F8m 3160-3 (July 1992)

OCD-ARTESIATRIPLICATE

FORM APPROVED

DE

UNITED STATES	(One-mandenous on	- OND NO. 1004-0130
	reverse side)	Evoiros: Esbruan, 29, 100
PARTMENT OF THE INTERIOR $_{\mathrm{ECDET}}$	'ADV'C DOTACH	

BUREAU OF LAND MANA	AGEMENT		NM-031963	ND SERIAL NO.
APPLICATION FOR PERMIT T	6. IF INDIAN, ALLOTTEE OF	R TRIBE NAME		
1a. TYPE OF WORK DRILL DEE	EPEN		7. UNIT AGREEMENT NAM	
b. Type of well OIL GAS WELL XI WELL OTHER	SINGLE MULT ZONE ZONE	TIPLE	B. FARM OR LEASE NAME,	WELL NO. 347
2. NAME OF OPERATOR	- 0 .		Sunrise 8 Fede	
Pogo Producing Company	17891		9. API WELL NO.	
3. ADDRESS AND TELEPHONE NO.	, , , , ,		30-015	· 34900
P. O. Box 10340, Midland, TX	79702-7340 432-695-6	100	10. FIELD AND POOL, OR I	WILDCAT WES
4. LOCATION OF WELL (Report location clearly and in accordance with any St		-IAEU	Sand Dunes De	laware S out l
At surface 660' FNL & 990' FEL, Sect At proposed prod. zone	. &	0 2006	11. SEC., T., R., M., OR BLA AND SURVEY OR AREA	
same	DOD:W	THOM	Section 8, T2	4S, R31E
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POS	ST OFFICE*		12. COUNTY OR PARISH	13. STATE
Approximately 30 miles East of	Carlsbad New Mexico		Eddy County	NM
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 320	17. NO. OF A	ACRES ASSIGNED WELL	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, 1320 * OR APPLIED FOR, ON THIS LEASE, FT.	19. PROPOSED DEPTH 8400'	Rotar	OR CABLE TOOLS	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) ((3.4)	22. APPROX. DATE WORK When approve	_		
7 3. PROPO	SED CASING AND CEMENTING PROGRAM			

SIZE OF HOLE GRADE, SIZE OF CASING WEIGHT PER FOOT SETTING DEPTH QUANTITY OF CEMENT 40 Cmt to surface w/ Redi-mix Conductor NA 17-1/2 13-3/8 H-4048 975 800 sxs - circ cmt/ to sir free 11 8-5/8 J-55 32 4200 1200 sxs - circ cmt to surface 7-7/8 5-1/2 J-55 17 & 15.5 8400 1750 sxs- circ cmt to surface

Drill 25" hole to 40'. Set 40' of 20" conductor and cement to surface with Redi-mix.

- 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 sxs Cl "C" cmt + 2% CaCl2. Circulate cmt to surface.
- 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.
- 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 1st stage w/ 650 sks Cl "H" cmt + additives, 2nd stage cmt w/ 600 sks Cl "C" cmt + 8# gilsonite/sk, 3rd 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

leepen directionally, give pertinent data	zone and proposed new productive zone, it proposal is to drill of				
signed Cathy Whight	TITLE Sr. Eng. 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 hold CONDITIONS OF APPROVAL, IF ANY:	is legal or equitable title to those rights in the subject lease which would	d entitle the applicant to conduct operations thereon.			
41	ACTING'				
P/1 an toh	STATE DIRECTO	R MAY 1 7 2008			

APPROVAL FOR 1 *See Instructions On Reverse Side 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. United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Energy, Minerals and Natural Resources Department

Form C-102

DISTRICT II 1301 W. GRAND AVENUE, ARTESIA, NM 88210 OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR.

Revised JUNE 10, 2003 Submit to Appropriate District Office

Santa Fe, New Mexico 87505

State Lease - 4 Copies Pee Lease - 3 Copies

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

DISTRICT III

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name	
	53815	SAND DUNES DELAWARE-WEST	_
Property Code		Property Name	
	SUNRI	SE 8 FEDERAL	3
OGRID No.		Elevation	
17891	POGO PR	3459'	

Surface Location

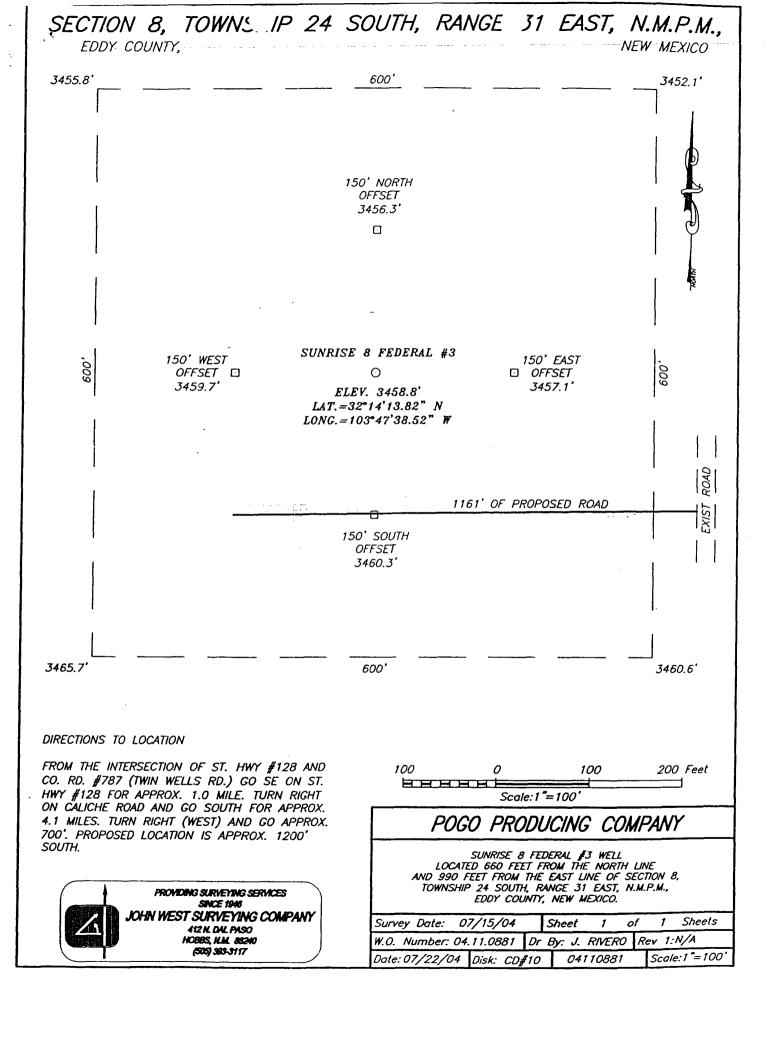
1	UL or lot No.	Section	Township	Range	Lot Idn	Peet from the	North/South line	Feet from the	East/West line	County
	Α	8	24-S	31-E		660'	NORTH	990'	EAST	EDDY

Bottom Hole Location If Different From Surface

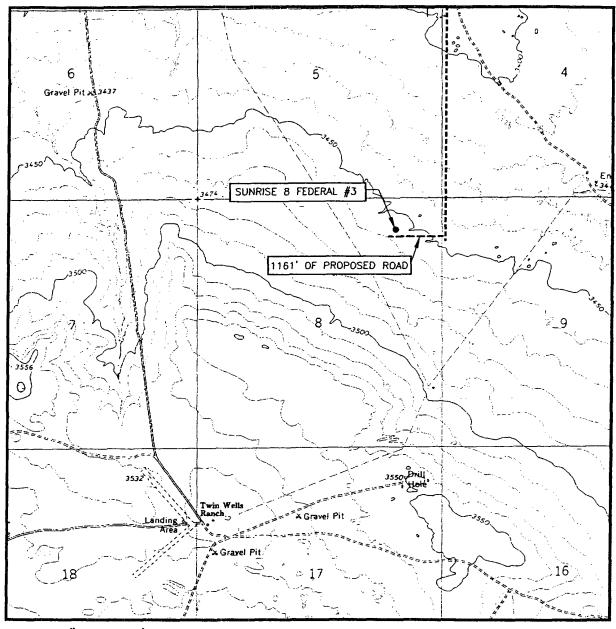
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint o	r Infill Co	nsolidation (Code Ore	ler No.	<u> </u>			

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

	LAS BEEN APPROVED BI IH	
 	3455.8'	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. Signature
GEODETIC COORDINATES NAD 27 NME Y=450420.4 N X=666749.7 E LAT.=32*14'13.82" N LONG.=103*47'38.52" W		Joe T. Janica Printed Name Agent Title 08/18/04 Date SURVEYOR CERTIFICATION 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 supervison, and that the same is true and correct to the best of my belief. JULY 15, 2004 Date Surveyed G. Elosand JR Signature & Seal of Professional Surveyor 04.11.0881 Certificate No: CARY EDSON 12841



` 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 660' FNL & 990' FEL
ELEVATION 3459'
POGO OPERATOR PRODUCING COMPANY
LEASE SUNRISE 8 FEDERAL
U.S.G.S. TOPOGRAPHIC MAP BIG SINKS, N.M.



APPLICATION TO DRILL

POGO PRODUCING COMPANY
SUNRISE "8" FEDERAL # 3
UNIT "A" 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: 660' FNL & 990' FEL SECTION 8 T24S-R31E EDDY CO. NM
- 2. Ground Elevation above Sea Level: 3459' GR.
- 3. Geological age of surface formation: Quaternary Deposits:
- 4. <u>Drilling tools and associated equipment:</u> 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 '
pelaware Lime	4240'	Brushy Canyon	6400 '
Bell Canyon	42601	Bone Spring	8070 '
7. Possible mineral bearing	formations:		* - 1

Bone Spring

Oil

Cherry Canyon 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 # 3
UNIT "A" 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.
5½"	Production	Set 8400' of 5½" casing as follows: 2400' of 5½" 17# J-55 LT&C, 5000' of 5½" 15.5# J-55 LT&C, 1000' of 5½" 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 specificcations. 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 wateruse paper to control seepage and use high viscosity sweeps to clean hole.
4200-8400	8.4-8.7	29-40	ис≭	Fresh water add fresh
in order to	loss may have to be protect formation oss control is requ	r run casing.	water Gel to control Visc. use high viscosity sweeps to clean hole.	

Ssufficient 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.

Dana ?

APPLICATION TO DRILL

POGO PRODUCING COMPANY
SUNRISE "8" FEDERAL # 3
UNIT "A" 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 $\mathrm{H}^2\mathrm{S}$ 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 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 potentialed as an oil well.

- 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.
- 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 propage 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 H₂S 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 H₂S scavengers if necessary.

SURFACE USE PLAN

POGO PRODUCING COMPANY
SUNRISE "8" FEDERAL # 3
UNIT "A" 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 1160' 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 1160' 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.
 - 3. 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 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 RAIDUS.
 - 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 # 3
UNIT "A" 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 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 scrips will be constructed on location.

POGO PRODUCING COMPANY
SUNRISE "8" FEDERAL # 3
UNIT "A" 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 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
SUNRISE "8" FEDERAL # 3
UNIT "A" 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 REPRESENTIVE:

Before construction:

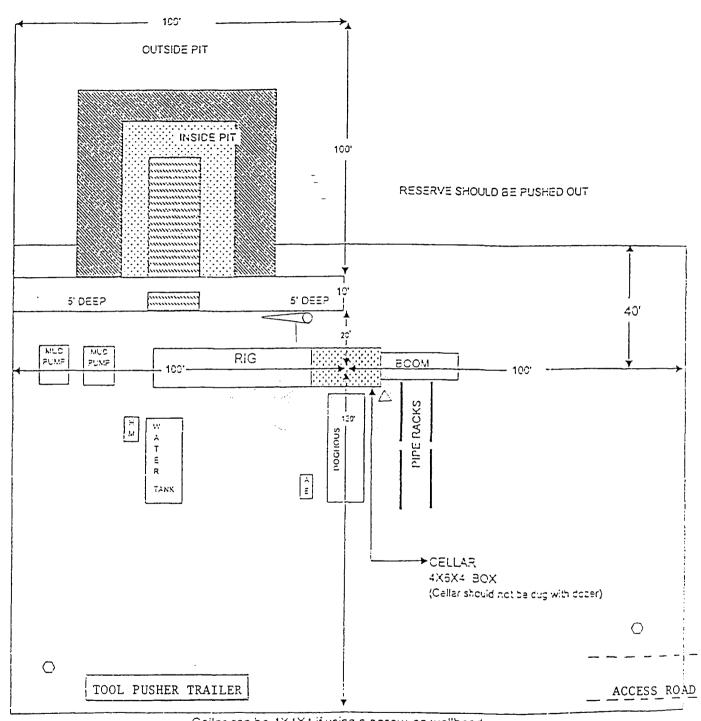
TIERRA EXPLORATION, INC. P.O. BOX 2188
HOBBS, NEW MEXICO 88241
JOE T. JANICA
OFFICE PHONE 505-391-8503

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	:	10	~ T	Janua
DATE	:_		08/18/04	
TITLE	آ _ فرن	Agent		



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
SUNRISE "8" FEDERAL # 3
UNIT "A" SECTION 8
T24S-R31E EDDY CO. NM

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

POGO PRODUCING COMPANY
SUNRISE "8" FEDERAL # 3
UNIT "A" SECTION 8
T24S-R31E EDDY CO. NM

3000 PSI WP

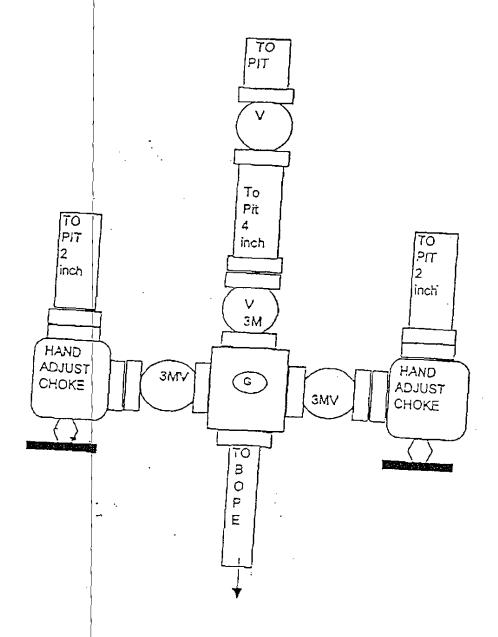


EXHIBIT "E-1" SKETCH OF CHOKE MANIFOLD

POGO PRODUCING COMPANY SUNRISE "8" FEDERAL # 3 UNIT "A" SECTION 8 T24S-R3IE EDDY CO. NM

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Pogo Producing Company Well No. 3 - Sunrise 8 Federal

Location: 660' FNL & 990' FEL sec. 8, T. 24 S., R. 31 E.

Lease: <u>NM-031963</u>

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: <u>13-3/8</u> inch <u>8-5/8</u> inch <u>5-1/2</u> 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 <u>8-5/8</u> inch intermediate casing is <u>sufficient to circulate to the surface.</u>
- 3. Minimum required fill of cement behind the <u>5-1/2</u> inch production casing string is <u>sufficient to tie back 500 feet</u> 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 <u>8-5/8</u> 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.