CRESUBMITTAL

SUBMIT IN TRIPLICATE\*

FORM APPROVED

DEPARTMENT OF THE INTERIOR D-ARTES (Other instructions on

OMB NO. 1004-0136 Expires: February 28, 1995

4-06-07

			-			5. LEASE DESIGNAT	ON AND SERIAL NO.
	BUREAU OF LAND MANAGEMENT					NM-63757 5/	
	ATION FOR PER	RMIT TO DR	ILL OR			6. IF INDIAN, ALLOTT	EE OR TRIBE NAME
1a. TYPE OF WORK  DF	RILL	DEEPEN [		R-111-POT	'ash	7. UNIT AGREEMENT	Γ NAME
b. TYPE OF WELL							1390
OIL X	GAS WELL OTHER		SINGL ZONĚ	E X MULT	TIPLE _	8. FARM OR LEASE	NAME, WELL NO.
2. NAME OF OPERATOR						Sundance "	9" Federal #4
Pogo Producing	Company	/	7891	•		9. API WELL NO.	
3. ADDRESS AND TELEPHONE	NO.					20.01	5-34974
P. O. Box 1034	0, Midland, TX	79702-7340	) (43)	2-685-8100	_ ]	10. FIELD AND POO	
	location clearly and in accordance 0' FNL & 660' F		ments.*)	Sand Du		Dela 11. sec., t., R., M., C	
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The proposition productions	same			JUN 2 1	2000	Section 9	T24S, R31E
14. DISTANCE IN MILES AND I	DIRECTION FROM NEAREST TO	OWN OR POST OFFICE	•	0011 2	2006	12. COUNTY OR PAR	RISH 13. STATE
20 miles east	of Loving NM			960-WW	TEOIA	Eddv	NM
15. DISTANCE FROM PROPOS			16. NO. OF A	CRES IN LEASE	17. NO. OF A	CRES ÁSSIGNED	INLI
LOCATION TO NEAREST PROPERTY OR LEASE:LIN	: FT	660 <b>'</b>	40	<b>1</b>	TO THIS	WELL	40
PROPERTY OR LEASE LINI (Also to nearest drig. unit line			19. PROPOS	•	20 ROTARY	OR CABLE TOOLS	40
TO NEAREST WELL, DRILL	ST WELL, DRILLING, COMPLETED, 1320' 8500		1 '	Rotary			
OR APPLIED FOR, ON THIS  21. ELEVATIONS (Show whether					1.00		WORK WILL START*
ET. ELEVATIONO (CHOW WHOLE	5. 51 , 111, 511, 516.)	3465' GL (	Carbbod	Controlled Wat	er Englis	_	pproved
23.							pproved
		PROPOSED CAS	SING AND CE	MENTING PROGRAM			
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FO	700	SETTING DEPTH		QUANTITY OF (	CEMENT
<u>17-1/2</u>	13-3/8	54.5		550-765	Suffic	ient to ci	rculate WIN
	8-5/8	32 & 24		4100			rculate (****
<b>7-</b> 7/8	5-1/2	15.5 & 17	7	8500	1200 €	ks (tie ba	CK) CHECULAT
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associ well,		ing of this must be struction.	ed and true v	productive zone and pr ertical depths. Give blo	ATTACI	FED roductive zone. If proprogram, if any.	oposal is to drill or
SIGNED (This space for Federal of	y Whyth T r State office use)	πτ	SR.	ENG TECH		DATE4	/28/06
PERMIT NO.	•		ΔPD	ROVAL DATE			

/s/ Linda S. C. Rundell JUN 1 6 2006 APPROVED BY

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:

\*See Instructions On Reverse Side

\*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 CAR United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Submit to Appropriate
District Office
State Lease - 4 copies
\* Fee Lease - 3 copies

# State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised 1-1-89

#### DISTRICT I P.O. Box 1980, Hobbs, NH 88240

# OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT II P.O. Drawer DD, Artonia, NM 88210

DISTRICT III
1000 Rio Brasos Rd., Astec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	POGO PRODU	CING CO	Lease	SUNDANCE	9 FFD		Well No.
Unit Letter	Section	Township	Range			County	
E	9	24 SOUTH	- FEITE	31 EAST	NMPM	<b>County</b> EDDY	
Actual Footage Loc	<u> </u>	24 300111	<u> </u>	01 001	REFE	1	LUUT
1980 feet	t from the NO	PRTH Itne and primation  PATE  the subject well by colored	660		feet from	the WES	line
Cround Level Kiev	Producing Fo	rmation	Pool 5	and Dune	136	a want	Dedicated Acreage:
3465'	1 Delaw	ARE	اربار ۱۰ ا	MINATER OLL	$\omega$	621	Acres
1. Outline the ac	creage dedicated to	the subject well by colored	l pencil or hack	ours marks on the	plat below.	5	2812
2. If more than	one lease is dedic	ated to the well, sutline as	ch and identify	the ownership th	ereof (both	as to working	g interest and royalty).
3. If more than	one lease of diffe	rent ownership is dedicated	to the well, he	ave the interest of	all owners	been consol	ideted by communitisation,
	oros-pooling, etc.				į.		
∐ Yes	∐ No	if answer is "yes" type					
if answer is no this form necess		nd tract descriptions which	have actually	been consolidated	L (Vec reve	rse side of	•
							nitization, forced-pooling,
otherwise) or the	nen a non-stands	rd unit, eliminating such	INVERCEL, DES	been approved by	THE DIAME		OR CERTIFICATION
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# SURFACE USE AND OPERATIONS PLAN

# **FOR**

# POGO PRODUCING COMPANY SUNDANCE "9" FEDERAL, WELL # 4 1980' FNL & 660' FWL of SECTION 9, T-24S, R-31E EDDY COUNTY, NEW MEXICO

<u>LOCATED</u>: 20 miles east southeast of Loving, New Mexico.

FEDERAL LEASE NUMBER: NM-63757

LEASE DATE: November 1, 1985

ACRES IN LEASE: 40

RECORD LESSEE: Pogo Producing Company

SURFACE OWNERSHIP: Federal.

GRAZING PERMITTEE: J

J.R. Engineering P.O. Box 12237

Odessa, Texas 79768 (915) 362-0373

POOL: Wildcat (Delaware)

POOL RULES: Statewide. 40 acres for oil.

EXHIBITS: A. Road Map

B. Plat showing Existing wells and Existing roads

C. Drilling Rig Layout

D. Topo Plat

# 1. EXISTING ROADS

A. Exhibit "A" is a portion of a road map showing the location of the proposed well as staked. The proposed well site can be reached by going south of Carlsbad on 285 towards Loving. Turn left on highway 31, go to Jal, New Mexico turn-off on highway 128. Turn right and go 12.8 miles east to blacktop on right. Turn right and go 3.3 miles south to Pogo Producing Company's Sundance "9" Federal # 3. From this well, keep going going south another 1300'. The proposed location will be 475' to the east.

B. Exhibit "B" shows existing pertinent roads in the vicinity of the proposed reentry. Existing roads are color coded.

# 2. PLANNED ACCESS ROADS:

- A. <u>Length and Width:</u> The planned access road will be 12' wide and approximately 1770' long. See Exhibit "R"
- B. Surfacing Material: Caliche. Compacted and watered.
- C. Maximum Grade: Approximately one percent.
- D. Turnouts: Not needed.
- E. <u>Drainage Design:</u> The access road will be crowned so the water will run off to the sides.
- F. Culverts: None needed.
- G. Cuts and Fills: None necessary.
- H. Gates and Cattle Guards: Not needed. No fences involved.

#### 3. LOCATION OF EXISTING WELLS:

A. Existing wells in the immediate area are shown on Exhibit "B".

## 4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A. Production from this well will be delivered to a lease tank battery located on the well pad of well No. 3. The flowline will be 3" SDR-7 polyethylene pipe laid on the ground and extend, as shown on Exhibit "B", east and then north along archeologically approved road. Anticipated flow line pressure is about 60 psi.

# 5. LOCATION AND TYPE OF WATER SUPPLY:

A. It is not planned that a water well will be drilled. Water necessary for drilling operations will be purchased and trucked to the well site, or will be moved to the well site by a temporary pipeline laid on the ground alongside existing and proposed roads.

## 6. SOURCE OF CONSTRUCTION MATERIAL:

A. Caliche needed for construction work will be taken, if present, from a pit opened on-site within the 400' X 450' work area. Otherwise, caliche will be taken from an existing pit located on Federal land in the NE1/4NE1/4 of Section 4, T-24S, R-31E, Eddy County, New Mexico, and will be trucked to the well site over existing and proposed roads. Location of caliche pit is shown on Exhibit "A".

# METHODS OF HANDLING WASTE MATERIAL:

- A. Drill cuttings will be disposed of in the drilling pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry.
- C. All trash, junk, and other waste material will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill.
- D. Water produced during test will be disposed of in the drilling pits.
- E. Oil produced during tests will be stored in test tanks until sold.

#### 8. ANCILLARY FACILITIES:

A. None necessary.

#### 9. WELL SITE LAYOUT:

- A. Exhibit "C" shows relative location and dimensions of the well pad, mud pits, reserve pit and the location of major drilling rig components.
- B. Clearing and levelling of the well site will be required.
- C. The pad and pit area is staked and flagged.

#### 10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location will be cleaned of all trash and junk to leave the well site in an as aesthetically pleasing condition as possible.
- B. Any unguarded pits containing fluids will be fenced until the pits are dry.
- C. After abandonment, all equipment, trash and junk will be removed and the well site will be cleaned. Any special rehabilitation and/or special revegatation requirements of the surface management agency will be complied with and will be accomplished as rapidly as possible.

#### 11. OTHER INFORMATION:

- A. <u>Topography</u>: The land surface in the area is undulating and duny. In the immediate area of the well site, land slope is to the northeast.
- B. Soil: Top soil at the well site is sand.
- C. <u>Flora and Fauna</u>: The vegatative cover is moderate and includes mesquite, shinnery oak, yucca, weeds and range grasses. Wildlife in the area is that typical of semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, dove and quail.
- D. Ponds and Streams: There are no rivers, ponds, takes or streams in the area.
- E. <u>Residences and Other Structures:</u> There are no occupied dwellings or other structures within a mile of the proposed well site.

- F. <u>Archaeological, Historical, and Cultural Sites:</u> An archeological reconnaissance is to be accomplished and a report furnished.
- G. Land Use: Grazing and wildlife habitat.
- H. Surface Ownership: Federal

# 12. OPERATOR'S REPRESENTATIVE:

Richard L. Wright
Division Operations Manager..
Pogo Producing Company
P.O. Box 10340
Midland, Texas 79702

432-685-8100

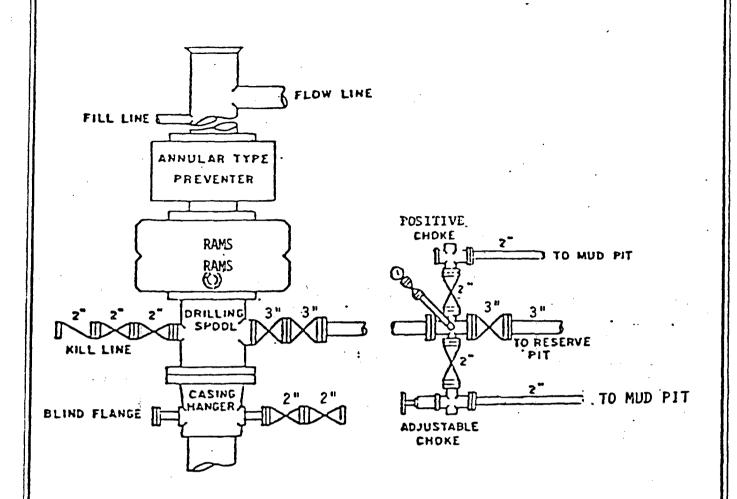
# 13. CERTIFICATION:

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, true and correct; and, that the work associated with the operations proposed herein will be performed by Pogo Producing Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 19 U.S.C. 1001 for the filing of a false statement.

U-18-06
Date: (

Richard L. Wright

**Division Operations Manager** 



BOP STACK

3000 PSI WORKING PRESSURE

# SUPPLEMENTAL DRILLING DATA

## POGO PRODUCING COMPANY SUNDANCE "9" FEDERAL WELL NO. 4

1. SURFACE FORMATION:

Quaternary.

#### 2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Rustler Anhydrite	550'
Delaware	4100'
Cherry Canyon	5000'
Brushy Canyon	6300'

## 3. ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONE:

**Brushy Canyon** 

Oil

#### 4. PROPOSED CASING AND CEMENTING PROGRAM:

	SETTI	NG DEPTH			
CASING SIZE	FROM	<u>TO</u> /	<b>WEIGHT</b>	GRADE	JOINT
13 3/8"	0	550 765	54.5#	J-55	STC
8 5/8"	0	1000'	32#	J-55	STC
4	1000'	2200'	24#	J-55	STC
	2200'	4100'	32#	J-55	STC
5 1/2"	0	1000'	<b>17#</b> ,	J-55	LTC
•	1000'	6000'	15.5#	J-55	LTC
*	6000'	8500'	17#	N-80	LTC

#### MINIMUM DESIGN FACTORS:

Collapse 1.125 Burst 1.1 Tension 1.7

<sup>13 3/8&</sup>quot; casing is to be set at approximately 550' in 17-1/2" hole. Casing to be cemented with 300 sacks of Light cement tailed in with 200 sacks of Class "C", 2% CaCl. Cement to circulate.

<sup>8 5/8&</sup>quot; casing is to be set at approximately 4100' in 11" hole. Casing is to be cemented with 1000 sacks of Light cement tailed in with 200 sacks of Class "C", 1% CaCl. Cement to circulate.

<sup>5 1/2&</sup>quot; casing is to be set at 8500' in 7 7/8" hole. Casing is to be cemented with 300 sx of Light cement followed by 900 sacks of Class "H" cement. Cement to tie back to 8 5/8" casing.

#### 5. PRESSURE CONTROL EQUIPMENT;

Blowout prevention equipment, while drilling the 1,1" hole, will be either a 3000 psi working pressure double ram type preventer or a 3000 psi working pressure annular type preventer.

Blowout prevention equipment, while drilling below the 8 5/8" casing seat, will be a 3000 psi working pressure BOP stack. A BOP sketch is attached.

#### 6. CIRCULATING MEDIUM:

Surface to 550 feet:

7651

Fresh water spud mud. Viscosity 30 to 36 as required for

hole cleaning.

.550 feet to 4100 feet:

Brine conditioned as necessary for control of viscosity. Weight 9.8 to

10.0. PH 9 to 10. Viscosity 32 to 36.

4100 feet to T.D.:

Water based drilling fluid conditioned as necessary for control of weight, viscosity, ph and water-loss. Weight 9 to 10. Visocity

38 - 45. ph 9-10. Filtrate while drilling pay zone 6-15.

## 7. AUXILIARY EQUIPMENT:

A mudlogging trailer will be used while drilling below Intermediate casing.

#### 8. TESTING, LOGGING, AND CORING PROGRAMS:

Drill Stem tests will be made when well data indicate a test is warranted.

It is planned that electric logs will include GR-CNL- Density logs ans GR-DLL logs.

No coring is planned.

#### 9. ABNORMAL PRESSURES, TEMPERTURES, OR HYDROGEN SULFIDE GAS:

None anticipated.

Expected bottom hole pressure is approximately 3500 psi.

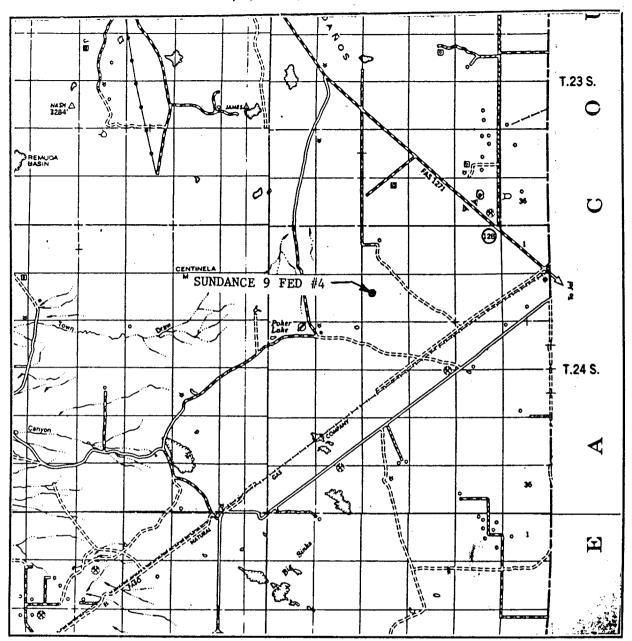
Expected bottom hole temperture is approximately 125 degrees Fahr

#### 10. ANTICIPATED STARTING DATE:

It is planned that operations will commence upon approval of this application, with drilling and completion operations lasting about 30 days.

# VICINITY MAP

Exhibit "A"



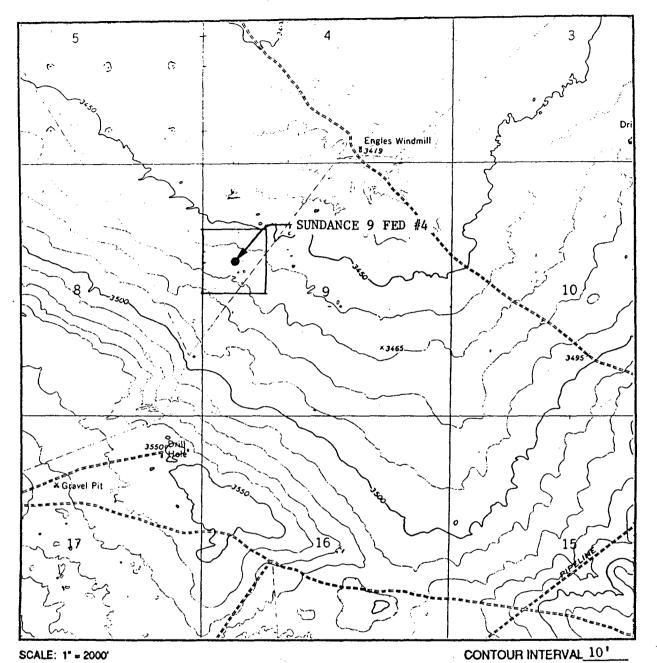
SCALE: 1" = 2 MILES

SEC. 9 TWP. 24-S RGE. 31-E
SURVEY_ N.M.P.M.
COUNTY_EDDYSTATE_N.M.
DESCRIPTION 1980' FNL & 660' FWL
ELEVATION 3465.2'
ELL TATION STOSTE
OPERATOR PCGO PRODUCING COMPANY
LEASE SUNDANCE 9 FED #4



# LOCATION VERIFICATION MAP

Exhibit "D"



SEC. 9 TWP. 24-S RGE. 31-E

SURVEY\_N.M.P.M.

COUNTY\_EDDY STATE\_N.M.

DESCRIPTION\_1980' FNL & 660' FWL

ELEVATION\_3465.2'

OPERATOR\_POGO\_PRODUCING\_COMPANY

LEASE\_SUNDANCE 9 FED #4

U.S.G.S. TOPOGRAPHIC MAP

BIG\_SINKS\_QUADRANGLE

#### CONDITIONS OF APPROVAL - DRILLING

.....

Operator's Name: Pogo Producing Company Well No. 4 - Sundance 9 Federal

Location: 1980' FNL & 660' FWL sec. 9, T. 24 S., R. 31 E.

Lease: NM-63757

#### 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 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. 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 should be set at approximately 765 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 BLM Carlsbad Field 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. Minimum required fill of cement behind the 8-5/8 inch salt protection casing is sufficient to circulate to the surface.
- 3. Minimum required fill of cement behind the 5-1/2 inch production casing is sufficient to circulate to the surface.
- 4. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

#### **III. PRESSURE CONTROL:**

- 1. Before drilling below the 13-3/8 inch surface casing, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve. Before drilling below the 8-5/8 inch salt protection casing, the blowout preventer assembly shall consist of a minimum of One Annular Preventer, Two Ram-Type Preventers, and a Kelly Cock/Stabbing Valve.
- 2. Before drilling below the 13-3/8 inch surface casing, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi. Before drilling below the 8-5/8 inch salt protection casing, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3000 psi.
- 3. The BOPE shall be installed before drilling below the <u>8-5/8</u> inch salt protection casing and 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.