

DATE IN 2/19/04	SUSPENSE 3/10/04	ENGINEER MS	LOGGED IN ms	TYPE NSL	PMESD - APP NO. 407739/35
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



Lost Tank "3"
Federal #20

J-3-T22S-R31E

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

- [1] TYPE OF APPLICATION - Check Those Which Apply for [A]
[A] Location - Spacing Unit - Simultaneous Dedication
☒ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR
[D] Other: Specify _____

- [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☒ Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
[B] ☐ Offset Operators, Leaseholders or Surface Owner
[C] ☐ Application is One Which Requires Published Legal Notice
[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
[F] ☐ Waivers are Attached

- [3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

- [4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

James Bruce

Print or Type Name

Signature

Attorney for Applicant

Title

Date

jamesbruc@aol.com

e-mail Address

RECEIVED

FEB 19 2004

Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

JAMES BRUCE
ATTORNEY AT LAW

POST OFFICE BOX 1056
SANTA FE, NEW MEXICO 87504

369 MONTEZUMA, NO. 213
SANTA FE, NEW MEXICO 87501

(505) 982-2043 (PHONE)
(505) 660-6612 (CELL)
(505) 982-2151 (FAX)

jamesbruc@aol.com

February 19, 2004

Hand Delivered

Michael E. Stogner
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Dear Mr. Stogner:

Pursuant to Division Rule 104.F(2), Pogo Producing Company ("Pogo") applies for administrative approval of unorthodox oil well locations for the following eight wells:

Well: Lost Tank "3" Federal Well No. 14
Location: 1450 feet FSL & 1710 feet FEL
Well Unit: NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 3, Township 22 South, Range 31 East, N.M.P.M., Eddy County, New Mexico

Well: Lost Tank "3" Federal Well No. 20
Location: 2500 feet FSL & 2250 feet FEL
Well Unit: NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 3, Township 22 South, Range 31 East, N.M.P.M., Eddy County, New Mexico

Well: Lost Tank "3" Federal Well No. 21
Location: 2500 feet FNL & 450 feet FWL
Well Unit: SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 3, Township 22 South, Range 31 East, N.M.P.M., Eddy County, New Mexico

Well: Lost Tank "3" Federal Well No. 22
Location: 2500 feet FNL & 1850 feet FWL
Well Unit: SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 3, Township 22 South, Range 31 East, N.M.P.M., Eddy County, New Mexico

Well: Lost Tank "4" Federal Well No. 8
Location: 2490 feet FNL & 500 feet FEL
Well Unit: SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 4, Township 22 South, Range 31 East, N.M.P.M., Eddy County, New Mexico

Well: Lost Tank "4" Federal Well No. 9
Location: 2610 feet FNL & 1850 feet FEL
Well Unit: SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 4, Township 22 South, Range 31 East, N.M.P.M., Eddy County, New Mexico

Well: Lost Tank "4" Federal Well No. 10
Location: 2610 feet FNL & 2310 feet FWL
Well Unit: SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 4, Township 22 South, Range 31 East, N.M.P.M., Eddy County, New Mexico

Well: Lost Tank "4" Federal Well No. 11
Location: 2410 feet FNL & 990 feet FWL
Well Unit: SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 4, Township 22 South, Range 31 East, N.M.P.M., Eddy County, New Mexico

The wells will be drilled to test the Delaware formation (Designated and Undesignated West Lost Tank-Delaware Pool), which is developed on statewide rules. Form C-102's for the eight wells are attached as Exhibit A.

In addition, simultaneous dedication approval is requested for the following wells:

Wells: Lost Tank "3" Federal Well Nos. 14 and 20
Well Unit: NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 3

Wells: Lost Tank "3" Federal Well Nos. 4 and 21
Well Unit: SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 3

Wells: Lost Tank "3" Federal Well Nos. 3 and 22
Well Unit: SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 3

Wells: Lost Tank "4" Federal Well Nos. 7 and 8
Well Unit: SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 4

Wells: Lost Tank "4" Federal Well Nos. 6 and 9
Well Unit: SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 4

Wells: Lost Tank "4" Federal Well Nos. 5 and 10
Well Unit: SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 4

The application is based on potash, geologic, and engineering reasons. Sections 3 and 4 are within the oil-potash area of southeastern New Mexico. Most of the existing wells in Sections 3 and 4 were drilled at unorthodox locations because they were the only locations which the Bureau of Land Management ("BLM") would approve at the time.

Pogo has now applied to the BLM for approval to drill the above wells. Due to the locations of the previously approved wells, the proposed locations are needed to place wells approximately equidistant from each other. In addition, the wells are located to

take advantage of favorable geology in the primary Delaware zones. Attached as Exhibit B is a geologic discussion, with appropriate plats, supporting the application. Finally, in the event of potential pressure maintenance operations, the locations will be appropriate to take advantage of injection operations.

Attached as Exhibit C is a land plat, highlighting the well locations. All of Sections 3 and 4 are covered by United States Oil and Gas Lease NM 0417696, which has common royalty, overriding royalty, and working interest ownership. Because all of the locations are interior to the lease, there are no offset operators to notify. **As a result, applicant requests that the 20 day notice period be waived.**

Please call me if you need any further information on this matter.

Very truly yours,

A handwritten signature in cursive script, appearing to read "James Bruce".

James Bruce

Attorney for Pogo Producing Company

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

NOV 03 2003

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 (RICHARD WRIGHT 432-685-8140)

3. ADDRESS AND TELEPHONE NO.

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.')

At surface

2500' FSL & 2250' FEL SEC. 3 T22S-R31E EDDY CO. NM

At proposed prod. zone SAME

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

Approximately 35 miles East of Carlsbad New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drig. unit line, if any)

2250'

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

1200'

16. NO. OF ACRES IN LEASE

1280

19. PROPOSED DEPTH

8250'

17. NO. OF ACRES ASSIGNED TO THIS WELL

40

20. ROTARY OR CABLE TOOLS

ROTARY

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

3486' GR.

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 20"	NA	40'	Cement to surface with Redi-mix
17 1/2"	H-40 13 3/8"	48	800'	950 Sx. Circulate cement.
11"	J-55 8 5/8"	32	4200'	1500 Sx. " "
7 7/8"	J-55 5 1/2"	17 & 15.5	8250'	1650 Sx. " "

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17 1/2" hole to 800'. Run and set 800' of 13 3/8" 48# H-40 ST&C casing. Cement with 950 Sx. of Class "C" cement + 2% CaCl, + 1/2# Flocele/Sx. Circulate cement to surface.
3. Drill 11" hole to 4200'. Run and set 4200' of 8 5/8" 32# J-55 ST&C casing. Cement with 1500 Sx. of Class "C" cement + 2% CaCl, + 1/2# Flocele/Sx. Circulate cement to surface.
4. Drill 7 7/8" hole to 8250'. Run and set 8250' of 5 1/2" casing as follows: 2250' 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 6100' & 3700'±. Cement 1st stage with 650 Sx. of Class "H" cement + additives, 2nd stage cement with 600 Sx. of Class "C" cement + additives, cement 3rd stage with 400 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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

[Signature]

TITLE

Agent

DATE

10/30/03

(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:

Exhibit "A"

APPROVED BY

TITLE

DATE

*See Instructions On Reverse Side

Department of the Interior, Bureau of Land Management, Washington, D.C. 20240

DISTRICT I
P.O. Box 1890, Hobbs, NM 88241-1890

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV
P.O. Box 2088, Santa Fe, N.M. 87504-2088

State of New Mexico

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-102

Revised February 10, 1994

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 96582	Pool Name LOST TANK DELAWARE WEST
Property Code 20943	Property Name LOST TANK "3" FEDERAL	Well Number 20
OGRID No. 17891	Operator Name POGO PRODUCING COMPANY	Elevation 3486'

Surface Location

UL or lot No. J	Section 3	Township 22-S	Range 31-E	Lot Idn	Feet from the 2500'	North/South line SOUTH	Feet from the 2250'	East/West line EAST	County EDDY
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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
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Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
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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

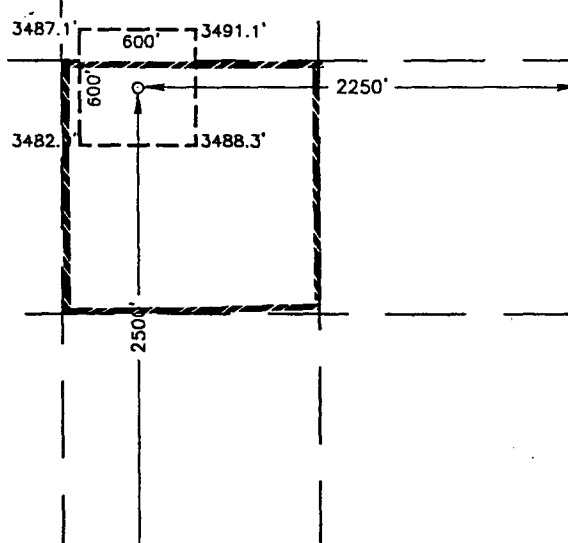
LOT 4	LOT 3	LOT 2	LOT 1
39.65 AC	39.78 AC	39.92 AC	40.05 AC
<p>GEODETIC COORDINATES NAD 27 NME Y = 51699.9 N X = 675692.5 E LAT. 32°25'12.19"N LONG. 103°45'50.28"W</p>			
			
<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Joe T. Janica</i> Signature</p> <p>Joe T. Janica Printed Name</p> <p>Agent</p> <p>Title</p> <p>10/30/03 Date</p>			
<p>SURVEYOR CERTIFICATION</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>October 20, 2003</p> <p>Date Surveyed</p> <p>A.W.B</p> <p>Signature & Seal of Professional Surveyor</p> <p><i>Barry G. Edson</i> 10/24/03</p> <p>03.11.1114</p> <p>Certificate No. CARY EDSON 12841</p>			

EXHIBIT "A"

Pogo Producing Company
Application for Unorthodox Locations
Lost Tank West Delaware Field
Eddy County, New Mexico

Proposed Unorthodox locations in section 3:

Lost Tank "3" Federal #14 (1450' fsl, 1710' fel, section 3, T22S, R31E)
Lost Tank "3" Federal #20 (2500' fsl, 2250' fel, section 3, T22S, R31E)
Lost Tank "3" Federal #21 (2500' fsl, 450' fwl, section 3, T22S, R31E)
Lost Tank "3" Federal #22 (2500' fsl, 1850' fwl, section 3, T22S, R31E)

Proposed Unorthodox locations in section 4:

Lost Tank "4" Federal #8 (2490' fsl, 500' fel, section 4, T22S, R31E)
Lost Tank "4" Federal #9 (2610' fsl, 1850' fel, section 4, T22S, R31E)
Lost Tank "4" Federal #10 (2610' fsl, 2310' fwl, section 4, T22S, R31E)
Lost Tank "4" Federal #11 (2410' fsl, 990' fwl, section 4, T22S, R31E)

Summary

Pogo Producing Company is requesting permission to drill 8 Delaware Formation tests at unorthodox locations in its Lost Tank West Field. Granting of these locations will allow Pogo to develop its remaining acreage in section 3 and section 4 with optimal spacing between the proposed locations and existing locations.

Discussion

The unusual spacing of the existing wells in Pogo's acreage in the north half of section 3 and the north half of section 4 is a result of its proximity to potential potash reserves. Discussions between Pogo Producing Company and the BLM have resulted in Pogo being granted permission to continue developing the south halves of sections 3 and 4. In order to optimize well spacing in the remaining undeveloped portions of these sections, it is necessary to drill 8 of the remaining 21 development wells at unorthodox locations.

The Lost Tank West Delaware Field produces from several of the Delaware Sands. Two of the more prolific sands in this field are the Lower Brushy "A" Sand, and the Middle Brushy "F" Sand. The proposed unorthodox locations will optimize well spacing, thus providing an opportunity for better oil and gas recovery from these two productive sands.

Brushy "A" Geology

Exhibit 1 shows the structural elevation on the top of the Brushy "A" zone (gray contours). Structure dips regionally to the southeast at an average rate of 100' per mile. The color-filled contours show the net sand thickness of main pay sand within the Brushy "A" zone (BC4 Sand). This Brushy "A" interval is interpreted as a submarine sand channel that trends in a northeast-southwest direction through sections 3 and 4, with net pay thickness ranging from 15' to 85'. The 8 proposed unorthodox locations are highlighted with green arrows.

Brushy "F" Geology

Exhibit 2 shows the structural elevation on the top of the Brushy "F" zone (gray contours). Structure dips regionally to the southeast at an average rate of 80' per mile. The color-filled contours show the net sand thickness of the main pay sand within the Brushy "F" zone. The Brushy "F" sand consists of a series of northeast-southwest-trending over-bank splays that originate from a large channel located 2 ½ miles east of section 3. Pogo expects to encounter up to 30 feet of productive net sand in the eastern locations, with pay thickness diminishing in locations toward the west.



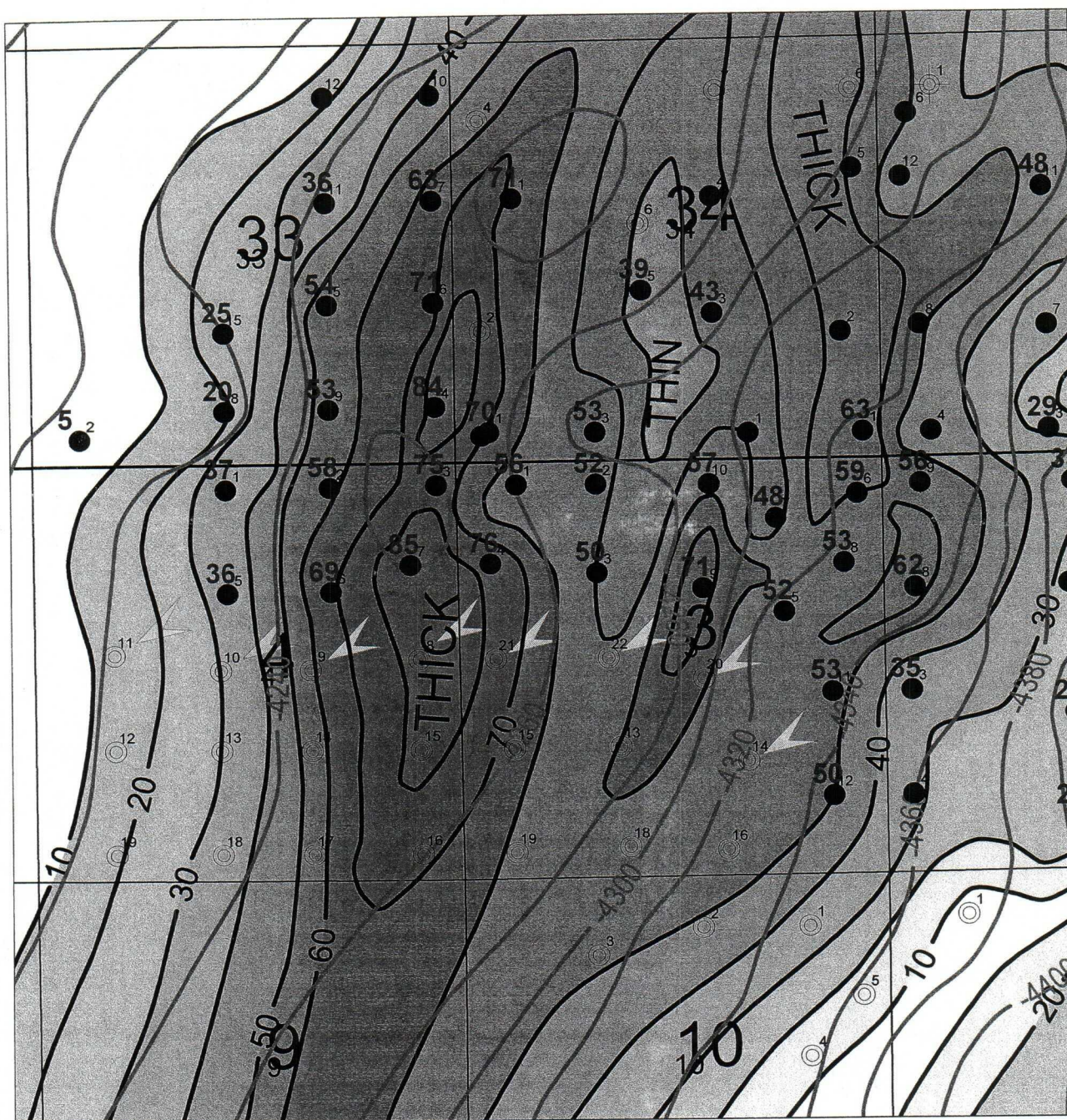


Exhibit 1

POGO PRODUCING COMPANY
Western Division Midland, Texas

Lost Tank West Field

Structure Top Brushy "A" Zone

Isopach BC4 Net Porosity

Eddy County, New Mexico

WBH		ll_bc4_ood.gmp
1/15/04	Project: Livingston Ridge Sand Dunes	1" = 2000'

Date: (3-1-2006)

• P197
U.S.

State 13

State
2140.05

State:

5 - ~~-----~~
 Reel No. 4
 never drilled

1087

Lost Tank Fed

U.S.

5820
 TANK, 14
 "Lost Tank-Fed."
 "f

Yates
Pet. et al f243
V. 2597
"Flora-AKF-
St."

8

9

U.S.

Pogo

1

2

3

"Last Tank Fed"

10

4

U.S.

Pego	Yates Pet.
"Lost Tank Fed"	65417 "AIK"
	11
	Martha
	11.3

Gulf
7-1-84
21770

16

15

14

6.

State 22

31

U.S.

1

V. Williams, Jr.
Bouper Unit
Fed.
TD 15,225
O/A 8-17-73

Blumberg No. 5119

LIVING
U.S.

Blumberg No. 5119

EXHIBIT

C



NSL-011.2146

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor

March 17, 2004

C C

Joanna Prukop
Cabinet Secretary
Acting Director
Oil Conservation Division

Pogo Producing Company
c/o James Bruce
P. O. Box 1056
Santa Fe, New Mexico 87504

Administrative Order NSL-5014

Dear Mr. Bruce:

Reference is made to the following: (i) your application (*administrative application reference No. pMES0-407733734*) dated February 19, 2004 on behalf of the operator Pogo Producing Company ("Pogo"); and (ii) the records of the New Mexico Oil Conservation Division ("Division") in Santa Fe: all concerning Pogo's request to drill its Lost Tank "3" Federal Well No. 14 at an unorthodox Delaware oil well location 1450 feet from the South line and 1710 feet from the East line (Unit J) of Section 3, Township 22 South, Range 31 East, NMPM, Eddy County, New Mexico. The NW/4 SE/4 of Section 3 is to be dedicated to this well in order to form a standard 40-acre oil spacing and proration unit in the West Lost Tank-Delaware Pool (96582).

This application has been duly filed under the provisions of Division Rule 104.F, revised by Division Order No. R-11231, issued by the New Mexico Oil Conservation Commission in Case No. 12119 on August 12, 1999.

The geologic interpretation submitted with this application indicates that a well drilled at the proposed unorthodox oil well location will be at a more favorable geologic position within the NW/4 SE/4 of Section 3, will serve to drain additional reserves within the productive interval that might not otherwise be produced, and to provide for a more efficient production pattern within the West Lost Tank-Delaware Pool.

It is further understood that all of Section 3 and Lots 1, 2, and 3, the S/2 N/2, and the S/2 of Section 4, Township 22 South, Range 31 East, NMPM, Eddy County, New Mexico is a single Federal lease (U. S. Government lease No. NM-0417696) with common mineral interests in which Pogo is the operator; therefore, there are no effected offsets to the subject 40-acre tract other than Pogo.

By the authority granted me under the provisions of Division Rule 104.F (2), the above-described unorthodox Delaware oil well location is hereby approved.

Sincerely,

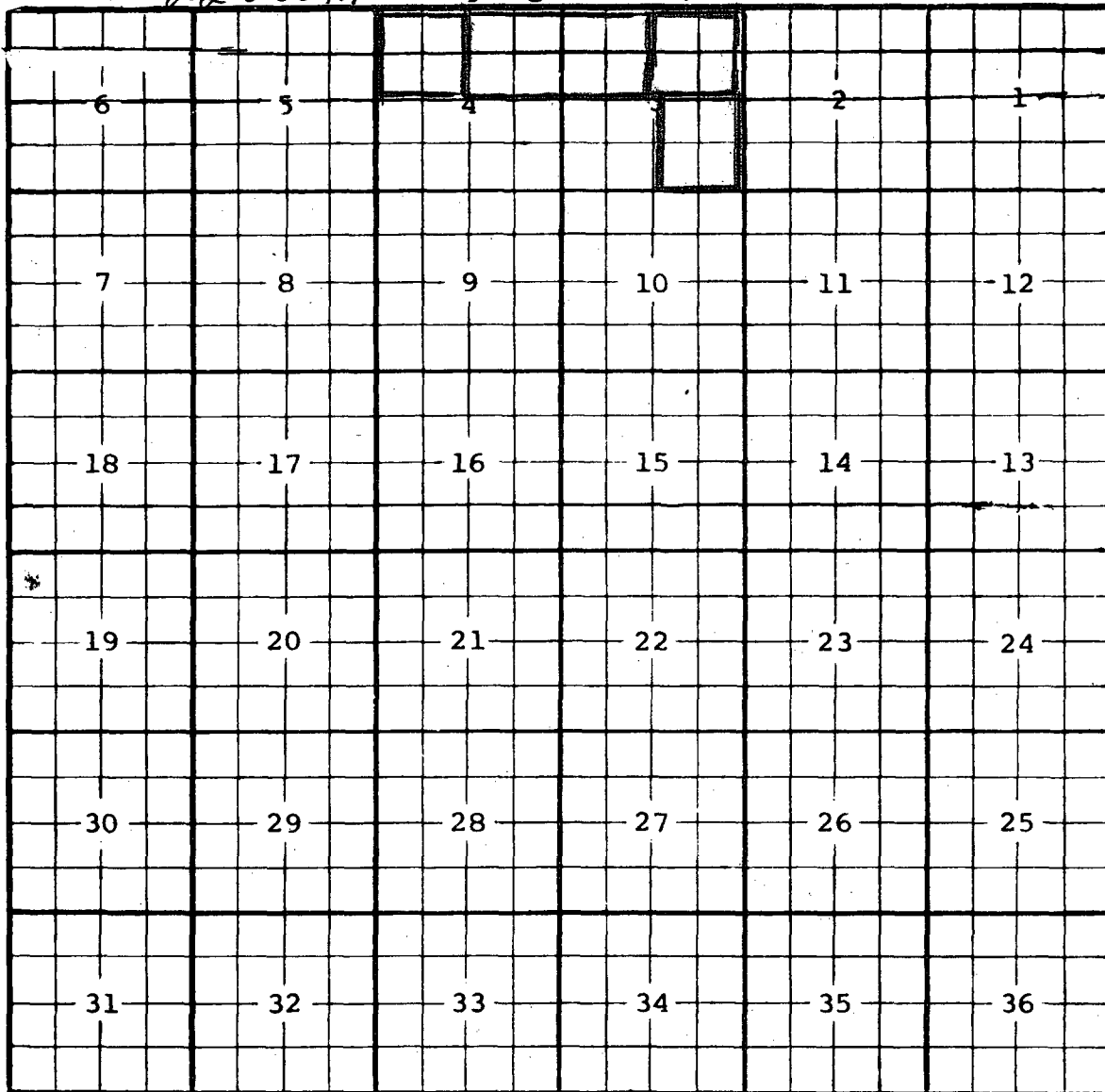
Michael E. Stogner
Engineer/Hearing Officer

MES/ms

cc: New Mexico Oil Conservation Division - Artesia
U. S. Bureau of Land Management - Carlsbad

county Eddy pool West Lost Tank-Delaware

TOWNSHIP 22 South Range 31 East NMPM



Description: NW 1/4 Sec. 4 (R-10787, 4-9-97)

Ext: NW 1/4 Sec. 3, NE 1/4 Sec. 4 (R-10951, 2-4-98) Ext: NE 1/4 Sec. 3 (A-11384, 5-25-00)

Ext: SE 1/4 Sec. 3 (A-12002, 8-11-03)