

Form 3160-3  
(July 1992)

## OCD-ARTESIA

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
SECRETARY'S POTASHSUBMIT IN TRIPLICATE\*  
(Other instructions on  
reverse side)FORM APPROVED  
OMB NO. 1004-0136  
Expires: February 28, 1995

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

## b. TYPE OF WELL

OIL  
WELL ☒GAS  
WELL ☐

OTHER

SINGLE  
ZONE ☐MULTIPLE  
ZONE ☐

## 2. NAME OF OPERATOR

Pogo Producing Company

17891

## 3. ADDRESS AND TELEPHONE NO.

P. O. Box 10340, Midland, TX 79702-7340 432-685-8100

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

At surface 1980' FNL &amp; 1980' FEL, Section 8

At proposed prod. zone

same

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

Approximately 30 miles East of Carlsbad NM

## 15. DISTANCE FROM PROPOSED\*

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

660'

## 16. NO. OF ACRES IN LEASE

320

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.

1320

## 19. PROPOSED DEPTH

8400

## 20. ROTARY OR CABLE TOOLS

Rotary

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

3490' GR ~~Controlled Water Body~~

## 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	Cmt to surface w/ Redi-mix
17-1/2	13-3/8 H-40	48	975	800 sks - circ to surface
11	8-5/8 J-55	32	4200	1200 sks - circ to surface
7-7/8	5-1/2 J-55	17 & 15.5	8400	1750 sks - circ to surface

1. Drill 25" hole to 40'. Set 40' of 20" conductor and cement to surface with Redi-mix.
2. Drill 17-1/2" hole to 975'. Run & set 975' of 13-3/8" 48# H-40 ST&C csg. Cmt w/ 600 sks 65:35:6 Cl "C" POZ/gel. Tail in w/ 200 sks Cl "C" cmt + 2% CaCl2. Circulate cmt to surface.
3. Drill 11" hole to 4200'. Run & set 4200' of 8-5/8" 32# J-55 ST&C csg. Cmt w/ 1000 sks 65:35:6 Cl "C" POZ/gel + 5% salt. Tail in w/ 200 sks Cl "C" cmt + 2% CaCl2. Circulate cmt to surface.
4. Drill 7-7/8" hole to 8400'. Run & set 8400' 5-1/2" csg as follows: 2400' 5-1/2" 17# J-55 LT&C, 5000' 5-1/2" 15.5# J-55 LT&C, 1000' 5-1/2" 17# J-55 LT&C csg. Cmt in 3 stages. DV tools @ 5800' ± & 3700' ±. Cmt 1<sup>st</sup> stage w/ 650 sks Cl "H" cmt + additives, 2<sup>nd</sup> stage cmt w/ 600 sks Cl "C" cmt + 8# gilsonite/sk, 3<sup>rd</sup> stage cmt w/ 400 sks 65:35:6 Cl "C" POZ/gel. Tail in w/ 100 sks Cl "C" cmt + 1% CaCl2. Circ cmt to surface.

If earthen pits are used in  
association with the drilling of this  
well, an OCD pit permit must be  
obtained prior to pit construction.

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED WORK 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

*Osby Wright*

TITLE

Sr Engineering Tech

DATE

03/10/06

(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:

APPROVED BY

*Mary Johnson*

ACTING

STATE DIRECTOR

DATE

MAY 17 2006

\*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.

Seal 29.5

## DISTRICT I

1625 N. FRENCH DR., HOBBS, NM 88240

## DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

## DISTRICT III

1000 Rio Brazos Rd., Artec, NM 87410

## DISTRICT IV

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

## State of New Mexico

Energy, Minerals and Natural Resources Department

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 53815	Pool Name SAND DUNES DELAWARE-WEST
Property Code	Property Name SUNRISE 8 FEDERAL	Well Number 2
OGRID No. 17891	Operator Name POGO PRODUCING COMPANY	Elevation 3490'

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	8	24-S	31-E		1980'	NORTH	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><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 08/18/04 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>JULY 15, 2004</p> <p>Date Surveyed Signature &amp; Seal of Professional Surveyor <i>Gary E. Edson</i> 7/27/04 04.11.0880 Certificate No. GARY EDSON 12641</p>
	<p><b>GEODETIC COORDINATES</b> NAD 27 NME</p> <p>Y=449094.7 N X=665768.5 E</p> <p>LAT.=32°14'00.75" N LONG.=103°47'50.02" W</p>

EXHIBIT "A"

## APPLICATION TO DRILL

POGO PRODUCING COMPANY  
 SUNRISE "8" FEDERAL # 2  
 UNIT "G" SECTION 8  
 T24S-R31E EDDY 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: 1980' FNL & 1980' FEL SECTION 8 T24S-R31E EDDY CO. NM
2. Ground Elevation above Sea Level: 3490' 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: 8400'

6. Estimated tops of geological markers:

Rustler Anhydrite		Cherry Canyon	5160'
Basal Anhydrite	4020'	Manzanita	5340'
Delaware Lime	4240'	Brushy Canyon	6400'
Bell Canyon	4260'	Bone Spring	8070'

7. Possible mineral bearing formations:

Cherry Canyon	Oil	Bone Spring	Oil
Brushy Canyon	Oil		

8. Casing Program:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade
25"	0-40'	20"	NA	NA	NA	Conductor
17½"	0-975'	13 3/8"	48	8-R	ST&C	H-40
11"	0-4200'	8 5/8"	32	8-R	ST&C	J-55
7 7/8"	0-8400'	5½"	17 & 15.5	8-R	LT&C	J-55

## APPLICATION TO DRILL

POGO PRODUCING COMPANY  
 SUNRISE "8" FEDERAL # 2  
 UNIT "G" SECTION 8  
 T24S-R31E EDDY CO. NM

9. CASING SETTING DEPTHS & CEMENTING

20"	Conductor	Set 40' of 20" conductor and cement to surface with Redi-mix.
13 3/8"	Surface	Set 975' of 13 3/8" 48# H-40 ST&C casing. Cement with 600 Sx. of Class "C" 65/35/6 POZ/GEL, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement to Surface.
8 5/8"	Intermediate	Set 4200' of 8 5/8" 32# J-55 ST&C casing. Cement with 1000 Sx. of Class "C" 65/35/6 POZ/Gel + 5% NaCl, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface.
5 1/2"	Production	Set 8400' of 5 1/2" casing as follows: 2400' 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 3 stages with DV Tools at 5800'± & 3700'±. 1st stage cement with 650 Sx. of Class "H" cement + additives, 2nd stage cement with 600 Sx. of Class "C" cement + .8# of Gilsonite/Sx., 3rd stage cement with 400 Sx. of 65/35/6 Class "C" POZ/Gel, tail in with 100 Sx. of Class "C" + 1% CaCl, circulate cement to surface.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 2000 PSI working pressure B.O.P. consisting of a stripper head instead of an annular preventor, blind rams, and pipe rams. This B.O.P. stack is being used because of sub-structure limitations of the drilling rig being used to drill this well. Pressures encountered while drilling are not expected to exceed 1700 PSI at total depth, Pogo requests permission to 3rd party test of the B.O.P. after setting the intermediate casing at 4200'. The B.O.P. will be tested according to APT specifications. Exhibit "E-1" shows a manually operated choke manifold as no remote B.O.P equipment will be necessary.

11. PROPOSED MUD SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD
40-975'	8.4-8.7	29-34	NC	Fresh water spud mud add paper to control seepage.
975-4200'	10.0-10.2	29-38	NC	Brine water use paper to control seepage and use high viscosity sweeps to clean hole.
4200-8400'	8.4-8.7	29-40	NC*	Fresh water add fresh water Gel to control Visc. use high viscosity sweeps to clean hole.

\* The water loss may have to be reduced and controlled in order to protect formation, log, and/or run casing. If water loss control is required use a Polymer system.

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

APPLICATION TO DRILL

POGO PRODUCING COMPANY  
SUNRISE "8" FEDERAL # 2  
UNIT "G" SECTION 8  
T24S-R31E EDDY CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: Dual Induction, SNP, LDT, Gamma Ray, Caliper from TD back to 8 5/8" casing shoe.
- B. Cased hole logs: Gamma Ray, Neutron will be run from 8 5/8" casing shoe back to surface.
- C. Mud logger may be rigged up on hole after 8 5/8" casing is cemented in place.
- D. No cores or DST's are planned at this time.

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 1700± PSI, and Estimated BHT 145°.

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 24 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 DELAWARE 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.

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  
SUNRISE "8" FEDERAL # 2  
UNIT "G" SECTION 8  
T24S-R31E EDDY CO. NM

1. EXISTING 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 location of the proposed well site as staked.
  - B. From Hobbs New Mexico take U.S. Hi-way 62-180 West toward Carlsbad go 40± miles to the WIPP road. Turn Left go 13 miles South to CR 802, turn Right follow CR-802 4.2 miles to State Hi-way 128, turn Left go 3.4 miles, turn Right go 3.8± miles, turn Right (West) go .6± miles bear Left Southwest go 1200' to location.
  - C. Flowlines and Powerlines will be constructed along lease roads or on existing R-O-W's, as shown on Exhibit "C" & "F".
2. PLANNED ACCESS ROADS: Approximately 1200' of new road will be constructed.
  - A. The access road will be crowned and ditched to a 12' wide traveled surface with a 40' Right-of-Way.
  - B. Gradient on all roads will be less than 5% if possible.
  - C. Turn-outs will be constructed where necessary.
  - D. If needed the roads will be surfaced to the BLM requirements with material obtained from a local source.
  - E. Center line for the new access road will be flagged.
  - F. The road will be constructed to utilize low water crossings where drainage currently exist, and Culverts will be installed where necessary.
3. EXHIBIT "A-1" SHOWS WELLS AND DRY HOLES WITHIN A 1 MILE RADIUS.
  - A. Water wells - One located approximately 1 mile NE 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  
SUNRISE "8" FEDERAL # 2  
UNIT "G" SECTION 8  
T24S-R31E 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" & "F".

### 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 further 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 pits 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  
SUNRISE "8" FEDERAL # 2  
UNIT "G" SECTION 8  
T24S-R31E 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 ELM 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  
SUNRISE "8" FEDERAL # 2  
UNIT "G" SECTION 8  
T24S-R31E EDDY CO. NM

11. OTHER INFORMATION:

- A. Topography is relatively flat with a slight dip to the East, with shallow drainage patterns. Vegetation consists of creosote bush, little leaf sumac, broom-snakeweed, and native grasses.
- B. Surface is owned by the U.S. Department of Interior and is administered by the Bureau of Land Management. The surface is leased to ranchers for grazing of live stock.
- C. An archaeological survey will be conducted and the results will be filed with The Bureau of Land Management Carlsbad Field office in Carlsbad NM.
- D. There are no domestic dwellings located within one mile of the location.

12. OPERATORS REPRESENTATIVE:

Before construction:

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

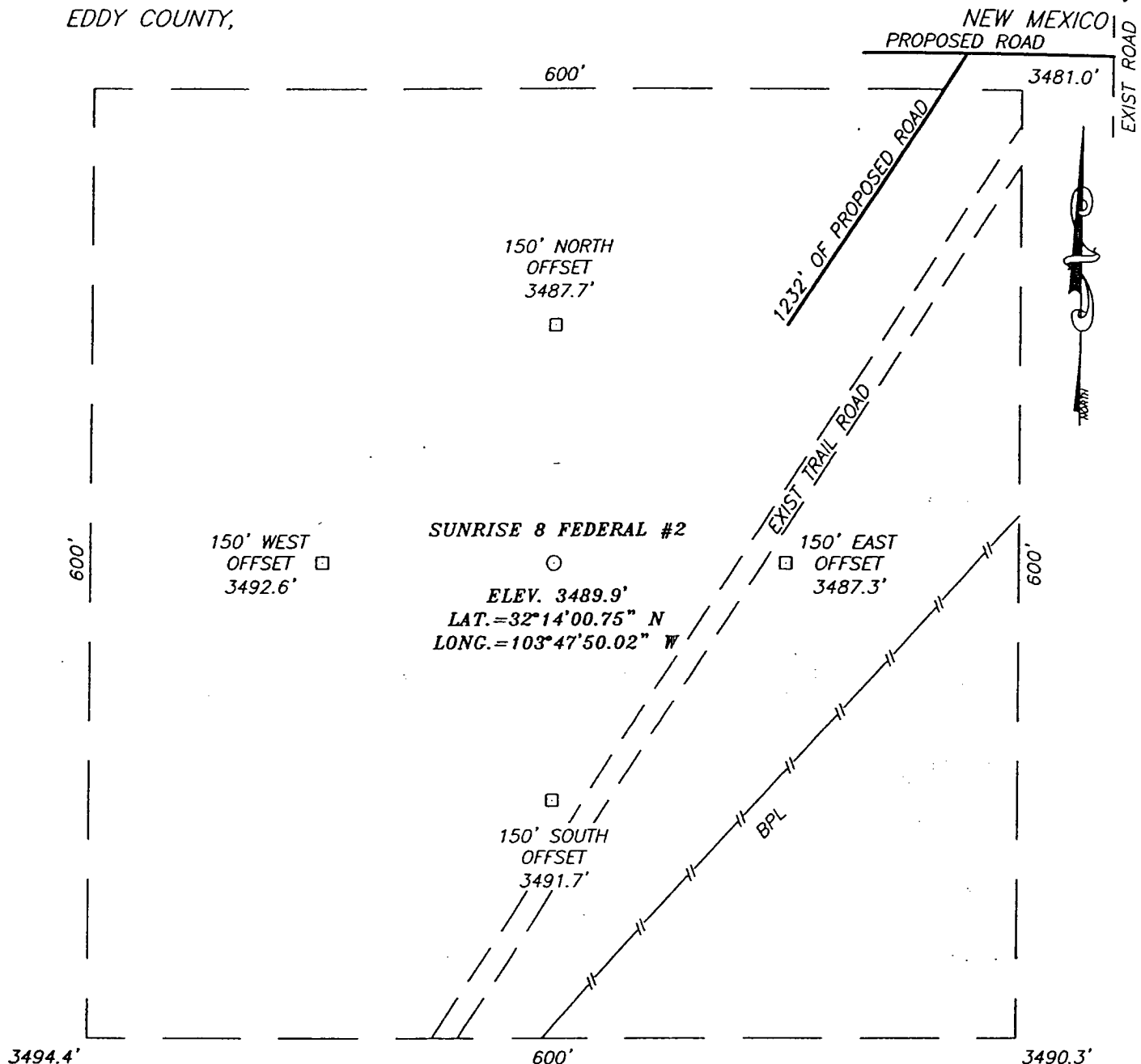
During and after construction:

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

13. CERTIFICATION: I hereby certify that I or persons under my direct supervision have inspected the proposed drill site and access route, that I am familiar with the conditions which currently exist, that the statements made in this plan are to the best of my knowledge, 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 the 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 statement.

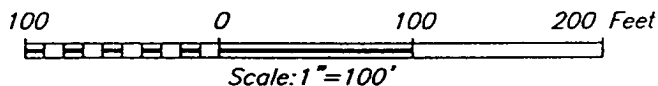
NAME : Joe T Janica  
DATE : 08/18/04  
TITLE : Agent

**SECTION 8, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.,**  
**EDDY COUNTY,**



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF ST. HWY #128 AND CO. RD. #787 (TWIN WELLS RD.) GO SE ON ST. HWY #128 FOR APPROX. 1.0 MILE. TURN RIGHT ON CALICHE ROAD AND GO SOUTH FOR APPROX. 4.1 MILES. TURN RIGHT (WEST) AND GO APPROX. 0.4 MILES. PROPOSED LOCATION IS APPROX. 150' WEST.



**POGO PRODUCING COMPANY**

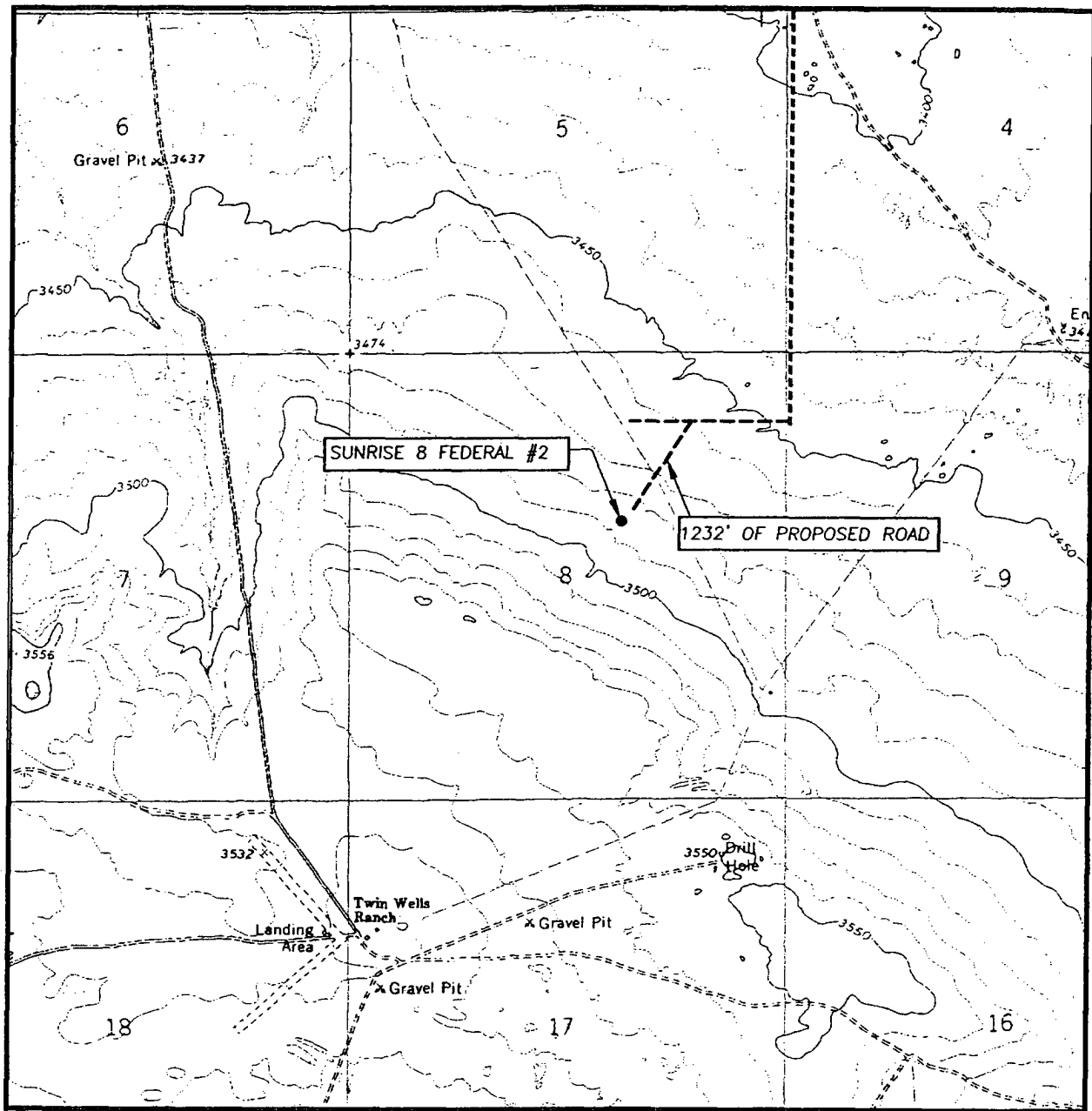
**SUNRISE 8 FEDERAL #2 WELL**  
 LOCATED 1980 FEET FROM THE NORTH LINE  
 AND 1980 FEET FROM THE EAST LINE OF SECTION 8,  
 TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.



PROVIDING SURVEYING SERVICES  
 SINCE 1948  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 383-3117

Survey Date: 07/15/04	Sheet 1 of 1 Sheets
W.O. Number: 04.11.0880	Dr By: J. RIVERO
Date: 07/22/04	Disk: CD#10
04110880	Scale: 1"=100'

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
BIG SINKS, N.M. - 10'

SEC. 8 TWP. 24-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

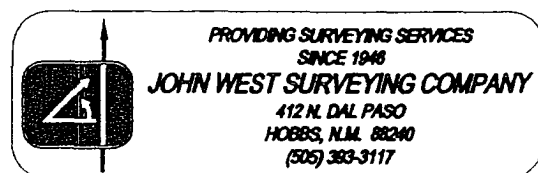
DESCRIPTION 1980' FNL & 1980' FEL

ELEVATION 3490'

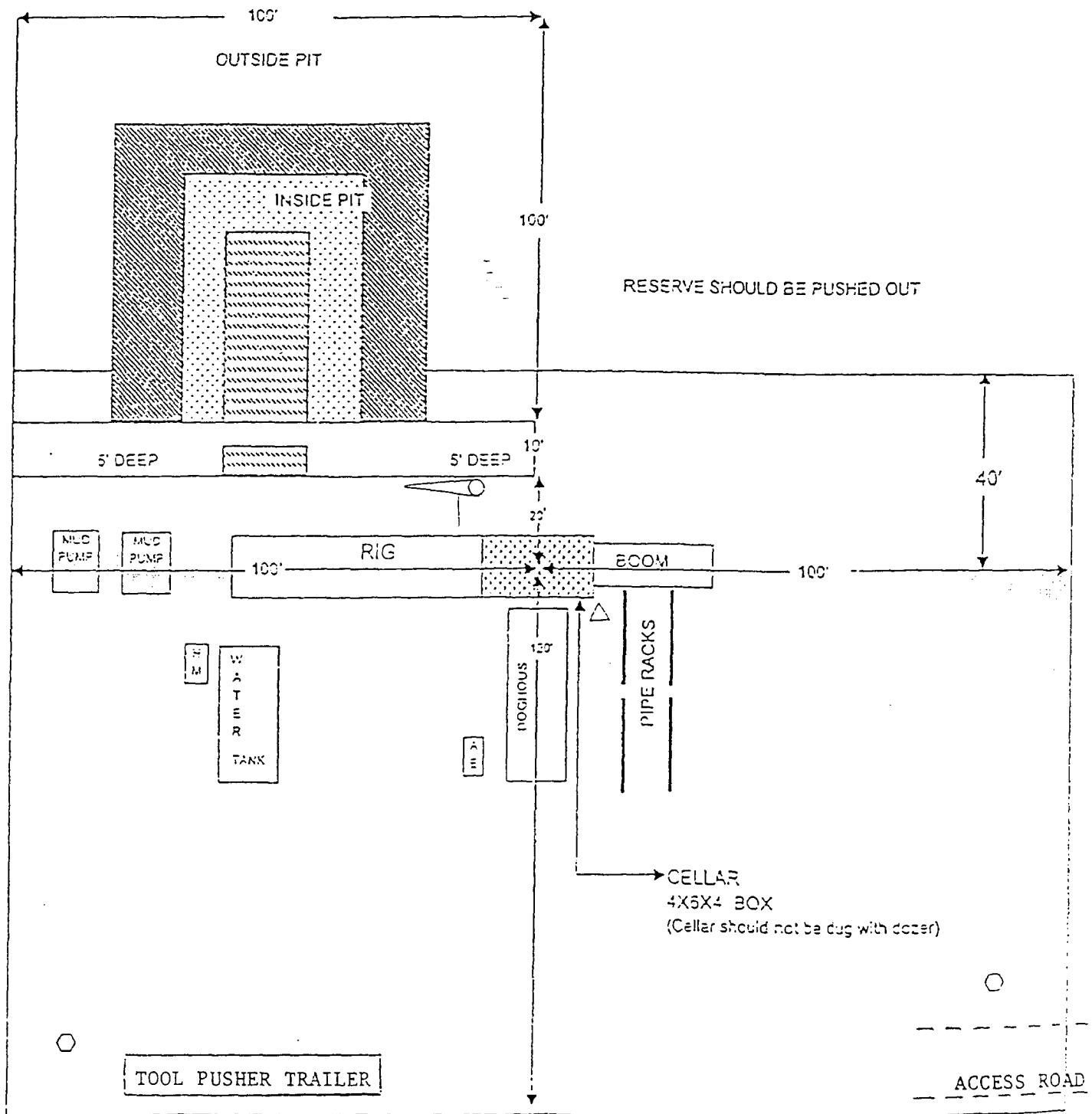
OPERATOR POGO PRODUCING COMPANY

LEASE SUNRISE 8 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP  
BIG SINKS, N.M.



# LOCATION SPECIFICATIONS AND RIG LAYOUT FOR EARTH PITS



- > 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  
SUNRISE "8" FEDERAL # 2  
UNIT "G" SECTION 8  
T24S-R31E EDDY CO. NM

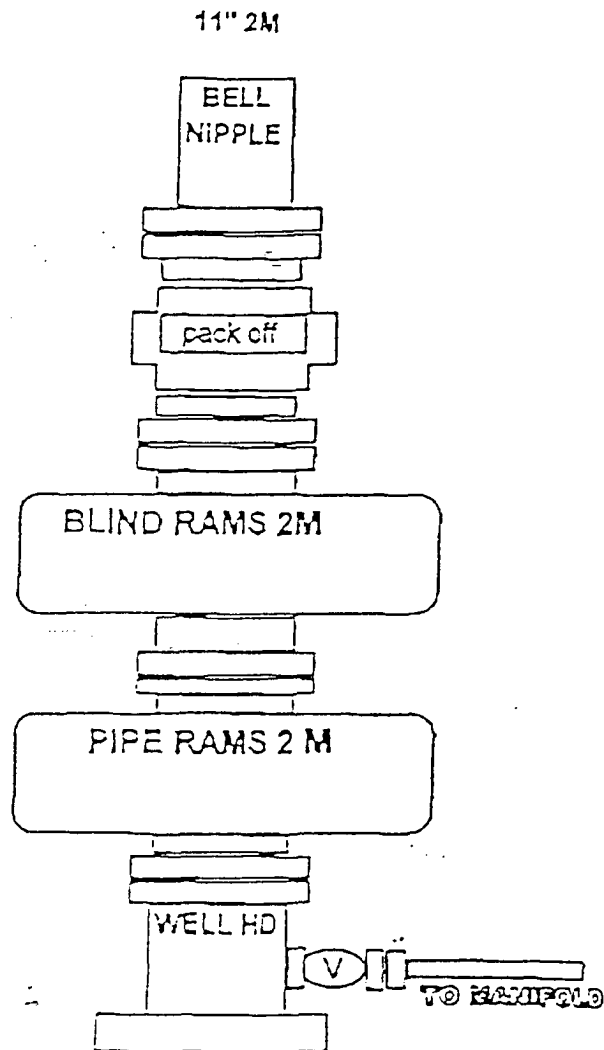


EXHIBIT "E"  
SKETCH OF B.O.P. TO BE USED ON

POGO PRODUCING COMPANY  
SUNRISE "8" FEDERAL # 2  
UNIT "G" SECTION 8  
T24S-R31E EDDY CO. NM

3000 PSI WP

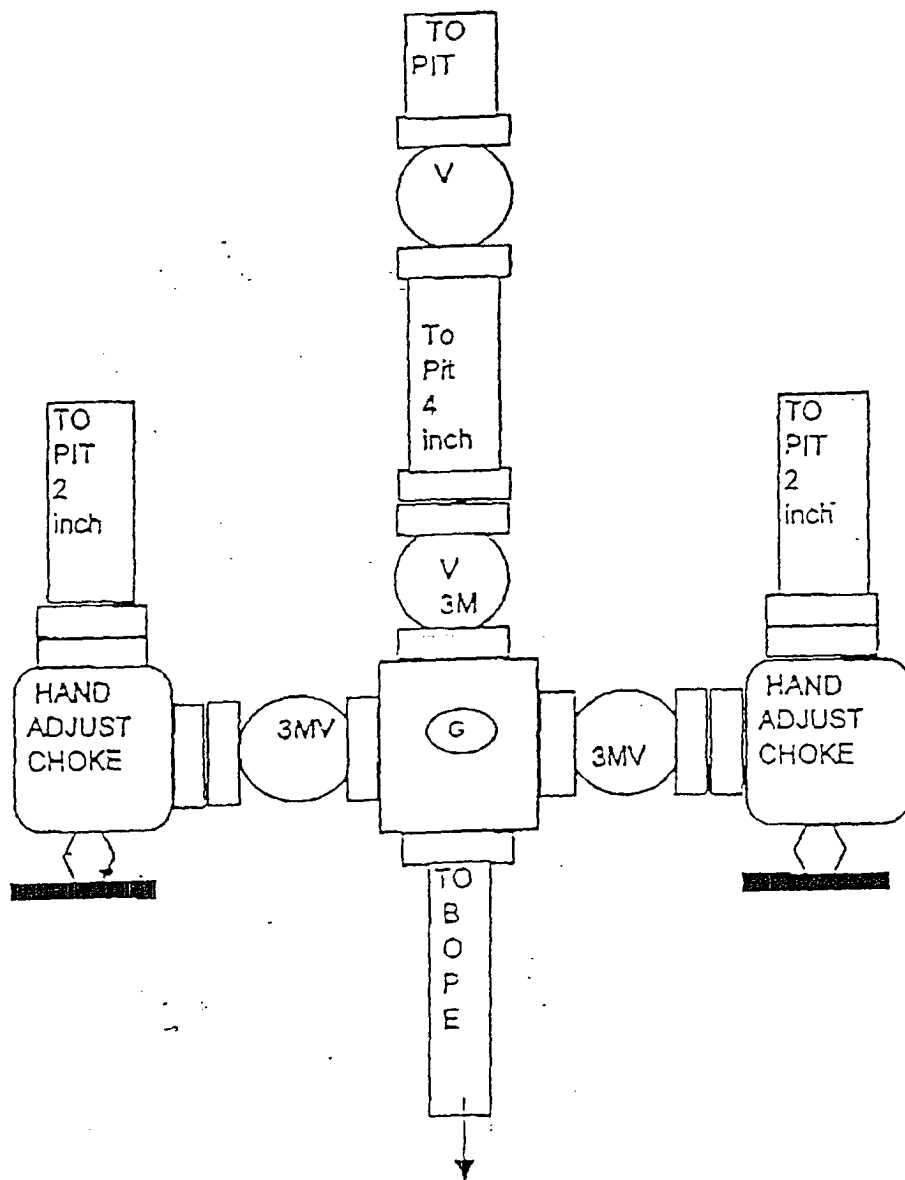


EXHIBIT "E-1"  
SKETCH OF CHOKE MANIFOLD

POGO PRODUCING COMPANY  
SUNRISE "8" FEDERAL # 2  
UNIT "G" SECTION 8  
T24S-R31E EDDY CO. NM



## CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Pogo Producing Company Well No. 2 – Sunrise 8 Federal  
Location: 1980' FNL & 1980' FEL sec. 8, T. 24 S., R. 31 E.  
Lease: NM-031963

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### I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at (505) 234-5972 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
2. Unless the production casing string 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. Include the API No. assigned to well by NMOCD on the subsequent report of setting the first casing string.
4. A Hydrogen Sulfide Contingency Plan should be activated prior to drilling in the Delaware formation. A copy of the plan shall be posted at the drilling site.
5. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface; cable speed not to exceed 30 feet per minute.

### II. CASING:

1. 13-3/8 inch surface casing string should be set at approximately 975 feet in the Rustler Anhydrite above the top of the Salt, below usable water and circulate cement to the surface. If cement does not circulate to the surface, the Carlsbad Field Office shall be notified at (505) 234-5972, 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. Minimum required fill of cement behind the 8-5/8 inch intermediate casing is sufficient to circulate to the surface.
3. Minimum required fill of cement behind the 5-1/2 inch production casing string is sufficient to tie back 500 feet above the uppermost perforation in the pay zone.

### III. PRESSURE CONTROL:

1. Before drilling below the 13-3/8 inch surface casing string, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve.
2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi.
3. Before drilling below the 8-5/8 inch intermediate casing string, the BOPE shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
  - A. The results of the test will be reported to the BLM Carlsbad Field Office at 620 East Greene Street, Carlsbad, New Mexico 88220-6292.
  - B. 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.
  - C. Testing must be done in a safe workman like manner. Hard line connections shall be required.