

RECEIVED

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MAY 18 2012

APPLICATION FOR PERMIT TO DRILL OR REENTER
Field Office
Bureau of Land Management

1a. Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator

WPX Energy Production, LLC

3a. Address

P.O. Box 640 Aztec, NM 87410

3b. Phone No. (include area code)

(505) 333-1808

4. Location of Well (Report location clearly and in accordance with any State requirements. *)

At surface 1869' FSL & 1238' FWL, sec 4, T31N, R6W

At proposed prod. zone 1990' FSL & 688' FWL, sec 5, T31N, R6W

14. Distance in miles and direction from nearest town or post office*

approximately 30 miles northeast of Blanco, New Mexico

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any) 688'

16. No. of Acres in lease

2561.86

17. Spacing Unit dedicated to this well

West Rosa Unit Project Area
24,118.76 Acres (R-13457)

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft. 10'

19. Proposed Depth

7011 TVD / 12894' MD

20. BLM/BIA Bond No. on file

UTB000178

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

6491' GR This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

22. Approximate date work will start*

April 1, 2012

23. Estimated duration

1 month

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature

Title

Name (Printed/Typed)

Larry Higgins

Date

5/18/12

Permit Supervisor

Approved by (Signature)

Title

Name (Printed/Typed)

Office

Date

1/16/13

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on reverse)

WPX Energy Production, LLC, proposes to develop the Basin Mancos formation at the above described location in accordance with the attached drilling and surface use plans.

The well pad surface is under jurisdiction of the BLM.

This location has been archaeologically surveyed by La Plata Archaeological Consultants. Copies of their report have been submitted directly to the BLM.

No new access road is needed.

Hold C104

for Directional Survey
and "As Drilled" plat

A COMPLETE C-144 MUST BE SUBMITTED TO AND
APPROVED BY THE NMOCD FOR: A PIT, CLOSED
LOOP SYSTEM, BELOW GRADE TANK, OR
PROPOSED ALTERNATIVE METHOD, PURSUANT
TO NMOCD PART 19.15.17, PRIOR TO THE USE OR
CONSTRUCTION OF THE ABOVE APPLICATIONS.

BLM'S APPROVAL OR ACCEPTANCE OF THIS
ACTION DOES NOT RELIEVE THE LESSEE AND
OPERATOR FROM OBTAINING ANY OTHER
AUTHORIZATION REQUIRED FOR OPERATIONS
ON FEDERAL AND INDIAN LANDS

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

NMOCD

JAN 25 2013 CA

APD Certification:

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 18th day of May, 2012.

Name Larry Higgins

Position Title Permit Supervisor

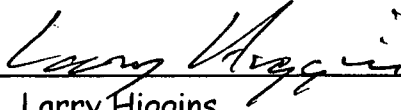
Address P.O. Box 640, Aztec, NM 87410

Telephone (505) 333-1808

Field representative (if not above signatory) _____

E-mail larry.higgins@wpxenergy.com

Date: 5/18/12



Larry Higgins
Permit Suprv.
WPX Energy Production, LLC

District I
1625 N. French Drive, Hobbs, NM, 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First Street, Artesia, NM, 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM, 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Drive, Santa Fe, NM, 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505

☐ AMENDED REPORT

RCVD JAN 22 '13
OIL CONS. DIV.

WELL LOCATION AND ACREAGE DEDICATION PLAT

DIST. 3

*API Number 30-045-35378		*Pool Code 97232	*Pool Name BASIN MANCOS
*Property Code 39658	*Property Name ROSA UNIT 03		*Well Number 007H
*GRID No. 120782	*Operator Name WPX ENERGY PRODUCTION		*Elevation 6492'

10. Surface Location

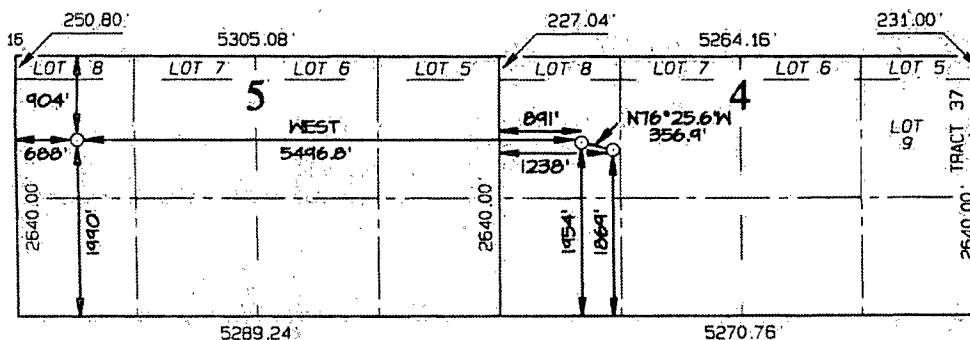
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	4	31N	6W		1869	SOUTH	1238	WEST	SAN JUAN

11. 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
L	5	31N	6W		1990	SOUTH	688	WEST	SAN JUAN

*Dedicated Acres	Sec 5 - All, 350.16 acres	*Joint or Infill	*Consolidation Code	*Order No.	R-13068 (54,209.49 acres)
	Sec 4 - All less tract 37, 343.23 acres				

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



17. OPERATOR CERTIFICATION

I hereby certify that the information contained 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 a mineral or working interest or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: Larry Higgins Date: 1/22/13
Printed Name: Larry Higgins
E-mail Address: larry.higgins@wpxenergy.com

18. 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.

Survey Date: JANUARY 13, 2012
Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

END OF LATERAL
1990' FSL 688' FWL
SECTION 5, T31N, R6W
LAT: 36.92673°N
LONG: 107.49231°W
DATUM: NAD1927

POINT OF ENTRY
1954' FSL 891' FWL
SECTION 4, T31N, R6W
LAT: 36.92668°N
LONG: 107.47351°W
DATUM: NAD1927

SURFACE LOCATION
1869' FSL 1238' FWL
SECTION 4, T31N, R6W
LAT: 36.92644°N
LONG: 107.47232°W
DATUM: NAD1927

THE HORIZONTAL LATERAL REPRESENTED ON THIS PLAT CORRESPONDS TO THE BLACK SEGMENT WHICH VARIES IN VERTICAL DEPTH.



WPX Energy Production

Operations Plan

(Note: This procedure will be adjusted on site based upon actual conditions)

DATE: 01/03/2012 **FIELD:** Basin Mancos
WELL NAME: Rosa Unit 03 #007H **SURFACE:** BLM
BH LOCATION: NWSW Sec 5-31N-6W San Juan, NM **MINERALS:** FED
ELEVATION: 6,491' GR **LEASE #** SF-078772
MEASURED DEPTH: 12,894'

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

Name	TVD	MD	Name	TVD	MD
Ojo Alamo	2,420	2,421	Point Lookout	5,755	5,759
Kirtland	2,552	2,553	Mancos	6,150	6,154
Fruitland	3,050	3,052	Kickoff Point	6,634	6,638
Pictured Cliffs	3,254	3,256	Target Top	6,886	6,904
Lewis	3,660	3,663	Landing Point	7,111	7,397
Cliff House	5,460	5,464	Target Base	7,161	
Menefee	5,500	5,504			
			TD	7,011	12,894

B. MUD LOGGING PROGRAM: Mudlogger on location from intermediate csg to TD.

C. LOGGING PROGRAM: LWD GR from surface csg to TD, LWD resistivity from intermediate csg to TD.

D. NATURAL GAUGES: Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

II. DRILLING

A. MUD PROGRAM: LSND to intermediate casing point. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses. Use synthetic base invert emulsion fluid from intermediate casing point to TD

B. BOP TESTING: While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 5000 psi, so the BOPE will be tested to **250 psi (Low) for 5 minutes** and **5000 psi (High) for 10 minutes**. Pressure test surface casing to **1500psi for 30 minutes** and intermediate casing to **1500 psi for 30 minutes**. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. **All tests and inspections will be recorded in the tour book as to time and results.**

III. MATERIALS**A. CASING PROGRAM:**

CASING TYPE	OH SIZE (IN)	DEPTH (MD) (FT)	CASING SIZE (IN)	WEIGHT(LB)	GRADE
Surface	12 1/4	320	9 5/8	36	K-55
Intermediate	8 3/4	6,354	7	23	N-80
Longstring	6 1/4	12,894	4 1/2	11.6	P-110

B. FLOAT EQUIPMENT:

1. **SURFACE CASING:** 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.
2. **INTERMEDIATE CASING:** 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) Turbulent centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. (**NTL-FRA 90-1**). Place 1 Standard Centralizer on the 2 joints above and below the Inflatable external casing packer and stage collar at +/-4,900'.
3. **PRODUCTION CASING:** 4-1/2" whirlir type cement nose guide shoe with a latch collar on top of 20' bottom joint. Place marker joint above 5,400'. Run one spiral type solid body centralizer on every joint in lateral and around curve.

C. CEMENTING:

(Note: Volumes may be adjusted onsite due to actual conditions)

1. **SURFACE:** 10 bbl F. Water spacer + 190sx (222.3 cu.ft.) of "Premium Cement" + 2% Calcium Chloride Cement + 0.125# pps of Poly-E-Flake (Yield = 1.17 cu-ft/sk, / Weight 15.8 #/gal. / Vol 222.3 cu-ft / 39.58 bbls.). The 100% excess should circulate cement to the surface. (Total Volume 222.3 cu-ft / 39.6 bbls) WOC 12 hours. Test csg to 600psi.
2. **INTERMEDIATE: 2 STAGE CEMENT JOB: STAGE 1:** 20 bbl F. Water spacer + 265 sx 50/50/ Poz Premium + 0.15% CFR-3 + 0.2% Halad R-9 + 5 pps Kol-Seal + 0.125 pps Poly-E-Flake (Yield 1.32 cu-ft/sk / Weight 13.5 ppg / Vol 350 cu-ft / 62.3 bbls). **STAGE 2:** 10 bbl F. Water spacer + 634 sx Halliburton Light Premium + 0.2% HR-5 + 5 pps Kol-Seal + 0.125 pps Poly-E-Flake (Yield 1.94 cu-ft/sk / Weight 12.3 ppg / Vol 1230 cu-ft / 219.1 bbls). **STAGE 2 TAIL:** 100 sx Premium Cement + 0.1 % Halad (R)-9 (Yield 1.15 cu-ft/sk / Weight 15.8 ppg / Vol 115 cu-ft / 20.49 bbls). (Total Volume 1774 cu-ft / 316 bbls). WOC 12 hours. Test csg to 1500psi.
3. **PRODUCTION CASING: STAGE 1:** 20 bbl Oil Base Spacer. **STAGE 2:** 40 bbl Tuned Spacer III + 0.2 gal/bbl Musol + 233.2 ppb Barite + .02 gal/bbl SEM-7. **STAGE 3:** 223 sx 50/50 Poz Standard + 0.2% Versaset + 0.1% HALAD-766 + 1.5% Chem-Foamer 760 / (Yield 1.43 cu-ft/sk / Weight 13.0 ppg / Vol 318.9 cu-ft / 56.8 bbls). **STAGE 4:** 423 sx 50/50 Poz Standard Foamed Lead + 0.2% Versaset + 0.1% HALAD-766 + 1.5% Chem-Foamer 760 w / 50,900 scf Nitrogen (Yield 2.06 cu-ft/sk / Weight 10.0 ppg / Vol 871.4 cu-ft / 155.2 bbls). **STAGE 5:** 40 sx 50/50 Poz Standard + 0.2% Versaset + 0.1% HALAD-766 / (Yield 1.43 cu-ft/sk / Weight 13.0 ppg / Vol 57.2 cu-ft / 10.2 bbls). (Total Volume 1455.6 cu-ft / 259 bbls).

IV. IV COMPLETION**A. CBL**

1. Run Cement Bond Log down lateral and ensure top of cement is above 7" casing shoe.

B. PRESSURE TEST

1. Pressure test 4-1/2" casing to 6000 psi max, hold at 1500 psi for 30 minutes.

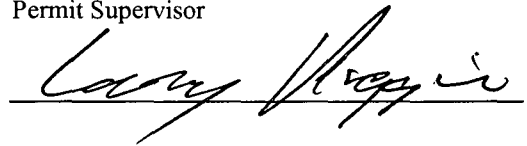
C. STIMULATION

1. Stimulate Mancos (first stage) with approximately 5000# 100 mesh sand and 300,000# 40/70 Ottawa Sand in slick water.
2. Isolate first stage with flow through frac plug.
3. Repeat process for 12 stages.
4. Drill out frac plugs and flowback lateral

D. RUNNING TUBING

1. Production Tubing: Run 2-3/8", 4.7#, N-80, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing at landing point of curve (~7,397' MD)

Larry Higgins
Permit Supervisor

A handwritten signature in black ink, appearing to read "Larry Higgins", is written over a horizontal line.



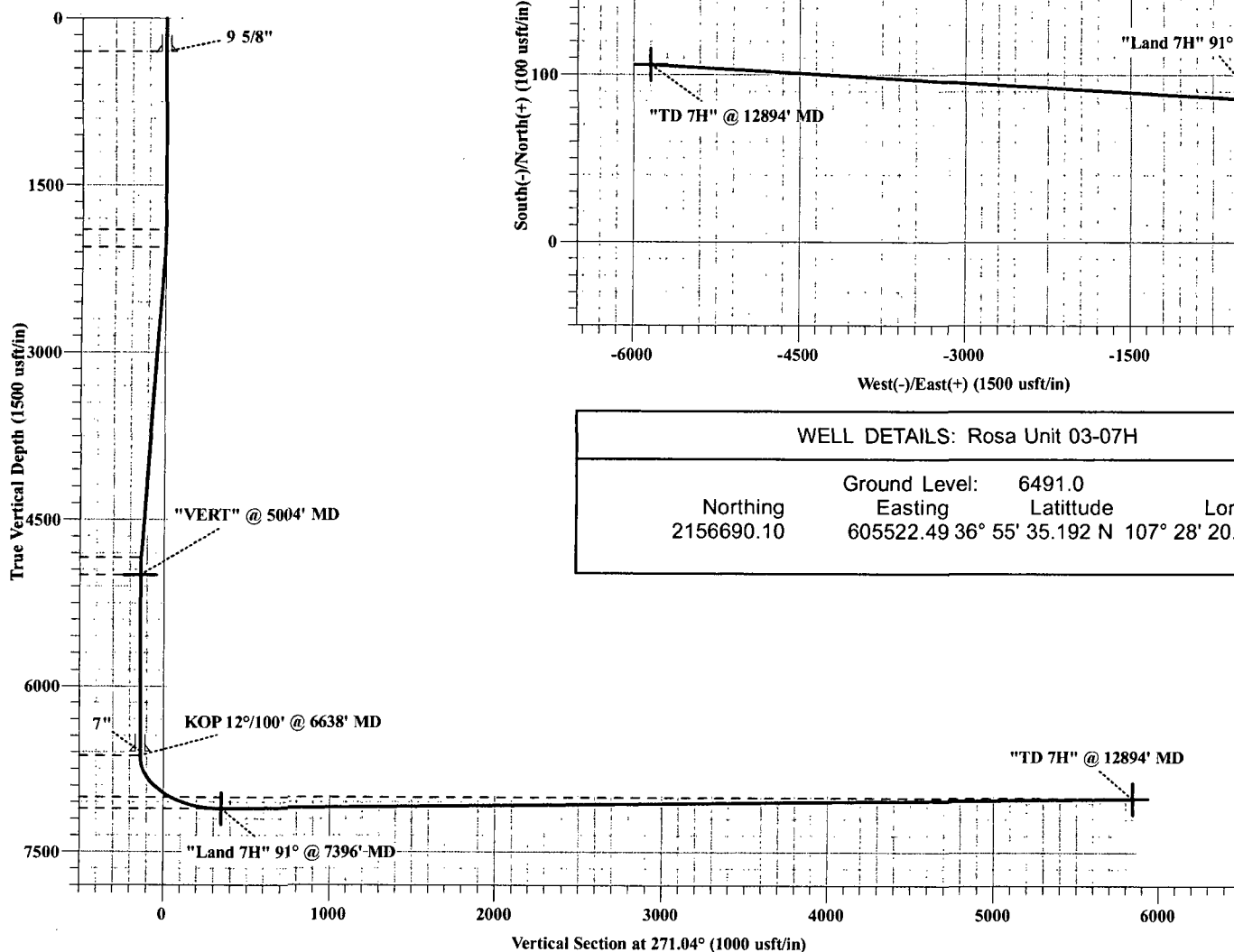
Rosa Unit 03-07H
Sec04 T31N R06W
San Juan Co., NM

PATHFINDER®
A Schlumberger Company

GE: 6491' / KB: 22'

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
VERT - 07H	5000.0	83.3	139.52156773.92	605661.68		Point
EOL - 07H	7011.0	105.9	-5843.42156773.86	599678.72		Point
POE - 07H	7111.0	85.1	-346.62156773.86	605175.53		Point



WELL DETAILS: Rosa Unit 03-07H

	Ground Level:	6491.0	
Northing	Easting	Latitude	Longitude
2156690.10	605522.49	36° 55' 35.192 N	107° 28' 20.359 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
1800.0	0.00	0.00	1800.0	0.0	0.0	0.00	0.00	0.0	
1900.0	0.00	0.00	1900.0	0.0	0.0	0.00	0.00	0.0	
2058.1	3.16	59.16	2058.0	2.2	3.7	2.00	59.16	-3.7	
4846.3	3.16	59.16	4842.0	81.1	135.8	0.00	0.00	-134.3	
5004.4	0.00	0.00	5000.0	83.3	139.5	2.00	180.00	-138.0	VERT - 07H
5004.4	0.00	172.45	5000.0	83.3	139.5	12.00	172.45	-138.0	
6638.0	0.00	172.45	6633.6	83.3	139.5	0.00	0.00	-138.0	
7396.7	91.04	270.22	7111.0	85.1	-346.6	12.00	97.76	348.1	POE - 07H
12894.4	91.04	270.22	7011.0	105.9	-5843.4	0.00	0.00	5844.4	EOL - 07H

Plan: Design #2 (Rosa Unit 03-07H/Wellbore #1)

Created By: Breck Enoch

Date: 09-Jan-2012



Pathfinder
Planning Report

PATHFINDER
A Schlumberger Company

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Sec04 T31N R06W - 07H
Company:	Williams Production Co.	TVD Reference:	WELL @ 6513.0usft (Original Well Elev)
Project:	San Juan Co., NM - Pad 03	MD Reference:	WELL @ 6513.0usft (Original Well Elev)
Site:	Sec04 T31N R06W - 07H	North Reference:	True
Well:	Rosa Unit 03-07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Project:	San Juan Co., NM - Pad 03		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		

Site	Sec04 T31N R06W - 07H				
Site Position:		Northing:	2,156,690.09 usft	Latitude:	36° 55' 35.192 N
From:	Lat/Long	Easting:	605,522.50 usft	Longitude:	107° 28' 20.359 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.22

Well:	Rosa Unit 03-07H					
Well Position	+N/-S	0.0 usft	Northing:	2,156,690.09 usft	Latitude:	36° 55' 35.192 N
	+E/-W	0.0 usft	Easting:	605,522.50 usft	Longitude:	107° 28' 20.359 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	6,491.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/6/2012	9.73	63.66	50,824

Design	Design #2			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	271.04

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,058.1	3.16	59.16	2,058.0	2.2	3.7	2.00	2.00	0.00	59.16	
4,846.3	3.16	59.16	4,842.0	81.1	135.8	0.00	0.00	0.00	0.00	
5,004.4	0.00	0.00	5,000.0	83.3	139.5	2.00	-2.00	0.00	180.00	VERT - 07H
5,004.4	0.00	172.45	5,000.0	83.3	139.5	12.00	12.06	0.00	172.45	
6,638.0	0.00	172.45	6,633.6	83.3	139.5	0.00	0.00	0.00	0.00	
7,396.7	91.04	270.22	7,111.0	85.1	-346.6	12.00	12.00	12.89	97.76	POE - 07H
12,894.4	91.04	270.22	7,011.0	105.9	-5,843.4	0.00	0.00	0.00	0.00	EOL - 07H



Pathfinder
Planning Report

PATHFINDER
A Schlumberger Company

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Sec04 T31N R06W - 07H
Company:	Williams Production Co.	TVD Reference:	WELL @ 6513.0usft (Original Well Elev)
Project:	San Juan Co., NM - Pad 03	MD Reference:	WELL @ 6513.0usft (Original Well Elev)
Site:	Sec04 T31N R06W - 07H	North Reference:	True
Well:	Rosa Unit 03-07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	2.00	59.16	2,000.0	0.9	1.5	-1.5	2.00	2.00	0.00
2,058.1	3.16	59.16	2,058.0	2.2	3.7	-3.7	2.00	2.00	0.00
2,100.0	3.16	59.16	2,099.9	3.4	5.7	-5.7	0.00	0.00	0.00
2,200.0	3.16	59.16	2,199.7	6.2	10.5	-10.3	0.00	0.00	0.00
2,300.0	3.16	59.16	2,299.6	9.1	15.2	-15.0	0.00	0.00	0.00
2,400.0	3.16	59.16	2,399.4	11.9	19.9	-19.7	0.00	0.00	0.00
2,500.0	3.16	59.16	2,499.2	14.7	24.7	-24.4	0.00	0.00	0.00
2,600.0	3.16	59.16	2,599.1	17.6	29.4	-29.1	0.00	0.00	0.00
2,700.0	3.16	59.16	2,698.9	20.4	34.1	-33.8	0.00	0.00	0.00
2,800.0	3.16	59.16	2,798.8	23.2	38.9	-38.4	0.00	0.00	0.00
2,900.0	3.16	59.16	2,898.6	26.0	43.6	-43.1	0.00	0.00	0.00
3,000.0	3.16	59.16	2,998.5	28.9	48.3	-47.8	0.00	0.00	0.00
3,100.0	3.16	59.16	3,098.3	31.7	53.1	-52.5	0.00	0.00	0.00
3,200.0	3.16	59.16	3,198.2	34.5	57.8	-57.2	0.00	0.00	0.00
3,300.0	3.16	59.16	3,298.0	37.3	62.5	-61.9	0.00	0.00	0.00
3,400.0	3.16	59.16	3,397.9	40.2	67.3	-66.5	0.00	0.00	0.00
3,500.0	3.16	59.16	3,497.7	43.0	72.0	-71.2	0.00	0.00	0.00
3,600.0	3.16	59.16	3,597.6	45.8	76.7	-75.9	0.00	0.00	0.00
3,700.0	3.16	59.16	3,697.4	48.7	81.5	-80.6	0.00	0.00	0.00
3,800.0	3.16	59.16	3,797.3	51.5	86.2	-85.3	0.00	0.00	0.00
3,900.0	3.16	59.16	3,897.1	54.3	91.0	-90.0	0.00	0.00	0.00
4,000.0	3.16	59.16	3,997.0	57.1	95.7	-94.6	0.00	0.00	0.00
4,100.0	3.16	59.16	4,096.8	60.0	100.4	-99.3	0.00	0.00	0.00
4,200.0	3.16	59.16	4,196.7	62.8	105.2	-104.0	0.00	0.00	0.00
4,300.0	3.16	59.16	4,296.5	65.6	109.9	-108.7	0.00	0.00	0.00
4,400.0	3.16	59.16	4,396.4	68.4	114.6	-113.4	0.00	0.00	0.00
4,500.0	3.16	59.16	4,496.2	71.3	119.4	-118.0	0.00	0.00	0.00
4,600.0	3.16	59.16	4,596.1	74.1	124.1	-122.7	0.00	0.00	0.00
4,700.0	3.16	59.16	4,695.9	76.9	128.8	-127.4	0.00	0.00	0.00
4,800.0	3.16	59.16	4,795.7	79.8	133.6	-132.1	0.00	0.00	0.00
4,846.3	3.16	59.16	4,842.0	81.1	135.8	-134.3	0.00	0.00	0.00
4,900.0	2.09	59.16	4,895.6	82.3	137.9	-136.4	2.00	-2.00	0.00
5,004.4	0.00	172.45	5,000.0	83.3	139.5	-138.0	2.00	-2.00	108.50
5,100.0	0.00	172.45	5,095.6	83.3	139.5	-138.0	0.00	0.00	0.00



Pathfinder
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Sec04 T31N R06W - 07H
Company:	Williams Production Co.	TVD Reference:	WELL @ 6513.0usft (Original Well Elev)
Project:	San Juan Co., NM - Pad 03	MD Reference:	WELL @ 6513.0usft (Original Well Elev)
Site:	Sec04 T31N R06W - 07H	North Reference:	True
Well:	Rosa Unit 03-07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,200.0	0.00	172.45	5,195.6	83.3	139.5	-138.0	0.00	0.00	0.00
5,300.0	0.00	172.45	5,295.6	83.3	139.5	-138.0	0.00	0.00	0.00
5,400.0	0.00	172.45	5,395.6	83.3	139.5	-138.0	0.00	0.00	0.00
5,500.0	0.00	172.45	5,495.6	83.3	139.5	-138.0	0.00	0.00	0.00
5,600.0	0.00	172.45	5,595.6	83.3	139.5	-138.0	0.00	0.00	0.00
5,700.0	0.00	172.45	5,695.6	83.3	139.5	-138.0	0.00	0.00	0.00
5,800.0	0.00	172.45	5,795.6	83.3	139.5	-138.0	0.00	0.00	0.00
5,900.0	0.00	172.45	5,895.6	83.3	139.5	-138.0	0.00	0.00	0.00
6,000.0	0.00	172.45	5,995.6	83.3	139.5	-138.0	0.00	0.00	0.00
6,100.0	0.00	172.45	6,095.6	83.3	139.5	-138.0	0.00	0.00	0.00
6,200.0	0.00	172.45	6,195.6	83.3	139.5	-138.0	0.00	0.00	0.00
6,300.0	0.00	172.45	6,295.6	83.3	139.5	-138.0	0.00	0.00	0.00
6,400.0	0.00	172.45	6,395.6	83.3	139.5	-138.0	0.00	0.00	0.00
6,500.0	0.00	172.45	6,495.6	83.3	139.5	-138.0	0.00	0.00	0.00
6,600.0	0.00	172.45	6,595.6	83.3	139.5	-138.0	0.00	0.00	0.00
6,638.0	0.00	172.45	6,633.6	83.3	139.5	-138.0	0.00	0.00	0.00
6,650.0	1.44	270.15	6,645.6	83.3	139.4	-137.8	12.00	11.98	815.21
6,675.0	4.44	270.20	6,670.6	83.3	138.1	-136.5	12.00	12.00	0.18
6,700.0	7.44	270.20	6,695.4	83.3	135.5	-134.0	12.00	12.00	0.04
6,725.0	10.44	270.21	6,720.1	83.3	131.6	-130.1	12.00	12.00	0.01
6,750.0	13.44	270.21	6,744.6	83.3	126.4	-124.9	12.00	12.00	0.01
6,775.0	16.44	270.21	6,768.7	83.3	120.0	-118.5	12.00	12.00	0.01
6,800.0	19.44	270.21	6,792.5	83.4	112.3	-110.8	12.00	12.00	0.00
6,825.0	22.44	270.21	6,815.9	83.4	103.4	-101.8	12.00	12.00	0.00
6,850.0	25.44	270.21	6,838.7	83.4	93.2	-91.7	12.00	12.00	0.00
6,875.0	28.44	270.21	6,861.0	83.5	81.9	-80.4	12.00	12.00	0.00
6,900.0	31.44	270.21	6,882.6	83.5	69.4	-67.9	12.00	12.00	0.00
6,925.0	34.44	270.21	6,903.6	83.6	55.8	-54.3	12.00	12.00	0.00
6,950.0	37.44	270.21	6,923.9	83.6	41.2	-39.6	12.00	12.00	0.00
6,975.0	40.44	270.21	6,943.3	83.7	25.4	-23.9	12.00	12.00	0.00
7,000.0	43.44	270.22	6,961.9	83.7	8.7	-7.2	12.00	12.00	0.00
7,025.0	46.44	270.22	6,979.6	83.8	-8.9	10.4	12.00	12.00	0.00
7,050.0	49.44	270.22	6,996.3	83.9	-27.5	29.0	12.00	12.00	0.00
7,075.0	52.44	270.22	7,012.1	83.9	-46.9	48.4	12.00	12.00	0.00
7,100.0	55.44	270.22	7,026.8	84.0	-67.1	68.6	12.00	12.00	0.00
7,125.0	58.44	270.22	7,040.4	84.1	-88.0	89.6	12.00	12.00	0.00
7,150.0	61.44	270.22	7,053.0	84.2	-109.7	111.2	12.00	12.00	0.00
7,175.0	64.44	270.22	7,064.3	84.3	-131.9	133.4	12.00	12.00	0.00
7,200.0	67.44	270.22	7,074.5	84.4	-154.8	156.3	12.00	12.00	0.00
7,225.0	70.44	270.22	7,083.5	84.4	-178.1	179.6	12.00	12.00	0.00
7,250.0	73.44	270.22	7,091.3	84.5	-201.9	203.4	12.00	12.00	0.00
7,275.0	76.44	270.22	7,097.8	84.6	-226.0	227.5	12.00	12.00	0.00
7,300.0	79.44	270.22	7,103.0	84.7	-250.4	251.9	12.00	12.00	0.00
7,325.0	82.44	270.22	7,106.9	84.8	-275.1	276.6	12.00	12.00	0.00
7,350.0	85.44	270.22	7,109.6	84.9	-300.0	301.5	12.00	12.00	0.00
7,375.0	88.44	270.22	7,110.9	85.0	-324.9	326.4	12.00	12.00	0.00
7,396.7	91.04	270.22	7,111.0	85.1	-346.6	348.1	12.00	12.00	0.00
7,400.0	91.04	270.22	7,110.9	85.1	-349.9	351.4	0.00	0.00	0.00
7,500.0	91.04	270.22	7,109.1	85.5	-449.9	451.4	0.00	0.00	0.00
7,600.0	91.04	270.22	7,107.3	85.8	-549.9	551.4	0.00	0.00	0.00
7,700.0	91.04	270.22	7,105.5	86.2	-649.9	651.3	0.00	0.00	0.00
7,800.0	91.04	270.22	7,103.7	86.6	-749.9	751.3	0.00	0.00	0.00
7,900.0	91.04	270.22	7,101.8	87.0	-849.8	851.3	0.00	0.00	0.00
8,000.0	91.04	270.22	7,100.0	87.4	-949.8	951.3	0.00	0.00	0.00



Pathfinder
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Sec04 T31N R06W - 07H
Company:	Williams Production Co.	TVD Reference:	WELL @ 6513.0usft (Original Well Elev)
Project:	San Juan Co., NM - Pad 03	MD Reference:	WELL @ 6513.0usft (Original Well Elev)
Site:	Sec04 T31N R06W - 07H	North Reference:	True
Well:	Rosa Unit 03-07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
8,100.0	91.04	270.22	7,098.2	87.7	-1,049.8	1,051.2	0.00	0.00	0.00	
8,200.0	91.04	270.22	7,096.4	88.1	-1,149.8	1,151.2	0.00	0.00	0.00	
8,300.0	91.04	270.22	7,094.6	88.5	-1,249.8	1,251.2	0.00	0.00	0.00	
8,400.0	91.04	270.22	7,092.8	88.9	-1,349.8	1,351.2	0.00	0.00	0.00	
8,500.0	91.04	270.22	7,090.9	89.3	-1,449.7	1,451.1	0.00	0.00	0.00	
8,600.0	91.04	270.22	7,089.1	89.6	-1,549.7	1,551.1	0.00	0.00	0.00	
8,700.0	91.04	270.22	7,087.3	90.0	-1,649.7	1,651.1	0.00	0.00	0.00	
8,800.0	91.04	270.22	7,085.5	90.4	-1,749.7	1,751.0	0.00	0.00	0.00	
8,900.0	91.04	270.22	7,083.7	90.8	-1,849.7	1,851.0	0.00	0.00	0.00	
9,000.0	91.04	270.22	7,081.8	91.1	-1,949.7	1,951.0	0.00	0.00	0.00	
9,100.0	91.04	270.22	7,080.0	91.5	-2,049.6	2,051.0	0.00	0.00	0.00	
9,200.0	91.04	270.22	7,078.2	91.9	-2,149.6	2,150.9	0.00	0.00	0.00	
9,300.0	91.04	270.22	7,076.4	92.3	-2,249.6	2,250.9	0.00	0.00	0.00	
9,400.0	91.04	270.22	7,074.6	92.7	-2,349.6	2,350.9	0.00	0.00	0.00	
9,500.0	91.04	270.22	7,072.7	93.0	-2,449.6	2,450.9	0.00	0.00	0.00	
9,600.0	91.04	270.22	7,070.9	93.4	-2,549.6	2,550.8	0.00	0.00	0.00	
9,700.0	91.04	270.22	7,069.1	93.8	-2,649.5	2,650.8	0.00	0.00	0.00	
9,800.0	91.04	270.22	7,067.3	94.2	-2,749.5	2,750.8	0.00	0.00	0.00	
9,900.0	91.04	270.22	7,065.5	94.6	-2,849.5	2,850.7	0.00	0.00	0.00	
10,000.0	91.04	270.22	7,063.6	94.9	-2,949.5	2,950.7	0.00	0.00	0.00	
10,100.0	91.04	270.22	7,061.8	95.3	-3,049.5	3,050.7	0.00	0.00	0.00	
10,200.0	91.04	270.22	7,060.0	95.7	-3,149.5	3,150.7	0.00	0.00	0.00	
10,300.0	91.04	270.22	7,058.2	96.1	-3,249.4	3,250.6	0.00	0.00	0.00	
10,400.0	91.04	270.22	7,056.4	96.4	-3,349.4	3,350.6	0.00	0.00	0.00	
10,500.0	91.04	270.22	7,054.6	96.8	-3,449.4	3,450.6	0.00	0.00	0.00	
10,600.0	91.04	270.22	7,052.7	97.2	-3,549.4	3,550.6	0.00	0.00	0.00	
10,700.0	91.04	270.22	7,050.9	97.6	-3,649.4	3,650.5	0.00	0.00	0.00	
10,800.0	91.04	270.22	7,049.1	98.0	-3,749.3	3,750.5	0.00	0.00	0.00	
10,900.0	91.04	270.22	7,047.3	98.3	-3,849.3	3,850.5	0.00	0.00	0.00	
11,000.0	91.04	270.22	7,045.5	98.7	-3,949.3	3,950.5	0.00	0.00	0.00	
11,100.0	91.04	270.22	7,043.6	99.1	-4,049.3	4,050.4	0.00	0.00	0.00	
11,200.0	91.04	270.22	7,041.8	99.5	-4,149.3	4,150.4	0.00	0.00	0.00	
11,300.0	91.04	270.22	7,040.0	99.9	-4,249.3	4,250.4	0.00	0.00	0.00	
11,400.0	91.04	270.22	7,038.2	100.2	-4,349.2	4,350.3	0.00	0.00	0.00	
11,500.0	91.04	270.22	7,036.4	100.6	-4,449.2	4,450.3	0.00	0.00	0.00	
11,600.0	91.04	270.22	7,034.5	101.0	-4,549.2	4,550.3	0.00	0.00	0.00	
11,700.0	91.04	270.22	7,032.7	101.4	-4,649.2	4,650.3	0.00	0.00	0.00	
11,800.0	91.04	270.22	7,030.9	101.7	-4,749.2	4,750.2	0.00	0.00	0.00	
11,900.0	91.04	270.22	7,029.1	102.1	-4,849.2	4,850.2	0.00	0.00	0.00	
12,000.0	91.04	270.22	7,027.3	102.5	-4,949.1	4,950.2	0.00	0.00	0.00	
12,100.0	91.04	270.22	7,025.5	102.9	-5,049.1	5,050.2	0.00	0.00	0.00	
12,200.0	91.04	270.22	7,023.6	103.3	-5,149.1	5,150.1	0.00	0.00	0.00	
12,300.0	91.04	270.22	7,021.8	103.6	-5,249.1	5,250.1	0.00	0.00	0.00	
12,400.0	91.04	270.22	7,020.0	104.0	-5,349.1	5,350.1	0.00	0.00	0.00	
12,500.0	91.04	270.22	7,018.2	104.4	-5,449.1	5,450.1	0.00	0.00	0.00	
12,600.0	91.04	270.22	7,016.4	104.8	-5,549.0	5,550.0	0.00	0.00	0.00	
12,700.0	91.04	270.22	7,014.5	105.1	-5,649.0	5,650.0	0.00	0.00	0.00	
12,800.0	91.04	270.22	7,012.7	105.5	-5,749.0	5,750.0	0.00	0.00	0.00	
12,894.4	91.04	270.22	7,011.0	105.9	-5,843.4	5,844.4	0.00	0.00	0.00	



Pathfinder
Planning Report

PATHFINDER
A Schlumberger Company

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Sec04 T31N R06W - 07H
Company:	Williams Production Co.	TVD Reference:	WELL @ 6513.0usft (Original Well Elev)
Project:	San Juan Co., NM - Pad 03	MD Reference:	WELL @ 6513.0usft (Original Well Elev)
Site:	Sec04 T31N R06W - 07H	North Reference:	True
Well:	Rosa Unit 03-07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Design Targets										
Target Name	hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
VERT - 07H	- plan hits target center - Point	0.00	0.00	5,000.0	83.3	139.5	2,156,773.92	605,661.68	36° 55' 36.016 N	107° 28' 18.641 W
EOL - 07H	- plan hits target center - Point	0.00	0.00	7,011.0	105.9	-5,843.4	2,156,773.86	599,678.72	36° 55' 36.233 N	107° 29' 32.327 W
POE - 07H	- plan hits target center - Point	0.00	0.00	7,111.0	85.1	-346.6	2,156,773.86	605,175.54	36° 55' 36.033 N	107° 28' 24.628 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
300.0	300.0	9 5/8"		9-5/8	12-1/4
6,598.0	6,593.6	7"		7	8-3/4

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
300.0	300.0	0.0	0.0	Casing Set 0°	
1,900.0	1,900.0	0.0	0.0	"Nudge" 2°/100'	
2,058.1	2,058.0	2.2	3.7	Hold 3.2°	
4,846.3	4,842.0	81.1	135.8	Drop 2°/100'	
5,004.4	5,000.0	83.3	139.5	"VERT" @ 5004' MD	
6,638.0	6,633.6	83.3	139.5	KOP 12°/100' @ 6638' MD	
7,396.7	7,111.0	85.1	-346.6	"Land 7H" 91° @ 7396' MD	
12,894.4	7,011.0	105.9	-5,843.4	"TD 7H" @ 12894' MD	

SURFACE USE PLAN OF OPERATIONS
WPX Energy Production, LLC
Rosa Unit 03 #007H

General Conditions of Approval and Cultural Resource Requirements
Will Apply to this Action

1. Existing Roads:

The access route for the proposed well from Allison, CO is to exit south from State Highway 151 onto La Plata County Road 330. After passing the state line into New Mexico, travel on existing county and lease roads until reaching the proposed well site. The access route is shown on the attached map (Figure 1). For existing County roads or roads that are considered Collector Roads and under the jurisdiction of the Road Committee, WPX will defer to the County or Road Committee for all maintenance determinations. For lease roads which are WPX's responsibility as the operator, these roads will be maintained in a condition the same or better than before operations began. Specifically, WPX will conduct routine inspections of road conditions, blade when necessary to reduce ruts and holes, maintain crowns and out slopes, replace surfacing materials, clear sediment blocking ditches and culverts, maintain interim reclamation, and noxious weed control.

2. New or Reconstructed Access Roads:

No new access road will be needed as the existing road to the Rosa Unit Com #237 will be used to access the proposed well pad.

3. Location of Existing Wells:

The attached map (Figure 2) shows the existing water, plugged and abandoned, and oil and gas wells within a 1-mile radius of the proposed well pad. The proposed well pad will be twinned with the existing Rosa Unit #237 and Rosa Unit #60.

4. Location of Production Facilities:

Existing production facilities for the Rosa Unit #237 and Rosa Unit #60 will be stripped prior to construction of the expanded well pad for the proposed well. After construction of the expanded well pad, all flowlines and production equipment (quad units) for this proposed well, as well as planned future wells, will be installed. See Figure 5. Rosa Unit #237 and #060 will be put back on production and remain producing during drilling and completion of the proposed well. WPX Energy will place the liquid handling equipment after drilling is complete as shown in Figure 5. All production equipment will comply with VRM requirements. Above-ground structures will be painted Juniper Green Federal Standard 595a-34127 to blend with vegetation and reduce visual resource impacts.

5. Water Supply:

5,000 psi BOP Schematic

