

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT **OPERATOR'S COPY**

## 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 915-685-8140)

## 3. ADDRESS AND TELEPHONE NO.

P.O. BOX 10340 MIDLAND, TEXAS 79702-7340 (915-695-8100)

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

At surface

1830' ~~1980'~~ FSL SECTION 23 T24S-R29E EDDY CO. NM

At proposed prod. zone SAME

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

Approximately 12 miles East-Northeast of Malaga New Mexico

## 15. DISTANCE FROM PROPOSED\*

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

660'

## 16. NO. OF ACRES IN LEASE

40

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.

NA

## 19. PROPOSED DEPTH

8200'

## 20. ROTARY OR CABLE TOOLS

ROTARY

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

3025' GR **Carlsbad Controlled Water Basin**

## 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
25"	Conductor	NA	40'	Cement to surface with Redi-mix.
17½"	H-40 13 3/8"	48	600'	450 Sx. Circulate to surface
11"	J-55 8 5/8"	32	3000'	800 Sx. " " "
7 7/8"	J-55 5½"	17 & 15.5	8200'	1250 Sx. 2 stage TOC est 2000' FS

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17½" hole to 600'. Run and set 600' of 13 3/8" 48# H-40 ST&C casing. Cement with 250 Sx. of Class "C" 65/35/6 POZ/GEL tail in with 200 Sx. of Class "C" cement + 2% CaCl + ¼# Flocele/Sx. Circulate cement to surface.
3. Drill 11" hole to 3000'. Run and set 3000' of 8 5/8" 32# J-55 ST&C casing. Cement with 600 Sx. of Class "C" 65/35/6 POZ/GEL, +5% Salt, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface.
4. Drill 7 7/8" hole to 8200'. Run and set 8200' of 5½" casing as follows: 2200' of 5½" 17# J-55 LT&C, 5000' of 5½" 15.5# J-55 LT&C, 1000' of 5½" 17# J-55 LT&C casing. Cement in 2 stages with DV Tool at 4500'±. Cement 1st stage with 650 Sx. of Class "C" + 8# Gilsonite/Sx. 2nd stage cement with 600 Sx. of Class "C" + 6# of Gilsonite/Sx. Estimate top of cement 2000' from surface.

N 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.

SIGNED

TITLE Agent

DATE 08/17/04

(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 property which are necessary for the proposed operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

TITLE

FIELD MANAGER

DATE

8/31/04

\*See Instructions On Reverse Side

**APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED**

# State of New Mexico

Energy, Minerals and Natural Resources Department

## DISTRICT I

1625 N. FRENCH DR., HOBBS, NM 88240

## DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

## DISTRICT III

1000 Rio Braxos Rd., Aztec, NM 87410

## DISTRICT IV

1220 S. ST. FRANCES DR., SANTA FE, NM 87505

## 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

## WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 50371	Pool Name PIERCE CROSSING-BONE SPRING
Property Code	Property Name RIVER BEND 23 FEDERAL	Well Number 16
OGRID No. 17891	Operator Name POGO PRODUCING COMPANY	Elevation 3023'

### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	23	24-S	29-E		1830	SOUTH	1980	EAST	EDDY

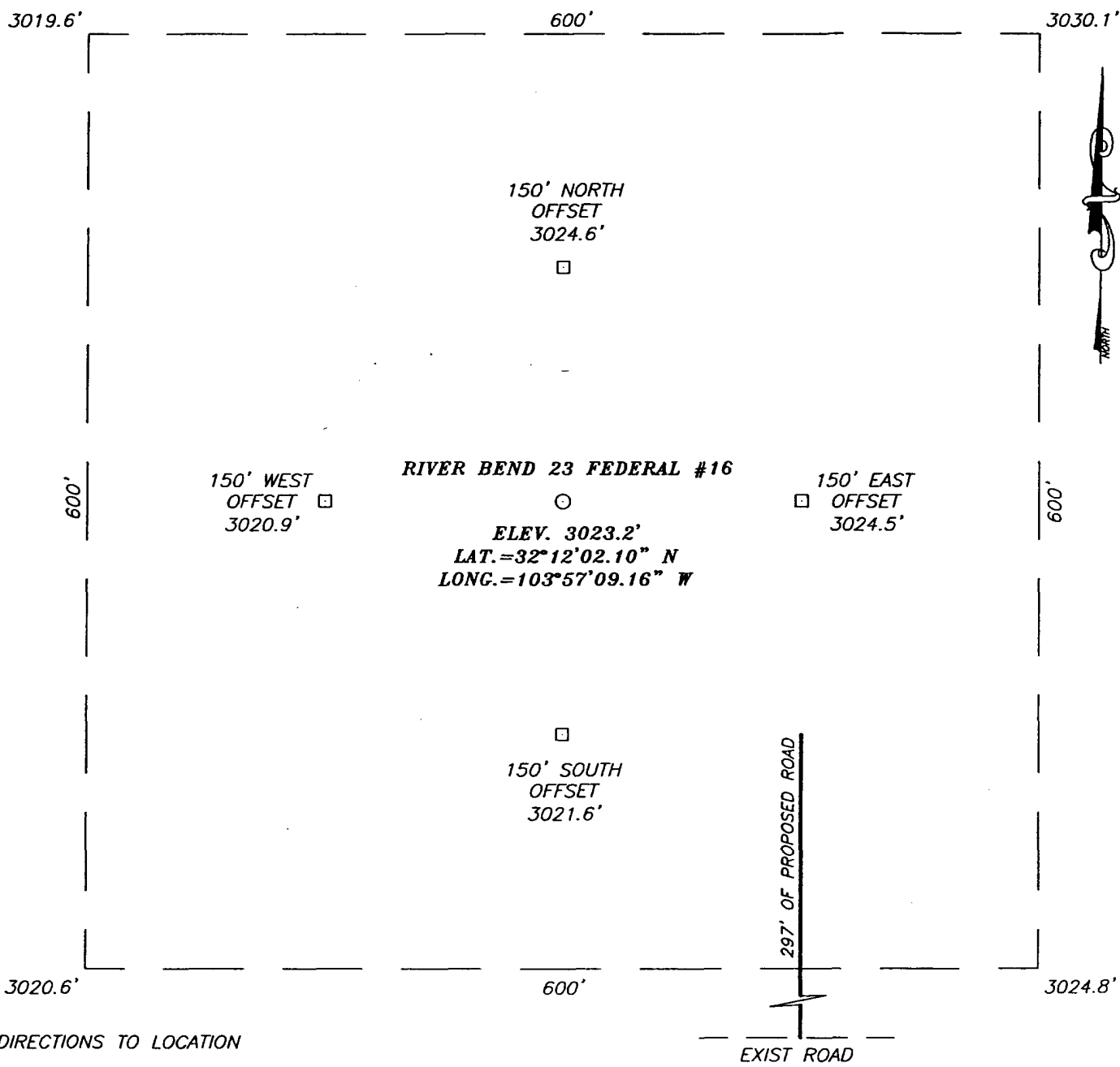
### Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	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

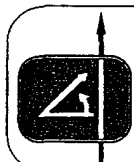
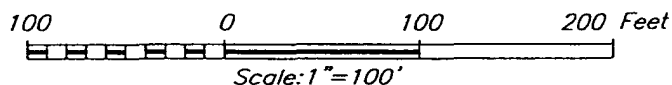
<p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=436900.6 N X=617785.3 E</p> <p>LAT.=32°12'02.10" N LONG.=103°57'09.16" W</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Joe T. Janica</i> Signature Joe T. Janica Printed Name Agent Title 08/25/04 Date</p> <p><b>SURVEYOR CERTIFICATION</b></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>AUGUST 23, 2004</p> <p>Date Surveyed Signature &amp; Seal of Professional Surveyor Professional Surveyor 04.11.1004 Certificate No. RONALD J. EDSON 3239</p>
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**SECTION 23, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.,**  
**EDDY COUNTY, NEW MEXICO**



**DIRECTIONS TO LOCATION**

FROM THE "PIERCE CANYON CROSSING" (ON  
 PIERCE CANYON ROAD AT THE RIVER CROSSING)  
 GO PAST RIVER AND FOLLOW THE HORSESHOE  
 BEND TO THE RIGHT FOR APPROX. 900' TO A TEE,  
 TAKE A LEFT AND FOLLOW MEANDERING ROAD  
 (NORTH) APPROX. 0.45 MILES TO A TEE IN THE  
 ROAD. GO RIGHT ALONG MEANDERING ROAD FOR  
 APPROX. 2.0 MILES TO THE PROPOSED ROAD  
 SURVEY ON THE NORTHSIDE OF THE ROAD.  
 FOLLOW PROPOSED ROAD SURVEY NORTH FOR  
 APPROX. 297' TO PROPOSED LOCATION.



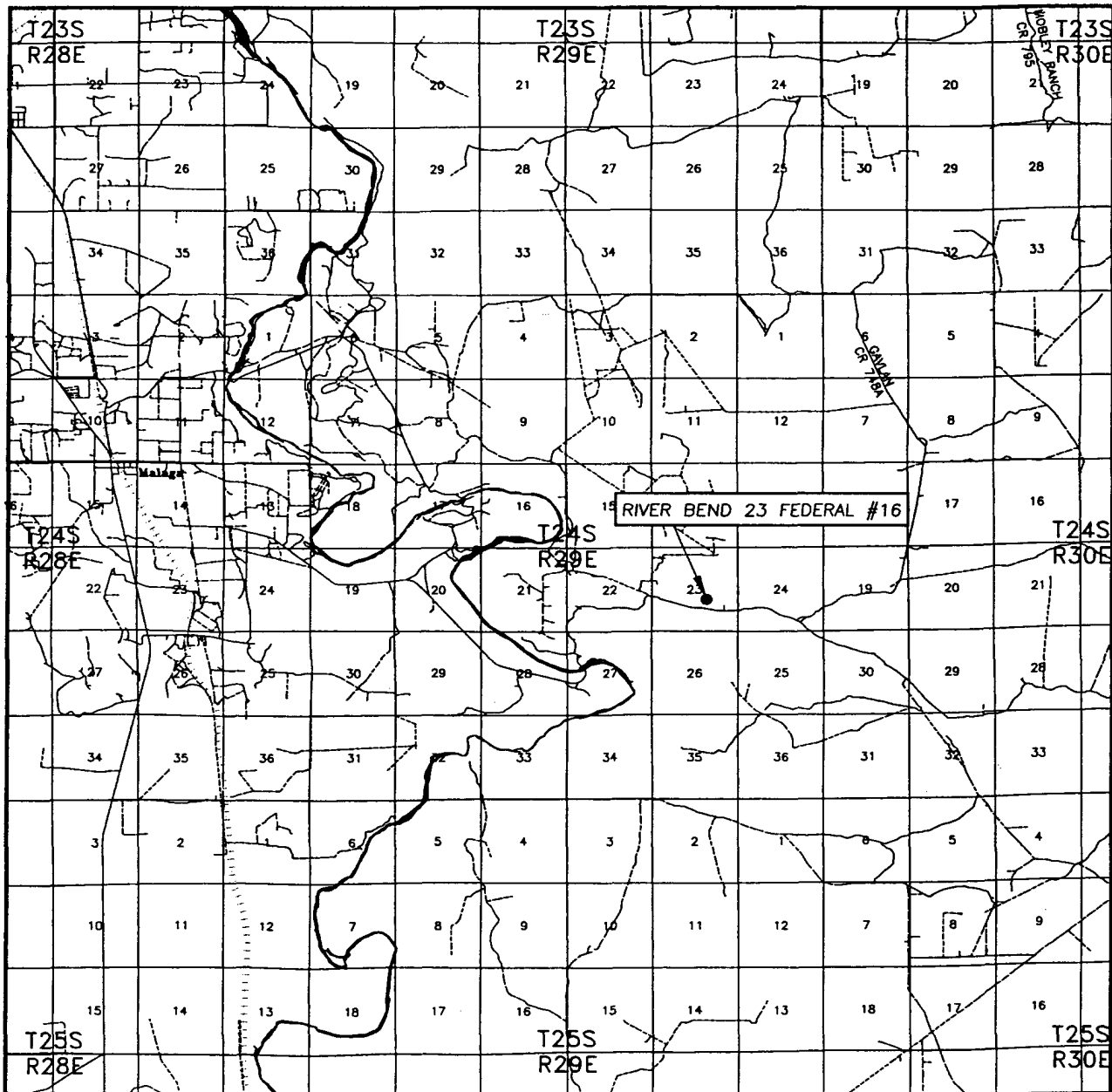
**PROVIDING SURVEYING SERVICES  
 SINCE 1946**  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 383-3117

**POGO PRODUCING COMPANY**

RIVER BEND 23 FEDERAL #16 WELL  
 LOCATED 1830 FEET FROM THE SOUTH LINE  
 AND 1980 FEET FROM THE EAST LINE OF SECTION 23,  
 TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.

Survey Date: 08/23/04	Sheet 1 of 1 Sheets
W.O. Number: 04.11.1004	Dr By: J.R.
Date: 08/24/04	Disk: CD#10
04111004	Scale: 1"=100'

# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 23 TWP. 24-S RGE. 29-E

SURVEY N.M.P.M.

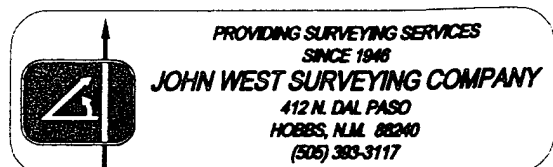
COUNTY EDDY

DESCRIPTION 1830' FSL & 1980' FEL

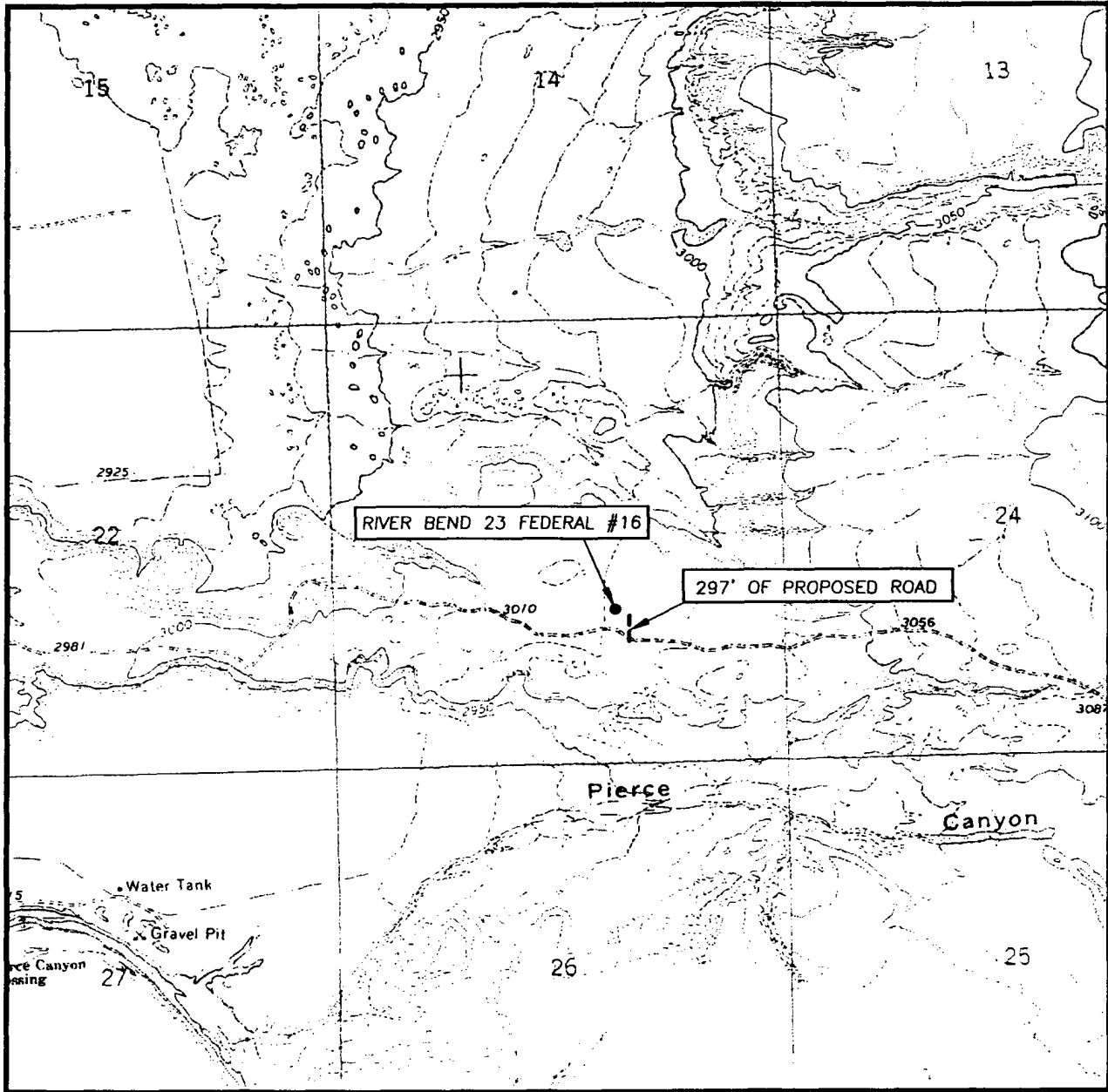
ELEVATION 3023'

OPERATOR POGO PRODUCING COMPANY

LEASE RIVER BEND 23 FEDERAL



# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
PIERCE CANYON, N.M. - 10'

SEC. 23 TWP. 24-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY

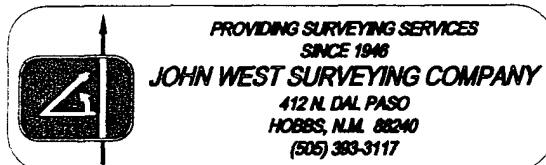
DESCRIPTION 1830' FSL & 1980' FEL

ELEVATION 3023'

OPERATOR POGO PRODUCING COMPANY

LEASE RIVER BEND 23 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP  
PIERCE CANYON, N.M.



APPLICATION TO DRILL

POGO PRODUCING COMPANY  
RIVER BEND "23" FEDERAL # 16  
UNIT "J" SECTION 23  
T24S-R29E EDDY CO. NM

In response to questions asked under Section 11 of Bulletin N-11-0 the following information on the above well is provided for your consideration.

1. Location: 1980' FSL & 1980' FEL SECTION 23 T24S-R29E EDDY CO. NM
2. Elevation above Sea Level: 3025' GR.
3. Geologic name of surface formation: Quaternary Aeolian Deposits.
4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.
5. Proposed drilling depth: 8200'
6. Estimated tops of geological markers:

Basal Anhydrite	2720'	Manzanita	3980'
Delaware Lime	3050	Brushy Canyon	5050'
Bell Canyon	3075'	Bone Spring	6700'
Cherry Canyon	3830'	1st Bone Spring	7700'
7. Possible mineral bearing formations:

Manzanita	Oil
Bone Spring	Oil
8. Casing program:

Hole size	Interval	OD of casing	Weight	Thread	Collar	Grade
25"	0-40	20"	NA	NA	NA	Conductor
17½"	0-600'	13 3/8"	48	8-R	ST&C	H-40
11"	0-3000'	8 5/8"	32	8-R	ST&C	J-55
7 7/8"	0-8200'	5½"	17 & 15.5	8-R	LT&C	J-55

# APPLICATION TO DRILL

POGO PRODUCING COMPANY  
RIVER BEND "23" FEDERAL # 16  
UNIT "J" SECTION 23  
T24S-R29E EDDY CO. NM

## 9. CEMENTING & CASING SETTING DEPTHS:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Set 600' of 13 3/8" 48# H-40 ST&C casing. Cement with 250 Sx. of 65/35/6 Class "C" POZ/GEL, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement.
8 5/8"	Intermediate	Set 3000' of 8 5/8" 32# J-55 ST&C casing. Cement with 600 Sx/ of Class "C" 65/35/6 Ooz/GEL + 5% Salt, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface.
5 1/2"	Production	Set 8200' of 5 1/2" as follows: 2200' of 5 1/2" 17# J-55 LT&C, 5000' of 5 1/2" 15.5# J-55 LT&C, 1000' of 5 1/2" 17# J-55 LT&C. Cement in 2 stages, DV Tool at 4500'±. Cement 1st stage with 650 Sx. of Class "C" cement + 8# Gilsonite/Sx., 2nd stage cement with 600 Sx. of Class "C" cement + 6# Gilsonite/Sx. Estimate top of cement 2000' from surface.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 2000 PSI working pressure B.O.P. consisting of Pipe Rams, Blind Rams, Pack Off, and a Bell Nipple. Exhibit "E-1" shows a 3000 PSI choke manifold. This B.O.P. will be nipped up on the 8 5/8" casing and remain on the hole to TD. After the B.O.P. is installed it will be tested to API specifications and will be operated at least once in each 24 hour period and blind rams will be operated when the drill pipe is out of hole. Full opening stabbing valve and kelly cock will be utilized. No abnormal pressures are expected in this well as none has been experienced in this area. No abnormal temperatures are expected.

## 11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD
40-600'	8.4-8.7	29-32	NC	Fresh water Spud mud add paper to control seepage.
600-3000'	10.0-10.2	29-34	NC	Brine water add paper to control seepage and use high viscosity sweeps to clean hole.
3000-8200'	8.4-8.7	29-38	NC*	Fresh water use high viscosity sweeps to clean hole.

\* In case water loss is required while drilling through the pay section or is needed in order to run logs, DST's and/or casing, go to a Dris-Pac system.

Sufficient mud materials to maintain mud properties, lost circulation, increased weight requirements, will be kept at the well site at all times. In order to run logs, casing, and DST's the viscosity and water loss may have to be altered. These mud materials will be on location.

APPLICATION TO DRILL

POGO PRODUCING COMPANY  
RIVER BEND "23" FEDERAL # 16  
UNIT "J" SECTION 23  
T24S-R29E EDDY CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: Run Dual Induction, CNL, LDT, Gamma Ray, Caliper from TD back to the 8 5/8" casing shoe.
- B. Run Gamma Ray, Neutron logs from 8 5/8" casing shoe back to surface.
- C. No DST's or cores are planned at this time.
- D. Mud logger will be rigged up on hole at 3000'±.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H<sup>2</sup>S in this area. If H<sup>2</sup>S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 2500 PSI, and Estimated BHT 140°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 28 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The BONE SPRING formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialized as an oil well.



## 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" & "E-1"
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 the location is near to a dwelling a closed DST 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  
RIVER BEND "23" FEDERAL # 16  
UNIT "J" SECTION 23  
T24S-R29E EDDY 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 Malaga New Mexico take CO Road 720 (Duarte Road) East 14.± miles to CO Road 746 (McDonald Raod) follow road to Pierce Crossing on the Pecos. Follow road North and East for approximately 2.5 miles to location on the North side of road. Turn North (Left) go 450'± to location.
  - C. Exhibit "C" shows possible route of flowline to existing tank battery.
2. PLANNED ACCESS ROADS: Approximately 450' of new road will be constructed.
  - 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 - None known
  - 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  
RIVER BEND "23" FEDERAL # 16  
UNIT "J" SECTION 23  
T24S-R29E EDDY 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  
RIVER BEND "23" FEDERAL # 16  
UNIT "J" SECTION 23  
T24S-R29E EDDY 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 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.
- 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 requirements.

### 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  
RIVER BEND "23" FEDERAL # 16  
UNIT "J" SECTION 23  
T24S-R29E EDDY CO. NM

11. OTHER INFORMATION:

- A. Topography consists of relatively deep canyons with the drainage Westerly to the Pecos river. The soil up on the mesas is sandy with mesquite, yucca and native grasses.
- B. The surface is owned by The U.S. Department of Interior and is administered by The Bureau of Land Management. The surface is used for the grazing of livestock and the production of Oil & 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 Carlsbad Field office.
- D. There are no dwellings in the near vicinity of this location.

12. OPERATION'S 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:

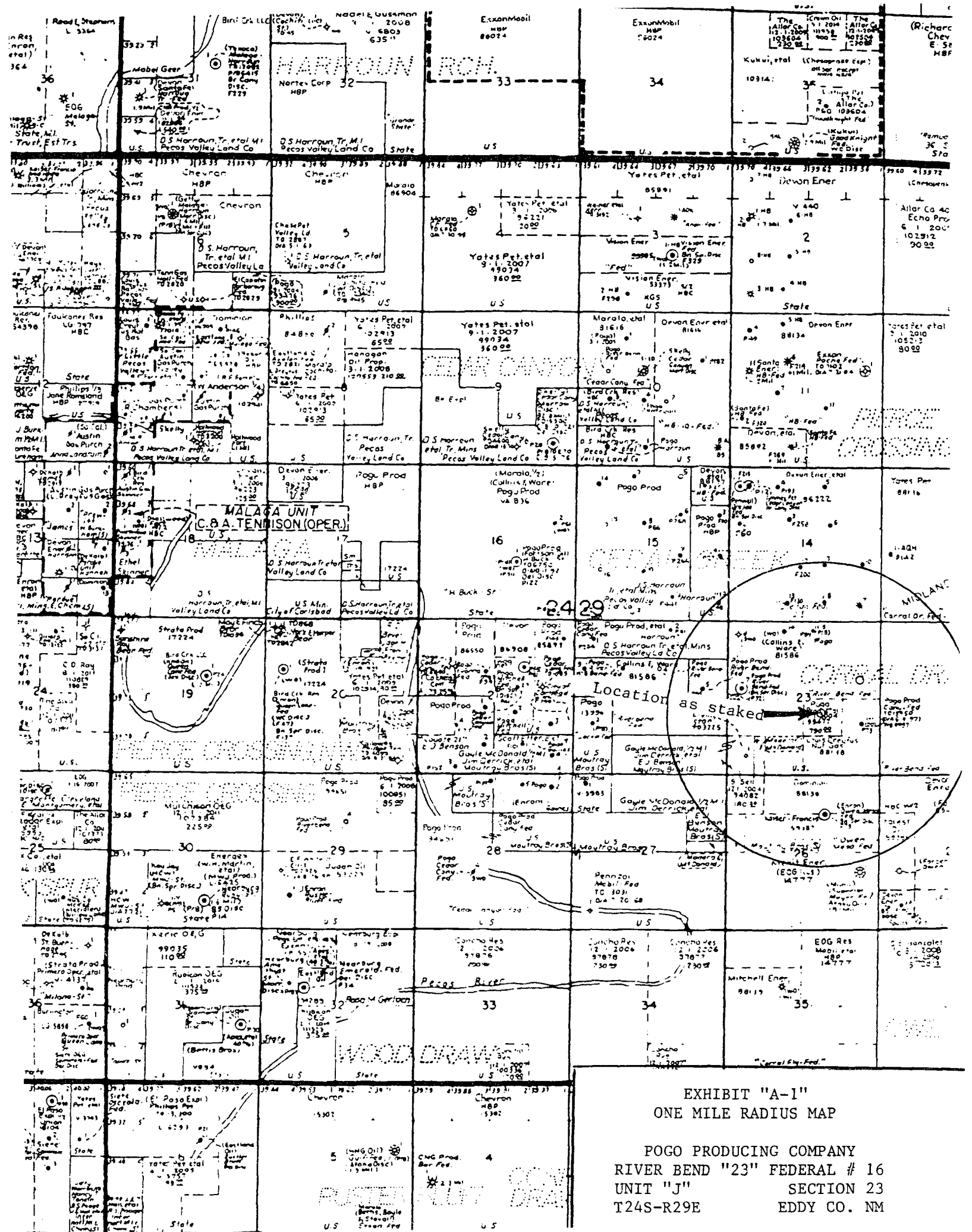
POGO PRODUCING COMPANY  
P.O. BOX 10340  
MIDLAND, TEXAS 79702-7340  
RICHARD WRIGHT  
OFFICE Ph. 432-685-8140

13. CERTIFICATION: I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and the 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 are 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 conformity 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 : Joe T. Janica

DATE : 08/17/04

TITLE : Agent



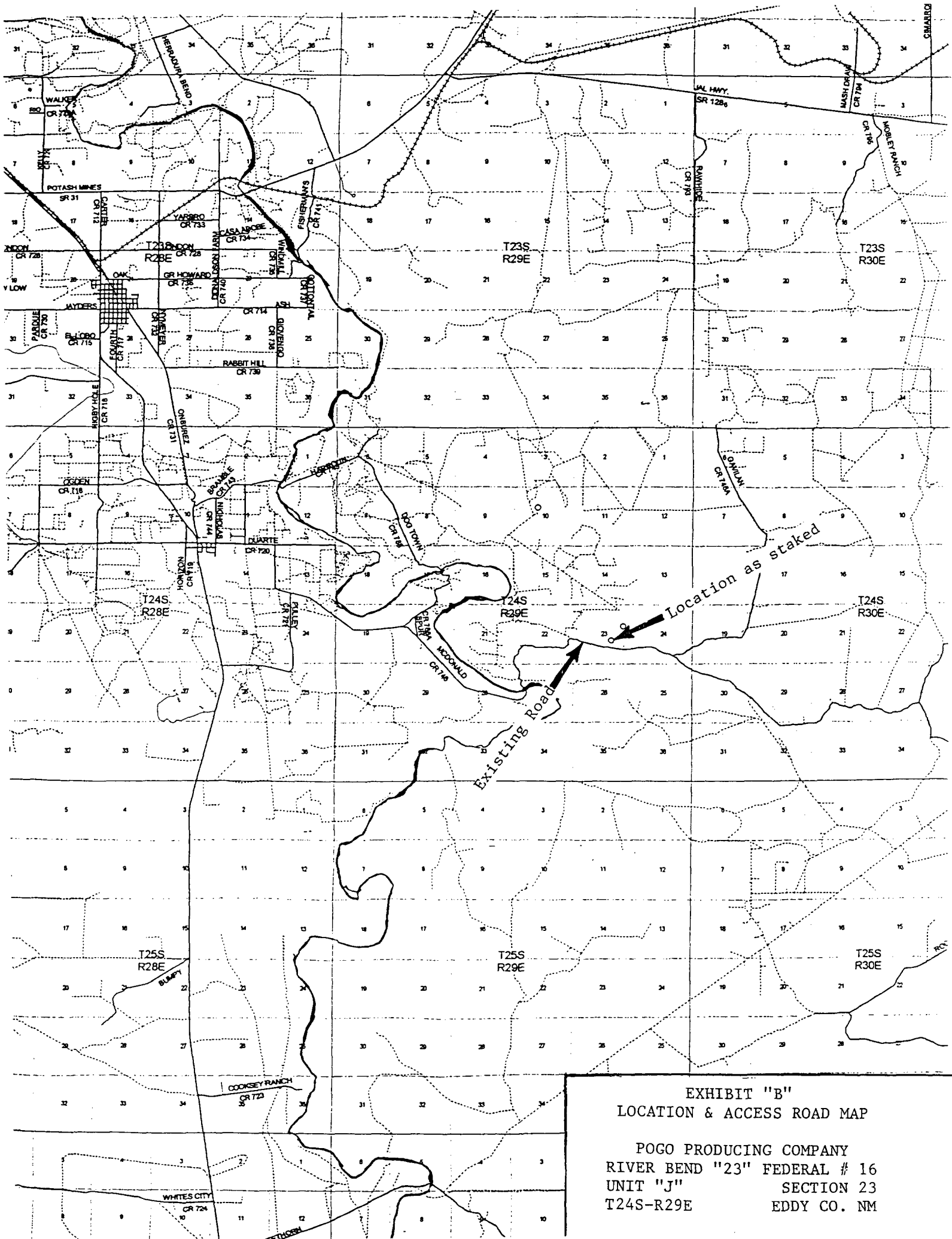
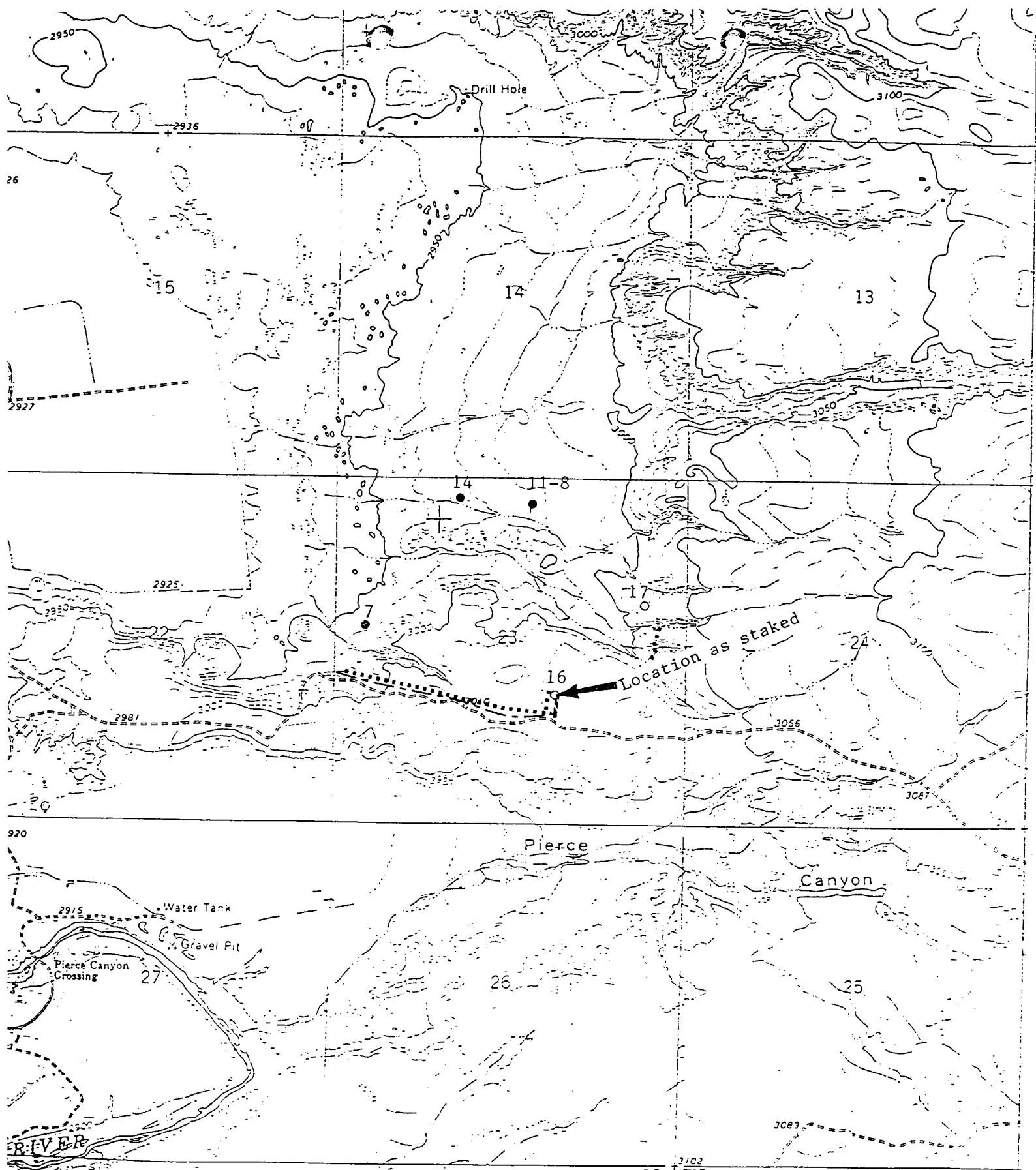


EXHIBIT "B"  
LOCATION & ACCESS ROAD MAP  
  
POGO PRODUCING COMPANY  
RIVER BEND "23" FEDERAL # 16  
UNIT "J" SECTION 23  
T24S-R29E EDDY CO. NM





EXISTING ROAD



PROPOSED ROAD



PROPOSED FLOWLINE



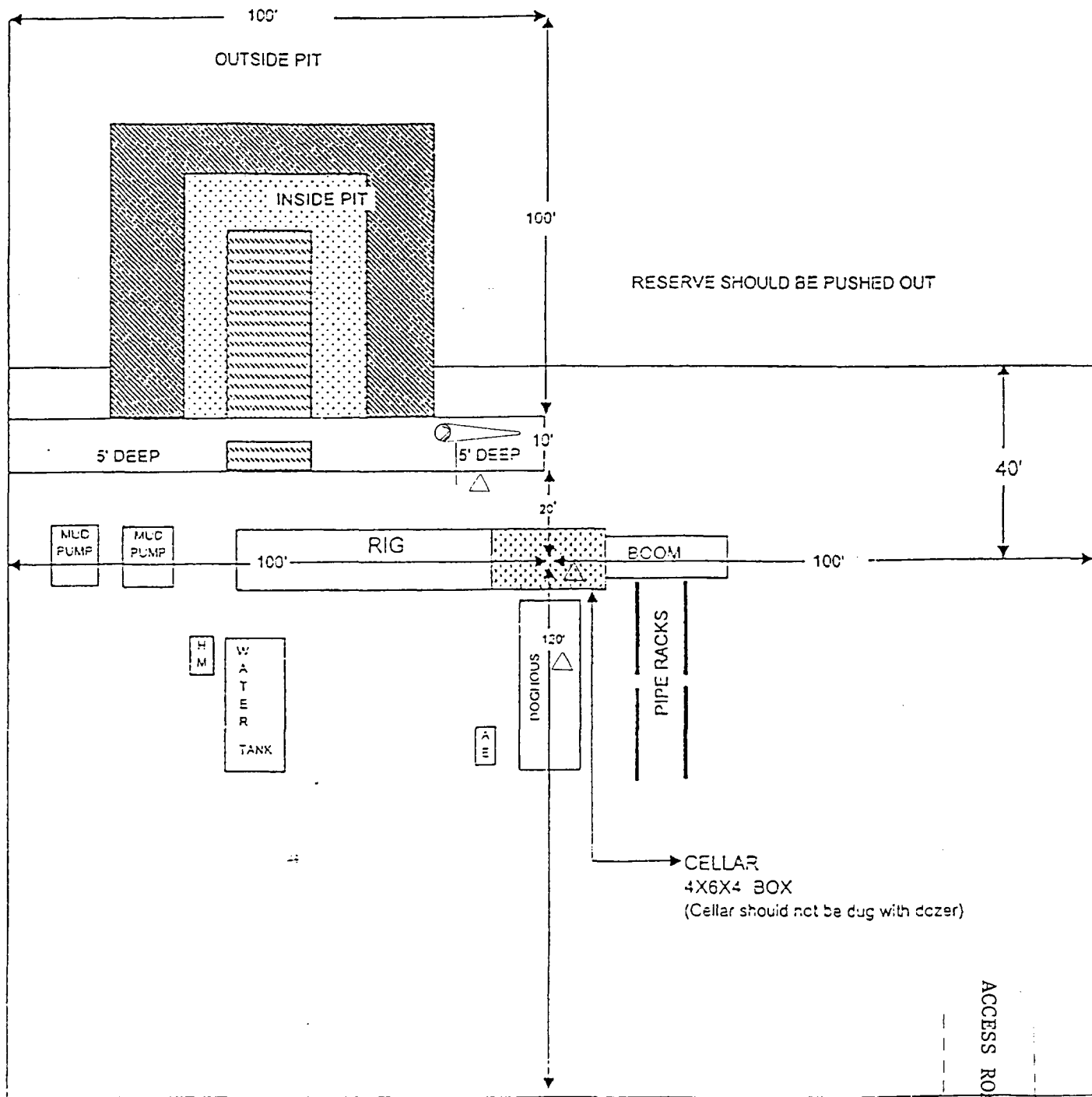
PROPOSED POWERLINE



EXHIBIT "C"  
TOPOGRAPHIC MAP SHOWING  
ROADS & DIRECTIONS TO

POGO PRODUCING COMPANY  
RIVER BEND "23" FEDERAL # 16  
UNIT "J" SECTION 23  
T24S-R29E EDDY CO. NM

# LOCATION OF EQUIPMENT AND RISER FOR FOR EARTH PITS



Cellar can be 4X4X4 if using a screw-on wellhead  
Working Pits dug 5' below ground level

- 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

Location Specs

## EXHIBIT "D" RIG LAY OUT PLAT

POGO PRODUCING COMPANY  
RIVER BEND "23" FEDERAL # 16  
UNIT "J" SECTION 23  
T24S-R29E EDDY CO. NM

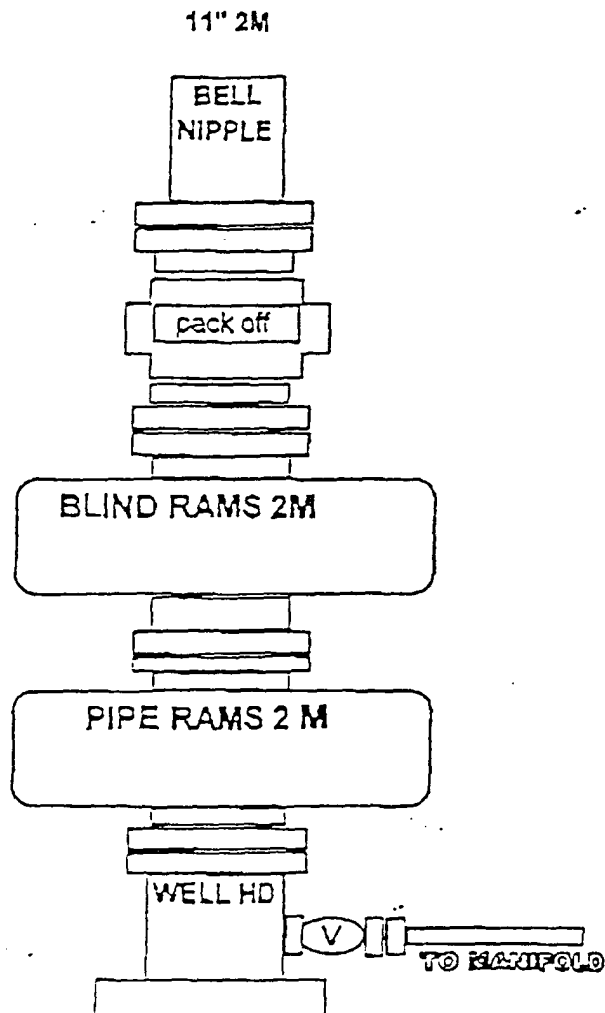


EXHIBIT "E"  
SKETCH OF B.O.P. TO BE USED ON

POGO PRODUCING COMPANY  
RIVER BEND "23" FEDERAL # 16  
UNIT "J" SECTION 23  
T24S-R29E EDDY CO. NM

3000 PSI WP

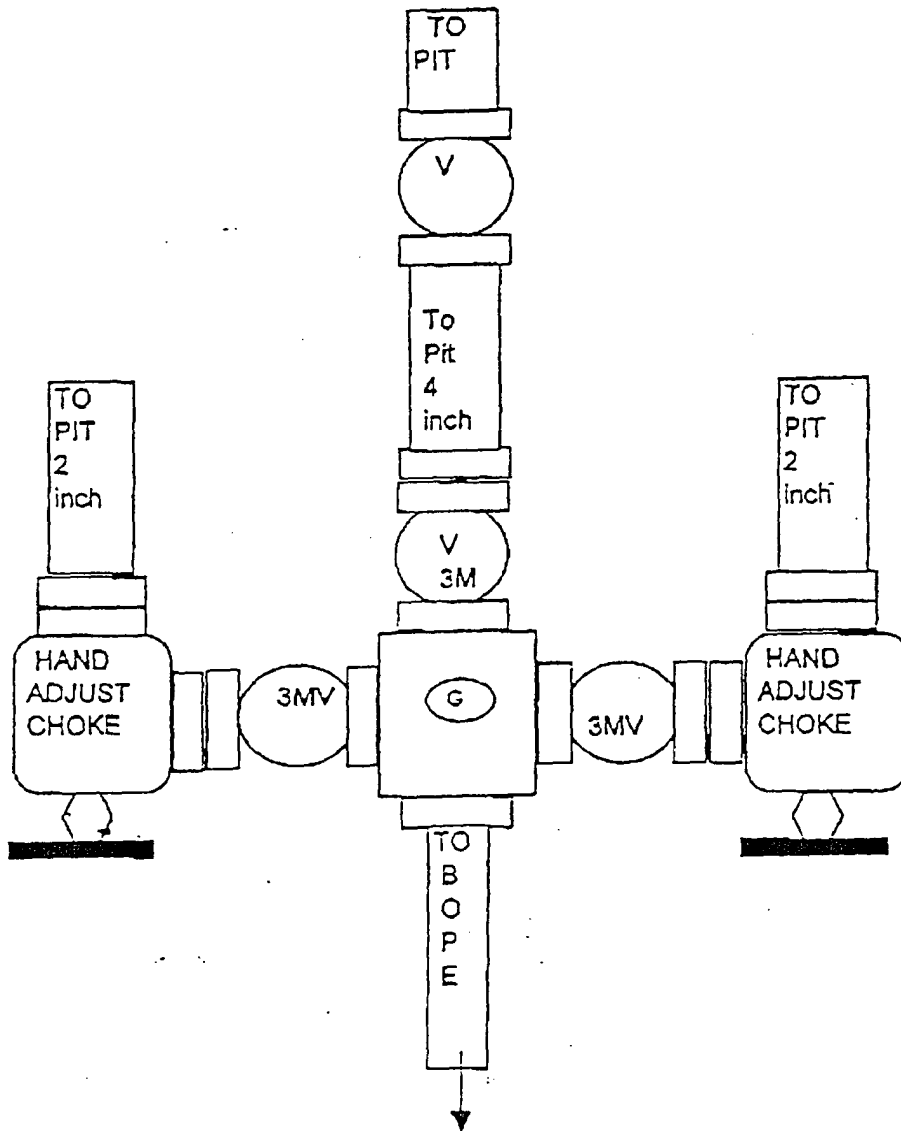


EXHIBIT "E-1"  
SKETCH OF CHOKE MANIDOLD

POGO PRODUCING COMPANY  
RIVER BEND "23" FEDERAL # 16  
UNIT "J" SECTION 23  
T24S-R29E EDDY CO. NM

SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name Pogo Producing Company Well Name & No. 16-River Bend 23 Federal  
Location 1830 F S L & 1980 F E L Sec. 23, T. 24 S, R. 29 E.  
Lease No. NM-93477 County Eddy State New Mexico

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

- ( ) Lesser Prairie Chicken (stips attached)  
( ) San Simon Swale (stips attached)

- (☒) Flood plain (stips attached)  
( ) Other

See attached archaeological stipulations.

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

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

(☒) Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche upon completion of well and it is determined to be a producer.

( ) 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.

(☒) Other. Flow Line & Power Line NOT authorized under this permit

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 1/2 inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre.

- ( ) A. Seed Mixture 1 (Loamy Sites)  
Side Oats Grama (*Bouteloua curtipendula*) 5.0  
Sand Dropseed (*Sporobolus cryptandrus*) 1.0

- ( ) B. Seed Mixture 2 (Sandy Sites)  
Sand Dropseed (*Sporobolus cryptandrus*) 1.0  
Sand Lovegrass (*Eragrostis trichodes*) 1.0  
Plains Bristlegrass (*Setaria magrostachya*) 2.0

- ( ) C. Seed Mixture 3 (Shallow Sites)  
Side oats Grama (*Boute curtipendula*) 1.0

- (☒) D. Seed Mixture 4 (Gypsum Sites)  
Alkali Sacaton (*Sporobolus airoides*) 1.0  
Four-Wing Saltbush (*Atriplex canescens*) 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.

## CONDITIONS OF APPROVAL - DRILLING

Operator's Name: POGO PRODUCING COMPANY  
Well Name & No. 16 - RIVER BEND 23 FEDERAL  
Location: 1830 1980' FSL & 1980' FEL - SEC 23 - T24S - R29E - EDDY COUNTY  
Lease: NM-93477

### 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) 234-5909 or (505) 361-2822 (After hours) - 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 8-5/8 inch 5-1/2 inch
  - C. BOP tests
2. 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.
3. 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.
4. 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 surface casing shall be set between 600 feet, below usable water and 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 8-5/8 inch salt protection casing is circulate cement to the surface.
3. The minimum required fill of cement behind the 5-1/2 inch production casing is cement shall extend upward a minimum of 500 feet above the uppermost hydrocarbon bearing interval.

(ORIG. SGD.) LES BABYAK

### **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.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) is 2000 psi.

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

- The tests 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 a safe workman-like manner. Hard line connections shall be required.

BLM Serial Number: NM-93477

Company Reference: Pogo Producing Company

Well No. & Name: 16-River Bend 23 Federal

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 therefrom, 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).

☒ 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

☒ 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).

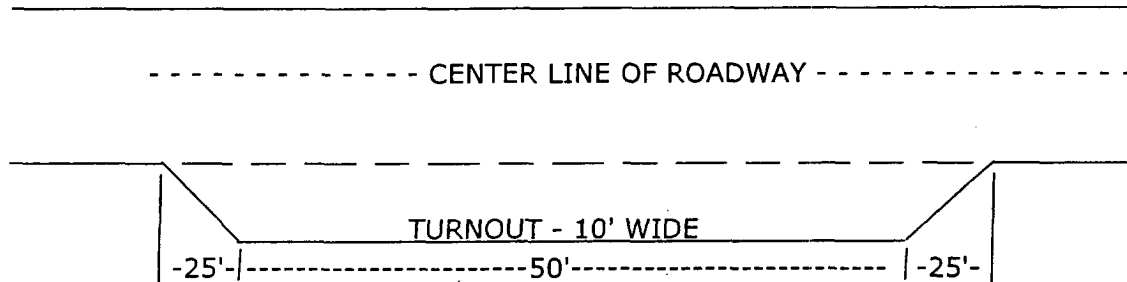
C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

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

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: *None*