

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MAR 10 2015

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – Other instructions on page 2.

5. Lease Serial No.
NMNM-23044

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.
Schalk 32 #3H

9. API Well No.
30-039-31108

10. Field and Pool or Exploratory Area
Basin Fruitland

11. Country or Parish, State
Rio Arriba, NM

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

WPX Energy Production, LLC

3a. Address

PO Box 640 Aztec, NM 87410

3b. Phone No. (include area code)

505-333-1816

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sur: 2070' FSL & 660' FWL – BHL:2070' FSL & 700' FEL, Sec 32, T31N, R4W

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other _____
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompletable horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletable in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

USFS SURFACE

WPX Energy requests to change plans on the following well per the attached Directional Plan, Operational Plan and C102. All other aspects of the well will remain as is approved.

CONDITIONS OF APPROVAL

Adhere to previously issued stipulations

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

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Lacey Granillo		Title Permit Tech III
Signature 		Date 3/10/15
THIS SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by William Tambekou		Title Petroleum Engineer
Conditions of approval, if any, are attached. Approval of this notice 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.		Date 3-10-15
		Office FFO
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 page 2)

NMOCD R

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30039.31108		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 301345	*Property Name SCHALK 32		*Well Number 3H
*UGRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC		*Elevation 6957'

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	32	31N	4W		2070	SOUTH	660	WEST	RIO ARriba

¹¹ Bottom Hole Location If Different From Surface

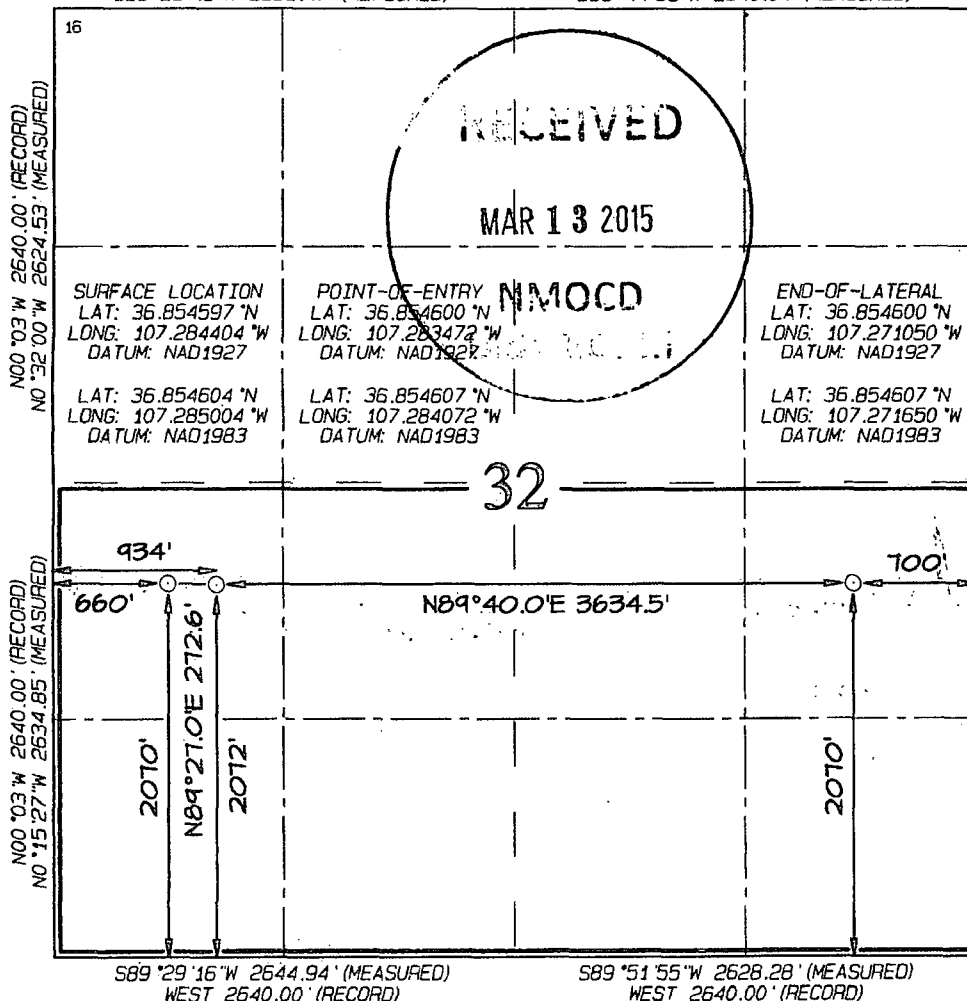
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	32	31N	4W		2070	SOUTH	700	EAST	RIO ARriba

¹² Dedicated Acres 320.0 Acres - (S/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

N89°58'W 2639.01' (RECORD)
S89°28'49"W 2636.47' (MEASURED)

N89°58'W 2639.01' (RECORD)
S89°44'53"W 2640.04' (MEASURED)



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: *[Signature]* Date: 3/10/15
Printed Name: *[Name]*
E-mail Address: *[Email]*

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.

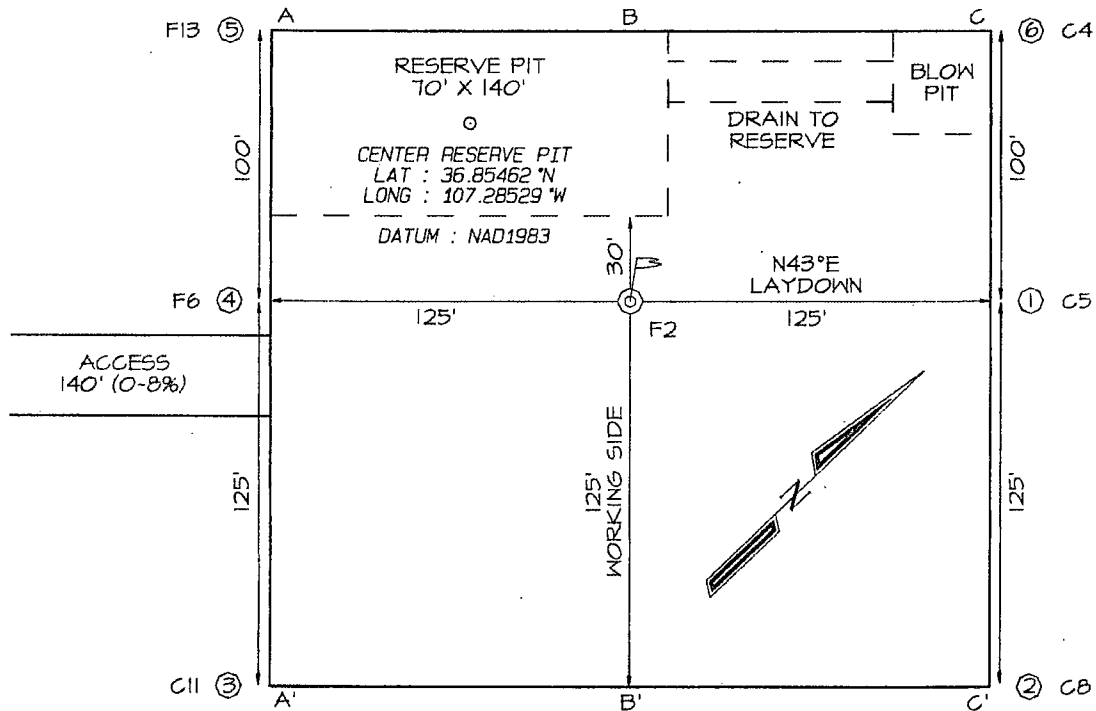
Date Revised: MARCH 9, 2015
Date of Survey: AUGUST 9, 2011

Signature and Seal of Professional Surveyor



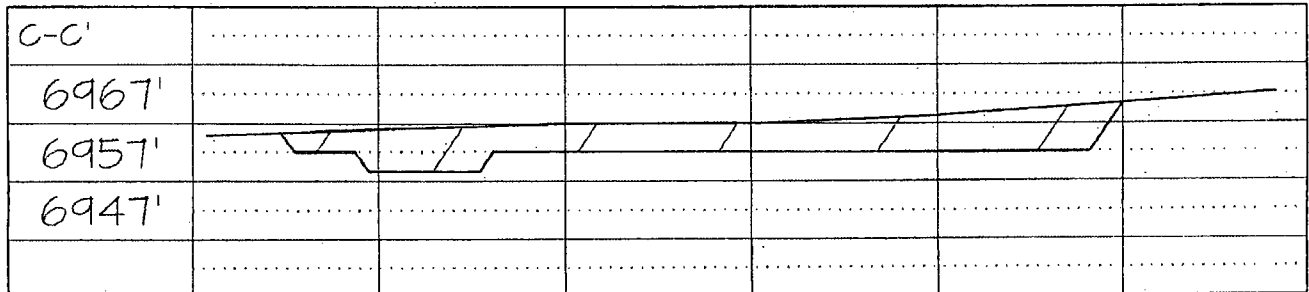
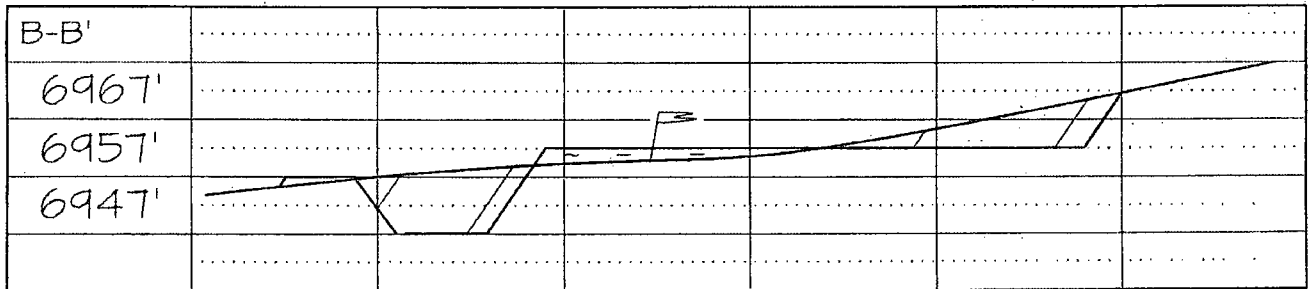
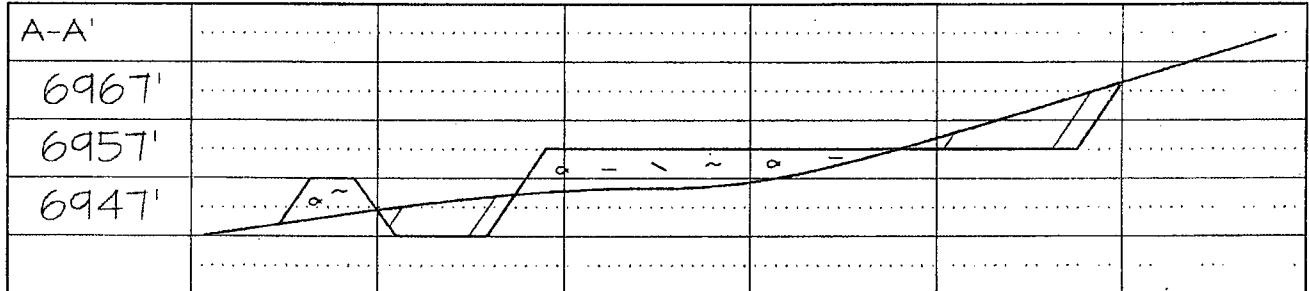
JASON C. EDWARDS
Certificate Number 15269

WPX ENERGY PRODUCTION, LLC SCHALK 32 #3H
2070' FSL & 660' FWL, SECTION 32, T31N, R4W, NMPM
RIO ARriba COUNTY, NEW MEXICO ELEVATION: 6955'



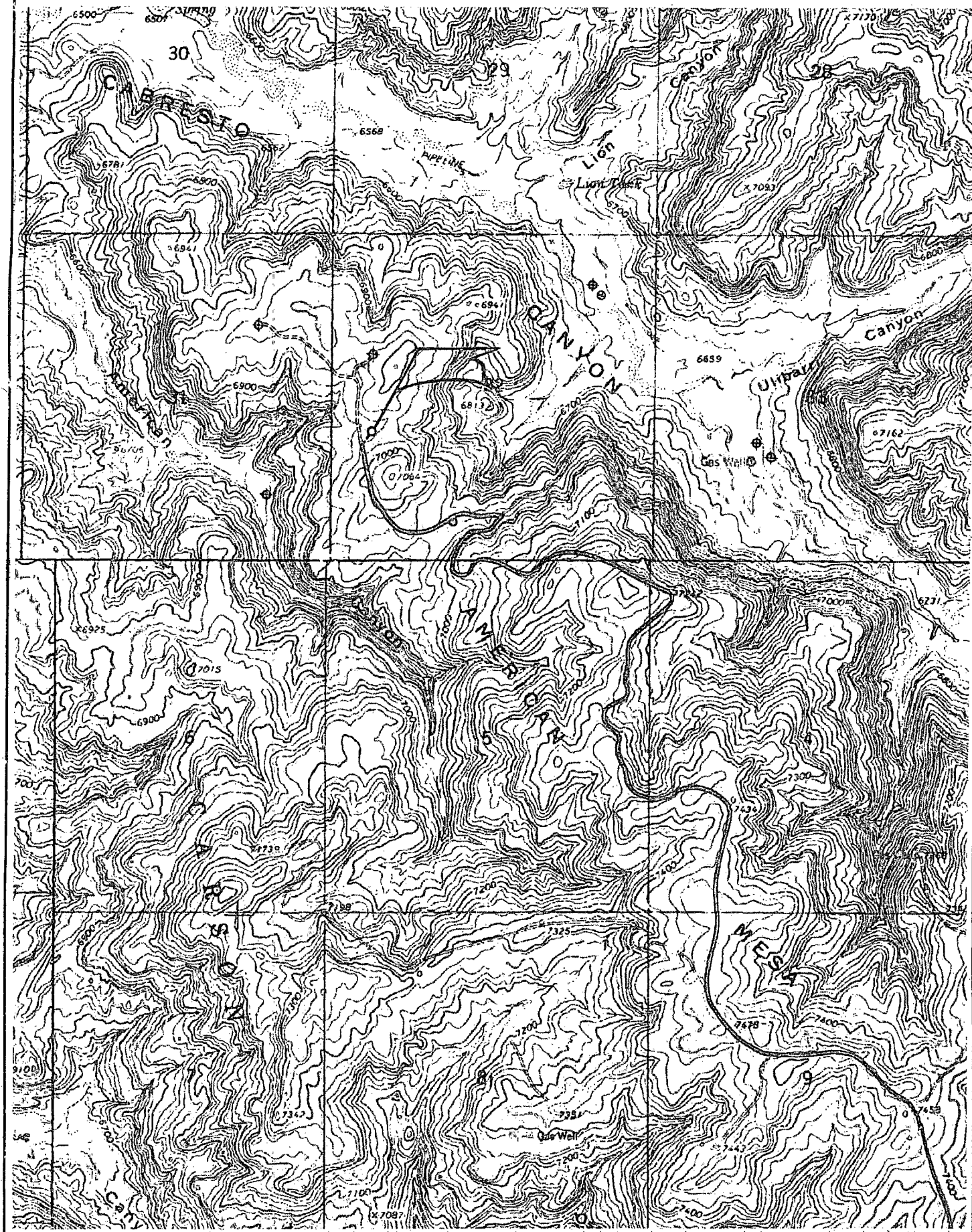
LATITUDE: 36.85461° N
LONGITUDE: 107.28500° W
 DATUM: NAD1983

Steel T-Posts have been set to define the Edge of Disturbance limits which are 50' offset from the edge of the staked wellpad.



Prepared For: WPX ENERGY PRODUCTION P.O. BOX #640 AZTEC, NM 87410		Land Surveyor: Jason C. Edwards	CHECKED BY: JCE SHEET 3 OF 4 FILENAME: 040370.G4 DRAWN BY: JCF
	Mailing Address: Post Office Box 6612 Farmington, NM 87499	Business Address: 111 East Pinon Street Farmington, NM 87402 (505) 325-2654 (Office) (505) 326-5650 (Fax)	

WPX ENERGY PRODUCTION, LLC SCHALK 32 #3H
2070' FSL & 660' FWL, SECTION 32, T31N, R4W, N.M.P.M.
RIO ARriba COUNTY, NEW MEXICO





WPX ENERGY

Operations Plan

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

<u>DATE:</u>	3/5/2015	<u>API:</u>	30-039-31108
<u>WELL NAME:</u>	Schalk 32 #003H	<u>FIELD:</u>	Basin Fruitland Coal
<u>BH LOCATION:</u>	NESE Sec. 32-T31N-R4W Rio Arriba, NM	<u>SURFACE:</u>	USFS
<u>ELEVATION:</u>	6,955' GR	<u>MINERALS:</u>	BLM
<u>TOTAL DEPTH:</u>	7,787'	<u>LEASE #</u>	NM-23044

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (6,969' KB; NP = not penetrated)

NAME	TVD	MD	NAME	TVD	MD
San Jose	Surface	Surface	Top Target Coal	3,759	4,149
Nacimiento	1,986	2,003	Bottom Target Coal (NP)	3,772	
Ojo Alamo	3,150	3,179	Base Coal (NP)	3,791	
Kirtland	3,339	3,373	Picture Cliffs (NP)	3,792	
Fruitland	3,619	3,723	TD	3,759	7,787

B. LOGGING PROGRAM: No open-hole logs. MWD Gamma Ray in curve and lateral.

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

D. MUD LOGGING PROGRAM: Mud logger will be on location from surface casing to TD.

II. DRILLING

A. MUD PROGRAM: LSND mud through vertical and curve. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing casing. Notify Engineering of any mud losses. Produced water in lateral.

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 1300 psi, so the BOPE will be tested to **250 psi (Low) for 5 minutes** and **1500 psi (High) for 10 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:**

<u>CASING TYPE</u>	<u>HOLE SIZE</u>	<u>DEPTH (MD)</u>	<u>CASING SIZE</u>	<u>WT. & GRADE</u>
Surface	12-1/4"	+ 300'	9-5/8"	36# K-55
Intermediate	8-3/4"	+/- 4151'	7"	23# K-55
Prod. Liner	6-1/4"	+/- 4001'- 7,787'	4-1/2"	11.6# K-55

Note: Intermediate casing is set at landing point. Production liner is 4-1/2" 11.6# Pre-perforated K-55.

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).
3. PRODUCTION LINER: 4-1/2" 11.6# Pre-perforated K-55 liner.

C. CEMENTING:

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

1. SURFACE: Slurry: 150sx (269.4 cu.ft.) of "Type III" + 2% Cal-Seal 60 + ¼ # of poly-e-flake/sk + 0.3% Versaset + 2% Econolite + 6% Salt (Yield = 1.796 cu.ft./sk, Weight = 13.5 #/gal.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 1500psi.
2. INTERMEDIATE: Lead - 400 sx (1092 cu.ft.) of "EXTENDACEM" + 5 #/sk pheno-seal + 5% Cal-Seal 60 (Yield = 2.723 cu.ft./sk, Weight = 11.5 #/gal.). Tail - 100 sx (117.8cu.ft.) of Premium cement + 0.125 #/sk Poly-E-Flake, (Yield = 1.178 cu.ft./sk, Weight = 15.6#/gal.). Total volume = 1209.8 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface
3. PRODUCTION LINER: Un-cemented 4.5" perforated liner.

IV. COMPLETION**A. PRESSURE TEST**

1. Pressure test 7" casing to 1500 psi for 30 minutes.

B. STIMULATION

1. No stimulation

C. RUNNING TUBING

1. Fruitland Coal: Run 2-7/8", 6.5#, J-55, EUE tubing with a SN on top of bottom joint. Land tubing approximately 50' above PBTD of 7" casing.

WPXENERGY

Project: Rio Arriba Co., NM
Site: Sec.32-T31N-R4W
Well: Schalk 32-3H
Wellbore: Wellbore #1
Design: Design #1



WELL DETAILS: Schalk 32-3H

Ground Level:						
		6955.00				
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	2131939.072860	197365.670189	36.854600	-107.284400	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	550.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00
3	1050.00	10.00	270.00	1047.47	0.00	-43.52	2.00	270.00	-43.52
4	2651.78	10.00	270.00	2624.91	0.00	-321.67	0.00	0.00	-321.67
5	3151.78	0.00	0.00	3122.38	0.00	-365.19	2.00	180.00	-365.19
6	4151.78	90.00	90.00	3759.00	0.04	271.43	9.00	90.00	271.43
7	7786.50	90.00	90.00	3759.00	0.28	3906.15	0.00	0.00	3906.15

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
PBHL Schalk 32-3H	3759.00	0.28	3906.15	36.854600	-107.271050	

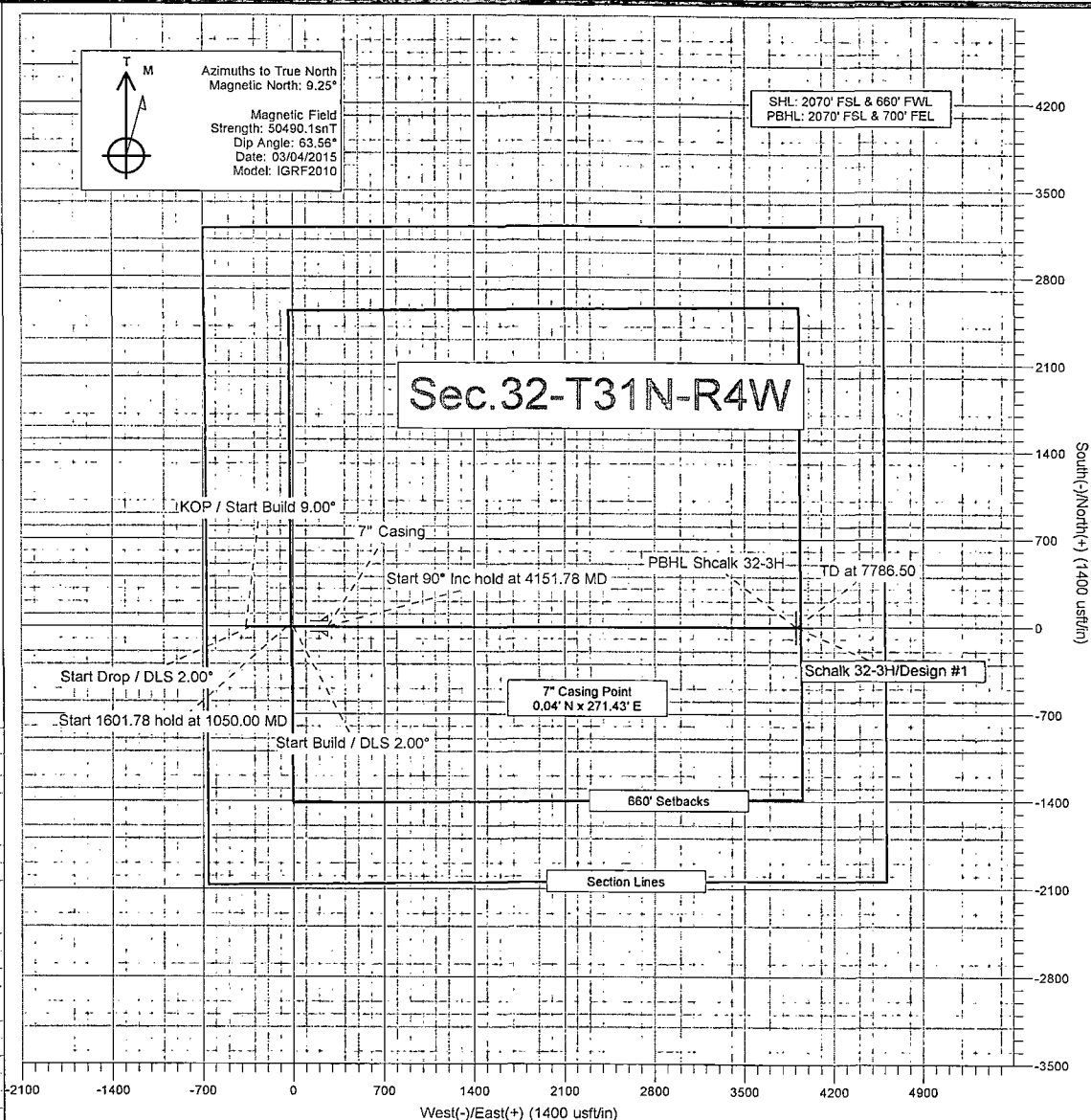
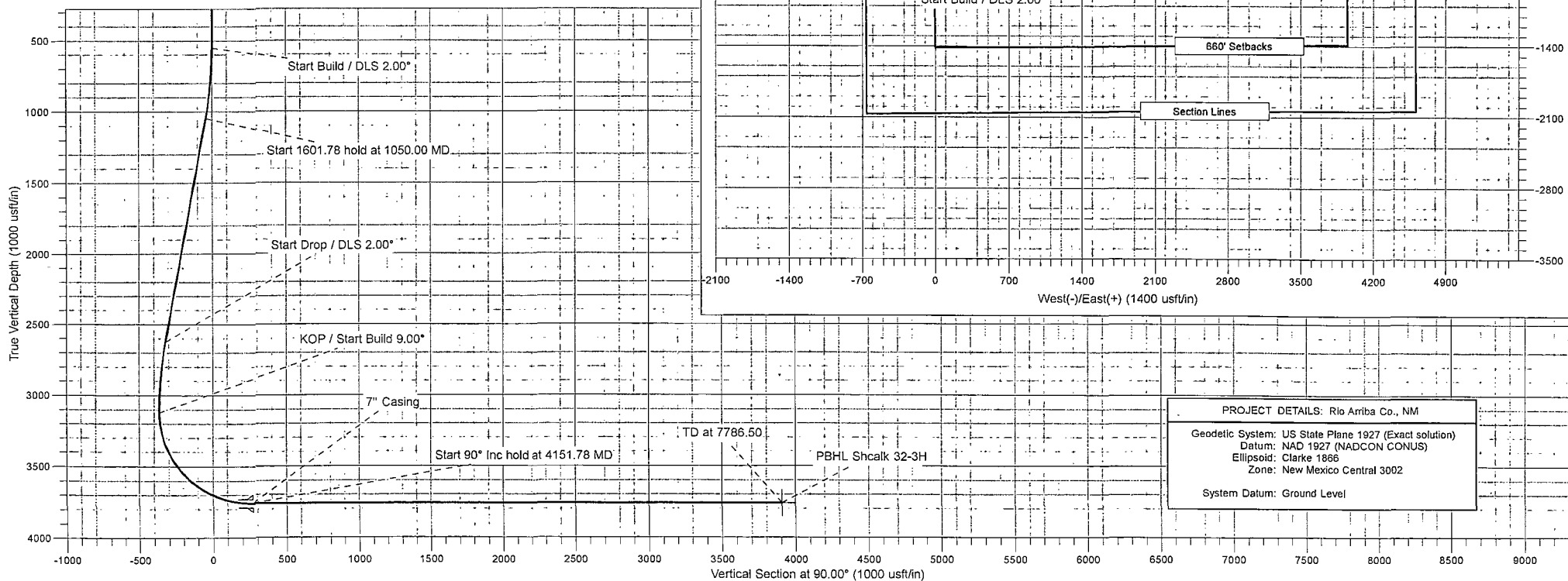
CASING DETAILS

TVD	MD	Name	TVD	MD	Annotation
3759.00	4151.78	7" Casing	550.00	550.00	Start Build / DLS 2.00°
			1047.47	1050.00	Start 1601.78 hold at 1050.00 MD
			2624.91	2651.78	Start Drop / DLS 2.00°
			3122.38	3151.78	KOP / Start Build 9.00°
			3759.00	4151.78	Start 90° Inc hold at 4151.78 MD
			3759.00	7786.50	TD at 7786.50

ANNOTATIONS

Plan: Design #1 (Schalk 32-3H/Wellbore #1)

Created By: M. Ramich Date: 16:22, March 04 2015



WPXENERGY



WPX Energy Production, LLC

Rio Arriba Co., NM

Sec.32-T31N-R4W

Schalk 32-3H

Wellbore #1

Plan: Design #1

Standard Planning Report

04 March, 2015





Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Schalk 32-3H
Company:	WPX Energy Production, LLC	TVD Reference:	WELL @ 6969.00usft (Original Well Elev)
Project:	Rio Arriba Co., NM	MD Reference:	WELL @ 6969.00usft (Original Well Elev)
Site:	Sec.32-T31N-R4W	North Reference:	True
Well:	Schalk 32-3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Rio Arriba Co., NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Ground Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico Central 3002		

Site	Sec.32-T31N-R4W				
Site Position:		Northing:	2,131,939.072860 usft	Latitude:	36.854600
From:	Lat/Long	Easting:	197,365.670190 usft	Longitude:	-107.284400
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.62 °

Well	Schalk 32-3H					
Well Position	+N/-S	0.00 usft	Northing:	2,131,939.072860 usft	Latitude:	36.854600
	+E/-W	0.00 usft	Easting:	197,365.670190 usft	Longitude:	-107.284400
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,955.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	03/04/15	9.25	63.56	50,490

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	90.00

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
550.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,050.00	10.00	270.00	1,047.47	0.00	-43.52	2.00	2.00	0.00	270.00	
2,651.78	10.00	270.00	2,624.91	0.00	-321.67	0.00	0.00	0.00	0.00	
3,151.78	0.00	0.00	3,122.38	0.00	-365.19	2.00	-2.00	0.00	180.00	
4,151.78	90.00	90.00	3,759.00	0.04	271.43	9.00	9.00	0.00	90.00	PBHL Schalk 32-3H
7,786.50	90.00	90.00	3,759.00	0.28	3,906.15	0.00	0.00	0.00	0.00	PBHL Schalk 32-3H



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Schalk 32-3H
Company:	WPX Energy Production, LLC	TVD Reference:	WELL @ 6969.00usft (Original Well Elev)
Project:	Rio Arriba Co., NM	MD Reference:	WELL @ 6969.00usft (Original Well Elev)
Site:	Sec.32-T31N-R4W	North Reference:	True
Well:	Schalk 32-3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
550.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build / DLS 2.00°									
600.00	1.00	270.00	600.00	0.00	-0.44	-0.44	2.00	2.00	0.00
700.00	3.00	270.00	699.93	0.00	-3.93	-3.93	2.00	2.00	0.00
800.00	5.00	270.00	799.68	0.00	-10.90	-10.90	2.00	2.00	0.00
900.00	7.00	270.00	899.13	0.00	-21.35	-21.35	2.00	2.00	0.00
1,000.00	9.00	270.00	998.15	0.00	-35.27	-35.27	2.00	2.00	0.00
1,050.00	10.00	270.00	1,047.47	0.00	-43.52	-43.52	2.00	2.00	0.00
Start 1601.78 hold at 1050.00 MD									
1,100.00	10.00	270.00	1,096.71	0.00	-52.20	-52.20	0.00	0.00	0.00
1,200.00	10.00	270.00	1,195.19	0.00	-69.57	-69.57	0.00	0.00	0.00
1,300.00	10.00	270.00	1,293.67	0.00	-86.93	-86.93	0.00	0.00	0.00
1,400.00	10.00	270.00	1,392.15	0.00	-104.30	-104.30	0.00	0.00	0.00
1,500.00	10.00	270.00	1,490.63	0.00	-121.66	-121.66	0.00	0.00	0.00
1,600.00	10.00	270.00	1,589.11	0.00	-139.03	-139.03	0.00	0.00	0.00
1,700.00	10.00	270.00	1,687.59	0.00	-156.39	-156.39	0.00	0.00	0.00
1,800.00	10.00	270.00	1,786.07	0.00	-173.76	-173.76	0.00	0.00	0.00
1,900.00	10.00	270.00	1,884.55	0.00	-191.12	-191.12	0.00	0.00	0.00
2,000.00	10.00	270.00	1,983.03	0.00	-208.49	-208.49	0.00	0.00	0.00
2,100.00	10.00	270.00	2,081.51	0.00	-225.85	-225.85	0.00	0.00	0.00
2,200.00	10.00	270.00	2,179.99	0.00	-243.22	-243.22	0.00	0.00	0.00
2,300.00	10.00	270.00	2,278.48	0.00	-260.58	-260.58	0.00	0.00	0.00
2,400.00	10.00	270.00	2,376.96	0.00	-277.95	-277.95	0.00	0.00	0.00
2,500.00	10.00	270.00	2,475.44	0.00	-295.31	-295.31	0.00	0.00	0.00
2,600.00	10.00	270.00	2,573.92	0.00	-312.68	-312.68	0.00	0.00	0.00
2,651.78	10.00	270.00	2,624.91	0.00	-321.67	-321.67	0.00	0.00	0.00
Start Drop / DLS 2.00°									
2,700.00	9.04	270.00	2,672.47	0.00	-329.64	-329.64	2.00	-2.00	0.00
2,800.00	7.04	270.00	2,771.48	0.00	-343.62	-343.62	2.00	-2.00	0.00
2,900.00	5.04	270.00	2,870.92	0.00	-354.13	-354.13	2.00	-2.00	0.00
3,000.00	3.04	270.00	2,970.67	0.00	-361.17	-361.17	2.00	-2.00	0.00
3,100.00	1.04	270.00	3,070.60	0.00	-364.72	-364.72	2.00	-2.00	0.00
3,151.78	0.00	0.00	3,122.38	0.00	-365.19	-365.19	2.00	-2.00	0.00
KOP / Start Build 9.00°									
3,200.00	4.34	90.00	3,170.55	0.00	-363.37	-363.37	9.00	9.00	0.00
3,300.00	13.34	90.00	3,269.26	0.00	-348.01	-348.01	9.00	9.00	0.00
3,400.00	22.34	90.00	3,364.35	0.00	-317.41	-317.41	9.00	9.00	0.00
3,500.00	31.34	90.00	3,453.49	0.01	-272.31	-272.31	9.00	9.00	0.00
3,600.00	40.34	90.00	3,534.47	0.01	-213.81	-213.81	9.00	9.00	0.00
3,700.00	49.34	90.00	3,605.31	0.01	-143.37	-143.37	9.00	9.00	0.00
3,800.00	58.34	90.00	3,664.25	0.02	-62.72	-62.72	9.00	9.00	0.00
3,900.00	67.34	90.00	3,709.85	0.03	26.16	26.16	9.00	9.00	0.00
4,000.00	76.34	90.00	3,740.99	0.03	121.08	121.08	9.00	9.00	0.00
4,100.00	85.34	90.00	3,756.89	0.04	219.71	219.71	9.00	9.00	0.00
4,151.78	90.00	90.00	3,759.00	0.04	271.43	271.43	9.00	9.00	0.00
Start 90° Inc hold at 4151.78 MD - 7" Casing									
4,200.00	90.00	90.00	3,759.00	0.04	319.65	319.65	0.00	0.00	0.00
4,300.00	90.00	90.00	3,759.00	0.05	419.65	419.65	0.00	0.00	0.00



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Schalk 32-3H
Company:	WPX Energy Production, LLC	TVD Reference:	WELL @ 6969.00usft (Original Well Elev)
Project:	Rio Arriba Co., NM	MD Reference:	WELL @ 6969.00usft (Original Well Elev)
Site:	Sec.32-T31N-R4W	North Reference:	True
Well:	Schalk 32-3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
4,400.00	90.00	90.00	3,759.00	0.06	519.65	519.65	0.00	0.00	0.00
4,500.00	90.00	90.00	3,759.00	0.06	619.65	619.65	0.00	0.00	0.00
4,600.00	90.00	90.00	3,759.00	0.07	719.65	719.65	0.00	0.00	0.00
4,700.00	90.00	90.00	3,759.00	0.08	819.65	819.65	0.00	0.00	0.00
4,800.00	90.00	90.00	3,759.00	0.08	919.65	919.65	0.00	0.00	0.00
4,900.00	90.00	90.00	3,759.00	0.09	1,019.65	1,019.65	0.00	0.00	0.00
5,000.00	90.00	90.00	3,759.00	0.10	1,119.65	1,119.65	0.00	0.00	0.00
5,100.00	90.00	90.00	3,759.00	0.10	1,219.65	1,219.65	0.00	0.00	0.00
5,200.00	90.00	90.00	3,759.00	0.11	1,319.65	1,319.65	0.00	0.00	0.00
5,300.00	90.00	90.00	3,759.00	0.12	1,419.65	1,419.65	0.00	0.00	0.00
5,400.00	90.00	90.00	3,759.00	0.12	1,519.65	1,519.65	0.00	0.00	0.00
5,500.00	90.00	90.00	3,759.00	0.13	1,619.65	1,619.65	0.00	0.00	0.00
5,600.00	90.00	90.00	3,759.00	0.13	1,719.65	1,719.65	0.00	0.00	0.00
5,700.00	90.00	90.00	3,759.00	0.14	1,819.65	1,819.65	0.00	0.00	0.00
5,800.00	90.00	90.00	3,759.00	0.15	1,919.65	1,919.65	0.00	0.00	0.00
5,900.00	90.00	90.00	3,759.00	0.15	2,019.65	2,019.65	0.00	0.00	0.00
6,000.00	90.00	90.00	3,759.00	0.16	2,119.65	2,119.65	0.00	0.00	0.00
6,100.00	90.00	90.00	3,759.00	0.17	2,219.65	2,219.65	0.00	0.00	0.00
6,200.00	90.00	90.00	3,759.00	0.17	2,319.65	2,319.65	0.00	0.00	0.00
6,300.00	90.00	90.00	3,759.00	0.18	2,419.65	2,419.65	0.00	0.00	0.00
6,400.00	90.00	90.00	3,759.00	0.19	2,519.65	2,519.65	0.00	0.00	0.00
6,500.00	90.00	90.00	3,759.00	0.19	2,619.65	2,619.65	0.00	0.00	0.00
6,600.00	90.00	90.00	3,759.00	0.20	2,719.65	2,719.65	0.00	0.00	0.00
6,700.00	90.00	90.00	3,759.00	0.21	2,819.65	2,819.65	0.00	0.00	0.00
6,800.00	90.00	90.00	3,759.00	0.21	2,919.65	2,919.65	0.00	0.00	0.00
6,900.00	90.00	90.00	3,759.00	0.22	3,019.65	3,019.65	0.00	0.00	0.00
7,000.00	90.00	90.00	3,759.00	0.23	3,119.65	3,119.65	0.00	0.00	0.00
7,100.00	90.00	90.00	3,759.00	0.23	3,219.65	3,219.65	0.00	0.00	0.00
7,200.00	90.00	90.00	3,759.00	0.24	3,319.65	3,319.65	0.00	0.00	0.00
7,300.00	90.00	90.00	3,759.00	0.24	3,419.65	3,419.65	0.00	0.00	0.00
7,400.00	90.00	90.00	3,759.00	0.25	3,519.65	3,519.65	0.00	0.00	0.00
7,500.00	90.00	90.00	3,759.00	0.26	3,619.65	3,619.65	0.00	0.00	0.00
7,600.00	90.00	90.00	3,759.00	0.26	3,719.65	3,719.65	0.00	0.00	0.00
7,700.00	90.00	90.00	3,759.00	0.27	3,819.65	3,819.65	0.00	0.00	0.00
7,786.50	90.00	90.00	3,759.00	0.28	3,906.15	3,906.15	0.00	0.00	0.00

TD at 7786.50

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
- Shape									
PBHL Schalk 32-3H	0.00	0.00	3,759.00	0.28	3,906.15	2,131,897.046486	201,271.596555	36.854600	-107.271050
- plan hits target center									
- Point									



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Schalk 32-3H
Company:	WPX Energy Production, LLC	TVD Reference:	WELL @ 6969.00usft (Original Well Elev)
Project:	Rio Arriba Co., NM	MD Reference:	WELL @ 6969.00usft (Original Well Elev)
Site:	Sec.32-T31N-R4W	North Reference:	True
Well:	Schalk 32-3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
4,151.78	3,759.00	7" Casing	7	8-3/4

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
550.00	550.00	0.00	0.00	Start Build / DLS 2.00°
1,050.00	1,047.47	0.00	-43.52	Start 1601.78 hold at 1050.00 MD
2,651.78	2,624.91	0.00	-321.67	Start Drop / DLS 2.00°
3,151.78	3,122.38	0.00	-365.19	KOP / Start Build 9.00°
4,151.78	3,759.00	0.04	271.43	Start 90° Inc hold at 4151.78 MD
7,786.50	3,759.00	0.28	3,906.15	TD at 7786.50