

Pogo

SE
Bm

DATE IN 5/30/06	SUSPENSE	ENGINEER MIKE STOGNER	LOGGED IN 5/30/06	TYPE NSL	APP NO. PTDSD615060141
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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



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

2006 MAY 30 PM 2 26

[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.

JAMES BRUCE
 P.O. BOX 1056
 SANTA FE, NM 87504
 Print or Type Name

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

Signature

Title

Date

e-mail Address

James Bruce

Attorney for Applicant

5/30/06

jamesbruce@aol.com

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

May 30, 2006

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 applies for approval of an unorthodox oil well location for the following well:

<u>Well:</u>	Vortec "22" Well No. 1
<u>Surface Location:</u>	330 feet FSL & 330 feet FEL
<u>Bottom Hole Location:</u>	660 feet FSL & 1650 feet FEL
<u>Well Unit (Project Area):</u>	SE $\frac{1}{4}$ SW $\frac{1}{4}$ and S $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 2, Township 24 South, Range 29 East, N.M.P.M., Eddy County, New Mexico

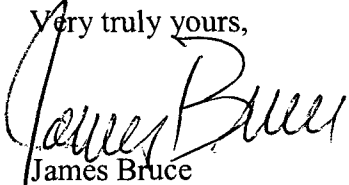
The well is currently being drilled as a horizontal well in the Bone Spring formation (Undesignated Pierce Crossing-Bone Spring Pool). The pool is spaced on 40 acres under the Division's statewide rules, with wells to be located no closer than 330 feet to a quarter-quarter section line. An APD for the well, with a Form C-102, is attached as Exhibit A.

The above location is orthodox. HOWEVER, DURING DRILLING THE WELL DRIFTED SOUTH TO A POINT 282.5 FEET FSL (at a point 726.6 feet FEL). See Exhibit B. The exact reason why this occurred is uncertain at this time. The well has been steered back to an orthodox location within the "window" shown on the Form C-102.

The SE $\frac{1}{4}$ SW $\frac{1}{4}$ and S $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 22, AND the offsetting NE $\frac{1}{4}$ NW $\frac{1}{4}$ and N $\frac{1}{2}$ NE $\frac{1}{4}$ of Section 27, is a single fee tract with common mineral and leasehold ownership. See Exhibit C, pages 2-8. Therefore, there is no adversely affected interest owner, and notice of this application has not been given to anyone.

Please contact me if you need any further information on this application.

Very truly yours,



James Bruce

Attorney for Pogo Producing Company

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87303

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
May 27, 2004

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address POGO PRODUCING COMPANY P.O. BOX 10340 MIDLAND, TEXAS 79702-7340		OGRIID Number 017891
Property Code		API Number 30 - 015-34817
Property Name VORTEC "22" OCU-ARTESIA		Well No. 1
Proposed Pool 1 BONE SPRING		Proposed Pool 2

UL or lot no.	Section	Township	Range	Lot (in)	Feet from the	North/South line	Feet from the	East/West line	Country
P	22	24S	29E		330'	SOUTH	330'	EAST	EDDY

Proposed Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot (in)	Feet from the	North/South line	Feet from the	East/West line	Country
N	22	24S	29E		660'	SOUTH	1650'	WEST	EDDY

Additional Well Information				
Work Type Code N	Well Type Code O	Cable/Rotary ROTARY	Lease Type Code P	Ground Level Elevation
Multiple NO	Proposed Depth MD10797 TVD7653	Formation BONE SPRING	Contractor PATTERSON	Spud Date WHEN APPROVED
Depth to Groundwater GREATER THAN 50' LESS THAN 100'		Distance from nearest fresh water well .6 mi SW? PECOS RIVER .7 mi SOUTHWEST		
Liner: Synthetic <input checked="" type="checkbox"/> 12 mils thick Clay <input type="checkbox"/>		Pit Volume: 18M bbls		
Closed-Loop System <input type="checkbox"/>		Drilling Method: Fresh Water <input checked="" type="checkbox"/> Bone <input checked="" type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>		

Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
26"	20"	Conductor	40'	Redi-mix	Surface
17 1/2"	13 3/8"	48#	550'	350 Sx.	Surface
12 1/2"	9 5/8"	40#	2900'	1000 Sx.	Surface
8 1/2 & 7 7/8"	5 1/2"	17#	MD10,797 TVD7653'	900 Sx.	2900' from surface

" Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

SEE ATTACHED SHEET FOR DETAILS

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOC guidelines <input checked="" type="checkbox"/> a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .		OIL CONSERVATION DIVISION	
Printed name: Joe T. Janica		Approved by: BRYAN G. ARANT	
Title: Agent		DISTRICT II GEOLOGIST	
E-mail Address: joejanica@valornet.com		Approval Date: APR 24 2006 Expiration Date: APR 24 2007	
Date: 04/21/06	Phone: 505-391-8503	Conditions of Approval Attached <input type="checkbox"/>	

EXHIBIT A

POGO PRODUCING COMPANY

VORTEC "22" # 1

UNIT "P" SECTION 22

T24S-R29E EDDY CO. NM

1. Drill 26" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17½" hole to 550', drill surface hole with fresh water. Run and set 550' of 13 3/8" 48# H-40 ST&C casing. Cement with 150 Sx. of 35/65/6 Class "C" POZ/GEL, tail in with 200 Sx. of Class "C" cement + 2% CaCl, + ¼# Flocele/Sx., circulate cement to surface.
3. Drill 12½" hole with brine water to a depth of 2900'. Run and set 2900' of 9 5/8" 40# J-55 ST&C casing. Cement with 800 Sx. of 35/65/6 POZ/GEL Class "C" cement + 5% Salt, tail in with 200 Sx. of Class "C" cement + 2% CaCl, + ¼# Flocele/Sx. circulate cement to surface, volumes may be changed after fluid caliper is run.
4. Drill 8½" hole to 8200'. run logs and set a cement plug for kick off point at 7225', drill 8½" hole through curve to 7730'. Reduce hole to 7 7/8" and drill to 7 7/8" and drill to 10,797'. Run and set 10,800'± of 5½" 17# N-80 BTC & LT&C casing. Cement with 900 Sx. of Class "H" Premium Plus cement + additives, mixed at 15.7 PPG, estimate top of cement 2900' from surface.

AFE VORTEC 22 # 1H.xls

MITCHELL ENGINEERING PROGRAMS

COPYRIGHT 1999 MITCHELL ENGINEERING, PO BOX 1492, GOLDEN, CO, 80402, USA (303) 273 3744

LONG'S METHOD OF SURVEY COMPUTATION**OBLIQUE CIRCULAR ARC INTERPOLATION**

Q	MD OF INTERPOLATION DEPTH, (feet)
#N/A	TVD COORDINATE OF THE DEPTH (feet)
#N/A	N/S COORDINATE OF DEPTH (feet)
#N/A	EW COORDINATE OF DEPTH (feet)

3 D DISTANCE BETWEEN STATION A AND STATION B

DISTANCE TABLE

STATION A	STATION B
0.00	ft

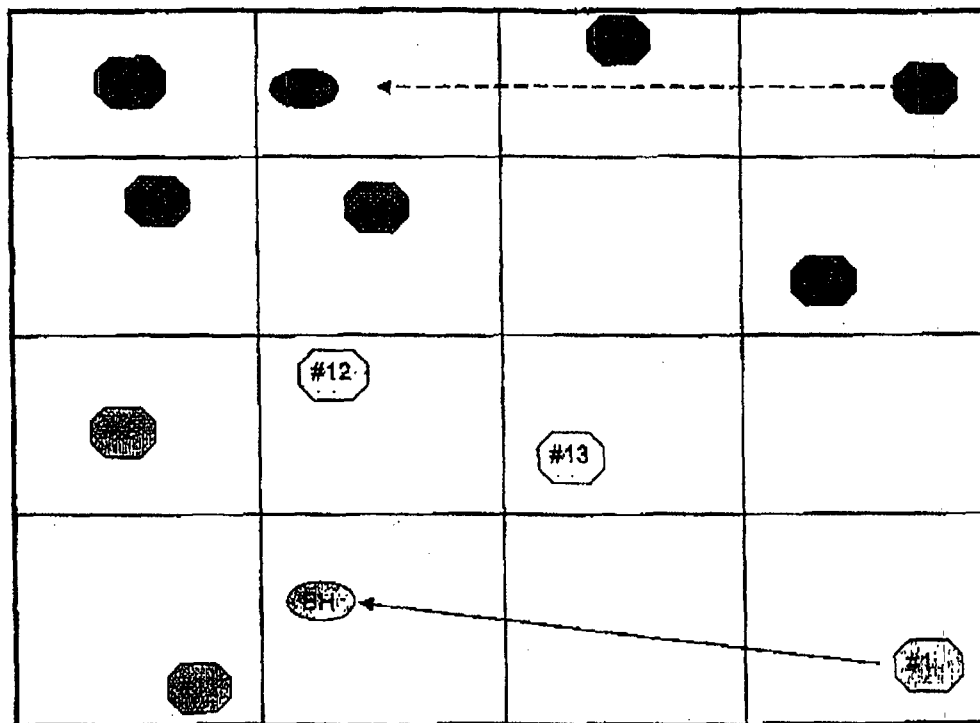
TABLE OF SURVEY STATIONS

Calculator =

STA #	ΔMD ft	INCL deg	AZIM deg	MD ft	TVD ft	N-S ft	E-W ft	DLS deg/100FT
1	TIE POINT =>	0	0	7225.00	7225.00	0.00	0.00	-
2	100	12	275.711	7325.00	7324.27	1.04	-10.38	12.00
3	100	24	275.711	7425.00	7419.20	4.11	-41.07	12.00
4	100	36	275.711	7525.00	7505.65	9.07	-90.74	12.00
5	100	48	275.711	7625.00	7579.83	15.72	-157.19	12.00
6	100	60	275.711	7725.00	7638.60	23.75	-237.55	12.00
7	100	72	275.711	7825.00	7679.10	32.83	-328.28	12.00
8	100	84	275.711	7925.00	7699.85	42.54	-425.43	12.00
9	50	91	275.711	7975.00	7702.03	47.51	-475.11	14.00
10	100	91	275.711	8075.00	7700.28	57.48	-574.60	0.00
11	100	91	275.711	8175.00	7698.54	67.41	-674.09	0.00
12	100	91	275.711	8275.00	7696.79	77.36	-773.57	0.00
13	100	91	275.711	8375.00	7695.05	87.31	-873.06	0.00
14	100	91	275.711	8475.00	7693.30	97.28	-972.55	0.00
15	100	91	275.711	8575.00	7691.56	107.20	-1072.04	0.00
16	100	91	275.711	8675.00	7689.81	117.15	-1171.53	0.00
17	100	91	275.711	8775.00	7688.07	127.10	-1271.02	0.00
18	100	91	275.711	8875.00	7686.32	137.05	-1370.50	0.00
19	100	91	275.711	8975.00	7684.56	147.00	-1469.99	0.00
20	100	91	275.711	9075.00	7682.83	156.95	-1569.48	0.00
21	100	91	275.711	9175.00	7681.09	166.90	-1668.97	0.00
22	100	91	275.711	9275.00	7679.34	176.85	-1768.46	0.00
23	100	91	275.711	9375.00	7677.60	186.79	-1867.95	0.00
24	100	91	275.711	9475.00	7675.85	196.74	-1967.44	0.00
25	100	91	275.711	9575.00	7674.10	206.69	-2066.92	0.00
26	100	91	275.711	9675.00	7672.36	216.64	-2166.41	0.00
27	100	91	275.711	9775.00	7670.61	226.59	-2265.90	0.00
28	100	91	275.711	9875.00	7668.87	236.54	-2365.39	0.00
29	100	91	275.711	9975.00	7667.12	246.49	-2464.88	0.00
30	100	91	275.711	10075.00	7665.38	256.44	-2564.37	0.00
31	100	91	275.711	10175.00	7663.63	266.39	-2663.86	0.00
32	100	91	275.711	10275.00	7661.89	276.33	-2763.34	0.00
33	100	91	275.711	10375.00	7660.14	286.28	-2862.83	0.00
34	100	91	275.711	10475.00	7658.40	296.23	-2962.32	0.00
35	100	91	275.711	10575.00	7656.65	306.18	-3061.81	0.00
36	100	91	275.711	10675.00	7654.91	316.13	-3161.30	0.00
37	100	91	275.711	10775.00	7653.16	326.08	-3260.79	0.00
38	22	91	275.711	10797.00	7652.78	328.27	-3262.68	0.00

VORTEC 22 # 1 WELL GROUPINGS

Sec 22, T-24-S, R-29-E, Eddy County, New Mexico



Well Name	Legal Location in 22	Depth and Strata	Current Prod Zone
VORTEC 22 # 1	330 FSL & 330 FEL	TD= 8200', HORIZONTAL	PROPOSED
Harroun 22 # 1	660 FNL & 660 FWL	TD= 5360' LCC sand	Delaware Production
Harroun 22 # 2	330 FNL & 1980 FEL	TD= 5500 LCC sand	Delaware Production
Harroun 22 # 3 H	660 FNL & 330 FEL	TD= 10864 Hz 1st Bone Sd	1st Bone Production
Jackal 22 Fed # 1	990 FSL & 230 FWL	NOT DRILLED	NOT DRILLED
Jackal 22 Fed # 2	1710 FSL & 630 FWL	TD= 5450 G-3, LCC	Delaware Production
Riverbend Fed # 1	1650 FNL & 1650 FWL	TD= 5500 G-3	Delaware Production
Riverbend Fed # 5	2310 FNL & 860 FEL	TD= 5420 G-6, G-3, LCC	Delaware Production
Riverbend Fed # 9	1650 FNL & 330 FWL	TD= 7900 1st Bone Sd,	Delaware Production
Riverbend 22 Fd # 12	2310 FSL & 1750 FWL	NOT DRILLED	NOT DRILLED
Riverbend 22 Fd # 13	1650 FSL & 2310 FEL	NOT DRILLED	NOT DRILLED

DISTRICT I
1625 N. FRENCH DR., BOBBS, NM 86240

State of New Mexico
Energy, Minerals and Natural Resources Department

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

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

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005
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	Pool Name
	50371	PIERCE CROSSING-BONE SPRING
Property Code	Property Name	Well Number
	VORTEC 22	1
GRID No.	Operator Name	Elevation
017891	POGO PRODUCING COMPANY	2917'

Surface Location

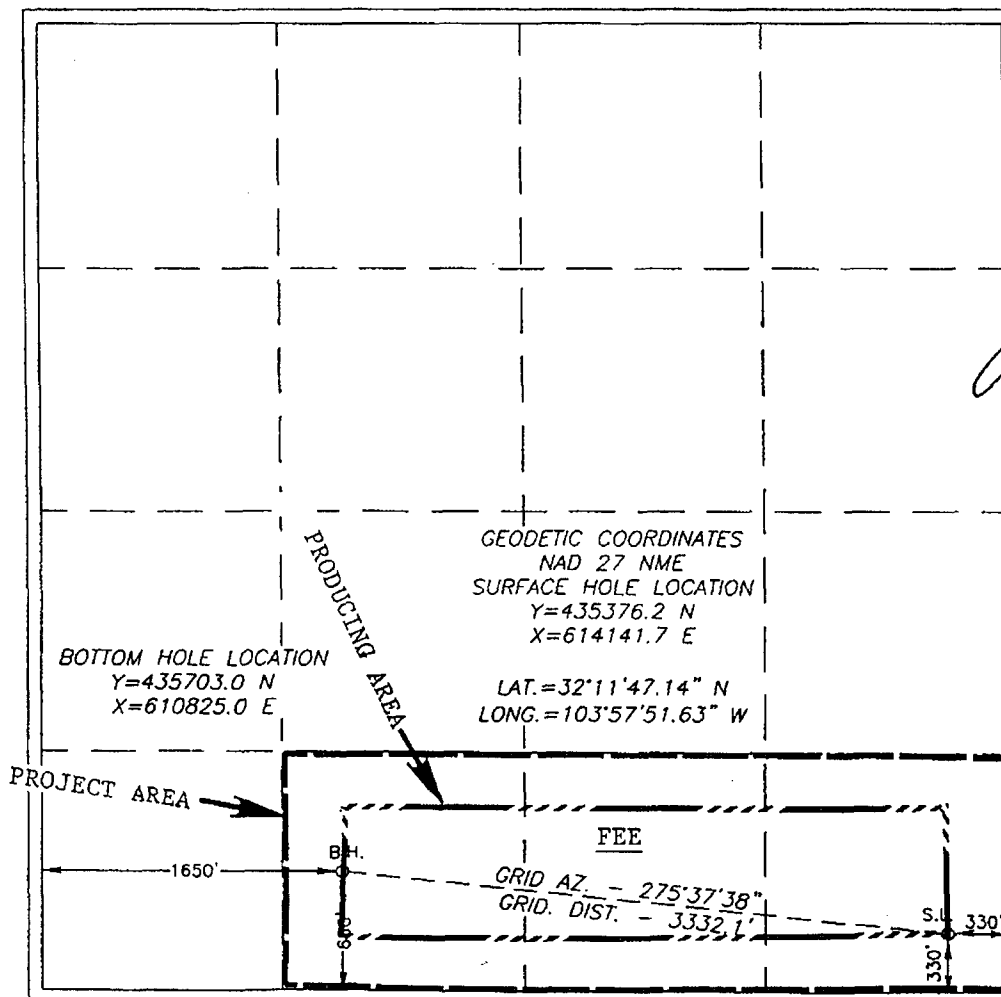
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	22	24-S	29-E		330	SOUTH	330	EAST	EDDY

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
N	22	24-S	29-E		660	SOUTH	1650	WEST	EDDY

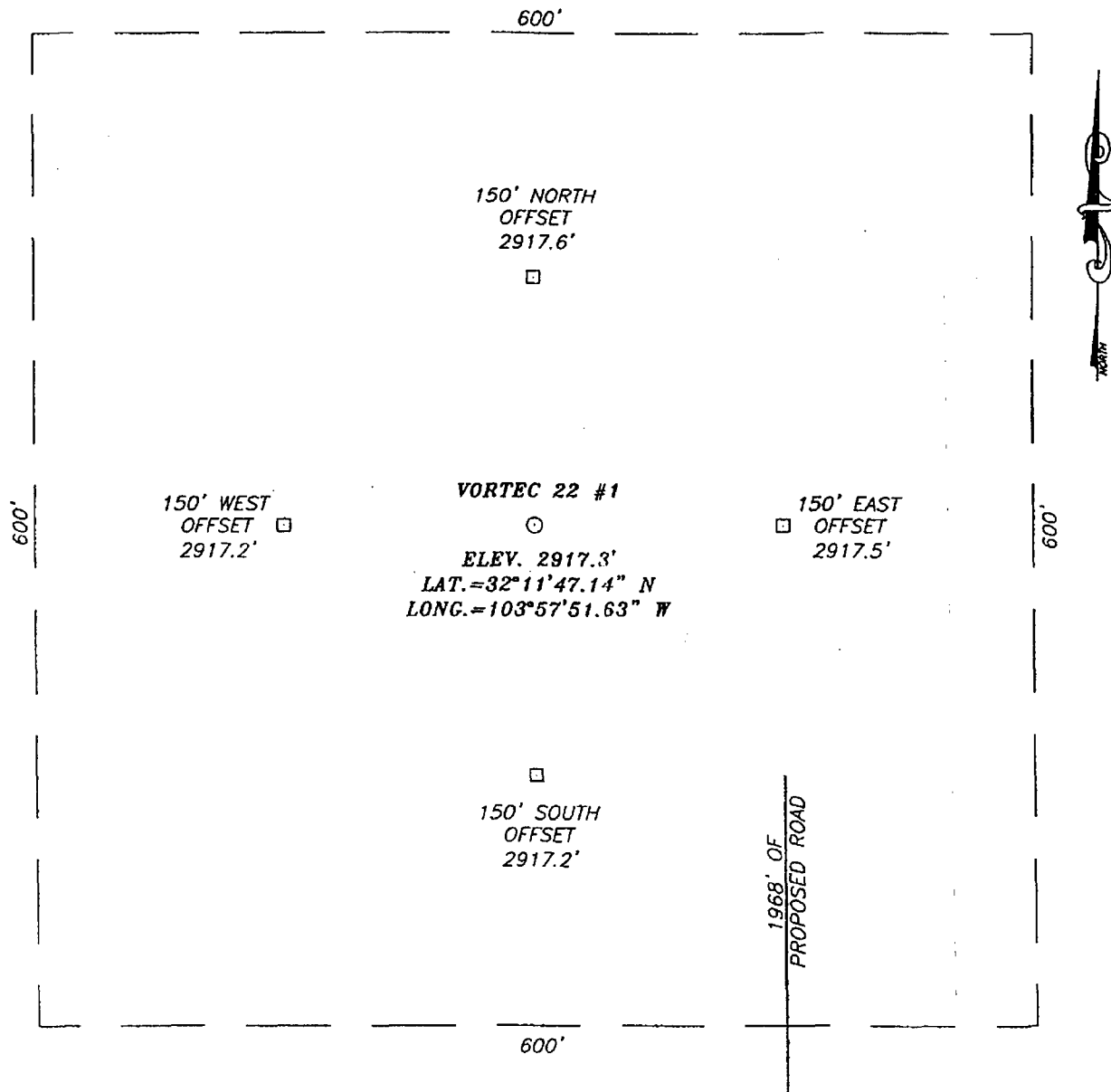
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
120			

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

	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division.</p> <p><i>Joe T. Janica</i> Signature Date 04/21/06 Joe T. Janica Printed Name Agent</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>APRIL 18, 2006</p> <p>Date Surveyed LA REV: 4/21/06 Signature & Seal of Professional Surveyor <i>Gary Edson</i> 4/21/06 06110672 Certificate No. GARY EDSON 12841</p>

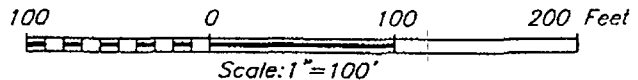
Standard 640-acre Section

SECTION 22, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF CO. RD. #720 AND CO. RD. #746 (MCDONALD RD.) GO SOUTH & SOUTHEAST ON CO. RD. #746 FOR APPROX. 5.5 MILES. TURN RIGHT AND GO EAST APPROX. 0.9 MILES TO A PROPOSED ROAD SURVEY. FOLLOW ROAD SURVEY NORTH APPROX. 1968 FEET TO THIS LOCATION.



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 383-3117

POGO PRODUCING COMPANY

VORTEC 22 #1 WELL
LOCATED 330 FEET FROM THE SOUTH LINE
AND 330 FEET FROM THE EAST LINE OF SECTION 22,
TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 4/18/06	Sheet 1 of 1 Sheets
W.O. Number: 06.11.0672	Dr By: LA
Date: 4/20/06	Disk: CD#5
06110672	Scale: 1"=100'



Pogo Producing Company

Eddy Co., New Mexico

Vortec 22 #1

Vortec 22 #1

Lateral #1

Survey: MWD Survey #1

Standard Survey Report

25 May, 2006



— **EXHIBIT B** —



Black Viper Energy Services

Survey Report



Company:	Pogo Producing Company	Local Co-ordinate Reference:	Well Vortec 22 #1
Project:	Eddy Co., New Mexico	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Vortec 22 #1	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Well:	Vortec 22 #1	North Reference:	True
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 2003.11 Server Db

Project	Eddy Co., New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Ground Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Vortec 22 #1				
Site Position:		Northing:	435,377.03 ft	Latitude:	32° 11' 47.140" N
From:	Lat/Long	Easting:	614,142.51 ft	Longitude:	103° 57' 51.630" W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.20 °

Well	Vortec 22 #1					
Well Position	+N/-S	0.00 ft	Northing:	435,377.03 ft	Latitude:	32° 11' 47.140" N
	+E/-W	0.00 ft	Easting:	614,142.51 ft	Longitude:	103° 57' 51.630" W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	0.00 ft

Wellbore	Lateral #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF200510	5/14/2006	(°)	(°)	(nT)
			8.36	60.22	49,104

Design	Lateral #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	7,252.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	275.63	

Survey Program	Date 5/24/2006			
From	To	Survey (Wellbore)	Tool Name	Description
100.00	7,252.00	Gyro Survey #1 (OH)	GM	Gyro MultiShot
7,284.00	7,989.00	MWD Survey #1 (Lateral #1)	MWD	Standard MWD

Survey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Buid Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
7,252.00	2.20	198.44	7,250.70	-8.05	-2.37	1.57	0.00	0.00	0.00
First MWD Survey									
7,284.00	6.70	252.50	7,282.60	-9.20	-4.35	3.42	17.79	14.06	168.94
7,316.00	11.00	257.70	7,314.21	-10.41	-9.11	8.05	13.65	13.44	16.25
7,348.00	14.80	258.60	7,345.40	-11.87	-16.10	14.86	11.89	11.88	2.81
7,380.00	18.10	256.60	7,376.09	-13.83	-24.95	23.47	10.46	10.31	-6.25
7,412.00	20.70	258.00	7,406.27	-16.16	-35.32	33.56	8.25	8.13	4.38
7,444.00	23.60	261.10	7,435.90	-18.32	-47.18	45.16	9.77	9.06	9.69
7,476.00	26.20	263.70	7,464.93	-20.09	-60.53	58.27	8.81	8.13	8.13
7,508.00	28.80	263.40	7,493.31	-21.75	-75.21	72.72	8.14	8.13	-0.94
7,540.00	31.70	263.90	7,520.95	-23.53	-91.23	88.49	9.10	9.06	1.56
7,572.00	35.30	265.40	7,547.63	-25.17	-108.82	105.82	11.54	11.25	4.69



Black Viper Energy Services

Survey Report



Company: Pogo Producing Company
Project: Eddy Co., New Mexico
Site: Vortec 22 #1
Well: Vortec 22 #1
Wellbore: Lateral #1
Design: Lateral #1

Local Co-ordinate Reference: Well Vortec 22 #1
TVD Reference: WELL @ 0.00ft (Original Well Elev)
MD Reference: WELL @ 0.00ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.11 Server Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,604.00	39.30	266.80	7,573.08	-26.47	-128.16	124.95	12.78	12.50	4.38
7,636.00	43.10	264.00	7,597.15	-28.18	-149.16	145.68	13.20	11.88	-8.75
7,668.00	47.10	264.10	7,619.74	-30.53	-171.70	167.88	12.50	12.50	0.31
7,700.00	51.20	263.30	7,640.66	-33.19	-195.75	191.56	12.95	12.81	-2.50
7,732.00	56.10	261.90	7,659.63	-36.52	-221.30	216.65	15.71	15.31	-4.38
7,764.00	63.00	262.50	7,675.83	-40.26	-248.62	243.47	21.62	21.56	1.88
7,796.00	62.40	264.60	7,690.51	-43.45	-276.87	271.27	6.13	-1.88	6.56
7,828.00	65.70	267.20	7,704.51	-45.50	-305.56	299.63	12.64	10.31	8.13
7,861.00	68.10	268.30	7,717.46	-46.69	-335.89	329.69	7.89	7.27	3.33
7,893.00	71.50	269.20	7,728.51	-47.34	-365.91	359.51	10.95	10.63	2.81
7,925.00	76.00	270.20	7,737.46	-47.50	-396.62	390.05	14.38	14.06	3.13
7,957.00	80.60	270.80	7,743.95	-47.22	-427.95	421.26	14.49	14.38	1.88
7,989.00	85.00	272.10	7,747.96	-46.42	-459.68	452.91	14.33	13.75	4.06
8,021.00	88.70	275.40	7,749.72	-44.33	-491.55	484.84	15.48	11.56	10.31

Last MWD Survey

Targets

Target Name:

- hit/miss target
- Shape

Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
---------------	--------------	----------	------------	------------	---------------	--------------	----------	-----------

PBHL#1[V22#1] 0.00 0.00 7,652.78 319.99 -3,316.80 435,685.63 610,824.63 32° 11' 50.305" N 103° 58' 30.231" W
- survey misses by 3125.49ft at 7720.01ft MD (7652.78 TVD, -35.18 N, -211.55 E)
- Point

Survey Annotations

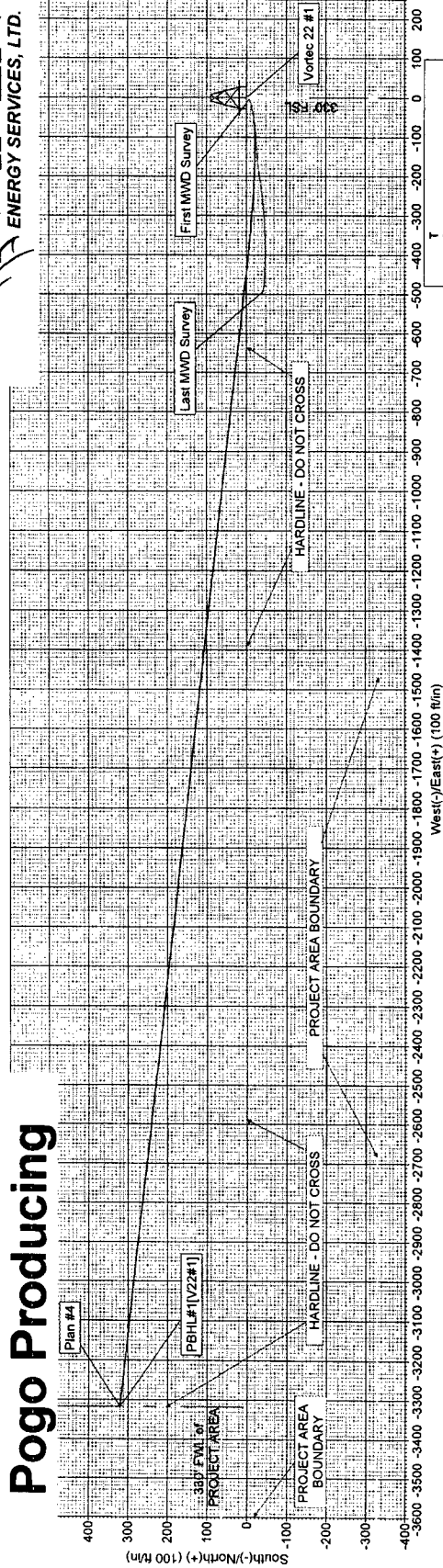
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
7,252.00	7,250.70	-8.05	-2.37	First MWD Survey
8,021.00	7,749.72	-44.33	-491.55	Last MWD Survey

Checked By: _____ Approved By: _____ Date: _____

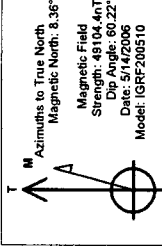


Pogo Producing

Project: Eddy Co. New Mexico
Site: Vortex 22 #1
Well: Vortex 22 #1
Wellbore: Lateral #1
Plan: Plan #4



West(-)/East(+) (100 ft/in)



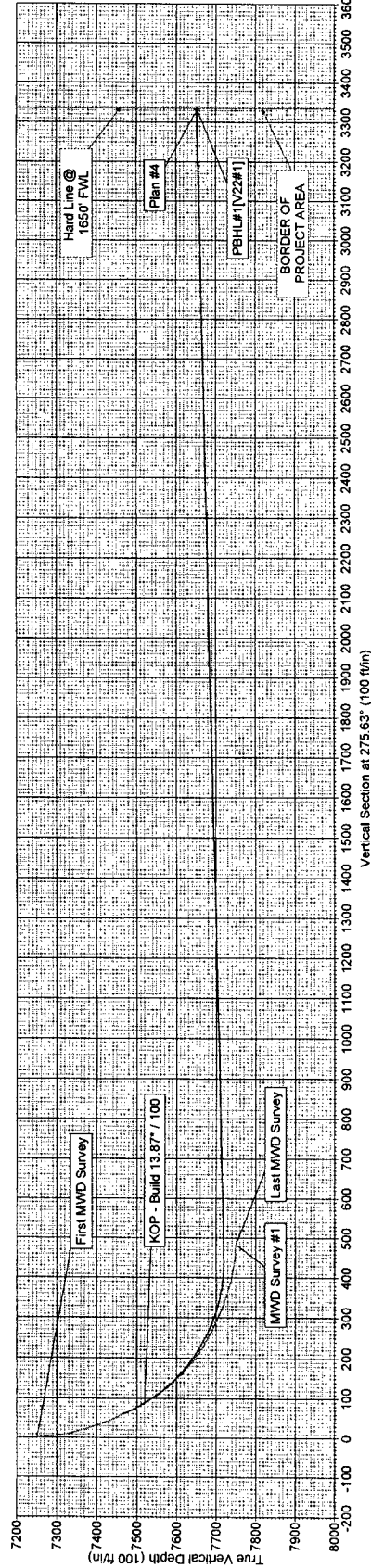
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	7476.00	26.20	263.70	7464.93	-20.09	-60.53	0.00	0.00	58.27	
2	7539.00	31.30	268.00	7520.15	-22.19	-60.74	8.73	23.98	88.12	
3	7974.53	91.34	276.38	7720.00	0.15	-454.49	13.87	9.64	452.31	
4	10855.44	91.34	276.38	7652.78	319.99	-3316.80	0.00	0.00	3332.19	PBHL# [V22#1]

PROJECT DETAILS

Eddy Co., New Mexico
Geodetic System: US State Plane 1927 (Elev. solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Ground Level

ANNOTATIONS
TVD MD Ammunition
7464.93 7476.00 Last MWD Survey
7520.15 7539.00 KOP - Build 13.87° / 100
7720.00 7974.53 EOC - Hold 91.34°



Vertical Section at 275.63° (100 ft/in)

Vortec22#1Plan#4Report05-25-06

Pogo Producing Company
Vortec 22 #1 - MWD Survey #1

Eddy Co., New Mexico
Vortec 22 #1

Measured Dogleg Depth Rate (ft) (°/100ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)
7252.00 0.00	2.201	198.441	7250.70	8.05 S	2.37 W	1.57
7284.00 17.79	6.700	252.500	7282.60	9.20 S	4.35 W	3.42
7316.00 13.65	11.000	257.700	7314.21	10.41 S	9.11 W	8.05
7348.00 11.89	14.800	258.600	7345.40	11.87 S	16.10 W	14.86
7380.00 10.46	18.100	256.600	7376.09	13.83 S	24.95 W	23.47
7412.00 8.25	20.700	258.000	7406.27	16.16 S	35.32 W	33.56
7444.00 9.77	23.600	261.100	7435.90	18.32 S	47.18 W	45.16
7476.00 8.81	26.200	263.700	7464.93	20.09 S	60.53 W	58.27
7508.00 8.14	28.800	263.400	7493.31	21.75 S	75.21 W	72.72
7540.00 9.10	31.700	263.900	7520.95	23.53 S	91.23 W	88.49
7572.00 11.54	35.300	265.400	7547.63	25.17 S	108.82 W	105.82
7604.00 12.78	39.300	266.800	7573.08	26.47 S	128.16 W	124.95
7636.00 13.20	43.100	264.000	7597.15	28.18 S	149.16 W	145.68
7668.00 12.50	47.100	264.100	7619.74	30.53 S	171.70 W	167.88
7700.00 12.95	51.200	263.300	7640.66	33.19 S	195.75 W	191.56
7732.00 15.71	56.100	261.900	7659.63	36.52 S	221.30 W	216.65
7764.00 21.62	63.000	262.500	7675.83	40.26 S	248.62 W	243.47
7796.00 6.13	62.400	264.600	7690.51	43.45 S	276.87 W	271.27
7828.00 12.64	65.700	267.200	7704.51	45.50 S	305.56 W	299.63
7861.00 7.89	68.100	268.300	7717.46	46.69 S	335.89 W	329.69
7893.00 10.95	71.500	269.200	7728.51	47.34 S	365.91 W	359.51
7925.00 14.38	76.000	270.200	7737.46	47.50 S	396.62 W	390.05
7957.00 14.49	80.600	270.800	7743.95	47.22 S	427.95 W	421.26
7989.00 14.33	85.000	272.100	7747.96	46.42 S	459.68 W	452.91
8021.00 15.48	88.700	275.400	7749.72	44.33 S	491.55 W	484.84

Vortec22#1Plan#4Report05-26-06

Pogo Producing Company
Vortec 22 #1 - MWD Survey #1

Eddy Co., New Mexico
Vortec 22 #1

Measured Dogleg Depth Rate (ft) (°/100ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)
7252.00	2.201	198.441	7250.70	8.05 S	2.37 W	1.57
0.00						
7284.00	6.700	252.500	7282.60	9.20 S	4.35 W	3.42
17.79						
7316.00	11.000	257.700	7314.21	10.41 S	9.11 W	8.05
13.65						
7348.00	14.800	258.600	7345.40	11.87 S	16.10 W	14.86
11.89						
7380.00	18.100	256.600	7376.09	13.83 S	24.95 W	23.47
10.46						
7412.00	20.700	258.000	7406.27	16.16 S	35.32 W	33.56
8.25						
7444.00	23.600	261.100	7435.90	18.32 S	47.18 W	45.16
9.77						
7476.00	26.200	263.700	7464.93	20.09 S	60.53 W	58.27
8.81						
7508.00	28.800	263.400	7493.31	21.75 S	75.21 W	72.72
8.14						
7540.00	31.700	263.900	7520.95	23.53 S	91.23 W	88.49
9.10						
7572.00	35.300	265.400	7547.63	25.17 S	108.82 W	105.82
11.54						
7604.00	39.300	266.800	7573.08	26.47 S	128.16 W	124.95
12.78						
7636.00	43.100	264.000	7597.15	28.18 S	149.16 W	145.68
13.20						
7668.00	47.100	264.100	7619.74	30.53 S	171.70 W	167.88
12.50						
7700.00	51.200	263.300	7640.66	33.19 S	195.75 W	191.56
12.95						
7732.00	56.100	261.900	7659.63	36.52 S	221.30 W	216.65
15.71						
7764.00	63.000	262.500	7675.83	40.26 S	248.62 W	243.47
21.62						
7796.00	62.400	264.600	7690.51	43.45 S	276.87 W	271.27
6.13						
7828.00	65.700	267.200	7704.51	45.50 S	305.56 W	299.63
12.64						
7861.00	68.100	268.300	7717.46	46.69 S	335.89 W	329.69
7.89						
7893.00	71.500	269.200	7728.51	47.34 S	365.91 W	359.51
10.95						
7925.00	76.000	270.200	7737.46	47.50 S	396.62 W	390.05
14.38						
7957.00	80.600	270.800	7743.95	47.22 S	427.95 W	421.26
14.49						
7989.00	85.000	272.100	7747.96	46.42 S	459.68 W	452.91
14.33						
8021.00	88.700	275.400	7749.72	44.33 S	491.55 W	484.84
15.48						

Vortec22#1Plan#4Report05-26-06

8053.00	90.200	278.200	7750.02	40.54 S	523.32 W	516.82
9.93						
8085.00	90.200	280.000	7749.91	35.48 S	554.92 W	548.76
5.62						
8117.00	91.000	280.800	7749.58	29.70 S	586.39 W	580.65
3.54						
8181.00	93.800	280.700	7746.90	17.78 S	649.20 W	644.33
4.38						
8213.00	94.300	281.300	7744.64	11.69 S	680.54 W	676.11
2.44						
8277.00	93.600	280.500	7740.23	0.39 N	743.23 W	739.69
1.66						
8341.00	93.400	280.100	7736.32	11.81 N	806.08 W	803.36
0.70						
8405.00	93.200	279.500	7732.64	22.68 N	869.04 W	867.08
0.99						
8469.00	93.100	278.100	7729.12	32.46 N	932.19 W	930.88
2.19						
8533.00	93.100	278.700	7725.66	41.79 N	995.41 W	994.72
0.94						
8597.00	92.700	278.600	7722.42	51.41 N	1058.61 W	1058.54
0.64						
8660.00	92.300	278.600	7719.67	60.82 N	1120.84 W	1121.40
0.63						

All data are in feet unless otherwise stated. Directions and coordinates are relative to True North.
Vertical depths are relative to WELL. Northings and Eastings are relative to well.

The Dogleg Severity is in Degrees per 100 feet.
Vertical Section is from slot and calculated along an Azimuth of 275.627° (True).

Coordinate System is NAD 1927 (NADCON CONUS) US State Plane 1927 (Exact solution), New Mexico East 3001.
Central meridian is -104.333°.
Grid Convergence at Surface is 0.197°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 8660.00ft., the Bottom Hole Displacement is 1122.49ft., in the Direction of 275.627° (True).

COTTON, BLEDSOE, TIGHE & DAWSON

A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW

500 W. ILLINOIS

SUITE 300

MIDLAND, TEXAS 79701-4337

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TEXAS BOARD OF LEGAL SPECIALIZATION
ALSO LICENSED IN NEW MEXICO

Writer's Direct #: (915) 685-8541

Writer's Direct Fax #: (915) 684-3117

Email: mc Curry@cbtd.com

April 25, 2006

Cedar Canyon
24756

T.O. #12,526

Pogo Producing Company
300 N. Marienfeld, Suite 600
Midland, Texas 79701

Attn: Mr. Scott McDaniel

Re: **ORIGINAL DRILLING TITLE OPINION** covering the following described
lands located in Eddy County, New Mexico:

Township 24 South, Range 29 East, N.M.P.M.:

Section 22: S/2 SE/4, SE/4 SW/4

containing 120 acres, more or less.

Gentlemen:

At your request, and for the purpose of rendering this supplemental drilling title opinion
covering the captioned land, we have examined the following:

MATERIALS EXAMINED

1. Original Title Opinion No. 9885, dated April 20, 1994, prepared by this firm (Tevis Herd), covering the captioned lands based upon Abstract of Title No. 94085, certified by Currier Abstract Company as covering the captioned lands as to the mineral estate only from inception of the records to April 8, 1994, at 8:00 a.m.
2. Personal examination of the record, based upon the tract and general indices, together with photocopies of documents listed therein, as maintained by Cap Rock Abstract & Title Company for the period from April 8, 1994 at 8:00 a.m. to March 24, 2006, at 7:00 a.m.

FEE TITLE TO OIL AND GAS ESTATE

Based solely upon our examination of the foregoing, and subject to the comments and requirements hereinafter contained, our opinion is that title to the oil and gas estate in the captioned land, including leasing rights, bonuses, delay rentals and royalty, is vested as follows:

OGL#

5 Robert Elton Gaines, Trustee of the
Gaines Mineral Management
Trust No. 2 3/4

Mid: 001010000011513070.1

EXHIBIT C

- 1 James C. McDonald, Jr. 1/3 x 1/4
- 2 Jo Alice Cranford 1/3 x 1/4
- 4 Jack S. McDonald 1/2 x 1/3 x 1/4
- 3 Cydney McDonald Medford 1/2 x 1/3 x 1/4

OIL AND GAS LEASES

Lease 1:

Date: November 15, 2004.

Recorded: 591 DR 786.

Lessor: James C. McDonald, Jr., as his sole and separate property.

Lessee: Pogo Producing Company.

Land Covered: T-24-S, R-29-E

Section 22: S/2 SE/4, SE/4 SW/4
Section 23: West 907.5 feet out of SW/4 SW/4, being the West 27.5 acres of SW/4 SW/4
Section 27: N/2 NE/4, NE/4 NW/4, North 999 feet of SE/4 NE/4, being the North 30 acres of SE/4 NE/4

With the total recited to contain 297.5 acres, more or less.

Interest Covered: This is a 1/12th interest lease as to captioned land.

Primary Term: Three (3) years from date.

Royalty: 1/5 on oil and gas.

Shut-in Gas Royalty: This lease provides for payment of shut-in gas royalty, beginning on or before ninety (90) days after well is shut-in and annually thereafter. Notwithstanding any of the provisions in lease to the contrary, it is expressly understood and agreed that, after the primary term, this lease cannot be maintained in force solely by the payment of shut-in gas well royalty for any one period in excess of two (2) consecutive years.

Delay Rentals: None. This is a paid-up lease and no delay rentals are payable.

Pooling: This lease grants to the lessee the right to pool with units not to exceed the standard proration unit fixed by law or by the New Mexico Oil Conservation Commission, plus 10% tolerance. In the event that a portion of the lands leased are pooled or unitized with other lands, the lands not so pooled or unitized shall be severed

from the lands so pooled and unitized and thereafter considered held in effect only by the terms of such severed lease and in no event will the pooling or unitization of a portion of said lands operate so as continuing in effect and under lands not so pooled or unitized.

Lease Form: Producers 88 (Revised 1965) New Mexico Form 342.

Continuous Drilling
Clause:

At the expiration of the primary term, lessee shall conduct a "continuous drilling program" on the captioned lands or lands pooled with captioned lands, and lease shall remain in effect during the time of the continuous drilling program. "Continuous drilling program" is defined as the continuous development of leased premises, or lands pooled with leased premises, with not more than 120 days elapsing between the completion of one well and the commencement of operations for a succeeding well. The time for the commencement of the first well under the continuous drilling program shall be the later of "(a) 120 days after the end of the primary term, if the lease is maintained in force pursuant to its terms and provisions upon the expiration of the primary term, or (b) 120 days after the completion of any well being drilled over the expiration of the primary term." The time period between wells shall be cumulative, so that if lessee uses less than 120 days between the completion of one well and the commencement of the next succeeding, the accumulated time may be used by the lessee to extend the 120 day interval for commencing subsequent wells. The re-entry of any well now located on the land and the drilling of such a re-entry well shall be considered adequate to constitute a continuous drilling program. Upon cessation of the continuous drilling program, the lease shall terminate as to all lands covered herein, save and except as to each well capable of producing oil or gas in paying quantities, or both, together with the proration unit allocated to such well pursuant to the rules and regulations of New Mexico. Thereafter, lessee shall promptly execute and deliver to lessor release of the lease as to all lands as to which the lease has terminated. If, during the drilling or reworking of any well in compliance with this lease, lessee loses or junks the hole or well or encounters any other mechanical or technical or other difficulties incident to drilling and after diligent effort and good faith is unable to complete said operations, then within 30 days after the abandonment of said operations, lessee may commence a substitute well and drill the same with due diligence, in which case the operations for the substitute well shall be deemed in compliance with the continuous drilling program. Notwithstanding the termination of lease as to a portion of the lands covered hereby, the lessee shall nevertheless continue to have the right of ingress/egress from the lands still subject to lease for all purposes described, together with easements and rights of way for roads, pipelines and other facilities on, over and across all of the leased premises, for access to and from the lands still subject to lease and for the gathering and transportation of oil, gas and other minerals produced from the retained lands.

THE FOLLOWING LEASES 2 THROUGH 5 ARE IDENTICAL TO LEASE 1 EXCEPT AS NOTED:

Lease 2:

Dated: November 15, 2004.
Recorded: 592 DR 289.
Lessor: Jo Alice Cranford, as her sole and separate property.
Lessee: Pogo Producing Company.
Interest Covered: This is a 1/12th interest lease as to captioned land.

Lease 3:

Dated: February 1, 2005.
Recorded: 591 DR 782.
Lessor: Cydney McDonald Medford and husband, Britt P. Medford.
Lessee: Pogo Producing Company.
Interest Covered: This is a 1/24th interest lease as to captioned land.
Special Provisions: Except as otherwise expressly provided, lessor's royalty shall never bear or be chargeable with, either directly or indirectly, any part of the costs or expense of production, gathering, dehydration, compression, manufacturing, processing or treating of the oil or gas from the leased premises, nor any part of the costs of construction, operation, or depreciation of any facility or equipment for processing or treating said oil or gas from the leased premises, nor any transportation costs charged by lessee or by an affiliated company of lessee. Such royalty shall however, be chargeable with any third party transportation costs.

Notwithstanding any lease terms to the contrary, lessee shall deliver or pay all royalties within ninety (90) days of the last day of the month in which royalty products were produced if delivered in kind or sold if paid in cash. In the event lessee fails to deliver or pay such royalties within such ninety (90) day period, herein called "due date", lessor shall give lessee written notice by registered mail, return receipt requested, of any such failure and lessee, if in default, shall have thirty (30) days after receipt of notice to pay such royalty. In the event lessee fails to pay or deliver such royalty within the thirty (30) day period, lessee will pay interest at the prime rate per annum and published in the money rates column of the Wall Street Journal, plus 2%, not to exceed the maximum legal rate of interest. This provision will not apply in cases of a bona fide title dispute as to all or a portion of the royalties. If lessee

deems there to be a defect in lessor's title sufficient to merit suspension of an affected portion of the lessor's royalty, then, prior to the due date of royalties, lessee shall provide lessor with a copy of a written title opinion to such effect from a third party, non-affiliated oil and gas title attorney, setting forth such title defect in detail, the portion of the lessor's royalty affected, and the reason such a defect warrants suspension of such portion of the lessor's royalty.

Lease 4:

Dated: November 15, 2004.

Recorded: 591 DR 778.

Lessor: Jack Scott McDonald and wife, Sandra McDonald.

Lessee: Pogo Producing Company.

Interest Covered: This is a 1/24th interest lease as to captioned land.

Special Provisions: Except as otherwise expressly provided, lessor's royalty shall never bear or be chargeable with, either directly or indirectly, any part of the costs or expense of production, gathering, dehydration, compression, manufacturing, processing or treating of the oil or gas from the leased premises, nor any part of the costs of construction, operation, or depreciation of any facility or equipment for processing or treating said oil or gas from the leased premises, nor any transportation costs charged by lessee or by an affiliated company of lessee. Such royalty shall however, be chargeable with any third party transportation costs.

Notwithstanding any lease terms to the contrary, lessee shall deliver or pay all royalties within ninety (90) days of the last day of the month in which royalty products were produced if delivered in kind or sold if paid in cash. In the event lessee fails to deliver or pay such royalties within such ninety (90) day period, herein called "due date", lessor shall give lessee written notice by registered mail, return receipt requested, of any such failure and lessee, if in default, shall have thirty (30) days after receipt of notice to pay such royalty. In the event lessee fails to pay or deliver such royalty within the thirty (30) day period, lessee will pay interest at the prime rate per annum and published in the money rates column of the Wall Street Journal, plus 2%, not to exceed the maximum legal rate of interest. This provision will not apply in cases of a bona fide title dispute as to all or a portion of the royalties. If lessee deems there to be a defect in lessor's title sufficient to merit suspension of an affected portion of the lessor's royalty, then, prior to the due date of royalties, lessee shall provide lessor with a copy

of a written title opinion to such effect from a third party, non-affiliated oil and gas title attorney, setting forth such title defect in detail, the portion of the lessor's royalty affected, and the reason such a defect warrants suspension of such portion of the lessor's royalty.

Lease 5:

Dated: October 17, 2005.

Recorded: 619 DR 191

Lessor: Robert E. Gaines, Trustee of the Gaines Mineral Management Trust No. 2.

Lessee: Pogo Producing Company.

Primary Term: Three (3) years, plus the option to extend the primary term for an additional two (2) years.

Depository: First Victoria National Bank, Victoria, Texas.

Interest Covered: This is a 3/4th interest lease as to captioned land.

Special Provisions: The privilege of paying a shut-in gas well royalty as provided in lease shall be effective and continue only through the primary term and for a total aggregate period thereafter of three (3) years and no longer; provided further, however, that after three (3) years from the end of the primary term, that the amount of the shut-in royalty required to maintain this lease in force shall increase from \$5.00 to \$100.00 per acre per year.

Lessor, at lessor's sole cost, risk and expense, shall have the right, but not the obligation, to take in kind lessor's share of the royalty on production, and to market and dispose of said share of the production upon such terms as lessor may desire.

Neither unit operations nor unit production, whether on or off the leased premises, shall operate to extend the lease beyond its primary term except as to that portion or portions of the leased premises within a unit or units designated and formed pursuant to the power to pool and consolidate granted to lessee in the lease.

At the end of the primary term, if the lessee is not currently engaged in drilling operations, lessee shall release all acreage not included within a proration unit for a producing well or shut-in gas well and lessee shall further surrender all rights below 100 feet below the deepest depth drilled on the leased premises or lands pooled therewith. In the event lessee is engaged in drilling operations at the end of the primary term, lease may be maintained as to the entire leased premises during such operations as provided in the lease. This stipulation hereby amends paragraph 6 in the original lease form.

Lessee will pay the surface owner actual damages, if any, resulting to the surface owner which are caused by lessee's operations.

After executing division order, royalties shall be due and payable within sixty (60) days from the sale of products produced from lease.

Upon request, lessor and their agents, at lessor's sole risk, shall have access to the derrick floor and all other areas at all times during any operations conducted by lessee on leased lands. During lessee's regular office hours, lessor shall have access to all information concerning the drilling, coring, testing and completing of all wells, including the driller's log and all electrical logs and surveys, and to all accounting books and records, producing charts, records and information, concerning the production and marketing of oil and gas from leased lands. Lessee agrees to furnish lessor when run, with field prints and when available with final prints of all driller's logs, complete electrical logs, core analysis, tests and surveys obtained in the drilling of all wells on leased lands. Lessee also agrees to furnish lessor with appropriate pressure information to permit lessor to check the rate of production from all wells producing from the lease. Lessor and their agents shall have the right to read or check all meters and charts affixed to producing wells at reasonable times without previous notice to lessee, and may, at lessor's expense, install check meters on any producing well or wells located on leased lands.

In the event a well or wells producing oil or gas in paying quantities should be brought in on adjacent land not owned by lessor and draining a portion of lease lands to which lease is then in force and effect, lessee agrees to drill such offset well or wells as a reasonably prudent operator would drill under the same or similar circumstances; provided, however, lessee shall not be required to offset any gas wells on adjacent land unless the gas therefrom is being marketed. In lieu of drilling an offset to any such oil or gas well, lessee shall have the option of paying lessor, as royalty, a sum equal to the payments of which would be payable under this lease on the production from such well had same been produced from the lease land, or of executing and delivering to lessor a release of this oil or gas lease insofar only as it pertains to the particular oil and gas proration unit which is offsetting the producing well on adjacent land not owned by lessor. As long as lessee may elect to pay such royalty in lieu of drilling an offset well, this Lease shall be continued in force and effect in the same manner and to the same extent as if such offset well had been drilled on lease land adjacent to such offset well.

The amount realized from the sale of gas on or off the premises shall be the price established by the gas sales contract entered into in good faith by lessee and gas purchaser for such term and under such conditions as are customary in the industry. "Price" shall mean the net amount received by lessee after giving effect to applicable regulatory orders and after application of any applicable price adjustments specified in such contract or regulatory orders.

The shut-in royalties will be calculated by multiplying \$5.00 or \$100.00 as provided in paragraph 13 times the net mineral acres owned by lessor, which lessor believes to be 223.125. It is agreed that in the event lessor releases any portion of the lease premises, the shut-in well royalty payments set forth herein shall be reduced in the proportion that the acreage covered by said lease agreement is reduced by such release.

Notwithstanding anything contained herein to the contrary, the lease is "paid up" and lessee is not be obligated during the primary term hereof to commence or continue any operations of whatsoever character or to make any payments hereunder in order to maintain this lease in force during the primary term; however, this provision is not intended to relieve lessee of the obligation to pay royalties on actual production pursuant.

If at the end of the primary term, lease is not otherwise continued in force under the provisions hereof, this lease will expire, unless lessee on or before the end of the primary term shall pay or tender to lessor or deposit to the credit of lessor the sum of \$56,000.00; and subject to the other provisions of lease, this shall thereby be extend the primary term for an additional term of two (2) years from the end of the original primary term hereof.

Lessee agrees that all royalties accruing under this lease shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and associated hydrocarbons produced hereunder ready for sale.

OWNERSHIP OF THE OIL AND GAS LEASEHOLD ESTATE

Pogo Producing Company All of 4/5 WI
(100% cost; 80% revenue)

LIENS AND ENCUMBRANCES

None appearing in the materials examined affecting the oil and gas minerals or leasehold.

EASEMENTS

The State of New Mexico owns a perpetual right and easement to clear and eradicate undesirable trees and plants from W/2 SW/4 Section 21 and the North 990 feet of SE/4 NE/4 Section 27, pursuant to Right-of-Way dated April 29, 1968, 202 DR 201.

TAXES

Nothing submitted.

POSSESSION

This opinion does not cover the ownership of the surface estate of the captioned lands, since the materials examined are limited to the mineral estate only. However, you should satisfy yourself that no one other than the surface owner is in actual possession of any portion of the captioned land, and if possession is held through tenancy, a tenant's consent agreement should be obtained.

TITLE REQUIREMENTS

1.

By Stipulation of Interest and Cross-Conveyance dated November 22, 1996, recorded 267 DR 525, Gayle McDonald, individually and as independent executor of the Estate of Ethelbert Lagow, Deceased, and as co-trustee of the Gayle and Arlene McDonald Living Trust, joined with Jo Alice McDonald and James C. McDonald, Jr. to stipulate and agree to convey among themselves, in equal undivided parts, all interest previously held by the three signatories in the captioned land. We have not examined the Gayle and Arlene McDonald Living Trust.

REQUIREMENT:

Submit for our examination a copy of the Gayle and Arlene McDonald Living Trust agreement so that we may verify the authority of Gayle McDonald to act as sole trustee of this trust and to convey the trust interest in the captioned land.

2.

By Deed dated August 14, 2002, recorded 468 ECR 221, Lorena Derrick Crow and Robert Elton Gaines conveyed a 3/4 mineral interest in captioned land to Robert Elton Gaines, Trustee of the Gaines Mineral Management Trust. Lease 5 was executed by Robert Elton Gaines, Trustee of the Gaines Mineral Management Trust No. 2. . We have reviewed a copy of the Gaines Mineral Management Trust No. 2, recorded 534 OPR 925, which purports to revoke the original August 14th trust and transfers to Trust No. 2 a 3/4th MI in captioned land. We have not seen the original August 14, 2002 Trust Agreement and are unable to verify whether that trust was in fact revocable or to determine the effect of any authorized revocation. The Gaines Mineral Management Trust No. 2 is to run for the life of Lorena Derrick Crow, and then for the life of Robert E. Gaines, and upon both of their deaths shall be distributed equally to Rebecca Gaines Hooks, Micaella Gaines Klapuck, Robert E. Gaines, Jr., and Mary Martha England, or their heirs.

REQUIREMENT:

Submit a copy of the trust agreement for the Gaines Mineral Management Trust dated August 14, 2004, so that we may verify that said trust was properly revoked and the trust property thereupon properly transferred to the Gaines Mineral Management Trust No. 2.

3.

The records reflect several prior unreleased Oil and Gas Leases covering the captioned lands, the primary terms of which have expired and all of which contain partial termination provisions.

REQUIREMENT:

Submit for our examination a recordable affidavit of non-production and non-development by a disinterested party reciting sufficient facts, if true, to reflect the expiration of all prior Oil and Gas Leases covering the captioned lands. In the alternative, you may satisfy yourself as to this matter.

4.

Prior to commencing operations, the following should be done.

REQUIREMENT:

Prior to commencing drilling or other operations on captioned land, you should have your proposed location surveyed by a licensed surveyor to verify that your wellsite is in fact on captioned land.

COMMENTS

1. Personal examination of the record based in part upon an uncertified runsheet prepared from the tract indices of the local abstractor is less reliable than examination of complete certified abstracts. We have undertaken this method of examination at your request and with the understanding that you are aware of the risks inherent in this type of examination and are willing to assume same.
2. This opinion does not attempt to address the question of potential liability for environmental contamination which may be imposed upon any past, present and/or subsequent owner without evidence of negligence or actual contribution to the contaminating event.
3. Our opinion is limited to the materials actually examined and is intended for the use of only the addressee. Any party relying on this opinion, other than the addressee, does so at its own risk.
4. This opinion does not purport to cover such matters as actual acreage, location upon the ground, conflicts, vacancies, or encroachments, the same being determinable only by an actual ground survey. We assume that you will have the captioned land carefully surveyed upon the ground by a competent surveyor or engineer before commencing your operations on captioned land.

Very truly yours

COTTON BLEDSOE, TIGHE & DAWSON, P.C.

By:

Michel E. Curry

MEC/CSK/lb