

2-19-04 DATE IN	3-10-04 SUSPENSE	ENGINEER MS	LOGGED IN MS	TYPE NSL	P.M.E.S.C. APP NO. 407753724
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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 Task "3" Fed. #21  
E-3-225-31E

### 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

(E)

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~~ (F)

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

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NOV 03 2003

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

MIDLAND

## 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' ENL & 450' FWL 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 drlg. unit line, if any)

450'

## 16. NO. OF ACRES IN LEASE

1280

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

40

## 18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

1150'

## 19. PROPOSED DEPTH

8250'

## 20. ROTARY OR CABLE TOOLS

ROTARY

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

3466' 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
17½"	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 5½"	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 17½" 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, + ½# 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, + ½# Flocele/Sx. Circulate cement to surface.
4. Drill 7 7/8" hole to 8250'. Run and set 8250' of 5½" casing as follows: 2250' 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 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

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

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico

Energy, Minerals and Natural Resources Department

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

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

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

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

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 21
OGRID No. 17891	Operator Name POGO PRODUCING COMPANY	Elevation 3466'

Surface Location

UL or lot No. E	Section 3	Township 22-S	Range 31-E	Lot Idn	Feet from the 2500'	North/South line NORTH	Feet from the 450'	East/West line WEST	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>DETAIL</p> <p>SEE DETAIL</p> <p>3467.4'</p> <p>3470.9'</p> <p>3469.0'</p> <p>3471.3'</p> <p>450'</p> <p>600'</p> <p>600'</p>			
<p>GEODETIC COORDINATES</p> <p>NAD 27 NME</p> <p>Y = 517263.2 N</p> <p>X = 673112.3 E</p> <p>LAT. 32°25'14.96"N</p> <p>LONG. 103°46'20.36"W</p>			

**OPERATOR CERTIFICATION**

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

*Joe T Janica*

Signature

Joe T Janica

Printed Name

Agent

Title

10/30/03

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.

October 20, 2003

Date Surveyed

A.W.B

Signature & Seal of Professional Surveyor

*Gary E Edson* 10/24/03

03.11.1115

Certificate No. GARY EDSON 12641

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' fnl, 450' fwl, section 3, T22S, R31E)  
Lost Tank "3" Federal #22 (2500' fnl, 1850' fwl, section 3, T22S, R31E)

Proposed Unorthodox locations in section 4:

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

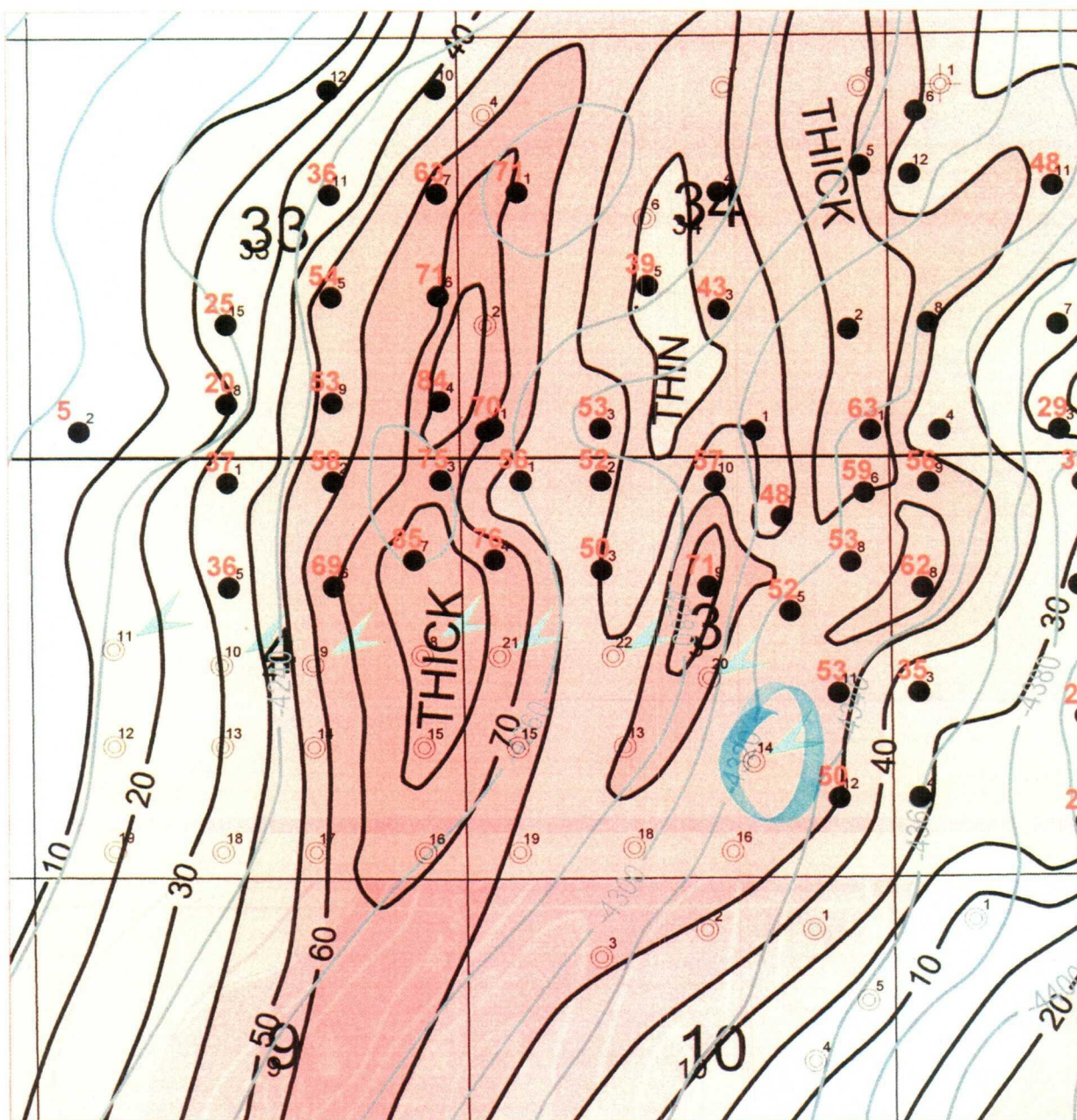
Exhibit 1 shows the structural elevation on the top of the Brushy "A" zone (gray contours). Structure dips regionally to the southeast at an average rate of 100' per mile. The colorfilled contours show the net sand thickness of main pay sand within the Brushy "A" zone (BC4 Sand). This Brushy "A" interval 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.







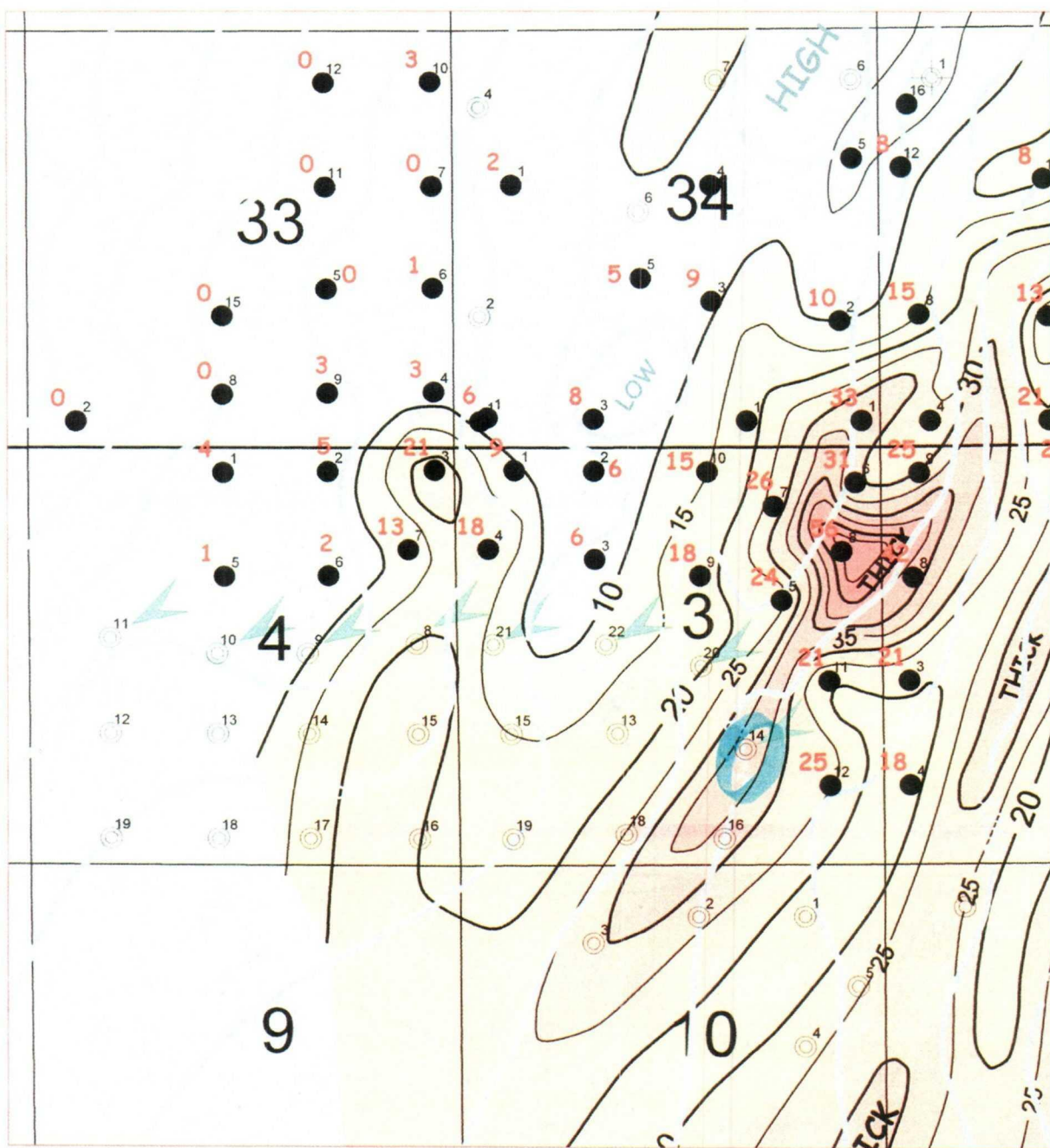
**Exhibit 1**

**POCO 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_ocr.gmp
1/15/04	Project: Livingston Ridge Sand Dunes	1" = 2000'





**Exhibit 2**

**POGO PRODUCING COMPANY**  
Western Division Midland, Texas

**Lost Tank West Field**

Structure Top Brushy "F" Zone

Isopach Brushy "F" Net Porosity

Eddy County, New Mexico

WEH		ft_bcf_ood.gnp
1/15/04	Project, Livingston Ridge Sand Dunes	

