OMB NO. 1004-0136 UNITED STATES reverse side) Expires: February 28, 1995 DEPARTMENT OF THE INTERIOR 5. LEASE DESIGNATION AND BEEIAL NO. BUREAU OF LAND MANAGEMENT NM-58809 6. IF INDIAN, ALLOTTER OR TRIBE NAME APPLICATION FOR PERMIT TO DRILL W. Grand Avenue 1a. TYPE OF WORK DEEPEN Artesia, NM 88210 7. UNIT AGREEMENT NAME DRILL X b. TYPE OF WELL GAS WELL WELL X S. FARM OR LEASE NAME WELL NO. OTHER 2. NAME OF OPERATOR AFC FEDERAL # 4 POGO PRODUCING COMPANY 9. AR WELL NO. (RICHARD WRIGHT 432-685-8140) 3. ADDRESS AND TELEPHONE NO. 30-015 -33819 10. FIELD AND POOL, OR WILDCAT 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.*) BRUSHY DRAW-DELAWARE RECEIVED 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 15' FSL & 2310' FEL SECTION 10 T26S-R29E EDDY CO. NM At proposed prod. zone JAN 0 3 2005 2310' FSL & 2310' FEL SECTION 10 T26S-R29E EDDY CO. NM SECTION 10 T26S-R29E COUNTY OF PARISH | 13. STATE 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* Approximately 17 miles Southeast of Malaga New Mexico **EDDY** NEW MEXICO CO 15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig, unit line, if any) 16. NO. OF ACRES IN LEASE 17. NO. OF ACRES ASSIGNED TO THIS WELL 15' 320 80 18. DISTANCE FROM PROPOSED LOCATIONS TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 19. гкорозер рертн MD. 7137 20. ROTARY OR CABLE TOOLS 1250' ROTARY TVD 5500' 21. ELEVATIONS (Show whether DF, RT, GR, etc.) 22. APPROX. DATE WORK WILL START* SUBJECT TO LIKE 2941' GR. WHEN APPROVED APPROVAL BY STATE 23.PROPOSED CASING AND CEMENTING PROGRAM SIZE OF ROLE GRADE, SIZE OF CASING WEIGHT PER FOOT SETTING DEPTH QUANTITY OF CEMENT 40" 25" Conductor Cement to surface W/Redi-mix. NA 17낭" WITNESS 650 Sx. circulate cement H-40 13 3/8" 550' 48 11" 2800' J-55 8 5/8" 900 Sx 24 7 7/8" 17 MD 7137'TVD5500' 875 Sx. L-80 & J-55 5½' Est. Top Cement 2000' 1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redimix. CARLSBAD CONTROLLED WATER BASIN 2. Drill 172" hole to 550'. Run and set 550' of 13 3/8" 48# H-40 ST&C casing. Cement with 650 Sx. of Class "C" cement + 2% CaCl, + 1/4# Flocele/Sx., circulate cement to surface. 3. Drill 11" hole to 2800'. Run and set 2800' of 8 5/8" 24# J-55 ST&C casing. Cement with 900 Sx. of Class "C" cement + additives, circulate cement to surface. 4. Drill 7 7/8" hole to 5500'. Run open hole logs and Gyro. Plug back for Kick-off point at 4570'±. Drill curve and lateral with a 7 7/8" bit to a measured depth of 7137'±. Run 5½" casing as follows: 2637 of 5½" 17# L-80 BUTTRESS THREAD, 4500' of $5\frac{1}{2}$ " 17# J-55 LT&C casing. Cement with 875 Sx. of Class "C" cement + additives, estimate top of cement 2000' from surface. IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. It proposal is to deepen, deepen directionally, give perginent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any, 24. APPROVAL SUBJECT TO TITLE Agent GENERAL REQUIREMENTS 11/29/04 anlea AND SPECIAL STIPULATIONS (This spuce for Federal or State office use) ATTACHED If earthen pits are used is

*See Instructions On Reverse Side APPROVAL FOR 1 YEAR

FOR

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject le

/s/ Maria Ketson

CONDITIONS OF APPROVAL IF ANY:

APPROVED BY

APPROVAL DATE _

FIELD MANAGE

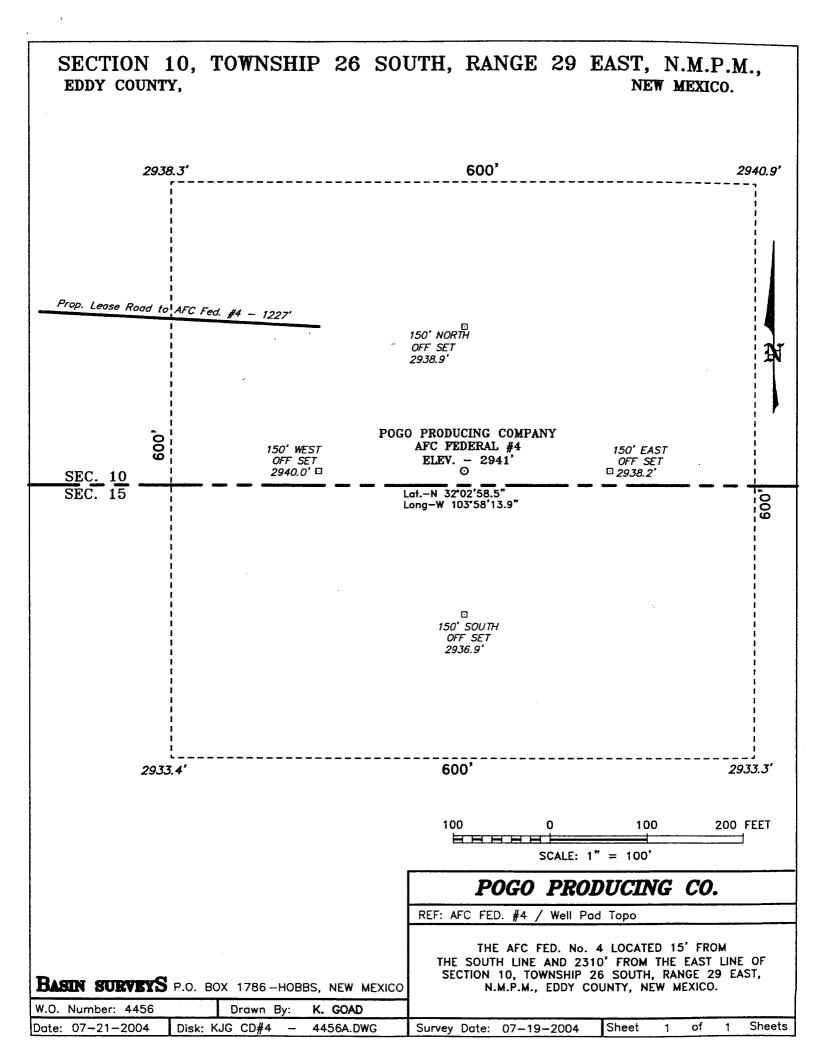
association with the drilling of this

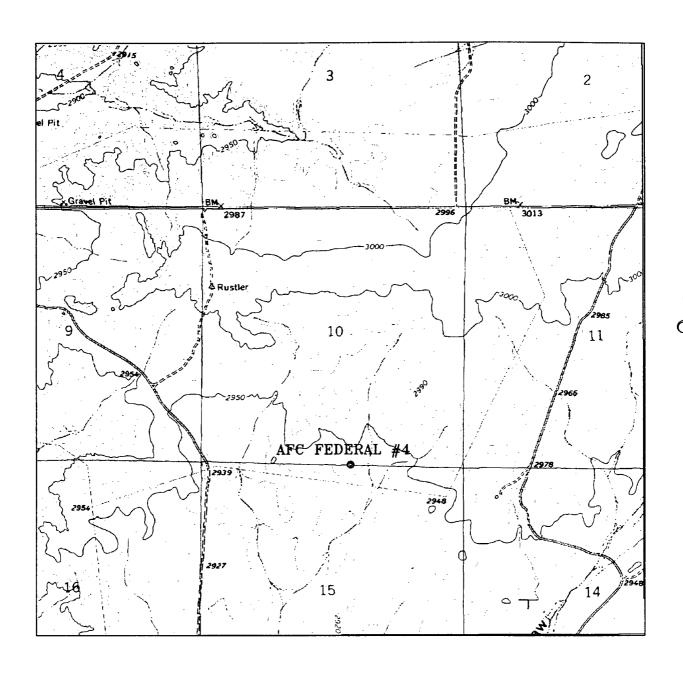
well, an OCD pit permit must be

DATE .

obtained prior to pit construction.

ULU 3 U 2004





AFC FEDERAL #4 Located at 15' FSL and 2310' FEL Section 10, Township 26 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (505) 393-7316 - Office (505) 392-3074 - Fax basinsurveys.com

W.O. Number:	4456AA — KJG CD#5
Survey Date:	07-19-2004
Scale: 1" = 20	000'
Date: 07-21-	-2004

P0G0 **PRODUCING COMPANY**

APPLICATION TO DRILL

POGO PRODUCING COMPANY
AFC FEDERAL # 4
UNIT'O'' SECTION 10
T26S-R29E 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:

 Surface Location 15' FSL & 2310' FEL SEC. 10 T26S-R29E

 Bottom Hole location 2310' FSL & 2310' FEL SEC. 10 T26S-R29E
- 2. Ground Elevation above Sea Level: 2941' 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: Measured depth 7137' Vertical depth 5500'±.
- 6. Estimated tops of geological markers:

Rustler Anhydrite	495 '	Lamar Lime	2969 '
Salado salt	776 '	Bell Canyon	3008
Base of salt	2778 '	Cherry Canyon	3932 '
		Brushy Canyon	5230 '

7. Possible mineral bearing formations:

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"	0-550'	13 3/8"	48#	8-R	ST&C	H-40
11"	0-2800'	8 5/8"	24#	8-R	ST&C	J-55
7 7/8"	0-4500	5½" ·	17#	8-R	LT&C	J-55
7 7/8"	4500-7137'	5½''	17#	8-R	BTC	L-80

APPLICATION TO DRILL

POGO PRODUCING COMPANY
AFC FEDERAL # 4
UNIT "O" SECTION 10
T26S-R29E EDDY CO. NM

9. CEMENTING & CASING SETTING DEPTHS:

20".	Conductor	Set 40' of 20" conductor and cement to surface with Redi-mix.
13 3/8"	Surface	Set 550' of 13 3/8" 48# H-40 ST&C casing. Cement with 650 Sx. of Class "C" cement + 2% CaCl, + ½# Flocele/Sx. circulate cement to surface.
8 5/8"	Intermediate	Set 2800' of 8 $5/8$ " $24\#$ J-55 ST&C casing. Cement with 900 Sx. of Class "C" cement + additives, circulate cement to surface.
5½"	Production	Set 7137' of $5\frac{1}{2}$ " casing as follows: 2630'± of $5\frac{1}{2}$ " 17# L-80 LT&C, 4500±' of $5\frac{1}{2}$ " 17# J-55 LT&C casing. Cement with 900 Sx. of Class "C" cement + additives, estimate top of cement 2000' from surface.

10. PRESSURE CONTROL EQUIPMENT:

Exhibit "E" shows a 2000 PSI working pressure B.O.P., consisting of a stripper heas instead of an annular preventor, blind rams, and pipe rams. This B.O.P. stack is being used because of Substructure height limitations of the drilling rig being used to drill this well. Pressures encountered during drilling are not expected to exceed 1700 PSI at total depth. Pogo requests permission to 3rd party test of the B.O.P., after settingintermediate casing at 2800'. The B.O.P. will be tested acccording to API soecifications. Exhibit "E-1" shows a manually operated choke manifold, as no remote B.O.P. equipment will be necessary.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD
40-550'	8.4-8.7	28–36	NC .	Fresh water Spud mud add paper to control seepage.
550-2800'	10.0-10.2	29–38	NC.	Brine water use paper to control seepage and High viscosity sweeps to clean hole.
2800-7137 '	8.4-8.7	29-40	NC*	Fresh water mud use high viscosity sweeps to clean hole.

^{*} Water loss control may have to be used in order to run open hole logs and to run casing. If required go to a Dris-Pacesystem.

APPLICATION TO DRILL

POGO PRODUCING COMPANY
AFC FEDERAL # 4
UNIT "O" SECTION 10
T26S-R29E EDDY CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: Dual Laterolog, LDT, SNP, Gamma Ray, Caliper. From 5500' to 8 5/8" casing shoe. Run Gamma Ray and neutron from 8 5/8" casing shoe back to surface. Run Gyro in prepration to setting cement plug to kick off hole to drill horizional portion of hole.
- B. Place mud logger on hole at 2800' and keep on hole to TD. No DST's or cores are planned at this time.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of $\mathrm{H}^2\mathrm{S}$ in this area. If $\mathrm{H}^2\mathrm{S}$ 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 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 $\frac{38}{2}$ days. If production casing is run then an additional $\frac{30}{2}$ 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 Brushy Draw formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as an oil well.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

- 1. All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S
 - B. Physical effects and hazzards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H2S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.
- 2. H₂S Detection and Alarm Systems
 - A. H₂S 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, H2S 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 H2S 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 seperator will be brought into service along with H_2S scavengers if necessary.

- 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 U.S. Hi-way 285 South go 12.6± miles to Co. road 725 (Whitehorn Road) turn East go 4.2 miles bear Right follow Co road 725 1.4 miles, turn Left go 1800' to location of well # 1 turn Right go East 1300' to location.
 - C. Exhibit "C" shows roads flowlines and powerlines to be used to produce this lease.
- 2. PLANNED ACCESS ROADS: Approximately 1300' of new road will be needed.
 - 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 mimimum 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 utilaze 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 1.5 miles Southeast.
 - 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"

POGO PRODUCING COMPANY
AFC FEDERAL # 4
UNIT "O" SECTION 10
T26S-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 quaters 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 furthed 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.

POGO PRODUCING COMPANY AFC FEDERAL # 4 UNIT "O" SECTION 10 T26S-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.

POGO PRODUCING COMPANY
AFC FEDERAL # 4
UNIT "O" SECTION 10
T26S-R29E EDDY CO. NM

11. ADDITIONAL INFORMATION:

- A. Topography consists of low lying hills with a dip of 1-5% to the Southeast drainage is into Brushy Draw, an intermittent tributary of the Pecos River. Soil consists of calcareous gravelly, sandy loam. Vegetation consists of creosotebush, Acacia, Prickley Pear, Barrel Cactus, Broom Snakeweed, 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 roads. A report of findings will be in a report that will be filed with The Bureau of Land Management in the Carlsbad Field office in Carlsbad New Mexico.
- D. There are no dwellings in the near vitinity of this location.

12. OPERATIOR'S REPRESENTIVES:

Before Construction:

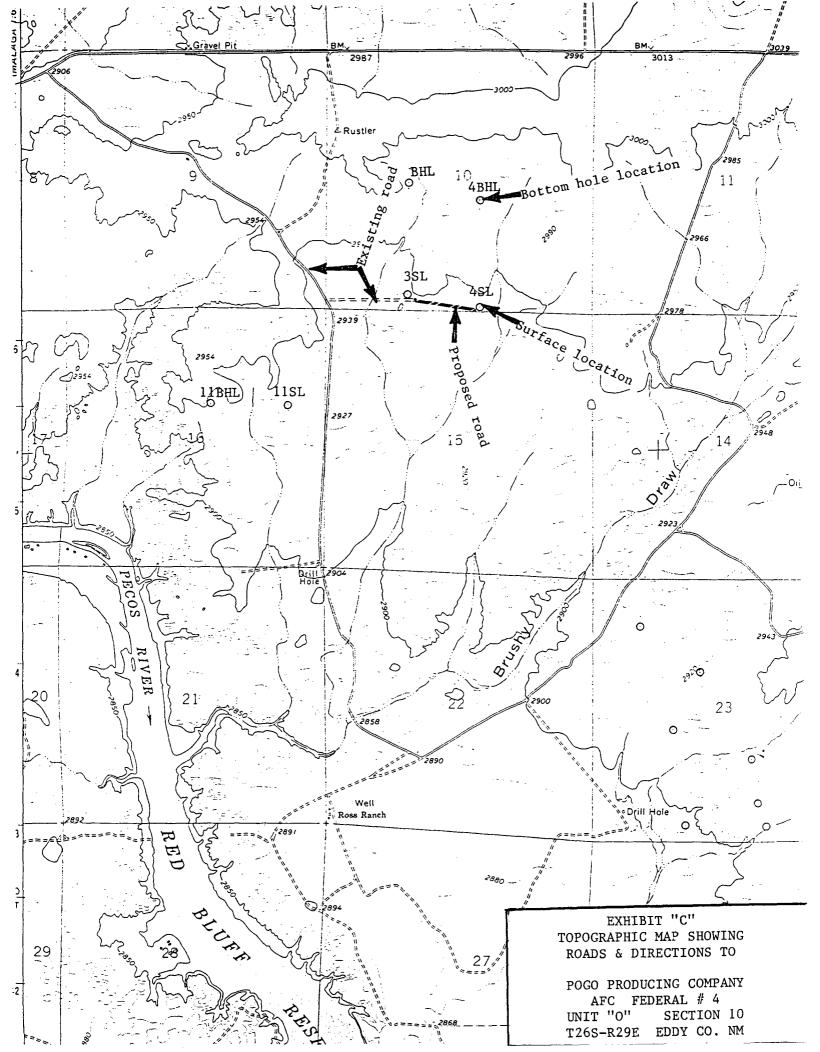
TIERRA EXPLORATION, INC. P.O. BOX 2188
HOBBS, NEW MEXICO 88241
OFFICE Ph. 505-391-8503
JOE T. JANICA

During and after Construction:

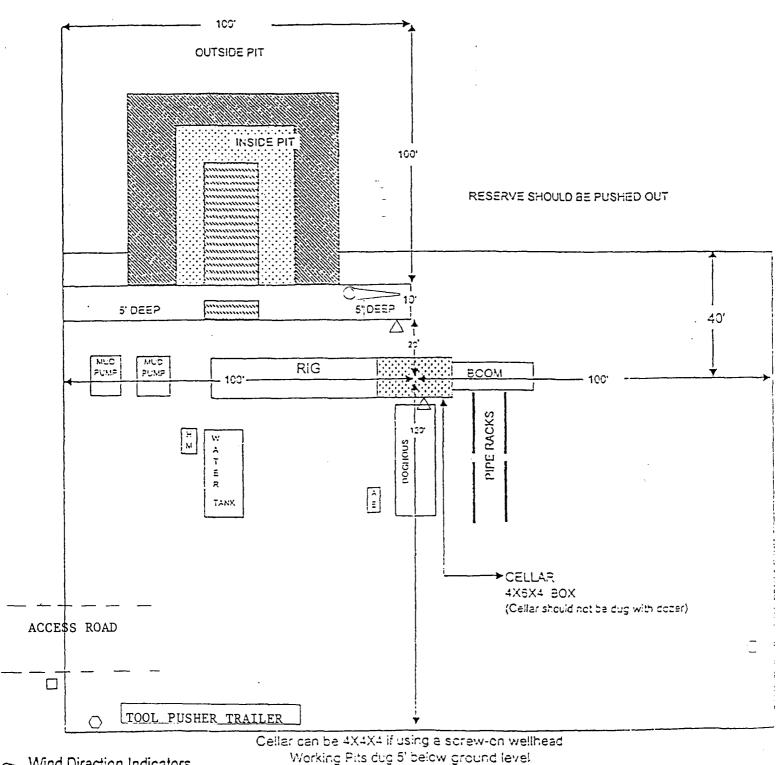
POGO PRODUCING COMPANY P.O. BOX 10340 MIDLAND, TEXAS 79702-7340 RICHARD WRIGHT OFFICE Ph. 915-685-8140

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 confirmity 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 : ast sense DATE : 11/29/104 TITLE : Agent



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 LAYOUT PLAT

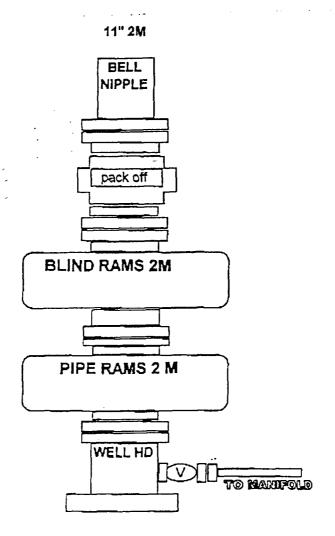


EXHIBIT "E"
SKETCH OF B.O.P. TO BE USED ON

CHOKE MANIFOLD

3000 PSI WP

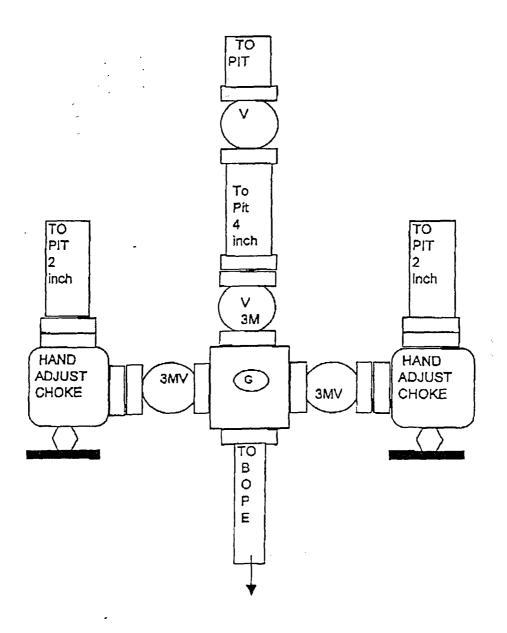


EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

DISTRICT I 1625 N. French Dr., Hobbs, NM 88240 DISTRICT II 811 South First, Artesia, NM 88210

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102 Revised March 17, 1999

Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

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

DISTRICT IV 2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	API Number Pool Code Pool Name				
	8080	BRUSHY DRAW-DELAWARE			
Property Code	Pro	Property Name			
	AFC FEDERAL				
OGRID No.	Ope	rator Name	Elevation		
17891	POGO PRODI	JCING COMPANY	2941'		

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	10	26 S	29 E		15	SOUTH	2310	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
	J	10	26 S	29 E		2310	SOUTH	2310	EAST	EDDY
De	Dedicated Acres Joint or Infill Consolidation Co		Code Or	der No.						
	80	1	Ì							;

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

