LAYOUT

- A. Exhibit "D" shows the proposed well site layout.
- B. This exhibit indicated proposed location of reserve and sump pits and living facilities.
- C. Mud pits in the active circulating system will be steel pits & the reserve pit is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
- D. If needed, the reserve pit is to be lined with polyethelene. The pit liner will be ~~6~~ *12 mil* mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down. *ref C-144*
- E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requiremments.

### 10. PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be contoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

SURFACE USE PLAN

POGO PRODUCING COMPANY  
RED TANK "26" FEDERAL # 13  
UNIT "C" SECTION 26  
T22S-R32E LEA CO. NM

11. OTHER INFORMATION:

- A. Topography consists of sand dunes with a slight dip to the West. Deep sandy soil supports shinners oak, native grasses, and an occasional mesquite tree.
- B. Surface is owned by the U.S. Government and is administered by the Bureau of Land Management. The surface is used for grazing livestock and the production of oil and gas.
- C. An archaeological survey will be conducted on the location and access roads. This report will be filed with The Bureau of Land Management in the Carlsbad field office.
- D. There are no dwellings in the near vicinity of this location.

12. OPERATORS REPRESENTATIVES:

Before construction:

TIERRA EXPLORATION, INC  
P.O. BOX 2188  
HOBBS, NEW MEXICO 88241  
OFFICE Ph. 505-391-8503  
JOE T. JANICA

During and after construction:

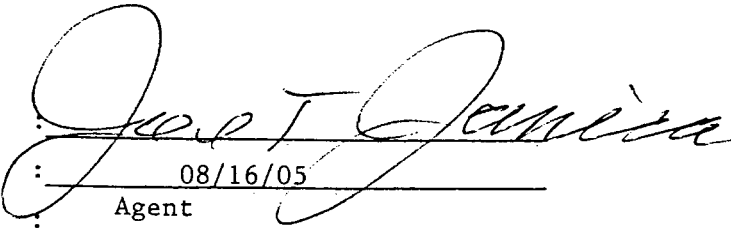
POGO PRODUCING COMPANY  
P.O. BOX 10340  
MIDLAND, TEXAS 79702-7340  
OFFICE Ph. 915-685-8100  
Mr. RICHARD WRIGHT 915-685-8140

13. CERTIFICATION: I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access roads, and 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 it's contractors/subcontractors is in compfornity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false report.

NAME

DATE

TITLE

  
: \_\_\_\_\_  
: 08/16/05  
: Agent



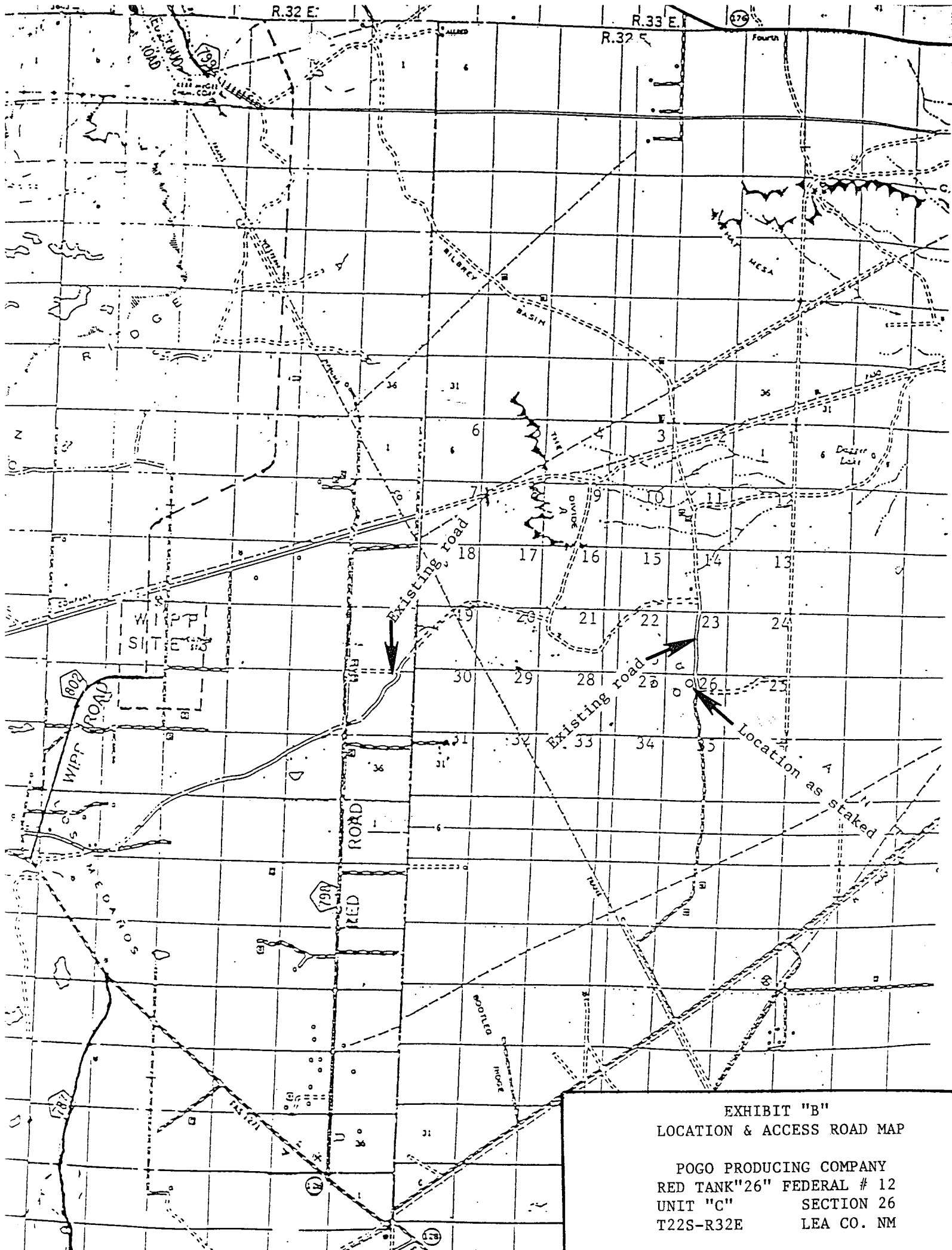
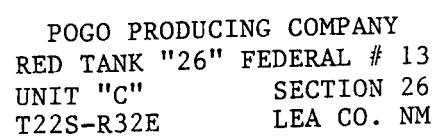
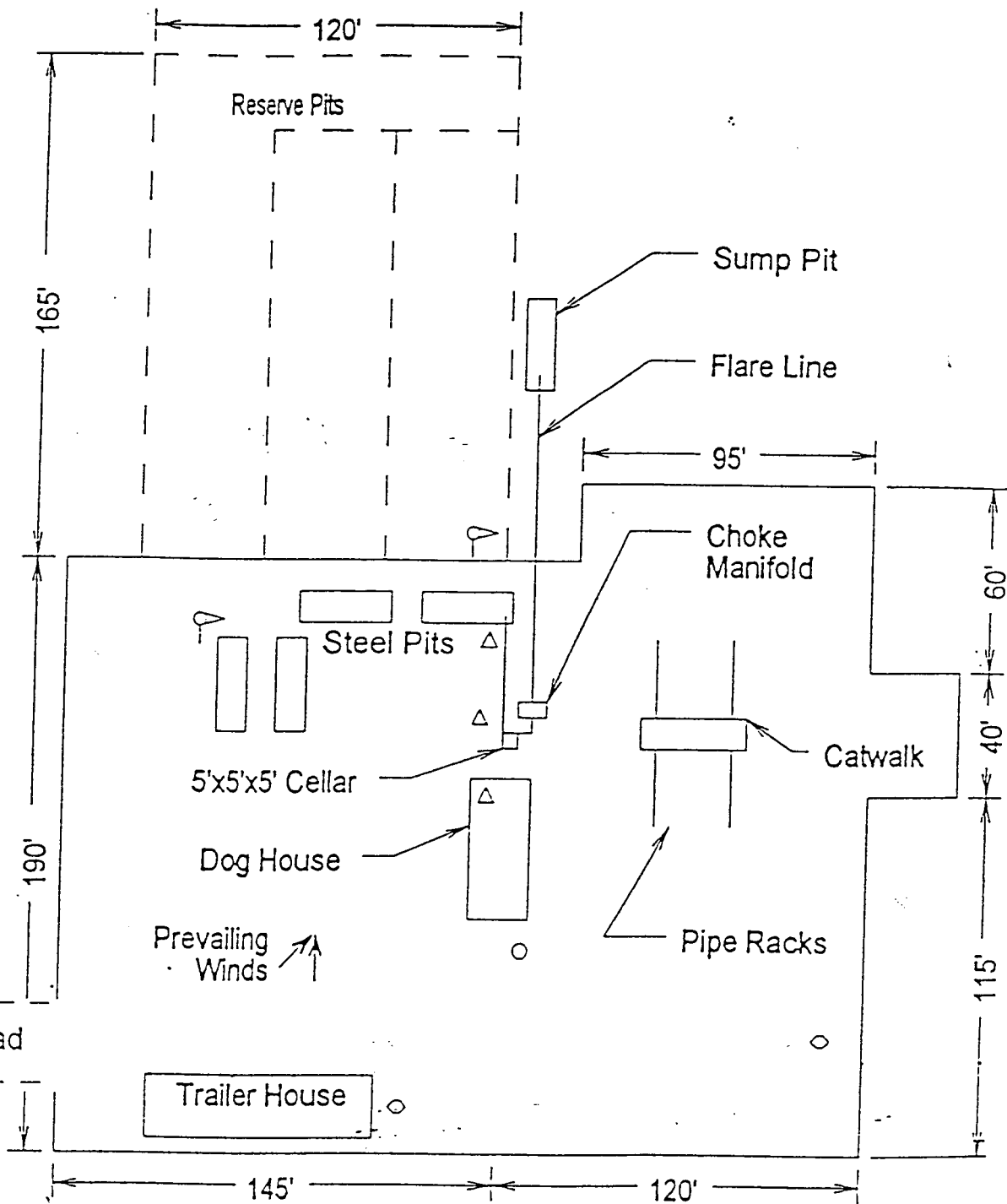


EXHIBIT "B"  
LOCATION & ACCESS ROAD MAP

POGO PRODUCING COMPANY  
RED TANK "26" FEDERAL # 12  
UNIT "C" SECTION 26  
T22S-R32E LEA CO. NM

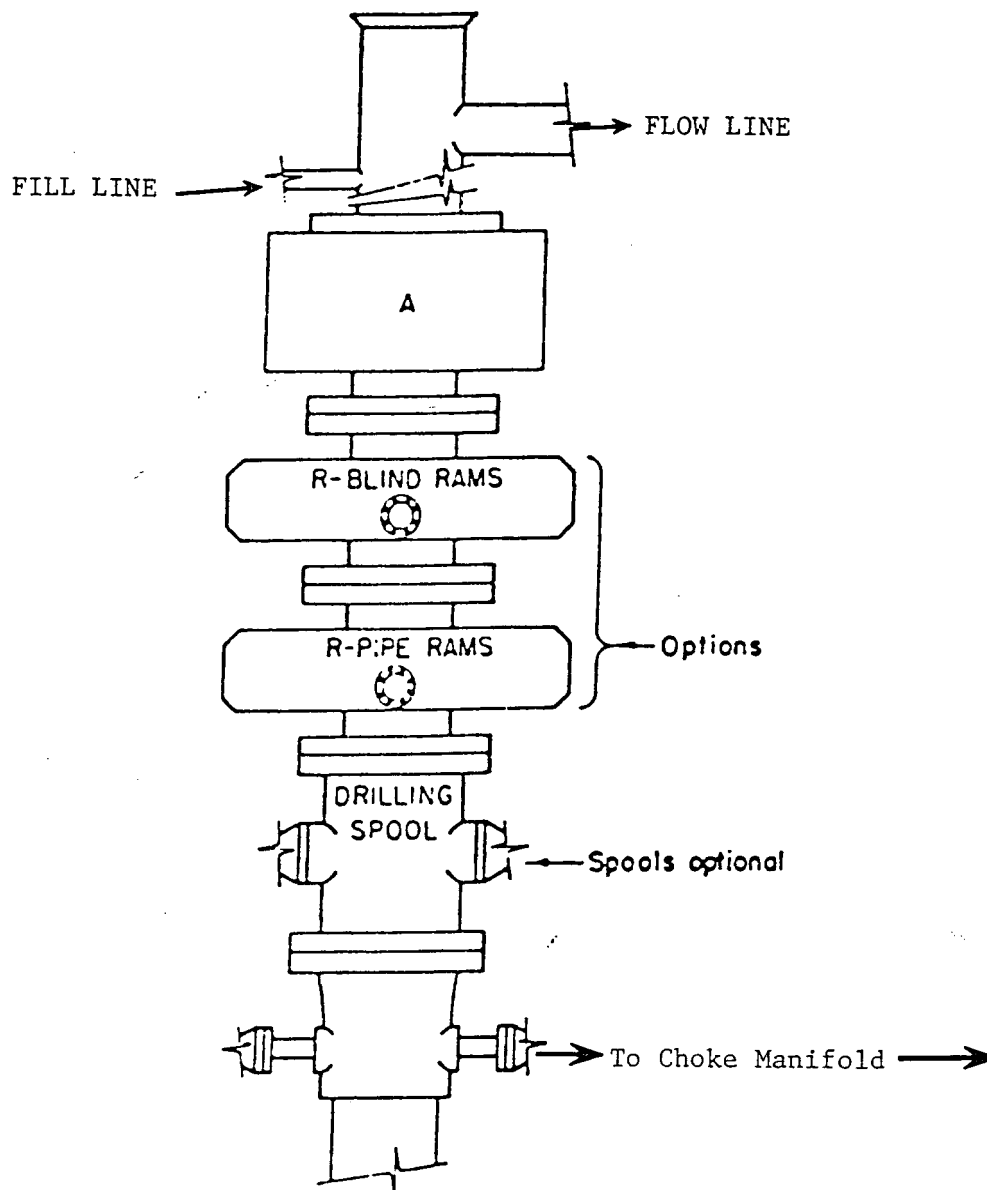




- Wind Direction Indicators  
(wind sock or streamers)
- △ H2S Monitors  
(alarms at bell nipple and shale shaker)
- Briefing Areas
- Remote BOP Closing Unit
- Sign and Condition Flags

EXHIBIT "D"  
RIG LAY OUT PLAT

POGO PRODUCING COMPANY  
RED TANK "26" FEDERAL # 13  
UNIT "C" SECTION 26  
T22S-R32E LEA CO. NM

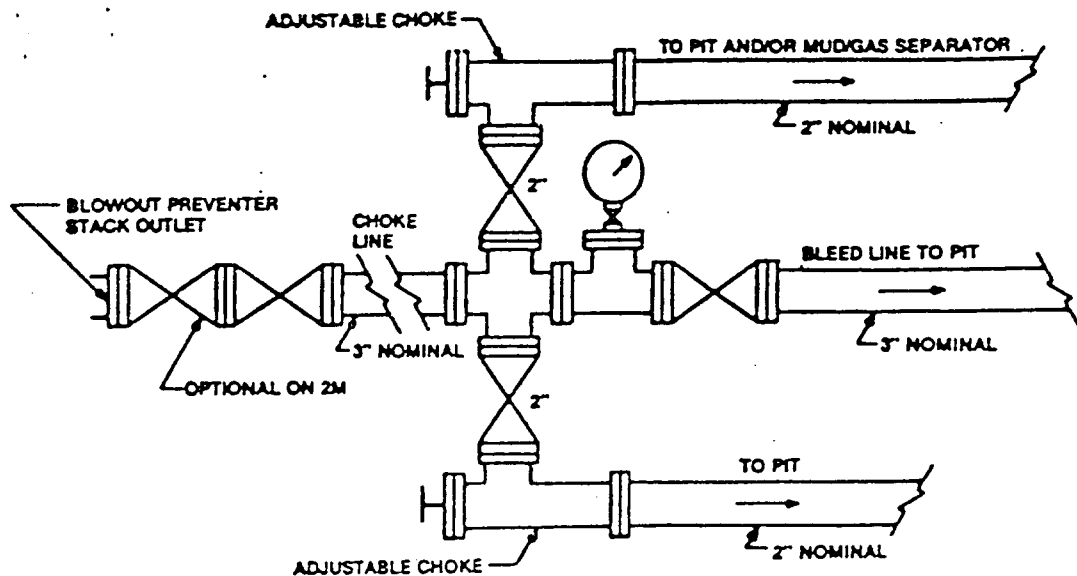


# **ARRANGEMENT SRRA**

900 Series  
3000 PSI WP

EXHIBIT "E"  
SKETCH OF B.O.P. TO BE USED ON

POGO PRODUCING COMPANY  
RED TANK "26" FEDERAL # 13  
UNIT "C" SECTION 26  
T22S-R32E LEA CO. NM



Typical choke manifold assembly for 3M WP system

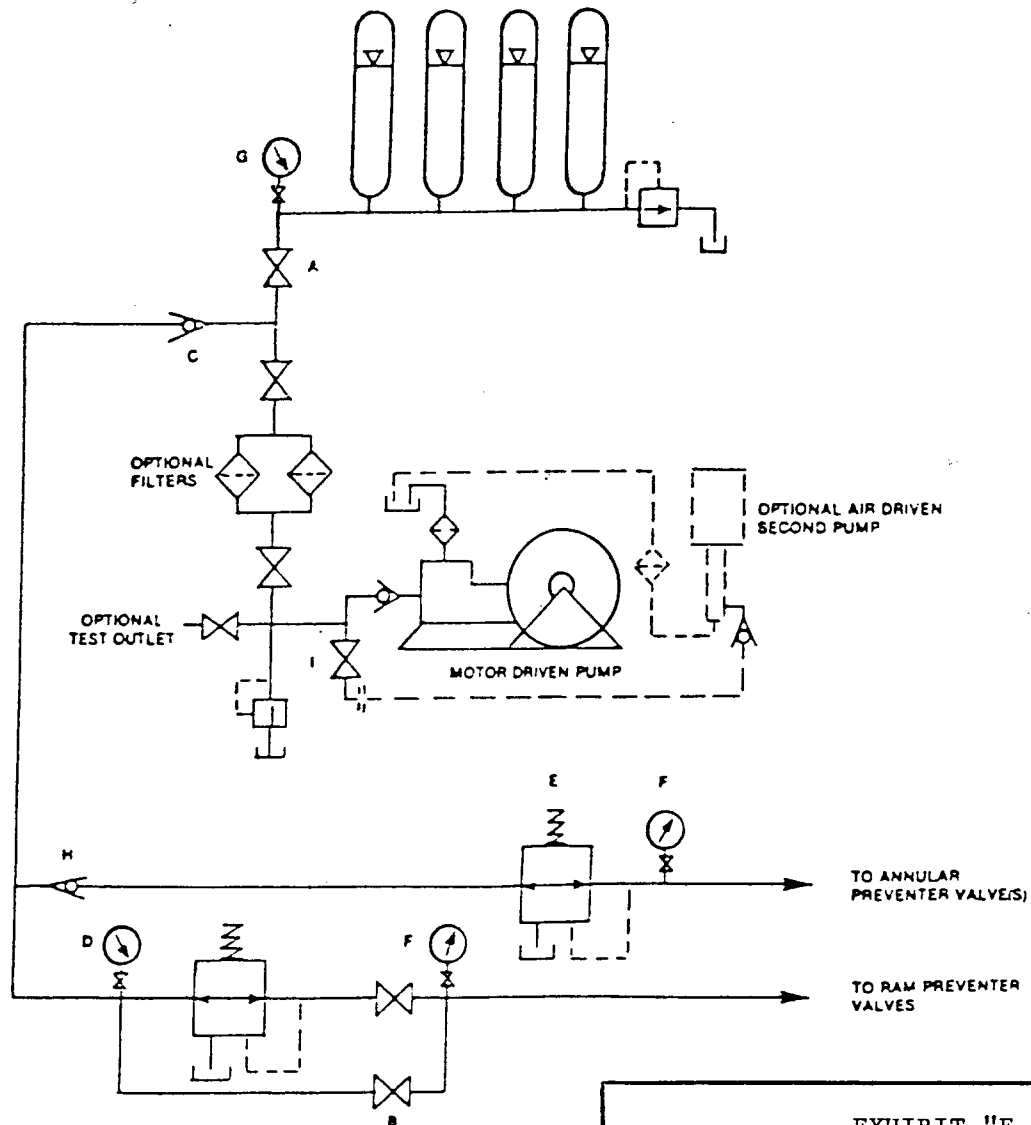


EXHIBIT "E-1"  
CHOKE MANIFOLD & CLOSING UNIT

POGO PRODUCING COMPANY  
RED TANK "26" FEDERAL # 13  
UNIT "C" SECTION 26  
T22S-R32E LEA CO. NM

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# **LONG'S METHOD OF SURVEY COMPUTATION**

## **OBLIQUE CIRCULAR ARC INTERPOLATION**

0	MD OF INTERPOLATION DEPTH.(feet)
#N/A	TVD COORDINATE OF THE DEPTH (feet)
#N/A	N/S COORDINATE OF DEPTH (feet)
#N/A	E/W COORDINATE OF DEPTH (feet)

## **DISTANCE TABLE**

STATION A	STATION B
0.00	ft

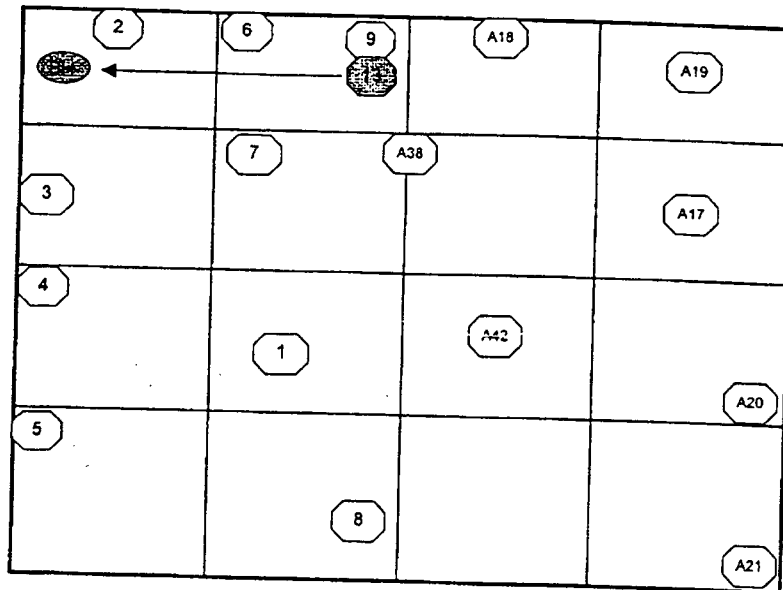
3 D DISTANCE BETWEEN STATION A AND STATION B

## **TABLE OF SURVEY STATIONS**

STA #	AMD ft	INCL deg	AZIM deg	MD ft	TVD ft	N=S ft	E=W ft	DLS deg/100FT
1	TIE POINT =>	0	0	9273.00	9273.00	0.00	0.00	
2	100	12	270	9373.00	9372.27	0.00	-10.43	12.00
3	100	24	270	9473.00	9487.20	0.00	-41.28	12.00
4	100	36	270	9573.00	9553.65	0.00	-91.19	12.00
5	100	48	270	9673.00	9627.83	0.00	-157.98	12.00
6	100	60	270	9773.00	9686.50	0.00	-238.73	12.00
7	100	72	270	9873.00	9727.10	0.00	-329.92	12.00
8	100	84	270	9973.00	9747.85	0.00	-427.56	12.00
9	50	90	270	10023.00	9750.46	0.00	-477.48	12.00
10	100	90	270	10123.00	9750.46	0.00	-577.46	0.00
11	100	90	270	10223.00	9750.46	0.00	-677.46	0.00
12	100	90	270	10323.00	9750.46	0.00	-777.48	0.00
13	100	90	270	10423.00	9750.46	0.00	-877.48	0.00
14	100	90	270	10523.00	9750.46	0.00	-977.48	0.00
15	100	90	270	10623.00	9750.46	0.00	-1077.46	0.00
16	100	90	270	10723.00	9750.46	0.00	-1177.46	0.00
17	100	90	270	10823.00	9750.46	0.00	-1277.46	0.00
18	100	90	270	10923.00	9750.46	0.00	-1377.46	0.00
19	100	90	270	11023.00	9750.46	0.00	-1477.46	0.00
20	100	90	270	11123.00	9750.46	0.00	-1577.48	0.00
21	100	90	270	11223.00	9750.46	0.00	-1677.46	0.00
22	100	90	270	11323.00	9750.46	0.00	-1777.46	0.00
23	100	90	270	11423.00	9750.46	0.00	-1877.46	0.00
24	100	90	270	11523.00	9750.46	0.00	-1977.46	0.00
25								
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# Red Tank 26 Fed Well Groupings

Sec 26, T-22-S, R-32-E, Lea County, New Mexico



Well Name	Legal Location in 15	Depth and Strata	Current Prod Zone
Red Tank 26 Fd # 1	1880 FSL & 1880 FWL	TD= 10050 1st Bone Sand	1st Bone TA'd. Delaware Production
Red Tank 26 Fd # 2	330 FNL & 660 FWL	TD= 8770' Upper Bone Sand	Delaware Production
Red Tank 26 Fd # 3	1980 FNL & 330 FWL	TD= 8801' Upper Bone Sand	Delaware Production
Red Tank 26 Fd # 4	2310 FSL & 330 FWL	TD= 8777' Upper Bone Sand	Delaware Production
Red Tank 26 Fd # 5	990 FSL & 330 FWL	TD= 8770' Upper Bone Sand	Delaware Production
Red Tank 26 Fd # 6	330 FNL & 1650 FWL	TD=10,000 1st Bone Sand	1st Bone PA'd. Delaware Production
Red Tank 26 Fd # 7	1650 FNL & 1650 FWL	TD= 8785 Upper Bone Sand	Delaware Production
Red Tank 26 Fd # 8	500 FSL & 2310 FWL	TD=6600 Delaware	Delaware Production
Red Tank 26 Fd # 9	330 FNL & 2310 FWL	TD =5040 Delaware	Delaware Production
Covington A Fd # 42	1980 FSL & 1980 FEL	TD= 8950' Upper Bone Sand	Delaware Production
Covington A Fd # 38	1650 FNL & 2620 FEL	TD=8800' Upper Bone Sand	Delaware Production
Covington A Fd # 21	330 FSL & 330 FEL	TD=8900' Upper Bone Sand	Delaware Production
Covington A Fd # 20	330 FEL & 1650 FSL	TD=8890' Upper Bone Sand	Delaware Production
Covington A Fd # 19	610 FNL & 660 FEL	TD=8840' Upper Bone Sand	Delaware Production
Covington A Fd # 18	330 FNL & 1980 FEL	TD=10080' 1st Bone Sand	1st Bone PA'd. Delaware Production
Covington A Fd # 17	2080 FNL & 660 FEL	TD=10,010' 1st Bone Sand	1st Bone PA'd. Delaware Production

## SPECIAL DRILLING STIPULATIONS

### THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name Pogo Producing Co. Well Name & No. Red Tank 26 Federal #13H  
SHL: Location 660 FNL & 2310 FWL Sec. 26, T. 22 S, R 32 E.  
Lease No. NM-86149 County Lea State New Mexico  
BHL: LOCATION 660' FNL & 330' FWL

The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CRF 3165.3 AND 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

#### I. SPECIAL ENVIRONMENT REQUIREMENTS

- (X ) Lesser Prairie Chicken (stips attached) ( ) Flood plain (stips attached)  
( ) San Simon Swale (stips attached) ( ) Other

#### II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

( X ) The BLM will monitor construction of this drill site. Notify the (X ) Carlsbad Field Office at (505) 234-5972 ( ) Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.

( X ) Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche.

( ) All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately \_\_\_\_\_ inches in depth. Approximately \_\_\_\_\_ cubic yards of topsoil material will be stockpiled for reclamation.

( X ) Other. Turn V-Door South ( Pits East)

#### III. WELL COMPLETION REQUIREMENTS

( ) A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.

( X ) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at depth of ½ inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre.

- |   |   |
|---|---|
| ( ) A. Seed Mixture 1 (Loamy Sites)                   | ( X ) B. Seed Mixture 2 (Sandy Sites)                   |
| Side Oats Grama ( <i>Bouteloua curtipendula</i> ) 5.0 | Sand Dropseed ( <i>Sporobolus cryptandrus</i> ) 1.0     |
| Sand Dropseed ( <i>Sporobolus cryptandrus</i> ) 1.0   | Sand Lovegrass ( <i>Eragrostis trichodes</i> ) 1.0      |
|   | Plains Bristlegrass ( <i>Setaria magrostachya</i> ) 2.0 |
| ( ) C. Seed Mixture 3 (Shallow Sites)                 | ( ) D. Seed Mixture 4 (Gypsum Sites)                    |
| Side oats Grama ( <i>Boute curtipendula</i> ) 1.0     | Alkali Sacaton ( <i>Sporobollud airoides</i> ) 1.0      |
|   | Four-Wing Saltbush ( <i>Atriplex canescens</i> ) 5.0    |

( ) OTHER SEE ATTACHED SEED MIXTURE

Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring to take advantage of available ground moisture.

( ) Other.

## RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6 mil plastic.

Mineral material extracted during construction of the reserve pit may be used for development of the pad and access road as needed. Removal of any additional material on location must be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

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## OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

- (1) Lined as specified above and
- (2) A borrow/caliche/gravel pit can be constructed immediately adjacent to the reserve pit and it capable of containing all reserve pit contents. The mineral material removed in the process can be used for pad and access road construction. However, a material sales contract must be purchased from the BLM prior to removal of the material.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be recontoured, all trash removed, and reseeded as specified in this permit.

## CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to processed by BLM.

## TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

PRAIRIE CHICKENS

No surface use is allowed during the following time periods; unless otherwise specified, this stipulation does not apply to operation and maintenance of production facilities.

On the following lands: All of Section 26 T. 22 S., R. 32 E.

For the purpose of: Protecting Prairie Chickens:

Drilling for oil and gas, and 3-D geophysical exploration operations will not be allowed in Lesser Prairie Chicken Habitat during the period of March 15 through June 15, each year. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 a.m. and 9:00 a.m. The 3:00 a.m. and 9:00 a.m. restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during the period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Bureau of Land Management  
Carlsbad Field Office

SENM-S-22  
December 1997

## CONDITIONS OF APPROVAL - DRILLING

Operator's Name: POGO Producing Company  
Well Name & No: Red Tank "26" Federal No. 013-H  
Location: Surface: 660' FNL & 2310' FWL, Sec. 26, T. 22 S. R. 32 E.  
Bottom Hole Location: 660' FNL & 330' FWL, Sec. 26, T. 22 S., R. 32 E  
Lease: NMNM 86149  
Lea County, New Mexico

.....

### I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell, NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:
  - A. Spudding
  - B. Cementing casing: 13 3/8 inch; 9 5/8 inch; 7 inch, 4 1/2 inch liner
  - C. BOP Tests
2. A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan shall be in operations 500 feet or three days prior to drilling into the Delaware formation estimated to be at 4780 feet.
3. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.
5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

### II. CASING:

1. The 13 3/8 inch shall be set at 1050 Feet or at least 25 ft into the Top of the Rustler and must be set above the Top of the Salt sited at 1064 Ft. with cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
2. The minimum required fill of cement behind the 9 5/8 inch Intermediate casing is to circulate to surface.
3. The minimum required fill of cement behind the 7 inch Production casing is to Tie back into 9 5/8" shoe by at least 200 feet.
4. The minimum required fill of cement behind the 4 1/2 liner is to circulate to top of liner.

### III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13 3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

### **III. Pressure Control (continued):**

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3 M psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the test.

- The test shall be done by an independent service company
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures.
- Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in safe workman-like manner. Hard line connections shall be required.
- Both low pressure and high pressure testing of BOPE is required.

BLM Serial Number: NM-86149  
Company Reference: Pogo Producing Co.  
Well No. & Name: Red Tank 26 Federal #13H

STANDARD STIPULATIONS FOR PERMANENT RESOURCE ROADS  
CARLSBAD FIELD OFFICE

A copy of the grant and attachments, including stipulations and map, will be on location during construction. BLM personnel may request to view a copy of your permit during construction to ensure compliance with all stipulations.

The holder/grantee/permittee shall hereafter be identified as the holder in these stipulations. The Authorized Officer is the person who approves the Application for Permit to Drill (APD) and/or Right-of-Way (ROW).

GENERAL REQUIREMENTS

A. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

B. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, *et. seq.*) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

C. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, *et. seq.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et. seq.*) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

D. If, during any phase of the construction, operation, maintenance, or termination of the road, any oil or other pollutant should be discharged, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting there from, the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

E. The holder shall minimize disturbance to existing fences and other improvements on public domain surface. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times.

The holder will make a documented good-faith effort to contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence.

F. The Holder shall ensure that the entire right-of-way, including the driving surface, ditching and drainage control structures, road verges and any construction sites or zones, will be kept free of the following plant species: Malta starthistle, African rue, Scotch thistle and salt cedar.

Holder agrees to comply with the following stipulations:

1. ROAD WIDTH AND GRADE

The road will have a driving surface of 14 feet (all roads shall have a minimum driving surface of 12 feet, unless local conditions dictate a different width). The maximum grade is 10 percent unless the box below is checked. Maximum width of surface disturbance from construction will be 30 feet.

☐ Those segments of road where grade is in excess of 10% for more than 300 feet shall be designed by a professional engineer.

2. CROWNING AND DITCHING

Crowning with materials on site and ditching on one side of the road on the uphill side will be required. The road cross-section will conform to the cross section diagrams in Figure 1. If conditions dictate, ditching may be required for both sides of the road; if local conditions permit, a flat-bladed road may be considered (if these conditions exist, check the appropriate box below). The crown shall have a grade of approximately 2% (i.e., 1" crown on a 12' wide road).

/ X / Ditching will be required on both sides of the roadway as shown on the attached map or as staked in the field.

        
/    / Flat-blading is authorized on segment(s) delineated on the attached map.

### 3. DRAINAGE

Drainage control shall be ensured over the entire road through the use of borrow ditches, outsloping, insloping, natural rolling topography, lead-off (turnout) ditches, culverts, and/or drainage dips.

A. All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval for lead-off ditches shall be determined according to the following table, but may be amended depending upon existing soil types and centerline road slope (in %):

#### SPACING INTERVAL FOR TURNOUT DITCHES

Percent slope	Spacing interval
0% - 4%	400' - 150'
4% - 6%	250' - 125'
6% - 8%	200' - 100'
8% - 10%	150' - 75'

A typical lead-off ditch has a minimum depth of 1 foot below and a berm 6 inches above natural ground level. The berm will be on the down-slope side of the lead-off ditch. The ditch end will tie into vegetation whenever possible.

For this road the spacing interval for lead-off ditches shall be at

        
/ X / 400 foot intervals.

        
/    /        foot intervals.

        
/    / locations staked in the field as per spacing intervals above.

        
/    / locations delineated on the attached map.

B. Culvert pipes shall be used for cross drains where drainage dips or low water crossings are not feasible. The minimum culvert diameter must be 18 inches. Any culvert pipe installed shall be of sufficient diameter to pass the anticipated flow of water. Culvert location and required diameter are shown on the attached map (Further details can be obtained from the Roswell District Office or the appropriate Resource Area Office).

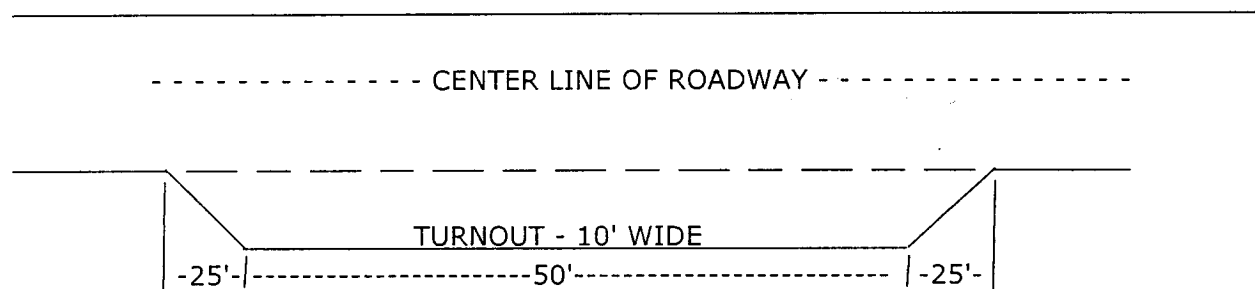
C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

$$\text{spacing interval} = \frac{400'}{\text{road slope in \%}} + 100'$$

Example: 4% slope: spacing interval =  $\frac{400}{4} + 100 = 200$  feet

#### 4. TURNOUTS

Unless otherwise approved by the Authorized Officer, vehicle turnouts will be required. Turnouts will be located at 2000-foot intervals, or the turnouts will be intervisible, whichever is less. Turnouts will conform to the following diagram:



STANDARD TURNOUT - PLAN VIEW

#### 5. SURFACING

Surfacing of the road or those portions identified on the attached map may, at the direction of the Authorized Officer, be required, if necessary, to maintain traffic within the right-of-way with caliche, gravel, or other surfacing material which shall be approved by the Authorized Officer. When surfacing is required, surfacing materials will be compacted to a minimum thickness of six inches with caliche material. The width of surfacing shall be no less than the driving surface. Prior to using any mineral materials from an existing or proposed Federal source, authorization must be obtained from the Authorized Officer.

A sales contract for the removal of mineral materials (caliche, sand, gravel, fill dirt, etc.) from an authorized pit, site, or on location must be obtained from the BLM prior to using any such mineral material from public lands. Contact the BLM solid minerals staff for the various options to purchase mineral material.

#### 6. CATTLEGUARDS

Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads (exceeding H-20 loading), are anticipated (See BLM standard drawings for cattleguards). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

7. MAINTENANCE

The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, drainage installation, cattleguard maintenance, and surfacing.

8. PUBLIC ACCESS

Public access along this road will not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the Authorized Officer.

9. CULTURAL RESOURCES

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the authorized officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the authorized officer after consulting with the holder.

10. SPECIAL STIPULATIONS:

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-144  
June 1, 2004

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Pogo Producing Company Telephone: 432-685-8100 e-mail address: wrightc@pogoproducing.com  
Address: P.O. Box 10340, Midland, TX 79702-7340  
Facility or well name: Red Tank 26 Fed #13 API #: 30-025-37447 U/L or Qtr/Qtr C Sec 26 T 22S R 32E  
County: Lea County Latitude 32:22:05.04N Longitude 103:38:45.72W NAD: 1927 ☒ 1983 ☐  
Surface Owner: Federal ☒ State ☐ Private ☐ Indian ☐

**Pit**

Type: Drilling ☒ Production ☐ Disposal ☐  
Workover ☐ Emergency ☐  
Lined ☒ Unlined ☐  
Liner type: Synthetic ☒ Thickness 12 mil Clay ☐  
Pit Volume 16000 bbl

**Below-grade tank**

Volume:        bbl Type of fluid:                       
Construction material:                       
Double-walled, with leak detection? Yes ☐ If not, explain why not.                     

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)

Less than 50 feet	(20 points)
50 feet or more, but less than 100 feet	(10 points)
100 feet or more	( 0 points) <u>0</u>

Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)

Yes	(20 points)
No	( 0 points) <u>0</u>

Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet	(20 points)
200 feet or more, but less than 1000 feet	(10 points)
1000 feet or more	( 0 points) <u>0</u>

**Ranking Score (Total Points)**

0

**If this is a pit closure:** (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☐ If offsite, name of facility                     . (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface                      and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 08/03/05

Printed Name/Title Cathy Wright, Sr. Eng Tech Signature Cathy Wright

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title

**PETROLEUM ENGINEER**

Signature

Date

SEP 12 2005

Water Resources

Data Category:

Site Information

Geographic Area:

New Mexico

go

# Site Map for New Mexico

USGS 322314103384301 22S.32E.14.32322

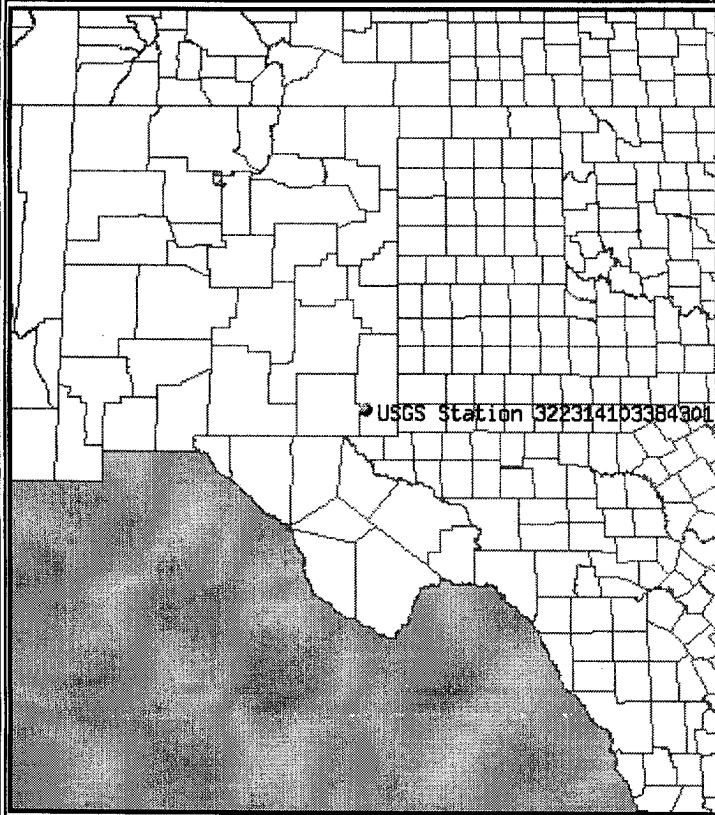
Available data for this site

site map

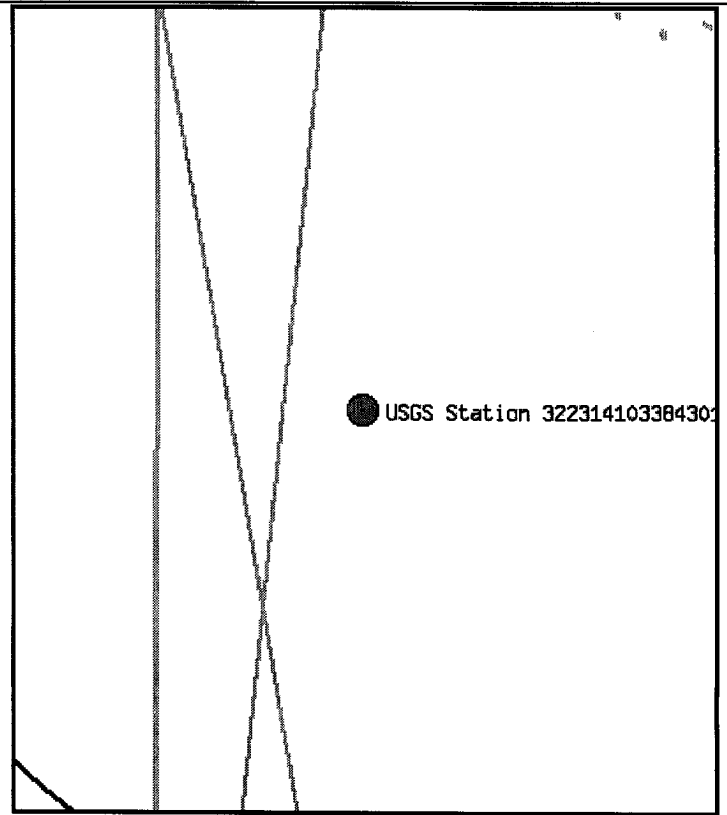
GO

Lea County, New Mexico  
Hydrologic Unit Code  
Latitude 32°23'14", Longitude 103°38'43" NAD27  
Gage datum 3,717.00 feet above sea level NGVD29

Location of the site in New Mexico.



Site map.



ZOOM IN 2X, 4X, 6X, 8X, or ZOOM OUT 2X, 4X, 6X, 8X.

Maps are generated by US Census Bureau TIGER Mapping Service.

Questions about data    [New Mexico NWISWeb Data Inquiries](#)  
Feedback on this website [New Mexico NWISWeb Maintainer](#)  
NWIS Site Inventory for New Mexico: Site Map  
<http://waterdata.usgs.gov/nm/nwis/nwismap?>

[Top](#)  
[Explanation of terms](#)

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Department of the Interior, U.S. Geological Survey

USGS Water Resources of New Mexico

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1.06 1.07 nadww01

Water Resources

Data Category:

Ground Water

Geographic Area:

New Mexico

go

# Ground-water levels for New Mexico

## Search Results -- 1 sites found

Search Criteria

site\_no list = • 322314103384301

Save file of selected sites to local disk for future upload

USGS 322314103384301 22S.32E.14.32322

Available data for this site

Ground-water: Levels

GO

Lea County, New Mexico

Hydrologic Unit Code

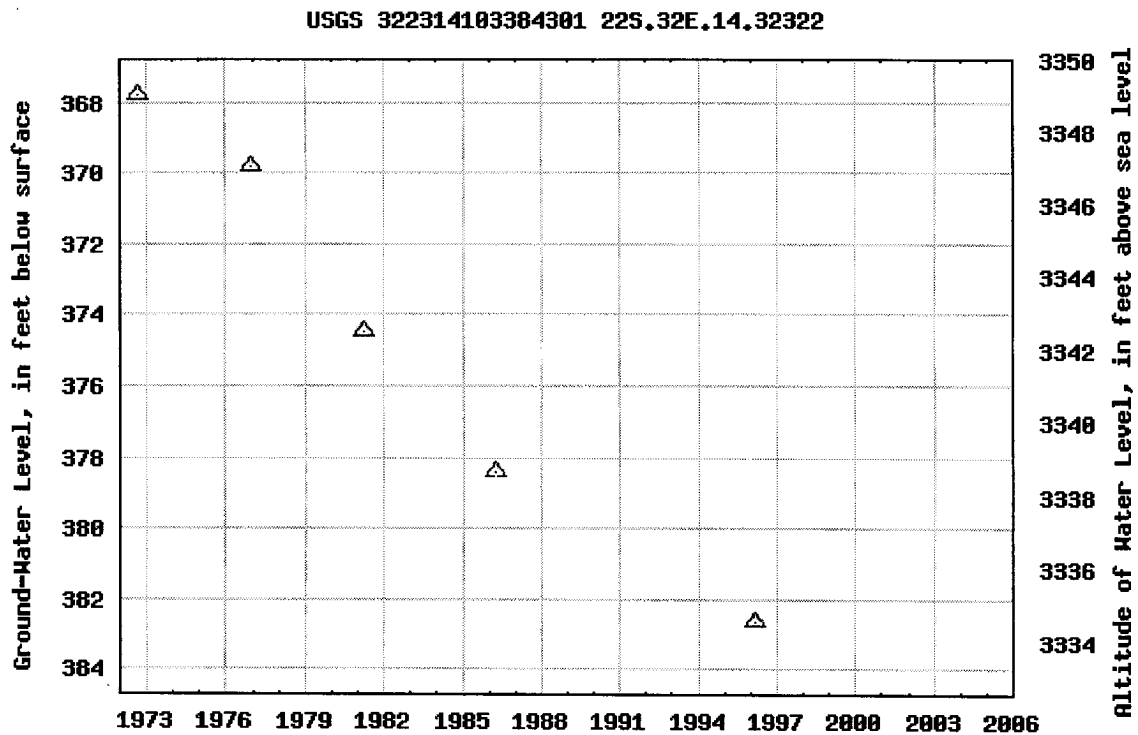
Latitude 32°23'14", Longitude 103°38'43" NAD27

Gage datum 3,717.00 feet above sea level NGVD29

The depth of the well is 435 feet below land surface.

This well is completed in SANTA ROSA SANDSTONE (231SNRS)

### Output formats

[Table of data](#)[Tab-separated data](#)[Graph of data](#)[Reselect period](#)

Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

[Download a presentation-quality graph](#)[Questions about data](#) [New Mexico NWISWeb Data Inquiries](#)[Feedback on this website](#) [New Mexico NWISWeb Maintainer](#)[Top](#)  
[Explanation of terms](#)

# Great Circle Calculator.

By Ed Williams

You need Javascript enabled if you want this page to do anything useful! For Netscape, it's under Options/Network Preferences/Languages.

## Compute true course and distance between points.

Enter lat/lon of points, select distance units and earth model and click "compute". Lat/lons may be entered in DD.DD, DD:MM.MM or DD:MM:SS.SS formats.

Note that if either point is very close to a pole, the course may be inaccurate, because of its extreme sensitivity to position and inevitable rounding error.

Input Data

Lat1		Lon1	
32:22:05.04	N	103:38:45.72	W
Lat2		Lon2	
32:23:14	N	103:38:43	W

Output

Course 1-2	Course 2-1	Distance
1.91684763	181.917252	1.147632303

Distance Units:  Earth model:

## Compute lat/lon given radial and distance from a known point

Enter lat/lon of initial point, true course and distance. Select distance units and earth model and click "compute". Lat/lons may be entered in DD.DD, DD:MM.MM or DD:MM:SS.SS formats.

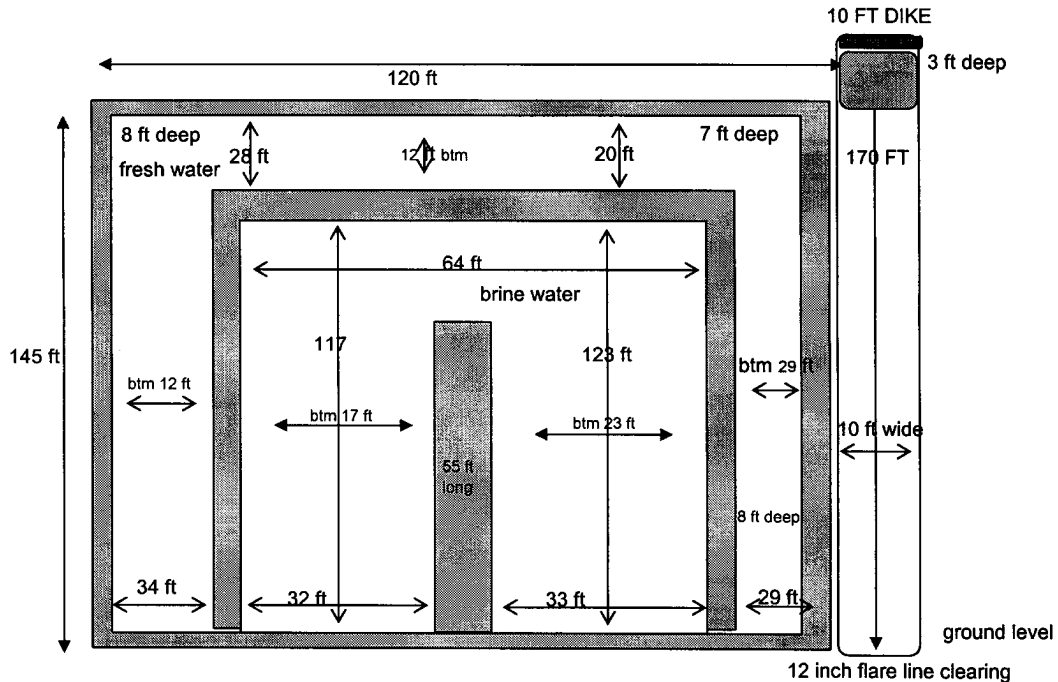
Note that the starting point cannot be a pole.

Input data

Lat1		Lon1	
0:00.00	N	0:00.00	W
Course 1-2		Distance 1-2	
360		0.0	

# **POGO Producing Company** **Red Tank 26 Federal #13** **Approximate Pit Dimensions**

C/26/22S/32E, Lea County, New Mexico



## **PIT NOTES:**

Pit will be lined with 12 mil Black plastic w/ UV protection.

Pit walls are 6 ft to 8 ft wide.

Pit is 8 ft deep below ground level plus 2 ft walls

Pit walls are 2 ft above ground level.

Caliches mined from pit used to make Well Pad.

Fresh Water volume to ground level =  $\pm$  7950 bbls

Brine Water volume to ground level =  $\pm$  7730 bbls

12 inch Flare line laid on gradual descending graded ROW away from rig to avoid fluid trapping

Fresh water well = (Nad 27) 32° 23' 14" N & 103° 38' 43" W "Published data"

This well produces from a depth greater than 100 ft.

Pit equals approx 16000 bbls