

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



*Southwestern Energy*  
*Pickett Dr. 16 #1H*  
*5567*

**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.

Print or Type Name _____	Signature _____	Title _____	Date _____
e-mail Address _____			



**Southwestern Energy  
Company**

2350 N. Sam Houston Parkway East  
Suite 300  
Houston, Texas 77032  
(281) 618-4700 FAX: (281) 618-4818

January 12, 2007

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), Southwestern Energy Production Company is requesting approval for of an unorthodox oil well location for the following well:

Well: Pickett Draw 16 Well No. 1-H  
Location: 2,600' feet FNL & 530 feet FEL  
Well Unit: SE $\frac{1}{4}$ NE $\frac{1}{4}$  of Section 16, Township 25 South, Range 29 East,  
N.M.P.M., Eddy County, New Mexico

The well will be drilled to test the Cherry Canyon 4 formation (West Corral Canyon, Delaware Pool). The pool is spaced on 40 acres, with wells to be located no closer than 330 feet to a quarter-quarter section line and for the subject well an exception to this 330' requirement is requested. A form C-102 is attached as Exhibit A.

The proposed location is based on engineering reasons. The proposed well, Pickett Draw 16 #1-H, will be directionally drilled from an unorthodox surface location 2,600 feet from the North Line and 530 feet from the East Line of Section 16 to a bottom hole location 200 feet from the North Line and 530 feet from the East line.

The well plan consists of drilling a vertical hole to the KOP (kick off point) at 4,685' MD/TVD. The hole will be directional drilled utilizing a build rate of 12°/100' to penetrate the Cherry Canyon 4 Sand at 5,435' MD / 5,163' TVD at 90° of angle. The Cherry Canyon 4 will be intersected at 2,123' FNL and 530' FEL of Section 16 T25S R29E. The well will continue laterally (90°) for ±2399' of vertical displacement. The proposed BHL will be 200' FNL & 530' FEL of section 16. The top of the Delaware will be intersected at 3045' MD/TVD at 2,600' FNL and 530' FEL of Section 16. A drilling prognosis, directional plot, and proposed survey report are attached as Exhibit B.

Production casing will be run and cemented to TD. The Cherry Canyon 4 Sand will be selectively perforated, with all perforations being placed in accordance of a standard location of Section 16 T25S R29E (greater than 330' from any lease line).

2007 JAN 16 AM 11 42

By placing the surface location at 2,600' FNL and 530' FEL of Section 16, the maximum amount of reservoir rock in the Cherry Canyon 4 Sand in the producing area can be penetrated and produced.

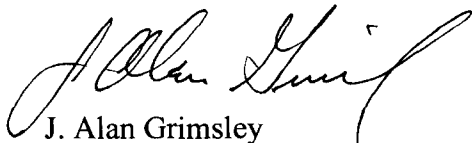
Devon Energy Corporation, the offset lease operator, has been notified of our request for an unorthodox well location for the Pickett Draw 16 #1-H well.

Furthermore, Southwestern Energy Production Company has gained 100% access to mineral interests in the NE¼ Section 16 via lease agreement with the state of New Mexico (Lease Serial No. VB10650000) A land plat is attached as Exhibit C.

Your expedited approval of this unorthodox location is requested.

If you have any questions, I can be reached at 281-618-4068 or by email at [alan\\_grimsley@swn.com](mailto:alan_grimsley@swn.com).

Very truly yours,



J. Alan Grimsley  
Southwestern Energy Production Co.

Attachments  
CC: District 2

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT I

1025 N. FRENCH DR., ROBBES, NM 88240

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number	Pool Code	Pool Name <i>W. Corral Canyon Delaware</i>
Property Code	Property Name <b>PICKETT DRAW STATE 16</b>	Well Number 1H
OGRID No.	Operator Name <b>SOUTHWESTERN ENERGY PRODUCTION COMPANY</b>	Elevation 3005'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	16	25-S	29-E		2600	NORTH	530	EAST	EDDY

Bottom Hole Location If Different From Surface

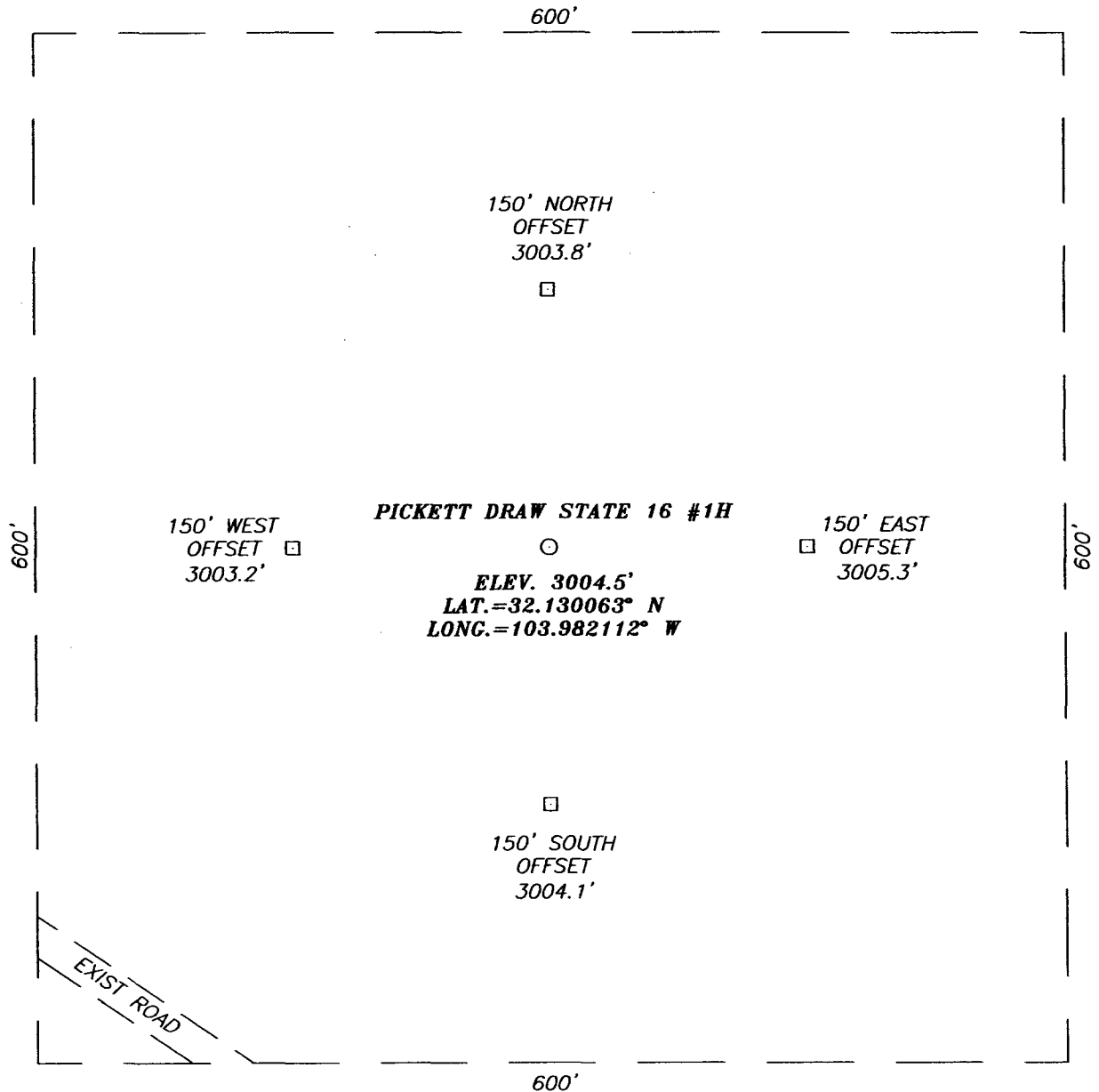
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	16	25-S	29-E		200	NORTH	530	EAST	EDDY

Dedicated Acres 80	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

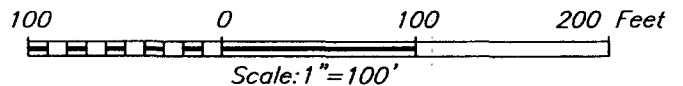
<p>BOTTOM HOLE Y=413615.6 N X=608707.7 E</p> <p>GR. AZ.=359°38'05" H. DIST.=2400.0'</p> <p><i>Project Area</i></p> <p><i>Producing Area</i></p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this 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>James Alan Grimsley</i> 1/10/07 Signature Date <b>JAMES ALAN GRIMSLEY</b> Printed Name</p>
	<p><b>SURVEYOR CERTIFICATION</b></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>DECEMBER 18, 2006</p> <p>Date Surveyed <span style="float: right;">JR</span></p> <p>Signature &amp; Seal of Professional Surveyor <i>Gary A. Edson</i> 1/2/07 06.11.1997</p> <p>Certificate No. <b>GARY EDSON</b> 12841 <b>CHAD HARCROW</b> 17777</p>
<p>GEODETTIC COORDINATES NAD 27 NME SURFACE LOCATION Y=411216.3 N X=608723.0 E</p> <p>LAT.=32.130063° N LONG.=103.982112° W</p>	

**SECTION 16, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,**  
 EDDY COUNTY, NEW MEXICO



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF U.S. HWY. #285 AND CO. RD. #725 (WHITEHORN RD.), GO NORTHEAST ON CO. RD. #725 APPROX. 5.5 MILES. TURN LEFT AND GO NORTH APPROX. 3.5 MILES. TURN LEFT AND GO NORTHWEST APPROX. 0.1 MILE. THIS LOCATION IS APPROX. 300 FEET NORTH.



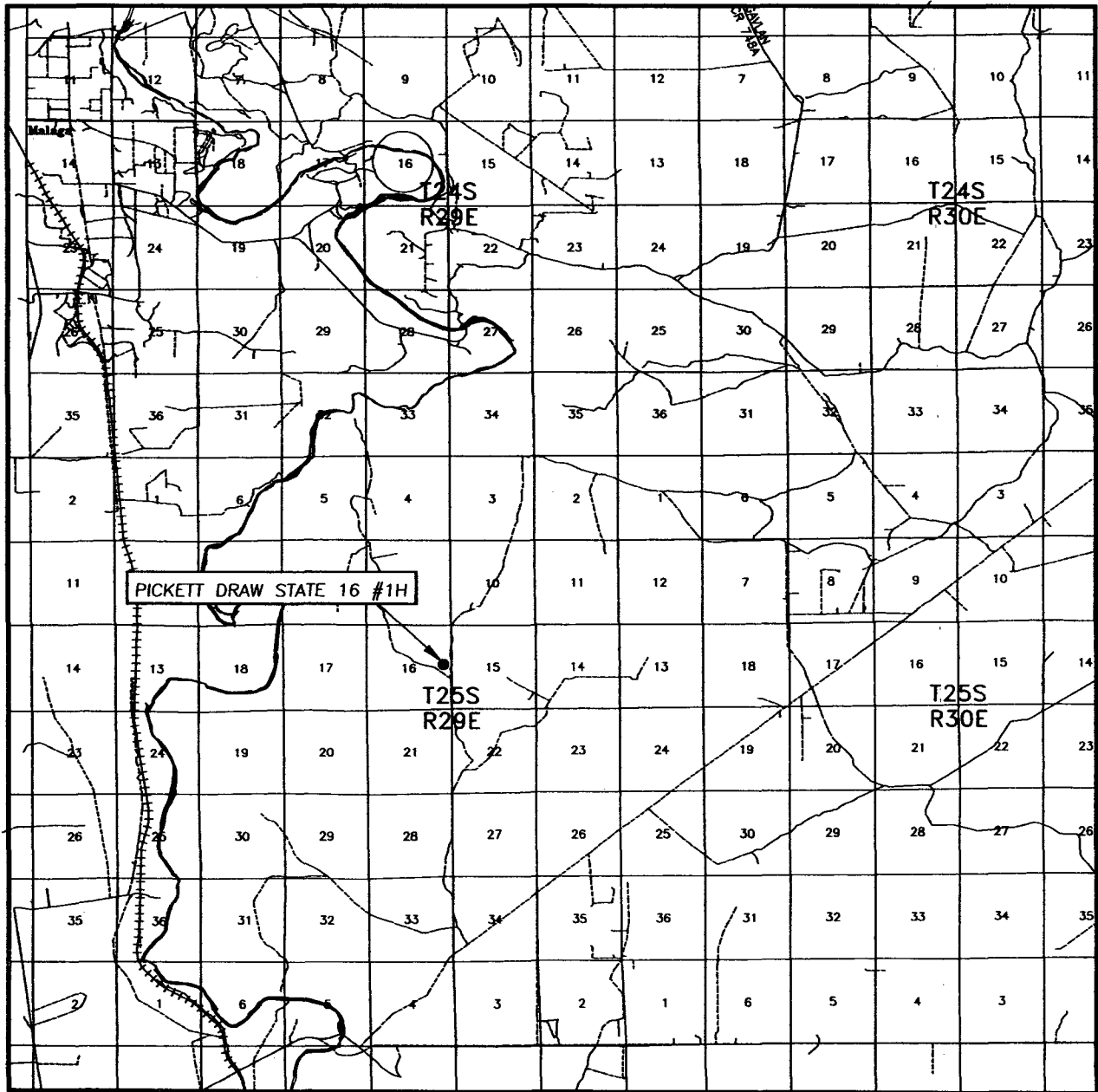
**SOUTHWESTERN ENERGY PRODUCTION COMPANY**

PICKETT DRAW STATE 16 #1H  
 LOCATED 2600 FEET FROM THE NORTH LINE  
 AND 530 FEET FROM THE EAST LINE OF SECTION 16,  
 TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.

Survey Date: 12/18/06	Sheet 1 of 1 Sheets		
W.O. Number: 06.11.1997	Dr By: J.R.	Rev 1:N/A	
Date: 12/28/06	Disk: CD#6	06111997	Scale: 1"=100'

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

# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 16 TWP. 25-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 2600' FNL & 530' FEL

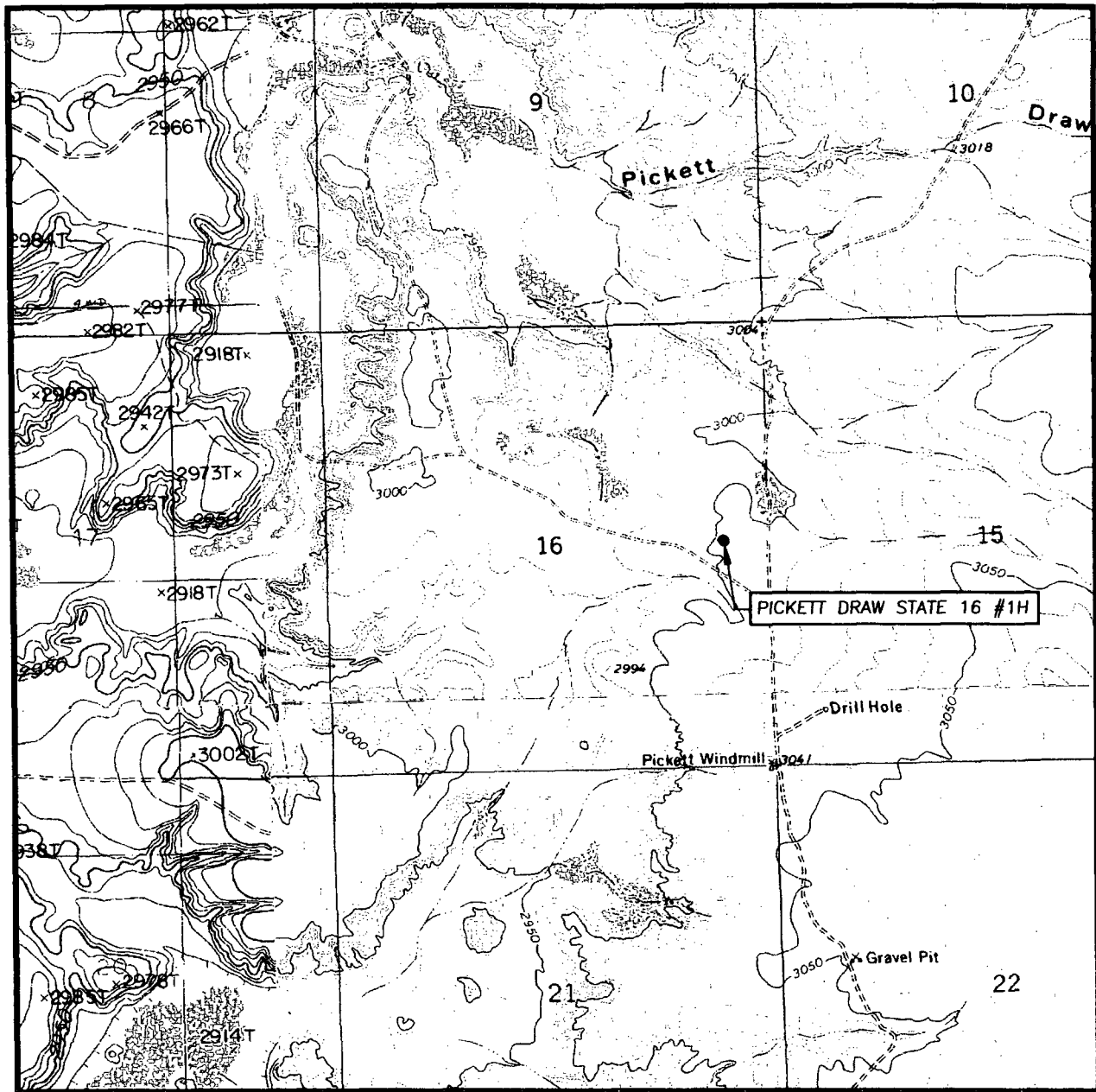
ELEVATION 3005'

OPERATOR SOUTHWESTERN ENERGY PRODUCTION COMPANY

LEASE PICKETT DRAW STATE 16

PROVIDING SURVEYING SERVICES  
SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
412 N. DAL PASO  
HOBBBS, N.M. 88240  
(505) 393-3117

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

SEC. 16 TWP. 25-S RGE. 29-E

SURVEY \_\_\_\_\_ N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 2600' FNL & 530' FEL


ELEVATION 3005'

OPERATOR SOUTHWESTERN ENERGY PRODUCTION COMPANY

LEASE PICKET DRAW STATE 16

U.S.G.S. TOPOGRAPHIC MAP  
PIERCE CANYON, N.M.

CONTOUR INTERVAL:  
PIERCE CANYON, N.M. - 10'  
ROSS RANCH, N.M. - 10'  
RED BLUFF, N.M. - 10'  
MALAGA, N.M. - 10'



**PROVIDING SURVEYING SERVICES**  
 SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
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 (505) 383-3117



## DRILLING PROGNOSIS Southwestern Energy Production Company

**WELL NAME:** Pickett Draw 16 #1-H

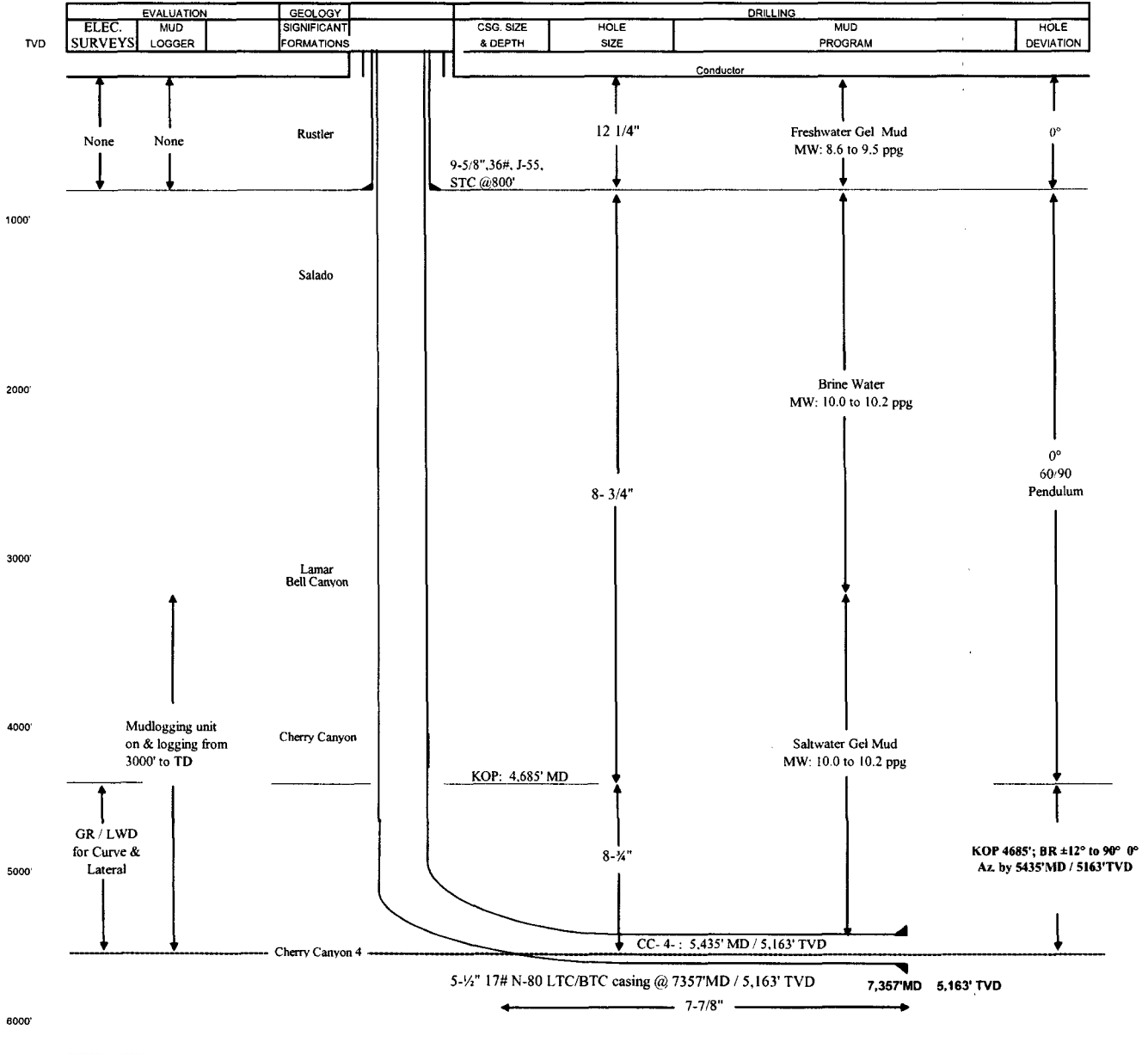
**AFE NO.**

**LOCATION:** Sec. 16, T25S, R29E  
Eddy County NM  
SL: 2600' FNL 530' FEL  
BHL: 200' FNL 530' FEL  
TGT ENTRY PT: 2123' FNL 530' FEL

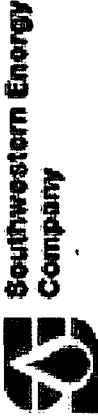
**PROSPECT:** West Corral Canyon

**OBJECTIVE:** Cherry Canyon Sd, CC-4

**EST. ELEVATION:** GL 3005'; RKB ±16"







Southwestern Energy Production Co.  
 Pickett Draw State 16 #1H  
 Pickett Draw Section 16 - T2SS R29E  
 Eddy County New Mexico  
 Plan #2

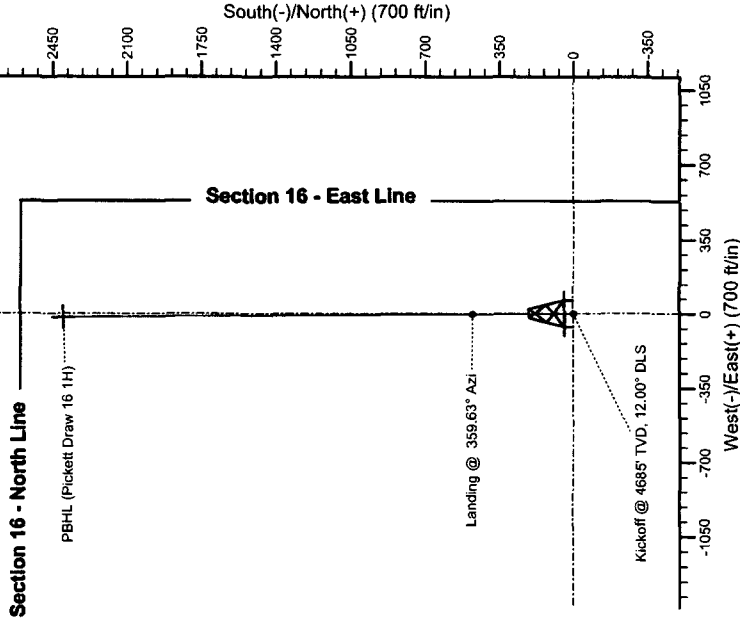
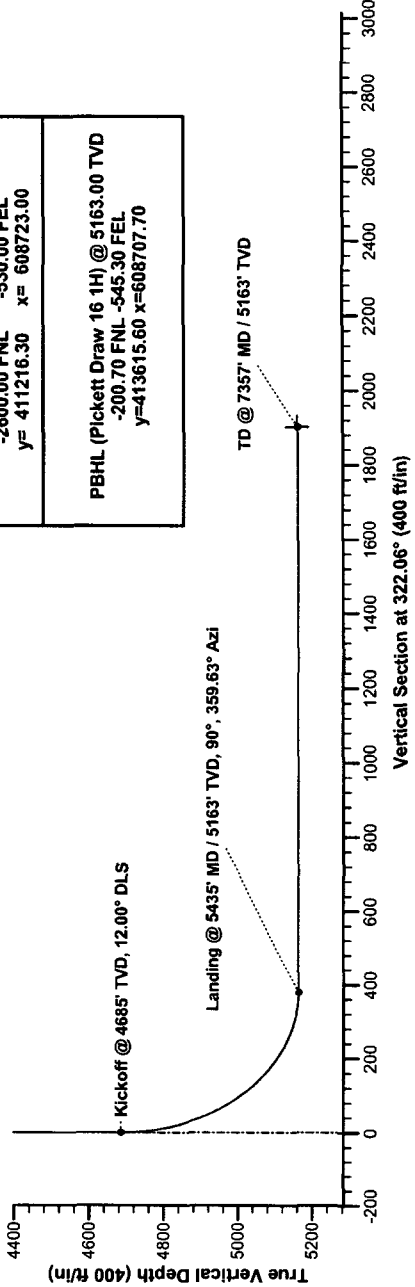


Surface Location	Ground Elevation: 6300.01 estimated rtb @ 6325.00ft (rig not specified)			
+N/-S	+E/-W	Northing	Easting	Slot
0.00	0.00	411216.30	608723.00	32°7'48.218N 103°58'55.618W

TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Section 16 (Eddy Co NM)	0.00	-40.00	-2110.00	32°7'47.89N	103°58'20.158W	Rectangle (5280.00x5280.00)
PBHL (Pickett Draw 16 1H)	5163.00	2399.30	-15.30	32°8'11.963N	103°58'55.705W	Point

Surface Location:	-2600.00 FNL	-530.00 FEL
	y= 411216.30	x= 608723.00
PBHL (Pickett Draw 16 1H) @ 5163.00 TVD	-200.70 FNL	-545.30 FEL
	y=413615.60	x=608707.70



SECTION DETAILS

Sec	MD	Inc	Azi	+N/-S	+E/-W	DLeg	TFace	VSec
1	0.00	0.00	359.63	0.00	0.00	0.00	0.00	0.00
2	4685.54	0.00	359.63	0.00	0.00	0.00	0.00	0.00
3	5435.54	90.00	359.63	477.46	-3.04	12.00	359.63	378.43
4	7357.42	90.00	359.63	2399.30	-15.30	0.00	0.00	1901.67

# **Southwestern Energy Production Co.**

**Eddy County New Mexico  
Pickett Draw Section 16 - T25S R29E  
Pickett Draw State 16 #1H  
Wellbore #1**

**Plan: Plan #2**

## **Standard Planning Report**

**11 January, 2007**

## Crescent Directional Drilling Planning Report

<b>Database:</b>	COMPASS_2003.11_CDDSVR	<b>Local Co-ordinate Reference:</b>	Well Pickett Draw State 16 #1H
<b>Company:</b>	Southwestern Energy Production Co.	<b>TVD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Project:</b>	Eddy County New Mexico	<b>MD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Site:</b>	Pickett Draw Section 16 - T25S R29E	<b>North Reference:</b>	Grid
<b>Well:</b>	Pickett Draw State 16 #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

<b>Project</b> Eddy County New Mexico			
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

<b>Site</b> Pickett Draw Section 16 - T25S R29E			
<b>Site Position:</b>		<b>Northing:</b>	411,216.30 ft
		<b>Latitude:</b>	32° 07' 48.218" N
<b>From:</b>	Map	<b>Easting:</b>	608,723.00 ft
		<b>Longitude:</b>	103° 58' 55.618" W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	in
		<b>Grid Convergence:</b>	0.19 °

<b>Well</b> Pickett Draw State 16 #1H			
<b>Well Position</b>	+N/-S	0.00 ft	<b>Northing:</b>
			411,216.30 ft
			<b>Latitude:</b>
			32° 07' 48.218" N
	+E/-W	0.00 ft	<b>Easting:</b>
			608,723.00 ft
			<b>Longitude:</b>
			103° 58' 55.618" W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>
			ft
			<b>Ground Level:</b>
			6,300.01 ft

<b>Wellbore</b> Wellbore #1					
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
			(°)	(°)	(nT)
	User Defined	12/13/2006	0.00	0.00	0

<b>Design</b> Plan #2				
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	322.06

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	359.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,685.54	0.00	359.63	4,685.54	0.00	0.00	0.00	0.00	0.00	0.00	
5,435.54	90.00	359.63	5,163.00	477.46	-3.04	12.00	12.00	0.00	359.63	
7,357.42	90.00	359.63	5,163.00	2,399.30	-15.30	0.00	0.00	0.00	0.00	PBHL (Pickett Draw 1

## Crescent Directional Drilling Planning Report

<b>Database:</b>	COMPASS_2003.11_CDDSVR	<b>Local Co-ordinate Reference:</b>	Well Pickett Draw State 16 #1H
<b>Company:</b>	Southwestern Energy Production Co.	<b>TVD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Project:</b>	Eddy County New Mexico	<b>MD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Site:</b>	Pickett Draw Section 16 - T25S R29E	<b>North Reference:</b>	Grid
<b>Well:</b>	Pickett Draw State 16 #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

Planned 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)
0.00	0.00	359.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	359.63	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	359.63	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	359.63	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	359.63	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	359.63	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	359.63	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	359.63	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	359.63	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	359.63	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	359.63	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	359.63	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	359.63	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	359.63	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	359.63	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	359.63	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	359.63	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	359.63	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	359.63	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	359.63	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	359.63	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	359.63	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	359.63	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	359.63	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	359.63	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	359.63	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	359.63	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	359.63	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	359.63	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	359.63	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	359.63	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	359.63	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	359.63	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	359.63	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	359.63	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	359.63	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	359.63	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	359.63	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	359.63	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	359.63	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	359.63	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	359.63	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	359.63	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	359.63	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	359.63	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	359.63	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	359.63	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,685.54	0.00	359.63	4,685.54	0.00	0.00	0.00	0.00	0.00	0.00
<b>Kickoff @ 4685' TVD, 12.00° DLS</b>									
4,700.00	1.74	359.63	4,700.00	0.22	0.00	0.17	12.00	12.00	0.00
4,800.00	13.74	359.63	4,798.91	13.65	-0.09	10.82	12.00	12.00	0.00
4,900.00	25.74	359.63	4,892.86	47.36	-0.30	37.54	12.00	12.00	0.00

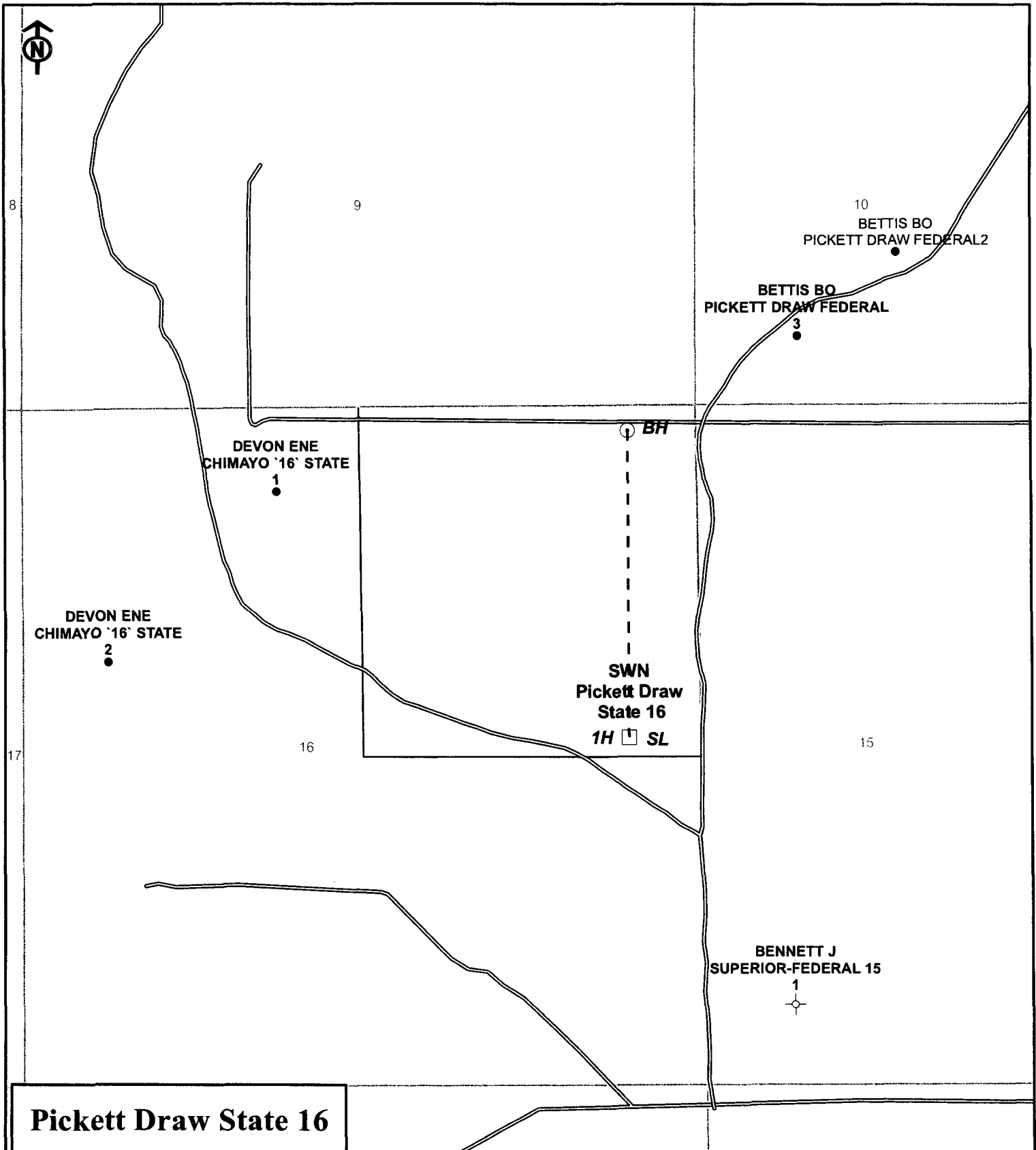
# Crescent Directional Drilling Planning Report

<b>Database:</b>	COMPASS_2003.11_CDDSVR	<b>Local Co-ordinate Reference:</b>	Well Pickett Draw State 16 #1H
<b>Company:</b>	Southwestern Energy Production Co.	<b>TVD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Project:</b>	Eddy County New Mexico	<b>MD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Site:</b>	Pickett Draw Section 16 - T25S R29E	<b>North Reference:</b>	Grid
<b>Well:</b>	Pickett Draw State 16 #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

5,000.00	37.74	359.63	4,977.75	99.86	-0.64	79.15	12.00	12.00	0.00
5,100.00	49.74	359.63	5,049.88	168.87	-1.08	133.85	12.00	12.00	0.00
5,200.00	61.74	359.63	5,106.07	251.36	-1.60	199.23	12.00	12.00	0.00
5,300.00	73.74	359.63	5,143.89	343.74	-2.19	272.44	12.00	12.00	0.00
5,400.00	85.74	359.63	5,161.68	441.95	-2.82	350.29	12.00	12.00	0.00
5,435.54	90.00	359.63	5,163.00	477.46	-3.04	378.43	12.00	12.00	0.00
<b>Landing @ 5435' MD / 5163' TVD, 90°, 359.63° Azi</b>									
5,500.00	90.00	359.63	5,163.00	541.92	-3.46	429.52	0.00	0.00	0.00
5,600.00	90.00	359.63	5,163.00	641.92	-4.09	508.78	0.00	0.00	0.00
5,700.00	90.00	359.63	5,163.00	741.91	-4.73	588.04	0.00	0.00	0.00
5,800.00	90.00	359.63	5,163.00	841.91	-5.37	667.30	0.00	0.00	0.00
5,900.00	90.00	359.63	5,163.00	941.91	-6.01	746.55	0.00	0.00	0.00
6,000.00	90.00	359.63	5,163.00	1,041.91	-6.64	825.81	0.00	0.00	0.00
6,100.00	90.00	359.63	5,163.00	1,141.91	-7.28	905.07	0.00	0.00	0.00
6,200.00	90.00	359.63	5,163.00	1,241.90	-7.92	984.33	0.00	0.00	0.00
6,300.00	90.00	359.63	5,163.00	1,341.90	-8.56	1,063.58	0.00	0.00	0.00
6,400.00	90.00	359.63	5,163.00	1,441.90	-9.19	1,142.84	0.00	0.00	0.00
6,500.00	90.00	359.63	5,163.00	1,541.90	-9.83	1,222.10	0.00	0.00	0.00
6,600.00	90.00	359.63	5,163.00	1,641.90	-10.47	1,301.36	0.00	0.00	0.00
6,700.00	90.00	359.63	5,163.00	1,741.89	-11.11	1,380.62	0.00	0.00	0.00
6,800.00	90.00	359.63	5,163.00	1,841.89	-11.75	1,459.87	0.00	0.00	0.00
6,900.00	90.00	359.63	5,163.00	1,941.89	-12.38	1,539.13	0.00	0.00	0.00
7,000.00	90.00	359.63	5,163.00	2,041.89	-13.02	1,618.39	0.00	0.00	0.00
7,100.00	90.00	359.63	5,163.00	2,141.89	-13.66	1,697.65	0.00	0.00	0.00
7,200.00	90.00	359.63	5,163.00	2,241.88	-14.30	1,776.91	0.00	0.00	0.00
7,300.00	90.00	359.63	5,163.00	2,341.88	-14.93	1,856.16	0.00	0.00	0.00
7,357.42	90.00	359.63	5,163.00	2,399.30	-15.30	1,901.67	0.00	0.00	0.00
<b>TD @ 7357' MD / 5163' TVD - PBHL (Pickett Draw 16 1H)</b>									




Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	ft	ft	(ft)	(ft)		
- Shape									
Section 16 (Eddy Co N	0.00	0.00	0.00	-40.00	-2,110.00	411,176.30	606,613.00	32° 07' 47.890" N	103° 59' 20.158" W
- plan misses by 2110.38ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Rectangle (sides W5,280.00 H5,280.00 D0.00)									
PBHL (Pickett Draw 16	0.00	0.00	5,163.00	2,399.30	-15.30	413,615.60	608,707.70	32° 08' 11.963" N	103° 58' 55.705" W
- plan misses by 1921.89ft at 5435.53ft MD (5163.00 TVD, 477.45 N, -3.04 E)									
- Point									


Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S	+E/-W	
		(ft)	(ft)	
4,685.54	4,685.54	0.00	0.00	Kickoff @ 4685' TVD, 12.00° DLS
5,435.54	5,163.00	477.46	-3.04	Landing @ 5435' MD / 5163' TVD, 90°, 359.63° Azi
7,357.42	5,163.00	2,399.30	-15.30	TD @ 7357' MD / 5163' TVD



**Pickett Draw State 16**

**Proposed Well Type**

-  BH
-  SL
-  SWN Lease



**SOUTHWESTERN ENERGY COMPANY**

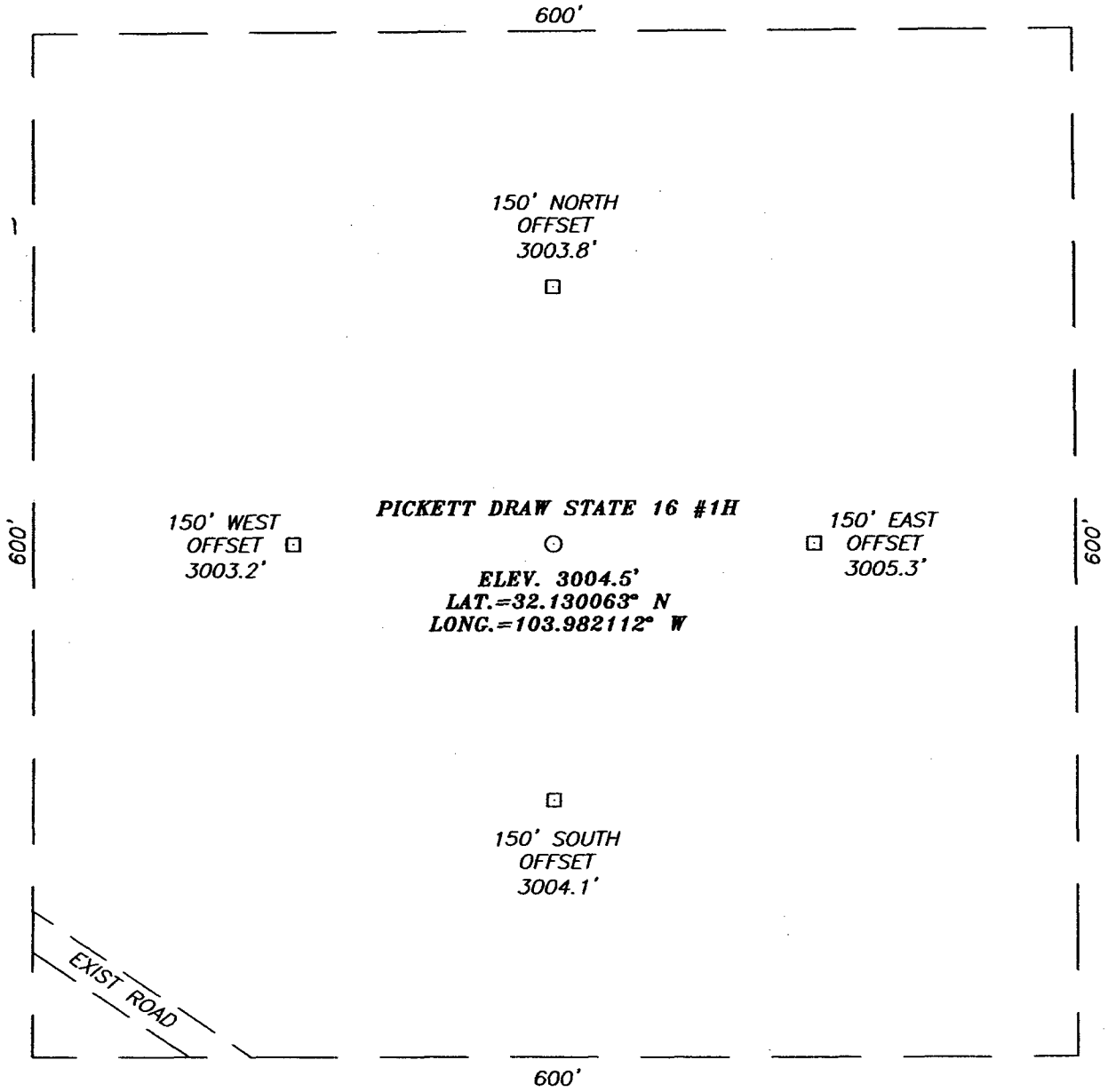
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Pickett Draw State 16 1H

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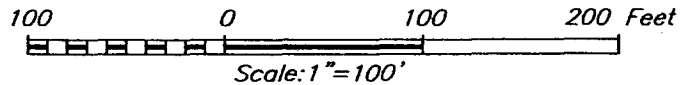
Interp. By:	Date: 9-11-2007
(Z:\GIS\Alan-Grimsley\New_Mexico\Eddy\Pickett_Draw_State_16\Pickett_Draw.mxd)	
Projection: New Mexico East - Nad 27	Scale: 1" = 2,000'

**SECTION 16, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,**  
 EDDY COUNTY, NEW MEXICO



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF U.S. HWY. #285 AND CO. RD. #725 (WHITEHORN RD.), GO NORTHEAST ON CO. RD. #725 APPROX. 5.5 MILES. TURN LEFT AND GO NORTH APPROX. 3.5 MILES. TURN LEFT AND GO NORTHWEST APPROX. 0.1 MILE. THIS LOCATION IS APPROX. 300 FEET NORTH.



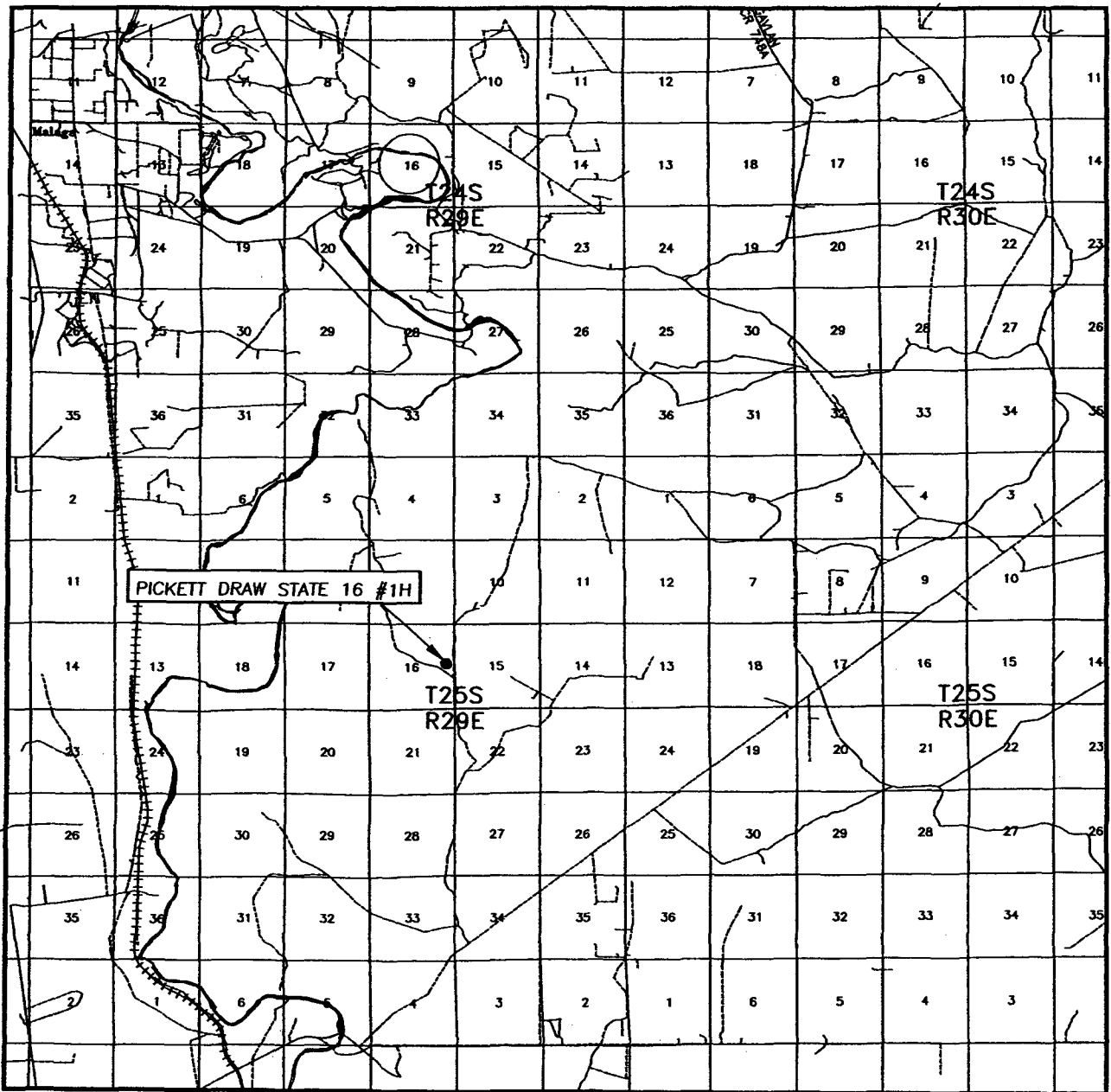
**SOUTHWESTERN ENERGY PRODUCTION COMPANY**

PICKETT DRAW STATE 16 #1H  
 LOCATED 2600 FEET FROM THE NORTH LINE  
 AND 530 FEET FROM THE EAST LINE OF SECTION 16,  
 TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.

PROVIDING SURVEYING SERVICES  
 SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 393-3117


Survey Date: 12/18/06	Sheet 1 of 1 Sheets
W.O. Number: 06.11.1997	Dr By: J.R. Rev 1:N/A
Date: 12/28/06	Disk: CD#6 06111997 Scale: 1"=100'

# VICINITY MAP



SCALE: 1" = 2 MILES

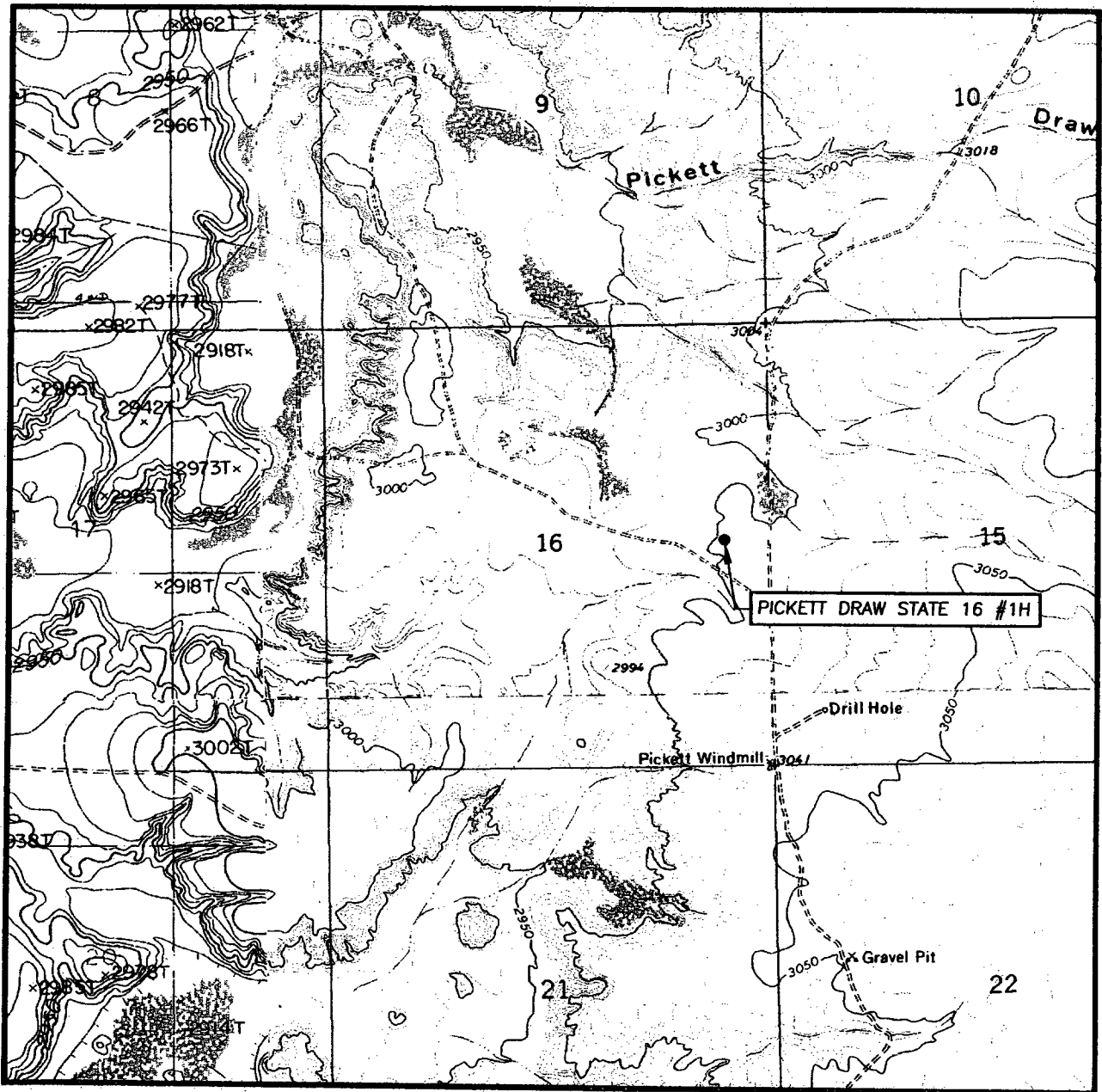
SEC. 16 TWP. 25-S RGE. 29-E  
 SURVEY N.M.P.M.  
 COUNTY EDDY STATE NEW MEXICO  
 DESCRIPTION 2600' FNL & 530' FEL  
 ELEVATION 3005'  
 OPERATOR SOUTHWESTERN ENERGY PRODUCTION COMPANY  
 LEASE PICKETT DRAW STATE 16



**PROVIDING SURVEYING SERVICES**  
 SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 393-3117



# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

SEC. 16 TWP. 25-S RGE. 29-E

SURVEY \_\_\_\_\_ N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 2600' FNL & 530' FEL

ELEVATION 3005'

OPERATOR SOUTHWESTERN ENERGY PRODUCTION COMPANY

LEASE PICKET DRAW STATE 16

U.S.G.S. TOPOGRAPHIC MAP  
PIERCE CANYON, N.M.

CONTOUR INTERVAL:  
PIERCE CANYON, N.M. - 10'  
ROSS RANCH, N.M. - 10'  
RED BLUFF, N.M. - 10'  
MALAGA, N.M. - 10'

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



# DRILLING PROGNOSIS

## Southwestern Energy Production Company

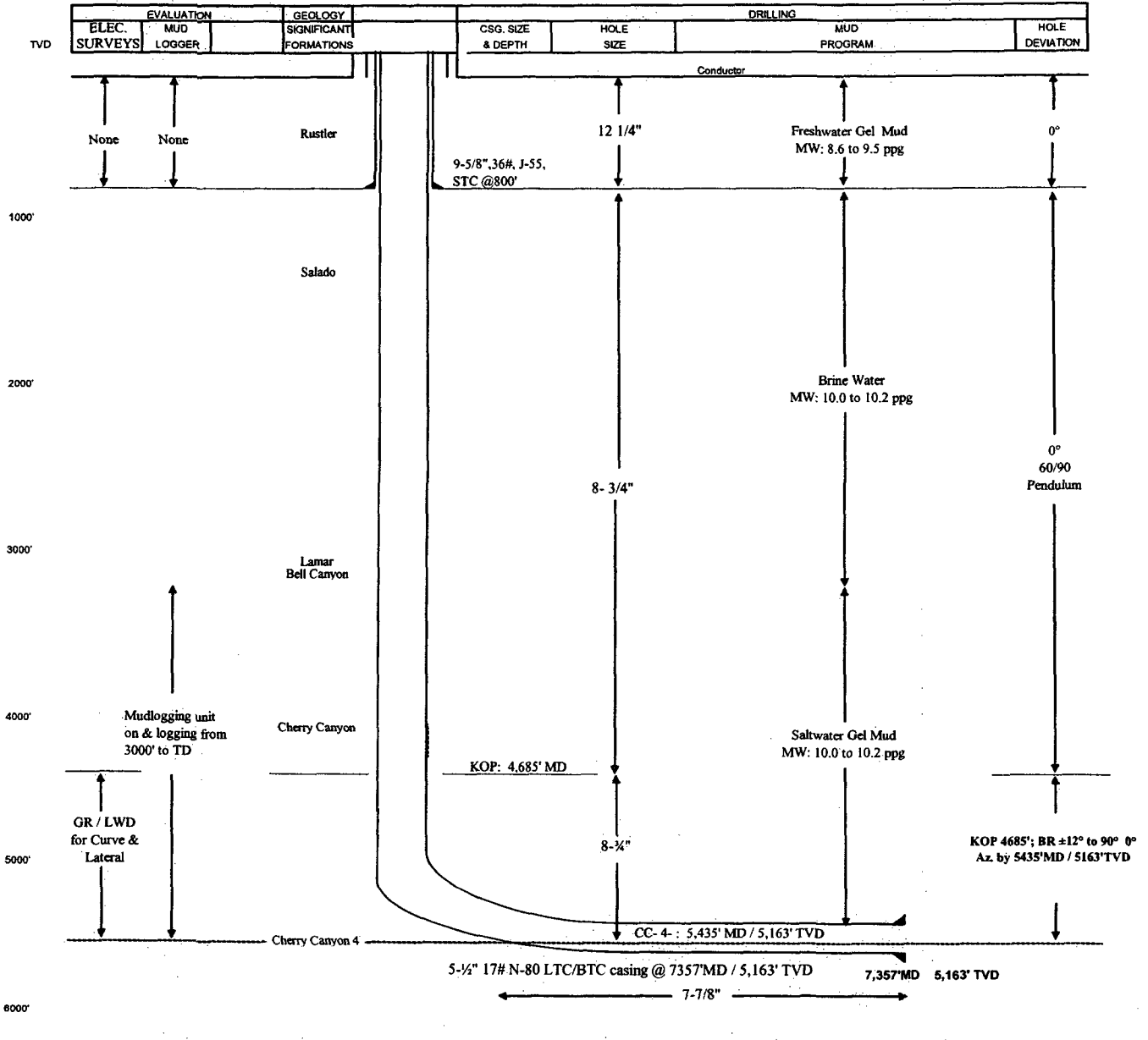
WELL NAME: Pickett Draw 16 #1-H

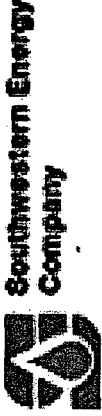
AFE NO.

LOCATION: Sec. 16, T25S, R29E  
 Eddy County NM  
 SL: 2600' FNL 530' FEL  
 BHL: 200' FNL 530' FEL  
 TGT ENTRY PT: 2123' FNL 530' FEL  
 OBJECTIVE: Cherry Canyon Sd, CC-4

PROSPECT: West Corral Canyon

EST. ELEVATION: GL 3005'; RKB ±16"





Southwestern Energy Production Co.  
 Pickett Draw State 16 #1H  
 Pickett Draw Section 16 - T25S R29E  
 Eddy County New Mexico  
 Plan #2



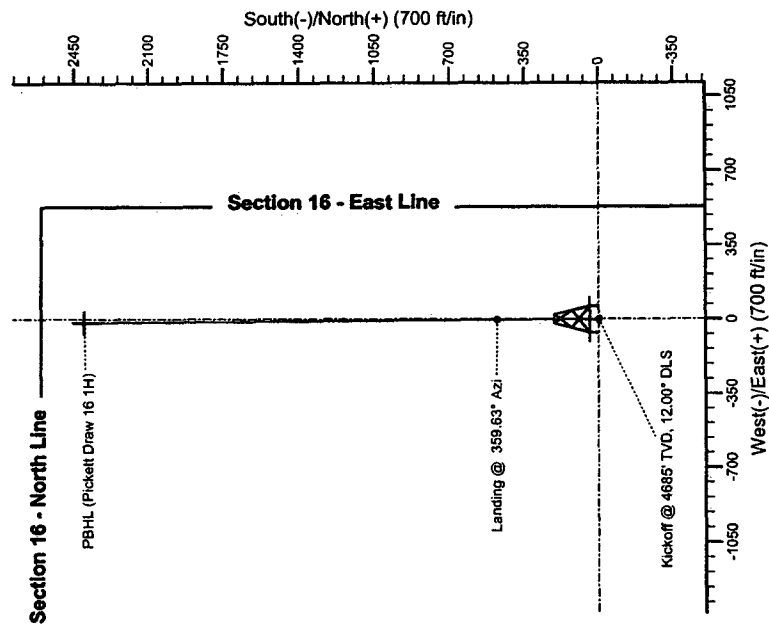
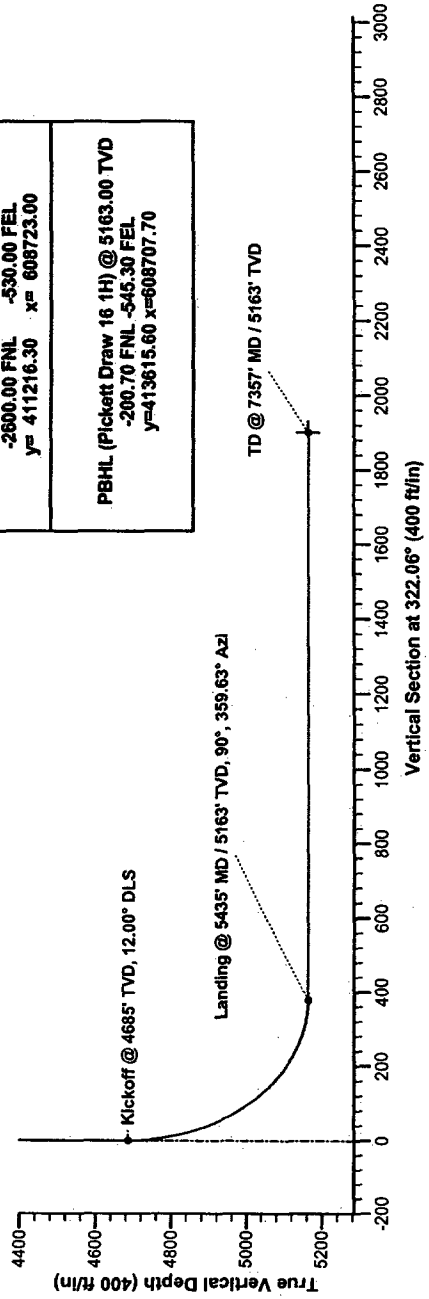
Surface Location	Ground Elevation: 6300.01 estimated rkb @ 6325.00ft (rig not specified)			
+N/-S	+E/-W	Northing	Easting	Slot
0.00	0.00	411216.30	608723.00	32°7'48.218N 103°59'55.618W

TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Section 16 (Eddy Co NM)	0.00	-40.00	-2110.00	411176.30	606613.00	32°7'47.89N	103°59'20.158W	Rectangle (5280.00x5280.00)
PBHL (Pickett Draw 16 1H)	5163.00	2399.30	-15.30	413615.60	608707.70	32°8'11.963N	103°56'55.705W	Point

Surface Location:  
 -2600.00 FNL -530.00 FEL  
 y= 411216.30 x= 608723.00

PBHL (Pickett Draw 16 1H) @ 5163.00 TVD  
 -200.70 FNL -545.30 FEL  
 y=413615.60 x=608707.70



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
1	0.00	0.00	359.63	0.00	0.00	0.00	0.00	0.00	0.00
2	4685.54	0.00	359.63	4685.54	0.00	0.00	0.00	0.00	0.00
3	5435.54	90.00	359.63	5163.00	477.46	-3.04	12.00	359.63	378.43
4	7357.42	90.00	359.63	5163.00	2399.30	-15.30	0.00	0.00	1901.67

PBHL (Pickett Draw 16 1H)

# **Southwestern Energy Production Co.**

**Eddy County New Mexico  
Pickett Draw Section 16 - T25S R29E  
Pickett Draw State 16 #1H  
Wellbore #1**

**Plan: Plan #2**

## **Standard Planning Report**

**11 January, 2007**

# Crescent Directional Drilling Planning Report

<b>Database:</b>	COMPASS_2003.11_CDDSVR	<b>Local Co-ordinate Reference:</b>	Well Pickett Draw State 16 #1H
<b>Company:</b>	Southwestern Energy Production Co.	<b>TVD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Project:</b>	Eddy County New Mexico	<b>MD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Site:</b>	Pickett Draw Section 16 - T25S R29E	<b>North Reference:</b>	Grid
<b>Well:</b>	Pickett Draw State 16 #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

<b>Project</b> Eddy County New Mexico			
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

<b>Site</b> Pickett Draw Section 16 - T25S R29E			
<b>Site Position:</b>		<b>Northing:</b>	411,216.30 ft
<b>From:</b>	Map	<b>Easting:</b>	608,723.00 ft
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	in
		<b>Latitude:</b>	32° 07' 48.218" N
		<b>Longitude:</b>	103° 58' 55.618" W
		<b>Grid Convergence:</b>	0.19 °

<b>Well</b> Pickett Draw State 16 #1H			
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b> 411,216.30 ft
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b> 608,723.00 ft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b> ft
			<b>Latitude:</b> 32° 07' 48.218" N
			<b>Longitude:</b> 103° 58' 55.618" W
			<b>Ground Level:</b> 6,300.01 ft

<b>Wellbore</b> Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (?)	Dip Angle (?)	Field Strength (nT)
	User Defined	12/13/2006	0.00	0.00	0

<b>Design</b> Plan #2			
<b>Audit Notes:</b>			
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b> 0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)
	0.00	0.00	0.00
			<b>Direction</b> (?)
			322.06

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (%/100ft)	Build Rate (%/100ft)	Turn Rate (%/100ft)	TFO (%)	Target
0.00	0.00	359.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,685.54	0.00	359.63	4,685.54	0.00	0.00	0.00	0.00	0.00	0.00	
5,435.54	90.00	359.63	5,163.00	477.46	-3.04	12.00	12.00	0.00	359.63	
7,357.42	90.00	359.63	5,163.00	2,399.30	-15.30	0.00	0.00	0.00	0.00	PBHL (Pickett Draw 1

# Crescent Directional Drilling Planning Report

<b>Database:</b>	COMPASS_2003.11_CDDSVR	<b>Local Co-ordinate Reference:</b>	Well Pickett Draw State 16 #1H
<b>Company:</b>	Southwestern Energy Production Co.	<b>TVD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Project:</b>	Eddy County New Mexico	<b>MD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Site:</b>	Pickett Draw Section 16 - T25S R29E	<b>North Reference:</b>	Grid
<b>Well:</b>	Pickett Draw State 16 #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

Planned 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)	
0.00	0.00	359.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	359.63	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	359.63	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	359.63	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	359.63	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	359.63	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	359.63	600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	359.63	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	359.63	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	359.63	900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	359.63	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	359.63	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	359.63	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	359.63	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	359.63	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	359.63	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	359.63	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	359.63	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	359.63	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	359.63	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	359.63	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	359.63	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	359.63	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	359.63	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	359.63	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	359.63	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	359.63	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	359.63	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	359.63	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	359.63	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	359.63	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	359.63	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	359.63	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	359.63	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	359.63	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	359.63	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	359.63	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	359.63	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	359.63	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	359.63	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	359.63	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	359.63	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	359.63	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	359.63	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	359.63	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	359.63	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	359.63	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,685.54	0.00	359.63	4,685.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Kickoff @ 4685' TVD, 12.00° DLS</b>										
4,700.00	1.74	359.63	4,700.00	0.22	0.00	0.17	12.00	12.00	0.00	0.00
4,800.00	13.74	359.63	4,798.91	13.65	-0.09	10.82	12.00	12.00	0.00	0.00
4,900.00	25.74	359.63	4,892.86	47.36	-0.30	37.54	12.00	12.00	0.00	0.00

## Crescent Directional Drilling Planning Report

<b>Database:</b>	COMPASS_2003.11_CDDSVR	<b>Local Co-ordinate Reference:</b>	Well Pickett Draw State 16 #1H
<b>Company:</b>	Southwestern Energy Production Co.	<b>TVD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Project:</b>	Eddy County New Mexico	<b>MD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Site:</b>	Pickett Draw Section 16 - T25S R29E	<b>North Reference:</b>	Grid
<b>Well:</b>	Pickett Draw State 16 #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

5,000.00	37.74	359.63	4,977.75	99.86	-0.64	79.15	12.00	12.00	0.00
5,100.00	49.74	359.63	5,049.88	168.87	-1.08	133.85	12.00	12.00	0.00
5,200.00	61.74	359.63	5,106.07	251.36	-1.60	199.23	12.00	12.00	0.00
5,300.00	73.74	359.63	5,143.89	343.74	-2.19	272.44	12.00	12.00	0.00
5,400.00	85.74	359.63	5,161.68	441.95	-2.82	350.29	12.00	12.00	0.00
5,435.54	90.00	359.63	5,163.00	477.46	-3.04	378.43	12.00	12.00	0.00
<b>Landing @ 5435' MD / 5163' TVD, 90°, 359.63° Azi</b>									
5,500.00	90.00	359.63	5,163.00	541.92	-3.46	429.52	0.00	0.00	0.00
5,600.00	90.00	359.63	5,163.00	641.92	-4.09	508.78	0.00	0.00	0.00
5,700.00	90.00	359.63	5,163.00	741.91	-4.73	588.04	0.00	0.00	0.00
5,800.00	90.00	359.63	5,163.00	841.91	-5.37	667.30	0.00	0.00	0.00
5,900.00	90.00	359.63	5,163.00	941.91	-6.01	746.55	0.00	0.00	0.00
6,000.00	90.00	359.63	5,163.00	1,041.91	-6.64	825.81	0.00	0.00	0.00
6,100.00	90.00	359.63	5,163.00	1,141.91	-7.28	905.07	0.00	0.00	0.00
6,200.00	90.00	359.63	5,163.00	1,241.90	-7.92	984.33	0.00	0.00	0.00
6,300.00	90.00	359.63	5,163.00	1,341.90	-8.56	1,063.58	0.00	0.00	0.00
6,400.00	90.00	359.63	5,163.00	1,441.90	-9.19	1,142.84	0.00	0.00	0.00
6,500.00	90.00	359.63	5,163.00	1,541.90	-9.83	1,222.10	0.00	0.00	0.00
6,600.00	90.00	359.63	5,163.00	1,641.90	-10.47	1,301.36	0.00	0.00	0.00
6,700.00	90.00	359.63	5,163.00	1,741.89	-11.11	1,380.62	0.00	0.00	0.00
6,800.00	90.00	359.63	5,163.00	1,841.89	-11.75	1,459.87	0.00	0.00	0.00
6,900.00	90.00	359.63	5,163.00	1,941.89	-12.38	1,539.13	0.00	0.00	0.00
7,000.00	90.00	359.63	5,163.00	2,041.89	-13.02	1,618.39	0.00	0.00	0.00
7,100.00	90.00	359.63	5,163.00	2,141.89	-13.66	1,697.65	0.00	0.00	0.00
7,200.00	90.00	359.63	5,163.00	2,241.88	-14.30	1,776.91	0.00	0.00	0.00
7,300.00	90.00	359.63	5,163.00	2,341.88	-14.93	1,856.16	0.00	0.00	0.00
7,357.42	90.00	359.63	5,163.00	2,399.30	-15.30	1,901.67	0.00	0.00	0.00
<b>TD @ 7357' MD / 5163' TVD - PBHL (Pickett Draw 16 1H)</b>									

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Hit/miss target	(°)	(°)	(ft)	ft	ft	(ft)	(ft)		
Section 16 (Eddy Co N)	0.00	0.00	0.00	-40.00	-2,110.00	411,176.30	606,613.00	32° 07' 47.890° N	103° 59' 20.158° W
- plan misses by 2110.38ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Rectangle (sides W5,280.00 H5,280.00 D0.00)									
PBHL (Pickett Draw 16)	0.00	0.00	5,163.00	2,399.30	-15.30	413,615.60	608,707.70	32° 08' 11.963° N	103° 58' 55.705° W
- plan misses by 1921.89ft at 5435.53ft MD (5163.00 TVD, 477.45 N, -3.04 E)									
- Point									

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S	+E/-W	
4,685.54	4,685.54	0.00	0.00	Kickoff @ 4685' TVD, 12.00° DLS
5,435.54	5,163.00	477.46	-3.04	Landing @ 5435' MD / 5163' TVD, 90°, 359.63° Azi
7,357.42	5,163.00	2,399.30	-15.30	TD @ 7357' MD / 5163' TVD



8

9

10

BETTIS BO  
PICKETT DRAW FEDERAL2

BETTIS BO  
PICKETT DRAW FEDERAL

3

DEVON ENE  
CHIMAYO '16' STATE

1

BH

DEVON ENE  
CHIMAYO '16' STATE

2

SWN  
Pickett Draw  
State 16  
1H SL

16

15

17

BENNETT J  
SUPERIOR-FEDERAL 15

1

### Pickett Draw State 16

#### Proposed Well Type

○ BH

□ SL

■ SWN Lease



**SOUTHWESTERN  
ENERGY COMPANY**

Pickett Draw State 16 1H

Interp. By:

Date: 9-11-2007

(Z:\GIS\Alan-Grimsley\New\_Mexico\Eddy\Pickett\_Draw\_State\_16\Pickett\_Draw.mxd)

Projection: New Mexico East - Nad 27

Scale: 1" = 2,000'



State of New Mexico

Energy, Minerals and Natural Resources Department

DISTRICT I  
1625 N. FRENCH DR., HOBBES, NM 88240

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
Property Code	Property Name PICKETT DRAW STATE 16	Well Number 1H
OGRID No.	Operator Name SOUTHWESTERN ENERGY PRODUCTION COMPANY	Elevation 3005'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	16	25-S	29-E		2600	NORTH	530	EAST	EDDY

Bottom Hole Location If Different From Surface

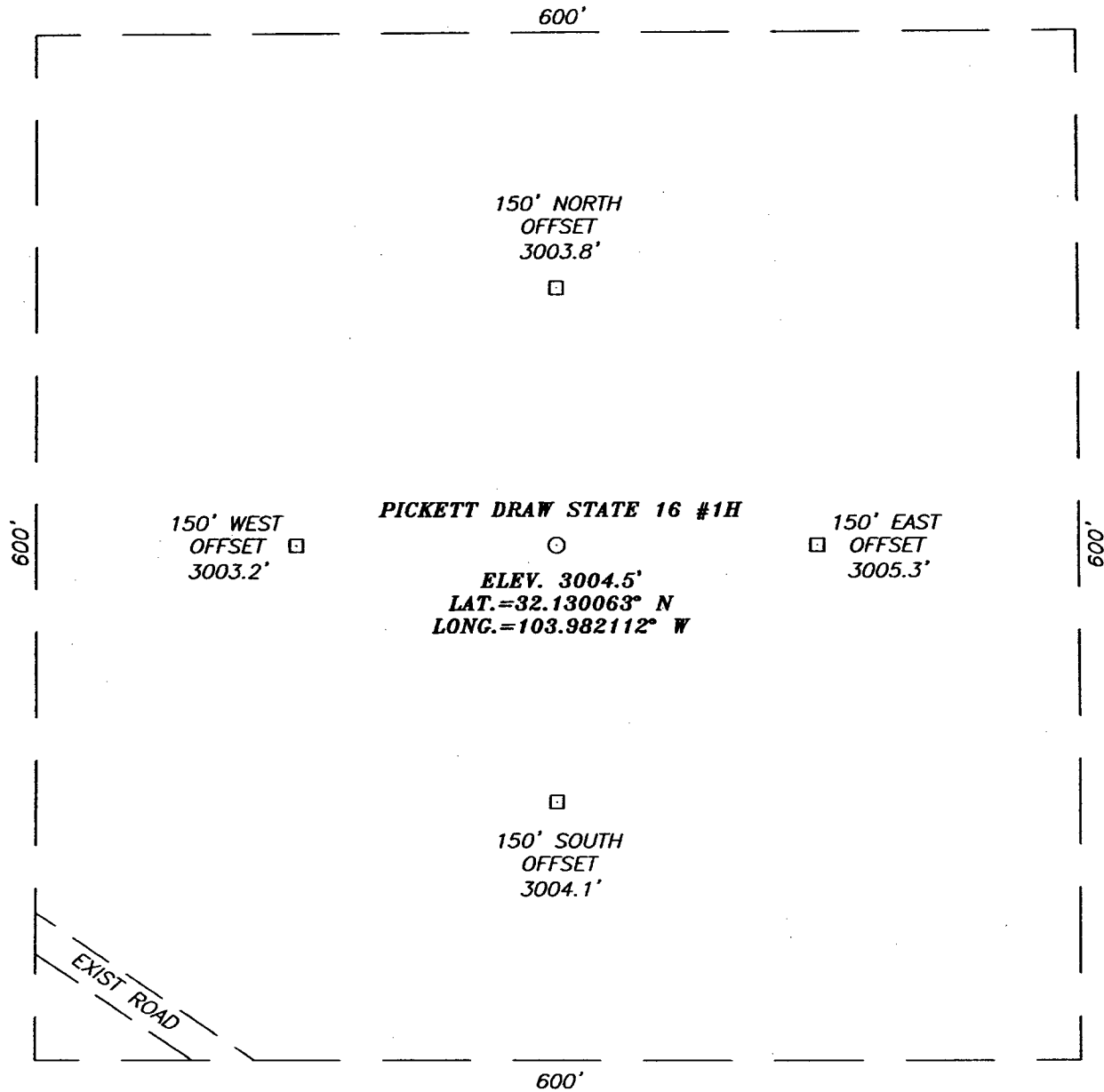
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	16	25-S	29-E		200	NORTH	530	EAST	EDDY

Dedicated Acres 80	Joint or Infill	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

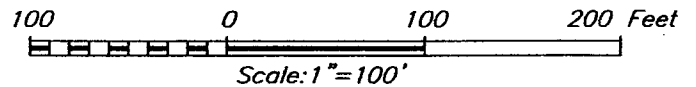
<p>BOTTOM HOLE Y=413615.6 N X=608707.7 E</p> <p>GR. AZ.=359°38'05" H. DIST.=2400.0'</p> <p>Project Area</p> <p>Producing Area</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization 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>James Alan Gimsley</i> 1/10/07 Signature Date JAMES ALAN GRIMSLEY Printed Name</p>
	<p><b>SURVEYOR CERTIFICATION</b></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>DECEMBER 18, 2006</p> <p>Date Surveyed JR</p> <p>Signature &amp; Seal of Professional Surveyor</p> <p><i>Gary A. Edison</i> 1/2/07 06.11.1997</p> <p>Certificate No. GARY EDISON 12841 CHAD BACROW 17777</p>
<p>GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=411216.3 N X=608723.0 E</p> <p>LAT.=32.130063° N LONG.=103.982112° W</p>	

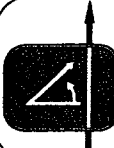
**SECTION 16, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,**  
 EDDY COUNTY, NEW MEXICO



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF U.S. HWY. #285 AND CO. RD. #725 (WHITEHORN RD.), GO NORTHEAST ON CO. RD. #725 APPROX. 5.5 MILES. TURN LEFT AND GO NORTH APPROX. 3.5 MILES. TURN LEFT AND GO NORTHWEST APPROX. 0.1 MILE. THIS LOCATION IS APPROX. 300 FEET NORTH.





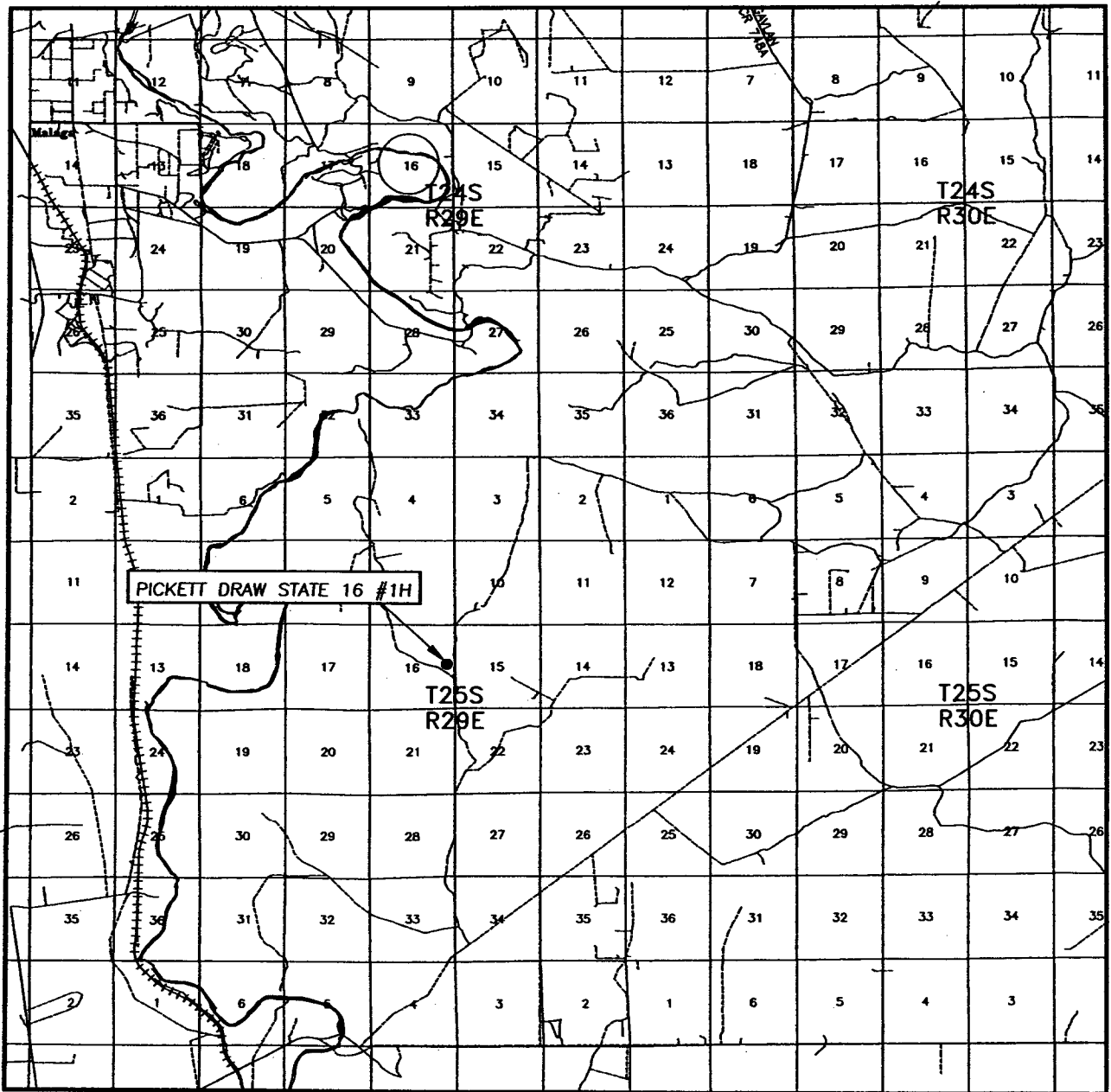
**PROVIDING SURVEYING SERVICES**  
 SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 393-3117

**SOUTHWESTERN ENERGY PRODUCTION COMPANY**

PICKETT DRAW STATE 16 #1H  
 LOCATED 2600 FEET FROM THE NORTH LINE  
 AND 530 FEET FROM THE EAST LINE OF SECTION 16,  
 TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.

Survey Date: 12/18/06		Sheet 1 of 1 Sheets	
W.O. Number: 06.11.1997	Dr By: J.R.	Rev 1:N/A	
Date: 12/28/06	Disk: CD#6	06111997	Scale: 1"=100'

# VICINITY MAP

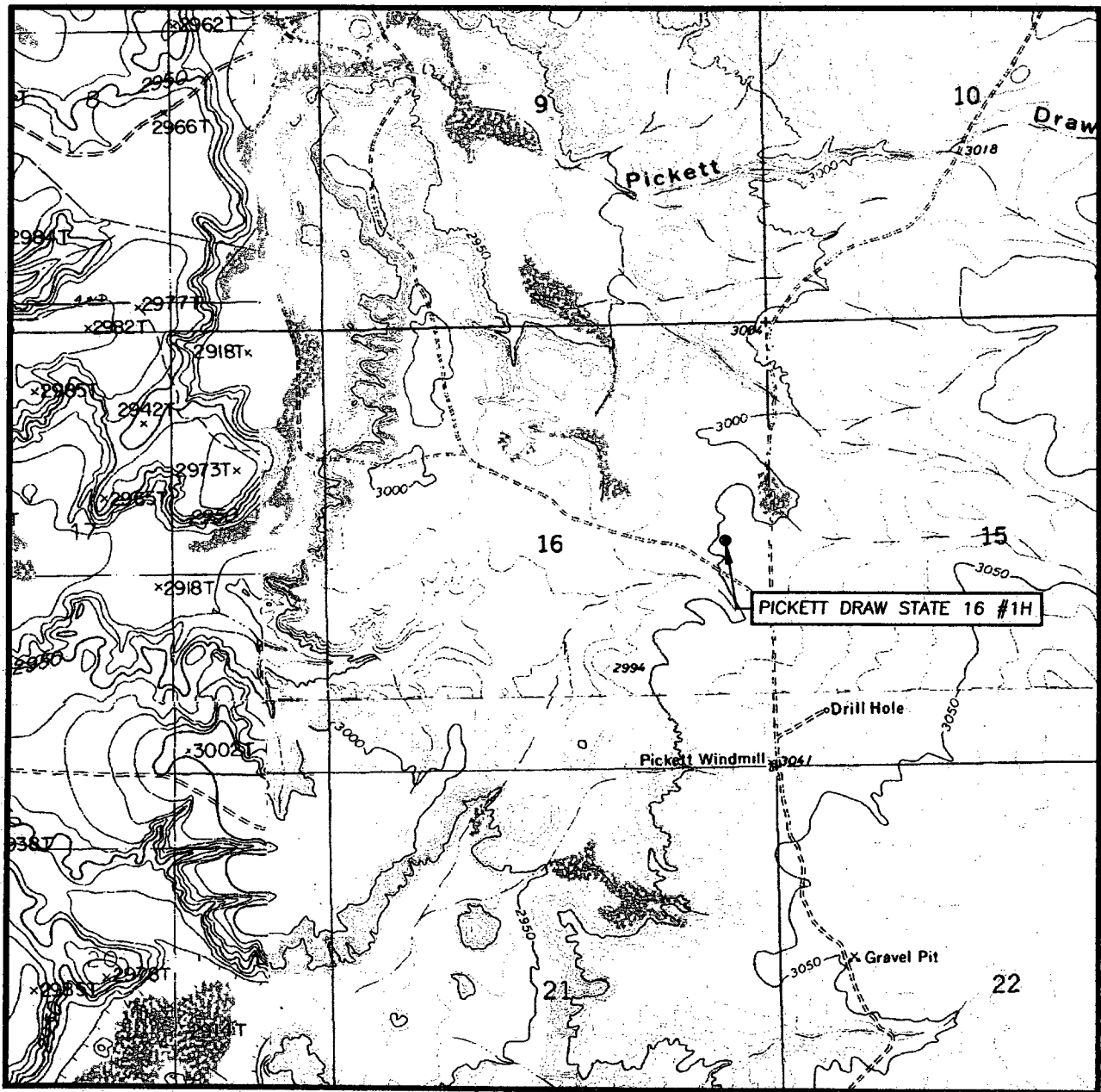


SCALE: 1" = 2 MILES

SEC. 16 TWP. 25-S RGE. 29-E  
 SURVEY \_\_\_\_\_ N.M.P.M.  
 COUNTY EDDY STATE NEW MEXICO  
 DESCRIPTION 2600' FNL & 530' FEL  
 ELEVATION \_\_\_\_\_ 3005'  
 OPERATOR SOUTHWESTERN ENERGY  
PRODUCTION COMPANY  
 LEASE PICKETT DRAW STATE 16

PROVIDING SURVEYING SERVICES  
 SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 393-3117

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

SEC. 16 TWP. 25-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 2600' FNL & 530' FEL

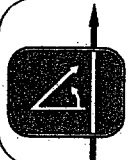
ELEVATION 3005'

OPERATOR SOUTHWESTERN ENERGY PRODUCTION COMPANY

LEASE PICKET DRAW STATE 16

U.S.G.S. TOPOGRAPHIC MAP  
PIERCE CANYON, N.M.

CONTOUR INTERVAL:  
PIERCE CANYON, N.M. - 10'  
ROSS RANCH, N.M. - 10'  
RED BLUFF, N.M. - 10'  
MALAGA, N.M. - 10'



**PROVIDING SURVEYING SERVICES**  
**SINCE 1946**  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 393-3117



# DRILLING PROGNOSIS

## Southwestern Energy Production Company

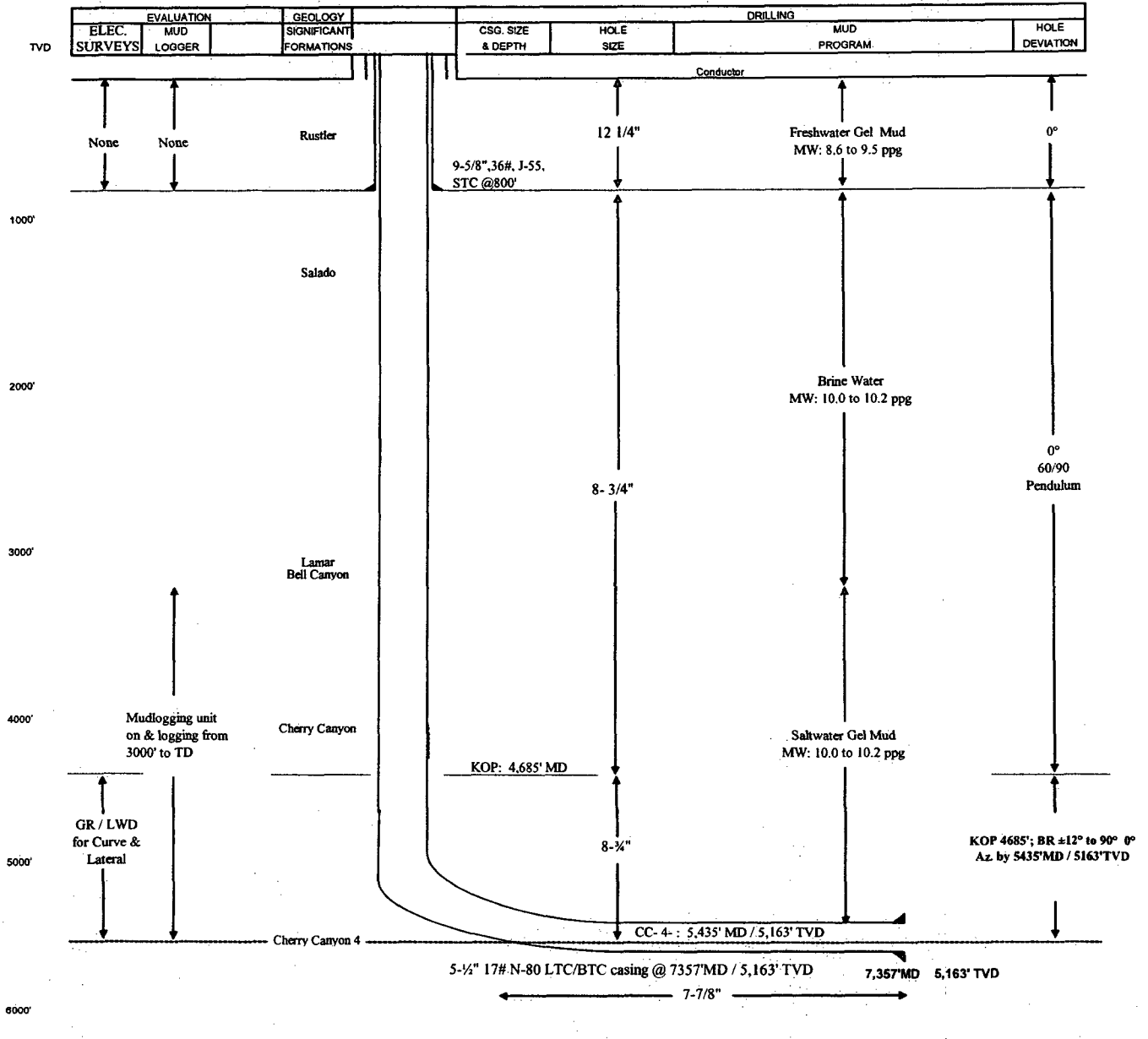
WELL NAME: Pickett Draw 16 #1-H

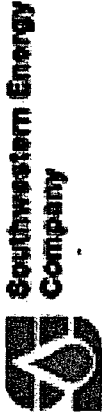
AFE NO.

LOCATION: Sec. 16, T25S, R29E  
 Eddy County NM  
 SL: 2600' FNL 530' FEL  
 BHL: 200' FNL 530' FEL  
 TGT ENTRY PT: 2123' FNL 530' FEL  
 OBJECTIVE: Cherry Canyon Sd, CC-4

PROSPECT: West Corral Canyon

EST. ELEVATION: GL 3005'; RKB ±16"





Southwestern Energy Production Co.  
 Pickett Draw State 16 #1H  
 Pickett Draw Section 16 - T2SS R29E  
 Eddy County New Mexico  
 Plan #2

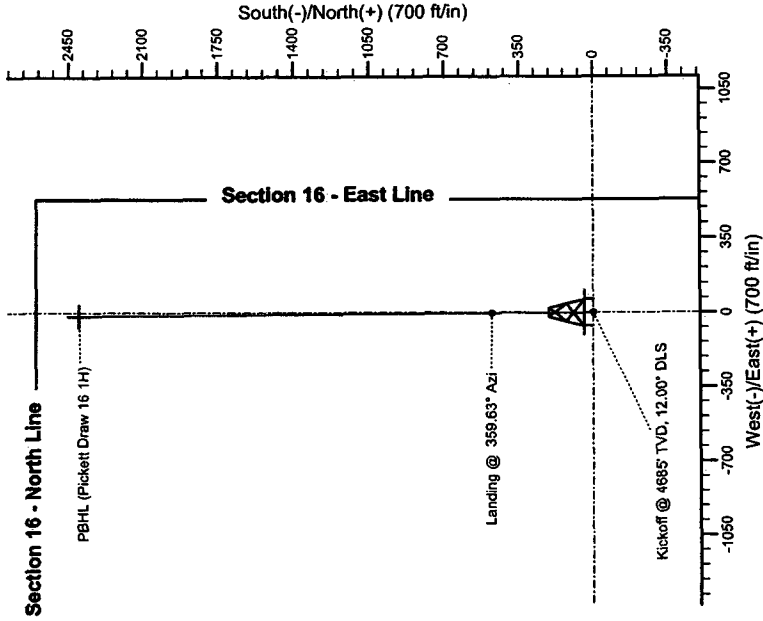
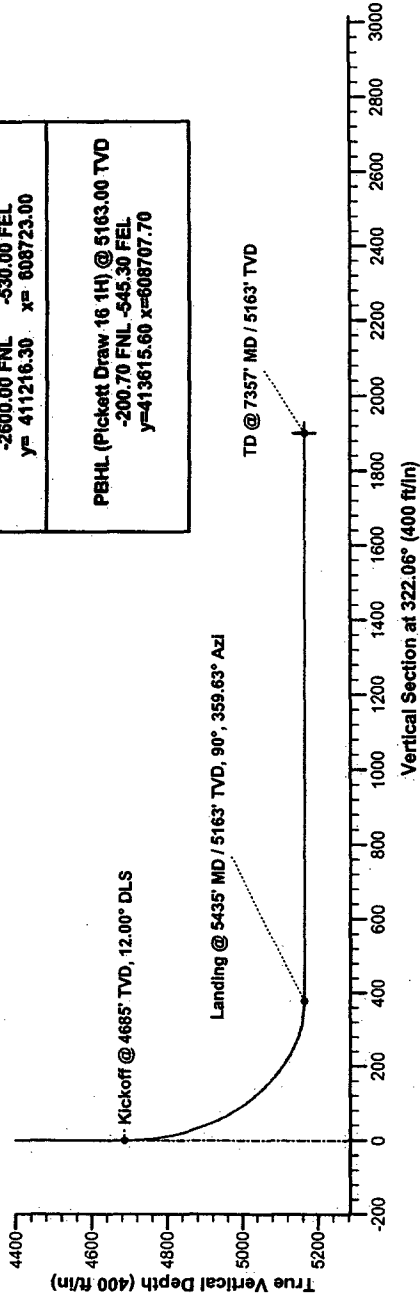


Surface Location	Ground Elevation: 6300.01 estimated rfb @ 6325.00ft (rig not specified)			
+N/S	+E/W	Northing	Easting	Slot
0.00	0.00	411216.30	608723.00	32°7'48.218N 103°58'55.618W

TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/S	+E/W	Northing	Easting	Latitude	Longitude	Shape
Section 16 (Eddy Co NM)	0.00	-40.00	-2110.00	411176.30	606613.00	32°7'47.89N	103°59'20.158W	Rectangle (5280.00x5280.00)
PBHL (Pickett Draw 16 1H)	5163.00	2399.30	-15.30	413615.60	608707.70	32°8'11.963N	103°58'55.705W	Point

Surface Location:	-2600.00 FNL	-530.00 FEL
	y= 411216.30	x= 608723.00
PBHL (Pickett Draw 16 1H) @ 5163.00 TVD	-200.70 FNL	-545.30 FEL
	y=413615.60	x=608707.70



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/S	+E/W	DLeg	TFace	VSec
1	0.00	0.00	359.63	0.00	0.00	0.00	0.00	0.00	0.00
2	4685.54	0.00	359.63	4685.54	0.00	0.00	0.00	0.00	0.00
3	5435.54	90.00	359.63	5163.00	477.46	-3.04	12.00	359.63	378.43
4	7357.42	90.00	359.63	5163.00	2399.30	-15.30	0.00	1901.67	PBHL (Pickett Draw 16 1H)

# **Southwestern Energy Production Co.**

**Eddy County New Mexico  
Pickett Draw Section 16 - T25S R29E  
Pickett Draw State 16 #1H  
Wellbore #1**

**Plan: Plan #2**

## **Standard Planning Report**

**11 January, 2007**

# Crescent Directional Drilling Planning Report

<b>Database:</b>	COMPASS_2003.11_CDDSVR	<b>Local Co-ordinate Reference:</b>	Well Pickett Draw State 16 #1H
<b>Company:</b>	Southwestern Energy Production Co.	<b>TVD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Project:</b>	Eddy County New Mexico	<b>MD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Site:</b>	Pickett Draw Section 16 - T25S R29E	<b>North Reference:</b>	Grid
<b>Well:</b>	Pickett Draw State 16 #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

<b>Project:</b> Eddy County New Mexico			
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

<b>Site:</b> Pickett Draw Section 16 - T25S R29E			
<b>Site Position:</b>		<b>Northing:</b>	411,216.30 ft
<b>From:</b>	Map	<b>Easting:</b>	608,723.00 ft
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	in
		<b>Latitude:</b>	32° 07' 48.218" N
		<b>Longitude:</b>	103° 58' 55.618" W
		<b>Grid Convergence:</b>	0.19 °

<b>Well:</b> Pickett Draw State 16 #1H			
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b> 411,216.30 ft
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b> 608,723.00 ft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b> ft
			<b>Latitude:</b> 32° 07' 48.218" N
			<b>Longitude:</b> 103° 58' 55.618" W
			<b>Ground Level:</b> 6,300.01 ft

<b>Wellbore:</b> Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	12/13/2006	0.00	0.00	0

<b>Design:</b> Plan #2			
<b>Audit Notes:</b>			
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b> 0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)
	0.00	0.00	0.00
			<b>Direction</b> (°)
			322.06

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate ("/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	359.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,685.54	0.00	359.63	4,685.54	0.00	0.00	0.00	0.00	0.00	0.00	
5,435.54	90.00	359.63	5,163.00	477.46	-3.04	12.00	12.00	0.00	359.63	
7,357.42	90.00	359.63	5,163.00	2,399.30	-15.30	0.00	0.00	0.00	0.00	PBHL (Pickett Draw 1



# Crescent Directional Drilling Planning Report

<b>Database:</b>	COMPASS_2003.11_CDDSVR	<b>Local Co-ordinate Reference:</b>	Well Pickett Draw State 16 #1H
<b>Company:</b>	Southwestern Energy Production Co.	<b>TVD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Project:</b>	Eddy County New Mexico	<b>MD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Site:</b>	Pickett Draw Section 16 - T25S R29E	<b>North Reference:</b>	Grid
<b>Well:</b>	Pickett Draw State 16 #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

Planned 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)	
0.00	0.00	359.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	359.63	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	359.63	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	359.63	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	359.63	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	359.63	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	359.63	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	359.63	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	359.63	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	359.63	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	359.63	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,100.00	0.00	359.63	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	0.00	359.63	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	0.00	359.63	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,400.00	0.00	359.63	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,500.00	0.00	359.63	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,600.00	0.00	359.63	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,700.00	0.00	359.63	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,800.00	0.00	359.63	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,900.00	0.00	359.63	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	359.63	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,100.00	0.00	359.63	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,200.00	0.00	359.63	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,300.00	0.00	359.63	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,400.00	0.00	359.63	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,500.00	0.00	359.63	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,600.00	0.00	359.63	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,700.00	0.00	359.63	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,800.00	0.00	359.63	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,900.00	0.00	359.63	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,000.00	0.00	359.63	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,100.00	0.00	359.63	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,200.00	0.00	359.63	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,300.00	0.00	359.63	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,400.00	0.00	359.63	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,500.00	0.00	359.63	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,600.00	0.00	359.63	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,700.00	0.00	359.63	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,800.00	0.00	359.63	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,900.00	0.00	359.63	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,000.00	0.00	359.63	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,100.00	0.00	359.63	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,200.00	0.00	359.63	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,300.00	0.00	359.63	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,400.00	0.00	359.63	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,500.00	0.00	359.63	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,600.00	0.00	359.63	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,685.54	0.00	359.63	4,685.54	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Kickoff @ 4685' TVD, 12.00° DLS</b>										
4,700.00	1.74	359.63	4,700.00	0.22	0.00	0.17	12.00	12.00	0.00	
4,800.00	13.74	359.63	4,798.91	13.65	-0.09	10.82	12.00	12.00	0.00	
4,900.00	25.74	359.63	4,892.86	47.36	-0.30	37.54	12.00	12.00	0.00	

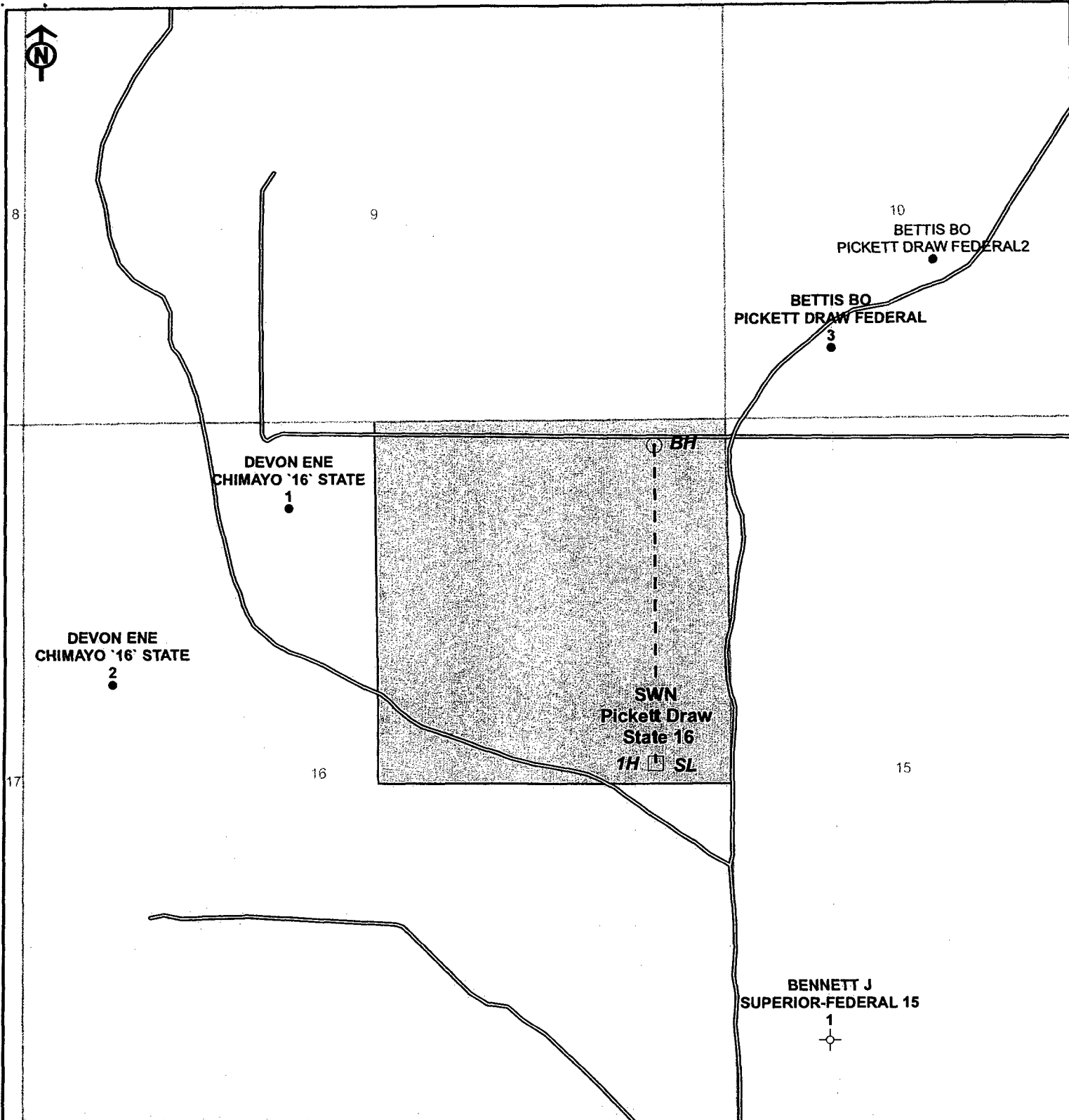
## Crescent Directional Drilling Planning Report

<b>Database:</b>	COMPASS_2003.11_CDDSVR	<b>Local Co-ordinate Reference:</b>	Well Pickett Draw State 16 #1H
<b>Company:</b>	Southwestern Energy Production Co.	<b>TVD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Project:</b>	Eddy County New Mexico	<b>MD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Site:</b>	Pickett Draw Section 16 - T25S R29E	<b>North Reference:</b>	Grid
<b>Well:</b>	Pickett Draw State 16 #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

5,000.00	37.74	359.63	4,977.75	99.86	-0.64	79.15	12.00	12.00	0.00
5,100.00	49.74	359.63	5,049.88	168.87	-1.08	133.85	12.00	12.00	0.00
5,200.00	61.74	359.63	5,106.07	251.36	-1.60	199.23	12.00	12.00	0.00
5,300.00	73.74	359.63	5,143.89	343.74	-2.19	272.44	12.00	12.00	0.00
5,400.00	85.74	359.63	5,161.68	441.95	-2.82	350.29	12.00	12.00	0.00
5,435.54	90.00	359.63	5,163.00	477.46	-3.04	378.43	12.00	12.00	0.00
<b>Landing @ 5435' MD / 5163' TVD, 90°, 359.63° Azi</b>									
5,500.00	90.00	359.63	5,163.00	541.92	-3.46	429.52	0.00	0.00	0.00
5,600.00	90.00	359.63	5,163.00	641.92	-4.09	508.78	0.00	0.00	0.00
5,700.00	90.00	359.63	5,163.00	741.91	-4.73	588.04	0.00	0.00	0.00
5,800.00	90.00	359.63	5,163.00	841.91	-5.37	667.30	0.00	0.00	0.00
5,900.00	90.00	359.63	5,163.00	941.91	-6.01	746.55	0.00	0.00	0.00
6,000.00	90.00	359.63	5,163.00	1,041.91	-6.64	825.81	0.00	0.00	0.00
6,100.00	90.00	359.63	5,163.00	1,141.91	-7.28	905.07	0.00	0.00	0.00
6,200.00	90.00	359.63	5,163.00	1,241.90	-7.92	984.33	0.00	0.00	0.00
6,300.00	90.00	359.63	5,163.00	1,341.90	-8.56	1,063.58	0.00	0.00	0.00
6,400.00	90.00	359.63	5,163.00	1,441.90	-9.19	1,142.84	0.00	0.00	0.00
6,500.00	90.00	359.63	5,163.00	1,541.90	-9.83	1,222.10	0.00	0.00	0.00
6,600.00	90.00	359.63	5,163.00	1,641.90	-10.47	1,301.36	0.00	0.00	0.00
6,700.00	90.00	359.63	5,163.00	1,741.89	-11.11	1,380.62	0.00	0.00	0.00
6,800.00	90.00	359.63	5,163.00	1,841.89	-11.75	1,459.87	0.00	0.00	0.00
6,900.00	90.00	359.63	5,163.00	1,941.89	-12.38	1,539.13	0.00	0.00	0.00
7,000.00	90.00	359.63	5,163.00	2,041.89	-13.02	1,618.39	0.00	0.00	0.00
7,100.00	90.00	359.63	5,163.00	2,141.89	-13.66	1,697.65	0.00	0.00	0.00
7,200.00	90.00	359.63	5,163.00	2,241.88	-14.30	1,776.91	0.00	0.00	0.00
7,300.00	90.00	359.63	5,163.00	2,341.88	-14.93	1,856.16	0.00	0.00	0.00
7,357.42	90.00	359.63	5,163.00	2,399.30	-15.30	1,901.67	0.00	0.00	0.00
<b>TD @ 7357' MD / 5163' TVD - PBHL (Pickett Draw 16 1H)</b>									

Targets										
Target Name	hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Nothing	Easting	Latitude	Longitude
Shape		(°)	(°)	(ft)	ft	ft	(ft)	(ft)		
Section 16 (Eddy Co N		0.00	0.00	0.00	-40.00	-2,110.00	411,176.30	606,613.00	32° 07' 47.890" N	103° 59' 20.158" W
- plan misses by 2110.38ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)										
- Rectangle (sides W5,280.00 H5,280.00 D0.00)										
PBHL (Pickett Draw 16		0.00	0.00	5,163.00	2,399.30	-15.30	413,615.60	608,707.70	32° 08' 11.963" N	103° 58' 55.705" W
- plan misses by 1921.89ft at 5435.53ft MD (5163.00 TVD, 477.45 N, -3.04 E)										
- Point										


Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S	+E/-W	
		(ft)	(ft)	
4,685.54	4,685.54	0.00	0.00	Kickoff @ 4685' TVD, 12.00° DLS
5,435.54	5,163.00	477.46	-3.04	Landing @ 5435' MD / 5163' TVD, 90°, 359.63° Azi
7,357.42	5,163.00	2,399.30	-15.30	TD @ 7357' MD / 5163' TVD



**Pickett Draw State 16**

**Proposed Well Type**

- ⊙ BH
- SL
- SWN Lease



**SOUTHWESTERN ENERGY COMPANY**

Pickett Draw State 16 1H

Interp. By:	Date: 9-11-2007
(Z:\GIS\Alan-Grimmsley\New_Mexico\Eddy\Pickett_Draw_State_16\Pickett_Draw.mxd)	
Projection: New Mexico East - Nad 27	Scale: 1" = 2,000'

State of New Mexico

Energy, Minerals and Natural Resources Department

DISTRICT I

1625 N. FRENCH DR., BOBBS, NM 88240

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
Property Code	Property Name <b>PICKETT DRAW STATE 16</b>	Well Number 1H
OGRID No.	Operator Name <b>SOUTHWESTERN ENERGY PRODUCTION COMPANY</b>	Elevation 3005'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	16	25-S	29-E		2600	NORTH	530	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
A	16	25-S	29-E		200	NORTH	530	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
80			

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 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.*

Signature: James Alan Grimsley Date: 1/10/07  
Printed Name: JAMES ALAN GRIMSLEY

---

**SURVEYOR CERTIFICATION**

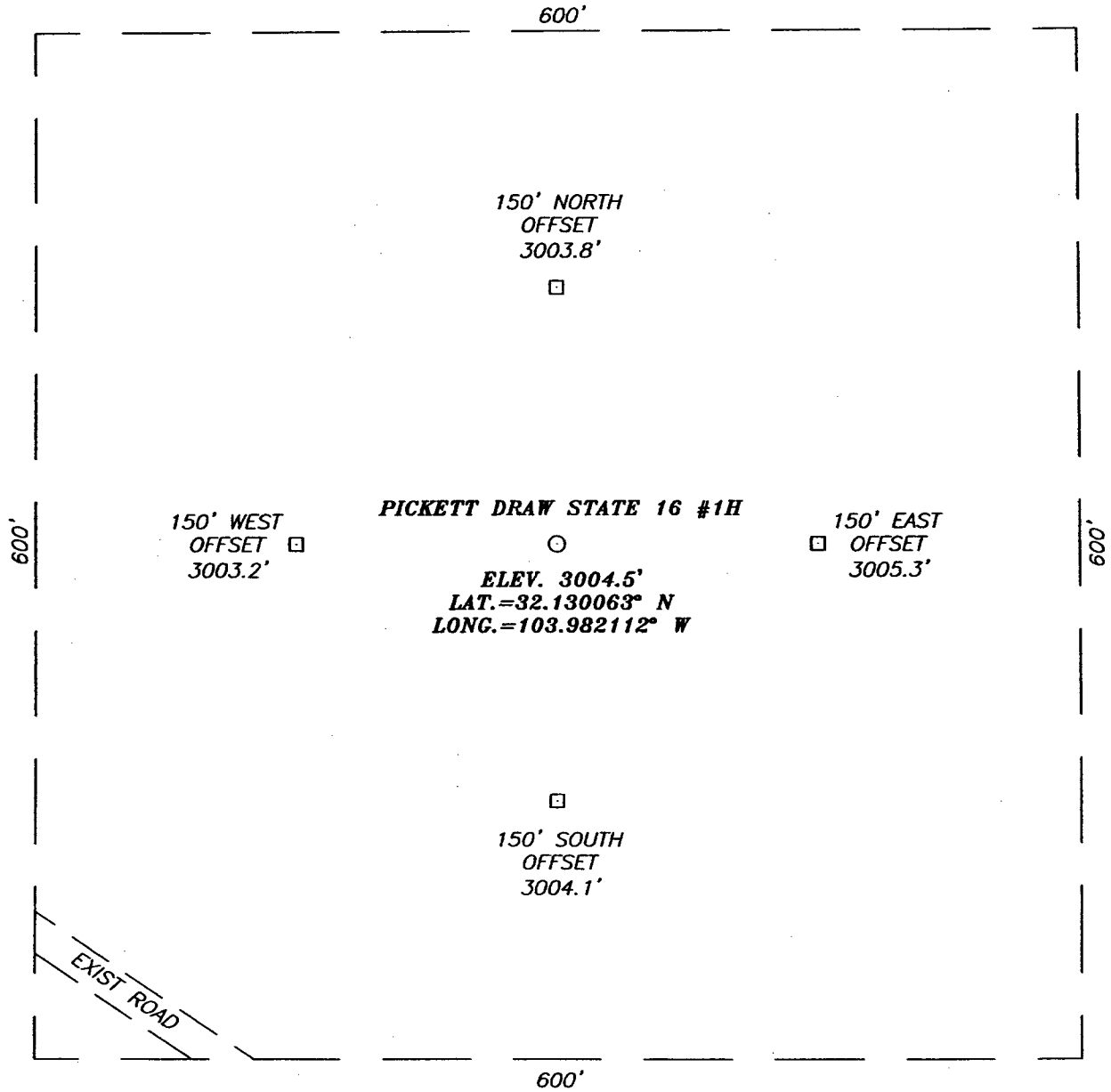
*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.*

Date Surveyed: DECEMBER 18, 2006

Signature & Seal of Professional Surveyor: Gary Edson 1/2/07  
06.11.1997

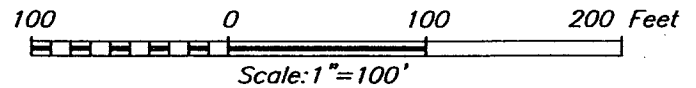
Certificate No. GARY EDSON 12041  
CHAD HARCROW 1777

**SECTION 16, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,**  
 EDDY COUNTY, NEW MEXICO



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF U.S. HWY. #285 AND CO. RD. #725 (WHITEHORN RD.), GO NORTHEAST ON CO. RD. #725 APPROX. 5.5 MILES. TURN LEFT AND GO NORTH APPROX. 3.5 MILES. TURN LEFT AND GO NORTHWEST APPROX. 0.1 MILE. THIS LOCATION IS APPROX. 300 FEET NORTH.



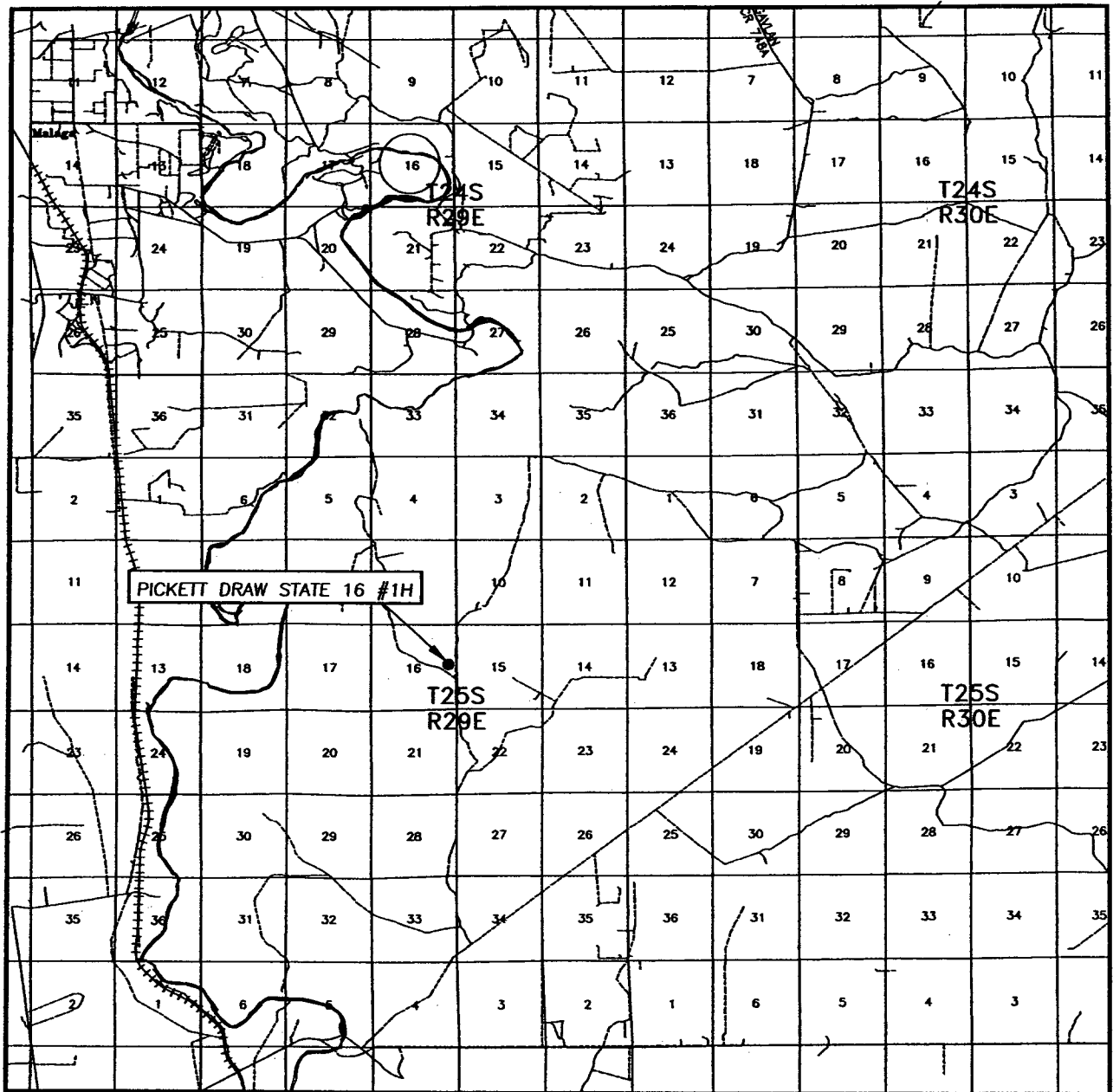
**SOUTHWESTERN ENERGY PRODUCTION COMPANY**

PICKETT DRAW STATE 16 #1H  
 LOCATED 2600 FEET FROM THE NORTH LINE  
 AND 530 FEET FROM THE EAST LINE OF SECTION 16,  
 TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.

PROVIDING SURVEYING SERVICES  
 SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 393-3117


Survey Date: 12/18/06		Sheet 1 of 1 Sheets	
W.O. Number: 06.11.1997	Dr By: J.R.	Rev 1:N/A	
Date: 12/28/06	Disk: CD#6	06111997	Scale: 1"=100'

# VICINITY MAP



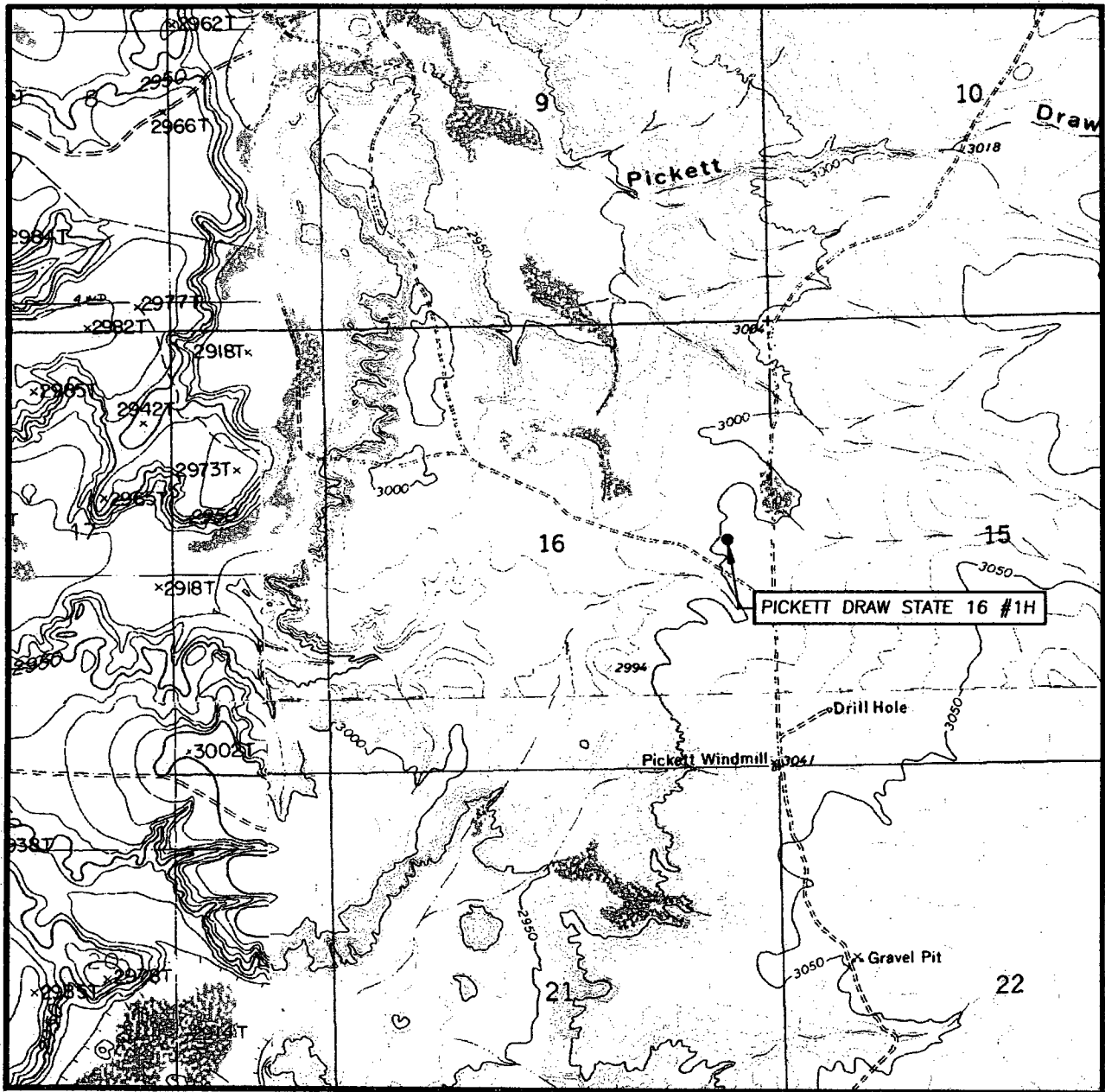
SCALE: 1" = 2 MILES

SEC. 16 TWP. 25-S RGE. 29-E  
 SURVEY N.M.P.M.  
 COUNTY EDDY STATE NEW MEXICO  
 DESCRIPTION 2600' FNL & 530' FEL  
 ELEVATION 3005'  
 OPERATOR SOUTHWESTERN ENERGY  
PRODUCTION COMPANY  
 LEASE PICKETT DRAW STATE 16



**PROVIDING SURVEYING SERVICES**  
 SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 393-3117

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

SEC. 16 TWP. 25-S RGE. 29-E

SURVEY \_\_\_\_\_ N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 2600' FNL & 530' FEL

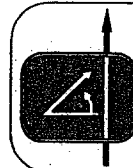
ELEVATION 3005'

OPERATOR SOUTHWESTERN ENERGY PRODUCTION COMPANY

LEASE PICKET DRAW STATE 16

U.S.G.S. TOPOGRAPHIC MAP  
PIERCE CANYON, N.M.

CONTOUR INTERVAL:  
PIERCE CANYON, N.M. - 10'  
ROSS RANCH, N.M. - 10'  
RED BLUFF, N.M. - 10'  
MALAGA, N.M. - 10'



PROVIDING SURVEYING SERVICES  
SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
412 N. DAL PASO  
HOBBS, N.M. 88240  
(505) 393-3117



# DRILLING PROGNOSIS

## Southwestern Energy Production Company

**WELL NAME:** Pickett Draw 16 #1-H

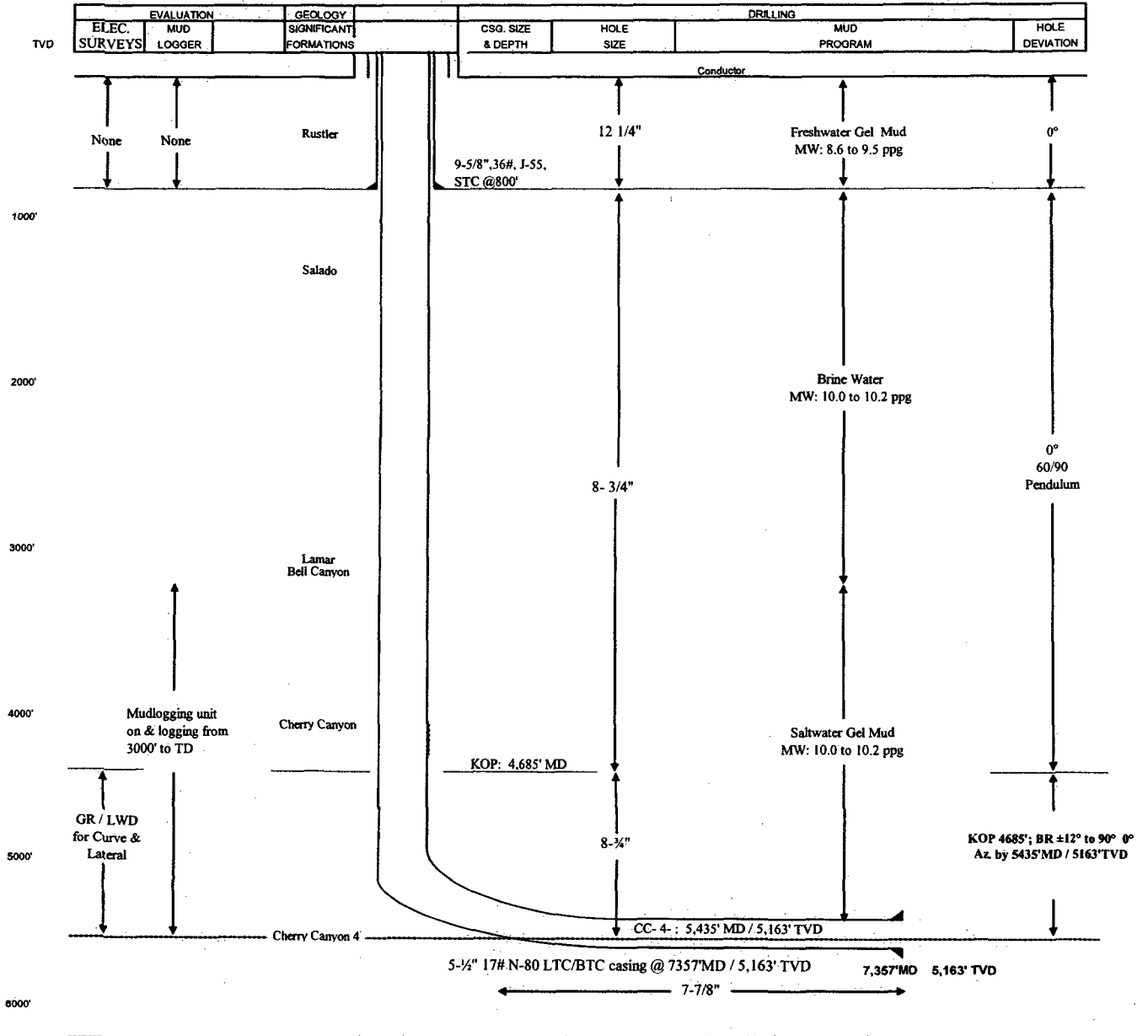
**AFE NO.**

**LOCATION:** Sec. 16, T25S, R29E  
 Eddy County NM  
 SL: 2600' FNL 530' FEL  
 BHL: 200' FNL 530' FEL  
 TGT ENTRY PT: 2123' FNL 530' FEL

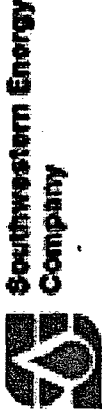
**PROSPECT:** West Corral Canyon

**OBJECTIVE:** Cherry Canyon Sd, CC-4

**EST. ELEVATION:** GL 3005'; RKB ±16"







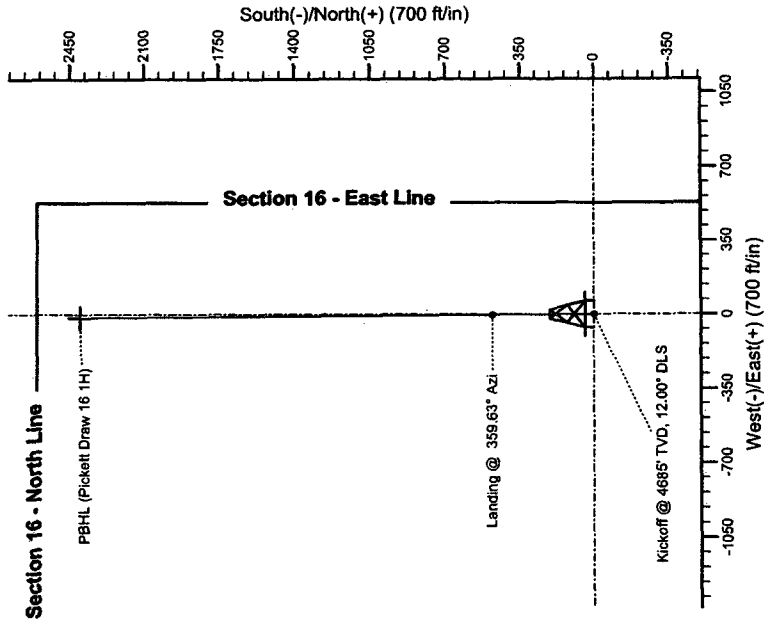
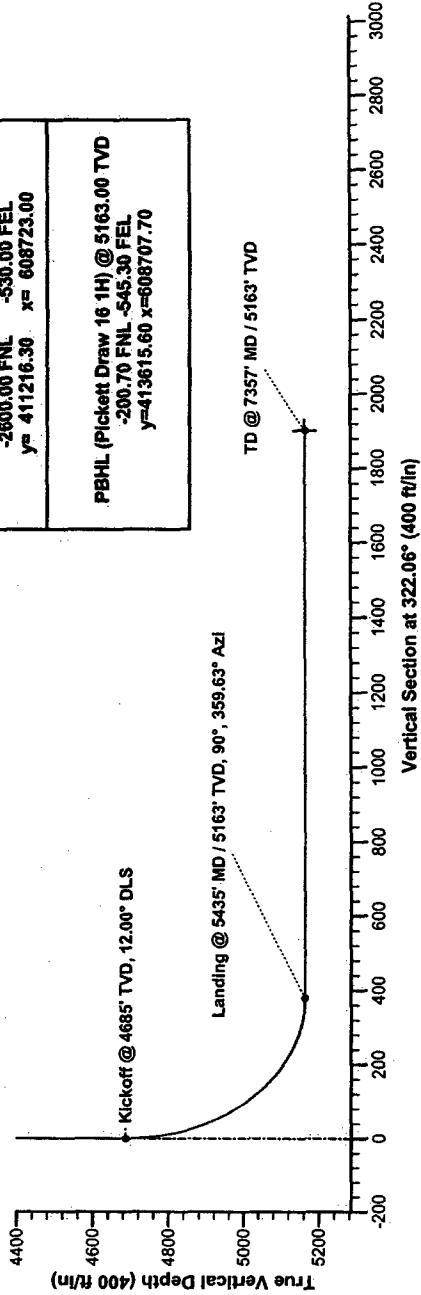
Southwestern Energy Production Co.  
 Pickett Draw State 16 #1H  
 Pickett Draw Section 16 - T25S R29E  
 Eddy County New Mexico  
 Plan #2



Surface Location	Ground Elevation: 6300.01 estimated rfb @ 6325.00ft (rig not specified)			
+N/-S	+E/-W	Northing	Eastng	Slot
0.00	0.00	411216.30	608723.00	32°7'48.218N 103°58'55.618W

TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Section 16 (Eddy Co NM)	0.00	-2110.00	-40.00	411176.30	32°7'47.89N	Rectangle (5280.00x5280.00)
PBHL (Pickett Draw 16 1H)	5163.00	2399.30	-15.30	413615.60	32°8'11.963N	Point

Surface Location:
-2600.00 FNL -530.00 FEL
y= 411216.30 x= 608723.00
PBHL (Pickett Draw 16 1H) @ 5163.00 TVD
-200.70 FNL -545.30 FEL
y=413615.60 x=608707.70



SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
1	0.00	0.00	359.63	0.00	0.00	0.00	0.00	0.00	0.00
2	4685.54	0.00	359.63	4685.54	0.00	0.00	0.00	0.00	0.00
3	5435.54	90.00	359.63	5163.00	477.46	-3.04	12.00	359.63	378.43
4	7357.42	90.00	359.63	5163.00	2399.30	-15.30	0.00	1901.67	PBHL (Pickett Draw 16 1H)

# **Southwestern Energy Production Co.**

**Eddy County New Mexico  
Pickett Draw Section 16 - T25S R29E  
Pickett Draw State 16 #1H  
Wellbore #1**

**Plan: Plan #2**

## **Standard Planning Report**

**11 January, 2007**

# Crescent Directional Drilling Planning Report

<b>Database:</b>	COMPASS_2003.11_CDDSVR	<b>Local Co-ordinate Reference:</b>	Well Pickett Draw State 16 #1H
<b>Company:</b>	Southwestern Energy Production Co.	<b>TVD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Project:</b>	Eddy County New Mexico	<b>MD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Site:</b>	Pickett Draw Section 16 - T25S R29E	<b>North Reference:</b>	Grid
<b>Well:</b>	Pickett Draw State 16 #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore Design:</b>	Wellbore #1 Plan #2		

<b>Project:</b>	Eddy County New Mexico		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

<b>Site:</b>	Pickett Draw Section 16 - T25S R29E				
<b>Site Position:</b>	<b>Northing:</b>	411,216.30 ft	<b>Latitude:</b>	32° 07' 48.218" N	
<b>From:</b> Map	<b>Easting:</b>	608,723.00 ft	<b>Longitude:</b>	103° 58' 55.618" W	
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	in	<b>Grid Convergence:</b>	0.19 °

<b>Well:</b>	Pickett Draw State 16 #1H					
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	411,216.30 ft	<b>Latitude:</b>	32° 07' 48.218" N
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	608,723.00 ft	<b>Longitude:</b>	103° 58' 55.618" W
<b>Position Uncertainty</b>	0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	6,300.01 ft	

<b>Wellbore:</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
	User Defined	12/13/2006	( <sup>o</sup> )	( <sup>o</sup> )	(nT)
			0.00	0.00	0

<b>Design:</b>	Plan #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	( <sup>o</sup> )
	0.00	0.00	0.00	322.06

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination ( <sup>o</sup> )	Azimuth ( <sup>o</sup> )	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate ( <sup>o</sup> /100ft)	Build Rate ( <sup>o</sup> /100ft)	Turn Rate ( <sup>o</sup> /100ft)	TFO ( <sup>o</sup> )	Target
0.00	0.00	359.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,685.54	0.00	359.63	4,685.54	0.00	0.00	0.00	0.00	0.00	0.00	
5,435.54	90.00	359.63	5,163.00	477.46	-3.04	12.00	12.00	0.00	359.63	
7,357.42	90.00	359.63	5,163.00	2,399.30	-15.30	0.00	0.00	0.00	0.00	PBHL (Pickett Draw 1)

# Crescent Directional Drilling Planning Report

<b>Database:</b>	COMPASS_2003.11_CDDSVR	<b>Local Co-ordinate Reference:</b>	Well Pickett Draw State 16 #1H
<b>Company:</b>	Southwestern Energy Production Co.	<b>TVD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Project:</b>	Eddy County New Mexico	<b>MD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Site:</b>	Pickett Draw Section 16 - T25S R29E	<b>North Reference:</b>	Grid
<b>Well:</b>	Pickett Draw State 16 #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

Planned 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)	
0.00	0.00	359.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	359.63	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	359.63	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	359.63	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	359.63	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	359.63	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	359.63	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	359.63	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	359.63	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	359.63	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	359.63	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,100.00	0.00	359.63	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	0.00	359.63	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	0.00	359.63	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,400.00	0.00	359.63	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,500.00	0.00	359.63	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,600.00	0.00	359.63	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,700.00	0.00	359.63	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,800.00	0.00	359.63	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,900.00	0.00	359.63	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	359.63	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,100.00	0.00	359.63	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,200.00	0.00	359.63	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,300.00	0.00	359.63	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,400.00	0.00	359.63	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,500.00	0.00	359.63	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,600.00	0.00	359.63	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,700.00	0.00	359.63	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,800.00	0.00	359.63	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,900.00	0.00	359.63	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,000.00	0.00	359.63	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,100.00	0.00	359.63	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,200.00	0.00	359.63	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,300.00	0.00	359.63	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,400.00	0.00	359.63	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,500.00	0.00	359.63	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,600.00	0.00	359.63	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,700.00	0.00	359.63	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,800.00	0.00	359.63	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,900.00	0.00	359.63	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,000.00	0.00	359.63	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,100.00	0.00	359.63	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,200.00	0.00	359.63	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,300.00	0.00	359.63	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,400.00	0.00	359.63	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,500.00	0.00	359.63	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,600.00	0.00	359.63	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,685.54	0.00	359.63	4,685.54	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Kickoff @ 4685' TVD, 12.00° DLS</b>										
4,700.00	1.74	359.63	4,700.00	0.22	0.00	0.17	12.00	12.00	0.00	
4,800.00	13.74	359.63	4,798.91	13.65	-0.09	10.82	12.00	12.00	0.00	
4,900.00	25.74	359.63	4,892.86	47.36	-0.30	37.54	12.00	12.00	0.00	

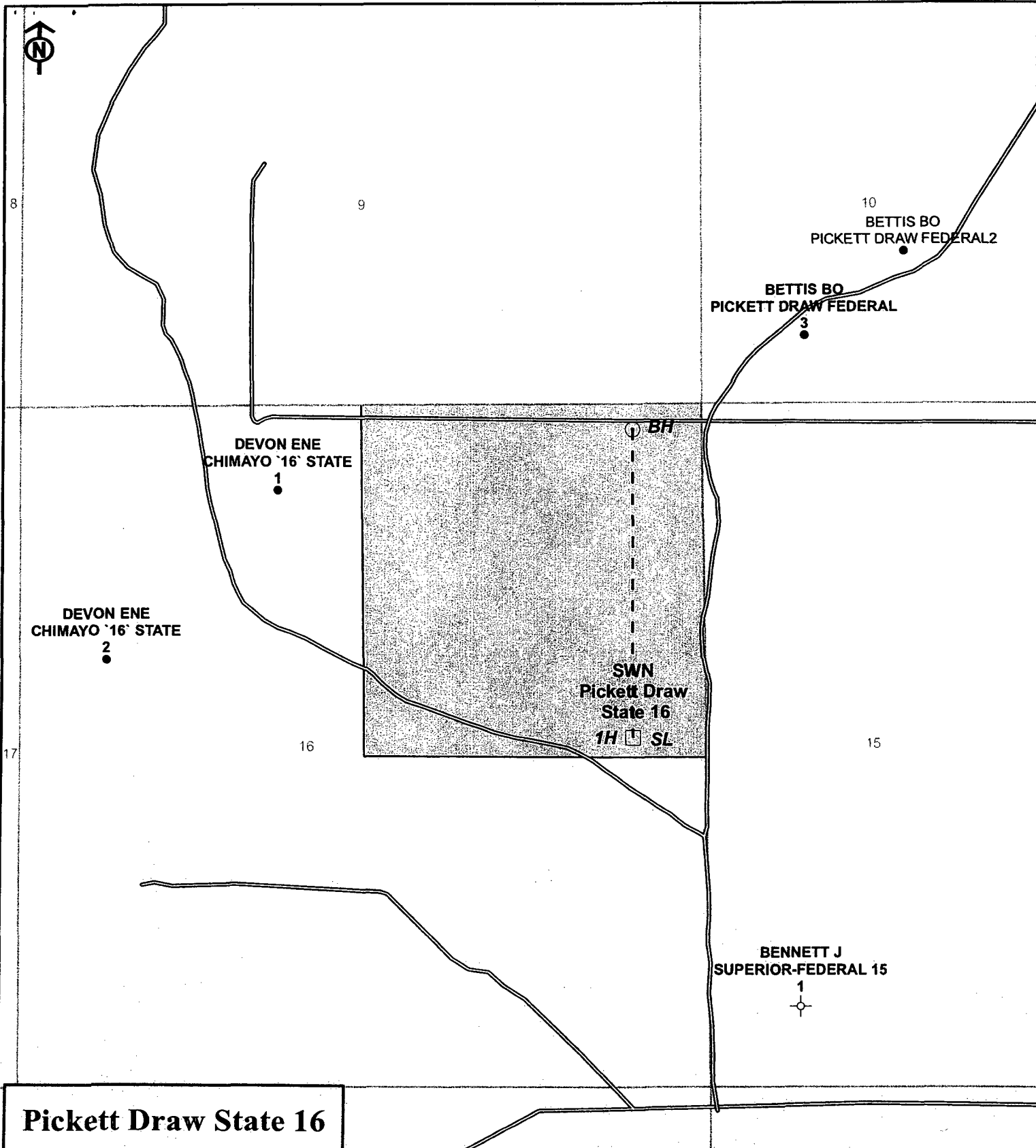
# Crescent Directional Drilling Planning Report

<b>Database:</b>	COMPASS_2003.11_CDDSVR	<b>Local Co-ordinate Reference:</b>	Well Pickett Draw State 16 #1H
<b>Company:</b>	Southwestern Energy Production Co.	<b>TVD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Project:</b>	Eddy County New Mexico	<b>MD Reference:</b>	estimated rkb @ 6325.00ft (rig not specified)
<b>Site:</b>	Pickett Draw Section 16 - T25S R29E	<b>North Reference:</b>	Grid
<b>Well:</b>	Pickett Draw State 16 #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore Design:</b>	Wellbore #1 Plan #2		

5,000.00	37.74	359.63	4,977.75	99.86	-0.64	79.15	12.00	12.00	0.00
5,100.00	49.74	359.63	5,049.88	168.87	-1.08	133.85	12.00	12.00	0.00
5,200.00	61.74	359.63	5,106.07	251.36	-1.60	199.23	12.00	12.00	0.00
5,300.00	73.74	359.63	5,143.89	343.74	-2.19	272.44	12.00	12.00	0.00
5,400.00	85.74	359.63	5,161.68	441.95	-2.82	350.29	12.00	12.00	0.00
5,435.54	90.00	359.63	5,163.00	477.46	-3.04	378.43	12.00	12.00	0.00
<b>Landing @ 5435' MD / 5163' TVD, 90°, 359.63° Azi</b>									
5,500.00	90.00	359.63	5,163.00	541.92	-3.46	429.52	0.00	0.00	0.00
5,600.00	90.00	359.63	5,163.00	641.92	-4.09	508.78	0.00	0.00	0.00
5,700.00	90.00	359.63	5,163.00	741.91	-4.73	588.04	0.00	0.00	0.00
5,800.00	90.00	359.63	5,163.00	841.91	-5.37	667.30	0.00	0.00	0.00
5,900.00	90.00	359.63	5,163.00	941.91	-6.01	746.55	0.00	0.00	0.00
6,000.00	90.00	359.63	5,163.00	1,041.91	-6.64	825.81	0.00	0.00	0.00
6,100.00	90.00	359.63	5,163.00	1,141.91	-7.28	905.07	0.00	0.00	0.00
6,200.00	90.00	359.63	5,163.00	1,241.90	-7.92	984.33	0.00	0.00	0.00
6,300.00	90.00	359.63	5,163.00	1,341.90	-8.56	1,063.58	0.00	0.00	0.00
6,400.00	90.00	359.63	5,163.00	1,441.90	-9.19	1,142.84	0.00	0.00	0.00
6,500.00	90.00	359.63	5,163.00	1,541.90	-9.83	1,222.10	0.00	0.00	0.00
6,600.00	90.00	359.63	5,163.00	1,641.90	-10.47	1,301.36	0.00	0.00	0.00
6,700.00	90.00	359.63	5,163.00	1,741.89	-11.11	1,380.62	0.00	0.00	0.00
6,800.00	90.00	359.63	5,163.00	1,841.89	-11.75	1,459.87	0.00	0.00	0.00
6,900.00	90.00	359.63	5,163.00	1,941.89	-12.38	1,539.13	0.00	0.00	0.00
7,000.00	90.00	359.63	5,163.00	2,041.89	-13.02	1,618.39	0.00	0.00	0.00
7,100.00	90.00	359.63	5,163.00	2,141.89	-13.66	1,697.65	0.00	0.00	0.00
7,200.00	90.00	359.63	5,163.00	2,241.88	-14.30	1,776.91	0.00	0.00	0.00
7,300.00	90.00	359.63	5,163.00	2,341.88	-14.93	1,856.16	0.00	0.00	0.00
7,357.42	90.00	359.63	5,163.00	2,399.30	-15.30	1,901.67	0.00	0.00	0.00
<b>TD @ 7357' MD / 5163' TVD - PBHL (Pickett Draw 16 1H)</b>									



Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/S	+E/W	Northing	Easting	Latitude	Longitude
hit/miss target	(°)	(°)	(ft)	ft	ft	(ft)	(ft)		
Section 16 (Eddy Co N	0.00	0.00	0.00	-40.00	-2,110.00	411,176.30	606,613.00	32° 07' 47.890" N	103° 59' 20.158" W
- plan misses by 2110.38ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Rectangle (sides W5,280.00 H5,280.00 D0.00)									
PBHL (Pickett Draw 16	0.00	0.00	5,163.00	2,399.30	-15.30	413,615.60	608,707.70	32° 08' 11.963" N	103° 58' 55.705" W
- plan misses by 1921.89ft at 5435.53ft MD (5163.00 TVD, 477.45 N, -3.04 E)									
- Point									

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/S	+E/W	
		(ft)	(ft)	
4,685.54	4,685.54	0.00	0.00	Kickoff @ 4685' TVD, 12.00° DLS
5,435.54	5,163.00	477.46	-3.04	Landing @ 5435' MD / 5163' TVD, 90°, 359.63° Azi
7,357.42	5,163.00	2,399.30	-15.30	TD @ 7357' MD / 5163' TVD



**Pickett Draw State 16**

**Proposed Well Type**

-  BH
-  SL
-  SWN Lease



**SOUTHWESTERN ENERGY COMPANY**

**Pickett Draw State 16 1H**

Interp. By:	Date: 9-11-2007
(Z:\GIS\Alan-Grimsley\New_Mexico\Eddy\Pickett_Draw_State_16\Pickett_Draw.mxd)	
Projection: New Mexico East - Nad 27	Scale: 1" = 2,000'



**Southwestern Energy  
Company**

2350 N. Sam Houston Parkway East  
Suite 300  
Houston, Texas 77032  
(281) 618-4700 FAX: (281) 618-4818

January 12, 2006

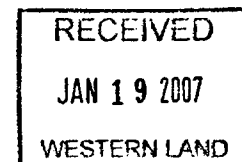
**Via Certified Mail**

**Receipt # 7006 2150 0002 1398 0800**

Devon Energy Corporation  
20 N. Broadway Ave  
Suite 1500  
Oklahoma City, Oklahoma 73102-8260

Attn: Mr. Ken Gray

Re: Pickett Draw 16 #1-H  
Section 16 T25S, R29E  
Corral Canyon West Prospect  
Eddy County, New Mexico



This is to advise that Southwestern Energy Production Company ("SWN") is preparing to drill the above referenced well. The surface location for this horizontal well is 2600 feet FNL & 530 feet FEL which is twenty (40) feet from the lease boundary. A waiver of the distance requirements from the offset lease owner will facilitate the approval process for the non-standard location and APD permit.

The well will be drilled to test the Cherry Canyon formation (West Corral Canyon, Delaware Pool). The pool is spaced on 40 acres, with wells to be located no closer than 330 feet to a quarter-quarter section line and for the subject well an exception to this 330' requirement is requested.

The proposed well, Pickett Draw 16 #1-H, will be directionally drilled from an unorthodox surface location 2,600 feet from the North Line and 530 feet from the East Line of Section 16 to a bottom hole location 200 feet from the North Line and 530 feet from the East line. A survey plat that illustrates the Producing and Project Areas is attached.

The well plan consists of drilling a vertical hole to the KOP (kick off point) at 4,685' MD/TVD. The hole will be directional drilled utilizing a build rate of 12°/100' to penetrate the Cherry Canyon 4 Sand at 5,435' MD / 5,163' TVD at 90° of angle. The Cherry Canyon 4 will be intersected at 2,123' FNL and 530' FEL of Section 16 T25S R29E. The well will continue laterally (90°) for ±2399' of vertical displacement. The proposed BHL will be 200' FNL & 530' FEL of section 16. The top of the Delaware will be intersected at 3045' MD/TVD at 2,600' FNL and 530' FEL of Section 16. A drilling prognosis, directional plot, and proposed survey report are attached.

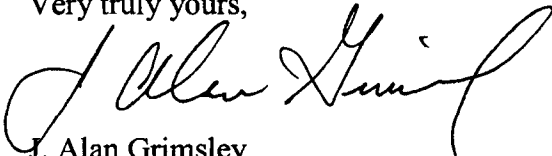
Production casing will be run and cemented to TD. The Cherry Canyon 4 Sand will be selectively perforated, with all perforations being placed in accordance of a standard location of Section 16 T25S R29E (greater than 330' from any lease line).

Please indicate your waiver of the distance requirements for the referenced well in the space provided below, then return one copy hereof to the attention of the undersigned via fax at 281-618-4758.

Thank you for your kind assistance on this matter and your prompt attention will be greatly appreciated..

If you have any questions, I can be reached at 281-618-4068 or by email at alan\_grimsley@swn.com.

Very truly yours,



J. Alan Grimsley  
Southwestern Energy Production Co.

Agreed to and accepted this 22 day of JANUARY, 2007

~~Devon Energy Corporation~~

DEVON ENERGY PRODUCTION COMPANY, L.P.

(Individual Name or Company Name)

By: Ken Gray

Name: KEN GRAY

Title: SR. LAND ADVISOR