

N.M. OIL CONS. COMMISSION
P.O. BOX 1)
HOBBS, NEW MEXICO 88240
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TR DATE*
(Other instructions on
reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER

SINGLE
ZONE ☒

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

POGO PRODUCING COMPANY

3. ADDRESS OF OPERATOR

P. O. BOX 10340, MIDLAND, TEXAS

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

660' FSL AND 1980' FWL OF SECTION 7

At proposed prod. zone

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

29 MILES WEST OF EUNICE, NEW MEXICO

15. DISTANCE FROM PROPOSED*

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

660'

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

1220'

16. NO. OF ACRES IN LEASE

164.38

19. PROPOSED DEPTH

10,100

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

20. ROTARY OR CABLE TOOLS

ROTARY

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

3661' GR

22. APPROX. DATE WORK WILL START*

UPON APPROVAL

23.

PROPOSED CASING AND CEMENTING PROGRAM

Secretary's P.O. 10/15/94

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	54.5#	800'	SUFFICIENT TO CIRCULATE
11"	8-5/8"	32#	4500'	SUFFICIENT TO CIRCULATE
7-7/8"	5-1/2"	17#	10,100'	TO TIE BACK 200' INTO 8-5/8"

AFTER SETTING PRODUCTION CASING, PAY ZONE WILL BE PERFORATED
AND STIMULATED AS NECESSARY.

SEE ATTACHED FOR: SUPPLEMENTAL DRILLING DATA

BOP SKETCH

SURFACE USE AND OPERATIONS PLAN

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

OPER. OGRID NO. 17891

PROPERTY NO. 15865

POOL CODE 96036

EFF. DATE 10-21-94

API NO. 30-025-327124

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

Richard L. Wright

Richard L. Wright

TITLE

Division Operations Mgr.

DATE

August 15, 1994

PERMIT NO.

APPROVAL DATE

APPROVED BY

H. Gilbert J. Lucas

TITLE

Associate State Director

DATE

10-6-94
9-29-94

CONDITIONS OF APPROVAL, IF ANY:

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
THAT MAY BE

*See Instructions On Reverse Side

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

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

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

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Instruction on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-32704	Pool Code 96036	Pool Name WILDCAT Bone Springs
Property Code 15865	Property Name LIVINGSTON RIDGE 7 FEDERAL	Well Number 3
OGRID No. 17891	Operator Name POGO PRODUCING COMPANY	Elevation 3661'

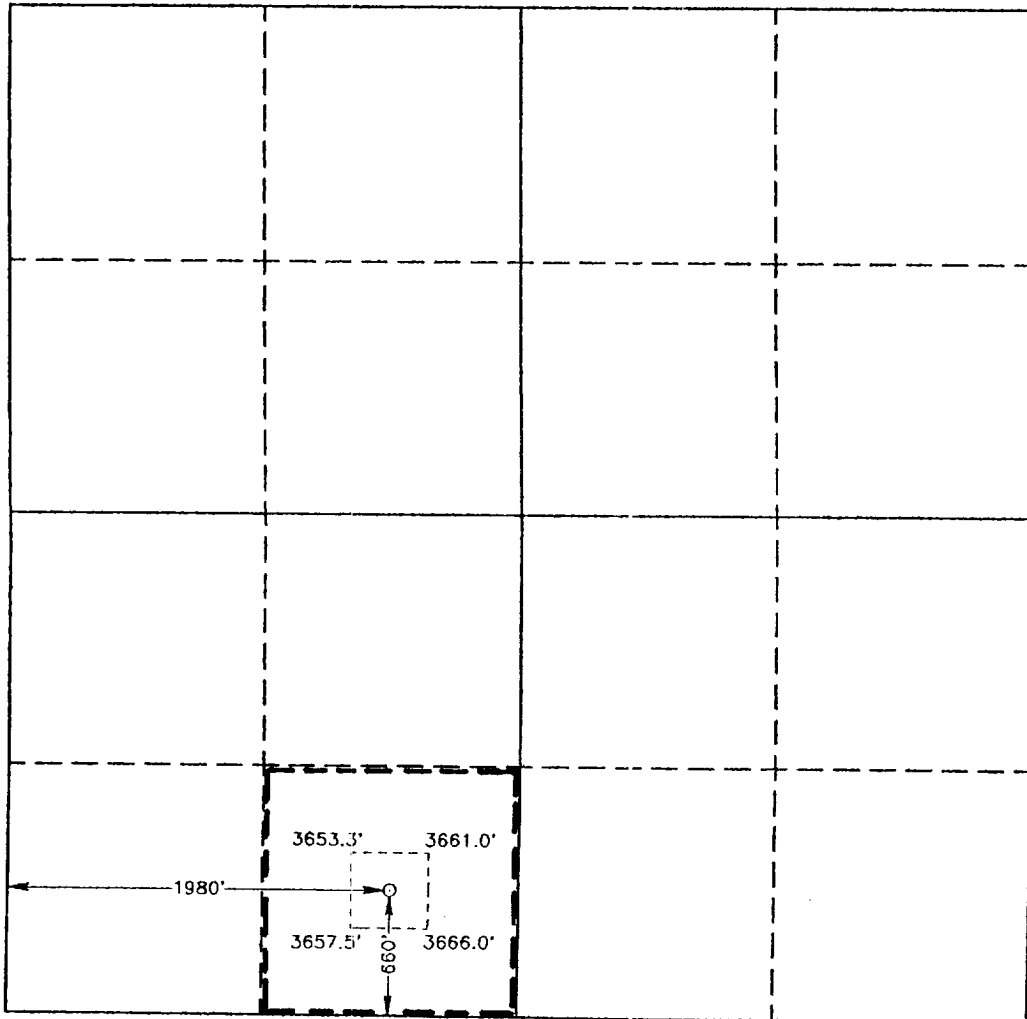
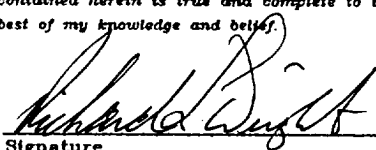
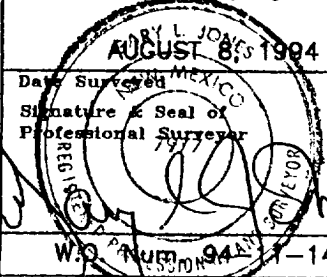
Surface Location

UL or lot No. N	Section 7	Township 22 S	Range 32 E	Lot Idn	Feet from the 660	North/South line SOUTH	Feet from the 1980	East/West line WEST	County LEA
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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 N	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

	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.  Signature Richard L. Wright Printed Name Division Operations Mgr. Title August 15, 1994 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 supervision, and that the same is true and correct to the best of my belief.  Date Surveyed Signature & Seal of Professional Surveyor W.O. Num 94-1-1400	
	Certificate No. JOHN W. WEST, 676 RONALD J. EIDSON, 3239 GARY L. JONES, 7977	

SUPPLEMENTAL DRILLING DATA
POGO PRODUCING COMPANY
LIVINGSTON RIDGE 7 FEDERAL WELL NO.3

1. SURFACE FORMATION: Quaternary.

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Anhydrite	800'
Delaware	4650'
Cherry Canyon	5600'
Brushy Canyon	7300'
Bone Springs	8600'

3. ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONES:

Delaware	Oil
Bone Springs	Oil

4. PROPOSED CASING AND CEMENTING PROGRAM:

CASING SIZE	SETTING DEPTH		WEIGHT	GRADE	JOINT
	FROM	TO			
13-3/8"	0	800'	54.5#	J-55	STC
8-5/8"	0	4300'	32#	J-55	STC
"	4300'	4500'	32#	S-80	STC
5-1/2"	0	1000'	17#	N-80	LTC
"	1000'	7000'	17#	J-55	LTC
"	7000'	10,100'	17#	N-80	LTC

MINIMUM

DESIGN FACTORS: COLLAPSE 1.125 BURST 1.1 TENSION 1.7

13-3/8" casing to be cemented with 500 sacks of light cement tailed in with 200 sacks of Class "C" with 2% CaCl. Cement to circulate.

8-5/8" casing to be cemented with 1200 sacks of light cement with 10% salt tailed in with 200 sacks of premium cement with 1% CaCl. Cement to circulate.

5-1/2" production casing is to be cemented with approximately 700 sacks

of light cement followed by 400 sacks of premium cement. Cement to tie back 200' into the 8-5/8" casing.

If, during drilling operations, need for stage cementing of casing is indicated, staging tool(s) will be run and positioned to best suit hole conditions at time casing is run.

Cement volumes may be adjusted and cement may have lost circulation and/or other additives depending on hole conditions at the time casing is run.

5. PRESSURE CONTROL EQUIPMENT:

Blowout prevention equipment, while drilling the 11" hole, will be either a 3000 psi working pressure double ram type preventer or a 3000 psi working pressure annular type preventer.

Blow out 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 800 feet: Fresh water spud mud. Viscosity 30 to 36 as required for hole cleaning.

800 feet to 4500 feet: Brine conditioned as necessary for control of viscosity. Weight 9.8 to 10. pH 9 to 10. Viscosity 32 to 36.

4500 feet to T.D.: Water base drilling fluid conditioned as necessary for control of weight, viscosity, pH and water-loss.

~~Weight 9 to 10.~~ Viscosity 38-45. pH 9 to 10.

Filtrate while drilling pay zone 6 to 15.

→ 8.5 ppg as per telecon w/ R. Wright, 9/16/94
(SJS)

7. AUXILIARY EQUIPMENT:

A mud logging trailer will be in use while drilling below the intermediate casing.

8. TESTING, LOGGING, AND CORING PROGRAM:

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 and GR-DLL logs.

No coring is planned.

9. ABNORMAL PRESSURES, TEMPERATURES, OR HYDROGEN SULFIDE GAS:

No abnormal pressures or temperatures are expected.

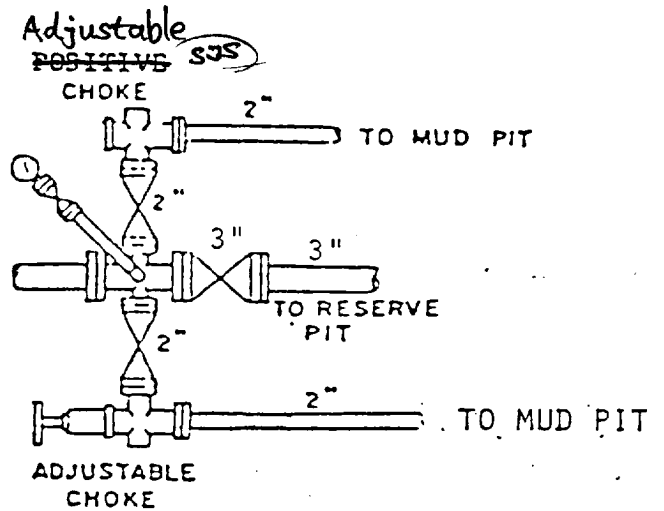
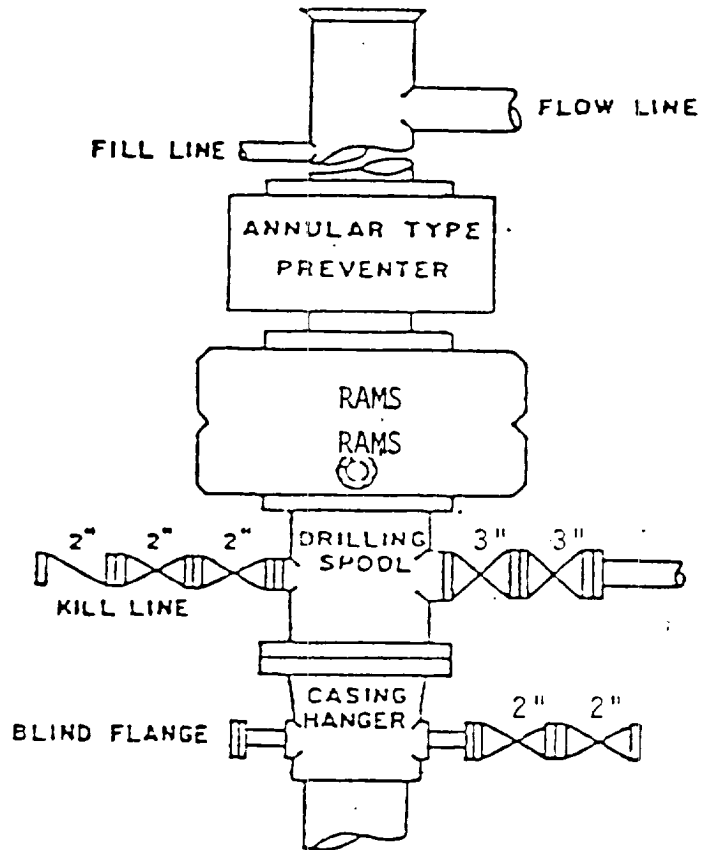
Expected bottom hole pressure is about 4100 psi.

Expected bottom hole temperature is about 135 degrees Fahr.

No hydrogen sulfide gas is expected. The production stream of Pogo Producing Company's wells in this area have been tested specifically for hydrogen sulfide gas and test results were negative. However, since it is possible that low-volume hydrogen sulfide gas may be present in permeable water zones of the Castile formation, drilling operations below the surface casing will be in accordance with the attached "HYDROGEN SULFIDE DRILLING OPERATIONS PLAN" until intermediate casing is set and cemented and this possible source of hydrogen sulfide gas is cased off.

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.



BOP STACK

3000 PSI WORKING PRESSURE

BOP ARRANGEMENT